CONTRACT NO. SPW 12/2021

SHEK WU HUI EFFLUENT POLISHING PLANT – MAIN WORKS

UNDER FURTHER ENVIRONMENTAL PERMIT NO. FEP-02/474/2013

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

NOVEMBER 2022

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Contract No. SPW 12/2021

Shek Wu Hui Effluent Polishing Plant – Main Work

Monthly Environmental Monitoring & Audit Report

November 2022

(December 2022)

Verified by:	Claudine Lee
Position:	Independent Environmental Checker
Date:	14 December 2022

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EXECUTIVE SUMMARY

i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report – November 2022 of Shek Wu Hui Effluent Polishing Plant – Main Work under Further Environmental Permit no. FEP-02/474/2013 (Hereafter as "the Project"). This is the 15th EM&A report prepared by Environmental Team under Contract No. SPW 12/2021, presenting the environmental monitoring findings and information recorded during the period of 1 November 2022 to 30 November 2022. The cut-off date of reporting is at the end of each reporting month.

ii. In the reporting month, the principal work activities of individual contracts are conducted as follows:

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Sewage, utility and pipe works
- Backfilling
- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- Sheet piling
- Excavation
- RC works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS works (Sidestream Treatment Facilities)
- Penstock and Stoplog Installation at SAS PS
- Electrical Installation at Workshop No.2
- Lift and Plumbing Installation at Workshop No.2
- MFA, AFA and SPR System Installation at SDB
- T&C UV System and T&C for Electrical Installation at UV No.1
- Bio-Gas Holding tank Installation at Bio-Gas Tank

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Improvement Works for Temporary Primary Sludge Thickener and its accessories

Air Quality Monitoring

iii. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring was conducted at two monitoring station. 24-hour TSP shall be sampled at least once in every 6 days, while sampling for 1-hour TSP shall be at least 3 times in every 6 day in the reporting month.

iv. No action or limit level exceedance was recorded in this reporting period.

Noise Monitoring

v. Noise monitoring was conducted at three noise monitoring stations once per week in the reporting month.

vi. No action or limit level exceedance was recorded in this reporting period.

Ecological Monitoring

vii. Ecological monitoring conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station). The magnitude of how much above or below 1.5m was subject to tidal conditions of that week as it varied throughout different times of the year. Nonetheless, the high and low tide relative to that week's tidal condition were taken into consideration.

viii. No Action or Limit level was triggered in the reporting month.

Water Quality Monitoring

ix. The construction work related outfall was commenced on 23 November 2022. Water quality monitoring was conducted at two monitoring stations three days per week in the reporting month.

x. Eight limit level exceedances were recorded in the reporting month, in which four exceedance were related to the dissolved oxygen, two exceedances were related to the turbidity and two exceedances were related to the suspended solid. After investigations, all recorded exceedances were considered non-project related.

Site Inspections and Audit

xi. The Environmental Team (ET) conducted weekly site inspections on 1, 8 (DE/2018/03 and DE/2018/04), 11 (DC/2018/06 and DC/2018/07), 15, 21(DC/2018/06 and DC/2018/07), 22(DE/2018/03 and DE/2018/04) and 29 November 2022 and biweekly landscape inspection on 15 and 29 November 2022. IEC attended the joint site inspection on 29 November 2022. No non-compliance was found during the site inspection while reminders on environmental measures were recommended.

Complaints, Notifications of Summons and Successful Prosecutions

xii. No environmental complaint, notification of summons and successful prosecution regarding the construction works was recorded in the reporting period.

Reporting Changes

xiii. Water quality monitoring for outfall works of the Project was commenced on 23 November 2022. The related water quality monitoring result is reported since this reporting month.

Future Key Issues

xiv. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Backfilling
- Sewage, utility and pipe works
- ABWF works
- Construction of Outfall at Ng Tung River

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- Sheet piling
- RC works
- Excavation

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS works at Sidestream Treatment Facilities
- Installation of Earth Mat at Sidestream Treatment Facilities
- Lift, Plumbing, MVAC and Electrical Installation at Workshop No.2
- Monorail, Penstock and Stoplog Installation at SAS PS
- SPR, MFA and AFA Installation at SDB
- T&C for Electrical Installation at UV No.1
- Bio-Gas Holding tank Installation at Bio-Gas Tank
- Monorail Installation at CHP
- Steam Boiler Transportation at CHP

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Improvement Works for Temporary Primary Sludge Thickener and its accessories
- E&M Installation works at Portion B-7, including DOU No.3A, Emergency Generator House and FS & Sprinkler Pumping Room, Chemical System No.1, Street Fire Hydrant & Booster Pump Room and Temporary Chemical System
- E&M installation works at Portion B-2, Inert Works

1 Introduction

1.1 Scope of the Report

1.1.1. Lam Environmental Services Limited (LES) has been appointed to work as the Environmental Team (ET) under Environmental Permit (EP) No. FEP-02/474/2013 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for North East New Territories New Development Areas (Register No.: AEIAR-175/2013).

1.1.2. In accordance with Clause 3.4 stated in FEP-02/474/2013, 3 hard copies and 2 electronic copies of Monthly EM&A Report shall be submitted to the Director within 10 working days after the end of each reporting month throughout the entire construction period.

1.1.3. According to Section 9.4.1.1 of the Project EM&A Manual, the Monthly EM&A Report should be submitted within 10 working days at the end of each reporting month, with the first report due in the month after construction commences.

1.2 Structure of the Report

Section 1 ***Introduction*** – details the scope and structure of the report.

Section 2 ***Project Background*** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.

Section 3 ***Status of Regulatory Compliance*** – summarizes the status of valid Environmental Permits / Licenses during the reporting period.

Section 4 ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.

Section 5 ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.

Section 6 ***Compliance Audit*** – summarizes the auditing of monitoring results, all exceedances environmental parameters.

Section 7 **Environmental Site Audit** – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.

Section 8 ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution

Section 9 ***Conclusion***

2 Project Background

2.1 Background

2.1.1. The existing Shek Wu Hui Sewage Treatment Works (SWHSTW) has been operating and maintaining for 30 years by the Drainage Services Department (DSD). It provides secondary level treatment to sewage collected from Sheung Shui, Fanling and adjacent areas. SWHSTW was completed in two stages and expanded progressively in the past years. In 1984, Stage I of SWHSTW was commissioned with design capacity of 60,000 cubic meters per day (m^3 /day) at Average Dry Weather Flow (ADWF). In 2001, Stage II of SWHSTW was completed with design capacity enhanced to 80,000 m^3 /day at ADWF. In 2009, the expansion of SWHSTW was completed and its design capacity was increased to 93,000m^3 /day at ADWF.

2.1.2. Further expansion of SWHSTW has been planned to be carried out in order to cope with the forecast increase in flow from Fanling North and Kwu Tong North New Development Area (NDA) and other NDAs and developments in three phases, namely Phase 1A, 1B and 2, which are later revised to Main Works Stage 1, Stage 2 and Stage 3 respectively. The EIA study report (Register No.: AEIAR-175/2013) for the NENT NDAs Study covered the assessment for the Further Expansion of SWHSTW, which is a designated project under item F.1 and F.2 of Part 1, Schedule 2 of the EIA Ordinance. The location of the project site is shown in ***Figure 2.1.***

A Further EP was applied on 18 January 2018 to assume the responsibility for constructing and operating the SWHEPP Project up to a capacity of 190,000 m^3/day. The Further EP No. FEP-02/474/2013 was issued to DSD as permit holder on 15 February 2018. Due to overlapping of scope with the Further EP currently in force, the Further EP No. FEP-01/474/2013 was subsequently surrendered on 15 August 2018.

2.2 Project Organization and Contact Personnel

2.2.1 Drainage Service Department (DSD) is the overall project controllers for the Project. For the construction phase of the Project, Engineer's Representative, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.2.2 The project organization and lines of communication with respect to environmental protection works are shown in ***Figure 2.2.*** Key personnel and contact particulars are summarized in ***Table 2.1***.

Table 2.1 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.
Drainage Services Department (DSD)	Permit Holder	CPC	Mr. Hanes Hui	2594 7459
AECOM	Supervisor Representative	Resident Engineer	Mr. Alex Leung	3907 6145
Kwan Lee - Chun Wo Joint Venture	Contractor (DC/2018/06)	Environmental Engineer	Ms. Ruby Hui	6218 6408
		Assistant Environmental Engineer	Mr. Marco Chan	6235 6017
	Contractor (DC/2018/07)	Environmental Engineer	Ms. Tiffany Choi	9789 1027
JEC	Contractor (DE/2018/03)	Environmental Officer	Ms. Juliet Ting	6826 7319
Bestwise	Contractor (DE/2018/04)	Environmental Officer	Mr. Albus Cheung	9731 0831
Meinhardt Infrastructure and Environment Ltd.	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Ms. Claudine Lee	9612 9229
Lam Environmental Services Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939

2.3 Construction Activities

2.3.1 In the reporting month, the principal work activities conducted of individual contracts are as follow. The layout plans showing the locations of reported construction activities, key PME used for the works contracts and site record photos are shown in ***Appendix 2.1***.

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Sewage, utility and pipe works
- Backfilling
- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- Sheet piling
- RC works

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS works (Sidestream Treatment Facilities)
- Penstock and Stoplog Installation at SAS PS
- Electrical Installation at Workshop No.2
- Lift and Plumbing Installation at Workshop No.2
- MFA, AFA and SPR System Installation at SDB
- T&C UV System and T&C for Electrical Installation at UV No.1
- Bio-Gas Holding tank Installation at Bio-Gas Tank

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Treatment Facilities

- Improvement Works for Temporary Primary Sludge Thickener and its accessories

2.3.2 The number of key PME and their working locations are shown in ***Table 2.2***.

Table 2.2 Summary of key PME and working locations of works contracts

Works Contract	Key PME	Number	Working locations
DC/2018/06	Excavator	5	Section 4, SDB
	Tower Crane	2	Near Workshop No.2 and Gate 2
	Mobile generator	1	Near Workshop No.2
	Scissor lift platform	4	SDB and CHP
DC/2018/07	Excavator	22	BR2, Inlet, PST, Area C, Area D, MFB and SAS
	Generator	7	BR2, MFB, PST and Inlet
	Air compressor	1	Inlet
	Mobile Crane	4	PST, Inlet and BR2
	Road Work Machine	1	Inlet
DE/2018/03	*Generator*	*6*	*UV No.1, Sidestream and Workshop No.2*
	Tower Crane	*1*	*Sidestream*
DE/2018/04	-	-	-

2.3.3 In coming reporting month, the scheduled construction activities of individual contracts are listed as follows:

Contract No. DC/2018/06 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sludge Treatment Facilities and 132 kV Primary Substation

- RC works
- Sewage, utility and pipe works
- Backfilling
- ABWF works

Contract No. DC/2018/07 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Civil Works for Sewage Treatment Facilities

- ELS works
- Sheet piling
- RC works
- Excavation

Contract No. DE/2018/03 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – Sidestream Treatment Facilities and EM&M Works for Sludge Treatment Facilities

- ELS works at Sidestream Treatment Facilities
- Installation of Earth Mat at Sidestream Treatment Facilities
- Lift, Plumbing, MVAC and Electrical Installation at Workshop No.2
- Monorail, Penstock and Stoplog Installation at SAS PS
- SPR, MFA and AFA Installation at SDB
- T&C for Electrical Installation at UV No.1
- Bio-Gas Holding tank Installation at Bio-Gas Tank
- Monorail Installation at CHP
- Steam Boiler Transportation at CHP

Contract No. DE/2018/04 – Shek Wu Hui Effluent Polishing Plant – Main Works Stage 1 – E&M Works for Sewage Teatment Facilities

- Improvement Works for Temporary Primary Sludge Thickener and its accessories
- E&M Installation works at Portion B-7, including DOU No.3A, Emergency Generator House and FS & Sprinkler Pumping Room, Chemical System No.1, Street Fire Hydrant & Booster Pump Room and Temporary Chemical System
- E&M installation works at Portion B-2, Inert Works

3 Status of Regulatory Compliance

3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in ***Table 3.1 to 3.4***.

Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/06

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	449210 (Portion A & C)	23 Sep 2019	N/A	Valid
	449211 (WM1)	23 Sep 2019	N/A	Valid
Water Pollution Ordinance Licence	WT00035431-2019 (Portion C)	27 Jul 2020	31 Jan 2025	Valid
	WT00035718-2020 (Portion A)	02 Apr 2020	30 Apr 2025	Valid
Billing Account for Disposal of Construction Waste	7035390	11 Oct 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-K3371-01	14 Nov 2019	N/A	Valid
Construction Noise Permit	GW-RN0791-22	29 Aug 2022	28 Nov 2022	Superseded by GW-RN1155-22
	GW-RN1155-22	28 Nov 2022	28 Feb 2023	Valid

Table 3.2 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/07

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	449210	23 Sep 2019	N/A	Valid
Water Pollution Ordinance Licence	WT00035727-2020	1 Apr 2020	30 Apr 2025	Valid
Billing Account for Disposal of Construction Waste	7035985	9 Dec 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-K3371-02	6 Jan 2020	N/A	Valid

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Construction Noise Permit	GW-RN0791-22	29 Aug 2022	28 Nov 2022	Superseded by GW-RN1155-22
	GW-RN1155-22	28 Nov 2022	28 Feb 2023	Valid

Table 3.3 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/03

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	455843 (WA3)	6 May 2020	N/A	Valid
	457212 (WA1-B)	15 Jun 2020	N/A	Valid
	460065 (Sidestream)	16 Sep 2020	N/A	Valid
Water Pollution Ordinance Licence	WT00037220-2020	16 Mar 2021	31 Jan 2026	Valid
Billing Account for Disposal of Construction Waste	7035700	6 Nov 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-T3861-01	14 Apr 2020	N/A	Valid
Construction Noise Permit	GW-RN0794-22	31 Aug 2022	30 Nov 2022	Valid until 30 Nov 2022

Table 3.4 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/04

Permits and/or Licences	Permit. No. / Account No.	Valid From	Expiry Date	Status
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Notification pursuant to Air Pollution Control (Construction Dust) Regulation	460181	17 Sep 2020	N/A	Valid
Billing Account for Disposal of Construction Waste	703621912	2 Jan 2020	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-B2592-01	7 Jul 2020	N/A	Valid

3.1.2. Implementation status of the recommended mitigation measures during this report month is presented in ***Appendix 3.1***.

3.2 Summary of submission status under FEP-02/474/2013

3.2.1 A summary of the current status on submission under FEP-02/474/2013 is shown in ***Table 3.5***.

Table 3.5 Summary of submission status under FEP-02/474/2013

EP Condition	Submission	Status
Condition 1.12	Commencement date of construction of the Project	Notified EPD on 8 Oct 2019
Condition 2.3 & 3.1	Updated EM&A Manual	The Manual was confirmed of no further comments by EPD on 17 Jan 2020
Condition 2.4	Management Organization of Main Construction Companies for Contract No.DC/2018/06	Informed EPD on 19 Nov 2019
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DC/2018/07	Informed EPD on 20 Dec 2019
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DE/2018/03	Informed EPD on 19 Feb 2020
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DE/2018/04	Informed EPD on 15 Feb 2020
Condition 2.4	Replacement of Environmental Team Leader	Informed EPD on 13 Sep 2021
Condition 2.4	Replacement of Independent Environmental Checker	Informed EPD on 13 Sep 2021
Condition 2.5	Location Plans for Contract No. DC/2018/06	Deposited to EPD on 19 Nov 2019
Condition 2.5	Location Plans for Contract No. DC/2018/07	Deposited to EPD on 20 Dec 2019
Condition 2.5	Location Plans for Contract No. DE/2018/03	Deposited to EPD on 15 Feb 2020
Condition 2.5	Location Plans for Contract No. DE/2018/04	Deposited to EPD on 18 Sep 2020
Condition 2.6	Submission of Landscape Plan	Pending for revision
Condition 3.3	Baseline Monitoring Report (Ecology)	The Report was first submitted to IEC for review on 22 Nov 2019, and verified on 29 Nov 2019
Condition 3.3	Baseline Monitoring Report	The Report will be submitted to EPD at least 6 weeks before the commencement of Corresponding parts of landscape and visual mitigation measures of the Project

4 Monitoring Requirements

4.1 Noise Monitoring

NOISE MONITORING STATIONS

4.1.1. The noise monitoring stations for the Project are listed and shown in ***Table 4.1*** and ***Figure 4.1***. ***Appendix 4.1*** shows the established Action/Limit Levels for the monitoring works.

Table 4.1 Noise Monitoring Station

Monitoring Station ID	Location
NM1	Wai Loi Tsuen
NM2	Fu Tei Au
NM3	Man Kok Village

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

4.1.2. The monitoring parameters, frequency and duration of noise monitoring are summarized in ***Table 4.2***.

Table 4.2 Noise Monitoring Parameters, Frequency and Duration

Monitoring Period	Duration	Sampling Parameter	Sampling Period(1)	Frequency
Impact Monitoring	Throughout the construction phase	1 set of Leq (30 min)	between 0700-1900 hours on normal weekdays;	on a per week basis when noise generating activities are underway

Remark (1): Additional weekly impact monitoring shall be carried out during evening and night-time works if construction works are extended to include works during the hours of 1900-0700

MONITORING EQUIPMENT

4.1.3. Noise monitoring was performed using sound level meter at the designated monitoring locations. The sound level meters shall comply with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. Acoustic calibrator shall be deployed to check the sound level meters at a known sound pressure level. Brand and model of the equipment is given in ***Table 4.3***.

Table 4.3 Noise Monitoring Equipment

Equipment	Brand and Model	Series Number
Integrated Sound Level Meter	NTi XL2	A2A-15269-EO
Acoustic Calibrator	LD CAL200	13098

4.1.4. The calibration certificates of the noise monitoring equipment are attached in ***Appendix 4.2***.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.1.5. Monitoring Procedure

(a) Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s

(b) The monitoring station shall normally be at a point 1 m from the exterior of the sensitive receiver building facade and be at a position 1.2 m above the ground. If there is problem with access to the normal monitoring position, an alternative position may be chosen, and a correction to the measurements shall be made. For reference, a correction of +3 dB(A) shall be made to the free field measurements.

(c) The battery condition was checked to ensure the correct functioning of the meter.

(d) Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

- Frequency weighting: A
- Time weighting: Fast
- Time measurement: Leq (30min) for noise monitoring

(e) Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after recalibration or repair of the equipment.

(f) The wind speed was checked with the portable wind meter before noise monitoring.

(g) At the end of the monitoring period, the Leq, L90 and L10 were recorded. In addition, site conditions and noise sources were recorded on a record sheet.

4.1.6. Maintenance and Calibration

(a) The microphone head of the sound level and calibrator would be cleaned with soft cloth regularly.

(b) The noise monitoring equipment shall be calibrated annually.

CONSTRUCTION NOISE LEVEL

4.1.7. The construction noise level refers the corrected noise level based on the calculated difference between SPL of the Measured Noise Level and the SPL of the Baseline Noise Level. In the event of the Baseline Noise Level exceeds the Measured Noise Level, no correction would be applied and the Construction Noise Level would be indicated as below baseline noise level (<BL).

EVENT AND ACTION PLAN

4.1.8. Noise Standards for Daytime Construction Activities are specified under EIAO-TM. The Action and Limit levels for construction noise are defined in ***Table 4.4*** and ***Appendix 4.1.*** Should non-compliance of the criteria occurs, action in accordance with the Event and Action Plan in ***Appendix 6.1*** shall be carried out.

Table 4.4 Action and Limit Level for Noise Monitoring

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB

4.2 Air Monitoring

AIR QUALITY MONITORING STATIONS

4.2.1. The air monitoring stations for the Project are listed and shown in ***Table 4.5*** and ***Figure 4.2***.

Table 4.5 Air Monitoring Station

Monitoring Station ID	Location	Measurement
AM1	House No. 15, Wai Loi Tsuen	1-hour TSP
AM2	Fu Tei Au	1-hour TSP
AM1a* (1)	Site boundary of the Shek Wu Hui STW (East), Roof floor of the control room of SWHSTW	24-hour TSP
AM2a	Site boundary of the Shek Wu Hui STW (North)	24-hour TSP

Remarks

(1) Due to close proximity to construction works and heavy machines, presence of physical barrier and safety concerns, find adjustment for the location of AM1a was proposed in accordance to Section 2.2.4.6 of the EM&A Manual. It was adjusted from the ground level near the control room of SWHSTW to the roof floor of that control room. The proposal has sought approval from ER and IEC, and agreement from EPD in May 2022.

AIR MONITORING PARAMETERS, FREQUENCY AND DURATION

4.2.2. 24-hour TSP shall be sampled at least once in every 6 days, while sampling for 1-hour TSP shall be at least 3 times in every 6 days when the highest dust impact takes place.

4.2.3. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.2.4. 24-hour TSP Measuring Installation (HVS)

(a) 0.6 – 1.7 m^3 per minute adjustable flow range

(b) Equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;

(c) Installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;

(d) Capable of providing a minimum exposed area of 406 cm2;

(e) Flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;

(f) Equipped with a shelter to protect the filter and sampler;

(g) Incorporated with an electronic mass flow rate controller or other equivalent devices;

(h) Equipped with a flow recorder for continuous monitoring;

(i) Provided with a peaked roof inlet;

(j) Incorporated with a manometer;

(k) Able to hold and seal the filter paper to the sampler housing at horizontal position;

(l) Easily changeable filter; and

(m) Capable of operating continuously for a 24-hour period

Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. All the data should be converted into standard temperature and pressure condition.

24-hour Measuring Procedures

(a) Check the power supply to ensure the sampler works properly.

(b) Remove the filter hold down by loosening the four nuts and carefully centre a new filter, with stamped number upward, on a supporting screen.

(c) Properly align the filter on the screen so that the gasket will form an airtight seal on the outer edges of the filter.

(d) Fasten the filter hold down frame to the filter holder with swing bolts. The pressure applied should be sufficient to avoid air leakage at the edges.

(e) Close shelter lid and secure catch with the aluminum strip.

(f) Record the flow indicator reading and determine the sampler flow rate. If it is outside the acceptable range, adjust the sampler flow rate.

(g) Set the programmable timer and record the starting sampling time, weather condition and the filter identification number.

(h) At the end of sampling, the filter was transferred from the filter holder of the HVS to a filter bag and sent to the accredited laboratory for weighing. The elapsed time was also recorded.

4.2.5. 1-hour Measuring Procedures

Portable dust meter will be proposed and sufficient information will be submitted to IC (E) to prove that the instrument is capable of achieving a comparable result as that of the HVS and used for 1-hour sampling

(a) Slide the power switch to turn the power on

(b) Select the period of measurement to 60mins

(c) Check and set the correct time

(d) Select the appropriate unit display for the equipment

(e) Collected the sampled data for analysis

The portable dust meter is calibrated at 2-years interval and checked with HVS yearly to determine the accuracy and validity of the results measured. The checking of portable dust meter will be carried out in order to determine the conversion factor between the portable dust meter and the standard equipment, HVS.

The calibration check is to be considered valid if the calculated correlation coefficient is >0.90.

4.2.6. Maintenance and Calibration

(a) The direct reading dust meter was calibrated at 2-years interval and checked with High Volume Sampler (HVS) yearly to determine the accuracy and validity of the results measured.

(b) Checking of direct reading dust meter will be carried out in order to determine the conversion factor between the direct reading dust meter and the standard equipment, HVS. The comparison check is to be considered valid based on correlation coefficient checked by HOKLAS laboratory

4.2.7. Laboratory measurement / analysis

(a) A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.

(b) Filter paper of size 8” x 10” shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24 hours and be pre-weighed before use for the sampling.

(c) After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity-controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.

4.2.8. High Volume Sampler (HVS – Model TE-5025A) completed with the appropriate sampling inlets were installed for the 24-hour TSP sampling. 1-hour TSP air quality monitoring was performed by using portable direct reading dust meters at each designated monitoring station. The brand and model of the equipment are given in ***Table 4.6***.

Table 4.6 Air Quality Monitoring Equipment

Equipment	Brand and model	Series Number
Portable direct reading dust meter	Met One BT- 645 / Met One AEROCET831	R14332 W15448
High Volume Sampler	Tisch Total Suspended Particulate Mass Flow Controlled High Volume Air Sampler (Model no. G3101)	HVS001 (Serial number: 0401-1105) HVS003 (Serial number: 1096-2305)
Wind Anemometer	YGY-FSXY1	YG 21071630T0924

4.2.9. The calibration certificates of the air quality monitoring equipment are attached in ***Appendix 4.2***.

WIND DATA

4.2.10. Hong Wind data monitoring equipment was set up at roof floor (about 4/F) of the SWHSTW control room for logging wind speed and wind direction such that the wind sensors were clear of obstructions or turbulence caused by building. The wind data monitoring equipment was re-calibrated at least once every six months and the wind directions were divided into 16 sections of 22.5 degrees each. The wind data obtained from the on-site wind station during the reporting period is provided in ***Appendix 4.3.***

EVENT AND ACTION PLAN

4.2.11. The Action and Limit Levels for construction air quality are defined in ***Table 4.7*** and ***Appendix 4.1***. Should non-compliance of the air quality criteria occur, action in accordance with the Event and Action Plan in **Appendix 6.1** shall be carried out.

Table 4.7 Action and Limit Level for Air Quality Monitoring

Parameter	**Monitoring Station**	**Action Level** (μgm^{-3})	**Limit Level** (μgm^{-3})
24-hour TSP Level	Site boundary of the Shek Wu Hui STW (East)	189	260.0
	Site boundary of the Shek Wu Hui STW (North)	187	
1-hour TSP Level	House No. 15, Wai Loi Tsuen	320	500.0

	Fu Tei Au	322	

4.3 Ecological Monitoring

4.3.1. According to the Updated EM&A Manual, weekly transect at both high and low tides shall be undertaken to identify and enumerate all bird species utilising the river channels and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period. ***Appendix 4.1*** shows the established Action/Limit Levels for ecological monitoring works.

4.3.2. The monitoring should be conducted by the ET and supervised by a qualified ecologist who will be a member of the ET.

MONITORING LOCATIONS

4.3.3. Transect and point count surveys were proposed within the 500m boundary of Ng Tung River, Sheung Yue River and Shek Sheung River of the assessment area. Three transects and seven-point count locations during high and low tides were applied. These locations are shown in ***Figure 4.3*** and summarized in ***Table 4.8*** The photo of each transect is provided in ***Appendix 5.6***.

Table 4.8 Ecological Monitoring Stations

Monitoring Stations	Descriptions	Influenced by Tidal Action
Transect T1	Along Ng Tung River	No
Point Count Location P1		
Point Count Location P2		
Transect T2		Yes
Point Count Location P3		
Point Count Location P4		
Point Count Location P5	At Shek Sheung River (Low-flow Channel)	No
Transect T3	Along Shek Sheung River & Sheung Yue River	Yes

Point Count Location P6	At Shek Sheung River	Yes
Point Count Location P7	At Intersection between Sheung Yue River and Shek Sheung River	Yes

MONITORING PARAMETERS, FREQUENCY AND DURATION

4.3.4. Monitoring surveys were conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station). The magnitude of how much above or below 1.5m was subject to tidal conditions of that week as it varied throughout different times of the year. Nonetheless, the high and low tide relative to that week's tidal condition were taken into consideration. The ecological monitoring schedule is shown in ***Appendix 5.1***.

MONITORING METHODOLOGY

4.3.5. Transect survey was undertaken along the concerned rivers (Ng Tung River, Sheung Yue River and Shek Sheung River) adjacent to proposed construction activities. As the sensitive receivers (large waterbirds) are easily visible and the surveyor has used auxiliary equipment such as camera(s) and binoculars (magnification 7-10x). The transect route only follows one bank of these rivers.

4.3.6. At point count locations, surveyors identified and recorded bird species which were seen or heard along the river channel. For each point count, surveyors quantitatively recorded all species seen and heard for the duration of five minutes up to the distance where birds were still detectable. All avifauna along the walk transect were recorded. Noticeable behaviours (e.g. breeding behaviours such as nesting and presence of recently fledged juveniles, roosting and feeding activities, etc.) were recorded as well.

4.3.7. Ornithological nomenclature used in report should follow *The Avifauna of Hong Kong* (*Carey et al. (2001)*, *The Birds of Hong Kong and South China (Viney et al. (2005))* and the most recent updated list from other sources (e.g. Hong Kong Bird Watching Society).

4.3.8. Weather conditions, tidal information at the time of the survey and other noticeable activities occurring within or in the vicinity of the survey areas (e.g. ongoing routine drainage channel maintenance works and other human activities that could create disturbances to birds) were recorded

ANALYTICAL METHODOLOGY

4.3.9. The number and species of waterbirds utilizing the rivers fluctuate every day naturally. Therefore, the survey data were collectively analyzed on a monthly basis to increase the sample size and to reduce random error on one survey day. Since occurrence of waterbirds has distinctive seasonal pattern, the construction phase data for all waterbirds and representative waterbirds were compared with the baseline data for the respective month and season. The representatives of waterbirds are listed in ***Table 4.9***.

Table 4.9 Representative Waterbirds

Species Name	Common Name	Chinese Name
Egretta garzetta	Little Egret	小白鷺
Ardea cinerea	Grey Heron	蒼鷺
Ardeola bacchus	Chinese Pond Heron	池鷺
Phalacrocorax carbo	Great Cormorant	普通鸕鷀
Ardea alba	Great Egret	大白鷺
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺

4.3.10. When a decline in abundance of all or representative waterbird is identified, one-tailed Student t-test was adopted to statistically analyse whether the drop is significant. If the collected data for the reporting month fails to show no significant difference from that in the baseline phase at 95% confidence level, the action level will be triggered. Likewise, the limit level is set at 99% confidence level.

4.3.11. In addition, if important behaviours such as breeding, brooding, nesting and presence of recently fledged juveniles of species of conservation importance are observed, the Resident Engineer, Contractor and IEC should be notified immediately after the survey. The Contractor should review current construction programme and minimize disturbance due to construction activities

4.4 Water Quality Monitoring

WATER QUALITY MONITORING STATIONS

4.4.1. Water quality monitoring was undertaken at 2 monitoring stations in the reporting month. The proposed water quality monitoring stations of the Project are shown in ***Table 4.10*** and ***Figure 4.4***.

Table 4.10 Marine Water Quality Stations for Water Quality Monitoring

Stations	Description
M1	Impact Station, downstream of the proposed outfall
C1	Control Station, upstream of the proposed outfall

WATER QUALITY PARAMETERS, FREQUENCY AND DURATION

4.4.2. The levels of dissolved oxygen (DO), salinity, temperature, turbidity and pH shall be measured in situ while suspended solids (SS) is determined by laboratory analysis at all the designated monitoring stations.

4.4.3. In association with the water quality parameters, other relevant data shall also be recorded, such as monitoring location / position, time, DO saturation, weather conditions, and any special phenomena underway near the monitoring station.

4.4.4. During the course of the construction works at the outfall at Ng Tung River, impact monitoring shall be undertaken three days per week, with sampling/measurement at the monitoring stations. The ET should carry out spot check to ensure that the Contractor has undertaken all recommended control measures to prevent direct contact of pollutants with rainwater or runoff, and measures to abate contaminants in the stormwater runoff.

4.4.5. The interval between two sets of monitoring should not be less than 36 hours except where there are exceedances of Action and/or Limit Levels, in which case the monitoring frequency will be increased.

4.4.6. Replicate in-situ measurements should be carried out in each sampling event.

SAMPLING PROCEDURES AND MONITORING EQUIPMENT

Dissolved Oxygen and Temperature Measuring Equipment

4.4.7. The instrument should be a portable, weatherproof dissolved oxygen measuring instrument complete with cable, sensor, comprehensive operation manuals, and use a DC power source. It should be capable of measuring:

- a dissolved oxygen level in the range of 0-20 mg/l and 0-200% saturation

- a temperature of 0-45 degree Celsius

4.4.8. It should have a membrane electrode with automatic temperature compensation complete with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary. (e.g. YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).

4.4.9. Should salinity compensation not be build-in in the DO equipment, in-situ salinity shall be measured to calibrate the DO equipment prior to each DO measurement.

Turbidity Measurement Instrument

4.4.10. The instrument should be a portable, weatherproof turbidity-measuring instrument complete with comprehensive operation manual. The equipment should use a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and be complete with a cable (e.g. Hach model 2100P or an approved similar instrument).

Sampler

4.4.11. Due to low water level as mentioned in Section 6.4.3 of the EIA report, bucket sampler (Approximate 1L) will be use instead of water sampler in order to obtain surface water sample without disturb the stream sediment and collect representative results.

Salinity

4.4.12. A portable salinometer capable of measuring salinity in the range of 0-70 ppt shall be provided for measuring salinity of the water at each of monitoring location.

MONITORING METHODOLOGY

4.4.13. Monitoring Procedure

(a) The condition near the monitoring stations shall be observed and recorded on the data log sheet.
(b) Check of sensors and electrodes with certified standard solutions before each use.
(c) Wet bulb calibration for a DO meter should be carried out before measurement.
(d) Sample would be taken using bucket sampler at surface level.
(e) Transfer the sampled water carefully into cleaned water bottles (2x 1000ml) provided by the laboratory at the spot after the collection of the water sample for the subsequent laboratory Suspended Solid testing.
(f) Transfer the sampled water from the bucket sampler to the rinsed water container for in-situ measurement (In case of the in-situ measurement cannot be carried at spot due to safety and adverse weather condition, sampled water from the bucket sampler will be transfer to cleaned water bottles provided by laboratory. Then, In-situ measurement will be conducted at a safe location which sampled water inside cleaned water bottle will be transfer to the rinsed water container for in-situ

measurement) In-situ measurement shall be measured in duplicate.

(g) Parameters including Water Temperature (°C), pH (units), Salinity (ppt), DO (mg/L), DO saturation (%) will be measured by the Multifunctional Meter and Turbidity (NTU) will be measured by turbid meter. (Water Temperature and Salinity will be measured as reference parameters)

(h) Record the result on the data log sheet and record any special finding during / after in-situ measurement.

(i) The water sample bottles will be stored in a cool box (at cooled to 4℃without being frozen), which shall be delivered to HOKLAS laboratory (ALS Technichem (HK) Pty Ltd) for further testing to determine the level of SS.

4.4.14. Maintenance and Calibration

(a) The responses of sensors and electrodes of the water quality monitoring equipment were cleaned and checked at regular intervals.

(b) DO meter (Multifunctional Meter) and turbid meter was certified by a laboratory accredited under HOKLAS or any other international accreditation scheme, and subsequently re-calibrated at three monthly intervals.

4.4.15. Brand and model of the equipment are given in **Table 4.8**.

Table 4.8 Water Quality Monitoring Equipment

Equipment	Brand and model	Series Number
Multifunctional Meter	YSI Professional Plus	19H100656
Turbid meter	Xin Rui WGZ-3B	2202001

4.4.16. The calibration certificates of the water quality monitoring equipment are attached in **Appendix 4.2**.

LABORATORY MEASUREMENT / ANALYSIS

4.4.17. Analysis of suspended solids has been carried out in a HOKLAS accredited laboratory, which is ALS Technichem (HK) Pty Ltd.

EVENT AND ACTION PLAN

4.4.18. The Action and Limit levels for water quality are defined in **Table 4.9**. Should the monitoring results of the water quality parameters at impact station exceed the water quality criteria, action in accordance with the Event and Action Plan in **Appendix 6.1** shall be carried out.

Table 4.9 Action and Limit Level for Water Quality Monitoring

Parameter (Unit)	Depth	Action Level	Limit Level
DO (mg/L)	Middle	**≤ 7.8 mg/L**	**≤ 7.7 mg/L**
Turbidity (NTU)	Depth-average	**≥ 14.6 NTU** or 120% of upstream control station's Turbidity at the same tide of the same day	**≥ 15.6 NTU** or 130% of upstream control station's Turbidity at the same tide of the same day
SS (mg/L)	Depth-average	**≥ 18.8 mg/L** or 120% of upstream control station's SS at the same tide of the same day	**≥ 19.5 mg/L** or 130% of upstream control station's SS at the same tide of the same day

5 Monitoring Results

5.0.1 The environmental monitoring will be implemented based on the division of works areas of each designed projects. Overall layout showing work areas and monitoring stations is shown in ***Figure 2.1*** and ***Figure 4.1 – 4.4*** respectively**.**

5.0.2 The environmental monitoring schedules for reporting month and coming month are presented in ***Appendix 5.1*****.**

5.1 Noise Monitoring Results

5.1.1 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation are shown in ***Appendix 5.2***.

5.1.2 No action or limit level exceedance was recorded in this reporting month.

5.2 Air Quality Monitoring Results

5.2.1 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in ***Appendix 5.3***.

5.2.2 No action or limit level exceedance was recorded in this reporting month.

5.3 Ecology Monitoring Results

5.3.1 Details of ecological Monitoring results in the reporting month are provided in ***Appendix 5.4*** and ***Appendix 5.5***.

5.3.2 No Action Level or Limit Level was triggered for ecological monitoring in the reporting month.

5.3.3 Site observation in the reporting month shows that construction activities are similar to previous months. The photos are provided in ***Appendix 5.6.***

5.3.4 In recent months, it is found that there are different construction sites and human activities such as fishing and landscape planting around the project site. The photos are provided in ***Appendix 5.6***. These construction and human activities may affect activities of the waterbird. Although, there is no significant impact reduction in number of waterbird, but it is recommended that construction site should continue keeping the good site practice to minimize disturbance caused to waterbirds.

5.3.5 The monitoring work will continue next month to evaluate any construction impact on waterbirds.

5.4 Water Quality Monitoring Results

5.4.1 Water quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in ***Appendix 5.7***. The laboratory analysis results can be referred in ***Appendix 5.8***.

6.1.1 Eight limit level exceedances were recorded in the reporting month, in which four exceedance were related to the dissolved oxygen, two exceedances were related to the turbidity and two exceedances were related to the suspended solid. After investigations, all recorded exceedances were considered non-project related.

5.5 Waste Management

5.4.1 The quantities of waste for disposal in the Reporting Period are summarized in ***Table 5.1*** to ***5.4***. The Monthly Summary Waste Flow Table is shown in ***Appendix 5.9***. Whenever possible, materials were reused on-site as far as practicable.

Table 5.1 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DC/2018/06

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
Hard Rock and Large Broken Concrete (Inert) (in '000m^3)	0.000	0.000	0.000
Reused in this Contract (Inert) (in '000m^3)	0.000	0.000	0.000
Reused in other Projects (Inert) (in '000m^3)	0.000	0.000	0.000
Disposal as Public Fill (Inert) (in '000m^3)	0.789	2.558	11.855
Metals (in '000kg)	0.003	0.000	2.379
Paper / Cardboard Packing (in '000kg)	0.000	0.000	0.010
Plastics (in '000kg)	0.008	0.000	0.023
Chemical Wastes (in '000kg)	0.000	0.000	0.000

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
General Refuses (in '000m^3)	0.133	0.152	1.417

Table 5.2 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DC/2018/07

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
Hard Rock and Large Broken Concrete (Inert) (in '000m^3)	0.000	0.000	0.000
Reused in this Contract (Inert) (in '000m^3)	0.000	0.000	0.000
Reused in other Projects (Inert) (in '000m^3)	1.937	0.000	3.608
Disposal as Public Fill (Inert) (in '000m^3)	7.842	12.967	46.302
Metals (in '000kg)	0.000	0.000	23.300
Paper / Cardboard Packing (in '000kg)	0.000	0.000	0.010
Plastics (in '000kg)	0.006	0.000	0.026
Chemical Wastes (in '000kg)	0.000	0.000	0.000
General Refuses (in '000m^3)	0.029	0.027	0.248

Table 5.3 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DE/2018/03

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
Hard Rock and Large Broken Concrete (Inert) (in '000kg)	0.000	0.000	0.000
Reused in this Contract (Inert) (in '000kg)	0.000	0.000	0.000
Reused in other Projects (Inert) (in '000kg)	0.000	0.000	0.000
Disposal as Public Fill (Inert) (in '000kg)	57.600	0.000	15479.440
Metals (in '000kg)	0.000	0.000	0.000
Paper / Cardboard Packing (in '000kg)	0.000	0.131	1.324
Plastics (in '000kg)	0.000	0.005	0.040
Chemical Wastes (in '000kg)	0.000	0.000	0.000
General Refuses (in '000kg)	0.000	2.240	16.150

Table 5.4 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DE/2018/04

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2022)
Hard Rock and Large Broken Concrete (Inert) (in '000kg)	0.000	0.000	0.000
Reused in this Contract (Inert) (in '000kg)	0.000	0.000	0.000
Reused in other Projects (Inert) (in '000m^3)	0.000	0.000	0.000
Disposal as Public Fill (Inert) (in '000m^3)	0.000	0.000	0.000
Metals (in '000kg)	0.000	0.000	0.000
Paper / Cardboard Packing (in '000kg)	0.000	0.000	0.000
Plastics (in '000kg)	0.000	0.000	0.000
Chemical Wastes (in '000kg)	0.000	0.000	0.000
General Refuses (in '000kg)	6.840	0.000	6.840

6 Compliance Audit

6.0.1 The Event Action Plan for construction noise, air quality and ecological monitoring are presented in ***Appendix 6.1.***

6.0.2 The summary of exceedance is presented in ***Appendix 6.2.***

6.2 Noise Monitoring

6.2.1 No action or limit level exceedance was recorded in this reporting period.

6.3 Air Quality Monitoring

6.3.1 No action or limit level exceedance was recorded in this reporting period.

6.4 Water Quality Monitoring

6.4.1 Eight limit level exceedances were recorded in the reporting month, in which four exceedance were related to the dissolved oxygen, two exceedances were related to the turbidity and two exceedances were related to the suspended solid. After investigations, all recorded exceedances were considered non-project related.

6.5 Ecological Monitoring

6.5.1 No Action Level or Limit Level was triggered for ecological monitoring in the reporting month.

6.6 Review of the Reasons for and the Implications of Non-compliance

6.6.1 No environmental non-compliance was recorded in the reporting month.

6.7 Summary of action taken in the event of and follow-up on non-compliance

6.7.1 There was no particular action taken since no non-compliance was recorded in the reporting period.

7 Environmental Site Audit

7.1.1. Within this reporting month, weekly environmental site audits were conducted on 1, 8 (DE/2018/03 and DE/2018/04), 11 (DC/2018/06 and DC/2018/07), 15, 21(DC/2018/06 and DC/2018/07), 22(DE/2018/03 and DE/2018/04) and 29 November 2022 and biweekly landscape inspection on 15 and 29 November 2022. IEC attended the joint site inspection on 29 November 2022.

7.1.2. No non-compliance was found during the environmental site inspection while reminders on environmental measures were recommended. Results and findings of these inspections in this reporting month are listed below in ***Table 7.1 to 7.4***.

Table 7.1 Summary of Environmental Inspections of Contract No. DC/2018/06

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20221121_1	21-Nov-2022	The Contractor was reminded to provide a drip tray to chemical containers placed at SD.	The improperly stored chemical containers were removed.	Rectified on 29-Nov-2022.
20221129_1	29-Nov-2022	Chemical waste containers placed without drip tray was observed at CHP. The Contractor was advised to provide a drip tray to the chemical containers stored onsite.	The improperly stored chemical containers were removed.	Rectified on 9-Dec-2022.
20221129_2	29-Nov-2022	-The Contractor was reminded to provide a cover to the cement bag stored at roof of SDB.	The imperious sheeting was provided to the cement bag.	Rectified on 9-Dec-2022.

Table 7.2 Summary of Environmental Inspections of Contract No. DC/2018/07

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20221101_2	1-Nov-2022	The Contractor was reminded to provide a drip tray to the chemical containers placed onsite.	The improperly placed chemical containers were removed.	Rectified on 4-Nov-2022.
20221121_2	21-Nov-2022	-Oil stain was observed at the earth near inert. The Contractor was advised to remove the oil stain and treat it properly.	The oil stain was removed and treated properly.	Rectified on 29-Nov-2022.

20221129_3	29-Nov-2022	Breaking work conducted without dust control measure was observed at BR. The Contractor was advised to provide watering to the dusty work conducted onsite.	Watering was provided to breaking works.	Rectified on 9-Dec-2022.

Table 7.3 Summary of Environmental Inspections of Contract No. DE/2018/03

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
20221101_3	1-Nov-2022	The Contractor was reminded to display the discharge license on proper area.	The discharge license was displayed on the wastewater treatment facility.	Rectified on 18-Nov-2022.
20221108_1	8-Nov-2022	The Contractor was reminded to maintain the performance of the Wetsep.	The efficiency of Wetsep was improved.	Rectified on 18-Nov-2022.

Table 7.4 Summary of Environmental Inspections of Contract No. DE/2018/04

Item	Date	Reminder(s)/ Observation(s)	Action taken by Contractor	Outcome
-	-	-	-	-

8 Complaints, Notification of Summons and Prosecution

8.1.1. No environmental complaint, notification of summons and successful prosecution regarding construction works was recorded in the reporting period.

8.1.2. The details environmental complaints for the Project are summarized by complaint log in ***Appendix 8.1.***

8.1.3. Cumulative statistics on complaints and successful prosecutions are summarized in ***Table 8.1*** and ***Table 8.2*** respectively.

Table 8.1 Cumulative Statistics on Complaints in the Reporting Month

Reporting Period	No. of Complaints
Commencement works (Feb 2018) to last reporting month	4
November 2022	0
Total	**4**

Table 8.2 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative no. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Total	**-**	**0**	**0**

9 Conclusion

9.1.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

9.1.2. Mitigation measures according to the environmental mitigation implementation schedule and the EIA were generally implemented by the Contractor. Hence, the EM&A programme was considered effective and shall be maintained.

9.1.3. The scheduled construction activities and the recommended mitigation measures for the coming 3 months are listed in ***Table 9.1***. The construction programmes of individual activities are provided in ***Appendix 9.1.***

Table 9.1 Construction Activities and Recommended Mitigation Measures in Coming Reporting Month

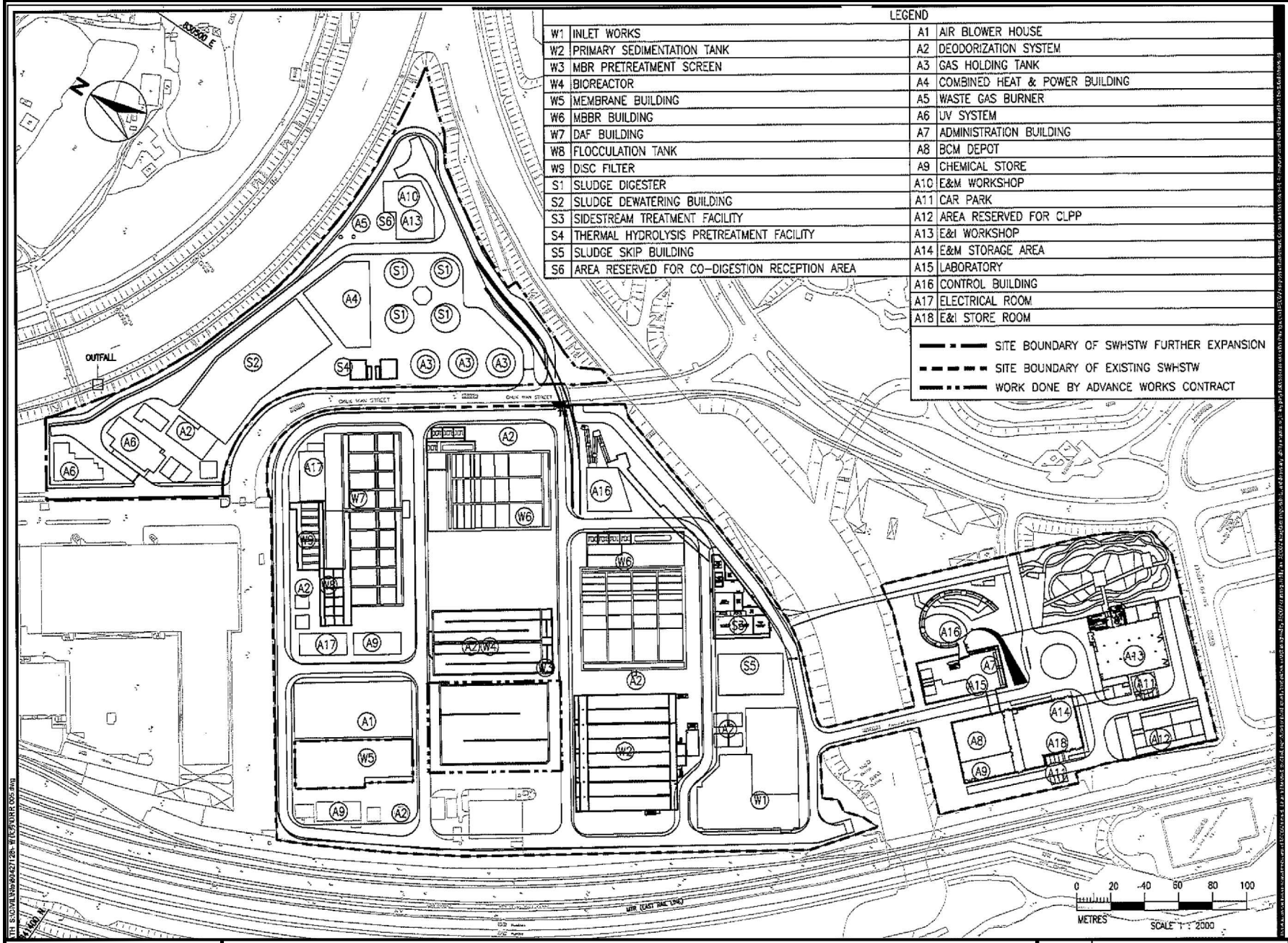
Contract No.	Key Construction Works	Recommended Mitigation Measures
DC/2018/06	• RC works • Sewage, utility and pipe works • Backfilling • ABWF works • Construction of Outfall at Ng Tung River	• Implement proper dust mitigation measures on dusty surface and stockpiles • Implement proper measures to prevent excavated material, silt or debris being deposited or washed into existing drainage systems and waterbodies • Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers • Proper maintenance of the on-site drainage system • Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system • Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal • Ensure all on-site regulated machines have displayed valid NRMM labels and the application of ULSD as fuel for diesel-powered machinery. • Implement proper water mitigation measures on Outfall works for preventing water pollution.

Contract No.	Key Construction Works	Recommended Mitigation Measures
DC/2018/07	• ELS works • Sheet piling • RC works • Excavation	• Implement proper dust mitigation measures on dusty surface and stockpiles • Implement proper measures to prevent excavated material, silt or debris being deposited or washed into existing drainage systems and waterbodies • Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers, especially screening noise during piling related activities • Proper maintenance of the on-site drainage system • Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system • Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal. • Ensure all on-site regulated machines have displayed valid NRMM labels and the application of ULSD as fuel for diesel-powered machinery.
DE/2018/03	• ELS works • Installation of Earth Mat • Lift, Plumbing, MVAC Installation • Penstock and Stoplog Installation • SPR, MFA and AFA Installation • Electrical Installation • Bio-Gas Holding tank Installation • Monorail Installation • Steam Boiler Transportation	• Implement proper dust mitigation measures on dusty surface and stockpiles • Implement proper noise mitigation measures to prevent potential noise nuisances to nearby sensitive receivers • Implement proper waste mitigation measures to prevent accidental leakage of chemical • Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Proper maintenance of the on-site drainage system • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal

Contract No.	Key Construction Works	Recommended Mitigation Measures
		• Ensure all on-site regulated machines have displayed valid NRMM labels and the application of ULSD as fuel for diesel-powered machinery.
DE/2018/04	• Improvement Works for Temporary Primary Sludge Thickener and its accessories • E&M Installation works at Portion B-7, including DOU No.3A, Emergency Generator House and FS & Sprinkler Pumping Room, Chemical System No.1, Street Fire Hydrant & Booster Pump Room and Temporary Chemical System • E&M installation works at Portion B-2, Inert Works	• Good site practices should be adopted to check for any accumulation of waste materials on site and dispose waste materials at designated areas. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal.

Figure 2.1

Project Layout



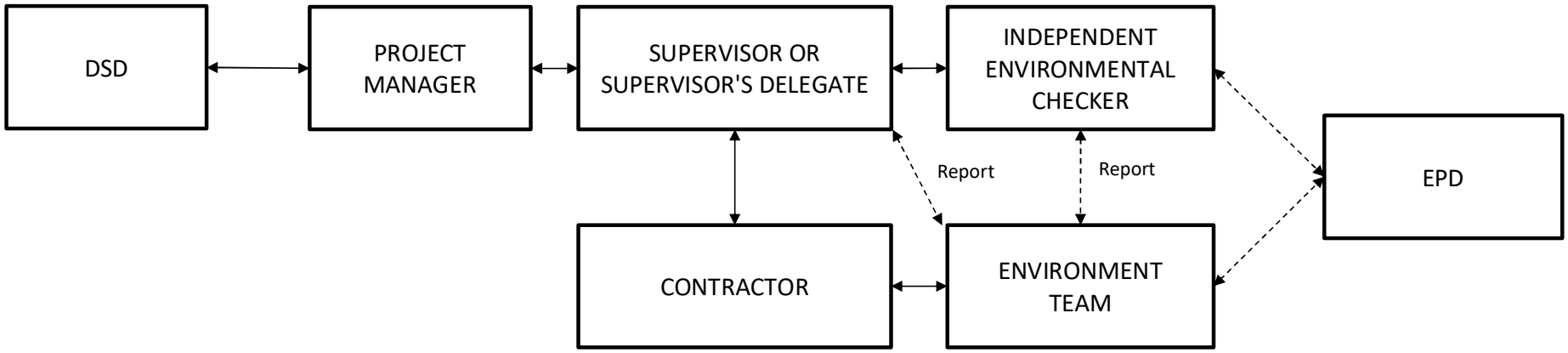
Shek Wu Hui E□luent Polishing Plant

General Site Layout O□SWHEPP

SCALE	As Shown	DATE	SEP 2019
CHECK	JM	DRAWN	SY
JOB No.		FIGURE NO. 1.1	RE□ -

Figure 2.2

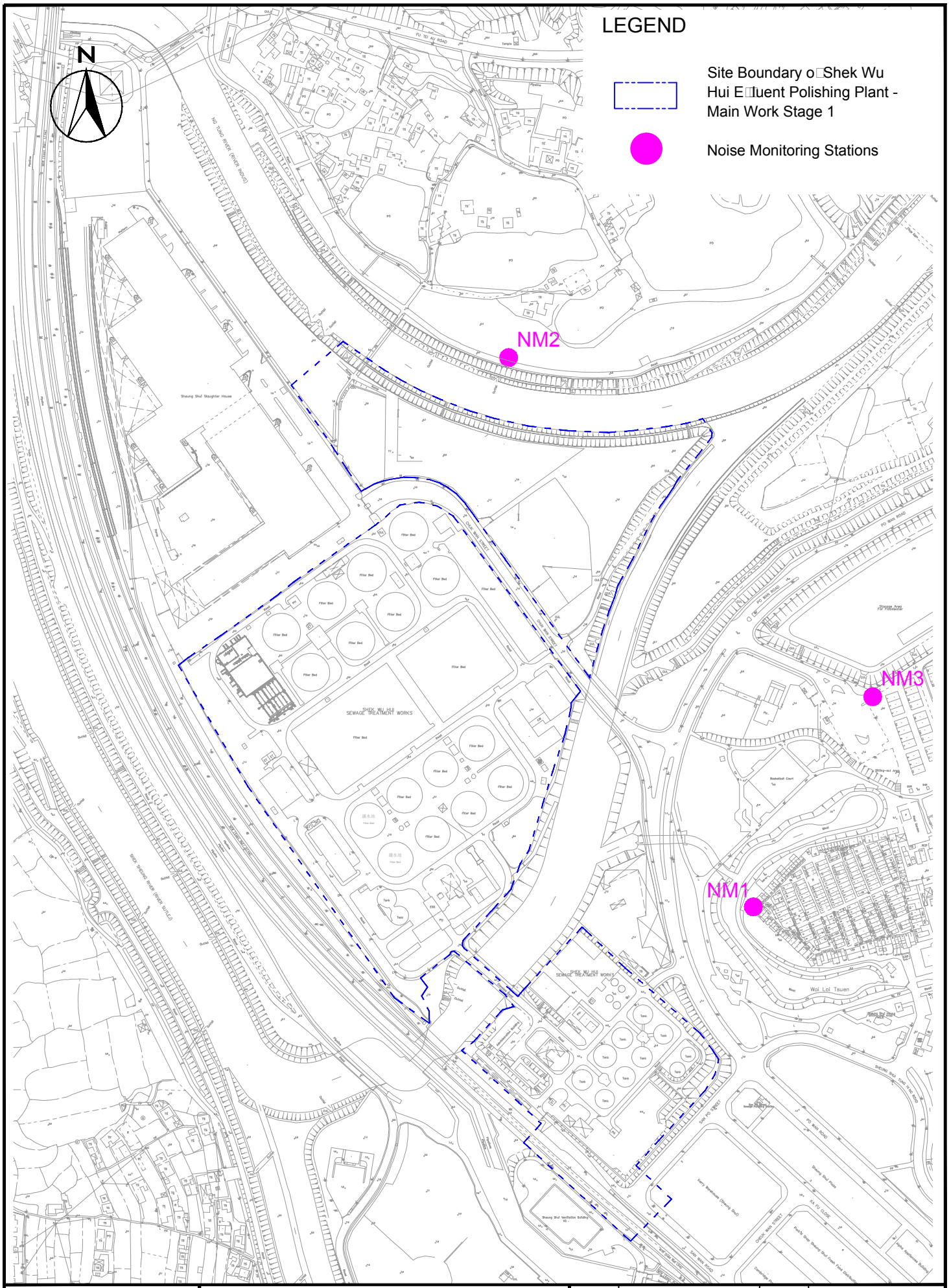
Project Organization Chart



	Shek Wu Hui Effluent Polishing Plant -	**SCALE**	N.T.S.	**DATE**	Sep 2019
		CHECK	JW	**DRAWN**	SY
	Project Organisation For Environmental Monitoring and Audit	**JOB NO.**		**FIGURE NO.**	1.2

Figure 4.1

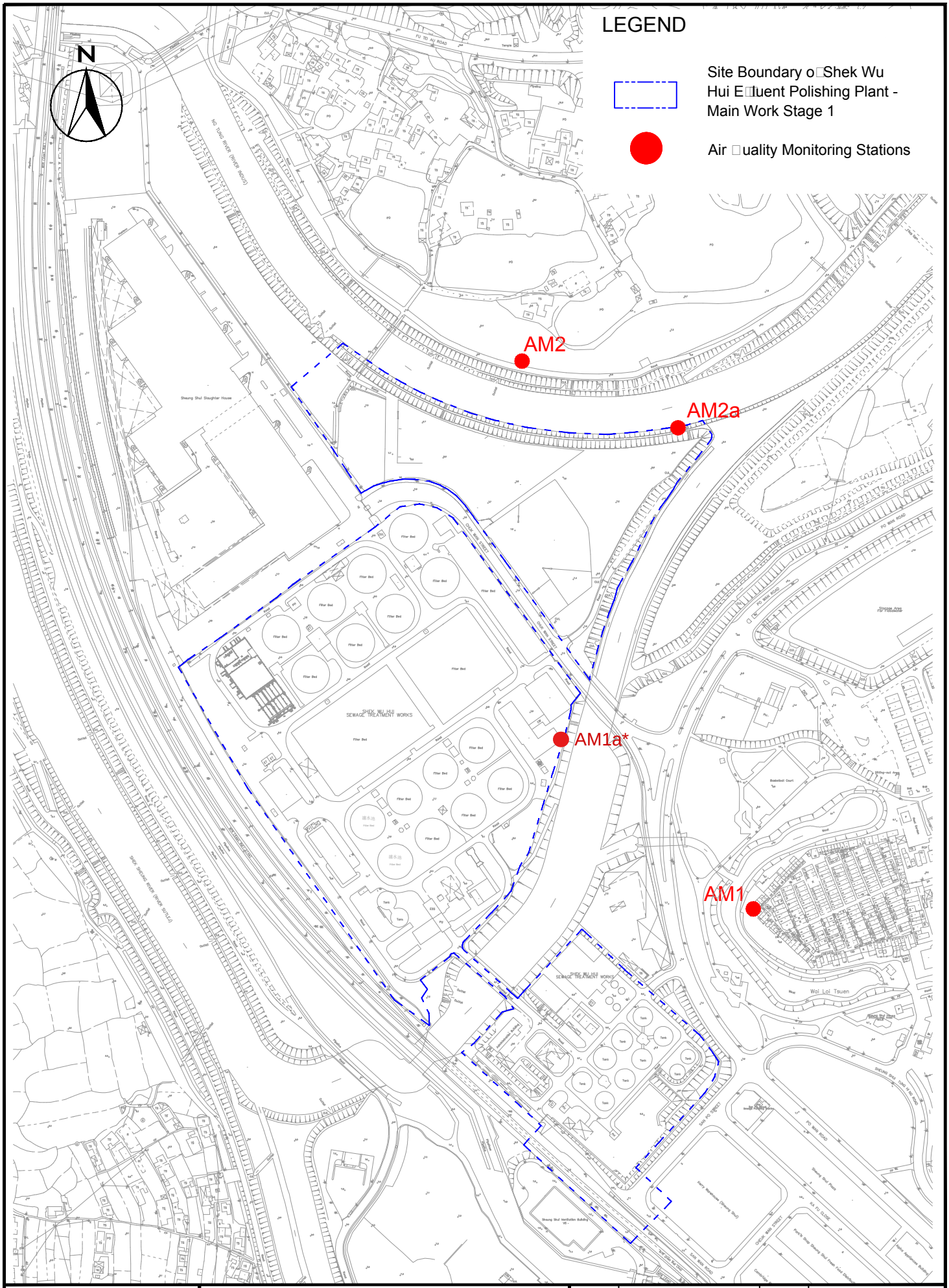
Locations of Noise Monitoring Stations



	Shek Wu Hui Effluent Polishing Plant	SCALE	1:4000 @ A4	DATE SEP 2019
		CHECK	JM	DRAWN SY
	Location of Noise Monitoring Stations	JOB No.	MA19019	FIGURE NO. 3 / REV --

Figure 4.2

Locations of Air Quality Monitoring Stations

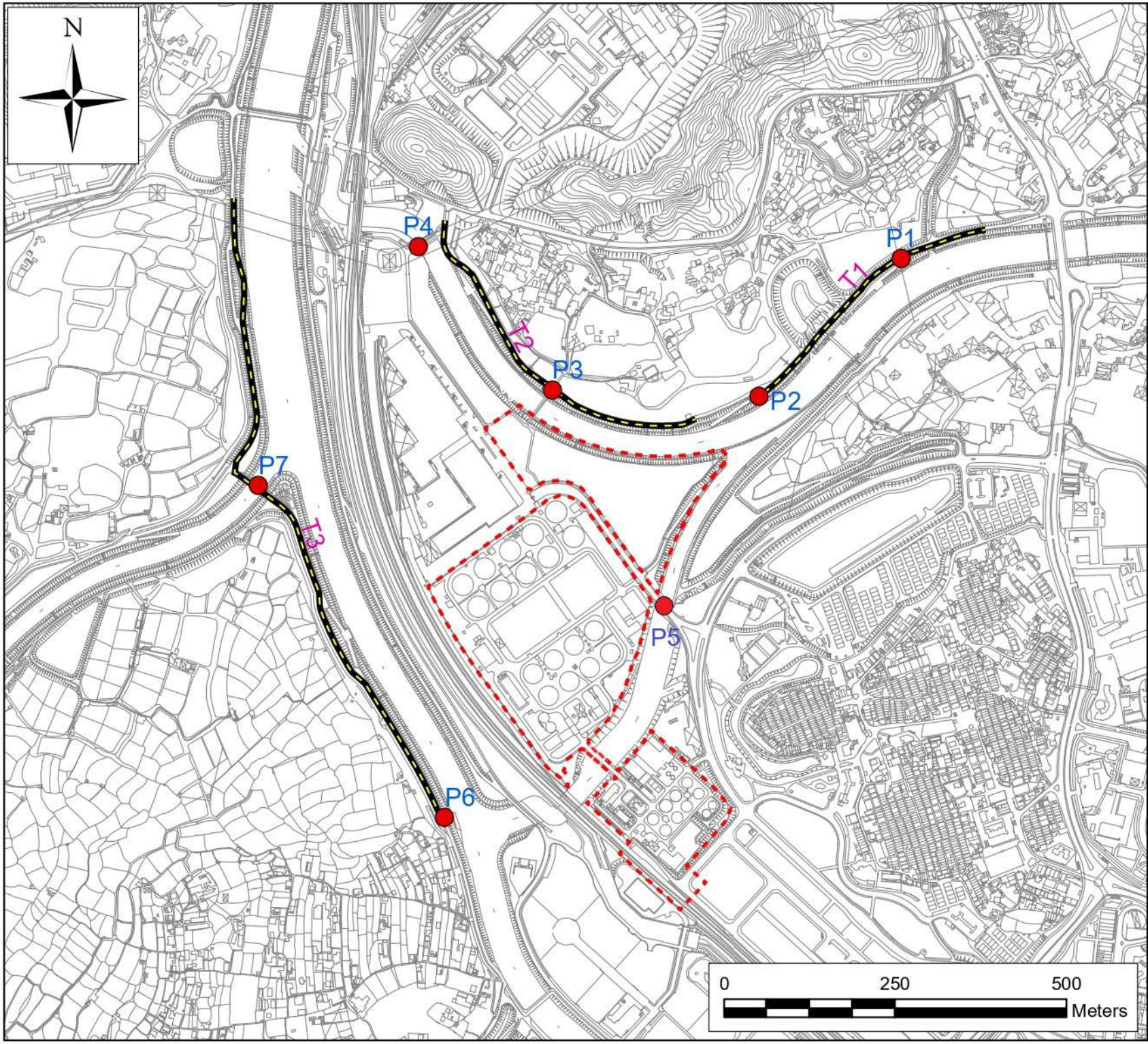


	Shek Wu Hui E□luent Polishing Plant - Location o□Air □uality Monitoring Stations	SCALE	1:400□ A4	DATE SEP 2019
		CHECK	JM	DRAWN SY
		JOB No.		FIGURE NO. 2 / RE□ -

F:/Project_drawings

Figure 4.3

Locations of Ecological Monitoring Stations



Legend

- Project Site Boundary
- Walk Transects
- Point Count Locations

PREPARED BY

Lam Environmental Services Limited

19/F Remex Centre
42 Wong Chuk Hang Road,
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Facsimile: (852) 2882-3331
E-mail: info@lamenviro.com
Website: http://www.lamenviro.com

CONTRACT NO.

SPW 12/2021

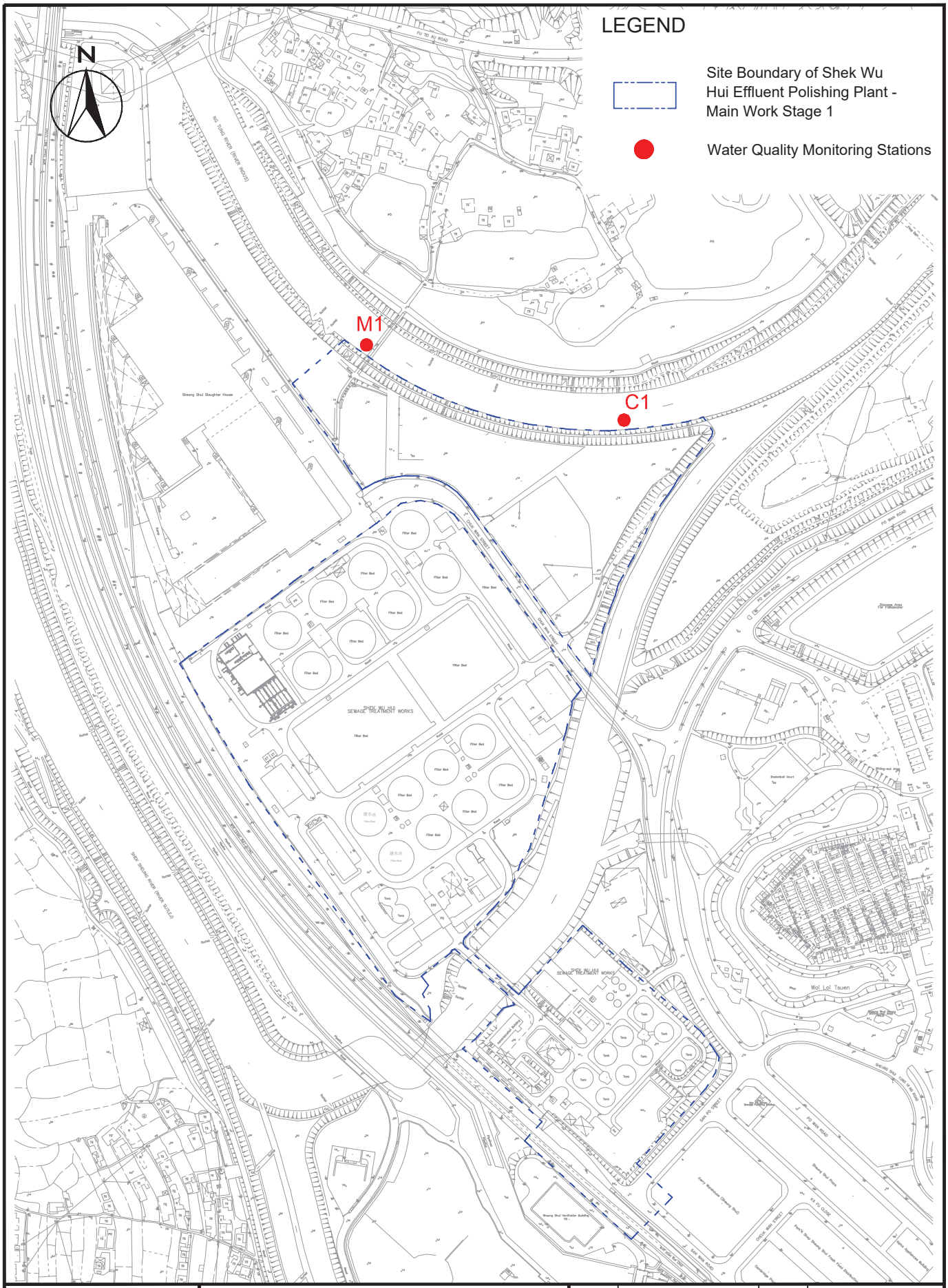
PROJECT TITLE

Shek Wu Hui Effluent Polishing Plant - Main Works Survey Location for Ecological Monitoring

SCALE	DATE
1:7500@A4	***Sept 2021***
DRAWN BY ***AL***	CHECK BY ***MC***
FIGURE NO. ***1***	REVISION NO. ***-***

Figure 4.4

Locations of Water Quality Monitoring Stations



	Shek Wu Hui Effluent Polishing Plant - Location of Water Quality Monitoring Stations	SCALE	1:400@A4	DATE	OCT 2019
		CHECK	JM	DRAWN	SY
		JOB No.		FIGURE NO. 5	REV -

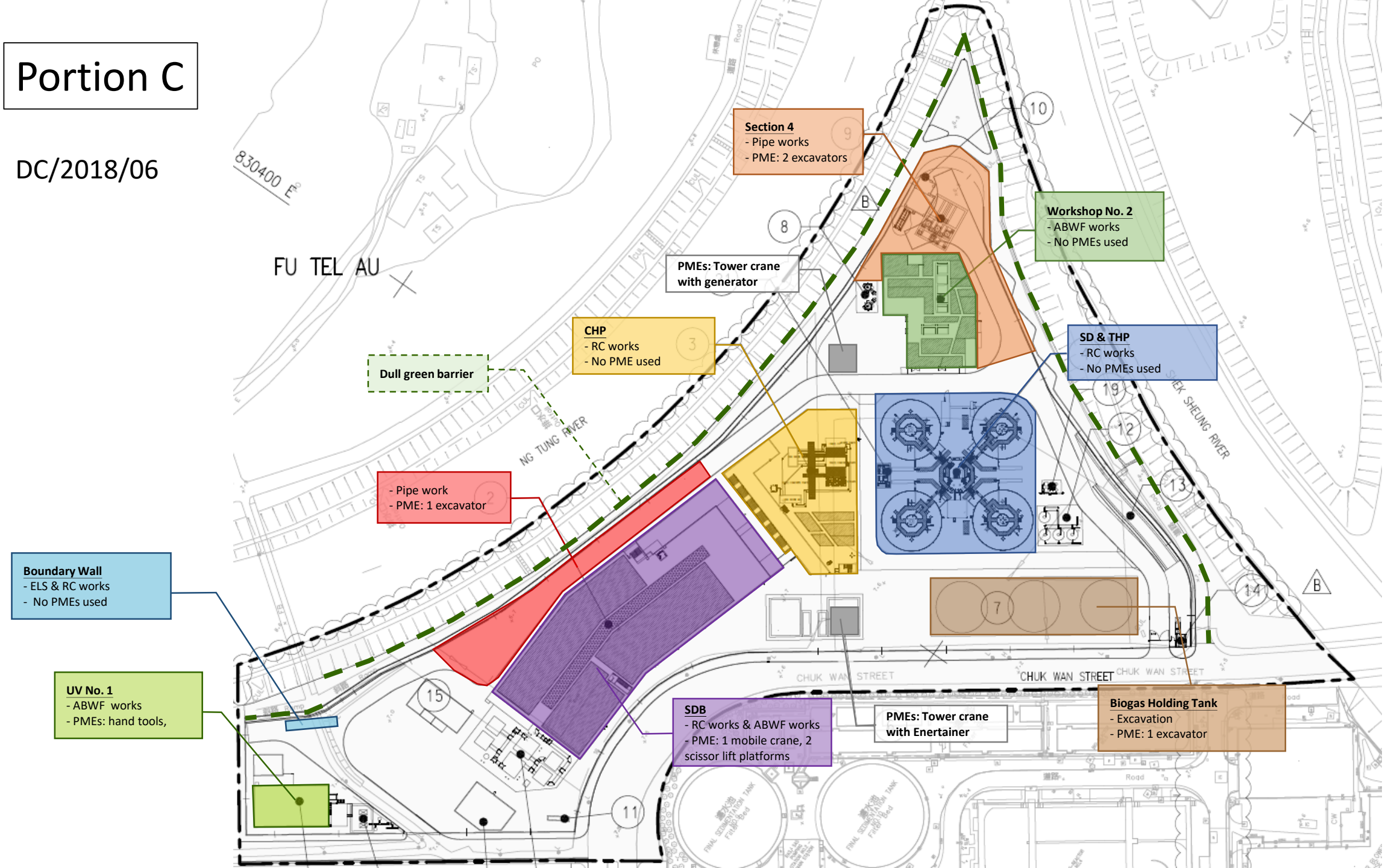
F:/Project_drawings

Appendix 2.1

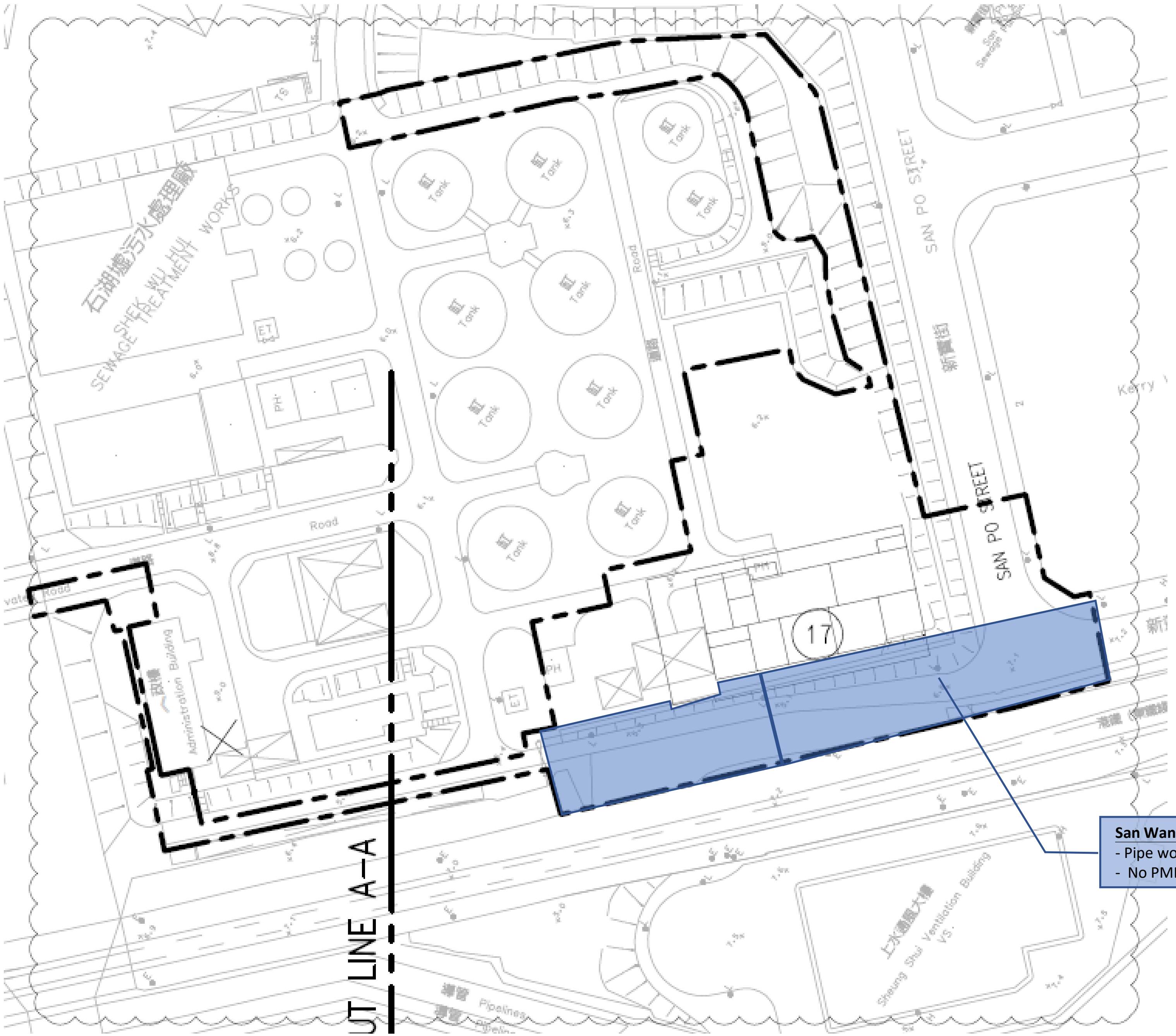
Layout Plan of Construction Activities and Site Record Photos

Portion C

DC/2018/06



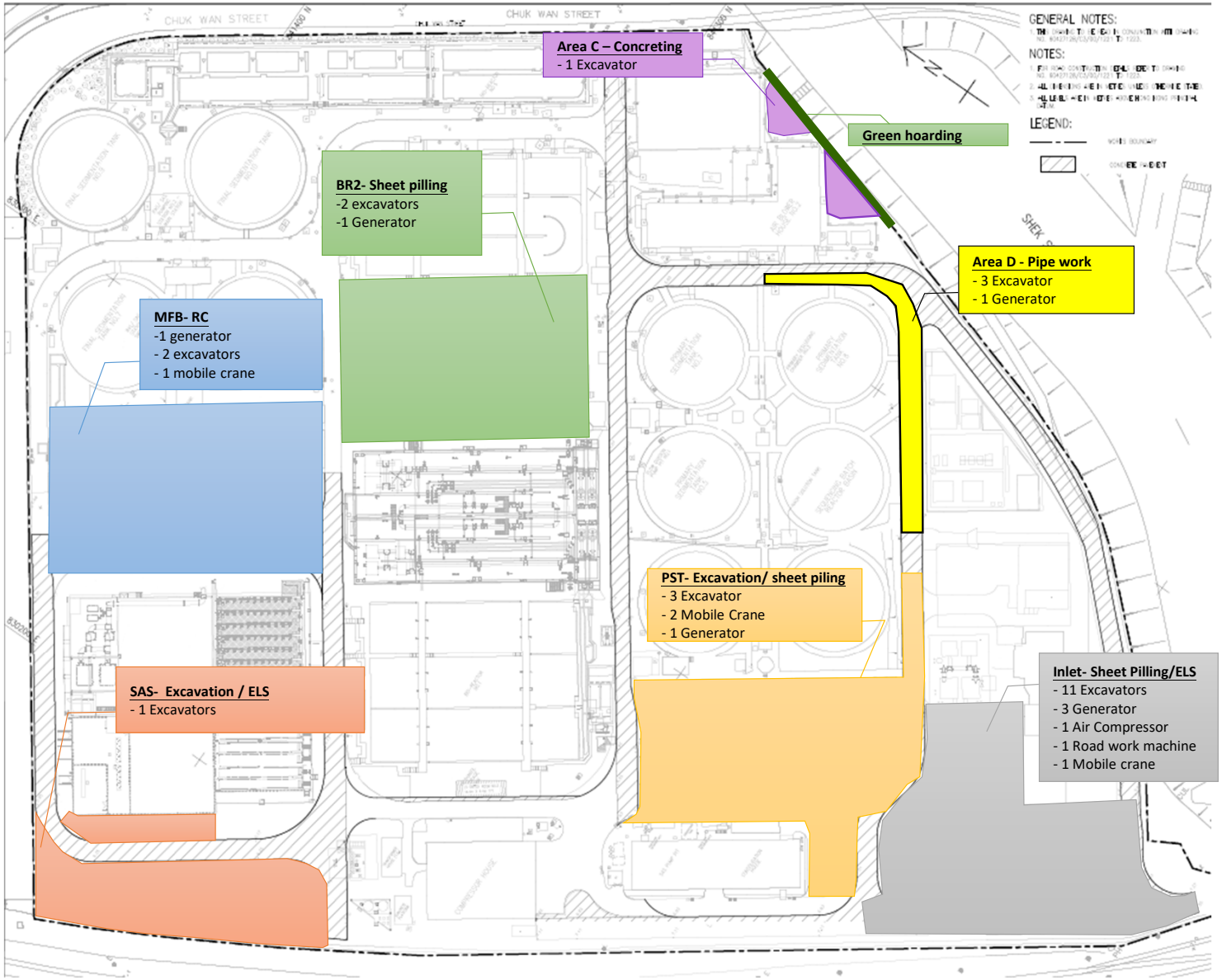
Portion A



San Wan Road
- Pipe works
- No PMEs used

Portion B

DC/2018/07



Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM

ISO A1 594mm x 841mm

841600 N

841400 N

830400 E

830200 E

FU TEL AU

SHEUNG SHUI HEUNG

SHEUNG SHUI SLAUGHTER HOUSE

NG TUNG RIVER

SHEK SHEUNG RIVER

PO WAN ROAD

CHUK WAN STREET

SHEK WU HUI SEWAGE TREATMENT WORKS

MTR (EAST RAIL LINE)

Workshop No.2
Electrical Installation at Workshop No.2
Lift Installation at Workshop No.2
Plumbing Installation at Workshop No.2
PME: Generator X1

SDB
AFA and MFA System Installation
PME:GeneratorX2

UV System No.1
SAT of Effluent Transfer Pump at UV
T&C UV System
T&C for Electrical Installation at UV
PME:GeneratorX1

SAS
Penstock and Stoplog Installation

Sidestream
ELS (Sidestream Treatment Facilities)

PME:
Generator X3
Tower Crane X1

Solid Dull Green Barrier

NOTES:

1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCRION
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3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATAM.
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5. ALL DETAILS SHOWING THE EXISTING CONDITIONS OF THE SITE INCLUDING ALL GROUND, STRUCTURES, ROAD, SERVICES, ETC. ARE INDICATIVE ONLY.
6. THE LOCATION, ORIENTATIONS, ALIGNMENT, SIZES, LEVELS AND DETAILS OF THE SEWAGE AND DRAINAGE WORKS, INCLUDING THE PIPES CONNECTION, MANHOLES, EXISTING PIPES TO BE CONNECTED, EXISTING MANHOLES TO BE MODIFIED, THE CONSTRUCTION METHOD SHOWN ON THIS SET OF DRAWINGS ARE INDICATIVE AND FOR TENDER PURPOSE ONLY
7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

LEGEND:

	SITE BOUNDARY
1	UV SYSTEM NO. 1 & EFFLUENT PUMPING STATION NO. 1
2	SLUDGE DEWATERING BUILDING
3	COMBINED HEAT & POWER BUILDING
4	SLUDGE DIGESTER
5	WORKSHOP NO. 2
6	THERMAL HYDROLYSIS PRETREATMENT FACILITIES
7	BIOGAS HOLDING TANKS
8	WASTE GAS BURNER
9	SEWAGE PUMPING STATION
10	FERRIC CHLORIDE DOSING FACILITIES
11	WATER METER CABINET
12	H2S REMOVAL SYSTEM
13	UNDERPASS (PART)
14	GUARD HOUSE
15	TRANSFORMER AND SWITCHROOM
16	FIRE HYDRANT AND BOOSTER PUMP ROOM
18	DEODORIZATION SYSTEM NO. 11
19	DEODORIZATION SYSTEM NO. 12
20	PLANT SERVICES WATER SYSTEM
21	THP COOLERS PUMPING STATION
22	SIDESTREAM TREATMENT FACILITIES
23	SURPLUS ACTIVATED SLUDGE PUMPING STATION
24	EXISTING CONSOLIDATION HOUSE

AECOM

PROJECT 項目

SHEK WU HUI EFFLUENT POLISHING PLANT

CONTRACT TITLE
SHEK WU HUI EFFLUENT POLISHING PLANT - MAIN WORKS STAGE 1 - SIDESTREAM TREATMENT FACILITIES AND E&M WORKS FOR SLUDGE TREATMENT FACILITIES

CLIENT 業主

渠務署 Drainage Services Department

CONSULTANT 工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS 分判工程顧問公司

ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核
-	MAR. 19	TENDER DRAWING	TLST

STATUS 階段

SCALE 比例
A1 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號
60427128

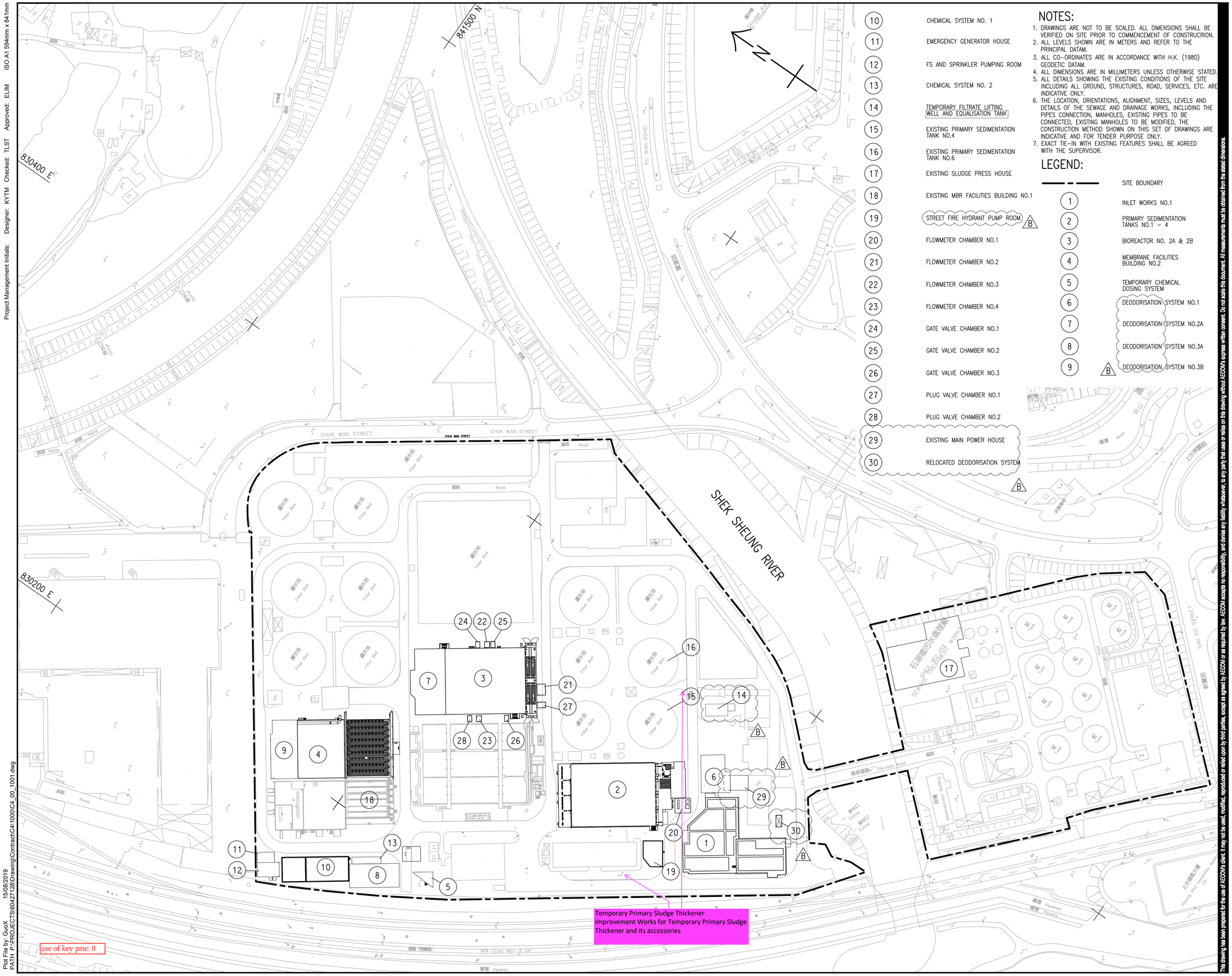
CONTRACT NO. 合約編號
DE/2018/03

SHEET TITLE 圖紙名稱
SHEK WU HUI EFFLUENT POLISHING PLANT GENERAL LAYOUT PLAN

SHEET NUMBER 圖紙編號
60427128/C2/00/1001

Plot File by: GuoX 26/03/2019
PATH: P:\PROJECTS\60427128\Drawing\Contract\C2\1000\C2_00_1001.dwg

Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM ISO A1 594mm x 841mm



10 CHEMICAL SYSTEM NO. 1
11 EMERGENCY GENERATOR HOUSE
12 FS AND SPRINKLER PUMPING ROOM
13 CHEMICAL SYSTEM NO. 2
14 TEMPORARY FILTRATE LIFTING WELL AND EQUALISATION TANK
15 EXISTING PRIMARY SEDIMENTATION TANK NO.4
16 EXISTING PRIMARY SEDIMENTATION TANK NO.6
17 EXISTING SLUDGE PRESS HOUSE
18 EXISTING MBR FACILITIES BUILDING NO.1
19 STREET FIRE HYDRANT PUMP ROOM B
20 FLOWMETER CHAMBER NO.1
21 FLOWMETER CHAMBER NO.2
22 FLOWMETER CHAMBER NO.3
23 FLOWMETER CHAMBER NO.4
24 GATE VALVE CHAMBER NO.1
25 GATE VALVE CHAMBER NO.2
26 GATE VALVE CHAMBER NO.3
27 PLUG VALVE CHAMBER NO.1
28 PLUG VALVE CHAMBER NO.2
29 EXISTING MAIN POWER HOUSE
30 RELOCATED DEODORISATION SYSTEM

NOTES:

1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCRION.
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3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATAM.
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7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

LEGEND:

SITE BOUNDARY

1 INLET WORKS NO.1
2 PRIMARY SEDIMENTATION TANKS NO.1 – 4
3 BIOREACTOR NO. 2A & 2B
4 MEMBRANE FACILITIES BUILDING NO.2
5 TEMPORARY CHEMICAL DOSING SYSTEM
6 DEODORISATION SYSTEM NO.1
7 DEODORISATION SYSTEM NO.2A
8 DEODORISATION SYSTEM NO.3A
9 B DEODORISATION SYSTEM NO.3B

AECOM

PROJECT 項目

SHEK WU HUI EFFLUENT POLISHING PLANT

CONTRACT TITLE
SHEK WU HUI EFFLUENT POLISHING PLANT - MAIN WORKS STAGE 1 - E&M WORKS FOR SEWAGE TREATMENT FACILITIES

CLIENT 業主

渠務署 Drainage Services Department

CONSULTANT 工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS 分判工程顧問公司

ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 檢核
B	AUG. 19	TENDER ADDENDUM NO. 3	TLST
A	JUL. 19	TENDER ADDENDUM NO. 2	TLST
-	APR. 19	TENDER DRAWING	TLST

STATUS 用途

SCALE 比例
A1 1 : 1000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號
60427128

CONTRACT NO. 合約編號
DE/2018/04

SHEET TITLE 圖紙名稱
GENERAL LAYOUT PLAN

SHEET NUMBER 圖紙編號
60427128/C4/00/1001B

Plot File by: GuoX 15/08/2019
PATH: P:\PROJECTS\60427128\Drawing\Contract\C4\1000\C4_00_1001.dwg

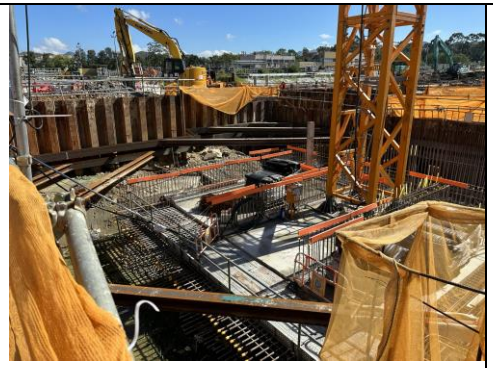
use of key pme: 0

Site Record Photos

DC/2018/06

			
SD&THP	Section 4	SDB	Biogas Holding Tank

DC/2018/07

			
BR2	MFB	PST	Inlet

DE/2018/03

Sidestream

Appendix 3.1

Environmental Mitigation Implementation Schedule

Appendix 3.1 Environmental Mitigation Implementation Schedule

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Air Quality Monitoring							
S2.4.1.3	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices:						
	• Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;	To minimize the dust impact	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Air Pollution Control Ordinance (APCO) and Air Pollution Control (Construction Dust)	^
	• Any dusty material remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;						^
	• A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones;						^
	• The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;						^
	• Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period.						^
	• The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;						^
	• Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;						*
	• Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;						^
	• Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding;						^
	• Any skip hoist for material transport should be totally enclosed by impervious sheeting;						^
	• Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;						^
	• Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;						^

	• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and						^
	• Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Noise Impact							
S3.4.1.1	Use of movable barrier, enclosure, acoustic mat and quiet plant. Use of wooden frames barrier with a small-cantilevered upper portion of superficial density not less than 14kg/m² on a skid footing with 25mm thick internal sound absorptive lining.	To minimize construction noise impact arising from the Project at the affected noise sensitive receivers (NSRs)	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, Noise Control Ordinance (NCO)	^
S3.4.1.2	Good Site Practice:						
	• Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, NCO	^
	• Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program.						^
	• Mobile plant, if any, should be sited as far away from NSRs as possible.						^
	• Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.						^
	• Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.						^
	• Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Ecological Impact							
S4.2.1.1	Solid dull green noise/visual barriers of at least 2m high shall be erected and maintained between active works area and all areas of ecological importance.	Minimize noise and human disturbances during construction phase.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.2	Avoid unnecessary lighting.	Minimize mortality impacts on birds.	Design / Contractor/ Plant Operator	Work Sites	Construction and operation phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.3	Good construction site practice to minimise dust generation should be followed on all construction sites. Measures to avoid, minimise and mitigate impacts on air quality are detailed in this schedule.	Minimize dust generation from construction sites.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.4	The following measures to avoid, minimise and mitigate impact on water quality during construction phase shall be implemented						
	• Temporary sewerage and drainage to be designed and installed to collect wastewater and prevent it from entering water bodies;	Avoid, minimise and mitigate impact on water quality	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
	• Proper locations well away from nearby water bodies should be used for temporary storage of materials (i.e. equipment, filling materials, chemicals and fuel) and temporary stockpiles of construction debris and spoil, and these should be identified before commencement of works;						^
	• To prevent muddy water entering nearby water bodies, work sites close to nearby water bodies should be isolated, using such items as sandbags or silt curtains with lead edge at bottom and properly supported props. Other protective measures should also be taken to ensure that no pollution or siltation occurs to the water gathering grounds of the work sites;						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• Construction debris and spoil should be covered and/or properly disposed of as soon as possible to avoid these being washed into nearby water bodies;						^
	• Proper locations for discharge outlets of temporary wastewater treatment facilities well away from sensitive receivers should be identified;						^
	• Adequate lateral support should be erected where necessary in order to prevent soil/mud from slipping into water bodies;						^
	• Site boundaries should be clearly marked and any works beyond the boundary strictly prohibited;						^
	• Regular water monitoring and site audit should be carried out at adequate points along any watercourses where construction works are underway upstream within their catchments and also on the Ng Tung, Sheung Yue and Shek Sheung Rivers. If the monitoring and audit results show that pollution occurs, adequate measures including temporarily cessation of works should be considered;						^
	• Excavation profiles should be properly designed and executed with attention to the relevant requirements for environment, health and safety;						^
	• Where soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means; Stockpiling sites should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of						^
	• contaminated soil to minimize contaminated runoff and construction materials should be properly covered and located away from nearby water bodies; and						^
	• Supply of suitable clean backfill material after excavation, if required.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or contaminated run-off, and truck bodies and tailgates should be sealed to prevent discharge during transport or during wet season;						^
	• Speed control for the trucks carrying contaminated materials should be enforced;						^
	• Vehicle wheel washing facilities at construction sites' exit points should be established and used, where necessary; and						^
	• Other measures as detailed in this schedule.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Water Quality Impact							
S5.2.2.1	<u>Construction Site Runoff</u> Practices and measures provided in the Practice Note for Professional Persons on Construction Site Drainage, (PROPECC PN1/94) should be followed where applicable.	Control construction runoff	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^
S5.2.2.2 – S5.2.2.3	Sewage from Workforce						
	• Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed Contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance;	Handling of site sewage	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^
	• Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Waste Management							
S6.2.2.1	Good Site Practices and Waste Reduction Measures						
	• Nomination of an approved person, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;	Minimize waste generation during construction	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal Ordinance (WDO)	*
	• Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;						^
	• Provision of sufficient waste disposal points and regular collection for disposal;						^
	• Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;						^
	• Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;						^
	• An Environmental Management Plan (EMP) should be prepared by the contractor and submitted to the Supervisor for approval.						^
S6.2.3.1	Waste Reduction Measures						
	• Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;	Reduce waste generation	Contractors	Work Sites	Prior to the commencement of construction of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	• Proper storage and site practices to minimize the potential for damage and contamination of construction materials;						^
	• Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;						^
	• Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and						^
	• Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S6.2.4.1	Storage, Collection and Transportation of Waste Should any temporary storage or stockpiling of waste is required, recommendations to minimize the impacts include:	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	• Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution;						^
	• Stockpiling area should be provided with covers and water spraying system to prevent materials from windblown or being washed away; and						^
	• Different locations should be designated to stockpile each material to enhance reuse.						^
S6.2.4.2	Storage, Collection and Transportation of Waste (con't)						
	• Remove waste in timely manner;	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	• Employ the trucks with cover or enclosed containers for waste transportation;						^
	• Obtain relevant waste disposal permits from the appropriate authorities; and						^
	• Disposal of waste should be done at licensed waste disposal facilities						^
S6.2.5.2	C&D Materials from Site Formation						
	• Maintain temporary stockpiles and reuse excavated fill material for backfilling;	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
	• Carry out on-site sorting;						^
	• Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;						^
	• Adopt "selective demolition" technique to demolish the existing structure and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; and						^
	• Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified.						^
S6.2.5.3	C&D Material from Buildings Demolition and New Building Construction						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• The Contractor should recycle as much as possible of the C&DM on-site. Public fill and C&DM waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. For example, concrete and masonry can be crushed and used as fill, and steel reinforcing bar can be used by scrap steel mills. Different areas of the work sites should be designated for such segregation and storage.	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
	• The use of wooden hoardings shall not be allowed. An alternative material, such as metal, aluminium or alloy etc, could be used.						^
	• Government has developed a charging policy for the disposal of waste to landfill at present. It will provide additional incentive to reduce the volume of generated waste and ensure proper segregation to allow reuse of the inert material on site when implemented.						^
	• In order to minimize the impacts of the demolition works, the generated wastes must be cleared as quickly as possible after demolition. Therefore, the demolition and clearance works should be undertaken simultaneously. To facilitate proper segregation of inert and non-inert C&D material arising from demolition works, selective demolition method should be adopted.						^
S6.2.5.4	Chemical Waste						
	• If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers.	Control the chemical waste and ensure proper storage, handling and disposal	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	^
	• Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.						*
S6.2.5.5	General Refuse						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• General refuse should be stored in enclosed bins separately from construction and chemical wastes.	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation	^
	• Recycling bins should also be placed to encourage recycling.						^
	• Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean.						^
	• A reputable waste collector should be employed to remove general refuse on a daily basis.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
Landscape and Visual							
S7.3.1.1	Good Site Practices Measures						
	• For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to.	Minimize the impact to the landscape and visual	Contractor	Work Sites	Prior to construction and construction phase		N/A
	• With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.						N/A
S7.3.2.1	MM4 - Tree Protection & Preservation • Existing trees to be retained within the Project Site should be carefully protected during construction. In particular Old and Valuable Trees (OVTs) will be preserved according to ETWB TC (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Designer / Contractor	Work Sites	Prior to construction and construction phase	ETWB TCW No. 29/2004 and DEVB TC(W) No.7/2015	^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S7.3.2.1	MM5 - Tree Transplantation • Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC No. 2/2004 and DEVB TC(W) No. 7/2015 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No.2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	N/A
S7.3.2.1	MM6 - Slope Landscaping						
	• Site formation should be reduced as far as possible. Hydroseeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape recourses and charter. Woodland tree seedings and/or shrubs should be planted where slope gradient and site conditions allow.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure manmade slopes are as visually amenable as possible.	Designer / Contractor	Work Sites	Prior to construction, construction phase and operation phase	GEO Publication (1999) - Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011- Technical Guidelines on Landscape Treatment for Slopes	N/A
	• In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping						N/A
S7.3.2.1	MM7 - Compensatory Planting						

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
	• Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under DEVB TC(W) No. 7/2015.	Compensate for trees and shrubs lost due to the Project	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No. 2/2004	N/A
	• Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.						N/A
	• Compensatory planting for shrubs should be considered in suitable locations. Native species such as *Melastoma malabathricum, Diospyros vaccinioides, Gardenia jasminoides, Ixora chinensis, Ligustrum sinense, Litsea rotundifolia, Melastoma dodecandrum, Atalantia buxifolia, Rhodomyrtus tomentosa, Rhaphiolepis indica, and Rhododendron simsii are suggested.*						N/A
S7.3.2.1	MM9 - Vertical Greening • Planting of climbers to grow up vertical surfaces were appropriate.	Soften hard surfaces and facilities	Designer / Contractor	On appropriate structures	Prior to construction, construction phase and operation phase	ETWB TCW No.11/2004 – Cyber Manual for Greening	N/A
S7.3.2.1	MM10 - Green Roof • Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to visually sensitive receivers (VSRs) at high levels. Provide greening	Designer / Contractor	On appropriate buildings	Prior to construction, construction phase and operation phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	N/A

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Remark
S7.3.2.1	MM11 - Screen Planting • Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Designer / Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the structures.	Prior to construction, construction phase and operation phase	ETWB TCW No. 10/2013 and 3/2006	N/A
S7.3.2.1	MM16 - Screen Hoarding • Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence. Details can refer to the ecological impact assessment. [Chapter 13 of the EIA Report of NENT NDAs (Register No. AEIAR-175- 2013)]	To screen undesirable views of the works site.	Designer	Work Sites	Construction phase		N/A
S7.3.2.1	MM17 - Light Control • Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs.	Designer / Contractor	Work Sites and/or the Plant	Construction phase and operation phase		N/A

Remarks:
^ Implemented
* To be followed-up by Contractor
# Not Implemented
N/A Not Applicable

Appendix 4.1

Action and Limit Level

Action and Limit Levels

Air Quality Monitoring

Monitoring Station	1-hour TSP Level in μg/m^3		24-hour TSP Level in μg/m^3	
	Action Level	Limit Level	Action Level	Limit Level
AM1	320	500	189	260
AM2	322	500	187	260

Noise Monitoring

Monitoring Stations	Leq(30min),dB(A)	
	Action Level (dB(A))	Limit Level (dB(A))
NM1	When one documented complaint is received	75*
NM2		
NM3		

*Notes: (1) If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) used by the Noise Control Authority should be followed.

(2) The limit level shall be 70 dB(A) and 65 dB(A) for educational institute during normal teaching periods and school examination periods, respectively.

Ecological Monitoring of Waterbirds using Ng Tung, Sheung Yue and Shek Sheung Rivers during Construction Phase

Action Level	Limit Level
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that Action Level response is triggered.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level Response is triggered.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.

*Note: Whether numbers are significant depend on species and season after collection and evaluation of baseline data.

Water Quality Monitoring

Parameter (Unit)	Depth	Action Level	Limit Level
DO (mg/L)	Middle	**≤ 7.8 mg/L**	**≤ 7.7 mg/L**
Turbidity (NTU)	Depth-average	**≥ 14.6 NTU** or 120% of upstream control station's Turbidity at the same tide of the same day	**≥ 15.6 NTU** or 130% of upstream control station's Turbidity at the same tide of the same day
SS (mg/L)	Depth-average	**≥ 18.8 mg/L** or 120% of upstream control station's SS at the same tide of the same day	**≥ 19.5 mg/L** or 130% of upstream control station's SS at the same tide of the same day

Appendix 4.2

Copies of Calibration Certificates

TISCH Environmental

RECALIBRATION DUE DATE:
June 28, 2023

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	June 28, 2022	**Rootsmeter S/N:** 438320	**Ta:** 296	°K
Operator:	Jim Tisch		**Pa:** 755.1	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **3880**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4500	3.2	2.00
2	3	4	1	1.0240	6.4	4.00
3	5	6	1	0.9130	7.9	5.00
4	7	8	1	0.8690	8.8	5.50
5	9	10	1	0.7180	12.8	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H\left(Ta/Pa\right)}$ (y-axis)
0.9961	0.6870	1.4144	0.9958	0.6867	0.8854
0.9918	0.9686	2.0003	0.9915	0.9683	1.2522
0.9899	1.0842	2.2364	0.9895	1.0838	1.4000
0.9887	1.1377	2.3456	0.9883	1.1373	1.4683
0.9834	1.3696	2.8289	0.9830	1.3691	1.7708
QSTD	**m=**	**2.07013**	**QA**	**m=**	**1.29628**
	b=	**-0.00727**		**b=**	**-0.00455**
	r=	**0.99999**		**r=**	**0.99999**

Calculations

Vstd=	ΔVol((Pa-ΔP)/Pstd)(Tstd/Ta)	**Va=**	ΔVol((Pa-ΔP)/Pa)
Qstd=	Vstd/ΔTime	**Qa=**	Va/ΔTime

For subsequent flow rate calculations:

Qstd= $1/m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right)-b\right)$

Qa= $1/m\left(\left(\sqrt{\Delta H\left(Ta/Pa\right)}\right)-b\right)$

Standard Conditions	
Tstd:	298.15 °K
Pstd:	760 mm Hg

Key
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

Tisch Environmental, Inc.
145 South Miami Avenue
Village of Cleves, OH 45002

www.tisch-env.com
TOLL FREE: (877)263-7610
FAX: (513)467-9009

Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location	:	AM1a	**Calbration Date**	:	1-Nov-22
Equipment no.	:	HVS001 (0401-1105)	**Calbration Due Date**	:	1-Jan-23

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition					
Temperature, T_a	302	Kelvin	**Pressure, P_a**	1008	mmHg

Orifice Transfer Standard Information					
Equipment No.	**3880**	**Slope, m_c**	2.07013	**Intercept, bc**	-0.00727
Last Calibration Date	28-Jun-22	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$			
Next Calibration Date	28-Jun-23	$= m_c \times Q_{std} + b_c$			

Calibration of TSP						
Calibration Point	**Manometer Reading H (inches of water)**			**Q_{std}** (m^3 / min.)	**Continuous Flow Recorder, W**	**IC** $(W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31)$
	(up)	(down)	(difference)	**X-axis**	(CFM)	**Y-axis**
1	1.4	1.4	2.8	0.8044	21	20.8058
2	2.3	2.3	4.6	1.0300	32	31.7041
3	3.5	3.5	7.0	1.2698	44	43.5932
4	4.3	4.3	8.6	1.4070	51	50.5285
5	5.6	5.6	11.2	1.6052	60	59.4452

By Linear Regression of Y on X

Slope, m = 48.9134 Intercept, b = -17.5531

Correlation Coefficient* = 0.9998

Calibration Accepted = Yes/~~No~~**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : Serial No.:0401-1105

Calibrated by	:	Alan Ng	**Checked by**	:	Alex Chan
Date	:	1-Nov-22	**Date**	:	1-Nov-22

Lam Environmental Services Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location	:	AM2a	**Calbration Date**	:	1-Nov-22
Equipment no.	:	HVS003 (1096-2305)	**Calbration Due Date**	:	1-Jan-23

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition					
Temperature, T_a	302	Kelvin	**Pressure, P_a**	1008	mmHg

Orifice Transfer Standard Information					
Equipment No.	**3880**	**Slope, m_c**	2.07013	**Intercept, bc**	-0.00727
Last Calibration Date	28-Jun-22	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$			
Next Calibration Date	28-Jun-23	$= m_c \times Q_{std} + b_c$			

Calibration of TSP						
Calibration Point	**Manometer Reading H (inches of water)**			**Q_{std}** (m^3 / min.)	**Continuous Flow Recorder, W**	**IC** $(W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31)$
	(up)	(down)	(difference)	**X-axis**	(CFM)	**Y-axis**
1	2.3	2.3	4.6	1.0300	23	22.7873
2	3.5	3.5	7.0	1.2698	33	32.6949
3	4.6	4.6	9.2	1.4552	44	43.5932
4	5.2	5.2	10.4	1.5469	48	47.5562
5	6.1	6.1	12.2	1.6752	55	54.4915

By Linear Regression of Y on X

Slope, m = 47.3405 Intercept, b = -26.2467

Correlation Coefficient* = 0.9980

Calibration Accepted = Yes/~~No~~**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : Serial No.: 1096-2305

Calibrated by	:	Alan Ng	**Checked by**	:	Alex Chan
Date	:	1-Nov-22	**Date**	:	1-Nov-22

Met One Instruments
1600 Washington Blvd
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(541) 471-7111
(541) 471-7116 (Fax)
Service@metone.com

Calibration Certificate

The calibration results on this report certify that this instrument complies with the product specifications at the time of calibration. Calibration was performed according to accepted industry methods using equipment, procedures, and standards that are traceable to NIST and ISO.

Recommended calibration interval is 12 months from the first day of use.

Instrument Model# Aerocet 831 **Instrument Serial#** R14332

Date of Calibration 4/29/2022 **Sensor #** 12228

JGoddard AT8
Calibration Technician

AT5
Quality Check

Temperature 22 °C **Relative Humidity** 32 %

Test Procedure: Aerocet 831-6100

PSL Size (µm)	Test Results	Test Spec.	Lot# NIST	Expiration
0.3	Pass	± 10%	240943	05/31/2024
0.5	Pass	± 10%	219480	11/30/2022
1.0	Pass	± 10%	229294	8/31/2023
2.5	Pass	± 10%	REF	NA
4.0	Pass	± 10%	REF	NA
7.0	Pass	± 10%	REF	NA
10.0	Pass	± 10%	REF	NA

Standards	Model	SN	Cal Due
FLOW	SWIFT 6.0	B20457	11/24/2022
DMM	289	27720071	8/24/2022
RH/TEMP SENSOR	083E-1-6	R20313	9/13/2022
Particle Counter	GT-526S	X17421	5/29/2022

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	AEROCET831
Serial Number	:	R14332
Performance Check Date	:	17-May-22

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	HVS018 (S/N:2656)
Last Calibration Date	:	29-Apr-22

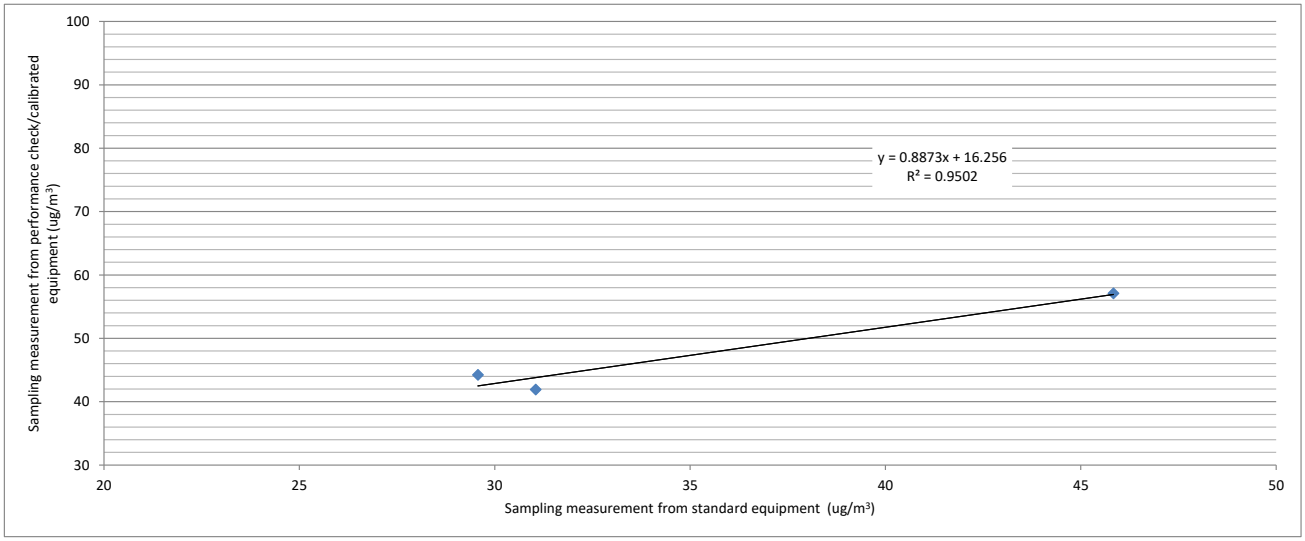
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
1	17/5/22 09:30	33	1020	46	57
2	17/5/22 10:32	33	1020	30	44
3	17/5/22 13:00	33	1020	31	42

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	1.1000
Correlation Coefficient	:	0.9748
Validity of Performance Check / Calibration Record	:	17/5/2023



Operator:	Alan Ng	Date:	1/6/2022
Checked by:	Derek Lo	Date:	1/6/2022

Met One Instruments
1600 Washington Blvd
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(541) 471-7111
(541) 471-7116 (Fax)
Service@metone.com

Calibration Certificate

The calibration results on this report certify that this instrument complies with the product specifications at the time of calibration. Calibration was performed according to accepted industry methods using equipment, procedures, and standards that are traceable to NIST and ISO.

Recommended calibration interval is 12 months from the first day of use.

Instrument Model# *Aerocet 831* **Instrument Serial#** *W15448*

Date of Calibration *4/28/2022* **Sensor #** *16438*

JGoddard AT8
Calibration Technician

AT5
Quality Check

Temperature *22* °C **Relative Humidity** *32* %

Test Procedure: *Aerocet 831-6100*

PSL Size (µm)	Test Results	Test Spec.	Lot# NIST	Expiration
0.3	Pass	± 10%	240943	05/31/2024
0.5	Pass	± 10%	219480	11/30/2022
1.0	Pass	± 10%	229294	8/31/2023
2.5	Pass	± 10%	REF	NA
4.0	Pass	± 10%	REF	NA
7.0	Pass	± 10%	REF	NA
10.0	Pass	± 10%	REF	NA

Standards	Model	SN	Cal Due
Particle Counter	GT-526S	X17421	5/29/2022
FLOW	SWIFT 6.0	B20457	11/24/2022
RH/TEMP SENSOR	083E-1-6	R20313	9/13/2022
DMM	289	27720071	8/24/2022

Lam Environmental Services Limited

Portable Dust Meter Performance Check Record

Portable Dust Meter

Type	:	Particulare Monitor
Manufacturer	:	MET ONE INSTRUMENTS
Model Number	:	AEROCET831
Serial Number	:	W15448
Performance Check Date	:	17-May-22

Standard Equipment

Type	:	High Volume Sampler
Manufacturer	:	TISCH
Model Number	:	TE-5170
Equipment Number	:	HVS018 (S/N:2656)
Last Calibration Date	:	29-Apr-22

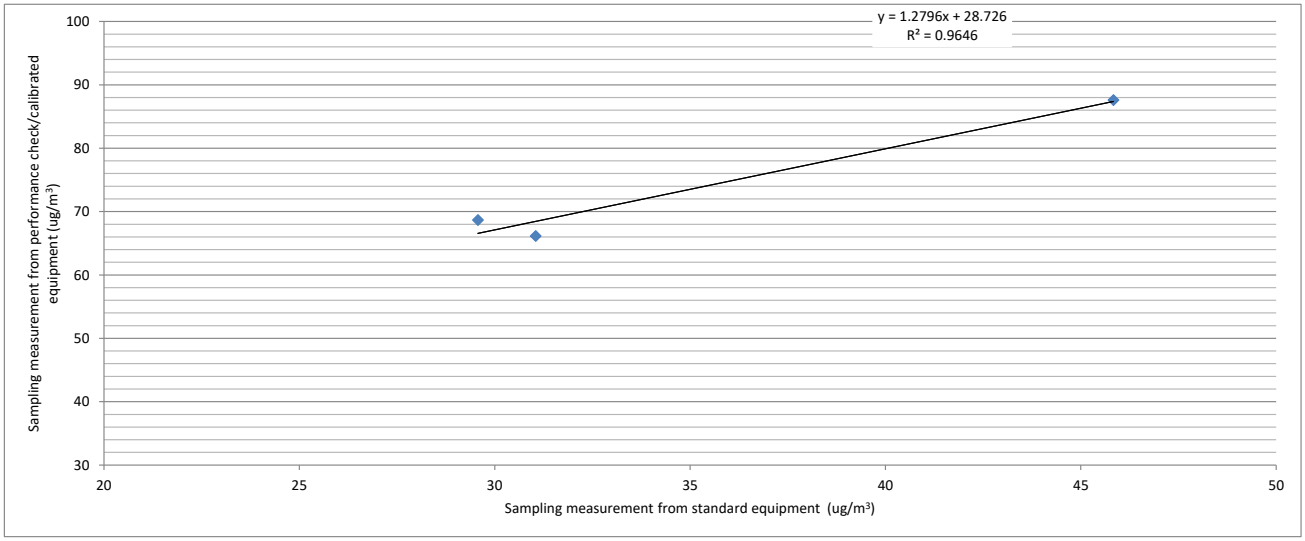
Portable Dust Meter Performance Check Results

Trial no. in 1-hr period	Time	Mean Temp (°C)	Mean Pressure (hPa)	Concentration in ug/m^3 (Standard equipment) (Y - Axis)	Concentration in ug/m^3 (Performance Check / Calibrated equipment) (X - Axis)
1	17/5/22 09:30	33	1020	46	88
2	17/5/22 10:32	33	1020	30	69
3	17/5/22 13:00	33	1020	31	66

* Filter paper weighting was conducted by HOKLAS accredited laboratory.

Linear Regression of Y on X

Slope (K- factor)	:	0.8000
Correlation Coefficient	:	0.9821
Validity of Performance Check / Calibration Record	:	17/5/2023



Operator:	Alan Ng	Date:	1/6/2022
Checked by:	Derek Lo	Date:	1/6/2022

綜合試驗有限公司
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HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

Certificate No.: 22CA0224 04-02 **Page** 1 **of** 2

Item tested

Description:	Sound Level Meter (Type 1)	,	Microphone	Preamp
Manufacturer:	Nti	,	Nti Andio	Nti Andio
Type/Model No.:	XL2	,	MC230A	MA220
Serial/Equipment No.:	A2A-15269-EO	,	A16673	8034
Adaptors used:	-	,		

Item submitted by

Customer Name:	Lam Environmental Services Limited.
Address of Customer:	-
Request No.:	-
Date of receipt:	24-Feb-2022

Date of test: 01-Mar-2022

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	23-Aug-2022	CIGISMEC
Signal generator	DS 360	33873	27-May-2022	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	55 ± 10 %
Air pressure:	1010 ± 5 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory: Feng Junqi **Date:** 02-Mar-2022 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

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HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 22CA0224 04-02 **Page** 2 **of** 2

1, Electrical Tests

The electrical tests were perfomed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertainty (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	
	C	Pass	0.8	2.1
	Lin	Pass	1.6	2.2
Linearity range for Leq	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
Linearity range for SPL	At reference range , Step 5 dB at 4 kHz	Pass	0.3	
Frequency weightings	A	Pass	0.3	
	C	Pass	0.3	
	Lin	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100μs rectangular pulse	Pass	0.3	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	
	Repeated at frequency of 100 Hz	Pass	0.3	
Time averaging	1 ms burst duty factor $1/10^3$ at 4kHz	Pass	0.3	
	1 ms burst duty factor $1/10^4$ at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	
	Leq	Pass	0.4	

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertainty (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	

3, Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by: Fung Chi Yip **Date:** 01-Mar-2022

Checked by: Chan Yuk Yiu **Date:** 02-Mar-2022

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

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SMECLab

Sound level meter type:	XL2	Serial No.	A2A-15269-EO	Date	01-Mar-2022
Microphone type:	MC230A	Serial No.	A16673		
				Report:	22CA0224 04-02

SELF GENERATED NOISE TEST

The noise test is performed in the most sensitive range of the SLM with the microphone replaced by an equivalent impedance.

Noise level in A weighting	11.0	dB
Noise level in C weighting	14.5	dB
Noise level in Lin	20.9	dB

LINEARITY TEST

The linearity is tested relative to the reference sound pressure level using a continuous sinusoidal signal of frequency 4 kHz. The measurement is made on the reference range for indications at 5 dB intervals starting from the 94 dB reference sound pressure level. And until within 5 dB of the upper and lower limits of the reference range, the measurements shall be made at 1 dB intervals.(SLM set to LEQ/SPL)

Reference/Expected level	Actual level		Tolerance	Deviation	
	non-integrated	integrated		non-integrated	integrated
dB	dB	dB	+/- dB	dB	dB
94.0	94.0	94.0	0.7	0.0	0.0
99.0	99.0	99.0	0.7	0.0	0.0
104.0	104.0	104.0	0.7	0.0	0.0
109.0	109.0	109.0	0.7	0.0	0.0
114.0	114.0	114.0	0.7	0.0	0.0
115.0	115.0	115.0	0.7	0.0	0.0
116.0	116.0	116.0	0.7	0.0	0.0
117.0	117.0	117.0	0.7	0.0	0.0
118.0	118.0	118.0	0.7	0.0	0.0
119.0	119.0	119.0	0.7	0.0	0.0
120.0	120.0	120.0	0.7	0.0	0.0
89.0	89.0	89.0	0.7	0.0	0.0
84.0	84.0	84.0	0.7	0.0	0.0
79.0	79.0	79.0	0.7	0.0	0.0
74.0	74.0	74.0	0.7	0.0	0.0
69.0	69.0	69.0	0.7	0.0	0.0
64.0	64.0	64.0	0.7	0.0	0.0
59.0	59.0	59.0	0.7	0.0	0.0
54.0	54.0	54.0	0.7	0.0	0.0
49.0	49.1	49.1	0.7	0.1	0.1
44.0	44.0	44.0	0.7	0.0	0.0
39.0	39.0	39.0	0.7	0.0	0.0
34.0	34.1	34.1	0.7	0.1	0.1
33.0	33.1	33.1	0.7	0.1	0.1

Test Data for Sound Level Meter

Sound level meter type: XL2 Serial No. A2A-15269-EO Date 01-Mar-2022
Microphone type: MC230A Serial No. A16673
Report: 22CA0224 04-02

32.0	32.2	32.2	0.7	0.2	0.2
31.0	31.2	31.2	0.7	0.2	0.2
30.0	30.3	30.3	0.7	0.3	0.3

Measurements for an indication of the reference SPL on all other ranges which include it

Other ranges	Expected level	Actual level	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
40-140	94.0	94.0	0.7	0.0
20-120	94.0	94.0	0.7	0.0
0-100	94.0	94.0	0.7	0.0

Measurements on all level ranges for indications 2 dB below the upper limit and 2 dB above the lower limit

Ranges	Reference/Expected level	Actual level	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
40-140	51.0	51.7	0.7	0.7
	138.0	138.0	0.7	0.0
20-120	30.0	30.3	0.7	0.3
	118.0	118.0	0.7	0.0
0-100	30.0	30.0	0.7	0.0
	98.0	98.0	0.7	0.0

FREQUENCY WEIGHTING TEST

The frequency response of the weighting netwoks are tested at octave intervals over the frequency ranges 31.5 Hz to 12500 Hz. The signal level at 1000 Hz is set to give an indication of the reference SPL.

Frequency weighting A:

Frequency	Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	54.6	54.4	1.5	1.5	-0.2
63.1	94.0	67.8	67.7	1.5	1.5	-0.1
125.9	94.0	77.9	77.8	1.0	1.0	-0.1
251.2	94.0	85.4	85.3	1.0	1.0	-0.1
501.2	94.0	90.8	90.7	1.0	1.0	-0.1
1995.0	94.0	95.2	95.1	1.0	1.0	-0.1
3981.0	94.0	95.0	94.9	1.0	1.0	-0.1
7943.0	94.0	92.9	92.9	1.5	3.0	0.0
12590.0	94.0	89.7	89.5	3.0	6.0	-0.2

Frequency weighting C:

Frequency	Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
Hz	dB	dB	dB	+	-	dB

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SMECLab

Sound level meter type: XL2 Serial No. A2A-15269-EO Date 01-Mar-2022
Microphone type: MC230A Serial No. A16673
Report: 22CA0224 04-02

1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	91.0	90.8	1.5	1.5	-0.2
63.1	94.0	93.2	93.1	1.5	1.5	-0.1
125.9	94.0	93.8	93.8	1.0	1.0	0.0
251.2	94.0	94.0	93.9	1.0	1.0	-0.1
501.2	94.0	94.0	94.0	1.0	1.0	0.0
1995.0	94.0	93.8	93.8	1.0	1.0	0.0
3981.0	94.0	93.2	93.1	1.0	1.0	-0.1
7943.0	94.0	91.0	91.0	1.5	3.0	0.0
12590.0	94.0	87.8	87.6	3.0	6.0	-0.2

Frequency weighting Lin:

Frequency	Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
Hz	dB	dB	dB	+	-	dB
1000.0	94.0	94.0	94.0	0.0	0.0	0.0
31.6	94.0	94.0	93.8	1.5	1.5	-0.2
63.1	94.0	94.0	93.9	1.5	1.5	-0.1
125.9	94.0	94.0	93.9	1.0	1.0	-0.1
251.2	94.0	94.0	93.9	1.0	1.0	-0.1
501.2	94.0	94.0	93.9	1.0	1.0	-0.1
1995.0	94.0	94.0	93.9	1.0	1.0	-0.1
3981.0	94.0	94.0	93.9	1.0	1.0	-0.1
7943.0	94.0	94.0	94.0	1.5	3.0	0.0
12590.0	94.0	94.0	93.9	3.0	6.0	-0.1

Note: No corrections for the frequency response of the microphone, instrument case and windshield are made to the sound level meter.

TIME WEIGHTING FAST TEST

Time weighting F is tested on the reference range with a single sinusoidal burst of duration 200 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
dB	dB	dB	+	-	dB
116.0	115.0	114.9	1.0	1.0	-0.1

TIME WEIGHTING SLOW TEST

Time weighting S is tested on the reference range with a single sinusoidal burst of duration 500 ms at a frequency 2000 Hz and an amplitude which produces an indication 4 dB below the upper limit of the primary indicator range when the signal is continuous. (Weight A, Maximum hold)

Ref. level	Expected level	Actual level	Tolerance(dB)		Deviation
dB	dB	dB	+	-	dB
116.0	111.9	111.9	1.0	1.0	0.0

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SMECLab

Sound level meter type: XL2 Serial No. A2A-15269-EO Date 01-Mar-2022
Microphone type: MC230A Serial No. A16673
Report: 22CA0224 04-02

PEAK RESPONSE TEST

The onset time of the peak detector is tested on the reference range by comparing the response to a 100 us rectangular test pulse with the response to a 10 ms reference pulse of the same amplitude. The amplitude of the 10 ms reference pulse is such as to produce an indication 1 dB below the upper limit of the primary indicator range.

Positive polarities: (Weighting Z, set the generator signal to single, Lzpeak)

Ref. level	Response to 10 ms	Response to 100 us	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
119.0	119.0	119.3	2.0	0.3

Negative polarities:

Ref. level	Response to 10 ms	Response to 100 us	Tolerance	Deviation
dB	dB	dB	+/- dB	dB
119.0	119.0	119.3	2.0	0.3

RMS ACCURACY TEST

The RMS detector accuracy is tested on the reference range for a crest factor of 3.

Test frequency: 2000 Hz
Amplitude: 2 dB below the upper limit of the primary indicator range.
Burst repetition frequency: 40 Hz
Tone burst signal: 11 cycles of a sine wave of frequency 2000 Hz. (Set to INT)

	Ref. Level	Expected level	Tone burst signal	Tolerance	Deviation
Time wighting	dB	dB	indication(dB)	+/- dB	dB
Slow	118.0+6.6	118.0	117.9	0.5	-0.1

TIME WEIGHTING IMPULSE TEST

Time weighting I is tested on the reference range (Set the SLM to LAImax)
Test frequency: 2000 Hz
Amplitude: The upper limit of the primary indicator range.

Single sinusoidal burst of duration 5 ms:

Ref. Level	Single burst indication		Tolerance	Deviation
dB	Expected (dB)	Actual (dB)	+/- dB	dB
120.0	111.2	111.1	2.0	-0.1

Repeated at 100 Hz

Ref. Level	Repeated burst indication		Tolerance	Deviation
dB	Expected (dB)	Actual (dB)	+/- dB	dB
120.0	117.3	117.1	1.0	-0.2

TIME AVERAGING TEST

This test compares the SLM reading for continuous sine signals with readings obtained from a sine tone burst sequence having the same RMS level. The test level is 30 dB below the upper limit of the linearity range and repeated for Type 1 SLM with 40 dB below the upper limit of the linearity.

Frequency of tone burst: 4000 Hz
Duration of tone burst: 1 ms

Repetition Time	Level of tone burst	Expected Leq	Actual Leq	Tolerance	Deviation	Remarks

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SMECLab

Sound level meter type: XL2 Serial No. A2A-15269-EO Date 01-Mar-2022
Microphone type: MC230A Serial No. A16673
Report: 22CA0224 04-02

msec	dB	dB	dB	+/- dB	dB	
1000	90.0	90.0	90.0	1.0	0.0	60s integ.
10000	80.0	80.0	80.0	1.0	0.0	6min. integ.

PULSE RANGE AND SOUND EXPOSURE LEVEL TEST

The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency: 4000 Hz

Integration time: 10 sec

The integrating sound level meter set to Leq:

Duration	Rms level of	Expected	Actual	Tolerance	Deviation
msec	tone burst (dB)	dB	dB	+/- dB	dB
10	88.0	58.0	58.0	1.7	0.0

The integrating sound level meter set to SEL:

Duration	Rms level of	Expected	Actual	Tolerance	Deviation
msec	tone burst (dB)	dB	dB	+/- dB	dB
10.0	88.0	68.0	68.0	1.7	0.0

OVERLOAD INDICATION TEST

For SLM capable of operating in a non-integrating mode.

Test frequency: 2000 Hz
Amplitude: 2 dB below the upper limit of the primary indicator range.
Burst repetition frequency: 40 Hz
Tone burst signal: 11 cycles of a sine wave of frequency 2000 Hz.

Level	Level reduced by	Further reduced	Difference	Tolerance	Deviation
at overload (dB)	1 dB	3 dB	dB	dB	dB
121.6	120.6	117.6	3.0	1.0	0.0

For integrating SLM, with the instrument indicating Leq.

For integrating SLM, with the instrument indicating Leq and set to the reference range. The test signal as following:
The test tone burst signal is superimposed on a baseline signal corresponding to the lower limit of reference range

Test frequency: 4000 Hz
Integration time: 10 sec
Single burst duration: 1 msec

Rms level	Level reduced by	Expected level	Actual level	Tolerance	Deviation
at overload (dB)	1 dB	dB	dB	dB	dB
127.7	126.7	86.7	86.7	2.2	0.0

ACOUSTIC TEST

The acoustic test of the complete SLM is tested at the frequency 125 Hz and 8000 Hz using a B&K type 4226 Multifunction Acoustic Calibrator. The test is performed in A weighting.

Frequency	Expected level	Actual level	Tolerance (dB)		Deviation
Hz	dB	Measured (dB)	+	-	dB

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SMECLab

Sound level meter type: XL2 Serial No. A2A-15269-EO Date 01-Mar-2022

Microphone type: MC230A Serial No. A16673

Report: 22CA0224 04-02

1000	94.0	94.0	0.0	0.0	0.0
125	77.9	77.9	1.0	1.0	0.0
8000	92.9	93.3	1.5	3.0	0.4

----------END---------

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CERTIFICATE OF CALIBRATION

Certificate No.: 21CA1222 02-01 **Page:** 1 **of** 2

Item tested

Description:	Acoustical Calibrator (Class 1)
Manufacturer:	Larson Davis
Type/Model No.:	CAL200
Serial/Equipment No.:	13098
Adaptors used:	-

Item submitted by

Curstomer:	Lam Environmental Services Ltd.
Address of Customer:	-
Request No.:	-
Date of receipt:	22-Dec-2021

Date of test: 29-Dec-2021

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2341427	04-May-2022	SCL
Preamplifier	B&K 2673	2239857	31-May-2022	CEPREI
Measuring amplifier	B&K 2610	2346941	01-Jun-2022	CEPREI
Signal generator	DS 360	33873	27-May-2022	CEPREI
Digital multi-meter	34401A	US36087050	27-May-2022	CEPREI
Audio analyzer	8903B	GB41300350	28-May-2022	CEPREI
Universal counter	53132A	MY40003662	02-Jun-2022	CEPREI

Ambient conditions

Temperature:	22 ± 1 °C
Relative humidity:	55 ± 10 %
Air pressure:	1005 ± 5 hPa

Test specifications

1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.

2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.

3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory: Feng Junqi **Date:** 03-Jan-2022 **Company Chop:** SOILS AND MATERIALS ENGINEERING COMPANY LTD. 綜合試驗有限公司

Comments: The results reported in this certificate refer to the conditon of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument. The results apply to the item as received.

綜合試驗有限公司
SOILS & MATERIALS ENGINEERING CO., LTD.
香港新界葵涌永基路22-24號好爸爸創科大廈
Good Ba Ba Hitech Building, Nos. 22-24 Wing Kei Road, Kwai Chung, New Territories, Hong Kong
Tel: (852) 2873 6860 Fax: (852) 2555 7533 E-mail: smec@cigismec.com Website: www.cigismec.com

HOKLAS 028 CAL

CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 21CA1222 02-01 **Page:** 2 **of** 2

1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

(Output level in dB re 20 μPa)

Frequency Shown Hz	Output Sound Pressure Level Setting dB	Measured Output Sound Pressure Level dB	Estimated Expanded Uncertainty dB
1000	94.00	93.76	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz **STF = 0.018 dB**

Estimated expanded uncertainty 0.005 dB

3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz **Actual Frequency = 999.9 Hz**

Estimated expanded uncertainty 0.1 Hz Coverage factor k = 2.2

4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz **TND = 0.6%**

Estimated expanded uncertainty 0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

- End -

Calibrated by: Tung Chi Yip **Checked by:** Chan Yuk Yiu

Date: 29-Dec-2021 **Date:** 03-Jan-2022

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

Lam Environmental Services Limite

Wind Station Performance Check Record

Type : Weather Station

Manufacturer : 武汉辰云科技有限公司

Model Number : YGY-FSXY1

Serial Number : YG 21071630T0924

Performance Check Date : 30-Sep-2022

Performance Check Results

Wind Speed Range (m/s)	Reading Value (V1, m/s)	Anemometer Value (V2, m/s)	Difference (V1 - V2, m/s)
Zero Check	0.0	0.0	0.0
1 - 2	2.0	2.1	-0.1
3 - 4	3.4	3.2	0.2
5 - 6	5.7	5.6	0.1
7 - 8	7.9	8.2	-0.3

Wind Direction (^{o})	Reading Value (W1, ^{o})	Compass Value (W2, ^{o})	Difference (W1 - W2, ^{o})
0	-1	0	-1
90	90	90	0
180	178	180	-2
270	272	270	2

Test Reference:
1. Wind Speed Check - Speed reading checked on-site against anemometer logged value.
2. Wind Direction Check - Direction reading checked on on-site against compass marked reading.

Conducted by: William Cheung Checked by: Raymond Dai

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www.alsglobal.com

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

CONTACT:	DEREK LO	**WORK ORDER:**	HK2241587
CLIENT:	LAM GEOTECHNICS LIMITED		
ADDRESS:	19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG	**SUB-BATCH:**	0
		LABORATORY:	HONG KONG
		DATE RECEIVED:	20-Oct-2022
		DATE OF ISSUE:	31-Oct-2022

SPECIFIC COMMENTS

Equipment information (Brand name, Model No., Serial No. and Equipment No.) is provided by client.
The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principle as practised by the laboratory or quoted from relevant international standards.

The validity of equipment/ meter performance only applies to the result(s) stated in the report.

Equipment Type:	Multifunctional Meter
Service Nature:	Performance Check
Scope:	Dissolved Oxygen, pH Value, Salinity and Temperature
Brand Name/ Model No.:	[YSI]/ [Professional Plus]
Serial No./ Equipment No.:	[19H100656/14E101065]/ [N/A]
Date of Calibration:	25-October-2022

GENERAL COMMENTS

This report superseded any previous report(s) with same work order number.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2241587

SUB-BATCH: 0
DATE OF ISSUE: 31-Oct-2022
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional Plus]
Serial No./ Equipment No.: [19H100656/14E101065]/ [N/A]
Date of Calibration: 25-October-2022 Date of Next Calibration: 25-January-2023

PARAMETERS:

Dissolved Oxygen **Method Ref: APHA (23rd edition), 4500O: G**

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.57	3.63	+0.06
5.34	5.42	+0.08
7.92	7.98	+0.06
	Tolerance Limit (mg/L)	±0.20

pH Value **Method Ref: APHA (23rd edition), 4500H: B**

Expected Reading (pH unit)	Displayed Reading (pH unit)	Tolerance (pH unit)
4.0	3.93	-0.07
7.0	7.03	+0.03
10.0	9.90	-0.10
	Tolerance Limit (pH unit)	±0.20

Salinity **Method Ref: APHA (23rd edition), 2520B**

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	10.09	+0.9
20	19.81	-1.0
30	30.35	+1.2
	Tolerance Limit (%)	±10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

WORK ORDER: HK2241587

SUB-BATCH: 0
DATE OF ISSUE: 31-Oct-2022
CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type: Multifunctional Meter
Brand Name/ Model No.: [YSI]/ [Professional Plus]
Serial No./ Equipment No.: [19H100656/14E101065]/ [N/A]
Date of Calibration: 25-October-2022 Date of Next Calibration: 25-January-2023

PARAMETERS:

Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
7.5	6.7	-0.8
25.0	24.0	-1.0
40.0	38.8	-1.2
	Tolerance Limit (°C)	±2.0

Reference Thermometer: HK1250

* The calibration solutions do not have Certificate of Analysis.

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Ms. Lin Wai Yu, Iris
Assistant Manager - Inorganics

FT Laboratories Ltd
科達測檢試驗所有限公司

REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

Information supplied by customer:

CONTACT:	**MR. JAMES CHU**	**JOB REFERENCE NO.:**	**22777053-K20C3901**
CLIENT:	**LAM ENVIRONMENTAL SERVICES LTD.**		
DATE RECEIVED:	**20/10/2022**		
DATE OF ISSUE:	**02/11/2022**		
ADDRESS:	**19/F, REMAX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG**		
PROJECT:	**---**		

METHOD OF PERFORMANCE CHECK/ CALIBRATION:
Ref: APHA22nd ed 2130B

COMMENTS
It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.
Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of FT Laboratories Ltd will be followed.

Scope of Test:	Turbidity
Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1807073
Equipment No.:	---
Date of Calibration:	31/10/2022

Remarks:
This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Certified By: _____ Issue Date: 02/11/2022
WONG Chi Wai Sanio
Senior Chemist

Address: Lot No. DD77 Section 1552 S.A. ss 1RP, Ng Chow South Road, Ping Che, N.T., H.K.
Tel: 27584861, Fax: 27588962

REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

WORK ORDER: 22777053-K20C3901
DATE OF ISSUE: 02/11/2022
CLIENT: LAM ENVIRONMENTAL SERVICES LTD.

Equipment Type:	Turbidimeter
Brand Name:	Xin Rui
Model No.:	WGZ-3B
Serial No.:	1807073
Equipment No.:	---
Date of Calibration:	31/10/2022
Date of next Calibation:	31/01/2023
Lab I.D.:	H220050-01

Parameters:
Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance
0	0.00	---
4	4.00	0.0%
10	10.00	0.0%
40	39.99	0.0%
100	99.99	0.0%
400	400	0.0%
1000	1000	0.0%
	Tolerance Limit (±)	10%

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

Address: Lot No. DD77 Section 1552 S.A. ss 1RP, Ng Chow South Road, Ping Che, N.T., H.K.
Tel: 27584861, Fax: 27588962

Appendix 4.3

Wind Data

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
1-Nov-22	00:00	2.9	282(WNW)
	01:00	6.3	229(SW)
	02:00	4.1	268(W)
	03:00	3.3	195(SSW)
	04:00	3.3	212(SSW)
	05:00	3.5	168(SSE)
	06:00	1.7	273(W)
	07:00	2.9	100(E)
	08:00	1.5	324(NW)
	09:00	3.5	275(W)
	10:00	5.5	259(W)
	11:00	2.7	302(WNW)
	12:00	4.1	258(WSW)
	13:00	4.3	213(SSW)
	14:00	7.1	260(W)
	15:00	3.5	245(WSW)
	16:00	2.1	291(WNW)
	17:00	2.1	272(W)
	18:00	1.1	266(W)
	19:00	2.7	244(WSW)
	20:00	2.3	270(W)
	21:00	1.5	308(NW)
	22:00	5.5	292(WNW)
	23:00	1.9	210(SSW)
2-Nov-22	00:00	5.1	269(W)
	01:00	2.9	294(WNW)
	02:00	3.5	180(S)
	03:00	2.3	279(W)
	04:00	2.5	266(W)
	05:00	2.9	249(WSW)
	06:00	1.7	129(SE)
	07:00	3.7	260(W)
	08:00	2.3	255(WSW)
	09:00	2.1	243(WSW)
	10:00	2.9	203(SSW)
	11:00	2.7	246(WSW)
	12:00	1.3	222(SW)
	13:00	0.0	252(WSW)
	14:00	1.5	224(SW)
	15:00	0.0	270(W)
	16:00	1.5	263(W)
	17:00	1.1	282(WNW)
	18:00	1.3	264(W)
	19:00	2.7	259(W)
	20:00	1.9	250(WSW)
	21:00	2.5	231(SW)
	22:00	5.1	272(W)
	23:00	3.5	229(SW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
3-Nov-22	00:00	6.3	247(WSW)
	01:00	9.1	272(W)
	02:00	3.7	274(W)
	03:00	2.1	270(W)
	04:00	2.7	272(W)
	05:00	2.3	246(WSW)
	06:00	1.7	310(NW)
	07:00	1.9	276(W)
	08:00	2.3	293(WNW)
	09:00	0.5	263(W)
	10:00	0.7	307(NW)
	11:00	1.3	288(WNW)
	12:00	1.1	278(W)
	13:00	1.5	303(WNW)
	14:00	2.9	290(WNW)
	15:00	1.9	320(NW)
	16:00	1.1	237(WSW)
	17:00	1.7	255(WSW)
	18:00	1.1	277(W)
	19:00	1.3	286(WNW)
	20:00	2.1	261(W)
	21:00	1.5	275(W)
	22:00	0.9	268(W)
	23:00	2.3	281(W)
4-Nov-22	00:00	0.5	268(W)
	01:00	1.1	296(WNW)
	02:00	1.9	265(W)
	03:00	3.1	281(W)
	04:00	2.9	313(NW)
	05:00	2.9	275(W)
	06:00	1.5	311(NW)
	07:00	2.9	285(WNW)
	08:00	1.5	273(W)
	09:00	3.7	270(W)
	10:00	1.5	253(WSW)
	11:00	2.5	259(W)
	12:00	2.7	303(WNW)
	13:00	2.5	241(WSW)
	14:00	1.7	202(SSW)
	15:00	1.1	295(WNW)
	16:00	1.1	279(W)
	17:00	3.5	280(W)
	18:00	1.3	48(NE)
	19:00	3.1	245(WSW)
	20:00	2.7	275(W)
	21:00	1.7	275(W)
	22:00	2.7	279(W)
	23:00	1.9	225(SW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
5-Nov-22	00:00	1.7	259(W)
	01:00	1.3	241(WSW)
	02:00	1.7	228(SW)
	03:00	2.5	236(SW)
	04:00	2.9	246(WSW)
	05:00	1.7	198(SSW)
	06:00	3.3	257(WSW)
	07:00	3.1	270(W)
	08:00	2.3	258(WSW)
	09:00	1.5	291(WNW)
	10:00	2.3	243(WSW)
	11:00	2.3	241(WSW)
	12:00	1.3	241(WSW)
	13:00	1.7	332(NNW)
	14:00	1.3	301(WNW)
	15:00	1.9	261(W)
	16:00	0.9	292(WNW)
	17:00	1.7	259(W)
	18:00	2.7	259(W)
	19:00	3.5	261(W)
	20:00	2.1	223(SW)
	21:00	1.7	270(W)
	22:00	1.1	294(WNW)
	23:00	1.1	268(W)
6-Nov-22	00:00	0.9	139(SE)
	01:00	0.9	306(NW)
	02:00	2.5	284(WNW)
	03:00	1.3	237(WSW)
	04:00	1.1	307(NW)
	05:00	1.7	132(SE)
	06:00	2.1	247(WSW)
	07:00	0.7	318(NW)
	08:00	1.3	259(W)
	09:00	1.5	242(WSW)
	10:00	2.1	275(W)
	11:00	1.1	26(NNE)
	12:00	2.1	278(W)
	13:00	1.1	169(S)
	14:00	1.3	257(WSW)
	15:00	0.7	138(SE)
	16:00	0.9	198(SSW)
	17:00	1.7	214(SW)
	18:00	0.5	155(SSE)
	19:00	1.5	295(WNW)
	20:00	1.5	237(WSW)
	21:00	2.5	258(WSW)
	22:00	0.9	291(WNW)
	23:00	0.0	54(NE)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
7-Nov-22	00:00	0.7	266(W)
	01:00	1.3	290(WNW)
	02:00	1.9	306(NW)
	03:00	1.5	257(WSW)
	04:00	0.7	241(WSW)
	05:00	1.3	249(WSW)
	06:00	1.7	240(WSW)
	07:00	1.5	240(WSW)
	08:00	1.3	229(SW)
	09:00	1.5	198(SSW)
	10:00	1.1	197(SSW)
	11:00	1.5	161(SSE)
	12:00	1.1	146(SE)
	13:00	1.5	216(SW)
	14:00	1.7	280(W)
	15:00	1.1	240(WSW)
	16:00	1.1	226(SW)
	17:00	2.5	302(WNW)
	18:00	1.3	250(WSW)
	19:00	0.9	272(W)
	20:00	1.5	241(WSW)
	21:00	1.1	227(SW)
	22:00	1.7	250(WSW)
	23:00	2.1	273(W)
8-Nov-22	00:00	0.9	234(SW)
	01:00	1.5	269(W)
	02:00	1.1	256(WSW)
	03:00	0.9	236(SW)
	04:00	1.5	290(WNW)
	05:00	1.3	275(W)
	06:00	1.7	263(W)
	07:00	0.9	219(SW)
	08:00	1.5	258(WSW)
	09:00	3.1	271(W)
	10:00	1.3	177(S)
	11:00	1.3	329(NNW)
	12:00	1.9	264(W)
	13:00	1.3	259(W)
	14:00	1.3	251(WSW)
	15:00	0.7	242(WSW)
	16:00	1.5	223(SW)
	17:00	1.9	250(WSW)
	18:00	1.3	250(WSW)
	19:00	1.3	235(SW)
	20:00	1.3	268(W)
	21:00	0.7	234(SW)
	22:00	1.1	291(WNW)
	23:00	2.3	253(WSW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
9-Nov-22	00:00	0.7	298(WNW)
	01:00	1.3	270(W)
	02:00	1.1	290(WNW)
	03:00	0.7	82(E)
	04:00	0.0	339(NNW)
	05:00	0.5	99(E)
	06:00	0.0	346(NNW)
	07:00	0.0	225(SW)
	08:00	1.3	244(WSW)
	09:00	2.7	256(WSW)
	10:00	2.3	284(WNW)
	11:00	3.3	306(NW)
	12:00	3.5	277(W)
	13:00	0.7	237(WSW)
	14:00	1.3	73(ENE)
	15:00	0.9	226(SW)
	16:00	0.0	316(NW)
	17:00	1.1	287(WNW)
	18:00	0.7	294(WNW)
	19:00	1.3	289(WNW)
	20:00	1.1	302(WNW)
	21:00	1.1	254(WSW)
	22:00	1.1	284(WNW)
	23:00	1.5	282(WNW)
10-Nov-22	00:00	0.5	203(SSW)
	01:00	0.5	290(WNW)
	02:00	1.1	290(WNW)
	03:00	1.1	291(WNW)
	04:00	1.5	264(W)
	05:00	1.3	268(W)
	06:00	0.5	256(WSW)
	07:00	0.9	215(SW)
	08:00	0.7	263(W)
	09:00	0.7	81(E)
	10:00	0.9	261(W)
	11:00	1.3	217(SW)
	12:00	1.3	306(NW)
	13:00	0.5	275(W)
	14:00	0.5	200(SSW)
	15:00	1.3	133(SE)
	16:00	1.7	112(ESE)
	17:00	0.5	348(NNW)
	18:00	0.5	105(ESE)
	19:00	2.1	206(SSW)
	20:00	1.7	269(W)
	21:00	1.1	283(WNW)
	22:00	0.9	301(WNW)
	23:00	1.1	276(W)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
11-Nov-22	00:00	1.3	281(W)
	01:00	1.5	273(W)
	02:00	3.1	300(WNW)
	03:00	2.5	279(W)
	04:00	1.7	246(WSW)
	05:00	1.3	268(W)
	06:00	1.7	264(W)
	07:00	1.1	263(W)
	08:00	1.9	296(WNW)
	09:00	0.9	298(WNW)
	10:00	3.3	279(W)
	11:00	1.5	45(NE)
	12:00	0.9	155(SSE)
	13:00	0.0	219(SW)
	14:00	0.7	99(E)
	15:00	1.1	131(SE)
	16:00	2.3	106(ESE)
	17:00	0.7	175(S)
	18:00	0.0	35(NE)
	19:00	1.1	274(W)
	20:00	1.5	294(WNW)
	21:00	1.3	246(WSW)
	22:00	1.5	267(W)
	23:00	0.7	284(WNW)
12-Nov-22	00:00	1.1	256(WSW)
	01:00	1.3	244(WSW)
	02:00	0.9	296(WNW)
	03:00	1.5	249(WSW)
	04:00	1.1	259(W)
	05:00	1.9	261(W)
	06:00	0.7	215(SW)
	07:00	1.3	278(W)
	08:00	1.1	253(WSW)
	09:00	1.9	245(WSW)
	10:00	1.5	243(WSW)
	11:00	0.9	168(SSE)
	12:00	1.5	269(W)
	13:00	1.5	275(W)
	14:00	1.7	264(W)
	15:00	0.7	93(E)
	16:00	1.9	278(W)
	17:00	1.7	266(W)
	18:00	1.3	235(SW)
	19:00	1.1	254(WSW)
	20:00	1.3	234(SW)
	21:00	1.3	276(W)
	22:00	1.5	283(WNW)
	23:00	1.1	243(WSW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
13-Nov-22	00:00	1.8	235(WSW)
	01:00	0.7	118(ESE)
	02:00	0.5	308(NW)
	03:00	1.3	272(W)
	04:00	0.7	275(W)
	05:00	0.7	257(WSW)
	06:00	0.0	228(SW)
	07:00	0.9	250(WSW)
	08:00	0.0	185(S)
	09:00	0.7	25(NNE)
	10:00	1.9	285(WNW)
	11:00	2.5	269(W)
	12:00	2.9	252(WSW)
	13:00	4.5	268(W)
	14:00	3.3	254(WSW)
	15:00	2.7	232(SW)
	16:00	2.7	279(W)
	17:00	2.3	261(W)
	18:00	1.9	296(WNW)
	19:00	1.9	267(W)
	20:00	1.3	268(W)
	21:00	1.3	269(W)
	22:00	1.5	248(WSW)
	23:00	0.9	288(WNW)
14-Nov-22	00:00	2.3	255(WSW)
	01:00	1.5	287(WNW)
	02:00	1.3	251(WSW)
	03:00	2.9	236(SW)
	04:00	1.5	265(W)
	05:00	1.5	220(SW)
	06:00	2.5	251(WSW)
	07:00	4.3	275(W)
	08:00	2.7	270(W)
	09:00	2.5	284(WNW)
	10:00	2.7	262(W)
	11:00	1.9	301(WNW)
	12:00	0.9	231(SW)
	13:00	2.1	294(WNW)
	14:00	1.9	264(W)
	15:00	0.7	15(NNE)
	16:00	2.5	330(NNW)
	17:00	1.5	336(NNW)
	18:00	0.5	96(E)
	19:00	1.9	251(WSW)
	20:00	1.5	247(WSW)
	21:00	1.1	202(SSW)
	22:00	1.1	274(W)
	23:00	1.9	306(NW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
15-Nov-22	00:00	1.3	84(E)
	01:00	1.3	288(WNW)
	02:00	1.3	209(SSW)
	03:00	1.1	241(WSW)
	04:00	1.5	225(SW)
	05:00	1.7	298(WNW)
	06:00	1.9	281(W)
	07:00	1.7	272(W)
	08:00	0.5	251(WSW)
	09:00	1.9	317(NW)
	10:00	1.9	294(WNW)
	11:00	0.9	64(ENE)
	12:00	3.7	297(WNW)
	13:00	4.1	260(W)
	14:00	2.1	31(NNE)
	15:00	3.3	306(NW)
	16:00	3.1	281(W)
	17:00	1.3	283(WNW)
	18:00	1.1	279(W)
	19:00	1.3	204(SSW)
	20:00	1.5	290(WNW)
	21:00	1.3	257(WSW)
	22:00	1.3	298(WNW)
	23:00	1.9	322(NW)
16-Nov-22	00:00	1.1	288(WNW)
	01:00	1.1	269(W)
	02:00	1.1	279(W)
	03:00	0.7	298(WNW)
	04:00	2.7	308(NW)
	05:00	2.3	286(WNW)
	06:00	1.3	224(SW)
	07:00	1.3	331(NNW)
	08:00	1.9	236(SW)
	09:00	4.1	305(NW)
	10:00	1.7	290(WNW)
	11:00	3.1	274(W)
	12:00	2.7	46(NE)
	13:00	2.1	158(SSE)
	14:00	0.7	165(SSE)
	15:00	4.3	302(WNW)
	16:00	3.7	325(NW)
	17:00	2.5	286(WNW)
	18:00	5.1	307(NW)
	19:00	1.9	335(NNW)
	20:00	0.9	154(SSE)
	21:00	2.1	328(NNW)
	22:00	4.7	322(NW)
	23:00	1.5	249(WSW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
17-Nov-22	00:00	1.3	77(ENE)
	01:00	2.9	330(NNW)
	02:00	2.1	234(SW)
	03:00	2.3	305(NW)
	04:00	1.5	270(W)
	05:00	1.3	252(WSW)
	06:00	1.1	280(W)
	07:00	1.5	275(W)
	08:00	1.3	331(NNW)
	09:00	2.7	232(SW)
	10:00	1.3	326(NW)
	11:00	2.3	238(WSW)
	12:00	2.1	303(WNW)
	13:00	2.5	290(WNW)
	14:00	2.7	254(WSW)
	15:00	1.5	291(WNW)
	16:00	0.9	244(WSW)
	17:00	1.7	302(WNW)
	18:00	1.1	285(WNW)
	19:00	1.1	270(W)
	20:00	1.5	261(W)
	21:00	1.1	297(WNW)
	22:00	0.9	122(ESE)
	23:00	0.9	245(WSW)
18-Nov-22	00:00	1.1	272(W)
	01:00	1.3	239(WSW)
	02:00	0.7	297(WNW)
	03:00	1.1	255(WSW)
	04:00	1.1	245(WSW)
	05:00	1.1	347(NNW)
	06:00	0.0	250(WSW)
	07:00	0.7	289(WNW)
	08:00	0.7	266(W)
	09:00	0.7	202(SSW)
	10:00	1.3	306(NW)
	11:00	4.1	248(WSW)
	12:00	1.9	316(NW)
	13:00	1.5	244(WSW)
	14:00	3.9	247(WSW)
	15:00	2.7	281(W)
	16:00	1.7	262(W)
	17:00	1.9	285(WNW)
	18:00	0.9	65(ENE)
	19:00	1.5	252(WSW)
	20:00	1.9	270(W)
	21:00	2.3	295(WNW)
	22:00	2.3	286(WNW)
	23:00	1.1	291(WNW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
19-Nov-22	00:00	1.9	267(W)
	01:00	1.1	262(W)
	02:00	0.9	277(W)
	03:00	1.1	280(W)
	04:00	1.1	267(W)
	05:00	1.1	269(W)
	06:00	1.1	268(W)
	07:00	1.5	225(SW)
	08:00	1.5	201(SSW)
	09:00	2.1	310(NW)
	10:00	3.1	272(W)
	11:00	1.7	101(E)
	12:00	3.3	256(WSW)
	13:00	0.9	330(NNW)
	14:00	0.7	213(SSW)
	15:00	0.7	203(SSW)
	16:00	1.3	299(WNW)
	17:00	2.5	295(WNW)
	18:00	1.5	283(WNW)
	19:00	1.3	233(SW)
	20:00	1.7	275(W)
	21:00	1.1	284(WNW)
	22:00	1.7	261(W)
	23:00	1.5	224(SW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
20-Nov-22	00:00	1.3	236(SW)
	01:00	1.3	238(WSW)
	02:00	2.3	269(W)
	03:00	0.7	70(ENE)
	04:00	0.9	247(WSW)
	05:00	1.1	295(WNW)
	06:00	1.1	242(WSW)
	07:00	1.3	291(WNW)
	08:00	2.9	250(WSW)
	09:00	1.5	258(WSW)
	10:00	1.5	281(W)
	11:00	1.7	288(WNW)
	12:00	1.5	245(WSW)
	13:00	1.9	181(S)
	14:00	1.7	17(NNE)
	15:00	1.5	160(SSE)
	16:00	1.9	283(WNW)
	17:00	2.3	329(NNW)
	18:00	1.3	254(WSW)
	19:00	1.3	303(WNW)
	20:00	1.1	304(NW)
	21:00	1.5	251(WSW)
	22:00	1.1	264(W)
	23:00	1.5	251(WSW)
21-Nov-22	00:00	1.7	282(WNW)
	01:00	0.9	235(SW)
	02:00	1.1	214(SW)
	03:00	1.3	306(NW)
	04:00	0.7	302(WNW)
	05:00	1.5	273(W)
	06:00	1.7	279(W)
	07:00	1.7	285(WNW)
	08:00	1.7	253(WSW)
	09:00	0.7	312(NW)
	10:00	1.9	267(W)
	11:00	1.1	261(W)
	12:00	3.9	236(SW)
	13:00	3.5	127(SE)
	14:00	2.9	237(WSW)
	15:00	2.7	261(W)
	16:00	3.5	236(SW)
	17:00	1.7	141(SE)
	18:00	3.7	285(WNW)
	19:00	3.7	274(W)
	20:00	1.9	198(SSW)
	21:00	8.1	252(WSW)
	22:00	2.7	314(NW)
	23:00	2.1	308(NW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
22-Nov-22	00:00	2.7	291(WNW)
	01:00	2.9	271(W)
	02:00	3.3	314(NW)
	03:00	1.3	297(WNW)
	04:00	2.7	282(WNW)
	05:00	2.3	276(W)
	06:00	1.7	266(W)
	07:00	1.3	240(WSW)
	08:00	1.9	237(WSW)
	09:00	3.3	277(W)
	10:00	2.3	236(SW)
	11:00	2.7	346(NNW)
	12:00	3.1	270(W)
	13:00	2.1	273(W)
	14:00	2.3	324(NW)
	15:00	1.9	288(WNW)
	16:00	2.3	240(WSW)
	17:00	1.1	329(NNW)
	18:00	1.1	260(W)
	19:00	3.1	288(WNW)
	20:00	1.3	267(W)
	21:00	1.3	297(WNW)
	22:00	1.3	273(W)
	23:00	1.3	278(W)
23-Nov-22	00:00	0.9	279(W)
	01:00	2.1	275(W)
	02:00	1.1	289(WNW)
	03:00	1.3	254(WSW)
	04:00	1.5	263(W)
	05:00	0.7	279(W)
	06:00	0.9	263(W)
	07:00	1.7	232(SW)
	08:00	1.9	251(WSW)
	09:00	0.9	212(SSW)
	10:00	1.7	248(WSW)
	11:00	1.7	262(W)
	12:00	1.5	232(SW)
	13:00	1.9	251(WSW)
	14:00	1.9	294(WNW)
	15:00	1.1	261(W)
	16:00	1.3	320(NW)
	17:00	1.1	200(SSW)
	18:00	2.1	311(NW)
	19:00	1.7	296(WNW)
	20:00	2.5	290(WNW)
	21:00	2.9	285(WNW)
	22:00	0.9	102(ESE)
	23:00	2.1	260(W)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
24-Nov-22	00:00	2.3	246(WSW)
	01:00	2.9	321(NW)
	02:00	2.1	255(WSW)
	03:00	1.7	222(SW)
	04:00	3.5	269(W)
	05:00	2.5	268(W)
	06:00	3.1	274(W)
	07:00	2.7	286(WNW)
	08:00	2.7	50(NE)
	09:00	2.7	204(SSW)
	10:00	2.3	118(ESE)
	11:00	1.3	317(NW)
	12:00	2.3	318(NW)
	13:00	1.5	256(WSW)
	14:00	1.7	267(W)
	15:00	1.5	197(SSW)
	16:00	1.9	242(WSW)
	17:00	1.7	273(W)
	18:00	1.3	255(WSW)
	19:00	1.7	260(W)
	20:00	1.1	280(W)
	21:00	1.7	265(W)
	22:00	1.7	263(W)
	23:00	1.3	258(WSW)
25-Nov-22	00:00	1.7	308(NW)
	01:00	0.9	326(NW)
	02:00	1.7	263(W)
	03:00	1.5	331(NNW)
	04:00	1.1	271(W)
	05:00	1.7	289(WNW)
	06:00	1.5	277(W)
	07:00	1.5	272(W)
	08:00	3.1	262(W)
	09:00	1.7	269(W)
	10:00	2.3	306(NW)
	11:00	2.7	301(WNW)
	12:00	2.1	310(NW)
	13:00	1.1	289(WNW)
	14:00	0.9	193(SSW)
	15:00	1.1	59(ENE)
	16:00	0.5	123(ESE)
	17:00	1.7	252(WSW)
	18:00	1.3	281(W)
	19:00	0.9	270(W)
	20:00	2.1	251(WSW)
	21:00	0.7	283(WNW)
	22:00	1.3	244(WSW)
	23:00	0.7	206(SSW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
26-Nov-22	00:00	1.1	275(W)
	01:00	0.7	277(W)
	02:00	1.5	338(NNW)
	03:00	1.3	176(S)
	04:00	1.3	254(WSW)
	05:00	0.7	280(W)
	06:00	0.9	311(NW)
	07:00	0.7	330(NNW)
	08:00	0.9	273(W)
	09:00	2.3	243(WSW)
	10:00	2.9	229(SW)
	11:00	1.7	279(W)
	12:00	2.1	289(WNW)
	13:00	1.3	270(W)
	14:00	1.9	218(SW)
	15:00	0.7	250(WSW)
	16:00	0.9	309(NW)
	17:00	2.1	301(WNW)
	18:00	0.9	302(WNW)
	19:00	1.5	295(WNW)
	20:00	1.3	243(WSW)
	21:00	1.5	282(WNW)
	22:00	1.7	240(WSW)
	23:00	1.3	257(WSW)
27-Nov-22	00:00	2.5	300(WNW)
	01:00	3.3	259(W)
	02:00	3.3	321(NW)
	03:00	3.1	264(W)
	04:00	2.1	222(SW)
	05:00	1.9	291(WNW)
	06:00	2.3	302(WNW)
	07:00	2.1	273(W)
	08:00	1.3	96(E)
	09:00	1.1	288(WNW)
	10:00	1.1	259(W)
	11:00	3.5	34(NE)
	12:00	1.9	255(WSW)
	13:00	0.9	63(ENE)
	14:00	1.3	273(W)
	15:00	2.5	94(E)
	16:00	2.5	268(W)
	17:00	1.7	244(WSW)
	18:00	2.3	303(WNW)
	19:00	1.7	234(SW)
	20:00	1.1	292(WNW)
	21:00	1.1	258(WSW)
	22:00	1.7	261(W)
	23:00	1.3	300(WNW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
28-Nov-22	00:00	1.7	261(W)
	01:00	1.1	270(W)
	02:00	0.0	141(SE)
	03:00	1.7	311(NW)
	04:00	1.5	257(WSW)
	05:00	0.9	259(W)
	06:00	0.7	312(NW)
	07:00	1.5	242(WSW)
	08:00	1.1	5(N)
	09:00	1.1	278(W)
	10:00	1.5	267(W)
	11:00	1.5	25(NNE)
	12:00	0.7	12(NNE)
	13:00	1.5	82(E)
	14:00	1.5	49(NE)
	15:00	1.7	90(E)
	16:00	4.3	145(SE)
	17:00	1.9	89(E)
	18:00	1.3	78(ENE)
	19:00	1.3	296(WNW)
	20:00	0.9	286(WNW)
	21:00	0.7	128(SE)
	22:00	1.1	245(WSW)
	23:00	1.1	272(W)
29-Nov-22	00:00	0.9	276(W)
	01:00	0.7	298(WNW)
	02:00	0.7	288(WNW)
	03:00	0.7	294(WNW)
	04:00	0.9	286(WNW)
	05:00	0.7	267(W)
	06:00	0.9	271(W)
	07:00	0.0	276(W)
	08:00	1.1	229(SW)
	09:00	1.3	54(NE)
	10:00	1.9	314(NW)
	11:00	2.7	293(WNW)
	12:00	2.5	278(W)
	13:00	2.1	197(SSW)
	14:00	2.3	326(NW)
	15:00	0.5	272(W)
	16:00	2.5	337(NNW)
	17:00	1.1	280(W)
	18:00	1.7	274(W)
	19:00	1.1	210(SSW)
	20:00	1.1	272(W)
	21:00	1.3	272(W)
	22:00	1.5	268(W)
	23:00	1.1	309(NW)
30-Nov-22	00:00	1.7	237(WSW)
	01:00	0.7	71(ENE)
	02:00	0.5	341(NNW)
	03:00	0	328(NNW)
	04:00	0	316(NW)
	05:00	0.9	251(WSW)
	06:00	0.9	243(WSW)
	07:00	0.7	295(WNW)
	08:00	0	316(NW)
	09:00	2.1	272(W)
	10:00	1.7	193(SSW)
	11:00	3.1	258(WSW)

Wind Speed and Wind Direction

Date	Time	Wind Speed (m/s)	Wind Direction (degree)
30 Nov 22	12:00	3.1	257(WSW)
	13:00	4.1	222(SW)
	14:00	2.5	222(SW)
	15:00	1.9	249(WSW)
	16:00	2.7	218(SW)
	17:00	3.3	279(W)
	18:00	1.9	242(WSW)
	19:00	1.9	165(SSE)
	20:00	2.7	240(WSW)
	21:00	1.7	276(W)
	22:00	2.9	229(SW)
	23:00	3.5	227(SW)

Appendix 5.1

Monitoring Schedule for Reporting Month and Next Reporting Month

Contract No. SPW 12/2021
Environmental Team (2021-2024)
for Shek Wui Effluent Polishing Plant - Main Works
Impact Monitoring Schedule
Nov 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1-Nov Ecological Monitoring	2-Nov	3-Nov AQM+24hr TSP	4-Nov AQM + 1hr TSP NM	5-Nov
6-Nov	7-Nov	8-Nov	9-Nov AQM+24hr TSP	10-Nov AQM + 1hr TSP NM	11-Nov Ecological Monitoring	12-Nov
13-Nov	14-Nov	15-Nov AQM+24hr TSP Ecological Monitoring	16-Nov AQM + 1hr TSP NM	17-Nov	18-Nov	19-Nov
20-Nov	21-Nov AQM+24hr TSP Ecological Monitoring	22-Nov AQM + 1hr TSP NM	23-Nov Water Quality Monitoring*	24-Nov	25-Nov Water Quality Monitoring	26-Nov AQM+24hr TSP
27-Nov	28-Nov AQM + 1hr TSP NM Water Quality Monitoring	29-Nov Ecological Monitoring	30-Nov Water Quality Monitoring			

Remarks

- AQM: Air Quality Monitoring
- NM: Noise Monitoring, the monitoring dates are tentative and subject to change
- Ecological Monitoring dates are tentative and subject to change based on real-time tide.
- Commencement of water quality monitoring

Contract No. SPW 12/2021
Environmental Team (2021-2024)
for Shek Wui Effluent Polishing Plant - Main Works
Tentative Impact Monitoring Schedule
Dec 2022

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
27-Nov	28-Nov	29-Nov	30-Nov	1-Dec	2-Dec AQM+24hr TSP Water Quality Monitoring	3-Dec AQM + 1hr TSP
4-Dec	5-Dec Water Quality Monitoring	6-Dec	7-Dec Water Quality Monitoring	8-Dec AQM+24hr TSP	9-Dec AQM + 1hr TSP NM Ecological Monitoring Water Quality Monitoring	10-Dec
11-Dec	12-Dec Water Quality Monitoring	13-Dec	14-Dec AQM+24hr TSP Water Quality Monitoring	15-Dec AQM + 1hr TSP NM	16-Dec Ecological Monitoring Water Quality Monitoring	17-Dec
18-Dec	19-Dec AQM+24hr TSP Water Quality Monitoring	20-Dec AQM + 1hr TSP NM	21-Dec Water Quality Monitoring	22-Dec	23-Dec AQM+24hr TSP Ecological Monitoring Water Quality Monitoring	24-Dec AQM + 1hr TSP
25-Dec	26-Dec	27-Dec	28-Dec Ecological Monitoring Water Quality Monitoring	29-Dec AQM+24hr TSP	30-Dec AQM + 1hr TSP NM Water Quality Monitoring	31-Dec

Remarks

- AQM: Air Quality Monitoring
- NM: Noise Monitoring, the monitoring dates are tentative and subject to change
- Ecological Monitoring dates are tentative and subject to change based on real-time tide.

* Water Quality Monitoring on 26 Dec was cancelled, since no outfall work will be carried out on that day.

Contract No. SPW 12/2021
Environmental Team (2021-2024)
for Shek Wui Effluent Polishing Plant - Main Works
Tentative Impact Monitoring Schedule
Jan 2023

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Jan	2-Jan Water Quality Monitoring*	3-Jan	4-Jan AQM+24hr TSP Water Quality Monitoring	5-Jan AQM + 1hr TSP NM	6-Jan Ecological Monitoring Water Quality Monitoring	7-Jan
8-Jan	9-Jan Water Quality Monitoring	10-Jan AQM+24hr TSP Ecological Monitoring	11-Jan AQM + 1hr TSP NM Water Quality Monitoring	12-Jan	13-Jan Water Quality Monitoring	14-Jan
15-Jan	16-Jan AQM+24hr TSP Water Quality Monitoring	17-Jan AQM + 1hr TSP NM	18-Jan Water Quality Monitoring	19-Jan Ecological Monitoring	20-Jan AQM+24hr TSP Water Quality Monitoring	21-Jan AQM + 1hr TSP NM
22-Jan	23-Jan Water Quality Monitoring*	24-Jan	25-Jan Water Quality Monitoring*	26-Jan AQM+24hr TSP	27-Jan AQM + 1hr TSP NM Ecological Monitoring Water Quality Monitoring	28-Jan
29-Jan	30-Jan Water Quality Monitoring	31-Jan				

Remarks

- AQM: Air Quality Monitoring
- NM: Noise Monitoring, the monitoring dates are tentative and subject to change
- Ecological Monitoring dates are tentative and subject to change based on real-time tide.

* Water Quality Monitoring on 1, 23 and 25 Jan 2023 were tentatively scheduled, which will be subjected to construction progress.

Appendix 5.2

Noise Monitoring Results and Graphical Presentations

Noise Monitoring Result

Location: NM1 - G/F, Wai Loi Tsuen

Date	Time	Weather	Wind Speed (m/s)	Measurement Noise Level Leq	L10	L90	Baseline Level Leq	Construction Noise Level Leq	Limit Level Leq
				Unit: dB(A), (30min)					
04/11/2022	8:10	Drizzle	0.0	58.9	60.3	56.8	63.4	59	75
10/11/2022	8:30	Sunny	0.0	56.4	58.5	53.1	63.4	56	75
16/11/2022	8:45	Sunny	0.0	57.2	58.5	55.2	63.4	57	75
22/11/2022	8:47	Cloudy	0.0	57.4	58.7	55.7	63.4	57	75
28/11/2022	13:48	Fine	0.0	56.9	58.9	53.7	63.4	57	75

Location: NM2 - G/F, Fu Tei Au

Date	Time	Weather	Wind Speed (m/s)	Measurement Noise Level Leq	L10	L90	Baseline Level Leq	Construction Noise Level Leq	Limit Level Leq
				Unit: dB(A), (30-min)					
04/11/2022	8:50	Drizzle	0.0	67.3	71.0	57.0	58.0	67	75
10/11/2022	10:40	Sunny	0.0	62.3	64.9	55.5	58.0	60	75
16/11/2022	9:30	Sunny	0.0	68.3	68.5	62.7	58.0	68	75
22/11/2022	9:40	Cloudy	0.0	65.3	68.1	60.6	58.0	64	75
28/11/2022	9:12	Fine	0.0	71.3	73.7	66.5	58.0	71	75

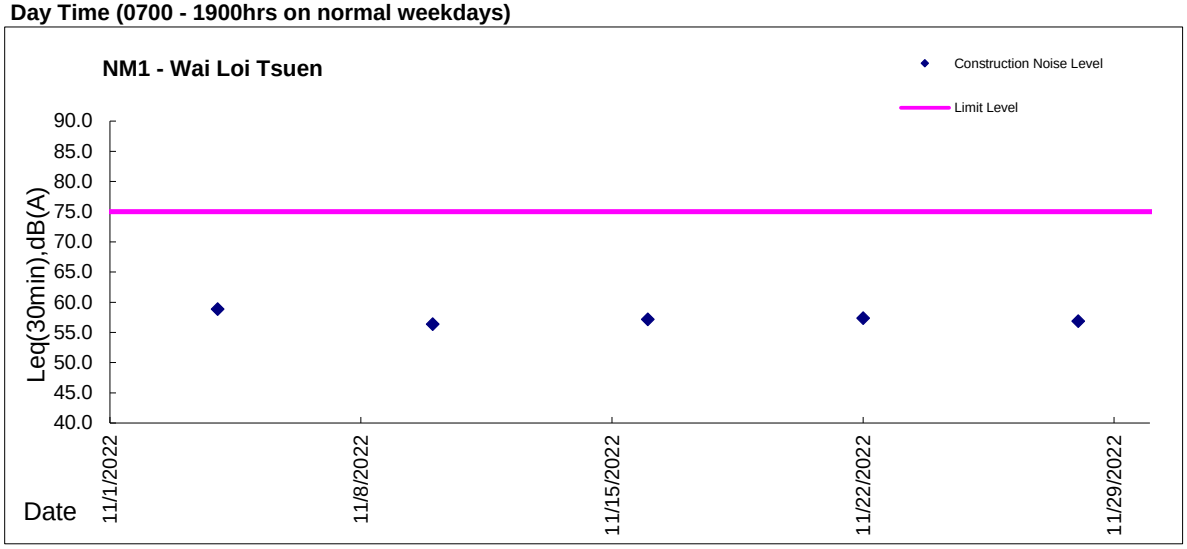
Location: NM3 - G/F, Man kok Village

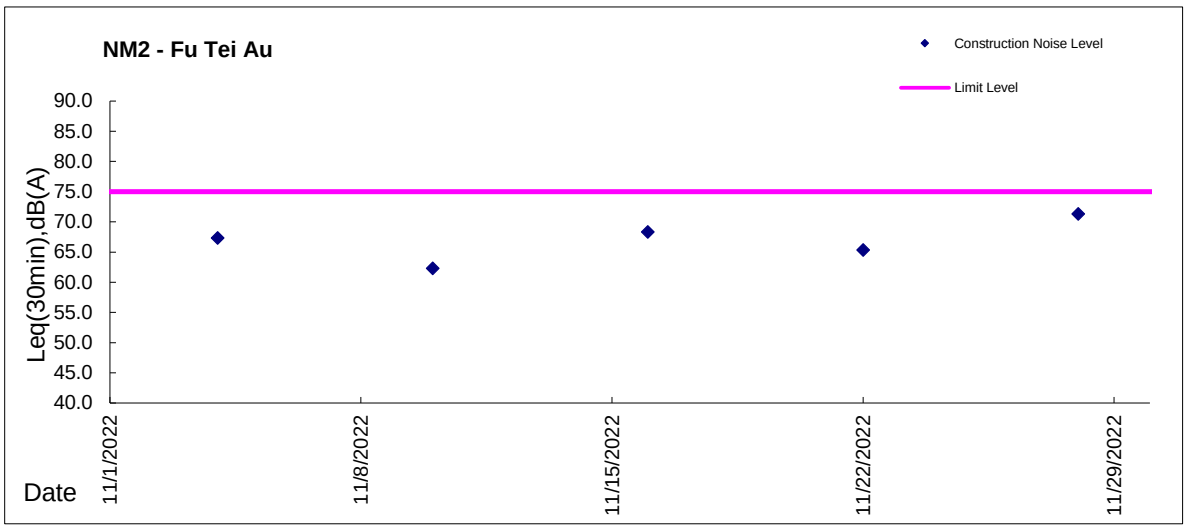
Date	Time	Weather	Wind Speed (m/s)	Measurement Noise Level Leq	L10	L90	Baseline Level Leq	Construction Noise Level Leq	Limit Level Leq
				Unit: dB(A), (30min)					
04/11/2022	10:00	Drizzle	0.0	62.2	63.9	58.7	63.4	62	75
10/11/2022	11:20	Sunny	0.0	67.1	71.0	55.4	63.4	65	75
16/11/2022	10:20	Sunny	0.0	58.8	58.4	52.4	63.4	59	75
22/11/2022	10:30	Cloudy	0.0	62.3	64.4	56.2	63.4	62	75
28/11/2022	10:27	Fine	0.0	67.9	71.3	59.1	63.4	66	75

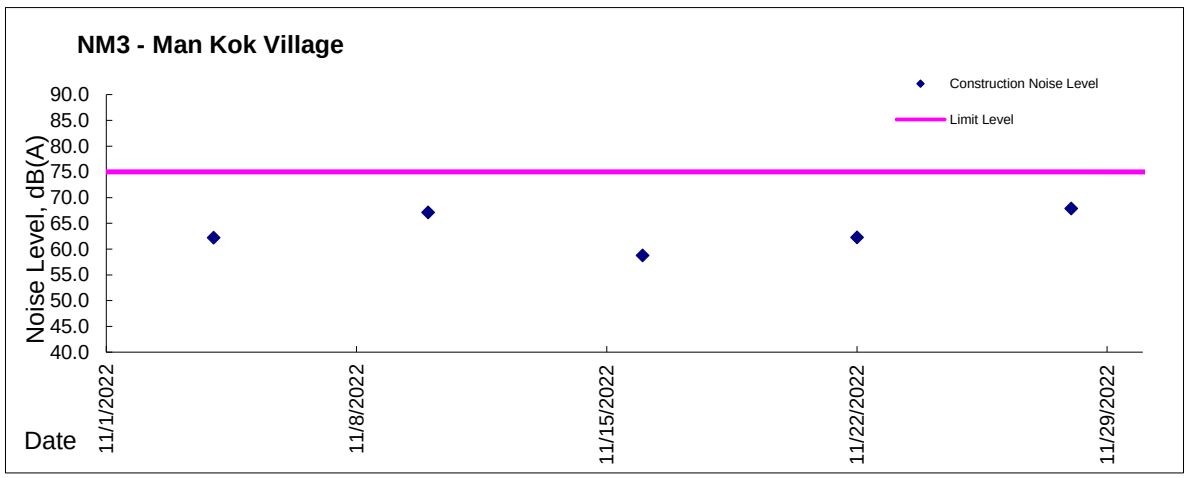
* Free field correction (Additional 3dB(A)) was made on NM1, NM2, and NM3 measurement result

Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)







Appendix 5.3

Air Quality Monitoring Results and Graphical Presentations

Report on 1-hour TSP monitoring at AM1 - Wai Loi Tsuen
Action Level (μg/m3) - 320
Limit Level (μg/m3) - 500

Date	Weather Condition	Time	Mass Concentration (μg/m3)	Model No.	Serial No.
4-Nov-22	Drizzle	8:04	42	AEROCET 831	R14332
4-Nov-22	Drizzle	9:04	34		
4-Nov-22	Drizzle	10:04	24		
10-Nov-22	Sunny	13:00	21		
10-Nov-22	Sunny	14:00	22		
10-Nov-22	Sunny	15:00	43		
16-Nov-22	Sunny	8:35	27		
16-Nov-22	Sunny	9:35	20		
16-Nov-22	Sunny	10:35	16		
22-Nov-22	Cloudy	8:38	18		
22-Nov-22	Cloudy	9:38	18		
22-Nov-22	Cloudy	10:38	17		
28-Nov-22	Fine	8:56	49		
28-Nov-22	Fine	9:56	35		
28-Nov-22	Fine	10:56	22		

Report on 1-hour TSP monitoring at AM2 - Fu Tei Au
Action Level (μg/m3) - 322
Limit Level (μg/m3) - 500

Date	Weather Condition	Time	Mass Concentration (μg/m3)	Model No.	Serial No.
4-Nov-22	Drizzle	8:35	72	AEROCET 831	W16848
4-Nov-22	Drizzle	9:35	43		
4-Nov-22	Drizzle	10:35	41		
10-Nov-22	Sunny	13:00	24		
10-Nov-22	Sunny	14:00	18		
10-Nov-22	Sunny	15:00	36		
16-Nov-22	Sunny	13:00	15		
16-Nov-22	Sunny	14:00	14		
16-Nov-22	Sunny	15:00	20		
22-Nov-22	Cloudy	8:55	27		
22-Nov-22	Cloudy	9:55	25		
22-Nov-22	Cloudy	10:55	26		
28-Nov-22	Fine	8:38	42		
28-Nov-22	Fine	9:38	23		
28-Nov-22	Fine	10:38	21		

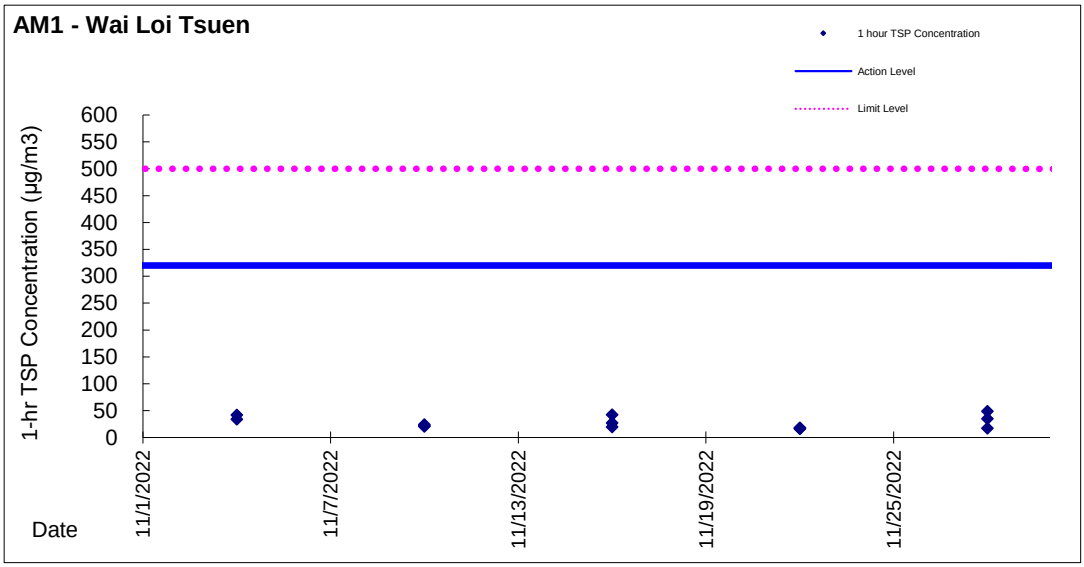
Location: AM1a* - Site boundary of the Shek Wu Hui STW (East), Roof floor of the control room of SWHSTW
Impact Monitoring Result on 24-hour TSP monitoring

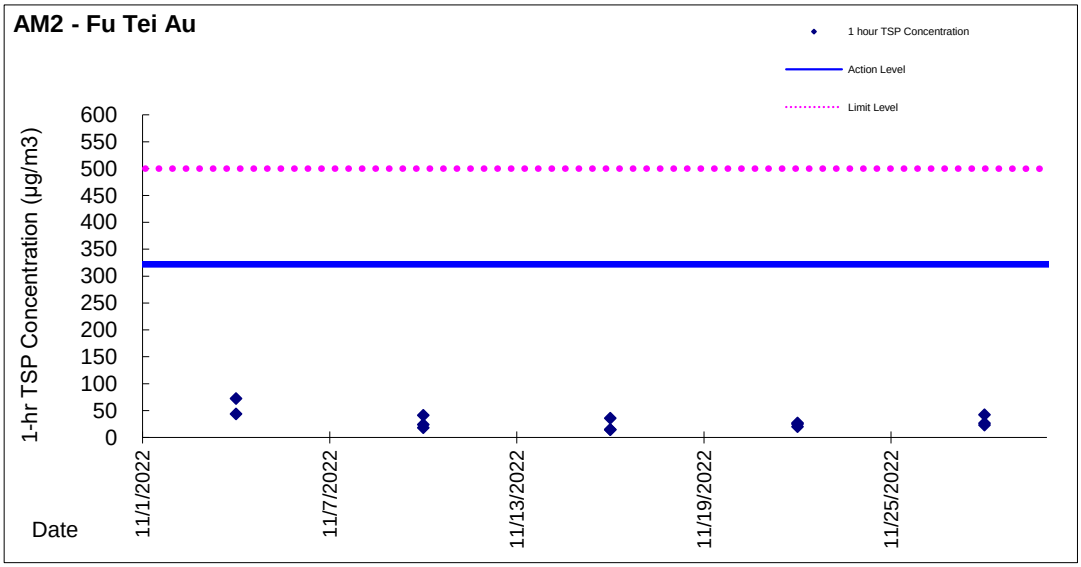
Date	Sampling Time	Weather Condition	Pressure, hPa		Temp. , °C		Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, ug/m^3	Model No.	Serial No.
			Initial	Final	Initial	Final		Initial	Final	Initial	Final		Initial, Qsi	Final, Qsf	Average				
03-Nov-22	8:00	Rainy	1013.9	1014.5	25.7	25.0	AM1a_24hr_011109	2.7852	2.8294	16091.89	16115.89	24.00	1.19	1.19	1.19	1716	26	G3101	0401-1105
09-Nov-22	8:00	Sunny	1017.6	1016.1	22.7	22.7	AM1a_24hr_011111	2.7674	2.8132	16139.89	16163.89	24.00	1.24	1.26	1.25	1803	25		
15-Nov-22	8:00	Sunny	1016.9	1015.7	22.8	22.5	AM1a_24hr_011113	2.7739	2.8424	16163.89	16187.89	24.00	1.20	1.22	1.21	1739	39		
21-Nov-22	8:00	Cloudy	1018.9	1017.1	21.1	22.3	AM1a_24hr_011115	2.7871	2.8676	16187.89	16211.89	24.00	1.24	1.24	1.24	1790	45		
26-Nov-22	8:00	Cloudy	1019.6	1020.7	23.8	22.0	AM1a_24hr_011117	2.7782	2.8206	16211.89	16235.89	24.00	1.24	1.24	1.24	1789	24		

Location: AM2a - Site Boundary of the Shek Wu Hui STW (North)
Impact Monitoring Result on 24-hour TSP monitoring

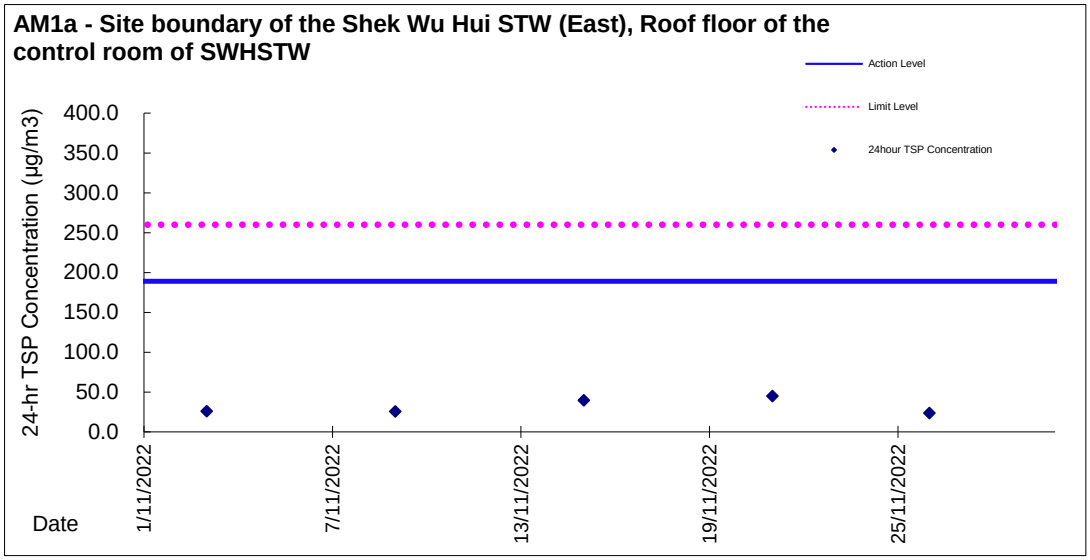
Date	Sampling Time	Weather Condition	Pressure, hPa		Temp. , °C		Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, ug/m^3	Model No.	Serial No.
			Initial	Final	Initial	Final		Initial	Final	Initial	Final		Initial, Qsi	Final, Qsf	Average				
03-Nov-22	8:00	Rainy	1013.9	1014.5	25.7	25.0	AM2a_24hr_011110	2.7820	2.8499	18796.97	18820.97	24.00	1.26	1.23	1.25	1794	38	G3101	1096-2305
09-Nov-22	8:00	Sunny	1017.6	1016.1	22.7	22.7	AM2a_24hr_011112	2.7760	2.8833	18820.97	18844.97	24.00	1.54	1.54	1.54	2213	48		
15-Nov-22	8:00	Sunny	1016.9	1015.7	22.8	22.5	AM2a_24hr_011114	2.7858	2.9864	18844.97	18868.97	24.00	1.49	1.49	1.49	2147	93		
21-Nov-22	8:00	Cloudy	1018.9	1017.1	21.1	22.3	AM2a_24hr_011116	2.7929	2.9309	18868.97	18892.97	24.00	1.49	1.49	1.49	2150	64		
26-Nov-22	8:00	Cloudy	1019.6	1020.7	23.8	22.0	AM2a_24hr_011118	2.7779	2.8722	18892.97	18916.97	24.00	1.44	1.45	1.45	2082	45		

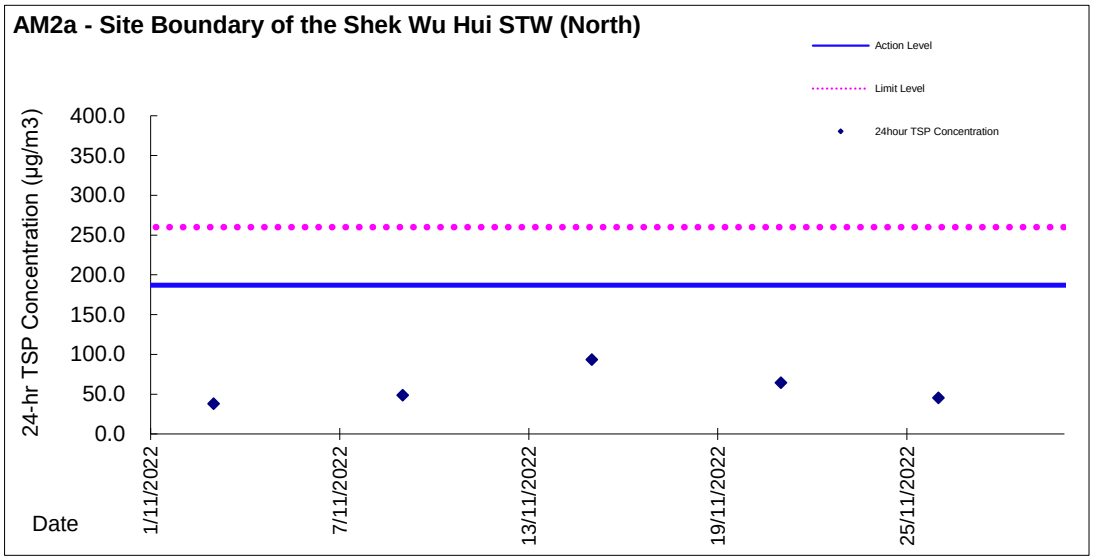
Graphic Presentation of TSP Result





Graphic Presentation of TSP Result





Appendix 5.4

Details of Ecological Monitoring Results in the Reporting Month

Appendix 5.4a

Details of ecological Monitoring results in the reporting month

5.4. ECOLOGICAL MONITORING RESULTS

5.4.1. For this reporting month, the numbers of species and individuals recorded were provided in **Table 1** and the abundance of representative species were shown in **Table 2.**

Table 1 Total Bird Species and Abundance in the Reporting Month

	Number of Species	Abundance
All Avifauna	41	1471
Waterbirds	14	397

Table 2 Abundance of Representative Waterbirds in the Reporting Month

Species Name	Common Name	Chinese Name	Abundance
Egretta garzetta	Little Egret	小白鷺	110
Ardea cinerea	Grey Heron	蒼鷺	77
Ardeola bacchus	Chinese Pond Heron	池鷺	33
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	66
Ardea alba	Great Egret	大白鷺	35
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	14
		Total	**335**

Analysis

5.4.2. The result of student t-tests for all waterbirds and representative waterbirds are compiled in **Table 3 and 4** respectively. Further details are provided in **Appendix 5.4b.**

Table 3 T-test Result for All Waterbirds in the Reporting Month

T-values of Data in Reporting Month			Confidence Level (Critical Value)	
			95%	99%
Abundance	Monthly	0.045	✓	✓
	Seasonal	1.952	✓	✓

Remarks:

✔ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✘ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

Table 4 T-test Result for Representative Waterbirds in the Reporting Month

Common Name of Representative Waterbird	T-value	Confidence Level (Critical Value)		T-value	Confidence Level (Critical Value)		Overall
	Monthly	95% (-2.132)	99% (-3.747)	Seasonal	95% (-2.132)	99% (-3.747)	
Little Egret	0.917	✓	✓	1.070	✓	✓	✓
Grey Heron	-1.832	✓	✓	1.222	✓	✓	✓
Chinese Pond Heron	-2.994	X	✓	-1.633	✓	✓	✓
Great Cormorant	-0.308	✓	✓	2.388	✓	✓	✓
Great Egret	0.000	✓	✓	0.791	✓	✓	✓
Eastern Cattle Egret	1.095	✓	✓	-0.469	✓	✓	✓

Remarks:

✔ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✘ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

* Great Cormorant (*Phalacrocorax carbo*) and Grey Heron (*Ardea cinerea*) were not recognised as representative waterbird species during wet season.

5.4.3. No Action Level and Limit Level was triggered for ecological monitoring in the reporting month.

5.4.4. Site observation in the reporting month shows that construction activities are similar to previous months. The photos are provided in **Appendix 5.6**.

5.4.5. In recent months, it is found that there are different construction sites and human activities such as fishing and landscape planting around the project site. These construction and human activities may affect activities of the waterbirds. Although, there is no significant impact reduction in number of waterbirds, it is recommended that construction site should continue keeping the good site practice to minimize disturbance caused to waterbirds.

5.4.6. The monitoring work will continue next month to evaluate any construction impact on waterbirds.

Observations

5.4.7. Waterbird behaviour observed during ecological monitoring are listed below:

- Flying
- Foraging
- Soaring
- Resting

5.4.8. The anthropogenic activities observed during ecological monitoring are listed in **Table 5.**

5.4.9.

Table 5 Observations during Ecological Monitoring in the Reporting Month

Location(s)	Observations	
	Project Related	**Non-project Related**
T1 (PC1, PC2)	N/A	Human Activities such as Fishing Construction activities such as Excavation and breaking works
T2 (PC3, PC4)	Construction activities such as generator & wielding works, Scaffolding, sedimentation tank, Excavation and crane	Human Activities such as Fishing and Landscape Planting Construction activities such as Sheet-piling, generator & wielding works, Scaffolding, sedimentation tank, Excavation, crane and breaking works
PC5	Construction activities such as Excavation and crane	N/A
T3 (PC6, PC7)	Construction activities such as Sheet-piling	Human Activities such as Fishing and Landscape Planting Construction activities such as Excavation Sheet-piling, generator & wielding works, Scaffolding

Appendix 5.5

Ecological Monitoring Results and Analysis

Appendix 5.4b

Ecological monitoring results and analysis

Summary data of the Ecological Monitoring

Scientific Names	Common Names	Chinese Names	Waterbird	Point Count Abundance	Transect Count Abundance
Ardeola bacchus	Chinese Pond Heron	池鷺	X	33	++++
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	X	14	++
Ardea cinerea	Grey Heron	蒼鷺	X	77	+++++
Ardea alba	Great Egret	大白鷺	X	35	++++
Egretta garzetta	Little Egret	小白鷺	X	110	+++++
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	X	66	+++++
Milvus migrans	Black Kite	黑鳶	X	3	+
Amaurornis phoenicurus	White-breasted Waterhen	白胸苦惡鳥	X	4	+
Himantopus himantopus	Black-winged Stilt	黑翅長腳鷸	X	19	++++
Tringa nebularia	Common Greenshank	青腳鷸	X	1	+
Actitis hypoleucos	Common Sandpiper	磯鷸	X	26	++++
Spilopelia chinensis	Spotted Dove	珠頸斑鳩		55	+++++
Halcyon smyrnensis	White-throated Kingfisher	白胸翡翠	X	6	+
Alcedo atthis	Common Kingfisher	普通翠鳥	X	2	+
Lanius schach	Long-tailed Shrike	棕背伯勞		1	+
Dicrurus macrocercus	Black Drongo	黑卷尾		1	+
Urocissa erythrorynchа	Red-billed Blue Magpie	紅嘴藍鵲		2	+
Pica pica	Eurasian Magpie	喜鵲		4	+
Corvus torquatus	Collared Crow	白頸鴉	X	1	+

Scientific Names	Common Names	Chinese Names	Waterbird	Point Count Abundance	Transect Count Abundance
Corvus macrorhynchos	Large-billed Crow	大嘴烏鴉		1	+
Parus cinereus	Cinereous Tit	蒼背山雀		6	++
Pycnonotus jocosus	Red-whiskered Bulbul	紅耳鵯		179	+++++
Pycnonotus sinensis	Chinese Bulbul	白頭鵯		64	+++++
Hirundo rustica	Barn Swallow	家燕		7	+
Phylloscopus fuscatus	Dusky Warbler	褐柳鶯		0	+
Phylloscopus proregulus	Pallas's Leaf Warbler	黃腰柳鶯		5	+
Phylloscopus inornatus	Yellow-browed Warbler	黃眉柳鶯		16	++
Prinia flaviventris	Yellow-bellied Prinia	黃腹鷦鶯		6	++
Prinia inornata	Plain Prinia	純色鷦鶯		9	++
Orthotomus sutorius	Common Tailorbird	長尾縫葉鶯		26	+++++
Garrulax perspicillatus	Masked Laughingthrush	黑臉噪鸝		47	+++++
Zosterops japonicus	Japanese White-eye	暗綠繡眼鳥		27	+++++
Acridotheres cristatellus	Crested Myna	八哥		426	+++++
Gracupica nigricollis	Black-collared Starling	黑領椋鳥		73	+++++
Copsychus saularis	Oriental Magpie Robin	鵲鴝		7	++
Phoenicurus auroreus	Daurian Redstart	北紅尾鴝		7	+
Saxicola stejnegeri	Stejneger's Stonechat	黑喉石(即鳥)		4	+

Scientific Names	Common Names	Chinese Names	Waterbird	Point Count Abundance	Transect Count Abundance
Passer montanus	Eurasian Tree Sparrow	樹麻雀		36	+++++
Lonchura punctulata	Scaly-breasted Munia	斑文鳥		9	+
Motacilla alba	White Wagtail	白鶺鴒		56	+++++
Anthus godlewskii	Olive-backed Pipit	樹鷚		0	+

Remarks:

X: Waterbird ;

Transect abundance, +: <10, ++: 11-20, +++: 21-30, ++++: 31-40, +++++: >40

According to S4.7 of the approved Baseline Monitoring Report (Ecology), "waterbirds" was defined as "waterbirds and wetland-dependent species", which was referenced to Monthly Waterbird Monitoring Biannual Reports prepared by the Hong Kong Bird Watching Society (Anon, 2020).

Also, S.13.11.3.2 of NENT NDA EIA Study requires "Monitoring of Measures to Mitigate for Impacts of the Project on Wetland-dependent Fauna using the Ng Tung, Sheung Yue and Shek Sheung Rivers". Therefore, "wetland-dependent birds" should be considered as "waterbirds". As raptors and Collared Crow are "wetland-dependent species", they should be taken into consideration in data analysis and impact assessment on waterbirds.

Waterbird Ecological Monitoring Result

Total Bird Abundance from Point Count						
Survey Information				Total Bird Abundance from Point Count		
No.	Date	Time	Tide Level	Individuals Recorded	Total	Species Recorded
1	1/11/2022	16:00	H	185	337	24
		13:45	L	152		25
2	11/11/2022	13:30	H	97	251	23
		15:30	L	154		29
3	15/11/2022	15:00	H	124	364	28
		12:45	L	240		23
4	25/11/2022	13:00	H	119	286	26
		15:00	L	167		28
5	29/11/2022	15:00	H	99	233	22
		12:45	L	134		26

Remarks: H: High Tide; L: Low Tide

Total Waterbird Abundance from Point Count					
Survey Information				Total Waterbird Abundance from Point Count	
No.	Date	Time	Tide Level	Individuals Recorded	Total
1	1/11/2022	16:00	H	29	74
		13:45	L	45	
2	11/11/2022	13:30	H	26	66
		15:30	L	40	
3	15/11/2022	15:00	H	42	101
		12:45	L	59	
4	25/11/2022	13:00	H	20	99
		15:00	L	79	
5	29/11/2022	15:00	H	26	57
		12:45	L	31	

Remarks: H: High Tide; L: Low Tide

T-Test Analysis for All Waterbirds

Baseline Data

Monthly Average Abundance (October)	79.00
Seasonal Average Abundance (Winter season)	62.15

T-Test

The following hypothesis was made and a one-tail t-test will be used to test the data collected from the monitoring:

H_0: The data collected in the reporting month falls within the normal distribution when compared to the baseline monitoring data;

H_1: The data collected does not falls within the normal distribution when compared to the baseline monitoring data.

If t-test value is **smaller** than the critical value, then rejects H_0.

For the data in the reporting month, the critical values are:

Crit. Value = -2.132 (95% Confidence Level)

Crit. Value = -3.747 (99% Confidence Level)

T-values of Data in Reporting Month			Confidence Level (Critical Value)	
			95% (-2.132)	99% (-3.747)
Abundance	✓	✓	✓	✓
	✓	✓	✓	✓

Remarks:

✓ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✗ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

Abundance of Representative Waterbirds from Point Count											
Representative Species			**Recorded Abundance**							**Baseline Data**	
			Week 1	**Week2**	**Week 3**	**Week 4**	**Week 5**	**Total**	**Avg.**	**Avg (Nov)**	**Avg (Winter)**
Species Name	**Common Name**	**Chinese Name**	**1/11/2022**	**11/11/2022**	**15/11/2022**	**25/11/2022**	**29/11/2022**				
Egretta garzetta	Little Egret	小白鷺	14	14	16	48	18	110	22	16	15
Ardea cinerea	Grey Heron	蒼鷺	17	17	21	12	10	77	15	19	13
Ardeola bacchus	Chinese Pond Heron	池鷺	7	6	12	4	4	33	7	11	9
Phalacrocorax carbo	Great Cormorant	普通鸕鷀	14	16	21	8	7	66	13	14	7
Ardea alba	Great Egret	大白鷺	6	4	17	4	4	35	7	7	5
Bubulcus coromandus	Eastern Cattle Egret	牛背鷺	0	0	1	13	0	14	3	0	4

T-test Analysis for Representative Waterbirds from Point Count

The following hypothesis was made and a one-tail t-test will be used to test the data collected from the monitoring:

H_0: The data collected in the reporting month falls within the normal distribution when compared to the baseline monitoring data;

H_1: The data collected does not falls within the normal distribution when compared to the baseline monitoring data.

If t-test value is **smaller** than the critical value, then rejects H_0.

For the data in the reporting month, the critical values are:

Crit. Value = -2.132 (95% Confidence Level)

Crit. Value = -3.747 (99% Confidence Level)

Common Name of Representative Waterbird	T-value	Confidence Level (Critical Value)		T-value	Confidence Level (Critical Value)		Overall
	Monthly	95%	99%	Seasonal	95%	99%	
Little Egret	0.917	✓	✓	1.070	✓	✓	✓
Grey Heron	-1.832	✓	✓	1.222	✓	✓	✓
Chinese Pond Heron	-2.994	X	✓	-1.633	✓	✓	✓
Great Cormorant	-0.308	✓	✓	2.388	✓	✓	✓
Great Egret	0.000	✓	✓	0.791	✓	✓	✓
Eastern Cattle Egret	1.095	✓	✓	-0.469	✓	✓	✓

Remarks:

✔ = T-value falls within the confidence level; the impact monitoring data shows no significant difference to the baseline data.

✘ = T-value falls outside the confidence level; the impact monitoring data shows significant difference to the baseline data.

* Great Cormorant (*Phalacrocorax carbo*) and Grey Heron (*Ardea cinerea*) were not recognised as representative waterbird species during wet season.

Appendix 5.6

Photo Record of Ecological Monitoring

Appendix 5.4c

Photo record of ecological Monitoring

Conditions of Rivers

	
Sheung Yue River – Survey Point 7 (Taken on 1 Nov 2022)	**Shek Sheung River – Survey Point 6 (Taken on 11 Nov 2022)**
	
Shek Sheung River - Survey Point 5 (Taken on 25 Nov 2022)	**Ng Tung River - Survey Point 4 (Taken on 15 Nov 2022)**

Human Activities & Site Conditions

	
Construction Activities (Ng Tung River) **(Project-related, taken on 21 Nov 2022)**	**Construction Activities (Shek Sheung River)** **(Project-related, taken on 1 Nov 2022)**
	
Construction Activities (Sheung Yue River) **(Non-project-related, taken on 15 Nov 2022)**	**Construction Activities (Ng Tung River)** **(Non-Project-related, taken on 25 Nov 2022)**

		
Human Activities (Sheung Yue River) **(Non-project-related, taken on 11 Nov 2022)**	**Human Activities (Ng Tung River)** **(Non- project-related, taken on 29 Nov 2022)**	**Human Activities (Shek Sheung River)** **(Non-project-related, taken on 25 Nov 2022)**
		
Construction Activities (Ng Tung River) **(Non-Project-related, taken on 11 Nov 2022)**	**Construction Activities (Sheung Yue River)** **(Non-project-related, taken on 25 Nov 2022)**	**Construction Activities (Ng Tung River)** **(Non-Project-related, taken on 25 Nov 2022)**

Waterbird Species

		
Grey Heron	**Great Cormorant**	**Little Egret**
		
Waterbird in Shek Sheung River		

Appendix 5.7

Water Quality Monitoring Result

Data Sheet for Impact Water Quality Monitoring - SPW 12/2021

Contract: Environmental Team For Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Client: DSD Job No.: J2021-07 Ref. No: W-221123

Date of Sampling: 23-Nov-22 Weather Condition: Cloudy Ambient Temperature, °C: 24

Station Reference	Sample ID	Time	Sampling Depth	Temperature °C		pH -		Salinity ppt		DO Saturation %		DO mg/L		Turbidity NTU		Remarks / Observations	Suspended Solid mg/L
M1	M1	10:50	Middle	25.2	25.2	7.62	7.62	0.32	0.32	64.8	64.6	5.33	5.31	13.46	13.46	DO exceeded limit level	13.5
Impact Station, Downstream of the proposed outfall	M1 DUP	10:52		25.2	25.2	7.62	7.62	0.32	0.32	63.9	63.4	5.25	5.21	13.46	13.46		13.4
C1	C1	10:30	Middle	24.9	24.9	7.76	7.70	0.30	0.30	60.9	62.5	5.04	5.17	13.41	13.40		12.6
Control Station, Upstream of the proposed outfall	C1 DUP	10:32		24.9	24.9	7.76	7.76	0.30	0.30	62.4	61.4	5.16	5.18	13.48	13.48		12.3

Data Sheet for Impact Water Quality Monitoring - SPW 12/2021

Contract: Environmental Team For Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Client: DSD Job No.: J2021-07 Ref. No: W-221125

Date of Sampling: 25-Nov-22 Weather Condition: Cloudy Ambient Temperature,°C: 20

Station Reference	Sample ID	Time	Sampling Depth	Temperature °C		pH -		Salinity ppt		DO Saturation %		DO mg/L		Turbidity NTU		Remarks / Observations	Suspended Solid mg/L
M1	M1	11:30	Middle	24.8	24.8	7.36	7.36	0.26	0.26	60.9	70.8	5.55	5.87	13.81	13.55	DO exceeded limit level	11.4
Impact Station, Downstream of the proposed outfall	M1 DUP	11:32		24.8	24.8	7.30	7.36	0.26	0.26	70.7	69.6	5.87	5.77	13.64	13.77		10.4
C1	C1	11:15	Middle	24.5	24.5	7.50	7.50	0.24	0.24	83.7	83.6	6.97	6.96	19.23	19.23		14.5
Control Station, Upstream of the proposed outfall	C1 DUP	11:17		24.5	24.5	7.50	7.50	0.24	0.24	82.3	83.6	6.97	6.96	19.23	19.23		14.9

Data Sheet for Impact Water Quality Monitoring - SPW 12/2021

Contract: Environmental Team For Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Client: DSD Job No.: J2021-07 Ref. No: W-221128

Date of Sampling: 28-Nov-22 Weather Condition: Fine Ambient Temperature, °C: 22

Station Reference	Sample ID	Time	Sampling Depth	Temperature °C		pH -		Salinity ppt		DO Saturation %		DO mg/L		Turbidity NTU		Remarks / Observations	Suspended Solid mg/L
M1	M1	10:00	Middle	24.1	24.1	7.60	7.60	0.11	0.11	70.7	71.0	5.92	5.95	30.94	30.94	DO, Turbidity and SS levels exceeded limit levels	32.0
Impact Station, Downstream of the proposed outfall	M1 DUP	10:02		24.1	24.1	7.60	7.60	0.11	0.11	70.5	70.7	5.93	5.92	30.94	30.94		32.8
C1	C1	10:40	Middle	25.3	25.3	7.35	7.35	0.12	0.12	42.7	42.6	3.51	3.50	47.30	47.29		38.3
Control Station, Upstream of the proposed outfall	C1 DUP	10:42		25.3	25.3	7.35	7.35	0.12	0.12	42.3	41.9	3.47	3.44	47.36	47.39		37.1

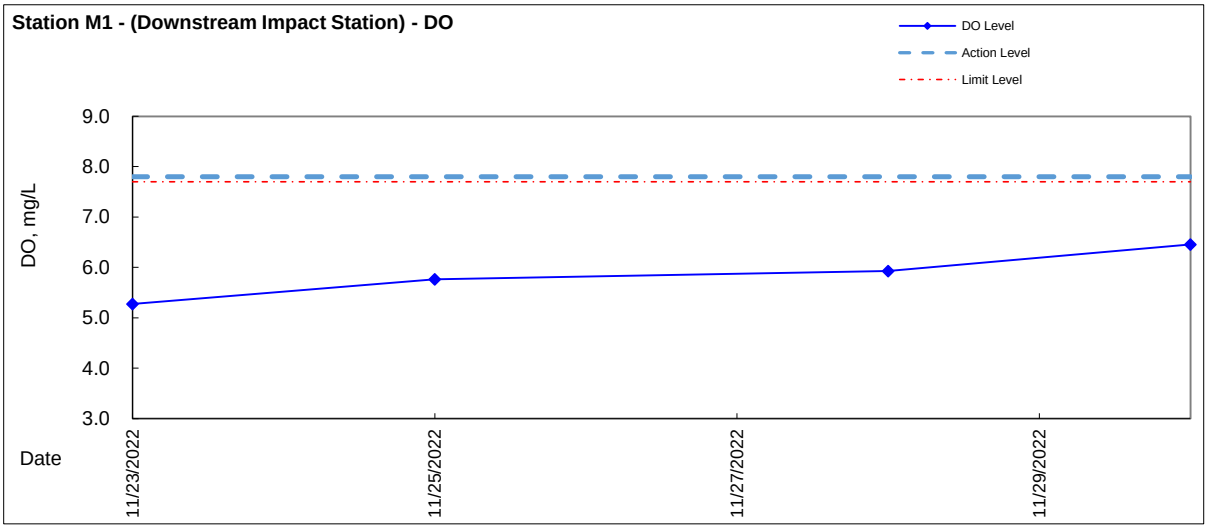
Data Sheet for Impact Water Quality Monitoring - SPW 12/2021

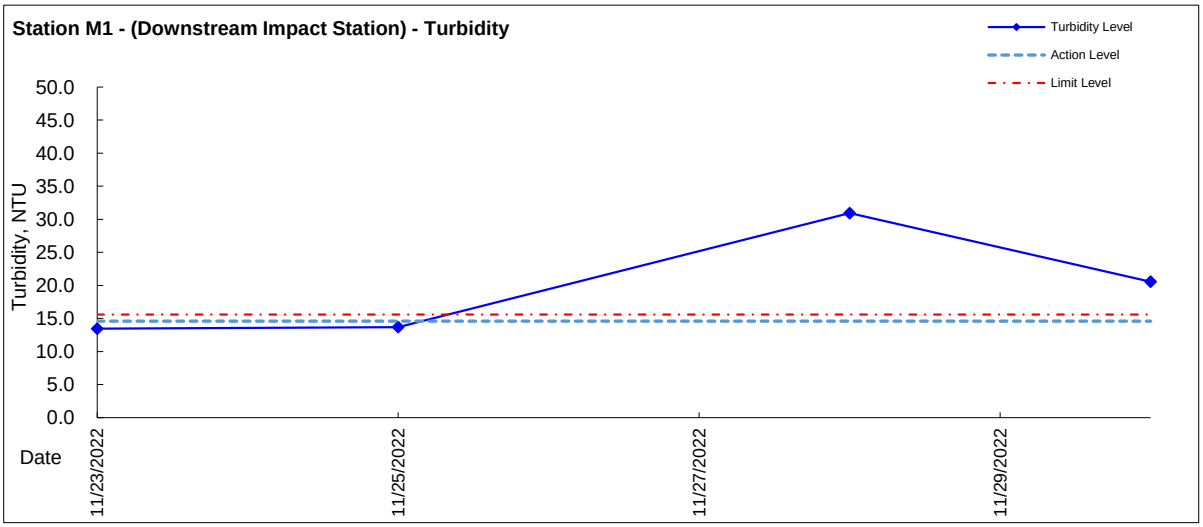
Contract: Environmental Team For Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Client: DSD Job No.: J2021-07 Ref. No: W-221130

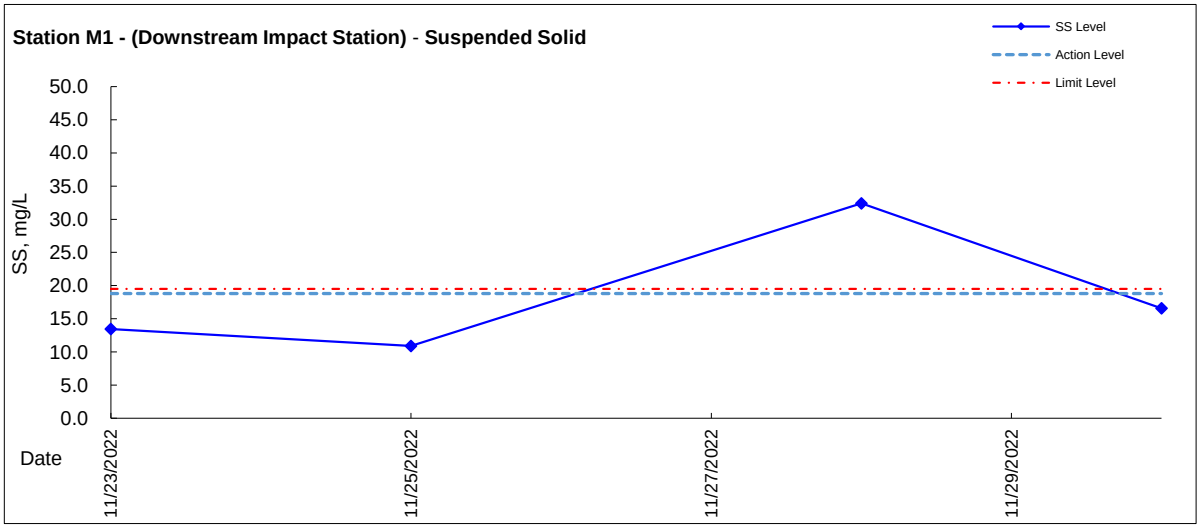
Date of Sampling: 30-Nov-22 Weather Condition: Fine Ambient Temperature, °C: 23

Station Reference	Sample ID	Time	Sampling Depth	Temperature °C		pH -		Salinity ppt		DO Saturation %		DO mg/L		Turbidity NTU		Remarks / Observations	Suspended Solid mg/L
M1	M1	11:15	Middle	24.9	24.9	7.59	7.58	0.11	0.11	75.2	73.4	6.21	6.04	20.56	20.55	DO, Turbidity and SS levels exceeded limit levels	16.8
Impact Station, Downstream of the proposed outfall	M1 DUP	11:17		24.9	24.9	7.59	7.59	0.11	0.11	84.5	80.7	6.94	6.63	20.54	20.55		16.3
C1	C1	11:00	Middle	24.3	24.3	7.66	7.66	0.15	0.15	88.4	88.7	7.35	7.37	14.98	14.80		10.3
Control Station, Upstream of the proposed outfall	C1 DUP	11:02		24.5	24.5	7.66	7.66	0.15	0.15	88.7	88.2	7.35	7.34	14.79	14.78		9.4

Graphic Presentation of WQM Result

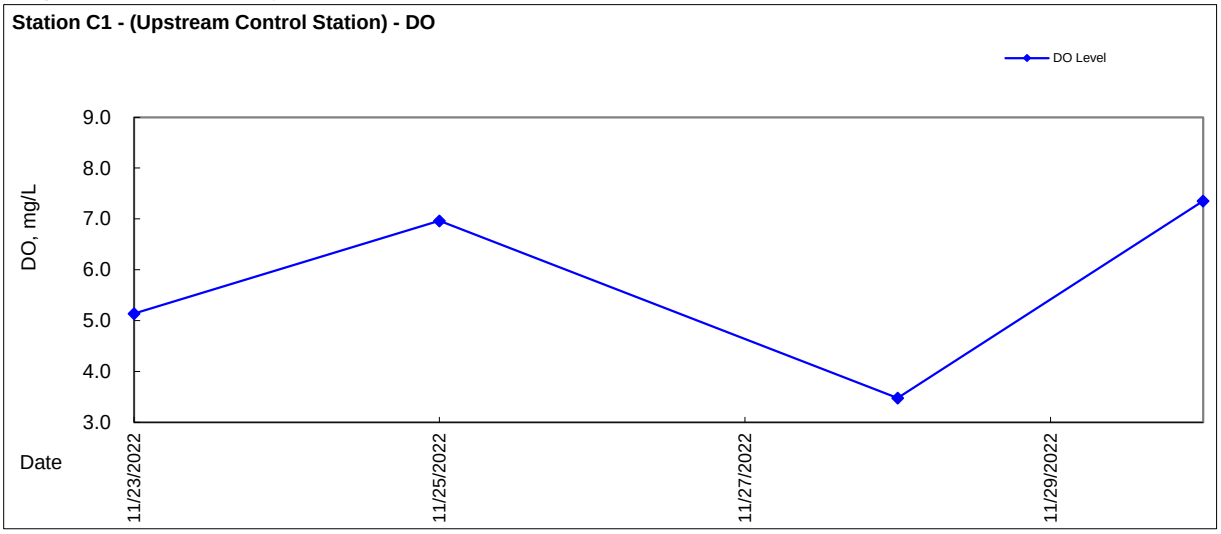




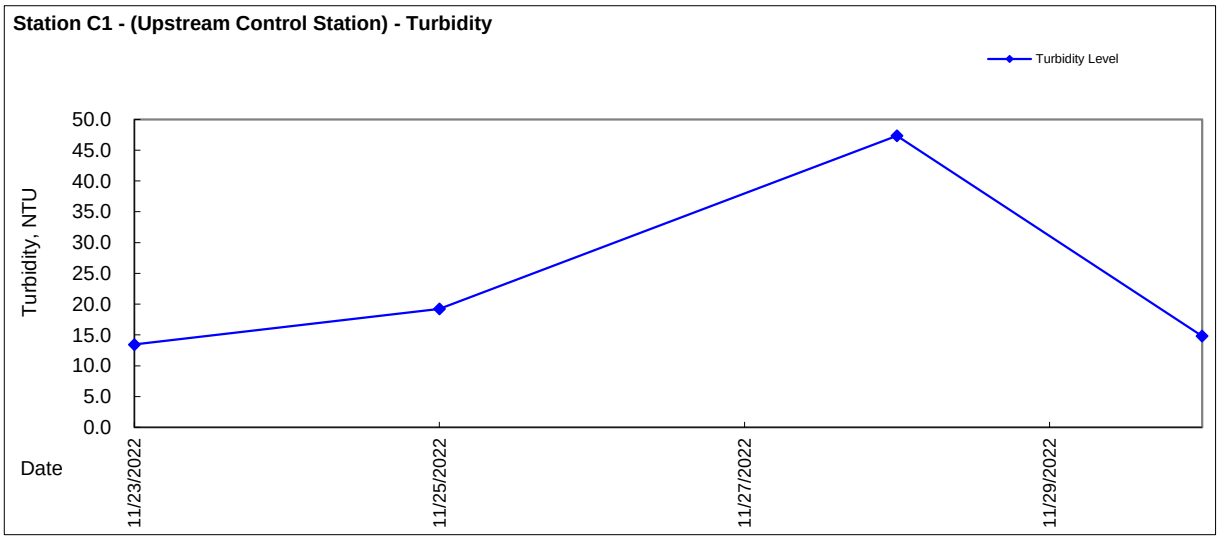


Graphic Presentation of WQM Result

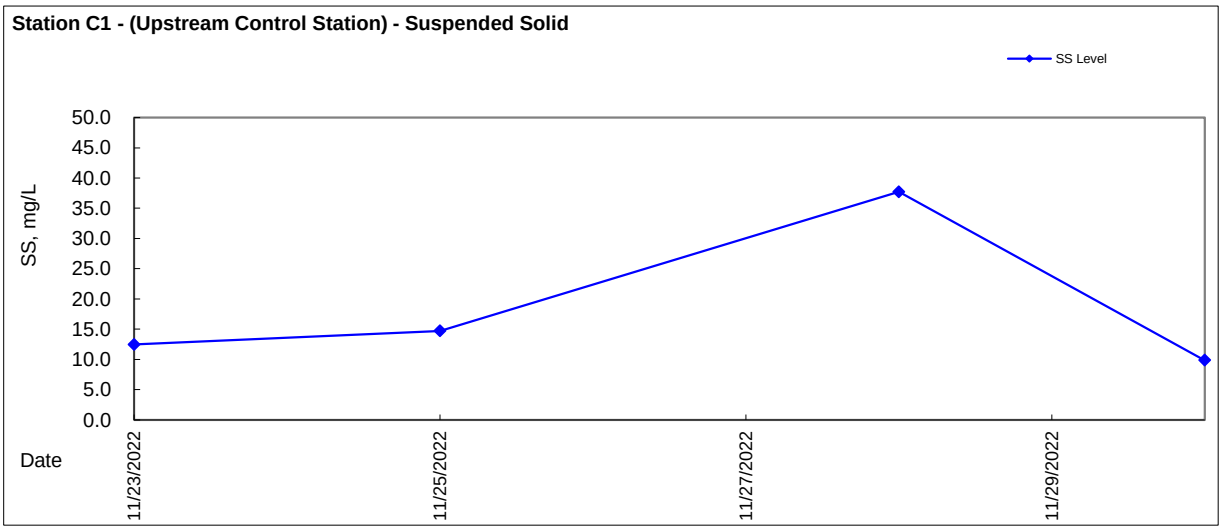
Station C1 - (Upstream Control Station) - DO



Station C1 - (Upstream Control Station) - Turbidity



Station C1 - (Upstream Control Station) - Suspended Solid



Appendix 5.8

Laboratory Analysis Result

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: LAM ENVIRONMENTAL SERVICES LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: ALEX CHAN	Contact	: Richard Fung	Work Order	: HK2246608
Address	: 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: alexchan@lamenviro.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: 2839 5629	Telephone	: +852 2610 1044		
Facsimile	: 2882 3331	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. SPW 12/2021 - SHEK WU HUI EFFLUENT POLISHING PLANT			Date Samples Received	: 23-Nov-2022
Order number	: —	Quote number	: HKE/2224/2021_V2	Issue Date	: 29-Nov-2022
C-O-C number	: —			No. of samples received	: 4
Site	:			No. of samples analysed	: 4

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	Position	Authorised results for
Fung Lim Chee, Richard	Managing Director	Inorganics, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 23-Nov-2022 to 28-Nov-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2246608

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Analytical Results

Sub-Matrix: FRESH WATER				Sample ID	C1	C1 - DUP	M1	M1 - DUP	—
				Sampling date / time	23-Nov-2022	23-Nov-2022	23-Nov-2022	23-Nov-2022	----
Compound	CAS Number	LOR	Unit		HK2246608-001	HK2246608-002	HK2246608-003	HK2246608-004	———
EA/ED: Physical and Aggregate Properties									
EA025: Suspended Solids (SS)	----	2.0	mg/L		12.6	12.3	13.5	13.4	—

Laboratory Duplicate (DUP) Report

Matrix: WATER

				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4727838)								
HK2246608-001	C1	EA025: Suspended Solids (SS)	----	0.5	mg/L	12.6	13.2	4.5

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: WATER

		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits(%)		RPD (%)	
Method: Compound	CAS Number	LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QC Lot: 4727838)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	95.5	----	85.1	116	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: LAM ENVIRONMENTAL SERVICES LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: ALEX CHAN	Contact	: Richard Fung	0 or8 Order	: HK2246614
Addrepp	: 1WiF9REMEX CENTRE942 0 ON/ CH, K HAN/ ROAD9HON/ KON/	Addrepp	: 11kF9Chung Shun Knitting Centre91 U. 0 ing Yi- Street9K3 ai Chung9NG'9Hong Kong K3 ai Tping Hong Kong		
EUnail	: alewchans lamenxiro@om	EUnail	: richard9ungs alpglobal@om		
Tele- hone	: 2@Wv62W	Tele- hone	: 5@2 261+ 1+44		
Facpimile	: 2@@. . . 1	Facpimile	: 5@2 261+ 2+21		
Project	: CONTRACT NOGSP0 12l2+21 USHEK 0 , H, I EFFL, ENT POLISHIN/ PLANT			Date Sam- lep Received	: 2vUNoxU2+22
Order number	: UUU	Quote number	: HKEl2224l2+21_V2	Ippue Date	: 2VUNoxU2+22
CUDUC number	: UUU			NoGof pam- lep received	: 4
Site	:			NoGof pam- lep analyped	: 4

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Thip document hap been pigned by thope namep that a- - ear on thip re- ort and are the authoriped pignatoriepG

Signatoriep	Popition	Authoriped repultp for
Fung Lim Chee9Richard	Managing Director	Inorganicp9K3 ai Tping

/ eneral Commentp

Thip re- ort pu- erpedep any - rexioup re- ort(p) 3ith the pame 3or8 order numberGAll - agep of thip re- ort haxe been chec8ed and a- - roxed for releapeG0 hen pam- ling time information ip not - roxided by the client9pam- ling datep are pho3n 3ithout a time com- onentGIn thepe inptancep9the time com- onent hap been appumed by the laboratory for - rocepping - ur- opepG

Tepting - eriod ip from 2vUNoxU2+22 to 2@UNoxU2+22G

Key: LOR = Limit of re- orting; CAS Number = CAS regiptry number from databape maintained by Chemical AbptractP SerxicepGThe Chemical AbptractP Serxice ip a dixipion of the American Chemical SocietyG

S- ecific Commentp for 0 or8 Order: HK2246614

Sam- le(p) 3apk3ere pubmitted by clientGSam- le(p) arrixed laboratory in ambient conditionGThe repult(p) related only to the item(p) teptedG

Sam- le information (Project name9Sam- le ID9Sam- ling date+time9etcGip - roxided by clientG

Repult(p) of pam- le(p) ipkare re- orted on ap receixed bapip9unlepp other3ipe p- ecifiedG

Analytical Repultp

SubUMatriw: FRESH 0 ATER			Sam- le ID	C1	C1 UD, P	M1	M1 UD, P	UUUU
			Sam- ling date ktime	2vUNoxU2+22	2vUNoxU2+22	2vUNoxU2+22	2vUNoxU2+22	UUUU
Com- ound	CAS Number	LOR	, nit	HK2246614U+1	HK2246614U+2	HK2246614U+.	HK2246614U+4	UUUUUUU
EAIED: Phypical and Aggregate Pro- ertiep								
EA+2v: Sup- ended Solidp (SS)	UUUU	2G	mgkL	14G	14GW	11G	1+G	UUUU

Laboratory Du- licate (D, P) Re- ort

Matriw: 0 ATER				Laboratory Du- licate (D, P) Re- ort				
Laboratory pam- le ID	Sam- le ID	Method: Com- ound	CAS Number	LOR	, nit	Original Repult	Du- licate Repult	RPD (%)
EAIED: Phypical and Aggregate Pro- ertiep (QC Lot: 4727@@								
HK22466+@++1	Anonymoup	EA+2v: Sup- ended Solidp (SS)	UUUU	+G	mgkL	12G	1. G	4G

Method Blan8 (MB)9Laboratory Control S- i8e (LCS) and Laboratory Control S- i8e Du- licate (DCS) Re- ort

Matriw: 0 ATER		Method Blan8 (MB) Re- ort			Laboratory Control S- I8e (LCS) and Laboratory Control S- I8e Du- licate (DCS) Re- ort						
					S- I8e Concentration	S- I8e Recoxery (%)		Recoxery Limitp (%)		RPD (%)	
Method: Com- ound	CAS Number	LOR	, nit	Repult		LCS	DCS	Lo3	High	Value	Control Limit
EAIED: Phypical and Aggregate Pro- ertiep (QC Lot: 4727@@											
EA+2v: Sup- ended Solidp (SS)	UUUU	+G	mgkL	<+G	2+ mgkL	WG	UUUU	@G	116	UUUU	UUUU

MatriwS- i8e (MS) and MatriwS- i8e Du- licate (MSD) Re- ort

- No MatriwS- I8e (MS) or MatriwS- I8e Du- licate (MSD) Repultp are required to be re- ortedG

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: LAM ENVIRONMENTAL SERVICES LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: ALEX CHAN	Contact	: Richard Fung	8 orWOrder	: HK2246610
Addreww	: 1k9F/ REMEX CENTRE/ 42 8 ON, CHGK HAN, ROAD/ HON, KON,	Addreww	: 119FU Chung Shun Knitting Centre/ 1 . - 8 ing Yi3 Street/ Kp ai Chung/ NUTU Hong Kong Kp ai Twing Hong Kong		
E.mail	: aleschanx lamen@oldcom	E.mail	: richardUungx aivglobalUcom		
Tele3hone	: 2v- k 562k	Tele3hone	: +v52 261j 1j 44		
Facwimile	: 2vv2 - - - 1	Facwimile	: +v52 261j 2j 21		
Pro@ct	: CONTRACT NOUSP8 129Bj 21 . SHEK 8 G HGI EFFLGENT POLISHIN, PLANT			Date Sam3lewRecei@d	: 2v.No@Bj 22
Order number	:	_ uote number	: HKE922249Bj 21: V2	Iwwue Date	: j 6.Dec.2j 22
C.O.C number	:			NoUof wam3lewrecei@d	: 4
Site	:			NoUof wam3lewanalywed	: 4

Thiwre3ort may not be re3roduced esce3t p ith 3rior p ritten a33ro@l from the tewting laboratoryU

Thiwdocument hawbeen wigned by thowe namewthat a33ear on thiwre3ort and are the authoriwed wignatoriewU

Signatoriew	*Powition*	*Authoriwed rewultwfor*
Fung Lim Chee/ Richard	**Managing Director**	**Inorganicw Kp ai Twing**

, eneral Commentw

Thiwre3ort wu3erwedewany 3re@puwre3ort(w) p ith the wame p orWorder numberUAll 3agewof thiwre3ort ha@ been checWed and a33ro@d for releaweU8 hen wam3ling time information iw not 3ro@ded by the client/ wam3ling dateware whop n p ithout a time com3onentUIn thewe inwtancew the time com3onent hawbeen awwumed by the laboratory for 3rocewwing 3ur3owewU

Tewting 3eriod iwfrom 2v.No@2j 22 to j 5.Dec.2j 22U

Key: LOR = Limit of re3orting; CAS Number = CAS regiwtry number from databawe maintained by Chemical AbwtractwSer@cewUThe Chemical AbwtractwSer@ce iwa di@wion of the American Chemical SocietyU

S3ecific Commentwfor 8 orWOrder: HK2246610

Sam3le(w) p aw8p ere wubmitted by clientUSam3le(w) arri@d laboratory in ambient conditionUThe rewult(w) related only to the item(w) tewtedU

Sam3le information (Pro@ct name/ Sam3le ID/ Sam3ling date9ime/ etcU iw3ro@ded by clientU

Rewult(w) of wam3le(w) iw8are re3orted on awrecei@d bawiw/ unlewwotherp iwe w8ecifiedU

Analytical Rewultw

Sub.Matris: FRESH 8 ATER			Sam3le ID	C1	C1 . DGP	M1	M1 . DGP	....
			Sam3ling date 9time	2v.No@2j 22	2v.No@2j 22	2v.No@2j 22	2v.No@2j 22	....
Com3ound	CAS Number	LOR	Gnit	HK2246610.j j 1	HK2246610.j j 2	HK2246610.j j -	HK2246610.j j 4	....
EA9ED7Phywical and Aggregate Pro3ertiew								
EAj 257Suw8ended Solidw(SS)	....	2Uj	mg9L	- vUj	- 0U1	- 2Uj	- 2Uv	....

Laboratory Du3licate (DGP) Re3ort

Matris: 8 ATER

Laboratory wam3le ID	Sam3le ID	Method: Com3ound	CAS Number	LOR	Gnit	Original Rewult	Du3licate Rewult	RPD (%)
EA9ED7Phywical and Aggregate Pro3ertiew (_ C Lot: 40- k- kj)								
HK2246610.j j 1	C1	EAj 257Suw8ended Solidw(SS)	....	j U5	mg9L	- vUj	- vU4	j Uj

Method BlanW(MB)/ Laboratory Control S3iWe (LCS) and Laboratory Control S3iWe Du3licate (DCS) Re3ort

Matris: 8 ATER

		Method BlanW(MB) Re3ort			Laboratory Control S3iWe (LCS) and Laboratory Control S3iWe Du3licate (DCS) Re3ort						
					S3iWe Concentration	S3iWe Reco@ery (%)		Reco@ery Limitw(%)		RPD (%)	
Method: Com3ound	CAS Number	LOR	Gnit	Rewult		LCS	DCS	Lop	High	Value	Control Limit
EA9ED7Phywical and Aggregate Pro3ertiew (_ C Lot: 40- k- kj)											
EAj 257Suw8ended Solidw(SS)	....	j U5	mg9L	<j U5	2j mg9L	1j 2	....	v5U1	116	....	....

Matris S3iWe (MS) and Matris S3iWe Du3licate (MSD) Re3ort

- No Matris S3iWe (MS) or Matris S3iWe Du3licate (MSD) Rewultware required to be re3ortedU

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group
ANALYTICAL CHEMISTRY & TESTING SERVICES

CERTIFICATE OF ANALYSIS

Client	: LAM ENVIRONMENTAL SERVICES LTD	Laboratory	: ALS Technichem (HK) Pty Ltd	Page	: 1 of 4
Contact	: ALEX CHAN	Contact	: Richard Fung	Work Order	: HK2246618
Address	: 19/F, REMEX CENTRE, 42 WONG CHUK HANG ROAD, HONG KONG	Address	: 11/F., Chung Shun Knitting Centre, 1 - 3 Wing Yip Street, Kwai Chung, N.T., Hong Kong Kwai Tsing Hong Kong		
E-mail	: alexchan@lamenviro.com	E-mail	: richard.fung@alsglobal.com		
Telephone	: 2839 5629	Telephone	: +852 2610 1044		
Facsimile	: 2882 3331	Facsimile	: +852 2610 2021		
Project	: CONTRACT NO. SPW 12/2021 - SHEK WU HUI EFFLUENT POLISHING PLANT			Date Samples Received	: 30-Nov-2022
Order number	: —	Quote number	: HKE/2224/2021	Issue Date	: 06-Dec-2022
C-O-C number	: —			No. of samples received	: 4
Site	:			No. of samples analysed	: 4

This document has been signed by those names that appear on this report and are the authorised signatories.

Signatories	Position	Authorised results for
Fung Lim Chee, Richard	Managing Director	Inorganics, Kwai Tsing

General Comments

This report supersedes any previous report(s) with the same work order number. All pages of this report have been checked and approved for release. When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Testing period is from 30-Nov-2022 to 05-Dec-2022.

Key: LOR = Limit of reporting; CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

Specific Comments for Work Order: HK2246618

Sample(s) was/ were submitted by client. Sample(s) arrived laboratory in chilled condition. The result(s) related only to the item(s) tested.

Sample information (Project name, Sample ID, Sampling date/time, etc.) is provided by client.

Result(s) of sample(s) is/are reported on as received basis, unless otherwise specified.

Analytical Results

Sub-Matrix: FRESH WATER				Sample ID	C1	C1 - DUP	M1	M1 - DUP	—
				Sampling date / time	30-Nov-2022	30-Nov-2022	30-Nov-2022	30-Nov-2022	----
Compound	CAS Number	LOR	Unit		HK2246618-001	HK2246618-002	HK2246618-003	HK2246618-004	———
EA/ED: Physical and Aggregate Properties									
EA025: Suspended Solids (SS)	----	2.0	mg/L		10.3	9.4	16.8	16.3	—

Laboratory Duplicate (DUP) Report

Matrix: WATER

				Laboratory Duplicate (DUP) Report				
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Aggregate Properties (QC Lot: 4739390)								
HK2246617-001	Anonymous	EA025: Suspended Solids (SS)	----	0.5	mg/L	38.3	38.4	0.0

Method Blank (MB), Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report

Matrix: WATER

		Method Blank (MB) Report			Laboratory Control Spike (LCS) and Laboratory Control Spike Duplicate (DCS) Report						
					Spike Concentration	Spike Recovery (%)		Recovery Limits (%)		RPD (%)	
Method: Compound	CAS Number	LOR	Unit	Result		LCS	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properties (QC Lot: 4739390)											
EA025: Suspended Solids (SS)	----	0.5	mg/L	<0.5	20 mg/L	102	----	85.1	116	----	----

Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Report

- **No Matrix Spike (MS) or Matrix Spike Duplicate (MSD) Results are required to be reported.**

Appendix 5.9

Monthly Summary Waste Flow Table

Name of Department: DSD

Contract No. DC/2018/06

Monthly Summary Waste Flow Table for 2022

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)
Jan	1.104	0.000	0.000	0.000	1.104	0.094	0.000	0.000	0.000	0.000	0.202
Feb	0.549	0.000	0.000	0.000	0.549	0.134	2.370	0.000	0.000	0.000	0.068
Mar	0.398	0.000	0.000	0.000	0.398	0.756	0.000	0.000	0.000	0.000	0.094
Apr	1.624	0.000	0.000	0.000	1.624	0.133	0.000	0.000	0.000	0.000	0.088
May	0.362	0.000	0.000	0.000	0.362	0.046	0.000	0.000	0.000	0.000	0.090
Jun	0.397	0.000	0.000	0.000	0.397	0.069	0.000	0.010	0.000	0.000	0.077
Sub-total	4.433	0.000	0.000	0.000	4.433	1.233	2.370	0.010	0.000	0.000	0.620
Jul	1.635	0.000	0.000	0.000	1.635	0.104	0.003	0.000	0.001	0.000	0.122
Aug	1.409	0.000	0.000	0.000	1.409	0.487	0.000	0.000	0.005	0.000	0.160
Sep	1.032	0.000	0.000	0.000	1.032	0.429	0.004	0.000	0.010	0.000	0.229
Oct	0.789	0.000	0.000	0.000	0.789	0.320	0.003	0.000	0.008	0.000	0.133
Nov	2.558	0.000	0.000	0.000	2.558	1.413	0.000	0.000	0.000	0.000	0.152
Dec											
Total	11.855	0.000	0.000	0.000	11.855	3.987	2.379	0.010	0.023	0.000	1.417

Notes:

1. Assume the density of soil fill is 2 ton/m3.
2. Assume the density of rock and broken concrete is 2.5 ton/m3.
3. Assume the density of general refuse is 0.9 ton/m3.
4. Assume density of waste oil is assued to be 0.8 kg/L.
5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38.
6. The slurry and bentonite are disposed at Tseung Kwun O 137.
7. The non-inert C&D wastes are disposed at NENT.

Name of Department: DSD

Contract No. DC/2018/07

Monthly Summary Waste Flow Table for 2022

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)
Jan	4.980	0.000	0.000	0.813	4.167	0.000	7.15	0.000	0.004	0.000	0.012
Feb	3.400	0.000	0.000	0.639	2.761	0.000	5.71	0.000	0.000	0.000	0.010
Mar	3.050	0.000	0.000	0.073	2.977	0.000	0.00	0.000	0.000	0.000	0.019
Apr	2.037	0.000	0.000	0.112	1.925	0.000	0.00	0.000	0.000	0.000	0.016
May	1.076	0.000	0.000	0.000	1.076	0.000	2.14	0.000	0.000	0.000	0.016
Jun	2.515	0.000	0.000	0.034	2.481	0.000	0.00	0.010	0.001	0.000	0.020
Sub-total	17.057	0.000	0.000	1.671	15.386	0.000	15.00	0.010	0.005	0.000	0.093
Jul	3.222	0.000	0.000	0.000	3.222	0.000	0.00	0.000	0.005	0.000	0.031
Aug	4.151	0.000	0.000	0.000	4.151	0.000	0.00	0.000	0.003	0.000	0.026
Sep	2.735	0.000	0.000	0.000	2.735	0.000	0.00	0.000	0.007	0.000	0.042
Oct	9.779	0.000	0.000	1.937	7.842	0.000	0.00	0.000	0.006	0.000	0.029
Nov	12.967	0.000	0.000	0.000	12.967	0.232	0.00	0.000	0.000	0.000	0.027
Dec											
Total	49.909	0.000	0.000	3.608	46.302	0.232	15.01	0.010	0.026	0.000	0.248

Notes:

1. Assume the density of soil fill and special waste (i.e. sediment from DSD sedimentation tank) is 2 ton/m3.
2. Assume the density of rock and broken concrete is 2.5 ton/m3
3. Assume the density of general refuse is 0.9 ton/m3
4. Density of waste oil is assued to be 0.8 kg/L. Chemical waste includes waste oil.
5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38
6. The slurry and bentonite are disposed at Tseung Kwun O 137
7. The non-inert C&D wastes, including general refuse & special waste (i.e. sediment from DSD sedimentation tank) are disposed at NENT

EM&A Monthly Reporting Template (cut-off at the end of each month)

Name of Department: ~~ArchSD/CEDD~~/DSD/~~EMSD/HyD/WSD~~ Contract No.: DE/2018/03

Monthly Summary Waste Flow Table for 2022 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
Jan	176.71 T	0	0	0	176.71 T	0	0	0.177	0.008	0	2.7T
Feb	83.58T	0	0	0	83.58T	0	0	0.132	0.003	0	0
Mar	0	0	0	0	0	0	0	0	0	0	3.06T
Apr	0	0	0	0	0	0	0	0.13	0.012	0	0
May	4029.56T	0	0	0	4029.56T	0	0	0	0	0	1.64T
June	5565.13T	0	0	0	5565.13T	0	0	0	0	0	1.19T
Sub-total	9854.98 T	0	0	0	9854.98 T	0	0	0.439	0.023	0	8.59
July	5374.59T	0	0	0	5374.59T	0	0	0	0	0	1.71T
Aug	149.1T	0	0	0	149.1T	0	0.006	0.646	0.005	0	0
Sept	43.17T	0	0	0	43.17T	0	0	0.108	0.007	0	3.61
Oct	57.6T	0	0	0	57.6T	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0.131	0.005	0	2.24
Dec											
Total	15479.44T	0	0	0	15479.44T	0	0.006	1.324	0.04	0	16.15T

Name of Department: DSD Contract No.: DE/2018/04

Monthly Summary Waste Flow Table for 2022 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 kg)
Jan	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0
Sept	0	0	0	0	0	0	0	0	0	0	0
Oct	0	0	0	0	0	0	0	0	0	0	6.84
Nov	0	0	0	0	0	0	0	0	0	0	0
Dec											
Total	0	0	0	0	0	0	0	0	0	0	6.84

Appendix 6.1

Event and Action Plans

Event and Action Plan

Event and Action Plan for Construction Noise

Event	Action			
	ET	IEC	ER	Contractor
Action Level exceeded	1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness;	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures.	1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.
Limit Level exceeded	1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Construction Dust Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action Level				
Action level being exceeded by one sampling	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify the Contractor.	1. Rectify any unacceptable practices. 2. Amend working methods agreed with the ER as appropriate.
Action level being exceeded by two or more consecutive sampling	1. Identify sources. 2. Inform the IEC and ER. 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings. 5. Increase monitoring frequency to daily. 6. Discuss with the IEC, ER and Contractor on remedial action required. 7. If exceedance continues, arrange meeting with the IEC, Contractor and ER. 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IEC within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit Level				
Limit level being exceeded by one sampling	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.

Event	Action			
	ET	IEC	ER	Contractor
	ER informed of the results.			
Limit level being exceeded by two or more consecutive sampling	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Ecological Monitoring

Action level	Response	Limit Level	Response
Construction Phase			
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to the Project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to the Project instigate remedial action.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered	Investigate cause and if cause identified as related to the Project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to the Project instigate remedial action.

Event and Action Plan for Landscape and Visual

Event	Action			
	ET	IEC	ER	Contractor
Non-conformity on one occasion	1. Inform the Contractor, IEC and ER; 2. Discuss remedial actions with IEC, ER and Contractor 3. Monitor remedial actions until rectification has been completed.	1. Check inspection report; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise ER on effectiveness of proposed remedial measures..	1. Confirm receipt of notification of failure in writing; 2. Review and agree on the remedial measures proposed by the Contractor; 3. Supervise implementation of remedial measures.	1. Identify source and investigate the non-conformity; 2. Implement remedial measures; 3. Amend working methods agreed with ER as appropriate; 4. Rectify damage and undertake any necessary replacement.
Repeated Non-conformity	1. Identify source; 2. Inform IEC, ER, EPD; 3. Discuss inspection frequency; 4. Discuss remedial actions with IEC, ER and Contractor; 5. Monitor remedial actions until rectification has been completed; 6. If non-conformity stops, cease additional monitoring	1. Check inspection report; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise ER on effectiveness of proposed remedial measures.	1. Notify the Contractor; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise implementation of remedial measures.	1. Identify source and investigate the non-conformity; 2. Implement remedial measures; 3. Amend working methods agreed with ER as appropriate; 4. Rectify damage and undertake any necessary replacement. Stop relevant portion of works as determined by ER until the non-conformity is abated.

Event and Action Plan for Water Quality Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action Level				
Action level being exceeded by one sampling day	1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD.	1. Confirm receipt of notification of exceedance in writing	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice
Action level being exceeded by two or more consecutive sampling	1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented.	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented.	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Consider changes of working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed.

Event	Action			
	ET	IEC	ER	Contractor
Limit Level				
Limit level being exceeded by one sampling day	1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented.	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented. 4. Request Contractor(s) to critically review the working methods.	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures.
Limit level being exceeded by two or more consecutive sampling days	1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented.	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented. 4. Request Contractor(s) to critically review the working methods.	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures.

Appendix 6.2

Summary of Notification of Exceedance

Summary for Notification of Exceedance

Reporting Period: November 2022

Ref No.	Date	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up Action
-	-	-	-	-	-	-	-

Ref. No.	Date	Time	Location	Construction Noise Level	Parameter	Action Level	Limit Level	Follow-up action
-	-	-	-	-	-	-	-	-

Ref no.	Date	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up
SWH_001_W	23/11/2022	M1	DO(mg/L)	5.28 mg/L (Limit Level Exceedance)	<7.80mg/L	<7.70mg/L	After investigation, the exceedance was considered non-project related.
SWH_002_W	25-Nov-22	M1	DO (mg/L)	5.77 mg/L (Limit Level Exceedance)	<7.80mg/L	<7.70mg/L	After investigation, the exceedance was considered non-project related.
SWH_003_W	28-Nov-22	M1	DO (mg/L)	5.93 mg/L (Limit Level Exceedance)	<7.80mg/L	<7.70mg/L	After investigation, the exceedance was considered non-project related.
			Turbidity (NTU)	30.9 NTU (Limit Level Exceedance)	>14.6 NTU />120 % of C1	>15.6 NTU / >130 % of C1	After investigation, the exceedance was considered non-project related.
			SS (mg/L)	32.4 mg/L) (Limit Level Exceedance)	>18.8 mg/L/ >120% of C1	>19.5 mg/L / >130% of C1	After investigation, the exceedance was considered non-project related.

SWH_004_W	30-Nov-22	M1	DO (mg/l)	6.46 mg/L (Limit Level Exceedance)	<7.80mg/L	<7.70mg/L	After investigation, the exceedance was considered non-project related.
			Turbidity (NTU)	20.6 NTU (Limit Level Exceedance)	>14.6 NTU />120 % of C1	>15.6 NTU / >130 % of C1	After investigation, the exceedance was considered non-project related.
			SS (mg/L)	16.6 mg/L (Limit Level Exceedance)	>18.8 mg/L/ >120% of C1	>19.5 mg/L / >130% of C1	After investigation, the exceedance was considered non-project related.

Appendix 8.1

Complaint Log

Summary of Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
1	18 March 2020	EPD	Expansion Site of SWHSTP (Portion C)	Water contamination	Muddy water was suspected to be discharged from the expansion site of SWHSTP to Shek Sheung River, manholes and foul drains nearby The investigation and mitigation measures included - Employed suction truck and dump truck to clear the silt and mud at Shek Sheung River - Arranged to repair the wastewater treatment system - Installed additional sedimentation tanks and wastewater treatment system to increase the on-site treatment capacity - Clean the slurry sediment released from the outlet regularly by suction trucks - Avoid damage of underground drains and pipes caused by existing construction works - Avoid illegal discharge from the Site into foul drains and manholes	Closed
2	19 February 2021	EPD	SWHEPP	Odour nuisance	Significant odour nuisance was suspected to be emitted from the construction activities of SWHEPP The investigation and mitigation measures included - Ensured only PMEs with valid NRMM label were used on-site - Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart - Used ULSD for diesel-powered equipment - Provided water spraying and water sprinklers system for haul road access and demolition works - Used battery powered solution to provide power to the tower crane - Provided cover for all rubbish bins on-site - Separated general refuse from construction waste	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
3	9 August 2021	EPD	SWHEPP	Air Quality	Air nuisance was suspected to be originated from the construction activities of SWHEPP The investigation and mitigation measures included - Ensured only PMEs with valid NRMM label were used on-site - Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart - Used ULSD for diesel-powered equipment - Used battery powered solution to provide power to the tower crane - Carried out plant maintenance in a timely manner	Closed
20220304	4 March 2022	EPD	SWHEPP	Odour nuisance	The complainant alleged the odour nuisance was sourced from the construction site of Shek Wu Hui Effluent Polishing Plant on 4 March 2022. Thus, all four contracts (Contract Nos. DC/2018/06, DC/2018/07, DE/2018/03 and DE/2018/04) were involved in the complaint investigation. After investigation, no construction activities undertaken by all four contracts was associated with the odour nuisance received on 4 March 2022. Nevertheless, the contractors were reminded and recommended to: • Ensure only equipment with valid NRMM label is allowed to be used at site and regular maintenance of equipment • Provide regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart • Use ULSD as fuel for diesel-powered equipment • Maintain proper segregation and storage of general refuse	Closed on 22 April 2022 as confirmed with EPD.

Appendix 9.1

Construction Programme of Individual Contracts

Contract No.: DC/2018/06
Contract Title: Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
- Civil Works for Sludge Treatment Facilities and 132kV Primary Substation

Executive Summary Programme (Status Date: 20/10/2022)

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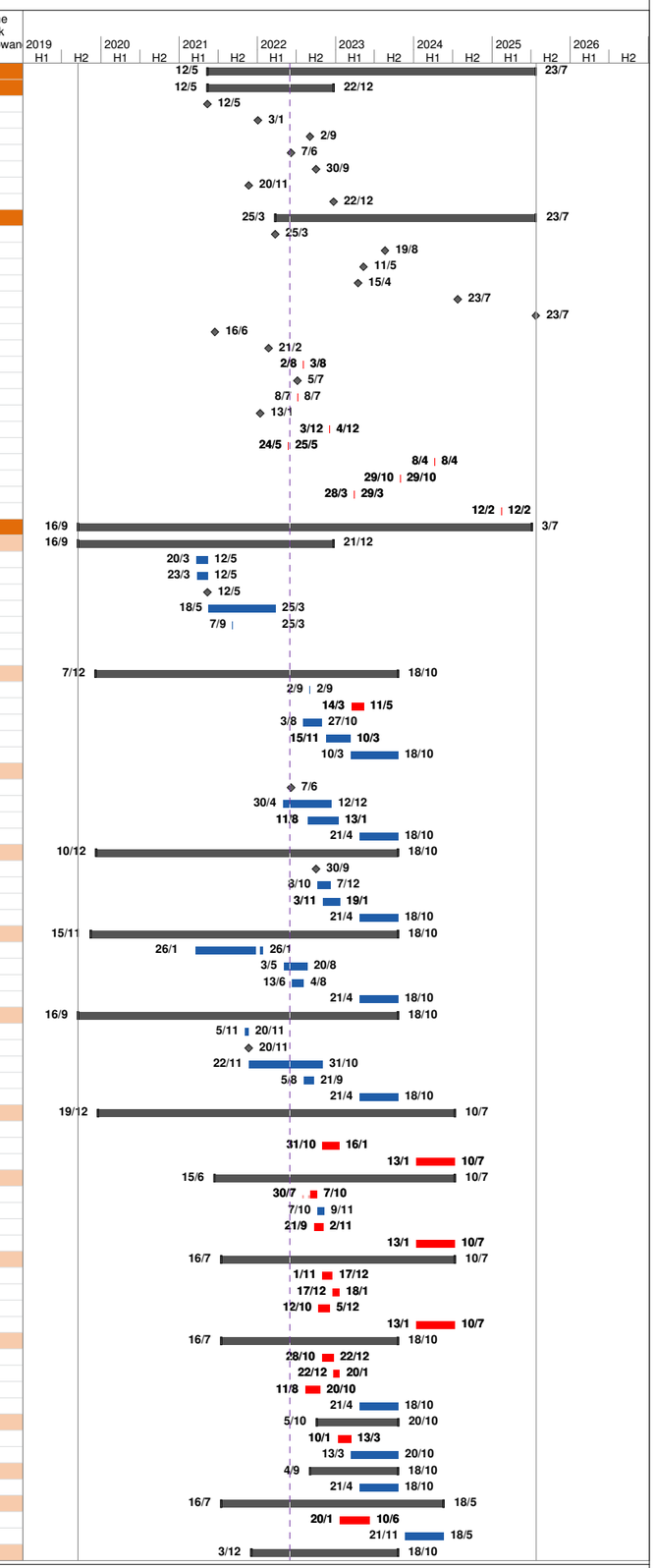
ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	% Complete	Time Risk Allowan
34	**PD-00000**	*	**Planned Completion - Key Date (cal. day)**			**1534 days**	**Wed 12/5/21**	**Wed 23/7/25**	**Wed 12/5/21**	**NA**			**26%**	
35	**PKD-00000**	*	**Planned Completion - Key Dates**			**589 days**	**Wed 12/5/21**	**Thu 22/12/22**	**Wed 12/5/21**	**NA**			**0%**	
36	PKD-01000	KD1A	KD1A			0 days	Wed 12/5/21	Wed 12/5/21	Wed 12/5/21	Wed 12/5/21	284FF	19FF	100%	
37	PKD-02000	KD2A	KD2A			0 days	Mon 3/1/22	Mon 3/1/22	Mon 3/1/22	Mon 3/1/22	622FF	20FF	100%	
38	PKD-03000	KD3A	KD3A			0 days	Fri 2/9/22	Fri 2/9/22	NA	NA	314FF	21FF	0%	
39	PKD-04000	KD3B	KD3B			0 days	Tue 7/6/22	Tue 7/6/22	Tue 7/6/22	Tue 7/6/22	345FF	22FF	100%	
40	PKD-05000	KD3C	KD3C			0 days	Fri 30/9/22	Fri 30/9/22	NA	NA	367FF	23FF	0%	
41	PKD-06000	KD3D	KD3D			0 days	Sat 20/11/21	Sat 20/11/21	Sat 20/11/21	Sat 20/11/21	399FF	24FF	100%	
42	PKD-07000	KD3E	KD3E			0 days	Thu 22/12/22	Thu 22/12/22	NA	NA	414FF,422FF,430FF,438FF,473FF,4	25FF	0%	
43	**PCD-00000**	*	**Planned Completion - Section of the Works (cal. day)**			**1217 days**	**Fri 25/3/22**	**Wed 23/7/25**	**Fri 25/3/22**	**NA**			**0%**	
44	PCD-01000	SW1	Section 1 of Works			0 days	Fri 25/3/22	Fri 25/3/22	Fri 25/3/22	Fri 25/3/22	520FF,551FF,552FF,553FF,554FF,5	27FF	100%	
45	PCD-02000	SW2	Section 2 of Works			0 days	Sat 19/8/23	Sat 19/8/23	NA	NA	643FF,655FF	28FF	0%	
46	PCD-03000	SW3	Section 3 of Works			0 days	Thu 11/5/23	Thu 11/5/23	NA	NA	205FF,369FF,383FF,401FF,423FF,4	588,29FF	0%	
47	PCD-04000	SW4	Section 4 of Works			0 days	Sat 15/4/23	Sat 15/4/23	NA	NA	521FF,324FF,350FF,370FF,384FF,4	30FF	0%	
48	PCD-05000	SW5	Section 5 of Works			0 days	Tue 23/7/24	Tue 23/7/24	NA	NA	291FF,325FF,351FF,371FF,385FF,4	49,50,31FF	0%	
49	PCD-06000	DLP	Defect Liability Period			365 days	Wed 24/7/24	Wed 23/7/25	NA	NA	48,589FF		0%	
56	IWKD1A-01040	KD1A	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			0 days	Wed 16/6/21	Wed 16/6/21	Wed 16/6/21	Wed 16/6/21	55		100%	
64	IWKD2A-01040	KD2A	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			0 days	Mon 21/2/22	Mon 21/2/22	Mon 21/2/22	Mon 21/2/22	63		100%	
72	IWKD3A-01040	KD3A	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			1 day	Tue 2/8/22	Wed 3/8/22	Tue 2/8/22	NA	71		0%	
81	IWKD3B-01040	KD3B	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			0 days	Tue 5/7/22	Tue 5/7/22	Tue 5/7/22	Tue 5/7/22	80		100%	
89	IWKD3C-01040	KD3C	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			1 day	Fri 8/7/22	Fri 8/7/22	Fri 8/7/22	NA	88		0%	
97	IWKD3D-01040	KD3D	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			0 days	Thu 13/1/22	Thu 13/1/22	Thu 13/1/22	Thu 13/1/22	96		100%	
104	IWKD3E-01040	KD3E	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			1 day	Sat 3/12/22	Sun 4/12/22	NA	NA	103		0%	
112	IWSW1-01040	SW1	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			1 day	Tue 24/5/22	Wed 25/5/22	Tue 24/5/22	NA	111		0%	
121	IWSW1-01040	SW2	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			1 day	Mon 8/4/24	Mon 8/4/24	NA	NA	120		0%	
130	IWSW3-01040	SW3	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			1 day	Sun 29/10/23	Sun 29/10/23	NA	NA	129		0%	
139	IWSW4-01040	SW4	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			1 day	Tue 28/3/23	Wed 29/3/23	NA	NA	138		0%	
148	IWSW5-01040	SW5	Delay and Disruption of works due to Red/Black Storm Signal/ Typhoon No.8 or above for September 2022			1 day	Wed 12/2/25	Wed 12/2/25	NA	NA	147		0%	
249	**CWPC-00000**	*	**Construction Works of Portion C of the Site**			**1720.8 days**	**Mon 16/9/19**	**Thu 3/7/25**	**Mon 16/9/19**	**NA**			**46%**	
250	**CUV1-00000**	*	**UV System No. 1 & Effluent Pumping Station No. 1 (1)**			**970 days**	**Mon 16/9/19**	**Wed 21/12/22**	**Mon 16/9/19**	**NA**			**94%**	
281	CUV1-09041	KD1A	Walls, Slabs and staircase Construction @+7.4mPD to 16.4mPD [Additional SP1-3 puddle (DN100 x 2 & DN80)	(204),(228)	(108), (146), (148), (179), (182)	41 days	Sat 20/3/21	Wed 12/5/21	Sat 20/3/21	Wed 12/5/21	278	284,285,283,287	100%	
282	CUV1-10000	KD1A	Construction of Switch room	(204),(228)		51 days	Tue 23/3/21	Wed 12/5/21	Tue 23/3/21	Wed 12/5/21			100%	
284	**CUV1-11000**	**KD1A**	**Allow access to Contractor DE/2018/03 for E&M Installation**			**0 days**	**Wed 12/5/21**	**Wed 12/5/21**	**Wed 12/5/21**	**Wed 12/5/21**	**281**	**36FF**	**100%**	
285	CUV1-12000	SW1	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining		(95), (296), (367), 359	256 days	Tue 18/5/21	Fri 25/3/22	Tue 18/5/21	Fri 25/3/22	242SS,168SS,281	581,582,583,286	100%	
288	CUV1-12200	SW1	Effluent Chamber (including Additional Works from PMI)		292	163 days	Tue 7/9/21	Fri 25/3/22	Tue 7/9/21	Fri 25/3/22	287FS+1 day	44FF,289	100%	
290	CUV1-12500	SW4	Underground utilities works - Revised Cable Ducts plan		318, 276,219,248,207	47 days	Tue 16/8/22	Wed 12/10/22	NA	NA	286FF	496SS,432SS	0%	
291	CUV1-13000	SW5	Surrounding Site formation works and road works			180 days	Fri 10/3/23	Wed 18/10/23	NA	NA	325FF	48FF	0%	
292	**CSDC-00000**	*	**Sludge Digesters and Distribution Chamber (4)**			**1143 days**	**Sat 7/12/19**	**Wed 18/10/23**	**Sat 7/12/19**	**NA**			**62%**	
314	**CSDC-12000**	**KD3A**	**Allow access to Contractor DE/2018/03 for E&M Installation**			**1 day**	**Fri 2/9/22**	**Fri 2/9/22**	**Fri 2/9/22**	**Fri 2/9/22**	**305,313**	**38FF**	**100%**	
320	CSDC-12050	SW3	Civil & Structural works at G/F			45 days	Tue 14/3/23	Thu 11/5/23	NA	NA	319	46FF	0%	
323	CSDC-15000	SW3	ABWF Works & BS Works, Change to Work Information (Apply Internal Anti-corrosion Protective Lining)		(173),594	71 days	Wed 3/8/22	Thu 27/10/22	Wed 3/8/22	NA	242SS,168SS,305FS+15 days	46FF	0%	
324	CSDC-15500	SW4	Surrounding sewerage, utility and process pipe works		358,298,222,248,205,206	93 days	Tue 15/11/22	Fri 10/3/23	NA	NA	321	47FF,581FS-360 days,582FS-3	0%	
325	CSDC-16000	SW5	Surrounding Site formation works and road works			180 days	Fri 10/3/23	Wed 18/10/23	NA	NA	324	48FF,351FF,371FF,385FF,403F	0%	
326	**CSDB-00000**	*	**Sludge Dewatering Building (2)**			**875.8 days?**	**Tue 26/11/19**	**Wed 9/11/22**	**Tue 26/11/19**	**NA**			**67%**	
345	**CSDB-12000**	**KD3B**	**Allow access to Contractor DE/2018/03 for E&M Installation**			**0 days**	**Tue 7/6/22**	**Tue 7/6/22**	**Tue 7/6/22**	**Tue 7/6/22**	**344**	**39FF,346FS+65 days,348**	**100%**	
349	CSDB-14000	SW3	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining		(95), (173),594	187 days	Sat 30/4/22	Mon 12/12/22	Sat 30/4/22	NA	242SS,168SS,344SS+37 days	46FF	0%	
350	CSDB-14500	SW4	Surrounding sewerage, utility and process pipe works		(335),(53),219,248,205,206,207	128 days	Thu 11/8/22	Fri 13/1/23	Thu 11/8/22	NA	346SS	47FF,581FS-367 days,582FS-3	0%	
351	CSDB-15000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA	NA	325FF	48FF	0%	
352	**CHPB-00000**	*	**Combined Heat Power Building (3)**			**1141 days**	**Tue 10/12/19**	**Wed 18/10/23**	**Tue 10/12/19**	**NA**			**47%**	
367	**CHPB-09000**	**KD3C**	**Allow access to Contractor DE/2018/03 for E&M Installation**			**0 days**	**Fri 30/9/22**	**Fri 30/9/22**	**Fri 30/9/22**	**Fri 30/9/22**	**366FS-20 days**	**40FF**	**100%**	
369	CHPB-11000	SW3	ABWF Works & BS Works with additional/change to works information		(173)	52 days	Sat 8/10/22	Wed 7/12/22	NA	NA	242SS,168SS,366FS-15 days	46FF	0%	
370	CHPB-11500	SW4	Surrounding sewerage, utility and process pipe works		221,219,220,248,205,206	64 days	Thu 3/11/22	Thu 19/1/23	NA	NA	366FS+7 days	47FF,581FS-428 days,582FS-4	0%	
371	CHPB-12000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA	NA	325FF	48FF	0%	
372	**CSPS-00000**	*	**Sewage Pumping Station (9)**			**1162 days**	**Fri 15/11/19**	**Wed 18/10/23**	**Fri 15/11/19**	**NA**			**75%**	
382	CSPS-09000	KD3E	R.C. Structure & waterproofing works - Change to Work Information (Additional Puddle Flange and Civil Provision)	268, 338, (204),	*(63) ,(303), (341)*	297 days	Tue 26/1/21	Wed 26/1/22	Tue 26/1/21	Wed 26/1/22	380,166,238,239,240,381SS-2 emon	383,42FF	100%	
383	CSPS-10000	SW3	ABWF Works & BS Works & Apply Internal Anti-corrosion Protective Lining			90.5 days	Tue 3/5/22	Sat 20/8/22	Tue 3/5/22	Sat 20/8/22	242SS,168SS,167,382	46FF	100%	3
384	CSPS-10500	SW4	Surrounding sewerage, utility and process pipe works		386 , 299	45 days	Mon 13/6/22	Thu 4/8/22	Mon 13/6/22	Thu 4/8/22	311FS-38 days	47FF,581FS-148 days,582FS-1	100%	
385	CSPS-11000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA	NA	325FF	48FF	0%	
386	**CWS2-00000**	*	**Workshop No. 2 (5)**			**1212 days**	**Mon 16/9/19**	**Wed 18/10/23**	**Mon 16/9/19**	**NA**			**61%**	
398	CWS2-08030	KD3D	Roof Construction @+19.00mPD - Revised Civil Requirements in R/F		(302)	14 days	Fri 5/11/21	Sat 20/11/21	Fri 5/11/21	Sat 20/11/21	397	399	100%	
399	**CWS2-09000**	**KD3D**	**Allow access to Contractor DE/2018/03 for E&M Installation**			**0 days**	**Sat 20/11/21**	**Sat 20/11/21**	**Sat 20/11/21**	**Sat 20/11/21**	**398**	**41FF**	**100%**	
401	CWS2-11000	SW3	ABWF Works & BS Works - Revised Architectural Layout & Schedule for Doors, Louvers and Windows		(95), (173), (406,407,408)	278 days	Mon 22/11/21	Mon 31/10/22	Mon 22/11/21	NA	242SS,168SS	46FF	64%	
402	CWS2-11500	SW4	Surrounding sewerage, utility and process pipe works		221,219,220,205,206,207	40 days	Fri 5/8/22	Wed 21/9/22	Fri 5/8/22	Wed 21/9/22	384	47FF,581FS-200 days,582FS-2	100%	
403	CWS2-12000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA	NA	325FF	48FF	0%	
404	**CTHP-00000**	*	**Thermal Hydrolysis Pretreatment (6)**			**1339.8 days**	**Thu 19/12/19**	**Wed 10/7/24**	**Thu 19/12/19**	**NA**			**29%**	
414	CTHP-09000	KD3E, SW3	R.C. Plinth - Change to Works Information	268, 338	225, (115),(236)	0 days	Mon 2/11/20	Mon 2/11/20	Mon 2/11/20	Mon 2/11/20	412,308,413SS-2 emons	42FF,46FF	100%	
415	CTHP-09500	SW4	Surrounding sewerage, utility and process pipe works			64 days	Mon 31/10/22	Mon 16/1/23	NA	NA	346FS+28 days	47FF,581FS-200 days,582FS-2	0%	
416	CTHP-10000	SW5	Surrounding Site formation works and road works			180 days	Sat 13/1/24	Wed 10/7/24	NA	NA	325FF	48FF	0%	
417	**CFCD-00000**	*	**Ferric Chloride Dosing Facilities (10)**			**903.8 days**	**Tue 15/6/21**	**Wed 10/7/24**	**Tue 15/6/21**	**NA**			**27%**	
422	CFCD-04000	KD3E	Steel Roof Structure (On-site Fabrication)			25 days	Sat 30/7/22	Fri 7/10/22	Sat 30/7/22	NA	421	423,42FF,470FS-11 days	0%	
423	CFCD-05000	SW3	ABWF Works & BS Works, Change to Work Information (Application of Protective Lining System)		*594*	28 days	Fri 7/10/22	Wed 9/11/22	NA	NA	422,242,168	46FF,581FS-185 days,582FS-1	0%	
424	CFCD-05500	SW4	Surrounding sewerage, utility and process pipe works - Updated Process Pipes Arrangement		386, 298	35 days	Wed 21/9/22	Wed 2/11/22	Wed 21/9/22	NA	402	47FF,581FS-200 days,582FS-2	0%	
425	CFCD-06000	SW5	Surrounding Site formation works and road works			180 days	Sat 13/1/24	Wed 10/7/24	NA	NA	325FF	48FF	0%	
426	**CFHB-00000**	*	**Fire Hydrant and Booster Pump Room (16)**			**877.8 days**	**Fri 16/7/21**	**Wed 10/7/24**	**Fri 16/7/21**	**NA**			**0%**	
430	CFHB-03000	KD3E	R.C. Structure & waterproofing works			40 days	Tue 1/11/22	Sat 17/12/22	NA	NA	428FS+1 day	431,42FF	0%	5
431	CFHB-04000	SW3	ABWF Works & BS Works			24 days	Sat 17/12/22	Wed 18/1/23	NA	NA	430,242SS,168SS	46FF,581FS-320 days,582FS-3	0%	
432	CFHB-04500	SW4	Surrounding sewerage, utility and process pipe works			46 days	Wed 12/10/22	Mon 5/12/22	NA	NA	290SS,346SS	47FF,581FS-200 days,582FS-2	0%	
433	CFHB-05000	SW5	Surrounding Site formation works and road works			180 days	Sat 13/1/24	Wed 10/7/24	NA	NA	325FF	48FF	0%	
434	**CTFS-00000**	*	**Transformer and Switchroom (15)**			**671 days**	**Fri 16/7/21**	**Wed 18/10/23**	**Fri 16/7/21**	**NA**			**0%**	
438	CTFS-03000	KD3E	R.C. Structure			47 days	Fri 28/10/22	Thu 22/12/22	NA	NA	436,166,238,437	439,42FF	0%	5
439	CTFS-04000	SW3	ABWF Works & BS Works		(95)	22 days	Thu 22/12/22	Fri 20/1/23	NA	NA	438,242SS,168SS	46FF	0%	
440	CTFS-04500	SW4	Surrounding sewerage, utility and process pipe works			58 days	Thu 11/8/22	Thu 20/10/22	NA	NA	350SS	47FF,581FS-200 days,582FS-2	0%	
441	CTFS-05000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA	NA	325FF	48FF	0%	
442	**CUC-00000**	*	**Utility Corridor (13)**		**204**	**310 days**	**Wed 5/10/22**	**Fri 20/10/23**	**NA**	**NA**			**0%**	
446	CUC-03500	SW4	Surrounding sewerage, utility and process pipe works		248,205,207	50 days	Tue 10/1/23	Mon 13/3/23	NA	NA	444	47FF,581FS-200 days,582FS-2	0%	
447	CUC-04000	SW5	Surrounding Site formation works and road works			180 days	Mon 13/3/23	Fri 20/10/23	NA	NA	446	48FF	0%	
448	**CWMC-00000**	*	**Water Meter Cabinet (11)**		**204**	**332 days**	**Sun 4/9/22**	**Wed 18/10/23**	**NA**	**NA**			**0%**	
454	CWMC-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA	NA	325FF	48FF	0%	
455	**CGH-00000**	*	**Guard House (14)**			**834.8 days**	**Fri 16/7/21**	**Sat 18/5/24**	**Fri 16/7/21**	**NA**			**0%**	
460	CGH-03500	SW4	Surrounding sewerage, utility and process pipe works		205	112 days	Fri 20/1/23	Sat 10/6/23	NA	NA	444SS+59 days		0%	
461	CGH-04000	SW5	Surrounding Site formation works and road works			180 days	Tue 21/11/23	Sat 18/5/24	NA	NA	325FF	48FF	0%	
462	**CCPS-00000**	*	**THP Coolers Pumping Station (21)**			**554 days**	**Fri 3/12/21**	**Wed 18/10/23**	**Fri 3/12/21**	**NA**			**23%**	



Critical Split | Task | Milestone | Summary | Critical

Contract No.: DC/2018/06
Contract Title: Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
- Civil Works for Sludge Treatment Facilities and 132kV Primary Substation

Executive Summary Programme (Status Date: 20/10/2022)

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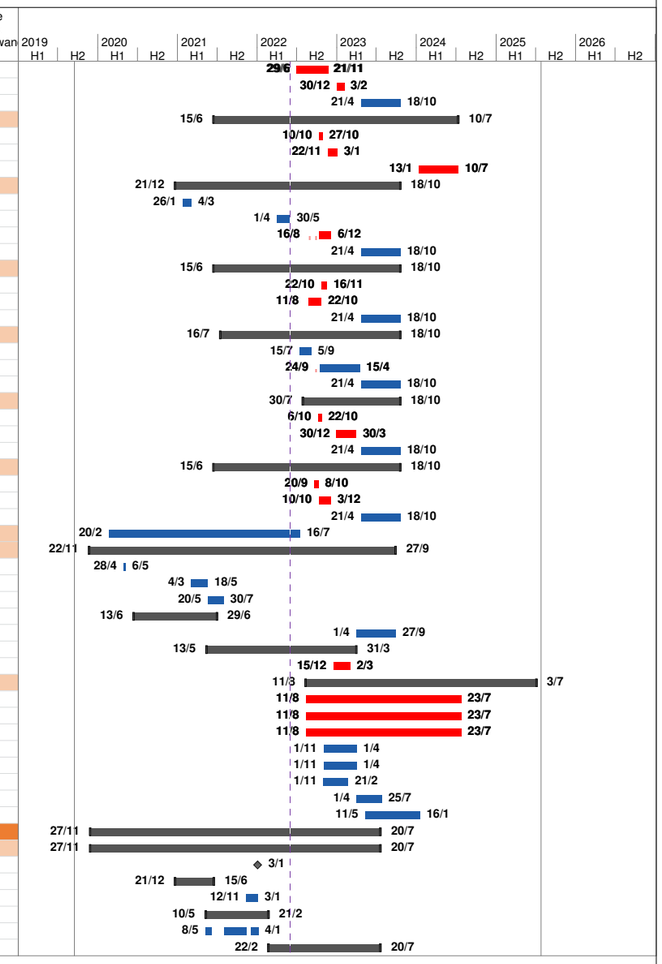
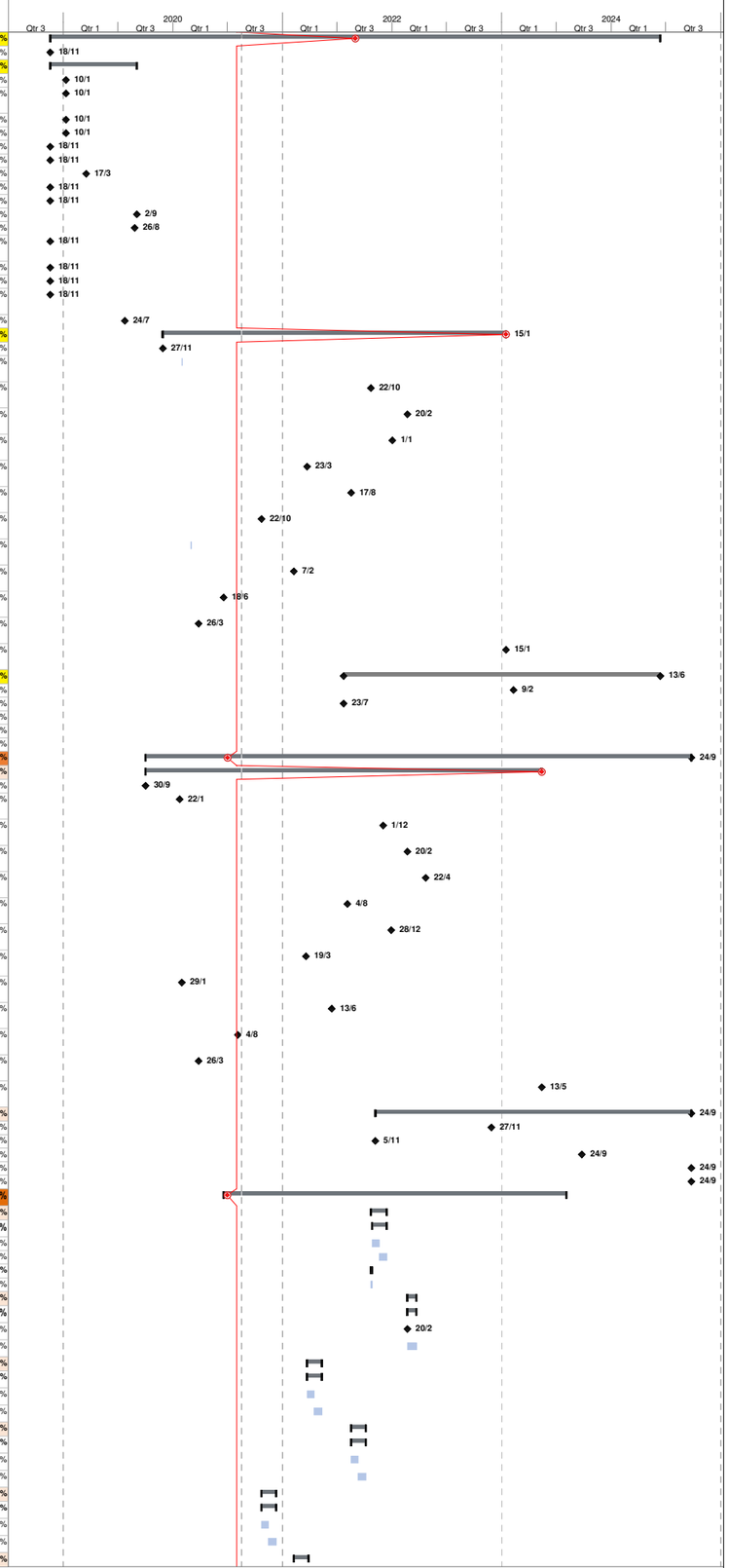
ID	Activity ID	KD	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	% Complete	Time Risk Allowan
466	CCPS-02000	KD3E	R.C. Structure			121 days	Wed 29/6/22	Mon 21/11/22	Wed 29/6/22		NA 166,238,465SS-2 emons,464FS+61	467FS+32 days	0%	5
467	CCPS-02500	SW4	Surrounding sewerage, utility and process pipe works			26 days	Fri 30/12/22	Fri 3/2/23	NA		NA 466FS+32 days	47FF	0%	
468	CCPS-03000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA		NA 325FF		0%	
469	**CWGB-00000**	*	**Waste Gas Burner (8)**			**903.8 days**	**Tue 15/6/21**	**Wed 10/7/24**	**Tue 15/6/21**		**NA**		**0%**	
473	CWGB-03000	KD3E	R.C. Plinth			15 days	Mon 10/10/22	Thu 27/10/22	NA		NA 166,472SS-2 emons,471	42FF,474	0%	
474	CWGB-03500	SW4	Surrounding sewerage, utility and process pipe works			34 days	Tue 22/11/22	Tue 3/1/23	NA		NA 473,384SS	47FF,581FS-200 days,582FS-2	0%	
475	CWGB-04000	SW5	Surrounding Site formation works and road works			180 days	Sat 13/1/24	Wed 10/7/24	NA		NA 325FF	48FF	0%	
476	**CPSW-00000**	*	**Plant Services Water System (20)**			**835 days**	**Mon 21/12/20**	**Wed 18/10/23**	**Mon 21/12/20**		**NA**		**30%**	
480	CPSW-03000	KD3E	Basement Construction @+1.20mPD - Change to Works Information (Basement)		*(136), (117)*	30 days	Tue 26/1/21	Thu 4/3/21	Tue 26/1/21	Thu 4/3/21	478,166,479SS-2 emons	42FF,481	100%	
481	CPSW-03500	SW3	ABWF Works & BS Works			60 days	Fri 1/4/22	Mon 30/5/22	Fri 1/4/22	Mon 30/5/22	480	482,46FF	100%	
482	CPSW-03600	SW4	Surrounding sewerage, utility and process pipe works - (Updated Process Pipe Arrangement)		*439,455*	94 days	Tue 16/8/22	Tue 6/12/22	Tue 16/8/22		NA 481,350SS,432SS	47FF,581FS-200 days,582FS-2	0%	
483	CPSW-04000	SW5	Surrounding Site formation works and road works	338,(204),		180 days	Fri 21/4/23	Wed 18/10/23	NA		NA 325FF	48FF	0%	
484	**CDS11-00000**	*	**Deodorization System No. 11 (18)**			**697 days**	**Tue 15/6/21**	**Wed 18/10/23**	**Tue 15/6/21**		**NA**		**0%**	
488	CDS11-03000	KD3E, SW3	R.C. Plinth			21 days	Sat 22/10/22	Wed 16/11/22	NA		NA 486,166,487SS-2 emons	42FF,449SS,46FF	0%	
489	CDS11-03500	SW4	Surrounding sewerage, utility and process pipe works			60 days	Thu 11/8/22	Sat 22/10/22	Thu 11/8/22		NA 346SS	47FF	0%	
490	CDS11-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA		NA 325FF	48FF	0%	
491	**CBGH-00000**	*	**Biogas Holder (7)**			**671 days**	**Fri 16/7/21**	**Wed 18/10/23**	**Fri 16/7/21**		**NA**		**25%**	
495	CBGH-03000	KD3E, SW3	R.C. Plinth - Change to Works Information (Resize of Plinth)		481	45 days	Fri 15/7/22	Mon 5/9/22	Fri 15/7/22	Mon 5/9/22	493,166,494SS-2 emons,492FS-17	42FF,46FF,496FS+16 days	100%	
496	CBGH-03500	SW4	Surrounding sewerage, utility and process pipe works - update process pipe arrangement, Revised Plan for Pipe		262,297,248	163 days	Sat 24/9/22	Sat 15/4/23	Sat 24/9/22		NA 290SS,305,495FS+16 days	47FF,581FS-200	0%	
497	CBGH-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA		NA 325FF	48FF	0%	
498	**CH2S-00000**	*	**H2S Removal System (12)**			**363 days**	**Sat 30/7/22**	**Wed 18/10/23**	**Sat 30/7/22**		**NA**		**2%**	
502	CH2S-03000	KD3E, SW3	R.C. Plinth			15 days	Thu 6/10/22	Sat 22/10/22	NA		NA 500	42FF,46FF	0%	
503	CH2S-03500	SW4	Surrounding sewerage, utility and process pipe works	248		73 days	Fri 30/12/22	Thu 30/3/23	NA		NA 319SS+50 days	47FF,581FS-200 days,582FS-2	0%	
504	CH2S-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA		NA 325FF	48FF	0%	
505	**CDS12-00000**	*	**Deodorization System No. 12 (19)**			**697 days**	**Tue 15/6/21**	**Wed 18/10/23**	**Tue 15/6/21**		**NA**		**4%**	
509	CDS12-03000	KD3E, SW3	R.C. Plinth			15 days	Tue 20/9/22	Sat 8/10/22	Tue 20/9/22		NA 166,508SS-2 emons,507	42FF,46FF,510	0%	
510	CDS12-03500	SW4	Surrounding sewerage, utility and process pipe works			48 days	Mon 10/10/22	Sat 3/12/22	NA		NA 509	47FF,581FS-200 days,582FS-2	0%	
511	CDS12-04000	SW5	Surrounding Site formation works and road works			180 days	Fri 21/4/23	Wed 18/10/23	NA		NA 325FF	48FF	0%	
512	CUPH-00000	SW5	Underpass & Pump House			711 days	Thu 20/2/20	Sat 16/7/22	Thu 20/2/20		NA	47FF	81%	
513	**CPWU-00000**	*	**Pipe Works and Utility Installation**			**1140.8 days**	**Fri 22/11/19**	**Wed 27/9/23**	**Fri 22/11/19**		**NA**		**77%**	
518	CPWU-01130	KD1A	Stage 1 - Backfilling Works for Drainage Diversion			9 days	Tue 28/4/20	Wed 6/5/20	Tue 28/4/20	Wed 6/5/20		263	100%	
519	CPWU-01140	KD1A	Stage 2 - Drainage Diversion of Drainage b/w MHD26 and SMHH1003177A, to Abandon of Exisitng Drainage Cul	338, (204), (228		60 days	Thu 4/3/21	Tue 18/5/21	Thu 4/3/21	Tue 18/5/21	275	520	100%	
520	CPWU-01150	SW1	Stage 2 - Drainage Diversion of Drainage b/w MHD26 and SMHH1003177A, to Abandon of Exisitng Drainage Cul			60 days	Thu 20/5/21	Fri 30/7/21	Thu 20/5/21	Fri 30/7/21	519	44FF	100%	
521	**CPWU-01200**	**SW4**	**Trenchless Work for Pipe Installation**			**309 days**	**Sat 13/6/20**	**Tue 29/6/21**	**Sat 13/6/20**	**Tue 29/6/21**		**47FF**	**100%**	
544	CPWU-01020	SW5	Surrounding Site formation works and road works			180 days	Sat 1/4/23	Wed 27/9/23	NA		NA 543,545	48FF	0%	
545	**CPWU-02160**	**SW4**	Cable & Other Underground Utility Pipeworks	**17, 21, 22, 33, 4**	**(283)**	**561.8 days**	**Thu 13/5/21**	**Fri 31/3/23**	**Thu 13/5/21**		**NA 171,336,393**	**544,47FF**	**61%**	
579	CPWU-02200	SW4	Pipe Bridge No.1		297	60 days	Thu 15/12/22	Thu 2/3/23	NA		NA 344FS+120 days		0%	
580	**CRWL-00000**	*	**Remaining Works & Landscape Works**			**861 days**	**Thu 11/8/22**	**Thu 3/7/25**	**NA**		**NA**		**0%**	
581	CRWL-01000	SW5	Irrigation System		218	570 days	Thu 11/8/22	Tue 23/7/24	NA		NA 174,285,324FS-360 days,350FS-367	48FF,50	0%	
582	CRWL-02000	SW5	Hard Landscape Works			570 days	Thu 11/8/22	Tue 23/7/24	NA		NA 174,285,324FS-360 days,350FS-367	48FF,50	0%	
583	CRWL-03000	SW5	Soft Landscape Works			570 days	Thu 11/8/22	Tue 23/7/24	NA		NA 174,285,324FS-360 days,350FS-367	589,48FF,50	0%	
584	CRWL-04000	SW5	Outfall for Effluent Pipes			124 days	Tue 1/11/22	Sat 1/4/23	NA		NA 214	48FF	0%	
585	CRWL-05000	SW5	Slope Formation Works near Outfall			124 days	Tue 1/11/22	Sat 1/4/23	NA		NA 214	48FF,587	0%	
586	CRWL-06000	SW5	Removal of invasive trees along River Embankment		(37)	90 days	Tue 1/11/22	Tue 21/2/23	NA		NA 214	587	0%	
587	CRWL-07000	SW5	Retaining Wall along River Embankment, street furniture & road works			90 days	Sat 1/4/23	Tue 25/7/23	NA		NA 214,586,585	48FF	0%	
588	CRWL-08000	SW5	Remaining Site formation works, road works and boundary fence wall		(348), 299	250 days	Thu 11/5/23	Tue 16/1/24	NA		NA 46	48FF	0%	
590	**CWPA-00000**	*	**Construction of Portion A of the Site**			**1077 days**	**Wed 27/11/19**	**Thu 20/7/23**	**Wed 27/11/19**		**NA**		**79%**	
591	**C132S-00000**	*	**132kV Substation**			**1077 days**	**Wed 27/11/19**	**Thu 20/7/23**	**Wed 27/11/19**		**NA**		**79%**	
622	C132SI-31000	KD2A	**Allow for CLP to carry out E&M installation works**			**0 days**	**Mon 3/1/22**	**Mon 3/1/22**	**Mon 3/1/22**	**Mon 3/1/22**	**620,619,640**	**623SS-30 days,37FF,643**	**100%**	
625	**C132SE-01000**	**KD2A**	**Road Widening Works**	**(20)**		**139 days**	**Mon 21/12/20**	**Tue 15/6/21**	**Mon 21/12/20**	**Tue 15/6/21**		**643**	**100%**	
634	C132SE-02030	KD2A	Backfilling and Reinstatement Works		(312), (332), (322)	42 days	Fri 12/11/21	Mon 3/1/22	Fri 12/11/21	Mon 3/1/22	633		100%	
635	C132SE-02040	KD2A	CLP Cable & Other Underground Utility Pipeworks			235 days	Mon 10/5/21	Mon 21/2/22	Mon 10/5/21	Mon 21/2/22		643	100%	
642	C132SE-03000	KD2A	Construction of New Boundary Wall		(155)	135 days	Sat 8/5/21	Tue 4/1/22	Sat 8/5/21	Tue 4/1/22	606	655	100%	
643	C132SE-04000	SW2	Remaining Works after allowing CLP Plant and Power Cables Installation			416 days	Tue 22/2/22	Thu 20/7/23	Tue 22/2/22		NA 623,621,622,625,630,635	45FF,655	22%	

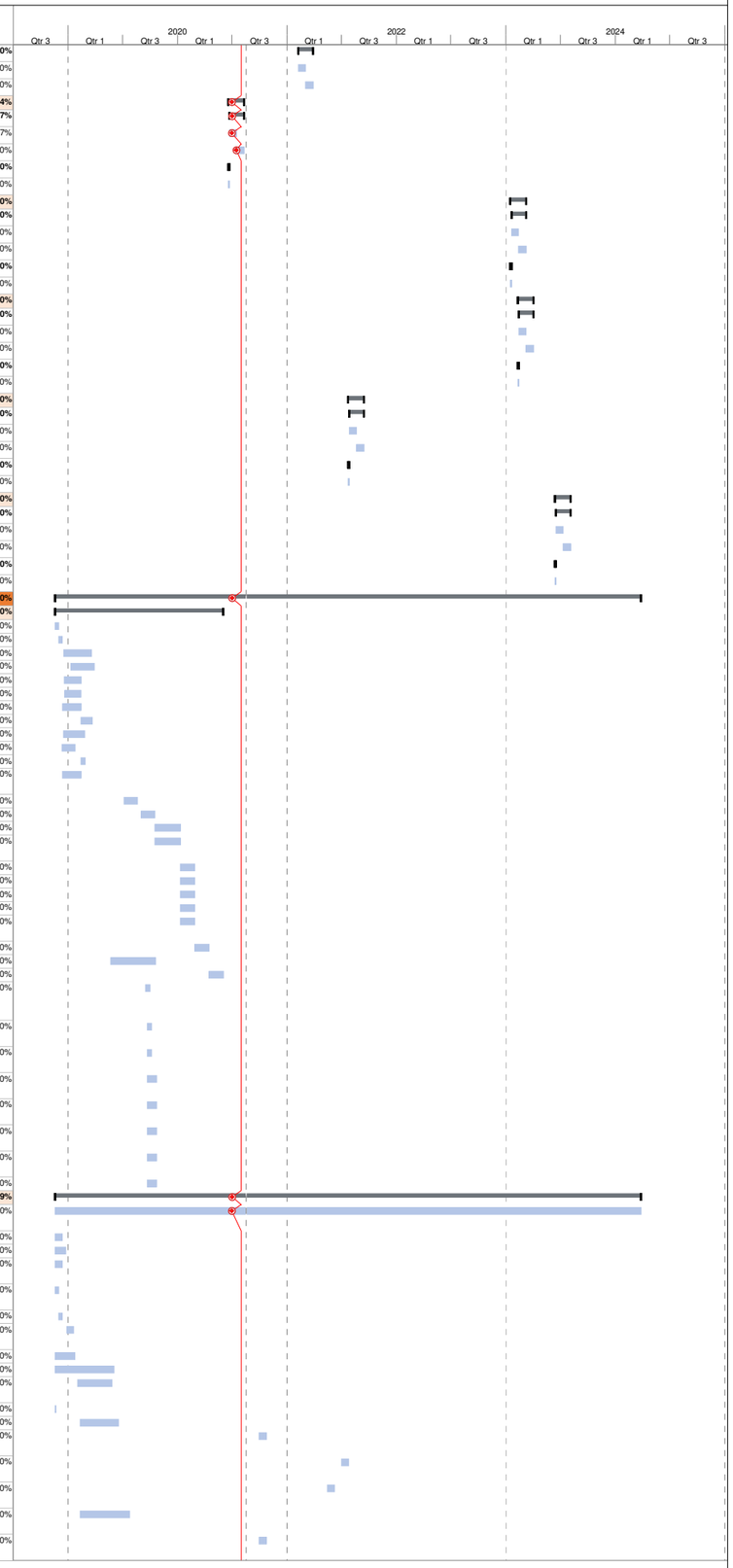


Critical Split | Task | Milestone | Summary | Critical

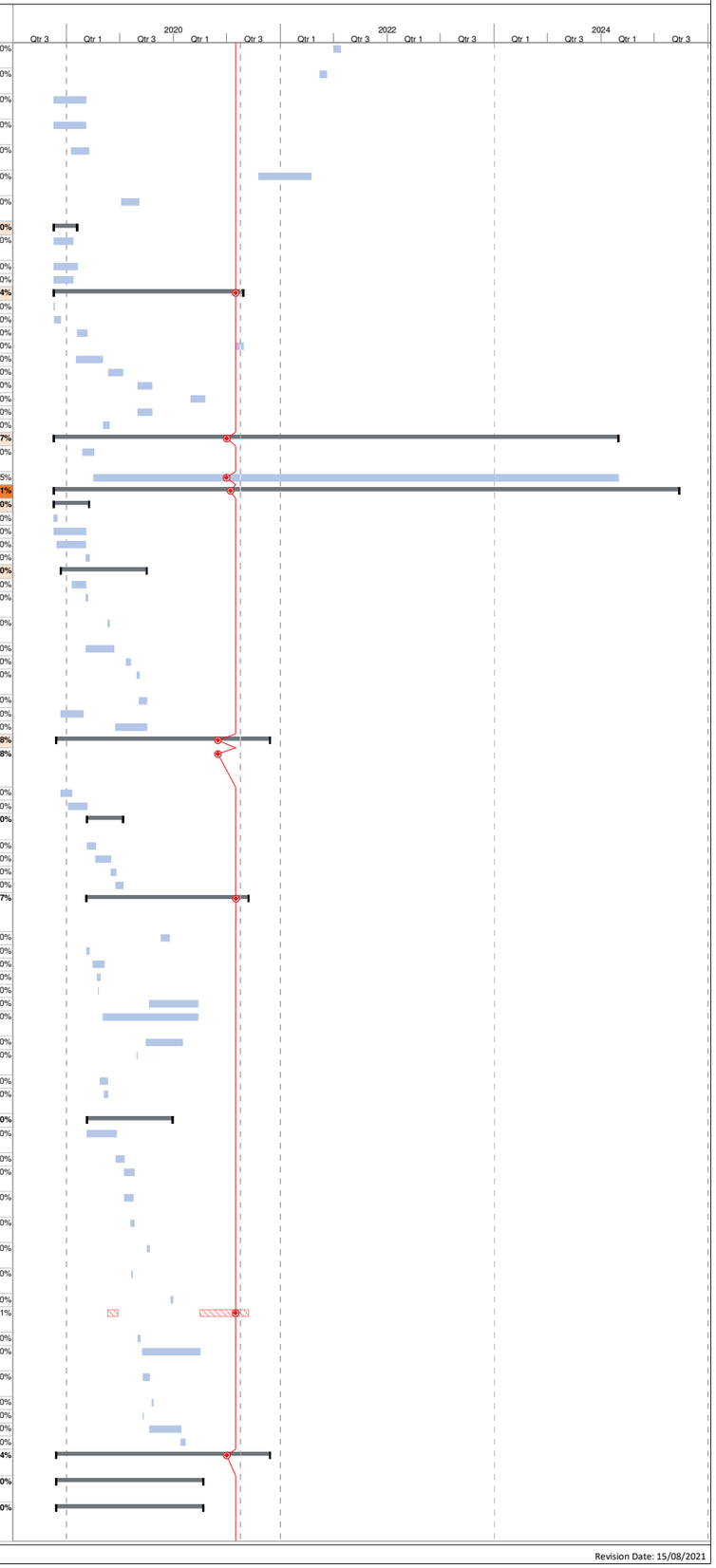
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
1	**CD-1000**		**Contract Dates**			**1585 days**	**Mon 18/11/19**	**Thu 27/3/25**	**1651.5 days**	**Mon 18/11/19**	**Fri 13/6/25**	**Mon 18/11/19**	**NA**			**88.5 days**		**0%**
2	CD-1010		Starting Date			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19		8,9,13FS+290 days,14FS+311 days	0 days		100%
3	**CAD-1000**		**Access Dates (cal. day)**			**310 days**	**Mon 18/11/19**	**Wed 23/9/20**	**289 days**	**Mon 18/11/19**	**Wed 2/9/20**	**Mon 18/11/19**	**Wed 2/9/20**			**0 days**		**100%**
4	CAD-1010		Portion B-1 (Access Road AR3)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2	201	0 days		100%
5	CAD-1020		Portion B-1A (Area for the works for Sidestream Treatment Facilities by Others			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2		0 days		100%
6	CAD-1030		Portion B-2 (Inlet Works No.1)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2	295,306	0 days		100%
7	CAD-1040		Portion B-2A (Area for the pipe-jacking works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	Fri 10/1/20	2		0 days		100%
8	CAD-1050		Portion B-3 (Primary Sedimentation Tanks No. 1-4)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	335	0 days		100%
9	CAD-1060		Portion B-4 (Bioreactor No. 2A & 2B)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	353	0 days		100%
10	CAD-1070		Portion B-5 (Membrane Facilities Building No.2)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20	Tue 17/3/20	2	402,419,425	0 days		100%
11	CAD-1080		Portion B-6 (SAS Pumping Station)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	434	0 days		100%
12	CAD-1090		Portion B-7 (Ancillary structures)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	461	0 days		100%
13	CAD-1100		Portion B-7A (Alternation works for existing Power House)			0 days	Wed 2/9/20	Wed 2/9/20	0 days	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	Wed 2/9/20	2FS+290 days	539FS-1 day,29FS+179 days	0 days		100%
14	CAD-1110		Portion B-8 (Alternation for existing Membrane Facilities Building No.1)			0 days	Tue 22/9/20	Tue 22/9/20	0 days	Wed 26/8/20	Wed 26/8/20	Wed 26/8/20	Wed 26/8/20	2FS+311 days	541FS-1 day	0 days		100%
15	CAD-1020		Portion B-8A (Alternation of air supply main for existing Air Blower House No.2)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	532	0 days		100%
16	CAD-1130		Portion B-9 (remainder works in Zone B)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2	542,556	0 days		100%
17	CAD-1140		Portion B-9A (Area for the pipe-jacking works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2		0 days		100%
18	CAD-1150		Portion B-9B (Area for underground pipework modification and connection works by others)			0 days	Mon 18/11/19	Mon 18/11/19	0 days	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	Mon 18/11/19	2		0 days		100%
19	CAD-1160		Portion B-9C (Area for the works for pipeworks)			0 days	Wed 22/7/20	Wed 22/7/20	0 days	Fri 24/7/20	Fri 24/7/20	Fri 24/7/20	Fri 24/7/20	2FS+151 days		0 days		100%
20	**CKD-1000**		**Key Dates (cal. day)**			**1440 days**	**Tue 19/11/19**	**Sat 28/10/23**	**1144 days**	**Fri 27/11/20**	**Mon 15/1/24**	**Fri 27/11/20**	**NA**			**618 days**		**99%**
21	CKD-1010		KD1A completion of AR3 in Portion B-1 (375 days after starting date)			300 days	Tue 19/11/19	Sun 13/9/20	0 days	Fri 27/11/20	Fri 27/11/20	Fri 27/11/20	Fri 27/11/20	2FS+376 days		0 days		100%
22	CKD-1020		KD1B completion of utilities diversion for commencement of Inlet Works No.1 in Portion B-2 (438.5 days after starting date)			360 days	Tue 19/11/19	Thu 12/11/20	1 day	Sat 30/1/21	Sat 30/1/21	Sat 30/1/21	Sat 30/1/21	2FS+439.5 days		0 days		100%
23	CKD-1030		KD1C completion of civil and structural works of Inlet Works No.1 in Portion B-2 (1068.5 days after starting date)			990 days	Tue 19/11/19	Thu 4/8/22	0 days	Sat 22/10/22	Sat 22/10/22	NA	NA	2FS+1069.5 days	67	1056.5 days		0%
24	CKD-1040		KD1D completion of civil and structural works of Primary Sedimentation Tanks in Portion B-3 (1190days after starting date)			1190 days	Tue 19/11/19	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	2FS+1191 days	70	947 days		0%
25	CKD-1050		KD1E completion of civil and structural works of Bioreactor in Portion B-4 (1140days after starting date)			1140 days	Tue 19/11/19	Sun 1/1/23	0 days	Sun 1/1/23	Sun 1/1/23	NA	NA	2FS+1141 days		997 days		0%
26	CKD-1060		KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5 (855.5 days after starting date)			800 days	Tue 19/11/19	Wed 26/1/22	0 days	Wed 23/3/22	Wed 23/3/22	NA	NA	2FS+856.5 days	74	1273.5 days		0%
27	CKD-1070		KD1G completion of civil and structural works of MFB in Portion B-5 (1002.5 days after starting date)			950 days	Tue 19/11/19	Sat 25/6/22	0 days	Wed 17/8/22	Wed 17/8/22	NA	NA	2FS+1003.5 days	78	1126.5 days		0%
28	CKD-1080		KD1H completion of civil and structural works of SAS Pumping Station in Portion B-6 (703.5 days after starting date)			630 days	Tue 19/11/19	Mon 9/8/21	0 days	Fri 22/10/21	Fri 22/10/21	NA	NA	2FS+704.5 days	82	1425.5 days		0%
29	CKD-1090		KD1I completion alternation works for existing Power House in Portion B-7A (179days after access date of B-7A)			150 days	Fri 4/9/20	Sun 31/1/21	1 day	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	Mon 1/3/21	13FS+179 days		0 days		100%
30	CKD-1100		KD1J completion of auxiliary facilites in Portion B-7 (811.5 days after starting date)			800 days	Tue 19/11/19	Wed 26/1/22	0 days	Mon 7/2/22	Mon 7/2/22	NA	NA	2FS+812.5 days	86	1317.5 days		0%
31	CKD-1110		KD2A completion of effluent pipes to UV system and connection to its downstream in Portion B-9 (577.5 days after starting date)			495 days	Tue 19/11/19	Sat 27/3/21	0 days	Fri 18/6/21	Fri 18/6/21	Fri 18/6/21	Fri 18/6/21	2FS+578.5 days	93	0 days		100%
32	CKD-1120		KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A (494 days after starting date)			420 days	Tue 19/11/19	Mon 11/1/21	0 days	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	2FS+495 days		0 days		100%
33	CKD-1130		KD3A completion of all utilities and road works (1519 days after starting date)			1440 days	Tue 19/11/19	Sat 28/10/23	0 days	Mon 15/1/24	Mon 15/1/24	NA	NA	2FS+1520 days	99	606 days		0%
34	**CCD-1000**		**Completion Date (cal. Day)**			**1956 days**	**Tue 19/11/19**	**Thu 27/3/25**	**1056 days**	**Sat 23/7/22**	**Fri 13/6/25**	**Sat 23/7/22**	**NA**			**50.5 days**		**0%**
35	CCD-1010		Section 1 of the Works (1,543.5 after starting date)			1460 days	Tue 19/11/19	Fri 17/11/23	0 days	Fri 9/2/24	Fri 9/2/24	NA	NA	2FS+1544.5 days	105	0 days		0%
36	CCD-1020		Section 2 of the Works (977.5 after starting date)			900 days	Tue 19/11/19	Fri 6/5/22	0 days	Sat 23/7/22	Sat 23/7/22	NA	NA	2FS+978.5 days	111	0 days		0%
37	CCD-1030		Section 3 of the Works (1,667.5 after starting date)			1590 days	Tue 19/11/19	Tue 26/3/24	0 days	Wed 12/6/24	Wed 12/6/24	NA	NA	2FS+1668.5 days	39FS+1 day,117,38FS+1 day	-77.5 days		99%
38	CCD-1040		Defects Liability Period			365 days	Wed 27/3/24	Thu 27/3/25	365 days	Thu 13/6/24	Fri 13/6/25	NA	NA	37FS+1 day		0 days		0%
39	CCD-1050		Landscape Establishment Works			365 days	Wed 27/3/24	Thu 27/3/25	365 days	Thu 13/6/24	Fri 13/6/25	NA	NA	37FS+1 day		103.5 days		0%
40	**PD-1000**	*	**Planned Completion**			**1686 days**	**Fri 14/8/20**	**Thu 27/3/25**	**1820 days**	**Wed 30/9/20**	**Wed 24/9/25**	**Wed 30/9/20**	**NA**			**0 days**		**3%**
41	**PCD-1000**	*	**Planned Completion - Key Dates (cal. day)**			**1170 days**	**Fri 14/8/20**	**Sat 28/10/23**	**1321 days**	**Wed 30/9/20**	**Mon 13/5/24**	**Wed 30/9/20**	**NA**			**-119 days**		**99%**
42	PKD-1010	KD1A	KD1A completion of AR3 in Portion B-1 (300days after starting date)			0 days	Sat 12/9/20	Sat 12/9/20	0 days	Wed 30/9/20	Wed 30/9/20	Wed 30/9/20	Wed 30/9/20	210FF		0 days		100%
43	PCD-1020	KD1B	KD1B completion of utilities diversion for commencement of Inlet Works No.1 in Portion B-2 (360days after starting date)			0 days	Fri 14/8/20	Fri 14/8/20	0 days	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	Fri 22/1/21	286FF,291FF,273FF		0 days		100%
44	PCD-1030	KD1C	KD1C completion of civil and structural works of Inlet Works No.1 in Portion B-2 (990days after starting date)			0 days	Thu 4/8/22	Thu 4/8/22	0 days	Thu 1/12/22	Thu 1/12/22	NA	NA	330FF,322FF,248FF,294FF,212FF,250FF		-40 days		0%
45	PCD-1040	KD1D	KD1D completion of civil and structural works of Primary Sedimentation Tanks in Portion B-3 (1190days after starting date)			0 days	Mon 20/2/23	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	349FF,348FF,351FF,333FF		0 days		0%
46	PCD-1050	KD1E	KD1E completion of civil and structural works of Bioreactor in Portion B-4 (1,140days after starting date)			0 days	Sat 31/12/22	Sat 31/12/22	0 days	Sat 22/4/23	Sat 22/4/23	NA	NA	391FF,397FF,393FF,396FF,392FF		-111 days		0%
47	PCD-1060	KD1F	KD1F completion of civil and structural works of MFB from B2 floor to 1st floor level in Portion B-5 (800days after starting date)			0 days	Tue 25/1/22	Tue 25/1/22	0 days	Thu 4/8/22	Thu 4/8/22	NA	NA	430FF		-135 days		0%
48	PCD-1070	KD1G	KD1G completion of civil and structural works of MFB in Portion B-5 (950days after starting date)			0 days	Sat 25/6/22	Sat 25/6/22	0 days	Wed 28/12/22	Wed 28/12/22	NA	NA	431FF		-133 days		0%
49	PCD-1080	KD1H	KD1H completion of civil and structural works of SAS Pumping Station in Portion B-6 (630days after starting date)			0 days	Mon 9/8/21	Mon 9/8/21	0 days	Sat 19/3/22	Sat 19/3/22	NA	NA	459FF,458FF		-148 days		0%
50	PCD-1090	KD1I	KD1I completion alternation works for existing Power House in Portion B-7A (150days after access date of B-7A)			0 days	Sat 30/1/21	Sat 30/1/21	1 day	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	Fri 29/1/21	539FF		0 days		100%
51	PCD-1100	KD1J	KD1J completion of auxiliary facilites in Portion B-7 (800days after starting date)			0 days	Wed 26/1/22	Wed 26/1/22	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	496FF,495FF,521FF,520FF,513FF,512FF		-126 days		0%
52	PCD-1110	KD2A	KD2A completion of effluent pipes to UV system and connection to its downstream in Portion B-9 (495days after starting date)			0 days	Sat 27/3/21	Sat 27/3/21	0 days	Wed 4/8/21	Wed 4/8/21	NA	NA	545FF,543FF		-47 days		0%
53	PCD-1120	KD2B	KD2B completion of air supply main alternation to existing air blower house No.2 in Portion B-8A (420days after starting date)			0 days	Thu 3/9/20	Thu 3/9/20	1 day	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	Fri 26/3/21	532FF,536FF,537FF,538FF		0 days		100%
54	PCD-1130	KD3A	KD3A completion of all utilities and road works (1440days after starting date)			0 days	Sat 28/10/23	Sat 28/10/23	0 days	Mon 13/5/24	Mon 13/5/24	NA	NA	555FF,557FF		-119 days		0%
55	**PCD-1000**	*	**Planned Completion Date (cal. Day)**			**1056 days**	**Fri 6/5/22**	**Thu 27/3/25**	**1054 days**	**Sat 5/11/22**	**Wed 24/9/25**	**NA**	**NA**			**-106 days**		**0%**
56	PCD-1010	SW1	Section 1 of the Works (1,460 after starting date)			0 days	Wed 23/8/23	Wed 23/8/23	0 days	Mon 27/11/23	Mon 27/11/23	NA	NA	522FF,514FF,477FF,504FF,488FF,460FF		73 days		0%
57	PCD-1020	SW2	Section 2 of the Works (900 after starting date)			0 days	Fri 6/5/22	Fri 6/5/22	0 days	Sat 5/11/22	Sat 5/11/22	NA	NA	549FF,399FF,433FF,352FF,334FF,550FF		-106 days		0%
58	PCD-1030	SW3	Section 3 of the Works (1,590 after starting date)			0 days	Tue 26/3/24	Tue 26/3/24	0 days	Tue 24/9/24	Tue 24/9/24	NA	NA	558FF,559FF,541FF,540FF		-105 days		0%
59	PCD-1040	DLP	Defects Liability Period			0 days	Thu 27/3/25	Thu 27/3/25	0 days	Wed 24/9/25	Wed 24/9/25	NA	NA	560FF,153FF		0 days		0%
60	PCD-1050		Landscape Establishment Works			0 days	Thu 27/3/25	Thu 27/3/25	0 days	Wed 24/9/25	Wed 24/9/25	NA	NA	560FF		0 days		0%
61	**ET-1000**		**Effects from Inclement Weather and Other Time Affected Events**			**0 days**	**NA**	**NA**	**1143 days**	**Fri 18/6/21**	**Sun 4/8/24**	**Fri 18/6/21**	**NA**			**416.5 days**		**2%**
62	**ET1C-1000**		**Effects to KD1C**			**0 days**	**NA**	**NA**	**53 days**	**Sat 22/10/22**	**Wed 14/12/22**	**NA**	**NA**			**1015.5 days**		**0%**
63	**ET1C-1100**		**Inclement Weather to KD1C (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 26/10/22**	**Wed 14/12/22**	**NA**	**NA**			**1015.5 days**		**0%**
64	ET1C-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 26/10/22	Fri 18/11/22	NA	NA	67	65	1015.5 days		0%
65	ET1C-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 18/11/22	Wed 14/12/22	NA	NA	64		1015.5 days		0%
66	**ET1C-1200**		**Other Events to KD1C (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Sat 22/10/22**	**Wed 26/10/22**	**NA**	**NA**			**1015.5 days**		**0%**
67	ET1C-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Sat 22/10/22	Wed 26/10/22	NA	NA	23	64	1056.5 days		0%
68	**ET1D-1000**		**Effects to KD1D**			**0 days?**	**NA**	**NA**	**26 days**	**Mon 20/2/23**	**Wed 22/3/23**	**NA**	**NA**			**749 days**		**0%**
69	**ET1D-1100**		**Inclement Weather to KD1D (cal. Day)**			**0 days?**	**NA**	**NA**	**26 days**	**Mon 20/2/23**	**Wed 22/3/23**	**NA**	**NA**			**749 days**		**0%**
70	ET1D-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	24	71	749 days		0%
71	ET1D-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Tue 21/2/23	Wed 22/3/23	NA	NA	70		749 days		0%
72	**ET1F-1000**		**Effects to KD1F**			**0 days**	**NA**	**NA**	**49 days**	**Wed 23/3/22**	**Wed 11/5/22**	**NA**	**NA**			**1232.5 days**		**0%**
73	**ET1F-1100**		**Inclement Weather to KD1F (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 23/3/22**	**Wed 11/5/22**	**NA**	**NA**			**1232.5 days**		**0%**
74	ET1F-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 23/3/22	Fri 15/4/22	NA	NA	26	75	1232.5 days		0%
75	ET1F-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 15/4/22	Wed 11/5/22	NA	NA	74		1232.5 days		0%
76	**ET1G-1000**		**Effects to KD1G**			**0 days**	**NA**	**NA**	**49 days**	**Wed 17/8/22**	**Wed 5/10/22**	**NA**	**NA**			**1085.5 days**		**0%**
77	**ET1G-1100**		**Inclement Weather to KD1G (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 17/8/22**	**Wed 5/10/22**	**NA**	**NA**			**1085.5 days**		**0%**
78	ET1G-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 17/8/22	Fri 9/9/22	NA	NA	27	79	1085.5 days		0%
79	ET1G-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 9/9/22	Wed 5/10/22	NA	NA	78		1085.5 days		0%
80	**ET1H-1000**		**Effects to KD1H**			**0 days**	**NA**	**NA**	**49 days**	**Fri 22/10/21**	**Fri 10/12/21**	**NA**	**NA**			**1384.5 days**		**0%**
81	**ET1H-1100**		**Inclement Weather to KD1H (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Fri 22/10/21**	**Fri 10/12/21**	**NA**	**NA**			**1384.5 days**		**0%**
82	ET1H-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Fri 22/10/21	Sun 14/11/21	NA	NA	28	83	1384.5 days		0%
83	ET1H-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Sun 14/11/21	Fri 10/12/21	NA	NA	82		1384.5 days		0%
84	**ET1H-1000**		**Effects to KD1J**			**0 days**	**NA**	**NA**	**49 days**	**Mon 7/2/22**	**Mon 28/3/22**	**NA**	**NA**			**1276.5 days**		**0%**



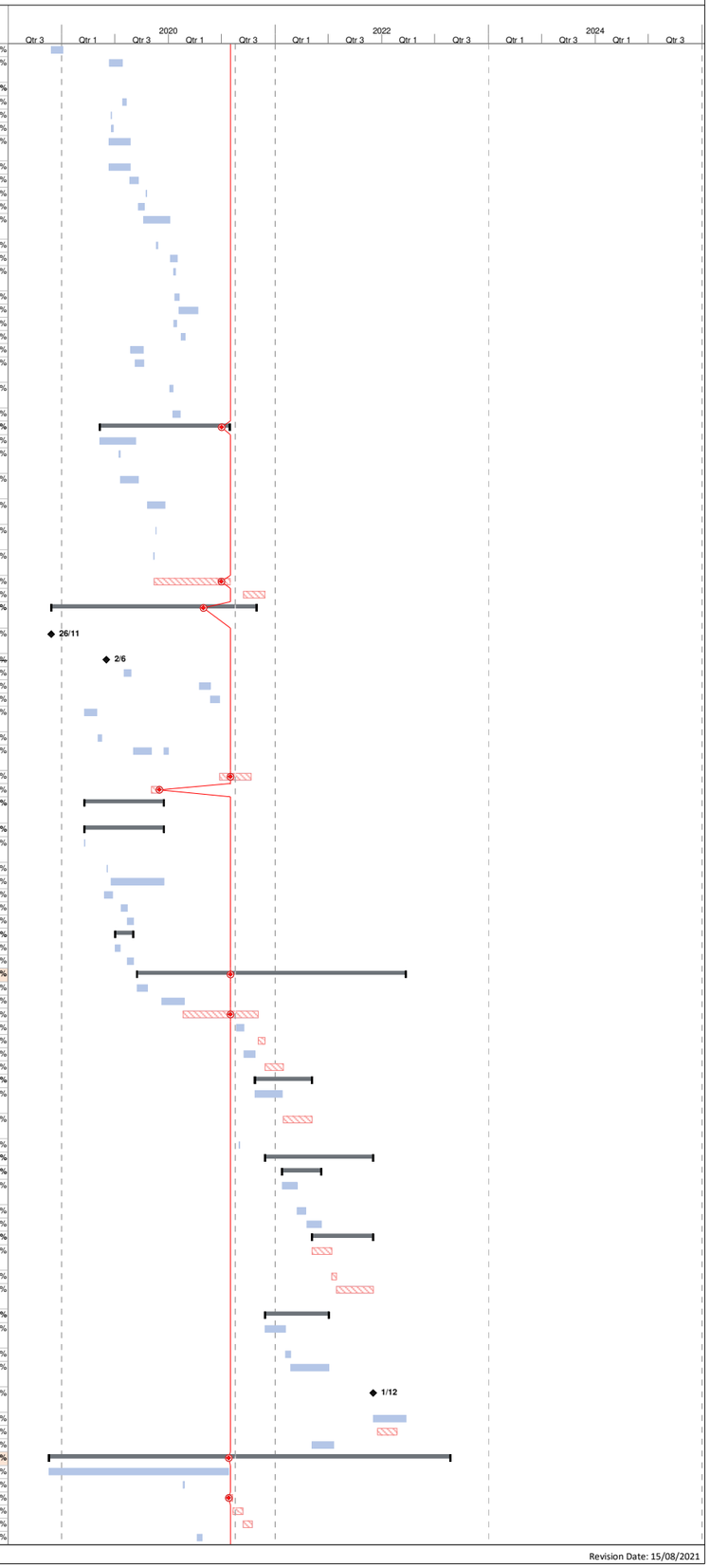
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
85	**ET1H-1100**		**Inclement Weather to KD1J (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Mon 7/2/22**	**Mon 28/3/22**	**NA**	**NA**			**1276.5 days**		**0%**
86	ET1H-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Mon 7/2/22	Wed 2/3/22	NA	NA	30	87	1276.5 days		0%
87	ET1H-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Wed 2/3/22	Mon 28/3/22	NA	NA	86		1276.5 days		0%
88	**ET2A-1000**		**Effects to KD2A**			**0 days**	**NA**	**NA**	**53 days**	**Fri 18/6/21**	**Tue 10/8/21**	**Fri 18/6/21**	**NA**			**1506.5 days**		**24%**
89	**ET2A-1100**		**Inclement Weather to KD2A (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Tue 22/6/21**	**Tue 10/8/21**	**Tue 22/6/21**	**NA**			**1506.5 days**		**17%**
90	ET2A-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Tue 22/6/21	Thu 15/7/21	Tue 22/6/21	NA	93	91	1506.5 days		37%
91	ET2A-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Thu 15/7/21	Tue 10/8/21	NA	NA	90		1506.5 days		0%
92	**ET2A-1200**		**Other Events to KD2A (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Fri 18/6/21**	**Tue 22/6/21**	**Fri 18/6/21**	**Tue 22/6/21**			**0 days**		**100%**
93	ET2A-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Fri 18/6/21	Tue 22/6/21	Fri 18/6/21	Tue 22/6/21	31	90	0 days		100%
94	**ET3A-1000**		**Effects to KD3A**			**0 days**	**NA**	**NA**	**53 days**	**Tue 16/1/24**	**Fri 8/3/24**	**NA**	**NA**			**565 days**		**0%**
95	**ET3A-1100**		**Inclement Weather to KD3A (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Sat 20/1/24**	**Fri 8/3/24**	**NA**	**NA**			**565 days**		**0%**
96	ET3A-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Sat 20/1/24	Sun 11/2/24	NA	NA	99	97	565 days		0%
97	ET3A-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Mon 12/2/24	Fri 8/3/24	NA	NA	96		565 days		0%
98	**ET3A-1200**		**Other Events to KD3A (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Tue 16/1/24**	**Fri 19/1/24**	**NA**	**NA**			**565 days**		**0%**
99	ET3A-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Tue 16/1/24	Fri 19/1/24	NA	NA	33	96	565 days		0%
100	**ETS1-1000**		**Effects to Section 1 of the Works**			**0 days**	**NA**	**NA**	**53 days**	**Fri 9/2/24**	**Tue 2/4/24**	**NA**	**NA**			**540.5 days**		**0%**
101	**ETS1-1100**		**Inclement Weather to Section 1 of the Works (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Tue 13/2/24**	**Tue 2/4/24**	**NA**	**NA**			**540.5 days**		**0%**
102	ETS1-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Tue 13/2/24	Thu 7/3/24	NA	NA	105	103	540.5 days		0%
103	ETS1-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Thu 7/3/24	Tue 2/4/24	NA	NA	102		540.5 days		0%
104	**ETS1-1200**		**Other Events to Section 1 of the Works (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Fri 9/2/24**	**Tue 13/2/24**	**NA**	**NA**			**540.5 days**		**0%**
105	ETS1-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Fri 9/2/24	Tue 13/2/24	NA	NA	35	102	540.5 days		0%
106	**ETS2-1000**		**Effects to Section 2 of the Works**			**0 days**	**NA**	**NA**	**53 days**	**Sat 23/7/22**	**Wed 14/9/22**	**NA**	**NA**			**1106.5 days**		**0%**
107	**ETS2-1100**		**Inclement Weather to Section 2 of the Works (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Wed 27/7/22**	**Wed 14/9/22**	**NA**	**NA**			**1106.5 days**		**0%**
108	ETS2-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Wed 27/7/22	Fri 19/8/22	NA	NA	111	109	1106.5 days		0%
109	ETS2-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Fri 19/8/22	Wed 14/9/22	NA	NA	108		1106.5 days		0%
110	**ETS2-1200**		**Other Events to Section 2 of the Works (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Sat 23/7/22**	**Wed 27/7/22**	**NA**	**NA**			**1106.5 days**		**0%**
111	ETS2-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Sat 23/7/22	Wed 27/7/22	NA	NA	36	108	1106.5 days		0%
112	**ETS3-1000**		**Effects to Section 3 of the Works**			**0 days**	**NA**	**NA**	**53 days**	**Wed 12/6/24**	**Sun 4/8/24**	**NA**	**NA**			**416.5 days**		**0%**
113	**ETS3-1100**		**Inclement Weather to Section 3 of the Works (cal. Day)**			**0 days**	**NA**	**NA**	**49 days**	**Sun 16/6/24**	**Sun 4/8/24**	**NA**	**NA**			**416.5 days**		**0%**
114	ETS3-1110		Delay and Disruption of Works before June 2021			0 days	NA	NA	23 days	Sun 16/6/24	Tue 9/7/24	NA	NA	117	115	416.5 days		0%
115	ETS3-1120		Delay and Disruption of Works in June 2021			0 days	NA	NA	26 days	Tue 9/7/24	Sun 4/8/24	NA	NA	114		416.5 days		0%
116	**ETS3-1200**		**Other Events to Section 3 of the Works (not all)**			**0 days**	**NA**	**NA**	**4 days**	**Wed 12/6/24**	**Sun 16/6/24**	**NA**	**NA**			**416.5 days**		**0%**
117	ETS3-1210		Special working arrangement due to COVID-19 in January 2020			0 days	NA	NA	4 days	Wed 12/6/24	Sun 16/6/24	NA	NA	37	114	416.5 days		0%
118	**SUB-1000**		**Submissions (cal.day)**			**1564 days**	**Mon 18/11/19**	**Wed 28/2/24**	**1956 days**	**Mon 18/11/19**	**Wed 26/3/25**	**Mon 18/11/19**	**NA**			**182 days**		**60%**
119	**SUBS-1000**		**Subletting Package**			**96 days**	**Mon 18/11/19**	**Fri 21/2/20**	**562 days**	**Mon 18/11/19**	**Tue 1/6/21**	**Mon 18/11/19**	**Tue 1/6/21**			**0 days**		**100%**
120	SUBS-1010		Prepare & submit subletting procedure			12 days	Mon 18/11/19	Fri 29/11/19	12 days	Mon 18/11/19	Fri 29/11/19	Mon 18/11/19	Fri 29/11/19	2	121	0 days		100%
121	SUBS-1020		PM review and accept subletting procedure			15 days	Sat 30/11/19	Wed 11/12/19	12 days	Sat 30/11/19	Wed 11/12/19	Sat 30/11/19	Wed 11/12/19	120	142,122,125,124,123	0 days		100%
122	SUBS-1030		Subletting for demolition works			24 days	Thu 12/12/19	Sat 4/1/20	93 days	Tue 17/12/19	Wed 18/3/20	Tue 17/12/19	Wed 18/3/20	121,154	339,462,295,402,539,359	0 days		100%
123	SUBS-1040		Subletting for UU diversion for Inlet Works No.1			24 days	Thu 12/12/19	Sat 4/1/20	78 days	Fri 10/1/20	Fri 27/3/20	Fri 10/1/20	Fri 27/3/20	121	212	0 days		100%
124	SUBS-1050		Subletting for Inspection pit excavation			0 days	NA	NA	56 days	Thu 19/12/19	Wed 12/2/20	Thu 19/12/19	Wed 12/2/20	121,154	214,126	0 days		100%
125	SUBS-1060		Subletting for Preliminary Works (topographic surveying)			14 days	Thu 12/12/19	Wed 25/12/19	54 days	Fri 20/12/19	Tue 11/2/20	Fri 20/12/19	Tue 11/2/20	121,154	159,198,129,130,131,127	0 days		100%
126	SUBS-1070		Subletting for AR3 access road			24 days	Thu 12/12/19	Sat 4/1/20	0 days	Fri 13/12/19	Tue 11/2/20	Fri 13/12/19	Tue 11/2/20	124	127,210	0 days		100%
127	SUBS-1080		Subletting for pre-drilling works			24 days	Thu 12/12/19	Sat 4/1/20	38 days	Thu 6/2/20	Fri 20/3/20	Thu 6/2/20	Fri 20/3/20	125,126	452,342,414,128	0 days		100%
128	SUBS-1090		Subletting for Contractor designer for temporary works and ICE			24 days	Thu 12/12/19	Sat 4/1/20	71 days	Mon 16/12/19	Mon 24/2/20	Mon 16/12/19	Mon 24/2/20	127		0 days		100%
129	SUBS-1100		Subletting for independent BIM consultant			24 days	Thu 12/12/19	4/1/120	0 days	Wed 11/12/19	Thu 23/1/20	Wed 11/12/19	Thu 23/1/20	125	193	0 days		100%
130	SUBS-1110		Subletting for independent BIM services			0 days	NA	NA	15 days	Tue 14/1/20	Wed 26/2/20	Tue 14/1/20	Wed 26/2/20	125	193	0 days		100%
131	SUBS-1120		Subletting for Design, Supply & Install of Temporary Activated Carbon Deodorization Units (E&M Works)			0 days	NA	NA	0 days	Fri 13/12/19	Tue 11/2/20	Fri 13/12/19	Tue 11/2/20	125	132,133	0 days		100%
132	SUBS-1130		Subletting for pre-bored H pile works			36 days	Thu 12/12/19	Thu 16/1/20	45 days	Sun 5/7/20	Tue 18/8/20	Sun 5/7/20	Tue 18/8/20	131	343,415,453,309	0 days		100%
133	SUBS-1140		Subletting for Sheetpile installation works			0 days	NA	NA	45 days	Tue 1/9/20	Thu 15/10/20	Tue 1/9/20	Thu 15/10/20	131	344,455,134,135	0 days		100%
134	SUBS-1150		Subletting for ELS works for Inlet Works No.1			48 days	Sun 5/1/20	Fri 21/2/20	85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20	Fri 8/1/21	133		0 days		100%
135	SUBS-1160		Subletting for ELS works for Membrance Facilities Building and other buildings			48 days	Sun 5/1/20	Fri 21/2/20	85 days	Fri 16/10/20	Fri 8/1/21	Fri 16/10/20	Fri 8/1/21	133	346,389,456,136,137,138,139,140,4	0 days		100%
136	SUBS-1170		Subletting for structural works for Inlet Works Building			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135		0 days		100%
137	SUBS-1180		Subletting for structural works for Primary Sedimentation Tanks			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	348	0 days		100%
138	SUBS-1190		Subletting for structural works for Bioreactors			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	391	0 days		100%
139	SUBS-1200		Subletting for structural works for Membrance Facilities Building			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	426	0 days		100%
140	SUBS-1210		Subletting for structural works for SAS pumping house and ancillary structures			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Sat 9/1/21	Thu 25/2/21	Sat 9/1/21	Thu 25/2/21	135	141	0 days		100%
141	SUBS-1220		Subletting for ABWF works			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Fri 26/2/21	Wed 14/4/21	Fri 26/2/21	Wed 14/4/21	140	332,350,398,460,488,504,514,522,	0 days		100%
142	SUBS-1230		Subletting for Process Pipeworks, Utilities and Roadworks			48 days	Thu 12/12/19	Tue 28/1/20	150 days	Fri 22/5/20	Sun 18/10/20	Fri 22/5/20	Sun 18/10/20	121	532,549,551,552,553,554,543	0 days		100%
143	SUBS-1240		Subletting for Landscape Hardworks and Softworks			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Thu 15/4/21	Tue 1/6/21	Thu 15/4/21	Tue 1/6/21	141	559,560	0 days		100%
144	SUBS-1250		Subletting for Trial dewatering works and installation of additional stop logs at BR2 connon channel due to malfucntioned of existing penstock at FST no. 5 and 7 (EWN 055)			0 days	NA	NA	15 days	Tue 15/9/20	Tue 29/9/20	Tue 15/9/20	Tue 29/9/20		355	0 days		100%
145	SUBS-1260		Subletting for Diversion of Power supply for existing Slaghter House pump station (CE 034)			0 days	NA	NA	14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20			0 days		100%
146	SUBS-1270		Subletting for Decommission of exisiting power and signal systems in leachate Pump station switch room (PMI 039)			0 days	NA	NA	14 days	Mon 21/9/20	Sun 4/10/20	Mon 21/9/20	Sun 4/10/20		439	0 days		100%
147	SUBS-1280		Subletting for Diversion of Existing DN250 Leachate Raising Main (PPMI 025)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20			0 days		100%
148	SUBS-1290		Subletting for Construction of Cable trough for CLP 11kv Cable Diversion (PPMI 041)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		453	0 days		100%
149	SUBS-1300		Subletting for Demolition of Existing Pillar box and its concrete plinth (CE 030)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		441	0 days		100%
150	SUBS-1310		Subletting for Excavation to locate existing underground cable near SAS Pump Station (PPMI 038)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20			0 days		100%
151	SUBS-1320		Subletting for Diversion of pumping system sewerage (PPMI 083)			0 days	NA	NA	31 days	Mon 21/9/20	Wed 21/10/20	Mon 21/9/20	Wed 21/10/20		446	0 days		100%
152	**SUBA-1000**		**Statutory Submission, Submission and Approval**			**1564 days**	**Mon 18/11/19**	**Wed 28/2/24**	**1956 days**	**Mon 18/11/19**	**Wed 26/3/25**	**Mon 18/11/19**	**NA**			**182 days**		**49%**
153	SUBA-1010		Liaison with operator of SWHSTW and obtain their consent of associated method statement of major activities			0 days	NA	NA	1584 days	Mon 18/11/19	Wed 26/3/25	Mon 18/11/19	NA	2	59FF	156 days		30%
154	SUBA-1020		Prepare and submit Subcontractor Management Plan (SMP)			24 days	Mon 18/11/19	Wed 11/12/19	24 days	Mon 18/11/19	Wed 11/12/19	Mon 18/11/19	Wed 11/12/19	2	122,125,124	0 days		100%
155	SUBA-1030		Prepare and submit Interface Management Plan			36 days	Mon 18/11/19	Mon 23/12/19	36 days	Mon 18/11/19	Mon 23/12/19	Mon 18/11/19	Mon 23/12/19	2		0 days		100%
156	SUBA-1040		Prepare and submit the TTA plans inside Treatment Plant for UU diversion and buildings construction			24 days	Mon 18/11/19	Wed 11/12/19	24 days	Mon 18/11/19	Wed 11/12/19	Mon 18/11/19	Wed 11/12/19	2	201	0 days		100%
157	SUBA-1050		Prepare and submit method statement for UU diversion for Inlet Works No.1			12 days	Mon 18/11/19	Fri 29/11/19	12 days	Mon 18/11/19	Fri 29/11/19	Mon 18/11/19	Fri 29/11/19	2	158	0 days		100%
158	SUBA-1060		PM review and accept the method statement			12 days	Sat 30/11/19	Wed 11/12/19	0 days	Sat 30/11/19	Wed 11/12/19	Sat 30/11/19	Wed 11/12/19	157	213,214	0 days		100%
159	SUBA-1070		Prepare and submit combine underground services drawing for PM's review the alignment			24 days	Thu 26/12/19	Sat 18/1/20	23 days	Thu 26/12/19	Sat 18/1/20	Thu 26/12/19	Sat 18/1/20	125		0 days		100%
160	SUBA-1080		Prepare and submit method statement for demolition existing structures			24 days	Mon 18/11/19	Wed 11/12/19	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2	402,339,462,295,539	0 days		100%
161	SUBA-1090		Prepare and submit method statement for structural works for buildings			24 days	Mon 18/11/19	Wed 11/12/19	197 days	Mon 18/11/19	Mon 1/6/20	Mon 18/11/19	Mon 1/6/20	2		0 days		100%
162	SUBA-1100		Prepare and submit method statements to MTRC regarding the works within railing protection boundary			36 days	Mon 18/11/19	Mon 23/12/19	92 days	Sat 1/2/20	Mon 25/5/20	Sat 1/2/20	Mon 25/5/20	2	339,462,539,359	0 days		100%
163	SUBA-1110		Prepare and submit & approve Safety Management Plan			24 days	Mon 18/11/19	Wed 11/12/19	3 days	Mon 18/11/19	Wed 20/11/19	Mon 18/11/19	Wed 20/11/19	2		0 days		100%
164	SUBA-1120		Prepare and submit Excavation and lateral support (ELS) proposal			24 days	Mon 10/2/20	Wed 4/3/20	128 days	Mon 10/2/20	Tue 16/6/20	Mon 10/2/20	Tue 16/6/20	2		0 days		100%
165	SUBA-1120a		Prepare and submit Excavation and lateral support (ELS) proposal for Inlet Works No.1			0 days	NA	NA	24 days	Wed 29/9/21	Sat 23/10/21	NA	NA	314SF		1433 days		0%
166	SUBA-1120b		Prepare and submit Excavation and lateral support (ELS) proposal for Primnary Sedimentation tanks No.1-4			0 days	NA	NA	24 days	Fri 1/7/22	Mon 25/7/22	NA	NA	346SF		1158 days		0%
167	SUBA-1120c		Prepare and submit Excavation and lateral support (ELS) proposal for Bioreactor No. 2A&2B			0 days	NA	NA	24 days	Sun 15/5/22	Wed 8/6/22	NA	NA	389SF		1205 days		0%
168	SUBA-1130		Prepare and submit Dewatering proposal for basement construction			24 days	Mon 10/2/20	Wed 4/3/20	165 days	Mon 10/2/20	Thu 23/7/20	Mon 10/2/20	Thu 23/7/20	2		0 days		100%
169	SUBA-1130a		Prepare and submit Dewatering proposal for basement construction for Inlet Works No.1			0 days	NA	NA	24 days	Wed 29/9/21	Sat 23/10/21	NA	NA	314SF		1433 days		0%



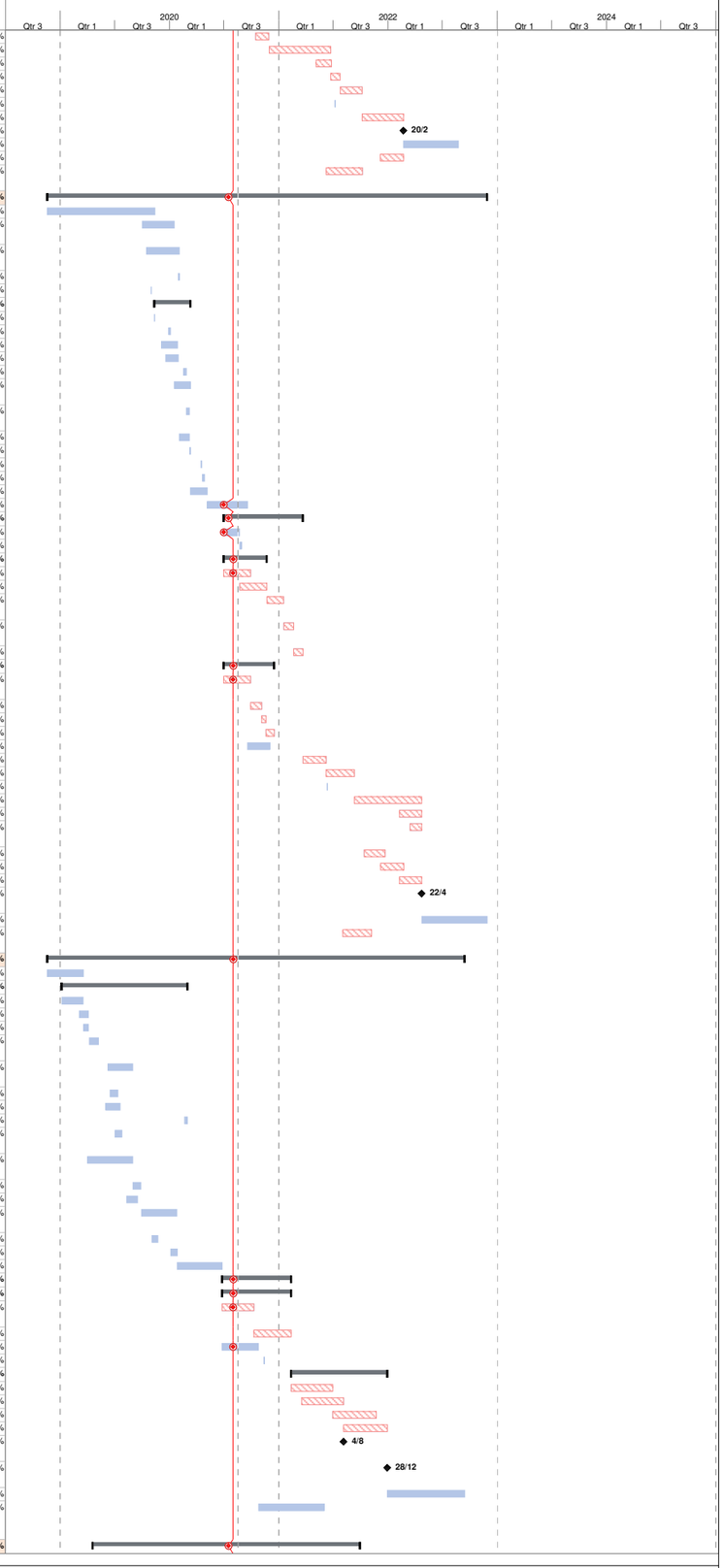
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
170	SUBA-1130b		Prepare and submit Dewatering proposal for basement construction for Primnary Sedimentation tanks No.1-4			0 days	NA	NA	24 days	Fri 1/7/22	Mon 25/7/22	NA	NA	346SF		1158 days		0%
171	SUBA-1130c		Prepare and submit Dewatering proposal for basement construction for Bioreactor No. 2A&2B			0 days	NA	NA	24 days	Sun 15/5/22	Wed 8/6/22	NA	NA	389SF		1205 days		0%
172	SUBA-1140		Prepare and submit Pre-construction condition survey of existing structures/ services			24 days	Wed 5/2/20	Fri 28/2/20	0 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	198		0 days		100%
173	SUBA-1150		Prepare and submit Settlement and movement monitoring proposal of existing structures/ services			24 days	Wed 5/2/20	Fri 28/2/20	110 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	198FS+120 days		0 days		100%
174	SUBA-1160		Prepare and submit design of structure elements of the temporary activated carbon deodourization unit			60 days	Fri 17/1/20	Mon 16/3/20	60 days	Mon 18/11/19	Mon 16/3/20	Mon 18/11/19	Mon 16/3/20	2FS+60 days		0 days		100%
175	SUBA-1170		Prepare of RSE and structural design for alternation and additional (A&A) works at Membrane Facilities Building No.1			180 days	Mon 18/10/21	Fri 15/4/22	180 days	Mon 18/10/21	Fri 15/4/22	NA	NA		541	332 days		0%
176	SUBA-1180		Prepare of RSE and structural design for alternation and additional (A&A) works at Main Power House			44 days	Wed 15/7/20	Thu 3/9/20	60 days	Mon 6/7/20	Thu 3/9/20	Mon 6/7/20	Thu 3/9/20		539	0 days		100%
177	**SUBE-1000**		**Environmental Aspect Submissions**			**45 days**	**Mon 18/11/19**	**Wed 1/1/20**	**81 days**	**Mon 18/11/19**	**Thu 6/2/20**	**Mon 18/11/19**	**Thu 6/2/20**			**0 days**		**100%**
178	SUBE-1010		Prepare, submit & approve Site Management Plan for Trip Tricket System			45 days	Mon 18/11/19	Wed 1/1/20	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2		0 days		100%
179	SUBE-1020		Prepare, submit & approve Waste Management Plan			45 days	Mon 18/11/19	Wed 1/1/20	81 days	Mon 18/11/19	Thu 6/2/20	Mon 18/11/19	Thu 6/2/20	2		0 days		100%
180	SUBE-1030		Prepare, submit & approve Environmental Management Plan			45 days	Mon 18/11/19	Wed 1/1/20	66 days	Mon 18/11/19	Wed 22/1/20	Mon 18/11/19	Wed 22/1/20	2		0 days		100%
181	**SUBP-1000**		**Procurement**			**731 days**	**Mon 18/11/19**	**Wed 17/11/21**	**648 days**	**Mon 18/11/19**	**Thu 26/8/21**	**Mon 18/11/19**	**NA**			**278 days**		**94%**
182	SUBP-1010		Prepare and submit the Procurement Procedure			12 days	Mon 18/11/19	Fri 29/11/19	2 days	Mon 18/11/19	Tue 19/11/19	Mon 18/11/19	Tue 19/11/19	2	183	0 days		100%
183	SUBP-1020		PM Review & Accept Procurement Procedure			12 days	Sat 30/11/19	Wed 11/12/19	21 days	Tue 19/11/19	Tue 10/12/19	Tue 19/11/19	Tue 10/12/19	182	184,185,186,187,188,189,190,191	0 days		100%
184	SUBP-1030		Prepare, submit and approve the pipe works material			25 days	Thu 12/12/19	Sun 5/1/20	34 days	Thu 6/2/20	Tue 10/3/20	Thu 6/2/20	Tue 10/3/20	183	212,532,551,552,554,553,549,557,5	0 days		100%
185	SUBP-1040		Prepare, submit and approve the water proofing material			25 days	Thu 12/12/19	Sun 5/1/20	25 days	Mon 2/8/21	Thu 26/8/21	NA	NA	183	329,325	278 days		0%
186	SUBP-1050		Prepare, submit and approve the concrete mix material			48 days	Thu 12/12/19	Tue 28/1/20	90 days	Mon 3/2/20	Sat 2/5/20	Mon 3/2/20	Sat 2/5/20	183	391,426	0 days		100%
187	SUBP-1060		Prepare, submit and approve the rebar material			48 days	Thu 12/12/19	Tue 28/1/20	49 days	Sat 23/5/20	Fri 10/7/20	Sat 23/5/20	Fri 10/7/20	183	391,426	0 days		100%
188	SUBP-1070		Prepare, submit and approve the metal works material			48 days	Thu 12/12/19	Tue 28/1/20	48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	183	391,426	0 days		100%
189	SUBP-1080		Prepare, submit and approve the ABWF works material			48 days	Sat 12/12/20	Tue 28/1/20	48 days	Mon 1/3/21	Sat 17/4/21	Mon 1/3/21	Sat 17/4/21	183	332,350,398,460,488,504,514,522,4	0 days		100%
190	SUBP-1090		Prepare, submit and approve the protective lining to concrete			0 days	NA	NA	48 days	Tue 1/9/20	Sun 18/10/20	Tue 1/9/20	Sun 18/10/20	183	391,426	0 days		100%
191	SUBP-1100		Prepare, submit and approve the multi-part covers			0 days	NA	NA	21 days	Tue 5/5/20	Mon 25/5/20	Tue 5/5/20	Mon 25/5/20	183		0 days		100%
192	**SUBB-1000**		**BIM**			**1205 days**	**Thu 6/2/20**	**Wed 28/2/24**	**1562 days**	**Mon 18/11/19**	**Fri 28/2/25**	**Mon 18/11/19**	**NA**			**178 days**		**27%**
193	SUBB-1010		Prepare, submit and approve the proposal of details of Common data environment (CDE)			48 days	Thu 6/2/20	Wed 1/4/20	37 days	Mon 18/11/19	Wed 1/4/20	Mon 18/11/19	Wed 1/4/20	129,130	194	0 days		100%
194			Prepare and submit BIM submission			1484 days	Thu 6/2/20	Wed 28/2/24	1451 days	Thu 2/4/20	Fri 28/2/25	Thu 2/4/20	NA	193		178 days		25%
195	**C-1000**	*	**Construction Works (Working day)**			**1957 days**	**Mon 18/11/19**	**Thu 27/3/25**	**2138 days**	**Mon 18/11/19**	**Wed 24/9/25**	**Mon 18/11/19**	**NA**			**0 days**		**51%**
196	**CPW-1000**		**Preliminary Works**			**109 days**	**Mon 18/11/19**	**Thu 5/3/20**	**121 days**	**Mon 18/11/19**	**Tue 17/3/20**	**Mon 18/11/19**	**Tue 17/3/20**			**0 days**		**100%**
197	CPW-1000		Initial Survey			24 days	Mon 18/11/19	Sat 14/12/19	10 days	Mon 18/11/19	Thu 28/11/19	Mon 18/11/19	Thu 28/11/19	2	198	0 days		100%
198	CPW-2000		Condition Survey			30 days	Fri 27/12/19	Tue 4/2/20	89 days	Mon 18/11/19	Fri 6/3/20	Mon 18/11/19	Fri 6/3/20	125,197	199,172,173FS+120 days,200	0 days		100%
199	CPW-3000		Installation of Monitoring Markers			26 days	Wed 5/2/20	Thu 5/3/20	78 days	Fri 29/11/19	Thu 5/3/20	Fri 29/11/19	Thu 5/3/20	198		0 days		100%
200	CPW-4000		Tree Felling Works		22, 235	0 days	NA	NA	9 days	Sat 7/3/20	Tue 17/3/20	Sat 7/3/20	Tue 17/3/20	198		0 days		100%
201	**CAR-0000**	*	**Access Road (AR3), B-1**			**193 days**	**Mon 20/1/20**	**Sat 12/9/20**	**238 days**	**Thu 12/12/19**	**Wed 30/9/20**	**Thu 12/12/19**	**Wed 30/9/20**	**4,156**		**0 days**		**100%**
202	CAR-1000		Site setup and clearance wroks		05	28 days	Mon 20/1/20	Mon 24/2/20	38 days	Mon 20/1/20	Fri 6/3/20	Mon 20/1/20	Fri 6/3/20		203	0 days		100%
203	CAR-1001		Awaiting for AECOM instruction for alignment confirmation for road works		055	0 days	NA	NA	5 days	Mon 17/2/20	Thu 12/3/20	Mon 17/2/20	Thu 12/3/20	202	204	0 days		100%
204	CAR-1002		Additional Works in Access Road AR3 to Settle Left-in Material by Contract DC/2016/07		215-1	0 days	NA	NA	4 days	Thu 21/5/20	Mon 25/5/20	Thu 21/5/20	Mon 25/5/20	203	205	0 days		100%
205	CAR-2000		Drainage and Utilities Works			76 days	Fri 6/3/20	Tue 9/6/20	75 days	Sat 7/3/20	Tue 9/6/20	Sat 7/3/20	Tue 9/6/20	204	206	0 days		100%
206	CAR-2000a		Trimming of Existing Sheet Piles in Access Road AR3		215-2	0 days	NA	NA	20 days	Tue 14/7/20	Wed 5/8/20	Tue 14/7/20	Wed 5/8/20	205	207	0 days		100%
207	CAR-2000b		Installation of Multi-part Cover and Manhole Cover of Chamber RP6 and Associated Concreting Works in Portion B-1		215	0 days	NA	NA	7 days	Fri 28/8/20	Fri 4/9/20	Fri 28/8/20	Fri 4/9/20	206	208	0 days		100%
208	CAR-2001		Diversion of Existing Underground Cables in Portion B-1A		036	0 days	NA	NA	172 days	Thu 5/3/20	Wed 30/9/20	Thu 5/3/20	Wed 30/9/20	207	210	0 days		100%
209	CAR-2002		Additional U-channel, beam barrier and footway concrete pavement		055	0 days	NA	NA	60 days	Thu 12/12/19	Wed 26/2/20	Thu 12/12/19	Wed 26/2/20		210	0 days		100%
210	CAR-3000	KD1A	Roadworks			80 days	Wed 10/6/20	Sat 12/9/20	133 days	Fri 24/4/20	Wed 30/9/20	Fri 24/4/20	Wed 30/9/20	126,209,208	42FF	0 days		100%
211	**CIW-0000**	*	**Inlet Works No.1, B-2**			**854 days**	**Mon 6/1/20**	**Mon 21/11/22**	**594 days**	**Tue 26/11/19**	**Thu 25/11/21**	**Tue 26/11/19**	**NA**			**0 days**		**88%**
212	**CIW-1000**		**Diversion Works (1. Inlet Trunk Sewer, Leachate Rising Mains, Sludge Pipes, Tank Drains and Pipelines near Primary Sludge Thinkeners)**			**180 days**	**Mon 6/1/20**	**Fri 14/8/20**	**459 days**	**Tue 26/11/19**	**Wed 16/6/21**	**Tue 26/11/19**	**NA**	**184,123**	**44FF**	**111 days**		**88%**
213	CIW-1100		Utilities scanning to idenify existing UU arrangement			12 days	Mon 6/1/20	Sat 18/1/20	0 days	Fri 13/12/19	Sat 18/1/20	Fri 13/12/19	Sat 18/1/20	158	214SS,216	0 days		100%
214	CIW-1200		Trial pits to locate the collection points			24 days	Mon 6/1/20	Wed 5/2/20	0 days	Mon 6/1/20	Tue 10/3/20	Mon 6/1/20	Tue 10/3/20	158,213SS,124	232,251	0 days		100%
215	**CIW-1300**		**Installation and Commissioning of Temporary Activated Carbon Deodorization Unit for the Existing Inlet Works**			**0 days**	**NA**	**NA**	**98 days**	**Wed 11/3/20**	**Sat 11/7/20**	**Wed 11/3/20**	**Sat 11/7/20**			**0 days**		**100%**
216	CIW-1310		Construction of concrete plinth			0 days	NA	NA	24 days	Wed 11/3/20	Wed 8/4/20	Wed 11/3/20	Wed 8/4/20	213	217	0 days		100%
217	CIW-1320		Installation of Deodorizer			0 days	NA	NA	40 days	Thu 9/4/20	Sat 30/5/20	Thu 9/4/20	Sat 30/5/20	216	218	0 days		100%
218	CIW-1330		Testing & commissioning			0 days	NA	NA	15 days	Mon 1/6/20	Wed 17/6/20	Mon 1/6/20	Wed 17/6/20	217	219FS-1 day	0 days		100%
219	CIW-1340		Demolishment of the existing carbon deodorization unit			0 days	NA	NA	20 days	Wed 17/6/20	Sat 11/7/20	Wed 17/6/20	Sat 11/7/20	218FS-1 day		0 days		100%
220	**CIW-1400**		**Diversion of Inlet Trunk Sewer (approx. 40m 1800mm dia concrete pipe, 4 deep manholes and Inlet Reception Chamber)**			**146 days**	**Thu 6/2/20**	**Mon 3/8/20**	**451 days**	**Mon 9/3/20**	**Mon 13/9/21**	**Mon 9/3/20**	**NA**			**0 days**		**97%**
221	CIW-1405		Joint Initial Survey arrangement with MTRCL			0 days	NA	NA	24 days	Thu 19/11/20	Wed 16/12/20	Thu 19/11/20	Wed 16/12/20		222	0 days		100%
222	CIW-1410		Remedial Works for uncharted sludge Pipe leakage		41	0 days	NA	NA	8 days	Mon 9/3/20	Tue 17/3/20	Mon 9/3/20	Tue 17/3/20	221	223	0 days		100%
223	CIW-1420		Diversion of uncharted DN250 sludge pipe		41	0 days	NA	NA	27 days	Tue 31/3/20	Thu 7/5/20	Tue 31/3/20	Thu 7/5/20	222	230,224,225	0 days		100%
224	CIW-1421		Diversion of uncharted 2' water pipe		24	0 days	NA	NA	9 days	Wed 15/4/20	Fri 24/4/20	Wed 15/4/20	Fri 24/4/20	223	230	0 days		100%
225	CIW-1422		Additional Underground Utility Scanning for existing sludge pipe		32	0 days	NA	NA	1 day	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	Sat 18/4/20	223		0 days		100%
226	CIW-1423		HV Cable Diversion for Inlet Works		84	0 days	NA	NA	135 days	Sat 10/10/20	Wed 24/3/21	Sat 10/10/20	Wed 24/3/21			0 days		100%
227	CIW-1423a		Exposing, Removal and Diversion of Existing Cables near Inlet Works No. 1		236	0 days	NA	NA	268 days	Mon 4/5/20	Wed 24/3/21	Mon 4/5/20	Wed 24/3/21			0 days		100%
228	CIW-1424		Diversion of Existing Sludge Rising Main and Sewerage System		81	0 days	NA	NA	102 days	Mon 28/9/20	Sat 30/1/21	Mon 28/9/20	Sat 30/1/21		307,309,279,280	0 days		100%
229	CIW-1425		Demolition of Deodorization System and Facilities between Existing Primary Sludge Thickeners and Primary Sludge Pump Pit		037	0 days	NA	NA	1 day	Fri 28/8/20	Fri 28/8/20	Fri 28/8/20	Fri 28/8/20			0 days		100%
230	CIW-1430		Removal of concrete surround and uncharted sludge pipe		030	0 days	NA	NA	20 days	Fri 24/4/20	Tue 19/5/20	Fri 24/4/20	Tue 19/5/20	223,224	231	0 days		100%
231	CIW-1440		Remedial works for uncharted pipe and unforeseen water seepage		273	0 days	NA	NA	10 days	Fri 8/5/20	Tue 19/5/20	Fri 8/5/20	Tue 19/5/20	230	232,233	0 days		100%
232	**CIW-1450**		**Trench Excavation for 1800mm dia pipeline and manholes**			**146 days**	**Thu 6/2/20**	**Mon 3/8/20**	**238 days**	**Wed 11/3/20**	**Mon 28/12/20**	**Wed 11/3/20**	**Mon 28/12/20**	**214,231**		**0 days**		**100%**
233	CIW-1450a		Sheetpile installation (on hold due to identification of uncharted obstruction)		28	0 days	NA	NA	80 days	Wed 11/3/20	Thu 18/6/20	Wed 11/3/20	Thu 18/6/20	231	234	0 days		100%
234	CIW-1450b		Trench Excavation for 1800mm dia pipeline and manholes			45 days	Thu 6/2/20	Sat 28/3/20	22 days	Thu 18/6/20	Wed 15/7/20	Thu 18/6/20	Wed 15/7/20	233	235,247	0 days		100%
235	CIW-1450c		Identification of uncharted concrete surround and pipes near MHA01		28	0 days	NA	NA	29 days	Thu 16/7/20	Tue 18/8/20	Thu 16/7/20	Tue 18/8/20	234	238,243,247	0 days		100%
236	CIW-1450d		Removal of existing DSD drawpits near IRC & exposure of CLP cables with installation of additional temporary support		215-2	0 days	NA	NA	26 days	Thu 16/7/20	Fri 14/8/20	Thu 16/7/20	Fri 14/8/20			0 days		100%
237	CIW-1450e		Removal of uncharted concrete surround and pipes near MHA01 and Sheetpile installation		(045)	0 days	NA	NA	10 days	Fri 7/8/20	Tue 18/8/20	Fri 7/8/20	Tue 18/8/20		238,243	0 days		100%
238	CIW-1450f		Revised type of pipe bedding between Manholes no. MHA01 and MHA02		096	0 days	NA	NA	6 days	Sat 3/10/20	Fri 9/10/20	Sat 3/10/20	Fri 9/10/20	237,235	239	0 days		100%
239	CIW-1450g		Replace top soil with Grade 200 Rockfill below Formation level of the proposed pipe between MHA01 and MHA02		079	0 days	NA	NA	3 days	Mon 10/8/20	Wed 12/8/20	Mon 10/8/20	Wed 12/8/20	238	241	0 days		100%
240	CIW-1450h		Grade 200 Rockfill in ELS cofferdam of IRC		(161)	0 days	NA	NA	3 days	Wed 23/12/20	Mon 28/12/20	Wed 23/12/20	Mon 28/12/20		241	0 days		100%
241	CIW-1451		Construct M/H MHA01, MHA02, MHA04 and Inlet Reception Chamber			65 days	Mon 30/3/20	Fri 19/6/20	395 days	Wed 20/5/20	Mon 13/9/21	Wed 20/5/20	NA	239,243,242,244,240	283	-135 days		91%
242	CIW-1452		Enlarged size of Manhole MHA02		052	0 days	NA	NA	6 days	Tue 1/9/20	Mon 7/9/20	Tue 1/9/20	Mon 7/9/20		241	0 days		100%
243	CIW-1453		Additional Works for Manhole MHA01 Construction and Pipe Connection to Manhole MHA01		(094) (146)	0 days	NA	NA	160 days	Wed 16/9/20	Wed 31/3/21	Wed 16/9/20	Wed 31/3/21	235,237	241	0 days		100%
244	CIW-1454		Additional Works for IRC and Pipe Connection to IRC from Existing Manhole FMH1004115		(096)	0 days	NA	NA	17 days	Fri 18/9/20	Fri 9/10/20	Fri 18/9/20	Fri 9/10/20		245,247,241	0 days		100%
245	CIW-1455		Removal of left-in sheetpiles at IRC		381	0 days	NA	NA	3 days	Mon 19/10/20	Wed 21/10/20	Mon 19/10/20	Wed 21/10/20	244		0 days		100%
246	CIW-1456		Compliance Test for DN1800 Precast Concrete Pipe		065	0 days	NA	NA	1 day	Fri 18/9/20	Fri 18/9/20	Fri 18/9/20	Fri 18/9/20			0 days		100%
247	CIW-1457		Lay 1800mm dia concretre pipe			24 days	Sat 20/6/20	Mon 20/7/20	88 days	Thu 17/9/20	Mon 25/1/21	Thu 17/9/20	Mon 25/1/21	234,235,244	248	0 days		100%
248	CIW-1458		Connection to existing Inlet Chamber			12 days	Tue 21/7/20	Mon 3/8/20	12 days	Tue 26/1/21	Mon 8/2/21	Tue 26/1/21	Mon 8/2/21	247	307,44FF	0 days		100%
249	**CIW-1500**		**Diversion of Leachate Rising Main, Sludge Pipes and Tank Drain**			**150 days**	**Thu 6/2/20**	**Fri 7/8/20**	**594 days**	**Tue 26/11/19**	**Thu 25/11/21**	**Tue 26/11/19**	**NA**			**-99 days**		**94%**
250	**CIW-1510**	**KD1B**	**Diversion of Tank Drain MHD9.5 (approx. 70m CHES1 & CHES2)**			**150 days**	**Thu 6/2/20**	**Fri 7/8/20**	**406 days**	**Tue 26/11/19**	**Mon 12/4/21**	**Tue 26/11/19**	**Sat 10/4/21**	**278**	**307,44FF**	**0 days**		**100%**
251	**CIW-1500a**		**Diversion of Tank Drain MHD9.5 to MHA04 (approx. 70m 675mm dia conrete pipe, 24m DN250 DI leachate rising main, 90m CHES1&S2 DN250 CI)**			150 days	Thu 6/2/20	Fri 7/8/20	**406 days**	**Tue 26/11/19**	**Mon 12/4/21**	**Tue 26/11/19**	**Sat 10/4/21**	**214**		**0 days**		**100%**



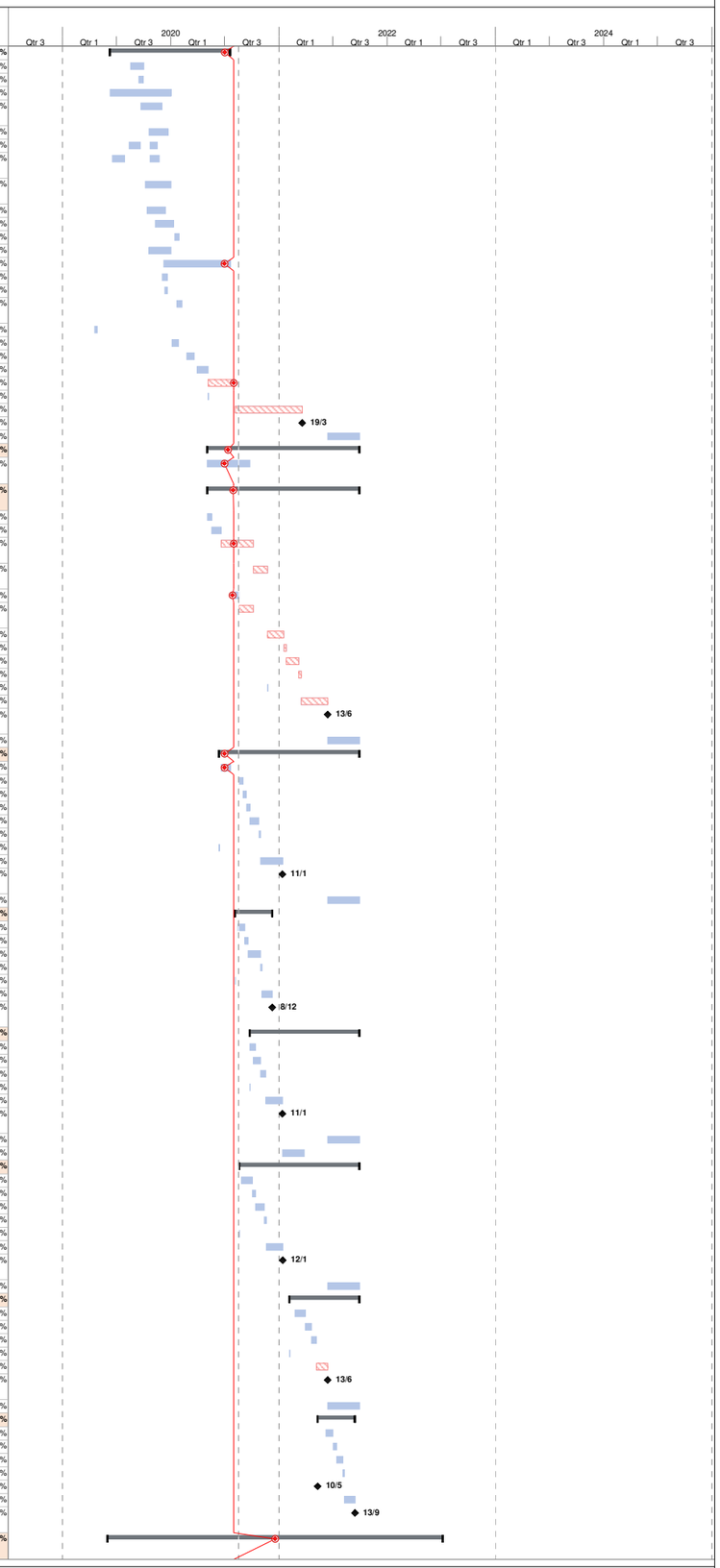
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
252	CIW-1500b		Joint Initial Survey arrangement with MTRCL			0 days	NA	NA	158 days	Tue 26/11/19	Wed 10/6/20	Tue 26/11/19	Wed 10/6/20			0 days		100%
253	CIW-1500c		Site Clearance & inspection pit excavation under conforming alignments			0 days	NA	NA	36 days	Fri 12/6/20	Sat 25/7/20	Fri 12/6/20	Sat 25/7/20			0 days		100%
254	**CIW-1511**		**Tank Drain Diversion near MTRCL track**			**0 days**	**NA**	**NA**	**248 days**	**Thu 11/6/20**	**Mon 12/4/21**	**Thu 11/6/20**	**Sat 10/4/21**			**0 days**		**100%**
255	CIW-1511a		Excavation of trial pit near MHD9.5 (TP45 & 47)		040	0 days	NA	NA	12 days	Mon 27/7/20	Sat 8/8/20	Mon 27/7/20	Sat 8/8/20		256,260	0 days		100%
256	CIW-1511b		Uncharted cables found near MTRC track and identification			0 days	NA	NA	1 day	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	Thu 18/6/20	255		0 days		100%
257	CIW-1511c		Excavation of trial pit near MHD8.5			0 days	NA	NA	5 days	Fri 19/6/20	Wed 24/6/20	Fri 19/6/20	Wed 24/6/20		258	0 days		100%
258	CIW-1511d		Lower the ground surface, opening and additional trial pit (TP38)		(046)	0 days	NA	NA	60 days	Thu 11/6/20	Fri 21/8/20	Thu 11/6/20	Fri 21/8/20	257	259	0 days		100%
259	CIW-1511e		Excavation of Trial Pits near Manhole MHA04 and MH09		040	0 days	NA	NA	60 days	Thu 11/6/20	Fri 21/8/20	Thu 11/6/20	Fri 21/8/20	258		0 days		100%
260	CIW-1511f		Additional Trial Pit between MHD9.5 and MHA04		040	0 days	NA	NA	25 days	Fri 21/8/20	Fri 18/9/20	Fri 21/8/20	Fri 18/9/20	255		0 days		100%
261	CIW-1511g		Sheetpile installation for MHD9.5			0 days	NA	NA	38 days	Tue 1/9/20	Fri 16/10/20	Tue 1/9/20	Fri 16/10/20			0 days		100%
262	CIW-1511h		Sheetpile installation between MHD9.5 & MHA04			0 days	NA	NA	25 days	Tue 8/9/20	Thu 8/10/20	Tue 8/9/20	Thu 8/10/20			0 days		100%
263	CIW-1511i		UU supporting & ELS works& excavatuib between MHD9.5 & MHA04			0 days	NA	NA	73 days	Wed 7/10/20	Mon 4/1/21	Wed 7/10/20	Mon 4/1/21			0 days		100%
264	CIW-1511j		Unsuit excavated material from MHD9.5 to MHA04		261	0 days	NA	NA	4 days	Fri 20/11/20	Tue 24/11/20	Fri 20/11/20	Tue 24/11/20			0 days		100%
265	CIW-1511k		Revise design of manhole MHD9.5		(167)	0 days	NA	NA	20 days	Thu 7/1/21	Fri 29/1/21	Thu 7/1/21	Fri 29/1/21			0 days		100%
266	CIW-1511l		Break up opening and plugging existing concrete pipe at MHD9.5			0 days	NA	NA	6 days	Mon 18/1/21	Sat 23/1/21	Mon 18/1/21	Sat 23/1/21			0 days		100%
267	CIW-1511l1		Trimming existing concrete pipe at MHD9.5			0 days	NA	NA	13 days	Fri 22/1/21	Fri 5/2/21	Fri 22/1/21	Fri 5/2/21			0 days		100%
268	CIW-1511l2		Construction of manhole MHD9.5			0 days	NA	NA	49 days	Sat 6/2/21	Sat 10/4/21	Sat 6/2/21	Sat 10/4/21			0 days		100%
269	CIW-1511m		Additional work to prevent backflow from MHI1 to MHD9.5		(176)	0 days	NA	NA	9 days	Mon 18/1/21	Wed 27/1/21	Mon 18/1/21	Wed 27/1/21			0 days		100%
270	CIW-1511n		Sewage overflow incident of MHD11		(180)	0 days	NA	NA	9 days	Sat 13/2/21	Thu 25/2/21	Sat 13/2/21	Thu 25/2/21			0 days		100%
271	CIW-1512		Additional Special manhole for tank drain (NCE)			0 days	NA	NA	35 days	Mon 24/8/20	Mon 5/10/20	Mon 24/8/20	Mon 5/10/20		272,273	0 days		100%
272	CIW-1513		Breaking of concrete surround of cables (0.8mx0.8mx70m) (NCE)			0 days	NA	NA	24 days	Tue 8/9/20	Wed 7/10/20	Tue 8/9/20	Wed 7/10/20	271		0 days		100%
273	CIW-1514	KD1B	Construction of tank drain along revised alignment w/ concrete surround		051	0 days	NA	NA	10 days	Tue 5/1/21	Fri 15/1/21	Tue 5/1/21	Fri 15/1/21	271	43FF,307	0 days		100%
274	CIW-1516		Backfilling trench between MHD9.5 & MHA04			0 days	NA	NA	20 days	Sat 16/1/21	Mon 8/2/21	Sat 16/1/21	Mon 8/2/21			0 days		100%
275	**CIW-1520**		**Diversion of Sludge Pipes**			75 days	Tue 21/4/20	Tue 21/7/20	**364 days**	**Mon 11/5/20**	**Thu 29/7/21**	**Mon 11/5/20**	**NA**			**0 days**		**96%**
276	CIW-1520a		Excavation of trial pit and identification of connection point		351	0 days	NA	NA	103 days	Mon 11/5/20	Wed 9/9/20	Mon 11/5/20	Wed 9/9/20		277	0 days		100%
277	CIW-1520b		Trench excavation for twin DN250 sludge pipe ,on hold due to encounter of uncharted sludge pipe		351	75 days	Tue 21/4/20	Tue 21/7/20	4 days	Wed 15/7/20	Sat 18/7/20	Wed 15/7/20	Sat 18/7/20	276	278	0 days		100%
278	CIW-1520c		Additional hole drilling works and identification of connetion point			0 days	NA	NA	53 days	Mon 20/7/20	Fri 18/9/20	Mon 20/7/20	Fri 18/9/20	277	250	0 days		100%
279	CIW-1520d		Temporary diversion of substandard DI 250 Leachate raising main		202	0 days	NA	NA	127 days	Tue 20/10/20	Wed 24/3/21	Tue 20/10/20	Wed 24/3/21	228		0 days		100%
280	CIW-1520e		Protection work for substandard DI 500 tank drain Pipe (near MHD 9.5)		302	0 days	NA	NA	93 days	Wed 18/11/20	Fri 12/3/21	Wed 18/11/20	Fri 12/3/21	228		0 days		100%
281	CIW-1520f		Encounter of uncharted concrete pipe within sheetpile cofferdam at MHA04			0 days	NA	NA	2 days	Tue 10/11/20	Wed 11/11/20	Tue 10/11/20	Wed 11/11/20		282	0 days		100%
282	CIW-1520g		Resumption and construction of sludge pipe construction			0 days	NA	NA	253 days	Sat 19/9/20	Thu 29/7/21	Sat 19/9/20	NA	281	307,44FF	-36 days		91%
283	CIW-1530		Diversion of Leachate Rising Main			60 days	Tue 21/4/20	Fri 3/7/20	60 days	Tue 14/9/21	Thu 25/11/21	NA	NA	241		-135 days		0%
284	**CIW-1600**		**Diversion of pipelines near Primary Sludge Thickeners (approx. 180m long 150mm to 375mm concrete pipes)**			**156 days**	**Thu 6/2/20**	**Fri 14/8/20**	**570 days**	**Tue 26/11/19**	**Thu 28/10/21**	**Tue 26/11/19**	**NA**			**0 days**		**55%**
285	CIW-1610		~~Trench Excavation from M/H MHD1E to MHD5 (approx. 90m long with M/Hs MHD1A, 1B, 1C, 1D & 1E) - realigned~~		87	~~60 days~~	~~Thu 6/2/20~~	~~Mon 20/4/20~~	~~0 days~~	~~Tue 26/11/19~~	~~Tue 26/11/19~~	~~Tue 26/11/19~~	~~Tue 26/11/19~~			0 days		100%
286	~~CIW-1620~~		~~Manholes construction and Pipe laying - omitted~~		87	~~60 days~~	~~Mon 30/3/20~~	~~Sat 13/6/20~~	~~0 days~~	~~Tue 2/6/20~~	~~Tue 2/6/20~~	~~Tue 2/6/20~~	~~Tue 2/6/20~~		~~43FF,291~~	~~0 days~~		~~100%~~
287	CIW-1621		Temporary Diversion of Existing DN200 Filitrate Rising Main		034	0 days	NA	NA	20 days	Sat 1/8/20	Mon 24/8/20	Sat 1/8/20	Mon 24/8/20		288	0 days		100%
288	CIW-1623		Pipeline Diversion Works near Primary Sludge Thickening Tank		(114)	0 days	NA	NA	30 days	Fri 16/4/21	Sat 22/5/21	Fri 16/4/21	Sat 22/5/21	287	289	0 days		100%
289	CIW-1625		Uncharted underground utilities near Proposed MHD5B		0260	0 days	NA	NA	26 days	Mon 24/5/21	Wed 23/6/21	Mon 24/5/21	Wed 23/6/21	288	290,293	0 days		100%
290	CIW-1630		Trench Excavation from M/H (approx. 90m long with M/Hs M1A to M3B)			60 days	Tue 21/4/20	Fri 3/7/20	32 days	Thu 19/3/20	Wed 29/4/20	Thu 19/3/20	Wed 29/4/20	289	291,292	0 days		100%
291	CIW-1640		Manholes construction (M1A, M1B, M2B, M3B) and Pipe laying			25 days	Mon 15/6/20	Wed 15/7/20	12 days	Mon 4/5/20	Sat 16/5/20	Mon 4/5/20	Sat 16/5/20	290,286	43FF	0 days		100%
292	CIW-1650		Trench Excavation from MHD5 to MHD9.5 (approx. 90m long with M/Hs MHD5A & 5B)		(114)	50 days	Thu 16/7/20	Fri 11/9/20	60 days	Wed 2/9/20	Wed 30/12/20	Wed 2/9/20	Wed 30/12/20	290,296,301,303,305		0 days		100%
293	CIW-1660		Provision of Pumping System from Screen to Flume Channel		87	0 days	NA	NA	287 days	Tue 10/11/20	Thu 28/10/21	Tue 10/11/20	NA	289	294	-111 days		75%
294	CIW-1670		Manholes construction (MHD5A, MHD5B, MHD5C) and Pipe laying			45 days	Sat 23/5/20	Thu 16/7/20	293 days	Tue 3/11/20	Thu 28/10/21	Tue 3/11/20	NA	293	44FF	-111 days		8%
295	**CIW-2000**		**Decommission and Demolition of Existing Faciliates and Structures**			**240 days**	**Mon 2/3/20**	**Fri 18/12/20**	**222 days**	**Thu 19/3/20**	**Tue 15/12/20**	**Thu 19/3/20**	**Tue 15/12/20**	**6,122,160**		**0 days**		**100%**
296	**CIW-2100**		**Primary Sludge Thickening Tank No.1 and No.2**			**80 days**	**Mon 2/3/20**	**Tue 9/6/20**	**222 days**	**Thu 19/3/20**	**Tue 15/12/20**	**Thu 19/3/20**	**Tue 15/12/20**		**292**	**0 days**		**100%**
297	CIW-2101		Additional Works for Temporary Diversion of Bypass Pipe near Primary Sludge Thickeners			0 days	NA	NA	45 days	Thu 19/3/20	Sun 17/5/20	Thu 19/3/20	Sun 17/5/20			0 days		100%
298	CIW-2110		Removal of E&M equipment of primary sludge thickening tank			0 days	NA	NA	1 day	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20	Thu 4/6/20		299	0 days		100%
299	CIW-2120		Decommission and Demolition the tank			80 days	Mon 2/3/20	Tue 9/6/20	150 days	Thu 18/6/20	Tue 15/12/20	Thu 18/6/20	Tue 15/12/20	298	301	0 days		100%
300	CIW-2130		Demolition of structure no.2			0 days	NA	NA	24 days	Mon 18/5/20	Mon 22/6/20	Mon 18/5/20	Mon 22/6/20			0 days		100%
301	CIW-2200		Primary Sludge Pump Pit			60 days	Wed 10/6/20	Thu 20/8/20	18 days	Wed 22/7/20	Tue 11/8/20	Wed 22/7/20	Tue 11/8/20	299	302,303,292,304	0 days		100%
302	CIW-2300		Septic Tank			50 days	Fri 21/8/20	Tue 20/10/20	18 days	Wed 12/8/20	Tue 1/9/20	Wed 12/8/20	Tue 1/9/20	301		0 days		100%
303	**CIW-2400**		**Diesel Tank**			**50 days**	**Wed 21/10/20**	**Fri 18/12/20**	**53 days**	**Thu 2/7/20**	**Tue 1/9/20**	**Thu 2/7/20**	**Tue 1/9/20**	**301**	**292**	**0 days**		**100%**
304	CIW-2410		Transfers of Remaining Diesel Fuel of Existing Diesel Tank			0 days	NA	NA	15 days	Thu 2/7/20	Tue 21/7/20	Thu 2/7/20	Tue 21/7/20	301	305	0 days		100%
305	CIW-2420		Demolition of diesel tank			50 days	Wed 21/10/20	Fri 18/12/20	18 days	Wed 12/8/20	Tue 1/9/20	Wed 12/8/20	Tue 1/9/20	304	**292**	0 days		100%
306	**CIW-3000**	*	**Inlet Works No.1 Building (1)**			**569 days**	**Sat 19/12/20**	**Mon 21/11/22**	**747 days**	**Tue 15/9/20**	**Thu 23/3/23**	**Tue 15/9/20**	**NA**	**6**		**748 days**		**18%**
307	CIW-3100		Predrilling (10nrs, 1rigs, 2.5days/drillhole/rig) - stage 1			40 days	Mon 4/1/21	Mon 22/2/21	28 days	Tue 15/9/20	Mon 19/10/20	Tue 15/9/20	Mon 19/10/20	248,250,273,228,282		0 days	1	100%
308	CIW-3100a		Predrilling (22nrs, 1rigs, 2.5days/drillhole/rig) - stage 2			0 days	NA	NA	60 days	Tue 8/12/20	Mon 22/2/21	Tue 8/12/20	Mon 22/2/21			0 days		100%
309	CIW-3200		Pre-bored H piles (188nos, 1.8rigs, 2days/rig/pile)			133 days	Tue 23/2/21	Wed 4/8/21	210 days	Fri 19/2/21	Tue 2/11/21	Fri 19/2/21	NA	228,132	310SS+150 days,311	-34 days	5	63%
310	CIW-3400a		Pile Load Test at stage 1			26 days	Thu 5/8/21	Fri 3/9/21	21 days	Sat 21/8/21	Tue 14/9/21	NA	NA	309SS+150 days	312	83 days		0%
311	CIW-3400b		Pile Load Test at stage 2 & 3			0 days	NA	NA	21 days	Wed 3/11/21	Fri 26/11/21	NA	NA	309	328,313	-34 days		0%
312	CIW-3300a		Sheetpile Installation at Phase C(900sq.m, 1rigs, 50sqm/rig/day)			80 days	Tue 23/3/21	Wed 30/6/21	30 days	Wed 15/9/21	Fri 22/10/21	NA	NA	310	315	83 days		0%
313	CIW-3300b		Sheetpile Installation at Phase B (2300sq.m, 1rigs, 50sqm/rig/day)			0 days	NA	NA	50 days	Sat 27/11/21	Thu 27/1/22	NA	NA	311	316	-34 days		0%
314	CIW-3500		**ELS works**			**77 days**	**Sat 4/9/21**	**Mon 6/12/21**	**157 days**	**Sat 23/10/21**	**Fri 6/5/22**	**NA**	**NA**		**334,165SF,169SF**	**3 days**	**5**	**0%**
315	CIW-3510		Phrase C (Grid G3 to L7)) - Excavation to -3.3mPD and blinding (strutting 2 layers, excavate soil 2250 cu.m)			77 days	Fri 4/6/21	Mon 6/12/21	77 days	Sat 23/10/21	Mon 24/1/22	NA	NA	312	320,333	83 days		0%
316	CIW-3520		Phrase B (Grid A1 to G3) - Excavation to -7.5mPD and blinding (strutting 4 layers, excavate soil 11000cu.m)			77 days	Fri 4/6/21	Mon 6/12/21	77 days	Fri 28/1/22	Fri 6/5/22	NA	NA	313	324	-34 days		0%
317	CIW-3590		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Mon 30/8/21	Mon 30/8/21	NA	NA	318SS-3 emons		1211 days		0%
318	CIW-3600		**R.C. Structure works**			**296 days**	**Thu 5/8/21**	**Thu 4/8/22**	**300 days**	**Sat 27/11/21**	**Thu 1/12/22**	**NA**	**NA**		**317SS-3 emons,332**	**-34 days**	**5**	**0%**
319	CIW-3610		**Phase C (Grid G3 to L7)**			**105 days**	**Thu 5/8/21**	**Wed 8/12/21**	**105 days**	**Tue 25/1/22**	**Tue 7/6/22**	**NA**	**NA**			**114 days**		**0%**
320	CIW-3611		Rebar fix and formwork and concreting for the pile cap (G/F) (including ELS demolition works)			40 days	Thu 5/8/21	Mon 20/9/21	40 days	Tue 25/1/22	Tue 15/3/22	NA	NA	315	321	114 days		0%
321	CIW-3612		Rebar fix and formwork and concreting upto +13.45mPD (1/F)			25 days	Tue 21/9/21	Fri 22/10/21	25 days	Wed 16/3/22	Thu 14/4/22	NA	NA	320	322	114 days		0%
322	CIW-3613	KD1C	Rebar fix and formwork and concreting upto +25.80mPD (R/F)			40 days	Sat 23/10/21	Wed 8/12/21	40 days	Tue 19/4/22	Tue 7/6/22	NA	NA	321	44FF,331,524	114 days		0%
323	CIW-3620		**Phase B (Gride A1 to G3)**			**193 days**	**Tue 7/12/21**	**Thu 4/8/22**	**173 days**	**Sat 7/5/22**	**Thu 1/12/22**	**NA**	**NA**			**-34 days**		**0%**
324	CIW-3621		Rebar fix and formwork and concreting for the Inlet Works structure upto Ground Level (including ELS demolition works)			54 days	Tue 7/12/21	Mon 14/2/22	54 days	Sat 7/5/22	Tue 12/7/22	NA	NA	316	325	-34 days		0%
325	CIW-3622		Apply waterproofing membrance and backfilling			14 days	Tue 15/2/22	Wed 2/3/22	14 days	Wed 13/7/22	Thu 28/7/22	NA	NA	324,185	326	-34 days		0%
326	CIW-3623	KD1C	Rebar fix and formwork and concreting for the Inlet Works structure upto Roof Level			105 days	Thu 3/3/22	Thu 4/8/22	105 days	Fri 29/7/22	Thu 1/12/22	NA	NA	325	331	-34 days		0%
327	CIW-3630		**Phase A (G1 to L3)**			**193 days**	**Tue 7/12/21**	**Thu 4/8/22**	**173 days**	**Sat 27/11/21**	**Sat 2/7/22**	**NA**	**NA**			**93 days**		**0%**
328	CIW-3631		Rebar fix and formwork and concreting for the Inlet Works structure upto Ground Level (including ELS demolition works)			54 days	Tue 7/12/21	Mon 14/2/22	54 days	Sat 27/11/21	Fri 4/2/22	NA	NA	311	329	93 days		0%
329	CIW-3632		Apply waterproofing membrance and backfilling			14 days	Tue 15/2/22	Wed 2/3/22	14 days	Sat 5/2/22	Mon 21/2/22	NA	NA	328,185	330	93 days		0%
330	CIW-3633	KD1C	Rebar fix and formwork and concreting for the Inlet Works structure upto Roof Level			105 days	Thu 3/3/22	Thu 4/8/22	105 days	Tue 22/2/22	Sat 2/7/22	NA	NA	329	332,44FF,331	93 days		0%
331	CIW-3700	KD1C	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Thu 4/8/22	Thu 4/8/22	0 days	Thu 1/12/22	Thu 1/12/22	NA	NA	330,322,326	44FF	-34 days		0%
332	CIW-3800	SW1	ABWF works + BS works			90 days	Fri 5/8/22	Mon 21/11/22	90 days	Fri 2/12/22	Thu 23/3/23	NA	NA	330,189,141,318	56FF	262 days		0%
333	CIW-3900	KD1D	Process Pipe CHE chainage 0-20 & CHF chainage 0-20			0 days	NA	NA	50 days	Sat 17/12/22	Mon 20/2/23	NA	NA	315,351FF	45FF	0 days		0%
334	CIW-4000	SW2	Remaining sewerage and utilities in Portion B1 & B2			0 days	NA	NA	60 days	Sat 7/5/22	Tue 19/7/22	NA	NA	314	57FF,555	3 days		0%
335	**CPS-0000**	*	**Primary Sedimentation Tanks, B-3 (2)**			**1115 days**	**Mon 18/11/19**	**Wed 23/8/23**	**1115 days**	**Mon 18/11/19**	**Wed 23/8/23**	**Mon 18/11/19**	**NA**	**8**		**139 days**		**44%**
336	CPS-1000		Operation of the Existing Primary sedimentation Tanks			615 days	Mon 18/11/19	Sat 24/7/21	615 days	Mon 18/11/19	Sat 24/7/21	Mon 18/11/19	Sat 24/7/21	2	339,338	0 days		100%
337	CPS-1100		Identification of existing cables near Primary Sedimentation Tank		88	0 days	NA	NA	3 days	Fri 19/2/21	Mon 22/2/21	Fri 19/2/21	Mon 22/2/21			0 days		100%
338	CPS-1200		Removal of residual sludge			0 days	NA	NA	12 days	Mon 26/7/21	Sat 7/8/21	NA	NA	336	339	-62 days		0%
339	CPS-2000		Demolition of existing primary sedimentation tanks no. 1			45 days	Mon 13/12/21	Wed 9/2/22	30 days	Mon 9/8/21	Sat 11/9/21	NA	NA	122,160,162,336,338	342,340	-62 days		0%
340	CPS-2000a		Demolition of existing primary sedimentation tanks no. 2			0 days	NA	NA	25 days	Mon 13/9/21	Wed 13/10/21	NA	NA	339	342	-62 days		0%
341	CPS-3000a		Predrilling (5nrs, 1rigs, 3days/drillhole/rig) - In-advanced stage			0 days	NA	NA	15 days	Thu 8/4/21	Sat 24/4/21	Thu 8/4/21	Sat 24/4/21		343	0 days		100%



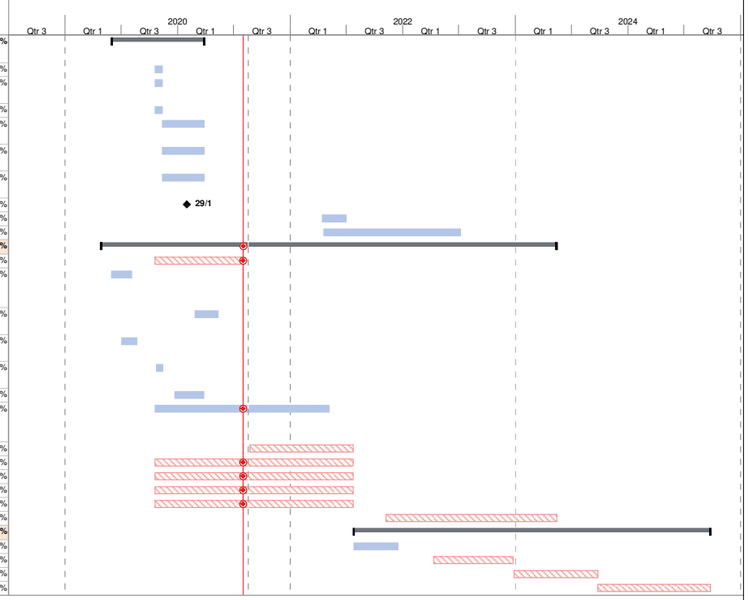
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
342	CPS-3000		Predrilling (63nrs, 3rigs, 3days/drillhole/rig)			38 days	Thu 10/2/22	Fri 25/3/22	38 days	Fri 15/10/21	Sat 27/11/21	NA	NA	127,452,339,340	343	-62 days	1	0%
343	CPS-4000		Pre-bored H piles (205nos, 2.5rigs, 2days/pile/rig)			102 days	Sat 26/3/22	Mon 1/8/22	164 days	Mon 29/11/21	Wed 22/6/22	NA	NA	132,453,341,342	344FS-40 days,346,345	-62 days	5	0%
344	CPS-5000		Sheetpile Installation (FSP-II, 3360sq.m, 1rigs, 50sqm/rig/day)			85 days	Wed 25/5/22	Fri 2/9/22	42 days	Thu 5/5/22	Fri 24/6/22	NA	NA	343FS-40 days,133	346,352SS+27 days	-62 days		0%
345	CPS-6000		Pile Load Test			26 days	Tue 2/8/22	Wed 31/8/22	26 days	Thu 23/6/22	Sat 23/7/22	NA	NA	343	346	0 days		0%
346	CPS-7000		ELS works (20000cu.m soil with 2 layers wailing / strutting)			45 days	Sat 3/9/22	Fri 28/10/22	60 days	Mon 25/7/22	Wed 5/10/22	NA	NA	343,135,345,344	347FF-3 emons,348,166SF,170SF	0 days	3	0%
347	CPS-7900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 7/7/22	Thu 7/7/22	NA	NA	346FF-3 emons	348SS-3 emons	186 days		0%
348	CPS-8000	KD1D	R.C. Structure works (including ELS demolition works)			92 days	Sat 29/10/22	Mon 20/2/23	112 days	Thu 6/10/22	Mon 20/2/23	NA	NA	137,346,347SS-3 emons	349,350,45FF,351FF	0 days	3	0%
349	CPS-9000	KD1D	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 20/2/23	Mon 20/2/23	0 days	Mon 20/2/23	Mon 20/2/23	NA	NA	348	45FF	0 days		0%
350	CPS-10000	SW1	ABWF works + BS works			150 days	Tue 21/2/23	Wed 23/8/23	150 days	Tue 21/2/23	Wed 23/8/23	NA	NA	348,189,141	56FF	139 days		0%
351	CPS-11000	KD1D	Flowmeter Chamber no.1			60 days	Tue 21/2/23	Sat 6/5/23	60 days	Tue 6/12/22	Mon 20/2/23	NA	NA	348FF	45FF,333FF	0 days		0%
352	CPS-12000	SW2	Process Pipe CHG chainage 0-50, CHH chainage 0-80, CHI chainage 0-95 & CHJ chianage 0-40 and surrounding utilities			0 days	NA	NA	100 days	Wed 8/6/22	Thu 6/10/22	NA	NA	344SS+27 days	57FF,555	-62 days		0%
353	**CBR-0000**	*	**Bioreactors No.2A & 2B, B-4 (3)**			**1106 days**	**Mon 18/11/19**	**Sat 12/8/23**	**1194 days**	**Mon 18/11/19**	**Mon 27/11/23**	**Mon 18/11/19**	**NA**	**9**		**546 days**		**38%**
354	CBR-1000		Operation of 2no. Existing 800mm air mains over bioreactor no.2			360 days	Mon 18/11/19	Wed 11/11/20	292 days	Mon 18/11/19	Wed 11/11/20	Mon 18/11/19	Wed 11/11/20	2		0 days		100%
355	CBR-2000		Construction of Removable Steel Shutter in the Common Channel of BR2 and 3		67	0 days	NA	NA	86 days	Thu 1/10/20	Fri 15/1/21	Thu 1/10/20	Fri 15/1/21	144	365	0 days		100%
356	CBR-4100		Take Down E&M Equipment & cables in Bioreactor BR2 and Return to DSD		95	0 days	NA	NA	90 days	Thu 15/10/20	Mon 1/2/21	Thu 15/10/20	Mon 1/2/21		366	0 days		100%
357	CBR-4200		Installation of monitoring points before demolition of BR2		219	0 days	NA	NA	5 days	Wed 27/1/21	Mon 1/2/21	Wed 27/1/21	Mon 1/2/21	363	358	0 days		100%
358	CBR-4300		Condition Survey for BR2			0 days	NA	NA	1 day	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	Fri 30/10/20	357	366	0 days		100%
359	**CBR-5000**		**Demolition of existing bioreactor no.2**			**60 days**	**Wed 3/2/21**	**Tue 20/4/21**	**98 days**	**Tue 10/11/20**	**Wed 10/3/21**	**Tue 10/11/20**	**Wed 10/3/21**	**122,162**		**0 days**		**100%**
360	CBR-5100		Identification and removal of existing cables on air main pipe bridge		210	0 days	NA	NA	35 days	Tue 10/11/20	Sat 19/12/20	Tue 10/11/20	Sat 19/12/20		361,365	0 days		100%
361	CBR-5300		Plugging and demolition of existing DN800 air main			0 days	NA	NA	5 days	Mon 28/12/20	Sat 2/1/21	Mon 28/12/20	Sat 2/1/21	360		0 days		100%
362	CBR-5200		Diversion of existing lighting cable and Earthing ducts_stage 1		264	0 days	NA	NA	43 days	Fri 4/12/20	Tue 26/1/21	Fri 4/12/20	Tue 26/1/21	363	366	0 days		100%
363	CBR-5400		Overflow incident from BR1 to BR2 works area no.1 (Dec 2020)		285	0 days	NA	NA	33 days	Fri 18/12/20	Thu 28/1/21	Fri 18/12/20	Thu 28/1/21	364	357,362	0 days		100%
364	CBR-5410		Overflow incident from BR1 to BR2 works area (Feb 2021)		340	0 days	NA	NA	8 days	Tue 16/2/21	Wed 24/2/21	Tue 16/2/21	Wed 24/2/21	365	366,363	0 days		100%
365	CBR-3000		Construction of Isolation Wall & stoplog in common channel of BR2 & BR3		277	0 days	NA	NA	43 days	Sat 16/1/21	Wed 10/3/21	Sat 16/1/21	Wed 10/3/21	355,360	364	0 days		100%
366	CBR-5500		Demolition of existing pipe bridge, partition wall and base slab (Stage 1)			30 days	Wed 3/2/21	Fri 12/3/21	26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21	362,358,364,356	367SS,368	0 days		100%
367	CBR-5520		Removal of additional concrete infill within the partition walls		(174)	0 days	NA	NA	26 days	Tue 2/2/21	Sat 6/3/21	Tue 2/2/21	Sat 6/3/21	366SS	368	0 days		100%
368	CBR-5900		Construction of precautionary measures (i.e. isolation wall)		322	0 days	NA	NA	2 days	Tue 9/3/21	Wed 10/3/21	Tue 9/3/21	Wed 10/3/21	366,367	369,371	0 days		100%
369	CBR-5905		Construction of precautionary measures (i.e. bund wall)		305	0 days	NA	NA	3 days	Thu 15/4/21	Sat 17/4/21	Thu 15/4/21	Sat 17/4/21	368		0 days		100%
370	CBR-5910		Removal of abandoned DN250 air pipe		209	0 days	NA	NA	6 days	Tue 20/4/21	Mon 26/4/21	Tue 20/4/21	Mon 26/4/21			0 days		100%
371	CBR-6000		Predrilling (33nrs, 3rigs, 2days/drillhole/rig)_stage 1			44 days	Wed 21/4/21	Sat 12/6/21	44 days	Mon 1/3/21	Wed 5/5/21	Mon 1/3/21	Wed 5/5/21	368	372	0 days	1	100%
372	CBR-7000		Pre-bored H piles (113nos, 2rigs, 2days/pile/rig)_stage 1			113 days	Tue 15/6/21	Thu 18/11/21	113 days	Thu 6/5/21	Fri 17/9/21	Thu 6/5/21	NA	371	382SS+30 days,377SS+45 days,38	1 day	5	41%
373	**CBR-7100**		**External works between BR2 and MFB2**			**0 days**	**NA**	**NA**	**217 days**	**Wed 30/6/21**	**Mon 21/3/22**	**Wed 30/6/21**	**NA**			**1046 days**		**9%**
374	CBR-7110		DN700 (CHER)RAS Diversion			0 days	NA	NA	45 days	Wed 30/6/21	Sat 21/8/21	Wed 30/6/21	NA	372SS+45 days	375	1212 days		2%
375	CBR-7120		Temporary vehicle diversion for RAS operation			0 days	NA	NA	6 days	Mon 23/8/21	Sat 28/8/21	NA	NA	374		1212 days		0%
376	CBR-7130		**DN600 Temporary Sewage diversion**			**0 days**	**NA**	**NA**	**120 days**	**Wed 30/6/21**	**Sat 20/11/21**	**Wed 30/6/21**	**NA**			**-45 days**		**18%**
377	CBR-7131		2nos. Manhole Construction (MHTD1 and MHTD2)		204, 353	0 days	NA	NA	75 days	Wed 30/6/21	Mon 27/9/21	Wed 30/6/21	NA	372SS+45 days	378FS-30 days	-88 days		36%
378	CBR-7132		Existing DN600 tank drain diversion		204, 353	45 days	NA	NA	75 days	Mon 23/8/21	Sat 20/11/21	NA	NA	377FS-30 days	379	-88 days		0%
379	CBR-7140		Demolition of abandoned DN600 pipe and existing surrounded wall & channel of BR2		353, 336	30 days	NA	NA	45 days	Mon 22/11/21	Sat 15/1/22	NA	NA	378	380	-88 days		0%
380	CBR-7150		Pre-drilling(3nr.) & Pre-bored H piles (20nrs, 1rig, 2days/drillhole/rig)_stage 2A			26 days	NA	NA	26 days	Mon 17/1/22	Fri 18/2/22	NA	NA	379	381	-88 days		0%
381	CBR-7160		Pile load test			26 days	NA	NA	26 days	Sat 19/2/22	Mon 21/3/22	NA	NA	380,386	389,388	-88 days		0%
382	CBR-7200		**External works between BR2 and PST**			**0 days**	**NA**	**NA**	**141 days**	**Wed 30/6/21**	**Wed 15/12/21**	**Wed 30/6/21**	**NA**	**372SS+30 days**		**-38 days**		**19%**
383	CBR-7210		Demolition of existing DN1200. DN900 and DN500 pipe (w/ ELS works)		91	0 days	NA	NA	75 days	Wed 30/6/21	Mon 27/9/21	Wed 30/6/21	NA	372SS+45 days	384	-38 days		36%
384	CBR-7220		Diversion of existing lighting cable and Earthing ducts (w/ ELS)		264	0 days	NA	NA	30 days	Tue 28/9/21	Wed 3/11/21	NA	NA	383	385	-38 days		0%
385	CBR-7230		Demolition of existing side wall		336	0 days	NA	NA	12 days	Thu 4/11/21	Wed 17/11/21	NA	NA	384	386	-38 days		0%
386	CBR-7240		Pre-bored H piles (24nrs, 2rig, 2days/drillhole/rig)_stage 2B			24 days	NA	NA	24 days	Thu 18/11/21	Wed 15/12/21	NA	NA	385	381	-38 days		0%
387	CBR-7340		Demolition of existing side wall between BR2 & BR3 and baseslab			0 days	NA	NA	60 days	Sat 18/9/21	Tue 30/11/21	NA	NA	372	388	1 day		0%
388	CBR-8000		Sheetpile Installation (3000sq.m, 1rigs, 50sqm/rig/day)			60 days	Wed 8/9/21	Fri 19/11/21	60 days	Tue 22/3/22	Tue 7/6/22	NA	NA	381,387	389	-88 days		0%
389	CBR-10000		ELS works (18100cu.m soil with 4 layers wailing / strutting)			125 days	Mon 20/12/21	Fri 27/5/22	80 days	Wed 8/6/22	Fri 9/9/22	NA	NA	135,381,388	391,390FF-3 emons,399SS+46 day	-88 days	3	0%
390	CBR-10900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 11/6/22	Sat 11/6/22	NA	NA	389FF-3 emons	391SS-3 emons	168 days		0%
391	CBR-11000	KD1E	R.C. Structure works (including ELS demolition works)			180 days	Sat 28/5/22	Sat 31/12/22	180 days	Sat 10/9/22	Sat 22/4/23	NA	NA	138,186,187,190,188,389,390SS-3 emons	398,46FF,397,393FF,394SS+25 da	-88 days	5	0%
392		KD1E	Process Pipe CHO chainage 65-140			0 days	NA	NA	60 days	Wed 8/2/23	Sat 22/4/23	NA	NA	391FF	46FF	-88 days		0%
393	CBR-11020	KD1E	Additional backfill works after end wall construction at BR2 common channel		277	0 days	NA	NA	30 days	Wed 15/3/23	Sat 22/4/23	NA	NA	391FF	46FF	-88 days		0%
394	CBR-13000	KD1E	Flowmeter no. 2-4			180 days	2023/1/3	2023/8/12	60 days	Thu 13/10/22	Wed 21/12/22	NA	NA	391SS+25 days	395FS-13 days	-88 days		0%
395	CBR-14000	KD1E	Gate Valve Chamber no.1-3			180 days	2023/1/3	2023/8/12	60 days	Wed 7/12/22	Tue 21/2/23	NA	NA	394FS-13 days	396FS-12 days	-88 days		0%
396	CBR-15000	KD1E	Plug Valve Chamber no.1-2			180 days	2023/1/3	2023/8/12	60 days	Wed 8/2/23	Sat 22/4/23	NA	NA	395FS-12 days	46FF	-88 days		0%
397	CBR-12000	KD1E	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Sat 31/12/22	Sat 31/12/22	0 days	Sat 22/4/23	Sat 22/4/23	NA	NA	391	46FF	-88 days		0%
398	CBR-16000	SW1	ABWF works + BS works			180 days	Tue 3/1/23	Sat 12/8/23	180 days	Mon 24/4/23	Mon 27/11/23	NA	NA	391,189,141	56FF	60 days		0%
399	CBR-17000	SW2	Process Pipe CHQ chainage 65-170, CHP chainage 60-130, CHL chainage 0-35 & CHK chianage 0-50 and surrounding utilities			0 days	NA	NA	80 days	Tue 2/8/22	Sat 5/11/22	NA	NA	389SS+46 days	57FF,555	-88 days		0%
400	**CMF-0000**	*	**Membrane Facilities Building, B-5**			**941 days**	**Mon 6/1/20**	**Thu 9/3/23**	**1133 days**	**Mon 18/11/19**	**Wed 13/9/23**	**Mon 18/11/19**	**NA**	**2**		**121 days**		**45%**
401			Operation of existing Final Sedimentation Tanks no.3 & 4		26	0 days	NA	NA	98 days	Mon 18/11/19	Tue 17/3/20	Mon 18/11/19	Tue 17/3/20	2		0 days		100%
402	**CMF-1000**		**Demolition of existing final sedimentation tanks no. 3 & 4**			**14 days**	**Mon 6/1/20**	**Tue 21/1/20**	**340 days**	**Mon 6/1/20**	**Sun 28/2/21**	**Mon 6/1/20**	**Sun 28/2/21**	**160,122,10**		**0 days**		**100%**
403	CMF-1100		Confirmation of Decommission Schedule	68	30	0 days	NA	NA	58 days	Mon 6/1/20	Mon 16/3/20	Mon 6/1/20	Mon 16/3/20		404	0 days		100%
404	CMF-1200		Provision of new submersed pump	68	26	0 days	NA	NA	27 days	Wed 4/3/20	Fri 3/4/20	Wed 4/3/20	Fri 3/4/20	403	405	0 days		100%
405	CMF-1205		Assistant to decommissioning of Final Sedimentation Tank No. 3 and 4	68	7	0 days	NA	NA	14 days	Wed 4/3/20	Fri 3/4/20	Wed 4/3/20	Fri 3/4/20	404	406	0 days		100%
406	CMF-1300		Additional dismantling works to retain specified electrical and mechanical equipment	75	(013)	0 days	NA	NA	21 days	Tue 7/4/20	Wed 6/5/20	Tue 7/4/20	Wed 6/5/20	405	407	0 days		100%
407	CMF-1400		Additional pluging works for DN 1200 Conc. S&S pipe at wash water pumping station chamber	76, 77, 144	(015)	0 days	NA	NA	70 days	Mon 8/6/20	Sat 29/8/20	Mon 8/6/20	Sat 29/8/20	406	408	0 days		100%
408	CMF-1500		Diversion of wash water main	76, 77	032	0 days	NA	NA	21 days	Mon 15/6/20	Fri 10/7/20	Mon 15/6/20	Fri 10/7/20	407	409	0 days		100%
409	CMF-1600		Isolation wall for RAS Channel No.1	76, 77	035	0 days	NA	NA	40 days	Mon 1/6/20	Sat 18/7/20	Mon 1/6/20	Sat 18/7/20	408	413	0 days		100%
410	CMF-1710		Removal of DN1400 Bioreactor No. 2 Effluent Pipe		043	0 days	NA	NA	8 days	Fri 19/2/21	Sun 28/2/21	Fri 19/2/21	Sun 28/2/21			0 days		100%
411	CMF-1800		Exposed and disconnet uncharted existing cable between FST3 and FST 4	77	038	0 days	NA	NA	20 days	Thu 2/7/20	Fri 24/7/20	Thu 2/7/20	Fri 24/7/20			0 days		100%
412	CMF-1110		Demolition of structure no. 3 & 4	68, 75, 76, 77, 144		14 days	Mon 6/1/20	Tue 21/1/20	122 days	Wed 1/4/20	Sat 29/8/20	Wed 1/4/20	Sat 29/8/20		414	0 days		100%
413	CMF-1900		Removal of Existing DN150 SAS Rising Main at RAS Channel No. 1	212	060	0 days	NA	NA	23 days	Mon 31/8/20	Fri 25/9/20	Mon 31/8/20	Fri 25/9/20	409	415	0 days		100%
414	CMF-2000		Predrilling (83nrs, 4rigs, 2.5days/drillhole/rig)	144, 212	120	42 days	Sat 6/6/20	Mon 27/7/20	31 days	Mon 10/8/20	Mon 14/9/20	Mon 10/8/20	Mon 14/9/20	127,412	415	0 days	1	100%
415	CMF-3000		Pre-bored H piles (171nos, 2rigs, 1.5days/pile/rig) [Extended working hours 0700-1900 & shortern pile length]	212, 308, 309	120	140 days	Tue 28/7/20	Wed 13/1/21	96 days	Mon 28/9/20	Sat 23/1/21	Mon 28/9/20	Sat 23/1/21	414,132,413	416,417	0 days	5	100%
416	CMF-3100		Change of Layout of Basement of MFB no. 2		(102)	0 days	NA	NA	17 days	Tue 3/11/20	Sat 21/11/20	Tue 3/11/20	Sat 21/11/20	415		0 days		100%
417	CMF-4000		Pile Load Test			25 days	Thu 14/1/21	Tue 16/2/21	19 days	Mon 4/1/21	Mon 25/1/21	Mon 4/1/21	Mon 25/1/21	415	421,418	0 days		100%
418	CMF-5000		Installation of sheetpile [with pre-boring]		120	40 days	Wed 22/1/20	Wed 11/3/20	120 days	Mon 28/12/20	Thu 24/6/21	Mon 28/12/20	Thu 24/6/21	417	421	0 days		100%
419	**CMF-6000**		**ELS works**			**169 days**	**Wed 17/2/21**	**Thu 9/9/21**	**188 days**	**Fri 25/6/21**	**Thu 10/2/22**	**Fri 25/6/21**	**NA**	**10**	**424FF-3 emons**	**-87 days**	**5**	**22%**
420	**CMF-6100**		**Pharse A (A1 to N6) - Excavation to -9mPD and blinding**		**45**	**169 days**	**Wed 17/2/21**	**Thu 9/9/21**	**188 days**	**Fri 25/6/21**	**Thu 10/2/22**	**Fri 25/6/21**	**NA**		**423SS**	**-100 days**		**16%**
421	CMF-6110		Soil Excavation [Extended working hours 0700-1900 & reduction of excavation volume]		120, 207	169 days	Wed 17/2/21	Thu 9/9/21	88 days	Fri 25/6/21	Fri 8/10/21	Fri 25/6/21	NA	418,135,417	422	-117 days		35%
422	CMF-6120		Additional Rock Excavation [2200 cu.m, 7.5cu.m/group x 2]		120, 207	0 days	NA	NA	100 days	Sat 9/10/21	Thu 10/2/22	NA	NA	421	426	-117 days		0%
423	CMF-6200		Pharse B (A6 to N10) - Excavation to -1.9mPD and blinding			169 days	Wed 17/2/21	Thu 9/9/21	100 days	Fri 25/6/21	Sat 23/10/21	Fri 25/6/21	NA	420SS	427,433	1 day		31%
424	CMF-6900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Fri 12/11/21	Fri 12/11/21	NA	NA	419FF-3 emons	425SS-3 emons	216 days		0%
425	**CMF-7000**		**RC Structure works**			**232 days**	**Fri 10/9/21**	**Sat 25/6/22**	**262 days**	**Fri 11/2/22**	**Wed 28/12/22**	**NA**	**NA**	**10,424SS-3 emons**		**-117 days**	**5**	**0%**
426	CMF-7100	KD1F	Phase A - from B2 - Level 1 (including ELS demolition works)			112 days	Fri 10/9/21	Tue 25/1/22	112 days	Fri 11/2/22	Wed 29/6/22	NA	NA	139,186,187,190,188,422	427SS+30 days,428,430	-117 days		0%
427	CMF-7110	KD1F	Phase B - from B1 - Level 1 (including ELS demolition works)			112 days	Fri 10/9/21	Tue 25/1/22	112 days	Fri 18/3/22	Thu 4/8/22	NA	NA	426SS+30 days,423	429,430	-117 days		0%
428	CMF-7120	KD1G	Phase A - from Level 1 to Roof			120 days	Wed 26/1/22	Sat 25/6/22	120 days	Thu 30/6/22	Mon 21/11/22	NA	NA	428	431,432	-87 days		0%
429	CMF-7130	KD1G	Phase B - from Level 1 to Roof			120 days	Wed 26/1/22	Sat 25/6/22	120 days	Fri 5/8/22	Wed 28/12/22	NA	NA	427	431,432	-117 days		0%
430	CMF-8000	KD1F	Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from B2-level 1)			0 days	Tue 25/1/22	Tue 25/1/22	0 days	Thu 4/8/22	Thu 4/8/22	NA	NA	426,427	47FF	-115 days		0%
431	CMF-9000	KD1G	Allow access to Contractor DE/2018/04 for E&M installation and T&C works (from Level to Roof)			0 days	Sat 25/6/22	Sat 25/6/22	0 days	Wed 28/12/22	Wed 28/12/22	NA	NA	428,429	48FF	-117 days		0%
432	CMF-10000	SW1	ABWF works + BS works			210 days	Mon 27/6/22	Thu 9/3/23	210 days	Thu 29/12/22	Wed 13/9/23	NA	NA	189,428,429	56FF	121 days		0%
433	CMF-11000	SW2	Process Pipe CHQ chainage 0-65, CHM chainage 0-120, CHN chainage 0-125, CHO chainage 0-65, CHP chainage 0-60 & CHV chaange 0-50 and surrounding utilities			0 days	NA	NA	176 days	Mon 25/10/21	Tue 31/5/22	NA	NA	423	57FF,555	43 days		0%
434	**CSA-0000**	*	**SAS Pumping Station, B-6**			**455 days**	**Wed 20/5/20**	**Thu 25/11/21**	**728 days**	**Sat 18/4/20**	**Wed 28/9/22**	**Sat 18/4/20**	**NA**	**11**		**891 days**		**78%**



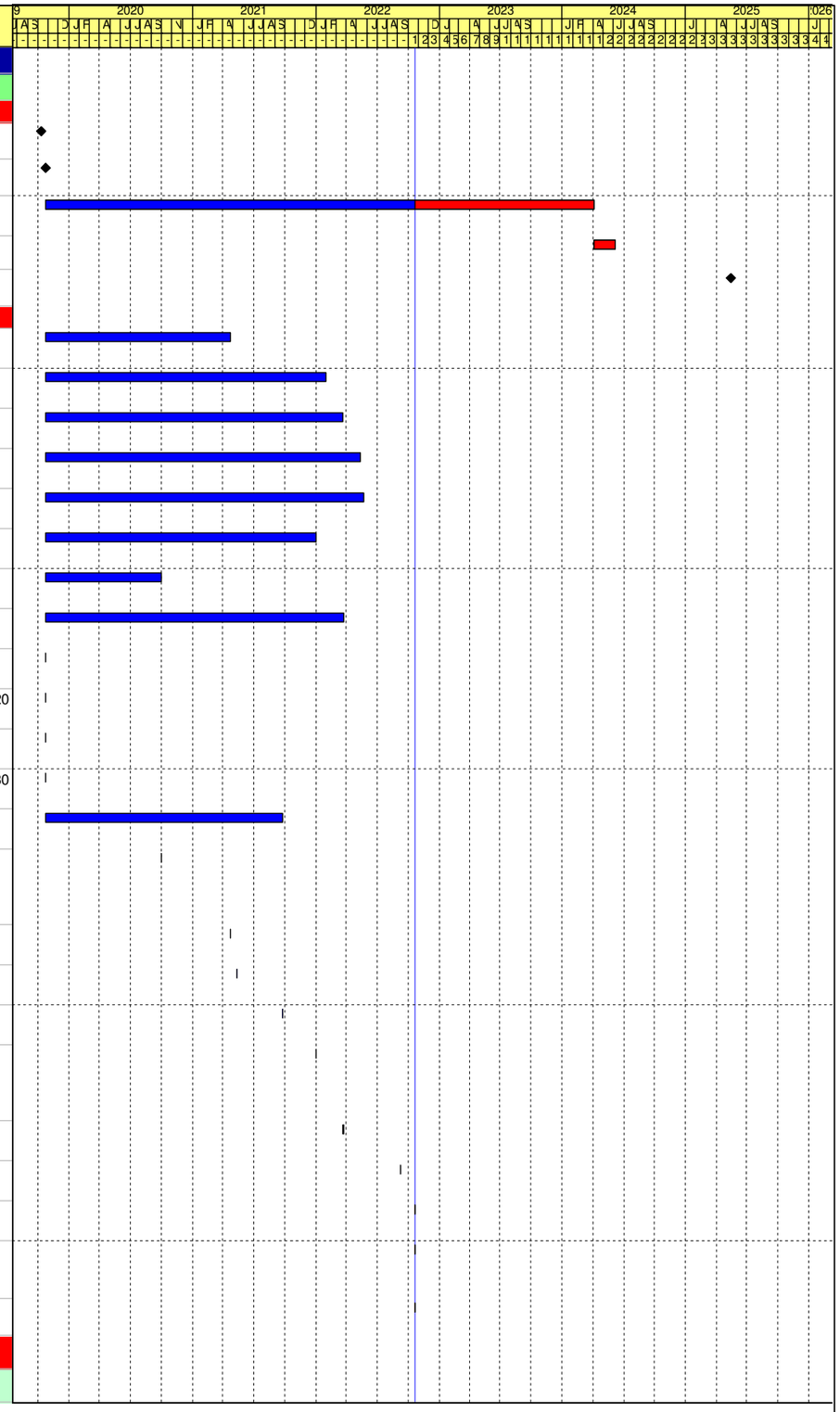
ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
435	**CSA-1000**		**Additional Preliminary Works**			**0 days**	**NA**	**NA**	**330 days**	**Tue 9/6/20**	**Mon 19/7/21**	**Tue 9/6/20**	**NA**			**1247 days**		**98%**
436	CSA-1020		Expose and abandon existing electric cable & trial pits		78	0 days	NA	NA	39 days	Mon 17/8/20	Wed 30/9/20	Mon 17/8/20	Wed 30/9/20			0 days		100%
437	CSA-1030		Installation of standpipes		71	0 days	NA	NA	13 days	Mon 14/9/20	Mon 28/9/20	Mon 14/9/20	Mon 28/9/20			0 days		100%
438	CSA-1100		Diversion of Existing SAS Rising Main near SAS Pumping Station	68, 75, 76	69	0 days	NA	NA	170 days	Tue 9/6/20	Thu 31/12/20	Tue 9/6/20	Thu 31/12/20		453	0 days		100%
439	CSA-1200		Decommission of exisiting power and signal systems in leachate Pump station switch room	312, 309, 310	74	0 days	NA	NA	58 days	Mon 21/9/20	Mon 30/11/20	Mon 21/9/20	Mon 30/11/20	146	453	0 days		100%
440	CSA-1300		Construction of Cable trough for CLP 11kv Cable Diversion	75, 76, 77, 161		0 days	NA	NA	54 days	Mon 19/10/20	Mon 21/12/20	Mon 19/10/20	Mon 21/12/20		453	0 days		100%
441	CSA-1400		Demolition of Existing Pillar box and its concrete plinth	144, 212, 30	30	0 days	NA	NA	53 days	Wed 12/8/20	Sat 14/11/20	Wed 12/8/20	Sat 14/11/20	149	453	0 days		100%
442	CSA-1500		Excavation to locate existing underground cble near SAS Pump Station		78	0 days	NA	NA	59 days	Wed 17/6/20	Sat 21/11/20	Wed 17/6/20	Sat 21/11/20		453	0 days		100%
443	CSA-1600		Diversion of Existing DN80 Permeate Rising Main near SAS Pumping station		89	0 days	NA	NA	72 days	Tue 6/10/20	Thu 31/12/20	Tue 6/10/20	Thu 31/12/20		453	0 days		100%
444	CSA-1800		Trench Excavation near SAS for CLP diversion of 11kV cable	309, 310	97	0 days	NA	NA	53 days	Mon 12/10/20	Sat 12/12/20	Mon 12/10/20	Sat 12/12/20		453	0 days		100%
445	CSA-1700		Relocation of Oil Interceptor Near Existing Compressor House	144, 212, 30	70	0 days	NA	NA	50 days	Mon 9/11/20	Fri 8/1/21	Mon 9/11/20	Fri 8/1/21		453	0 days		100%
446	CSA-1900		Diversion of pumping system sewerage	212, 309, 31	83	0 days	NA	NA	36 days	Wed 13/1/21	Fri 26/2/21	Wed 13/1/21	Fri 26/2/21	151	455,453,447	0 days		100%
447	CSA-1910		Diversion of Existing copper pipe near proposed SAS pumping station	309, 310	225	0 days	NA	NA	61 days	Mon 19/10/20	Thu 31/12/20	Mon 19/10/20	Thu 31/12/20	446	453	0 days		100%
448	CSA-1920		Pipework of proposed SAS Pumping Station - 13 nos. of puddles		221	0 days	NA	NA	180 days	Mon 7/12/20	Mon 19/7/21	Mon 7/12/20	NA			1247 days		92%
449	CSA-1930		Additional DN150 Rising main for SAS		220/69	0 days	NA	NA	15 days	Wed 2/12/20	Fri 18/12/20	Wed 2/12/20	Fri 18/12/20			0 days		100%
450	CSA-1940		Additional DN90 PE pipe diversion		89	0 days	NA	NA	7 days	Fri 11/12/20	Fri 18/12/20	Fri 11/12/20	Fri 18/12/20			0 days		100%
451	CSA-1970		Additional diversion of existing sludge rising main and sewerage system		81	0 days	NA	NA	15 days	Thu 21/1/21	Sat 6/2/21	Thu 21/1/21	Sat 6/2/21			0 days		100%
452	CSA-2000		Predrilling (4nrs, 1rig, 4days/drillhole/rig)	68		16 days	Wed 20/5/20	Sat 6/6/20	7 days	Sat 18/4/20	Sat 25/4/20	Sat 18/4/20	Sat 25/4/20	127	342,453	0 days		100%
453	CSA-3000		Pre-bored H piles (12nos, 1rigs, 4days/pile/rig)			60 days	Mon 8/6/20	Tue 18/8/20	19 days	Mon 4/1/21	Mon 25/1/21	Mon 4/1/21	Mon 25/1/21	132,452,148,438,439,441,442,443,445,44	343,454	0 days	2	100%
454	CSA-4000		Pile Load Test			21 days	Wed 19/8/20	Thu 17/9/20	22 days	Tue 23/2/21	Fri 19/3/21	Tue 23/2/21	Fri 19/3/21	453	456,455	0 days		100%
455	CSA-5000		Sheetpile Installation (FSP-II, 690sq.m, 40sqm/day)			28 days	Wed 19/8/20	Sat 19/9/20	28 days	Tue 30/3/21	Wed 5/5/21	Tue 30/3/21	Wed 5/5/21	133,454,446	456	0 days		100%
456	CSA-6000		ELS works (1300cu.m soil with 2 layers wailing / strutting)			75 days	Mon 21/9/20	Wed 19/2/20	75 days	Thu 6/5/21	Wed 4/8/21	Thu 6/5/21	NA	455,135,454	458,457FF-3 emons	-121 days	2	96%
457	CSA-6900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 6/5/21	Thu 6/5/21	Thu 6/5/21	Thu 6/5/21	456FF-3 emons	458SS-3 emons	0 days		100%
458	CSA-7000	KD1H	R.C. Structure works (including ELS demolition works)			186 days	Mon 21/12/20	Mon 9/8/21	186 days	Thu 5/8/21	Sat 19/3/22	NA	NA	456,457SS-3 emons	459,460,49FF	-121 days	5	0%
459	CSA-8000	KD1H	Allow access to Contractor DE/2018/03 for E&M installation and T&C works			0 days	Mon 9/8/21	Mon 9/8/21	0 days	Sat 19/3/22	Sat 19/3/22	NA	NA	458	49FF	-121 days		0%
460	CSA-9000	SW1	ABWF works + BS works			90 days	Tue 10/8/21	Thu 25/11/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	458,189,141,522SS	56FF	405 days		0%
461	**CAS-0000**	*	**Ancillary Structures, B-7**			**503 days**	**Mon 7/9/20**	**Sat 21/5/22**	**420 days**	**Mon 3/5/21**	**Wed 28/9/22**	**Mon 3/5/21**	**NA**	**12**		**891 days**		**7%**
462	**CAS-1000**		Demolition of Existing Faciliates and Structures (leachate pump pit & pumping station)			120 days	Mon 7/9/20	Sat 30/1/21	120 days	Mon 3/5/21	Thu 23/9/21	Mon 3/5/21	NA	122,160,162	497	48 days		41%
463	**CFS-1000**	*	**Fire Services Sprinkler Pumping Room & Emergency Generator House (9)+(10)****		**301**	**220 days**	**Sat 10/4/21**	**Sun 3/1/21**	**419 days**	**Tue 4/5/21**	**Wed 28/9/22**	**Tue 4/5/21**	**NA**			**405 days**		**14%**
464	CFS-1000		Water Sampling and Testing for existing effluent pump pit		384	0 days	NA	NA	12 days	Tue 4/5/21	Mon 17/5/21	Tue 4/5/21	Mon 17/5/21		465	0 days		100%
465	CFS-1150		Identification, decommission and demolition of the existing kiosk		86	0 days	NA	NA	26 days	Tue 18/5/21	Fri 18/6/21	Tue 18/5/21	Fri 18/6/21	464	466,479	0 days		100%
466	CFS-1100		Provision of Flowmeter chamber, gate valve chamber and associated seweage		85	0 days	NA	NA	90 days	Sat 19/6/21	Tue 5/10/21	Sat 19/6/21	NA	465	467,469FF	-101 days		40%
467	CFS-1200		Decommission and demolistion of the existing pump pit and associated sewerage manholes and pipes		86	0 days	NA	NA	40 days	Wed 6/10/21	Mon 22/11/21	NA	NA	466	470	-101 days		0%
468	CFS-1250		Diversion of Leachate Rising Main near SSSH		241	0 days	NA	NA	18 days	Wed 28/7/21	Wed 18/8/21	NA	NA	469SF	480	18 days		0%
469	CFS-1300		E&M provision of flowmeter chamber and associated sewerage for effluent and sewage from SSSH		256	0 days	NA	NA	40 days	Wed 18/8/21	Tue 5/10/21	NA	NA	466FF	470,468SF	-61 days		0%
470	CFS-2000		Excavation for Raft Footing (800cu.m)			65 days	NA	NA	44 days	Tue 23/11/21	Sat 15/1/22	NA	NA	469,467	471	-101 days		0%
471	CFS-2800		Plate load test at bottom level of compacted generall fill(2no.)			12 days	NA	NA	7 days	Mon 17/1/22	Mon 24/1/22	NA	NA	470	472	-101 days		0%
472	CFS-2900		Soil Replacement (14 layers SRT)			0 days	NA	NA	42 edays	Mon 24/1/22	Mon 7/3/22	NA	NA	471	473	-124.42 edays		0%
473	CFS-3000		Plate load test at bottom level of base slab (3no.)			28 days	Fri 4/6/21	Mon 21/6/21	7 days	Tue 8/3/22	Tue 15/3/22	NA	NA	472	474FF-3 mons,475	-101 days		0%
474	CFS-3900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Tue 23/11/21	Tue 23/11/21	NA	NA	473FF-3 mons	475SS-3 emons	59 days		0%
475	CFS-4000	KD1J	R.C. structure works			120 days	NA	NA	70 days	Wed 16/3/22	Mon 13/6/22	NA	NA	473,474SS-3 emons	477,476,51FF,521FF,520FF	-101 days	2	0%
476	CFS-5000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 13/9/21	Mon 13/9/21	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	475	51FF	-101 days		0%
477	CFS-6000	SW1	ABWF works + BS works			90 days	Tue 14/9/21	Mon 3/1/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	475	56FF	405 days		0%
478	**CCS-1000**	*	**Chemical System No.1 (8)***			**168 days**	**Mon 1/2/21**	**Thu 26/8/21**	**386 days**	**Sat 12/6/21**	**Wed 28/9/22**	**Sat 12/6/21**	**NA**			**891 days**		**4%**
479	CCS-1310		Demolition of SSSH Pump Pit and Associated Sewerage System		086	0 days	NA	NA	26 days	Sat 19/6/21	Tue 20/7/21	Sat 19/6/21	NA	465	481	54 days		38%
480	CCS-1110		Removal of existing Leachate Rising Main near SSSH		241	0 days	NA	NA	12 days	Wed 18/8/21	Tue 31/8/21	NA	NA	468	481	18 days		0%
481	CCS-1100		Excavation for Raft Footing (20cu.m)			10 days	Mon 1/2/21	Thu 11/2/21	10 days	Wed 1/9/21	Sat 11/9/21	NA	NA	480,479	485FF-3 emons,486,482	18 days		0%
482	CCS-1080		Plate load test at bottom level of compacted generall fill(2no.)			9 days	NA	NA	9 days	Mon 13/9/21	Thu 23/9/21	NA	NA	481	483	18 days		0%
483	CCS-1090		Soil Replacement (10 layers SRT)			0 days	NA	NA	30 edays	Thu 23/9/21	Sat 23/10/21	NA	NA	482	484	23.58 edays		0%
484	CCS-1200		Plate load test at bottom level of base slab (1no.)			5 days	Tue 16/2/21	Wed 3/3/21	5 days	Mon 25/10/21	Fri 29/10/21	NA	NA	483	486,493	19 days		0%
485	CCS-1190		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 12/6/21	Sat 12/6/21	Sat 12/6/21	Sat 12/6/21	481FF-3 emons	486SS-3 emons	0 days		100%
486	CCS-1300	KD1J	R.C. structure works			45 days	Mon 15/3/21	Mon 10/5/21	60 days	Sat 30/10/21	Tue 11/1/22	NA	NA	481,485SS-3 emons,484	51FF,488,487	20 days	2	0%
487	CCS-1400	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 10/5/21	Mon 10/5/21	0 days	Tue 11/1/22	Tue 11/1/22	NA	NA	486	51FF	20 days		0%
488	CCS-1500	SW1	ABWF works + BS works			90 days	Tue 11/5/21	Thu 26/8/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	189,141,486,522SS	56FF	405 days		0%
489	**CDS-0000**	*	**Deodorization System No.3A (7)***			**149 days**	**Tue 16/11/21**	**Sat 21/5/22**	**105 days**	**Thu 5/8/21**	**Wed 8/12/21**	**NA**	**NA**			**90 days**		**0%**
490	CDS-2000		Excavation for Raft Footing (400cu.m)			20 days	Tue 16/11/21	Wed 8/12/21	20 days	Sat 14/8/21	Tue 7/9/21	NA	NA	491SF		1205 days		0%
491	CDS-2008		Plate load test at bottom level of compacted generall fill(2no.)			10 days	NA	NA	10 days	Tue 7/9/21	Sat 18/9/21	NA	NA	492SF	490SF	1195 days		0%
492	CDS-2100		Soil Replacement (14 layers SRT)			0 days	NA	NA	42 edays	Sat 18/9/21	Sat 30/10/21	NA	NA	493SF	491SF	1425.42 edays		0%
493	CDS-3000		Plate load test at bottom level of base slab (1no.)			4 days	Thu 9/12/21	Fri 24/12/21	4 days	Sat 30/10/21	Wed 3/11/21	NA	NA	484	494FF-3 emons,495,492SF,500FS	-19 days		0%
494	CDS-3900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 5/8/21	Thu 5/8/21	NA	NA	493FF-3 emons	495SS-3 emons	150 days		0%
495	CDS-4000	KD1J	Footing works			20 days	Tue 4/1/22	Wed 26/1/22	30 days	Thu 4/11/21	Wed 8/12/21	NA	NA	493,494SS-3 emons	496,51FF	46 days		0%
496	CDS-5000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Wed 26/1/22	Wed 26/1/22	0 days	Wed 8/12/21	Wed 8/12/21	NA	NA	495	51FF	46 days		0%
497	**CCS-2000**	*	**Chemical System No.2 (11)**			**189 days**	**Thu 4/3/21**	**Thu 21/10/21**	**300 days**	**Fri 24/9/21**	**Wed 28/9/22**	**NA**	**NA**	**462**		**48 days**		**0%**
498	CCS-2100		Excavation for Raft Footing (100cu.m)			15 days	Thu 4/3/21	Sat 20/3/21	14 days	Fri 24/9/21	Mon 11/10/21	NA	NA	499SF		1177 days		0%
499	CCS-2110		Soil Replacement (8 layers SRT)			0 days	NA	NA	24 edays	Wed 6/10/21	Sat 30/10/21	NA	NA	500SF	498SF	1425.42 edays		0%
500	CCS-2200		Plate load test (2no.)			14 days	Mon 22/3/21	Fri 9/4/21	15 days	Sat 30/10/21	Tue 16/11/21	NA	NA	493FS-4 days	501FF-3 emons,502,499SF,510FS	-19 days		0%
501	CCS-2290		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Fri 24/9/21	Fri 24/9/21	NA	NA	500FF-3 emons	502SS-3 emons	108 days		0%
502	CCS-2300	KD1J	R.C. structure works			45 days	Tue 11/5/21	Mon 5/7/21	45 days	Wed 17/11/21	Tue 11/1/22	NA	NA	500,501SS-3 emons	503,51FF,504,505	20 days	2	0%
503	CCS-2400	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Mon 5/7/21	Mon 5/7/21	0 days	Tue 11/1/22	Tue 11/1/22	NA	NA	502	51FF	20 days		0%
504	CCS-2500	SW1	ABWF works + BS works			90 days	Tue 6/7/21	Thu 21/10/21	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	189,141,502,522SS	56FF	405 days		0%
505	CCS-2600	SW1	Demolition of existing chemical room			60 days	Tue 6/7/21	Mon 13/9/21	60 days	Wed 12/1/22	Fri 25/3/22	NA	NA	502	56FF	556 days		0%
506	**CTC-0000**	*	**Temporary Chemical Dosing System (5)**			**191 days**	**Tue 22/6/21**	**Thu 10/2/22**	**330 days**	**Thu 19/8/21**	**Wed 28/9/22**	**NA**	**NA**			**89 days**		**0%**
507	CTC-2000		Excavation for Raft Footing (300cu.m)			30 days	Tue 22/6/21	Tue 27/7/21	30 days	Thu 26/8/21	Sat 2/10/21	NA	NA	508SF		1185 days		0%
508	CTC-2080		Plate load test at bottom level of compacted generall fill(2no.)			9 days	NA	NA	9 days	Sat 2/10/21	Wed 13/10/21	NA	NA	509SF	507SF	1176 days		0%
509	CTC-2100		Soil Replacement (10 layers SRT)			0 days	NA	NA	30 edays	Wed 13/10/21	Fri 12/11/21	NA	NA	510SF	508SF	1412.42 edays		0%
510	CTC-1000		Plate load test at bottom level of base slab (1no.)			5 days	Wed 28/7/21	Thu 12/8/21	5 days	Fri 12/11/21	Wed 17/11/21	NA	NA	500FS-4 days	509SF,511FF-3 emons,512	19 days		0%
511	CTC-2900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Thu 19/8/21	Thu 19/8/21	NA	NA	510FF-3 emons	512SS-3 emons	138 days		0%
512	CTC-3000	KD1J	R.C. structure works			30 days	Tue 14/9/21	Thu 21/10/21	45 days	Thu 18/11/21	Wed 12/1/22	NA	NA	511SS-3 emons,510	513,51FF,514	19 days	1	0%
513	CTC-4000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Thu 21/10/21	Thu 21/10/21	0 days	Wed 12/1/22	Wed 12/1/22	NA	NA	512	51FF	19 days		0%
514	CTC-5000	SW1	ABWF works + BS works			90 days	Fri 22/10/21	Thu 10/2/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	189,141,512,522SS	56FF	405 days		0%
515	**CFB-0000**	*	**Fire Hydrant and Booster Pump Room (13)***			**177 days**	**Fri 13/8/21**	**Thu 17/3/22**	**193 days**	**Sat 5/2/22**	**Wed 28/9/22**	**NA**	**NA**			**-28 days**		**0%**
516	CFB-1000		Excavation for Raft Footing (200cu.m)			30 days	Fri 13/8/21	Thu 16/9/21	30 days	Wed 23/2/22	Wed 30/3/22	NA	NA	517SF		1039 days		0%
517	CFB-1100		Soil Replacement (7 layers SRT)			0 days	NA	NA	21 edays	Wed 30/3/22	Wed 20/4/22	NA	NA	518SF	516SF	1253.42 edays		0%
518	CFB-2000		Plate load test (3no.)			14 days	Fri 17/9/21	Tue 5/10/21	14 days	Wed 20/4/22	Sat 7/5/22	NA	NA	520SF	519FF-3 emons,517SF	1011 days		0%
519	CFB-2900		Receiving of Civil Requirements from PM			0 days	NA	NA	1 day	Sat 5/2/22	Sun 6/2/22	NA	NA	518FF-3 emons		1083 days		0%
520	CFB-3000	KD1J	R.C. structure works			30 days	Fri 22/10/21	Thu 25/11/21	30 days	Sat 7/5/22	Mon 13/6/22	NA	NA	475FF	521,522,51FF,518SF	-101 days	1	0%
521	CFB-4000	KD1J	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	Thu 25/11/21	Thu 25/11/21	0 days	Mon 13/6/22	Mon 13/6/22	NA	NA	520,475FF	51FF	-101 days		0%
522	CFB-5000	SW1	ABWF works + BS works			90 days	Fri 26/11/21	Thu 17/3/22	90 days	Tue 14/6/22	Wed 28/9/22	NA	NA	520,189,141	56FF,514SS,504SS,488SS,460SS	405 days		0%
523	**CDS1-0000**		**Deodorization System No.1 (6)***			**64 days**	**NA**	**NA**	**105 days**	**Tue 10/5/22**	**Tue 13/9/22**	**NA**	**NA**			**418 days**		**0%**
524	CDS1-1000		Excavation for Raft Footing (400cu.m)			20 days	NA	NA	20 days	Wed 8/6/22	Thu 30/6/22	NA	NA	522	525	420 days		0%
525	CDS1-1080		Plate load test at bottom level of compacted generall fill(2no.)			10 days	NA	NA	10 days	Sat 2/7/22	Wed 13/7/22	NA	NA	524	526	420 days		0%
526	CDS1-1100		Soil Replacement (7 layers SRT)			0 days	NA	NA	21 edays	Wed 13/7/22	Wed 3/8/22	NA	NA	525	527	513.58 edays		0%
527	CDS1-2000		Plate load test at bottom level of base slab (1no.)			4 days	NA	NA	4 days	Thu 4/8/22	Mon 8/8/22	NA	NA	526	529,528FF-3 emons	418 days		0%
528	CDS1-2900		Receiving of Civil Requirements from PM			0 days	NA	NA	0 days	Tue 10/5/22	Tue 10/5/22	NA	NA	527FF-3 emons	529SS-3 emons	523 days		0%
529	CDS1-3000	SW1	Footing works			30 days	NA	NA	30 days	Tue 9/8/22	Tue 13/9/22	NA	NA	527,528SS-3 emons	530,56FF	418 days		0%
530	CDS1-4000	SW1	Allow access to Contractor DE/2018/04 for E&M installation and T&C works			0 days	NA	NA	0 days	Tue 13/9/22	Tue 13/9/22	NA	NA	529	56FF	418 days		0%
531	**CAA-0000**	*	**Additional and Alternation Works for Existing Facilities (B-7A, B-8, B-8A)**			**662 days**	**Wed 29/1/20**	**Fri 22/4/22**	**918 days**	**Mon 1/6/20**	**Thu 6/7/23**	**Mon 1/6/20**	**NA**			**269 days**		**64%**



ID	Activity ID	Key Date	Task Name	Inclement Weather CE no. (NCE no.)	PMI & CE no. (NCE no.)	Baseline Duration	Baseline Start	Baseline Finish	Duration	Start	Finish	Actual Start	Actual Finish	Predecessors	Successors	Total Slack	Risk Allowance	% Complete
532	**CAA-1000**	**KD2B**	**B-8A Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)**			**180 days**	**Wed 29/1/20**	**Thu 3/9/20**	**246 days**	**Mon 1/6/20**	**Fri 26/3/21**	**Mon 1/6/20**	**Fri 26/3/21**	**15,142,184**	**53FF**	**0 days**		**100%**
533	CAA-1100		Change of pipe bridge design		(057)	0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
534	CAA-1200		Additional inspection pit to verilify the connection point to existing (CE xxx)			0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
535	CAA-1300		Additional MBV installation (CE xxx)			0 days	NA	NA	135 days	Mon 1/6/20	Tue 10/11/20	Mon 1/6/20	Tue 10/11/20		536,537,538	0 days		100%
536	CAA-1400		Alternation works for existing Air Blower House No.2 (Pipeline CHTA, approx. 133m DN800 D.I.)			180 days	Wed 29/1/20	Thu 3/9/20	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF	0 days		100%
537	CAA-1500	KD2B	Re-alignmnet of DN800 Temporary Air Main (CHTA) and Provision of FRP Staircases		064	0 days	NA	NA	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF	0 days		100%
538	CAA-1600	KD2B	Elevated Section of DN800 Temporary Air Main (CHTA) across existing Bioreactor's Distibution Chamber No. 2		062	0 days	NA	NA	111 days	Wed 11/11/20	Fri 26/3/21	Wed 11/11/20	Fri 26/3/21	533,534,535	53FF,539	0 days		100%
539	CAA-2000	KD1I	B7-A Alternation works for existing Power House			122 days	Fri 4/9/20	Sat 30/1/21	0 days	Wed 11/11/20	Fri 29/1/21	Wed 11/11/20	Fri 29/1/21	13FS-1 day,122,160,162,176,538	50FF,540FS+356 days	0 days		100%
540	CAA-2100	SW3	Additional works for Power House		224	0 days	NA	NA	60 days	Thu 14/4/22	Wed 29/6/22	NA	NA	539FS+356 days	58FF	570 days		0%
541	CAA-3000	SW3	Alternation works for existing Membrane Facilities Building No.1			360 days	Mon 1/2/21	Fri 22/4/22	360 days	Tue 19/4/22	Thu 6/7/23	NA	NA	14FS-1 day,175	58FF	269 days		0%
542	**CUU-0000**	*	**External Underground Service, Utilities, Road/Drain**			**1091 days**	**Mon 24/2/20**	**Sat 28/10/23**	**1192 days**	**Mon 27/4/20**	**Mon 13/5/24**	**Mon 27/4/20**	**NA**	**16**		**-88 days**		**46%**
543	CUU-1000	KD2A	Process Pipes CHR and CHS (approx. 93m twin DN900 D.I.)		33, 222, 255	325 days	Mon 24/2/20	Sat 27/3/21	379 days	Mon 27/4/20	Wed 4/8/21	Mon 27/4/20	NA	184,142	554SS+48 days,552SS+48 days,55	-39 days		99%
544	CUU-1000a		Special Treatment for Removing the Existing Abandoned DN1800 By-pass Pipe and the Concrete Mass in Conflict with the Proposed Sheetpile wall for trenching work of Process Pipeline CHR and CHS		33	0 days	NA	NA	54 days	Sat 30/5/20	Mon 3/8/20	Sat 30/5/20	Mon 3/8/20			0 days		100%
545	CUU-1000b		Trenchless work for Process Pipes CHR and CHS (approx. 7m twin DN900 D.I.)		255	0 days	NA	NA	60 days	Thu 25/2/21	Mon 10/5/21	Thu 25/2/21	Mon 10/5/21		52FF	0 days		100%
546	CUU-1001		Removal of Abandoned DN1800 Concrete Pipe and Concrete Mass near Existing UV Disinfection Channel at CHR & CHS Process Pipe Works Area		033	0 days	NA	NA	43 days	Thu 2/7/20	Thu 20/8/20	Thu 2/7/20	Thu 20/8/20			0 days		100%
547	CUU-1002		Grouting for Sheung Shui Slaughter House Boundary Walls along CHR & CHS Pipes Works Area		222	0 days	NA	NA	20 days	Fri 23/10/20	Mon 16/11/20	Fri 23/10/20	Mon 16/11/20			0 days		100%
548	CUU-1004		Delay Delivery of DI pipes due to COVID-19		(076)	0 days	NA	NA	75 days	Tue 22/12/20	Thu 25/3/21	Tue 22/12/20	Thu 25/3/21		549FF	0 days		100%
549	CUU-2000	SW2	Process Pipes, including CHT, CHX, CHY, CHPS1&2, CHS S1&2, CHDO 1&2, CHPSW 1-8, CHTPS, CHPT1&2, CHTFT 1&2, CHTE, CHTD, Foam Collection & Surplus activated sludge rising main pipe			550 days	Mon 29/6/20	Fri 6/5/22	457 days	Mon 19/10/20	Fri 6/5/22	Mon 19/10/20	NA	184,142,548FF,543SS+48 days	57FF,555,550SS+250 days	63 days		51%
550	CUU-2100	SW2	Remaining Process Pipes			0 days	NA	NA	270 days	Mon 23/8/21	Fri 22/7/22	NA	NA	549SS+250 days	57FF	0 days		0%
551	CUU-3000	SW2	Remaining Drainage			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142	555,57FF	0 days	5	45%
552	CUU-4000	SW2	Remaining Sewerage			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	555,57FF	0 days	5	45%
553	CUU-5000	SW2	Remaining Waterworks			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	557FS+2 days,57FF	0 days	5	45%
554	CUU-6000	SW2	Remaining Cable Ducts			550 days	Mon 29/6/20	Fri 6/5/22	520 days	Mon 19/10/20	Fri 22/7/22	Mon 19/10/20	NA	184,142,543SS+48 days	555,57FF	0 days	5	45%
555	CUU-7000	KD3A	Roadworks			540 days	Fri 31/12/21	Sat 28/10/23	440 days	Mon 7/11/22	Mon 13/5/24	NA	NA	554,551,552,549,352,399,334,433	54FF,558SS+123 days	-88 days	5	0%
556	**CLW-0000**	*	**Landscaping Works**			**854 days**	**Wed 11/5/22**	**Thu 27/3/25**	**946 days**	**Tue 26/7/22**	**Wed 24/9/25**	**NA**	**NA**	**16**		**0 days**		**0%**
557	CLW-1000	KD3A	Irrigation System			120 days	Wed 11/5/22	Fri 30/9/22	120 days	Tue 26/7/22	Thu 15/12/22	NA	NA	553FS+2 days,184	558,54FF	1 day		0%
558	CLW-2000	SW3	Hard Landscaping Works			220 days	Mon 3/10/22	Mon 3/7/23	214 days	Tue 11/4/23	Sat 23/12/23	NA	NA	557,555SS+123 days	559,58FF	-88 days	5	0%
559	CLW-3000	SW3	Soft Landscaping Works			220 days	Tue 4/7/23	Tue 26/3/24	214 days	Wed 27/12/23	Tue 24/9/24	NA	NA	558,143	560,58FF	-88 days	5	0%
560	CLW-4000	DLP	Establishment Works (365 days)			294 days	Wed 27/3/24	Thu 27/3/25	365 days	Wed 25/9/24	Wed 24/9/25	NA	NA	559,143	59FF,60FF	0 days	5	0%



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
SWH - Main Works Stage 1 Sidestream Treatment Facilities & E&M Works for Slu		2044	11-Oct-19 A	15-May-25	31-Oct-21	15-May-25	0		
Contract Data		2044	11-Oct-19 A	15-May-25	20-Mar-22	15-May-25	0		
Starting Date & Completion Date		2044	11-Oct-19 A	15-May-25	20-Mar-22	15-May-25	0		
CD1000	Contract Date (LOA)	0	11-Oct-19 A		20-Mar-22				CD1010, S1P1000,
CD1010	Starting Date	0	23-Oct-19 A		20-Mar-22			CD1000	S1D1040, AD1050,
CD1020	Whole Contract Period (1626 days from starting date)	1626	23-Oct-19 A	04-Apr-24	21-Oct-22	04-Apr-24	0	CD1010	CD1040, CD1030
CD1030	Extension of Time Granted (Total 61.5days)	62	05-Apr-24	05-Jun-24*	05-Apr-24	05-Jun-24	0	CD1020	CD1040
CD1040	Completion Date for the whole of the Works	0		15-May-25		15-May-25	0	CD1020, CD1010,	
Access Date		1434	23-Oct-19 A	21-Oct-22	20-Mar-22	15-May-25	937		
AD1000	Portion C-1A (within 480 to 550 days from starting date)	550	23-Oct-19 A	24-Apr-21 A	11-Nov-22	11-Nov-22		CD1010	AD1010
AD1030	Portion C-2A (within 705 to 795 days from starting date) (SS by NCE-NCE-288, within 705 to 831 days from starting date)	831	23-Oct-19 A	30-Jan-22 A	15-May-25	15-May-25		CD1010	AD1040
AD1050	Portion C-2B (within 765 to 855 days from starting date) (SS by NCE-NCE-286, within 765 to 880 days from starting date)	880	23-Oct-19 A	20-Mar-22 A	20-Mar-22	20-Mar-22		CD1010	AD1060
AD1070	Portion C-2C (within 715 to 805 days from starting date) (SS by NCE-NCE-287, within 715 to 934 days from starting date)	934	23-Oct-19 A	13-May-22 A	13-May-22	13-May-22		CD1010	AD1080
AD1090	Portion C-2D (within 825 to 945 days from starting date)	945	23-Oct-19 A	24-May-22 A	24-May-22	24-May-22		CD1010	AD1100
AD1110	Portion C-3 (within 615 to 705 days from starting date) (SS by NCE-NCE-273, within 615 to 815 days from starting date)	815	23-Oct-19 A	31-Dec-21 A	02-Sep-22	02-Sep-22		CD1010	AD1120
AD1130	Portion B-1 (within 285 to 345 days from starting date)	345	23-Oct-19 A	30-Sep-20 A	24-Jul-22	24-Jul-22		CD1010	AD1140
AD1150	Portion B-2a (within 615 to 705 days from starting date) (SS by NCE-NCE-219, within 771 to 891 days from starting date)	891	23-Oct-19 A	23-Mar-22 A	31-Oct-22	31-Oct-22		CD1010	AD1160
AD1190	Works Area WA1-B (starting date)	1	23-Oct-19 A	23-Oct-19 A	05-Jul-22	05-Jul-22		CD1010	AD1200
AD1200	Planned Access Date for Works Area WA1-B	1	23-Oct-19 A	23-Oct-19 A	05-Jul-22	05-Jul-22		CD1010, AD1190	PL1000, PL1020
AD1210	Works Area WA3 (starting date)	1	23-Oct-19 A	23-Oct-19 A	01-Oct-23	01-Oct-23		CD1010	AD1220
AD1220	Planned Access Date for Works Area WA3	1	23-Oct-19 A	23-Oct-19 A	01-Oct-23	01-Oct-23		CD1010, AD1210	PL1000, PL1030
AD1170	Portion B-2b (within 615 to 705 days from starting date) (SS by NCE-NCE-219)	705	23-Oct-19 A	24-Sep-21 A	15-May-25	15-May-25			
AD1140	Planned Access Date for Portion B-1	1	30-Sep-20 A	30-Sep-20 A	24-Jul-22	24-Jul-22		AD1130	KD1030, S3C1020, S3C1010, KD1030-1
AD1010	Planned Access Date for Portion C-1A (Partial Access)	1	24-Apr-21 A	24-Apr-21 A	11-Nov-22	11-Nov-22		CD1010, AD1000	PL1470, S4C1010
AD1020	Planned Access Date for Portion C-1A (Access for Remaining Area)	1	12-May-21 A	12-May-21 A	11-Nov-22	11-Nov-22			S4C1010
AD1180	Planned Access Date for Portion B-2b (SS by NCE-NCE-219)	1	24-Sep-21 A	24-Sep-21 A	15-May-25	15-May-25			
AD1120	Planned Access Date for Portion C-3 (SS by NCE-NCE-273)	1	31-Dec-21 A	31-Dec-21 A	02-Sep-22	02-Sep-22		AD1110, S2D1110	KD1060, S5WS2C1000, S5WS2C1010, KD1060-1
AD1160	Planned Access Date for Portion B-2a (SS by NCE-NCE-219)	1	23-Mar-22 A	23-Mar-22 A	31-Oct-22	31-Oct-22		AD1150	S5SASC1010, S5SASC1000
AD1040	Planned Access Date for Portion C-2A	1	09-Sep-22 A	09-Sep-22 A	15-May-25	15-May-25		CD1010, AD1030	
AD1060	Planned Access Date for Portion C-2B	1	21-Oct-22	21-Oct-22*	20-Mar-22	20-Mar-22	-215	CD1010, AD1050	S5CHPC1020
AD1080	Planned Access Date for Portion C2-C	1	21-Oct-22	21-Oct-22*	13-May-22	13-May-22	-161	CD1010, AD1070	S5DIGC1040, S5DIGC1210, S5DIGC1030
AD1100	Planned Access Date for Portion C-2D	1	21-Oct-22	21-Oct-22*	24-May-22	24-May-22	-150	AD1090	S5BIOC1020, S5BIOC1030,
Key Dates		1616	23-Oct-19 A	25-Mar-24	21-Oct-22	15-May-25	417		
Contractual Completion (Include Implemented CE)		1546	23-Oct-19 A	15-Jan-24	21-Oct-22	15-May-25	487		

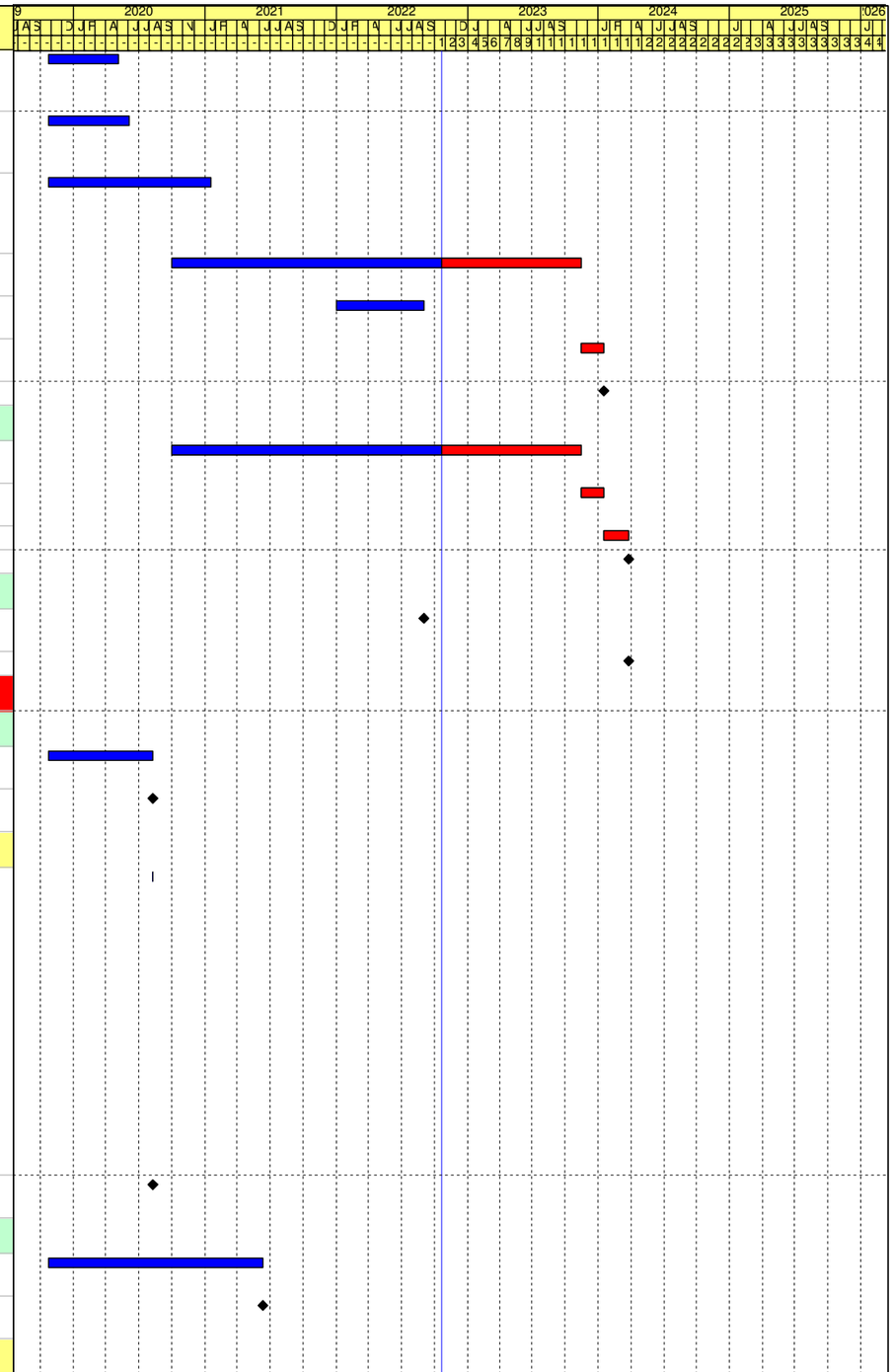


Remaining Work
Critical Activity
Milestone
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Oct 2022

Date	Revision	Checked	Approved
30-Jun-22	Rev.23	LT	KM
31-Jul-22	Rev.24	LT	KM
31-Aug-22	Rev.25	LT	KM
30-Sep-22	Rev.26	LT	KM
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
KD1000	KD1A Submission of Civil Requirement Dwgs, Elec. Schematic Dwgs of UV System No.1 and Effluent Pumping Station No.1	196	23-Oct-19 A	05-May-20 A	17-Mar-23	17-Mar-23		CD1010, S1D1040, S1D1100	CD1040, S4P1040
KD1010	KD2A Submission of Civil Requirement Dwgs, Elec. Schematic Dwgs of SD Bldg, SD & DC, CHP Bldg, Workshop No.2, etc.	226	23-Oct-19 A	04-Jun-20 A	15-May-25	15-May-25		CD1010, S2D1080, S2D1160	KD1020
KD1020	KD2B Submission of Remaining Civil Requirement Dwgs, Elec. Schematic Dwgs of SD Bldg, SD & DC, CHP Bldg, etc.	461	23-Oct-19 A	16-Jan-21 A	15-May-25	15-May-25		CD1010, S2D1120, S2D1220, KD1010	SC21110
KD1030	KD3A Completion of Phase 1 Commissioning of Sidestream Treatment Facilities (1140d after Portion B-1 Access)	1141	30-Sep-20 A	14-Nov-23*	21-Oct-22	14-Nov-23	0	AD1140	KD1040
KD1060	KD5A - Completion of BS Fitting at CLP Sub-Station at Workshop No.2 (245d after Portion C-3 Access)(Impacted by NCE-273)	246	31-Dec-21 A	02-Sep-22 A	15-May-25	15-May-25		AD1120, S5WS2C1010	
KD1040	Extension of Time Granted for KD3A (Total 61.5days)	62	15-Nov-23	15-Jan-24	15-Nov-23	15-Jan-24	0	KD1030	SC31110, KD1050
KD1050	Revised Completion Date for KD3A	0		15-Jan-24*		15-Jan-24	0	KD1040	
Expected Completion (Include Non-implemented CE)		1221	30-Sep-20 A	25-Mar-24	21-Oct-22	25-Mar-24	0		
KD1030-1	KD3A Completion of Phase 1 Commissioning of Sidestream Treatment Facilities (1140d after Portion B-1 Access)	1141	30-Sep-20 A	14-Nov-23*	21-Oct-22	14-Nov-23	0	AD1140	KD1040-1
KD1040-1	Extension of Time Granted for KD3A (Total 61.5days)	62	15-Nov-23	15-Jan-24	15-Nov-23	15-Jan-24	0	KD1030-1	SC31110, KD1045
KD1045	Extension of Time for KD3A - Non-implemented (Total 70days)	70	15-Jan-24	25-Mar-24	15-Jan-24	25-Mar-24	0	KD1040-1	KD1050-1
KD1050-1	Expected Completion Date for KD3A	0		25-Mar-24*		25-Mar-24	0	KD1045	
Planned Completion		539	02-Sep-22 A	25-Mar-24	15-Jan-24	15-May-25	417		
KD1060-1	Planned Completion Date for KD5A	0		02-Sep-22 A		15-May-25		AD1120, S5WS2C1010	
KD1050-2	Planned Completion Date for KD3A	0		25-Mar-24*		15-Jan-24	-70	S3T1090	SC31110
Completion Date		2032	23-Oct-19 A	15-May-25	21-Oct-22	15-May-25	0		
Section 1 - Complete All Design at UV System No.1 & EP Station No. 1		312	23-Oct-19 A	08-Aug-20 A	15-May-25	15-May-25			
SC11000	Contract Duration of Section 1	291	23-Oct-19 A	08-Aug-20 A	15-May-25	15-May-25		CD1010	SC11100
SC11100	Completion date - Section 1 (290 days after starting date)	0		08-Aug-20 A		15-May-25		SC11000	SC11120
Time Risk Allowance and Planned Completion		1	08-Aug-20 A	08-Aug-20 A	15-May-25	15-May-25			
SC11110	Time Risk Allowance for Section 1	1	08-Aug-20 A	08-Aug-20 A	15-May-25	15-May-25		S1P1000, S1P1040, S1P1050, S1P1010, S1P1020, S1P1030, S1D1170, S1D1250, S1D1070, S1D1210, S1D1290, S1D1130, S1D1310, S1D1330, S1D1090, S1D1030	SC11120
SC11120	Planned Completion for Section 1	0		08-Aug-20 A		15-May-25		SC11110, SC11100	CD1040
Section 2 - Complete All Designs (exclude Sec. 1 & 3)		632	23-Oct-19 A	11-Jun-21 A	15-May-25	15-May-25			
SC21000	Contract Duration of Section 2	601	23-Oct-19 A	11-Jun-21 A	15-May-25	15-May-25		CD1010	SC21100
SC21100	Completion date - Section 2 (600 days after starting date)	0		11-Jun-21 A		15-May-25		SC21000	SC21120
Time Risk Allowance and Planned Completion		9	11-Jun-21 A	11-Jun-21 A	15-May-25	15-May-25			



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Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
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30-Jun-22	Rev.23	LT	KM
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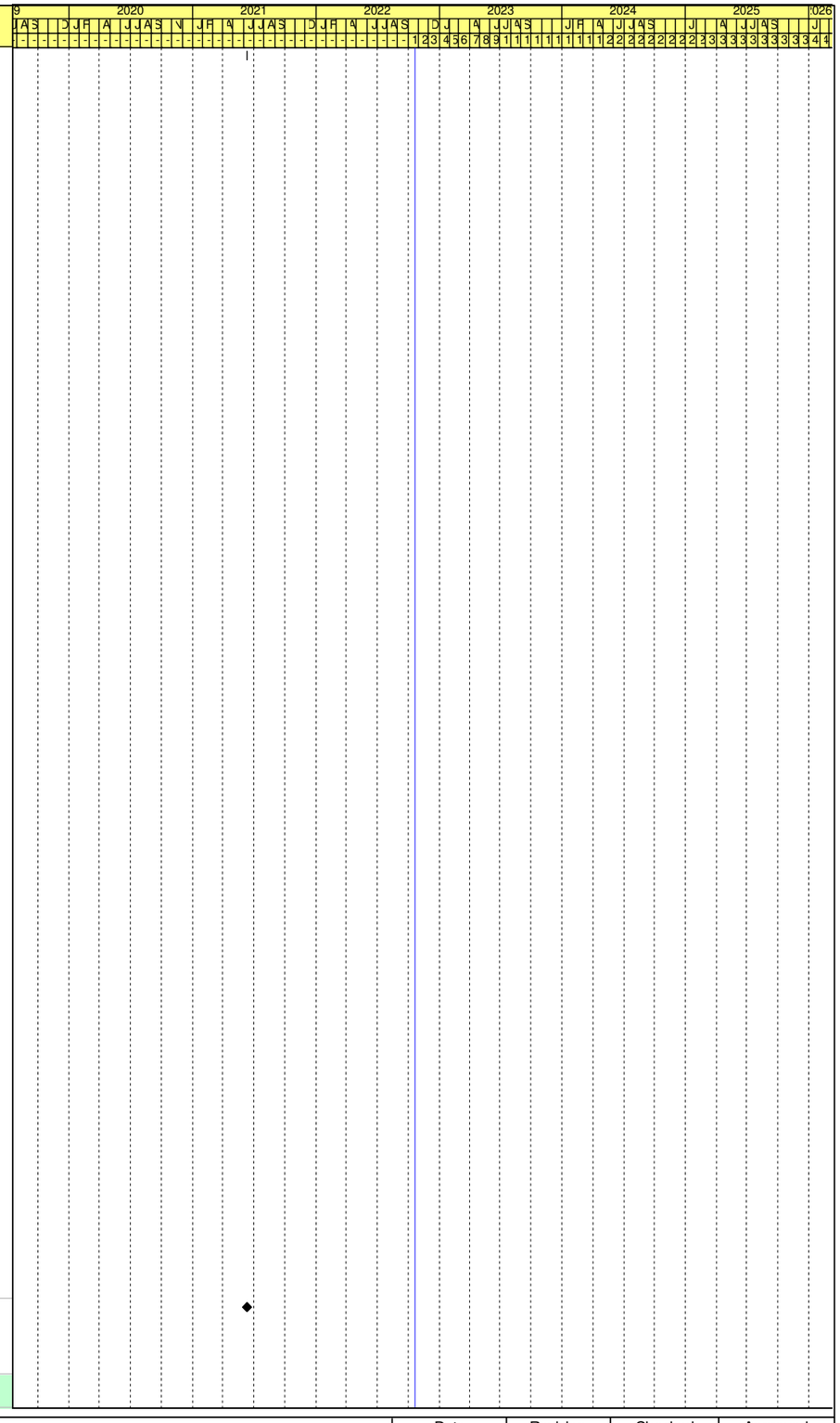
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
SC21110	Time Risk Allowance for Section 2	6	11-Jun-21 A	11-Jun-21 A	15-May-25	15-May-25		S2P1000, S2P1010, S2P1020, S2P1030, S2P1040, S2P1070, S2P1080, S2P1090, S2P1100, S2P1110, S2P1120, S2P1130, S2P1140, S2P1060, S2P1150, S2P1160, S2P1170, S2P1180, S2P1190, S2P1200, S2P1210, S2P1220, S2D2010, S2D2000, S2D1860, S2D1870, S2D1880, S2D1890, S2D1900, S2D1910, S2D1920, KD1020, S2D1730, S2D1570, S2D1370, S2D1250, S2D1150, S2D1030, S2D1070, S2P1050, S2D1110, S2D1770, S2D1610, S2D1410, S2D1210, S2D1930, S2D1940, S2D1960, S2D1970, S2D1980, S2D1990, S2D1950, S2D1270, S2D1290, S2D1310, S2D1330, S2D1430, S2D1450, S2D1470, S2D1490, S2D1510, S2D1530, S2D1630, S2D1650, S2D1670, S2D1690, S2D1790, S2D1810, S2D1830, S2D1850	SC21120
SC21120	Planned Completion for Section 2	0		11-Jun-21 A		15-May-25		SC21110, SC21100, PL1490, PL1530	CD1040
Section 3 - Complete Design, Construction & T&C for Sidestream Facilities		2032	23-Oct-19 A	15-May-25	21-Oct-22	15-May-25	0		

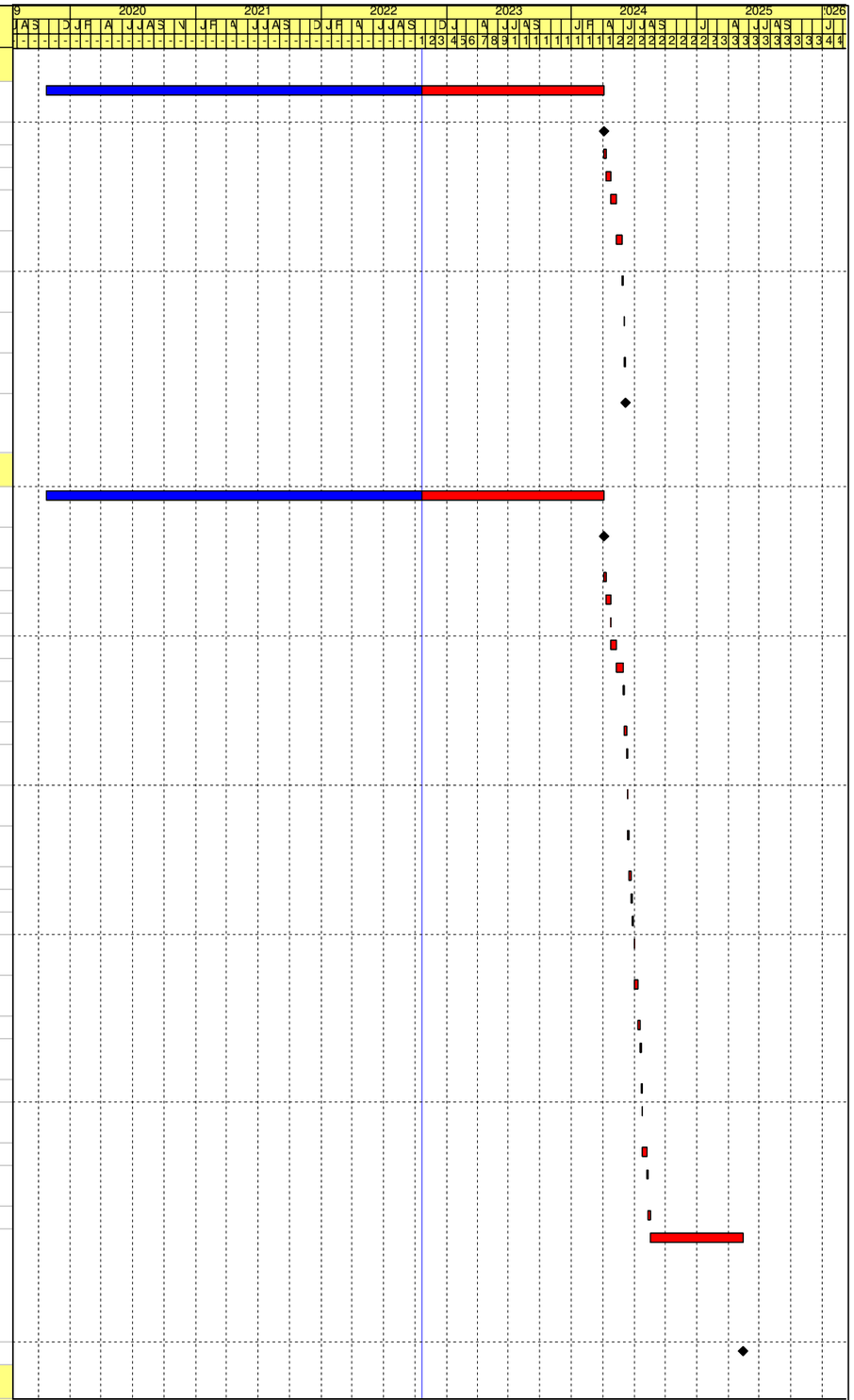


Remaining Work
Critical Activity
Milestone
Actual Progress

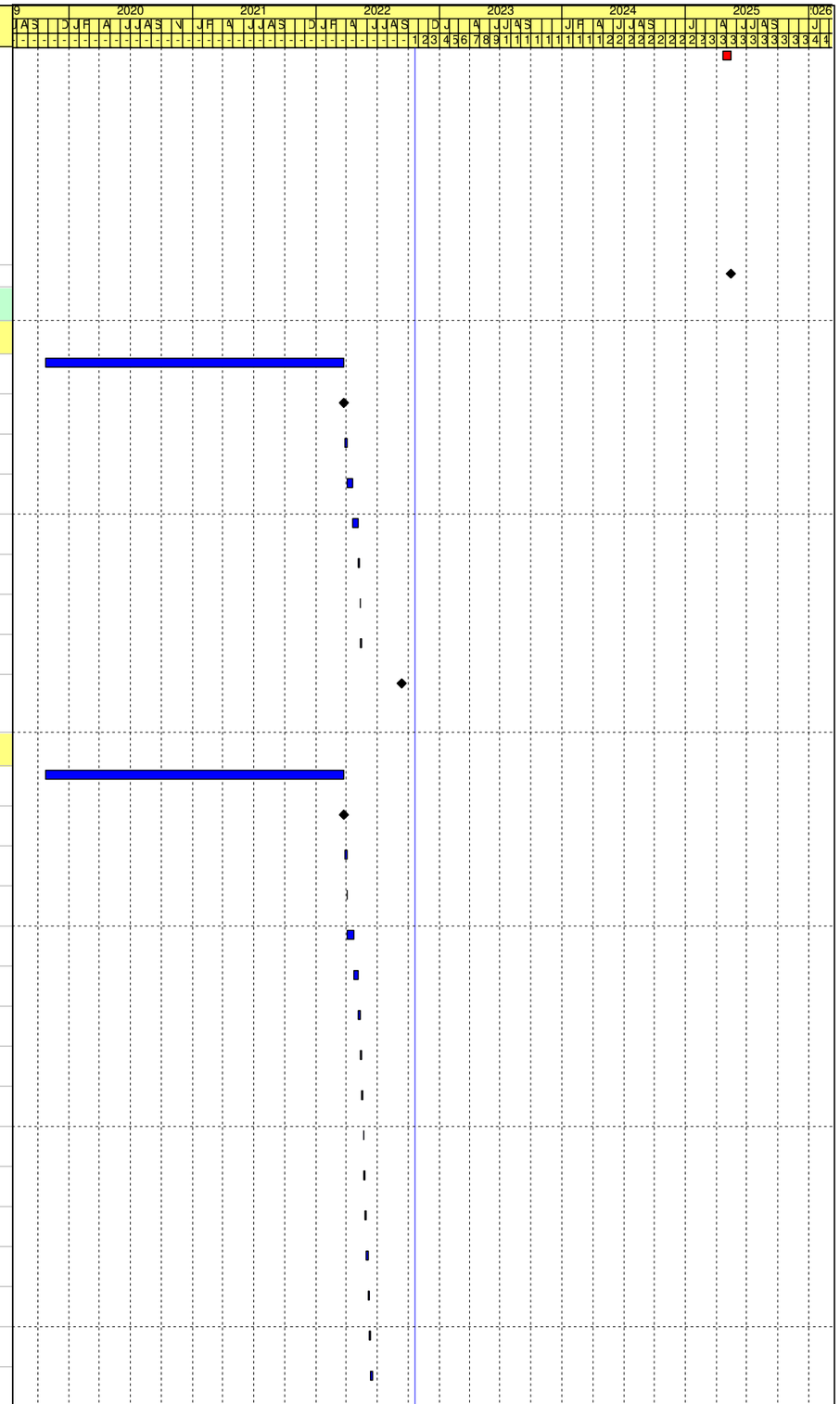
Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Oct 2022

Date	Revision	Checked	Approved
30-Jun-22	Rev.23	LT	KM
31-Jul-22	Rev.24	LT	KM
31-Aug-22	Rev.25	LT	KM
30-Sep-22	Rev.26	LT	KM
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
Contractual Completion (Include Implemented CE)		1688	23-Oct-19 A	05-Jun-24	21-Oct-22	05-Jun-24	0		
SC31000	Contract Duration of Section 3	1626	23-Oct-19 A	04-Apr-24	21-Oct-22	04-Apr-24	0		SC31001
SC31001	Completion date - Section 3 (1625 days after starting date)	0		04-Apr-24*		04-Apr-24	0	SC31000	SC31002
SC31002	NICE-CNE-0248 - Inclement Weather (May 2021) - 5days (Implemented)	5	05-Apr-24	09-Apr-24	05-Apr-24	09-Apr-24	0	SC31001	SC31003
SC31003	NICE-CNE-0256 Inclement Weather (June 2021) - 14.5days (Implemented)	15	10-Apr-24	24-Apr-24	10-Apr-24	24-Apr-24	0	SC31002	SC31005
SC31005	NICE-CNE-0264 Inclement Weather (July 2021) - 15days (Implemented)	15	24-Apr-24	09-May-24	24-Apr-24	09-May-24	0	SC31003	SC31100, SC31006
SC31006	NICE-CNE-0292 Inclement Weather (August 2021) - 19days (Implemented)	19	09-May-24	28-May-24	09-May-24	28-May-24	0	SC31005	SC31100, SC31007
SC31007	NICE-CNE-0293 Inclement Weather (September 2021) - 3.5days (Implemented)	4	28-May-24	31-May-24	28-May-24	31-May-24	0	SC31006	SC31010
SC31010	NICE-CNE-0313 Inclement Weather (November 2021) - 0.5days (Implemented)	1	01-Jun-24	01-Jun-24	01-Jun-24	01-Jun-24	0	SC31007	SC31011
SC31011	NICE-CNE-0343 Inclement Weather (December 2021) - 4days (Implemented)	4	01-Jun-24	05-Jun-24	01-Jun-24	05-Jun-24	0	SC31010	SC31100
SC31100	Revised Completion for Section 3	0		05-Jun-24*		05-Jun-24	0	SC31005, SC31006, SC31011	
Expected Completion (Include Non-implemented CE)		2032	23-Oct-19 A	15-May-25	21-Oct-22	15-May-25	0		
SC31000-1	Contract Duration of Section 3	1626	23-Oct-19 A	04-Apr-24	21-Oct-22	04-Apr-24	0	CD1010	SC31001-1
SC31001-1	Completion date - Section 3 (1625 days after starting date)	0		04-Apr-24*		04-Apr-24	0	SC31000-1	SC31110, SC31002-1
SC31002-1	NICE-CNE-0248 - Inclement Weather (May 2021) - 5days (Implemented)	5	05-Apr-24	09-Apr-24	05-Apr-24	09-Apr-24	0	SC31001-1	SC31003-1
SC31003-1	NICE-CNE-0256 Inclement Weather (June 2021) - 14.5days (Implemented)	15	10-Apr-24	24-Apr-24	10-Apr-24	24-Apr-24	0	SC31002-1	SC31004-1
SC31004-1	CNE-007 Black and Red Rainstorm Warning (June 2021) - 1day	1	24-Apr-24	25-Apr-24	24-Apr-24	25-Apr-24	0	SC31003-1	SC31005-1
SC31005-1	NICE-CNE-0264 Inclement Weather (July 2021) - 15days (Implemented)	15	25-Apr-24	10-May-24	25-Apr-24	10-May-24	0	SC31004-1	SC31006-1
SC31006-1	NICE-CNE-0292 Inclement Weather (August 2021) - 19days (Implemented)	19	10-May-24	29-May-24	10-May-24	29-May-24	0	SC31005-1	SC31007-1
SC31007-1	NICE-CNE-0293 Inclement Weather (September 2021) - 3.5days (Implemented)	4	29-May-24	01-Jun-24	29-May-24	01-Jun-24	0	SC31006-1	SC31008-1
SC31008-1	CNE-019 Inclement Weather (October 2021) - 7days	7	02-Jun-24	08-Jun-24	02-Jun-24	08-Jun-24	0	SC31007-1	SC31009-1
SC31009-1	CNE-020 Inclement Weather (October 2021) (Time and Cost Implication) - 4days	4	09-Jun-24	12-Jun-24	09-Jun-24	12-Jun-24	0	SC31008-1	SC31010-1
SC31010-1	NICE-CNE-0313 Inclement Weather (November 2021) - 0.5days (Implemented)	1	13-Jun-24	13-Jun-24	13-Jun-24	13-Jun-24	0	SC31009-1	SC31011-1
SC31011-1	NICE-CNE-0343 Inclement Weather (December 2021) - 4days (Implemented)	4	13-Jun-24	17-Jun-24	13-Jun-24	17-Jun-24	0	SC31010-1	SC31012-1
SC31012-1	CNE-036 Inclement Weather (January 2022) - 4days	4	17-Jun-24	21-Jun-24	17-Jun-24	21-Jun-24	0	SC31011-1	SC31013-1
SC31013-1	CNE-040 Inclement Weather (February 2022) - 5days	5	21-Jun-24	26-Jun-24	21-Jun-24	26-Jun-24	0	SC31012-1	SC31014-1
SC31014-1	CNE-044 Inclement Weather (March 2022) - 4.5days	5	26-Jun-24	30-Jun-24	26-Jun-24	30-Jun-24	0	SC31013-1	SC31015-1
SC31015-1	CNE-048 Inclement Weather (April 2022) - 2days	2	01-Jul-24	02-Jul-24	01-Jul-24	02-Jul-24	0	SC31014-1	SC31099-1, SC31016-1
SC31016-1	CNE-050 Inclement Weather (May 2022) - 8days	8	03-Jul-24	10-Jul-24	03-Jul-24	10-Jul-24	0	SC31015-1	SC31099-1, SC31017-1
SC31017-1	CNE-052 Inclement Weather (June 2022) - 9days	9	11-Jul-24	19-Jul-24	11-Jul-24	19-Jul-24	0	SC31016-1	SC31018-1
SC31018-1	CNE-053 Inclement Weather (June 2022) (Time and Cost Implication) - 1day	1	20-Jul-24	20-Jul-24	20-Jul-24	20-Jul-24	0	SC31017-1	SC31099-1, SC31019-1
SC31019-1	CNE-054 Inclement Weather (July 2022) - 4days	4	21-Jul-24	24-Jul-24	21-Jul-24	24-Jul-24	0	SC31018-1	SC31020-1
SC31020-1	CNE-055 Inclement Weather (July 2022) (Time and Cost Implication) - 1day	1	25-Jul-24	25-Jul-24	25-Jul-24	25-Jul-24	0	SC31019-1	SC31099-1, SC31021-1
SC31021-1	CNE-056 Inclement Weather (August 2022) - 13.5days	14	26-Jul-24	08-Aug-24	26-Jul-24	08-Aug-24	0	SC31020-1	SC31022-1
SC31022-1	CNE-057 Inclement Weather (August 2022) (Time and Cost Implication) - 1day	1	08-Aug-24	09-Aug-24	08-Aug-24	09-Aug-24	0	SC31021-1	SC31099-1, SC31023-1
SC31023-1	CNE-058 Inclement Weather (September 2022) - 8days	8	09-Aug-24	17-Aug-24	09-Aug-24	17-Aug-24	0	SC31022-1	SC31099-1
SC31099-1	EWN-0314 Extention of Time for change of access date	272	17-Aug-24	15-May-25	17-Aug-24	15-May-25	0	SC31015-1, SC31016-1, SC31018-1, SC31020-1, SC31022-1, SC31023-1	SC31100-1
SC31100-1	Expected Completion for Section 3	0		15-May-25*		15-May-25	0	SC31099-1	
Time Risk Allowance and Planned Completion		26	20-Apr-25	15-May-25	10-May-24	05-Jun-24	-345		



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
SC31110	Time Risk Allowance for Section 3	26	20-Apr-25	15-May-25	10-May-24	05-Jun-24	-345	SC31001-1, S3C1160, S3T1200, S3C1150, PL1190, PL1350, PL1270, S3S1180, S3S1090, KD1040, KD1050-2, KD1040-1	SC31120
SC31120	Planned Completion for Section 3	0		15-May-25*		05-Jun-24	-345	SC31110	CD1040
Section 4 - Complete Construction & T&C for UV System No.1 & EP Station No. 1		1133	23-Oct-19 A	13-Sep-22 A	15-May-25	15-May-25			
Contractual Completion (Include Implemented CE)		1094	23-Oct-19 A	13-Sep-22 A	15-May-25	15-May-25			
SC41000	Contract Duration of Section 4	886	23-Oct-19 A	26-Mar-22 A	15-May-25	15-May-25			SC41001
SC41001	Completion date - Section 4 (885 days after starting date)	0		26-Mar-22 A		15-May-25		SC41000	SC41002
SC41002	NICE-CNE-0256 Inclement Weather (June 2021) - 6.5days (Implemented)	7	27-Mar-22 A	02-Apr-22 A	15-May-25	15-May-25		SC41001	SC41004
SC41004	NICE-CNE-0264 Inclement Weather (July 2021) - 19days (Implemented)	19	02-Apr-22 A	21-Apr-22 A	15-May-25	15-May-25		SC41002	SC41100, SC41005
SC41005	NICE-CNE-0292 Inclement Weather (August 2021) - 16days (Implemented)	16	21-Apr-22 A	07-May-22 A	15-May-25	15-May-25		SC41004	SC41100, SC41006
SC41006	NICE-CNE-0293 Inclement Weather (September 2021) - 4.5days (Implemented)	5	07-May-22 A	11-May-22 A	15-May-25	15-May-25		SC41005	SC41009
SC41009	NICE-CNE-0313 Inclement Weather (November 2021) - 0.5days (Implemented)	1	12-May-22 A	12-May-22 A	15-May-25	15-May-25		SC41006	SC41010
SC41010	NICE-CNE-0343 Inclement Weather (December 2021) - 4days (Implemented)	4	12-May-22 A	16-May-22 A	15-May-25	15-May-25		SC41009	SC41100
SC41100	Revised Completion for Section 4	0		13-Sep-22 A		15-May-25		SC41004, SC41005, SC41010	
Expected Completion (Include Non-implemented CE)		1094	23-Oct-19 A	13-Sep-22 A	15-May-25	15-May-25			
SC41000-1	Contract Duration of Section 4	886	23-Oct-19 A	26-Mar-22 A	15-May-25	15-May-25		CD1010	SC41001-1
SC41001-1	Completion date - Section 4 (885 days after starting date)	0		26-Mar-22 A		15-May-25		SC41000-1	SC41110, SC41002-1
SC41002-1	NICE-CNE-0256 Inclement Weather (June 2021) - 6.5days (Implemented)	7	27-Mar-22 A	02-Apr-22 A	15-May-25	15-May-25		SC41001-1	SC41004-1, SC41003-1
SC41003-1	CNE-007 Black and Red Rainstorm Warning (June 2021) - 1day	1	02-Apr-22 A	03-Apr-22 A	15-May-25	15-May-25		SC41002-1	SC41004-1
SC41004-1	NICE-CNE-0264 Inclement Weather (July 2021) - 19days (Implemented)	19	03-Apr-22 A	22-Apr-22 A	15-May-25	15-May-25		SC41002-1, SC41003-1	SC41005-1
SC41005-1	NICE-CNE-0292 Inclement Weather (August 2021) - 16days (Implemented)	16	22-Apr-22 A	08-May-22 A	15-May-25	15-May-25		SC41004-1	SC41006-1
SC41006-1	NICE-CNE-0293 Inclement Weather (September 2021) - 4.5days (Implemented)	5	08-May-22 A	12-May-22 A	15-May-25	15-May-25		SC41005-1	SC41007-1
SC41007-1	CNE-019 Inclement Weather (October 2021) - 5days	5	13-May-22 A	17-May-22 A	15-May-25	15-May-25		SC41006-1	SC41008-1
SC41008-1	CNE-020 Inclement Weather (October 2021) (Time and Cost Implication) - 4days	4	18-May-22 A	21-May-22 A	15-May-25	15-May-25		SC41007-1	SC41009-1
SC41009-1	NICE-CNE-0313 Inclement Weather (November 2021) - 0.5days (Implemented)	1	22-May-22 A	22-May-22 A	15-May-25	15-May-25		SC41008-1	SC41010-1
SC41010-1	NICE-CNE-0343 Inclement Weather (December 2021) - 4days (Implemented)	4	22-May-22 A	26-May-22 A	15-May-25	15-May-25		SC41009-1	SC41011-1
SC41011-1	CNE-036 Inclement Weather (January 2022) - 4days	4	26-May-22 A	30-May-22 A	15-May-25	15-May-25		SC41010-1	SC41012-1
SC41012-1	CNE-040 Inclement Weather (February 2022) - 5days	5	30-May-22 A	04-Jun-22 A	15-May-25	15-May-25		SC41011-1	SC41013-1
SC41013-1	CNE-044 Inclement Weather (March 2022) - 4.5days	5	04-Jun-22 A	08-Jun-22 A	15-May-25	15-May-25		SC41012-1	SC41014-1
SC41014-1	CNE-048 Inclement Weather (April 2022) - 2days	2	09-Jun-22 A	10-Jun-22 A	15-May-25	15-May-25		SC41013-1	SC41015-1
SC41015-1	CNE-050 Inclement Weather (May 2022) - 8days	8	11-Jun-22 A	18-Jun-22 A	15-May-25	15-May-25		SC41014-1	SC41100-1, SC41016-1

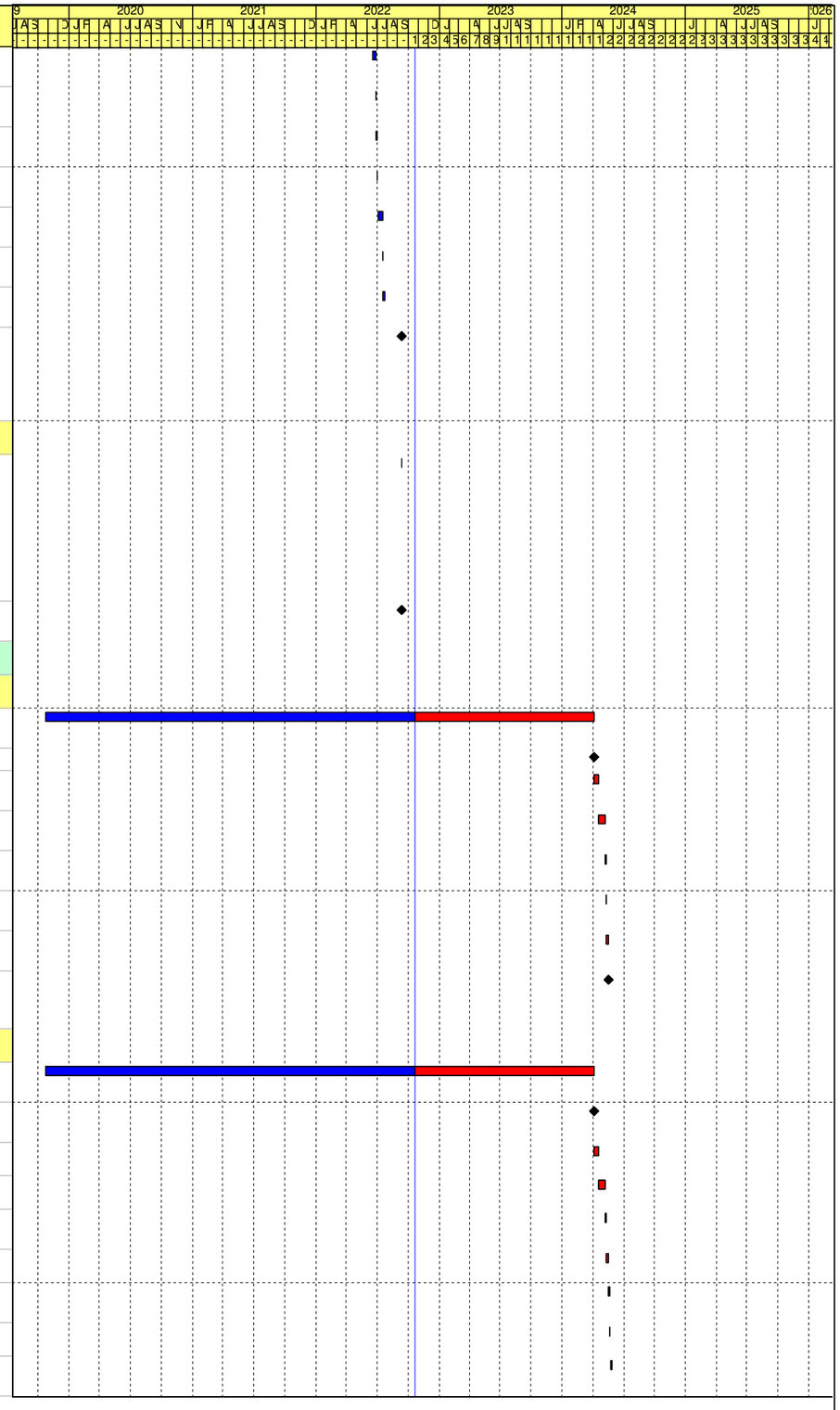


Remaining Work
Critical Activity
Milestone
Actual Progress

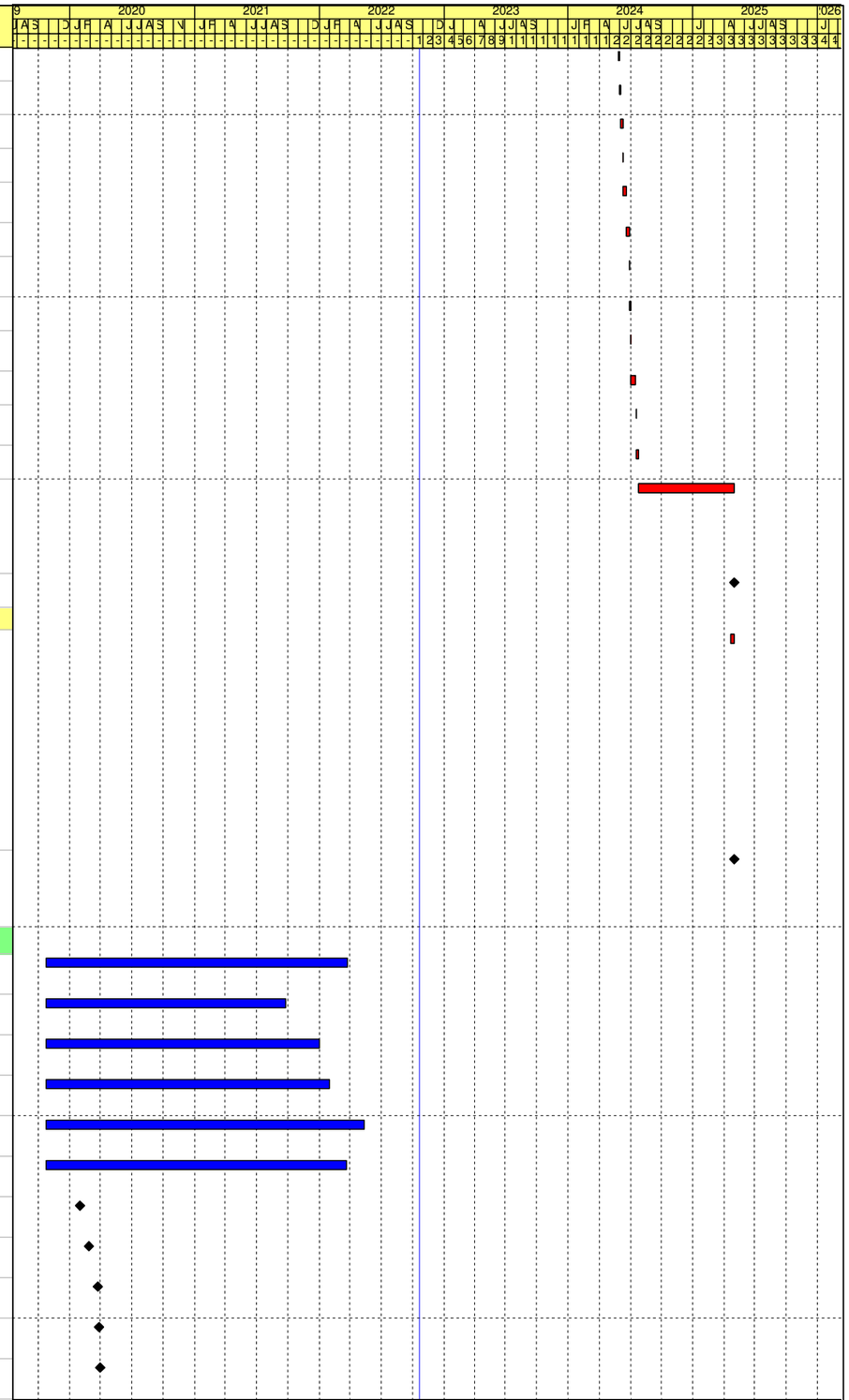
Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Oct 2022

Date	Revision	Checked	Approved
30-Jun-22	Rev.23	LT	KM
31-Jul-22	Rev.24	LT	KM
31-Aug-22	Rev.25	LT	KM
30-Sep-22	Rev.26	LT	KM
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
SC41016-1	CNE-052 Inclement Weather (June 2022) - 9days	9	19-Jun-22 A	27-Jun-22 A	15-May-25	15-May-25		SC41015-1	SC41017-1
SC41017-1	CNE-053 Inclement Weather (June 2022) (Time and Cost Implication) - 1day	1	28-Jun-22 A	28-Jun-22 A	15-May-25	15-May-25		SC41016-1	SC41100-1, SC41018-1
SC41018-1	CNE-054 Inclement Weather (July 2022) - 4days	4	29-Jun-22 A	02-Jul-22 A	15-May-25	15-May-25		SC41017-1	SC41019-1
SC41019-1	CNE-055 Inclement Weather (July 2022) (Time and Cost Implication) - 1day	1	03-Jul-22 A	03-Jul-22 A	15-May-25	15-May-25		SC41018-1	SC41100-1, SC41020-1
SC41020-1	CNE-056 Inclement Weather (August 2022) - 13.5days	14	04-Jul-22 A	17-Jul-22 A	15-May-25	15-May-25		SC41019-1	SC41021-1
SC41021-1	CNE-057 Inclement Weather (August 2022) (Time and Cost Implication) - 1day	1	17-Jul-22 A	18-Jul-22 A	15-May-25	15-May-25		SC41020-1	SC41100-1, SC41022-1
SC41022-1	CNE-058 Inclement Weather (September 2022) - 8days	8	18-Jul-22 A	26-Jul-22 A	15-May-25	15-May-25		SC41021-1	SC41100-1
SC41100-1	Expected Completion for Section 4	0		13-Sep-22 A		15-May-25		SC41015-1, SC41017-1, SC41019-1, SC41021-1, SC41022-1	
Time Risk Allowance and Planned Completion		7	13-Sep-22 A	13-Sep-22 A	15-May-25	15-May-25			
SC41110	Time Risk Allowance for Section 4	7	13-Sep-22 A	13-Sep-22 A	15-May-25	15-May-25		SC41001-1, S4C1100, S4S1040, S4C1150, S4T1020, PL1290, PL1390, PL1200	SC41120
SC41120	Planned Completion for Section 4	0		13-Sep-22 A		15-May-25		SC41110	CD1040
Section 5 - Complete all remaining Works (incl. T&C)		2018	23-Oct-19 A	01-May-25	21-Oct-22	01-May-25	0		
Contractual Completion (Include Implemented CE)		1668	23-Oct-19 A	16-May-24	21-Oct-22	16-May-24	0		
SC51000	Contract Duration of Section 5	1626	23-Oct-19 A	04-Apr-24	21-Oct-22	04-Apr-24	0		SC51001
SC51001	Completion date - Section 5 (1625 days after starting date)	0		04-Apr-24*		04-Apr-24	0	SC51000	SC51002
SC51002	NICE-CNE-0264 Inclement Weather (July 2021) - 14days (Implemented)	14	05-Apr-24	18-Apr-24	05-Apr-24	18-Apr-24	0	SC51001	SC51100, SC51003
SC51003	NICE-CNE-0292 Inclement Weather (August 2021) - 19days (Implemented)	19	19-Apr-24	07-May-24	19-Apr-24	07-May-24	0	SC51002	SC51100, SC51004
SC51004	NICE-CNE-0293 Inclement Weather (September 2021) - 3.5days (Implemented)	4	08-May-24	11-May-24	08-May-24	11-May-24	0	SC51003	SC51007
SC51007	NICE-CNE-0313 Inclement Weather (November 2021) - 0.5days (Implemented)	1	11-May-24	11-May-24	11-May-24	11-May-24	0	SC51004	SC51008
SC51008	NICE-CNE-0343 Inclement Weather (December 2021) - 5days (Implemented)	5	12-May-24	16-May-24	12-May-24	16-May-24	0	SC51007	SC51100
SC51100	Revised Completion for Section 5	0		16-May-24*		16-May-24	0	SC51002, SC51003, SC51008	
Expected Completion (Include Non-implemented CE)		2018	23-Oct-19 A	01-May-25	21-Oct-22	01-May-25	0		
SC51000-1	Contract Duration of Section 5	1626	23-Oct-19 A	04-Apr-24	21-Oct-22	04-Apr-24	0	CD1010	SC51001-1
SC51001-1	Completion date - Section 5 (1625 days after starting date)	0		04-Apr-24*		04-Apr-24	0	SC51000-1	SC51110, SC51002-1
SC51002-1	NICE-CNE-0264 Inclement Weather (July 2021) - 14days (Implemented)	14	05-Apr-24	18-Apr-24	05-Apr-24	18-Apr-24	0	SC51001-1	SC51003-1
SC51003-1	NICE-CNE-0292 Inclement Weather (August 2021) - 19days (Implemented)	19	19-Apr-24	07-May-24	19-Apr-24	07-May-24	0	SC51002-1	SC51004-1
SC51004-1	NICE-CNE-0293 Inclement Weather (September 2021) - 3.5days (Implemented)	4	08-May-24	11-May-24	08-May-24	11-May-24	0	SC51003-1	SC51005-1
SC51005-1	CNE-019 Inclement Weather (October 2021) - 6days	6	11-May-24	17-May-24	11-May-24	17-May-24	0	SC51004-1	SC51006-1
SC51006-1	CNE-020 Inclement Weather (October 2021) (Time and Cost Implication) - 4days	4	17-May-24	21-May-24	17-May-24	21-May-24	0	SC51005-1	SC51007-1
SC51007-1	ICE-CNE-0313 Inclement Weather (November 2021) - 0.5days (Implemen	1	21-May-24	21-May-24	21-May-24	21-May-24	0	SC51006-1	SC51008-1
SC51008-1	NICE-CNE-0343 Inclement Weather (December 2021) - 5days (Implemented)	5	22-May-24	26-May-24	22-May-24	26-May-24	0	SC51007-1	SC51009-1



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
SC51009-1	CNE-036 Inclement Weather (January 2022) - 3days	3	27-May-24	29-May-24	27-May-24	29-May-24	0	SC51008-1	SC51010-1
SC51010-1	CNE-040 Inclement Weather (February 2022) - 5days	5	30-May-24	03-Jun-24	30-May-24	03-Jun-24	0	SC51009-1	SC51011-1
SC51011-1	CNE-044 Inclement Weather (March 2022) - 4.5days	5	04-Jun-24	08-Jun-24	04-Jun-24	08-Jun-24	0	SC51010-1	SC51012-1
SC51012-1	CNE-048 Inclement Weather (April 2022) - 2days	2	08-Jun-24	10-Jun-24	08-Jun-24	10-Jun-24	0	SC51011-1	SC51013-1
SC51013-1	CNE-050 Inclement Weather (May 2022) - 8days	8	10-Jun-24	18-Jun-24	10-Jun-24	18-Jun-24	0	SC51012-1	SC51099-1, SC51014-1
SC51014-1	CNE-052 Inclement Weather (June 2022) - 9days	9	18-Jun-24	27-Jun-24	18-Jun-24	27-Jun-24	0	SC51013-1	SC51015-1
SC51015-1	CNE-053 Inclement Weather (June 2022) (Time and Cost Implication) - 1day	1	27-Jun-24	28-Jun-24	27-Jun-24	28-Jun-24	0	SC51014-1	SC51099-1, SC51016-1
SC51016-1	CNE-054 Inclement Weather (July 2022) - 4days	4	28-Jun-24	02-Jul-24	28-Jun-24	02-Jul-24	0	SC51015-1	SC51017-1
SC51017-1	CNE-055 Inclement Weather (July 2022) (Time and Cost Implication) - 1day	1	02-Jul-24	03-Jul-24	02-Jul-24	03-Jul-24	0	SC51016-1	SC51099-1, SC51018-1
SC51018-1	CNE-056 Inclement Weather (August 2022) - 13.5days	14	03-Jul-24	16-Jul-24	03-Jul-24	16-Jul-24	0	SC51017-1	SC51019-1
SC51019-1	CNE-057 Inclement Weather (August 2022) (Time and Cost Implication) - 1day	1	17-Jul-24	17-Jul-24	17-Jul-24	17-Jul-24	0	SC51018-1	SC51099-1, SC51020-1
SC51020-1	CNE-058 Inclement Weather (September 2022) - 8days	8	18-Jul-24	25-Jul-24	18-Jul-24	25-Jul-24	0	SC51019-1	SC51099-1
SC51099-1	EWN-0314 Extention of Time for change of access date	280	26-Jul-24	01-May-25	26-Jul-24	01-May-25	0	SC51013-1, SC51015-1, SC51017-1, SC51019-1, SC51020-1	SC51100-1
SC51100-1	Expected Completion for Section 5	0		01-May-25*		01-May-25	0	SC51099-1	
Time Risk Allowance and Planned Completion		12	20-Apr-25	01-May-25	05-May-24	16-May-24	-350		
SC51110	Time Risk Allowance for Section 5	12	20-Apr-25	01-May-25	05-May-24	16-May-24	-350	SC51001-1, S5S1250, S5T1200, S5TXRT1010, PL1310, PL1430, PL1210, S5S1110, S5S1210, S5T1040, S5DIGC1040, S5S0990	SC51120
SC51120	Planned Completion for Section 5	0		01-May-25*		16-May-24	-350	SC51110, PL1520, PL1560, S5S1040	CD1040
Compensation Event		1621	23-Oct-19 A	21-Oct-22	30-Jan-22	15-May-25	937		
CE0219a	NCE-NCE-0219 - Portion B-2a (within 771 to 891 days from starting date)	891	23-Oct-19 A	23-Mar-22 A	31-Oct-22	31-Oct-22		CD1010	CE0219b
CE0219c	NCE-NCE-0219 - Portion B-2b (within 615 to 705 days from starting date)	705	23-Oct-19 A	24-Sep-21 A	02-Dec-22	02-Dec-22			CE0219d
CE0273a	NCE-NCE-0273 - Portion C-3 (within 615 to 815 days from starting date)	815	23-Oct-19 A	31-Dec-21 A	15-May-25	15-May-25			CE0273b
CE0288a	NCE-NCE-0288 - Portion C-2A (within 705 to 831 days from starting date)	831	23-Oct-19 A	30-Jan-22 A	30-Jan-22	30-Jan-22			CE0288b
CE0287a	NCE-NCE-0287 - Portion C-2C (within 715 to 934 days from starting date)	934	23-Oct-19 A	13-May-22 A	13-May-22	13-May-22			CE0287b
CE0286a	NCE-NCE-0286 - Portion C-2B (within 765 to 880 days from starting date)	880	23-Oct-19 A	20-Mar-22 A	20-Mar-22	20-Mar-22			CE0286b
CE0001	CE No.001 - Special Work Arrangement in Reducing the Risk of the Spread of Novel Coronavirus	0		30-Jan-20 A		15-May-25			
CE0004	CE No.004 - Designated Area for the Contractor's Site Accommodation in Works Area WA1	0		26-Feb-20 A		15-May-25			
CE0002	CE No.002 - The Contractor's Site Accomodation by Modular Integrated Construction (MIC) Method	0		23-Mar-20 A		15-May-25			
CE0006	CE No.006 - Additional Duty Point for Effluent Transfer Pumps	0		27-Mar-20 A		15-May-25			
CE0005	CE No.005 - Revised Size of Penstock at UV System No.1 & Effluent Pumping Station No.1 for Ex. Outfall	0		30-Mar-20 A		15-May-25			



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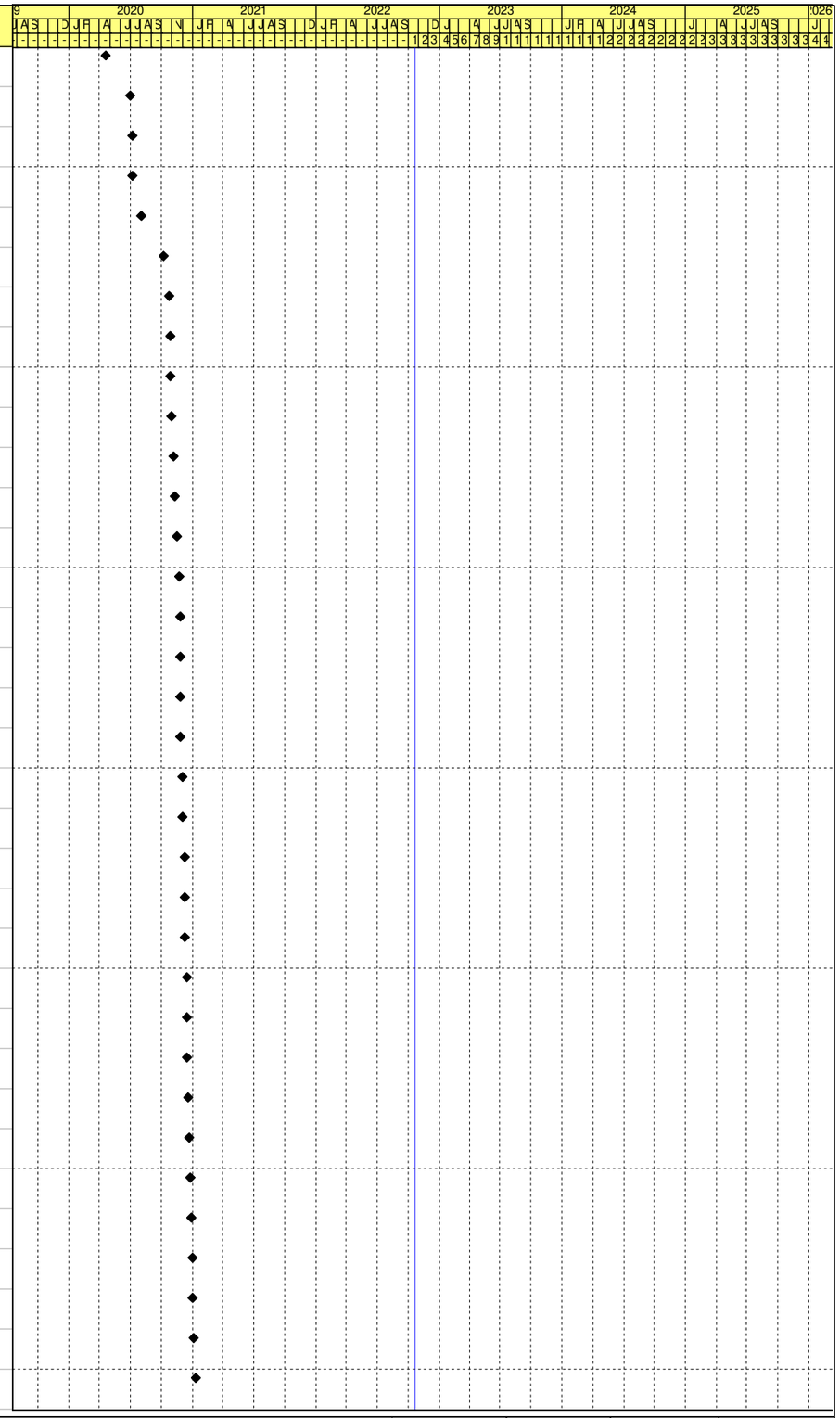
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
CE0003	CE No.003 - Flowmeter Relocation & Pipework Rearrangement at Effluent Transfer Pumping Station	0		20-Apr-20 A		15-May-25			
CE0007	CE No.007 - Additional Adjustable Weir at UV System No.1 & Effluent Pumping Station No.1	0		30-Jun-20 A		15-May-25			
CE0009	CE No.009 - Employment of Temporary Staff under Anti-Epidemic Fund	0		07-Jul-20 A		15-May-25			
CE0010	CE No.010 - Revised Setting Out Plan for Sidestream Treatment Facilities	0		07-Jul-20 A		15-May-25			
CE0008	CE No.008 - Provision of Additional 2nd Temp. Power Supply for UV System No.1 & Effluent Pumping Station No.1	0		03-Aug-20 A		15-May-25			
CE0012	CE No.012 - Provision of Touchscreen Display System for the Project Manager's Office	0		06-Oct-20 A		15-May-25			
CE0013	CE No.013 - Feasibility Study for Adopting emMiC & DfMA	0		22-Oct-20 A		15-May-25			
CE0014	CE No.014 - Revised FS Water Supply Arrangement for CHP, Guard House, Workshop No.2, SludgeDigester&DistributionChamber	0		28-Oct-20 A		15-May-25			
CE0016	CE No.016 - Elect. Provisions for Addit. 800A ACB w/ CMPD as Standby Supply for MBBR for UV No.2 for Future Expansion	0		28-Oct-20 A		15-May-25			
CE0015	CE No.015 - Revised Plumbing Arranagement for Workshop No.2, UV & Effluent No.1, CHP, SPS&FCDF, DOU No.11&12, H2S, SDDC	0		30-Oct-20 A		15-May-25			
CE0018	CE No.018 - MVAC Layout for Plant Service Water System	0		05-Nov-20 A		15-May-25			
CE0020	CE No.020 - Addit. set of 11kV power feeder panel at 11kV SB in CHP for future connection to Zone B in Stage 2	0		09-Nov-20 A		15-May-25			
CE0201	NCE-PMI-0201 - Provision of Access Platform for EOT cranes in UV System No.1 & Effluent Pumping Station No.1	0		16-Nov-20 A		15-May-25			
CE0205	NCE-PPMI-0205 - Fibre Optics Network Connection for SCADA Systems between Zone B & Zone C	0		23-Nov-20 A		15-May-25			
CE0203	NCE-PPMI-0203 - MVAC Layout for SAS Pumping Station	0		25-Nov-20 A		15-May-25			
CE0202	NCE-PMI-0202 - Revised Plumbing Arrangement for Sludge Dewatering Building	0		26-Nov-20 A		15-May-25			
CE0208	NCE-PPMI-0208 - Provision of Drainage service Layout for SAS Pumping Station	0		26-Nov-20 A		15-May-25			
CE0209	NCE-PPMI-0209 - Drainage System for Plant Service Water System	0		26-Nov-20 A		15-May-25			
CE0207	NCE-PMI-0207 - TX Rm & Switch Rm - Provision of ATS for Power Supply for UPS	0		01-Dec-20 A		15-May-25			
CE0211	NCE-PPMI-0211 - Revised MVAC Layout & Electrical Provisions for MVAC in TX and Switch Rm	0		02-Dec-20 A		15-May-25			
CE0212	NCE-PMI-0212 - Provision of Louvre Panel for Outdoor AC Units at Contractor's Site Accomodation	0		07-Dec-20 A		15-May-25			
CE0204	NCE-PMI-0204 - CHP - Provisional of Additional ATS for Power Supply for UPS	0		08-Dec-20 A		15-May-25			
CE0210	NCE-PPMI-0210 - Electrical provisions for MVAC & Drainage Systems in SAS Pumping Station	0		08-Dec-20 A		15-May-25			
CE0214	NCE-PPMI-0214 - Additional Sump Pump & Drain Pipes at UV System No.1 & Effluent Pumping Station	0		14-Dec-20 A		15-May-25			
CE0215	NCE-PPMI-0215 - Revised MVAC Layout for UV System No.1 & Effluent Pumping Station No.1	0		14-Dec-20 A		15-May-25			
CE0206	NCE-PMI-0206 - SDB - Provisional of Additional ATS for Power Supply for UPS	0		15-Dec-20 A		15-May-25			
CE0219	NCE-NCE-0219 - Change of Site Access Date to SAS Pumping Station Forming Part of Portion B-2 of the Site	0		19-Dec-20 A		15-May-25			
CE0213	NCE-PPMI-0213 - Electrical provisions for MVAC & Drainage System in UV System No.1 & Effluent Pumping Station No.1	0		21-Dec-20 A		15-May-25			
CE0221	NCE-PPMI-0221 - General Arrangement for Fire Hydrant & Booster Pump Room	0		24-Dec-20 A		15-May-25			
CE0217	NCE-PMI-0217 - Revised Duty Points for Effluent Transfer Pumps	0		29-Dec-20 A		15-May-25			
CE0220	NCE-PMI-0220 - Supply of Puddle Pipes for Effluent to Shek Sheung River	0		30-Dec-20 A		15-May-25			
CE0216	NCE-PPMI-0216 - Electrical Provisions for MVAC & drainage Sytems in Plant Service Water System	0		31-Dec-20 A		15-May-25			
CE0218	NCE-PMI-0218 - Scoping Study for Application of Digital Twin & IoT in Zone B & Zone C of SWHEPP	0		04-Jan-21 A		15-May-25			
CE0222	NCE-PMI-0222 - Revised Water Supply Arrangement (FS Water) to Sludge Dewatering Building	0		12-Jan-21 A		15-May-25			



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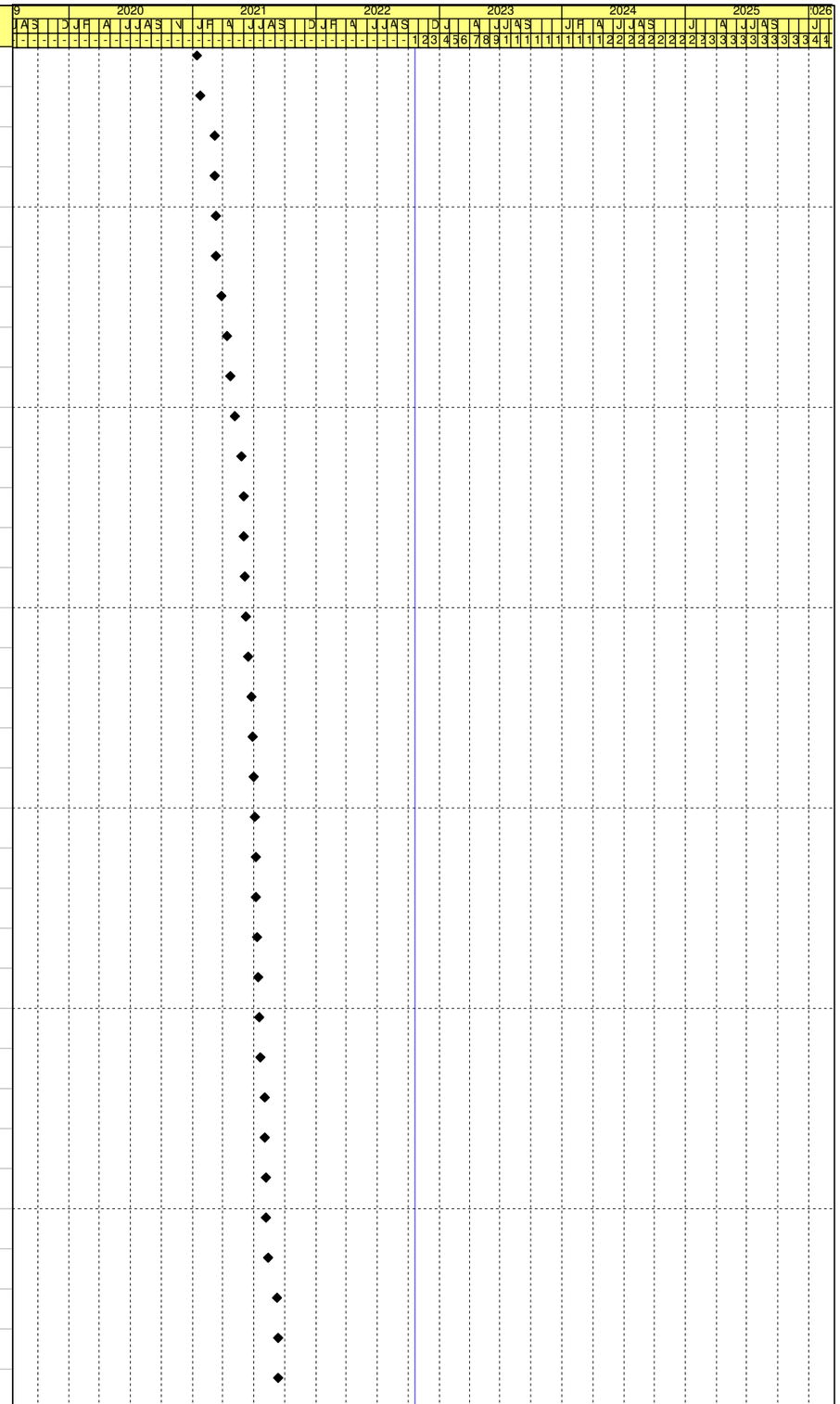
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
CE0223	NCE-PMI-0223 - Construction of Trial Pits for Sidestream Treatment Facilities	0		15-Jan-21 A		15-May-25			
CE0224	NCE-PMI-0224 - Independent Inspection Body (IIB) for the Factory Acceptance Test (FAT) for UV Disinfeciton System	0		25-Jan-21 A		15-May-25			
CE0225	NCE-PMI-0225 - Supply of Ductile Iron Puddle Pipes at the Basement of Sludge Dewatering Building	0		09-Mar-21 A		15-May-25			
CE0226	NCE-PMI-0226 - Provision of Solar Water Heating System at the Contractor's Site Accomodation	0		09-Mar-21 A		15-May-25			
CE0227	NCE-PMI-0227 - Dual Power Fedder for LV Switch Panel at Sewage Pumping Station	0		11-Mar-21 A		15-May-25			
CE0228	NCE-PMI-0228 - Provision of Effluent Pipes and Associated Valve and Supply of Supports for Effluent to Shek Sheung River	0		11-Mar-21 A		15-May-25			
CE0230	NCE-PMI-0230 - Provision of Project Jackets with Fleece Vests	0		26-Mar-21 A		15-May-25			
CE0231	NCE-PMI-0231 - Extension of Sampling Pipe From Low Level on Sludge Digesters	0		12-Apr-21 A		15-May-25			
CE0232	NCE-PMI-0232 - Dual Power Fedder for LV Switch Panel at 1/F LV Switch Room of Combined Heat and Power (CHP) Building	0		22-Apr-21 A		15-May-25			
CE0233	NCE-PMI-0233 - Sampling, Simulating and Testing of Existing Sludge for Obtaining the Viscosity of the Mixed Sludge	0		06-May-21 A		15-May-25			
CE0238	NCE-PMI-0238 - Supply of Stainless Steel Puddle Pipes for Surplus Activated Sludge (SAS) Pumping Station	0		27-May-21 A		15-May-25			
CE0239	NCE-PMI-0239 - Revised the Arrangement for Process Water Supply and Plant Services Water System	0		01-Jun-21 A		15-May-25			
CE0234	NCE-PMI-0234 - Provision of FRP Walkway, Access Platform & Handrailing for Sludge Digester No. 2	0		02-Jun-21 A		15-May-25			
CE0241	NCE-PMI-0241 - Revised Diesel Fuel Tank at Combined Heat and Power (CHP) Building	0		04-Jun-21 A		15-May-25			
CE0240	NCE-PMI-0240 - Revised Coping and Invert Levels for Penstock and Stoplog of SAS Pumping Station	0		09-Jun-21 A		15-May-25			
CE0242	NCE-PMI-0242 - Revised Fire Services Provision of UV System No. 1 and Effluent Pumping Station No. 1	0		15-Jun-21 A		15-May-25			
CE0237	NCE-CNE-0237 - Provision of Inspectin Windows for Sludge Digester	0		25-Jun-21 A		15-May-25			
CE0244	RCNE-CNE-0244 - Access to and use of portion C-1A	0		29-Jun-21 A		15-May-25			
CE0245	NCE-PMI-0245 - Provision of Augmented Reality (AR) Mobile Application	0		30-Jun-21 A		15-May-25			
CE0248	NCE-PMI-0248 - Inclement Weather - May 2021 (Time Implication)	0		05-Jul-21 A		15-May-25			
CE0246	NCE-PMI-0246 - Revised HV Remote Control Panels at CHP & Workshop No. 2	0		06-Jul-21 A		15-May-25			
CE0247	NCE-PMI-0247 - Temporary 4G System for SCADA System Monitoring	0		07-Jul-21 A		15-May-25			
CE0243	NCE-PMI-0243 - Provision of Flow Signal Inputs for UV Disinfection System	0		12-Jul-21 A		15-May-25			
CE0250	NCE-PMI-0250 - Provision of Front Access LV Switch Panel in the LV Switch Room on G/F Workshop No. 2	0		14-Jul-21 A		15-May-25			
CE0253	NCE-PMI-0253 - Provision of Building Services Systems in New LV Switch Room on the G/F Workshop No. 2	0		16-Jul-21 A		15-May-25			
CE0252	NCE-PMI-0252 - Provision of Neutral Earthing Resistor (NER) at Workshop No. 2	0		19-Jul-21 A		15-May-25			
CE0258	NCE-PMI-0258 - Provision of FRP Cover for Overflow Chambers of Sludge Digesters	0		04-Aug-21 A		15-May-25			
CE0260	NCE-PMI-0260 - Provision of Chequer Plates at UV System No. 1 & Effluent Pumping Station No. 1	0		04-Aug-21 A		15-May-25			
CE0256	RCNE-CNE-0256 - Amber Rainstrom Warning and Inclement Weather - June 2021 (Time Implication)	0		05-Aug-21 A		15-May-25			
CE0257	RCNE-CNE-0257 - Black and Red Rainstrom Warning - June 2021 (Time & Cost Implication)	0		05-Aug-21 A		15-May-25			
CE0259	NCE-PMI-0259 - Provision of Virtual Reality (VR) Safety Training Platform	0		13-Aug-21 A		15-May-25			
CE0263	NCE-PMI-0263 - Upgrade of the Supporting Frame of 1st and 2nd Stage Heat Exchangers for Future Expansion of THP System	0		07-Sep-21 A		15-May-25			
CE0264	RCNE-CNE-0264 - Inclement Weather - July 2021 (Time Implication)	0		10-Sep-21 A		15-May-25			
CE0269	NCE-PMI-0269 - Additional Cleansing Points at Sludge Skip Area of Sludge Dewatering Building	0		10-Sep-21 A		15-May-25			



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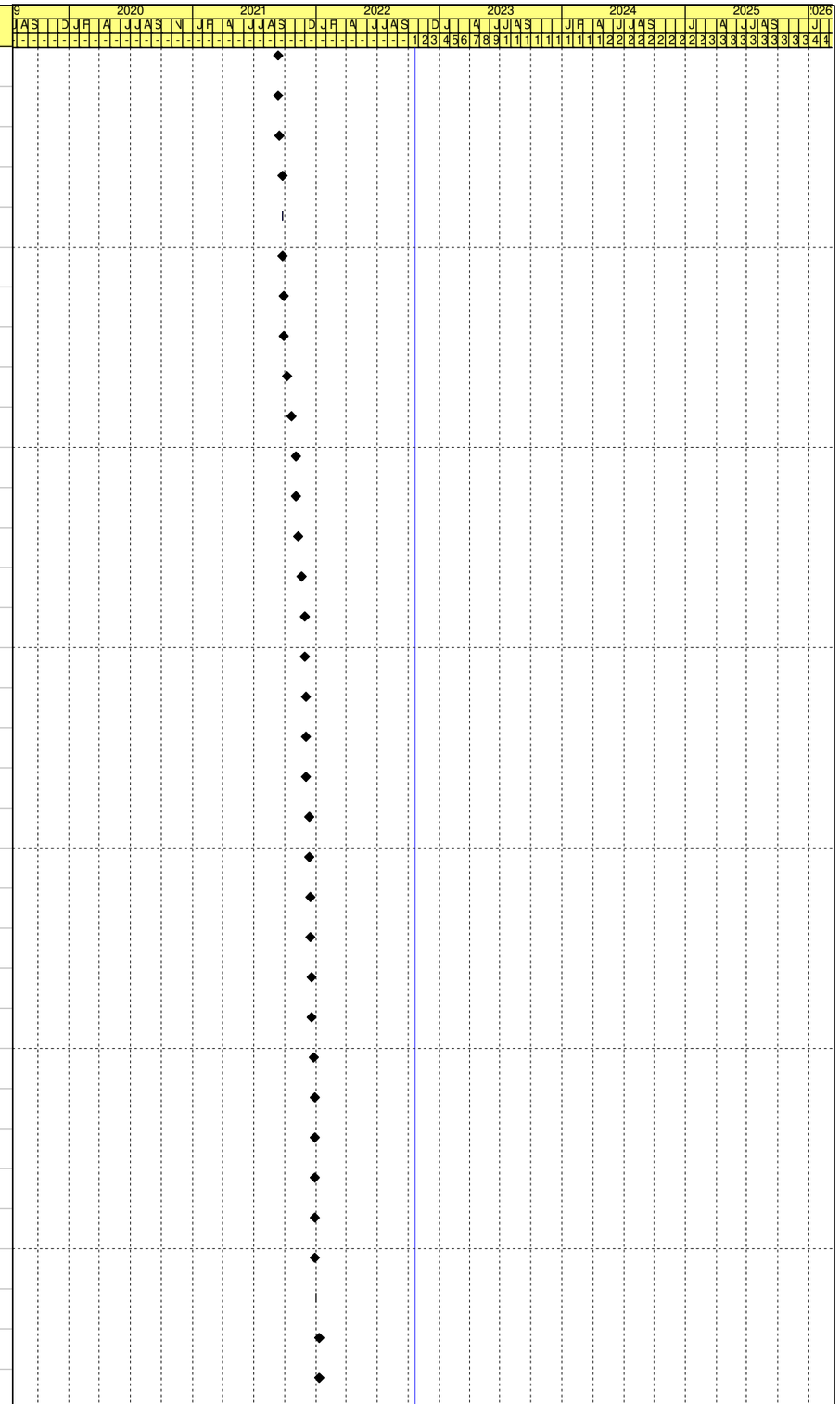
CE0270	NCE-CNE-0270 - Extra sampling, simulating & testing of exiting sludge for obtaining the viscosity of the existing sludge	0		10-Sep-21 A		15-May-25			
CE0254	NCE-CNE-0254 - Removal of Obstructions at Trail Pit No. 3 at Sidestreamt Facilities	0		10-Sep-21 A		15-May-25			
CE0265	NCE-PMI-0265 - Water Supply to Emergency Drench Shower and Eye Fountain at Deodorization System No. 11	0		16-Sep-21 A		15-May-25			
CE0271	NCE-PMI-0271 - Provision of Access Platform for the EOT Crane (LA-01-02) in Sludge Dewatering Building	0		23-Sep-21 A		15-May-25			
CE0219d	NCE-NCE-0219 - Revised Access Date for Portion B-2b	1	24-Sep-21 A	24-Sep-21 A	02-Dec-22	02-Dec-22		CE0219c	S5ECHC1000
CE0273	NCE-NCE-0273 - Change of Site Access Date to Workshop No. 2 Forming Part of Portion C-3 of the Site	0		24-Sep-21 A		15-May-25			
CE0277	NCE-PMI-0277 - Provision of Access Platform for the EOT Crane (LA-01-03) in Sludge Dewatering Building	0		27-Sep-21 A		15-May-25			
CE0275	NCE-PMI-0275 - Additional Lighting Fittings for UV System No.1 & Effluent Pumping Station No.1	0		29-Sep-21 A		15-May-25			
CE0272	NCE-PMI-0272 - Employment of Temporary Staff under Job Creation Scheme 2.0 (JCS 2.0) under Anti-Epidemiv Fund (AEF)	0		08-Oct-21 A		15-May-25			
CE0280	NCE-PMI-0280 - Employment of Temporary Staff under Job Creation Scheme 2.0 (JCS 2.0) under Anti-Epidemiv Fund (AEF)	0		21-Oct-21 A		15-May-25			
CE0292	RCNE-CNE-0292 - Inclement Weather - August 2021 (Time Implication)	0		02-Nov-21 A		15-May-25			
CE0293	RCNE-CNE-0293 - Inclement Weather - September 2021 (Time Implication)	0		02-Nov-21 A		15-May-25			
CE0283	NCE-PMI-0283 - Provision of Metal Base Plate,Stopper&Guide Rail for Loading&Unloading of Sludge Skip at Skip Rm of SDB	0		11-Nov-21 A		15-May-25			
CE0262	NCE-PMI-0262 - Emergency Access Door for Lift at Sludge Dewatering Building	0		18-Nov-21 A		15-May-25			
CE0294	NCE-PMI-0294 - IIB for FAT for THP System	0		30-Nov-21 A		15-May-25			
CE0298	NCE-PMI-0298 - Additional Light Fittings at Roof Floor of UV System No.1 & Effluent Pumping Station No.1	0		30-Nov-21 A		15-May-25			
CE0284	NCE-PMI-0284 - Revised Road Lighting System for Zone C	0		03-Dec-21 A		15-May-25			
CE0296	NCE-PMI-0296 - Provision of emMiC Adoption of FRP Walkway and Platform for Sludge Digesters	0		03-Dec-21 A		15-May-25			
CE0297	NCE-PMI-0297-Provision of Addit. Module BIM Collaboration Pro to existing CDE&Omission of Procurement Maintenance of CDE	0		03-Dec-21 A		15-May-25			
CE0307	NCE-PMI-0307 - Revised Quantity for Stoplogs of Sewage Pumping Station	0		13-Dec-21 A		15-May-25			
CE0299	NCE-PMI-0299 - Revised Plumbing Layout for UV System No.1 & Effluent Pumping Station No.1	0		14-Dec-21 A		15-May-25			
CE0309	RCNE-CNE-0309 - Inclement Weather - October 2021 (Time Implication)	0		16-Dec-21 A		15-May-25			
CE0302	NCE-PMI-0302 - Revised Lighting Layout Plan for Workshop No.2	0		17-Dec-21 A		15-May-25			
CE0288	NCE-NCE-0288 - Change of Site Access Date to Sludge Dewatering Building Forming Part of the Portion C- 2A of the site	0		18-Dec-21 A		15-May-25			
CE0310	NCE-PMI-0310 - Temp. Leased Line for UV System No.1, Effluent PS No.1 & existing Control Room at Zone B	0		20-Dec-21 A		15-May-25			
CE0287	NCE-NCE-0287 - Change of Site Access Date to Sludge Digester & Distribution Chamber Forming Part of Portion C- 2C	0		24-Dec-21 A		15-May-25			
CE0311	NCE-PMI-0311 - Temp. Setup for SCADA System Monitoring & CCTV System Surveillance	0		29-Dec-21 A		15-May-25			
CE0312	CNE-0312 - Weather Condition Affecting the Site in Oct due to Typhoon Signal No.8 or above, Red/Black Rainstorm Warning	0		29-Dec-21 A		15-May-25			
CE0313	CNE-0313 - Inclement Weather - November 2021 (Time Implication)	0		29-Dec-21 A		15-May-25			
CE0304	NCE-PMI-0304 - Provision of Digital Displaying Screen and Softwarewithin Portion B Area	0		29-Dec-21 A		15-May-25			
CE0315	NCE-PMI-0315 - Modification of Monorali LA-01-04 in Sludge Dewatering Building	0		30-Dec-21 A		15-May-25			
CE0273b	NCE-NCE-0273 - Revised Access Date for Portion C-3	1	31-Dec-21 A	31-Dec-21 A	15-May-25	15-May-25		CE0273a	
CE0317	NCE-PMI-0317 - Revised CCTV Layout Plan & Addition of CCTV Camera for UV System No.1 & Effluent Pumping Station	0		11-Jan-22 A		15-May-25			
CE0305	NCE-PMI-0305 - Process Review for Advance Works	0		12-Jan-22 A		15-May-25			



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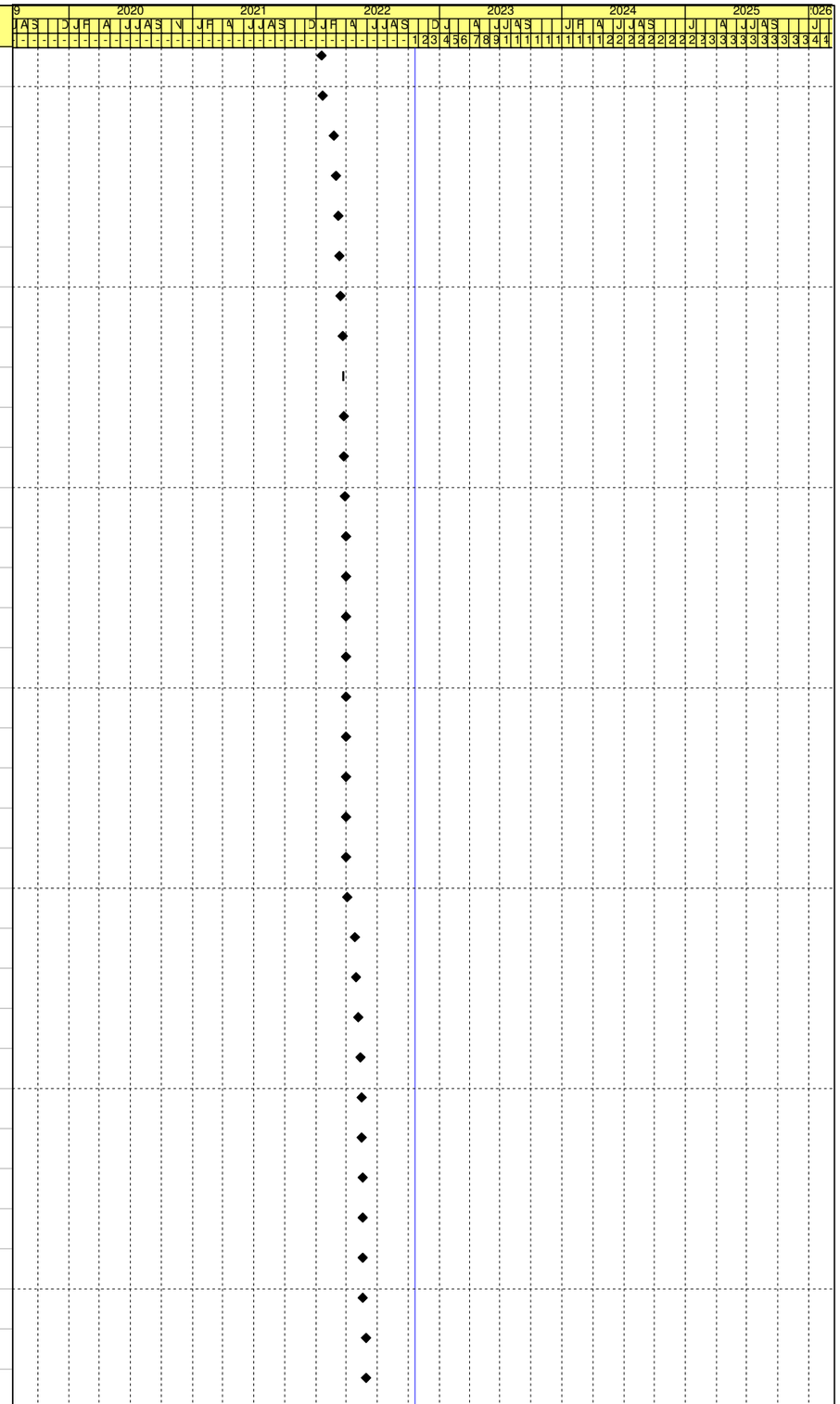
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
CE0303	NCE-CNE-0303 - Revise Fire Services Provision for Server Room of Workshop No.2	0		19-Jan-22 A		15-May-25			
CE0286	NCE-NCE-0286 - Change of Site Access Date to Combined Heat and Power Building Forming Part of Portion C-2B of the Site	0		21-Jan-22 A		15-May-25			
CE0301	NCE-PMI-0301 - Revised Plumbing Layout for SDB & FeCl3 Dosing System	0		24-Feb-22 A		15-May-25			
CE0306	NCE-CNE-0306 - Additional Trial Pits & the Associated Modification Works for Uncharted Utilities at STF	0		01-Mar-22 A		15-May-25			
CE0327	NCE-PMI-0327 - Change of Material for Electrical Wiring Accessories	0		08-Mar-22 A		15-May-25			
CE0300	NCE-PMI-0300 - Revised Plumbing Layout for CHP, DOU 12 and SD&DC	0		10-Mar-22 A		15-May-25			
CE0325	NCE-PMI-0325 - Provision of 2 Nos. of 3 Tons Mobile A-frame with Electrical Hoist in Sludge Dewatering Building	0		14-Mar-22 A		15-May-25			
CE0328	NCE-PMI-0328 - Provision of Chequer Plates at SAS Pumping Station	0		22-Mar-22 A		15-May-25			
CE0219b	NCE-NCE-0219 - Revised Access Date for Portion B-2a	1	23-Mar-22 A	23-Mar-22 A	31-Oct-22	31-Oct-22		CE0219a	S5SASC1010
CE0329	NCE-PMI-0329 - Provision of IIB for FAT for Sludge Thickening and Dewatering Centrifuges	0		23-Mar-22 A		15-May-25			
CE0337	NCE-PMI-0337 - Revised Pipe Trenches in Zone C	0		24-Mar-22 A		15-May-25			
CE0272-1	NCE-PMI-0272-1 - Employment of Temporary Staff under Job Creation Scheme 2.0 (JCS 2.0) under Anti-Epidemiv Fund (AEF)	0		28-Mar-22 A		15-May-25			
CE0336	NCE-PMI-0336 - Provision of Additional Temporary Storage Area	0		30-Mar-22 A		15-May-25			
CE0335	NCE-PMI-0335 - Revised Power & Control for MVAC Provision at Workshop No.2	0		01-Apr-22 A		15-May-25			
CE0338	NCE-PMI-0338 - Provision of Additional RFID Handheld Readers with 4G Data SIM Card Service	0		01-Apr-22 A		15-May-25			
CE0339	NCE-PMI-0339 - Revised Lighting Layout for SDB	0		01-Apr-22 A		15-May-25			
CE0340	NCE-PMI-0340 - Buillding Services & SCADA Interface Provisions for Workshop No.2	0		01-Apr-22 A		15-May-25			
CE0343	CNE-0343 - Inclement Weather - December 2021 (Time Implication)	0		01-Apr-22 A		15-May-25			
CE0344	CNE-0344 - Inclement Weather - January 2022 (Time Implication)	0		01-Apr-22 A		15-May-25			
CE0345	CNE-0345 - Inclement Weather - February 2022 (Time Implication)	0		01-Apr-22 A		15-May-25			
CE0347	NCE-PMI-0347 - IIB for FAT for 11kV Switchboards	0		01-Apr-22 A		15-May-25			
CE0348	NCE-PMI-0348 - Provision of (IIB) for FAT for CHP Generating Sets	0		04-Apr-22 A		15-May-25			
CE0353	NCE-PMI-0353 - Additional Auto-sampler for sampling Location at UV system No.1 and Effluent Pumping Station No.1	0		27-Apr-22 A		15-May-25			
CE0360	NCE-PMI-0360 - Provision of Video Wall with Additional Monitors in the Control Room of Workshop No.2	0		29-Apr-22 A		15-May-25			
CE0341	NCE-PMI-0341 - Revised MVAC Layout for Sludge Digesters and Distribution Chamber	0		05-May-22 A		15-May-25			
CE0342	NCE-PMI-0342 - Provision and Installation of Additional Pipes to Manhole MHSS1	0		12-May-22 A		15-May-25			
CE0359	NCE-PMI-0359 - Revised Lighting Layout for Sludge Digesters and Districbution Chamber (Basement 1 and Basement 2)	0		16-May-22 A		15-May-25			
CE0364	NCE-PMI-0364 - Provision of Security and Utility Services for Additional Temporary Storage Area	0		16-May-22 A		15-May-25			
CE0366	CNE-0366 - No Access to and Use of Portion C-2B for Area for CHP	0		20-May-22 A		15-May-25			
CE0367	NCE-PMI-0367 - Sealing Works for UV System & Effluent Pumping Station No. 1	0		20-May-22 A		15-May-25			
CE0369	CNE-0369 - No Access to and use of Portion C-2C for Area for SD & DC	0		20-May-22 A		15-May-25			
CE0370	CNE-0370 - No Access to and Use of Portion C-2A for Area for SDB	0		20-May-22 A		15-May-25			
CE0333	NCE-PMI-0333 - Revised MVAC Layout and Control Schematic for Workshop No.2	0		30-May-22 A		15-May-25			
CE0363	NCE-PMI-0363 - Revised MVAC Layout and Control Schematic for CHP Building	0		30-May-22 A		15-May-25			



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31-Oct-22	Rev.27	LT	KM

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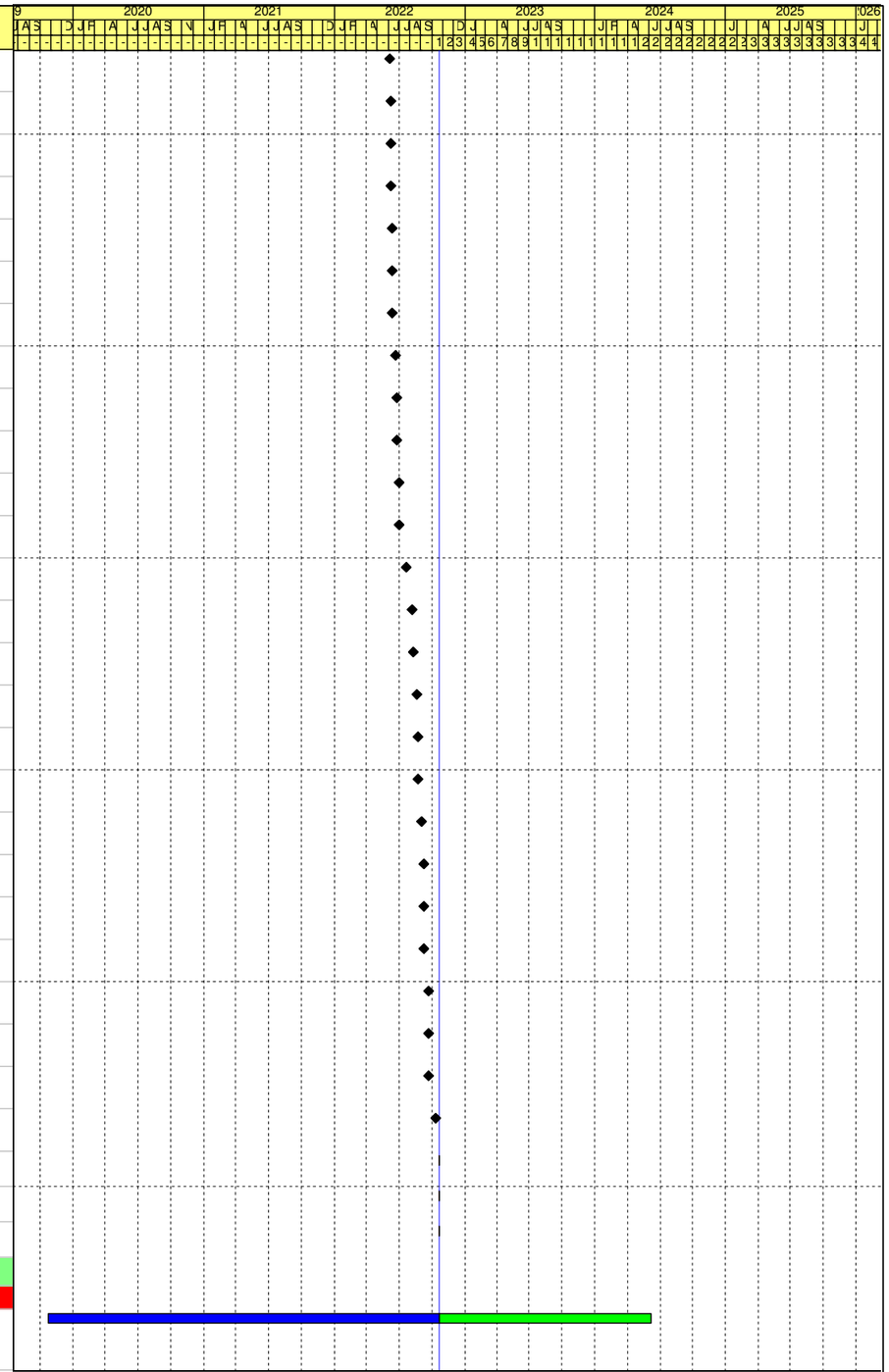
CE0375	NCE-PMI-0375 - Gas Detection System for Pipe Trench No.3 in Zone C	0		06-Jun-22 A		15-May-25			
CE0361	NCE-PMI-0361 - Revised Power Layout for Sludge Dewatering Building	0		08-Jun-22 A		15-May-25			
CE0372	NCE-PMI-0372 - Building Services Control & Monitoring Provisions for SDB & Gas Detection System for Pipe Tranch No.1	0		08-Jun-22 A		15-May-25			
CE0384	NCE-PMI-0384 - Enhanced Protective Measures against Spread of Omicron COVID Variant	0		08-Jun-22 A		15-May-25			
CE0352	NCE-PMI-0352 - Revised MVAC Layout and for Transformer and Switch Room	0		10-Jun-22 A		15-May-25			
CE0354	NCE-EWP-0354 - Early Deployment of Tower Crane to Enhance Programme affected by Uncharted U/U at STF	0		10-Jun-22 A		15-May-25			
CE0376	NCE-PMI-0376 - BS Provisions for SDDC (G/F & Roof) & Pipe Trench No.2	0		10-Jun-22 A		15-May-25			
CE0374	NCE-PMI-0374 - Revised Power Layout for SDDC & Control Provisions for Sump Pumps at Pipe Trench No.1 & No.2	0		20-Jun-22 A		15-May-25			
CE0386	CNE-0386 - Inclement Weather - March 2022 (Time Implication)	0		24-Jun-22 A		15-May-25			
CE0387	CNE-0387 - Inclement Weather - April 2022 (Time Implication)	0		24-Jun-22 A		15-May-25			
CE0391	CNE-0391 - Inclement Weather - May 2022 (Time Implication)	0		30-Jun-22 A		15-May-25			
CE0397	CNE-0397 - Inclement Weather - Jun 2022 (Time Implication)	0		30-Jun-22 A		15-May-25			
CE0395	NCE-PMI-0395 - Omission of the Set-up Work for Temporary Water and Electricity Supply for Works Area WA1-B	0		20-Jul-22 A		15-May-25			
CE0381	NCE-PMI-0381 - Employment of Temporary Staff under Job Creation Scheme 3.0 (JCS 3.0) under Anti-Epidemic Fund (AEF)	0		08-Aug-22 A		15-May-25			
CE0279	NCE-PPMI-0279 - Implementation of Digital Twin Pilot Project in Advance Works Area of Shek Wu Hui Sewage Treatment Works	0		11-Aug-22 A		15-May-25			
CE0362	NCE-CNE-0362 - Amendment of Dangers Goods Ordinance (Cap.295)	0		19-Aug-22 A		15-May-25			
CE0400	NCE-PMI-0400 - Provision of High Tide Detection System for System No.1 and Effluent Pumping Station No. 1	0		23-Aug-22 A		15-May-25			
CE0402	NCE-PMI-0402 - Provision of Flow Control System for Effluent to Shek Sheung River	0		24-Aug-22 A		15-May-25			
CE0334	NCE-PMI-0334 - Provision of 1 Set of SWL 1 Tons Davit with Electrical Chain Hoist on the Roof of Distribution Chamber	0		02-Sep-22 A		15-May-25			
CE0398	CNE-0398 - Red Rainstorm Warning -June 2022 (Time and Cost Implication)	0		08-Sep-22 A		15-May-25			
CE0405	CNE-0405 - Inclement Weather -July 2022 (Time Implication)	0		08-Sep-22 A		15-May-25			
CE0406	CNE-0406 - Tropical Cyclone Warning Signal No. 8 - July 2022 (Time and Cost Implication)	0		08-Sep-22 A		15-May-25			
CE0399	NCE-PMI-0399 - Revised MVAC Layout for Sludge Dewatering Building	0		22-Sep-22 A		15-May-25			
CE0409	CNE-0409 - Inclement Weather -August 2022 (Time Implication)	0		22-Sep-22 A		15-May-25			
CE0410	CNE-0410 - Tropical Cyclone Warning Signal No. 8 - August 2022 (Time and Cost Implication)	0		22-Sep-22 A		15-May-25			
CE0364-1	NCE-PMI-0364-1 - Provision of Security and Utility Services for Additional Temporary Storage Area	0		10-Oct-22 A		15-May-25			
CE0288b	NCE-NCE-0288 - Revised Access Date for Portion C-2A	1	21-Oct-22	21-Oct-22*	30-Jan-22	30-Jan-22	-264	CE0288a	
CE0287b	NCE-NCE-0287 - Revised Access Date for Portion C2-C	1	21-Oct-22	21-Oct-22*	13-May-22	13-May-22	-161	CE0287a	
CE0286b	NCE-NCE-0286 - Revised Access Date for Portion C2-B	1	21-Oct-22	21-Oct-22*	20-Mar-22	20-Mar-22	-215	CE0286a	
Preliminaries		2032	23-Oct-19 A	15-May-25	26-May-22	15-May-25	0		
Mobilisation		1687	23-Oct-19 A	04-Jun-24	26-May-22	15-May-25	345		
PL1000	Provison of Equipment / Facilities for the PM's Office	1687	23-Oct-19 A	04-Jun-24	01-Oct-23	15-May-25	345	AD1200, AD1220, CD1010	CD1040



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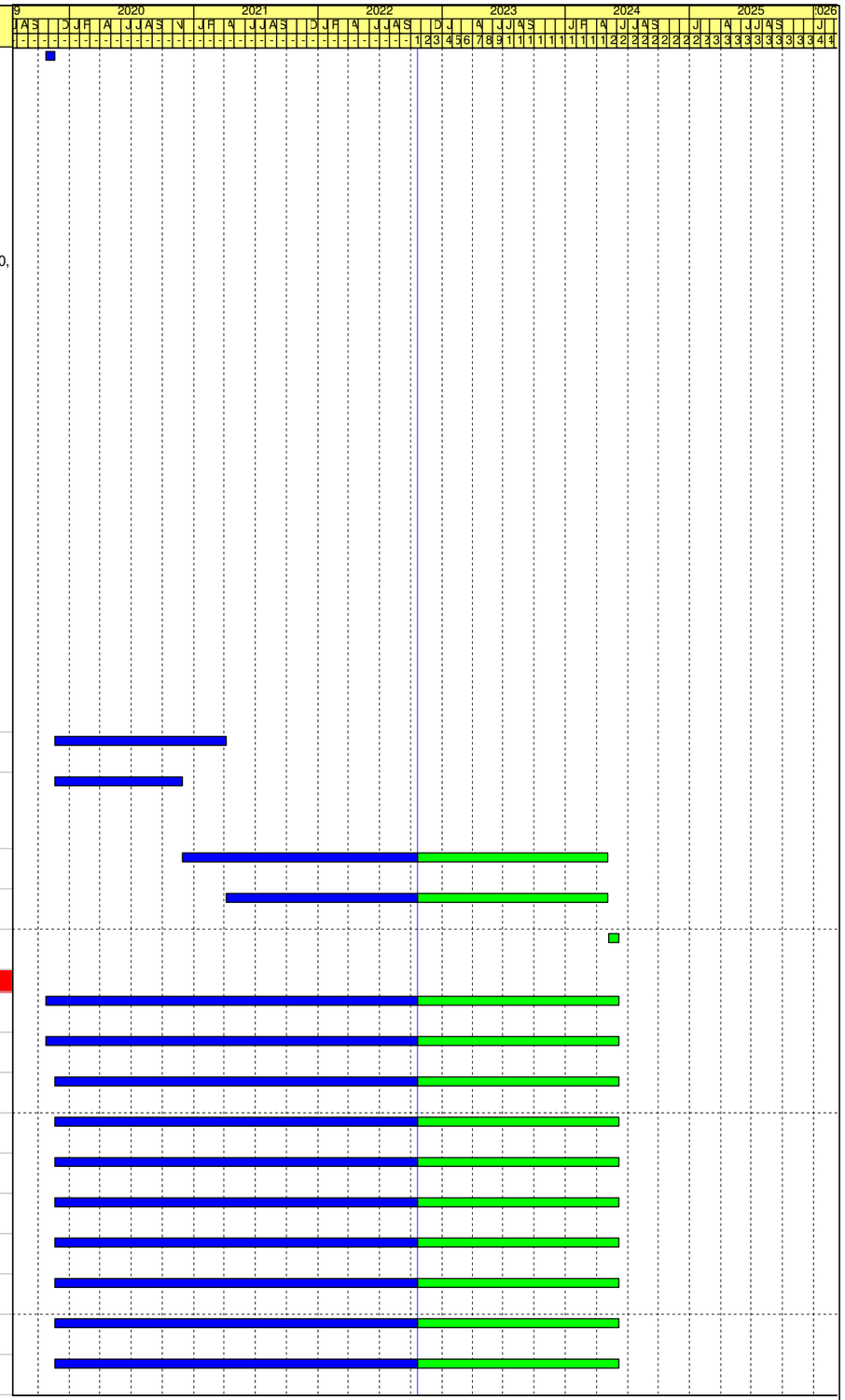
PL1010	Mobilisation	28	23-Oct-19 A	19-Nov-19 A	26-May-22	26-May-22		CD1010	PL1240, S2P1010, S2P1030, S2P1040, S2P1070, S2P1140, S2P1160, S2P1170, S2P1220, S5P1050, PL1090, PL1020, PL1030, PL1100, PL1110, PL1120, PL1130, PL1140, PL1150, PL1160, PL1170, PL1180, PL1220, PL1230, PL1440, PL1450, S1P1000, S1P1010, S1P1020, S1P1040, S1P1050, S2D1000, S1D1000, S2D1040, S2P1050, S3P1000, S4P1000, S4P1090
PL1030	Design, Procurement & PO & Construction of Contractor's Storage Area (Works Area WA3)	503	20-Nov-19 A	05-Apr-21 A	01-Oct-23	01-Oct-23		AD1220, PL1010	PL1050
PL1020	Design, Procurement & PO & Construction of Contractor's Site Office (Works Area WA1-B)	270	20-Nov-19 A	27-Nov-20 A	05-Jul-22	05-Jul-22		AD1200, PL1010	PL1040, S2D1930, S2D1990, S5CHPP1040
PL1040	Maintain Contractor's Site Office	1255	28-Nov-20 A	05-May-24	01-Oct-23	15-Apr-25	345	PL1020	PL1060
PL1050	Maintain Contractor's Storage Area	1126	06-Apr-21 A	05-May-24	01-Oct-23	15-Apr-25	345	PL1030	PL1060
PL1060	Removal of Site Office, Storage & Relevant Facilities	30	06-May-24	04-Jun-24	16-Apr-25	15-May-25	345	PL1040, PL1050	CD1040
Site Preliminaries		2032	23-Oct-19 A	15-May-25	13-Sep-23	15-May-25	0		
PL1070	Provision of Insurance, Third Party Insurances & PII	1687	23-Oct-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010	CD1040
PL1080	Provision of 2 Contract Car for the Use of the PM & Supervisor	1687	23-Oct-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010	CD1040
PL1100	Provision of Photographs	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1110	Provision of Environmental Mitigation Measures	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1120	Provision of Air Pollution Abatment	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1130	Provision of Noise Pollution Abatment	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1140	Provision of Wastewater Pollution Abatement	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1150	Provision of Wastement Management	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1160	Provision of Monitoring the Use of Ultra Low Sulphur Diesel	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1170	Provision of Environmental Management	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040



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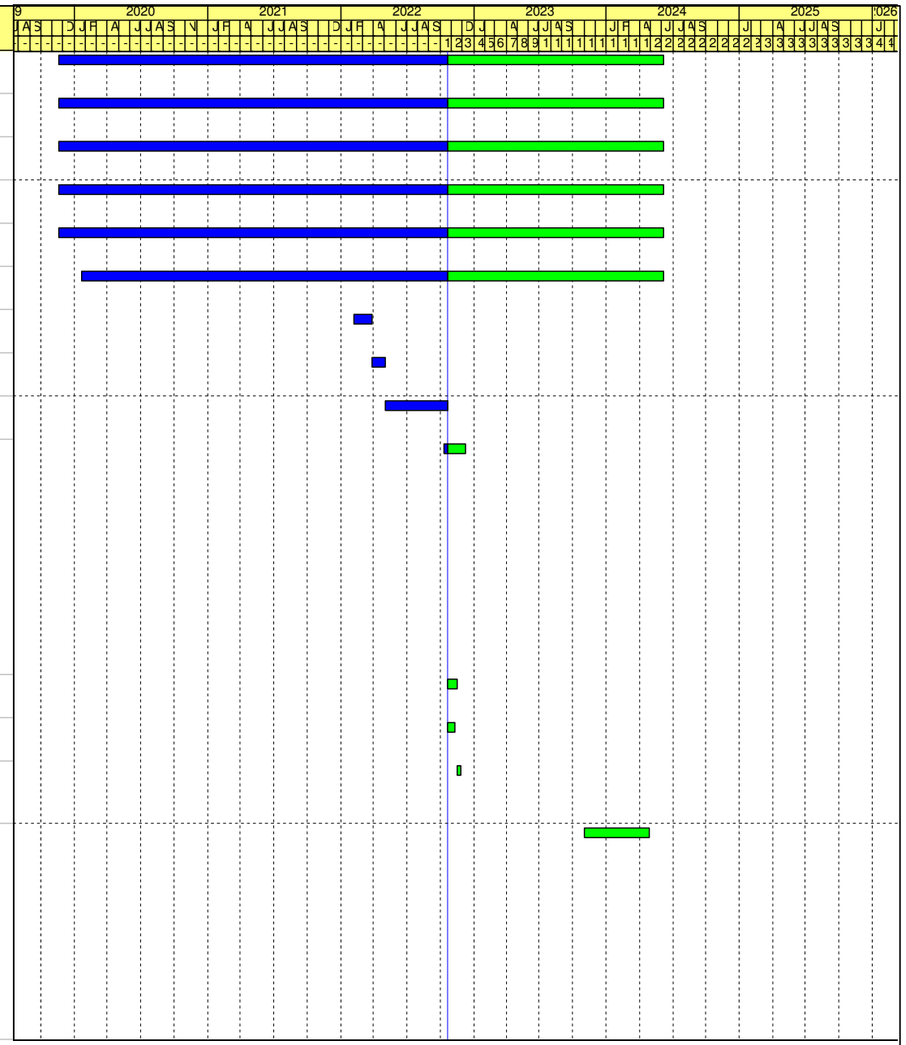
PL1180	Provision of Site Management Plan for Trip Ticket System	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1220	Provision of Systematic Risk Management	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1230	Provision of Site Liaison Group & Community Liaison Group	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1240	Provision of 24-Hour Telephone Line	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1440	Provision of ICE for Certification of the Design, Cal, Dwgs, Plans and all relevant Doc and Process Commissioning	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1090	Provision of 1 Electric Car for the Use of the PM & Supervisor	1596	22-Jan-20 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
PL1360	Prepare & Submit O&M Manual for Section 4	50	07-Feb-22 A	28-Mar-22 A	24-Apr-25	24-Apr-25		CD1010	CD1040, PL1370
PL1370	PM Reivew & Comment O&M Manual for Section 4	36	29-Mar-22 A	03-May-22 A	24-Apr-25	24-Apr-25		PL1360	PL1380
PL1380	Revise & Re-submit O&M Manual for Section 4	79	04-May-22 A	21-Oct-22	24-Apr-25	24-Apr-25	916	PL1370	PL1390
PL1200	Provision of As-constructed Drawings for Section 4	60	13-Oct-22 A	11-Dec-22	25-Mar-25	15-May-25	886	CD1010, S4C1160, S4C1150, S4C1120, S4C1110, S4C1100, S4C1090, S4C1080, S4C1070, S4C1040, S4C1030, S4C1020	CD1040, SC41110
PL1280	Submission & Acceptance of Training Programme, Training Manual & Syllabus for Section 4	27	21-Oct-22	16-Nov-22	07-Apr-25	03-May-25	899		PL1290
PL1390	PM Reivew & Approval of O&M Manual for Section 4	21	22-Oct-22	11-Nov-22	25-Apr-25	15-May-25	916	PL1380	CD1040, SC41110
PL1290	Provision of Training for Employer's Staff for Section 4	12	17-Nov-22	28-Nov-22	04-May-25	15-May-25	899	CD1010, S4T1020, PL1280	CD1040, SC41110
PL1190	Provision of As-constructed Drawings for Section 3	180	31-Oct-23	28-Apr-24	12-Nov-23	10-May-24	12	CD1010, S3C1150, S3C1170, S3C1180, S3C1190, S3C1200, S3C1210, S3C1220, S3C1230, S3C1240, S3C1250	CD1040, SC31110



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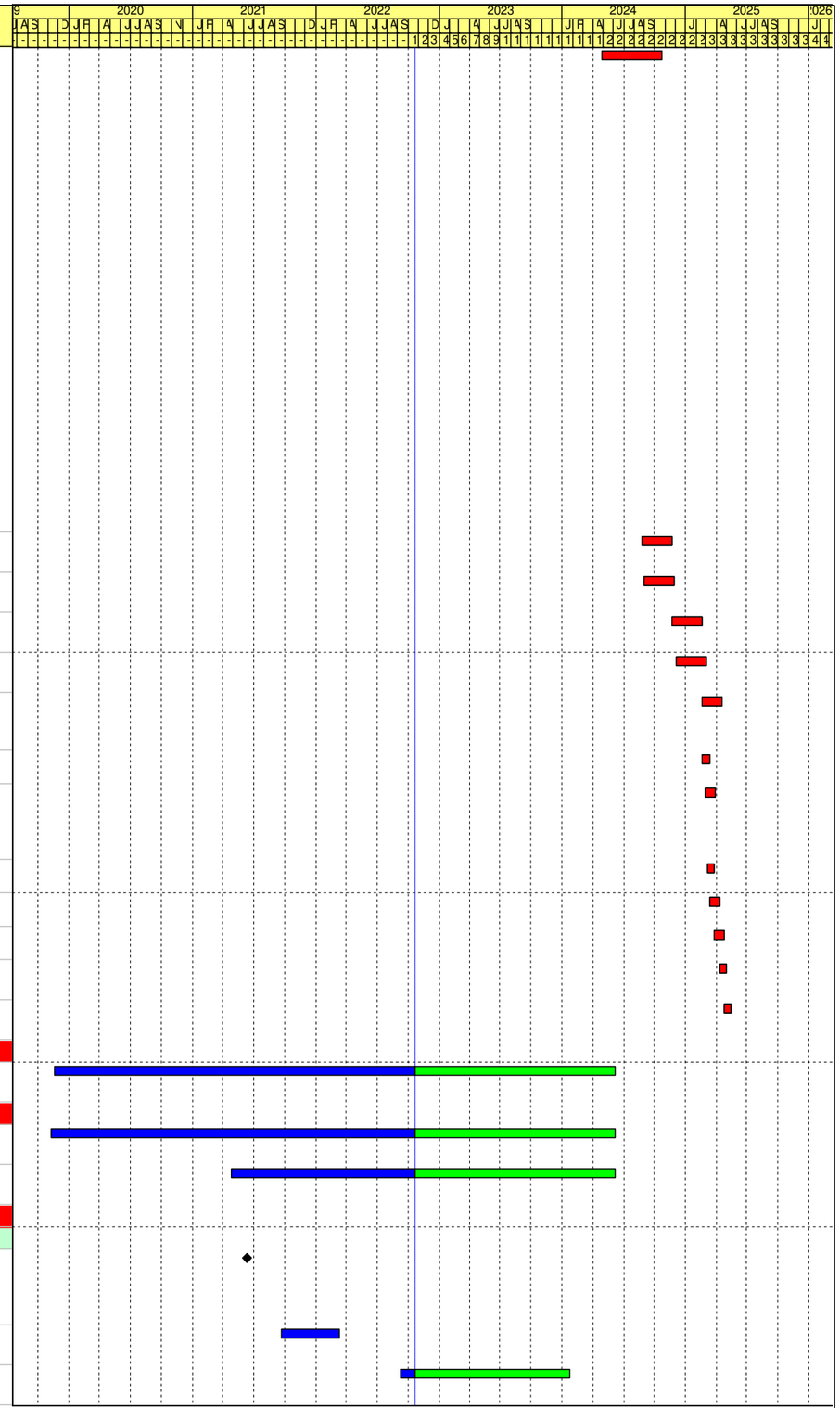
PL1210	Provision of As-constructed Drawings for Section 5	180	27-Apr-24	23-Oct-24	07-Nov-23	04-May-24	-172	CD1010, S5DIGC1040, S5CHPC1190, S5TXRC1050, S5DIGC1270, S5WS2C1110, S5WS2C1120, S5WS2C1130, S5WS2C1180, S5BIOC1040, S5THPC1030, S5H2SC1020, S5WGBC1020, S5PSWC1000, S5DOUC1040, S5SPSC1000, S5TCWC1020, S5FCDC1030, S5SHPC1020, S5EXAC1020, S5EXAC1030, S5EXAC1040, S5EXAC1050, S5EXAC1060, S5SASC1010, S5ECHC1000, S5UVPC1000	CD1040, SC51110
PL1260	Submission & Acceptance of Training Programme, Training Manual & Syllabus for Section 3	90	23-Aug-24	20-Nov-24	13-Sep-23	12-Dec-23	-345		PL1270
PL1300	Submission & Acceptance of Training Programme, Training Manual & Syllabus for Section 5	90	31-Aug-24	28-Nov-24	08-Oct-23	05-Jan-24	-328		PL1310
PL1400	Prepare & Submit O&M Manual for Section 5	90	21-Nov-24	18-Feb-25	07-Dec-23	05-Mar-24	-350	CD1010	CD1040, PL1410
PL1320	Prepare & Submit O&M Manual for Section 3	90	05-Dec-24	04-Mar-25	26-Dec-23	25-Mar-24	-345	CD1010, S3T1120	CD1040, PL1330
PL1270	Provision of Training for Employer's Staff for Section 3	60	19-Feb-25	19-Apr-25	11-Mar-24	10-May-24	-345	CD1010, PL1260, S3T1200	CD1040, SC31110
PL1410	PM Reivew & Comment O&M Manual for Section 5	21	19-Feb-25	11-Mar-25	06-Mar-24	26-Mar-24	-350	PL1400	PL1420
PL1310	Provision of Training for Employer's Staff for Section 5	30	27-Feb-25	28-Mar-25	05-Apr-24	04-May-24	-328	CD1010, S5T1180, S5DIGC1040, PL1300	CD1040, SC51110
PL1330	PM Reivew & Comment O&M Manual for Section 3	21	05-Mar-25	25-Mar-25	25-Mar-24	15-Apr-24	-345	PL1320	PL1340
PL1420	Revise & Re-submit O&M Manual for Section 5	30	12-Mar-25	10-Apr-25	27-Mar-24	25-Apr-24	-350	PL1410	PL1430
PL1340	Revise & Re-submit O&M Manual for Section 3	30	26-Mar-25	24-Apr-25	15-Apr-24	15-May-24	-345	PL1330	PL1350
PL1430	PM Reivew & Approval of O&M Manual for Section 5	21	11-Apr-25	01-May-25	26-Apr-24	16-May-24	-350	PL1420	CD1040, SC51110
PL1350	PM Reivew & Approval of O&M Manual for Section 3	21	25-Apr-25	15-May-25	15-May-24	05-Jun-24	-345	PL1340	CD1040, SC31110
Site Upkeeping		1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345		
PL1450	General Site Upkeeping of the Site	1659	20-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1010, PL1010	CD1040
Safety and Environmental Management		1675	10-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345		
PL1460	Construction Health and Safety Plan	1669	10-Nov-19 A	04-Jun-24	01-Oct-23	15-May-25	345	CD1000	CD1040
PL1470	Site Traffic Safety Management Plan	1137	25-Apr-21 A	04-Jun-24	01-Oct-23	15-May-25	345	AD1010	CD1040
Compliance with BEAM Requirements		1158	11-Jun-21 A	11-Sep-24	24-Nov-22	16-May-24	-118		
Sludge Dewatering Building		1068	11-Jun-21 A	13-Jun-24	16-Dec-22	16-May-24	-28		
PL1490	Material Submission & Design Calculation Approved	0		11-Jun-21 A		16-Dec-22		S2D1290, S2D1330, S2D1450, S2D1490	PL1500, SC21120
PL1500	Issued approved submission & Calculation to Cinotech	161	21-Sep-21 A	11-Mar-22 A	16-Dec-22	16-Dec-22		PL1490	PL1510
PL1510	Monthly Review & Submission	500	09-Sep-22 A	21-Jan-24	16-Dec-22	17-Mar-24	56	PL1500	PL1520



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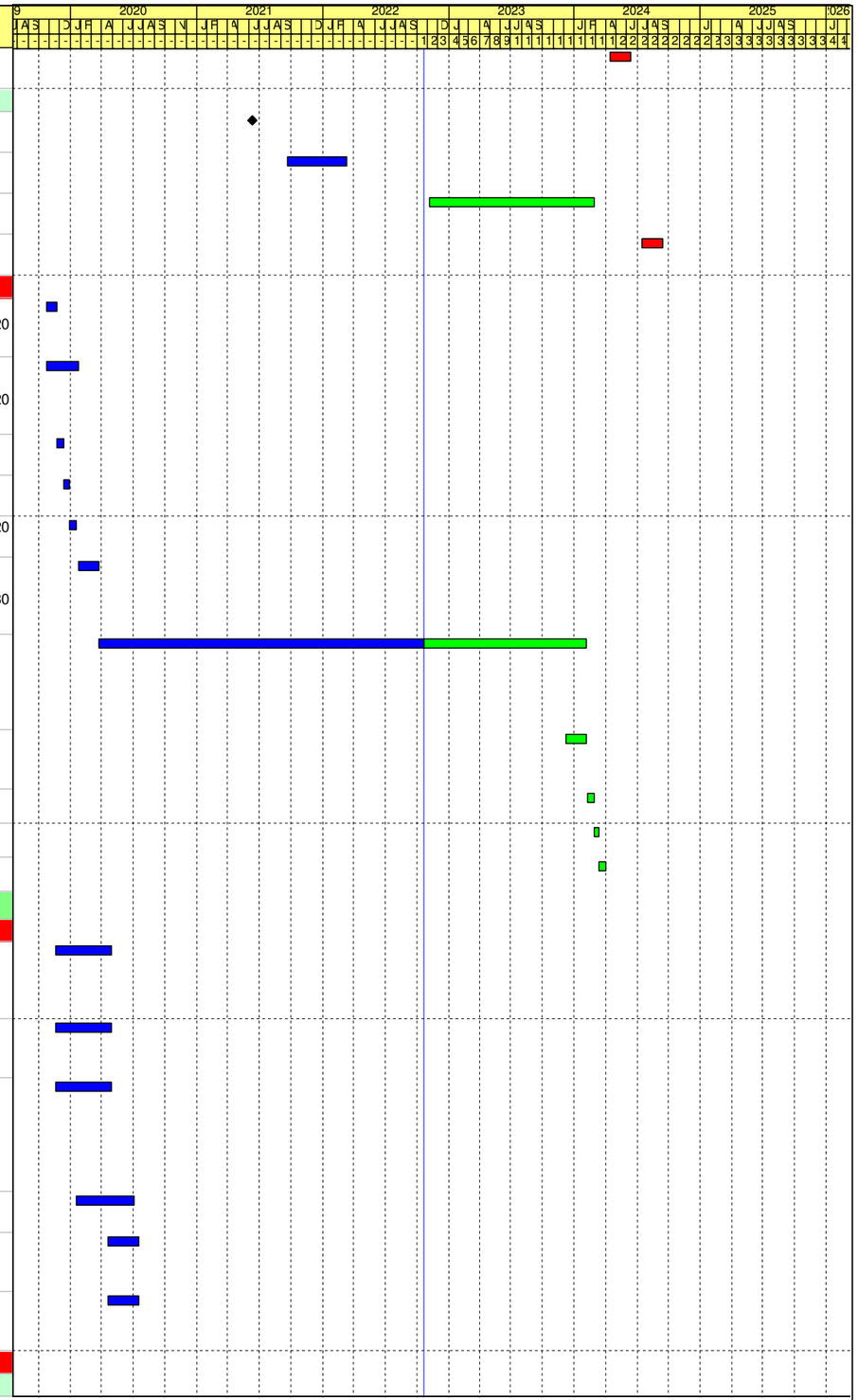
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
PL1520	Submission & Approval of Test Record	60	15-Apr-24	13-Jun-24	18-Mar-24	16-May-24	-28	PL1510, S5T1060	SC51120
CHP Building		1158	11-Jun-21 A	11-Sep-24	24-Nov-22	16-May-24	-118		
PL1530	Material Submission & Design Calculation Approved	0		11-Jun-21 A		24-Nov-22		S2D1610	PL1540, SC21120
PL1540	Issued approved submission & Calculation to Cinotech	168	21-Sep-21 A	11-Mar-22 A	24-Nov-22	24-Nov-22		PL1530	PL1550
PL1550	Monthly Review & Submission	480	06-Nov-22	28-Feb-24	24-Nov-22	17-Mar-24	18	S5CHPC1020, PL1540	PL1560
PL1560	Submission & Approval of Test Record	60	14-Jul-24	11-Sep-24	18-Mar-24	16-May-24	-118	PL1550, S5T1100	SC51120
BIM		1623	24-Oct-19 A	02-Apr-24	03-Dec-23	15-May-25	408		
PL1570	Prepare & Submit Construction Stage BIM Execution Plan	30	24-Oct-19 A	22-Nov-19 A	03-Dec-23	03-Dec-23		CD1010	PL1580, PL1630, PL1620
PL1610	Contractor Review & Study Design Stage BIM	92	24-Oct-19 A	23-Jan-20 A	03-Dec-23	03-Dec-23		CD1010	CD1040, PL1640, PL1630, PL1620
PL1580	PM Reivew & Comment Construction Stage BIM Execution Plan	21	23-Nov-19 A	13-Dec-19 A	03-Dec-23	03-Dec-23		PL1570	PL1590
PL1590	Revise & Re-submit Construction Stage BIM Execution Plan	14	14-Dec-19 A	27-Dec-19 A	03-Dec-23	03-Dec-23		PL1580	PL1600
PL1600	PM Reivew & Approval of Construction Stage BIM Execution Plan	21	28-Dec-19 A	17-Jan-20 A	03-Dec-23	03-Dec-23		PL1590	PL1630, PL1620
PL1620	Contractor Develop 1st Construction Stage BIM	60	24-Jan-20 A	23-Mar-20 A	03-Dec-23	03-Dec-23		PL1600, PL1570, PL1610	CD1040, PL1640, PL1630, PL1630
PL1630	Review & Update BIM Execution Plan & BIM Model	1415	24-Mar-20 A	06-Feb-24	03-Dec-23	20-Mar-25	408	PL1570, PL1620, PL1600, PL1610, PL1620	CD1040, PL1640
PL1640	Prepare & Submit the Fully Coordinated BIM	60	09-Dec-23	06-Feb-24	20-Jan-25	20-Mar-25	408	PL1620, PL1630, PL1610	PL1650
PL1650	PM Reivew & Comment Fully Coordinated BIM	21	07-Feb-24	27-Feb-24	21-Mar-25	10-Apr-25	408	PL1640	PL1660
PL1660	Revise & Re-submit Fully Coordinated BIM	14	28-Feb-24	12-Mar-24	11-Apr-25	24-Apr-25	408	PL1650	PL1670
PL1670	PM Reivew & Approval of Fully Coordinated BIM	21	13-Mar-24	02-Apr-24	25-Apr-25	15-May-25	408	PL1660	CD1040
Section 1 - Design for UV System No. 1 & Effluent Pumping Station No.1		284	21-Nov-19 A	08-Aug-20 A	30-Jun-22	15-May-25			
Major Plant & Materials Procurement		240	21-Nov-19 A	17-Jul-20 A	30-Jun-22	12-Mar-23			
S1P1000	Procurement & PO for UV Disinfection System (S10)	150	21-Nov-19 A	28-Apr-20 A	30-Jun-22	30-Jun-22		CD1000, CD1010, PL1010	SC11110, S4P1040, S1D1000, S1P1030
S1P1010	Procurement & PO for Lift-up Pumps (S11)	150	21-Nov-19 A	28-Apr-20 A	30-Jun-22	30-Jun-22		CD1010, PL1010	SC11110, S4P1070, S1D1000
S1P1020	Procurement & PO for Transfer Pumps (S13)	150	21-Nov-19 A	28-Apr-20 A	30-Jun-22	30-Jun-22		CD1010, PL1010	SC11110, S4P1080, S1P1040, S1P1050, S1D1000, S4P1090
S1P1030	Procurement & PO for EOT Cranes (2T & 5T) (S19)	150	19-Jan-20 A	03-Jul-20 A	26-Feb-23	26-Feb-23		S1P1000	SC11110, S4P1100
S1P1040	Procurement & PO for Stoplogs (S21)	90	18-Apr-20 A	17-Jul-20 A	12-Mar-23	12-Mar-23		S1P1020, PL1010	SC11110, S4P1110, S2P1160
S1P1050	Procurement & PO for Penstocks (S21)	90	18-Apr-20 A	17-Jul-20 A	12-Mar-23	12-Mar-23		S1P1020, PL1010	SC11110, S4P1120, S2P1170
Design & Submission		217	27-Jan-20 A	08-Aug-20 A	30-Jun-22	15-May-25			
General Arrangement Drawings		217	27-Jan-20 A	08-Aug-20 A	30-Jun-22	17-Nov-22			



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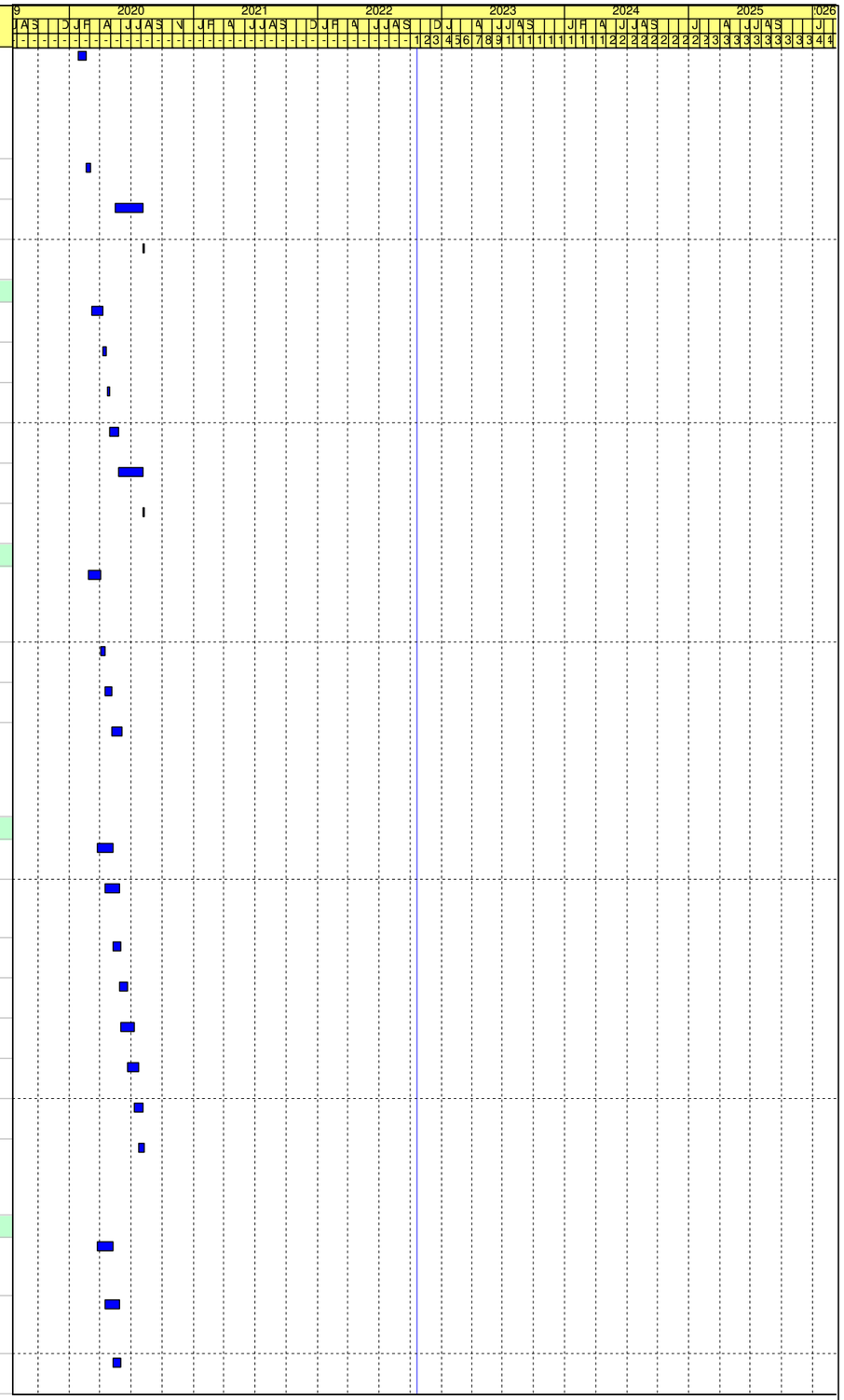
S1D1000	Prepare & Submit General Arrangement Drawings	90	27-Jan-20 A	19-Feb-20 A	30-Jun-22	30-Jun-22		S1P1000, S1P1010, S1P1020, PL1010	S1D1010, S1D1040, S1D1100, S1D1180, S1D1260, S4P1010
S1D1010	Review & Comment on General Arrangement Drawings by PM	21	20-Feb-20 A	04-Mar-20 A	17-Nov-22	17-Nov-22		S1D1000	S1D1020
S1D1020	Revise & Re-submit General Arrangement Drawings	14	16-May-20 A	05-Aug-20 A	17-Nov-22	17-Nov-22		S1D1010	S1D1030
S1D1030	Review & Accept of General Arrangement Drawings by PM	5	06-Aug-20 A	08-Aug-20 A	17-Nov-22	17-Nov-22		S1D1020	SC11110, S3C1170
Civil & Dimensional / Tolerance Requirement Drawings		176	07-Mar-20 A	08-Aug-20 A	17-Mar-23	15-May-25			
S1D1040	Prepare & Submit Civil Requirement Drawings	60	07-Mar-20 A	08-Apr-20 A	17-Mar-23	17-Mar-23		CD1010, S1D1000	S1D1050, KD1000
S1D1050	Review & Comment on Civil Requirement Drawings by PM	21	09-Apr-20 A	20-Apr-20 A	15-May-25	15-May-25		S1D1040	S1D1060
S1D1060	Revise & Re-submit Civil Requirement Drawings	14	21-Apr-20 A	29-Apr-20 A	15-May-25	15-May-25		S1D1050	S1D1070
S1D1070	Review & Comment of Civil Requirement Drawings by PM	21	30-Apr-20 A	25-May-20 A	15-May-25	15-May-25		S1D1060	SC11110, S1D1080
S1D1080	Revise & Re-submit Civil Requirement Drawings	28	26-May-20 A	05-Aug-20 A	15-May-25	15-May-25		S1D1070	S1D1090
S1D1090	Review & Accept of Civil Requirement Drawings by PM	5	06-Aug-20 A	08-Aug-20 A	15-May-25	15-May-25		S1D1080	SC11110
Electrical Schematic Drawings		116	25-Feb-20 A	03-Jun-20 A	30-Jun-22	30-Jun-22			
S1D1100	Prepare & Submit Elec. Schematic Drawings	60	25-Feb-20 A	03-Apr-20 A	30-Jun-22	30-Jun-22		CD1010, S1D1000	S1D1110, KD1000, S1D1140, S1D1220
S1D1110	Review & Comment on Elec. Schematic Drawings by PM	21	04-Apr-20 A	16-Apr-20 A	30-Jun-22	30-Jun-22		S1D1100	S1D1120
S1D1120	Revise & Re-submit Elec. Schematic Drawings	14	17-Apr-20 A	04-May-20 A	30-Jun-22	30-Jun-22		S1D1110	S1D1130
S1D1130	Review & Accept of Elec. Schematic Drawings by PM	21	05-May-20 A	03-Jun-20 A	30-Jun-22	30-Jun-22		S1D1120	S5TXRP1000, S4C1000, S4C1010, S4P1020, SC11110
UV System No. 1		146	24-Mar-20 A	08-Aug-20 A	30-Jun-22	15-May-25			
S1D1140	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	60	24-Mar-20 A	08-May-20 A	30-Jun-22	30-Jun-22		CD1010, S1D1100	S1D1150, S1D1180
S1D1180	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	60	15-Apr-20 A	29-May-20 A	30-Jun-22	30-Jun-22		CD1010, S1D1140, S1D1000	S1D1190, S4C1020
S1D1150	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	09-May-20 A	01-Jun-20 A	15-May-25	15-May-25		S1D1140	S1D1160
S1D1190	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	30-May-20 A	19-Jun-20 A	30-Jun-22	30-Jun-22		S1D1180	S1D1200
S1D1160	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	14	02-Jun-20 A	10-Jul-20 A	15-May-25	15-May-25		S1D1150	S1D1170
S1D1200	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	14	20-Jun-20 A	23-Jul-20 A	30-Jun-22	30-Jun-22		S1D1190	S1D1210
S1D1170	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	11-Jul-20 A	06-Aug-20 A	15-May-25	15-May-25		S1D1160	SC11110
S1D1210	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	14	24-Jul-20 A	08-Aug-20 A	30-Jun-22	30-Jun-22		S1D1200	S4P1040, S5TXRP1000, S5TXRP1010, SC11110
Effluent Pumping Station No. 1		139	24-Mar-20 A	08-Aug-20 A	30-Jun-22	15-May-25			
S1D1220	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	60	24-Mar-20 A	08-May-20 A	30-Jun-22	30-Jun-22		CD1010, S1D1100	S1D1230, S1D1260, S1D1300
S1D1260	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	60	15-Apr-20 A	29-May-20 A	30-Jun-22	30-Jun-22		CD1010, S1D1220, S1D1000	S1D1270, S4C1020
S1D1230	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	09-May-20 A	01-Jun-20 A	15-May-25	15-May-25		S1D1220	S1D1240



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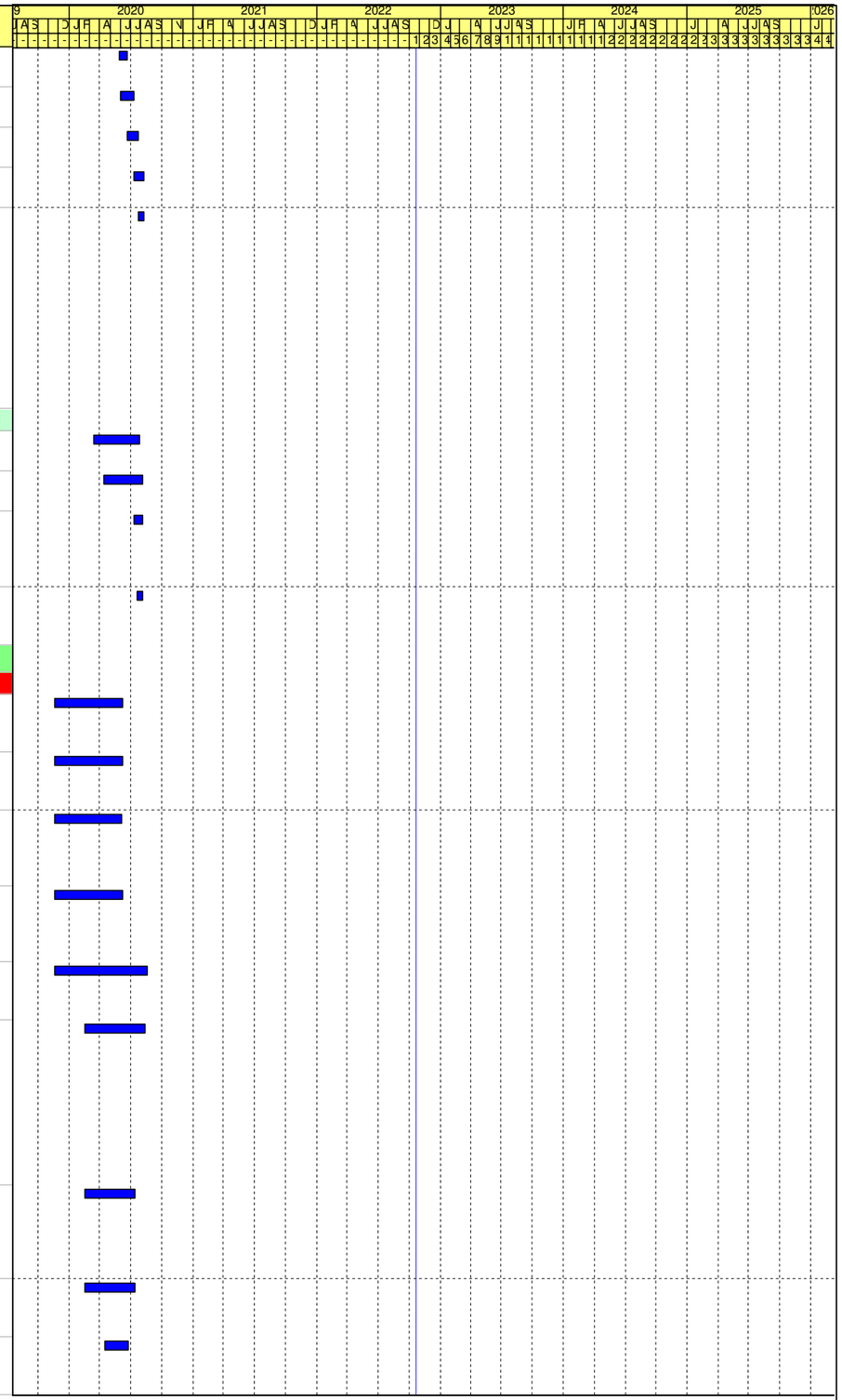
S1D1270	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	30-May-20 A	19-Jun-20 A	30-Jun-22	30-Jun-22		S1D1260	S1D1280
S1D1240	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	14	02-Jun-20 A	10-Jul-20 A	15-May-25	15-May-25		S1D1230	S1D1250
S1D1280	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	14	20-Jun-20 A	23-Jul-20 A	30-Jun-22	30-Jun-22		S1D1270	S1D1290
S1D1250	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	11-Jul-20 A	08-Aug-20 A	15-May-25	15-May-25		S1D1240	SC11110
S1D1290	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	14	24-Jul-20 A	08-Aug-20 A	30-Jun-22	30-Jun-22		S1D1280	S4P1110, S4P1120, S4P1070, S4P1080, S4P1090, S4P1100, S5TXRP1000, S5TXRP1010, S5TXRP1020, S4P1130, SC11110
Building Services		147	15-Mar-20 A	06-Aug-20 A	11-Nov-22	25-Mar-25			
S1D1300	Prepare & Submit BS Works Design & Dwgs UV System No.1 & Effluent Pumping Station No.1	90	15-Mar-20 A	27-Jul-20 A	11-Nov-22	11-Nov-22		S1D1220	S1D1320, S1D1310
S1D1320	Prepare & Submit FS Works Design & Dwgs UV System No.1 & Effluent Pumping Station No.1	60	14-Apr-20 A	05-Aug-20 A	25-Mar-25	25-Mar-25		S1D1300	S1D1330
S1D1330	Review & Accept of FS Works Design & Dwgs UV System No.1 & Effluent Pumping Station No.1	8	09-Jul-20 A	06-Aug-20 A	25-Mar-25	25-Mar-25		S1D1320	SC11110, S4P1030, S4P1140, S4P1150
S1D1310	Review & Accept of BS Works Design & Dwgs UV System No.1 & Effluent Pumping Station No.1	8	21-Jul-20 A	05-Aug-20 A	11-Nov-22	11-Nov-22		S1D1300	SC11110, S5TXRC1030, S4C1110
Section 2 - Complete All Designs (exclude Sec. 1 & 3)		943	20-Nov-19 A	21-Oct-22	31-Oct-21	15-May-25	937		
Major Plant & Materials Procurement		571	20-Nov-19 A	23-Apr-21 A	26-May-22	15-May-25			
S2P1010	Procurement & PO for Sludge Thickening System (S3)	180	20-Nov-19 A	08-Jun-20 A	15-Aug-22	15-Aug-22		PL1010, CD1010	SC21110, S2D1300, S2P1030
S2P1030	Procurement & PO for Sludge Dewatering System (S6)	180	20-Nov-19 A	08-Jun-20 A	15-Aug-22	15-Aug-22		PL1010, CD1010, S2P1010	SC21110, S2D1460
S2P1040	Procurement & PO for THP System (S4)	180	20-Nov-19 A	05-Jun-20 A	19-Jun-22	19-Jun-22		CD1010, PL1010	SC21110, S5THPP1000, S2D1340, S2P1020
S2P1070	Procurement & PO for CHP System (S8)	180	20-Nov-19 A	08-Jun-20 A	26-May-22	26-May-22		PL1010	SC21110, S5CHPP1010, S2D1540, S2P1110
S2P1050	Procurement & PO for Biogas Holding Tanks(S7)	180	20-Nov-19 A	20-Aug-20 A	01-Jun-22	01-Jun-22		PL1010	SC21110, S5BIOP1010, S2D1500
S2P1020	Procurement & PO for Sludge Digestion System (S5)	150	18-Feb-20 A	12-Aug-20 A	19-Jun-22	19-Jun-22		CD1010, S2P1040	SC21110, S5DIGP1000, S2D1420, S5DIGP1010, S2P1180, S2P1210, S5P1040, S2P1000, S5P1020
S2P1110	Procurement & PO for Transfomers (S17)	150	18-Feb-20 A	13-Jul-20 A	26-May-22	26-May-22		S2P1070	SC21110, S5WS2P1000, S2P1120, S2P1140, S5TXRP1000
S2P1120	Procurement & PO for 11 kV Switchboard (S17)	150	18-Feb-20 A	13-Jul-20 A	12-Jun-22	12-Jun-22		S2P1110	SC21110, S5WS2P1060, S2P1130
S2P1150	Procurement & PO for DO System (S21)	150	15-Apr-20 A	24-Jun-20 A	03-Nov-22	03-Nov-22		S2P1000	SC21110, S5DOUP1000, S2D1930



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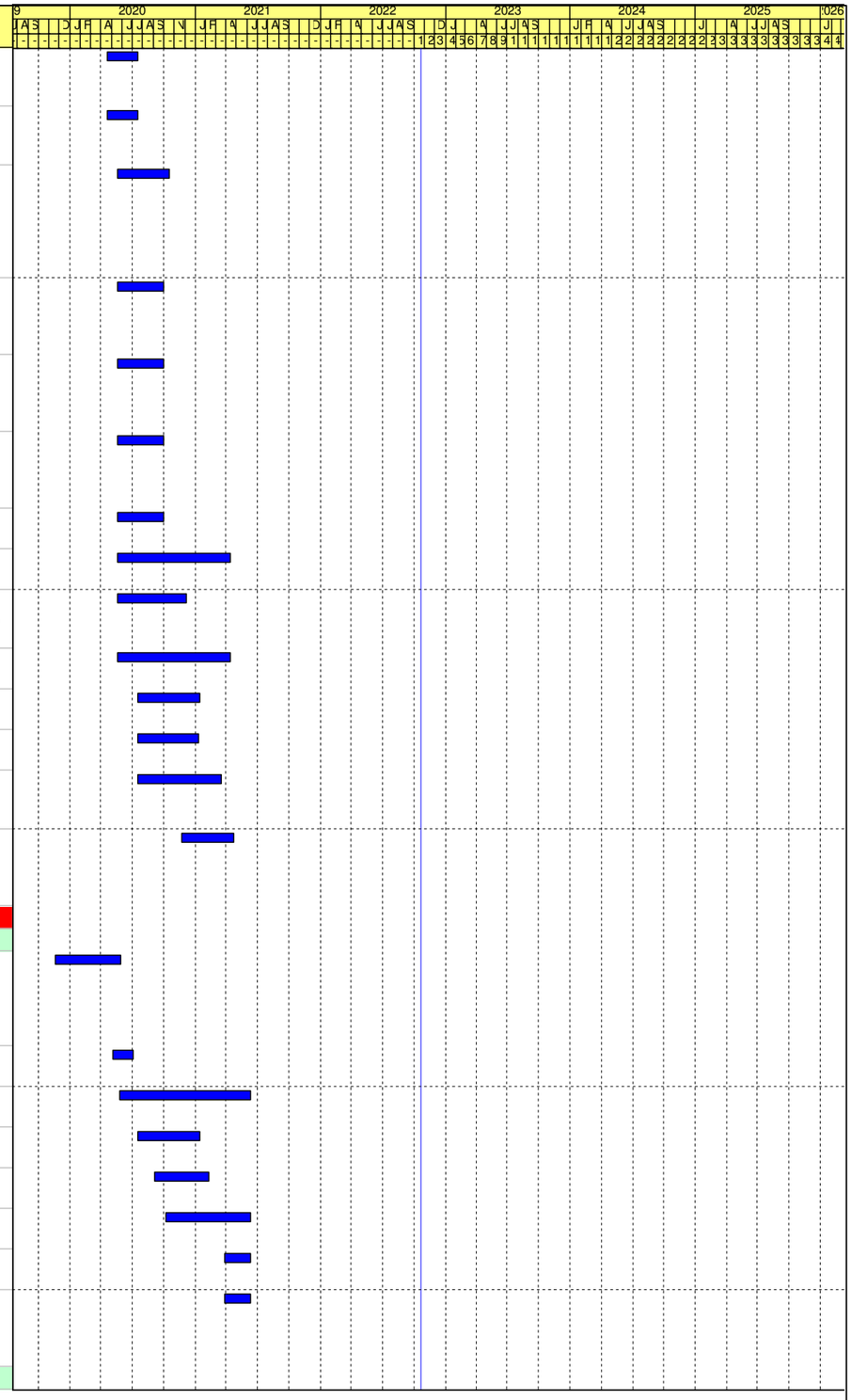
S2P1160	Procurement & PO for Stoplog (S21)	90	18-Apr-20 A	17-Jul-20 A	12-Mar-23	12-Mar-23		PL1010, S1P1040	SC21110, S5SASP1010, S2P1170
S2P1170	Procurement & PO for Penstock (S21)	90	18-Apr-20 A	17-Jul-20 A	12-Mar-23	12-Mar-23		PL1010, S2P1160, S1P1050	SC21110, S5SASP1020
S2P1000	Procurement & PO for Sludge Screening System (S2)	150	18-May-20 A	16-Oct-20 A	19-Jun-22	19-Jun-22		S2P1020	SC21110, S2D1260, S5P1000, S2P1060, S2P1150, S5P1030
S2P1090	Procurement & PO for Plant Service Water System (S12)	150	18-May-20 A	30-Sep-20 A	15-Aug-22	15-Aug-22			SC21110, S5PSWP1000, S2D1660, S2P1190
S2P1100	Procurement & PO for SAS Pumping System (S14)	150	18-May-20 A	30-Sep-20 A	05-Jul-22	05-Jul-22			SC21110, S5SASP1000, S2D1700, S2P1220
S2P1180	Procurement & PO for Sewage Pump (S21)	120	18-May-20 A	30-Sep-20 A	13-Nov-22	13-Nov-22		S2P1020	SC21110, S5SPSP1000, S2D1940, S2P1200
S2P1190	Procurement & PO for Process Water Pump (S21)	120	18-May-20 A	30-Sep-20 A	15-May-25	15-May-25		S2P1090	SC21110, S2D1950
S2P1200	Procurement & PO for External Sludge Transfer Pump (S21)	348	18-May-20 A	14-Apr-21 A	29-Dec-22	29-Dec-22		S2P1180	SC21110, S2D1960
S2P1210	Procurement & PO for THP Cooling Pump (S21)	150	18-May-20 A	04-Dec-20 A	29-Dec-22	29-Dec-22		S2P1020	SC21110, S5TCWP1000, S2D1970
S2P1220	Procurement & PO for Temporary Primary Sludge Pump (S21)	348	18-May-20 A	14-Apr-21 A	05-Jul-22	05-Jul-22		PL1010, S2P1100	SC21110, S5ECHP1000
S2P1080	Procurement & PO for Waste Gas Burning System (S9)	150	17-Jul-20 A	15-Jan-21 A	09-Sep-22	09-Sep-22			SC21110, S5WGBP1000
S2P1140	Procurement & PO for Control & Monitoring System (S18)	183	17-Jul-20 A	11-Jan-21 A	27-Jan-23	27-Jan-23		PL1010, S2P1110	SC21110, S5TXRP1020
S2P1060	Procurement & PO for H2S Removal System (S7)	234	17-Jul-20 A	17-Mar-21 A	15-Aug-22	15-Aug-22		S2P1000	SC21110, S5H2SP1000, S2D1500
S2P1130	Procurement & PO for 380V Switchboard (S17)	174	21-Nov-20 A	23-Apr-21 A	19-Jun-22	19-Jun-22		S2P1120, S2D1220	SC21110, S5WS2P1090, S5P1050, S5TXRP1010
Design & Submission		860	20-Nov-19 A	11-Jun-21 A	20-May-22	15-May-25			
General Arrangement Drawings		715	20-Nov-19 A	11-Jun-21 A	01-Jun-22	15-May-25			
S2D1000	Prepare & Submit General Arrangement Drawings (from formation level up to +8mPD)	180	20-Nov-19 A	29-May-20 A	01-Jun-22	01-Jun-22		PL1010	S2D1010, S2D1080, S2D1160, S2D1040, S2D1340
S2D1010	Review & Comment on General Arrangement Drawings by PM (from formation level up to +8mPD)	21	07-May-20 A	02-Jul-20 A	15-May-25	15-May-25		S2D1000	S2D1020
S2D1020	Revise & Re-submit General Arrangement Drawings (from formation level up to +8mPD)	381	26-May-20 A	10-Jun-21 A	15-May-25	15-May-25		S2D1010	S2D1030
S2D1040	Prepare & Submit General Arrangement Drawings (remaining)	177	17-Jul-20 A	15-Jan-21 A	01-Jun-22	01-Jun-22		PL1010, S2D1000	S2D1050, S2D1120
S2D1050	Review & Comment on General Arrangement Drawings by PM (remaining)	21	05-Sep-20 A	08-Feb-21 A	01-Jun-22	01-Jun-22		S2D1040	S2D1060
S2D1060	Revise & Re-submit General Arrangement Drawings (remaining)	248	06-Oct-20 A	10-Jun-21 A	01-Jun-22	01-Jun-22		S2D1050	S2D1070
S2D1030	Review & Accept of General Arrangement Drawings by PM (from formation level up to +8mPD)	77	26-Mar-21 A	11-Jun-21 A	15-May-25	15-May-25		S2D1020	SC21110
S2D1070	Review & Accept of General Arrangement Drawings by PM (remaining)	77	26-Mar-21 A	11-Jun-21 A	01-Jun-22	01-Jun-22		S2D1060	SC21110, S5S1060, S5P1010, S5S1050
Civil & Dimensional / Tolerance Requirement Drawings		522	04-Mar-20 A	11-Jun-21 A	15-Aug-22	15-May-25			



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Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
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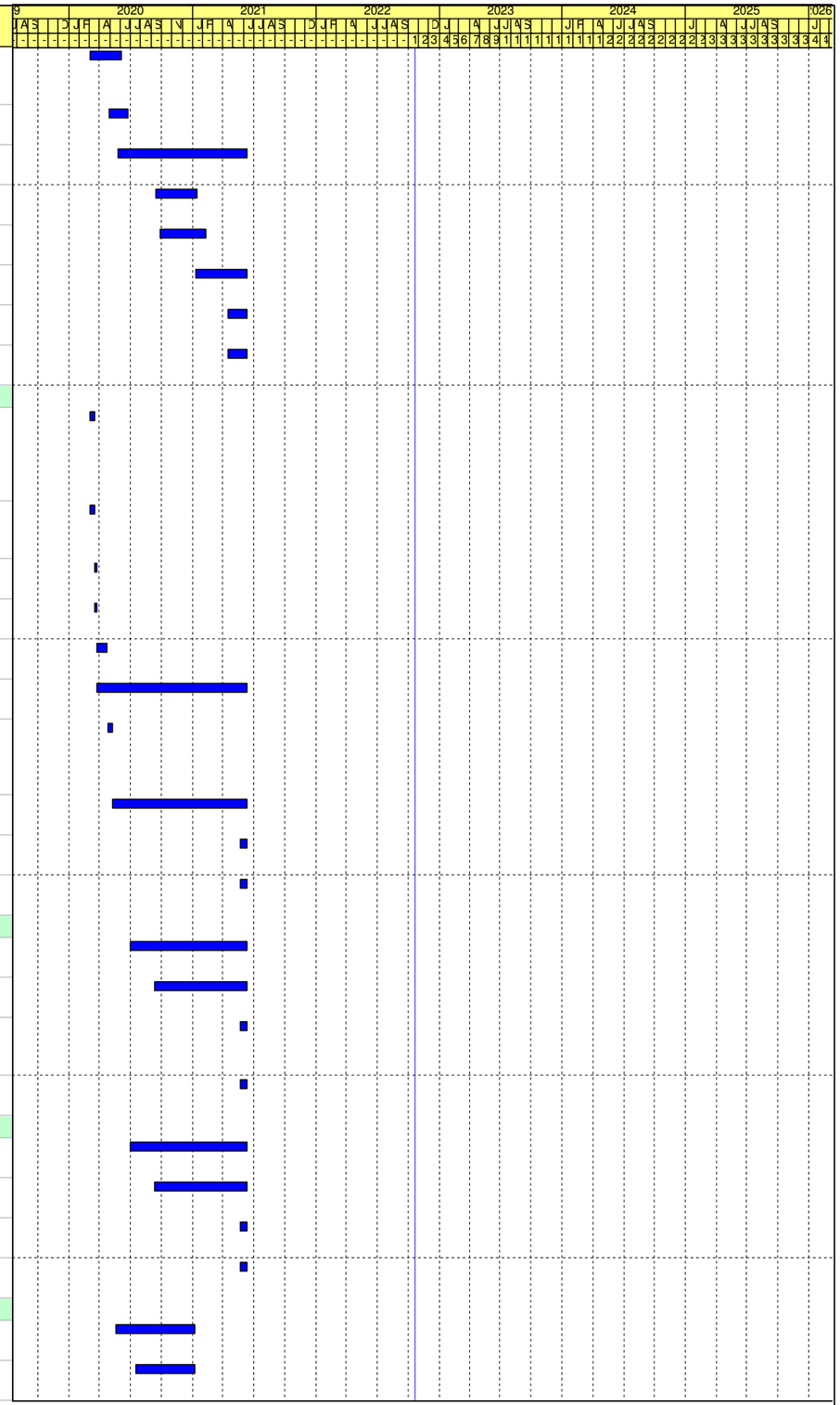
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S2D1080	Prepare & Submit Civil Requirement Drawings (from formation level up to +8mPD) -KD2A	90	04-Mar-20 A	04-Jun-20 A	15-Aug-22	15-Aug-22		S2D1000	S2D1090, S2D1660, KD1010
S2D1090	Review & Comment on Civil Requirement Drawings by PM (from formation level up to +8mPD)	21	30-Apr-20 A	23-Jun-20 A	02-Sep-22	02-Sep-22		S2D1080	S2D1100
S2D1100	Revise & Re-submit Civil Requirement Drawings (from formation level up to +8mPD)	381	26-May-20 A	10-Jun-21 A	02-Sep-22	02-Sep-22		S2D1090	S2D1110
S2D1120	Prepare & Submit Civil Requirement Drawings (remaining) -KD2B	120	15-Sep-20 A	15-Jan-21 A	15-May-25	15-May-25		S2D1040	S2D1130, KD1020
S2D1130	Review & Comment on Civil Requirement Drawings by PM (remaining)	21	28-Sep-20 A	08-Feb-21 A	15-May-25	15-May-25		S2D1120	S2D1140
S2D1140	Revise & Re-submit Civil Requirement Drawings (remaining)	150	12-Jan-21 A	10-Jun-21 A	15-May-25	15-May-25		S2D1130	S2D1150
S2D1110	Review & Accept of Civil Requirement Drawings by PM (from formation level up to +8mPD)	55	17-Apr-21 A	11-Jun-21 A	02-Sep-22	02-Sep-22		S2D1100	SC21110, AD1120
S2D1150	Review & Accept of Civil Requirement Drawings by PM (remaining)	55	17-Apr-21 A	11-Jun-21 A	15-May-25	15-May-25		S2D1140	SC21110
Electrical Schematic Drawings		754	05-Mar-20 A	11-Jun-21 A	19-Jun-22	15-May-25			
S2D1160	Prepare & Elec. Schematic Drawings (from formation level up to +8mPD) -KD2A	90	05-Mar-20 A	16-Mar-20 A	19-Jun-22	19-Jun-22		S2D1000	S2D1170, S2D1260, S2D1660, KD1010, S2D1220
S2D1220	Prepare & Submit Elec. Schematic Drawings (remaining) -KD2B	120	05-Mar-20 A	16-Mar-20 A	19-Jun-22	19-Jun-22		S2D1160, S2D1180, S2D1190	S2D1230, KD1020, S2P1130
S2D1170	Review & Comment on Elec. Schematic Drawings by PM (from formation level up to +8mPD)	21	17-Mar-20 A	24-Mar-20 A	19-Jun-22	19-Jun-22		S2D1160	S2D1180
S2D1230	Review & Comment on Elec. Schematic Drawings by PM (remaining)	21	17-Mar-20 A	24-Mar-20 A	19-Jun-22	19-Jun-22		S2D1220	S2D1240
S2D1180	Revise & Re-submit Elec. Schematic Drawings (from formation level up to +8mPD)	28	25-Mar-20 A	23-Apr-20 A	19-Jun-22	19-Jun-22		S2D1170	S2D1190, S2D1220
S2D1240	Revise & Re-submit Elec. Schematic Drawings (remaining)	443	25-Mar-20 A	10-Jun-21 A	19-Jun-22	19-Jun-22		S2D1230	S2D1250
S2D1190	Review & Comment of Elec. Schematic Drawings by PM (from formation level up to +8mPD)	21	24-Apr-20 A	08-May-20 A	19-Jun-22	19-Jun-22		S2D1180	S2D1250, S5WS2P1090, S2D1220, S2D1200
S2D1200	Revise & Re-submit Elec. Schematic Drawings (from formation level up to +8mPD)	398	09-May-20 A	10-Jun-21 A	15-May-25	15-May-25		S2D1190	S2D1210
S2D1210	Review & Accept of Elec. Schematic Drawings by PM (from formation level up to +8mPD)	21	21-May-21 A	11-Jun-21 A	15-May-25	15-May-25		S2D1200	SC21110
S2D1250	Review & Accept of Elec. Schematic Drawings by PM (remaining)	21	24-May-21 A	11-Jun-21 A	19-Jun-22	19-Jun-22		S2D1240, S2D1190	SC21110, S5WS2P1090
Sludge Screening (SSc)		357	02-Jul-20 A	11-Jun-21 A	19-Jun-22	16-Dec-22			
S2D1260	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	344	02-Jul-20 A	10-Jun-21 A	19-Jun-22	19-Jun-22		S2D1160, S2P1000	S2D1270
S2D1280	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	274	10-Sep-20 A	10-Jun-21 A	16-Dec-22	16-Dec-22			S2D1290
S2D1270	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	19-Jun-22	19-Jun-22		S2D1260	S5WS2P1090, S5P1050, SC21110
S2D1290	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	16-Dec-22	16-Dec-22		S2D1280	SC21110, PL1490
Sludge Thickening (STh)		357	02-Jul-20 A	11-Jun-21 A	15-Aug-22	16-Dec-22			
S2D1300	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	344	02-Jul-20 A	10-Jun-21 A	15-Aug-22	15-Aug-22		S2P1010	S2D1310
S2D1320	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	274	10-Sep-20 A	10-Jun-21 A	16-Dec-22	16-Dec-22			S2D1330
S2D1310	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	15-Aug-22	15-Aug-22		S2D1300	SC21110, S5P1050
S2D1330	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	16-Dec-22	16-Dec-22		S2D1320	SC21110, PL1490
Thermal Hydrolysis Process (THP)		416	18-May-20 A	11-Jun-21 A	06-Jul-22	02-Nov-22			
S2D1340	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	241	18-May-20 A	07-Jan-21 A	06-Jul-22	06-Jul-22		S2P1040, S2D1000	S2D1350, S2D1970
S2D1380	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	180	17-Jul-20 A	07-Jan-21 A	02-Nov-22	02-Nov-22			S2D1390



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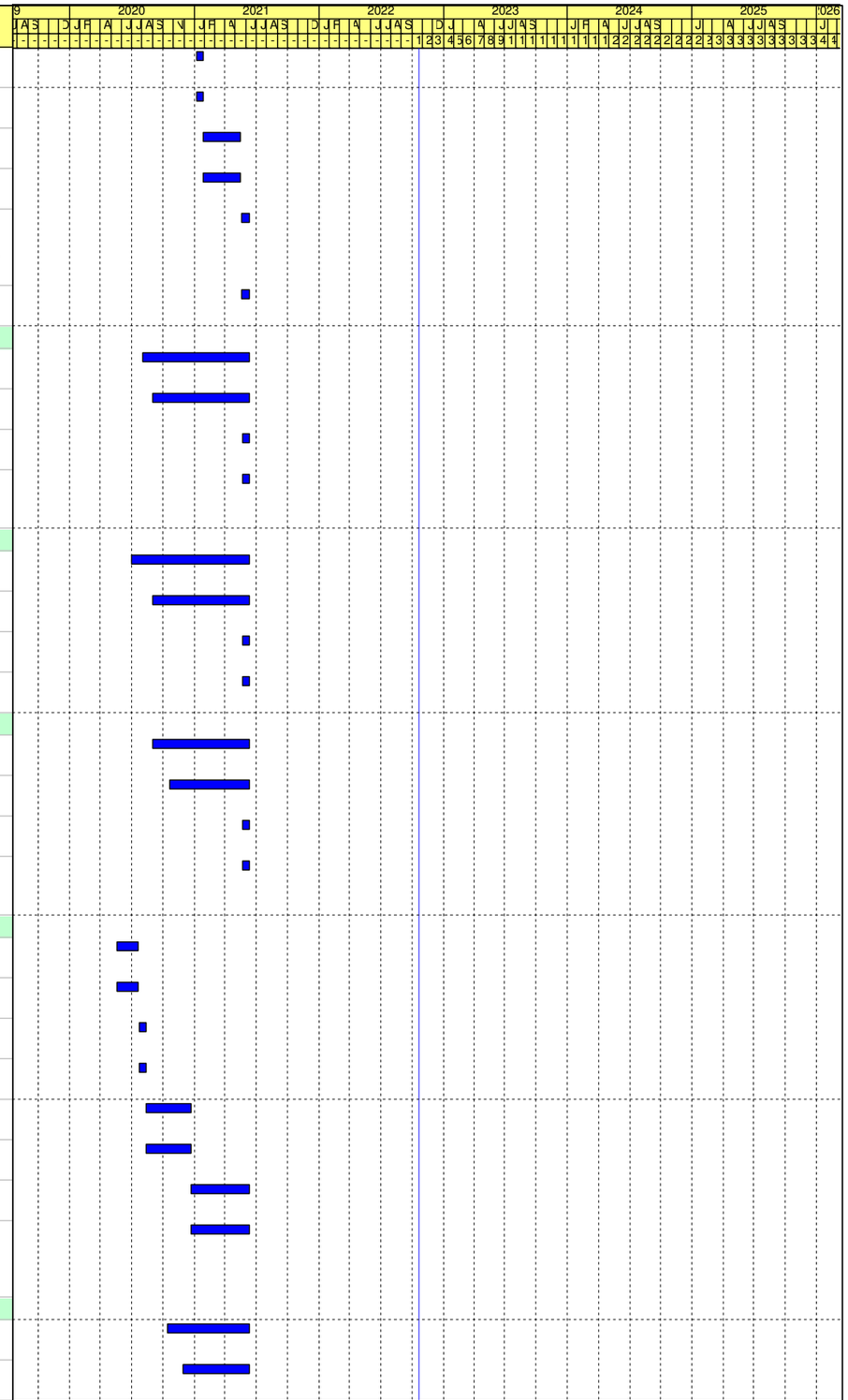
S2D1350	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	08-Jan-21 A	27-Jan-21 A	06-Jul-22	06-Jul-22		S2D1340	S2D1360
S2D1390	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	08-Jan-21 A	27-Jan-21 A	02-Nov-22	02-Nov-22		S2D1380	S2D1400
S2D1360	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	117	28-Jan-21 A	17-May-21 A	06-Jul-22	06-Jul-22		S2D1350	S2D1370
S2D1400	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	117	28-Jan-21 A	17-May-21 A	02-Nov-22	02-Nov-22		S2D1390	S2D1410
S2D1370	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	24	18-May-21 A	11-Jun-21 A	06-Jul-22	06-Jul-22		S2D1360	SC21110, S5THPP1000, S5TCWP1000, S5P1050
S2D1410	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	24	18-May-21 A	11-Jun-21 A	02-Nov-22	02-Nov-22		S2D1400	S5THPP1000, SC21110
Sludge Digestion (SDi)		325	01-Aug-20 A	11-Jun-21 A	22-Jul-22	15-Aug-22			
S2D1420	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	314	01-Aug-20 A	10-Jun-21 A	15-Aug-22	15-Aug-22		S2P1020	S2D1430
S2D1440	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	284	31-Aug-20 A	10-Jun-21 A	22-Jul-22	22-Jul-22			S2D1450
S2D1430	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	15-Aug-22	15-Aug-22		S2D1420	SC21110, S5P1050
S2D1450	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	22-Jul-22	22-Jul-22		S2D1440	S5DIGP1000, SC21110, PL1490
Sludge Dewatering (SDe)		357	02-Jul-20 A	11-Jun-21 A	15-Aug-22	16-Dec-22			
S2D1460	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	344	02-Jul-20 A	10-Jun-21 A	15-Aug-22	15-Aug-22		S2P1030	S2D1470
S2D1480	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	284	31-Aug-20 A	10-Jun-21 A	16-Dec-22	16-Dec-22			S2D1490
S2D1470	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	15-Aug-22	15-Aug-22		S2D1460	SC21110, S5P1050
S2D1490	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	16-Dec-22	16-Dec-22		S2D1480	SC21110, PL1490
Biogas Storage & Pre-Treatment (BSPT)		295	31-Aug-20 A	11-Jun-21 A	01-Jun-22	15-Aug-22			
S2D1500	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	284	31-Aug-20 A	10-Jun-21 A	15-Aug-22	15-Aug-22		S2P1060, S2P1050	S2D1510
S2D1520	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	232	22-Oct-20 A	10-Jun-21 A	01-Jun-22	01-Jun-22			S2D1530
S2D1510	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	15-Aug-22	15-Aug-22		S2D1500	SC21110, S5P1050
S2D1530	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	01-Jun-22	01-Jun-22		S2D1520	S5BIOP1010, S5H2SP1000, SC21110
Combined Heat & Power Generation (CHP)		512	18-May-20 A	11-Jun-21 A	20-May-22	15-Aug-22			
S2D1540	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	233	18-May-20 A	21-Jul-20 A	15-Aug-22	15-Aug-22		S2P1070	S2D1550
S2D1580	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	180	18-May-20 A	21-Jul-20 A	20-May-22	20-May-22			S2D1590
S2D1550	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	22-Jul-20 A	11-Aug-20 A	15-Aug-22	15-Aug-22		S2D1540	S2D1560, S2D1870
S2D1590	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	22-Jul-20 A	11-Aug-20 A	20-May-22	20-May-22		S2D1580	S2D1600
S2D1560	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	28	12-Aug-20 A	21-Dec-20 A	15-Aug-22	15-Aug-22		S2D1550	S2D1570
S2D1600	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	28	12-Aug-20 A	21-Dec-20 A	20-May-22	20-May-22		S2D1590	S2D1610
S2D1570	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	171	22-Dec-20 A	11-Jun-21 A	15-Aug-22	15-Aug-22		S2D1560	SC21110, S5P1050
S2D1610	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	171	22-Dec-20 A	11-Jun-21 A	20-May-22	20-May-22		S2D1600	S5CHPP1010, SC21110, S5S1020, PL1530
Waste Gas Burning System (WGB)		264	15-Oct-20 A	11-Jun-21 A	15-Aug-22	09-Sep-22			
S2D1620	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	239	15-Oct-20 A	10-Jun-21 A	15-Aug-22	15-Aug-22			S2D1630
S2D1640	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	194	29-Nov-20 A	10-Jun-21 A	09-Sep-22	09-Sep-22			S2D1650



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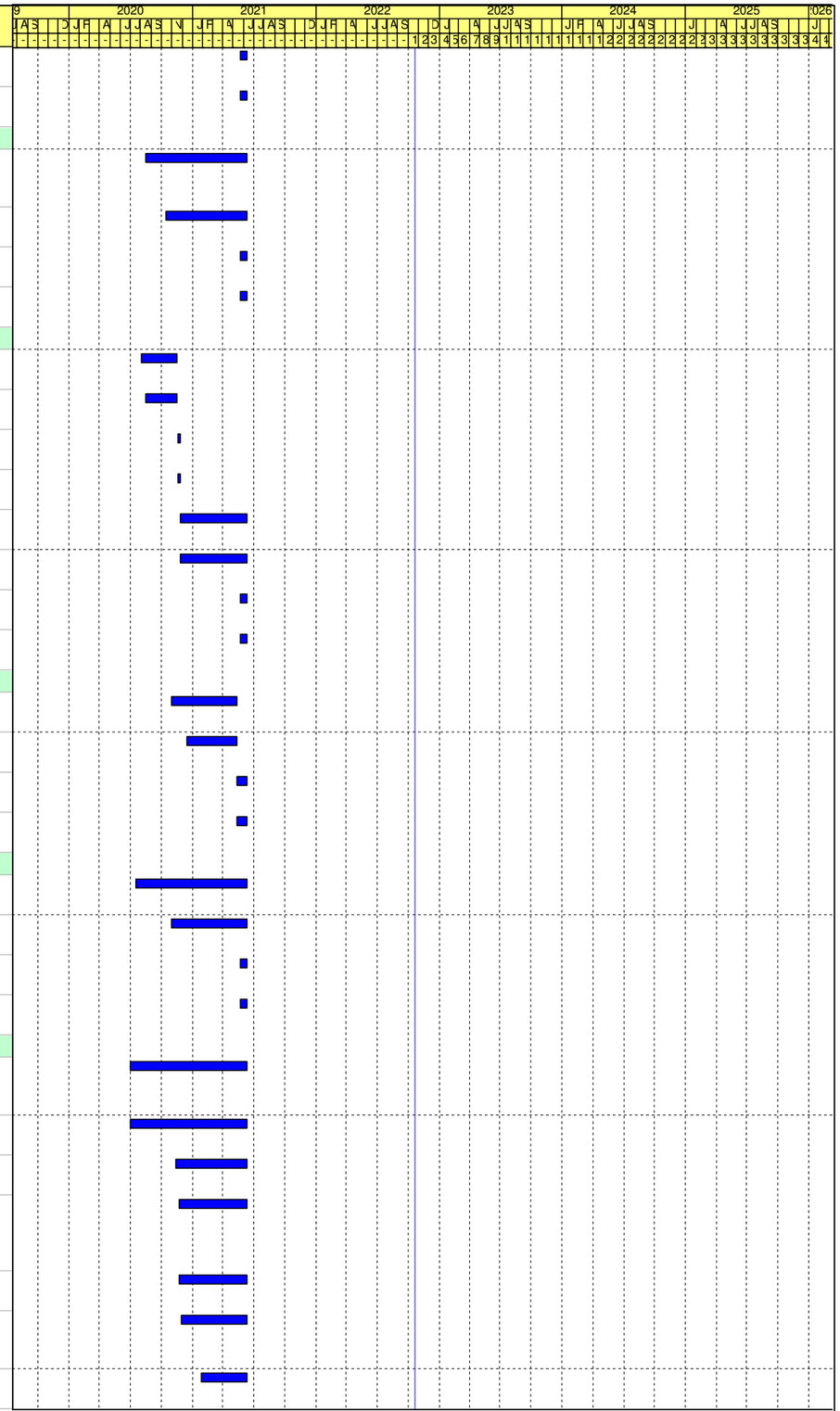
S2D1630	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	15-Aug-22	15-Aug-22		S2D1620	SC21110, S5P1050
S2D1650	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	09-Sep-22	09-Sep-22		S2D1640	S5WGBP1000, SC21110
Plant Service Water System (PSW)		325	16-Aug-20 A	11-Jun-21 A	15-Aug-22	15-Sep-22			
S2D1660	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	299	16-Aug-20 A	10-Jun-21 A	15-Aug-22	15-Aug-22		S2D1080, S2D1160, S2P1090	S2D1670
S2D1680	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	239	15-Oct-20 A	10-Jun-21 A	15-Sep-22	15-Sep-22			S2D1690
S2D1670	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	15-Aug-22	15-Aug-22		S2D1660	SC21110, S5P1050
S2D1690	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	15-Sep-22	15-Sep-22		S2D1680	S5PSWP1000, SC21110
Surplus Activated Sludge Pumping Station (SAS)		440	01-Aug-20 A	11-Jun-21 A	18-Feb-23	15-May-25			
S2D1700	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	202	01-Aug-20 A	17-Nov-20 A	15-May-25	15-May-25		S2P1100	S2D1710
S2D1740	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	183	16-Aug-20 A	17-Nov-20 A	18-Feb-23	18-Feb-23			S2D1750
S2D1710	Review & Comment on Wiring Dwgs, Cable Schedule & Design Cal.	21	18-Nov-20 A	24-Nov-20 A	15-May-25	15-May-25		S2D1700	S2D1720
S2D1750	Review & Comment on the Schedule, Design Cal. & Fixing Details of Equipment	21	18-Nov-20 A	24-Nov-20 A	18-Feb-23	18-Feb-23		S2D1740	S2D1760
S2D1720	Revise & Re-submit Wiring Dwgs, Cable Schedule & Design Cal.	198	25-Nov-20 A	10-Jun-21 A	15-May-25	15-May-25		S2D1710	S2D1730
S2D1760	Revise & Re-submit the Schedule, Design Cal. & Fixing Details of Equipment	198	25-Nov-20 A	10-Jun-21 A	18-Feb-23	18-Feb-23		S2D1750	S2D1770
S2D1730	Review & Accept of Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	15-May-25	15-May-25		S2D1720	SC21110
S2D1770	Review & Accept of the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	18-Feb-23	18-Feb-23		S2D1760	S5SASP1000, SC21110
Control and Monitoring System		211	30-Oct-20 A	11-Jun-21 A	15-May-25	15-May-25			
S2D1780	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	193	30-Oct-20 A	11-May-21 A	15-May-25	15-May-25			S2D1790
S2D1800	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	148	14-Dec-20 A	11-May-21 A	15-May-25	15-May-25			S2D1810
S2D1790	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	30	12-May-21 A	11-Jun-21 A	15-May-25	15-May-25		S2D1780	SC21110
S2D1810	Review & Accept on the Schedule, Design Cal. & Fixing Details of Equipment	30	12-May-21 A	11-Jun-21 A	15-May-25	15-May-25		S2D1800	SC21110
Lifting Appliances		358	17-Jul-20 A	11-Jun-21 A	15-May-25	15-May-25			
S2D1820	Prepare & Submit Wiring Dwgs, Cable Schedule & Design Cal.	329	17-Jul-20 A	10-Jun-21 A	15-May-25	15-May-25			S2D1830
S2D1840	Prepare & Submit the Schedule, Design Cal. & Fixing Details of Equipment	224	30-Oct-20 A	10-Jun-21 A	15-May-25	15-May-25			S2D1850
S2D1830	Review & Accept on Wiring Dwgs, Cable Schedule & Design Cal.	21	24-May-21 A	11-Jun-21 A	15-May-25	15-May-25		S2D1820	SC21110
S2D1850	Review & Acceptt on the Schedule, Design Cal. & Fixing Details of Equipment	21	24-May-21 A	11-Jun-21 A	15-May-25	15-May-25		S2D1840	SC21110
Building Services		357	02-Jul-20 A	11-Jun-21 A	22-May-22	15-May-25			
S2D1890	Submit & Accept BS Works Design & Dwgs for Workshop No. 2	344	02-Jul-20 A	11-Jun-21 A	02-Sep-22	02-Sep-22			SC21110, S5S1030, S5S1120
S2D1910	Submit & Accept BS Works Design & Dwgs for FS Installation	344	02-Jul-20 A	11-Jun-21 A	11-Feb-23	11-Feb-23			SC21110, S5S1120
S2D1870	Submit & Accept BS Works Design & Dwgs for CHP Building	209	14-Nov-20 A	11-Jun-21 A	11-Feb-23	11-Feb-23		S2D1550	SC21110, S5S1120
S2D1860	Submit & Accept BS Works Design & Dwgs for Sludge Dewatering Building	202	21-Nov-20 A	11-Jun-21 A	22-May-22	22-May-22			SC21110, S5S1260, S5S1010, S5S1120
S2D1880	Submit & Accept BS Works Design & Dwgs for Sludge Digester & Distribution Chamber	202	21-Nov-20 A	11-Jun-21 A	11-Feb-23	11-Feb-23			SC21110, S5S1120
S2D1900	Submit & Accept BS Works Design & Dwgs for Other Facilities	194	29-Nov-20 A	11-Jun-21 A	11-Feb-23	11-Feb-23			S2D1920, SC21110, S5S1120
S2D1920	Submit & Accept BS Works Design & Dwgs for Outdoor Lighting Installation	134	28-Jan-21 A	11-Jun-21 A	15-May-25	15-May-25		S2D1900	SC21110



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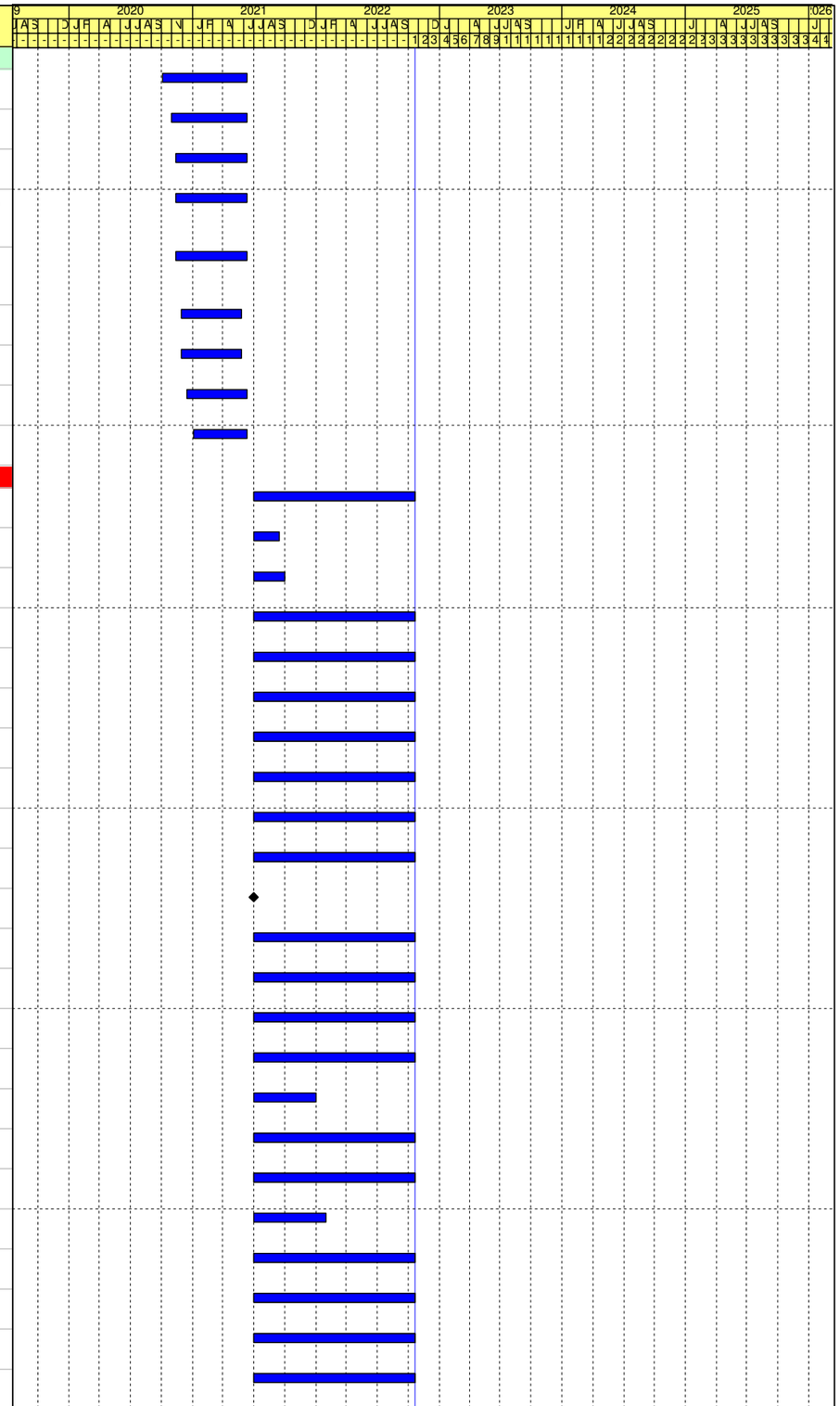
Miscellaneous		264	05-Oct-20 A	11-Jun-21 A	05-Jul-22	15-May-25			
S2D1950	Submit & Accept Design & Dwgs for Process Water Pumping System	249	05-Oct-20 A	11-Jun-21 A	15-May-25	15-May-25		S2P1190	SC21110
S2D1940	Submit & Accept Design & Dwgs for Sewage Pumping Station	224	30-Oct-20 A	11-Jun-21 A	13-Nov-22	13-Nov-22		S2P1180	S5SPSP1000, SC21110
S2D1960	Submit & Accept Design & Dwgs for External Sludge Transfer Pumping System	209	14-Nov-20 A	11-Jun-21 A	29-Dec-22	29-Dec-22		S2P1200	S2D1970, SC21110
S2D1970	Submit & Accept Design & Dwgs for THP Cooling Water Pumping Station	209	14-Nov-20 A	10-Jun-21 A	29-Dec-22	29-Dec-22		S2D1340, S2D1960, S2P1210	S5TCWP1000, SC21110
S2D1980	Submit & Accept Design & Dwgs for Ferric Chloride Dosing System	209	14-Nov-20 A	11-Jun-21 A	30-Sep-22	30-Sep-22			S5FCDP1000, S5FCDP1010, SC21110
S2D2000	Submit & Accept Design & Dwgs for Gas Detection System	194	29-Nov-20 A	24-May-21 A	13-Nov-22	13-Nov-22			SC21110, S5CHPP1040
S2D2010	Submit & Accept Design & Dwgs for CCTV System	194	29-Nov-20 A	26-May-21 A	15-May-25	15-May-25			SC21110
S2D1930	Submit & Accept Design & Dwgs for DO System	179	14-Dec-20 A	11-Jun-21 A	03-Nov-22	03-Nov-22		S2P1150, PL1020	S5DOUP1000, SC21110
S2D1990	Submit & Accept Design & Dwgs for Temporary Primary Sludge Pumping Facility	158	04-Jan-21 A	11-Jun-21 A	05-Jul-22	05-Jul-22		PL1020	S5ECHP1000, SC21110
Outstanding Works		334	02-Jul-21 A	21-Oct-22	31-Oct-21	15-May-25	937		
S2D2030	Provide ICE Certificate for all design, calculations, drawings, plans & relevant documents	334	02-Jul-21 A	21-Oct-22*	31-May-22	31-May-22	-143		
S2D2040	Submit finalized design calculations, drawings & material submissions for BS systems (Workshop No.2)	76	02-Jul-21 A	15-Sep-21 A	15-May-25	15-May-25			
S2D2060	Submit finalized sizing calculations for the actuators and stems for penstocks	91	02-Jul-21 A	30-Sep-21 A	15-May-25	15-May-25			
S2D2160	Submit finalized design calculations, drawings & material submissions for ELV systems	294	02-Jul-21 A	21-Oct-22*	31-Dec-21	31-Dec-21	-294		
S2D2170	Submit finalized design submissions of SCADA, PMS, CMMS, IDMS, UPS for FCS	294	02-Jul-21 A	21-Oct-22*	31-Dec-21	31-Dec-21	-294		
S2D2200	Submit finalized design & philosophy of the process instrument	294	02-Jul-21 A	21-Oct-22*	31-Dec-21	31-Dec-21	-294		
S2D2210	Submit finalized Process Design Submission	152	02-Jul-21 A	21-Oct-22*	30-Nov-21	30-Nov-21	-325		
S2D2220	Submit finalized acoustic and noise calculations for all equipment	303	02-Jul-21 A	21-Oct-22*	30-Apr-22	30-Apr-22	-174		
S2D2230	Submit finalized design of THP feeding system	122	02-Jul-21 A	21-Oct-22*	31-Oct-21	31-Oct-21	-355		
S2D2240	Submit finalized design of the centrifuge discharge system	152	02-Jul-21 A	21-Oct-22*	30-Nov-21	30-Nov-21	-325		
S2D2020	Certifiate of Completion - Section 2 of the works (Ref: RCYK:ccm:60427128/92-2021004626w)	0	02-Jul-21 A		15-May-25				
S2D2050	Submit finalized design calculations, drawings & material submissions for BS systems (except Workshop No.2)	303	02-Jul-21 A	21-Oct-22*	30-Apr-22	30-Apr-22	-174		
S2D2070	Submit finalized cable schedules & sizing calculation (LV System)	294	02-Jul-21 A	21-Oct-22*	31-Dec-21	31-Dec-21	-294		
S2D2080	Submit finalized pumps and associated motor and VSD calculations	294	02-Jul-21 A	21-Oct-22*	31-Dec-21	31-Dec-21	-294		
S2D2090	Submit finalized electrical loads to verify the rating of the switchgears, transformers and protective devices	294	02-Jul-21 A	21-Oct-22*	31-Dec-21	31-Dec-21	-294		
S2D2100	Submit finalized material submissions of the cables, cable tray, ladder and accessories	294	02-Jul-21 A	31-Dec-21 A	15-May-25	15-May-25			
S2D2110	Submit finalized cable route drawings	294	02-Jul-21 A	21-Oct-22*	31-Dec-21	31-Dec-21	-294		
S2D2120	Submit finalized layout and control wiring diagrams for switchboard, MCC, control panel, etc	294	02-Jul-21 A	21-Oct-22*	31-Jan-22	31-Jan-22	-263		
S2D2130	Submit finalized design submissions of the CHP system	294	02-Jul-21 A	31-Jan-22 A	15-May-25	15-May-25			
S2D2140	Submit finalized interlock devices for electrical equipment and system	303	02-Jul-21 A	21-Oct-22*	30-Apr-22	30-Apr-22	-174		
S2D2150	Submit finalized calculations for total harmonic distortion, electrical faults and touch voltage	303	02-Jul-21 A	21-Oct-22*	30-Apr-22	30-Apr-22	-174		
S2D2180	Submit finalized configuration of SCADA / PLC system, CMMS & PMS	294	02-Jul-21 A	21-Oct-22*	31-Dec-21	31-Dec-21	-294		
S2D2190	Submit finalized PLC and MCC panel design	294	02-Jul-21 A	21-Oct-22*	28-Feb-22	28-Feb-22	-235		

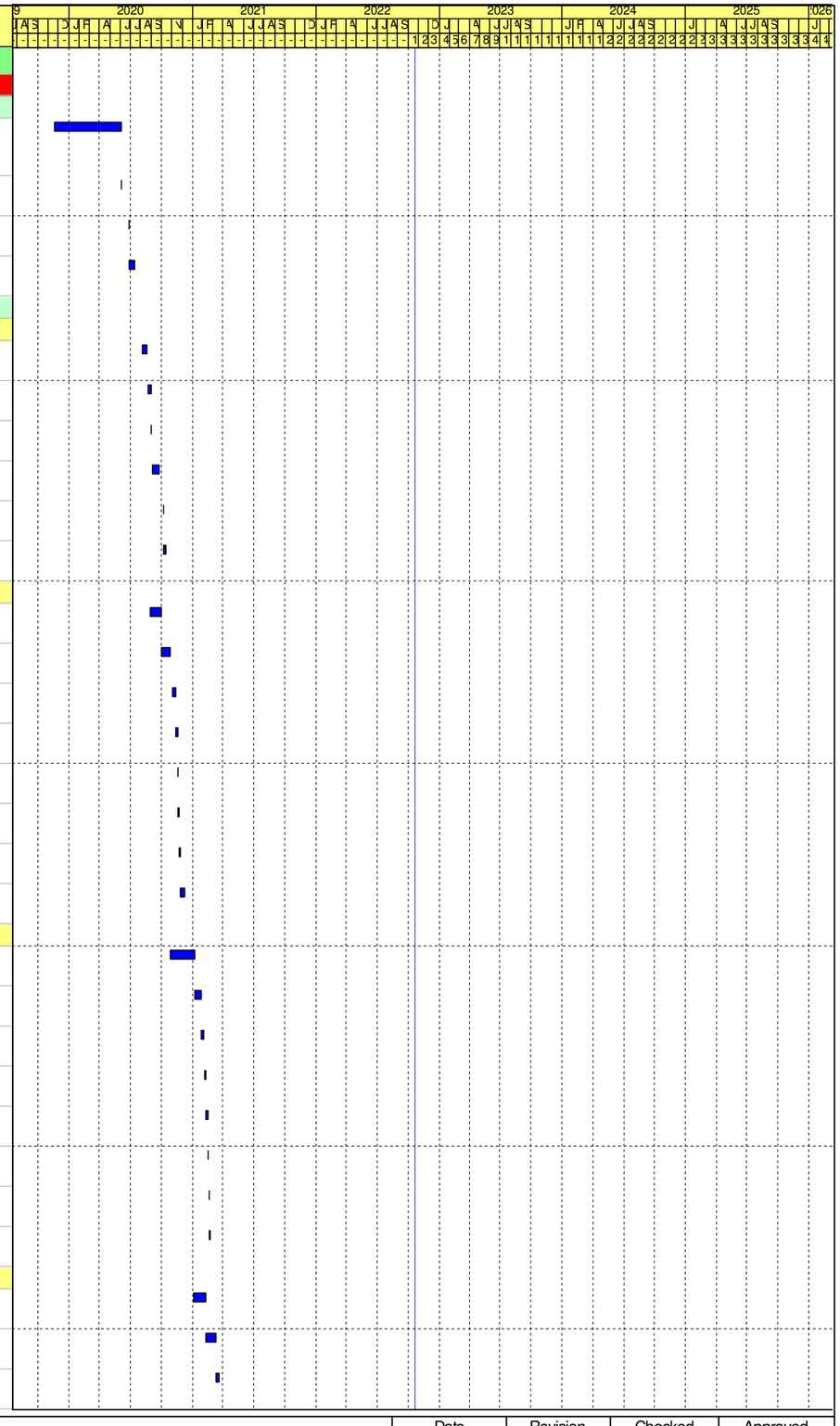


Remaining Work
Critical Activity
Milestone
Actual Progress

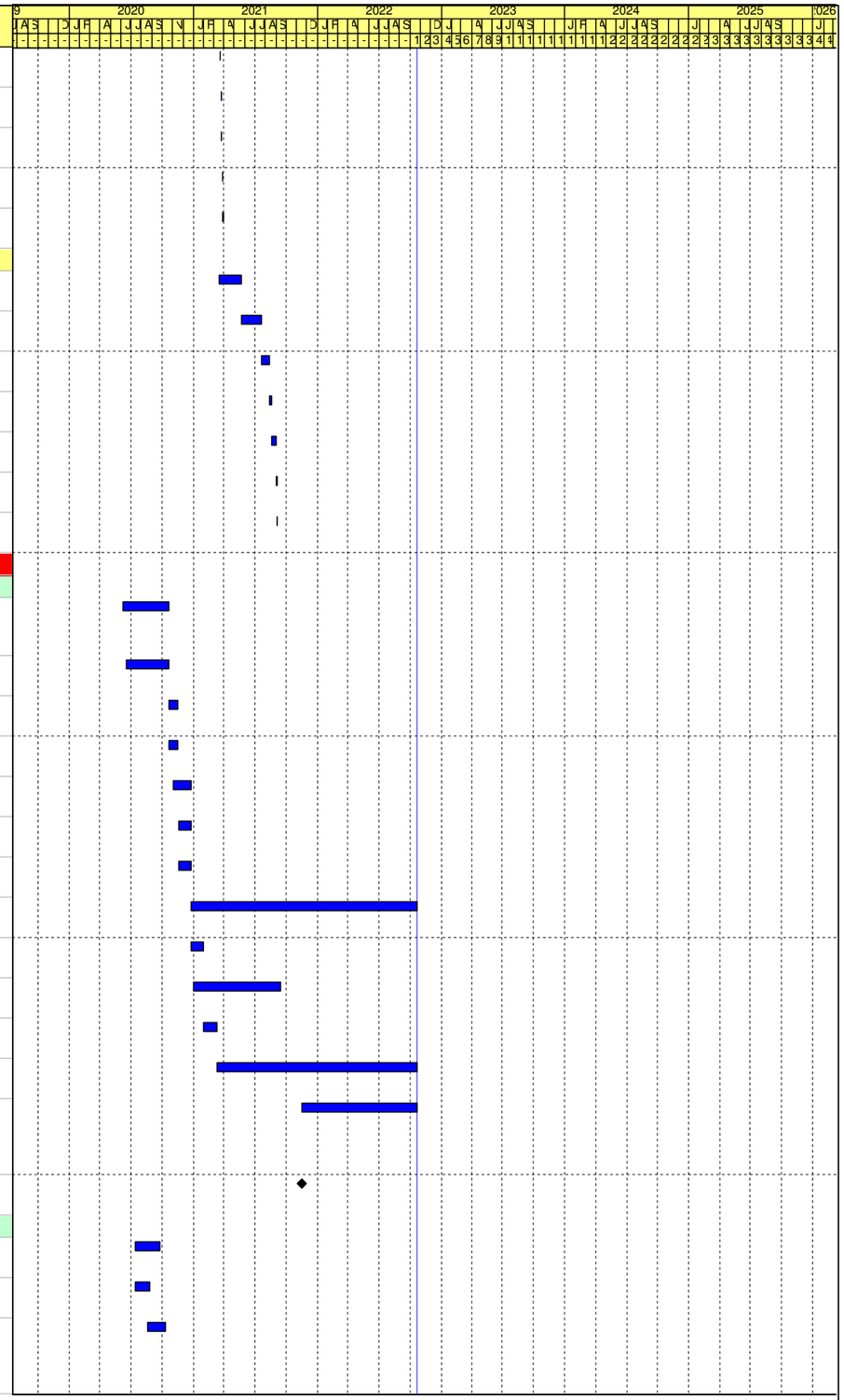
Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Oct 2022

Date	Revision	Checked	Approved
30-Jun-22	Rev.23	LT	KM
31-Jul-22	Rev.24	LT	KM
31-Aug-22	Rev.25	LT	KM
30-Sep-22	Rev.26	LT	KM
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
Section 3 - Complete Design, Construction & T&C for Sidestream Facilities		1978	20-Nov-19 A	19-Apr-25	19-Jun-22	15-May-25	26		
Major Subcontractor / Supplier Procurement		633	20-Nov-19 A	06-Sep-21 A	24-Jul-22	15-May-25			
Design		320	20-Nov-19 A	12-Jul-20 A	24-Jul-22	15-May-25			
S3P1000	Procurement & PO for Deammonification Sidestream Treatment Facilities	200	20-Nov-19 A	05-Jun-20 A	24-Jul-22	24-Jul-22		CD1010, PL1010	S3D1000, S3D1440, S3P1470
S3P1010	E&M (Process) Designer Award	1	05-Jun-20 A	05-Jun-20 A	15-May-25	15-May-25			
S3P1020	Civil & BS Designer Award	1	26-Jun-20 A	26-Jun-20 A	15-May-25	15-May-25			S3P1030
S3P1030	Mobilisation	14	27-Jun-20 A	12-Jul-20 A	15-May-25	15-May-25		S3P1020	
Civil & Building Contractor		327	05-Aug-20 A	06-Sep-21 A	24-Jul-22	24-Jul-22			
For Site Clearance & Survey		36	05-Aug-20 A	12-Oct-20 A	24-Jul-22	24-Jul-22			
S3P1040	Submit Tender proprosal of Civil Contractor (Site Clearance & Survey)	14	05-Aug-20 A	20-Aug-20 A	24-Jul-22	24-Jul-22			S3P1050
S3P1050	Review & Comment the Tender proprosal of Civil Contractor (Site Clearance & Survey)	14	21-Aug-20 A	01-Sep-20 A	24-Jul-22	24-Jul-22		S3P1040	S3P1060
S3P1060	Re-submit Tender proprosal of Civil Contractor (Site Clearance & Survey)	14	02-Sep-20 A	02-Sep-20 A	24-Jul-22	24-Jul-22		S3P1050	S3P1070
S3P1070	Review & Accept Tender proprosal of Civil Contractor (Site Clearance & Survey)	14	03-Sep-20 A	23-Sep-20 A	24-Jul-22	24-Jul-22		S3P1060	S3P1080
S3P1080	Civil Contractor (Site Clearance & Survey) Award	1	07-Oct-20 A	07-Oct-20 A	24-Jul-22	24-Jul-22		S3P1070	S3P1090
S3P1090	Mobilisation	5	08-Oct-20 A	12-Oct-20 A	24-Jul-22	24-Jul-22		S3P1080	S3C1010
For Ground Investigation		98	29-Aug-20 A	08-Dec-20 A	24-Jul-22	24-Jul-22			
S3P1100	Submit Tender proprosal of Civil Contractor (Ground Investigation)	14	29-Aug-20 A	29-Sep-20 A	24-Jul-22	24-Jul-22			S3P1110
S3P1110	Review & Accept the Tender proprosal of Civil Contractor (Ground Investigation)	21	30-Sep-20 A	27-Oct-20 A	24-Jul-22	24-Jul-22		S3P1100	S3P1120
S3P1120	Tender Invitation of Civil Contractor (Ground Investigation)	7	02-Nov-20 A	13-Nov-20 A	24-Jul-22	24-Jul-22		S3P1110	S3P1130
S3P1130	Submission of Tender Report	7	14-Nov-20 A	18-Nov-20 A	24-Jul-22	24-Jul-22		S3P1120	S3P1140
S3P1140	Review & Accept the Tender Report by PM	21	19-Nov-20 A	19-Nov-20 A	24-Jul-22	24-Jul-22		S3P1130	S3P1150
S3P1150	Contract Preparation	3	20-Nov-20 A	23-Nov-20 A	24-Jul-22	24-Jul-22		S3P1140	S3P1160
S3P1160	Civil Contractor (Ground Investigation) Award	1	24-Nov-20 A	24-Nov-20 A	24-Jul-22	24-Jul-22		S3P1150	S3P1170
S3P1170	Mobilisation	7	25-Nov-20 A	08-Dec-20 A	24-Jul-22	24-Jul-22		S3P1160	S3C1020
For Pre-drilling & Post-drilling		116	26-Oct-20 A	21-Feb-21 A	24-Jul-22	24-Jul-22			
S3P1180	Submit Tender proprosal of Civil Contractor (Pre-drilling & Post-drilling)	74	26-Oct-20 A	06-Jan-21 A	24-Jul-22	24-Jul-22		S3D1300, S3D1240	S3P1190
S3P1190	Review & Accept the Tender proprosal of Civil Contractor (Predrill & Proof drill)	21	07-Jan-21 A	27-Jan-21 A	24-Jul-22	24-Jul-22		S3P1180	S3P1200
S3P1200	Tender Invitation of Civil Contractor (Pre-drilling & Post-drilling)	14	28-Jan-21 A	04-Feb-21 A	24-Jul-22	24-Jul-22		S3P1190	S3P1210
S3P1210	Submission of Tender Report	4	05-Feb-21 A	10-Feb-21 A	24-Jul-22	24-Jul-22		S3P1200	S3P1220
S3P1220	Review & Accept the Tender Report by PM	21	11-Feb-21 A	16-Feb-21 A	24-Jul-22	24-Jul-22		S3P1210	S3P1230
S3P1230	Contract Preparation	3	17-Feb-21 A	17-Feb-21 A	24-Jul-22	24-Jul-22		S3P1220	S3P1240
S3P1240	Civil Contractor (Pre-drilling & Post-drilling) Award	1	18-Feb-21 A	18-Feb-21 A	24-Jul-22	24-Jul-22		S3P1230	S3P1250
S3P1250	Mobilisation	3	19-Feb-21 A	21-Feb-21 A	24-Jul-22	24-Jul-22		S3P1240	S3C1030
For Piling		90	04-Jan-21 A	01-Apr-21 A	24-Jul-22	24-Jul-22			
S3P1260	Submit Tender proprosal of Civil Contractor (Piling)	39	04-Jan-21 A	10-Feb-21 A	24-Jul-22	24-Jul-22			S3P1270
S3P1270	Review & Accept the Tender proprosal of Civil Contractor (Piling)	25	11-Feb-21 A	12-Mar-21 A	24-Jul-22	24-Jul-22		S3P1260	S3P1280
S3P1280	Tender Invitation of Civil Contractor (Pling)	14	12-Mar-21 A	19-Mar-21 A	24-Jul-22	24-Jul-22		S3P1270	S3P1290



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S3P1290	Submission of Tender Report	7	20-Mar-21 A	22-Mar-21 A	24-Jul-22	24-Jul-22		S3P1280	S3P1300
S3P1300	Review & Accept the Tender Report by PM	21	23-Mar-21 A	23-Mar-21 A	24-Jul-22	24-Jul-22		S3P1290	S3P1310
S3P1310	Contract Preparation	3	24-Mar-21 A	25-Mar-21 A	24-Jul-22	24-Jul-22		S3P1300	S3P1320
S3P1320	Civil Contractor (Piling) Award	1	26-Mar-21 A	26-Mar-21 A	24-Jul-22	24-Jul-22		S3P1310	S3P1330
S3P1330	Mobilisation	3	26-Mar-21 A	01-Apr-21 A	24-Jul-22	24-Jul-22		S3P1320	S3C1030
For Main Civil Works		146	17-Mar-21 A	06-Sep-21 A	24-Jul-22	24-Jul-22			
S3P1340	Submit Tender proprosal of Civil Contractor (Main Civil Works)	30	17-Mar-21 A	21-May-21 A	24-Jul-22	24-Jul-22			S3P1350
S3P1350	Review & Accept the Tender proprosal of Civil Contractor (Main Civil Works)	42	22-May-21 A	19-Jul-21 A	24-Jul-22	24-Jul-22		S3P1340	S3P1360
S3P1360	Tender Invitation of Civil Contractor (Main Civil Works)	14	21-Jul-21 A	11-Aug-21 A	24-Jul-22	24-Jul-22		S3P1350	S3P1370
S3P1370	Submission of Tender Report	1	12-Aug-21 A	19-Aug-21 A	24-Jul-22	24-Jul-22		S3P1360	S3P1380
S3P1380	Review & Accept the Tender Report by PM	6	20-Aug-21 A	31-Aug-21 A	24-Jul-22	24-Jul-22		S3P1370	S3P1390
S3P1390	Contract Preparation	1	01-Sep-21 A	05-Sep-21 A	24-Jul-22	24-Jul-22		S3P1380	S3P1400
S3P1400	Civil Contractor (Main Civil Works) Award	1	06-Sep-21 A	06-Sep-21 A	24-Jul-22	24-Jul-22		S3P1390	S3D1360, S3C1070
Design & Submission		922	07-Jun-20 A	21-Oct-22	19-Jun-22	15-May-25	937		
Architectural		922	07-Jun-20 A	21-Oct-22	16-Mar-23	17-Mar-23	147		
S3D1000	Prepare & Submit Building Layout Plan	60	07-Jun-20 A	21-Oct-20 A	16-Mar-23	16-Mar-23		CD1010, S3P1000	S3D1010, S3D1050, S3D1100
S3D1050	Prepare & Submit Architectural Design / Drawings	60	17-Jun-20 A	21-Oct-20 A	16-Mar-23	16-Mar-23		S3D1000	S3D1060
S3D1010	Review & Comment on Buildingl Layout Plan by PM	67	22-Oct-20 A	17-Nov-20 A	16-Mar-23	16-Mar-23		S3D1000	S3D1020
S3D1060	Review & Comment on Architectural Design / Drawings by PM	67	22-Oct-20 A	17-Nov-20 A	16-Mar-23	16-Mar-23		S3D1050	S3D1070
S3D1100	Prepare & Submit ABWF Works Drawings	68	03-Nov-20 A	24-Dec-20 A	16-Mar-23	16-Mar-23		S3D1000	S3D1110
S3D1020	Revise & Re-submit Building Layout Plan	28	18-Nov-20 A	24-Dec-20 A	16-Mar-23	16-Mar-23		S3D1010	S3D1030
S3D1070	Revise & Re-submit Architectural Design / Drawings	28	18-Nov-20 A	24-Dec-20 A	16-Mar-23	16-Mar-23		S3D1060	S3D1080
S3D1080	Review & Accept of Architectural Design / Drawings by PM	483	25-Dec-20 A	21-Oct-22	16-Mar-23	17-Mar-23	147	S3D1070	S3D1090
S3D1110	Review & Comment on ABWF Works Drawings by PM	21	25-Dec-20 A	29-Jan-21 A	16-Mar-23	16-Mar-23		S3D1100	S3D1120
S3D1030	Review & Accept of Building Layout Plan by PM	214	01-Jan-21 A	16-Sep-21 A	16-Mar-23	16-Mar-23		S3D1020	S3D1090
S3D1120	Revise & Re-submit ABWF Works Drawings	41	30-Jan-21 A	11-Mar-21 A	16-Mar-23	16-Mar-23		S3D1110	S3D1130
S3D1130	Review & Accept of ABWF Works Drawings by PM	406	12-Mar-21 A	21-Oct-22	16-Mar-23	17-Mar-23	147	S3D1120	S3C1140, S3D1090
S3D1090	Review & Accept of Architectural Design / Drawings by DSD (incl. VCAB) & DAP of ArchSD	300	15-Nov-21 A	21-Oct-22	16-Mar-23	17-Mar-23	147	S3D1080, S3D1130, S3D1030, S3D1040	S3C1140, S3P1490
S3D1040	Coordination Meeting with DSD (Employer) for the Architectural Drawing	0		15-Nov-21 A		16-Mar-23			S3D1090
Civil / Structural		639	13-Jul-20 A	18-Feb-22 A	19-Jun-22	15-May-25			
S3D1140	Prepare & Submit Loading Plan to ICE	60	13-Jul-20 A	25-Sep-20 A	19-Jun-22	19-Jun-22			S3D1150
S3D1200	Prepare & Submit GI Plan	60	13-Jul-20 A	26-Aug-20 A	24-Jul-22	24-Jul-22			S3D1210
S3D1240	Prepare & Submit Foundation Design / Drawings to ICE & PM	60	20-Aug-20 A	09-Oct-20 A	24-Jul-22	24-Jul-22			S3D1250, S3C1010, S3D1300, S3P1180

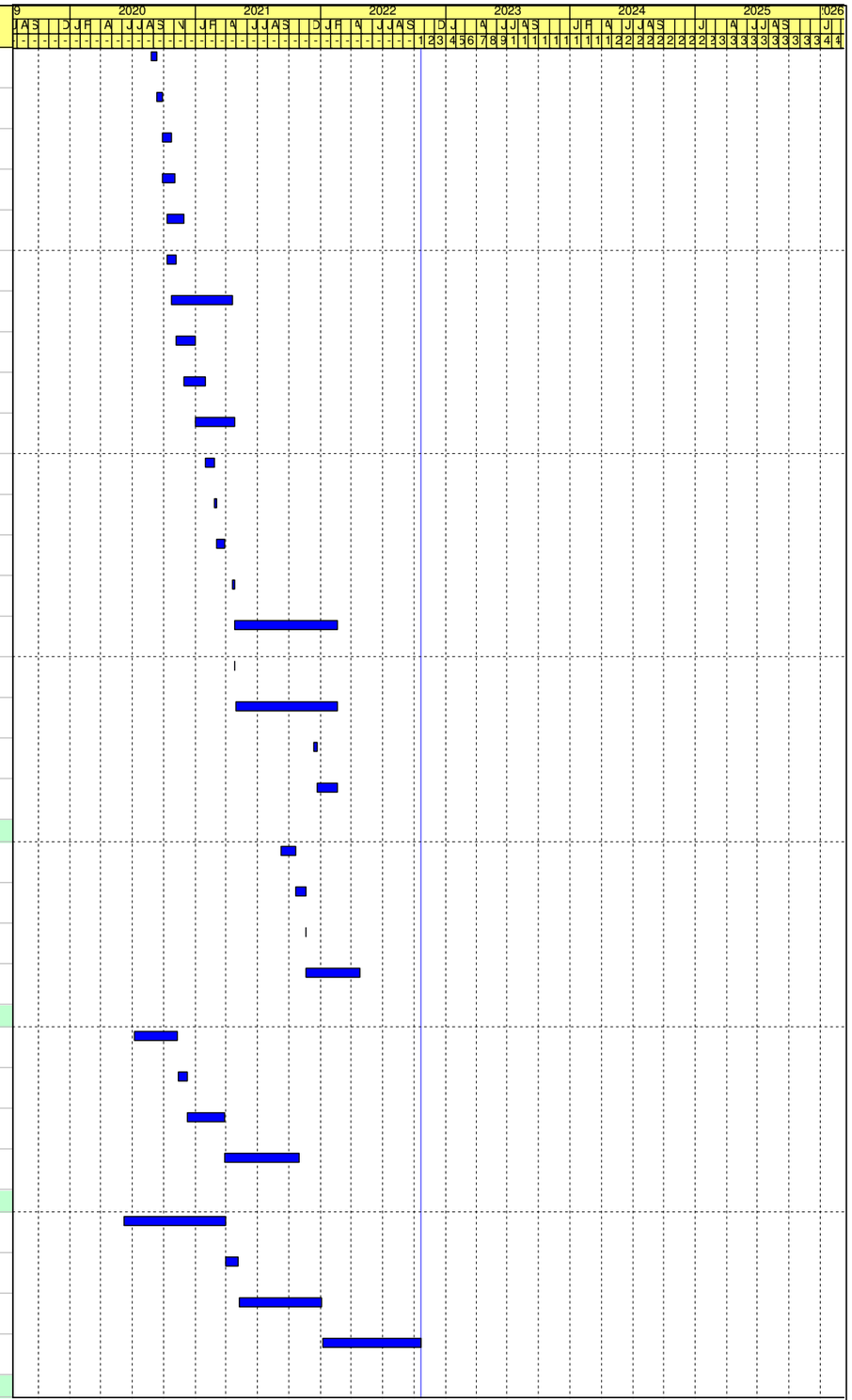


Remaining Work
Critical Activity
Milestone
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Oct 2022

Date	Revision	Checked	Approved
30-Jun-22	Rev.23	LT	KM
31-Jul-22	Rev.24	LT	KM
31-Aug-22	Rev.25	LT	KM
30-Sep-22	Rev.26	LT	KM
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S3D1210	Review & Comment on GI Plan by PM	14	27-Aug-20 A	10-Sep-20 A	24-Jul-22	24-Jul-22		S3D1200	S3D1220
S3D1220	Revise & Re-submit GI Plan	7	11-Sep-20 A	28-Sep-20 A	24-Jul-22	24-Jul-22		S3D1210	S3D1230
S3D1150	Review & Comment on Loading Plan by ICE	14	26-Sep-20 A	23-Oct-20 A	19-Jun-22	19-Jun-22		S3D1140	S3D1160
S3D1230	Review & Accept of GI Plan by PM	21	29-Sep-20 A	02-Nov-20 A	24-Jul-22	24-Jul-22		S3D1220	S3C1020
S3D1250	Review & Comment on Foundation Design / Drawings by ICE & PM	79	10-Oct-20 A	27-Nov-20 A	15-May-25	15-May-25		S3D1240	S3D1260
S3D1300	Prepare & Submit Substructure / Superstructure Design / Drawings to ICE & PM	25	10-Oct-20 A	05-Nov-20 A	24-Jul-22	24-Jul-22		S3D1240	S3D1310, S3P1180
S3D1160	Revise & Re-submit Loading Plan to ICE	175	24-Oct-20 A	20-Apr-21 A	19-Jun-22	19-Jun-22		S3D1150	S3D1170
S3D1310	Review & Comment on Substructure / Superstructure Design / Drawings by ICE & PM	55	06-Nov-20 A	30-Dec-20 A	25-Jul-22	25-Jul-22		S3D1300	S3D1320
S3D1260	Revise & Re-submit Foundation Design / Drawings to ICE & PM	14	28-Nov-20 A	29-Jan-21 A	15-May-25	15-May-25		S3D1250	S3D1270
S3D1320	Revise & Re-submit Substructure / Superstructure Design / Drawings to ICE & PM	72	31-Dec-20 A	26-Apr-21 A	25-Jul-22	25-Jul-22		S3D1310	S3D1330
S3D1270	Review & Accept of Foundation Design / Drawings by ICE & PM	10	30-Jan-21 A	26-Feb-21 A	15-May-25	15-May-25		S3D1260	S3D1280
S3D1280	Prepare & Submit Foundation Design / Drawings to DSD (incl. BCM)	7	27-Feb-21 A	05-Mar-21 A	15-May-25	15-May-25		S3D1270	S3D1290
S3D1290	Review & Accept of Foundation Design / Drawings by DSD (incl. BCM)	45	06-Mar-21 A	26-Mar-21 A	15-May-25	15-May-25		S3D1280	
S3D1170	Review & Accept of Loading Plan by ICE	7	21-Apr-21 A	26-Apr-21 A	19-Jun-22	19-Jun-22		S3D1160	S3D1180
S3D1330	Review & Accept of Substructure / Superstructure Design / Drawings by ICE & PM	271	27-Apr-21 A	18-Feb-22 A	25-Jul-22	25-Jul-22		S3D1320	S3D1340
S3D1180	Prepare & Submit Loading Plan to PM	7	27-Apr-21 A	27-Apr-21 A	19-Jun-22	19-Jun-22		S3D1170	S3D1190
S3D1190	Review & Accept of Loading Plan by PM & DSD (incl. BCM)	359	28-Apr-21 A	18-Feb-22 A	19-Jun-22	19-Jun-22		S3D1180	S3C1090
S3D1340	Prepare & Submit Substructure / Superstructure Design / Drawings to DSD (incl. BCM)	2	13-Dec-21 A	23-Dec-21 A	25-Jul-22	25-Jul-22		S3D1330	S3D1350
S3D1350	Review & Accept of Substructure / Superstructure Design / Drawings by DSD (incl. BCM)	119	24-Dec-21 A	18-Feb-22 A	25-Jul-22	25-Jul-22		S3D1340	S3C1100
ELS		214	07-Sep-21 A	26-Apr-22 A	24-Jul-22	24-Jul-22			
S3D1360	Prepare & Submit ELS Plan to ICE	45	07-Sep-21 A	20-Oct-21 A	24-Jul-22	24-Jul-22		S3P1400	S3D1370
S3D1370	Review & Accept of ELS Plan by ICE	5	21-Oct-21 A	18-Nov-21 A	24-Jul-22	24-Jul-22		S3D1360	S3D1380
S3D1380	Prepare & Submit ELS Plan to PM	3	19-Nov-21 A	19-Nov-21 A	24-Jul-22	24-Jul-22		S3D1370	S3D1390
S3D1390	Review & Accept of ELS Plan by PM	153	20-Nov-21 A	26-Apr-22 A	24-Jul-22	24-Jul-22		S3D1380	S3C1080
Process Design		454	06-Jul-20 A	29-Oct-21 A	17-Nov-22	17-Nov-22			
S3D1400	Prepare & Submit E&M Works (Process) Design Drawings	198	06-Jul-20 A	10-Nov-20 A	17-Nov-22	17-Nov-22			S3D1410
S3D1410	Review & Comment on E&M Works (Process) Design Drawings by PM	21	11-Nov-20 A	08-Dec-20 A	17-Nov-22	17-Nov-22		S3D1400	S3D1420
S3D1420	Revise & Re-submit E&M Works (Process) Design Drawings	87	09-Dec-20 A	26-Mar-21 A	17-Nov-22	17-Nov-22		S3D1410	S3D1430
S3D1430	Review & Accept of E&M Works (Process) Design Drawings by PM	278	27-Mar-21 A	29-Oct-21 A	17-Nov-22	17-Nov-22		S3D1420	S3C1170
E&M Design		715	07-Jun-20 A	21-Oct-22	24-Jul-22	16-Nov-22	26		
S3D1440	Prepare & Submit General Arrangement Drawings	298	07-Jun-20 A	31-Mar-21 A	24-Jul-22	24-Jul-22		S3P1000	S3D1450, S3C1080
S3D1450	Review & Comment on General Arrangement Drawings by PM	37	01-Apr-21 A	07-May-21 A	16-Nov-22	16-Nov-22		S3D1440	S3D1460
S3D1460	Revise & Re-submit General Arrangement Drawings	247	08-May-21 A	06-Jan-22 A	16-Nov-22	16-Nov-22		S3D1450	S3D1470
S3D1470	Review & Accept of General Arrangement Drawings by PM	105	07-Jan-22 A	21-Oct-22	16-Nov-22	16-Nov-22	26	S3D1460	S3C1170
BS		598	03-Jul-20 A	21-Oct-22	12-Oct-22	12-Oct-22	-9		



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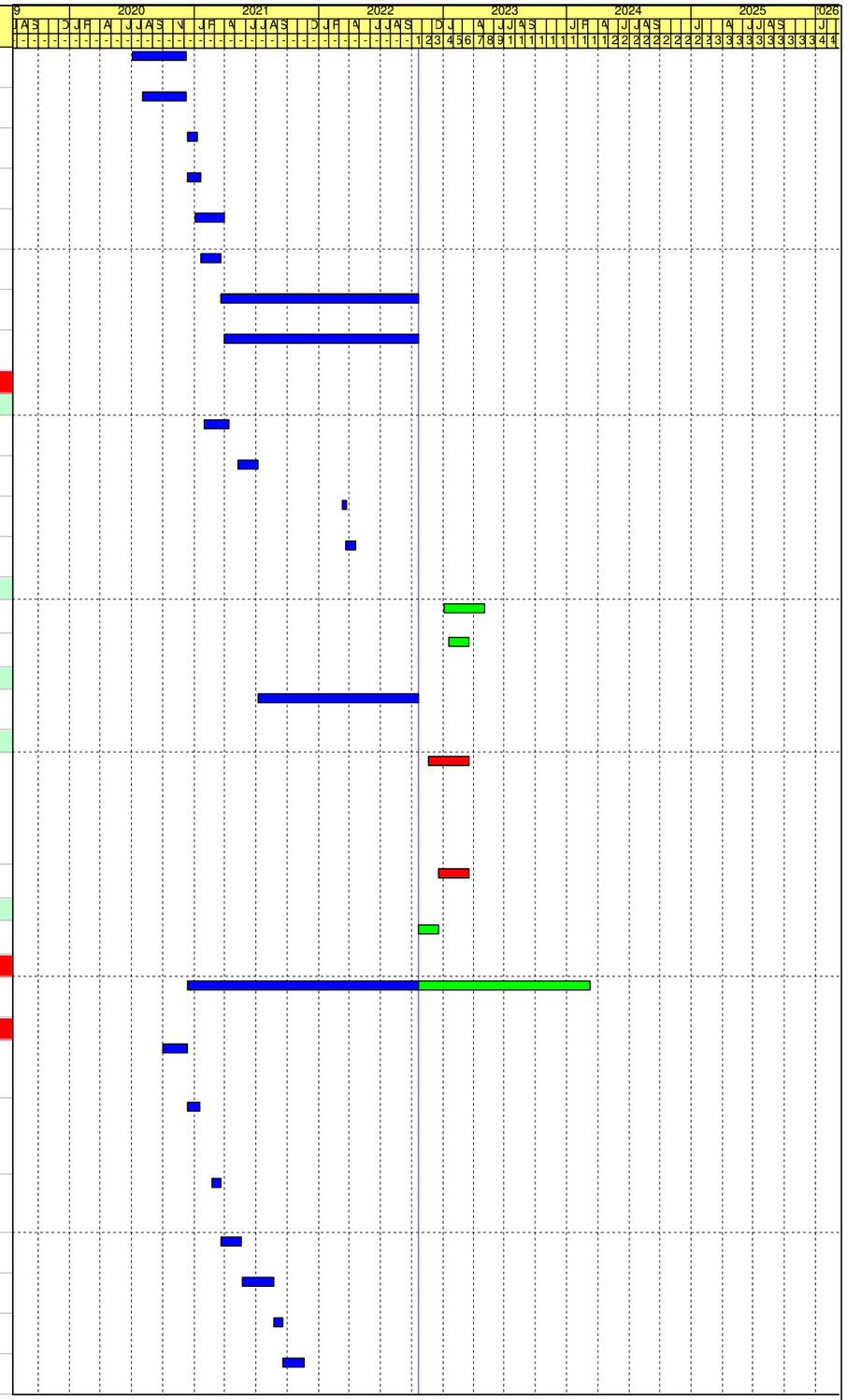
S3D1480	Prepare & Submit BS Works Design & Dwgs for Sidestream Treatment Facilities	264	03-Jul-20 A	10-Dec-20 A	12-Oct-22	12-Oct-22			S3D1490
S3D1520	Submission & Submit FS Works Design & Dwgs for Sidestream Treatment Facilities	182	03-Aug-20 A	10-Dec-20 A	12-Oct-22	12-Oct-22			S3D1530
S3D1490	Review & Comment on BS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21	11-Dec-20 A	11-Jan-21 A	12-Oct-22	12-Oct-22		S3D1480	S3D1500
S3D1530	Review & Comment on FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	21	11-Dec-20 A	19-Jan-21 A	12-Oct-22	12-Oct-22		S3D1520	S3D1540
S3D1500	Revise & Re-submit BS Works Design & Dwgs for Sidestream Treatment Facilities	102	05-Jan-21 A	31-Mar-21 A	12-Oct-22	12-Oct-22		S3D1490	S3D1510
S3D1540	Revise & Re-submit FS Works Design & Dwgs for Sidestream Treatment Facilities	66	20-Jan-21 A	19-Mar-21 A	12-Oct-22	12-Oct-22		S3D1530	S3D1550
S3D1550	Review & Accept of FS Works Design & Dwgs for Sidestream Treatment Facilities by PM	398	20-Mar-21 A	21-Oct-22	12-Oct-22	12-Oct-22	-9	S3D1540	S3C1200, S3S1020
S3D1510	Review & Accept of BS Works Design & Dwgs for Sidestream Treatment Facilities by PM	386	01-Apr-21 A	21-Oct-22	12-Oct-22	12-Oct-22	-9	S3D1500	S3C1220, S3S1020
Major Plant & Materials Procurement		773	01-Feb-21 A	04-May-23	19-Jun-22	16-May-23	12		
Civil & Structure		378	01-Feb-21 A	19-Apr-22 A	19-Jun-22	24-Jul-22			
S3P1410	Procurement, Manufacture & Delivery of Piling	60	01-Feb-21 A	14-Apr-21 A	24-Jul-22	24-Jul-22			S3C1040
S3P1440	Procurement, Manufacture & Delivery of Metal Works Material	80	09-May-21 A	07-Jul-21 A	24-Jul-22	24-Jul-22			S3C1080
S3P1430	Procurement, Manufacture & Delivery of Steel Reinforcement	15	11-Mar-22 A	25-Mar-22 A	19-Jun-22	19-Jun-22			S3C1090
S3P1420	Procurement, Manufacture & Delivery of Concrete Mix	15	21-Mar-22 A	19-Apr-22 A	19-Jun-22	19-Jun-22			S3C1090
ABWF		120	04-Jan-23	04-May-23	16-Jan-23	16-May-23	12		
S3P1460	Procurement, Manufacture & Delivery of ABWF Works Material	120	04-Jan-23	04-May-23	16-Jan-23	16-May-23	12		S3C1140
S3P1450	Procurement, Manufacture & Delivery of Water Proofing Material	60	19-Jan-23	20-Mar-23	31-Jan-23	01-Apr-23	12		S3C1130
E&M Process		360	07-Jul-21 A	21-Oct-22	16-Nov-22	16-Nov-22	26		
S3P1470	Procurement, Manufacture & Delivery of Deammonification Sidestream Treatment Facilities	360	07-Jul-21 A	21-Oct-22	16-Nov-22	16-Nov-22	26	S3P1000	S3C1170
BS		120	20-Nov-22	20-Mar-23	20-Jul-22	16-Nov-22	-124		
S3P1480	Procurement, Manufacture & Delivery of BS Works Material	120	20-Nov-22	20-Mar-23	20-Jul-22	16-Nov-22	-124		S3C1190, S3C1200, S3C1220, S3C1240, S3T1060, S3C1250
S3P1485	Procurement, Manufacture & Delivery of LV Switchboard	90	20-Dec-22	20-Mar-23	19-Aug-22	16-Nov-22	-124		S3C1190
Fitting-out		60	22-Oct-22	20-Dec-22	17-Mar-23	16-May-23	147		
S3P1490	Procurement, Manufacture & Delivery of Fit-out Works Material	60	22-Oct-22	20-Dec-22	17-Mar-23	16-May-23	147	S3D1090	S3C1140
Ground Settlement, Tilting & Utility Monitoring		1184	12-Dec-20 A	09-Mar-24	21-Dec-22	10-May-24	62		
S3C1000	Ground Settlement, Tilting & Utility Monitoring	1184	12-Dec-20 A	09-Mar-24	21-Dec-22	10-May-24	62	S3C1010	S3T1200
Civil Works Construction		1642	30-Sep-20 A	19-Apr-25	19-Jun-22	10-May-24	-345		
S3C1010	Site Clearance & Survey	50	30-Sep-20 A	11-Dec-20 A	24-Jul-22	24-Jul-22		S3D1240, AD1140, S3P1090	S3C1020, S3C1000
S3C1020	Ground Investigation	65	12-Dec-20 A	18-Jan-21 A	24-Jul-22	24-Jul-22		AD1140, S3C1010, S3P1170, S3D1230	S3C1030
S3C1030	Pre-drilling Works	180	22-Feb-21 A	19-Mar-21 A	24-Jul-22	24-Jul-22		S3C1020, S3P1250, S3P1330	S3C1040
S3C1040	Minor Civil Works & Preperation Works for Piling	31	20-Mar-21 A	20-May-21 A	24-Jul-22	24-Jul-22		S3C1030, S3P1410	S3C1050
S3C1050	Piling Works (Impacted by Inclement Weather)	69	21-May-21 A	21-Aug-21 A	24-Jul-22	24-Jul-22		S3C1040	S3C1060
S3C1060	Post-drilling, Proof test & remaining works (Impacted by Inclement Weather)	23	22-Aug-21 A	17-Sep-21 A	24-Jul-22	24-Jul-22		S3C1050	S3C1080, S3C1070
S3C1070	Site Set-up / Mobilisation (Impacted by Inclement Weather)	51	18-Sep-21 A	20-Nov-21 A	24-Jul-22	24-Jul-22		S3C1060, S3P1400	S3C1080



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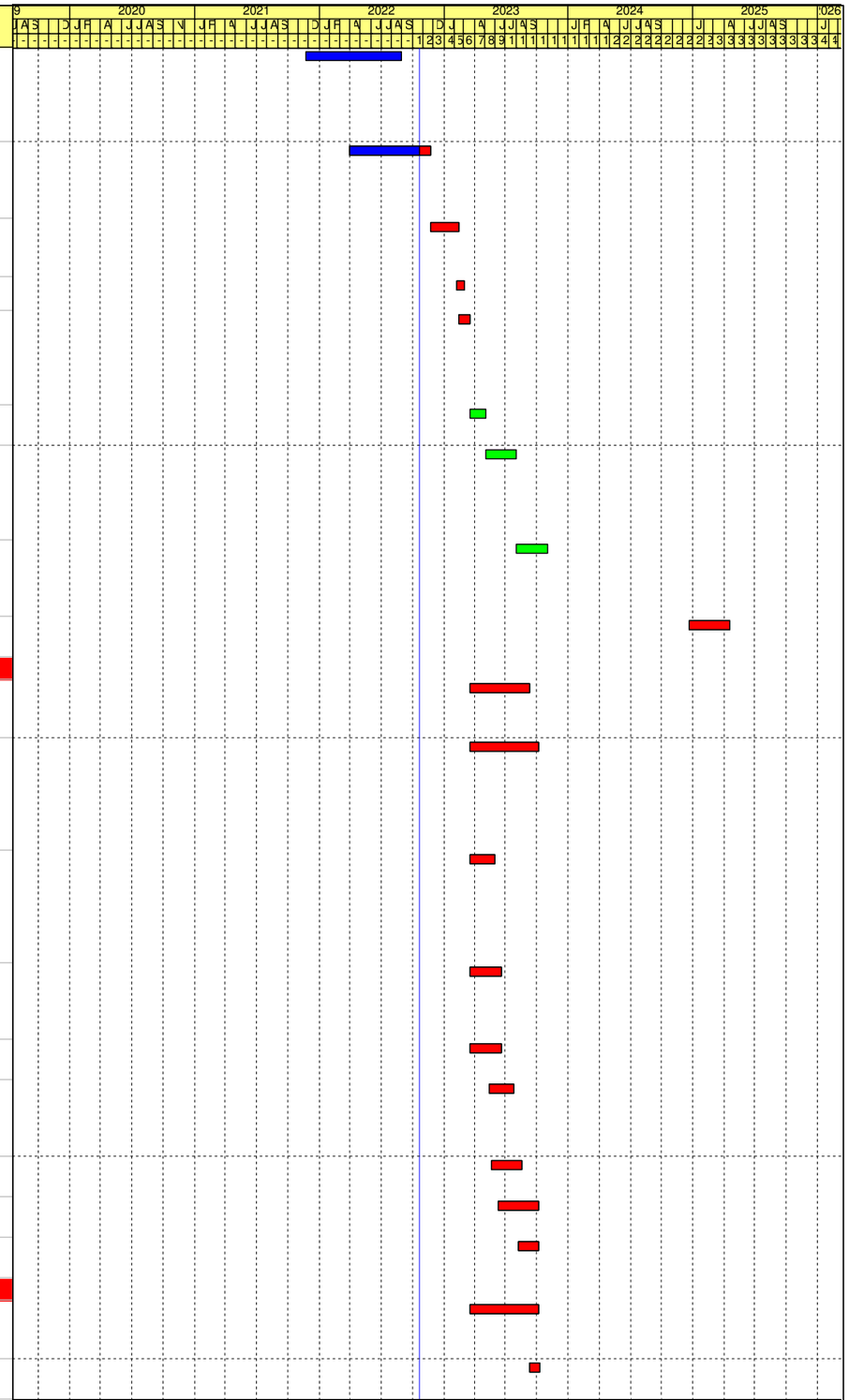
S3C1080	Excavation / ELS (Impacted by Inclement Weather)	157	24-Nov-21 A	31-Aug-22 A	24-Jul-22	24-Jul-22		S3D1440, S3P1440, S3D1390, S3C1060, S3C1070	S3C1090
S3C1090	Pile Caps installation & Basement Slab	89	01-Apr-22 A	25-Nov-22	19-Jun-22	24-Jul-22	-124	S3C1080, S3P1420, S3P1430, S3D1190	S3C1100
S3C1100	Construction of Basement up to G/F Slab	80	25-Nov-22	13-Feb-23	25-Jul-22	12-Oct-22	-124	S3C1090, S3D1350, S3S1010	S3C1110
S3C1110	Construction of G/F up to 1/F Slab	26	06-Feb-23	04-Mar-23	06-Oct-22	31-Oct-22	-124	S3C1100	S3C1120
S3C1120	Construction of 1/F up to Roof	33	15-Feb-23	20-Mar-23	15-Oct-22	16-Nov-22	-124	S3C1110	S3C1170, S3C1130, S3C1180, S3C1200, S3C1220
S3C1130	Waterproofing	45	20-Mar-23	04-May-23	01-Apr-23	16-May-23	12	S3P1450, S3C1120	S3C1140
S3C1140	External & Internal Finishes - 1st Fix (Blockwork, Plastering, Wet Trade)	90	04-May-23	02-Aug-23	16-May-23	14-Aug-23	12	S3C1130, S3P1460, S3D1090, S3D1130, S3P1490	S3C1150, S3C1160
S3C1150	External & Internal Finishes - 2nd Fix (Ceiling / Wall / Floor Finishing, Door)	90	02-Aug-23	31-Oct-23	14-Aug-23	12-Nov-23	12	S3C1140	SC31110, S3S1170, S3C1160, PL1190
S3C1160	Landscaping Works	120	21-Dec-24	19-Apr-25	11-Jan-24	10-May-24	-345	S3C1140, S3C1150	SC31110
E&M Installation		200	20-Mar-23	06-Oct-23	17-Nov-22	09-Jun-23	-119		
S3C1190	Installation of Electrical Supply Systems (TX, LV Switchboard & Temp. Power)	174	20-Mar-23	10-Sep-23	17-Nov-22	09-May-23	-124	S3C1170, S3P1480, S3P1485	S3T1000, PL1190
S3C1170	E&M Installation of Deammonification Sidestream Treatment Facilities	200	20-Mar-23	06-Oct-23	17-Nov-22	04-Jun-23	-124	S3P1470, S3D1430, S3C1120, S1D1030, S3D1470	S3C1190, S3T1030, S3C1240, S3T1060, S3C1250, PL1190
S3C1200	FS Installation - Conduits, Trunking, & Pipeworks	70	20-Mar-23	29-May-23	04-Feb-23	14-Apr-23	-45	S3S1000, S3S1010, S3S1020, S3P1480, S3D1550, S3C1120	S3C1210, S3S1030, PL1190
S3C1220	BS Fitting Installation - Conduits, Trunking, & Ductworks	90	20-Mar-23	18-Jun-23	11-Jan-23	10-Apr-23	-69	S3S1020, S3P1480, S3D1510, S3C1120	S3C1230, S3S1030, PL1190
S3C1180	E&M installation of DG Plant Room	90	20-Mar-23	18-Jun-23	31-Dec-22	30-Mar-23	-80	S3S1100, S3C1120	S3S1110, PL1190
S3C1210	FS Installation - Cable Laying, Termination, Associated Fitting & Field Devices	70	15-May-23	24-Jul-23	01-Apr-23	09-Jun-23	-45	S3C1200	S3T1060, S3S1150, S3T1020, PL1190
S3C1230	BS Fitting Installation - Cable Laying, Termination, Associated Fitting & Field Devices	90	19-May-23	17-Aug-23	12-Mar-23	09-Jun-23	-69	S3C1220	S3T1030, PL1190
S3C1240	Installation of Control & Monitoring System	120	08-Jun-23	06-Oct-23	10-Feb-23	09-Jun-23	-119	S3C1170, S3P1480	S3T1030, PL1190
S3C1250	Installation of Gas Detection System	60	07-Aug-23	06-Oct-23	11-Apr-23	09-Jun-23	-119	S3C1170, S3P1480	S3T1060, PL1190
Testing & Commissioning		762	20-Mar-23	19-Apr-25	22-Nov-22	10-May-24	-345		
S3T1030	SAT for Deammonification Sidestream Treatment Facilities (Ref. to PS6B.1.18.3)	200	20-Mar-23	06-Oct-23	22-Nov-22	09-Jun-23	-119	S3C1170, S3C1240, S3C1230	S3T1060
S3T1000	SAT for TX & LV Switchboard	30	10-Sep-23	10-Oct-23	10-May-23	08-Jun-23	-124	S3C1190	S3T1010, S3T1060



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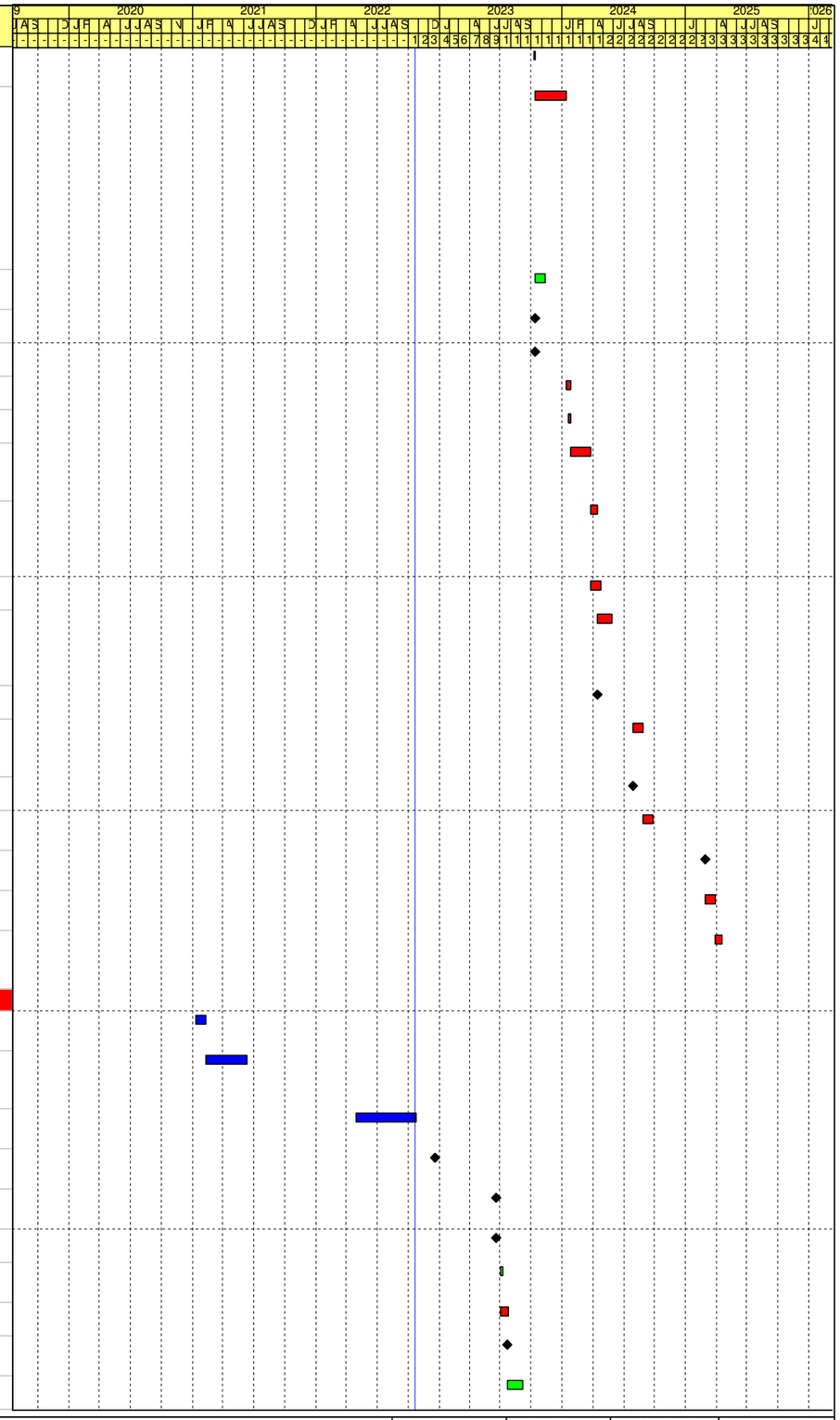
S3T1010	Power Energization (Power Provision from DE/2018/04 Contract)	1	10-Oct-23	11-Oct-23	09-Jun-23	09-Jun-23	-124	S3T1000	S3T1020, S3T1060
S3T1060	Process Start Up	92	11-Oct-23	11-Jan-24	10-Jun-23	09-Sep-23	-124	S3T1030, S3C1210, S3T1050, S3T1040, S3S1140, S3C1250, S3C1170, S3P1480, S3T1000, S3T1010	S3T1070
S3T1020	Essential T&C for FSD Inspection	30	11-Oct-23	10-Nov-23	09-Dec-23	08-Jan-24	59	S3T1010, S3C1210	S3S1150
S3T1040	Existing sludge dewatering facilities Ready (by DE/2018/04 Contract)	0		11-Oct-23		09-Jun-23	-124		S3T1060
S3T1050	Plant service water from zone B/C Ready (Zone B by DE/2018/04 Contract)	0		11-Oct-23		09-Jun-23	-124		S3T1060
S3T1070	Submission & Acceptance of Process Start Up Report	14	11-Jan-24	25-Jan-24	10-Sep-23	23-Sep-23	-124	S3T1060	S3T1080
S3T1080	Notice for Commencement of Phase 1 Commissioning Tests	7	18-Jan-24	25-Jan-24	17-Sep-23	23-Sep-23	-124	S3T1070	S3T1090
S3T1090	Phase 1 Commissioning Tests with daily result to PM	60	25-Jan-24	25-Mar-24	24-Sep-23	22-Nov-23	-124	S3T1080	S3T1110, S3T1120, KD1050-2
S3T1120	Phase 1 Post Commissioning with daily result to PM	19	25-Mar-24	13-Apr-24	23-Nov-23	11-Dec-23	-124	S3T1090	S3T1140, PL1320, S3T1160, S5T1120
S3T1110	Submission & Acceptance of Phase 1 Commissioning Tests Report	30	25-Mar-24	24-Apr-24	19-Jan-24	18-Feb-24	-66	S3T1090	S3T1140
S3T1160	Phase 2 Commissioning Tests with daily result to PM	45	13-Apr-24	28-May-24	03-Feb-24	19-Mar-24	-70	S3T1150, S3T1120	S3T1170, S3T1180, S3T1190, S5T1200
S3T1150	THP digested sludge centrate from Zone C Ready	0		13-Apr-24		03-Feb-24	-70		S3T1160
S3T1140	Submission & Acceptance of Phase 1 Post Commissioning Report	30	29-Jul-24	27-Aug-24	18-Feb-24	19-Mar-24	-162	S3T1120, S3T1130, S3T1110	S3T1170
S3T1130	Ready to Process start up of the first Anaerobic Digester in Zone C	0	29-Jul-24		18-Feb-24		-162	S5T1120	S3T1140
S3T1170	Submission & Acceptance of Phase 2 Commissioning Tests Report	30	28-Aug-24	26-Sep-24	19-Mar-24	18-Apr-24	-162	S3T1160, S3T1140	S3T1200
S3T1180	Commissioning of new Anaerobic Digesters (2 nos.) in Zone C Finished	0		26-Feb-25		19-Mar-24	-345	S5T1180, S3T1160	S3T1190
S3T1190	Phase 3 Commissioning Tests with daily result to PM	30	27-Feb-25	28-Mar-25	19-Mar-24	18-Apr-24	-345	S3T1180, S3T1160	S3T1200
S3T1200	Submission & Acceptance of Phase 3 Commissioning Tests Report	22	29-Mar-25	19-Apr-25	18-Apr-24	10-May-24	-345	S3T1190, S3C1000, S3T1170	SC31110, PL1270
Statutory Submission / Inspection (FSD)		1147	12-Jan-21 A	12-Mar-24	25-Jul-22	10-May-24	59		
S3S1000	Prepare & Submit GBP for FSD approval	90	12-Jan-21 A	10-Feb-21 A	25-Jul-22	25-Jul-22			S3C1200, S3S1010
S3S1010	FSD Review & Approval of GBP	180	11-Feb-21 A	11-Jun-21 A	25-Jul-22	25-Jul-22		S3S1000	S3C1200, S3S1150, S3C1100
S3S1100	Submission & Approval of DG Application to FSD	180	29-Apr-22 A	25-Oct-22	26-Dec-22	30-Dec-22	66		S3C1180
S3S1020	Submit WWO46 Part I/II to WSD (FS / PD)	0	20-Dec-22		13-Oct-22		-69	S3D1550, S3D1510	S3C1200, S3C1220
S3S1030	Submit WWO46 Part IV to WSD (FS / PD)	0	18-Jun-23		04-Dec-23		169	S3C1200, S3C1220	S3S1040
S3S1110	Submit Application to FSD for DG Licence	0	18-Jun-23		31-Mar-23		-80	S3C1180	S3S1120
S3S1040	WSD Inspection	7	02-Jul-23	09-Jul-23	18-Dec-23	25-Dec-23	169	S3S1030	S3S1060, S3S1050
S3S1120	D.G. Inspection, Defects Rectification & Re-inspection (Ventilation Division)	21	03-Jul-23	24-Jul-23	15-Apr-23	05-May-23	-80	S3S1110	S3S1130
S3S1060	Issuance of Form WWO46 Part Va	0		23-Jul-23		12-Mar-24	233	S3S1040	S3S1080, S3S1070
S3S1070	System Flushing / Sampling	45	23-Jul-23	06-Sep-23	12-Mar-24	26-Apr-24	233	S3S1060	S3S1080



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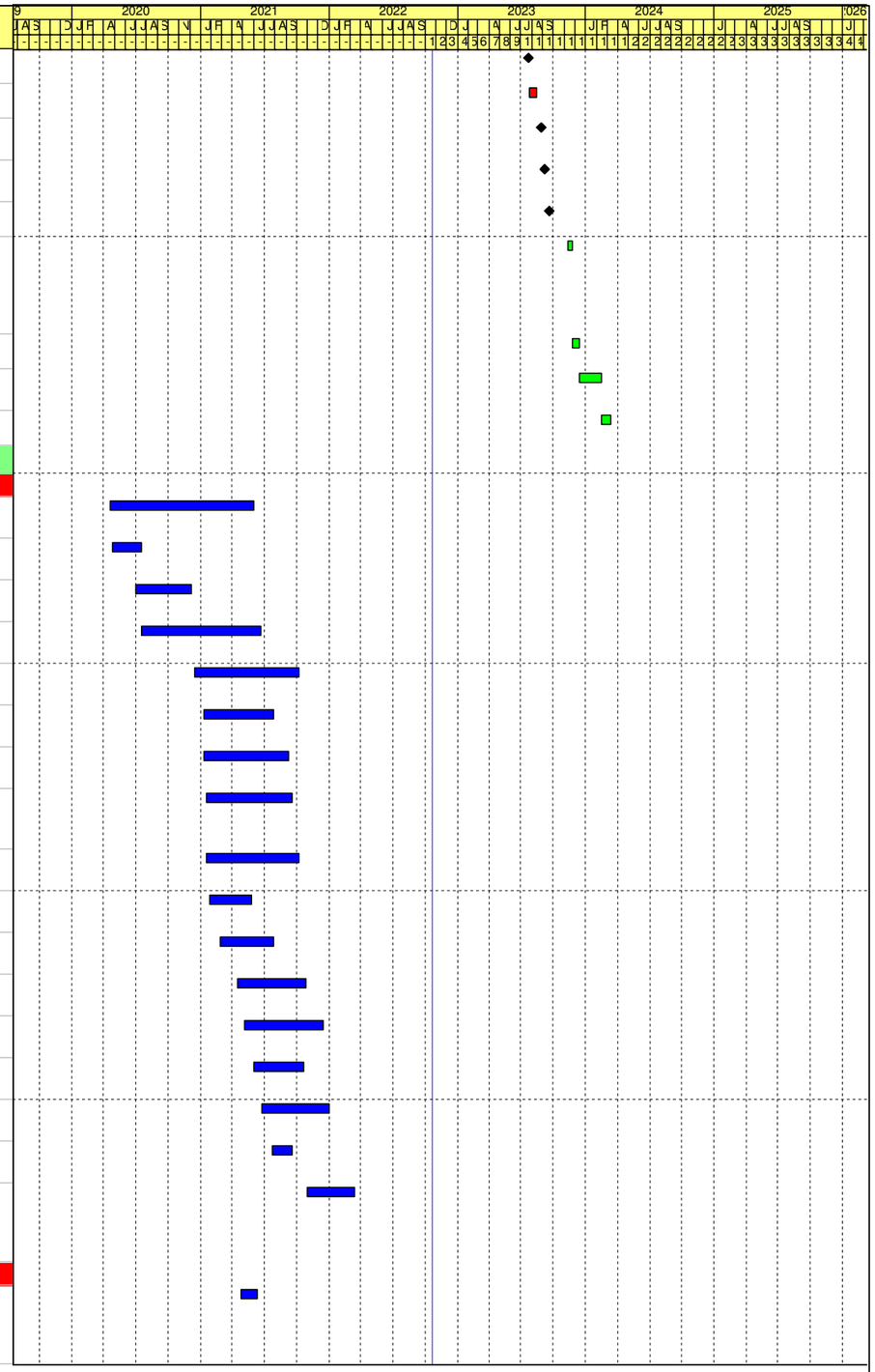
S3S1050	Issuance of FS Water Certificate	0		23-Jul-23		08-Jan-24	169	S3S1040	S3S1150
S3S1130	D.G. Inspection, Defects Rectification & Re-inspection (DG Division)	21	24-Jul-23	14-Aug-23	06-May-23	26-May-23	-80	S3S1120	S3S1140
S3S1140	DG Licence issued	0		28-Aug-23		09-Jun-23	-80	S3S1130	S3S1150, S3T1060
S3S1080	Issuance of Form WWO46 Part Vb	0		06-Sep-23		26-Apr-24	233	S3S1060, S3S1070	S3S1090
S3S1090	Issuance of Water Certificate	0		20-Sep-23		10-May-24	233	S3S1080	SC31110
S3S1150	Prepare & Submit FS/314, FS/501 & FS/501a	14	10-Nov-23	24-Nov-23	08-Jan-24	22-Jan-24	59	S3S1010, S3C1210, S3T1020, S3S1140, S3S1050	S3S1160
S3S1160	FSD Review & Approval of FS/314, FS/501 & FS/501a	21	24-Nov-23	15-Dec-23	22-Jan-24	12-Feb-24	59	S3S1150	S3S1170
S3S1170	F.S. Inspection, Defects Rectification & Re-inspection	60	15-Dec-23	13-Feb-24	12-Feb-24	12-Apr-24	59	S3S1160, S3C1150	S3S1180
S3S1180	Issuance of Acceptance Letter	28	13-Feb-24	12-Mar-24	12-Apr-24	10-May-24	59	S3S1170	SC31110
Section 4 - Complete Construction & T&C for UV System No.1 & EP Station No. 1		932	18-Apr-20 A	13-Sep-22 A	11-Nov-22	15-May-25			
Major Plant & Materials Fabrication & Delivery		725	18-Apr-20 A	16-Mar-22 A	26-Feb-23	25-Mar-25			
S4P1000	Procurement & PO for FRP Cover	409	18-Apr-20 A	31-May-21 A	17-Mar-23	17-Mar-23		PL1010	S4P1090
S4P1010	Procurement & PO for Pipeworks & Associated Valves	90	25-Apr-20 A	15-Jul-20 A	26-Feb-23	26-Feb-23		S1D1000	S4P1130
S4P1030	Procurement & PO for FS System	60	02-Jul-20 A	04-Dec-20 A	25-Mar-25	25-Mar-25		S1D1330	S4P1150
S4P1020	Procurement & PO for Elec. Materials	365	18-Jul-20 A	22-Jun-21 A	25-Mar-25	25-Mar-25		S1D1130	S4P1140
S4P1110	Fabrication & Delivery of Stoplogs	289	16-Dec-20 A	07-Oct-21 A	17-Mar-23	17-Mar-23		S1P1040, S1D1290	S4C1070
S4P1070	Fabrication & Delivery of Lift-up Pumps	225	11-Jan-21 A	26-Jul-21 A	26-Feb-23	26-Feb-23		S1P1010, S1D1290	S4C1040
S4P1130	Fabrication & Delivery of Pipeworks & Associated Valves	200	11-Jan-21 A	08-Sep-21 A	26-Feb-23	26-Feb-23		S4P1010, S1D1290	S4C1040
S4P1040	Fabrication of UV Disinfection System	239	18-Jan-21 A	17-Sep-21 A	17-Mar-23	17-Mar-23		S1P1000, KD1000, S1D1210	S4C1080, S4P1050
S4P1120	Fabrication & Delivery of Penstocks	256	18-Jan-21 A	07-Oct-21 A	17-Mar-23	17-Mar-23		S1P1050, S1D1290	S4C1070
S4P1100	Fabrication & Delivery of EOT Cranes (2T & 5T)	170	28-Jan-21 A	27-May-21 A	26-Feb-23	26-Feb-23		S1P1030, S1D1290	S4C1020
S4P1080	Fabrication & Delivery of Transfer Pumps	218	26-Feb-21 A	26-Jul-21 A	17-Mar-23	17-Mar-23		S1P1020, S1D1290	S5UVPC1000
S4P1150	Fabrication & Delivery of FS System	187	18-Apr-21 A	28-Oct-21 A	25-Mar-25	25-Mar-25		S4P1030, S1D1330	S4C1100
S4P1160	Fabrication & Delivery of Temp. Switchboard	194	05-May-21 A	15-Dec-21 A	17-Mar-23	17-Mar-23			S4C1000
S4P1060	Delivery of UV Disinfection System	149	01-Jun-21 A	22-Oct-21 A	17-Mar-23	17-Mar-23		S4P1050	S4C1080
S4P1140	Fabrication & Delivery of Elec. Materials	190	24-Jun-21 A	31-Dec-21 A	25-Mar-25	25-Mar-25		S4P1020, S1D1330	S4C1120
S4P1050	FAT for UV Disinfection System	71	23-Jul-21 A	17-Sep-21 A	17-Mar-23	17-Mar-23		S4P1040	S4P1060
S4P1090	Fabrication & Delivery of FRP Cover	89	01-Nov-21 A	16-Mar-22 A	17-Mar-23	17-Mar-23		S1D1290, S4P1000, S1P1020, PL1010	S4T1010
E&M Installation		449	25-Apr-21 A	23-Jun-22 A	11-Nov-22	25-Mar-25			
S4C1010	Mobilisation (Partial Access on 24 Apr 2021, Remaining Access on 12 May 2021)	30	25-Apr-21 A	12-Jun-21 A	11-Nov-22	11-Nov-22		AD1010, S1D1130, AD1020	S4C1020, S5TXRC1030, S4C1090, S4C1000



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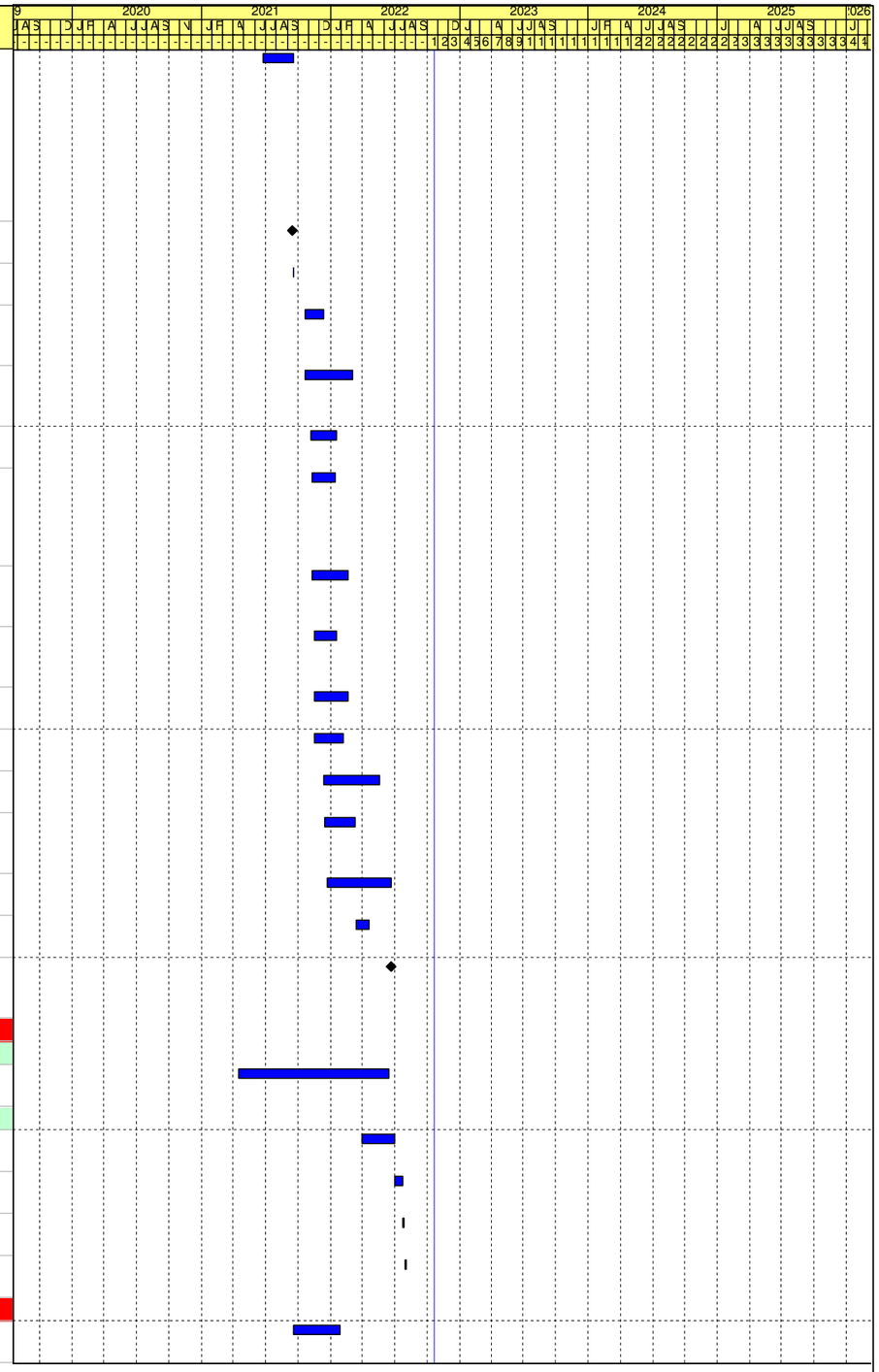
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S4C1020	E&M Installation of EOT Cranes (2T)	46	25-Jun-21 A	17-Sep-21 A	26-Feb-23	26-Feb-23		S1D1180, S1D1260, S4C1010, S4P1100	S4T1010, S4C1030, S4C1040, S4C1110, S4C1090, S4T1000, S4C1080, S4C1070, PL1200
S4C1060	CNE-014 Access to and use to Portion C-1A for Installation of EOT, UV Equipment and Effluent Transfer Pump	0	16-Sep-21 A		17-Mar-23				S4C1070
S4C1050	Preperation Works for E&M Installation of Penstocks & Stoplogs	3	17-Sep-21 A	19-Sep-21 A	17-Mar-23	17-Mar-23			S4C1070
S4C1030	E&M Installation of EOT Cranes (5T)	60	20-Oct-21 A	11-Dec-21 A	17-Mar-23	17-Mar-23		S4C1020	S5UVPC1000, S4T1000, PL1200
S4C1040	E&M Installation of Transfer Pumps & Associated Pipeworks / Valves	103	21-Oct-21 A	05-Mar-22 A	26-Feb-23	26-Feb-23		S4C1020, S4P1070, S4P1130	S5TXRC1050, S4T1010, PL1200
S4C1090	FS Installation - Conduits, Trunking, & Pipeworks	74	08-Nov-21 A	18-Jan-22 A	25-Mar-25	25-Mar-25		S4C1010, S4C1020	S4C1100, PL1200
S4C1070	E&M Installation of Penstocks & Stoplogs (Impacted by CNE-014)	66	11-Nov-21 A	15-Jan-22 A	17-Mar-23	17-Mar-23		S4P1110, S4P1120, S4C1020, S4C1050, S4C1060	S4T1010, S5TXRC1050, PL1200
S4C1080	E&M Installation of UV System	44	11-Nov-21 A	19-Feb-22 A	17-Mar-23	17-Mar-23		S4P1040, S4P1060, S4C1020	S4T1010, S5TXRC1050, PL1200
S4C1100	FS Installation - Cable Laying, Termination, Associated Fitting & Field Devices	67	15-Nov-21 A	18-Jan-22 A	25-Mar-25	25-Mar-25		S4P1150, S4C1090	SC41110, S4S1010, PL1200
S4C1110	BS Fitting Installation - Conduits, Trunking, & Ductworks	111	15-Nov-21 A	19-Feb-22 A	25-Mar-25	25-Mar-25		S4C1020, S1D1310	S4C1120, PL1200
S4C1160	Installation of FS Link	84	17-Nov-21 A	08-Feb-22 A	25-Mar-25	25-Mar-25			S4S1010, PL1200
S4C1120	BS Fitting Installation - Cable Laying, Termination, Associated Fitting & Field Devices	139	13-Dec-21 A	21-May-22 A	25-Mar-25	25-Mar-25		S4C1110, S4P1140	S4C1150, PL1200
S4C1000	Provision of Temporary Power for UV System No.1 & Effluent Transfer Pumping Station	45	15-Dec-21 A	11-Mar-22 A	17-Mar-23	17-Mar-23		S4C1010, S1D1130, S4P1160	S4T1010, S4C1140
S4C1130	Excavation Works & Cable Laying - by CLP (Impacted by CNE-035)	184	22-Dec-21 A	23-Jun-22 A	17-Mar-23	17-Mar-23			S4C1140
S4C1150	Installation of CCTV System	37	14-Mar-22 A	19-Apr-22 A	25-Mar-25	25-Mar-25		S4C1120	SC41110, PL1200
S4C1140	Ready for Power Energization	0		23-Jun-22 A		17-Mar-23		S4C1000, S4C1130, S4S1000	S4S1030, S4T1010
Statutory Submission / Inspection		511	17-Apr-21 A	02-Aug-22 A	17-Mar-23	15-May-25			
CLP Submission		425	17-Apr-21 A	15-Jun-22 A	17-Mar-23	17-Mar-23			
S4S1000	Submission & Approval of Electrical Schematic Wiring Diagram to CLP (Temp. Power)	425	17-Apr-21 A	15-Jun-22 A	17-Mar-23	17-Mar-23			S4C1140
FSD Submission & Inspection		176	01-Apr-22 A	02-Aug-22 A	15-May-25	15-May-25			
S4S1010	Prepare & Submit FS/314, FS/501 & FS/501a	91	01-Apr-22 A	30-Jun-22 A	15-May-25	15-May-25		S4C1100, S4C1160	S4S1020
S4S1020	FSD Review & Approval of FS/314, FS/501 & FS/501a	25	01-Jul-22 A	25-Jul-22 A	15-May-25	15-May-25		S4S1010	S4S1030
S4S1030	F.S. Inspection, Defects Rectification & Re-inspection	4	26-Jul-22 A	29-Jul-22 A	15-May-25	15-May-25		S4S1020, S4C1140	S4S1040
S4S1040	Issuance of Acceptance Letter	14	30-Jul-22 A	02-Aug-22 A	15-May-25	15-May-25		S4S1030	SC41110
Testing & Commissioning		329	18-Sep-21 A	13-Sep-22 A	17-Mar-23	17-Mar-23			
S4T1000	T&C and R.P.E inspection for EOT Cranes	133	18-Sep-21 A	28-Jan-22 A	17-Mar-23	17-Mar-23		S4C1020, S4C1030	S4T1010



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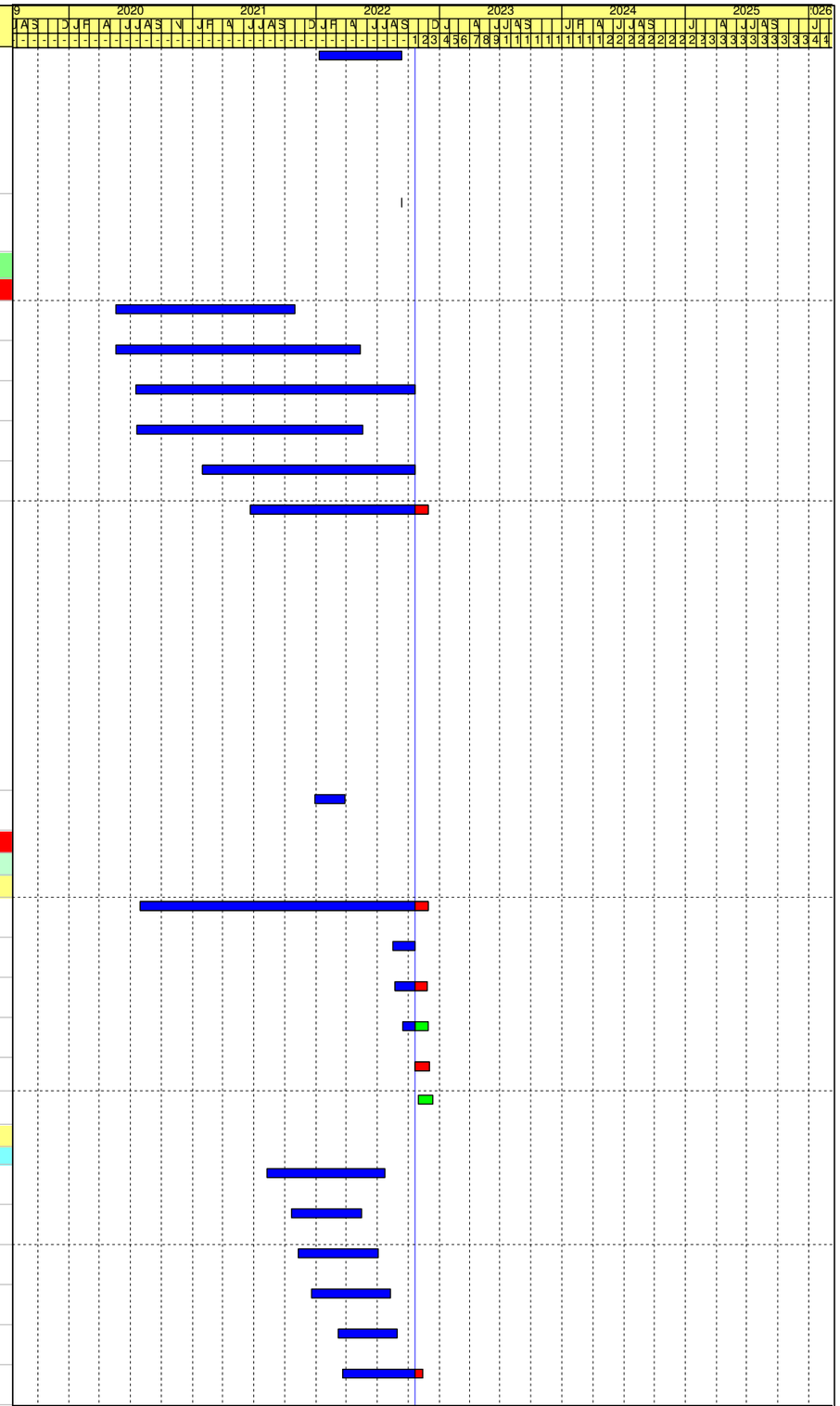
S4T1010	SAT for UV System No. 1 & Effluent Transfer Pumping Station No. 1 (Impacted by CNE-035)	217	10-Jan-22 A	13-Sep-22 A	17-Mar-23	17-Mar-23		S4C1020, S4C1070, S4C1080, S4C1000, S4T1000, S4C1040, S4P1090, S4C1140	S4T1020
S4T1020	System Commissioning Tests	3	11-Sep-22 A	13-Sep-22 A	17-Mar-23	17-Mar-23		S4T1010	SC41110, PL1290, S5UVPC1000
Section 5 - Complete all remaining Works (incl. T&C)		1798	18-May-20 A	19-Apr-25	26-Mar-22	15-May-25	26		
Fabrication, FAT & Delivery of Major Plant & Materials		802	18-May-20 A	30-Nov-22	06-Jul-22	15-May-25	897		
S5P1020	Procurement & PO for Lifting Appliances	530	18-May-20 A	29-Oct-21 A	15-May-25	15-May-25		S2P1020	
S5P1040	Procurement & PO for Ferric Chloride Dosing Pump	726	18-May-20 A	13-May-22 A	24-Nov-22	24-Nov-22		S2P1020	S5FCDP1010
S5P1000	Procurement & PO for Biogas Booster and Transfer Pumps	735	17-Jul-20 A	21-Oct-22	30-Jul-22	30-Jul-22	-83	S2P1000	S5BIOP1000
S5P1030	Procurement & PO for Ferric Chloride Storage Tank	668	20-Jul-20 A	18-May-22 A	30-Sep-22	30-Sep-22		S2P1000	S5FCDP1000
S5P1010	Procurement & PO for Pipeworks & Associated Valves	539	29-Jan-21 A	21-Oct-22	04-Aug-22	04-Aug-22	-78	S2D1070	S5CHPP1070, S5DIGP1020
S5P1050	Procurement & PO for Electrical Sub-contractor	396	21-Jun-21 A	30-Nov-22	06-Jul-22	15-Aug-22	-107	PL1010, S2P1130, S2D1370, S2D1570, S2D1270, S2D1310, S2D1430, S2D1470, S2D1510, S2D1630, S2D1670	S5SDBC1710, S5SDBC1680, S5SDBC1740, S5CHPC1100, S5CHPC1230, S5CHPC1290, S5TXRC1030, S5TXRC1040, S5DIGC1120, S5DIGC1160, S5DIGC1200, S5DIGC1260, S5EXAC1030, S5EXAC1040, S5EXAC1050, S5EXAC1060
S5P1070	Procurement & PO for mechanical ventilation system	90	28-Dec-21 A	28-Mar-22 A	15-May-25	15-May-25			
Sludge Dewatering Building		1226	31-Jul-20 A	08-Dec-23	26-Mar-22	27-Feb-24	81		
Procurement, Fabrication, FAT & Delivery of Major Plant & Materials		1213	31-Jul-20 A	11-Oct-23	26-Mar-22	01-Sep-23	-41		
Procurement		867	31-Jul-20 A	14-Dec-22	10-Jun-22	07-Jan-23	24		
S5SDBP1190	Procurement & PO for Genset	721	31-Jul-20 A	30-Nov-22	10-Jun-22	20-Jul-22	-133		S5SDBP1200
S5SDBP1615	Procurement & PO for DI pipework (B/F)	45	17-Aug-22 A	20-Oct-22 A	04-Aug-22	04-Aug-22			S5SDBP1605
S5SDBP1485	Procurement & PO for DI pipework (G/F and 1/F)	45	24-Aug-22 A	26-Nov-22	28-Jul-22	02-Sep-22	-85		S5SDBP1555
S5SDBP1630	Procurement & PO for Sludge Skip (PS Screen & Dewatering Screen)	45	17-Sep-22 A	30-Nov-22	30-Oct-22	09-Dec-22	9		S5SDBP1310
S5SDBP1575	Procurement & PO for Process Water Pumps	45	21-Oct-22*	04-Dec-22	03-Sep-22	17-Oct-22	-48		S5SDBP1565
S5SDBP1595	Procurement & PO for FRP ductworks	45	31-Oct-22*	14-Dec-22	24-Nov-22	07-Jan-23	24		S5SDBP1585
Mechanical		603	11-Aug-21 A	07-Apr-23	29-Jun-22	01-Sep-23	146		
Fabrication and FAT		603	11-Aug-21 A	08-Mar-23	29-Jun-22	01-Sep-23	176		
S5SDBP1150	Fabrication & FAT of Sludge Screen	350	11-Aug-21 A	26-Jul-22 A	05-Feb-23	05-Feb-23			S5SDBP1155
S5SDBP1260	Fabrication of Sludge Thickening Centrifuges	206	22-Oct-21 A	15-May-22 A	09-Nov-22	09-Nov-22			S5SDBP1212
S5SDBP1290	Fabrication of Sludge Dewatering Centrifuges	238	10-Nov-21 A	05-Jul-22 A	17-Dec-22	17-Dec-22			S5SDBP1242
S5SDBP1210	Fabrication & Delivery of Lift	210	18-Dec-21 A	10-Aug-22 A	01-Sep-23	01-Sep-23			S5SDBC1770
S5SDBP1230	Fabrication and FAT of Recirculation Pumps	175	10-Mar-22 A	31-Aug-22 A	09-Aug-22	09-Aug-22			S5SDBP1185
S5SDBP1520	Fabrication and FAT of Hoist	197	21-Mar-22 A	14-Nov-22	25-Jul-22	18-Aug-22	-88		S5SDBP1525



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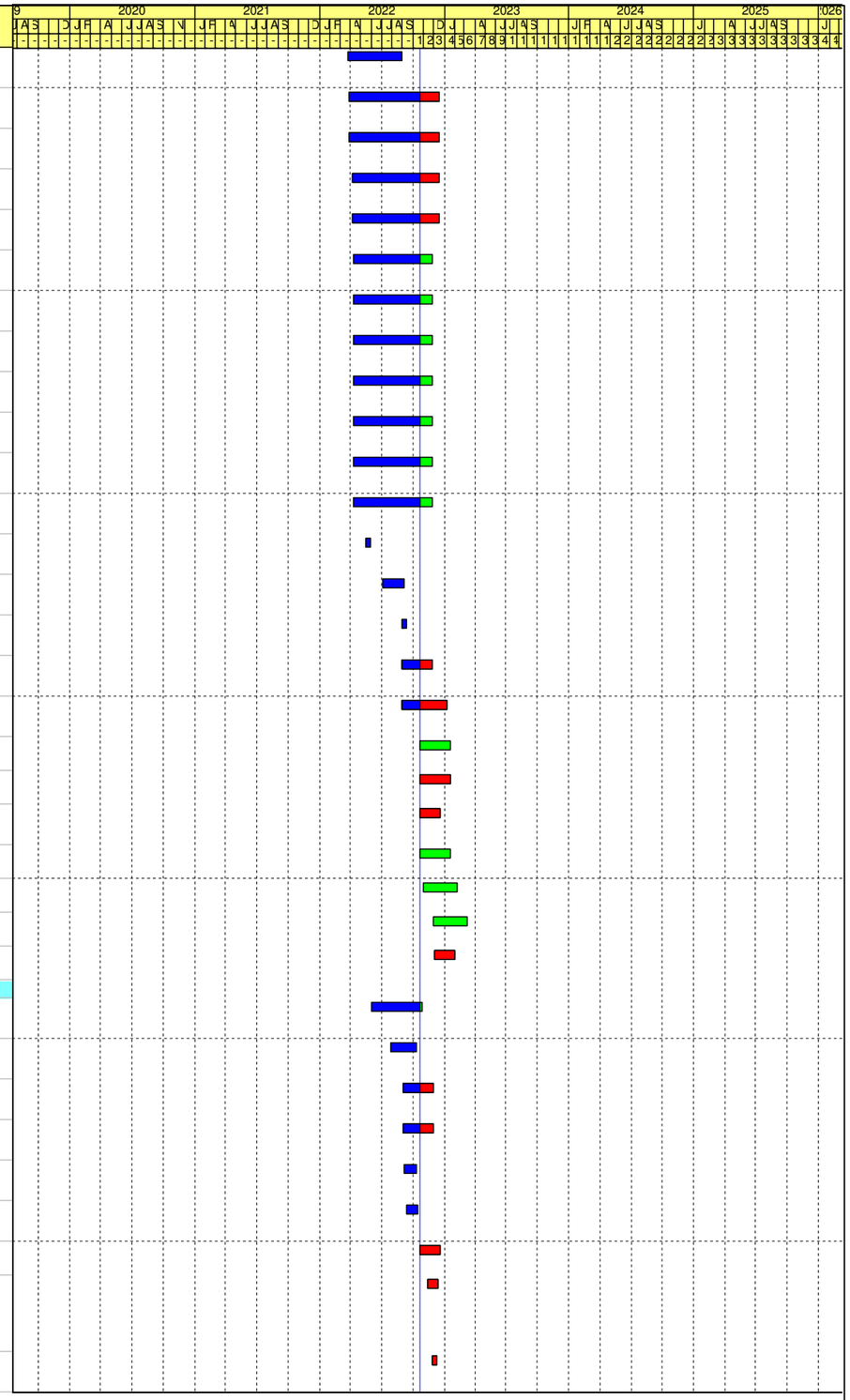
S5SDBP1320	Fabrication and FAT of Centrate Transfer Pumps	160	25-Mar-22 A	31-Aug-22 A	02-Aug-22	02-Aug-22			S5SDBP1295
S5SDBP1340	Fabrication and FAT of Preparation Tank Mixers	235	28-Mar-22 A	17-Dec-22	20-Oct-22	16-Dec-22	-1		S5SDBP1325
S5SDBP1350	Fabrication and FAT of Storage Tank Mixers	120	28-Mar-22 A	17-Dec-22	20-Oct-22	16-Dec-22	-1		S5SDBP1335
S5SDBP1330	Fabrication and FAT of Thickening Polymer Powder Unit	226	06-Apr-22 A	17-Dec-22	07-Jul-22	02-Sep-22	-106		S5SDBP1315, S5SDBP1380
S5SDBP1380	Fabrication and FAT of Dewatering Polymer Powder Unit	226	06-Apr-22 A	17-Dec-22	07-Jul-22	02-Sep-22	-106	S5SDBP1330	S5SDBP1385
S5SDBP1170	Fabrication & FAT of External Sludge Transfer Pump	201	11-Apr-22 A	27-Nov-22	16-Nov-22	23-Dec-22	26		S5SDBP1085
S5SDBP1140	Fabrication & FAT of PS Screen Feed Pump	201	11-Apr-22 A	27-Nov-22	09-Nov-22	16-Dec-22	19		S5SDBP1145
S5SDBP1250	Fabrication and FAT of Thickening Centrifuge Feed Pump	201	11-Apr-22 A	27-Nov-22	09-Nov-22	16-Dec-22	19		S5SDBP1205
S5SDBP1360	Fabrication and FAT of Polymer Transfer Pumps	201	11-Apr-22 A	27-Nov-22	02-Nov-22	09-Dec-22	12		S5SDBP1345
S5SDBP1390	Fabrication and FAT of Polymer Dosing Pumps	201	11-Apr-22 A	27-Nov-22	24-Dec-22	30-Jan-23	64		S5SDBP1355
S5SDBP1450	Fabrication and FAT of Dewatering Centrifuge Feed Pumps	201	11-Apr-22 A	27-Nov-22	09-Nov-22	16-Dec-22	19		S5SDBP1455
S5SDBP1470	Fabrication and FAT of Sludge Transfer Pumps (THP By Pass)	201	11-Apr-22 A	27-Nov-22	02-Nov-22	09-Dec-22	12		S5SDBP1475
S5SDBP1212	FAT of Sludge Thickening Centrifuges	16	16-May-22 A	31-May-22 A	09-Nov-22	09-Nov-22		S5SDBP1260	S5SDBP1215
S5SDBP1242	FAT of Sludge Dewatering Centrifuges	62	06-Jul-22 A	05-Sep-22 A	17-Dec-22	17-Dec-22		S5SDBP1290	S5SDBP1245
S5SDBP1530	Fabrication and FAT of Steel Work (Monorails)	14	29-Aug-22 A	11-Sep-22 A	25-Dec-22	25-Dec-22			S5SDBP1535
S5SDBP1540	Fabrication and FAT of Steel Work (EOT)	60	29-Aug-22 A	26-Nov-22	29-Jun-22	04-Aug-22	-114		S5SDBP1545
S5SDBP1280	Fabrication and FAT of THP Feed Pump	100	31-Aug-22 A	07-Jan-23	07-Oct-22	24-Dec-22	-14		S5SDBP1235
S5SDBP1240	Fabrication and FAT of Primary Sludge Holding Tank Mixer	90	21-Oct-22*	18-Jan-23	07-Nov-22	04-Feb-23	17		S5SDBP1195
S5SDBP1300	Fabrication and FAT of Conveyor	90	21-Oct-22*	18-Jan-23	10-Oct-22	07-Jan-23	-11		S5SDBP1265
S5SDBP1370	Fabrication and FAT of FRP Tank (Thickening & Dewatering Polymer Dosing System)	60	21-Oct-22*	19-Dec-22	08-Sep-22	06-Nov-22	-43		S5SDBP1365
S5SDBP1460	Fabrication and FAT of Mixers (Digested Sludge Holding Tank)	90	21-Oct-22*	18-Jan-23	07-Nov-22	04-Feb-23	17		S5SDBP1465
S5SDBP1270	Fabrication and FAT of Thickening Sludge Silo	98	01-Nov-22*	06-Feb-23	09-Dec-22	16-Mar-23	38		S5SDBP1225
S5SDBP1310	Fabrication and FAT of Sludge Skip (PS Screen & Dewatering Screen)	98	01-Dec-22	08-Mar-23	10-Dec-22	17-Mar-23	9	S5SDBP1630	S5SDBP1275
S5SDBP1565	Fabrication and FAT of Process Water Pumps	60	05-Dec-22	02-Feb-23	18-Oct-22	16-Dec-22	-48	S5SDBP1575	S5SDBP1495
Delivery		199	01-Jun-22 A	07-Apr-23	02-Aug-22	16-Apr-23	9		
S5SDBP1215	Delivery of Sludge Thickening Centrifuges	143	01-Jun-22 A	28-Oct-22	09-Nov-22	16-Nov-22	19	S5SDBP1212	S5SDBC1570
S5SDBP1155	Delivery of Sludge Screen	76	27-Jul-22 A	12-Oct-22 A	05-Feb-23	05-Feb-23		S5SDBP1150	S5SDBC1590
S5SDBP1185	Delivery of Recirculation Pumps	60	01-Sep-22 A	30-Nov-22	09-Aug-22	18-Sep-22	-73	S5SDBP1230	S5SDBC1115, S5SDBC1165
S5SDBP1295	Delivery of Centrate Transfer Pumps	60	01-Sep-22 A	30-Nov-22	02-Aug-22	11-Sep-22	-80	S5SDBP1320	S5SDBC1105
S5SDBP1245	Delivery of Sludge Dewatering Centrifuges	24	06-Sep-22 A	12-Oct-22 A	17-Dec-22	17-Dec-22		S5SDBP1242	S5SDBC1580
S5SDBP1535	Delivery of Steel Work (Monorails)	14	12-Sep-22 A	15-Oct-22 A	25-Dec-22	25-Dec-22		S5SDBP1530	S5SDBC1440, S5SDBC1550
S5SDBP1605	Fabrication and delivery of DI pipework (B/F)	60	21-Oct-22	19-Dec-22	04-Aug-22	02-Oct-22	-78	S5SDBP1615	S5SDBC1400
S5SDBP1525	Delivery of Hoist	30	15-Nov-22	14-Dec-22	19-Aug-22	17-Sep-22	-88	S5SDBP1520	S5SDBC1440, S5SDBC1550, S5SDBC1530, S5SDBC1540
S5SDBP1545	Delivery of Steel Work (EOT)	14	27-Nov-22	10-Dec-22	05-Aug-22	18-Aug-22	-114	S5SDBP1540	S5SDBC1530, S5SDBC1540



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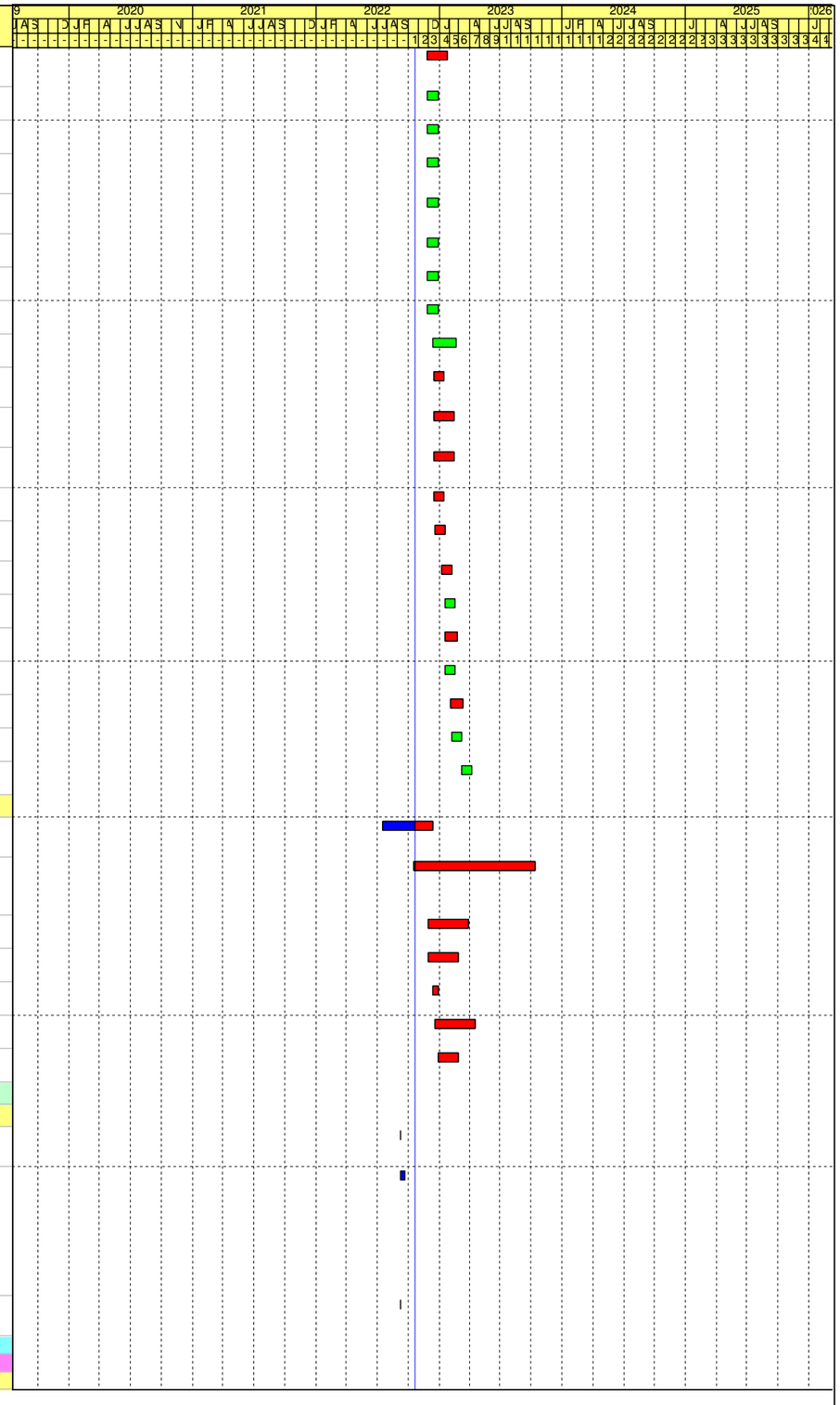
S5SDBP1555	Fabrication and delivery of DI pipework (G/F and 1/F)	60	27-Nov-22	25-Jan-23	03-Sep-22	01-Nov-22	-85	S5SDBP1485	S5SDBC1460, S5SDBC1620
S5SDBP1145	Delivery of PS Screen Feed Pump	31	28-Nov-22	28-Dec-22	17-Dec-22	16-Jan-23	19	S5SDBP1140	S5SDBC1790
S5SDBP1205	Delivery of Thickening Centrifuges Feed Pump	31	28-Nov-22	28-Dec-22	17-Dec-22	16-Jan-23	19	S5SDBP1250	S5SDBC1175
S5SDBP1345	Delivery of Polymer Transfer Pumps	31	28-Nov-22	28-Dec-22	10-Dec-22	09-Jan-23	12	S5SDBP1360	S5SDBC1145, S5SDBC1810
S5SDBP1355	Delivery of Polymer Dosing Pumps	31	28-Nov-22	28-Dec-22	31-Jan-23	02-Mar-23	64	S5SDBP1390	S5SDBC1610, S5SDBC1325
S5SDBP1455	Delivery of Dewatering Centrifuges Feed Pumps	31	28-Nov-22	28-Dec-22	17-Dec-22	16-Jan-23	19	S5SDBP1450	S5SDBC1185
S5SDBP1475	Delivery of Sludge Transfer Pumps (THP By Pass)	31	28-Nov-22	28-Dec-22	10-Dec-22	09-Jan-23	12	S5SDBP1470	S5SDBC1165
S5SDBP1085	Delivery of External Sludge Transfer Pump	31	28-Nov-22	28-Dec-22	24-Dec-22	23-Jan-23	26	S5SDBP1170	S5SDBC1135
S5SDBP1585	Fabrication and delivery of FRP ductworks	68	15-Dec-22	20-Feb-23	08-Jan-23	16-Mar-23	24	S5SDBP1595	S5SDBC1860
S5SDBP1315	Delivery of Thickening Polymer Powder Unit	30	18-Dec-22	16-Jan-23	03-Sep-22	02-Oct-22	-106	S5SDBP1330	S5SDBC1470, S5SDBC1265
S5SDBP1325	Delivery of Preparation Tank Mixers	60	18-Dec-22	15-Feb-23	17-Dec-22	14-Feb-23	-1	S5SDBP1340	S5SDBC1600, S5SDBC1285
S5SDBP1335	Delivery of Storage Tank Mixers	60	18-Dec-22	15-Feb-23	17-Dec-22	14-Feb-23	-1	S5SDBP1350	S5SDBC1600, S5SDBC1285
S5SDBP1385	Delivery of Dewatering Polymer Powder Unit	30	18-Dec-22	16-Jan-23	03-Sep-22	02-Oct-22	-106	S5SDBP1380	S5SDBC1265
S5SDBP1365	Delivery of FRP Tank (Thickening & Dewatering Polymer Dosing System)	30	20-Dec-22	18-Jan-23	07-Nov-22	06-Dec-22	-43	S5SDBP1370	S5SDBC1560, S5SDBC1275
S5SDBP1235	Delivery of THP Feed Pump	30	08-Jan-23	06-Feb-23	25-Dec-22	23-Jan-23	-14	S5SDBP1280	S5SDBC1780
S5SDBP1195	Delivery of Primay Sludge Holding Tank Mixer	30	19-Jan-23	17-Feb-23	05-Feb-23	06-Mar-23	17	S5SDBP1240	S5SDBC1314
S5SDBP1265	Delivery of Conveyor	38	19-Jan-23	25-Feb-23	08-Jan-23	14-Feb-23	-11	S5SDBP1300	S5SDBC1450
S5SDBP1465	Delivery of Mixers (Digested Sludge Holding Tank)	30	19-Jan-23	17-Feb-23	05-Feb-23	06-Mar-23	17	S5SDBP1460	S5SDBC1312
S5SDBP1495	Delivery of Process Water Pumps	38	03-Feb-23	12-Mar-23	17-Dec-22	23-Jan-23	-48	S5SDBP1565	S5SDBC1125
S5SDBP1225	Delivery of Thickening Sludge Silo	30	07-Feb-23	08-Mar-23	17-Mar-23	15-Apr-23	38	S5SDBP1270	S5SDBC1450
S5SDBP1275	Delivery of Sludge Skip (PS Screen & Dewatering Screen)	30	09-Mar-23	07-Apr-23	18-Mar-23	16-Apr-23	9	S5SDBP1310	S5SDBC1870
Electrical and Control		431	18-Jul-22 A	11-Oct-23	26-Mar-22	16-Mar-23	-209		
S5SDBP1600	Fabrication of 380V Transfomers	120	18-Jul-22 A	14-Dec-22	22-Jun-22	15-Aug-22	-121		S5SDBP1610
S5SDBP1180	Fabrication & Delivery of SCADA System	360	17-Oct-22 A	11-Oct-23	26-Mar-22	16-Mar-23	-209		S5SDBC1730, S5SDBC1760, S5SDBC1700
S5SDBP1220	Fabrication & Delivery of LV Switchboard	120	01-Dec-22*	30-Mar-23	15-Jul-22	11-Nov-22	-139		S5SDBC1520
S5SDBP1171	Fabrication & Delivery of Cable	90	01-Dec-22*	28-Feb-23	13-Sep-22	11-Dec-22	-79		S5SDBC1225
S5SDBP1610	FAT for 380V Transfomers	14	15-Dec-22	28-Dec-22	16-Aug-22	29-Aug-22	-121	S5SDBP1600	S5SDBP1620
S5SDBP1200	Fabrication & Delivery of Genset	120	20-Dec-22	18-Apr-23	21-Jul-22	17-Nov-22	-152	S5SDBP1190	S5SDBC1500
S5SDBP1620	Delivery of 380V Transfomers	60	29-Dec-22	26-Feb-23	30-Aug-22	28-Oct-22	-121	S5SDBP1610	S5SDBC1510
Installation		452	06-Jun-22 A	26-Oct-23	19-Aug-22	01-Jan-24	67		
NCE-PMI-0325 - Provision of 2 nos of 3 Tons Mobile A-frame with Electrical Hoist in SDB		452	06-Jun-22 A	26-Oct-23	19-Aug-22	01-Jan-24	67		
S5SDBC1650	Access to Sludge Dewatering Building (Impacted by EWN-0314)	1	09-Sep-22 A	09-Sep-22 A	24-Aug-22	24-Aug-22			S5SDBC1670
S5SDBC1670	Mobilisation	15	09-Sep-22 A	23-Sep-22 A	24-Aug-22	24-Aug-22		S5SDBC1650, S5SDBC1660	S5SDBC1430, S5SDBC1480, S5SDBC1520, S5SDBC1410, S5SDBC1500, S5SDBC1115, S5SDBC1265
S5SDBC1660	Access to Sludge Dewatering Building (Impacted by EWN-0314-1)	1	09-Sep-22 A	09-Sep-22 A	24-Aug-22	24-Aug-22			S5SDBC1670
E&M Installation		452	06-Jun-22 A	26-Oct-23	19-Aug-22	30-Apr-23	-179		
Basement		330	01-Dec-22	26-Oct-23	12-Sep-22	31-Mar-23	-209		
Mechanical		171	01-Dec-22	20-May-23	12-Sep-22	16-Mar-23	-65		



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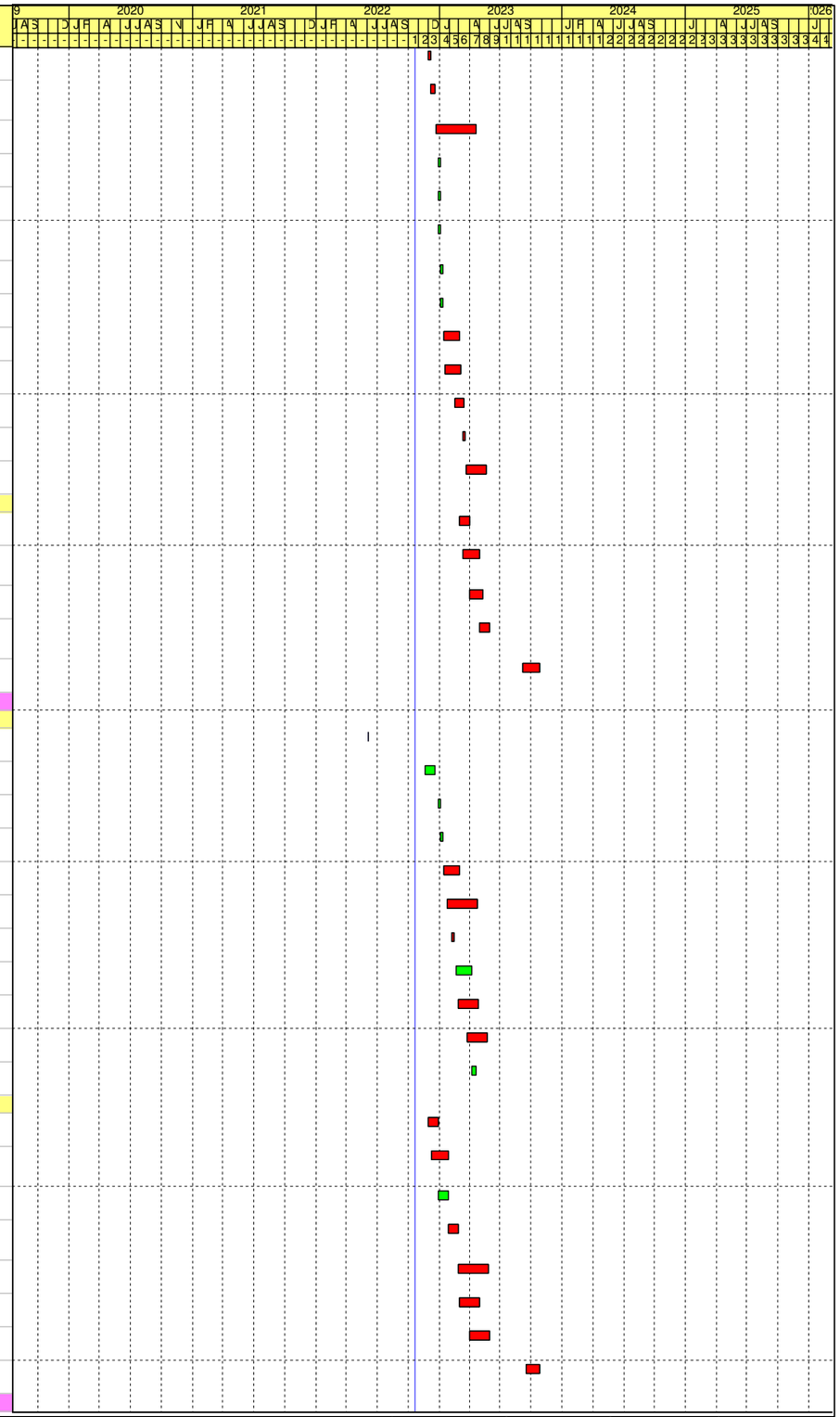
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S5SDBC1105	Installation of Centrate Transfer Pumps (3 nos.)	7	01-Dec-22	07-Dec-22	12-Sep-22	18-Sep-22	-80	S5SDBP1295	S5SDBC1400, S5SDBT1080,
S5SDBC1115	Installation of Recirculation Pumps for Centrate Tank, Sludge Blend Tanks & THP by-pass Sludge Holding Tank (6 nos,)	14	08-Dec-22	21-Dec-22	19-Sep-22	02-Oct-22	-80	S5SDBP1185, S5SDBC1670,	S5SDBT1080, S5SDBC1400
S5SDBC1400	Installation of Process Pipe	120	22-Dec-22	20-Apr-23	03-Oct-22	30-Jan-23	-80	S5SDBC1115, S5SDBC1105,	S5SDBT1100, S5SDBC1305
S5SDBC1135	Installation of External Sludge Transfer Pumps (2 nos.)	7	29-Dec-22	04-Jan-23	24-Jan-23	30-Jan-23	26	S5SDBP1085	S5SDBT1080, S5SDBC1400
S5SDBC1145	Installation of Sludge Dewatering Polymer Transfer Pumps (2 nos.)	7	29-Dec-22	04-Jan-23	10-Jan-23	16-Jan-23	12	S5SDBP1345	S5SDBT1080, S5SDBC1400,
S5SDBC1165	Installation of THP by-pass Sludge Holding Tank Transfer Pumps (4 nos.)	7	29-Dec-22	04-Jan-23	10-Jan-23	16-Jan-23	12	S5SDBP1475, S5SDBP1185,	S5SDBT1080, S5SDBC1400,
S5SDBC1175	Installation of Thickening Centrifuges Feed Pumps (4 nos.)	7	05-Jan-23	11-Jan-23	17-Jan-23	23-Jan-23	12	S5SDBP1205, S5SDBC1165	S5SDBT1080, S5SDBC1400,
S5SDBC1185	Installation of Dewatering Centrifuges Feed Pumps (3 nos.)	7	05-Jan-23	11-Jan-23	17-Jan-23	23-Jan-23	12	S5SDBP1455, S5SDBC1175	S5SDBT1080, S5SDBC1400,
S5SDBC1265	Installation of Dewatering Polymer Powder Feed Units	45	17-Jan-23	02-Mar-23	03-Oct-22	16-Nov-22	-106	S5SDBP1385, S5SDBP1315,	S5SDBC1710, S5SDBT1058,
S5SDBC1275	Installation of Dewatering Polymer Preparation Tanks	45	19-Jan-23	04-Mar-23	07-Dec-22	20-Jan-23	-43	S5SDBP1365	S5SDBC1560
S5SDBC1285	Installation of Polymer Mixer	30	16-Feb-23	17-Mar-23	15-Feb-23	16-Mar-23	-1	S5SDBP1335, S5SDBP1325	S5SDBT1160
S5SDBC1125	Installation of Process Water Pumps (3 nos.)	7	13-Mar-23	19-Mar-23	24-Jan-23	30-Jan-23	-48	S5SDBP1495, S5SDBC1185	S5SDBT1080, S5SDBC1400
S5SDBC1305	Installation of Instruments	60	22-Mar-23	20-May-23	01-Jan-23	01-Mar-23	-80	S5SDBC1400	S5SDBT1181
Electrical		238	03-Mar-23	26-Oct-23	17-Nov-22	31-Mar-23	-209		
S5SDBC1710	Installation of Electrical System - Cable Containment	30	03-Mar-23	01-Apr-23	17-Nov-22	16-Dec-22	-106	S5SDBC1265, S5SDBC1410,	S5SDBC1072, S5SDBC1095
S5SDBC1072	Installation of Electrical System - Wall Mount Equipment, Conduit & Wiring	50	13-Mar-23	01-May-23	27-Nov-22	15-Jan-23	-106	S5SDBC1710	S5SDBC1074
S5SDBC1095	Installation of Control Cable Laying	40	02-Apr-23	11-May-23	01-Jan-23	09-Feb-23	-91	S5SDBC1710	S5SDBC1730
S5SDBC1074	Installation of Electrical System - Lighting and Small Power Accessories	30	02-May-23	31-May-23	16-Jan-23	14-Feb-23	-106	S5SDBC1072	S5SDBT1120
S5SDBC1730	Installation of SCADA System / Control Monitoring System	50	07-Sep-23	26-Oct-23	10-Feb-23	31-Mar-23	-209	S5SDBP1180, S5SDBC1095	S5SDBT1180
Ground Floor		452	06-Jun-22 A	26-Oct-23	18-Sep-22	30-Apr-23	-179		
Mechanical		298	06-Jun-22 A	25-May-23	18-Sep-22	30-Apr-23	-25		
S5SDBC1430	Installation of A-Frame (Effected by NCE-PMI-0325)	3	06-Jun-22 A	06-Jun-22 A	18-Sep-22	18-Sep-22		S5SDBC1670	S5SDBC1560, S5SDBC1590,
S5SDBC1440	Installation of Monorail LA-01-01	30	22-Nov-22	21-Dec-22	25-Dec-22	23-Jan-23	33	S5SDBC1550, S5SDBP1535,	S5SDBC1810
S5SDBC1790	Installation of PS Screen Feed Pumps (3 nos.)	7	29-Dec-22	04-Jan-23	17-Jan-23	23-Jan-23	19	S5SDBP1145	S5SDBT1080, S5SDBC1810,
S5SDBC1810	Installation of Sludge Thickening Polymer Transfer Pumps (2 nos.)	7	05-Jan-23	11-Jan-23	24-Jan-23	30-Jan-23	19	S5SDBP1345, S5SDBC1790,	S5SDBT1080, S5SDBC1460
S5SDBC1470	Installation of Sludge Thickening Polymer Preparation Tanks	45	17-Jan-23	02-Mar-23	17-Dec-22	30-Jan-23	-31	S5SDBP1315	S5SDBT1058, S5SDBC1312,
S5SDBC1460	Installation of Process Pipe	90	26-Jan-23	25-Apr-23	02-Nov-22	30-Jan-23	-85	S5SDBP1555, S5SDBC1780,	S5SDBT1100, S5SDBC1840
S5SDBC1780	Installation of THP Feed Pumps (4 nos.)	7	07-Feb-23	13-Feb-23	24-Jan-23	30-Jan-23	-14	S5SDBP1235	S5SDBT1080, S5SDBC1460
S5SDBC1860	Installation of DOU Ductworks	45	21-Feb-23	06-Apr-23	17-Mar-23	30-Apr-23	24	S5SDBP1585	S5T1060
S5SDBC1450	Installation of Silo & Conveyor	60	26-Feb-23	26-Apr-23	15-Feb-23	15-Apr-23	-11	S5SDBP1225, S5SDBP1265	S5SDBT1068
S5SDBC1840	Installation of Instruments	60	27-Mar-23	25-May-23	01-Jan-23	01-Mar-23	-85	S5SDBC1460	S5SDBT1181
S5SDBC1870	Position of Sludge Skips and Installation of Hydraulic System	14	08-Apr-23	21-Apr-23	17-Apr-23	30-Apr-23	9	S5SDBP1275	S5T1060
Electrical		330	01-Dec-22	26-Oct-23	03-Oct-22	31-Mar-23	-209		
S5SDBC1680	Installation of Electrical System - Cable Containment	30	01-Dec-22	30-Dec-22	03-Oct-22	01-Nov-22	-59	S5SDBC1480, S5P1050	S5SDBC1172, S5SDBC1740,
S5SDBC1172	Installation of Electrical System - Wall Mount Equipment, Conduit & Wiring	50	11-Dec-22	29-Jan-23	27-Nov-22	15-Jan-23	-14	S5SDBC1680	S5SDBC1174
S5SDBC1195	Installation of Control Cable Laying	30	31-Dec-22	29-Jan-23	21-Jan-23	19-Feb-23	21	S5SDBC1680	S5SDBC1700
S5SDBC1174	Installation of Electrical System - Lighting and Small Power Accessories	30	30-Jan-23	28-Feb-23	16-Jan-23	14-Feb-23	-14	S5SDBC1172	S5SDBT1120
S5SDBC1510	TX Room Installation	90	27-Feb-23	27-May-23	29-Oct-22	26-Jan-23	-121	S5SDBP1620	S5SDBT1190
S5SDBC1520	LV Switch Room Installation	60	01-Mar-23	29-Apr-23	13-Oct-22	11-Dec-22	-139	S5SDBC1670, S5SDBP1220	S5SDBT1090, S5SDBC1225
S5SDBC1225	Installation of Power Cable Laying and Termination	60	01-Apr-23	30-May-23	12-Dec-22	09-Feb-23	-110	S5SDBC1520, S5SDBP1171,	S5SDBT1060
S5SDBC1700	Installation of SCADA System / Control Monitoring System	40	17-Sep-23	26-Oct-23	20-Feb-23	31-Mar-23	-209	S5SDBP1180, S5SDBC1195	S5SDBT1180
First Floor		371	21-Oct-22	26-Oct-23	19-Aug-22	15-Apr-23	-194		



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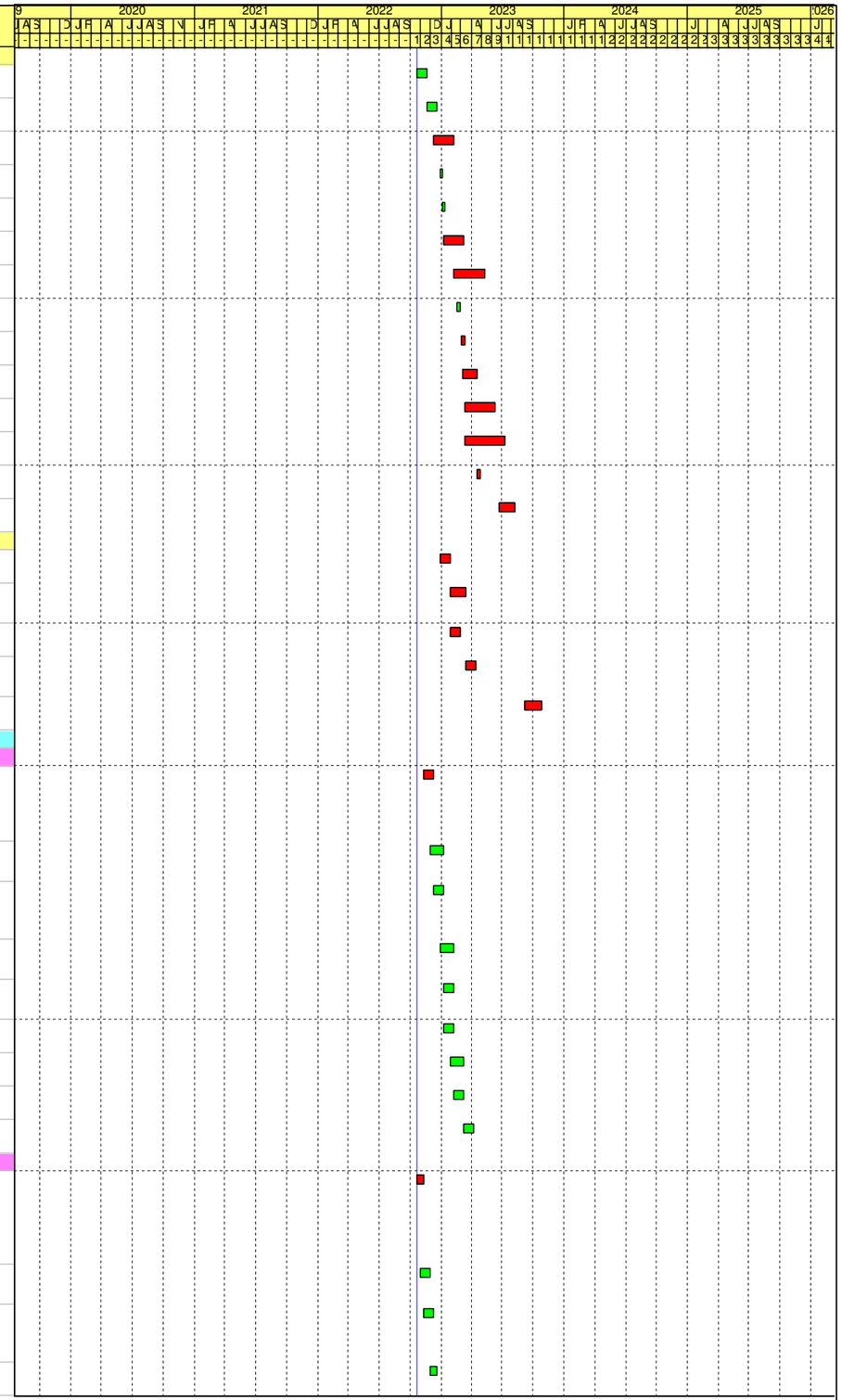
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
Mechanical		291	21-Oct-22	07-Aug-23	19-Aug-22	15-Apr-23	-114		
S5SDBC1590	Installation of Screen Press	30	21-Oct-22	19-Nov-22	05-Feb-23	06-Mar-23	107	S5SDBC1430, S5SDBP1155	S5SDBT1170, S5SDBC1314,
S5SDBC1550	Installation of Monorail LA-01-04	30	22-Nov-22	21-Dec-22	25-Dec-22	23-Jan-23	33	S5SDBP1535, S5SDBP1525	S5SDBC1440
S5SDBC1540	Installation of EOT Crane LA-01-02	60	11-Dec-22	08-Feb-23	19-Aug-22	17-Oct-22	-114	S5SDBP1545, S5SDBP1525	S5SDBC1580, S5SDBC1530
S5SDBC1610	Installation of Sludge Dewatering Polymer Dosing Pumps (4 nos.)	7	29-Dec-22	04-Jan-23	03-Mar-23	09-Mar-23	64	S5SDBP1355	S5SDBT1080, S5SDBC1325,
S5SDBC1325	Installation of Sludge Thickening Polymer Dosing Pumps (5 nos.)	7	05-Jan-23	11-Jan-23	10-Mar-23	16-Mar-23	64	S5SDBP1355, S5SDBC1610	S5SDBT1080, S5SDBC1620
S5SDBC1530	Installation of EOT Crane LA-01-03	60	10-Jan-23	10-Mar-23	18-Sep-22	16-Nov-22	-114	S5SDBC1430, S5SDBP1545,	S5SDBC1570
S5SDBC1580	Installation of Sludge Dewatering Centrifuges (3 nos)	90	09-Feb-23	09-May-23	17-Dec-22	16-Mar-23	-54	S5SDBC1540, S5SDBP1245	S5SDBT1070, S5SDBC1620
S5SDBC1314	Installation of Mixer for PS holding tank	10	18-Feb-23	27-Feb-23	07-Mar-23	16-Mar-23	17	S5SDBP1195, S5SDBC1590	S5SDBT1160
S5SDBC1312	Installation of Mixer for Digested Sludge Holding Tank	10	03-Mar-23	12-Mar-23	07-Mar-23	16-Mar-23	4	S5SDBP1465, S5SDBC1265,	S5SDBT1160
S5SDBC1560	Installation of Sludge Dewatering / Thickening Polymer Dilution Tanks	45	05-Mar-23	18-Apr-23	21-Jan-23	06-Mar-23	-43	S5SDBC1430, S5SDBP1365,	S5SDBT1058, S5SDBC1600,
S5SDBC1570	Installation of Sludge Thickening Centrifuges (4 nos.)	90	11-Mar-23	08-Jun-23	17-Nov-22	14-Feb-23	-114	S5SDBC1530, S5SDBP1215	S5SDBT1032, S5SDBC1620
S5SDBC1620	Installation of Process Pipe	120	11-Mar-23	08-Jul-23	17-Nov-22	16-Mar-23	-114	S5SDBP1555, S5SDBC1560,	S5SDBT1100, S5SDBC1850
S5SDBC1600	Installation of Mixer for Polymer Tank	10	19-Apr-23	28-Apr-23	07-Mar-23	16-Mar-23	-43	S5SDBP1335, S5SDBP1325,	S5SDBT1160
S5SDBC1850	Installation of Instruments	45	24-Jun-23	07-Aug-23	02-Mar-23	15-Apr-23	-114	S5SDBC1620	S5SDBT1181
Electrical		300	31-Dec-22	26-Oct-23	02-Nov-22	31-Mar-23	-209		
S5SDBC1740	Installation of Electrical System - Cable Containment	30	31-Dec-22	29-Jan-23	02-Nov-22	01-Dec-22	-59	S5SDBC1680, S5SDBC1630,	S5SDBT1060, S5SDBC1760,
S5SDBC1372	Installation of Electrical System - Wall Mount Equipment, Conduit & Wiring	45	30-Jan-23	15-Mar-23	02-Dec-22	15-Jan-23	-59	S5SDBC1740	S5SDBC1374
S5SDBC1800	Installation of Control Cable Laying	30	30-Jan-23	28-Feb-23	11-Jan-23	09-Feb-23	-19	S5SDBC1740	S5SDBC1760
S5SDBC1374	Installation of Electrical System - Lighting and Small Power Accessories	30	16-Mar-23	14-Apr-23	16-Jan-23	14-Feb-23	-59	S5SDBC1372	S5SDBT1120
S5SDBC1760	Installation of SCADA System / Control Monitoring System	50	07-Sep-23	26-Oct-23	10-Feb-23	31-Mar-23	-209	S5SDBC1740, S5SDBP1180,	S5SDBT1180
BS Installation		270	21-Oct-22	17-Jul-23	24-Aug-22	01-Jan-24	168		
Basement		150	10-Nov-22	08-Apr-23	13-Sep-22	01-Jan-24	268		
S5SDBC1410	Installation of FS System - Main Pipework	30	10-Nov-22	09-Dec-22	13-Sep-22	12-Oct-22	-58	S5SDBC1670, S5SDBC1480	S5SDBC1420, S5SDBC1052, S5SDBC1710, S5SDBC1630
S5SDBC1052	Installation of FS System - Branch Pipework, Conduit & Wiring	40	30-Nov-22	08-Jan-23	13-Aug-23	21-Sep-23	256	S5SDBC1410	S5SDBC1054, S5S1130
S5SDBC1420	Installation of MVAC System - Ceiling Mount Equipment, Main Ductwork and Pipework	30	10-Dec-22	08-Jan-23	19-Jun-23	18-Jul-23	191	S5SDBC1410, S5SDBC1490	S5SDBC1640, S5SDBC1062, S5SDBC1720
S5SDBC1062	Installation of MVAC System - Wall Mount Equipment, Branch Duct & Pipework	40	30-Dec-22	07-Feb-23	08-Aug-23	16-Sep-23	221	S5SDBC1420	S5SDBC1064
S5SDBC1720	Installation of Plumbing System - Main Pipework	30	09-Jan-23	07-Feb-23	04-Sep-23	03-Oct-23	238	S5SDBC1690, S5SDBC1420	S5SDBC1082, S5SDBC1750
S5SDBC1054	Installation of FS System - Dropper, Sprinkler Head, Detector & Devices	30	09-Jan-23	07-Feb-23	02-Oct-23	31-Oct-23	266	S5SDBC1052	S5SDBT1130
S5SDBC1082	Installation of Plumbing System - Branch Pipework	40	29-Jan-23	09-Mar-23	24-Oct-23	02-Dec-23	268	S5SDBC1720	S5SDBC1084
S5SDBC1064	Installation of MVAC System - Air Grills & Diffuser	30	08-Feb-23	09-Mar-23	17-Sep-23	16-Oct-23	221	S5SDBC1062	S5SDBT1140
S5SDBC1084	Installation of Plumbing System - Sanitary Fitting	30	10-Mar-23	08-Apr-23	03-Dec-23	01-Jan-24	268	S5SDBC1082	S5SDBT1150
Ground Floor		270	21-Oct-22	17-Jul-23	24-Aug-22	01-Jan-24	168		
S5SDBC1480	Installation of FS System - Main Pipework	20	21-Oct-22	09-Nov-22	24-Aug-22	12-Sep-22	-58	S5SDBC1670	S5SDBC1490, S5SDBC1680, S5SDBC1690, S5SDBC1152, S5SDBC1410
S5SDBC1152	Installation of FS System - Branch Pipework, Conduit & Wiring	30	31-Oct-22	29-Nov-22	23-Aug-23	21-Sep-23	296	S5SDBC1480	S5SDBC1154, S5S1130
S5SDBC1490	Installation of MVAC System - Ceiling Mount Equipment, Main Ductwork and Pipework	30	10-Nov-22	09-Dec-22	20-May-23	18-Jun-23	191	S5SDBC1480	S5SDBC1162, S5SDBC1690, S5SDBC1420
S5SDBC1154	Installation of FS System - Dropper, Sprinkler Head, Detector & Devices	20	30-Nov-22	19-Dec-22	12-Oct-23	31-Oct-23	316	S5SDBC1152	S5SDBT1130



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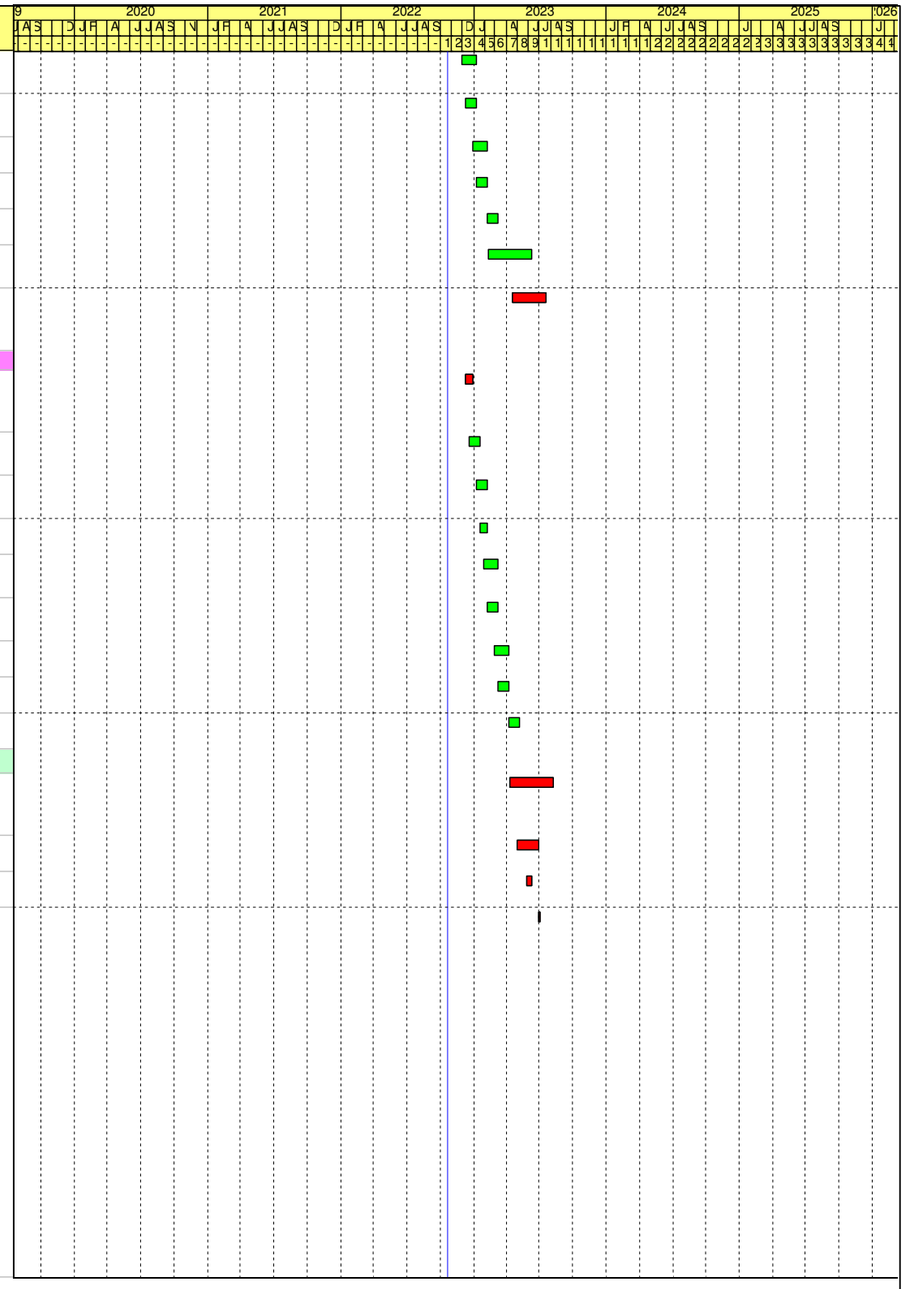
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S5SDBC1162	Installation of MVAC System - Wall Mount Equipment, Branch Duct & Pipework	40	30-Nov-22	08-Jan-23	08-Aug-23	16-Sep-23	251	S5SDBC1490	S5SDBC1164
S5SDBC1690	Installation of Plumbing System - Main Pipework	30	10-Dec-22	08-Jan-23	05-Aug-23	03-Sep-23	238	S5SDBC1480, S5SDBC1490	S5SDBC1720, S5SDBC1182
S5SDBC1182	Installation of Plumbing System - Branch Pipework	40	30-Dec-22	07-Feb-23	24-Oct-23	02-Dec-23	298	S5SDBC1690	S5SDBC1184
S5SDBC1164	Installation of MVAC System - Air Grills & Diffuser	30	09-Jan-23	07-Feb-23	17-Sep-23	16-Oct-23	251	S5SDBC1162	S5SDBT1140
S5SDBC1184	Installation of Plumbing System - Sanitary Fitting	30	08-Feb-23	09-Mar-23	03-Dec-23	01-Jan-24	298	S5SDBC1182	S5SDBT1150
S5SDBC1770	Installation of Lift	120	10-Feb-23	09-Jun-23	01-Sep-23	29-Dec-23	203	S5SDBP1210, S5WS2C1190	S5SDBT1110
S5SDBC1500	Generator & Fuel Room Installation	90	19-Apr-23	17-Jul-23	18-Nov-22	15-Feb-23	-152	S5SDBP1200, S5SDBC1670, S5S1010	S5SDBT1078
First Floor		150	10-Dec-22	08-May-23	13-Oct-22	01-Jan-24	238		
S5SDBC1630	Installation of FS System - Main Pipework	20	10-Dec-22	29-Dec-22	13-Oct-22	01-Nov-22	-58	S5SDBC1410	S5SDBC1352, S5SDBC1740, S5SDBC1640
S5SDBC1352	Installation of FS System - Branch Pipework, Conduit & Wiring	30	20-Dec-22	18-Jan-23	23-Aug-23	21-Sep-23	246	S5SDBC1630	S5SDBC1354, S5S1130
S5SDBC1640	Installation of MVAC System - Ceiling Mount Equipment, Main Ductwork and Pipework	30	09-Jan-23	07-Feb-23	19-Jul-23	17-Aug-23	191	S5SDBC1420, S5SDBC1630	S5SDBC1362, S5SDBC1750
S5SDBC1354	Installation of FS System - Dropper, Sprinkler Head, Detector & Devices	20	19-Jan-23	07-Feb-23	12-Oct-23	31-Oct-23	266	S5SDBC1352	S5SDBT1130
S5SDBC1362	Installation of MVAC System - Wall Mount Equipment, Branch Duct & Pipework	40	29-Jan-23	09-Mar-23	08-Aug-23	16-Sep-23	191	S5SDBC1640	S5SDBC1364
S5SDBC1750	Installation of Plumbing System - Main Pipework	30	08-Feb-23	09-Mar-23	04-Oct-23	02-Nov-23	238	S5SDBC1640, S5SDBC1720	S5SDBC1820
S5SDBC1820	Installation of Plumbing System - Branch Pipework	40	28-Feb-23	08-Apr-23	24-Oct-23	02-Dec-23	238	S5SDBC1750	S5SDBC1830
S5SDBC1364	Installation of MVAC System - Air Grills & Diffuser	30	10-Mar-23	08-Apr-23	17-Sep-23	16-Oct-23	191	S5SDBC1362	S5SDBT1140
S5SDBC1830	Installation of Plumbing System - Sanitary Fitting	30	09-Apr-23	08-May-23	03-Dec-23	01-Jan-24	238	S5SDBC1820	S5SDBT1150
Testing and Commissioning		243	10-Apr-23	08-Dec-23	12-Dec-22	27-Feb-24	81		
S5SDBT1100	Pipe Pressure Test	120	10-Apr-23	07-Aug-23	01-Jan-23	30-Apr-23	-99	S5SDBC1620, S5SDBC1460, S5SDBC1400	S5T1060
S5SDBT1090	SAT for Switchboard	60	30-Apr-23	28-Jun-23	12-Dec-22	09-Feb-23	-139	S5SDBC1520	S5SDBT1060
S5SDBT1190	SAT for Tranformer	14	28-May-23	10-Jun-23	27-Jan-23	09-Feb-23	-121	S5SDBC1510	S5SDBT1060
S5SDBT1060	Ready for Power Energisation - LV	5	29-Jun-23	03-Jul-23	10-Feb-23	14-Feb-23	-139	S5SDBC1740, S5SDBT1090, S5SDBC1225, S5SDBT1190	S5SDBT1070, S5SDBT1110, S5SDBT1032, S5SDBT1048, S5SDBT1047, S5SDBT1058, S5SDBT1068, S5SDBT1120, S5SDBT1130, S5SDBT1140, S5SDBT1150, S5SDBT1160, S5SDBT1170, S5SDBT1180, S5SDBT1181, S5SDBT1044, S5SDBT1045, S5SDBT1080, S5SDBT1191



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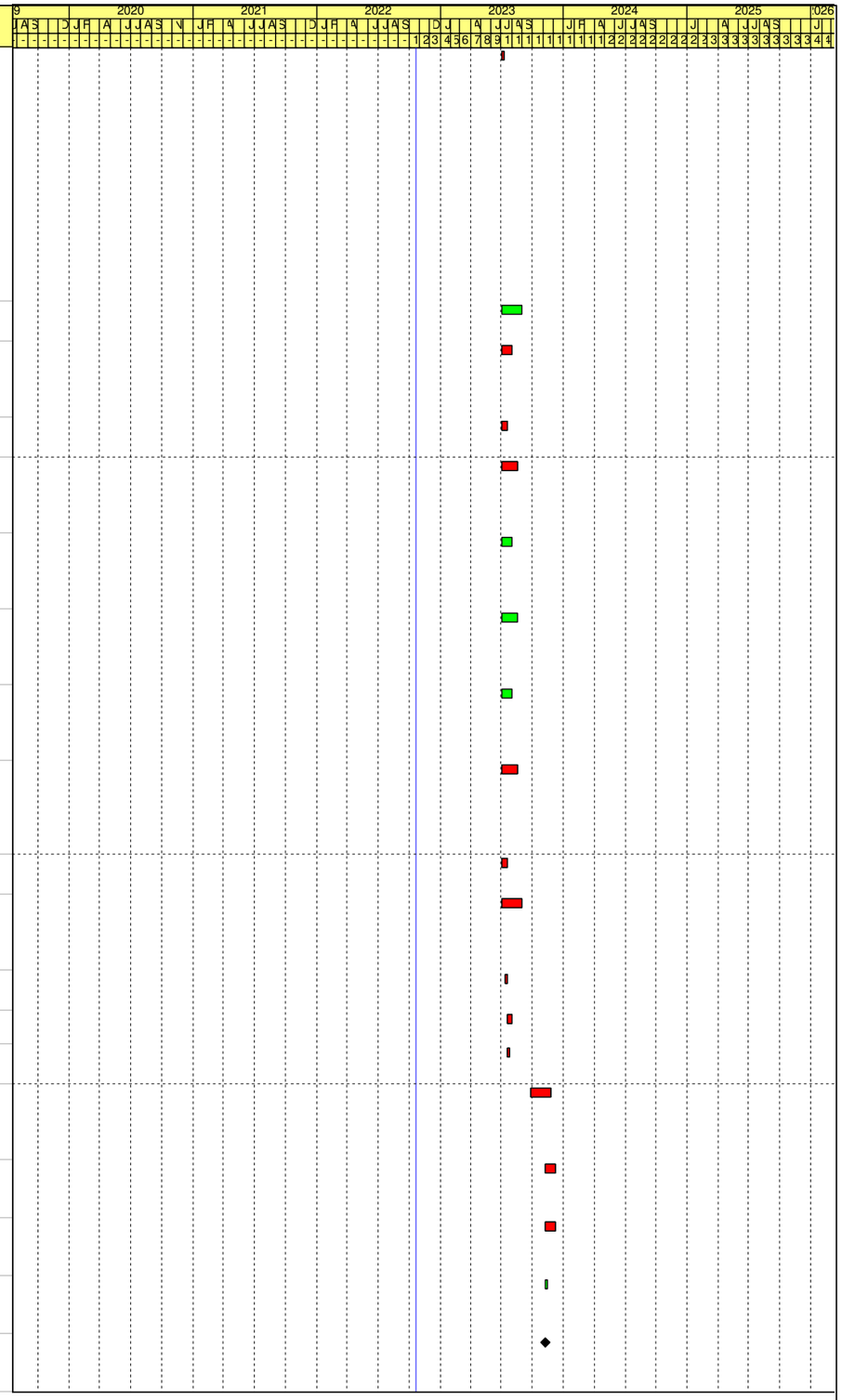
S5SDBT1080	Dry Test for Pumps	7	04-Jul-23	10-Jul-23	10-Apr-23	16-Apr-23	-85	S5SDBC1790, S5SDBC1115, S5SDBC1125, S5SDBC1135, S5SDBC1145, S5SDBC1165, S5SDBC1175, S5SDBC1185, S5SDBC1780, S5SDBC1810, S5SDBC1610, S5SDBC1325, S5SDBC1105, S5SDBT1060	S5SDBT1044, S5SDBT1047
S5SDBT1110	SAT for Lift	60	04-Jul-23	01-Sep-23	30-Dec-23	27-Feb-24	179	S5SDBC1770, S5SDBT1060	S5S1090
S5SDBT1058	SAT for Polymer System	30	04-Jul-23	02-Aug-23	01-Apr-23	30-Apr-23	-94	S5SDBC1560, S5SDBC1470, S5SDBC1265, S5SDBT1060	S5T1060
S5SDBT1068	SAT for Conveyor	15	04-Jul-23	18-Jul-23	16-Apr-23	30-Apr-23	-79	S5SDBC1450, S5SDBT1060	S5T1060
S5SDBT1120	SAT of Electrical System	45	04-Jul-23	17-Aug-23	15-Feb-23	31-Mar-23	-139	S5SDBC1174, S5SDBC1074, S5SDBC1374, S5SDBT1060	S5SDBT1191
S5SDBT1130	SAT of FS System	30	04-Jul-23	02-Aug-23	01-Nov-23	30-Nov-23	120	S5SDBC1354, S5SDBC1154, S5SDBC1054, S5SDBT1060	S5S1220
S5SDBT1140	SAT of MVAC System	45	04-Jul-23	17-Aug-23	17-Oct-23	30-Nov-23	105	S5SDBC1364, S5SDBC1164, S5SDBC1064, S5SDBT1060	S5S1220
S5SDBT1150	SAT of Plumbing System	30	04-Jul-23	02-Aug-23	02-Jan-24	31-Jan-24	182	S5SDBC1084, S5SDBC1184, S5SDBC1830, S5SDBT1060	S5S1160
S5SDBT1160	SAT of Mixer	45	04-Jul-23	17-Aug-23	17-Mar-23	30-Apr-23	-109	S5SDBC1600, S5SDBC1312, S5SDBC1314, S5SDBC1285, S5SDBT1060	S5T1060
S5SDBT1170	SAT of Screen Press	15	04-Jul-23	18-Jul-23	16-Apr-23	30-Apr-23	-79	S5SDBC1590, S5SDBT1060	S5T1060
S5SDBT1181	SAT of Instrumentation	60	04-Jul-23	01-Sep-23	02-Mar-23	30-Apr-23	-124	S5SDBC1850, S5SDBC1840, S5SDBC1305, S5SDBT1060	S5T1060
S5SDBT1044	Wet Test for Pumps (excluded FS Water Pumps and Process Water Pumps)	7	11-Jul-23	17-Jul-23	17-Apr-23	23-Apr-23	-85	S5SDBT1080, S5SDBT1060	S5SDBT1045
S5SDBT1078	SAT of Emergency Generator System	15	18-Jul-23	01-Aug-23	16-Feb-23	02-Mar-23	-152	S5SDBC1500	S5S1280
S5SDBT1045	Functional Check for Pumps (excluded FS Water Pumps and Process Water Pumps)	7	18-Jul-23	24-Jul-23	24-Apr-23	30-Apr-23	-85	S5SDBT1044, S5SDBT1060	S5T1060
S5SDBT1180	SAT of SCADA, PMS, CMMS and IDMS	60	27-Sep-23	25-Nov-23	02-Mar-23	30-Apr-23	-209	S5SDBC1760, S5SDBC1700, S5SDBC1730, S5SDBT1060	S5T1060
S5SDBT1070	SAT for Sludge Dewatering Centrifuges	30	09-Nov-23	08-Dec-23	01-Apr-23	30-Apr-23	-222	S5SDBT1060, S5SDBC1580, S5SDBT1191	S5T1060
S5SDBT1032	SAT for Sludge Thickening Cnetrifuge	30	09-Nov-23	08-Dec-23	01-Apr-23	30-Apr-23	-222	S5SDBT1060, S5SDBC1570, S5SDBT1191	S5T1060
S5SDBT1047	Wet Test for Pumps (FS Water Pumps and Process Water Pumps)	7	09-Nov-23	15-Nov-23	17-Nov-23	23-Nov-23	8	S5SDBT1080, S5SDBT1060, S5SDBT1191	S5SDBT1048
S5SDBT1191	Permanent Power ready for T&C	0	09-Nov-23		01-Apr-23		-222	S5SDBT1060, S5WS2C1120, S5SDBT1120	S5SDBT1032, S5SDBT1047, S5SDBT1070



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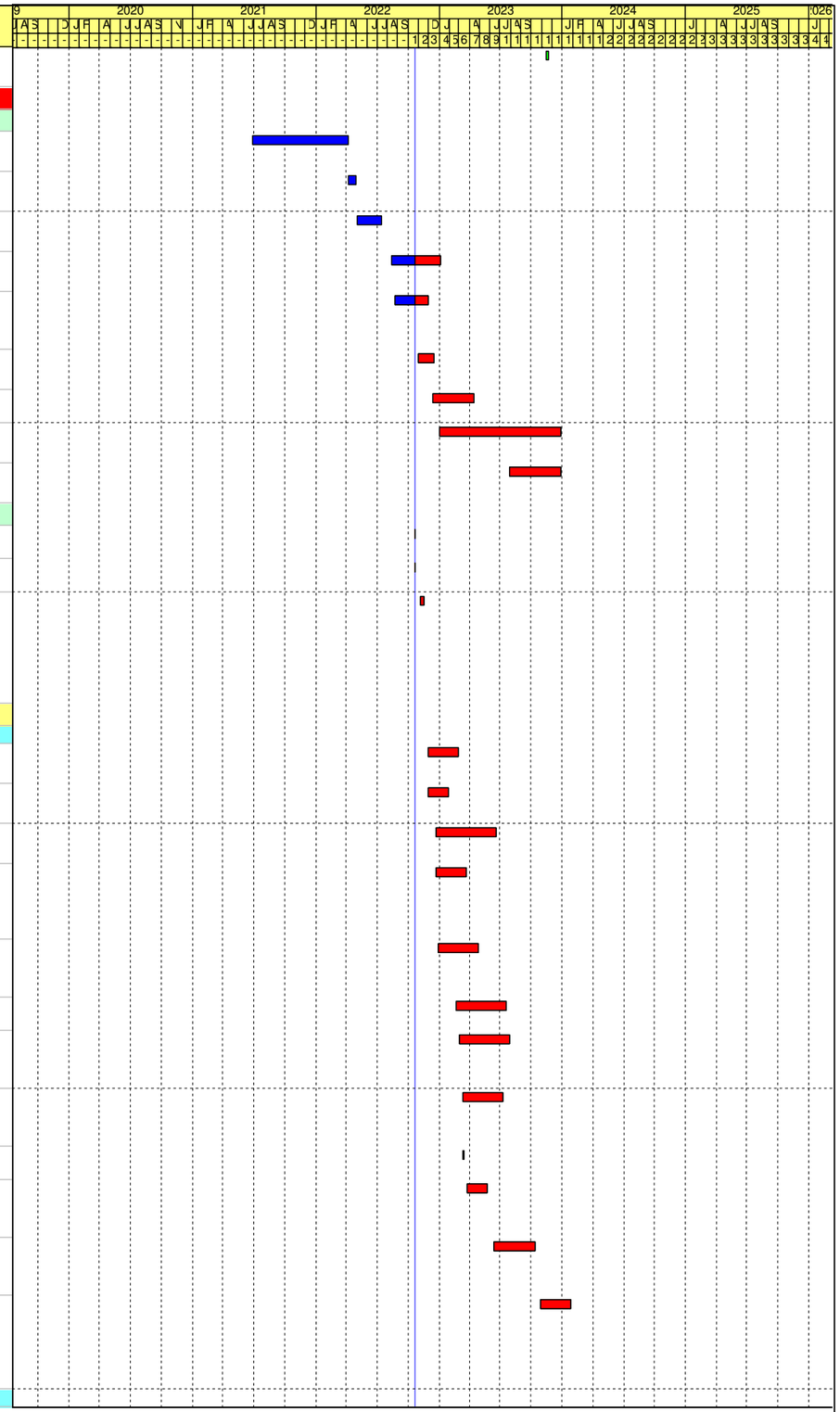
S5SDBT1048	Functional Check for Pumps (FS Water Pumps and Process Water Pumps)	7	16-Nov-23	22-Nov-23	24-Nov-23	30-Nov-23	8	S5SDBT1060, S5SDBT1047	S5S1220
Combined Heat & Power Building		919	29-Jun-21 A	25-Jan-24	17-Apr-22	31-Jan-24	6		
Fabrication, FAT & Delivery of Major Plant & Materials		889	29-Jun-21 A	26-Dec-23	17-Apr-22	11-Apr-23	-259		
S5CHPP1010	Fabrication of CHP System	270	29-Jun-21 A	06-Apr-22 A	15-Sep-22	15-Sep-22		S2P1070, S2D1610	S5CHPP1020
S5CHPP1020	FAT for CHP Generators	14	07-Apr-22 A	30-Apr-22 A	15-Sep-22	15-Sep-22		S5CHPP1010	S5CHPP1030
S5CHPP1030	Delivery of CHP Generators	60	02-May-22 A	14-Jul-22 A	15-Sep-22	15-Sep-22		S5CHPP1020	S5CHPC1050
S5CHPP1000	Fabrication & Delivery of Pre-Treatment	120	15-Aug-22 A	04-Jan-23	04-Jul-22	17-Sep-22	-109		S5CHPC1170
S5CHPP1060	Fabrication & Delivery of Lifting Appliances	90	24-Aug-22 A	30-Nov-22	07-May-22	16-Jun-22	-167		S5CHPC1030, S5CHPC1160, S5CHPC1040
S5CHPP1070	Fabrication & Delivery of Pipeworks & Associated Valves	45	01-Nov-22*	15-Dec-22	04-Aug-22	17-Sep-22	-89	S5P1010	S5CHPC1070, S5CHPC1200
S5CHPP1050	Fabrication & Delivery of LV Switchboard	120	15-Dec-22*	13-Apr-23	16-Aug-22	13-Dec-22	-121		S5CHPC1260
S5CHPP1080	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	17-Apr-22	11-Apr-23	-259		S5CHPC1120, S5CHPC1250
S5CHPP1040	Fabrication & Delivery of Gas Detection System	150	30-Jul-23	26-Dec-23	13-Nov-22	11-Apr-23	-259	S2D2000, PL1020	S5CHPC1120, S5CHPC1250
Installation		462	21-Oct-22	25-Jan-24	04-Jun-22	31-Jan-24	6		
S5CHPC1000	Access to CHP Building (Impacted by EWN-0314)	1	21-Oct-22*	21-Oct-22	04-Jun-22	04-Jun-22	-139		S5CHPC1020
S5CHPC1010	Access to CHP Building (Impacted by EWN-0314-1)	1	21-Oct-22*	21-Oct-22	04-Jun-22	04-Jun-22	-139		S5CHPC1020
S5CHPC1020	Mobilisation	12	06-Nov-22	17-Nov-22	05-Jun-22	16-Jun-22	-154	AD1060, S5S1020, S5CHPC1000, S5CHPC1010	PL1550, S5CHPC1030, S5CHPC1040, S5CHPC1080, S5CHPC1130, S5CHPC1140
E&M Installation		421	01-Dec-22	25-Jan-24	17-Jun-22	11-May-23	-259		
Ground Floor		421	01-Dec-22	25-Jan-24	17-Jun-22	11-May-23	-259		
S5CHPC1030	Installation of EOT Crane LA-04-01	90	01-Dec-22	28-Feb-23	17-Jun-22	14-Sep-22	-167	S5CHPC1020, S5CHPP1060	S5CHPC1050
S5CHPC1040	Installation of Monorail LA-04-02 (total 3nos.)	60	01-Dec-22	29-Jan-23	15-Jul-22	12-Sep-22	-139	S5CHPC1020, S5CHPP1060	S5CHPC1160, S5CHPC1060
S5CHPC1070	Installation of pipework	180	22-Dec-22	19-Jun-23	18-Sep-22	16-Mar-23	-95	S5CHPC1060, S5CHPP1070	S5CHPT1000
S5CHPC1060	Installation of Steam Boiler System - Mechanical Work	90	22-Dec-22	21-Mar-23	05-Aug-22	02-Nov-22	-139	S5CHPC1040	S5CHPC1070, S5CHPC1150, S5CHPC1170, S5CHPT1050
S5CHPC1140	HV Switchroom Installation	120	29-Dec-22	27-Apr-23	20-Aug-22	17-Dec-22	-131	S5CHPC1020, S5WS2P1080	S5CHPC1190, S5CHPT1020, S5CHPT1010
S5CHPC1150	Diesel Storage & Pump Room Installation	150	20-Feb-23	19-Jul-23	04-Oct-22	02-Mar-23	-139	S5CHPC1060	S5S1280
S5CHPC1050	Installation of CHP System - Mechanical Work	150	01-Mar-23	28-Jul-23	15-Sep-22	11-Feb-23	-167	S5CHPC1030, S5CHPP1030	S5CHPC1100, S5CHPT1030, S5CHPC1270
S5CHPC1130	Transfomers Room Installation	120	12-Mar-23	09-Jul-23	15-Oct-22	11-Feb-23	-148	S5WS2P1020, S5CHPC1020	S5CHPT1020, S5CHPC1260, S5CHPT1010
S5CHPC1180	Access to Other Peripheral Systems (Impacted by EWN-0314)	1	14-Mar-23*	14-Mar-23	15-Nov-22	15-Nov-22	-119		S5CHPC1190
S5CHPC1190	Main Cables Laying between 11kV SwitchRoom of CHP Bldg to Tx Rm of Workshop No.2	60	27-Mar-23	25-May-23	16-Nov-22	14-Jan-23	-131	S5CHPC1180, S5CHPC1140	S5WS2C1110, S5WS2T1010, PL1210
S5CHPC1100	Installation of Electrical System	120	14-Jun-23	11-Oct-23	01-Jan-23	30-Apr-23	-164	S5CHPC1090, S5CHPC1050, S5P1050	S5CHPC1120, S5CHPT1050, S5CHPT1030
S5CHPC1120	Installation of SCADA System / Control Monitoring System / Gas Detection System / CCTV	90	28-Oct-23	25-Jan-24	11-Feb-23	11-May-23	-259	S5CHPC1100, S5CHPP1040, S5CHPP1080	S5T1100, S5T1000, S5T1010, S5T1020, S5T1030
First Floor		386	05-Jan-23	25-Jan-24	18-Sep-22	11-May-23	-259		



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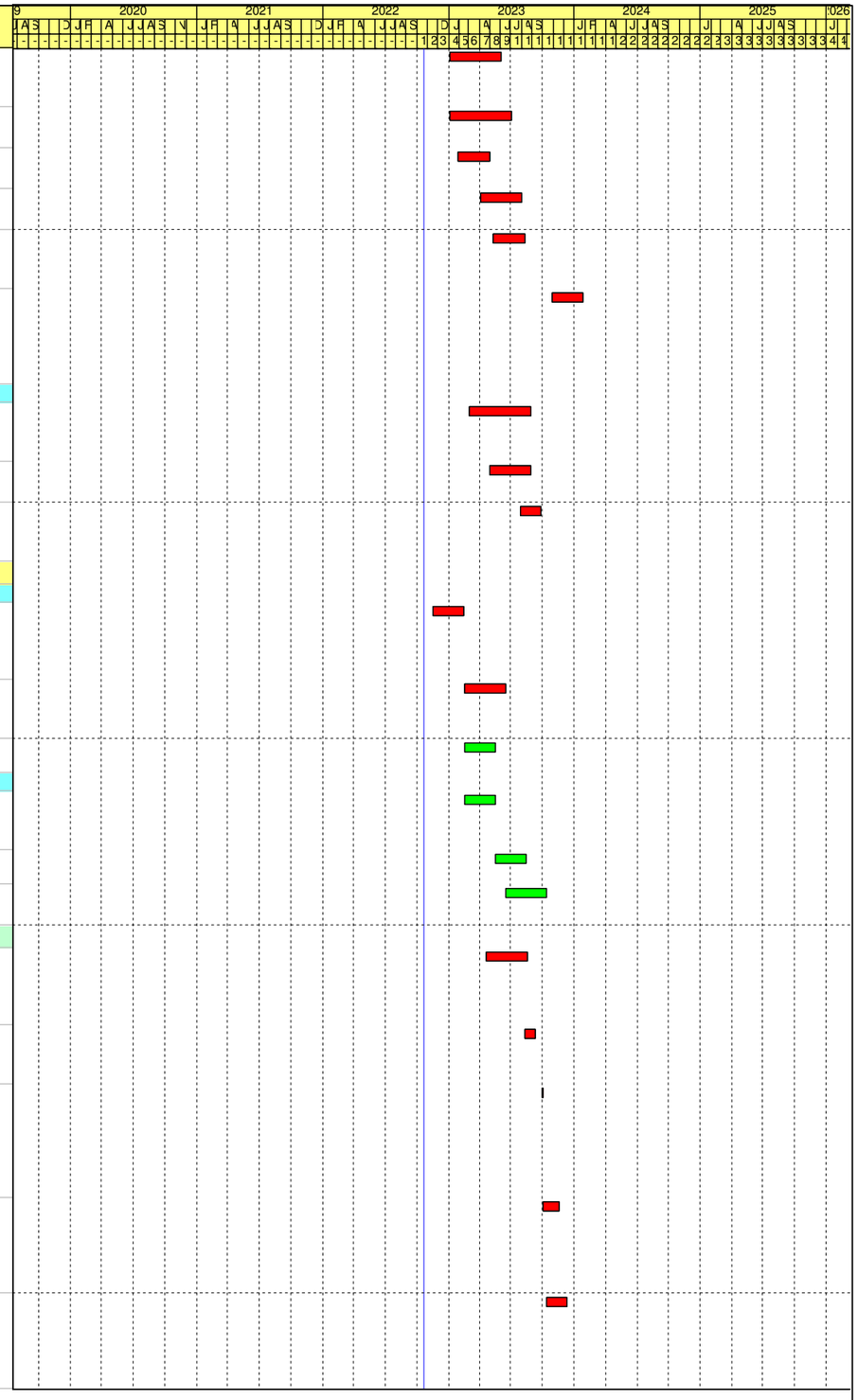
S5CHPC1170	Installation of Biogas Pre-treatment System - Mechanical Work	150	05-Jan-23	03-Jun-23	18-Sep-22	14-Feb-23	-109	S5CHPC1060, S5CHPC1160, S5CHPP1000	S5CHPC1200, S5CHPC1230, S5CHPT1040
S5CHPC1200	Installation of pipework	180	05-Jan-23	03-Jul-23	18-Sep-22	16-Mar-23	-109	S5CHPC1170, S5CHPP1070	S5CHPT1000
S5CHPC1160	Installation of Monorail / Davit LA-04-03 to LA-04-10 (total 8nos.)	90	30-Jan-23	29-Apr-23	17-Nov-22	14-Feb-23	-74	S5CHPC1040, S5CHPP1060	S5CHPC1170
S5CHPC1230	Installation of Electrical System	120	05-Apr-23	02-Aug-23	12-Jan-23	11-May-23	-83	S5CHPC1170, S5P1050	S5CHPC1250, S5CHPT1040
S5CHPC1260	LV Switchroom Installation	90	12-May-23	09-Aug-23	14-Dec-22	13-Mar-23	-149	S5WS2P1110, S5CHPC1130, S5CHPP1050	S5CHPT1020, S5CHPT1010
S5CHPC1250	Installation of SCADA System / Control Monitoring System / Gas Detection System / CCTV	90	28-Oct-23	25-Jan-24	11-Feb-23	11-May-23	-259	S5CHPC1230, S5CHPP1040, S5CHPP1080	S5T1100, S5T1000, S5T1010, S5T1020, S5T1030
Roof		210	01-Mar-23	26-Sep-23	15-Sep-22	12-Apr-23	-167		
S5CHPC1270	Installation of CHP System - Mechanical Work	180	01-Mar-23	27-Aug-23	15-Sep-22	13-Mar-23	-167	S5CHPC1050	S5CHPT1030, S5CHPC1280, S5CHPC1290
S5CHPC1280	Installation of Steam Boiler System - Mechanical Work	120	30-Apr-23	27-Aug-23	14-Nov-22	13-Mar-23	-167	S5CHPC1270	S5CHPT1050, S5CHPC1290
S5CHPC1290	Installation of Electrical System	60	29-Jul-23	26-Sep-23	12-Feb-23	12-Apr-23	-167	S5CHPC1270, S5CHPC1280, S5P1050	S5CHPT1040, S5CHPT1020
BS Installation		330	18-Nov-22	13-Oct-23	03-Oct-22	31-Jan-24	110		
Ground Floor		210	18-Nov-22	15-Jun-23	03-Oct-22	31-Jan-24	230		
S5CHPC1080	Installation of FS System	90	18-Nov-22	15-Feb-23	03-Oct-22	31-Dec-22	-46	S5CHPC1020	S5CHPC1090, S5CHPC1110, S5CHPC1210, S5S1220
S5CHPC1090	Installation of MVAC System	120	16-Feb-23	15-Jun-23	01-Jan-23	30-Apr-23	-46	S5CHPC1080	S5CHPC1100, S5S1220, S5CHPC1220
S5CHPC1110	Installation of Plumbing System	90	16-Feb-23	16-May-23	03-Nov-23	31-Jan-24	260	S5CHPC1080	S5S1160
First Floor		240	16-Feb-23	13-Oct-23	05-May-23	31-Jan-24	110		
S5CHPC1210	Installation of FS System	90	16-Feb-23	16-May-23	05-May-23	02-Aug-23	78	S5CHPC1080	S5CHPC1220, S5CHPC1240, S5S1220
S5CHPC1240	Installation of Plumbing System	90	17-May-23	14-Aug-23	03-Nov-23	31-Jan-24	170	S5CHPC1210	S5S1160
S5CHPC1220	Installation of MVAC System	120	16-Jun-23	13-Oct-23	03-Aug-23	30-Nov-23	48	S5CHPC1210, S5CHPC1090	S5S1220
Testing and Commissioning		235	20-Apr-23	10-Dec-23	01-Jan-23	29-Jun-23	-164		
S5CHPT1000	Pipe Pressure Test	120	20-Apr-23	17-Aug-23	01-Jan-23	30-Apr-23	-109	S5CHPC1200, S5CHPC1070	S5T1100, S5CHPT1030, S5CHPT1040, S5CHPT1050
S5CHPT1010	SAT for Transformer & Switchboard	30	10-Aug-23	08-Sep-23	14-Mar-23	12-Apr-23	-149	S5CHPC1260, S5CHPC1140, S5CHPC1130	S5CHPT1020
S5CHPT1020	Ready for Power Energisation	3	30-Sep-23	02-Oct-23	13-Apr-23	15-Apr-23	-170	S5CHPC1260, S5WS2C1110, S5CHPC1130, S5CHPC1140, S5CHPT1010, S5CHPC1290	S5CHPT1030, S5BIOT1010, S5THPT1010, S5CHPT1040, S5CHPT1050
S5CHPT1040	SAT for Pre-treatment System	45	03-Oct-23	16-Nov-23	16-May-23	29-Jun-23	-140	S5CHPC1170, S5CHPT1020, S5CHPC1230, S5CHPC1290, S5CHPT1000	S5T1100
S5CHPT1030	SAT for CHP System	60	12-Oct-23	10-Dec-23	01-May-23	29-Jun-23	-164	S5CHPT1020, S5CHPC1050, S5CHPC1100, S5CHPC1270, S5CHPT1000	S5T1100



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31-Oct-22	Rev.27	LT	KM

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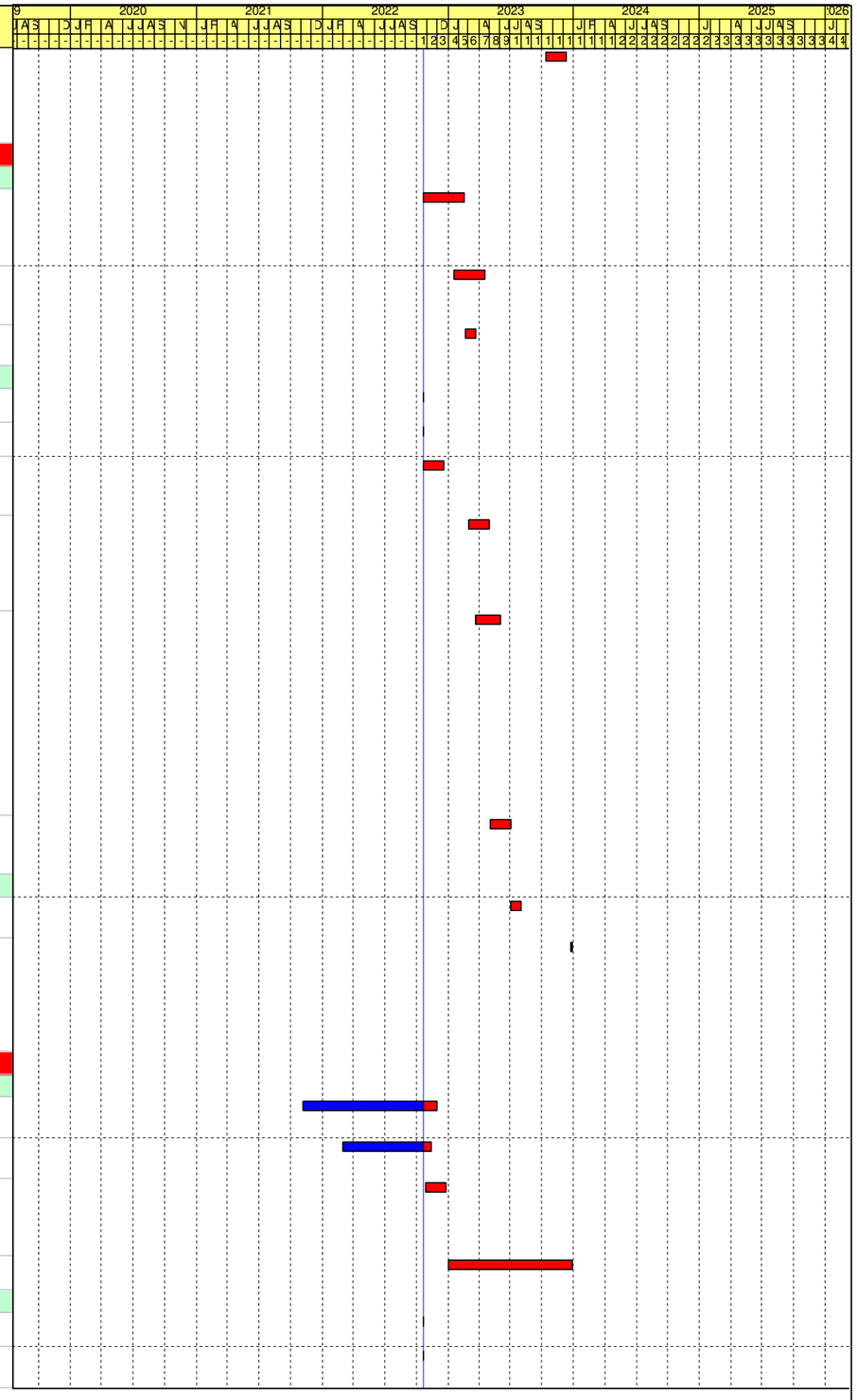
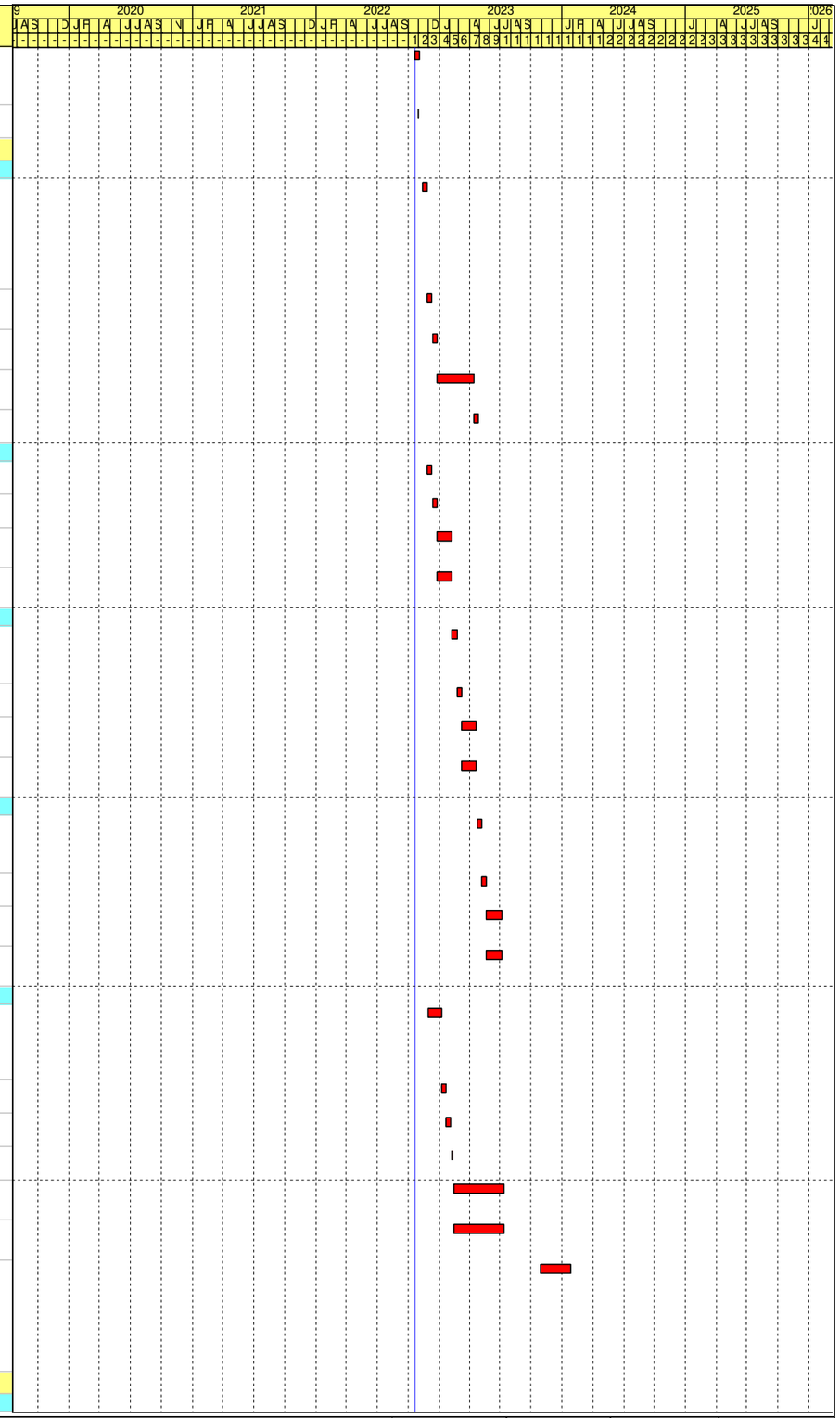
S5CHPT1050	SAT for Steam Boiler System	60	12-Oct-23	10-Dec-23	01-May-23	29-Jun-23	-164	S5CHPC1060, S5CHPC1100, S5CHPT1020, S5CHPC1280, S5CHPT1000	S5T1100
Tx Rm & LV Switchroom (for UV)		432	21-Oct-22	26-Dec-23	30-Jun-22	11-May-23	-229		
Fabrication, FAT & Delivery of Major Plant & Materials		180	21-Oct-22	18-Apr-23	30-Jun-22	25-Feb-23	-52		
S5TXRP1000	Fabrication & Delivery of Transfomers -UV (Tx 07 & 08)	120	21-Oct-22	17-Feb-23	30-Jun-22	27-Oct-22	-113	S1D1130, S1D1290, S1D1210, S2P1110	S5TXRC1030
S5TXRP1010	Fabrication & Delivery of LVSB -UV	90	19-Jan-23	18-Apr-23	28-Sep-22	26-Dec-22	-113	S1D1210, S1D1290, S2P1130	S5TXRC1040
S5TXRP1020	Fabrication & Delivery of Control & Monitoring System -UV	30	20-Feb-23*	21-Mar-23	27-Jan-23	25-Feb-23	-24	S1D1290, S2P1140	S5TXRC1050
Installation		254	21-Oct-22	01-Jul-23	11-Sep-22	11-May-23	-51		
S5TXRC1000	Access to TX Rm & LV Switchroom (Impacted by EWN-0314)	1	21-Oct-22*	21-Oct-22	11-Sep-22	11-Sep-22	-40		S5TXRC1020
S5TXRC1010	Access to TX Rm & LV Switchroom (Impacted by EWN-0314-1)	1	21-Oct-22*	21-Oct-22	11-Sep-22	11-Sep-22	-40		S5TXRC1020
S5TXRC1020	BS Fitting Intallation (at Tx Rm & LV Switchroom)	60	22-Oct-22	20-Dec-22	12-Sep-22	10-Nov-22	-40	AD1100, S5TXRC1000, S5TXRC1010	S5TXRT1010, S5TXRC1030
S5TXRC1030	E&M Installation of Transfomers in Tx Rm	60	04-Mar-23	02-May-23	11-Nov-22	09-Jan-23	-113	S5TXRC1020, S4C1010, S5TXRP1000, S1D1310, S5P1050	S5TXRC1040, S5TXRT1000
S5TXRC1050	Installation of Control & Monitoring System - UV	75	22-Mar-23	04-Jun-23	26-Feb-23	11-May-23	-24	S4C1040, S5TXRP1020, S4C1070, S4C1080	S5T1200, S5T1120, S5T1000, S5T1010, S5T1020, S5T1030, S5T1000, S5T1010, S5T1020, S5T1030, PL1210
S5TXRC1040	E&M Installation of LVSB	60	03-May-23	01-Jul-23	10-Jan-23	10-Mar-23	-113	S5TXRC1030, S5TXRP1010, S5P1050	S5TXRT1010, S5TXRT1000
Testing and Commissioning		178	02-Jul-23	26-Dec-23	11-Mar-23	12-Apr-23	-258		
S5TXRT1000	SAT for Transformer & Switchboard	30	02-Jul-23	31-Jul-23	11-Mar-23	09-Apr-23	-113	S5TXRC1040, S5TXRC1030	S5TXRT1010
S5TXRT1010	Ready for Power Energisation	3	24-Dec-23	26-Dec-23	10-Apr-23	12-Apr-23	-258	S5TXRC1020, S5TXRC1040, S5WS2C1060, S5WS2C1040, S5WS2C1130, S5TXRT1000	SC51110, S5SHPT1000, S5DOUT1000, S5PSWT1000
Sludge Digesters & Distribution Chamber		906	06-Nov-21 A	14-May-24	17-Apr-22	31-Jan-24	-104		
Fabrication, FAT & Delivery of Major Plant & Materials		766	06-Nov-21 A	26-Dec-23	17-Apr-22	11-Apr-23	-259		
S5DIGP1000	Fabrication & Delivery of Sludge Digestion System	180	06-Nov-21 A	29-Nov-22	22-Jul-22	30-Aug-22	-91	S2P1020, S2D1450	S5DIGC1210
S5DIGP1010	Fabrication & Delivery of FRP Walkway / Cover	90	01-Mar-22 A	13-Nov-22	24-Jul-22	16-Aug-22	-89	S2P1020	S5DIGC1040
S5DIGP1020	Fabrication & Delivery of Pipeworks & Associated Valves	60	27-Oct-22	25-Dec-22	05-Aug-22	03-Oct-22	-83	S5P1010	S5DIGC1110, S5DIGC1150, S5DIGC1190, S5DIGC1250
S5DIGP1050	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	17-Apr-22	11-Apr-23	-259		S5DIGC1270
Installation		462	21-Oct-22	25-Jan-24	02-Aug-22	31-Jan-24	6		
S5DIGC1000	Access to Sludge Digesters & Distribution Chamber (Impacted by EWN-0314)	1	21-Oct-22*	21-Oct-22	02-Aug-22	02-Aug-22	-80		S5DIGC1030
S5DIGC1010	Access to Sludge Digester No.1 & Distribution Chamber (Impacted by EWN-0314-1)	1	21-Oct-22*	21-Oct-22	02-Aug-22	02-Aug-22	-80		S5DIGC1030



Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S5DIGC1030	Mobilisation	14	22-Oct-22	04-Nov-22	03-Aug-22	16-Aug-22	-80	AD1080, S5DIGC1000, S5DIGC1010	S5DIGC1210, S5DIGC1040
S5DIGC1020	Access to Sludge Digesters - Remaining (Impacted by EWN-0314-1)	1	31-Oct-22*	31-Oct-22	03-Nov-22	03-Nov-22	3		S5DIGC1050
E&M Installation		438	14-Nov-22	25-Jan-24	17-Aug-22	11-May-23	-259		
FRP Walkway / Cover Installation		166	14-Nov-22	28-Apr-23	17-Aug-22	15-Apr-23	-13		
S5DIGC1040	Installation of Working Platform for Digester 1 (Roof)	14	14-Nov-22	27-Nov-22	17-Aug-22	30-Aug-22	-89	AD1080, S5DIGP1010, S5DIGC1030	SC51110, PL1210, PL1310, S5DIGC1050, S5DIGC1090, S5DIGC1210
S5DIGC1050	Installation of Working Platform for Digester 3 (Roof)	14	28-Nov-22	11-Dec-22	04-Nov-22	17-Nov-22	-24	S5DIGC1040, S5DIGC1020	S5DIGC1060, S5DIGC1130
S5DIGC1060	Installation of Working Platform for Digester 4 (Roof)	14	12-Dec-22	25-Dec-22	29-Nov-22	12-Dec-22	-13	S5DIGC1050	S5DIGC1070, S5DIGC1170
S5DIGC1070	Installation of Working Platform for Distribution Chamber & Overflow Chamber	110	26-Dec-22	14-Apr-23	13-Dec-22	01-Apr-23	-13	S5DIGC1060	S5DIGC1080
S5DIGC1080	Installation of Working Platform for Digester 2 (Roof)	14	15-Apr-23	28-Apr-23	02-Apr-23	15-Apr-23	-13	S5DIGC1070	S5DIGT1020
Sludge Digester 1		73	28-Nov-22	08-Feb-23	06-Sep-22	17-Nov-22	-83		
S5DIGC1090	Installation of Sludge Mixer (4 nos.)	14	28-Nov-22	11-Dec-22	06-Sep-22	19-Sep-22	-83	S5DIGC1040	S5DIGC1100
S5DIGC1100	Installation of Motor with Belt adjustment	14	12-Dec-22	25-Dec-22	20-Sep-22	03-Oct-22	-83	S5DIGC1090	S5DIGC1110
S5DIGC1110	Installation of Pipework, Valve, Inpsection Window, Telescopic Valve & Instruments	45	26-Dec-22	08-Feb-23	04-Oct-22	17-Nov-22	-83	S5DIGC1100, S5DIGP1020	S5DIGC1120, S5DIGC1130
S5DIGC1120	Installation of Electrical System	45	26-Dec-22	08-Feb-23	04-Oct-22	17-Nov-22	-83	S5DIGC1110, S5P1050	S5DIGC1130, S5DIGT1010
Sludge Digester 3		73	09-Feb-23	22-Apr-23	18-Nov-22	29-Jan-23	-83		
S5DIGC1130	Installation of Sludge Mixer (4 nos.)	14	09-Feb-23	22-Feb-23	18-Nov-22	01-Dec-22	-83	S5DIGC1120, S5DIGC1110, S5DIGC1050	S5DIGC1140
S5DIGC1140	Installation of Motor with Belt adjustment	14	23-Feb-23	08-Mar-23	02-Dec-22	15-Dec-22	-83	S5DIGC1130	S5DIGC1150
S5DIGC1150	Installation of Pipework, Valve, Inpsection Window, Telescopic Valve & Instruments	45	09-Mar-23	22-Apr-23	16-Dec-22	29-Jan-23	-83	S5DIGC1140, S5DIGP1020	S5DIGC1160, S5DIGC1170
S5DIGC1160	Installation of Electrical System	45	09-Mar-23	22-Apr-23	16-Dec-22	29-Jan-23	-83	S5DIGC1150, S5P1050	S5DIGC1170, S5DIGT1010
Sludge Digester 4		73	23-Apr-23	04-Jul-23	30-Jan-23	12-Apr-23	-83		
S5DIGC1170	Installation of Sludge Mixer (4 nos.)	14	23-Apr-23	06-May-23	30-Jan-23	12-Feb-23	-83	S5DIGC1150, S5DIGC1160, S5DIGC1060	S5DIGC1180
S5DIGC1180	Installation of Motor with Belt adjustment	14	07-May-23	20-May-23	13-Feb-23	26-Feb-23	-83	S5DIGC1170	S5DIGC1190
S5DIGC1190	Installation of Pipework, Valve, Inpsection Window, Telescopic Valve & Instruments	45	21-May-23	04-Jul-23	27-Feb-23	12-Apr-23	-83	S5DIGC1180, S5DIGP1020	S5DIGC1200
S5DIGC1200	Installation of Electrical System	45	21-May-23	04-Jul-23	27-Feb-23	12-Apr-23	-83	S5DIGC1190, S5P1050	S5DIGT1010
Distribution Chamber		422	30-Nov-22	25-Jan-24	31-Aug-22	11-May-23	-259		
S5DIGC1210	Installation of Sludge Recirculation Pumps (5 nos.)	40	30-Nov-22	08-Jan-23	31-Aug-22	09-Oct-22	-91	AD1080, S5DIGP1000, S5DIGC1030, S5DIGC1040	S5DIGC1220, S5DIGC1280
S5DIGC1220	Installation of Heat Exchanger (3 nos.)	14	09-Jan-23	22-Jan-23	10-Oct-22	23-Oct-22	-91	S5DIGC1210	S5DIGC1230
S5DIGC1230	Installation of Sludge Transfer Pump (2 nos.)	14	23-Jan-23	05-Feb-23	24-Oct-22	06-Nov-22	-91	S5DIGC1220	S5DIGC1240
S5DIGC1240	Installation of Vertical Mixer at Sludge Buffer Tank (2 nos.)	7	06-Feb-23	12-Feb-23	07-Nov-22	13-Nov-22	-91	S5DIGC1230	S5DIGC1250
S5DIGC1250	Installation of Pipework, Valve & Instruments	150	13-Feb-23	12-Jul-23	14-Nov-22	12-Apr-23	-91	S5DIGC1240, S5DIGP1020	S5DIGC1260, S5DIGT1000
S5DIGC1260	Installation of Electrical System	150	13-Feb-23	12-Jul-23	14-Nov-22	12-Apr-23	-91	S5DIGC1250, S5P1050	S5DIGC1270, S5DIGT1010
S5DIGC1270	Installation of SCADA & PLC System	90	28-Oct-23	25-Jan-24	11-Feb-23	11-May-23	-259	S5DIGC1260, S5DIGP1050	S5T1080, S5T1000, S5T1010, S5T1020, S5T1030, PL1210
BS Installation		240	30-Nov-22	27-Jul-23	04-Jun-23	31-Jan-24	188		
Distribution Chamber		240	30-Nov-22	27-Jul-23	04-Jun-23	31-Jan-24	188		

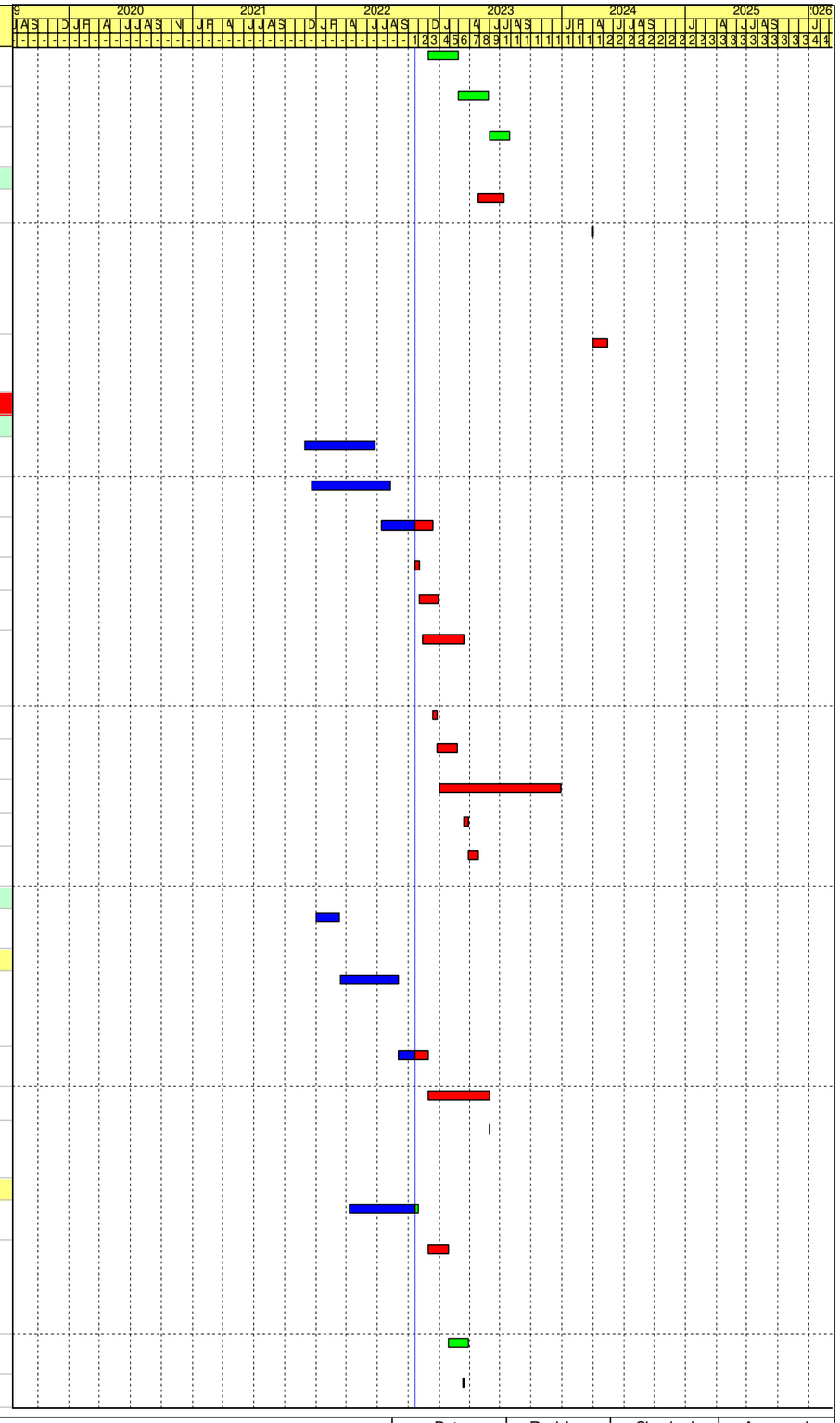


Remaining Work
Critical Activity
Milestone
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Oct 2022

Date	Revision	Checked	Approved
30-Jun-22	Rev.23	LT	KM
31-Jul-22	Rev.24	LT	KM
31-Aug-22	Rev.25	LT	KM
30-Sep-22	Rev.26	LT	KM
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S5DIGC1280	Installation of FS System	90	30-Nov-22	27-Feb-23	04-Jun-23	01-Sep-23	186	S5DIGC1210	S5DIGC1290, S5S1220
S5DIGC1290	Installation of MVAC System	90	28-Feb-23	28-May-23	02-Sep-23	30-Nov-23	186	S5DIGC1280	S5DIGC1300, S5S1220
S5DIGC1300	Installation of Plumbing System	60	29-May-23	27-Jul-23	03-Dec-23	31-Jan-24	188	S5S1120, S5DIGC1290	S5S1160
Testing and Commissioning		382	29-Apr-23	14-May-24	31-Jan-23	30-May-23	-350		
S5DIGT1000	Pipe Pressure Test	75	29-Apr-23	12-Jul-23	31-Jan-23	15-Apr-23	-88	S5DIGC1250	S5DIGT1020
S5DIGT1010	Ready for Power Energisation	3	28-Mar-24	30-Mar-24	13-Apr-23	15-Apr-23	-350	S5DIGC1260, S5DIGC1200, S5DIGC1160, S5DIGC1120, S5WS2C1110, S5EXAC1030	S5DIGT1020
S5DIGT1020	SAT for Sludge Digestion System	45	31-Mar-24	14-May-24	16-Apr-23	30-May-23	-350	S5DIGC1080, S5DIGT1010, S5DIGT1000	S5T1080
Workshop No. 2		860	29-Nov-21 A	29-May-24	26-May-22	27-Feb-24	-92		
Fabrication, FAT & Delivery of Major Plant & Materials		705	29-Nov-21 A	26-Dec-23	26-May-22	08-Sep-23	-109		
S5WS2P1060	Fabrication of 11 kV Switchboard	210	29-Nov-21 A	26-Jun-22 A	12-Jun-22	12-Jun-22		S2P1120	S5WS2P1070
S5WS2P1120	Fabrication & Delivery of Lift	210	18-Dec-21 A	10-Aug-22 A	12-May-23	12-May-23			S5WS2C1190
S5WS2P1000	Fabrication of 11kV to 380V Transfomers	123	14-Jul-22 A	13-Dec-22	26-May-22	18-Jul-22	-148	S2P1110	S5WS2P1010
S5WS2P1070	FAT for 11 kV Switchboard	14	21-Oct-22*	03-Nov-22	12-Jun-22	25-Jun-22	-131	S5WS2P1060	S5WS2P1080
S5WS2P1080	Delivery of 11kV Switchboard	55	04-Nov-22	28-Dec-22	26-Jun-22	19-Aug-22	-131	S5WS2P1070	S5WS2C1060, S5CHPC1140
S5WS2P1090	Fabrication of LV Switchboard	120	15-Nov-22*	14-Mar-23	19-Jun-22	16-Oct-22	-149	S2P1130, S2D1250, S2D1190, S2D1270	S5WS2P1100
S5WS2P1010	FAT for 11kV to 380V Transfomers	14	14-Dec-22	27-Dec-22	19-Jul-22	01-Aug-22	-148	S5WS2P1000	S5WS2P1020
S5WS2P1020	Delivery of 11kV to 380V Transfomers	60	28-Dec-22	25-Feb-23	02-Aug-22	30-Sep-22	-148	S5WS2P1010	S5CHPC1130, S5WS2C1070
S5WS2P1130	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	14-Sep-22	08-Sep-23	-109		S5WS2C1180
S5WS2P1100	FAT for LV Switchboard	14	15-Mar-23	28-Mar-23	17-Oct-22	30-Oct-22	-149	S5WS2P1090	S5WS2P1110
S5WS2P1110	Delivery of LV Switchboard	30	29-Mar-23	27-Apr-23	31-Oct-22	29-Nov-22	-149	S5WS2P1100	S5CHPC1260, S5WS2C1080
Installation		735	31-Dec-21 A	25-Jan-24	02-Sep-22	31-Jan-24	6		
S5WS2C1000	Mobilisation	14	31-Dec-21 A	12-Mar-22 A	02-Sep-22	02-Sep-22		AD1120, S5S1030	S5WS2C1010, S5WS2C1050
CLP Substation		437	14-Mar-22 A	31-May-23	02-Sep-22	12-Apr-23	-49		
S5WS2C1010	BS Fitting Installation (at CLP Sub-station in Workshop No.2)	60	14-Mar-22 A	02-Sep-22 A	02-Sep-22	02-Sep-22		S5WS2C1000, AD1120	KD1060, S5WS2C1020, S5WS2C1050, KD1060-1
S5WS2C1020	Inspections, Rectification & H/O to CLP	60	03-Sep-22 A	01-Dec-22	02-Sep-22	13-Oct-22	-49	S5WS2C1010	S5WS2C1030
S5WS2C1030	E&M Installation of HV Transformer (By CLP)	180	02-Dec-22	30-May-23	14-Oct-22	11-Apr-23	-49	S5WS2C1020	S5WS2C1040
S5WS2C1040	Energisation (By CLP)	1	31-May-23	31-May-23	12-Apr-23	12-Apr-23	-49	S5WS2C1030, S5WS2C1060, S5S1000	S5TXRT1010
HV Switchroom / Transformer Room / LV Switchroom		610	11-Apr-22 A	23-Dec-23	14-Nov-22	26-Nov-23	-27		
S5WS2C1050	BS Fitting Intallation	60	11-Apr-22 A	01-Nov-22	14-Nov-22	25-Nov-22	24	S5WS2C1000, S5WS2C1010	S5WS2C1060
S5WS2C1060	HV Switchroom Installation	60	29-Nov-22	27-Jan-23	26-Nov-22	24-Jan-23	-3	S5WS2C1050, S5WS2P1080	S5WS2C1130, S5TXRT1010, S5WS2C1040, S5WS2C1070, S5WS2T1000
S5WS2C1070	TX Room Installation	60	28-Jan-23	28-Mar-23	30-Jul-23	27-Sep-23	183	S5WS2C1060, S5WS2P1020	S5WS2C1080, S5WS2T1000
S5WS2C1090	Access to Other Peripheral Systems (Impacted by EWN-0314)	1	14-Mar-23*	14-Mar-23	15-Nov-22	15-Nov-22	-119		S5WS2C1110

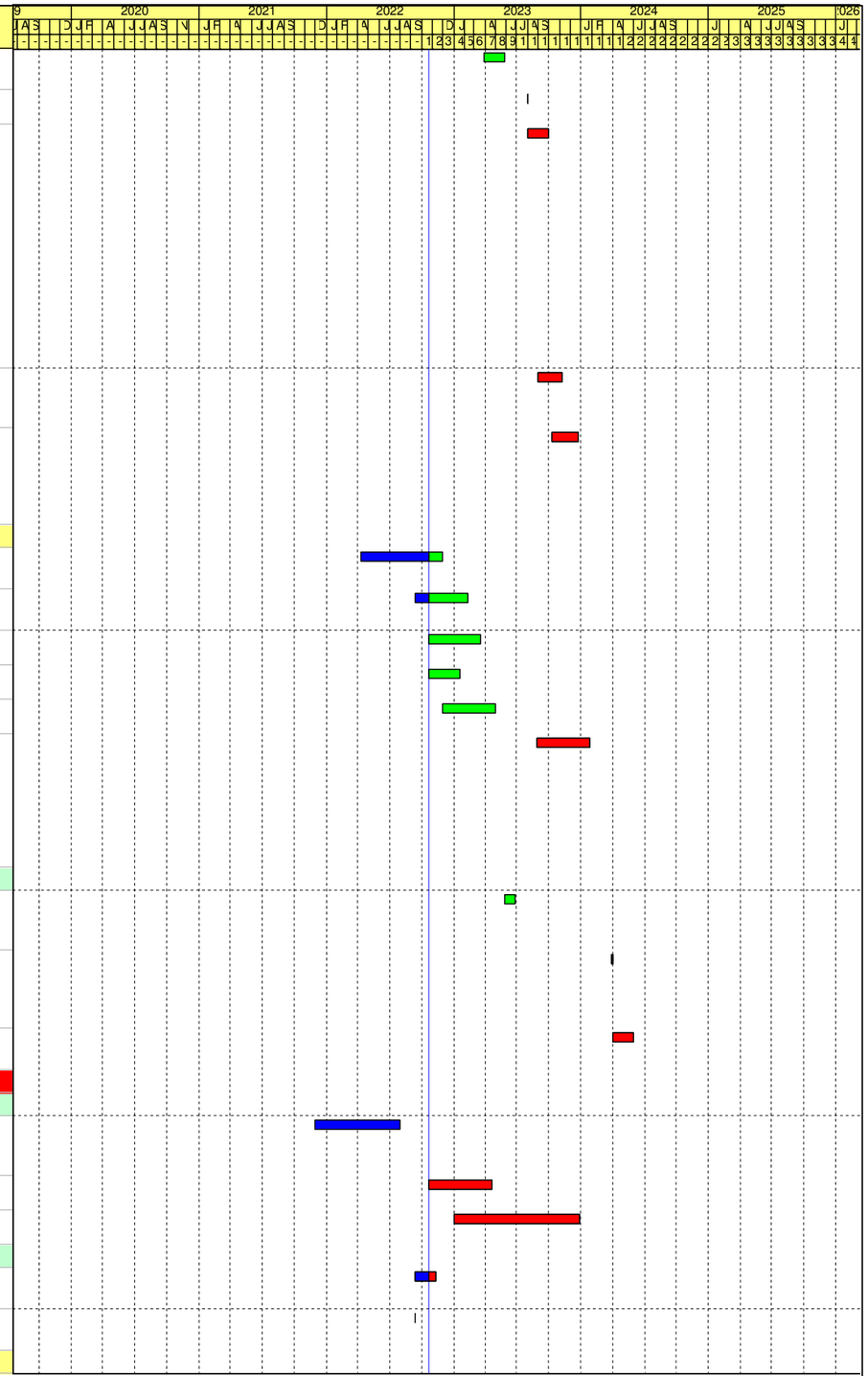


Remaining Work
Critical Activity
Milestone
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Oct 2022

Date	Revision	Checked	Approved
30-Jun-22	Rev.23	LT	KM
31-Jul-22	Rev.24	LT	KM
31-Aug-22	Rev.25	LT	KM
30-Sep-22	Rev.26	LT	KM
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S5WS2C1080	LV Switchroom Installation	60	29-Mar-23	27-May-23	28-Sep-23	26-Nov-23	183	S5WS2C1070, S5WS2P1110	S5WS2T1000
S5WS2C1100	Access to Other Peripheral Systems (Impacted by EWN-0314-1)	1	31-Jul-23*	31-Jul-23	15-Nov-22	15-Nov-22	-258		S5WS2C1110
S5WS2C1110	Main Cables Laying between Workshop No.2 & Tx Rm for CHP Bldg	60	01-Aug-23	29-Sep-23	16-Nov-22	14-Jan-23	-258	S5CHPC1190, S5WS2C1090, S5WS2C1100	S5CHPT1020, S5DIGT1010, S5WS2C1120, S5WS2T1010, S5BIOT1000, S5THPT1000, S5H2ST1000, S5WGBT1000, S5DOUT1010, S5SPST1000, S5TCWT1000, S5FCDT1000, PL1210
S5WS2C1120	Main Cables Laying between Workshop No.2 & Tx Rm for Sludge Dewatering Bldg	70	31-Aug-23	08-Nov-23	16-Dec-22	23-Feb-23	-258	S5WS2C1110	S5WS2C1130, PL1210, S5SDBT1191
S5WS2C1130	Main Cables Laying between Workshop No.2 & Tx Rm for UV System No.1	75	10-Oct-23	23-Dec-23	25-Jan-23	09-Apr-23	-258	S5WS2C1060, S5WS2C1120	S5TXRT1010, S5PSWT1000, S5DOUT1000, S5SHPT1000, PL1210
Building Services		492	11-Apr-22 A	25-Jan-24	13-Dec-22	31-Jan-24	6		
S5WS2C1140	Installation of FS System	204	11-Apr-22 A	30-Nov-22	24-May-23	03-Jul-23	215	S5S1120	S5WS2C1150, S5S1130
S5WS2C1190	Installation of Lift	120	13-Sep-22 A	09-Feb-23	12-May-23	31-Aug-23	203	S5WS2P1120	S5WS2T1020, S5SDBC1770
S5WS2C1160	Installation of Electrical System	150	21-Oct-22*	19-Mar-23	13-Dec-22	11-May-23	53		S5WS2C1180
S5WS2C1170	Installation of Plumbing System	90	21-Oct-22*	18-Jan-23	03-Nov-23	31-Jan-24	378	S5S1120	S5S1160
S5WS2C1150	Installation of MVAC System	150	01-Dec-22	29-Apr-23	04-Jul-23	30-Nov-23	215	S5WS2C1140	S5S1220
S5WS2C1180	Installation of SCADA Sys. / Control Monitoring Sys. / Gas Detection Sys. / CCTV Sys. / IT&PABX Sys. / ACS Sys.	150	29-Aug-23	25-Jan-24	12-May-23	08-Oct-23	-109	S5WS2C1160, S5WS2P1130	S5T1200, S5T1000, S5T1010, S5T1020, S5T1030, S5S0990, PL1210
Testing and Commissioning		368	28-May-23	29-May-24	27-Nov-23	27-Feb-24	-92		
S5WS2T1000	SAT for Transformer & Switchboard	30	28-May-23	26-Jun-23	27-Nov-23	26-Dec-23	183	S5WS2C1080, S5WS2C1070, S5WS2C1060	S5WS2T1010
S5WS2T1010	Ready for Power Energisation	3	28-Mar-24	30-Mar-24	27-Dec-23	29-Dec-23	-92	S5WS2T1000, S5WS2C1110, S5CHPC1190, S5EXAC1030	S5WS2T1020
S5WS2T1020	SAT for Lift	60	31-Mar-24	29-May-24	30-Dec-23	27-Feb-24	-92	S5WS2C1190, S5WS2T1010	S5S1090
Biogas Storage		861	29-Nov-21 A	29-Apr-24	17-Apr-22	29-Jun-23	-305		
Fabrication, FAT & Delivery of Major Plant & Materials		736	29-Nov-21 A	26-Dec-23	17-Apr-22	11-Apr-23	-259		
S5BIOP1010	Fabrication & Delivery of Biogas Storage	180	29-Nov-21 A	30-Jul-22 A	01-Jun-22	01-Jun-22		S2P1050, S2D1530	S5BIOC1020, S5BIOC1030, S5BIOC1040
S5BIOP1000	Fabrication & Delivery of Biogas Booster and Transfer Pumps	180	22-Oct-22	19-Apr-23	31-Jul-22	26-Jan-23	-83	S5P1000	S5BIOC1020
S5BIOP1020	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	17-Apr-22	11-Apr-23	-259		S5BIOC1050
Installation		492	13-Sep-22 A	25-Jan-24	01-Jun-22	11-May-23	-259		
S5BIOC1010	Mobilisation	30	13-Sep-22 A	11-Nov-22	01-Jun-22	21-Jun-22	-143	AD1100, S5BIOC1000	S5BIOC1020
S5BIOC1000	Access to Biogas Holding Tanks (Impacted by EWN-0314-1)	1	13-Sep-22 A	13-Sep-22 A	01-Jun-22	01-Jun-22			S5BIOC1010
E&M Installation		461	22-Oct-22	25-Jan-24	01-Jun-22	11-May-23	-259		



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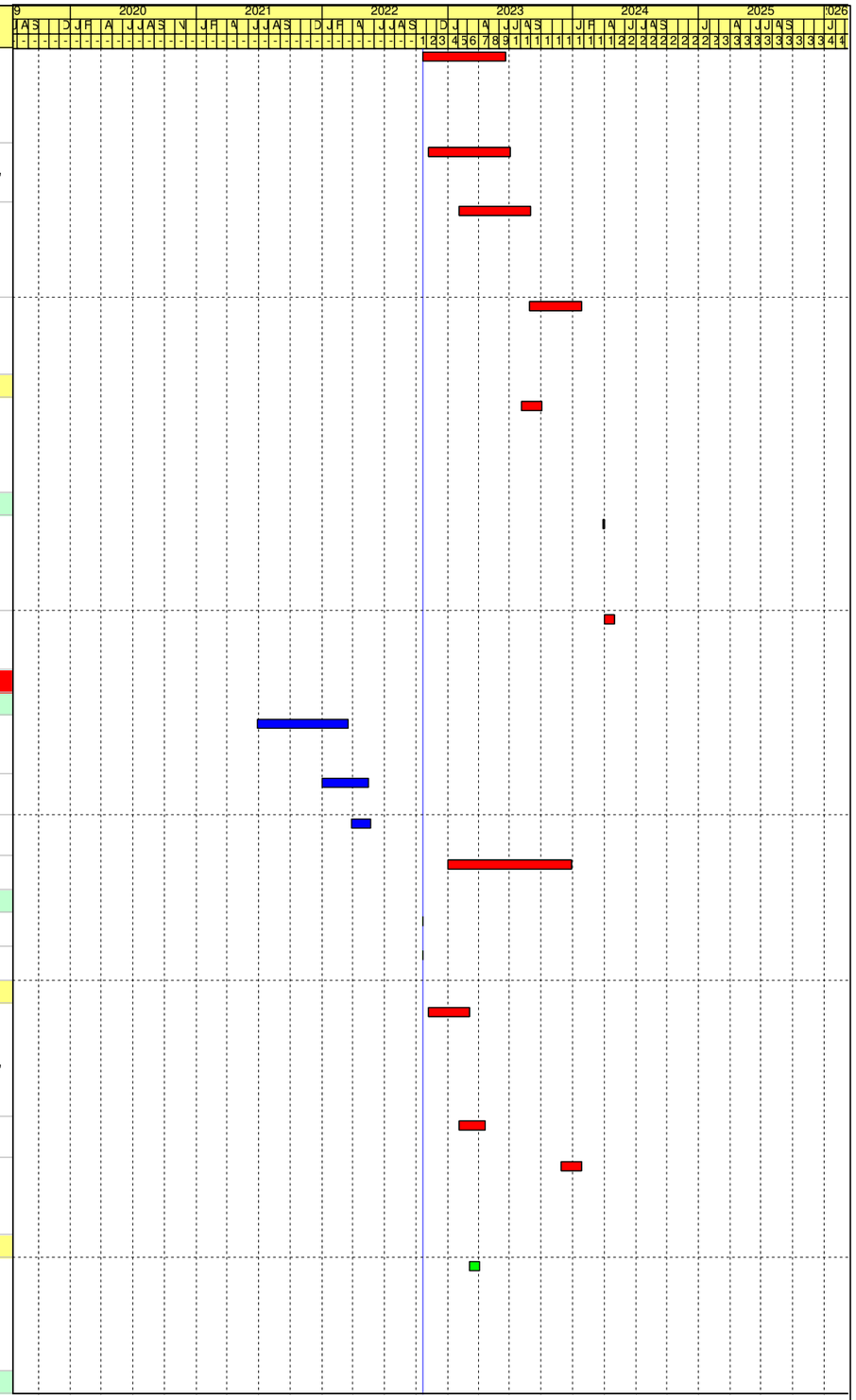
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S5BIOC1020	E&M Installation of Biogas Storage Tank 1	240	22-Oct-22	18-Jun-23	01-Jun-22	26-Jan-23	-143	AD1100, S5BIOP1010, S5S1060, S5BIOP1000, S5BIOC1010	S5BIOC1030, S5BIOT1000
S5BIOC1030	E&M Installation of Biogas Storage Tank 2	240	06-Nov-22	03-Jul-23	16-Jun-22	10-Feb-23	-143	AD1100, S5BIOC1020, S5BIOP1010	S5BIOC1040, S5WGBC1020, S5BIOT1000
S5BIOC1040	E&M Installation of Biogas Storage Tank 3	210	04-Feb-23	01-Sep-23	14-Sep-22	11-Apr-23	-143	AD1100, S5BIOC1030, S5BIOP1010	S5BIOT1010, S5BIOC1060, S5BIOT1000, PL1210, S5BIOC1050
S5BIOC1050	Installation of SCADA System / Control Monitoring System	150	29-Aug-23	25-Jan-24	13-Dec-22	11-May-23	-259	S5BIOC1040, S5BIOP1020	S5T1000, S5T1010, S5T1020, S5T1030
BS Installation		60	03-Aug-23	01-Oct-23	13-Mar-23	11-May-23	-143		
S5BIOC1060	BS Installation for Biogas Holding Tanks	60	03-Aug-23	01-Oct-23	13-Mar-23	11-May-23	-143	S5THPC1050, S5BIOC1040	S5S1160, S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		33	28-Mar-24	29-Apr-24	28-May-23	29-Jun-23	-305		
S5BIOT1000	Ready for Power Energisation	3	28-Mar-24	30-Mar-24	28-May-23	30-May-23	-305	S5BIOC1040, S5BIOC1030, S5BIOC1020, S5WS2C1110, S5EXAC1030	S5BIOT1010
S5BIOT1010	SAT for Biogas Storage System	30	31-Mar-24	29-Apr-24	31-May-23	29-Jun-23	-305	S5BIOC1040, S5CHPT1020, S5BIOT1000	S5T1070
THP Area		994	29-Jun-21 A	29-Apr-24	17-Apr-22	15-May-23	-350		
Fabrication, FAT & Delivery of Major Plant & Materials		869	29-Jun-21 A	26-Dec-23	17-Apr-22	11-Apr-23	-259		
S5THPP1000	Fabrication of THP System	300	29-Jun-21 A	18-Mar-22 A	02-Nov-22	02-Nov-22		S2P1040, S2D1410, S2D1370	S5THPP1010
S5THPP1010	FAT for THP System	14	03-Jan-22 A	17-May-22 A	02-Nov-22	02-Nov-22		S5THPP1000	S5THPP1020
S5THPP1020	Delivery of THP System	60	29-Mar-22 A	23-May-22 A	02-Nov-22	02-Nov-22		S5THPP1010	S5THPC1020
S5THPP1030	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	17-Apr-22	11-Apr-23	-259		S5THPC1040
Installation		462	21-Oct-22	25-Jan-24	01-Nov-22	11-May-23	-259		
S5THPC1000	Access to THP Area (Impacted by EWN-0314)	1	21-Oct-22*	21-Oct-22	01-Nov-22	01-Nov-22	11		S5THPC1020
S5THPC1010	Access to THP Area (Impacted by EWN-0314-1)	1	21-Oct-22*	21-Oct-22	01-Nov-22	01-Nov-22	11		S5THPC1020
E&M Installation		446	06-Nov-22	25-Jan-24	02-Nov-22	11-May-23	-259		
S5THPC1020	E&M Installation of THP System	120	06-Nov-22	05-Mar-23	02-Nov-22	01-Mar-23	-4	AD1100, S5THPP1020, S5S1020, S5THPC1000, S5THPC1010	S5THPC1030, S5THPT1010, S5THPC1050, S5WGBC1020, S5THPT1000, S5THPC1040
S5THPC1030	E&M Installation of Thickened Sludge Feed Pipe to THP System	75	04-Feb-23	19-Apr-23	31-Jan-23	15-Apr-23	-4	S5THPC1020	S5THPT1010, PL1210
S5THPC1040	Installation of SCADA System / Control Monitoring System	60	27-Nov-23	25-Jan-24	13-Mar-23	11-May-23	-259	S5THPC1020, S5THPP1030	S5T1000, S5T1010, S5T1020, S5T1030
BS Installation		30	06-Mar-23	04-Apr-23	12-Apr-23	11-May-23	37		
S5THPC1050	BS Installation for THP Facilities	30	06-Mar-23	04-Apr-23	12-Apr-23	11-May-23	37	S5THPC1020	S5BIOC1060, S5S1160, S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		33	28-Mar-24	29-Apr-24	13-Apr-23	15-May-23	-350		



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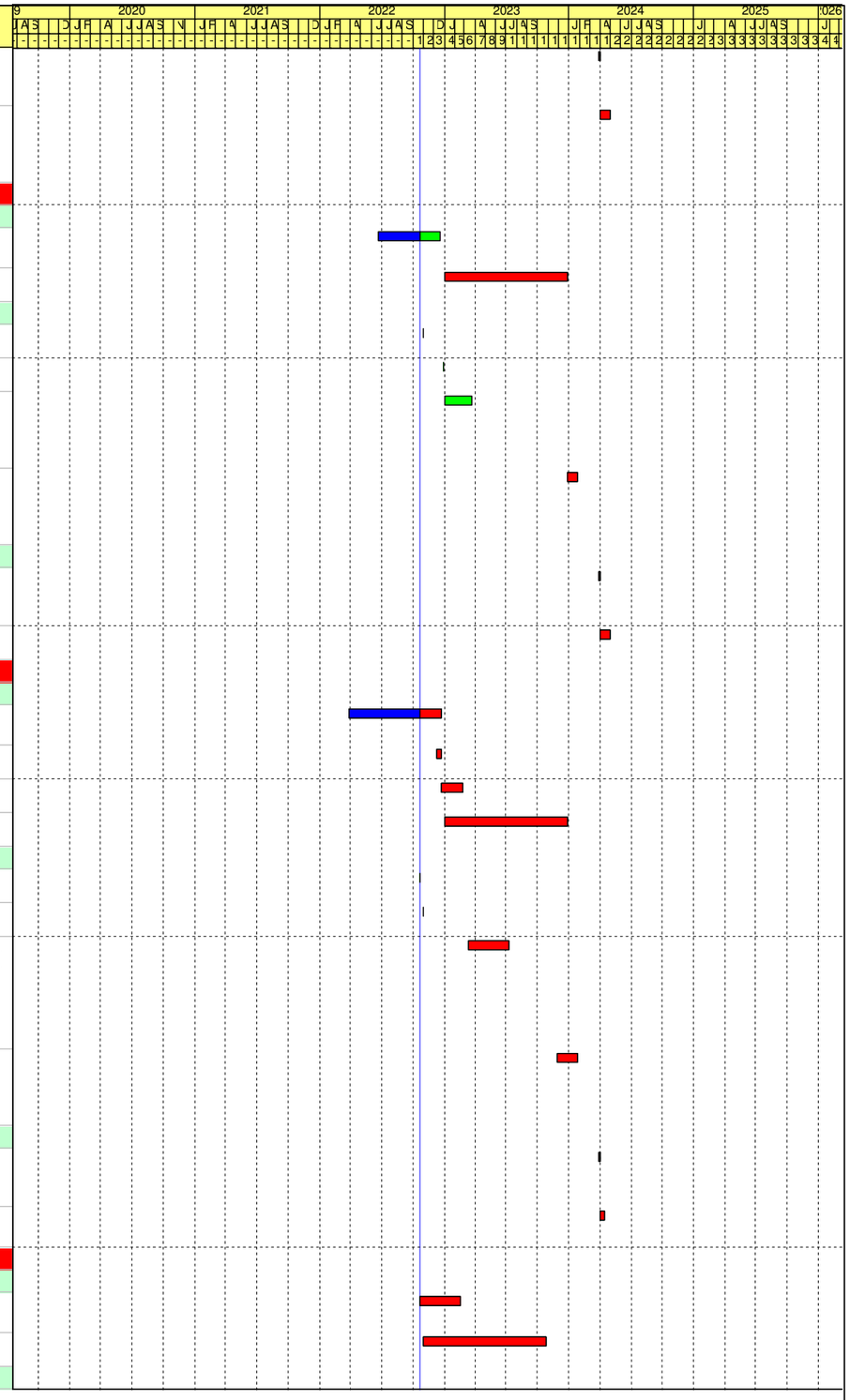
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S5THPT1000	Ready for Power Energisation	3	28-Mar-24	30-Mar-24	13-Apr-23	15-Apr-23	-350	S5THPC1020, S5WS2C1110, S5EXAC1030	S5THPT1010
S5THPT1010	SAT of THP System	30	31-Mar-24	29-Apr-24	16-Apr-23	15-May-23	-350	S5THPC1020, S5THPC1030, S5CHPT1020, S5THPT1000	S5T1050
H2S Removal Area		618	23-Jun-22 A	29-Apr-24	17-Apr-22	30-May-23	-335		
Fabrication, FAT & Delivery of Major Plant & Materials		493	23-Jun-22 A	26-Dec-23	17-Apr-22	11-Apr-23	-259		
S5H2SP1000	Fabrication & Delivery of H2S Removal System	150	23-Jun-22 A	19-Dec-22	25-Nov-22	23-Jan-23	35	S2P1060, S2D1530	S5H2SC1020
S5H2SP1010	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	17-Apr-22	11-Apr-23	-259		S5H2SC1030
Installation		452	31-Oct-22	25-Jan-24	06-Feb-23	11-May-23	-259		
S5H2SC1000	Access to H2S Removal Area (Impacted by EWN-0314)	1	31-Oct-22*	31-Oct-22	06-Feb-23	06-Feb-23	98		S5H2SC1020
S5H2SC1010	Access to H2S Removal Area (Impacted by EWN-0314-1)	1	31-Dec-22*	31-Dec-22	06-Feb-23	06-Feb-23	37		S5H2SC1020
S5H2SC1020	E&M Installation of H2S Removal System	80	03-Jan-23	23-Mar-23	07-Feb-23	27-Apr-23	35	AD1100, S5H2SP1000, S5H2SC1000, S5H2SC1010	S5H2ST1000, PL1210, S5H2SC1030
S5H2SC1030	Installation of SCADA System / Control Monitoring System	30	27-Dec-23	25-Jan-24	12-Apr-23	11-May-23	-259	S5H2SC1020, S5H2SP1010	S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		33	28-Mar-24	29-Apr-24	28-Apr-23	30-May-23	-335		
S5H2ST1000	Ready for Power Energisation	3	28-Mar-24	30-Mar-24	28-Apr-23	30-Apr-23	-335	S5H2SC1020, S5WS2C1110, S5EXAC1030	S5H2ST1010
S5H2ST1010	SAT of H2S Removal System	30	31-Mar-24	29-Apr-24	01-May-23	30-May-23	-335	S5H2ST1000	S5T1080
Waste Gas Burning Area		664	29-Mar-22 A	14-Apr-24	17-Apr-22	14-Jul-23	-275		
Fabrication, FAT & Delivery of Major Plant & Materials		554	29-Mar-22 A	26-Dec-23	17-Apr-22	11-Apr-23	-259		
S5WGBP1000	Fabrication of Waste Gas Burning System	210	29-Mar-22 A	24-Dec-22	09-Sep-22	12-Nov-22	-42	S2P1080, S2D1650	S5WGBP1010
S5WGBP1010	FAT for Waste Gas Burning System	14	11-Dec-22	24-Dec-22	30-Oct-22	12-Nov-22	-42	S5WGBP1000	S5WGBP1020
S5WGBP1020	Delivery of Waste Gas Burning System	60	25-Dec-22	22-Feb-23	13-Nov-22	11-Jan-23	-42	S5WGBP1010	S5WGBC1020
S5WGBP1030	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	17-Apr-22	11-Apr-23	-259		S5WGBC1030
Installation		462	21-Oct-22	25-Jan-24	11-Jan-23	11-May-23	-259		
S5WGBC1000	Access to Waste Gas Burning Area (Impacted by EWN-0314)	1	21-Oct-22*	21-Oct-22	11-Jan-23	11-Jan-23	82		S5WGBC1020
S5WGBC1010	Access to Waste Gas Burning Area (Impacted by EWN-0314-1)	1	31-Oct-22*	31-Oct-22	11-Jan-23	11-Jan-23	72		S5WGBC1020
S5WGBC1020	E&M Installation of Waste Gas Burning System	120	13-Mar-23	10-Jul-23	12-Jan-23	11-May-23	-60	AD1100, S5WGBP1020, S5BIOC1030, S5THPC1020, S5WGBC1000, S5WGBC1010	S5WGBT1010, S5WGBT1000, PL1210, S5WGBC1030
S5WGBC1030	Installation of SCADA System / Control Monitoring System	60	27-Nov-23	25-Jan-24	13-Mar-23	11-May-23	-259	S5WGBP1030, S5WGBC1020	S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		18	28-Mar-24	14-Apr-24	27-Jun-23	14-Jul-23	-275		
S5WGBT1000	Ready for Power Energisation	3	28-Mar-24	30-Mar-24	27-Jun-23	29-Jun-23	-275	S5WGBC1020, S5WS2C1110, S5EXAC1030	S5WGBT1010
S5WGBT1010	SAT for Gas Burning System	15	31-Mar-24	14-Apr-24	30-Jun-23	14-Jul-23	-275	S5WGBC1020, S5WGBT1000	S5T1090
Plant Service Water Area		480	21-Oct-22	12-Feb-24	17-Apr-22	30-May-23	-258		
Fabrication, FAT & Delivery of Major Plant & Materials		371	21-Oct-22	26-Oct-23	17-Apr-22	11-Apr-23	-198		
S5PSWP1000	Fabrication & Delivery of Plant Service Water System	120	21-Oct-22	17-Feb-23	15-Sep-22	12-Jan-23	-36	S2P1090, S2D1690	S5PSWC1000
S5PSWP1010	Delivery of SCADA System	360	01-Nov-22*	26-Oct-23	17-Apr-22	11-Apr-23	-198		S5PSWC1010
Installation		281	18-Feb-23	25-Nov-23	13-Jan-23	11-May-23	-198		



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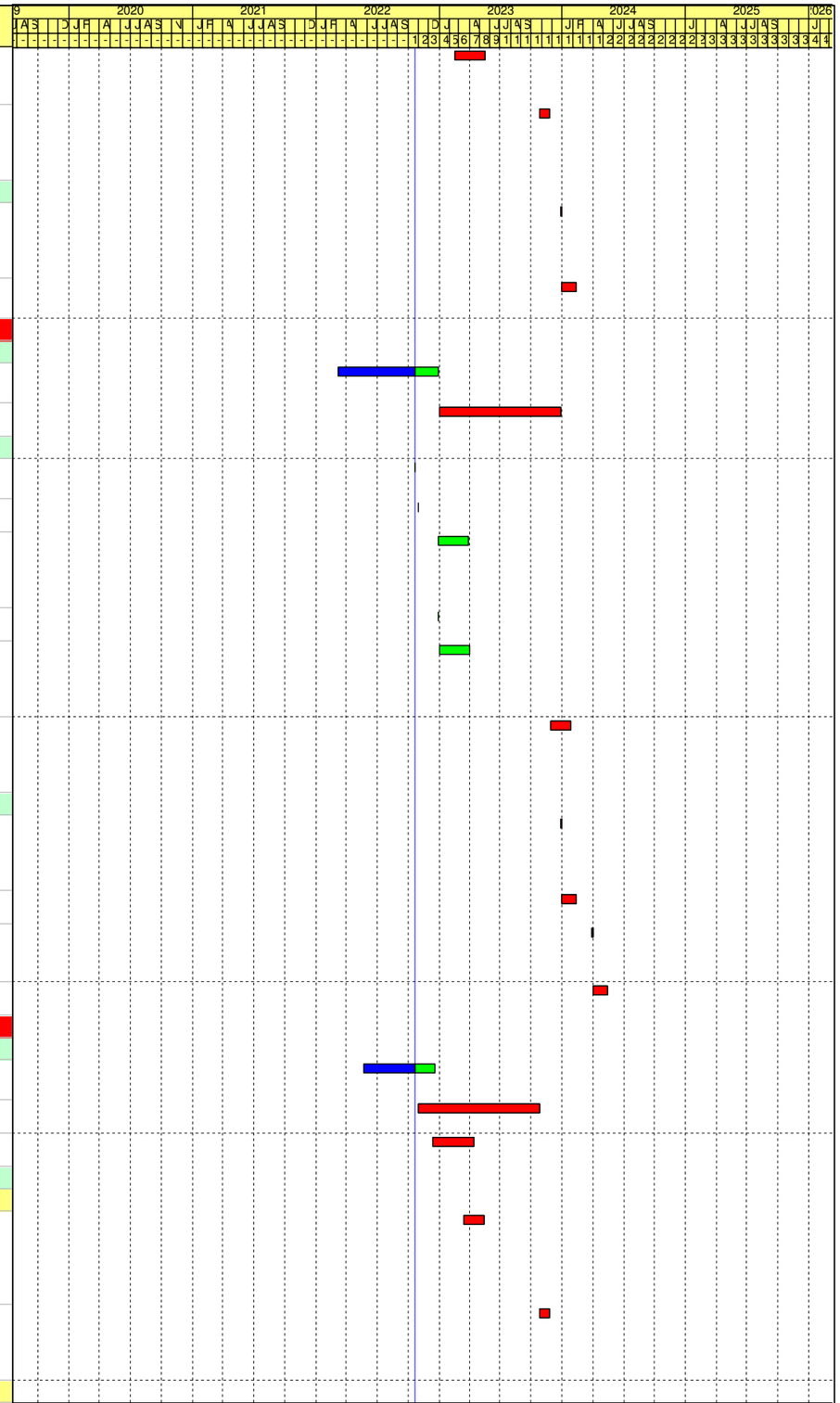
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S5PSWC1000	E&M Installation of Plant Service Water System	90	18-Feb-23	18-May-23	13-Jan-23	12-Apr-23	-36	AD1100, S5PSWP1000	S5PSWT1000, PL1210, S5PSWC1010
S5PSWC1010	Installation of SCADA System / Control Monitoring System	30	27-Oct-23	25-Nov-23	12-Apr-23	11-May-23	-198	S5PSWP1010, S5PSWC1000	S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		48	27-Dec-23	12-Feb-24	13-Apr-23	30-May-23	-258		
S5PSWT1000	Ready for Power Energisation	3	27-Dec-23	29-Dec-23	13-Apr-23	15-Apr-23	-258	S5PSWC1000, S5WS2C1130, S5EXAC1040, S5TXRT1010	S5PSWT1010
S5PSWT1010	SAT & System Commissioning Tests for Plant Services Water System	45	30-Dec-23	12-Feb-24	16-Apr-23	30-May-23	-258	S5PSWT1000, S5UVPC1000	S5T1060
DO Area		725	10-Mar-22 A	14-May-24	17-Apr-22	29-Jun-23	-320		
Fabrication, FAT & Delivery of Major Plant & Materials		585	10-Mar-22 A	26-Dec-23	17-Apr-22	11-Apr-23	-259		
S5DOUP1000	Fabrication & Delivery of DO System	150	10-Mar-22 A	30-Dec-22	03-Nov-22	12-Jan-23	13	S2P1150, S2D1930	S5DOUC1030, S5DOUC1040
S5DOUP1010	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	17-Apr-22	11-Apr-23	-259		S5DOUC1050
Installation		462	21-Oct-22	25-Jan-24	12-Jan-23	11-May-23	-259		
S5DOUC1000	Access to DO Area (Impacted by EWN-0314)	1	21-Oct-22*	21-Oct-22	12-Jan-23	12-Jan-23	83		S5DOUC1030, S5DOUC1040
S5DOUC1010	Access to DO Area No.11 (Impacted by EWN-0314-1)	1	31-Oct-22*	31-Oct-22	12-Jan-23	12-Jan-23	73		S5DOUC1030
S5DOUC1030	E&M Installation of DO System No.11	90	31-Dec-22	30-Mar-23	13-Jan-23	12-Apr-23	13	AD1100, S5DOUP1000, S5DOUC1000, S5DOUC1010	S5DOUT1000
S5DOUC1020	Access to DO Area No.12 (Impacted by EWN-0314-1)	1	31-Dec-22*	31-Dec-22	10-Feb-23	10-Feb-23	41		S5DOUC1040
S5DOUC1040	E&M Installation of DO System No.12	90	01-Jan-23	31-Mar-23	11-Feb-23	11-May-23	41	AD1100, S5DOUP1000, S5DOUC1000, S5DOUC1020	S5DOUT1010, PL1210, S5DOUC1050
S5DOUC1050	Installation of SCADA System / Control Monitoring System	60	27-Nov-23	25-Jan-24	13-Mar-23	11-May-23	-259	S5DOUP1010, S5DOUC1040	S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		140	27-Dec-23	14-May-24	13-Apr-23	29-Jun-23	-320		
S5DOUT1000	Ready for Power Energisation of DO No.11	3	27-Dec-23	29-Dec-23	13-Apr-23	15-Apr-23	-258	S5DOUC1030, S5WS2C1130, S5EXAC1040, S5TXRT1010	S5DOUT1020
S5DOUT1020	SAT & System Commissioning Tests for DO System No.11	45	30-Dec-23	12-Feb-24	16-Apr-23	30-May-23	-258	S5DOUT1000	S5T1060
S5DOUT1010	Ready for Power Energisation of DO No.12	3	28-Mar-24	30-Mar-24	13-May-23	15-May-23	-320	S5DOUC1040, S5WS2C1110, S5EXAC1030	S5DOUT1030
S5DOUT1030	SAT & System Commissioning Tests for DO System No.12	45	31-Mar-24	14-May-24	16-May-23	29-Jun-23	-320	S5DOUT1010	S5T1080
Sewage Pump Station		664	23-May-22 A	14-Apr-24	17-Apr-22	30-May-23	-320		
Fabrication, FAT & Delivery of Major Plant & Materials		493	23-May-22 A	26-Oct-23	17-Apr-22	11-Apr-23	-198		
S5SPSP1000	Fabrication & Delivery of Sewage Pump	150	23-May-22 A	19-Dec-22	13-Nov-22	11-Jan-23	23	S2P1180, S2D1940	S5SPSC1000
S5SPSP1020	Delivery of Control & Monitoring System / SCADA System	360	01-Nov-22*	26-Oct-23	17-Apr-22	11-Apr-23	-198		S5SPSC1010
S5SPSP1010	Fabrication & Delivery of LV Switchboard	120	15-Dec-22*	13-Apr-23	14-Oct-22	10-Feb-23	-62		S5SPSC1000
Installation		256	15-Mar-23	25-Nov-23	12-Jan-23	11-May-23	-198		
E&M Installation		256	15-Mar-23	25-Nov-23	12-Jan-23	11-May-23	-198		
S5SPSC1000	E&M Installation of Sewage Pump	60	15-Mar-23	13-May-23	12-Jan-23	12-Mar-23	-62	AD1100, S5SPSP1000, S5SPSP1010	S5SPSC1020, S5SPST1000, S5SPST0990, PL1210, S5SPSC1010
S5SPSC1010	Installation of SCADA System / Control Monitoring System	30	27-Oct-23	25-Nov-23	12-Apr-23	11-May-23	-198	S5SPSP1020, S5SPSC1000	S5T1000, S5T1010, S5T1020, S5T1030
BS Installation		60	14-May-23	12-Jul-23	13-Mar-23	11-May-23	-62		



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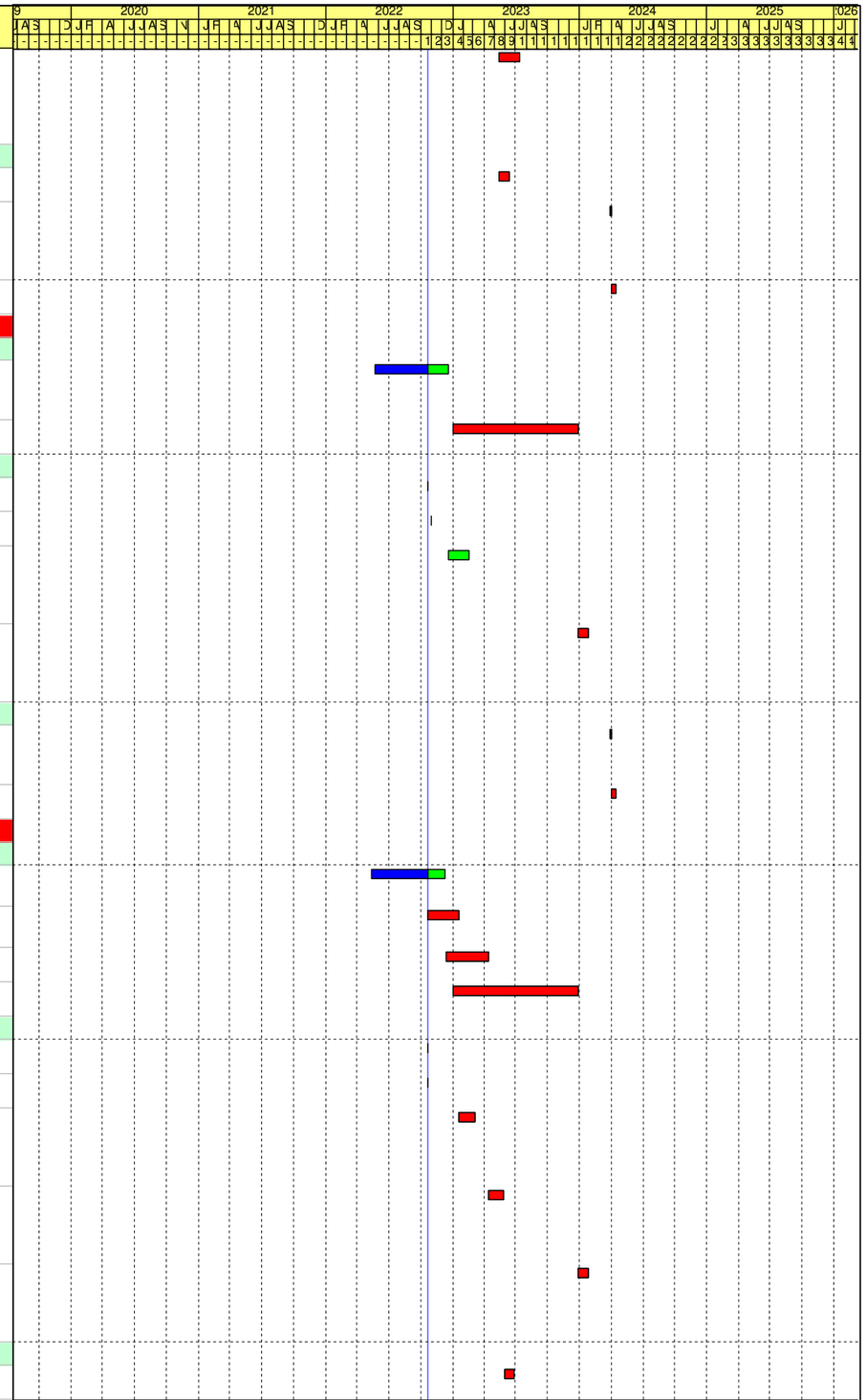
Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S5SPSC1020	BS Installation for Sewage Pumping Station	60	14-May-23	12-Jul-23	13-Mar-23	11-May-23	-62	S5SPSC1000	S5S1160, S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		337	14-May-23	14-Apr-24	13-Apr-23	30-May-23	-320		
S5SPST0990	SAT of Switchboard	30	14-May-23	12-Jun-23	13-Apr-23	12-May-23	-31	S5SPSC1000	S5SPST1000
S5SPST1000	Ready for Power Energisation	3	28-Mar-24	30-Mar-24	13-May-23	15-May-23	-320	S5SPSC1000, S5WS2C1110, S5EXAC1030, S5SPST0990	S5SPST1010
S5SPST1010	SAT & System Commissioning Tests for Sewage Pumping Station	15	31-Mar-24	14-Apr-24	16-May-23	30-May-23	-320	S5SPST1000	S5T1060
THP Cooling Water Transfer Pumping Station		664	23-May-22 A	14-Apr-24	17-Apr-22	15-May-23	-335		
Fabrication, FAT & Delivery of Major Plant & Materials		554	23-May-22 A	26-Dec-23	17-Apr-22	11-Apr-23	-259		
S5TCWP1000	Fabrication & Delivery of THP Cooling Pump	150	23-May-22 A	19-Dec-22	29-Dec-22	26-Feb-23	69	S2P1210, S2D1970, S2D1370	S5TCWC1020
S5TCWP1010	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	17-Apr-22	11-Apr-23	-259		S5TCWC1030
Installation		462	21-Oct-22	25-Jan-24	26-Feb-23	11-May-23	-259		
S5TCWC1000	Access to THP CW Transfer Pumping Station (Impacted by EWN-0314)	1	21-Oct-22*	21-Oct-22	26-Feb-23	26-Feb-23	128		S5TCWC1020
S5TCWC1010	Access to THP CW Transfer Pumping Station (Impacted by EWN-0314-1)	1	31-Oct-22*	31-Oct-22	26-Feb-23	26-Feb-23	118		S5TCWC1020
S5TCWC1020	E&M Installation of THP Cooling Pump	60	20-Dec-22	17-Feb-23	27-Feb-23	27-Apr-23	69	AD1100, S5TCWP1000, S5TCWC1000, S5TCWC1010	S5TCWT1000, PL1210, S5TCWC1030
S5TCWC1030	Installation of SCADA System / Control Monitoring System	30	27-Dec-23	25-Jan-24	12-Apr-23	11-May-23	-259	S5TCWP1010, S5TCWC1020	S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		18	28-Mar-24	14-Apr-24	28-Apr-23	15-May-23	-335		
S5TCWT1000	Ready for Power Energisation	3	28-Mar-24	30-Mar-24	28-Apr-23	30-Apr-23	-335	S5TCWC1020, S5WS2C1110, S5EXAC1030	S5TCWT1010
S5TCWT1010	SAT & System Commissioning Tests for THP Cooling Water Pumping System	15	31-Mar-24	14-Apr-24	01-May-23	15-May-23	-335	S5TCWT1000	S5T1050
Ferric Chloride Dosing Facility		635	14-May-22 A	14-May-24	17-Apr-22	30-May-23	-350		
Fabrication, FAT & Delivery of Major Plant & Materials		495	14-May-22 A	26-Dec-23	17-Apr-22	11-Apr-23	-259		
S5FCDP1010	Fabrication & Delivery of Ferric Chloride Dosing Pump	150	14-May-22 A	10-Dec-22	24-Nov-22	13-Jan-23	34	S5P1040, S2D1980	S5FCDC1030
S5FCDP1000	Fabrication & Delivery of Ferric Chloride Storage Tank	90	21-Oct-22	18-Jan-23	30-Sep-22	28-Dec-22	-21	S5P1030, S2D1980	S5FCDC1020
S5FCDP1020	Fabrication & Delivery of LV Switchboard	120	15-Dec-22*	13-Apr-23	30-Sep-22	27-Jan-23	-76		S5FCDC1030
S5FCDP1030	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	17-Apr-22	11-Apr-23	-259		S5FCDP1040
Installation		462	21-Oct-22	25-Jan-24	28-Dec-22	11-May-23	-259		
S5FCDC1000	Access to Ferric Chloride Dosing Facility (Impacted by EWN-0314)	1	21-Oct-22*	21-Oct-22	28-Dec-22	28-Dec-22	68		S5FCDC1020
S5FCDC1010	Access to Ferric Chloride Dosing Facility (Impacted by EWN-0314-1)	1	21-Oct-22*	21-Oct-22	28-Dec-22	28-Dec-22	68		S5FCDC1020
S5FCDC1020	E&M Installation of Ferric Chloride Storage Tank	45	19-Jan-23	04-Mar-23	29-Dec-22	11-Feb-23	-21	AD1100, S5FCDP1000, S5FCDC1000, S5FCDC1010	S5FCDC1030, S5S1280
S5FCDC1030	E&M Installation of Ferric Chloride Dosing Pump	45	14-Apr-23	28-May-23	28-Jan-23	13-Mar-23	-76	AD1100, S5FCDC1020, S5FCDP1010, S5FCDP1020	S5FCDT1000, S5FCDT0990, PL1210, S5FCDP1040
S5FCDP1040	Installation of SCADA System / Control Monitoring System	30	27-Dec-23	25-Jan-24	12-Apr-23	11-May-23	-259	S5FCDP1030, S5FCDC1030	S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		352	29-May-23	14-May-24	14-Mar-23	30-May-23	-350		
S5FCDT0990	SAT of Switchboard	30	29-May-23	27-Jun-23	14-Mar-23	12-Apr-23	-76	S5FCDC1030	S5FCDT1000



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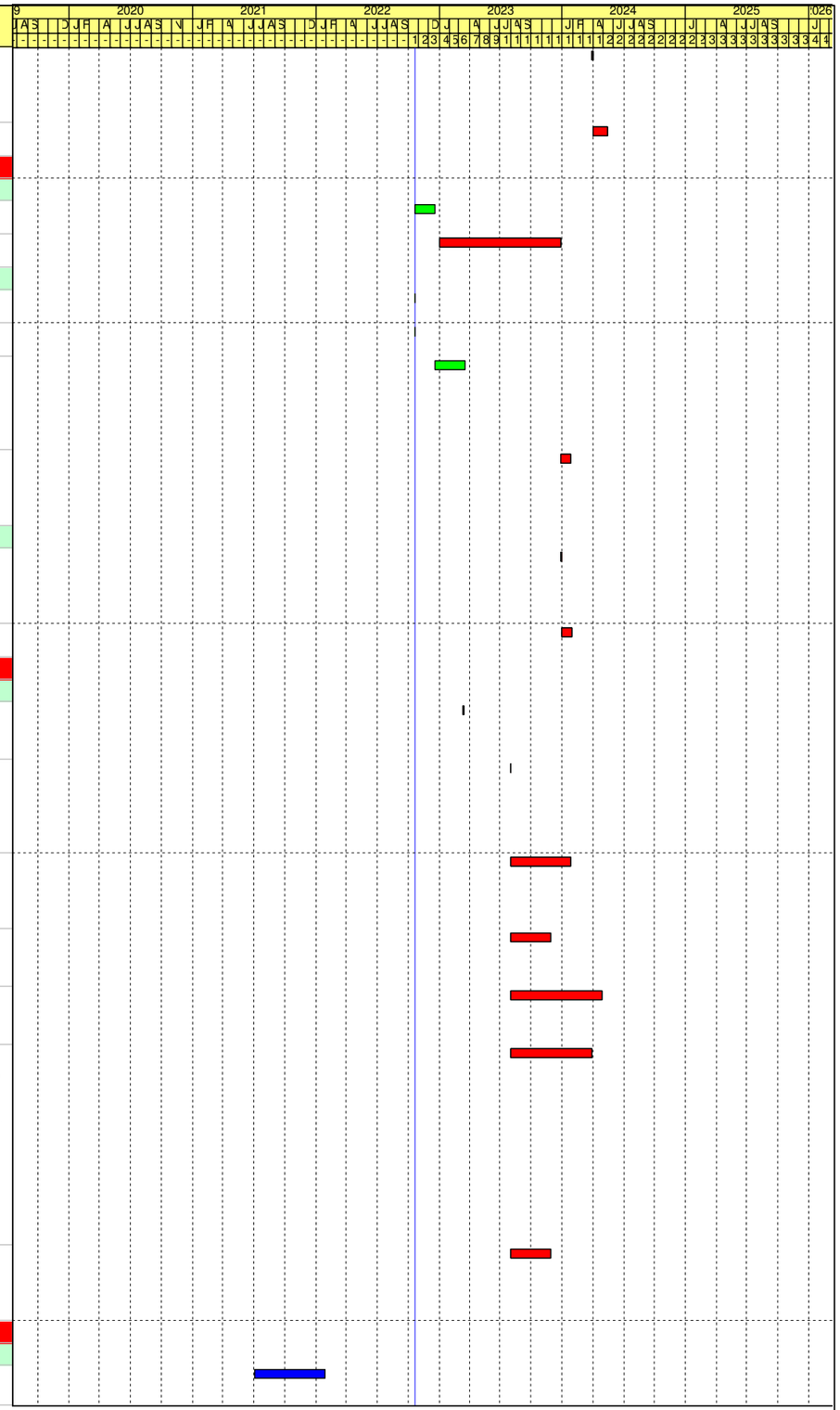
S5FCDT1000	Ready for Power Energisation	3	28-Mar-24	30-Mar-24	13-Apr-23	15-Apr-23	-350	S5FCDC1030, S5WS2C1110, S5EXAC1030, S5FCDT0990	S5FCDT1010
S5FCDT1010	SAT & System Commissioning Tests for FeCl3 Dosing Facility	45	31-Mar-24	14-May-24	16-Apr-23	30-May-23	-350	S5FCDT1000	S5T1080
Fire Hydrant and Booster Pump Room		465	21-Oct-22	28-Jan-24	17-Apr-22	30-Nov-23	-59		
Fabrication, FAT & Delivery of Major Plant & Materials		432	21-Oct-22	26-Dec-23	17-Apr-22	11-Apr-23	-259		
S5SHPP1000	Fabrication & Delivery of Fire Hydrant and Booster Pump	60	21-Oct-22*	19-Dec-22	13-Dec-22	10-Feb-23	53		S5SHPC1020
S5SHPP1010	Delivery of Control & Monitoring System / SCADA System	360	01-Jan-23*	26-Dec-23	17-Apr-22	11-Apr-23	-259		S5SHPC1030
Installation		462	21-Oct-22	25-Jan-24	10-Feb-23	11-May-23	-259		
S5SHPC1000	Access to Fire Hydrant and Booster Pump Room (Impacted by EWN-0314)	1	21-Oct-22*	21-Oct-22	10-Feb-23	10-Feb-23	112		S5SHPC1020
S5SHPC1010	Access to Fire Hydrant and Booster Pump Room (Impacted by EWN-0314-1)	1	21-Oct-22*	21-Oct-22	10-Feb-23	10-Feb-23	112		S5SHPC1020
S5SHPC1020	Fire Hydrant and Booster Pump Room Installation	90	20-Dec-22	19-Mar-23	11-Feb-23	11-May-23	53	S5S1120, AD1100, S5SHPC1000, S5SHPC1010, S5SHPP1000	S5S1130, S5SHPT1000, PL1210, S5SHPC1030
S5SHPC1030	Installation of SCADA System / Control Monitoring System	30	27-Dec-23	25-Jan-24	12-Apr-23	11-May-23	-259	S5SHPP1010, S5SHPC1020	S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		33	27-Dec-23	28-Jan-24	29-Oct-23	30-Nov-23	-59		
S5SHPT1000	Ready for Power Energisation	3	27-Dec-23	29-Dec-23	29-Oct-23	31-Oct-23	-59	S5SHPC1020, S5WS2C1130, S5EXAC1040, S5TXRT1010	S5SHPT1010
S5SHPT1010	SAT for Fire Hydrant and Booster Pump	30	30-Dec-23	28-Jan-24	01-Nov-23	30-Nov-23	-59	S5SHPT1000	S5S1220
External Area		410	14-Mar-23	26-Apr-24	15-Aug-22	06-Nov-23	-172		
Installation		410	14-Mar-23	26-Apr-24	15-Aug-22	06-Nov-23	-172		
S5EXAC1000	Access to Other Peripheral Systems (Impacted by EWN-0314)	1	14-Mar-23*	14-Mar-23	18-Aug-22	18-Aug-22	-208		S5EXAC1020, S5EXAC1050, S5EXAC1060
S5EXAC1010	Access to Other Peripheral Systems (Impacted by EWN-0314-1)	1	31-Jul-23*	31-Jul-23	15-Aug-22	15-Aug-22	-350		S5EXAC1020, S5EXAC1050, S5EXAC1060, S5EXAC1030, S5EXAC1040
S5EXAC1050	Road Lighting Installation	180	01-Aug-23	27-Jan-24	11-May-23	06-Nov-23	-82	AD1100, S5EXAC1000, S5EXAC1010, S5P1050	S5S1220, PL1210
S5EXAC1060	Landscape Lighting Installation	120	01-Aug-23*	28-Nov-23	10-Jul-23	06-Nov-23	-22	S5EXAC1000, S5EXAC1010, S5P1050	S5S1220, PL1210
S5EXAC1020	E&M Installation of Pipe Trench No.1, No.2 & No.3	270	01-Aug-23	26-Apr-24	19-Aug-22	15-May-23	-347	AD1100, S5EXAC1000, S5EXAC1010	S5T1050, PL1210
S5EXAC1030	Cable Laying from CHP to related Building / Area	240	01-Aug-23	27-Mar-24	16-Aug-22	12-Apr-23	-350	S5EXAC1010, S5P1050	S5FCDT1000, S5TCWT1000, S5SPST1000, S5DOUT1010, S5WGBT1000, S5H2ST1000, S5THPT1000, S5BIOT1000, S5WS2T1010, S5DIGT1010, PL1210
S5EXAC1040	Cable Laying from TX & SW Room to related Building / Area	120	01-Aug-23	28-Nov-23	14-Dec-22	12-Apr-23	-230	S5EXAC1010, S5P1050	S5SHPT1000, S5DOUT1000, S5PSWT1000, PL1210
SAS Pumping Station		796	04-Jul-21 A	25-Nov-23	17-Apr-22	15-May-25	537		
Fabrication, FAT & Delivery of Major Plant & Materials		766	04-Jul-21 A	26-Oct-23	17-Apr-22	15-May-25	567		
S5SASP1010	Fabrication & Delivery of Stoplog	270	04-Jul-21 A	27-Jan-22 A	12-Mar-23	12-Mar-23		S2P1160	S5SASC1010



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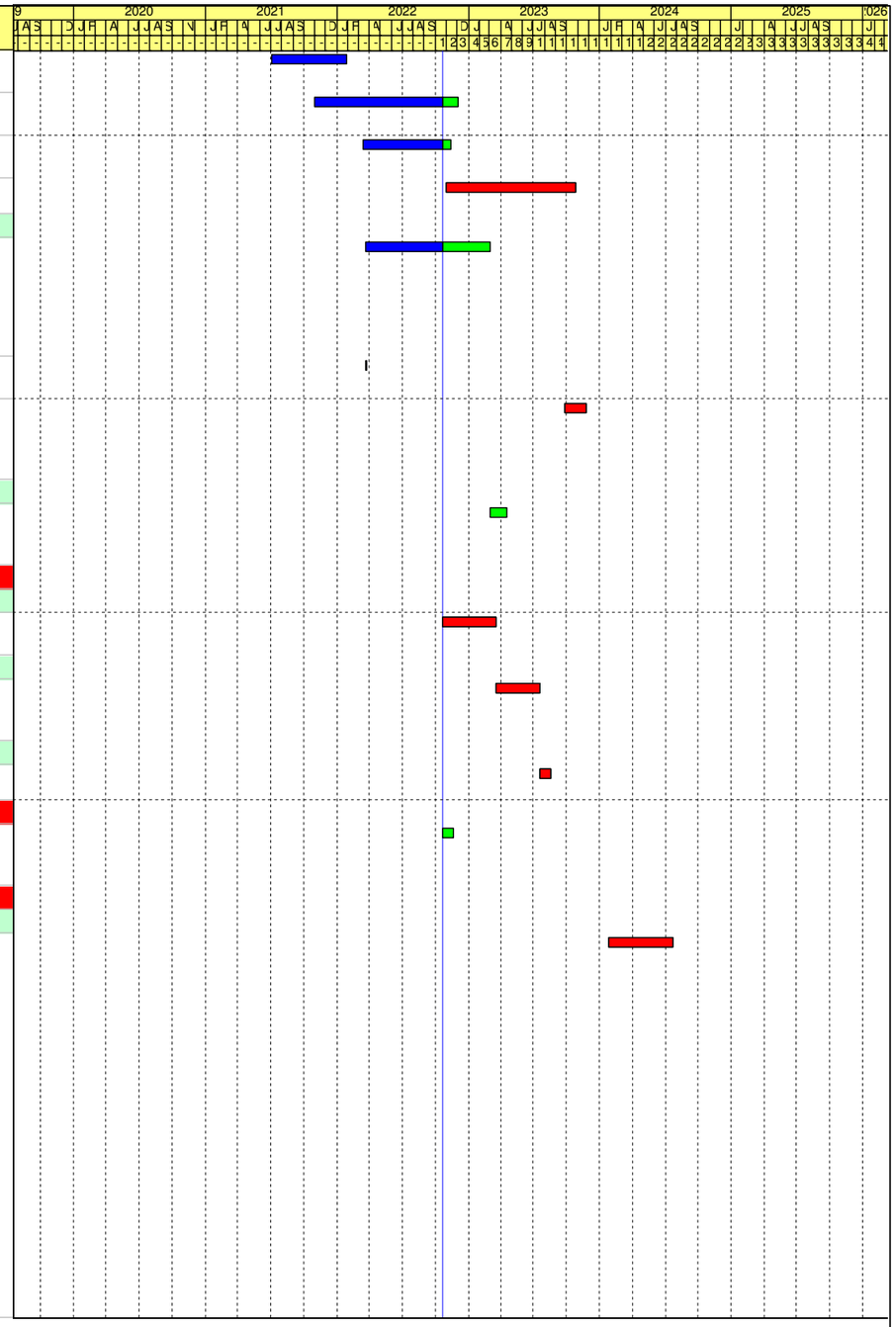
S5SASP1020	Fabrication & Delivery of Penstock	270	04-Jul-21 A	27-Jan-22 A	12-Mar-23	12-Mar-23		S2P1170	S5SASC1010
S5SASP1030	Fabrication & Delivery of Lifting Appliances	309	30-Oct-21 A	04-Dec-22	01-Apr-25	15-May-25	893		
S5SASP1000	Fabrication & Delivery of SAS Pumping System	120	16-Mar-22 A	12-Nov-22	18-Feb-23	12-Mar-23	120	S2P1100, S2D1770	S5SASC1010
S5SASP1040	Delivery of Control & Monitoring System / SCADA System	360	01-Nov-22*	26-Oct-23	17-Apr-22	11-Apr-23	-198		S5SASC1020
Installation		523	23-Mar-22 A	25-Nov-23	31-Oct-22	11-May-23	-198		
S5SASC1010	E&M Installation of SAS Pumping System	210	23-Mar-22 A	02-Mar-23	31-Oct-22	12-Mar-23	10	AD1160, S5SASP1000, CE0219b, S5SASP1010, S5SASP1020, S5SASC1000	S5SAST1000, PL1210, S5SASC1020
S5SASC1000	Access to SAS Pumping Station (Impacted by NCE-NCE-219)	1	23-Mar-22 A	23-Mar-22 A	31-Oct-22	31-Oct-22		AD1160	S5SASC1010
S5SASC1020	Installation of SCADA System / Control Monitoring System	60	27-Sep-23	25-Nov-23	13-Mar-23	11-May-23	-198	S5SASP1040, S5SASC1010	S5T1000, S5T1010, S5T1020, S5T1030
Testing and Commissioning		45	03-Mar-23	16-Apr-23	16-Apr-23	30-May-23	44		
S5SAST1000	SAT & System Commissioning Tests for SAS Pumping Station	45	03-Mar-23	16-Apr-23	16-Apr-23	30-May-23	44	S5SASC1010	S5T1110, S5T1120, S5T1060
Existing Consolidation House		300	21-Oct-22	16-Aug-23	05-Jul-22	30-Apr-23	-108		
Fabrication, FAT & Delivery of Major Plant & Materials		150	21-Oct-22	19-Mar-23	05-Jul-22	01-Dec-22	-108		
S5ECHP1000	Fabrication & Delivery of Temporary Primary Sludge Pump	150	21-Oct-22	19-Mar-23	05-Jul-22	01-Dec-22	-108	S2P1220, S2D1990	S5ECHC1000
Installation		120	20-Mar-23	17-Jul-23	02-Dec-22	31-Mar-23	-108		
S5ECHC1000	E&M Installation of Existing Consolidation House	120	20-Mar-23	17-Jul-23	02-Dec-22	31-Mar-23	-108	CE0219d, S5ECHP1000	S5T1060, S5ECHT1000, PL1210
Testing and Commissioning		30	18-Jul-23	16-Aug-23	01-Apr-23	30-Apr-23	-108		
S5ECHT1000	SAT for Temporary Primary Sludge Pump	30	18-Jul-23	16-Aug-23	01-Apr-23	30-Apr-23	-108	S5ECHC1000	S5T1060
Miscellaneous		30	21-Oct-22	19-Nov-22	17-Mar-23	15-Apr-23	147		
S5UVPC1000	E&M Installation of Lift-up Pumps & Associated Pipeworks / Valves	30	21-Oct-22	19-Nov-22	17-Mar-23	15-Apr-23	147	S4C1030, S4P1080, S4T1020	S5PSWT1010, PL1210
Testing & Commissioning		450	26-Jan-24	19-Apr-25	01-May-23	04-May-24	-350		
T&C of Control Monitoring System		270	26-Jan-24	21-Oct-24	12-May-23	05-Feb-24	-259		
S5T1000	SAT of SCADA System	180	26-Jan-24	23-Jul-24	12-May-23	07-Nov-23	-259	S5TXRC1050, S5WS2C1180, S5CHPC1120, S5CHPC1250, S5TXRC1050, S5DIGC1270, S5BIOC1060, S5THPC1050, S5SPSC1020, S5BIOC1050, S5THPC1040, S5H2SC1030, S5WGBC1030, S5PSWC1010, S5DOUC1050, S5SPSC1010, S5TCWC1030, S5FCDP1040, S5SHPC1030, S5SASC1020	S5T1040



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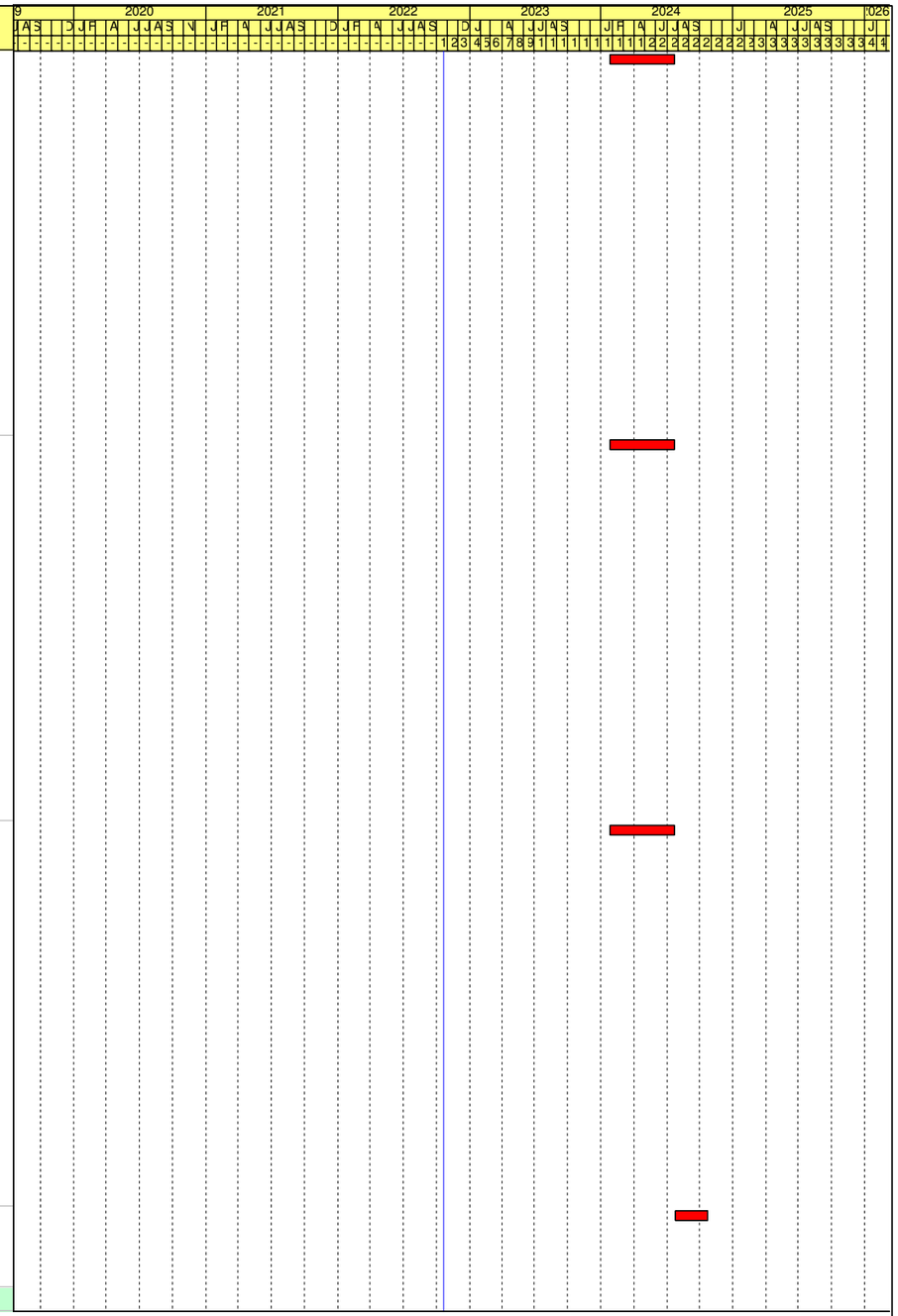
S5T1010	SAT of PMS	180	26-Jan-24	23-Jul-24	12-May-23	07-Nov-23	-259	S5TXRC1050, S5WS2C1180, S5CHPC1120, S5CHPC1250, S5TXRC1050, S5DIGC1270, S5BIOC1060, S5THPC1050, S5SPSC1020, S5BIOC1050, S5THPC1040, S5H2SC1030, S5WGBC1030, S5PSWC1010, S5DOUC1050, S5SPSC1010, S5TCWC1030, S5FCDP1040, S5SHPC1030, S5SASC1020	S5T1040
S5T1020	SAT of CMMS	180	26-Jan-24	23-Jul-24	12-May-23	07-Nov-23	-259	S5TXRC1050, S5WS2C1180, S5CHPC1120, S5CHPC1250, S5TXRC1050, S5DIGC1270, S5BIOC1060, S5THPC1050, S5SPSC1020, S5BIOC1050, S5THPC1040, S5H2SC1030, S5WGBC1030, S5PSWC1010, S5DOUC1050, S5SPSC1010, S5TCWC1030, S5FCDP1040, S5SHPC1030, S5SASC1020	S5T1040
S5T1030	SAT of IDMS	180	26-Jan-24	23-Jul-24	12-May-23	07-Nov-23	-259	S5TXRC1050, S5WS2C1180, S5CHPC1120, S5CHPC1250, S5TXRC1050, S5DIGC1270, S5BIOC1060, S5THPC1050, S5SPSC1020, S5BIOC1050, S5THPC1040, S5H2SC1030, S5WGBC1030, S5PSWC1010, S5DOUC1050, S5SPSC1010, S5TCWC1030, S5FCDP1040, S5SHPC1030, S5SASC1020	S5T1040
S5T1040	Overall Testing for Whole System	90	24-Jul-24	21-Oct-24	08-Nov-23	05-Feb-24	-259	S5T1000, S5T1010, S5T1020, S5T1030	SC51110, S5T1140
T&C of E&M Process		400	16-Mar-24	19-Apr-25	01-May-23	04-May-24	-350		



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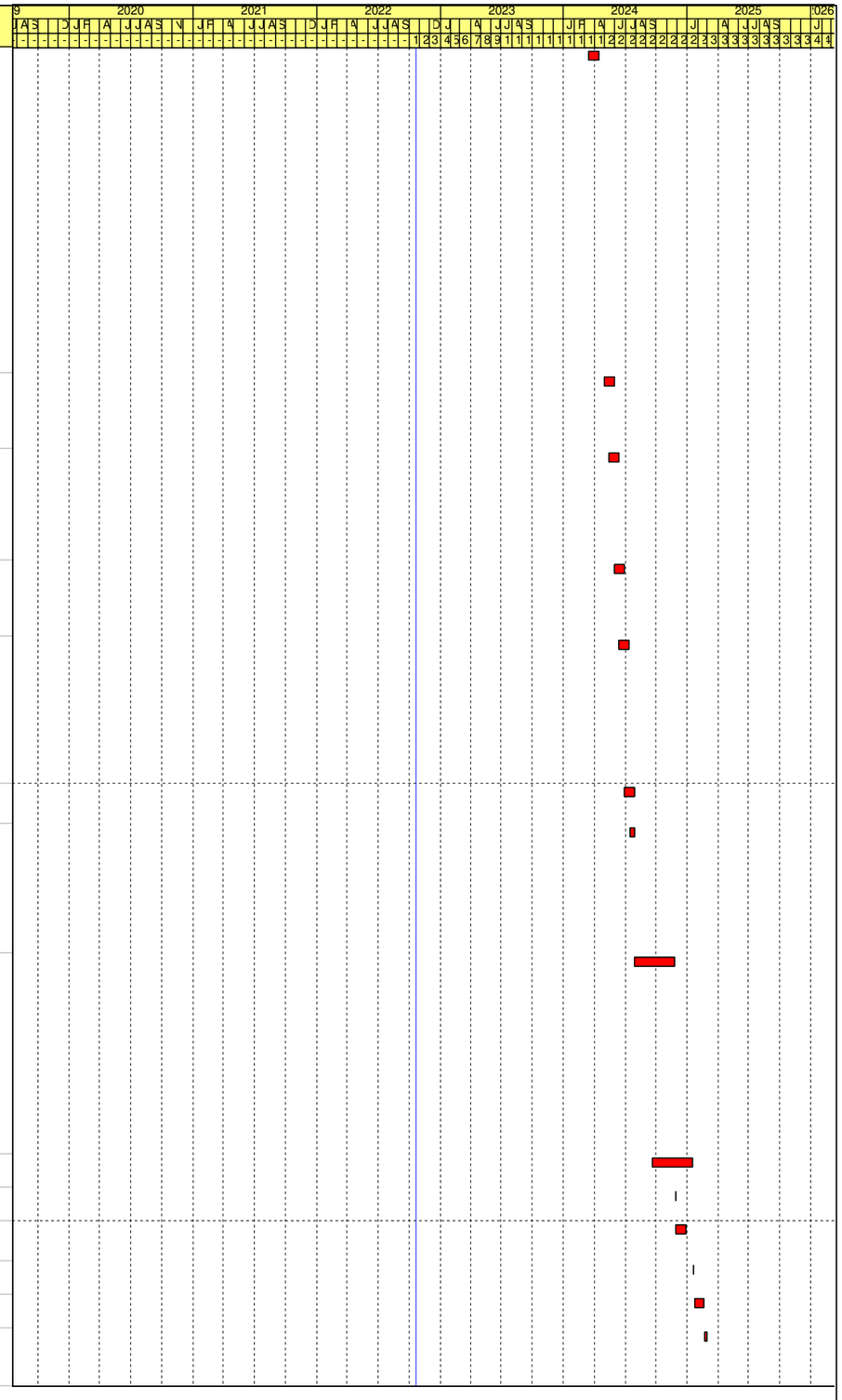
S5T1060	System Commissioning Tests for Sludge Dewatering System	30	16-Mar-24	14-Apr-24	01-May-23	30-May-23	-320	S5ECHC1000, S5DOUT1020, S5SPST1010, S5PSWT1010, S5SAST1000, S5ECHT1000, S5SDBT1180, S5SDBT1032, S5SDBT1070, S5SDBT1181, S5SDBT1160, S5SDBT1058, S5SDBT1045, S5SDBT1170, S5SDBT1068, S5SDBT1100, S5SDBC1870, S5SDBC1860	S5T1120, S5T1110, PL1520, S5T1050
S5T1050	System Commissioning Tests for THP System	30	30-Apr-24	29-May-24	16-May-23	14-Jun-23	-350	S5THPT1010, S5EXAC1020, S5T1060, S5TCWT1010	S5T1120, S5T1080, S5T1110
S5T1080	System Commissioning Tests for Sludge Digestion System	30	15-May-24	13-Jun-24	31-May-23	29-Jun-23	-350	S5DIGT1020, S5T1050, S5DIGC1270, S5H2ST1010, S5DOUT1030, S5FCDT1010	S5T1120, S5T1110, S5T1070
S5T1070	System Commissioning Tests for Biogas Storage System	30	30-May-24	28-Jun-24	15-Jun-23	14-Jul-23	-350	S5BIOT1010, S5T1080	S5T1120, S5T1110, S5S1070, S5T1100
S5T1100	System Commissioning Tests for CHP System	30	14-Jun-24	13-Jul-24	30-Jun-23	29-Jul-23	-350	S5CHPT1030, S5S1310, S5CHPC1120, S5CHPT1000, S5CHPC1250, S5CHPT1040, S5CHPT1050, S5T1070	S5T1120, S5T1110, PL1560, S5T1090
S5T1090	System Commissioning Tests for Gas Burning System	30	29-Jun-24	28-Jul-24	15-Jul-23	13-Aug-23	-350	S5WGBT1010, S5T1100	S5T1120, S5T1110
S5T1110	Seeding	14	15-Jul-24	28-Jul-24	31-Jul-23	13-Aug-23	-350	S5T1090, S5T1070, S5T1080, S5T1100, S5T1060, S5T1050, S5SAST1000	S5T1120
S5T1120	Process Start Up - Digester 1	120	29-Jul-24	25-Nov-24	14-Aug-23	11-Dec-23	-350	S5T1090, S5T1070, S5T1080, S5T1100, S5T1060, S5T1050, S5T1110, S5S1080, S5TXRC1050, S5SAST1000, S3T1120	S5T1150, S5T1130, S3T1130
S5T1150	Process Start Up - Digester 2	120	20-Sep-24	17-Jan-25	06-Oct-23	02-Feb-24	-350	S5T1120	S5T1160
S5T1130	Notice to Commence Phase 1 System Commissioning - Digester 1	3	26-Nov-24	28-Nov-24	03-Feb-24	05-Feb-24	-297	S5T1120	S5T1140
S5T1140	Phase 1 System Commissioning - Digester 1	30	29-Nov-24	28-Dec-24	06-Feb-24	06-Mar-24	-297	S5T1130, S5T1040	S5T1180
S5T1160	Notice to Commence Phase 1 System Commissioning - Digester 2	3	18-Jan-25	20-Jan-25	03-Feb-24	05-Feb-24	-350	S5T1150	S5T1170
S5T1170	Phase 1 System Commissioning - Digester 2	30	21-Jan-25	19-Feb-25	06-Feb-24	06-Mar-24	-350	S5T1160	S5T1180
S5T1180	Phase 2 System Commissioning - Digester 1 & 2	7	20-Feb-25	26-Feb-25	07-Mar-24	13-Mar-24	-350	S5T1170, S5T1140	S5T1190, PL1310, S3T1180



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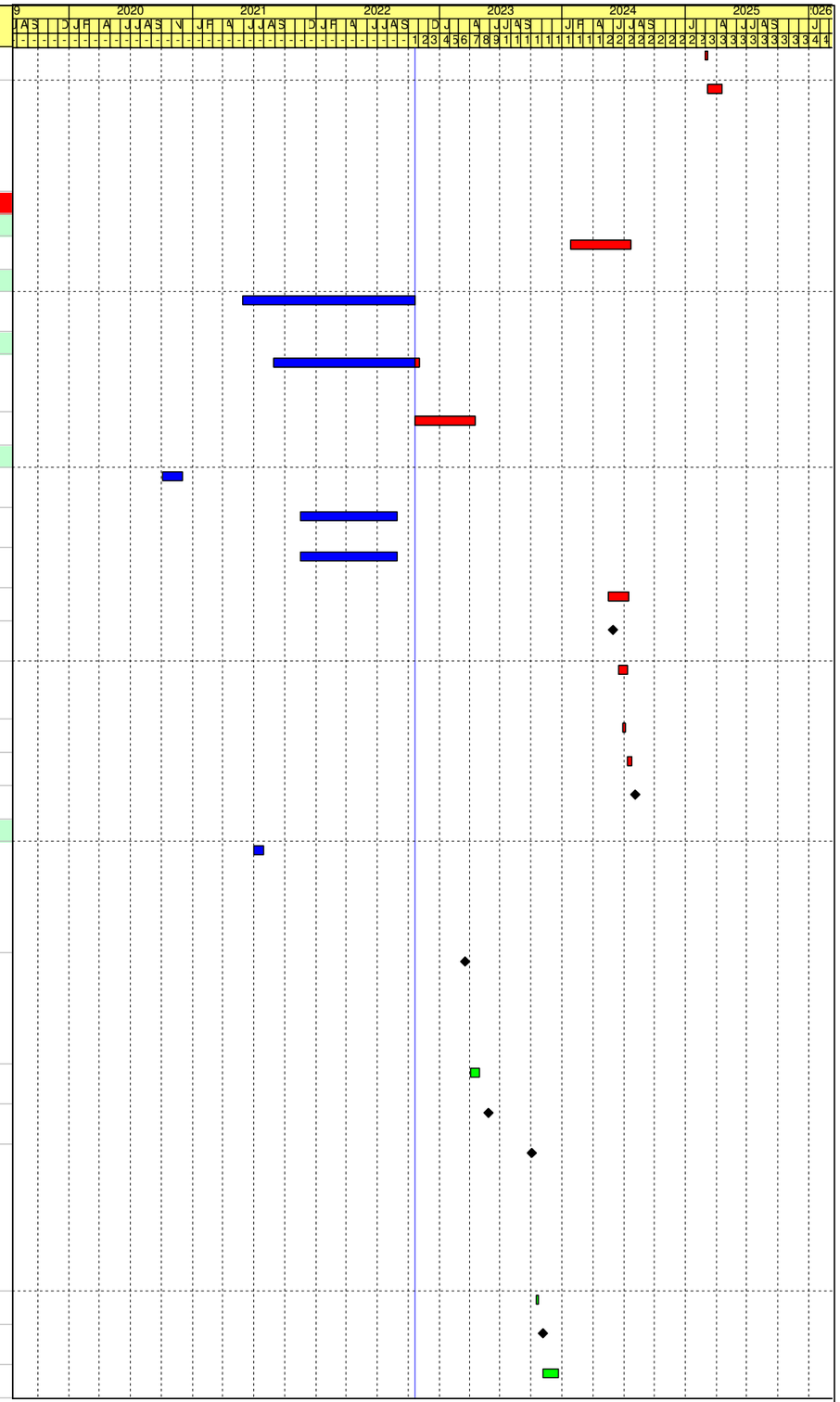
S5T1190	Notice to Commence Plant Commissioning	7	27-Feb-25	05-Mar-25	14-Mar-24	20-Mar-24	-350	S5T1180	S5T1200
S5T1200	Plant Commissioning Tests	45	06-Mar-25	19-Apr-25	21-Mar-24	04-May-24	-350	S5T1190, S5S1020, S5TXRC1050, S5WS2C1180, S5S1150, S3T1160	SC51110
Statutory Submission / Inspection		1185	03-Oct-20 A	04-Aug-24	20-May-22	16-May-24	-80		
HKT Submission		180	26-Jan-24	23-Jul-24	07-Nov-23	04-May-24	-80		
S5S0990	Application of Telemetry Lines for Workshop No. 2.	180	26-Jan-24	23-Jul-24	07-Nov-23	04-May-24	-80	S5WS2C1180	SC51110
CLP Submission		275	30-May-21 A	21-Oct-22	11-Jan-23	11-Jan-23	82		
S5S1000	Submission & Approval of Electrical Schematic Wiring Diagram to CLP	275	30-May-21 A	21-Oct-22	11-Jan-23	11-Jan-23	82		S5WS2C1040
EPD Submission / Inspection		599	28-Aug-21 A	18-Apr-23	20-May-22	17-Nov-22	-152		
S5S1020	EPD Submission & Approval for Air Pollution Control - CHP & Burner	180	28-Aug-21 A	05-Nov-22	20-May-22	04-Jun-22	-154	S2D1610	S5T1200, S5THPC1020, S5CHPC1020
S5S1010	EPD Submission & Approval for Air Pollution Control - Genset	180	21-Oct-22	18-Apr-23	22-May-22	17-Nov-22	-152	S2D1860	S5SDBC1500
EMSD Submission / Inspection		1185	03-Oct-20 A	04-Aug-24	01-Jun-22	16-May-24	-80		
S5S1030	BEEO Stage one: Submit EE1 & EE-SU to EMSD	60	03-Oct-20 A	02-Dec-20 A	02-Sep-22	02-Sep-22		S2D1890	S5WS2C1000
S5S1060	Application for Construction Approval of Notifiable Gas Installation (Form 104)	180	15-Nov-21 A	30-Aug-22 A	01-Jun-22	01-Jun-22		S2D1070, S5S1050	S5S1070, S5BIOC1020
S5S1050	Application & Approval of the Zone Classification of Hazardous Area - including Fire Risk Assessment Report	180	15-Nov-21 A	30-Aug-22 A	01-Jun-22	01-Jun-22		S2D1070	S5S1070, S5S1060
S5S1040	BEEO Stage two: Submit EE2 & EE-SU to EMSD	60	16-May-24	14-Jul-24	18-Mar-24	16-May-24	-59	S5S1250	SC51120
S5S1090	Form 5 Submission to EMSD - Lift Installation	0	30-May-24		28-Feb-24		-92	S5WS2T1020, S5SDBT1110	S5S1100
S5S1070	Application for Approval of Use of Notifiable Gas Installation (Form 105)	28	15-Jun-24	12-Jul-24	03-Jul-23	30-Jul-23	-348	S5S1060, S5T1070, S5S1050	S5S1080
S5S1100	EMSD Inspection - Lift Installation	7	29-Jun-24	05-Jul-24	29-Mar-24	04-Apr-24	-92	S5S1090	S5S1110
S5S1080	EMSD Inspection - Gas Holding Tanks	14	13-Jul-24	26-Jul-24	31-Jul-23	13-Aug-23	-348	S5S1070	S5T1120
S5S1110	Issuance of Form 6 - Lift Installation	0		04-Aug-24		04-May-24	-92	S5S1100	SC51110
WSD Submission / Inspection		917	01-Jul-21 A	03-Jan-24	11-Feb-23	04-May-24	122		
S5S1120	Submit WWO46 Part I / II to WSD (FS/PD)	30	01-Jul-21 A	30-Jul-21 A	11-Feb-23	11-Feb-23		S2D1910, S2D1860, S2D1870, S2D1880, S2D1890, S2D1900	S5S1130, S5WS2C1140, S5SHPC1020, S5DIGC1300, S5WS2C1170
S5S1130	Submit WWO46 Part IV to WSD (FS)	0	20-Mar-23		22-Sep-23		186	S5S1120, S5WS2C1140, S5SHPC1020, S5SDBC1352, S5SDBC1152, S5SDBC1052	S5S1140, S5S1150
S5S1140	WSD Inspection (FS)	28	03-Apr-23	30-Apr-23	06-Oct-23	02-Nov-23	186	S5S1130	S5S1250, S5S1150
S5S1150	Issuance of FS Water Certificate	0		28-May-23		30-Nov-23	186	S5S1130, S5S1140	S5T1200, S5S1220
S5S1160	Submit WWO46 Part IV to WSD (PD)	0	02-Oct-23		01-Feb-24		122	S5THPC1050, S5BIOC1060, S5SPSC1020, S5CHPC1240, S5CHPC1110, S5DIGC1300, S5WS2C1170, S5SDBT1150	S5S1170
S5S1170	WSD Inspection	7	16-Oct-23	22-Oct-23	15-Feb-24	21-Feb-24	122	S5S1160	S5S1180
S5S1180	Issuance of Form WWO46 Part Va	0		05-Nov-23		06-Mar-24	122	S5S1170	S5S1200, S5S1190
S5S1190	System Flushing / Sampling	45	06-Nov-23	20-Dec-23	07-Mar-24	20-Apr-24	122	S5S1180	S5S1200

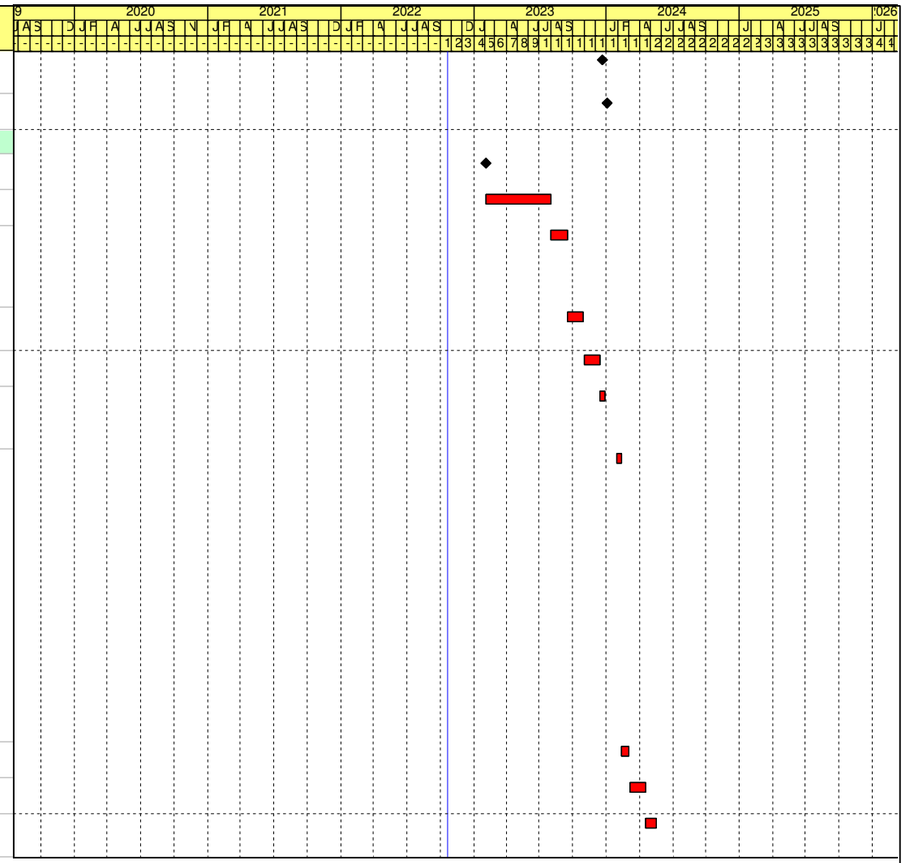


Remaining Work
Critical Activity
Milestone
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Oct 2022

Date	Revision	Checked	Approved
30-Jun-22	Rev.23	LT	KM
31-Jul-22	Rev.24	LT	KM
31-Aug-22	Rev.25	LT	KM
30-Sep-22	Rev.26	LT	KM
31-Oct-22	Rev.27	LT	KM

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Late Start	Late Finish	Total Float	Predecessors	Successors
S5S1200	Issuance of Form WWO46 Part Vb	0		20-Dec-23		20-Apr-24	122	S5S1180, S5S1190	S5S1210
S5S1210	Issuance of Water Certificate	0		03-Jan-24		04-May-24	122	S5S1200	SC51110
FSD Submission / Inspection		468	03-Feb-23	15-May-24	04-Sep-22	17-Mar-24	-59		
S5S1260	Application of D.G. Licence	0	03-Feb-23		04-Sep-22		-152	S2D1860	S5S1270
S5S1270	Processing of D.G. Licence Application	180	03-Feb-23	01-Aug-23	04-Sep-22	02-Mar-23	-152	S5S1260	S5S1280
S5S1280	Apply for D.G. Inspection	45	02-Aug-23	15-Sep-23	03-Mar-23	16-Apr-23	-152	S5S1270, S5CHPC1150, S5FCDC1020, S5SDBT1078	S5S1310, S5S1290
S5S1290	D.G. Inspection, Defects Rectification & Re-inspection (Ventilation Division)	45	16-Sep-23	30-Oct-23	17-Apr-23	31-May-23	-152	S5S1280	S5S1310, S5S1300
S5S1300	D.G. Inspection, Defects Rectification & Re-inspection (DG Division)	45	31-Oct-23	14-Dec-23	01-Jun-23	15-Jul-23	-152	S5S1290	S5S1310
S5S1310	Issue D.G. Licence	14	15-Dec-23	28-Dec-23	16-Jul-23	29-Jul-23	-152	S5S1290, S5S1300, S5S1280	S5S1220, S5T1100
S5S1220	Prepare & Submit FSI/314 & FSI/501	14	29-Jan-24	11-Feb-24	01-Dec-23	14-Dec-23	-59	S5WS2C1150, S5S1310, S5S1150, S5EXAC1050, S5EXAC1060, S5CHPC1080, S5CHPC1090, S5CHPC1210, S5CHPC1220, S5DIGC1280, S5DIGC1290, S5SHPT1010, S5SDBT1048, S5SDBT1130, S5SDBT1140	S5S1230
S5S1230	FSD Review & Approval of FSI/314 & FSI/501	21	12-Feb-24	03-Mar-24	15-Dec-23	04-Jan-24	-59	S5S1220	S5S1240
S5S1240	F.S. Inspection, Defects Rectification & Re-inspection	45	04-Mar-24	17-Apr-24	05-Jan-24	18-Feb-24	-59	S5S1230	S5S1250
S5S1250	Issuance of Acceptance Letter	28	18-Apr-24	15-May-24	19-Feb-24	17-Mar-24	-59	S5S1240, S5S1140	SC51110, S5S1040



Remaining Work
Critical Activity
Milestone
Actual Progress

Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities
Revised Programme - as at 20 Oct 2022

Date	Revision	Checked	Approved
30-Jun-22	Rev.23	LT	KM
31-Jul-22	Rev.24	LT	KM
31-Aug-22	Rev.25	LT	KM
30-Sep-22	Rev.26	LT	KM
31-Oct-22	Rev.27	LT	KM

Contract No. DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1
- E&M Works for Sewage Treatment Facilities
3 Month Rolling Programme (From 01/11/2022 to 01/02/2023)

Updated on: **20-Nov-22**

Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
Drawing Submisssion for Key Dates												
KD1A: Submission of civil and dimensional requirement drawing, electrical schematic drawings, etc. from formation level up to +8mPD in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1A: Submission of Civil Requirement Drawing (Final)	8/28/2020	9/18/2020	11/5/2020	11/5/2020	Task Completed	no.	26	26	100%		
	KD1A: Submission of Electrical Schematic Drawing (Final)	7/15/2020	7/15/2020	11/5/2020	11/5/2020	Task Completed	no.	11	11	100%		
	KD1A: 6 November 2020											
KD1B: Submission of remaining civil and dimenssional requirement drawings, electrical schematic drawing, etc. in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1B: Submission of Civil Requirement Drawing (First Draft)	9/30/2020	9/28/2020	12/30/2020	3/31/2021	Task Completed	no.	47	47	100%		
	KD1B: Submission of Civil Requirement Drawing (Final)	11/6/2020	11/5/2020	6/4/2021	6/4/2021	Task Completed	no.	47	47	100%		All the CWR Drawings were submitted.
	KD1B: 4 June 2021											
KD3A: 04SC010 - Dismantle & Removal of Emergency Generators in existing Power House	Submission of subletting package for acceptance (C9)	3/1/2020	2/24/2020	3/14/2020	4/22/2020	Task Completed				100%	-	Bestwise resubmitted on 22 April 2020
	Acceptance of subletting package (C9)	3/14/2020	5/6/2020	4/1/2020	5/5/2020	Task Completed				100%	-	AECOM accepted subletting package on 5 May 2020
	Tender invitation (C9)	4/1/2020	5/15/2020	4/15/2020	5/22/2020	Task Completed				100%	-	Invitation to tender was commenced on 12 May 2020 and tender returned on 22 May 2020
	Tender award (C9)	4/15/2020	5/22/2020	4/29/2020	5/26/2020	Task Completed				100%	-	Bestwise submitted tender report on 26 May 2020
	Acceptance of tender award (C9)	-	-	-	6/6/2020	Task Completed				100%	-	AECOM accepted tender report on 2 June 2020, Letter of Acceptance was issued on 6 June
	Dismantle of existing BS equipment		6/15/2020		7/25/2020	Task Completed				100%		
	Removal of emergency generators	6/1/2020	6/15/2020	6/30/2020	7/25/2020	Task Completed				100%		
KD3A: 04SC010 - Dismantle & Removal of Emergency Generators in existing Power House	KD3A: Testing and Comissioning	7/1/2020	7/3/2020	7/29/2020	7/29/2020	Task Completed				100%		First test was conducted on 3 July 2020. Remaining test would be subjected to completion of civil works. KD3A - 29 July 2020. Joint Site Inspection was conducted on 24 July 2020 and Notice of completion of work was submitted on 28 July 2020
	KD3A: 29 July 2020											
	Submission of onsite survey plan on E&M aspects for	3/1/2020	3/25/2020	3/30/2020	4/27/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 27 April 2020
	Acceptance of submission of onsite survey plan	3/1/2020	3/25/2020	3/30/2020	5/22/2020	Task Completed				100%	-	AECOM accepted the onsite survey plan on 22 May 2020. Onsite coordination with ST1
KD3B: 6B.2.15 Operation Restoration of Existing Primary Sedimentation Tank (PST) No. 4 and 6	KD3B: Submission of onsite survey report	7/11/2020	7/20/2020	7/16/2020	7/30/2021	Task Completed				100%	Bestwise	- Onsite survey conducted from 20 July 2020 to 22 July 2020. Bestwise submitted survey report on 5 August 2020. AECOM commented on 19 Aug 2020. Bestwise to resubmit upon conducting the remaining onsite survey. (Done) - Bestwise revised survey plan for remaining onsite checking of PST No. 6 on 1 Sep 2020. After discussion with plant operator, the remaining survey would be conducted after the dismantling work of PSTs. Formal survey record for PST No.4 was submitted on 24 May 2021. - Remaining survey (level of bridge & scraper) for PST 6 completed. - Formal survey report shall be submitted on 30 Jul 2021.
	KD3B: Acceptancce of onsite survey report	7/17/2020	8/6/2020	7/23/2020	8/6/2021	Task Completed				-		Acceptance for the center point, vertical and horizontal alignment of ductfoot installation of PST No.4 shall subject to joint site meeting conducted on 2 June 2021. Refer to E-RISC no. 000014A & 000016 result for details.
	KD3B: Preparation of procurement package (C11)	12/2/2019	8/1/2020	4/13/2020	8/7/2020	Task Completed				100%		
	KD3B: Tender invitation - Clarifier (C11)	12/2/2019	8/14/2020	4/13/2020	8/26/2020	Task Completed				100%		
	KD3B: Tender Award - Clarifier (C11)	12/2/2019	8/26/2020	4/13/2020	9/25/2020	Task Completed				100%		
	KD3B: Acceptance of tender award (C11)	12/2/2019	9/11/2020	4/13/2020	9/18/2020	Task Completed				-		
	KD3B: Tender invitation - DI Pipe (C11)	12/2/2019	1/13/2021	4/13/2020	1/19/2021	Task Completed				100%		
	KD3B: Tender Award - DI Pipe (C11)	12/2/2019	1/21/2021	4/13/2020	1/23/2021	Task Completed				100%		
	KD3B: Tender invitation - LCP (C11)	12/2/2019	2/3/2021	4/13/2020	2/5/2021	Task Completed						
	KD3B: Tender Award - LCP (C11)	12/2/2019	2/6/2021	4/13/2020	2/8/2021	Task Completed				100%		
	KD3B: Preparation of subletting package for dismantling work (C9)	12/2/2019	9/21/2020	4/13/2020	10/21/2020	Task Completed				100%		
	KD3B: Tender invitation for dismantling work (C9)	12/2/2019	11/12/2020	4/13/2020	11/19/2020	Task Completed				100%		
	KD3B: Tender Award for dismantling work (C9)	12/2/2019	11/20/2020	4/13/2020	11/22/2020	Task Completed				100%		
	KD3B: Acceptance of tender award for dismantling work (C9)	12/2/2019	11/23/2020	4/13/2020	12/1/2020	Task Completed				100%		

	KD3B: Preparation and Acceptance of subletting package for installation work (C9)	12/2/2019	12/15/2020	4/13/2020	3/1/2021	Task Completed				100%		
	KD3B: Tender invitation for installation work (C9)	12/2/2019	3/3/2021	4/13/2020	3/10/2021	Task Completed				100%		
	KD3B: Tender Award for installation work (C9)	12/2/2019	3/12/2021	4/13/2020	3/15/2021	Task Completed				100%		
	KD3B: Acceptance of tender award for installation work (C9)	12/2/2019	3/15/2021	4/13/2020	3/19/2021	Task Completed				100%		
	Submission and Acceptance of Drawing Submission	4/14/2020	8/5/2020	9/10/2020	1/11/2021	Task Completed				100%		
	Submission and Acceptance of P&M Submission	4/14/2020	8/5/2020	9/10/2020	6/30/2021	Task Completed						Formal resubmission of P&M for Rotating Bridge Scraper P&M-0024 (Rev.1) was submitted to AECOM on 24 June 2021 and is accepted by AECOM. P&M submission for Local Control Panel Rev.3 was submitted on 20 Mar 2021 and AECOM accepted on 26 Mar 2021.
	Submission and Acceptance of FAT Plan	12/1/2020	1/27/2021	12/15/2020	2/16/2021	Task Completed				100%		
	Submission and Acceptance of SAT Plan	3/1/2021	3/1/2021	4/1/2021	5/5/2021	Task Completed				100%		Bestwise submitted on 13 Apr 2021. AECOM accepted with comments on 5 May 2021.
	Submission and Acceptance of Design Submission (Support to DN700 Feed Pipe)	N/A	2/22/2021	N/A	5/13/2021	Task Completed						Advanced Calculation was provided on 17 Mar 2021 and revised on 18 Mar 2021. Bestwise proposed to use the existing support. Calculation was provided on 1 Apr 2021 via email. Dimension of support column was checked again on 14 Apr 2021. Proposal submitted on 30 Apr 2021. AECOM accepted with comments on 13 May 2021.
	Submission and Acceptance of Design Submission (Stainless steel support to FRP Cover of Effluent	N/A	2/24/2021	N/A	4/19/2021	Task Completed				100%		Advanced Calculation was provided on 17 Mar 2021 and revised on 18 Mar 2021. Bestwise formal submitted on 26 Mar 2021. AECOM accepted with comment on 19 Apr 2021.
	KD3B: Dismantle and Removal of E&M Equipment at PST No. 6	2/9/2021	12/21/2020	2/19/2021	1/15/2021	Task Completed				100%		
	Flow Diversion and drain out PST No.4	N/A	1/25/2021	N/A	3/26/2021	Task Completed				100%		
	KD3B: Dismantle and Removal of E&M Equipment at PST No. 4	2/9/2021	3/5/2021	2/19/2021	4/1/2021	Task Completed				100%		
	KD3B: Material Manufacturing (Clarifier)	9/12/2020	12/16/2020	12/12/2020	2/20/2021	Task Completed				100%		The clarifier would be manufactured in 2 batches (rotating bridge related and FRP launder cover). Manufaturing instruction was issued on 16 Dec 2020. Jash suggested 1st batch of material (clarifier) would be ready for shipping on 20 Feb 2021 and 2nd batch of material (FRP Launder Cover) would be ready for shipping on 13 Mar 2021. (To be confirmed by Jash by providing shipment booking, but supplier cannot provide updated information at thie moment due to second surge of COVID-19 in india)
	KD3B: FAT of the Clarifier	N/A	2/24/2021	N/A	3/1/2021	Task Completed				100%		FAT Report submitted on 24 Feb 2021 and AECOM accepted subject to comment on 1 Mar 2021
	KD3B: Material Delivery (Clarifier)	12/13/2020	2/27/2021	1/18/2021	4/6/2021	Task Completed				100%		
	KD3B: Material Deliver to Site (Clarifier)	N/A	4/6/2021	N/A	4/8/2021	Task Completed				100%		
	KD3B: Material Manufacturing (DI pipes and fittings)	9/11/2020	1/26/2021	1/18/2021	3/15/2021	Task Completed				100%		Extracted from C9 package to C11 package to suit the installation programme
	KD3B: Material Delivery (DI pipes and fittings)	9/11/2020	3/16/2021	1/18/2021	3/24/2021	Task Completed				100%		
	KD3B: Material Delivery (FRP Cover)	N/A	3/26/2021	N/A	6/21/2021	Task Completed				100%		All the FRP covers were delivered to site.
	KD3B: Material Manufacturing (LCP)	9/11/2020	3/4/2021	1/18/2021	4/16/2021	Task Completed				100%		
	KD3B: Material Delivery (LCP)	9/11/2020	4/17/2021	1/18/2021	4/30/2021	Task Completed				100%		
	KD3B: Retrofitting Concrete Structure of PST No. 4	N/A	4/2/2021	N/A	4/22/2021	Task Completed				100%		
	KD3B: Installation of E&M Equipment at PST No. 4	2/27/2021	4/5/2021	5/10/2021	5/17/2021	Task Completed						
	KD3B: Testing and Comisssioning for PST No. 4	5/11/2021	4/19/2021	6/9/2021	7/26/2021	Task Completed						Wet test for PST 4 completed on 26 July 2021.
	Flow Diversion from PST No.6 to Temporary Filtrate Equalization Tank	N/A	5/19/2021	N/A	5/20/2021	Task Completed				100%		Filtrate feeding to TFES was resumed on 19/5/2021 with fine-tuned control.
	Removal of Accumulated Sludge Inside PST No. 6	N/A	5/19/2021	N/A	5/30/2021	Task Completed				100%		NCE-0229, this includes removal of floating scum/ sludge and clearance of blockage of drain pipe
	KD3B: Retrofitting Concrete Structure of PST No. 6	N/A	5/28/2021	N/A	6/24/2021	Task Completed				100%		
	KD3B: Mechanical Installation of E&M Equipment at PST No. 6	2/27/2021	5/31/2021	5/10/2021	7/21/2021	Task Completed				100%		This includes PST Influent feed pipe, center bearing & slip ring assembly, motor & gearbox assembly, rotating bridge sludge & scum scraper assembly, circular baffle diffuser box, v-notched weir plate, scum baffle plate, scum collection box and FRP cover.
	KD3B: Electrical Installation of E&M Equipment at PST No. 6	2/27/2021	6/9/2021	5/10/2021	7/21/2021	Task Completed				100%		This includes installation of LCP, cable laying & terminations.
	KD3B: Testing and Comisssioning for PST No. 6	5/11/2021	6/22/2021	6/9/2021	8/20/2021	Task Completed				100%		Wet test (1st) completed on 20 Aug 2021 and wet test (2nd) completed on 3 Sep 2021.
KD3B: 6B.2.15 Operation Restoration of Existing Primary Sedimentation Tank (PST) No. 4 and 6	KD3B: System Commissioning for PST No. 4 & 6	N/A	6/22/2021	N/A	9/3/2021	Task Completed				100%		Wet test (2nd) for PST#6 completed on 3 Sep 2021 and pre-handover inspection arranged on 30 Aug 2021. Defect list (final) received on 17 Sep 2021 and defect rectification was completed. Site training/ demonstration shall be conducted by end Feb and PMI modification work shall be completed by end March.
	KD3B: 9 June 2021											
Section 1 of Works (outstanding works list)												

6B.2.12 Provision of New Replacement Filter Plates	Submission of onsite survey plan for acceptance	3/1/2020	3/25/2020	3/30/2020	4/21/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 21 April 2020
	Acceptance of submission of onsite survey plan	3/1/2020	3/25/2020	3/30/2020	5/12/2020	Task Completed				100%	-	Survey plan acceptance received on 12 May 2020. Onsite discussion with ST1 was
	Submission of onsite survey report	5/21/2020	5/21/2020	5/29/2020	5/29/2020	Task Completed				100%		
	Acceptancce of onsite survey report	5/30/2020	5/30/2020	6/15/2020	6/15/2020	Task Completed				-		
	Preparation of procurement package (C11)	6/22/2020	6/22/2020	7/6/2020	7/14/2020	Task Completed				100%		
	Tender invitation (C11)	7/15/2020	7/15/2020	7/22/2020	7/24/2020	Task Completed				100%		
	Tender Award (C11)	7/23/2020	7/25/2020	7/29/2020	7/31/2020	Task Completed				100%		Revised survey report (second draft) was sent to AECOM on 21 Oct 2020. Technical
	Material Submission	8/21/2020	8/21/2020	8/28/2020	12/7/2020	Task Completed				100%		Material submission (Rev.1) resubmitted on 7 Dec 2020. AECOM accepted subject to comments on 24 Dec 2020. Material submission (Rev. 2) resubmitted on 12 Jan 2021. AECOM accepted subject to comment on 22 Jan 2021.
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	12/1/2020	12/1/2020	8/8/2021	8/8/2021	Task Completed				-		"Filter Press Plates and Cloths" were handed over to DSD.
6B.2.12 Provision of Membrane Filter Press System at Existing Sludge Press House	Submission of onsite survey plan for acceptance	3/1/2020	3/25/2020	3/30/2020	Task to be deleted	Task to be deleted				-	-	PPMI No.5 was issused by PM on 24 April 2020. Bestwise is requested to submit quotation on delete the provision of one (1) no. of membrane filter press system in pursuant to Particular Specification Clause 6B.2.12.
6B.2.16 Temporary Filtrate Equalisation System (Sub-programme was provided by Bestwise)	Submission of onsite survey plan on E&M aspects for acceptance	3/1/2020	4/1/2020	3/30/2020	5/7/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 7 May 2020
	Acceptance of submission of onsite survey plan	3/1/2020	4/1/2020	3/30/2020	5/23/2020	Task Completed				100%	-	AECOM accepted the onsite survey plan on 23 May 2020
6B.2.16 Temporary Filtrate Equalisation System (Sub-programme was provided by Bestwise)	Submission and Acceptance of ELS Design for Lifting Well	15/06/2020 -> 17/08/2020*	9/2/2020	30/07/2020 -> 30/11/2020*	2/9/2021	Task Completed				100%	Bestwise	- * = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020. Bestwise submitted Rev.0 on 21 Oct 2020 and resubmitted Rev.2 on 23 Jan 2021. - AECOM provide consent for the ELS temporary works on 9 Feb 2021. AECOM accepted on 9 Feb 2021.
	Submission and Acceptance of Design for Filtrate Lifting Well Construction	15/06/2020 -> 17/08/2020*	9/2/2020	30/07/2020 -> 30/11/2020*	1/15/2021	Task Completed				100%		* = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020. AECOM commented on 21 Dec 2020. Bestwise submitted Rev.0 on 2 Nov 2020 and Rev.1 on 8 Jan 2021.
	Submission and Acceptance of Design of FRP Filtrate Equalization Tank	15/06/2020 -> 07/09/2020**	9/2/2020	30/07/2020 -> 22/10/2020* *	1/15/2021	Task Completed				100%		** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020. - Bestwise submitted Rev.0 on 08 Jan 2020.
	Submission and Acceptance of Design of footing for FRP Filtrate Equalization Tank	15/06/2020 -> 07/09/2020**	9/2/2020	30/07/2020 -> 22/10/2020* *	2/19/2021	Task Completed				100%		** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020. - Design of Footing was submitted on 8 Feb 2021.
	Submission and Acceptance of Design of Formwork & Flasework Design for Construction of Lifting Well	15/06/2020 -> 17/08/2020*	9/2/2020	30/07/2020 -> 30/11/2020*	1/15/2021	Task Completed				100%		- * = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. - Bestwise submitted Rev.0 on 12 Jan 2020.
	Submission and Acceptance of Contractor's Design for Temporary Filtrate Equalisation System (E&M Works) (CDS010-2)	01/06/2020 -> 7/9/2020**	7/5/2020	30/07/2020 -> 30/11/2020* *	7/30/2021	Task Completed				-	Bestwise	** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - Bestwise submitted (CDS 0010 Rev.0) on 6 August 2020, AECOM commented on 27 Aug 2020. Bestwise to resubmit (Separate submissions P&M0049, DWG0038, CDS0026, P&M0008, P&M0004, CDS0037, CDS0027, DWG0040 were submitted) - Control philosophy (CDS0027 Rev.0) was submitted on 22 Dec 2020. AECOM commented on 13 Jan 2021, Bestwise resubmitted on 27 May 2021 formally, AECOM accepted with comments on 4 Jun 2021.
	Drawing Submission	01/06/2020 -> 17/08/2020*	9/29/2020	30/07/2020 -> 30/11/2020*	3/5/2021	Task Completed				100%	Bestwise	- '* = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. - Bestwise submitted (rev.0) on 29 Oct 2020 and resubmitted (rev.2) on 25 Jan 2021, AECOM accepted on 5 Feb 2021.
	Material Submission	01/06/2020 -> 17/08/2020*	11/29/2020	30/07/2020 -> 30/11/2020*	2/25/2021	Task Completed				100%	Bestwise	** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - P&M submission of temporary filtrate equalization tank (P&M 0030 Rev.1) on 29 Jan 2021. AECOM accepted subject to comments on 25 Feb 2021.
Subletting Package for Temporary Filtrate Equalization System	Tender invitation (C11) (EQT-002 & EQT-004)	4/17/2020	4/17/2020	5/7/2020	5/7/2020	Task Completed				100%		
	Tender award (C11) (EQT-002 & EQT-004)	4/14/2020	4/24/2020	5/13/2020	5/13/2020	Task Completed				100%	Bestwise	Bestwise submitted tender report on 29 April 2020 for filtrate pumps, AECOM commented on 29 May 2020, Bestwise to resubmit. Bestwise submitted tender report of instrument on 13 May 2020, AECOM noted on 26 May
	Acceptance of tender award (C11) (EQT-002 & EQT-	4/25/2020	4/25/2020	5/21/2020	5/21/2020	Task Completed				100%	Bestwise	
	Material Submission	20/07/2020 ->	10/16/2020	20/08/2020 -	2/5/2021	Task Completed				-	Bestwise	** = Change of material of temporary filtrate equalization tank from concrete to FRP on 18

	Submission of subletting package for acceptance (C9)	3/1/2020	7/13/2020	3/14/2020	7/13/2020	Task Completed				100%		
	Acceptance of subletting package (C9)	3/15/2020	7/14/2020	3/28/2020	7/14/2020	Task Completed				100%		
	Tender invitation (C9)	3/29/2020	7/15/2020	4/11/2020	7/22/2020	Task Completed				100%		
	Tender award (C9)	4/12/2020	7/23/2020	4/25/2020	8/13/2020	Task Completed				100%		
	Acceptance of tender award for civil construction work (C9)	26/04/2020	8/14/2020	5/5/2020	9/2/2020	Task Completed				100%		
	Preparation of subletting package for mech work (C9)	01/08/2020 -> 01/12/2020*	1/25/2021	08/08/20 -> 08/12/2020*	3/1/2021	Task Completed				100%		* = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. Subletting package would was submitted on 25 Feb 2021 and AECOM accepted on 1 Mar
	Tender invitation for mech work (C9)	08/08/20 ->	3/2/2021	15/08/2020 -	3/9/2021	Task Completed				100%		Tender invitation was conducted on 2 Mar 2021 and returned on 9 Mar 2021
	Tender Award for mech work (C9)	15/08/2020 ->	3/10/2021	22/08/2020 -	3/15/2021	Task Completed				100%		Tender report was submitted on 15 Mar 2021
	Acceptance of tender award for mech work (C9)	22/08/2020 ->	3/15/2021	29/08/2020 -	3/19/2021	Task Completed				100%		Tender award on 19 Mar 2021.
	Preparation of subletting package for elect work (C9)	01/08/2020 -> 01/12/2020*	2/2/2021	08/08/20 -> 08/12/2020*	3/1/2021	Task Completed				100%		* = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. Subletting package resubmitted on 26 Feb 2021 and AECOM accepted on 1 Mar 2021..
	Tender invitation for elect work (C9)	01/08/2020 ->	3/2/2021	15/08/2020 -	3/9/2021	Task Completed				100%		Tender invitation was conducted on 2 Mar 2021 and returned on 9 Mar 2021
	Tender Award for elect work (C9)	08/08/20 ->	3/10/2021	22/08/2020 -	3/15/2021	Task Completed				100%		Tender report was submitted on 15 Mar 2021
	Acceptance of tender award for elect work (C9)	15/08/2020 -> 15/12/2020*	3/15/2021	29/08/2020 - > 29/12/2020*	3/19/2021	Task Completed				100%		Tender award on 19 Mar 2021.
Construction of Temporary Filtrate Equalisation System	Construction of minor civil works under PMI 014	22/08/2020 -> 22/12/2020*	10/5/2020	10/15/2020	3/31/2021	Task Completed				100%	Bestwise	Utilities survey report of lifting well and EQ tank were submitted on 23 Sept 2020 and 29 Sept 2020. AECOM commented lifting well on 29 Sept 2020.
	RC Structure Works of lifting well	11/7/2020	1/12/2021	12/30/2020	2/25/2021	Task Completed				100%		
	Construction of concrete plinth for filtrate EQ tank	1/23/2021	2/8/2021	2/1/2021	2/26/2021	Task Completed				100%		
	Offsite fabrication and delivery of filtrate EQ tank	10/31/2020	1/16/2021	2/2/2021	3/4/2021	Task Completed				100%		First batch of filtrate EQ tank panel was delivered on 4 Mar 2021.
	Onsite assembly of filtrate EQ tank	2/2/2021	3/1/2021	3/12/2021	4/16/2021	Task Completed				100%		
6B.2.16 Temporary Filtrate Equalisation System	Mechanical Installation	3/17/2021	3/30/2021	4/12/2021	5/14/2021	Task Completed				-		
	Electrical Installation	3/13/2021	3/29/2021	4/15/2021	12/10/2021	Task Completed				-		PLC programme for water spray system (stage 1) is on-going, motorized gate valve for stage 2 under PMI is being fabricated and the delivery lead time is by end November.
	Testing and Comissioning	4/15/2021	4/22/2021	5/1/2021	11/30/2022	Completed				-		Defect rectification for BCM comments was partially completed and Site Acceptance Test (72 hours) was completed.
6B.1.17 Overall plant treatment process review by the Treatment Process Specialist	Submission of Treatment Process Specialist's review report	6/1/2020	6/1/2020	6/30/2020	7/2/2020	Task Completed				-	Bestwise	Preliminary Draft submitted, meeting completed on 15 May 2020 with SRE and TPS. Initial process design evaluation was submitted on 20 May 2020. Design calculation submitted on
	Acceptance of submission for further design	6/14/2020	7/3/2020	6/30/2020	7/17/2020	Task Completed				-		
6B Overall plant process equipment sizing review	Submission of Contractor's Design Calculation for	6/1/2020	6/1/2020	6/30/2020	7/2/2020	Task Completed				-	Bestwise	Preliminary Draft submitted, meeting completed on 15 May 2020 with SRE and TPS. Initial
	Acceptance of submission for further detail design	6/14/2020	7/3/2020	6/30/2020	7/17/2020	Task Completed				-		
6B.2.1 Inlet Works	Submission of Contractor's Design for Inlet Works No. 1	9/6/2020	11/16/2020	5/14/2021	12/30/2022	95%				-	Bestwise	All finalized design calculations for Inlet Works no.1 shall be submitted by 30 Dec 2022.
	Submission of P&M Submission	9/6/2020	9/7/2020	5/14/2021	12/30/2022	95%						P&M0022 - Inlet Pumps (status: B) P&M0003 - Coarse Screens & Fine Screens (status: B) P&M0085 - Grit Traps (status: B) P&M0084 - Screw Compactor (status: B) P&M0042 - Screw Conveyors for Coarse Screens and Fine Screens (status: B) All P&M for Inlet Works no.1 shall be submitted by 30 Dec 2022.
	Submission of P&ID Drawing	9/6/2020	9/6/2020	5/14/2021	12/29/2020	Task Completed						PID (rev.B) submitted on 13 Nov 2020. AECOM accepted subject to comments on 29 Dec 2020.
	Submission of GA Drawing	9/6/2020	1/5/2021	5/14/2021	12/30/2022	94%						E&M GA submission DWG0082 resubmitted on 9 July 2021. AECOM commented on 19 Feb 2021. Bestwise reviewed GA in BIM with AECOM on 12 Jan 2022. Electrical GA DWG0095 resubmitted on 3 July 2021. AECOM commented on 21 Apr 2021. Bestwise reviewed GA in BIM with AECOM on 12 Jan 2022. All finalized drawings for Inlet Works no.1 shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 5, 12, 19/5/2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	12/30/2022	94%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. All finalized drawings for Inlet Works no.1 shall be submitted by 30 Dec 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/30/2022	93%				-		
	Submission of detailed design for electrical installation for Inlet Works No. 1 (CDS021)	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for LV Switchboards for Inlet Works No. 1 (CDS025-1)	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						

	Submission of detailed design for electrical installation BS for Inlet Works No. 1 (CDS034-1)	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of civil work requirements for Inlet Works No. 1 up to +8.0 mPD (CDS080-1)	9/1/2020	9/1/2020	10/30/2020	10/30/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for Inlet Works No. 1 up to +8.0 mPD (First Draft))	7/15/2020	7/15/2020	8/15/2020	9/17/2020	Task Completed	no.	3	3	100%		1st draft of drawing submitted on 17 September 2020
	KD1A: Submission of civil requirement drawing for Inlet Works No. 1 up to +8.0 mPD (Final)	8/28/2020	9/18/2020	11/5/2020	11/5/2020	Task Completed	no.	3	3	100%	Bestwise	Bestwise resubmitted (rev.A) on 27 Oct 2020.
	KD1A: Submission of electrical schematic drawings for Inlet Works No. 1 (First Draft)	7/15/2020	7/15/2020	8/15/2020	9/30/2020	Task Completed	no.	2	2	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of electrical schematic drawings for Inlet Works No. 1 (Final)	9/7/2020	10/1/2020	11/5/2020	10/20/2020	Task Completed	no.	2	2	100%	Bestwise	Bestwise submitted on 20 Oct 2020
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.2 Primary Sedimentation Tank No. 1-4	Submission of Contractor's Design for Primary Sedimentation Tanks No. 1-4	9/6/2020	12/28/2020	5/14/2021	12/30/2022	95%				-	Bestwise	PFD (rev.B) under DWG0004 submitted on 22 June 2021. Finalized design calculations for PST shall be submitted by 30 Dec 2022.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	12/30/2022	95%						P&M0058 - Lamella Plate Settler (status: B) P&M0097 - Scum Skimmer and Scum Collection Pipe (status: C) P&M0086 - Sludge Bottom Scraper (status: C) P&M0051 - Drain Pump (status: C) P&M0044 - Primary Sludge Pump (status: B) Finalized material submissions for PST shall be submitted by 30 Dec 2022.
	Submission of P&ID Drawing	9/6/2020	10/2/2020	5/14/2021	6/24/2021	Task Completed						PID under DWG0037 (rev.1) submitted on 24 June 2021 and is accepted by AECOM.
	Submission of GA Drawing	9/6/2020	2/3/2021	5/14/2021	12/30/2022	94%						Mechanical GA was submitted on 19 Jun 2021. Electrical GA under DWG0103 (rev.1) was submitted on 6 Jul 2021 and is accepted by AECOM. Finalized drawings for PST shall be submitted by 30 Aug 2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	12/30/2022	94%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for PST shall be submitted by 30 Dec 2022.
	Acceptance of submission	5/15/2021	4/2/2021	5/29/2021	12/30/2022	94%				-		Refer to outstanding list under "Certificate of completion no.1 - section 1 of the works".
	Submission of detailed design for electrical installation	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for LV Switchboards for Primary Sedimentation Tanks (CDS025-2)	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for electrical installation	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of civil work requirements for Primary Sedimentation Tanks up to +8.0 mPD (CDS080-2)	9/1/2020	9/1/2020	10/30/2020	10/30/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for Primary Sedimentation Tanks No. 1-4 up to +8.0 mPD	7/15/2020	7/15/2020	8/15/2020	9/30/2020	Task Completed	no.	4	4	100%		1st part of drafted drawing (2 nos.) was submitted on 23 Sept 2020. Remaining drawings (2 nos.) were submitted on 30 Sept 2020.
	KD1A: Submission of civil requirement drawing for Primary Sedimentation Tanks No. 1-4 up to +8.0 mPD	8/28/2020	10/1/2020	11/5/2020	11/5/2020	Task Completed	no.	4	4	100%	Bestwise	Bestwise resubmitted (Rev.A) on 27 Oct & 13 Nov 2020.
	KD1A: Submission of electrical schematic drawings for Primary Sedimentation Tanks No. 1-4 (First Draft)	7/15/2020	7/15/2020	8/15/2020	9/30/2020	Task Completed	no.	1	1	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of electrical schematic drawings for Primary Sedimentation Tanks No. 1-4 (Final)	9/7/2020	10/1/2020	11/5/2020	10/20/2020	Task Completed	no.	1	1	100%	Bestwise	Bestwise submitted on 20 Oct 2020
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.3 Chemical Storage and Dosing System	Submission of Contractor's Design for Chemical Dosing System (CDS006)	9/6/2020	1/7/2021	5/14/2021	10/29/2021	Task Completed				-	Bestwise	Design calculation (rev.0) of CHS1 and TCHS submitted on 2 Sep 2020 and 28 Aug 2020, AECOM commented on 24 Sep and 6 Oct 2020, Bestwise submitted CDS0060 on 15 Jul 2021 and CDS0044 on 19 Jul 2021. Finalized design calculation for chemical systems was submitted on 29 Oct 2021.
	Submission of P&M Submission	9/6/2020	9/6/2020	5/14/2021	10/30/2021	Task Completed						Finalized material submissions for chemical system was submitted on 30 Oct 2021.
	Submission of P&ID Drawing	9/6/2020	12/11/2020	5/14/2021	6/29/2021	Task Completed						PID resubmitted under DWG0053 (rev.1) on 28 Jun 2021, DWG0057 (rev.1) on 29 Jun 2021 and DWG0058 (rev.1) on 29 Jun 2021.

	Submission of GA Drawing	9/6/2020	2/8/2021	5/14/2021	12/30/2022	94%						Electrical GA drawings for CS1 under DWG0096 submitted on 10 April 2021. AECOM accepted subject to comments on 17 Apr 2021. Mechanical GA drawings for CS1 submitted on 1 April 2021. AECOM commented on 24 April 2021. Bestwise resubmitted DWG0093 (rev.1) on 30 Jun 2021 and is accepted by AECOM. Mechanical GA for Temp CS submitted on 12 Jun 2021. All finalized drawings for chemical systems shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 17, 21, 28/4/2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	12/30/2022	94%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. All finalized drawings for chemical system shall be submitted by 30 Dec 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/30/2022	93%				-		
	Submission of detailed design for electrical installations	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for electrical installations	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for electrical installations	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for electrical installation	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	KD1A: Submission of civil requirement drawing for	7/15/2020	7/15/2020	8/15/2020	9/16/2020	Task Completed	no.	2	2	100%		1st draft of drawing submitted on 15 September for CHS1 and 16 September 2020 for
	KD1A: Submission of civil requirement drawing for	9/7/2020	9/17/2020	11/5/2020	11/5/2020	Task Completed	no.	2	2	100%		Bestwise resubmitted (Rev.A) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for	7/15/2020	7/15/2020	8/15/2020	9/15/2020	Task Completed				-		1st draft of drawing to be submitted by 16 September 2020
	KD1A: Submission of electrical schematic drawings for Chemical System No. 1 and No. 2 (Final)	9/7/2020	9/16/2020	11/5/2020	11/5/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for Temporary Chemical System up to +8.0 mPD (First	7/15/2020	7/15/2020	8/15/2020	9/15/2020	Task Completed	no.	1	1	100%		1st draft of drawing submitted on 15 September 2020
	KD1A: Submission of civil requirement drawing for Temporary Chemical System up to +8.0 mPD (Final)	9/7/2020	9/16/2020	11/5/2020	11/5/2020	Task Completed	no.	1	1	100%		Bestwise resubmitted (Rev.A) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for Temporary Chemical System (First Draft)	7/15/2020	7/15/2020	8/15/2020	9/15/2020	Task Completed				-		1st draft of drawing to be submitted by 16 September 2020
	KD1A: Submission of electrical schematic drawings for	9/7/2020	9/16/2020	11/5/2020	11/5/2020	Task Completed						
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.4 Membrane Bioreactor (MBR) System - Bio Reactor 2A and 2B	Submission of Contractor's Design for Bioreactor 2A and 2B (CDS004)	9/6/2020	1/12/2021	5/14/2021	12/30/2022	94%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 7 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Electrical CDS submitted on 23 Jun 2021. Finalized design calculations shall be submitted by 30 Dec 2022.
	Submission of P&M Submission	9/6/2020	11/26/2020	5/14/2021	12/30/2022	95%						P&M0060 - Pre-treatment Fine Screen (status: B) P&M0053 - MLR Pump (status: B) P&M0118 - Scum Skimmer & Scum Pump (status: C) P&M0088 - Fine Bubble Air Diffuser (status: B) P&M0xxx - Wash Compactor (status: B) P&M0041 - Submersible Mixer (status: B) Finalized material submission shall be submitted by 30 Dec 2022.
	Submission of P&ID Drawing	9/6/2020	11/2/2020	5/14/2021	7/2/2021	Task Completed						PID (Rev.1) under DWG0042 resubmitted on 6 July 2021.
	Submission of GA Drawing	9/6/2020	2/17/2021	5/14/2021	12/30/2022	94%						Mechanical GA under DWG0132 submitted on 26 Jun 2021 and is accepted by AECOM. Electrical GA submitted on 23 Jun 2021. Finalized drawing shall be submitted by 30 June 2022. BIM GA review meeting is scheduled on 1, 8, 15/6/2022.
	Submission of Electrical Drawing	9/6/2020	1/15/2021	5/14/2021	12/30/2022	94%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 Dec 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/30/2022	93%				-		Refer to outstanding list under "Certificate of completion no.1 - section 1 of the works".
	Submission of detailed design for electrical installation	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for LV Switchboards for BR 2A and 2B (CDS025-3)	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for electrical installation	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of civil work requirements for BR 2A and 2B up to +8.0 mPD (CDS080-3)	9/1/2020	9/1/2020	10/30/2020	10/30/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for BR 2A and 2B up to +8.0 mPD (First Draft)	7/15/2020	7/15/2020	8/15/2020	9/30/2020	Task Completed	no.	2	2	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of civil requirement drawing for BR 2A and 2B up to +8.0 mPD (Final)	8/28/2020	10/1/2020	11/5/2020	11/5/2020	Task Completed	no.	2	2	100%	Bestwise	AECOM commented on 23 Oct 2020, Bestwise resubmitted on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for BR 2A and 2B (First Draft)	7/15/2020	7/15/2020	8/15/2020	9/30/2020	Task Completed				-		1st draft of drawing was sent to AECOM via email on 15 September 2020
	KD1A: Submission of electrical schematic drawings for	9/7/2020	10/1/2020	11/5/2020	11/5/2020	Task Completed						
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.4 Membrane Bioreactor (MBR) System - Membrane Filtration System No. 2 (MFB No. 2)	Submission of Contractor's Design for Membrane Filtration System (CDS005)	9/6/2020	1/11/2021	5/14/2021	12/30/2022	94%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 10 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Finalized design calculations shall be submitted by 30 Aug 2022.

	Submission of P&M Submission	9/6/2020	11/19/2020	5/14/2021	12/30/2022	95%						P&M0072 - Membrane Module (status: B) P&M0069 - Permeate Pump (status: B) P&M0047 - RAS Pump (status: B) P&M0050 - Drain Pump (status: B) P&M0074 - Air Scour Blower (status: C) P&M0073 - Aeration Blower (status: C) P&M0093 - Air Compressor (status: C) P&M0091 - Chemical Pump (status: B) P&M0xxx - Chemical Tank (to be submitted) Finalized material submission shall be submitted by 30 Dec 2022.
	Submission of P&ID Drawing	9/6/2020	10/30/2020	5/14/2021	7/2/2021	Task Completed						DWG0049 (Rev.1) was resubmitted on 2 Jul 2021.
	Submission of GA Drawing	3/31/2021	2/18/2021	5/14/2021	12/30/2022	94%						DWG0121 (rev.1) was resubmitted to AECOM on 17 Jul 2021 Finalized drawings shall be submitted by 30 June 2022. BIM GA review meeting is scheduled on 19, 26/5/2022 and 2/6/2022 (Lower part) BIM GA review meeting is scheduled on 16, 23, 30/6/2022 (Upper part)
	Submission of Electrical Drawing	4/15/2021	1/15/2021	5/14/2021	12/30/2022	94%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Electrical GA under DWG0079 (rev.1) was resubmitted on 8 Jul 2021. Finalized drawings shall be submitted by 30 Dec 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/30/2022	93%				-		
	Submission of detailed design for electrical installation	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for LV Switchboards for	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for electrical installation BS for MFB (CDS034-4)	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of civil work requirements for MFB up to	9/1/2020	9/1/2020	9/30/2020	9/30/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for	7/15/2020	7/15/2020	8/15/2020	9/30/2020	Task Completed	no.	7	7	100%		1st draft of drawing submitted on 30 September
	KD1A: Submission of civil requirement drawing for MFB No. 2 up to +8.0 mPD (Final)	8/28/2020	10/1/2020	11/5/2020	11/5/2020	Task Completed	no.	7	7	100%	Bestwise	Bestwise resubmitted (Rev.1) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for	7/15/2020	7/15/2020	8/15/2020	9/30/2020	Task Completed	no.	3	3	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of electrical schematic drawings for MFB No. 2 (Final)	9/7/2020	10/1/2020	11/5/2020	10/20/2020	Task Completed	no.	3	3	100%	Bestwise	Bestwise submitted (Rev.1) on 20 Oct 2020
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.6 Deodorisation System (EQT-001 - Deodorization Unit)	Tender invitation (C11)	4/17/2020	4/17/2020	4/24/2020	4/24/2020	Task Completed				100%		
6B.2.6 Deodorisation System (EQT-001 - Deodorization Unit)	Tender award (C11)	4/25/2020	4/25/2020	5/12/2020	5/12/2020	Task Completed				100%	Bestwise	Bestwise submitted tender report on 13 May 2020. AECOM commented on 23 July 2020, Bestwise to resubmit.
	Acceptance of tender award (C11)	5/13/2020	5/13/2020	5/21/2020	5/21/2020	Task Completed				100%		
	Submission of Contractor's Design for Deodorisation System , DOU No. 1 (CDS0019 & CDS0045)	9/6/2020	9/6/2020	5/14/2021	12/31/2021	Task Completed				-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0045 on 3 June 2021. Finalized design was completed.
	Submission of P&ID Drawing of DOU No. 1	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 1	9/6/2020	9/6/2020	5/14/2021	12/30/2022	95%						GA submitted on 21 Jun 2021 Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 11, 18, 25/5/2022.
	Submission of Electrical Drawing of DOU No. 1	3/21/2021	1/30/2021	5/14/2021	12/30/2022	94%						Control wiring diagrams was resubmitted on 1 April 2021. AECOM commented on 23 Apr 2021. Bestwise to resubmit. Finalized drawings shall be submitted by 30 Dec 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/30/2022	93%				-		
	KD1A: Submission of civil requirement drawing for Deodorisation System , DOU No. 1 up to +8.0 mPD (First Draft)	7/15/2020	7/15/2020	8/15/2020	9/28/2020	Task Completed	no.	1	1	100%		1st draft of drawing was submitted on 28 September 2020
	KD1A: Submission of civil requirement drawing for Deodorisation System , DOU No. 1 up to +8.0 mPD (Final)	8/28/2020	9/29/2020	11/2/2020	11/5/2020	Task Completed	no.	1	1	100%	Bestwise	Bestwise resubmitted (rev.1) on 5 Nov 2020.
	Submission of Contractor's Design for Deodorisation System , DOU No. 2A (CDS0019 & CDS0048)	9/6/2020	9/6/2020	5/14/2021	12/10/2021	Task Completed				-		CDS0019: Design Calculation for Deodorisation System (status: B) CDS0048: Design Calculation on DOU2A - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 2A	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 2A	9/6/2020	8/3/2020	5/14/2021	12/30/2022	95%				-	Bestwise	Bestwise submitted (rev.1) on 30 Nov 2020. AECOM commented on 16 Dec 2020. Bestwise to resubmit. Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 1, 8, 15/6/2022.
	Submission of Electrical Drawing of DOU No. 2A	3/21/2021	1/26/2021	5/14/2021	12/30/2022	94%						Bestwise submitted (rev.0) on 26 Jan 2021, AECOM commented on 4 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 30 Dec 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/30/2022	93%				-		

	Submission of Contractor's Design for Deodorisation System , DOU No. 3A (CDS0019 & CDS0055)	9/6/2020	9/6/2020	5/14/2021	12/10/2021	Task Completed				-		CDS0019: Design Calculation for Deodorisation System (status: B) CDS0055: Design Calculation on DOU3A - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 3A	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 3A	9/6/2020	7/8/2020	5/14/2021	12/30/2022	96%				-	Bestwise	Bestwise submitted (rev.1) on 28 Oct 2020. AECOM commeneted on 16 Dec 2020. Bestwise resubmitted on 24 June 2021. Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 27/4/2022, 4, 11/5/2022.
	Submission of Electrical Drawing of DOU No. 3A	3/21/2021	2/26/2021	5/14/2021	12/30/2022	94%						Bestwise submitted on 17 Apr 2021. AECOM commented on 27 Apr 2021. Bestwise to resubmit. GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 30 Dec 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/30/2022	93%						
	KD1A: Submission of civil requirement drawing for Deodorisation System , DOU No. 3A up to +8.0 mPD	7/15/2020	7/15/2020	8/15/2020	9/28/2020	Task Completed	no.	1	1	100%		1st draft of drawing was submitted on 28 September 2020
	KD1A: Submission of civil requirement drawing for	8/28/2020	9/29/2020	11/2/2020	11/5/2020	Task Completed	no.	1	1	100%	Bestwise	Bestwise resubmitted (rev.1) on 5 Nov 2020.
	Submission of Contractor's Design for Deodorisation System , DOU No. 3B (CDS0019 & CDS0049)	9/6/2020	9/6/2020	5/14/2021	12/10/2021	Task Completed						CDS0019: Design Calculation for Deodorisation System (status: B) CDS0049: Design Calculation on DOU3B - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 3B	9/6/2020	8/5/2020	5/14/2021	7/2/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 3B	9/6/2020	9/6/2020	5/14/2021	12/30/2022	95%						Bestwise submitted DWG0081 (rev.0) on 5 Feb 2021. AECOM commeneted on 12 Mar 2021. Bestwise to resubmit. Finalized drawings shall be submitted by 30 June 2022 and BIM GA revew meeting is scheduled on 16, 23, 30/6/2022.
	Submission of Electrical Drawing of DOU No. 3B	3/21/2021	2/22/2021	5/14/2021	12/30/2022	94%						GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 30 Dec 2022.
	Acceptance of submission	5/15/2021	5/15/2021	5/29/2021	12/30/2022	93%				-		
	Submission of detailed design for electrical installation	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for LV Switchboards for	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of detailed design for electrical installation	9/6/2020	9/6/2020	5/14/2021	5/14/2021	Task Completed						
	Submission of civil work requirements for MFB up to	9/1/2020	9/1/2020	9/30/2020	9/30/2020	Task Completed						
	Submission of civil requirement drawing for MFB up to	8/28/2020	8/28/2020	11/2/2020	11/2/2020	Task Completed						
	KD1A: Submission of electrical schematic drawings for	7/15/2020	7/15/2020	8/15/2020	9/30/2020	Task Completed				-		1st draft of drawing to be submitted by 30 September 2020
	KD1A: Submission of electrical schematic drawings for	9/7/2020	10/1/2020	11/5/2020	11/5/2020	Task Completed						
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
04SC008 - Design, Supply and Installation of detailed design for lifting appliances	Acceptance of tender award (C9)	-	-	-	7/6/2020	Task Completed				100%	-	AECOM accepted tender report on 6 July 2020.
	Submission of detailed design for lifting appliances for Inlet Works No. 1 (CDS050-1)	9/6/2020	12/5/2020	9/6/2020	12/30/2022	95%						DWG 0055 (Rev.0) was submitted on 13 Mar 2021. AECOM commented on 20 Apr 2021. Bestwise to resubmit. Bestwise submitted P&M0025 on 15 June 2021. Finalized design shall be submitted by 30 Dec 2022.
	Submission of detailed design for lifting appliances for Primary Sedimentation Tanks (CDS050-2)	9/6/2020	12/5/2020	9/6/2020	12/30/2022	95%						DWG 0054 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 30 Dec 2022.
	Submission of detailed design for lifting appliances for BR 2A and 2B (CDS050-3)	9/6/2020	12/5/2020	9/6/2020	12/30/2022	95%						DWG 0065 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. P&M-0026 (Rev.1) received status B. Finalized design calculation shall be submitted by 30 Dec 2022.
	Submission of detailed design for lifting appliances for MFB (CDS050-4)	9/6/2020	12/5/2020	9/6/2020	12/30/2022	95%						DWG 0066 (Rev.1) was submitted on 1 Mar 2021. AECOM commented on 5 Mar 2021. Bestwise to resubmit. P&M-0027 (Rev.1) received status B. Finalized design calculation shall be submitted by 30 Dec 2022.
	Submission of detailed design for lifting appliances for Temporary Filtration Tank (CDS050-5)	9/6/2020	12/5/2020	9/6/2020	5/21/2021	Task Completed						DWG 0051 (Rev.2) was resubmitted on 7 May 2021 and acceptance by AECOM subject to condition on 21 May 2021. Bestwise submitted P&M0021 on 21 June 2021.
Building Services System	Submission for MVAC system	N/A	12/10/2020	N/A	12/30/2022	95%						Design calculations and drawings for inlet works was submitted on 16 Dec 2020. AECOM commented on 15 Jan 2021 and 20 Jan 2021. Design calculations and drawings for PST was submitted on 30 Dec 2020. AECOM commented on 22 Jan 2021 and 26 Jan 2021. Design calculations and drawings for MFB2 was submitted on 29 Jan 2021. AECOM commented on 26 Mar 2021. Subletting package resubmitted by 18 Mar 2021. AECOM accepted on 19 Mar 2021. Finalized design shall be submitted by 30 Dec 2022.
	Submission for Fire Services System	N/A	3/15/2021	N/A	12/30/2022	94%						Subletting Package to be resubmitted by 31 Mar 2021. AECOM accepted on 9 Apr 2021. Drawings: Inlet Works: submitted on 8 June 2021. PST 1-4: submitted on 23 Jun 2021 BR2A &2B: submitted on 8 Jun 2021 MFB 2: submitted on 8 Jun 2021 Finalized design shall be submitted by 30 Dec 2022.

	Submission for Plumbing and Drainage System	N/A	3/15/2021	N/A	12/30/2022	94%						Subletting Package resubmitted by 10 Mar 2021. AECOM accepted on 12 Mar 2021. Tender invitation was conducted on 15 Mar 2021 and closed on 26 Mar 2021. Finalized design shall be submitted by 30 Dec 2022.
	Submission for Electrical Services System	N/A	12/10/2020	N/A	12/30/2022	95%						GA for lighting was submitted on 18 Dec 2020. AECOM commented on 6 Jan 2021. Bestwise to resubmit. GA for small power system was submitted in 8 Feb 2021. AECOM commented on 3 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 30 Dec 2022.
	Submission of ELV system	N/A	1/8/2021	N/A	12/30/2022	94%						GA for CCTV was resubmitted on 16 Mar 2021. AECOM commented on 30 Mar 2021. Bestwise resubmitted on 25 Jun 2021. Finalized design shall be submitted by 30 Dec 2022.
	Submission for PV system	N/A	3/15/2021	N/A	12/30/2022	94%						Tender package was submitted to AECOM. Finalized design shall be submitted by 30 Dec 2022.
SCADA System & PMS	Submission for SCADA system	N/A	2/11/2021	N/A	12/30/2022	94%						Revised SCADA structure was provided via email on 9 Apr 2021 and tender package is under preparation. Finalized design shall be submitted by 30 Dec 2022.
	Submission for PMS system	N/A	3/8/2021	N/A	12/30/2022	94%						Tender package to be resubmitted on 29 June 2021. Finalized design shall be submitted by 30 Dec 2022.
	Submission for CMMS & IDMS system	N/A	6/1/2021	N/A	12/30/2022	93%						Finalized design shall be submitted by 30 Dec 2022.
Section 2 of Works												
Street Fire Hydrant Pump Room	KD1A: Submission of civil requirement drawing for	7/15/2020	7/15/2020	8/15/2020	9/17/2020	Task Completed	no.	1	1	100%		1st draft of drawing submitted on 17 September 2020
	KD1A: Submission of civil requirement drawing for	8/28/2020	9/18/2020	11/2/2020	11/5/2020	Task Completed	no.	1	1	100%		Bestwise resubmitted (rev.1) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for	7/15/2020	7/15/2020	8/15/2020	9/30/2020	Task Completed						1st draft of drawing to be submitted by 30 September 2020
	KD1A: Submission of electrical schematic drawings for	9/7/2020	10/1/2020	11/5/2020	11/5/2020	Task Completed						
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
FS & Sprinkler Pump Room	KD1A: Submission of civil requirement drawing for FS	7/15/2020	7/15/2020	8/15/2020	9/17/2020	Task Completed	no.	1	1	100%		1st draft of drawing submitted on 17 September 2020
	KD1A: Submission of civil requirement drawing for FS	8/28/2020	9/18/2020	11/2/2020	11/5/2020	Task Completed	no.	1	1	100%		Bestwise resubmitted (rev.1) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for	7/15/2020	7/15/2020	8/15/2020	9/30/2020	Task Completed						
	KD1A: Submission of electrical schematic drawings for	9/7/2020	10/1/2020	11/5/2020	11/5/2020	Task Completed						
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
Emergency Generator House	KD1A: Submission of civil requirement drawing for Emergency Generator House up to +8.0 mPD (First	7/15/2020	7/15/2020	8/15/2020	9/18/2020	Task Completed	no.	1	1	100%		1st draft of drawing submitted on 18 September 2020
	KD1A: Submission of civil requirement drawing for Emergency Generator House up to +8.0 mPD (Final)	8/28/2020	9/19/2020	11/2/2020	11/5/2020	Task Completed	no.	1	1	100%		Bestwise resubmitted (rev.1) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for	7/15/2020	7/15/2020	8/15/2020	9/30/2020							
	KD1A: Submission of electrical schematic drawings for Street Fire Hydrant Pump Room (Final)	9/7/2020	10/1/2020	11/5/2020	11/5/2020							
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
Lightning Protection System for DOU3A (underground)	Submission and Acceptance for Lightning Protection System Design	12/6/2021	12/6/2021	1/31/2022	1/31/2022	Task Completed						
	Material Delivery	2/7/2022	2/7/2022	2/28/2022	2/28/2022	Task Completed						Material Delivery was by End Feb 2022.
	Installation Work	3/31/2022	4/26/2022	5/5/2022	5/5/2022	Task Completed						The installation work was completed on 5 May 2022.
	Testing & Commissioning	1/7/2023	1/7/2023	1/31/2023	1/31/2023							
Lightning Protection System for Inlet Works (underground)	Submission and Acceptance for Lightning Protection System Design	12/20/2021	12/20/2021	1/31/2022	1/31/2022							
	Material Delivery	12/15/2022	10/1/2022	3/31/2022	10/31/2022							
	Installation Work	3/15/2022	11/1/2022	10/30/2022	12/14/2022							Underground works subject to site coordination with JV.
	Testing & Commissioning	11/1/2022	12/15/2022	11/15/2022	12/31/2022							
Section 3 of Works												
6B.2.12 Provision of New Replacement Filter Plates	Submission of onsite survey plan for acceptance	3/1/2020	3/25/2020	3/30/2020	4/21/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 21 April 2020
	Acceptance of submission of onsite survey plan	3/1/2020	3/25/2020	3/30/2020	5/12/2020	Task Completed				100%	-	Survey plan acceptance received on 12 May 2020. Onsite discussion with ST1 was
	Submission of onsite survey report	5/21/2020	5/21/2020	5/29/2020	5/29/2020	Task Completed				100%		
	Acceptancce of onsite survey report	5/30/2020	5/30/2020	6/15/2020	6/15/2020	Task Completed				-		
	Preparation of procurement package (C11)	6/22/2020	6/22/2020	7/6/2020	7/14/2020	Task Completed				100%		
	Tender invitation (C11)	7/15/2020	7/15/2020	7/22/2020	7/24/2020	Task Completed				100%		
	Tender Award (C11)	7/23/2020	7/25/2020	7/29/2020	7/31/2020	Task Completed				100%		Revised survey report (second draft) was sent to AECOM on 21 Oct 2020. Technical
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Submission	8/21/2020	8/21/2020	8/28/2020	12/7/2020	Task Completed				100%		Material submission (Rev.1) resubmitted on 7 Dec 2020. AECOM accepted subject to comments on 24 Dec 2020. Material submission (Rev. 2) resubmitted on 12 Jan 2021. AECOM accepted subject to comment on 22 Jan 2021.

6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	12/1/2020	12/1/2020	8/8/2021	7/13/2021	Task Completed				-		Handed over to DSD.
	Completion Date of Section 3: 22 September 2021											
Subcontracting												
	Submission of subletting package for acceptance	1/1/2020	3/6/2020	3/30/2020	3/6/2020	Task Completed				100%	-	
	Acceptance of subletting package	3/1/2020	3/21/2020	3/30/2020	3/21/2020	Task Completed				100%	-	
	Tender invitation	3/1/2020	3/24/2020	4/1/2020	3/30/2020	Task Completed				100%	-	
	Tender award	3/22/2020		4/14/2020	4/6/2020	Task Completed				100%	-	Bestwise submitted tender report on 6 April 2020
	Acceptance of tender award	-	-	-	4/15/2020	Task Completed				100%		AECOM accepted tender report on 15 April 2020
Construction of *Contractor*'s site accommodation in WA1-C	Design of MiC	4/15/2020	4/16/2020	6/1/2020	8/15/2020	Task Completed				100%		Revised layout drawings received from AluHouse on 28 May 2020. Comments provided to AluHouse on 2 June 2020.
	Submission of detailed design including foundation works, septic tank	7/1/2020	7/1/2020	7/14/2020	9/4/2020	Task Completed				100%		Design calculation of foundation work was submitted on 7 July 2020, comment received on 27 July 2020. Bestwise to resubmit.
	Site Clearence Work	7/15/2020	7/20/2020	7/31/2020	8/15/2020	Task Completed				100%		Tender invitation commenced on 29 May 2020 and tenders received on 4 June 2020. Tender
	Off-site fabrication of Septic tank	7/15/2020	7/20/2020	7/31/2020	7/31/2020	Task Completed				100%		Site clearence work started on 20 July 2020
	Submission of method statement with ICE certificate	8/1/2020	8/1/2020	8/7/2020	10/8/2020	Task Completed				100%		CV of ICE was submitted on 4 August 2020 and accepted on 25 August 2020
	Submission of design calculation with ICE certificate	8/1/2020	8/1/2020	8/7/2020	10/8/2020	Task Completed				100%		Design calculation of foundation work was submitted on 7 July 2020, comment received on
	Acceptance of method statement and design calculation	8/8/2020	10/9/2020	8/14/2020	10/16/2020	Task Completed				100%		Method Statement and Design Calculation was submitted on 8 Oct 2020.
	Submission of method statement with ICE certificate	8/1/2020	8/1/2020	8/7/2020	11/23/2020	Task Completed				100%		
	Submission of design calculation with ICE certificate	8/1/2020	8/1/2020	8/7/2020	11/23/2020	Task Completed				100%		
	Acceptance of method statement and design calculation	8/8/2020	11/24/2020	8/14/2020	11/27/2020	Task Completed				100%		
	Excavation work	8/17/2020	10/21/2020	8/18/2020	10/21/2020	Task Completed				100%		
	Installation of septic tank	8/19/2020	10/21/2020	8/20/2020	10/22/2020	Task Completed				100%		
	Construction of RC foundation	8/21/2020	10/23/2020	8/31/2020	11/12/2020	Task Completed				100%		
	Off-site fabrication and delivery of MiC Office	6/1/2020	9/30/2020	7/31/2020	12/4/2020	Task Completed				100%		
	On-site installation of MiC Office	8/1/2020	12/4/2020	8/30/2020	1/5/2021	Task Completed				100%		
	Installation of car park shelter	1/4/2021	1/7/2021	1/11/2021	1/9/2021	Task Completed				100%		Subject to the completion of car park shelter of PM office and JEC office.
04SC003 - Building Information Modeling (BIM)	Submission of subletting package for acceptance (C9)	3/1/2020	3/25/2020	3/14/2020	3/25/2020	Task Completed				100%	-	
	Acceptance of subletting package (C9)	3/14/2020	4/2/2020	3/30/2020	4/2/2020	Task Completed				100%	-	
	Tender invitation (C9)	4/1/2020	4/1/2020	4/8/2020	4/9/2020	Task Completed				100%	-	
	Tender award (C9)	-	-	-	4/15/2020	Task Completed				100%	-	Bestwise submitted tender report on 15 April 2020
	Submission of subletting package for acceptance	3/14/2020	3/16/2020	3/30/2020	4/20/2020	Task Completed				100%	-	Bestwise resubmitted on 20 April 2020
	Acceptance of subletting package	3/28/2020	5/4/2020	4/13/2020	5/13/2020	Task Completed				100%	-	AECOM accepted subletting package on 13 May 2020
	Tender invitation	4/11/2020	6/19/2020	4/27/2020	6/26/2020	Task Completed				-		Invitation to tender was commenced on 19 June 2020 and tender returned on 26 June 2020
	Tender award	4/25/2020	6/27/2020	5/11/2020	7/4/2020	Task Completed				-		Bestwise submitted tender report on 30 June 2020
	Acceptance of tender award	-	-	-	7/18/2020					-		
04SC007 - Independent Beam Plus Consultant	Submission of subletting package for acceptance	3/1/2020	3/30/2020	3/14/2020	3/30/2020	Task Completed				100%	-	
	Acceptance of subletting package	3/14/2020	4/3/2020	3/30/2020	4/3/2020	Task Completed				100%	-	
	Tender invitation	3/30/2020	3/30/2020	4/9/2020	4/9/2020	Task Completed				100%	-	
	Tender award	-	-	-	4/15/2020	Task Completed				100%	-	Bestwise submitted tender report on 15 April 2020
	Acceptance of tender award	-	-	-	4/17/2020	Task Completed				100%	-	AECOM accepted tender report on 17 April 2020
	Introduction meeting with IBPC, Cinotech	-	-	-	4/28/2020	Task Completed				100%	-	Meeting completed on 28 April 2020 followed by planning work progress
04SC008 - Design, Supply and Installation of detailed	Submission of subletting package for acceptance (C9)	4/1/2020	3/17/2020	4/14/2020	3/17/2020	Task Completed				100%	-	Bestwise submitted subletting package on 3 April 2020
	Acceptance of subletting package (C9)	4/14/2020	4/17/2020	4/30/2020	4/28/2020	Task Completed				100%	-	AECOM accepted subletting package on 28 April 2020
	Tender invitation (C9)	4/30/2020	5/6/2020	5/14/2020	5/28/2020	Task Completed				100%	-	Invitation to tender was commenced on 6 May 2020 and tender returned on 28 May 2020
	Tender award (C9)	5/14/2020	5/29/2020	5/30/2020	6/9/2020	Task Completed				100%	-	Bestwise submitted tender report on 9 June 2020.
Temporary Primary Sludge Thickener and its	Submission of subletting package (C9) for acceptance	15/05/2020 ->	8/14/2020	15/05/2020 -	8/27/2020	Task Completed				100%	Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020.
	Acceptance of subletting package (C9) (Mech)	30/05/2020 -> 30/7/2020*	8/15/2020	15/06/2020-> 15/8/2020*	9/16/2020	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020.
	Tender invitation (C9) (Mech)	15/06/2020-> 15/8/2020*	9/9/2020	22/06/2020-> 22/8/2020*	10/14/2020	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender invitation for FRP Tank was conducted on 9 Sep 2020, tender returned on 16 Sep 2020. - Tender invitation for mechanical installation was conducted on 29 Sept 2020, tender returned on 14 Oct 2020,

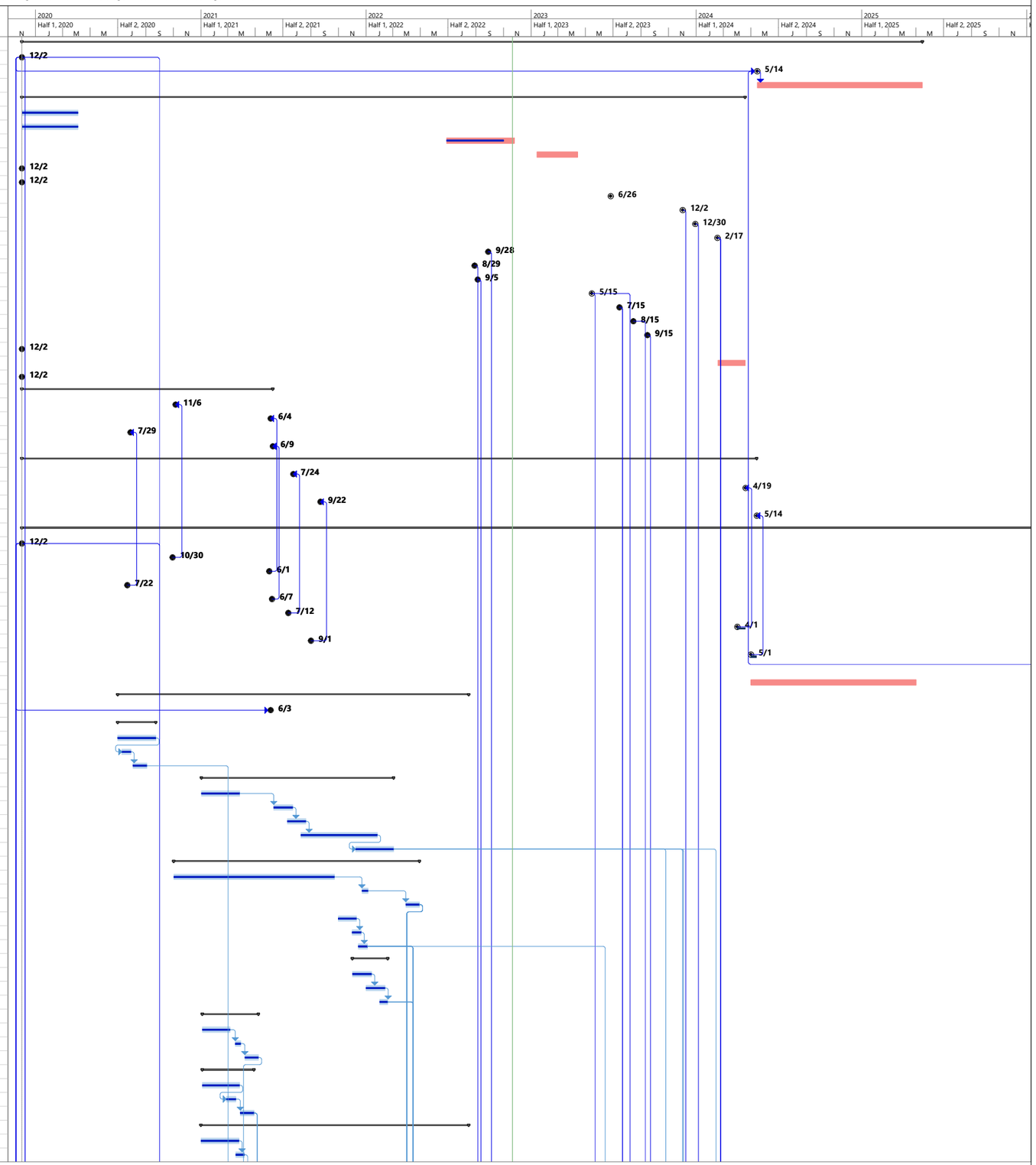
Tender award (C9) (Mech)	22/06/2020-> 22/8/2020*	9/17/2020	29/06/2020-> 29/8/2020*	10/22/2020	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender report for FRP Tank was submitted on 24 Sep 2020 and accepted on 9 Oct 2020. - Tender report for mechanical installation submitted on 22 Oct 2020 and accepted on 16 Nov 2020.
Acceptance of tender award (C9) (Mech)	-	-	-	11/16/2020	Task Completed				100%		
Submission of subletting package (C9) for acceptance (Elect)	15/05/2020 -> 15/7/2020*	12/9/2020	15/05/2020 -> 30/11/2020*	1/28/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Bestwise resubmitted subcontracting package of electrical installation on 28 Jan 2021
Acceptance of subletting package (C9) (Elect)	30/05/2020 -> 30/7/2020*	1/29/2021	15/06/2020-> 15/8/2020*	2/1/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020.
Tender invitation (C9) (Elect)	15/06/2020-> 15/8/2020*	2/1/2021	22/06/2020-> 22/8/2020*	2/11/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender invitation commenced on 1 Feb 2021 and returned on 11 Feb 2021
Tender award (C9) (Elect)	22/06/2020-> 22/8/2020*	2/11/2021	29/06/2020-> 29/8/2020*	2/23/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender report target submitted on 23 Feb 2021 and accepted on 24 Feb 2021
Acceptance of tender award (C9) (Elect)	-	-	-	2/26/2021	Task Completed				100%		
Tender invitation (C11)	30/04/2020-> 15/07/2020*	4/30/2020	30/06/2020-> 15/09/2020*	11/18/2020	Task Completed				100%	Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. -Tender invitation of Primary Sludge Thickener commenced on 22 April 2020 and tender was received on 29 April 2020. Tender queries was requested on 5 May 2020 and received on 7 May 2020. Tender report was commented by PM and resubmitted on 22 May 2020. Accepted by AECOM on 12 Jun 2020. - Tender Invitation of process pumps for the thickening system was commenced on 5 Jun 2020 and tenders were received on 10 June 2020. Tender report submitted to PM on 2 July 2020. - Tender Invitation of activated carbon filter was commenced on 22 Oct 2020 and to be returned on 2 Nov 2020. Tender report submitted on 5 Nov 2020 and accepted on 16 Nov 2020 - Tender Invitation of FRP platform was commenced on 13 Nov 2020 and to be returned on 20 Nov 2020. Tender report submitted on 30 Nov 2020 and accepted on 11 Jan 2020 - Tender Invitation of instrument was commenced on 18 Nov 2020 and to be returned on 25 Nov 2020. Tender report submitted on 30 Nov 2020 - Based on the control philosophy agreed on 23 Dec 2020, motorized and solenoid valves were selected.
Tender award (C11)	15/05/2020-> 29/07/2020*	5/30/2020	15/07/2020->	11/30/2020	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020.
Acceptance of tender award (C11)	-	-	-	9/18/2020					-		
Design Submission	03/07/2020 -> 15/07/2020*	8/5/2020	21/09/2020-> 02/10/2020*	5/10/2021	Task Completed				100%	Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. -Design submission of Process Pumps (Rev.3) resubmitted on14 Apr 2021, AECOM accepted with comments on 7 May 2021. -Design submission of electrical calculation (rev.2) was resubmitted on 29 Apr 2021. AECOM accepted with comments on 10 May 2021. -Control Philosophy (Rev.2) resubmitted on 5 Mar 2021. AECOM accepted subject to comments on 26 Mar 2021.
Plant and Material Submission	21/07/2020 -> 30/07/2020*	7/21/2020	31/08/2020 -> 31/10/2020*	6/30/2021	Task Completed					Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Plant and Material submission of primary sludge thickener was resubmitted on 1 Sep 2020 (Rev. 3) and AECOM accepted on 8 Sep 2020. - Plant and Material submission P&M0002 (Rev.2) of process pumps was submitted on 5 August 2020 and AECOM commented on 26 Aug 2020, Bestwise to re-submitted to AECOM. - Plant and Material submission (Rev.0) for valves was submitted on 16 Nov 2020. AECOM accepted on 14 Dec 2020 subject to comments - Plant and Material submission (Rev.1) for DI pipes and fittings was resubmitted on 3 Dec 2020. AECOM accepted on 14 Dec 2020 - Plant and Material submission (Rev.0) for primary sludge equalization tank was submitted on 5 Feb 2021. AECOM accepted subject to comments on 25 Feb 2021. - Plant and Material submission (Rev.0) for activated carbon filter was submitted on 28 Jan 2021. AECOM accepted subject to comments on 5 Feb 2021. - Plant and Material submission (Rev. 1) for instruments was resubmitted on 13 Mar 2021. AECOM accepted subject to comments on 7 Apr 2021.
Drawing Submission	03/07/2020 -> 30/07/2020*	8/3/2020	21/09/2020 -> 21/11/2020*	2/10/2021	Task Completed				100%	Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - PFD, P&ID, Schematic GA (Rev.3) resubmitted on 22 Jan 2021 according to the finallized control philosophy. AECOM accepted subject to comment on 29 Jan 2021. - Electrical drawing - Bestwise resubmitted electrical drawing (Rev.5) on 22 Mar 2021. AECOM accepted on 16 Apr 2021.

	Material Manufacturing	31/07/2020 -> 30/09/2020*	8/4/2020	21/10/2020 -> 21/12/2020*	4/20/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Manufacturing instruction of PS thickener was issued on 3 August 2020. - Manufacturing instruction of process pumps was issued on 24 September 2020 - Electrical sub-contractor is awarded and manufacturing LCP
	Material Delivery	05/09/2020 ->	11/4/2020	16/11/2020 -	6/21/2021	Task Completed						
	Mechanical Installation	01/10/2020 -> 01/12/2020*	2/2/2021	15/11/2020 -> 15/01/2021*	5/17/2021	Task Completed				-		
	Offsite Fabrication and Delivery of FRP Tank		1/16/2021		4/7/2021	Task Completed				100%		First batch to be delivered on 23 Mar 2021
	Onsite Installation of FRP Tank		4/7/2021		7/30/2021	Task Completed						Water filling to tank completed; Tank hydraulic test completed.
	Electrical Installation	01/10/2020 -> 01/12/2020*	3/19/2021	15/11/2020 -> 15/01/2021*	7/19/2021	Task Completed				-		Energize of all LCPs on 24 May 2021 and isolated prior to system commissioning.
Temporary Primary Sludge Thickener and its accessories (Sub-programme was provided by Bestwise)	Testing and Comissioning	15/11/2020 -> 15/01/2021*	5/8/2021	22/11/2020 -> 22/01/2021*	9/30/2022	Completed				-		Improvement works under PMI are on-going and defect rectification for BCM comments was partially completed. - Testing and Commissioning (3 x 24hrs) completed by End September.
Modification of Existing Emergency Generator Electrical Works	Submission of subletting package (C9) for acceptance	10/15/2020	10/15/2020	10/31/2020	12/11/2020	Task Completed				100%		
	Acceptance of subletting package (C9)	11/1/2020	11/5/2020	11/15/2020	1/2/2021	Task Completed				100%		
	Tender invitation (C9)	11/16/2020	1/26/2021	11/30/2020	2/5/2021	Task Completed				100%		Tender invitation commenced on 26 Jan 2021, and returned on 5 Feb 2021
	Tender award (C9)	11/30/2020	2/18/2021	12/7/2020	2/18/2021	Task Completed				100%		Tender report was submitted on 18 Feb 2021 and accepted on 26 Feb 2021
	Acceptance of tender award (C9)	12/8/2020	2/18/2021	12/15/2020	2/26/2021	Task Completed				100%		
	Design Submission	12/15/2020	3/15/2021	1/15/2021	4/23/2021	Task Completed				100%		DWG-0100 was submitted on 23 Apr 2021. AECOM accepted with comments on 30 Apr
	Transportation of existing dismantled genset no. 2 (Genset No.2) to subcontractor (Click Ltd.)'s workshop	3/9/2021	3/9/2021	3/9/2021	3/9/2021	Task Completed				100%		
	Drawing submission (Drawing of General Layout for Existing 600kVA Genset Container)	4/23/2021	4/23/2021	4/30/2021	4/30/2021	Task Completed				100%		
	Drawing submission (Cable route ,general arrangement, etc)	5/14/2021	5/28/2021	5/21/2021	5 July 2021	Task Completed				100%		
	Material submission P431 P&M-0087	21 May 2021	19 June 2021	28 May 2021	12 July 2021	Task Completed				100%		
	Fabrication of container at PRC	21 June 2021	21 June 2021	TBC	8/12/2021	Task Completed				100%		
	Container deliver to HK	TBC	8/12/2021	8/10/2021	8/12/2021	Task Completed				100%		
	Off site modification work at HK factory	TBC	8/16/2021	8/24/2021	8/24/2021	Task Completed				100%		
	FAT plan of modified Genset No.2 P431 MS-036	7/12/2021	7/12/2021	8/20/2021	8/20/2021	Task Completed				100%		
	FAT of Genset No.2 after modification works	8/25/2021	8/25/2021	8/25/2021	8/25/2021	Task Completed				100%		
	Installation Work of I-beam Support	8/26/2021	8/26/2021	8/26/2021	8/26/2021	Task Completed				100%		
	Transportation of Genset No. 2 to existing power house in SWHSTW and completion of the Genset No.2 installation on I-beam supporting frame	8/27/2021	8/27/2021	8/27/2021	8/27/2021	Task Completed				100%		
	Provision of one (1) can of 160L diesel and a diesel hand pump placed at diesel daily tank of Genset No.1 for standby top up (PPMI-012 item L) Location to be coordinated and advised by SWHSTW operator DSD/ST1	7/27/2021	7/27/2021	8/31/2021								Location to be further coordinated with DSD.
	Modification works of existing switchboard	9/1/2021	9/1/2021	9/8/2021	9/8/2021	Task Completed				100%		
	Cables (including control cable and power cables) laying and installation of cable containment, busbar chamber	7/21/2021	7/30/2021	9/8/2021	9/8/2021	Task Completed				100%		
	Supply of busbar chamber/ connection box	8/10/2021	8/10/2021	9/3/2021	9/3/2021	Task Completed				100%		
	Completion of all Genset cables and cable termination work to existing power house in SWHSTW after the completion of Genset No. 2 installation work	9/1/2021	9/1/2021	9/8/2021	9/8/2021	Task Completed				100%		
	Delivery of dummy load and self-test	9/9/2021	9/9/2021	9/14/2021	9/15/2021	Task Completed				100%		
	SAT and T&C (witness by AECOM and DSD/ST1) Please allow 1 week advance notice for coordination with DSD/ST1, e.g. genset signal start, etc.)	9/15/2021	9/15/2021	9/15/2021	9/16/2021	Task Completed				100%		
04SC009 - Design, Supply and Installation of HVSB	Submission of subletting package for acceptance	4/21/2020		5/1/2020		-						
	Acceptance of subletting package	5/21/2020		5/30/2020		-						
	Tender invitation	6/1/2020		6/14/2020		-						
	Tender award	7/1/2020		7/14/2020		-						
04SC010 - Design, Supply and Installation of LVSB	Submission of subletting package for acceptance	5/1/2020		5/14/2020		-						

	Acceptance of subletting package	6/1/2020		6/14/2020		-						
	Tender invitation	6/14/2020		6/30/2020		-						
	Tender award	7/1/2020		7/14/2020		-						
04SC011 - Design and Installation of Building	Submission of subletting package for acceptance	4/14/2020		4/30/2020		-						
	Acceptance of subletting package	5/14/2020		5/30/2020		-						
	Tender invitation	5/30/2020		6/14/2020		-						
	Tender award	6/21/2020		6/30/2020		-						
04SC012 - Facility Computerized Systems	Submission of subletting package for acceptance	5/14/2020		5/30/2020		-						
	Acceptance of subletting package	6/14/2020		6/30/2020		-						
	Tender invitation	7/1/2020		7/14/2020		-						
	Tender award	7/21/2020		8/14/2020		-						
Plant and Materials (Marking Scheme)												
PS Clause no. 6B.2.1 Inlet Pump	Submission of marking scheme for PM's acceptance (fourth draft)	5/1/2020	5/1/2020	9/1/2020	8/19/2020	Task Completed				100%		AECOM commented on 14 August 2020, Bestwise resubmitted on 19 Aug 2020.
	Submission of marking scheme for PM's acceptance	5/1/2020	5/1/2020	9/1/2020	8/19/2020	Task Completed				100%		Bestwise resubmitted on 19 Aug 2020.
	Acceptance of marking scheme by the PM	5/15/2020	8/20/2020	9/15/2020	9/1/2020	Task Completed				100%		AECOM accepted on 1 Sep 2020
	Tender invitation	5/29/2020	9/9/2020	9/29/2020	9/18/2020	Task Completed				100%		Tender invitation was conducted on 9 Sept 2020 and returned on 18 Sept 2020.
PS Clause no. 6B.2.1 Inlet Pump	Tender award	6/5/2020	9/19/2020	10/5/2020	10/7/2020	Task Completed				100%		Technical Submission Evaluation Report was submitted on 5 Oct 2020, Tender report was submitted on 7 Oct 2020. AECOM noted on 8 Oct 2020.
	Acceptance of tender award	6/19/2020	10/17/2020	10/19/2020	11/15/2020	Task Completed				-		
	Submission of marking scheme for PM's acceptance (third draft)	5/1/2020	5/14/2020	9/1/2020	8/19/2020	Task Completed				100%		AECOM commented on 14 August 2020, Bestwise resubmitted on 19 Aug 2020
	Submission of marking scheme for PM's acceptance	5/1/2020	5/14/2020	9/1/2020	8/19/2020	Task Completed				100%		Bestwise resubmitted on 19 Aug 2020
PS Clause no. 6B.2.4 MBR Pre-treatment Screen	Acceptance of marking scheme by the PM	5/15/2020	8/20/2020	9/15/2020	9/1/2020	Task Completed				100%		AECOM accepted on 1 Sep 2020
	Tender invitation	5/29/2020	11/20/2020	9/29/2020	12/11/2020	Task Completed				100%		Tender invitation was conducted on 20 Nov 2020 and returned on 11 Dec 2020. Tender
	Tender award	6/5/2020	12/13/2020	10/5/2020	3/3/2021	Task Completed				100%		Technical Submission Evaluation Report was submitted on 12 Jan 2021. AECOM noted on 22 Jan 2021. Tender Report was submitted on 4 Feb 2021, AECOM commented on 19 Feb 2021, Bestwise submitted supplementary information on 26 Feb 2021. AECOM noted on 3 Mar
PS Clause no. 6B.2.4	Submission of marking scheme for PM's acceptance	5/1/2020	5/14/2020	9/1/2020	9/2/2020	Task Completed				100%		AECOM commented on 1 September 2020, Bestwise resubmitted on 2 Sep 2020
	Submission of marking scheme for PM's acceptance	5/1/2020	9/3/2020	9/1/2020	9/2/2020	Task Completed				100%		Bestwise resubmitted on 2 Sep 2020
PS Clause no. 6B.2.4 Air Diffusion System	Acceptance of marking scheme by the PM	5/15/2020	8/20/2020	9/15/2020	9/1/2020	Task Completed				100%		AECOM accepted on 1 Sep 2020, subject to conditions.
	Tender invitation	5/29/2020	2/17/2021	9/29/2020	3/12/2021	Task Completed				100%		Procurement package would follow the approved format (i.e. aeration blower) Tender invitation was conducted on 17 Feb 2021. Addendum No. 1 was issued on 18 Feb 2021. Tender return date was extended from 26 Feb 2021 to 12 Mar 2021. Tender returned on 12 Mar 2021
	Tender award	6/5/2020	3/18/2021	10/5/2020	4/20/2021	Task Completed				-		Technical Submission Evaluation Report was submitted on 18 Mar 2021. AECOM noted on 30 Mar 2021. Tender Report was submitted on 8 Apr 2021. LOI was issued to supplier.
	Acceptance of tender award	6/19/2020	2/20/2021	10/19/2020	3/12/2021	Task Completed				-		
PS Clause no. 6B.2.4	Submission of marking scheme for PM's acceptance	5/14/2020	5/14/2020	9/14/2020	8/19/2020	Task Completed				100%		AECOM commented on 14 August 2020, Bestwise resubmitted on 19 Aug 2020
	Submission of marking scheme for PM's acceptance	5/14/2020	5/14/2020	9/14/2020	8/19/2020	Task Completed				100%		Bestwise resubmitted on 19 Aug 2020
PS Clause no. 6B.2.4 BR Aeration Blower	Acceptance of marking scheme by the PM	5/28/2020	8/20/2020	9/28/2020	9/1/2020	Task Completed				100%		AECOM accepted on 1 Sep 2020
	Tender invitation	6/11/2020	2/3/2021	10/12/2020	3/3/2021	Task Completed				100%		Procurement package was submitted to AECOM under CGS-066. AECOM replied on 29 Jan 2021. Tender invitation was conducted on 3 Feb 2021. Tender returned on 3 Mar 2021
	Tender award	6/18/2020	3/4/2021	10/19/2020	4/12/2021	Task Completed				-		Technical Submission Evaluation Report was submitted on 10 Mar 2021. AECOM noted on 19 Mar 2021. Tender Report was submitted on 24 Mar 2021. LOI was issued to supplier.
	Acceptance of tender award	7/2/2020	3/4/2021	11/2/2020	3/25/2021	Task Completed				-		AECOM accepted on 1 Sep 2020, subject to conditions.
PS Clause no. 6B.2.4	Submission of marking scheme for PM's acceptance	5/14/2020	5/1/2020	9/14/2020	9/2/2020	Task Completed				100%		AECOM commented on 1 September 2020, Bestwise resubmitted on 2 Sep 2020
	Submission of marking scheme for PM's acceptance	5/14/2020	9/3/2020	9/14/2020	9/2/2020	Task Completed				100%		Bestwise resubmitted on 2 Sep 2020
	Acceptance of marking scheme by the PM	5/28/2020	9/3/2020	9/28/2020	9/5/2020	Task Completed				100%		AECOM accepted on 5 Sep 2020 subject to conditions.
	Tender invitation	6/11/2020	9/14/2020	10/12/2020	10/5/2020	Task Completed				100%		Tender invitation was conducted on 14 Sept 2020 and returned on 5 Oct 2020.
PS Clause no. 6B.2.4 Membrane Modules, Cassettes / Racks	Tender award	6/18/2020	10/6/2020	10/19/2020	11/2/2020	Task Completed				100%		Technical Submission Evaluation Report was submitted on 14 Oct 2020, Tender report was submitted on 2 Nov 2020. AECOM noted on 4 Nov 2020.
	Acceptance of tender award	7/2/2020	11/3/2020	11/2/2020	11/24/2020	Task Completed				-		
	Submission of marking scheme for PM's acceptance (second draft)	5/14/2020	5/14/2020	9/14/2020	8/19/2020	Task Completed				100%		AECOM commented on 14 August 2020, Bestwise resubmitted on 19 Aug 2020
	Submission of marking scheme for PM's acceptance	5/14/2020	5/14/2020	9/14/2020	8/19/2020	Task Completed				100%		Bestwise resubmitted on 19 Aug 2020
	Acceptance of marking scheme by the PM	5/28/2020	8/20/2020	9/28/2020	9/1/2020	Task Completed				100%		AECOM accepeted on 1 Sep 2020
	Tender invitation	6/11/2020	9/25/2020	10/12/2020	10/29/2020	Task Completed				100%		Tender invitation was conducted on 25 Sept 2020 and returned on 29 Oct 2020.
PS Clause no. 6B.2.4 RAS Pump	Tender award	6/18/2020	10/30/2020	10/19/2020	12/2/2020	Task Completed				100%		Technical Submission Evaluation Report was submitted on 6 Nov 2020. Tender report was submitted on 24 Nov 2020, AECOM noted on 2 Dec 2020.
	Acceptance of tender award	7/2/2020	11/21/2020	11/2/2020	12/12/2020	Task Completed				-		

Usage of WA2-A		-		2/21/2020	2/21/2020	Task Completed				-		Site works including fencing and site clearnace works to be completed by DC/2018/06 by 30/4/2020 WA2C handovered to Bestwise on 21 February 2020

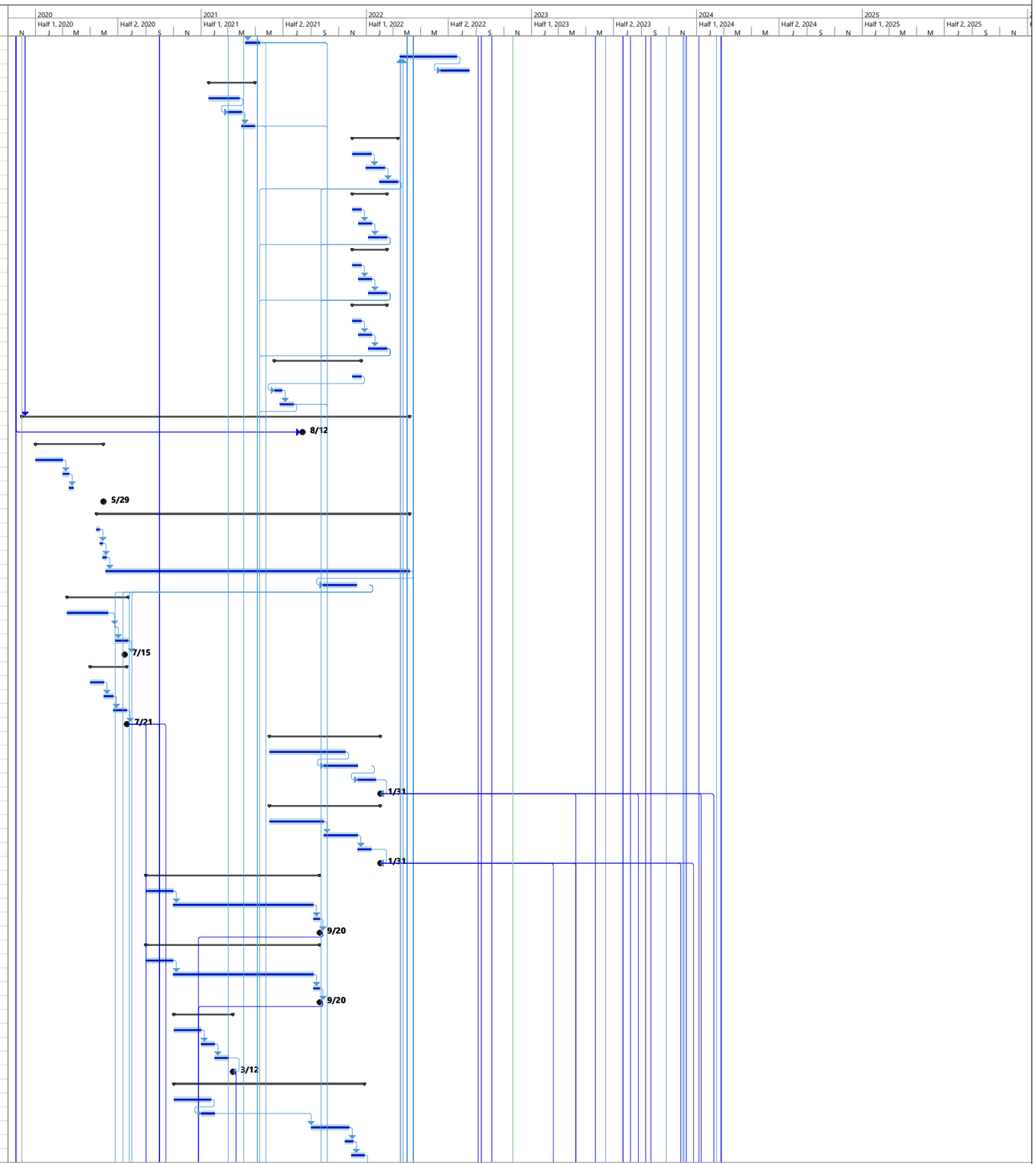
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1	**DE/2018/04 - Contract Master Programme**	**1991 days**	**Dec 2 '19**	**May 14 '25**	**Dec 2 '19**	**May 14 '25**	**0 days**			
2	Starting Date	0 days	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 days		3SS+1625 edays,	
3	Completion Date	0 days	May 14 '24	May 14 '24	May 14 '24	May 14 '24	0 days	2SS+1625 eday:	4	
4	Defect Dates with respect to Completion Date	365 days	May 15 '24	May 14 '25	May 15 '24	May 14 '25	0 days	3		
5	**Access Dates**	**1599 days**	**Dec 2 '19**	**Apr 18 '24**	**Dec 2 '19**	**Apr 18 '24**	**0 days**			
6	Access Date for Works Area WA1-C	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days			
7	Access Date for Works Area WA2-C	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days			
8	Access Date for Portion B-2, Inlet Works No. 1	150 edays	Jun 28 '22	Nov 25 '22	Jun 28 '22	Nov 25 '22	0 edays			
9	Access Date for Portion B-3, PST No. 1~4	90 edays	Jan 14 '23	Apr 14 '23	Jan 14 '23	Apr 14 '23	0 edays			
10	Access Date for Portion B-3A, Existing PST No. 4 and No. 6	0 days	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 days			
11	Access Date for Portion B-3B, Temporary Filtrate Lifting Well and Eq. Tank	0 days	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 days			
12	Access Date for Portion B-4, BR 2A & 2B	0 edays	Jun 26 '23	Jun 26 '23	Jun 26 '23	Jun 26 '23	0 edays			
13	Access Date for Portion B-5A, MFB No. 2 below 1st floor level (G.L. 1-8)	0 edays	Dec 2 '23	Dec 2 '23	Dec 2 '23	Dec 2 '23	0 edays		1078	
14	Access Date for Portion B-5B, MFB No. 2 remaining portion	0 edays	Dec 30 '23	Dec 30 '23	Dec 30 '23	Dec 30 '23	0 edays		1153	
15	Access Date for Portion B-5B, MFB No. 2 below 1st floor level (G.L. 8-10)	0 edays	Feb 17 '24	Feb 17 '24	Feb 17 '24	Feb 17 '24	0 edays		1158,1089,1088	
16	Access Date for Portion B-7 & 7B, DOU3A & Temporary Chemical System	0 edays	Sep 28 '22	Sep 28 '22	Sep 28 '22	Sep 28 '22	0 edays		1421,1422	
17	Access Date for Portion B-7 & 7B, Emergency Generator House, FS & Sprinkler Pu	0 edays	Aug 29 '22	Aug 29 '22	Aug 29 '22	Aug 29 '22	0 edays		1504	
18	Access Date for Portion B-7 & 7B, Chemical System No.1	0 edays	Sep 5 '22	Sep 5 '22	Sep 5 '22	Sep 5 '22	0 edays		1332,1333	
19	Access Date for Portion B-7 & 7B, Street Fire Hydrant & Booster Pump Room	0 edays	May 15 '23	May 15 '23	May 15 '23	May 15 '23	0 edays		1821,1434	
20	Access Date for Portion B-7 & 7B, DOU No.1	0 edays	Jul 15 '23	Jul 15 '23	Jul 15 '23	Jul 15 '23	0 edays		1551,1552	
21	Access Date for Portion B-7 & 7B, Flowmeter Chamber No.1	0 edays	Aug 15 '23	Aug 15 '23	Aug 15 '23	Aug 15 '23	0 edays		1614	
22	Access Date for Portion B-7 & 7B, Gate Valve Chamber No. 1 & 2, Flowmeter Cha	0 edays	Sep 15 '23	Sep 15 '23	Sep 15 '23	Sep 15 '23	0 edays		1614	
23	Access Date for Portion B-7A & 7B, area for modification of existing emergency g	0 edays	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 edays			
24	Access Date for Portion B-9B, underground pipework	60 edays	Feb 18 '24	Apr 18 '24	Feb 18 '24	Apr 18 '24	0 edays			
25	Access Date for B-10, existing sludge thickening building	0 edays	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 edays			
26	**Key Dates**	**555 days**	**Dec 2 '19**	**Jun 9 '21**	**Dec 2 '19**	**Jun 9 '21**	**0 days**			
27	KD1A - Submission of civil and dimensional requirement drawings, electrical sche	340 edays	Dec 2 '19	Nov 6 '20	Dec 2 '19	Nov 6 '20	0 edays	38FF		
28	KD1B - Submission of remaining civil and dimensional requirement drawings, elec	550 edays	Dec 2 '19	Jun 4 '21	Dec 2 '19	Jun 4 '21	0 edays	39FF		
29	KD3A - Completion of E&M Installation works of existing power house in Portions	240 edays	Dec 2 '19	Jul 29 '20	Dec 2 '19	Jul 29 '20	0 edays	40FF		
30	KD3B - Completion of all work for reprovision of the existing Primary Sedimentat	555 edays	Dec 2 '19	Jun 9 '21	Dec 2 '19	Jun 9 '21	0 edays	41FF		
31	**Sectional Completion Dates**	**1625 days**	**Dec 2 '19**	**May 14 '24**	**Dec 2 '19**	**May 14 '24**	**0 days**			
32	Section 1 - Completion of the design of E&M Works for all works as defined in WI	600 edays	Dec 2 '19	Jul 24 '21	Dec 2 '19	Jul 24 '21	0 edays	42FF		
33	Section 2 - Completion of all works for Inlet Works, PST No. 1~4, BR No. 2A & 2B,	1600 edays	Dec 2 '19	Apr 19 '24	Dec 2 '19	Apr 19 '24	0 edays	43FF		
34	Section 3 - Completion of all works for retrofitting of the existing PST...etc (660 d	660 edays	Dec 2 '19	Sep 22 '21	Dec 2 '19	Sep 22 '21	0 edays	44FF		
35	Section 4 - Completion of Work for remainder of the works (1625 days after start	1625 edays	Dec 2 '19	May 14 '24	Dec 2 '19	May 14 '24	0 edays	45FF		
36	**DE/2018/04 - the Contractor's Programme (w/ Defects Date of Planned Completic**	**2608 days?**	**Dec 2 '19**	**Jan 21 '27**	**Dec 2 '19**	**Apr 30 '25**	**0 days?**			
37	Starting Date	0 days	Dec 2 '19	Dec 2 '19	Dec 2 '19	Dec 2 '19	0 days		965,232SS+30 ec	
38	Planned Key Date Completion Date - KD1A	0 days	Oct 30 '20	Oct 30 '20	Oct 30 '20	Oct 30 '20	0 days		27FF	
39	Planned Key Date Completion Date - KD1B	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days		28FF	
40	Planned Key Date Completion Date - KD3A	0 days	Jul 22 '20	Jul 22 '20	Jul 22 '20	Jul 22 '20	0 days		29FF	
41	Planned Key Date Completion Date - KD3B	0 days	Jun 7 '21	Jun 7 '21	Jun 7 '21	Jun 7 '21	0 days		30FF	
42	Planned Sectional Completion Date - Section 1	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days		32FF	
43	Planned Sectional Completion Date - Section 2	0 days	Apr 1 '24	Apr 1 '24	Apr 19 '24	Apr 19 '24	18 days		33FF	
44	Planned Sectional Completion Date - Section 3	0 days	Sep 1 '21	Sep 1 '21	Sep 1 '21	Sep 1 '21	0 days		34FF	
45	Planned Sectional Completion Date - Section 4	0 days	May 1 '24	May 1 '24	May 14 '24	May 14 '24	13 days		35FF	
46	Planned Completion Date	0 days	Jan 21 '27	Jan 21 '27	May 14 '24	May 14 '24	0 days	1885,1886,188	3	
47	Defect Dates with respect to planned completion date	365 days	May 1 '24	Apr 30 '25	May 1 '24	Apr 30 '25	0 days			
48	**Part A: Procurement and Delivery of Major Plant and Materials (for multi buildi**	**776 days**	**Jul 1 '20**	**Aug 15 '22**	**Jul 1 '20**	**Aug 15 '22**	**0 days**			
49	Planned Completion Date for Procurement of major plant and materials	0 days	Jun 3 '21	Jun 3 '21	Jun 3 '21	Jun 3 '21	0 days	37SS+550 days		
50	**General - stoplogs and penstocks, C11, EQT013**	**84 days**	**Jul 1 '20**	**Sep 22 '20**	**Jul 1 '20**	**Sep 22 '20**	**0 days**			
51	Submission for acceptance of purchasing package	84 days	Jul 1 '20	Sep 22 '20	Jul 1 '20	Sep 22 '20	0 days		52	
52	Invitation of quotations for purchasing package	20 days	Jul 10 '20	Jul 29 '20	Jul 10 '20	Jul 29 '20	0 days	51	53	
53	Acceptance of conforming quotation (Completed)	30 days	Aug 4 '20	Sep 2 '20	Aug 4 '20	Sep 2 '20	0 days	52	283	
54	**General - Instrumentations except use at BR, C11, EQT035-1**	**425 days**	**Jan 2 '21**	**Mar 2 '22**	**Jan 2 '21**	**Mar 2 '22**	**0 days**			
55	Submission for acceptance of purchasing package	84 days	Jan 2 '21	Mar 26 '21	Jan 2 '21	Mar 26 '21	0 days		56	
56	Invitation of quotations for purchasing package (Rev. 10)	42 days	Jun 11 '21	Jul 22 '21	Jun 11 '21	Jul 22 '21	0 days	55	57	
57	Acceptance of conforming quotation (Rev. 10)	41 days	Jul 11 '21	Aug 20 '21	Jul 11 '21	Aug 20 '21	0 days	56	58	
58	Manufacturing and Factory Acceptance Test of Plant (Rev. 10)	169 days	Aug 10 '21	Jan 25 '22	Aug 10 '21	Jan 25 '22	0 days	57	59	
59	Shipping and Delivery of Plant (Rev. 10)	84 days	Dec 9 '21	Mar 2 '22	Dec 9 '21	Mar 2 '22	0 days	58	362,631,1180,37	
60	**General - Valves for Inlet Works no.1, PST no. 1-4, BR2A2B, MFB2 and Flowm**	**543 days**	**Nov 2 '20**	**Apr 28 '22**	**Nov 2 '20**	**Apr 28 '22**	**0 days**			
61	Submission for acceptance of purchasing package (Rev. 11)	355 days	Nov 2 '20	Oct 22 '21	Nov 2 '20	Oct 22 '21	0 days		62	
62	Invitation of quotations for purchasing package (Rev. 11)	13 days	Dec 23 '21	Jan 4 '22	Dec 23 '21	Jan 4 '22	0 days	61	63	
63	Acceptance of conforming quotation (Rev. 11)	30 days	Mar 30 '22	Apr 28 '22	Mar 30 '22	Apr 28 '22	0 days	62	305,311,584,837	
64	Submission for acceptance of purchasing package for remaining pipework ar	40 days	Nov 1 '21	Dec 10 '21	Nov 1 '21	Dec 10 '21	0 days		65	
65	Invitation of quotations for purchasing package (Rev. 13)	20 days	Dec 1 '21	Dec 20 '21	Dec 1 '21	Dec 20 '21	0 days	64	66	
66	Acceptance of conforming quotation (Rev. 13)	20 days	Dec 15 '21	Jan 3 '22	Dec 15 '21	Jan 3 '22	0 days	65	305,311,584,837	
67	**General - Electric actuators for valves, C11, ref. EQT072 (Rev. 11)**	**78 days**	**Dec 2 '21**	**Feb 17 '22**	**Dec 2 '21**	**Feb 17 '22**	**0 days**			
68	Submission for acceptance of purchasing package (Rev. 11)	42 days	Dec 2 '21	Jan 12 '22	Dec 2 '21	Jan 12 '22	0 days		69	
69	Invitation of quotations for purchasing package (Rev. 11)	42 days	Jan 1 '22	Feb 11 '22	Jan 1 '22	Feb 11 '22	0 days	68	70	
70	Acceptance of conforming quotation (Rev. 11)	18 days	Jan 31 '22	Feb 17 '22	Jan 31 '22	Feb 17 '22	0 days	69	311,584,837,104	
71	**General - HV Switchboards, C9, ref. 04SC012 (Rev. 14)**	**124 days**	**Jan 4 '21**	**May 7 '21**	**Jan 4 '21**	**May 7 '21**	**0 days**			
72	Submission for acceptance of purchasing package	61 days	Jan 4 '21	Mar 5 '21	Jan 4 '21	Mar 5 '21	0 days		73	
73	Invitation of quotations for purchasing package	12 days	Mar 18 '21	Mar 29 '21	Mar 18 '21	Mar 29 '21	0 days	72	74	
74	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Apr 8 '21	May 7 '21	Apr 8 '21	May 7 '21	0 days	73	1002	
75	**General - LV Switchboards, C9, ref. 04SC013 (Rev. 14)**	**114 days**	**Jan 4 '21**	**Apr 27 '21**	**Jan 4 '21**	**Apr 27 '21**	**0 days**			
76	Submission for acceptance of purchasing package	82 days	Jan 4 '21	Mar 26 '21	Jan 4 '21	Mar 26 '21	0 days		77	
77	Invitation of quotations for purchasing package	21 days	Feb 26 '21	Mar 18 '21	Feb 26 '21	Mar 18 '21	0 days	76	78	
78	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Mar 29 '21	Apr 27 '21	Mar 29 '21	Apr 27 '21	0 days	77	286,811,557,100	
79	**General - VSDs & Passive Type Harmonic Filters, C11, ref. EQT034 (Rev. 5)**	**592 days**	**Jan 1 '21**	**Aug 15 '22**	**Jan 1 '21**	**Aug 15 '22**	**0 days**			
80	Submission for acceptance of purchasing package	84 days	Jan 1 '21	Mar 25 '21	Jan 1 '21	Mar 25 '21	0 days		81	
81	Invitation of quotations for purchasing package	19 days	Mar 19 '21	Apr 6 '21	Mar 19 '21	Apr 6 '21	0 days	80	82	



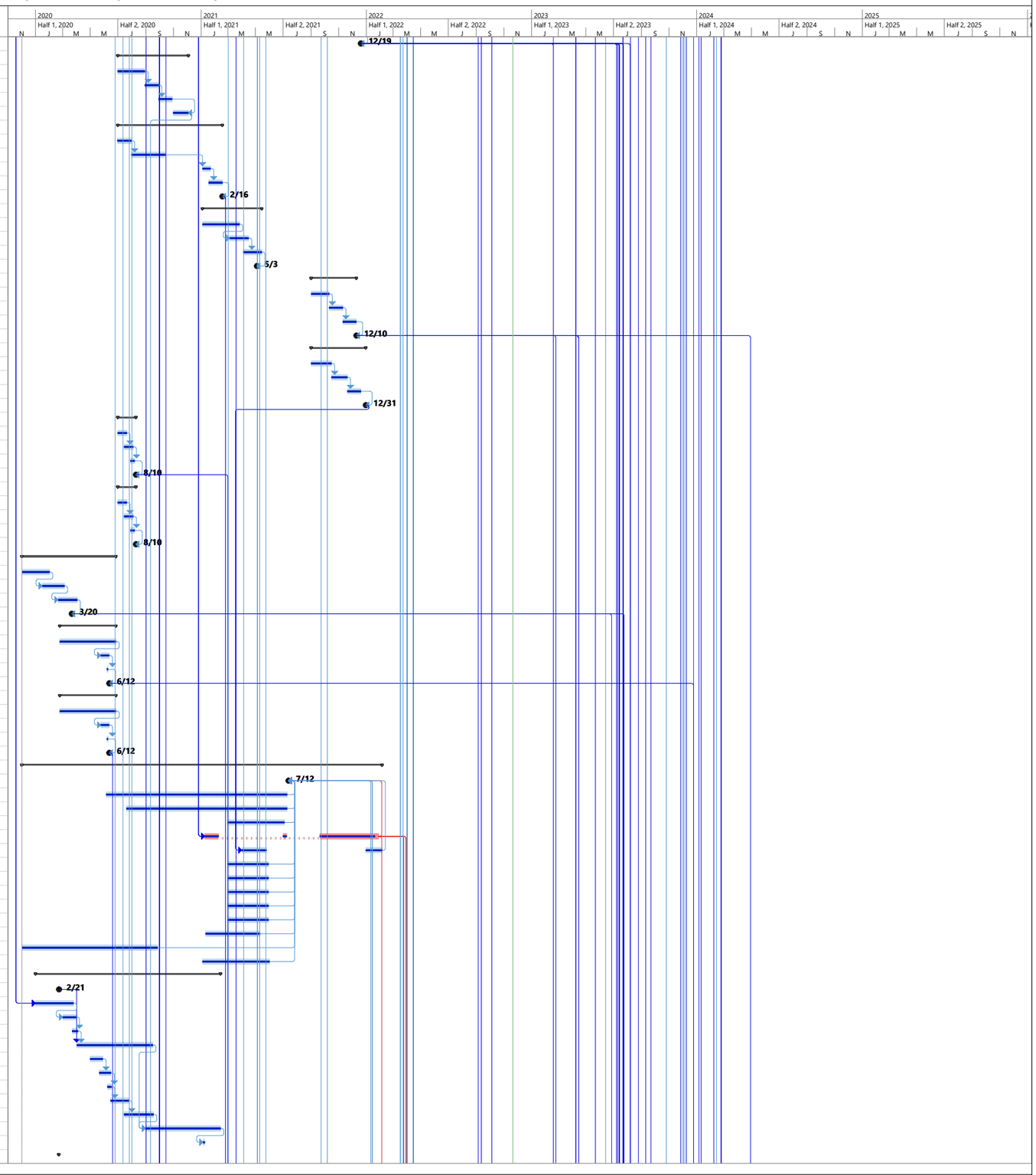
Bestwise
Project: DE/2018/04
Date: 31/10/22

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

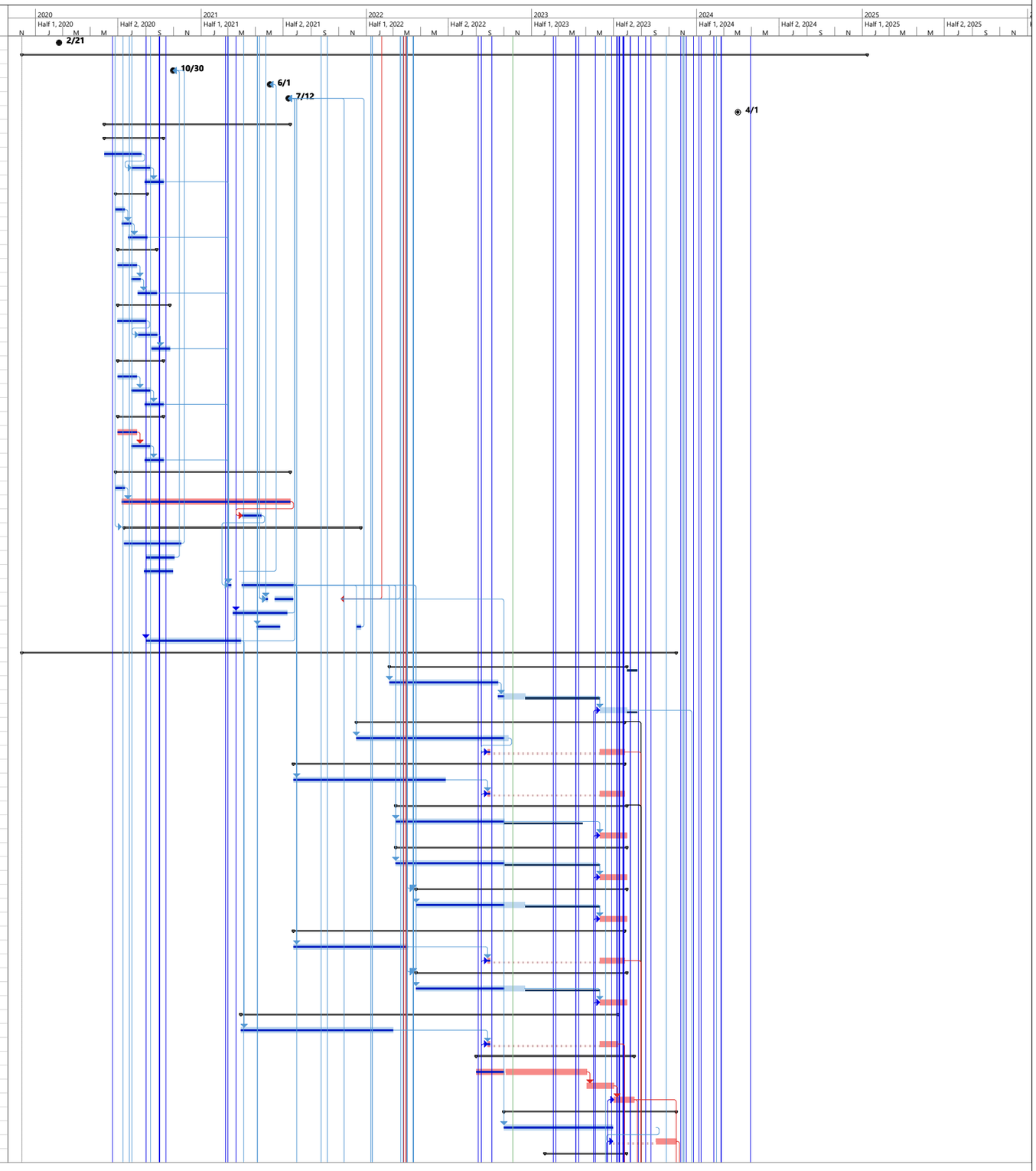
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
82	Acceptance of conforming quotation (Rev. 11, Completed)	32 days	Apr 9 '21	May 10 '21	Apr 9 '21	May 10 '21	0 days	81	284,555,809,997	
83	Manufacturing and Factory Acceptance Test of Plant	126 days	Mar 16 '22	Jul 19 '22	Mar 16 '22	Jul 19 '22	0 days	284,555,809,99	84	
84	Shipping and Delivery of Plant to LVSB Sub-Contractor	63 days	Jun 14 '22	Aug 15 '22	Jun 14 '22	Aug 15 '22	0 days	83		
85	**General - 11kV/380V Stepdown Power Transformers, C11, EQT032 (Rev. 5)**	**102 days**	**Jan 18 '21**	**Apr 29 '21**	**Jan 18 '21**	**Apr 29 '21**	**0 days**			
86	Submission for acceptance of purchasing package	68 days	Jan 18 '21	Mar 26 '21	Jan 18 '21	Mar 26 '21	0 days		87	
87	Invitation of quotations for purchasing package	31 days	Mar 1 '21	Mar 31 '21	Mar 1 '21	Mar 31 '21	0 days	86	88	
88	Acceptance of conforming quotation (Rev. 11, Completed)	30 days	Mar 31 '21	Apr 29 '21	Mar 31 '21	Apr 29 '21	0 days	87	284,997	
89	**General - UPS, C11, EQT039A (Rev. 14)**	**101 days**	**Dec 1 '21**	**Mar 11 '22**	**Dec 1 '21**	**Mar 11 '22**	**0 days**			
90	Submission for acceptance of purchasing package (Rev. 13)	42 days	Dec 1 '21	Jan 11 '22	Dec 1 '21	Jan 11 '22	0 days		91	
91	Invitation of quotations for purchasing package (Rev. 13)	42 days	Dec 31 '21	Feb 10 '22	Dec 31 '21	Feb 10 '22	0 days	90	92	
92	Acceptance of conforming quotation (Rev. 13)	41 days	Jan 30 '22	Mar 11 '22	Jan 30 '22	Mar 11 '22	0 days	91	284,555,809,997	
93	**General - HV Cables, C11, EQT041 (Rev. 13)**	**77 days**	**Dec 1 '21**	**Feb 15 '22**	**Dec 1 '21**	**Feb 15 '22**	**0 days**			
94	Submission for acceptance of purchasing package	20 days	Dec 1 '21	Dec 20 '21	Dec 1 '21	Dec 20 '21	0 days		95	
95	Invitation of quotations for purchasing package	29 days	Dec 15 '21	Jan 12 '22	Dec 15 '21	Jan 12 '22	0 days	94	96	
96	Acceptance of conforming quotation	42 days	Jan 5 '22	Feb 15 '22	Jan 5 '22	Feb 15 '22	0 days	95	284,997	
97	**General - LV Cables, C11, EQT042 (Rev. 13)**	**77 days**	**Dec 1 '21**	**Feb 15 '22**	**Dec 1 '21**	**Feb 15 '22**	**0 days**			
98	Submission for acceptance of purchasing package	20 days	Dec 1 '21	Dec 20 '21	Dec 1 '21	Dec 20 '21	0 days		99	
99	Invitation of quotations for purchasing package	29 days	Dec 15 '21	Jan 12 '22	Dec 15 '21	Jan 12 '22	0 days	98	100	
100	Acceptance of conforming quotation	42 days	Jan 5 '22	Feb 15 '22	Jan 5 '22	Feb 15 '22	0 days	99	284,555,809,997	
101	**General - FRP Covers & Walkways & Platform & Ladders, EQT050 (Rev.18)**	**77 days**	**Dec 1 '21**	**Feb 15 '22**	**Dec 1 '21**	**Feb 15 '22**	**0 days**			
102	Submission for acceptance of purchasing package	20 days	Dec 1 '21	Dec 20 '21	Dec 1 '21	Dec 20 '21	0 days		103	
103	Invitation of quotations for purchasing package	29 days	Dec 15 '21	Jan 12 '22	Dec 15 '21	Jan 12 '22	0 days	102	104	
104	Acceptance of conforming quotation	42 days	Jan 5 '22	Feb 15 '22	Jan 5 '22	Feb 15 '22	0 days	103	284,555,809,997	
105	**General - Gas Detection System, C11, EQT051 (Rev. 16)**	**192 days**	**Jun 12 '21**	**Dec 20 '21**	**Jun 12 '21**	**Dec 20 '21**	**0 days**			
106	Submission for acceptance of purchasing package	20 days	Dec 1 '21	Dec 20 '21	Dec 1 '21	Dec 20 '21	0 days		107	
107	Invitation of quotations for purchasing package	17 days	Jun 12 '21	Jun 28 '21	Jun 12 '21	Jun 28 '21	0 days	106	108	
108	Acceptance of conforming quotation (Completed)	30 days	Jun 24 '21	Jul 23 '21	Jun 24 '21	Jul 23 '21	0 days	107	284,555,809,997	
109	**Part B: Subletting of major sub-contract works**	**857 days**	**Dec 2 '19**	**Apr 6 '22**	**Dec 2 '19**	**Apr 6 '22**	**0 days**	**2,37**		
110	Planned Completion Date for major sub-contract works	0 days	Aug 12 '21	Aug 12 '21	Aug 12 '21	Aug 12 '21	0 days	2SS+620 days,3		
111	**General - Independent BEAM Plus Consultant (04SC007)**	**150 days**	**Jan 1 '20**	**May 29 '20**	**Jan 1 '20**	**May 29 '20**	**0 days**			
112	Submission for acceptance of proposed Independent BEAM Plus Consultant	60 edays	Jan 1 '20	Mar 1 '20	Jan 1 '20	Mar 1 '20	0 edays		113	
113	Acceptance of proposed Independent BEAM Plus Consultant	14 edays	Mar 1 '20	Mar 15 '20	Mar 1 '20	Mar 15 '20	0 edays	112	114	
114	Engagement with an Independent BEAM Plus Consultant	10 days	Mar 15 '20	Mar 24 '20	Mar 15 '20	Mar 24 '20	0 days	113		
115	Actual Date for engagement with an independent BEAM Plus Consultant (Cc	0 days	May 29 '20	May 29 '20	May 29 '20	May 29 '20	0 days			
116	**General - Conduction of Pump sump physical model test (04SC015)**	**692 days**	**May 15 '20**	**Apr 6 '22**	**May 15 '20**	**Apr 6 '22**	**0 days**			
117	Submission for acceptance of proposed hydraulic laboratory to conduct the	7 edays	May 15 '20	May 22 '20	May 15 '20	May 22 '20	0 edays		118	
118	Invitation to quotations for provision of service	7 edays	May 22 '20	May 29 '20	May 22 '20	May 29 '20	0 edays	117	119	
119	Acceptance of proposed hydraulic laboratory	8 days	May 29 '20	Jun 5 '20	May 29 '20	Jun 5 '20	0 days	118	120	
120	Commencement of detailed proposal and conduction of test (Rev 13)	672 days	Jun 4 '20	Apr 6 '22	Jun 4 '20	Apr 6 '22	0 days	119	121	
121	Acceptance of hydraulic Report (Rev 16)	75 days	Sep 27 '21	Jan 7 '22	Sep 27 '21	Jan 7 '22	0 days	120	279,550,804,992	
122	**General - Independent Checking Engineer (04SC004)**	**135 days**	**Mar 11 '20**	**Jul 23 '20**	**Mar 11 '20**	**Jul 23 '20**	**0 days**			
123	Submission for acceptance of proposed Independent Checking Engineer	90 edays	Mar 11 '20	Jun 9 '20	Mar 11 '20	Jun 9 '20	0 edays		124	
124	Acceptance of proposed Independent Checking Engineer	1 eday	Jun 24 '20	Jun 25 '20	Jun 24 '20	Jun 25 '20	0 edays	123	125	
125	Engagement with an Independent Checking Engineer	29 days	Jun 25 '20	Jul 23 '20	Jun 25 '20	Jul 23 '20	0 days	124	126	
126	Actual Date for engagement with an ICE (Completed)	0 days	Jul 15 '20	Jul 15 '20	Jul 15 '20	Jul 15 '20	0 days	125		
127	**General - Lifting Appliances (04SC008)**	**81 days**	**May 1 '20**	**Jul 21 '20**	**May 1 '20**	**Jul 21 '20**	**0 days**			
128	Submission for acceptance of subcontract works package	30 edays	May 1 '20	May 31 '20	May 1 '20	May 31 '20	0 edays		129	
129	Invitation of tender for subcontract works	21 edays	May 31 '20	Jun 21 '20	May 31 '20	Jun 21 '20	0 edays	128	130	
130	Acceptance of conforming tender	30 edays	Jun 21 '20	Jul 21 '20	Jun 21 '20	Jul 21 '20	0 edays	129	131	
131	Sub-contract work commencement date (Completed)	0 days	Jul 21 '20	Jul 21 '20	Jul 21 '20	Jul 21 '20	0 days	130	287,558,814,100	
132	**General - Mechanical Installations**	**245 days**	**Jun 1 '21**	**Jan 31 '22**	**Jun 1 '21**	**Jan 31 '22**	**0 days**			
133	Submission for acceptance of subcontract works package	168 days	Jun 1 '21	Nov 15 '21	Jun 1 '21	Nov 15 '21	0 days		134	
134	Invitation of tender for subcontract works	75 days	Sep 29 '21	Jan 11 '22	Sep 29 '21	Jan 11 '22	0 days	133	135	
135	Acceptance of conforming tender	40 days	Dec 13 '21	Jan 21 '22	Dec 13 '21	Jan 21 '22	0 days	134	136FF	
136	Sub-contract work commencement date	2 days	Jan 30 '22	Jan 31 '22	Jan 30 '22	Jan 31 '22	0 days	135FF	353,620,1087,11	
137	**General - Electrical Installations**	**245 days**	**Jun 1 '21**	**Jan 31 '22**	**Jun 1 '21**	**Jan 31 '22**	**0 days**			
138	Submission for acceptance of subcontract works package	120 edays	Jun 1 '21	Sep 29 '21	Jun 1 '21	Sep 29 '21	0 edays		139	
139	Invitation of tender for subcontract works	75 edays	Sep 29 '21	Dec 13 '21	Sep 29 '21	Dec 13 '21	0 edays	138	140	
140	Acceptance of conforming tender	30 edays	Dec 13 '21	Jan 12 '22	Dec 13 '21	Jan 12 '22	0 edays	139	141FF	
141	Sub-contract work commencement date	2 days	Jan 30 '22	Jan 31 '22	Jan 30 '22	Jan 31 '22	0 days	140FF	636,928,1111,11	
142	**General - Facility Computerized Systems (SCADA & PMS) 04SC018**	**384 days**	**Sep 1 '20**	**Sep 20 '21**	**Sep 1 '20**	**Sep 20 '21**	**0 days**			
143	Submission for acceptance of subcontract works package	60 edays	Sep 1 '20	Oct 31 '20	Sep 1 '20	Oct 31 '20	0 edays		144	
144	Invitation of tender for subcontract works	310 edays	Oct 31 '20	Sep 6 '21	Oct 31 '20	Sep 6 '21	0 edays	143	145	
145	Acceptance of conforming tender (Completed)	14 edays	Sep 6 '21	Sep 20 '21	Sep 6 '21	Sep 20 '21	0 edays	144	146	
146	Sub-contract work commencement date	0 days	Sep 20 '21	Sep 20 '21	Sep 20 '21	Sep 20 '21	0 days	145	220	
147	**General - Facility Computerized Systems (CMMS & IDMS) 04SC057**	**384 days**	**Sep 1 '20**	**Sep 20 '21**	**Sep 1 '20**	**Sep 20 '21**	**0 days**			
148	Submission for acceptance of subcontract works package	60 edays	Sep 1 '20	Oct 31 '20	Sep 1 '20	Oct 31 '20	0 edays		149	
149	Invitation of tender for subcontract works	310 edays	Oct 31 '20	Sep 6 '21	Oct 31 '20	Sep 6 '21	0 edays	148	150	
150	Acceptance of conforming tender	14 edays	Sep 6 '21	Sep 20 '21	Sep 6 '21	Sep 20 '21	0 edays	149	151	
151	Sub-contract work commencement date	0 days	Sep 20 '21	Sep 20 '21	Sep 20 '21	Sep 20 '21	0 days	150	220	
152	**General - Building Services Installations**	**130 days**	**Nov 2 '20**	**Mar 12 '21**	**Nov 2 '20**	**Mar 12 '21**	**0 days**			
153	Submission for acceptance of subcontract works package (Rev. 15)	60 edays	Nov 2 '20	Jan 1 '21	Nov 2 '20	Jan 1 '21	0 edays		154	
154	Invitation of tender for subcontract works	30 edays	Jan 1 '21	Jan 31 '21	Jan 1 '21	Jan 31 '21	0 edays	153	155	
155	Acceptance of conforming tender	30 edays	Jan 31 '21	Mar 2 '21	Jan 31 '21	Mar 2 '21	0 edays	154	156FF	
156	Sub-contract work commencement date	0 days	Mar 12 '21	Mar 12 '21	Mar 12 '21	Mar 12 '21	0 days	155FF	285,556,810,100	
157	**General - Mechanical Ventilation and Air Conditioning Installation (Rev. 13) (**	**421 days**	**Nov 2 '20**	**Dec 27 '21**	**Nov 2 '20**	**Dec 27 '21**	**0 days**			
158	Submission for acceptance of subcontract works package	82 days	Nov 2 '20	Jan 22 '21	Nov 2 '20	Jan 22 '21	0 days		159	
159	Invitation of tender for subcontract works	30 edays	Dec 31 '20	Jan 30 '21	Dec 31 '20	Jan 30 '21	0 edays	158	160	
160	Submission for acceptance of revised subcontract works package (Rev. 13)	84 days	Sep 1 '21	Nov 23 '21	Sep 1 '21	Nov 23 '21	0 days	159	161	
161	Invitation of tender for subcontract works (Rev. 15)	18 days	Nov 15 '21	Dec 2 '21	Nov 15 '21	Dec 2 '21	0 days	160	162	
162	Acceptance of conforming tender (Rev. 13)	29 days	Nov 29 '21	Dec 27 '21	Nov 29 '21	Dec 27 '21	0 days	161	163FF	



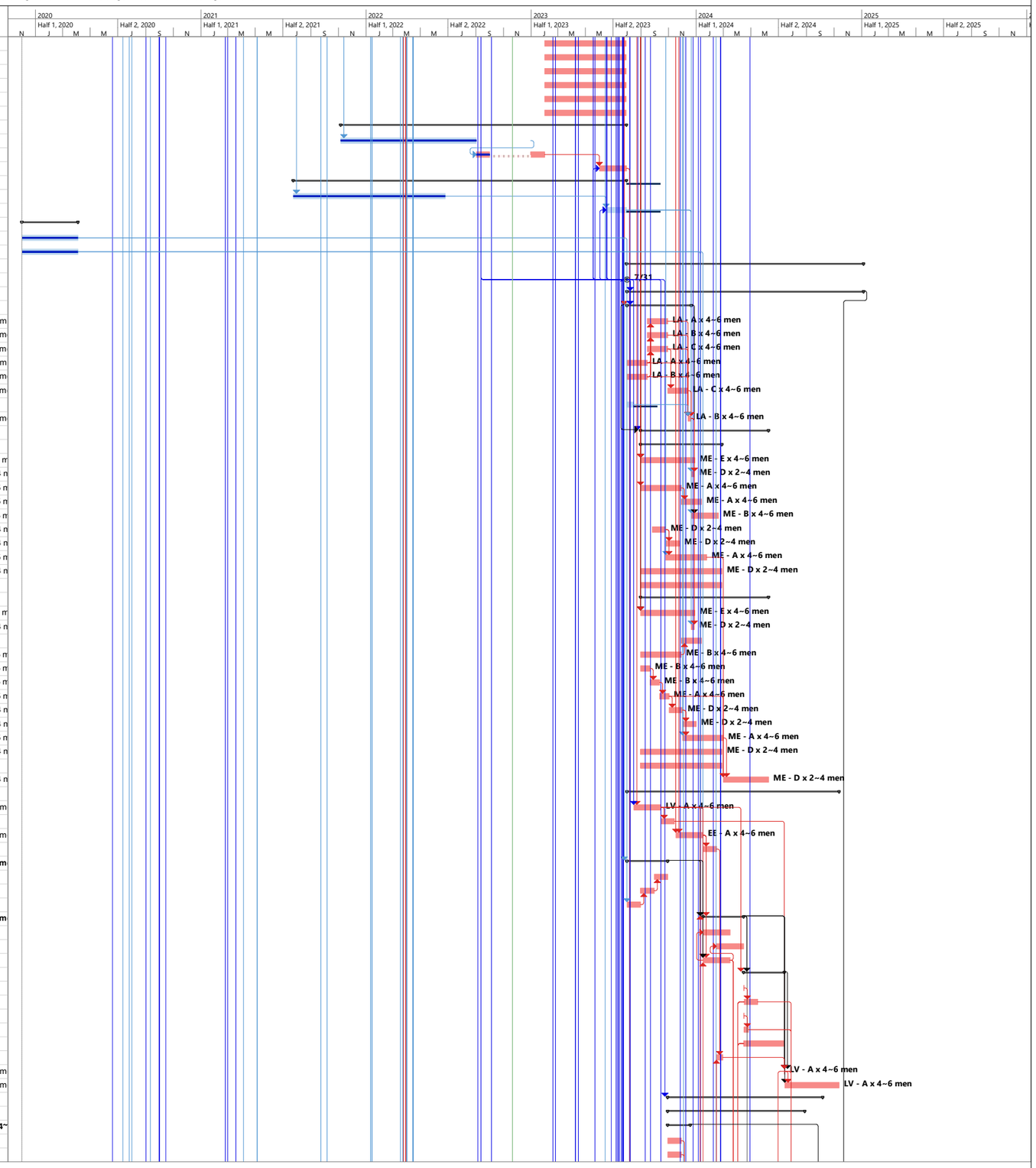
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
163	Sub-contract work commencement date	0 days	Dec 19 '21	Dec 19 '21	Dec 19 '21	Dec 19 '21	0 days	162FF	908,656,660,686	
164	**General - Emergency Power Generator Set (04SC006)**	**156 days**	**Jul 1 '20**	**Dec 3 '20**	**Jul 1 '20**	**Dec 3 '20**	**0 days**			
165	Submission for acceptance of subcontract works package	60 edays	Jul 1 '20	Aug 30 '20	Jul 1 '20	Aug 30 '20	0 edays		166	
166	Invitation of tender for subcontract works	30 edays	Aug 30 '20	Sep 29 '20	Aug 30 '20	Sep 29 '20	0 edays	165	167	
167	Acceptance of conforming tender	30 edays	Sep 29 '20	Oct 29 '20	Sep 29 '20	Oct 29 '20	0 edays	166	168FF	
168	Sub-contract work commencement date (Completed)	34 days	Oct 31 '20	Dec 3 '20	Oct 31 '20	Dec 3 '20	0 days	167FF	1448	
169	**General - Plumbing Installation (Rev. 5) (04SC021)**	**231 days**	**Jul 1 '20**	**Feb 16 '21**	**Jul 1 '20**	**Feb 16 '21**	**0 days**			
170	Submission for acceptance of subcontract works package	30 edays	Jul 1 '20	Jul 31 '20	Jul 1 '20	Jul 31 '20	0 edays		171	
171	Invitation of tender for subcontract works	75 edays	Jul 31 '20	Oct 14 '20	Jul 31 '20	Oct 14 '20	0 edays	170	172	
172	Retender of subcontract works (Rev. 5)	18 days	Jan 4 '21	Jan 21 '21	Jan 4 '21	Jan 21 '21	0 days	171	173	
173	Acceptance of conforming tender (Completed)	30 edays	Jan 17 '21	Feb 16 '21	Jan 17 '21	Feb 16 '21	0 edays	172	174FF	
174	Sub-contract work commencement date (Extended)	0 days	Feb 16 '21	Feb 16 '21	Feb 16 '21	Feb 16 '21	0 days	173FF	1858	
175	**General - Fire Services Installation (Rev. 5) (04SC019)**	**131 days**	**Jan 4 '21**	**May 14 '21**	**Jan 4 '21**	**May 14 '21**	**0 days**			
176	Submission for acceptance of subcontract works package	82 days	Jan 4 '21	Mar 26 '21	Jan 4 '21	Mar 26 '21	0 days		177	
177	Invitation of tender for subcontract works	42 days	Mar 5 '21	Apr 15 '21	Mar 5 '21	Apr 15 '21	0 days	176	178	
178	Acceptance of conforming tender (Completed)	41 days	Apr 4 '21	May 14 '21	Apr 4 '21	May 14 '21	0 days	177	179FF	
179	Sub-contract work commencement date	0 days	May 3 '21	May 3 '21	May 3 '21	May 3 '21	0 days	178FF		
180	**General - Lightning Protection System (Rev. 15) (04SC017)**	**100 days**	**Sep 1 '21**	**Dec 10 '21**	**Sep 1 '21**	**Dec 10 '21**	**0 days**			
181	Submission for acceptance of subcontract works package (Rev. 13)	40 edays	Sep 1 '21	Oct 11 '21	Sep 1 '21	Oct 11 '21	0 edays		182	
182	Invitation of tender for subcontract works (Rev. 15)	30 edays	Oct 11 '21	Nov 10 '21	Oct 11 '21	Nov 10 '21	0 edays	181	183	
183	Acceptance of conforming tender (Rev. 15)	30 edays	Nov 10 '21	Dec 10 '21	Nov 10 '21	Dec 10 '21	0 edays	182	184FF	
184	Sub-contract work commencement date (Rev. 15)	0 days	Dec 10 '21	Dec 10 '21	Dec 10 '21	Dec 10 '21	0 days	183FF	1289,922,756,70	
185	**General - CCTV Installation (Rev. 13) (04SC016)**	**121 days**	**Sep 1 '21**	**Dec 31 '21**	**Sep 1 '21**	**Dec 31 '21**	**0 days**			
186	Submission for acceptance of subcontract works package	45 edays	Sep 1 '21	Oct 16 '21	Sep 1 '21	Oct 16 '21	0 edays		187	
187	Invitation of tender for subcontract works	35 edays	Oct 16 '21	Nov 20 '21	Oct 16 '21	Nov 20 '21	0 edays	186	188	
188	Acceptance of conforming tender	30 edays	Nov 20 '21	Dec 20 '21	Nov 20 '21	Dec 20 '21	0 edays	187	189FF	
189	Sub-contract work commencement date	0 days	Dec 31 '21	Dec 31 '21	Dec 31 '21	Dec 31 '21	0 days	188FF	221	
190	**General - Civil Construction Work for underground pipework (04SC005)**	**40 days**	**Jul 1 '20**	**Aug 10 '20**	**Jul 1 '20**	**Aug 10 '20**	**0 days**			
191	Submission for acceptance of subcontract works package	20 days	Jul 1 '20	Jul 20 '20	Jul 1 '20	Jul 20 '20	0 days		192	
192	Invitation of tender for subcontract works	20 days	Jul 15 '20	Aug 3 '20	Jul 15 '20	Aug 3 '20	0 days	191	193	
193	Acceptance of conforming tender	9 days	Jul 29 '20	Aug 6 '20	Jul 29 '20	Aug 6 '20	0 days	192	194FF	
194	Sub-contract work commencement date (Completed)	0 days	Aug 10 '20	Aug 10 '20	Aug 10 '20	Aug 10 '20	0 days	193FF	1624	
195	**General - Civil Construction Work for Temp. Filtrate Eq. System (04SC005)**	**40 days**	**Jul 1 '20**	**Aug 10 '20**	**Jul 1 '20**	**Aug 10 '20**	**0 days**			
196	Submission for acceptance of subcontract works package	20 days	Jul 1 '20	Jul 20 '20	Jul 1 '20	Jul 20 '20	0 days		197	
197	Invitation of tender for subcontract works	20 days	Jul 15 '20	Aug 3 '20	Jul 15 '20	Aug 3 '20	0 days	196	198	
198	Acceptance of conforming tender	9 days	Jul 29 '20	Aug 6 '20	Jul 29 '20	Aug 6 '20	0 days	197	199FF	
199	Sub-contract work commencement date (Completed)	0 days	Aug 10 '20	Aug 10 '20	Aug 10 '20	Aug 10 '20	0 days	198FF		
200	**General - Lighting and Small Power Distribution System (04SC011)**	**208 days**	**Dec 2 '19**	**Jun 26 '20**	**Dec 2 '19**	**Jun 26 '20**	**0 days**			
201	Submission for acceptance of subcontract works package	61 days	Dec 2 '19	Jan 31 '20	Dec 2 '19	Jan 31 '20	0 days		202	
202	Invitation of tender for subcontract works	49 days	Jan 16 '20	Mar 4 '20	Jan 16 '20	Mar 4 '20	0 days	201	203	
203	Acceptance of conforming tender	42 days	Feb 20 '20	Apr 1 '20	Feb 20 '20	Apr 1 '20	0 days	202	204FF	
204	Sub-contract work commencement date	0 days	Mar 20 '20	Mar 20 '20	Mar 20 '20	Mar 20 '20	0 days	203FF	1829,1509	
205	**Mis - Modification works of HV switchboard in MFB no.1 (04SC0xx)**	**124 days**	**Feb 24 '20**	**Jun 26 '20**	**Feb 24 '20**	**Jun 26 '20**	**0 days**			
206	Submission for acceptance of subcontract works package	124 days	Feb 24 '20	Jun 26 '20	Feb 24 '20	Jun 26 '20	0 days		207	
207	Invitation of tender for subcontract works	19 days	May 24 '20	Jun 11 '20	May 24 '20	Jun 11 '20	0 days	206	208	
208	Acceptance of conforming tender	2 days	Jun 7 '20	Jun 8 '20	Jun 7 '20	Jun 8 '20	0 days	207	209FF	
209	Sub-contract work commencement date	0 days	Jun 12 '20	Jun 12 '20	Jun 12 '20	Jun 12 '20	0 days	208FF	1212	
210	**Mis - Modification of existing power house (04SC010)**	**124 days**	**Feb 24 '20**	**Jun 26 '20**	**Feb 24 '20**	**Jun 26 '20**	**0 days**			
211	Submission for acceptance of subcontract works package	124 days	Feb 24 '20	Jun 26 '20	Feb 24 '20	Jun 26 '20	0 days		212	
212	Invitation of tender for subcontract works	19 days	May 24 '20	Jun 11 '20	May 24 '20	Jun 11 '20	0 days	211	213	
213	Acceptance of conforming tender	2 days	Jun 7 '20	Jun 8 '20	Jun 7 '20	Jun 8 '20	0 days	212	214FF	
214	Sub-contract work commencement date (Completed)	0 days	Jun 12 '20	Jun 12 '20	Jun 12 '20	Jun 12 '20	0 days	213FF	1772	
215	**Part C: General Design Submissions**	**796 days**	**Dec 2 '19**	**Feb 5 '22**	**Dec 2 '19**	**Feb 5 '22**	**0 days**			
216	Planned Sectional Completion Date - Section 1	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	217FF,218FF,21		
217	CDS001 - General Design Parameters (Rev. 11)	400 edays	Jun 5 '20	Jul 10 '21	Jun 5 '20	Jul 10 '21	0 edays		216FF	
218	CDS020 - Electrical Installation Typical Details	355 edays	Jul 20 '20	Jul 10 '21	Jul 20 '20	Jul 10 '21	0 edays		216FF	
219	CDS009 - Detailed Design for Plant Service Water System	125 edays	Mar 1 '21	Jul 4 '21	Mar 1 '21	Jul 4 '21	0 edays		216FF	
220	CDS012 - Detailed Design for SCADA System	383.4 edays	Jan 9 '21	Jan 27 '22	Jan 9 '21	Jan 27 '22	0 edays	146,151	216FF,284FF,555	
221	CDS13-1 - Detailed Design for CCTV System	310 edays	Apr 1 '21	Feb 5 '22	Apr 1 '21	Feb 5 '22	0 edays	189	216FF	
222	CDS13-2 - Detailed Design for Gas Detection and Monitoring System	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	May 30 '21	0 edays		216FF	
223	CDS14-1 - Detailed Design for Power monitoring system (PMS)	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	May 30 '21	0 edays		216FF	
224	CDS14-2 - Detailed Design for Computerized maintenance and management (C	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	May 30 '21	0 edays		216FF	
225	CDS14-3 - Detailed Design for Information and documents management syster	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	May 30 '21	0 edays		216FF	
226	CDS031 - Detailed Design for MVAC System	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	May 30 '21	0 edays		216FF	
227	CDS042 - Detailed Design for Lightning Protection System	120 edays	Jan 11 '21	May 11 '21	Jan 11 '21	May 11 '21	0 edays		216FF	
228	Design submissions for E&M installation works of existing sludge thickening bu	300 edays	Dec 2 '19	Sep 27 '20	Dec 2 '19	Sep 27 '20	0 edays		216FF	
229	Design Submission for Earthing and Lightning (Rev. 8)	147.38 edays	Jan 4 '21	May 31 '21	Jan 4 '21	May 31 '21	0 edays		216FF	
230	**Works Area WA1-C**	**409 days**	**Jan 1 '20**	**Feb 12 '21**	**Jan 1 '20**	**Feb 12 '21**	**0 days**			
231	Actual Access / Handover Date	1 day	Feb 21 '20	Feb 21 '20	Feb 21 '20	Feb 21 '20	0 days		235	
232	Submission for acceptance of subcontract works package (Site Office) (04SC00	84 days	Jan 1 '20	Mar 24 '20	Jan 1 '20	Mar 24 '20	0 days	2SS+30 edays,3	233	
233	Invitation of quotations for subcontract works (Site Office)	30 days	Mar 1 '20	Mar 30 '20	Mar 1 '20	Mar 30 '20	0 days	232	234	
234	Acceptance of conforming quotation (Site Office)	13 days	Mar 22 '20	Apr 3 '20	Mar 22 '20	Apr 3 '20	0 days	233	235	
235	Design and Fabrication of the Contractor's Site Accommodations	168 days	Apr 1 '20	Sep 15 '20	Apr 1 '20	Sep 15 '20	0 days	231,234	241	
236	Submission for acceptance of subcontract works package (Site Office Foundati	28 days	May 1 '20	May 28 '20	May 1 '20	May 28 '20	0 days		237	
237	Invitation of quotations for subcontract works (Site Office Foundation)	26 days	May 21 '20	Jun 15 '20	May 21 '20	Jun 15 '20	0 days	236	238	
238	Acceptance of conforming quotation (Site foundation)	9 days	Jun 8 '20	Jun 16 '20	Jun 8 '20	Jun 16 '20	0 days	237	239	
239	Design and Construction of the Contractor's Site Office foundation	40 days	Jun 15 '20	Jul 24 '20	Jun 15 '20	Jul 24 '20	0 days	238	240	
240	Construction of Contractor's Site Office foundation (Completed)	65 days	Jul 15 '20	Sep 17 '20	Jul 15 '20	Sep 17 '20	0 days	239	241	
241	Site Installation of the Contractor's Site Accommodations (MiC) (Rev. 5)	166 days	Aug 31 '20	Feb 12 '21	Aug 31 '20	Feb 12 '21	0 days	235,240	242	
242	Anticipated date of working at site (Rev. 5) (Completed)	4 days	Jan 5 '21	Jan 8 '21	Jan 5 '21	Jan 8 '21	0 days	241		
243	**Works Area WA2-C**	**1 day**	**Feb 21 '20**	**Feb 21 '20**	**Feb 21 '20**	**Feb 21 '20**	**0 days**			



ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
244	Actual Access / Handover Date	1 day	Feb 21 '20	Feb 21 '20	Feb 21 '20	Feb 21 '20	0 days			
245	**Inlet Works No. 1, Portion B-2**	**1868 days?**	**Dec 2 '19**	**Jan 11 '25**	**Dec 2 '19**	**Apr 1 '24**	**0 days?**			
246	Planned Key Date Completion Date - KD1A, IW	0 days	Oct 30 '20	Oct 30 '20	Oct 30 '20	Oct 30 '20	0 days	280FF,281FF		
247	Planned Key Date Completion Date - KD1B, IW	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	282FF		
248	Planned Sectional Completion Date - Section 1, IW	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	283FF,284FF,28		
249	Planned Sectional Completion Date - Section 2, IW	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days			
250	**Selection of Suppliers for major plant and materials for Inlet Works No. 1**	**411 days**	**Jun 1 '20**	**Jul 16 '21**	**Jun 1 '20**	**Jul 16 '21**	**0 days**			
251	**Inlet Works - inlet Pumps (Marking Scheme Approach), C11, ref. EQT006**	**131 days**	**Jun 1 '20**	**Oct 9 '20**	**Jun 1 '20**	**Oct 9 '20**	**0 days**			
252	Submission for acceptance of purchasing package including proposed mar	82 days	Jun 1 '20	Aug 21 '20	Jun 1 '20	Aug 21 '20	0 days		253	
253	Invitation of quotations for purchasing package	42 days	Jul 31 '20	Sep 10 '20	Jul 31 '20	Sep 10 '20	0 days	252	254	
254	Acceptance of conforming quotation (Completed)	41 days	Aug 30 '20	Oct 9 '20	Aug 30 '20	Oct 9 '20	0 days	253	283	
255	**Inlet Works - mechanical raked bar screens, C11, ref. EQT052**	**70 days**	**Jun 26 '20**	**Sep 3 '20**	**Jun 26 '20**	**Sep 3 '20**	**0 days**			
256	Submission for acceptance of purchasing package	20 days	Jun 26 '20	Jul 15 '20	Jun 26 '20	Jul 15 '20	0 days		257	
257	Invitation of quotations for purchasing package	20 days	Jul 10 '20	Jul 29 '20	Jul 10 '20	Jul 29 '20	0 days	256	258	
258	Acceptance of conforming quotation (Completed)	42 days	Jul 24 '20	Sep 3 '20	Jul 24 '20	Sep 3 '20	0 days	257	283	
259	**Inlet Works - screening conveyors and Diverters, C11, ref. EQT053**	**86 days**	**Jul 1 '20**	**Sep 24 '20**	**Jul 1 '20**	**Sep 24 '20**	**0 days**			
260	Submission for acceptance of purchasing package	42 days	Jul 1 '20	Aug 11 '20	Jul 1 '20	Aug 11 '20	0 days		261	
261	Invitation of quotations for purchasing package	20 days	Jul 31 '20	Aug 19 '20	Jul 31 '20	Aug 19 '20	0 days	260	262	
262	Acceptance of conforming quotation (Completed)	42 days	Aug 14 '20	Sep 24 '20	Aug 14 '20	Sep 24 '20	0 days	261	283	
263	**Inlet Works - screening screw type compactors, C11, ref. EQT003**	**115 days**	**Jul 1 '20**	**Oct 23 '20**	**Jul 1 '20**	**Oct 23 '20**	**0 days**			
264	Submission for acceptance of purchasing package	63 days	Jul 1 '20	Sep 1 '20	Jul 1 '20	Sep 1 '20	0 days		265	
265	Invitation of quotations for purchasing package	42 days	Aug 15 '20	Sep 25 '20	Aug 15 '20	Sep 25 '20	0 days	264	266	
266	Acceptance of conforming quotation (Completed)	40 days	Sep 14 '20	Oct 23 '20	Sep 14 '20	Oct 23 '20	0 days	265	283	
267	**Inlet Works - grit removal system, C11, ref. EQT004**	**101 days**	**Jul 1 '20**	**Oct 9 '20**	**Jul 1 '20**	**Oct 9 '20**	**0 days**			
268	Submission for acceptance of purchasing package	42 days	Jul 1 '20	Aug 11 '20	Jul 1 '20	Aug 11 '20	0 days		269	
269	Invitation of quotations for purchasing package	42 days	Jul 31 '20	Sep 10 '20	Jul 31 '20	Sep 10 '20	0 days	268	270	
270	Acceptance of conforming quotation (Completed)	41 days	Aug 30 '20	Oct 9 '20	Aug 30 '20	Oct 9 '20	0 days	269	283	
271	**Inlet Works - grit classifiers, C11, ref. EQT004**	**101 days**	**Jul 1 '20**	**Oct 9 '20**	**Jul 1 '20**	**Oct 9 '20**	**0 days**			
272	Submission for acceptance of purchasing package	42 days	Jul 1 '20	Aug 11 '20	Jul 1 '20	Aug 11 '20	0 days		273	
273	Invitation of quotations for purchasing package	42 days	Jul 31 '20	Sep 10 '20	Jul 31 '20	Sep 10 '20	0 days	272	274	
274	Acceptance of conforming quotation (Completed)	41 days	Aug 30 '20	Oct 9 '20	Aug 30 '20	Oct 9 '20	0 days	273	283	
275	**Inlet Works - Fixed Bar Screen, C11, ref. EQT046 (Rev. 10)**	**386 days**	**Jun 26 '20**	**Jul 16 '21**	**Jun 26 '20**	**Jul 16 '21**	**0 days**			
276	Submission for acceptance of purchasing package	20 days	Jun 26 '20	Jul 15 '20	Jun 26 '20	Jul 15 '20	0 days		277	
277	Invitation of quotations for purchasing package	372 days	Jul 10 '20	Jul 16 '21	Jul 10 '20	Jul 16 '21	0 days	276	278	
278	Acceptance of conforming quotation (Rev. 10)	42 days	Apr 2 '21	May 13 '21	Apr 2 '21	May 13 '21	0 days	277	283	
279	**Design Submissions for IW**	**523 days**	**Jul 15 '20**	**Dec 19 '21**	**Jul 15 '20**	**Dec 19 '21**	**0 days**	121		
280	Electrical schematic drawings for Inlet Works No. 1	126 days	Jul 15 '20	Nov 17 '20	Jul 15 '20	Nov 17 '20	0 days		246FF	
281	CDS080-1 - Civil and dimensional requirements drawings for Inlet Works No.	63 days	Sep 1 '20	Nov 2 '20	Sep 1 '20	Nov 2 '20	0 days		246FF	
282	CDS081-1 - Civil and dimensional requirements drawings for Inlet Works No.	210 days	Aug 28 '20	Mar 25 '21	Aug 28 '20	Mar 25 '21	0 days		247FF	
283	CDS002 - Detailed Design for Inlet Works No. 1	144 edays	Mar 1 '21	Jul 23 '21	Mar 1 '21	Jul 23 '21	0 edays	53,254,258,262	248FF,290,309,2	
284	CDS021 - Detailed Design for Electrical Installations for Inlet Works No. 1	166.63 edays	May 23 '21	Nov 6 '21	May 23 '21	Nov 6 '21	0 edays	82,88,92,96,10(	83,248FF,322,33	
285	CDS034-1 - Detailed Design for Electrical Installations BS at Inlet Works No. 1	120 edays	Mar 12 '21	Jul 10 '21	Mar 12 '21	Jul 10 '21	0 edays	156	248FF	
286	CDS025-1 - Detailed Design for LV Switchboards for Inlet Works No. 1	230 edays	May 3 '21	Dec 19 '21	May 3 '21	Dec 19 '21	0 edays	78	248FF	
287	CDS050-1 - Detailed Design for Lifting Appliances - Inlet Works No. 1	210 edays	Sep 1 '20	Mar 30 '21	Sep 1 '20	Mar 30 '21	0 edays	131	248FF,315	
288	**Manufacturing and Delivery of Plant & Materials**	**1446 days**	**Dec 2 '19**	**Nov 16 '23**	**Dec 2 '19**	**Nov 16 '23**	**0 days**			
289	**Inlet Pumps, EQT006**	**525 days**	**Feb 21 '22**	**Jul 30 '23**	**Feb 21 '22**	**Aug 21 '23**	**22 days**			
290	Manufacturing of Inlet Pumps, EQT006	240 days	Feb 21 '22	Oct 18 '22	Feb 21 '22	Oct 18 '22	0 days	283	291	
291	Factory Acceptance Test of Plant (to be witnessed by PM)	60 days	Oct 19 '22	Dec 17 '22	Oct 19 '22	Jun 22 '23	165 days	290	292	
292	Shipping and Delivery of Plant to site	60 days	Jun 1 '23	Jul 30 '23	Jun 23 '23	Aug 21 '23	22 days	291,342SS-60 e	359	
293	**Mechanical Raked Bar Screen, EQT052**	**593 days**	**Dec 10 '21**	**Jul 25 '23**	**Dec 10 '21**	**Jun 8 '23**	**0 days**		**355,366**	
294	Manufacturing and Factory Acceptance Test of Plant	336 days	Dec 10 '21	Nov 10 '22	Dec 10 '21	May 31 '23	0 days	283	295	
295	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Jul 25 '23	Sep 26 '22	Jun 8 '23	0 days	294,342SS-60 e	357	
296	**Screening Conveyors and Diverters, EQT053**	**732 days**	**Jul 24 '21**	**Jul 25 '23**	**Jul 24 '21**	**Jul 25 '23**	**0 days**			
297	Manufacturing and Factory Acceptance Test of Plant	336 days	Jul 24 '21	Jun 24 '22	Jul 24 '21	Jun 24 '22	0 days	283	298	
298	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Jul 25 '23	Sep 26 '22	Jul 25 '23	0 days	297,342SS-60 e		
299	**Screening Screw Type Compactors, EQT003**	**511 days**	**Mar 7 '22**	**Jul 30 '23**	**Mar 7 '22**	**Jun 22 '23**	**0 days**		**355,366**	
300	Manufacturing and Factory Acceptance Test of Plant	240 days	Mar 7 '22	Nov 1 '22	Mar 7 '22	Apr 23 '23	173 days	283	301	
301	Shipping and Delivery of Plant to site	60 days	Jun 1 '23	Jul 30 '23	Apr 24 '23	Jun 22 '23	0 days	300,342SS-60 e		
302	**Grit Removal System & Grit Classifiers, EQT004**	**511 days**	**Mar 7 '22**	**Jul 30 '23**	**Mar 7 '22**	**Jul 30 '23**	**0 days**			
303	Manufacturing and Factory Acceptance Test of Plant	240 days	Mar 7 '22	Nov 1 '22	Mar 7 '22	May 31 '23	211 days	283	304	
304	Shipping and Delivery of Plant to site	60 days	Jun 1 '23	Jul 30 '23	Jun 1 '23	Jul 30 '23	0 days	303,342SS-60 e		
305	**Pipework, EQT036 (Rev. 11)**	**466 days**	**Apr 21 '22**	**Jul 30 '23**	**Apr 21 '22**	**Jul 30 '23**	**0 days**	**63,66**		
306	Manufacturing and Factory Acceptance Test of Plant	240 days	Apr 21 '22	Dec 16 '22	Apr 21 '22	May 31 '23	166 days	283	307	
307	Shipping and Delivery of Plant to site	60 days	Jun 1 '23	Jul 30 '23	Jun 1 '23	Jul 30 '23	0 days	306,342SS-60 e		
308	**Stoplogs and Penstocks, EQT013**	**732 days**	**Jul 24 '21**	**Jul 25 '23**	**Jul 24 '21**	**Jun 23 '23**	**0 days**			
309	Manufacturing and Factory Acceptance Test of Plant	252 days	Jul 24 '21	Apr 1 '22	Jul 24 '21	Apr 1 '22	0 days	283	310	
310	Shipping and Delivery of Plant to site	60 days	Sep 26 '22	Jul 25 '23	Sep 26 '22	Jun 23 '23	0 days	309,342SS-60 e	355,366	
311	**Valves and Actuators, EQT036 (Rev. 11)**	**466 days**	**Apr 21 '22**	**Jul 30 '23**	**Apr 21 '22**	**Jul 30 '23**	**0 days**	**63,66,70**		
312	Manufacturing and Factory Acceptance Test of Plant	240 days	Apr 21 '22	Dec 16 '22	Apr 21 '22	May 31 '23	166 days	283	313	
313	Shipping and Delivery of Plant to site	60 days	Jun 1 '23	Jul 30 '23	Jun 1 '23	Jul 30 '23	0 days	312,342SS-60 e		
314	**Lifting Appliances**	**833 days**	**Mar 30 '21**	**Jul 10 '23**	**Mar 30 '21**	**May 25 '23**	**0 days**			
315	Manufacturing and Factory Acceptance Test of Plant	336 days	Mar 30 '21	Feb 28 '22	Mar 30 '21	Feb 28 '22	0 days	287	316	
316	Shipping and Delivery of Plant to site	45 days	Sep 26 '22	Jul 10 '23	Sep 26 '22	May 25 '23	0 days	315,342SS-60 e	344	
317	**LV Switchboards**	**349 days**	**Sep 1 '22**	**Aug 15 '23**	**May 19 '22**	**May 2 '23**	**0 days**			
318	IW - Manufacturing of Plant	240 days	Sep 1 '22	May 2 '23	Sep 1 '22	May 2 '23	0 days		319	
319	IW - Factory Acceptance Test of Plant (to be witnessed by PM)	60 days	May 3 '23	Jul 1 '23	May 19 '22	Jul 17 '22	0 days	318	320	
320	IW - Shipping and Delivery of Plant to site	45 days	Jul 2 '23	Aug 15 '23	Jul 18 '22	Aug 31 '22	0 days	319,342SS-60 e	380,382	
321	**11kV/380V Stepdown Power Transformers, EQT032**	**381 days**	**Nov 1 '22**	**Nov 16 '23**	**Nov 1 '22**	**Nov 16 '23**	**0 days**			
322	IW - Manufacturing and Factory Acceptance Test of Plant	240 days	Nov 1 '22	Oct 2 '23	Nov 1 '22	Oct 2 '23	0 days	284	323	
323	IW - Shipping and Delivery of Plant to site	45 days	Jun 30 '23	Nov 16 '23	Jun 30 '23	Nov 16 '23	0 days	322,342SS-60 e	382	
324	**Building Services**	**180 days**	**Jan 31 '23**	**Jul 29 '23**	**Jan 31 '23**	**Jul 29 '23**	**0 days**			



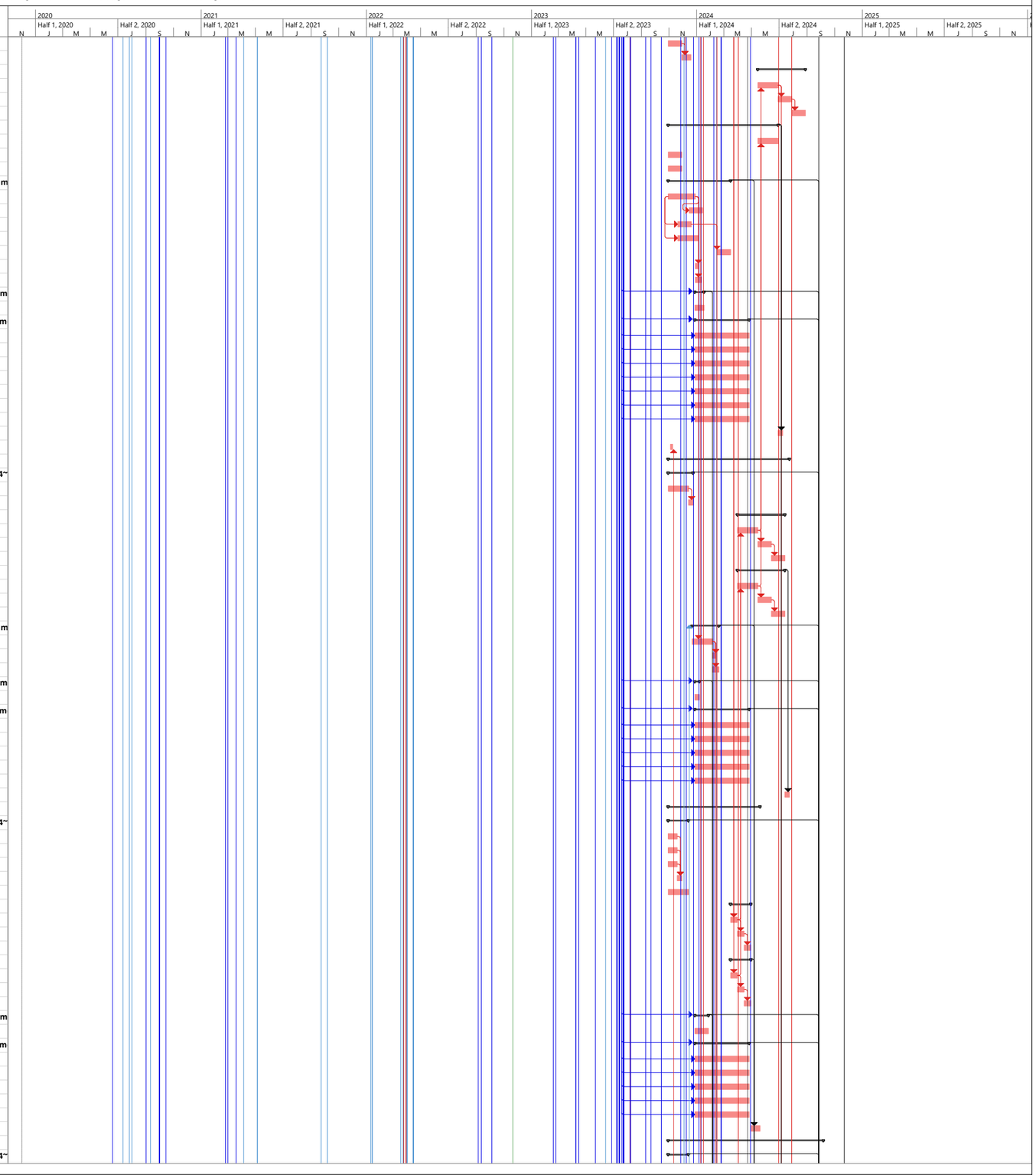
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
325	Equipment Delivery for Mechanical Ventilation and Air Conditioning Syste	180 days	Jan 31 '23	Jul 29 '23	Jan 31 '23	Jul 29 '23	0 days			
326	Equipment Delivery for Lighting and Power Distribution System	180 days	Jan 31 '23	Jul 29 '23	Jan 31 '23	Jul 29 '23	0 days			
327	Equipment Delivery for Plumbing Installation	180 days	Jan 31 '23	Jul 29 '23	Jan 31 '23	Jul 29 '23	0 days			
328	Equipment Delivery for CCTV Installation	180 days	Jan 31 '23	Jul 29 '23	Jan 31 '23	Jul 29 '23	0 days			
329	Equipment Delivery for Fire Services Installation	180 days	Jan 31 '23	Jul 29 '23	Jan 31 '23	Jul 29 '23	0 days			
330	Equipment Delivery for Earthing and Lightning Protection System	180 days	Jan 31 '23	Jul 29 '23	Jan 31 '23	Jul 29 '23	0 days			
331	**PLC System**	**632 days**	**Nov 6 '21**	**Jul 30 '23**	**Nov 6 '21**	**Jan 30 '23**	**0 days**			
332	Manufacturing of Plant, PLC for IW	300 days	Nov 6 '21	Dec 30 '22	Nov 6 '21	Dec 30 '22	0 days	284	333	
333	Factory Acceptance Test of Plant, PLC for IW (To be witnessed by PM)	60 days	Sep 2 '22	Jan 30 '23	Sep 2 '22	Jan 30 '23	0 days	332	334	
334	Shipping and Delivery of Plant to site	60 days	Jun 1 '23	Jul 30 '23	Jul 18 '22	Sep 15 '22	0 days	333,342SS-60 e	509	
335	**Fixed Bar Screen, EQT046**	**737 days**	**Jul 24 '21**	**Jul 30 '23**	**Jul 24 '21**	**Oct 13 '23**	**75 days**			
336	IW - Manufacturing and Factory Acceptance Test of Plant	336 days	Jul 24 '21	Jun 24 '22	Jul 24 '21	Jun 24 '22	0 days	283	337	
337	IW - Shipping and Delivery of Plant to site	45 days	Jun 16 '23	Jul 30 '23	Aug 30 '23	Oct 13 '23	75 days	336,342SS-45 e	356,367	
338	**Electrical System**	**124 days**	**Dec 2 '19**	**Apr 3 '20**	**Dec 2 '19**	**Apr 3 '20**	**0 days**			
339	Equipment Delivery for Cable Containment	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days		384,387	
340	Equipment Delivery for Cable Provision	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days		388,391	
341	**Site Installation Work**	**524 days?**	**Jul 31 '23**	**Jan 4 '25**	**Aug 1 '22**	**Mar 6 '24**	**0 days?**			
342	Tentative Civil Handover Date, Portion B-2, Inlet Works No. 1 (Rev. 5)	1 day	Jul 31 '23	Jul 31 '23	Aug 1 '22	Aug 1 '22	0 days		292SS-60 edays,	
343	**Commencement of E&M Installation at Inlet Works No. 1**	**523 days?**	**Aug 1 '23**	**Jan 4 '25**	**Aug 2 '22**	**Jan 6 '24**	**0 days?**	**342**	**513FS-30 days**	
344	**Installation of Lifting Appliances at Inlet Works No. 1**	**142 days**	**Aug 1 '23**	**Dec 20 '23**	**May 25 '23**	**Oct 13 '23**	**0 days**	**316,342**	**353SS+30 days,3**	
345	1/F EOT Crane LA-01-01 SWL 5t	45 days	Sep 15 '23	Oct 29 '23	Aug 23 '23	Oct 6 '23	0 days	348,349	352	LA - A x 4~6 m
346	1/F EOT Crane LA-01-02 SWL 5t	45 days	Sep 15 '23	Oct 29 '23	Aug 23 '23	Oct 6 '23	0 days	348,349	352	LA - B x 4~6 m
347	1/F EOT Crane LA-01-03 SWL 5t	45 days	Sep 15 '23	Oct 29 '23	Jul 9 '23	Aug 22 '23	0 days	348,349	350,352	LA - C x 4~6 m
348	UG EOT Crane LA-01-04 SWL 10t	45 days	Aug 1 '23	Sep 14 '23	May 25 '23	Jul 8 '23	0 days		345,346,347,352	LA - A x 4~6 m
349	UG EOT Crane LA-01-05 SWL 10t	45 days	Aug 1 '23	Sep 14 '23	May 25 '23	Jul 8 '23	0 days		345,346,347,352	LA - B x 4~6 m
350	1/F Retractable Crane LA-01-06 SWL 10t	45 days	Oct 30 '23	Dec 13 '23	Aug 23 '23	Oct 6 '23	0 days	347	352	LA - C x 4~6 m
351	Submission of T&C Plan and Procedures of LA for acceptance	14 days	Aug 1 '23	Aug 14 '23	Sep 23 '23	Oct 6 '23	53 days		352	
352	T&C, Loading Test for Lifting Appliances	7 days	Dec 14 '23	Dec 20 '23	Oct 7 '23	Oct 13 '23	0 days	345,346,347,34	356,367	LA - B x 4~6 m
353	**Mechanical Installations for Inlet Works No. 1**	**283 days**	**Aug 31 '23**	**Jun 8 '24**	**Jan 11 '23**	**Oct 20 '23**	**0 days**	**136,344SS+30 c**		
354	**Lower Ground Floor**	**180 days**	**Aug 31 '23**	**Feb 26 '24**	**Mar 15 '23**	**Oct 20 '23**	**0 days**			
355	Installation of penstocks and stoplogs (Penstock 35nos, Stoplogs 37	120 days	Aug 31 '23	Dec 28 '23	Jun 23 '23	Oct 20 '23	0 days	293,299,310		ME - E x 4~6 m
356	Installation of fixed bar screen (x1), EQT046	7 days	Dec 21 '23	Dec 27 '23	Oct 14 '23	Oct 20 '23	0 days	337,352		ME - D x 2~4 m
357	Installation of mechanical raked coarse bar screens (x4), EQT052	90 days	Aug 31 '23	Nov 28 '23	Jun 8 '23	Sep 5 '23	0 days	295	358	ME - A x 4~6 m
358	Installation of Coarse screening conveyors (x6), EQT053	45 days	Nov 29 '23	Jan 12 '24	Sep 6 '23	Oct 20 '23	0 days	357		ME - A x 4~6 m
359	Installation of inlet pumps (x5), EQT006	60 days	Dec 21 '23	Feb 18 '24	Aug 22 '23	Oct 20 '23	0 days	292,344		ME - B x 4~6 m
360	Installation of pipework and valves, EQT036	30 days	Sep 26 '23	Oct 25 '23	Mar 15 '23	Apr 13 '23	0 days		361,362	ME - D x 2~4 m
361	Pipework pressure tests	30 days	Oct 26 '23	Nov 24 '23	Sep 21 '23	Oct 20 '23	0 days	360		ME - D x 2~4 m
362	Installation of instrumentations, EQT035-1	90 days	Oct 26 '23	Jan 23 '24	Apr 14 '23	Jul 12 '23	0 days	59,360	378	ME - A x 4~6 m
363	Installation of Platforms,	180 days	Aug 31 '23	Feb 26 '24	Apr 24 '23	Oct 20 '23	0 days			ME - D x 2~4 m
364	Installation of Covers (by DC/2018/07)	180 days	Aug 31 '23	Feb 26 '24	Apr 24 '23	Oct 20 '23	0 days			
365	**Upper Grond Floor**	**283 days**	**Aug 31 '23**	**Jun 8 '24**	**Jan 11 '23**	**Oct 20 '23**	**0 days**			
366	Installation of penstocks and stoplogs (Penstock 35nos, Stoplogs 37	120 days	Aug 31 '23	Dec 28 '23	Jun 23 '23	Oct 20 '23	0 days	293,299,310		ME - E x 4~6 m
367	Installation of fixed bar screen (x1), EQT046	7 days	Dec 21 '23	Dec 27 '23	Oct 14 '23	Oct 20 '23	0 days	337,352		ME - D x 2~4 m
368	Installation of Fine screening conveyors (x6), EQT053	45 days	Nov 29 '23	Jan 12 '24	Sep 6 '23	Oct 20 '23	0 days	369		
369	Installation of mechanical raked fine bar screens (x5), EQT052	90 days	Aug 31 '23	Nov 28 '23	Jun 8 '23	Sep 5 '23	0 days		368	ME - B x 4~6 m
370	Installation of grit removal system (x3), EQT004	21 days	Aug 31 '23	Sep 20 '23	Jan 11 '23	Jan 31 '23	0 days		371	ME - B x 4~6 m
371	Installation of grit classifiers (x2), EQT004	21 days	Sep 21 '23	Oct 11 '23	Feb 1 '23	Feb 21 '23	0 days	370	372	ME - B x 4~6 m
372	Installation of compactors (x2), EQT003	21 days	Oct 12 '23	Nov 1 '23	Feb 22 '23	Mar 14 '23	0 days	371	378,373	ME - A x 4~6 m
373	Installation of pipework and valves, EQT036	30 days	Nov 2 '23	Dec 1 '23	Mar 15 '23	Apr 13 '23	0 days	372	374,375	ME - D x 2~4 m
374	Pipework pressure tests	30 days	Dec 2 '23	Dec 31 '23	Sep 21 '23	Oct 20 '23	0 days	373		ME - D x 2~4 m
375	Installation of instrumentations, EQT035-1	90 days	Dec 2 '23	Feb 29 '24	Apr 14 '23	Jul 12 '23	0 days	59,373	378	ME - A x 4~6 m
376	Installation of Platforms,	180 days	Aug 31 '23	Feb 26 '24	Apr 24 '23	Oct 20 '23	0 days			ME - D x 2~4 m
377	Installation of Covers (by DC/2018/07)	180 days	Aug 31 '23	Feb 26 '24	Apr 24 '23	Oct 20 '23	0 days			
378	Site Acceptance Tests - mechanical aspects including alignment and l	100 days	Mar 1 '24	Jun 8 '24	Jul 13 '23	Oct 20 '23	0 days	362,372,375		ME - D x 2~4 m
379	**Electrical Installations for Inlet Works No. 1**	**469 days?**	**Aug 1 '23**	**Nov 11 '24**	**Aug 2 '22**	**Oct 20 '23**	**0 days?**			
380	Installation of LV Switchboards, IW	60 days	Aug 16 '23	Oct 14 '23	Sep 1 '22	Oct 30 '22	0 days	320,342	388,391,392,381	LV - A x 4~6 m
381	T&C of LV Switchboards, IW	30 days	Oct 15 '23	Nov 13 '23	May 23 '23	Jun 21 '23	0 days	380	399	
382	Installation of Transformer, IW, EQT032	60 days	Nov 17 '23	Jan 15 '24	Sep 1 '22	Oct 30 '22	0 days	320,323	388,391,383	EE - A x 4~6 m
383	T&C of Transformers, IW	30 days	Jan 16 '24	Feb 14 '24	May 9 '23	Jun 7 '23	0 days	382	398	
384	**Installation of cable trays and cable containments**	**90 days**	**Aug 1 '23**	**Oct 29 '23**	**Aug 2 '22**	**Oct 30 '22**	**0 days**	**339**	**388,391**	**EE - C x 4~6 m**
385	Lower Ground Floor	30 days	Sep 30 '23	Oct 29 '23	Oct 1 '22	Oct 30 '22	0 days	386		
386	Upper Ground	30 days	Aug 31 '23	Sep 29 '23	Sep 1 '22	Sep 30 '22	0 days	387	385	
387	Frist Floor	30 days	Aug 1 '23	Aug 30 '23	Aug 2 '22	Aug 31 '22	0 days	339	386	
388	**Cables laying and terminations**	**90 days**	**Jan 16 '24**	**Apr 14 '24**	**Oct 31 '22**	**Jun 21 '23**	**0 days**	**340,380,382,38**	**399,510,400,392**	**EE - C x 4~6 m**
389	Lower Ground Floor	60 days	Jan 16 '24	Mar 15 '24	Apr 23 '23	Jun 21 '23	0 days	391SS		
390	Upper Ground	60 days	Feb 15 '24	Apr 14 '24	Apr 23 '23	Jun 21 '23	0 days	391FS-30 days		
391	Frist Floor	60 days	Jan 16 '24	Mar 15 '24	Oct 31 '22	Dec 29 '22	0 days	340,380,382,38	389SS,390FS-30	
392	**LV Cable Laying and Termination (From IW to other Building)**	**90 days?**	**Apr 15 '24**	**Jul 13 '24**	**Jul 2 '23**	**Sep 30 '23**	**0 days?**	**380,388**	**399**	
393	Tentative Civil Handover Date, LV cables draw pits from IW to PST 1-	1 day?	Apr 15 '24	Apr 15 '24	Jul 2 '23	Jul 2 '23	0 days?		394	
394	Cables laying and terminations from IW to PST 1-4	30 days	Apr 16 '24	May 15 '24	Jul 3 '23	Aug 1 '23	0 days	393	1491SS,1492SS,1	
395	Tentative Civil Handover Date, LV cables draw pits from IW to DOU 1	1 day?	Apr 15 '24	Apr 15 '24	Jul 26 '23	Jul 26 '23	0 days?		396	
396	Cables laying and terminations from IW to DOU 1	10 days	Apr 16 '24	Apr 25 '24	Jul 27 '23	Aug 5 '23	0 days	395	1565,761	
397	Cables laying and terminations between buildings	90 days	Apr 15 '24	Jul 13 '24	Jul 3 '23	Sep 30 '23	0 days		1491SS,1492SS,1	
398	Energisation of Transformer, IW	14 days	Feb 15 '24	Feb 28 '24	Jun 8 '23	Jun 21 '23	0 days	383,1850	399	
399	Energisation of LV Switchboards, IW	1 day	Jul 14 '24	Jul 14 '24	Jun 22 '23	Jun 22 '23	0 days	381,388,392,39	400,1565FS+14	LV - A x 4~6 m
400	Site Acceptance Tests - Electrical aspects including voltage and current	120 days	Jul 15 '24	Nov 11 '24	Jun 23 '23	Oct 20 '23	0 days	388,399		LV - A x 4~6 m
401	**Building Services Installations for Inlet Works No. 1**	**343 days**	**Oct 30 '23**	**Oct 6 '24**	**Dec 30 '22**	**Oct 20 '23**	**0 days**	**342FS+90 days**		
402	**Lower Ground Floor**	**303 days**	**Oct 30 '23**	**Aug 27 '24**	**Feb 28 '23**	**Oct 20 '23**	**0 days**			
403	**Mechanical Ventilation and Air Conditioning System, IW**	**50 days**	**Oct 30 '23**	**Dec 18 '23**	**May 24 '23**	**Jul 12 '23**	**0 days**		**507**	**MVAC - B x 4~**
404	Mechanical Ventilation for Air Duct / EAF Installation (Water Pump	30 days	Oct 30 '23	Nov 28 '23	May 24 '23	Jun 22 '23	0 days		407	
405	Mechanical Ventilation for Air Duct / EAF Installation (Loading / Ur	30 days	Oct 30 '23	Nov 28 '23	May 24 '23	Jun 22 '23	0 days		407	



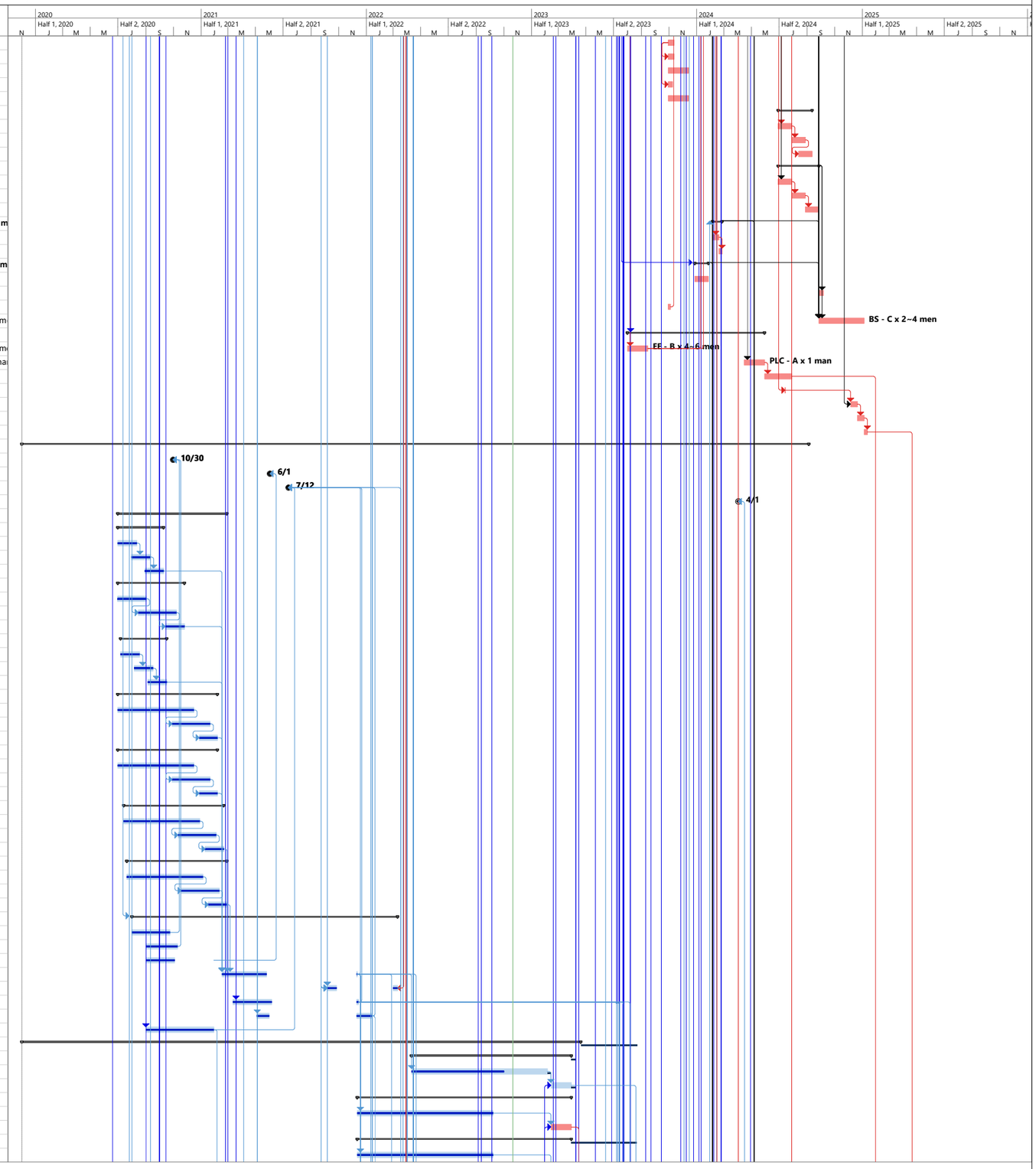
Bestwise
Project: DE/2018/04
Date: 31/10/22

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

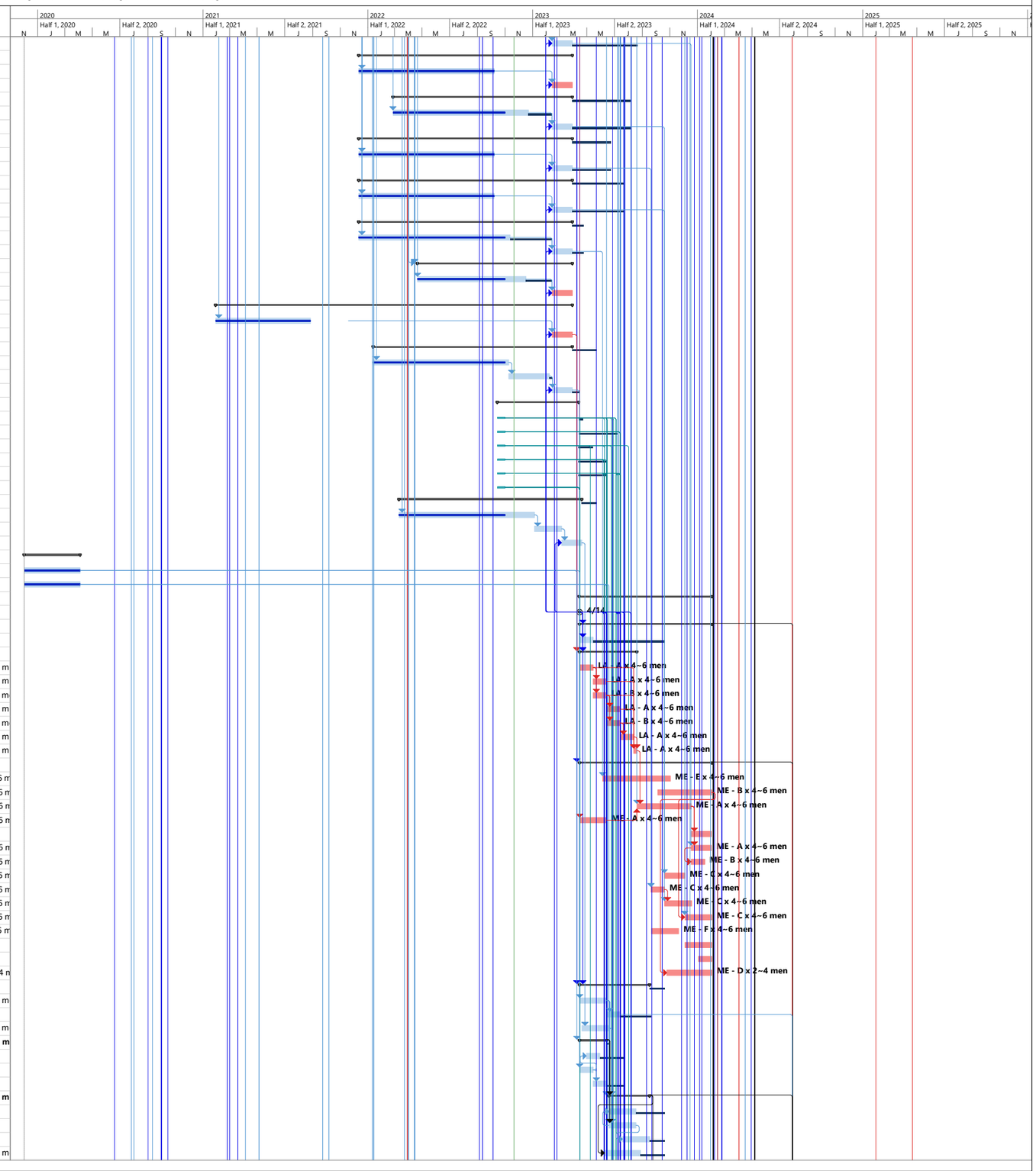
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
406	Mechanical Ventilation for Exhaust Air Duct Installation (Plant Are	30 days	Oct 30 '23	Nov 28 '23	May 24 '23	Jun 22 '23	0 days		407	
407	Mechanical Ventilation for 2 x LMCP / Cable Containment Installat	20 days	Nov 29 '23	Dec 18 '23	Jun 23 '23	Jul 12 '23	0 days	404,405,406		
408	**Lighting Installation**	**105 days**	**May 15 '24**	**Aug 27 '24**	**Jun 23 '23**	**Oct 20 '23**	**0 days**			
409	Cable Containment for Lighting System at LG/F	45 days	May 15 '24	Jun 28 '24	Jun 23 '23	Aug 6 '23	0 days	441	410,493	
410	Wiring Installation at LG/F	30 days	Jun 29 '24	Jul 28 '24	Aug 22 '23	Sep 20 '23	0 days	409	411	
411	Cable Termination and Lighting fitting Installation at LG/F	30 days	Jul 29 '24	Aug 27 '24	Sep 21 '23	Oct 20 '23	0 days	410		
412	**Power Distribution Installation**	**243 days**	**Oct 30 '23**	**Jun 28 '24**	**Feb 28 '23**	**Apr 13 '23**	**0 days**		**434,497**	
413	Cable Containment for Power System at G/F	45 days	May 15 '24	Jun 28 '24	Feb 28 '23	Apr 13 '23	0 days	445		
414	Wiring Installation at G/F	30 days	Oct 30 '23	Nov 28 '23	Mar 15 '23	Apr 13 '23	0 days			
415	Cable Termination and Wiring Accessories Installation at G/F	30 days	Oct 30 '23	Nov 28 '23	Mar 15 '23	Apr 13 '23	0 days			
416	**Plumbing Installation, IW**	**138 days**	**Oct 30 '23**	**Mar 15 '24**	**Mar 16 '23**	**Jul 12 '23**	**0 days**		**1864,507**	**Pb - A x 4~6 m**
417	Plumbing Installation for Potable / Cleansing / Irrigation pipes	60 days	Oct 30 '23	Dec 28 '23	Mar 16 '23	May 14 '23	0 days		418FS-14 days,4	
418	Plumbing Installation for Check Meter Cabinet	30 days	Dec 15 '23	Jan 13 '24	Jun 13 '23	Jul 12 '23	0 days	417FS-14 days		
419	Plumbing Installation for 6 x Firber Glass Tank	30 days	Nov 20 '23	Dec 19 '23	May 14 '23	Jun 12 '23	0 days	417SS+21 days	421	
420	Plumbing Installation for Potable / Cleansing / Irrigation Pumps Se	45 days	Nov 20 '23	Jan 3 '24	May 29 '23	Jul 12 '23	0 days	417SS+21 days		
421	Plumbing Installation for 3 x LMCP for Pumps Set	30 days	Feb 15 '24	Mar 15 '24	Jun 13 '23	Jul 12 '23	0 days	419		
422	Plumbing Installation for Wash Basin	7 days	Dec 29 '23	Jan 4 '24	Jul 6 '23	Jul 12 '23	0 days	417		
423	Plumbing Installation for Cleansing Tap	14 days	Dec 29 '23	Jan 11 '24	Jun 29 '23	Jul 12 '23	0 days	417		
424	**CCTV Installation, IW**	**20 days**	**Dec 28 '23**	**Jan 16 '24**	**Jun 23 '23**	**Jul 12 '23**	**0 days**	**342SS+150 day**	**1874,507**	**BS - B x 4~6 m**
425	7 x Outdoorr CCTV Installation c/w conduit System	20 days	Dec 28 '23	Jan 16 '24	Jun 23 '23	Jul 12 '23	0 days			
426	**Fire Services Installation, IW**	**120 days**	**Dec 28 '23**	**Apr 25 '24**	**Mar 15 '23**	**Jul 12 '23**	**0 days**	**342SS+150 day**	**507**	**FS - A x 4~6 m**
427	F.S Installation for FH / HR Piping System	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
428	F.S Installation for 5 x F.S Hose Reel	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
429	F.S Installation for 4 x F.S Inlet	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
430	F.S Installation for AFA Detector and Conduit System	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
431	Wirings Works for F.S Conduit System	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
432	F.S Installation for AFA Panel	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
433	F.S Installation for BGU/Alarm Bell	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
434	Earthing System	10 days	Jun 29 '24	Jul 8 '24	Oct 11 '23	Oct 20 '23	0 days	412		
435	Lightning Protection System	5 days	Nov 4 '23	Nov 8 '23	Oct 16 '23	Oct 20 '23	0 days	506		
436	**Upper Ground Floor**	**268 days**	**Oct 30 '23**	**Jul 23 '24**	**Jan 14 '23**	**Oct 20 '23**	**0 days**			
437	**Mechanical Ventilation and Air Conditioning System, IW**	**55 days**	**Oct 30 '23**	**Dec 23 '23**	**May 19 '23**	**Jul 12 '23**	**0 days**		**507**	**MVAC - B x 4~**
438	Mechanical Ventilation for Exhaust Air Duct / EAF Installation	45 days	Oct 30 '23	Dec 13 '23	May 19 '23	Jul 2 '23	0 days		439	
439	Mechanical Ventilation for 1 x LMCP / Cable Containment Installat	10 days	Dec 14 '23	Dec 23 '23	Jul 3 '23	Jul 12 '23	0 days	438		
440	**Lighting Installation**	**105 days**	**Mar 31 '24**	**Jul 13 '24**	**May 9 '23**	**Oct 20 '23**	**0 days**			
441	Cable Containment for Lighting System at UG/F	45 days	Mar 31 '24	May 14 '24	May 9 '23	Jun 22 '23	0 days	469	409,442	
442	Wiring Installation at UG/F	30 days	May 15 '24	Jun 13 '24	Aug 22 '23	Sep 20 '23	0 days	441	443	
443	Cable Termination and Lighting fitting Installation at UG/F	30 days	Jun 14 '24	Jul 13 '24	Sep 21 '23	Oct 20 '23	0 days	442		
444	**Power Distribution Installation**	**105 days**	**Mar 31 '24**	**Jul 13 '24**	**Jan 14 '23**	**Oct 10 '23**	**0 days**		**460**	
445	Cable Containment for Power System at UG/F	45 days	Mar 31 '24	May 14 '24	Jan 14 '23	Feb 27 '23	0 days	473	413,446	
446	Wiring Installation at UG/F	30 days	May 15 '24	Jun 13 '24	Aug 12 '23	Sep 10 '23	0 days	445	447	
447	Cable Termination and Wiring Accessories Installation at UG/F	30 days	Jun 14 '24	Jul 13 '24	Sep 11 '23	Oct 10 '23	0 days	446		
448	**Plumbing Installation, IW**	**59 days**	**Dec 22 '23**	**Feb 18 '24**	**May 8 '23**	**Jul 12 '23**	**0 days**	**1862**	**1864,507**	**Pb - A x 4~6 m**
449	Plumbing Installation for Potable / Cleansing / Irrigation Pipes)	45 days	Dec 22 '23	Feb 4 '24	May 8 '23	Jun 21 '23	0 days	417FS-7 days	450,451,501	
450	Plumbing Installation for Wash Basin	7 days	Feb 5 '24	Feb 11 '24	Jul 6 '23	Jul 12 '23	0 days	449		
451	Plumbing Installation for Cleansing Tap	14 days	Feb 5 '24	Feb 18 '24	Jun 29 '23	Jul 12 '23	0 days	449		
452	**CCTV Installation (5 indoor +5 outdoor Cameras), IW**	**10 days**	**Dec 28 '23**	**Jan 6 '24**	**Jul 3 '23**	**Jul 12 '23**	**0 days**	**342SS+150 day**	**1874,507**	**BS - B x 4~6 m**
453	3 x Indoor CCTV Installation c/w conduit System	10 days	Dec 28 '23	Jan 6 '24	Jul 3 '23	Jul 12 '23	0 days			
454	**Fire Services Installation, IW**	**120 days**	**Dec 28 '23**	**Apr 25 '24**	**Mar 15 '23**	**Jul 12 '23**	**0 days**	**342SS+150 day**	**507**	**FS - A x 4~6 m**
455	F.S Installation for FH / HR Piping System	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
456	F.S Installation for 3 x F.S Hose Reel	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
457	F.S Installation for AFA Detector and Conduit System	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
458	Wirings Works for F.S Conduit System	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
459	F.S Installation for BGU/Alarm Bell	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
460	Earthing System	10 days	Jul 14 '24	Jul 23 '24	Oct 11 '23	Oct 20 '23	0 days	444		
461	**1/F**	**203 days**	**Oct 30 '23**	**May 19 '24**	**Dec 30 '22**	**Oct 20 '23**	**0 days**			
462	**Mechanical Ventilation and Air Conditioning System, IW**	**45 days**	**Oct 30 '23**	**Dec 13 '23**	**May 29 '23**	**Jul 12 '23**	**0 days**		**507**	**MVAC - B x 4~**
463	Mechanical Ventilation for Exhaust Air Duct / EAF Installation at C	20 days	Oct 30 '23	Nov 18 '23	Jun 13 '23	Jul 2 '23	0 days		466	
464	Mechanical Ventilation for Exhaust Air Duct / EAF Installation at T	20 days	Oct 30 '23	Nov 18 '23	Jun 13 '23	Jul 2 '23	0 days		466	
465	Mechanical Ventilation for Fresh Air Duct / Fire Damper Instalatio	20 days	Oct 30 '23	Nov 18 '23	Jun 13 '23	Jul 2 '23	0 days		466	
466	Mechanical Ventilation for 2 x LMCP / Cable Containment Installat	10 days	Nov 19 '23	Nov 28 '23	Jul 3 '23	Jul 12 '23	0 days	463,464,465		
467	12 x VRV Indoor Unit Installation (L.V. Switch Room)	45 days	Oct 30 '23	Dec 13 '23	May 29 '23	Jul 12 '23	0 days			
468	**Lighting Installation**	**45 days**	**Mar 16 '24**	**Apr 29 '24**	**Apr 24 '23**	**Oct 20 '23**	**0 days**			
469	Cable Containment for Lighting System at 1/F	15 days	Mar 16 '24	Mar 30 '24	Apr 24 '23	May 8 '23	0 days	391	441,470	
470	Wiring Installation at 1/F	15 days	Mar 31 '24	Apr 14 '24	Sep 21 '23	Oct 5 '23	0 days	469	471	
471	Cable Termination and Lighting fitting Installation at 1/F	15 days	Apr 15 '24	Apr 29 '24	Oct 6 '23	Oct 20 '23	0 days	470		
472	**Power Distribution Installation**	**45 days**	**Mar 16 '24**	**Apr 29 '24**	**Dec 30 '22**	**Sep 30 '23**	**0 days**		**484**	
473	Cable Containment for Power System at 1/F	15 days	Mar 16 '24	Mar 30 '24	Dec 30 '22	Jan 13 '23	0 days	391	445,474	
474	Wiring Installation at 1/F	15 days	Mar 31 '24	Apr 14 '24	Sep 1 '23	Sep 15 '23	0 days	473	475	
475	Cable Termination and Wiring Accessories Installation at 1/F	15 days	Apr 15 '24	Apr 29 '24	Sep 16 '23	Sep 30 '23	0 days	474		
476	**CCTV Installation (5 indoor +5 outdoor Cameras), IW**	**30 days**	**Dec 28 '23**	**Jan 26 '24**	**Jun 13 '23**	**Jul 12 '23**	**0 days**	**342SS+150 day**	**1874,507**	**BS - B x 4~6 m**
477	Wirings & Equipment Installation for CCTV System (Entire PST Buil	30 days	Dec 28 '23	Jan 26 '24	Jun 13 '23	Jul 12 '23	0 days			
478	**Fire Services Installation, IW**	**120 days**	**Dec 28 '23**	**Apr 25 '24**	**Mar 15 '23**	**Jul 12 '23**	**0 days**	**342SS+150 day**	**507**	**FS - A x 4~6 m**
479	F.S Installation for FH / HR Piping System	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
480	F.S Installation for 2 x F.S Hose Reel	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
481	F.S Installation for AFA Detector and Conduit System	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
482	Wirings Works for F.S Conduit System	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
483	F.S Installation for BGU/Alarm Bell	120 days	Dec 28 '23	Apr 25 '24	Mar 15 '23	Jul 12 '23	0 days	342SS+150 days		
484	Earthing System	20 days	Apr 30 '24	May 19 '24	Oct 1 '23	Oct 20 '23	0 days	472		
485	**Roof**	**343 days**	**Oct 30 '23**	**Oct 6 '24**	**Apr 14 '23**	**Oct 20 '23**	**0 days**			
486	**Mechanical Ventilation and Air Conditioning System, IW**	**45 days**	**Oct 30 '23**	**Dec 13 '23**	**May 29 '23**	**Jul 12 '23**	**0 days**		**507**	**MVAC - B x 4~**



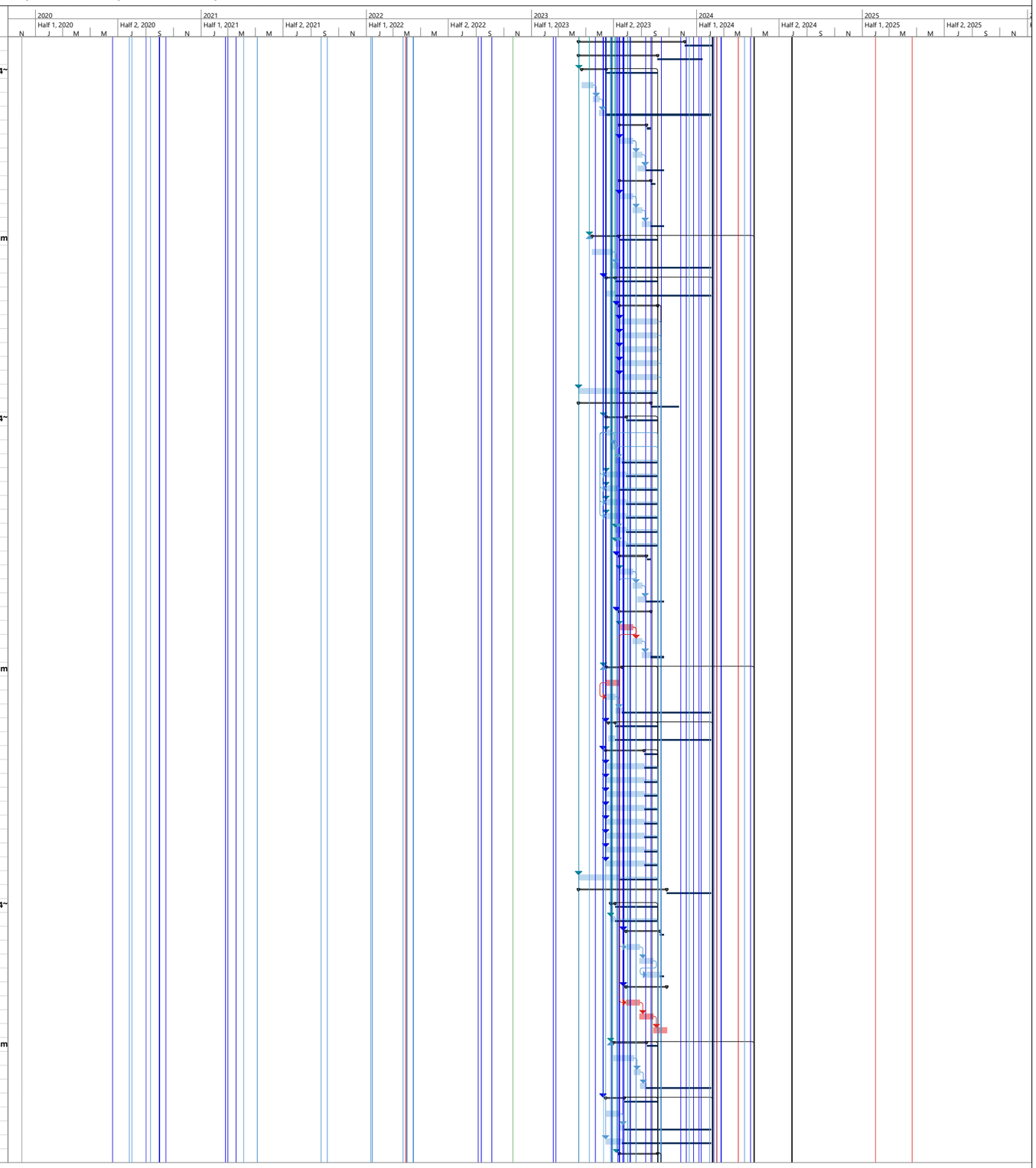
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
487	Mechanical Ventilation for Exhaust Air Duct / EAF Installation	13 days	Oct 30 '23	Nov 11 '23	Jun 30 '23	Jul 12 '23	0 days		488SS,490SS	
488	Mechanical Ventilation for FRP Enclosure of EAD (LG/F to R/F)	13 days	Oct 30 '23	Nov 11 '23	Jun 30 '23	Jul 12 '23	0 days	487SS		
489	4 x VRV Outdoor Unit Installation (L.V. Switch Room)	45 days	Oct 30 '23	Dec 13 '23	May 29 '23	Jul 12 '23	0 days			
490	Mechanical Ventilation for 2 x EAF LMCP / Cable Containment Inst	10 days	Oct 30 '23	Nov 8 '23	Jul 3 '23	Jul 12 '23	0 days	487SS		
491	VRV Refrigerant Pipe / Drain Pipe Installation	45 days	Oct 30 '23	Dec 13 '23	May 29 '23	Jul 12 '23	0 days			
492	**Lighting Installation**	**75 days**	**Jun 29 '24**	**Sep 11 '24**	**Aug 7 '23**	**Oct 20 '23**	**0 days**			
493	Cable Containment for Lighting System at R/F	30 days	Jun 29 '24	Jul 28 '24	Aug 7 '23	Sep 5 '23	0 days	409	494	
494	Wiring Installation at R/F	30 days	Jul 29 '24	Aug 27 '24	Sep 6 '23	Oct 5 '23	0 days	493	495FS-15 days	
495	Cable Termination and Lighting fitting Installation at R/F	30 days	Aug 13 '24	Sep 11 '24	Sep 21 '23	Oct 20 '23	0 days	494FS-15 days		
496	**Power Distribution Installation**	**90 days**	**Jun 29 '24**	**Sep 26 '24**	**Apr 14 '23**	**Jul 12 '23**	**0 days**		**505,507**	
497	Cable Containment for Power System at R/F	30 days	Jun 29 '24	Jul 28 '24	Apr 14 '23	May 13 '23	0 days	412	498	
498	Wiring Installation at R/F	30 days	Jul 29 '24	Aug 27 '24	May 14 '23	Jun 12 '23	0 days	497	499	
499	Cable Termination and Wiring Accessories Installation at R/F	30 days	Aug 28 '24	Sep 26 '24	Jun 13 '23	Jul 12 '23	0 days	498		
500	**Plumbing Installation, IW**	**21 days**	**Feb 5 '24**	**Feb 25 '24**	**Jun 22 '23**	**Jul 12 '23**	**0 days**	**1862**	**1864,507**	**Pb - A x 4~6 m**
501	Plumbing Installation for Irrigation Pipes	14 days	Feb 5 '24	Feb 18 '24	Jun 22 '23	Jul 5 '23	0 days	449	502	
502	Plumbing Installation for Irrigation Tap	7 days	Feb 19 '24	Feb 25 '24	Jul 6 '23	Jul 12 '23	0 days	501		
503	**CCTV Installation (5 indoor +5 outdoor Cameras), IW**	**30 days**	**Dec 28 '23**	**Jan 26 '24**	**Jun 13 '23**	**Jul 12 '23**	**0 days**	**342SS+150 day**	**1874,507**	**BS - B x 4~6 m**
504	2 x Outdoor CCTV Installation c/w conduit System	30 days	Dec 28 '23	Jan 26 '24	Jun 13 '23	Jul 12 '23	0 days			
505	Earthing System	10 days	Sep 27 '24	Oct 6 '24	Oct 11 '23	Oct 20 '23	0 days	496		
506	Air Termination Installation for Lightning Protection System	5 days	Oct 30 '23	Nov 3 '23	Oct 11 '23	Oct 15 '23	0 days		435	
507	Testing and Commissioning of Building Services Installations, IW	100 days	Sep 27 '24	Jan 4 '25	Jul 13 '23	Oct 20 '23	0 days	403,416,424,42		BS - C x 2~4 m
508	**SCADA Systems, Inlet Works**	**303 days**	**Aug 1 '23**	**May 29 '24**	**Sep 16 '22**	**Jan 6 '24**	**0 days**	**342**		
509	Installation of PLC Panels, IW	45 days	Aug 1 '23	Sep 14 '23	Sep 16 '22	Oct 30 '22	0 days	334	388,391	EE - B x 4~6 m
510	Configuration of PLC System, IW	45 days	Apr 15 '24	May 29 '24	Nov 23 '23	Jan 6 '24	0 days	388	511	PLC - A x 1 ma
511	Site Acceptance Test for PLC System at Inlet Works No. 1	60 days	May 30 '24	Jul 28 '24	Jan 7 '24	Mar 6 '24	0 days	510	1875	
512	Power Energisation for LV Switchboard	1 day	Jul 14 '24	Jul 14 '24	Sep 20 '23	Sep 20 '23	0 days	399SS	513	
513	Site Acceptance Test for E&M Equip & Instrumentations calibration, IW	15 days	Dec 6 '24	Dec 20 '24	Sep 21 '23	Oct 5 '23	0 days	343FS-30 days,	514	
514	System Commissioning for E&M Equip at Inlet Works No. 1	15 edays	Dec 20 '24	Jan 4 '25	Oct 6 '23	Oct 21 '23	0 edays	513	515	
515	Risk Allowances for completion of Processing Plant at Inlet Works No. 1	7 edays	Jan 4 '25	Jan 11 '25	Oct 21 '23	Oct 28 '23	0 edays	514	1870	
516	**Primary Sedimentation Tanks No. 1 ~ 4, Portion B-3**	**1739 days**	**Dec 2 '19**	**Sep 4 '24**	**Dec 2 '19**	**Apr 1 '24**	**0 days**			
517	Planned Key Date Completion Date - KD1A, PST No. 1~4	0 days	Oct 30 '20	Oct 30 '20	Oct 30 '20	Oct 30 '20	0 days	551FF,552FF		
518	Planned Key Date Completion Date - KD1B, PST No. 1~4	1 day	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	553FF		
519	Planned Sectional Completion Date - Section 1, PST No. 1~4	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	556FF,555FF,55		
520	Planned Sectional Completion Date - Section 2, PST No. 1~4	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days	757FF		
521	**Selection of Suppliers for major plant and materials for PST No. 1~4**	**241 days**	**Jul 1 '20**	**Feb 26 '21**	**Jul 1 '20**	**Feb 26 '21**	**0 days**			
522	**PST - lamella plate settlers, C11, ref. EQT014**	**101 days**	**Jul 1 '20**	**Oct 9 '20**	**Jul 1 '20**	**Oct 9 '20**	**0 days**			
523	Submission for acceptance of purchasing package	42 days	Jul 1 '20	Aug 11 '20	Jul 1 '20	Aug 11 '20	0 days		524	
524	Invitation of quotations for purchasing package	42 days	Jul 31 '20	Sep 10 '20	Jul 31 '20	Sep 10 '20	0 days	523	525	
525	Acceptance of conforming quotation (Completed)	41 days	Aug 30 '20	Oct 9 '20	Aug 30 '20	Oct 9 '20	0 days	524	554	
526	**PST - reciprocating type bottom scrapers, C11, ref. EQT014**	**147 days**	**Jul 1 '20**	**Nov 24 '20**	**Jul 1 '20**	**Nov 24 '20**	**0 days**			
527	Submission for acceptance of purchasing package	63 days	Jul 1 '20	Sep 1 '20	Jul 1 '20	Sep 1 '20	0 days		528	
528	Invitation of quotations for purchasing package	84 days	Aug 15 '20	Nov 6 '20	Aug 15 '20	Nov 6 '20	0 days	527	529	
529	Acceptance of conforming quotation (Completed)	42 days	Oct 14 '20	Nov 24 '20	Oct 14 '20	Nov 24 '20	0 days	528	554	
530	**PST - surface scum skimmers, C11, ref. EQT015**	**102 days**	**Jul 7 '20**	**Oct 16 '20**	**Jul 7 '20**	**Oct 16 '20**	**0 days**			
531	Submission for acceptance of purchasing package	42 days	Jul 7 '20	Aug 17 '20	Jul 7 '20	Aug 17 '20	0 days		532	
532	Invitation of quotations for purchasing package	42 days	Aug 6 '20	Sep 16 '20	Aug 6 '20	Sep 16 '20	0 days	531	533	
533	Acceptance of conforming quotation	42 days	Sep 5 '20	Oct 16 '20	Sep 5 '20	Oct 16 '20	0 days	532	554	
534	**PST - scum collector pipes, C11, ref. EQT015**	**220 days**	**Jul 1 '20**	**Feb 5 '21**	**Jul 1 '20**	**Feb 5 '21**	**0 days**			
535	Submission for acceptance of purchasing package	168 days	Jul 1 '20	Dec 15 '20	Jul 1 '20	Dec 15 '20	0 days		536	
536	Invitation of quotations for purchasing package	84 days	Oct 29 '20	Jan 20 '21	Oct 29 '20	Jan 20 '21	0 days	535	537	
537	Acceptance of conforming quotation	40 days	Dec 28 '20	Feb 5 '21	Dec 28 '20	Feb 5 '21	0 days	536	554	
538	**PST - piston type primary sludge pumps, C11, ref. EQT016**	**220 days**	**Jul 1 '20**	**Feb 5 '21**	**Jul 1 '20**	**Feb 5 '21**	**0 days**			
539	Submission for acceptance of purchasing package	168 days	Jul 1 '20	Dec 15 '20	Jul 1 '20	Dec 15 '20	0 days		540	
540	Invitation of quotations for purchasing package	84 days	Oct 29 '20	Jan 20 '21	Oct 29 '20	Jan 20 '21	0 days	539	541	
541	Acceptance of conforming quotation (Completed)	40 days	Dec 28 '20	Feb 5 '21	Dec 28 '20	Feb 5 '21	0 days	540	554	
542	**PST - drain pumps, C11, ref. EQT007**	**221 days**	**Jul 14 '20**	**Feb 19 '21**	**Jul 14 '20**	**Feb 19 '21**	**0 days**			
543	Submission for acceptance of purchasing package	168 days	Jul 14 '20	Dec 28 '20	Jul 14 '20	Dec 28 '20	0 days		544	
544	Invitation of quotations for purchasing package	84 days	Nov 11 '20	Feb 2 '21	Nov 11 '20	Feb 2 '21	0 days	543	545	
545	Acceptance of conforming quotation (Completed)	41 days	Jan 10 '21	Feb 19 '21	Jan 10 '21	Feb 19 '21	0 days	544	554	
546	**PST - air blowers, C11, ref. EQT018**	**221 days**	**Jul 21 '20**	**Feb 26 '21**	**Jul 21 '20**	**Feb 26 '21**	**0 days**			
547	Submission for acceptance of purchasing package	168 days	Jul 21 '20	Jan 4 '21	Jul 21 '20	Jan 4 '21	0 days		548	
548	Invitation of quotations for purchasing package	84 days	Nov 18 '20	Feb 9 '21	Nov 18 '20	Feb 9 '21	0 days	547	549	
549	Acceptance of conforming quotation	41 days	Jan 17 '21	Feb 26 '21	Jan 17 '21	Feb 26 '21	0 days	548	554	
550	**Design Submissions for PST No. 1~ 4**	**587 days**	**Aug 1 '20**	**Mar 11 '22**	**Aug 1 '20**	**Mar 11 '22**	**0 days**	**121**		
551	Electrical schematic drawings for PST No. 1 ~4	84 days	Aug 1 '20	Oct 23 '20	Aug 1 '20	Oct 23 '20	0 days		517FF	
552	CDS080-2 - Civil and dimensional requirements drawings for PST No. 1~4 up	70 days	Sep 1 '20	Nov 9 '20	Sep 1 '20	Nov 9 '20	0 days		517FF	
553	CDS081-2 - Civil and dimensional requirements drawings for PST No. 1 ~ 4	150 days	Sep 1 '20	Jan 28 '21	Sep 1 '20	Jan 28 '21	0 days		518FF	
554	CDS003 - Detailed Design for Primary Sedimentation Tanks No. 1~4	299.2 edays	Feb 15 '21	Dec 11 '21	Feb 15 '21	Dec 11 '21	0 edays	525,529,533,53	519FF,561,564,5	
555	CDS022 - Detailed Design for Electrical Installations for PST No. 1~4	154.88 edays	Oct 7 '21	Mar 11 '22	Oct 7 '21	Mar 11 '22	0 edays	82,92,100,104,1	83,519FF,602	
556	CDS034-2 - Detailed Design for Electrical Installations BS at PST No. 1~4	277.88 edays	Mar 12 '21	Dec 15 '21	Mar 12 '21	Dec 15 '21	0 edays	156	519FF,656,660,6	
557	CDS025-2 - Detailed Design for LV Switchboards for PST No. 1~4	254 edays	May 3 '21	Jan 12 '22	May 3 '21	Jan 12 '22	0 edays	78	519FF,591	
558	CDS050-2 - Detailed Design for Lifting Appliances - PST No. 1 ~ 4	150 edays	Sep 1 '20	Jan 29 '21	Sep 1 '20	Jan 29 '21	0 edays	131	519FF,588	
559	**Manufacturing and Delivery of Plant & Materials**	**1235 days**	**Dec 2 '19**	**Apr 19 '23**	**Dec 2 '19**	**Aug 21 '23**	**124 days**			
560	**Lamella Plate Settlers, EQT014**	**353 days**	**Apr 11 '22**	**Mar 29 '23**	**Apr 11 '22**	**Apr 8 '23**	**10 days**			
561	Manufacturing and Factory Acceptance Test of Plant	300 days	Apr 11 '22	Feb 4 '23	Apr 11 '22	Feb 22 '23	8 days	554	562	
562	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Feb 23 '23	Apr 8 '23	10 days	561,609SS-60 e	623	
563	**Reciprocating Type Bottom Scrappers, EQT014**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Dec 12 '21**	**Feb 7 '23**	**0 days**			
564	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Dec 12 '21	Oct 7 '22	0 days	554	565	
565	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Dec 25 '22	Feb 7 '23	0 days	564,609SS-60 e	624	
566	**Surface Scum Skimmers, EQT015**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Dec 12 '21**	**Aug 21 '23**	**145 days**			
567	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Dec 12 '21	Oct 7 '22	0 days	554	568	



ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
568	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Jul 8 '23	Aug 21 '23	145 days	567,609SS-60 e	626	
569	**Surface Scum Collection Pipes, EQT015**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Dec 12 '21**	**Mar 29 '23**	**0 days**			
570	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Dec 12 '21	Oct 7 '22	0 days	554	571	
571	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Feb 13 '23	Mar 29 '23	0 days	570,609SS-60 e		
572	**Piston Type Primary Sludge Pumps, EQT016**	**397 days**	**Feb 26 '22**	**Mar 29 '23**	**Feb 26 '22**	**Aug 6 '23**	**130 days**			
573	Manufacturing and Factory Acceptance Test of Plant	300 days	Feb 26 '22	Dec 22 '22	Feb 26 '22	Jun 22 '23	52 days	554	574	
574	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Jun 23 '23	Aug 6 '23	130 days	573,609SS-60 e	628	
575	**Drain Pumps, EQT007**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Dec 12 '21**	**Jun 22 '23**	**85 days**			
576	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Dec 12 '21	Oct 7 '22	0 days	554	577	
577	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	May 9 '23	Jun 22 '23	85 days	576,609SS-60 e	629	
578	**Air Blower, EQT018**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Dec 12 '21**	**Jul 22 '23**	**115 days**			
579	Manufacturing and Factory Acceptance Test of Plant	300 days	Dec 12 '21	Oct 7 '22	Dec 12 '21	Oct 7 '22	0 days	554	580	
580	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Jun 8 '23	Jul 22 '23	115 days	579,609SS-60 e	630	
581	**Stoplogs and Penstocks, EQT013**	**473 days**	**Dec 12 '21**	**Mar 29 '23**	**Dec 12 '21**	**Apr 23 '23**	**25 days**			
582	Manufacturing and Factory Acceptance Test of Plant	335 days	Dec 12 '21	Nov 11 '22	Dec 12 '21	Mar 9 '23	93 days	554	583	
583	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Mar 10 '23	Apr 23 '23	25 days	582,609SS-60 e	621	
584	**Pipework, Valves and Electric Actuators, EQT036, EQT042 (Rev. 11)**	**343 days**	**Apr 21 '22**	**Mar 29 '23**	**Apr 21 '22**	**Mar 29 '23**	**0 days**	**63,66,70**		
585	Manufacturing and Factory Acceptance Test of Plant	240 days	Apr 21 '22	Dec 16 '22	Apr 21 '22	Feb 12 '23	58 days	554	586	
586	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Feb 13 '23	Mar 29 '23	0 days	585,609SS-60 e		
587	**Lifting Appliances**	**790 days**	**Jan 29 '21**	**Mar 29 '23**	**Jan 29 '21**	**Dec 2 '22**	**0 days**			
588	Manufacturing and Factory Acceptance Test of Plant	210 days	Jan 29 '21	Nov 18 '21	Jan 29 '21	Nov 18 '21	0 days	558	589	
589	Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Oct 19 '22	Dec 2 '22	0 days	588,609SS-60 e	612	
590	**LV Switchboards**	**441 days**	**Jan 13 '22**	**Mar 29 '23**	**Jan 13 '22**	**May 22 '23**	**54 days**			
591	PST - Manufacturing of Plant	300 days	Jan 13 '22	Nov 8 '22	Jan 13 '22	Jan 7 '23	0 days	557	592	
592	PST - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Nov 9 '22	Feb 6 '23	Jan 8 '23	Apr 7 '23	6 days	591	593	
593	PST - Shipping and Delivery of Plant to site	45 days	Feb 13 '23	Mar 29 '23	Apr 8 '23	May 22 '23	16 days	592,609SS-60 e	637	
594	**Building Services**	**180 days**	**Oct 15 '22**	**Apr 12 '23**	**Oct 15 '22**	**Apr 12 '23**	**0 days**			
595	Equipment Delivery for Mechanical Ventilation and Air Conditioning Syste	180 days	Oct 15 '22	Apr 12 '23	Jun 13 '23	Dec 10 '23	9 days		651,676,737,677	
596	Equipment Delivery for Lighting and Power Distribution System	180 days	Oct 15 '22	Apr 12 '23	Jan 9 '23	Jul 8 '23	86 days		687,691	
597	Equipment Delivery for Plumbing Installation	180 days	Oct 15 '22	Apr 12 '23	Dec 17 '22	Jun 15 '23	32 days		749,663,694,721	
598	Equipment Delivery for CCTV Installation (9 indoor + 2 outdoor Cameras)	180 days	Oct 15 '22	Apr 12 '23	Jun 27 '23	Dec 24 '23	62 days		698,725,666	
599	Equipment Delivery for Fire Services Installation	180 days	Oct 15 '22	Apr 12 '23	May 13 '23	Nov 9 '23	62 days		752,729,668,669	
600	Equipment Delivery for Earthing and Lightning Protection System	180 days	Oct 15 '22	Apr 12 '23	May 8 '23	Nov 4 '23	2 days		756,709,735,674	
601	**PLC System**	**405 days**	**Mar 11 '22**	**Apr 19 '23**	**Mar 11 '22**	**May 22 '23**	**33 days**			
602	Manufacturing of Plant, PLC for PST	300 days	Mar 11 '22	Jan 4 '23	Mar 11 '22	Feb 6 '23	0 days	555	603	
603	Factory Acceptance Test of Plant, PLC for PST (To be witnessed by PM)	60 days	Jan 5 '23	Mar 5 '23	Feb 7 '23	Apr 7 '23	0 days	602	604	
604	Shipping and Delivery of Plant to site	45 days	Mar 6 '23	Apr 19 '23	Apr 8 '23	May 22 '23	0 days	603,609SS-60 e	639	
605	**Electrical System**	**124 days**	**Dec 2 '19**	**Apr 3 '20**	**Dec 2 '19**	**Apr 3 '20**	**0 days**			
606	Equipment Delivery for Cable Containment	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days		640,642	
607	Equipment Delivery for Cable Provision	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days		644,646	
608	**Site Installation Work**	**294 days**	**Apr 14 '23**	**Feb 1 '24**	**Dec 2 '22**	**Apr 1 '24**	**0 days**			
609	Tentative Civil Handover Date, Portion B-3, PST No. 1~4 (Rev. 5)	1 day	Apr 14 '23	Apr 14 '23	Dec 2 '22	Dec 2 '22	0 days		562SS-60 edays,	
610	**Commencement of E&M Installation at PST No. 1~4**	**293 days**	**Apr 15 '23**	**Feb 1 '24**	**Dec 3 '22**	**Apr 1 '24**	**0 days**	**609**	**762FS-30 days**	**403**
611	Provision of Temporary Water Supply, Electricity Supply, Lighting Welfare	30 days	Apr 15 '23	May 14 '23	Sep 21 '23	Oct 20 '23	159 days	609		
612	**Installation of Lifting Appliances at PST No. 1~4**	**127 days**	**Apr 15 '23**	**Aug 19 '23**	**Dec 3 '22**	**Apr 8 '23**	**0 days**	**589,609**		
613	Basement EOT Crane LA-02-01 SWL 10t	30 days	Apr 15 '23	May 14 '23	Dec 3 '22	Jan 1 '23	0 days		614,615,619	LA - A x 4~6 m
614	Coping Level EOT Crane LA-02-02 SWL 5t	30 days	May 15 '23	Jun 13 '23	Mar 3 '23	Apr 1 '23	0 days	613	619	LA - A x 4~6 m
615	Coping Level EOT Crane LA-02-03 SWL 5t	30 days	May 15 '23	Jun 13 '23	Jan 2 '23	Jan 31 '23	0 days	613	616,617,619	LA - B x 4~6 m
616	Coping Level EOT Crane LA-02-04 SWL 5t	30 days	Jun 14 '23	Jul 13 '23	Mar 3 '23	Apr 1 '23	0 days	615	619	LA - A x 4~6 m
617	Coping Level EOT Crane LA-02-05 SWL 5t	30 days	Jun 14 '23	Jul 13 '23	Feb 1 '23	Mar 2 '23	0 days	615	618,619	LA - B x 4~6 m
618	Coping Level EOT Crane LA-02-06 SWL 2t	30 days	Jul 14 '23	Aug 12 '23	Mar 3 '23	Apr 1 '23	0 days	617	619	LA - A x 4~6 m
619	T&C, Loading Test for Lifting Appliances at PST No. 1~4	7 days	Aug 13 '23	Aug 19 '23	Apr 2 '23	Apr 8 '23	0 days	613,614,615,61	623	LA - A x 4~6 m
620	**Mechanical Installations at PST No. 1~4**	**293 days**	**Apr 15 '23**	**Feb 1 '24**	**Feb 8 '23**	**Oct 5 '23**	**0 days**	**136**	**762**	
621	Installation of penstocks and stoplogs (Penstock 18nos, Stoplogs 14 nos	150 days	Jun 5 '23	Nov 1 '23	Apr 24 '23	Sep 20 '23	0 days	583		ME - E x 4~6 m
622	Installation of pipework and valves, EQT036	120 days	Oct 5 '23	Feb 1 '24	May 24 '23	Sep 20 '23	0 days		635FS-100 days,	ME - B x 4~6 m
623	Installation of lamella plate settlers (x4), EQT014	120 days	Aug 20 '23	Dec 17 '23	Apr 9 '23	Aug 6 '23	0 days	562,619,624	626,625	ME - A x 4~6 m
624	Installation of bottom sludge scrapers (x4), EQT014	60 days	Apr 15 '23	Jun 13 '23	Feb 8 '23	Apr 8 '23	0 days	565	623	ME - A x 4~6 m
625	Installation for Water Spray and Air Scouring system	45 days	Dec 18 '23	Jan 31 '24	Aug 7 '23	Sep 20 '23	0 days	623		
626	Installation of surface scum skimmers (x1), EQT015	45 days	Dec 18 '23	Jan 31 '24	Aug 22 '23	Oct 5 '23	0 days	568,623	627SS	ME - A x 4~6 m
627	Installation of scum collector pipes (x1), EQT015	30 days	Dec 18 '23	Jan 16 '24	Aug 22 '23	Sep 20 '23	0 days	626SS		ME - B x 4~6 m
628	Installation of primary sludge pumps (x3), EQT016	45 days	Oct 20 '23	Dec 3 '23	Aug 7 '23	Sep 20 '23	0 days	574		ME - C x 4~6 m
629	Installation of drain pumps (x1), EQT007	30 days	Sep 20 '23	Oct 19 '23	Jun 23 '23	Jul 22 '23	0 days	577	630	ME - C x 4~6 m
630	Installation of air blowers (x2), EQT018	60 days	Oct 20 '23	Dec 18 '23	Jul 23 '23	Sep 20 '23	0 days	580,629		ME - C x 4~6 m
631	Installation of instrumentations, EQT035-1	60 days	Dec 4 '23	Feb 1 '24	Jul 23 '23	Sep 20 '23	0 days	59,622FS-100 d		ME - C x 4~6 m
632	Installation of Covers (by DC/2018/07)	60 days	Sep 21 '23	Nov 19 '23	Jul 23 '23	Sep 20 '23	0 days			ME - F x 4~6 m
633	Installation of Platforms, PST	60 days	Dec 4 '23	Feb 1 '24	Jul 23 '23	Sep 20 '23	0 days			
634	Pipe Leakage Test	30 days	Jan 3 '24	Feb 1 '24	Aug 22 '23	Sep 20 '23	0 days			
635	Site Acceptance Tests - mechanical aspects including alignment and lev	100 days	Oct 25 '23	Feb 1 '24	Jun 13 '23	Sep 20 '23	0 days	622FS-100 days		ME - D x 2~4 n
636	**Electrical Installations for PST No. 1~4**	**155 days**	**Apr 15 '23**	**Sep 16 '23**	**May 23 '23**	**Oct 20 '23**	**34 days**	**141,609**		
637	Installation of LV Switchboards, PST	60 days	Apr 15 '23	Jun 13 '23	May 23 '23	Jul 21 '23	0 days	593	644,646,638	LV - A x 4~6 m
638	T&C of LV Switchboards, PST	30 days	Jun 14 '23	Jul 13 '23	Aug 21 '23	Sep 19 '23	68 days	637	761	
639	Installation of PLC Panel, PST	60 days	Apr 20 '23	Jun 18 '23	May 23 '23	Jul 21 '23	0 days	604	644,646	EE - A x 4~6 m
640	**Installation of cable trays and cable containments, PST**	**60 days**	**Apr 15 '23**	**Jun 13 '23**	**May 23 '23**	**Jul 21 '23**	**5 days**	**606**	**644,646**	**EE - A x 4~6 m**
641	Basement	30 days	Apr 30 '23	May 29 '23	Jun 22 '23	Jul 21 '23	53 days	642FS-15 days		
642	Ground Floor	30 days	Apr 15 '23	May 14 '23	May 23 '23	Jun 21 '23	0 days	606	641FS-15 days,6	
643	Coping Level	30 days	May 15 '23	Jun 13 '23	Jun 22 '23	Jul 21 '23	38 days	642		
644	**Cables laying and terminations, PST**	**90 days**	**Jun 19 '23**	**Sep 16 '23**	**Jul 22 '23**	**Oct 19 '23**	**0 days**	**607,637,639,64**	**759,648FS-100 d**	**EE - B x 4~6 m**
645	Basement	60 days	Jun 19 '23	Aug 17 '23	Aug 21 '23	Oct 19 '23	63 days	646SS		
646	Ground Floor	60 days	Jun 19 '23	Aug 17 '23	Jul 22 '23	Sep 19 '23	0 days	607,637,639,64	645SS,647FS-30	
647	Coping Level	60 days	Jul 19 '23	Sep 16 '23	Aug 21 '23	Oct 19 '23	33 days	646FS-30 days		
648	Site Acceptance Tests - Electrical aspects including voltage and current	80 days	Jun 9 '23	Aug 27 '23	Aug 2 '23	Oct 20 '23	54 days	644FS-100 days		LV - A x 4~6 m



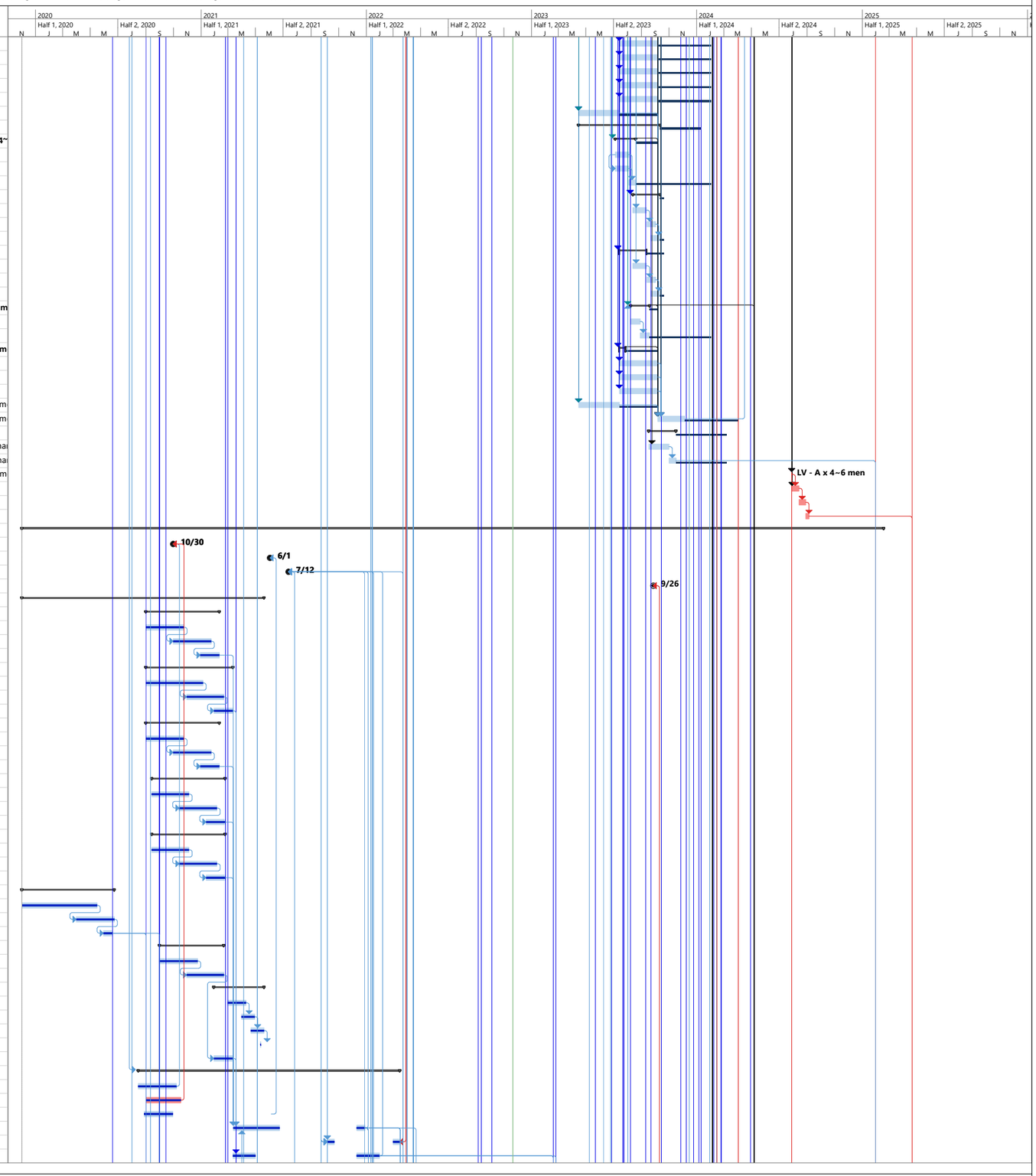
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
649	**Building Services Installations for PST No. 1~4**	**235 days**	**Apr 15 '23**	**Dec 5 '23**	**Jun 15 '23**	**Apr 1 '24**	**61 days**			
650	**Basement**	**175 days**	**Apr 15 '23**	**Oct 6 '23**	**Jul 23 '23**	**Feb 1 '24**	**99 days**			
651	**Mechanical Ventilation and Air Conditioning System, PST**	**54 days**	**Apr 22 '23**	**Jun 14 '23**	**Dec 10 '23**	**Feb 1 '24**	**114 days**	**595**	**757**	**MVAC - B x 4~**
652	Mechanical Ventilation for Air Duct Installation (FAD & EAD)	25 days	Apr 22 '23	May 16 '23	Dec 10 '23	Jan 3 '24	0 days		653	
653	Mechanical Ventilation for FRP Installation (Exhaust Duct)	14 days	May 17 '23	May 30 '23	Jan 4 '24	Jan 17 '24	0 days	652	654	
654	Mechanical Ventilation for FAF LMCP / Cable Containment Installa	15 days	May 31 '23	Jun 14 '23	Jan 18 '24	Feb 1 '24	232 days	653		
655	**Lighting Installation**	**60 days**	**Jul 14 '23**	**Sep 11 '23**	**Jul 23 '23**	**Oct 20 '23**	**9 days**			
656	Cable Containment for Lighting System at Basement	30 days	Jul 14 '23	Aug 12 '23	Jul 23 '23	Aug 21 '23	0 days	163,556,609FS+	657,742	
657	Wiring Installation at Basement	20 days	Aug 13 '23	Sep 1 '23	Sep 21 '23	Oct 10 '23	0 days	656	658FS-10 days	
658	Cable Termination and Lighting fitting Installation at Basement	20 days	Aug 23 '23	Sep 11 '23	Oct 1 '23	Oct 20 '23	39 days	657FS-10 days		
659	**Power Distribution System Installation**	**70 days**	**Jul 14 '23**	**Sep 21 '23**	**Jul 23 '23**	**Oct 20 '23**	**9 days**			
660	Cable Containment for Power System at Basement	30 days	Jul 14 '23	Aug 12 '23	Jul 23 '23	Aug 21 '23	0 days	163,556,609FS+	746,661	
661	Wiring Installation at Basement	20 days	Aug 13 '23	Sep 1 '23	Sep 11 '23	Sep 30 '23	0 days	660	662	
662	Cable Termination and Wiring Accessories Installation at Basemen	20 days	Sep 2 '23	Sep 21 '23	Oct 1 '23	Oct 20 '23	29 days	661		
663	**Plumbing Installation, PST**	**59 days**	**May 15 '23**	**Jul 12 '23**	**Dec 5 '23**	**Feb 1 '24**	**86 days**	**597,1862**	**1864,757**	**Pb - B x 4~6 m**
664	Plumbing Installation for Potable / Cleansing / Irrigation pipes	45 days	May 15 '23	Jun 28 '23	Dec 5 '23	Jan 18 '24	0 days		665	
665	Plumbing Installation for Cleansing Tap	14 days	Jun 29 '23	Jul 12 '23	Jan 19 '24	Feb 1 '24	204 days	664		
666	**CCTV Installation), PST**	**20 days**	**Jun 15 '23**	**Jul 4 '23**	**Jan 13 '24**	**Feb 1 '24**	**94 days**	**598,609FS+60 (**	**757,1874**	
667	1 x Indoor CCTV Installation c/w conduit System	20 days	Jun 15 '23	Jul 4 '23	Jan 13 '24	Feb 1 '24	212 days			
668	**Fire Services Installation, PST**	**85 days**	**Jul 14 '23**	**Oct 6 '23**	**Nov 9 '23**	**Feb 1 '24**	**0 days**	**163,556,599,60**	**757**	
669	F.S Installation for FH / HR / Sprinkler Pipes	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	0 days	163,556,599,60	757	
670	F.S Installation for 2 x F.S Hose Reel	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	0 days	163,556,599,60	757	
671	F.S Installation for AFA Detector and Conduit System	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	0 days	163,556,599,60	757	
672	Wirings Works for F.S Conduit System	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	0 days	163,556,599,60	757	
673	F.S Installation for BGU/Alarm Bell	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	0 days	163,556,599,60	757	
674	Earthing and Lightning Protection System, PST	90 days	Apr 15 '23	Jul 13 '23	Nov 4 '23	Feb 1 '24	85 days	184,600	757	
675	**Ground floor**	**160 days**	**Apr 15 '23**	**Sep 21 '23**	**Jun 15 '23**	**Feb 1 '24**	**61 days**			
676	**Mechanical Ventilation and Air Conditioning System, PST**	**45 days**	**Jun 15 '23**	**Jul 29 '23**	**Dec 19 '23**	**Feb 1 '24**	**69 days**	**595**	**757**	**MVAC - B x 4~**
677	Mechanical Ventilation for Air Duct Installation (FAD & EAD)	10 days	Jun 15 '23	Jun 24 '23	Dec 19 '23	Dec 28 '23	0 days	595	757,678,680SS,6	
678	Mechanical Ventilation for FRP Installation (Exhaust Duct)	10 days	Jun 25 '23	Jul 4 '23	Dec 29 '23	Jan 7 '24	0 days	677	757,679,684,685	
679	PAU / Carbon Filter / EAD Installation (L.V Switch Room)	15 days	Jul 5 '23	Jul 19 '23	Jan 18 '24	Feb 1 '24	79 days	678	757	
680	5 x VRV Indoor Unit Installation (L.V Switch Room)	45 days	Jun 15 '23	Jul 29 '23	Dec 19 '23	Feb 1 '24	69 days	595,677SS	757	
681	2 x VRV Indoor Unit Installation (Sprinkler Control Valve Room)	25 days	Jun 15 '23	Jul 9 '23	Jan 8 '24	Feb 1 '24	89 days	595,677SS	757	
682	5 x VRV Outdoor Unit Installation (L.V Switch Rm + Sprinkler Contr	45 days	Jun 15 '23	Jul 29 '23	Dec 19 '23	Feb 1 '24	69 days	595,677SS	757	
683	VRV Refrigerant Pipe / Drain Pipe Installation	45 days	Jun 15 '23	Jul 29 '23	Dec 19 '23	Feb 1 '24	69 days	595,677SS	757	
684	Mechanical Ventilation for PAU LMCP / Cable Containment Install	25 days	Jul 5 '23	Jul 29 '23	Jan 8 '24	Feb 1 '24	69 days	595,678	757	
685	Mechanical Ventilation for EAF LMCP / Cable Containment Installa	25 days	Jul 5 '23	Jul 29 '23	Jan 8 '24	Feb 1 '24	69 days	595,678	757	
686	**Lighting Installation**	**60 days**	**Jul 14 '23**	**Sep 11 '23**	**Jul 23 '23**	**Oct 20 '23**	**9 days**	**163,556,609FS-**		
687	Cable Containment for Lighting System at G/F	30 days	Jul 14 '23	Aug 12 '23	Jul 23 '23	Aug 21 '23	0 days	596	688,714FS-15 da	
688	Wiring Installation at G/F	20 days	Aug 13 '23	Sep 1 '23	Sep 21 '23	Oct 10 '23	0 days	687	689FS-10 days	
689	Cable Termination and Lighting fitting Installation at G/F	20 days	Aug 23 '23	Sep 11 '23	Oct 1 '23	Oct 20 '23	39 days	688FS-10 days		
690	**Power Distribution System Installation**	**70 days**	**Jul 14 '23**	**Sep 21 '23**	**Jul 8 '23**	**Oct 20 '23**	**0 days**	**163,556,609FS-**		
691	Cable Containment for Power System at G/F	30 days	Jul 14 '23	Aug 12 '23	Jul 8 '23	Aug 6 '23	0 days	596	718FS-15 days,69	
692	Wiring Installation at G/F	20 days	Aug 13 '23	Sep 1 '23	Sep 11 '23	Sep 30 '23	0 days	691	693	
693	Cable Termination and Wiring Accessories Installation at G/F	20 days	Sep 2 '23	Sep 21 '23	Oct 1 '23	Oct 20 '23	29 days	692		
694	**Plumbing Installation, PST**	**35 days**	**Jun 15 '23**	**Jul 19 '23**	**Jun 15 '23**	**Feb 1 '24**	**0 days**	**597,1862**	**1864,757**	**Pb - B x 4~6 m**
695	Plumbing Installation for Potable / Cleansing / Irrigation Pipes)	30 days	Jun 15 '23	Jul 14 '23	Jun 15 '23	Jul 14 '23	0 days		696SS	
696	Plumbing Installation for Check Meter Cabinet	21 days	Jun 15 '23	Jul 5 '23	Dec 29 '23	Jan 18 '24	0 days	695SS	697	
697	Plumbing Installation for Eyewash and Wash Basin	14 days	Jul 6 '23	Jul 19 '23	Jan 19 '24	Feb 1 '24	197 days	696		
698	**CCTV Installation), PST**	**15 days**	**Jun 20 '23**	**Jul 4 '23**	**Jan 18 '24**	**Feb 1 '24**	**94 days**	**598,609FS+60 (**	**757,1874**	
699	1 x Outdoor CCTV Installation c/w conduit System	15 days	Jun 20 '23	Jul 4 '23	Jan 18 '24	Feb 1 '24	212 days			
700	**Fire Services Installation, PST**	**85 days**	**Jun 14 '23**	**Sep 6 '23**	**Nov 9 '23**	**Feb 1 '24**	**30 days**	**599,609FS+60 (**	**757**	
701	F.S Installation for FH / HR / Sprinkler Piping System	85 days	Jun 14 '23	Sep 6 '23	Nov 9 '23	Feb 1 '24	30 days	599,609FS+60 (	757	
702	F.S Installation for 2 x F.S Hose Reel	85 days	Jun 14 '23	Sep 6 '23	Nov 9 '23	Feb 1 '24	30 days	599,609FS+60 (	757	
703	F.S Installation for Sprinkler Control Valve & Accessories (Sprinkler	85 days	Jun 14 '23	Sep 6 '23	Nov 9 '23	Feb 1 '24	30 days	599,609FS+60 (	757	
704	F.S Installation for F.S Inlet and Sprinkler Inlet	85 days	Jun 14 '23	Sep 6 '23	Nov 9 '23	Feb 1 '24	30 days	599,609FS+60 (	757	
705	F.S Installation for AFA Detector and Conduit System	85 days	Jun 14 '23	Sep 6 '23	Nov 9 '23	Feb 1 '24	30 days	599,609FS+60 (	757	
706	Wirings Works for F.S Conduit System	85 days	Jun 14 '23	Sep 6 '23	Nov 9 '23	Feb 1 '24	30 days	599,609FS+60 (	757	
707	F.S Installation for AFA Panel (Sprinkler Control Valve Room)	85 days	Jun 14 '23	Sep 6 '23	Nov 9 '23	Feb 1 '24	30 days	599,609FS+60 (	757	
708	F.S Installation for BGU/Alarm Bell	85 days	Jun 14 '23	Sep 6 '23	Nov 9 '23	Feb 1 '24	30 days	599,609FS+60 (	757	
709	Earthing and Lightning Protection System, PST	90 days	Apr 15 '23	Jul 13 '23	Nov 4 '23	Feb 1 '24	85 days	184,600	757	
710	**Coping Level**	**195 days**	**Apr 15 '23**	**Oct 26 '23**	**Jul 23 '23**	**Feb 1 '24**	**98 days**			
711	**Mechanical Ventilation and Air Conditioning System, PST**	**10 days**	**Jun 25 '23**	**Jul 4 '23**	**Jan 23 '24**	**Feb 1 '24**	**94 days**		**757**	**MVAC - B x 4~**
712	Mechanical Ventilation Installation (4 x EAG)	10 days	Jun 25 '23	Jul 4 '23	Jan 23 '24	Feb 1 '24	94 days	595	757	
713	**Lighting Installation**	**75 days**	**Jul 29 '23**	**Oct 11 '23**	**Aug 7 '23**	**Oct 20 '23**	**9 days**	**163,556,609FS-**		
714	Cable Containment for Lighting Systemat at Coping Level	30 days	Jul 29 '23	Aug 27 '23	Aug 7 '23	Sep 5 '23	0 days	687FS-15 days	715	
715	Wiring Installation at Basement	30 days	Aug 28 '23	Sep 26 '23	Sep 6 '23	Oct 5 '23	0 days	714	716FS-15 days	
716	Cable Termination and Lighting fitting Installation at Coping Level	30 days	Sep 12 '23	Oct 11 '23	Sep 21 '23	Oct 20 '23	9 days	715FS-15 days		
717	**Power Distribution System Installation**	**90 days**	**Jul 29 '23**	**Oct 26 '23**	**Jul 23 '23**	**Oct 20 '23**	**0 days**	**163,556,609FS-**		
718	Cable Containment for Power Systemat at Coping Level	30 days	Jul 29 '23	Aug 27 '23	Jul 23 '23	Aug 21 '23	0 days	691FS-15 days	719	
719	Wiring Installation at Basement	30 days	Aug 28 '23	Sep 26 '23	Aug 22 '23	Sep 20 '23	0 days	718	720	
720	Cable Termination and Wiring Accessories Installation at Coping Le	30 days	Sep 27 '23	Oct 26 '23	Sep 21 '23	Oct 20 '23	0 days	719		
721	**Plumbing Installation, PST**	**73 days**	**Jul 1 '23**	**Sep 11 '23**	**Nov 21 '23**	**Feb 1 '24**	**25 days**	**597,1862**	**1864,757**	**Pb - B x 4~6 m**
722	Plumbing Installation for Potable / Cleansing and Irrigation Pipes	45 days	Jul 1 '23	Aug 14 '23	Nov 21 '23	Jan 4 '24	0 days		723	
723	Plumbing Installation for Cleansing Tap	14 days	Aug 15 '23	Aug 28 '23	Jan 5 '24	Jan 18 '24	0 days	722	724	
724	Plumbing Installation for Eyewash and Wash Basin	14 days	Aug 29 '23	Sep 11 '23	Jan 19 '24	Feb 1 '24	143 days	723		
725	**CCTV Installation (9 indoor + 2 outdoor Cameras), PST**	**41 days**	**Jun 14 '23**	**Jul 24 '23**	**Dec 24 '23**	**Feb 1 '24**	**74 days**	**598,609FS+60 (**	**757,1874**	
726	8 x Indoor CCTV Installation c/w conduit System	30 days	Jun 15 '23	Jul 14 '23	Dec 24 '23	Jan 22 '24	0 days		727	
727	1 x Outdoor CCTV Installation c/w conduit System	10 days	Jul 15 '23	Jul 24 '23	Jan 23 '24	Feb 1 '24	192 days	726		
728	Wirings & Equipment Installation for CCTV System (Entire PST Buil	36 days	Jun 14 '23	Jul 19 '23	Dec 28 '23	Feb 1 '24	197 days	66		
729	**Fire Services Installation, PST**	**85 days**	**Jul 14 '23**	**Oct 6 '23**	**Nov 9 '23**	**Feb 1 '24**	**0 days**	**599**	**757**	



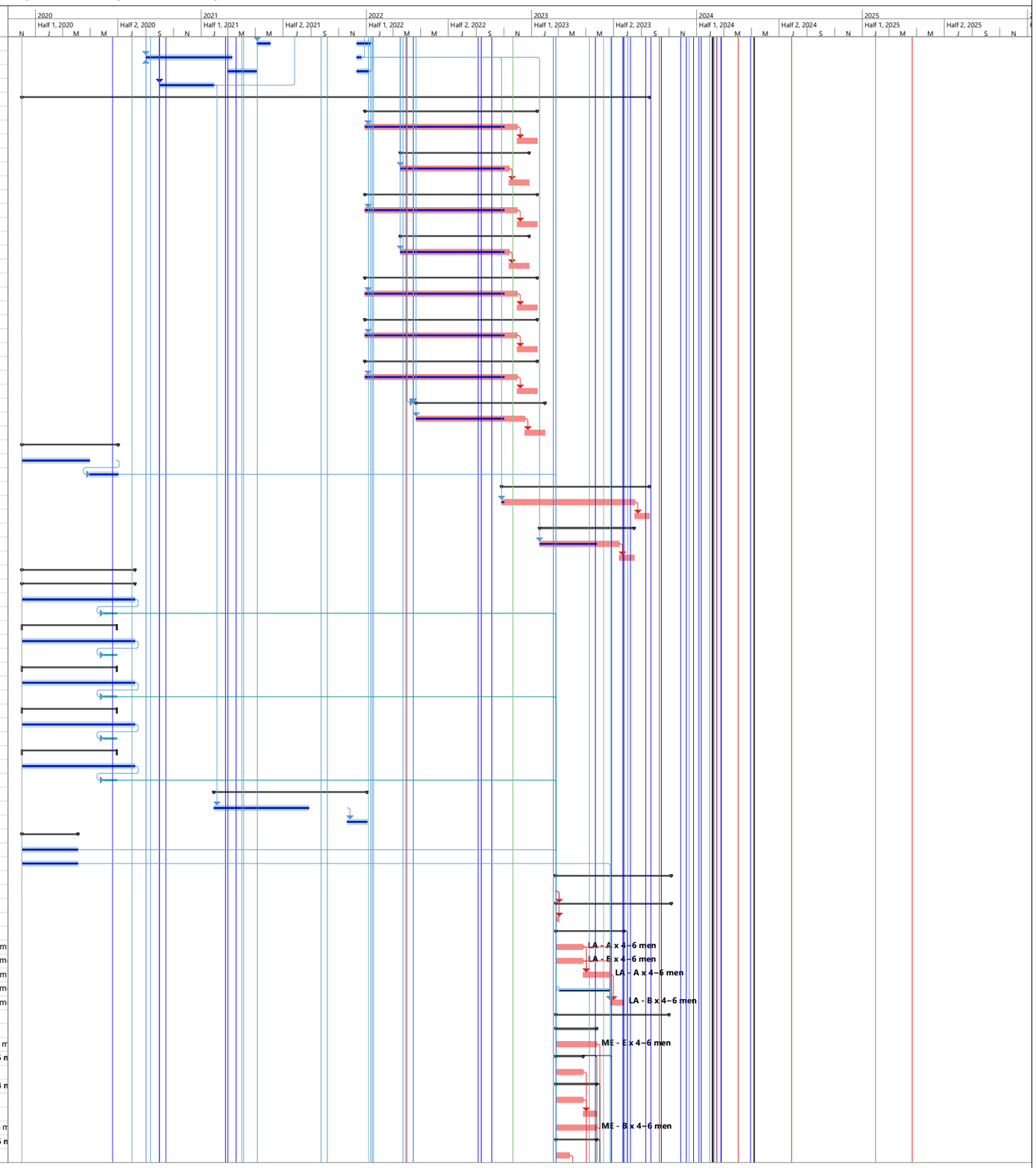
Bestwise
Project: DE/2018/04
Date: 31/10/22

Task	▬	Milestone	◆	Project Summary	▬	Late	▬	Critical Split	┅
Milestone, Tentative	◉	Summary	▬	Manual Summary	▬	Critical	▬	Progress	▬
Manual Progress	▬	Milestone (Actual)	★	Slack (Float)	▬	Slack	▬		

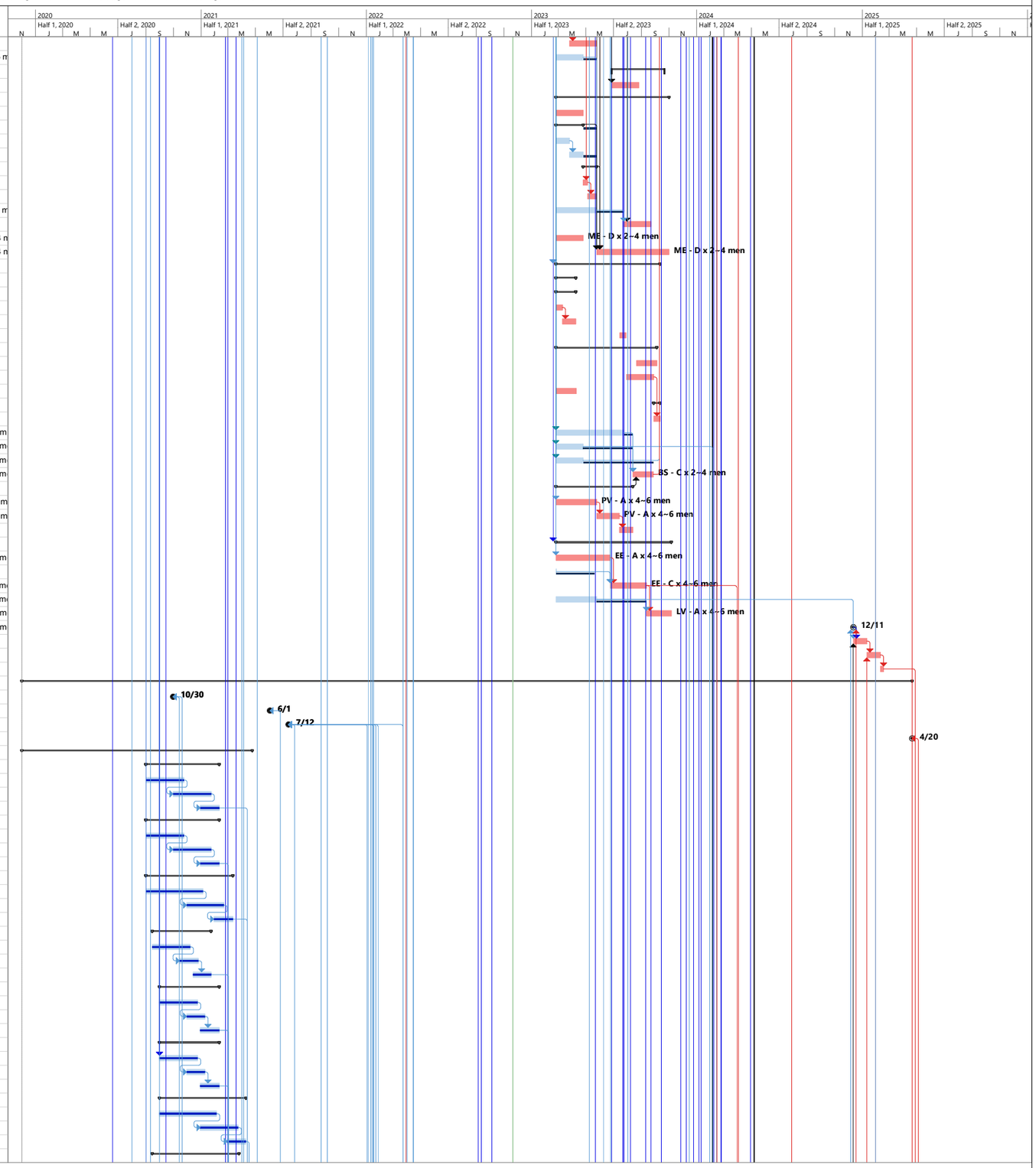
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
730	F.S Installation for HR Piping System	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	118 days	609FS+90 days		
731	F.S Installation for 10 x F.S Hose Reel	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	118 days	609FS+90 days		
732	F.S Installation for BGU/Alarm Bell	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	118 days	609FS+90 days		
733	F.S Installation for AFA Detector and Conduit System	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	118 days	609FS+90 days		
734	Wirings Works for F.S Conduit System	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	118 days	609FS+90 days		
735	Earthing and Lightning Protection System, PST	90 days	Apr 15 '23	Jul 13 '23	Nov 4 '23	Feb 1 '24	85 days	184,600	757	
736	**Roof Floor**	**180 days**	**Apr 15 '23**	**Oct 11 '23**	**Jul 14 '23**	**Feb 1 '24**	**90 days**			
737	**Mechanical Ventilation and Air Conditioning System, PST**	**45 days**	**Jul 5 '23**	**Aug 18 '23**	**Dec 19 '23**	**Feb 1 '24**	**49 days**	**595**	**757**	**MVAC - B x 4~**
738	Mechanical Ventilation for Air Duct Installation (EAD)	30 days	Jul 5 '23	Aug 3 '23	Dec 19 '23	Jan 17 '24	0 days		739SS,740	
739	Mechanical Ventilation for 4 x Exhaust Air Fan Installation	30 days	Jul 5 '23	Aug 3 '23	Dec 19 '23	Jan 17 '24	0 days	738SS	740	
740	Mechanical Ventilation for 4 x EAF LMCP / Cable Containment Inst	15 days	Aug 4 '23	Aug 18 '23	Jan 18 '24	Feb 1 '24	167 days	738,739		
741	**Ligting Installation**	**60 days**	**Aug 13 '23**	**Oct 11 '23**	**Aug 22 '23**	**Oct 20 '23**	**9 days**	**163,556,609FS-**		
742	Cable Containment for Lighting System at Roof	30 days	Aug 13 '23	Sep 11 '23	Aug 22 '23	Sep 20 '23	0 days	656	743	
743	Wiring Installation at Roof	20 days	Sep 12 '23	Oct 1 '23	Sep 21 '23	Oct 10 '23	0 days	742	744FS-10 days	
744	Cable Termination and Lighting fitting Installation at Roof	20 days	Sep 22 '23	Oct 11 '23	Oct 1 '23	Oct 20 '23	9 days	743FS-10 days		
745	**Power Distribution System Installation**	**60 days**	**Jul 14 '23**	**Sep 11 '23**	**Aug 22 '23**	**Oct 20 '23**	**39 days**	**163,556,609FS-**		
746	Cable Containment for Power System at Roof	30 days	Aug 13 '23	Sep 11 '23	Aug 22 '23	Sep 20 '23	0 days	660	747	
747	Wiring Installation at Roof	20 days	Sep 12 '23	Oct 1 '23	Sep 21 '23	Oct 10 '23	0 days	746	748FS-10 days	
748	Cable Termination and Wiring Accessories Installation at Roof	20 days	Sep 22 '23	Oct 11 '23	Oct 1 '23	Oct 20 '23	9 days	747FS-10 days		
749	**Plumbing Installation, PST**	**42 days**	**Aug 8 '23**	**Sep 18 '23**	**Dec 22 '23**	**Feb 1 '24**	**18 days**	**597,1862**	**1864,757**	**Pb - B x 4~6 m**
750	Plumbing Installation for Irrigation pipe	21 days	Aug 8 '23	Aug 28 '23	Dec 22 '23	Jan 11 '24	0 days		751	
751	Plumbing Installation for Irrigation Tap	21 days	Aug 29 '23	Sep 18 '23	Jan 12 '24	Feb 1 '24	136 days	750		
752	**Fire Services Installation, PST**	**14 days**	**Jul 14 '23**	**Jul 27 '23**	**Nov 9 '23**	**Feb 1 '24**	**71 days**	**599,609FS+90 c**	**757**	**FS - A x 4~6 m**
753	F.S Installation for HR Piping System	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	0 days	599,609FS+90 c	757	
754	F.S Installation for 4 x F.S Hose Reel	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	0 days	599,609FS+90 c	757	
755	F.S Installation for BGU/Alarm Bell	85 days	Jul 14 '23	Oct 6 '23	Nov 9 '23	Feb 1 '24	0 days	599,609FS+90 c	757	
756	Earthing and Lightning Protection System, PST	90 days	Apr 15 '23	Jul 13 '23	Nov 4 '23	Feb 1 '24	85 days	184,600	757	BS - C x 2~4 m
757	Testing and Commissioning of Building Services Installations, PST	60 days	Oct 7 '23	Dec 5 '23	Feb 2 '24	Apr 1 '24	118 days	651,663,666,66	520FF	BS - C x 2~4 m
758	**SCADA Systems, PST No. 1~4**	**60 days**	**Sep 17 '23**	**Nov 15 '23**	**Jan 7 '24**	**Mar 6 '24**	**112 days**			
759	Configuration of PLC System	45 days	Sep 17 '23	Oct 31 '23	Jan 7 '24	Feb 20 '24	0 days	644	760	PLC - B x 1 ma
760	Site Acceptance Test for PLC System at PST No. 1~4	15 days	Nov 1 '23	Nov 15 '23	Feb 21 '24	Mar 6 '24	112 days	759	1875	PLC - A x 1 ma
761	Energisation of LV Switchboards, PST	1 day	Jul 29 '24	Jul 29 '24	Sep 20 '23	Sep 20 '23	0 days	394,396,399FS-	762	LV - A x 4~6 m
762	Site Acceptance Test for E&M Equip and Instrumentations calibrations at PST N	15 edays	Jul 29 '24	Aug 13 '24	Sep 21 '23	Oct 6 '23	0 edays	610FS-30 days,	763	
763	System Commissioning for E&M Equip at PST No, 1~4	15 days	Aug 14 '24	Aug 28 '24	Oct 6 '23	Oct 20 '23	0 days	762	764	
764	Risk Allowances for Completion of Processing Plant at PST No. 1~4	7 edays	Aug 28 '24	Sep 4 '24	Oct 21 '23	Oct 28 '23	0 edays	763	1870	
765	**Bioreactors No. 2A & 2B & DOU2A, Portion B-4**	**1904 days**	**Dec 2 '19**	**Feb 16 '25**	**Dec 2 '19**	**Jan 10 '25**	**0 days**			
766	Planned Key Date Completion Date - KD1A, BR 2A & 2B & DOU2A	0 days	Oct 30 '20	Oct 30 '20	Oct 30 '20	Oct 30 '20	0 days	805FF,806FF		
767	Planned Key Date Completion Date - KD1B, BR 2A & 2B & DOU2A	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	807FF		
768	Planned Sectional Completion Date - Section 1, BR 2A & 2B & DOU2A	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	808FF,809FF,81		
769	Planned Sectional Completion Date - Section 2, BR 2A & 2B & DOU2A	0 days	Sep 26 '23	Sep 26 '23	Sep 26 '23	Sep 26 '23	0 days	922FF,923FF		
770	**Selection of Suppliers for major plant and materials for BR 2A & 2B & DOU2A**	**535 days**	**Dec 2 '19**	**May 19 '21**	**Dec 2 '19**	**May 19 '21**	**0 days**			
771	**BR - pre-treatment fine screens (Marking Scheme Approach), EQT019**	**162 days**	**Sep 1 '20**	**Feb 9 '21**	**Sep 1 '20**	**Feb 9 '21**	**0 days**			
772	Submission for acceptance of purchasing package	84 days	Sep 1 '20	Nov 23 '20	Sep 1 '20	Nov 23 '20	0 days		773	
773	Invitation of quotations for purchasing package	84 days	Oct 31 '20	Jan 22 '21	Oct 31 '20	Jan 22 '21	0 days	772	774	
774	Acceptance of conforming quotation (Completed)	42 days	Dec 30 '20	Feb 9 '21	Dec 30 '20	Feb 9 '21	0 days	773	808	
775	**BR - air diffusion system (Marking Scheme Approach), EQT017**	**192 days**	**Sep 1 '20**	**Mar 11 '21**	**Sep 1 '20**	**Mar 11 '21**	**0 days**			
776	Submission for acceptance of purchasing package including proposed mar	126 days	Sep 1 '20	Jan 4 '21	Sep 1 '20	Jan 4 '21	0 days		777	
777	Invitation of quotations for purchasing package	82 days	Nov 30 '20	Feb 19 '21	Nov 30 '20	Feb 19 '21	0 days	776	778	
778	Acceptance of conforming quotation (Completed)	42 days	Jan 29 '21	Mar 11 '21	Jan 29 '21	Mar 11 '21	0 days	777	808	
779	**BR - submersible mixers, C11, EQT020**	**162 days**	**Sep 1 '20**	**Feb 9 '21**	**Sep 1 '20**	**Feb 9 '21**	**0 days**			
780	Submission for acceptance of purchasing package	84 days	Sep 1 '20	Nov 23 '20	Sep 1 '20	Nov 23 '20	0 days		781	
781	Invitation of quotations for purchasing package	84 days	Oct 31 '20	Jan 22 '21	Oct 31 '20	Jan 22 '21	0 days	780	782	
782	Acceptance of conforming quotation (Completed)	42 days	Dec 30 '20	Feb 9 '21	Dec 30 '20	Feb 9 '21	0 days	781	808	
783	**BR - mixed liquor return pumps, C11, EQT008**	**162 days**	**Sep 14 '20**	**Feb 22 '21**	**Sep 14 '20**	**Feb 22 '21**	**0 days**			
784	Submission for acceptance of purchasing package	82 days	Sep 14 '20	Dec 4 '20	Sep 14 '20	Dec 4 '20	0 days		785	
785	Invitation of quotations for purchasing package	84 days	Nov 13 '20	Feb 4 '21	Nov 13 '20	Feb 4 '21	0 days	784	786	
786	Acceptance of conforming quotation (Completed)	42 days	Jan 12 '21	Feb 22 '21	Jan 12 '21	Feb 22 '21	0 days	785	808	
787	**BR - scum removal systems, C11, EQT021, EQT022**	**162 days**	**Sep 14 '20**	**Feb 22 '21**	**Sep 14 '20**	**Feb 22 '21**	**0 days**			
788	Submission for acceptance of purchasing package	82 days	Sep 14 '20	Dec 4 '20	Sep 14 '20	Dec 4 '20	0 days		789	
789	Invitation of quotations for purchasing package	84 days	Nov 13 '20	Feb 4 '21	Nov 13 '20	Feb 4 '21	0 days	788	790	
790	Acceptance of conforming quotation (Completed)	42 days	Jan 12 '21	Feb 22 '21	Jan 12 '21	Feb 22 '21	0 days	789	808	
791	**DOU - activated carbon filter (DOU No. 2A, No. 3A, No. 3B), C11, ref. EQT0**	**204 days**	**Dec 2 '19**	**Jun 22 '20**	**Dec 2 '19**	**Jun 22 '20**	**0 days**			
792	Submission for acceptance of purchasing package	166 days	Dec 2 '19	May 15 '20	Dec 2 '19	May 15 '20	0 days		793	
793	Invitation of quotations for purchasing package	84 days	Mar 31 '20	Jun 22 '20	Mar 31 '20	Jun 22 '20	0 days	792	794	
794	Acceptance of conforming quotation (Completed)	20 days	May 30 '20	Jun 18 '20	May 30 '20	Jun 18 '20	0 days	793	812,999	
795	**BR - instrumentations, C11, EQT035-2**	**142 days**	**Oct 1 '20**	**Feb 19 '21**	**Oct 1 '20**	**Feb 19 '21**	**0 days**			
796	Submission for acceptance of purchasing package	84 days	Oct 1 '20	Dec 23 '20	Oct 1 '20	Dec 23 '20	0 days		797	
797	Invitation of quotations for purchasing package	82 days	Nov 30 '20	Feb 19 '21	Nov 30 '20	Feb 19 '21	0 days	796	803	
798	**PV System (EQT041)**	**111 days**	**Jan 29 '21**	**May 19 '21**	**Jan 29 '21**	**May 19 '21**	**0 days**			
799	Submission for acceptance of purchasing package	40 days	Mar 1 '21	Apr 9 '21	Mar 1 '21	Apr 9 '21	0 days		800	
800	Invitation of quotations for purchasing package	29 days	Mar 31 '21	Apr 28 '21	Mar 31 '21	Apr 28 '21	0 days	799	801	
801	Acceptance of conforming quotation	29 days	Apr 21 '21	May 19 '21	Apr 21 '21	May 19 '21	0 days	800	802	
802	Commencement of Design Work	1 day	May 12 '21	May 12 '21	May 12 '21	May 12 '21	0 days	801		
803	Acceptance of conforming quotation	42 days	Jan 29 '21	Mar 11 '21	Jan 29 '21	Mar 11 '21	0 days	797	808	
804	**Design Submissions for BR 2A & 2B**	**578 days**	**Aug 15 '20**	**Mar 15 '22**	**Aug 15 '20**	**Mar 15 '22**	**0 days**	**121**		
805	Electrical schematic drawings for BR No. 2A & 2B	84 days	Aug 15 '20	Nov 6 '20	Aug 15 '20	Nov 6 '20	0 days		766FF	
806	CDS080-3 - Civil and dimensional requirements drawings for BR 2A&2B up t	77 days	Sep 1 '20	Nov 16 '20	Sep 1 '20	Nov 16 '20	0 days		766FF	
807	CDS081-3 - Civil and dimensional requirements drawings for BR 2A & 2B	281 days	Aug 28 '20	Jun 4 '21	Aug 28 '20	Jun 4 '21	0 days		767FF	
808	CDS004 - Detailed Design for Bioreactor 2A and 2B	291 edays	Mar 12 '21	Dec 28 '21	Mar 12 '21	Dec 28 '21	0 edays	774,778,782,78	768FF,817,820,8	
809	CDS023 - Detailed Design for Electrical Installations for BR No. 2A & 2B	159.38 edays	Oct 7 '21	Mar 15 '22	Oct 7 '21	Mar 15 '22	0 edays	82,92,100,104,	83,768FF,1068	
810	CDS034-3 - Detailed Design for Electrical Installations BS at BR No. 2A & 2B	323.38 edays	Mar 12 '21	Jan 29 '22	Mar 12 '21	Jan 29 '22	0 edays	156	768FF,908,920	



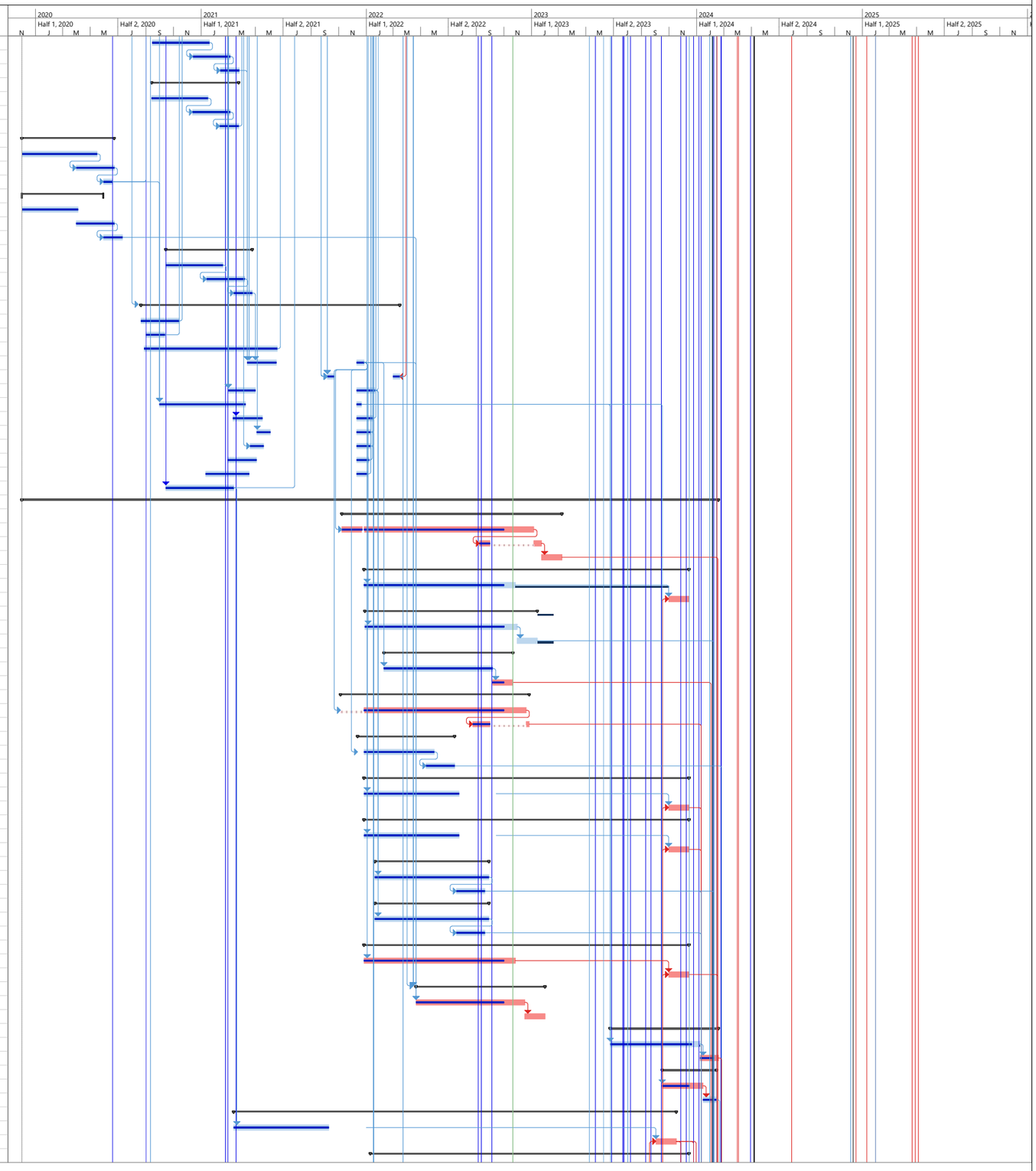
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
811	CDS025-3 - Detailed Design for LV Switchboards for BR 2A and 2B	251 edays	May 3 '21	Jan 9 '22	May 3 '21	Jan 9 '22	0 edays	78	768FF,1054	
812	CDS007-2 - Detailed Design for Deodorisation System, DOU No. 2A	475.38 edays	Sep 1 '20	Dec 20 '21	Sep 1 '20	Dec 20 '21	0 edays	794,983	768FF,844,847	
813	CDS031 - Detailed Design for MVAC System	311.38 edays	Mar 1 '21	Jan 6 '22	Mar 1 '21	Jan 6 '22	0 edays		216FF	
814	CDS050-3 - Detailed Design for Lifting Appliances - BR 2A & 2B	120 edays	Oct 1 '20	Jan 29 '21	Oct 1 '20	Jan 29 '21	0 edays	131	768FF,866	
815	**Manufacturing and Delivery of Plant & Materials**	**1387 days**	**Dec 2 '19**	**Sep 18 '23**	**Dec 2 '19**	**Sep 18 '23**	**0 days**			
816	**Pre-treatment Fine Screens, EQT019**	**381 days**	**Dec 29 '21**	**Jan 13 '23**	**Dec 29 '21**	**Jan 13 '23**	**0 days**			
817	Manufacturing and Factory Acceptance Test of Plant	336 days	Dec 29 '21	Nov 29 '22	Dec 29 '21	Nov 29 '22	0 days	808	818	
818	Shipping and Delivery of Plant to site	45 days	Nov 30 '22	Jan 13 '23	Nov 30 '22	Jan 13 '23	0 days	817		
819	**Air Diffusion System, EQT017**	**285 days**	**Mar 17 '22**	**Dec 26 '22**	**Mar 17 '22**	**Dec 26 '22**	**0 days**			
820	Manufacturing and Factory Acceptance Test of Plant	240 days	Mar 17 '22	Nov 11 '22	Mar 17 '22	Nov 11 '22	0 days	808	821	
821	Shipping and Delivery of Plant to site	45 days	Nov 12 '22	Dec 26 '22	Nov 12 '22	Dec 26 '22	0 days	820		
822	**Submersible Mixer, EQT020**	**381 days**	**Dec 29 '21**	**Jan 13 '23**	**Dec 29 '21**	**Jan 13 '23**	**0 days**			
823	Manufacturing and Factory Acceptance Test of Plant	336 days	Dec 29 '21	Nov 29 '22	Dec 29 '21	Nov 29 '22	0 days	808	824	
824	Shipping and Delivery of Plant to site	45 days	Nov 30 '22	Jan 13 '23	Nov 30 '22	Jan 13 '23	0 days	823		
825	**Mixed Liquor Return Pumps, EQT008**	**285 days**	**Mar 17 '22**	**Dec 26 '22**	**Mar 17 '22**	**Dec 26 '22**	**0 days**			
826	Manufacturing and Factory Acceptance Test of Plant	240 days	Mar 17 '22	Nov 11 '22	Mar 17 '22	Nov 11 '22	0 days	808	827	
827	Shipping and Delivery of Plant to site	45 days	Nov 12 '22	Dec 26 '22	Nov 12 '22	Dec 26 '22	0 days	826		
828	**Sum Removal System, EQT021, EQT022**	**381 days**	**Dec 29 '21**	**Jan 13 '23**	**Dec 29 '21**	**Jan 13 '23**	**0 days**			
829	Manufacturing and Factory Acceptance Test of Plant	336 days	Dec 29 '21	Nov 29 '22	Dec 29 '21	Nov 29 '22	0 days	808	830	
830	Shipping and Delivery of Plant to site	45 days	Nov 30 '22	Jan 13 '23	Nov 30 '22	Jan 13 '23	0 days	829		
831	**Instrumentations, EQT035-2**	**381 days**	**Dec 29 '21**	**Jan 13 '23**	**Dec 29 '21**	**Jan 13 '23**	**0 days**			
832	Manufacturing and Factory Acceptance Test of Plant	336 days	Dec 29 '21	Nov 29 '22	Dec 29 '21	Nov 29 '22	0 days	808	833	
833	Shipping and Delivery of Plant to site	45 days	Nov 30 '22	Jan 13 '23	Nov 30 '22	Jan 13 '23	0 days	832		
834	**Stoplogs and Penstocks, EQT013**	**381 days**	**Dec 29 '21**	**Jan 13 '23**	**Dec 29 '21**	**Jan 13 '23**	**0 days**			
835	Manufacturing and Factory Acceptance Test of Plant	336 days	Dec 29 '21	Nov 29 '22	Dec 29 '21	Nov 29 '22	0 days	808	836	
836	Shipping and Delivery of Plant to site	45 days	Nov 30 '22	Jan 13 '23	Nov 30 '22	Jan 13 '23	0 days	835		
837	**Pipework, Valves and Electric Actuators, EQT036, EQT042 (Rev. 11)**	**285 days**	**Apr 21 '22**	**Jan 30 '23**	**Apr 21 '22**	**Jan 30 '23**	**0 days**	**63,66,70**		
838	Manufacturing and Factory Acceptance Test of Plant	240 days	Apr 21 '22	Dec 16 '22	Apr 21 '22	Dec 16 '22	0 days	808	839	
839	Shipping and Delivery of Plant to site	45 days	Dec 17 '22	Jan 30 '23	Dec 17 '22	Jan 30 '23	0 days	838		
840	**Photovoltaic Power System**	**213 days**	**Dec 2 '19**	**Jul 1 '20**	**Dec 2 '19**	**Jul 1 '20**	**0 days**			
841	Manufacturing and Factory Acceptance Test of Plant	150 days	Dec 2 '19	Jun 26 '20	Dec 2 '19	Jun 26 '20	0 days		842	
842	Shipping and Delivery of Plant to site	63 days	Apr 30 '20	Jul 1 '20	Apr 30 '20	Jul 1 '20	0 days	841	925	
843	**DOU 2A**	**327 days**	**Oct 27 '22**	**Sep 18 '23**	**Oct 27 '22**	**Sep 18 '23**	**0 days**			
844	Manufacturing and Factory Acceptance Test of Plant	294 days	Oct 27 '22	Aug 16 '23	Oct 27 '22	Aug 16 '23	0 days	812	845	
845	Shipping and Delivery of Plant to site	33 days	Aug 17 '23	Sep 18 '23	Aug 17 '23	Sep 18 '23	0 days	844		
846	**FRP Air Ductwork for DOU2A**	**209 days**	**Jan 19 '23**	**Aug 15 '23**	**Jan 19 '23**	**Aug 15 '23**	**0 days**			
847	Manufacturing and Factory Acceptance Test of Plant	176 days	Jan 19 '23	Jul 13 '23	Jan 19 '23	Jul 13 '23	0 days	812	848	
848	Shipping and Delivery of Plant to site	33 days	Jul 14 '23	Aug 15 '23	Jul 14 '23	Aug 15 '23	0 days	847		
849	**Building Services**	**250 days**	**Dec 2 '19**	**Aug 7 '20**	**Dec 2 '19**	**Aug 7 '20**	**0 days**			
850	**Lighting and Power Distribution System Equipment**	**250 days**	**Dec 2 '19**	**Aug 7 '20**	**Dec 2 '19**	**Aug 7 '20**	**0 days**			
851	Manufacturing and FAT for Lighting and Power Distribution System Equ	250 days	Dec 2 '19	Aug 7 '20	Dec 2 '19	Aug 7 '20	0 days		852	
852	Shipping and Delivery for Lighting and Power Distribution System Equip	30 days	May 30 '20	Jun 28 '20	May 30 '20	Jun 28 '20	0 days	851	920	
853	**Plumbing Equipment**	**210 days**	**Dec 2 '19**	**Jun 28 '20**	**Dec 2 '19**	**Aug 7 '20**	**0 days**			
854	Manufacturing and FAT for Plumbing Equipment	250 days	Dec 2 '19	Aug 7 '20	Dec 2 '19	Aug 7 '20	0 days		855	
855	Shipping and Delivery for Plumbing Equipment	30 days	May 30 '20	Jun 28 '20	May 30 '20	Jun 28 '20	0 days	854		
856	**CCTV Equipment**	**210 days**	**Dec 2 '19**	**Jun 28 '20**	**Dec 2 '19**	**Aug 7 '20**	**0 days**			
857	Manufacturing and FAT for CCTV Equipment	250 days	Dec 2 '19	Aug 7 '20	Dec 2 '19	Aug 7 '20	0 days		858	
858	Shipping and Delivery for CCTV Equipment (7 indoor + 2 outdoor Came	30 days	May 30 '20	Jun 28 '20	May 30 '20	Jun 28 '20	0 days	857	921	
859	**Fire Services Equipment**	**210 days**	**Dec 2 '19**	**Jun 28 '20**	**Dec 2 '19**	**Aug 7 '20**	**0 days**			
860	Manufacturing and FAT for Fire Services Equipment	250 days	Dec 2 '19	Aug 7 '20	Dec 2 '19	Aug 7 '20	0 days		861	
861	Shipping and Delivery for Fire Services Equipment	30 days	May 30 '20	Jun 28 '20	May 30 '20	Jun 28 '20	0 days	860		
862	**Earthing and Lightning Protection System Equipment**	**210 days**	**Dec 2 '19**	**Jun 28 '20**	**Dec 2 '19**	**Aug 7 '20**	**0 days**			
863	Manufacturing and FAT for Earthing and Lightning Protection System E	250 days	Dec 2 '19	Aug 7 '20	Dec 2 '19	Aug 7 '20	0 days		864	
864	Shipping and Delivery for Earthing and Lightning Protection System Equ	30 days	May 30 '20	Jun 28 '20	May 30 '20	Jun 28 '20	0 days	863	922	
865	**Lifting Appliances**	**339 days**	**Jan 29 '21**	**Jan 2 '22**	**Jan 29 '21**	**Jan 2 '22**	**0 days**			
866	Manufacturing and Factory Acceptance Test of Plant	210 days	Jan 29 '21	Nov 18 '21	Jan 29 '21	Nov 18 '21	0 days	814	867	
867	Shipping and Delivery of Plant to site	45 days	Nov 19 '21	Jan 2 '22	Nov 19 '21	Jan 2 '22	0 days	866		
868	**Electrical System**	**124 days**	**Dec 2 '19**	**Apr 3 '20**	**Dec 2 '19**	**Apr 3 '20**	**0 days**			
869	Equipment Delivery for Cable Containment	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days		929	
870	Equipment Delivery for Cable Provision	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days		931	
871	**Site Installation Work**	**256 days**	**Feb 23 '23**	**Nov 5 '23**	**Jan 19 '23**	**Nov 5 '23**	**0 days**			
872	Tentative Civil Handover Date, Portion B-4, BR2A & 2B & DOU2A (Rev. 5)	1 day	Feb 23 '23	Feb 23 '23	Jan 19 '23	Jan 19 '23	0 days		874,873	
873	**Commencement of E&M Installation at Bioreactor No. 2A & 2B**	**255 days**	**Feb 23 '23**	**Nov 5 '23**	**Jan 20 '23**	**Nov 5 '23**	**0 days**	**872**		
874	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare	7 days	Feb 24 '23	Mar 2 '23	Feb 24 '23	Mar 2 '23	0 days	872		
875	**Installation of Lifting Appliances at BR 2A & 2B**	**150 days**	**Feb 24 '23**	**Jul 23 '23**	**Feb 24 '23**	**Jul 23 '23**	**0 days**		**905**	
876	Coping Level EOT Crane LA-03-01 SWL 5t	60 days	Feb 24 '23	Apr 24 '23	Feb 24 '23	Apr 24 '23	0 days		878,880	LA - A x 4~6 m
877	Coping Level EOT Crane LA-03-02 SWL 5t	60 days	Feb 24 '23	Apr 24 '23	Feb 24 '23	Apr 24 '23	0 days		878,880	LA - B x 4~6 m
878	Coping Level EOT Crane LA-03-03 SWL 5t	60 days	Apr 25 '23	Jun 23 '23	Apr 25 '23	Jun 23 '23	0 days	876,877	880	LA - A x 4~6 m
879	Coping Level Mobile A-frame LA-03-04 SWL 4t	7 days	Feb 24 '23	Mar 2 '23	Jun 17 '23	Jun 23 '23	113 days		880	LA - B x 4~6 m
880	T&C, Loading Test for Lifting Appliances at Bioreactor No. 2A & 2B	30 days	Jun 24 '23	Jul 23 '23	Jun 24 '23	Jul 23 '23	0 days	876,877,878,87		LA - B x 4~6 m
881	**Mechanical Installations for E&M Equip at BR 2A & 2B**	**250 days**	**Feb 23 '23**	**Oct 31 '23**	**Feb 24 '23**	**Oct 31 '23**	**0 days**			
882	**Bottom Level**	**90 days**	**Feb 24 '23**	**May 24 '23**	**Feb 24 '23**	**May 24 '23**	**0 days**			
883	Installation of penstocks and stoplogs (Penstocks 8nos, Stoplogs 8no	90 days	Feb 24 '23	May 24 '23	Feb 24 '23	May 24 '23	0 days		907	ME - E x 4~6 m
884	**Installation of pre-treatment fine screen system**	**60 days**	**Feb 24 '23**	**Apr 24 '23**	**Feb 24 '23**	**Apr 24 '23**	**0 days**		**907,895**	**ME - A x 4~6 n**
885	Installation of pre-treatment fine screens (x4)	60 days	Feb 24 '23	Apr 24 '23	Feb 24 '23	Apr 24 '23	0 days		902	
886	**Installation of air diffusion system (x2), EQT017**	**90 days**	**Feb 24 '23**	**May 24 '23**	**Feb 24 '23**	**May 24 '23**	**0 days**		**907**	**ME - D x 2~4 n**
887	Installation of UPVC pipework and SS316 pipework	60 days	Feb 24 '23	Apr 24 '23	Feb 24 '23	Apr 24 '23	0 days		888	
888	Installation of air diffuser	30 days	Apr 25 '23	May 24 '23	Apr 25 '23	May 24 '23	0 days	887		
889	Installation of submersible mixers (x16), EQT020	90 days	Feb 24 '23	May 24 '23	Feb 24 '23	May 24 '23	0 days		907	ME - B x 4~6 m
890	**Installation of mixed liquor return pumping system**	**90 days**	**Feb 24 '23**	**May 24 '23**	**Feb 24 '23**	**May 24 '23**	**0 days**		**907**	**ME - A x 4~6 n**
891	Installation of mixed liquor return pumps (x6), EQT008	30 days	Feb 24 '23	Mar 25 '23	Feb 24 '23	Mar 25 '23	0 days		892	



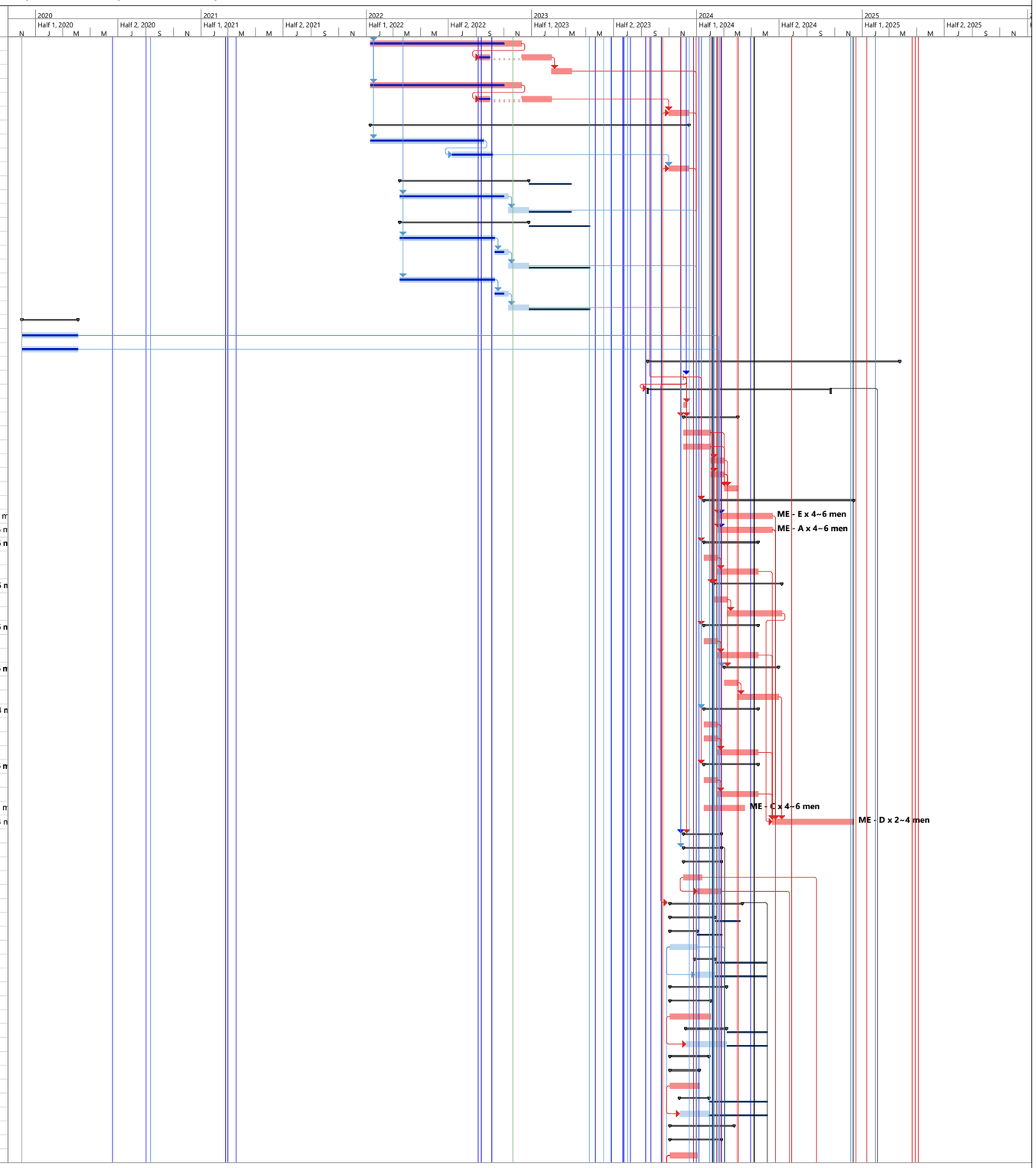
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
892	Installation of pipework and valves, EQT036	60 days	Mar 26 '23	May 24 '23	Mar 26 '23	May 24 '23	0 days	891		
893	Installation of scum skimmer (x2), EQT022	60 days	Feb 24 '23	Apr 24 '23	Mar 26 '23	May 24 '23	30 days		907	ME - B x 4~6 m
894	**Ground Floor**	**117 days**	**Jun 27 '23**	**Oct 21 '23**	**Jun 27 '23**	**Oct 21 '23**	**0 days**			
895	Installation of FRP kiosk for screenings trash bin	60 days	Jun 27 '23	Aug 25 '23	Jun 27 '23	Aug 25 '23	0 days	884		
896	**Coping Level**	**250 days**	**Feb 23 '23**	**Oct 31 '23**	**Feb 24 '23**	**Oct 31 '23**	**0 days**			
897	Installation of davit for submersibler mixer	60 days	Feb 24 '23	Apr 24 '23	Feb 24 '23	Apr 24 '23	0 days			
898	**Installation of scum pump system for scum skimmer**	**60 days**	**Feb 24 '23**	**Apr 24 '23**	**Mar 26 '23**	**May 24 '23**	**30 days**		**907**	
899	Installation of scum pump	30 days	Feb 24 '23	Mar 25 '23	Mar 26 '23	Apr 24 '23	0 days		900	
900	Installation of pipework and valves, EQT036	30 days	Mar 26 '23	Apr 24 '23	Apr 25 '23	May 24 '23	30 days	899		
901	**Installation of wash compactor system**	**30 days**	**Apr 25 '23**	**May 24 '23**	**Apr 25 '23**	**May 24 '23**	**0 days**		**907**	
902	Installation of wash compactor (x4)	10 days	Apr 25 '23	May 4 '23	Apr 25 '23	May 4 '23	0 days	885	903	
903	Installation of pipework and valves, EQT036	20 days	May 5 '23	May 24 '23	May 5 '23	May 24 '23	0 days	902		
904	Mechanical Installations for DOU 2A	90 edays	Feb 23 '23	May 24 '23	Apr 25 '23	Jul 24 '23	60.63 e...		905	ME - F x 4~6 m
905	Installation of FRP covers, walkways, platforms and ladders, EQT050	60 days	Jul 24 '23	Sep 21 '23	Jul 24 '23	Sep 21 '23	0 days	875,904		
906	Installation of instrumentations, EQT035-2	60 days	Feb 24 '23	Apr 24 '23	Feb 24 '23	Apr 24 '23	0 days			ME - D x 2~4 n
907	Site Acceptance Tests - mechanical aspects including alignment and l	160 days	May 25 '23	Oct 31 '23	May 25 '23	Oct 31 '23	0 days	883,884,886,88		ME - D x 2~4 n
908	**Building Services Installations for BR 2A & 2B**	**230 days**	**Feb 24 '23**	**Oct 11 '23**	**Feb 24 '23**	**Oct 11 '23**	**0 days**	**163,810**		
909	**Ground Floor**	**44 days**	**Feb 24 '23**	**Apr 8 '23**	**Feb 24 '23**	**Apr 8 '23**	**0 days**			
910	**Plumbing Installation,**	**44 days**	**Feb 24 '23**	**Apr 8 '23**	**Feb 24 '23**	**Apr 8 '23**	**0 days**			
911	Plumbing Installation, for Cleansing Pipe	14 days	Feb 24 '23	Mar 9 '23	Feb 24 '23	Mar 9 '23	0 days		912	
912	Plumbing Installation, for Check Meter Cabinet	30 days	Mar 10 '23	Apr 8 '23	Mar 10 '23	Apr 8 '23	0 days	911		
913	FS Installation for Pipe Work	14 days	Jul 15 '23	Jul 28 '23	Jul 15 '23	Jul 28 '23	0 days			
914	**Coping Level**	**223 days**	**Feb 24 '23**	**Oct 4 '23**	**Feb 24 '23**	**Oct 4 '23**	**0 days**			
915	Plumbing Installation, for Cleansing Pipe and Tap	45 days	Aug 21 '23	Oct 4 '23	Aug 21 '23	Oct 4 '23	0 days			
916	FS Installation for Pipe Work and HR	60 days	Jul 30 '23	Sep 27 '23	Jul 30 '23	Sep 27 '23	0 days		919	
917	FS Installation for AFA detector and Conduit System	45 days	Feb 24 '23	Apr 9 '23	Feb 24 '23	Apr 9 '23	0 days			
918	**Roof Floor**	**14 days**	**Sep 28 '23**	**Oct 11 '23**	**Sep 28 '23**	**Oct 11 '23**	**0 days**			
919	FS Installation for Pipe Work and HR	14 days	Sep 28 '23	Oct 11 '23	Sep 28 '23	Oct 11 '23	0 days	916		
920	Lighting and Power Distribution System, BR2	150 days	Feb 24 '23	Jul 23 '23	Mar 16 '23	Aug 12 '23	20 days	810,852	923	BS - A x 4~6 m
921	CCTV Installation (7 indoor + 2 outdoor Cameras), BR2	60 days	Feb 24 '23	Apr 24 '23	Jun 14 '23	Aug 12 '23	110 days	858	923,1874	BS - B x 4~6 m
922	Lightning Protection System, BR2	60 days	Feb 24 '23	Apr 24 '23	Jul 29 '23	Sep 26 '23	155 days	184,864	769FF	BS - C x 2~4 m
923	Testing and Commissioning of Building Services Installations, BR2	45 days	Aug 13 '23	Sep 26 '23	Aug 13 '23	Sep 26 '23	0 days	920,921,924	769FF	BS - C x 2~4 m
924	**Photovoltaic Power System (PS 6B.6.11)**	**170 days**	**Feb 24 '23**	**Aug 12 '23**	**Feb 24 '23**	**Aug 12 '23**	**0 days**		**923**	
925	Commencement of Site Installation Work	90 days	Feb 24 '23	May 24 '23	Feb 24 '23	May 24 '23	0 days	842	926	PV - A x 4~6 m
926	Technical Assessment, System Test and Installation	50 days	May 25 '23	Jul 13 '23	May 25 '23	Jul 13 '23	0 days	925	927	PV - A x 4~6 m
927	CLP's smart meter installation and Final on-grid test with CLP	30 days	Jul 14 '23	Aug 12 '23	Jul 14 '23	Aug 12 '23	0 days	926		
928	**Electrical Installations for E&M Equip at BR 2A & 2B**	**255 days**	**Feb 23 '23**	**Nov 5 '23**	**Jan 20 '23**	**Nov 5 '23**	**0 days**	**141**		
929	Installation of cable trays and cable containments	120 days	Feb 24 '23	Jun 23 '23	Jan 20 '23	May 19 '23	0 days	869	931	EE - A x 4~6 m
930	Tentative Civil Handover Date LV cable draw pits from MFB No.2 to BR2	1 day	Feb 24 '23	Feb 24 '23	May 19 '23	May 19 '23	84 days		931	
931	Cables laying and terminations between buildings	80 days	Jun 24 '23	Sep 11 '23	May 20 '23	Aug 7 '23	0 days	870,929,930	933,1227	EE - C x 4~6 m
932	Electrical Installations for DOU 2A	90 edays	Feb 23 '23	May 24 '23	Jun 14 '23	Sep 12 '23	110.63 ...		935,933	EE - C x 4~6 m
933	Site Acceptance Tests - Electrical aspects including voltage and current	55 days	Sep 12 '23	Nov 5 '23	Sep 12 '23	Nov 5 '23	0 days	931,932		LV - A x 4~6 m
934	Energisation of LV Switchboards, BR2	1 day	Dec 11 '24	Dec 11 '24	Dec 11 '24	Dec 11 '24	0 days	1216,1292	935	LV - A x 4~6 m
935	Site Acceptance Test for E&M Equip at BR 2A & 2B & DOU2A	30 edays	Dec 11 '24	Jan 10 '25	Dec 11 '24	Jan 10 '25	0 edays	932,934,1174	936	
936	System Commissioning for E&M Equip at BR 2A & 2B & DOU2A	30 days	Jan 11 '25	Feb 9 '25	Sep 28 '23	Oct 27 '23	0 days	935,1228	937	
937	Risk Allowances for Completion of Processing Plant at BR 2A & 2B	7 edays	Feb 9 '25	Feb 16 '25	Oct 28 '23	Nov 4 '23	0 edays	936	1871	
938	**Membrane Facilities Building no.2 & DOU3B, Portion B-5**	**1967 days?**	**Dec 2 '19**	**Apr 20 '25**	**Dec 2 '19**	**Apr 20 '25**	**0 days?**			
939	Planned Key Date Completion Date - KD1A, MFB No. 2	0 days	Oct 30 '20	Oct 30 '20	Oct 30 '20	Oct 30 '20	0 days	993FF,994FF		
940	Planned Key Date Completion Date - KD1B, MFB No. 2 & DOU3B	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	995FF		
941	Planned Sectional Completion Date - Section 1, MFB No. 2 & DOU3B	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	996FF,997FF,99		
942	Planned Sectional Completion Date - Section 2, MFB No. 2 & DOU3B	0 days	Apr 20 '25	Apr 20 '25	Apr 20 '25	Apr 20 '25	0 days	1296FF		
943	**Selection of Suppliers for major plant and materials for MFB**	**509 days**	**Dec 2 '19**	**Apr 23 '21**	**Dec 2 '19**	**Apr 23 '21**	**0 days**			
944	**MFS - hollow fibre membrane modules (Marking Scheme Approach), ref. E**	**162 days**	**Sep 1 '20**	**Feb 9 '21**	**Sep 1 '20**	**Feb 9 '21**	**0 days**			
945	Submission for acceptance of purchasing package including proposed mar	84 days	Sep 1 '20	Nov 23 '20	Sep 1 '20	Nov 23 '20	0 days		946	
946	Invitation of quotations for purchasing package	84 days	Oct 31 '20	Jan 22 '21	Oct 31 '20	Jan 22 '21	0 days	945	947	
947	Acceptance of conforming quotation (Completed)	42 days	Dec 30 '20	Feb 9 '21	Dec 30 '20	Feb 9 '21	0 days	946	996	
948	**MFS - air scour blowers, C11, ref. EQT040**	**162 days**	**Sep 1 '20**	**Feb 9 '21**	**Sep 1 '20**	**Feb 9 '21**	**0 days**			
949	Submission for acceptance of purchasing package	84 days	Sep 1 '20	Nov 23 '20	Sep 1 '20	Nov 23 '20	0 days		950	
950	Invitation of quotations for purchasing package	84 days	Oct 31 '20	Jan 22 '21	Oct 31 '20	Jan 22 '21	0 days	949	951	
951	Acceptance of conforming quotation (Completed)	42 days	Dec 30 '20	Feb 9 '21	Dec 30 '20	Feb 9 '21	0 days	950	998	
952	**MFS - permeate pumps, C11, ref. EQT024**	**192 days**	**Sep 1 '20**	**Mar 11 '21**	**Sep 1 '20**	**Mar 11 '21**	**0 days**			
953	Submission for acceptance of purchasing package	126 days	Sep 1 '20	Jan 4 '21	Sep 1 '20	Jan 4 '21	0 days		954	
954	Invitation of quotations for purchasing package	82 days	Nov 30 '20	Feb 19 '21	Nov 30 '20	Feb 19 '21	0 days	953	955	
955	Acceptance of conforming quotation (Completed)	42 days	Jan 29 '21	Mar 11 '21	Jan 29 '21	Mar 11 '21	0 days	954	996	
956	**MFS - compressed air system, C11, ref. EQT029**	**130 days**	**Sep 15 '20**	**Jan 22 '21**	**Sep 15 '20**	**Jan 22 '21**	**0 days**			
957	Submission for acceptance of purchasing package	84 days	Sep 15 '20	Dec 7 '20	Sep 15 '20	Dec 7 '20	0 days		958	
958	Invitation of quotations for purchasing package	42 days	Nov 14 '20	Dec 25 '20	Nov 14 '20	Dec 25 '20	0 days	957	959	
959	Acceptance of conforming quotation (Completed)	40 days	Dec 14 '20	Jan 22 '21	Dec 14 '20	Jan 22 '21	0 days	958	998	
960	**MFS - chemical storage tanks, C11, ref. EQT091**	**132 days**	**Oct 1 '20**	**Feb 9 '21**	**Oct 1 '20**	**Feb 9 '21**	**0 days**			
961	Submission for acceptance of purchasing package	84 days	Oct 1 '20	Dec 23 '20	Oct 1 '20	Dec 23 '20	0 days		962	
962	Invitation of quotations for purchasing package	40 days	Nov 30 '20	Jan 8 '21	Nov 30 '20	Jan 8 '21	0 days	961	963	
963	Acceptance of conforming quotation (Completed)	42 days	Dec 30 '20	Feb 9 '21	Dec 30 '20	Feb 9 '21	0 days	962	998	
964	**MFS - chemical dosing & transfer pumps, C11, ref. EQT090**	**132 days**	**Oct 1 '20**	**Feb 9 '21**	**Oct 1 '20**	**Feb 9 '21**	**0 days**			
965	Submission for acceptance of purchasing package	84 days	Oct 1 '20	Dec 23 '20	Oct 1 '20	Dec 23 '20	0 days	2,37	966	
966	Invitation of quotations for purchasing package	40 days	Nov 30 '20	Jan 8 '21	Nov 30 '20	Jan 8 '21	0 days	965	967	
967	Acceptance of conforming quotation (Completed)	42 days	Dec 30 '20	Feb 9 '21	Dec 30 '20	Feb 9 '21	0 days	966	998	
968	**MFS - return activated sludge pumps (Marking Scheme Approach), ref. EQ**	**191 days**	**Oct 1 '20**	**Apr 9 '21**	**Oct 1 '20**	**Apr 9 '21**	**0 days**			
969	Submission for acceptance of purchasing package	126 days	Oct 1 '20	Feb 3 '21	Oct 1 '20	Feb 3 '21	0 days		970	
970	Invitation of quotations for purchasing package	84 days	Dec 30 '20	Mar 23 '21	Dec 30 '20	Mar 23 '21	0 days	969	971	
971	Acceptance of conforming quotation (Completed)	41 days	Feb 28 '21	Apr 9 '21	Feb 28 '21	Apr 9 '21	0 days	970	996	
972	**MFS - membrane tank drain pumps, C11, ref. EQT009**	**192 days**	**Sep 15 '20**	**Mar 25 '21**	**Sep 15 '20**	**Mar 25 '21**	**0 days**			



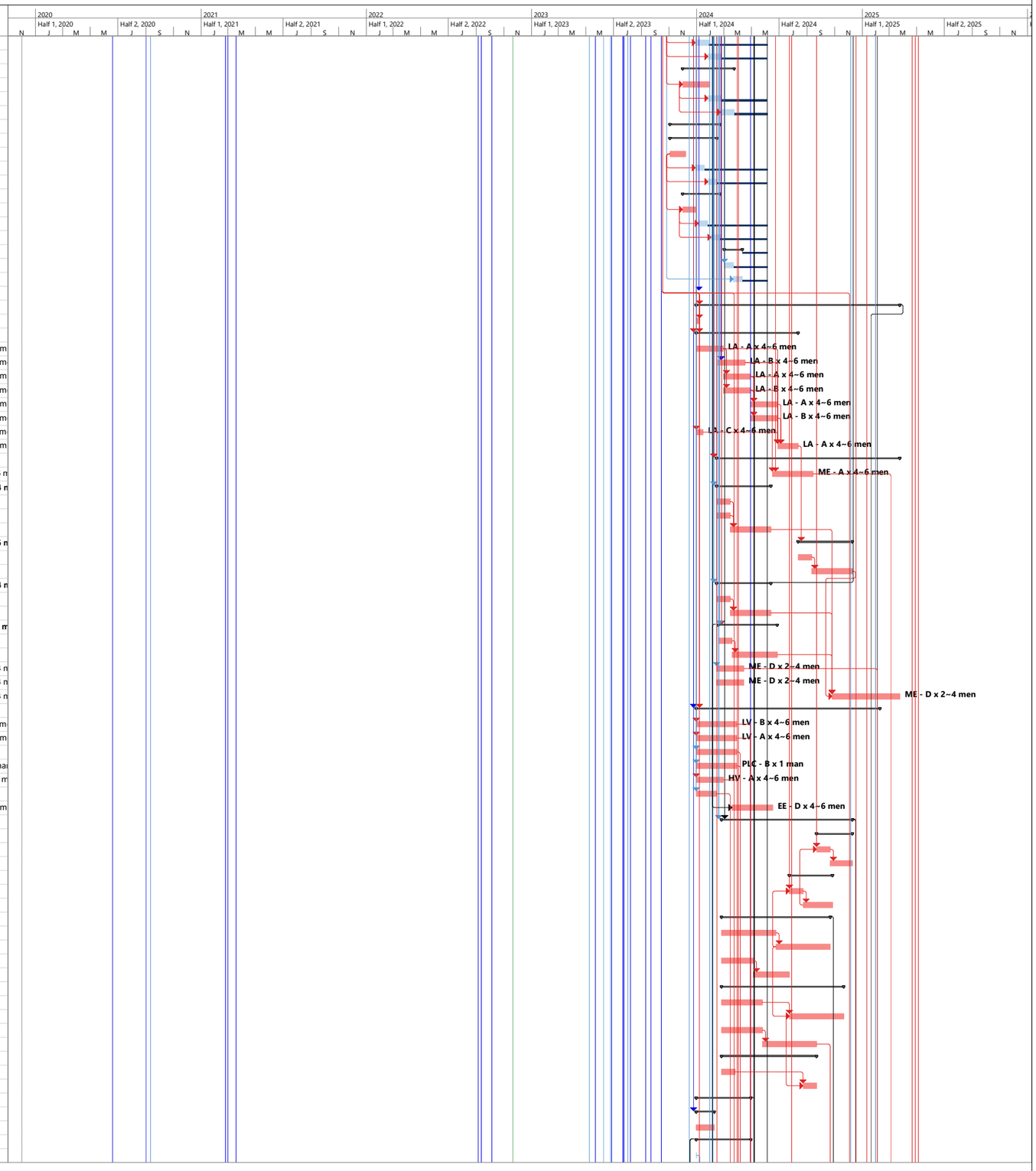
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
973	Submission for acceptance of purchasing package	126 days	Sep 15 '20	Jan 18 '21	Sep 15 '20	Jan 18 '21	0 days		974	
974	Invitation of quotations for purchasing package	82 days	Dec 14 '20	Mar 5 '21	Dec 14 '20	Mar 5 '21	0 days	973	975	
975	Acceptance of conforming quotation (Completed)	42 days	Feb 12 '21	Mar 25 '21	Feb 12 '21	Mar 25 '21	0 days	974	996	
976	**BR - aeration blowers (Marking Scheme Approach), EQT039**	**192 days**	**Sep 14 '20**	**Mar 24 '21**	**Sep 14 '20**	**Mar 24 '21**	**0 days**			
977	Submission for acceptance of purchasing package including proposed mai	124 days	Sep 14 '20	Jan 15 '21	Sep 14 '20	Jan 15 '21	0 days		978	
978	Invitation of quotations for purchasing package	83 days	Dec 13 '20	Mar 5 '21	Dec 13 '20	Mar 5 '21	0 days	977	979	
979	Acceptance of conforming quotation (Completed)	42 days	Feb 11 '21	Mar 24 '21	Feb 11 '21	Mar 24 '21	0 days	978	808	
980	**DOU - activated carbon filter (DOU No. 2A, No. 3A, No. 3B), C11, ref. EQT0**	**204 days**	**Dec 2 '19**	**Jun 22 '20**	**Dec 2 '19**	**Jun 22 '20**	**0 days**			
981	Submission for acceptance of purchasing package	166 days	Dec 2 '19	May 15 '20	Dec 2 '19	May 15 '20	0 days		982	
982	Invitation of quotations for purchasing package	84 days	Mar 31 '20	Jun 22 '20	Mar 31 '20	Jun 22 '20	0 days	981	983	
983	Acceptance of conforming quotation (Completed)	20 days	May 30 '20	Jun 18 '20	May 30 '20	Jun 18 '20	0 days	982	812,999	
984	**Valves for Inlet Works no.1, PST no. 1-4, BR2A2B, MFB2 and Flowmeter an**	**180 days**	**Dec 2 '19**	**May 29 '20**	**Dec 2 '19**	**Jul 10 '20**	**0 days**			
985	Submission for acceptance of purchasing package	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days			
986	Invitation of quotations for purchasing package	84 days	Mar 31 '20	Jun 22 '20	Mar 31 '20	Jun 22 '20	0 days		987	
987	Acceptance of conforming quotation	42 days	May 30 '20	Jul 10 '20	May 30 '20	Jul 10 '20	0 days	986	1042FS-60 days	
988	**Plant Service Water System - booster pumps & hydro-pneumatic pressure**	**191 days**	**Oct 15 '20**	**Apr 23 '21**	**Oct 15 '20**	**Apr 23 '21**	**0 days**			
989	Submission for acceptance of purchasing package	126 days	Oct 15 '20	Feb 17 '21	Oct 15 '20	Feb 17 '21	0 days		990	
990	Invitation of quotations for purchasing package	84 days	Jan 13 '21	Apr 6 '21	Jan 13 '21	Apr 6 '21	0 days	989	991	
991	Acceptance of conforming quotation (Completed)	41 days	Mar 14 '21	Apr 23 '21	Mar 14 '21	Apr 23 '21	0 days	990	996	
992	**Design Submissions for MFB No. 2**	**572 days**	**Aug 21 '20**	**Mar 15 '22**	**Aug 21 '20**	**Mar 15 '22**	**0 days**	**121**		
993	Electrical schematic drawings for MFB No. 2	84 days	Aug 21 '20	Nov 12 '20	Aug 21 '20	Nov 12 '20	0 days		939FF	
994	CDS080-4 - Civil and dimensional requirements drawigns for MFB no. 2 up to	42 days	Sep 1 '20	Oct 12 '20	Sep 1 '20	Oct 12 '20	0 days		939FF	
995	CDS081-4 - Civil and dimensional requirements drawings for MFB No. 2	294 days	Aug 28 '20	Jun 17 '21	Aug 28 '20	Jun 17 '21	0 days		940FF	
996	CDS005 - Detailed Design for Membrane Filtration System, Pumps and Mem	258 edays	Apr 12 '21	Dec 26 '21	Apr 12 '21	Dec 26 '21	0 edays	947,955,971,97	941FF,1008,101	
997	CDS024 - Detailed Design for Electrical Installations for MFB No. 2	159.38 edays	Oct 7 '21	Mar 15 '22	Oct 7 '21	Mar 15 '22	0 edays	82,88,92,96,10	83,941FF,1065,1	
998	CDS008 - Detailed Design for Membrane Filtration System, Air Blowers, Dosi	324 edays	Mar 1 '21	Jan 19 '22	Mar 1 '21	Jan 19 '22	0 edays	951,959,963,96	941FF,1033,103	
999	CDS007-3 - Detailed Design for Deodorisation System, DOU No. 3B	445.38 edays	Oct 1 '20	Dec 20 '21	Oct 1 '20	Dec 20 '21	0 edays	794,983	1045,1048	
1000	CDS034-4 - Detailed Design for Electrical Installations BS at MFB No. 2	308.38 edays	Mar 12 '21	Jan 14 '22	Mar 12 '21	Jan 14 '22	0 edays	156	941FF	
1001	CDS025-4 - Detailed Design for LV Switchboards for Membrane Filtration Sys	251 edays	May 3 '21	Jan 9 '22	May 3 '21	Jan 9 '22	0 edays	78	941FF,1057	
1002	CDS026-2 - Detailed Design for HV Switchboards for MFB No. 2	266 edays	Apr 18 '21	Jan 9 '22	Apr 18 '21	Jan 9 '22	0 edays	74	941FF,1061	
1003	CDS031 - Detailed Design for MVAC System	311.38 edays	Mar 1 '21	Jan 6 '22	Mar 1 '21	Jan 6 '22	0 edays		216FF	
1004	CDS042 - Detailed Design for Lightning Protection System	357.38 edays	Jan 11 '21	Jan 3 '22	Jan 11 '21	Jan 3 '22	0 edays		216FF	
1005	CDS050-4 - Detailed Design for Lifting Appliances - MFB No. 2	150 edays	Oct 15 '20	Mar 14 '21	Oct 15 '20	Mar 14 '21	0 edays	131	941FF,1051	
1006	**Manufacturing and Delivery of Plant & Materials**	**1539 days**	**Dec 2 '19**	**Feb 18 '24**	**Dec 2 '19**	**Feb 18 '24**	**0 days**			
1007	**Hollow Fibre Membrane Modules, EQT023**	**486 days**	**Nov 8 '21**	**Mar 8 '23**	**Nov 8 '21**	**Jan 22 '23**	**0 days**			
1008	MFS - Manufacturing of Plant (M.I. issued)	420 days	Nov 8 '21	Jan 5 '23	Nov 8 '21	Jan 5 '23	0 days	996	1009	
1009	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	40 days	Sep 8 '22	Jan 22 '23	Sep 8 '22	Jan 22 '23	0 days	1008	1010	
1010	MFS - Shipping and Delivery of Plant to site	45 days	Jan 23 '23	Mar 8 '23	Sep 1 '22	Oct 15 '22	0 days	1009	1089	
1011	**Air Scour Blowers, EQT040**	**718 days**	**Dec 27 '21**	**Dec 14 '23**	**Dec 27 '21**	**Dec 14 '23**	**0 days**			
1012	Manufacturing and Factory Acceptance Test of Plant	334 days	Dec 27 '21	Nov 25 '22	Dec 27 '21	Oct 30 '23	339 days	996	1013	
1013	Shipping and Delivery of Plant to site	45 days	Oct 31 '23	Dec 14 '23	Oct 31 '23	Dec 14 '23	0 days	1012,1153SS-6		
1014	**Aeration Blowers, EQT039**	**381 days**	**Dec 29 '21**	**Jan 13 '23**	**Dec 29 '21**	**Feb 17 '23**	**35 days**			
1015	Manufacturing and Factory Acceptance Test of Plant (to be witnessed by	336 days	Dec 29 '21	Nov 29 '22	Dec 29 '21	Jan 3 '23	0 days	808	1016	
1016	Shipping and Delivery of Plant to site	45 days	Nov 30 '22	Jan 13 '23	Jan 4 '23	Feb 17 '23	35 days	1015	1174	
1017	**Permeate Pump, EQT024**	**285 days**	**Feb 9 '22**	**Nov 20 '22**	**Feb 9 '22**	**Nov 20 '22**	**0 days**			
1018	Manufacturing and Factory Acceptance Test of Plant (M.I. issued)	240 days	Feb 9 '22	Oct 6 '22	Feb 9 '22	Oct 6 '22	0 days	996	1019	
1019	Shipping and Delivery of Plant to site	45 days	Oct 7 '22	Nov 20 '22	Oct 7 '22	Nov 20 '22	0 days	1018	1093	
1020	**Return Activated Sludge Pump, EQT010**	**417 days**	**Nov 5 '21**	**Dec 26 '22**	**Nov 5 '21**	**Dec 19 '22**	**0 days**			
1021	Manufacturing and Factory Acceptance Test of Plant (M.I. issued)	358 days	Nov 5 '21	Dec 19 '22	Nov 5 '21	Dec 19 '22	0 days	996	1022	
1022	Shipping and Delivery of Plant to site	45 days	Aug 24 '22	Dec 26 '22	Aug 24 '22	Nov 30 '22	0 days	1021	1096	
1023	**Membrane Tank Drain Pump, EQT009**	**214 days**	**Dec 13 '21**	**Jul 14 '22**	**Dec 13 '21**	**Jul 14 '22**	**0 days**			
1024	Manufacturing and Factory Acceptance Test of Plant (M.I. issued)	155 days	Dec 13 '21	May 30 '22	Dec 13 '21	May 30 '22	0 days	996	1025FS+30 days	
1025	Shipping and Delivery of Plant to site	63 days	May 13 '22	Jul 14 '22	May 13 '22	Jul 14 '22	0 days	1024FS+30 day	1099	
1026	**Plant Service Water System, EQT030**	**718 days**	**Dec 27 '21**	**Dec 14 '23**	**Dec 27 '21**	**Nov 29 '22**	**0 days**			
1027	Manufacturing and Factory Acceptance Test of Plant	210 days	Dec 27 '21	Oct 14 '22	Dec 27 '21	Oct 14 '22	0 days	996	1028	
1028	Shipping and Delivery of Plant to site	45 days	Oct 31 '23	Dec 14 '23	Oct 16 '22	Nov 29 '22	0 days	1027,1153SS-6	1106	
1029	**Compressed Air System, EQT029**	**718 days**	**Dec 27 '21**	**Dec 14 '23**	**Dec 27 '21**	**Nov 29 '22**	**0 days**			
1030	Manufacturing and Factory Acceptance Test of Plant	210 days	Dec 27 '21	Oct 14 '22	Dec 27 '21	Oct 14 '22	0 days	996	1031	
1031	Shipping and Delivery of Plant to site	45 days	Oct 31 '23	Dec 14 '23	Oct 16 '22	Nov 29 '22	0 days	1030,1153SS-6	1090	
1032	**Chemical Storage Tanks, EQT025**	**252 days**	**Jan 20 '22**	**Sep 28 '22**	**Jan 20 '22**	**Sep 28 '22**	**0 days**			
1033	Manufacturing and Factory Acceptance Test of Plant	252 days	Jan 20 '22	Sep 28 '22	Jan 20 '22	Sep 28 '22	0 days	998	1034	
1034	Shipping and Delivery of Plant to site	63 days	Jul 19 '22	Sep 19 '22	Jul 19 '22	Sep 19 '22	0 days	1033	1102,1167	
1035	**Chemical Dosing and Transfer Pumps, EQT026**	**252 days**	**Jan 20 '22**	**Sep 28 '22**	**Jan 20 '22**	**Sep 28 '22**	**0 days**			
1036	Manufacturing and Factory Acceptance Test of Plant	252 days	Jan 20 '22	Sep 28 '22	Jan 20 '22	Sep 28 '22	0 days	998	1037	
1037	Shipping and Delivery of Plant to site	63 days	Jul 19 '22	Sep 19 '22	Jul 19 '22	Sep 19 '22	0 days	1036	1102	
1038	**Stoplogs and Penstocks, EQT013**	**718 days**	**Dec 27 '21**	**Dec 14 '23**	**Dec 27 '21**	**Nov 25 '22**	**0 days**			
1039	Manufacturing and Factory Acceptance Test of Plant	334 days	Dec 27 '21	Nov 25 '22	Dec 27 '21	Nov 25 '22	0 days	996	1040	
1040	Shipping and Delivery of Plant to site	45 days	Oct 31 '23	Dec 14 '23	Sep 1 '22	Oct 15 '22	0 days	1039,1153SS-6	1088	
1041	**Valves for Inlet Works no.1, PST no. 1-4, BR2A2B, MFB2 and Flowmeter an**	**285 days**	**Apr 21 '22**	**Jan 30 '23**	**Apr 21 '22**	**Jan 30 '23**	**0 days**	**63,66,70**		
1042	Manufacturing and Factory Acceptance Test of Plant	240 days	Apr 21 '22	Dec 16 '22	Apr 21 '22	Dec 16 '22	0 days	987FS-60 days,	1043	
1043	Shipping and Delivery of Plant to site	45 days	Dec 17 '22	Jan 30 '23	Dec 17 '22	Jan 30 '23	0 days	1042		
1044	**DOU 3B**	**239 days**	**Jun 24 '23**	**Feb 18 '24**	**Jun 24 '23**	**Feb 18 '24**	**0 days**			
1045	Manufacturing and Factory Acceptance Test of Plant	198 edays	Jun 24 '23	Jan 8 '24	Jun 24 '23	Feb 8 '24	1 eday	999	1046	
1046	Shipping and Delivery of Plant to Site	40 edays	Jan 9 '24	Feb 18 '24	Jan 9 '24	Feb 18 '24	0 edays	1045	1177	
1047	**FRP Air Ductwork for DOU3B**	**120 days**	**Oct 17 '23**	**Feb 14 '24**	**Oct 17 '23**	**Feb 14 '24**	**0 days**			
1048	Manufacturing and Factory Acceptance Test of Plant	90 edays	Oct 17 '23	Jan 15 '24	Oct 17 '23	Jan 15 '24	0 edays	999	1049	
1049	Shipping and Delivery of Plant to Site	30 edays	Jan 15 '24	Feb 14 '24	Jan 15 '24	Feb 14 '24	0 edays	1048	1177	
1050	**Lifting Appliances**	**978 days**	**Mar 14 '21**	**Nov 16 '23**	**Mar 14 '21**	**Jul 7 '22**	**0 days**			
1051	Manufacturing and Factory Acceptance Test of Plant	210 days	Mar 14 '21	Dec 31 '21	Mar 14 '21	Dec 31 '21	0 days	1005	1052	
1052	Shipping and Delivery of Plant to site	45 days	Oct 3 '23	Nov 16 '23	May 24 '22	Jul 7 '22	0 days	1051,1078SS-6	1081,1156,1163	
1053	**LV Switchboards**	**704 days**	**Jan 10 '22**	**Dec 14 '23**	**Jan 10 '22**	**Mar 3 '23**	**0 days**			



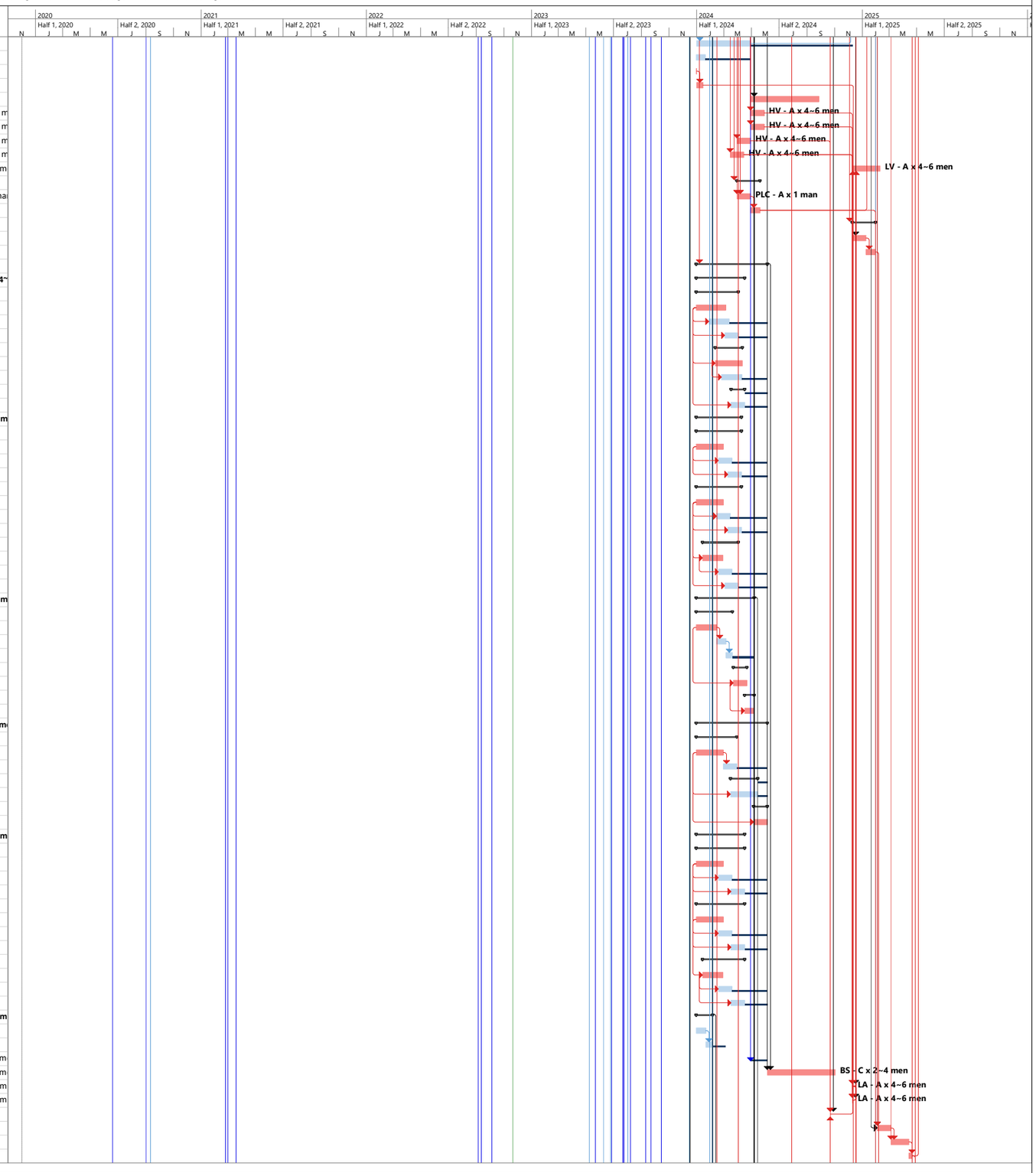
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1054	BR - Manufacturing of Plant	334 days	Jan 10 '22	Dec 9 '22	Jan 10 '22	Dec 9 '22	0 days	811	1055	
1055	BR - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Sep 7 '22	Feb 13 '23	Sep 7 '22	Jan 18 '23	0 days	1054	1056	
1056	BR - Shipping and Delivery of Plant to site	45 days	Feb 14 '23	Mar 30 '23	Jan 18 '23	Mar 3 '23	0 days	1055	1184	
1057	MFS - Manufacturing of Plant	334 days	Jan 10 '22	Dec 9 '22	Jan 10 '22	Dec 9 '22	0 days	1001	1058	
1058	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Sep 7 '22	Feb 13 '23	Sep 7 '22	Dec 30 '22	0 days	1057	1059	
1059	MFS - Shipping and Delivery of Plant to site	45 days	Oct 31 '23	Dec 14 '23	Dec 30 '22	Feb 12 '23	0 days	1058,1153SS-6(	1185	
1060	**HV Switchboards, 04SC012**	**704 days**	**Jan 10 '22**	**Dec 14 '23**	**Jan 10 '22**	**Apr 2 '23**	**0 days**			
1061	MFS - Manufacturing of Plant	250 days	Jan 10 '22	Sep 16 '22	Jan 10 '22	Sep 16 '22	0 days	1002	1062	
1062	MFS - Factory Acceptance Test of Plant (to be witnessed by PM)	90 days	Jul 9 '22	Oct 6 '22	Jul 9 '22	Oct 6 '22	0 days	1061	1063	
1063	MFS - Shipping and Delivery of Plant to site	45 days	Oct 31 '23	Dec 14 '23	Feb 17 '23	Apr 2 '23	0 days	1062,1153SS-6(	1188	
1064	**11kV/380V Stepdown Power Transformers, EQT032**	**285 days**	**Mar 16 '22**	**Dec 25 '22**	**Mar 16 '22**	**Mar 29 '23**	**94 days**			
1065	MFS - Manufacturing and Factory Acceptance Test of Plant	240 days	Mar 16 '22	Nov 10 '22	Mar 16 '22	Feb 12 '23	0 days	997	1066	
1066	MFS - Shipping and Delivery of Plant to site	45 days	Nov 11 '22	Dec 25 '22	Feb 13 '23	Mar 29 '23	94 days	1065	1189	
1067	**PLC System**	**285 days**	**Mar 16 '22**	**Dec 25 '22**	**Mar 16 '22**	**May 9 '23**	**135 days**			
1068	Manufacturing of Plant, PLC for BR2A &B	210 days	Mar 16 '22	Oct 11 '22	Mar 16 '22	Oct 11 '22	0 days	809	1069	
1069	Factory Acceptance Test of Plant, PLC for BR2A &B (To be witnessed by Pl	30 days	Oct 12 '22	Nov 10 '22	Oct 12 '22	Mar 25 '23	0 days	1068	1070	
1070	Shipping and Delivery of Plant to site	45 days	Nov 11 '22	Dec 25 '22	Mar 26 '23	May 9 '23	135 days	1069	1186	
1071	Manufacturing of Plant, PLC for MFB2	210 days	Mar 16 '22	Oct 11 '22	Mar 16 '22	Oct 11 '22	0 days	997	1072	
1072	Factory Acceptance Test of Plant, PLC for MFB2 (To be witnessed by PM)	30 days	Oct 12 '22	Nov 10 '22	Oct 12 '22	Mar 25 '23	0 days	1071	1073	
1073	Shipping and Delivery of Plant to site	45 days	Nov 11 '22	Dec 25 '22	Mar 26 '23	May 9 '23	135 days	1072	1187	
1074	**Electrical System**	**124 days**	**Dec 2 '19**	**Apr 3 '20**	**Dec 2 '19**	**Apr 3 '20**	**0 days**			
1075	Equipment Delivery for Cable Containment	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days		1112,1191	
1076	Equipment Delivery for Cable Provision	124 days	Dec 2 '19	Apr 3 '20	Dec 2 '19	Apr 3 '20	0 days		1191	
1077	**Site Installation Work**	**557 days?**	**Sep 15 '23**	**Mar 24 '25**	**Jul 7 '22**	**Dec 12 '24**	**0 days?**			
1078	Tentative Civil Handover Date, Portion B-5A, MFB No. 2	1 day	Dec 2 '23	Dec 2 '23	Jul 23 '22	Jul 23 '22	0 days	13	1052SS-60 edays	
1079	**Commencement of E&M Installation at MFB No. 2 Lower Part**	**404 days**	**Sep 15 '23**	**Oct 22 '24**	**Sep 15 '23**	**Oct 22 '24**	**0 days**	**1078**	**1294**	
1080	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare	7 days	Dec 3 '23	Dec 9 '23	Aug 5 '23	Aug 11 '23	0 days	1078		
1081	**Installation of Lifting Appliances at MFB No. 2**	**120 days**	**Dec 3 '23**	**Mar 31 '24**	**Aug 25 '22**	**Aug 11 '23**	**0 days**	**1052,1078**		
1082	B2 EOT Crane LA-04-01 SWL 5t	60 days	Dec 3 '23	Jan 31 '24	Aug 25 '22	Oct 23 '22	0 days		1084,1085,1086	
1083	B2 EOT Crane LA-04-02 SWL 5t	60 days	Dec 3 '23	Jan 31 '24	Aug 25 '22	Oct 23 '22	0 days		1084,1085,1086	
1084	B2 MR LA-04-03 SWL 5t	30 days	Feb 1 '24	Mar 1 '24	Jun 13 '23	Jul 12 '23	0 days	1082,1083	1086	
1085	B1 MR LA-04-04 SWL 3t	30 days	Feb 1 '24	Mar 1 '24	Oct 31 '22	Nov 29 '22	0 days	1082,1083	1086,1099	
1086	T&C, Loading Test for Lifting Appliances	30 days	Mar 2 '24	Mar 31 '24	Jul 13 '23	Aug 11 '23	0 days	1082,1083,108		
1087	**Mechanical Installations for E&M Equip. at MFB No. 2 Lower Part**	**331 days**	**Jan 17 '24**	**Dec 12 '24**	**Oct 16 '22**	**Aug 11 '23**	**0 days**	**136,1078FS+45**		
1088	Installation of penstocks and stoplogs (Penstocks 18nos, Stoplogs 11no	120 days	Feb 17 '24	Jun 15 '24	Oct 16 '22	Feb 12 '23	0 days	15,1040	1110	ME - E x 4~6 m
1089	Installation of hollow fibre membrane modules rack (x9), EQT023	120 days	Feb 17 '24	Jun 15 '24	Oct 16 '22	Feb 12 '23	0 days	15,1010	1110,1166	ME - A x 4~6 m
1090	**Installation of compressed air system**	**120 days**	**Jan 17 '24**	**May 15 '24**	**Nov 30 '22**	**Mar 29 '23**	**0 days**	**1031**		**ME - B x 4~6 n**
1091	Installation of compressor, air dryer & air receiver (x2)	30 days	Jan 17 '24	Feb 15 '24	Nov 30 '22	Dec 29 '22	0 days		1092	
1092	Installation of pipework and valves, EQT036	90 days	Feb 16 '24	May 15 '24	Dec 30 '22	Mar 29 '23	0 days	1091	1110FS-45 days	
1093	**Installation of permeate pumping system**	**150 days**	**Feb 8 '24**	**Jul 6 '24**	**Oct 31 '22**	**Mar 29 '23**	**0 days**	**1019,1082FS+7**		**ME - A x 4~6 n**
1094	Installation of permeate pumps (x10), EQT024	30 days	Feb 8 '24	Mar 8 '24	Oct 31 '22	Nov 29 '22	0 days		1095	
1095	Installation of pipework and valves, EQT036	120 days	Mar 9 '24	Jul 6 '24	Nov 30 '22	Mar 29 '23	0 days	1094	1110FS-45 days	
1096	**Installation of return activated sludge pumping system**	**120 days**	**Jan 17 '24**	**May 15 '24**	**Nov 30 '22**	**Mar 29 '23**	**0 days**	**1022**		**ME - B x 4~6 n**
1097	Installation of RAS pump (x5), EQT010	30 days	Jan 17 '24	Feb 15 '24	Nov 30 '22	Dec 29 '22	0 days		1098	
1098	Installation of pipework and valves, EQT036	90 days	Feb 16 '24	May 15 '24	Dec 30 '22	Mar 29 '23	0 days	1097	1110FS-45 days	
1099	**Installation of membrane tank drain pumping system**	**120 days**	**Mar 2 '24**	**Jun 29 '24**	**Nov 30 '22**	**Mar 29 '23**	**0 days**	**1025,1085**		**ME - C x 4~6 n**
1100	Installation of drain pump (x2), EQT009	30 days	Mar 2 '24	Mar 31 '24	Nov 30 '22	Dec 29 '22	0 days		1101	
1101	Installation of pipework and valves, EQT036	90 days	Apr 1 '24	Jun 29 '24	Dec 30 '22	Mar 29 '23	0 days	1100	1110FS-45 days	
1102	**Installation of chemical system (Citric Acid)**	**120 days**	**Jan 17 '24**	**May 15 '24**	**Nov 30 '22**	**Mar 29 '23**	**0 days**	**1034,1037**		**ME - D x 2~4 n**
1103	Installation of storage tank (x2), EQT091	30 days	Jan 17 '24	Feb 15 '24	Nov 30 '22	Dec 29 '22	0 days		1105	
1104	Installation of dosing pump (x2), EQT090	30 days	Jan 17 '24	Feb 15 '24	Nov 30 '22	Dec 29 '22	0 days		1105	
1105	Installation of pipework and valves, EQT036	90 days	Feb 16 '24	May 15 '24	Dec 30 '22	Mar 29 '23	0 days	1103,1104	1110FS-45 days	
1106	**Installation of plant service water system**	**120 days**	**Jan 17 '24**	**May 15 '24**	**Nov 30 '22**	**Mar 29 '23**	**0 days**	**1028**		**ME - C x 4~6 n**
1107	Installation of pump (x4), pressure tank (x2), EQT030	30 days	Jan 17 '24	Feb 15 '24	Nov 30 '22	Dec 29 '22	0 days		1108	
1108	Installation of pipework and valves, EQT036	90 days	Feb 16 '24	May 15 '24	Dec 30 '22	Mar 29 '23	0 days	1107	1110FS-45 days	
1109	Installation of FRP covers, walkways, platforms and ladders, EQT050 (R	90 days	Jan 17 '24	Apr 15 '24	May 14 '23	Aug 11 '23	0 days			ME - C x 4~6 m
1110	Site Acceptance Tests - mechanical aspects including alignment and lev	180 days	Jun 16 '24	Dec 12 '24	Feb 13 '23	Aug 11 '23	0 days	1088,1089,109		ME - D x 2~4 m
1111	**Electrical Installations for E&M Equip. at MFB No. 2 Lower Part**	**84 days**	**Dec 3 '23**	**Feb 24 '24**	**Dec 2 '22**	**Feb 23 '23**	**0 days**	**141,1078**		
1112	**Installation of cable trays and cable containments**	**84 days**	**Dec 3 '23**	**Feb 24 '24**	**Dec 2 '22**	**Feb 23 '23**	**0 days**	**1075**	**1191**	
1113	**LV-Installation of cable trays and cable containments**	**84 days**	**Dec 3 '23**	**Feb 24 '24**	**Dec 2 '22**	**Feb 23 '23**	**0 days**			
1114	Basement 2	41 days	Dec 3 '23	Jan 12 '24	Dec 2 '22	Jan 11 '23	0 days		1115SS+30 days,	
1115	Basement 1	54 days	Jan 2 '24	Feb 24 '24	Jan 1 '23	Feb 23 '23	0 days	1114SS+30 days	1196	
1116	**Building Services Installations for MFB No. 2 Lower Part**	**160 days**	**Nov 3 '23**	**Apr 10 '24**	**Nov 3 '23**	**Jun 4 '24**	**0 days**	**1078FS-30 days**	**1290**	
1117	**Plumbing Installation**	**100 days**	**Nov 3 '23**	**Feb 10 '24**	**Dec 28 '23**	**Jun 4 '24**	**55 days**			
1118	**Basement 2**	**60 days**	**Nov 3 '23**	**Jan 1 '24**	**Dec 28 '23**	**Feb 25 '24**	**55 days**			
1119	Plumbing Installation at Basement 2 (Cleansing & Potable System)	60 days	Nov 3 '23	Jan 1 '24	Dec 28 '23	Feb 25 '24	0 days		1121SS+55 days,	
1120	**Basement 1**	**45 days**	**Dec 28 '23**	**Feb 10 '24**	**Apr 21 '24**	**Jun 4 '24**	**115 days**			
1121	Plumbing Installation at Basement 1 (Cleansing & Potable System)	45 days	Dec 28 '23	Feb 10 '24	Apr 21 '24	Jun 4 '24	115 days	1119SS+55 days		
1122	**Mechanical Ventilation Installation**	**125 days**	**Nov 3 '23**	**Mar 6 '24**	**Nov 3 '23**	**Jun 4 '24**	**0 days**			
1123	**Basement 2**	**90 days**	**Nov 3 '23**	**Jan 31 '24**	**Nov 3 '23**	**Jan 31 '24**	**0 days**			
1124	Mechanical Ventilation Installation at Basement 2	90 days	Nov 3 '23	Jan 31 '24	Nov 3 '23	Jan 31 '24	0 days		1126SS+35 days	
1125	**Basement 1**	**90 days**	**Dec 8 '23**	**Mar 6 '24**	**Mar 7 '24**	**Jun 4 '24**	**90 days**			
1126	Mechanical Ventilation Installation at Basement 1	90 days	Dec 8 '23	Mar 6 '24	Mar 7 '24	Jun 4 '24	90 days	1124SS+35 days		
1127	**Fire Services Installation**	**86 days**	**Nov 3 '23**	**Jan 27 '24**	**Nov 3 '23**	**Jun 4 '24**	**0 days**			
1128	**Basement 2**	**65 days**	**Nov 3 '23**	**Jan 6 '24**	**Nov 3 '23**	**Jan 6 '24**	**0 days**			
1129	Fire Services Installation at Basement 2 (FH/HR/Sprinkler/AFA/Lin	65 days	Nov 3 '23	Jan 6 '24	Nov 3 '23	Jan 6 '24	0 days		1131SS+21 days	
1130	**Basement 1**	**65 days**	**Nov 24 '23**	**Jan 27 '24**	**Apr 1 '24**	**Jun 4 '24**	**129 days**			
1131	Fire Services Installation at Basement 1 (FH/HR/Sprinkler/AFA/Lin	65 days	Nov 24 '23	Jan 27 '24	Apr 1 '24	Jun 4 '24	129 days	1129SS+21 days		
1132	**Lighting Installation**	**142 days**	**Nov 3 '23**	**Mar 23 '24**	**Nov 3 '23**	**Jun 4 '24**	**0 days**			
1133	**Basement 2**	**114 days**	**Nov 3 '23**	**Feb 24 '24**	**Nov 3 '23**	**Jun 4 '24**	**0 days**			
1134	Cable containment for lighting system at B2	60 days	Nov 3 '23	Jan 1 '24	Nov 3 '23	Jan 1 '24	0 days		1135SS+56 days,	



ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1135	wiring installation at B2	30 days	Dec 29 '23	Jan 27 '24	May 6 '24	Jun 4 '24	129 days	1134SS+56 days		
1136	Cable termination and lighting fitting installation at B2	30 days	Jan 26 '24	Feb 24 '24	May 6 '24	Jun 4 '24	101 days	1134SS+84 days		
1137	**Basement 1**	**114 days**	**Dec 1 '23**	**Mar 23 '24**	**Dec 1 '23**	**Jun 4 '24**	**0 days**			
1138	Cable containment for lighting system at B1	60 days	Dec 1 '23	Jan 29 '24	Dec 1 '23	Jan 29 '24	0 days	1134SS+28 days	1139SS+56 days,	
1139	wiring installation at B1	30 days	Jan 26 '24	Feb 24 '24	May 6 '24	Jun 4 '24	101 days	1138SS+56 days		
1140	Cable termination and lighting fitting installation at B1	30 days	Feb 23 '24	Mar 23 '24	May 6 '24	Jun 4 '24	73 days	1138SS+84 days		
1141	**Power Distribution System**	**111 days**	**Nov 3 '23**	**Feb 21 '24**	**Nov 3 '23**	**Jun 4 '24**	**0 days**			
1142	**Basement 2**	**104 days**	**Nov 3 '23**	**Feb 14 '24**	**Nov 3 '23**	**Jun 4 '24**	**0 days**			
1143	Cable containment for power system at B2	35 days	Nov 3 '23	Dec 7 '23	Nov 3 '23	Dec 7 '23	0 days		1144SS+56 days,	
1144	wiring installation at B2	20 days	Dec 29 '23	Jan 17 '24	May 16 '24	Jun 4 '24	139 days	1143SS+56 days		
1145	Cable termination and wirng accessories installation at B2	20 days	Jan 26 '24	Feb 14 '24	May 16 '24	Jun 4 '24	111 days	1143SS+84 days		
1146	**Basement 1**	**83 days**	**Dec 1 '23**	**Feb 21 '24**	**Dec 1 '23**	**Jun 4 '24**	**0 days**			
1147	Cable containment for power system at B1	30 days	Dec 1 '23	Dec 30 '23	Dec 1 '23	Dec 30 '23	0 days	1143SS+28 days	1148SS+35 days,	
1148	wiring installation at B1	20 days	Jan 5 '24	Jan 24 '24	May 16 '24	Jun 4 '24	132 days	1147SS+35 days		
1149	Cable termination and wirng accessories installation at B1	20 days	Feb 2 '24	Feb 21 '24	May 16 '24	Jun 4 '24	104 days	1147SS+63 days		
1150	**CCTV Installation**	**40 days**	**Mar 2 '24**	**Apr 10 '24**	**May 16 '24**	**Jun 4 '24**	**55 days**			
1151	CCTV Installation (3 nos.)	20 days	Mar 2 '24	Mar 21 '24	May 16 '24	Jun 4 '24	75 days	1119FS+60 days		
1152	CCTV Installation (2 nos.)	20 days	Mar 22 '24	Apr 10 '24	May 16 '24	Jun 4 '24	55 days	1119SS+140 da		
1153	Tentative Civil Handover Date, Portion B-5B, MFB No. 2 remaining portion (F	1 day	Dec 30 '23	Dec 30 '23	Jul 7 '22	Jul 7 '22	0 days	14	1013SS-60 edays	
1154	**Commencement of E&M Installation at MFB No. 2 Upper Part**	**450 days?**	**Dec 31 '23**	**Mar 24 '25**	**Jul 8 '22**	**Dec 10 '24**	**0 days?**	**1153**	**1294FS-50 days**	
1155	Provision of Temporary Water Supply, Electricity Supply, Lighting, Welfare	7 days	Dec 31 '23	Jan 6 '24	Sep 24 '23	Sep 30 '23	0 days	1153		
1156	**Installation of Lifting Appliances at MFB No. 2**	**225 days**	**Dec 31 '23**	**Aug 11 '24**	**Jul 8 '22**	**Feb 17 '23**	**0 days**	**1052,1153**		
1157	GF EOT Crane LA-04-05 SWL 5t	60 days	Dec 31 '23	Feb 28 '24	Jul 8 '22	Sep 5 '22	0 days		1159,1160,1164	LA - A x 4~6 m
1158	GF Gantry Crane LA-04-06 SWL 6t	60 days	Feb 17 '24	Apr 16 '24	Nov 5 '22	Jan 3 '23	0 days	15	1164,1166	LA - B x 4~6 m
1159	1F EOT Crane LA-04-07 SWL 15t	60 days	Feb 29 '24	Apr 28 '24	Sep 6 '22	Nov 4 '22	0 days	1157	1161,1162,1164	LA - A x 4~6 m
1160	1F EOT Crane LA-04-08 SWL 15t	60 days	Feb 29 '24	Apr 28 '24	Sep 6 '22	Nov 4 '22	0 days	1157	1161,1162,1164	LA - B x 4~6 m
1161	RF EOT Crane LA-04-09 SWL 2t	60 days	Apr 29 '24	Jun 27 '24	Nov 5 '22	Jan 3 '23	0 days	1159,1160	1164	LA - A x 4~6 m
1162	RF Retractable MR LA-04-10 SWL 2t	60 days	Apr 29 '24	Jun 27 '24	Nov 5 '22	Jan 3 '23	0 days	1159,1160	1164	LA - B x 4~6 m
1163	Mobile A-frame LA-04-11 SWL 2t	15 days	Dec 31 '23	Jan 14 '24	Dec 20 '22	Jan 3 '23	0 days	1052	1164	LA - C x 4~6 m
1164	T&C, Loading Test for Lifting Appliances	45 days	Jun 28 '24	Aug 11 '24	Jan 4 '23	Feb 17 '23	0 days	1157,1158,115	1171	LA - A x 4~6 m
1165	**Mechanical Installations for E&M Equip. at MFB No. 2 Upper Part**	**405 days**	**Feb 14 '24**	**Mar 24 '25**	**Feb 8 '23**	**Oct 10 '23**	**0 days**	**136,1153FS+45**		
1166	Installation of hollow fibre membrane modules (x9), EQT023	90 days	Jun 16 '24	Sep 13 '24	Jul 13 '23	Oct 10 '23	0 days	1089,1158	1295FS-30 days	ME - A x 4~6 m
1167	**Installation of chemical system (Citric Acid + NaOCl)**	**120 days**	**Feb 14 '24**	**Jun 12 '24**	**Feb 18 '23**	**Jun 17 '23**	**0 days**	**1034**		**ME - D x 2~4 m**
1168	Installation of storage tank, EQT091	30 days	Feb 14 '24	Mar 14 '24	Feb 18 '23	Mar 19 '23	0 days		1170	
1169	Installation of dosing pump (x4) and transfer pump (x4), EQT090	30 days	Feb 14 '24	Mar 14 '24	Feb 18 '23	Mar 19 '23	0 days		1170	
1170	Installation of pipework and valves, EQT036	90 days	Mar 15 '24	Jun 12 '24	Mar 20 '23	Jun 17 '23	0 days	1168,1169	1182FS-45 days	
1171	**Installation of air scour blower system**	**120 days**	**Aug 12 '24**	**Dec 9 '24**	**Feb 18 '23**	**Jun 17 '23**	**0 days**	**1164**		**ME - A x 4~6 m**
1172	Installation of blowers (x3), EQT040	30 days	Aug 12 '24	Sep 10 '24	Feb 18 '23	Mar 19 '23	0 days		1173	
1173	Installation of pipework and valves, EQT036	90 days	Sep 11 '24	Dec 9 '24	Mar 20 '23	Jun 17 '23	0 days	1172	1182FS-45 days	
1174	**Installation of aeration blower system**	**120 days**	**Feb 14 '24**	**Jun 12 '24**	**Feb 18 '23**	**Jun 17 '23**	**0 days**	**1016**	**935**	**ME - D x 2~4 m**
1175	Installation of blowers (x4), EQT039	30 days	Feb 14 '24	Mar 14 '24	Feb 18 '23	Mar 19 '23	0 days		1176	
1176	Installation of pipework and valves, EQT036	90 days	Mar 15 '24	Jun 12 '24	Mar 20 '23	Jun 17 '23	0 days	1175	1182FS-45 days	
1177	**Mechanical Installations for DOU 3B**	**130 days**	**Feb 18 '24**	**Jun 26 '24**	**Feb 8 '23**	**Jun 17 '23**	**0 days**	**1046,1049**	**1190SS+30 eday**	**ME - F x 4~6 m**
1178	Installation of extraction fan, filter, dehumidifier	30 days	Feb 18 '24	Mar 18 '24	Feb 8 '23	Mar 9 '23	0 days		1179	
1179	Installation of FRP ductworkand Damper	100 days	Mar 19 '24	Jun 26 '24	Mar 10 '23	Jun 17 '23	0 days	1178	1182FS-45 days	
1180	Installation of instrumentations, EQT035-1	60 days	Feb 14 '24	Apr 13 '24	Aug 12 '23	Oct 10 '23	0 days	59	1294FS-60 days	ME - D x 2~4 m
1181	Installation of FRP covers, walkways, platforms and ladders , EQT050	60 days	Feb 14 '24	Apr 13 '24	Aug 2 '23	Sep 30 '23	0 days			ME - D x 2~4 m
1182	Site Acceptance Tests - mechanical aspects including alignment and lev	150 days	Oct 26 '24	Mar 24 '25	May 4 '23	Sep 30 '23	0 days	1170FS-45 days		ME - D x 2~4 m
1183	**Electrical Installations for E&M Equip. at MFB No. 2 Upper Part**	**406 days?**	**Dec 31 '23**	**Feb 8 '25**	**Sep 27 '22**	**Dec 10 '24**	**0 days?**	**141,1153**		
1184	Installation of LV Switchboards, BR2	90 days	Dec 31 '23	Mar 29 '24	Mar 4 '23	Jun 1 '23	0 days	1056	1222FS+30 days	LV - B x 4~6 m
1185	Installation of LV Switchboards, MFB No. 2	90 days	Dec 31 '23	Mar 29 '24	Feb 13 '23	May 13 '23	0 days	1059	1221FS+30 days	LV - A x 4~6 m
1186	Installation of PLC Panels, BR2	90 days	Dec 31 '23	Mar 29 '24	May 10 '23	Aug 7 '23	0 days	1070	1227	
1187	Installation of PLC Panels, MFB No. 2	90 days	Dec 31 '23	Mar 29 '24	May 10 '23	Aug 7 '23	0 days	1073	1227	PLC - B x 1 ma
1188	Installation of HV Switchboards, MFB No. 2	60 days	Dec 31 '23	Feb 28 '24	Apr 3 '23	Jun 1 '23	0 days	1063	1223FS+30 days	HV - A x 4~6 m
1189	Installation of transformer, MFB No. 2, EQT032	45 days	Dec 31 '23	Feb 13 '24	Mar 30 '23	May 13 '23	0 days	1066	1224FS+30 days	
1190	Electrical Installations for DOU 3B	90 edays	Mar 19 '24	Jun 17 '24	Jul 2 '23	Sep 30 '23	0 edays	1177SS+30 eda		EE - D x 4~6 m
1191	**Installation of cable trays and cable containments, cable laying**	**289 days**	**Feb 25 '24**	**Dec 9 '24**	**Sep 27 '22**	**Sep 10 '23**	**0 days**	**1075,1076,111**	**1230,1291,1292**	
1192	**Basement 2**	**79 days**	**Sep 22 '24**	**Dec 9 '24**	**Apr 25 '23**	**Jul 12 '23**	**0 days**			
1193	LV-Installation of cable trays and cable containments	30 days	Sep 22 '24	Oct 21 '24	Apr 25 '23	May 24 '23	0 days	1114,1197SS+3	1194	
1194	LV-Cables laying and terminations	49 days	Oct 22 '24	Dec 9 '24	May 25 '23	Jul 12 '23	0 days	1193		
1195	**Basement 1**	**95 days**	**Jul 24 '24**	**Oct 26 '24**	**Feb 24 '23**	**May 29 '23**	**0 days**			
1196	LV-Installation of cable trays and cable containments	30 days	Jul 24 '24	Aug 22 '24	Feb 24 '23	Mar 25 '23	0 days	1115,1200SS+3	1197	
1197	LV-Cables laying and terminations	65 days	Aug 23 '24	Oct 26 '24	Mar 26 '23	May 29 '23	0 days	1196	1193SS+30 days	
1198	**Ground Floor**	**240 days**	**Feb 25 '24**	**Oct 21 '24**	**Sep 27 '22**	**Jul 31 '23**	**0 days**		**1293**	
1199	LV-Installation of cable trays and cable containments	120 days	Feb 25 '24	Jun 23 '24	Sep 27 '22	Jan 24 '23	0 days		1200	
1200	LV-Cables laying and terminations	120 days	Jun 24 '24	Oct 21 '24	Jan 25 '23	May 24 '23	0 days	1199	1196SS+30 days,	
1201	HV-Installation of cable trays and cable containments	70 days	Feb 25 '24	May 4 '24	Mar 4 '23	May 12 '23	0 days		1202	
1202	HV-Cables laying and terminations	80 days	May 5 '24	Jul 23 '24	May 13 '23	Jul 31 '23	0 days	1201		
1203	**First Floor**	**270 days**	**Feb 25 '24**	**Nov 20 '24**	**Jan 3 '23**	**Sep 10 '23**	**0 days**			
1204	LV-Installation of cable trays and cable containments	90 days	Feb 25 '24	May 24 '24	Feb 13 '23	May 13 '23	0 days		1205	
1205	LV-Cables laying and terminations	120 days	Jul 24 '24	Nov 20 '24	May 14 '23	Sep 10 '23	0 days	1200SS+30 days	1210SS+30 days	
1206	HV-Installation of cable trays and cable containments	90 days	Feb 25 '24	May 24 '24	Jan 3 '23	Apr 2 '23	0 days		1207	
1207	HV-Cables laying and terminations	120 days	May 25 '24	Sep 21 '24	Apr 3 '23	Jul 31 '23	0 days	1206	1293	
1208	**Roof Floor**	**210 days**	**Feb 25 '24**	**Sep 21 '24**	**May 14 '23**	**Jul 12 '23**	**0 days**			
1209	LV-Installation of cable trays and cable containments	30 days	Feb 25 '24	Mar 25 '24	May 14 '23	Jun 12 '23	0 days		1210	
1210	LV-Cables laying and terminations	30 days	Aug 23 '24	Sep 21 '24	Jun 13 '23	Jul 12 '23	0 days	1205SS+30 days		
1211	**Tentative Civil Handover Date HV cable draw pits from MFB No.2 to D**	**121 days?**	**Dec 31 '23**	**Apr 29 '24**	**Mar 25 '23**	**Dec 10 '24**	**0 days?**		**1220**	
1212	**HV Cables laying and terminations**	**40 days**	**Dec 31 '23**	**Feb 8 '24**	**Mar 25 '23**	**May 3 '23**	**0 days**	**209**		
1213	MFB2 to sidestream	40 days	Dec 31 '23	Feb 8 '24	Mar 25 '23	May 3 '23	0 days			
1214	**LV and control Cables laying and terminations**	**121 days?**	**Dec 31 '23**	**Apr 29 '24**	**Jul 30 '23**	**Dec 10 '24**	**0 days?**		**1494SS,1495SS,**	
1215	Tentative Civil Handover Date, LV cables draw pits from IW to PST	1 day?	Dec 31 '23	Dec 31 '23	Aug 12 '24	Aug 12 '24	0 days?		1216	



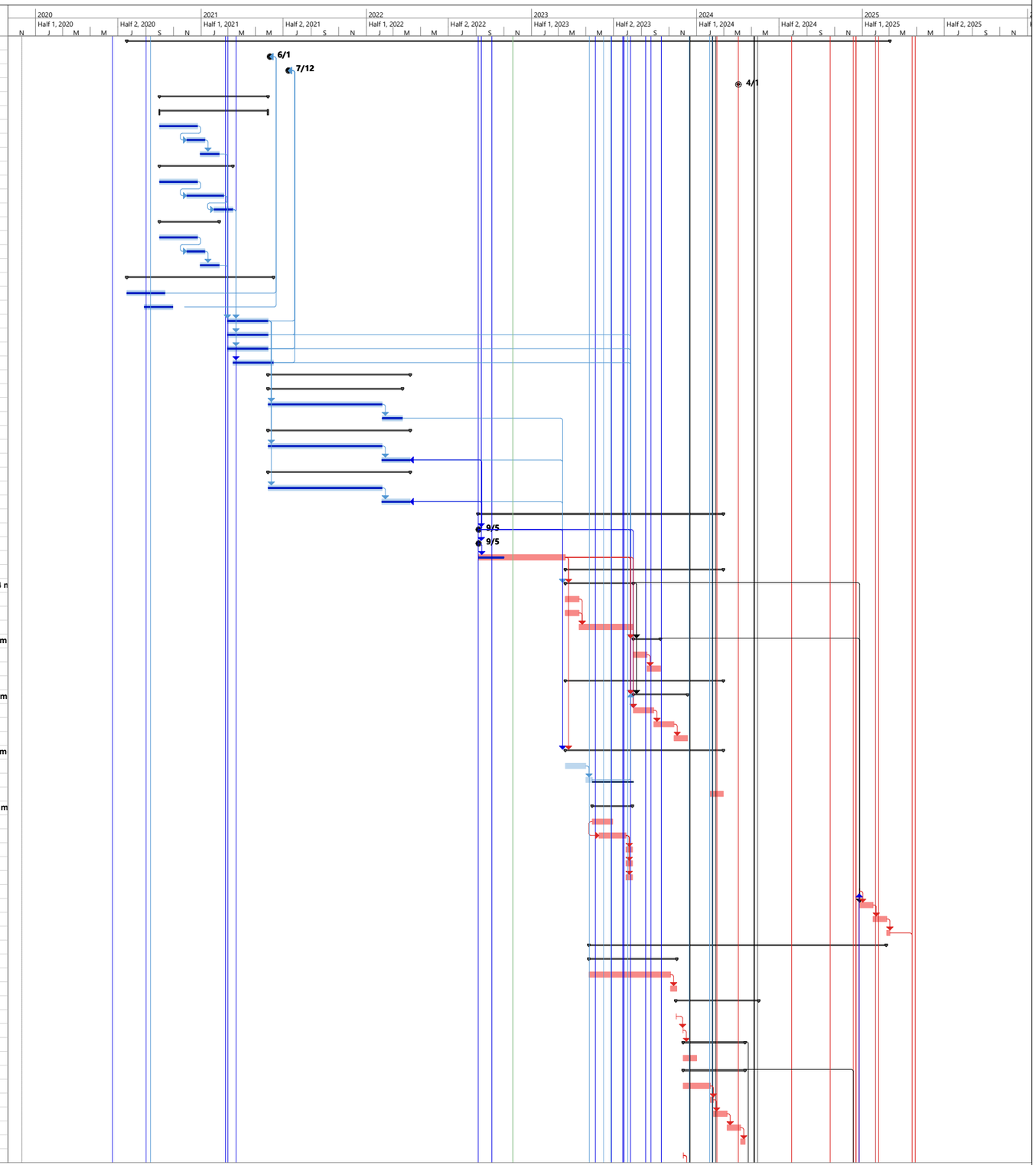
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1216	Cables laying and terminations from MFB2 to BR2A2B	120 days	Jan 1 '24	Apr 29 '24	Aug 13 '24	Dec 10 '24	225 days	1215	934	
1217	MFB2 to Genset Room	20 days	Dec 31 '23	Jan 19 '24	Apr 10 '24	Apr 29 '24	101 days			
1218	Tentative Civil Handover Date, LV cables draw pits from MFB2 to	1 day?	Dec 31 '23	Dec 31 '23	Jul 30 '23	Jul 30 '23	0 days?		1219	
1219	Cables laying and terminations from MFB2 to chemical kiosk	14 days	Jan 1 '24	Jan 14 '24	Jul 31 '23	Aug 13 '23	0 days	1218	1385	
1220	Cable provision and laying between buildings for DE/2018/03 Sidestrea	150 days	Apr 30 '24	Sep 26 '24	May 4 '23	Sep 30 '23	0 days	1211		
1221	Testing of LV Switchboards, MFB No. 2	30 days	Apr 29 '24	May 28 '24	Jun 13 '23	Jul 12 '23	0 days	1185FS+30 days	1291	HV - A x 4~6 m
1222	Testing of LV Switchboards, BR2	30 days	Apr 29 '24	May 28 '24	Jul 2 '23	Jul 31 '23	0 days	1184FS+30 days	1292	HV - A x 4~6 m
1223	Testing of HV Switchboards, MFB No. 2	30 days	Mar 30 '24	Apr 28 '24	Jul 2 '23	Jul 31 '23	0 days	1188FS+30 days	1293	HV - A x 4~6 m
1224	Testing of Transformers, MFB No. 2	30 days	Mar 15 '24	Apr 13 '24	Jun 13 '23	Jul 12 '23	0 days	1189FS+30 days	1291,1292	HV - A x 4~6 m
1225	Site Acceptance Tests - Electrical aspects including voltage and current	60 days	Dec 11 '24	Feb 8 '25	Aug 2 '23	Sep 30 '23	0 days	1291,1292,1293		LV - A x 4~6 m
1226	**SCADA Systems, BR No.1 & No.2**	**51 days**	**Mar 30 '24**	**May 19 '24**	**Aug 8 '23**	**Sep 27 '23**	**0 days**	**1153**		
1227	Configuration of PLC System for BR No. 2A&B	30 days	Mar 30 '24	Apr 28 '24	Aug 8 '23	Sep 6 '23	0 days	931,1186,1187	1228	PLC - A x 1 ma
1228	Site Acceptance Test for PLC System at BR 2A&B	21 days	Apr 29 '24	May 19 '24	Sep 7 '23	Sep 27 '23	0 days	1227	936,1875	
1229	**SCADA Systems, MFB No. 2**	**51 days**	**Dec 10 '24**	**Jan 29 '25**	**Jan 16 '24**	**Mar 6 '24**	**0 days**	**1153**		
1230	Configuration of PLC System for MFB No. 2	30 days	Dec 10 '24	Jan 8 '25	Jan 16 '24	Feb 14 '24	0 days	1191	1231	
1231	Site Acceptance Test for PLC System at MFB No. 2	21 days	Jan 9 '25	Jan 29 '25	Feb 15 '24	Mar 6 '24	0 days	1230	1875	
1232	**Building Services Installations for MFB No. 2**	**157 days**	**Dec 31 '23**	**Jun 4 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**	**1153FS-30 days**	**1290**	
1233	**MVAC Installation for MFB No. 2**	**107 days**	**Dec 31 '23**	**Apr 15 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**			**MVAC - A x 4~**
1234	**MVAC Installation for MFB No. 2 (G/F)**	**93 days**	**Dec 31 '23**	**Apr 1 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**			
1235	Mechanical Ventilation Installation at G/F	65 days	Dec 31 '23	Mar 4 '24	Dec 31 '23	Mar 4 '24	0 days		1236SS+28 days,	
1236	VRV Installation at G/F L.V Switch Room	45 days	Jan 28 '24	Mar 12 '24	Apr 21 '24	Jun 4 '24	84 days	1235SS+28 days		
1237	VRV Installation at G/F Sprinkler Valve Control Room	30 days	Mar 3 '24	Apr 1 '24	May 6 '24	Jun 4 '24	64 days	1235SS+63 days		
1238	**MVAC Installation for MFB No. 2 (1/F)**	**60 days**	**Feb 11 '24**	**Apr 10 '24**	**Feb 11 '24**	**Jun 4 '24**	**0 days**			
1239	Mechanical Ventilation Installation at 1/F	60 days	Feb 11 '24	Apr 10 '24	Feb 11 '24	Apr 10 '24	0 days	1235SS+42 days	1240SS+14 days	
1240	VRV Installation at 1/F L.V Switch Room	45 days	Feb 25 '24	Apr 9 '24	Apr 21 '24	Jun 4 '24	56 days	1239SS+14 days		
1241	**MVAC Installation for MFB No. 2 (R/F)**	**30 days**	**Mar 17 '24**	**Apr 15 '24**	**May 6 '24**	**Jun 4 '24**	**50 days**			
1242	VRV ODU Installation at R/F	30 days	Mar 17 '24	Apr 15 '24	May 6 '24	Jun 4 '24	50 days	1235SS+77 days		
1243	**Lighting, MFB No. 2**	**100 days**	**Dec 31 '23**	**Apr 8 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**			**BS - A x 4~6 m**
1244	**Ground Floor**	**100 days**	**Dec 31 '23**	**Apr 8 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**			
1245	Cable containment for lighting system at G/F	60 days	Dec 31 '23	Feb 28 '24	Dec 31 '23	Feb 28 '24	0 days		1246SS+49 days,	
1246	wiring installation at G/F	30 days	Feb 18 '24	Mar 18 '24	May 6 '24	Jun 4 '24	78 days	1245SS+49 days		
1247	Cable termination and lighting fitting installation at G/F	30 days	Mar 10 '24	Apr 8 '24	May 6 '24	Jun 4 '24	57 days	1245SS+70 days		
1248	**First Floor**	**100 days**	**Dec 31 '23**	**Apr 8 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**			
1249	Cable containment for lighting system at 1/F	60 days	Dec 31 '23	Feb 28 '24	Dec 31 '23	Feb 28 '24	0 days		1250SS+45 days,	
1250	wiring installation at 1/F	30 days	Feb 14 '24	Mar 14 '24	May 6 '24	Jun 4 '24	82 days	1249SS+45 days		
1251	Cable termination and lighting fitting installation at 1/F	30 days	Mar 10 '24	Apr 8 '24	May 6 '24	Jun 4 '24	57 days	1249SS+70 days		
1252	**Roof Floor**	**79 days**	**Jan 14 '24**	**Apr 1 '24**	**Jan 14 '24**	**Jun 4 '24**	**0 days**			
1253	Cable containment for lighting system at R/F	45 days	Jan 14 '24	Feb 27 '24	Jan 14 '24	Feb 27 '24	0 days	1249SS+14 days	1254SS+35 days	
1254	wiring installation at R/F	30 days	Feb 18 '24	Mar 18 '24	May 6 '24	Jun 4 '24	78 days	1253SS+35 days		
1255	Cable termination and lighting fitting installation at R/F	30 days	Mar 3 '24	Apr 1 '24	May 6 '24	Jun 4 '24	64 days	1249SS+63 days		
1256	**Plumbing Installation, MFB No. 2**	**128 days**	**Dec 31 '23**	**May 6 '24**	**Dec 31 '23**	**May 6 '24**	**0 days**		**1864**	**Pb - B x 4~6 m**
1257	**Ground Floor**	**80 days**	**Dec 31 '23**	**Mar 19 '24**	**Dec 31 '23**	**May 6 '24**	**0 days**			
1258	Plumbing Installation at G/F (Cleansing / Potable / Irrigation Syste	45 days	Dec 31 '23	Feb 13 '24	Dec 31 '23	Feb 13 '24	0 days		1259,1262SS+82	
1259	Plumbing Installation at G/F Outdoor Area (Cleansing System)	21 days	Feb 14 '24	Mar 5 '24	Apr 2 '24	Apr 22 '24	0 days	1258	1260	
1260	Plumbing Installation at G/F (Emergency Shower & Eye Washer)	14 days	Mar 6 '24	Mar 19 '24	Apr 23 '24	May 6 '24	48 days	1259		
1261	**First Floor**	**30 days**	**Mar 22 '24**	**Apr 20 '24**	**Mar 22 '24**	**Apr 20 '24**	**0 days**			
1262	Plumbing Installation at 1/F (Cleansing / Irrigation System)	30 days	Mar 22 '24	Apr 20 '24	Mar 22 '24	Apr 20 '24	0 days	1258SS+82 days	1264SS+25 days	
1263	**Roof Floor**	**21 days**	**Apr 16 '24**	**May 6 '24**	**Apr 16 '24**	**May 6 '24**	**0 days**			
1264	Plumbing Installation at R/F (Irrigation System)	21 days	Apr 16 '24	May 6 '24	Apr 16 '24	May 6 '24	0 days	1262SS+25 days		
1265	**Fire Services Installation, MFB No. 2**	**157 days**	**Dec 31 '23**	**Jun 4 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**			**FS - B x 4~6 m**
1266	**Ground Floor**	**90 days**	**Dec 31 '23**	**Mar 29 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**			
1267	Fire Services Installation at G/F (FS Inlet/FH/HR/AFA/Liner Heat De	60 days	Dec 31 '23	Feb 28 '24	Dec 31 '23	Feb 28 '24	0 days		1268,1270SS+76	
1268	Fire Services Installation at G/F Outdoor Area (HR & AFA System)	30 days	Feb 29 '24	Mar 29 '24	May 6 '24	Jun 4 '24	67 days	1267		
1269	**First Floor**	**60 days**	**Mar 16 '24**	**May 14 '24**	**Apr 6 '24**	**Jun 4 '24**	**21 days**			
1270	Fire Services Installation at 1/F (FH/HR/AFA/Linear Heat Detector)	60 days	Mar 16 '24	May 14 '24	Apr 6 '24	Jun 4 '24	21 days	1267SS+76 days		
1271	**Roof Floor**	**30 days**	**May 6 '24**	**Jun 4 '24**	**May 6 '24**	**Jun 4 '24**	**0 days**			
1272	Fire Services Installation at R/F (FH/HR & AFA System)	30 days	May 6 '24	Jun 4 '24	May 6 '24	Jun 4 '24	0 days	1267SS+127 da		
1273	**Power Distribution System, MFB No. 2**	**107 days**	**Dec 31 '23**	**Apr 15 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**			**BS - B x 4~6 m**
1274	**Ground Floor**	**107 days**	**Dec 31 '23**	**Apr 15 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**			
1275	Cable containment for power system at G/F	60 days	Dec 31 '23	Feb 28 '24	Dec 31 '23	Feb 28 '24	0 days		1276SS+49 days,	
1276	wiring installation at G/F	30 days	Feb 18 '24	Mar 18 '24	May 6 '24	Jun 4 '24	78 days	1275SS+49 days		
1277	Cable termination and wirng accessories installation at G/F	30 days	Mar 17 '24	Apr 15 '24	May 6 '24	Jun 4 '24	50 days	1275SS+77 days		
1278	**First Floor**	**107 days**	**Dec 31 '23**	**Apr 15 '24**	**Dec 31 '23**	**Jun 4 '24**	**0 days**			
1279	Cable containment for power system at 1/F	60 days	Dec 31 '23	Feb 28 '24	Dec 31 '23	Feb 28 '24	0 days		1280SS+49 days,	
1280	wiring installation at 1/F	30 days	Feb 18 '24	Mar 18 '24	May 6 '24	Jun 4 '24	78 days	1279SS+49 days		
1281	Cable termination and wirng accessories installation at 1/F	30 days	Mar 17 '24	Apr 15 '24	May 6 '24	Jun 4 '24	50 days	1279SS+77 days		
1282	**Roof Floor**	**93 days**	**Jan 14 '24**	**Apr 15 '24**	**Jan 14 '24**	**Jun 4 '24**	**0 days**			
1283	Cable containment for power system at R/F	45 days	Jan 14 '24	Feb 27 '24	Jan 14 '24	Feb 27 '24	0 days	1275SS+14 days	1284SS+35 days,	
1284	wiring installation at R/F	30 days	Feb 18 '24	Mar 18 '24	May 6 '24	Jun 4 '24	78 days	1283SS+35 days		
1285	Cable termination and wirng accessories installation at R/F	30 days	Mar 17 '24	Apr 15 '24	May 6 '24	Jun 4 '24	50 days	1283SS+63 days		
1286	**CCTV Installation (10 indoor + 3 outdoor Cameras), MFB No. 2**	**36 days**	**Dec 31 '23**	**Feb 4 '24**	**Jan 29 '24**	**Mar 4 '24**	**0 days**		**1874**	**BS - C x 2~4 m**
1287	CCTV Installation (3 nos./ Indoor)	21 days	Dec 31 '23	Jan 20 '24	Jan 29 '24	Feb 18 '24	0 days		1288	
1288	CCTV Installation (4 nos./ Outdoor)	15 days	Jan 21 '24	Feb 4 '24	Feb 19 '24	Mar 4 '24	29 days	1287		
1289	Earthing and Lightning Protection System, MFB No. 2	120 days	Dec 31 '23	Apr 28 '24	Feb 6 '24	Jun 5 '24	37 days?	184		BS - C x 2~4 m
1290	Testing and Commissioning of Building Services Installations, MFB No. 2	150 days	Jun 5 '24	Nov 1 '24	Jun 5 '24	Nov 1 '24	0 days	1116,1232		BS - C x 2~4 m
1291	Energisation of LV Switchboards, MFB No. 2 (1/F)	1 day	Dec 10 '24	Dec 10 '24	Jul 13 '23	Jul 13 '23	0 days	1191,1221,122	1225,1385FS+7 (	LA - A x 4~6 m
1292	Energisation of LV Switchboards, BR2A2B (G/F)	1 day	Dec 10 '24	Dec 10 '24	Aug 1 '23	Aug 1 '23	0 days	1191,1222,122	934,1225	LA - A x 4~6 m
1293	Energisation of HV Switchboards, MFB No.2 (1/F)	1 day	Oct 22 '24	Oct 22 '24	Aug 1 '23	Aug 1 '23	0 days	1198,1207,122	1225	
1294	Site Acceptance Test for E&M Equip at MFB No. 2	30 days	Feb 3 '25	Mar 4 '25	Aug 12 '23	Sep 10 '23	0 days	1079,1154FS-5(	1295	
1295	System Commissioning for E&M Equip at MFB No. 2	40 days	Mar 5 '25	Apr 13 '25	Sep 11 '23	Oct 20 '23	0 days	1166FS-30 days	1296	
1296	Risk Allowances for Completion of Processing Plant at MFB No. 2	7 edays	Apr 13 '25	Apr 20 '25	Oct 21 '23	Oct 28 '23	0 edays	1295	942FF,1870	



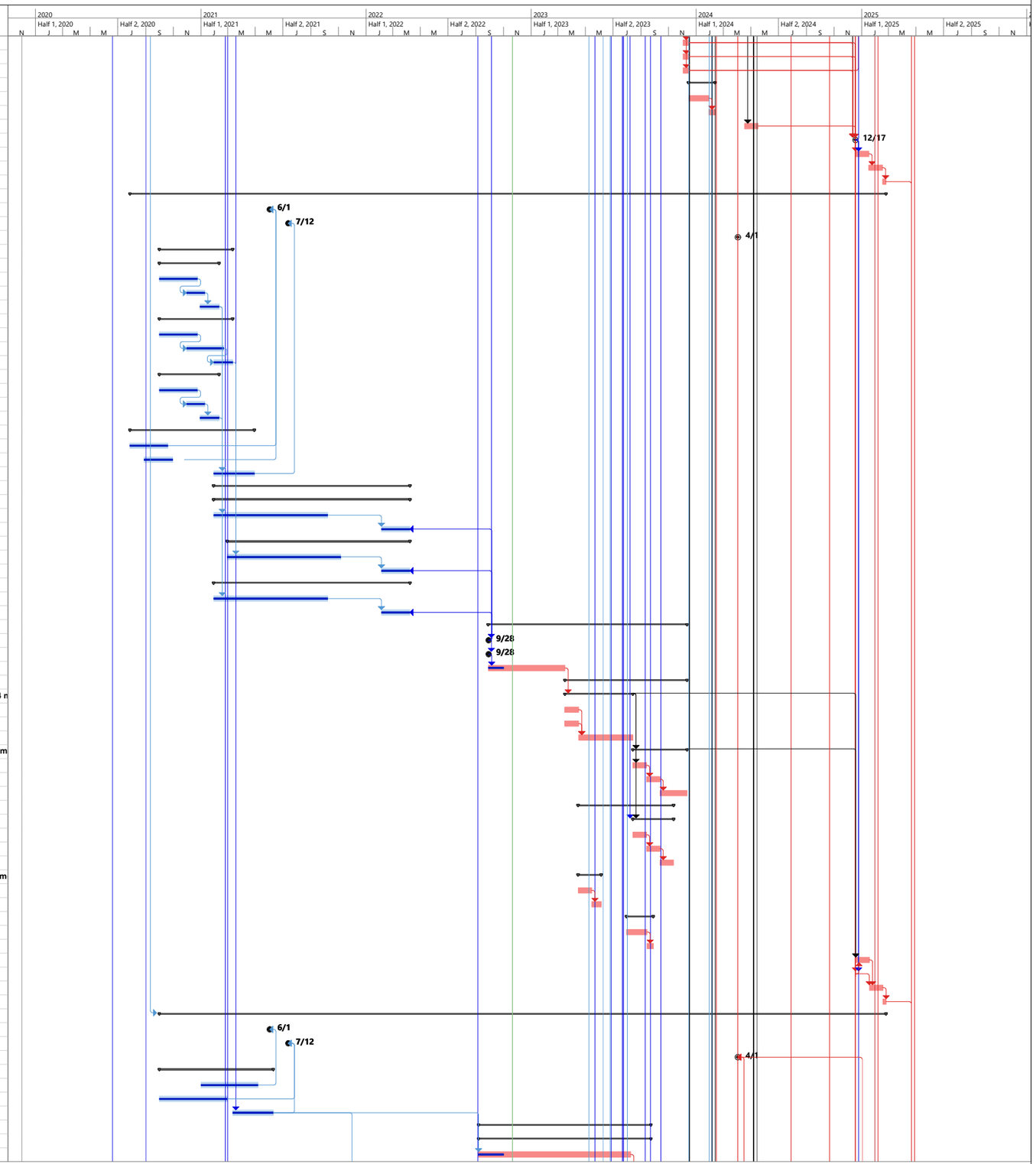
Bestwise
Project: DE/2018/04
Date: 31/10/22

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1297	**Chemical System No. 1 , Portion B-7 & B-7B**	**1686 days**	**Jul 21 '20**	**Mar 2 '25**	**Jul 21 '20**	**Apr 1 '24**	**0 days**			
1298	Planned Key Date Completion Date - KD1B, Chem Sys No. 1	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1315FF,1316FF		
1299	Planned Sectional Completion Date - Section 1, Chem Sys No. 1	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1317FF,1318FF,		
1300	Planned Sectional Completion Date - Section 2, Chem Sys No. 1	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days			
1301	**Selection of Suppliers for major plant and materials for Chemical Systems**	**240 days**	**Oct 1 '20**	**May 28 '21**	**Oct 1 '20**	**May 28 '21**	**0 days**			
1302	**Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQT025**	**240 days**	**Oct 1 '20**	**May 28 '21**	**Oct 1 '20**	**May 28 '21**	**0 days**			
1303	Submission for acceptance of purchasing package	84 days	Oct 1 '20	Dec 23 '20	Oct 1 '20	Dec 23 '20	0 days		1304	
1304	Invitation of quotations for purchasing package	40 days	Nov 30 '20	Jan 8 '21	Nov 30 '20	Jan 8 '21	0 days	1303	1305	
1305	Acceptance of conforming quotation (Completed)	42 days	Dec 30 '20	Feb 9 '21	Dec 30 '20	Feb 9 '21	0 days	1304	1317	
1306	**Chemical Storage and Dosing - chemical dosing pumps, C11, ref. EQT027**	**162 days**	**Oct 1 '20**	**Mar 11 '21**	**Oct 1 '20**	**Mar 11 '21**	**0 days**			
1307	Submission for acceptance of purchasing package	84 days	Oct 1 '20	Dec 23 '20	Oct 1 '20	Dec 23 '20	0 days		1308	
1308	Invitation of quotations for purchasing package	82 days	Nov 30 '20	Feb 19 '21	Nov 30 '20	Feb 19 '21	0 days	1307	1309	
1309	Acceptance of conforming quotation (Completed)	42 days	Jan 29 '21	Mar 11 '21	Jan 29 '21	Mar 11 '21	0 days	1308	1317,1318,1319	
1310	**Chemical Storage and Dosing - transfer pumps, C11, ref. EQT026**	**132 days**	**Oct 1 '20**	**Feb 9 '21**	**Oct 1 '20**	**Feb 9 '21**	**0 days**			
1311	Submission for acceptance of purchasing package	84 days	Oct 1 '20	Dec 23 '20	Oct 1 '20	Dec 23 '20	0 days		1312	
1312	Invitation of quotations for purchasing package	40 days	Nov 30 '20	Jan 8 '21	Nov 30 '20	Jan 8 '21	0 days	1311	1313	
1313	Acceptance of conforming quotation (Completed)	42 days	Dec 30 '20	Feb 9 '21	Dec 30 '20	Feb 9 '21	0 days	1312	1317	
1314	**Design Submissions for Chemical System No. 1**	**324 days**	**Jul 21 '20**	**Jun 10 '21**	**Jul 21 '20**	**Jun 10 '21**	**0 days**			
1315	Electrical schematic drawings for Chemical Systems No. 1 and No. 2	84 days	Jul 21 '20	Oct 12 '20	Jul 21 '20	Oct 12 '20	0 days		1298FF	
1316	CDS081-5 - Civil and dimensional requirements drawings for Chemical Syste	89.5 days	Aug 28 '20	Nov 25 '20	Aug 28 '20	Nov 25 '20	0 days		1298FF	
1317	CDS006 - Detailed Design for Chemical Dosing System	90 edays	Feb 27 '21	May 28 '21	Feb 27 '21	May 28 '21	0 edays	1305,1309,131	1299FF,1323,13	
1318	CDS027 - Detailed Design for Electrical Installations for Chemical System No.	90 edays	Feb 27 '21	May 28 '21	Feb 27 '21	May 28 '21	0 edays	1309	1299FF,1340	
1319	CDS028 - Detailed Design for Electrical Installations for Chemical System No.	90 edays	Feb 27 '21	May 28 '21	Feb 27 '21	May 28 '21	0 edays	1309	1299FF,1340	
1320	CDS034-5 - Detailed Design for Electrical Installations BS at Chemical System	90 edays	Mar 12 '21	Jun 10 '21	Mar 12 '21	Jun 10 '21	0 edays	156	1299FF,1340	
1321	**Manufacturing and Delivery of Plant & Materials**	**314 days**	**May 29 '21**	**Apr 7 '22**	**May 29 '21**	**Apr 7 '22**	**0 days**			
1322	**Chemical Storage Tanks, EQT025**	**297 days**	**May 29 '21**	**Mar 21 '22**	**May 29 '21**	**Mar 21 '22**	**0 days**			
1323	Manufacturing and Factory Acceptance Test of Plant	252 days	May 29 '21	Feb 4 '22	May 29 '21	Feb 4 '22	0 days	1317	1324	
1324	Shipping and Delivery of Plant to site	45 days	Feb 5 '22	Mar 21 '22	Feb 5 '22	Mar 21 '22	0 days	1323	1336	
1325	**Chemical Dosing Pumps, EQT027**	**314 days**	**May 29 '21**	**Apr 7 '22**	**May 29 '21**	**Apr 7 '22**	**0 days**			
1326	Manufacturing and Factory Acceptance Test of Plant	252 days	May 29 '21	Feb 4 '22	May 29 '21	Feb 4 '22	0 days	1317	1327	
1327	Shipping and Delivery of Plant to site	63 days	Feb 4 '22	Apr 7 '22	Feb 4 '22	Apr 7 '22	0 days	1326,1332FF-6	1336	
1328	**Chemical Transfer Pumps, EQT026**	**314 days**	**May 29 '21**	**Apr 7 '22**	**May 29 '21**	**Apr 7 '22**	**0 days**			
1329	Manufacturing and Factory Acceptance Test of Plant	252 days	May 29 '21	Feb 4 '22	May 29 '21	Feb 4 '22	0 days	1317	1330	
1330	Shipping and Delivery of Plant to site	63 days	Feb 4 '22	Apr 7 '22	Feb 4 '22	Apr 7 '22	0 days	1329,1332FF-6	1336	
1331	**Site Installation Work**	**542 days**	**Sep 5 '22**	**Feb 28 '24**	**Sep 5 '22**	**Feb 28 '24**	**0 days**			
1332	Tentative Civil Handover Date, Portion B-7 & B-7B (Rev. 5)	1 day	Sep 5 '22	Sep 5 '22	Sep 5 '22	Sep 5 '22	0 days	18	1327FF-60 edays	
1333	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	1 day	Sep 5 '22	Sep 5 '22	Sep 5 '22	Sep 5 '22	0 days	18	1334	
1334	Tenative Completion date for Outstanding ABWF Wotk	192 days	Sep 6 '22	Mar 16 '23	Sep 6 '22	Mar 16 '23	0 days	1333	1348,1344,1345	
1335	**Commencement of E&M Installation at Chemical Dosing System 1**	**349 days**	**Mar 17 '23**	**Feb 28 '24**	**Jan 24 '23**	**Feb 28 '24**	**0 days**			
1336	**Mechanical Installations for E&M Equip. for Chemical Dosing System (Re**	**150 days**	**Mar 17 '23**	**Aug 13 '23**	**Jan 24 '23**	**Jun 22 '23**	**0 days**	**1324,1327,133**	**1340,1344,1359**	**ME - D x 2~4 r**
1337	Storage tank installation	30 days	Mar 17 '23	Apr 15 '23	Jan 24 '23	Feb 22 '23	0 days		1339	
1338	Chemical Dosing Pump and Transfer Pump Installation	30 days	Mar 17 '23	Apr 15 '23	Jan 24 '23	Feb 22 '23	0 days		1339	
1339	UPVC pipe and valve installation	120 days	Apr 16 '23	Aug 13 '23	Feb 23 '23	Jun 22 '23	0 days	1337,1338		
1340	**Electrical Installations for E&M Equip. for Chemical Dosing System**	**60 days**	**Aug 14 '23**	**Oct 12 '23**	**Jun 23 '23**	**Aug 21 '23**	**0 days**	**1318,1319,132**	**1359**	**EE - B x 4~6 m**
1341	Cable Containmet installation	30 days	Aug 14 '23	Sep 12 '23	Jun 23 '23	Jul 22 '23	0 days		1342	
1342	Cable Laying and Cable Termination	30 days	Sep 13 '23	Oct 12 '23	Jul 23 '23	Aug 21 '23	0 days	1341		
1343	**Building Services Installations at Chemical Dosing System areas (CS1)**	**349 days**	**Mar 17 '23**	**Feb 28 '24**	**May 15 '23**	**Feb 28 '24**	**0 days**			
1344	**Lighting and Power Distribution System, CS1**	**120 days**	**Aug 14 '23**	**Dec 11 '23**	**Aug 14 '23**	**Dec 11 '23**	**0 days**	**1332,1334,133**		**BS - B x 4~6 m**
1345	Cable Containment Installation for Lighting and Power System	45 days	Aug 14 '23	Sep 27 '23	Aug 14 '23	Sep 27 '23	0 days	1332,1334	1346	
1346	Wiring Installation for Lighting and Power System	45 days	Sep 28 '23	Nov 11 '23	Sep 28 '23	Nov 11 '23	0 days	1345	1347	
1347	Cable Termination Lighting and Wiring Accessories Installation	30 days	Nov 12 '23	Dec 11 '23	Nov 12 '23	Dec 11 '23	0 days	1346		
1348	**Fire Services Installation, CS1**	**349 days**	**Mar 17 '23**	**Feb 28 '24**	**Jun 16 '23**	**Feb 28 '24**	**0 days**	**1332,1334**		**FS - A x 4~6 m**
1349	Cable containment, Wiring and AFA Detector Installation	45 days	Mar 17 '23	Apr 30 '23	Jun 16 '23	Jul 30 '23	0 days		1350	
1350	Cable containment, Wiring, Break Glass and Alarm Bell Installation	14 days	May 1 '23	May 14 '23	Jul 31 '23	Aug 13 '23	91 days	1349	1344	
1351	SDG ignage Installation	30 days	Jan 30 '24	Feb 28 '24	Jan 30 '24	Feb 28 '24	0 days			
1352	**Plumbing Installation, CS1**	**89 days**	**May 15 '23**	**Aug 11 '23**	**May 15 '23**	**Aug 11 '23**	**0 days**			**Pb - A x 4~6 m**
1353	Installation Wotk inide Check Meter Cabinet	45 days	May 15 '23	Jun 28 '23	May 15 '23	Jun 28 '23	0 days		1354SS+15 days	
1354	Potable and Cleansing System Installation	60 days	May 30 '23	Jul 28 '23	May 30 '23	Jul 28 '23	0 days	1353SS+15 days	1355,1356,1357	
1355	Emergency Shower and Eyewasher Installation	14 days	Jul 29 '23	Aug 11 '23	Jul 29 '23	Aug 11 '23	0 days	1354		
1356	Wash Basin Installation	14 days	Jul 29 '23	Aug 11 '23	Jul 29 '23	Aug 11 '23	0 days	1354		
1357	Cleansing Point and Lockable Box Installation	14 days	Jul 29 '23	Aug 11 '23	Jul 29 '23	Aug 11 '23	0 days	1354		
1358	Power Engerisation, CS1 (Power Fed from Chemical Kiosk)	1 day	Dec 25 '24	Dec 25 '24	Aug 21 '23	Aug 21 '23	0 days	1385FS+7 days,	1359	
1359	Site Acceptance Test for E&M Equip for CS1	30 edays	Dec 25 '24	Jan 24 '25	Aug 22 '23	Sep 21 '23	0 edays	1336,1340,135	1360	
1360	System Commissioning for E&M Equip for CS1	30 edays	Jan 24 '25	Feb 23 '25	Sep 21 '23	Oct 21 '23	0 edays	1359	1361	
1361	Risk Allowances for Completion of Processing Plant at CS1	7 edays	Feb 23 '25	Mar 2 '25	Oct 21 '23	Oct 28 '23	0 edays	1360	1870	
1362	**Chemical Koisk**	**657 days?**	**May 8 '23**	**Feb 22 '25**	**Mar 14 '23**	**Nov 17 '23**	**0 days?**			
1363	**Manufacturing and Delivery of Plant & Materials**	**194 days**	**May 8 '23**	**Nov 17 '23**	**May 8 '23**	**Nov 17 '23**	**0 days**			
1364	Manufacturing and Factory Acceptance Test of Switchboard	180 days	May 8 '23	Nov 3 '23	May 8 '23	Nov 3 '23	0 days		1365	
1365	Shipping and Delivery of Swutchboard to Site	14 days	Nov 4 '23	Nov 17 '23	Nov 4 '23	Nov 17 '23	0 days	1364		
1366	**Site Work**	**183 days?**	**Nov 16 '23**	**May 16 '24**	**Mar 14 '23**	**Aug 21 '23**	**0 days?**			
1367	Tentative Civil Handover, Chemical Koisk	1 day	Nov 16 '23	Nov 16 '23	Mar 14 '23	Mar 14 '23	0 days		1368FS+14 days	
1368	Tentative Completion Date for Outstanding Work, Chemical Koisk	1 day	Dec 1 '23	Dec 1 '23	Mar 29 '23	Mar 29 '23	0 days	1367FS+14 days	1369	
1369	**Commencement of E&M Installation at Chemical Kiosk**	**137 days?**	**Dec 2 '23**	**Apr 16 '24**	**Mar 30 '23**	**Aug 13 '23**	**0 days?**	**1368**	**1384**	
1370	Mechanical Ventilation Installation	30 days	Dec 2 '23	Dec 31 '23	Jun 23 '23	Jul 22 '23	0 days			
1371	**Electrical Installation**	**137 days?**	**Dec 2 '23**	**Apr 16 '24**	**Mar 30 '23**	**Aug 13 '23**	**0 days?**		**1385**	
1372	LV Switchboard Installation	60 days	Dec 2 '23	Jan 30 '24	Mar 30 '23	May 28 '23	0 days		1373	
1373	Site Acceptance Test for LV Switchbaord	7 days	Jan 31 '24	Feb 6 '24	May 29 '23	Jun 4 '23	0 days	1372	1374	
1374	Cable containment Installation	30 days	Feb 7 '24	Mar 7 '24	Jun 5 '23	Jul 4 '23	0 days	1373	1375	
1375	Cable Laying and Cable Termination	30 days	Mar 8 '24	Apr 6 '24	Jul 5 '23	Aug 3 '23	0 days	1374	1376	
1376	Lighting, small power and Wiring Accessories Installation	10 days	Apr 7 '24	Apr 16 '24	Aug 4 '23	Aug 13 '23	0 days	1375		
1377	Tentative Civil Handover Date, LV cables draw pits from chemical kiosk	1 day?	Dec 2 '23	Dec 2 '23	Jul 30 '23	Jul 30 '23	0 days?		1380,1379,1378	



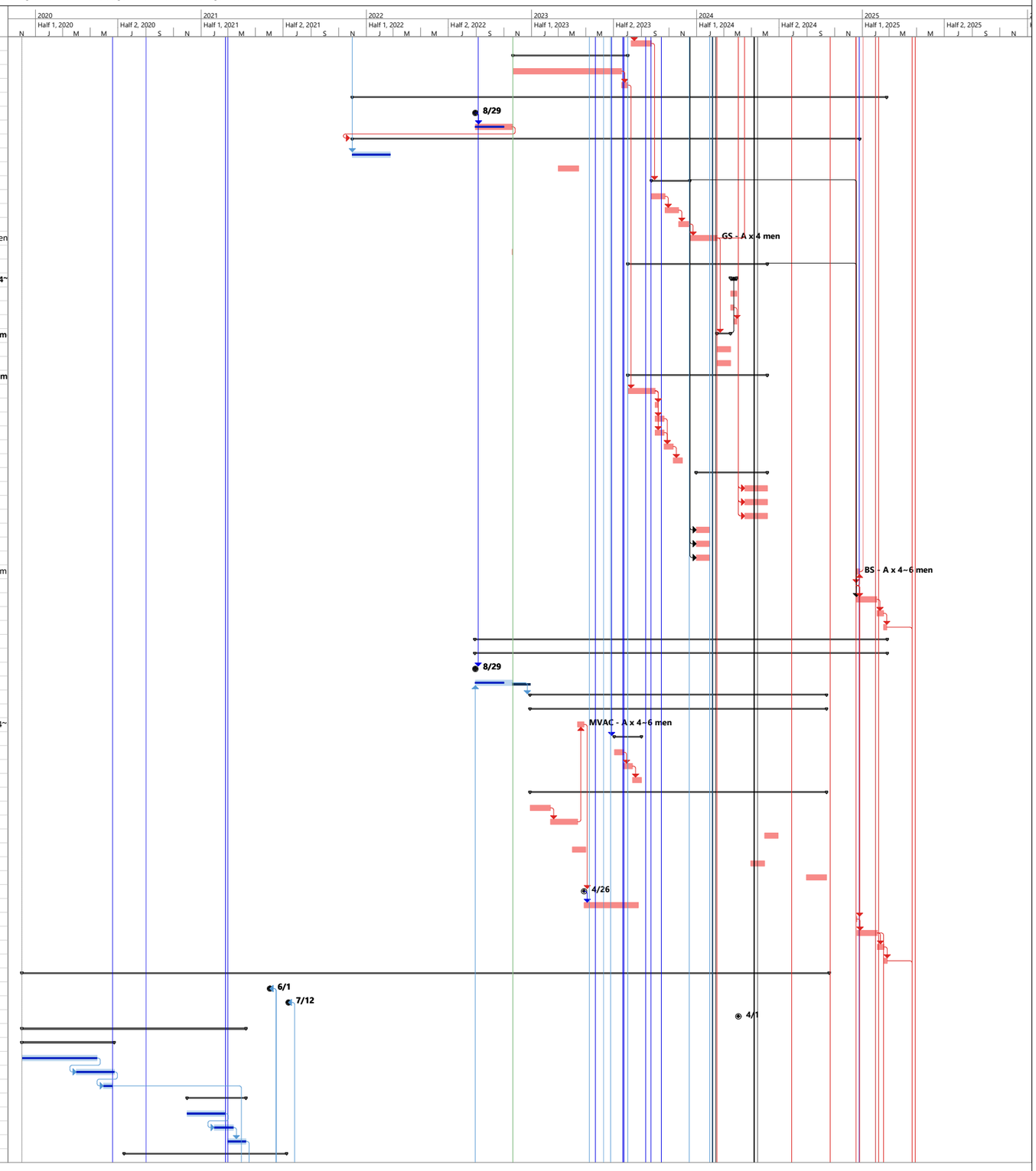
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1378	Cables laying and terminations from chemical kiosk to DOU 3A	14 days	Dec 3 '23	Dec 16 '23	Jul 31 '23	Aug 13 '23	0 days	1377	1385,1599	
1379	Cables laying and terminations from chemical kiosk to TCS	14 days	Dec 3 '23	Dec 16 '23	Jul 31 '23	Aug 13 '23	0 days	1377	1385,1445	
1380	Cables laying and terminations from chemical kiosk to CS no.1	14 days	Dec 3 '23	Dec 16 '23	Jul 31 '23	Aug 13 '23	0 days	1377	1358,1385	
1381	**FS Installation**	**59 days**	**Dec 15 '23**	**Feb 11 '24**	**May 25 '23**	**Jul 22 '23**	**0 days**			
1382	FS Installation for AFA detector, BGU, Conduit System Installation	45 days	Dec 15 '23	Jan 28 '24	May 25 '23	Jul 8 '23	0 days		1383	
1383	FS Installaton for AFA Panel	14 days	Jan 29 '24	Feb 11 '24	Jul 9 '23	Jul 22 '23	0 days	1382		
1384	Testing and Commissioning of Building Services Installations	30 days	Apr 17 '24	May 16 '24	Jul 23 '23	Aug 21 '23	0 days	1369	1386	
1385	Power Energisation for Switchboard, Chemical Kiosk	0 days	Dec 17 '24	Dec 17 '24	Aug 14 '23	Aug 14 '23	0 days	1219,1291FS+7	1358FS+7 days,1	
1386	Site Acceptance Test for E&M Equip for DOU 3A	30 edays	Dec 17 '24	Jan 16 '25	Aug 22 '23	Sep 21 '23	0 edays	1384,1385	1387	
1387	System Commissioning for E&M Equip for DOU 3A	30 edays	Jan 16 '25	Feb 15 '25	Sep 21 '23	Oct 21 '23	0 edays	1386	1388	
1388	Risk Allowances for Completion of Processing Plant at DOU 3A	7 edays	Feb 15 '25	Feb 22 '25	Oct 21 '23	Oct 28 '23	0 edays	1387	1870	
1389	**Temporary Chemical Dosing System, Portion B7 & B-7B**	**1672 days**	**Jul 28 '20**	**Feb 23 '25**	**Jul 28 '20**	**Apr 1 '24**	**0 days**			
1390	Planned Key Date Completion Date - KD1B, Temp. Chem Dosing Sys	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1407FF,1408FF		
1391	Planned Sectional Completion Date - Section 1, Temp. Chem Dosing Sys	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1409FF		
1392	Planned Sectional Completion Date - Section 2, Temp. Chem Dosing Sys	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days			
1393	**Selection of Suppliers for major plant and materials for Temp. Chemical Dosi**	**162 days**	**Oct 1 '20**	**Mar 11 '21**	**Oct 1 '20**	**Mar 11 '21**	**0 days**			
1394	**Chemical Storage and Dosing - chemical storage tanks, C11, ref. EQT025**	**132 days**	**Oct 1 '20**	**Feb 9 '21**	**Oct 1 '20**	**Feb 9 '21**	**0 days**			
1395	Submission for acceptance of purchasing package	84 days	Oct 1 '20	Dec 23 '20	Oct 1 '20	Dec 23 '20	0 days		1396	
1396	Invitation of quotations for purchasing package	40 days	Nov 30 '20	Jan 8 '21	Nov 30 '20	Jan 8 '21	0 days	1395	1397	
1397	Acceptance of conforming quotation (Completed)	42 days	Dec 30 '20	Feb 9 '21	Dec 30 '20	Feb 9 '21	0 days	1396	1409,1412	
1398	**Chemical Storage and Dosing - chemical dosing pumps, C11, ref. EQT027**	**162 days**	**Oct 1 '20**	**Mar 11 '21**	**Oct 1 '20**	**Mar 11 '21**	**0 days**			
1399	Submission for acceptance of purchasing package	84 days	Oct 1 '20	Dec 23 '20	Oct 1 '20	Dec 23 '20	0 days		1400	
1400	Invitation of quotations for purchasing package	82 days	Nov 30 '20	Feb 19 '21	Nov 30 '20	Feb 19 '21	0 days	1399	1401	
1401	Acceptance of conforming quotation (Completed)	42 days	Jan 29 '21	Mar 11 '21	Jan 29 '21	Mar 11 '21	0 days	1400	1415	
1402	**Chemical Storage and Dosing - transfer pumps, C11, ref. EQT026**	**132 days**	**Oct 1 '20**	**Feb 9 '21**	**Oct 1 '20**	**Feb 9 '21**	**0 days**			
1403	Submission for acceptance of purchasing package	84 days	Oct 1 '20	Dec 23 '20	Oct 1 '20	Dec 23 '20	0 days		1404	
1404	Invitation of quotations for purchasing package	40 days	Nov 30 '20	Jan 8 '21	Nov 30 '20	Jan 8 '21	0 days	1403	1405	
1405	Acceptance of conforming quotation (Completed)	42 days	Dec 30 '20	Feb 9 '21	Dec 30 '20	Feb 9 '21	0 days	1404	1418	
1406	**Design Submissions for Temporary Chemical Dosing System**	**275 days**	**Jul 28 '20**	**Apr 28 '21**	**Jul 28 '20**	**Apr 28 '21**	**0 days**			
1407	Electrical schematic drawings for Temporary Chemical Dosing System	84 days	Jul 28 '20	Oct 19 '20	Jul 28 '20	Oct 19 '20	0 days		1390FF	
1408	CDS081-6 - Civil and dimensional requirements drawings for Temporary Che	89.5 days	Aug 28 '20	Nov 25 '20	Aug 28 '20	Nov 25 '20	0 days		1390FF	
1409	CDS029 - Detailed Design for Electrical Installations for Temporary Chemical	90 edays	Jan 28 '21	Apr 28 '21	Jan 28 '21	Apr 28 '21	0 edays	1397	1391FF	
1410	**Manufacturing and Delivery of Plant & Materials**	**434 days**	**Jan 29 '21**	**Apr 7 '22**	**Jan 29 '21**	**Apr 7 '22**	**0 days**			
1411	**Chemical Storage Tanks, EQT025**	**434 days**	**Jan 29 '21**	**Apr 7 '22**	**Jan 29 '21**	**Apr 7 '22**	**0 days**			
1412	Manufacturing and Factory Acceptance Test of Plant	252 days	Jan 29 '21	Oct 7 '21	Jan 29 '21	Oct 7 '21	0 days	1397	1413	
1413	Shipping and Delivery of Plant to site	63 days	Feb 4 '22	Apr 7 '22	Feb 4 '22	Apr 7 '22	0 days	1412,1421FF-6(		
1414	**Chemical Dosing Pumps, EQT027**	**404 days**	**Feb 28 '21**	**Apr 7 '22**	**Feb 28 '21**	**Apr 7 '22**	**0 days**			
1415	Manufacturing and Factory Acceptance Test of Plant	251 days	Feb 28 '21	Nov 5 '21	Feb 28 '21	Nov 5 '21	0 days	1401	1416	
1416	Shipping and Delivery of Plant to site	63 days	Feb 4 '22	Apr 7 '22	Feb 4 '22	Apr 7 '22	0 days	1415,1421FF-6(		
1417	**Chemical Transfer Pumps, EQT026**	**434 days**	**Jan 29 '21**	**Apr 7 '22**	**Jan 29 '21**	**Apr 7 '22**	**0 days**			
1418	Manufacturing and Factory Acceptance Test of Plant	252 days	Jan 29 '21	Oct 7 '21	Jan 29 '21	Oct 7 '21	0 days	1405	1419	
1419	Shipping and Delivery of Plant to site	63 days	Feb 4 '22	Apr 7 '22	Feb 4 '22	Apr 7 '22	0 days	1418,1421FF-6(		
1420	**Site Installation Work**	**440 days**	**Sep 28 '22**	**Dec 11 '23**	**Sep 28 '22**	**Nov 11 '23**	**0 days**			
1421	Tentative Civil Handover Date, Temporary Chemical Dosing (Rev. 5)	1 day	Sep 28 '22	Sep 28 '22	Sep 28 '22	Sep 28 '22	0 days	16	1413FF-60 edays	
1422	Tentative Civil Handover Date, Chemical Pipe Trench (by others)	1 day	Sep 28 '22	Sep 28 '22	Sep 28 '22	Sep 28 '22	0 days	16	1423	
1423	Tentative Completion Date for Outstanding Civil Work	169 days	Sep 29 '22	Mar 16 '23	Sep 29 '22	Mar 16 '23	0 days	1422	1425	
1424	**Commencement of E&M Installation at Temporary Chemical Dosing Syster**	**270 days**	**Mar 17 '23**	**Dec 11 '23**	**Nov 25 '22**	**Nov 11 '23**	**0 days**			
1425	**Mechanical Installations for E&M Equip. for Chemical Dosing System**	**150 days**	**Mar 17 '23**	**Aug 13 '23**	**Nov 25 '22**	**Apr 23 '23**	**0 days**	**1423**	**1434,1429,1430**	**ME - D x 2~4 r**
1426	Storage tank installation	30 days	Mar 17 '23	Apr 15 '23	Nov 25 '22	Dec 24 '22	0 days		1428	
1427	Chemical Dosing Pump and Transfer Pump Installation	30 days	Mar 17 '23	Apr 15 '23	Nov 25 '22	Dec 24 '22	0 days		1428	
1428	UPVC pipe and valve installation	120 days	Apr 16 '23	Aug 13 '23	Dec 25 '22	Apr 23 '23	0 days	1426,1427		
1429	**Electrical Installations for E&M Equip. for Chemical Dosing System**	**120 days**	**Aug 14 '23**	**Dec 11 '23**	**Apr 24 '23**	**Aug 21 '23**	**0 days**	**1425**	**1444**	**EE - A x 4~6 m**
1430	LMCP Installation	30 days	Aug 14 '23	Sep 12 '23	Apr 24 '23	May 23 '23	0 days	1425	1431	
1431	Cable Containment Installation	30 days	Sep 13 '23	Oct 12 '23	May 24 '23	Jun 22 '23	0 days	1430	1432	
1432	Cable Laying and Termination	60 days	Oct 13 '23	Dec 11 '23	Jun 23 '23	Aug 21 '23	0 days	1431		
1433	**Building Services Installations at Temp. Chemical Dosing System areas**	**211 days**	**Apr 15 '23**	**Nov 11 '23**	**Apr 15 '23**	**Nov 11 '23**	**0 days**			
1434	**Lighting and Power Distribution System, Temp. Chemical Dosing Syste**	**90 days**	**Aug 14 '23**	**Nov 11 '23**	**Aug 14 '23**	**Nov 11 '23**	**0 days**	**19,1425**		
1435	Cable Containment Installation for Lighting and Power System	30 days	Aug 14 '23	Sep 12 '23	Aug 14 '23	Sep 12 '23	0 days		1436	
1436	Wiring Installation for Lighting and Power System	30 days	Sep 13 '23	Oct 12 '23	Sep 13 '23	Oct 12 '23	0 days	1435	1437	
1437	Cable Termination, Lighting and Wiring Accessories Installation	30 days	Oct 13 '23	Nov 11 '23	Oct 13 '23	Nov 11 '23	0 days	1436		
1438	**Fire Services Installation,**	**51 days**	**Apr 15 '23**	**Jun 4 '23**	**Apr 15 '23**	**Jun 4 '23**	**0 days**			**FS - A x 4~6 m**
1439	Cable Containment, Wiring and AFA Detector Installation	30 days	Apr 15 '23	May 14 '23	Apr 15 '23	May 14 '23	0 days		1440	
1440	Cable Containment, Wiring and Break Glass/ Alarm Bell Installation	21 days	May 15 '23	Jun 4 '23	May 15 '23	Jun 4 '23	0 days	1439		
1441	**Plumbling Services Installation,**	**59 days**	**Jul 31 '23**	**Sep 27 '23**	**Jul 31 '23**	**Sep 27 '23**	**0 days**			
1442	Pipe Works and Check Meter Cabinet Installation	45 days	Jul 31 '23	Sep 13 '23	Jul 31 '23	Sep 13 '23	0 days		1443	
1443	Emergency Eyewash Installation	14 days	Sep 14 '23	Sep 27 '23	Sep 14 '23	Sep 27 '23	0 days	1442		
1444	Site Acceptance Test for E&M Equip for Chemical Dosing System	30 edays	Dec 18 '24	Jan 17 '25	Aug 22 '23	Sep 21 '23	0 edays	1425,1429,144	1446	
1445	Permanent Power Energisation (Fed from Chemical Koisk)	1 day	Dec 18 '24	Dec 18 '24	Aug 21 '23	Aug 21 '23	0 days	1379,1385	1444,1446	
1446	System Commissioning for E&M Equip for Chemical Dosing System	30 edays	Jan 17 '25	Feb 16 '25	Sep 21 '23	Oct 21 '23	0 edays	1444,1445	1447	
1447	Risk Allowances for Completion of Processing Plant at Chemical Dosing System	7 edays	Feb 16 '25	Feb 23 '25	Oct 21 '23	Oct 28 '23	0 edays	1446	1870	
1448	**Emergency Generator House, Portion B7 & B-7B**	**1607 days?**	**Oct 1 '20**	**Feb 23 '25**	**Oct 1 '20**	**Apr 1 '24**	**0 days?**	**168**		
1449	Planned Key Date Completion Date - KD1B, Emergency Generator House	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1453FF		
1450	Planned Sectional Completion Date - Section 1, Emergency Generator House	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1454FF,1455FF		
1451	Planned Sectional Completion Date - Section 2, Emergency Generator House	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days	1497FF+7 days,		
1452	**Design Submissions for Emergency Generator Set**	**252 days**	**Oct 1 '20**	**Jun 10 '21**	**Oct 1 '20**	**Jun 10 '21**	**0 days**			
1453	CDS081-10 - Civil and dimensional requirements drawings for Emergency Ge	126 days	Jan 1 '21	May 6 '21	Jan 1 '21	May 6 '21	0 days		1449FF	
1454	CDS061 - Detailed Design for Emergency Generator Set	150 edays	Oct 1 '20	Feb 28 '21	Oct 1 '20	Feb 28 '21	0 edays		1450FF	
1455	CDS034-6 - Detailed Design for Electrical Installations BS at Emergency Gene	90 edays	Mar 12 '21	Jun 10 '21	Mar 12 '21	Jun 10 '21	0 edays	156	1450FF,1458,14(	
1456	**Manufacturing and Delivery of Plant & Materials**	**381 days**	**Sep 7 '22**	**Sep 22 '23**	**Aug 13 '22**	**Aug 8 '23**	**0 days**			
1457	**Generator Set, EGH**	**381 days**	**Sep 7 '22**	**Sep 22 '23**	**Sep 7 '22**	**Aug 8 '23**	**0 days**			
1458	Manufacturing and Factory Acceptance Test of Emergency Generator	336 days	Sep 7 '22	Aug 8 '23	Sep 7 '22	Aug 8 '23	0 days	1455	1459	



Bestwise
Project: DE/2018/04
Date: 31/10/22

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

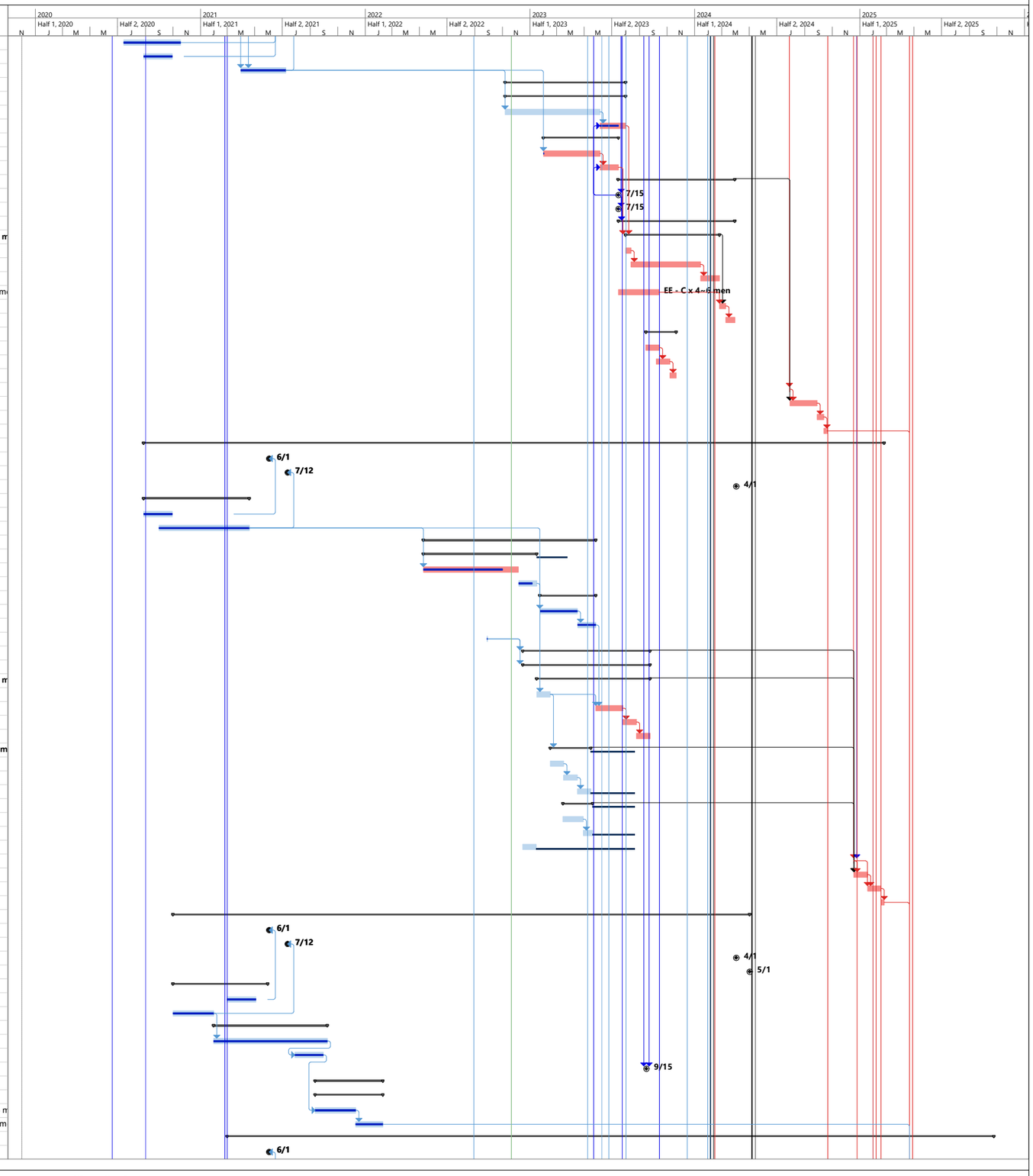
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1459	Shipping and Delivery of Emergency Generator to Site	45 days	Aug 9 '23	Sep 22 '23	Dec 31 '22	Feb 13 '23	0 days	1458	1469	
1460	**LV Switchboard, EGH**	**254 days**	**Nov 21 '22**	**Aug 1 '23**	**Aug 13 '22**	**Apr 23 '23**	**0 days**			
1461	Manufacturing and Factory Acceptance Test of Switchboard	240 days	Nov 21 '22	Jul 18 '23	Aug 13 '22	Apr 9 '23	0 days		1462	
1462	Shipping and Delivery of Swutchboard to Site	14 days	Jul 19 '23	Aug 1 '23	Apr 10 '23	Apr 23 '23	0 days	1461	1484	
1463	**Site Installation Work**	**1181 days?**	**Dec 1 '21**	**Feb 23 '25**	**Dec 1 '21**	**Mar 25 '24**	**0 days?**			
1464	Tentative Civil Handover Date, Emergency Generator House (Rev. 5)	1 day	Aug 29 '22	Aug 29 '22	Aug 29 '22	Aug 29 '22	0 days		1465	
1465	Tentative Completion Date for Outstanding Civil Work	81 days	Aug 30 '22	Nov 18 '22	Aug 30 '22	Nov 18 '22	0 days	1464	1466	
1466	**Commencement of E&M Installation at Emergency Generator House**	**1121 days?**	**Dec 1 '21**	**Dec 25 '24**	**Dec 1 '21**	**Mar 25 '24**	**0 days?**	**1465**		
1467	Application for EPD's Approval for Installation of Diesel Engine Generator	84 days	Dec 1 '21	Feb 22 '22	Dec 1 '21	Feb 22 '22	0 days	1455		
1468	Hoisting Beam Installation	45 days	Mar 1 '23	Apr 14 '23	Mar 1 '23	Apr 14 '23	0 days			
1469	**Emergency Generator Installation**	**85 days**	**Sep 23 '23**	**Dec 16 '23**	**Feb 14 '23**	**May 9 '23**	**0 days**	**1459**	**1499**	
1470	Generator, Silencer and Duct Work Installation	30 days	Sep 23 '23	Oct 22 '23	Feb 14 '23	Mar 15 '23	0 days		1471	
1471	Exhaust Pipe Installation	30 days	Oct 23 '23	Nov 21 '23	Mar 16 '23	Apr 14 '23	0 days	1470	1472	
1472	Fuel Tank and Fuel Pipe Installation	25 days	Nov 22 '23	Dec 16 '23	Apr 15 '23	May 9 '23	0 days	1471	1473	
1473	SAT of Emergency Power Generator, EGH	60 days	Dec 17 '23	Feb 14 '24	May 10 '23	Jul 8 '23	0 days	1472	1451FF+30 days,	GS - A x 4 men
1474		1 day?	Nov 19 '22	Nov 19 '22	Nov 19 '22	Nov 19 '22	0 days?			
1475	**Building Services Installation at Emergency Generator House**	**308 days**	**Aug 2 '23**	**Jun 4 '24**	**Apr 24 '23**	**Aug 21 '23**	**0 days**		**1499**	
1476	**Mechanical Ventilation System, EGH**	**14 days**	**Mar 16 '24**	**Mar 29 '24**	**Aug 8 '23**	**Aug 21 '23**	**0 days**	**1480**		**MVAC - A x 4~**
1477	EAF and Air Duct Installation	14 days	Mar 16 '24	Mar 29 '24	Aug 8 '23	Aug 21 '23	0 days			
1478	LMCP Panel Installation c/w cable Wiring	7 days	Mar 16 '24	Mar 22 '24	Aug 8 '23	Aug 14 '23	0 days		1479	
1479	Fire Damper Installation c/w assoicated cables Installation	7 days	Mar 23 '24	Mar 29 '24	Aug 15 '23	Aug 21 '23	0 days	1478		
1480	**Fire Services Installation, EGH**	**30 days**	**Feb 15 '24**	**Mar 15 '24**	**Jul 9 '23**	**Aug 7 '23**	**0 days**	**1473**	**1476**	**FS - A x 4~6 m**
1481	AFA (Detector) Installation	30 days	Feb 15 '24	Mar 15 '24	Jul 9 '23	Aug 7 '23	0 days			
1482	AFA Panel Installation	30 days	Feb 15 '24	Mar 15 '24	Jul 9 '23	Aug 7 '23	0 days			
1483	**Electrical System, EGH**	**308 days**	**Aug 2 '23**	**Jun 4 '24**	**Apr 24 '23**	**Aug 21 '23**	**0 days**			**EE - D x 4~6 m**
1484	LV Switchboard Installation	60 days	Aug 2 '23	Sep 30 '23	Apr 24 '23	Jun 22 '23	0 days	1462	1486,1487,1485	
1485	SAT for LV Switchboard	7 days	Oct 1 '23	Oct 7 '23	Aug 15 '23	Aug 21 '23	0 days	1484		
1486	Cable Containment Installation	20 days	Oct 1 '23	Oct 20 '23	Jun 23 '23	Jul 12 '23	0 days	1484	1488	
1487	MCCB Board and MCB Board Installation	20 days	Oct 1 '23	Oct 20 '23	Jun 23 '23	Jul 12 '23	0 days	1484	1488	
1488	Wiring Installation	20 days	Oct 21 '23	Nov 9 '23	Jul 13 '23	Aug 1 '23	0 days	1486,1487	1489	
1489	Lighting Installation	20 days	Nov 10 '23	Nov 29 '23	Aug 2 '23	Aug 21 '23	0 days	1488		
1490	**Cabke Laying between Building**	**157 days**	**Dec 31 '23**	**Jun 4 '24**	**Jul 3 '23**	**Aug 21 '23**	**0 days**			
1491	EGH to INW	50 days	Apr 16 '24	Jun 4 '24	Jul 3 '23	Aug 21 '23	0 days	394SS,397SS		
1492	EGH to PST1~4	50 days	Apr 16 '24	Jun 4 '24	Jul 3 '23	Aug 21 '23	0 days	394SS,397SS		
1493	EGH to Street Fire Hydrant Pump Room	50 days	Apr 16 '24	Jun 4 '24	Jul 3 '23	Aug 21 '23	0 days	394SS,397SS		
1494	EGH to MFB2	30 days	Dec 31 '23	Jan 29 '24	Jul 23 '23	Aug 21 '23	0 days	1214SS		
1495	EGH to Chemical Koisk	30 days	Dec 31 '23	Jan 29 '24	Jul 23 '23	Aug 21 '23	0 days	1214SS		
1496	EGH to TDCS	30 days	Dec 31 '23	Jan 29 '24	Jul 23 '23	Aug 21 '23	0 days	1214SS		
1497	Testing and Commissioning of Building Services Installation, GH	7 days	Dec 19 '24	Dec 25 '24	Mar 19 '24	Mar 25 '24	0 days	1498	1451FF+7 days	BS - A x 4~6 m
1498	Permanent Power Energisation (Fed from MFB2)	1 day	Dec 18 '24	Dec 18 '24	Jul 21 '23	Jul 21 '23	0 days	1291FS+7 days	1497,1522,1842	
1499	Site Acceptance Test for E&M Equip & Instrumentations Calibration	45 days	Dec 19 '24	Feb 1 '25	Aug 22 '23	Oct 5 '23	0 days	1469,1475,149	1500	
1500	System Commissioning for E&M Equipment	15 days	Feb 2 '25	Feb 16 '25	Oct 6 '23	Oct 20 '23	0 days	1499	1501	
1501	Risk Allowances for completion Processing Plant at FS & Sprinkler Pump Roo	7 days	Feb 17 '25	Feb 23 '25	Oct 21 '23	Oct 27 '23	0 days	1500	1870	
1502	**Fire Services and Sprinkler Pump Room, Portion B-7 & B-7B**	**911 days**	**Aug 29 '22**	**Feb 24 '25**	**Aug 29 '22**	**Oct 13 '24**	**0 days**			
1503	**Site Installation Work**	**911 days**	**Aug 29 '22**	**Feb 24 '25**	**Aug 29 '22**	**Oct 13 '24**	**0 days**			
1504	Tentative Civil Handover Date, FS Sprinkler Pump Room (Rev. 5)	1 day	Aug 29 '22	Aug 29 '22	Aug 29 '22	Aug 29 '22	0 days	17		
1505	Tentative Completion Date for Outstanding ABWF Works	81 days	Aug 30 '22	Nov 18 '22	Aug 30 '22	Dec 28 '22	40 days	1779	1506	
1506	**Commencement of E&M Installation at FS & Sprinkler Pump Room**	**655 days**	**Dec 29 '22**	**Oct 13 '24**	**Dec 29 '22**	**Oct 13 '24**	**0 days**	**1505**		
1507	**Building Services Installations at FS & Sprinkler Pump Room**	**655 days**	**Dec 29 '22**	**Oct 13 '24**	**Dec 29 '22**	**Oct 13 '24**	**0 days**			
1508	Mechanical Ventilation System, FS & Sprinkler PR	14 days	Apr 13 '23	Apr 26 '23	Apr 13 '23	Apr 26 '23	0 days	1515	1520	MVAC - A x 4~
1509	**Lighting and Power Distribution System, FS & Sprinkler PR**	**60 days**	**Jul 3 '23**	**Aug 31 '23**	**Jul 3 '23**	**Aug 31 '23**	**0 days**	**204**		
1510	Cable Containment Installation for Lightiing and Power Sytem	20 days	Jul 3 '23	Jul 22 '23	Jul 3 '23	Jul 22 '23	0 days		1511	
1511	Wiring Installation for Lighting and Power System	20 days	Jul 23 '23	Aug 11 '23	Jul 23 '23	Aug 11 '23	0 days	1510	1512	
1512	Cable Termination, Lighting and Wiring Accessories Installation	20 days	Aug 12 '23	Aug 31 '23	Aug 12 '23	Aug 31 '23	0 days	1511		
1513	**Fire Services Installations at FS & Sprinkler Pump Room**	**655 days**	**Dec 29 '22**	**Oct 13 '24**	**Dec 29 '22**	**Oct 13 '24**	**0 days**			
1514	FS Fixed Pump and Sprinkler Pump Set Installation	45 days	Dec 29 '22	Feb 11 '23	Dec 29 '22	Feb 11 '23	0 days		1515	
1515	Pipe Installation	60 days	Feb 12 '23	Apr 12 '23	Feb 12 '23	Apr 12 '23	0 days	1514	1508	
1516	Installation Work inside FS check Meter Cabinet	30 days	May 30 '24	Jun 28 '24	May 30 '24	Jun 28 '24	0 days			
1517	AFA (Detector) Installation	30 days	Apr 1 '23	Apr 30 '23	Apr 1 '23	Apr 30 '23	0 days			
1518	AFA Panel Installation	30 days	Apr 30 '24	May 29 '24	Apr 30 '24	May 29 '24	0 days			
1519	LMCP Installation, Cable Laying and Termination	45 days	Aug 30 '24	Oct 13 '24	Aug 30 '24	Oct 13 '24	0 days			
1520	Temmporary Power for Ready for T&C	0 days	Apr 26 '23	Apr 26 '23	Apr 27 '23	Apr 27 '23	0 days	1508	1521	
1521	Testing and Commissioning of Building Services Installations, FS & Sprir	120 days	Apr 27 '23	Aug 24 '23	Apr 27 '23	Aug 24 '23	0 days	1520		
1522	Permanent Power Energisation (Power Fed from EGH)	1 day	Dec 19 '24	Dec 19 '24	Aug 21 '23	Aug 21 '23	0 days	1498	1523	
1523	Site Acceptance Test for E&M Equip & Instrumentations Calibration	45 days	Dec 20 '24	Feb 2 '25	Aug 22 '23	Oct 5 '23	0 days	1522	1524,1815	
1524	System Commissioning for FS & Sprinkler Pumps	15 days	Feb 3 '25	Feb 17 '25	Oct 6 '23	Oct 20 '23	0 days	1523	1525	
1525	Risk Allowances for completion Processing Plant at FS & Sprinkler Pump Roo	7 days	Feb 18 '25	Feb 24 '25	Oct 21 '23	Oct 27 '23	0 days	1524	1870	
1526	**Deodorization System, DOU 1, Portion B7 & B-7B**	**1784 days**	**Dec 2 '19**	**Oct 19 '24**	**Dec 2 '19**	**Apr 1 '24**	**0 days**			
1527	Planned Key Date Completion Date - KD1B, DOU 1	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1540FF,1541FF		
1528	Planned Sectional Completion Date - Section 1, DOU 1	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1542FF		
1529	Planned Sectional Completion Date - Section 2, DOU 1	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days			
1530	**Selection of Plant and Materials**	**495 days**	**Dec 2 '19**	**Apr 9 '21**	**Dec 2 '19**	**Apr 9 '21**	**0 days**			
1531	**DOU - biotrickling filter (DOU No. 1), C11, ref. EQT001**	**204 days**	**Dec 2 '19**	**Jun 22 '20**	**Dec 2 '19**	**Jun 22 '20**	**0 days**			
1532	Submission for acceptance of purchasing package	166 days	Dec 2 '19	May 15 '20	Dec 2 '19	May 15 '20	0 days		1533	
1533	Invitation of quotations for purchasing package	84 days	Mar 31 '20	Jun 22 '20	Mar 31 '20	Jun 22 '20	0 days	1532	1534	
1534	Acceptance of conforming quotation (Completed)	20 days	May 30 '20	Jun 18 '20	May 30 '20	Jun 18 '20	0 days	1533	1542	
1535	**DOU - FRP air ductwork, C11, EQT047**	**130 days**	**Dec 1 '20**	**Apr 9 '21**	**Dec 1 '20**	**Apr 9 '21**	**0 days**			
1536	Submission for acceptance of purchasing package	84 days	Dec 1 '20	Feb 22 '21	Dec 1 '20	Feb 22 '21	0 days		1537	
1537	Invitation of quotations for purchasing package	42 days	Jan 30 '21	Mar 12 '21	Jan 30 '21	Mar 12 '21	0 days	1536	1538	
1538	Acceptance of conforming quotation	40 days	Mar 1 '21	Apr 9 '21	Mar 1 '21	Apr 9 '21	0 days	1537	1542	
1539	**Design Submissions for DOU No. 1**	**359 days**	**Jul 15 '20**	**Jul 8 '21**	**Jul 15 '20**	**Jul 8 '21**	**0 days**			



Bestwise
Project: DE/2018/04
Date: 31/10/22

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

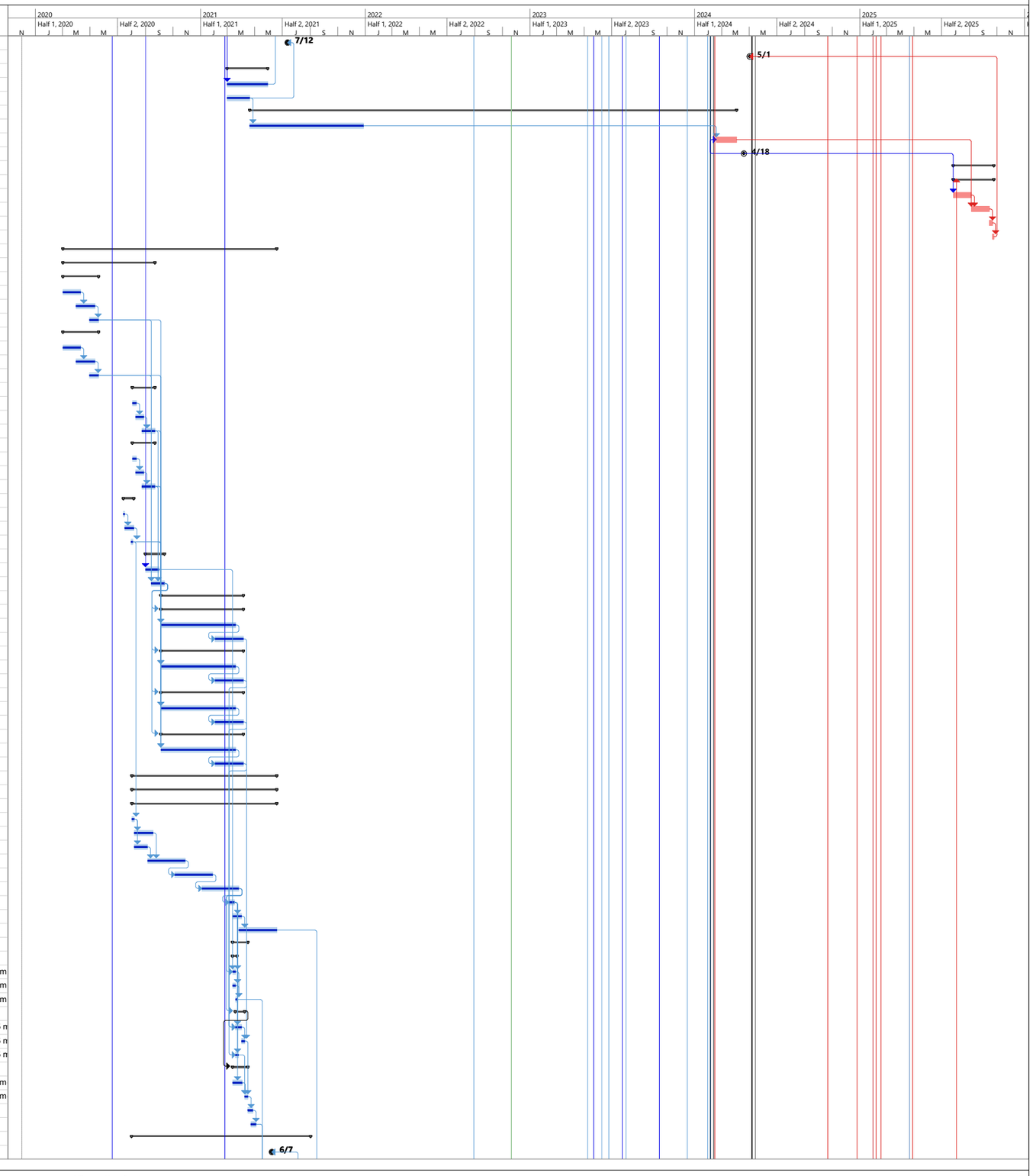
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1540	Electrical schematic drawings for Deodorisation Systems	126 days	Jul 15 '20	Nov 17 '20	Jul 15 '20	Nov 17 '20	0 days		1527FF	
1541	CDS081-7 - Civil and dimensional requirements drawings for DOU No. 1	89.5 days	Aug 28 '20	Nov 25 '20	Aug 28 '20	Nov 25 '20	0 days		1527FF	
1542	CDS007-1 - Detailed Design for Deodorisation System, DOU No. 1	100 edays	Mar 30 '21	Jul 8 '21	Mar 30 '21	Jul 8 '21	0 edays	1534,1538	1528FF,1545,154	
1543	**Manufacturing and Delivery of Plant & Materials**	**267 days**	**Nov 7 '22**	**Jul 31 '23**	**Nov 7 '22**	**Jul 31 '23**	**0 days**			
1544	**DOU 1**	**267 days**	**Nov 7 '22**	**Jul 31 '23**	**Nov 7 '22**	**Jul 31 '23**	**0 days**			
1545	Manufacturing and Factory Acceptance Test of Plant	210 days	Nov 7 '22	Jun 4 '23	Nov 7 '22	Jul 15 '23	0 days	1542	1546	
1546	Shipping and Delivery of Plant to site	57 days	Jun 5 '23	Jul 31 '23	Jun 5 '23	Jul 31 '23	0 days	1545,1551SS-6(	1554	
1547	**FRP Air Ductwork**	**166 days**	**Jan 31 '23**	**Jul 15 '23**	**Jan 31 '23**	**Jul 15 '23**	**0 days**			
1548	Manufacturing and Factory Acceptance Test of Plant	125 days	Jan 31 '23	Jun 4 '23	Jan 31 '23	Jun 4 '23	0 days	1542	1549	
1549	Shipping and Delivery of Plant to Site	41 days	Jun 5 '23	Jul 15 '23	Jun 5 '23	Jul 15 '23	0 days	1548,1551SS-6(	1554	
1550	**Site Installation Work**	**259 days**	**Jul 15 '23**	**Mar 29 '24**	**Dec 7 '22**	**Aug 6 '23**	**0 days**		**1566**	
1551	Tentative Civil Handover, DOU 1 (Rev. 5)	1 day	Jul 15 '23	Jul 15 '23	Dec 7 '22	Dec 7 '22	0 days	20	1546SS-60 edays	
1552	Tentative Civil Handover Date, underground air pipework for DOU 1 (by oth	1 day	Jul 15 '23	Jul 15 '23	Dec 7 '22	Dec 7 '22	0 days	20	1553	
1553	**Commencement of E&M Installation at DOU 1**	**258 days**	**Jul 15 '23**	**Mar 29 '24**	**Dec 8 '22**	**Aug 6 '23**	**0 days**	**1551,1552**		
1554	**Mechanical Installations for DOU 1**	**208 days**	**Aug 1 '23**	**Feb 24 '24**	**Dec 8 '22**	**Jul 3 '23**	**0 days**	**1546,1549**	**1559**	**ME - F x 4~6 m**
1555	Mechanical Installation for DOU 1	12 days	Aug 1 '23	Aug 12 '23	Dec 8 '22	Dec 19 '22	0 days		1556	
1556	Installation of FRP Ductworks and Damper	154 days	Aug 13 '23	Jan 13 '24	Dec 20 '22	May 22 '23	0 days	1555	1557	
1557	Installation of uPVC Pipeorks and Valve	42 days	Jan 14 '24	Feb 24 '24	May 23 '23	Jul 3 '23	0 days	1556		
1558	Electrical Installations for DOU 1	90 edays	Jul 15 '23	Oct 13 '23	Apr 5 '23	Jul 4 '23	0 edays		1559	EE - C x 4~6 me
1559	Installation of FRP covers, walkways, platforms and ladders, EQT050 (Rev	14 days	Feb 25 '24	Mar 9 '24	Jul 4 '23	Jul 17 '23	0 days	1554,1558	1560	
1560	Installation of DO Instrumentation	20 days	Mar 10 '24	Mar 29 '24	Jul 18 '23	Aug 6 '23	0 days	1559		
1561	**Plumbling Installations, DOU 1**	**67 days**	**Sep 15 '23**	**Nov 20 '23**	**Jun 1 '23**	**Aug 6 '23**	**0 days**			
1562	Plumbling Installations for Potable Pipe, DOU 1	30 days	Sep 15 '23	Oct 14 '23	Jun 1 '23	Jun 30 '23	0 days		1563FS-7 days	
1563	Plumbling Installations for Check Meter Cabinet, DOU 1	30 days	Oct 8 '23	Nov 6 '23	Jun 24 '23	Jul 23 '23	0 days	1562FS-7 days	1564	
1564	Plumbling Installation for Eyewash and Basin	14 days	Nov 7 '23	Nov 20 '23	Jul 24 '23	Aug 6 '23	0 days	1563		
1565	Power Energisation (DOU 1)	1 day	Jul 29 '24	Jul 29 '24	Aug 6 '23	Aug 6 '23	0 days	396,399FS+14 d	1566	
1566	Site Acceptance Test for E&M Equip & Instrumentations calibration, DOU 1	60 days	Jul 30 '24	Sep 27 '24	Aug 7 '23	Oct 5 '23	0 days	1550,1565	1567	
1567	System Commissioning for E&M Equip at DOU 1	15 edays	Sep 27 '24	Oct 12 '24	Oct 6 '23	Oct 21 '23	0 edays	1566	1568	
1568	Risk Allowances for completion of Processing Plant at DOU 1	7 edays	Oct 12 '24	Oct 19 '24	Oct 21 '23	Oct 28 '23	0 edays	1567	1870	
1569	**Deodorization System, DOU 3A, Portion B7 & B-7B**	**1641 days**	**Aug 28 '20**	**Feb 23 '25**	**Aug 28 '20**	**Apr 1 '24**	**0 days**			
1570	Planned Key Date Completion Date - KD1B, DOU 3A	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1574FF		
1571	Planned Sectional Completion Date - Section 1, DOU 3A	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1575FF		
1572	Planned Sectional Completion Date - Section 2, DOU 3A	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days			
1573	**Design Submissions for DOU No. 3A**	**234 days**	**Aug 28 '20**	**Apr 19 '21**	**Aug 28 '20**	**Apr 19 '21**	**0 days**			
1574	CDS081-8 - Civil and dimensional requirements drawings for DOU No. 3A	200 days	Aug 28 '20	Mar 15 '21	Aug 28 '20	Mar 15 '21	0 days		1570FF	
1575	CDS007-3 - Detailed Design for Deodorisation System, DOU No. 3A	200 edays	Oct 1 '20	Apr 19 '21	Oct 1 '20	Apr 19 '21	0 edays		1571FF,1578,158	
1576	**Manufacturing and Delivery of Plant & Materials**	**382 days**	**May 10 '22**	**May 27 '23**	**May 10 '22**	**May 27 '23**	**0 days**			
1577	**DOU 3A**	**251 days**	**May 10 '22**	**Jan 16 '23**	**May 10 '22**	**Mar 25 '23**	**68 days**			
1578	Manufacturing and Factory Acceptance Test of Plant	210 edays	May 10 '22	Dec 6 '22	May 10 '22	Dec 6 '22	0 edays	1575		
1579	Shipping and Delivery of Plant to Site	40 edays	Dec 7 '22	Jan 16 '23	Dec 7 '22	Mar 25 '23	0 edays		1587	
1580	**FRP Air Ductwork**	**124 days**	**Jan 23 '23**	**May 27 '23**	**Jan 23 '23**	**May 27 '23**	**0 days**			
1581	Manufacturing and Factory Acceptance Test of Plant	83 edays	Jan 23 '23	Apr 16 '23	Jan 23 '23	Apr 16 '23	0 edays	1575	1582	
1582	Shipping and Delivery of Plant to Site	40 edays	Apr 17 '23	May 27 '23	Apr 17 '23	May 27 '23	0 edays	1581	1588	
1583	Tentative Access Date, DOU 3A	1 day	Sep 28 '22	Sep 28 '22	Sep 28 '22	Sep 28 '22	0 days		1585,1584	
1584	**Site Installation Work**	**282 days**	**Dec 16 '22**	**Sep 23 '23**	**Mar 25 '23**	**Aug 21 '23**	**0 days**	**1583**	**1600**	
1585	**Commencement of E&M Installation at DOU 3A**	**282 days**	**Dec 16 '22**	**Sep 23 '23**	**Mar 25 '23**	**Aug 21 '23**	**0 days**	**1583**		
1586	**Mechanical Installations for DOU 3A**	**251 days**	**Jan 16 '23**	**Sep 23 '23**	**Mar 25 '23**	**Aug 21 '23**	**0 days**		**1600**	**ME - F x 4~6 m**
1587	AC filter tank, fan, dehumidifier Installation	30 days	Jan 16 '23	Feb 14 '23	Mar 25 '23	Apr 23 '23	0 days	1579	1588,1591	
1588	Installation of FRP Ductworks and Damper	60 days	May 27 '23	Jul 25 '23	Apr 24 '23	Jun 22 '23	0 days	1582,1587	1589	
1589	Installation of FRP covers, walkways, platforms and ladders, EQT050 (R	30 days	Jul 26 '23	Aug 24 '23	Jun 23 '23	Jul 22 '23	0 days	1588	1590	
1590	Installarion od DO Instrumentation	30 days	Aug 25 '23	Sep 23 '23	Jul 23 '23	Aug 21 '23	0 days	1589		
1591	**Electrical Installations for DOU 3A**	**90 days**	**Feb 15 '23**	**May 15 '23**	**May 24 '23**	**Aug 21 '23**	**98 days**	**1587**	**1600**	**EE - D x 4~6 m**
1592	Cable Containment Installation	30 days	Feb 15 '23	Mar 16 '23	May 24 '23	Jun 22 '23	0 days		1593	
1593	Cable Laying	30 days	Mar 17 '23	Apr 15 '23	Jun 23 '23	Jul 22 '23	0 days	1592	1594	
1594	Lighting, Small Power and Wiring Accessories Installation	30 days	Apr 16 '23	May 15 '23	Jul 23 '23	Aug 21 '23	98 days	1593		
1595	**Plumbing Services Installation,**	**66 days**	**Mar 15 '23**	**May 19 '23**	**Jun 17 '23**	**Aug 21 '23**	**94 days**		**1600**	
1596	Installation Wotk inide Check Meter Cabinet Installation	45 days	Mar 15 '23	Apr 28 '23	Jun 17 '23	Jul 31 '23	0 days		1597	
1597	Emergency Eyewash Installation	21 days	Apr 29 '23	May 19 '23	Aug 1 '23	Aug 21 '23	94 days	1596		
1598	Lightning Protection System, for DOU 3A	30 days	Dec 16 '22	Jan 14 '23	Jul 23 '23	Aug 21 '23	219 days			
1599	Permanent Power Energisation (Fed from Chemical Kiosk)	1 day	Dec 18 '24	Dec 18 '24	Aug 21 '23	Aug 21 '23	0 days	1378,1385	1600,1601	
1600	Site Acceptance Test for E&M Equip for DOU 3A	30 edays	Dec 18 '24	Jan 17 '25	Aug 22 '23	Sep 21 '23	0 edays	1584,1586,159	1601	
1601	System Commissioning for E&M Equip for DOU 3A	30 edays	Jan 17 '25	Feb 16 '25	Sep 21 '23	Oct 21 '23	0 edays	1599,1600	1602	
1602	Risk Allowances for Completion of Processing Plant at DOU 3A	7 edays	Feb 16 '25	Feb 23 '25	Oct 21 '23	Oct 28 '23	0 edays	1601	1870	
1603	**Flowmeter and Valve Chambers, Portion B7 & B-7B**	**1278 days**	**Nov 1 '20**	**May 1 '24**	**Nov 1 '20**	**May 1 '24**	**0 days**			
1604	Planned Key Date Completion Date - KD1B, Chambers	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1609FF		
1605	Planned Sectional Completion Date - Section 1, Chambers	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1610FF		
1606	Planned Sectional Completion Date - Section 2, Chambers	0 days	Apr 1 '24	Apr 1 '24	Apr 1 '24	Apr 1 '24	0 days			
1607	Planned Sectional Completion Date - Section 4, Chambers	0 days	May 1 '24	May 1 '24	May 1 '24	May 1 '24	0 days			
1608	**Design Submissions for Valve and Flowmeter Chambers**	**210 days**	**Nov 1 '20**	**May 29 '21**	**Nov 1 '20**	**May 29 '21**	**0 days**			
1609	CDS081-9 - Civil and dimensional requirements drawings for Valve and Flow	90 days	Mar 1 '21	May 29 '21	Mar 1 '21	May 29 '21	0 days		1604FF	
1610	CDS018 - Detailed Design for Flowmeter and Valve Chambers	90 edays	Nov 1 '20	Jan 30 '21	Nov 1 '20	Jan 30 '21	0 edays		1605FF,1612	
1611	**Manufacturing and Delivery of Plant & Materials**	**252 days**	**Jan 30 '21**	**Oct 8 '21**	**Jan 30 '21**	**Oct 8 '21**	**0 days**			
1612	Manufacturing and Factory Acceptance Test of Plant	252 days	Jan 30 '21	Oct 8 '21	Jan 30 '21	Oct 8 '21	0 days	1610	1613	
1613	Shipping and Delivery of Plant to Site	63 days	Jul 29 '21	Sep 29 '21	Jul 29 '21	Sep 29 '21	0 days	1612	1617	
1614	Tentative Civil Handover, Chambers (Rev. 5)	1 day	Sep 15 '23	Sep 15 '23	Sep 15 '23	Sep 15 '23	0 days	21,22		
1615	**Site Installation Work**	**150 days**	**Sep 12 '21**	**Feb 8 '22**	**Sep 12 '21**	**Feb 8 '22**	**0 days**			
1616	**Commencement of Valves and Flowmeters Installation at Chambers**	**150 days**	**Sep 12 '21**	**Feb 8 '22**	**Sep 12 '21**	**Feb 8 '22**	**0 days**			
1617	Installation of valves and flowmeters	90 days	Sep 12 '21	Dec 10 '21	Sep 12 '21	Dec 10 '21	0 days	1613	1618	ME - C x 4~6 m
1618	cables laying and terminations	60 days	Dec 11 '21	Feb 8 '22	Dec 11 '21	Feb 8 '22	0 days	1617	1870	EE - A x 4~6 m
1619	**Underground Pipework, Modification and Connection Works, Portion B-9B**	**1699 days**	**Mar 1 '21**	**Oct 24 '25**	**Mar 1 '21**	**May 1 '24**	**0 days**			
1620	Planned Key Date Completion Date - KD1B, UU	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days	1624FF		



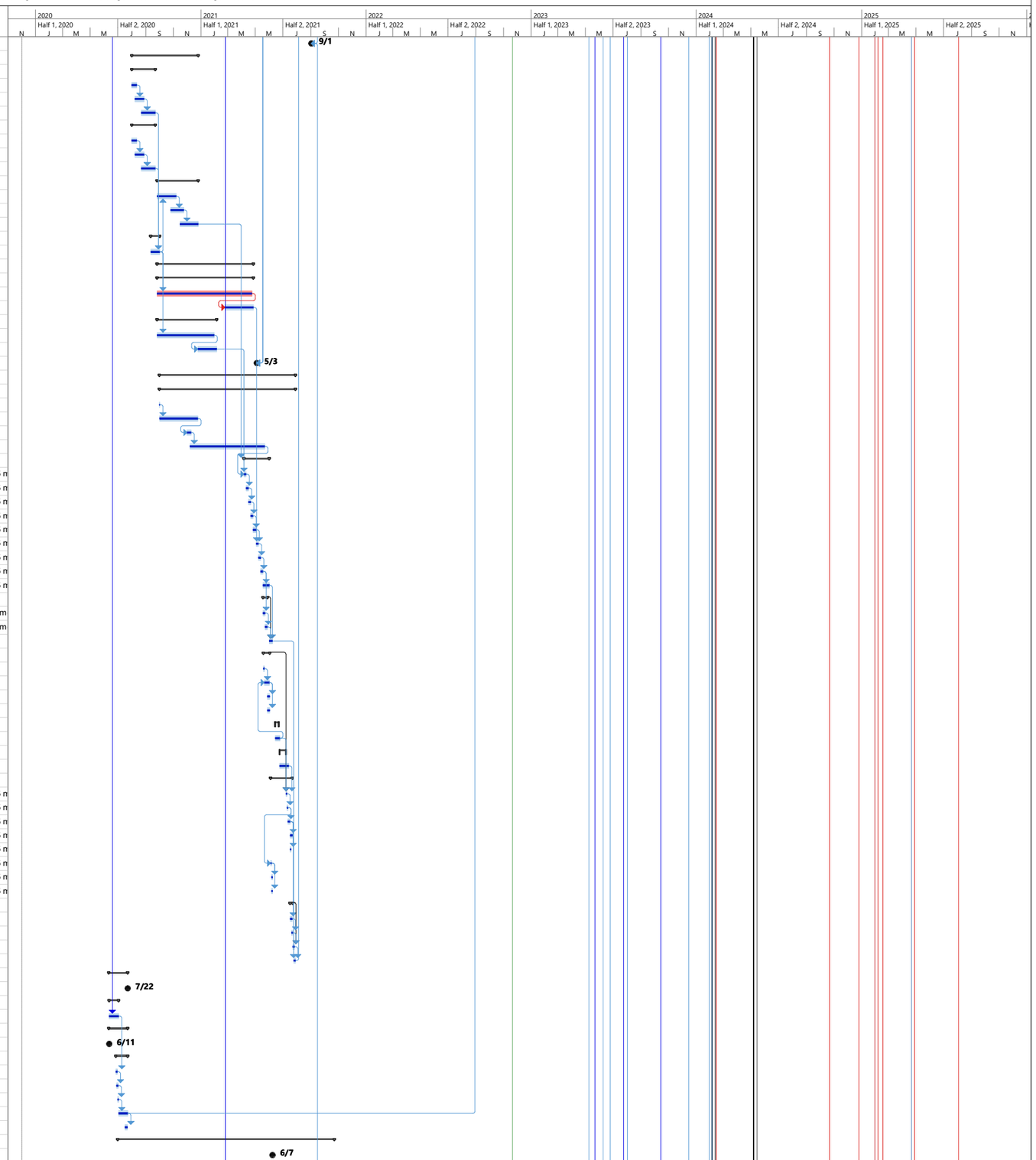
Bestwise
Project: DE/2018/04
Date: 31/10/22

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1621	Planned Sectional Completion Date - Section 1, Underground Pipework	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days	1625FF		
1622	Planned Sectional Completion Date - Section 4, Underground Pipework	0 days	May 1 '24	May 1 '24	May 1 '24	May 1 '24	0 days	1635FF		
1623	**Design Submissions**	**90 days**	**Mar 1 '21**	**May 30 '21**	**Mar 1 '21**	**May 30 '21**	**0 days**			
1624	CDS015 - Detailed Design for Underground Pipework Modification and Conn	90 edays	Mar 1 '21	May 30 '21	Mar 1 '21	May 30 '21	0 edays	194	1620FF	
1625	CDS016 - Detailed Design for Temporary Pumping System for maintaining th	50 edays	Mar 1 '21	Apr 20 '21	Mar 1 '21	Apr 20 '21	0 edays		1621FF,1627	
1626	**Manufacturing and Delivery of Plant & Materials**	**1079 days**	**Apr 20 '21**	**Apr 2 '24**	**Apr 20 '21**	**Mar 12 '24**	**0 days**			
1627	Manufacturing and Factory Acceptance Test of Plant	252 days	Apr 20 '21	Dec 27 '21	Apr 20 '21	Dec 27 '21	0 days	1625	1628	
1628	Shipping and Delivery of Plant to Site	45 days	Feb 18 '24	Apr 2 '24	Jan 28 '24	Mar 12 '24	0 days	1627,1629SS-6(	1633	
1629	Tentative Civil Handover, Road (Rev. 5)	1 day	Apr 18 '24	Apr 18 '24	Feb 1 '24	Feb 1 '24	0 days		1628SS-60 edays	
1630	**Site Installation**	**90 days**	**Jul 27 '25**	**Oct 24 '25**	**Feb 2 '24**	**May 1 '24**	**0 days**			
1631	**Commencement of underground pipework modification and connection w**	**90 days**	**Jul 27 '25**	**Oct 24 '25**	**Feb 2 '24**	**May 1 '24**	**0 days**	**1872**		
1632	Temporary Flow Diversion and Road Excavation Work	40 days	Jul 27 '25	Sep 4 '25	Feb 2 '24	Mar 12 '24	0 days	1629	1633	
1633	Pipe Laying and connection works	40 days	Sep 5 '25	Oct 14 '25	Mar 13 '24	Apr 21 '24	0 days	1628,1632	1634	
1634	Pressure Tests	7 days	Oct 15 '25	Oct 21 '25	Apr 22 '24	Apr 28 '24	0 days	1633	1635	
1635	Make Good (Section 2 Completion)	3 days	Oct 22 '25	Oct 24 '25	Apr 29 '24	May 1 '24	0 days	1634	1622FF	
1636	**Temporary Filtrate Lifting Well and Eq. Tank, Portion B-3B**	**474 days**	**Mar 2 '20**	**Jun 18 '21**	**Mar 2 '20**	**Jun 18 '21**	**0 days**			
1637	**Selection of Suppliers for major plant and materials and Civil Subcontractor f**	**204 days**	**Mar 2 '20**	**Sep 21 '20**	**Mar 2 '20**	**Sep 21 '20**	**0 days**			
1638	**Mis - filtrate lift pumps and filtrate transfer pumps, C11, ref. EQT011**	**79 days**	**Mar 2 '20**	**May 19 '20**	**Mar 2 '20**	**May 19 '20**	**0 days**			
1639	Submission for acceptance of purchasing package	39 days	Mar 2 '20	Apr 9 '20	Mar 2 '20	Apr 9 '20	0 days		1640	
1640	Invitation of quotations for purchasing package	42 days	Mar 31 '20	May 11 '20	Mar 31 '20	May 11 '20	0 days	1639	1641	
1641	Acceptance of conforming quotation and acceptance for Manufacture (Cc	20 days	Apr 30 '20	May 19 '20	Apr 30 '20	May 19 '20	0 days	1640	1660,1663	
1642	**Mis - Instrumentations**	**79 days**	**Mar 2 '20**	**May 19 '20**	**Mar 2 '20**	**May 19 '20**	**0 days**			
1643	Submission for acceptance of purchasing package	39 days	Mar 2 '20	Apr 9 '20	Mar 2 '20	Apr 9 '20	0 days		1644	
1644	Invitation of quotations for purchasing package	42 days	Mar 31 '20	May 11 '20	Mar 31 '20	May 11 '20	0 days	1643	1645	
1645	Acceptance of conforming quotation and acceptance for Manufacture (Cc	20 days	Apr 30 '20	May 19 '20	Apr 30 '20	May 19 '20	0 days	1644	1660,1666	
1646	**Mis - Pipework (To be provided by Mechanical Sub-Contactor)**	**50 days**	**Aug 3 '20**	**Sep 21 '20**	**Aug 3 '20**	**Sep 21 '20**	**0 days**			
1647	Submission for acceptance of purchasing package	9 days	Aug 3 '20	Aug 11 '20	Aug 3 '20	Aug 11 '20	0 days		1648	
1648	Invitation of quotations for purchasing package	18 days	Aug 10 '20	Aug 27 '20	Aug 10 '20	Aug 27 '20	0 days	1647	1649	
1649	Acceptance of conforming quotation and acceptance for Manufacture (Cc	29 days	Aug 24 '20	Sep 21 '20	Aug 24 '20	Sep 21 '20	0 days	1648	1660,1669	
1650	**Mis - Valve (To be provided by Mechanical Sub-Contractor)**	**50 days**	**Aug 3 '20**	**Sep 21 '20**	**Aug 3 '20**	**Sep 21 '20**	**0 days**			
1651	Submission for acceptance of purchasing package	9 days	Aug 3 '20	Aug 11 '20	Aug 3 '20	Aug 11 '20	0 days		1652	
1652	Invitation of quotations for purchasing package	18 days	Aug 10 '20	Aug 27 '20	Aug 10 '20	Aug 27 '20	0 days	1651	1653	
1653	Acceptance of conforming quotation and acceptance for Manufacture (Cc	29 days	Aug 24 '20	Sep 21 '20	Aug 24 '20	Sep 21 '20	0 days	1652	1660,1672	
1654	**Civil Work Subletting Package (Repeated WBS 5.13.17)**	**23 days**	**Jul 14 '20**	**Aug 5 '20**	**Jul 14 '20**	**Aug 5 '20**	**0 days**			
1655	Submission for acceptance of subletting package	3 days	Jul 14 '20	Jul 16 '20	Jul 14 '20	Jul 16 '20	0 days		1656	
1656	Invitation of tender for subletting package	20 days	Jul 17 '20	Aug 5 '20	Jul 17 '20	Aug 5 '20	0 days	1655	1657	
1657	Acceptance of conforming quotation and acceptance for Manufacture	4 days	Jul 31 '20	Aug 3 '20	Jul 31 '20	Aug 3 '20	0 days	1656	1663,1666,1669,	
1658	**Design Submissions for Temporary Filtrate Lifting Well and Eq. Tank**	**42 days**	**Sep 1 '20**	**Oct 12 '20**	**Sep 1 '20**	**Oct 12 '20**	**0 days**			
1659	CDS050-5 - Detailed Design for Lifting Appliances - Temp. Filtrate Eq. System	30 edays	Sep 1 '20	Oct 1 '20	Sep 1 '20	Oct 1 '20	0 edays	131	1688	
1660	Design submission for E&M Installation works for temp. filtrate eq. system	29 days	Sep 14 '20	Oct 12 '20	Sep 14 '20	Oct 12 '20	0 days	1641,1645,164	1662,1668,1665,	
1661	**Manufacturing and Delivery of Plant & Materials**	**183 days**	**Oct 5 '20**	**Apr 5 '21**	**Oct 5 '20**	**Apr 5 '21**	**0 days**			
1662	**Filtrate Lift Pumps and Filtrate Transfer Pump, EQT011**	**183 days**	**Oct 5 '20**	**Apr 5 '21**	**Oct 5 '20**	**Apr 5 '21**	**0 days**	**1660**		
1663	Manufacturing and Factory Acceptance Test of Plant	166 days	Oct 5 '20	Mar 19 '21	Oct 5 '20	Mar 19 '21	0 days	1641,1657	1664	
1664	Shipping and Delivery of Plant to site (Delivered)	63 days	Feb 2 '21	Apr 5 '21	Feb 2 '21	Apr 5 '21	0 days	1663	1693	
1665	**Instrumentations**	**183 days**	**Oct 5 '20**	**Apr 5 '21**	**Oct 5 '20**	**Apr 5 '21**	**0 days**	**1660**		
1666	Manufacturing and Factory Acceptance Test of Plant	166 days	Oct 5 '20	Mar 19 '21	Oct 5 '20	Mar 19 '21	0 days	1645,1657	1667	
1667	Shipping and Delivery of Plant to site	63 days	Feb 2 '21	Apr 5 '21	Feb 2 '21	Apr 5 '21	0 days	1666	1694	
1668	**Pipework**	**183 days**	**Oct 5 '20**	**Apr 5 '21**	**Oct 5 '20**	**Apr 5 '21**	**0 days**	**1660**		
1669	Manufacturing and Factory Acceptance Test of Plant	166 days	Oct 5 '20	Mar 19 '21	Oct 5 '20	Mar 19 '21	0 days	1649,1657	1670	
1670	Shipping and Delivery of Plant to site	63 days	Feb 2 '21	Apr 5 '21	Feb 2 '21	Apr 5 '21	0 days	1669	1692	
1671	**Valve**	**183 days**	**Oct 5 '20**	**Apr 5 '21**	**Oct 5 '20**	**Apr 5 '21**	**0 days**	**1660**		
1672	Manufacturing and Factory Acceptance Test of Plant	166 days	Oct 5 '20	Mar 19 '21	Oct 5 '20	Mar 19 '21	0 days	1653,1657	1673	
1673	Shipping and Delivery of Plant to site	63 days	Feb 2 '21	Apr 5 '21	Feb 2 '21	Apr 5 '21	0 days	1672	1692	
1674	**Site Installation Work**	**321 days**	**Aug 1 '20**	**Jun 18 '21**	**Aug 1 '20**	**Jun 18 '21**	**0 days**			
1675	**Commencement of Civil Construction and E&M Installation at Temp. Filtra**	**321 days**	**Aug 1 '20**	**Jun 18 '21**	**Aug 1 '20**	**Jun 18 '21**	**0 days**			
1676	**Civil Construction Work**	**321 days**	**Aug 1 '20**	**Jun 18 '21**	**Aug 1 '20**	**Jun 18 '21**	**0 days**			
1677	Civil on-site survey and report submission for acceptance	5 edays	Aug 1 '20	Aug 6 '20	Aug 1 '20	Aug 6 '20	0 edays	1657	1678,1679	
1678	Civil structural design and drawing submission for acceptance	42 days	Aug 7 '20	Sep 17 '20	Aug 7 '20	Sep 17 '20	0 days	1677	1680	
1679	Site Clearance, UU diversion and construction of U-channel	29 days	Aug 7 '20	Sep 4 '20	Aug 7 '20	Sep 4 '20	0 days	1677	1680	
1680	ELS (Sheeting and Excavation)	83 days	Sep 6 '20	Nov 27 '20	Sep 6 '20	Nov 27 '20	0 days	1678,1679	1681	
1681	Grouting Works	84 days	Nov 5 '20	Jan 27 '21	Nov 5 '20	Jan 27 '21	0 days	1680	1682	
1682	RC structure works including cast-in items	82 days	Jan 4 '21	Mar 26 '21	Jan 4 '21	Mar 26 '21	0 days	1681	1691,1688,1683	
1683	Removal Formwork and Flasework	12 days	Mar 5 '21	Mar 16 '21	Mar 5 '21	Mar 16 '21	0 days	1682	1688,1689,1692	
1684	Waterproofing	20 days	Mar 13 '21	Apr 1 '21	Mar 13 '21	Apr 1 '21	0 days	1683	1685	
1685	Other architectual works and finishing works	84 days	Mar 27 '21	Jun 18 '21	Mar 27 '21	Jun 18 '21	0 days	1684	1702FF	
1686	**E&M Installation Work**	**34 days**	**Mar 13 '21**	**Apr 15 '21**	**Mar 13 '21**	**Apr 15 '21**	**0 days**			
1687	**Installation of Lifting Appliances at Temporary Filtrate Lifting Well an**	**10 days**	**Mar 13 '21**	**Mar 22 '21**	**Mar 13 '21**	**Mar 22 '21**	**0 days**			
1688	GF MR LA-09-01 SWL 1t	7 days	Mar 13 '21	Mar 19 '21	Mar 13 '21	Mar 19 '21	0 days	1659,1682,168	1690	LA - A x 4~6 m
1689	GF MR LA-09-02 SWL 1t	7 days	Mar 13 '21	Mar 19 '21	Mar 13 '21	Mar 19 '21	0 days	1683	1690	LA - A x 4~6 m
1690	Site Acceptance test and loading test of LA	3 days	Mar 20 '21	Mar 22 '21	Mar 20 '21	Mar 22 '21	0 days	1688,1689	1725FF	LA - A x 4~6 m
1691	**Mechanical Installations for Temp. Filtrate Lifting Well and Eq. Tank**	**21 days**	**Mar 19 '21**	**Apr 8 '21**	**Mar 19 '21**	**Apr 8 '21**	**0 days**	**1682**	**1695FS-30 days**	
1692	Installation of pipework, chemical pipework and valves, EQT036	14 days	Mar 19 '21	Apr 1 '21	Mar 19 '21	Apr 1 '21	0 days	1670,1673,168	1693	ME - A x 4~6 m
1693	Installation of pumps	7 days	Apr 2 '21	Apr 8 '21	Apr 2 '21	Apr 8 '21	0 days	1664,1692	1697	ME - A x 4~6 m
1694	Installation of instrumentations, EQT035-3	7 days	Mar 19 '21	Mar 25 '21	Mar 19 '21	Mar 25 '21	0 days	1667,1683	1697	ME - A x 4~6 m
1695	**Electrical Installations for Temp. Filtrate Lifting Well and Eq. Tank**	**34 days**	**Mar 13 '21**	**Apr 15 '21**	**Mar 13 '21**	**Apr 15 '21**	**0 days**	**1691FS-30 days**		
1696	Installation of cable trays and cable containments	21 days	Mar 13 '21	Apr 2 '21	Mar 13 '21	Apr 2 '21	0 days	1683	1697	EE - A x 4~6 m
1697	Cables laying and terminations	7 days	Apr 9 '21	Apr 15 '21	Apr 9 '21	Apr 15 '21	0 days	1693,1694,169	1698	EE - A x 4~6 m
1698	Site Acceptance Test for E&M Equip at Filtrate Lifting Well and Eq. Tank	11 days	Apr 16 '21	Apr 26 '21	Apr 16 '21	Apr 26 '21	0 days	1697	1699	
1699	System Commissioning for E&M Equip at Temp. Filtrate Lifting Well and E	11 days	Apr 23 '21	May 3 '21	Apr 23 '21	May 3 '21	0 days	1698	1725FF	
1700	**Existing PST No. 4 and No. 6, Portion B-3A**	**397 days**	**Aug 1 '20**	**Sep 1 '21**	**Aug 1 '20**	**Sep 1 '21**	**0 days**			
1701	Planned Key Date Completion Date - KD3B	0 days	Jun 7 '21	Jun 7 '21	Jun 7 '21	Jun 7 '21	0 days	1768FF		



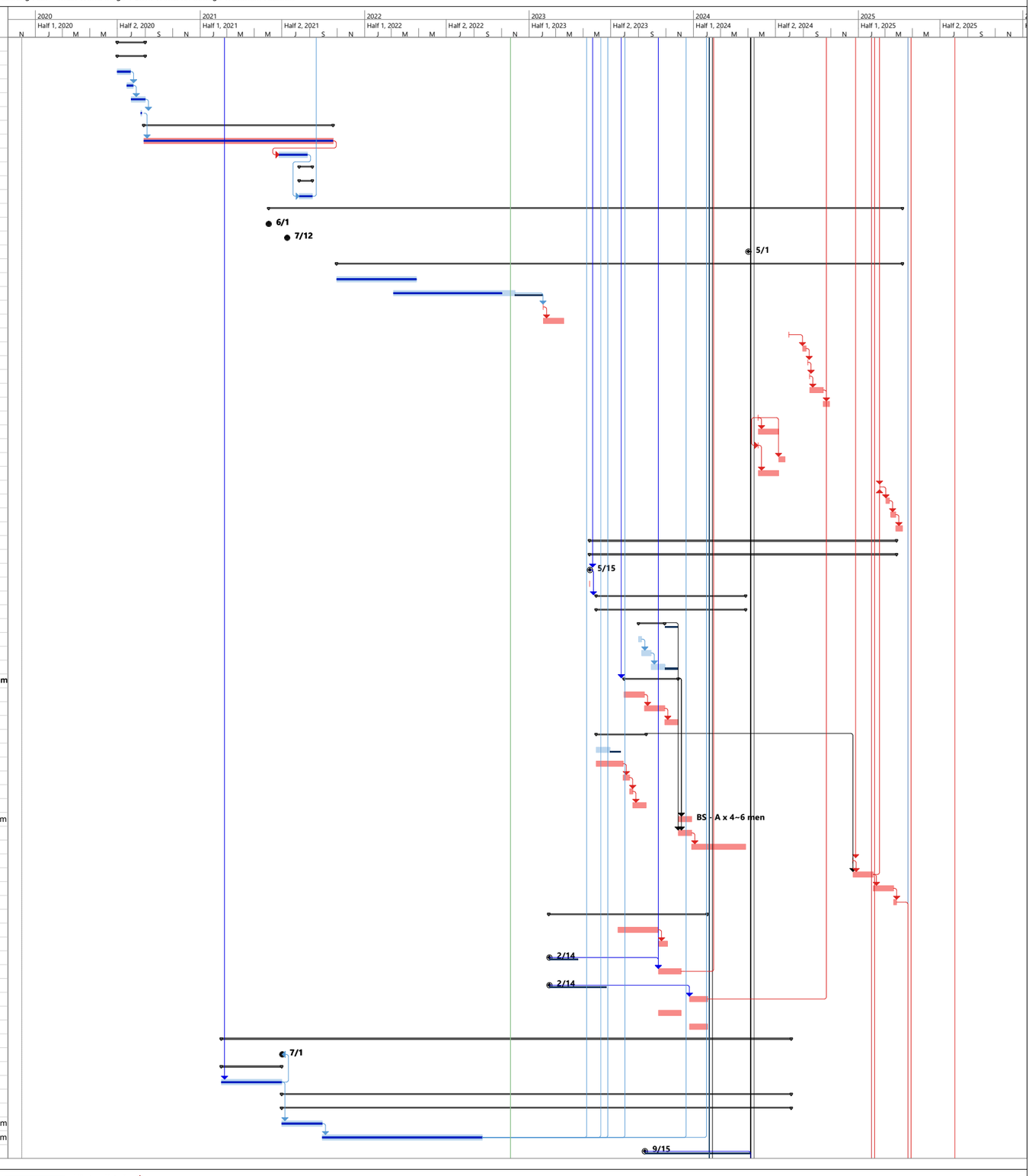
ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1702	Planned Sectional Completion Date - Section 3, PST No. 4 and No. 6	0 days	Sep 1 '21	Sep 1 '21	Sep 1 '21	Sep 1 '21	0 days	1685FF,1794FF		
1703	**Selection of Suppliers for major plant and materials and Subcontractor for PS**	**147 days**	**Aug 1 '20**	**Dec 25 '20**	**Aug 1 '20**	**Dec 25 '20**	**0 days**			
1704	**Mis - Rotating Bridge Scrapers and associated materials, C11, ref. EQT037-**	**52 days**	**Aug 1 '20**	**Sep 21 '20**	**Aug 1 '20**	**Sep 21 '20**	**0 days**			
1705	Submission for acceptance of purchasing package	11 days	Aug 1 '20	Aug 11 '20	Aug 1 '20	Aug 11 '20	0 days		1706	
1706	Invitation of quotations for purchasing package	20 days	Aug 8 '20	Aug 27 '20	Aug 8 '20	Aug 27 '20	0 days	1705	1707	
1707	Acceptance of conforming quotation (Completed)	31 days	Aug 22 '20	Sep 21 '20	Aug 22 '20	Sep 21 '20	0 days	1706	1717	
1708	**Mis - Pipework, C11, ref. EQT037-2**	**52 days**	**Aug 1 '20**	**Sep 21 '20**	**Aug 1 '20**	**Sep 21 '20**	**0 days**			
1709	Submission for acceptance of purchasing package	11 days	Aug 1 '20	Aug 11 '20	Aug 1 '20	Aug 11 '20	0 days		1710	
1710	Invitation of quotations for purchasing package	20 days	Aug 8 '20	Aug 27 '20	Aug 8 '20	Aug 27 '20	0 days	1709	1711	
1711	Acceptance of conforming quotation (Completed)	31 days	Aug 22 '20	Sep 21 '20	Aug 22 '20	Sep 21 '20	0 days	1710	1717	
1712	**Subletting of Electrical and Mechanical Installation Work w/ supply of LCP**	**91 days**	**Sep 26 '20**	**Dec 25 '20**	**Sep 26 '20**	**Dec 25 '20**	**0 days**			
1713	Submission for Subletting Package	42 days	Sep 26 '20	Nov 6 '20	Sep 26 '20	Nov 6 '20	0 days	1717	1714	
1714	Invitation to tender	29 days	Oct 26 '20	Nov 23 '20	Oct 26 '20	Nov 23 '20	0 days	1713	1715	
1715	Acceptance of conforming tender (Completed)	40 days	Nov 16 '20	Dec 25 '20	Nov 16 '20	Dec 25 '20	0 days	1714	1732	
1716	**Design Submissions**	**20 days**	**Sep 12 '20**	**Oct 1 '20**	**Sep 12 '20**	**Oct 1 '20**	**0 days**			
1717	Design submissions for retrofitting the existing PST No. 4 and No. 6	20 days	Sep 12 '20	Oct 1 '20	Sep 12 '20	Oct 1 '20	0 days	1707,1711	1713,1720,1723	
1718	**Manufacturing and Delivery of Plant & Materials**	**213 days**	**Sep 26 '20**	**Apr 26 '21**	**Sep 26 '20**	**Apr 26 '21**	**0 days**			
1719	**Rotating Bridge Scrapers and associated materials**	**213 days**	**Sep 26 '20**	**Apr 26 '21**	**Sep 26 '20**	**Apr 26 '21**	**0 days**			
1720	Manufacturing and Factory Acceptance Test of Plant	210 days	Sep 26 '20	Apr 23 '21	Sep 26 '20	Apr 23 '21	0 days	1717	1721	
1721	Shipping and Delivery of Plant to site (Rev. 8)	63 days	Feb 23 '21	Apr 26 '21	Feb 23 '21	Apr 26 '21	0 days	1720	1738	
1722	**Pipework**	**132 days**	**Sep 26 '20**	**Feb 4 '21**	**Sep 26 '20**	**Feb 4 '21**	**0 days**			
1723	Manufacturing and Factory Acceptance Test of Plant	126 days	Sep 26 '20	Jan 29 '21	Sep 26 '20	Jan 29 '21	0 days	1717	1724	
1724	Shipping and Delivery of Plant to site	42 days	Dec 25 '20	Feb 4 '21	Dec 25 '20	Feb 4 '21	0 days	1723	1733	
1725	Tentative Civil Handover, Filtrate Lifting Well and Eq. Tank (Completion of worl	3 days	May 1 '21	May 3 '21	May 1 '21	May 3 '21	0 days	1690FF,1699FF		
1726	**Site Installation Work**	**301 days**	**Oct 1 '20**	**Jul 28 '21**	**Oct 1 '20**	**Jul 28 '21**	**0 days**			
1727	**Commencement of retrofitting the existing PST No. 4 and No. 6**	**301 days**	**Oct 1 '20**	**Jul 28 '21**	**Oct 1 '20**	**Jul 28 '21**	**0 days**			
1728	Temporary flow diversion of Filtrate from PST No. 4,	1 day	Oct 1 '20	Oct 1 '20	Oct 1 '20	Oct 1 '20	0 days		1729	
1729	Dismantle and Removal of E&M Equipment at PST No. 6	84 days	Oct 2 '20	Dec 24 '20	Oct 2 '20	Dec 24 '20	0 days	1728	1730	
1730	Temporary flow diversion of Filtrate from PST No. 6	9 days	Dec 1 '20	Dec 9 '20	Dec 1 '20	Dec 9 '20	0 days	1729	1731	
1731	Dismantle and Removal of E&M Equipment at PST No. 4	165 days	Dec 8 '20	May 21 '21	Dec 8 '20	May 21 '21	0 days	1730	1733	
1732	**Mechanical Installations of existing PSTs No. 4 (Completed)**	**56 days**	**Apr 6 '21**	**May 31 '21**	**Apr 6 '21**	**May 31 '21**	**0 days**	**1715**		
1733	Installation of PST influent feed pipe	5 days	Apr 6 '21	Apr 10 '21	Apr 6 '21	Apr 10 '21	0 days	1724,1731	1734	ME - A x 4~6 m
1734	Installation of circular baffle diffuser box	5 days	Apr 11 '21	Apr 15 '21	Apr 11 '21	Apr 15 '21	0 days	1733	1735	ME - A x 4~6 m
1735	Installation of scum baffle plates	5 days	Apr 16 '21	Apr 20 '21	Apr 16 '21	Apr 20 '21	0 days	1734	1736	ME - A x 4~6 m
1736	Installation of scum box with collection valve and pipework	5 days	Apr 21 '21	Apr 25 '21	Apr 21 '21	Apr 25 '21	0 days	1735	1737	ME - A x 4~6 m
1737	Installation of v-notched weir plate	7 days	Apr 26 '21	May 2 '21	Apr 26 '21	May 2 '21	0 days	1736	1738	ME - A x 4~6 m
1738	Installation of center bearing and slip ring assembly for rotating bridge	5 days	May 3 '21	May 7 '21	May 3 '21	May 7 '21	0 days	1721,1737	1739	ME - A x 4~6 m
1739	Installation of motor and gearbox assembly for rotating bridge	5 days	May 8 '21	May 12 '21	May 8 '21	May 12 '21	0 days	1738	1740	ME - A x 4~6 m
1740	Installation of rotating bridge sludge and scum scraper assembly	5 days	May 13 '21	May 17 '21	May 13 '21	May 17 '21	0 days	1739	1741,1743	ME - A x 4~6 m
1741	installation of removable FRP covers for effluent channel	14 days	May 18 '21	May 31 '21	May 18 '21	May 31 '21	0 days	1740	1745	ME - A x 4~6 m
1742	**Electrical Installations of existing PST No. 4**	**10 days**	**May 18 '21**	**May 27 '21**	**May 18 '21**	**May 27 '21**	**0 days**		**1745**	
1743	Installation of local control panels	5 days	May 18 '21	May 22 '21	May 18 '21	May 22 '21	0 days	1740	1744	EE - A x 4~6 m
1744	cable laying and terminations	5 days	May 23 '21	May 27 '21	May 23 '21	May 27 '21	0 days	1743	1745	EE - A x 4~6 m
1745	Site Acceptance Test for E&M Equip at existing PST No. 4	7 days	Jun 1 '21	Jun 7 '21	Jun 1 '21	Jun 7 '21	0 days	1741,1742,174	1768	
1746	**CNE-0229 - Removal of accumulated sludge inside PST No. 6**	**14 days**	**May 19 '21**	**Jun 1 '21**	**May 19 '21**	**Jun 1 '21**	**0 days**		**1756**	
1747	Filtrate divserion to Temporary Filtrate Equalisation Tank	2 days	May 19 '21	May 20 '21	May 19 '21	May 20 '21	0 days		1748	
1748	Removal of floating scum / sludge inside PST No. 6	11 days	May 21 '21	May 31 '21	May 21 '21	May 31 '21	0 days	1747,1752	1749,1750	
1749	Clearance of blockage of PST No. 6 drain pipe	5 days	May 28 '21	Jun 1 '21	May 28 '21	Jun 1 '21	0 days	1748		
1750	Retrofiting Concrete Structure of PST No. 6	5 days	May 28 '21	Jun 1 '21	May 28 '21	Jun 1 '21	0 days	1748		
1751	**NCE-007 - Additional Contract Requirements for provision ICE's Certifica**	**8 days**	**Jun 14 '21**	**Jun 21 '21**	**Jun 14 '21**	**Jun 23 '21**	**0 days**			
1752	Provision of ICE's Certificate	10 days	Jun 14 '21	Jun 23 '21	Jun 14 '21	Jun 23 '21	0 days		1748,1756	
1753	**NCE-008 - Additional Contract Requirements for provision ICE's Certifica**	**14 days**	**Jun 24 '21**	**Jul 7 '21**	**Jun 24 '21**	**Jul 13 '21**	**0 days**			
1754	Provision of ICE's Certificate	20 days	Jun 24 '21	Jul 13 '21	Jun 24 '21	Jul 13 '21	0 days		1756	
1755	**Mechanical Installations of existing PST No. 6**	**48 days**	**Jun 4 '21**	**Jul 21 '21**	**Jun 4 '21**	**Jul 21 '21**	**0 days**			
1756	Installation of PST influent feed pipe	2 days	Jul 8 '21	Jul 9 '21	Jul 8 '21	Jul 9 '21	0 days	1746,1752,175	1757	ME - A x 4~6 m
1757	Installation of center bearing and slip ring assembly for rotating bridge	2 days	Jul 10 '21	Jul 11 '21	Jul 10 '21	Jul 11 '21	0 days	1756	1758,1761	ME - A x 4~6 m
1758	Installation of motor and gearbox assembly for rotating bridge	5 days	Jul 12 '21	Jul 16 '21	Jul 12 '21	Jul 16 '21	0 days	1757	1765,1759,1760	ME - A x 4~6 m
1759	Installation of rotating bridge sludge and scum scraper assembly	5 days	Jul 17 '21	Jul 21 '21	Jul 17 '21	Jul 21 '21	0 days	1758		ME - A x 4~6 m
1760	Installation of circular baffle diffuser box	2 days	Jul 17 '21	Jul 18 '21	Jul 17 '21	Jul 18 '21	0 days	1758		ME - A x 4~6 m
1761	Installation of v-notched weir plate	2 days	Jun 4 '21	Jun 5 '21	Jun 4 '21	Jun 5 '21	0 days	1757	1762,1763	ME - A x 4~6 m
1762	Installation of scum baffle plates	2 days	Jun 6 '21	Jun 7 '21	Jun 6 '21	Jun 7 '21	0 days	1761		ME - A x 4~6 m
1763	Installation of scum collection box	2 days	Jun 6 '21	Jun 7 '21	Jun 6 '21	Jun 7 '21	0 days	1761		ME - A x 4~6 m
1764	**Electrical Installations of existing PSTs No. 6**	**6 days**	**Jul 17 '21**	**Jul 22 '21**	**Jul 17 '21**	**Jul 22 '21**	**0 days**		**1767**	
1765	Installation of local control panels	5 days	Jul 17 '21	Jul 21 '21	Jul 17 '21	Jul 21 '21	0 days	1758	1766	
1766	cable laying and terminations	3 days	Jul 20 '21	Jul 22 '21	Jul 20 '21	Jul 22 '21	0 days	1765	1767	
1767	Site Acceptance Test for E&M Equip at existing PST No. 6	4 days	Jul 23 '21	Jul 26 '21	Jul 23 '21	Jul 26 '21	0 days	1764,1766	1768	
1768	System Commissioning for E&M Equip at existing PST No. 4 and No. 6	4 days	Jul 25 '21	Jul 28 '21	Jul 25 '21	Jul 28 '21	0 days	1745,1767	1701FF	
1769	**Existing Main Power House Electrical, Portion B-7A and B-7B**	**42 days**	**Jun 11 '20**	**Jul 22 '20**	**Jun 11 '20**	**Jul 22 '20**	**0 days**			
1770	Planned Key Date Completion Date - KD3A	0 days	Jul 22 '20	Jul 22 '20	Jul 22 '20	Jul 22 '20	0 days			
1771	**Design Submissions for Existing Emergency Generator House**	**21 days**	**Jun 12 '20**	**Jul 2 '20**	**Jun 12 '20**	**Jul 2 '20**	**0 days**			
1772	Design submissions for E&M installation works of existing power house	21 days	Jun 12 '20	Jul 2 '20	Jun 12 '20	Jul 2 '20	0 days	214	1776	
1773	**Site Installation Work**	**42 days**	**Jun 11 '20**	**Jul 22 '20**	**Jun 11 '20**	**Jul 22 '20**	**0 days**			
1774	Tentative Civil Handover Date, Portion B-7A & 7B area for modification of ex	1 day	Jun 11 '20	Jun 11 '20	Jun 11 '20	Jun 11 '20	0 days			
1775	**Commencement of Modification of existing emergency generator Electrica**	**26 days**	**Jun 27 '20**	**Jul 22 '20**	**Jun 27 '20**	**Jul 22 '20**	**0 days**			
1776	Site survey and preparation work	3 days	Jun 27 '20	Jun 29 '20	Jun 27 '20	Jun 29 '20	0 days	1772	1777	
1777	Modification of existing emergency generator electrical works	4 days	Jun 28 '20	Jul 1 '20	Jun 28 '20	Jul 1 '20	0 days	1776	1778	
1778	Test the new switchboard for on-site mobile generator	2 days	Jul 1 '20	Jul 2 '20	Jul 1 '20	Jul 2 '20	0 days	1777	1779	
1779	Dismantling and removal the existing power & control cables	20 days	Jul 3 '20	Jul 22 '20	Jul 3 '20	Jul 22 '20	0 days	1778	1505,1780	
1780	Take down existing generator to DSD (Completed)	5 days	Jul 17 '20	Jul 21 '20	Jul 17 '20	Jul 21 '20	0 days	1779		
1781	**Existing Sludge Press House, Portion B-10**	**479 days**	**Jul 1 '20**	**Oct 22 '21**	**Jul 1 '20**	**Oct 22 '21**	**0 days**			
1782	Planned Key Date Completion Date - KD3B	0 days	Jun 7 '21	Jun 7 '21	Jun 7 '21	Jun 7 '21	0 days			



Bestwise
Project: DE/2018/04
Date: 31/10/22

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1783	**Selection of Suppliers for major plant and materials for Filter Presses**	**62 days**	**Jul 1 '20**	**Aug 31 '20**	**Jul 1 '20**	**Aug 31 '20**	**0 days**			
1784	**Mis - new replacement filter plates and provision of filter cloths, C11, ref. I**	**62 days**	**Jul 1 '20**	**Aug 31 '20**	**Jul 1 '20**	**Aug 31 '20**	**0 days**			
1785	Submission for acceptance of purchasing package	29 days	Jul 1 '20	Jul 29 '20	Jul 1 '20	Jul 29 '20	0 days		1786	
1786	Invitation of quotations for purchasing package	14 days	Jul 22 '20	Aug 4 '20	Jul 22 '20	Aug 4 '20	0 days	1785	1787	
1787	Acceptance of conforming quotation (Completed)	31 days	Aug 1 '20	Aug 31 '20	Aug 1 '20	Aug 31 '20	0 days	1786	1788	
1788	Design submission for replacement of filter plates	7 edays	Aug 21 '20	Aug 28 '20	Aug 21 '20	Aug 28 '20	0 edays	1787	1790	
1789	**Manufacturing and Delivery of Plant & Materials**	**420 days**	**Aug 29 '20**	**Oct 22 '21**	**Aug 29 '20**	**Oct 22 '21**	**0 days**			
1790	Manufacturing and Factory Acceptance Test of Plant	420 days	Aug 29 '20	Oct 22 '21	Aug 29 '20	Oct 22 '21	0 days	1788	1791	
1791	Shipping and Delivery of Plant to site	63 days	Jun 25 '21	Aug 26 '21	Jun 25 '21	Aug 26 '21	0 days	1790	1794	
1792	**Site Installation Work**	**29 days**	**Aug 9 '21**	**Sep 6 '21**	**Aug 9 '21**	**Sep 6 '21**	**0 days**			
1793	**Commencement of replacement of filter plates**	**29 days**	**Aug 9 '21**	**Sep 6 '21**	**Aug 9 '21**	**Sep 6 '21**	**0 days**			
1794	Replacement of filter plates (On Hold)	29 days	Aug 9 '21	Sep 6 '21	Aug 9 '21	Sep 6 '21	0 days	1791	1702FF	
1795	**Fire Services Inspection Submission**	**1407 days**	**Jun 1 '21**	**Apr 8 '25**	**Jun 1 '21**	**Apr 8 '25**	**0 days**			
1796	Planned Key Date Completion Date - KD1B, Fire	0 days	Jun 1 '21	Jun 1 '21	Jun 1 '21	Jun 1 '21	0 days			
1797	Planned Sectional Completion Date - Section 1, FSI	0 days	Jul 12 '21	Jul 12 '21	Jul 12 '21	Jul 12 '21	0 days			
1798	Planned Sectional Completion Date - Section 4, FSI	0 days	May 1 '24	May 1 '24	May 1 '24	May 1 '24	0 days			
1799	**Fire Services Inspection Submission**	**1256 days**	**Oct 31 '21**	**Apr 8 '25**	**Oct 31 '21**	**Apr 8 '25**	**0 days**			
1800	Design Review of Approved General Building Plan	177 days	Oct 31 '21	Apr 25 '22	Oct 31 '21	Apr 25 '22	0 days			
1801	Submission of WWO542 for WSD's approval	270 days	Mar 6 '22	Nov 30 '22	Mar 6 '22	Jan 31 '23	62 days		1802	
1802	Submission of WWO46 Part I and II to WSD	1 day	Feb 1 '23	Feb 1 '23	Feb 1 '23	Feb 1 '23	0 days	1801	1803	
1803	Issue of WWO46 Part III from WSD	45 days	Feb 2 '23	Mar 18 '23	Feb 2 '23	Mar 18 '23	0 days	1802		
1804	Submission of WWO46 Part IV to WSD	1 day	Jul 30 '24	Jul 30 '24	Jul 30 '24	Jul 30 '24	0 days		1805FS+30 days	
1805	WSD Site Inspection	8 days	Aug 30 '24	Sep 6 '24	Aug 30 '24	Sep 6 '24	0 days	1804FS+30 days	1806FS+3 days	
1806	F.S. Water Sampling Test to Laboratory for Examination	1 day	Sep 10 '24	Sep 10 '24	Sep 10 '24	Sep 10 '24	0 days	1805FS+3 days	1807FS+3 days	
1807	Obtain Water Sample Test Reault from Laboratory	1 day	Sep 14 '24	Sep 14 '24	Sep 14 '24	Sep 14 '24	0 days	1806FS+3 days	1808	
1808	Obtain WWO46 Part V from WSD	30 days	Sep 15 '24	Oct 14 '24	Sep 15 '24	Oct 14 '24	0 days	1807	1809	
1809	Obtain Fire Services Completion Advice (FSCA) from WSD	14 days	Oct 15 '24	Oct 28 '24	Oct 15 '24	Oct 28 '24	0 days	1808		
1810	VAC Submission to FSD for Approval	1 day	May 23 '24	May 23 '24	May 23 '24	May 23 '24	0 days		1811,1812SS,18	
1811	VAC Approval from FSD	45 days	May 24 '24	Jul 7 '24	May 24 '24	Jul 7 '24	0 days	1810		
1812	D.G. License Submission to FSD	1 day	May 23 '24	May 23 '24	May 23 '24	May 23 '24	0 days	1810SS	1814	
1813	D.G. License Site Inspection from FSD	14 days	Jul 8 '24	Jul 21 '24	Jul 8 '24	Jul 21 '24	0 days	1810FS+45 days		
1814	Approval of D.G. License from FSD	45 days	May 24 '24	Jul 7 '24	May 24 '24	Jul 7 '24	0 days	1812		
1815	Submission of form FS314 and FS501 to FSD	1 day	Feb 17 '25	Feb 17 '25	Feb 17 '25	Feb 17 '25	0 days	1523,1843	1816FS+13 days	
1816	FS document Check at FSD Office	8 days	Mar 3 '25	Mar 10 '25	Mar 3 '25	Mar 10 '25	0 days	1815FS+13 days	1817FS+3 days	
1817	FSD Site Inspection	11 days	Mar 14 '25	Mar 24 '25	Mar 14 '25	Mar 24 '25	0 days	1816FS+3 days	1818	
1818	Issue of Acceptance Memo from FSD	15 days	Mar 25 '25	Apr 8 '25	Mar 25 '25	Apr 8 '25	0 days	1817		
1819	**Street Fire Hydrant Pump Room, Portion B7 & B-7B**	**682 days**	**May 15 '23**	**Mar 26 '25**	**Apr 2 '23**	**Apr 25 '24**	**0 days**			
1820	**Site Installation Work**	**682 days**	**May 15 '23**	**Mar 26 '25**	**Apr 2 '23**	**Apr 25 '24**	**0 days**			
1821	Tentative Civil Handover Date, Stret Fire Hydrant Pump Room (Rev. 5)	1 day	May 15 '23	May 15 '23	Apr 2 '23	Apr 2 '23	0 days	19	1823	
1822	Tentative Civil Handover Date for Underground Pipe Works	1 day	May 15 '23	May 15 '23	May 15 '23	May 15 '23	0 days			
1823	**Commencement of E&M Installation at Street Fire Hydrant Pump Room**	**332 days**	**May 30 '23**	**Apr 25 '24**	**Apr 3 '23**	**Apr 25 '24**	**0 days**	**1821**		
1824	**Building Services Installations at Street Fire Hydrant Pump Room**	**332 days**	**May 30 '23**	**Apr 25 '24**	**Apr 3 '23**	**Apr 25 '24**	**0 days**			
1825	**Mechanical Ventilation System,SFHM**	**58 days**	**Sep 1 '23**	**Oct 28 '23**	**Oct 1 '23**	**Nov 27 '23**	**30 days**		**1840**	
1826	EAF Installation	7 days	Sep 1 '23	Sep 7 '23	Oct 1 '23	Oct 7 '23	0 days		1827	
1827	Air Duct Installation	21 days	Sep 8 '23	Sep 28 '23	Oct 8 '23	Oct 28 '23	0 days	1826	1828	
1828	LMCP Installation c/w cable wring	30 days	Sep 29 '23	Oct 28 '23	Oct 29 '23	Nov 27 '23	30 days	1827		
1829	**Lighting and Power Distribution System, SFHM**	**120 days**	**Jul 31 '23**	**Nov 27 '23**	**Jul 31 '23**	**Nov 27 '23**	**0 days**	**204**	**1839,1840**	**BS - A x 4~6 m**
1830	Cable Containment Installation	45 days	Jul 31 '23	Sep 13 '23	Jul 31 '23	Sep 13 '23	0 days		1831	
1831	Wiring Installation	45 days	Sep 14 '23	Oct 28 '23	Sep 14 '23	Oct 28 '23	0 days	1830	1832	
1832	Cable Termination, Lighting and Wiring Accessories Installation	30 days	Oct 29 '23	Nov 27 '23	Oct 29 '23	Nov 27 '23	0 days	1831		
1833	**Fire Services Installation, SFHM**	**111 days**	**May 30 '23**	**Sep 17 '23**	**Apr 3 '23**	**Jul 22 '23**	**0 days**		**1843**	
1834	Street Fire Hydrant Pump and Jockey Pump Installation	30 days	May 30 '23	Jun 28 '23	Jun 23 '23	Jul 22 '23	24 days			
1835	Pipe Work Installation	60 days	May 30 '23	Jul 28 '23	Apr 3 '23	Jun 1 '23	0 days		1836	
1836	AFA Detector and Conduit System Installation	14 days	Jul 29 '23	Aug 11 '23	Jun 2 '23	Jun 15 '23	0 days	1835	1837	
1837	AFA Panel Installation	7 days	Aug 12 '23	Aug 18 '23	Jun 16 '23	Jun 22 '23	0 days	1836	1838	
1838	LMCP Installation completed with Cable Wiring	30 days	Aug 19 '23	Sep 17 '23	Jun 23 '23	Jul 22 '23	0 days	1837		
1839	Lightning Protection System, Street FH PR	30 days	Nov 28 '23	Dec 27 '23	Nov 28 '23	Dec 27 '23	0 days	1829		BS - A x 4~6 m
1840	Temporary Power Ready for T&C	30 days	Nov 28 '23	Dec 27 '23	Nov 28 '23	Dec 27 '23	0 days	1825,1829	1841	
1841	Testing and Commissioning of Building Services Installations, FH PR	120 days	Dec 28 '23	Apr 25 '24	Dec 28 '23	Apr 25 '24	0 days	1840		
1842	Permanent Power Energisation (Power Fed from EGH)	1 day	Dec 19 '24	Dec 19 '24	Jul 22 '23	Jul 22 '23	0 days	1498	1843	
1843	Site Acceptance Test for Street FH Pump	45 days	Dec 20 '24	Feb 2 '25	Jul 23 '23	Sep 5 '23	0 days	1833,1842	1815,1844	
1844	System Commissioning for Street FH Pumps	45 days	Feb 3 '25	Mar 19 '25	Sep 6 '23	Oct 20 '23	0 days	1843	1845	
1845	Risk Allowances for completion Processing Plant at Street FH Pump Room	7 days	Mar 20 '25	Mar 26 '25	Oct 21 '23	Oct 27 '23	0 days	1844	1870	
1846	**Modification Work for Existing HV Switchboard at Membrane Facilities Building**	**352 days**	**Feb 14 '23**	**Jan 31 '24**	**Apr 18 '23**	**Jan 31 '24**	**0 days**			
1847	Modification Existing HV Switchboard	90 days	Jul 17 '23	Oct 14 '23	Jul 17 '23	Oct 14 '23	0 days		1848	
1848	T&C	20 days	Oct 15 '23	Nov 3 '23	Oct 15 '23	Nov 3 '23	0 days	1847		
1849	Tentative Civil Handover Date, HV cables draw pits from MFB no.1 to IW	1 day	Feb 14 '23	Feb 14 '23	Apr 18 '23	Apr 18 '23	63 days		1850	
1850	HV Cable Laying and Cable Termination (MFB no.1 to IW no.1)	50 days	Oct 15 '23	Dec 3 '23	Apr 19 '23	Jun 7 '23	0 days	342,1849	398	
1851	Tentative Civil Handover Date, HV cables draw pits (MFB no.1 to MFB no.2)	1 day	Feb 14 '23	Feb 14 '23	Jun 21 '23	Jun 21 '23	127 days		1852	
1852	HV Cable Laying and Cable Termination (MFB no.1 to MFB no.2)	40 days	Dec 23 '23	Jan 31 '24	Jun 22 '23	Jul 31 '23	0 days	1851	1293	
1853	Control Cable Laying and Termination (for Inlet Work)	50 days	Oct 15 '23	Dec 3 '23	Oct 15 '23	Dec 3 '23	0 days			
1854	Control Cable Laying and Termination (for MFB2)	40 days	Dec 23 '23	Jan 31 '24	Dec 23 '23	Jan 31 '24	0 days			
1855	**Plumbing Installation**	**1265 days**	**Feb 16 '21**	**Aug 4 '24**	**Feb 16 '21**	**Aug 4 '24**	**0 days**			
1856	Planned Sectional Completion Date - Section 1, Plumbing	0 days	Jul 1 '21	Jul 1 '21	Jul 1 '21	Jul 1 '21	0 days	1858FF		
1857	**Design Submissions for Plumbing**	**134 days**	**Feb 16 '21**	**Jun 30 '21**	**Feb 16 '21**	**Jun 30 '21**	**0 days**			
1858	CDS033 - Detailed Design for Plumbing System	134 edays	Feb 16 '21	Jun 30 '21	Feb 16 '21	Jun 30 '21	0 edays	174	1856FF,1861	
1859	**Site Installation Work**	**1131 days**	**Jul 1 '21**	**Aug 4 '24**	**Jul 1 '21**	**Aug 4 '24**	**0 days**			
1860	**Commencement of Plumbing Installation**	**1131 days**	**Jul 1 '21**	**Aug 4 '24**	**Jul 1 '21**	**Aug 4 '24**	**0 days**			
1861	Submission of detail design for acceptance	90 days	Jul 1 '21	Sep 28 '21	Jul 1 '21	Sep 28 '21	0 days	1858	1862	Pb - A x 4~6 m
1862	Submission of WWO542 for WSD's approval	355 days	Sep 29 '21	Sep 18 '22	Sep 29 '21	Sep 18 '22	0 days	1861	448,500,663,694	Pb - B x 4~6 m
1863	Connection of External Pumping System (By others)	0 days	Sep 15 '23	Sep 15 '23	May 7 '24	May 7 '24	235 days		1864	



Bestwise
Project: DE/2018/04
Date: 31/10/22

Task | Milestone | Project Summary | Late | Critical Split | Manual Progress | Milestone (Actual)
Milestone, Tentative | Summary | Manual Summary | Critical | Progress | Slack (Float) | Slack

ID	Task Name	Duration between Task Start and Finish	Early Start	Early Finish	Late Start	Late Finish	Free Slack	Predecessors	Successors	Resource Names
1864	Submission of WWO46 for WSD's Inspection	45 days	May 7 '24	Jun 20 '24	May 7 '24	Jun 20 '24	0 days	416,448,500,66	1865	
1865	Obtain WWO46 Part V	45 days	Jun 21 '24	Aug 4 '24	Jun 21 '24	Aug 4 '24	0 days	1864	1866	
1866	Tentative Date for connection of external water pipework (by others)	0 days	Aug 4 '24	Aug 4 '24	Aug 4 '24	Aug 4 '24	0 days	1865		
1867	**Plant Commissioning**	**660 days**	**Nov 1 '23**	**Aug 21 '25**	**Oct 28 '23**	**May 14 '24**	**0 days**		**46FF**	
1868	**Design Submission for Treatment Process Plant Testing & Commissioning**	**90 days**	**Nov 1 '23**	**Jan 29 '24**	**Feb 15 '24**	**May 14 '24**	**106 days**			
1869	Document Submission and Resubmission for T&C procedures	90 days	Nov 1 '23	Jan 29 '24	Feb 15 '24	May 14 '24	106 days			
1870	System Commissioning Tests of the E&M systems at IW, PST, BR 2A&2B, MFB I	7 days	Apr 21 '25	Apr 27 '25	Oct 28 '23	Nov 3 '23	0 days	515,764,1296,1	1871	
1871	MBR System Process Startup	45 days	Apr 28 '25	Jun 11 '25	Nov 4 '23	Dec 18 '23	0 days	937,1870	1872	
1872	Plant Commissioning (Section 2)	45 days	Jun 12 '25	Jul 26 '25	Dec 19 '23	Feb 1 '24	0 days	1871	1631,1876,1877	
1873	Planned Sectional Completion Date - Section 4, Plant Commissioning	1 day	Aug 21 '25	Aug 21 '25	May 14 '24	May 14 '24	0 days	1872FS+25 days		
1874	Overall commissioning of CCTV system	30 days	Feb 5 '24	Mar 5 '24	Mar 5 '24	Apr 3 '24	29 days	424,452,476,50	1876	
1875	Overall commissioning of Facility Computerized Systems (SCADA, CMMS, PMS,	28 days	Jan 30 '25	Feb 26 '25	Mar 7 '24	Apr 3 '24	0 days	511,760,1228,11	1876	
1876	Overall Plant Commissioning and DSD pre-handover inspections	14 days	Jul 27 '25	Aug 9 '25	Apr 4 '24	Apr 17 '24	0 days	1872,1874,187		
1877	O&M manual for overall system	14 days	Apr 28 '25	May 11 '25	May 1 '24	May 14 '24	0 days	1872FS-90 days		
1878	**CE No. 009 - Provision of an Additional Primary Sludge Thickening System**	**473 days**	**Jul 14 '20**	**Oct 29 '21**	**Jul 14 '20**	**Oct 29 '21**	**0 days**			
1879	Detail Design Submission and Approval	107 days	Jul 14 '20	Oct 28 '20	Jul 14 '20	Oct 28 '20	0 days		1881	
1880	Subletting, Procurement, Manufacturing and Delivery	168 days	Jul 31 '20	Jan 14 '21	Jul 31 '20	Jan 14 '21	0 days			
1881	Site Installation	378 days	Oct 17 '20	Oct 29 '21	Oct 17 '20	Oct 29 '21	0 days	1879	1882	
1882	Testing and Commissioning (Rev. 15)	14 days	Jul 14 '21	Jul 27 '21	Jul 14 '21	Jul 27 '21	0 days	1881	1883FF	
1883	Planned Completion Date	1 day	Jul 23 '21	Jul 23 '21	Jul 23 '21	Jul 23 '21	0 days	1882FF		
1884	**Beam Plus Submissions**	**2457 days**	**May 1 '20**	**Jan 21 '27**	**May 1 '20**	**Jan 21 '27**	**0 days**			
1885	SA10 - Environmental Management Plan	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1886	SA11 - Air Pollution During Construction	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1887	SA12 - Noise During Construction	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1888	SA14 - Noise from Building Equipment	1450 days	May 1 '20	Jan 21 '27	May 1 '20	Jan 21 '27	0 days		46	
1889	SA15 - Light Pollution	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1890	MAP1 - Timber used for Temporary Works	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1891	MAP2 - Use of Non-CFC Based Refrigerants	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1892	MAP3 - Waste Management Plan	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1893	MA2 - Modular and Standardized Design	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1894	MA8 - Ozone Depleting Substances	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1895	MA11 - Construction Waste Reduction	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1896	EUP1 - Minimum Energy Performance	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1897	EU1 - Reduction of CO2 Emissions	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1898	EU2 - Peak Electricity Demand Reduction	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1899	EU6 - Renewable Energy Systems	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1900	EU9 - Energy Efficient Appliances	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1901	EU10 - Testing and Commissioning	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1902	EU11 - Operation and Maintenance	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1903	EU12 - Meter and Monitoring	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1904	WUP1 - Water Quality Survey	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1905	WUP2 - Minimum Water Saving Performance	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1906	WU1 / WU6 - Annual Water Use / Effluent Discharge to Foul Sewers	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1907	IEQP1 - Minimum Ventilation Performance	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1908	IEQ1 - Security	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1909	IEQ2 - Plumbing and Drainage	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1910	IEQ3 - Biological Contamination	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1911	IEQ5 - Construction IAQ Management	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1912	IEQ6 / IEQ7 - IAQ	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1913	IEQ9 - Increased Ventilation	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1914	IEQ11 - Localised Ventilation	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1915	IEQ12 - Ventilation in Common Areas	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1916	IEQ13 - Thermal Comfort in Air - Conditioned Premises	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1917	IEQ16 / IEQ17 - Interior Lighting in Normally Occupied Area / Interior Lighting in A	1450 days	May 1 '20	Apr 19 '24	May 26 '20	May 14 '24	25 days		46	
1918	**Summary of compensation events notified**	**487 days**	**Feb 25 '20**	**Jun 25 '21**	**Feb 25 '20**	**Jun 25 '21**	**0 days**			
1919	Compensation Event (CE) No. 001, Special Arrangement in Reducing the Risk of th	1 day	Feb 25 '20	Feb 25 '20	Feb 25 '20	Feb 25 '20	0 days			
1920	Compensation Event (CE) No. 002, the Contractor's Site Accommodation by Mod	1 day	Jun 8 '20	Jun 8 '20	Jun 8 '20	Jun 8 '20	0 days			
1921	Compensation Event (CE) No. 003, Designated Area for the Contractor's Site Accc	1 day	Apr 22 '20	Apr 22 '20	Apr 22 '20	Apr 22 '20	0 days			
1922	Compensation Event (CE) No. 005, Designated Area for the Contractor's Storage A	1 day	Apr 22 '20	Apr 22 '20	Apr 22 '20	Apr 22 '20	0 days			
1923	Compensation Event (CE) No. 007, Employment of Temporary Staff under Anti-Ep	1 day	Jul 10 '20	Jul 10 '20	Jul 10 '20	Jul 10 '20	0 days			
1924	Compensation Event (CE) No. 009, Provision of an Additional Primary Sludge Thic	1 day	Jul 15 '20	Jul 15 '20	Jul 15 '20	Jul 15 '20	0 days			
1925	Compensation Event (CE) No. 011, Dismantling, relocating, disconnecting and re-	1 day	Apr 14 '21	Apr 14 '21	Apr 14 '21	Apr 14 '21	0 days			
1926	NCE-PPMI-0202 (CE) Revised GA for F.S. & Sprinkler Pumping Room and Emerger	1 day	Dec 18 '20	Dec 18 '20	Dec 18 '20	Dec 18 '20	0 days			
1927	NCE-PPMI-0203 (CE) Revised General Arrangement for Temp. Chemical System	1 day	Dec 15 '20	Dec 15 '20	Dec 15 '20	Dec 15 '20	0 days			
1928	NCE-PPMI-0204 (CE) Revised GA Layout Plan for DO Sys. No. 3A	1 day	Dec 18 '20	Dec 18 '20	Dec 18 '20	Dec 18 '20	0 days			
1929	NCE-PPMI-0205 (CE) Provision of Louvre Panel for Outdoor AC Units at Contracto	1 day	May 17 '21	May 17 '21	May 17 '21	May 17 '21	0 days			
1930	NCE-PPMI-0206 (CE) Modification of Feeders of the existing switchboards at Inlet	1 day	Jun 23 '21	Jun 23 '21	Jun 23 '21	Jun 23 '21	0 days			
1931	NCE-PPMI-0207 (CE) Modification of Feeders of the existing switchboards at Inlet	1 day	Jun 23 '21	Jun 23 '21	Jun 23 '21	Jun 23 '21	0 days			
1932	NCE-PPMI-0208 (CE) Modification of Feeders of the existing switchboards at Mer	1 day	Jun 25 '21	Jun 25 '21	Jun 25 '21	Jun 25 '21	0 days			
1933	NCE-PPMI-0211 (CE) Provision of a New Chemical Storage and Dosing System fo t	1 day	Jul 8 '20	Jul 8 '20	Jul 8 '20	Jul 8 '20	0 days			
1934	NCE-PPMI-0213 (CE) Revised General Arrangement for Chemical System No. 1	1 day	Jan 5 '21	Jan 5 '21	Jan 5 '21	Jan 5 '21	0 days			
1935	NCE-PMI-0219 (CE) Provision and Removal of the Blank Flange to Blank Off Drain	1 day	Apr 22 '21	Apr 22 '21	Apr 22 '21	Apr 22 '21	0 days			
1936	NCE-PMI-0223 (CE) Revised GA for Chemical Pipe Trench	1 day	Apr 7 '21	Apr 7 '21	Apr 7 '21	Apr 7 '21	0 days			
1937	NCE-PMI-0226 (CE) Modification Works of Manhole Cover for MHD13 for Filtrate	1 day	Apr 30 '21	Apr 30 '21	Apr 30 '21	Apr 30 '21	0 days			
1938	NCE-PMI-0227 (CE) Provision of Project Jackets with Fleece Vests	1 day	Apr 29 '21	Apr 29 '21	Apr 29 '21	Apr 29 '21	0 days			
1939	NCE-PMI-0234 (CE) Provision of removal of the blank flange to blank off drain val	1 day	May 25 '21	May 25 '21	May 25 '21	May 25 '21	0 days