

ſ							SU	MMARY LOG	Drill I	Hol	e #: TH23-SEG 2	2-74
	BRI	TISH	Ministry of Transportation	Project: Frase	r Va	lley	High	way 1 Corridor Improvement	[Date(s) Drilled: 2023-01-13	
-	Prepa	JMBIA	and Infrastructure 32079	Location: Abbotsfo	ord, B	С		Alianment		Comp Driller	oany: OnTrack ^{r:} Andrew	
	Т	hurber En	igineering Ltd.	Northing/Easting:	54328	322,	547142	2 Station/Offset:		Drill N	/ake/Model: Diedrick D-120	
	Logge	d by: HG	Reviewed by: ANR	Elevation: 65.2 m	1			Coordinates taken with GPS	[Drillin	g Method: Solid Stem Auger	
	DEPTH (m)	DRILLING DETAILS	A Pocket Penetrometer 100 200 A SPT "N" (BLC W _P %W		SAMPLE TYPE	SAMPLE NO	SOIL SYMBOL	SOIL DESCRIPTION		CLASSIFICATION	COMMENTS TESTING Drillers Estimate	LEVATION (m)
ł	- 10		20 40	60 80	<u>, 18</u>	V3	2 0				{G % S % F %}	ш
V3_EL. 1 DECIMAL PLACE 32079_FRASER VALLEY HWY 1 CORRIDOR.GPJ_MOTI_DATATEMPLATE_REV3.GDT_23-5-19	-10 -11 -12 -12 -13 -14 -15 -16 -17 -18 -19					V3						55 54 53 52 51 50 50 49 49 48 48 47 46
JIL-RE	- 20 Legen	<u>d</u> []] A -Ai	uger MB -Becker M	C-Core	b		-Vane	Legend Sand Grout MCemer	nt Bentonite	e	Final Depth of Hole: 9	.1 m
AOTI-SC	Sample Type:	e L#-L Sam	ab Spoon	O-Odex (air rotary)	sh eturn)		-Shelby ube	Installation: Drill III Slotted Slough	Piezomet	eter	Depth to Top of R	lock:
21		Gam		,	·		1.1					







ſ		The second	Mining				S	SU	MMARY LOG Drill H	lole	#: MRH22-SEG 2	2-01
	BRI	TISH	Transportation	Project: Fras	er V	alle	y Hi	gh	way 1 Corridor Improvement	Dat	e(s) Drilled: 2022-05-02	
	Prepa	red by:	32079	Datum: UTM-Na	d83	50			Alignment:	Drill	er:	
	Loader	by: ANR	Reviewed by: ANR	Northing/Easting: Elevation: 65.3	: 543 m	2819	, 54 ⁻	7153	3 Station/Offset: Coordinates taken with GPS	Drill	l Make/Model: Fraste XL -03 ling Method: Mud Rotarv	
	DEPTH (m)	DRILLING DETAILS	× Pocket Penetromete 100 200 ▲ SPT "N" (BL WP% 40 ↓	x Shear Strength (kP 300 400 0WS/300 mm) ▲ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING Drillers Estimate {G % S % F %}	ELEVATION (m)
	- 30	5 11 12 12	23 27.0			17	100		ML - SILT, sandy; low to no plasticity; fine to medium grained sand, grey; cohesive, moist, hard to very stiff. <i>(continued)</i>	ML		35
-	- 31 - -				· · · · · · ·				End of Hole at 30.8 m depth, VWP 140394 installed at 16.3 m depth.			34-
-					· · · · · · · · · · · · · · · · · · ·							-
-	-				 							33-
-	-33				· · · · · · · · · · · · · · · · · · ·							32-
DT 23-5-19					· · · · ·							
ATE_REV3.G	- - - - -				· · · · · ·							31–
ATATEMPL/	-35											30-
GPJ MOTI	-36				· · · ·							
CORRIDOR.	-				· · · · · ·							29-
LLEY HWY 1	-37				· · · · · ·							28-
FRASER VA												
ACE 32079	- - - - -											27-
DECIMAL PL	-39				· · · · · · · · · · · · · · · · · · ·							26-
-REV3_EL. 1	40				· · · · · ·							- - - -
MOTI-SOIL-	Legend Sample Type:	d ∏A-A ■ L#-L Sam	uger 🕕 B-Becker 👖 ab 🖂 S-Split Spoon 🖸	C-Core G-G C-Odex (air rotary)	rab /ash d retur	یے n) Ш	V-Va T-Sh Tube	ne elby	Legend Installation: Image: Sand Image: Grout Image: Cement Bento Drill Cuttings Image: Slotted Image: Slotted Image: Slotted Image: Slotted Image: Slotted	nite meter	Final Depth of Hole: 30 Depth to Top of R	.8 m .ock:

		Million I	Maria C					SUI	MMARY LOG Drill H	lole	#: SCPT22-SEG 2	2-02
	BRI	TISH	Ministry of Transportation	Project: Fr	aser	Vall	ey H	ligh	way 1 Corridor Improvement	Dat	e(s) Drilled: 2022-04-28	
	Prepa	ared by:	and Infrastructure 32079	Location: Abb	otsforo Nad83	d, BC 3			Alignment:	Col Dril	npany: OnTrack ler: Craig	
	Τ	Thurber Er	ngineering Ltd.	Northing/Easti	ng: 54	43281	5 , 54	47143	S Station/Offset:	Dril	I Make/Model: MPP Geoteck 60)
	Logge	d by: SY	Reviewed by: ANR	Elevation: 65	5.1 m (kPa)				Coordinates taken with GPS	Dril	ling Method: SCPT/Solid Stem	Auger
	DEPTH (m)	DRILLING DETAILS	▲ SPT "N" (BLC Wp% 2040	$300 \\ 400 \\ 100 $		SAMPLE NO	RECOVERY (%	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING Drillers Estimate {G % S % F %}	ELEVATION (m
DECIMAL PLACE 32079_FRASER VALLEY HWY 1 CORRIDOR.GPJ MOTI_DATATEMPLATE_REV3.GDT 5/18/23			▲ SPT N (BL) 20 40 20 40 20 20 20 40 40 20 40 40 20 40 40 20 40 40 20 40 40 20 40 40 20 40 40 20 40 40 20 40 40 40 40 40 40 40 40 40 40 40 40 40 4			\mathbf{X}			CL - SILTY CLAY, trace organics, trace sand, trace gravel; medium plasticity; some roots; grey brown with trace oxidation; cohesive, moist, firm. CL - SILTY CLAY, trace sand; low to medium plasticity; fine grained sand, brown; cohesive, moist, firm. 3.02 CL - SILTY CLAY, trace sand, trace gravel; medium plasticity; grey; cohesive, moist, firm to stiff.	CL CL CL CL	Drillers Estimate {G % S % F %} Atterberg (Sa#2): PL:16% LL:26% Atterberg (Sa#4): PL:15% LL:29% Atterberg (Sa#4): PL:16% LL:28%	63 64 64 63 63 62 61 61 60 60 61 61 61 61 61 61 59 58 58 58
OIL-REV3_EL. 1	- - - 10 <u>Legen</u>	<u>ıd</u> ∭A-A	uger 🖽 B-Becker 🔳	C-Core			V-V;	ane	Legend	tonite	Final Depth of Hole: 15	.2 m
S-ITC	Sampl Type:	⊫ [] L#-l	ab S-Split F	O-Odex	V -Wash	ц, П	<u>−</u> ∏T-SI	helby		ometer	Depth to Top of R	lock:
ž		San San	nple 🖂 Spoon 🦆	air rotary) 🖾 (mud ret	urn)Ш	⊥lTub	e		JUNELEI		

							SU	MMARY LOG Drill He	ole	#: SCPT22-SEG 2	2-02
	BRI	TISH	Ministry of Transportation	Project: Frase	r V	alle	y High	way 1 Corridor Improvement	Dat	e(s) Drilled: 2022-04-28	
	COLL	JMBIA	and Infrastructure	Location: Abbotsfo	ord, 83	BC		Alignment [.]	Cor	npany: OnTrack ler: Craig	
	Т	hurber Er	ngineering Ltd.	Northing/Easting:	543	2815	, 54714	3 Station/Offset:	Drill	Make/Model: MPP Geoteck 60	C
	Logge	d by: SY	Reviewed by: ANR	Elevation: 65.1 n	n			Coordinates taken with GPS	Drill	ing Method: SCPT/Solid Stem	Auger
	DEPTH (m)	DRILLING DETAILS	X Pocket Penetrometer 100 200 ▲ SPT "N" (BLC Wp% 20 40 40	Shear Strength (kPa) 300 400 DWS/300 mm)▲ ^{1%} WL% 60 400	SAMPLE TYPE	SAMPLE NO	RECOVERY (%) SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING Drillers Estimate {G % S % F %}	ELEVATION (m)
IL-REV3_EL. 1 DECIMAL PLACE 32079_FRASER VALLEY HWY 1 CORRIDOR.GPJ MOTI_DATATEMPLATE_REV3.GDT 5/18/23	-10 -11 -12 -13 -14 -15 -16 -17 -16 -17 -18 					9		CL - SILTY CLAY, trace sand, trace gravel; medium plasticity; grey; cohesive, moist, firm to stiff. <i>(continued)</i>	CL	Atterberg (Sa#8): PL:16% LL:27% Atterberg (Sa#9): PL:16% LL:27%	54 54 53 52 52 51 50 49 49 48 48
MOTI-SOI	Sampl Type:	e L⊿A-A L#-L Sam	uger 🕌 B-Becker 🚺 ab SSSplit 🔀 Spoon 댠	G-Core G-Gra O-Odex W-Wa (air rotary) (mud i	ib Ish returi	 n) Ⅲ	V-Vane T-Shelby Tube	Installation: Isand I: Grout Cement Bento Bento Drill Cuttings ISlotted Slough € Piezo	nite meter	Depth to Top of R	Rock:



C																S	U	MMARY LOG	1	Drill Hole #: F	•TH2 1	1-03
	Ŀ	TR	A	A TECH			P	roje	ect:	Т	CF	۷۲	lig	jhw	ay	Wi	id	lening - Segment 2	Date	e(s) Drilled: 06/11/202	1	
Prepa	ared by: 7()4-FN	IG V	GEO	04000	-01	Da	atum	on: n: N		001S 83 7	10rc	1, B N (-	ic - Geod	Higr	nwa :	ay	Alianment: 1 2000	Drill	npany: Downrite Drillin ler: James	g	
	Shane	Mulł	nolla	ind			No	orthi	ng/E	East	ting:	54	32	791.	52,	54	71	175.54 Station/Offset: 2052+32.9	Drill	Make/Model: Roto So	nic 160 A	MS
Logg	ed by: AL	Re	evie	wed	by:	TG	E	evat	ion:	6	4.9	1 m						Coordinates Surveyed	Drill	ing Method: Sonic		
DEPTH (m)	DRILLING DETAILS		Ð Fie Lab \ Wj	ald Va /ane ▲ SP △ LP	ane + Peak ■UI T "N" T "N" ●W%	- Rer ×L U Tri (BL((BL(6 @	mold ab Va axial OWS/ OWS/ OVS/	Field ane - (kPa) /300 ⊨ /300 ⊨ /300 ⊨ ganic'	Vane Rem) mm) mm) %	e (kH nold	Pa) (kPa)		SAMPLE IYPE	SAMPLE NO	RECOVERY (%)			SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING	SLOTTED PIEZOMETER	ELEVATION (m)
- 10	U		4		4	<u>.</u>		<u>)</u>		80		-					Π	ML - SILT, low plastic, trace fine sand,	-			
- - - - - - - - - - - - - - - - - - -				· · · · · · · · · · · · · · · · · · ·										S8 SH01 S9	100	D		firm to stiff. <i>(continued)</i>	М			54
-12			· · · · · · · · · · · · · · · · · · ·	· · · · · · · ·	· · · ·	· · · · · · · · · · · · · · · · · · ·													IVIL			53–
-13				· · · · · · · · · · · · · · · · · · ·		· · · · · · · · ·								S10								52-
- - 14 - -						· · · · · · · · · · · · · · · · · · ·																51–
- - 			· · · · · ·			· · · · ·	· · · ·							S11				NO RECOVERY 15.2m	ı—			50-
- - - - -																		NORECOVERT				49-
- 17 			· · · · · · ·			· · · · · · · ·																48-
- 																		END TESTHOLE AT 18.3 m DEPTH				47–
- - - - - - - - - - - - - - - - - - -																		(Target Depth). - Testhole location surveyed by Stantec. - Soil descriptions are based on visual classifications, field observations and testing, drill performance, and laboratory testing. Some variation through the interpreted soil layers is expected. - Upon completion, testhole was reinstated in accordance with the BC Groundwater Protection Regulation				46
Legen		uger	\Box	B -Be	ecker] c -c	ore			G -G	rab			v -v	'ane	,	Legend Sand Grout Cement Bento	nite	Final Depth of H	ole: 18	.3 m
Sample Type:	e L#-L Sam	.ab ngle	\boxtimes	Spor	olit	$\overline{\Box}$	0 -0 (air	ldex rotar	v)		W -W (muc	/ash d ret	urn)		T-S	helb e	ру	Drill Slotted Slough Piezor	neter	Depth to Top o	if Rock: age 2	N/A of 3

															รเ	U	MMARY LOG	Γ	Drill Hole #:	PTH21	1-03
	Ŀ	TR	RA	TE	СН		Pr	oje	ect:	T	CFV	/ Hi	ghv	/ay	Wi	de	ening - Segment 2	Date	e(s) Drilled: 06/11/202	21	
							Lo	catio	on:	Abb	otsf	ord,	BC -	Hig	hwa	ıy î	1	Con	pany: Downrite Drillir	ıg	
Prepa	ared by: 70 Shane	04-EN Mulł	NG.V Nolla	GEO0 and	4000-	01	Da	tum	: N		33 Z [.]	10N	Geo	detio	- 	- 4	Alignment: L2000	Drille	er: James		
								rthir	ng/E	ast:	ing:	543	2791	.52	, 547	71	75.54 Station/Offset: 2052+32.9	Drill	Make/Model: Roto So	nic 160 A	MS
Logge	ed by: AL	Re		wed	by: 1	IG Por	Ele	evati	ion:	6	4.91	m		1~	1		Coordinates Surveyed	Drilli	ing Method: Sonic	,	
ि	(1)	⊗	ع الح Lab	Vane F	Peak (XLi	ab Va	ine -	Rem	e (kP iold (kPa)	١Ę	Q	%)	Į	2		NO			E,
L L					UU	J Tria	axial ((kPa)					<u></u>	Z	8		SOIL	CAT	COMMENTS		NO
E				▲ SP	Г "N" ((BLC	DWS/	300 r	nm).			님	F	12 2	l S	5	DESCRIPTION	SIFIC	TESTING		AT
DE	H H S		۱۸/-	∆LP1	「"N"(●W%	(BLC)WS/3 D Ora	300 n Janic ^o	nm). %v	△		N N	AN AN		읽음	5	BEGGIAI HOIT	AS		ы Ц С П С П С П С П С П	N N
	Ī			20° ⊢	40)	6	0	Ξ,	80		S	0,	L R	j õ	5		Ū		<u> </u>	
20			-	: :	÷		-	-	-	÷	÷						- A standpipe piezometer was installed at			ſ	
-			-	:	÷		:	-	-	÷	÷						this location to a depth of 9.1 m with a 1.5 m slotted screen from 7.6 m to 9.1 m			1	
-		• • • •	: :	: : :	•••••	• • •	() :		: :	÷···	· : · · · · :	1								1	
-			-	: :	÷		-	-	-	÷	÷									1	
-21			: :• • • •		····÷		: : · · · ·			÷	· · · · ·	-								1	44-
-			-	: :	÷			-	-	÷	÷									1	
E																				1	
			-	-	-			-	-	÷	-									1	
È				:			:	-	:	÷	÷										43-
-22			: :		•••••				: :	÷	· · · · · ·	1									
F				:	÷		:	-	-	÷	÷										
E			: 		••••					÷		-									1
E									-	-										1	
-23																				1	42-
20			-																	1	
-			-	:	÷		:	-	:	÷	÷									1	
-		• • • •		1	•••••	• • •			: : :		· · · · ·	1								1	
-			-	-	-			-	-	-	-									1	
-24										÷		-								1	41-
-			-	:	÷		:	-	:	÷	÷									1	
E			-	-				:	-	÷.	÷									1	
E										-										1	
			-	:	÷		-	-	:	÷	÷									1	40-
-25			: : :	:	••••	•••		 :	: : :	÷	· : · · ·	1								1	
			-	: :	÷			-	-	÷	÷									1	
-												4								1	
-																				1	
Eng										-										1	39-
										÷	-									1	
			-	-	÷		-	-	-	÷	÷									1	
			: :	:; :	····;	•••	: :	: :	: :	÷···	·:	1								1	
			-	: :	÷		-	:	-	÷	÷									1	
-27			: :	;;	;		: :	: 	: : · · ·	: 										1	38-
F			-	-	÷		-	-	-	÷	÷									1	
-			-	-	÷		-	-	-	÷	÷									1	
El				-	:]									
E				-	÷			-	-	÷	÷										27
28			: :		•••••					÷	• • • • •	1									31-
⊧				-			-	-	-	-	-										
¢																					
F				:			-	:	-	:	÷										1
F_				-				:	:	÷	÷										36-
F ²⁹					•••••				:		:::::	1									
E			-	: :			:	:	-	:	÷										
E										÷···	•	+									
El								-	-	-	-										
- 30			:	:			:	:		:	:										35-
Legen		uger		B-Be	cker	Ū] c -Co	ore			G -Gra	ab	Ļ	V-\	/ane	Ī	Legend Sand Grout Cement Benton	nite	Final Depth of H	lole: 18	.3 m
Type:	 L#-L	ab		S -Spl	lit	·. ·	ס- ס ך	dex	I		W -Wa	ash	П	- nT-S	Shelby	y		noto-	Depth to Top of	of Rock:	N/A
1	L Sam	nple	Ď	Snoo	n	<u>• •</u>	l (air r	otary	A	1	(mud	retur	ηШ	∐Tul	be '	1	Cuttings H. Slotted De Slough	neter	I P	ade 3	of 3

C							;	SU	IMMARY LOG	[Drill Hole #: PTH21	-04
	TE TE	TRA TECH	Project:	TCFV	Hi	ghw	ay \	Wid	lening - Segment 2	Date	e(s) Drilled: 06/15/2021 to 06/16/	2021
Pre	pared by: 70		Location:	Abbotsfo	ond, I	BC - I Geod	High	way	1 Alignment: 1 2500	Con	npany: Downrite Drilling	
	Shane	Mulholland	Northing/E	Easting: 8	5432	2782.	81,	5472	214.61 Station/Offset: 2552+70.5	Drill	Make/Model: Fraste XL Max 170	1
Log	ged by: AL	Reviewed by: TG	Elevation:	65.31 ı	m				Coordinates Surveyed	Drill	ing Method: Sonic	
DEPTH (m)	DRILLING DETAILS	<pre>⊕ Field Vane + Rei ⊗Lab Vane Peak ×L ■UU Tri ▲SPT "N" (BLC △LPT "N" (BLC Wp% ●W% 0 20 40</pre>	ab Vane - Rem axial (kPa) DWS/300 mm), DWS/300 mm), OWS/300 mm), OVS/300 mm),	e (kPa) hold (kPa) ▲ △ VL%	SAMPLE TYPE	SAMPLE NO	RECOVERY (%	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING	ELEVATION (m
0			00	<u>ou</u>		S1	<u> </u>	<u></u>	TS - TOPSOIL. / ^{0.05m}	TS	7	
- - - - - - - - - - - - - - - - - - -									SM1 - SILTY SAND, fine sand, poorly graded, trace gravel, brown, heterogeneous, (FILL), non-cohesive, moist.	SM1		65– 64–
- 2 2 						S3						63-
-3									3.0m ML - SILT, low plastic, trace fine sand, trace sub-angular to sub-rounded gravel up to 25 mm diameter, grey, homogeneous, cohesive, w ~ PL to w >			62-
4						S4			PL, firm to stiff.			- - 61-
11115 KEV3.GL	5.2m					SH01	100			ML		60-
MUIL DAIAIA				· · · · · · · · · · · · · · · · · · ·		S5	100					
19.19.1900971.01 1111177777777777777777777777777777						SHU2 S5a	100					
						S6			5M4 - SILTY SAND, fine sand, poorly graded, trace sub-angular gravel up to 25 mm diameter, brown to grey, heterogeneous, cohesive, wet.	SM4		58
6 6						S7			ML - SILT, low plastic, trace sand, trace gravel, grey, heterogeneous, w > PL, stiff.			57
											Final Donth of Lister 201	56
5 Sam		uger L B -Becker	C-Core	G-Gra	b	╘╾	V -Va	ine			Depth to Top of Rock 1	этт N/A
⊇ ⊇	e: It# -L Sam	ab Iple Spoon	O-Odex (air rotary)	W-Was (mud r	sh eturr	n) 🎹	T-Sh Tube	elby e			Page 1 o	of 4

															รเ	JMMARY LOG		Drill Hole #: PTH21-0)4
	t TE	TR	A.	TEC	СН		Proj	jec	t: 1	ΓCF	νH	ligi	hw	ay	Wio	dening - Segment 2	Dat	te(s) Drilled: 06/15/2021 to 06/16/20)21
							Loca	tion	: At	obots	sford	, B0	C - I	High	nway	y 1	Cor	mpany: Downrite Drilling	
Prepa	Shane)4-EN Mulł	lG.VG Iollan	EO04 Id	000-0	1	Datu North	m: hing	NAL /Eas)83 /	210N · 54·	1 Ge 327	eod	etic 81	5/17	Alignment: L2500	Dril	ler: Robert II Make/Model: Fraste XI, May 170	
	ed by: Al	Re	view	red b	v· T	G	Eleva	atio	n:	65.3	1 m	521	02.	01,	547	Coordinates Surveyed	Dril	ling Method: Sonic	
DEPTH (m)	DRILLING DETAILS	(() ()	Ð Field Lab Va	d Vane ane Pe	e + F eak > ∎UU "N" (E "N" (E	Remo < Lab Triax BLOV BLOV	ld Fiel Vane ial (kP VS/300 VS/300 Organ	ld Va e - Re Pa) 0 mn 0 mn ic%	ane (k emolo n) ▲ n) △	kPa) I (kPa			SAMPLE NO	ECOVERY (%)	OIL SYMBOL	SOIL DESCRIPTION	ASSIFICATION	COMMENTS TESTING	EVATION (m)
10	I		20	°⊢ ∵	40		60		80	/0 :-	Ũ	5		R	ю П		Ū	ī	<u>ц</u>
- 11													S8			gravel, grey, heterogeneous, w > PL, stiff. (continued)	ML		55
E					···÷·											becomes clayou from 11.6 m to 11.0 m			-
-12													S9			depth.			53-
- - - - - - - - - - - - 14													S10			- sand, fine to medium, presence of wood chips at 13.3 m depth.	m		52
ингите техозор аконт 111111111111111111111111111111111111													S11			CL - SILTY CLAY, low to medium plastic, trace fine sand, trace sub-rounded gravel up to 10 mm diameter, grey, heterogeneous, cohesive, w > PL, firm to stiff.			51-
					-	-		-											-
													S12			- becomes silt, trace sand from 16.2 m to 16.8 m depth.	CL		49-
				···· ;· ;	····; · :			•••••					040						-
													513						48-
															V				47-
													S14			19.8	m		46
Sample	ample A-Auger B-Becker				ker [C	-Core	9		G -0	Grab			V -V	ane			Final Depth of Hole: 30.5 r	m
Type:	nple L#-Lab S-Split Sample Spoon					::: () -Ode: air rota	x ary)		W -V (mu	Vash Id retu	ırn)		T -S Tub	helby e	/		Depth to Top of Rock: N/. Page 2 of	A 4

												SU	IMMARY LOG	[Drill Hole #: PTH21	-04
	T	t TE	TR	Α ΤΕС	н	Proje	ect:	rcf\	/ Hi	ghw	ay	Wid	lening - Segment 2	Date	e(s) Drilled: 06/15/2021 to 06/16	6/2021
	Prena	red by: 70			0_01	Locatio	on:Al ∙N∆r	botsi	ford,	BC - Geod	High letic	nway	Alignment: 1,2500	Con	npany: Downrite Drilling er: Robert	
	Tiopu	Shane I	Mulho	olland		Northir	ng/Ea	sting:	543	2782.	81,	547	214.61 Station/Offset: 2552+70.5	Drill	Make/Model: Fraste XL Max 17	0
	Logge	ed by: AL	Rev	viewed by:	TG	Elevat	ion:	65.31	m				Coordinates Surveyed	Drill	ing Method: Sonic	
	DEPTH (m)	DRILLING DETAILS	⊕ ⊗La	ab Vane Peal ab Vane Peal ■L SPT "N △LPT "N Wp% 20	+ Rer k × Li JU Tria I" (BLC I" (BLC /% @ 40	nold Field ab Vane - axial (kPa) DWS/300 r DWS/300 r OVS/300 r 60	Vane (I Remole mm) ▲ mm) △ WL ⁹ 80	(Pa) I (kPa) %	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING	ELEVATION (m)
	- 20 												ML - SILT, low plastic, trace fine sand, grey, homogeneous, cohesive, w > PL, firm to stiff. <i>(continued)</i>	ML		45
	- 21 - - - -									S15			21.3m SM4 - SILTY SAND, fine to medium sand, trace sub-angular gravel up to 25 mm diameter, occasional cobbles, grey,			44
	-22									S16			heterogeneous, cohesive, wet, dense.			43-
	-23															42-
9/28/21	- 24 									S17				SM4		41-
LATE_REV3.GDT																40-
MOIL DAIAIEMP										S18						
NG 080321.GFJ										S19						39- - - - -
GMEN I 2 WIDEN	- - - - - - - - - - - - - - - - - - -									S20			ML - SILT, low plastic, trace fine sand, grey, homogeneous, cohesive, w > PL, soft to firm.			38
4000-01 - I UFV SE	- - - - - - - - - - - - 20									S21				ML		37-
KEV3 ENG-VGEUU	- 29 - - - - - - - - - - - - - - - - - - -															36-
ľ	Legend	<u>d</u> ∭a -Au	iger [B-Becker	r 🔳	C-Core	Γ	G -Gr	ab		v -va	ane		•	Final Depth of Hole: 30	.5 m
MOII-S(Sample Type:	L#-Li Sam	ab ple	Spoon		0 -Odex (air rotary	/)	W-W (mud	'ash I returi	יים ו) [[[T-SI Tub	nelby e			Depth to Top of Rock: Page 3	N/A of 4

[ETRA TE													S	U	MMARY LOG	[1-04
	T	t∣™	TR	ΑΤ	E	CH	1	Ρ	roje	ect	: т	CF	V H	ghv	vay	w	id	ening - Segment 2	Date	e(s) Drilled: 06/15/2021 to 06/16	6/2021
	Deserve				004	000	04	Lo	cati	on:	Ab	bots	ford,	BC ·	Hig	ghwa	ay	1	Con	npany: Downrite Drilling	
	Prepa	Shane I	Mulh	olland	1 1	000-	-01	No No	aturr orthi	n: n ing/!	IAD Eas	832 ting:	543	Geo 2782	aeu 2.81	с , 54	172	Alignment: L2500 214.61 Station/Offset: 2552+70.5	Drill	Make/Model: Fraste XL Max 17	0
	Logge	ed by: AL	Re	viewe	ed b	y: 1	ΓG	EI	evat	tion	: 6	5.3 ⁻	1 m			·		Coordinates Surveyed	Drill	ing Method: Sonic	
	DEPTH (m)	DRILLING DETAILS H TO O	€ ⊗L	Field ab Van	Vane ne Pe SPT LPT	e + eak ∶ ∎UU "N" (W% 40	Ren XLa J Tria (BLC (BLC	nold ab Va axial OWS OWS	Field ane - (kPa /300 /300 ganic 60	Van Ren) mm) ;%	ie (kł nold)▲)△ WL% 80	Pa) (kPa)	SAMPLE TYPE	SAMPLE NO			SUIL SYINBUL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING	ELEVATION (m)
	- 30						·							S22	2						
	-31																	30.5m (Target Depth). - Testhole location surveyed by Stantec. - Soil descriptions are based on visual classifications, field observations and testing, drill performance, and laboratory testing. Some variation through the interpreted soil layers is expected. - Testhole backfilled with bentonite chips, sand, and asphalt patch.			35
																					32-
3.GDI 9/28/21	- 																				31-
AIAIEMPLAIE_REV	- 								· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·										30-
30321.GPJ MOTI D/																					29-
NI 2 WIDENING U																					28
01 - 1 UFV SEGME	- 																				27-
KEV3 ENG-VGEO04000-	- 										•••••••••••••••••••••••••••••••••••••••										26
	Legend		uger		Beck	ker		C -C	ore			G -G	rab	Ē	_v-	Vane	÷			Final Depth of Hole: 30	.5 m
<u>s-10</u>	Sample Type:	, [][]	.ab	<u></u>	Split			0 -0)dex			w-w	/ash	<u>.</u> П		Shelt	by			Depth to Top of Rock:	N/A
ź١		L≝_ Sam	pie	∠⊐Sp	boon		<u>ب</u>	(air	rotar	y)	£2//	(mu	a retu	n) Ш	шíu	be				Page 4	UI 4

C													รเ	MMARY LOG		D	rill Hole #: V	VTH21	-27
	TE TE	TF	RA T	TEC	н	Proj	ect:	тс	FV I	Hig	ghw	ay	Wic	lening - Segment 2		Date	e(s) Drilled: 05/13/202	21	
						Locat	tion:	Abbo	tsfor	d, E	3C -	High	nway	1		Com	npany: Omega Enviro	nmental D	Drilling
Pre	epared by: 70	04-EN	IG.VGE	00400	00-01	Datur	m: N	AD83	Z10	N C	Geod	etic		Alignment: L2500		Drille	er: Dan Gibson		
	Shane	wun	Ionand			North	ning/E	astin	g: 54	432	554.	19,	547	563.66 Station/Offset: 2556+88.2		Drill	Make/Model: B54 Au	ger Rig	
Loç	gged by: SM	I R		ed by:		Eleva	ation:	66.	26 m	۱ آ				Coordinates Surveyed		Drilli	ng Method: Solid Ste	m Auger	
Ê	() (0	\otimes	Lab Var	ne Pea	k XL	ab Vane	- Rem	old (kF	Pa)	E L	9	%)	۲ ۵			NOI.		ER	۳ ۳
Ц <u>–</u> Н					JU Tria	axial (kPa	a)				щ	۲. ۲	ĮΫ	SOIL		CAT	COMMENTS		NO
PT			A	SPT "N	1" (BLC	DWS/300) mm) .	A		Ы	ЧРL	N	ြတ်	DESCRIPTION		SIFI	TESTING		ΆT
B	Ξ° Ρ		احک Wp%	LPT™ , ●W	1° (BLC	Ovvs/300 Organi	°mm)∠ c%_W	∆ /i %		AM	SA	ы	1			ILAS		PIE	Ш
L	I		20	· · · ·	40	<u>60</u>		30		<i>о</i>		R	0,						<u> </u>
Ē														ASPH - ASPHALT.).15m	GW/		\bowtie	66-
Ę														graded, some fine to coarse sub-angular 10	.46m	300			
Ę				÷	-	: :	÷	: :			4			to rounded gravel up to 50 mm diameter,				°.°.	-
Ē,				÷	-	: :	÷	: :			1			non-cohesive, dry, compact.		IVIL			-
5		••••											$\left \right \right $	ML - SILT, low plastic, some sand to	.07m				
È				÷	÷	: :	÷	: :			2			sandy fine sand, brown, homogeneous,					65-
Ę	1				÷	:					3			ML - SILT low plastic some fine to		ML			-
F	5		12		-					χI		79		coarse sand, trace fine gravel up to 15					-
-2	8	•••		••• {••••	÷		•	÷		$^{\prime}$			\mathbb{H}	mm diameter, grey, homogeneous,	.98m				
È				ė	÷	: :	÷	: :			4			- at 1.22 m depth, 300 mm pocket of		ML	Sieve (Co#4)		64-
Ę				30 		· · · · · ·								organic SILT, decomposed organics			G:0% S:30% F:70%		-
F				÷	÷	: :	÷	: :			5			ML - sandy SILT fine to medium sand		0.5			
E-3														orangey brown (dry), homogeneous, dry,		SP			-
Ę	4		17										***	compact.	5.05m -				62
F	10		E ₩	÷	÷	: :	÷	: :		XI		75	••••	SP - SAND, fine to medium sand, poorly graded (uniformly graded) orangey					63-
Ē	11								1	$^{\prime}$.	brown (dry), homogeneous,					-
E					-									non-cohesive, dry, compact.					
4		••••		•••	÷	::	•	: : :			6			araded, some gravel to gravelly fine to					-
787				-					Ľ		-			coarse angular to sub-rounded gravel up					62-
5) - 		• • • •			÷			÷					٠. ٠.	to 70 mm diameter, grey (dry), homogeneous, non-cohesive, dry		SW			-
			: :	÷	-	: :	÷	: :					•	compact to dense.		011			
						· · · · · · · · · · · · · · · · · · ·													-
				-	-		-												61-
						: :								•					-
∐					-								Ň	> >					
			: :	÷	-	: :	÷	: :			7		••••	- at 5.79 m depth, clean, fine sand					-
									····				<u>**</u> *		6.1m		- Depth to water		
≦_ ⊃-				-	-		-							(Target Depth).			recorded as dry on		60-
- -			:	···:	÷…	:	·	÷;						- Testhole location surveyed by Stantec.			8/17/2021		
- 1207														classifications, field observations and					-
				· · {· · ·	÷		•	÷…}						testing, drill performance, and laboratory					
					-									interpreted soil layers is expected.					59-
⊇ - ≥ -					÷									- Upon completion, testhole was					-
			: :	÷	÷	: :	÷	: :						Groundwater Protection Regulation.					
														- A standpipe piezometer was installed at					-
				÷	÷	: :	÷	: :						m slotted screen from 4.6 m to 6.1 m.					E0.
5-					-														
																			-
				÷	÷		÷												-
₩ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				•••••••••	÷				••••										-
				-	÷		÷												57-
				•••	÷			÷	••••										
23				-	-		-												
<u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u>			: :	:	:	: :	:	: :			_	<u> </u>					Einel Death of		1
ק <mark>בפק</mark> ק San	nple A-A	uger	L↓ B·	-Becke	r 📘	C -Core	Į	G	Grab		╘╾	v -v	ane	Installation:	Bentoni	te	Depth to Top	nule: 6	.ι Π Ν/Δ
⊒ ^T yp	e: L# -L Sam	_ab 1ple	⊠Sr	-Split poon	\vdots] O-Odex (air rota	(ary)	W m	-Wasł nud re	า turn) [[[]]T-S Tub	helby e	Drill Cuttings	Piezom	eter	F	Page 1	of 1







																			ç	SU	JMMARY LOG	С	Drill Hole #: V	/TH2 1	1-30
	t	TR	A	Т	EC		1		Pr	oj	эс	:t:	T	CF	۷I	lię	ghv	va	y١	Nic	dening - Segment 2	Date	e(s) Drilled: 04/29/202	1	
Prena	ared by: 70)4-FN	IG V	GEC	0040	200-	-01		Loo Da	cat 	lon 	1: /		sots	510r0 710	3, E N (3C - 3eo	- Hi det	gh ic	way	y 1 Alianment: 1 2000	Con Drill	npany: Omega Enviroi ler: Dan Gibson	nmental L	Jrilling
liopa	Shane	Mulh	olla	ind			•		No	orth	ing	j/E	ast	ing	: 54	132	341	1.56	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	547	7777.58 Station/Offset: 2059+84.4	Drill	Make/Model: B54 Auç	jer Rig	
Logge	ed by: SM	Re	evie	weo	d b	y: -	TG		Ele	eva	tio	n:	6	6.3	5 m						Coordinates Surveyed	Drill	ing Method: Solid Ster	m Auger	
DEPTH (m)	DRILLING DETAILS	€ ⊗I	Ð Fie _ab \ _ab \ _	eld \ /ane ▲ S △ Ll	/ane e Pe PT ' PT '	e + eak ∎UU "N" "N" W%	Re XL J Tr (BL (BL)	iaxi	Id F Va ial (VS/3 VS/3 Org	ielo ne kPa 300 300 anii	Va - Re 1) mn mn 2%	n) 4 n) 4 n) 4	(kP bld (Pa) [kPa	i) !	SAMPLE IYPE	SAMPLE NO			SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING	SLOTTED PIEZOMETER	(m)
- 10	Ш		2	20 :		4(0	:	6	0		8	0 :			,,			r		(Target Depth).	\vdash			ш
- - - - - - - - - - - - - - - - - - -										一、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、、	•••••••••••••••••••••••••••••••••••••••										 Testhole location surveyed by Stantec. Soil descriptions are based on visual classifications, field observations and testing, drill performance, and laboratory testing. Some variation through the interpreted soil layers is expected. Upon completion, testhole was reinstated in accordance with the BC Groundwater Protection Regulation. A standpipe piezometer was installed at this location to a depth of 5.5 m with a 3 m olderto accordance from 2.5 m to 5.5 m 				56-
										-	•										m slotted screen from 2.5 m to 5.5 m.				54-
-13										· · · · · · · · · · · · · · · · · · ·	••••		· · · · ·												53-
										· · · · · · · · · · · · · · · · · · ·			· · · · · ·												52-
-15										-			· · · · ·												51-
- 										· · · · · · · · · · · · · · · · · · ·	•••••														50-
-17											•				••••										
																									49-
				· · · · · · · · · · · · · · · · · · ·						· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·												48-
19				· · · · · · · · · · · · · · · · · · ·						· · · · · · · · · · · · · · · · · · ·	••••		· · · · · · · · · · · · · · · · · · ·												47-
20	d ПТО			:	:	:		:			:		:										Final Depth of	Hole: 0	1.8 m
Sample Type:	۴ -Au L#-L Sam	uger .ab iple	L↓ ⊠	8 -8 S po	seck Split	ker	LI ·	UC JO	Co)-Oo air r	ore dex rota	rv)			ن-0 W-V (mu	orab Vash id rei	i turn	ц П	ע דנ	-va -Sh ube	ne elby	Installation:	nite meter	Depth to Top o	of Rock: age 2	N/A of 2

												~		-		
G	п. т	TR		TEC	н							SL		<u> </u>	Drill Hole #: WIH21	-32
						Proje	ect:	ICE/	/ Hi	ghw	/ay	Wic	lening - Segment 2	Date	e(s) Drilled: 04/29/2021	
						Locatio	on: A	bbotsf	ord,	BC -	High	nway	1	Con	npany: Omega Environmental D	rilling
Prep	ared by: 7 Shane	04-EN Mult	IG.VG	EO0400	0-01	Datum	: NAI	D83 Z	10N	Geod	detic		Alignment: L2000	Drill	ler: Dan Gibson	
	onano	wian	Ionai	iu ii		Northir	ng/Ea	sting:	543	2211	.9 , 5	5479	44.96 Station/Offset: 2061+96.1	Drill	Make/Model: B54 Auger Rig	
Logg	ed by: SN	<u>/ Re</u>		ed by:	TG		ion:	65.27	m				Coordinates Surveyed	Drill	ling Method: Solid Stem Auger	
Ē	() (2	\otimes	Lab Va	ane Peal	+ Kei k XL	ab Vane -	Remole	kPa) d (kPa)	μ	Q	%)	5		NO	2 H	E)
ц <u>с</u> т				∎L	JU Tri	axial (kPa)		. ,	F	<u></u>	Ϋ́	E	SOIL	CAT	COMMENTS	NO
μ		1		SPT "N	l" (BL(OWS/300 r	mm) 🛦		12	JPL	N	Š	DESCRIPTION	SIE		ATI
DE	666		ے we	∆LPT "N % ●W	" (BL0 /%	OWS/300 r ● Organic	nm)∆ %\\v\\	0/_	AMI	SAN		님		AS	EZ SL	Ъ
	İ]	20)° ⊢	40	60		/0	Ś	0,	R	ũ		Ū		Ш
- 0				÷	-	: :	: :	÷				<u>.</u> ،،،	ASPH - ASPHALT 0.1m	ASPH		
-				÷	÷	: :	: :	÷					SW - gravelly SAND, fine to coarse sand,			65-
-				••••	•••••• :	: : :	: : :	···;·· :					rounded gravel up to 50 mm diameter.		• <u>•</u> •] • <u>•</u> •]	
-				÷	÷	÷ ÷	: :	÷		1			trace cobbles up to 130 mm diameter,	SW		
-1				••••		: : :							brown (dry), homogeneous, (FILL),			
-													the second strength of the second sec			64-
	3	1										h	$\frac{1}{1.37 \text{m}}$		-	01
	8		17	÷	-		: :	÷	X		0		ML - SILT, low plastic, trace to some fine			
				÷	-	: :	: :	÷	$\langle \rangle$				to medium sand, some sub-angular			
-2			••••	••••	· · · · · :	: : :	:	···· :	•	1			gravel up to 20 mm diameter, mottled	ML		
-				÷	÷	: :	: :	:					w <pl, stiff="" stiff.<="" th="" to="" very=""><th></th><th></th><th>63-</th></pl,>			63-
-				••••	. <u>.</u>	: : : :				· _						
E						: :		:		- 1			2.74m	<u> </u>		
-3													ap graded some fine to coarse sand,			
Ľ	7			:	-	: :	: :	÷					to sub-rounded gravel up to 60 mm			~~~
-	19	9		29 Å	-			-	X		8		diameter, trace cobbles up to 110 mm			62-
	• 5	<u> </u>	••••		•••••			••••	••/ \				heterogeneous pockets of fine to			
-	3.7m			-	÷		-	-					medium SAND	SM4		
-4					÷								- challenging drilling 3 96 m - 4 57 m, drill			
-			20		-	: :	: :	÷		3			appeared to be scraping against cobbles		Sieve (Sa#3)	61-
E						: 	: 								G:9% S:50% F:41%	01
				÷	÷	: :	: :	÷								
-						: :	: :	÷				i i	4.88m	<u> </u>	- Denth to water of 4 84	
-5									• •				ML - SIL I, low to medium plasticity, trace		m recorded on	
-				÷	:	: :	: :	:					sub-angular to rounded gravel up to 15		8/16/2021	60-
-					÷				•	-			mm diameter, grey, homogeneous,	ML		
				÷	÷	÷ ÷	÷ ÷	÷		4						
6						· · · · · · · · · · · · · · · · · · ·										
					-								END TESTHOLE AT 6.10 m DEPTH 6.1m			50
-				÷	-			-					(Target Depth).			59-
-							: : :						- Testhole location surveyed by Stantec.			
				÷	-	: :	: :	÷					classifications, field observations and			
-7				••••	÷···		÷	••••					testing, drill performance, and laboratory			
-				÷	÷	÷ ÷	: :	÷					interpreted soil layers is expected			58-
E						<u>.</u>		<u>:</u>					- Upon completion, testhole was			
F					-			-					reinstated in accordance with the BC			
					÷		: :						- A standpipe piezometer was installed at			
-0							:		1				this location to a depth of 4.9 m with a 1.5			
				÷	÷	: :	: :	÷								57-
E				••••	÷	<u>.</u>		••••	• •							
				:	÷	: :	: :	÷								
-9																
F				÷	-		:									EC
				÷	-		: :	÷								50-
-				••••				••••								
- 10					-			-								
10 Leger	nd IT .		. : 	: Doctor	: , ГТ		. :							 nite	Final Depth of Hole: 6	1 m
Samp		uger		D-Beckel				_uo-Gr	ao'-	5	_ v -∨ _⊤ ≏	ane ha"		IITE	Depth to Top of Rock:	N/A
i ype:	Sar	∟a¤ nple	\boxtimes	s-spiit Spoon	$\mathbf{\cdot}$	air rotary	/) 🖸	(mud	asn returi	n) [[[]		nelby e	Cuttings Slotted Slough Piezor	neter	Page 1 o	of 1

Project TCP Highway Wide/infag - Segment 2 Description: Description: <thdescription:< th=""> <thdescription:< th=""> <t< th=""><th>0</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>S</th><th>SU</th><th>MMARY LOG</th><th>Γ</th><th>Drill Hole #: WTP21</th><th>1-09</th></t<></thdescription:<></thdescription:<>	0																		S	SU	MMARY LOG	Γ	Drill Hole #: WTP21	1-09
Location Location Absorb Mail Case Augment Liston Compary Vagent Pipersen Mit Prepared by: To: DENCY/CONDOC Logadity: IG To: Mode 21M Condoction: Augment Liston Compary Vagent Pipersen Mit Logadity: IG Compary Vagent Pipersen Mit Solidar Mither Mithe		ŦŁ	TE	TR	A	Т	EC	CH	1	F	Proj	jec	ct:	тс	FV	' Hi	ghv	vay	/ V	Vid	ening - Segment 2	Date	e(s) Drilled: 06/08/2021	
Presente (2), THE-RC/CECONDIC Target by CB Reviewed by TC Encentor G 00 Coordinate Surveyed Coordinate Surveyed Survey Survey Survey Survey Survey Survey Survey Survey Survey Surveyed Coordinate Surveyed Surveyed Survey Surveyed Surveyed Survey Surveyed Surveyed Survey Surveyed Surveyed Survey Surveyed Surveyed Surveyed Surveyed Surveyed Survey Surveyed Surveyeed Surveyed Surveyeed										L	.oca	tior	n: /	\bb	otsfo	ord,	BC -	Hi	ghw	vay	1	Con	npany: Vanport Enterprises Ltd.	
Logard by, KB Reviewed by TG To information and the constraint of the consthe constraint of the consthe constraint of the constre c	Pre	eparec	d by: 70 Shane I	4-EN Mull	IG.V Iolla	GEC	0040	000-	-01)atu	m:	NA 	AD8	3 Z1	10N	Geo	deti	ic F	100	Alignment: L2500	Drill	er: JV	
Image: Solution of the set of the		aaad k	hur KP	D	Nic		4 6		тс		ioru Iev:	atio	y/⊏a m	asur 63	ig. 67	040 m	2172	2.13	, ၁	40	Coordinates Surveyed	Drill	ling Method: Excavator	
Image: Image		yyeu i	by. KD	(ÐFie	eld V	/ane	y. ∋ +	Rei	mol	d Fiel	ld V	ane	(kPa)	ш		5	0	_		z		Ē
Image: Solution of the second state	E E		ງທຸ	⊗I	ab ۱_	/ane	e Pe	ak	XL	ab \	Vane	- R	lemo	old (k	Pa)	LΣP	2			BO		ATIO	COMMENTS	z
B B ALFT PT INTERCENCE mind, with a set of the se	표						DT .	"N"	(BL (e/301	0 m	m) 4			- Ш	ГШ	Ĺ		Z N N N	SOIL	IFIC/	TESTING	Ê
			ЧЦ В			ΔL	PT '	"N"	BL	SWC	S/300		m) Z	2		MP	AM	ĺ	3	Ë	DESCRIPTION	ASS		A A A
0 ■ 1 ■			Ī		W	5% 20	H	4(0		60		1 ^W	∟% 0		SA	S		Ľ	ő		С		EL
1 1	F 0					-	÷	-		:		÷					1) (<u></u>	TS - TOPSOIL 0.2m	TS	-	-
Image: State in the state	Ē					:				: : : :							2				SW - gravelly SAND, fine to coarse sand, 0.3m well graded. fine to coarse sub-rounded		1	-
1 Important Source Sup Do Sup Text Sup Compared 10mm 2 Important Sup	F					-	÷			-	-	÷									gravel, brown (dry), heterogenous, trace	SM		63
Image: Solution of the second provided pr	F,					-	÷			-		÷									non-cohesive, dry, compact.	1		-
-2	E																3		Ţ		SM - SILTY SAND, fine sand, poorly			-
2 0.0 ORCANIC SLT, tow plastic. 0.0 0.0 3 0.0 ORCANIC SLT, tow plastic. 0.0 0.0 0.0 3 0.0 ORCANIC SLT, tow plastic. 0.0 0.0 0.0 0.0 4 0.0 ORCANIC SLT, tow plastic. 0.0 <	F					-	÷	-		-		÷			-						graded, trace to some coarse			-
2	E						÷	:								1					non-cohesive, dry to moist, compact to	OL		62-
2 Yume 2 3 Yume 2 3 Yume 2 3 Yume 2 4 Yume 2 4 Yume 2 5 Yume 5 6 Yume 5 6 Yume 5 7 Yume 5 9 Yume 5 10 Yume	È.					-				-		÷										1		-
	- 2					: :	• • •	••••		(••••••			• • • • •	1			• •	<u>،،،،</u>	organics (wood debris up to 20 cm long),		-	-
a a a b b b b b c	-					-	÷			:		÷							•	。 。 。	trace fine sand, trace coarse sub-rounded	1		-
-3	F						•	••••									4		•		cobbles up to 200 mm diameter,	1		61
	E					-	÷			-		÷							• •		conesive, w \sim PL, firm to stiff.	1		-
-4	-3					: :	•	····; :		: :	· :	•••	••••		: :				•		well graded, fine to coarse sub-rounded	1		-
4	E					-	÷			÷		÷							•	•••	to rounded gravel, grey to brown, beterogenous, trace to some cobbles up	1		-
-4 4 5 -5 5 50 -6	-						÷	••••		: :	•	•••	• • • •			-			•	°°°	to 200 mm diameter, non-cohesive, moist	SW		-
-6 END TESTPITAT 5.0 m DEPTH (Target Depth), 50m -6 END TESTPITAT 5.0 m DEPTH (Target Depth), 50m -6 END TESTPITAT 5.0 m DEPTH (Target Depth), 50m -7	E					-	÷			-	-	÷							•		to wet, compact.	1		60
-5 Some 50m -6 END TESTPIT AT 5.0 m DEPTH (Target 5.0m) 50m -6 END TESTPIT AT 5.0 m DEPTH (Target 5.0m) 50m -6 END TESTPIT AT 5.0 m DEPTH (Target 5.0m) 50m -7 Solid escriptions are based on visual classifications, field observations and laboratory testing. drill performance, and laboratory testing. Some variation through the interpreted solid layers is expected. 57m -7 -7 -7m -7m -8 -7m -7m -7m -9 -7m -7m -7m -10 -7m -7m -7m -9 -7m -7m -7m -9 -7m -7m -7m -10 -7m -7m -7m -10 -7m -7m -7m -10 -7m -7m -7m 10 <th>-4</th> <th></th> <th></th> <th></th> <th></th> <th> </th> <th>•</th> <th>· · · ·</th> <th></th> <th>: :</th> <th>·</th> <th>•••</th> <th></th> <th></th> <th></th> <th>•</th> <th></th> <th></th> <th>•</th> <th></th> <th></th> <th>1</th> <th></th> <th>-</th>	-4					 	•	· · · ·		: :	·	•••				•			•			1		-
Som Som Som Som Som Som Som Som	1 1					-	÷	-		-		÷			-				• •	••• •••		1		-
-5 END TESTPITAT 5.0 m DEPTH (Target 5.0 m) 50 m -6 END TESTPITAT 5.0 m DEPTH (Target Depth), Testpit location surveyed by Stantec. - Soil descriptions are based on visual desting, drill performance, and laboratory testing. Some variation through the interpreted soil layers is expected. - Testpit backfilled to surface with soil -7 -7 -7 -7 -7 -8 -7 -7 -7 -7 -8 -7 -7 -7 -7 -9 -9 -7 -7 -7 -9 -9 -7 -7 -7 -9 -9 -7 -7 -7 -9 -9 -7 -7 -7 -9 -9 -7 -7 -7 -9 -9 -9 -7 -7 -10 -7 -7 -7 -7 -10 -7 -7 -7 -7 -10 -7 -7 -7 -7 -10 -7 -7 -7 -7 -10 -7 -7 -7 -7 -10	5			••••		: : · ·	•	••••			•••••••••••••••••••••••••••••••••••••••	•••	••••				5		•			1		-
-5	5- 2-					-	÷			-		÷			-				• •	• • • • • • • • • • • • • • • • • • •		1		59
-6	É-5					: : :	·			<u>.</u>	• • • •		••••		: 				•	<u>^</u>	5.0m		-	-
- Testpit location surveyed by Stantec. - Soil descriptions are based on visual classifications, field observations and testing, drill performance, and laboratory testing. Some variation through the interpreted soil layers is expected. - Testpit backfilled to surface with soil cuttings. -7 -7 -8 -8 -9 -9 -9 -9 -10 -10 -10 -10 -10 -10 -10 -10 -10 -10	⊔ 4 -					-	÷	-		-	-	÷									Depth).	1		-
6 classifications, field observations and testing, drill performance, and laboratory testing. Some variation through the interpreted soil layers is expected. - Testip thackfilled to surface with soil 58- 56- 56- 56- 56- 56- 56- 56- 56- 56- 56							•				•••••••	•••	••••		: :	+					- Testpit location surveyed by Stantec. - Soil descriptions are based on visual	1		-
6 isolar integration in the integration integratint integratinal integratinalintegration integration in						-	÷	-		-		÷									classifications, field observations and	1		58
-7	<u>-</u> 6					:				; 		•••			: 						testing, drill performance, and laboratory testing. Some variation through the	1		-
-7 -7 -8 -9 -9 -9 -9 -10 -10 -10 -10 -10 -10 -10 -10						-	÷			÷	-	÷									interpreted soil layers is expected.	1		-
-7 -7 -57 -8 -56 -8 -57 -9 -57 10 -57 10 -58 10 -56 10 -57										: :						-					cuttings.	1		-
Final Depth of Hole: 5.0 m Beachd Type: ■L#Lab Sample Sample Sam						-	÷			:												1		57-
-8 56- -9 55- 10 -9 Legend Sample Type: B-Becker C-Core G-Grab V-Vane Final Depth of Hole: 5.0 m Depth to Top of Rock: N/A Page 1 of 1	§⊢7					:	÷	;		: :					: 	+						1		-
-8 -9 -10 Legend Type: ■L#Lab Spont ⊡0-Odex Type: ■L#Lab Spont ⊡0-Odex Type: ■L#Lab Spont ⊡0-Odex Type: ■L#Lab Spont ⊡0-Odex (airrotar) 10 M-Wash (airrotar) 10 M-Wash (airrotar) 10 M-Wash (airrotar) 10 M-Wash (airrotar) 10 M-Wash (airrotar) 10 M-Wash (airrotar) 10 M-Wash (airrotar) 10 M-Wash (airrotar) 10 M-Wash Page 1 of 1							÷			-		÷			:							1		-
-8 56 -9 55 -9 55 10 54 Legend Sample S-Core Sample 10 C-Core Sample 11 C-Core Sample 12 C-Core Sample 13 C-Core Sample 14 C-Core Sample 15 C-Core Sample 15 C-Core Sample 14 C-Core Sample 14 C-Core Sample 15 C-Core Sample 15 C-Core Sample 16 C-Core Sample 17 C-Core Sample 16 C-Core Sample 17 C-Core Sample 1	- -					: :							••••			-						1		-
-8 8 5 -9 5 -9 5 -10 5 Legend Sample Type: B-Becker I C-Core Image: Im						-	ł			-		ł			-							1		56-
9 55 10 54 10 10 Lagend Sample Type: B-Becker Image: C-Core Sample Type: G-Grab S-Grab Sample Type: V-Vane S-Split Sample Sample Final Depth of Hole: 5.0 m Depth to Top of Rock: N/A Page 1 of 1	8_8					:		;		: :					: :	-						1		-
9 10 Legend Sample Type: □L#Lab Spon L#Lab Sp							-	-		:		-										1		-
-9 -9 55- -10 -10 -10 Legend Sample Type: B-Becker Image: C-Core Sample Image: C-Core Sample Image: C-Core Sample Image: C-Core Sample Image: C-Core Sample Final Depth of Hole: 5.0 m Depth to Top of Rock: N/A Page 1 of 1	5									ļ.,												1		-
9 Image: Stample to the stample to						-	÷	-		:	÷	÷										1		55-
Image: state in the state	-9					; ;										1						1		-
Image:						-	÷			:		÷										1		-
Legend Sample L#Lab Spoon C-Core Sample G-Grab W-Wash (mud return) V-Vane T-Shelby Tube Final Depth of Hole: 5.0 m Depth to Top of Rock: N/A Page 1 of 1	ž ⊑					: : :				; ; ;												1		-
Image:						-	-			:		-										1		54-
Legend Sample Lab B-Becker Image: C-Core Image: G-Grab V-Vane Type: Image: Lab Sopon Image: G-Grab V-Vane Depth to Top of Rock: N/A Type: Image: Lab Sopon Image: G-Grab Image: G-Grab Image: G-Grab Type: Image: Lab Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Type: Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Type: Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Type: Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Type: Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Type: Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Type: Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Type: Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Image: G-Grab Imag	≩ <u> </u>					:	-			:														-
Type: Depth to Top of Rock: N/A Spoon Core and the spoon of Rock: N/A Page 1 of 1	Leo Sar	mple [A-Au	iger	Ţ	B-E	Beck	ker]c-	Core	9	[0	i-Gra	ab	Ľ	V	Van	ie			Final Depth of Hole: 5	.0 m
	il Typ	^{be:} [Sami	ab ple	\boxtimes	S -S	Split con		$\mathbf{\cdot}$] <mark>0</mark> -	Ode: r rota	x ary)		۷	/ -Wa nud	ash retur	n) [[[]] ⊺ -	She ube	lby			Page 1	of 1

																	รเ	U	MMARY LOG		D	orill Hole #: WTP21	I-10
	T	비ᄪ	TF	A	TI	EC	H		Pro	oje	ct:	т	CFV	/ Hi	ghw	/ay	Wi	ide	ening - Segment 2		Date	e(s) Drilled: 06/08/2021	
								_	Loc	atio	on:	Abb	otsf	ord,	BC -	Hig	hwa	iy ´	1	_	Com	npany: Vanport Enterprises Ltd.	
	Prepar	ed by: 70 Shane I	14-EN Mull	IG.V(nolla	GEC nd	040	00-0	1	Dat	tum	: N	AD8	3 Z′	10N	Geo	detic	;	01	Alignment: L2000		Drille	er: JV Maka/Madalı Casa CX160	
	Logge	hv: KB	D,		NOC	l by	• та		Fle	vati	ig/⊏ ion:	asu 63	ng. 3 68	543 m	2090	.00	, 540	01	Coordinates Surveyed		Drilli	ng Method ⁻ Excavator	
	LUgget	i by. Kb	(⊕ Fie	ld V	ane	+F	Rem	old F	ield	Vane	e (kPa	a)	ш		(%		L			z	ng moulour Excutator	, Г
	(E	υÖ	\otimes	Lab V	/ane	Pea	ak × 1111-	<la Tria</la 	b Var vial (I	ne - (Pa)	Rem	old (l	(Pa)	ΓΥΡ	2 Z) ×		2			ATIO	COMMENTS	N (r
	Η	TAII			S		N" (F		WS/3	800 r	nm)	•		Ľ	L L L	VEF N	X		SUIL		IFIC.	TESTING	UIC
	DEP	DE			∆LF	יי די ו" די	N" (B	BLO	WS/3	00 n	nm) .			MP	MA	Ő			DESCRIPTION		ASS		EVA
		Ţ		۷۷ _F	0 1		40		- 60)	- V	VL % 30		ŝ	0	RE	ы М	5			ъ		EL
	_ 0					-	÷	-				-	-				<u>~</u>	2 ¥	TS - TOPSOIL 0.	2m	TS		-
																			SM - SILTY SAND, fine sand, poorly graded, trace to some coarse				-
	_					-	-	-				-	-		1				sub-rounded gravel, trace organics				63-
						÷	÷					-	-		1'				trace cobbles up to 150 mm diameter,		SM		-
																			non-cohesive, dry, compact.		0		-
	-					-	÷					-	-										-
						-	· · · · ·	:											1	7m			62-
	-					÷	÷	÷			-	-	-				•••		SW - gravely SAND, fine to coarse sand,				
	-2						•••••	••••	•••••				• • • • •		2		•••		to rounded gravel, grey to brown,				-
	-						÷				-	-					°.°		heterogenous, trace to some cobbles up to 200 mm diameter, non-cobesive, dry to				-
	-						••••••		· · · · ·			 :	· • · · · ·						moist, compact.				61
						-	÷	-				-	-				•••	•••					-10
	-3						•••••	•••	· · · · . :		••••		 				°.	÷			SW		-
	-					÷	÷	-				-	-										-
						-	·		••••								•••	÷					-
	-						÷	-				-	-				• • •	°.					60
_	_4						· · ÷ ·	•••					 				•••	•					-
7/97	-					-	÷	÷				-	-				•••	•					-
5	-						••••••	•••	•••••		• • • •							Ň	SM - SILTY SAND fine sand poorly 4.	5m			-
3.6	-					÷	÷	-			-	-	-		3				graded, grey, homogenous,		SM		59-
ШĽ	-5						·										ļ	Ľ	non-cohesive, moist, dense. 5.	0m			-
Ц Ч	-					-	÷	÷				:	-						Depth).				-
	-							••••	•••••			: :	: : :	-					- Testpit location surveyed by Stantec.				-
I						÷	÷	÷				-	-						classifications, field observations and				58-
5	-6							;						-					testing, drill performance, and laboratory testing. Some variation through the				-
2 N								-				-	-						interpreted soil layers is expected.				-
5	-				 									-					cuttings.				-
1321	-					-	÷					-	-										57-
in و	-7													-									-
	-					-	÷				-	-											-
אור	-													-									-
						-	÷				-	-	:										56-
Щ М	-8				: 						: 			-									-
						-	÷					-	:										-
ל	-								: ;														-
-						-	÷					-	-										55
14000	-9																						-
Р П	-					÷	÷	:			-	-	-										-
2	-																						-
	-						÷				-	-											54
> Ч	- 10					:	:	:				:	:										-
SOIL	Legend Sample	A-Au	ıger	Ţ	B -B	lecke	er [C -Co	re	[0	G -Gra	ab		V -V	/ane					Final Depth of Hole: 5	.0 m
Ś	Type:	Sam	ab nl≏	\bowtie	Sno	plit	[[0 -0d	lex ntar	ر ۱	3	N-Wa	ash retur	_) ∏[T-S] דעיי	helby	y				Deptn to Top of Rock: Page 1	IN/A
≥ [ייי		Sho				1000 10	s cui y	1	(····uu	· Jul	··/ ···	- i ul						1 age 1	.

ſ			10.0				S	U	MMARY LOG	Drill	Hc	ble #: TH22-SEG 2	2-47
	BRI	TISH	Ministry of Transportation	Project: Frase	r V	alle	y Hiç	gh	way 1 Corridor Improvement		Date	e(s) Drilled: 2022-05-31	
$\left \right $	Prena	red by:	and Infrastructure	Location: Abbotsfo	ord, 83	BC			Alianment		Con	npany: OnTrack er: Brandon	
	T	hurber Er	ngineering Ltd.	Northing/Easting:	543	2093	, 548	158	B Station/Offset:		Drill	Make/Model: Diedrick D-120	
	Logge	d by: RJT	Reviewed by: ANR	Elevation: 64.2 m	n I				Coordinates taken with GPS		Drill	ing Method: DCPT/Solid Stem	Auger
	DEPTH (m)	DRILLING DETAILS ゴーの	▲ SPT "N" (BLC WP% ₩ 20 40		SAMPLE TYPE	SAMPLE NO	RECOVERY (%	SOIL SYMBOL	SOIL DESCRIPTION		CLASSIFICATION	COMMENTS TESTING Drillers Estimate {G % S % F %}	ELEVATION (m)
-	- 0		3.9		IΣ	1		, 0 0	SP - SAND and GRAVEL, trace silt; fine to coarse grained; 76 mm max. size gravel; non-cohesive, grey, moist.	S	SW/GV	V	64
-	- 1 - - - -		10:3		IΣ	2			SP - SAND and GRAVEL trace silt:	- 1.52m	SP/GP		63-
			8.3		IΣ	3		0 0 0	medium to fine grained sand; sub-angular to sub-rounded, 64 mm max. size gravel, brown; non-cohesive, moist, dense to very dense.		SP- SM		62-
	-3		5.7		IΣ	4		0 0 0			SP/GP		61-
EV3.GDT 23-5-19	- - - - - - - -		5.5		IΣ	5				- 4.42m	SP/GP		60-
TATEMPLATE_RE			19,5		IΣ	6			low to medium plasticity; fine to coarse grained sand, grey; cohesive, wet to moist, hard.		ML/CL		59-
R.GPJ MOTI DA			1 4.9		12	7			End of hole at 6.1 m depth. Hole open to	- 6.1m	CL		58-
IL PLACE 32079 FRASER VALLEY HWY 1 CORRIDO									3.1 m depth. No groundwater observed upon completion of drilling.				57-
OIL-REV3_EL. 1 DECIMAL	-9 	<u>d</u> []]a-a	uger D B-Becker T	C-Core	b		V-Van	ie	Legend	Bentor	hite	Final Depth of Hole: 6	55- 5.1 m
MOTI-S	Sample Type:	L#-I San	Lab Spoon	O-Odex W-Wa (air rotary) (mud r	sh returr	n)	T-Shel Tube	lby	Drill Slotted Slough	Piezor	neter	Depth to Top of R	Rock:



Γ							S	SU	MMARY LOG		Drill Hole #: WTP21	1-14
	T	t TE	TRA TECH	Project: TCFV	Hig	hwa	ay V	Vid	ening - Segment 2	Dat	e(s) Drilled: 06/03/2021	
				Location: Abbotsfor	rd, B	C - H	Highv	vay	1	Cor	npany: Vanport Enterprises Ltd.	
	Prepa	Shane I	A-ENG.VGE004000-01 Mulholland	Northing/Fasting: 5	JN G 4317	eoa 706 8	etic 35 5	3490	Alignment: L2500	Drill	ier: JV Make/Model: Case CX160	
	Loaae	d bv: KB	Reviewed by: TG	Elevation: 67.42 m	n	00.0	, 0	,100	Coordinates Surveyed	Drill	ling Method: Excavator	
	DEPTH (m)	DRILLING DETAILS	⊕ Field Vane + Rer ⊗ Lab Vane Peak × Li ■ UU Tri: ▲ SPT "N" (BLC △ LPT "N" (BLC Wp% ● W% G 20 ↓ 20	nold Field Vane (kPa) ab Vane - Remold (kPa) axial (kPa) DWS/300 mm) ▲ DWS/300 mm) △ DORganic% WL %	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING	ELEVATION (m)
E	0						<u>ند</u>	<u></u>		TS		
	-1				=	1	•		ML - SILT, low plastic, trace to some fine sand, trace to some organics (roots, rootlets), brown (dry), heterogenous, cohesive, w < PL, firm to stiff.	ML	_	67-
	2					2	• • • • • • • •		well graded, fine to coarse sub-rounded to rounded gravel, trace silt, grey to brown, heterogenous, some cobbles up to 200 mm diameter, non-cohesive, moist to wet, dense.			66
	-3						• • • • • • •			SW		65-
1.7/92	3	₹ 3.7m				3	* * * * * * * * * * *		- At 3.7 m depth, water was entering the test pit from 3.7 m depth to 4.1 m depth. Material at these depths were not wet while logging.			64-
	-5				=	4	* * * *		SW - SAND, medium to coarse sand, well graded, some fine to coarse sub-rounded to rounded gravel, grey to brown, homogenous, non-cohesive, moist to wet, loose to compact.	SW	-	63-
									END TESTPIT AT 5.0 m DEPTH (Target Depth). - Testpit location surveyed by Stantec. - Soil descriptions are based on visual classifications, field observations and			62-
	6								testing, drill performance, and laboratory testing. Some variation through the interpreted soil layers is expected. - Testpit backfilled to surface with soil cuttings.			61-
	7											60-
	8											-
	9											59
	10											58
CIL-I	Legend		uger 🔲 B -Becker	C-Core G-Grab)		V -Var	ne			Final Depth of Hole: 5	.0 m
	Type:		ab Spoon	O-Odex (air rotary) W-Was	h eturn)		T -She Tube	elby			Depth to Top of Rock: Page 1	N/A of 1

							ç	SU	MMARY LOG	[Drill Hole #: WTP21	1-15
		₽JTE	TRA TECH	Project: TCF	V Hig	ghw	ay \	Nid	ening - Segment 2	Dat	e(s) Drilled: 06/03/2021	
				Location: Abbots	ford, I	3C - I	High	way	1	Co	npany: Vanport Enterprises Ltd.	
	Prepa	ared by: 70 Shane I	Mulholland	Northing/Easting	.10N 0 5431	3eoa 683	etic 79	5491	Alignment: L2000 82 73 Station/Offset: 2075+90 1	Drii	ier: JV I Make/Model: Case CX160	
	Loga	ed bv: KB	Reviewed by: TG	Elevation: 68.09) m	000.	10,	0101	Coordinates Surveyed	Dril	ling Method: Excavator	
	DEPTH (m)	DRILLING DETAILS →→∞	⊕ Field Vane + Re ⊗ Lab Vane Peak × ■ UU T ▲ SPT "N" (Bl △ LPT "N" (Bl Wp% ● W%)	emold Field Vane (kPa) Lab Vane - Remold (kPa) riaxial (kPa) .OWS/300 mm) ▲ .OWS/300 mm) △ ③ Organic% WL %	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING	ELEVATION (m)
	- 0		20 40	<u> </u>	-			<u></u>	TS - TOPSOIL	TS		68-
	- - - - - - - - - - - - - - - - - - -					1			ML - SILT, low plastic, some fine sand, some organics (rootlets, charcoal, wood debris), brown (dry), heterogenous, trace cobbles up to 100 mm diameter, trace anthropogenic materials (glass fragments up to 5 cm long), (FILL), cohesive, w < PL, stiff.	ML		67
						2			- At 1.5 m depth, wood debris up to 20 cm long from 1.5 m to 1.6 m depth. SW - SAND, fine to medium sand, well gravel, trace fine to coarse sub-rounded gravel, trace organics (rootlets, charcoal), grey to brown, heterogenous, non-cohesive, dry to moist, compact.	SW	-	66
	-3	2 0							SP - gravelly SAND, fine sand, gap graded, coarse sub-rounded to rounded gravel, trace silt, grey to brown, heterogenous, some cobbles and boulders up to 300 mm diameter, non-cohesive, moist, dense.	SP		65
EV3.GUI 9/28/21	-4	3.011				3			SW - gravelly SAND, medium to coarse sand, well graded, fine to coarse sub-rounded to rounded gravel, grey to brown, homogeneous, some cobbles and boulders up to 300 mm diameter, non-cohesive, moist to wet, dense. - At 3.8 m depth, water was entering the toot sit form 2.0 m to 4.2 m denth	SW		64
_DAIAIEMPLAIE_R									Aterial at these depths were not wet while logging. END TESTPIT AT 5.0 m DEPTH (Target Depth). - Testpit location surveyed by Stantec. - Soil descriptions are based on visual			63
080321.GPJ MOT									classifications, field observations and testing, drill performance, and laboratory testing. Some variation through the interpreted soil layers is expected. - Testpit backfilled to surface with soil cuttings.			62
MENT 2 WIDENING	- - - - - - -											61
1000-01 - 1 CFV SEG	- - - - - - - - - - - - - -											60
KEV3 ENG-VGEO04	- 3											59
MOTI-SUL-	Legen Sampl Type:	nd le ■ A -Au Sam	uger B -Becker ab S -Split pple Spoon	C-Core G-Gr C-Odex G-Gr (air rotary) ₩-W (muc	rab /ash I returr		V -Va T-Sh Tube	ne elby			Final Depth of Hole: 5 Depth to Top of Rock: Page 1	.0 m N/A of 1

Γ												SU	IMMARY LOG	D	Drill Hole #: WTP21	I-18
		E TE	TF	RA TEC	СН	Proje	ct: TC	FV	Hię	ghw	ay	Wid	lening - Segment 2	Date	e(s) Drilled: 06/04/2021	
						Locatio	n: Abbo	otsfor	rd, E	3C -	High	nway	1	Con	npany: Vanport Enterprises Ltd.	
	Prepa	ared by: 70 Shane)4-EN Mull	NG.VGEO040 nolland	000-01	Datum:	: NAD83	3 Z10)N (//31	Geod	etic	540	Alignment: L2000	Drill	er: JV Make/Model: Case CX160	
		ed by: KB	R	eviewed by	V TG	Elevatio	on: 68	.24 n	n	050.	43,	545	Coordinates Surveyed	Drilli	ing Method: Excavator	
F	LUggi	eu by. RD		⊕ Field Vane	e + Rer	nold Field \	Vane (kPa)	ш	~	(%	<u> </u>		z		Ê
	(E	ΩN	⊗	Lab Vane Pe	eak ×La ∎UUU Tria	ab Vane - F avial (kPa)	Remold (kl	Pa)	۲	Z) X	B		ATIO	COMMENTS	ı) Z
	표	LLIN			"N" (PI ()///S/300 m	am) 🔺		Щ	Ц	/ER	XP	SOIL	FIC/	TESTING	OIL
	Щ Ц	DE			"N" (BLC	OWS/300 m	$(m) \Delta$		ЧŇ	AMI	Ś	E	DESCRIPTION	ASS		A N
		— р Т		W _P % –	40	60 Grganic%	°_WL% ■ 80		SA	S	RE	S		CL		ELE
E	0				÷				_			<u>\\</u>	TS - TOPSOIL	TS		60
ŧ					-					1			SW - SAND, medium to coarse sand, well	SW		-00
E										2		I ÎÎ	(FILL), non-cohesive, dry, compact.			-
ŧ													SM - SILTY SAND, fine sand, poorly	SM		-
F	-1			: : : : : :	····?			· · · · ·					graded, trace fine to coarse sub-rounded 1.0m aravel, trace organics (rootlets), grev to			-
E					-								brown, heterogenous, non-cohesive, dry			67-
F													SP - gravelly SAND fine sand gan			-
E													graded, coarse sub-rounded to rounded			-
F	-2												gravel, trace silt, grey to brown, heterogeneous, some cobbles and			-
F				: : :	-			:		3			boulders up to 350 mm diameter,			66-
E										-			non-cohesive, moist, compact to dense.	SP		-
F																-
E	-3															-
E					-											65
ŧ						: : · · · · : · · · :										-
E					-											-
þ	-4												4.0m			-
17/2													SW - gravelly SAND, medium to coarse			64
				· · · · · · · · · · · · · · · · · · ·									sub-rounded to rounded gravel, grey to	CW		-
5				: : :	÷			:		4			to 200 mm diameter, non-cohesive, moist	311		-
	-5	¥											to wet, compact.			-
╬	Ĩ	5.0m										<u>••</u>	- becomes wet at 5.0 m depth			63-
													END TESTPITAT 5.1 m DEPTH (Target Depth).			-
													- Testpit location surveyed by Stantec.			-
<u> </u>	6												classifications, field observations and			-
Ē	-0				Ì								testing, drill performance, and laboratory			60
≥ - ? -													interpreted soil layers is expected.			02
5				: : : : : : : : : : : : : : : : : : :	÷			:					- Testpit backfilled to surface with soil			-
1803	_															-
	-7			······································	····?···· 											-
																61-
			• • • •		···:: :											-
Ē					-											-
≦ פֿר	-8															-
~					-											60-
Ē				:	· · · :											-
																-
	-9															-
																59-
5E																-
ŗĘ					-											-
뷖	10	а <u>гг</u> л		<u>: : :</u>	:	: : : 1 .		:			 				Final Donth of Holds 5	1 m
D 2	Sample		uger	B-Beck	ker	C-Core	G	i-Grab)	╘╾	V -Va	ane			Depth to Top of Rock:	N/A
D N N	i ype:	Sam	.ab Iple	Spoon Spoon	\vdots	(air rotary)) 🖾 (r	r -vvas nud re	n eturn) [[[]	Tub	nelby e			Page 1	of 1

																	sι	IMMARY LOG	E	Drill Hole #: WTP21	-19
	T	t TE	TR	Α.	TE	С	Н	I	Proj	jec	t: 1	ſCF	VΗ	lig	hwa	ay	Wic	dening - Segment 2	Date	e(s) Drilled: 06/04/2021	
									_oca	tion	: At	bots	sford	, B	C - I	ligh	nway	/1	Con	npany: Vanport Enterprises Ltd.	
	Prepar	red by: 70 Shane I	4-EN Mulh	G.VG Iollan	iEO(nd	J400	10-01		Jatu	m: nina	NAL /Eas	J83 4	210N · 54'	N G 216	eod	etic 05	5/0	Alignment: L2500	Drill	er: JV Make/Model: Case CX160	
		d bv: KB	Re	view	/ed	hv:	тс		Eleva	atior	ובמי ו: (68.3	. 54. 9 m	510	559.	90,	J 4 9	Coordinates Surveyed	Drill	ing Method: Excavator	
	Logge	d by. RD	(ÐField	d Va	ane ·	+Re	emol	d Fie	ld Va	ine (k	(Pa)	Ц		~	(%			z	5	Ê
	(E	υN	⊗I	.ab Va	ane	Peal	k X шт	Lab	Vane al (kP	: - Re !a)	emold	l (kPa			z) ≿	1BO	0.011	ATIC	COMMENTS) N
	Ŧ	TAII			SP	T "N	/" (RI		(5/30)	0 mm	1) 🔺		<u> </u>		Ц	ЦЦ ЦЦ	SYN	SUIL	IFIC,	TESTING	OL
	Ц Ц	DE				T "N	" (BL /%	LOW	S/300) mm	i) △		dW		ΜR	Ś	E	DESCRIPTION	ASS		EVA
		Ī		VVP 20	<u>″</u> ⊦	•••	40		60		WL 9	%	V V	5	٥ ا	RE	Š		5		Ш
	- 0			-		÷	÷	÷		÷	:	-			1		<u></u>	TS - TOPSOIL 0.2m	TS		-
	-					<u>.</u>							Г					SP - gravelly SAND, fine sand, gap draded. coarse sub-rounded to rounded	сD		68-
	-					-	-	-		÷	:							gravel, trace silt, grey to brown (dry),	0F		-
				-		-	-	-		-	÷	÷			2			A nomogeneous, some cobbles up to 200 0.8m	00		-
																		compact to dense.	SP- SM		-
	-					-	-	-										SP-SM - SILTY SAND, fine sand, poorly			67-
	-					-												non-cohesive, dry to moist, compact to			-
						-	-	-										SP - gravelly SAND fine sand gap			-
	-2			•••••		 	· · · · ·	• • • •		•••••	•••••							graded, coarse sub-rounded to rounded			-
				-		-	÷	÷	-	-	÷	-						gravel, trace silt, grey to brown, beterogeneous, some cobbles and			66
	-										· · · · · ·							boulders up to 700 mm diameter,			-
						-	-	-			:							non-conesive, moist, dense.			-
	-3			•••••		 	 	• • • • •		••••••	· · · · · ·								SP		-
	-					-			-												65
	-			•••••	• • •		÷	•		•••••••	· · · · · ·				3						- 00
	-			-		-	÷	÷	-	-	÷										-
-	-4			•••••			÷	• • • •		••••	· · · · · ·										-
28/2	-			-		-	-	-		-	:	-									-
1 8	-						÷··	•		••••••••	•••••••••••••••••••••••••••••••••••••••										64
3.6	-					-	-	-							1			4.8m			-
צ	-5					<u>.</u>	÷	·			· · ·		···[-		• <u>•</u> •	 SW - gravelly SAND, medium to coarse sand, well graded, fine to coarse 	SW		-
Α Ε	-			-		-	÷	÷	÷	÷	:	÷						sub-rounded to rounded gravel, grey to			-
EMPL	-					: :	÷	• • • •		••••	· · · · ·							to 150 mm diameter, non-cohesive, moist			63
IAI	_			-		-	÷	÷	-									to wet, compact.			-
	-6			· · · · ;		: :	÷	·		· · .	.							END TESTPITAT 5.0 m DEPTH (Target Depth).			-
MC	-					÷	÷	÷	÷	-	:							- Testpit location surveyed by Stantec.			-
רים	-						÷											classifications, field observations and			62
.1321	-					-	-	÷			:							testing, drill performance, and laboratory			-
190 5	7			·····		÷	÷											interpreted soil layers is expected.			-
ŽINI.						-	-											cuttings.			-
MIDE	-					<u>.</u>															61-
						-	÷	-		-											-
ME	-8			;								;.									-
/ SEC	-					-	-	-		-											-
CF/	-																				60-
- 10	-																				-
-000t																					-
Č	-					-															-
5																					59
Ē													1								-
2752	- 10					-															-
	Legend	A -Au	iger	E	B-Be	ecke	r [C	-Core)		G -G	Grab			V -V	ane			Final Depth of Hole: 5	.0 m
2	Туре:		ab		S-Sp	olit		-jo	-Ode	X	8	W -V	Vash	·····	Ē	T-S	helby			Depth to Top of Rock:	N/A
Ź		Sam	hie	<u>د</u> ع	Sboo	on	Ľ	a)ت	ur rota	ary)	EZZ	⊶ (mu	u retu	urn)	ш	ann	e			Page	

	C												SU	MMARY LOG		Drill Hole #: WTP21	-20
	Т	E TE	TRA	TE	СН	Pro	ject	: ТС	CFV	Hig	ghw	ay	Wid	ening - Segment 2	Dat	e(s) Drilled: 06/04/2021	_
	Propa	red by: 70		10500	4000.01	Loca	ation:			ond, E	BC -	High	way	1 Alignment: 12000	Cor	npany: Vanport Enterprises Ltd.	
	гіераі	Shane I	4-ENG.	and	4000-01	Nort	hing/	Easti	ng: {	5431	9600 1636.	39,	5497	784.91 Station/Offset: 2081+94.1	Drill	Make/Model: Case CX160	
	Logge	d by: KB	Revie	ewed I	by: TG	Elev	ation	n: 66	5.51 i	m				Coordinates Surveyed	Drill	ing Method: Excavator	
	DEPTH (m)	DRILLING DETAILS	⊕F ⊗Lab	ield Var Vane F ▲ SP1 △ LP1 /p% ←	ne + Rer Peak × L ■ UU Tri T "N" (BLC ■ W% @ 40	mold Fie ab Vane axial (kF OWS/30 OWS/30 Organ	ld Va e - Re Pa) 0 mm 0 mm iic%	ne (kP mold (i) ▲) △ WL %	a) kPa)	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING	ELEVATION (m)
01 - TCFV SEGMENT 2 WIDENING 080321.GPJ MOTI_DATATEMPLATE_REV3.GDT 9/28/21			W								4S 1 2 3 4	REC		TS - TOPSOIL 0.2m SP-SM - SAND, fine sand, poorly graded, trace fine to coarse sub-rounded gravel, brown (dry), heterogenous, trace cobbles up to 100 mm diameter, non-cohesive, dry, compact to dense. 0.8m SW - gravelly SAND, medium to coarse sand, well graded, fine to coarse sub-rounded to rounded gravel, grey to brown, homogeneous, some cobbles up to 200 mm diameter, non-cohesive, dry to moist, loose to compact. 0.8m - At 0.8 m depth, sloughing from 0.8 m to 3.6 m depth 3.6m GW - sandy GRAVEL, fine to coarse sub-rounded to rounded gravel, well graded, medium to coarse sand, grey to brown, heterogeneous, trace to some cobbles and boulders up to 300 mm diameter, non-cohesive, moist, compact. 3.6m SW - gravelly SAND, medium to coarse sand, well graded, fine to coarse sub-rounded to rounded gravel, grey to brown, homogeneous, some cobbles up to 200 mm diameter, non-cohesive, moist, compact. 5.0m SW - gravelly SAND, medium to coarse sub-rounded to rounded gravel, grey to brown, homogeneous, some cobbles up to 200 mm diameter, non-cohesive, moist to wet, compact. 5.0m END TESTPIT AT 5.0 m DEPTH (Target Depth). - Testpit location surveyed by Stantec. - Soil descriptions are based on visual classifications, field observations and testing, drill performance, and laboratory testing. Some variation through the interpreted soil alyers is expected. - Testpit backfilled to surface with soil cuttings.	SW SW SW SW		66 65 64 63 62 61 60 59 58
EV3 ENG-VGEO04000-1	- - - - - - - - - - - - - - - - - - -																57-
JL-R	Legend		Ider [T	B-Be	cker		,		G-Gra	b		v _\/	ane		I	Final Depth of Hole: 5.	.0 m
MOTI-SC	Sample Type:	LLA-AU Sam	ab ple	Spoo	lit n	O -Ode (air rot	x ary)		W-Wa (mud r	~ sh returr	⊶ ∭ (۱	T-Sł Tub	nelby			Depth to Top of Rock: Page 1 c	N/A of 1

ſ										;	SU	MMARY LOG		D	rill Hole #: WTP21	1-21
	T	E TE	TRA TE	CH	Proje	ct: T(CFV	Hig	ghwa	ay \	Wid	ening - Segment 2		Date	(s) Drilled: 06/04/2021	
	Propar	ad by: 70		74000.01	Locatio	on: Abb	otsfor	d, E	BC - H	High	way	1 Alignment: 1 2500	_	Com	pany: Vanport Enterprises Ltd.	
	гтера	Shane N	Julholland	J4000-01	Northir	ng/Easti	ng: 5	431	646.	75,	5498	381.61 Station/Offset: 2582+79.5		Drill	Make/Model: Case CX160	
	Logge	d by: KB	Reviewed	by: TG	Elevati	on: 6	5.31 m	n				Coordinates Surveyed		Drillir	ng Method: Excavator	
	DEPTH (m)	DRILLING DETAILS H T S	⊕ Field Va ⊗ Lab Vane I ▲ SP △ LP Wp% Q 20 ⊢	ane + Ren Peak × La ■ UU Tria T "N" (BLC T "N" (BLC ● W% © 40	nold Field ab Vane - axial (kPa) DWS/300 r DWS/300 r OVS/300 r 60	Vane (kP Remold (nm) ▲ nm) △ ⁽⁴ WL % 80	a) kPa)	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION		CLASSIFICATION	COMMENTS TESTING	ELEVATION (m)
	0						:				<u></u>	TS - TOPSOIL SP - SAND, fine sand, poorly graded, 0.	2m	TS		66-
3MENT 2 WIDENING 080321.GPJ MOTI_DATATEMPLATE_REV3.GDT 9/28/21	-1								1 2 3 4			trace fine to coarse sub-rounded gravel, trace to some organics (rootlets, charcoal), brown (dry), heterogenous, trace cobbles up to 100 mm diameter, non-cohesive, dry, compact to dense. 0. SW - gravelly SAND, medium to coarse sub-rounded to rounded gravel, grey to brown, homogeneous, some cobbles and boulders up to 300 mm diameter, non-cohesive, moist, loose to compact. 3. ML - SILT, medium plastic, some clay, grey, homogenous, cohesive, w ~ PL, stiff. 3. GW-GM - sandy GRAVEL, fine to coarse sub-rounded to rounded gravel, well graded, medium to coarse sand, grey to brown, heterogeneous, trace to some cobbles and boulders up to 300 mm diameter, non-cohesive, moist, compact. 3. FUD TESTPIT AT 5.0 m DEPTH (Target Depth). 5. END TESTPIT AT 5.0 m DEPTH (Target Depth). 5. - Testpit location surveyed by Stantec. 5. - Soil descriptions are based on visual classifications, field observations and testing, drill performance, and laboratory testing. Some variation through the interpreted soil layers is expected. 5. - Testpit backfilled to surface with soil cuttings. 5.	2m - 8m - 0m -	SP SW ML GW- GM		65 64 63 62 61 60 59
3 ENG-VGEO04000-01 - TCFV SE	-9															58-
ЧЧ.	- 10						÷									-
MOTI-SOIL	Legend Sample Type:	A-Au	ger [] B -Be ab ble Spoo	ecker	C -Core O-Odex (air rotary))	G -Grab W -Wasl (mud re	h eturn		V -Va T-Sh Tube	ane nelby e				Final Depth of Hole: 5 Depth to Top of Rock: Page 1	.0 m N/A of 1

							Project: TCFV High							ç	SU	MMARY LOG		Drill Hole #: WTH21	1-39
	IL T E	TR	Α.	TE	СН		Proj	ect	: T	CF	VН	igh	wa	y١	Nid	lening - Segment 2	Date	e(s) Drilled: 05/04/2021	
Pren	ared by: 70		C VC	E00/	1000-0	1	_oca Datu	tion:		bots	ford,	BC	- Hi	igh tic	way	1 Alignment: 1 2000	Con	npany: Omega Environmental D ler: Dan Gibson	Drilling
Пер	Shane	Mulh	ollar	nd	1000-0		North	ning/	Eas	ting:	543	161	1.67	10 7, 1	5499	978.79 Station/Offset: 2083+89.3	Drill	Make/Model: B54 Auger Rig	
Logo	ed by: SM	Re	eview	/ed b	y: T	G	Eleva	ation	: 6	64.74	l m					Coordinates Surveyed	Drill	ing Method: Solid Stem Auger	
DEPTH (m)	DRILLING DETAILS	€ ⊗L	Ð Field _ab Va _ab Va 	d Van ane P	ie + F eak > ■UU "N" (E "N" (E •W%	Remo Lab Triaxi BLOW BLOW © (d Fiel Vane al (kP /S/300 /S/300 Drgani	d Va - Re a)) mm) mm ic%	ne (kl mold) ▲) △ WL%	Pa) (kPa)	SAMPLE TYPE			RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING	ELEVATION (m)
- 0			2) :	<u>40</u> :	:	60	:	80	 :			-		· • • •	ASPH - ASPHALT. / 0.08m	ASPH	4	ш :
- - - - - - - - - - - - - - -	11 15 16 16 14 8 9		2	22	1							1 2	5	83		SW - gravelly SAND, fine to coarse sand, fine to coarse sub-angular to rounded gravel up to 50 mm diameter, brown (dry), homogeneous, (FILL), non-cohesive, dry, compact. SP-SM - SILTY SAND, fine to medium sand, poorly graded, trace fine gravel up to 20 mm diameter, light brown (dry),	SW SP- SM	•	64-
												3		- - - - - - - - - - - -		heterogeneous, non-cohesive, dry, compact. - damp to moist below 1.22 m depth SW - gravelly SAND, fine to coarse sand, well graded, sub-angular to rounded gravel up to 75 mm, some cobbles up to 75 mm diameter, brown, homogeneous, contact with gravelly SAND inferred due to spin up on auger, non-cohesive, dry to moist, compact to dense. - difficulty drilling below 2.44 m depth (hole sloughing more and more during cleanout due to cobbles) - 3.81m	SW		63 62- 61-
																END TESTHOLE AT 3.81 m DEPTH (Auger Refusal). - Testhole location surveyed by Stantec. - Soil descriptions are based on visual classifications, field observations and testing, drill performance, and laboratory testing. Some variation through the interpreted soil layers is expected. - Testhole backfilled to surface with drill cuttings, bentonite chips, sand, and asphalt patch.			60
																			58
			•••••					•••		•••	.								-
																			57–
									<u> </u>									Einel Denth of Using 2	55-
Samp		uger	L↓ E	B-Bec	ker	C	-Core] G -G	rab	F	<u>ا</u> ے	/-Va	ne			Depth to Top of Rock	.o III N/A
Type:	Sam	.ab iple		s -Spli Spoor	t 1		-Ode> iir rota	(ary)	Ú	W -W (muc	/ash I retu	n) [[∏T	-Sh ube	elby			Page 1	of 1

												ļ	SU	MMARY LOG	D	Drill Hole #: WTH21	1-40
		L TE	TR		СН	Proj	ect:	тс	FVI	Hig	ghw	ay \	Wid	lening - Segment 2	Date	e(s) Drilled: 05/10/2021	
						Locat	tion:	Abbo	tsfor	d, E	3C - I	ligh	way	1	Con	npany: Omega Environmental D	Drilling
	Prepa	red by: 70 Shane I	14-EN Mult	IG.VGE004 Iolland	4000-01	Datu	m: N/ nina/⊑	AD83	Z10 1:5/)N (131	Jeod 6/1	etic 16	5500	Alignment: L2500	Drill	er: Dan Gibson Make/Model: B54 Auger Rig	
	Loaae	d bv: SM	Re	eviewed b	ov: TG	Eleva	ation:	.usung 64.	j. o. 7 m	101	041.	10,	0000	Coordinates Surveyed	Drill	ing Method: Solid Stem Auger	
			(∋Field Var	ne + Rer	nold Fiel	d Vane	e (kPa)		ш	0	(%	Ч		Z		Ê
	E)	NG LS	ØI	ab Vane F	leak ×L: ∎UU Tria	ab Vane axial (kPa	- Rem a)	old (kP	a)	Ľ١	ž	() ۲	MBO	2011	ATIC	COMMENTS	N
	TH	LLI TAI		▲ SPT	"N" (BLC	DWS/300	,) mm) ,	▲		Щ	РГЕ	VEF	SYI		IFIC	TESTING	E E
	DEF	AD B B B B B B B B B B B B B B B B B B B			"N" (BLC	OWS/300 Organi)mm)́⊿ c% ∖∧	∆ /⊾ %/		ÅR	SAN	000	5	DESCRIPTION	ASS		Ň
		Ī		20° H	40	60		80 80		S	0,	R	ũ		ŭ		Ш
													૾૾૾૾૾	ASPH - ASPHALT. O.18m	ASPH		-
								;						fine to coarse sub-angular to rounded	SW		-
	-						*						••	gravel up to 60 mm diameter, brown (dry), 0.61m			64-
						· · · · · · · · · · · · · · · · · · ·			ж					compact to dense.			-
	- '						: *							SP - SAND, fine to medium sand, poorly			-
											1			angular to rounded gravel up to 70 mm			-
									~~*					diameter, trace cobbles up to 180 mm			63-
									»*					homogeneous, non-cohesive, dry, dense			
									»*	:				to very dense.	SP		-
	-				÷	: :	÷	: :									
											2						62-
							-		ſ								
	-3																
																	-
													· .	END TESTHOLE AT 3.51 m DEPTH 3.51m			61-
							-							(Effective Refusal). - Testhole location surveved by Stantec.			-
21	-4													- Soil descriptions are based on visual			-
9/28/														testing, drill performance, and laboratory			-
1D5					••••	() 		***** 	••••					testing. Some variation through the			-
=V3.0					÷	: :	÷	: :						- Testhole backfilled to surface with			-00
E_R	-5							:						bentonite chips, sand, and asphalt patch.			-
PLAI																	-
IEM	-				•••••	••••••••••••••••••••••••••••••••••••••		÷;	••••								50
AIA					-		-										
					••••				••••								
N M								: :									-
1.6					····:				••••								-
8032					-		-										-00
NG C	-7				••••				••••								-
DENI					-												-
2 W	-				· · · · : · · · ·				••••								
IEN I							-										5/
SEGN	-8				•••••	·····		÷)	••••								-
UFV S																	-
1 - 1(-					: : :		: : :	••••								50
0-000	E				÷		-										-00
0040	-9				· · · · · · · · · · · · · · · · · · ·	:			••••								-
-VGE							-										-
5 ENC								••••• •	••••								
EV3	E - 10																55
NIL-H	Legend	<u>I</u> ∏]a -Aι	lger	B-Bed	cker	C-Core]	G-	Grab			V-Va	ane			Final Depth of Hole: 3	.5 m
S-11	Sample Type:	 L#-L	ab	 N ^{S-Spli}	it pro	- 0 -Odex	د. ۲	W	Wasl	h	عد m	T-Sł	nelby			Depth to Top of Rock:	N/A
ž		💌 Sam	ple	Spoor 2	י ו ו	u(air rota	ry) I	- <i>21</i> /1 (m	ud re	turn) Ш	lube	9			Page 1	ot 1

TETRA TECH												C	Drill Hole #: WTH21-41								
						P	roje	ect:	тс	FV	Hi	Dat	Date(s) Drilled: 05/04/2021								
								ocati	on:	Abbo	otsfo	ord,	BC -	Company: Omega Environmental Drilling							
Prepa	ared by: 70 Shane	D	atum	n: N	AD8	3 Z1	0N	Geod	Driller: Dan Gibson												
	onane	wiai	nona	in G				orthi	ng/E	astir	ng: {	543 ⁻	1601	.51	, 550	127.74 Station/Offset: 2085+38.6	Drill	Make/Model: B54 Aug	ger Rig		
Logg	ed by: SN	1 R			by:	TG + Ro		Evat	lion:	63 (kPa	.791	m 			<u>.</u>						
Ê	ის	\otimes	Lab \	/ane	Peak		.ab V	ane -	Rem	old (k	Pa)	ΥPE	9	%) /	Įğ		0		C H	L (L	
Ξ	ALS				U	JU Tr	iaxial	ixial (kPa)					Щ	Ľ Ľ	ĮŽ	SOIL	ICA	COMMENTS		<u>p</u>	
E L			4	▲ SF	יאי די יואיי די	" (BL " (BL	OWS	/300	mm)			ΡL	MP	N	N	DESCRIPTION	SSIF	TESTING		AT AT	
ä			W	2011 2016	•W	% (⊙ Or	ganic	% N	<u>/</u> %		SAN	SA	U U U			CLAS		S E	Ш Г	
- 0	Ш		: 2	20	: 4	40 :	: '	60 :	:	80 :	:						ASPH			ш	
-	10			: n	-	-	-	-	-	-	-	\setminus	1			SW - gravelly SAND, fine to coarse sand,	SW				
Ē	9 11			¥	÷	÷		÷	•	÷		X		67		fine to coarse sub-angular to rounded	000			I	
E	16		-	-	-	÷	-	-	-	-	-	$ \land$				cobbles up to 100 mm diameter, some				63-	
-1																(dry), homogeneous, (FILL),					
-			:	-	÷	÷	-	÷	÷	÷						SP - SAND, primarily fine grained to			• • • •		
Ē																medium sand, poorly graded, trace fine to					
-	2		: 1	: 9	÷	-	-	-	÷	-	-	\mathbb{N}	1			coarse sub-rounded to rounded gravel up	SP				
F, I	10		4	Ň	-	-		-	-	-	-	ľŇ	2	67	'	homogeneous, rapid dilatancy,				62-	
E ²	13						-					γ				non-cohesive, moist, compact.					
-			-	-	-	-	-	-	-	-	-					- difficulty drilling below 2.13 m depth					
-		• • •				· · · · ·							3					- Depth to water			
Ē			÷	-	-	÷	-	-	-	-	-		1		· · · ·	SW - gravelly SAND, fine to medium		8/16/2021		61-	
-3	10 26		÷	: :	: :	· · · · · :	:54	÷		: :	: :	\mathbb{N}	1			sand, well graded, primarily fine					
-	28		-	-	÷	-		-	÷	-	-	ľŇ	4	75		some cobbles (inferred by drilling					
-	32					· · · · ·		· · · · ·				<u>/ \</u>				difficulty), brown, homogeneous, some					
-			÷	-	÷	÷	÷	÷	÷	÷	-		5			50 mm diameter, non-cohesive, dry to	SW			60-	
-4				: :							:					moist, dense to very dense.					
			-		-		-	-	-	-						•				ł	
					÷											- moist below 4.27 m depth		- Poor recovery below 4.27 m depth. Hole		1	
			:		-	-	-	-	-							9 9		continued to slough in to		50	
			<u>.</u>								-				<u>•••</u>					59-	
			:	:	÷	÷	÷	÷	÷	:	-					(Auger Refusal).					
			-	-	÷	÷	÷	-	÷	÷	-					- Testhole location surveyed by Stantec.					
				:												classifications, field observations and					
			-	-	-	÷	-	-	-	-	-					testing, drill performance, and laboratory testing. Some variation through the				58-	
6				: :		· · · · ·										interpreted soil layers is expected.					
			÷	:	÷	÷	÷	÷	÷	÷	-					- Upon completion, testhole was reinstated in accordance with the BC					
Ē			÷		÷	· · · · ·		÷		÷		-				Groundwater Protection Regulation.					
			:	:	:	:	÷	÷	:	÷	-					- A standpipe piezometer was installed at this location to a depth of 2.5 m with a 1				57-	
-7			÷	: :	: :					: :		-				m slotted screen from 1.5 m to 2.5 m.					
			-	:	:	:	÷	÷	:	÷											
							<u>.</u>					-									
			-	-	-	-		-	-	-	-									56	
8				; ;	; ;															50-	
ít			-	-	-	-	-	-	-	:	:										
5-			-		-	-	-	-	-	-	-										
E					·····							1									
			-	-		-	-	-		-										55-	
5 -9			 	; :	: : :	 	: :	 	· · · · ·	 	;	1									
Ē			-	-	-	-	-	-	-	:	-										
			 		; ;	 	 :	 	 	÷		-									
			-	-	-	-	-	-	-	-	-									54-	
<u> </u>	<u>nd [[]a-</u> A			B-P	: ecker		:] c .c	: Core	:	:	-Gra	l h]v_\	/ane	Legend Sand Carout Coment Bento	l	Final Depth of	Hole: 4	.9 m	
Sampl	le ⊔⊿'^-^ ⊾#-!			b 53 Split F-1			ש ייי ק0-(1 0 -Odex r∃tera 1 0 -Odex r∃tera					™ ⊑⊒ ^{v-vane} Ish mmT-Shelhv					Depth to Top of Rock: N/A			
	San San	nple	K	Spo	on	Ŀ	J(air	rotar	y) I	<i>M</i> (r	nud r	eturr	ηШ	Tut)e	Cuttings I.H. Slotted Slough M Piezon	neter	P	'age 1	of 1	