

Annex F3

Investigation Reports of
Environmental Quality
Limit Exceedance

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	4 July 2019
Time	DP4T: 15:09
Monitoring Location	DP4T
Parameter	Surface Water (pH)
Action / Limit Levels	DP4T: Action level: >8.39 Limit level: >8.40
Measured Level	DP4T: 8.53 & 8.56
Possible reason	<p>During the sampling event, the water level was observed to be above the weir plate for sampling. As there was flow of water from upstream to downstream, it was agreed on-site with IEC and GVL representatives that water monitoring and sampling should be carried out.</p> <p>From the on-site rainfall record of July 2019, heavy rainfall event was recorded on 2 July 2019. Amber rainstorm warning signal was also issued by the Hong Kong Observatory on 3 July 2019 before the sampling event on 4 July 2019. During the heavy rainfall events, backflow of muddy water from downstream might well passed DP4T along the channel. The site rainfall record showed that there was little rainfall on 4 July 2019. It is therefore a high possibility that the high level of water observed at DP4T was due to backflow water from the downstream area. The sample taken at DP4T on the day might not represent the surface water runoff from SENTX and further upstream.</p> <p>In addition, no works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP4T on and before the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the Wetsep operation record on 4 July 2019 and the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>Due to presence of the influencing factor from the downstream and no potential source leading to pH increase from the Project-related activities, with the implementation of relevant mitigation measures, there is no adequate evidence showing that the pH</p>

	exceedance at DP4T was deemed to Project-related activities.
Action Taken / Action to be Taken	<p>Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.</p> <p>In addition, the Contractor shall review the drainage system of the site and discuss the drainage issues of the TKO Fill Bank with CEDD so that there will be no backflow of surface water runoff from TKO Fill Bank to the SENTX boundary.</p>
Remarks	-

Prepared by: Tina Siu
Designation: Environmental Team
Date: 18 July 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	4 July 2019
Time	DP4T: 15:09
Monitoring Location	DP4T
Parameter	Surface Water (Suspended Solids (SS))
Action / Limit Levels	DP4T: Action level: >11.7 mg/L Limit level: >12.7 mg/L
Measured Level	DP4T: 68.5 mg/L
Possible reason	<p>During the sampling event, the water level was observed to be above the weir plate for sampling. As there was flow of water from upstream to downstream, it was agreed on-site with IEC and GVL representatives that water monitoring and sampling should be carried out.</p> <p>From the on-site rainfall record of July 2019, heavy rainfall event was recorded on 2 July 2019. Amber rainstorm warning signal was also issued by the Hong Kong Observatory on 3 July 2019 before the sampling event on 4 July 2019. During the heavy rainfall events, backflow of muddy water from downstream might well passed DP4T along the channel. The site rainfall record showed that there was little rainfall on 4 July 2019. It is therefore a high possibility that the high level of water observed at DP4T was due to backflow water from the downstream area. The sample taken at DP4T on the day might not represent the surface water runoff from SENTX and further upstream.</p> <p>In addition, no works which may lead to potential SS increase was conducted in the vicinity of surface water channel leading to DP4T on the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the Wetsep operation record on 4 July 2019 and the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>Due to presence of the influencing factor from the downstream and no potential source leading to SS increase from the Project-related activities, with the implementation of relevant mitigation measures, there is no adequate evidence showing that the SS</p>

	exceedance at DP4T was deemed to Project-related activities.
Action Taken / Action to be Taken	<p>Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.</p> <p>In addition, the Contractor shall review the drainage system of the site and discuss the drainage issues of the TKO Fill Bank with CEDD so that there will be no backflow of surface water runoff from TKO Fill Bank to the SENTX boundary.</p>
Remarks	-

Prepared by: Tina Siu
Designation: Environmental Team
Date: 18 July 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	18 July 2019
Time	DP4T: 15:04
Monitoring Location	DP4T
Parameter	Surface Water (pH)
Action / Limit Levels	DP4T: Action level: >8.39 Limit level: >8.40
Measured Level	DP4T: 9.40 & 9.41
Possible reason	<p>No works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP4T on and before the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the Wetsep operation record on 18 July 2019 and the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>As no potential source from the Project-related activities which may lead to pH increase was identified, and the Contractor has implemented the relevant mitigation measures recommended in the updated EM&A Manual, there is no adequate evidence showing that the pH exceedance at DP4T was deemed to Project-related activities.</p>
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 19 July 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	18 July 2019
Time	DP4T: 15:04
Monitoring Location	DP4T
Parameter	Surface Water (Suspended Solids (SS))
Action / Limit Levels	DP4T: Action level: >11.7 mg/L Limit level: >12.7 mg/L
Measured Level	DP4T: 14.2 mg/L
Possible reason	<p>No works which may lead to potential SS increase was conducted in the vicinity of surface water channel leading to DP4T on the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the Wetsep operation record on 18 July 2019 and the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>As no potential source from the Project-related activities which may lead to SS increase was identified, and the Contractor has implemented relevant mitigation measures recommended in the updated EM&A Manual, there is no adequate evidence showing that the SS exceedance at DP4T was deemed to Project-related activities.</p>
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 24 July 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	25 July 2019
Time	DP4T: 15:08
Monitoring Location	DP4T
Parameter	Surface Water (pH)
Action / Limit Levels	DP4T: Action level: >8.39 Limit level: >8.40
Measured Level	DP4T: 9.11 & 9.11
Possible reason	<p>No works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP4T on and before the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>As no potential source from the Project-related activities which may lead to pH increase was identified, and the Contractor has implemented the relevant mitigation measures recommended in the updated EM&A Manual, there is no adequate evidence showing that the pH exceedance at DP4T was deemed to Project-related activities.</p>
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Angela Yung
 Designation: Environmental Team
 Date: 31 July 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	25 July 2019
Time	DP4T: 15:08
Monitoring Location	DP4T
Parameter	Surface Water (Suspended Solids (SS))
Action / Limit Levels	DP4T: Action level: >11.7 mg/L Limit level: >12.7 mg/L
Measured Level	DP4T: 21.8 mg/L
Possible reason	<p>During the weekly site inspection in the morning and the sampling event, it was observed that soil along the bank of DP4T channel next to the surface water sampling point was exposed. Topsoil was observed to have leaked into the water and muddy water was observed around the DP4 sampling point. Based on the above observation, the SS exceedance at DP4T was deemed to Project-related activities.</p> <p>It should be noted that the Water Pollution Control Ordinance (WPCO) water discharge licence has been obtained by the Contractor for the operation of the Wetsep near DP4T and the allowable discharge limit for SS to DP4T channel is 30 mg/L. The treated water with the allowable discharge limit from the Wetsep might also be a source leading to SS exceedance.</p>
Action Taken / Action to be Taken	The Contractor shall maintain the DP4T channel by covering the exposed soil with concrete in order to avoid SS run-off to DP4T channel. Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Angela Yung
 Designation: Environmental Team
 Date: 31 July 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	8 August 2019
Time	DP6: 14:37 & 14:46 (Duplicate)
Monitoring Location	DP6
Parameter	Surface Water (Suspended Solids (SS))
Action / Limit Levels	DP6: Action level: >11.7 mg/L Limit level: >12.7 mg/L
Measured Level	DP6: 25.1 mg/L DP6 (Duplicate): 24.8 mg/L
Possible reason	<p>No works which may lead to potential SS increase was conducted in the vicinity of surface water channel leading to DP6 on the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP6 channel was observed.</p> <p>Site water discharged to the DP6 channel was treated by the Wetsep prior to discharge. Wetsep near DP6 was functioning properly during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>Environmental deficiency was observed during the weekly site inspection in the morning. Site water was observed overflowing the concrete partition at DP6 channel, without passing through the geotextile at the pipes along the DP6 channel, which might be a potential source of SS increase to the surface water at DP6. However, the deficiency was rectified before the sampling event and no overflow of site water was observed during the sampling event.</p> <p>As no potential source from the Project-related activities which may lead to SS increase was identified, and the Contractor has implemented relevant mitigation measures recommended in the updated EM&A Manual, there is no adequate evidence showing that the SS exceedance at DP6 was deemed to Project-related activities.</p>
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Abbey Lau
Designation: Environmental Team
Date: 19 August 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	22 August 2019
Time	DP4T: 14:54
Monitoring Location	DP4T
Parameter	Surface Water (pH)
Action / Limit Levels	DP4T: Action level: >8.39 Limit level: >8.40
Measured Level	DP4T: 8.91 & 8.91
Possible reason	<p>No works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP4T on and before the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>As no potential source from the Project-related activities which may lead to pH increase was identified, and the Contractor has implemented the relevant mitigation measures recommended in the updated EM&A Manual, there is no adequate evidence showing that the pH exceedance at DP4T was deemed to Project-related activities.</p>
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 27 August 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	22 August 2019
Time	DP4T: 14:54
Monitoring Location	DP4T
Parameter	Surface Water (Suspended Solids (SS))
Action / Limit Levels	DP4T: Action level: >11.7 mg/L Limit level: >12.7 mg/L
Measured Level	DP4T: 31.2 mg/L
Possible reason	<p>No works which may lead to potential SS increase was conducted in the vicinity of surface water channel leading to DP4T on the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>As no potential source from the Project-related activities which may lead to SS increase was identified, and the Contractor has implemented relevant mitigation measures recommended in the updated EM&A Manual, there is no adequate evidence showing that the SS exceedance at DP4T was deemed to Project-related activities.</p>
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 30 August 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	5 September 2019
Time	DP4T: 14:50 and 15:00 (Duplicate)
Monitoring Location	DP4T
Parameter	Surface Water (pH)
Action / Limit Levels	DP4T: Action level: >8.39 Limit level: >8.40
Measured Level	DP4T: 8.49 & 8.51 DP4T (Duplicate): 8.49 & 8.52
Possible reason	<p>No works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP4T on and before the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>As no potential source from the Project-related activities which may lead to pH increase was identified, and the Contractor has implemented the relevant mitigation measures recommended in the updated EM&A Manual, there is no adequate evidence showing that the pH exceedance at DP4T was deemed to Project-related activities.</p>
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 9 September 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	5 September 2019
Time	DP4T: 14:50 and 15:00 (Duplicate)
Monitoring Location	DP4T
Parameter	Surface Water (pH)
Action / Limit Levels	DP4T: Action level: >8.39 Limit level: >8.40
Measured Level	DP4T: 8.49 & 8.51 DP4T (Duplicate): 8.49 & 8.52
Possible reason	<p>No works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP4T on and before the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>As no potential source from the Project-related activities which may lead to pH increase was identified, and the Contractor has implemented the relevant mitigation measures recommended in the updated EM&A Manual, there is no adequate evidence showing that the pH exceedance at DP4T was deemed to Project-related activities.</p>
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 9 September 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	5 September 2019
Time	DP4T: 14:50 and 15:00 (Duplicate)
Monitoring Location	DP4T
Parameter	Surface Water (Suspended Solids (SS))
Action / Limit Levels	DP4T: Action level: >11.7 mg/L Limit level: >12.7 mg/L
Measured Level	DP4T: 67.8 mg/L DP4T (Duplicate): 66.1 mg/L
Possible reason	<p>During the sampling event, the water level was observed to be above the weir plate for sampling. As there was flow of water from upstream to downstream, it was agreed on-site with IEC and GVL representatives that water monitoring and sampling should be carried out.</p> <p>From the on-site rainfall record of September 2019, heavy rainfall event was recorded on 1, 2 and 4 September 2019. Amber rainstorm warning signal was also issued by the Hong Kong Observatory on 2 September 2019 before the sampling event on 5 September 2019. During the event, backflow of muddy water from downstream might well passed DP4T along the channel. The site rainfall record showed that there was little rainfall on 5 September 2019. It is therefore a high possibility that the high level of water observed at DP4T was due to backflow water from the TKO Fill Bank. The sample taken at DP4T on the day might not represent the surface water runoff from SENTX and further upstream.</p> <p>In addition, no works which may lead to potential SS increase was conducted in the vicinity of surface water channel leading to DP4T on the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>Due to presence of the influencing factor from the downstream and no potential source from the Project-related activities which may lead to SS increase was identified, there is no adequate evidence showing that the SS exceedance at DP4T was deemed to Project-</p>

	related activities.
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Abbey Lau

Designation: Environmental Team

Date: 16 September 2019

Investigation Report of Environmental Quality Limit Exceedance

Project	South East New Territories (SENT) Landfill Extension
Date	12 September 2019
Time	DP4T: 14:59
Monitoring Location	DP4T
Parameter	Surface Water (pH)
Action / Limit Levels	DP4T: Action level: >8.39 Limit level: >8.40
Measured Level	DP4T: 8.82 & 8.87
Possible reason	<p>No works which may lead to potential pH increase (e.g. concreting works) was conducted in the vicinity of surface water channel leading to DP4T on and before the sampling day based on on-site observations and construction activities described by the Contractor. During the sampling event, no potential surface water discharge or overflow to the DP4T channel was observed.</p> <p>Water from wheel-washing area discharged to the DP4T channel was treated by the Wetsep prior to discharge. Wetsep near DP4T was functioning properly with reference to the on-site checking of the treated water at the outlet of the Wetsep during the sampling event. The Contractor has complied with the recommendations and conditions outlined in the updated EM&A Manual.</p> <p>As no potential source from the Project-related activities which may lead to pH increase was identified, and the Contractor has implemented the relevant mitigation measures recommended in the updated EM&A Manual, there is no adequate evidence showing that the pH exceedance at DP4T was deemed to Project-related activities.</p>
Action Taken / Action to be Taken	Examination of environmental performance of the Project will be continued during the weekly inspections. The Contractor is reminded to implement relevant and appropriate mitigation measures according to the updated EM&A Manual to avoid any exceedance of the Action and Limit Level.
Remarks	-

Prepared by: Abbey Lau
 Designation: Environmental Team
 Date: 16 September 2019