Table 3 - Sediment Analysis and Classification

(A) Summary Results of Heavy Metal Analysis
Location : Lei Yue Mun

Client Reference / Drillhole No.	Sample					Cd	Cr	Cu	Ni	Pb	Zn	Hg	As	Ag	PAH (LMW)	PAH (HMW)	PCB	TBT
	Depth (m)			Type	Specimen Depth, m	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg	ug/kg	ug/kg	ug/kg
	No.	From	To															
					Reporting Limit	0.1	1	1	1	1	10	0.05	1	0.1	55	170	3	0.015
					LCEL	1.5	80	65	40	75	200	0.5	12	1	550	1700	23	0.15
					UCEL	4	160	110	40	110	270	1	42	2	3160	9600	180	0.15
BH7	NA	1.50	1.95		NA	<0.20	<8.0	14	6.9	12	300	0.08	1.6	<0.10	<55	<170	<3	<
BH7	NA	2.00	2.45		NA	<0.20	<8.0	18	<4.0	13	120	0.13	<1.0	<0.10	<55	<170	<3	<
BH5	NA	1.50	1.95		NA	<0.20	<8.0	14	<4.0	45	720	0.06	2.0	<0.10	<55	<170	<3	<
BH5	NA	2.00	2.45		NA	<0.20	<8.0	42	5.1	29	180	0.08	1.5	<0.10	<55	<170	<3	<
BH3	NA	3.00	3.45		NA	<0.20	13	160	14	62	460	0.07	6.3	<0.10	<55	<170	<3	<
BH3	NA	3.50	3.95		NA	<0.20	23	100	11	51	250	0.08	5.1	<0.10	<55	<170	<3	<
BH3	NA	4.00	4.45		NA	<0.20	13	49	13	39	310	0.08	5.9	<0.10	<55	<170	<3	<
BH3	NA	4.50	4.95		NA	<0.20	<8.0	<7.0	<4.0	28	51	<0.05	4.2	<0.10	<55	<170	<3	<
BH3	NA	5.50	5.95		NA	<0.20	32	65	5.8	78	210	0.05	3.1	<0.10	<55	<170	<3	<
BH3	NA	6.00	6.45		NA	<0.20	<8.0	7.1	<4.0	14	95	<0.05	1.7	<0.10	<55	<170	<3	<
BH3	NA	8.00	8.45		NA	<0.20	<8.0	<7.0	<4.0	13	<20	<0.05	1.7	<0.10	<55	<170	<3	<
R.Sediment	NA	NA	NA		NA	<0.20	22	14	16	33	66	0.12	5.6	0.12	<55	<170	<3	<

(B) Sediment Classification in respect of ETWB TC 34/2002
Location : Lei Yue Mun

Drill Hole	Depth (m)	Cd	Cr	Cu	Ni	Pb	Zn	Hg	As	Ag	PAH (L)	PAH(H)	PCB	TBT	C/S
BH7	1.50 - 1.95	<RL	<RL	L	L	L	H	L	L	<RL	<RL	<RL	<RL	<RL	H
BH7	2.00 - 2.45	<RL	<RL	L	<RL	L	L	L	<RL	<RL	<RL	<RL	<RL	<RL	L
BH5	1.50 - 1.95	<RL	<RL	L	<RL	L	H	L	L	<RL	<RL	<RL	<RL	<RL	H
BH5	2.00 - 2.45	<RL	<RL	L	L	L	L	L	L	<RL	<RL	<RL	<RL	<RL	L
BH3	3.00 - 3.45	<RL	L	H	L	L	H	L	L	<RL	<RL	<RL	<RL	<RL	H
BH3	3.50 - 3.95	<RL	L	M	L	L	M	L	L	<RL	<RL	<RL	<RL	<RL	M
BH3	4.00 - 4.45	<RL	L	L	L	L	H	L	L	<RL	<RL	<RL	<RL	<RL	H
BH3	4.50 - 4.95	<RL	<RL	<RL	<RL	L	L	<RL	L	<RL	<RL	<RL	<RL	<RL	L
BH3	5.50 - 5.95	<RL	L	L	L	M	M	L	L	<RL	<RL	<RL	<RL	<RL	M
BH3	6.00 - 6.45	<RL	<RL	L	<RL	L	L	<RL	L	<RL	<RL	<RL	<RL	<RL	L
BH3	8.00 - 8.45	<RL	<RL	<RL	<RL	L	<RL	<RL	L	<RL	<RL	<RL	<RL	<RL	L
R.Sediment	NA	<RL	L	L	L	L	L	L	L	L	<RL	<RL	<RL	<RL	L

) sample requires biological tests

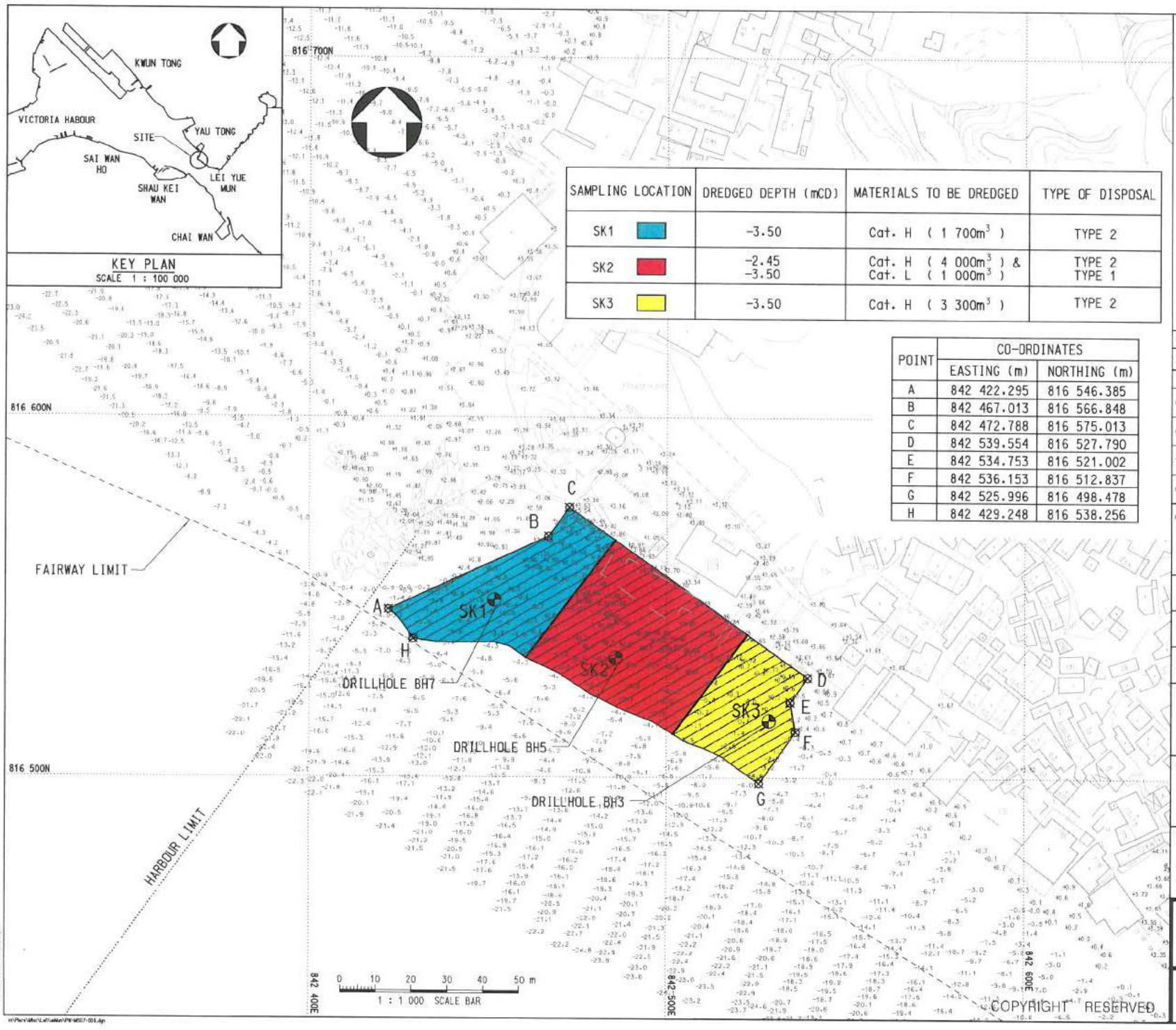
) sample requires biological tests

Cat L =	6
Cat M =	2
Cat H =	4
	12

Table 4
Dredged depths of different categories of sediment

Drillhole	Seabed level (mCD)	Sampling depth (m)	Corresponding sampling levels (mCD)	Dredged depth (mCD)	Sediment Classification	Disposal Type
BH7	-1.95	1.50 – 1.95	-3.45 to -3.90	-3.50	Cat. H	Type 2
BH7	-1.95	2.00 – 2.45	-3.95 to -4.40	(No need to dredged)	Cat. L	Type 1
BH5	-0.45	1.50 – 1.95	-1.95 to -2.40	-2.40	Cat. H	Type 2
BH5	-0.45	2.00 – 2.45	-2.45 to -2.90	-2.90	Cat. L	Type 1
BH5	-0.45	-	-	-3.50	Cat. L (assume)	Type 1
BH3	-0.25	3.00 – 3.45	-3.25 to -3.70	-3.50	Cat. H	Type 2

It can be seen that according to a dredged depth of –3.5mCD, it is only the first sampling layer of sediment at BH7 and BH3 needs to be dredged. For BH5, the sampling depth was only down to –2.90mCD (higher than dredged depth –3.5mCD). It is assumed that the dredging material at BH5 from –2.90 to –3.5mCD is also Cat.L.



SAMPLING LOCATION	DREDGED DEPTH (mCD)	MATERIALS TO BE DREDGED	TYPE OF DISPOSAL
SK1	-3.50	Cat. H (1 700m^3)	TYPE 2
SK2	-2.45 -3.50	Cat. H (4 000m^3) & Cat. L (1 000m^3)	TYPE 2 TYPE 1
SK3	-3.50	Cat. H (3 300m^3)	TYPE 2

POINT	CO-ORDINATES	
	EASTING (m)	NORTHING (m)
A	842 422.295	816 546.385
B	842 467.013	816 566.848
C	842 472.788	816 575.013
D	842 539.554	816 527.790
E	842 534.753	816 521.002
F	842 536.153	816 512.837
G	842 525.996	816 498.478
H	842 429.248	816 538.256

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CO-ORDINATES REFER TO HONG KONG GEODETIC DATUM 1980 AND ARE IN METRES.
3. ALL LEVELS REFER TO CHART DATUM (C.D.) AND ARE IN METRES.

LEGEND:

PROPOSED DREDGING AREA TO -3.5m C.D.

PROVISIONAL
SUBJECT TO AMENDMENTS

no.	date	description	checked	approved

REVISION

	name	initial	date
designed	T M YEUNG		19.3.07
drawn	K L CHAN		19.3.07
traced	K L CHAN		19.3.07
checked	S K TONG		19.3.07

approved

(W L LAU)
Chief Engineer
date 19.3.07

contract no.

file no.

project no. 3409RO

contract

drawing title
LEI YUE MUN WATERFRONT ENHANCEMENT PROJECT
– DREDGING PLAN

drawing no. PW-MS07-006

scale 1 : 1000

office
PORT WORKS DIVISION
CIVIL ENGINEERING OFFICE

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

A3 420 x 297