Notification of Water Quality Monitoring Exceedance

Incident Report on Action/ Limit Level Exceedance

Reference No.:	IR20220823_M2_SS
Project:	Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Date:	2022/08/23
Time: (hh:mm)	**(Flood Tide)** M1: M2: 19:03 M3:

Action level / Limit level: **(For Flood Tide)**		DO (mg/L)		Turbidity (NTU)		SS (mg/L)	
		AL	**LL**	**AL**	**LL**	**AL**	**LL**
	M2	1.88	1.79	43.0	52.4	81	112
	M3	3.28	3.14	74.3	78.0	104	167

Measured level of exceeded parameter: (fill in / circle as appropriate)				
M1	DO (AL / LL) : _____	**M3**	DO (AL / LL) : _____	
	NTU (AL / LL) : _____		NTU (AL / LL) : _____	
	SS (AL / LL) : _____		SS (AL / LL) : _____	
M2	DO (AL / LL) : _____			
	NTU (AL / LL) : _____			
	SS (AL / ~~LL~~) : 94			

Action taken / to be taken: (tick / circle / fill in as appropriate)	Inspection : ☑ER / IEC / Contractor is/are informed. ☑ Monitoring equipment & monitoring data are checked and confirmed without problem. ☐ In-situ measurement is repeated. ☐ Other _____

Possible reason for action or Limit level Non-compliance: (tick / fill in as appropriate)		**DO**	**Turbidity**	**SS**
	Finding / Evidences			
	☐ Upstream Control Station exceeded AL/LL			
	☐ Station was polluted by the inflow of other construction site			
	☐ Station was polluted by the inflow of residential discharge			
	☐ Station was polluted by the inflow of surface runoff from rainstorm and storm water drainage			
	☑ No construction activities were carried out in the vicinity of station			M2
	☐ Other _____			

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<table>
<tr><td>Reference No.:</td><td colspan="5">IR20220823_M2_SS</td></tr>
<tr><td>Project:</td><td colspan="5">Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1</td></tr>
<tr><td>Date:</td><td colspan="5">2022/08/23</td></tr>
<tr><td rowspan="3">Conclusion:</td><td colspan="2"></td><td>DO</td><td>Turbidity</td><td>SS</td></tr>
<tr><td colspan="2">☑ Due to change or/and influences of ambient condition in the vicinity, not Project related</td><td></td><td></td><td>M2</td></tr>
<tr><td colspan="2">☐ Due to influences of construction activities under this project in the vicinity, considered to be Project related</td><td></td><td></td><td></td></tr>
<tr><td>Mitigation Measures:</td><td colspan="5">The following mitigation measures have be taken:

1. Channels, earth bunds or sand bag barriers were provided on site to properly direct stormwater to silt removal facilities;
2. The surfaces of construction site areas near the drainages was paved;
3. Manholes were adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and;
4. Channels and manholes were maintained and the deposited silt and grit were removed after rainstorm to prevent overflows and localised flooding.</td></tr>
<tr><td rowspan="4">Remarks: (tick / fill in as appropriate)</td><td colspan="5">☐ Repeat in-situ measurement was done.</td></tr>
<tr><td>M1</td><td>DO : _____
NTU : _____</td><td>M3</td><td colspan="2">DO : _____
NTU : _____</td></tr>
<tr><td>M2</td><td>DO : _____
NTU : _____</td><td></td><td colspan="2"></td></tr>
<tr><td colspan="5">☑ No major observation of upstream area was found</td></tr>
<tr><td>Attachment</td><td colspan="5">Annex A – Location of Water Quality Monitoring Stations
Annex B – Water Quality Monitoring Results
Annex C – Photo of Investigation</td></tr>
</table>

Note: The box is checked ☑ to represent the statement is applicable, and vice versa.

Prepared by: Toby Wan

Signature: _____

Date (dd/mm/yyyy): 1/9/2022

Certified by: Alvin L.B. Yu

Designation: Environmental Team Leader

Signature: _____

Date (dd/mm/yyyy): 1/9/2022

Notes:
- Abbreviation:
DO – Dissolved Oxygen
NTU - Turbidity
SS – Suspended Solids
AL – Action Level
LL – Limit Level
ER – Engineer's Representative
IEC – Independent Checker

Annex A – Location of Water Quality Monitoring Stations

ISO A1 594mm x 841mm

Project Management Initials: Designer: Checked: Approved:

820400 E

820800 E

837200 N

836600 N

836000 N

LEGEND:

- SITE BOUNDARY
- 500m ASSESSMENT AREA
- PONDS
- WATER BODIES
- EXISTING AND PLANNED SEWAGE OUTFALL
- MONITORING STATION

N

M1

M2

M3

KAM TIN RIVER

SHAN PUI RIVER

YUEN LONG INDUSTRIAL ESTATE

FUK SHUN STREET

MANG LOK STREET

TAI TSENG WAI

CLIENT
委託

渠務署
Drainage Services Department

SHEET TITLE
圖紙名稱

LOCATIONS OF WATER QUALITY MONITORING STATIONS FOR CONSTRUCTION PHASE

Plot File by: GaoYU 12/18
PATH: P:\PROJECTS\60305478\DRAWING\REPORT\EM&A\EM&A_704.dgn

Annex B – Water Quality Monitoring Results

Contract No. SPW 07/2020 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
										Value	Value	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	23/8/2022	Mid-Flood	Cloudy	Calm	19:22	2	M	1	1	0.35	251	7.52	7.53	2.88	2.88	34.19	34.20	48.9	48.7	3.46	3.44	20.2	20.4	23	22
M1	23/8/2022	Mid-Flood	Cloudy	Calm	19:22	2	M	1	2			7.54		2.88		34.21		48.4		3.42		20.6		21	
M2	23/8/2022	Mid-Flood	Cloudy	Calm	19:03	1	M	0.5	1	0.303	337	7.41	7.42	2.53	2.52	34.49	34.48	43.5	43.1	3.13	3.10	24.5	24.7	96	**94**
M2	23/8/2022	Mid-Flood	Cloudy	Calm	19:03	1	M	0.5	2			7.43		2.51		34.47		42.7		3.07		24.9		92	
M3	23/8/2022	Mid-Flood	Fine	Moderate	19:02	1.2	M	0.6	1	0.056	92	7.14	7.15	1.92	1.93	32.03	32.04	50.7	50.8	5.13	5.15	17.7	17.8	21	23
M3	23/8/2022	Mid-Flood	Fine	Moderate	19:02	1.2	M	0.6	2			7.15		1.94		32.04		50.9		5.16		17.8		25	
M1	23/8/2022	Mid-Ebb	Cloudy	Calm	11:27	2.2	M	1.1	1	0.392	227	7.16	7.17	2.31	2.32	32.41	32.42	62.6	62.2	4.51	4.49	14.8	15.2	18	18
M1	23/8/2022	Mid-Ebb	Cloudy	Calm	11:27	2.2	M	1.1	2			7.18		2.32		32.42		61.8		4.46		15.5		17	
M2	23/8/2022	Mid-Ebb	Cloudy	Calm	11:47	1.2	M	0.6	1	0.335	205	7.29	7.29	1.89	1.89	32.89	32.90	56.7	56.5	4.14	4.13	22.4	22.6	30	31
M2	23/8/2022	Mid-Ebb	Cloudy	Calm	11:47	1.2	M	0.6	2			7.29		1.88		32.91		56.2		4.11		22.7		31	
M3	23/8/2022	Mid-Ebb	Fine	Moderate	11:19	0.9	M	0.45	1	0.066	188	7.03	7.04	1.79	1.79	32.50	32.49	48.4	48.3	4.76	4.75	22.0	22.0	24	23
M3	23/8/2022	Mid-Ebb	Fine	Moderate	11:19	0.9	M	0.45	2			7.04		1.78		32.47		48.1		4.74		22.0		22	

Remark

1. Orange and Bold: Action Level Exceedance (For Impact Station Only)
2. Red and Bold: Limit Level Exceedance (For Impact Station Only)
3. Action Level for Turbidity: 95%-ile of baseline data or 120% of upstream control station's turbidity recorded on the same day.
4. Limit Level for Turbidity: 99%-ile of baseline data or 130% of upstream control station's turbidity recorded on the same day.
5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

For Flood Tide

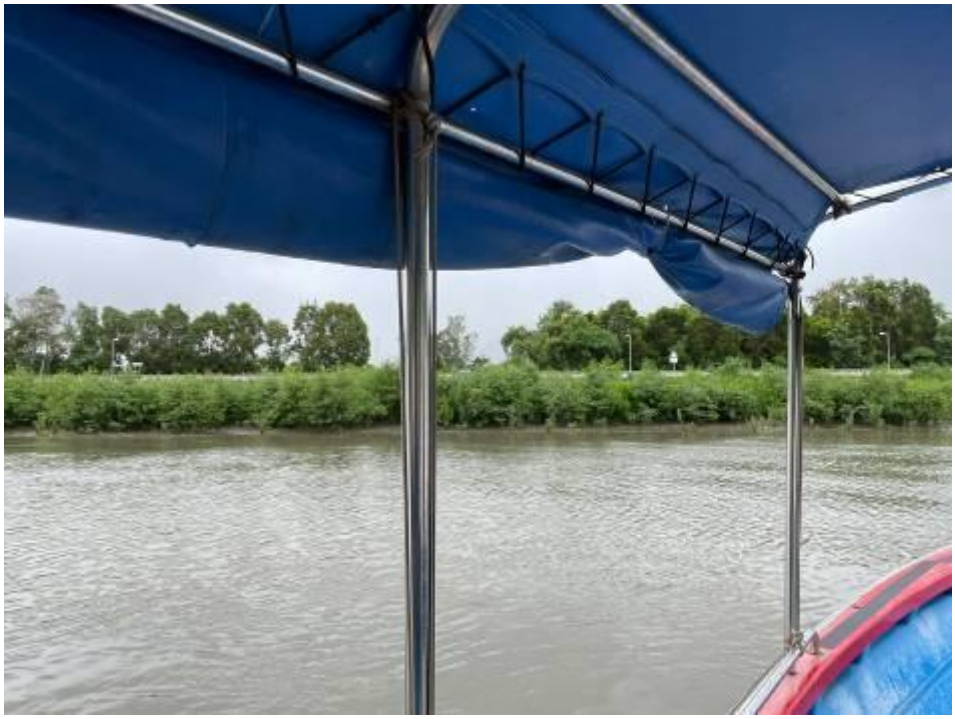
Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74.3	78.0	104	167

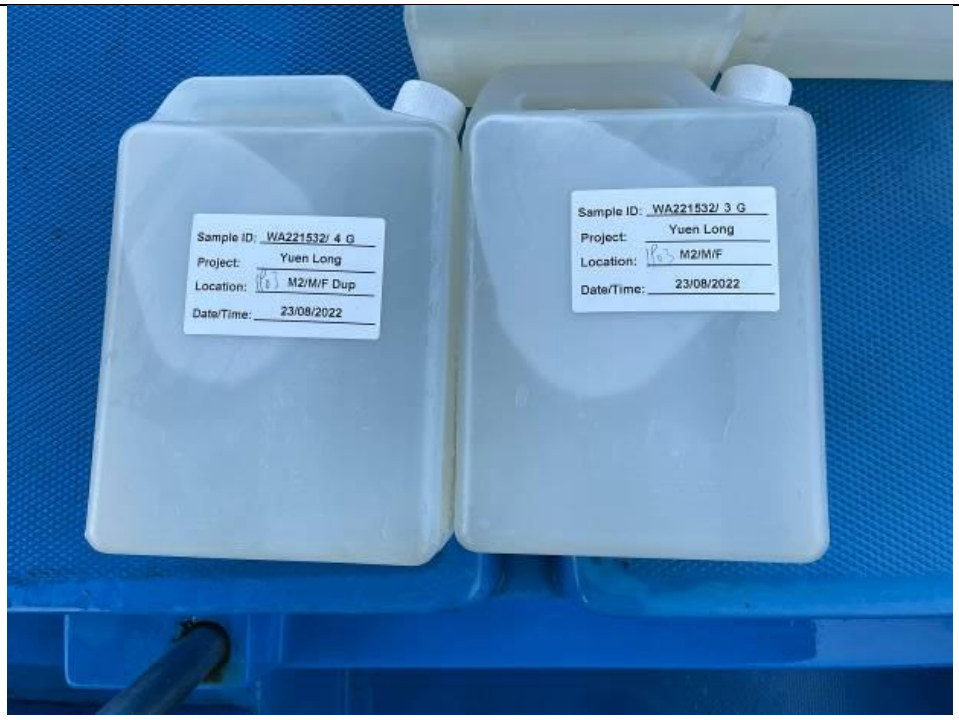
For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

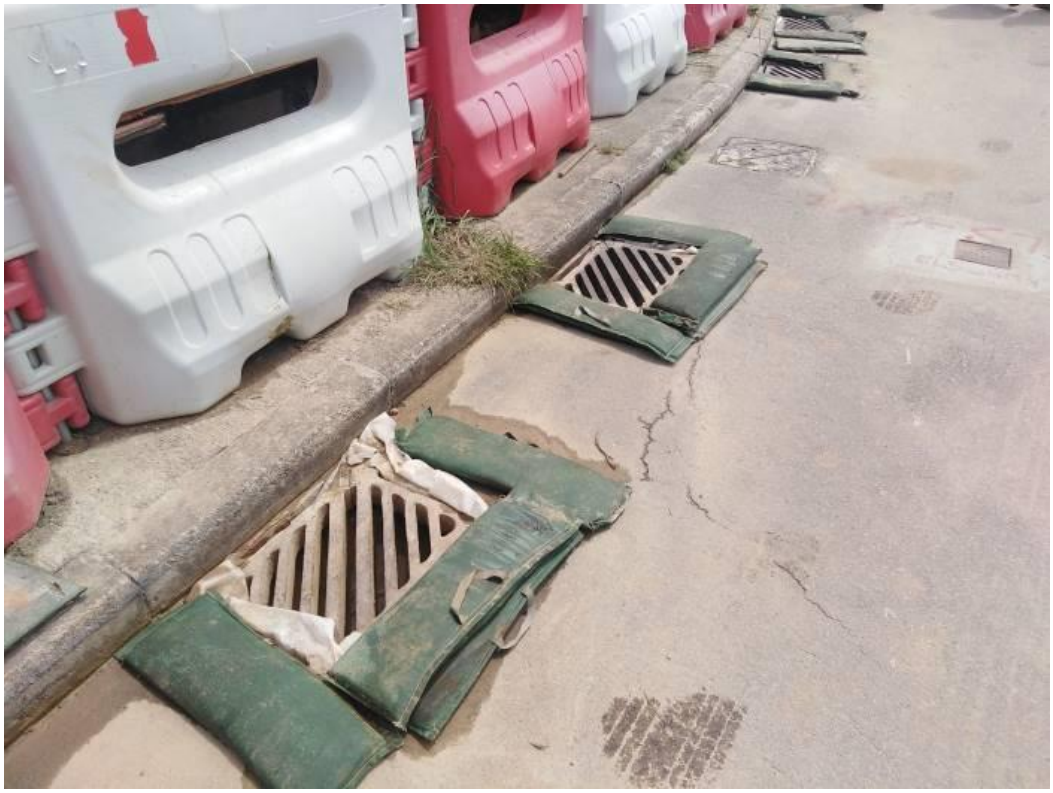
Annex C – Photo of investigation

Date of investigation: 23 August 2022 **(Flood Tide)**
Monitoring Station: M2





Annex D – Site Inspection



Date of site inspection: 24 August 2022
Gullies were bunded by sand bags to prevent surface runoff.