



CONTRACT No. GE/2014/07
GROUND INVESTIGATION – NEW TERRITORIES WEST
(TERM CONTRACT)

Works Order No. GE/2014/07.34
Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor in
Yuen Long Town connecting with Long Ping Station -
Investigation, Design and Construction

FINAL FIELD WORK REPORT

Checked in accordance with
Contract No. GE/2014/07
requirements and accepted.

Signed _____ Date _____

Certified as Checked by

Raymond Chu
Geotechnical Engineer

Certified as Completed by

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CONTRACTOR

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May 2016

CONTRACT DATA SUMMARY

Project Name & No. <i>Ground Investigation - New Territories West (Term Contract)</i>	Site Name <i>Works Order No.: GE/2014/07.34</i>	Date: 30/Sep/15 to 20/May/16
	Agreement No. CE 32/2014 (HY) <i>Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction</i>	Official Only G.E.O. Data Bank No.
G.I. Contractor <i>DrilTech Ground Engineering Limited</i>	Client <i>Geotechnical Engineering Office Civil Engineering and Development Department</i>	
Contract No. <i>GE/2014/07</i>	Consulting Engineer <i>Ove Arup & Partners Hong Kong Limited</i>	File Ref.

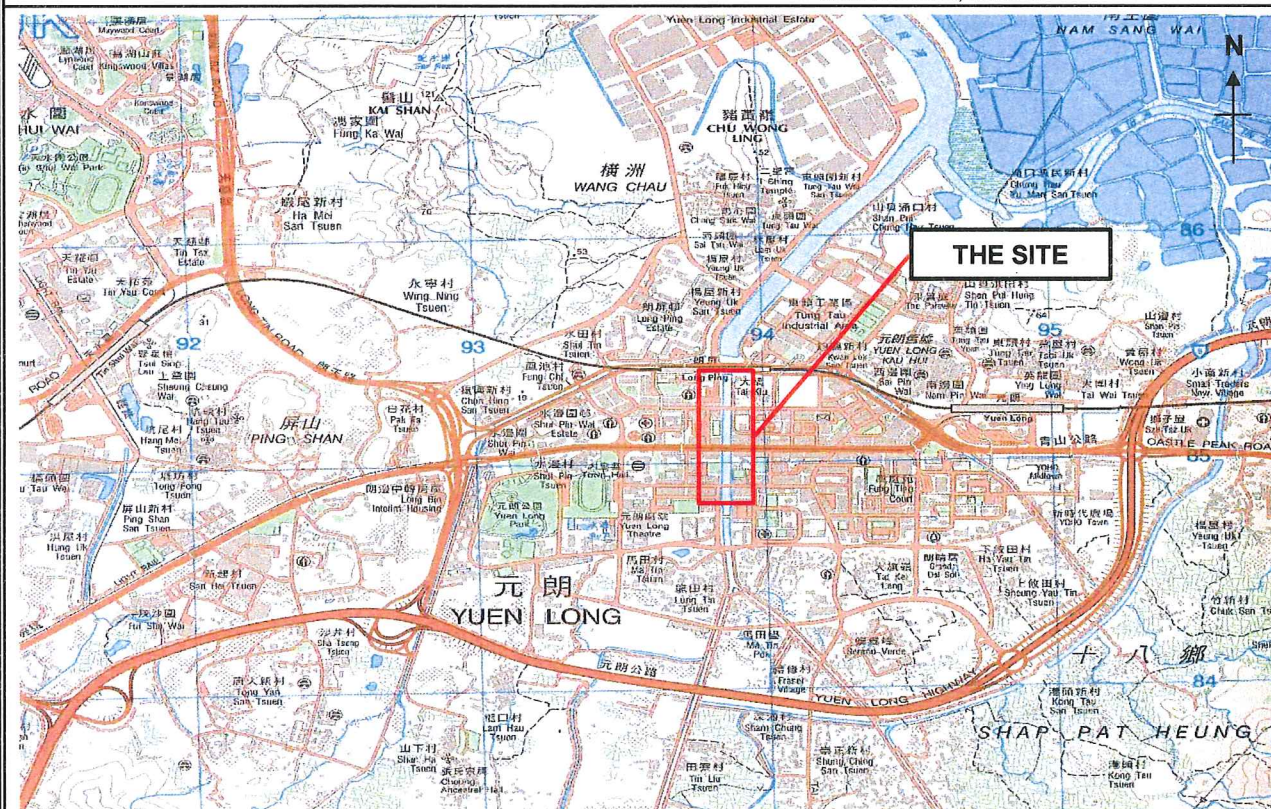
FIELD WORK SUMMARY


Drillhole:	No. 15	Method:	Rotary Cored	Date:	22/Oct/15 to 17/Mar/16
Trial Pit:	No. 11	Inspection Pit:	No. Nil		
Corehole:	No. Nil	Stripping:	No. Nil	Probe:	No. Nil
Piezometer:	No. 5	Standpipe:	No. 5	Piezometer Bucket:	No. Nil
Insitu Test:	No. 310	Type:	Standard Penetration Test (279), Constant Head Permeability Test (13), In-situ Density Test (8) and Response Test (10)		
Geophysics:	No. 8	Type:	Acoustic Borehole Televiewer Survey (8)		

LABORATORY TESTING SUMMARY

No. of each type of test:		Date: - to -			
SOIL	Physical Properties	LL -	PL -	PSD -	MC -
	Strength Tests	SG	NOT APPLICABLE		DD -
	Compaction & CBR Tests	CUS			UU - Shear Box -
	Oedometer & Perm. Tests	Stand			Proctor - CBR -
	Others	Cv -	k -		
ROCK		Pt Load -	UC -	Shear Box -	US Vel. -

LOCATION PLAN Scale N.T.S. Derived from: Survey & Mapping Office, Lands Department
 Series HM20C, Sheet 6



	G. I.	Laboratory	Geotechnical Engineering Office
Contractor	<i>DrilTech Ground Engineering Ltd.</i>	---	 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
Works Order No.:	<i>GE/2014/07.34</i>	---	



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FINAL FIELD WORK REPORT

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Drawing No. - D626/07.34/GI/D001

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1 Introduction

On 30th April 2014, DRiLTECH Ground Engineering Limited was awarded a Term Contract from the Geotechnical Engineering Office, Civil Engineering and Development Department of the Government of Hong Kong Special Administrative Region to carry out ground investigation works at any location in Western New Territories, including all islands to the West of a line joining Lo Wu and Chai Wan Kok (including Lamma and Tsing Yi), and may cover other areas in the territory of Hong Kong including outlying islands as assigned by the Engineer.

This report presents the results of ground investigation works for Agreement No. CE32/2014(HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction, under Works Order No. GE/2014/07.34. The fieldwork was carried out in the period between 22nd October 2015 and 17th March 2016 under the supervision of Ove Arup & Partners Hong Kong Limited.

2 Site Location

The exact location of the site is at Yuen Long Nullah near Long Ping Station, Yuen Long, New Territories. The investigation stations are bounded within the following co-ordinates:

- 820 691E, 834 214N
- 820 735E, 834 214N
- 820 735E, 833 724N
- 820 691E, 833 724N

The locations of the investigation stations are shown in Ground Investigation Plan with drawing no. D626/07.34/GI/D001 and the coordinates and levels of all completed investigation stations are shown in the survey record of Table 1.

3 Geology

According to the 1:20,000 scale, Sheet 6 of HGM20 Series Solid and Superficial Geology Map published by the Geotechnical Control Office and the two memoirs: The Pre-Quaternary Geology of Hong Kong and The Quaternary Geology of Hong Kong published by the Geotechnical Engineering Office, the site may be underlain by two types of bedrocks, namely white to dark grey or black calcite and dolomite marble (Yuen Long Formation, San Tin Group) of Carboniferous, Palaeozoic; and metamorphosed sandstone and carbonaceous siltstone with graphitic interbeds and conglomerate (Lok Ma Chau Formation, San Tin Group) of Carboniferous, Palaeozoic.

The findings of the ground investigation are generally in accordance with the geological map and memoirs. The results of investigation reveal that the site is composed of Superficial Deposits (Fill, Marine Deposit and Alluvium), Soil derived from Insitu Rock Weathering (Residual Soil and Completely decomposed and Highly decomposed Siltstone / Andesite) and the bedrock of Marble / Andesite Lava.

Superficial Deposits

Fill layer is encountered in all drillholes except S1-DH15 with thickness ranged from 0.50m to 9.00m, which mainly comprised of silty sandy clay, clayey silty fine to coarse sand and clayey silty sandy fine to coarse gravel of rock fragments.

Marine Deposit layer is encountered only in drillhole S1-EH01 with thickness of 0.95m, which mainly comprised of silty sandy clay.

Alluvium layer is encountered in all drillholes except S1-DH12 with thickness ranged from the minimum of 0.95m to 24.10m, which mainly comprised of silty sandy clay, clayey silty fine to coarse sand and clayey silty sandy fine to coarse gravel of rock fragments.

Soil derived from Insitu Rock Weathering

Residual Soil layer is encountered only in drillhole S1-DH08 with thickness of 9.10m, which mainly comprised of slightly sandy silty clay and slightly clayey silty fine to coarse sand.

Completely decomposed and Highly decomposed Siltstone / Andesite layer interbedded with Karst Deposits / Cavity-fill Deposits layers is encountered in all drillholes except S1-DH12 and S1-EH01 with thickness ranged from 1.87m to 107.36m, which mainly comprised of silty sandy clay, clayey sandy silt, clayey silty fine to coarse sand and clayey silty sandy fine to coarse gravel and cobble of rock fragments and locally with corestones of moderately decomposed and slightly decomposed siltstone / marble.

3 Geology (Cont'd)

Bedrock

The rock type encountered in the investigation is Marble / Andesite Lava. Bedrock was found in all drillholes except S1-DH08, S1-DH12, S1-DH14 and S1-EH01 with reduced levels ranged from -15.33mPD to -112.83mPD.

Detailed descriptions of each stratum were given in the logs presented in Appendix C.

The depth and thickness of each stratum encountered during drilling were given in Table 2.

4 Fieldwork

Fieldworks included sampling, field testing and field installation in fifteen (15) drillholes (S1-DH02, S1-DH03, S1-DH07, S1-DH08, S1-DH10 to S1-DH15, S1-DH12A, S2-DH11, S2-DH15, S2-DH16 and S1-EH01) and eleven (11) trial pits (TP01, TP02, TP08, TP10 to TP17) with associated in-situ testing were carried out at locations shown in the Ground Investigation Plan with Drawing No. D626/07.34/GI/D001 as specified in the Works Order.

4.1 Drillhole

The fieldworks at the drillholes (S1-DH02, S1-DH03, S1-DH07, S1-DH08, S1-DH10 to S1-DH15, S1-DH12A, S2-DH11, S2-DH15, S2-DH16 and S1-EH01) were carried out using the hydraulic rotary drilling rig with or without air-foam as flushing medium. SW, PW, HW and NW sized casings equipped with tungsten carbide cutting shoes were used to advance the holes. The drillholes were terminated at specified depths.

Undisturbed Mazier samples were taken in soil generally at 2.00m intervals commencing at the base of inspection pit by using a modified Mazier triple tube retractable core barrel, which was fitted with a detachable 74mm I.D., 1000mm long clear ABS plastic liner. A retractable cutting shoe projecting from the tungsten carbide core bit was used to penetrate the materials being sampled and to protect the sample from being disturbed by the drilling fluid.

The recovered samples were sealed with metal foil disc and wax and protected with rubber caps at both ends. Small disturbed samples were retrieved from the cutting shoes and were kept in airtight jars as jar samples.

4.1 Drillhole (Cont'd)

U76 samples were taken in drillhole S1-EH01 at designated depths by driving the U76 open-tube sampler in soil and comprised of a sample barrel with a screw-on cutting shoe and drive head.

Environmental samples were taken in drillhole S1-EH01. The full sets of copy of chain of custody documentations and photographs of environmental samples are presented in Appendix J.

Where rock materials were encountered, rock core samples were taken using T6-146, T2-120, T2-101 and TNW double tubes core barrels.

Inspection pits at drillhole location were manually excavated by hand tools to specified depths prior to drilling commencement to ensure that the investigation works would not damage underground utilities.

The disturbed and undisturbed samples and rock core samples are reported at relevant depths in the Drillhole Record sheets in Appendix C. Record photographs of the jar samples and core samples are included in Appendix D.

4.2 Trial Pit

Trial pits (TP01, TP02, TP08, TP10 to TP17) were excavated manually to specified depths by using hand tools to expose the underground materials for logging and sampling.

Small disturbed samples were taken at 0.50m intervals starting from the ground level and large disturbed samples and block samples were taken at designated depths.

The materials exposed on each side of the trial pits were logged and the results are reported in the Trial Pit Record in Appendix C. The photographs taken on each side of the trial pits are presented in Appendix D.

The trial pits were subsequently backfilled with excavated materials and were compacted using portable tools.

4.3 Field Test

4.3.1 Standard Penetration Test

Standard penetration test with liner samples were carried out at specified depths. The tests were conducted according to BS1377 (1990 Part 9 Method 3.3) with modifications suggested in Geoguide 2 and the Contract Specification.

The numbers of blows to drive a standard split spoon sampler for the first 150mm penetration (seating drive) in 75mm increments and those for each 75mm penetration for the subsequent 300mm penetration were recorded. The 'N' value was taken as the sum of numbers of blows for the last 300mm penetration. Where the full penetration for seating drive was not achieved after 50 blows, the number of blows and the penetration achieved was recorded. During the test, the water level in the drillhole was maintained at or above the observed ground water level. Disturbed samples were retrieved from the cutting shoes as jar samples.

Liner samples were taken with the SPTs by including a liner sample tube in the split barrel sampler in each test.

The depths of tests and the 'N' values are presented in the Drillhole Record sheets in Appendix C.

4.3.2 Constant Head Permeability Test

Thirteen (13) constant head permeability tests were carried in all drillholes except S1-DH12 and S1-EH01 at specified sections.

The test section was formed by surrounding a 40mm I.D. G.I. standpipe, which was perforated over the test section, with filter materials and sealed with bentonite pellets according to the figure 27 of Geoguide 2.

The water table in the standpipe after installation was allowed to equalize with the ambient groundwater level before commencement of the test. This water level was measured and recorded. Fresh water was then fed at a constant rate into the standpipe to raise the water level in the standpipe to top of pipe. This water level was maintained by adjusting the rate of inflowing water. The inflow rates to maintain the constant water level were recorded at the intervals as specified in the Specification. The test was terminated when the inflow rates differed less than 10% in an interval of 10 minutes.

The test data and the test results are presented in Appendix E.

4.3.3 In-situ Density Test

Eight (8) in-situ density tests were carried out in the trial pits at specified locations. The tests were carried out in accordance with the guidelines given in the GEOSPEC 3: Model Specification for Soil Testing by Soils and Materials Engineering Co. Ltd., which is a HOKLAS accredited laboratory.

The test results are presented in Appendix F.

4.3.4 Digital Acoustic Borehole Televiwer Survey

Eight (8) acoustic borehole televiwer surveys were carried out in drillholes at depths as instructed. The acoustic imaging equipment consists of a centralized sonde, with a rotating transducer and receiver orientated by a magnetometer and inclinometer capable of working in fluid filled holes. The sonde uses a focused ultrasound beam, measured in travel time and amplitude, to scan the borehole wall producing a full 360-degree image. The features azimuth and dip angle are derived by digital cross-referencing of the orientation data. The Travel Time and Amplitude, Joints Interpretation and Stereographic Plots Records are presented in Appendix G.

4.4 Field Installation

4.4.1 Standpipe and Piezometer

Five (5) standpipes were installed in drillholes to designated depths. The standpipe comprised a 25mm I.D. PVC riser pipe surrounded by clean inert aggregates filter of size between 10mm and 16mm. The standpipe tube was capped at the base and was perforated about 5% of the surface area from 0.50m below the top of the response zone to the bottom of the tube and was protected by nylon mesh.

Five (5) piezometers of Casagrande type were installed with 25mm I.D. PVC riser pipes in drillholes at specified depths. The piezometer tip was surrounded by clean sand of grading between 200 and 1,210 microns and was sealed with bentonite pellets to form response zone of specified length.

Response tests were carried out on all standpipes and piezometers after completion of installation. The details of installations and the response test results are included in Appendix H and a summary of installation is presented in Table 3.

4.4.1 Standpipe and Piezometer (Cont'd)

Readings of water levels in the standpipes and the piezometers were taken daily for 7 working days following the completion of response test. The results are presented in Appendix I.

5 Soil and Rock Description

The soils and rocks encountered in the investigation have generally been described according to the Geoguide 3, Guide to Rock and Soil Description, except for the following terms, which are used for the secondary constituents other than clay, silt and sand, in composition of common ground:

- “with occasional” for less than 5%;
- “with some” for between 5% and 20%; and
- “with much or many” for greater than 20%.

The classification and definitions of the descriptive terms are presented in Appendix A.

The delineation of various strata was primarily based on examination of disturbed samples and core samples recovered from the drillhole and inspection of trial pits walls and bases. The results are presented in Appendix C in form of Drillhole Record and Trial Pit Record, which have been finalized by incorporating comments provided by Ove Arup & Partners Hong Kong Limited.

The legends used in these records are summarized in Appendix B.

6 Surveying

The locations of investigation stations were surveyed using the theodolite and the results are related to the Hong Kong Grid System. The co-ordinates and levels of these investigation stations are presented on the relevant records and are summarized in Table 1.

7 Digital Data Record

The data of the ground investigation works are also provided in an electronic format. The format complies with the 3rd edition of the Association of Geotechnical and Geoenvironmental Specialists (AGS) Publication 'Electronic Transfer of Geotechnical and Geoenvironmental Data'.

The final field work report was also created in Acrobat format and stored together with AGS on a CD-ROM in Appendix K.

8 References

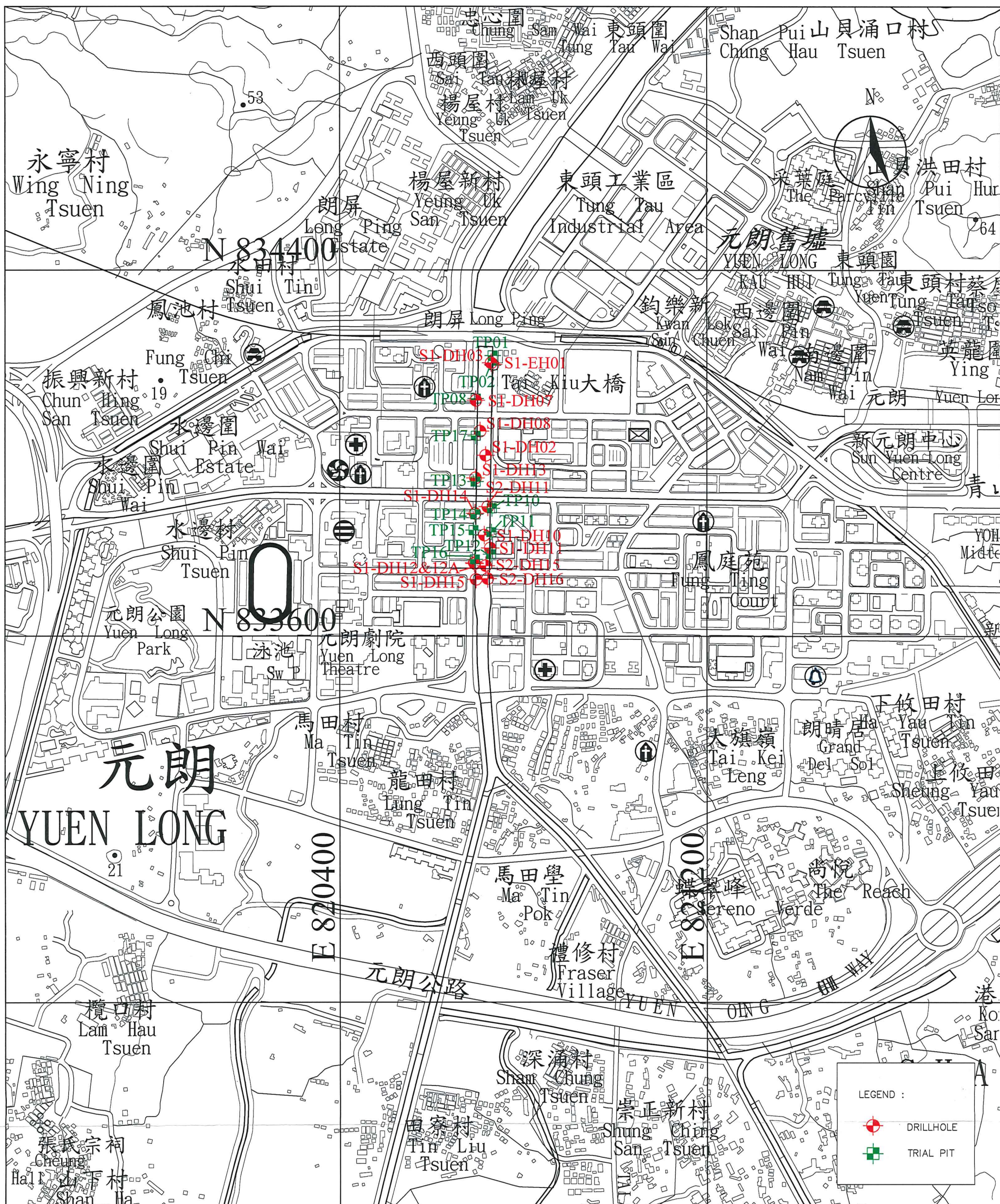
1. Geotechnical Control Office, Geological Map of Hong Kong HGM20, Sheet 6, (1:20,000)
2. Geotechnical Engineering Office (2000), The Pre-Quaternary Geology of Hong Kong
3. Geotechnical Engineering Office (2000), The Quaternary Geology of Hong Kong
4. Geotechnical Engineering Office, (2nd Reprint, 1994), Guide to Rock and Soil Descriptions (Geoguide 3)
5. Geotechnical Engineering Office, (4th Reprint, 2000), Guide to Site Investigation (Geoguide 2)
6. Association of Geotechnical & Geoenvironmental Specialists (1999), Electronic Transfer of Geotechnical and Geoenvironmental Data, 3rd edition
7. BS5930:1981, the "Code of Practice for Site Investigation"



Contract No. GE/2014/07
Ground Investigation – New Territories West (Term Contract)

Ground Investigation Plan

(Drawing No. D626/07.34/GI/D001)



Ground Investigation Plan

Contract No. GE/2014/07
 Ground Investigation - New Territories West (Term Contract)
 Works Order No. GE/2014/07.34
 Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

Drawing No. :

D626/07.34/GI/D001

Date : May 2016

Scale 1 : 8000





Contract No. GE/2014/07
Ground Investigation - New Territories West (Term Contract)

Tables

Contract No. GE/2014/07
Ground Investigation - New Territories West (Term Contract)

Works Order No. GE/2014/07.34

Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station -
Investigation, Design and Construction

Final Field Work Report

Table 1 - Survey Record

Station No.	Ground Level / Reference Level (mPD)	Easting	Northing	Remark
S1-DH02	+0.98	820718.39	833994.72	Drillhole
S1-DH03	+0.92	820730.40	834196.99	Drillhole
S1-DH07	+4.35	820697.12	834114.81	Drillhole
S1-DH08	+0.78	820706.33	834047.85	Drillhole
S1-DH10	+1.11	820715.53	833820.85	Drillhole
S1-DH11	+4.73	820728.54	833792.53	Drillhole
S1-DH12	+5.14	820694.66	833758.55	Drillhole
S1-DH12A	+5.38	820693.55	833760.48	Drillhole
S1-DH13	+4.55	820696.35	833945.40	Drillhole
S1-DH14	+4.41	820695.13	833868.26	Drillhole
S1-DH15	+1.49	820697.56	833724.20	Drillhole
S2-DH11	+1.29	820723.07	833882.60	Drillhole
S2-DH15	+1.39	820718.61	833754.06	Drillhole
S2-DH16	+1.52	820722.84	833725.85	Drillhole
S1-EH01	+4.13	820734.75	834193.36	Drillhole
TP01	+3.96	820733.74	834213.27	Trial Pit
TP02	+3.93	820734.16	834191.63	Trial Pit
TP08	+4.21	820696.68	834118.83	Trial Pit
TP10	+4.46	820731.86	833879.38	Trial Pit
TP11	+4.43	820730.55	833827.67	Trial Pit
TP12	+4.94	820729.86	833779.26	Trial Pit
TP13	+4.40	820696.41	833937.51	Trial Pit
TP14	+4.67	820695.78	833866.32	Trial Pit
TP15	+4.93	820691.90	833831.81	Trial Pit
TP16	+5.43	820694.78	833767.96	Trial Pit
TP17	+4.17	820696.84	834037.90	Trial Pit

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Final Field Work Report

Table 2 - Summary of Rock and Soil Strata in Drillhole

Drillhole No.	Ground Level / Reference Level (mPD)	Fill / Concrete		Marine Deposit		Alluvium		Residual Soil		Grade V to Grade IV Rock / Cavity-fill Deposits / Karst Deposits / Cavity			Rock Type	End of Hole (mPD)	Remark
		Bottom Level (mPD)	Thickness (m)	Bottom Level (mPD)	Thickness (m)	Bottom Level (mPD)	Thickness (m)	Bottom Level (mPD)	Thickness (m)	Level (mPD)	Thickness (m)	Grade III or better Rock Top Level (mPD)			
S1-DH02	+0.98	-0.02	1.00	-	-	-10.02	10.00	-	-	-10.02 to -50.78 [#]	40.76	-50.78	IMPURE MARBLE	-71.12	-
S1-DH03	+0.92	+0.42	0.50	-	-	-23.68	24.10	-	-	-23.68 to -59.68 [#]	36.00	-59.68	IMPURE MARBLE	-81.21	-
S1-DH07	+4.35	-0.65	5.00	-	-	-12.65	12.00	-	-	-12.65 to -35.35 [#]	22.70	-35.35	IMPURE MARBLE	-55.64	-
S1-DH08	+0.78	-0.22	1.00	-	-	-11.72	11.50	-20.82	9.10	-20.82 to -119.42 ^{##} ^{##}	98.60 [^]	-	IMPURE MARBLE	-119.42	-
S1-DH10	+1.11	-7.89	9.00	-	-	-11.89	4.00	-	-	-11.89 to -44.26	32.37	-44.26	MARBLE	-64.45	-
S1-DH11	+4.73	-1.37	6.10	-	-	-14.27	12.90	-	-	-14.27 to -55.57 [#]	41.30	-55.57	MARBLE	-76.26	-
S1-DH12	+5.14	+1.10 ^{##}	4.04 ^{##}	-	-	-	-	-	-	-	-	-	-	+1.10	-
S1-DH12A	+5.38	+1.28	4.10	-	-	-13.22	14.50	-	-	-13.22 to -15.33	2.11	-15.33	MARBLE	-35.92	-
S1-DH13	+4.55	-1.55	6.10	-	-	-11.55	10.00	-	-	-11.55 to -46.45	34.90	-46.45	MARBLE	-67.01	-
S1-DH14	+4.41	+1.41	3.00	-	-	-18.19	19.60	-	-	-18.19 to -125.55 ^{##}	107.36 [^]	-	MARBLE	-125.55	-
S1-DH15	+1.49	-	-	-	-	-19.51	21.00	-	-	-19.51 to -21.38	1.87	-21.38	MARBLE	-41.93	-
S2-DH11	+1.29	+0.29	1.00	-	-	-13.21	13.50	-	-	-13.21 to -112.83 [#]	99.62	-112.83	ANDESITE LAVA	-118.80	-
S2-DH15	+1.39	+0.89	0.50	-	-	-14.11	15.00	-	-	-14.11 to -27.64 [#]	13.53	-27.64	MARBLE	-48.28	-
S2-DH16	+1.52	+0.52	1.00	-	-	-11.98	12.50	-	-	-11.98 to -44.10 [#]	32.12	-44.10	MARBLE	-64.88	-
S1-EH01	+4.13	+1.13	3.00	+0.18	0.95	-0.77 ^{##}	0.95 [^]	-	-	-	-	-	-	-0.77	-

Remarks: 1. Where stratum descriptions straddle two decomposition grades, the most decomposed grade is reported in the above table. *

2. ^{##} Bottom level of the stratum cannot be determined.

3. [#] Corestone was found in the stratum of Grade V to Grade IV rock.

4. [^] This is only the minimum thickness as bottom level of the stratum cannot be determined.

5. ^{##} The thickness of Grade III or better rock is less than 5m.



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Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station -
Investigation, Design and Construction

Final Field Work Report

Table 3 - Summary of Field Testing and Field Installation

Station No.	Type of Test	Test Zone / Test Depth (m bgl)	Type of Installation	Installation Tip / End Depth (m bgl)	Response Zone (m bgl)	Halcrow Bucket Installation Detail		Remark
						Depth (m bgl)	Spacing (m)	
S1-DH02	Constant	6.50 to 8.00	-	-	-	-	-	-
	BHTV	61.00 to 71.00						
S1-DH03	Constant	11.60 to 13.10	-	-	-	-	-	-
S1-DH07	Constant	5.00 to 6.50	Standpipe	10.00	3.00 to 10.50	-	-	-
	BHTV	39.75 to 59.89	Piezometer	39.20	38.20 to 39.70	-	-	-
S1-DH08	Constant	4.50 to 6.00	-	-	-	-	-	-
S1-DH10	Constant	7.50 to 9.00	-	-	-	-	-	-
	BHTV	51.00 to 60.00						
S1-DH11	Constant	7.00 to 8.50	Standpipe	17.50	3.00 to 18.00	-	-	-
	BHTV	33.00 to 48.10 62.50 to 78.00	Piezometer	28.30	27.50 to 28.80	-	-	-
S1-DH12A	Constant	5.05 to 6.55	Standpipe	18.10	1.50 to 18.60	-	-	-
			Piezometer	20.20	19.40 to 20.70	-	-	-

Notes:	IP	-	Impression Packer Survey	Rising	-	Rising Head Permeability Test	Pressure	-	Pressuremeter Test
	Vane	-	Vane Shear Test	Constant	-	Constant Head Permeability Test	Packer	-	Water Absorption Test
	Sand	-	In-situ Density Test	Falling	-	Falling Head Permeability Test	GCOP	-	Dynamic Probing Test
	BHTV	-	Digital Acoustic Borehole Televiewer Survey						



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Final Field Work Report

Table 3 - Summary of Field Testing and Field Installation

Station No.	Type of Test	Test Zone/ Test Depth (m bgl)	Type of Installation	Installation Tip / End Depth (m bgl)	Response Zone (m bgl)	Halcrow Bucket Installation Detail		Remark
						Depth (m bgl)	Spacing (m)	
S1-DH13	Constant	5.60 to 7.10	Standpipe	6.60	1.50 to 7.10	-	-	-
			Piezometer	50.50	49.70 to 51.00	-	-	-
S1-DH14	Constant	6.60 to 8.10	Standpipe	11.50	1.50 to 12.00	-	-	-
			Piezometer	22.50	21.70 to 23.00	-	-	-
S1-DH15	Constant	6.00 to 7.50	-	-	-	-	-	-
	BHTV	24.66 to 41.50	-	-	-	-	-	-
S2-DH11	Constant	8.00 to 9.50	-	-	-	-	-	-
S2-DH15	Constant	4.00 to 5.50	-	-	-	-	-	-
	BHTV	38.17 to 48.17	-	-	-	-	-	-
S2-DH16	Constant	4.00 to 5.50	-	-	-	-	-	-
	BHTV	51.50 to 61.50	-	-	-	-	-	-

Notes:	IP	-	Impression Packer Survey	Rising	-	Rising Head Permeability Test	Pressure	-	Pressuremeter Test
	Vane	-	Vane Shear Test	Constant	-	Constant Head Permeability Test	Packer	-	Water Absorption Test
	Sand	-	In-situ Density Test	Falling	-	Falling Head Permeability Test	GCOP	-	Dynamic Probing Test
	BHTV	-	Digital Acoustic Borehole Televiewer Survey						



Contract No. GE/2014/07
Ground Investigation - New Territories West (Term Contract)
Works Order No. GE/2014/07.34
Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station -
Investigation, Design and Construction
Final Field Work Report

Table 3 - Summary of Field Testing and Field Installation

Station No.	Type of Test	Test Zone / Test Depth (m bgl)	Type of Installation	Installation Tip / End Depth (m bgl)	Response Zone (m bgl)	Halcrow Bucket Installation Detail			Remark
						Depth (m bgl)	Spacing (m)		
TP01	Sand	0.50	-	-	-	-	-		-
TP08	Sand	0.50	-	-	-	-	-		-
TP10	Sand	0.50	-	-	-	-	-		-
TP11	Sand	0.50	-	-	-	-	-		-
TP12	Sand	0.50	-	-	-	-	-		-
TP13	Sand	0.50	-	-	-	-	-		-
TP15	Sand	0.50	-	-	-	-	-		-
TP17	Sand	0.50	-	-	-	-	-		-

Notes:	IP	-	Impression Packer Survey	Rising	-	Rising Head Permeability Test	Pressure	-	Pressuremeter Test
	Vane	-	Vane Shear Test	Constant	-	Constant Head Permeability Test	Packer	-	Water Absorption Test
	Sand	-	In-situ Density Test	Falling	-	Falling Head Permeability Test	GCOP	-	Dynamic Probing Test
	BHTV	-	Digital Acoustic Borehole Televiewer Survey						



Contract No. GE/2014/07
Ground Investigation - New Territories West (Term Contract)

Appendix A

Checklists for Rock and Soil Descriptions

CHECKLIST FOR ROCK DESCRIPTION

GEOTECHNICAL ENGINEERING OFFICE, HKSAR

1. STRENGTH

Term	Identification
Extremely weak	Easily crumbled by hand; indented deeply by thumbnail.
Very weak	Crumbled with difficulty; scratched easily by thumbnail; peeled easily by pocket knife.
Weak	Broken into pieces by hand; scratched by thumbnail; peeled by pocket knife; deep indentations (to 5 mm) by point of geological pick; hand-held specimen easily broken by single light hammer blow.
Moderately weak	Broken with difficulty in two hands; scratched with difficulty by thumbnail; difficult to peel but easily scratched by pocket knife; shallow indentations easily made by point of pick; hand-held specimen usually broken by single light hammer blow.
Moderately strong	Scratched by pocket knife; shallow indentations made by firm blow with point of pick; hand-held specimen usually broken by single firm hammer blow. Point load strength (PLS) 0.5 - 2 MPa.
Strong	Firm blows with point of pick cause only superficial surface damage; hand-held specimen requires more than one firm hammer blow to break. PLS 2 - 4 MPa.
Very strong	Many hammer blows required to break specimen. PLS 4 - 8 MPa.
Extremely strong	Specimen only chipped by hammer blows. PLS > 8 MPa.

2. COLOUR

Parameter	Terms
Value	Light, Dark
Chroma	Pinkish, Reddish, Yellowish, Orangish, Brownish, Greenish, Bluish, Purplish, Greyish
Hue	Pink, Red, Yellow, Orange, Brown, Green, Blue, Purple, White, Grey, Black

For uniform colour distribution, choose a hue, supplemented by a value and/or chroma if necessary.

For non-uniform distribution, repeat this procedure using one of the following descriptors: spotted, mottled, dappled, streaked, striped (e.g. light pinkish grey spotted with black).

State whether sample was wet or dry when described.

3. TEXTURE/FABRIC

Texture Terms (Applicable Mainly to Igneous Rocks)

Equigranular, Inequigranular, Megacrystic, Porphyritic, Crystalline, Cryptocrystalline, Aphanitic

Fabric

Describe preferred orientation of grains/crystals where apparent.

Describe intensity, spacing, continuity and any preferred orientation of microfractures where apparent.

4. MATERIAL WEATHERING/ALTERATION

Decomposition Term	Grade Symbol	Typical Characteristics
Residual Soil	VI	Original rock texture completely destroyed; can be crumbled by hand and finger pressure into constituent grains.
Completely Decomposed	V	Original rock texture preserved; can be crumbled by hand and finger pressure into constituent grains; easily indented by point of geological pick; slakes in water; completely discoloured compared with fresh rock.
Highly Decomposed	IV	Can be broken by hand into smaller pieces; makes a dull sound when struck by hammer; not easily indented by point of pick; does not slake in water; completely discoloured compared with fresh rock.
Moderately Decomposed	III	Cannot usually be broken by hand; easily broken by hammer; makes a dull or slight ringing sound when struck by hammer; completely stained throughout.
Slightly Decomposed	II	Not broken easily by hammer; makes a ringing sound when struck by hammer; fresh rock colours generally retained but stained near joint surfaces.
Fresh Rock	I	Not broken easily by hammer; makes a ringing sound when struck by hammer; no visible signs of decomposition (i.e. no discolouration).

This classification is applicable to igneous and volcanic rocks and other rocks of equivalent strength in fresh state.

Disintegration

Describe small-scale cracking and fracturing caused by mechanical weathering, where apparent.

Alteration

Describe state of alteration (e.g. mineralised, kaolinised) where apparent.

5. ROCK NAME (Including Grain Size)

Igneous	: Coarse- (6-20 mm), Medium- (2-6 mm) & Fine- (0.06-2 mm) grained GRANITE; GRANODIORITE. Very Fine-grained (< 0.06 mm) RHYOLITE; BASALT. (Common types only, see Geoguide 3 for others).
Pyroclastic	: PYROCLASTIC BRECCIA (> 60 mm), Lapilli TUFF (2-60 mm), Coarse ash TUFF (0.06-2 mm), Fine ash TUFF (< 0.06 mm).
Metamorphic	: Foliated - SCHIST (> 0.06 mm), PHYLLITE (< 0.06 mm). Non-foliated - MARBLE, QUARTZITE, FAULT BRECCIA.
Sedimentary	: CONGLOMERATE, BRECCIA (> 2 mm), SANDSTONE (0.06-2 mm), MUDSTONE (< 0.06 mm) = SILTSTONE (0.002-0.06 mm) + CLAYSTONE (< 0.002 mm). (Common types only).

If rock name cannot be identified, describe grain size quantitatively, including textural term where appropriate.

6. STRUCTURE

Structural Term	Rock Type
Bedded, Laminated, Massive	Sedimentary
Massive, Flow-banded	Igneous, Pyroclastic
Foliated, Banded, Cleaved	Metamorphic
<u>Spacing of Planar Structures</u>	
Very thick (> 2 m), Thick (0.6-2 m), Medium (200-600 mm), Thin (60-200 mm), Very thin (20-60 mm), Thickly-laminated (Sedimentary) (6-20 mm) or Narrow (Igneous, Metamorphic) (6-20 mm), Thinly-laminated (Sedimentary) (< 6 mm) or Very narrow (Igneous, Metamorphic) (< 6 mm).	
Examples: Thickly-bedded SANDSTONE. Narrowly flow-banded RHYOLITE.	

7. DISCONTINUITIES

Nature (Type of Discontinuity)			
Fault zone	Cleavage	Fissure	Bedding
Fault	Schistosity	Tension crack	
Joint	Shear plane	Foliation	

Location and Orientation

Record location as co-ordinates or relative position along datum line, preferably on map or plan.

Record orientation as dip direction/dip in degrees (e.g. 032/55).

Spacing

Extremely widely-spaced (> 6 m), Very widely-spaced (2-6 m), Widely-spaced (0.6-2 m), Medium-spaced (200-600 mm), Closely-spaced (60-200 mm), Very closely-spaced (20-60 mm), Extremely closely-spaced (< 20 mm).

In exposures, supplement spacing with description of rock block shape where possible. Descriptors: Blocky, Tabular, Columnar, Polyhedral.

Persistence (Areal extent or size of a discontinuity within a plane)

Measured maximum persistence dimension should be used where possible (e.g. the discontinuity trace length on the surfaces of rock exposures). For general descriptions of different discontinuity sets, relative terms should be used.

Roughness

Waviness (large-scale): Estimate/measure wavelength and amplitude in metres.

Unevenness (small-scale), use one term from the following:

Rough stepped	Smooth stepped	Slickensided stepped
Rough undulating	Smooth undulating	Slickensided undulating
Rough planar	Smooth planar	Slickensided planar

Aperture Size

Wide (> 200 mm), Moderately wide (60-200 mm), Moderately narrow (20-60 mm), Narrow (6-20 mm), Very narrow (2-6 mm), Extremely narrow (> 0-2 mm), Tight (zero).

Infilling (Nature)

Clean	Surface staining	Decomposed/
Non-cohesive soil	Cohesive soil	disintegrated rock
Calcite	Manganese	Quartz
Other (Specify)		Kaolin

Give full description of infill materials/minerals where appropriate.

Seepage

Dry Damp/wet Seepage present (estimate quantity in 1/sec or 1/min)

Fracture State

In borehole cores, measure the following: Total Core Recovery (TCR), Solid Core Recovery (SCR), Rock Quality Designation (RQD), Fracture Index (FI). See Geoguide 3 for definitions.

8. MASS WEATHERING

Term	Zone Symbol	Typical Characteristics
Residual Soil	RS	Residual soil derived from insitu weathering; mass structure and material texture/fabric completely destroyed: 100% soil
Partially Weathered Rock	PW 0/30	Less than 30% rock Soil retains original mass structure and material texture/fabric (i.e. saprolite) Rock content does not affect shear behaviour of mass, but relict discontinuities in soil may do so.
	PW 30/50	Rock content may be significant for investigation and construction. 30% to 50% rock Both rock content and relict discontinuities may affect shear behaviour of mass.
	PW 50/90	50% to 90% rock Interlocked structure.
	PW 90/100	Greater than 90% rock Small amount of the material converted to soil along discontinuities.
	Unweathered Rock UW	100% rock May show slight discolouration along discontinuities.

9. ADDITIONAL GEOLOGICAL INFORMATION

Record geological formation name if known. Avoid conjecture. Refer to HKGS maps & memoirs for further information.

NOTES:

- Rock material description normally includes: strength, colour, texture/fabric, material weathering/alteration and ROCK NAME.
- Rock mass description normally includes: strength, colour, structure, mass weathering, ROCK NAME, discontinuities and additional geological information. Can be supplemented with more detailed information on texture/fabric and material weathering/alteration of different materials within the mass where necessary.

CHECKLIST FOR SOIL DESCRIPTION

GEOTECHNICAL ENGINEERING OFFICE, HKSAR

1. STRENGTH (Compactness & Consistency)

Soil Type	Term	Identification
Very Coarse (BOULDERS & BOULDERS)	Loose	By inspection of voids and particle packing in the field.
	Dense	
	Very loose	SPT 'N' value 0-4.
Coarse (SANDS & GRAVELS)	Loose	SPT 4-10; can be excavated with spade; 50 mm peg easily driven.
	Medium dense	SPT 10-30.
	Dense	SPT 30-50; requires pick for excavation; 50 mm peg hard to drive.
Fine (CLAYS & SILTS)	Very dense	SPT > 50.
	Very soft	Undrained shear strength (USS) < 20 kPa; exudes between fingers when squeezed in hand.
	Soft	USS 20-40 kPa; moulded by light finger pressure.
	Firm	USS 40-75 kPa; can be moulded by strong finger pressure.
	Stiff	USS 75-150 kPa; cannot be moulded by fingers; can be indented by thumb.
Organic (ORGANIC CLAYS, SILTS SANDS & PEATS)	Very stiff or hard	USS > 150 kPa; can be indented by thumbnail.
	Compact	Fibres already compressed together.
	Spongy	Very compressible and open structure.
	Plastic	Can be moulded in hand and smears fingers.

Terms applicable only to transported soils. For soils derived from insitu rock weathering, record actual values of quantitative tests (e.g. SPT 'N' value) as part of the description, where appropriate.

2. COLOUR

Parameter	Terms
Value	Light, Dark
Chroma	Pinkish, Reddish, Yellowish, Orangish, Brownish, Greenish, Bluish, Purplish, Greyish
Hue	Pink, Red, Yellow, Orange, Brown, Green, Blue, Purple, White, Grey, Black

For uniform colour distribution, choose a hue, supplemented by a value and/or chroma if necessary.

For non-uniform distribution, repeat this procedure using one of the following descriptors: spotted, mottled, dappled, streaked, striped (e.g. light yellowish brown mottled with red).

State whether sample was wet or dry when described.

3. PARTICLE SHAPE & COMPOSITION

Characteristic	Terms
Form	Equidimensional, Flat, Elongate, Flat & Elongate
Angularity	Angular, Subangular, Subrounded, Rounded
Surface Texture	Smooth, Rough, Glassy, Honeycombed, Pitted, Striated

Describe composition of coarse particles where appropriate. Gravel and larger particles are usually rock fragments (e.g. granite, tuff); sand particles are usually individual minerals (e.g. quartz, feldspar).

4. STRUCTURE

Soil Type	Term	Identification
Coarse & Fine	Homogenous	Deposit consists essentially of one type.
	Interstratified (Interbedded or Interlaminated)	Alternating layers of varying types or with bands or lenses of other materials.
Coarse	Heterogenous	A mixture of types.
Fine	Fissured	Breaks into polyhedral fragments along fissures.
	Intact	No fissures.
Organic	Fibrous	Plant remains recognizable & retain some strength.
	Amorphous	No recognizable plant remains.

Describe spacing of bedding planes, fissures, shell bands, etc using the spacing terms given in items 6 & 7 for rock description (see other side).

Above terms applicable only to transported soils. For soils derived from insitu rock weathering, describe relict structures in accordance with item 6 of rock description (see other side).

5. WEATHERING

Soils Derived from Insitu Weathering of Rocks

There are two main types: saprolites (rock texture/structure retained) and residual soils (rock texture/structure completely destroyed). Describe state of weathering in accordance with items 4 & 8 for rock description (see other side).

Sedimentary (Transported) Soils

Coarse soils: Describe overall discolouration of soil and degree of decomposition of gravel and larger particles (see item 4, other side). Also note any signs of disintegration of large particles where apparent.

Fine Soils: Describe overall discolouration of soil where apparent.

6. SOIL NAME

A. Basic Soil Types

Soil Type	Particle Sizes (mm)	Identification
BOULDERS	> 200	Only seen complete in pits or exposures. Often difficult to recover from boreholes.
COBBLES	60 - 200	Easily visible to naked eye; particle shape and grading can be described.
GRAVELS	Coarse 20 - 60	Well-graded: wide range of grain sizes.
	Medium 6 - 20	Poorly-graded: not well-graded (split further into uniform or gap-graded).
	Fine 2 - 6	Visible to naked eye; very little or no cohesion; grading can be described.
SANDS	Coarse 0.6 - 2	May be well-graded or poorly-graded (uniform or gap-graded) as for gravel.
	Medium 0.2 - 0.6	Only coarse silt barely visible to naked eye; exhibits little plasticity and marked dilatancy; slightly granular or silky to the touch. Disintegrates in water; lumps dry quickly; possesses cohesion but can be powdered easily between fingers.
	Fine 0.06 - 0.2	Dry lumps can be broken by hand but not powdered between the fingers. Disintegrates in water more slowly than silt; smooth to the touch; exhibits plasticity but no dilatancy; sticks to the fingers and dries slowly; shrinks appreciably on drying, usually showing cracks. These properties more noticeable with increasing plasticity.
SILTS	Coarse 0.02 - 0.06	Contains much organic vegetable matter; often has a noticeable smell and changes colour on oxidation.
	Medium 0.006 - 0.02	
	Fine 0.002 - 0.006	
CLAYS	< 0.002	Predominantly plant remains; usually dark brown or black in colour, often with distinctive smell; low bulk density.
ORGANIC CLAYS, SILTS OR SANDS	varies	
PEATS	varies	

B. Composite Soil Types (Mixtures of Basic Types)

Principal Soil Type	Terminology Sequence	Term for Secondary Constituent	% of Secondary Constituent
Very coarse (BOULDERS & COBBLES) (> 50% of soil > 60 mm)	Secondary constituents (finer material) ▲ after principal	With a little	< 5
		With some	5 - 20
		With much	20 - 50
		Slightly (silty, clayey or silty/clayey) *	< 5
Coarse (GRAVELS & SANDS) (> 65% gravel & sand sizes)	Secondary constituents before principal (excluding cobbles & boulders) +	(silty, clayey or silty/clayey) *	5 - 15
		Very (silty, clayey or silty/clayey) *	15 - 35
		AND/OR	
		Slightly (gravely or sandy) *	< 5
Fine (SILTS & CLAYS) (> 35% silt & clay sizes)	Secondary constituents before principal (excluding cobbles & boulders) +	(gravely or sandy) *	5 - 20
		Very (gravely or sandy) *	20 - 50
		Slightly (gravely or sandy or both) *	< 35
		(gravely or sandy) *	35 - 65

▲ Full name of finer material should be given (see examples below).

* Secondary soil type as appropriate; use 'silty/clayey' when a distinction cannot be made between the two.

+ If cobbles or boulders are also present in a coarse or fine soil, this can be indicated by using one of the following terms relating to the very coarse fraction after the principal: 'with occasional' (< 5), 'with some' (5-20), 'with many' (20-50), where figures in brackets are % very coarse material expressed as a fraction of the whole soil (see examples below).

Examples: Slightly silty/clayey, sandy GRAVEL. Slightly gravely, sandy SILT. Very gravely SAND. Sandy GRAVEL with occasional boulders. BOULDERS with much finer material (silty/clayey, very sandy gravel).

For fine soils, plasticity terms should also be described where possible, viz: 'non-plastic' (generally silts), 'intermediate plasticity' (lean clays), 'high plasticity' (fat clays).

7. DISCONTINUITIES

Full description of discontinuities, where necessary, should be made using the methods and terms given in item 7 for rock description (see other side).

8. ADDITIONAL GEOLOGICAL INFORMATION

Record geological name which indicates geological origin or soil type (e.g. Alluvium, Colluvium, Marine sand etc.). Refer to HKGS maps & memoirs for further information.

NOTES:

- Mass characteristics of soils (i.e. structure, weathering, discontinuities) can only be described satisfactorily in undisturbed field exposures or large undisturbed samples.
- For full descriptions of soils derived from insitu rock weathering:
 - saprolites - describe as rocks, supplemented by soil strength and soil name terms in brackets,
 - residual soils - describe as soils, supplemented by name of parent rock where apparent from field evidence.



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Appendix B

Legends for Use on Drillhole and Trial Pit Records

List of Material Names for the Legend Graphics on the Logging Records

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Name	Description
AGGLOM	PYROCLASTIC BRECCIA
ASPHALT	ASPHALT
BASALT	BASALT
BLANK	NO RECOVERY
BLDR	BOULDERS
BLDRCBBL	BOULDERS and COBBLES
BRECCIA	SEDIMENTARY BRECCIA
CBBL	COBBLE
CEMENT GROUT	Cement Grout
CLAY	CLAY
CLAYB	CLAY with shell fragments
CLAYG	Gravelly CLAY
CLAYO	CLAY with Peats
CLAYS	Sandy CLAY
CLAYSTON	CLAYSTONE / MUDSTONE
CLAYZ	Silty CLAY
CLAYZB	Silty CLAY with shells
CLAYZG	Silty CLAY with gravel
CLAYZGB	Silty CLAY with gravel and shell fragments
CLAYZO	Silty CLAY with peats
CLAYZS	Sandy silty CLAY
CLAYZSB	Sandy silty CLAY with shells
CLAYZSG	Sandy silty CLAY with gravel
CLAYZSGB	Sandy silty CLAY with gravel and shells
CLAYZSO	Sandy silty CLAY with peats
CONCRETE	CONCRETE
CONGLOM	CONGLOMERATE
CORAL	CORAL. NOT USED
DACITE	DACITE / LATITE / ANDESITE / TRACHYTE / TRACHYANDESITE
FILL	FILL (made ground)
GABBRO	GABBRO / LAMPROPHYRE
GLD	GRAVEL, COBBLES and BOULDERS
GLDS	GRAVEL, COBBLES and BOULDERS with sand
GLDZC	GRAVEL, COBBLES and BOULDERS with silt and clay
GLDZCS	GRAVEL, COBBLES and BOULDERS with sand, silt and clay
GNEISS	GNEISS
GRANITE	GRANITE
GRANODIO	GRANODIORITE / SYENITE / MONZONITE
GRAV	GRAVEL
GRAVB	GRAVEL with shell fragments
GRAVC	Clayey GRAVEL
GRAVCBBL	GRAVEL and COBBLES
GRAVCBBL SILTS	gravels & cobbles in sandy silt
GRAVCBBSANDCZ	gravel & cobble in silty sand
GRAVCBBSANDZ	gravel & cobble in silty sand
GRAVCZ	Silty clayey GRAVEL
GRAVCZB	Silty clayey GRAVEL with shell fragments
GRAVCZO	Silty clayey GRAVEL with peats
GRAVCZS	Sandy silty clayey GRAVEL
GRAVCZSB	Sandy silty clayey GRAVEL with shell fragments
GRAVO	GRAVEL with peats
GRAVS	Sandy GRAVEL
GRAVZ	Silty GRAVEL
GRAVZS	Sandy silty GRAVEL
LST	LIMESTONE

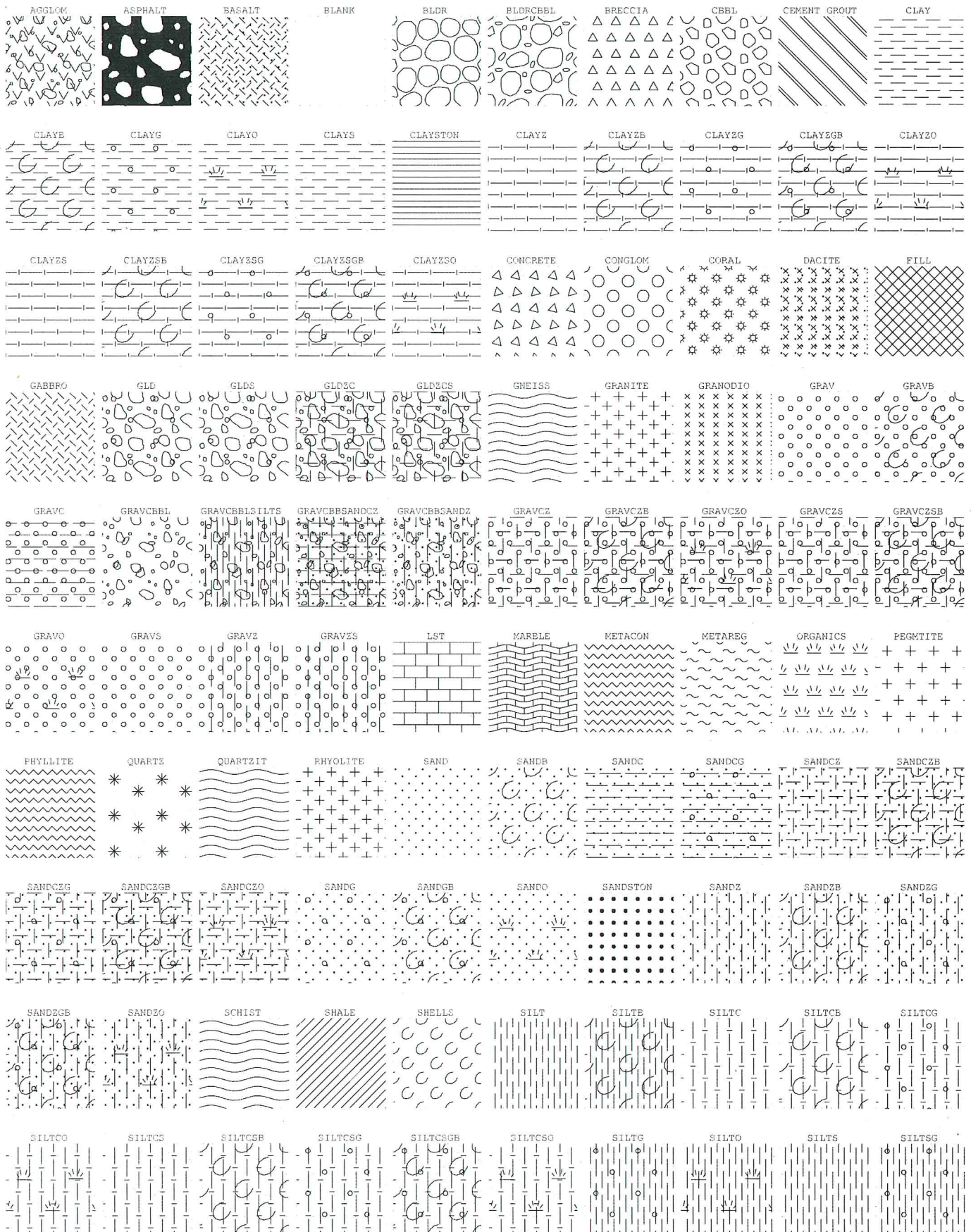
List of Material Names for the Legend Graphics on the Logging Records

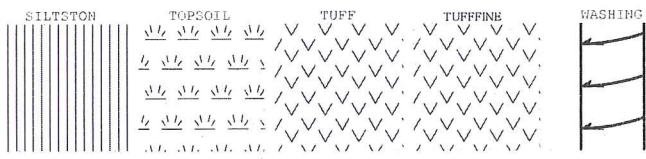
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Name	Description
MARBLE	MARBLE
METACON	Metamorphic Rocks - Contact
METAREG	Metamorphic Rocks - Regional
ORGANICS	PEAT
PEGMTITE	PEGMATITE, Coarse-grained GRANITE
PHYLLITE	PHYLLITE / MYLONITE
QUARTZ	Quartz
QUARTZIT	QUARTZITE
RHYOLITE	RHYOLITE
SAND	SAND
SANDB	SAND with shell fragments
SANDC	Clayey SAND
SANDCG	Clayey SAND with gravel
SANDCZ	Silty, clayey SAND
SANDCZB	Silty, clayey SAND with shells
SANDCZG	Silty, clayey SAND with gravel
SANDCZGB	Silty, clayey SAND with gravel and shells
SANDCZO	Silty, clayey SAND with peats
SANDG	Gravelly SAND
SANDGB	Gravelly SAND wth shell fragments
SANDO	SAND with Peat
SANDSTON	SANDSTONE
SANDZ	Silty SAND
SANDZB	Silty SAND with shell fragments
SANDZG	Silty SAND with gravels
SANDZGB	Silty SAND with gravels and shells
SANDZO	Silty SAND with peats
SCHIST	SCHIST
SHALE	SHALE
SHELLS	Shells
SILT	SILT
SILTB	SILT with shell fragments
SILTC	Clayey SILT
SILTCB	Clayey SILT wth shells
SILTCG	Clayey SILT wth gravel
SILTCO	Clayey SILT wth peat
SILTCS	Sandy Clayey SILT
SILTCSB	Sandy Clayey SILT with shells
SILTCSG	Sandy Clayey SILT with gravel
SILTCSGB	Sandy Clayey SILT with gravel and shells
SILTCSO	Sandy Clayey SILT with peat
SILTG	Gravelly SILT
SILTO	SILT with peat
SILTS	Sandy SILT
SILTSG	Gravelly sandy SILT
SILTSTON	SILTSTONE
TOPSOIL	Topsoil
TUFF	Coarse Ash TUFF, Lapilli Tuff
TUFFFINE	Fine Ash TUFF
WASHING	Wash Boring

Graphics Used for the Legends on the Logging Records

1/2







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Appendix C

Drillhole and Trial Pit Records

		DRILLHOLE RECORD CONTRACT NO. GE/2014/07		HOLE NO. S1-DH02										
				SHEET 1 of 8										
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction														
METHOD ROTARY		CO-ORDINATES E 820718.39 N 833994.72		WORKS ORDER NO. GE/2014/07.34										
MACHINE SD13				DATE 23.02.2016 to 03.03.2016										
FLUSHING MEDIUM AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +0.98 mPD										
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
23.02.2016	SW								1 0.00	+0.98	0.00			Light grey (10YR 7/1), angular to subangular slightly clayey silty sandy fine to coarse GRAVEL of rock fragments. (FILL)
1									2 0.45	+0.58	0.40			Light grey (10YR 7/1), slightly clayey silty fine to coarse SAND with some subangular fine gravel of rock fragments. (FILL)
									3 1.00	-0.02	1.00			Firm, light greenish grey (5GY 7/1) mottled red and yellowish brown, silty CLAY. (ALLUVIUM)
									4 1.40					
									5 1.50					
									6 1.60	-0.97	1.95			Medium dense, red (2.5YR 5/6), clayey silty fine to coarse SAND. (ALLUVIUM)
									7 2.45					
23.02.2016									8 3.00	-2.02	3.00			Stiff, light greenish grey (5GY 7/1) mottled red and yellowish brown, silty CLAY. (ALLUVIUM)
24.02.2016									9 4.00					
									10 4.10					
									11 4.20					
									12 5.00	-4.02	5.00			Dark greenish grey (5G 4/1), clayey silty fine SAND. (ALLUVIUM)
									13 6.00	-5.12	6.10			
									14 6.10					
									15 6.20					
									16 6.50					Medium dense, greenish grey (5GY 5/1), clayey silty fine to coarse SAND with occasional subangular fine gravel of rock fragments. (ALLUVIUM)
									17 7.00					
									18 7.55					
									19 7.60					
									20 7.90	-6.97	7.95			Grey (10YR 6/1), subangular, slightly clayey silty sandy fine to coarse GRAVEL of quartz and rock fragments. (ALLUVIUM)
									21 8.45					
									22 9.00	-8.02	9.00			Grey (N5/), clayey silty fine to coarse SAND with occasional subangular fine gravel of rock fragments. (ALLUVIUM)
									23 8.55	-8.52	9.50			
									24 9.60					Very dense, light bluish grey (5B 7/1), fine to coarse SAND with some subangular fine gravel of rock
									25 9.90					
<div style="display: flex; justify-content: space-between;"> <div> <p>↓ SMALL DISTURBED SAMPLE</p> <p>↑ LARGE DISTURBED SAMPLE</p> <p>▨ U76 SAMPLE</p> <p>▨ PISTON SAMPLE (76mm)</p> <p>▨ MAZIER SAMPLE</p> <p>▨ SPT LINER SAMPLE</p> <p>▲ WATER SAMPLE</p> <p>■ U100 SAMPLE</p> </div> <div> <p>↓ STANDARD PENETRATION TEST</p> <p>▽ IN-SITU VANE SHEAR TEST</p> <p>○ PACKER TEST</p> <p>○ PERMEABILITY TEST</p> <p>○ PRESSUREMETER TEST</p> <p>○ BOREHOLE TELEVIEWER</p> <p>○ PIEZOMETER TIP</p> <p>○ STANDPIPE TIP</p> </div> </div>									LOGGED <u>L. Zhang</u> DATE <u>10.03.2016</u> CHECKED <u>R. Chu</u> DATE <u>16.03.2016</u>		REMARKS 1. An inspection pit was excavated to 1.00m deep by hand tools. 2. Constant head permeability test was carried out at section from 6.50m to 8.00m. 3. Acoustic borehole televiewer survey was carried out from 61.00m to 71.00m.			



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH02**SHEET **2** of **8**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD	ROTARY	CO-ORDINATES	WORKS ORDER NO.
MACHINE	SD13	E 820718.39 N 833994.72	GE/2014/07.34
		DATE	23.02.2016 to 03.03.2016

FLUSHING MEDIUM	AIRFOAM	ORIENTATION	VERTICAL	GROUND LEVEL	+0.98 mPD
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Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11								B=86 4,8,8,9,10 N=35	25 H 10.45					fragments. (ALLUVIUM)
12				87					26 11.00	-10.02	11.00		V	Extremely weak, very dark grey (N3/), completely decomposed, metamorphosed, SILTSTONE. (Clayey sandy SILT with occasional angular fine to medium gravel of siltstone fragments)
13	SW 12.50m PW								27 11.45	-10.52	11.50		V	Extremely weak, red (10R 5/6) mottled grey, completely decomposed, metamorphosed, SILTSTONE. (Slightly sandy clayey SILT)
14									28 11.60					
15				55				7,16,19,11,12,19 N=61	29 11.90					
16									30 12.45					
17									31 13.00					
18				100				5,8,11,15,16 N=50	32 14.00					
19									33 14.10					
20									34 15.10					
21									35 15.30					
22									36 15.60					
23									37 16.10	-15.12	16.10		IV	Weak, dark greenish grey (5GY 4/1) mottled brown, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly clayey silty sandy fine to coarse GRAVEL of highly decomposed siltstone fragments)
24				100					38 17.10	-16.22	17.20		IV	Extremely weak to weak, grey (2.5Y 6/1) mottled red, highly decomposed, metamorphosed, SILTSTONE. (Clayey SILT)
25									39 17.30					
26									40 17.60					
27									41 18.10					
28				90				5,6,11,17,22,28 N=78	42 19.10	-18.22	19.20		IV	Extremely weak to weak, grey (N6/), highly decomposed, metamorphosed, SILTSTONE. (Clayey SILT with occasional angular fine to medium gravel of siltstone fragments)
29									43 19.30					
30									44 19.60	-19.02	20.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED L. Zhang
DATE 10.03.2016
CHECKED R. Chu
DATE 16.03.2016

REMARKS

<div style="display: inline-block; border: 2px solid black; padding: 5px; font-weight: bold; font-size: 1.5em;">DRILTECH</div> <div style="display: inline-block; margin-left: 20px;"> DRILLHOLE RECORD CONTRACT NO. GE/2014/07 </div>										HOLE NO. S1-DH02				
										SHEET 3 of 8				
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction														
METHOD ROTARY						CO-ORDINATES E 820718.39 N 833994.72		WORKS ORDER NO. GE/2014/07.34						
MACHINE SD13								DATE 23.02.2016 to 03.03.2016						
FLUSHING MEDIUM AIRFOAM						ORIENTATION VERTICAL		GROUND LEVEL +0.98 mPD						
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21				95				6.5 16,16,16,21 N=71	45 20.10	-19.12	20.10		IV	As sheet 2 of 8. Weak, dark greenish grey (5GY 4/1) mottled brown, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly sandy fine to coarse GRAVEL of highly decomposed siltstone fragments)
22									46 21.10 47 21.20 48 21.30	-20.22	21.20		IV	Extremely weak to weak, light reddish brown (5YR 6/4) mottled brownish yellow and light reddish brown, highly decomposed, metamorphosed, SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
23				100				2.6 18,18,19,22 N=77	49 22.10					
24									50 23.10 51 23.20 52 23.30	-22.22	23.20		IV	Extremely weak to weak, dark grey (N4/), highly decomposed, metamorphosed, SILTSTONE. (Clayey SILT)
25				100				8.8 19,20,22,23 N=64	53 24.10	-23.12	24.10		IV	Weak, dark grey (N4/) mottled brown, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly clayey silty sandy fine to coarse GRAVEL of highly decomposed siltstone fragments)
26									54 25.10 55 25.20 56 25.30	-24.22	25.20		IV	Extremely weak to weak, dark grey (N4/), highly decomposed, metamorphosed, SILTSTONE. (Clayey SILT)
27				100					57 26.10	-25.12	26.10		IV	Weak, dark grey (N4/) mottled brown, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly clayey silty sandy fine to coarse GRAVEL of highly decomposed siltstone fragments)
28								10.10 28,29,43/50mm 100bls/200mm	58 27.10 59 27.20 60 27.50	-26.22	27.20		IV	Extremely weak to very weak, dark grey (N4/), highly decomposed, metamorphosed, SILTSTONE. (Clayey sandy SILT with some angular fine to medium gravel of siltstone fragments)
28									61 28.10 28.20	-27.22	28.20		IV	Moderately weak, dark grey (N4/) mottled brown, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly sandy fine to coarse GRAVEL of highly decomposed siltstone fragments)
29				100	28	28	8.3 >20		T2-120 27.78	-27.78	28.76		III	Moderately strong, light light grey, moderately decomposed, metamorphosed, SILTSTONE.
29							NA		62 29.20	-28.22	29.20		IV	Extremely weak to weak, light grey (N7/) mottled red and brown, highly decomposed, metamorphosed, SILTSTONE. (Clayey SILT with some angular fine to medium gravel of siltstone fragments)
30				90						-29.02	30.00		IV	Very weak, grey (N6/), highly decomposed,
<div style="display: flex; justify-content: space-between;"> <div> <small>↑</small> SMALL DISTURBED SAMPLE <small>↓</small> LARGE DISTURBED SAMPLE U76 SAMPLE PISTON SAMPLE (76mm) MAZIER SAMPLE SPT LINER SAMPLE WATER SAMPLE U100 SAMPLE </div> <div> <small>↓</small> STANDARD PENETRATION TEST <small>↙</small> IN-SITU VANE SHEAR TEST PACKER TEST PERMEABILITY TEST PRESSUREMETER TEST BOREHOLE TELEVIEWER PIEZOMETER TIP STANDPIPE TIP </div> </div>									LOGGED <u>L. Zhang</u> DATE <u>10.03.2016</u> CHECKED <u>R. Chu</u> DATE <u>16.03.2016</u>		REMARKS			



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH02**SHEET **4** of **8**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD13****E 820718.39
N 833994.72**DATE **23.02.2016** to **03.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.98 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31								+50/15mm 100/25mm 100bls/25mm	63 30.20 64 30.30				IV	metamorphosed, SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
32				95				5.7 12,21,22,24 N=70	65 31.20 66 32.20 67 32.30 68 32.40	-30.22 -31.32	31.20 32.30		IV	Weak, grey (N5/) mottled brown, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly clayey silty sandy fine to coarse GRAVEL of highly decomposed siltstone fragments)
33									69 33.20 70 34.20 71 34.30 72 34.40	-32.22 -33.32	33.20 34.30		IV	Extremely weak to weak, grey (N6/), highly decomposed, metamorphosed, SILTSTONE. (Clayey SILT)
34				100				7.7 14,22,23,26 N=85	73 35.20 74 36.20 75 36.30 76 36.48	-32.22 -33.32	33.20 34.30		IV	Weak, grey (N5/) mottled brown, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly clayey silty sandy fine to coarse GRAVEL and COBBLE of highly decomposed siltstone fragments)
35								15.35 75,25/5mm 100bls/60mm	77 37.20 78 38.20 79 38.30 80 38.40	-36.22 -37.32	37.20 38.30		IV	Extremely weak to weak, dark greenish grey (5GY 4/1) mottled red and reddish yellow, highly decomposed, metamorphosed, SILTSTONE. (Slightly sandy clayey SILT)
36				100					81 39.20	-38.22	39.20		IV	Extremely weak to weak, dark greenish grey (5GY 4/1) mottled red and reddish yellow, highly decomposed, metamorphosed, SILTSTONE. (Clayey sandy SILT with occasional angular fine gravel of siltstone fragments)
37								4.6 12,16,17,20 N=65					IV	Extremely weak to weak, dark greenish grey (5GY 4/1) mottled red and reddish yellow, highly decomposed, metamorphosed, SILTSTONE. (Slightly sandy clayey SILT)
38													IV	Extremely weak to weak, dark greenish grey (5GY 4/1) mottled red and reddish yellow, highly decomposed, metamorphosed, SILTSTONE. (Slightly sandy clayey SILT with some angular fine
39													IV	
40				50									IV	

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **L. Zhang**
DATE **10.03.2016**
CHECKED **R. Chu**
DATE **16.03.2016**

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH02**SHEET **5** of **8**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820718.39**N **833994.72**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD13**DATE **23.02.2016** to **03.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.98 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
27.02.2016 28.02.2016													IV	to coarse gravel of siltstone fragments)
41				95				6,9 13,18,30,38 N=98	82 40.20 83 40.30	-39.32	40.30			Dark greenish grey (5GY 4/1) mottled red and reddish yellow, slightly sandy clayey SILT with some angular to subangular fine to coarse gravel of rock fragments. (KARST DEPOSITS)
42									84 41.30 85 41.40 86 41.50	-40.42	41.40			Very stiff, dark greenish grey (5GY 4/1) mottled red and reddish yellow, slightly sandy clayey SILT. (KARST DEPOSITS)
43				100					87 42.30	-41.32	42.30			Very stiff, olive brown (2.5Y 4/3), slightly sandy clayey SILT with some angular to subangular fine to coarse gravel and occasional cobble of siltstone fragments. (KARST DEPOSITS)
44								7,8 11,17,20,35 N=93	88 43.30 89 43.40 90 43.50					
45				100					91 44.30					
46								8,8 12,19,22,37 N=90	92 45.30 93 45.40 94 45.50					
47				60					95 46.30					
48				93					96 47.30 97 47.40					
49	PW 48.50m HW							20,30 40,60/25mm √100bls/100mm	98 48.40 99 48.50 100 48.70					
50				93					101 49.40	-49.02	50.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

L. Zhang

DATE

10.03.2016

CHECKED

R. Chu

DATE

16.03.2016

REMARKS

<div style="border: 2px solid black; padding: 5px; display: inline-block; font-weight: bold; font-size: 1.2em;">DRILTECH</div>		DRILLHOLE RECORD		HOLE NO. S1-DH02											
		CONTRACT NO. GE/2014/07		SHEET 6 of 8											
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction															
METHOD ROTARY		CO-ORDINATES E 820718.39 N 833994.72		WORKS ORDER NO. GE/2014/07.34											
MACHINE SD13				DATE 23.02.2016 to 03.03.2016											
FLUSHING MEDIUM AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +0.98 mPD											
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description	
28.02.2016 01.03.2016								<div style="display: flex; justify-content: space-between;"> <div> 25, 25 75, 25/15mm 100bbs/90mm </div> <div> 102 50.40 103 50.50 104 50.69 </div> </div>					As sheet 5 of 8.		
51															
	HW 51.76m								105 51.53	51.76	51.76				
52							6.3		T2-101	52.08			II	Strong, light grey streaked white, slightly decomposed IMPURE MARBLE. Joints are medium to widely spaced, occasionally closely spaced, rough planar and rough undulating, calcite and chlorite coated, occasionally iron oxide stained, dipping at 5° to 15°, 35° to 45°, 65° to 75° and subvertically from 53.41m to 53.59m, 53.85m to 54.17m, 61.32m to 61.63m, 62.24m to 62.47m, 68.35m to 68.62m, 71.48m to 71.80m and 71.92m to 72.10m.	
53				100	100	100				53.10				From 52.66m to 52.77m: With some dissolution features.	
54				100	96	95		2.5	T2-101	54.64				From 66.54m to 67.28m, 60.07m to 61.23m, 61.38m to 61.73m and 61.82m to 62.22m: Strong and slightly decomposed, metamorphosed, SANDSTONE / SILTSTONE.	
55				100	100	100			T2-101						
56				100	100	100				56.13					
57				100	100	97			T2-101						
01.03.2016 02.03.2016				100	100	100	1.0			57.67					
58				100	100	100			T2-101						
59							4.1			59.19					
60									T2-101	59.35					
										59.84					
										59.02	60.00				
<div style="display: flex; justify-content: space-between;"> <div> ⬆ SMALL DISTURBED SAMPLE ⬇ LARGE DISTURBED SAMPLE ▨ U76 SAMPLE ▩ PISTON SAMPLE (76mm) ▤ MAZIER SAMPLE □ SPT LINER SAMPLE ▲ WATER SAMPLE ■ U100 SAMPLE </div> <div> ⬇ STANDARD PENETRATION TEST ✓ IN-SITU VANE SHEAR TEST ▬ PACKER TEST ○ PERMEABILITY TEST ▬ PRESSUREMETER TEST ○ BOREHOLE TELEVIEWER ▬ PIEZOMETER TIP ▬ STANDPIPE TIP </div> </div>														LOGGED <u>L. Zhang</u> DATE <u>10.03.2016</u> CHECKED <u>R. Chu</u> DATE <u>16.03.2016</u>	REMARKS

<div style="display: inline-block; border: 2px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">DRILTECH</div> <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> DRILLHOLE RECORD CONTRACT NO. GE/2014/07 </div>										HOLE NO. S1-DH02				
										SHEET 7 of 8				
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction														
METHOD ROTARY					CO-ORDINATES			WORKS ORDER NO. GE/2014/07.34						
MACHINE SD13					E 820718.39 N 833994.72			DATE 23.02.2016 to 03.03.2016						
FLUSHING MEDIUM AIRFOAM					ORIENTATION VERTICAL			GROUND LEVEL +0.98 mPD						
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
61				100	95	95		1.3	T2-101	60.71	61.35		II	As sheet 6 of 8.
62				100	100	97		4.3	T2-101	62.22	62.27			
63				100	69	83		10.0	T2-101	63.69	62.47			
64				97	97	97		0.5	T2-101	64.53	64.88			
65				100	100	100		2.9	T2-101	65.15	66.59			
66								0.6	T2-101	66.71	66.71			
67								>20	T2-101	67.30	67.30			
68				100	100	97		6.8	T2-101	68.21	69.25			
69				100	100	100		1.0	T2-101	69.52	69.52			
70									T2-101	70.00	70.00			

LEGEND

↓ SMALL DISTURBED SAMPLE

↑ LARGE DISTURBED SAMPLE

▨ U76 SAMPLE

▩ PISTON SAMPLE (76mm)

▨ MAZIER SAMPLE

□ SPT LINER SAMPLE

▲ WATER SAMPLE

■ U100 SAMPLE

↓ STANDARD PENETRATION TEST

▽ IN-SITU VANE SHEAR TEST

○ PACKER TEST

○ PERMEABILITY TEST

○ PRESSUREMETER TEST

○ BOREHOLE TELEVIEWER

▲ PIEZOMETER TIP

□ STANDPIPE TIP

LOGGED L. Zhang

DATE 10.03.2016

CHECKED R. Chu

DATE 16.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH02**SHEET **8** of **8**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820718.39**N **833994.72**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD13**DATE **23.02.2016** to **03.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.98 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
71				100	100	100	0.4		T2-101 70.64				II	As sheet 6 of 8.
72				100	92	88	7.8		T2-101 71.59					
72.03.2016										-71.12	72.10			End of hole at 72.10 m.
73														
74														
75														
76														
77														
78														
79														
80														

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

L. Zhang

DATE

10.03.2016

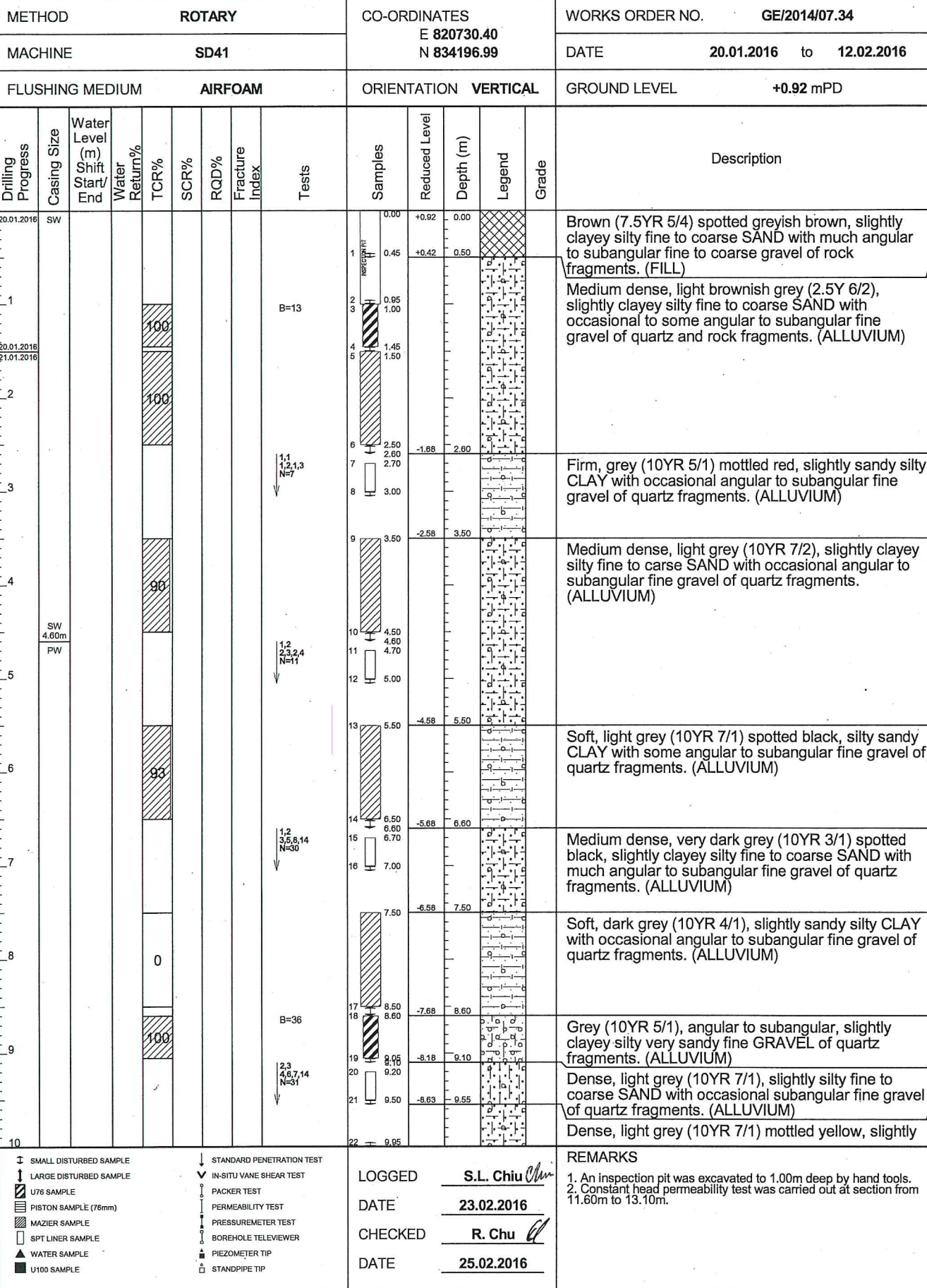
CHECKED


R. Chu









DATE









16.03.2016

REMARKS



										DRILLHOLE RECORD CONTRACT NO. GE/2014/07					HOLE NO. S1-DH03 SHEET 2 of 9	
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction																
METHOD ROTARY MACHINE SD41 FLUSHING MEDIUM AIRFOAM										CO-ORDINATES E 820730.40 N 834196.99 ORIENTATION VERTICAL					WORKS ORDER NO. GE/2014/07.34 DATE 20.01.2016 to 12.02.2016 GROUND LEVEL +0.92 mPD	
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description		
11				100				B=76 1,4,27,10,14 N=33	23 10.60 24 11.05 25 11.20 26 11.50	-10.18	11.10			silty clayey fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)		
12									27 11.95					Dense, light grey (10YR 7/1), slightly silty clayey fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)		
13 21.01.2016 23.01.2016				100				B=55 1,2,2,3,2,0,11 N=25	28 12.60 29 13.05 30 13.20 31 13.50	-12.18	13.10			Medium dense, light grey (10YR 7/1) spotted very pale brown, slightly silty clayey fine to coarse SAND with some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)		
14									32 13.95					Light grey (10YR 7/1), angular to subangular, slightly clayey silty sandy fine to coarse GRAVEL of quartz fragments. (ALLUVIUM)		
15				100				B=46 7,7,6,4,4,8 N=22	33 14.60 34 15.05 35 15.20 36 15.50	-13.68	14.60			Medium dense, light grey (7.5YR 7/1), slightly silty clayey fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)		
16									37 15.95							
17				100				B=142 5,5,6,9,10,15 N=42	38 16.60 39 17.05 40 17.20 41 17.50	-15.68	16.60			Firm, grey (5Y 5/1) streaked light grey, silty sandy CLAY with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)		
18									42 17.95					Dense, yellowish brown (10YR 5/6) slightly clayey fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)		
19				93				B=171 8,12,10,14,18,19 N=61	43 18.60 44 19.05 45 19.20 46 19.50	-18.18	19.10			Medium dense, very pale brown (10YR 7/3), fine to coarse SAND with much angular to subangular fine gravel of quartz and rock fragments. (ALLUVIUM)		
20									47 19.95	-19.08	20.00			Very dense, brownish yellow (10YR 6/6) spotted grey and dark red, slightly silty clayey fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)		

 SMALL DISTURBED SAMPLE
 LARGE DISTURBED SAMPLE
 U76 SAMPLE
 PISTON SAMPLE (76mm)
 MAZIER SAMPLE
 SPT LINER SAMPLE
 WATER SAMPLE
 U100 SAMPLE

 STANDARD PENETRATION TEST
 IN-SITU VANE SHEAR TEST
 PACKER TEST
 PERMEABILITY TEST
 PRESSUREMETER TEST
 BOREHOLE TELEVIEWER
 PIEZOMETER TIP
 STANDPIPE TIP

LOGGED S.L. Chiu
 DATE 23.02.2016
 CHECKED R. Chu
 DATE 25.02.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH03**SHEET **3** of **9**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD41		E 820730.40 N 834196.99		GE/2014/07.34								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION		VERTICAL								
GROUND LEVEL						+0.92 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21				100				B=81 2.6 9,10,15,21 N=55	48 20.60 49 21.05 50 21.20 51 21.50	-20.18 21.10 -20.63 21.55			As sheet 2 of 9.	
22									52 21.95					Very stiff, yellowish brown (10YR 5/4), slightly sandy silty CLAY. (ALLUVIUM)
23				100				B=105 4.4 6,8,8,12 N=30	53 22.60 54 23.05 55 23.20 56 23.50	-22.18 23.10			Medium dense, light yellowish brown (10YR 6/4), slightly silty clayey fine to coarse SAND with much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)	
24									57 23.95					Very stiff, yellowish brown (10YR 5/4) spotted light grey, slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
25				100					58 24.60 59 25.60 60 25.70 61 25.80	-23.68 24.60 -24.78 25.70			Very stiff, yellowish red (5YR 5/6) streaked very pale brown, black and dark greyish brown, silty CLAY. (KARST DEPOSITS)	
26								4.7 9,5,9,10 N=33	62 26.60 63 27.60 64 27.70 65 27.80 66 28.10				Very stiff, greyish brown (10YR 5/2) streaked dark brown and grey, spotted light brown, silty CLAY. (KARST DEPOSITS)	
27				100					67 28.60 68 29.60 69 29.70 70 29.80	-27.68 28.60			Very stiff, yellowish red (5YR 5/6) streaked light grey and pink, slightly sandy silty CLAY with occasional angular to subangular fine to medium gravel of rock fragments. (KARST DEPOSITS)	
28								6.7 10,11,10,15 N=48						
29				100					7.13 13,17,28,34 N=92	-28.08 30.00				
30														

± SMALL DISTURBED SAMPLE

↓ LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

▲ WATER SAMPLE

■ U100 SAMPLE

↓ STANDARD PENETRATION TEST

▽ IN-SITU VANE SHEAR TEST

○ PACKER TEST

○ PERMEABILITY TEST

○ PRESSUREMETER TEST

○ BOREHOLE TELEVIEWER

○ PIEZOMETER TIP

○ STANDPIPE TIP

LOGGED S.L. Chiu
DATE 23.02.2016
CHECKED R. Chu
DATE 25.02.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH03**SHEET **4** of **9**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD41		E 820730.40 N 834196.99		DATE 20.01.2016 to 12.02.2016								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +0.92 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31				100				7,12 17,16,20,32 N=65	69	30.10				As sheet 3 of 9.
32									70	30.60	-29.68	30.60		Very stiff, brown (10YR 4/3) spotted yellowish brown and grey, slightly sandy silty CLAY with occasional angular to subangular fine gravel of rock fragments. (KARST DEPOSITS)
33				100					71	31.60	-30.78	31.70		Very stiff, yellowish red (5YR 5/6), slightly sandy silty CLAY with occasional angular to subangular fine gravel of rock fragments. (KARST DEPOSITS)
34				100	0	0	>20		72	31.70				Strong, grey, slightly decomposed MARBLE. From 36.71m to 37.14m and 37.94m to 38.28m: No recovery, assumed to be CAVITY-FILL DEPOSITS.
35				100	80	80	5.0 >20		T2-120	33.90		33.90		
36				100	100	100	2.2		T2-120	35.00		35.00		
37				62	54	54	>20		T2-120	36.00		36.00		
38				70	53	41	10.0		T2-120	37.14	-36.22	37.14		Pale brown (10YR 6/3), angular to subangular, coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS)
39				0					T2-120	38.00	-37.02	37.94		
40				50	20	20	6.3 >20 NA NR		76	38.90	-37.36	38.28		From 39.00m to 39.27m: Moderately strong and moderately decomposed MARBLE.
									T2-120	38.28	-38.08	39.00		From 39.40m to 39.80m: No recovery, assumed to be CAVITY-FILL DEPOSITS.
									T2-120	39.00	-38.35	39.27		
									T2-120	39.40				
									T2-120	39.80	-39.08	40.00		

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED

DATE

CHECKED

DATE

S.L. Chiu

23.02.2016

R. Chu

25.02.2016

REMARKS

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED S.L. Chiu
DATE 23.02.2016
CHECKED R. Chu
DATE 25.02.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH03**SHEET **5** of **9**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD41****E 820730.40
N 834196.99**DATE **20.01.2016** to **12.02.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.92 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
				0										As sheet 4 of 9.
26.01.2016 02.02.2016				83	14	0	>20		77	40.20	40.30			Moderately strong, grey mottled yellowish brown, moderately decomposed MARBLE.
							NR		T2-120	-39.38	-40.59			
41				71	51	51				-39.82	-40.74			
							1.2		T2-120	-40.10	-41.02			From 40.74m to 41.02m and 41.87m to 42.13m: No recovery, assumed to be CAVITY-FILL DEPOSITS.
				56	54	54				-41.54				
42	PW 42.13m HW						NR		T2-120	-40.95	-41.87			
				100					78	42.13	42.13			Very stiff, brown (7.5YR 5/4) streaked light grey and very dark brown, silty CLAY with occasional angular to subangular fine gravel of quartz and rock fragments. (CAVITY-FILL DEPOSITS)
43									79	43.13				
									80	43.23				
44									81	43.33				
										43.63				
45				100					82	44.13				
									83	45.13				
46									84	45.23				
									85	45.38				
47				84	67	45	9.5			46.13				Moderately strong, grey mottled light brown, moderately decomposed MARBLE.
							NR		T2-101	-46.26	-47.18			From 47.18m to 47.38m: No recovery, assumed to be CAVITY-FILL DEPOSITS.
48				100					86	47.38	47.38			Very stiff, dark reddish brown (5YR 3/4) streaked light brown, spotted grey, silty CLAY. (CAVITY-FILL DEPOSITS)
02.02.2016 03.02.2016									87	48.38	48.48			
49									88	48.88				
									89	49.38				
50				100						-49.08	50.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **23.02.2016**
CHECKED **R. Chu**
DATE **25.02.2016**

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH03**SHEET **6** of **9**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**CO-ORDINATES
E 820730.40
N 834196.99WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD41**DATE **20.01.2016** to **12.02.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.92 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
51								8.30 40.00/50mm 100bbls/125mm	90 50.38 91 50.48 92 50.71	-49.56	50.48			As sheet 5 of 9.
52				100					93 51.38 94 51.95 52.05 T2-101 52.35	-50.46	51.38			Very stiff, white (7.5YR 8/1), clayey sandy SILT with some angular to subangular fine to medium gravel of quartz and rock fragments. (CAVITY-FILL DEPOSITS)
53				100	0	0	>20			-51.13	52.05			Dark reddish brown (5YR 3/4), angular to subangular, slightly clayey silty sandy fine to coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS)
54				0						-51.43	52.35			Pale brown (10YR 6/3), angular to subangular, fine to coarse GRAVEL and occasional cobble of rock fragments. (CAVITY-FILL DEPOSITS)
55				95				150/20mm 100/60mm 100bbls/60mm	95 53.35 96 53.45	-52.53	53.45			Light grey (10YR 7/1) spotted dark brown, angular to subangular, coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS)
56				0						-54.53	55.45			Reddish brown (5YR 4/3) spotted white and light grey, angular to subangular, slightly sandy clayey silty fine to coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS)
57				100						-56.45	56.45			Very stiff, dark reddish brown (5YR 3/3) streaked light grey, slightly sandy silty CLAY with much angular to subangular fine to coarse gravel of rock fragments. (CAVITY-FILL DEPOSITS)
58								37.13/20mm 87.33/30mm 100bbls/105mm	99 56.45 100 56.55 101 57.55 102 57.65 103 57.80	-57.03	58.55			Black (10YR 2/1) spotted yellowish brown, angular to subangular, slightly clayey silty sandy fine to coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS)
59				0						-59.08	60.00			
60														

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **23.02.2016**
CHECKED **R. Chu**
DATE **25.02.2016**

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH03**

SHEET 7 of 9

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD **ROTARY**

CO-ORDINATES

E 820730.40

N 834196.99

WORKS ORDER NO.

GE/2014/07.34

MACHINE **SD41**

DATE

20.01.2016 to 12.02.2016

FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**

GROUND LEVEL

+0.92 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
	HW 60.60m			0										As sheet 6 of 9.
61				100	93	93			T2-101	60.50 60.60	60.60			Strong, dark grey streaked light grey, slightly decomposed IMPURE MARBLE. Joints are closely to medium spaced, occasionally widely spaced, rough planar and rough undulating, calcite coated, occasionally manganese oxide stained, dripping at 0° to 10°, 20° to 30°, 50° to 60° and 65° to 75°.
62										62.07				
63				100	100	100	0.5		T2-101					
64				100	100	100			T2-101	63.38				
64.02.2016 05.02.2016				100	100	100			T2-101	64.34				
65							8.3				64.56 64.68			
65				100	100	100	0.9		T2-101					
66										65.80				
66				100	99	85	9.5		T2-101		66.64			
67										67.17				
68				100	100	100			T2-101					
							0.6			68.52				
69				100	100	100			T2-101					
70									T2-101	69.88	70.00			

⬆ SMALL DISTURBED SAMPLE
⬆ LARGE DISTURBED SAMPLE
U76 SAMPLE
PISTON SAMPLE (76mm)
MAZIER SAMPLE
SPT LINER SAMPLE
▲ WATER SAMPLE
■ U100 SAMPLE

⬇ STANDARD PENETRATION TEST
⬇ IN-SITU VANE SHEAR TEST
PACKER TEST
PERMEABILITY TEST
PRESSUREMETER TEST
BOREHOLE TELEVIEWER
PIEZOMETER TIP
STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

23.02.2016

CHECKED

R. Chu

DATE

25.02.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH03**SHEET **8** of **9**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**CO-ORDINATES
E **820730.40**
N **834196.99**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD41**DATE **20.01.2016** to **12.02.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.92 mPD**

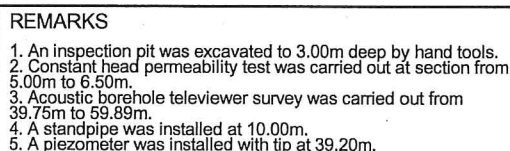
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
71				100	100	100	2.3		T2-101	-89.76	70.68		II	As sheet 7 of 9.
72				100	100	100			T2-101		72.26			Strong, grey streaked light grey and white, mottled dappled dark grey, slightly decomposed IMPURE MARBLE. Joints are medium to widely spaced, occasionally closely spaced, rough planar and rough undulating, calcite coated, dipping at 0° to 10°, 10° to 20°, 30° to 40° and 60° to 70°.
73							0.9		T2-101		72.73			
74				100	98	98	8.3		T2-101		73.40 73.52			
75				100	100	100			T2-101		74.22			
76				100	100	100			T2-101		75.01			
77				100	100	100			T2-101		76.40			
78				100	96	92	8.3 5.9		T2-101		76.75 76.82			
79				100	100	100			T2-101		77.16			
80				100	100	100	1.0		T2-101		78.16 78.95			
				100	100	100			T2-101		79.08			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **23.02.2016**
CHECKED **R. Chu**
DATE **25.02.2016**

REMARKS



		DRILLHOLE RECORD CONTRACT NO. GE/2014/07		HOLE NO. S1-DH03										
				SHEET 9 of 9										
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction														
METHOD ROTARY			CO-ORDINATES E 820730.40 N 834196.99		WORKS ORDER NO. GE/2014/07.34									
MACHINE SD41					DATE 20.01.2016 to 12.02.2016									
FLUSHING MEDIUM AIRFOAM			ORIENTATION VERTICAL		GROUND LEVEL +0.92 mPD									
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
81				100	100	100			T2-101		80.09	80.09		As sheet 8 of 9.
				100	100	100			T2-101		81.17	81.17		
82				100	100	100			T2-101		81.21	82.13		End of hole at 82.13 m.
83														
84														
85														
86														
87														
88														
89														
90														

SMALL DISTURBED SAMPLE
 LARGE DISTURBED SAMPLE
 U76 SAMPLE
 PISTON SAMPLE (76mm)
 MAZIER SAMPLE
 SPT LINER SAMPLE
 WATER SAMPLE
 U100 SAMPLE

STANDARD PENETRATION TEST
 IN-SITU VANE SHEAR TEST
 PACKER TEST
 PERMEABILITY TEST
 PRESSUREMETER TEST
 BOREHOLE TELEVIEWER
 PIEZOMETER TIP
 STANDPIPE TIP

LOGGED S.L. Chiu

DATE 23.02.2016

CHECKED R. Chu

DATE 25.02.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH07**SHEET **2** of **6**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD15		E 820697.12 N 834114.81		DATE 27.11.2015 to 03.12.2015								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +4.35 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11	10 10mm PW							2.3 3.5, 6.7 N=21	21 10.00 22 10.20 23 10.50	-5.75	10.10			Medium dense to dense, light grey (7.5YR 7/1), slightly silty clayey fine to coarse SAND with much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
12		3.58 at 0800		100				4.7 7.8, 10.15 N=40	24 11.00 25 11.55 26 11.60 27 11.90					
13				100				B=54 3.4 5.5, 5.6 N=21	28 12.45 29 13.00 30 13.55 31 13.60 32 13.90	-8.65	13.00			Medium dense, light greenish grey (5BG 7/1), slightly clayey silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
14								4.5 5.7, 10.11 N=33	33 14.45 34 15.00 35 16.00 36 16.10 37 16.20 38 17.00 39 17.10 40 17.20	-11.75	16.10			Dense, light greenish grey (5BG 7/1) spotted white, angular to subangular, slightly clayey silty sandy fine to coarse GRAVEL of quartz fragments. (ALLUVIUM)
15				95										
16														
17				0										
18				100	0	0		>20	T2-120 18.20	-12.85	17.20		IV	Moderately weak to moderately strong, light greenish grey (5BG 7/1) mottled white, highly decomposed, moderately metamorphosed, SILTSTONE with few quartz veins (<30mm thick). (Angular, slightly sandy fine to coarse GRAVEL of quartz and highly decomposed siltstone fragments)
19				75	0	0		NR	T2-120 19.00	-14.45	18.80		V	Moderately strong to strong, light grey mottled grey, moderately decomposed, moderately metamorphosed, SILTSTONE.
20				70						-14.65	19.00		IV	From 17.20m to 17.40m: With some quartz veins (<30mm thick). From 18.80m to 19.00m: No recovery, assumed to be completely decomposed SILTSTONE. Extremely weak to weak, dark grey (7.5YR 4/1) spotted yellowish brown and very dark grey, highly

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED S.L. Chiu
DATE 07.12.2015
CHECKED R. Chu
DATE 10.12.2015

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH07**SHEET **3** of **6**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD15****E 820697.12
N 834114.81**DATE **27.11.2015** to **03.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.35 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21				100					40 20.00 41 20.10 42 20.40 20.50	-18.15	20.50		IV	decomposed, moderately metamorphosed, SILTSTONE. (Slightly sandy clayey SILT with some angular fine to coarse gravel of siltstone fragments)
22				100	95	95	0.8		T2-120				II	Strong, dark grey streaked light grey, slightly decomposed IMPURE MARBLE. From 21.92m to 22.04m: Firm, yellowish brown (10YR 5/4), slightly sandy clayey SILT with occasional angular to subangular fine to coarse gravel of rock fragments. (CAVITY-FILL DEPOSITS)
23				100	51	51	>20 4.5		21.85 T2-120 21.92 21.99 22.04 22.30	-17.57 -17.69 -17.95	21.81 21.92 22.30		II III	From 22.30m to 22.96m: Moderately weak, moderately decomposed and with some fine to coarse gravel sized voids. From 22.70m to 22.96m: With dissolution cavities.
24				93	43	43	>20 3.7		T2-120	-18.61	22.96		II	
25				90					43 23.50 44 24.50 24.60 45 24.70 46 25.00	-19.15 -20.25	23.50 24.60			Very dark grey (10YR 3/1) mottled greyish brown, angular to subangular, slightly sandy clayey silty fine to coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS)
26				80					47 25.50 48 26.50 49 26.60 50 26.90 27.00					Very stiff, greyish brown (10YR 5/2) streaked dark grey, slightly sandy clayey SILT with occasional angular to subangular fine to medium gravel of rock fragments. (CAVITY-FILL DEPOSITS)
27				100					T2-120	-22.65	27.00		II	Strong, dark grey streaked light grey, IMPURE MARBLE.
28				85	25	25	5.6 >20 NA 4.0		27.18 27.30 T2-120 27.35 27.60	-23.00 -23.23	27.18 27.35 27.58		II IV	From 27.35m to 27.58m and 28.40m to 28.54m: Firm, light yellowish brown (10YR 6/4), slightly sandy clayey SILT with occasional angular to subangular fine to coarse gravel of rock fragments. (CAVITY-FILL DEPOSITS)
29				100	61	60	NI 5.9 NA		T2-120	-23.88 -24.05 -24.19	28.23 28.40 28.54		II	From 27.83m to 28.23m and 29.84m to 30.22m: Weak, highly decomposed with partial dissolution.
30				93	72	72	1.3		29.10 T2-120				IV	

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **07.12.2015**
CHECKED **R. Chu**
DATE **10.12.2015**

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH07**SHEET **4** of **6**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820697.12**N **834114.81**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD15

DATE

27.11.2015 to **03.12.2015**

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+4.35 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
									T2-120	-25.87	30.22		IV	As sheet 3 of 6.
				100	97	97	1.6		T2-101	-30.55			II	
31				0	0	0	NR		T2-101	-30.85	30.85			No recovery, assumed to be CAVITY.
									T2-101	-31.15	31.15			Strong, grey streaked light grey, IMPURE MARBLE.
32				100	94	89	1.0		T2-101					
							9.0			-32.17				
				0	0	0	NR		T2-101	-32.50	32.50			No recovery, assumed to be CAVITY.
33									T2-101	-32.95	32.95			
				80	0	0	NI		T2-101	-28.60	32.95		IV	Weak to moderately weak, grey (2.5Y 6/1) spotted light brown, highly decomposed IMPURE MARBLE. (Angular, fine to coarse GRAVEL and occasional cobble of highly decomposed marble fragments)
34				0	0	0	NR		T2-101	-33.70	33.70			No recovery, assumed to be CAVITY.
							>20		T2-101	-29.95	34.30		II	Strong, grey streaked light grey, IMPURE MARBLE.
35				82	65	65	1.4		T2-101		34.46			From 34.30m to 34.46m: With some dissolution.
							NR			-30.85	35.20			
				80					51	-31.05	35.40			No recovery, assumed to be CAVITY.
36									52	-31.65	36.00		IV	Grey (10YR 5/1) mottled light grey, slightly sandy clayey SILT with some angular to subangular fine to coarse gravel of rock fragments. (CAVITY-FILL DEPOSITS)
				69	0	0	NI		T2-101	-32.13	36.48			Weak to moderately weak, grey (2.5Y 6/1) spotted light brown, highly decomposed IMPURE MARBLE. (Angular, fine to coarse GRAVEL and occasional cobble of highly decomposed marble fragments)
37				0	0	0	NR		T2-101	-36.70	36.70			No recovery, assumed to be CAVITY.
				45	30	30	5.6		T2-101	-32.75	37.10		II	Strong, grey mottled light grey, slightly decomposed IMPURE MARBLE.
							NR		T2-101	-32.93	37.28			No recovery, assumed to be CAVITY.
38				0						-33.15	37.50			Very dark grey (10YR 3/1) spotted grey, angular to subangular, fine to coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS)
									53	-34.25	38.60			
39				0						-35.35	39.70			Very dark greyish brown (10YR 3/2), angular to subangular, slightly clayey silty sandy fine to coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS)
									54	-35.65	40.00		II	Strong to very strong, grey streaked light grey,

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

07.12.2015

CHECKED

R. Chu

DATE

10.12.2015

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH07**SHEET **5** of **6**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820697.12

N 834114.81

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD15**DATE **27.11.2015** to **03.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.35 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
41				100	99	94	6.3		T2-101		40.97		II	slightly decomposed IMPURE MARBLE. Joints are widely to very widely spaced, occasionally closely and medium spaced, rough planar and rough stepped, calcite and chlorite coated, occasionally clean, dipping at 0° to 10°, 20° to 30°, 40° to 50° and 55° to 65°.
42				100	100	100	1.1		T2-101		41.12			
43		3.55 at 0800		100	100	100			T2-101		42.82			
44				100	100	100	5.3		T2-101		43.64			
45				100	100	100			T2-101		44.02			
46				100	100	100	1.3		T2-101		45.12			
47				100	100	100			T2-101		46.60			
48				100	100	100			T2-101		47.84			
49				100	100	100	0.3		T2-101		48.08			
50									T2-101		49.60			
									T2-101		50.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

07.12.2015

CHECKED

R. Chu

DATE

10.12.2015

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **1** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD24****E 820706.33
N 834047.85**DATE **29.02.2016** to **17.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.78 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
29.02.2016	SW													
1				98				B=25 1,1 1,1,2,2 N=6	1 0.00 2 0.45 3 0.50	+0.78 +0.28	0.00 0.50			Brown (7.5YR 5/4), slightly silty fine to coarse SAND with much angular to subangular fine to coarse gravel of rock fragments. (FILL)
2									4 0.85 5 1.10	-0.22	1.00			Greyish brown (10YR 5/2), fine to coarse SAND with much angular to subangular fine gravel of quartz fragments. (FILL)
3				96				B=25 1,1 1,2,2,2 N=7	6 1.85 7 2.50	-1.72	2.50			Firm, dark grey (10YR 4/1), slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
4									8 2.85 9 3.10	-2.22	3.00			Loose, dark greyish brown (10YR 4/2), fine to coarse SAND with some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
5				100				B=51 2,4 6,8,12,15 N=41	10 3.40 11 3.95 12 4.50	-3.72	4.50			Loose, light bluish grey (5B 7/1) spotted yellowish brown, slightly clayey silty fine SAND. (ALLUVIUM)
6									13 5.05 14 5.10 15 5.40					Dense, light grey (7.5YR 7/1), very pale brown (10YR 7/3) and very dark grey (10YR 3/1), slightly clayey silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
7				100				B=103 4,6 6,7,7,7 N=27	16 5.95 17 6.50 18 6.85 19 7.10	-6.22	7.00			Very stiff, very dark grey (10YR 3/1), silty sandy CLAY with some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
8									20 7.40 21 7.95	-6.87	7.45			Dense, dark grey (10YR 4/1), slightly clayey silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
9				100				B=93 6,7 10,11,13,14 N=48	22 8.50 23 8.85 24 9.10 25 9.40	-8.22	9.00			Dense, grey (10YR 6/1), slightly clayey silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
10									26 9.95	-9.22	10.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **22.03.2016**
CHECKED **R. Chu**
DATE **29.03.2016**

REMARKS

- An inspection pit was excavated to 0.50m deep by hand tools.
- Constant head permeability test was carried out at section from 4.50m to 6.00m.

		DRILLHOLE RECORD CONTRACT NO. GE/2014/07		HOLE NO. S1-DH07 SHEET 6 of 6													
		PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction															
METHOD ROTARY		CO-ORDINATES E 820697.12 N 834114.81		WORKS ORDER NO. GE/2014/07.34													
MACHINE SD15				DATE 27.11.2015 to 03.12.2015													
FLUSHING MEDIUM AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +4.35 mPD													
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description			
51				100	100	100			T2-101		50.88	<div style="position: absolute; top: 0; right: 0; text-align: right;">II</div>	As sheet 5 of 6.				
							1.0		51.12								
52				100	97	92			T2-101		51.84						
							10.3		52.23								
53									52.57								
				100	100	100	0.4		T2-101		54.09						
54									54.51								
				100	100	100	3.8		T2-101		55.30						
55									55.63								
56		3.62 at 0800		100	100	100	2.1		T2-101		57.14						
57							NI		57.14	57.24	<div style="position: absolute; top: 0; right: 0; text-align: right;">IV II</div>	From 57.24m to 57.34m: Weak and highly decomposed with partial dissolution.					
				100	93	81	5.8		T2-101				58.37				
58							>20		58.48								
							0.4		58.59								
59							2.1		T2-101		59.07		End of hole at 59.99 m.				
				100	100	100	0.0		T2-101		59.99						
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p> ↓ SMALL DISTURBED SAMPLE ↓ LARGE DISTURBED SAMPLE ▨ U78 SAMPLE ▩ PISTON SAMPLE (76mm) ▩ MAZIER SAMPLE □ SPT LINER SAMPLE ▲ WATER SAMPLE ■ U100 SAMPLE </p> </div> <div style="width: 45%;"> <p> ↓ STANDARD PENETRATION TEST ∨ IN-SITU VANE SHEAR TEST ○ PACKER TEST ○ PERMEABILITY TEST ○ PRESSUREMETER TEST ○ BOREHOLE TELEVIEWER □ PIEZOMETER TIP □ STANDPIPE TIP </p> </div> </div>														LOGGED S.L. Chiu DATE 07.12.2015 CHECKED R. Chu DATE 10.12.2015		REMARKS	



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **2** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.	
MACHINE		SD24		E 820706.33 N 834047.85		GE/2014/07.34	
FLUSHING MEDIUM		AIRFOAM		ORIENTATION		VERTICAL	
GROUND LEVEL		+0.78 mPD		DATE		29.02.2016 to 17.03.2016	

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11				100				B=58 8,9 10,6,7,8 N=53	27 10.50 28 10.85 29 11.10 30 11.40					Very stiff, light bluish grey (5B 7/1), silty sandy CLAY. (ALLUVIUM)
12									31 11.05					
13				100				2,2 3,4,4,4 N=15	32 12.50 33 13.50 34 13.60 35 13.70	-11.72	12.50		VI	Very stiff, brownish yellow (10YR 6/6) spotted dark red, slightly sandy silty CLAY. (RESIDUAL SOIL)
14	SW 14.50m PW								36 14.50 37 15.50 38 15.50 39 16.00					
15				100				2,2 4,6,6,7 N=23	40 16.50 41 17.50 42 17.60 43 18.00	-15.72	16.50		VI	Very stiff, brownish yellow (10YR 6/6) spotted grey, slightly sandy silty CLAY with occasional angular fine to medium gravel of siltstone fragments. (RESIDUAL SOIL)
16								2,3 4,5,6,6 N=21	44 18.50 45 19.50 46 19.60 47 19.70	-16.82	17.60		VI	Very stiff, brownish yellow (10YR 6/6) spotted dark red, slightly sandy silty CLAY. (RESIDUAL SOIL)
17				100						-17.72	18.50		VI	Dense, reddish yellow (7.5YR 6/8) mottled red, grey and light bluish grey, slightly clayey silty fine to coarse SAND with occasional angular to subangular fine to medium gravel of siltstone fragments. (RESIDUAL SOIL)
18								10,10 10,11,13,15 N=48		-19.22	20.00			

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED S.L. Chiu

DATE 22.03.2016

CHECKED R. Chu

DATE 29.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **3** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD24****E 820706.33
N 834047.85**DATE **29.02.2016** to **17.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.78 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21				100				10,11 13,16,18,21 N=88	47 20.00 48 20.50				VI	As sheet 2 of 13.
22									49 21.50 50 21.60 51 22.00	-20.82	21.60		IV	Weak, dark yellowish brown (10YR 4/4) spotted grey, pink and dark grey, highly decomposed, moderately metamorphosed, SILTSTONE. (Angular, slightly silty clayey sandy fine to medium GRAVEL of highly decomposed siltstone fragments)
23				100				4,5 6,11,13,14 N=44	52 22.50 53 23.50 54 23.60 55 23.70	-21.72	22.50		V	Extremely weak, dark yellowish brown (10YR 4/4) mottled yellowish red and dark grey, completely decomposed, moderately metamorphosed, SILTSTONE. (Slightly sandy silty CLAY with occasional to some angular fine to coarse gravel of siltstone fragments)
24									56 24.50 57 25.50 58 25.60 59 26.00	-23.72	24.50			Very stiff, dark yellowish brown (10YR 4/4), slightly sandy silty CLAY with occasional to some angular fine to coarse gravel of rock fragments. (KARST DEPOSITS)
25				100				7,11 14,20,28,36 N=88	60 26.50 61 27.50 62 27.60 63 27.70	-24.82	25.60			Very stiff, reddish brown (5YR 4/4) mottled grey and dark grey, slightly sandy silty CLAY. (KARST DEPOSITS)
26									64 28.50 65 29.50 66 29.60 67 29.70					
27				100				7,8 8,10,11,13 N=42						
28														
29				100				8,10 12,13,17,22 N=84						
30										-29.22	30.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

22.03.2016

CHECKED

R. Chu

DATE

29.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **4** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD24		E 820706.33 N 834047.85		DATE 29.02.2016 to 17.03.2016								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +0.78 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31				100				7,10 11,13,16,19 N=59	67 30.00 68 30.50 69 31.50 70 31.60 71 31.70 72 32.00	-30.82	31.60			As sheet 3 of 13.
32								6,9 10,13,15,18 N=58	73 32.50 74 33.50 75 33.60 76 33.70 77 34.00					Very stiff, dark reddish brown (5YR 3/2) streaked very dark grey, red and grey, slightly sandy silty CLAY. (KARST DEPOSITS)
33				100				8,10 12,14,17,21 N=64	78 34.50 79 35.50 80 35.60 81 35.70 82 36.00					
34								7,8 10,12,14,17 N=53	83 36.50 84 37.50 85 37.60 86 37.70 87 38.00					
35				100				6,8 11,12,15,18 N=58	88 38.50 89 39.50 90 39.60 91 39.70	-37.72	38.50			Very stiff, brown (7.5YR 4/4) streaked grey, slightly sandy silty CLAY with occasional angular fine to medium gravel of rock fragments. (KARST DEPOSITS)
36										-38.82	39.60			Very stiff, dark reddish brown (5YR 3/2) striped grey, slightly sandy clayey SILT. (KARST DEPOSITS)
37				100										
38														
39														
40														

± SMALL DISTURBED SAMPLE

↑ LARGE DISTURBED SAMPLE

▨ U76 SAMPLE

▨ PISTON SAMPLE (76mm)

▨ MAZIER SAMPLE

□ SPT LINER SAMPLE

▲ WATER SAMPLE

■ U100 SAMPLE

↓ STANDARD PENETRATION TEST

∇ IN-SITU VANE SHEAR TEST

⊙ PACKER TEST

⊙ PERMEABILITY TEST

⊙ PRESSUREMETER TEST

⊙ BOREHOLE TELEVIEWER

▲ PIEZOMETER TIP

□ STANDPIPE TIP

LOGGED S.L. Chiu

DATE 22.03.2016

CHECKED R. Chu

DATE 29.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **5** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD24****E 820706.33**DATE **29.02.2016** to **17.03.2016****N 834047.85**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.78 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
41				100					87 40.00					
									88 40.50	-39.72	40.50			Very stiff, dark reddish brown (5YR 3/3) mottled pale brown, slightly sandy silty CLAY with some angular fine to medium gravel of rock fragments. (KARST DEPOSITS)
42								8.13 15.19,22,28 N=82	89 41.50 90 41.60 91 42.00	-40.82	41.60			Very stiff, very dark grey (10YR 3/1) streaked brown, slightly sandy clayey SILT. (KARST DEPOSITS)
43				100					92 42.50					
								8.11 15.31,54/60mm 100bls/210mm	93 43.50 94 43.88 95 43.91					
45				100					96 44.50	-43.72	44.50			Very dark grey (10YR 3/1), slightly silty fine to coarse SAND with some angular fine gravel of rock fragments. (KARST DEPOSITS)
46								9.15 18.27,38,19/35mm 100bls/260mm	97 45.50 98 45.88 99 45.96	-44.82	45.60			Very stiff, brown (7.5YR 4/3) spotted grey and dark grey, slightly sandy clayey SILT with occasional to some angular fine gravel of rock fragments. (KARST DEPOSITS)
47				100					100 46.50					
48								14.20 25.27,31,17/25mm 100bls/250mm	101 47.50 102 47.88 103 47.95					
49				55					104 48.50					
50									105 49.50 49.60	-49.22	50.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U78 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **22.03.2016**
CHECKED **R. Chu**
DATE **29.03.2016**

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **6** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820706.33**N **834047.85**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD24**DATE **29.02.2016** to **17.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.78 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
	PW 50.70m HW			0										As sheet 5 of 13.
51								20.11 22.33,45/60mm 100bls/210mm	106 50.60 50.70	-49.92	50.70			Dark grey (10YR 4/1) mottled brown, angular, slightly silty sandy fine to coarse GRAVEL of highly decomposed rock fragments. (KARST DEPOSITS)
52				0					51.60	-50.82	51.60			Very stiff, very dark greyish brown (10YR 3/2) mottled grey and brown, slightly sandy silty CLAY. (KARST DEPOSITS)
53				0					52.60 52.70					
54								5.12 17.28,35,20/35mm 100bls/260mm	109 53.70 53.80					
55				100					54.70	-53.92	54.70			Very stiff, brown (7.5YR 4/4) mottled grey, spotted light yellowish brown, slightly sandy silty CLAY with occasional angular fine gravel of rock fragments. (KARST DEPOSITS)
56								7.9 12.18,22,28 N=78	113 55.70 55.80					
57				100					56.70					
58								13.24 25,27,30,18/35mm 100bls/260mm	117 57.70 57.80	-57.02	57.80			Very stiff, grey (10YR 5/1), clayey sandy SILT. (KARST DEPOSITS)
59				100					58.70	-57.92	58.70			Very stiff, light yellowish brown (2.5Y 6/3) spotted light brown and grey, slightly sandy silty CLAY. (KARST DEPOSITS)
60								10.21 32,35,33/50mm	121 59.80 59.90	-59.22	60.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

22.03.2016

CHECKED

R. Chu

DATE

29.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **7** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD24****E 820706.33**DATE **29.02.2016** to **17.03.2016****N 834047.85**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.78 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
								100bbls/200mm	23 60.10					As sheet 6 of 13.
61				100					24 60.70	-59.92	60.70			Very stiff, dark grey (10YR 4/1) streaked brown, slightly sandy silty CLAY. (KARST DEPOSITS)
62								20.22 25.30, 45/70mm 100bbls/220mm	25 61.70 26 61.82 27 62.12	-61.02	61.80			Very stiff, yellowish red (5YR 5/8) mottled greyish brown, slightly sandy silty CLAY. (KARST DEPOSITS)
63				100					28 62.70	-61.92	62.70			Very stiff, light yellowish brown (2.5Y 6/3) spotted light brown and grey, slightly sandy silty CLAY. (KARST DEPOSITS)
64								30.20/65mm 33.38, 29/40mm 100bbls/190mm	29 63.70 30 63.80 31 64.08					
65				100					32 65.70 33 65.80					
66								18.21 24.32, 46/60mm 102bbls/210mm	34 66.11					
67				100					35 66.70	-65.92	66.70			Very stiff, dark reddish brown (5YR 3/2) mottled brown and grey, slightly sandy silty CLAY with some angular fine gravel of rock fragments. (KARST DEPOSITS)
68								21.23 31.20, 40/60mm 100bbls/210mm	36 67.70 37 67.80 38 68.11					
69				100					39 68.70	-67.92	68.70			Very stiff, dark reddish brown (5YR 3/4) streaked yellowish red, slightly sandy silty CLAY. (KARST DEPOSITS)
70								50/60mm 43.57/55mm	40 69.70 41 69.80 42 69.94	-69.02	69.80			Very stiff, dark reddish brown (5YR 3/4) spotted

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **22.03.2016**
CHECKED **R. Chu**
DATE **29.03.2016**

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **8** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD24****E 820706.33
N 834047.85**DATE **29.02.2016** to **17.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.78 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
71				100				100bls/130mm	142	70.70				yellowish brown, slightly sandy silty CLAY with some angular fine to coarse gravel of rock fragments. (KARST DEPOSITS)
72								6.6 24,33,21,18 N=98	143	71.70				
									144	71.80				
									145	71.90				
									146	72.20				
73				100					147	72.70				
									148	73.70				
74								15,10 21,38,41/30mm 100bls/180mm	149	73.80				
									150	74.08				
75				100					151	74.70	-73.92	74.70		Very stiff, yellowish brown (10YR 5/4) mottled grey, slightly sandy silty CLAY with some angular fine to coarse gravel of rock fragments. (KARST DEPOSITS)
									152	75.70				
76								10,22 23,30,22,25/25mm 100bls/250mm	153	75.80	-75.02	75.80		Very stiff, brown (7.5YR 4/3) mottled grey, slightly sandy silty CLAY with occasional angular fine gravel of rock fragments. (KARST DEPOSITS)
									154	75.90				
77				100					155	76.15				
									156	76.70				
78								17,21 22,25,28,25/45mm 100bls/270mm	157	77.70				
									158	77.80				
79				100					159	78.17				
									160	78.70				
05.03.2016 07.03.2016 80								13,18 23,32,43/60mm	161	79.70	-79.22	80.00		

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

22.03.2016

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R. Chu

DATE

29.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **9** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820706.33**N **834047.85**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD24**DATE **29.02.2016** to **17.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.78 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description	
								98bls/210mm	60	80.11				As sheet 8 of 13.	
81				100					61	80.70	-79.92	80.70		Very stiff, dark grey (10YR 4/1) streaked brown, slightly sandy silty CLAY with some angular fine gravel of rock fragments. (KARST DEPOSITS)	
82								50/70mm 100/70mm 100bls/70mm	62	81.70 81.80 81.89					
									63						
83				100					64	82.70	-81.02	82.70		Very stiff, grey (10YR 5/1) mottled brown, slightly sandy clayey SILT with occasional angular fine to medium gravel of rock fragments. (KARST DEPOSITS)	
84								30,20/45mm 82,38/25mm 100bls/100mm	65	83.70 83.80	-83.02	83.80			
									66	83.97				Very stiff, brown (7.5YR 4/2) mottled greyish brown and yellowish red, slightly sandy silty CLAY with some to much angular fine to coarse gravel of rock fragments. (KARST DEPOSITS)	
85				100					67	84.70					
86								50/60mm 42,58/45mm 100bls/120mm	68	85.70 85.80					
									69	85.93					
87				100					70	86.70					
88								21,15 18,25,32,25/35mm 100bls/280mm	71	87.70 87.80					
									72	88.16					
89				100					73	88.70					
90								7,12 38,45,17/20mm	74	89.70 89.80	-89.22	90.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

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S.L. Chiu

DATE

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R. Chu

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29.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **10** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820706.33**N 834047.85**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD24

DATE

29.02.2016 to 17.03.2016

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+0.78 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
07.03.2016 08.03.2016								100bls/170mm	76 90.07					As sheet 9 of 13.
91				100					77 90.70	-89.92	90.70			Very stiff, dark yellowish brown (10YR 4/4) mottled dark grey, slightly sandy silty CLAY with much angular fine to coarse gravel of rock fragments. (KARST DEPOSITS)
92								J 50/30mm 100/50mm 100bls/50mm	78 91.70 79 91.89					
93				0					80 92.70 81 93.70 82 93.80					
94				0					83 94.80 84 94.90 85 95.10					
95								19,31/45mm 55,45/55mm 100bls/130mm	86 95.80 87 96.44 88 96.54					Moderately strong, dark grey streaked light grey, moderately decomposed IMPURE MARBLE. Joints are closely to medium spaced, rough planar and rough undulating, iron oxide stained and silty clay infilled (<3mm), dipping at 20° to 30°. Very stiff, dark greyish brown (10YR 4/2) mottled grey, silty CLAY with some to much angular to subangular fine to coarse gravel of rock fragments. (CAVITY-FILL DEPOSITS)
96				100					89 97.10 90 97.29	-95.76	96.54			
97	HW 96.54m NW			98	88	88	3.6	28,22/85mm 70,30/25mm 100bls/100mm	91 97.10 92 97.29	-96.32	97.10			
98									93 98.05 94 98.10					
99								J 50/30mm 100/30mm 100bls/30mm	95 99.10					
08.03.2016 15.03.2016									96 99.22		100.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

22.03.2016

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R. Chu

DATE

29.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **11** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.	
MACHINE		SD24		E 820706.33 N 834047.85		GE/2014/07.34	
FLUSHING MEDIUM		AIRFOAM		ORIENTATION		VERTICAL	
GROUND LEVEL		+0.78 mPD		DATE		29.02.2016 to 17.03.2016	

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
101				100	0	0	NA	↓ 50/70mm 100/30mm 100b/s/30mm	TNW 100.05 100.65 TNW 101.25	-99.27 -100.27	100.05 101.05			As sheet 10 of 13. Dark grey (10YR 4/1) mottled brown and white, angular to subangular, slightly clayey silty sandy fine to coarse GRAVEL of quartz and rock fragments. (CAVITY-FILL DEPOSITS)
102														Very stiff, greyish brown (10YR 5/2) spotted dark grey, silty sandy CLAY with much angular to subangular fine to coarse gravel of rock fragments. (CAVITY-FILL DEPOSITS)
103								↓ 30,20/35mm 100/70mm 100b/s/70mm						
104														
105								↓ 13,37/25mm 100/50mm 100b/s/50mm						
106														
107								↓ 50/30mm 100/60mm 100b/s/60mm						
108														
109														
110				95	17	0	>20		TNW 109.18 109.60	-108.40 -108.82	109.18 109.60	III		Moderately strong, dark brown streaked brown, moderately decomposed IMPURE MARBLE. Joints are extremely closely to very closely spaced, rough planar and rough undulating, iron oxide

↓ SMALL DISTURBED SAMPLE

↓ LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

↓ STANDARD PENETRATION TEST

↓ IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED S.L. Chiu

DATE 22.03.2016

CHECKED R. Chu

DATE 29.03.2016

REMARKS



DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH08**SHEET **13** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD24**E **820706.33**N **834047.85**DATE **29.02.2016** to **17.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+0.78 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
17.03.2016	NW	120.20m								-119.42	120.20			As sheet 12 of 13. End of hole at 120.20 m.
121														
122														
123														
124														
125														
126														
127														
128														
129														
130														

↓ SMALL DISTURBED SAMPLE
↓ LARGE DISTURBED SAMPLE
▨ U76 SAMPLE
▨ PISTON SAMPLE (76mm)
▨ MAZIER SAMPLE
□ SPT LINER SAMPLE
▲ WATER SAMPLE
■ U100 SAMPLE

↓ STANDARD PENETRATION TEST
✓ IN-SITU VANE SHEAR TEST
⌋ PACKER TEST
⌋ PERMEABILITY TEST
⌋ PRESSUREMETER TEST
⌋ BOREHOLE TELEVIEWER
▲ PIEZOMETER TIP
□ STANDPIPE TIP

LOGGED S.L. Chiu
DATE 22.03.2016
CHECKED R. Chu
DATE 29.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH10**

SHEET 1 of 7

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD ROTARY

CO-ORDINATES

WORKS ORDER NO. GE/2014/07.34

MACHINE SD41

E 820715.53
N 833820.85

DATE 16.02.2016 to 26.02.2016

FLUSHING MEDIUM AIRFOAM

ORIENTATION VERTICAL

GROUND LEVEL +1.11 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
16.02.2016	SW													
1				100				B=8 1,1 2,1,1,3 N=7	1 0.00 2 0.30 3 0.45 4 0.50	+1.11 +0.76 +0.61	0.00 -0.35 0.50			Greyish brown (10YR 5/2), fine to coarse SAND with much angular to subangular fine to coarse gravel of quartz and rock fragments. (FILL)
2									5 0.65 6 1.10 7 1.40					Grey (10YR 6/1) mottled yellowish brown, silty sandy CLAY. (FILL) Firm, grey (10YR 5/1) mottled dark grey, slightly sandy silty CLAY. (FILL)
3			80	100				1,2 1,1,3,2 N=7	8 2.50 9 3.50 10 3.70	-1.39 -2.49	2.50 3.60			Firm, grey (10YR 6/1) spotted dark grey, silty sandy CLAY with some angular to subangular fine to coarse gravel of quartz and rock fragments. (FILL)
4								2,3 2,1,3,4 N=10	11 4.00 12 4.50 13 4.85 14 5.10	-3.39 -3.89	4.50 5.00			Firm, yellowish brown (10YR 5/4) mottled light grey, slightly sandy silty CLAY. (FILL)
5				100				B=23	15 5.40 16 5.95 17 6.50					Very pale brown (10YR 8/3), angular to subangular, slightly clayey silty very sandy fine GRAVEL of quartz fragments. (FILL)
6								2,2 3,4,6,6 N=19	18 6.85 19 7.10 20 7.40	-6.34	7.45			Medium dense, yellowish red (5YR 5/8) mottled dark grey, spotted light grey, angular to subangular, slightly silty very sandy fine GRAVEL of quartz fragments. (FILL)
7				100				B=12	21 7.95 22 8.50 23 8.85 24 9.10	-7.89	9.00			Yellowish red (5YR 5/8) streaked bluish grey, angular to subangular, slightly silty clayey very sandy fine GRAVEL of quartz fragments. (FILL)
8								B=34	25 9.40 26 9.95	-8.89	10.00			Dense, very dark grey (10YR 3/1), slightly clayey silty fine to coarse SAND with occasional to some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
9				100				7,5 4,3,8,17 N=33						
10														

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

29.02.2016

CHECKED

R. Chu

DATE

02.03.2016

REMARKS

- An inspection pit was excavated to 0.50m deep by hand tools.
- Constant head permeability test was carried out at section from 7.50m to 9.00m.
- Acoustic borehole televiewer survey was carried out from 51.00m to 60.00m.



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH10**SHEET **2** of **7**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820715.53**N **833820.85**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD41

DATE

16.02.2016 to **26.02.2016**

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+1.11 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
17.04.2016 18.02.2016				0				B=35 3.3 4.5, 4.6 N=19	27 10.50 28 10.95 29 11.45 30 11.80 31 11.80	-9.39	10.50			As sheet 1 of 7.
12				100					32 12.65					Grey (7.5YR 6/1), angular to subangular, slightly clayey silty very sandy fine to medium GRAVEL of quartz fragments. (ALLUVIUM)
13				100				B=36 4.4 5.7, 7.9 N=28	33 13.00 34 13.85 35 13.80 36 13.90	-11.89	13.00			V Extremely weak, grey (5Y 5/1) and very dark grey (5Y 3/1) streaked light grey, white and yellowish red, completely decomposed, moderately metamorphosed, SILTSTONE. (Silty CLAY)
14									37 14.65					
15	SW 15.00m PW			100				B=44 5.6 5.8, 10.12 N=35	38 15.00 39 15.55 40 15.60 41 15.90					
16									42 16.65					
17				80 100					43 17.00	-15.89	17.00			V Extremely weak, very dark grey (N4/) streaked yellowish brown, completely decomposed, moderately metamorphosed, SILTSTONE. (Clayey SILT)
18								7.10 12.20, 20.32 N=34	44 18.00 45 18.10 46 18.20 47 18.50					
19				80 95										
20										-18.89	20.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

29.02.2016

CHECKED

R. Chu

DATE

02.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH10**SHEET **3** of **7**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD41		E 820715.53 N 833820.85		DATE 16.02.2016 to 26.02.2016								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +1.11 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21				80	100			8,11 14,18,20,34 N=86	48 20.00 49 20.10 50 20.50				V	As sheet 2 of 7.
22								7,9 14,23,27,35 N=89	51 21.00 52 22.00 53 22.10 54 22.20					
23				80	100				55 23.00	-21.89	23.00		V	Extremely weak to very weak, dark grey (N4/) streaked yellowish red, completely decomposed, moderately metamorphosed, SILTSTONE. (Slightly sandy silty CLAY with some to much angular fine to coarse gravel of siltstone fragments)
24								J 50/30mm 100/70mm 100b/s/70mm	56 24.00 57 24.18					
25				80	100				58 25.00	-23.89	25.00		V	Extremely weak to very weak, dark grey (N4/) mottled yellowish red, completely decomposed, moderately metamorphosed, SILTSTONE. (Slightly sandy clayey SILT with occasional to some angular fine to coarse gravel of siltstone fragments)
26								J 50/80mm 80,20/40mm 100b/s/115mm	59 26.00 60 26.10 61 26.23					
27				80	100				62 27.00					
28								11,13 17,20,28,34/50mm 100b/s/275mm	63 28.00 64 28.10 65 28.18					
29									66 28.48					
30				80	95				67 29.00	-28.89	30.00			

↓ SMALL DISTURBED SAMPLE

↓ LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

↓ STANDARD PENETRATION TEST

↓ IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED S.L. Chiu
DATE 29.02.2016
CHECKED R. Chu
DATE 02.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH10**SHEET **4** of **7**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820715.53

N 833820.85

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD41

DATE

16.02.2016 to 26.02.2016

FLUSHING MEDIUM

AIRFOAM

ORIENTATION **VERTICAL**

GROUND LEVEL

+1.11 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31			80	100				4,10 16,18,20,28 N=80	66 30.00 67 30.20 68 30.50				V	As sheet 3 of 7.
32								14,15 20,24,32,24/50mm 100bls/275mm	69 31.00 70 32.00 71 32.10 72 32.18 72 32.48					
33			80	100					73 33.00					
34								11,11 16,20,24,32 N=94	74 34.00 75 34.10 76 34.20 76 34.50	-32.99	34.10		IV	Extremely weak to very weak, dark yellowish brown (10YR 4/4) streaked dark grey, mottled yellowish red and pinkish white, highly decomposed, moderately metamorphosed, SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine to coarse gravel of siltstone fragments)
35			80	100					77 35.00	-33.89	35.00		IV	Extremely weak to very weak, black (10YR 2/1) streaked yellowish red, highly decomposed, moderately metamorphosed, SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine to coarse gravel of siltstone fragments)
36								7,10 15,18,20,25 N=78	78 36.00 79 36.10 80 36.20 80 36.50	-34.99	36.10		IV	Extremely weak to very weak, dark yellowish brown (10YR 4/4) streaked dark grey, mottled yellowish red and pinkish white, highly decomposed, moderately metamorphosed, SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine to coarse gravel of siltstone fragments)
37			80	100					81 37.00	-35.89	37.00			Very stiff, dark yellowish brown (10YR 4/4) streaked dark grey, mottled yellowish red and pinkish white, slightly sandy clayey SILT with occasional angular fine to coarse gravel of rock fragments. (KARST DEPOSITS)
38								5,8 12,16,18,29 N=75	82 38.00 83 38.10 84 38.20 84 38.50					
39			80	100					85 39.00					
40										-38.89	40.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

29.02.2016

CHECKED

R. Chu

DATE

02.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH10**SHEET **5** of **7**

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD41		E 820715.53 N 833820.85		GE/2014/07.34								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION		VERTICAL								
GROUND LEVEL		+1.11 mPD												
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
24.02.2016 25.02.2016								8,24 28,40,32/20mm 100b/s/170mm	86 40.00 87 40.10 88 40.37					As sheet 4 of 7.
41				80	100				89 41.00	-39.89	41.00			Very stiff, dark grey (N4/) streaked yellowish red, slightly sandy clayey SILT. (KARST DEPOSITS)
42	PW 42.10m HW							8,14 18,24,34,24/20mm 100b/s/245mm	90 42.00 91 42.18 92 42.45	-40.99	42.10			Very stiff, grey (N4/) streaked yellowish red, slightly sandy clayey SILT with occasional angular fine to coarse gravel of rock fragments. (KARST DEPOSITS)
43				80	100				93 43.00					
44								35,15/20mm 100b/s/60mm 100b/s/60mm	94 44.00 95 44.10 96 44.21					
45	HW 45.37m			80	100				96 45.00 97 45.27 98 45.37	-43.89	45.00			Very stiff, yellowish red (5YR 5/8) streaked grey, mottled pink, slightly sandy silty CLAY with occasional angular fine to coarse gravel of rock fragments. (KARST DEPOSITS)
46				80	99	91	91	>20	T2-101				II	Strong, light greyish white, slightly decomposed MARBLE. Joints are widely spaced, rough planar, iron oxide stained, dipping at 30° to 40°, 45° to 55° and 60° to 70°.
47				80	100	100	100		T2-101					
48				80	100	100	100		T2-101					
49				80	100	100	100	0.5	T2-101					
50				80	100	100	99		T2-101					

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED S.L. Chiu

DATE 29.02.2016

CHECKED R. Chu

DATE 02.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH10**SHEET **6** of **7**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820715.53

N 833820.85

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD41**DATE **16.02.2016** to **26.02.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.11 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
25.02.2016 26.02.2016														As sheet 5 of 7.
51			80	100	100	100			T2-101 50.67					
52			80	100	100	100			T2-101 51.98					
53			80	100	100	100			T2-101 52.05					
54			80	100	99	96	6.3		T2-101 53.48					Strong, light greyish white and grey, slightly decomposed MARBLE. Joints are medium spaced, occasionally very closely and closely spaced, rough planar, iron oxide stained, clayey silt infilled (<1mm), dipping at 0° to 10°, 20° to 30° and 55° to 65°.
55			80	100	93	83			T2-101 54.83					
56			80	100	100	100			T2-101 54.28					Strong, light greyish white mottled grey and light grey, slightly decomposed MARBLE. Joints are widely to very widely spaced, occasionally very closely spaced, rough planar, iron oxide stained, occasionally clean, dipping at 45° to 55° and 60° to 70°.
57			80	100	100	100			T2-101 55.79					
58			80	100	100	100			T2-101 56.54					
59			80	100	100	100			T2-101 58.02					
60			80	100	100	100	0.6		T2-101 59.46					
									T2-101 58.89					

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

29.02.2016

CHECKED

R. Chu

DATE

02.03.2016

REMARKS

		DRILLHOLE RECORD CONTRACT NO. GE/2014/07		HOLE NO. S1-DH10										
				SHEET 7 of 7										
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction														
METHOD ROTARY			CO-ORDINATES E 820715.53 N 833820.85		WORKS ORDER NO. GE/2014/07.34									
MACHINE SD41					DATE 16.02.2016 to 26.02.2016									
FLUSHING MEDIUM AIRFOAM			ORIENTATION VERTICAL		GROUND LEVEL +1.11 mPD									
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
61			80	100	100	100			↑ T2-101				II	As sheet 6 of 7.
								▼ 60.98						
62			80	100	100	100			↑ T2-101					
								▼ 62.48						
63			80	100	100	98			↑ T2-101					
64									▼ 63.81		64.16			
65			80	100	100	100			↑ T2-101					
							1.4		▼ 64.94					
26.02.2016			80	100	100	100			↑ T2-101					
									▼ -64.45		65.56			End of hole at 65.56 m.
66														
67														
68														
69														
70														
<div style="display: flex; justify-content: space-between;"> <div> <p>↓ SMALL DISTURBED SAMPLE</p> <p>↑ LARGE DISTURBED SAMPLE</p> <p>▨ U76 SAMPLE</p> <p>▨ PISTON SAMPLE (76mm)</p> <p>▨ MAZIER SAMPLE</p> <p>□ SPT LINER SAMPLE</p> <p>▲ WATER SAMPLE</p> <p>■ U100 SAMPLE</p> </div> <div> <p>↓ STANDARD PENETRATION TEST</p> <p>▼ IN-SITU VANE SHEAR TEST</p> <p>⊥ PACKER TEST</p> <p>⊥ PERMEABILITY TEST</p> <p>⊥ PRESSUREMETER TEST</p> <p>⊥ BOREHOLE TELEVIEWER</p> <p>⊥ PIEZOMETER TIP</p> <p>⊥ STANDPIPE TIP</p> </div> </div>									LOGGED <u>S.L. Chiu</u> DATE <u>29.02.2016</u> CHECKED <u>R. Chu</u> DATE <u>02.03.2016</u>			REMARKS		

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH11**

SHEET 1 of 9

PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820728.54**N 833792.53**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD09**DATE **30.11.2015 to 12.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.73 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
30.11.2015	SW													
1									1	0.45	+4.23	0.50		Yellowish red (5YR 5/6), silty sandy CLAY with some angular to subangular fine to coarse gravel of rock fragments. (FILL)
2									2	0.95				Light grey (5YR 7/1), silty fine to coarse SAND with much angular to subangular fine to medium gravel of rock fragments. (FILL)
3									3	1.45	+3.23	1.50		Yellowish red (5YR 5/6), silty sandy CLAY with some angular to subangular fine to coarse gravel of rock fragments. (FILL)
4									4	1.95				Yellowish red (5YR 5/6), silty sandy CLAY with some angular to subangular fine to coarse gravel of rock fragments. (FILL)
5									5	2.45				
6									6	2.75				
7				0					7	3.00	+1.73	3.00		Soft, light yellowish brown (10YR 6/4), silty sandy CLAY with some angular to subangular fine gravel of quartz fragments and with some wood fragments and much rootlets. (FILL)
8									8	4.00	+0.63	4.10		Soft, light yellowish brown (10YR 6/4), silty sandy CLAY with some angular to subangular fine gravel of quartz fragments. (FILL)
9				0					9	5.10	-0.47	5.20		Grey (7.5YR 5/1), angular, fine to coarse GRAVEL sized concrete fragments. (FILL)
10	SW 6.10m							1.1 2.4,3.2 N=11	10	5.20				
11	PW			95					11	6.10	-1.37	6.10		Medium dense, light yellowish brown (10YR 6/4) mottled grey, slightly clayey silty fine to coarse SAND with some angular to subangular fine to occasional medium gravel of quartz fragments. (ALLUVIUM)
12								2.3 3.2,3.3 N=11	12	7.10				
13									13	7.20				
14									14	7.30				
15				0					15	7.60				
16									16	8.10	-3.37	8.10		Medium dense, light red (2.5YR 7/6), slightly clayey silty fine to coarse SAND with some angular to subangular fine to occasional medium gravel of quartz fragments. (ALLUVIUM)
17									17	8.90				
18				80					18	9.00				
19									19	9.45	-4.77	9.50		Medium dense, light yellowish brown (10YR 6/4) mottled grey, slightly clayey silty fine to coarse
20									20	9.95				
30.11.2015 02.12.2015		3.10 at 0800												

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

15.12.2015

CHECKED

R. Chu

DATE

16.12.2015

REMARKS

- An inspection pit was excavated to 2.80m deep by hand tools.
- Constant head permeability test was carried out at section from 7.00m to 8.50m.
- Acoustic borehole televiewer surveys were carried out from 33.00m to 48.10m and from 62.50m to 78.00m.
- A standpipe was installed at 17.50m.
- A piezometer was installed with tip at 28.30m.

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH11**SHEET **2** of **9**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820728.54**N 833792.53**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD09

DATE

30.11.2015 to 12.12.2015

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+4.73 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11				89				2.2 3.4, 4.4 N=15 B=26	18 10.10 19 10.20 20 11.00 21 11.45	-6.27 -6.77	11.00 11.50			SAND with some angular to subangular fine to occasional medium gravel of quartz fragments. (ALLUVIUM)
12								2.4 5.5, 6.7 N=23 B=154	22 11.95 23 12.10 24 12.20 25 13.00 26 13.45					Pale brown (10YR 6/3) spotted red, angular to subangular, slightly clayey silty sandy fine GRAVEL of quartz fragments. (ALLUVIUM)
13				100										Medium dense, light grey (5Y 7/1), slightly clayey silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
14								3.4 2.5, 7.8 N=22 B=96	27 13.95 28 14.10 29 15.00 30 15.45					Medium dense, light grey (5Y 7/1) spotted white, slightly clayey silty fine to coarse SAND with much angular to subangular fine to coarse gravel of quartz and rock fragments. (ALLUVIUM)
15				100										
16								1.2 4.4, 6.6 N=20 B=35	31 15.95 32 16.10 33 16.20 34 17.00 35 17.45					Medium dense, dark grey (5Y 4/1) and yellowish brown (10YR 5/6), slightly clayey silty fine to coarse SAND with occasional to subangular fine gravel of quartz fragments. (ALLUVIUM)
17				100										
18								3.3 4.4, 6.7 N=21	36 17.95 37 18.10 38 18.20 39 18.50					
19														
20		2.80 at 0800		100					19.00	-14.27	19.00			Very stiff, yellowish brown (10YR 5/4) spotted white, light grey and dark grey, slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz fragments. (KARST DEPOSITS)

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

15.12.2015

CHECKED

R. Chu

DATE

16.12.2015

REMARKS

		DRILLHOLE RECORD CONTRACT NO. GE/2014/07		HOLE NO. S1-DH11 SHEET 3 of 9											
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction															
METHOD ROTARY		CO-ORDINATES E 820728.54 N 833792.53		WORKS ORDER NO. GE/2014/07.34											
MACHINE SD09				DATE 30.11.2015 to 12.12.2015											
FLUSHING MEDIUM AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +4.73 mPD											
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description	
21				100				1,2 5,8,10,12 N=35	40 20.00 41 20.20 42 20.50						
22								2,3 5,7,10,12 N=34	43 21.00 44 22.00 45 22.10 46 22.20 48 22.50						
23				95					47 23.00 48 24.00 49 24.10 50 24.20 51 25.00	-18.27	23.00			Dense, yellowish brown (10YR 5/4) spotted grey and dark grey, slightly clayey silty fine to coarse SAND with some to much angular to subangular fine to occasional medium gravel of quartz and rock fragments. (KARST DEPOSITS)	
24								2,2 4,7,11,13 N=35							
25				100					52 26.00 53 26.10 54 26.20 55 27.00 56 28.00 57 28.10 58 28.20 59 28.50	-20.27	25.00			Very stiff, yellowish red (5YR 5/6) spotted grey and dark grey, slightly sandy silty CLAY with occasional angular to subangular fine to medium gravel of rock fragments. (KARST DEPOSITS)	
26								5,9 12,12,18,19 N=61							
27				100											
28								3,4 8,11,17,18 N=55							
29		2.90 at 0800												Dark brown (7.5YR 3/2), angular to subangular, slightly sandy clayey silty fine to coarse GRAVEL of quartz and rock fragments. (KARST DEPOSITS)	
30	PW 29.85m HW			100	100	100			T2-120 29.33 T2-120 29.85	-24.64	29.37		II	Strong to very strong, white mottled grey, slightly decomposed MARBLE. Joints are widely to very widely spaced, occasionally	
<div style="display: flex; justify-content: space-between;"> <div> <p>↓ SMALL DISTURBED SAMPLE</p> <p>↓ LARGE DISTURBED SAMPLE</p> <p>U76 SAMPLE</p> <p>PISTON SAMPLE (76mm)</p> <p>MAZIER SAMPLE</p> <p>SPT LINER SAMPLE</p> <p>WATER SAMPLE</p> <p>U100 SAMPLE</p> </div> <div> <p>↓ STANDARD PENETRATION TEST</p> <p>↓ IN-SITU VANE SHEAR TEST</p> <p>PACKER TEST</p> <p>PERMEABILITY TEST</p> <p>PRESSUREMETER TEST</p> <p>BOREHOLE TELEVIEWER</p> <p>PIEZOMETER TIP</p> <p>STANDPIPE TIP</p> </div> </div>														LOGGED <u>S.L. Chiu</u> DATE <u>15.12.2015</u> CHECKED <u>R. Chu</u> DATE <u>16.12.2015</u>	REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH11**SHEET **4** of **9**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820728.54

N 833792.53

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD09**DATE **30.11.2015** to **12.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.73 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31				100	100	100			T2-120					closely and medium spaced, rough planar and rough stepped, calcite coated, occasionally iron oxide stained and clean, dipping at 20° to 30°.
									31.38					
32				100	100	100			T2-120					
									32.91					
33				100	100	100		0.3	T2-120					
									34.31					
34				100	100	100			T2-120					
									35.78					
35				100	100	100			T2-101					
									37.30		37.30			
36		2.80 at 0800		100	100	100			T2-101					
									38.81		38.81			
37				100	100	100			T2-101					
38				100	100	100	2.0							
39				100	100	100								
40				100	100	100		0.5			-35.27	40.00		

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

15.12.2015

CHECKED

R. Chu

DATE

16.12.2015

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH11**SHEET **5** of **9**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**CO-ORDINATES
E 820728.54
N 833792.53WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD09**DATE **30.11.2015** to **12.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.73 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
41				100	91	91	12.8		T2-101	40.34	40.82		II	As sheet 4 of 9.
							>20		T2-101	41.29	41.42			
42				100	97	92			T2-101	41.82				
43									T2-101	43.38				
44				100	100	100	0.8		T2-101	44.80				
45				100	100	100			T2-101	45.80				
46				100	100	100			T2-101	46.50	46.50			
47				92	73	73	3.5		T2-101	47.64	47.64		III	From 47.64m to 47.93m: Moderately strong, moderately decomposed with partial dissolution.
48							>20		T2-101	48.06	48.15		II	No recovery, assumed to be CAVITY.
49				94	86	86			T2-101	49.61				Strong to very strong, light grey to grey, slightly decomposed MARBLE. Joints are medium to widely spaced, occasional very closely and closely spaced, rough planar and rough stepped, iron and manganese oxide stained, occasionally calcite coated, dipping at 0° to 10°, 20° to 30° and 50° to 60°.
50							4.9		T2-101					From 48.32m to 50.19m: IMPURE MARBLE.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **15.12.2015**
CHECKED **R. Chu**
DATE **16.12.2015**

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH11**SHEET **6** of **9**

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD	ROTARY	CO-ORDINATES	WORKS ORDER NO.
MACHINE	SD09	E 820728.54 N 833792.53	GE/2014/07.34
FLUSHING MEDIUM	AIRFOAM	ORIENTATION VERTICAL	DATE 30.11.2015 to 12.12.2015
			GROUND LEVEL +4.73 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
05.12.2015 09.12.2015	3.10 at 0800			100	100	100			T2-101	-50.33				From 51.60m to 51.70m, 51.98m to 52.08m, 52.85m to 53.31m and 56.91m to 57.01m: Moderately strong and moderately decomposed with partial dissolution.
51				100	100	100			T2-101	-51.02				From 51.70m to 51.98m and 58.47m to 58.60m: No recovery, assumed to be CAVITY.
				100	88	85			T2-101	-51.70				From 58.37m to 58.47m: Weak to moderately weak and highly decomposed. (Angular, fine to coarse GRAVEL of highly decomposed marble fragments)
52				72	57	53			T2-101	-52.70				
09.12.2015 10.12.2015	HW 52.70m 3.10 at 0800			93	48	30			T2-101	-53.41				
53				100	100	100			T2-101	-54.91				
54				100	100	100			T2-101	-55.93				
55				100	93	93			T2-101	-57.46				
56				92	67	67			T2-101	-59.00				
57				10	9	9			T2-101	-55.27	60.00			No recovery, assumed to be CAVITY.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED S.L. Chiu
DATE 15.12.2015
CHECKED R. Chu
DATE 16.12.2015

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH11**SHEET **7** of **9**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD09		E 820728.54 N 833792.53		DATE 30.11.2015 to 12.12.2015								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +4.73 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
10.12.2015 11.12.2015		3.00 at 0800												As sheet 6 of 9.
61				100	100	100		1.2	T2-101	60.39	60.30		II	Strong to very strong, white mottled light brown, grey and light grey, slightly decomposed MARBLE. Joints are medium to widely spaced, occasionally very closely and closely spaced, rough planar and rough undulating, iron and manganese oxide stained, calcite and kaolin coated, dipping at 0° to 10°, 35° to 45° and 60° to 70°. From 63.87m to 63.97m, 68.90m to 69.66m, 72.64m to 73.06m, 73.92m to 74.80m and 75.99m to 76.39m: Moderately strong to strong and moderately decomposed.
62				100	100	100			T2-101	61.55				
63				100	100	91		4.1	T2-101	62.51	62.75			
64				100	100	93			T2-101	63.38	63.87 63.97		III II	
65				100	100	100			T2-101	64.88				
66				100	100	100		0.6	T2-101	66.17				
67				100	100	100			T2-101	67.42				
68				100	100	100			T2-101					
69								12.3	T2-101	69.01	68.90 69.01		III	
70				100	78	64			T2-101	69.66	69.66 70.00		II	
<div><div><div>↑ SMALL DISTURBED SAMPLE</div><div>↓ LARGE DISTURBED SAMPLE</div><div>▨ U76 SAMPLE</div><div>▨ PISTON SAMPLE (76mm)</div><div>▨ MAZIER SAMPLE</div><div>□ SPT LINER SAMPLE</div><div>▲ WATER SAMPLE</div><div>■ U100 SAMPLE</div></div><div><div>↓ STANDARD PENETRATION TEST</div><div>▽ IN-SITU VANE SHEAR TEST</div><div>○ PACKER TEST</div><div>○ PERMEABILITY TEST</div><div>○ PRESSUREMETER TEST</div><div>○ BOREHOLE TELEVIEWER</div><div>■ PIEZOMETER TIP</div><div>□ STANDPIPE TIP</div></div></div> <div>LOGGED <u>S.L. Chiu</u></div> <div>DATE <u>15.12.2015</u></div> <div>CHECKED <u>R. Chu</u></div> <div>DATE <u>16.12.2015</u></div> <div>REMARKS</div>														





DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH11**SHEET **9** of **9**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD09		E 820728.54 N 833792.53		DATE 30.11.2015 to 12.12.2015								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +4.73 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
12.11.2015				100	100	100			T2-101	-76.26	80.99		II	As sheet 8 of 9.
82														End of hole at 80.99 m.
83														
84														
85														
86														
87														
88														
89														
90														

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED S.L. Chiu
DATE 15.12.2015
CHECKED R. Chu
DATE 16.12.2015

REMARKS

DRiLTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH12**

SHEET 1 of 1

PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820694.66

N 833758.55

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD41**DATE **16.11.2015** to **16.11.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+5.14 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
16.11.2015	SW								1 0.00	+5.14	0.00			Brown (10YR 5/3), slightly silty clayey fine to coarse SAND with some angular to subangular fine to coarse gravel of quartz and rock fragments. (FILL)
									2 0.45					
1									3 0.95					
									4 1.45					
2									5 1.95					
									6 2.45					
3									7 2.95	+2.14	3.00			Light yellowish brown (10YR 6/4) mottled dark brown, angular to subangular, slightly sandy silty very clayey fine to coarse GRAVEL of rock fragments and with some wood fragments and rootlets. (FILL)
									8 3.00					
	SW 3.62m								9 3.40	+1.82	3.52			Grey, CONCRETE. (CONCRETE STRUCTURE)
									10 3.52					
16.11.2015		0.50 at 1800	80	100					T6-146	+1.10	4.04			End of hole at 4.04 m.
5														
6														
7														
8														
9														
10														

↓ SMALL DISTURBED SAMPLE

↑ LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

▲ WATER SAMPLE

■ U100 SAMPLE

↓ STANDARD PENETRATION TEST

✓ IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

□ STANDPIPE TIP

LOGGED **S.L. Chiu**

DATE **20.11.2016**

CHECKED **R. Chu**

DATE **04.01.2016**

REMARKS
1. An inspection pit was excavated to 3.00m deep by hand tools.



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH12A**

SHEET 1 of 5

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD ROTARY

CO-ORDINATES

WORKS ORDER NO. GE/2014/07.34

MACHINE SD41

E 820693.55

DATE 19.11.2015 to 24.11.2015

N 833760.48

FLUSHING MEDIUM AIRFOAM

ORIENTATION VERTICAL

GROUND LEVEL +5.38 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
19.11.2015	SW									0.00	+5.38	0.00		Yellowish brown (10YR 5/4) spotted greyish brown, slightly silty clayey fine to coarse SAND with occasional to some angular to subangular fine gravel of quartz and rock fragments. (FILL)
1									1 0.45					
									2 0.95					
2									3 1.45					
									4 1.95					
3									5 2.45					
									6 2.95	+2.38	3.00			Soft, yellowish brown (10YR 5/4) mottled grey, silty sandy CLAY with occasional angular to subangular fine gravel of quartz fragments. (FILL)
4				100					7 3.00					
									8 4.00	+1.28	4.10			Stiff to very stiff, bluish grey (5B 6/1) and light yellowish brown (10YR 6/4), slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
5								2,3 5,4,4,6 N=19	9 4.10					
									10 4.20					
6									11 4.50					
				100					12 5.00					
7									13 6.00					
									14 6.10					
19.11.2015									15 6.20					
20.11.2015		3.64 at 0800						2,2 3,3,4,4 N=14	16 6.50					
									17 7.00	-1.62	7.00			Medium dense, light bluish grey (5B 7/1), slightly clayey silty fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
8	SW 8.10m								18 8.00					
	PW								19 8.10					
									20 8.20					
20.11.2015								3,5 4,4,4,9 N=21	21 8.50					
21.11.2015									22 9.00	-3.62	9.00			Medium dense, brown (10YR 5/3), slightly clayey silty fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
		3.00 at 0800		0					23 9.50					
10									24 10.00	-4.62	10.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

25.11.2015

CHECKED

R. Chu

DATE

27.11.2015

REMARKS

- An inspection pit was excavated to 3.00m deep by hand tools.
- Constant head permeability test was carried out at section from 5.05m to 6.55m.
- A standpipe was installed at 18.10m.
- A piezometer was installed with tip at 20.20m.

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH12A**SHEET **2** of **5**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820693.55**N 833760.48**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD41

DATE

19.11.2015 to 24.11.2015

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+5.38 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11				100				B=50 3.4 4.6, 6.7 N=23	19 10.00 20 10.10 21 10.55 22 10.70 23 11.00	-4.72 -5.22	10.10 10.60			As sheet 1 of 5. Medium dense, light bluish grey (5B 7/1), slightly clayey silty fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM) Medium dense, pale brown (10YR 6/3), fine to coarse SAND with some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
12				100				B=75 4.5 5.6, 4.8 N=24	25 12.10 26 12.55 27 12.70 28 13.00 29 13.45					
13				100				B=27 4.4 6.7, 7.7 N=27	30 14.10 31 14.55 32 14.70 33 15.00 34 15.45					
14				100				B=67 3.2 4.4, 4.5 N=17	35 16.10 36 16.55 37 16.70 38 17.00 39 17.45					
15				100				B=66 3.2 4.6, 7.8 N=25	40 18.10 41 18.55 42 18.70 43 19.00 44 19.45	-13.22 -14.62	18.60 20.00			Firm, yellowish brown (10YR 5/8) spotted light yellowish brown, grey and white, slightly sandy clayey SILT with occasional angular fine to medium gravel of siltstone fragments. (KARST DEPOSITS)
16				100										
17				100										
18				100										
19				100										
20				100										

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

25.11.2015

CHECKED

R. Chu

DATE

27.11.2015

REMARKS

<div style="display: inline-block; border: 2px solid black; padding: 5px; font-weight: bold; font-size: 1.2em;">DRILTECH</div> <div style="display: inline-block; margin-left: 20px;"> DRILLHOLE RECORD CONTRACT NO. GE/2014/07 </div>										HOLE NO. S1-DH12A				
										SHEET 3 of 5				
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction														
METHOD ROTARY					CO-ORDINATES		WORKS ORDER NO. GE/2014/07.34							
MACHINE SD41					E 820693.55 N 833760.48		DATE 19.11.2015 to 24.11.2015							
FLUSHING MEDIUM AIRFOAM					ORIENTATION VERTICAL		GROUND LEVEL +5.38 mPD							
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
	PW 20.71m			100					45	20.10				As sheet 2 of 5.
21	HW		80	100	87	83	7.1		T2-120	20.61	20.71		II	<p>Strong, grey mottled dark grey, slightly decomposed, MARBLE.</p> <p>Joints are closely to medium spaced, occasionally very closely and widely spaced, rough planar and rough undulating, iron and manganese oxide stained, occasionally clean, dipping at 0° to 10°, 10° to 20°, 20° to 30°, 35° to 45°, 55° to 65° and subvertically from 25.19m to 26.75m.</p>
22							4.4			21.27	21.40			
23			80	100	100	100			T2-120	21.85	24.01			
24							2.5			22.04				
25			80	100	100	93			T2-120	23.54				
26										24.89				
27			80	100	90	85	>20		T2-120	25.50	26.67			<p>Strong to very strong, grey and white mottled dark grey, slightly decomposed MARBLE.</p>
28	HW 27.55m						3.8			26.15				
29			80	100	100	94			T2-120	26.97				
30							0.8			27.55				
			80	100	100	100			T2-101	29.07				
										29.54	29.64			
		3.20 at 0800	80	100	97	94	2.2		T2-101	24.26	24.62	30.00	II	

SMALL DISTURBED SAMPLE
 LARGE DISTURBED SAMPLE
 U76 SAMPLE
 PISTON SAMPLE (76mm)
 MAZIER SAMPLE
 SPT LINER SAMPLE
 WATER SAMPLE
 U100 SAMPLE

STANDARD PENETRATION TEST
 IN-SITU VANE SHEAR TEST
 PACKER TEST
 PERMEABILITY TEST
 PRESSUREMETER TEST
 BOREHOLE TELEVIEWER
 PIEZOMETER TIP
 STANDPIPE TIP

LOGGED S.L. Chiu
DATE 25.11.2015
CHECKED R. Chu
DATE 27.11.2015

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH12A**SHEET **4** of **5**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD	ROTARY	CO-ORDINATES	WORKS ORDER NO.
MACHINE	SD41	E 820693.55 N 833760.48	GE/2014/07.34
FLUSHING MEDIUM	AIRFOAM	ORIENTATION VERTICAL	DATE 19.11.2015 to 24.11.2015
			GROUND LEVEL +5.38 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31			80	100	100	100	0.7		T2-101	30.62	30.10		II	Joints are widely spaced, occasionally closely and medium spaced, rough planar, iron oxide stained, occasionally clean, dipping at 5° to 15° and 30° to 40°.
									T2-101	31.58	31.58			
32			80	100	100	100	2.1		T2-101	32.05	32.05			
33									T2-101	33.00				
			80	100	100	100			T2-101					
34							0.3		T2-101	34.58				
			80	100	100	100			T2-101	36.07	36.41			
35									T2-101	37.12	37.12			
36			80	100	100	100	1.4		T2-101	37.62				
37			80	100	100	100			T2-101	39.05	39.40			
38			80	100	100	100	0.4		T2-101	39.66	39.66			
39									T2-101	40.00	40.00			
40			80	100	99	99	7.7							

- | | |
|--------------------------|-----------------------------|
| ↑ SMALL DISTURBED SAMPLE | ↓ STANDARD PENETRATION TEST |
| ↓ LARGE DISTURBED SAMPLE | ✓ IN-SITU VANE SHEAR TEST |
| ▨ U76 SAMPLE | ○ PACKER TEST |
| ▨ PISTON SAMPLE (76mm) | ○ PERMEABILITY TEST |
| ▨ MAZIER SAMPLE | ○ PRESSUREMETER TEST |
| □ SPT LINER SAMPLE | ○ BOREHOLE TELEVIEWER |
| ▲ WATER SAMPLE | ○ PIEZOMETER TIP |
| ■ U100 SAMPLE | ○ STANDPIPE TIP |

LOGGED S.L. Chiu
DATE 25.11.2015
CHECKED R. Chu
DATE 27.11.2015

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH12A**SHEET **5** of **5**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD41		E 820693.55 N 833760.48		DATE 19.11.2015 to 24.11.2015								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +5.38 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
41			80	100	100	100	0.0		T2-101 40.44 T2-101	-35.02	41.30		II	As sheet 4 of 5.
42														End of hole at 41.30 m.
43														
44														
45														
46														
47														
48														
49														
50														

↑ SMALL DISTURBED SAMPLE

↓ LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

↓ STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED S.L. Chiu

DATE 25.11.2015

CHECKED R. Chu

DATE 27.11.2015

REMARKS

DRiLTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH13**SHEET **1** of **8**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820696.35**N **833945.40**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD11

DATE

03.12.2015 to **09.12.2015**

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+4.55 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
03.12.2015	SW													
1									1 0.00	+4.55	0.00			Yellowish red (5YR 5/6) mottled greyish brown, clayey silty fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments and with some concrete fragments. (FILL)
2									2 0.45					
3									3 0.95					
4									4 1.45					
5									5 1.95					
6									6 2.45					
7									7 2.85					
8									8 3.00	+1.55	3.00			Greyish brown (10YR 5/2) spotted yellowish brown, fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments and with some concrete fragments. (FILL)
9				0					9 4.00					
10									10 4.10	+0.45	4.10			Soft, dark grey (10YR 4/1) spotted yellowish brown, silty sandy CLAY with occasional angular to subangular fine gravel of quartz fragments. (FILL)
11									11 5.10					
12									12 5.20	-0.85	5.20			Medium dense, grey (10YR 6/1), slightly clayey silty fine to coarse SAND with much angular to subangular fine gravel of quartz fragments. (FILL)
13									13 5.60					
14									14 6.10	-1.55	6.10			Medium dense, yellowish red (5YR 5/8), slightly clayey silty fine to coarse SAND with some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
15									15 6.55					
16									16 6.70					
17									17 7.00	-2.50	7.05			Firm, light grey (2.5Y 7/1) mottled yellowish brown, silty sandy CLAY with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
18									18 7.55					
19									19 8.10	-3.55	8.10			Medium dense, light yellowish brown (10YR 6/4), slightly clayey silty fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
20									20 9.10	-4.65	9.20			Medium dense, light grey (5Y 7/2), slightly clayey silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
21									21 9.30					
22									22 9.60					
23									23 9.60					
24									24 9.60					
25									25 9.60					
26									26 9.60					
27									27 9.60					
28									28 9.60					
29									29 9.60					
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41									41 9.60					
42									42 9.60					
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130									130 9.60					
131									131 9.60					
132									132 9.60					
133									133 9.60					
134									134 9.60					
135									135 9.60					
136									136 9.60					
137									137 9.60					
138									138 9.60					
139														

		DRILLHOLE RECORD CONTRACT NO. GE/2014/07		HOLE NO. S1-DH13										
		SHEET 2 of 8												
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction														
METHOD ROTARY			CO-ORDINATES E 820696.35 N 833945.40		WORKS ORDER NO. GE/2014/07.34									
MACHINE SD11					DATE 03.12.2015 to 09.12.2015									
FLUSHING MEDIUM AIRFOAM			ORIENTATION VERTICAL		GROUND LEVEL +4.55 mPD									
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11				98				B=60 3,5 6,7,7,9 N=29	21 10.10 22 10.65 23 10.70 24 11.00	-5.55 -8.05 -8.50	10.10 10.60 11.05			As sheet 1 of 8. Medium dense, very dark grey (10YR 3/1) spotted very pale brown, slightly clayey silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
12									25 11.55					Medium dense, light grey (5Y 7/2), slightly clayey silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
13				96				B=95 4,8 7,8,9,11 N=35	26 12.10 27 12.65 28 12.70 29 13.00	-7.55 -8.50	12.10 13.05			Medium dense, yellowish brown (10YR 5/4), slightly clayey silty fine SAND. (ALLUVIUM)
14									30 13.55					Dense, grey (5Y 6/1), slightly clayey silty fine to coarse SAND with some to much angular to subangular fine to medium gravel of quartz fragments. (ALLUVIUM)
15				93				B=95 5,7 9,10,11,13 N=43	31 14.10 32 14.65 33 14.70 34 15.00	-9.55	14.10			Dense, dark grey (10YR 4/1), slightly clayey silty fine to coarse SAND with some to much angular to subangular fine to medium gravel of quartz fragments. (ALLUVIUM)
16		3.64 at 0800							35 15.55					Dense, very dark grey (10YR 3/1), slightly clayey silty fine to coarse SAND with some angular to subangular fine to coarse gravel of quartz fragments. (ALLUVIUM)
17				100				B=47 3,4 4,4,5,5 N=18	36 16.10 37 16.65 38 16.70 39 17.00	-11.55	16.10	V		Extremely weak, black (10YR 2/1), completely decomposed SILTSTONE. (Silty CLAY)
18									40 17.55					
19				100					41 18.10 42 19.10 43 19.20 44 19.30 45 19.60	-13.55 -15.45	18.10 20.00	V		Extremely weak to weak, very dark grey (10YR 3/1) streaked yellowish brown, completely decomposed SILTSTONE. (Slightly sandy silty CLAY with some angular fine to medium gravel of siltstone fragments)
20		SW 19.20m PW						6,7 15,19,24,28 N=66						
⚡ SMALL DISTURBED SAMPLE ⚡ LARGE DISTURBED SAMPLE ▨ U76 SAMPLE ▨ PISTON SAMPLE (76mm) ▨ MAZIER SAMPLE □ SPT LINER SAMPLE ▲ WATER SAMPLE ■ U100 SAMPLE									STANDARD PENETRATION TEST ▼ IN-SITU VANE SHEAR TEST ○ PACKER TEST ○ PERMEABILITY TEST ○ PRESSUREMETER TEST ○ BOREHOLE TELEVIEWER ○ PIEZOMETER TIP ○ STANDPIPE TIP			LOGGED S.L. Chiu DATE 15.12.2015 CHECKED R. Chu DATE 16.12.2015		REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH13**

SHEET 3 of 8

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD11**E 820696.35
N 833945.40DATE **03.12.2015** to **09.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.55 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21				100				5,7 8,11,16,18 N=53	45 20.10 46 21.10 47 21.20 21.30 48 21.60	-18.55	21.10	V	As sheet 2 of 8.	
22				100				5,10 12,13,15,20 N=60	49 22.10 50 23.10 51 23.20 23.30 52 23.60			V	Extremely weak, very dark grey (10YR 3/1) streaked yellowish brown, completely decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)	
23				100				5,8 11,12,13,15 N=51	53 24.10 54 25.10 55 25.20 25.30 56 25.60	-19.55	24.10	V	Extremely weak, very dark grey (10YR 3/1) streaked yellowish red and reddish grey, completely decomposed SILTSTONE. (Slightly sandy clayey SILT)	
24				100				7,9 12,13,15,20 N=58	57 26.10 58 27.10 59 27.20 27.30 60 27.60	-22.65	27.20	V	Extremely weak, very dark grey (10YR 3/1) streaked yellowish red, completely decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)	
25				100				8,9 12,15,17,21 N=65	61 28.10 62 29.10 29.20 29.30 63 29.60 64	-24.65	29.20	V	Extremely weak, very dark grey (10YR 3/1) streaked yellowish red, completely decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine to medium gravel of siltstone fragments)	
26										-25.45	30.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**DATE **15.12.2015**CHECKED **R. Chu**DATE **16.12.2015**

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH13**SHEET **4** of **8**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD11		E 820696.35 N 833945.40		GE/2014/07.34								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION		VERTICAL								
GROUND LEVEL						+4.55 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31				95				5,5 12,20,33,35 N=100	65 30.10 66 31.10 67 31.20 31.30 68 31.60	-25.55	30.10		IV	Weak, very dark grey (10YR 3/1) streaked yellowish brown and yellowish red, highly decomposed SILTSTONE. (Angular, slightly sandy clayey very silty fine to coarse GRAVEL of highly decomposed siltstone fragments)
32				100				6,8 15,18,20,23 N=76	69 32.10 70 33.10 33.20 71 33.30 72 33.60	-28.65	33.20		V	Extremely weak to very weak, very dark grey (10YR 3/1) streaked yellowish red, completely decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
33		05.12.2015 07.12.2015	3.63 at 0800					6,10 14,19,21,24 N=77	73 34.10 74 35.10 35.20 75 35.30 76 35.60	-31.55	36.10			Very stiff, yellowish red (5YR 4/6) mottled grey and very dark grey, slightly sandy clayey SILT with occasional to some angular to subangular fine gravel of rock fragments. (KARST DEPOSITS)
34				100				12,27 28,36,38/50mm 100bls/200mm	77 36.10 78 37.10 37.20 79 37.30 80 37.50	-32.65	37.20			Very stiff, yellowish brown (10YR 5/4) mottled grey, slightly sandy clayey SILT with occasional angular to subangular fine to medium gravel of rock fragments. (KARST DEPOSITS)
35									81 38.10 82 39.10 39.20	-35.45	40.00			
36				0										
37				91										
38														
39														
40														

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **15.12.2015**
CHECKED **R. Chu**
DATE **16.12.2015**

REMARKS

DRiLTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH13**SHEET **5** of **8**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820696.35**N 833945.40**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD11**DATE **03.12.2015** to **09.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.55 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
41								9,16 19,21,25,30 N=95 ↓	83 40.20 84 40.30 85 40.40 86 40.70					As sheet 4 of 8.
42				100				50/75mm 100/75mm 100bls/75mm ↓	86 41.20 87 42.20 88 42.30 89 42.40	-38.65	41.20			Very dense, yellowish brown (10YR 5/4) and dark grey (10YR 3/1) streaked yellowish brown, angular to subangular, slightly clayey silty sandy fine to coarse GRAVEL of rock fragments. (KARST DEPOSITS)
43				100				12,19 23,30,47/80mm 100bls/210mm ↓	89 43.20 90 44.20 91 44.30 92 44.40 93 44.61	-38.65	43.20			Very stiff, very dark grey (10YR 3/1) spotted yellowish brown, slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz and rock fragments. (KARST DEPOSITS)
44				100				10,17 20,26,31,23/45mm 100bls/270mm ↓	93 45.20 94 46.20 95 46.30 96 46.40 97 46.67					
45				100				6,7 8,10,11,12 N=41 ↓	97 47.20 98 48.20 99 48.30 100 48.40 101 48.70	-43.75	48.30			Very stiff, yellowish brown (10YR 5/4) streaked dark grey, slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz and rock fragments. (KARST DEPOSITS)
46				100					101 49.20	-44.65	49.20			Very stiff, dark greyish brown (10YR 4/2) spotted yellowish red and white, slightly sandy clayey SILT with much angular to subangular fine to coarse gravel of rock fragments. (KARST DEPOSITS)
47				100						-45.45	50.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED S.L. Chiu
DATE 15.12.2015
CHECKED R. Chu
DATE 16.12.2015

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH13**SHEET **6** of **8**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD11****E 820696.35**DATE **03.12.2015** to **09.12.2015****N 833945.40**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.55 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
51	HW 51.00m							8,10,12,13,15,17 N=57	T2-101	50.20 50.30 50.40 50.70	-45.75 50.30			As sheet 5 of 8.
52				100	99	93	3.1		T2-101	51.00	-46.45 51.00			Very stiff, light yellowish brown (10YR 6/4) spotted dark grey, slightly sandy clayey SILT. (KARST DEPOSITS)
53				100	96	96	3.4		T2-101	52.06 52.51 52.92				Strong, light grey and grey, slightly decomposed MARBLE. Joints are medium to widely spaced, occasionally very closely spaced, rough planar, iron oxide stained and clean, dipping at 0° to 10°, 30° to 40° and subvertically from 52.63m to 53.37m.
54				100	100	100			T2-101	53.50				
55				100	100	100			T2-101	54.00				
56				100	100	100			T2-101	55.54				
57				100	100	100	0.5		T2-101	57.02				
58				100	100	100			T2-101	58.38				
59				100	99	92			T2-101	59.72				From 59.01m to 59.50m: Dark grey streaked light grey, IMPURE MARBLE.
60									T2-101	59.40 59.50	-54.95 60.00			Strong, dark grey streaked light grey, slightly decomposed IMPURE MARBLE.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BORHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **15.12.2015**
CHECKED **R. Chu**
DATE **16.12.2015**

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH13**SHEET **7** of **8**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820696.35

N 833945.40

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD11**DATE **03.12.2015** to **09.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.55 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
61				100	100	100		0.4	T2-101					Joints are widely to very widely spaced, occasionally very closely spaced, rough planar and rough stepped, calcite coated, occasionally clean, dipping at 35° to 45°.
62				100	98	92	>20		T2-101		62.07 62.19			
08.12.2015 09.12.2015		3.60 at 0800												
63				100	100	100			T2-101		62.71			
64								0.3						
									T2-101		64.25			
65				100	100	100			T2-101					
66											65.62			
									T2-101		65.77			
67				100	100	100			T2-101					
68				100	100	100			T2-101		67.28			
69								0.0						
									T2-101		68.80			
70				100	100	100			T2-101					
											65.45	70.00		

↓ SMALL DISTURBED SAMPLE
↓ LARGE DISTURBED SAMPLE
U76 SAMPLE
PISTON SAMPLE (76mm)
MAZIER SAMPLE
SPT LINER SAMPLE
▲ WATER SAMPLE
■ U100 SAMPLE

↓ STANDARD PENETRATION TEST
↓ IN-SITU VANE SHEAR TEST
PACKER TEST
PERMEABILITY TEST
PRESSUREMETER TEST
BOREHOLE TELEVIEWER
PIEZOMETER TIP
STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **15.12.2015**
CHECKED **R. Chu**
DATE **16.12.2015**

REMARKS

		DRILLHOLE RECORD CONTRACT NO. GE/2014/07		HOLE NO. S1-DH13										
				SHEET 8 of 8										
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction														
METHOD ROTARY			CO-ORDINATES E 820696.35 N 833945.40		WORKS ORDER NO. GE/2014/07.34									
MACHINE SD11					DATE 03.12.2015 to 09.12.2015									
FLUSHING MEDIUM AIRFOAM			ORIENTATION VERTICAL		GROUND LEVEL +4.55 mPD									
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
71				100	100	100			T2-101 70.25 T2-101	-67.01	71.56	II		As sheet 7 of 8.
72														End of hole at 71.56 m.
73														
74														
75														
76														
77														
78														
79														
80														
<div style="display: flex; justify-content: space-between;"> <div> <p>↓ SMALL DISTURBED SAMPLE</p> <p>↓ LARGE DISTURBED SAMPLE</p> <p>▨ U76 SAMPLE</p> <p>▨ PISTON SAMPLE (76mm)</p> <p>▨ MAZIER SAMPLE</p> <p>□ SPT LINER SAMPLE</p> <p>▲ WATER SAMPLE</p> <p>■ U100 SAMPLE</p> </div> <div> <p>↓ STANDARD PENETRATION TEST</p> <p>✓ IN-SITU VANE SHEAR TEST</p> <p>○ PACKER TEST</p> <p>○ PERMEABILITY TEST</p> <p>○ PRESSUREMETER TEST</p> <p>○ BOREHOLE TELEVIEWER</p> <p>○ PIEZOMETER TIP</p> <p>○ STANDPIPE TIP</p> </div> </div>									LOGGED <u>S.L. Chiu</u> DATE <u>15.12.2015</u> CHECKED <u>R. Chu</u> DATE <u>16.12.2015</u>		REMARKS			

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**

SHEET 1 of 13

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD **ROTARY**

CO-ORDINATES

E 820695.13

N 833868.26

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD13**DATE **13.11.2015** to **19.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.41 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
13.11.2015	SW								1 0.00	+4.41	0.00			Brown (7.5YR 4/4) mottled greyish brown, slightly silty clayey fine to coarse SAND with some angular to subangular fine to coarse gravel of quartz and rock fragments. (FILL)
1									2 0.45					
									3 0.95					
2									4 1.45					
									5 1.95					
3									6 2.45					Very stiff, yellowish red (5YR 5/6) mottled light grey, slightly sandy silty CLAY. (ALLUVIUM)
									7 2.95	+1.41	3.00			
4									8 3.00					Very stiff, light grey (10YR 7/2) mottled yellowish brown, slightly sandy silty CLAY. (ALLUVIUM)
									9 4.00	+0.31	4.10			
13.11.2015									10 4.20					Medium dense, light grey (10YR 7/1) spotted red, slightly silty clayey fine to coarse SAND with some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
14.11.2015									11 4.50					
5		2.82 at 0800							12 5.00					Very stiff, light grey (10YR 7/1) mottled yellowish brown, slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
									13 6.00	-1.69	6.10			
6									14 6.10					Dense, grey (7.5YR 5/1) mottled black and yellowish brown, slightly silty clayey fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
									15 6.20	-2.59	7.00			
7									16 6.50					
									17 7.00					
8									18 8.00					
14.11.2015									19 8.10					
16.11.2015		2.95 at 0800							20 8.20					
9									21 8.50					
10									22 9.00	-4.59	9.00			
									23 9.50	-5.59	10.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

24.12.2015

CHECKED

R. Chu

DATE

29.12.2015

REMARKS

- An inspection pit was excavated to 3.00m deep by hand tools.
- Constant head permeability test was carried out at section from 6.60m to 8.10m.
- A standpipe was installed at 11.50m.
- A piezometer was installed with tip at 22.50m.

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**SHEET **2** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820695.13

N 833868.26

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD13**DATE **13.11.2015** to **19.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.41 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11								7.10 28.35, 37.70mm 100bls/220mm	20 21 22	10.00 10.12 10.42	-5.69 -6.59 -7.69	10.10 11.00 12.10		As sheet 1 of 13. Very dense, pale red (10R 6/4), slightly silty fine to coarse SAND with some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
12				0				B=58	23 24	11.00 12.00 12.10	-8.59 -7.69 -8.19	11.00 12.10 12.60		Medium dense, light yellowish brown (10YR 6/3) spotted grey, slightly silty clayey fine to coarse SAND with much angular to subangular fine to coarse gravel of quartz fragments. (ALLUVIUM)
13		2.93 at 0800						4.4 3.5, 8.12 N=28	25 26 27	12.65 12.70 13.00	-8.19	12.60		Medium dense, grey (10YR 6/1), slightly silty clayey fine to coarse SAND with much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
14								B=63	28 29	13.45 14.10				Medium dense, dark grey (10YR 4/1), slightly silty clayey fine to coarse SAND with much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
15								4.4 5.14, 32.48/35mm 100bls/260mm	30 31 32	14.55 14.68 14.98	-10.19	14.60		Very dense, dark grey (10YR 4/1), slightly silty fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
16								B=165	33 34	15.45 16.10	-11.69	16.10		Light grey (10YR 7/2) mottled white, angular to subangular, slightly silty very sandy fine to coarse GRAVEL of quartz fragments. (ALLUVIUM)
17								10.13 15.23, 39.23/35mm 100bls/260mm	35 36 37	16.55 16.68 16.98	-12.19	16.60		Very dense, grey (7.5YR 5/1), slightly clayey silty fine to coarse SAND with much angular to subangular fine to coarse gravel of quartz fragments. (ALLUVIUM)
18								B=120	38 39	17.45 18.10	-13.69	18.10		Very dense, grey (7.5YR 5/1), silty very clayey fine to coarse SAND with much angular to subangular fine to coarse gravel of quartz fragments. (ALLUVIUM)
19								8.6 7.7, 8.10 N=32	40 41 42	18.65 18.70 19.00	-14.19	18.60		Grey (7.5YR 5/1) spotted white, angular to subangular, slightly silty very sandy fine to medium GRAVEL of quartz fragments. (ALLUVIUM)
20	SW 20.00m								43	19.45	-15.59	20.00		

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

24.12.2015

CHECKED

R. Chu

DATE

29.12.2015

REMARKS

		DRILLHOLE RECORD CONTRACT NO. GE/2014/07		HOLE NO. S1-DH14										
		SHEET 3 of 13												
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction														
METHOD ROTARY			CO-ORDINATES E 820695.13 N 833868.26		WORKS ORDER NO. GE/2014/07.34									
MACHINE SD13					DATE 13.11.2015 to 19.12.2015									
FLUSHING MEDIUM AIRFOAM			ORIENTATION VERTICAL		GROUND LEVEL +4.41 mPD									
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21	PW			100				B=43 4.5 5,10,12,20 N=47	44 20.10 45 20.65 46 20.70 47 21.00	-15.89	20.10			As sheet 2 of 13. Dense, light grey (7.5YR 7/1), slightly clayey silty fine to occasional medium SAND. (ALLUVIUM)
22				100				B=83 3.8 10,11,13,15 N=49	48 21.45 49 22.10 50 22.65 51 22.70	-16.64	21.05			Dense, grey (7.5YR 5/1) spotted white, slightly clayey silty fine to coarse SAND with occasional angular to subangular fine to medium gravel of quartz fragments. (ALLUVIUM)
23		2.95 at 0800						4.4 5,7,9,10 N=51	52 23.00 53 23.45	-18.19	22.60		V	Extremely weak, grey (5Y 5/1) mottled yellowish brown, dark red and reddish brown, completely decomposed SILTSTONE. (Slightly sandy silty CLAY with occasional angular fine gravel of siltstone fragments)
24				100					54 24.10 55 25.10 56 25.20 57 25.30					
25				100				6.8 6,7,10,13 N=38	58 26.10 59 27.10 60 27.20 61 27.30	-21.89	26.10		V	Extremely weak, very dark grey (5YR 3/1) streaked yellowish red, completely decomposed SILTSTONE. (Slightly sandy silty CLAY with occasional angular fine gravel of siltstone fragments)
26									62 28.10 63 29.10 64 29.20 65 29.30	-23.69	28.10		V	Extremely weak to very weak, yellowish brown (10YR 5/4) mottled yellowish red, completely decomposed SILTSTONE. (Slightly sandy clayey SILT with some angular fine to medium gravel of siltstone fragments)
27				100				7.11 11,12,13,15 N=51		-24.79	29.20		V	Extremely weak, dark grey (5Y 4/1) streaked yellowish brown, completely decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone)
28										-25.59	30.00			
29	PW 29.20m HW													
30		3.05 at 0800												
<div style="display: flex; justify-content: space-between;"> <div> ↓ SMALL DISTURBED SAMPLE ↓ LARGE DISTURBED SAMPLE ▨ U76 SAMPLE ▨ PISTON SAMPLE (76mm) ▨ MAZIER SAMPLE □ SPT LINER SAMPLE ▲ WATER SAMPLE ■ U100 SAMPLE </div> <div> ↓ STANDARD PENETRATION TEST ▼ IN-SITU VANE SHEAR TEST ○ PACKER TEST ○ PERMEABILITY TEST ○ PRESSUREMETER TEST ○ BOREHOLE TELEVIEWER ▲ PIEZOMETER TIP □ STANDPIPE TIP </div> </div>									LOGGED S.L. Chiu DATE 24.12.2015 CHECKED R. Chu DATE 29.12.2015		REMARKS			



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**SHEET **4** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**CO-ORDINATES
E **820695.13**
N **833868.26**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD13**DATE **13.11.2015** to **19.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.41 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31				94				9,10 10,13,15,16 N=54	66 30.10 67 31.10 68 31.20 69 31.30	-25.69 -26.79	30.10 31.20		V	fragments) Extremely weak to very weak, yellowish brown (10YR 5/4) spotted brown, completely decomposed SILTSTONE. (Slightly sandy silty CLAY)
32				0					70 32.10 71 32.40 72 32.50	-27.09 -28.09	32.10 32.50		V	Extremely weak, dark grey (5Y 4/1) streaked yellowish brown, completely decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
33				100				6,7 8,12,18,21 N=59	73 33.70 74 34.00				V	Extremely weak, yellowish brown (10YR 5/4) mottled grey, completely decomposed SILTSTONE. (Slightly sandy silty CLAY)
34		2.98 at 0800							75 34.50 76 35.50 77 35.60 78 35.70				V	Extremely weak, dark grey (5Y 4/1) streaked yellowish brown and yellowish red, completely decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
35				100				5,7 9,13,19,21 N=62	79 36.50 80 37.50 81 37.70	-32.09 -33.19	36.50 37.60		IV	Weak, dark grey (5Y 4/1) streaked yellowish red, highly decomposed SILTSTONE. (Angular, slightly sandy clayey very silty fine to coarse GRAVEL of highly decomposed siltstone fragments)
36								6,8 13,17,19,22 N=71	82 38.00 83 38.50				V	Extremely weak, dark grey (5Y 4/1) streaked yellowish brown and yellowish red, completely decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
37				100					84 39.50 85 39.70	-35.59	40.00			
38								8,8 12,12,11,10 N=45						
39				100										
40														

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED S.L. Chiu
DATE 24.12.2015
CHECKED R. Chu
DATE 29.12.2015

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**

SHEET 5 of 13

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD13		E 820695.13 N 833868.26		GE/2014/07.34								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION		VERTICAL								
GROUND LEVEL		+4.41 mPD												
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
41				100					86	40.00			V	As sheet 4 of 13.
42		3.95 at 0800						5.5 8.9, 9.10 N=38	87	40.50			V	Extremely weak, red (10R 5/6) streaked light yellowish brown and greyish brown, completely decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
43				100				88	41.50	-37.19	41.60		V	
44								8.10 14.24, 27.31 N=98	89	41.70			IV	Extremely weak to weak, dark grey (5Y 4/1) streaked yellowish brown and yellowish red, highly decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
45				100				90	42.00				IV	
46								7.14 23.32, 38.7/5mm 100bls/230mm	91	42.50			IV	Extremely weak to very weak, dark grey (5Y 4/1) streaked yellowish red, highly decomposed SILTSTONE. (Slightly sandy clayey SILT with some angular fine to medium gravel of siltstone fragments)
47				100				92	43.50	-39.19	43.60		IV	
48								7.11 19.23, 31.30/55mm 100bls/280mm	93	43.70			IV	Extremely weak to weak, yellowish brown (10YR 5/4) streaked grey, mottled yellowish red, highly decomposed SILTSTONE. (Clayey sandy SILT with occasional angular fine gravel of siltstone fragments)
49				100				94	44.00				IV	
50		2.95 at						19.31/35mm 61.39/35mm 100bls/110mm	95	44.50			IV	Extremely weak to very weak, dark grey (5Y 4/1) streaked yellowish red, highly decomposed SILTSTONE. (Slightly sandy clayey SILT with some angular fine to medium gravel of siltstone fragments)
								96	45.50	-41.19	45.60		IV	
									97	45.88			IV	
								98	45.93	-42.09	46.50		IV	
									99	46.50			IV	
								100	47.50	-43.19	47.60		IV	
									01	47.68			IV	
								02	47.98				IV	
									03	48.50			IV	
								04	49.50				IV	
									05	49.60			IV	
								06	49.77	-45.59	50.00		IV	

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED S.L. Chiu

DATE 24.12.2015

CHECKED R. Chu

DATE 29.12.2015

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**SHEET **6** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**CO-ORDINATES
E 820695.13
N 833868.26WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD13**DATE **13.11.2015** to **19.12.2015**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.41 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
51		0800		100				7,13 35,48,17/20mm 100bls/170mm	07 49.97 08 50.50 09 51.50 10 51.60 11 51.87				IV	As sheet 5 of 13.
52														
53				100				10,24 39,53,8/10mm 100bls/160mm	12 52.50 13 53.50 14 53.60 15 53.86	-48.09	52.50		IV	Extremely weak to weak, dark grey (5Y 4/1) spotted yellowish red, highly decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
54										-49.19	53.60		IV	Weak, dark grey (5Y 4/1) streaked yellowish red, highly decomposed SILTSTONE. (Angular, slightly sandy very silty fine to coarse GRAVEL of highly decomposed siltstone fragments)
55				100				9,31 71,29/25mm 100bls/100mm	16 54.50 17 55.50 18 55.60 19 55.80	-50.09	54.50		IV	Extremely weak to weak, dark grey (5Y 4/1) streaked yellowish red, highly decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
56		3.05 at 0800								-51.19	55.60		IV	Very weak, dark grey (5Y 4/1) streaked yellowish red, highly decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
57				100				15,19 22,24,29,25/25mm 100bls/250mm	20 56.50 21 57.25 22 57.88 23 57.95	-52.09	56.50		IV	Extremely weak to weak, dark grey (5Y 4/1) streaked yellowish red, highly decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel of siltstone fragments)
58										-53.19	57.60		IV	Weak, dark grey (5Y 4/1) streaked yellowish red, highly decomposed SILTSTONE. (Angular, slightly sandy silty fine to coarse GRAVEL of highly decomposed siltstone fragments)
59				100				9,14 18,24,34,24/45mm 100bls/270mm	24 58.50 25 59.50 26 59.60 27 59.67					
60										-55.59	60.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

24.12.2015

CHECKED

R. Chu

DATE

29.12.2015

REMARKS

DRiLTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**SHEET **7** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.		GE/2014/07.34						
MACHINE		SD13		E 820695.13 N 833868.26		DATE		13.11.2015 to 19.12.2015						
FLUSHING MEDIUM		AIRFOAM		ORIENTATION		VERTICAL		GROUND LEVEL +4.41 mPD						
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
									27 59.97				IV	As sheet 6 of 13.
61				100					28 60.50	-56.09	60.50		IV	Extremely weak to weak, dark grey (5Y 4/1) streaked yellowish red, highly decomposed SILTSTONE. (Slightly sandy silty CLAY with occasional angular fine gravel of siltstone fragments)
24.11.2015 25.11.2015		2.97 at 0800						17.22 23,32,52,16/25mm 123bls/250mm	29 61.50 30 61.60 31 61.95	-57.19	61.60		IV	Weak, dark grey (5Y4/1) streaked yellowish red, highly decomposed SILTSTONE. (Angular, slightly sandy silty fine to coarse GRAVEL of highly decomposed siltstone fragments)
62														
63				100					32 62.50					
64								4.11 14,17,37,32/45mm 100bls/270mm	33 63.50 34 63.60 35 63.97					
65				100					36 64.50	-60.09	64.50		IV	Extremely weak to weak, dark grey (5Y 4/1) streaked yellowish red, highly decomposed SILTSTONE. (Slightly sandy clayey SILT with occasional to some angular fine to medium gravel of siltstone fragments)
66								10,12 13,13,13,17 N=58	37 65.50 38 65.60 39 66.00					
25.11.2015 26.11.2015		2.98 at 0800							40 66.50	-62.09	66.50			Very stiff, dark grey (5Y 4/1) streaked yellowish red, spotted white, slightly sandy clayey SILT with occasional to some angular fine to medium gravel of rock fragments. (KARST DEPOSITS)
67				100					41 67.50 42 67.60 43 68.00	-63.19	67.60			Very stiff, dark grey (5Y 4/1) streaked yellowish red, slightly sandy clayey SILT with occasional to some angular fine to medium gravel of rock fragments. (KARST DEPOSITS)
68								9,9 13,14,23,32 N=82	44 68.50 45 69.50 46 69.60 46 69.70	-64.09	68.50			Very stiff, dark grey (5Y 4/1) spotted yellowish brown and white, slightly sandy silty CLAY with occasional angular fine gravel of rock fragments. (KARST DEPOSITS)
69				100										
70								5,7 10,14,14,20 N=58		-65.19	69.60			Very stiff, dark grey (5Y 4/1) streaked yellowish red, slightly sandy clayey SILT with occasional to some
REMARKS														
LOGGED S.L. Chiu														
DATE 24.12.2015														
CHECKED R. Chu														
DATE 29.12.2015														



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**SHEET **8** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD13****E 820695.13**DATE **13.11.2015** to **19.12.2015****N 833868.26**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.41 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
														angular fine to medium gravel of rock fragments. (KARST DEPOSITS)
71				100				7.12 12,14,16,29 N=71	47 70.00 48 70.50 49 71.50 50 71.60 51 71.70 52 72.00	-86.09	70.50		Very stiff, very dark grey (5Y 3/1), slightly sandy clayey SILT with occasional angular fine gravel of rock fragments. (KARST DEPOSITS)	
72														
73				0										Very dark grey (5Y 3/1), angular, slightly sandy clayey silty fine to coarse GRAVEL of rock fragments. (KARST DEPOSITS)
74		2.95 at 0800		100				4.7 9,13,16,22 N=62	53 73.60 54 74.60 55 74.70 56 74.80 57 75.00 58 75.60 59 76.00 60 76.70 61 77.10	-69.19	73.60		Very stiff, very dark grey (5Y 3/1), slightly sandy clayey SILT with occasional angular fine gravel of rock fragments. (KARST DEPOSITS)	
75														
76				100										
77								5.7 7,8,10,14 N=39	62 77.60 63 78.60 64 78.70 65 79.70 66 79.80	-72.29	76.70		Very stiff, light brown (7.5YR 6/3) mottled dark brown, spotted white, slightly sandy silty CLAY with occasional to some angular to subangular fine to medium gravel of siltstone and sandstone fragments. (KARST DEPOSITS)	
78				35										
79				100										
80								15.27 46,54/55mm						

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

24.12.2015

CHECKED

R. Chu

DATE

29.12.2015

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**

SHEET 9 of 13

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD13**E **820695.13**DATE **13.11.2015** to **19.12.2015**N **833868.26**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+4.41 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
28.11.2015 29.11.2015		3.01 at 0800						100bls/130mm						As sheet 8 of 13.
81				28						80.03				
82				40	21	21	3.2		T2-101	81.67 81.77	-77.36 81.77		III	Moderately strong, light brown, moderately decomposed MARBLE.
							NR			-77.67	82.08			From 82.08m to 82.54m: No recovery, assumed to be CAVITY.
83				94	48	48	1.4		T2-101	82.54	-78.13 82.54 -78.35 82.76		IV	Weak, light brown (7.5YR 6/4) mottled dark brown and white, highly decomposed MARBLE. (Angular, fine to coarse GRAVEL of highly decomposed marble fragments)
							NI				-79.05 83.46		IV	From 82.76m to 83.46m: Strong and slightly decomposed.
28.11.2015 30.11.2015		3.03 at 0800		100	13	0	>20		T2-101	84.00	-79.59 84.00		III	Moderately weak to moderately strong, white streaked brown, moderately decomposed MARBLE with dissolution features.
				88	6	0			T2-101	84.87				
30.11.2015 01.12.2015		2.98 at 0800		100	95	95	10.5			85.64	-81.13 85.54 85.73		II	Strong, light grey mottled pink, slightly decomposed MARBLE.
86									TNW					
87				100	97	86	1.0			86.95				
									TNW		87.79			
01.12.2015 02.12.2015		3.01 at 0800		100	100	100	1.1			88.44				
89									TNW					
90	HW 60.00m								TNW	89.81	-85.40 89.81			No recovery, assumed to be CAVITY.

- ↓

SMALL DISTURBED SAMPLE
- ↓

LARGE DISTURBED SAMPLE
- ▨

U76 SAMPLE
- ▨

PISTON SAMPLE (76mm)
- ▨

MAZIER SAMPLE
- SPT LINER SAMPLE
- ▲

WATER SAMPLE
- U100 SAMPLE
- ↓

STANDARD PENETRATION TEST
- ▼

IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED S.L. Chiu
DATE 24.12.2015
CHECKED R. Chu
DATE 29.12.2015

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**

SHEET 10 of 13

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD ROTARY

CO-ORDINATES
E 820695.13
N 833868.26

WORKS ORDER NO. GE/2014/07.34

MACHINE SD13

DATE 13.11.2015 to 19.12.2015

FLUSHING MEDIUM AIRFOAM

ORIENTATION VERTICAL

GROUND LEVEL +4.41 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
	NW			0	0	0	NR		TNW					
91				100	100	100	1.9		TNW	90.88	90.88		II	Strong, light grey dappled light greyish white, slightly decomposed MARBLE.
				57	36	26	>20		TNW	91.42	91.42			
							NR		TNW	91.65	91.65		II	From 91.55m to 91.65m and 92.68m to 92.79m: No recovery, assumed to be CAVITY-FILL DEPOSITS.
92				92	89	86	3.2		TNW					
							>20			92.60	92.60			
							NR			92.79	92.79		II	
93		2.88 at 0800							TNW	93.10				Strong, light grey dappled light greyish white, slightly decomposed MARBLE.
94				100	100	95	0.6		TNW					Joints are very widely, locally medium to widely with occasional extremely closely to very closely spaced, rough planar and stepped, iron oxide stained, dipping at 0° to 10° and 30° to 40°.
							14.3			94.64	94.64			
95				100	100	100			TNW					
96				93	93	93			TNW	96.20				
97				90	90	90	0.4		TNW	96.93				
98				100	100	100			TNW	97.82				
99		2.89 at 0800		100	100	100			T2-101	99.05				
				100	99	99			T2-101	99.30				
100										95.59	100.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

24.12.2015

CHECKED

R. Chu

DATE

29.12.2015

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**

SHEET 11 of 13

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD	ROTARY	CO-ORDINATES	WORKS ORDER NO.
MACHINE	SD13	E 820695.13 N 833868.26	GE/2014/07.34
FLUSHING MEDIUM	AIRFOAM	ORIENTATION	DATE
		VERTICAL	13.11.2015 to 19.12.2015
		GROUND LEVEL	+4.41 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
10.12.2015		2.98 at 0800								100.06	100.00		II	As sheet 10 of 13. No recovery, assumed to be CAVITY.
101				0	0	0	NR		T2-101					
10.12.2015		2.93 at 0800								101.75	101.75		II	Strong, light grey, slightly decomposed MARBLE.
11.12.2015				100	95	95	3.1		T2-101					
102									102.38					
103				54	52	49	NR		TNW	102.73	102.73			No recovery, assumed to be CAVITY.
										103.40	103.40		II	Strong, grey, locally light brown streaked grey, slightly decomposed MARBLE.
104							1.1			103.85	103.85			
				100	98	96			TNW	104.33	104.30			
105										105.28	105.28			
106				100	100	100	0.3		TNW	106.75	106.75			
107										108.19	108.19			
108				98	95	95			TNW	109.17	109.17			
11.12.2015		2.90 at 0800								104.76	104.76			No recovery, assumed to be CAVITY.
12.12.2015				100	98	95	2.1		TNW	105.59	105.59			
109										110.00	110.00			
110				0	0	0	NR		TNW					

- ↑ SMALL DISTURBED SAMPLE
↓ LARGE DISTURBED SAMPLE
▨ U76 SAMPLE
▨ PISTON SAMPLE (76mm)
▨ MAZIER SAMPLE
□ SPT LINER SAMPLE
▲ WATER SAMPLE
■ U100 SAMPLE
- ↓ STANDARD PENETRATION TEST
▽ IN-SITU VANE SHEAR TEST
□ PACKER TEST
□ PERMEABILITY TEST
□ PRESSUREMETER TEST
□ BOREHOLE TELEVIEWER
□ PIEZOMETER TIP
□ STANDPIPE TIP

LOGGED S.L. Chiu
DATE 24.12.2015
CHECKED R. Chu
DATE 29.12.2015

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**

SHEET 12 of 13

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD ROTARY

CO-ORDINATES
E 820695.13
N 833868.26

WORKS ORDER NO. GE/2014/07.34

MACHINE SD13

DATE 13.11.2015 to 19.12.2015

FLUSHING MEDIUM AIRFOAM

ORIENTATION VERTICAL

GROUND LEVEL +4.41 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
111				100	69	69	6.3		TNW	-110.08 -110.25	-110.08 -110.25		II	As sheet 11 of 13. Strong, light brown mottled dark brown, slightly decomposed MARBLE. No recovery, assumed to be CAVITY.
12.12.2015 14.12.2015 14.12.2015 15.12.2015 15.12.2015 16.12.2015		2.96 at 0800		0	0	0	NR		TNW					
		3.03 at 0800		97	82	82	11.8		TNW	-111.57 -111.91	-111.57 -111.91		II	Strong, light brown streaked grey, slightly decomposed MARBLE. No recovery, assumed to be CAVITY.
		3.00 at 0800		0	0	0	NR		TNW					
113				0	0	0	NR		TNW					
				0	0	0	NR		TNW					
114				100	100	100	1.3		TNW	-113.92 -113.92	-113.92 -113.92		III	Strong, pink and light grey mottled light brown and yellowish brown, slightly decomposed MARBLE. Joints are very widely, locally medium to widely with occasional extremely closely to very closely spaced, rough planar and stepped, iron oxide stained, dipping at 0° to 10°, 30° to 40° and 55° to 65°.
115				100	100	100	1.3		TNW					
				100	100	100	1.3		TNW	-115.32 -115.32	-115.32 -115.32		III	From 113.92m to 114.08m, 115.50m to 115.57m, 115.90m to 116.32m and 119.99m to 120.11m: Moderately strong to strong and moderately decomposed with some dissolution features.
116				87	61	59	9.5		TNW	-111.09 -111.29 -111.49	-111.09 -111.29 -111.49		III IV	From 115.57m to 115.70m and 120.11m to 120.29m: Weak to moderately weak and highly decomposed. (Angular, COBBLE of highly decomposed marble fragments with dissolution features)
117				100	100	100	0.3		TNW	-111.91 -116.83	-111.91 -116.83		II	From 115.70m to 115.90m: No recovery, assumed to be CAVITY.
118				100	100	100	0.3		TNW					
16.12.2015 17.12.2015		2.98 at 0800		100	100	100	0.3		TNW	-118.23 -118.23	-118.23 -118.23			
119				100	100	100	0.3		TNW					
				100	100	100	0.3		TNW	-119.59 -119.59	-119.59 -119.59			
120				100	100	100	0.3		TNW	-119.59 -119.59	-119.59 -119.59			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED S.L. Chiu
DATE 24.12.2015
CHECKED R. Chu
DATE 29.12.2015

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH15**

SHEET 1 of 5

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD38**E 820697.56
N 833724.20DATE **18.02.2016** to **02.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.49 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
48.02.2016	SW								<div><div>1</div><div>0.00</div><div>0.45</div></div>	+1.49	0.00			Very stiff, light greenish grey (5G 7/1) mottled light yellowish brown, slightly sandy silty CLAY. (ALLUVIUM)
1				100			B=28 2,3,3,5,7 N=18	<div><div>2</div><div>0.95</div><div>1.00</div></div> <div><div>4</div><div>1.55</div><div>1.60</div></div> <div><div>5</div><div>1.60</div><div>1.90</div></div>						
2								<div><div>6</div><div>1.90</div><div>1.90</div></div>						
3				100			B=17 2,3,3,5,4,7 N=19	<div><div>7</div><div>2.95</div><div>3.00</div></div> <div><div>8</div><div>3.00</div><div>3.55</div></div> <div><div>9</div><div>3.55</div><div>3.60</div></div> <div><div>10</div><div>3.60</div><div>3.90</div></div>						
4								<div><div>11</div><div>3.90</div><div>3.90</div></div>						
5				89			B=22 2,3,4,4,6,5 N=19	<div><div>12</div><div>4.95</div><div>5.00</div></div> <div><div>13</div><div>5.00</div><div>5.55</div></div> <div><div>14</div><div>5.55</div><div>5.60</div></div> <div><div>15</div><div>5.60</div><div>5.90</div></div>	-3.51	5.00			White (10YR 8/1) mottled light grey, clayey silty fine to coarse SAND with occasional subangular fine gravel of quartz and rock fragments. (ALLUVIUM)	
6								<div><div>16</div><div>5.90</div><div>5.90</div></div>						
7				89			B=27 2,3,3,4,5,10 N=22	<div><div>17</div><div>6.95</div><div>7.00</div></div> <div><div>18</div><div>7.00</div><div>7.55</div></div> <div><div>19</div><div>7.55</div><div>7.60</div></div> <div><div>20</div><div>7.60</div><div>7.90</div></div>	-6.01	7.50				
18.02.2016 24.02.2016	SW PW	7.50m						<div><div>21</div><div>7.90</div><div>7.90</div></div>	-6.46	7.95			Medium dense, white (10YR 8/1), fine to coarse SAND with some subangular fine to medium gravel of quartz and rock fragments. (ALLUVIUM)	
8														
9				89			B=30 2,2,4,5,5,9 N=23	<div><div>22</div><div>8.95</div><div>9.00</div></div> <div><div>23</div><div>9.00</div><div>9.55</div></div> <div><div>24</div><div>9.55</div><div>9.60</div></div> <div><div>25</div><div>9.60</div><div>9.90</div></div>						
10								<div><div>26</div><div>9.90</div><div>9.90</div></div>	-8.54	10.00				

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

L. Zhang

DATE

10.03.2016

CHECKED

R. Chu

DATE

16.03.2016

REMARKS

- An inspection pit was excavated to 0.50m deep by hand tools.
- Constant head permeability test was carried out at section from 6.00m to 7.50m.
- Acoustic borehole televiewer survey was carried out from 24.66m to 41.50m.

**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH14**SHEET **13** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820695.13**N **833868.26**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD13

DATE

13.11.2015 to 19.12.2015

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+4.41 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
				68	45	45	14.3 NI		↑	-115.70	120.04		III	As sheet 12 of 13.
							NR		↓	-115.88	120.04		IV	No recovery, assumed to be CAVITY.
121				100	47	47	5.0 NI		↑	-116.34	120.75		IV	Moderately weak, light brown (7.5YR 6/3) streaked grey, highly decomposed MARBLE. (Angular, coarse GRAVEL and COBBLE of highly decomposed marble fragments)
									↓	-116.51	120.92		IV	
									↑	-116.71	121.12		II	From 120.92m to 121.12m: Strong and slightly decomposed.
									↓	-116.74	121.12		IV	No recovery, assumed to be CAVITY.
122				0	0	0	NR		↑	-116.74	121.12		IV	
									↓	-116.74	121.12		IV	
123		3.02 at 0800		0	0	0			↑	-116.74	121.12		IV	
									↓	-116.74	121.12		IV	
124				100	97	97	1.4		↑	-118.78	123.19		II	Strong, light brown mottled grey, slightly decomposed MARBLE.
									↓	-118.78	123.19		II	
125				0	0	0	NR		↑	-120.24	124.65			No recovery, assumed to be CAVITY.
									↓	-120.24	124.65			
126				100	100	100	0.5		↑	-121.06	125.47		II	Strong, light yellowish brown dappled grey, slightly decomposed MARBLE.
									↓	-121.06	125.47		II	From 127.86m to 127.99m: Moderately strong and moderately decomposed with some dissolution features.
127				95	85	83	2.1		↑	-123.45	127.86		III	
									↓	-123.45	127.86		III	
128				0	0	0	NR		↑	-124.21	128.62		II	No recovery, assumed to be CAVITY.
									↓	-124.21	128.62		II	
129		3.01 at 0800		75	63	63	1.4		↑	-124.68	129.09		II	Strong, light brown streaked grey, slightly decomposed MARBLE.
									↓	-124.68	129.09		II	From 128.75m to 129.09m: No recovery, assumed to be CAVITY.
									↑	-125.55	129.96			End of hole at 129.96 m.

- ↑ SMALL DISTURBED SAMPLE
- ↓ LARGE DISTURBED SAMPLE
- ▣ U76 SAMPLE
- ▣ PISTON SAMPLE (76mm)
- ▣ MAZIER SAMPLE
- ▣ SPT LINER SAMPLE
- ▲ WATER SAMPLE
- U100 SAMPLE

- ↓ STANDARD PENETRATION TEST
- ▽ IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

24.12.2015

CHECKED

R. Chu

DATE

29.12.2015

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH15**SHEET **2** of **5**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820697.56

N 833724.20

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD38**DATE **18.02.2016** to **02.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.49 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11								B=29 2.3 5,5,5,9 N=24	27 10.85 28 11.00 29 11.55 30 11.60 31 11.90					As sheet 1 of 5.
12										-10.46	11.95			
13								B=30 3.3 5,5,9,9 N=28	32 12.95 33 13.00 34 13.45 35 13.60 36 13.90					Medium dense to dense, light grey (10YR 7/1), fine to medium SAND. (ALLUVIUM)
14														
15								B=29 3.5 6,6,6,11 N=31	37 14.85 38 15.00 39 15.55 40 15.60 41 15.90					
16														
17								B=30 3.4 6,7,11,9 N=33	42 16.95 43 17.00 44 17.45 45 17.60 46 17.90					
18														
19								B=30 2.4 6,6,8,9 N=28	47 18.95 48 19.00 49 19.55 50 19.60 51 19.90					
20														

- ↑ SMALL DISTURBED SAMPLE
↓ LARGE DISTURBED SAMPLE
U76 SAMPLE
PISTON SAMPLE (76mm)
MAZIER SAMPLE
SPT LINER SAMPLE
▲ WATER SAMPLE
■ U100 SAMPLE

- ↓ STANDARD PENETRATION TEST
↓ IN-SITU VANE SHEAR TEST
PACKER TEST
PERMEABILITY TEST
PRESSUREMETER TEST
BOREHOLE TELEVIEWER
PIEZOMETER TIP
STANDPIPE TIP

LOGGED **L. Zhang**DATE **10.03.2016**CHECKED **R. Chu**DATE **16.03.2016**

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH15**SHEET **3** of **5**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD38		E 820697.56 N 833724.20		DATE 18.02.2016 to 02.03.2016								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +1.49 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
24.21.2016 27.02.2016				100					52 20.65 53 21.00	-19.51	21.00			Stiff, brown (7.5YR 5/4) spotted light grey, slightly sandy clayey SILT. (KARST DEPOSITS)
22									54 22.00 55 22.10 56 22.20	-20.61	22.10			Stiff, brown (10YR 4/3), clayey sandy SILT with occasional angular to subangular fine gravel of rock fragments. (KARST DEPOSITS)
23	PW 22.87m HW			100	100	100	2.9	2.2 3.3, 4.3 N=13	T2-101	22.87	22.87		II	Strong, white mottled light grey and grey, slightly decomposed MARBLE. Joints are medium to widely spaced, occasionally closely spaced, rough planar, calcite and kaolin coated, occasionally iron oxide stained, dipping at 5° to 15°, 25° to 35°, 65° to 75° and subvertically from 25.30m to 25.57m, 30.58m to 30.78m and 33.52m to 33.83m.
24				100	100	89	0.0		T2-101	24.42	24.59			
25	HW 25.30m 27.02.2016 01.03.2016			100	100	76	6.0		T2-101	25.30	25.22			
26				100	100	100	1.3		T2-101	26.24	26.24			
27				100	100	91	7.4		T2-101	27.19	27.19			
28				100	100	91	7.4		T2-101	28.50	28.50			
29				100	100	91	7.4		T2-101	29.42	29.42			
30				100	100	91	7.4		T2-101	29.89	29.89			

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED L. Zhang
DATE 10.03.2016
CHECKED R. Chu
DATE 16.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH15**SHEET **4** of **5**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820697.56**N **833724.20**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD38**DATE **18.02.2016** to **02.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.49 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31				100	98	94	1.6		T2-101		30.58		II	As sheet 3 of 5.
							10.0				30.78			
										31.15				
32				100	100	100	0.9		T2-101					
										32.53				
33				98	95	95	4.1		T2-101		32.95			
										33.68				
34										33.93				
35				100	100	100			T2-101					
							0.3			35.41				
36				100	100	100			T2-101					
										36.80				
37				100	100	100	3.8		T2-101		37.24			
										37.76				
38										38.25				
01.03.2016 02.03.2016							2.0							
39				100	100	100			T2-101		39.24			
										39.64				
40									T2-101		39.81			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

L. Zhang

DATE

10.03.2016

CHECKED

R. Chu

DATE

16.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S1-DH15**

SHEET 5 of 5

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD38		E 820697.56 N 833724.20		DATE 18.02.2016 to 02.03.2016								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION VERTICAL		GROUND LEVEL +1.49 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
41				100	100	100		0.0	T2-101	41.02			II	As sheet 3 of 5.
42				100	100	100			T2-101	42.39				
43				100	100	100			T2-101	43.42				
44														End of hole at 43.42 m.
45														
46														
47														
48														
49														
50														

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED L. Zhang

DATE 10.03.2016

CHECKED R. Chu

DATE 16.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**

SHEET 1 of 13

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD09**

E 820723.07

N 833882.60

DATE **08.01.2016** to **05.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.29 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
08.01.2016	SW													Light yellowish brown (10YR 6/4) mottled grey, slightly sandy silty CLAY with some angular to subangular fine to coarse gravel of rock fragments. (FILL)
1				95				2.2 3.4, 4.4 N=15	1	0.00	0.00			
2									2	0.95	1.00			Firm, light grey (10YR 7/1), slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz and rock fragments. (ALLUVIUM)
3				100				B=16	3	1.00				
4								8.18 16.18, 14.13 N=81	4	2.00	2.10			
5				80				B=18	5	2.10	2.20			Very dense, yellowish brown (10YR 5/4) spotted red, slightly clayey silty fine to coarse SAND with much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
6								2.1 2.3, 4.4 N=13	6	2.50				Soft, light yellowish brown (10YR 6/4) mottled light grey, slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz and rock fragments. (ALLUVIUM)
7				77					7	3.00				Brown (7.5YR 5/4) spotted reddish brown, fine to coarse SAND with some angular to subangular fine gravel of quartz and rock fragments. (ALLUVIUM)
8				87				B=52	8	3.45	-2.21	3.50		Medium dense, light grey (10YR 7/1), slightly silty clayey fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
9								5.3 5.8, 7.15 N=33	9	3.60	-2.66	3.95		Soft, light grey (10YR 7/1), slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
10									10	3.90	-2.66	3.95		Dense, light grey (10YR 7/1) spotted red dark red and dark grey, slightly clayey silty fine to coarse SAND with some to much angular to subangular fine gravel of rock fragments. (ALLUVIUM)
11									11	4.45				
12									12	5.00	-3.71	5.00		
13									13	5.45	-4.21	5.50		
14									14	5.60	-4.21	5.50		
15									15	5.90	-4.66	5.95		
16									16	6.45				
17									17	7.00	-5.71	7.00		
18									18	8.00				
19									19	8.10				
20									20	8.55				
21									21	8.60				
22									22	9.00				
23									23	9.45				
09.01.2016														
10														

- SMALL DISTURBED SAMPLE
LARGE DISTURBED SAMPLE
U76 SAMPLE
PISTON SAMPLE (76mm)
MAZIER SAMPLE
SPT LINER SAMPLE
WATER SAMPLE
U100 SAMPLE
- STANDARD PENETRATION TEST
IN-SITU VANE SHEAR TEST
PACKER TEST
PERMEABILITY TEST
PRESSUREMETER TEST
BOREHOLE TELEVIEWER
PIEZOMETER TIP
STANDPIPE TIP

LOGGED **S.L. Chiu**DATE **09.03.2016**CHECKED **R. Chu**DATE **11.03.2016**

REMARKS

- An inspection pit was excavated to 0.50m deep by hand tools.
- Constant head permeability test was carried out at section from 8.00m to 9.50m.

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**SHEET **2** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820723.07**N 833882.60**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD09

DATE

08.01.2016 to 05.03.2016

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+1.29 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11				100				B=38 44 2,2,3,2 N=9	24 10.00 25 10.85 26 10.60 27 10.90	-9.66	10.95			Loose, light grey (7.5YR 7/1) mottled dark grey, slightly clayey silty fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
12				100				B=78 5,10 11,14,16,14 N=55	28 11.45 29 12.00 30 12.65 31 12.60 32 12.90					Very dense, light grey (7.5YR 7/1) spotted dark grey, slightly clayey silty fine to coarse SAND with much angular to subangular fine to coarse gravel of quartz and rock fragments. (ALLUVIUM)
13									33 13.45					
14				44				B=56 3,3 4,5,8,15 N=32	34 14.00 35 14.85 36 14.60 37 14.90	-12.71	14.00			Light grey (7.5YR 7/1) mottled greyish brown, angular to subangular, slightly silty clayey sandy fine to coarse GRAVEL of quartz and rock fragments. (ALLUVIUM)
15									38 15.45	-13.21	14.50			Extremely weak, grey (5Y 5/1) streaked yellowish brown and yellowish red, completely decomposed, moderately metamorphosed, SILTSTONE. (Slightly sandy silty CLAY with occasional angular fine gravel of siltstone fragments)
16	SW 16.00m PW			100					39 16.00 40 17.00 41 17.10 42 17.20 43 17.50					
17				100				7,12 15,16,23,26 N=82	44 18.00 45 19.00 46 19.10 47 19.20 48 19.50					
18				100										
19								8,14 19,24,30,36 N=109						
20										-18.71	20.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

09.03.2016

CHECKED

R. Chu

DATE

11.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**

SHEET **3** of **13**

PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD **ROTARY**

CO-ORDINATES

E **820723.07**

N **833882.60**

WORKS ORDER NO. **GE/2014/07.34**

MACHINE **SD09**

DATE **08.01.2016** to **05.03.2016**

FLUSHING MEDIUM **AIRFOAM**

ORIENTATION **VERTICAL**

GROUND LEVEL **+1.29 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21				100				8,12,18,23,28,31 N=101	47 20.00 48 21.00 49 21.10 50 21.20 51 21.50				V	As sheet 2 of 13.
22				100					52 22.00	-20.71	22.00		IV	Weak, yellowish brown (10YR 5/4) mottled grey, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly clayey silty sandy fine to medium GRAVEL of highly decomposed siltstone fragments)
23								8,10,13,18,24,33 N=88	53 23.00 54 23.10 55 23.20 56 23.50	-21.81	23.10		V	Extremely weak, dark grey (7.5YR 4/1), completely decomposed, metamorphosed, SILTSTONE. (Slightly sandy silty CLAY with occasional angular fine gravel of siltstone fragments)
24				100				5,6,8,13,17 N=44	57 24.00 58 25.00 59 25.10 60 25.20 61 25.50					
25									62 26.00					
26				100					63 27.00 64 27.10 65 27.20 66 27.50	-25.81	27.10		IV	Weak, dark grey (7.5YR 4/1) streaked yellowish red, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly clayey silty sandy fine to medium GRAVEL of highly decomposed siltstone fragments)
27								6,8,13,18,21,28 N=78	67 28.00 68 28.10 69 28.20 70 28.50	-26.71	28.00		IV	Extremely weak to very weak, yellowish brown (10YR 5/4) streaked dark grey, highly decomposed, metamorphosed, SILTSTONE. (Silty sandy CLAY with some angular fine to medium gravel of siltstone fragments)
28				100					71 29.00 72 29.10 73 29.20 74 29.50					
29								7,8,14,19,24,29 N=88	75 30.00 76 30.10 77 30.20 78 30.50	-28.71	30.00			
30														

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE
- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **09.03.2016**
CHECKED **R. Chu**
DATE **11.03.2016**

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**SHEET **4** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD	ROTARY	CO-ORDINATES	WORKS ORDER NO.
MACHINE	SD09	E 820723.07 N 833882.60	GE/2014/07.34
FLUSHING MEDIUM	AIRFOAM	ORIENTATION VERTICAL	DATE 08.01.2016 to 05.03.2016
		GROUND LEVEL	+1.29 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31				100				5,8 11,15,21,25 N=72	87 30.00 88 31.00 89 31.10 90 31.20 91 31.50	-29.81	31.10		IV	Weak to moderately weak, dark grey (7.5YR 4/1) streaked light grey, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly clayey silty sandy fine to coarse GRAVEL of highly decomposed siltstone fragments)
32				100				10,18 13,17,23,29 N=82	71 32.00 72 33.00 73 33.10 74 33.20 75 33.50	-30.71	32.00		IV	Extremely weak to weak, dark grey (7.5YR 4/1), highly decomposed, metamorphosed, SILTSTONE. (Silty CLAY)
33				100				9,12 15,19,24,32 N=80	76 34.00 77 35.00 78 35.10 79 35.20 80 35.50	-33.81	35.10		IV	Extremely weak to very weak, dark grey (7.5YR 4/1) streaked yellowish brown, highly decomposed, metamorphosed, SILTSTONE. (Slightly sandy silty CLAY with some angular fine to medium gravel of siltstone fragments)
34				100				11,18 23,25,29,31 N=108	79 36.00 80 37.00 81 37.10 82 37.20 83 37.50	-34.71	36.00		IV	Extremely weak to weak, dark grey (7.5YR 4/1) streaked yellowish brown, highly decomposed, metamorphosed, SILTSTONE. (Silty CLAY)
35				100				9,18 22,25,29,32 N=108	83 38.00 84 39.00 85 39.10 86 39.20 87 39.50	-38.71	38.00		IV	Weak to moderately weak, yellowish red (5YR 5/8) mottled dark grey, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly clayey silty sandy fine to coarse GRAVEL of highly decomposed siltstone fragments)
36				100										
37				100										
38				100										
39				100										
40				100										

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED S.L. Chiu
DATE 09.03.2016
CHECKED R. Chu
DATE 11.03.2016

REMARKS



DRILLHOLE RECORD

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**SHEET **5** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820723.07**N **833882.60**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD09

DATE

08.01.2016 to 05.03.2016

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+1.29 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
41 20.01.2016 21.01.2016				100				15,19 5,5,63,45 N=118	87 40.00 88 41.00 89 41.10 90 41.20 91 41.50				IV	As sheet 4 of 13.
42				100				9,17 25,30,50/75mm 105sils/225mm	92 42.00 93 43.00 94 43.18 95 43.43					
43														
44 PW 44.00m HW				100					96 44.00 97 45.00 98 45.10 99 45.20				IV	Extremely weak to weak, very dark grey (10YR 3/1) streaked yellowish red, highly decomposed, metamorphosed, SILTSTONE. (Silty CLAY)
45								8,11 14,19,24,32 N=98	100 45.50 101 46.00 102 47.00 103 47.10 104 47.20 105 47.50					
46				100										
47								8,12 10,23,26,31 N=99						
48				100					103 48.00 104 48.00 105 49.00 106 49.20 107 49.50				IV	Weak, very dark grey (10YR 3/1) streaked yellowish brown, highly decomposed, metamorphosed, SILTSTONE. (Angular, slightly sandy clayey silty fine to coarse GRAVEL of highly decomposed siltstone fragments)
49														
50								10,16 20,23,27,32 N=102					IV	Extremely weak to very weak, dark grey (10YR 4/1) streaked yellowish brown, highly decomposed, metamorphosed, SILTSTONE. (Slightly sandy silty CLAY with occasional to some angular fine to medium gravel of siltstone fragments)

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

09.03.2016

CHECKED

R. Chu

DATE

11.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**

SHEET 6 of 13

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD **ROTARY**

CO-ORDINATES

E 820723.07

N 833882.60

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD09**DATE **08.01.2016** to **05.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.29 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
51 21.01.2016 22.01.2016				100				6, 11 16, 21, 24, 30 N=91	107 50.00 108 51.00 109 51.10 110 51.20 110 51.50				IV	
52				100				8, 10 12, 15, 16, 21 N=64	111 52.00 112 53.00 113 53.10 114 53.20 114 53.50					
53				100				7, 13 17, 22, 25, 29 N=93	115 54.00 116 55.00 117 55.10 118 55.20 118 55.50					
54				100				8, 12 16, 20, 25, 31 N=92	119 56.00 120 57.00 121 57.10 122 57.20 122 57.50					
55				100					123 58.00 124 59.00 125 59.10	-56.71 58.00 -57.81 59.10			IV	Extremely weak to very weak, yellowish brown (10YR 5/4) spotted dark grey and pink, highly decomposed, metamorphosed, SILTSTONE. (Slightly sandy silty CLAY with occasional to some angular fine to medium gravel of siltstone fragments)
56				100										Very stiff, yellowish brown (10YR 5/4) spotted dark grey and pink, slightly sandy silty CLAY with occasional to some angular fine to coarse gravel of rock fragments. (KARST DEPOSITS)
57 22.01.2016 23.01.2016				100										
58				100										
59				100										
60				100										

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

09.03.2016

CHECKED

R. Chu

DATE

11.03.2016

REMARKS

DRiL TECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**SHEET **7** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820723.07**N **833882.60**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD09

DATE

08.01.2016 to 05.03.2016

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+1.29 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
61								6,9 14,16,23,29 N=82	126 60.10 127 60.20 128 60.30 129 60.60		61.00			As sheet 6 of 13.
62				100				6,9 15,18,23,28 N=85	130 62.00 131 62.10 132 62.20 133 62.50		61.00			Very stiff, grey (2.5Y 5/1) streaked yellowish brown, slightly sandy silty CLAY with occasional to some angular fine to medium gravel of highly decomposed rock fragments. (KARST DEPOSITS)
63				100				10,17 22,25,28,32 N=107	134 64.00 135 64.10 136 64.20 137 64.50		61.00			
64				100				9,15 18,19,22,28 N=85	138 65.00 139 66.00 140 66.10 141 66.20 142 66.50		61.00			
65				100				9,17 21,26,30,33 N=110	143 68.00 144 68.10 145 68.20 146 68.50		61.00			
66				100					147 69.00		61.00			
67				100							67.00			Very dark grey (10YR 3/1), angular, slightly sandy clayey silty fine to coarse GRAVEL of highly decomposed rock fragments. (KARST DEPOSITS)
68				100							68.10			Very stiff, very dark grey (10YR 3/1) mottled yellowish brown and yellowish red, silty sandy CLAY with some to much angular fine to medium gravel of rock fragments. (KARST DEPOSITS)
69				100							69.00			
70				100							70.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

09.03.2016

CHECKED

R. Chu

DATE

11.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO: **S2-DH11**SHEET **8** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820723.07

N 833882.60

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD09

DATE

08.01.2016 to 05.03.2016

FLUSHING MEDIUM

AIRFOAM

ORIENTATION **VERTICAL**

GROUND LEVEL

+1.29 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
71								8.14 18,23,28,32 N=102	46 70.00 47 70.20 48 70.50					As sheet 7 of 13.
72				76					49 71.00 50 72.00 51 72.50 52 72.70 53 73.00	-69.71	71.00	IV		Extremely weak to weak, very dark grey (10YR 3/1) streaked brown, highly decomposed, metamorphosed, SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel and cobble of siltstone fragments)
73				0				7.13 18,23,27,31 N=98						
74				95					54 73.50 55 74.50	-72.21	73.50	IV		Extremely weak to weak, brown (7.5YR 5/2) streaked grey, highly decomposed, metamorphosed, SILTSTONE. (Slightly sandy clayey SILT with occasional angular fine gravel and cobble of siltstone fragments)
75														Lowering casing, assumed to be CAVITY.
76								10.15 14,17,20,22 N=73	56 75.85 57 76.25 T2-101 76.33	-74.56	75.85	V		Extremely weak, brown (7.5YR 5/4) spotted grey, completely decomposed, moderately metamorphosed, SILTSTONE. (Very stiff, silty sandy CLAY with some angular fine to coarse gravel of siltstone fragments)
77				100	80	75	3.5		77.20	-75.04	76.33	II		Moderately strong to strong, white light grey and very pale brown, moderately decomposed MARBLE.
78				64	25	25	>20 NR		77.90 T2-101 77.90 77.01 77.39	-76.61	77.90	III		Moderately strong to strong, white light grey and very pale brown, moderately decomposed MARBLE.
79				100	62	62	5.7		78.96 T2-101 78.96 78.09 79.38	-77.01	78.30	II		From 78.30m to 78.68m: No recovery, assumed to be CAVITY-FILL DEPOSITS.
80									79.63 T2-101 79.63 78.54 78.71	-78.09	79.38	III		Lowering casing, assumed to be CAVITY.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

09.03.2016

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R. Chu

DATE

11.03.2016

REMARKS

DRiLTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**SHEET **9** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD		ROTARY		CO-ORDINATES		WORKS ORDER NO.								
MACHINE		SD09		E 820723.07 N 833882.60		DATE 08.01.2016 to 05.03.2016								
FLUSHING MEDIUM		AIRFOAM		ORIENTATION		VERTICAL								
GROUND LEVEL						+1.29 mPD								
Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
81				94	76	71	3.6		T2-101	-80.13	-80.13		III	Moderately strong to strong, white light grey and very pale brown, moderately decomposed MARBLE.
82	NW									-81.23	-79.94	-81.23		Lowering casing, assumed to be CAVITY.
83				100	84	84			T2-101	-82.02	-80.73	-82.02	III	Strong, very pale brown and light grey, dappled white, grey and dark brown, slightly decomposed MARBLE.
84				100	79	79	1.4		T2-101	-81.07	-82.36		II	Joints are closely and medium spaced, occasionally very closely and widely spaced, rough planar and rough undulating, iron and manganese oxide stained, dipping at 0° to 10°, 20° to 30°, 40° to 50° and 65° to 75°.
85				81	60	60	1.3		T2-101	-82.05	-84.24		III	From 82.02m to 82.36m, 84.24m to 84.46m, 85.90m to 86.05m and 90.51m to 90.71m: Moderately strong, moderately decomposed and with some dissolution features.
86									T2-101	-83.17	-84.46		II	From 85.60m to 85.90m and 90.14m to 90.51m: No recovery, assumed to be CAVITY-FILL DEPOSITS.
87				100	92	92	5.1		T2-101	-84.63	-84.80			
88				100	86	86			T2-101	-84.31	-85.60			
89									T2-101	-84.61	-85.90			
90				76	72	72	0.6		T2-101	-84.78	-86.05			
									T2-101	-86.18				
									T2-101	-87.54				
									T2-101	-88.40	-88.47			
									T2-101	-88.95				
									T2-101	-88.71	-80.00			

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **09.03.2016**
CHECKED **R. Chu**
DATE **11.03.2016**

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**SHEET **10** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820723.07**N **833882.60**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD09**DATE **08.01.2016** to **05.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.29 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
91				70	38	38	>20	NR	T2-101	-88.85	-90.14		II	As sheet 9 of 13.
							1.8		T2-101	-89.22	-90.51		III	
									T2-101	-89.42	-90.71		II	
										-89.99	-91.28			
92				67	34	31	NR		T2-101	-90.40	-91.69			No recovery, assumed to be CAVITY-FILL DEPOSITS / FAULT ZONE)
							>20			-92.16				Grey (10YR 5/1), coarse GRAVEL and COBBLE of rock fragments. (CAVITY-FILL DEPOSITS / FAULT ZONE)
							NI			-91.27	-92.56			From 92.40m to 92.56m: Angular, fine to coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS / FAULT ZONE)
93				37	0	0	NR		T2-101	-91.96	-93.25			No recovery, assumed to be CAVITY-FILL DEPOSITS / FAULT ZONE.
							NA			-92.26	-93.45			Brown (7.5YR 4/3), angular, slightly sandy fine to coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS / FAULT ZONE)
94				27	0	0	NR		T2-101	-92.26	-93.55			From 93.45m to 93.55m: Slightly silty fine to coarse SAND with occasional angular fine gravel of rock fragments. (CAVITY-FILL DEPOSITS / FAULT ZONE)
										-93.08	-94.37			No recovery, assumed to be CAVITY-FILL DEPOSITS / FAULT ZONE.
95										-93.89	-95.18			No recovery, assumed to be CAVITY-FILL DEPOSITS / FAULT ZONE.
							NA			-95.42				Brown (7.5YR 4/3) mottled grey and dark brown, angular, fine to coarse GRAVEL and some cobble of rock fragments. (CAVITY-FILL DEPOSITS / FAULT ZONE)
96				21	6	0	NR		TNW	-95.01	-96.30			From 95.42m to 96.30m: No recovery, assumed to be CAVITY-FILL DEPOSITS / FAULT ZONE.
										-95.43	-96.72			Lowering casing, assumed to be CAVITY-FILL DEPOSITS / FAULT ZONE.
97				37	18	0	NR		TNW	-96.21	-97.50			Brown (7.5YR 4/3) mottled grey and dark brown, angular, fine to coarse GRAVEL and COBBLE of rock fragments. (CAVITY-FILL DEPOSITS / FAULT ZONE)
										-97.25	-98.54			From 97.01m to 97.50m: No recovery, assumed to be CAVITY-FILL DEPOSITS / FAULT ZONE.
98										-98.54				Lowering casing, assumed to be CAVITY-FILL DEPOSITS / FAULT ZONE.
99				17	0	0	NR		TNW	-98.44	-99.73			Greyish brown (10YR 5/2), coarse GRAVEL and COBBLE of rock fragments. (CAVITY-FILL DEPOSITS / FAULT ZONE)
							>20			-98.56	-99.85			From 98.69m to 99.50m: No recovery, assumed to be CAVITY-FILL DEPOSITS / FAULT ZONE.
							NA							Light brownish grey (2.5Y 6/2), angular, slightly silty

- ↓ SMALL DISTURBED SAMPLE
↓ LARGE DISTURBED SAMPLE
U76 SAMPLE
PISTON SAMPLE (76mm)
MAZIER SAMPLE
SPT LINER SAMPLE
WATER SAMPLE
U100 SAMPLE
- ↓ STANDARD PENETRATION TEST
↓ IN-SITU VANE SHEAR TEST
PACKER TEST
PERMEABILITY TEST
PRESSUREMETER TEST
BOREHOLE TELEVIEWER
PIEZOMETER TIP
STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

09.03.2016

CHECKED

R. Chu

DATE

11.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**SHEET **11** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820723.07**N **833882.60**

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD09

DATE

08.01.2016 to **05.03.2016**

FLUSHING MEDIUM

AIRFOAMORIENTATION **VERTICAL**

GROUND LEVEL

+1.29 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
101								J 50/50mm 100/50mm 100b/s/50mm	59 ± 100.59					sandy fine to coarse GRAVEL of rock fragments. (CAVITY-FILL DEPOSITS / FAULT ZONE) Very stiff, light brownish grey (2.5Y 6/2), slightly sandy clayey SILT with occasional angular fine to medium gravel of rock fragments. (CAVITY-FILL DEPOSITS / FAULT ZONE) Lowering casing, assumed to be CAVITY-FILL DEPOSITS / FAULT ZONE.
102				100	15	0	>20		TNW	-101.75	-101.75		II	Strong, brown and grey dappled very dark grey, slightly decomposed ANDESITE LAVA. Joints are extremely closely to very closely spaced, occasionally closely spaced, rough planar and rough undulating, iron and manganese oxide stained, dipping at 0° to 10°, 30° to 40°, 45° to 55° and 60° to 70°.
17.02.2016 18.02.2016				100	0	0			TNW	-102.36	-102.36			
							NR			-102.96	-102.96		V	From 102.96m to 103.10m, 103.44m to 103.63m, 104.50m to 104.71m, 105.01m to 105.95m: Moderately strong and moderately decomposed.
104				75	16	7	>20 10.5		TNW	-102.15	-103.44		III	
										-102.34	-103.63		II	From 103.10m to 103.44m, 104.71m to 105.01m, 106.11m to 106.55m, 106.96m to 107.18m, 107.44m to 107.94m, 109.83m to 110.00m, 110.95m to 111.16m, 111.53m to 112.07m and 113.84m to 114.12m: No recovery, assumed to be completely decomposed ANDESITE LAVA.
				95	0	0	>20		TNW	-103.21	-104.50		III	
105							NR			-103.42	-104.71		V	
				63	6	0	>20		TNW	-103.72	-105.01		III	From 105.95m to 106.11m: Weak to moderately weak and highly decomposed. (Angular, slightly clayey silty sandy fine to coarse GRAVEL of highly decomposed andesite fragments)
										-105.51				
106				58	0	0	NI		TNW	-104.66	-105.95		IV	
48.02.2016 26.02.2016							NR			-104.82	-106.11		V	
				100	15	0	>20		TNW	-105.26	-106.55		II	
107				54	0	0	NR		TNW	-105.67	-106.96		V	
							>20		TNW	-105.89	-107.18		II	
							NR			-106.15	-107.44		V	
108				36	26	21	NR		TNW	-106.65	-107.94		II	
26.02.2016 27.02.2016				100	86	60	4.8		TNW		108.50			
											108.92			
109				100	11	0	>20		TNW	-108.92				
										-109.53				
110				73	0	0	NR		TNW	-108.54	-109.83		V	
										-108.71	-110.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

09.03.2016

CHECKED

R. Chu

DATE

11.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**SHEET **12** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820723.07

N 833882.60

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD09

DATE

08.01.2016 to 05.03.2016

FLUSHING MEDIUM

AIRFOAM

ORIENTATION **VERTICAL**

GROUND LEVEL

+1.29 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
111 27.02.2016 28.02.2016				82	28	14	>20 6.3		TNW	110.00	110.13		II	As sheet 11 of 13.
							>20				110.29			
							NR						V	
				51	0	0	>20		TNW	111.16	111.16		II	
							NR						V	
112				57	0	0			TNW	111.88				
				89	0	0			TNW	112.32			II	
29.02.2016 01.03.2016				100	40	0	>20		TNW	112.88				
				100	0	0			TNW	113.23				
									TNW	113.68				
114				62	0	0	NR		TNW	112.55	113.84		V	Strong, grey, slightly decomposed ANDESITE LAVA. Joints are extremely closely to very closely spaced, occasionally closely spaced, rough planar and rough undulating, iron and manganese oxide stained, dipping at 0° to 10°, 30° to 40°, 50° to 60° and 65° to 75°. From 119.10m to 119.46m: Moderately strong and moderately decomposed.
				100	21	0	>20		TNW	112.83	114.12		II	
01.03.2016 02.03.2016				100	8	0			TNW	114.42				
				100	55	20	>20		TNW	114.90				
				100	35	29	13.0		TNW	115.28	115.28 115.38			
				100	44	26	10.3		TNW	115.77	115.77			
116				100	11	0	>20		TNW	115.77	116.00			
02.03.2016 03.03.2016				100	16	0	16.1		TNW	116.26	116.34			
				100	48	19			TNW	116.73				
				100	34	0			TNW	117.04				
118				95	5	0	>20		TNW	117.30				III
03.03.2016 04.03.2016				100	13	0			TNW	117.80	117.72			
									TNW	118.03				
									TNW	118.33				
119	NW			90					TNW	118.83	119.10		II	
04.03.2016 05.03.2016				100					TNW	117.81	119.46			
120				100					TNW	118.17	120.00			
									TNW	118.71				

↑ SMALL DISTURBED SAMPLE
↑ LARGE DISTURBED SAMPLE
U76 SAMPLE
PISTON SAMPLE (76mm)
MAZIER SAMPLE
SPT LINER SAMPLE
▲ WATER SAMPLE
■ U100 SAMPLE

↓ STANDARD PENETRATION TEST
▼ IN-SITU VANE SHEAR TEST
PACKER TEST
PERMEABILITY TEST
PRESSUREMETER TEST
BOREHOLE TELEVIEWER
PIEZOMETER TIP
STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

09.03.2016

CHECKED

R. Chu

DATE

11.03.2016

REMARKS

DRiLTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH11**SHEET **13** of **13**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820723.07**N **833882.60**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD09**DATE **08.01.2016** to **05.03.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.29 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
08.03.2016				////						118.80	120.09	X X X X	II	As sheet 12 of 13. End of hole at 120.09 m.
121														
122														
123														
124														
125														
126														
127														
128														
129														
130														

- ↓ SMALL DISTURBED SAMPLE
- ↑ LARGE DISTURBED SAMPLE
- ▨ U76 SAMPLE
- ▨ PISTON SAMPLE (76mm)
- ▨ MAZIER SAMPLE
- SPT LINER SAMPLE
- ▲ WATER SAMPLE
- U100 SAMPLE

- ↓ STANDARD PENETRATION TEST
- ✓ IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED S.L. Chiu
DATE 09.03.2016
CHECKED R. Chu
DATE 11.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH15**SHEET **1** of **5**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO.

GE/2014/07.34MACHINE **SD39****E 820718.61**

DATE

20.01.2016 to 26.01.2016**N 833754.06**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**

GROUND LEVEL

+1.39 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
20.01.2016	SW													
1								B=32 2,2 2,3,3,4 N=12	1 2 3 4 5 6 7	0.00 +1.39 0.45 +0.89 0.95 1.00 1.45 1.50 1.60 1.90 2.45	0.00 0.50		Light grey (10YR 7/2), silty sandy CLAY with some angular to subangular fine to coarse gravel of rock fragments. (FILL) Stiff, light grey (5YR 7/1) mottled light yellowish brown, slightly sandy silty CLAY. (ALLUVIUM)	
2								B=20 2,2 3,3,3,5 N=14	8 9 10 11 12	3.00 3.85 3.60 3.90 4.45	3.50		Light grey (7.5YR 7/1), angular to subangular, sandy fine GRAVEL of quartz fragments. (ALLUVIUM)	
3								B=18 3,3 6,7,8,10 N=32	13 14 15 16 17	5.00 5.65 5.60 5.90 6.45	5.50		Dense, brownish yellow (10YR 6/6), slightly silty fine to coarse SAND with some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)	
4								B=86 2,2 3,4,5,7 N=19	18 19 20 21 22	7.00 7.85 7.60 7.90 8.45	7.50		Medium dense, very pale brown (10YR 8/2), slightly silty fine to coarse SAND with some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)	
5	SW 5.50m							B=66 3,4 4,7,10,11 N=32	23 24 25 26	9.00 9.45 9.60 9.90	7.90		Medium dense to dense, very pale brown (10YR 8/4) spotted white and brown, fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)	
6	HW													
7														
8														
9														
10														

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

29.01.2016

CHECKED

R. Chu

DATE

02.02.2016**REMARKS**

1. An inspection pit was excavated to 0.50m deep by hand tools.
2. Constant head permeability test was carried out at section from 4.00m to 5.50m.
3. Acoustic borehole televiwer survey was carried out from 38.17m to 48.170m.



DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH15**SHEET **3** of **5**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820718.61

N 833754.06

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD39**DATE **20.01.2016** to **26.01.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.39 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
21 22.01.2016 23.01.2016				90					48 20.10 49 21.10 50 21.28					As sheet 2 of 5.
22				0				J2, 48/15mm 100/10mm 100bls/10mm	51 22.10 22.13	-18.81 21.20 -20.71 22.10 -20.84 22.23				Very stiff, reddish brown (5YR 5/3) mottled light grey, spotted pink, slightly sandy silty CLAY with occasional to some angular to subangular fine to coarse gravel of quartz and rock fragments. (KARST DEPOSITS)
23				100	100	100	1.0		T2-101				II	Light grey (10YR 7/1), angular to subangular, coarse GRAVEL of rock fragments. (KARST DEPOSITS)
24				100	100	97	4.1		23.69 T2-101		24.28			Strong, light grey, slightly decomposed MARBLE. Joints are medium to widely spaced, occasionally closely spaced, rough planar and rough undulating, calcite coated, occasionally iron oxide stained, dipping at 25° to 35° and 50° to 60°.
25				100	100	100	1.2		25.24 T2-101		25.01			From 26.60m to 26.81m: Moderately strong, moderately decomposed and with slight dissolution.
26				100	100	100	1.2		25.21 26.60 25.42 26.70 26.81		26.60 26.70 26.81		III	
27				100	45	0	18.2		T2-101					Lowering casing, assumed to be CAVITY.
28														
29	HW 29.03m						>20		29.03 T2-101	-27.64 29.03 29.11			II	Strong, light greyish white streaked grey and dark grey, slightly decomposed MARBLE. Joints are medium to widely spaced, occasionally closely and very widely spaced, rough planar, calcite coated, occasionally clean, dipping at 0° to 10°, 20° to
30				100	95	95			28.61 30.00					

↑ SMALL DISTURBED SAMPLE
↓ LARGE DISTURBED SAMPLE
U76 SAMPLE
PISTON SAMPLE (76mm)
MAZIER SAMPLE
SPT LINER SAMPLE
WATER SAMPLE
U100 SAMPLE

↓ STANDARD PENETRATION TEST
▽ IN-SITU VANE SHEAR TEST
PACKER TEST
PERMEABILITY TEST
PRESSUREMETER TEST
BOREHOLE TELEVIEWER
PIEZOMETER TIP
STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

29.01.2016

CHECKED

R. Chu

DATE

02.02.2016

REMARKS

DRiLTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH15**

SHEET 4 of 5

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD **ROTARY**

CO-ORDINATES

E 820718.61

N 833754.06

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD39**DATE **20.01.2016** to **26.01.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.39 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RCD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
23.01.2016 25.01.2016							0.6		T2-101				II	30° and 50° to 60°.
31				100	100	100			30.57	30.83				
32				100	100	100	3.4		32.09	32.31				
33				100	100	100			33.43					
34				100	100	100	0.9		34.57					
35				100	100	100			34.92					
36				100	100	100	0.3		36.27					
37				100	100	100			37.52					
38				100	100	100	1.6		37.70					
39				100	100	100	3.2		39.05					
40				100	100	98	1.1		39.42					
									38.61	40.00				

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED **S.L. Chiu**
DATE **29.01.2016**
CHECKED **R. Chu**
DATE **02.02.2016**

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH15**SHEET **5** of **5**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**

METHOD	ROTARY	CO-ORDINATES	WORKS ORDER NO.
MACHINE	SD39	E 820718.61 N 833754.06	GE/2014/07.34
FLUSHING MEDIUM	AIRFOAM	ORIENTATION VERTICAL	DATE 20.01.2016 to 26.01.2016
		GROUND LEVEL	+1.39 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
41							6.7		T2-101	40.35	40.50		II	As sheet 4 of 5.
42							1.2		T2-101	41.78				From 41.41m to 42.83m: Dark grey streaked light greyish white, IMPURE MARBLE.
43									T2-101	43.05	43.05		II	Strong, very dark grey mottled grey, streaked brown, slightly decomposed ANDESITE DYKE. Joints are extremely closely to very closely spaced, occasionally closely spaced, rough planar and rough undulating, iron and manganese oxide stained, dipping at 0° to 10°, 30° to 40° and 50° to 60°.
44							>20		T2-101	43.60	43.80		II	From 43.05m to 43.13m and 44.07m to 44.11m: Moderately strong to strong, moderately decomposed with some firm, silty CLAY infilled the joints. (<5mm thick)
45							13.3		T2-101	44.11	44.28		II	Strong, light grey and white spotted grey, slightly decomposed MARBLE. Joints are medium to widely spaced, occasionally closely spaced, rough planar and rough undulating, iron oxide stained, dipping at 10° to 20° and 50° to 60°.
46							2.2		T2-101	45.17				
47							1.1		T2-101	45.34				
48							4.6		T2-101	46.73	47.00			
49							0.6		T2-101	47.87				
50									T2-101	48.17				
										48.28	49.67			End of hole at 49.67 m.

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

29.01.2016

CHECKED

R. Chu

DATE

02.02.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH16**SHEET **1** of **7**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD39****E 820722.84
N 833725.85**DATE **04.02.2016** to **25.02.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.52 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
04.02.2016	SW													
1				95				1.1 1.2,2.2 N=7	1 0.45 2 0.95 3 1.00	+1.52 +1.02 +0.52	0.00 0.50 1.00			Grey (2.5Y 6/1) spotted pink and greenish grey, angular to subangular, fine to coarse GRAVEL of rock fragments. (FILL) Light yellowish brown (2.5Y 6/4) spotted grey, slightly sandy silty CLAY with occasional angular to subangular fine to medium gravel of rock fragments. (FILL) Firm, grey (2.5Y 6/1), silty sandy CLAY with some angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
2									4 2.00 5 2.10 6 2.20					
3				0					7 3.00 8 4.00 9 4.10	-1.48	3.00			Medium dense, grey (2.5Y 6/1) mottled light yellowish brown, slightly clayey silty fine to coarse SAND with some to much angular to subangular fine to medium gravel of quartz fragments. (ALLUVIUM)
4				95				B=27 3.3 5.5,5.5 N=20	10 4.55 11 4.70 12 5.00					
5									13 5.45					
6				100				B=68 4.4 4.4,4.4 N=18	14 6.10 15 6.55 16 6.70	-4.58 -5.08	6.10 6.60			Medium dense, dark red (10R 3/6), slightly clayey silty fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
7									17 7.00 18 7.45	-5.53	7.05			Very stiff, light grey (2.5Y 7/1), slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
04.02.2016 12.02.2016	SW PW	7.50m							19 8.10 20 8.55 21 8.70					Medium dense, light yellowish brown (2.5Y 6/3) and grey (2.5Y 6/1), slightly silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
8				100				B=92 3.3 4.6,6.7 N=23	22 9.00					
9														
10														

- | | |
|--------------------------|-----------------------------|
| ↑ SMALL DISTURBED SAMPLE | ↓ STANDARD PENETRATION TEST |
| ↑ LARGE DISTURBED SAMPLE | ✓ IN-SITU VANE SHEAR TEST |
| ▨ U76 SAMPLE | ○ PACKER TEST |
| ▨ PISTON SAMPLE (76mm) | ○ PERMEABILITY TEST |
| ▨ MAZIER SAMPLE | ○ PRESSUREMETER TEST |
| □ SPT LINER SAMPLE | ○ BOREHOLE TELEVIEWER |
| ▲ WATER SAMPLE | ■ PIEZOMETER TIP |
| ■ U100 SAMPLE | □ STANDPIPE TIP |

LOGGED **S.L. Chiu**
DATE **03.03.2016**
CHECKED **R. Chu**
DATE **04.03.2016**

REMARKS

1. An inspection pit was excavated to 1.00m deep by hand tools.
2. Constant head permeability test was carried out at section from 4.00m to 5.50m.
3. Acoustic borehole televiewer survey was carried out from 51.50m to 61.50m.

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH16**SHEET **2** of **7**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820722.84

N 833725.85

WORKS ORDER NO.

GE/2014/07.34

MACHINE

SD39

DATE

04.02.2016 to 25.02.2016

FLUSHING MEDIUM

AIRFOAM

ORIENTATION **VERTICAL**

GROUND LEVEL

+1.52 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
11				100				B=63 2.2 6.9, 11.14 N=40	23 10.10 24 10.55 25 10.70 26 11.00	-9.08	10.60			As sheet 1 of 7.
12				100				B=135 2.4 8.9, 9.13 N=38	27 11.45 28 12.10 29 12.66 30 12.70	-10.58	12.10			Medium dense, pale yellow (2.5Y 7/4), slightly silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
13				93				B=95 3.3 3.5, 7.9 N=24	31 13.00 32 13.45 T2-120 13.80	-11.53	13.05			Medium dense, light yellowish brown (2.5Y 6/3) and grey (2.5Y 6/1), slightly silty fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
14				100					33 14.10 34 14.55 35 14.70	-12.28	13.80			Light grey (2.5Y 7/1), angular to subangular, COBBLE and some coarse gravel of quartz and rock fragments. (KARST DEPOSITS)
15				95					36 15.00 37 15.45 38 16.10	-13.08	14.60			Medium dense, light grey (10YR 7/2), fine to coarse SAND with some angular to subangular fine gravel of quartz fragments. (KARST DEPOSITS)
16				95					39 17.10 40 17.20 41 17.30	-17.83	17.65			Very stiff, yellowish brown (10YR 5/4) mottled grey, slightly sandy silty CLAY with occasional angular to subangular fine gravel of quartz and rock fragments. (KARST DEPOSITS)
17				100	93	93	1.1	1.4 11.13, 13.20 N=57	T2-120 18.55 T2-101 19.68 T2-101 19.68	-18.13	17.85			Strong, light grey, slightly decomposed MARBLE. Joints are medium to widely spaced, occasionally very closely and closely spaced, rough planar and rough undulating, kaolin coated, dipping at 0° to 10°, 20° to 30°, 30° to 40° and 65° to 75°.
18				100	98	85	0.7							
19				100										
20														

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

03.03.2016

CHECKED

R. Chu

DATE

04.03.2016

REMARKS



DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH16**SHEET **4** of **7**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820722.84**N **833725.85**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD39**DATE **04.02.2016** to **25.02.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.52 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
31				100	100	100			T2-101	30.83			II	As sheet 2 of 7.
32				100	100	100	2.6		T2-101	32.33				
33				100	100	100			T2-101	33.83				
34				100	80	76	5.0	>20	T2-101	34.12	34.12		II	From 34.12m to 34.75m: Strong and slightly decomposed METASILTSTONE.
35				100	100	100	0.6	>20	T2-101	35.08			III	
36				100	100	100			T2-101	36.31				
16.02.2016				71	48	48	7.7		T2-101	36.49				
18.02.2016									T2-101	36.70				
37														Lowering casing, assumed to be CAVITY.
38														
39														
40														

SMALL DISTURBED SAMPLE

LARGE DISTURBED SAMPLE

U76 SAMPLE

PISTON SAMPLE (76mm)

MAZIER SAMPLE

SPT LINER SAMPLE

WATER SAMPLE

U100 SAMPLE

STANDARD PENETRATION TEST

IN-SITU VANE SHEAR TEST

PACKER TEST

PERMEABILITY TEST

PRESSUREMETER TEST

BOREHOLE TELEVIEWER

PIEZOMETER TIP

STANDPIPE TIP

LOGGED **S.L. Chiu**

DATE **03.03.2016**

CHECKED **R. Chu**

DATE **04.03.2016**

REMARKS

DRiLTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH16**SHEET **5** of **7**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820722.84**N **833725.85**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD39**DATE **04.02.2016** to **25.02.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.52 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
41														As sheet 4 of 7.
42														
43														
18.02.2016 23.02.2016														Strong, light grey, slightly decomposed MARBLE. Joints are medium to widely spaced, occasionally very closely spaced, rough planar and rough undulating, iron oxide stained, dipping at 0° to 10°.
44				100	95	95	6.7 1.3		T2-101	43.48 43.78 44.54	43.48 43.78 44.54		II	
45														Lowering casing, assumed to be CAVITY.
HW 45.63m				100	50	50	16.7		T2-101	45.63 45.88	45.63 45.88		II	Strong, grey dappled light greyish white, slightly decomposed IMPURE MARBLE. Joints are medium to widely spaced, occasionally very closely and closely spaced, rough planar and rough undulating, calcite infilled (<2mm), occasionally iron oxide stained, dipping at 0° to 10°, 20° to 30°, 45° to 55° and 65° to 75°.
46				100	96	91			T2-101	46.46	46.46			
23.02.2016 24.02.2016				100	100	100			T2-101	47.23	47.23			
47				100	100	100			T2-101	48.20	48.20			
48				100	100	100	1.0		T2-101	49.27	49.27			
49				100	100	100			T2-101	49.27	49.27			
50										48.48 50.00	48.48 50.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

03.03.2016

CHECKED

R. Chu

DATE

04.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH16**SHEET **6** of **7**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E **820722.84**N **833725.85**WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD39**DATE **04.02.2016** to **25.02.2016**FLUSHING MEDIUM **AIRFOAM**ORIENTATION **VERTICAL**GROUND LEVEL **+1.52 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
51				100	86	86	8.3		T2-101	50.05	50.78			As sheet 5 of 7.
52				100	100	100	1.4		T2-101	50.90	50.90			Strong, grey dappled light greyish white, slightly decomposed MARBLE. Joints are medium to widely spaced, occasionally very closely and closely spaced, rough planar and rough undulating, calcite infilled (<2mm), occasionally iron oxide stained, dipping at 0° to 10°, 20° to 30°, 45° to 55°, 65° to 75° and subvertically from 58.90m to 59.22m.
53				100	100	100	3.3		T2-101	51.40	51.63			
54				100	100	100	1.4		T2-101	52.34	53.16			
55				100	100	100			T2-101	53.74				
56				100	100	100			T2-101	55.15				
57				100	100	100			T2-101	56.53	56.06			Strong, grey streaked light grey and light greyish white, slightly decomposed IMPURE MARBLE. Joints are medium to widely spaced, occasionally closely spaced, rough planar and rough undulating.
58				100	92	81	3.1		T2-101	57.46				
59				100	100	100			T2-101	58.19				
60									T2-101	59.32	59.32			
									T2-101	59.48	60.00			

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

03.03.2016

CHECKED

R. Chu

DATE

04.03.2016

REMARKS

DRiLTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S2-DH16**

SHEET 7 of 7

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

METHOD	ROTARY	CO-ORDINATES	WORKS ORDER NO.
MACHINE	SD39	E 820722.84 N 833725.85	GE/2014/07.34
FLUSHING MEDIUM	AIRFOAM	ORIENTATION VERTICAL	DATE 04.02.2016 to 25.02.2016
			GROUND LEVEL +1.52 mPD

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
61				100	71	71	13.5		T2-101	60.31	60.68		II	calcite infilled (<2mm), dipping at 10° to 20°, 30° to 40°, 60° to 70° and subvertically from 64.75m to 65.25m.
62				100	100	100	2.3		T2-101	62.00				
63				100	100	100	0.8		T2-101	63.52	62.90			
64				100	99	97	7.7		T2-101	64.20	64.46			
65				100	100	100	2.1		T2-101	64.75				
66				100	100	100			T2-101	65.74				
25.02.2016										-64.88	66.40			End of hole at 66.40 m.
67														
68														
69														
70														

↓ SMALL DISTURBED SAMPLE
↑ LARGE DISTURBED SAMPLE
▨ U76 SAMPLE
▨ PISTON SAMPLE (76mm)
▨ MAZIER SAMPLE
□ SPT LINER SAMPLE
▲ WATER SAMPLE
■ U100 SAMPLE

↓ STANDARD PENETRATION TEST
▼ IN-SITU VANE SHEAR TEST
○ PACKER TEST
○ PERMEABILITY TEST
○ PRESSUREMETER TEST
○ BOREHOLE TELEVIEWER
■ PIEZOMETER TIP
□ STANDPIPE TIP

LOGGED S.L. Chiu
DATE 03.03.2016
CHECKED R. Chu
DATE 04.03.2016

REMARKS

DRILTECH**DRILLHOLE RECORD**

CONTRACT NO. GE/2014/07

HOLE NO. **S1-EH01**SHEET **1** of **1**PROJECT **Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction**METHOD **ROTARY**

CO-ORDINATES

E 820734.75

N 834193.36

WORKS ORDER NO. **GE/2014/07.34**MACHINE **SD20**DATE **15.03.2016** to **15.03.2016**FLUSHING MEDIUM **DRY DRILLING**ORIENTATION **VERTICAL**GROUND LEVEL **+4.13 mPD**

Drilling Progress	Casing Size	Water Level (m) Shift Start/End	Water Return%	TCR%	SCR%	RQD%	Fracture Index	Tests	Samples	Reduced Level	Depth (m)	Legend	Grade	Description
15.03.2016	PW													
1									1	0.00	+4.13	0.00		Brown (10YR 5/3) spotted grey, slightly silty fine to coarse SAND with some to much angular to subangular fine to coarse gravel of rock fragments and with some asphalt fragments. (FILL)
2									2	0.45				
3									3	0.95	+3.13	1.00		Grey (7.5YR 5/1) mottled brown and yellowish brown, slightly silty very clayey fine to coarse SAND with occasional angular to subangular fine gravel of rock fragments. (FILL)
4									4	1.45				
5									5	1.95				
6									6	2.45				
7								B=16	7	2.95	+1.13	3.00		Greyish brown (10YR 5/2), silty sandy CLAY with some angular to subangular fine gravel of rock fragments. (MARINE DEPOSIT)
8								B=7	8	3.40				
9								B=3	9	3.90	+0.18	3.95		Dark grey (10YR 4/1), slightly silty clayey fine to coarse SAND with occasional angular to subangular fine gravel of quartz fragments. (ALLUVIUM)
10								B=28	10	3.95				
11									11	4.35				
12									12	4.85	-0.77	4.90		End of hole at 4.90 m.
15.03.2016														
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														

- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE
- PISTON SAMPLE (76mm)
- MAZIER SAMPLE
- SPT LINER SAMPLE
- WATER SAMPLE
- U100 SAMPLE

- STANDARD PENETRATION TEST
- IN-SITU VANE SHEAR TEST
- PACKER TEST
- PERMEABILITY TEST
- PRESSUREMETER TEST
- BOREHOLE TELEVIEWER
- PIEZOMETER TIP
- STANDPIPE TIP

LOGGED

S.L. Chiu

DATE

17.03.2016

CHECKED

R. Chu

DATE

18.03.2016

REMARKS

1. An inspection pit was excavated to 3.00m deep by hand tools.

PROJECT Ground Investigation - New Territories West (Term Contract) Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Pink Station - Investigation, Design and Construction		WORKS ORDER NO. GE/2014/07.34	
CO-ORDINATES E 820733.74 N 834213.27		EXCAVATION DATES: 10.11.2015 to 10.11.2015 BACKFILL DATES: 18.11.2015 to 19.11.2015	
GROUND LEVEL: +3.96 mPD		LOGGED S.L. Chiu CHECKED R. Chu DATE 13.11.2015	
SKETCH 		DEPTH (m) 0.00 0.15 0.35 0.95 1.00 1.17	
LEGEND GRADE Black, ASPHALT. (PAVEMENT) Area A: Grey, CONCRETE. (FENCING WALL OF NULLAH) Dense, light reddish brown (5YR 6/3), angular to subangular, slightly silty very sandy fine to coarse GRAVEL and occasional cobble of rock fragments and with occasional steel bar fragments (<700mm long). (FILL) Area B: Grey, CONCRETE. (FENCING WALL OF NULLAH) Dense, greyish brown (10YR 5/2) mottled yellowish brown, slightly silty clayey fine to coarse SAND with occasional angular to subangular fine to coarse gravel and occasional cobble of quartz and rock fragments and with plastic sheet fragments and rootlets. (FILL) End of trial pit at maximum depth of 1.17 m.		REMARKS Maximum Depth: 1.17 m Average Depth: 0.90 m Shoring: NO Stability: STABLE Water Seepage: NO 1. Small disturbed samples were taken at 0.50m and 1.00m. 2. Large disturbed sample was taken at 1.00m. 3. In-situ density test was carried out at 0.50m.	
PLAN (not to scale) 		SECTION (not to scale) 	
SAMPLES and TESTS 1 ± 2 ± 3 ±		DEPTH (m) 0.00 0.15 0.35 0.95 1.00 1.17	

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction		WORKS ORDER NO. GE/2014/07.34	
CO-ORDINATES E 820734.16 N 834191.63		EXCAVATION DATES: 09.11.2015 to 09.11.2015 BACKFILL DATES: 19.11.2015 to 19.11.2015	
GROUND LEVEL: +3.93 mPD		LOGGED S.L. Chiu / CHECKED R. Chu DATE 10.11.2015 DATE 11.11.2015	
SKETCH 		DEPTH 0.00 0.16	
DEPTH (m) 0.00 0.16		LEGEND / GRADE 0.00 0.16	
FACE A: 1.50 m 		FACE B: 1.50 m 	
FACE C: 1.50 m 		FACE D: 1.50 m 	
DESCRIPTION Black, ASPHALT. (PAVEMENT). At bottom: Grey, CONCRETE. (CONCRETE MASS) End of trial pit at maximum depth of 0.16 m.		REMARKS Maximum Depth: 0.16 m Shoring: NO Water Seepage: NO Average Depth: 0.14 m Stability: STABLE 1. No small disturbed sample was taken.	
PLAN (not to scale) 		SECTION (not to scale) 	

- ↑ SMALL DISTURBED SAMPLE
- ↓ LARGE DISTURBED SAMPLE
- / ▣ U76 SAMPLE (VERTICAL / HORIZONTAL)
- / ▩ U100 SAMPLE (VERTICAL / HORIZONTAL)
- BLOCK SAMPLE
- U IN-SITU DENSITY TEST
- ▲ WATER SAMPLE
- ▽ WATER SEEPAGE
- ↪ N-SCHMIDT HAMMER TEST

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Pink Station - Investigation, Design and Construction

WORKS ORDER NO. GE/2014/07.34

EXCAVATION DATES: 09.11.2015 to 10.11.2015
BACKFILL DATES: 18.11.2015 to 19.11.2015

LOGGED S.L. CHIU / R. CHU
DATE 13.11.2015

GROUND LEVEL:
+4.21 mPD

N 834118.83

CO-ORDINATES E 820696.68

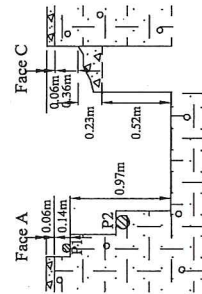
SAMPLES and TESTS	DEPTH (m)	FACE A: 1.50 m	FACE B: 1.50 m	FACE C: 1.50 m	FACE D: 1.50 m	SKETCH	DEPTH (m)	LEGEND GRADE	DESCRIPTION
1 ±	0.06						0.06		Dark red, BRICK. (PAVEMENT)
2 ±	0.45						0.45		Dense, brown (7.5YR 4/3) spotted grey, slightly clayey silty fine to coarse SAND with some angular to subangular fine to coarse gravel and occasional cobble of quartz and rock fragments and with some concrete fragments. (FILL)
3 ±	0.95						0.95		Area A: Grey, MORTAR.
4 ±	1.00						1.00		Area B: Grey, CONCRETE. (CONCRETE MASS)
5 ±	1.17						1.17		Utilities exposed with details as follows: P1: Dark brown, an iron pipe with 35mm in diameter. P2: Purple, a uPVC pipe with 110mm in diameter. End of trial pit at maximum depth of 1.17 m.

REMARKS

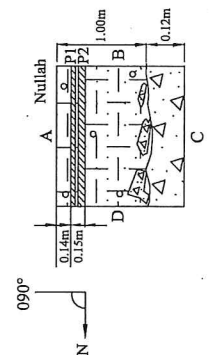
Maximum Depth: 1.17 m Average Depth: 0.90 m
Shoring: NO Stability: STABLE
Water Seepage: NO

1. Small disturbed samples were taken at 0.50m and 1.00m.
2. Large disturbed sample was taken at 1.00m.
3. Block sample was taken at 1.00m.
4. In-situ density test was carried out at 0.50m.

SECTION (not to scale)



PLAN (not to scale)



- ± SMALL DISTURBED SAMPLE
- ± LARGE DISTURBED SAMPLE
- ▨ U76 SAMPLE (VERTICAL / HORIZONTAL)
- U100 SAMPLE (VERTICAL / HORIZONTAL)
- BLOCK SAMPLE
- U IN-SITU DENSITY TEST
- ▲ WATER SAMPLE
- ▽ WATER SEEPAGE
- ↪ N-SCHMIDT HAMMER TEST

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Pink Station - Investigation, Design and Construction

WORKS ORDER NO. GE/2014/07.34

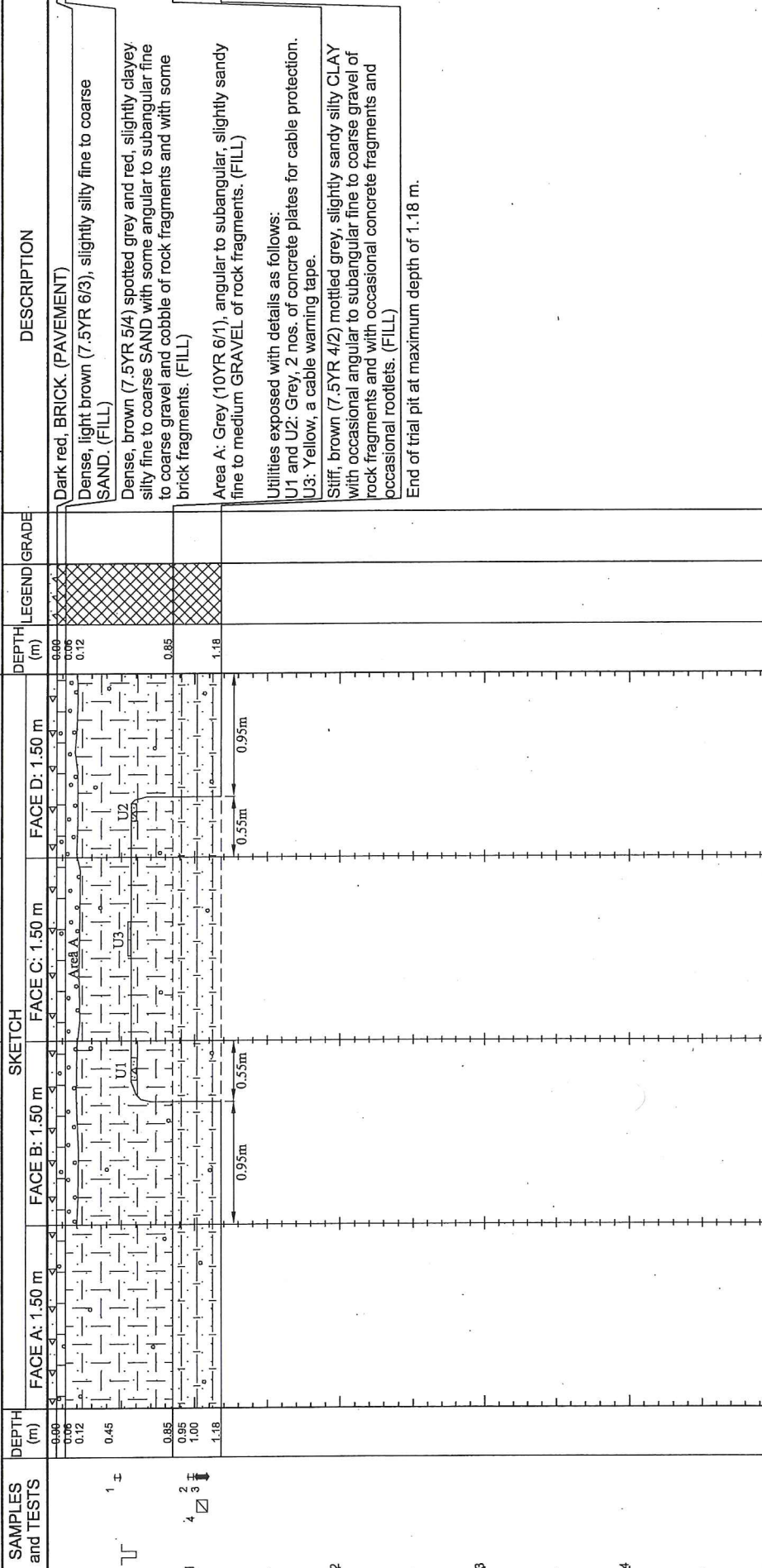
EXCAVATION DATES: 23.10.2015 to 24.10.2015
BACKFILL DATES: 05.11.2015 to 06.11.2015

LOGGED S.L. Chiu / R. Chu
DATE 28.10.2015 DATE 29.10.2015

GROUND LEVEL:
+4.46 mPD

N 833879.38

E 820731.86

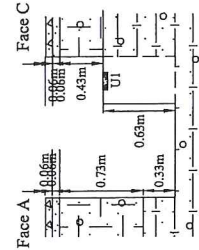


REMARKS

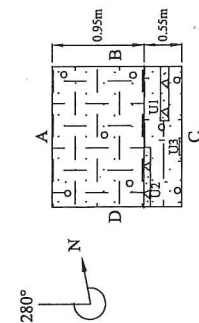
Maximum Depth: 1.18 m
Shoring: NO
Water Seepage: NO
Average Depth: 1.00 m
Stability: STABLE

- Small disturbed samples were taken at 0.50m and 1.00m.
- Large disturbed sample was taken at 1.00m.
- Block sample was taken at 1.00m.
- In-situ density test was carried out at 0.50m.

SECTION (not to scale)



PLAN (not to scale)



- ↑ SMALL DISTURBED SAMPLE
- ↓ LARGE DISTURBED SAMPLE
- ▨ U76 SAMPLE (VERTICAL / HORIZONTAL)
- U100 SAMPLE (VERTICAL / HORIZONTAL)
- BLOCK SAMPLE
- ⊥ IN-SITU DENSITY TEST
- ▲ WATER SAMPLE
- ▽ WATER SEEPAGE
- ↪ N-SCHMIDT HAMMER TEST

WORKS ORDER NO. GE/2014/07.34

EXCAVATION DATES: 23.10.2015 to 24.10.2015
BACKFILL DATES: 05.11.2015 to 06.11.2015

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Pink Station - Investigation, Design and Construction

CHECKED R. Chu
DATE 29.10.2015

LOGGED S.L. Chiu
DATE 28.10.2015

GROUND LEVEL:
+4.43 mPD

N 833827.67

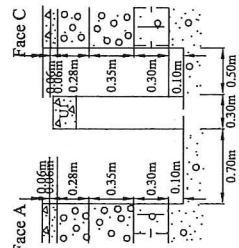
E 820730.55

SAMPLES and TESTS	DEPTH (m)	FACE A: 1.50 m	FACE B: 1.50 m	FACE C: 1.50 m	FACE D: 1.50 m	DEPTH (m)	LEGEND GRADE	DESCRIPTION
1	0.00					0.00		Dark red, BRICK. (PAVEMENT)
	0.12					0.12		Dense, light brown (7.5YR 6/3), slightly silty fine to coarse SAND. (FILL)
	0.40					0.40		Dense, grey (7.5YR 5/1), angular to subangular, slightly sandy fine to coarse GRAVEL of rock fragments. (FILL)
	0.75					0.75		Utility exposed with details as follows: U1: Grey, CONCRETE with dimensions of 300mm(width) x 200mm(thick).
2	0.85					0.85		Dense, brown (7.5YR 5/3), angular to subangular, slightly sandy fine to coarse GRAVEL of rock fragments. (FILL)
3	1.05					1.05		Stiff, red (2.5YR 5/6), clayey sandy SILT with some angular to subangular fine to coarse gravel of rock fragments and with some concrete fragments. (FILL)
	1.15					1.15		Dense, grey (7.5YR 6/1), fine to coarse SAND with some to much angular to subangular fine gravel of quartz fragments. (FILL)
								End of trial pit at maximum depth of 1.15 m.

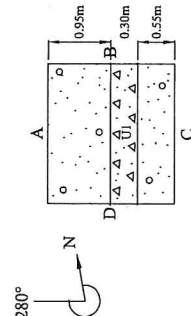
REMARKS

Maximum Depth: 1.15 m
Shoring: NO
Water Seepage: NO
Average Depth: 1.00 m
Stability: STABLE
1. Small disturbed samples were taken at 0.50m and 1.00m.
2. Large disturbed sample was taken at 1.00m.
3. Block sample was taken at 1.00m.
4. In-situ density test was carried out at 0.50m.

SECTION (not to scale)



PLAN (not to scale)



- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE (VERTICAL / HORIZONTAL)
- U100 SAMPLE (VERTICAL / HORIZONTAL)
- BLOCK SAMPLE
- IN-SITU DENSITY TEST
- WATER SAMPLE
- WATER SEEPAGE
- N-SCHMIDT HAMMER TEST

DRILTECH

TRIAL PIT RECORD

CONTRACT NO. GE/2014/07

TRIAL PIT NO.

TP12

SHEET

1

of

1

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Pink Station - Investigation, Design and Construction

WORKS ORDER NO. GE/2014/07.34

EXCAVATION DATES: 23.10.2015 to 24.10.2015

BACKFILL DATES: 05.11.2015 to 06.11.2015

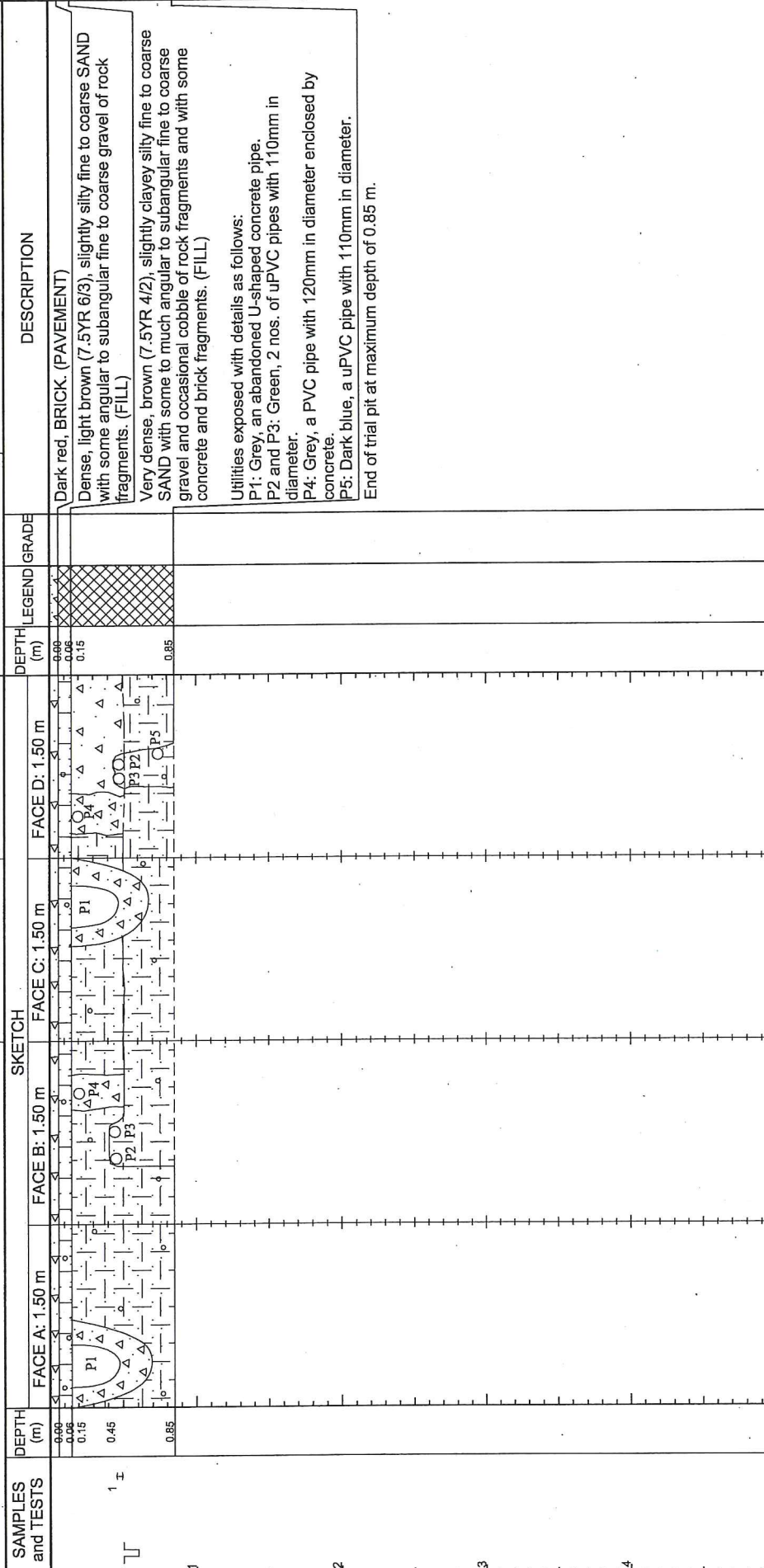
LOGGED S.L. CHIU / CHECKED R. CHU

DATE 28.10.2015 DATE 29.10.2015

GROUND LEVEL: +4.94 mPD

N 833779.26

E 820729.86

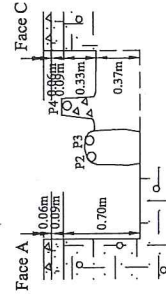


REMARKS

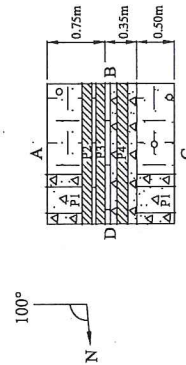
Maximum Depth: 0.85 m
Shoring: NO
Water Seepage: NO
Average Depth: 0.50 m
Stability: STABLE

- Small disturbed sample was taken at 0.50m.
- In-situ density test was carried out at 0.50m.

SECTION (not to scale)



PLAN (not to scale)



- SMALL DISTURBED SAMPLE
- LARGE DISTURBED SAMPLE
- U76 SAMPLE (VERTICAL / HORIZONTAL)
- U100 SAMPLE (VERTICAL / HORIZONTAL)
- BLOCK SAMPLE
- IN-SITU DENSITY TEST
- WATER SAMPLE
- WATER SEEPAGE
- N-SCHMIDT HAMMER TEST

PROJECT: Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Pink Station - Investigation, Design and Construction

WORKS ORDER NO. GE/2014/07.34

EXCAVATION DATES: 09.11.2015 to 10.11.2015
BACKFILL DATES: 18.11.2015 to 19.11.2015

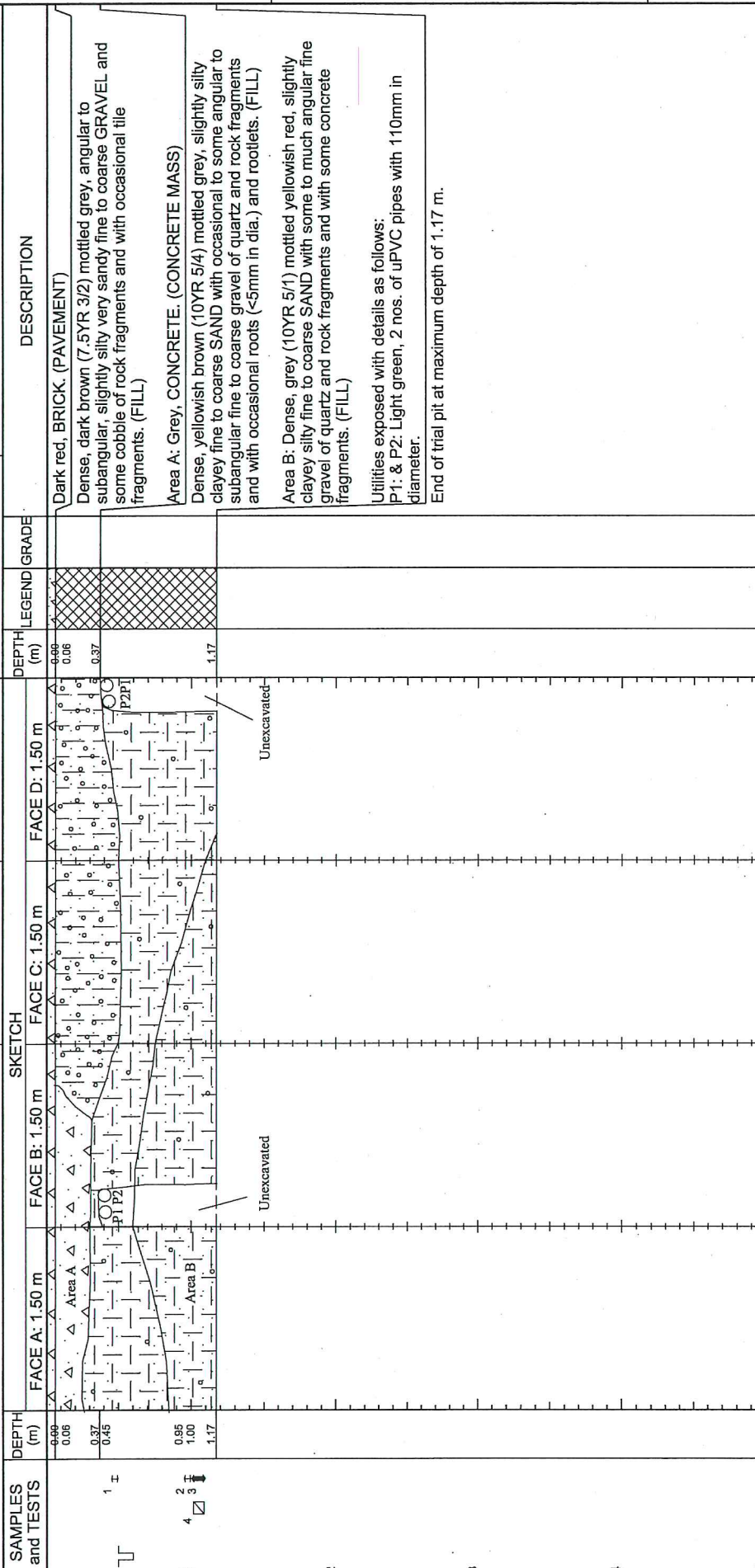
CHECKED: R. Chu
DATE: 13.11.2015

LOGGED: S.L. Chiu
DATE: 10.11.2015

GROUND LEVEL:
+4.40 mPD

N 833937.51

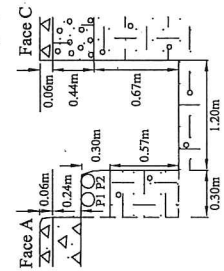
CO-ORDINATES E 820696.41



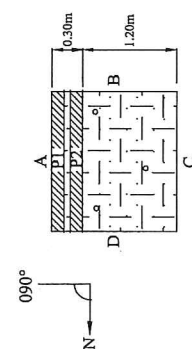
REMARKS

Maximum Depth: 1.17 m
Shoring: NO
Water Seepage: NO
Average Depth: 0.90 m
Stability: STABLE
1. Small disturbed samples were taken at 0.50m and 1.00m.
2. Large disturbed sample was taken at 1.00m.
3. Block sample was taken at 1.00m.
4. In-situ density test was carried out at 0.50m.

SECTION (not to scale)



PLAN (not to scale)



- 1 SMALL DISTURBED SAMPLE
- 2 LARGE DISTURBED SAMPLE
- 3 U76 SAMPLE (VERTICAL / HORIZONTAL)
- 4 U100 SAMPLE (VERTICAL / HORIZONTAL)
- 5 BLOCK SAMPLE
- 6 IN-SITU DENSITY TEST
- 7 WATER SAMPLE
- 8 WATER SEEPAGE
- 9 N-SCHMIDT HAMMER TEST

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 2px solid black; padding: 5px; font-weight: bold; font-size: 24px;">DRILTECH</div> <div style="text-align: center;"> <h2 style="margin: 0;">TRIAL PIT RECORD</h2> <p style="margin: 0;">CONTRACT NO. GE/2014/07</p> </div> <div style="text-align: right;"> <p>TRIAL PIT NO. TP14</p> <p>SHEET 1 of 1</p> </div> </div>									
PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction		WORKS ORDER NO. GE/2014/07.34		EXCAVATION DATES: 22.10.2015 to 22.10.2015 BACKFILL DATES: 05.11.2015 to 06.11.2015					
CO-ORDINATES E 820695.78 N 833866.32		GROUND LEVEL: +4.67 mPD		LOGGED S.L. CHIT DATE 28.10.2015		CHECKED R. Chu DATE 29.10.2015			
SAMPLES and TESTS		DEPTH (m)		SKETCH		DEPTH (m)		LEGEND GRADE	
FACE A: 1.50 m FACE B: 1.50 m FACE C: 1.50 m FACE D: 1.50 m				0.00 0.06 0.11 0.20 0.45 0.90		0.00 0.06 0.11 0.20 0.90		Dark red, BRICK. (PAVEMENT) Light grey, CONCRETE MORTAR. (BASE) Dense, brown (7.5YR 4/2), fine to coarse SAND with occasional angular to subangular fine to coarse gravel of quartz and rock fragments. (FILL) Area A: Black, ASPHALT. (OLD PAVEMENT) Dense, reddish brown (5YR 5/3) spotted grey, black and red, slightly silty clayey fine to coarse SAND with occasional to angular to subangular fine to coarse gravel of rock fragments and with some concrete, brick and asphalt fragments. (FILL) Utilities exposed with details as follows: U1: Grey, CONCRETE. (UTILITY PROTECTION) P1: Dark brownish grey, an iron pipe with 400mm in diameter. End of trial pit at maximum depth of 0.90 m.	
REMARKS Maximum Depth: 0.90 m Shoring: NO Water Seepage: NO Average Depth: 0.70 m Stability: STABLE 1. Small disturbed sample was taken at 0.50m.		SECTION (not to scale) 		PLAN (not to scale) 		SMALL DISTURBED SAMPLE LARGE DISTURBED SAMPLE U76 SAMPLE (VERTICAL / HORIZONTAL) U100 SAMPLE (VERTICAL / HORIZONTAL) BLOCK SAMPLE IN-SITU DENSITY TEST WATER SAMPLE WATER SEEPAGE N-SCHMIDT HAMMER TEST			

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Pink Station - Investigation, Design and Construction		WORKS ORDER NO. GE/2014/07.34 EXCAVATION DATES: 22.10.2015 to 05.11.2015 BACKFILL DATES: 18.11.2015 to 19.11.2015	
CO-ORDINATES E 820691.90 N 833831.81		LOGGED S.L. Chiu CHECKED R. Chu DATE 10.11.2015	DATE 11.11.2015
GROUND LEVEL: +4.93 mPD			
SKETCH			
SAMPLES and TESTS 1. 2. 3. 4. 5. 6. 7. 8. 9.		DEPTH (m) 0.00 0.06 0.20 0.31 0.45 0.85 1.00 1.17	
LEGEND		GRADE	
DESCRIPTION		REMARKS	
Dark red, BRICK. (PAVEMENT) Dense, brown (7.5YR 4/4) striped grey, fine to coarse SAND with some to much angular to subangular fine to medium gravel of quartz and rock fragments. (FILL) Area A: Grey, CONCRETE. (CONCRETE WALL OF NULLAH) Black, ASPHALT. (OLD PAVEMENT) Area B: Light grey, CONCRETE. (OLD PAVEMENT) Dense, brown (7.5YR 4/4) mottled grey, spotted white, clayey silty fine to coarse SAND with some angular to subangular fine to coarse gravel and occasional cobble of rock fragments and with some concrete fragments. (FILL) Area C: Grey, CONCRETE. (CONCRETE SLAB). Utilities exposed with details as follows: P1 & P2: Black, 2 nos. of cables with 30mm in diameter. P3: Grey, a uPVC pipe with 120mm in diameter. End of trial pit at maximum depth of 1.17 m.		Maximum Depth: 1.17 m Average Depth: 1.10 m Shoring: NO Stability: STABLE Water Seepage: NO 1. Small disturbed samples were taken at 0.50m and 1.00m. 2. Large disturbed sample was taken at 1.00m. 3. Block sample was taken at 1.00m. 4. In-situ density test was carried out at 0.50m.	
PLAN (not to scale)		SECTION (not to scale)	

PROJECT: Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Ping Station - Investigation, Design and Construction

WORKS ORDER NO. GE/2014/07.34

EXCAVATION DATES: 22.10.2015 to 22.10.2015
BACKFILL DATES: 05.11.2015 to 06.11.2015

LOGGED S.L. Chiu / R. Chu
DATE 28.10.2015 29.10.2015

GROUND LEVEL: +5.43 mPD

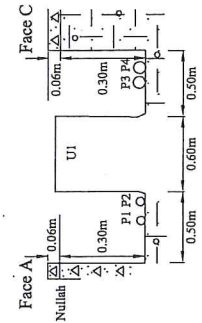
CO-ORDINATES E 820694.78 N 833767.96

SAMPLES and TESTS	DEPTH (m)	FACE A: 1.50 m	FACE B: 1.50 m	FACE C: 1.50 m	FACE D: 1.50 m	DEPTH (m)	LEGEND GRADE	DESCRIPTION
1 ±	0.00	Area A	U1	P1 P2	P3 P4	0.06	Dark red, BRICK. (PAVEMENT)	
	0.06					0.36		Dense, greyish brown (10YR 5/2), slightly clayey silty fine to coarse SAND with some angular to subangular fine to coarse gravel of rock fragments and with some concrete and asphalt fragments. (FILL)
	0.36							Area A: Grey, CONCRETE. (NULLAH)
								Utilities exposed with details as follows: U1: Black, ASPHALT. (UTILITY PROTECTION) P1 and P2: Dark blue, 2 nos. of cable with 22mm in diameter. P3 and P4: Light green, 2 nos. of uPVC pipes with 110mm in diameter.
								End of trial pit at maximum depth of 0.36 m.

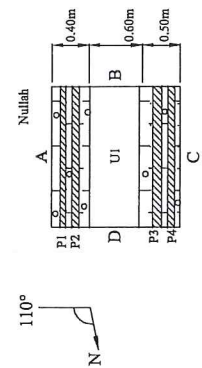
REMARKS

Maximum Depth: 0.36 m
Shoring: NO
Water Seepage: NO
Average Depth: 0.25 m
Stability: STABLE
1. Small disturbed sample was taken at 0.25m.

SECTION (not to scale)



PLAN (not to scale)



- ± SMALL DISTURBED SAMPLE
- ↓ LARGE DISTURBED SAMPLE
- U76 SAMPLE (VERTICAL / HORIZONTAL)
- U100 SAMPLE (VERTICAL / HORIZONTAL)
- BLOCK SAMPLE
- U IN-SITU DENSITY TEST
- ▲ WATER SAMPLE
- ▽ WATER SEEPAGE
- ↪ N-SCHMIDT HAMMER TEST

PROJECT Ground Investigation - New Territories West (Term Contract), Agreement No. CE 32/2014 (HY), Elevated Pedestrian Corridor in Yuen Long Town connecting with Long Pink Station - Investigation, Design and Construction		WORKS ORDER NO. GE/2014/07.34 EXCAVATION DATES: 09.11.2015 to 10.11.2015 BACKFILL DATES: 18.11.2015 to 19.11.2015	
CO-ORDINATES E 820696.84 N 834037.90		LOGGED S.L. Chiu	CHECKED R. Chu
GROUND LEVEL: +4.17 mPD		DATE 12.11.2015	DATE 13.11.2015

SAMPLES and TESTS	DEPTH (m)	SKETCH				LEGEND	GRADE	DEPTH (m)	DESCRIPTION		
		FACE A: 1.50 m	FACE B: 1.50 m	FACE C: 1.50 m	FACE D: 1.50 m						
1	0.00						0.00	Dark red, BRICK. (PAVEMENT)			
	0.06								0.06		
	0.40									0.40	
	0.87										0.87
	1.00										
2	0.87								Dense, brown (7.5YR 4/3), slightly silty fine to coarse SAND with occasional angular to subangular fine to coarse gravel of quartz and rock fragments. (FILL)		
3	1.00										
4	1.17								Utilities exposed with details as follows: P1: Grey, a uPVC pipe with 60mm in diameter. P2: Black, a cable with 30mm in diameter. P3 & P4: Light green, 2 nos. of PVC pipes with 110mm in diameter. P5 & P6: Dark blue, a uPVC pipe with 110mm in diameter. Dense, grey (7.5YR 5/1), angular to subangular, slightly silty very sandy fine to coarse GRAVEL of rock fragments. (FILL)		
5									Dense, dark grey (7.5YR 4/1) spotted yellowish brown, slightly silty clayey fine to coarse SAND with occasional angular to subangular fine to coarse gravel and occasional cobble of rock fragments. (FILL) End of trial pit at maximum depth of 1.17 m.		

PLAN (not to scale)	SECTION (not to scale)	REMARKS
		Maximum Depth: 1.17 m Average Depth: 0.85 m Shoring: NO Water Seepage: NO 1. Small disturbed samples were taken at 0.50m and 1.00m. 2. Large disturbed sample was taken at 1.00m. 3. Block sample was taken at 1.00m. 4. In-situ density test was carried out at 0.50m.



Contract No. GE/2014/07
Ground Investigation - New Territories West (Term Contract)

Appendix D

Core Box Photographs of Drillhole and Trial Pit Photographs



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CIVIL ENGINEERING AND DEVELOPMENT
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CEDD CONTRACT NO. : GE/2014/07
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JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH02

BOX NO. : 1 OF 12

DEPTH : 0.00 m TO 11.50 m

DATE OF PHOTOGRAPH : 11/ 3/2016



0m

1.0m

1

0.00

0.50

05.11





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Investigation, Design and
Construction

HOLE NO. : S1-DH02

BOX NO. : 2 OF 12

DEPTH : 11.50 m TO 27.20 m

DATE OF PHOTOGRAPH : 11/ 3/2016



0m

1.0m

11.50

27.20





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CEDD CONTRACT NO. : GE/2014/07
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with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH02

BOX NO. : 3 OF 12

DEPTH : 27.20 m TO 35.20 m

DATE OF PHOTOGRAPH : 11/ 3/2016



0m

1.0m

27.20

28.20

29.20

35.20



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WORKS ORDER NO. : GE/2014/07.34
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Investigation, Design and
Construction

HOLE NO. : S1-DH02

BOX NO. : 4 OF 12

DEPTH : 35.20 m TO 50.74 m

DATE OF PHOTOGRAPH : 11/ 3/2016



0m

1.0m

35.20

50.74



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Elevated Pedestrian Corridor
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HOLE NO. : S1-DH02

BOX NO. : 5 OF 12

DEPTH : 50.74 m TO (54.46) m

DATE OF PHOTOGRAPH : 11/ 3/2016



0m

1.0m

50.74

51.76

53.10

(54.46)

CON.T Cont'd



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HOLE NO. : S1-DH02

BOX NO. : 6 OF 12

DEPTH : (54.46) m TO (57.30) m

DATE OF PHOTOGRAPH : 11/ 3/2016



0m

Cont'd

(54.46)

54.64

56.13

(57.30)

Cont'd



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HOLE NO. : S1-DH 02

BOX NO. : 7 OF 12

DEPTH : (57.30) m TO (59.84) m

DATE OF PHOTOGRAPH : 11/ 3/2016



1.0m

0m

Cont'd

(57.30)

57.67

59.19

(59.84)

(59.84)

cont

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
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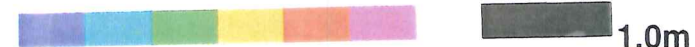
CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
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HOLE NO. : S1-DH 02

BOX NO. : 8 OF 12

DEPTH : (59.84) m TO (62.47) m

DATE OF PHOTOGRAPH : 11/ 3/2016



1.0m

0m

Cont'd

(59.84)

60.71

62.22

(62.47)

(62.47m)

CONT. Cont'd



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HOLE NO. : S1-DH 02

BOX NO. : 9 OF 12

DEPTH : (62.47) m TO 65.15 m

DATE OF PHOTOGRAPH : 11/ 3/2016



1.0m

0m

Cont'd

(62.47)

63.69

65.15



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CEDD CONTRACT NO. : GE/2014/07
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JOB TITLE : Agreement No. CE 32/2014 (HY)
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in Yuen Long Town connecting
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HOLE NO. : S1-DH 02

BOX NO. : 10 OF 12

DEPTH : 65.15 m TO (67.98) m

DATE OF PHOTOGRAPH : 11/ 3/2016



0m

65.15

66.71

(67.98)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
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CEDD CONTRACT NO. : GE/2014/07
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Construction

HOLE NO. : S1-DH 02

BOX NO. : 11 OF 12

DEPTH : (67.98) m TO 70.64 m

DATE OF PHOTOGRAPH : 11/ 3/2016



0m

1.0m

Cont'd

(67.98)

68.21

69.52

70.64



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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Elevated Pedestrian Corridor
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HOLE NO. : S1-DH 02

BOX NO. : 12 OF 12

DEPTH : 70.64 m TO 72.10 m

DATE OF PHOTOGRAPH : 11/ 3/2016



0m

1.0m

70.64

72.10
END



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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Elevated Pedestrian Corridor
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HOLE NO. : S1-DH03

BOX NO. : 1 OF 14

DEPTH : 0.00 m TO 13.10 m

DATE OF PHOTOGRAPH : 22/ 2/2016



0m

1.0m





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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Elevated Pedestrian Corridor
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HOLE NO. : S1-DH03

BOX NO. : 2 OF 14

DEPTH : 13.10 m TO 23.55 m

DATE OF PHOTOGRAPH : 22/ 2/2016



0m

1.0m

13.10

23.55





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
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HOLE NO. : S1-DH03

BOX NO. : 3 OF 14

DEPTH : 23.55 m TO 35.00 m

DATE OF PHOTOGRAPH : 22/ 2/2016



0m

1.0m

23.55

33.70

33.90

35.00

35.00



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
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HOLE NO. : **S1-DH03**

BOX NO. : **4 OF 14**

DEPTH : **35.00 m TO 38.28 m**

DATE OF PHOTOGRAPH : 22/ 2/2016



0m

35.00



36.00



NR
36.71~37.14

37.14



NR
37.94~38.28

38.28



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DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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HOLE NO. : S1-DH03

BOX NO. : 5 OF 14

DEPTH : 38.28 m TO 42.13 m

DATE OF PHOTOGRAPH : 22/ 2/2016



0m

1.0m

38.28

39.00

NR

39.40 ~ 39.80

39.80

40.30

40.30

40.59

NR

40.74 ~ 41.02

41.54

NR

41.87 ~ 42.13

42.13

42.13



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HOLE NO. : S1-DH03

BOX NO. : 6 OF 14

DEPTH : 42.13 m TO 52.35 m

DATE OF PHOTOGRAPH : 22/ 2/2016



0m

1.0m

42.13

46.13

NR
47.18 ~ 47.38

47.38

52.05

52.35

52.35



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
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HOLE NO. : S1-DH03

BOX NO. : 7 OF 14

DEPTH : 52.35 m TO (62.44) m

DATE OF PHOTOGRAPH : 22/ 2/2016



1.0m

0m

52.35

60.60

60.60m

62.07

(62.44)

(62.44m)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
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HOLE NO. : S1-DH03

BOX NO. : 8 OF 14

DEPTH : (62.44) m TO (65.36) m

DATE OF PHOTOGRAPH : 22/ 2/2016



1.0m

0m

Cont'd

(62.44)

63.38

64.34

64.34

(65.36)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
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HOLE NO. : S1-DH03

BOX NO. : 9 OF 14

DEPTH : (65.36) m TO (68.12) m

DATE OF PHOTOGRAPH : 22/ 2/2016



0m

1.0m

Cont'd

(65.36)

65.80

67.17

(68.12)

(68.12m)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
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HOLE NO. : S1-DH03

BOX NO. : 10 OF 14

DEPTH : (68.12) m TO (70.78) m

DATE OF PHOTOGRAPH : 22/ 2/2016



0m

Cont'd

(68.12)

68.52

69.88

(70.78)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
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HOLE NO. : S1-DH03

BOX NO. : 11 OF 14

DEPTH : (70.78) m TO (73.74) m

DATE OF PHOTOGRAPH : 22/ 2/2016



1.0m

0m

Cont'd

(70.78)

71.30

72.73

(73.74)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

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in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH03

BOX NO. : 12 OF 14

DEPTH : (73.74) m TO (76.66) m

DATE OF PHOTOGRAPH : 22/ 2/2016



1.0m

0m

Cont'd

(73.74)

74.22

75.01

76.40

(76.66)

(76.66m)

Cont'd



DRILTECH GROUND ENG. LTD.



CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH03

BOX NO. : 13 OF 14

DEPTH : (76.66) m TO (79.52) m

DATE OF PHOTOGRAPH : 22/ 2/2016



0m

1.0m

Cont'd

(76.66)

77.16

78.16

78.95

(79.52)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH03

BOX NO. : 14 OF 14

DEPTH : (79.52) m TO 82.13 m

DATE OF PHOTOGRAPH : 22/ 2/2016



1.0m

0m

Cont'd

(79.52)

80.09

81.17

82.13
END

81.74

82.13



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 1 OF 14

DEPTH : 0.00 m TO 11.50 m

DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 2 OF 14

DEPTH : 11.50 m TO 20.50 m

DATE OF PHOTOGRAPH : 4/12/2015



1.0m

0m

11.50

17.20

18.20

NR
18.80 ~ 19.00

19.00

20.50



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 3 OF 14

DEPTH : 20.50 m TO 23.50 m

DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m

20.50

21.85

22.30

23.50



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

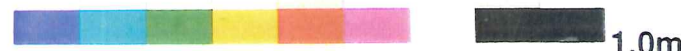
CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 4 OF 14

DEPTH : 23.50 m TO (29.45) m

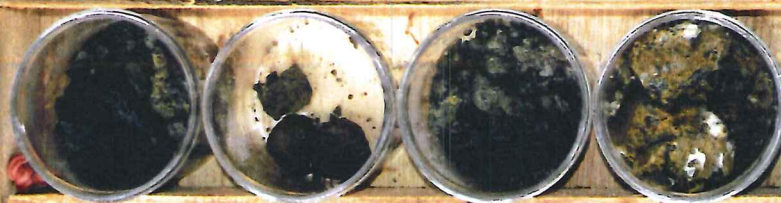
DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m

23.50



27.00



27.60



29.10

(29.45)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

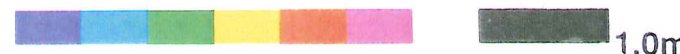
CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 5 OF 14

DEPTH : (29.45) m TO 32.95 m

DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m

Cont'd

(29.45)

30.55

30.85

NR

31.15

32.50

NR

32.95



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 6 OF 14

DEPTH : 32.95 m TO 37.50 m

DATE OF PHOTOGRAPH : 4/12/2015



0m

32.95



33.70

NR

34.30



NR

35.20~35.40

35.40



36.00



NR
36.48~36.70

36.70

NR

37.10



NR

37.28~37.50

37.50



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 7 OF 14

DEPTH : 37.50 m TO (42.25) m

DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m

37.50

39.70

41.12

(42.25)

CON Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 8 OF 14

DEPTH : (42.25) m TO 45.12 m

DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m

Cont'd

(42.25)

42.62

43.64

45.12



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07. 34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 9 OF 14

DEPTH : 45.12 m TO (47.93) m

DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m

45.12

46.60

47.93

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 10 OF 14

DEPTH : (47.93) m TO (50.77) m

DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m

Cont'd

(47.93)

48.08

49.60

(50.77)

CONT Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 11 OF 14

DEPTH : (50.77) m TO (53.49) m

DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m

Cont'd

(50.77)

51.12

52.57

(53.49)

CON Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 12 OF 14

DEPTH : (53.49) m TO (56.17) m

DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m

Cont'd

(53.49)

54.09

55.63

56.17

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
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with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 13 OF 14

DEPTH : (56.17) m TO (58.82) m

DATE OF PHOTOGRAPH : 4/12/2015



1.0m

0m

Cont'd

(56.17)

57.14

58.59

(58.82)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH07

BOX NO. : 14 OF 14

DEPTH : (58.82) m TO 59.99 m

DATE OF PHOTOGRAPH : 4/12/2015



0m

1.0m

Cont'd

(58.82)

59.99
END



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH08

BOX NO. : 1 OF 9

DEPTH : 0.00 m TO 10.00 m

DATE OF PHOTOGRAPH : 19/ 3/2016



0m

1.0m

0.00

0.50

10.00



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH08

BOX NO. : 2 OF 9

DEPTH : 10.00 m TO 25.60 m

DATE OF PHOTOGRAPH : 19/ 3/2016



1.0m

0m

10.00

25.60





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

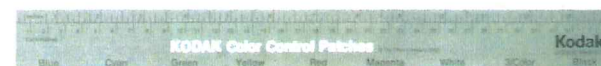
CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : **S1-DH08**

BOX NO. : **3 OF 9**

DEPTH : **25.60 m TO 41.60 m**

DATE OF PHOTOGRAPH : 19/ 3/2016



1.0m

0m

25.60



41.60



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH08

BOX NO. : 4 OF 9

DEPTH : 41.60 m TO 57.80 m

DATE OF PHOTOGRAPH : 19/ 3/2016



1.0m

0m

41.60



57.80



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

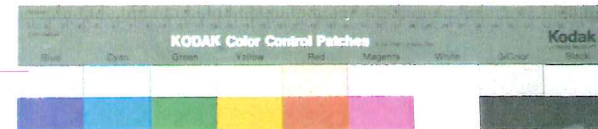
CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH08

BOX NO. : 5 OF 9

DEPTH : 57.80 m TO 73.80 m

DATE OF PHOTOGRAPH : 19/ 3/2016



0m

1.0m

57.80



73.80



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH08

BOX NO. : 6 OF 9

DEPTH : 73.80 m TO 89.80 m

DATE OF PHOTOGRAPH : 19/ 3/2016



1.0m

0m

73.80

89.80





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : **S1-DH08**

BOX NO. : **7 OF 9**

DEPTH : **89.80 m TO 100.65 m**

DATE OF PHOTOGRAPH : 19/ 3/2016



1.0m

0m

89.80

96.54

97.10

100.05

100.65



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : **S1-DH08**

BOX NO. : **8 OF 9**

DEPTH : **100.65 m TO (117.30) m**

DATE OF PHOTOGRAPH : 19/ 3/2016



1.0m

0m

100.65

101.20

109.18

109.60

NR

116.75

117.05

(117.30)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
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Investigation, Design and
Construction

HOLE NO. : **S1-DH08**

BOX NO. : **9 OF 9**

DEPTH : **(117.30)m TO 120.20 m**

DATE OF PHOTOGRAPH : 19/ 3/2016



0m

1.0m

Cont'd

(117.30)

118.53

119.65

NR

120.20
END



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 10

BOX NO. : 1 OF 11

DEPTH : 0.00 m TO 10.00 m

DATE OF PHOTOGRAPH : 1/3/2016



0m

1.0m





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 10

BOX NO. : 2 OF 11

DEPTH : 10.00 m TO 22.55 m

DATE OF PHOTOGRAPH : 1/3/2016



0m

10.00 m



22.55 m



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 10

BOX NO. : 3 OF 11

DEPTH : 22.55 m TO 38.55 m

DATE OF PHOTOGRAPH : 1/ 3/2016



0m

1.0m

22.55 m

38.55 m



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 10

BOX NO. : 4 OF 11

DEPTH : 38.55 m TO (47.25) m

DATE OF PHOTOGRAPH : 1/3/2016



0m

1.0m

38.55

45.37

45.37m

(47.25)

46.78

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 10

BOX NO. : 5 OF 11

DEPTH : (47.25) m TO (50.07) m

DATE OF PHOTOGRAPH : 1/ 3/2016



0m

1.0m

Cont'd

(47.25)

47.93

49.16

(50.07)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 10

BOX NO. : 6 OF 11

DEPTH : (50.07) m TO (52.98) m

DATE OF PHOTOGRAPH : 1/3/2016



0m

1.0m

Cont'd

(50.07)

50.67

51.98

(52.98)

(CONT) Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 10

BOX NO. : 7 OF 11

DEPTH : (52.98) m TO 55.79 m

DATE OF PHOTOGRAPH : 1/3/2016



0m

1.0m

Cont'd

(52.98)

53.48

54.83

55.79



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
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with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 10

BOX NO. : 8 OF 11

DEPTH : 55.79 m TO (58.47) m

DATE OF PHOTOGRAPH : 1/3/2016



0m

1.0m

55.79

56.54

58.02

(58.47)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
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Construction

HOLE NO. : S1-DH 10

BOX NO. : 9 OF 11

DEPTH : (58.47) m TO (61.34) m

DATE OF PHOTOGRAPH : 1/3/2016



0m

1.0m

Cont'd

(58.47)



59.46

60.98

(61.34)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 10

BOX NO. : 10 OF 11

DEPTH : (61.34)m TO (64.16) m

DATE OF PHOTOGRAPH : 1/3/2016



0m

1.0m

Cont'd

(61.34)

62.48

63.81

(64.16)

(64.16m)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 10

BOX NO. : 11 OF 11

DEPTH : (64.16) m TO 65.56 m

DATE OF PHOTOGRAPH : 1/3/2016



0m

1.0m

Cont'd

(64.16)

64.99

65.56
END



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 1 OF 21

DEPTH : 0.00 m TO 11.50 m

DATE OF PHOTOGRAPH : 16/12/2015



1.0m

0m

1

0.00

0.50

2.80

3.00

11.50



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 11

BOX NO. : 2 OF 21

DEPTH : 11.50 m TO 24.10 m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

11.50

24.10



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 3 OF 21

DEPTH : 24.10 m TO (31.50) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

24.10

29.33

29.85

31.38

(31.50)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 4 OF 21

DEPTH : (31.50) m TO 34.31 m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(31.50)

32.91

34.31



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 5 OF 21

DEPTH : 34.31 m TO (37.19) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

34.31

35.78

(37.19)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 6 OF 21

DEPTH : (37.19) m TO (39.99) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(37.19)

37.30

38.81

(39.99)

cont. Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 7 OF 21

DEPTH : (39.99) m TO (42.82) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd
(39.99)

40.34

41.82

(42.82)

com Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 11

BOX NO. : 8 OF 21

DEPTH : (42.82) m TO 45.60 m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(42.82)

43.38

44.80

45.60



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 9 OF 21

DEPTH : 45.60 m TO (48.32) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

45.60

46.50

NR
47.93~48.06

48.06

NR
48.06~48.15

(48.32)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : **S1-DH11**

BOX NO. : **10** OF **21**

DEPTH : **(48.32)** m TO **51.02** m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(48.32)

49.61

50.33

51.02

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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 11 OF 21

DEPTH : 51.02 m TO (53.98) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

51.02

51.02

51.70

NR
51.70 ~ 51.98

52.70

53.41

(53.98)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 12 OF 21

DEPTH : (53.98) m TO (56.75) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(53.98)

54.91

55.93

(56.75)

cont Cont'd

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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

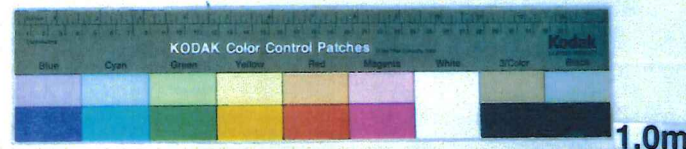
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : **S1-DH11**

BOX NO. : **13 OF 21**

DEPTH : **(56.75)** m TO **(59.55)** m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(56.75)

57.46

NR

58.47 ~ 58.60

59.00

NR

59.05 ~ 59.55

(59.55)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 14 OF 21

DEPTH : (59.55) m TO 62.51 m

DATE OF PHOTOGRAPH : 16/12/2015



1.0m

0m

Cont'd

(59.55)

NR

59.55 ~ 60.30

60.39

61.55

62.51



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 15 OF 21

DEPTH : 62.51 m TO (65.18) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

62.51

63.38

64.88

(65.18)

(65.18)

Cont'd

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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : **S1-DH 11**

BOX NO. : **16** OF **21**

DEPTH : **(65.18)** m TO **(68.06)** m

DATE OF PHOTOGRAPH : 16/12/2015



Cont'd

(65.18)



(65.18)

66.17



67.42



(68.06)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 17 OF 21

DEPTH : (68.06) m TO (70.89) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(68.06)

69.01

70.29

(70.89)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 18 OF 21

DEPTH : (70.89) m TO (73.60) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(70.89)

71.83

73.06

(73.60)

(73.60)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH 11

BOX NO. : 19 OF 21

DEPTH : (73.60) m TO (76.39) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(73.60)



74.57



75.99



(76.39)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 20 OF 21

DEPTH : (76.39) m TO (79.19) m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(76.39)

77.29

78.24

(79.19)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH11

BOX NO. : 21 OF 21

DEPTH : (79.19) m TO 80.99 m

DATE OF PHOTOGRAPH : 16/12/2015



0m

1.0m

Cont'd

(79.19)

79.54

80.99
END



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor in
Yuen Long Town connecting with
Long Ping Station - Investigation,
Design and Construction

HOLE NO. : S1-DH12

BOX NO. : 1 OF 1

DEPTH : 0.00 m TO 4.04 m

DATE OF PHOTOGRAPH : 26/11/2015



0m

1.0m

1

0.00

0.50

3.62

4.04
END

3.62m



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor in
Yuen Long Town connecting with
Long Ping Station - Investigation,
Design and Construction

HOLE NO. : S1-DH12A

BOX NO. : 1 OF 9

DEPTH : 0.00 m TO 12.10 m

DATE OF PHOTOGRAPH : 26/11/2015



0m

1.0m





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in
Yuen Long Town connecting with
Long Ping Station - Investigation,
Design and Construction

HOLE NO. : **S1-DH12A**

BOX NO. : **2 OF 9**

DEPTH : **12.10** m TO **22.04** m

DATE OF PHOTOGRAPH : 26/11/2015



0m

1.0m

12.10

20.71

22.04



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor in
Yuen Long Town connecting with
Long Ping Station - Investigation,
Design and Construction

HOLE NO. : **S1-DH12A**

BOX NO. : **3** OF **9**

DEPTH : **22.04** m TO **24.89** m

DATE OF PHOTOGRAPH : 26/11/2015



1.0m

0m

22.04

23.54

24.89



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor in
Yuen Long Town connecting with
Long Ping Station - Investigation,
Design and Construction

HOLE NO. : S1-DH12A

BOX NO. : 4 OF 9

DEPTH : 24.89 m TO 27.55 m

DATE OF PHOTOGRAPH : 26/11/2015



0m

1.0m

24.89

26.15

27.55

27.55m



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor in
Yuen Long Town connecting with
Long Ping Station - Investigation,
Design and Construction

HOLE NO. : S1-DH12A

BOX NO. : 5 OF 9

DEPTH : 27.55 m TO (30.24) m

DATE OF PHOTOGRAPH : 26/11/2015



1.0m

0m

27.55

29.07

(30.24)

con. Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor in
Yuen Long Town connecting with
Long Ping Station - Investigation,
Design and Construction

HOLE NO. : S1-DH12A

BOX NO. : 6 OF 9

DEPTH : (30.24) m TO 33.00 m

DATE OF PHOTOGRAPH : 26/11/2015



0m

1.0m

Cont'd

(30.24)

30.62

31.58

33.00

33.00m



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor in
Yuen Long Town connecting with
Long Ping Station - Investigation,
Design and Construction

HOLE NO. : **S1-DH12A**

BOX NO. : **7 OF 9**

DEPTH : **33.00** m TO **(35.95)** m

DATE OF PHOTOGRAPH : 26/11/2015



0m

1.0m

33.00

34.56

(35.95)

(35.95m)

con Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor in
Yuen Long Town connecting with
Long Ping Station - Investigation,
Design and Construction

HOLE NO. : **S1-DH12A**

BOX NO. : **8 OF 9**

DEPTH : **(35.95) m TO (38.85) m**

DATE OF PHOTOGRAPH : 26/11/2015



0m

1.0m

Cont'd

(35.95)

36.07

37.62

(38.85)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)

Elevated Pedestrian Corridor in
Yuen Long Town connecting with
Long Ping Station - Investigation,
Design and Construction

HOLE NO. : S1-DH12A

BOX NO. : 9 OF 9

DEPTH : (38.85) m TO 41.30 m

DATE OF PHOTOGRAPH : 26/11/2015



0m

1.0m

Cont'd

(38.85)

39.05

40.44

41.30
END



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

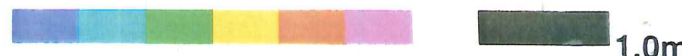
CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH13

BOX NO. : 1 OF 11

DEPTH : 0.00 m TO 11.60 m

DATE OF PHOTOGRAPH : 15/12/2015



0m

1.0m

1

0.00

0.50

11.60

CDN 13



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH13

BOX NO. : 2 OF 11

DEPTH : 11.60 m TO 24.10 m

DATE OF PHOTOGRAPH : 15/12/2015



0m

1.0m

11.60

24.10

CON 10



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH13

BOX NO. : 3 OF 11

DEPTH : 24.10 m TO 40.30 m

DATE OF PHOTOGRAPH : 15/12/2015



0m

1.0m

24.10

40.30





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH13

BOX NO. : 4 OF 11

DEPTH : 40.30 m TO (52.62) m

DATE OF PHOTOGRAPH : 15/12/2015



0m

40.30



51.00



52.51

(52.62)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH13

BOX NO. : 5 OF 11

DEPTH : (52.62) m TO (55.47) m

DATE OF PHOTOGRAPH : 15/12/2015



0m

1.0m

Cont'd

(52.62)

54.00

(55.47)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

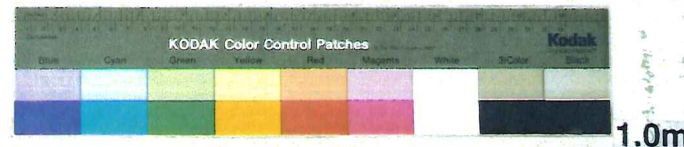
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH13

BOX NO. : 6 OF 11

DEPTH : (55.47) m TO (58.30) m

DATE OF PHOTOGRAPH : 15/12/2015



Cont'd

(55.47)

55.59

57.02

(58.30)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
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Investigation, Design and
Construction

HOLE NO. : S1-DH13

BOX NO. : 7 OF 11

DEPTH : (58.30) m TO 61.20 m

DATE OF PHOTOGRAPH : 15/12/2015



1.0m

0m

Cont'd

(58.30)

58.38

59.72

61.20



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH13

BOX NO. : 8 OF 11

DEPTH : 61.20 m TO (64.01) m

DATE OF PHOTOGRAPH : 15/12/2015



1.0m

0m

61.20

62.71

(64.01)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

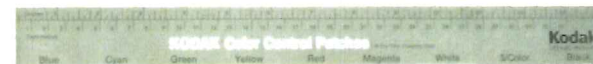
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH13

BOX NO. : 9 OF 11

DEPTH : (64.01) m TO (66.85) m

DATE OF PHOTOGRAPH : 15/12/2015



1.0m

0m

Cont'd

(64.01)

64.25

65.77

(66.85)

(66.85)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
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Construction

HOLE NO. : S1-DH13

BOX NO. : 10 OF 11

DEPTH : (66.85) m TO (69.75) m

DATE OF PHOTOGRAPH : 15/12/2015



0m

1.0m

Cont'd

(66.85)

67.28

68.80

(69.75)

(69.75)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH13

BOX NO. : 11 OF 11

DEPTH : (69.75) m TO 71.56 m

DATE OF PHOTOGRAPH : 15/12/2015



1.0m

0m

Cont'd

(69.75)

70.25

71.56
END



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH14

BOX NO. : 1 OF 18

DEPTH : 0.00 m TO 12.60 m

DATE OF PHOTOGRAPH : 21/12/2015



0m

1.0m





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH14

BOX NO. : 2 OF 18

DEPTH : 12.60 m TO 23.50 m

DATE OF PHOTOGRAPH : 21/12/2015



0m

1.0m

12.60



23.50



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH14

BOX NO. : 3 OF 18

DEPTH : 23.50 m TO 39.60 m

DATE OF PHOTOGRAPH : 21/12/2015



0m

1.0m

23.50

39.60



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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WORKS ORDER NO. : GE/2014/07.34

JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH14

BOX NO. : 4 OF 18

DEPTH : 39.60 m TO 54.50 m

DATE OF PHOTOGRAPH : 21/12/2015



1.0m

0m

39.60

54.50





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

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TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
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Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH14

BOX NO. : 5 OF 18

DEPTH : 54.50 m TO 70.50 m

DATE OF PHOTOGRAPH : 21/12/2015



1.0m

0m

54.50



70.50



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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Elevated Pedestrian Corridor
in Yuen Long Town connecting
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Construction

HOLE NO. : S1-DH14

BOX NO. : 6 OF 18

DEPTH : 70.50 m TO 82.54 m

DATE OF PHOTOGRAPH : 21/12/2015



0m

1.0m

70.50



81.77

NR

82.08 ~ 82.54

82.54



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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WORKS ORDER NO. : GE/2014/07.34
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Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH14

BOX NO. : 7 OF 18

DEPTH : 82.54 m TO (85.54) m

DATE OF PHOTOGRAPH : 21/12/2015



0m

1.0m

82.54

84.00

84.87

(85.54)

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
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Investigation, Design and
Construction

HOLE NO. : S1-DH14

BOX NO. : 8 OF 18

DEPTH : (85.54) m TO (89.43) m

DATE OF PHOTOGRAPH : 21/12/2015



0m

1.0m

Cont'd

(85.54)

85.64

86.95

88.44

(89.43)

CONT

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
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Elevated Pedestrian Corridor
in Yuen Long Town connecting
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Construction

HOLE NO. : S1-DH14

BOX NO. : 9 OF 18

DEPTH : (89.43) m TO (93.33) m

DATE OF PHOTOGRAPH : 21/12/2015



1.0m

0m

Cont'd

(89.43)

89.81

NR

NR

90.88

91.42

NR

91.55~91.65

91.65

NR

92.68 ~ 92.79

93.10

(93.33)

CONT'D

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
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Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : **S1-DH14**

BOX NO. : **10 OF 18**

DEPTH : **(93.33) m TO (97.34) m**

DATE OF PHOTOGRAPH : 21/12/2015



0m

1.0m

Cont'd

(93.33)

94.64

96.20

96.93

(97.34)

Cont'd

CONT'D



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
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Elevated Pedestrian Corridor
in Yuen Long Town connecting
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Construction

HOLE NO. : S1-DH14

BOX NO. : 11 OF 18

DEPTH : (97.34) m TO (101.06) m

DATE OF PHOTOGRAPH : 21/12/2015



0m

1.0m

Cont'd

(97.34)

97.82

99.05

99.30

100.06

(101.06)

NR

CONT'D

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH14

BOX NO. : 12 OF 18

DEPTH : (101.06) m TO 105.28 m

DATE OF PHOTOGRAPH : 21/12/2015



0m

1.0m

Cont'd
(101.06)

NR

101.75

102.38

NR

102.73~103.40

103.85

105.28

CONT'D



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
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Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : S1-DH14

BOX NO. : 13 OF 18

DEPTH : 105.28 m TO 109.17 m

DATE OF PHOTOGRAPH : 21/12/2015



1.0m

0m

105.28

106.75

108.19

109.17

20/17.D



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
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WORKS ORDER NO. : GE/2014/07.34
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Elevated Pedestrian Corridor
in Yuen Long Town connecting
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Investigation, Design and
Construction

HOLE NO. : S1-DH14

BOX NO. : 14 OF 18

DEPTH : 109.17 m TO 113.92 m

DATE OF PHOTOGRAPH : 21/12/2015



1.0m

0m





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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
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WORKS ORDER NO. : GE/2014/07.34
JOB TITLE : Agreement No. CE 32/2014 (HY)
Elevated Pedestrian Corridor
in Yuen Long Town connecting
with Long Ping Station -
Investigation, Design and
Construction

HOLE NO. : **S1-DH14**

BOX NO. : **15 OF 18**

DEPTH : **113.92** m TO **(117.58)** m

DATE OF PHOTOGRAPH : 21/12/2015



0m

1.0m

113.92

115.32

NR

115.70~115.90

116.83

(117.58)

(117.58m)

Cont'd

CONT-P



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
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Elevated Pedestrian Corridor
in Yuen Long Town connecting
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Construction

HOLE NO. : S1-DH14

BOX NO. : 16 OF 18

DEPTH : (117.58) m TO (121.62) m

DATE OF PHOTOGRAPH : 21/12/2015



1.0m

0m

Cont'd

(117.58)

118.23

119.59

NR

120.29 ~ 120.75

121.05

121.20

NR

(121.62)

CONT'D

Cont'd



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CIVIL ENGINEERING AND DEVELOPMENT
DEPARTMENT

CEDD CONTRACT NO. : GE/2014/07
GROUND INVESTIGATION - NEW
TERRITORIES WEST (TERM CONTRACT)
WORKS ORDER NO. : GE/2014/07.34
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Construction

HOLE NO. : S1-DH14

BOX NO. : 17 OF 18

DEPTH : (121.62) m TO 125.47 m

DATE OF PHOTOGRAPH : 21/12/2015



1.0m

0m

Cont'd

(121.62)

NR

122.45

NR

123.19

124.65

NR

125.47