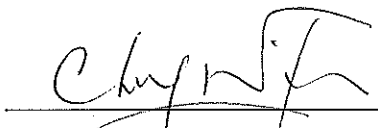
Harbour Area Treatment Scheme Stage 2A

Contract No. DC/2007/23, DC/2009/10, DC/2009/17 and DC/2009/18

Consolidated Quarterly Environmental Monitoring and Audit Report June 2015 to August 2015

(Version 1.0)

Certified By 

(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

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CE/Harbour Area Treatment Scheme
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Sewage Services Branch
Harbour Area Treatment Scheme Division
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29 January 2016
By Post

Attn: Mr. Danny Tang

Dear Sir,

Agreement No. CE 8/2009(EP)
Harbour Area Treatment Scheme (HATS) Stage 2A
Independent Environmental Checker for Construction Phase – Investigation
Submission of Quarterly EM&A Consolidated Report (Version 1.0) for Stonecutters Island Sewage Treatment Works for June to August 2015 (Issue No. 23)

We refer to the captioned report consolidating the individual ETL certified and IEC verified Quarterly EM&A Reports for Contract Nos. DC/2007/23, DC/2009/10, DC/2009/17 and DC/2009/18 at Stonecutters Island Sewage Treatment Works site for HATS Stage 2A. We confirm we have no comment.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

Dr. Anne F Kerr
Independent Environmental Checker

c.c.	Ove Arup & Partners HK Ltd.	Mr. Ted Y F Tang	Fax: 2370 4377
	Cinotech Consultants Ltd.	Dr. Priscilla Choy	By email

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ABBREVIATION AND ACRONYM

AL Levels	Action and Limit Levels
DSD	Drainage Services Department
E / ER	Engineer/Engineer's Representative
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring and Audit
EMIS	Environmental Mitigation Implementation Schedule
EP	Environmental Permit
EPD	Environmental Protection Department
ET	Environmental Team
HVS	High Volume Sampler
IEC	Independent Environmental Checker
RE	Resident Engineer
RH	Relative Humidity
QA/QC	Quality Assurance / Quality Control
SLM	Sound Level Meter
WMP	Waste Management Plan
SCISTW	Stonecutters Island Sewage Treatment Works
HATS	Harbour Area Treatment Scheme

EXECUTIVE SUMMARY

Introduction

1. This is the 23rd Consolidated Quarterly Environmental Monitoring and Audit (EM&A) Report summaries the key information of EM&A quarterly reports for the following construction contracts at the Stonecutters Island Sewage Treatment Works (SCISTW) under the Project of Harbour Area Treatment Scheme Stage 2A (the Project) and prepared by Cinotech Consultants Limited, the Environmental Team (ET) for Contract no. DC/2009/10, DC/2009/17 and DC/2009/18.

    - Contract no. DC/2007/23 – Construction of Sewage Conveyance System from North Point to Stonecutters Island;
    - Contract no. DC/2009/17 - Upgrading Works at Stonecutters Island Sewage Treatment Works – Sludge Dewatering Facilities; and
    - Contract no. DC/2009/10 - Upgrading Works at Stonecutters Island Sewage Treatment Works – Main Pumping Station, Sedimentation Tanks and Ancillary Facilities;
    - Contract no. DC/2009/18 - Upgrading Works at Stonecutters Island Sewage Treatment Works – Effluent Tunnel and Disinfection Facilities; and

2. The above-mentioned Contracts are under the same Environmental Permit (EP) No. EP-322/2008/G and separate ETs were appointed under each contract pursuant to Condition 2.1 of the EP.

3. This report is a contractual requirement under Contract No. DC/2009/10 to provide a consolidated quarterly summary of the EM&A works at SCISTW for the purpose of ease of references. Each Contract is administered under their respective contract by different project teams including the Engineer, the Engineer's Representatives, the Contractor, and the ET.

4. The EM&A programme of Contract DC/2009/19 was commenced on 1 September 2013 and major construction works of this contract had been completed on 5 March 2015.

5. No amendment of the information in the EM&A reports for each individual contract was made in this consolidated quarterly report.

6. This Report documents the findings of EM&A Works for the Project covering the period from June 2015 to August 2015.

7. The details of the EM&A for individual contracts can be found in the separate EM&A quarterly reports. In case of ambiguity and discrepancy, the individual EM&A report shall prevail. The Executive Summaries and Web Sites for the individual contracts are shown below:

Table I Summary Table for Executive Summaries and Web Sites:

Contract no.	ES/Web Site	Details:
DC/2007/23	Executive Summary	At SCISTW, air quality monitoring station AM6 and noise monitoring station NM5 were monitored by ET for Contract no. DC/2007/23.
	Web Site	http://www.hats2a-ema.com/RP_EMA/DC200723/EMA%20Report-DC200723.html

DC/2009/17	Executive Summary	The air quality and noise monitoring stations under this contract were covered by other contracts at SCISTW. The monitoring data would be summarized in this monthly EM&A report.
	Web Site	http://www.hats2a-ema.com/RP_EMA/DC%202009%2017/EMA%20Report-DC200917.html
DC/2009/10	Executive Summary	At SCISTW, air quality monitoring station AM7, AM8 and noise monitoring station NM6 were monitored by ET for Contract no. DC/2009/10.
	Web Site	http://www.hats2a-ema.com/RP_EMA/DC200910/EMA%20Report-DC200910.html
DC/2009/18	Executive Summary	At SCISTW, air quality monitoring station AM9 and noise monitoring station NM7 were monitored by ET for Contract no. DC/2009/18.
	Web Site	http://www.hats2a-ema.com/RP_EMA/DC200918/EMA%20Report-DC200918.html

Environmental Monitoring Works

8. The environmental monitoring works were conducted by the ETs for the Contracts DC/2007/23, DC/2009/10 and DC/2009/18, while no monitoring work is requested for DC/2009/17 since the monitoring stations were duplicated. Site audits were conducted once per week for each contract by their ETs.

9. Summary of the non-compliance of the reporting quarter is tabulated in **Table II**.

Table II Summary Table for Non-compliance Recorded in the Reporting Quarter

Monitored By	Monitoring Station	Parameter	No. of Exceedance		No. of Exceedance Due to the Project		Action Taken
			Action Level	Limit Level	Action Level	Limit Level	
DC/2007/23	AM6	1-hr TSP	0	0	0	0	N/A
		24-hr TSP	0	0	0	0	N/A
DC/2009/10	AM7	1-hr TSP	0	0	0	0	N/A
		24-hr TSP	0	0	0	0	N/A
	AM8	1-hr TSP	0	0	0	0	N/A
		24-hr TSP	0	0	0	0	N/A
DC/2009/18	AM9	1-hr TSP	0	0	0	0	N/A
		24-hr TSP	0	0	0	0	N/A
DC/2007/23	NM5	Noise	0	0	0	0	N/A
DC/2009/10	NM6		0	0	0	0	N/A
DC/2009/18	NM7		0	0	0	0	N/A

1-hour TSP Monitoring

10. All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.

24-hour TSP Monitoring

11. All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. No

Action/Limit Level exceedance was recorded.

Construction Noise

12. All construction noise monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance for normal working hours and restricted hours was recorded.

Key Information in the Reporting Quarter

13. Summary of key information in the reporting quarter is tabulated in **Table III**.

Table III Summary Table for Key Information in the Reporting Quarter

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	0	---	N/A	N/A	---
Status of submissions under EP	3	Monthly Consolidated EM&A Reports for SCISTW For June, July and August 2015	Submitted to EPD	No comment	---
Notifications of any summons & prosecutions received	0	--	N/A	N/A	---

Key Information in the EIA Report

14. According to the EIA Report, air quality, noise, water quality, ecology and landscape and visual would be the key environmental issues during the construction of the project. Details of the implementation of mitigation measures for the four contracts are provided in the **Appendix H**.

1. INTRODUCTION

Background

1.1 Harbour Area Treatment Scheme (HATS) Stage 2A is a designated project with Register No.: AEIAR-121/2008. The Environmental Permit (Permit No. EP-322/2008/G) was issued on 9th May 2014 by the Environmental Protection Department (hereinafter called EPD) to the Drainage Services Department (hereinafter called the DSD) as the Permit Holder.

1.2 The general location plan for the Contracts: DC/2007/23, DC/2009/10, DC/2009/17 and DC/2009/18 are shown in **Figure 1** and **2**.

1.3 The environmental permit (EP) was issued for the whole HATS Stage 2A construction works. The ET for the Contract DC/2009/10 is responsible to coordinate all submissions from the ETs of other contractors at SCISTW as required in the EP, EIA Report and EM&A Manual for the Project.

1.4 The 1st to 3rd consolidated quarterly EM&A reports were prepared by Ove Arup & Partners Hong Kong Ltd (Arup) and submitted to EPD. From November 2010 and onwards, the 4th and subsequent consolidated quarterly EM&A report will be prepared and submitted by Cinotech Consultant Limited, the ET for the Contract DC/2009/17, DC/2009/10 and DC/2009/18.

1.5 This is the 23rd consolidated quarterly EM&A report summarizing the EM&A works conducted for the Project at SCISTW during June 2015 to August 2015.

1.6 The quarterly EM&A reports for each contract were prepared and certified by separate ETs and subsequently verified by the Independent Environmental Checker (IEC) for the Project. All individual quarterly EM&A Reports are provided in the Project Website.

1.7 Since the construction works of Contract DE/2009/02 was scheduled to be substantially completed at the end of August 2012. The environmental monitoring works at air quality monitoring station AM8 had been handed over from the ET of Contract DE/2009/02 to Cinotech, the ET of Contract DC/2009/10 from September 2012.

Current Contracts at SCISTW

1.8 The major Contracts at SCISTW and their scope of works are provided below:

Contract no. DC/2007/23

- Construction of sewage conveyance system between Sai Ying Pun junction shaft and Stonecutters Island Sewage treatment Works;
- Construction of riser shaft at Stonecutters Island Sewage Treatment Works;
- Construction of Stage 2 Connecting Adit between the riser shaft and Stage 2 Main Pumping Station side chamber (by others) at Stonecutters Island Sewage Treatment works.

Contract no. DC/2009/10

- Construction of a main pumping station;
- The extension of chemically enhanced primary treatment tanks; and
- The construction of other ancillary facilities at Stonecutters Island Sewage Treatment Works.

Contract no. DC/2009/17

- Demolition of the existing structures including vehicle washing facilities, Sludge Silo Building, Sludge Dewatering Building, process water storage tanks, polyelectrolyte storage tanks, ADF barging facilities and all associated plant and equipment;
- Construction of Sludge Dewatering Building, Sludge Cake Silos, Sludge Conveyor Bridges, Sludge Storage Tank, Deodourisation Units, Workshop Building, Process Water Storage Tanks and Pumping System;
- Construction of roof landscaping including irrigation system for the Sludge Dewatering Building and Workshop Building;
- Construction of chemical unloading facilities and the chemical pipe trench for the Disinfection Facilities; and
- Construction of associated Electrical, Mechanical, Building Services, Fire Services and Process Installation, Odour Control System and Temporary Vehicle Wash Facilities.

Contract no. DC/2009/18

- The Construction of an 880m long effluent tunnel at Stonecutters Island; and
- The Construction of disinfection facilities at Stonecutters Island Sewage Treatment Works (SCISTW).

Project Organizations

1.9 The key contacts of current contracts are provided in **Table 1.1.**

Table 1.1 Key Project Contacts

Contract No./ Position	DC/2007/23	DC/2009/10
Contract Title:	Construction of Sewage Conveyance System from North Point to Stonecutters Island;	Upgrading Works at SCISTW - Main Pumping Station, Sedimentation Tanks and Ancillary Facilities
Consultant	Metcalf & Eddy – AECOM JV	Ove Arup & Partners HK Ltd
The Engineer	Keith Tsang (Tel:2605 6262)	S.Y.Chan (Tel: 2528 3031)
The Engineer Representative	Y.H. Fung (Tel: 3713 3110)	Mr Ted Tang (Tel: 2370 4311)
ER's Coordinator	Y.H. Fung (Tel: 3713 3110)	Ms Natalie Kwok (Tel: 6794 8844)
Independent Environmental Checker	Dr. Anne Kerr (Tel:28285757)	Dr. Anne Kerr (Tel:28285757)
Contractor	Gammon Construction Ltd	Sun Fook Kong – Biwater Joint Venture
Site Agent	Max Ko (Tel: 9033 1292)	Mr. Ivan Tse (Tel: 6200 2149)
Environmental Officer	Leo Chow (Tel:9300 2013)	Mr. Albus Cheung (Tel: 2620 0070)
Environmental Team	Environmental Resources Management Ms.Winnie Ko (Tel: 2271 3000)	Cinotech Consultant Limited Dr. Priscilla Choy (Tel: 2151 2089)

Table 1.1(cont'd) Key Project Contacts

Contract No.	DC/2009/17	DC/2009/18
Contract Title:	Upgrading Works at Stonecutters Island Sewage Treatment Works – Sludge Dewatering Facilities	Upgrading Works at Stonecutters Island Sewage Treatment Works – Effluent Tunnel and Disinfection Facilities
Consultant	Ove Arup & Partners HK Ltd	Ove Arup & Partners HK Ltd
The Engineer	S.Y.Chan (Tel: 2528 3031)	S.Y.Chan (Tel: 2528 3031)
The Engineer Representative	Mr Ted Tang (Tel: 2370 4311)	Mr Ted Tang (Tel: 2370 4311)
ER's Coordinator	Mr Jason Yu (Tel: 2371 9407)	Mr Jason Yu (Tel: 2371 9407)
Independent Environmental Checker	Dr. Anne Kerr (Tel:28285757)	Dr. Anne Kerr (Tel:28285757)
Contractor	China State- ATAL Joint Venture	Chun Wo – CEC Joint Venture
Site Agent	Charles Tse (Tel: 9270 3384)	Mr. W.C. Lee (Tel: 3975 6388)
Environmental Officer	K.K Tam (Tel: 2370 3010)	Mr. Shelton Chan (Tel: 3975 6331)
Environmental Team	Cinotech Consultant Limited Dr. Priscilla Choy (Tel: 2151 2089)	Cinotech Consultant Limited Dr. Priscilla Choy (Tel: 2151 2089)

Construction Programme

1.10 The construction program for the Contracts at SCISTW are provided in **Appendix L**. Major construction works undertaken during the reporting quarter include:

Table 1.2 Construction Works in the Reporting Quarter

Contract No.	Construction Works in the Reporting Quarter
DC/2007/23	*June 2015:* Riser Shaft: • BCM inspection for upper riser shaft. Production Shaft (Tunnel L): • BCM inspection for Tunnel L lining. *July 2015:* Riser Shaft: • D-wall breaking and HDPE vent pipe connection. Production Shaft (Tunnel L): • BCM inspection for Tunnel L lining accepted. *August 2015:* Riser Shaft: • Surface bank steel removal works.
DC/2009/17	*June 2015:* Portion 5:

	• Fabrication of steel staircase at SST no. 7 was delivered on site and will be installed after piling works. Portion 6: • Demolition of existing sludge dewatering facilities (Section 4 of Works) was completed. • Pre-drilling for Section 5 piling works was completed on 9 June 2015. • Section 5 piling works for Southern Sludge Cake Silos (SSCS) commenced on 5 May 2015 and was in progress. External Works: • SWAC / PMAC submission and implementation of TTA for the commencement of external works were in progress. • Connection of sludge feed pipes between existing sludge storage tank nos. 3 & 4 at Zone C5 was completed. The installation of jet mixer was in progress. • The construction of underground utilities at Zone B7 commenced and was in progress. • Laying of watermains at Zone A1 was in progress. • Laying of centrate pipe at Portion 6 was in progress. *July 2015:* Portion 5: • Fabrication of steel staircase at SST no. 7 was delivered on site and will be installed after piling works. Portion 6: • Demolition of existing sludge dewatering facilities (Section 4 of Works) was completed. • Section 5 piling works for Southern Sludge Cake Silos (SSCS) commenced on 5 May 2015 and was in progress. External Works: • SWAC / PMAC submission and implementation of TTA for the commencement of external works were in progress. • Connection of sludge feed pipes between existing sludge storage tank nos. 3 & 4 at Zone C5 was completed. The installation of jet mixer was in progress. • The construction of underground utilities at Zone B7 commenced and was in progress. • Laying of watermains at Zone A1 was in progress. • Laying of centrate pipe at Portion 6 was in progress. • Installation of Sludge Feed Pipe (SF2) to be commenced during construction of pile cap of Southern Sludge Cake Silo (SSCS), which is expected to commence in the end of 2015. *August 2015:* Portion 5: • Fabrication of steel staircase at SST no. 7 was delivered on site and will be installed after piling works. Portion 6: • Section 5 piling works for Southern Sludge Cake Silos (SSCS), Workshop Building (WB) were in progress. External Works: • SWAC / PMAC submission and implementation of TTA for the commencement of external works were in progress. • Connection of sludge feed pipes between existing sludge storage tank nos. 3 & 4 at Zone C5 was completed. The installation of jet mixer was in progress.

	• The construction of underground utilities at Zone B7 was in progress. • Laying of watermains at Zone A1 was in progress. • Laying of centrate pipe (CP1 and CP2) at Portion 6 was complete. • Installation of Sludge Feed Pipe (SF2) will be carried out during construction of pile cap of Southern Sludge Cake Silo (SSCS).
DC/2009/10	*June 2015:* • At MPS2, installation of remaining sub-frame of curtain wall and glass panel was in progress. • For E&M works, Installation of sparge & air mixing pipe inside wet well wall (Hall A Side) was in progress. The preparation work for DCS system & cooling pipe system for pump performance test of pump No. 5,6,7 & 8 was in progress. startup test for pump motor No.5,7 and 8 was completed. Installation and welding for DN3000 super duplex pipe (Item 4,9,9A,10) at Hall A and Hall B side were completed. • At Portion 3, Installation of FRP arch covers, sludge scraper at new PSTs and air diffusion system in main distribution channel and flocculation tank were in progress. Sump pit modification works at existing PST#10, 12, 34~37 were in progress. • Electrical & DCS installation at CEPT was in progress. • At Main flow culvert, construction of benching at siphon and Remaining PVC lining installation was in progress. • At Portion 8, Coorocoat lining application of steel tank at Sodium Hypochlorite Storage Compound was in progress and erection of steel truss was in progress. • At Portion 5, the construction of lower manifold was completed and construction of upper manifold is in progress. The installation of DN3600 super duplex pipe & KGV was in progress. • At Portion 6, the construction of manifold was completed. Construction of lower shear key was in progress. • At DOU3, construction of switch room was completed. Construction of storm drain along the footpath was in progress. *July 2015:* • At MPS2, installation of remaining sub-frame of curtain wall and glass panel was in progress. • For E&M works, Installation of sparge & air mixing pipe inside wet well wall (Hall A Side) was in progress. The preparation work for DCS system & cooling pipe system for pump performance test of pump No. 5,6,7 & 8 was in progress. • At Portion 3, Installation of FRP arch covers, sludge scraper at new PSTs and air diffusion system in main distribution channel and flocculation tank were in progress. Sump pit modification works at existing PST#10, 12, 34~37 were in progress. • Electrical & DCS installation at CEPT was in progress. • Structure water tightness for FT5 & FT6 were completed

	• At Main flow culvert, construction of benching at siphon and Remaining PVC lining installation were completed and the water tightness test for B side was completed. • At Portion 8, Coorocoat lining application of steel tank at Sodium Hypochlorite Storage Compound was in progress. Erection of steel truss and connection of bund wall area between new & existing SHSC was in progress. • At Portion 5, the construction of concrete manifold was completed and the water tightness test for RC structure was completed during reporting period. The installation and testing of DN3600 & DN3000 super duplex pipe & KGV was completed. • At Portion 6, the construction of manifold was completed. Construction of lower shear key was in progress. Installation of DN3600 KGV was also in progress • At DOU3, construction of switch room was completed. Construction of storm drain along the footpath was in progress. *August 2015:* • At MPS2, installation of remaining sub-frame of curtain wall and glass panel was in progress. • For E&M works, Installation of sparge & air mixing pipe inside wet well wall (Hall A Side) was in progress. The preparation work for DCS system & cooling pipe system for pump performance test of pump No. 5,6,7 & 8 was in progress. • At Portion 3, Installation of FRP arch covers, sludge scraper at new PSTs and air diffusion system in main distribution channel and flocculation tank were in progress. Sump pit modification works at existing PST#10,12,34~37 were in progress. • Electrical & DCS installation at CEPT was in progress. • At Main flow culvert, construction of benching at siphon and Remaining PVC lining installation were completed and the water tightness test for B side was completed. • At Portion 8, Coorocoat lining application of steel tank at Sodium Hypochlorite Storage Compound was in progress. Erection of steel truss and connection of bund wall area between new & existing SHSC was in progress. • At Portion 5, the installation and testing of DN3600 & DN3000 super duplex pipe & KGV was completed. • At Portion 6, the construction of lower shear key was in progress. Installation of DN3600 KGV was also in progress • At DOU3, construction of storm drain along the footpath was in progress.
DC/2009/18	*June 2015:* Portion 3: • Concreting of Tunnel Lining at Riser Shaft; • Trimming of Shaft Underbreak at Riser Shaft;

	• Concreting at Chamber 15A • ABWF Works, Steel Works and E&M Equipment Installation at Dechlorination Compound. Portion 7: • Concreting of Tunnel Lining at Drop Shaft; • Trimming of Shaft Underbreak at Drop Shaft; • Sheetpiling & Pre-boring works, Excavation & Lateral Support, Cutting of diaphragm wall, Construction of Base Slab at FDC No. 2; and • Concrete Wall Opening & Installation of Temporary Water Gate at FDC No. 1. *July 2015:* Portion 3: • Remedial Work of Tunnel Lining at Riser Shaft & its Tunnel Extension; • Concreting at Chamber 15A; ABWF Works, Steel Works and E&M Equipment Installation at Dechlorination Compound. Portion 7: • Remedial Work of Tunnel Lining at Drop Shaft & its Tunnel Extension; • Excavation & Lateral Support, Cutting of diaphragm wall, Concreting at FDC No. 2; • Concrete Wall Opening & Installation of Temporary Water Gate at FDC No. 1; Concreting for Slab & Plinth of DOU4. *August 2015:* Portion 3: • Remedial Work of Tunnel Lining at Riser Shaft & its Tunnel Extension; • Concreting at Chamber 15A; • ABWF Works, Steel Works and E&M Equipment Installation at Dechlorination Compound. Portion 7: • Remedial Work of Tunnel Lining at Drop Shaft & its Tunnel Extension; Excavation & Lateral Support, Cutting of diaphragm wall, Concreting at FDC No. 2; • Concrete Wall Opening & Installation of Temporary Water Gate at FDC No. 1; • Concreting for Slab & Plinth of DOU4

Summary of EM&A Requirements

1.11 The EM&A programme requires construction phase monitoring for air quality and construction noise, landscape and visual and environmental site audit. The EM&A requirements for each parameter are described in the following sections, including:

- All monitoring parameters;
- Action and Limit levels for all environmental parameters;
- Event Action Plans;
- Environmental mitigation measures, as recommended in the project EIA study final report; and
- Environmental requirements in contract documents.

1.12 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 4 of this report.

1.13 This report summarized the monitoring results, observations, locations, equipment, period, for required monitoring parameter namely dust, noise levels, and audit works conducted for the Project from June 2015 to August 2015, and the methodology and QA/QC procedures of the monitoring parameters.

2. AIR QUALITY

Monitoring Requirements

2.1 1-hour and 24-hour TSP monitoring were conducted to monitor the air quality. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

2.2 Four designated monitoring stations, AM6, AM7, AM8 and AM9 were selected for impact dust monitoring. **Table 2.1** describes the air quality monitoring locations, which are also depicted in **Figure 1**.

Table 2.1 Locations for Air Quality Monitoring

Monitoring Station	Monitored under Contract No.	Location of Measurement
AM6	DC/2007/23	Works site boundary of DC/2007/23
AM7	DC/2009/10	North West Kowloon Sewage Pumping Station
AM8		Block A of Government Dockyard
AM9	DC/2009/18	Work Site Boundary (Near Ngong Shuen Chau Barracks Group 2)

Monitoring Equipment

2.3 The equipment used in the impact air monitoring programme and the copies of calibration certificates could be referred to the relevant monthly reports for respective contracts.

Monitoring Parameters, Frequency and Duration

2.4 Table 2.2 summarizes the monitoring parameters and frequencies of impact dust monitoring for the whole construction period.

Table 2.2 Impact Dust Monitoring Parameters, Frequency and Duration

Monitoring Station	Parameter	Period	Frequency
All monitoring locations	1-hour TSP	0700-1900	3 times/ every 6 days
	24-hour TSP	0000-2400	once in every 6 days

Monitoring Methodology and QA/QC Procedure

2.5 The monitoring methodology, QA/QC procedure and copies of calibration certificates for monitoring equipment could be refer to the relevant monthly reports for respective Contract.

Results and Observations

2.6 **Table 2.3** summaries the air quality monitoring results at AM6, AM7, AM8 and AM9 in reporting quarter.

Table 2.3 Summary of 1-hour and 24-hour TSP Monitoring Results

Air Quality Monitoring Station	Reporting Month	Average μgm^{-3}	Range μgm^{-3}	Action Level μgm^{-3}	Limit Level μgm^{-3}
1 hour TSP					
AM6	Jun 2015	108	77 - 135	346	500
	Jul 2015	108	83-173		
	Aug 2015	151	92 - 184		
AM7	Jun 2015	77	25 - 162	322	
	Jul 2015	92	22-220		
	Aug 2015	107	32 - 203		
AM8	Jun 2015	47	19 - 96	307	
	Jul 2015	92	21-168		
	Aug 2015	97	32 – 190		
AM9	Jun 2015	113.6	26.9 - 213.2	318	
	Jul 2015	126.8	24.5-231.3		
	Aug 2015	129.3	32.0 - 214.7		
24 hour TSP					
AM6	Jun 2015	67	52 - 77	196	260
	Jul 2015	65	58-77		
	Aug 2015	81	68 - 93		
AM7	Jun 2015	70	65 - 83	207	
	Jul 2015	81	70-87		
	Aug 2015	64	30 – 101		
AM8	Jun 2015	30	26 - 34	158	
	Jul 2015	45	22-62		
	Aug 2015	42	19 - 110		
AM9	Jun 2015	80.1	43.3 - 104.8	169	
	Jul 2015	92.9	64.2-124.5		
	Aug 2015	90.5	49.7 - 112.7		

2.7 All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in **Appendix E**.

2.8 All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded. Summary of exceedance is presented in **Appendix E**.

2.9 The graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendix B**.

2.10 According to field observations, the identified dust sources at the monitoring stations were mainly from loading of material, vehicles movement and construction works in site.

3. NOISE

Monitoring Requirements

3.1 Three noise monitoring stations, namely NM5, NM6 and NM7 were designated in the EM&A Manual for impact monitoring. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

3.2 Noise monitoring was conducted at two designated monitoring stations as listed in **Table 3.1. Figure 1** shows the locations of these stations.

Table 3.1 Noise Monitoring Stations

Monitoring Station	Monitored under Contract No.	Location of Measurement
NM5	DC/2007/23	Near FSD Diving Rescue and Training Centre
NM6	DC/2009/10	Customs Marine Base
NM7	DC/2009/18	Open Area near Naval Base Barracks

Monitoring Equipment

3.3 The equipment used in the impact noise monitoring programme and the copies of calibration certificates could be referred to the relevant monthly report for respective contracts.

Monitoring Parameters, Frequency and Duration

3.4 **Table 3.2** summarizes the monitoring parameters, frequency and total duration of monitoring.

Table 3.2 Noise Monitoring Parameters, Frequency and Duration

Monitoring Stations	Parameter	Period	Frequency
NM5 NM6 NM7	L_{eq}(30 min.) dB(A)	0700-1900 hrs on weekdays	Once per week
	L_{eq}(5 min.) dB(A)	During restricted hours	Weekly monitoring to be conducted during the construction works

Monitoring Methodology and QA/QC Procedures

3.5 The monitoring methodology, copies of calibration certificates for monitoring equipments and QA/QC procedure could be refer to the relevant monthly reports for Contract DC/2007/23, DC/2009/10 and DC/2009/18.

Results and Observations

3.6 **Table 3.3** summaries the noise monitoring results at NM5, NM6 and NM7 in reporting quarter.

Table 3.3 Summary of Noise Monitoring Results

For the time period 0700-1900 hrs. on weekdays			
Monitoring Station	Reporting Month	Range, dB(A) L_{eq}(30 min.)	Limit Level ,dB(A) L_{eq}(30 min.)
NM5	Jun 2015	60 - 61	75.0
	Jul 2015	57 - 61	
	Aug 2015	58 - 65	
NM6	Jun 2015	62.3 – 69.3	
	Jul 2015	62.4 - 68.5	
	Aug 2015	68.4 - 73.4	
NM7	Jun 2015	69.3 - 72.8	
	Jul 2015	69.6 - 72.4	
	Aug 2015	69.2 – 73.4	
For the time period 1900-2300 hrs on weekdays/ For the time period 0700-2300 hrs on Public Holiday			
NM5	Jun 2015	57 - 60	70.0
	Jul 2015	56 - 59	
	Aug 2015	56 - 61	
NM7	Jun 2015	62.3 - 63.9	
	Jul 2015	63.5 - 64.3	
	Aug 2015	62.6 – 64.2	
All days during 2300 to 0700 hours of the next day			
NM7	Jun 2015	58.2 - 58.8*	55.0
	Jul 2015	57.7 - 58.6*	
	Aug 2015	58.1 – 59.3*	

Remarks*: Since the construction noise levels recorded in restricted hour from 23:00 to 07:00 of the next day were lower than the baseline level (i.e. 59.7 dB (A)), the recorded noise levels were considered non-valid exceedance of Limit Level.

3.7 All construction noise monitoring at two designated locations were conducted by their ETs as scheduled in the reporting quarter.

3.8 No Action/Limit Level exceedance of Noise in normal working hours and restricted hours was recorded in the reporting quarter. Summary of exceedance is presented in **Appendix G**.

3.9 The graphical presentations of Noise monitoring results are shown in **Appendix C**.

3.10 The major noise sources identified at the designated noise monitoring stations during day time were the noise generated from onsite trucks movement, concreting work and the traffic noise from the Container Port Road South close to the site boundary of the SCISTW; while the major noise sources identified during the evening and night time period was the construction works of Contract No: DC/2009/18 and traffic noise from the nearby Container Port Road South and Stonecutters Bridge.

4 ENVIRONMENTAL AUDIT

Site Audits

4.1 Site audits were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in each Project site.

4.2 No non-compliance was observed during the site audits.

4.3 Site inspections were undertaken to ensure and check that the implementation and maintenance of landscape and visual mitigation measures are being properly carried out in the reporting quarter in accordance to section 11.10 of the EM&A Manual. No non-compliance was observed during the site inspections.

4.4 The summaries of site audits for the four contracts were extracted from their reports and presented in **Appendix F.**

Review of Environmental Monitoring Procedures

4.5 The monitoring works conducted by the monitoring team of respective Contracts and were inspected regularly by their ETs.

Status of Environmental Licensing and Permitting

4.6 All permits/licenses obtained for the each Contract are summarized in **Appendix D**.

5 STATUS OF WASTE MANAGEMENT

5.1 The amount of wastes generated by the activities of contracts in the reporting quarter is the following:

Table 5.1 Summary of Amount of Waste Generated in Reporting Quarter

Contract	Reporting Month	Inert C&D[1] Materials	Other C&D[2] Waste	Chemical Waste	Marine Deposit		
					Type 1 **(m^3)**	Type 2 **(m^3)**	Type 3 **(Tonnes)**
DC/2007/23	Jun 2015	1,084*(m^3)	288*(m^3)	0	0*	0*	0*
	Jul 2015	775*(m^3)	240*(m^3)	0	0*	0*	0*
	Aug 2015	847(m^3)	253(m^3)	0	0*	0*	0*
DC/2009/10	Jun 2015	382(m^3)	17(m^3)	0	0	0	0
	Jul 2015	187(m^3)	20,290(kg) and 43(m^3)	0	0	0	0
	Aug 2015	185(m^3)	37(m^3)	0	0	0	0
DC/2009/17	Jun 2015	1,231(m^3)	3(ton)	0	0	0	0
	Jul 2015	1,916(m^3)	14(ton)	0	0	0	0
	Aug 2015	2,163(m^3)	4(ton)	0	0	0	0
DC/2009/18	Jun 2015	561(m^3)	65(m^3)	0	0	0	0
	Jul 2015	901(m^3)	39,130(kg) and 176(m^3)	0	0	0	0
	Aug 2015	22(m^3)	87(m^3)	528(kg)	0	0	0

*: The amount of waste generated is from all sites in this Contract.
1: Inert C&D Materials includes Broken Concrete/Rock, Inert C&D waste reused in the Contract/other Project and those disposed to Public Fill.
2: Other C&D Waste includes Metals, Paper Cardboard packaging, plastic and other General Refuse.

5.2 The disposal location of wastes generated by the activities of the four contracts is the following:

Table 5.2 Summary of Disposal Location of Waste Generated in Reporting Quarter

Contract No.	Disposal Location of Wastes in Report Quarter
DC/2007/23	Chai Wan Barging Point, TKO Area 137 and Tuen Mun Area 38; No non-inert C&D waste was disposed during the reporting period.
DC/2009/10	Tuen Mun Area 38 Fill Bank and NENT Landfill;
DC/2009/17	Tuen Mun Area 38 Fill Bank and NENT Landfill; No non-inert C&D waste other than general refuse was disposed during the reporting period.
DC/2009/18	Lam Tei Quarry, Tuen Mun Area 38 Fill Bank and NENT Landfill and Tseung Kwan O Area 137 Fill Bank

Landscape and Visual Monitoring

5.3 Landscape and visual monitoring as described in the EM&A Manual has been implemented in the individual Contracts.

The major findings and recommendations are summarized as below:

Contract No. DC/2007/23

5.4 Refer to Section 7.5.3 of the report of Contract No. DC/2007/23. Observations recorded during the audits in the reporting quarter are described below:

- General refuse was observed inside the tree protection zone.
- Salt water leakage from pipes near the tree protection zone was observed; The Contractor was reminded to inspect problem.

Contract No. DC/2009/17

5.5 Three landscape and visual audits were conducted within the environmental site inspection conducted in reporting period and the implementation and maintenance of landscape and visual mitigation measures are fully achieved and no major findings were observed during the reporting quarterly period.

Contract No. DC/2009/10

5.6 Three landscape and visual audits were conducted within the environmental site inspection conducted in reporting period and the implementation and maintenance of landscape and visual mitigation measures are fully achieved and no major findings were observed during the reporting quarterly period.

Contract No. DC/2009/18

5.7 Three landscape and visual audits were conducted within the environmental site inspection conducted in reporting period and 2 findings were observed during the reporting quarterly period:

- The Contractor is reminded to maintain the tree protection zone in good condition.
- The tree protection zone should be protected by fencing (Portion 7).

Implementation Status of Environmental Mitigation Measures

5.8 Details of the implementation of mitigation measures for the five contacts are provided in the **Appendix H**.

5.9 In the weekly environmental site inspections during the reporting quarterly period, no non-conformance was identified. The observations and recommendations for the Projects are summarized in **Appendix F**.

Implementation Status of Event Action Plans

5.14 The Event Action Plans for air quality and noise are presented in **Appendix G.**

<u>1-hr TSP</u>

5.15 No Action/Limit Level exceedance was recorded.

<u>24-hr TSP</u>

5.16 No Action/Limit Level exceedance was recorded.

Construction Noise

5.17 No Action/Limit Level exceedance for normal working hours and restricted hours was recorded.

Landscape and Visual

5.18 No non-compliance was recorded.

Summary of Complaints and Prosecutions

5.19 No environmental complaint and prosecution was received at SCISTW for the four contracts during the reporting quarterly period.

5.20 There was a total of 1 project-related environmental complaint received since the commencement of the four contracts. The Complaint Log is presented in **Appendix I**.

6. FUTURE KEY ISSUES

Key Issues for the Coming Quarter

6.1 Key environmental issues in the coming quarter include:

- Generation of dust from stockpiles of excavated and dusty materials, unpaved site area and vehicle movement, roadworks, excavation works and loading and unloading dusty materials on-site;
- Noise from operation of equipment and machinery on-site;
- Storage of chemicals/fuel and chemical waste/waste oil on-site;
- Ponding water generated in pre-drillings;
- Drainage system should be well designed and maintained to prevent flooding and silty water getting into the public area;
- Oil leakage from equipment and spillage;
- Silty surface runoff generated from the site area during raining;
- Dust generation should be mitigated by adequate water spraying, especially in dry days;
- Stockpile should be covered by tarpaulin to reduce dust generation;
- Silt and dust getting into the public area by the leaving site vehicles at the site exits without adequate wheel washing facilities; and
- Proper tree and shrub protection works should be provided when carrying out works near existing trees and shrubs.

Construction Program for the Coming Quarter

6.2 The tentative construction programs for respective Contracts are provided in **Appendix J**.

7 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

7.1 Environmental monitoring and audit works were performed in the reporting quarter and all monitoring results were checked and reviewed.

1-hour TSP Monitoring

7.2 All 1-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.

24-hour TSP Monitoring

7.3 All 24-hour TSP monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance was recorded.

Construction Noise Monitoring

7.4 All construction noise monitoring was conducted as scheduled in the reporting quarter. No Action/Limit Level exceedance for normal working hours and restricted hours was recorded.

Environmental Audit

7.5 Environmental site audits were conducted as weekly basis in the reporting quarter. No non-compliance was recorded.

Complaint and Prosecution

7.6 There are no environmental related summonses, prosecutions and complaints in the reporting quarter.

Recommendations

7.7 The following recommendations were made for the coming reporting quarter:

Dust Impact

- To regularly maintain the machinery and vehicles on site;
- To mitigate dust generation by adequate water spraying or covering by tarpaulin during dry days;
- To cover the stockpile with tarpaulin to reduce dust generation;
- To follow up any exceedance caused by the construction works; and
- To implement dust suppression measures on all haul roads, stockpiles, dried/unpaved surfaces and excavation/road breaking works.

Noise Impact

- To inspect the noise sources inside the site;
- To follow up any exceedance caused by the construction works;
- To space out noisy equipment and position the equipment as far away as possible from

sensitive receivers; and
- To provide temporary noise barriers for operations of noisy equipment near the noise sensitive receivers in an appropriate location.

Water Impact

- To identify any potential discharge of surface run-off from the construction site;
- To avoid water accumulation on site and carry out larviciding against mosquito breeding for stagnant water when mosquito larvae are observed;
- To clear the sediment in the wastewater treatment tanks regularly;
- To provide adequate wastewater treatment facilities to treat the wastewater generated during construction works and heavy rain; and
- The discharged water quality must meet the requirements specified in the discharge licence.

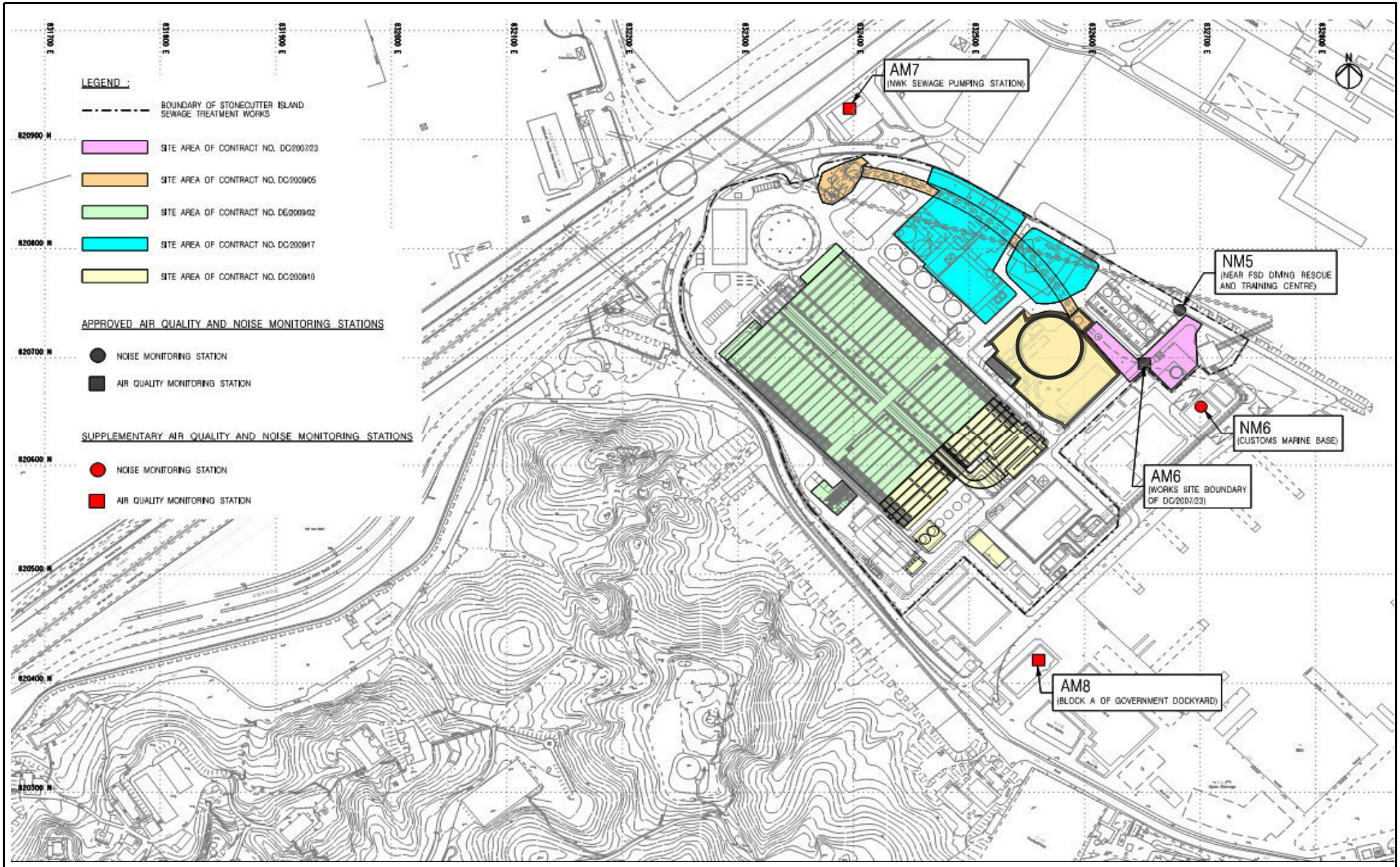
Waste/Chemical Management

- To provide proper rubbish bins / skips for waste collection;
- To check for any accumulation of wasted materials or rubbish on site;
- To provide proper storage area or drip trays for oil containers/ equipments on site;
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the equipment;
- To well maintain the equipments and drip trays to avoid oil leakage; and
- To avoid improper handling or storage of oil drum on site.

Landscape and Visual

- To erect and maintain the protection fence around the retained tree; and
- To avoid any construction materials being placed within tree protection zone.

FIGURES



Title	Contract No: DC/2009/10 HATS 2A - Upgrading Main Pumping Station,Sedimentation Tanks and Ancillary Facilities at SCISTW	Scale N.T.S	Project No. MA11007	CINOTECH
	General Location Plan of the Project and Locations of Air Quality and Noise Monitoring Stations	Date 8/2011	Figure 1A	

E 831600
E 831800
E 832000
E 832200
E 832400
E 832600
E 832800
N 821000
N 820800
N 820600
N 820400
N 820200
N 820000
FLOW DISTRIBUTION CHAMBER NO.5
EFFLUENT TUNNEL
SEE DRAWING 24888/ETF/0023
STONECUTTERS ISLAND SEWAGE TREATMENT WORKS
CHLORINE CONTACT DURING RESIDENCE TIME WITHIN TUNNEL
PROPOSED CHAMBER 15A
EXISTING DROP SHAFT
DECHLORINATION COMPOUND
OVERFLOW CULVERT
EXISTING CHAMBER 15
NGONG SHUEN CHAU BARRACKS
SEE DRAWING 24888/ETF/0022
0 20 40 60 80 100
METRES
1: 2000

KEY PLAN

LEGEND:

BOUNDARY OF SCISTW

ALIGNMENT OF EFFLUENT TUNNEL

Rev	Description	By	Date
0	ISSUE FOR CONSTRUCTION	PW	06/11

Consultant
ARUP 奧雅納工程顧問 Ove Arup & Partners Hong Kong Limited

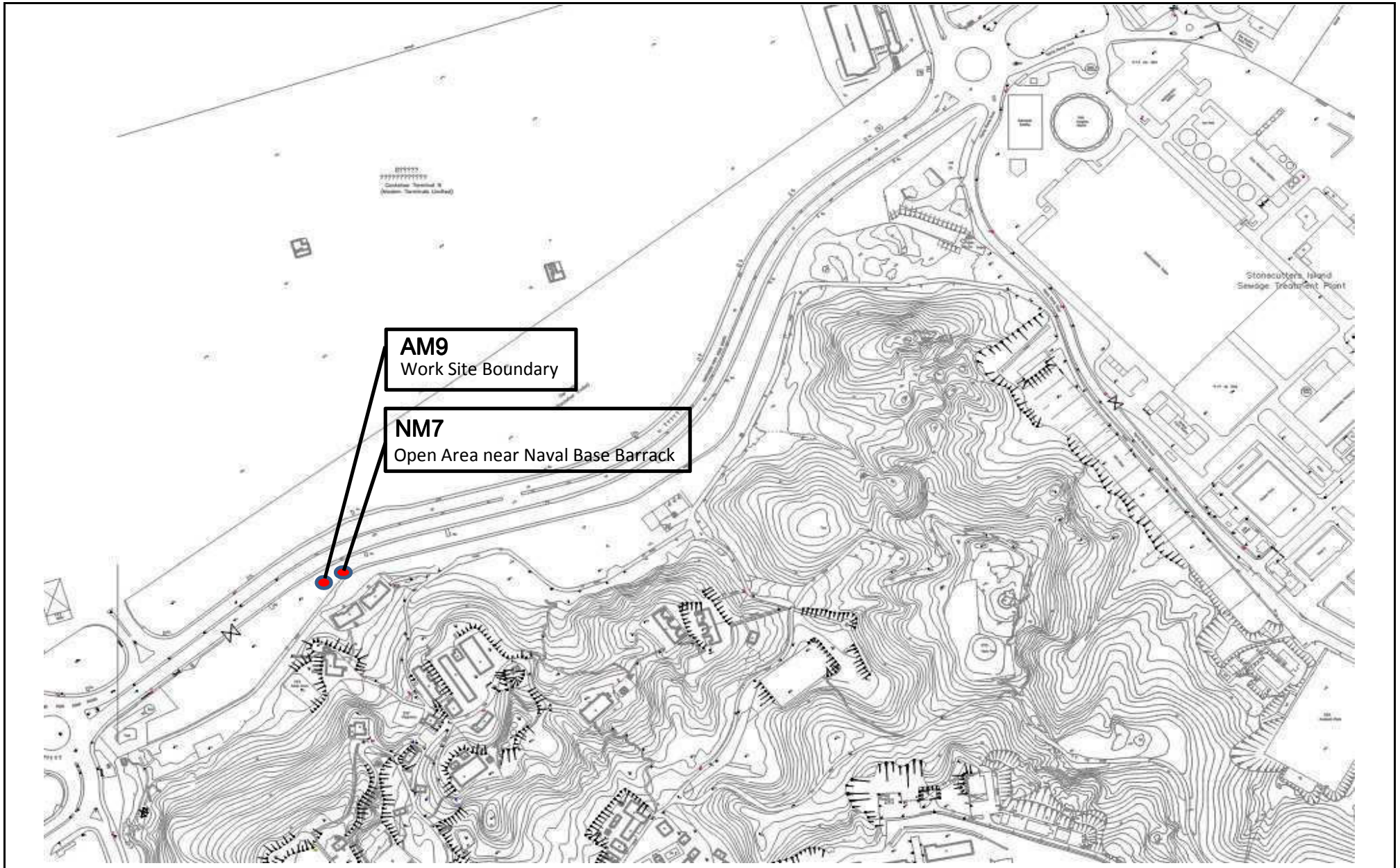
Project title
Contract No. DC/2009/18
Harbour Area Treatment Scheme Stage 2A-Upgrading Works at Stonecutters Island Sewage Treatment Works-Effluent Tunnel and Disinfection Facilities

Drawing title
GENERAL LAYOUT (SHEET 1)
Fig. 1B

Drawing no.			Rev.
24888/ETF/0021			0
Drawn WM	Date 08/10	Checked PW	Approved DP
Scale 1:2000 @A1		Status WORKING	

香港特別行政區政府渠務署
DRAINAGE SERVICES DEPARTMENT
GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION

Printed by : 17/6/2011
Filename : J:\24888\Record\WORKING\CIVIL\20110617_ETF\DGN\24888_ETF0021.dgn



Title	Contract No. DC/2009/18 HATS 2A -Upgrading Works at Stonecutters Island Sewage Treatment Works - Effluent Tunnel and Disinfection Facilities	Scale N.T.S	Project No. MA11043	CINOTECH
	Locations of Impact Air Quality and Noise Monitoring Stations	Date 2/2012	Figure 1C	

APPENDIX A
ACTION AND LIMIT LEVELS FOR AIR QUALITYAND NOISE QUALITY

Appendix A Action and Limit Levels

Table A-1 Action and Limit Levels for 1-Hour TSP and 24-Hour TSP

Monitoring Stations	Action Level ($\mu g/m^3$)		Limit Level ($\mu g/m^3$)	
	1-hour	24-hour	1-hour	24-hour
AM6	346	196	500	260
AM7	322	207	500	260
AM8	307	158	500	260
AM9	318	169	500	260

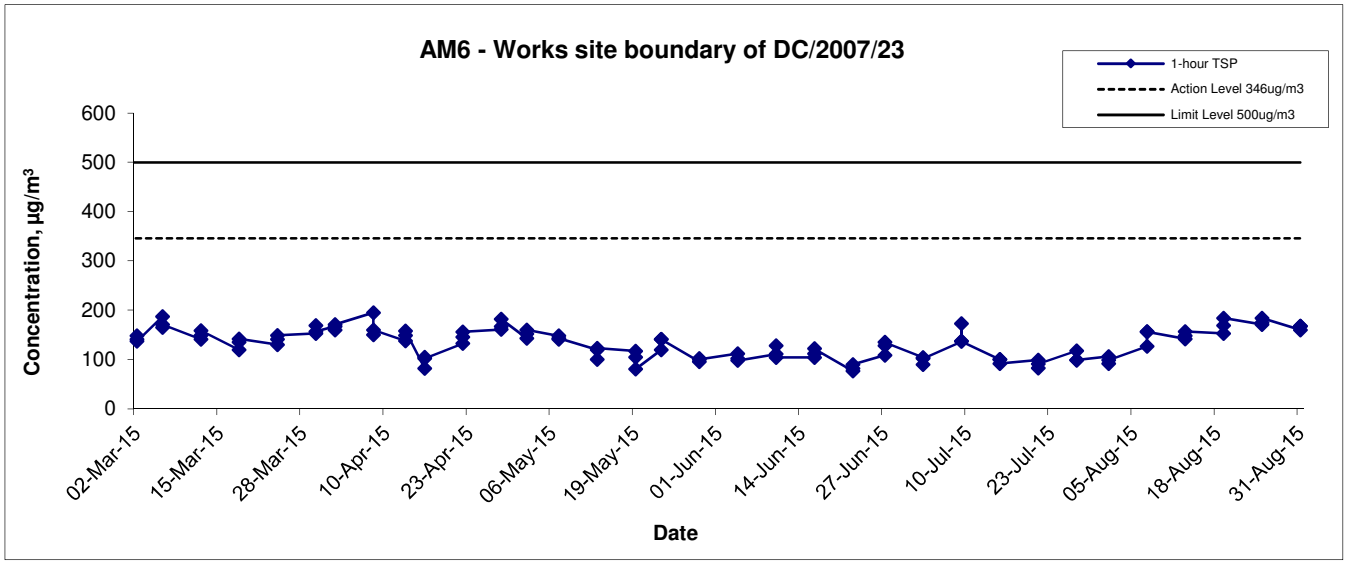
Table A-2 Action and Limit Level for Construction Noise

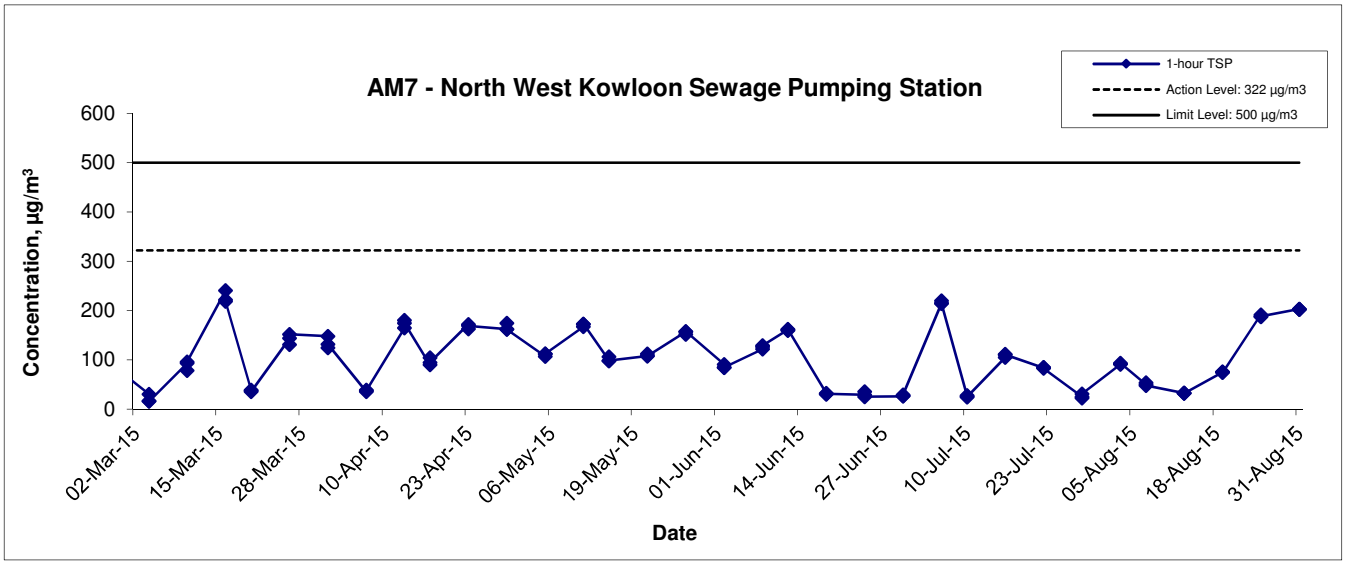
Monitoring Stations	Time Period	Action Level	Limit Level in dB(A)
NM5 **NM6** **NM7**	0700-1900 hours on normal weekdays	When one documented complaint is received	75
	Restricted Hours (Evening Time) All days during the evening (1900 to 2300 hours), and general holidays (including Sundays) during the day-time and evening (0700 to 2300 hours)	N/A	70(1)
	Restricted Hours (Night Time) All days during the night-time (2300 to 0700 hours)	N/A	55(1)

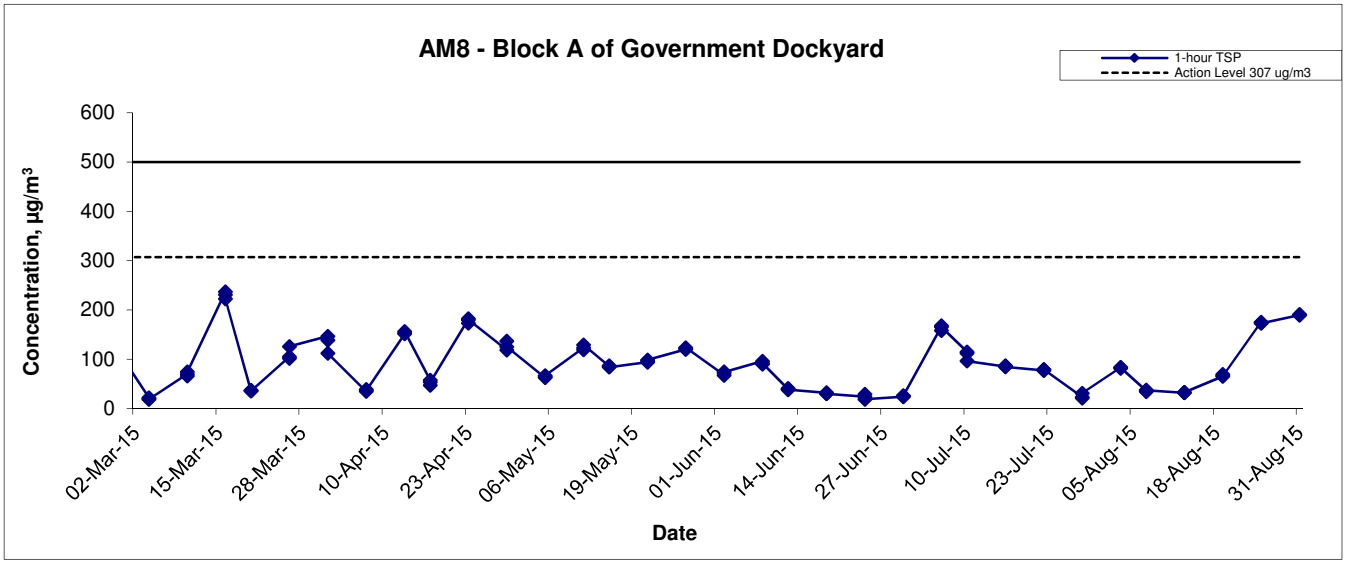
Note (1): Construction Noise Criteria for activity other than Percussive Pilling.

APPENDIX B
GRAPHICAL PRESENTATIONS OF 1-HOUR AND 24-HOUR TSP MONITORING RESULTS

1-hr TSP Concentration Levels

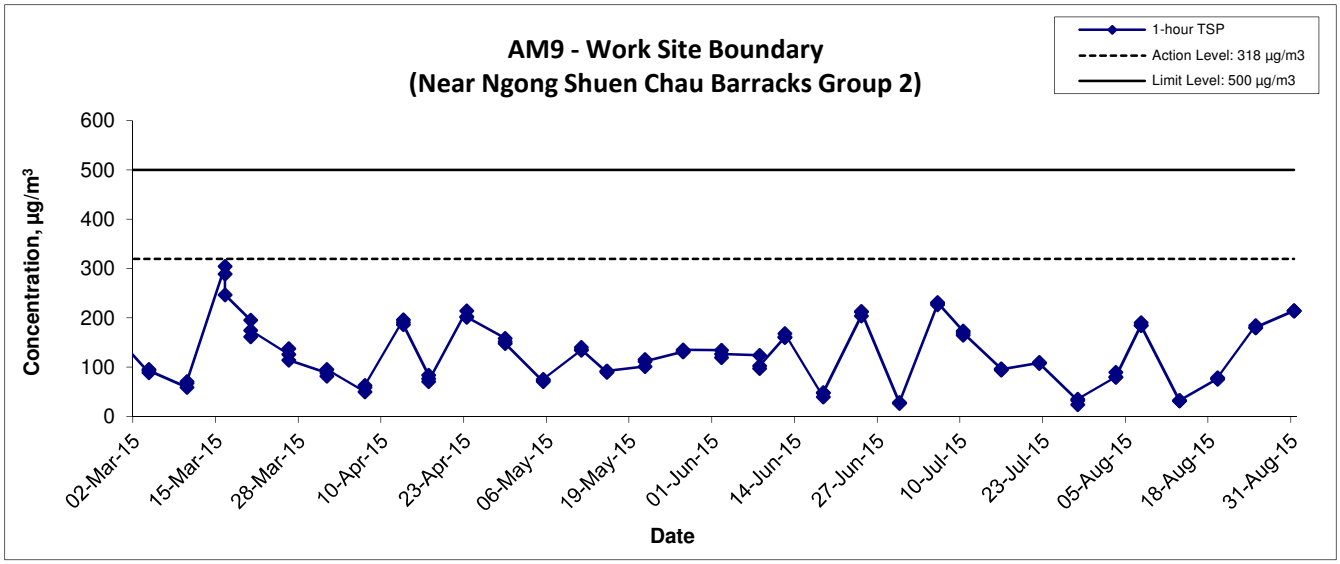






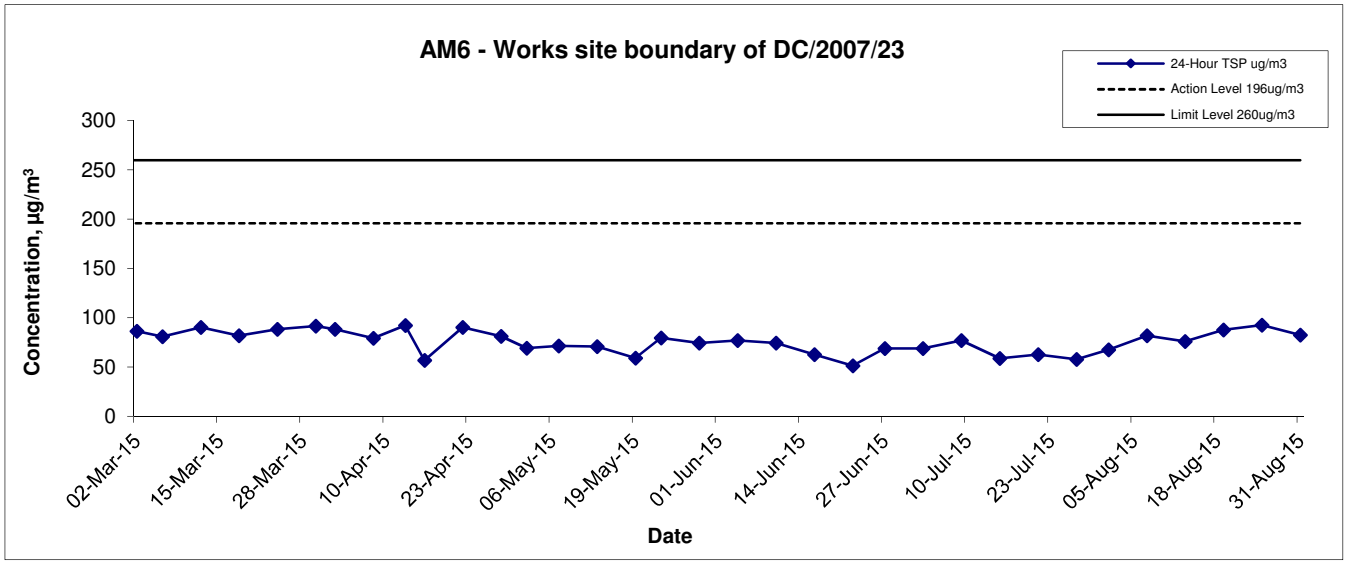
Title: Contract No. DC/2009/10 HATS Stage 2A – Upgrading Works at Stonecutters Island Sewage Treatment Works - Main Pumping Station, Sedimentation Tanks and Ancillary Facilities Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Date: Aug-15	Project No.: MA11007 Appendix: B	CINOTECH

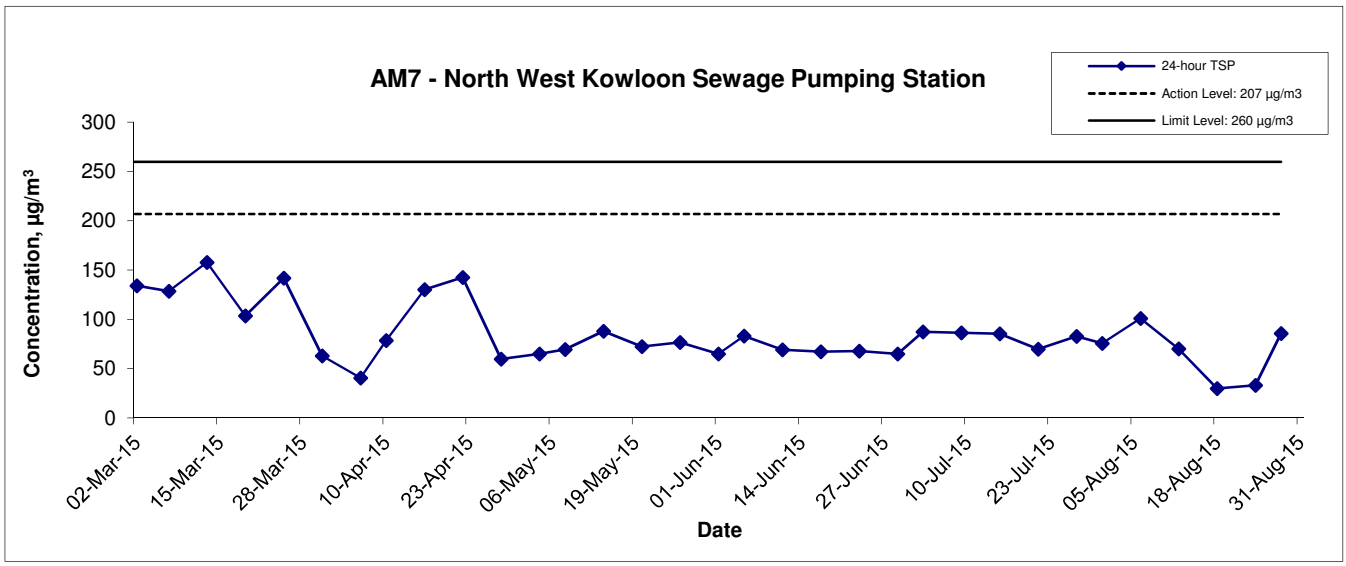
1-hr TSP Concentration Levels

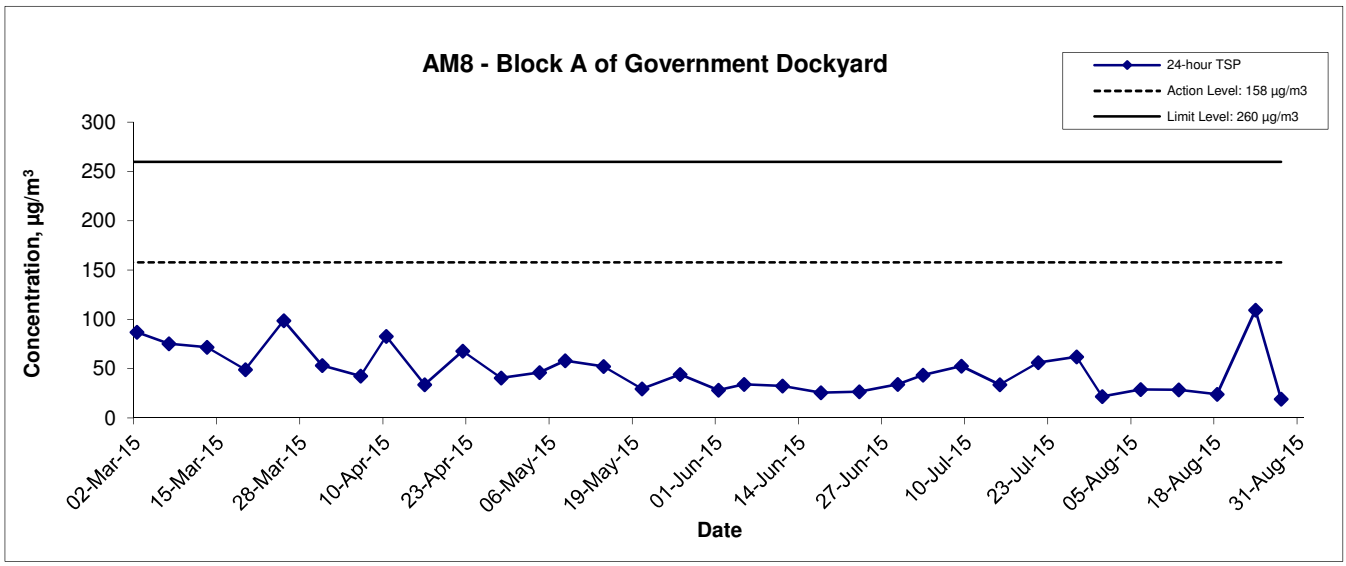


Title: Contract No. DC/2009/18 HATS 2A – Upgrading Works at SCISTW– Effluent Tunnel and Disinfection Facilities Graphical Presentation of 1-hour TSP Monitoring Results	Scale: N.T.S Date: Aug 15	Project No.: MA11043 Appendix: B	CINOTECH

24-hr TSP Concentration Levels



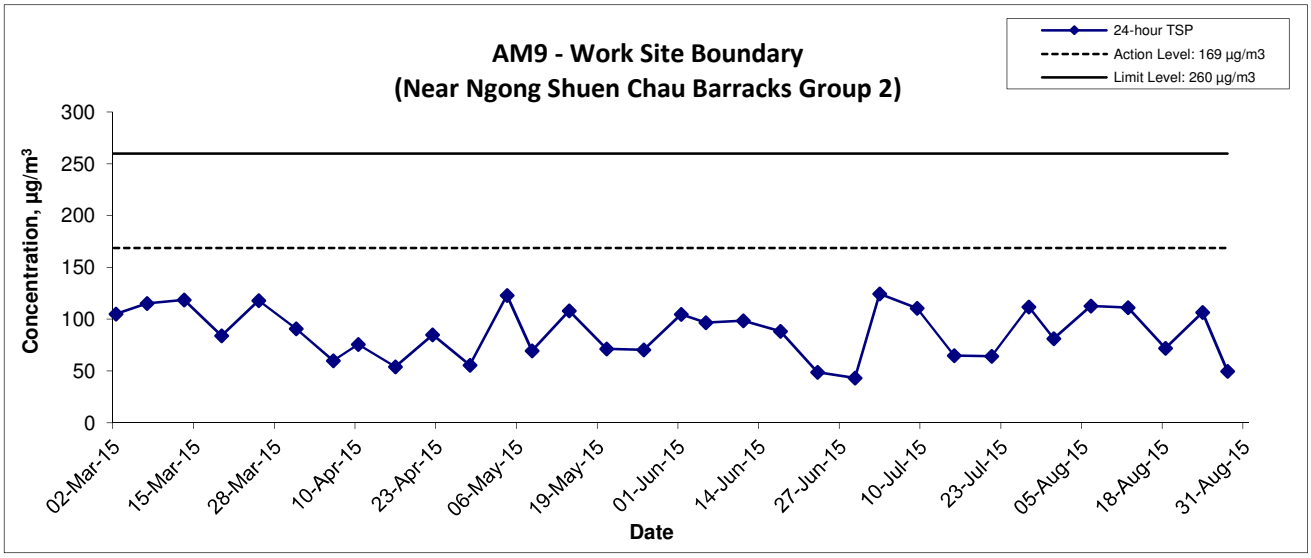




Title: Graphical Presentation of 24-hour TSP Monitoring Results	Contract No. DC/2009/10 HATS Stage 2A – Upgrading Works at Stonecutters Island Sewage Treatment Works - Main Pumping Station, Sedimentation Tanks and Ancillary Facilities	Scale: N.T.S Date: Aug-15	Project No.: MA11007 Appendix: B

CINOTECH

24-hr TSP Concentration Levels

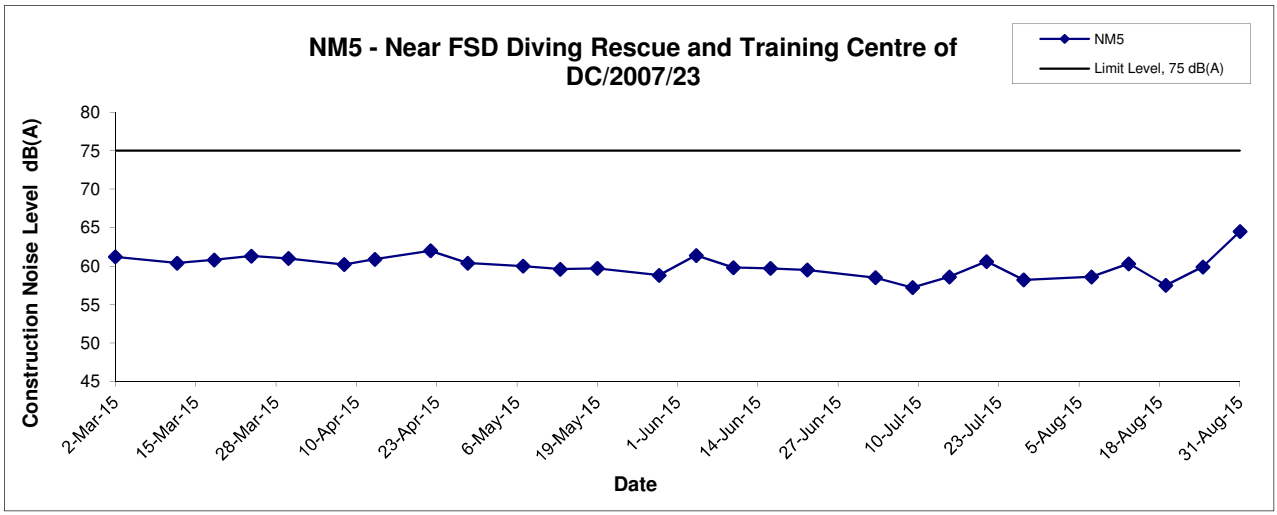


Title: Contract No. DC/2009/18 HATS 2A – Upgrading Works at SCISTW– Effluent Tunnel and Disinfection Facilities Graphical Presentation of 24-hour TSP Monitoring Results	Scale: N.T.S Date: Aug 15	Project No.: MA11043 Appendix: B	CINOTECH

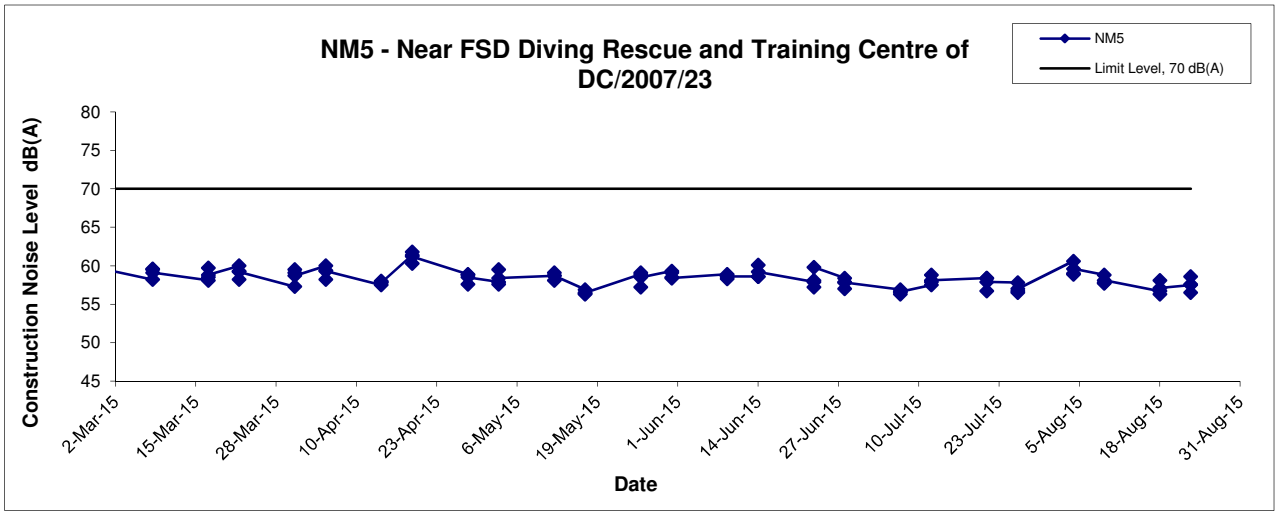
APPENDIX C
GRAPHICAL PRESENTATIONS OF NOISE MONITORING RESULTS

Noise Levels

(Daytime Noise - 0700 to 1900 hrs on normal weekdays)



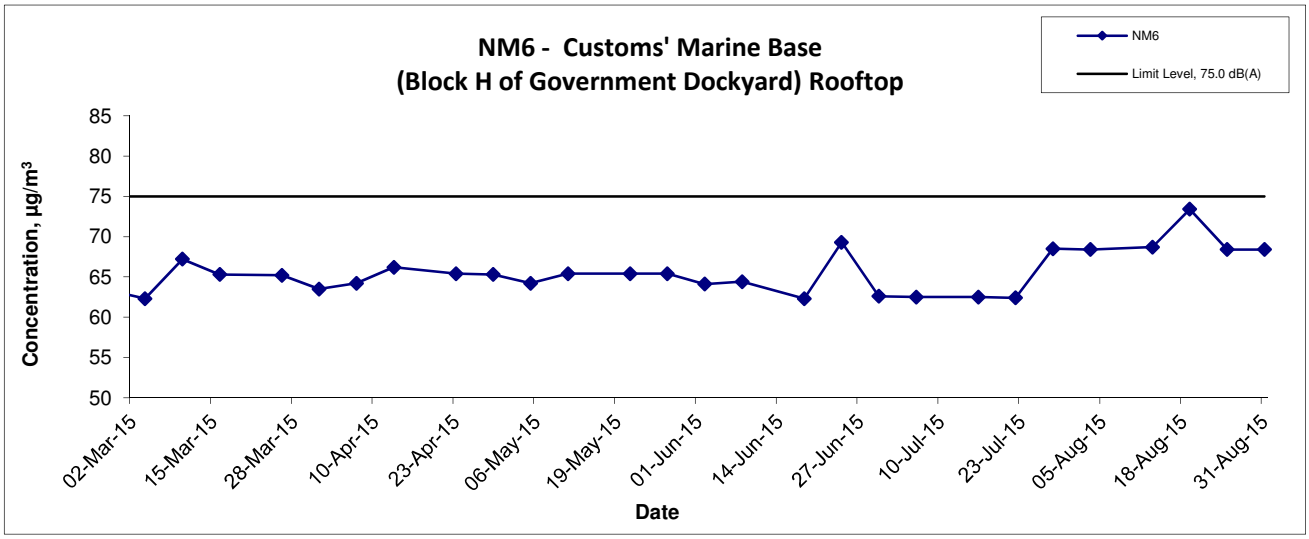
(For the time period 1900-2300 hrs. on Normal Weekdays, and 0700-2300 of Sundays and Public Holiday)



Title: Contract No. DC/2009/10 HATS 2A – Upgrading Works at SCISTW– Main Pumping Station, Sedimentation Tanks and Ancillary Facilities Graphical Presentation of the Noise Monitoring Result	Scale: N.T.S Date: Aug 15	Project No.: MA11007 Appendix: C	CINOTECH

Noise Levels

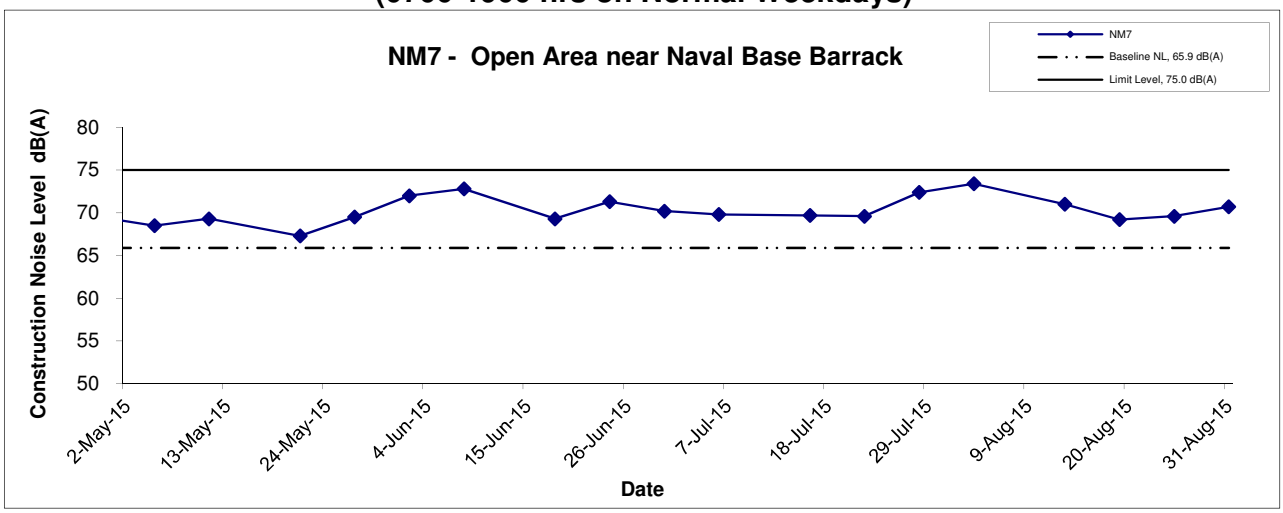
(0700-1900 hrs on Normal Weekdays)



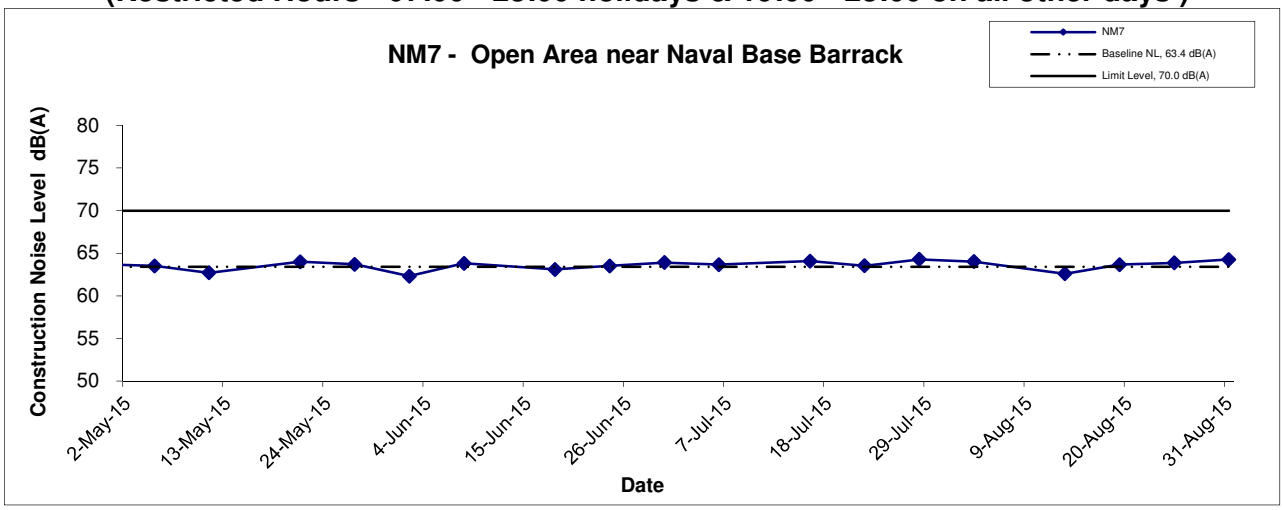
Title	Contract No. DC/2009/10 HATS 2A – Upgrading Works at SCISTW– Main Pumping Station, Sedimentation Tanks and Ancillary Graphical Presentation of Noise Monitoring Result	Scale N.T.S Date Aug 15	Project No. MA11007 Appendix C	CINOTECH

Noise Levels

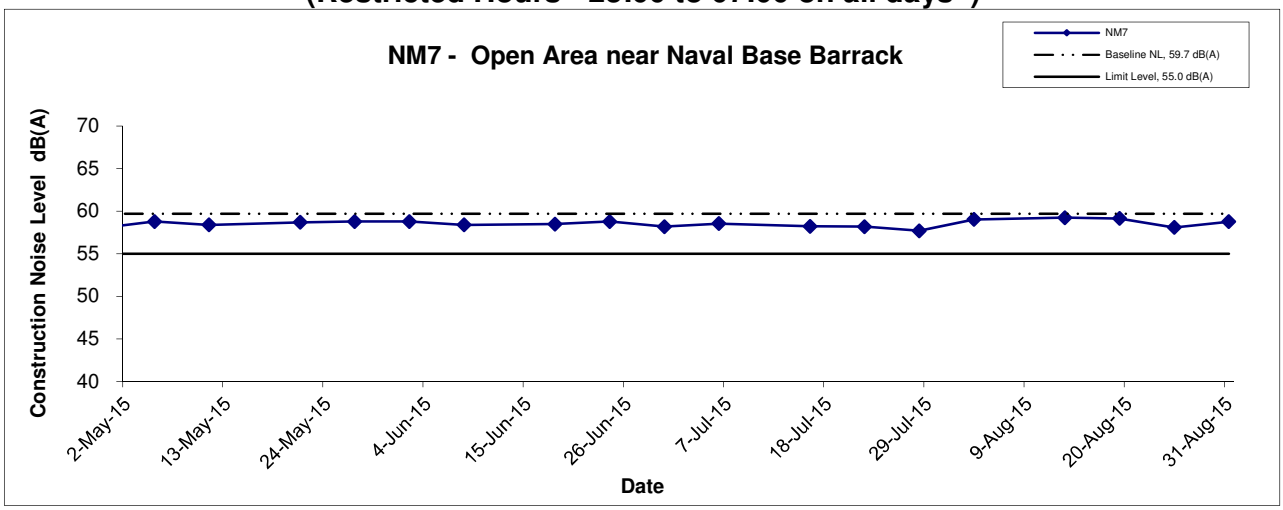
(0700-1900 hrs on Normal Weekdays)



(Restricted Hours - 07:00 - 23:00 holidays & 19:00 - 23:00 on all other days)



(Restricted Hours - 23:00 to 07:00 on all days)



Title		Scale	Project No.
Contract No. DC/2009/18 HATS 2A – Upgrading Works at SCISTW– Effluent Tunnel and Disinfection Facilities Graphical Presentation of Noise Monitoring Result		N.T.S	MA11060
		Date Aug 15	Appendix C

CINOTECH

APPENDIX D
ENVIRONMENTAL PERMITS AND LICENSES

APPENIDX D – Environmental Permits and Licenses

Table D.1 Summary of Environmental Licensing and Permit Status for Contract DC/2007/23

Permit No.	Valid Period		Details	Status
	From	To		
Wastewater Discharge License				
WT00020219-2014	30/10/2014	31/10/2019	Location: Stonecutters Island Production Shaft and Riser Shaft	Valid
Chemical Waste Producer Registration				
5213-269-G2449-07	--	--	Location: Stonecutters Island Production Shaft and Riser Shaft	Valid
Construction Noise Permit				
GW-RW0996-14	9/1/2015	8/7/2015	Location: Stonecutters Island Area K-1	Expired
GW-RW0160-15	23/4/2015	22/10/2015	Location: Stonecutters Island Production Shaft and Riser Shaft	Valid

Table D.2 Summary of Environmental Licensing and Permit Status for Contract DC/2009/10

Reference Number	Valid Period		Details	Status
	From	To		
Water Discharge License				
WT00009245-2011	1/6/2011	30/6/2016	The application was approved on 1-6-2011.	Valid
WT00012151-2012	23/7/2014	28/2/2017	The application was approved on 23-7-2014.	Valid
WT00015128-2013	28/1/2013	31/1/2018	The application was approved on 28-1-2013.	Valid
Registered Chemical Waste Producer				
WPN5213-269-3584-01	N/A	N/A	The application was approved on 4-5-2011.	Valid
Billing Account for Disposal of Construction Waste				
CSW01444	16/3/2011	N/A	The application was approved on 16-3-2011.	Valid
Notification of Works Under APCO				
327427	N/A	N/A	Notice form received by EPD on 2-3-2011.	N/A
Construction Noise Permit for use of mechanical equipment outside permitted working hours				
GW-RW0958-14	25/12/2014	24/6/2015	Location: Portion 4 and 5	Expired
GW-RW0006-15	1/2/2015	31/7/2015	Location: Portion 3 and 8	Expired
GW-RW0013-15	1/2/2015	31/7/2015	Location: Portion 6	Expired
GW-RW0281-15	25/6/2015	24/12/2015	Location: Portion 4 and 5	Valid
GW-RW0280-15	25/6/2015	24/12/2015	No. 169 Container Port Road South	Valid
GW-RW0341-15	1/8/2015	31/1/2016	Location: Portion 3 and 8	Valid

Reference Number	Valid Period		Details	Status
	From	To		
GW-RW0342-15	1/8/2015	31/1/2016	Location: Portion 6	Valid
Renewal of Admission Ticket for Disposal of Special Waste (Grit) at Landfills				
No. 12117	1/4/2015	30/9/2015	Grits from cleaning the PST(CEPT)	Valid

Table D.3 Summary of Environmental Licensing and Permit Status for Contract DC/2009/17

Permit No.	Valid Period		Details	Status
	From	To		
Water Discharge License				
WT00007763-2010	22/10/2010	31/10/2015	Location: Portion 5	Valid
WT00007921-2010	23/11/2010	30/11/2015	Location: Portion C	Valid
WT00007982-2010	3/12/2010	31/12/2015	Location: Portion 3 and 4	Valid
WT00021164-2015	13/3/2015	31/3/2020	Location: Portion 6	Valid
Registered Chemical Waste Producer				
Ref. 321319	25/10/2010	N/A	Major chemical waste types are: Spent battery, waste mechanical oil and spent lubricant.	Valid
Billing Account for Disposal of Construction Waste				
A/C No.7011408	15/09/2010	N/A	N/A	Valid
Notification of Works Under APCO				
Ref:321235	7/09/2010	N/A	--	Valid
Construction Noise Permit				
GW-RW0182-15	21/4/2015	20/10/2015	Location: Portion 3, 4 and 5	Valid
GW-RW0187-15	21/4/2015	20/10/2015	Location: Portion 3, 4 and 5	Valid

Table D.4 Summary of Environmental Licensing and Permit Status for Contract DC/2009/18

Permit/ A/C Number	Valid Period		Details	Status
	From	To		
Water Discharge License				
WT00010571-2011	18/03/2015	31/10/2016	Location: Portion 7A and 15A	Valid
Registered Chemical Waste Producer				
5213-269-C3689-01	8/9/2011	N/A	Site Area under the Project	Valid
Billing Account for Disposal of Construction Waste				
7013233	18/7/2011	N/A	N/A	Valid
Notification of Works Under APCO				

Permit/ A/C Number	Valid Period		Details	Status
	From	To		
Ref: 332427	15/7/2011	N/A	N/A	N/A
Construction Noise Permit				
GW-RW0050-15	18/2/2015	17/8/2015	Location: Construction site at Stonecutters Island Sewage treatment works (Portion 3)	Expired
GW-RW0082-15	28/2/2015	27/8/2015	Location: Construction site at Stonecutters Island Sewage treatment works (Portion 7)	Expired
GW-RW0144-15	13/4/2015	12/10/2015	Location: Construction site at Stonecutters Island Sewage treatment works (Portion 3)	Valid
GW-RW0375-15	18/8/2015	17/2/2016	Location: Construction site at Stonecutters Island Sewage treatment works (Portion 3)	Valid
GW-RW0388-15	28/8/2015	27/2/2016	Location: Construction site at Stonecutters Island Sewage treatment works (Portion 7)	Valid

APPENDIX E
SUMMARY OF EXCEEDANCE

APPENDIX E – SUMMARY OF EXCEEDANCE

Reporting Quarter: June 2015 to August 2015

a) Exceedance Report for 1-hr TSP (NIL)

b) Exceedance Report for 24-hr TSP (NIL)

c) I: Exceedance Report for Construction Noise during normal working hours(NIL)
II:Exceedance Report for Construction Noise during restricted hours (NIL)

APPENDIX F
SITE AUDIT SUMMARY IN REPORTING QUARTER

APPENDIX F - SITE AUDIT SUMMARY (DC/2007/23)

Inspection date: 4 June 2015

Follow-up Actions Taken after Previous Site Audit

Stonecutters Island Production Shaft

- The Contractor had placed the chemical container at the chemical waste storage area.

Observations and Recommendations

Stonecutters Island Production Shaft

- There were no major observations during site inspection.

Inspection date: 11 June 2015

Follow-up Actions Taken after Previous Site Audit

-

Observations and Recommendations

Stonecutters Island Production Shaft

- The Contractor was reminded to remove the stagnant water on the drip tray behind the noise enclosure.
- The Contractor was reminded to remove the general refuse inside the tree protection zone.

Inspection date: 18 June 2015

Follow-up Actions Taken after Previous Site Audit

Stonecutters Island Production Shaft

- The Contractor had removed the stagnant water on the drip tray behind the noise enclosure.
- The Contractor had removed the general refuse inside the tree protection zone.

Observations and Recommendations

Stonecutters Island Production Shaft

- The Contractor was reminded to remove the stagnant water in the container.
- Stagnant water was observed in the pit and near the wetsep. Mosquito oil was applied to prevent breeding of mosquito.

Inspection date: 24 June 2015

Follow-up Actions Taken after Previous Site Audit

Stonecutters Island Production Shaft

- The Contractor had removed the stagnant water in the container.

Observations and Recommendations

Stonecutters Island Production Shaft

- The Contractor was reminded to provide sufficient drip trays for the chemical containers near the site office.

Inspection date: 2 July 2015

Follow-up Actions Taken after Previous Site Audit

-

Observations and Recommendations

Stonecutters Island Production Shaft

- Stagnant water was found at the drainage system outside noise enclosure. The Contractor had handled the blockage problem and stagnant water was removed.
- There was leakage of salt water from the pipes near the tree protection zone. The Contractor was reminded to inspect and handle and leakage problem.
- The Contractor was reminded to handle the dripping problem from the air conditioner near the washroom. The Contractor was reminded to remove stagnant water from the top of impervious sheet at riser shaft.

Inspection date: 9 July 2015

Follow-up Actions Taken after Previous Site Audit

Stonecutters Island Production Shaft

- The Contractor had repaired the pipes and solved the leakage problem.
- The Contractor had handled the dripping problem from the air conditioner near the washroom.
- The Contractor had removed stagnant water from the top of impervious sheet at riser shaft.

Observations and Recommendations

Stonecutters Island Production Shaft

- The Contractor was reminded to maintain good housekeeping behind the storage area.
- The Contractor was reminded to remove the stagnant water at the chemical storage area.

Inspection date: 16 July 2015

Follow-up Actions Taken after Previous Site Audit

Stonecutters Island Production Shaft

- The Contractor had removed the stagnant water at the chemical storage area.

Observations and Recommendations

Stonecutters Island Production Shaft

- The Contractor was reminded to place the chemical containers back to the chemical storage area.
- The Contractor was reminded to remove the stagnant water on drip tray.

Inspection date: 23 July 2015

Follow-up Actions Taken after Previous Site Audit

Stonecutters Island Production Shaft

- The Contractor had placed the chemical containers back to the chemical storage area.
- The Contractor had removed the stagnant water on drip tray.

Observations and Recommendations

Stonecutters Island Production Shaft

- The Contractor was reminded to provide sufficient drip trays for the chemical containers.
- The Contractor was reminded to remove the stagnant water on the tarpaulin.

Inspection date: 29 July 2015

Follow-up Actions Taken after Previous Site Audit

Stonecutters Island Production Shaft

- The Contractor had provided sufficient drip trays for the chemical containers.
- The Contractor had removed the stagnant water on the tarpaulin.

Observations and Recommendations

Stonecutters Island Production Shaft

- The Contractor was reminded to provide sufficient drip trays for the chemical containers at the riser shaft.

Inspection date: 6 August 2015

Follow-up Actions Taken after Previous Site Audit

Stonecutters Island Production Shaft

- The Contractor had provided sufficient drip trays for the chemical containers.

Observations and Recommendations

Stonecutters Island Production Shaft

- The Contractor was reminded to apply for the NRMM Label according to the EPD requirements.

Inspection date: 13 August 2015

Observations and Recommendations

Stonecutters Island Production Shaft

- There were no major observations during site inspection.

Inspection date: 20 August 2015

Observations and Recommendations

Stonecutters Island Production Shaft

- The Contractor was reminded to remove the stagnant water after the rainstorm.

Inspection date: 26 August 2015

Follow-up Actions Taken after Previous Site Audit

Stonecutters Island Production Shaft

- The Contractor had removed the stagnant water after the rainstorm.

Observations and Recommendations

Stonecutters Island Production Shaft

- The Contractor was reminded to remove stagnant water on the drip tray of the wetsep.

SITE AUDIT SUMMARY IN THE REPORTING QUARTER (DC/2009/10, DC/2009/17 and DC/2009/18)

DC/2009/10:

June 2015

Parameters	Ref. Number	Observations	Follow Up Action
Water Quality	150521-O02	Chemical dosage of the AquaSed should be checked to ensure the pH level is acceptable (Portion 4, inter-chamber).	Remarked as ref no. 150618-R02
	150528-O02	Bunding should be enlarged to avoid the overflow of concrete mixture during transportation (Portion 8).	Remarked as ref no. 150611-O01
	150611-O01	Adequate bunding for cement works should be emplaced to protect the drainage channel (Position 4).	Additional bundings were provided to protect the nearby drainage channel.
	150618-R02	Reminder: The indicator on the AquaSed should be checked for errors (Portion 4).	Remarked as ref no. 150625-O01.
	150625-O01	The pH level metre should be checked for errors; The AquaSed should be desilted to improve discharge quality (Portion 4).	The discharging water was observed to be cleared. The pH level indicator on all the AquaSeds have been fixed and shown within acceptable range.
Waste/ Chemical Management	150521-O03	Chemical waste storage area should be locked (Portion 3).	A lock has been provided to the storage area.
	150521-R04	Reminder: Existing drip tray and containers should be maintained by removing accumulated water and provided with covers (Portion 4).	Remarked as ref no. 150604-R02
	150528-O01	Oil and chemical containers should be treated as chemical waste or provided with drip tray for storage (Portion 3 and 4).	The identified containers in Portion 3 were removed; while other containers in different areas are still required to be followed up and was remarked as ref no. 150604-O01
	150604-O01	Oil and chemical containers should be provided with bunding or drip tray to avoid leakage (Portion 3 and Portion 4).	The identified containers in Portion 4 were removed; while other containers in different area are still required to be followed up; Remarked as ref no. 150618-R03.
	150604-R02	Reminder: Accumulated water in the cement waste container should be cleared to avoid overflow, or provided with adequate cover (Portion 8).	The identified containers and drip tray were observed to be removed and no spillage was observed.
	150611-O02	Oil leak near the crane should be cleared with oil adsorbent (Portion 4).	The identified oil stain was cleared.
	150618-R01	Reminder: General refuse should be recycled or sorted before removal (Portion 3).	The identified general refuse in Portion 3 is removed.

	150618-R03	Reminder: While leakage was not observed, the Contractor is reminded to provide trays or bundings to the oil and chemical containers to avoid potential spillage (Portion 3 and 4).	Remarked as ref no. 150709-R03.
	150625-O02	Oil containers should be provided with bunding (Poriton 4).	The identified oil container was removed.
	150625-O03	General refuse should be cleared regularly (Portion 4).	The general refuse was cleared.

July 2015

Parameters	Ref. Number	Observations	Follow Up Action
Water Quality	150702-O01	The pH level meter for AquaSed should be checked for error. (Portion 4).	The pH level indicator on all the AquaSeds have been fixed and shown within acceptable range.
	150723-O01	AquaSed should checked to ensure it work properly; Muddy water should be retained and desilted before discharging (Portion 3 and 4).	The water quality from AquaSed was observed to be improved and no water discharge activity was observed.
	150730-O01	Proper treatment should be provided for discharge water before discharging. (Portion 3)	Rainwater was not observed on the access road.
Air Quality	150702-R02	Reminder: Opened cement bags should be covered properly for dust suppression. (Portion 4)	The cement bags have been covered.
Waste/ Chemical Management	150709-O01	Oil stain is observed in the drainage gully (near Inlet chamber).	The identified oil stain was not observed.
	150709-R02	Reminder: Used chemical containers and other general refuse should be sorted and removed (Portion 3 and 4).	The identified general refuse and other containers on-site were not observed.
	150709-R03	Reminder: While drip trays have been purchased, the Contractor is reminded to install them as soon as possible (Portion 3 and 4).	The identified containers were provided with drip tray.
	150716-R01	Reminder: Waste collection should be carried out regularly to avoid exceeding the capacity of the waste container (Portion 4).	The waste container was observed to be emptied regularly.
	150730-R02	Reminder: To perform housekeeping to maintain the site tidiness. (Portion 4)	Remarked as ref no. 150813-O01.

August 2015

Parameters	Ref. Number	Observations	Follow Up Action
Water Quality	150806-O01	Sedimentation tanks should be desilted to improve the discharge quality; the condition of the sedimentation tanks should be checked in order to access the amount of chemical dosage needed before pumping the water to the AquaSed. (Portion 5)	The discharge quality has been improved and the pH level has returned to acceptable range.
	150827-O01	Sediment is observed on the road near the site entrance (Portion 4).	The identified sediment was not observed on the road.
Waste/ Chemical Management	150813-O01	General refuse should be cleared.	No major accumulation of general refuse was observed.

DC/2009/17:

June 2015

Parameters	Ref. Number	Observations	Follow Up Action
Water Quality	150603-O01	The water hose should be connected to the AquaSed for sedimentation (Portion 6).	The identified water hose was removed.
	150603-O02	Sand bag bunding should be emplaced near the drainage channel to redirect the water used during concrete breaking; All bunding should be checked to ensure site water leakage is minimised (Portion 6 entrance and External works).	The bunding at the entrance is emplaced to align with the new wheel washing facility; Leakage at the External works was not observed.
	150610-O01	Discharge water quality should be improved by desilting the sedimentation tanks; and checking the discharge rate of the AquaSed to avoid muddy discharge.	The Contractor has cleared the muddy water in the AquaSed and no muddy water was observed to be discharged to the drainage system; Additional sedimentation tank was provided to treat and retain on-site wastewater.
	150610-R02	Reminder: Stagnant water in the drip tray should be cleared to avoid overflow.	No major water accumulation was observed in drip trays.
	150624-O01	Acid dosage in the AquaSed should be adjusted if needed; or the pH level indicator should be checked for errors.	Remarked as ref no. 150702-O02.
Waste/ Chemical Management	150624-O02	Oil stains are observed around the site area and should be cleared regularly.	The identified oil stains were not observed.
	150624-O03	Oil and chemical containers should be provided with drip tray or other form of bunding.	Remarked as ref no. 150702-O01.
	150624-R04	The Contractor is reminded to sort the general refuse before recycling.	Remarked as ref no. 150702-R04.

July 2015

Parameters	Ref. Number	Observations	Follow Up Action
Water Quality	150702-O02	Acid dosage in the AquaSed should be adjusted if needed on the pH level indicator should be checked for error.	The pH level was observed to be within acceptable range.
	150702-O03	Provide bundings to the stockpile to prevent muddy runoff from flowing to the drain.	The identified stockpile had been removed and no muddy runoff was observed.
	150716-O01	Hoarding should be reinforced to prevent leakage of muddy water.	No leakage was observed from the hoardings.
	150729-O01	Bunding near the main access should be reinforced with sand bags to avoid cement water overflow; Leakage is also observed from the hoarding.	Remarked as ref no. 150805-O01.
Waste/ Chemical Management	150702-O01	Provide drip tray to the chemical containers.	All observable containers onsite were covered and provided with drip tray; No leakage was observed near these storage areas.
	150702-R04	Reminder: Sort the refuse before recycling.	The general refuse has been relocated to designated bins.
	150716-O02	Drip tray should be sealed off to avoid potential leakage.	Remarked as ref no. 150805-O02.
	150716-R03	Reminder: Used oil or chemical containers should be removed as chemical waste.	Remarked as ref no. 150722-O01
	150722-O01	Oil containers and air compressors should be provided with drip tray or other form of bunding.	The identified containers were either removed or provided with covers and bundings; No oil leakage was observed near the air compressors.
	150722-O02	Oil spillage should be cleared as soon as possible.	The identified oil stain was not observed.
	150729-O02	Oil or chemical containers should be placed with within drip tray or removed as chemical waste.	The identified containers were either removed or provided with covers and bundings to prevent potential leakage.
	150729-R03	Reminder: Drip tray for the air compressors should be cleared of stagnant water regularly.	The stagnant water was not observed in the drip tray.

August 2015

Parameters	Ref. Number	Observations	Follow Up Action
Water Quality	150805-O01	Bunding should be placed near the drainage channel to retain the muddy runoff.	Sand bag has been provided; The Contractor has been reminded to provide additional sand bags to redirect the muddy runoff during rainstorm.
	150813-R01	Reminder: Additional sand bags should be placed near the drainage channel during rainstorm.	More sand bag has been provided; The Contractor has been reminded to provide more sand bags during rainstorm.
	150813-R02	Reminder: The chemical for the AquaSed should be refilled regularly.	The AquaSed is observed to be functioning properly.

	150819-O01	The sediment in the wheel washing facility should be removed regularly.	Remarked as ref no. 150826-O01.
	150826-O01	The mud in the wheel washing facility should be removed to improve the drainage system.	Remarked as ref no. 150902-O01.
Waste/ Chemical Management	150805-O02	Drip tray should be sealed to avoid potential leakage.	The identified drip tray has been sealed.
	150819-O02	Used chemical or oil containers should be treated as chemical waste or reused.	Remarked as ref no. 150826-O02.
	150819-O03	Oil stain near the breaker should be cleared.	The breaker has been relocated and no oil stain was observed in the previously identified area.
	150826-O02	Oil containers should be provided with drip tray or removed as chemical waste.	No used containers were observed in the site area.

DC/2009/18:

June 2015

Parameters	Ref. Number	Observations	Follow Up Action
Water Quality	150527-R02	Accumulated sediment water should be removed. (u-channel of Portion 3)	Remarked as ref no. 150603-R02
	150603-R02	Sediment water should be cleared in u-channel. (Portion 3 discharge point)	Situation was improved at u-channel of Portion 3.
	150610-O01	Sediment water should be cleared outside the site boundary and u-channel. (Portion 7 & 3)	Situation was improved at u-channel of Portion 3. Sand water was cleared outside site boundary.
	150610-O03	Oil spill should be cleared and oil containers should be provided with drip trays. (Portion 7 & 3)	Oil spill were cleared and oil containers were provided with drip trays.
	150610-O04	Bunding should be provided at entrance. (Portion 3)	Remarked as 150624-O02.
	150617-O02	Bunding should be provided at the entrance. (Portion 3)	Remarked as 150624-O02.
	150617-O03	Sand water should be cleared outside site boundary. (Portion 7)	Sand water was cleared.

	150624-O01	Ponding water should be cleared and boundary should be covered by tarpaulin. (Site boundary of Portion 3)	Ponding water was cleared and boundary was covered by tarpaulin.
	150624-O02	Bunding should be provided and muddy sand should be cleared at the entrance. (Portion 3)	Muddy sand was cleared at the entrance. Contractor was reminded to provide the bunding.
	150624-O03	Sandbags should be placed at u-channel to prevent any muddy runoff to drainage system. (Portion 7)	Sandbag was placed.
	150624-O04	Oil spill and general refuse should be cleared. (Portion 3)	Oil spill was cleared. Contractor was reminded to clear general refuse.
	150603-R01	Haul Road should be sprayed with water. (Portion 3)	Haul road was observed wet.
Waste/ Chemical Management	150527-R01	General refuse should be cleared. (Portion 3 & 7)	Remarked as ref no. 150610-O02
	150603-O01	General refuse should be cleared. (Portion 3 Site boundary & Portion 7 tree protection zone)	General refuse in tree protection zone was removed. Contractor was reminded to clear all other general refuse within and outside the site boundary.
	150603-O02	Oil container should be provided with drip trays. (Portion 7)	Oil spill were cleared and oil containers were provided with drip trays.
	150610-O02	General refuse should be cleared. (Portion 7 and 3 site boundary)	General refuse were cleared.
	150610-O03	Oil spill should be cleared and oil containers should be provided with drip trays. (Portion 7 & 3)	Oil spill were cleared and oil containers were provided with drip trays.
	150617-O01	General refuse should be cleared. (outside site boundary of Portion 3 and 7)	General refuse were cleared.
	150624-O04	Oil spill and general refuse should be cleared. (Portion 3)	Oil spill was cleared. Contractor was reminded to clear general refuse.
	150624-O05	Oil containers should be provided with drip trays. (Portion 7)	Oil containers were removed.

July 2015

Parameters	Ref. Number	Observations	Follow Up Action
Water Quality	150702-O01	Bunding should be provided at the entrance. (Portion 3)	Bunding was not observed to be provided at the entrance. This item was found outstand and remarked as 150708-O02.
	150702-O04	Sediment should be cleared in u-channel. (Portion 3)	Sediment was observed in the u-channel. This item was found outstanding and remarked as 150708-O03.
	150708-O02	Bunding should be provided at the entrance. (Portion 3)	Item was remarked as 150715-O01.
	150708-O03	Sediment should be cleared in u-channel. (Portion 3, 7)	Situation in Portion 3 was improved. Contractor was reminded to clear all the muddy sand in u-channel of Portion 7. Item was remarked 150715-O02.
	150708-R04	Clear the mud accumulated near the skip.	Mud was cleared.
	150715-O01	Bunding should be provided at the entrance. (Portion 3)	Item was remarked as 150722-O01.
	150715-O02	Sand should be cleared and ponding water should be cleared in u-channel. (Portion 7)	Sand was cleared. Contractor was reminded to maintain the drainage system properly.
	150715-O03	Drip tray should be provided and sealed to oil containers. (Portion 3)	Oil containers and drip tray were removed.
	150722-O01	Bunding should be provided at the entrance and the boundary, Tarpaulin should be covered along the boundary. (Portion 3)	Tarpaulin was covered along the boundary. Item was remarked as 150730-O01.
	150722-O02	Sediment water should be directed to sedimentation tank and discharge at proper discharge point. (Portion 3)	Item was remarked as 150730-O03.
	150722-O03	General refuse should be sorted and removed. (Portion 3)	General refuse was cleared.
	150730-O01	Bunding should be provided at the entrance and the boundary. (Portion 3)	Bundings were provided along the boundary. Contractor was reminded to provide bunding at the entrance. Item was remarked as 150806-O01.
	150730-O02	Sediment water should be directed to sedimentation tank and discharge at proper discharge point. (Portion 3)	Pump was provided and directed sediment water to sedimentation tank and discharge at discharge point.

	150730-O03	Sediment should be cleared in u-channel and enough bundings should be provided to block the linkage between discharge point and u-channel. (Portion 7)	Item was remarked as 150806-O03.
	150702-O03	Stockpile should be covered and haul road should be sprayed with water to avoid dust generation. (Portion 3)	The stockpile and haul road was observed wet.
Waste/ Chemical Management	150624-O04	Oil spill and general refuse should be cleared. (Portion 3)	Oil spill was cleared. Contractor was reminded to clear general refuse. Item was remarked as 150702-O02.
	150702-O02	General refuse should be cleared and contractor should keep the site clean and tidy. (Portion 3)	Item was remarked as 150708-R04.
	150708-O01	General refuse should be cleared and contractor should keep the site clean and tidy. (Portion 3)	General refuse was cleared. Contractor was reminded to keep the site clean and tidy all the time.
	150715-O03	Drip tray should be provided and sealed to oil containers. (Portion 3)	Oil containers and drip tray were removed.
	150722-O03	General refuse should be sorted and removed. (Portion 3)	General refuse was cleared.
Landscape and Visual	150722-O04	Contractor is reminded to maintain good condition at tree protection zone.	Tree protection zone was maintained.

August 2015

Parameters	Ref. Number	Observations	Follow Up Action
Water Quality	150806-O01	Bunding should be provided at the entrance and gully. (Portion 3 and 7)	Remarked as 150813-O01.
	150806-O02	Oil/ Stagnant water in drip trays should be cleared. (Portion 3)	Drip trays and oil containers were removed.
	150806-O03	Sediment water should be cleared in u-channel and block the linkage between discharge point and u-channel. (Portion 7)	U-channel was covered and blocked.
	150813-O01	Bunding should be provided at the entrance and clear muddy runoff. (Portion 3)	Remarked as 150819-O01.
	150813-O02	Sedimentation tank should be well-maintained and discharge should be free of silt. (Portion 7)	Sedimentation tank was well-maintained and discharge was clear.

	150819-O01	Bundings should be provided at the entrance. (Portion 3)	Item was remarked as 150827-O01.
	150827-O01	Bundings should be provided at the entrance and muddy sand should be cleared. (Portion 3)	Item was remarked as 150904-O01.
Air Quality	150827-R01	Stockpile of dusty materials should be covered. (Portion 3)	Stockpile of dusty materials was removed.
Waste/ Chemical Management	150806-O02	Oil/ Stagnant water in drip trays should be cleared. (Portion 3)	Drip trays and oil containers were removed.
	150813-R01	General refuse should be cleared regularly. (Portion 3)	General refuse was found in the site. Item was remarked as 150819-O03.
	150819-O02	General refuse should be cellared and contractor should keep the site clean and tidy. (Portion 3)	General refuse was cleared.
	150819-O03	Chemical waste storage should be repaired and well-maintained. (Portion 3)	Chemical waste storage was repaired.
Landscape and Visual	150827-O02	Tree protection zone should be well protected by fencing. (Portion 7)	Fencing was provided and tree protection zone was well-maintained.

APPENDIX G
EVENT ACTION PLANS

APPENDIX G – Event / Action Plans

Table G-1 Event / Action Plan For Air Quality

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance 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 Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform 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 IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC 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 failurein writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor 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 ER informed of the results.	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 failure 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 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
2. Exceedance for two or more consecutive samples	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. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 5. 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. 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

Table G-2 Event / Action Plan For Construction Noise

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Action Level being exceeded	1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed 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 and ER; 2. Implement noise mitigation proposals
Limit Level being exceeded	1. Inform IEC, ER, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and ER on remedial measures required; 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.	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; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated

APPENDIX H
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)

APPENDIX H IMPLEMENTATION SCHEDULE OF ENVIRONMENTAL MITIGATION MEASURES (EMIS)

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Contract			
			DC/2007/23	DC/2009/17	DC/2009/10	DC/2009/18
A	**Air Quality**					
3.74	Skip hoist for material transport should be totally enclosed by impervious sheeting.	All construction sites	^	^	^	^
	Vehicle washing facilities should be provided at every vehicle exit point.			^	^	^
	The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcore.			^	^	^
	Where a site boundary adjoins a road, streets or other areas accessible to the public, hoarding of not less than 2.4 m high from ground level should be provided along the entire length except for a site entrance or exit.			N/A	N/A	N/A
	Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.			^	^	*
	Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines.			^	^	*
	Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs			^	^	*
	Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.			^	^	^
	Imposition of speed controls for vehicles on unpaved site roads. Ten kilometers per hour is the recommended limit.			^	^	^

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Contract			
			DC/2007/23	DC/2009/17	DC/2009/10	DC/2009/18
	Every stock of more than 20 bags of cement should be covered entirely by impervious sheeting placed in an area sheltered on the top and the 3 sides.			^	*	^
	Every vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.			^	^	*
3.74	Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.	All construction sites		^	^	^
B	**Airborne Noise**					
4.56–4.61	Use of quiet PME, movable barriers and acoustic mats.	All construction sites	^	^	^	^
4.67	Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program.		^	^	^	^
	Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program.		^	^	^	^
	Mobile plant, if any, shall be sited as far away from NSRs as possible.		^	^	^	^
	Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum.		^	^	^	^
4.67	Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs.		^	^	^	^
	Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities.		^	^	^	^

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Contract			
			DC/2007/23	DC/2009/17	DC/2009/10	DC/2009/18
C	**Water Quality**					
6.349 to 6.375	Construction Site Runoff and General Construction Activities The mitigation measures as outlined in the ProPECC PN 1/94 Construction Site Drainage should be adopted where applicable.	All construction sites	^	#	*	*
6.376	Effluent Discharge There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the WPCO license which is under the ambit of regional office (RO) of EPD. Minimum distances of 100 m should be maintained between the discharge points of construction site effluent and the existing saltwater intakes.		^	*	*	*
6.377	Accidental Spillage of Chemicals Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.		^	*	*	^
6.378	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving		^	^	^	#

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Contract			
			DC/2007/23	DC/2009/17	DC/2009/10	DC/2009/18
	activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.					
6.379	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: • Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. • Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. • Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.		<>	*	*	*
6.380	Construction Works in Close Proximity of Storm Drains or Seafront To minimize the potential water quality impacts from the construction works located at or near any watercourse, the practices outlined below should be adopted where applicable. • The use of less or smaller construction plants may be specified to reduce the disturbance to the storm water courses or marine environment. • Temporary storage of materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction	All construction sites	^	^	^	*

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Contract			
			DC/2007/23	DC/2009/17	DC/2009/10	DC/2009/18
	materials should be located well away from any water courses during carrying out of the construction works. • Stockpiling of construction materials and dusty materials should be covered and located away from any water courses. • Construction debris and spoil should be covered up and/or disposed of as soon as possible to avoid being washed into the nearby water receivers. Construction activities, which generate large amount of wastewater, should be carried out in a distance away from the waterfront, where practicable. • Proper shoring may need to be erected in order to prevent soil/mud from slipping into the storm culvert or sea.					
D	**Waste Management**					
9.107	Reusable steel or concrete panel shutters, fencing and hoarding and signboard should be used as a preferred alternative to items made of wood, to minimize wastage of wood. Attention should be paid to WBTC No. 19/2001 - Metallic Site Hoardings and Signboards to reduce the amount of timber used on construction sites. Metallic alternatives to timber are readily available and should be used rather than new timber. Precast concrete units should be adopted wherever feasible to minimize the use of timber formwork.	All construction sites	^	^	^	^
9.109	All waste materials should be segregated into categories covering: • excavated materials suitable for reuse on-site; • excavated materials suitable for public filling	All construction	^	^	^	*

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Contract			
			DC/2007/23	DC/2009/17	DC/2009/10	DC/2009/18
	facilities; • remaining C&D waste for landfill; • chemical waste; and • general refuse for landfill.	sites				
9.113	Sort C&D waste from demolition of existing facilities to recover recyclable portions such as metals;		^	^	^	*
	Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.			*	^	^
	Encourage collection of aluminium cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the work force.			^	*	^
	Any unused chemicals or those with remaining functional capacity shall be recycled.			^	^	^
	Proper storage and site practices to minimise the potential for damage or contamination of construction materials.			*	*	*
9.115	Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.		<>	^	^	*
	Training of site personnel in proper waste management and chemical waste handling procedures.			^	^	^
	Develop and provide toolbox talk for on-site sorting of C&D materials to enhance worker's awareness in handling, sorting, reuse and recycling of C&D materials.			^	^	^
	Provision of sufficient waste disposal points and regular collection of waste.			^	^	^

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Contract			
			DC/2007/23	DC/2009/17	DC/2009/10	DC/2009/18
	Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors.			^	^	*
9.125	Bentonite slurries used in diaphragm wall construction should be reconditioned and reused wherever practicable. The disposal of residual used bentonite slurry should follow the good practice guidelines stated in ProPECC PN 1/94 "Construction Site Drainage"	All construction sites	N/A	N/A	^	^
9.131	Adequate number of portable toilets at temporary works areas or the PTWs to ensure that sewage from site staff would be properly collected.		^	^	^	^
9.133	General refuse should be stored in enclosed bins, skips or compaction units separating from C&D material and disposed of at designated landfill.		<>	^	*	*
9.135	The recyclable component of the municipal waste generated by the workforce, such as aluminium cans, paper and cleansed plastic containers should be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste should be set up by the Contractor. The Contractor should also be responsible for arranging recycling companies to collect these materials.		^	^	^	^
9.137	If chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical		<>	*	*	*

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Contract			
			DC/2007/23	DC/2009/17	DC/2009/10	DC/2009/18
	characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall use a licensed collector to transport and dispose of the chemical wastes, to either the approved Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.					
9.142	Prior to excavation of the marine deposit layer, the deposit should be tested in accordance with the ETWB TC(W) No. 34/2002 and the results should be presented in a Preliminary Sediment Quality Report. The marine deposit should be disposed of at the disposal site designated by the Marine Fill Committee (MFC) or Director of Environmental Protection (DEP) depending on the test results.		^	N/A	N/A	N/A
E	**Terrestrial Ecology**					
10.94	To implement effective noise mitigation measures as recommended in Section 4 of EIA.	All construction sites	^	N/A	N/A	N/A
10.95	Dust control practices such as regular watering, complete coverage of any aggregate or dusty material storage piles, and re-schedule of dusty activities during high-wind conditions as well as other measures recommended in Section 3 of EIA, should be implemented.		^	^	^	^
10.96	Fences/hoardings should be erected and installed along the boundary of the works areas.		^	^	^	^
10.97	Standard good site practices as suggested in Section 10 of EIA should be implemented.		^	N/A	N/A	N/A
10.98	Provision of proper drainage system and runoff control measures such as use of sand/silt traps, oil/grease separators, sedimentation tanks, etc.		^	^	^	^
F	**Landscape and Visual**					

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Contract			
			DC/2007/23	DC/2009/17	DC/2009/10	DC/2009/18
Table 13.7	Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where practical.	All construction sites	<>	^	^	^
	Existing trees to be retained on site should be carefully protected during construction.			^	^	*
	Trees unavoidably affected by the works should be transplanted where practical.			^	^	^
	Compensatory tree planting should be provided to compensate for felled trees.			^	^	^
	Control of night-time lighting.			^	^	^
Table 13.7	Erection of decorative screen hoarding compatible with the surrounding setting.			N/A	N/A	N/A
G	**Marine Ecology**					
11.137	To minimize the potential indirect impacts on water quality from construction site runoff and various construction activities, the practices outlined in ProPECC PN 1/94 Construction Site Drainage should be adopted.	All construction sites	^	^	^	^
H	**Hazard to Life**					
14A.201	Limiting use of cranes in terms of locations, lifting height, swing angle and setting up safety zone.	Exact location will be determined on construction site by the engineer	^	^	^	^
I	**Cultural Heritage**					
Tables 15.8 -	The construction vibration control limit (ppv of 25mm/s) shall be strictly followed.	Identified historical	NA. Vibration monitoring has not been launched during	N/A	N/A	^

EIA Ref.	Recommended Mitigation Measures	Location of the measure	Implementation Contract			
			DC/2007/23	DC/2009/17	DC/2009/10	DC/2009/18
15.11		buildings/structures as mentioned in EM&A Manual Tables 15.8, 15.9, 15.10 and 15.11	the reporting period			

Remarks:		
	^	Compliance of mitigation measure;
	<>	Compliance of mitigation measure but need improvement';
	N/A	Not Applicable;
	*	Recommendation was made during site audit but improved/rectified by the contractor.
	@	partially implemented
	X	Non-compliance of mitigation measure;
	•	Non-compliance but rectified by the contractor;
	#	Recommendation was made during site audit and to be improved / rectified by the contractor.

APPENDIX I
COMPLAINT LOG

APPENDIX I – COMPLAINT LOG

Reporting Quarter: June 2015 to August 2015

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
Com#1_22-07-13	Construction site at Portion 3 and 7 (DC/2009/18)	22 July 2013	The complaint was lodged by a complainant on 22 July 2013 concerning noise generated from the construction works at 03:00am on 19 July 2013.	According to the information provided by the Contractor, mucking out excavated rocks was carried out 90m below ground within a noise enclosure area. Furthermore, the distance between the complainant's residence and the closest construction work is at least 1km away, which would have shapely minimized the chance of potential noise disturbance to the complainant's area. Based on the monitoring results and the other information collected, the complaint was considered not justifiable since no exceedance of the noise monitoring results was recorded in July The Contractor was reminded to make sure the noise enclosure door will be kept close during night time construction.	Closed

APPENDIX J
CONSTRUCTION PROGRAMME

Activity ID	Activity Name	Origina Dura...	Start	Finish	Activity % mplete	Total Float	naining Float	riance - BL1 Finish
SYJS1845	SYJS: FSD/EMSD Inspections	1	28-Jul-15	29-Jul-15	0%	421	421	-28
Miscellaneous Works								
No Significant Evnt								
SYJS2010	SYJS: Install E&M Services	4	23-Jul-15	28-Jul-15	0%	14	14	-23
SYJS2020	SYJS: Reinstatement & Clear DS Area	8	28-Jul-15	05-Aug-15	0%	16	16	-28
SYJS2025	SYJS:Complete All Works at SYPJS (KD-10)	0		05-Aug-15	0%	414	414	-28
SYJS2030	SYJS: Landscaping & Planting Works	32	05-Aug-15*	06-Sep-15	0%	16	16	-28
SYJS2040	SYJS: Period of Establishment Works	365	07-Sep-15	06-Sep-16	0%	16	16	-28
SYJS2050	SYJS: End of Establishment Period	0		06-Sep-16	0%	16	16	-28
Stonecutters Island STW Production Shaft								
Design Submissions								
Temporary Wall & ELS to Formation/Rockhead Level								
SCPS10010	SCPS: Design D'wall & Submit for ICE	28	12-Aug-09 A	05-Sep-09 A	100%			6
SCPS10015	SCPS: Comments/Rev./ICE Check D'Wall & Submit	12	22-Sep-09 A	23-Oct-09 A	100%			-14
SCPS10020	SCPS: Review D'wall Design & Approve	14	28-Oct-09 A	17-Dec-09 A	100%			-30
SCPS10050	SCPS:Prep.Blasting Assessment Report, ICE&Submit	50	09-Sep-09 A	09-Dec-09 A	100%			-26
SCPS10055	SCPS: Review and Approve BAR Report	77	10-Dec-09 A	20-Jul-11 A	100%			-407
SCPS10060	SCPS: Prepare Blasting Permit Application&Submit	24	10-Nov-10 A	20-Jul-11 A	100%			-185
SCPS10065	SCPS:Review & Approve Blasting PermitApplication	75	24-Nov-10 A	10-Aug-11 A	100%			-140
ELS in Rock to Shaft Bottom Level								
SCPS10200	SCPS: Design ELS to Shaft Bottom Submit for ICE	28	02-Nov-09 A	18-Jan-10 A	100%			-37
SCPS10202	SCPS: Comments/Revision/ICE Check ELS & Submit	21	19-Jan-10 A	09-Sep-10 A	100%			-173
SCPS10204	SCPS: Review ELS Design & Approve	14	10-Sep-10 A	24-Nov-10 A	100%			-48
Temporary Works & Other Design								
SCPS10300	SCPS: Design Headframe @ Shaft	28	28-Nov-09 A	18-Dec-09 A	100%			10
SCPS10302	SCPS: Comments/Revision/ICE Check HeadF & Submit	21	19-Dec-09 A	15-Mar-10 A	100%			-48
SCPS10304	SCPS: Review Headframe Design & Approve	14	17-Mar-10 A	01-Dec-10 A	100%			-202
SCPS10306	SCPS: Design Travelling Gantry for Shaft	28	28-Nov-09 A	28-Dec-09 A	100%			3
SCPS10308	SCPS: Comments/Revision/ICECheck Trav.G & Submit	21	29-Dec-09 A	13-Jul-10 A	100%			-140
SCPS10310	SCPS: Review Trav. Gant. Design & Approve	14	14-Jul-10 A	29-Nov-10 A	100%			-102
SCPS10312	SCPS: Design Noise Enclosure for Shaft	28	28-Nov-09 A	20-Sep-10 A	100%			-217
SCPS10314	SCPS: Comments/Revision/ICENoise Encl. & Submit	21	21-Sep-10 A	24-Nov-10 A	100%			-32
SCPS10316	SCPS: Review Noise Enclosure Design & Approve	14	25-Nov-10 A	26-Jan-11 A	100%			-38
SCPS10318	SCPS: Design AccessStaircase for Shaft	28	28-Nov-09 A	05-Mar-10 A	100%			-51
SCPS10320	SCPS: Comments/Revision/ICEAcc.Stairc.& Submit	21	06-Mar-10 A	24-Nov-10 A	100%			-198
SCPS10322	SCPS: Review Access Staircase Design & Approve	14	25-Nov-10 A	26-Jan-11 A	100%			-38
SCPS10324	SCPS: Design Mucking System for Shaft	28	28-Nov-09 A	05-Mar-10 A	100%			-51
SCPS10326	SCPS: Comments/Revision/ICE Muck System & Submit	21	06-Mar-10 A	24-Nov-10 A	100%			-198
SCPS10328	SCPS: Review Muck System Design & Approve	14	25-Nov-10 A	18-Mar-11 A	100%			-80
SCPS10330	SCPS: Design Temp.Works@ShaftPitBottom for Shaft	28	20-Apr-10 A	10-Dec-10 A	100%			-168
SCPS10332	SCPS: Comments/Revision/ICE TW & Submit	21	20-Jan-11 A	21-Oct-11 A	100%			-206
SCPS10334	SCPS: Review Temp.Works@ShaftPB Design & Approve	14	22-Oct-11 A	03-Feb-12 A	100%			-71
Preliminaries Works								
No Significant Evnt								
SCPS0160	SCPS: Construct Hoarding/Fencing	45	18-Aug-09 A	10-Oct-09 A	100%			0
SCPS0180	SCPS: Provide 2M Access to DG Store	3	01-Sep-09 A	03-Sep-09 A	100%			0
SCPS10070	SCPS: Construct/Install Blast Protection	2	28-Jul-11 A	29-Jul-11 A	100%			0
SCPS10075	SCPS: Site Inspection from Mines	4	28-Jul-11 A	10-Aug-11 A	100%			-8
SCPS10080	SCPS: Issue Blasting Permit	1	11-Aug-11 A	11-Aug-11 A	100%			0
SCPS10090	SCPS: ApplicationforCat7DangerousGoodsLicenseSto	45	12-Mar-10 A	10-May-11 A	100%			-306

Start Date	15-Jul-09
Finish Date	22-Sep-16
Data Date	20-Dec-14
Run Date	05-Jan-15

@Primavera Systems, Inc.

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Milestone

MP66

Harbour Area Treatment Scheme Stage 2A

Contract No. DC/2007/23 - Construction of Sewage Conveyance from North Point to Stonecutters Island Programme

Monthly Progress Update as of 20Dec2014

Date	Revision	Checked	Approved

Activity ID	Activity Name	Origina Dura...	Start	Finish	Activity % mplete	Total Float	naining Float	riance - BL1 Finish
SCPS10092	SCPS: Approval of License	0		12-Jun-11 A	100%			0
SCPS10093	SCPS: Prepare site & Remove Post	7	11-Jun-11 A	18-Jun-11 A	100%			0
SCPS10094	SCPS: Construction of Emulsion Store	12	20-Jun-11 A	06-Jul-11 A	100%			-2
SCPS10095	SCPS: Inspection/Comments by Authorities	5	07-Jul-11 A	12-Jul-11 A	100%			0
SCPS10095A	SCPS: Readjustment/Rectification&Approval Works	14	13-Jul-11 A	10-Aug-11 A	100%			-11
SCPS10096	SCPS: Ready for Use	0	16-Aug-11 A		100%			0
EBS, Env. & Geotechnical Instrumentations								
Environmental								
SCPS0174	SCPS: InstallEnv.Instrumentation&MonitoringPts.	14	28-Aug-09 A	12-Sep-09 A	100%			0
SCPS0177	SCPS: EstablishEnv.BaselineReadingsforInst.&Mon.	34	14-Sep-09 A	24-Oct-09 A	100%			0
EBS Works								
SCPS0362	SCPS:SurveyConditionofExstng.Bldgs.&Struc&Submit	50	01-Sep-09 A	09-Nov-09 A	100%			-7
Markers/UMP's/Others(Same note as Piez.)								
SCPS0391	SCPS: Install GS Markers (17 Nos.)	74	01-Sep-09 A	04-Mar-10 A	100%			-77
SCPS0393	SCPS: JointSurvey&EstablishBaseline Readings GSM	14	05-Mar-10 A	19-Mar-10 A	100%			1
SCPS0395	SCPS: Approval/Consent frm. Bldg./StructureOwner	14	15-Oct-09 A	19-Oct-09 A	100%			10
SCPS0397	SCPS: Install SS Markers (6 Nos.)	74	20-Oct-09 A	23-Oct-09 A	100%			70
SCPS0399	SCPS: JointSurvey&EstablishBaseline Readings SSM	14	27-Oct-09 A	07-Dec-09 A	100%			-22
SCPS0399A	SCPS: Install SS MarkersAddt'l VO9 (14 Nos.)	32	26-Jan-10 A	09-Mar-10 A	100%			-2
SCPS0399C	SCPS: JointSurvey&EstablishBaseline Readings SSM	14	10-Mar-10 A	24-Mar-10 A	100%			1
Piezometers(NearbyPTWorPScovered inthisInstalln)								
SCPS0371	SCPS: Excav.Permit/TTA/TTM ApplicationforBH907PW	24	25-Sep-09 A	24-Oct-09 A	100%			0
SCPS0373	SCPS: Installation Works of BH907 Piezometer	21	27-Oct-09 A	09-Nov-09 A	100%			9
SCPS0375	SCPS: BH907 Piezometer Baseline Establishment	26	10-Nov-09 A	10-Dec-09 A	100%			-1
SCPS0377	SCPS: Excav.Permit/TTA/TTM ApplicationforBH908PW	24	16-Oct-09 A	26-Oct-09 A	100%			16
SCPS0379	SCPS: Installation Works of BH908 Piezometer	21	27-Oct-09 A	09-Nov-09 A	100%			9
SCPS0381	SCPS: BH908 Piezometer Baseline Establishment	26	10-Nov-09 A	08-Dec-09 A	100%			1
SCPS0383	SCPS: Excav.Permit/TTA/TTM ApplicationforBH906PW	24	09-Nov-09 A	22-Dec-09 A	100%			-14
SCPS0385	SCPS: Installation Works of BH906 Piezometer	21	23-Dec-09 A	14-Jan-10 A	100%			3
SCPS0387	SCPS: BH906 Piezometer Baseline Establishment	26	15-Jan-10 A	10-Feb-10 A	100%			3
Electrical & Mechanical Installations								
Power Supply Application								
SCPS0615	SCPS: 11KV Application to CLP	6	28-Aug-09 A	28-Aug-09 A	100%			5
SCPS0628A	SCPS: Clear out D-Wall Construction Equipment	0		30-Jul-10 A	100%			0
SCPS0630	SCPS: Construct Substation Foundation	9	11-Sep-10 A	14-Sep-10 A	100%			6
SCPS0632	SCPS: Construct Substation Building	25	20-Sep-10 A	25-Oct-10 A	100%			-3
SCPS0634	SCPS: Fitting Out Substation Building	9	26-Oct-10 A	04-Nov-10 A	100%			0
SCPS0636	SCPS: Fit Out GCL Switchgear	6	05-Nov-10 A	11-Nov-10 A	100%			0
SCPS0638	SCPS: CLP Fit Substation Switchgear	7	17-Jan-11 A	21-Mar-11 A	100%			-46
SCPS0642	SCPS:CompleteSubcontractProcurement&Dwg.Approved	0		03-Jul-10 A	100%			0
SCPS0643	SCPS: Install Main Earthing	14	20-Jan-11 A	08-Feb-11 A	100%			-1
SCPS0644	SCPS: Install Temporary Cable Containment	42	03-Jul-10 A	27-Jul-10 A	100%			21
SCPS0646	SCPS: Pull In CLP 11KV Cables	4	20-Jan-11 A	24-Jan-11 A	100%			0
SCPS0648	SCPS: Terminate 11KV Cables	4	25-Jan-11 A	28-Jan-11 A	100%			0
SCPS0650	SCPS: CLP 11KV Installation	12	27-Jan-11 A	12-Feb-11 A	100%			-1
SCPS0652	SCPS: Carry Out T&C to 11KV Supply	3	14-Feb-11 A	16-Feb-11 A	100%			0
SCPS0654	SCPS: CLP Handover	2	17-Feb-11 A	18-Feb-11 A	100%			0
SCPS0656	SCPS: Construct Container Substation Footings	7	20-Oct-10 A	27-Oct-10 A	100%			0
SCPS0658	SCPS: Install Container Substations	3	28-Oct-10 A	30-Oct-10 A	100%			0
SCPS0660	SCPS: Install Containment to Substations	4	02-Oct-10 A	04-Nov-10 A	100%			-24

Start Date	15-Jul-09
Finish Date	22-Sep-16
Data Date	20-Dec-14
Run Date	05-Jan-15

@Primavera Systems, Inc.

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Milestone

MP66 **Sheet 41 of 60**

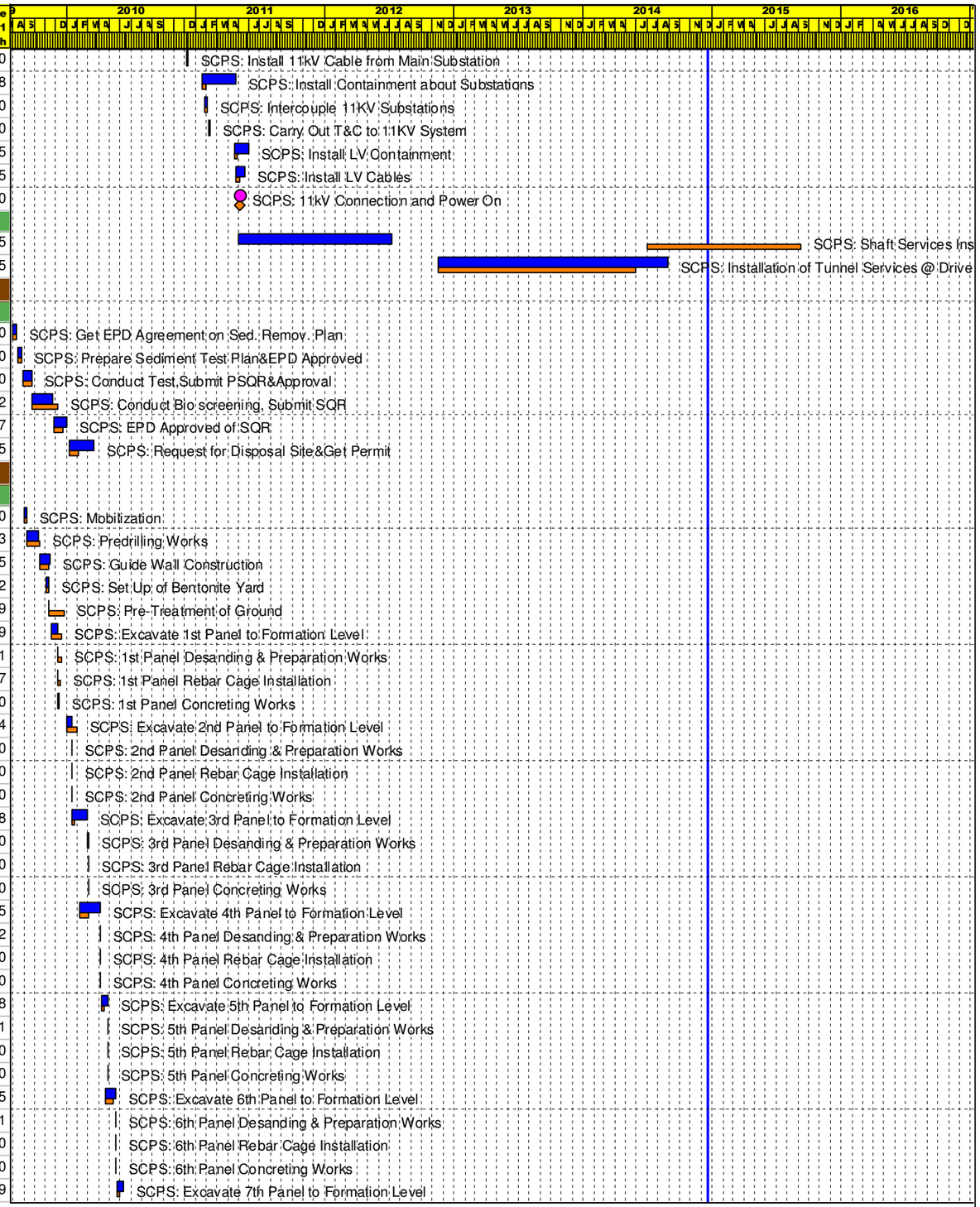
Harbour Area Treatment Scheme Stage 2A

Contract No. DC/2007/23 - Construction of Sewage Conveyance from North Point to Stonecutters Island Programme

Monthly Progress Update as of 20Dec2014

Date	Revision	Checked	Approved

Activity ID	Activity Name	Original Dura...	Start	Finish	Activity % Complete	Total Float	Remaining Float	Variance - BL1 Finish
SCPS0662	SCPS: Install 11kV Cable from Main Substation	4	06-Dec-10 A	09-Dec-10 A	100%			0
SCPS0664	SCPS: Install Containment about Substations	9	20-Jan-11 A	22-Apr-11 A	100%			-68
SCPS0666	SCPS: Intercouple 11KV Substations	5	28-Jan-11 A	02-Feb-11 A	100%			0
SCPS0668	SCPS: Carry Out T&C to 11KV System	2	07-Feb-11 A	08-Feb-11 A	100%			0
SCPS0670	SCPS: Install LV Containment	9	20-Apr-11 A	30-May-11 A	100%			-25
SCPS0672	SCPS: Install LV Cables	9	23-Apr-11 A	21-May-11 A	100%			-15
SCPS0674	SCPS: 11kV Connection and Power On	0		05-May-11 A	100%			0
Unit Installations & Cablings								
SCPS0700	SCPS: Shaft Services Installation	358	03-May-11 A	10-Jul-12 A	100%			945
SCPS0707	SCPS: Installation of Tunnel Services @ Drive1	454	16-Nov-12 A	28-Aug-14 A	100%			-75
Marine Dumping Permit								
No Significant Evnt								
SCPS0320	SCPS: Get EPD Agreement on Sed. Remov. Plan	12	31-Jul-09 A	13-Aug-09 A	100%			0
SCPS0330	SCPS: Prepare Sediment Test Plan&EPD Approved	12	14-Aug-09 A	27-Aug-09 A	100%			0
SCPS0340	SCPS: Conduct Test,Submit PSQR&Approval	24	28-Aug-09 A	24-Sep-09 A	100%			0
SCPS0350	SCPS: Conduct Bio screening, Submit SQR	60	25-Sep-09 A	23-Nov-09 A	100%			12
SCPS0360	SCPS: EPD Approved of SQR	24	24-Nov-09 A	30-Dec-09 A	100%			-7
SCPS0370	SCPS: Request for Disposal Site&Get Permit	24	07-Jan-10 A	19-Mar-10 A	100%			-35
Diaphragm Wall								
No Significant Evnt								
SCPS0200	SCPS: Mobilization	6	04-Sep-09 A	10-Sep-09 A	100%			0
SCPS0205	SCPS: Predrilling Works	28	11-Sep-09 A	12-Oct-09 A	100%			3
SCPS0207	SCPS: Guide Wall Construction	20	16-Oct-09 A	14-Nov-09 A	100%			-5
SCPS0208	SCPS: Set Up of Bentonite Yard	9	02-Nov-09 A	09-Nov-09 A	100%			2
SCPS0210	SCPS: Pre-Treatment of Ground	40	10-Nov-09 A	10-Nov-09 A	100%			39
SCPS0263	SCPS: Excavate 1st Panel to Formation Level	25	18-Nov-09 A	05-Dec-09 A	100%			9
SCPS0265	SCPS: 1st Panel Desanding & Preparation Works	11	06-Dec-09 A	06-Dec-09 A	100%			11
SCPS0267	SCPS: 1st Panel Rebar Cage Installation	8	07-Dec-09 A	07-Dec-09 A	100%			7
SCPS0269	SCPS: 1st Panel Concreting Works	1	08-Dec-09 A	08-Dec-09 A	100%			0
SCPS0271	SCPS: Excavate 2nd Panel to Formation Level	25	02-Jan-10 A	14-Jan-10 A	100%			14
SCPS0273	SCPS: 2nd Panel Desanding & Preparation Works	1	15-Jan-10 A	15-Jan-10 A	100%			0
SCPS0275	SCPS: 2nd Panel Rebar Cage Installation	1	15-Jan-10 A	15-Jan-10 A	100%			0
SCPS0277	SCPS: 2nd Panel Concreting Works	1	15-Jan-10 A	15-Jan-10 A	100%			0
SCPS0279	SCPS: Excavate 3rd Panel to Formation Level	7	16-Jan-10 A	01-Mar-10 A	100%			-28
SCPS0281	SCPS: 3rd Panel Desanding & Preparation Works	2	02-Mar-10 A	03-Mar-10 A	100%			0
SCPS0283	SCPS: 3rd Panel Rebar Cage Installation	1	04-Mar-10 A	04-Mar-10 A	100%			0
SCPS0285	SCPS: 3rd Panel Concreting Works	1	04-Mar-10 A	04-Mar-10 A	100%			0
SCPS0287	SCPS: Excavate 4th Panel to Formation Level	21	06-Feb-10 A	04-Apr-10 A	100%			-25
SCPS0289	SCPS: 4th Panel Desanding & Preparation Works	2	05-Apr-10 A	05-Apr-10 A	100%			2
SCPS0291	SCPS: 4th Panel Rebar Cage Installation	1	06-Apr-10 A	06-Apr-10 A	100%			0
SCPS0293	SCPS: 4th Panel Concreting Works	1	07-Apr-10 A	07-Apr-10 A	100%			0
SCPS0297	SCPS: Excavate 5th Panel to Formation Level	7	10-Apr-10 A	27-Apr-10 A	100%			-8
SCPS0299	SCPS: 5th Panel Desanding & Preparation Works	2	27-Apr-10 A	27-Apr-10 A	100%			1
SCPS0301	SCPS: 5th Panel Rebar Cage Installation	1	27-Apr-10 A	27-Apr-10 A	100%			0
SCPS0303	SCPS: 5th Panel Concreting Works	1	27-Apr-10 A	27-Apr-10 A	100%			0
SCPS0307	SCPS: Excavate 6th Panel to Formation Level	21	19-Apr-10 A	19-May-10 A	100%			-5
SCPS0309	SCPS: 6th Panel Desanding & Preparation Works	2	20-May-10 A	20-May-10 A	100%			1
SCPS0311	SCPS: 6th Panel Rebar Cage Installation	1	20-May-10 A	20-May-10 A	100%			0
SCPS0313	SCPS: 6th Panel Concreting Works	1	21-May-10 A	21-May-10 A	100%			0
SCPS0317	SCPS: Excavate 7th Panel to Formation Level	7	22-May-10 A	09-Jun-10 A	100%			-9



Start Date	15-Jul-09
Finish Date	22-Sep-16
Data Date	20-Dec-14
Run Date	05-Jan-15

Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Milestone

MP66

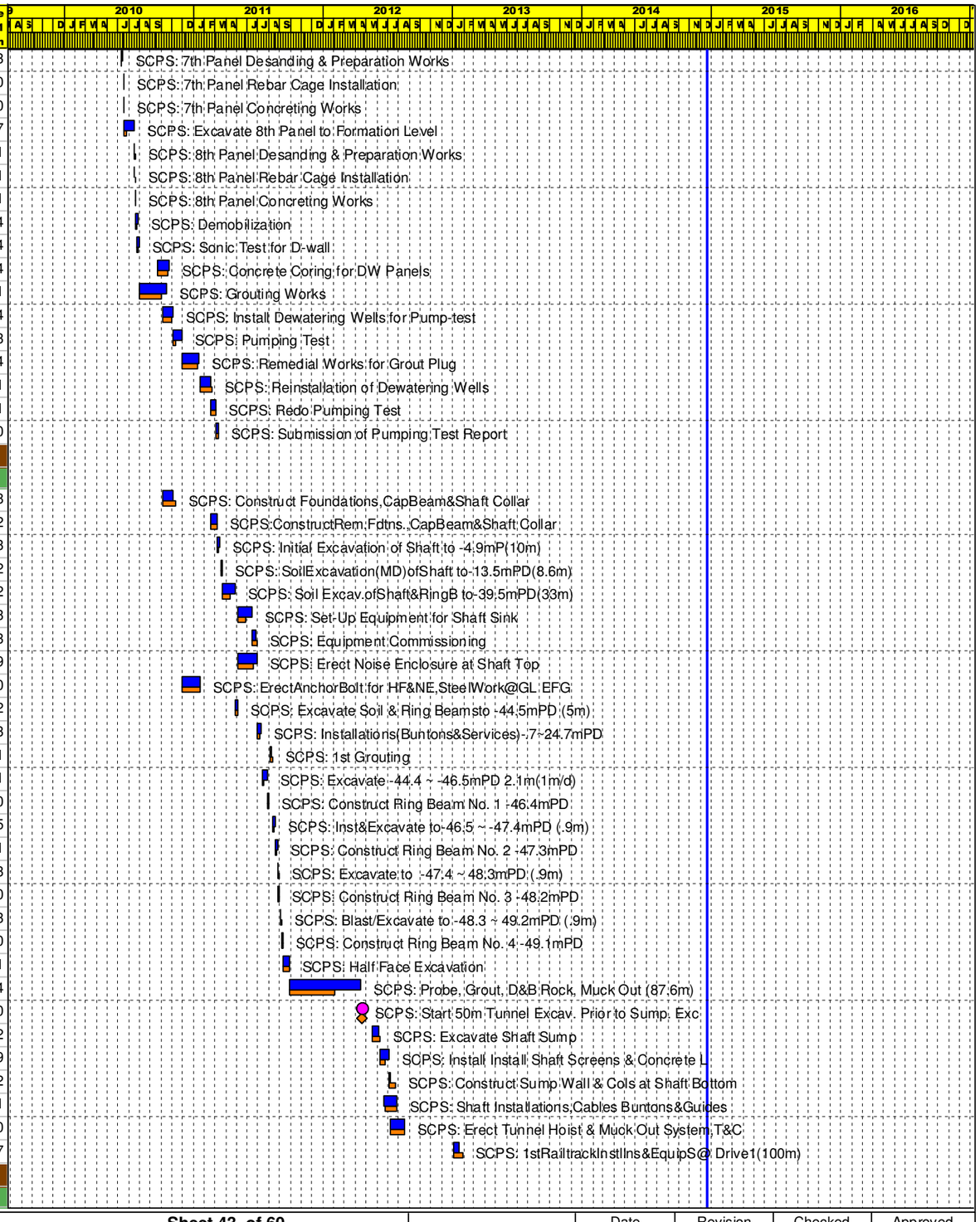
Harbour Area Treatment Scheme Stage 2A

Contract No. DC/2007/23 - Construction of Sewage Conveyance from North Point to Stonecutters Island Programme

Monthly Progress Update as of 20Dec2014

Date	Revision	Checked	Approved

Activity ID	Activity Name	Origina Dura...	Start	Finish	Activity % mplete	Total Float	naining Float	riance - BL1 Finish
SCPS0319	SCPS: 7th Panel Desanding & Preparation Works	2	10-Jun-10 A	15-Jun-10 A	100%			-3
SCPS0321	SCPS: 7th Panel Rebar Cage Installation	1	17-Jun-10 A	17-Jun-10 A	100%			0
SCPS0323	SCPS: 7th Panel Concreting Works	1	18-Jun-10 A	18-Jun-10 A	100%			0
SCPS0327	SCPS: Excavate 8th Panel to Formation Level	7	19-Jun-10 A	17-Jul-10 A	100%			-17
SCPS0329	SCPS: 8th Panel Desanding & Preparation Works	2	17-Jul-10 A	17-Jul-10 A	100%			1
SCPS0331	SCPS: 8th Panel Rebar Cage Installation	1	18-Jul-10 A	18-Jul-10 A	100%			1
SCPS0333	SCPS: 8th Panel Concreting Works	1	19-Jul-10 A	19-Jul-10 A	100%			1
SCPS0333A	SCPS: Demobilization	6	19-Jul-10 A	29-Jul-10 A	100%			-4
SCPS0333A1	SCPS: Sonic Test for D-wall	4	23-Jul-10 A	31-Jul-10 A	100%			-4
SCPS0333C	SCPS: Concrete Coring for DW Panels	24	20-Sep-10 A	25-Oct-10 A	100%			-4
SCPS0333E	SCPS: Grouting Works	52	31-Jul-10 A	15-Oct-10 A	100%			-11
SCPS0335	SCPS: Install Dewatering Wells for Pump-test	23	04-Oct-10 A	04-Nov-10 A	100%			-4
SCPS0337	SCPS: Pumping Test	7	05-Nov-10 A	27-Nov-10 A	100%			-13
SCPS0337A	SCPS: Remedial Works for Grout Plug	37	29-Nov-10 A	17-Jan-11 A	100%			-4
SCPS0337C	SCPS: Reinstallation of Dewatering Wells	27	18-Jan-11 A	18-Feb-11 A	100%			1
SCPS0337E	SCPS: Redo Pumping Test	10	19-Feb-11 A	03-Mar-11 A	100%			-1
SCPS0338	SCPS: Submission of Pumping Test Report	6	04-Mar-11 A	10-Mar-11 A	100%			0
Shaft Excavation								
General Works								
SCPS0500	SCPS: Construct Foundations,CapBeam&Shaft Collar	32	06-Oct-10 A	03-Nov-10 A	100%			8
SCPS0500B	SCPS:ConstructRem.Fdtns.,CapBeam&Shaft Collar	17	17-Feb-11 A	06-Mar-11 A	100%			2
SCPS0510	SCPS: Initial Excavation of Shaft to -4.9mP(10m)	5	08-Mar-11 A	16-Mar-11 A	100%			-3
SCPS0512	SCPS: SoilExcavation(MD)ofShaft to-13.5mPD(8.6m)	4	17-Mar-11 A	23-Mar-11 A	100%			-2
SCPS0514	SCPS: Soil Excav.ofShaft&RingB to-39.5mPD(33m)	17	24-Mar-11 A	27-Apr-11 A	100%			-12
SCPS0520	SCPS: Set-Up Equipment for Shaft Sink	22	04-May-11 A	14-Jun-11 A	100%			-13
SCPS0523	SCPS: Equipment Commissioning	12	16-Jun-11 A	25-Jun-11 A	100%			3
SCPS0525	SCPS: Erect Noise Enclosure at Shaft Top	39	04-May-11 A	29-Jun-11 A	100%			-9
SCPS0525B	SCPS: ErectAnchorBolt for HF&NE,SteelWork@GL EFG	42	29-Nov-10 A	18-Jan-11 A	100%			0
SCPS0527	SCPS: Excavate Soil & Ring Beamsto -44.5mPD (5m)	6	28-Apr-11 A	03-May-11 A	100%			2
SCPS0527B	SCPS: Installations(Buntons&Services)-.7~24.7mPD	6	30-Jun-11 A	11-Jul-11 A	100%			-3
SCPS0533	SCPS: 1st Grouting	5	05-Aug-11 A	09-Aug-11 A	100%			1
SCPS0535	SCPS: Excavate -44.4 ~ -46.5mPD 2.1m(1m/d)	4	12-Jul-11 A	28-Jul-11 A	100%			-11
SCPS0537A	SCPS: Construct Ring Beam No. 1 -46.4mPD	4	29-Jul-11 A	02-Aug-11 A	100%			0
SCPS0537C	SCPS: Inst&Excavate to-46.5 ~ -47.4mPD (.9m)	5	10-Aug-11 A	20-Aug-11 A	100%			-5
SCPS0537D	SCPS: Construct Ring Beam No. 2 -47.3mPD	4	20-Aug-11 A	25-Aug-11 A	100%			-1
SCPS0537F	SCPS: Excavate to -47.4 ~ 48.3mPD (.9m)	5	26-Aug-11 A	27-Aug-11 A	100%			3
SCPS0537H	SCPS: Construct Ring Beam No. 3 -48.2mPD	4	27-Aug-11 A	31-Aug-11 A	100%			0
SCPS0537J	SCPS: Blast/Excavate to -48.3 ~ 49.2mPD (.9m)	5	02-Sep-11 A	03-Sep-11 A	100%			3
SCPS0537L	SCPS: Construct Ring Beam No. 4 -49.1mPD	4	05-Sep-11 A	08-Sep-11 A	100%			0
SCPS0537N	SCPS: Half Face Excavation	10	09-Sep-11 A	27-Sep-11 A	100%			-1
SCPS0575	SCPS: Probe, Grout, D&B Rock, Muck Out (87.6m)	101	28-Sep-11 A	17-Apr-12 A	100%			-64
SCPS0575A	SCPS: Start 50m Tunnel Excav. Prior to Sump. Exc	0	18-Apr-12 A		100%			0
SCPS0585	SCPS: Excavate Shaft Sump	21	17-May-12 A	07-Jun-12 A	100%			2
SCPS0589	SCPS: Install Install Shaft Screens & Concrete L	14	08-Jun-12 A	06-Jul-12 A	100%			-9
SCPS0640	SCPS: Construct Sump Wall & Cols at Shaft Bottom	14	07-Jul-12 A	09-Jul-12 A	100%			12
SCPS0651	SCPS: Shaft Installations,Cables Buntons&Guides	30	22-Jun-12 A	27-Jul-12 A	100%			1
SCPS0665	SCPS: Erect Tunnel Hoist & Muck Out System,T&C	35	10-Jul-12 A	18-Aug-12 A	100%			0
SCPS0677	SCPS: 1stRailtrackInstlIns&EquipS@ Drive1(100m)	22	03-Jan-13 A	19-Jan-13 A	100%			7
Shaft Sinking Equipments & Installations								
Shaft Sinking Line Assembly								



Start Date	15-Jul-09
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Run Date	05-Jan-15

@Primavera Systems, Inc.

Primary Baseline
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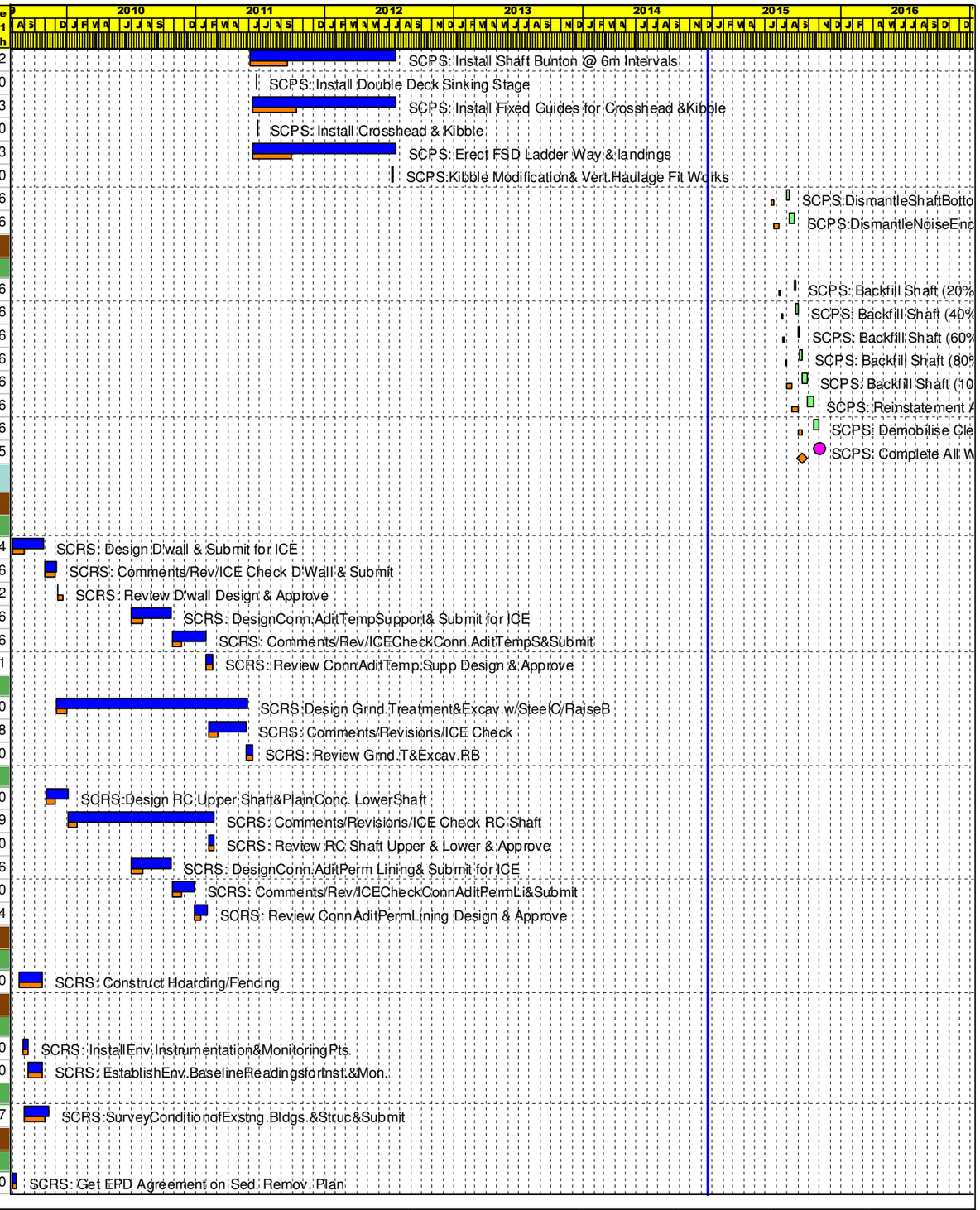
Harbour Area Treatment Scheme Stage 2A

Contract No. DC/2007/23 - Construction of Sewage Conveyance from North Point to Stonecutters Island Programme

Monthly Progress Update as of 20Dec2014

Date	Revision	Checked	Approved

Activity ID	Activity Name	Origina Dura..	Start	Finish	Activity % mplete	Total Float	naining Float	riance - BL1 Finish
SCPS1550	SCPS: Install Shaft Bunton @ 6m Intervals	90	02-Jun-11 A	20-Jul-12 A	100%			-252
SCPS1555	SCPS: Install Double Deck Sinking Stage	4	20-Jun-11 A	23-Jun-11 A	100%			0
SCPS1560	SCPS: Install Fixed Guides for Crosshead &Kibble	104	09-Jun-11 A	20-Jul-12 A	100%			-233
SCPS1565	SCPS: Install Crosshead & Kibble	2	24-Jun-11 A	25-Jun-11 A	100%			0
SCPS1570	SCPS: Erect FSD Ladder Way & landings	92	11-Jun-11 A	20-Jul-12 A	100%			-243
SCPS1575	SCPS:Kibble Modification& Vert.Haulage Fit Works	4	10-Jul-12 A	13-Jul-12 A	100%			0
SCPS1700	SCPS:DismantleShaftBottomInstallations&Equipts.	8	30-Jul-15	08-Aug-15	0%	269	269	-36
SCPS1710	SCPS:DismantleNoiseEnclosure&SSEquipts.	10	08-Aug-15	20-Aug-15	0%	269	269	-36
Backfill, Reinstatement & Landscaping								
No Significant Evnt								
SCPS0910	SCPS: Backfill Shaft (20%)	5	20-Aug-15	26-Aug-15	0%	269	269	-36
SCPS0920	SCPS: Backfill Shaft (40%)	5	26-Aug-15	01-Sep-15	0%	269	269	-36
SCPS0930	SCPS: Backfill Shaft (60%)	5	01-Sep-15	07-Sep-15	0%	269	269	-36
SCPS0940	SCPS: Backfill Shaft (80%)	5	07-Sep-15	12-Sep-15	0%	269	269	-36
SCPS0950	SCPS: Backfill Shaft (100%)	12	12-Sep-15	26-Sep-15	0%	269	269	-36
SCPS0960	SCPS: Reinstatement Around PS Area	14	26-Sep-15	15-Oct-15	0%	269	269	-36
SCPS0970	SCPS: Demobilise Clear Area	12	15-Oct-15	30-Oct-15	0%	269	269	-36
SCPS0975	SCPS: Complete All Works at SCI PS (KD-11)	0		30-Oct-15	0%	329	329	-45
Stonecutters Island STW Riser Shaft								
Design Submissions								
Temporary Wall & ELS to Formation/Rockhead Level								
SCRS10010	SCRS: Design D'wall & Submit for ICE	30	31-Jul-09 A	28-Oct-09 A	100%			-44
SCRS10015	SCRS: Comments/Rev/ICE Check D'Wall & Submit	25	30-Oct-09 A	04-Dec-09 A	100%			-6
SCRS10020	SCRS: Review D'wall Design & Approve	14	05-Dec-09 A	07-Dec-09 A	100%			12
SCRS10050	SCRS: DesignConn.AditTempSupport& Submit for ICE	30	02-Jul-10 A	25-Oct-10 A	100%			-66
SCRS10052	SCRS: Comments/Rev/ICECheckConn.AditTempS&Submit	25	26-Oct-10 A	29-Jan-11 A	100%			-56
SCRS10054	SCRS: Review ConnAditTemp.Supp Design & Approve	14	31-Jan-11 A	18-Feb-11 A	100%			-1
Grnd.Treatment&Excavw/SteelCasing/RaiseBoring								
SCRS10200	SCRS:Design Grnd.Treatment&Excav.w/SteelC/RaiseB	24	03-Dec-09 A	25-May-11 A	100%			-420
SCRS10202	SCRS: Comments/Revisions/ICE Check	21	08-Feb-11 A	24-May-11 A	100%			-68
SCRS10204	SCRS: Review Grnd.T&Excav.RB	14	25-May-11 A	10-Jun-11 A	100%			0
Permanent Works								
SCRS10206	SCRS:Design RC Upper Shaft&PlainConc. LowerShaft	24	02-Nov-09 A	05-Jan-10 A	100%			-30
SCRS10208	SCRS: Comments/Revisions/ICE Check RC Shaft	21	06-Jan-10 A	22-Feb-11 A	100%			-319
SCRS10210	SCRS: Review RC Shaft Upper & Lower & Approve	14	07-Feb-11 A	22-Feb-11 A	100%			0
SCRS10220	SCRS: DesignConn.AditPerm Lining& Submit for ICE	30	02-Jul-10 A	25-Oct-10 A	100%			-66
SCRS10222	SCRS: Comments/Rev/ICECheckConnAditPermLi&Submit	25	26-Oct-10 A	29-Dec-10 A	100%			-30
SCRS10224	SCRS: Review ConnAditPermLining Design & Approve	14	30-Dec-10 A	01-Feb-11 A	100%			-14
Preliminaries Works								
No Significant Evnt								
SCRS0160	SCRS: Construct Hoarding/Fencing	55	18-Aug-09 A	22-Oct-09 A	100%			0
EBS, Env. & Geotechnical Instrumentations								
Environmental								
SCRS0174	SCRS: InstallEnv.Instrumentation&MonitoringPts.	14	28-Aug-09 A	12-Sep-09 A	100%			0
SCRS0177	SCRS: EstablishEnv.BaselineReadingsforInst.&Mon.	34	14-Sep-09 A	24-Oct-09 A	100%			0
EBS Works								
SCRS0362	SCRS:SurveyConditionofExstng.Bldgs.&Struc&Submit	50	01-Sep-09 A	09-Nov-09 A	100%			-7
Marine Dumping Permit								
No Significant Evnt								
SCRS0320	SCRS: Get EPD Agreement on Sed. Remov. Plan	12	31-Jul-09 A	13-Aug-09 A	100%			0



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Primary Baseline
Actual Work
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MP66 **Sheet 44 of 60**

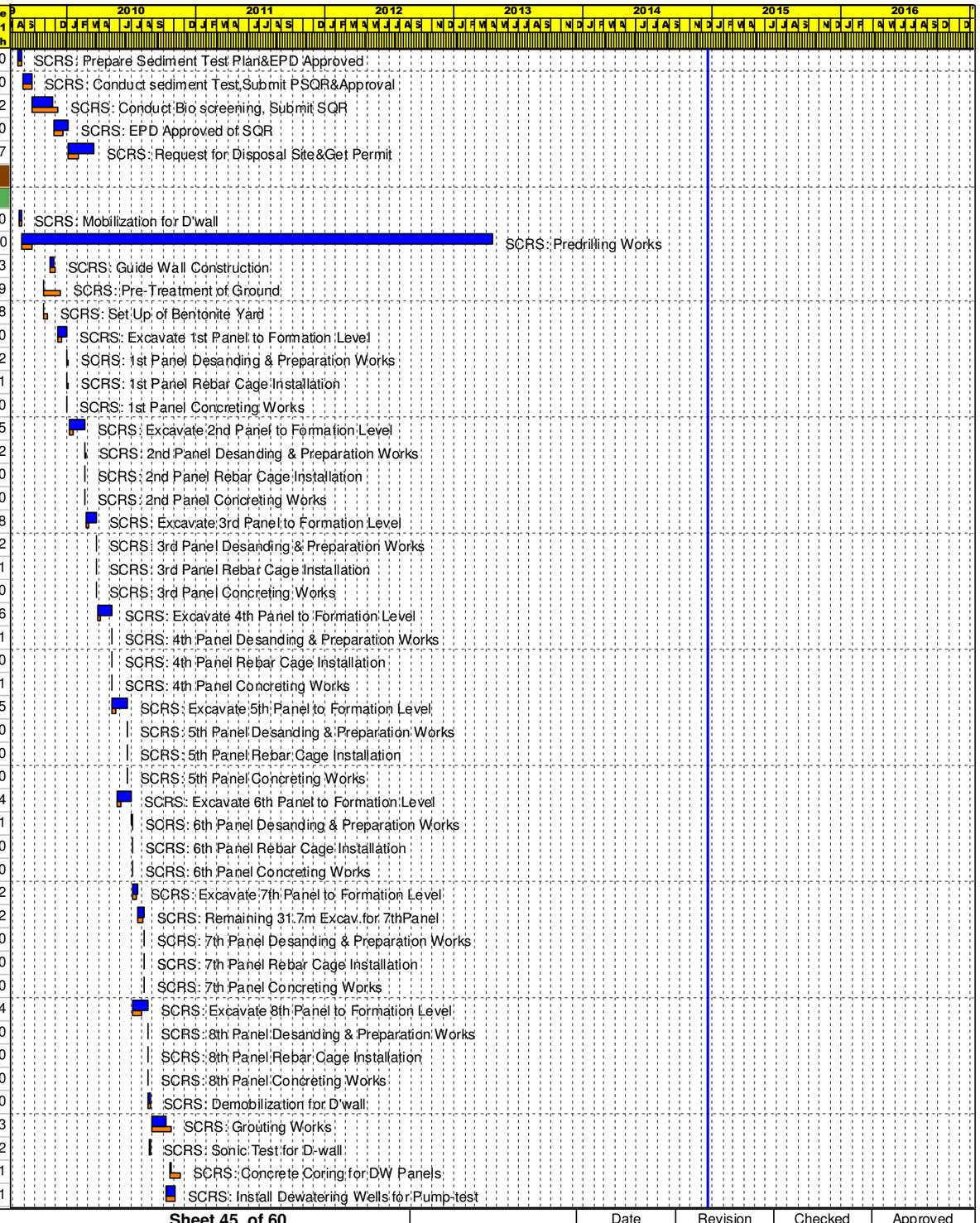
Harbour Area Treatment Scheme Stage 2A

Contract No. DC/2007/23 - Construction of Sewage Conveyance from North Point to Stonecutters Island Programme

Monthly Progress Update as of 20Dec2014

Date	Revision	Checked	Approved

Activity ID	Activity Name	Origina Dura...	Start	Finish	Activity % mplete	Total Float	naining Float	riance - BL1 Finish
SCRS0330	SCRS: Prepare Sediment Test Plan&EPD Approved	12	14-Aug-09 A	27-Aug-09 A	100%			0
SCRS0340	SCRS: Conduct sediment Test,Submit PSQR&Approval	24	28-Aug-09 A	24-Sep-09 A	100%			0
SCRS0350	SCRS: Conduct Bio screening, Submit SQR	60	25-Sep-09 A	23-Nov-09 A	100%			12
SCRS0360	SCRS: EPD Approved of SQR	24	24-Nov-09 A	04-Jan-10 A	100%			-10
SCRS0370	SCRS: Request for Disposal Site&Get Permit	24	05-Jan-10 A	19-Mar-10 A	100%			-37
Diaphragm Wall								
No Significant Evnt								
SCRS0200	SCRS: Mobilization for D'wall	6	18-Aug-09 A	24-Aug-09 A	100%			0
SCRS0205	SCRS: Predrilling Works	28	25-Aug-09 A	20-Apr-13 A	100%			-1070
SCRS0206	SCRS: Guide Wall Construction	12	16-Nov-09 A	25-Nov-09 A	100%			3
SCRS0210	SCRS: Pre-Treatment of Ground	40	28-Oct-09 A	28-Oct-09 A	100%			39
SCRS0230	SCRS: Set Up of Bentonite Yard	9	28-Oct-09 A	28-Oct-09 A	100%			8
SCRS0263	SCRS: Excavate 1st Panel to Formation Level	9	08-Dec-09 A	30-Dec-09 A	100%			-10
SCRS0265	SCRS: 1st Panel Desanding & Preparation Works	3	31-Dec-09 A	31-Dec-09 A	100%			2
SCRS0267	SCRS: 1st Panel Rebar Cage Installation	2	02-Jan-10 A	02-Jan-10 A	100%			1
SCRS0269	SCRS: 1st Panel Concreting Works	1	02-Jan-10 A	02-Jan-10 A	100%			0
SCRS0271	SCRS: Excavate 2nd Panel to Formation Level	8	09-Jan-10 A	19-Feb-10 A	100%			-25
SCRS0273	SCRS: 2nd Panel Desanding & Preparation Works	3	20-Feb-10 A	21-Feb-10 A	100%			2
SCRS0275	SCRS: 2nd Panel Rebar Cage Installation	1	22-Feb-10 A	22-Feb-10 A	100%			0
SCRS0277	SCRS: 2nd Panel Concreting Works	1	22-Feb-10 A	22-Feb-10 A	100%			0
SCRS0279	SCRS: Excavate 3rd Panel to Formation Level	7	24-Feb-10 A	24-Mar-10 A	100%			-18
SCRS0281	SCRS: 3rd Panel Desanding & Preparation Works	3	25-Mar-10 A	25-Mar-10 A	100%			2
SCRS0283	SCRS: 3rd Panel Rebar Cage Installation	2	25-Mar-10 A	25-Mar-10 A	100%			1
SCRS0285	SCRS: 3rd Panel Concreting Works	1	26-Mar-10 A	26-Mar-10 A	100%			0
SCRS0287	SCRS: Excavate 4th Panel to Formation Level	7	29-Mar-10 A	07-May-10 A	100%			-26
SCRS0289	SCRS: 4th Panel Desanding & Preparation Works	2	08-May-10 A	08-May-10 A	100%			1
SCRS0291	SCRS: 4th Panel Rebar Cage Installation	1	08-May-10 A	08-May-10 A	100%			0
SCRS0293	SCRS: 4th Panel Concreting Works	1	10-May-10 A	10-May-10 A	100%			1
SCRS0295	SCRS: Excavate 5th Panel to Formation Level	10	10-May-10 A	20-Jun-10 A	100%			-25
SCRS0297	SCRS: 5th Panel Desanding & Preparation Works	1	21-Jun-10 A	21-Jun-10 A	100%			0
SCRS0299	SCRS: 5th Panel Rebar Cage Installation	1	22-Jun-10 A	22-Jun-10 A	100%			0
SCRS0301	SCRS: 5th Panel Concreting Works	1	22-Jun-10 A	22-Jun-10 A	100%			0
SCRS0303	SCRS: Excavate 6th Panel to Formation Level	10	24-May-10 A	03-Jul-10 A	100%			-24
SCRS0305	SCRS: 6th Panel Desanding & Preparation Works	1	04-Jul-10 A	04-Jul-10 A	100%			1
SCRS0307	SCRS: 6th Panel Rebar Cage Installation	1	05-Jul-10 A	05-Jul-10 A	100%			0
SCRS0309	SCRS: 6th Panel Concreting Works	1	05-Jul-10 A	05-Jul-10 A	100%			0
SCRS0311	SCRS: Excavate 7th Panel to Formation Level	10	06-Jul-10 A	19-Jul-10 A	100%			-2
SCRS0311A	SCRS: Remaining 31.7m Excav.for 7thPanel	15	20-Jul-10 A	07-Aug-10 A	100%			-2
SCRS0313	SCRS: 7th Panel Desanding & Preparation Works	1	07-Aug-10 A	07-Aug-10 A	100%			0
SCRS0315	SCRS: 7th Panel Rebar Cage Installation	1	09-Aug-10 A	09-Aug-10 A	100%			0
SCRS0317	SCRS: 7th Panel Concreting Works	1	09-Aug-10 A	09-Aug-10 A	100%			0
SCRS0319	SCRS: Excavate 8th Panel to Formation Level	24	06-Jul-10 A	18-Aug-10 A	100%			-14
SCRS0321	SCRS: 8th Panel Desanding & Preparation Works	1	18-Aug-10 A	18-Aug-10 A	100%			0
SCRS0323	SCRS: 8th Panel Rebar Cage Installation	1	19-Aug-10 A	19-Aug-10 A	100%			0
SCRS0325	SCRS: 8th Panel Concreting Works	1	19-Aug-10 A	19-Aug-10 A	100%			0
SCRS0327	SCRS: Demobilization for D'wall	6	20-Aug-10 A	26-Aug-10 A	100%			0
SCRS0356	SCRS: Grouting Works	45	29-Aug-10 A	07-Oct-10 A	100%			13
SCRS0373A	SCRS: Sonic Test for D-wall	4	24-Aug-10 A	25-Aug-10 A	100%			2
SCRS0373C	SCRS: Concrete Coring for DW Panels	24	20-Oct-10 A	22-Oct-10 A	100%			21
SCRS0380	SCRS: Install Dewatering Wells for Pump-test	21	08-Oct-10 A	03-Nov-10 A	100%			-1



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Harbour Area Treatment Scheme Stage 2A

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Activity ID	Activity Name	Origina Dura..	Start	Finish	Activity % mplete	Total Float	naining Float	riance - BL1 Finish
SCRS0390	SCRS: Pumping Test	7	04-Nov-10 A	26-Nov-10 A	100%			-13
SCRS0392	SCRS: Submission of Pumping Test Report	6	27-Nov-10 A	03-Dec-10 A	100%			0
Shaft Excavation								
Pre-Excavation Grouting								
SCRS0500	SCRS: Mobilisation to site plant & equipment	3	12-Jul-12 A	14-Jul-12 A	100%			0
SCRS0502	SCRS: Drill forDownp.GroutHoles(DP1G1)87m(10m/d)	9	16-Jul-12 A	08-Aug-12 A	100%			-12
SCRS0504	SCRS: Drilling for Downp.GroutHoles(DP1G2)	9	16-Aug-12 A	31-Aug-12 A	100%			-5
SCRS0506	SCRS: Drilling for Downp.GroutHoles(DP1G3)	9	17-Sep-12 A	28-Sep-12 A	100%			-2
SCRS0508	SCRS: Drilling for Downp.GroutHoles(DP1G4)	9	06-Oct-12 A	22-Oct-12 A	100%			-5
SCRS0510	SCRS: Drilling for Downp.GroutHoles(DP1G5)	9	01-Nov-12 A	07-Nov-12 A	100%			3
SCRS0512	SCRS: Drilling for Downp.GroutHoles(DP1G6)	9	13-Nov-12 A	15-Nov-12 A	100%			6
SCRS0514	SCRS: Grouting for Downp.GroutHoles(DP1G1) 7d/h	7	09-Aug-12 A	15-Aug-12 A	100%			1
SCRS0516	SCRS: Grouting for Downp.GroutHoles(DP1G2)	7	01-Sep-12 A	15-Sep-12 A	100%			-6
SCRS0518	SCRS: Grouting for Downp.GroutHoles(DP1G3)	7	28-Sep-12 A	05-Oct-12 A	100%			2
SCRS0520	SCRS: Grouting for Downp.GroutHoles(DP1G4)	7	24-Oct-12 A	31-Oct-12 A	100%			0
SCRS0522	SCRS: Grouting for Downp.GroutHoles(DP1G5)	7	08-Nov-12 A	12-Nov-12 A	100%			3
SCRS0524	SCRS: Grouting for Downp.GroutHoles(DP1G6)	7	16-Nov-12 A	19-Nov-12 A	100%			4
SCRS0526	SCRS: Drilling for Downp.GroutCheckH(DP1CH1)	9	20-Nov-12 A	29-Nov-12 A	100%			0
SCRS0528	SCRS: Drilling for Downp.GroutCheckH(DP1CH2)	9	08-Dec-12 A	18-Dec-12 A	100%			0
SCRS0530	SCRS: Grouting for Downp.GroutCheckH(DP1CH1)	7	30-Nov-12 A	07-Dec-12 A	100%			0
SCRS0532	SCRS: Grouting for Downp.GroutCheckH(DP1CH2)	7	19-Dec-12 A	27-Dec-12 A	100%			0
SCRS0534	SCRS: De-mobilisation to site plant & equipment	2	28-Dec-12 A	29-Dec-12 A	100%			0
No Significant Evnt								
SCRS0400	SCRS: Construct Capping Beam & Shaft Collar	12	21-Dec-10 A	13-Jan-11 A	100%			-7
SCRS0410	SCRS:ExcavateSoil&RingBeams -26.95mPD(32.45m)Ph1	33	14-Jan-11 A	06-Mar-11 A	100%			-9
SCRS0412	SCRS:Remaining Interface Grouting Works (17nos.)	58	12-Apr-12 A	14-Jun-12 A	100%			4
SCRS0413	SCRS:Ph 2 Install Dewatering Wells for Pump Test	8	15-Jun-12 A	03-Jul-12 A	100%			-6
SCRS0414	SCRS:Ph 2 Pumping Test	14	04-Jul-12 A	11-Jul-12 A	100%			7
SCRS0415	SCRS:ExcavateSoil&RingBeams -52.9mPD(25.95m) Ph2	20	31-Dec-12 A	26-Mar-13 A	100%			-50
SCRS0417	SCRS:Ring Beam 1 Construction @ -47mPD	4	27-Mar-13 A	03-Apr-13 A	100%			-1
SCRS0418	SCRS:ExcavateSoil/Rock to -48.0mPD(1m)	6	05-Apr-13 A	11-Apr-13 A	100%			0
SCRS0419	SCRS:Ring Beam 2 Construction @ -48mPD	4	12-Apr-13 A	16-Apr-13 A	100%			0
SCRS0419B	SCRS:ExcavateSoil/Rock to -49.0mPD(1m)	6	17-Apr-13 A	20-Apr-13 A	100%			2
SCRS0420	SCRS: Construct Levelling Pad	3	22-Apr-13 A	24-Apr-13 A	100%			0
Raised Boring								
No Significant Evnt								
SCRS0698	SCRS: Transport Raise Drill	5	25-Apr-13 A	30-Apr-13 A	100%			0
SCRS0700	SCRS: Rig Up Hole 1	2	02-May-13 A	03-May-13 A	100%			0
SCRS0710	SCRS: Pilot Drill 90 mtrs	9	04-May-13 A	14-May-13 A	100%			0
SCRS0720	SCRS: Attach reamer and Collar	3	15-May-13 A	18-May-13 A	100%			0
SCRS0730	SCRS: Ream 90 metres @ 3.7 mtr dia	65	20-May-13 A	05-Aug-13 A	100%			0
SCRS0740	SCRS: Lower Reamer and Remove	4	05-Aug-13 A	09-Aug-13 A	100%			-34
SCRS0750	SCRS: De Rig Raise borer	29	09-Aug-13 A	12-Sep-13 A	100%			-35
Lower Shaft Construction								
No Significant Evnt								
SCRS0835	SCRS: Blinding Layer & Base Slab for LS	8	20-Dec-13 A	02-Jan-14 A	100%			-142
SCRS0840	SCRS: Bank shunt concreting	41	02-Jan-14 A	22-Feb-14 A	100%			-144
SCRS0875	SCRS: Constru Verti-Shft to Tun Invert -136.5mPD	13	24-Feb-14 A	11-Mar-14 A	100%			-168
SCRS0885	SCRS: Install System Form for LS -136.5mPD	11	12-Mar-14 A	25-Mar-14 A	100%			-168
SCRS0935	SCRS: Construct Transition & Vert Shaft -136mPD	15	26-Mar-14 A	14-Apr-14 A	100%			-168

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Harbour Area Treatment Scheme Stage 2A

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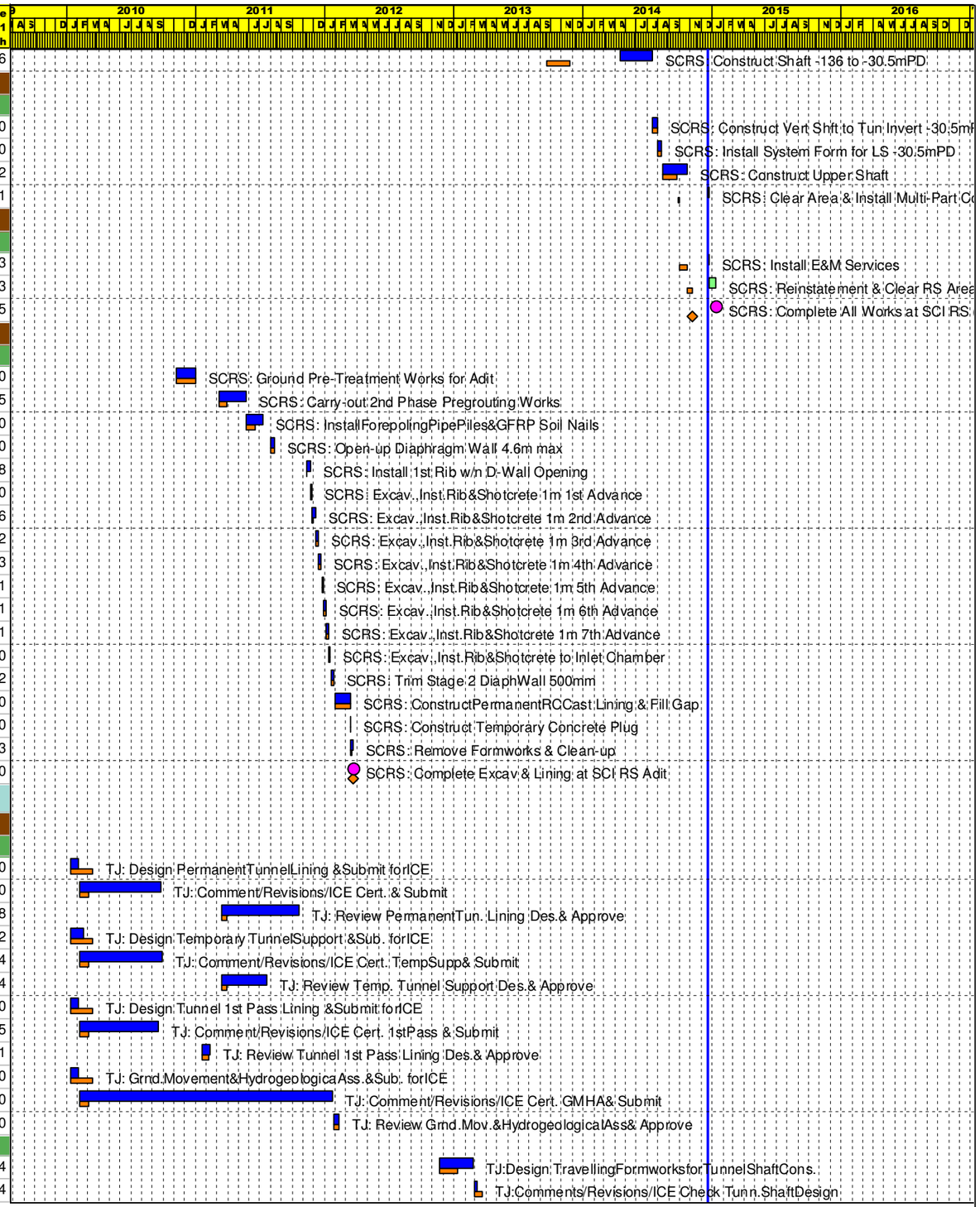
Activity ID	Activity Name	Origina Dura...	Start	Finish	Activity % mplete	Total Float	naining Float	riance - BL1 Finish
SCRS0940	SCRS: Construct Shaft -136 to -30.5mPD	54	15-Apr-14 A	16-Jul-14 A	100%			-186
Upper Shaft Construction								
No Significant Evnt								
SCRS0975	SCRS: Construct Vert Shft to Tun Invert -30.5mPD	12	16-Jul-14 A	29-Jul-14 A	100%			0
SCRS0995	SCRS: Install System Form for LS -30.5mPD	12	30-Jul-14 A	12-Aug-14 A	100%			0
SCRS1045	SCRS: Construct Upper Shaft	47	13-Aug-14 A	21-Oct-14 A	100%			-22
SCRS1065	SCRS: Clear Area & Install Multi-Part Cover	3	20-Dec-14	23-Dec-14	0%	509	509	-71
Miscellaneous Works								
No Significant Evnt								
SCRS2010	SCRS: Install E&M Services	0	24-Dec-14	24-Dec-14	0%	509	509	-53
SCRS2020	SCRS: Reinstatement & Clear RS Area	12	24-Dec-14	09-Jan-15	0%	509	509	-53
SCRS2025	SCRS: Complete All Works at SCI RS (KD-11)	0		09-Jan-15	0%	622	622	-65
Connecting Adit								
No Significant Evnt								
SCRS2030	SCRS: Ground Pre-Treatment Works for Adit	45	07-Nov-10 A	31-Dec-10 A	100%			0
SCRS2100	SCRS: Carry-out 2nd Phase Pregrouting Works	18	08-Mar-11 A	22-May-11 A	100%			-45
SCRS2102	SCRS: InstallForepolingPipePiles&GFRP Soil Nails	21	23-May-11 A	11-Jul-11 A	100%			-20
SCRS2104	SCRS: Open-up Diaphragm Wall 4.6m max	11	02-Aug-11 A	13-Aug-11 A	100%			0
SCRS2108	SCRS: Install 1st Rib w/n D-Wall Opening	1	11-Nov-11 A	21-Nov-11 A	100%			-8
SCRS2108B	SCRS: Excav.,Inst.Rib&Shotcrete 1m 1st Advance	4	22-Nov-11 A	25-Nov-11 A	100%			0
SCRS2108D	SCRS: Excav.,Inst.Rib&Shotcrete 1m 2nd Advance	4	26-Nov-11 A	07-Dec-11 A	100%			-6
SCRS2108F	SCRS: Excav.,Inst.Rib&Shotcrete 1m 3rd Advance	4	08-Dec-11 A	14-Dec-11 A	100%			-2
SCRS2108H	SCRS: Excav.,Inst.Rib&Shotcrete 1m 4th Advance	4	15-Dec-11 A	22-Dec-11 A	100%			-3
SCRS2108J	SCRS: Excav.,Inst.Rib&Shotcrete 1m 5th Advance	4	23-Dec-11 A	29-Dec-11 A	100%			-1
SCRS2108L	SCRS: Excav.,Inst.Rib&Shotcrete 1m 6th Advance	4	30-Dec-11 A	05-Jan-12 A	100%			-1
SCRS2108N	SCRS: Excav.,Inst.Rib&Shotcrete 1m 7th Advance	4	06-Jan-12 A	11-Jan-12 A	100%			-1
SCRS2108P	SCRS: Excav.,Inst.Rib&Shotcrete to Inlet Chamber	5	12-Jan-12 A	17-Jan-12 A	100%			0
SCRS2110	SCRS: Trim Stage 2 DiaphWall 500mm	5	18-Jan-12 A	28-Jan-12 A	100%			-2
SCRS2112	SCRS: ConstructPermanentRCCast Lining & Fill Gap	37	30-Jan-12 A	12-Mar-12 A	100%			0
SCRS2116	SCRS: Construct Temporary Concrete Plug	2	13-Mar-12 A	14-Mar-12 A	100%			0
SCRS2118	SCRS: Remove Formworks & Clean-up	4	15-Mar-12 A	22-Mar-12 A	100%			-3
SCRS2300	SCRS: Complete Excav & Lining at SCI RS Adit	0		23-Mar-12 A	100%			0
Tunnel J - NP to WCE (Length 3202m)								
Design Submissions								
Major Works								
TJ10070	TJ: Design PermanentTunnelLining &Submit forICE	52	11-Jan-10 A	04-Feb-10 A	100%			30
TJ10080	TJ: Comment/Revisions/ICE Cert. & Submit	21	05-Feb-10 A	24-Sep-10 A	100%			-170
TJ10091	TJ: Review PermanentTun. Lining Des.& Approve	14	15-Mar-11 A	20-Oct-11 A	100%			-168
TJ10100	TJ: Design Temporary TunnelSupport &Sub. forICE	52	11-Jan-10 A	17-Feb-10 A	100%			22
TJ10106	TJ: Comment/Revisions/ICE Cert. TempSupp& Submit	21	05-Feb-10 A	29-Sep-10 A	100%			-174
TJ10110	TJ: Review Temp. Tunnel Support Des.& Approve	14	15-Mar-11 A	22-Jul-11 A	100%			-94
TJ10115	TJ: Design Tunnel 1st Pass Lining &Submit forICE	52	11-Jan-10 A	04-Feb-10 A	100%			30
TJ10120	TJ: Comment/Revisions/ICE Cert. 1stPass & Submit	21	05-Feb-10 A	17-Sep-10 A	100%			-165
TJ10125	TJ: Review Tunnel 1st Pass Lining Des.& Approve	14	20-Jan-11 A	08-Feb-11 A	100%			-1
TJ10130	TJ: Grnd.Movement&HydrogeologicaAss.&Sub. forICE	52	11-Jan-10 A	04-Feb-10 A	100%			30
TJ10135	TJ: Comment/Revisions/ICE Cert. GMHA& Submit	21	05-Feb-10 A	21-Jan-12 A	100%			-570
TJ10140	TJ: Review Grnd.Mov.&HydrogeologicalAss& Approve	14	26-Jan-12 A	10-Feb-12 A	100%			0
Related Design								
TJ10150	TJ:Design TravellingFormworksforTunnelShaftCons.	45	20-Nov-12 A	25-Feb-13 A	100%			-34
TJ10155	TJ:Comments/Revisions/ICE Check Tunn.ShaftDesign	21	26-Feb-13 A	05-Mar-13 A	100%			14



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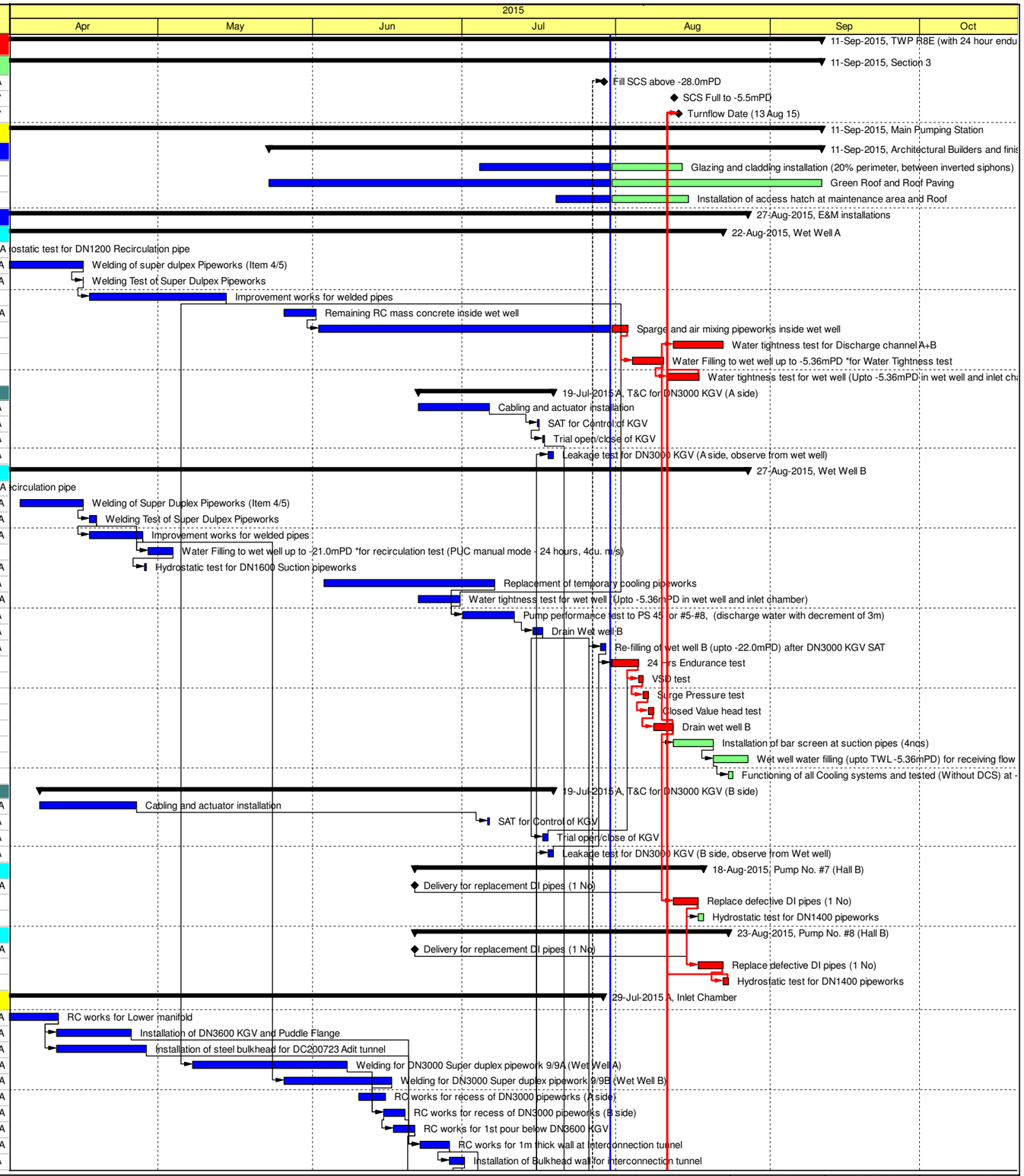
Activity ID	Activity Name	Original Duration	Activity % Complete	Total Float	Start	Finish
TWP R8E (with 24 hour endurance test (Option 1)						
Section 3						
KD0001	Fill SCS above -28.0mPD	0	100%			29-Jul-2015 A
KD0003	SCS Full to -5.5mPD	0	0%	0		12-Aug-2015*
KD0005	Turnflow Date (13 Aug 15)	0	0%	0		13-Aug-2015*
Main Pumping Station						
Architectural Builders and finishes works						
A2340	Glazing and cladding installation (20% perimeter, between inverted siphons)	18	20%	76	04-Jul-2015 A	14-Aug-2015
A2760	Green Roof and Roof Paving	50	15%	48	23-May-2015	11-Sep-2015
A2930	Installation of access hatch at maintenance area and Roof	21	25%	74	20-Jul-2015 A	15-Aug-2015
E&M installations						
Wet Well A						
A0095	Hydrostatic test for DN1200 Recirculation pipe	1	100%		26-Mar-2015 A	26-Mar-2015 A
A1000	Welding of super dulpex Pipeworks (Item 4/5)	14	100%		26-Mar-2015 A	16-Apr-2015 A
A1020	Welding Test of Super Dulpex Pipeworks	2	100%		16-Apr-2015 A	16-Apr-2015 A
A1025	Improvement works for welded pipes	28	100%		17-Apr-2015 A	14-May-2015
A1085	Remaining RC mass concrete inside wet well	7	100%		26-May-2015	01-Jun-2015 A
A1086	Sparge and air mixing pipeworks inside wet well	35	90%	-4	02-Jun-2015 A	03-Aug-2015
A1088	Water tightness test for Discharge channel A+B	10	0%	-19	12-Aug-2015	22-Aug-2015
A1095	Water Filling to wet well up to -5.36mPD *for Water Tightness test	7	0%	-4	04-Aug-2015*	10-Aug-2015
A1100	Water tightness test for wet well (Upto -5.36mPD in wet well and inlet chamber)	7	0%	-4	11-Aug-2015	17-Aug-2015
T&C for DN3000 KGV (A side)						
A5200	Cabling and actuator installation	15	100%		22-Jun-2015 A	06-Jul-2015 A
A5210	SAT for Control of KGV	1	100%		16-Jul-2015 A	16-Jul-2015 A
A5220	Trial open/close of KGV	1	100%		17-Jul-2015 A	17-Jul-2015 A
A5230	Leakage test for DN3000 KGV (A side, observe from wet well)	1	100%		18-Jul-2015 A	19-Jul-2015 A
Wet Well B						
A1005	Hydrostatic test for DN1200 Recirculation pipe	1	100%		03-Mar-2015 A	03-Mar-2015 A
A1010	Welding of Super Duplex Pipeworks (Item 4/5)	14	100%		03-Apr-2015 A	16-Apr-2015 A
A1030	Welding Test of Super Dulpex Pipeworks	2	100%		17-Apr-2015 A	18-Apr-2015 A
A1035	Improvement works for welded pipes	9	100%		17-Apr-2015 A	28-Apr-2015 A
A1080	Water Filling to wet well up to -21.0mPD *for recirculation test (PUC manual mode - 24 hours, 4cu.	2	100%		29-Apr-2015 A	04-May-2015
A1110	Hydrostatic test for DN1600 Suction pipeworks	1	100%		28-Apr-2015 A	28-Apr-2015 A
A1115	Replacement of temporary cooling pipeworks	35	100%		03-Jun-2015 A	07-Jul-2015 A
A1740	Water tightness test for wet well (Upto -5.36mPD in wet well and inlet chamber)	9	100%		22-Jun-2015 A	30-Jun-2015 A
A1742	Pump performance test to PS 45 for #5-#8, (discharge water with decrement of 3m)	11	100%		01-Jul-2015 A	11-Jul-2015 A
A1750	Drain Wet well B	2	100%		15-Jul-2015 A	17-Jul-2015 A
A1751	Re-filling of wet well B (upto -22.0mPD) after DN3000 KGV SAT	3	100%		29-Jul-2015 A	30-Jul-2015 A
A1752	24 Hrs Endurance test	6	5%	-19	31-Jul-2015 A	05-Aug-2015
A1753	VSD test	1	0%	-19	05-Aug-2015	06-Aug-2015
A1754	Surge Pressure test	1	0%	-19	06-Aug-2015	07-Aug-2015
A1757	Closed Value head test	1	0%	-19	07-Aug-2015	08-Aug-2015
A1759	Drain wet well B	4	0%	-19	08-Aug-2015	12-Aug-2015
A1760	Installation of bar screen at suction pipes (4nos)	8	0%	63	12-Aug-2015	20-Aug-2015
A1865	Wet well water filling (upto TWL-5.36mPD) for receiving flow	7	0%	63	20-Aug-2015	27-Aug-2015
A1875	Functioning of all Cooling systems and tested (Without DCS) at -22mPD	1	0%	66	23-Aug-2015	24-Aug-2015
T&C for DN3000 KGV (B side)						
A5160	Cabling and actuator installation	20	100%		07-Apr-2015 A	26-Apr-2015 A
A5170	SAT for Control of KGV	1	100%		06-Jul-2015 A	06-Jul-2015 A
A5180	Trial open/close of KGV	1	100%		17-Jul-2015 A	18-Jul-2015 A
A5190	Leakage test for DN3000 KGV (B side, observe from Wet well)	1	100%		18-Jul-2015 A	19-Jul-2015 A
Pump No. #7 (Hall B)						
A4560	Delivery for replacement DI pipes (1 No)	0	100%			21-Jun-2015 A
A4580	Replace defective DI pipes (1 No)	5	0%	-10	12-Aug-2015	17-Aug-2015
A4590	Hydrostatic test for DN1400 pipeworks	1	0%	72	17-Aug-2015	18-Aug-2015
Pump No. #8 (Hall B)						
A4570	Delivery for replacement DI pipes (1 No)	0	100%			21-Jun-2015 A
A4600	Replace defective DI pipes (1 No)	5	0%	-10	17-Aug-2015	22-Aug-2015
A4610	Hydrostatic test for DN1400 pipeworks	1	0%	-10	22-Aug-2015	23-Aug-2015
Inlet Chamber						
A5000	RC works for Lower manifold	45	100%		02-Feb-2015 A	11-Apr-2015 A
A5010	Installation of DN3600 KGV and Puddle Flange	15	100%		10-Apr-2015 A	25-Apr-2015 A
A5020	Installation of steel bulkhead for DC200723 Adit tunnel	18	100%		10-Apr-2015 A	28-Apr-2015 A
A5030	Welding for DN3000 Super duplex pipework 9/9A (Wet Well A)	10	100%		08-May-2015	08-Jun-2015 A
A5040	Welding for DN3000 Super duplex pipework 9/9B (Wet Well B)	10	100%		26-May-2015	17-Jun-2015 A
A5045	RC works for recess of DN3000 pipeworks (A side)	4	100%		10-Jun-2015 A	15-Jun-2015 A
A5050	RC works for recess of DN3000 pipeworks (B side)	5	100%		15-Jun-2015 A	19-Jun-2015 A
A5060	RC works for 1st pour below DN3600 KGV	5	100%		17-Jun-2015 A	21-Jun-2015 A
A5070	RC works for 1m thick wall at Interconnection tunnel	6	100%		22-Jun-2015 A	28-Jun-2015 A
A5080	Installation of Bulkhead wall for interconnection tunnel	3	100%		28-Jun-2015 A	01-Jul-2015 A



Actual Work
Remaining Work
Critical Remaining Work
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Summary

Contract No. DC/2009/10

HATS Stage 2A - Upgrading works at StoneCutters Island Sewage Treatement Works

Target Works Programme (Revision 8E, Option 1)

Sheet 1 of 3

DD: 31 July 2015

Date	Revision	Checked	Approved
16-May-2015	Rev 7E		
10-Jun-2015	Rev. 8		
19-Jun-2015	Rev. 8A		
30-Jun-2015	Rev 8B		
10-Jul-2015	Rev 8C		
17-Jul-2015	Rev. 8D		
31-Jul-2015	Rev 8E		

Activity ID	Activity Name	Original Duration	Activity % Complete	Total Float	Start	Finish
A5085	RC works for upper mainfold (Bside, with DN1400 & air Valve)	9	100%		01-Jul-2015 A	12-Jul-2015 A
A5086	Dismantle Formworks inside manifold	6	100%		10-Jul-2015 A	16-Jul-2015 A
A5090	RC works for upper mainifold (A side, with DN1400 & air valve)	9	100%		22-Jun-2015 A	01-Jul-2015 A
A5100	RC works for upper mainfold with DN1200 NWK	5	100%		01-Jul-2015 A	12-Jul-2015 A
A5110	Dismantle formwork inside manifold	6	100%		06-Jul-2015 A	12-Jul-2015 A
A5112	Apply concrete coating	5	100%		13-Jul-2015 A	20-Jul-2015 A
A5117	Installation of actuator/ Protection tube of 3600 KGV	7	100%		06-Jul-2015 A	10-Jul-2015 A
A5120	Preparation works for water tightness test for manifold and DN3600 KGV	5	100%		15-Jul-2015 A	23-Jul-2015 A
A5130	Water tightness test for Manifold and DN3600 KGV	2	100%		24-Jul-2015 A	26-Jul-2015 A
A5140	Dismantle bulkhead wall + reinstatement	3	100%		26-Jul-2015 A	27-Jul-2015 A
A5141	Delivery of DI pipes/ fitting at inlet chamber	0	100%			20-Jul-2015 A
A5145	Installation of DN1400 and DN1200 (up to first Gate valve)	3	100%		28-Jul-2015 A	29-Jul-2015 A
T&C for DN3600 KGV						
A5240	Cabling and actuator installation	21	100%		22-Jun-2015 A	12-Jul-2015 A
A5250	SAT for Control of KGV	1	100%		15-Jul-2015 A	16-Jul-2015 A
A5260	Trial open/close of KGV	1	100%		16-Jul-2015 A	17-Jul-2015 A
A5270	Leakage test for DN3600 KGV (observe from Interconnetion tunnel)	1	100%		26-Jul-2015 A	27-Jul-2015 A
New CEPT						
Reinforced Concrete works						
S0540	RC works for benching concrete (Siphon and inflow chamber)	15	100%		22-Jun-2015 A	07-Jul-2015 A
S0550	Water tightness test for MFC, inflow chamber and siphons (A+B side)	21	45%	2	14-Jul-2015 A	11-Aug-2015
S0560	Water tightness test for Flocculation tanks FT2A2, A4 and A6	14	100%		07-Jul-2015 A	20-Jul-2015 A
S0570	Water tightness test for Flocculation tanks FT2A1, A3 and A5	10	45%	4	22-Jul-2015 A	09-Aug-2015
Connection works at MDC						
S0575	Water tightness test for the connection of MDC (N&S)	21	90%	4	25-Jun-2015 A	02-Aug-2015
S0585	Dismanlte of steel bulkhead wall at MDC(N&S)	8	0%	4	02-Aug-2015	10-Aug-2015
FRP Odour Containment cover						
A3990	Installation of FRP cover at PST (S) 48 and 50	42	100%		04-May-2015	23-Jun-2015 A
A3995	Installation of FRP Cover at PST (S) 52 and 54	42	100%		05-May-2015	15-Jun-2015 A
A4000	Installation of FRP cover at FT2A1~A6	21	90%	1	02-Jul-2015 A	05-Aug-2015
A4004	Delivery of FRP Cover MDC (S), 1st batch	0	100%			10-Jun-2015 A
A4005	Delivery of FRP Cover MDC (S), 2nd batch	0	0%	0		22-Aug-2015*
A4006	Delivery of FRP flat cover (PST (S), effluent launder and drop shaft)	0	0%	0		17-Aug-2015*
A4007	Delivery of FRP covers of RMT	0	0%	0		17-Aug-2015*
A4008	Installation of FRP flat cover (PST (S), effluent launder and drop shaft)	5	0%	-16	18-Aug-2015	22-Aug-2015
A4010	Installation of FRP cover at MDC (S)	9	0%	-25	23-Aug-2015	31-Aug-2015
A4011	Installation of FRP cover at RMT	12	0%	-23	18-Aug-2015	29-Aug-2015
A4012	Installation of odour ductworks (Main, PSTs)	35	100%		06-May-2015	09-Jun-2015 A
A4013	Installation of odour ductworks (branch, PSTs 48~54)	18	5%	-10	20-Jul-2015 A	17-Aug-2015
A4014	Installation of odour ductworks (Main, FT and MDC)	40	100%		16-Jun-2015 A	25-Jul-2015 A
A4015	Installation of odour ductworks (branch, FT and MDC)	18	5%	-10	28-Jul-2015 A	17-Aug-2015
A4020	Testing and commissioning (smoke test)	7	0%	-25	01-Sep-2015	07-Sep-2015
Scum Collection system						
S2400	Scum trough and drive chain installation at new Southern PSTs 48, 50, 52 and 54	55	100%		20-Mar-2015 A	29-Jul-2015 A
S2410	Grouting works for scum trough	15	10%	-6	21-Jul-2015 A	15-Aug-2015
S2420	E&M installation for Scum pump room No. 14	30	100%		16-Jun-2015 A	27-Jul-2015 A
S2430	DN150 scum pipe (inside pipe gallery)	50	100%		18-Mar-2015 A	20-May-2015
S2432	DN150 pipe support construction (to manifold)	18	30%	-15	26-Jun-2015 A	12-Aug-2015
S2440	DN150 scum pipe to manifold	10	0%	-13	12-Aug-2015	24-Aug-2015
S2450	DN150 scum pipe upto sludge holding tanks	25	100%		01-Jul-2015 A	25-Jul-2015 A
S2460	Scum Baffle and weir plate installation	18	100%		25-Jun-2015 A	12-Jul-2015 A
S2470	Process water and Protected water installation	25	100%		02-Jul-2015 A	26-Jul-2015 A
S2475	LCP Delivery for scum Pump system of PSTs	0	100%			25-Jun-2015 A
S2476	LCP delivery for Process water and protected water	0	100%			17-Jul-2015 A
S2480	Electrical installation for scum pump at PSTs	24	100%		29-Jun-2015 A	23-Jul-2015 A
S2490	T&C for Scum colletction systems at PSTs	5	0%	-16	24-Aug-2015	29-Aug-2015
Sludge Scrapers						
A2375	Longitudual Sludge scarper at FT2A1, A3 and A5	12	100%		02-Jun-2015 A	13-Jun-2015 A
A2378	Cross sludge scarpers at FT2A1, A3 and A5	18	100%		24-Jun-2015 A	12-Jul-2015 A
A2380	Delivery of DN450 sludge pipe (For sludge Holding Tanks)	0	0%	0		15-Aug-2015*
A2381	Fabrication and delivery of Temporaroy M.S. pipe fitting for sludge pipes	0	0%	0		08-Aug-2015*
A2382	Installation of inlet EDF baffle and Mid-tank baffle	20	100%		30-Jun-2015 A	19-Jul-2015 A
A2383	DN450 sludge Pipe installation (inside pipe gallery)	60	90%	-12	24-Mar-2015 A	15-Aug-2015
A2384	DN450 sludge pipe support to manifold	18	100%		26-Jun-2015 A	13-Jul-2015 A
A2385	DN450 Sludge pipe to manifold	10	0%	-14	10-Aug-2015	19-Aug-2015
A2386	DN450 sludge pipe upto Sludge Holding tanks	15	0%	-25	16-Aug-2015*	30-Aug-2015
A2387	LCP delivery for sludge pump at FTand PSTs (S)	0	100%			19-Jun-2015 A
A2388	LCP delivery for sludge collector at FT and PSTs (S)	0	100%			06-Jul-2015 A
A2396	Electrical installation for sludge scarpers at FT and PSTs	25	75%	2	28-Jun-2015 A	06-Aug-2015
A2400	T&C for sludge scrapers at FT and PSTs	6	0%	2	06-Aug-2015	12-Aug-2015

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Contract No. DC/2009/10

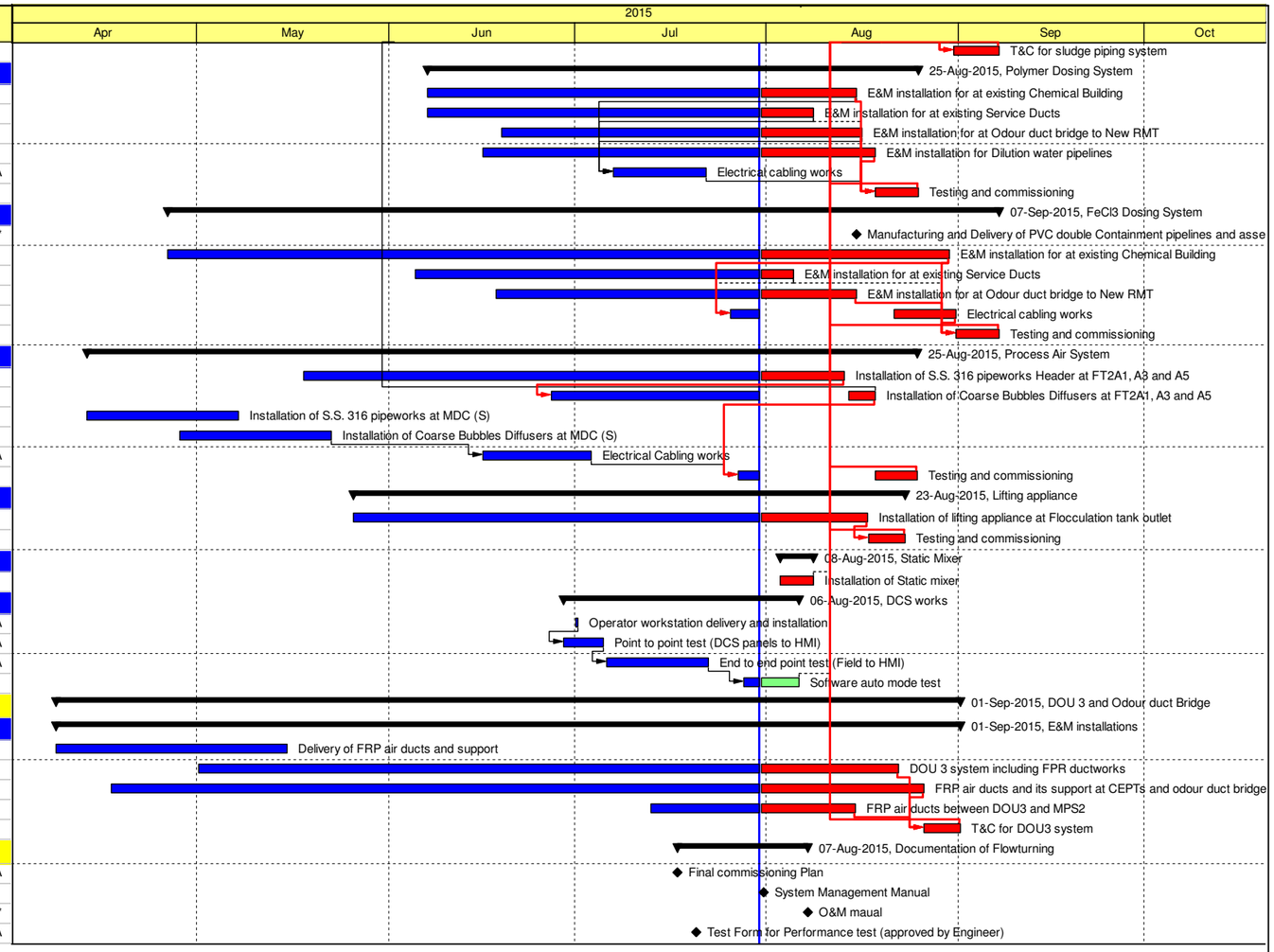
HATS Stage 2A - Upgrading works at StoneCutters Island Sewage Treatement Works

Target Works Programme (Revision 8E, Option 1)

DD: 31 July 2015

Date	Revision	Checked	Approved
16-May-2015	Rev 7E		
10-Jun-2015	Rev. 8		
19-Jun-2015	Rev. 8A		
30-Jun-2015	Rev 8B		
10-Jul-2015	Rev 8C		
17-Jul-2015	Rev. 8D		
31-Jul-2015	Rev 8E		

Activity ID	Activity Name	Original Duration	Activity % Complete	Total Float	Start	Finish
A2410	T&C for sludge piping system	6	0%	-17	31-Aug-2015	07-Sep-2015
Polymer Dosing System						
A3370	E&M installation for at existing Chemical Building	40	60%	-9	07-Jun-2015 A	15-Aug-2015
A3373	E&M installation for at existing Service Ducts	35	75%	1	07-Jun-2015 A	08-Aug-2015
A3375	E&M installation for at Odour duct bridge to New RMT	30	45%	-10	19-Jun-2015 A	16-Aug-2015
A3376	E&M installation for Dilution water pipelines	25	25%	-12	16-Jun-2015 A	18-Aug-2015
A3378	Electrical cabling works	15	100%		07-Jul-2015 A	22-Jul-2015 A
A3380	Testing and commissioning	7	0%	-12	18-Aug-2015	25-Aug-2015
FeCl3 Dosing System						
A3415	Manufacturing and Delivery of PVC double Containment pipelines and assessories (3rd Batch)	0	0%	0		15-Aug-2015*
A3420	E&M installation for at existing Chemical Building	40	23%	-25	26-Apr-2015 A	30-Aug-2015
A3430	E&M installation for at existing Service Ducts	35	85%	1	05-Jun-2015 A	05-Aug-2015
A3440	E&M installation for at Odour duct bridge to New RMT	21	25%	-9	18-Jun-2015 A	15-Aug-2015
A3445	Electrical cabling works	15	33.33%	-25	26-Jul-2015 A	31-Aug-2015
A3450	Testing and commissioning	7	0%	-25	31-Aug-2015	07-Sep-2015
Process Air System						
A3822	Installation of S.S. 316 pipeworks Header at FT2A1, A3 and A5	35	60%	-12	18-May-2015	13-Aug-2015
A3823	Installation of Coarse Bubbles Diffusers at FT2A1, A3 and A5	12	60%	-12	27-Jun-2015 A	18-Aug-2015
A3835	Installation of S.S. 316 pipeworks at MDC (S)	25	100%		13-Apr-2015 A	07-May-2015
A3836	Installation of Coarse Bubbles Diffusers at MDC (S)	25	100%		28-Apr-2015 A	22-May-2015
A3840	Electrical Cabling works	18	100%		16-Jun-2015 A	03-Jul-2015 A
A3850	Testing and commissioning	10	33%	-12	27-Jul-2015 A	25-Aug-2015
Lifting appliance						
A4530	Installation of lifting appliance at Flocculation tank outlet	35	50%	-10	26-May-2015	17-Aug-2015
A4550	Testing and commissioning	6	0%	-10	17-Aug-2015	23-Aug-2015
Static Mixer						
A4720	Installation of Static mixer	6	0%	5	03-Aug-2015*	08-Aug-2015
DCS works						
A5360	Operator workstation delivery and installation	1	100%		01-Jul-2015 A	01-Jul-2015 A
A5370	Point to point test (DCS panels to HMI)	7	100%		29-Jun-2015 A	05-Jul-2015 A
A5380	End to end point test (Field to HMI)	17	100%		06-Jul-2015 A	22-Jul-2015 A
A5390	Software auto mode test	9	30.56%	8	28-Jul-2015 A	06-Aug-2015
DOU 3 and Odour duct Bridge						
E&M installations						
A2305	Delivery of FRP air ducts and support	38	100%		08-Apr-2015 A	15-May-2015
A2310	DOU 3 system including FPR ductworks	30	25%	-15	01-May-2015	22-Aug-2015
A2315	FRP air ducts and its support at CEPTs and odour duct bridge	30	25%	-16	17-Apr-2015 A	26-Aug-2015
A2316	FRP air ducts between DOU3 and MPS2	18	15%	-2	13-Jul-2015 A	15-Aug-2015
A2320	T&C for DOU3 system	6	0%	-19	26-Aug-2015	01-Sep-2015
Documentation of Flowturning						
A5400	Final commissioning Plan	0	100%			17-Jul-2015 A
A5410	System Management Manual	0	0%	0		31-Jul-2015*
A5420	O&M maual	0	0%	0		07-Aug-2015*
A5430	Test Form for Performance test (approved by Engineer)	0	100%			20-Jul-2015 A



Actual Work
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Contract No. DC/2009/10

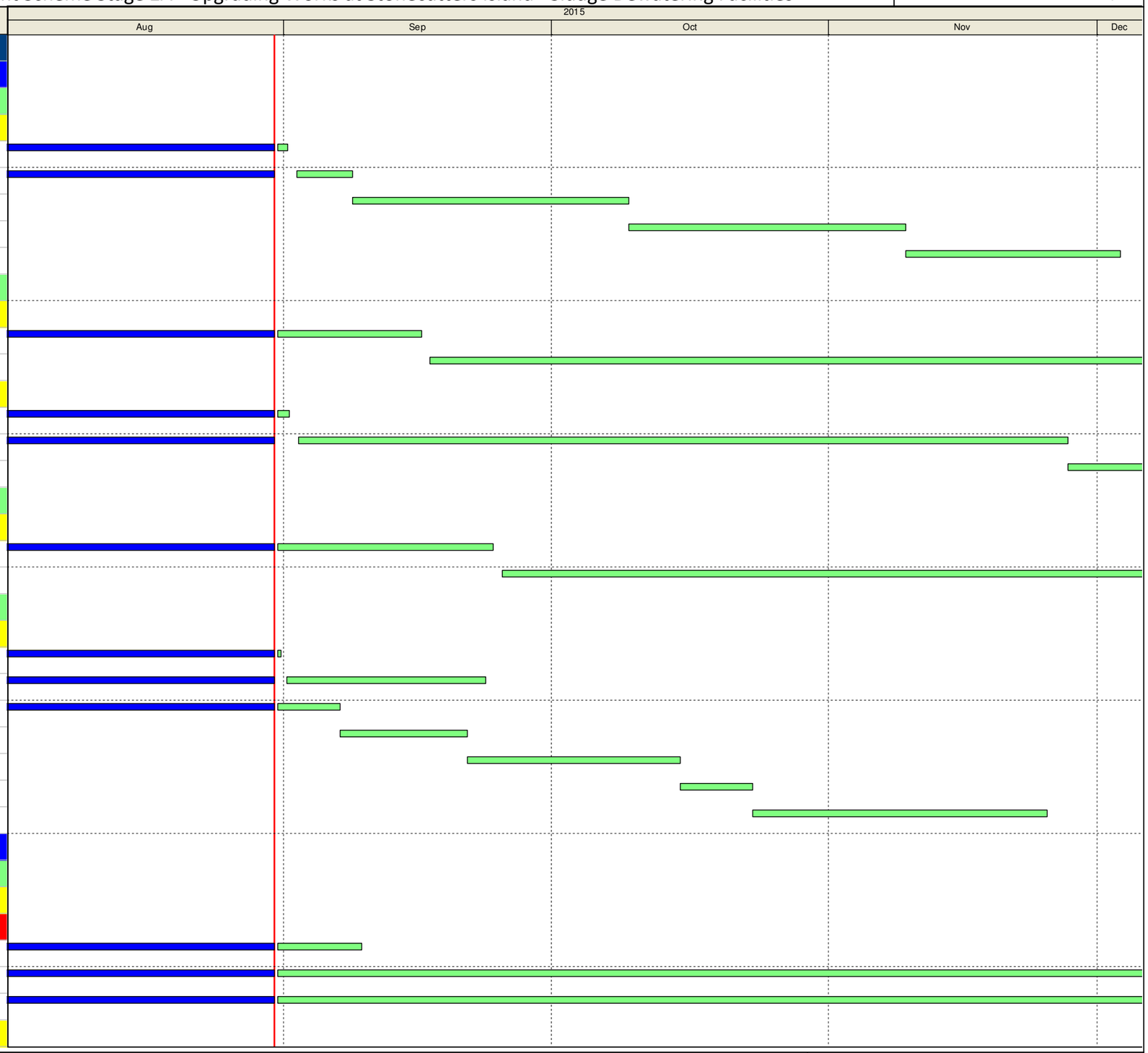
HATS Stage 2A - Upgrading works at StoneCutters Island Sewage Treatement Works

Target Works Programme (Revision 8E, Option 1)

DD: 31 July 2015

Date	Revision	Checked	Approved
16-May-2015	Rev 7E		
10-Jun-2015	Rev. 8		
19-Jun-2015	Rev. 8A		
30-Jun-2015	Rev 8B		
10-Jul-2015	Rev 8C		
17-Jul-2015	Rev. 8D		
31-Jul-2015	Rev 8E		

Activity ID	Activity Name	Original Duration	Start	Finish
DC/2009/17 Detailed Works Programme Revision 3B_Updated up to 31-Aug-15				
Design of Permanent Works				
DDA2 (Southern Sludge Cake Silo)				
Sub-Package - A1				
DP34430	DDA: SSCS - Submit Sub-structure Design	132	26-Jun-14 A	01-Sep-15
DP34440	DDA: SSCS - ICE Approve Sub-structure Design	110	14-Jan-15 A	08-Sep-15
DP34442	DDA: SSCS - Engineer Comment Sub-structure Design	25	08-Sep-15	09-Oct-15
DP34444	DDA: SSCS - Finalize Sub-structure Design	25	09-Oct-15	09-Nov-15
DP34450	DDA: SSCS - Engineer Approve Sub-structure Design	21	09-Nov-15	03-Dec-15
DDA7 (DOU5 and DGS)				
Sub-Package - A1				
DP034170	DDA: DOU5&DGS - Submit Sub-structure Design	142	17-Jul-14 A	16-Sep-15
DP034180	DDA: DOU5&DGS - ICE Approve Sub-structure Design	72	17-Sep-15	14-Dec-15
Sub-Package - B				
DP034210	DDA: DOU5&DGS - Submit Structural Design	169	08-Jul-14 A	01-Sep-15
DP034220	DDA: DOU5&DGS - ICE Approve Structural Design	95	29-Jan-15 A	27-Nov-15
DP034230	DDA: DOU5&DGS - Engineer Comment Structural Design	19	27-Nov-15	19-Dec-15
DDA5 (PWST & Pumping System)				
Sub-Package - B				
DP030210	DDA: PWST&PS - Submit Structure Design	142	28-Jul-14 A	24-Sep-15
DP030220	DDA: PWST&PS - ICE Approve Structure Design	96	25-Sep-15	22-Jan-16
Detailed Design Approval (DDA) Submission				
DDA 35 - Workshop Equipment				
DP008810	DDA: Workshop (E&M) - Designer to Compile DDA	107	05-Apr-13 A	31-Aug-15
DP008815	DDA: Workshop (E&M) - Comment, Review & Approval	56	08-Apr-15 A	23-Sep-15
DP008820	DDA: Workshop (E&M) - Ist Submission	6	01-Jun-13 A	07-Sep-15
DP008830	DDA: Workshop (E&M) - Engineer Comment	12	07-Sep-15	21-Sep-15
DP008840	DDA: Workshop (E&M) - Designer Response/Revision	19	21-Sep-15	15-Oct-15
DP008850	DDA: Workshop (E&M) - 2nd Submission & ICE Cert	6	15-Oct-15	23-Oct-15
DP008860	DDA: Workshop (E&M) - Engineer Approval	28	23-Oct-15	25-Nov-15
Section 5 of the Works				
Workshop Building				
Piling Works				
Prebored H-Pile				
S5002158	WB: Install Casing for Prebored H-Pile (WP-1 to 90 & Other, 110nos)	90	12-Jun-15 A	09-Sep-15
S5002160	WB: Installation of H-section (110 nos.)	90	19-Jun-15 A	12-Dec-15
S5002162	WB: Grouting for Prebored H-pile (110 nos.)	90	26-Jun-15 A	12-Dec-15
Procurement, Manufacture and Delivery				



◆ Milestone
Actual Work
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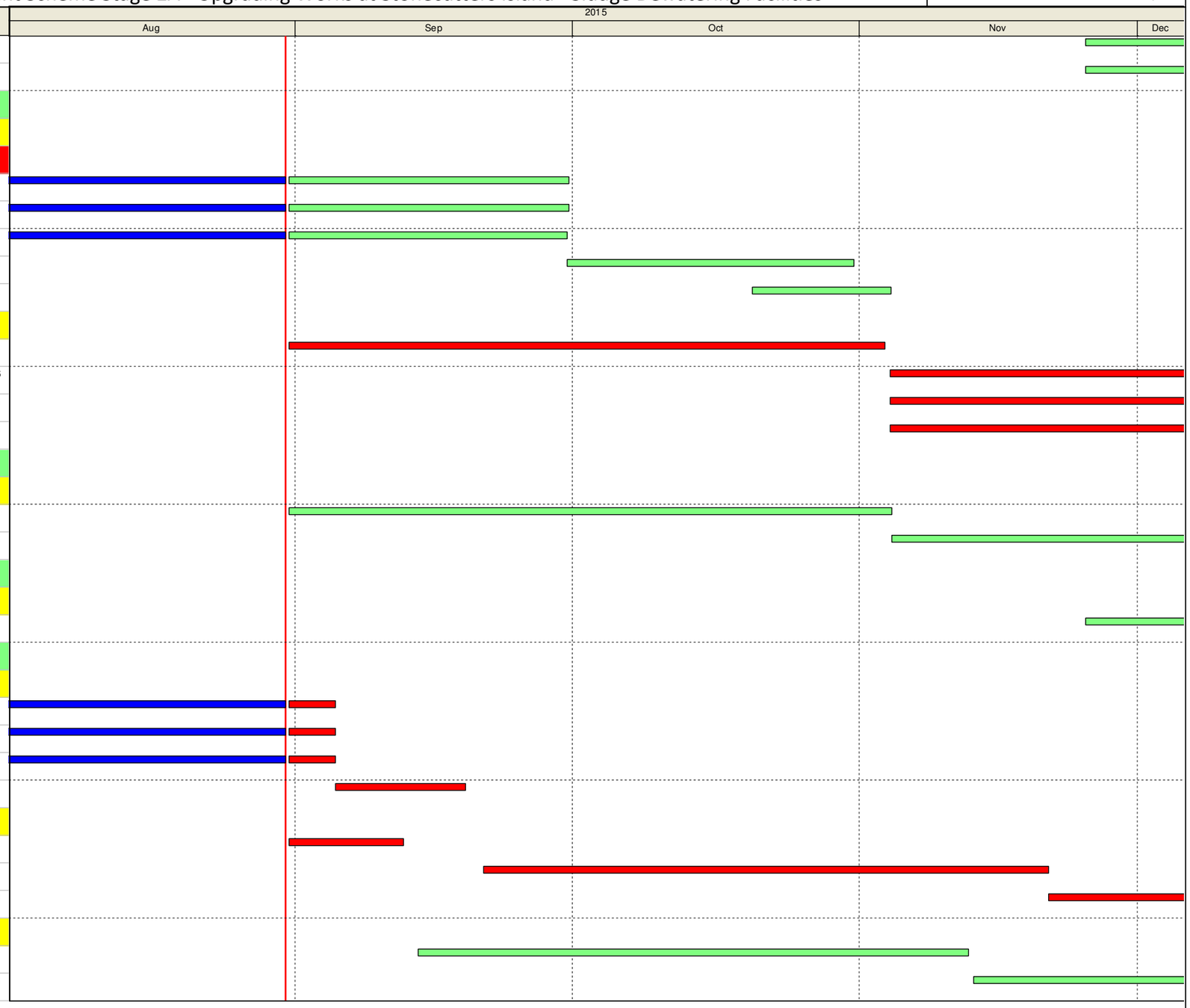
Three Months Rolling Programme - September to November 2015

(Based on Detail Works Programme Rev.3B)

3-M Rolling Programme			
Date	Revision	Checked	Approved
31-Aug-15			

C17TGPRev3B-1_150831	Harbour Area Treatment Scheme Stage 2A - Upgrading Works at Stonecutters Island - Sludge Dewatering Facilities	07-Sep-15

Activity ID	Activity Name	Original Duration	Start	Finish
S5002910	WB: Procure Balancing Machine for Centrifuge	35	25-Nov-15	08-Jan-16
S5002930	WB: Procure various E&M Equipment / Material	35	25-Nov-15	08-Jan-16
Southern Sludge Cake Silo				
Piling Works				
Prebored H-Pile				
S5003034	SSCS: Install Casing for Prebored H-Pile (88 no)	75	05-May-15 A	30-Sep-15
S5003040	SSCS: Installation of H-section (88 nos.)	75	08-May-15 A	30-Sep-15
S5003042	SSCS: Grouting for H-Pile (88 nos.)	70	08-May-15 A	30-Sep-15
S5003080	SSCS: Load Test and Proof Drill	25	30-Sep-15	31-Oct-15
S5003082	SSCS: Demobilization of Plant	12	20-Oct-15	04-Nov-15
Procurement, Manufacture and Delivery				
S5003520	SSCS: Procure Conveyor, Valve, Air Duct & Lifting Appliance	53	31-Aug-15	03-Nov-15
S5003530	SSCS: Manufacture Conveyor, Valve, Air Duct & Lifting Appliance	157	04-Nov-15	18-May-16
S5003550	SSCS: Procure Vehicle Washing Machine	60	04-Nov-15	15-Jan-16
S5003585	SSCS: Procurement of Silo (Body)	60	04-Nov-15	15-Jan-16
Deodourization Unit 5 and DG Store				
Procurement and Delivery				
S5008510	DOU5 & DGS: Procurement of DOU5 & other E&M Equipment	53	31-Aug-15*	04-Nov-15
S5008520	DOU5 & DGS: Manufacturing of DOU5 & other E&M Equipment	187	04-Nov-15	23-Jun-16
Process Water Storage Tank				
Procurement, Manufacture and Delivery				
S5009660	PWST: Procure Tanks & other E&M Equipment / Material	55	25-Nov-15	01-Feb-16
External (Civil) Works				
SDB Area				
S5009810	Barge unloading facilities near sea front	52	29-Sep-14 A	05-Sep-15
S5009812	Concrete pillar box	52	29-Sep-14 A	05-Sep-15
S5009814	Permanent carrigeway	52	29-Sep-14 A	05-Sep-15
S5009818	Cable duct and draw pit P29	12	05-Sep-15	19-Sep-15
General Area				
S5009824	Sludge chamber No.2	12	31-Aug-15	12-Sep-15
S5009826	Foul sewer & manholes F6A & F6C at portion 3 & 4	50	21-Sep-15	21-Nov-15
S5009828	Centrate pipe CP2 at porion 3 & 4	50	21-Nov-15	22-Jan-16
SSCS Area				
S5009852	Sludge feed pipe SF2 and access chamber 2	49	14-Sep-15	12-Nov-15
S5009858	Foul sewer and manholes F6B & F6D	49	13-Nov-15	12-Jan-16



◆ ◆ Milestone
Actual Work
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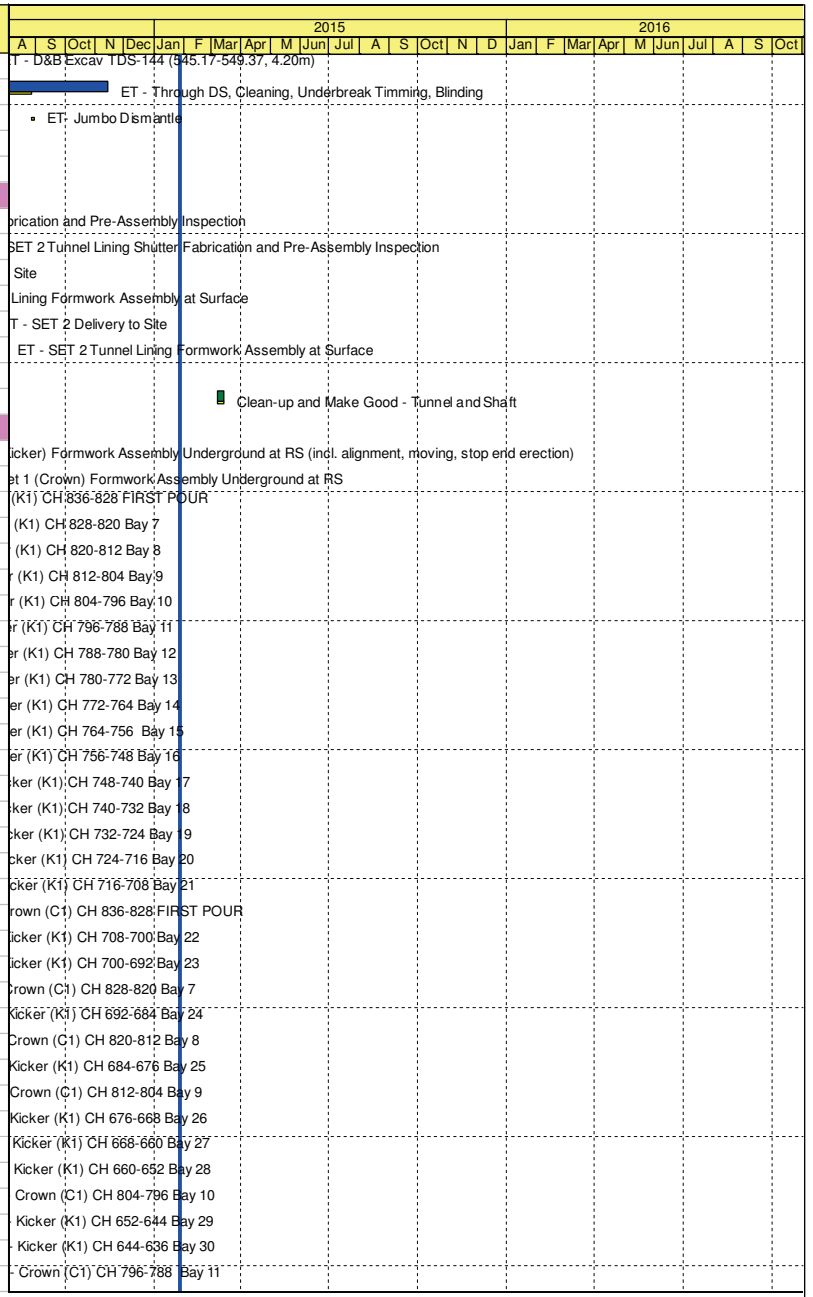
Three Months Rolling Programme - September to November 2015

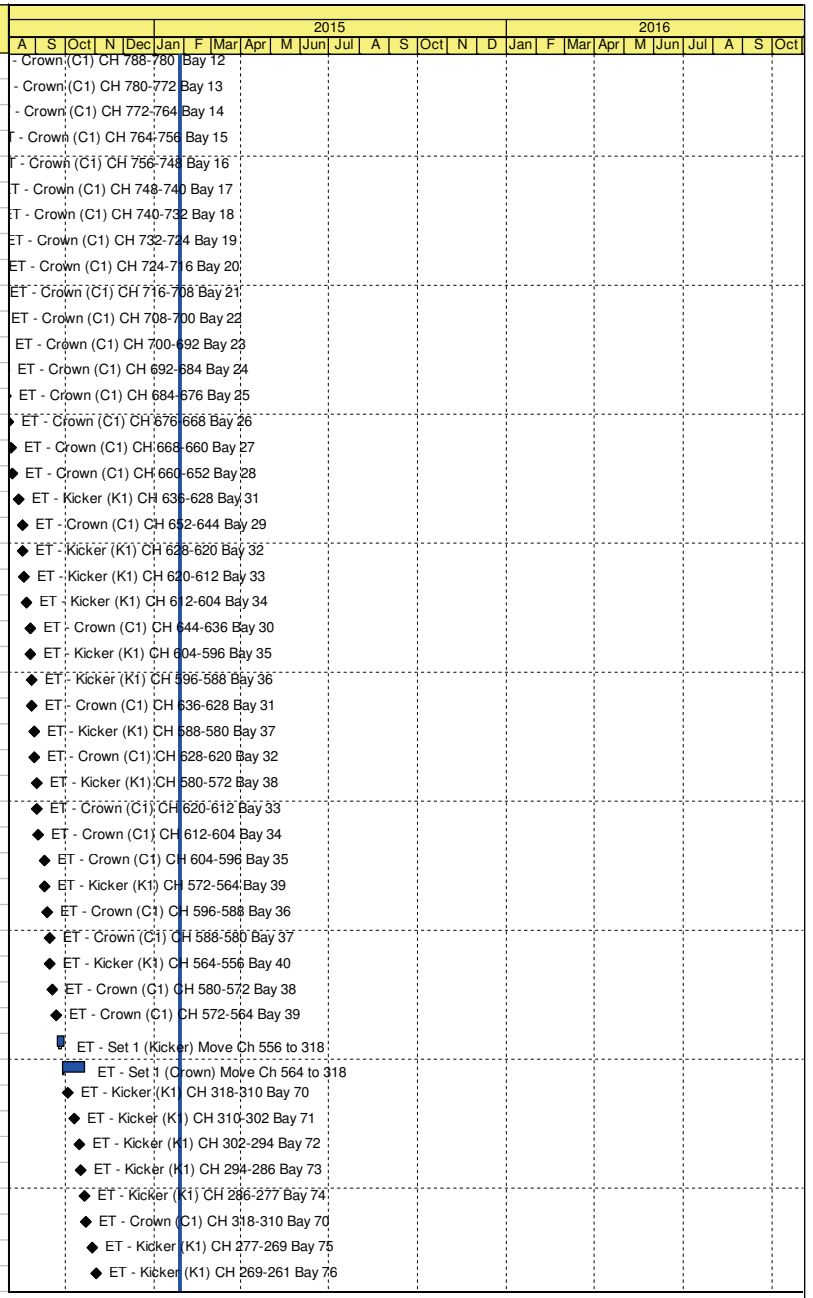
(Based on Detail Works Programme Rev.3B)

3-M Rolling Programme			
Date	Revision	Checked	Approved
31-Aug-15			

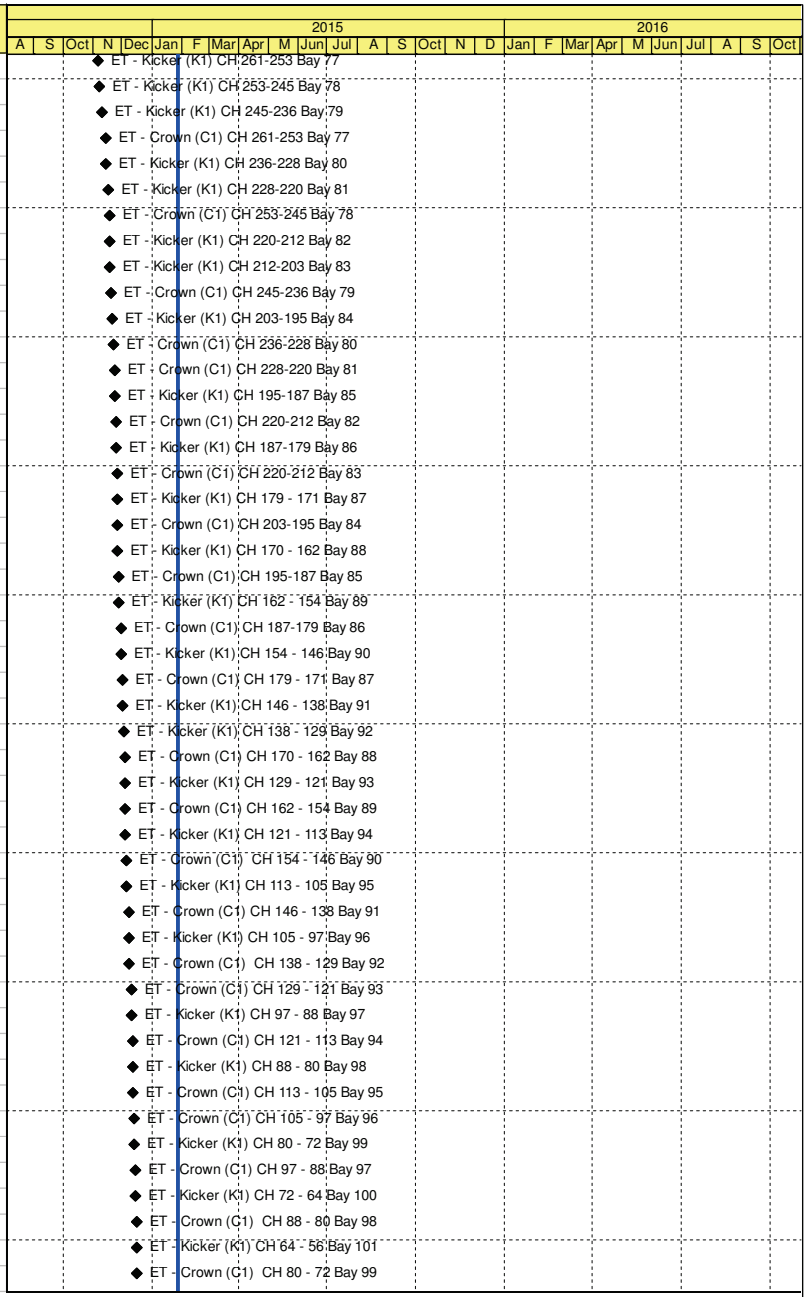
Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-55144N	ET - D&B Excav TDS-144 (545.17-549.37, 4.20m)	0		14-Jul-14 A	100%
18-57640N	ET - Through DS, Cleaning, Underbreak Timming, Blinding	35	15-Jul-14 A	15-Nov-14 A	100%
18-57641N	ET- Jumbo Dismantle	4	28-Jul-14 A	01-Aug-14 A	100%
6.06.4.2 - Tunnel Lining Works					
6.06.4.2.1 - Formwork Gantry					
6.06.4.2.1.1 - Tunnel Lining Shutter					
18-57660N	ET - SET 1 Tunnel Lining Shutter Fabrication and Pre-Assembly Inspection	95	05-Aug-13 A	29-Nov-13 A	100%
18-57700N	ET - SET 2 Tunnel Lining Shutter Fabrication and Pre-Assembly Inspection	90	19-Dec-13 A	16-Jun-14 A	100%
18-57661N	ET - SET 1 Delivery to Site	7	14-Feb-14 A	28-Feb-14 A	100%
18-57650D	ET - SET 1 Tunnel Lining Formwork Assembly at Surface	14	10-Mar-14 A	23-Mar-14 A	100%
18-57702N	ET - SET 2 Delivery to Site	7	17-Jun-14 A	24-Jun-14 A	100%
18-57701N	ET - SET 2 Tunnel Lining Formwork Assembly at Surface	7	24-Jun-14 A	23-Jul-14 A	100%
6.06.4.2.2 - Lining					
18-64300N	Clean-up and Make Good - Tunnel and Shaft	7	07-Mar-15	14-Mar-15	0%
6.06.4.2.2.1 - SET 1 Tunnel Lining Shutter					
18-57700D	ET - Set 1 (Kicker) Formwork Assembly Underground at RS (incl. alignment, moving, stop end erection)	9	18-Apr-14 A	01-May-14 A	100%
18-57703N	ET - Set 1 (Crown) Formwork Assembly Underground at RS	21	07-May-14 A	09-Jun-14 A	100%
18-57801N	ET - Kicker (K1) CH 836-828 FIRST POUR	0		07-May-14 A	100%
18-57802N	ET - Kicker (K1) CH 828-820 Bay 7	0		09-May-14 A	100%
18-57803N	ET - Kicker (K1) CH 820-812 Bay 8	0		12-May-14 A	100%
18-57804N	ET - Kicker (K1) CH 812-804 Bay 9	0		14-May-14 A	100%
18-57805N	ET - Kicker (K1) CH 804-796 Bay 10	0		15-May-14 A	100%
18-57806N	ET - Kicker (K1) CH 796-788 Bay 11	0		17-May-14 A	100%
18-57807N	ET - Kicker (K1) CH 788-780 Bay 12	0		19-May-14 A	100%
18-57808N	ET - Kicker (K1) CH 780-772 Bay 13	0		20-May-14 A	100%
18-57809N	ET - Kicker (K1) CH 772-764 Bay 14	0		23-May-14 A	100%
18-57810N	ET - Kicker (K1) CH 764-756 Bay 15	0		24-May-14 A	100%
18-57811N	ET - Kicker (K1) CH 756-748 Bay 16	0		24-May-14 A	100%
18-57812N	ET - Kicker (K1) CH 748-740 Bay 17	0		03-Jun-14 A	100%
18-57813N	ET - Kicker (K1) CH 740-732 Bay 18	0		03-Jun-14 A	100%
18-57814N	ET - Kicker (K1) CH 732-724 Bay 19	0		04-Jun-14 A	100%
18-57815N	ET - Kicker (K1) CH 724-716 Bay 20	0		07-Jun-14 A	100%
18-57816N	ET - Kicker (K1) CH 716-708 Bay 21	0		09-Jun-14 A	100%
18-64601N	ET - Crown (C1) CH 836-828 FIRST POUR	0		10-Jun-14 A	100%
18-57817N	ET - Kicker (K1) CH 708-700 Bay 22	0		12-Jun-14 A	100%
18-57818N	ET - Kicker (K1) CH 700-692 Bay 23	0		13-Jun-14 A	100%
18-64602N	ET - Crown (C1) CH 828-820 Bay 7	0		14-Jun-14 A	100%
18-57819N	ET - Kicker (K1) CH 692-684 Bay 24	0		16-Jun-14 A	100%
18-64603N	ET - Crown (C1) CH 820-812 Bay 8	0		18-Jun-14 A	100%
18-57820N	ET - Kicker (K1) CH 684-676 Bay 25	0		19-Jun-14 A	100%
18-64604N	ET - Crown (C1) CH 812-804 Bay 9	0		20-Jun-14 A	100%
18-57821N	ET - Kicker (K1) CH 676-668 Bay 26	0		21-Jun-14 A	100%
18-57822N	ET - Kicker (K1) CH 668-660 Bay 27	0		23-Jun-14 A	100%
18-57823N	ET - Kicker (K1) CH 660-652 Bay 28	0		24-Jun-14 A	100%
18-64605N	ET - Crown (C1) CH 804-796 Bay 10	0		26-Jun-14 A	100%
18-57824N	ET - Kicker (K1) CH 652-644 Bay 29	0		27-Jun-14 A	100%
18-57825N	ET - Kicker (K1) CH 644-636 Bay 30	0		28-Jun-14 A	100%
18-64606N	ET - Crown (C1) CH 796-788 Bay 11	0		30-Jun-14 A	100%



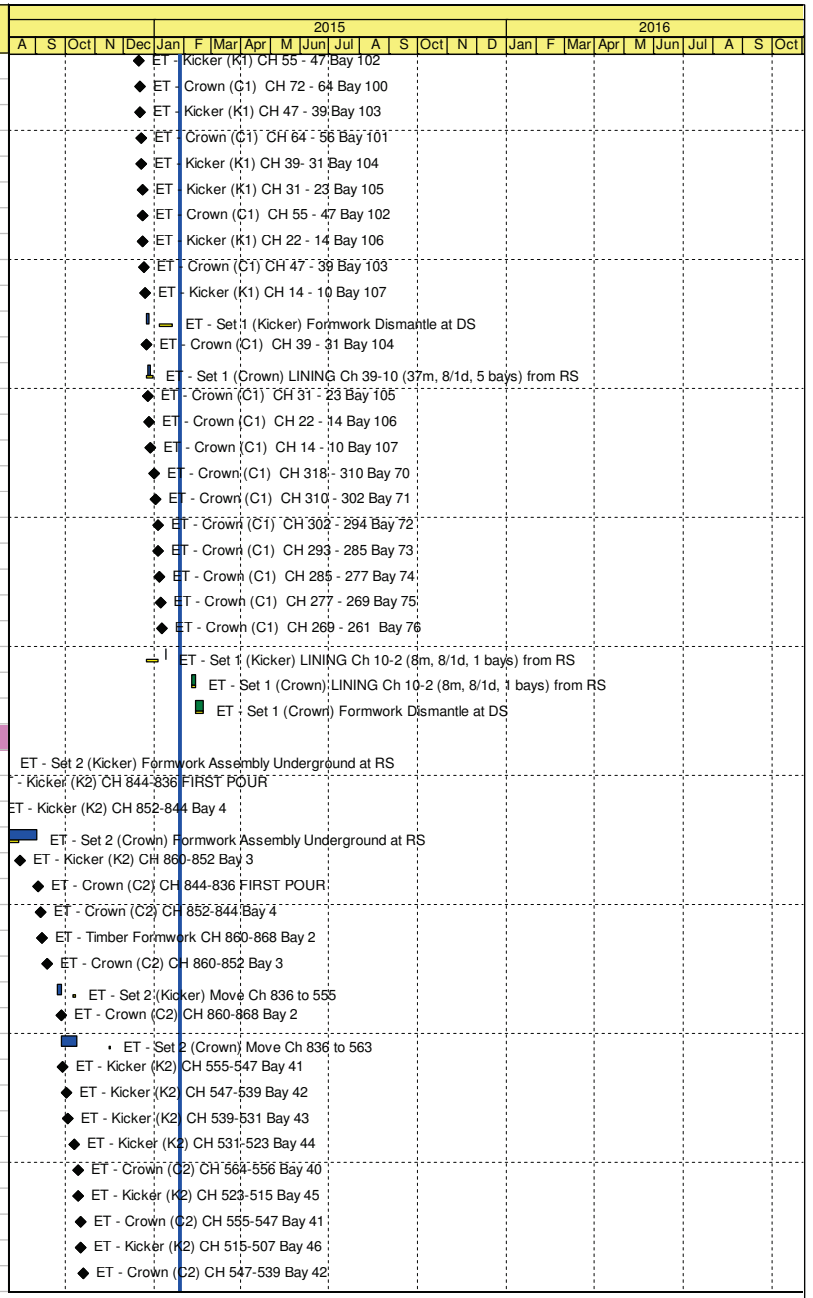
Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-64607N	ET - Crown (C1) CH 788-780 Bay 12	0		02-Jul-14 A	100%
18-64608N	ET - Crown (C1) CH 780-772 Bay 13	0		04-Jul-14 A	100%
18-64609N	ET - Crown (C1) CH 772-764 Bay 14	0		05-Jul-14 A	100%
18-64610N	ET - Crown (C1) CH 764-756 Bay 15	0		09-Jul-14 A	100%
18-64611N	ET - Crown (C1) CH 756-748 Bay 16	0		11-Jul-14 A	100%
18-64612N	ET - Crown (C1) CH 748-740 Bay 17	0		14-Jul-14 A	100%
18-64613N	ET - Crown (C1) CH 740-732 Bay 18	0		16-Jul-14 A	100%
18-64614N	ET - Crown (C1) CH 732-724 Bay 19	0		18-Jul-14 A	100%
18-64615N	ET - Crown (C1) CH 724-716 Bay 20	0		21-Jul-14 A	100%
18-64616N	ET - Crown (C1) CH 716-708 Bay 21	0		23-Jul-14 A	100%
18-64617N	ET - Crown (C1) CH 708-700 Bay 22	0		24-Jul-14 A	100%
18-64618N	ET - Crown (C1) CH 700-692 Bay 23	0		28-Jul-14 A	100%
18-64619N	ET - Crown (C1) CH 692-684 Bay 24	0		30-Jul-14 A	100%
18-64620N	ET - Crown (C1) CH 684-676 Bay 25	0		01-Aug-14 A	100%
18-64621N	ET - Crown (C1) CH 676-668 Bay 26	0		04-Aug-14 A	100%
18-64622N	ET - Crown (C1) CH 668-660 Bay 27	0		06-Aug-14 A	100%
18-64623N	ET - Crown (C1) CH 660-652 Bay 28	0		08-Aug-14 A	100%
18-57826N	ET - Kicker (K1) CH 636-628 Bay 31	0		15-Aug-14 A	100%
18-64624N	ET - Crown (C1) CH 652-644 Bay 29	0		19-Aug-14 A	100%
18-57827N	ET - Kicker (K1) CH 628-620 Bay 32	0		19-Aug-14 A	100%
18-57828N	ET - Kicker (K1) CH 620-612 Bay 33	0		20-Aug-14 A	100%
18-57829N	ET - Kicker (K1) CH 612-604 Bay 34	0		22-Aug-14 A	100%
18-64625N	ET - Crown (C1) CH 644-636 Bay 30	0		26-Aug-14 A	100%
18-57830N	ET - Kicker (K1) CH 604-596 Bay 35	0		26-Aug-14 A	100%
18-57831N	ET - Kicker (K1) CH 596-588 Bay 36	0		28-Aug-14 A	100%
18-64626N	ET - Crown (C1) CH 636-628 Bay 31	0		28-Aug-14 A	100%
18-57832N	ET - Kicker (K1) CH 588-580 Bay 37	0		30-Aug-14 A	100%
18-64627N	ET - Crown (C1) CH 628-620 Bay 32	0		30-Aug-14 A	100%
18-57833N	ET - Kicker (K1) CH 580-572 Bay 38	0		02-Sep-14 A	100%
18-64628N	ET - Crown (C1) CH 620-612 Bay 33	0		02-Sep-14 A	100%
18-64629N	ET - Crown (C1) CH 612-604 Bay 34	0		04-Sep-14 A	100%
18-64630N	ET - Crown (C1) CH 604-596 Bay 35	0		10-Sep-14 A	100%
18-57834N	ET - Kicker (K1) CH 572-564 Bay 39	0		10-Sep-14 A	100%
18-64631N	ET - Crown (C1) CH 596-588 Bay 36	0		13-Sep-14 A	100%
18-64632N	ET - Crown (C1) CH 588-580 Bay 37	0		15-Sep-14 A	100%
18-57835N	ET - Kicker (K1) CH 564-556 Bay 40	0		15-Sep-14 A	100%
18-64633N	ET - Crown (C1) CH 580-572 Bay 38	0		18-Sep-14 A	100%
18-64634N	ET - Crown (C1) CH 572-564 Bay 39	0		22-Sep-14 A	100%
18-64598N	ET - Set 1 (Kicker) Move Ch 556 to 318	3	24-Sep-14 A	30-Sep-14 A	100%
18-57793N	ET - Set 1 (Crown) Move Ch 564 to 318	3	28-Sep-14 A	22-Oct-14 A	100%
18-57836N	ET - Kicker (K1) CH 318-310 Bay 70	0		04-Oct-14 A	100%
18-57837N	ET - Kicker (K1) CH 310-302 Bay 71	0		11-Oct-14 A	100%
18-57838N	ET - Kicker (K1) CH 302-294 Bay 72	0		16-Oct-14 A	100%
18-57839N	ET - Kicker (K1) CH 294-286 Bay 73	0		18-Oct-14 A	100%
18-57840N	ET - Kicker (K1) CH 286-277 Bay 74	0		21-Oct-14 A	100%
18-64635N	ET - Crown (C1) CH 318-310 Bay 70	0		23-Oct-14 A	100%
18-57841N	ET - Kicker (K1) CH 277-269 Bay 75	0		30-Oct-14 A	100%
18-57842N	ET - Kicker (K1) CH 269-261 Bay 76	0		03-Nov-14 A	100%



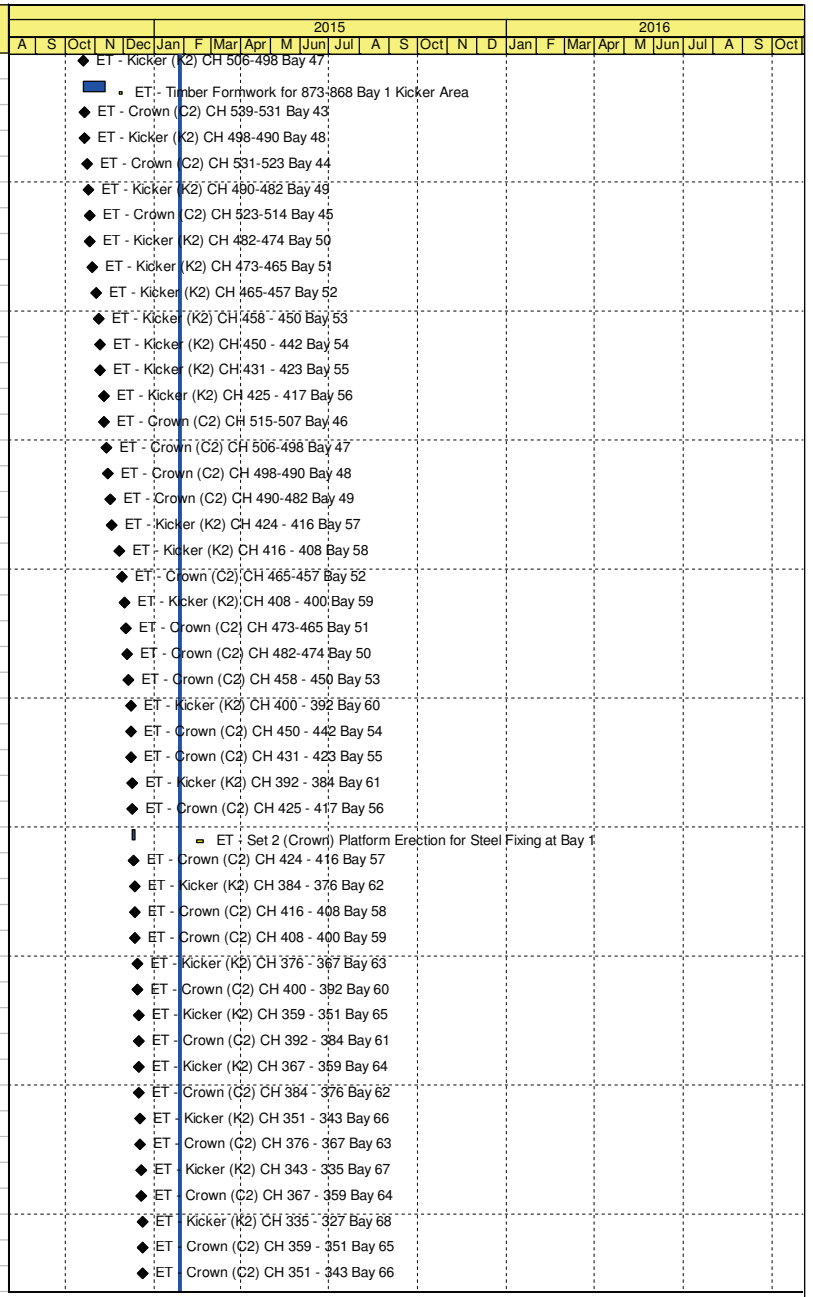
Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-57843N	ET - Kicker (K1) CH 261-253 Bay 77	0		06-Nov-14 A	100%
18-57844N	ET - Kicker (K1) CH 253-245 Bay 78	0		08-Nov-14 A	100%
18-57845N	ET - Kicker (K1) CH 245-236 Bay 79	0		11-Nov-14 A	100%
18-64636N	ET - Crown (C1) CH 261-253 Bay 77	0		14-Nov-14 A	100%
18-57846N	ET - Kicker (K1) CH 236-228 Bay 80	0		14-Nov-14 A	100%
18-57847N	ET - Kicker (K1) CH 228-220 Bay 81	0		17-Nov-14 A	100%
18-64637N	ET - Crown (C1) CH 253-245 Bay 78	0		18-Nov-14 A	100%
18-57848N	ET - Kicker (K1) CH 220-212 Bay 82	0		18-Nov-14 A	100%
18-57849N	ET - Kicker (K1) CH 212-203 Bay 83	0		19-Nov-14 A	100%
18-64638N	ET - Crown (C1) CH 245-236 Bay 79	0		20-Nov-14 A	100%
18-57850N	ET - Kicker (K1) CH 203-195 Bay 84	0		21-Nov-14 A	100%
18-64639N	ET - Crown (C1) CH 236-228 Bay 80	0		22-Nov-14 A	100%
18-64640N	ET - Crown (C1) CH 228-220 Bay 81	0		24-Nov-14 A	100%
18-57851N	ET - Kicker (K1) CH 195-187 Bay 85	0		24-Nov-14 A	100%
18-64641N	ET - Crown (C1) CH 220-212 Bay 82	0		25-Nov-14 A	100%
18-57852N	ET - Kicker (K1) CH 187-179 Bay 86	0		25-Nov-14 A	100%
18-64642N	ET - Crown (C1) CH 220-212 Bay 83	0		26-Nov-14 A	100%
18-57853N	ET - Kicker (K1) CH 179 - 171 Bay 87	0		26-Nov-14 A	100%
18-64643N	ET - Crown (C1) CH 203-195 Bay 84	0		27-Nov-14 A	100%
18-57854N	ET - Kicker (K1) CH 170 - 162 Bay 88	0		27-Nov-14 A	100%
18-64654N	ET - Crown (C1) CH 195-187 Bay 85	0		28-Nov-14 A	100%
18-57855N	ET - Kicker (K1) CH 162 - 154 Bay 89	0		28-Nov-14 A	100%
18-64655N	ET - Crown (C1) CH 187-179 Bay 86	0		01-Dec-14 A	100%
18-57856N	ET - Kicker (K1) CH 154 - 146 Bay 90	0		01-Dec-14 A	100%
18-64656N	ET - Crown (C1) CH 179 - 171 Bay 87	0		02-Dec-14 A	100%
18-57857N	ET - Kicker (K1) CH 146 - 138 Bay 91	0		02-Dec-14 A	100%
18-57858N	ET - Kicker (K1) CH 138 - 129 Bay 92	0		03-Dec-14 A	100%
18-64657N	ET - Crown (C1) CH 170 - 162 Bay 88	0		04-Dec-14 A	100%
18-57859N	ET - Kicker (K1) CH 129 - 121 Bay 93	0		04-Dec-14 A	100%
18-64658N	ET - Crown (C1) CH 162 - 154 Bay 89	0		05-Dec-14 A	100%
18-57860N	ET - Kicker (K1) CH 121 - 113 Bay 94	0		05-Dec-14 A	100%
18-64659N	ET - Crown (C1) CH 154 - 146 Bay 90	0		06-Dec-14 A	100%
18-57861N	ET - Kicker (K1) CH 113 - 105 Bay 95	0		06-Dec-14 A	100%
18-646591N	ET - Crown (C1) CH 146 - 138 Bay 91	0		08-Dec-14 A	100%
18-57862N	ET - Kicker (K1) CH 105 - 97 Bay 96	0		08-Dec-14 A	100%
18-646592N	ET - Crown (C1) CH 138 - 129 Bay 92	0		09-Dec-14 A	100%
18-646593N	ET - Crown (C1) CH 129 - 121 Bay 93	0		11-Dec-14 A	100%
18-57863N	ET - Kicker (K1) CH 97 - 88 Bay 97	0		11-Dec-14 A	100%
18-646594N	ET - Crown (C1) CH 121 - 113 Bay 94	0		12-Dec-14 A	100%
18-57864N	ET - Kicker (K1) CH 88 - 80 Bay 98	0		12-Dec-14 A	100%
18-646595N	ET - Crown (C1) CH 113 - 105 Bay 95	0		13-Dec-14 A	100%
18-646596N	ET - Crown (C1) CH 105 - 97 Bay 96	0		14-Dec-14 A	100%
18-57865N	ET - Kicker (K1) CH 80 - 72 Bay 99	0		14-Dec-14 A	100%
18-646597N	ET - Crown (C1) CH 97 - 88 Bay 97	0		15-Dec-14 A	100%
18-57866N	ET - Kicker (K1) CH 72 - 64 Bay 100	0		15-Dec-14 A	100%
18-646598N	ET - Crown (C1) CH 88 - 80 Bay 98	0		16-Dec-14 A	100%
18-57867N	ET - Kicker (K1) CH 64 - 56 Bay 101	0		16-Dec-14 A	100%
18-646599N	ET - Crown (C1) CH 80 - 72 Bay 99	0		17-Dec-14 A	100%



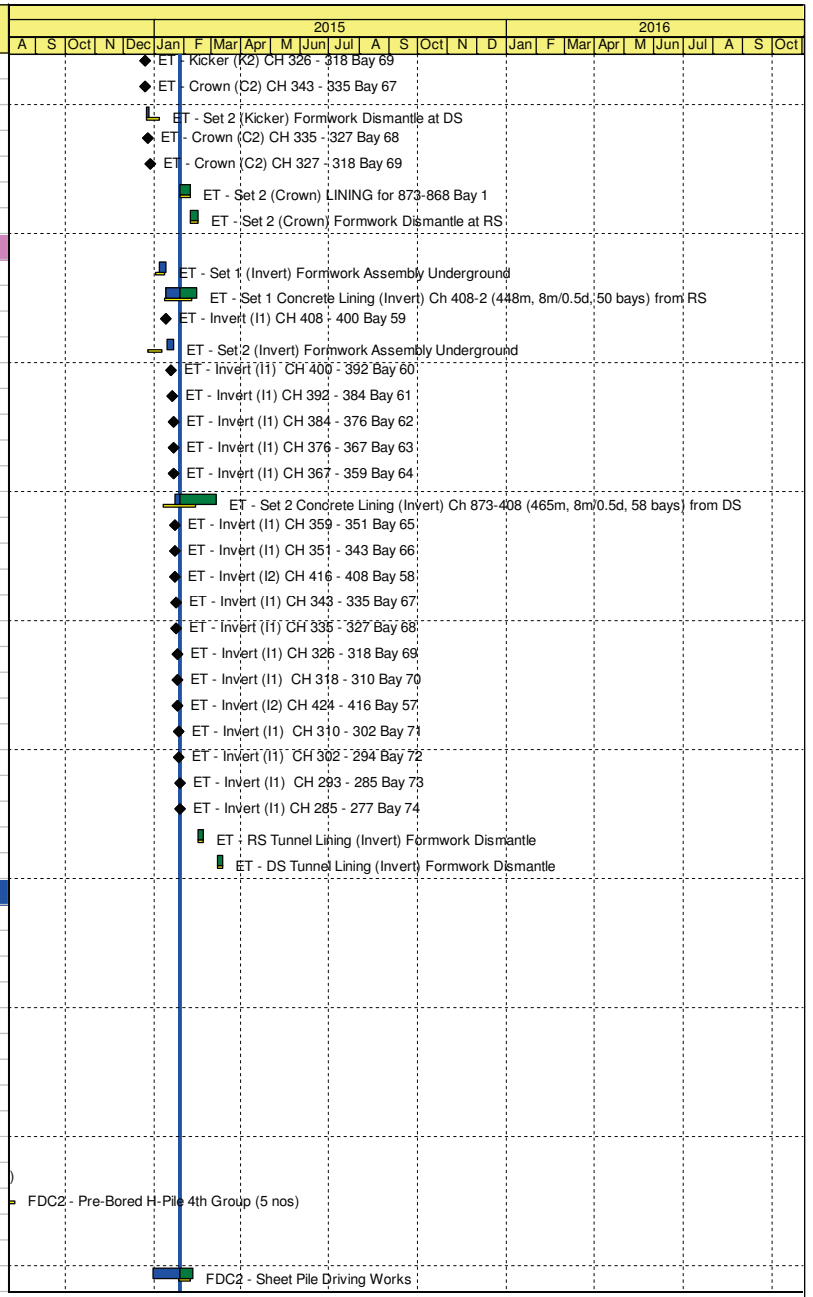
Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-57868N	ET - Kicker (K1) CH 55 - 47 Bay 102	0		17-Dec-14 A	100%
18-646600N	ET - Crown (C1) CH 72 - 64 Bay 100	0		18-Dec-14 A	100%
18-57869N	ET - Kicker (K1) CH 47 - 39 Bay 103	0		18-Dec-14 A	100%
18-646601N	ET - Crown (C1) CH 64 - 56 Bay 101	0		19-Dec-14 A	100%
18-57870N	ET - Kicker (K1) CH 39- 31 Bay 104	0		19-Dec-14 A	100%
18-57871N	ET - Kicker (K1) CH 31 - 23 Bay 105	0		20-Dec-14 A	100%
18-646602N	ET - Crown (C1) CH 55 - 47 Bay 102	0		21-Dec-14 A	100%
18-57872N	ET - Kicker (K1) CH 22 - 14 Bay 106	0		21-Dec-14 A	100%
18-646603N	ET - Crown (C1) CH 47 - 39 Bay 103	0		22-Dec-14 A	100%
18-57873N	ET - Kicker (K1) CH 14 - 10 Bay 107	0		23-Dec-14 A	100%
18-57725N	ET - Set 1 (Kicker) Formwork Dismantle at DS	14	24-Dec-14 A	27-Dec-14 A	100%
18-646604N	ET - Crown (C1) CH 39 - 31 Bay 104	0		24-Dec-14 A	100%
18-57791N	ET - Set 1 (Crown) LINING Ch 39-10 (37m, 8/1d, 5 bays) from RS	5	26-Dec-14 A	28-Dec-14 A	100%
18-646605N	ET - Crown (C1) CH 31 - 23 Bay 105	0		26-Dec-14 A	100%
18-646606N	ET - Crown (C1) CH 22 - 14 Bay 106	0		27-Dec-14 A	100%
18-646607N	ET - Crown (C1) CH 14 - 10 Bay 107	0		28-Dec-14 A	100%
18-646608N	ET - Crown (C1) CH 318 - 310 Bay 70	0		02-Jan-15 A	100%
18-646609N	ET - Crown (C1) CH 310 - 302 Bay 71	0		03-Jan-15 A	100%
18-646610N	ET - Crown (C1) CH 302 - 294 Bay 72	0		05-Jan-15 A	100%
18-646611N	ET - Crown (C1) CH 293 - 285 Bay 73	0		06-Jan-15 A	100%
18-646612N	ET - Crown (C1) CH 285 - 277 Bay 74	0		07-Jan-15 A	100%
18-646613N	ET - Crown (C1) CH 277 - 269 Bay 75	0		08-Jan-15 A	100%
18-646614N	ET - Crown (C1) CH 269 - 261 Bay 76	0		09-Jan-15 A	100%
18-64596N	ET - Set 1 (Kicker) LINING Ch 10-2 (8m, 8/1d, 1 bays) from RS	8	14-Jan-15 A	14-Jan-15 A	100%
18-57791N20	ET - Set 1 (Crown) LINING Ch 10-2 (8m, 8/1d, 1 bays) from RS	4	09-Feb-15*	12-Feb-15	0%
18-57789N	ET - Set 1 (Crown) Formwork Dismantle at DS	8	13-Feb-15	20-Feb-15	0%
6.06.4.2.2.2 - SET 2 Tunnel Lining Shutter					
18-57721N	ET - Set 2 (Kicker) Formwork Assembly Underground at RS	10	24-Jun-14 A	08-Jul-14 A	100%
18-57901N	ET - Kicker (K2) CH 844-836 FIRST POUR	0		08-Jul-14 A	100%
18-57902N	ET - Kicker (K2) CH 852-844 Bay 4	0		19-Jul-14 A	100%
18-57794N	ET - Set 2 (Crown) Formwork Assembly Underground at RS	21	24-Jul-14 A	02-Sep-14 A	100%
18-57903N	ET - Kicker (K2) CH 860-852 Bay 3	0		16-Aug-14 A	100%
18-57601N	ET - Crown (C2) CH 844-836 FIRST POUR	0		03-Sep-14 A	100%
18-57602N	ET - Crown (C2) CH 852-844 Bay 4	0		06-Sep-14 A	100%
18-57904N	ET - Timber Formwork CH 860-868 Bay 2	0		08-Sep-14 A	100%
18-57603N	ET - Crown (C2) CH 860-852 Bay 3	0		13-Sep-14 A	100%
18-64597N	ET - Set 2 (Kicker) Move Ch 836 to 555	3	24-Sep-14 A	28-Sep-14 A	100%
18-57604N	ET - Crown (C2) CH 860-868 Bay 2	0		27-Sep-14 A	100%
18-57792N	ET - Set 2 (Crown) Move Ch 836 to 563	3	28-Sep-14 A	14-Oct-14 A	100%
18-57905N	ET - Kicker (K2) CH 555-547 Bay 41	0		29-Sep-14 A	100%
18-57906N	ET - Kicker (K2) CH 547-539 Bay 42	0		03-Oct-14 A	100%
18-57907N	ET - Kicker (K2) CH 539-531 Bay 43	0		04-Oct-14 A	100%
18-57908N	ET - Kicker (K2) CH 531-523 Bay 44	0		11-Oct-14 A	100%
18-57605N	ET - Crown (C2) CH 564-556 Bay 40	0		15-Oct-14 A	100%
18-57909N	ET - Kicker (K2) CH 523-515 Bay 45	0		15-Oct-14 A	100%
18-57606N	ET - Crown (C2) CH 555-547 Bay 41	0		17-Oct-14 A	100%
18-57910N	ET - Kicker (K2) CH 515-507 Bay 46	0		17-Oct-14 A	100%
18-57607N	ET - Crown (C2) CH 547-539 Bay 42	0		20-Oct-14 A	100%



Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-57911N	ET - Kicker (K2) CH 506-498 Bay 47	0		20-Oct-14 A	100%
18-64525N	ET - Timber Formwork for 873-868 Bay 1 Kicker Area	3	20-Oct-14 A	12-Nov-14 A	100%
18-57608N	ET - Crown (C2) CH 539-531 Bay 43	0		22-Oct-14 A	100%
18-57912N	ET - Kicker (K2) CH 498-490 Bay 48	0		22-Oct-14 A	100%
18-57609N	ET - Crown (C2) CH 531-523 Bay 44	0		24-Oct-14 A	100%
18-57913N	ET - Kicker (K2) CH 490-482 Bay 49	0		25-Oct-14 A	100%
18-57610N	ET - Crown (C2) CH 523-514 Bay 45	0		27-Oct-14 A	100%
18-57914N	ET - Kicker (K2) CH 482-474 Bay 50	0		27-Oct-14 A	100%
18-57916N	ET - Kicker (K2) CH 473-465 Bay 51	0		29-Oct-14 A	100%
18-57917N	ET - Kicker (K2) CH 465-457 Bay 52	0		03-Nov-14 A	100%
18-57918N	ET - Kicker (K2) CH 458 - 450 Bay 53	0		05-Nov-14 A	100%
18-57919N	ET - Kicker (K2) CH 450 - 442 Bay 54	0		06-Nov-14 A	100%
18-57920N	ET - Kicker (K2) CH 431 - 423 Bay 55	0		07-Nov-14 A	100%
18-57921N	ET - Kicker (K2) CH 425 - 417 Bay 56	0		10-Nov-14 A	100%
18-57611N	ET - Crown (C2) CH 515-507 Bay 46	0		11-Nov-14 A	100%
18-57612N	ET - Crown (C2) CH 506-498 Bay 47	0		13-Nov-14 A	100%
18-57613N	ET - Crown (C2) CH 498-490 Bay 48	0		15-Nov-14 A	100%
18-57614N	ET - Crown (C2) CH 490-482 Bay 49	0		17-Nov-14 A	100%
18-57922N	ET - Kicker (K2) CH 424 - 416 Bay 57	0		19-Nov-14 A	100%
18-57923N	ET - Kicker (K2) CH 416 - 408 Bay 58	0		26-Nov-14 A	100%
18-57615N	ET - Crown (C2) CH 465-457 Bay 52	0		29-Nov-14 A	100%
18-57924N	ET - Kicker (K2) CH 408 - 400 Bay 59	0		02-Dec-14 A	100%
18-57915N	ET - Crown (C2) CH 473-465 Bay 51	0		03-Dec-14 A	100%
18-57614N10	ET - Crown (C2) CH 482-474 Bay 50	0		04-Dec-14 A	100%
18-57616N	ET - Crown (C2) CH 458 - 450 Bay 53	0		06-Dec-14 A	100%
18-57925N	ET - Kicker (K2) CH 400 - 392 Bay 60	0		08-Dec-14 A	100%
18-57617N	ET - Crown (C2) CH 450 - 442 Bay 54	0		08-Dec-14 A	100%
18-57618N	ET - Crown (C2) CH 431 - 423 Bay 55	0		09-Dec-14 A	100%
18-57926N	ET - Kicker (K2) CH 392 - 384 Bay 61	0		10-Dec-14 A	100%
18-57619N	ET - Crown (C2) CH 425 - 417 Bay 56	0		10-Dec-14 A	100%
18-64136D10	ET - Set 2 (Crown) Platform Erection for Steel Fixing at Bay 1	7	10-Dec-14 A	13-Dec-14 A	100%
18-57620N	ET - Crown (C2) CH 424 - 416 Bay 57	0		11-Dec-14 A	100%
18-57927N	ET - Kicker (K2) CH 384 - 376 Bay 62	0		12-Dec-14 A	100%
18-57621N	ET - Crown (C2) CH 416 - 408 Bay 58	0		12-Dec-14 A	100%
18-57622N	ET - Crown (C2) CH 408 - 400 Bay 59	0		13-Dec-14 A	100%
18-57928N	ET - Kicker (K2) CH 376 - 367 Bay 63	0		15-Dec-14 A	100%
18-57623N	ET - Crown (C2) CH 400 - 392 Bay 60	0		15-Dec-14 A	100%
18-57930N	ET - Kicker (K2) CH 359 - 351 Bay 65	0		16-Dec-14 A	100%
18-57624N	ET - Crown (C2) CH 392 - 384 Bay 61	0		16-Dec-14 A	100%
18-57929N	ET - Kicker (K2) CH 367 - 359 Bay 64	0		17-Dec-14 A	100%
18-57625N	ET - Crown (C2) CH 384 - 376 Bay 62	0		17-Dec-14 A	100%
18-57931N	ET - Kicker (K2) CH 351 - 343 Bay 66	0		18-Dec-14 A	100%
18-57626N	ET - Crown (C2) CH 376 - 367 Bay 63	0		18-Dec-14 A	100%
18-57933N	ET - Kicker (K2) CH 343 - 335 Bay 67	0		19-Dec-14 A	100%
18-57627N	ET - Crown (C2) CH 367 - 359 Bay 64	0		19-Dec-14 A	100%
18-57934N	ET - Kicker (K2) CH 335 - 327 Bay 68	0		20-Dec-14 A	100%
18-57628N	ET - Crown (C2) CH 359 - 351 Bay 65	0		20-Dec-14 A	100%
18-57630N	ET - Crown (C2) CH 351 - 343 Bay 66	0		21-Dec-14 A	100%



Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-57935N	ET - Kicker (K2) CH 326 - 318 Bay 69	0		23-Dec-14 A	100%
18-57631N	ET - Crown (C2) CH 343 - 335 Bay 67	0		23-Dec-14 A	100%
18-57799N	ET - Set 2 (Kicker) Formwork Dismantle at DS	14	24-Dec-14 A	27-Dec-14 A	100%
18-57632N	ET - Crown (C2) CH 335 - 327 Bay 68	0		26-Dec-14 A	100%
18-57633N	ET - Crown (C2) CH 327 - 318 Bay 69	0		29-Dec-14 A	100%
18-64136D	ET - Set 2 (Crown) LINING for 873-868 Bay 1	11	28-Jan-15*	07-Feb-15	0%
18-57705N	ET - Set 2 (Crown) Formwork Dismantle at RS	8	08-Feb-15	15-Feb-15	0%
6.06.4.2.2.3 - Invert Lining					
18-57704N	ET - Set 1 (Invert) Formwork Assembly Underground	10	07-Jan-15 A	13-Jan-15 A	100%
18-64139N	ET - Set 1 Concrete Lining (Invert) Ch 408-2 (448m, 8m/0.5d, 50 bays) from RS	25	14-Jan-15 A	14-Feb-15	36%
18-64140N	ET - Invert (I1) CH 408 - 400 Bay 59	0		14-Jan-15 A	100%
18-57714N	ET - Set 2 (Invert) Formwork Assembly Underground	15	15-Jan-15 A	22-Jan-15 A	100%
18-64141N	ET - Invert (I1) CH 400 - 392 Bay 60	0		19-Jan-15 A	100%
18-64142N	ET - Invert (I1) CH 392 - 384 Bay 61	0		20-Jan-15 A	100%
18-64143N	ET - Invert (I1) CH 384 - 376 Bay 62	0		21-Jan-15 A	100%
18-64144N	ET - Invert (I1) CH 376 - 367 Bay 63	0		22-Jan-15 A	100%
18-64145N	ET - Invert (I1) CH 367 - 359 Bay 64	0		22-Jan-15 A	100%
18-64527N	ET - Set 2 Concrete Lining (Invert) Ch 873-408 (465m, 8m/0.5d, 58 bays) from DS	29	23-Jan-15 A	06-Mar-15	0%
18-64146N	ET - Invert (I1) CH 359 - 351 Bay 65	0		23-Jan-15 A	100%
18-64147N	ET - Invert (I1) CH 351 - 343 Bay 66	0		23-Jan-15 A	100%
18-64240N	ET - Invert (I2) CH 416 - 408 Bay 58	0		23-Jan-15 A	100%
18-64148N	ET - Invert (I1) CH 343 - 335 Bay 67	0		24-Jan-15 A	100%
18-64149N	ET - Invert (I1) CH 335 - 327 Bay 68	0		24-Jan-15 A	100%
18-64150N	ET - Invert (I1) CH 326 - 318 Bay 69	0		26-Jan-15 A	100%
18-64151N	ET - Invert (I1) CH 318 - 310 Bay 70	0		26-Jan-15 A	100%
18-64241N	ET - Invert (I2) CH 424 - 416 Bay 57	0		26-Jan-15 A	100%
18-64152N	ET - Invert (I1) CH 310 - 302 Bay 71	0		27-Jan-15 A	100%
18-64153N	ET - Invert (I1) CH 302 - 294 Bay 72	0		27-Jan-15 A	100%
18-64154N	ET - Invert (I1) CH 293 - 285 Bay 73	0		28-Jan-15 A	100%
18-64155N	ET - Invert (I1) CH 285 - 277 Bay 74	0		28-Jan-15 A	100%
18-57728N	ET - RS Tunnel Lining (Invert) Formwork Dismantle	7	15-Feb-15	21-Feb-15	0%
18-57727N	ET - DS Tunnel Lining (Invert) Formwork Dismantle	7	07-Mar-15	13-Mar-15	0%
6.06.5 - Flow Distribution Chamber No.2					
6.06.5.1 - Demolition Works					
18-57950	FDC2 - Prep & Sub of New Proposed Staircase to Engineer	14	15-Dec-11 A	28-Dec-11 A	100%
18-58000	FDC2 - Approve New Proposed Staircase from Engineer	14	29-Dec-11 A	20-Jan-12 A	100%
18-58050	FDC2 - Construction of New Staircase	24	20-Feb-12 A	10-Apr-12 A	100%
18-58100	FDC2 - Demolition of Staircase	24	19-Jun-12 A	06-Jul-12 A	100%
6.06.5.2 - Foundation					
18-58150	FDC2 - G.I- Pre Drilling (5 Nos.)	30	14-Nov-11 A	30-Dec-11 A	100%
18-58160	FDC2 - Setting Out Pile Points	3	21-Jan-12 A	27-Jan-12 A	100%
18-58210	FDC2 - Pre-Bored H-Pile 1st Group (4 nos)	18	02-Feb-12 A	13-Mar-12 A	100%
18-58220	FDC2 - Pre-Bored H-Pile 2nd Group (4 nos)	12	06-Mar-12 A	17-Jul-12 A	100%
18-58230	FDC2 - Pre-Bored H-Pile 3rd Group (4 nos)	12	13-Jul-12 A	26-Jul-12 A	100%
18-58240	FDC2 - Pre-Bored H-Pile 4th Group (5 nos)	16	27-Jul-12 A	05-Aug-12 A	100%
18-58240D	FDC2 - Pre-Bored H-Pile 4th Group (5 nos)	9	24-Aug-12 A	24-Aug-12 A	100%
6.06.5.3 - Temporary Works					
18-58250	FDC2 - Sheet Pile Driving Works	12	31-Dec-14 A	10-Feb-15	0%



CHUN WO – CEC JOINT VENTURE

Actual Level of Effort
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Updated Detail Works Programme

Data Date: 28-Jan-15

Run Date: 02-Feb-15

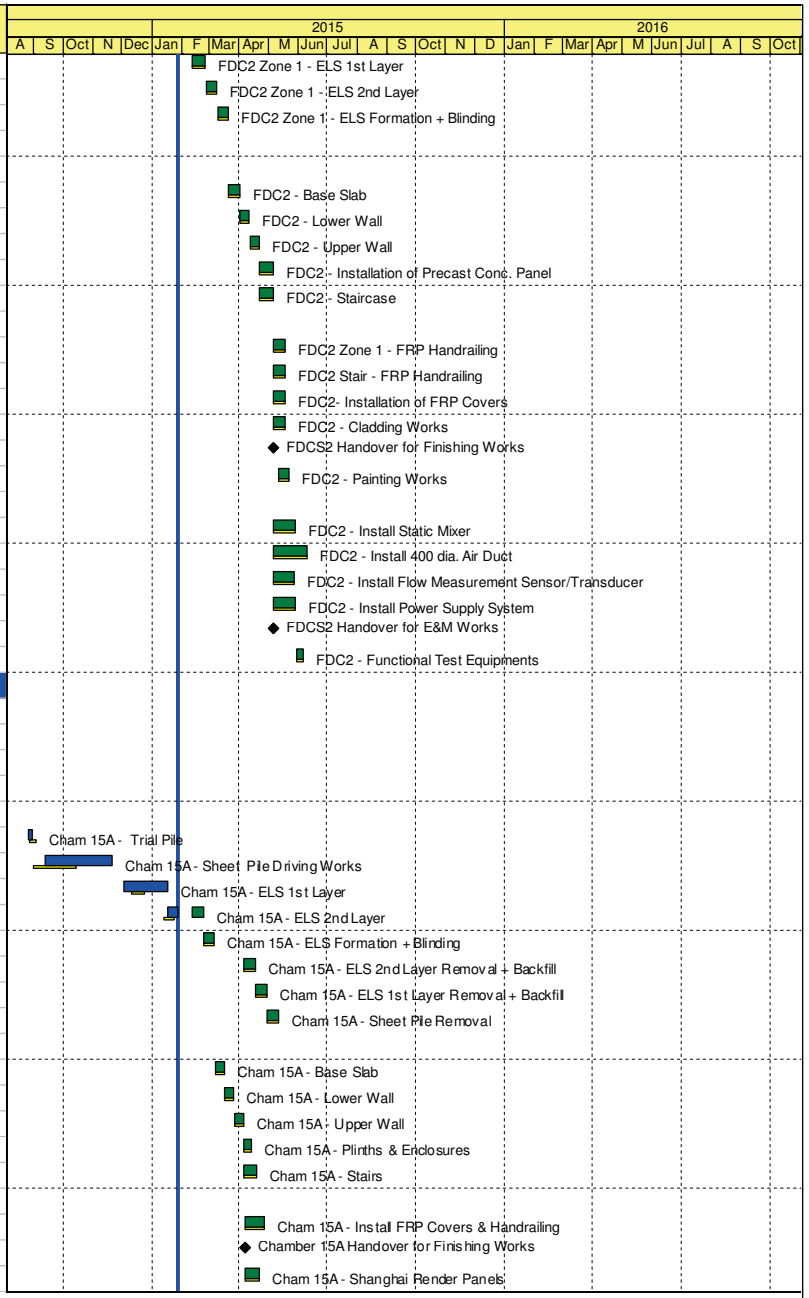
Project ID :C18DWPD150128

Layout : C18150128UDWP

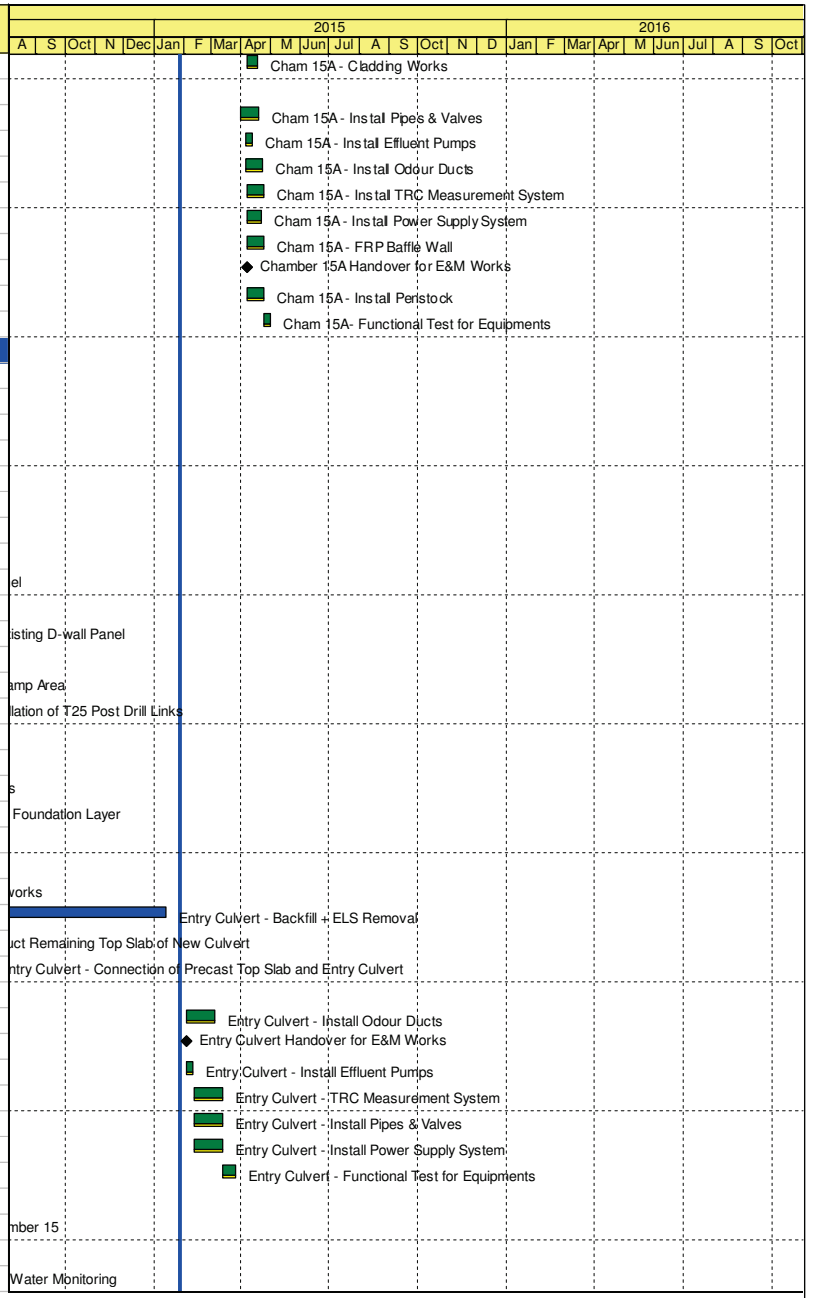
Detail Works Programme

Date	Revision	Checked	Approved
28-Jan-15	DWP Rev D Update		

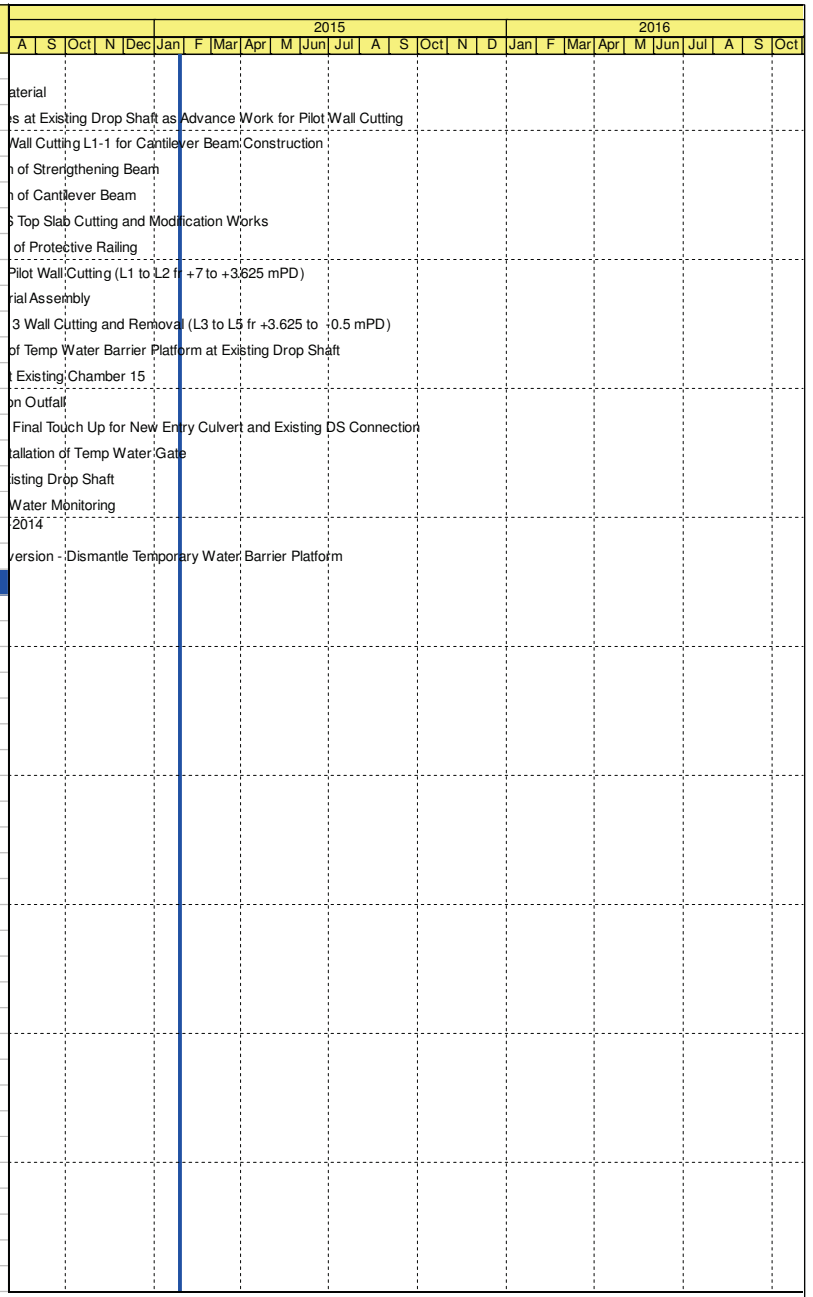
Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-58260	FDC2 Zone 1 - ELS 1st Layer	10	11-Feb-15	25-Feb-15	0%
18-58270	FDC2 Zone 1 - ELS 2nd Layer	10	26-Feb-15	09-Mar-15	0%
18-58280	FDC2 Zone 1 - ELS Formation + Blinding	10	10-Mar-15	20-Mar-15	0%
6.06.5.4 - Structure					
6.06.5.4.1 - Part 1					
18-58290	FDC2 - Base Slab	10	21-Mar-15	01-Apr-15	0%
18-58310	FDC2 - Lower Wall	8	02-Apr-15	11-Apr-15	0%
18-58320	FDC2 - Upper Wall	8	13-Apr-15	21-Apr-15	0%
18-58450	FDC2 - Installation of Precast Conc. Panel	12	22-Apr-15	06-May-15	0%
18-58440	FDC2 - Staircase	12	22-Apr-15	06-May-15	0%
6.06.5.5 - Finishing Works					
18-58460	FDC2 Zone 1 - FRP Handrailing	10	07-May-15	18-May-15	0%
18-58470	FDC2 Stair - FRP Handrailing	10	07-May-15	18-May-15	0%
18-58500	FDC2- Installation of FRP Covers	10	07-May-15	18-May-15	0%
18-58510	FDC2 - Cladding Works	10	07-May-15	18-May-15	0%
18-58455N	FDCS2 Handover for Finishing Works	0	07-May-15		0%
18-58520	FDC2 - Painting Works	10	12-May-15	22-May-15	0%
6.06.5.6 - E&M Works					
18-58550	FDC2 - Install Static Mixer	20	07-May-15	29-May-15	0%
18-58530	FDC2 - Install 400 dia. Air Duct	30	07-May-15	10-Jun-15	0%
18-58560	FDC2 - Install Flow Measurement Sensor/Transducer	18	07-May-15	27-May-15	0%
18-58540	FDC2 - Install Power Supply System	20	07-May-15	29-May-15	0%
18-58529N	FDCS2 Handover for E&M Works	0	07-May-15		0%
18-58600	FDC2 - Functional Test Equipments	7	30-May-15	06-Jun-15	0%
6.06.6 - Chamber 15A					
6.06.6.1 - Foundation					
18-58650	Cham 15A - G.I - Pre Drilling (4 Nos.)	24	11-Oct-11 A	09-Nov-11 A	100%
18-58700	Cham 15A - Setting Out Pile Points	6	03-Nov-11 A	09-Nov-11 A	100%
18-58800	Cham 15A - H-Piles (15 nos.)	36	30-Mar-12 A	29-May-12 A	100%
6.06.6.2 - Temporary Works					
18-58910	Cham 15A - Trial Pile	7	26-Aug-14 A	30-Aug-14 A	100%
18-58900	Cham 15A - Sheet Pile Driving Works	35	13-Sep-14 A	21-Nov-14 A	100%
18-58950	Cham 15A - ELS 1st Layer	14	03-Dec-14 A	17-Jan-15 A	100%
18-58960	Cham 15A - ELS 2nd Layer	12	18-Jan-15 A	23-Feb-15	0%
18-58980	Cham 15A - ELS Formation + Blinding	12	23-Feb-15	06-Mar-15	0%
18-59000	Cham 15A - ELS 2nd Layer Removal + Backfill	12	06-Apr-15	17-Apr-15	0%
18-59060	Cham 15A - ELS 1st Layer Removal + Backfill	12	18-Apr-15	29-Apr-15	0%
18-58990	Cham 15A - Sheet Pile Removal	12	30-Apr-15	11-May-15	0%
6.06.6.3 - Structure					
18-59010	Cham 15A - Base Slab	10	07-Mar-15	16-Mar-15	0%
18-59020	Cham 15A - Lower Wall	10	17-Mar-15	26-Mar-15	0%
18-59030	Cham 15A - Upper Wall	10	27-Mar-15	05-Apr-15	0%
18-64265	Cham 15A - Plinths & Enclosures	8	06-Apr-15	13-Apr-15	0%
18-64275	Cham 15A - Stairs	14	06-Apr-15	19-Apr-15	0%
6.06.6.4 - Finishing Works					
18-59070	Cham 15A - Install FRP Covers & Handrailing	21	07-Apr-15	27-Apr-15	0%
18-59060N	Chamber 15A Handover for Finishing Works	0	07-Apr-15		0%
18-59080	Cham 15A - Shanghai Render Panels	16	07-Apr-15	22-Apr-15	0%



Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-59090	Cham 15A - Cladding Works	12	07-Apr-15	18-Apr-15	0%
6.06.6.5 - E&M Works					
18-59130D	Cham 15A - Install Pipes & Valves	20	31-Mar-15	19-Apr-15	0%
18-59120D	Cham 15A - Install Effluent Pumps	7	06-Apr-15	12-Apr-15	0%
18-59160D	Cham 15A - Install Odour Ducts	18	06-Apr-15	23-Apr-15	0%
18-59150D	Cham 15A - Install TRC Measurement System	18	07-Apr-15	24-Apr-15	0%
18-59140D	Cham 15A - Install Power Supply System	15	07-Apr-15	21-Apr-15	0%
18-59110D	Cham 15A - FRP Baffle Wall	18	07-Apr-15	24-Apr-15	0%
18-59099N	Chamber 15A Handover for E&M Works	0	07-Apr-15		0%
18-59100D	Cham 15A - Install Penstock	18	07-Apr-15	24-Apr-15	0%
18-59170D	Cham 15A- Functional Test for Equipments	7	25-Apr-15	01-May-15	0%
6.06.7 - Entry Culvert					
6.06.7.1 - Foundation					
18-59550	Entry Culvert - G.I - Pre-drilling (2 Nos.)	12	24-Nov-11 A	07-Dec-11 A	100%
18-59600	Entry Culvert - Pre-Bored H-Pile (6 Nos.@2d/no.)	37	04-Sep-12 A	19-Sep-12 A	100%
6.06.7.2 - Temporary Works					
18-59651N	Entry Culvert - Concrete Breaking	6	25-Feb-13 A	02-Mar-13 A	100%
18-59650D	Entry Culvert - Sheet Piling (194 sheet piles)	30	05-Mar-13 A	17-Apr-13 A	100%
18-59679N	Entry Culvert - Excavation	91	18-Apr-13 A	06-Aug-13 A	100%
18-59680N	Existing Drop Shaft - Breaking of Existing D-wall	111	03-May-13 A	12-Sep-13 A	100%
18-59660D	Entry Culvert - ELS 1st Layer + Removal of Existing D-wall Panel	33	06-May-13 A	14-Jun-13 A	100%
18-59662N	Entry Culvert - Breaking of Underground RC Block	22	07-Jun-13 A	04-Jul-13 A	100%
18-59670D	Entry Culvert - ELS 2nd Layer + Removal of Existing D-wall Panel	64	12-Jul-13 A	25-Sep-13 A	100%
18-59680D	Entry Culvert - ELS Formation + Blinding	5	06-Aug-13 A	10-Aug-13 A	100%
18-59681N	Entry Culvert - ELS Formation + Blinding at C-Clamp Area	3	11-Sep-13 A	13-Sep-13 A	100%
18-59682N	Existing Drop Shaft - Coring of Holes for Installation of T25 Post Drill Links	14	13-Sep-13 A	29-Sep-13 A	100%
18-59683N	Existing Drop Shaft - Trimming of CJ	10	18-Sep-13 A	30-Sep-13 A	100%
6.06.7.3 - Structure					
18-59711N	Entry Culvert - Installation of H-Pile Steel Top Plates	17	13-Aug-13 A	31-Aug-13 A	100%
18-59712N	Entry Culvert - Backfilling of Soft Spot Below the Foundation Layer	14	02-Sep-13 A	17-Sep-13 A	100%
18-59710D	Entry Culvert - Base Slab + Kicker	26	18-Sep-13 A	21-Oct-13 A	100%
18-64295D	Entry Culvert - Wall Construction	30	15-Oct-13 A	06-Dec-13 A	100%
18-64296N	Entry Culvert - Removal of Formworks	13	07-Dec-13 A	19-Dec-13 A	100%
18-64315	Entry Culvert - Backfill + ELS Removal	60	21-Dec-13 A	14-Jan-15 A	100%
18-64340N	Entry Culvert - Construct Remaining Top Slab of New Culvert	24	27-Jan-14 A	26-Feb-14 A	100%
18-64350N	Entry Culvert - Connection of Precast Top Slab and Entry Culvert	24	03-Jun-14 A	12-Jul-14 A	100%
6.06.7.4 - E&M Works					
18-64360D	Entry Culvert - Install Odour Ducts	30	03-Feb-15	04-Mar-15	0%
18-64304N	Entry Culvert Handover for E&M Works	0	03-Feb-15		0%
18-64305D	Entry Culvert - Install Effluent Pumps	8	03-Feb-15	10-Feb-15	0%
18-64355D	Entry Culvert - TRC Measurement System	30	11-Feb-15	12-Mar-15	0%
18-64335D	Entry Culvert - Install Pipes & Valves	30	11-Feb-15	12-Mar-15	0%
18-64345D	Entry Culvert - Install Power Supply System	30	11-Feb-15	12-Mar-15	0%
18-64365D	Entry Culvert - Functional Test for Equipments	14	13-Mar-15	26-Mar-15	0%
6.06.7.5 - Connect to Existing Drop Shaft					
18-59310N	Temp Steel Panel - Trial Installation at Existing Chamber 15	1	29-Aug-13 A	29-Aug-13 A	100%
18-59541N	Initial Environmental Water Monitoring	14	18-Oct-13 A	31-Oct-13 A	100%
18-59542N	Impact Environmental Water Monitoring	120	01-Nov-13 A	27-Feb-14 A	100%



Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-59390	Dry Season Onset 2013-2014	0	01-Nov-13 A		100%
18-59312N	Temp Water Gate - Installation of Slot Material	4	04-Nov-13 A	07-Nov-13 A	100%
18-59311N	Temp Flow Diversion - Coring of Holes at Existing Drop Shaft as Advance Work for Pilot Wall Cutting	1	24-Nov-13 A	24-Nov-13 A	100%
18-64337N	Temp Flow Diversion - Stage 1 Pilot Wall Cutting L1-1 for Cantilever Beam Construction	1	26-Nov-13 A	26-Nov-13 A	100%
18-64341N	Temp Flow Diversion - Construction of Strengthening Beam	10	27-Nov-13 A	06-Dec-13 A	100%
18-64338N	Temp Flow Diversion - Construction of Cantilever Beam	10	27-Nov-13 A	06-Dec-13 A	100%
18-64342N	Temp Flow Diversion - Existing DS Top Slab Cutting and Modification Works	9	07-Dec-13 A	15-Dec-13 A	100%
18-64336N	Temp Flow Diversion - Installation of Protective Railing	1	15-Dec-13 A	15-Dec-13 A	100%
18-64339N	Temp Flow Diversion - Stage 2 Pilot Wall Cutting (L1 to L2 fr +7 to +3.625 mPD)	14	16-Dec-13 A	24-Dec-13 A	100%
18-59314N	Temp Water Barrier Platform - Trial Assembly	3	21-Dec-13 A	26-Dec-13 A	100%
18-59450D	Temp Flow Diversion - Stage 3 Wall Cutting and Removal (L3 to L5 fr +3.625 to -0.5 mPD)	21	26-Dec-13 A	16-Jan-14 A	100%
18-59420D	Temp Flow Diversion - Erection of Temp Water Barrier Platform at Existing Drop Shaft	1	26-Dec-13 A	26-Dec-13 A	100%
18-59421N	Temp Steel Panel - Installation at Existing Chamber 15	1	27-Dec-13 A	27-Dec-13 A	100%
18-59410	Divert Flow to Northwest Kowloon Outfall	1	27-Dec-13 A	27-Dec-13 A	100%
18-59530N	Temp Flow Diversion - Final Touch Up for New Entry Culvert and Existing DS Connection	27	17-Jan-14 A	26-Feb-14 A	100%
18-59313N	Temp Water Gate - Installation of Temp Water Gate	1	22-Feb-14 A	22-Feb-14 A	100%
18-59500	Divert Flow Back to Existing Drop Shaft	1	27-Feb-14 A	27-Feb-14 A	100%
18-59543N	Post Environmental Water Monitoring	14	28-Feb-14 A	13-Mar-14 A	100%
18-59530	Dry Season End 2013-2014	0		28-Feb-14 A	100%
18-59532N	Temp Flow Diversion - Dismantle Temporary Water Barrier Platform	1	18-Apr-14 A	18-Apr-14 A	100%
6.06.8 - Dechlorination Plant (DCP)					
6.06.8.1 - DCP - Foundation					
18-59800	DCP - G.I- Pre Drilling (7 Nos.)	20	08-Dec-11 A	31-Jan-12 A	100%
18-59810	DCP -Setting Out Pile Points	4	05-Mar-12 A	13-Mar-12 A	100%
18-59850	DCP - Pre-Bore H-Piles (20 nos.)	44	14-Mar-12 A	30-Jun-12 A	100%
18-59930	DCP - Test Piles	8	06-Oct-12 A	15-Oct-12 A	100%
6.06.8.2 - DCP - Structure					
18-60040N	DCP - Mobilization and Breaking of Concrete Surface	4	10-Dec-12 A	13-Dec-12 A	100%
18-60010D	DCP - Excavate Foundation + Blinding	36	10-Dec-12 A	24-Dec-12 A	100%
18-60050N	DCP - Pile Cap Excavation	8	14-Dec-12 A	29-Dec-12 A	100%
18-60070N	DCP - Pile Cap Blinding	1	24-Dec-12 A	24-Dec-12 A	100%
18-60051N	DCP - Steel Top Plates for H-Piles	15	27-Dec-12 A	02-Jan-13 A	100%
18-60015D	DCP - R.C. Pile Cap (Base Slab)	26	28-Dec-12 A	19-Jan-13 A	100%
18-60090N	DCP - Pile Cap Formworks	3	28-Dec-12 A	02-Jan-13 A	100%
18-60101N	DCP - Pile Cap Steel Fixing	7	03-Jan-13 A	18-Jan-13 A	100%
18-60020D	DCP - R.C. Intermidiate Slab	39	08-Jan-13 A	02-May-13 A	100%
18-60120N	DCP - Construction of Toe Wall	10	08-Jan-13 A	18-Jan-13 A	100%
18-60111N	DCP - Pile Cap Concreting	1	19-Jan-13 A	19-Jan-13 A	100%
18-60140N	DCP - Ground Slab, Waterproofing	1	22-Jan-13 A	22-Jan-13 A	100%
18-60130N	DCP - Ground Slab, Erection of Permanent Formworks	23	23-Jan-13 A	02-May-13 A	100%
18-60160N	DCP - Ground Slab Steel Fixing	21	28-Jan-13 A	02-May-13 A	100%
18-60025	DCP - R.C. Plinths and Boundary Wall	5	28-Jan-13 A	04-Mar-13 A	100%
18-60141N	DCP - Ground Slab, Installation of UPVC Cable Ducting	6	26-Feb-13 A	13-Apr-13 A	100%
18-60142N	DCP - Ground Slab, Installation of UPVC Cast-Iron Pipe	6	11-Apr-13 A	18-Apr-13 A	100%
18-60143N	DCP - Ground Slab Cast-Iron Pipe Water Test	3	19-Apr-13 A	22-Apr-13 A	100%
18-60170N	DCP - Ground Slab, Concreting	1	02-May-13 A	02-May-13 A	100%
18-60171N	DCP - Ground Slab, Removal of Formworks	6	03-May-13 A	08-May-13 A	100%
18-60030D	DCP - R.C. Walls/Roof	55	04-Jul-13 A	04-Oct-13 A	100%



CHUN WO – CEC JOINT VENTURE

Actual Level of Effort
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Milestone

Updated Detail Works Programme

Data Date: 28-Jan-15 **Run Date: 02-Feb-15**

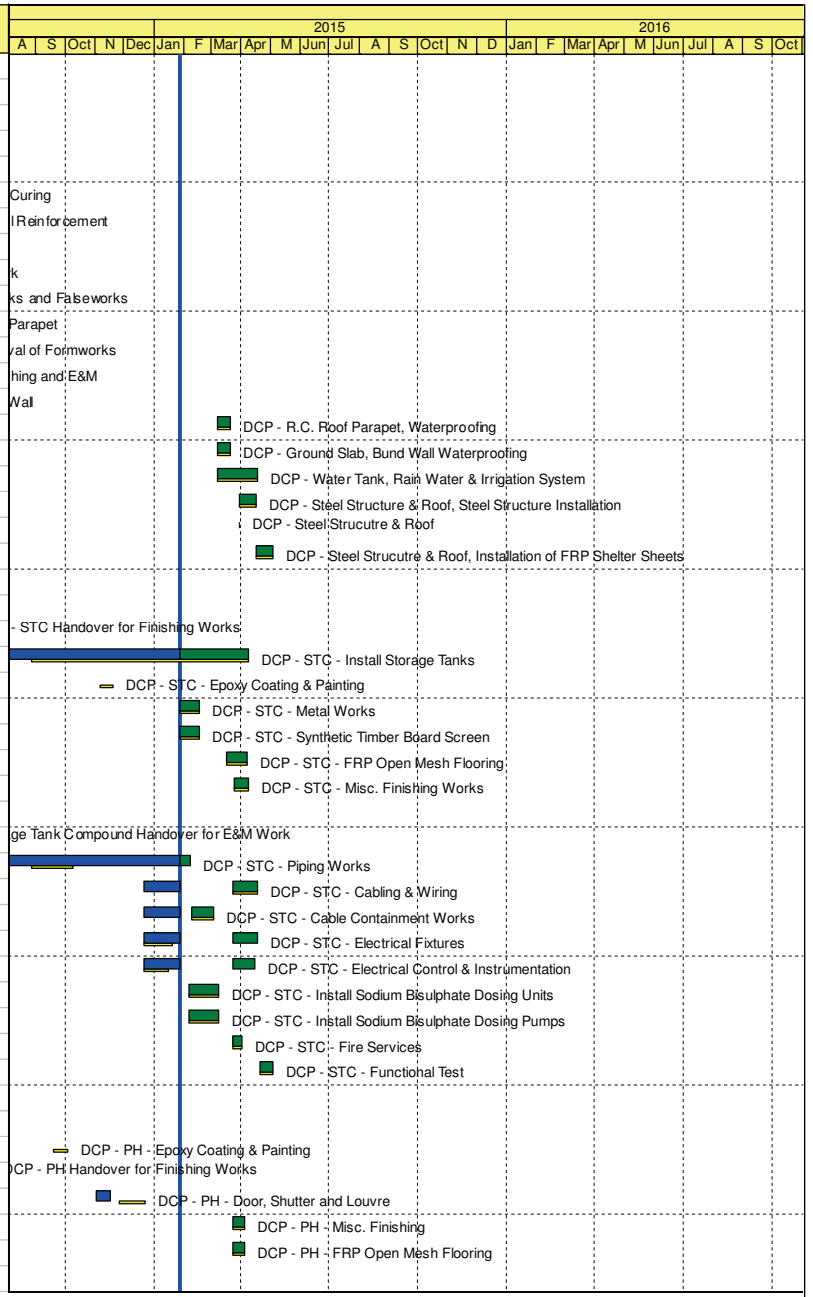
Project ID :C18DWPD150128

Layout : C18150128UDWP

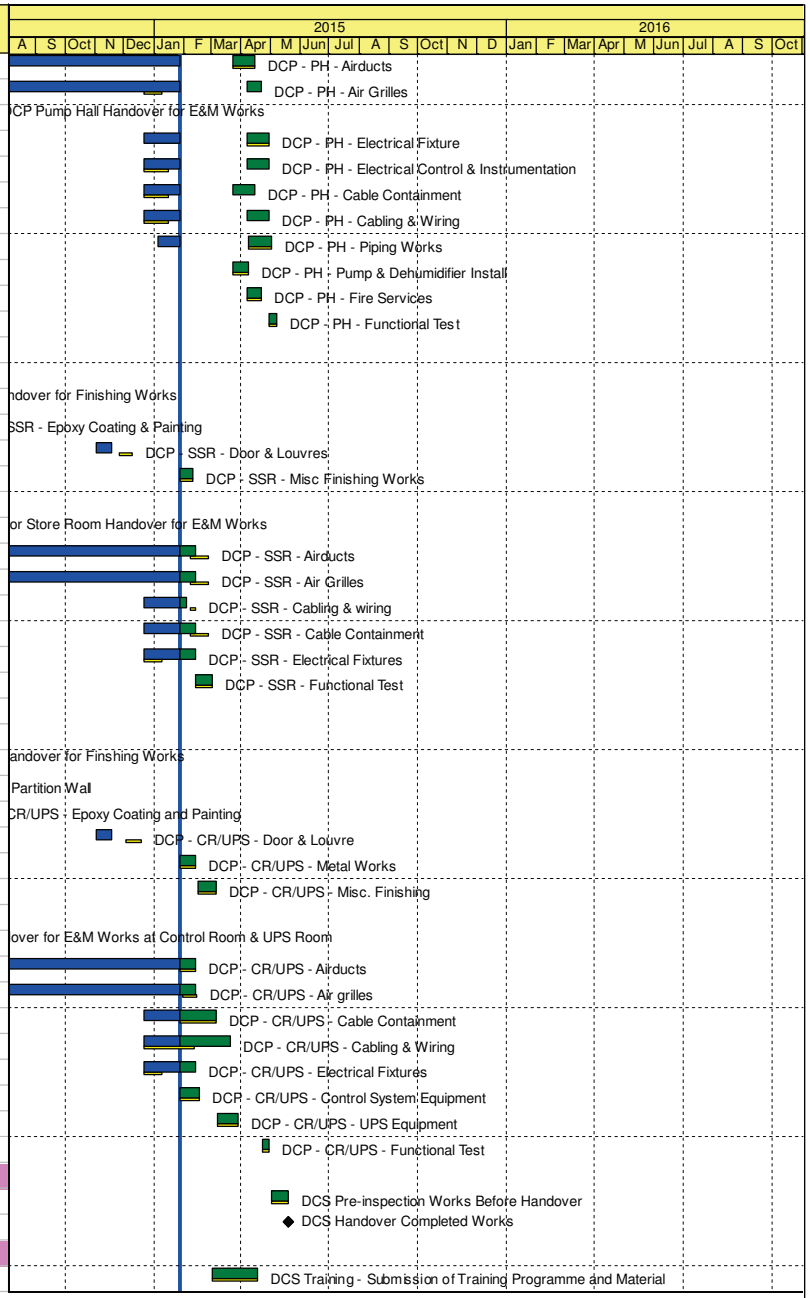
Detail Works Programme

Date	Revision	Checked	Approved
28-Jan-15	DWP Rev D Update		

Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-60030N	DCP - R.C. Wall Scaffolding & Formworks Erection	21	04-Jul-13 A	17-Aug-13 A	100%
18-60053N	DCP - R.C. Walls Steel Fixing	12	29-Jul-13 A	10-Aug-13 A	100%
18-60052N	DCP - R.C. Roof Formworks Erection	9	12-Aug-13 A	20-Aug-13 A	100%
18-60055N	DCP - R.C. Roof Steel Fixing	6	21-Aug-13 A	26-Aug-13 A	100%
18-60054N	DCP - R.C. Walls/Roof, Cast Concrete	1	27-Aug-13 A	27-Aug-13 A	100%
18-60056N	DCP - R.C. Walls/Roof, Concrete Wall and Roof Curing	14	28-Aug-13 A	12-Sep-13 A	100%
18-60046N	DCP - R.C. Roof Parapet, Fix Roof Parapet Wall Reinforcement	12	05-Sep-13 A	13-Sep-13 A	100%
18-60035D	DCP - R.C. Roof Parapet	157	05-Sep-13 A	04-Oct-13 A	100%
18-60045N	DCP - R.C. Roof Parapet, Erection of Formwork	12	09-Sep-13 A	18-Sep-13 A	100%
18-60058N	DCP - R.C. Walls/Roof, Removal of Formworks and Falseworks	12	13-Sep-13 A	04-Oct-13 A	100%
18-60048N	DCP - R.C. Roof Parapet, Cast Roof Concrete Parapet	1	19-Sep-13 A	19-Sep-13 A	100%
18-60049N	DCP - R.C. Roof Parapet, Curing and Removal of Formworks	14	20-Sep-13 A	04-Oct-13 A	100%
18-60065N	DCP - Cleaning and Preparation for Finishing and E&M	24	05-Oct-13 A	02-Nov-13 A	100%
18-64651N	DCP - 3600x1200 Sump Pit Near Bund Wall	20	17-Oct-13 A	02-Nov-13 A	100%
18-60059N	DCP - R.C. Roof Parapet, Waterproofing	12	07-Mar-15	20-Mar-15	0%
18-60173N	DCP - Ground Slab, Bund Wall Waterproofing	12	07-Mar-15	20-Mar-15	0%
18-60121N	DCP - Water Tank, Rain Water & Irrigation System	36	07-Mar-15	18-Apr-15	0%
18-60042N	DCP - Steel Structure & Roof, Steel Structure Installation	15	30-Mar-15	16-Apr-15	0%
18-60040D	DCP - Steel Strucutre & Roof	0	30-Mar-15	30-Mar-15	0%
18-60043N	DCP - Steel Strucutre & Roof, Installation of FRP Shelter Sheets	15	16-Apr-15	04-May-15	0%
6.06.8.3 - DCP - Storage Tank Compound					
6.06.8.3.1 - Finishing Works					
18-60047N	DCP - STC Handover for Finishing Works	0	19-Jun-14 A		100%
18-60048D	DCP - STC - Install Storage Tanks	183	19-Jun-14 A	08-Apr-15	68.85%
18-60060	DCP - STC - Epoxy Coating & Painting	12	04-Jul-14 A	14-Jul-14 A	100%
18-60051	DCP - STC - Metal Works	18	28-Jan-15	17-Feb-15	0%
18-60058	DCP - STC - Synthetic Timber Board Screen	18	28-Jan-15	17-Feb-15	0%
18-60056	DCP - STC - FRP Open Mesh Flooring	18	17-Mar-15	07-Apr-15	0%
18-60064	DCP - STC - Misc. Finishing Works	12	25-Mar-15	08-Apr-15	0%
6.06.8.3.2 - E&M Works					
18-60066N	DCP Storage Tank Compound Handover for E&M Work	0	15-May-14 A		100%
18-60052D	DCP - STC - Piping Works	35	27-Jun-14 A	07-Feb-15	71.43%
18-60066	DCP - STC - Cabling & Wiring	23	22-Dec-14 A	18-Apr-15	0%
18-60054D	DCP - STC - Cable Containment Works	17	22-Dec-14 A	03-Mar-15	0%
18-60068D	DCP - STC - Electrical Fixtures	23	22-Dec-14 A	18-Apr-15	0%
18-60067	DCP - STC - Electrical Control & Instrumentation	20	22-Dec-14 A	15-Apr-15	0%
18-60074N	DCP - STC - Install Sodium Bisulphate Dosing Units	24	06-Feb-15	09-Mar-15	0%
18-60075N	DCP - STC - Install Sodium Bisulphate Dosing Pumps	24	06-Feb-15	09-Mar-15	0%
18-60070D	DCP - STC - Fire Services	10	23-Mar-15*	02-Apr-15	0%
18-60080	DCP - STC - Functional Test	12	20-Apr-15	04-May-15	0%
6.06.8.4 - DCP - Pump Hall					
6.06.8.4.1 - Finishing Works					
18-63555	DCP - PH - Epoxy Coating & Painting	12	16-Jun-14 A	12-Jul-14 A	100%
18-63493N	DCP - PH Handover for Finishing Works	0	15-Jul-14 A		100%
18-63515	DCP - PH - Door, Shutter and Louvre	24	03-Nov-14 A	17-Nov-14 A	100%
18-63565	DCP - PH - Misc. Finishing	12	23-Mar-15	04-Apr-15	0%
18-63495	DCP - PH - FRP Open Mesh Flooring	12	23-Mar-15	04-Apr-15	0%
6.06.8.4.2 - E&M Works					



Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-63485D	DCP - PH - Airducts	20	14-Jul-14 A	15-Apr-15	0%
18-63492D	DCP - PH - Air Grilles	14	14-Jul-14 A	22-Apr-15	0%
18-63474N	DCP Pump Hall Handover for E&M Works	0	15-Jul-14 A		100%
18-63489	DCP - PH - Electrical Fixture	20	22-Dec-14 A	29-Apr-15	0%
18-63488D	DCP - PH - Electrical Control & Instrumentation	20	22-Dec-14 A	29-Apr-15	0%
18-63480D	DCP - PH - Cable Containment	20	22-Dec-14 A	15-Apr-15	0%
18-63487D	DCP - PH - Cabling & Wiring	20	22-Dec-14 A	29-Apr-15	0%
18-63478D	DCP - PH - Piping Works	20	05-Jan-15 A	02-May-15	0%
18-63475D	DCP - PH - Pump & Dehumidifier Install	14	23-Mar-15	08-Apr-15	0%
18-63490D	DCP - PH - Fire Services	14	07-Apr-15*	22-Apr-15	0%
18-63494D	DCP - PH - Functional Test	7	30-Apr-15	08-May-15	0%
6.06.8.5 - DCP - Sensor Store Room					
6.06.8.5.1 - Finishing Works					
18-63624N	DCP - SSR Handover for Finishing Works	0	15-Apr-14 A		100%
18-63635D	DCP - SSR - Epoxy Coating & Painting	10	15-Apr-14 A	05-Jun-14 A	100%
18-63625	DCP - SSR - Door & Louvres	12	03-Nov-14 A	18-Nov-14 A	100%
18-63665	DCP - SSR - Misc Finishing Works	12	28-Jan-15*	10-Feb-15	0%
6.06.8.5.2 - E&M Works					
18-63574N	DCP Sensor Store Room Handover for E&M Works	0	15-May-14 A		100%
18-63585D	DCP - SSR - Airducts	14	14-Jul-14 A	12-Feb-15	0%
18-63655D	DCP - SSR - Air Grilles	14	14-Jul-14 A	12-Feb-15	0%
18-63595D	DCP - SSR - Cabling & wiring	6	22-Dec-14 A	03-Feb-15	0%
18-63575D	DCP - SSR - Cable Containment	14	22-Dec-14 A	12-Feb-15	0%
18-63645D	DCP - SSR - Electrical Fixtures	14	22-Dec-14 A	12-Feb-15	0%
18-63658D	DCP - SSR - Functional Test	12	13-Feb-15	02-Mar-15	0%
6.06.8.6 - DCP - Control Room & UPS Room					
6.06.8.6.1 - Finishing Works					
18-63709N	DCP - CR/UPS Handover for Finshing Works	0	31-Mar-14 A		100%
18-63720N	DCP - CR/UPS Partition Wall	12	31-Mar-14 A	11-Apr-14 A	100%
18-63725D	DCP - CR/UPS - Epoxy Coating and Painting	10	15-Apr-14 A	05-Jun-14 A	100%
18-63715	DCP - CR/UPS - Door & Louvre	14	03-Nov-14 A	18-Nov-14 A	100%
18-63710	DCP - CR/UPS - Metal Works	14	28-Jan-15*	12-Feb-15	0%
18-64055	DCP - CR/UPS - Misc. Finishing	14	16-Feb-15*	06-Mar-15	0%
6.06.8.6.2 - E&M Works					
18-63604N	DCP Handover for E&M Works at Control Room & UPS Room	0	15-May-14 A		100%
18-63615D	DCP - CR/UPS - Airducts	14	14-Jul-14 A	12-Feb-15	0%
18-63705D	DCP - CR/UPS - Air grilles	14	14-Jul-14 A	12-Feb-15	0%
18-63605D	DCP - CR/UPS - Cable Containment	30	22-Dec-14 A	06-Mar-15	0%
18-63685D	DCP - CR/UPS - Cabling & Wiring	42	22-Dec-14 A	20-Mar-15	0%
18-63695D	DCP - CR/UPS - Electrical Fixtures	14	22-Dec-14 A	12-Feb-15	0%
18-63745D	DCP - CR/UPS - Control System Equipment	18	28-Jan-15*	17-Feb-15	0%
18-63735D	DCP - CR/UPS - UPS Equipment	19	07-Mar-15	28-Mar-15	0%
18-63748	DCP - CR/UPS - Functional Test	7	23-Apr-15	30-Apr-15	0%
6.06.8.6.2.3 - Completion of DCS Works					
18-63760N	DCS Pre-inspection Works Before Handover	15	02-May-15	19-May-15	0%
18-63761N	DCS Handover Completed Works	0		19-May-15	0%
6.06.8.6.2.3 - DCS Training					
18-63828N	DCS Training - Submission of Training Programme and Material	40	02-Mar-15	17-Apr-15	0%



CHUN WO – CEC JOINT VENTURE

Actual Level of Effort | Remaining Work
Primary Baseline | Critical Remaining Work
Actual Work | Milestone

Updated Detail Works Programme

Data Date: 28-Jan-15 **Run Date: 02-Feb-15**

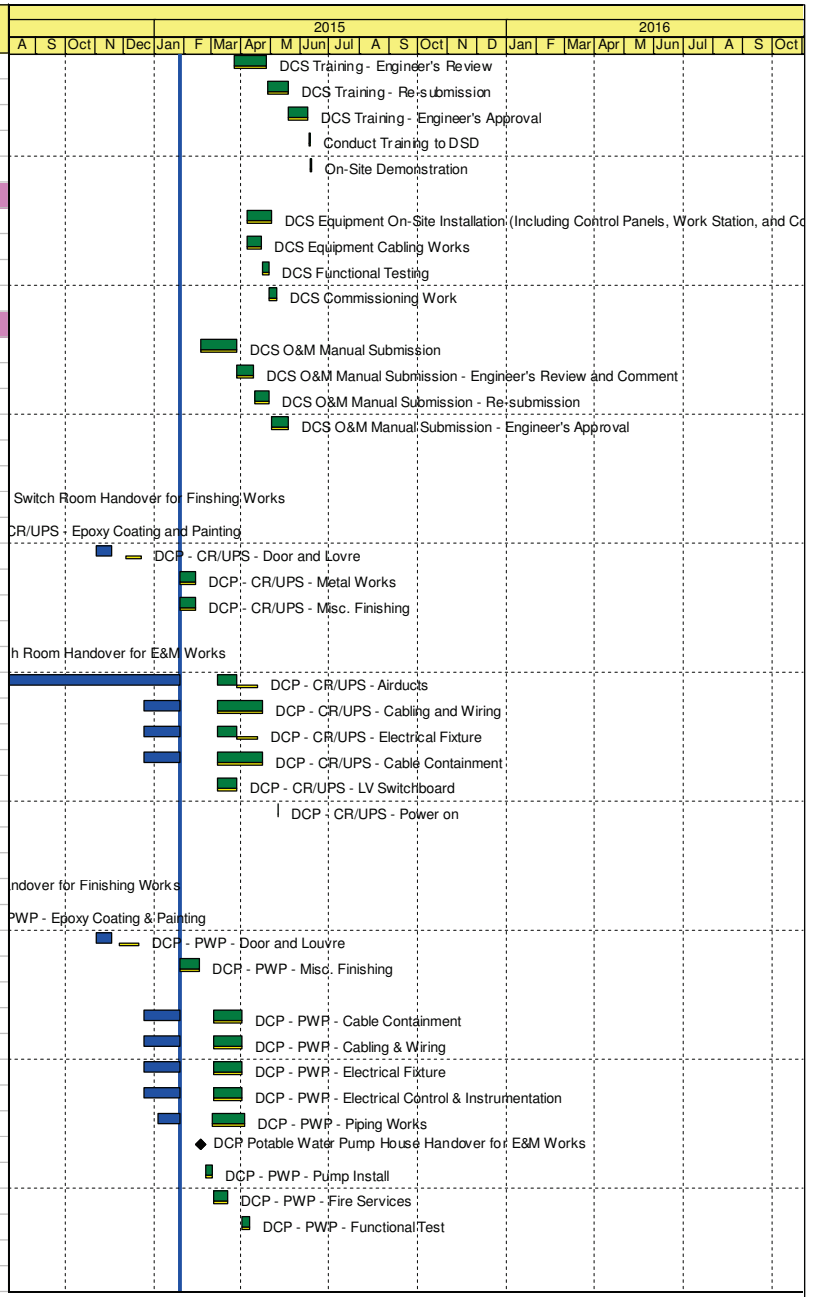
Project ID :C18DWPD150128

Layout : C18150128UDWP

Detail Works Programme

Date	Revision	Checked	Approved
28-Jan-15	DWP Rev D Update		

Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-63838N	DCS Training - Engineer's Review	28	25-Mar-15	27-Apr-15	0%
18-63848N	DCS Training - Re-submission	18	28-Apr-15	19-May-15	0%
18-63858N	DCS Training - Engineer's Approval	18	20-May-15	09-Jun-15	0%
18-63868N	Conduct Training to DSD	2	10-Jun-15	11-Jun-15*	0%
18-63878N	On-Site Demonstration	2	12-Jun-15	13-Jun-15*	0%
6.06.8.6.2.1 - DCS On-Site Installation					
18-63758N	DCS Equipment On-Site Installation (Including Control Panels, Work Station, and Control Desk)	22	07-Apr-15	02-May-15	0%
18-63768N	DCS Equipment Cabling Works	14	07-Apr-15	22-Apr-15	0%
18-63778N	DCS Functional Testing	6	23-Apr-15	29-Apr-15	0%
18-63759N	DCS Commissioning Work	6	30-Apr-15	07-May-15	0%
6.06.8.6.2.2 - DCS O&M Manual Submission					
18-63788N	DCS O&M Manual Submission	30	18-Feb-15	27-Mar-15	0%
18-63798N	DCS O&M Manual Submission - Engineer's Review and Comment	14	28-Mar-15	14-Apr-15	0%
18-63808N	DCS O&M Manual Submission - Re-submission	14	15-Apr-15	30-Apr-15	0%
18-63818N	DCS O&M Manual Submission - Engineer's Approval	15	02-May-15	19-May-15	0%
6.06.8.7 - DCP - Switch Room					
6.06.8.7.1 - Finishing Works					
18-63774N	DCP - CR/UPS Switch Room Handover for Finshing Works	0	15-Apr-14 A		100%
18-63795D	DCP - CR/UPS - Epoxy Coating and Painting	10	15-Apr-14 A	05-Jun-14 A	100%
18-63785	DCP - CR/UPS - Door and Lovre	14	03-Nov-14 A	18-Nov-14 A	100%
18-63775	DCP - CR/UPS - Metal Works	14	28-Jan-15*	12-Feb-15	0%
18-64045	DCP - CR/UPS - Misc. Finishing	14	28-Jan-15*	12-Feb-15	0%
6.06.8.7.2 - E&M Works					
18-63754N	DCP Switch Room Handover for E&M Works	0	15-May-14 A		100%
18-63765D	DCP - CR/UPS - Airducts	18	14-Jul-14 A	27-Mar-15	0%
18-63815D	DCP - CR/UPS - Cabling and Wiring	40	22-Dec-14 A	23-Apr-15	0%
18-63825D	DCP - CR/UPS - Electrical Fixture	18	22-Dec-14 A	27-Mar-15	0%
18-63755D	DCP - CR/UPS - Cable Containment	40	22-Dec-14 A	23-Apr-15	0%
18-63805D	DCP - CR/UPS - LV Switchboard	18	07-Mar-15	27-Mar-15	0%
18-63835	DCP - CR/UPS - Power on	1	09-May-15	09-May-15	0%
6.06.8.8 - DCP - Potable Water Pump House					
6.06.8.8.1 - Finishing Works					
18-63944N	DCP - PWP Handover for Finishing Works	0	15-Apr-14 A		100%
18-63955D	DCP - PWP - Epoxy Coating & Painting	10	15-Apr-14 A	05-Jun-14 A	100%
18-63945	DCP - PWP - Door and Louvre	18	03-Nov-14 A	18-Nov-14 A	100%
18-63965	DCP - PWP - Misc. Finishing	18	28-Jan-15*	17-Feb-15	0%
6.06.8.8.2 - E&M Works					
18-63865D	DCP - PWP - Cable Containment	26	22-Dec-14 A	01-Apr-15	0%
18-63885D	DCP - PWP - Cabling & Wiring	26	22-Dec-14 A	01-Apr-15	0%
18-63905D	DCP - PWP - Electrical Fixture	26	22-Dec-14 A	01-Apr-15	0%
18-63895D	DCP - PWP - Electrical Control & Instrumentation	26	22-Dec-14 A	01-Apr-15	0%
18-63855D	DCP - PWP - Piping Works	30	05-Jan-15 A	04-Apr-15	0%
18-63844N	DCP Potable Water Pump House Handover for E&M Works	0	18-Feb-15		0%
18-63845D	DCP - PWP - Pump Install	7	23-Feb-15	02-Mar-15	0%
18-63915D	DCP - PWP - Fire Services	14	03-Mar-15*	18-Mar-15	0%
18-64415D	DCP - PWP - Functional Test	7	02-Apr-15	10-Apr-15	0%
6.06.8.9 - DCP - Spare Storage Room/Toilet					
6.06.8.9.1 - Finishing Works					



CHUN WO – CEC JOINT VENTURE

Actual Level of Effort | Remaining Work
Primary Baseline | Critical Remaining Work
Actual Work | Milestone

Updated Detail Works Programme

Data Date: 28-Jan-15 **Run Date: 02-Feb-15**

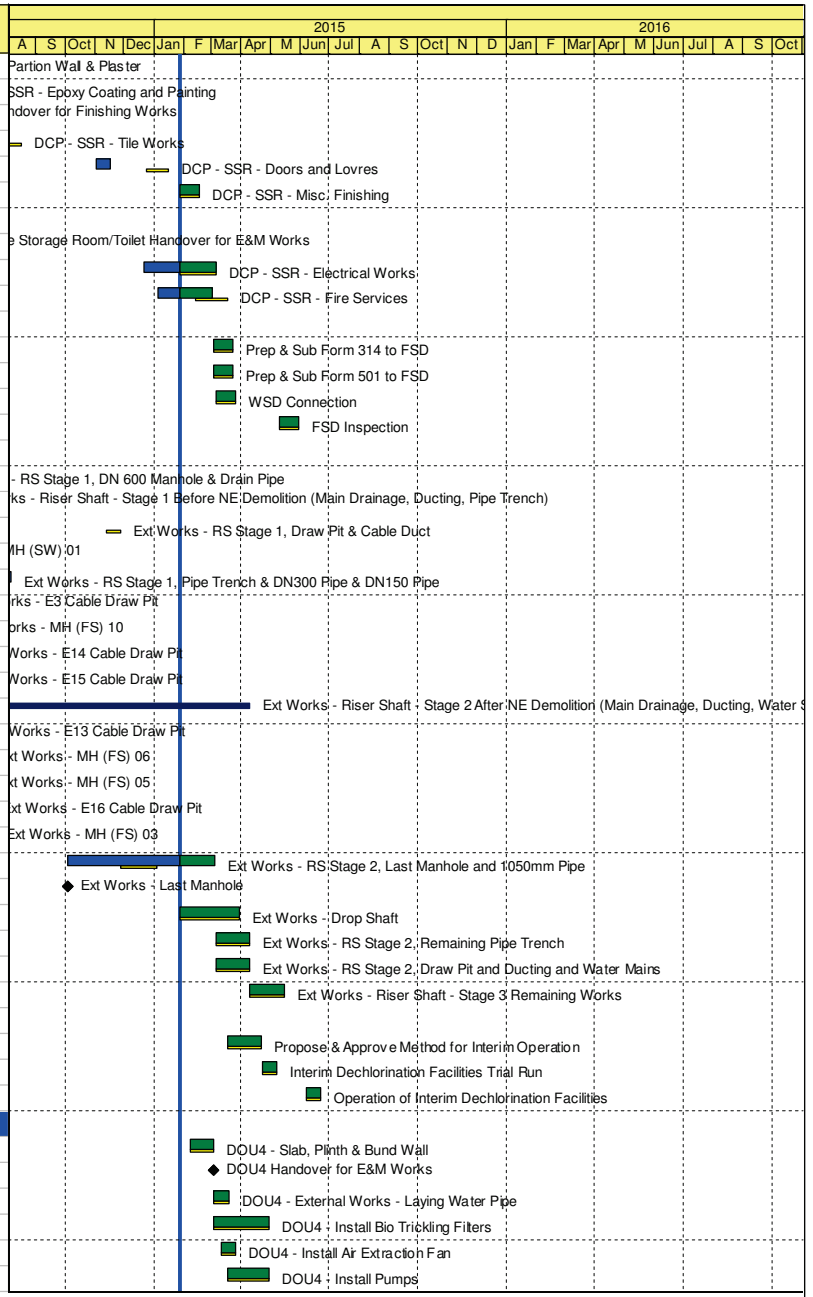
Project ID :C18DWPD150128

Layout : C18150128UDWP

Detail Works Programme

Date	Revision	Checked	Approved
28-Jan-15	DWP Rev D Update		

Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-63975D	DCP - SSR - Partion Wall & Plaster	18	31-Mar-14 A	11-Apr-14 A	100%
18-64005D	DCP - SSR - Epoxy Coating and Painting	10	15-Apr-14 A	05-Jun-14 A	100%
18-63974N	DCP - SSR Handover for Finishing Works	0	15-Apr-14 A		100%
18-63985	DCP - SSR - Tile Works	18	28-Jun-14 A	12-Jul-14 A	100%
18-63995	DCP - SSR - Doors and Lovres	18	03-Nov-14 A	17-Nov-14 A	100%
18-64035	DCP - SSR - Misc. Finishing	18	28-Jan-15*	17-Feb-15	0%
6.06.8.9.2 - E&M Works					
18-64014N	DCP Spare Storage Room/Toilet Handover for E&M Works	0	15-May-14 A		100%
18-64015D	DCP - SSR - Electrical Works	30	22-Dec-14 A	06-Mar-15	0%
18-64025D	DCP - SSR - Fire Services	26	05-Jan-15 A	02-Mar-15	0%
6.06.8.10 - DCP Statutory Inspection					
18-60650	Prep & Sub Form 314 to FSD	18	03-Mar-15	23-Mar-15	0%
18-60700	Prep & Sub Form 501 to FSD	18	03-Mar-15	23-Mar-15	0%
18-60600	WSD Connection	18	06-Mar-15	26-Mar-15	0%
18-60750	FSD Inspection	18	11-May-15	30-May-15	0%
6.06.8.11 - DCP External Works					
18-64649N	Ext Works - RS Stage 1, DN 600 Manhole & Drain Pipe	32	25-Mar-14 A	13-May-14 A	100%
18-64650N	Ext Works - Riser Shaft - Stage 1 Before NE Demolition (Main Drainage, Ducting, Pipe Trench)	48	25-Mar-14 A	02-Jun-14 A	100%
18-64647N	Ext Works - RS Stage 1, Draw Pit & Cable Duct	15	25-Apr-14 A	15-Jul-14 A	100%
18-64670N	Ext Works - MH (SW) 01	0		25-Apr-14 A	100%
18-64648N	Ext Works - RS Stage 1, Pipe Trench & DN300 Pipe & DN150 Pipe	15	14-May-14 A	06-Aug-14 A	100%
18-64668N	Ext Works - E3 Cable Draw Pit	0		07-Jun-14 A	100%
18-64667N	Ext Works - MH (FS) 10	0		12-Jun-14 A	100%
18-64666N	Ext Works - E14 Cable Draw Pit	0		25-Jun-14 A	100%
18-64687N	Ext Works - E15 Cable Draw Pit	0		25-Jun-14 A	100%
18-64660N	Ext Works - Riser Shaft - Stage 2 After NE Demolition (Main Drainage, Ducting, Water Supply, Pipe Trench	139	27-Jun-14 A	09-Apr-15	58.27%
18-64680N	Ext Works - E13 Cable Draw Pit	0		27-Jun-14 A	100%
18-64690N	Ext Works - MH (FS) 06	0		11-Jul-14 A	100%
18-64665N	Ext Works - MH (FS) 05	0		11-Jul-14 A	100%
18-64688N	Ext Works - E16 Cable Draw Pit	0		15-Jul-14 A	100%
18-64662N	Ext Works - MH (FS) 03	0		19-Jul-14 A	100%
18-64646N	Ext Works - RS Stage 2, Last Manhole and 1050mm Pipe	37	04-Oct-14 A	05-Mar-15	0%
18-64663N	Ext Works - Last Manhole	0		04-Oct-14 A	100%
18-64652N	Ext Works - Drop Shaft	50	28-Jan-15	30-Mar-15	0%
18-64645N	Ext Works - RS Stage 2, Remaining Pipe Trench	35	06-Mar-15	09-Apr-15	0%
18-64644N	Ext Works - RS Stage 2, Draw Pit and Ducting and Water Mains	35	06-Mar-15	09-Apr-15	0%
18-64661N	Ext Works - Riser Shaft - Stage 3 Remaining Works	30	10-Apr-15	15-May-15	0%
6.06.8.12 - Interim Dechlorination Facilities					
18-64650D	Propose & Approve Method for Interim Operation	30	18-Mar-15	22-Apr-15	0%
18-64660D	Interim Dechlorination Facilities Trial Run	12	23-Apr-15	07-May-15	0%
18-64670D	Operation of Interim Dechlorination Facilities	12	08-Jun-15	22-Jun-15	0%
6.06.9 - DOU4					
18-60800	DOU4 - Slab, Plinth & Bund Wall	18	07-Feb-15*	03-Mar-15	0%
18-60100N	DOU4 Handover for E&M Works	0	04-Mar-15		0%
18-61210	DOU4 - External Works - Laying Water Pipe	14	04-Mar-15	19-Mar-15	0%
18-61000D	DOU4 - Install Bio Trickling Filters	48	04-Mar-15	29-Apr-15	0%
18-61050D	DOU4 - Install Air Extraction Fan	14	11-Mar-15	26-Mar-15	0%
18-61100D	DOU4 - Install Pumps	36	18-Mar-15	29-Apr-15	0%



Activity ID	Activity Name	Orig Dur	Start	Finish	Duration % Complete
18-61070D	DOU4 - Install FRP Air Duct & Accessories	36	18-Mar-15	29-Apr-15	0%
18-61230	DOU4 - External Works - Odour Duct to MPS1	24	20-Mar-15	17-Apr-15	0%
18-61275	DOU4 - Drain Pipe and Odour Duct Connection to PWPS	24	20-Mar-15	17-Apr-15	0%
18-61220	DOU4 - External Works - Laying Cable Duct	14	20-Mar-15	04-Apr-15	0%
18-61120D	DOU4 - Install Pipes & Valves	21	30-Mar-15	23-Apr-15	0%
18-61160D	DOU4 - Install Power Supply System	40	31-Mar-15	18-May-15	0%
18-61250	DOU4 - Demolish Deodourisation Plant at MPS1	14	01-Apr-15	17-Apr-15	0%
18-61300	DOU4 - Drainage Pump at PWPS	14	01-Apr-15	17-Apr-15	0%
18-61180D	DOU4 - Install Control Panel	14	08-Apr-15	23-Apr-15	0%
18-61140D	DOU4 - Install Tanks	14	10-Apr-15	25-Apr-15	0%
18-61200D	DOU4 - Functional Test for Equipments	12	19-May-15	01-Jun-15	0%
6.06.10 - DOU8					
18-61450	DOU8 - Slab, Plinth & Bund Wall	12	09-Mar-15	21-Mar-15	0%
18-61500D	DOU8 - Install Air Extraction Pumps	24	23-Mar-15	20-Apr-15	0%
18-61550D	DOU8 - Install Dehumidifiers	28	23-Mar-15	24-Apr-15	0%
18-61650D	DOU8 - Install Air Ducts & Accessories	28	23-Mar-15	24-Apr-15	0%
18-61600D	DOU8 - Install Activated Carbon Filters	28	23-Mar-15	24-Apr-15	0%
18-61499N	DOU8 Handover for E&M Works	0	23-Mar-15		0%
18-61700D	DOU8 - Install Power Supply	18	30-Mar-15	20-Apr-15	0%
18-61710D	DOU8 - Control Panel	18	30-Mar-15	20-Apr-15	0%
18-62050D	DOU8 - Functional Test for Equipments	12	25-Apr-15	09-May-15	0%
6.06.11 - Existing Chamber 15					
6.06.11.1 - E&M Works					
18-62149N	Existing Chamber 15 Handover for E&M Works	0	15-Aug-12 A		100%
18-62150D	Installation of Pilot TRC Sensing Facilities	32	15-Aug-12 A	19-Sep-12 A	100%
18-62200D	Functional Test for Pilot TRC Sensing Facilities	7	19-Sep-12 A	25-Sep-12 A	100%
18-62250D	T&C of Pilot TRC Sensing Facilities	181	22-Jan-13 A	26-Sep-13 A	100%
6.06.12 - Testing & Commissioning of Section 4					
18-11001N	Section 4 - Substantial Completion	0		06-May-15	0%
18-62350D	T&C of Effluent Tunnel	24	08-Jun-15	07-Jul-15	0%
18-62375D	Liaison Works with Operators and Other Parties	24	08-Jun-15	07-Jul-15	0%
18-62351N	Section 4 - Complete Remaining Works	0		07-Jul-15	0%
18-62400	Divert Flow to Effluent Tunnel frm Exist. Culvert	0		07-Jul-15	0%
6.06.13 - Operation Manual					
18-64425	Prepare and Submit 1st Draft of Operation Manual	24	28-Jan-15*	27-Feb-15	0%
18-64445	Enginer Review and Comment 1st Draft Operation Manual	18	28-Feb-15	20-Mar-15	0%
18-64455	Prepare and Submit 2nd Draft of Operation Manual	14	21-Mar-15	07-Apr-15	0%
18-64465	Enginer Review and Comment 2nd Draft Operation Manual	14	08-Apr-15	23-Apr-15	0%
18-64485	Training DSD Operation Staff	14	24-Apr-15	11-May-15	0%
18-64475	Submit Final Operation Manual	15	24-Apr-15	12-May-15	0%
6.06.14 - Portion 14					
18-55763N	Cable Detection	1	24-Sep-12 A	24-Sep-12 A	100%
18-55760N	Erection of Chain Link Fence	2	28-Sep-12 A	29-Sep-12 A	100%
18-55759N	Confirmation of Sub-Contractor	0		20-Mar-13 A	100%
18-55764N	Trial Pit	1	03-May-13 A	03-May-13 A	100%
18-55775N	Discussion with WSD on Existing Firemains Protection	0		30-Jul-13 A	100%
18-55765N	Trench Excavation	3	04-Oct-13 A	02-Nov-13 A	100%
18-55761N	Laying of 300mm Pipe	3	04-Nov-13 A	06-Nov-13 A	100%