



Ministry of
Transportation
and Infrastructure

SUMMARY LOG

Drill Hole #: **AH17-01**

Prepared by: P09842A03 RFB
Klohn Crippen Berger

Project: **Highway No. 7 Four Laning**

Date(s) Drilled: Nov 6, 2017
Drilling Company: ConeTec Investigations Ltd.

Location: Highway 7, Mission

Datum: UTM Zone 10 NAD83
Northing/Easting: 5444544 , 544456

Alignment: 111+17 (Approx.)

Station/Offset:

Driller: Alex

Drill Make/Model: M7 Truck Rig

Drilling Method: Solid Stem Auger

Logged by: LC

Reviewed by:

Elevation:

Coordinates taken with GPS

DEPTH (m)	DRILLING DETAILS	* Pocket Penetrometer (100, 200) * Shear Strength (kPa) (300, 400) * DYNAMIC CONE (BLOWS/300 mm) * + Natural Vane (KPa) ⊕ Remold Vane (KPa) ▲ SPT "N" (BLOWS/300 mm) ▲ W _p % W _p % W _L % 20 40 60 80		SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING Drillers Estimate {G % S % F %}	DEPTH (m)
0							Asphalt	0.18m			
							SAND, medium grain, and GRAVEL, brown, moist (ROAD FILL)	0.76m			
1							CLAY, trace gravel, medium to high plasticity, dark brown and orange mottling, moist, gravel is fine grained and subangular (FILL?)				1
2											2
3											3
4					SA1		CLAY (CH) to clayey SILT (MH), trace sand and gravel, medium to high plasticity, firm to stiff, gray with iron staining, moist	3.35m			4
5					SA2		Soft from 4.3 m				5
6					SA3		More moisture with depth		CH		6
7							1. Drill hole terminated at 7.0 m due to practical refusal. 2. Drill hole was backfilled with bentonite chips and soil cuttings. Asphalt cold patch used to seal the drill hole at the surface. 3. Drill hole location coordinates and elevation are approximate. Locations were surveyed on location using a handheld GPS and are reported in NAD83 UTM Zone 10 North.	7.01m			7
8											8
9											9
10											10

MOT-SOIL-REV2_P09842A03 RFB - 2017 CROSSING INVESTIGATION - TEST HOLE LOG.GPJ MOT-DRAFT-REV2C.GDT 23-11-17

Legend
 Sample Type:
 L#-Lab Sample A-Auger C-Core G-Grab V-Vane
 S-Split Spoon O-Odex (air rotary) W-Wash (mud return) T-Shelby Tube

Final Depth of Hole: 7.0 m
 Depth to Top of Rock:
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SUMMARY LOG

Drill Hole #: **AH17-02**

Prepared by: P09842A03 RFB
Klohn Crippen Berger

Project: **Highway No. 7 Four Laning**

Date(s) Drilled: Nov 7, 2017
Drilling Company: ConeTec Investigations Ltd.

Location: Highway 7, Mission

Datum: UTM Zone 10 NAD83
Northing/Easting: 5444551, 544463

Alignment: 111+17 (Approx.)

Station/Offset:

Driller: Alex

Drill Make/Model: M7 Truck Rig

Drilling Method: Solid Stem Auger

Logged by: LC

Reviewed by:

Elevation:

Coordinates taken with GPS

DEPTH (m)	DRILLING DETAILS	✕ Pocket Penetrometer (100, 200) ✕ Shear Strength (kPa) (300, 400) ※ DYNAMIC CONE (BLOWS/300 mm) ※ + Natural Vane (KPa) ⊕ Remold Vane (KPa) ▲ SPT "N" (BLOWS/300 mm) ▲ W _p % W _u % W _L % 20 40 60 80	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING Drillers Estimate {G % S % F %}	DEPTH (m)
0							Asphalt			
0.19m							CLAY to clayey SILT, trace gravel, medium to high plasticity, firm, brown with light orange staining, moist, gravel is fine to coarse grain and subrounded to subangular (FILL)			
3.05m							CLAY (CH) to clayey SILT (MH), some sand, trace gravel, medium to high plasticity, firm, gray with orange colored streaks/iron staining			
4				SA1			Soft from 3.8 m	CH		
5				SA2						
6				SA3						
6.1m							1. Drill hole terminated at 6.1 m due to limit of investigation. 2. Drill hole was backfilled with bentonite chips and soil cuttings. Asphalt cold patch used to seal the drill hole at the surface. 3. Drill hole location coordinates and elevation are approximate. Locations were surveyed on location using a handheld GPS and are reported in NAD83 UTM Zone 10 North.			

MOT-SOIL-REV2_P09842A03 RFB - 2017 CROSSING INVESTIGATION - TEST HOLE LOG.GPJ MOT-DRAFT-REV2C.GDT 23-11-17

Legend
Sample Type:

- A-Auger
- C-Core
- G-Grab
- V-Vane
- L#-Lab Sample
- S-Split Spoon
- O-Odex (air rotary)
- W-Wash (mud return)
- T-Shelby Tube

Final Depth of Hole: 6.1 m
Depth to Top of Rock:
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Ministry of Transportation and Infrastructure

SUMMARY LOG

Drill Hole #: **AH17-03**

Prepared by: P09842A03 RFB
Klohn Crippen Berger

Project: **Highway No. 7 Four Laning**

Date(s) Drilled: Nov 7, 2017
Drilling Company: ConeTec Investigations Ltd.

Location: Highway 7, Mission

Datum: UTM Zone 10 NAD83
Northing/Easting: 5444382, 544718

Alignment: 114+20 (Approx.)

Station/Offset:

Driller: Alex

Drill Make/Model: M7 Truck Rig

Drilling Method: Solid Stem Auger

Logged by: LC

Reviewed by:

Elevation:

Coordinates taken with GPS

DEPTH (m)	DRILLING DETAILS	✕ Pocket Penetrometer (100, 200) ✕ Shear Strength (kPa) (300, 400)		SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING Drillers Estimate {G % S % F %}	DEPTH (m)
		✱ DYNAMIC CONE (BLOWS/300 mm) ✱ + Natural Vane (KPa) ⊕ Remold Vane (KPa) ▲ SPT "N" (BLOWS/300 mm) ▲ W _p % W _p % W _L %									
0								Asphalt			
0.19m								Inferred Sand and Gravel (FILL)			
3.66m								SAND, medium grain, and GRAVEL, brown, moist, gravel is fine to coarse (FILL)			
4.88m				SA1				CLAY (CH) to clayey SILT (MH), medium to high plasticity, stiff, moist	CH		
6.1m								1. Drill hole terminated at 6.1 m due to limit of investigation. 2. Drill hole was backfilled with bentonite chips and soil cuttings. Asphalt cold patch used to seal the drill hole at the surface. 3. Drill hole location coordinates and elevation are approximate. Locations were surveyed on location using a handheld GPS and are reported in NAD83 UTM Zone 10 North.			

No recovery between 0 m - 3.6 m. Soil stripped from auger flights while advancing due to obstruction. Sand and coarse gravel/cobbles returned to surface.

Legend
 Sample Type:
 L#-Lab Sample A-Auger C-Core G-Grab V-Vane
 S-Split Spoon O-Odex (air rotary) W-Wash (mud return) T-Shelby Tube

Final Depth of Hole: 6.1 m
 Depth to Top of Rock:
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Ministry of Transportation and Infrastructure

SUMMARY LOG

Drill Hole #: **AH17-04**

Prepared by: P09842A03 RFB
Klohn Crippen Berger

Project: **Highway No. 7 Four Laning**
Location: 30286 Silverdale Ave., Mission

Date(s) Drilled: Nov 9, 2017
Drilling Company: ConeTec Investigations Ltd.

Datum: UTM Zone 10 NAD83
Northing/Easting: 5444422, 544745

Alignment: 114+20 (Approx.)
Station/Offset:

Driller: Alex
Drill Make/Model: M7 Truck Rig
Drilling Method: Solid Stem Auger

Logged by: LC Reviewed by:

Elevation:

Coordinates taken with GPS

DEPTH (m)	DRILLING DETAILS	✕ Pocket Penetrometer (100, 200) ✕ Shear Strength (kPa) (300, 400) ✱ DYNAMIC CONE (BLOWS/300 mm) ✱ + Natural Vane (KPa) ⊕ Remold Vane (KPa) ▲ SPT "N" (BLOWS/300 mm) ▲ W _p % W _p % W _L % 20 40 60 80	SAMPLE TYPE	SAMPLE NO	RECOVERY (%)	SOIL SYMBOL	SOIL DESCRIPTION	CLASSIFICATION	COMMENTS TESTING Drillers Estimate {G % S % F %}	DEPTH (m)
0							Topsoil 0.15m			
0.15							CLAY (CH) to clayey SILT (MH), medium to high plasticity, firm to stiff, gray, with rootlets	CH		0.15
2.59							CLAY (CH) to clayey SILT (MH), medium to high plasticity, firm to stiff, gray with streaks of orange/iron staining	CH		2.59
4.57				SA1						4.57
4.6				SA2						4.6
4.6							1. Drill hole terminated at 4.6 m due to limit of investigation. 2. Drill hole was backfilled with bentonite chips and soil cuttings. Asphalt cold patch used to seal the drill hole at the surface. 3. Drill hole location coordinates and elevation are approximate. Locations were surveyed on location using a handheld GPS and are reported in NAD83 UTM Zone 10 North.			4.6

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Legend

Sample Type:

- A-Auger
- C-Core
- G-Grab
- V-Vane
- L#-Lab Sample
- S-Split Spoon
- O-Odex (air rotary)
- W-Wash (mud return)
- T-Shelby Tube

Final Depth of Hole: 4.6 m
Depth to Top of Rock:
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