

Appendix N Exceedance Report

Statistical Summary of Exceedances in the Reporting Period

Water Quality (Regular Monitoring)			
Location	Action Level	Limit Level	Total
B1	1	1	2
B2	0	1	1
B3	2	1	3
B4	0	1	1
CR1	1	1	2
CR2	2	1	3
F1A	0	1	1
H1	2	1	3
S1	Not applicable		
S2A	Not applicable		
S3	Not applicable		
M1	1	2	3

Noise (Day Time)			
Location	Action Level	Limit Level	Total
M1	0	0	0
M2	0	0	0
M3	0	0	0
Noise (Evening Time)			
Location	Action Level	Limit Level	Total
M1	0	0	0
M2	0	0	0
M3	0	0	0
Noise (Night Time)			
Location	Action Level	Limit Level	Total
M1	0	0	0
M2	0	0	0
M3	0	0	0

Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	04 Jan 2023 (Lab result received on 13 January 2023)		
Time	09:49 – 11:56 (Mid-Ebb) 14:07 – 17:37 (Mid-Flood)		
Mid-Ebb			
Monitoring Location	B1, B2, B3, B4, H1, M1, CR1, CR2		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 11.6 mg/L (120% of C1A)		≥ 12.6 mg/L (130% of C1A)
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	15.0 mg/L (B1) 24.3 mg/L (B2) 19.0 mg/L (B3) 18.0 mg/L (B4) 23.8 mg/L (H1) 17.2 mg/L (M1) 17.2 mg/L (CR1) 17.2 mg/L (CR2)	9.7 mg/L (C1A) 7.7 mg/L (C2A)	7.3 mg/L (F1A)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 04 Jan 2023 include laying of 900kg underlayer rock at Seawall A seaside CH490 - CH600, installation of Chinese pod at Caissons 52 - 55, laying of 2.5T armour rock at Breakwater A seaside CH1030 - CH1120, remove the surcharge materials from Zone 5 to flat top barge Hong Hong 3133, piling works, piling works for driven pile, piling works for pre-bored socketed H-pile, pile cap construction, blockwork seawall and existing caisson extension, and Process Building construction works.</p> <p>Dominant sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p>		

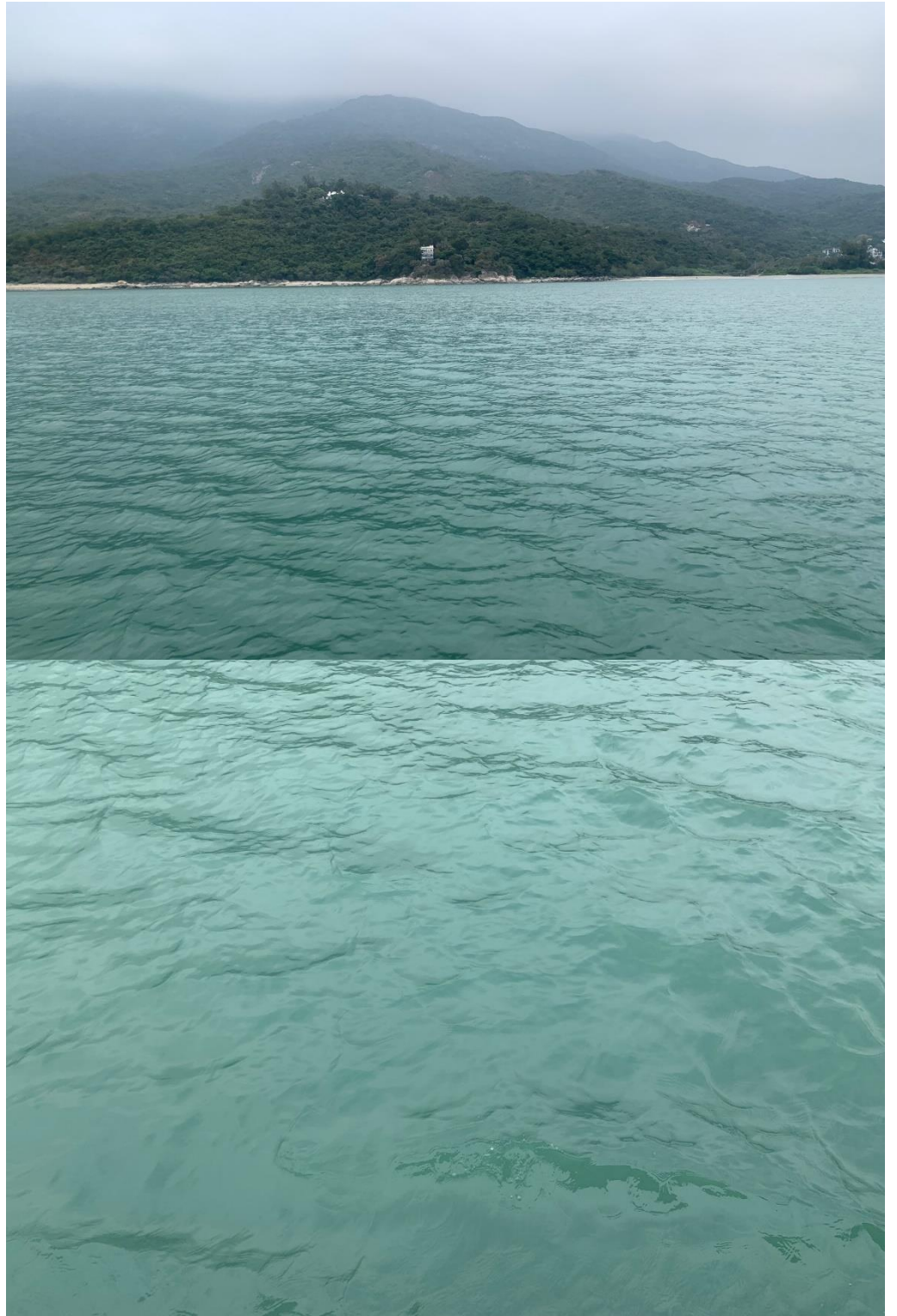
	<p>Exceedances of limit level were found B1, B2, B3, B4, H1, M1, CR1 and CR2. B1, B2, B3, B4, H1 and M1 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location. Exceedances at B1, B2, B3, B4, H1 and M1 are deemed to be unrelated to the Project.</p> <p>The installation of caisson No.19 was completed on 18 Mar 2021, the reclamation area was enclosed.</p> <p>According to the field observation by sampling team during sampling event, no silt plume was observed in the Project site and the weather was overcast during the sampling event.</p> <p>No major observation of improper site practices that contributed to the increase of the suspended solids was recorded during the weekly site inspection on 10 January 2023. After the investigation, the exceedances on 04 January 2023 during ebb tide at B1, B2, B3, B4, H1, M1, CR1 and CR2 are deemed to be unrelated to the Project.</p>
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Monitoring photos of
stations with exceedance

B1:



B2:



B3:



B4:



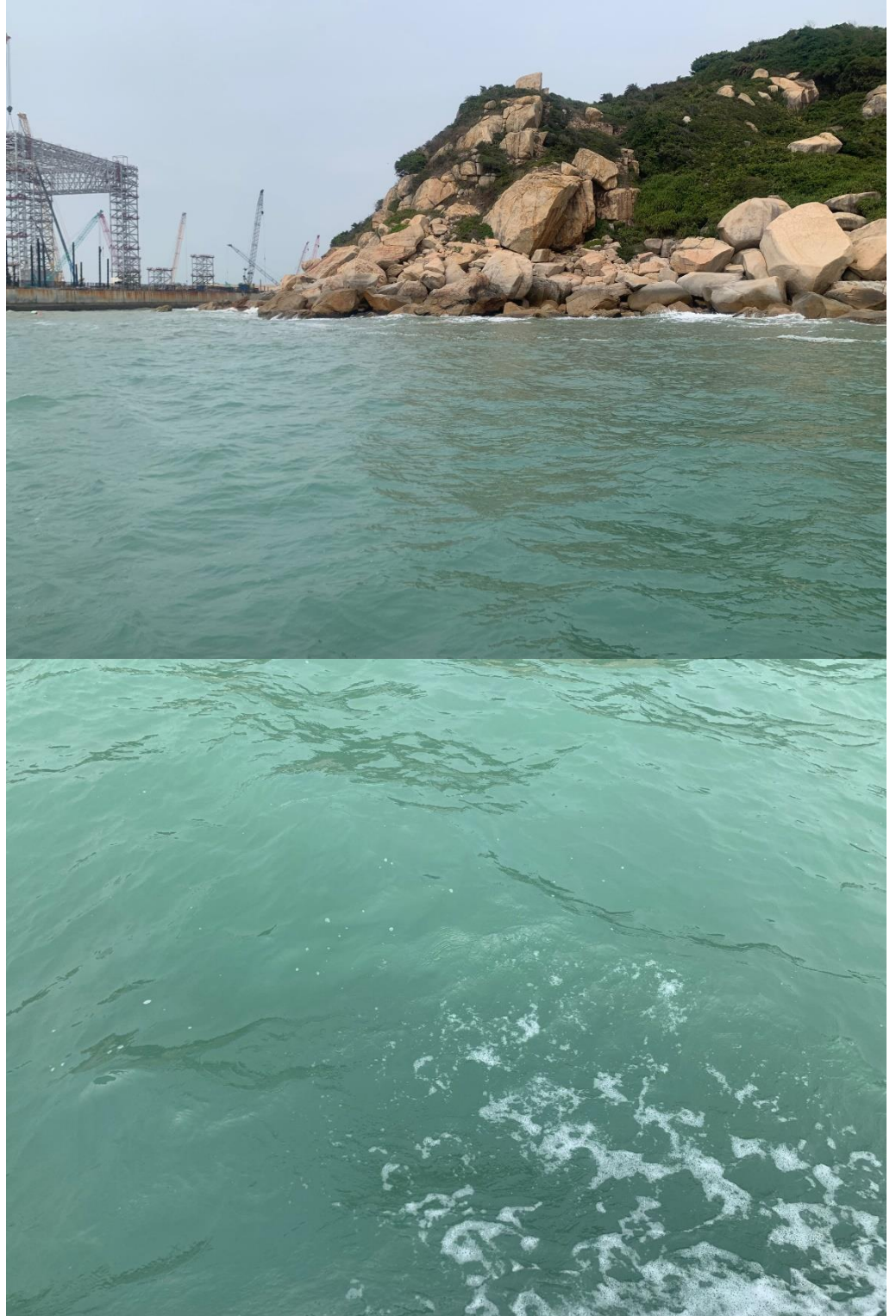
H1:



M1:



CR1:



CR2:



Mid-Flood			
Monitoring Location	F1A, H1, CR2		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 8.6 mg/L (120% of C2A)		≥ 10.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	17.0 mg/L (F1A) 9.5 mg/L (H1) 8.7 mg/L (CR2)	12.3 mg/L (C1A) 7.2 mg/L (C2A)	5.3 mg/L (B1) 7.3 mg/L (B2) 6.8 mg/L (B3) 6.3 mg/L (B4) 6.5 mg/L (M1) 6.8 mg/L (CR1)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 04 Jan 2023 include laying of 900kg underlayer rock at Seawall A seaside CH490 - CH600, installation of Chinese pod at Caissons 52 - 55, laying of 2.5T armour rock at Breakwater A seaside CH1030 - CH1120, remove the surcharge materials from Zone 5 to flat top barge Hong Hong 3133, piling works, piling works for driven pile, piling works for pre-bored socketed H-pile, pile cap construction, blockwork seawall and existing caisson extension, and Process Building construction works.</p> <p>Dominant sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>Exceedances of action level were found at H1 and CR2, an exceedance of limit level was found at F1A. F1A and H1 are located at unrelated stream direction (neither upstream nor downstream) to the works location. Exceedances at F1A and H1 are deemed to be unrelated to the Project.</p> <p>The installation of caisson No.19 was completed on 18 Mar 2021, the reclamation area was enclosed.</p>		

	<p>According to the field observation by sampling team during sampling event, no silt plume was observed in the Project site and the weather was fine during the sampling event.</p> <p>No major observation of improper site practices that contributed to the increase of the suspended solids was recorded during the weekly site inspection on 10 January 2023.</p> <p>After the investigation, the exceedances on 04 January 2023 during flood tide at F1A, H1 and CR2 are deemed to be unrelated to the Project.</p>
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Monitoring photos of
stations with exceedance

F1A:



H1:



CR2:

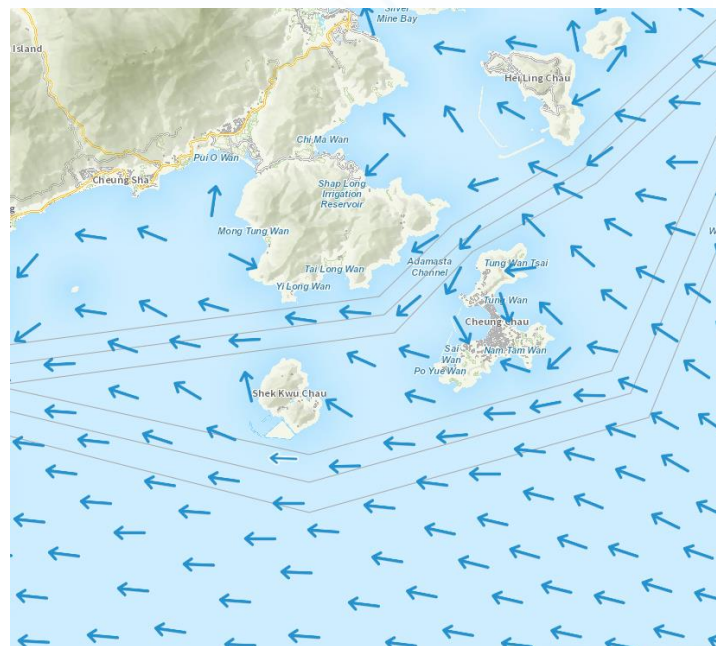
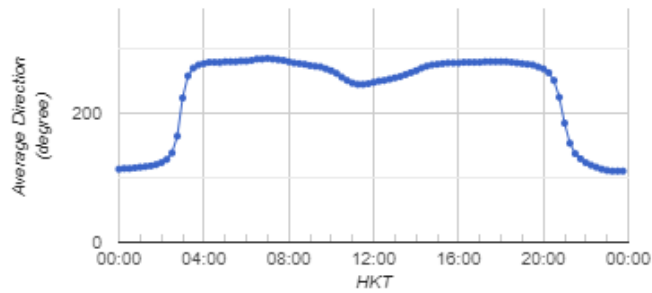
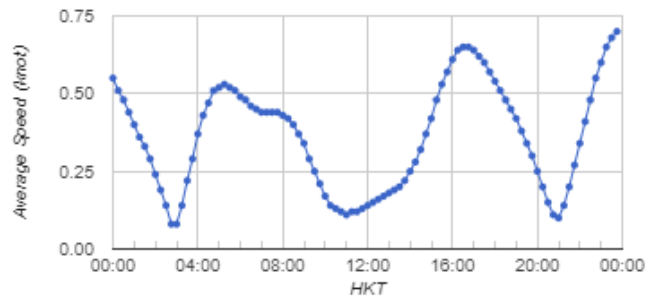


Remarks

Current direction during mid-flood sampling on 04 Jan 2023:

HKT	2023-01-04 14:30		UPDATE
Date & Time	2023-01-04 14:30		
Prediction Mode	Average	Change Mode	
Position (WGS84)	22 - 11.017 N / 113 - 59.24 E		
Speed:	0.32 knot(s)		
Direction:	272 °(TN)		

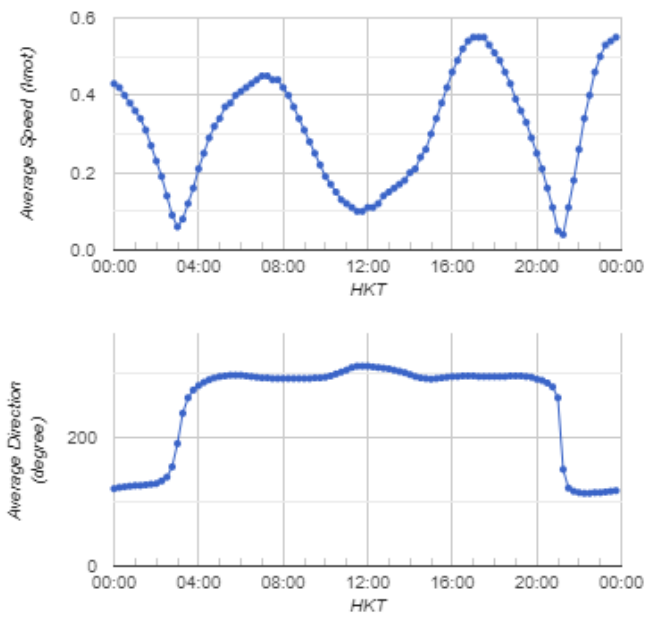
24-hour Tidal Stream's Speed & Direction
 2023-01-04



Current direction during mid-ebb sampling on 04 Jan 2023:

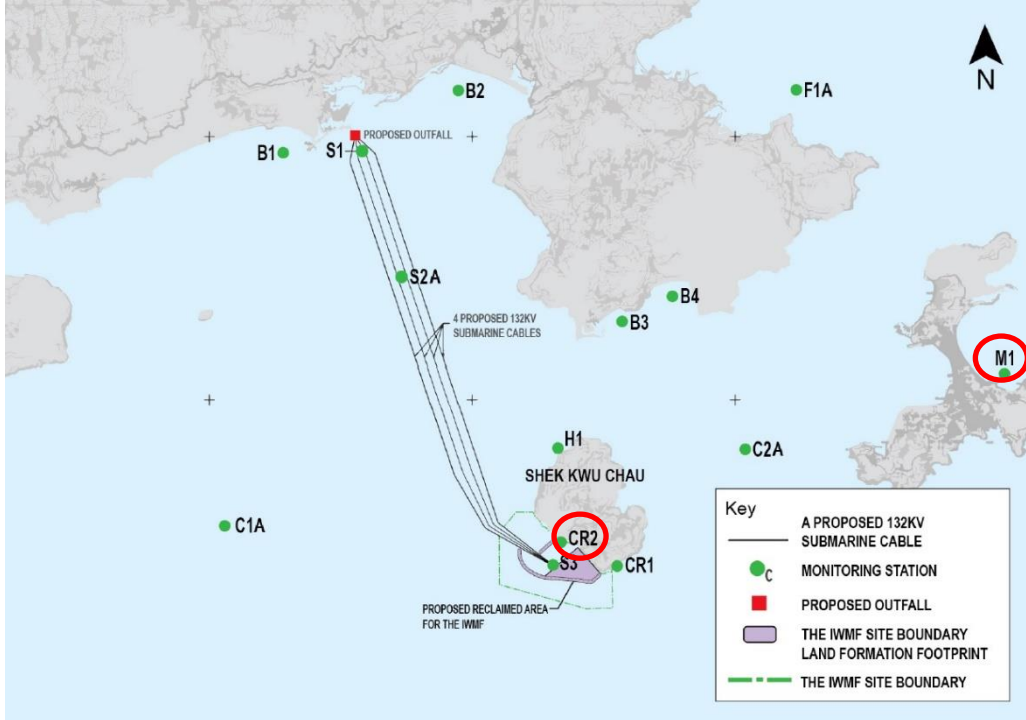
HKT	2023-01-04 10:00		UPDATE
Date & Time	2023-01-04 10:00		
Prediction Mode	Average	Change Mode	
Position (WGS84)	22 - 11.28 N / 113 - 58.49 E		
Speed:	0.19 knot(s)		
Direction:	293 °(TN)		

24-hour Tidal Stream's Speed & Direction
2023-01-04



	Legend								
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Speed (knot)</th> <th style="text-align: left; padding: 5px;">Speed (knot)</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">0-0.5 →</td> <td style="padding: 5px;">1.5-2.0 →</td> </tr> <tr> <td style="padding: 5px;">0.5-1.0 →</td> <td style="padding: 5px;">2.0-2.5 →</td> </tr> <tr> <td style="padding: 5px;">1.0-1.5 →</td> <td style="padding: 5px;">2.5 and above →</td> </tr> </tbody> </table>	Speed (knot)	Speed (knot)	0-0.5 →	1.5-2.0 →	0.5-1.0 →	2.0-2.5 →	1.0-1.5 →	2.5 and above →
Speed (knot)	Speed (knot)								
0-0.5 →	1.5-2.0 →								
0.5-1.0 →	2.0-2.5 →								
1.0-1.5 →	2.5 and above →								
(Sourced from http://current.hydro.gov.hk/en/map.html)									
Prepared by	Jack Chow								
Date	17 Jan 2023								

Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	09 Jan 2023 (Lab result received on 17 January 2023)		
Time	12:29 – 14:44 (Mid-Ebb)		
Mid-Ebb			
Monitoring Location	M1, CR2 		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 8.0 mg/L		≥ 10.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	10.5 mg/L (M1) 9.0 mg/L (CR2)	4.5 mg/L (C1A) 5.8 mg/L (C2A)	6.0 mg/L (B1) 6.8 mg/L (B2) 6.5 mg/L (B3) 7.3 mg/L (B4) 5.8 mg/L (H1) 4.8 mg/L (F1A) 6.2 mg/L (CR1)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 09 Jan 2023 include laying of 900kg underlayer rock at Breakwater A landside CH935 - CH945, installation of Chinese pod at Caissons 47 - 49, inspection works of stoppers at Seawall A CH20 - CH170, remove the surcharge materials from Zone 5 to flat top barge Hong Hong 3132, piling works, piling works for driven pile, piling works for pre-bored socketed H-pile, pile cap construction, blockwork seawall and existing caisson extension, and Process Building construction works.</p> <p>Dominant sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>An exceedance of action level was found at CR2, and an exceedance of limit level was found at M1. M1 is located at unrelated stream direction (neither upstream nor downstream) to the works location.</p>		

	<p>The installation of caisson No.19 was completed on 18 Mar 2021, the reclamation area was enclosed.</p> <p>According to the field observation by sampling team during sampling event, no silt plume was observed in the Project site and the weather was overcast during the sampling event.</p> <p>No major observation of improper site practices that contributed to the increase of the suspended solids was recorded during the weekly site inspection on 10 January 2023.</p> <p>After the investigation, the exceedances on 09 January 2023 during ebb tide at M1 and CR2 are deemed to be unrelated to the Project.</p>
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Monitoring photos of
stations with exceedance

M1:



CR2:

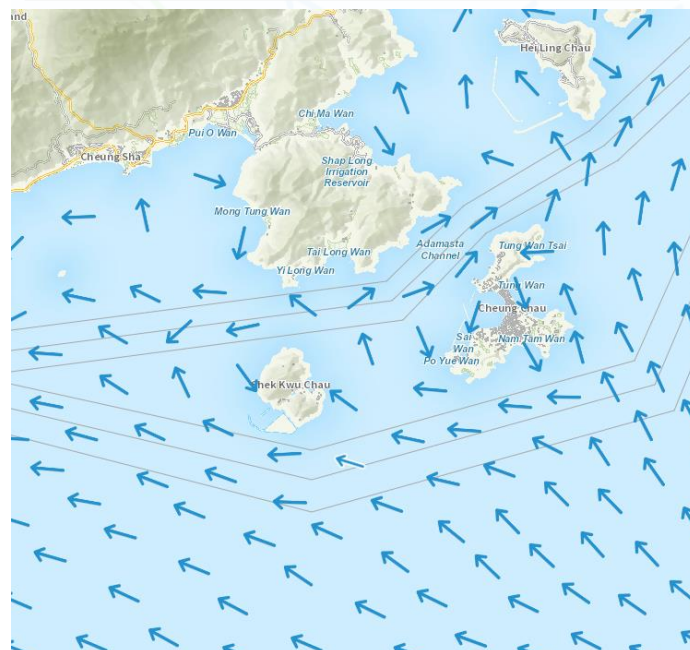
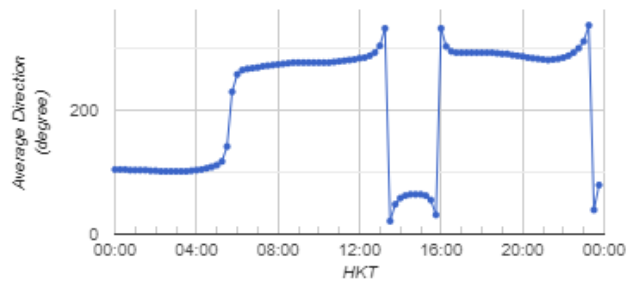
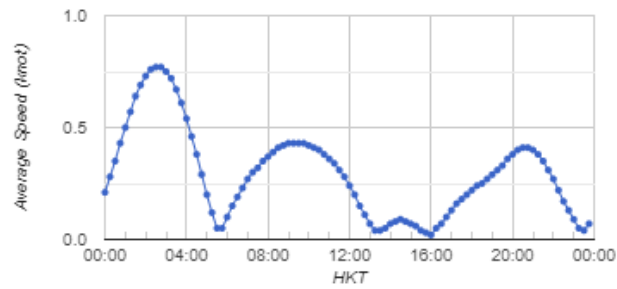


Remarks

Current direction during mid-ebb sampling on 09 Jan 2023:

HKT	2023-01-09 12:30		UPDATE
Date & Time	2023-01-09 12:30		
Prediction Mode	Average	Change Mode	
Position (WGS84)	22 - 10.933 N / 113 - 59.972 E		
Speed:	0.15 knot(s)		
Direction:	287 °(TN)		

24-hour Tidal Stream's Speed & Direction
 2023-01-09



	Legend								
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Speed (knot)</th> <th style="text-align: left; padding: 5px;">Speed (knot)</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">0-0.5 →</td> <td style="padding: 5px;">1.5-2.0 →</td> </tr> <tr> <td style="padding: 5px;">0.5-1.0 →</td> <td style="padding: 5px;">2.0-2.5 →</td> </tr> <tr> <td style="padding: 5px;">1.0-1.5 →</td> <td style="padding: 5px;">2.5 and above →</td> </tr> </tbody> </table>	Speed (knot)	Speed (knot)	0-0.5 →	1.5-2.0 →	0.5-1.0 →	2.0-2.5 →	1.0-1.5 →	2.5 and above →
Speed (knot)	Speed (knot)								
0-0.5 →	1.5-2.0 →								
0.5-1.0 →	2.0-2.5 →								
1.0-1.5 →	2.5 and above →								
(Sourced from http://current.hydro.gov.hk/en/map.html)									
Prepared by	Jack Chow								
Date	2 Feb 2023								

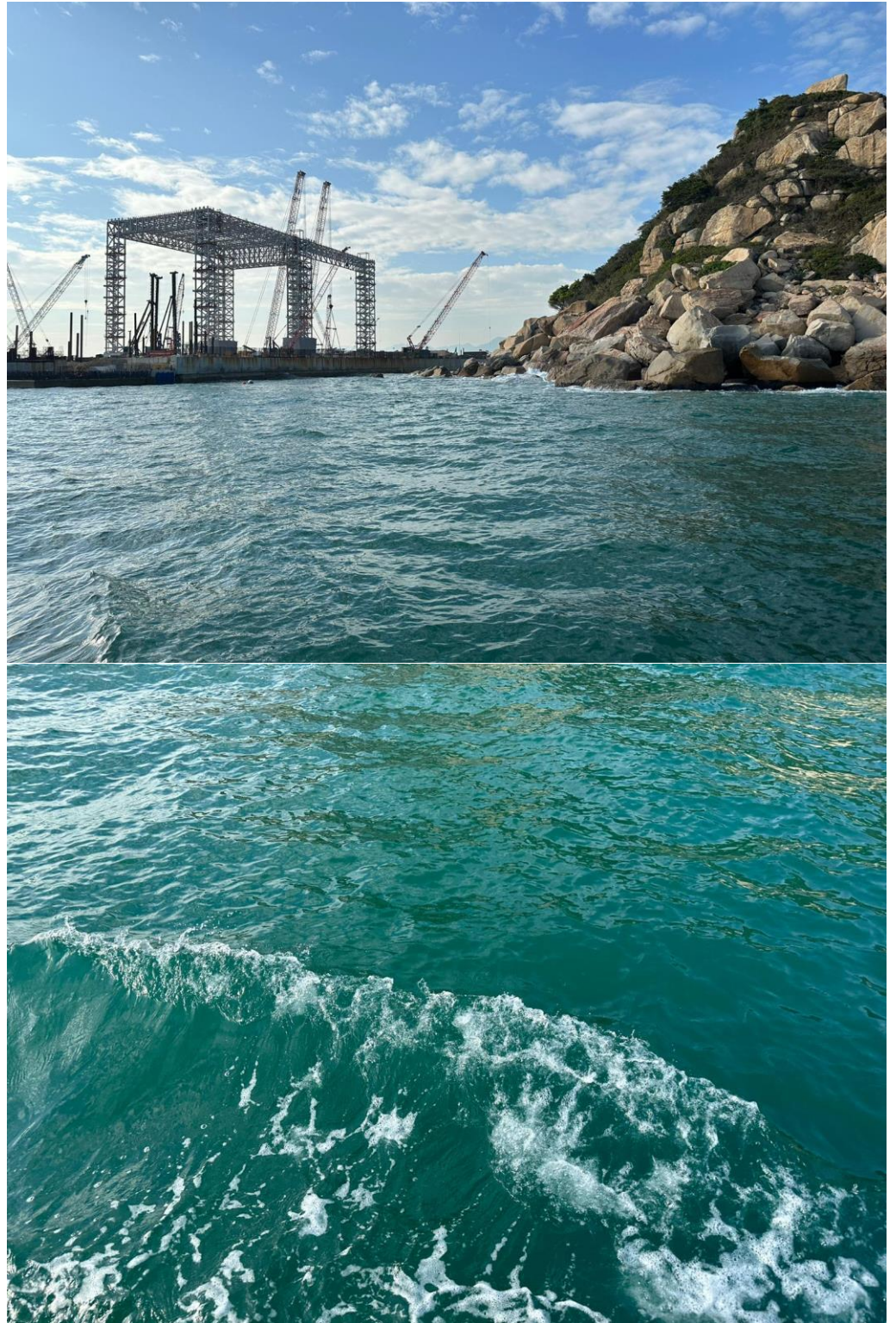
Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	20 Jan 2023 (Lab result received on 30 January 2023)		
Time	14:17 – 17:47 (Mid-Flood)		
Monitoring Location	Mid-Flood CR1		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 8.8 mg/L (120% of C2A)		≥ 10.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	9.7 mg/L (CR1)	6.6 mg/L (C1A) 7.3 mg/L (C2A)	3.5 mg/L (B1) 3.5 mg/L (B2) 4.5 mg/L (B3) 2.5 mg/L (B4) 3.0 mg/L (H1) 3.7 mg/L (M1) 5.5 mg/L (F1A) 5.0 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	<p>Based on the site diary, no site works were carried out in the afternoon of 20 Jan 2023 when the AL exceedance occurred.</p> <p>Dominant sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>An exceedance of action level was found at CR1.</p> <p>The installation of caisson No.19 was completed on 18 Mar 2021, the reclamation area was enclosed.</p>		

	<p>According to the field observation by sampling team during sampling event, no silt plume was observed in the Project site and the weather was fine during the sampling event.</p> <p>No major observation of improper site practices that contributed to the increase of the suspended solids was recorded during the weekly site inspection on 26 January 2023.</p> <p>After the investigation, the exceedance on 20 January 2023 during flood tide at CR1 is deemed to be unrelated to the Project.</p>
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Monitoring photos of
stations with exceedance

CR1:



Remarks

Current direction during mid-flood sampling on 20 Jan 2023:



(Sourced from <http://current.hydro.gov.hk/en/map.html>)

Prepared by Jack Chow

Date 2 Feb 2023

Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	26 Jan 2023 (Lab result received on 01 February 2023)		
Time	08:42 – 12:12 (Mid-Flood)		
Monitoring Location	<p style="text-align: center;">Mid-Flood</p> <p style="text-align: center;">B3</p>		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 8.0 mg/L		≥ 10.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	8.3 mg/L (B3)	3.2 mg/L (C1A) 5.2 mg/L (C2A)	7.3 mg/L (B1) 6.3 mg/L (B2) 4.8 mg/L (B4) 3.7 mg/L (H1) 3.7 mg/L (M1) 4.2 mg/L (F1A) 3.3 mg/L (CR1) 4.2 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	<p>Based on the site diary, pipe cap construction was carried out on 26 January 2023.</p> <p>Dominant sea current direction was found to be from Southeast to Northwest at waters around Shek Kwu Chau.</p> <p>An exceedance of action level was found at B3. B3 is located at unrelated stream direction (neither upstream nor downstream, far away) to the works location. Exceedance at B3 is deemed to be unrelated to the Project.</p> <p>According to the field observation by sampling team during sampling event, no silt plume was observed in the Project site and the weather was overcast during the sampling event.</p>		

	<p>No major observation of improper site practices that contributed to the increase of the suspended solids was recorded during the weekly site inspection on 31 January 2023.</p> <p>After the investigation, the exceedance on 26 January 2023 during flood tide at B3 is deemed to be unrelated to the Project.</p>
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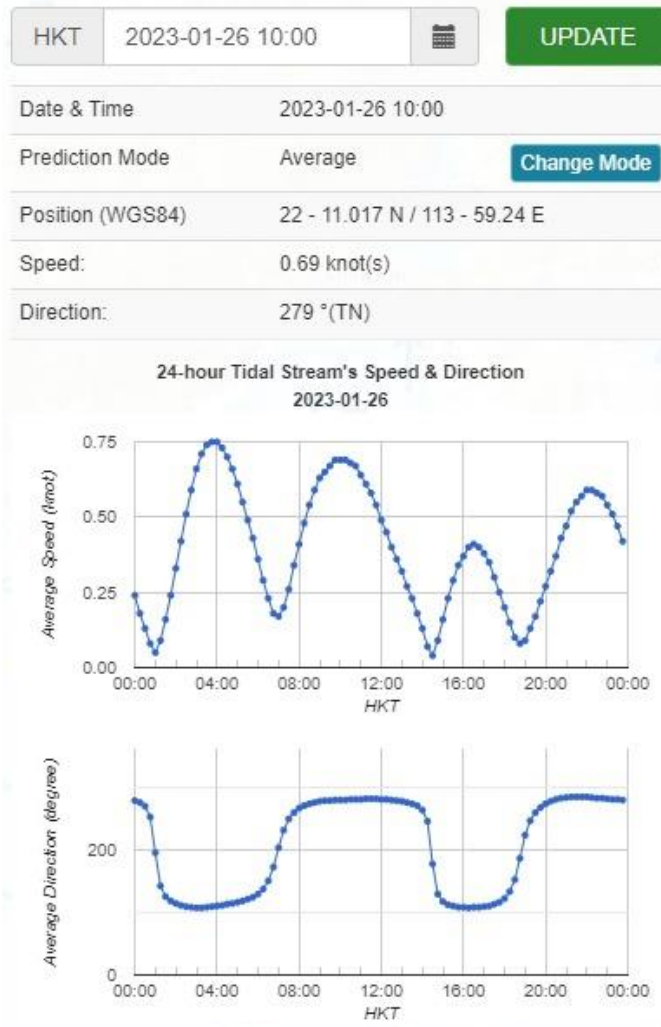
Monitoring photos of
stations with exceedance

B3:



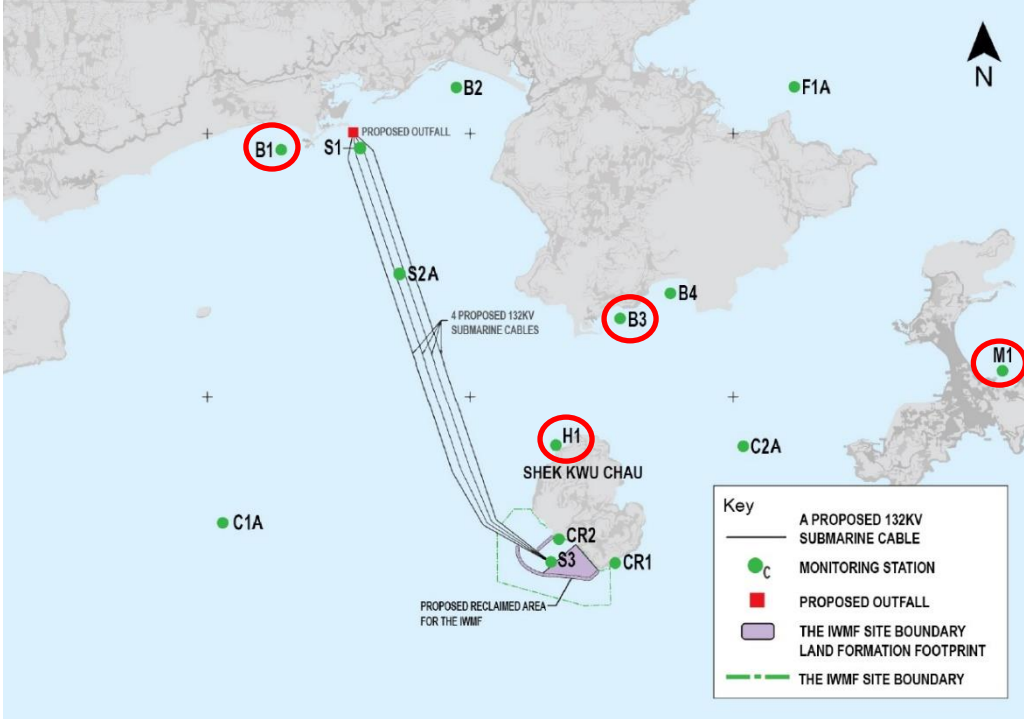
Remarks

Current direction during mid-flood sampling on 26 Jan 2023:



	Legend								
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Speed (knot)</th> <th style="text-align: left; padding: 5px;">Speed (knot)</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">0-0.5 →</td> <td style="padding: 5px;">1.5-2.0 →</td> </tr> <tr> <td style="padding: 5px;">0.5-1.0 →</td> <td style="padding: 5px;">2.0-2.5 →</td> </tr> <tr> <td style="padding: 5px;">1.0-1.5 →</td> <td style="padding: 5px;">2.5 and above →</td> </tr> </tbody> </table>	Speed (knot)	Speed (knot)	0-0.5 →	1.5-2.0 →	0.5-1.0 →	2.0-2.5 →	1.0-1.5 →	2.5 and above →
Speed (knot)	Speed (knot)								
0-0.5 →	1.5-2.0 →								
0.5-1.0 →	2.0-2.5 →								
1.0-1.5 →	2.5 and above →								
(Sourced from http://current.hydro.gov.hk/en/map.html)									
Prepared by	Jack Chow								
Date	06 Feb 2023								

Incident Report on Action Level or Limit Level Non-compliance

Project	Integrated Waste Management Facilities, Phase 1		
Date	28 Jan 2023 (Lab result received on 03 February 2023)		
Time	15:50 – 19:00 (Mid-Ebb)		
Mid-Ebb			
Monitoring Location	B1, B3, H1, M1 		
Parameter	Suspended Solid (SS)		
Action & Limit Levels	Action Level		Limit Level
	≥ 8.0 mg/L		≥ 10.0 mg/L
Measurement Level	Impact Station(s) of Exceedance	Control Stations	Impact Station(s) without Exceedance
	8.3 mg/L (B1) 8.8 mg/L (B3) 9.0 mg/L (H1) 9.0 mg/L (M1)	3.8 mg/L (C1A) 5.3 mg/L (C2A)	5.3 mg/L (B2) 6.3 mg/L (B4) 4.1 mg/L (F1A) 7.8 mg/L (CR1) 7.3 mg/L (CR2)
Possible reason for Action or Limit Level Non-compliance	<p>Works scheduled on site on 28 Jan 2023 include laying of 900kg underlayer rock at Breakwater A seaside CH540 - CH670, inspection works at Breakwater B landside CH200, piling works, piling works for driven pile, piling works for pre-bored socketed H-pile, pile cap construction, blockwork seawall and existing caisson extension, and Process Building construction works.</p> <p>Dominant sea current direction was found to be from Northwest to Southeast at waters around Shek Kwu Chau.</p> <p>An exceedance of action level was found at B1, B3, H1 and M1. B1, B3, H1 and M1 are located at unrelated stream direction (neither upstream nor downstream, far away) to the works location. Exceedances at B1, B3, H1 and M1 are deemed to be unrelated to the Project.</p> <p>The installation of caisson No.19 was completed on 18 Mar 2021, the reclamation area was enclosed.</p>		

	<p>According to the field observation by sampling team during sampling event, no silt plume was observed in the Project site and the weather was fine during the sampling event.</p> <p>No major observation of improper site practices that contributed to the increase of the suspended solids was recorded during the weekly site inspection on 31 January 2023.</p> <p>After the investigation, the exceedances on 28 January 2023 during ebb tide at B1, B3, H1 and M1 are deemed to be unrelated to the Project.</p>
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Monitoring photos of
stations with exceedance

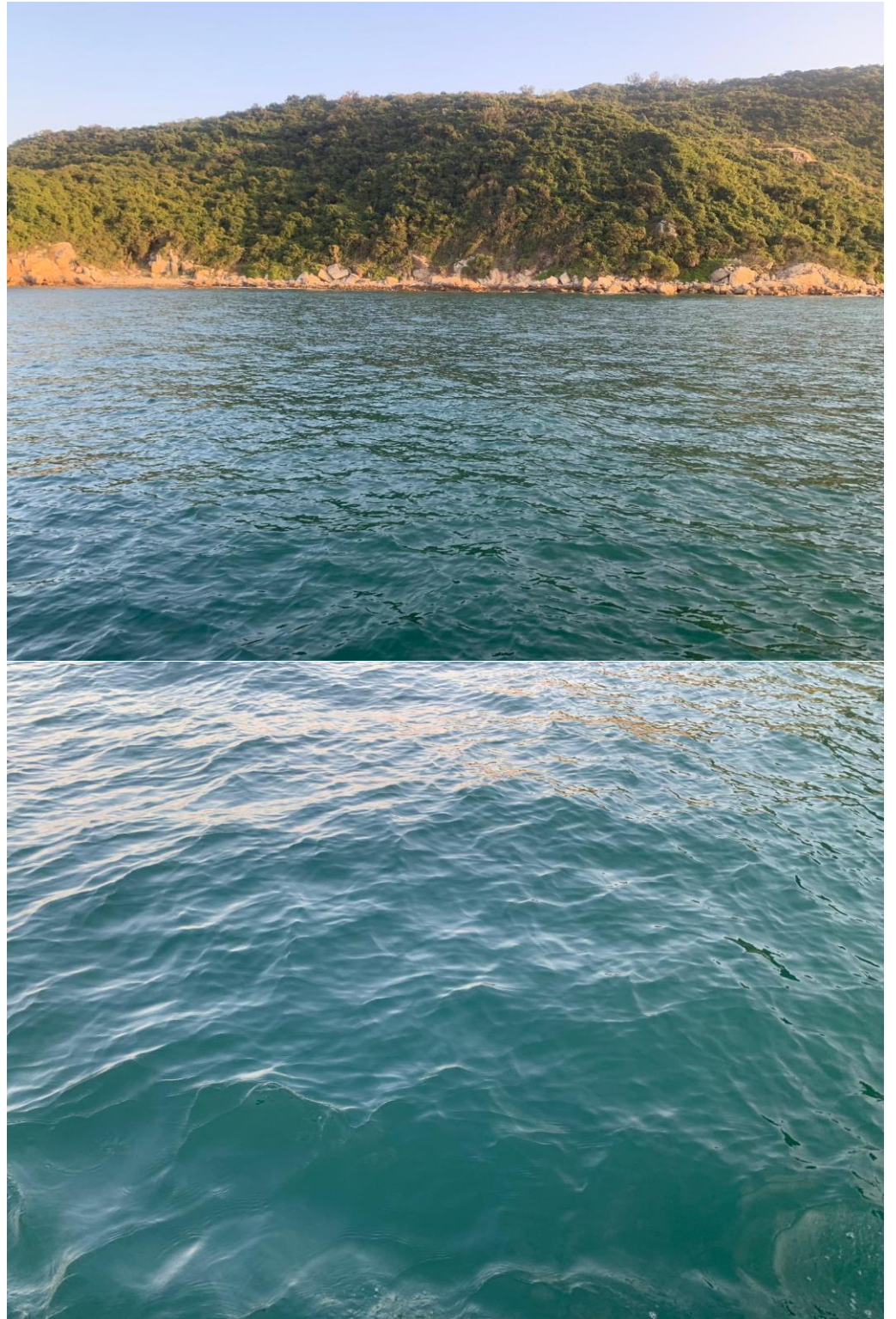
B1:



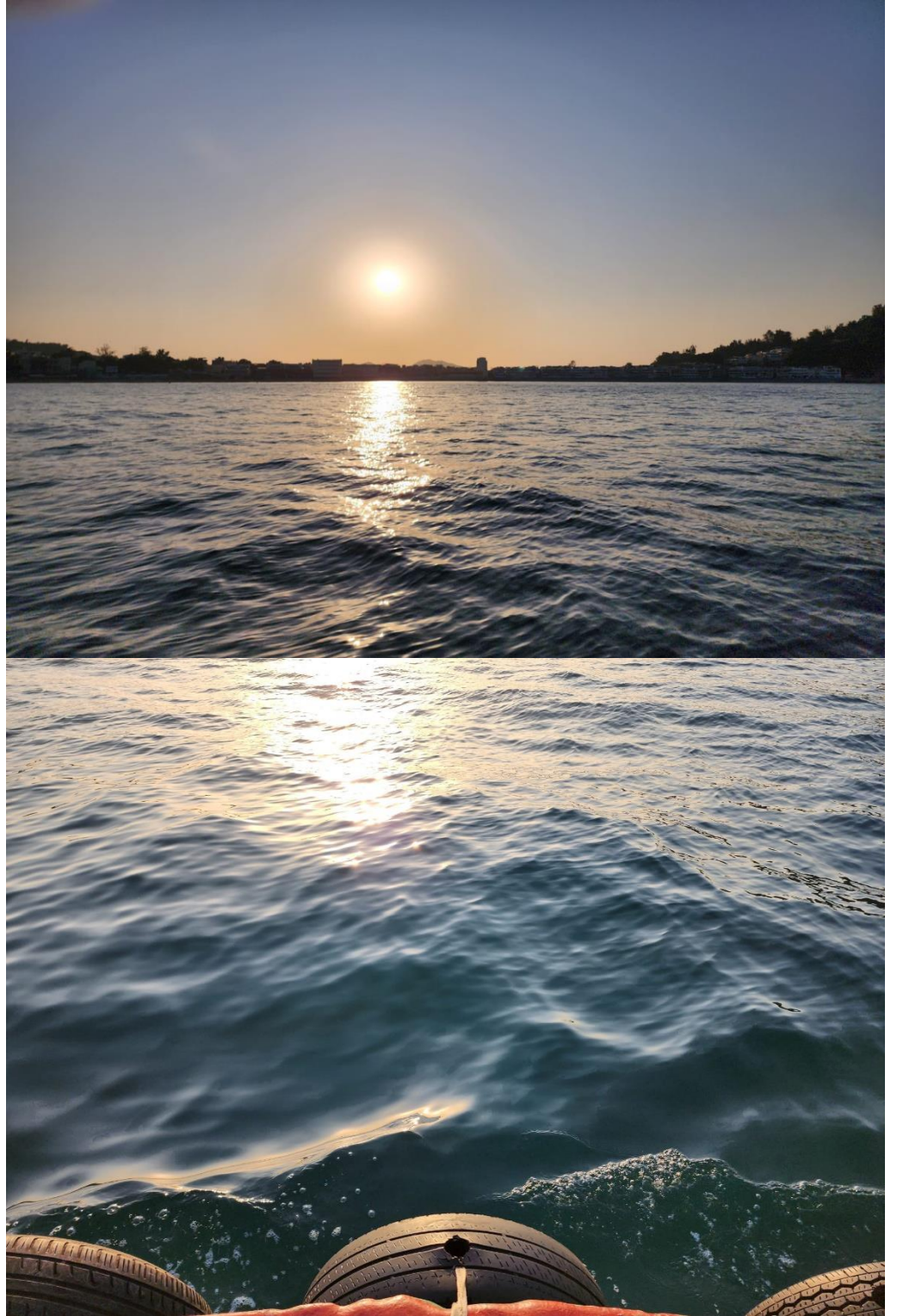
B3:



H1:



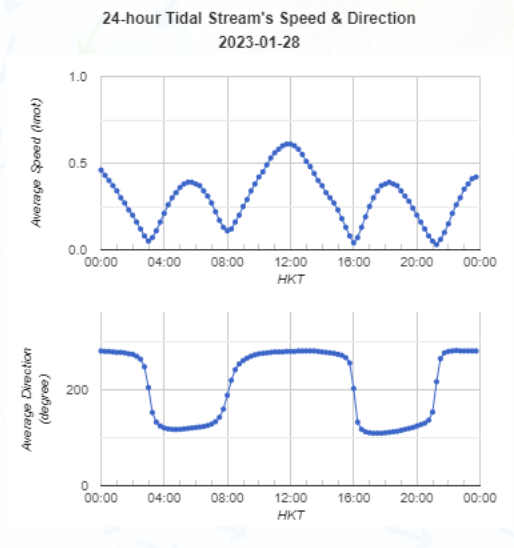
M1:



Remarks

Current direction during mid-ebb sampling on 28 Jan 2023:

HKT	2023-01-28 17:00		UPDATE
Date & Time	2023-01-28 17:00		
Prediction Mode	Average	Change Mode	
Position (WGS84)	22 - 11.017 N / 113 - 59.24 E		
Speed:	0.25 knot(s)		
Direction:	110 °(TN)		



Legend			
Speed (knot)		Speed (knot)	
0-0.5		1.5-2.0	
0.5-1.0		2.0-2.5	
1.0-1.5		2.5 and above	

(Sourced from <http://current.hydro.gov.hk/en/map.html>)

Prepared by	Jack Chow
Date	09 Feb 2023