

**Environmental Monitoring and Audit
 for Contaminated Mud Pits to the
 South of The Brothers and at East
 Sha Chau (2012-2017) – Investigation
 Agreement No. CE 23/2012(EP)**

**31st Monthly Progress Report for Contaminated
 Mud Pits to the South of The Brothers and at
 East Sha Chau – March 2015**

Revision 0

17 April 2015

Environmental Resources Management
 16/F Berkshire House
 25 Westlands Road
 Quarry Bay, Hong Kong
 Telephone (852) 2271 3000
 Facsimile (852) 2723 5660
www.erm.com



Environmental Monitoring and Audit for Contaminated Mud Pits to the South of The Brothers and at East Sha Chau (2012-2017) – Investigation

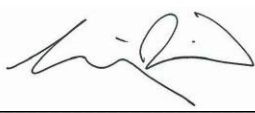


31st Monthly Progress Report for Contaminated Mud Pits to the South of The Brothers and at East Sha Chau – March 2015

Revision 0

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 Berkshire House
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 Hong Kong
 Telephone: (852) 2271 3000
 Facsimile: (852) 2723 5660
 E-mail: post.hk@erm.com
 http://www.erm.com

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Client: Civil Engineering and Development Department (CEDD)		Project No: 0175086			
Summary: This document presents the 31 st monthly progress report for Contaminated Mud Pits at the South of The Brothers and at East Sha Chau.		Date: 17 April 2015			
		Approved by:  Craig A. Reid Partner			
v0	31 st Monthly Progress Report for ESC CMPs and SB CMPs	EL	JT	CAR	17/4/15
Revision	Description	By	Checked	Approved	Date
<p>This report has been prepared by Environmental Resources Management the trading name of 'ERM Hong-Kong, Limited', with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client.</p> <p>We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.</p> <p>This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.</p>		Distribution <input type="checkbox"/> Internal <input checked="" type="checkbox"/> Public <input type="checkbox"/> Confidential			
				 	



Dredging, Management and Capping of Contaminated Sediment Disposal Facility to the South of The Brothers

Environmental Certification Sheet EP-427/2011/A

Reference Document/Plan

Document/ Plan to be Certified/ Verified:	31 st Monthly Progress Report for Contaminated Mud Pits to the South of The Brothers and at East Sha Chau - March 2015
Date of Report:	17 April 2015
Date prepared by ET:	17 April 2015
Date received by IA:	17 April 2015

Reference EP Condition

Environmental Permit Condition:	Condition No.: 4.4
4 hard copies and 1 electronic copy of monthly EM&A Report shall be submitted to the Director within 2 weeks after the end of the reporting month. The EM&A Reports shall include a summary of all non-compliance (exceedances) of the environmental quality performance limits (Action and Limit Levels). The submissions shall be certified by the ET Leader and verified by the Independent Auditor. Additional copies of the submission shall be provided to the Director upon request by the Director.	

ET Certification

I hereby certify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-427/2011/A

Craig A. Reid,
Environmental Team Leader:



Date: 17/4/2015

IA Verification

I hereby verify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-427/2011/A

Dr Wang Wen Xiong,
Independent Auditor:



Date: 17/4/2015

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Agreement No. CE 23/2012 (EP)
Environmental Monitoring and Audit
for Contaminated Mud Pits to the South of The Brothers and at East Sha
Chau (2012-2017) - Investigation

31ST MONTHLY PROGRESS REPORT FOR MARCH 2015

1.1 BACKGROUND

1.1.1 Since early 1990s, contaminated sediment ⁽¹⁾ arising from various construction works (e.g. dredging and reclamation projects) in Hong Kong has been disposed of at a series of seabed pits at East of Sha Chau (ESC). In late 2008, a review indicated that the existing and planned facilities at ESC would not be able to meet the disposal demand after 2012. In order to meet this demand, the Hong Kong Special Administrative Region Government (HKSARG) decided to implement a new contained aquatic disposal (CAD) ⁽²⁾ facility at the South of The Brothers (SB CMPs) which had been under consideration for a number of years.

1.1.2 The environmental acceptability of the construction and operation of the Project had been confirmed by findings of the associated Environmental Impact Assessment (EIA) study completed in 2005 under *Agreement No. CE 12/2002(EP)* ⁽³⁾. The Director of Environmental Protection (DEP) approved this EIA report under the *Environmental Impact Assessment Ordinance (Cap. 499) (EIAO)* in September 2005 (*EIA Register No.: AEIAR-089/2005*).

1.1.3 In accordance with the EIA recommendation, prior to commencement of construction works for the SB CMPs, the Civil Engineering and Development Department (CEDD) undertook a detailed review and update of the EIA findings for the SB site ⁽⁴⁾. Findings of the EIA review undertaken in 2009/2010 confirmed that the construction and operation of the SB site had been predicted to be environmentally acceptable.

(1) According to the Management Framework of Dredged/ Excavated Sediment of ETWB TC(W) No. 34/2002, contaminated sediment in general shall mean those sediment requiring Type 2 - Confined Marine Disposal as determined according to this TC(W).

(2) CAD options may involve use of excavated borrow pits, or may involve purpose-built excavated pits. CAD sites are those which involve filling a seabed pit with contaminated mud and capping it with uncontaminated material such that the original seabed level is restored and the contaminated material is isolated from the surrounding marine environment.⁷

(3) Detailed Site Selection Study for a Proposed Contaminated Mud Disposal Facility within the Airport East/ East of Sha Chau Area (*Agreement No. CE 12/2002(EP)*)

(4) Under the CEDD study *Contaminated Sediment Disposal Facility to the South of The Brothers (Agreement No. FM 2/2009)*

- *Water Column Profiling* of CMP 2 was undertaken on 5 March 2015.

1.4 ***DETAILS OF OUTSTANDING SAMPLING AND/OR ANALYSIS***

1.4.1 No outstanding sampling and laboratory analysis remained for March 2015.

1.4.2 A summary of field activities conducted are presented in *Annex A*.

1.5 ***BRIEF DISCUSSION OF THE MONITORING RESULTS FOR SB CMPS***

1.5.1 Brief discussion of the monitoring results of the following activities for SB CMPS is presented in this *31st Monthly Progress Report*:

- Laboratory analyses of sediment samples collected for *Cumulative Impact Sediment Chemistry of SB CMPS* in February 2015;
- *Pit Specific Sediment Chemistry* of CMP 2 undertaken on 4 March 2015; and
- *Water Column Profiling* of CMP 2 undertaken on 5 March 2015.

- 1.5.2 ***Cumulative Impact Sediment Chemistry of SB CMPs – February 2015***
- 1.5.3 Monitoring locations for *Cumulative Impact Sediment Chemistry for SB CMPs* are shown in *Figure 1.2*. A total of eleven (11) monitoring stations were sampled in February 2015.
- 1.5.4 Analyses of results for the *Cumulative Impact Sediment Chemistry Monitoring* indicated that the concentrations of most inorganic contaminants, except Arsenic, were below the Lower Chemical Exceedance Level (LCEL) in February 2015 (*Figures 1 and 2 of Annex B*). Concentration of Arsenic exceeded the LCEL at Capped Pit station SB-RCA and SB-RCB and Mid Field station SB-RMB.
- 1.5.5 Whilst the average concentration of Arsenic in the Earth’s crust is generally ~2mg/kg, significantly higher Arsenic concentrations (median = 14 mg/kg) have been recorded in Hong Kong’s onshore sediments ⁽¹⁾. It is presumed that the natural concentrations of Arsenic are similar in onshore and offshore sediments ⁽²⁾, and relatively high Arsenic levels may thus occur throughout Hong Kong. Therefore, the LCEL exceedances of Arsenic are unlikely to be caused by the disposal operations at CMP 2 but rather as a result of naturally occurring deposits.
- 1.5.6 For organic contaminants, concentration of Total Organic Carbon (TOC) at Tai Ho Bay Station 2 (THB2) was recorded to be higher than other stations (*Figure 3 of Annex B*). Concentrations of Tributyltin (TBTs) were recorded to be higher at Near-field station SB-RNB and Ma Wan station (*Figure 4 of Annex B*). Total Dichloro-Diphenyl-Trichloroethane (DDT), 4,4’-Dichloro-Diphenyl-Dichloroethylene (4,4’-DDE), Total Polychlorinated Biphenyls (PCBs) as well as Low and High Molecular Weight Polycyclic Aromatic Hydrocarbons (MW PAHs) were recorded below the limit of reporting at all stations.
- 1.5.7 Overall, there is no evidence indicating any unacceptable environmental impacts to sediment quality as a result of the contaminated mud disposal operations at CMP 2 in February 2015.
- 1.5.8 ***Pit Specific Sediment Chemistry of CMP 2 – March 2015***
- 1.5.9 Monitoring locations for *Pit Specific Sediment Chemistry for CMP 2* are shown in *Figure 1.3*. A total of six (6) monitoring stations were sampled in March 2015.
- 1.5.10 The concentrations of all inorganic contaminants were lower than the LCEL in March 2015 (*Figures 5-6 of Annex B*).

(1) Sewell RJ (1999) *Geochemical Atlas of Hong Kong*. Geotechnical Engineering Office, Government of the Hong Kong Special Administrative Region

(2) Whiteside PGD (2000) Natural geochemistry and contamination of marine sediments in Hong Kong. In: *The Urban Geology of Hong Kong* (ed Page A & Reels SJ). Geological Society of Hong Kong Bulletin No. 6, p109-121

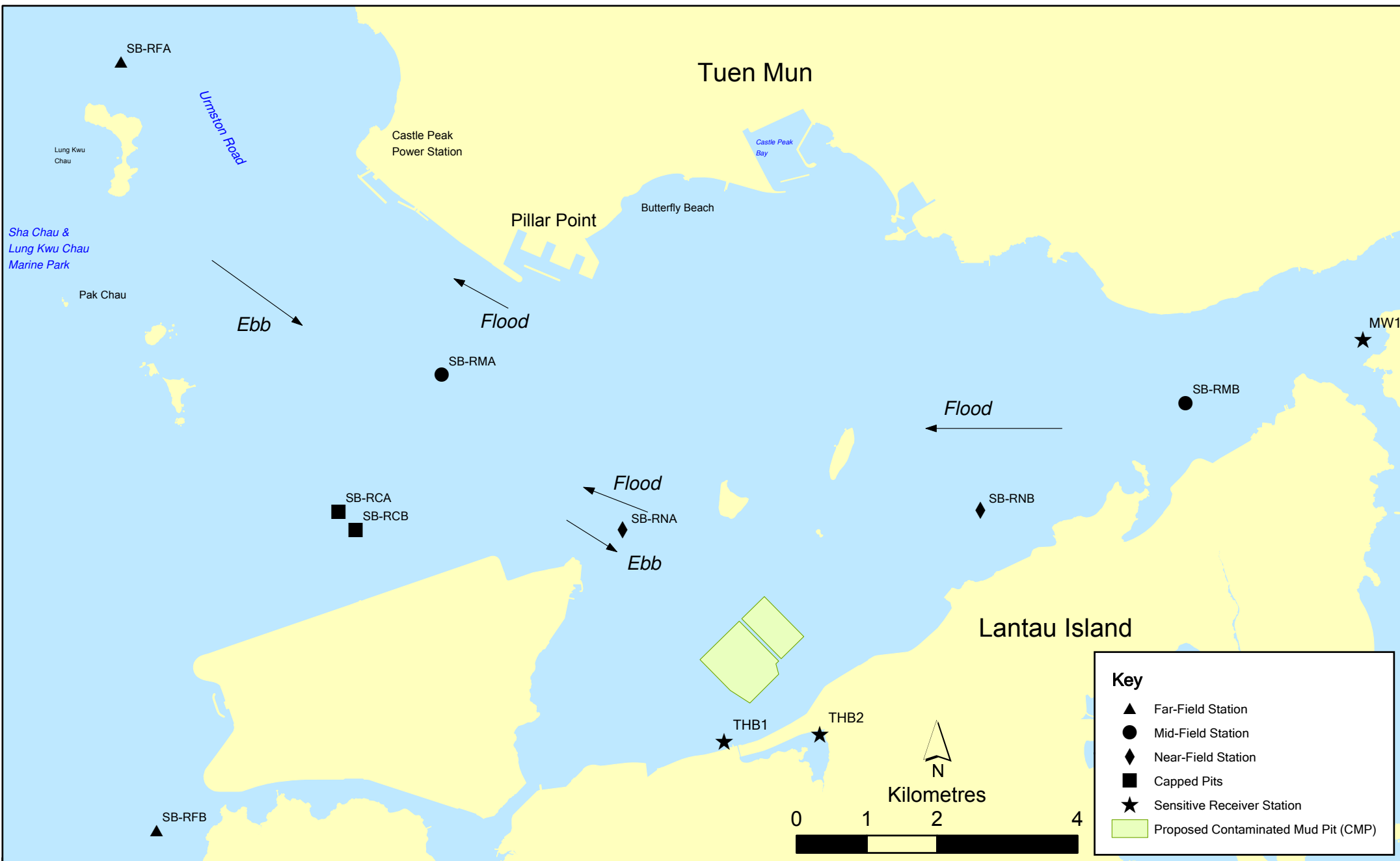


Figure 1.2

Cumulative Impacts Sediment Quality Monitoring Stations for South Brothers Facility

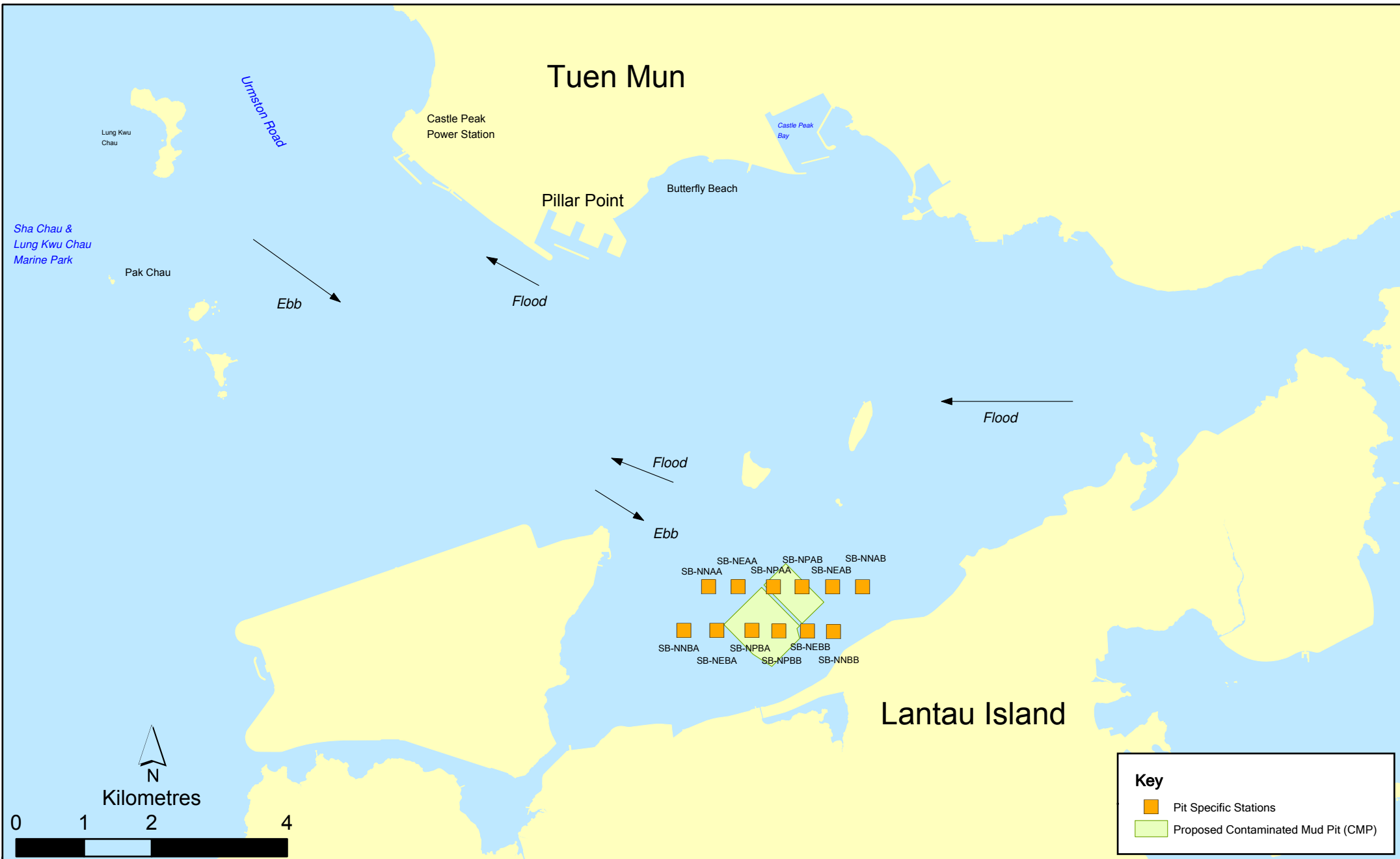


Figure 1.3

Pit Specific Sediment Quality Monitoring Stations for South Brothers Facility

1.5.11 For organic contaminants, the concentrations of TOC were similar amongst stations in March 2015 (*Figure 7 of Annex B*). TBTs concentrations were observed to be slightly higher at Pit Edge station SB-NEAB in March 2015 (*Figures 8 of Annex B*). Total DDT, 4,4'-DDE, Total PCBs, Low and High MW PAHs were below the limit of reporting at all stations in March 2015.

1.5.12 Overall, there is no evidence indicating any unacceptable environmental impacts to sediment quality as a result of the contaminated mud disposal operations at CMP 2 in March 2015. Statistical analysis will be undertaken in the quarterly report to investigate whether there are any unacceptable impacts in the area caused by the contaminated mud disposal.

1.5.13 *Water Column Profiling of CMP 2 – March 2015*

1.5.14 *Water Column Profiling* was undertaken at a total of two sampling stations (Upstream and Downstream stations) on 5 March 2015. The water quality monitoring results have been assessed for compliance with the Water Quality Objectives (WQOs) through a review of the Environmental Protection Department (EPD) routine water quality monitoring data for the dry season period (November to March) of 2004 – 2013 from stations in the North Western Water Control Zone (WCZ), where SB CMP 2 is located. For Salinity, the average value obtained from the Reference stations was used for the basis as the WQO. The monitoring results were also compared with the Action and Limit Levels set in *Baseline Monitoring Report* (see *Table C1 of Annex C* for details).

In-situ Measurements

1.5.15 Analyses of results for March 2015 indicated that levels of Salinity, Dissolved Oxygen (DO) and pH complied with the WQOs at both Downstream and Upstream stations (*Table C2 of Annex C*). DO and Turbidity at all stations complied with the Action and Limit Levels (*Table C1 and C2 of Annex C*).

Laboratory Measurements for SS

1.5.16 Analyses of results for February 2015 indicated that the Suspended Solid (SS) levels at both Upstream and Downstream stations complied with the WQO and the Action and Limit Levels (*Tables C1 and C2 of Annex C*).

1.5.17 Overall, the monitoring results indicated that the mud disposal operation at CMP 2 did not appear to cause any deterioration in water quality during this reporting period.

1.6 *ACTIVITIES SCHEDULED FOR THE NEXT MONTH*

1.6.1 The following monitoring activities will be conducted in the next monthly period of April 2015 for SB CMPs:

- *Pit Specific Sediment Chemistry of CMP 2;*
- *Water Column Profiling of CMP 2; and*
- *Routine Water Quality Monitoring of CMP 2.*

1.6.2 No monitoring activity is scheduled to be conducted in the next monthly period of April 2015 for ESC CMPs.

1.6.3 The sampling schedule is presented in *Annex A*.

1.7 *STUDY PROGRAMME*

1.7.1 A summary of the Study programme is presented in *Annex D*.

Annex A

Sampling Schedule

Annex A2 - Environmental Monitoring and Audit Sampling Schedule for South of The Brothers (July 2012 - February 2017)

			2012					2013					2014					2015					2016					2017																														
			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F
Cumulative Impact Sediment Chemistry																																																										
Near-field Stations	SB-RNA	4 times per year																																																								
	SB-RNB	4 times per year																																																								
Mid-field Stations	SB-RMA	4 times per year																																																								
	SB-RMB	4 times per year																																																								
Far-Field Stations	SB-RFA	4 times per year																																																								
	SB-RFB	4 times per year																																																								
Capped Pit Stations	SB-RCA	4 times per year																																																								
	SB-RCB	4 times per year																																																								
Sensitive Receiver Stations	MW1	4 times per year																																																								
	THB1	4 times per year																																																								
	THB2	4 times per year																																																								
Sediment Toxicity Tests																																																										
SB CMP 1 Active																																																										
Reference	SB-TRA	2 times per year																																																								
	SB-TRB	2 times per year																																																								
Near-Field	SB-TAA	2 times per year																																																								
	SB-TAB	2 times per year																																																								
Sensitive Receiver Stations	MW1	2 times per year																																																								
	THB1	2 times per year																																																								
	THB2	2 times per year																																																								
SB CMP 2 Active																																																										
Reference	SB-TRA	2 times per year																																																								
	SB-TRB	2 times per year																																																								
Near-Field	SB-TBA	2 times per year																																																								
	SB-TBB	2 times per year																																																								
Sensitive Receiver Stations	MW1	2 times per year																																																								
	THB1	2 times per year																																																								
	THB2	2 times per year																																																								
Tissue/Whole Body Sampling																																																										
Near-Pit Stations	SB-INA	2 times per year																																																								
	SB-INB	2 times per year																																																								
Reference North	TNA	2 times per year																																																								
	TNB	2 times per year																																																								
Reference South	TSA	2 times per year																																																								
	TSB	2 times per year																																																								
Demersal Trawling																																																										
Impact	SB-INA 1-5	4 times per year																																																								
	SB-INB 1-5	4 times per year																																																								
Reference North	TNA 1-5	4 times per year																																																								
	TNB 1-5	4 times per year																																																								
Reference South	TSA 1-5	4 times per year																																																								
	TSB 1-5	4 times per year																																																								

Annex A2 - Environmental Monitoring and Audit Sampling Schedule for South of The Brothers (July 2012 - February 2017)

			2012					2013					2014					2015					2016					2017																											
			J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F									
Capping Water Quality Monitoring																																																							
<i>Ebb Tide</i>																																																							
Impact Stations Downcurrent	SB-IPE1	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-IPE2	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-IPE3	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-IPE4	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-IPE5	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
Intermediate Stations Downcurrent	SB-INE1	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-INE2	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-INE3	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-INE4	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-INE5	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
Reference Stations Upcurrent	SB-RFE1	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-RFE2	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-RFE3	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-RFE4	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-RFE5	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
Sensitive Receiver Stations	MW1	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	THB1	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	THB2	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	WSR45C	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	WSR46	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
<i>Flood Tide</i>																																																							
Impact Stations Downcurrent	SB-IPF1	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-IPF2	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-IPF3	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
Intermediate Stations Downcurrent	SB-INF1	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-INF2	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-INF3	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
Reference Stations Upcurrent	SB-RFF1	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-RFF2	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	SB-RFF3	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
Sensitive Receiver Stations	MW1	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	THB1	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	THB2	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	WSR45C	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
	WSR46	4 times per year																									3	3			3	3			3	3			3	3			3	3			3	3			3	3			3
Benthic Recolonisation Studies																																																							
Capped Contaminated Mud Pits	SB-CPA	2 times per year																											12				12				12				12				12				12				12		
	SB-CPB	2 times per year																											12				12				12				12				12				12				12		
Reference Stations	RBA	2 times per year																											12				12				12				12				12				12				12		
	RBB	2 times per year																											12				12				12				12				12				12				12		
	RBC	2 times per year																											12				12				12				12				12				12				12		

Notes:
 "3" = Number of replicates depends on parameters
 Naming of stations are tentative only and will be subjected to changes

Annex B

Graphical Presentations

**Cumulative Impact Sediment Chemistry for Metal and Metalloid Contaminants at SB CMPs
February 2015**

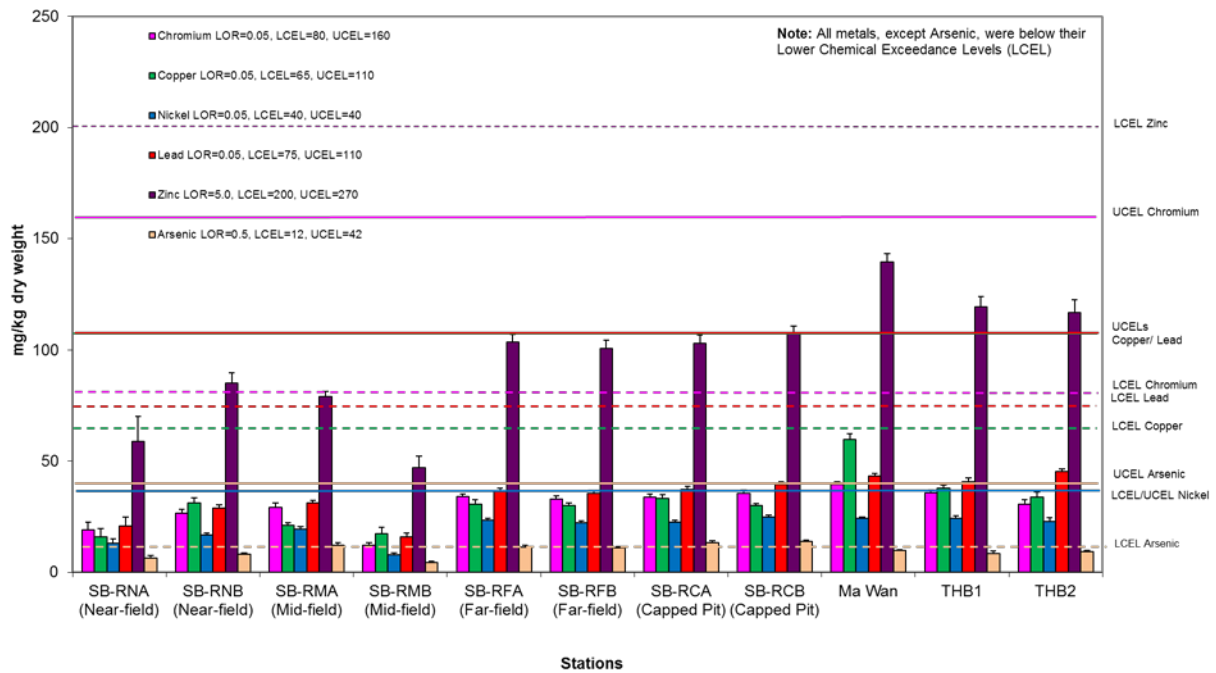


Figure 1: Concentration of Metals and Metalloid (Cr, Cu, Ni, Pb, Zn, As; mean +SD) in sediment samples collected from Cumulative Impact Sediment Chemistry Monitoring for SB CMPs in February 2015.

**Cumulative Impact Sediment Chemistry for Metal Contaminants at SB CMPs
February 2015**

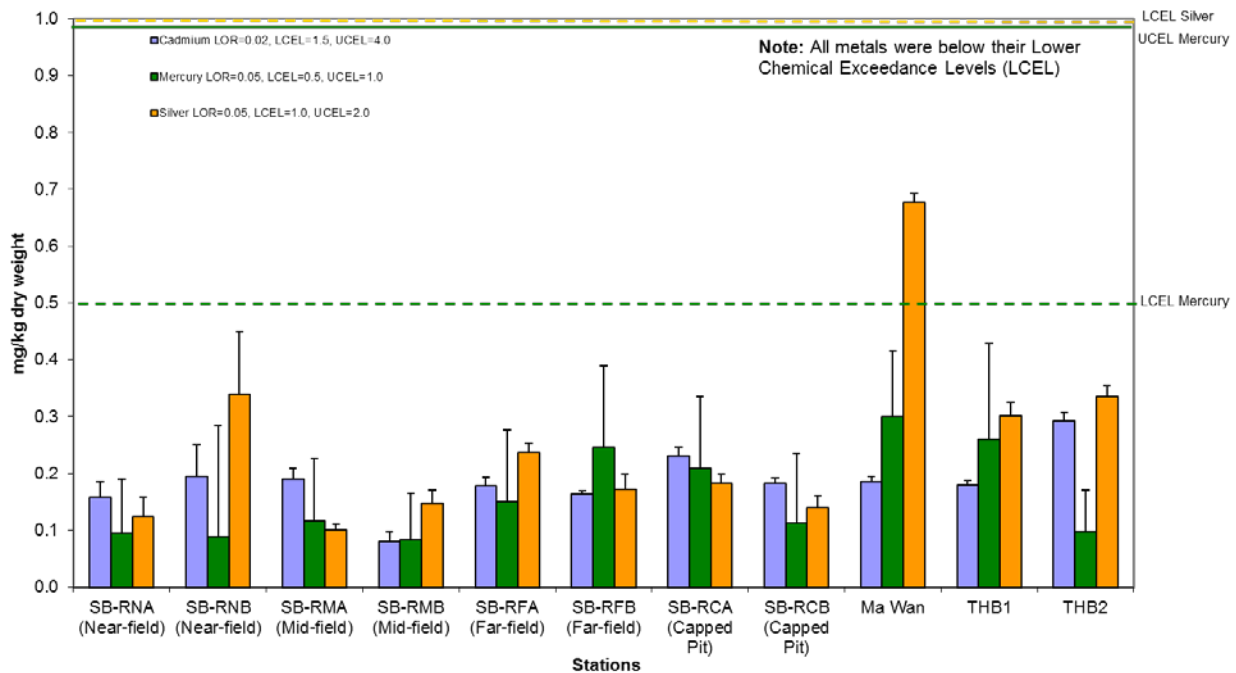


Figure 2: Concentration of Metals (Cd, Hg, Ag; mean +SD) in sediment samples collected from Cumulative Impact Sediment Chemistry Monitoring for SB CMPs in February 2015.

Source: H:\Team\EM\GMS Projects\0175086 CEDD EM&A for South Brothers\02 Deliverable\07 CMP Monthly Report\31st (March 2015)

Date: 17/4/2015

**Environmental
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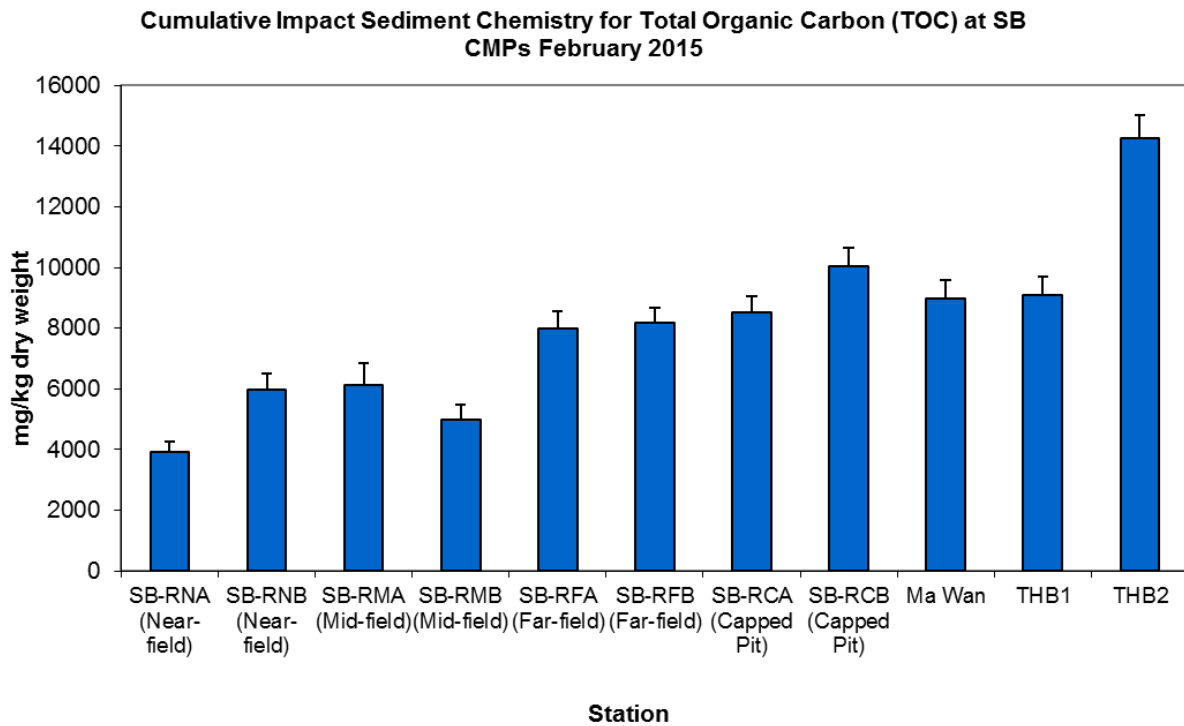


Figure 3: Concentration of Total Organic Carbon (mg/kg dry weight; mean +SD) in sediment samples collected from Cumulative Impact Sediment Chemistry Monitoring for SB CMPs in February 2015.

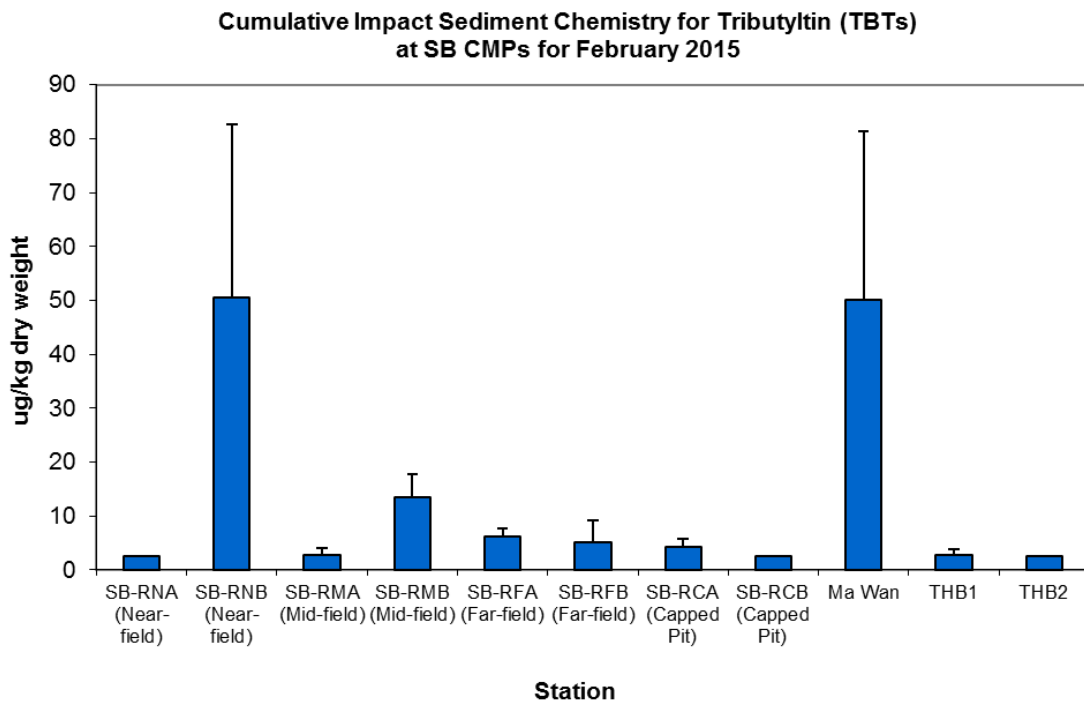


Figure 4: Concentration of Tributyltin ($\mu\text{g TBT/kg}$; mean +SD) in sediment samples collected from Cumulative Impact Sediment Chemistry Monitoring for SB CMPs in February 2015.

**Pit Specific Sediment Chemistry for Metal and Metalloid Contaminants at SB CMP 2
March 2015**

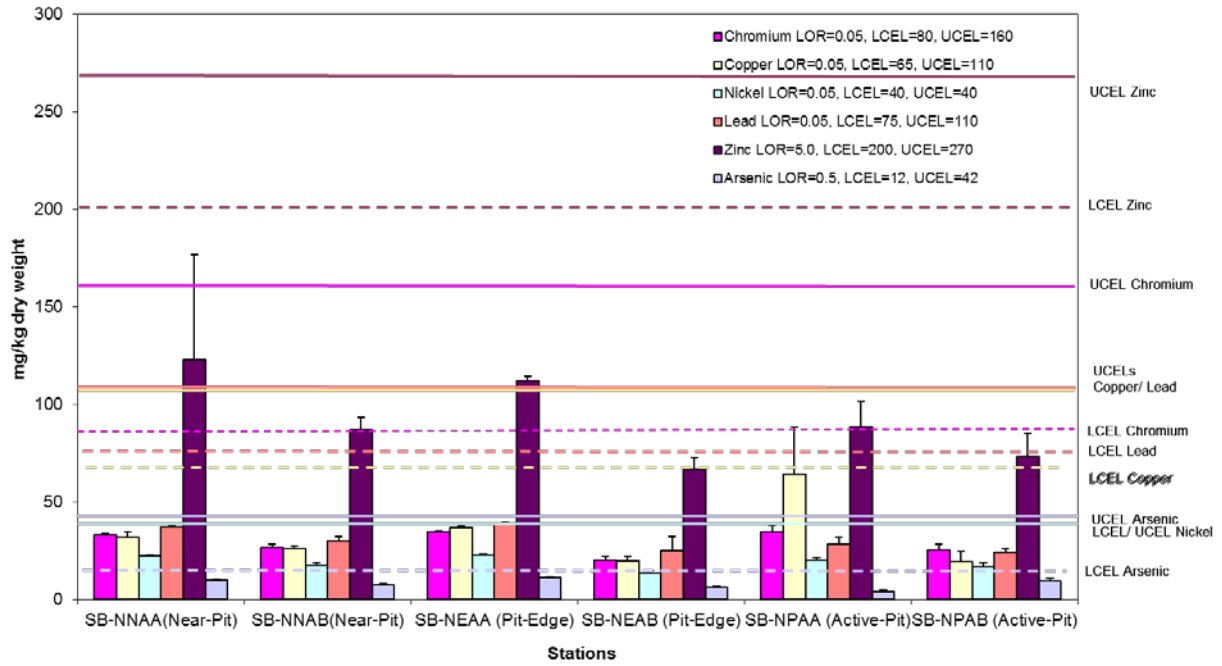


Figure 5: Concentration of Metals (Cr, Cu, Ni, Pb, Zn, As; mean +SD) in sediment samples collected from *Pit Specific Sediment Chemistry Monitoring* for SB CMP 2 in March 2015.

**Pit Specific Sediment Chemistry for Metal Contaminants at SB CMP 2
March 2015**

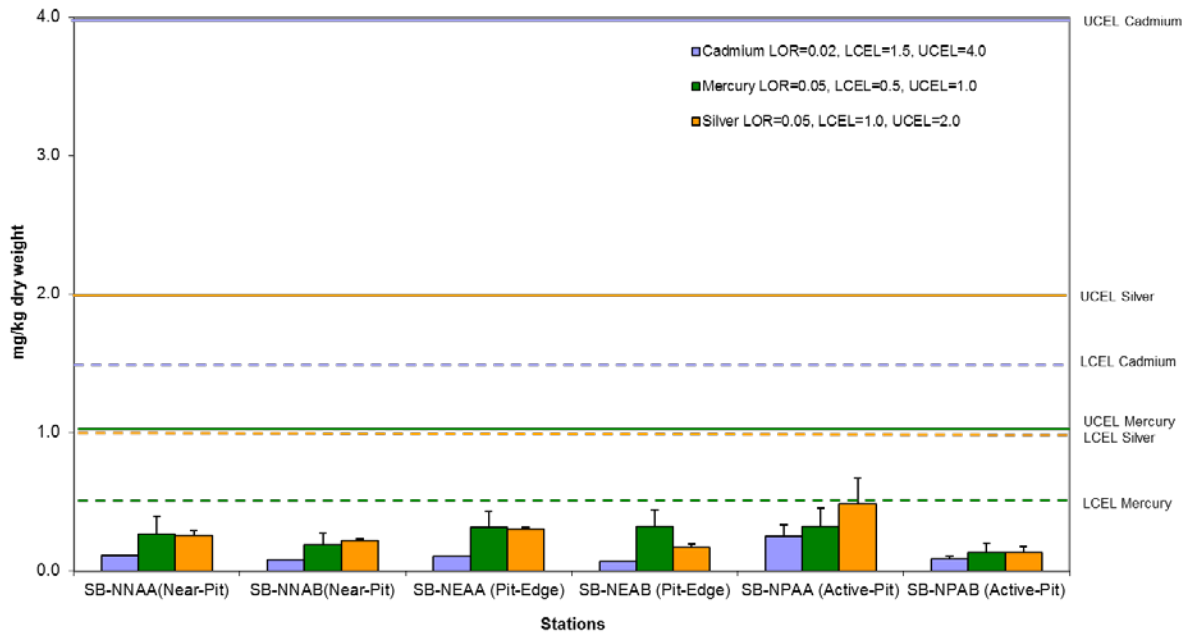


Figure 6: Concentration of Metals (Cd, Hg, Ag; mean +SD) in sediment samples collected from *Pit Specific Sediment Chemistry Monitoring* for SB CMP 2 in March 2015.

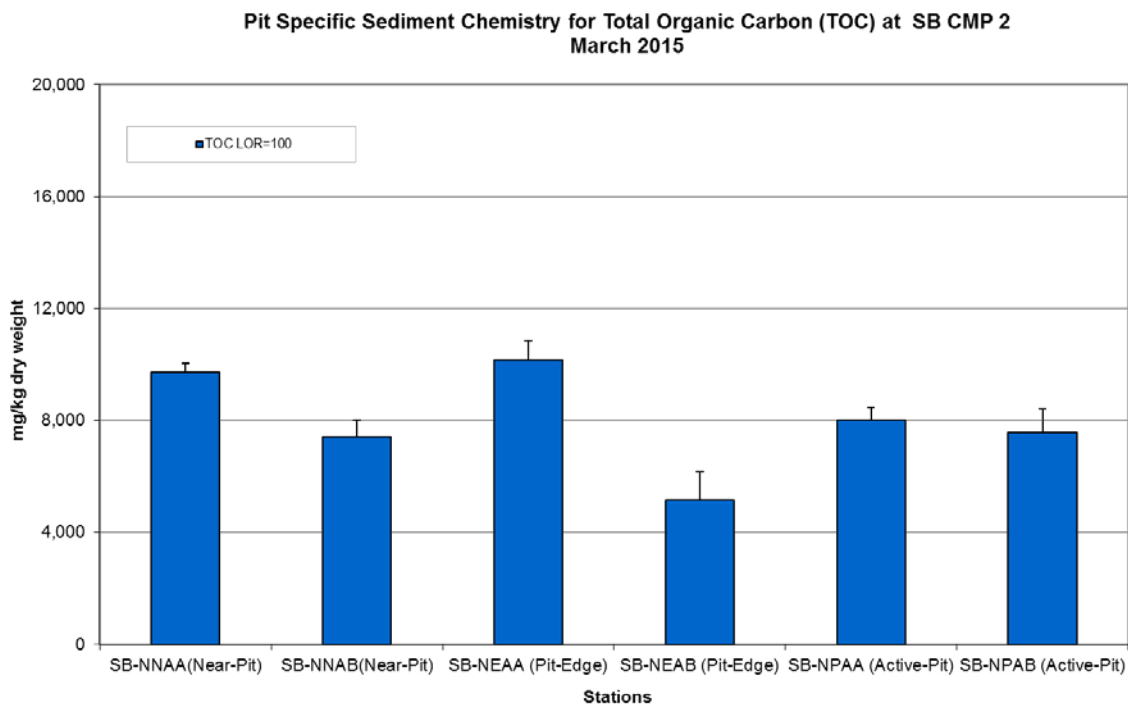


Figure 7: Concentration of Total Organic Carbon (mg/kg dry weight; mean +SD) in sediment samples collected from *Pit Specific Sediment Chemistry Monitoring* for SB CMP 2 in March 2015.

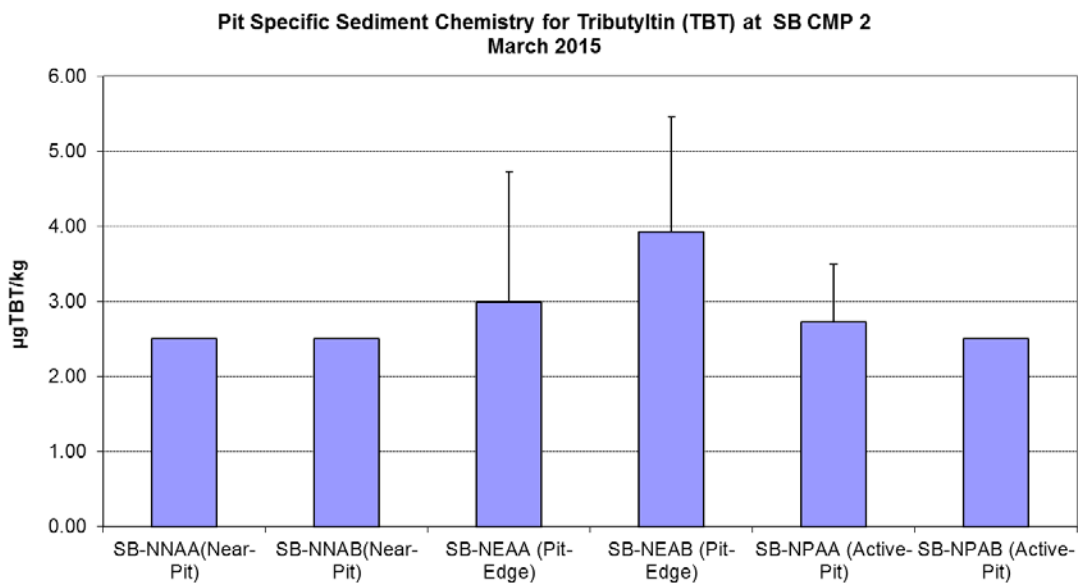


Figure 8: Concentration of Tributyltin (µg TBT/kg; mean +SD) in sediment samples collected from *Pit Specific Sediment Chemistry Monitoring* of SB CMP 2 in March 2015.

Annex C

Water Quality Monitoring Results

Table C1 Action and Limit Levels of Water Quality for Dredging, Backfilling and Capping Activities for SB CMPs

Parameter	Action Level	Limit Level
Dissolved Oxygen (DO) ⁽¹⁾	<u>Surface and Mid-depth</u> ⁽²⁾ The average of the impact, WSR 45C and WSR 46 station readings are < 5%-ile of baseline data for surface and middle layer = 4.32 mg L⁻¹ and Significantly less than the reference stations mean DO (at the same tide of the same day)	<u>Surface and Mid-depth</u> ⁽²⁾ The average of the impact, WSR 45C and WSR 46 station readings are < 4 mg L⁻¹ and Significantly less than the reference stations mean DO (at the same tide of the same day)
	<u>Bottom</u> The average of the impact, WSR 45C and WSR 46 station readings are < 5%-ile of baseline data for bottom layers = 3.12 mg L⁻¹ and Significantly less than the reference stations mean DO (at the same tide of the same day)	<u>Bottom</u> The average of the impact station, WSR 45C and WSR 46 readings are < 2 mg L⁻¹ and Significantly less than the reference stations mean DO (at the same tide of the same day)
Depth-averaged Suspended Solids (SS) ⁽³⁾⁽⁴⁾	The average of the impact, WSR 45C and WSR 46 station readings are > 95%-ile of baseline data for depth average = 21.60 mg L⁻¹ and 120% of control station's SS at the same tide of the same day	The average of the impact, WSR 45C and WSR 46 station readings are > 99%-ile of baseline data for depth average = 40.10 mg L⁻¹ and 130% of control station's SS at the same tide of the same day
Depth-averaged Turbidity (Tby) ⁽³⁾⁽⁴⁾	The average of the impact, WSR 45C and WSR 46 station readings are > 95%-ile of baseline data = 25.04 NTU and 120% of control station's Tby at the same tide of the same day	The average of the impact, WSR 45C and WSR 46 station readings are > 99%-ile of baseline data = 32.68 NTU and 130% of control station's Tby at the same tide of the same day

Notes:

- (1) For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.
- (2) The Action and Limit Levels for DO for Surface & Middle layers were calculated from the combined pool of baseline surface layer data and baseline middle layer data.
- (3) "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
- (4) For turbidity and SS, non-compliance of the water quality limits occurs when monitoring result is higher than the limits.

Table C2 Water Column Profiling Results for SB CMP 2 on 5 March 2015

Stations	Temp (°C)	Salinity (ppt)	Turbidity (NTU)	Dissolved Oxygen (%) (mg L ⁻¹)		pH (mg L ⁻¹)	Suspended Solids (mg L ⁻¹)
WCP 1 (Downstream)	18.52	30.59	5.93	92.66	7.23	8.01	7.35
WCP 2 (Upstream)	18.58	30.40	10.23	93.45	7.29	7.99	10.23
WQO (dry season)	N/A	27.44- 33.43#	N/A	N/A	>4	6.5-8.5	13.7

Note: #Not exceeding 10% of natural ambient level which is the result obtained from the Reference Station.

Annex D

Study Programme

