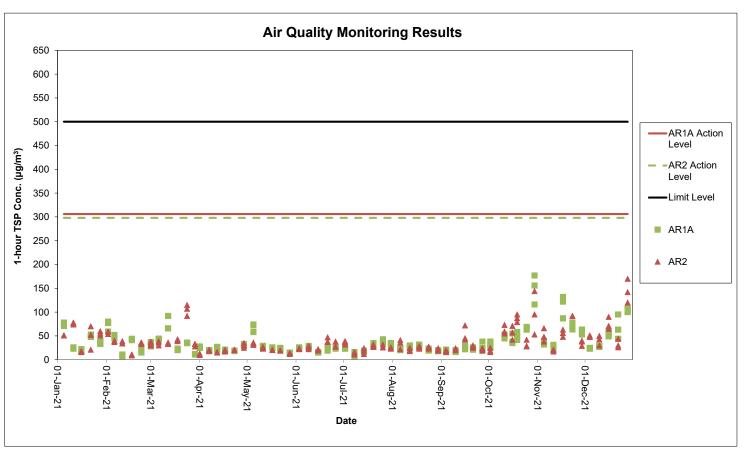
Appendix D. Monitoring Results

Mott MacDonald | Expansion of Hong Kong International Airport into a Three-Runway System

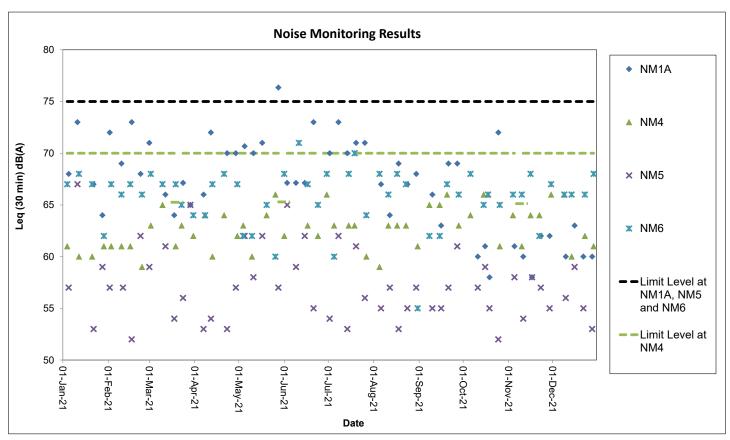
Air Quality Monitoring Results



- 1. The key activities of the Project carried out in the reporting period are located in reclamation areas and existing airport island respectively. Works in the reclamation areas included deep cement mixing (DCM) works, marine filling, seawall construction, together with runway and associated works such as bored piling for approach lights. Land-based works on existing airport island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition, piling, and excavation works.
- General weather condition during monitoring ranged from sunny to overcast. Detailed meteorological conditions should be referred to Table 2.3 of this Report and corresponding Monthly EM&A Reports.
- 3. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.

Mott MacDonald | Expansion of Hong Kong International Airport into a Three-Runway System

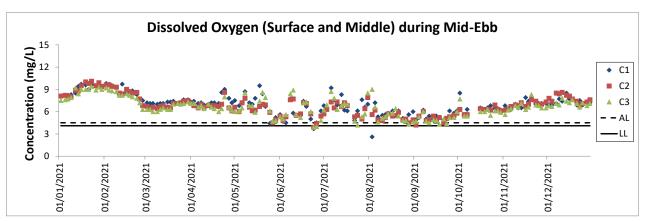
Noise Monitoring Results

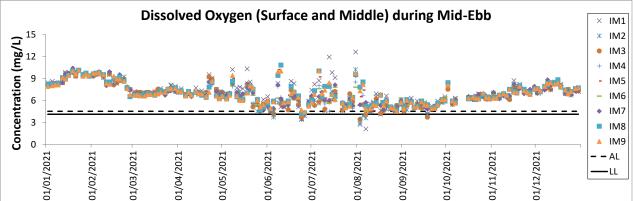


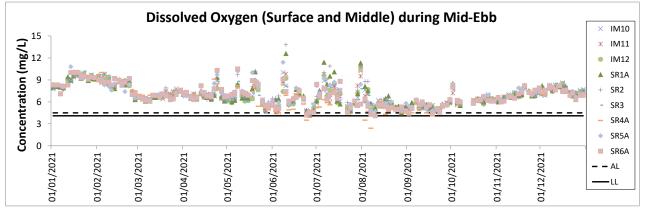
- 1. The Limit Level is reduced to 70dB(A) for school and 65db(A) during school examination period at NM4. School examination took place from 18 to 24 March, 31 May to 4 June, 7, 8, 11, 15, 16, 21 June, 13 July, and 8 to 12 November during this reporting period.
- 2. Noise monitoring at NM3A was temporarily suspended starting from 1 Sep 2018 and would be resumed with the completion of the Tung Chung East Development.
- 3. The key activities of the Project carried out in the reporting period are located in reclamation areas and existing airport island respectively. Works in the reclamation areas included deep cement mixing (DCM) works, marine filling, seawall construction, together with runway and associated works such as bored pilling for approach lights. Land-based works on existing airport island involved mainly airfield works, foundation and substructure work for Terminal 2 expansion, modification and tunnel work for Automated People Mover (APM) and Baggage Handling System (BHS), and preparation work for utilities, with activities include site establishment, site office construction, road and drainage works, cable ducting, demolition, pilling, and excavation works.
- 4. General weather condition during monitoring ranged from sunny to drizzle. Detailed meteorological conditions should be referred to Table 2.6 of this Report and corresponding Monthly EM&A Reports.
- 5. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.

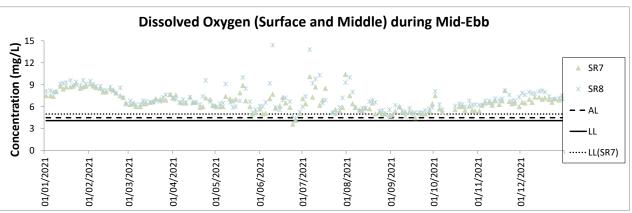
Mott MacDonald I	Evnancion o	of Hona Kona	International	Airport into a	Three-Runway System

Water Quality Monitoring Results

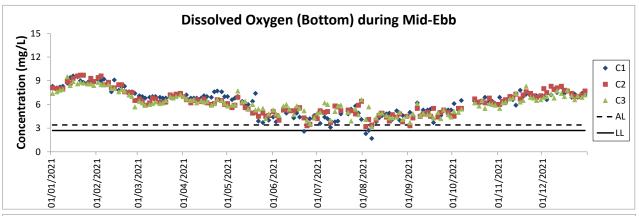


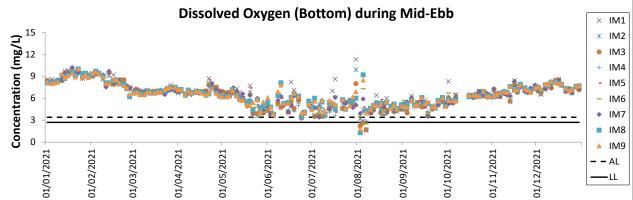


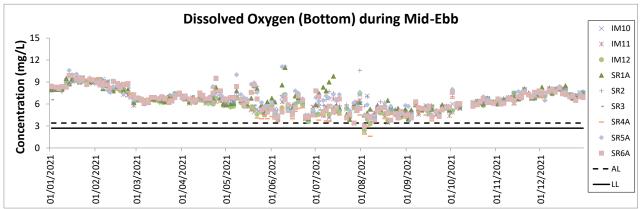


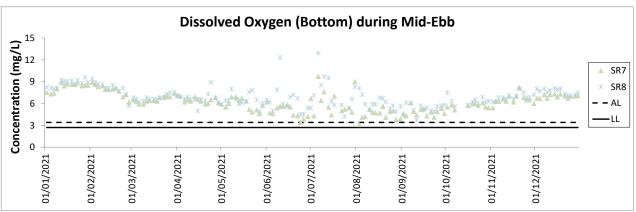


- 1. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such as bored piling for approach lights.
- 2. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
- 3. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.

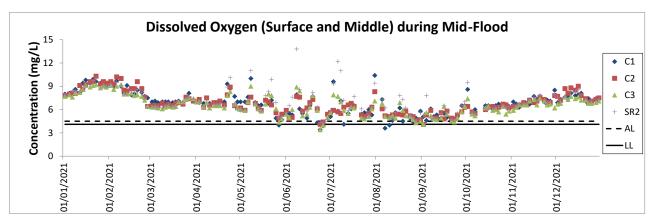


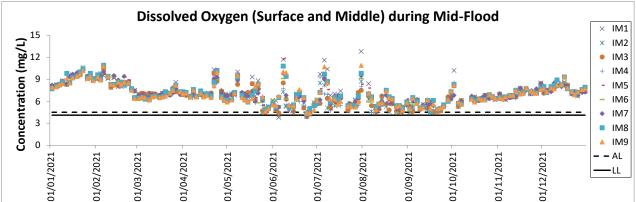


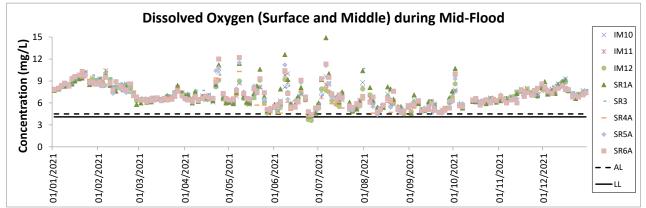


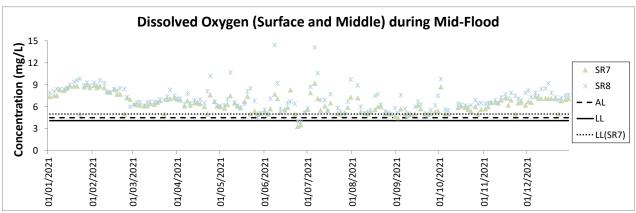


- 1. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such as bored piling for approach lights.
- 2. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
- 3. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.

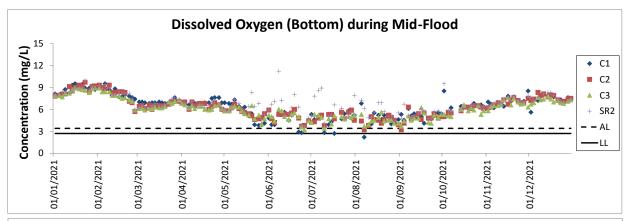


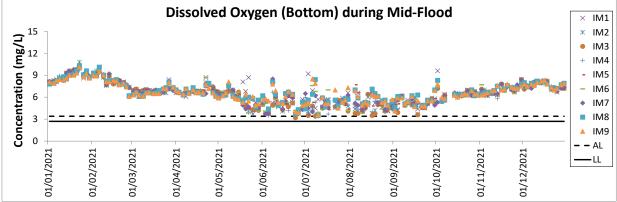


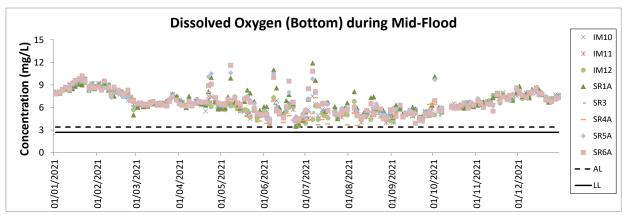


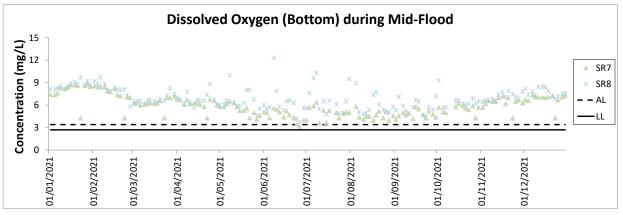


- 1. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such as bored piling for approach lights.
- General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
- 3. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.

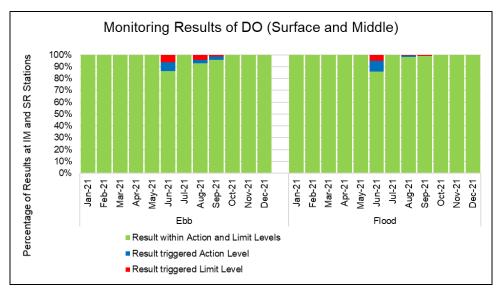


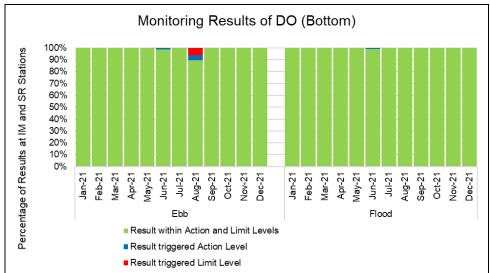




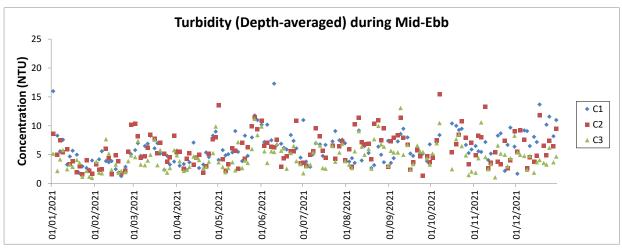


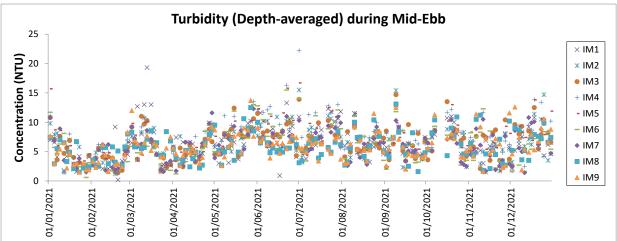
- 1. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such as bored piling for approach lights.
- 2. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
- 3. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.

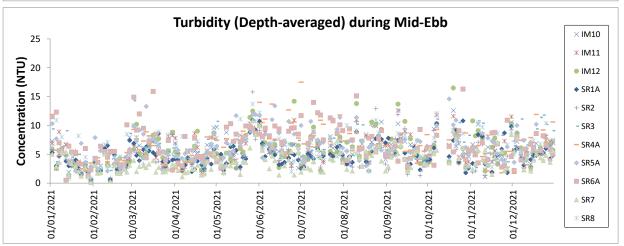




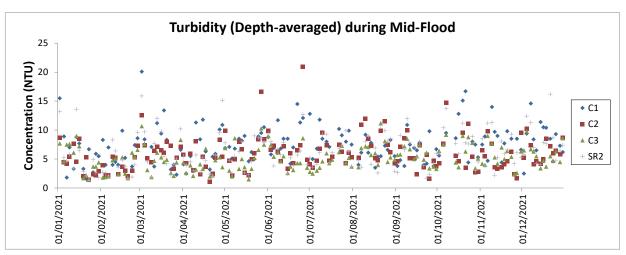
During the reporting period, 1.8% of the DO monitoring results at surface and middle water level and 0.5% of the DO monitoring results at bottom water level triggered the corresponding Action or Limit Level. All results triggering the corresponding Action or Limit level were collected during the wet season (June to September), particularly in June and August, which suggest the observation of seasonal effect on the DO monitoring results. Based on above observations, as well as the relevant investigation findings presented in the Construction Phase Monthly EM&A Reports, it is considered that the Project did not cause adverse impact on DO level at all water quality sensitive receivers.

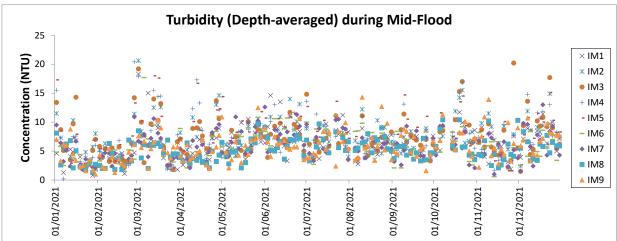


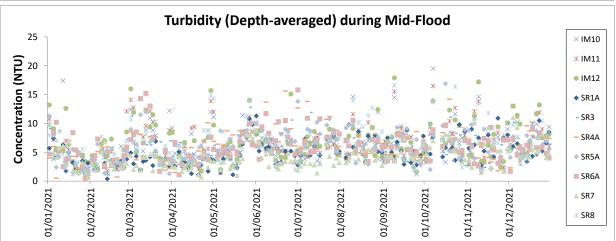




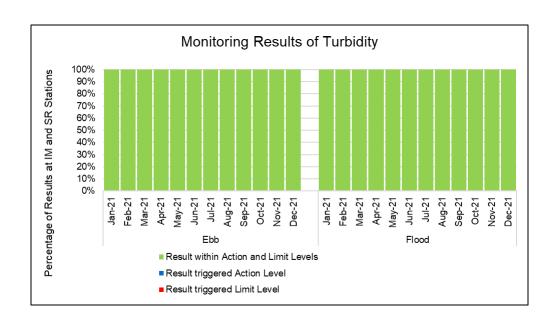
- Notes:
 1. The Action and Limit Levels can be referred to Table 2.8 of the Annual EM&A Report.
 2. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such as bored piling for approach lights.
- 3. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
- $4\cdot\,$ QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.



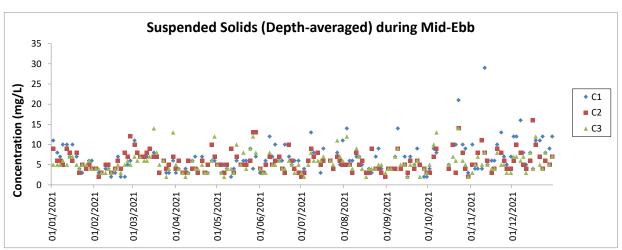


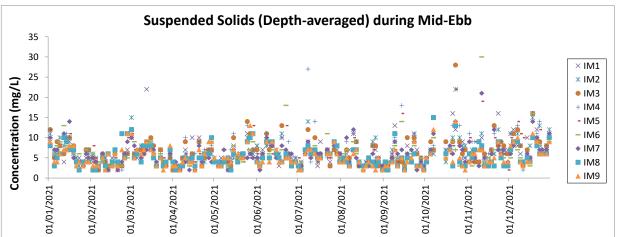


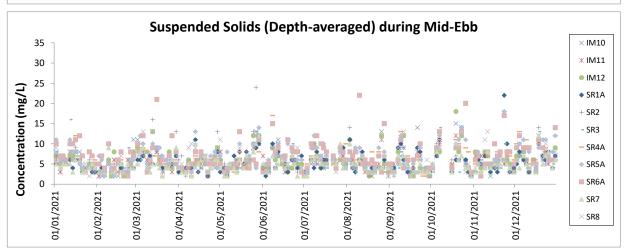
- Notes:
 1. The Action and Limit Levels can be referred to Table 2.8 of the Annual EM&A Report.
 2. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such as bored piling for approach lights.
- 3. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
- $4\cdot\,$ QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.



All turbidity monitoring results in the reporting period were within the corresponding Action and Limit Levels.

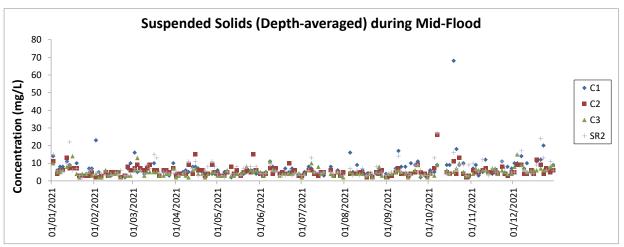


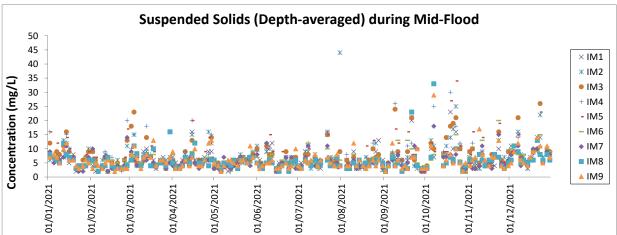


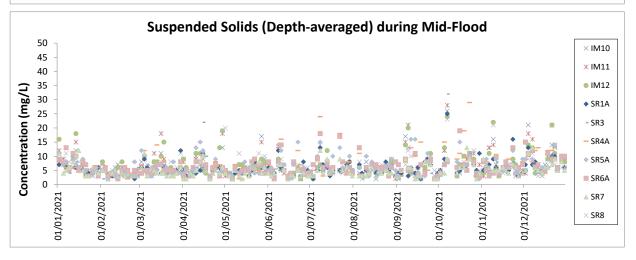


- 1. The Action and Limit Levels can be referred to Table 2.8 of the Annual EM&A Report.
 2. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such
- as bored pilling for approach lights.

 3. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
- 4. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.

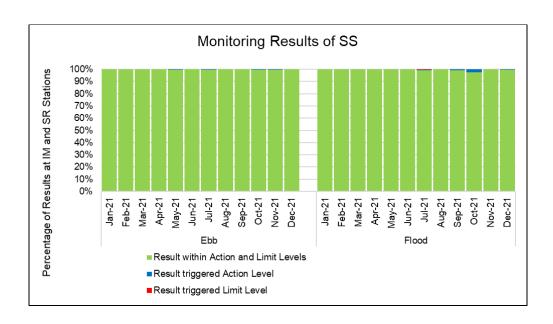




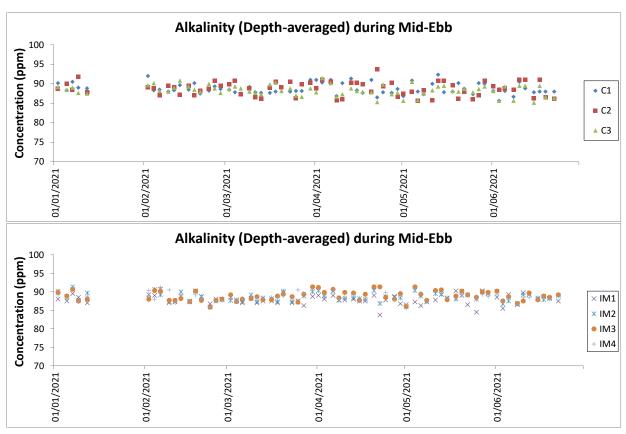


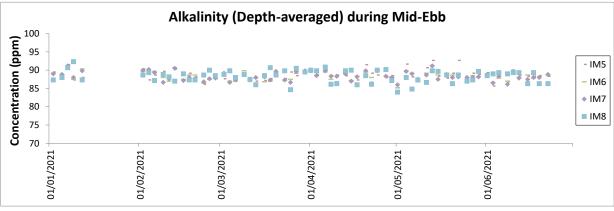
- 1. The Action and Limit Levels can be referred to Table 2.8 of the Annual EM&A Report.
 2. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such
- as bored pilling for approach lights.

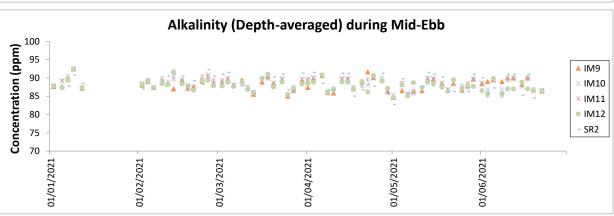
 3. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
- 4. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.



During the reporting period, 0.2% of the SS monitoring results triggered the corresponding Action or Limit Levels. Due to the small number of results triggering the Action or Limit Levels, and the relevant investigation findings presented in the Construction Phase Monthly EM&A Reports, it is considered that the Project did not cause adverse impact on SS level at all water quality sensitive receivers.



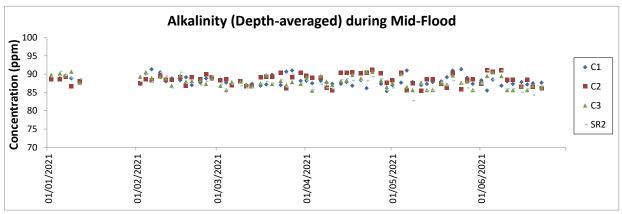


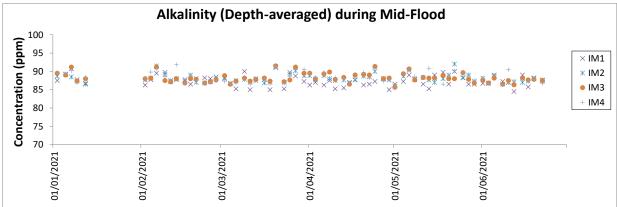


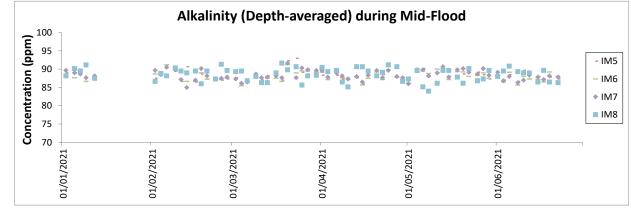
- The Action and Limit Levels can be referred to Table 2.8 of the Annual EM&A Report.
 The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such
- as bored pilling for approach lights.

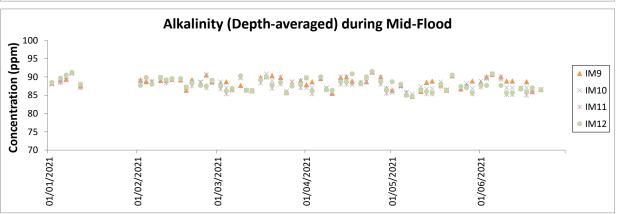
 3. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.

 4. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.
- 5. In view of the construction programme for marine-based DCM works, regular DCM monitoring was ceased since 14 January 2021 and resumed at all monitoring stations starting from 2 February 2021. The aforementioned marine-based DCM works were completed within May 2021, hence the regular DCM monitoring was ceased again at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future





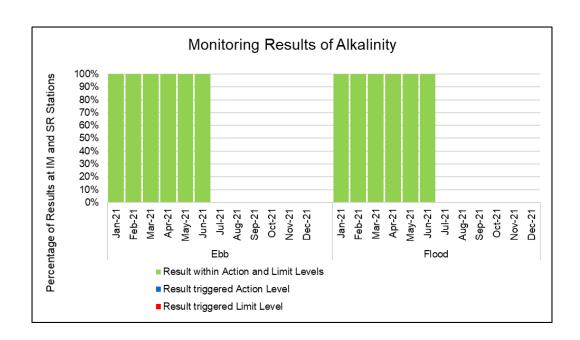




- The Action and Limit Levels can be referred to Table 2.8 of the Annual EM&A Report.
 The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such
- as bored pilling for approach lights.

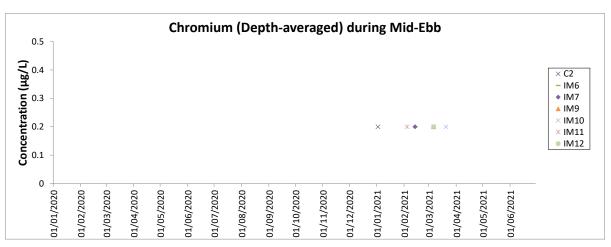
 3. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.

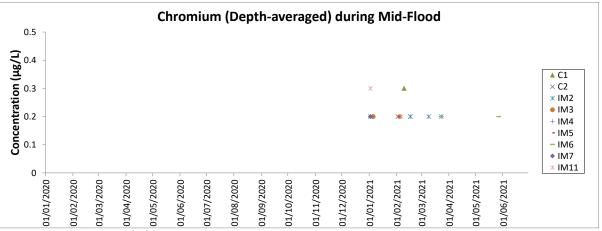
 4. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.
- 5. In view of the construction programme for marine-based DCM works, regular DCM monitoring was ceased since 14 January 2021 and resumed at all monitoring stations starting from 2 February 2021. The aforementioned marine-based DCM works were completed within May 2021, hence the regular DCM monitoring was ceased again at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future



All alkalinity monitoring results in the reporting period were within the corresponding Action and Limit Levels.

Due to the completion of all marine-based DCM works within May 2021, regular DCM monitoring was ceased at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future.





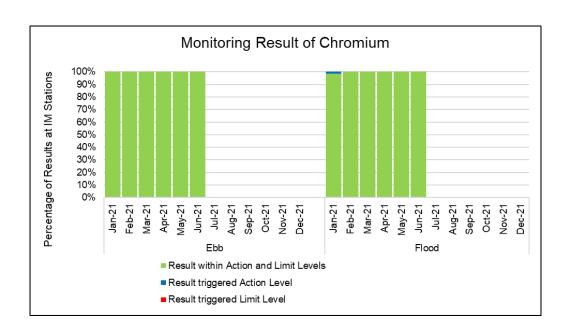
- Notes:

 1. The Action and Limit Levels can be referred to Table 2.8 of the Annual EM&A Report.

 2. The monitoring results of chromium at all other monitoring stations were below the reporting limit of 0.2 µg/L.

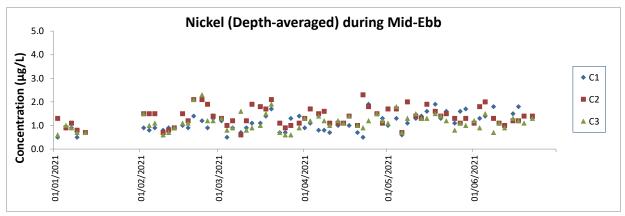
 3. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works

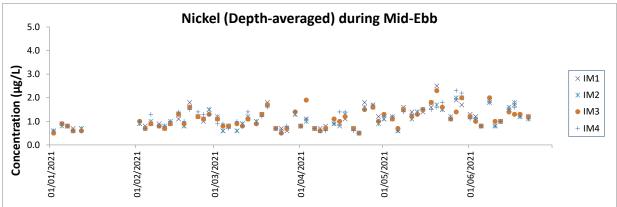
- The Key manne works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such as bored pilling for approach lights.
 General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
 QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.
 In view of the construction programme for marine-based DCM works, regular DCM monitoring was ceased since 14 January 2021 and resumed at all monitoring stations starting from 2 February 2021. The aforementioned marine-based DCM works were completed within May 2021, hence the regular DCM monitoring was ceased again at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future.

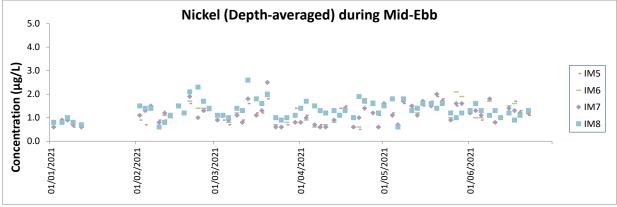


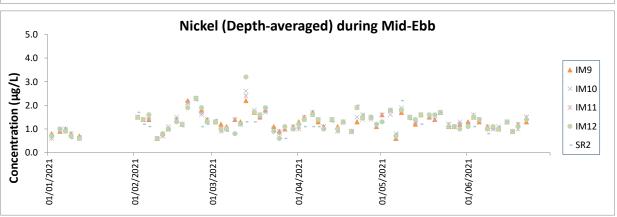
During the reporting period, one of the chromium monitoring results (0.06%) triggered the corresponding Action Level. It appeared that the only case occurred at a monitoring station upstream of the Project during the monitoring event, while no DCM work was conducted on the monitoring day; therefore, it was unlikely due to the Project.

Due to the completion of all marine-based DCM works within May 2021, regular DCM monitoring was ceased at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future.

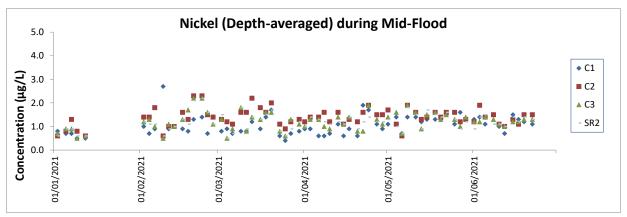


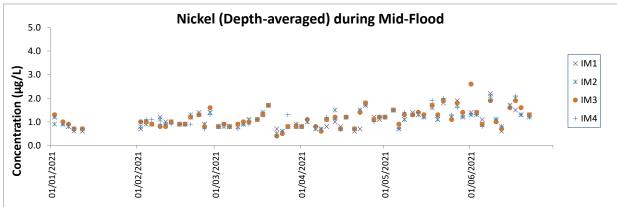


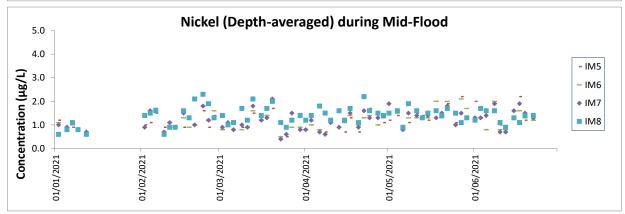


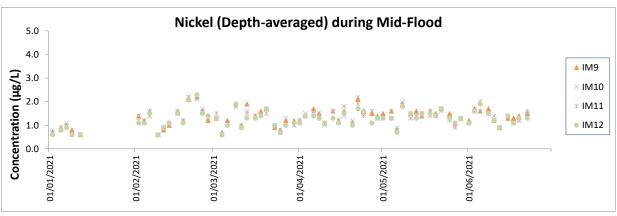


- Notes:
 1. The Action and Limit Levels can be referred to Table 2.8 of the Annual EM&A Report.
- 2. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such as bored piling for approach lights.
- 3. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
- 4. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.
- 5. In view of the construction programme for marine-based DCM works, regular DCM monitoring was ceased since 14 January 2021 and resumed at all monitoring stations starting from 2 February 2021. The aforementioned marine-based DCM works were completed within May 2021, hence the regular DCM monitoring was ceased again at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future.

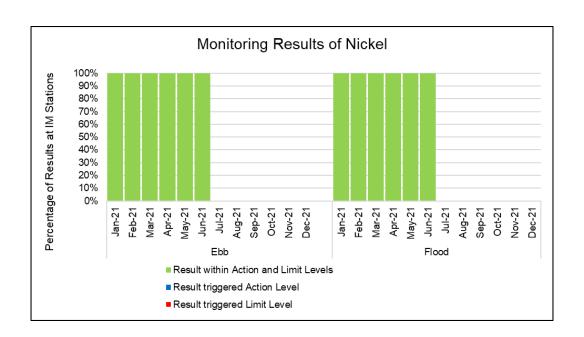








- Notes:
 1. The Action and Limit Levels can be referred to Table 2.8 of the Annual EM&A Report.
- 2. The key marine works activities of the Project during monitoring included DCM works, marine filling, seawall construction, together with runway and associated works such as bored piling for approach lights.
- 3. General weather condition during monitoring ranged from sunny to rainy, with sea condition ranged from calm to rough. Detailed meteorological conditions should be referred to Table 2.10 of this Report and corresponding Monthly EM&A Reports.
- 4. QA/ QC requirements as stipulated in the EM&A Manual was carried out during measurement.
- 5. In view of the construction programme for marine-based DCM works, regular DCM monitoring was ceased since 14 January 2021 and resumed at all monitoring stations starting from 2 February 2021. The aforementioned marine-based DCM works were completed within May 2021, hence the regular DCM monitoring was ceased again at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future.



All nickel monitoring results in the reporting period were within the corresponding Action and Limit Levels.

Due to the completion of all marine-based DCM works within May 2021, regular DCM monitoring was ceased at all monitoring stations starting from 24 June 2021 and would be resumed if there are marine-based DCM works in the coming future.

Combining the observations from the monitoring results of the two representative heavy metals for DCM works (chromium and nickel), the low percentage of results triggering corresponding Action Level together with the investigation findings concluded that the case was not related to the Project, indicating that DCM activities during the reporting period did not cause adverse water quality impact.

Date	Daily Flow at SPS1 (in m³/day)
01-Jun-21	7,413
02-Jun-21	14,826
03-Jun-21	13,478
04-Jun-21	13,029
05-Jun-21	14,489
06-Jun-21	22,913
07-Jun-21	9,772
08-Jun-21	10,771
09-Jun-21	13,714
10-Jun-21	13,478
11-Jun-21	10,895
12-Jun-21	16,286
13-Jun-21	8,087
14-Jun-21	9,435
15-Jun-21	20,442
16-Jun-21	14,714
17-Jun-21	12,355
18-Jun-21	12,692
19-Jun-21	12,917
20-Jun-21	12,131
21-Jun-21	5,391
22-Jun-21	17,073
23-Jun-21	11,007
24-Jun-21	14,489
25-Jun-21	14,826
26-Jun-21	12,355
27-Jun-21	14,040
28-Jun-21	20,442
29-Jun-21	15,725
30-Jun-21	14,602
Jun - 21 Daily Avg	13,460

Date	Daily Flow at SPS1 (in m³/day)
01-Jul-21	7,188
02-Jul-21	9,772
03-Jul-21	18,645
04-Jul-21	11,906
05-Jul-21	12,580
06-Jul-21	12,580
07-Jul-21	9,772
08-Jul-21	13,478
09-Jul-21	16,960
10-Jul-21	7,638
11-Jul-21	16,399
12-Jul-21	11,794
13-Jul-21	11,457
14-Jul-21	15,276
15-Jul-21	14,602
16-Jul-21	8,424
17-Jul-21	17,971
18-Jul-21	14,602
19-Jul-21	11,794
20-Jul-21	12,243
21-Jul-21	20,218
22-Jul-21	16,286
23-Jul-21	14,939
24-Jul-21	15,837
25-Jul-21	17,747
26-Jul-21	14,489
27-Jul-21	16,960
28-Jul-21	14,489
29-Jul-21	16,960
30-Jul-21	9,547
31-Jul-21	21,902
Jul - 21 Daily Avg	13,989

Date	Daily Flow at SPS1 (in m³/day)
01-Aug-21	14,714
02-Aug-21	14,826
03-Aug-21	13,815
04-Aug-21	14,040
05-Aug-21	16,174
06-Aug-21	12,804
07-Aug-21	13,703
08-Aug-21	14,152
09-Aug-21	15,163
10-Aug-21	15,837
11-Aug-21	16,848
12-Aug-21	14,602
13-Aug-21	12,243
14-Aug-21	16,960
15-Aug-21	14,714
16-Aug-21	14,939
17-Aug-21	12,355
18-Aug-21	11,794
19-Aug-21	16,062
20-Aug-21	13,029
21-Aug-21	12,804
22-Aug-21	15,500
23-Aug-21	17,747
24-Aug-21	12,243
25-Aug-21	15,051
26-Aug-21	11,007
27-Aug-21	14,714
28-Aug-21	13,591
29-Aug-21	12,243
30-Aug-21	13,141
31-Aug-21	17,565
Aug - 21 Daily Avg	14,335

Date	Daily Flow at SPS1 (in m³/day)
01-Sep-21	13,928
02-Sep-21	13,928
03-Sep-21	10,446
04-Sep-21	11,344
05-Sep-21	14,040
06-Sep-21	11,007
07-Sep-21	16,062
08-Sep-21	14,265
09-Sep-21	11,681
10-Sep-21	17,634
11-Sep-21	12,131
12-Sep-21	14,040
13-Sep-21	12,355
14-Sep-21	15,949
15-Sep-21	11,569
16-Sep-21	15,163
17-Sep-21	12,018
18-Sep-21	12,917
19-Sep-21	12,468
20-Sep-21	17,073
21-Sep-21	10,558
22-Sep-21	13,478
23-Sep-21	14,826
24-Sep-21	11,232
25-Sep-21	14,265
26-Sep-21	13,928
27-Sep-21	12,804
28-Sep-21	13,366
29-Sep-21	14,826
30-Sep-21	14,152
Sep - 21 Daily Avg	13,448

Date	Daily Flow at SPS1 (in m³/day)
01-Oct-21	12,468
02-Oct-21	12,917
03-Oct-21	16,623
04-Oct-21	10,558
05-Oct-21	11,569
06-Oct-21	16,062
07-Oct-21	14,489
08-Oct-21	16,399
09-Oct-21	16,400
10-Oct-21	16,401
11-Oct-21	19,656
12-Oct-21	19,431
13-Oct-21	19,432
14-Oct-21	18,971
15-Oct-21	14,602
16-Oct-21	14,603
17-Oct-21	11,232
18-Oct-21	17,747
19-Oct-21	18,084
20-Oct-21	18,085
21-Oct-21	18,086
22-Oct-21	18,084
23-Oct-21	19,768
24-Oct-21	19,769
25-Oct-21	12,468
26-Oct-21	12,469
27-Oct-21	17,522
28-Oct-21	18,308
29-Oct-21	18,309
30-Oct-21	18,310
31-Oct-21	17,073
Oct - 21 Daily Avg	16,319

Date	Daily Flow at SPS1 (in m³/day)
01-Nov-21	11,996
02-Nov-21	12,265
03-Nov-21	19,656
04-Nov-21	18,308
05-Nov-21	14,939
06-Nov-21	16,286
07-Nov-21	16,399
08-Nov-21	16,511
09-Nov-21	16,174
10-Nov-21	18,645
11-Nov-21	17,185
12-Nov-21	14,714
13-Nov-21	18,645
14-Nov-21	10,895
15-Nov-21	15,388
16-Nov-21	15,500
17-Nov-21	17,747
18-Nov-21	16,848
19-Nov-21	10,221
20-Nov-21	18,308
21-Nov-21	24,036
22-Nov-21	12,692
23-Nov-21	14,996
24-Nov-21	15,442
25-Nov-21	13,873
26-Nov-21	13,757
27-Nov-21	13,366
28-Nov-21	15,555
29-Nov-21	16,232
30-Nov-21	14,939
Nov - 21 Daily Avg	15,717

Date	Daily Flow at SPS1 (in m³/day)
01-Dec-21	15,725
02-Dec-21	15,837
03-Dec-21	15,725
04-Dec-21	16,174
05-Dec-21	18,645
06-Dec-21	17,073
07-Dec-21	16,736
08-Dec-21	18,533
09-Dec-21	16,623
10-Dec-21	17,073
11-Dec-21	16,960
12-Dec-21	16,174
13-Dec-21	16,062
14-Dec-21	14,826
15-Dec-21	13,815
16-Dec-21	15,163
17-Dec-21	16,399
18-Dec-21	12,243
19-Dec-21	13,029
20-Dec-21	15,388
21-Dec-21	13,815
22-Dec-21	15,388
23-Dec-21	10,670
24-Dec-21	15,612
25-Dec-21	10,895
26-Dec-21	12,580
27-Dec-21	11,681
28-Dec-21	14,040
29-Dec-21	12,580
30-Dec-21	11,569
31-Dec-21	13,815
Dec - 21 Daily Avg	14,866