

PROJECT NO.: TCS00371/07

DRAINAGE SERVICES DEPARTMENT (DSD) CONTRACT NO. DC/2006/02

YUEN LONG, KAM TIN, NGAU TAM MEI AND TIN SHUI WAI DRAINAGE IMPROVEMENTS, STAGE 1, PHASE 2B – CHEUNG CHUN SAN TSUEN AND KAM TSIN WAI

KT15 – Monthly EM&A Report for November 2007 (No. 5)

(Revision: 1)

PREPARED FOR Chit Cheung Construction Company Limited

Quality Index

Date	Reference No.	Prepared by	Certified By
07 December 2007	TCS00371/07/600/R0324	Ben Tam (Project Supervisor)	Ken Wong (Project Environmental Team Leader)
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Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for November 2007 (No. 5)



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Executive Summary

- ES.01 Chit Cheung Construction Company Limited (CCC) has been awarded the Drainage Services Department (DSD) Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B Cheung Chun San Tsuen and Kam Tsin Wai (hereinafter "the Project") on 03 April 2007. According to the contract specification requirements an Environmental Monitoring & Audit program to be implemented by an Independent Environmental Team (ET) throughout the contract period.
- ES.02 Under the Project Profile for Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai, Drainage Improvement Stage 1 Phase 2B Kam Tin Secondary Drainage Channels KT14 & KT15 (Ref.: 382047/E/PP/Issue 5), KT14 & KT15 was defined as Designated Project and governed by Environmental Permit (EP-231/2005/A).
- ES.03 Action-United Environmental Services and Consulting (AUES) has been commissioned by CCC to be an Independent Environmental Team (ET) to implement the EM&A program in compliance with the requirements as stated in the Environmental Permit (EP-231/2005/A) and Environmental Monitoring &Audit Manual (EM&A Manual) for Secondary Channel KT14 & KT15 (August 2005). For this Contract (DC/2006/02) only covered KT15 and KT14 will carried out under other contract.
- ES.04 This is Monthly EM&A Report for **November 2007** (**No. 5**) reporting the environmental impact monitoring and audit (EM&A) results of the project EM&A program for the reporting month **November 2007** during the period from **26 October 2007 to 25 November 2007**.

Breach of Action and Limit (AL) Levels

ES.05 The Limit Level exceedance was recorded in ecology during this reporting month. The wetland dependent bird species number recorded fell within the limit level (decrease > 40%). No Action/Limit Level exceedance was recorded for air, noise and stream water in this reporting period.

Complaints Log

ES.06 No environmental complaint was received in this reporting period.

Notifications of Any Summons and Successful Prosecutions

ES.07 There was no environmental summons or successful prosecution was recorded in this reporting period.

Reporting Changes

ES.08 There are no changes to be reported in this reporting period.

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Future Key Issues

ES.09 Construction activities to be undertaken in December 2007 included Construction and excavation works at Ch.233-439, Ch504-675; Stream Diversion; Sheet Piles Driving; Tree protection and tree transplanting works; Carrying out joined survey; Utilities companies liaison; Dumping activities of inert materials and Provision of temporary site entrance at Kam Po Road and Kam Sheung Road. Potential environmental impacts for this project generally include air quality, noise, ecology, surface runoff and construction waste. The contractor shall properly implement the required environmental mitigation measures as per the Implementation Schedule in the EM&A manual to ensure no significant adverse environmental impact arises from the construction works. The contractor was reminded to maintain good house-keeping throughout the construction phase.

EM&A Activities in the Reporting Period

ES.10 A summary of the monitoring activities in this reporting period is listed below:

•	1-Hour TSP Monitoring	18	Events
•	24-Hour TSP Monitoring	6	Events
•	Noise Monitoring	6	Events
•	Stream Water Quality	18	Events
•	Ecology (Fauna)	1	Event
•	Site Inspection Audit	4	Times

Air Quality

ES.11 No Action or Limit Level of 1-Hour and 24-Hour TSP exceedance was recorded in this reporting period.

Construction Noise

ES.12 No exceedance in construction noise measurements was recorded and no construction noise complaint was received in this reporting period.

Stream Water Quality

ES.13 No exceedance in stream water quality was recorded in the reporting period.

Ecology (Fauna)

ES.14 Non-compliance (Limit Level) with the ecological criteria was found in the wetland dependent bird species number recorded during the reporting period (on 12 November 2007). No intrusions of construction activities into the wetland areas nor adverse impact on the wetlands was found. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.



Summary of Monitoring Exceedances

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ES.15 A summary of monitoring exceedances in this reporting period of air quality, construction noise, stream water quality and ecology (fauna) monitoring are presented below:

Env. Quality	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air	1-Hour TSP	0	Not Required for 0% Exceedance
Quality	24-Hour TSP	0	Not Required for 0% Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Exceedance
	Dissolve Oxygen (DO) in mg/L	0	Not Required for 0% Exceedance
	Suspended Solids (SS) in mg/L	0	Not Required for 0% Exceedance
Stream	Turbidity (NTU)	0	Not Required for 0% Exceedance
Water	pH	0	Not Required for 0% Exceedance
	Ammonia Nitrogen (mg/L)	0	Not Required for 0% Exceedance
	Zinc (µg/L)	0	Not Required for 0% Exceedance
Ecology	Decrease in the total number of species or individuals of wetland dependent bird from baseline	0	Not Required for 0% Exceedance

Site Inspection by External Parties

ES.16 No site inspection was undertaken by external parties in this reporting period.



1.0 INTRODUCTION

- 1.01 Chit Cheung Construction Company Limited (CCC) has been awarded the Drainage Services Department (DSD) Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B Cheung Chun San Tsuen and Kam Tsin Wai (hereinafter "the Project") on 03 April 2007. According to the contract specification requirements the Project should implemented an Environmental Monitoring & Audit (EM&A) program by an Independent Environmental Team (ET) throughout the construction period in compliance with the requirements as stated in the project particular specification, Environmental Permit (EP-231/2005/A) and EM&A Manual for KT15. The location of the project site is presented in Appendix A. The project construction program is presented in Appendix B.
- 1.02 The works to be executed at the propose drainage Channel KT15 mainly comprise the following:
 - Construction of about 0.8 km secondary drainage channels;
 - Construction of DSD maintenances access;
 - Provisioning and re-provisioning of pedestrian crossings;
 - Associated ancillary works; and
 - Construction of temporary vehicular access in Portion 5A1 of the site for vehicular access from Kam Sheung Road to Lot Nos. 398RP, 395 in DD106 which are adjacent to the site.
- 1.03 Action-United Environmental Services and Consulting (AUES) has been commissioned by CCC to be the Independent Environmental Team (ET) for implementation of the EM&A program in accordance with the requirements as set out in the contract particular specification, Environmental Permit (EP-231/2005/A), EM&A Manual for KT15 and the Environment Impact Assessment Ordinance (EIAO).
- 1.04 This report presents the results of the project EM&A program for the reporting month November 2007 during the period from 26 October 2007 to 25 November 2007.

REPORT STRUCTURE

- 1.05 The EM&A report is structured into the following sections:
 - **Section 1** Introduction
 - Section 2 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS
 - **Section 3** SUMMARY OF MONITORING REQUIREMENTS
 - Section 4 IMPACT MONITORING METHODOLOGY
 - **Section 5** IMPACT MONITORING RESULTS
 - **Section 6** WASTE MANAGEMENT
 - **Section 7 SITE INSPECTION**
 - Section 8 Environmental Complaint and Non-Compliance
 - **Section 9** IMPLEMENTATION STATUS OF MITIGATION MEASURES
 - **Section 10 IMPACT FORECAST**
 - **Section 11 CONCLUSIONS**



2.0 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE

2.01 The organization chart and lines of communication with respect to the on-site environmental management and monitoring program are shown in **Appendix C**.

CONSTRUCTION PROGRESS

- 2.02 The major construction activities undertaken in this reporting period are list below:-
 - Construction of channel wall at CH223 439 and CH504 675;
 - Provision of temporary entrance at Kam Po Road and Kam Sheung Road;
 - Erection of noise barrier along CH647 to CH700;
 - Construction of wheel washing facility at CH30;
 - Dumping activities;
 - Tree protection and tree transplanting works;
 - Utilitiesd companies liasion; and
 - Carrying out joined survey.

SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.03 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project in this reporting period is presented in **Table 2-1**.

Table 2-1 Status of Environmental Licenses and Permits

Item	Item Description	License/Permit Status
1	Environmental Permit (EP-231/2005/A)	-
2	Air Pollution Control (Construction Dust)	Notified EPD on 09 July 2007
3	Chemical Waste Producer Registration WPN:5296-519-C3430-01 (Portion 8, Ma Fung Ling Road, Tong Yan San Tsuen, Yuen Long)	Registration on 20 April 2007
4	Chemical Waste Producer Registration WPN:5113-533-C3434-09 (Kam Tsin Wai, Kam Tin, Yuen Long)	Registration on 20 April 2007
5	Chemical Waste Producer Registration WPN:5213-424-C3431-01 (Portion 7, Birthing Area, Hoi Wan Road, Tuen Mun)	Registration on 20 April 2007
6	Water Pollution Control Ordinance (Discharge License) License No.: 1U450/1	Obtained on 20 July 2007
7	Billing Account for Disposal of Construction Waste (Account Number: 7005311)	Valid on 07 May 2007
8	Dumping at Sea Permit of Type 1 Contaminated Material (Permit No. EP/MD/08-051)	Validity period (10 Oct – 09 Apr 2008)
9	Dumping at Sea Permit of Type 2 Contaminated Material (Permit No. EP/MD/08-053)	Validity period (02 Nov – 01 Dec 2007)



3.0 SUMMARY OF IMPACT MONITORING REQUIREMENTS

- 3.01 Environmental monitoring and audit requirements are set out in the EM&A Manual. Air quality, construction noise, stream water quality and ecology have been identified to be the key environmental issues during the construction phase of the project.
- 3.02 A summary of the EM&A requirements for air quality, construction noise, stream water quality and ecology monitoring are shown in **Table 3-1**. The designated station of the air quality, construction noise, stream water quality locations and ecology monitoring area are shown in **Appendix D**.

Table 3-1 Summary of EM&A Requirements

Environmental Aspect	I	Monitoring Stations	
Air Quality	1-Hour and 24-Hour To	SP	A10
Construction Noise	Leq _(30min) during norma	l working hours	N10a*
	Supplementary data of	L_{10} and L_{90} for reference.	
Stream Water Quality	In Situ Measurement	Dissolved Oxygen Concentration (mg/L);	W9A & W9B
		 Dissolved Oxygen Saturation (% Sat); 	
		Turbidity (NTU);	
		• pH;	
		• Salinity (%); Water Depth (m) and	
		• Temperature (°C).	
	Laboratory Analysis • Suspended Solids (mg/L);		
	Ammonia Nitrogen (mg/L); and		
		 Zinc (μg/L). 	
Ecology	Monthly monitoring of construction activities adjacent to the wetland areas to identify any intrusions of construction activities into the wetland areas; Monthly monitoring of wetland areas themselves to check that there is no adverse impact on the wetlands as a consequence of changes to the		
	water table that are attr		
	Photographic records a		
	•	una in the wetland areas during the wet season ive) for reptiles, amphibians, dragonflies, and	
	butterflies, and through		

Note: * The noise ambient condition within the victim area without significant change. Due to the accessibility, noise monitoring will undertake at N10a. Once the access is available, the impact noise monitoring will undertake at N10.

- 3.03 Air monitoring is carried out once every six days for 24-Hour TSP and 3 times every six days for 1-Hour TSP at one designated monitoring station A10.
- 3.04 Noise monitoring is conducted once per week at one designated monitoring location (N10a). Measurements of $Leq_{(30min)}$ shall be taken between 0700 and 1900 with supplementary L_{10} and L_{90} data will be collected for reference.
- 3.05 Stream water quality monitoring is conducted were undertaken at two location W9A & W9B twice per week. Dissolved Oxygen (DO), pH, Turbidity (NTU) were measured in-situ, water depth, temperature and salinity will be collected for relevant data. Suspended Solids (SS), Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory respectively.
- 3.06 Ecological monitoring is conducted in the seasonal wetland area as shown in Project profile of KT15 Figure ATT 4-7.2). Bird survey should be conducted in monthly through the year and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted monthly in wet season (April to July inclusive) only.



3.07 A summary of the Action/Limit (A/L) Levels for air quality, construction noise, stream water quality and ecology are shown in **Tables 3-2, 3-3, 3-4** and **3-5.**

Table 3-2 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Action Level (μg/m³)		Limit Level (μg/m³)	
Withitto ing Station	1-Hour TSP	24-Hour TSP	1-Hour TSP	24-Hour TSP
A10	> 307	> 165	> 500	> 260

Table 3-3 Action and Limit Levels for Construction Noise Monitoring

Time Period	Action Level in dB(A)	Limit Level in dB(A)	
0700-1900 hrs on normal weekdays	When one or more documented	> 75* dB(A)	
1	complaints are received		

Note: * Reduces to 70dB(A) for schools and 65dB(A) during the school examination periods.

Table 3-4 Action and Limit Levels for Stream Water Quality Monitoring

Dissolved Oxygen (mg/l)	W9A (Upstream) [#]	W9B (Downstream)
Action Level	NA	0.3
Limit Level	NA	0.2
Turbidity (NTU)	W9A (Upstream) [#]	W9B (Downstream)
Action Level	NA	73.5*
Limit Level	NA	78.2**
pН	W9A (Upstream) [#]	W9B (Downstream)
Action Level	NA	7.0*
Limit Level	NA	7.1**
Suspended Solids (mg/L)	W9A (Upstream) [#]	W9B (Downstream)
Action Level	NA	148*
Limit Level	NA	159**
Ammonia Nitrogen (mg/L)	W9A (Upstream) [#]	W9B (Downstream)
Action Level	NA	30.91*
Limit Level	NA	32.20**
<u>.</u>		•
Zinc (µg/L)	W9A (Upstream)#	W9B (Downstream)
Action Level	NA	242*
Limit Level	NA	252**

Notes: # Act as Control Station for the Impact Water Quality Monitoring.

Table 3-5 Action and Limit Levels for Construction Ecology Monitoring

Parameters	Action Level	Limit Level
Bird: decrease in the total number of wetland dependent bird species or individuals of the wetland dependent bird species from baseline		> 40% of 1.2 individuals and 3 species

3.08 The Event/Action Plan of air quality, construction noise, stream water quality and ecology has been implemented for this project. Details of the Event/Action Plan were presented in the **Appendix E**.

^{*} Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.

^{**} Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.



4.0 IMPACT MONITORING METHDOLOGY

MONITORING LOCATIONS

4.01 The 1-Hour TSP and 24-Hour TSP monitoring was carried out at one designated station A10. Impact construction noise monitoring was undertaken at the designated location N10a. Stream water quality monitoring was undertaken at two designated locations (W9A & W9B). The ecology monitoring was conducted within the wetland area in according to the EM&A Manual of KT15. The descriptions of monitoring stations are presented in **Tables 4-1.** The geographically location are shown in **Appendix D**.

Table 4-1 Location of Air Quality, Construction Noise & Stream Water Quality Monitoring Station/Locations

Air Quality Station	
A10	Village House in Tin Sam San Tsuen
Construction Noise Loc	eation
N10*	Village House in Tin Sam San Tsuen
N10a	Village House in Tin Sam San Tsuen
Water Quality Locations	
W9A [#]	Tin Sam San Tsuen
W9B	Tin Sam San Tsuen

Note: * The noise ambient condition within the victim area without significant change. Due to the accessibility, noise monitoring will undertake at N10a. Once the access is available, the impact noise monitoring will undertake at N10

4.02 The meteorological data during the reporting period was obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

MONITORING FREQUENCY AND PERIOD

1-HOUR TSP MONITORING

4.03 The 1-Hour TSP monitoring was conducted in designated station A10 in according to the EM&A Manual three times every 6 days. Total of 18 monitoring events were carried out in this reporting period.

24-HOUR TSP MONITORING

4.04 The 24-Hour TSP monitoring was conducted at station A10 once every six days. Total of 6 monitoring events were carried out in this reporting period.

NOISE MONITORING

4.05 Impact noise monitoring was undertaken at one location N10a once per week. Total of 6 monitoring events were carried out in this reporting period.

STREAM WATER QUALITY MONITORING

4.06 The stream water quality monitoring was undertaken at two locations W9A & W9B two times per week. Total of 18 monitoring events were carried out in this reporting period.

[#] Act as control station in impact monitoring



ECOLOGY MONITORING

4.07 Bird survey should be conducted in monthly throughout the year and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted monthly in wet season (April to July inclusive) in the seasonal wetland area.

MONITORING EQUIPMENT

4.08 The monitoring equipment used by the ET in the EM&A program is presented in the Table 4-2.

Table 4-2 Monitoring Equipment Used in EM&A Program

Monitoring Equipment

Monitoring Equipment

Parameters	Equipment	Monitoring Equipment
1-Hour TSP	Portable dust meter	Sibata LD-3 Laser Dust Meter
24 Hour TCD	High Volume Sampler	Grasby Anderson GMWS 2310 HVS / Tisch High
24-H0ul 13F	rigii volume Samplei	Volume Sampler 515N
	Calibration Kit	TISCH Model TE-5028A
Leq30min	Integrating Sound Level Meter (Type1)	B&K Type 2238
	Calibrator	B&K Type 4231
	Portable Wind Speed Indicator	Testo Anemometer
Water Depth	Water Depth Detector	Eagle Sonar
Temperature	Thermometer & DO Meter	YSI 85/10FT
DO	Thermometer & DO Meter	YSI 85/10FT
pН	pH Meter	Hanna HI 98128
Turbidity	Turbidimeter	Hach 2100P
Salinity	Salinometer	ATAGO refractometer
-	Water Sampler	Teflon bailer / bucket
-	Sample Container	High density polythene bottles (provided by laboratory)
-	Storage Container	'Willow' 33-litter plastic cool box

24-HOUR TSP MONITORING

- 4.09 24-Hour TSP monitoring was carried out by a High Volume Sampler (HVS) in compliance with the USEPA Standards Title 40, Code of Federal Regulations Chapter 1 (Part 50) specifications. The HVS employed complied with the PS specifications including.
 - Power supply of 220v/50 hz for 24-Hour continuous operation;
 - 0.6-1.7 m³/min (20-60 SCFM) adjustable flow rate;
 - A 7-day mechanical timer for 24-Hour operation;
 - An elapsed time indicator with ± 2 minutes accuracy for 24-Hour operation;
 - Minimum exposed area of 63 in²;
 - Flow control accuracy of $\pm 2.5\%$ deviation over 24-Hour operation;
 - An anodized aluminum shelter to protect the filter and sampler;
 - A motor speed-voltage control to control mass flow rate with accuracy of ±2.5% deviation over 24-Hour sampling period;
 - Provision of a flow recorder for continuous monitoring;
 - Provision of a peaked roof inlet;
 - Incorporation with a manometer; and
 - An 8"x10" stainless steel filter holder to hold, seal and easy to change the filter paper.
- 4.10 The filter papers used in 24-Hour TSP monitoring were of size 8"x10" and provided by a local HOKLAS-accredited laboratory, ALS Techichem Pty (HK) Limited (HOKLAS No. 66). The filters papers after measurements were returned to the laboratory for the required treatment and analysis.



1-HOUR TSP MONITORING

4.11 Measurements of 1-Hour TSP monitoring were taken by a Sibata LD-3 Laser Dust Meter that is a portable and battery-operated laser photometer capable of performing real time 1-Hour TSP measurements. A comparison test with HVS was carried out prior to baseline monitoring in compliance with the EM&A requirements and a conversion factor for direct reading of the dust meter has been established.

WIND DATA MONITORING

4.12 The meteorological data during the reporting period was obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

NOISE MONITORING

- 4.13 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (Leq) measured in decibels (dB). Supplementary statistical results such as L_{10} and L_{90} were also obtained for reference.
- 4.14 Hand-held sound level meters (B&K Model 2238) and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specification were used for taking the impact noise measurements.
- 4.15 Windshield was fitted in all measurements. All noise measurements were made with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (Leq).
- 4.16 No noise measurement was carried out in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s.

STREAM WATER QUALITY MONITORING

Water Depth

- 4.17 Water quality monitoring will be conducted at the middle of the water columns (Mid-Depth) if the depths of the water columns at the sampling locations are less than 3 meters during monitoring. Or else, monitoring will be performed at two depths, at 1 meter from surface and bottom respectively when the water depth is less than 6m.
- 4.18 Water depths will be determined prior to measurement and sampling at W9A and W9B, using a portable battery operated depth detector, brand named 'Eagle Sonar', if the depths exceed 3 meter. For the depths well below 1 meter, an appropriate steel ruler or rope with appropriate weight will be used for the depth estimation.

Water Temperature

4.19 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 20°C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets. Calibration of the equipment will be regularly performed by ALS on quarterly basis.



Dissolved Oxygen (DO)

- 4.20 A portable YSI 85/10FT DO Meter will be used for in-situ DO measurement. The DO meter is capable of measuring DO in the range of 0 20 mg/L and 0 200 % saturation and checked against water saturated ambient air on each monitoring day prior to monitoring.
- 4.21 Although the DO Meter automatically compensates ambient water temperature to a standard temperature of 200°C for ease of comparison of the data under the changing reality, the temperature readings of the DO Meter will be recorded in the field data sheets. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

<u>рН</u>

4.22 A portable Hanna pH Meter will be used for in-situ pH measurement. The pH meter is capable of measuring pH in the range of 0 – 14 and readable to 0.1. Standard buffer solutions of at least pH7 and pH10 shall be used for calibration of the instrument before and after use. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

Turbidity (NTU)

4.23 A portable Hach 2100p turbidity Meter will be used for in-situ turbidity measurement. The turbidity meter is capable of measuring turbidity in the range of 0 – 1000 NTU. Calibration of the equipment will be regularly performed by ALS on quarterly basis.

<u>Salinity</u>

4.24 A portable salinometer capable of measuring salinity in percentage (g/L) will be used for measuring salinity of the water at each monitoring location.

Water Sampler

4.25 Water samples will be collected by the ET using a water sampler and 'PE' (Poly-Ethylene) sampling bottles provided by the laboratory. The water sampler will be rinsed before collection with the sample to be taken. Kahlsico Water Sampler will be used for sampling. One liter or 1000mL water sample will be collected from each depth for SS determination. The samples collected are stored in a cool box maintained at 40°C and delivered to ALS upon completion of the sampling by end of each sampling day. Sampling in the stream with shallow water condition, plastic bucket will be used for sample collection.

Sample Container

4.26 Water samples will be contained in screw-cap PE (Poly-Ethylene) bottles, which will be provided and pretreated immediately prior to sampling according to HOKLAS quality requirements by ALS. The sampling bottles will be rinsed with the water to be contained. Water sample is then transferred from the sampler to the sample bottles to 95% bottle capacity to allow possible volume changes during delivery and storage.

Sample Storage

4.27 A 'Willow' 33-litter plastic cool box packed with ice will be used to preserve the collected water samples prior to arrival at the laboratory for SS determination. The water temperature of the cool box will be maintained at a temperature as close to 4°C as possible without being frozen. Samples collected will be delivered to the laboratory upon collection.



4.28 DO, water temperature, turbidity (NTU), pH, salinity and water depth were measured in-situ whereas SS, Ammonia Nitrogen and Zinc were determined in a HOKLAS accredited laboratory (ALS).

ECOLOGY MONITORING

Study Area

4.29 The study area for the ecological monitoring programme for KT15 covers the seasonal wetland area as shown in Project Profile of KT15 Figures ATT 4-7.2.

Survey Method

- 4.30 Monthly monitoring was conducted by means of walk through survey, along the boundary and within the wetland areas in KT15. Any adverse impacts to the habitat, intrusions of construction activities into the wetland areas, and adverse changes in the wetlands were checked and reported if any.
- 4.31 Photographic records on the fixed photo record points selected during the baseline survey are made every six months. The photos from the construction phase ecological monitoring will be compared with those taken during the baseline which are used as the baseline conditions.
- 4.32 Bird monitoring was conducted in the study areas monthly for KT15. Survey areas in KT15 was the seasonal wetland area covered same as the Project Profile of KT15 Figures ATT 4-7.2.
- 4.33 Fauna monitoring is conducted only during the wet season (April to July inclusive for KT15) in the same survey areas for bird monitoring. For KT15, the survey frequency is monthly, and the surveys cover reptiles, amphibians, dragonflies and butterflies.

Equipment

4.34 Standard portable field survey equipment was used for ecological monitoring, including 1) Binoculars of 10 x 40 magnification; 2) Digital camera; 3) Notebook; and/or 4) Butterfly net (when it is necessary to confirm identities of butterflies and dragonflies).

EQUIPMENT CALIBRATION

- 4.35 Initial calibration of the HVS was performed upon installation and thereafter at bi-monthly intervals in accordance with the manufacturer's instruction using the NIST-certified standard calibrator. The calibration data are properly documented and the records are maintained by ET for future reference.
- 4.36 The 1-Hour TSP meter was calibrated by the supplier prior to purchase. Zero response of the equipment is checked before and after each monitoring event. A comparison test was carried out with a HVS. A conversion factor (K) of 4.0 was generated in accordance with the equipment manufacturer's instruction. The meter counts in minutes multiplied by the conversion factor will generate the equivalent dust concentration by HVS.



- 4.37 The sound level meters are calibrated using an acoustic calibrator prior to and after measurements. The meters are regularly calibrated in accordance with the manufacturer's instructions. Prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements are considered valid only if the calibration levels before and after the noise measurement agree to within 1.0 dB.
- 4.38 All in-situ monitoring instruments are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at 3 monthly intervals throughout all stages of the water quality monitoring.
- 4.39 The calibration certificates of the monitoring equipment used during the impact monitoring program are attached in **Appendix F**.

ANALYTICAL LABORATORY

4.40 Our ET has commissioned a local HOKLAS-accredited laboratory, ALS Technichem (HK) Pty Ltd (HOKLAS No. 66) to provide analytical services for this project. ALS carried out sample and analysis control in accordance with the HOKLAS QA/QC requirements. The specified testing services provided by ALS as shown in Table 4-3.

Table 4-3 Analytical Method applied to Water Quality Samples

Determinant	Standard Method	Detection Limit
Suspended Solids	ALS Method EA025	2 mg/L
Ammonia Nitrogen	ALS Method EK055A	0.01 mg/L
Zinc	ALS Method EG020	10 μg/L

4.41 The analysis of suspended solids, ammonia nitrogen and zinc concentrations were follow the APHA Standard Methods for the Examination of Water and Wastewater 19ed 2540D. ALS Environmental has comprehensive quality assurance and quality control programs and has attained HOKLAS accreditation for a range of environmental testing. For QA/QC procedures, one duplicate sample for every batch of samples were analyses as required by the HOKLAS. The QA/QC results are presented in **Appendix H**.

DATA MANAGEMENT AND DATA OA/OC CONTROL

- 4.42 The impact monitoring data are handled by the ET's systematic data recording and management, which complies with in-house certified (ISO 9001:2000) Quality Management System. Standard Field Data Sheets (FDS) are used in the impact monitoring program.
- 4.43 The monitoring data recorded in the equipment e.g. 1-Hour TSP meters and noise meters are downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data are input into a computerized database properly maintained by the ET. The laboratory results are input directly into the computerized database and QA/QC checked by personnel other than those who input the data.
- 4.44 For monitoring activities require laboratory analysis, the local laboratory follows the QA/QC requirements as set out under the HOKLAS scheme for all laboratory testing.



5.0 IMPACT MONITORING RESULTS

5.01 The impact EM&A program was carried out by the ET in compliance with the project specific EM&A Manual in this reporting period. The impact monitoring schedules are presented in **Appendix G** and the monitoring results are detailed in the following sub-sections.

AIR QUALITY

5.02 The 1-Hour and 24-Hour TSP impact air quality monitoring data are summarized in Tables 5-1 and 5-2. Graphical plots of the monitoring results are shown in Appendix H respectively.

Table 5-1 Summary of 1-Hour TSP Monitoring Results at A10

Monitoring Date	Start Time	1 st Result (μg/m ³)	2 nd Result (μg/m ³)	3 rd Result (μg/m ³)	Action Level (µg/m³)	Limit Level (µg/m³)
27-Oct-07	14:25	183	191	186	> 307	> 500
2-Nov-07	14:54	146	155	152	> 307	> 500
8-Nov-07	15:04	133	132	149	> 307	> 500
14-Nov-07	14:37	128	136	130	> 307	> 500
20-Nov-07	15:07	154	168	156	> 307	> 500
24-Nov-07	9:15	132	131	144	> 307	> 500

Note: * Monitoring result was exceeded the Action Level # Monitoring result was exceeded the Limit Level

Table 5-2 Summary of 24-Hour TSP Monitoring Results at A10

Monitoring Date	Monitoring Results (μg/m³)	Action Level (μg/m³)	Limit Level (μg/m³)
26-Oct-07	62	> 165	> 260
01-Nov-07	59	> 165	> 260
07-Nov-07	52	> 165	> 260
13-Nov-07	31	> 165	> 260
19-Nov-07	71	> 165	> 260
23-Nov-07	52	> 165	> 260

Note: * Monitoring result was exceeded the Action Level # Monitoring result was exceeded the Limit Level

- 5.03 No 1-Hour and 24-Hour TSP Action or Limit Level exceedance was recorded in this reporting period.
- 5.04 The meteorological data during the monitoring period are summarized in **Appendix I**.

CONSTRUCTION NOISE

5.05 The impact construction noise monitoring results are summarized in **Table 5-3**. Graphical plots of the monitoring data are presented in **Appendix H**.

Table 5-3 Summary of Noise Monitoring Results at N10a

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6 th Leq5	Leq30
27-Oct-07	13:52	55.4	52.9	51.7	53.1	54.7	52.2	53.5
02-Nov-07	15:08	54.7	56.2	56.3	55.6	55.7	54.2	55.5
08-Nov-07	13:42	56.7	57.2	57.3	55.6	56.7	55.3	56.5
14-Nov-07	14:58	53.4	51.1	52.0	53.5	51.5	51.2	52.2
20-Nov-07	15:18	56.8	49.6	55.8	59.6	56.2	48.6	55.9
24-Nov-07	11:16	52.6	51.8	53.0	52.1	53.7	51.7	52.5
Limit L	Limit Level -						> 75 dB(A)	

Note: * The noise ambient condition within the victim area without significant change. Due to the accessibility, baseline monitoring will undertake at N10a. The impact monitoring will undertake at N10 once the access is available.



5.06 No construction noise exceedance (Action/Limit Level) was recorded in this reporting period.

STREAM WATER QUALITY

- 5.07 The stream water quality monitoring results are summarized in **Table 5-4**. Details of the monitoring results and graphical plots for each parameter are presented in **Appendix H**.
- 5.08 No exceedance in stream water quality was recorded in the reporting period.

KT15 – Monthly EM&A Report for November 2007 (No. 5)

Table 5-4 Summary of Stream Water Quality Results at W9A & W9B

Monitoring	DO in	mg/L	Turbidi	ty (NTU)	p	Н	SS in	mg/L	Ammon	ia (mg/L)	Zinc ((μg/L)
Date	W9A [#]	W9B	W9A [#]	W9B	W9A [#]	W9B	W9A#	W9B	W9A [#]	W9B	W9A [#]	W9B
27-Oct-07	1.9	1.2	134.5	30.4	7.4	6.9	135	39	193.00	12.20	421	91
29-Oct-07	1.6	1.0	246.0	193.5	8.7	7.6	365	165	118.00	9.34	1480	198
02-Nov-07	1.9	1.1	101.5	19.6	7.9	7.7	131	22	55.30	8.76	224	52
05-Nov-07	1.9	1.2	230.5	49.3	8.2	7.8	175	44	198.00	20.70	940	157
08-Nov-07	2.9	1.5	152.5	23.6	8.1	7.7	164	38	74.70	13.10	663	127
14-Nov-07	1.9	1.0	276.5	33.8	8.2	7.8	269	40	188.00	13.50	1140	103
17-Nov-07	3.2	1.5	207.0	48.7	8.2	7.9	229	48	56.50	21.20	1050	123
20-Nov-07	1.6	1.4	890.5	29.3	8.3	7.7	545	38	340.00	7.86	1460	97
24-Nov-07	3.0	1.3	79.4	63.6	8.1	7.7	114	67	24.40	20.90	398	172
Action Level	-	< 0.3*	-	> 73.5*	-	> 7.0*	-	> 148*	-	> 30.91*	-	> 242*
Limit Level	-	< 0.2**	-	> 78.2**	-	> 7.1**	-	> 159**	-	> 32.20**	-	> 252**

Notes:

- Act as Control Station for the Impact Water Quality Monitoring.
- * Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.
- ** Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.



ECOLOGY

- 5.09 27 individuals of birds from 10 species were recorded during the survey for the present monthly monitoring on 12 November 2007. Among the birds recorded, two individuals of one species (i.e. Chinese Pond Heron) were among the two wetland bird species with abundance from the baseline (i.e. Cattle Egret and Chinese Pond Heron). Compared with the average abundance of 1.2 individuals from 2 species of wetland dependent birds recorded during the baseline study for the KT15 Project Profile, the wetland dependent bird species number recorded fell within the Limit Level for the monitoring requirements for ecology (i.e. decrease in the number of species or individuals > 40% from the baseline), while the individual number recorded complied the Action/Limit Level.
- 5.10 No intrusions of construction activities into the wetland areas nor adverse impact on the wetlands was found. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.
- 5.11 Photographic records are scheduled in six-month intervals and thus are not required in the present monthly monitoring. Fauna survey is conducted during the wetland season (April to July), and thus are not required in the present monthly monitoring.
- 5.12 Ecology Impact Monitoring Results are presented in the **Table 5-5**.

Table 5-5 Summary of Ecology Impact Monitoring Results

Scientific Name	Common Name	Abundance reported in the project profile	Abundance recorded in the present survey (12 Nov 07)
Birds			
Bubulcus ibis	Cattle Egret	0.4	
Ardeola bacchus	Chinese Pond Heron	0.8	2
Amaurornis phoenicurus	White-breasted Waterhen	Recorded only	1
Streptopelia chinensis	Spotted Dove	Recorded only	3
Hirundo rustica	Barn Swallow	Recorded only	
Motacilla alba	White Wagtail	Recorded only	
Pycnonotus jocosus	Red-whiskered Bulbul	Recorded only	2
Pycnonotus sinesis	Chinese Bulbul	Recorded only	2
Lanius schach	Long-tailed Shrike	Recorded only	
Copsychus saularis	Oriental Magpie Robin	Recorded only	1
Orthotomus sutorius	Common Tailorbird	Recorded only	
Lonchura striata	White-rumped Munia	Recorded only	
Passer montanus	Eurasian Tree Sparrow	Recorded only	5
Sturnus nigricollis	Black-collared Starling	Recorded only	5
Acridotheres cristatellus	Crested Myna	Recorded only	3
Prinia flaviventris	Yellow-bellied Prinia	1	
Eudynamis scolopacea	Common Koel		
Halcyon smyrnensis	White-throated Kingfisher	1	
Garrulax perspicillatus	Masked Laughingthrush		
Zosterops japonica	Japanese White Eye		3
Lonchura punctulata	Scaly-breasted Munia		
Species Number		15 spp. recorded, (only 2 species of wetland birds with abundance)	10 spp. (1 sp. from the wetland birds with abundance in the baseline)
Individual Number		1.2 (from the 2 species of wetland birds with abundance)	27 (2 from from the wetland birds with abundance in the baseline)

^{*}Wetland dependent species recorded with abundance during the baseline study with the names bolded



6.0 WASTE MANAGEMENT

6.01 The waste management was implemented by on-site Environmental Officer or Environmental Supervisor from time to time.

RECORDS OF WASTE QUANTITIES

- 6.02 All types of waste arising from the construction work are classified into the following:
 - Construction & Demolition (C&D) Material;
 - Chemical Waste:
 - General Refuse; and
 - Excavated Soil.
- 6.03 The quantities of waste for disposal in this reporting period are summarized in **Tables**6-1 and 6-2. Whenever possible, materials were reused on-site as far as practicable.

Table 6-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Quantity	Disposal Location
Broken Concrete (Inert) (m ³)	0	Public Filling
Reused in this Contract (Inert) (m ³)	0	N/A
Reused in other Projects (Inert) (m ³)	0	N/A
Disposal as Public Fill (Inert) (m ³)	6, 755	Tuen Mun Area 38

Table 6-2 Summary of Quantities of C&D Wastes

Type of Waste	Quantity	Disposal Location
Recycled Metal (kg)	0	NA
Recycled Paper / Cardboard Packing (kg)	0	NA
Recycled Plastic (kg)	0	NENT Landfill
Chemical Wastes (kg)	0	License Collector
General Refuses (m ³)	63	NENT Landfill

6.04 The quantities of excavation soil for marine disposal in this reporting period are summarized in **Table 6-3**.

Table 6-3 Summary of Excavated Soil for Marine Disposal

Type of Waste	Quantity	Disposal Location
Type 1 Materials (m ³)	0	East Sha Chau (Pitch 4a & 4b)
Type 2 Materials (m ³)	365	East Sha Chau (Pitch 4c)

7.0 SITE INSPECTION

- 7.01 According to the EM&A Manual Section 9.1.2, the environmental site inspection should been formulation by ET Leader. ET had carried out the environmental site inspection on 31 October, 08, 15 and 22 November 2007 with the Representatives of the Engineer and the Contractor to evaluate the site environmental performance in this reporting period. The monthly site audit conducted on 15 November 2007 by IEC's representative with the representatives of the Engineer, the Contractor and ET's representative. No non-compliance and eleven observations were noted.
- 7.02 The details of observation during the site inspections and monthly audit as follows:
 - Standing water accumulated on-site was found at CH290, the Contractor was reminded to clean more frequency after each the rainy day;



- Discharge water from the sedimentation tank directly hit on the exposed surface, the Contractor was reminded to provide the tarpaulin sheet to protect the exposed surface to prevent the any soil runoff from the discharge water into the stream:
- Fugitive dusts emission from the dry haul road was observed at CH080-150. The Contractor was reminded to provide water spray more frequency on the dry and windy season;
- Some C&D wastes accumulated on-site was found at CH 015-020. The Contractor was reminded to clean up and disposal the C&D wastes in regular basis;
- Stagnant water accumulated on-site next to the wheel washing bay was observed. The Contractor was reminded to clean up in regular basis;
- According to the EP Condition 1.5, full set copy of the EP should display at all vehicular site entrance/exit. The Contractor was reminded to display full set copy of EP at all vehicular site entrance;
- The Contractor was reminded to review the frequency of haul road watering;
- C&D waste was observed at U-channel at CH15-20;
- Stagnant water was observed nearby wheel washing bay at CH40;
- Plastic tube connected to the sedimentation tank was broken; Contractor was reminded to repair immediately; and
- Waste skip was observed full at the site office, contractor was reminded to clean the general waste more frequency.
- 7.03 The ET site inspection checklists are shown in **Appendix J**. In general, the construction area of KT15 was kept clean and tidy.
- 7.04 No site inspection was undertaken by external parties in this reporting period.

8.0 ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

8.01 No environmental complaint, summons and prosecution was received in this reporting period. The statistical summary table of environmental complaint is presented in **Table 8-1, 8-2** and **8-3**.

Table 8-1 Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics				
noporting remot	Frequency	Cumulative	Complaint Nature		
Jul 2007 – October 2007	0	0	NA		
November 2007	0	0	NA		

Table 8-2 Statistical Summary of Environmental Summons

Reporting Period	Environmental Summons Statistics				
Reporting 1 criou	Frequency	Cumulative	Nature		
Jul 2007 – October 2007	0	0	NA		
November 2007	0	0	NA		

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Prosecution Statistics									
reporting remou	Frequency	Cumulative	Nature							
Jul 2007 – October 2007	0	0	NA							
November 2007	0	0	NA							



9.0 IMPLEMENTATION STATUS OF MITIGATION MEASURES

- 9.01 CCC has been implementing the required environmental mitigation measures according to the EM&A Manual of KT15 Mitigation Measures Implementation Schedule.
- 9.02 A summary of environmental mitigation measures generally implemented by CCC in this reporting period is presented as follows;

Water Quality

- Wastewater were appropriately treated by treatment facilities;
- Drainage channels were provided to convey run-off into the treatment facilities;
- Drainage systems were regularly and adequately maintained.

Air Quality

- Vehicles were cleaned of mud and debris before leaving the site;
- Site vehicles were limited to within 8 km/hr;
- Public roads around the site entrance/exit had been kept clean and free from dust:
- Dust suppression measures were properly provided to reduce dust emission from stockpile.

Noise

- Works and equipment were located to minimise noise nuisance from the nearest sensitive receiver;
- Idle equipments were either turned off or throttled down;
- Some of the Powered Mechanical Equipments were covered or shielded by appropriate acoustic materials if practicable.

Waste and Chemical Management

- Wastes were properly segregated into inert and non-inert in appropriate containers/areas;
- Excavated materials were reused where practicable.
- A chemical waste storage area had been provided on site;

General

• The site was generally kept tidy and clean.



10.0 IMPACT FORECAST

KEY ISSUES FOR THE COMING MONTH

- 10.01 Key issues to be considered in the coming month include:
 - Implementation of dust suppression measures at all times;
 - Potential wastewater quality impact due to surface runoff;
 - Potential fugitive dust quality impact due to dry/windy season (November to March) from the dry/loose/exposure soil surface/dusty material;
 - Disposal of empty engine oil containers within site area;
 - Ensure dust suppression measures are implemented properly;
 - Sediment catch-pits and silt removal facilities should be regularly maintained;
 - Management of chemical wastes;
 - Discharge of site effluent to the nearby wetland, stockpiling or disposal of materials, and any dredging or construction area at this area are prohibited;
 - Follow-up of improvement on general waste management issues; and
 - Implementation of construction noise preventative control measures.
- 10.02 The tentative 3-month rolling program is presented in **Appendix B**.

11.0 CONCLUSION

11.01 The EM&A program in November 2007 was undertaken in compliance with the EM&A Manual for KT15. A summary of environmental compliance of air, noise, stream water quality and ecology in this reporting period are presented in **Table 11-1**.

Table 11-1 Summary of the Exceedances for Impact Monitoring

Env. Quality	Parameters	Work-Related Exceedance %	Investigation & Corrective Actions
Air	1-Hour TSP	0	Not Required for 0% Exceedance
Quality	24-Hour TSP	0	Not Required for 0% Exceedance
Noise	Leq (30min) Daytime	0	Not Required for 0% Exceedance
	Dissolve Oxygen (DO) in mg/L	0	Not Required for 0% Exceedance
	Suspended Solids (SS) in mg/L	0	Not Required for 0% Exceedance
Stream	Turbidity (NTU)	0	Not Required for 0% Exceedance
Water	pH	0	Not Required for 0% Exceedance
	Ammonia Nitrogen (mg/L)	0	Not Required for 0% Exceedance
	Zinc (µg/L)	0	Not Required for 0% Exceedance
Ecology	Decrease in the total number of species or individuals of wetland dependent bird from baseline	0	Not Required for 0% Exceedance

- 11.02 No 1-Hour and 24-Hour TSP exceeded the Action/Limit Level was recorded in this reporting period.
- 11.03 All measured daytime construction noise levels were below the Limit level and no complaint was received in this reporting period.
- 11.04 No stream water quality exceeded the Action/Limit Level was recorded during the reporting period.
- 11.05 Although exceedance on the Limit Level for wetland bird species number (decrease >40%) on 12 November 2007. No intrusions into the wetland area/adverse impact on the wetlands were found during the reporting period. Based on the findings in the pervious monthly monitoring, the non-compliance in wetland dependent bird species and individual number was not caused by the project.



11.06 No environmental complaint, summons or prosecution was received in this reporting period.

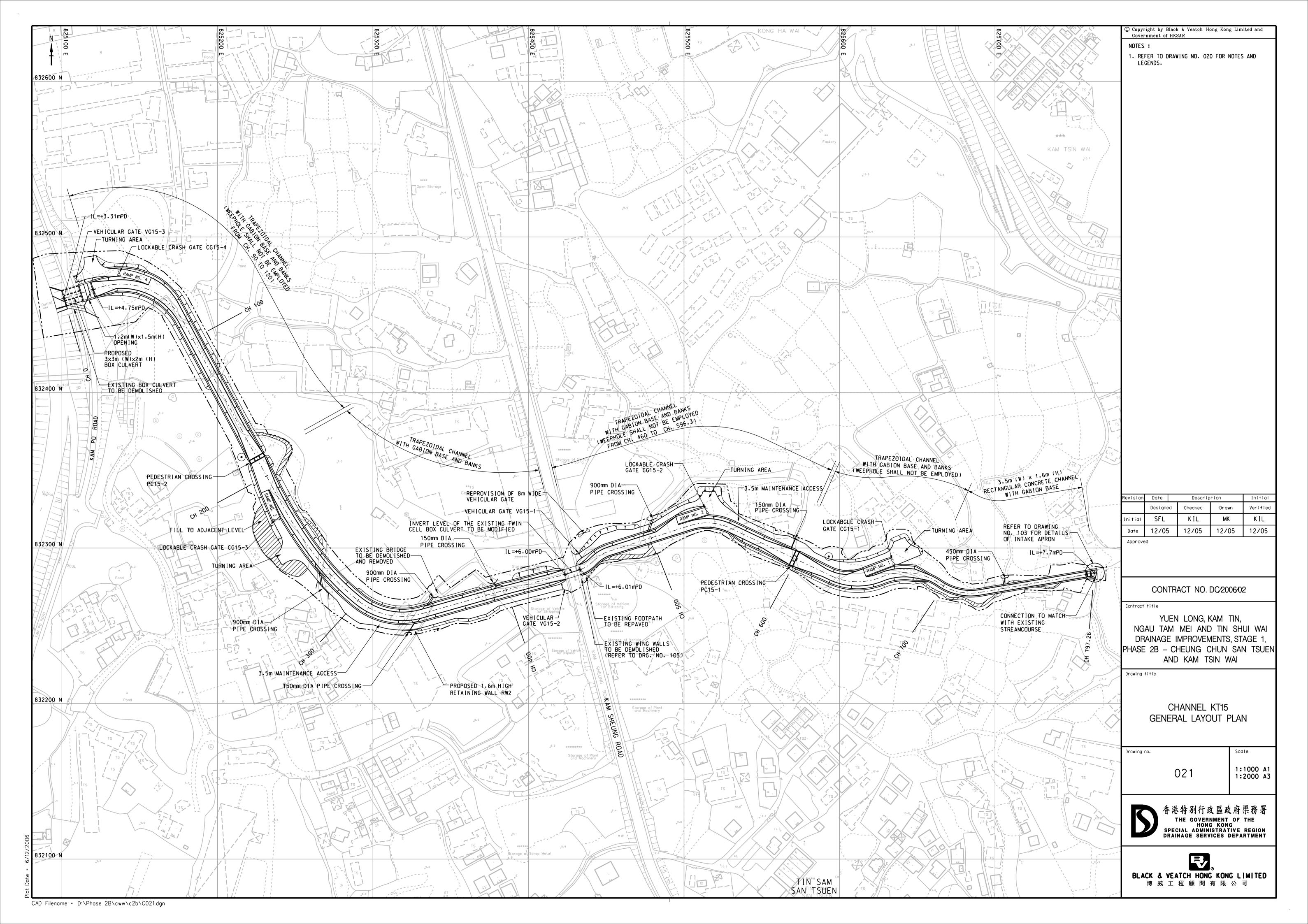
RECOMMENDATIONS

- 11.07 Based on the ET regular and monthly IEC site audit inspection records on 31 October, 08, 15 and 22 November 2007, no non-compliance and eleven observations were recorded. Details of the observations as follows:-
 - Standing water accumulated on-site was found at CH290, the Contractor was reminded to clean more frequency after each the rainy day;
 - Discharge water from the sedimentation tank directly hit on the exposed surface, the Contractor was reminded to provide the tarpaulin sheet to protect the exposed surface to prevent the any soil runoff from the discharge water into the stream;
 - Fugitive dusts emission from the dry haul road was observed at CH080-150. The Contractor was reminded to provide water spray more frequency on the dry and windy season;
 - Some C&D wastes accumulated on-site was found at CH 015-020. The Contractor was reminded to clean up and disposal the C&D wastes in regular basis;
 - Stagnant water accumulated on-site next to the wheel washing bay was observed. The Contractor was reminded to clean up in regular basis;
 - According to the EP Condition 1.5, full set copy of the EP should display at all vehicular site entrance/exit. The Contractor was reminded to display full set copy of EP at all vehicular site entrance;
 - The Contractor was reminded to review the frequency of haul road watering;
 - C&D waste was observed at U-channel at CH15-20;
 - Stagnant water was observed nearby wheel washing bay at CH40;
 - Plastic tube connected to the sedimentation tank was broken; Contractor was reminded to repair immediately; and
 - Waste skip was observed full at the site office, contractor was reminded to clean the general waste more frequency.
- 11.08 No site inspection was undertaken by external parties in this reporting period.
- 11.09 The ET will continue to implement the EM&A program and audit the implementation of the environmental mitigation measures.



Appendix A

Project Site Layout





Appendix B

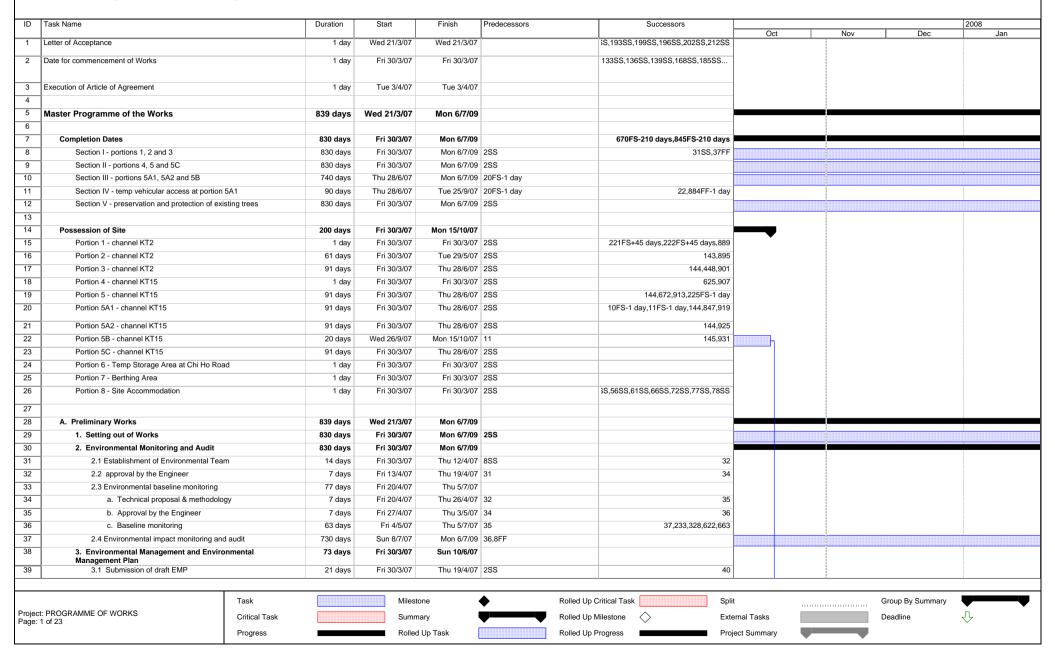
Three-Month Construction Program

DATE: AUG 2007

Contract No. : DC / 2006 / 02

Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,

Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai



ID	Task Name	Duration	Start	Finish	Predecessors	Successors				2008
							Oct	Nov	Dec	Jan
40	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07		41				
41	3.3 Submission of EMP	45 days	Fri 27/4/07	Sun 10/6/07	40					
42	4. Engineer's Accommodation	51 days	Fri 30/3/07	Sat 19/5/07						
43	4.1 Renovation	30 days	Fri 30/3/07	Sat 28/4/07	26SS	50FS-7 days				
44	4.2 Equipment	51 days	Fri 30/3/07	Sat 19/5/07						
45	a. Contract telephone	21 days	Fri 30/3/07	Thu 19/4/07						
46	b. Survey equipment	45 days	Fri 30/3/07	Sun 13/5/07	26SS					
47	c. Contract computer facilities	51 days	Fri 30/3/07	Sat 19/5/07						
48	submission	14 days	Fri 30/3/07	Thu 12/4/07		49				
49	approval	7 days	Fri 13/4/07	Thu 19/4/07		50				
50	installation	21 days	Sun 22/4/07		49,43FS-7 days	51				
51	testing & commissioning	7 days	Sun 13/5/07	Sat 19/5/07						
52	4.3 utilities servicing	33 days	Fri 30/3/07	Tue 1/5/07						
53	a. Water	1 day	Fri 30/3/07	Fri 30/3/07						
54	b. Electricity	1 day	Fri 30/3/07	Fri 30/3/07	2655					
55	c. Telephone	33 days	Fri 30/3/07	Tue 1/5/07	0000	5000 11 1				
56	temporary service	32 days	Fri 30/3/07	Mon 30/4/07		58SS+14 days				
57	new service	19 days	Fri 13/4/07	Tue 1/5/07						
58	application	5 days	Fri 13/4/07		56SS+14 days	59				
59	installation	14 days	Wed 18/4/07	Tue 1/5/07	58					
60	d. Facsimile	33 days	Fri 30/3/07	Tue 1/5/07	0000	0000 444				
61	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	2055	63SS+14 days				
62	new service application	19 days	Fri 13/4/07 Fri 13/4/07	Tue 1/5/07	C1CC + 1.1 dove	64				
64	installation	5 days	Wed 18/4/07	Tue 1/5/07	61SS+14 days	64				
65	e. Internet broadband	14 days	Fri 30/3/07	Tue 1/5/07						
66	temporary service (56K)	32 days	Fri 30/3/07	Mon 30/4/07		68SS+14 days				
67	new service	19 days	Fri 13/4/07	Tue 1/5/07		0000+14 days				
68	application	5 days	Fri 13/4/07		66SS+14 days	69				
69	installation	14 days	Wed 18/4/07	Tue 1/5/07						
70	5. Contractor's Accommodation	45 days	Fri 30/3/07	Sun 13/5/07						
71	5.1 Provision	45 days	Fri 30/3/07	Sun 13/5/07						
72	a. Premises	45 days	Fri 30/3/07	Sun 13/5/07		73FF,74FF,75FF,76FF				
73	b. Toilet facilities	21 days	Mon 23/4/07	Sun 13/5/07		939				
74	c. Telephone service	30 days	Sat 14/4/07	Sun 13/5/07		99FF				
75	d. Fascimile service	30 days	Sat 14/4/07	Sun 13/5/07						
76	e. Internet broadband service	30 days	Sat 14/4/07	Sun 13/5/07						
77	f. Water	1 day	Fri 30/3/07	Fri 30/3/07						
78	g. electricity	1 day	Fri 30/3/07	Fri 30/3/07						
79	6. Transport (land) for the Engineer	124 days	Fri 30/3/07	Tue 31/7/07						
80	6.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS	81				
81	6.2 comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	80	82				
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	Task		Miles	tone	Rolled U	p Critical Task Spli	t		Group By Summary	_
	PROGRAMME OF WORKS Critical Task		Sumr	nary	Rolled U	p Milestone 🔷 Exte	ernal Tasks		Deadline	7
Page: 2	2 of 23 Progress			d Up Task	<u> </u>	. •	ect Summary			~
<u> </u>	Flogress		Rolle	u op iask	Nulled U	pri rogress Proj	out Junillary			

ID	Task Name	Duration	Start	Finish	Predecessors	Successors					2008
			E 1 22 / / /2E	-			Oct	l N	lov	Dec	Jan
82	6.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07		83FF					
83	6.4 temp service	124 days	Fri 30/3/07	Tue 31/7/07	· .						
84	7. Transport (land) for Public Works Regional Laboratory	124 days	Fri 30/3/07	Tue 31/7/07							
85	7.1 submission	7 days	Fri 30/3/07	Thu 5/4/07		86					
86	7.2 comment, approval & instruction	14 days	Fri 6/4/07	Thu 19/4/07		87					
87	7.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	86						
88	8. Signboard	150 days	Fri 30/3/07	Sun 26/8/07							
89	8.1 Major	150 days	Fri 30/3/07	Sun 26/8/07							
90	submission	90 days	Fri 30/3/07	Wed 27/6/07		91SS+30 days					
91	comment & approval	90 days	Sun 29/4/07		90SS+30 days	92SS+30 days					
92	erection	90 days	Tue 29/5/07		91SS+30 days						
93	8.2 Minor	150 days	Fri 30/3/07	Sun 26/8/07							
94	submission	90 days	Fri 30/3/07	Wed 27/6/07		95SS+30 days					
95	comment & approval	90 days	Sun 29/4/07		94SS+30 days	96SS+30 days					
96	erection	90 days	Tue 29/5/07		95SS+30 days						
97	9. Telephone hotline	15 days	Sun 29/4/07	Sun 13/5/07							
98	9.1 Engineer's instruction	1 day	Sun 29/4/07	Mon 30/4/07							
99	9.2 installation	14 days	Mon 30/4/07	Sun 13/5/07		98SF					
100	10. Contractual general submissions	839 days	Wed 21/3/07	Mon 6/7/09							
101	10.1 programmes	28 days	Wed 21/3/07	Tue 17/4/07							
102	a. GCC Clause 16 programme	14 days	Wed 21/3/07	Tue 3/4/07		103,104					
103	b. Works programme & financial programme	14 days	Wed 4/4/07	Tue 17/4/07							
104	c. 3-month rolling programme	14 days	Wed 4/4/07	Tue 17/4/07							
105	10.2 contractor's superintendence	14 days	Fri 30/3/07	Thu 12/4/07							
106	a. Agent	7 days	Fri 30/3/07	Thu 5/4/07							
107	b. Surveyor	14 days	Fri 30/3/07	Thu 12/4/07							
108	c. Sub-agent	14 days	Fri 30/3/07	Thu 12/4/07							
109	d. Geotechnical Engineer	7 days	Fri 30/3/07	Thu 5/4/07							
110	e. Geotechnical Supervisor	14 days	Fri 30/3/07	Thu 12/4/07							
111	f. Foreman - concrete	14 days	Fri 30/3/07	Thu 12/4/07							
112	g. Foreman - drainage	14 days	Fri 30/3/07	Thu 12/4/07							
113	h. Staff Organization Plan	14 days	Fri 30/3/07	Thu 12/4/07							
114	10.3 Safety Organization	14 days	Fri 30/3/07	Thu 12/4/07							
115	a. Safety Officer	14 days	Fri 30/3/07	Thu 12/4/07							
116	b. Safety Supervisor	14 days	Fri 30/3/07	Thu 12/4/07							
117	c. Safety Representative	14 days	Fri 30/3/07	Thu 12/4/07							
118	10.4 TTMS design	7 days	Fri 30/3/07	Thu 5/4/07							
119	a. Independent Traffic Consultant	7 days	Fri 30/3/07	Thu 5/4/07							
120	b. Traffic Engineer	7 days	Fri 30/3/07	Thu 5/4/07							
121	10.5 Assistant to Engineer	33 days	Fri 30/3/07	Tue 1/5/07							
122	a. Chainmen (4)	33 days	Fri 30/3/07	Tue 1/5/07							
123	b. Watchmen (2)	33 days	Fri 30/3/07	Tue 1/5/07	2SS						
	Task		Miles	tone	Rolled Up	Critical Task Spl	lit			Group By Summary	
	PROGRAMME OF WORKS Critical Task		Sumr	narv			ternal Tasks			Deadline	
Page: 3	3 Of 23			•						Doddille	
	Progress		Kolle	d Up Task	Rolled Up	Progress	ject Summary				

ID	Task Name	Duration	Start	Finish	Predecessors	Successors						2008
101	5.11		F : 00/0/27	T 4/-/2-	1000			Od	ct	Nov	Dec	Jan
124	c. Field assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07								
125	d. Technical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07								
126	e. Clerical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07								
127	f. Office assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07								
128	10.6 Underground service detection equipment	35 days	Fri 30/3/07	Thu 3/5/07								
129	a. Submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS		130					
130	b. Comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	129		131					
131	c. Provision	14 days	Fri 20/4/07	Thu 3/5/07	130							
132	10.7 Independent Checking of Temporary Works	28 days	Fri 30/3/07	Thu 26/4/07								
133	Submission of independent checking engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS		134					
134	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	133							
135	10.8 Trip ticket system for C & D material	59 days	Fri 30/3/07	Sun 27/5/07								
136	Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/07	2SS		137					
137	b. Comment & approval	14 days	Mon 14/5/07	Sun 27/5/07	136							
138	10.9. Condition survey and structral monitoring	830 days	Fri 30/3/07	Mon 6/7/09								
139	a. Submission of Independent Structural Engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS		140					
140	b. Comment & approval	7 days	Fri 13/4/07	Thu 19/4/07	139		142					
141	c. Proposal for condition survey & structural monitoring	209 days	Fri 20/4/07	Wed 14/11/07								
142	Portion 1, 4, 6, 7, 8	30 days	Fri 20/4/07	Sat 19/5/07	140		147			•		
143	Portion 2	30 days	Wed 30/5/07	Thu 28/6/07			148					
144	Portion 3, 5, 5A1, 5A2	30 days	Fri 29/6/07		17,19,20,21		149					
145	Portion 5B	30 days	Tue 16/10/07	Wed 14/11/07				lays				
146	d. Comment & approval	193 days	Sun 20/5/07	Wed 28/11/07			100	ays				
147	Portion 1, 4, 6, 7, 8	14 days	Sun 20/5/07	Sat 2/6/07			152					
148	Portion 2	14 days	Fri 29/6/07	Thu 12/7/07			153					
149	Portion 3, 5, 5A1, 5A2		Sun 29/7/07	Sat 11/8/07			154					
		14 days					155				1	
150	Portion 5B	14 days	Thu 15/11/07	Wed 28/11/07			155		40 (lays	<u> </u>	
151	e. Condition survey & structural monitoring	765 days	Sun 3/6/07	Mon 6/7/09								
152	Portion 1, 4, 6, 7, 8	765 days	Sun 3/6/07	Mon 6/7/09								
153	Portion 2	725 days	Fri 13/7/07	Mon 6/7/09								,
154	Portion 3, 5, 5A1, 5A2	695 days	Sun 12/8/07	Mon 6/7/09							↓	·
155	Portion 5B	546 days	Thu 29/11/07	Wed 27/5/09	150					40 days		
156	10.10 Handling & disposal of Type 1 & 2 contaminated mater	al: 74 days	Sat 14/7/07	Tue 25/9/07								
157	a. Proposed type of dump truck	44 days	Sun 15/7/07	Mon 27/8/07								
158	Submission	30 days	Sun 15/7/07	Mon 13/8/07	705SS-44 days		159					
159	Comment & approval	14 days	Tue 14/8/07	Mon 27/8/07								
160	b. Proposal of berthing area arrangement	44 days	Mon 30/7/07	Tue 11/9/07								
161	Submission	30 days	Mon 30/7/07	Tue 28/8/07			162					
162	Comment & approval	14 days	Wed 29/8/07	Tue 11/9/07	161		938					
163	c. Proposal of disposal arrangement	74 days	Sat 14/7/07	Tue 11/9/07								
164	Submission	60 days	Sat 14/7/07	Tue 23/3/07			165					
165	Comment & approval	14 days	Wed 12/9/07	Tue 11/9/07	164		-105					
100	Comment & approval	14 days	vveu 12/9/07	1 ue 25/9/07	104							
	Task		Milest	one		Rolled Up Critical Task	Split		11111000		Group By Summary	
	t: PROGRAMME OF WORKS Critical Task		Summ	narv		Rolled Up Milestone	External T	Tasks			Deadline	
Page: 4	4 of 23			•		·						
l	Progress		Rolled	l Up Task		Rolled Up Progress	Project Su	ırnmar	у			

ID	Task Name	Duration	Start	Finish	Predecessors	Successors					2008
						Guddessord	0	ct	Nov	Dec	Jan
166	10.11 Handling & treatment of Type 3 contaminated mate	rial 581 days	Fri 30/3/07	Thu 30/10/08							
167	a. Decontamination specialist	134 days	Fri 30/3/07	Fri 10/8/07							
168	Submission	120 days	Fri 30/3/07	Fri 27/7/07	2SS	169	9				
169	Comment & approval	14 days	Sat 28/7/07	Fri 10/8/07	168	17	ī				
170	b. Statement & treatment programme	42 days	Sat 11/8/07	Fri 21/9/07			-				
171	(1) Submission	28 days	Sat 11/8/07	Fri 7/9/07	169	173,174	1				
172	(2) Comment & approval	14 days	Sat 8/9/07	Fri 21/9/07							
173	by the Engineer	14 days	Sat 8/9/07	Fri 21/9/07	171						
174	by the EPD	14 days	Sat 8/9/07	Fri 21/9/07	171	175	5				
175	c. Setting up of Treatment Plant	60 days	Mon 1/9/08	Thu 30/10/08	174,529SS-61 days		-				
176	10.12 Safety Plan	35 days	Wed 21/3/07	Tue 24/4/07							
177	a. Submission of draft Safety Plan	14 days	Wed 21/3/07	Tue 3/4/07	1SS	178	3				
178	b. Comment by the Engineer	7 days	Wed 4/4/07	Tue 10/4/07	177	179	9				
179	c. Submission of Safety Plan	14 days	Wed 11/4/07	Tue 24/4/07			-				
180	10.13 Sub-contractor Management Plan	839 days	Wed 21/3/07	Mon 6/7/09							
181	a. Submission of SMP	30 days	Wed 21/3/07	Thu 19/4/07		182	2				
182	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/07	181	183	3				
183	c. Update SMP	795 days	Fri 4/5/07	Mon 6/7/09	182						
184	10.14 proof of plant ownership	830 days	Fri 30/3/07	Mon 6/7/09							
185	a. Submission of draft written undertaking	14 days	Fri 30/3/07	Thu 12/4/07	2SS	186	3				
186	b. Comment by the Engineer / Employer	14 days	Fri 13/4/07	Thu 26/4/07		187					
187	c. Engineer's request	802 days	Fri 27/4/07	Mon 6/7/09		-					
188	10.15 Contractor's Management Team	830 days	Fri 30/3/07	Mon 6/7/09							
189	a. Submission of staff member details	14 days	Fri 30/3/07	Thu 12/4/07		190)				
190	b. Update management / site supervision team	816 days	Fri 13/4/07	Mon 6/7/09							
191	10.16 Water supply pipeworks material	28 days	Wed 21/3/07	Tue 17/4/07							
192	a. Supplier	28 days	Wed 21/3/07	Tue 17/4/07			-				
193	Submission	14 days	Wed 21/3/07	Tue 3/4/07		194	1				
194	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	193		-				
195	b. Manufacturer	28 days	Wed 21/3/07	Tue 17/4/07	<u> </u>		-				
196	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS	197	7				
197	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07							
198	c. Independent Inspection Agent (IIA)	28 days	Wed 21/3/07	Tue 17/4/07			-				
199	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS	200					
200	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07							
201	d. Representative of the IIA	28 days	Wed 21/3/07	Tue 17/4/07			-				
202	Submission	14 days	Wed 21/3/07	Tue 3/4/07		203	3				
203	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	202						
204	10.17 Landscape softworks and establishment works	28 days	Fri 30/3/07	Thu 26/4/07			-				
205	a. Submission of technical information	14 days	Fri 30/3/07	Thu 12/4/07		200	3				
206	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	205						
207	10.18 Preservation and protection of existing trees	59 days	Wed 21/3/07	Fri 18/5/07							
	· · ·								<u> </u>		
L .	Task		Miles	tone	Rolled L	Jp Critical Task Sp	olit			Group By Summary	
	t: PROGRAMME OF WORKS 5 of 23 Critical Task		Sumr	nary	Rolled L	Jp Milestone Ex	ternal Tasks			Deadline	
3	Progress		Rolle	d Up Task	Rolled L	lp Progress Pr	oject Summa	ry			
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ID .	ask Name		Duration	Start	Finish	Predecessors	Successors				2008	
								Oct	Nov	Dec	Jar	n
208	Specialist contractor (landscaping 0)	Class I)	28 days	Fri 30/3/07	Thu 26/4/07							
209	Submission		14 days	Fri 30/3/07	Thu 12/4/07		210					
210	Comment & approval		14 days	Fri 13/4/07	Thu 26/4/07	209						
211	 b. Site supervisory staff 		59 days	Wed 21/3/07	Fri 18/5/07							
212	Submission		45 days	Wed 21/3/07	Fri 4/5/07	1SS	213					
213	Comment & approval		14 days	Sat 5/5/07	Fri 18/5/07	212	891,897,903,909,915,921,927,933					
214	10.19 Concrete (ready mix)		28 days	Fri 30/3/07	Thu 26/4/07							
215	 a. Submission of supplier & design mis 	x	21 days	Fri 30/3/07	Thu 19/4/07	2SS	216					
216	b. Comment & approval		7 days	Fri 20/4/07	Thu 26/4/07	215						
217	10.20 Steel reinforcement		35 days	Fri 30/3/07	Thu 3/5/07							
218	a. Submission of supplier		28 days	Fri 30/3/07	Thu 26/4/07	2SS	219					
219	b. Comment & approval		7 days	Fri 27/4/07	Thu 3/5/07	218		-				
220	10.21 Submissions of method statement / r	materials	750 days	Tue 15/5/07	Tue 2/6/09							
221	a. Submission of materials		750 days	Tue 15/5/07	Tue 2/6/09	15FS+45 days						
222	b. Submission of method statement		750 days	Tue 15/5/07		15FS+45 days						
223	11. Provision of wheel washing facilities		180 days	Fri 30/3/07	Tue 25/9/07							
224	11.1 Channel KT2		120 days	Fri 30/3/07	Fri 27/7/07	2SS	233,328,448,471	-				
225	11.2 Channel KT15		90 days	Thu 28/6/07	Tue 25/9/07		622,663SS+75 days	-				
226	11.3 Berthing area		90 days	Fri 30/3/07	Wed 27/6/07		491					
227	11.4 Portion 6		45 days	Fri 30/3/07	Sun 13/5/07		897		7			
228	12. Setting up of traffic management liaison		30 days	Fri 30/3/07	Sat 28/4/07		697					
	12. Setting up of traffic management haison	group	30 days	FII 30/3/07	Sat 26/4/07	200						
229	D. Canting Laftha Washin		000 -1	F-: 20/2/07	M C/7/00							
230	B. Section I of the Works		830 days	Fri 30/3/07	Mon 6/7/09							
231	B1. Portion 1		790 days	Fri 30/3/07	Wed 27/5/09							
232	1. Site clearance		30 days	Sat 28/7/07	Sun 26/8/07							
233	1.1 General site clearance		30 days	Sat 28/7/07		36,224,893,891						
234	2. Temporary Traffic Management Scher		59 days	Fri 30/3/07	Sun 27/5/07							
235	2.1 TTMS Proposal (trial pits in Chi Ho	Road for utilities)	59 days	Fri 30/3/07	Sun 27/5/07							
236	a. Submission		45 days	Fri 30/3/07	Sun 13/5/07		237					
237	b. comments & approvals by Eng		14 days	Mon 14/5/07	Sun 27/5/07	236	242					
238	2.2 TTMS Proposal (for construction of	box culvet)	59 days	Fri 30/3/07	Sun 27/5/07							
239	a. Submission		45 days	Fri 30/3/07	Sun 13/5/07		240					
240	b. comments & approvals by Eng	ineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	239	243					
241	3. Excavation Permits		521 days	Mon 28/5/07	Wed 29/10/08							
242	3.1 application and issue of permit (tria	l pits in Chi Ho Road	180 days	Mon 28/5/07	Fri 23/11/07	237	246		T h	ı		
243	3.2 application and issue of permits (for	or construction of	180 days	Sat 3/5/08	Wed 29/10/08	240	263					
244	box culvert) 4. Underground utilities detection		253 days	Fri 30/3/07	Fri 7/12/07							
245	4.1 utilities detection		28 days	Fri 30/3/07	Thu 26/4/07	2SS	246					
246	4.2 trial trench excavtion & identification	nn .	14 days	Sat 24/11/07	Fri 7/12/07		254	-	577 do::-			
247				Thu 27/9/07	Sat 31/1/09	270,272	204		577 days			
247	5. Utilities temporary diversion / protect		493 days		Sat 31/1/09 Sun 17/8/08	20455	309FF					
	a. WSD watermain along village vehic		103 days	Wed 7/5/08								
249	b. Street lighting along village vehicula	ir access	103 days	Wed 7/5/08	Sun 17/8/08	28455	309FF					
		Task		Milest	one	Rolled	Up Critical Task Spl	it		Group By Summary		
Project:	PROGRAMME OF WORKS	Critical Task		Summ				ernal Tasks		Deadline		
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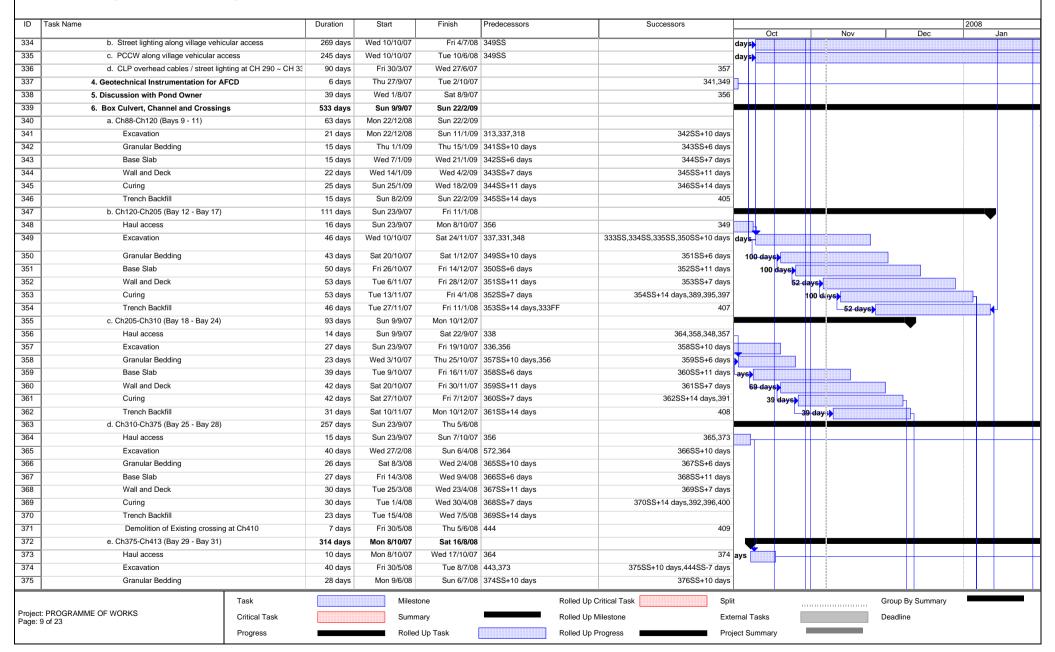
ID	Task Name	Duration	Start	Finish	Predecessors	Successors		ct	1	Nov	Dec	2008 Jan
250	c. PCCW along village vehicular access	103 days	Wed 7/5/08	Sun 17/8/08	284SS	309FF		Ci		INOV	Dec	Jan
251	d. CLP overhead cable at Bay 4	90 days	Thu 7/2/08	Tue 6/5/08	282	284						0
252	e. CH 816~CH841 underground cables (33kV)	42 days	Thu 27/9/07	Wed 7/11/07	259	253				1		
253	f. CH 816~CH841 underground cables (132kV)	56 days	Thu 8/11/07	Wed 2/1/08	252	292		281	days	7		i
254	g. Street lighting at Chi Ho Road	92 days	Sat 1/11/08	Sat 31/1/09	264SS,246	270FF						
255	h. Irrigation pipe at Chi Ho Road	92 days	Sat 1/11/08	Sat 31/1/09	264SS	270FF						
256	6. Drainage Management Plan (Ch810 to Ch850)	77 days	Thu 12/7/07	Wed 26/9/07								
257	6.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07		258						
258	6.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	257	259SF						
259	6.3 Implementation of DMP	3 days	Mon 24/9/07	Wed 26/9/07	258SF	252						
260	7. Box Culvert and Channel	550 days	Wed 1/8/07	Sat 31/1/09					-			
261	7.1 Box Culvert BC2-1	550 days	Wed 1/8/07	Sat 31/1/09								
262	a. Ch0-Ch15 (Bay 1 and Outlet)	94 days	Thu 30/10/08	Sat 31/1/09								
263	Remove road pavement and expose existing utiliti	2 days	Thu 30/10/08	Fri 31/10/08	243,324	264						
264	Excavation	9 days	Sat 1/11/08	Sun 9/11/08	263	254SS,255SS,265						
265	Granular Bedding	5 days	Mon 10/11/08	Fri 14/11/08	264	266						
266	Base Slab	21 days	Sat 15/11/08	Fri 5/12/08	265	267						
267	Wall and Deck	31 days	Sat 6/12/08	Mon 5/1/09	266	268						
268	Curing	14 days	Tue 6/1/09	Mon 19/1/09	267	269						
269	Trench Backfill	3 days	Tue 20/1/09	Thu 22/1/09	268,390FF,391FF,392FF,395FF,3	308						
270	Reinstatement of Chi Ho Road	6 days	Mon 26/1/09	Sat 31/1/09	254FF,255FF,308	320						
271	b. Temporary Bund in AFCD Pond	87 days	Wed 1/8/07	Fri 26/10/07								
272	1. Proposal	31 days	Wed 1/8/07	Fri 31/8/07		273		•				
273	2. Comments by the Engineer and AFCD	30 days	Sat 1/9/07	Sun 30/9/07	272	274	-					
274	3.Modified chain link fence	11 days	Mon 1/10/07	Thu 11/10/07	273	275						
275	4. Construction of temporary bund	15 days	Fri 12/10/07	Fri 26/10/07	274	277	0 days	Ь				
276	c. Ch15-Ch32 (Bays 2 & 3)	103 days	Sat 27/10/07	Wed 6/2/08				U				
277	Excavation	25 days	Sat 27/10/07	Tue 20/11/07	275	278	1	days				
278	Granular Bedding	7 days	Wed 21/11/07	Tue 27/11/07	277	279		- 1		0 days	h	
279	Base Slab	18 days	Wed 28/11/07	Sat 15/12/07	278	280				0 days	<u> </u>	
280	Wall and Deck	32 days	Sun 16/12/07	Wed 16/1/08	279	281					0 days	<u> </u>
281	Curing	14 days	Thu 17/1/08	Wed 30/1/08	280	282						0 days
282	Trench Backfill	7 days	Thu 31/1/08	Wed 6/2/08	281	251						0 days
283	d. Ch32-Ch88 (Bays 4 - 8)	137 days	Wed 7/5/08	Sat 20/9/08								
284	Excavation	50 days	Wed 7/5/08	Wed 25/6/08	251,321	285SS+10 days,248SS,249SS,250SS						
285	Granular Bedding	60 days	Sat 17/5/08	Tue 15/7/08	284SS+10 days	286SS+6 days	1					
286	Base Slab	75 days	Fri 23/5/08	Tue 5/8/08	285SS+6 days	287SS+9 days	1					
287	Wall and Deck	87 days	Sun 1/6/08	Tue 26/8/08	286SS+9 days	288SS+16 days						
288	Curing	85 days	Tue 17/6/08	Tue 9/9/08	287SS+16 days	289SS+14 days						
289	Trench Backfill	82 days	Tue 1/7/08	Sat 20/9/08	288SS+14 days	309	1					
290	7.2 Channel	339 days	Thu 3/1/08	Sat 6/12/08			1					
291	a. Ch840-Ch844 (Bay 56b)	91 days	Thu 3/1/08	Wed 2/4/08								
	Task		Milesto	ne	Rolled Up C	Critical Task Spl	it				Group By Summary	
	ct: PROGRAMME OF WORKS Critical Task		Summa	arv	Rolled Up N	Ailestone Evt	ernal Tasks				Deadline	
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	Progress		Rolled	Up Task	Rolled Up F	Progress Pro	ject Summa	ry				

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	1			2008
							Oct	Nov [Dec	Jan
292	Excavation (including contamination material			Sun 27/1/08		293			281 days	
293	Granular Bedding	3 days	Mon 28/1/08	Wed 30/1/08	292	294				281 days
294	Base Slab	22 days	Thu 31/1/08	Thu 21/2/08	293	295				281 days
295	Wall and Deck	23 days	Fri 22/2/08	Sat 15/3/08	294	296				
296	Curing	14 days	Sun 16/3/08	Sat 29/3/08	295	297				
297	Trench Backfill	4 days	Sun 30/3/08	Wed 2/4/08	296	311				
298	b. Demolition of existing crossing	20 days	Thu 11/9/08	Tue 30/9/08	311	300				
299	c. Ch800-840 (Bay 56a)	67 days	Wed 1/10/08	Sat 6/12/08						
300	Excavation (including contamination materia	als) 12 days	Wed 1/10/08	Sun 12/10/08	298	301				
301	Granular Bedding	3 days	Mon 13/10/08	Wed 15/10/08	300	302				
302	Base Slab	12 days	Thu 16/10/08	Mon 27/10/08	301	303				
303	Wall and Deck	22 days	Tue 28/10/08	Tue 18/11/08	302	304SS+10 days				
304	Curing	26 days	Fri 7/11/08	Tue 2/12/08	303SS+10 days	305SS+14 days				
305	Trench Backfill	16 days	Fri 21/11/08	Sat 6/12/08	304SS+14 days	312				
306	8. Filling in Platform	142 days	Sat 6/9/08	Sun 25/1/09						
307	8.1 Box Culvert	127 days	Sun 21/9/08	Sun 25/1/09						
308	a. Ch0-Ch15 (Bay 1 and Outlet)	3 days	Fri 23/1/09	Sun 25/1/09	269	270				
309	b. Ch15-Ch88 (Bay 2 to Bay 8)	10 days	Sun 21/9/08	Tue 30/9/08	289,248FF,249FF,250FF	315,316,323				
310	8.2 Channel	112 days	Sat 6/9/08	Fri 26/12/08						
311	a. Ch840-Ch844 (Bay 56b)	5 days		Wed 10/9/08		298	-			
312	b. Ch800-840 (Bay 56a)	20 days		Fri 26/12/08		588FF	-			
313	9. Geotechnical Instrumentation for CLP Pylon	4 days		Thu 27/9/07		341	-			
314	10. Drainage works (except Bays 56a and 56b)	45 days		Fri 14/11/08			-			
315	a. storm drain with manhole	30 days		Thu 30/10/08		317SS+30 days,318	-			
316	b. surface drain	45 days		Fri 14/11/08			-			
317	11. Water supply pipeworks	60 days			315SS+30 days		-			
318	12. Roads and paving (except Bays 56a and 56b)	52 days		Sun 21/12/08		319SS+30 days,341	-			
319	13. Street furnitures / traffic sign / road marking (exce	-			318SS+30 days		-			
320	14. Landscape softworks / hardworks (except Bays 5	6a and 84 days	Thu 5/3/09	Wed 27/5/09	42788 270	892FF	-			
321	15. Diversion of Village Vehicular Access to Bays 9-1			Sat 15/3/08	<u>'</u>	284,441SS-10 days	-			
322	16. Road Diversion in Chi Ho Road	8 days		Wed 8/10/08	'	204,44133-10 days	-			
323						324				
324	a. Construction of temporary road above Box Culvert			Tue 7/10/08 Wed 8/10/08		263				
325	b. Implementation of road diversion	1 day	vveu 6/10/06	Wed 6/10/06	323	263				
	Do D. C. O	000 1	E : 00/0/07							
326	B2. Portion 2	830 days		Mon 6/7/09						
327	1. Site clearance	90 days		Sun 11/11/07	00 007 004 000					
328	1.1 General clearance	90 days			36,897,224,899					
329	2. Underground utilities detection	42 days		Mon 13/8/07						
330	2.1 utilities detection	28 days		Mon 30/7/07		331,450				
331	2.2 trial trench excavtion & identification	14 days		Mon 13/8/07		349				
332	Utilities temporary diversion / protection	463 days		Fri 4/7/08						
333	WSD water main along village vehicular access	90 days	Wed 10/10/07	Mon 7/1/08	349SS	354FF	days			
	Task		Miles	tone	Rolled	d Up Critical Task Spl	it	Group By S	ummary	
Project: Page: 8	: PROGRAMME OF WORKS 3 of 23 Critical Task		Sumi	nary	Rolled	d Up Milestone Ext	ernal Tasks	Deadline		
	Progress		Rolle	d Up Task	Rolled	d Up Progress Pro	ject Summary			

DATE: AUG 2007

Contract No.: DC / 2006 / 02 Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,

Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai



ID	Task Name		Duration	Start	Finish	Predecessors	Successors				2008	
376	Base Slab		29 days	Thu 19/6/08	Thu 17/7/08	375SS+10 days	377SS+14 days	Oct	Nov	Dec		Jan
377	Wall and Deck		27 days	Thu 3/7/08		376SS+14 days	378SS+7 days					
378	Curing		34 days	Thu 10/7/08		377SS+7 days	379SS+14 days,393					
379	Trench Backfill		24 days	Thu 24/7/08		378SS+14 days	410					
380	f. Ch413-Ch436 (Bay 32)		87 days	Sat 1/3/08	Mon 26/5/08	-						
381	Flow diversion		7 days	Sat 1/3/08		382SS-7 days						
382	Excavation		15 days	Sat 8/3/08	Sat 22/3/08		381SS-7 days,383					
383	Granular Bedding		4 days	Sun 23/3/08	Wed 26/3/08		384					
384	Base Slab		14 days	Thu 27/3/08	Wed 9/4/08		385					
385	Wall and Deck		22 days	Thu 10/4/08	Thu 1/5/08		386					
386	Curing		11 days	Fri 2/5/08	Mon 12/5/08		387,398					
387	Trench Backfill		14 days	Tue 13/5/08	Mon 26/5/08		418SS,443,462SS					
388	6. Gabion		354 days	Sat 8/12/07	Tue 25/11/08		+1000,440,40200					
389	Ch120-Ch145.5 (Bay 12 - Bay 13)		19 days	Sat 5/1/08	Wed 23/1/08		390		'	250) dovo	
390	Ch163 - Ch205 (Bay 15 - Bay 17)		103 days	Thu 24/1/08	Mon 5/5/08		269FF			258) days	259 days
391	Ch205 - Ch310 (Bay 18 - Bay 24)		187 days	Sat 8/12/07	Wed 11/6/08		269FF		222 days	 		259 uays
392	Ch310 - Ch325, Ch348 - Ch375 (Ba	av 25. Ray 27 - Ray 28)	107 days	Thu 1/5/08	Wed 11/0/00 Wed 13/8/08		269FF		222 days			
393	Ch375 - CH413 (Bay29 - Bay31)	ay 23, Day 27 - Day 20)	105 days	Wed 13/8/08	Tue 25/11/08		269FF					
394	7. Granite Stone Facing		134 days	Sat 5/1/08	Sat 17/5/08		20311					
395	Ch100 -Ch120 (Bay 10 - Bay 11)		11 days	Sat 5/1/08	Tue 15/1/08		269FF			270) days	
396	Ch325 - Ch348 (Bay 26)		6 days	Thu 1/5/08	Tue 6/5/08		269FF			370	days	
397	Ch120 - Ch310 (Bay 20)		16 days	Sat 5/1/08	Sun 20/1/08		269FF			500	🛨	
398	Ch413 - Ch436 (Bay 32)		5 days	Tue 13/5/08	Sat 17/5/08		269FF			533	days	
399	8. Ramp No. 3 (Ch356 - Ch405)		17 days	Thu 1/5/08	Sat 17/5/08		20911					
400	General fill		-	Thu 1/5/08			401					
400	Granular fill and blinding		5 days 2 days	Tue 6/5/08	Mon 5/5/08 Wed 7/5/08		402					
	<u> </u>		•	Thu 8/5/08	Sat 17/5/08		402					
402 403	Road slab 8. Filling in Platform		10 days 450 days	Tue 11/12/07	Wed 4/3/09							
404	8.1 Box Culvert BC2-1		-	Mon 23/2/09	Wed 4/3/09							
404	a. Ch88-Ch120 (Bay 9 - Bay 1	1	10 days	Mon 23/2/09	Wed 4/3/09	246	413SS+10 days,420,427					
406	8.2 Channel and Crossing	1)	10 days 264 days	Tue 11/12/07	Sat 30/8/08		41333+10 days,420,421					
407	a. Ch120-Ch205 (Bay 12 - Bay	17\		Sat 12/1/08	Fri 8/2/08		414SS+7 days,421,428				50 de	
407	b. Ch205-Ch310 (Bay 18 - Bay		28 days 28 days	Tue 11/12/07	Mon 7/1/08		41455+7 days,421,426 415SS+7 days,422,429		20.1-	. +	52 days	5
409	c. Ch310-Ch375 (Bay 25 - Bay		31 days	Fri 6/6/08	Sun 6/7/08		416SS+7 days,422,429 416SS+7 days,423		39 da	/5		
410	d. Ch375-Ch413 (Bay 29 - Bay		14 days	Sun 17/8/08	Sat 30/8/08		417SS+10 days,424,430					
411	9. Drainage works	31)	463 days	Tue 18/12/07	Tue 24/3/09		41733+10 days,424,430					
411	9.1 storm drain with manhole and h	eadwall	463 days	Tue 18/12/07	Tue 24/3/09							
413	a. Ch88-Ch 120 (Bay 9 - Bay 1		20 days	Thu 5/3/09		405SS+10 days	425SS+30 days,427					
414	b. Ch120-Ch205 (Bay 12 - Bay 1		20 days	Sat 19/1/08		407SS+7 days	425S5+30 days,427				404	dayet
414	c. Ch205-Ch310 (Bay 18 - Bay		20 days	Tue 18/12/07		408SS+7 days	421		-	7 dovo	481	days
416	d. Ch310-Ch375 (Bay 25 - Bay	·	20 days	Fri 13/6/08		409SS+7 days			54	7 days		
416	e. Ch375-Ch413 (Bay 29 - Bay		20 days 25 days	Wed 27/8/08		410SS+10 days						
41/	е. Спз/э-Сп413 (вау 29 - вау	31)	∠o day\$	vveu 27/8/08	3at 20/9/08	41055+10 days						
		Task		Milest	one		Rolled Up Critical Task Split	t	Grou	By Summary		
	: PROGRAMME OF WORKS	Critical Task		Summ				ernal Tasks	Dead			
Page: 1							·		Deau			
		Progress		Rolled	l Up Task		Rolled Up Progress Proj	ect Summary				

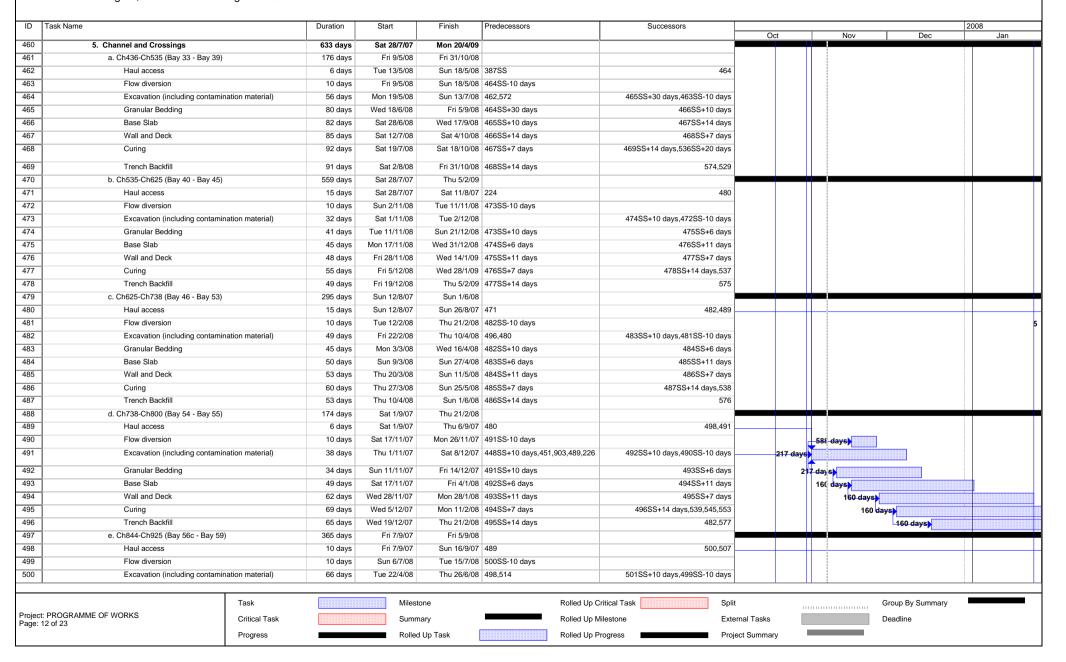
ID	Task Name	Duration	Start	Finish	Predecessors	Successors				2008
							Oct	Nov	Dec	Jan
418	f. Ch413-Ch436 (Bay 32)	4 days		Fri 16/5/08						
419	9.2. surface drain	432 days		Sat 14/3/09						
420	a. Ch88-Ch 120 (Bay 9 - Bay 11)	10 days		Sat 14/3/09		437SS				
421	b. Ch120-Ch205 (Bay 12 - Bay 17)	35 days		Fri 14/3/08		438SS				444
422	c. Ch205-Ch310 (Bay 18 - Bay 24)	45 days	Tue 8/1/08	Thu 21/2/08	408	439SS			484	days
423	d. Ch310-Ch375 (Bay 25 - Bay 28)	35 days	Mon 7/7/08	Sun 10/8/08	409	440SS				
424	e. Ch375-Ch413 (Bay 29 - Bay 31)	10 days	Sun 31/8/08	Tue 9/9/08	410	440SS				
425	10. Water supply pipeworks	60 days	Sat 4/4/09	Tue 2/6/09	413SS+30 days	427				
426	11. Roads and paving	529 days	Tue 8/1/08	Fri 19/6/09						
427	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days	Wed 3/6/09	Fri 19/6/09	414,425,405,413	432				
428	b. Ch120-Ch205 (Bay 12 - Bay 17)	35 days	Sat 9/2/08	Fri 14/3/08	407	321,433SS+30 days				5
429	c. Ch205-Ch310 (Bay 18 - Bay 24)	50 days	Tue 8/1/08	Tue 26/2/08	408	321,434SS+30 days			39	days
430	d. Ch310-Ch436 (Bay 25 - Bay 32)	58 days	Sun 31/8/08	Mon 27/10/08	410	435SS+30 days				
431	12. Road furnitures	516 days	Thu 7/2/08	Mon 6/7/09	1		-			
432	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days		Mon 6/7/09			-			
432	a. Cn88-Cn 120 (Bay 9 - Bay 11) b. Ch120-Ch205 (Bay 12 - Bay 17)	33 days			427 428SS+30 days		-			
434		,			,					
	c. Ch205-Ch310 (Bay 18 - Bay 24)	50 days			429SS+30 days					466
435	d. Ch310-Ch436 (Bay 25 - Bay 32)	33 days			430SS+30 days	20000				
436	13. Landscape softworks / hardworks	452 days		Fri 3/4/09		898SS				
437	a. Ch88-Ch 120 (Bay 9 - Bay 11)	30 days		Fri 3/4/09		320SS				
438	b. Ch120-Ch205 (Bay 12 - Bay 17)	70 days		Fri 18/4/08						44
439	c. Ch205-Ch310 (Bay 18 - Bay 24)	62 days		Sun 9/3/08					484	days
440	d. Ch310-Ch436 (Bay 25 - Bay 32)	72 days			423SS,424SS					
441	14. Temporary Village Access on Bay 9 - Bay 11	10 days			321SS-10 days					
442	15. Temporary Village Access on Bay 29 - Bay 31	10 days		Fri 7/3/08		382				
443	16. Temporary Village Access on Bay 32	3 days		Thu 29/5/08	387	374				
444	17. Diversion of Existing Traffic to Cheung Chun San	Tsuen 7 days	Fri 23/5/08	Thu 29/5/08	374SS-7 days	371				
445										
446	B3. Portion 3	726 days	Thu 12/7/07	Mon 6/7/09						
447	Site clearance	90 days	Sat 15/9/07	Thu 13/12/07						
448	1.1 General clearance	90 days	Sat 15/9/07	Thu 13/12/07	17,224,903,905	491SS+10 days				
449	Underground utilities detection	42 days	Tue 31/7/07	Mon 10/9/07						
450	2.1 utilities detection	28 days	Tue 31/7/07	Mon 27/8/07	330	451				
451	2.2 trial trench excavtion & identification	14 days	Tue 28/8/07	Mon 10/9/07	450	491				
452	Utilities temporary diversion / protection	153 days	Sat 1/11/08	Thu 2/4/09						
453	a. WSD water main along village access at CH 1150	0 153 days	Sat 1/11/08	Thu 2/4/09	529SS,534FF+60 days	604				
454	b. Street lighting along village access at CH 1150	93 days	Sat 1/11/08	Sun 1/2/09	529SS,534FF	604				
455	c. PCCW along village access at CH 1150	153 days	Sat 1/11/08	Thu 2/4/09	529SS,534FF+60 days	604				
456	4. Drainage Management Plan	706 days		Tue 16/6/09	-					
457	4.1 Submission of DMPs	1 day		Thu 12/7/07		458				
458	4.2 Comments by the Engineer	14 days		Thu 26/7/07		459				
459	4.3 Implementation of DMP	659 days	1		535FF,458					
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	t: PROGRAMME OF WORKS 11 of 23 Critical Task		Sumi	mary	Rolled Up	o Milestone Ext	ernal Tasks		Deadline	
Ü	Progress		Rolle	d Up Task	Rolled Up	Progress Pro	ject Summary			
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DATF: AUG 2007

Contract No.: DC / 2006 / 02

Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,

Stage 1. Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai



ID	Task Name	Duration	Start	Finish	Predecessors	Successors				2008
							Oct	Nov	Dec	Jan
502	Base Slab	79 days	Thu 8/5/08		501SS+6 days	503SS+11 days				
503	Wall and Deck	82 days	Mon 19/5/08		502SS+11 days	504SS+7 days				
504	Curing	89 days	Mon 26/5/08		503SS+7 days	505SS+14 days,540				
505	Trench Backfill	89 days	Mon 9/6/08	Fri 5/9/08	504SS+14 days	311,578				
506	f. Ch925-Ch1038 (Bay 60 - Bay 66)	218 days	Mon 17/9/07	Mon 21/4/08						
507	Haul access	10 days	Mon 17/9/07	Wed 26/9/07	498	516				
508	Flow diversion	10 days	Wed 10/10/07	Fri 19/10/07	509SS-10 days		days			
509	Excavation and Handling of Type 3 Contaminated Mate	116 days	Sat 20/10/07	Tue 12/2/08		508SS-10 days,510SS+10 days	510 days			
510	Granular Bedding	116 days	Tue 30/10/07	Fri 22/2/08	509SS+10 days	511SS+6 days	146 days			
511	Base Slab	127 days	Mon 5/11/07	Mon 10/3/08	510SS+6 days	512SS+11 days	140 da	ays		
512	Wall and Deck	130 days	Fri 16/11/07	Mon 24/3/08	511SS+11 days	513SS+7 days	1	148 days		
513	Curing	137 days	Fri 23/11/07	Mon 7/4/08	512SS+7 days	514SS+14 days,541	1	118 days		
514	Trench Backfill	137 days	Fri 7/12/07	Mon 21/4/08	513SS+14 days	500,579		118 da	ays)	
515	f. Ch1038-Ch1146 (Bay 67 - Bay 71)	572 days	Thu 27/9/07	Mon 20/4/09						
516	Haul access	5 days	Thu 27/9/07	Mon 1/10/07	507	518				
517	Flow diversion	10 days	Fri 23/1/09	Sun 1/2/09	518SS-10 days					
518	Excavation and Handling of Type 3 Contaminated Material	33 days	Mon 2/2/09	Fri 6/3/09	534,516	519SS+10 days,517SS-10 days				
519	Granular Bedding	29 days	Thu 12/2/09	Thu 12/3/09	518SS+10 days	520SS+6 days				
520	Base Slab	30 days	Wed 18/2/09	Thu 19/3/09	519SS+6 days	521SS+11 days				
521	Wall and Deck	34 days	Sun 1/3/09	Fri 3/4/09	520SS+11 days	522SS+7 days,557SS+21 days				
522	Curing	41 days	Sun 8/3/09	Fri 17/4/09	521SS+7 days	523SS+14 days,542,546,557				
523	Trench Backfill	30 days	Sun 22/3/09	Mon 20/4/09	522SS+14 days	580				
524	g. Ch1146-Ch1330 (Bay 72 - Bay 84)	108 days	Fri 17/10/08	Sun 1/2/09						
525	Haul access	5 days	Fri 17/10/08	Tue 21/10/08	529SS-15 days	527				
526	Flow diversion	10 days	Wed 22/10/08	Fri 31/10/08	529SS-10 days					
527	Demolition of existing crossing (Bay 72)	3 days	Sun 16/11/08	Tue 18/11/08	550,525					
528	Demolition of existing footbridge (Bay 83)	7 days	Mon 17/11/08	Sun 23/11/08	564					
529	Excavation and Handling of Type 3 Contaminated Material	57 days	Sat 1/11/08	Sat 27/12/08	469	453SS,454SS,455SS,530SS+10 days,549SS+9 days,563SS+10 days,175SS-61 days,525SS-15				
530	Granular Bedding	53 days	Tue 11/11/08	Fri 2/1/09	529SS+10 days	531SS+6 days				
531	Base Slab	53 days	Mon 17/11/08	Thu 8/1/09	530SS+6 days	532SS+11 days				
532	Wall and Deck	49 days	Fri 28/11/08	Thu 15/1/09	531SS+11 days	533SS+7 days	1			
533	Curing	56 days	Fri 5/12/08	Thu 29/1/09	532SS+7 days	534SS+14 days,543,547	1			
534	Trench Backfill	45 days	Fri 19/12/08	Sun 1/2/09	533SS+14 days	453FF+60 days,454FF,455FF+60 days,518,551,565,581				
535	6. Gabion	491 days	Tue 12/2/08	Tue 16/6/09		459FF				
536	a. Bay 33- Bay39 (Ch436-Ch535)	100 days	Fri 8/8/08	Sat 15/11/08	468SS+20 days					
537	b. Bay 40 - Bay 45 (CH535-Ch625)	120 days	Thu 29/1/09	Thu 28/5/09	477		1			
538	c. Bay 46 - Bay 53 (Ch625-Ch738)	247 days	Mon 26/5/08	Tue 27/1/09	486					
539	d. Bay 54 - Bay 55 (Ch738-Ch800)	37 days	Tue 12/2/08	Wed 19/3/08	495		1			
540	e. Bay 56c - Bay 59 (Ch844-Ch925)	200 days	Sat 23/8/08	Tue 10/3/09	504					
541	f. Bay 60 - Bay 66 (Ch925-Ch1038)	130 days	Tue 8/4/08	Fri 15/8/08	513					
	Task t: PROGRAMME OF WORKS Critical Task		Milest			Rolled Up Critical Task Spl Rolled Up Milestone Ext	ernal Tasks		roup By Summary	
	13 of 23		Sumn			•	_		caulille	
	Progress		Rolled	l Up Task		Rolled Up Progress Pro	ject Summary			

ID	Task Name	Duration	Start	Finish	Predecessors	Successors					2008	
							Oct		Nov	Dec	Jai	n
542	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	60 days	Sat 18/4/09	Tue 16/6/09								
543	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	130 days	Fri 30/1/09	Mon 8/6/09								
544	7. Granite Stone Facing	454 days	Tue 12/2/08	Sun 10/5/09								
545	Bay 54 to Bay 55 (Ch738 - Ch800)	78 days	Tue 12/2/08	Tue 29/4/08	495							4
546	Bay 67 and Bay 69a (Ch1038 -Ch1108)	23 days	Sat 18/4/09	Sun 10/5/09	522							
547	Bay 83 and Bay 84 (Ch1301-Ch1330)	7 days	Fri 30/1/09	Thu 5/2/09	533							
548	8. Temp Crossing at Bay 71 (Ch1145)	86 days	Mon 10/11/08	Tue 3/2/09								
549	8.1 Construction	5 days	Mon 10/11/08	Fri 14/11/08	529SS+9 days	550						
550	8.2 Pesdestrian diversion	1 day	Sat 15/11/08	Sat 15/11/08	549	527						
551	8.3 Demolition of Temp crossing	2 days	Mon 2/2/09	Tue 3/2/09	534	580						
552	9. Ramp No. 2 (Ch752 - Ch800, Bay 55)	17 days	Tue 12/2/08	Thu 28/2/08								
553	General fill	5 days	Tue 12/2/08	Sat 16/2/08	495	554						4
554	Granular fill and blinding	2 days	Sun 17/2/08	Mon 18/2/08	553	555						
555	Road slab	10 days	Tue 19/2/08	Thu 28/2/08	554	577FF						
556	10. Ramp No. 1 (Ch1052 - Ch1103, Bay 68)	31 days	Sat 18/4/09	Mon 18/5/09								
557	base slab	12 days	Sat 18/4/09	Wed 29/4/09	522,521SS+21 days	558						
558	Wall	10 days	Thu 30/4/09	Sat 9/5/09	557	559						
559	General fill	5 days	Sun 10/5/09	Thu 14/5/09	558	560						
560	Granular fill and blinding	2 days	Fri 15/5/09	Sat 16/5/09	559	561						
561	Road slab	2 days	Sun 17/5/09	Mon 18/5/09	560	604FF						
562	11. Pedestrian Temporary Crossing at Bay 83 (Ch		Tue 11/11/08	Tue 3/2/09								
563	11.1 Construction	5 days	Tue 11/11/08		529SS+10 days	564						
564	11.2 Pedestrian diversion	1 day	Sun 16/11/08	Sun 16/11/08		528						
565	11.3 Demolition of Temp crossing	2 days	Mon 2/2/09	Tue 3/2/09		591						
566	12. Retaining Wall RW1 (Ch430-Ch490)	109 days	Sat 10/11/07	Tue 26/2/08								
567	Excavation	26 days	Sat 10/11/07	Wed 5/12/07		568		0 day₃				
568	Granular bedding	7 days	Thu 6/12/07	Wed 12/12/07		569		duys	0 days			
569	Base slab	24 days	Thu 13/12/07	Sat 5/1/08		570			0 days			
570	Wall	26 days	Sun 6/1/08	Thu 31/1/08		571			o days	0 d	ave	
571	Curing	14 days	Fri 1/2/08	Thu 14/2/08		572				o u	ays	0 days
572	Backfilling	12 days	Fri 15/2/08	Tue 26/2/08		365,464,442						0 days
573	13. Filling in Platform	434 days	Fri 22/2/08	Thu 30/4/09		500,101,112						
574	a. Bay 33- Bay39 (Ch436-Ch535)	25 days	Sat 1/11/08	Tue 25/11/08		584SS+10 days,593						
575	b. Bay 40 - Bay 45 (CH450-CH555)	28 days	Fri 6/2/09	Thu 5/3/09		585SS+10 days,594						
576	c. Bay 46 - Bay 43 (Ch625-Ch738)	28 days	Mon 2/6/08	Sun 29/6/08		586SS+10 days,595						
577	d. Bay 54 - Bay 55 (Ch738-Ch800)	19 days	Fri 22/2/08	Tue 11/3/08		587SS+10 days,596						
578	e. Bay 56c - Bay 59 (Ch844-Ch925)	21 days	Sat 6/9/08			588SS+10 days,597,602						
578	· · · · · · · · · · · · · · · · · · ·		Tue 22/4/08	Fri 26/9/08		589SS+10 days,597,602						
	f. Bay 60 - Bay 66 (Ch925-Ch1038)	41 days		Sun 1/6/08								
580	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	10 days	Tue 21/4/09	Thu 30/4/09		590SS+10 days,599,604						
581	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	14 days	Mon 2/2/09	Sun 15/2/09		591SS+10 days,600						
582	14. Drainage works	469 days	Mon 3/3/08	Sun 14/6/09								
583	14.1 storm drain with manhole	444 days	Mon 3/3/08	Wed 20/5/09								
	Task		Milest	one	Rolled	I Up Critical Task Split			Group By	Summary		
	: PROGRAMME OF WORKS	ask	Summ				rnal Tasks		Deadline	•		
Page: 1	14 of 23 Progress			d Up Task		•	ect Summary					
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ID	Task Name	Duration	Start	Finish	Predecessors	Successors				2008
							Oct	Nov	Dec	Jan
584	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Tue 11/11/08		574SS+10 days	610				
585	b. Bay 40 - Bay 45 (CH535-Ch625)	20 days	Mon 16/2/09		575SS+10 days	611				
586	c. Bay 46 - Bay 53 (Ch625-Ch738)	20 days	Thu 12/6/08		576SS+10 days	612				
587	d. Bay 54 - Bay 55 (Ch738-Ch800)	20 days	Mon 3/3/08		577SS+10 days	613				
588	e. Bay 56c - Bay 59 (Ch844-Ch925)	30 days	Thu 27/11/08		578SS+10 days,312FF	603				
589	f. Bay 60 - Bay 66 (Ch925-Ch1038)	60 days	Fri 2/5/08	Mon 30/6/08	579SS+10 days					
590	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	20 days	Fri 1/5/09	Wed 20/5/09	580SS+10 days					
591	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	20 days	Thu 12/2/09	Tue 3/3/09	581SS+10 days,565					
592	14.2. surface drain	460 days	Wed 12/3/08	Sun 14/6/09						
593	a. Bay 33- Bay39 (Ch436-Ch535)	45 days	Wed 26/11/08	Fri 9/1/09	574	610SS+30 days				
594	b. Bay 40 - Bay 45 (CH535-Ch625)	45 days	Fri 6/3/09	Sun 19/4/09	575	611SS+30 days				
595	c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days	Mon 30/6/08	Wed 13/8/08	576	612				
596	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Wed 12/3/08	Fri 25/4/08	577	613				
597	e. Bay 56c - Bay 59 (Ch844-Ch925)	45 days	Sat 27/9/08	Mon 10/11/08	578					
598	f. Bay 60 - Bay 66 (Ch925-Ch1038)	45 days	Mon 2/6/08	Wed 16/7/08	579					
599	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	45 days	Fri 1/5/09	Sun 14/6/09	580	616SS+22 days				
600	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	Mon 16/2/09	Wed 1/4/09	581	617SS+30 days				
601	15. Roads and paving	276 days	Sat 27/9/08	Mon 29/6/09						
602	a. Ch800-Ch881	60 days	Sat 27/9/08	Tue 25/11/08	578	603,606SS+30 days				
603	b. Ch881-CH1037	52 days	Sat 27/12/08	Mon 16/2/09	602,588	607SS+30 days				
604	c. CH1037-CH1165	60 days	Fri 1/5/09	Mon 29/6/09	580,453,454,455,561FF	608SS+30 days				
605	16. Street furnitures / traffic sign / road marking	253 days	Mon 27/10/08	Mon 6/7/09						
606	a. Ch800-Ch881	37 days	Mon 27/10/08	Tue 2/12/08	602SS+30 days					
607	b. Ch881-CH1037	37 days	Mon 26/1/09	Tue 3/3/09	603SS+30 days					
608	c. CH1037-CH1165	37 days	Sun 31/5/09	Mon 6/7/09	604SS+30 days					
609	17. Landscape softworks / hardworks	193 days	Fri 26/12/08	Mon 6/7/09		904SS				
610	a. Bay 33- Bay39 (Ch436-Ch535)	30 days	Fri 26/12/08	Sat 24/1/09	593SS+30 days,584					
611	b. Bay 40 - Bay 45 (CH535-Ch625)	45 days	Sun 5/4/09	Tue 19/5/09	594SS+30 days,585					
612	c. Bay 46 - Bay 53 (Ch625-Ch738)	45 days	Tue 24/2/09		613SF,586,595					
613	d. Bay 54 - Bay 55 (Ch738-Ch800)	45 days	Fri 10/4/09	Mon 25/5/09	614SF,587,596	612SF				
614	e. Bay 56c - Bay 59 (Ch844-Ch925)	22 days	Mon 25/5/09	Mon 15/6/09		613SF				
615	f. Bay 60 - Bay 66 (Ch925-Ch1038)	23 days	Sat 2/5/09	Sun 24/5/09		614				
616	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	45 days	Sat 23/5/09		599SS+22 days					
617	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	Wed 18/3/09		600SS+30 days	615				
618	18. Lower down existing village access	9 days	Thu 1/11/07	Fri 9/11/07	· ·	567	0 days			
619	C. Section II of the Works	830 days	Fri 30/3/07	Mon 6/7/09			o aayo			
620	C1. Portion 4	812 days	Fri 30/3/07	Thu 18/6/09						
621	1. Site clearance	14 days	Wed 26/9/07	Tue 9/10/07						
622	1.1 General clearance	14 days	Wed 26/9/07		225,36,909,911	646				
623	Temporary Traffic Management Scheme	60 days	Fri 30/3/07	Mon 28/5/07		0.0				
624	2.1 TTMS Proposal (trial pits for utilities and site entrance	-	Sat 31/3/07	Mon 28/5/07						
625	a. Submission	45 days	Sat 31/3/07	Mon 14/5/07	18	626				
	Task		Milest	tone	Rolled Up	O Critical Task Split			Group By Summary	
Project: Page: 1	PROGRAMME OF WORKS 5 of 23 Critical Task		Sumn	nary	Rolled Up	Milestone Exte	rnal Tasks		Deadline	
aye. I	Progress		Rolled	d Up Task	Rolled Up	Progress Proj	ect Summary			

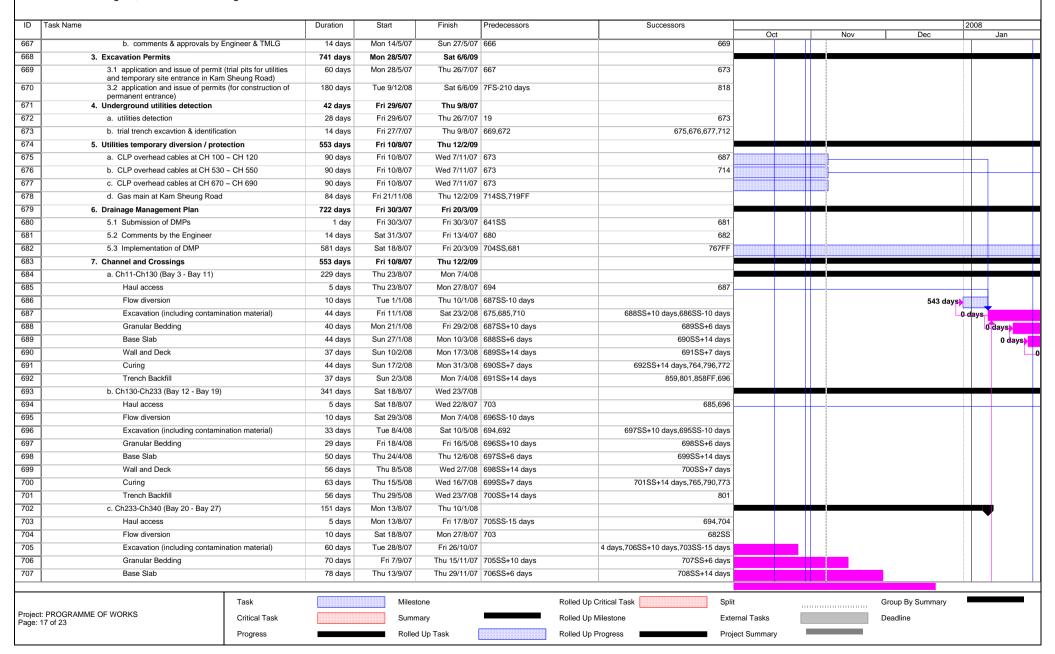
ID I	Task Name	Duration	Start	Finish	Predecessors	Successors	I			2008
וטו	Task Name	Duration	Start	FILIISH	Fredecessors	Successors	Oct	Nov	Dec	Jan
626	b. comments & approvals by Engineer & TMI	LG 14 days	Tue 15/5/07	Mon 28/5/07	625	631				
627	2.2 TTMS Proposal (for construction of box culvet)	59 days	Fri 30/3/07	Sun 27/5/07						
628	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07		629				
629	b. comments & approvals by Engineer & TMI	LG 14 days	Mon 14/5/07	Sun 27/5/07	628	632				
630	3. Excavation Permits	520 days	Tue 29/5/07	Wed 29/10/08						
631	 3.1 application and issue of permit (trial pits for uti and site entrance in Kam Po Road) 	ilities 60 days	Tue 29/5/07	Fri 27/7/07		635				
632	 application and issue of permits (for construction box culvert) 		Sat 3/5/08	Wed 29/10/08		645				
633	4. Underground utilities detection	43 days	Fri 29/6/07	Fri 10/8/07						
634	4.1 utilities detection	28 days	Fri 29/6/07		635SF-1 day					
635	4.2 trial trench excavtion & identification	14 days	Sat 28/7/07	Fri 10/8/07	631	634SF-1 day,645				
636	5. Utilities temporary diversion / protection	85 days	Sat 1/11/08	Sat 24/1/09						
637	 a. WSD water main along Kam Po Road 	85 days	Sat 1/11/08	Sat 24/1/09	646SS	653FF				
638	b. Street lighting along Kam Po Road	85 days	Sat 1/11/08	Sat 24/1/09	646SS	653FF				
639	c. DSD storm Drain	85 days	Sat 1/11/08	Sat 24/1/09	646SS	653FF				
640	6. Drainage Management Plan	662 days	Fri 30/3/07	Mon 19/1/09						
641	6.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07		853SS,680SS,642				
642	6.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	641	643				
643	6.3 Implementation of DMPs	57 days	Mon 24/11/08	Mon 19/1/09	647,642	855FF				
644	7. Box Culvert Ch0-Ch15 (Bay 1 and Outlet)	94 days	Thu 30/10/08	Sat 31/1/09						
645	Remove road pavement and expose existing utiliti		Thu 30/10/08	Fri 31/10/08	635,632,833	646				
646	Excavation	8 days	Sat 1/11/08	Sat 8/11/08	645,622	638SS,639SS,637SS,648				
647	Remove existing box culvert	14 days	Mon 10/11/08	Sun 23/11/08	648	649SS+4 days,643,653				
648	flow diversion	1 day	Sun 9/11/08	Sun 9/11/08		647				
649	Granular Bedding	5 days	Fri 14/11/08		647SS+4 days	650				
650	Base Slab	18 days	Wed 19/11/08	Sat 6/12/08	,	651				
651	Wall and Deck	30 days	Sun 7/12/08	Mon 5/1/09		652				
652	Curing	14 days	Tue 6/1/09	Mon 19/1/09		653				
653	Trench Backfill	5 days	Tue 20/1/09		652,637FF,638FF,639FF,647,764	654,656				
654	Reinstatement of Kam Po Road	7 days	Sun 25/1/09	Sat 31/1/09		834				
655	Modification to invert level of box culvert at Kam	,	Fri 9/1/09	Sun 22/2/09						
656	10. Fill in Platform	30 days	Mon 2/2/09	Tue 3/3/09	,	657				
657	11. Roads and paving	30 days	Wed 4/3/09	Thu 2/4/09	·	658,659				
658	12. Street furnitures	14 days	Fri 3/4/09	Thu 16/4/09	657					
659	13. Landscape softworks / hardworks	77 days	Fri 3/4/09	Thu 18/6/09	657	910SS				
660										
661	C2. Portion 5 and 5C	830 days	Fri 30/3/07	Mon 6/7/09						
662	1. Site clearance	90 days	Thu 20/9/07	Tue 18/12/07						
663	1.1 General clearance	90 days	Thu 20/9/07	Tue 18/12/07	36,225SS+75 days,915,917	714				
664	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07						
665	TTMS Proposal (trial pits for utilities and site entra	nce in Ka 59 days	Fri 30/3/07	Sun 27/5/07						
666	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS	667				
İ	Task		Milest	one	Rolled Up C	critical Task Spli	t		Group By Summary	
Project Page: 1	: PROGRAMME OF WORKS 6 of 23	sk	Sumn	nary	Rolled Up M	filestone Exte	ernal Tasks		Deadline	
. 3	Progress		Rolled	d Up Task	Rolled Up P	rogress Proj	ect Summary			

DATF: AUG 2007

Contract No. : DC / 2006 / 02

Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,

Stage 1. Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

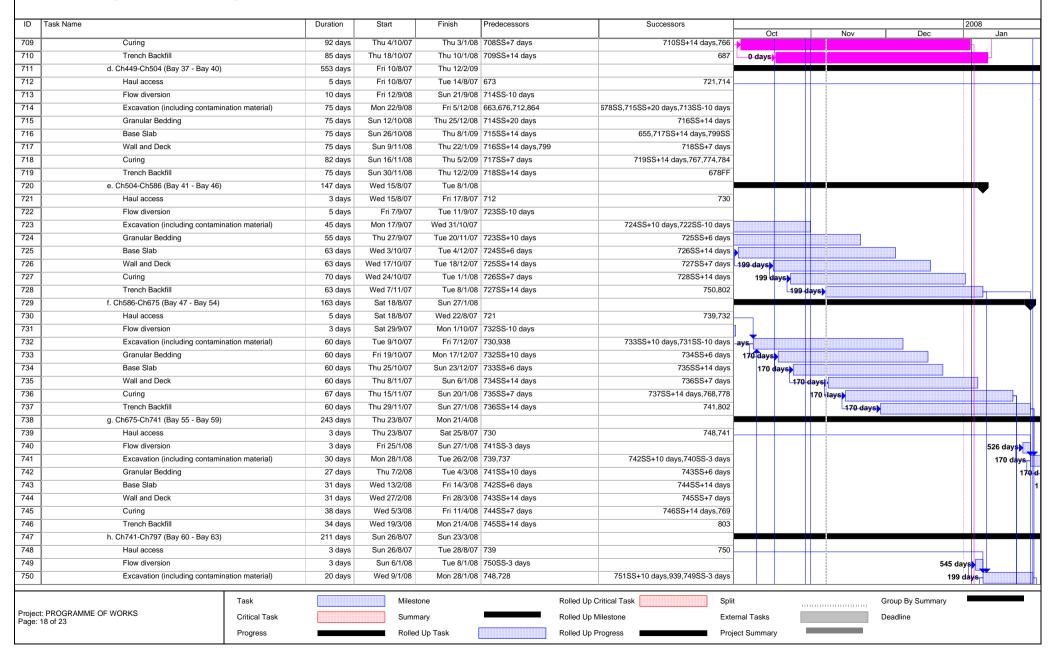


DATE: AUG 2007

Contract No.: DC / 2006 / 02

Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,

Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai



ID	Task Name	Duration	Start	Finish	Predecessors	Successors				2008
751	Granular Bedding	16 do: 0	Sat 19/1/08	Sun 2/2/00	750SS : 10 dove	75252.6 doug	Oct	Nov	Dec	Jan
752	Base Slab	16 days	Sat 19/1/08 Fri 25/1/08		750SS+10 days 751SS+6 days	752SS+6 days				199 days
753		20 days	Fri 8/2/08			753SS+14 days				199 days)
754	Wall and Deck	20 days	Fri 15/2/08		752SS+14 days 753SS+7 days	754SS+7 days				199
	Curing Transh Baskfill	28 days			·	755SS+14 days,770				
755	Trench Backfill	24 days	Fri 29/2/08		754SS+14 days	803				
756	8. Retaining Wall RW2 (Ch340-Ch350)	73 days	Mon 22/9/08	Wed 3/12/08		750				
757	Excavation	10 days	Mon 22/9/08	Wed 1/10/08		758				
758	Granular bedding	4 days	Thu 2/10/08	Sun 5/10/08		759				
759	Base slab	21 days	Mon 6/10/08	Sun 26/10/08		760				
760	Wall	14 days	Mon 27/10/08	Sun 9/11/08		761				
761	Curing	14 days	Mon 10/11/08	Sun 23/11/08		762				
762	Backfilling	10 days	Mon 24/11/08	Wed 3/12/08		870				
763	9. Gabion	466 days	Fri 4/1/08	Mon 13/4/09						
764	Bay 5- Bay 11 (Ch35-Ch130)	147 days	Tue 1/4/08	Mon 25/8/08		653				
765	Bay 12 - Bay 19 (Ch130-Ch233)	93 days	Thu 17/7/08	Fri 17/10/08		653				
766	Bay 20 - Bay 27 (Ch233-Ch340)	159 days	Fri 4/1/08	Tue 10/6/08	709	653			223 days	i
767	Bay 37 - Bay 43 (Ch449-Ch549)	67 days	Fri 6/2/09	Mon 13/4/09	718,682FF					
768	Bay 48 - Bay 54 (Ch609-Ch675)	79 days	Mon 21/1/08	Tue 8/4/08	736					454 days
769	Bay 55 - Bay 59 (Ch675-Ch741)	20 days	Sat 12/4/08	Thu 1/5/08	745					
770	Bay 60 - Bay 63 (Ch741-Ch797)	17 days	Fri 14/3/08	Sun 30/3/08	754					
771	10. Granite Stone Facing	318 days	Tue 1/4/08	Thu 12/2/09						
772	Bay 4 (Ch19.5-Ch35)	5 days	Tue 1/4/08	Sat 5/4/08	691					
773	Bay 12 - Bay 19 (Ch130-Ch233)	12 days	Thu 17/7/08	Mon 28/7/08	700	869				
774	Bay 37 - Bay 40 (Ch449-Ch504)	7 days	Fri 6/2/09	Thu 12/2/09	718					
775	Bay 41 - Bay 46 (Ch504-Ch586)	6 days	Fri 1/8/08	Wed 6/8/08	869	776				
776	Bay 47 - Bay 55 (Ch586-Ch688)	9 days	Thu 7/8/08	Fri 15/8/08	775	653				
777	11. Ramp No. 1 (Ch645 - Ch668, Bay 52 - Bay 53)	39 days	Mon 21/1/08	Thu 28/2/08						
778	base slab	12 days	Mon 21/1/08	Fri 1/2/08	736	779				494 days
779	Wall	10 days	Sat 2/2/08	Mon 11/2/08	778	780				494 da
780	General fill	5 days	Tue 12/2/08	Sat 16/2/08	779	781				
781	Granular fill and blinding	5 days	Sun 17/2/08	Thu 21/2/08	780	782				
782	Road slab	7 days	Fri 22/2/08	Thu 28/2/08	781					
783	12. Ramp No. 2 (Ch516 - Ch537, Bay 42)	54 days	Fri 6/2/09	Tue 31/3/09						
784	base slab	12 days	Fri 6/2/09	Tue 17/2/09		785				
785	Wall	10 days	Wed 18/2/09	Fri 27/2/09		786				
786	General fill	20 days	Sat 28/2/09	Thu 19/3/09		787				
787	Granular fill and blinding	5 days	Fri 20/3/09	Tue 24/3/09		788				
788	Road slab	7 days	Wed 25/3/09	Tue 31/3/09		100				
789	13. Ramp No. 3 (Ch209 - Ch233, Bay 18 - Bay 19)	54 days	Thu 17/7/08	Mon 8/9/08						
790	base slab	12 days	Thu 17/7/08	Mon 28/7/08		791				
791	Wall	12 days	Tue 29/7/08	Thu 7/8/08		792				
791	General fill		Fri 8/8/08	Wed 27/8/08		792				
192	General IIII	20 days	FII 0/0/U8	vveu 27/8/08	131	793				
	Task		Miles	tone	Rolled	Up Critical Task Split		(Group By Summary	
Project:	: PROGRAMME OF WORKS		Sumr				rnal Tasks		Deadline	
Page: 1	19 of 23			-			ı		Journal	
	Progress		Rolle	d Up Task	Kolled	Up Progress Proje	ect Summary			

ID	Task Name	Duration	Start	Finish	Predecessors	Successors				2008
702	Cranular fill and blinding	E dovo	Thu 28/8/08	Mon 1/0/09	702	794	Oct	Nov	Dec	Jan
793 794	Granular fill and blinding	5 days		Mon 1/9/08						
794	Road slab	7 days	Tue 2/9/08	Mon 8/9/08 Fri 2/5/08		814				
795	14 Ramp No. 4 (Ch35 - Ch55, Bay5) General fill	32 days 7 days	Tue 1/4/08	Mon 7/4/08		797				
796	Granular fill and blinding	-	Tue 1/4/08	Tue 15/4/08		797				
797	Sloping side wall and road slab	8 days 17 days	Wed 16/4/08	Fri 2/5/08		657				
799			Sun 26/10/08	Sat 8/11/08		717				
800	15. Demolition of existing wing walls Ch449	14 days	Mon 28/1/08	Tue 26/8/08		717				_
801	16. Filling in Platform a. Bay 3- Bay 27 (Ch11-Ch340)	212 days 34 days	Thu 24/7/08	Tue 26/8/08		806SS+10 days,810,814,832				'
802	b. Bay 37 - Bay 55 (Ch449-Ch688)	54 days	Mon 28/1/08	Fri 21/3/08	·	807SS+10 days,811,817				200 4
803	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	Tue 22/4/08	Mon 28/4/08	· ·	808,812				262 days
804			Thu 7/2/08	Mon 29/9/08		000,012				
805	17. Drainage works	236 days	Thu 7/2/08							
	17.1 storm drain with manhole and headwall	198 days		Fri 22/8/08		814				
806	a. Bay 3- Bay 27 (Ch11-Ch340)	20 days	Sun 3/8/08		801SS+10 days					
807 808	b. Bay 37 - Bay 55 (Ch449-Ch688)	90 days	Thu 7/2/08 Tue 29/4/08	Mon 12/5/08	802SS+10 days	815				339
	c. Bay 56 - Bay 63 (Ch688-Ch797) 17.2 surface drain	14 days		Mon 29/9/08						
809		192 days	Sat 22/3/08			200				
810	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Wed 27/8/08	Mon 29/9/08		826				
811	b. Bay 37 - Bay 55 (Ch449-Ch688)	60 days	Sat 22/3/08	Tue 20/5/08		827				
812	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Tue 29/4/08	Mon 12/5/08		830				
813	18. Roads and paving	465 days	Sat 22/3/08	Mon 29/6/09		200				
814	a. Ch233 - Ch340	50 days	Mon 2/2/09		801,874SS-30 days,794,806	820				
815	b. Ch449 - Ch549	50 days	Mon 30/6/08	Mon 18/8/08		821				
816	c. Ch549 - Ch609	50 days	Sun 11/5/08	Sun 29/6/08		815,822				
817	d. Ch609 - Ch688	50 days	Sat 22/3/08	Sat 10/5/08		816,823				
818	e. Permanent Entrance at Ch449	23 days	Sun 7/6/09	Mon 29/6/09		824				
819	19. Street furnitures	422 days	Sun 11/5/08	Mon 6/7/09						
820	a. Ch233 - Ch340	30 days	Tue 24/3/09	Wed 22/4/09		201				
821	b. Ch449 - Ch549	30 days	Tue 19/8/08	Wed 17/9/08		824				
822	c. Ch549 - Ch609	30 days	Mon 30/6/08	Tue 29/7/08						
823	d. Ch609 - Ch688	30 days	Sun 11/5/08	Mon 9/6/08						
824	e. Permanent Entrance at Ch449	7 days	Tue 30/6/09	Mon 6/7/09		24000				
825	20. Landscape softworks / hardworks	420 days	Tue 13/5/08	Mon 6/7/09		916SS				
826	a. Ch35 - Ch340	45 days	Sat 23/5/09	Mon 6/7/09		077				
827	b. Ch449 - Ch549	45 days	Thu 21/8/08	Sat 4/10/08		877				
828	c. Ch549 - Ch609	45 days	Mon 7/7/08	Wed 20/8/08		827				
829	d. Ch609 - Ch688	45 days	Fri 23/5/08	Sun 6/7/08		828				
830	e. Ch688 - Ch797	10 days	Tue 13/5/08	Thu 22/5/08		829				
831	21. Road Diversion in Kam Po Road	159 days	Wed 27/8/08	Sun 1/2/09						
832	a. Temp Decking above Bay 3 and temp road pavement	10 days	Wed 27/8/08	Fri 5/9/08		833				
833	b. Implementation of road diversion	1 day	Sat 6/9/08	Sat 6/9/08		645				
834	c. Removal of decking	1 day	Sun 1/2/09	Sun 1/2/09	654	656				
	Task		Miles	tone	Rolled Up	Critical Task Splii	:	(Group By Summary	
Project:	DDOCD WIME OF WORKS									
Page: 2	0 of 23		Sumr	,	Rolled Up		rnal Tasks		Deadline	
	Progress		Rolle	d Up Task	Rolled Up	Progress Proj	ect Summary			

ID .	Task Name	Duration	Start	Finish	Predecessors	Successors					2008	
005								Oct	Nov	Dec		Jan
835	B. O. C. W. (d. W. L. B. C 544 540 155	200 1	E : 00/0':-									
836 837	D. Section III of the Works - Portions 5A1, 5A2 and 5B	830 days	Fri 30/3/07	Mon 6/7/09								
	1. Site clearance	4 days	Mon 31/12/07	Thu 3/1/08	004 000 007 000 000 005	05755						
838	1.1 General site clearance	4 days	Mon 31/12/07		921,923,927,929,933,935	857FF				130 day		
839	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07								
840	TTMS Proposal (trial pits for utilities and site entrance in Kam St	59 days	Fri 30/3/07	Sun 27/5/07								
841	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS	842						
842	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	841	844						
843	3. Excavation Permits	741 days	Mon 28/5/07	Sat 6/6/09							-	
844	 application and issue of permit (trial pits for utilities and temporary site entrance in Kam Sheung Road) 	60 days	Mon 28/5/07	Thu 26/7/07		848						
845	3.2 application and issue of permits (for construction of permanent entrance)	180 days	Tue 9/12/08		7FS-210 days	875						
346	4. Underground utilities detection	42 days	Fri 29/6/07	Thu 9/8/07								
347	a. utilities detection	2 days	Fri 29/6/07	Sat 30/6/07		848						
348	b. trial trench excavtion & identification	14 days	Fri 27/7/07	Thu 9/8/07	844,847	851						
349	5. Utilities temporary diversion / protection	424 days	Thu 26/7/07	Sun 21/9/08								
850	a. Completion of WSD 450 diameter water main (By WSD)	1 day	Thu 26/7/07	Thu 26/7/07		883						
351	b. Telephone line	87 days	Fri 27/6/08	Sun 21/9/08	859SS,864FF,848							
52	6. Drainage Management Plan	662 days	Fri 30/3/07	Mon 19/1/09								
53	a Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	641SS	854						
54	b Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	853	855						
555	c Implementation of DMP	558 days	Thu 12/7/07	Mon 19/1/09	854,643FF	653						
56	7. Channel - Ch340-Ch439 (Bay 28 - Bay 35)	277 days	Thu 20/12/07	Sun 21/9/08						_		
357	Haul access	15 days	Thu 20/12/07	Thu 3/1/08		859				95 days		
358	Flow diversion	4 days	Fri 4/4/08	Mon 7/4/08		859				1		
59	Excavation (including contamination material)	70 days	Tue 8/4/08	Mon 16/6/08		851SS,860SS+20 days						
60	Granular Bedding	70 days	Mon 28/4/08		859SS+20 days	861SS+14 days						
361	Base Slab	77 days	Mon 12/5/08		860SS+14 days	862SS+21 days,866SS						
362	Wall and Deck	77 days	Mon 2/6/08		861SS+21 days,866	863SS+7 days						
363	Curing	84 days	Mon 9/6/08		862SS+7 days	864SS+14 days,868						
364	Trench Backfill	91 days	Mon 23/6/08		863SS+14 days	757,851FF,867,870,714						
865	8. Demolition of existing structures	147 days	Mon 12/5/08	Sun 5/10/08								
366	a. Existing wing walls Ch439 (Bay35)	14 days	Mon 12/5/08	Sun 25/5/08		862						
367	b. Existing footbridge at Ch350 (Bay 29)	14 days	Mon 22/9/08	Sun 5/10/08		870SF+14 days						
368	9. Gabion	124 days	Mon 1/9/08	Fri 2/1/09		653						
869	10. Granite Stone Facing	3 days	Tue 29/7/08	Thu 31/7/08		775						
870	11. Fill in Platform	90 days	Thu 4/12/08		864,762,867SF+14 days	872SS+10 days,873,874						
871	12. Drainage works	100 days	Sun 14/12/08	Mon 23/3/09								
872	storm drain with manhole	45 days	Sun 14/12/08		870SS+10 days	874						
873	b. surface drain	20 days	Wed 4/3/09	Mon 23/3/09		877						
874	13. Roads and paving	45 days	Wed 4/3/09	Fri 17/4/09		876SS+30 days,814SS-30 days,875						
875	14. Permanent Entrance and street furnitrures at Ch439	30 days	Sun 7/6/09	Mon 6/7/09	845,874							
	Task		Milest	one	Rolled Up	Critical Task Split	t			Group By Summary		
roject:	PROGRAMME OF WORKS Critical Task		Summ	nary	Rolled Up	Milestone Exte	ernal Tas	sks		Deadline		
Page: 2												

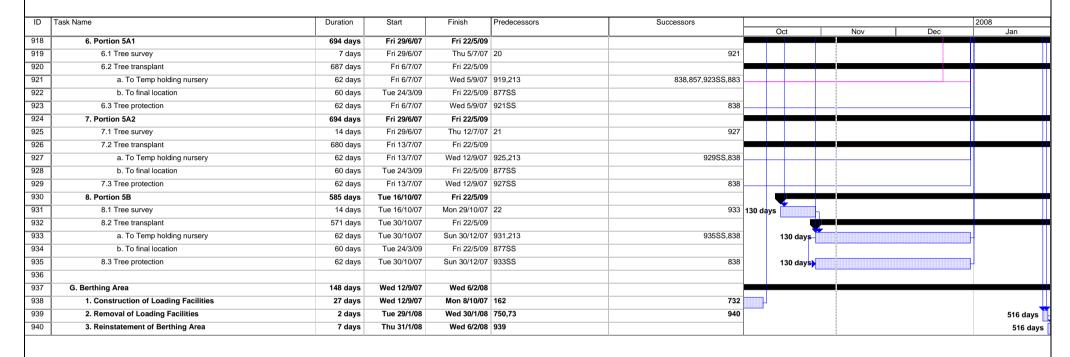
ID	Task Name	Duration	Start	Finish	Predecessors	Successors					2008	R
	Tuok Haino					Guccessors		Oct	Nov	Dec	12000	Jan
876	15. Street furnitures / traffic sign / road marking	45 days	Fri 3/4/09		874SS+30 days							
877	16. Landscape softworks / hardworks	60 days	Tue 24/3/09	Fri 22/5/09	827,873	922SS,826,928SS,934SS						
878	17. Temp vehicular access in Portion 5A1	191 days	Wed 26/9/07	Thu 3/4/08								
879	a. Maintenance and operation	188 days	Wed 26/9/07	Mon 31/3/08		880						
880	b. Removal	3 days	Tue 1/4/08	Thu 3/4/08	879	858						
881												
882	E. Section IV of the Works	20 days	Thu 6/9/07	Tue 25/9/07								
883	Formation for temp vehicular access	2 days	Thu 6/9/07	Fri 7/9/07	921,850	884						
884	Construction of temp vehicular access	17 days	Sat 8/9/07	Mon 24/9/07	883,11FF-1 day	885						
885	Opening of temp vehicular access to the Public	1 day	Tue 25/9/07	Tue 25/9/07	884	879						
886												
887	F. Section V of the Works - Preservation and protection to extrees	isting 804 days	Sat 31/3/07	Thu 11/6/09								
888	1. Portion 1	789 days	Sat 31/3/07	Wed 27/5/09								
889	1.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	15	891						
890	1.2 Tree transplant	740 days	Sat 19/5/07	Wed 27/5/09								
891	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	889,213	893SS,233						
892	b. To final location	90 days	Fri 27/2/09	Wed 27/5/09	320FF							
893	1.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	891SS	233						
894	2. Portion 2	454 days	Wed 30/5/07	Mon 25/8/08								
895	2.1 Tree survey	14 days	Wed 30/5/07	Tue 12/6/07	16	897						
896	2.2 Tree transplant	440 days	Wed 13/6/07	Mon 25/8/08								
897	a. To Temp holding nursery	62 days	Wed 13/6/07	Mon 13/8/07	895,213,227	328,899SS						
898	b. To final location	231 days	Tue 8/1/08	Mon 25/8/08	436SS						15 days	
899	2.3 Tree protection	62 days	Wed 13/6/07	Mon 13/8/07	897SS	328						
900	3. Portion 3	697 days	Fri 29/6/07	Mon 25/5/09								
901	3.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	17	903						
902	3.2 Tree transplant	683 days	Fri 13/7/07	Mon 25/5/09								
903	a. To Temp holding nursery	64 days	Fri 13/7/07	Fri 14/9/07	901,213	448,491,905SS		\perp				
904	b. To final location	151 days	Fri 26/12/08	Mon 25/5/09	609SS							
905	3.3 Tree protection	64 days	Fri 13/7/07	Fri 14/9/07	903SS	448						
906	4. Portion 4	804 days	Sat 31/3/07	Thu 11/6/09								
907	4.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	18	909						
908	4.2 Tree transplant	755 days	Sat 19/5/07	Thu 11/6/09								
909	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	907,213	911SS,622						
910	b. To final location	70 days	Fri 3/4/09	Thu 11/6/09	659SS							
911	4.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	909SS	622						
912	5. Portion 5	559 days	Fri 29/6/07	Wed 7/1/09								
913	5.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	19	915						
914	5.2 Tree transplant	545 days	Fri 13/7/07	Wed 7/1/09								
915	a. To Temp holding nursery	69 days	Fri 13/7/07	Wed 19/9/07		663,917SS						
916	b. To final location	240 days	Tue 13/5/08	Wed 7/1/09								
917	5.3 Tree protection	69 days	Fri 13/7/07	Wed 19/9/07	915SS	663						
	Task		Milest	one	Rolled Up	O Critical Task Spl	it			Group By Summary		
Project Page: 2	: PROGRAMME OF WORKS Critical Task		Sumn	nary	Rolled Up	Milestone Ext	ernal Task			Deadline		
rage: 2	22 of 23 Progress		Rolled	d Up Task			ject Sumn	nary				
		<u> </u>		*								

PROGRAMME OF WORKS - MP03

Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

TROOM WINE OF WORKS WIE OF	OTHE OFFICE OCTOTION OO., LTD.
Contract No.: DC / 2006 / 02	DATE : AUG 2007
Contract Title: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,	
0, 4 DL 0D 01 01 0 T 11/ T 11/1	

CHIT CHELING CONSTRUCTION CO. LTD.





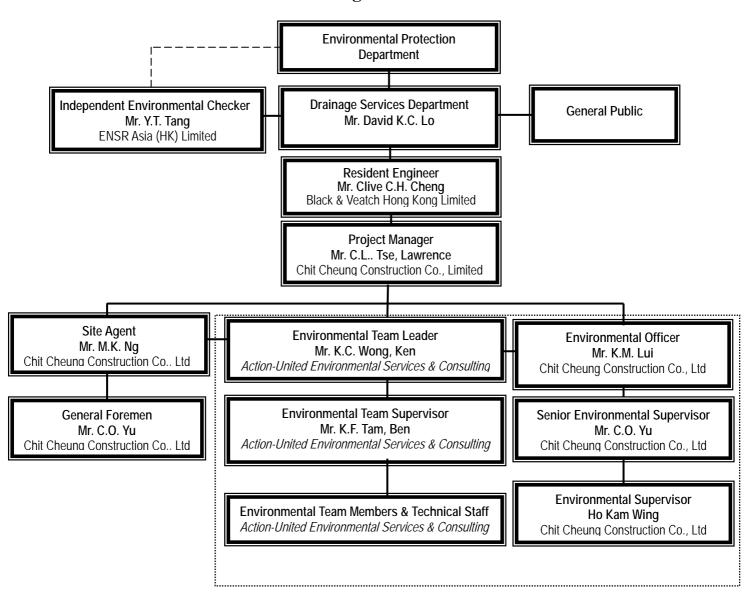


Appendix C

Environmental Organization Structure



Environmental Organization Structure



Contractor's Environmental Team (CET)

KT15 – Monthly EM&A Report for November 2007 (No. 5)



Contact Details of Key Personnel

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
DSD	Employer	Mr. David K.C. LO	2594-7254	2827-8526
B&V	Engineer	Mr. Kelvin N.F. LAU	2601-1000	2601-3988
B&V	Engineer's Representative	Mr. Clive C.H. CHENG	2443-1442	2443-7307
ENSR	Independent Environmental Checker	Mr. Y.T. Tang	3105-8537	2891-0305
CCC	Project Director	Mr. P.Y. CHENG	9023-4821	2403-1162
CCC	Project Manager	Mr. Lawrence TSE	9752-0748	2479-1365
CCC	Site Agent	Mr. M.K. NG	6603-9711	2479-1365
CCC	Site Engineer	Mr. Jimmy CHAN	9234-8632	2479-1365
CCC	Environmental Officer	Mr. LUI Kam Man	9257-9111	2479-1365
CCC	Senior Environmental Supervisor	Mr. YU Chor-on	9026-9501	2479-1365
CCC	Environmental Supervisor	Ho Kam Wing	9016-0592	2479-1365
CCC	Safety Officer	Mr. SHEA Yan Keung	6086-4658	2479-1365
AUES	Environmental Team Leader	Ken Wong	2959-6059	2959-6079
AUES	Ecologist	Vincent Lai	9406-9784	2959-6079
AUES	Decontamination Specialist	David Yeung	2959-6059	2959-6079

Legend:

DSD (Employer) Drainage Services Department B&V (Engineer) Black & Veatch Hong Kong Limited

Chit Cheung Construction Company Limited. ENSR Asia (HK) Ltd.

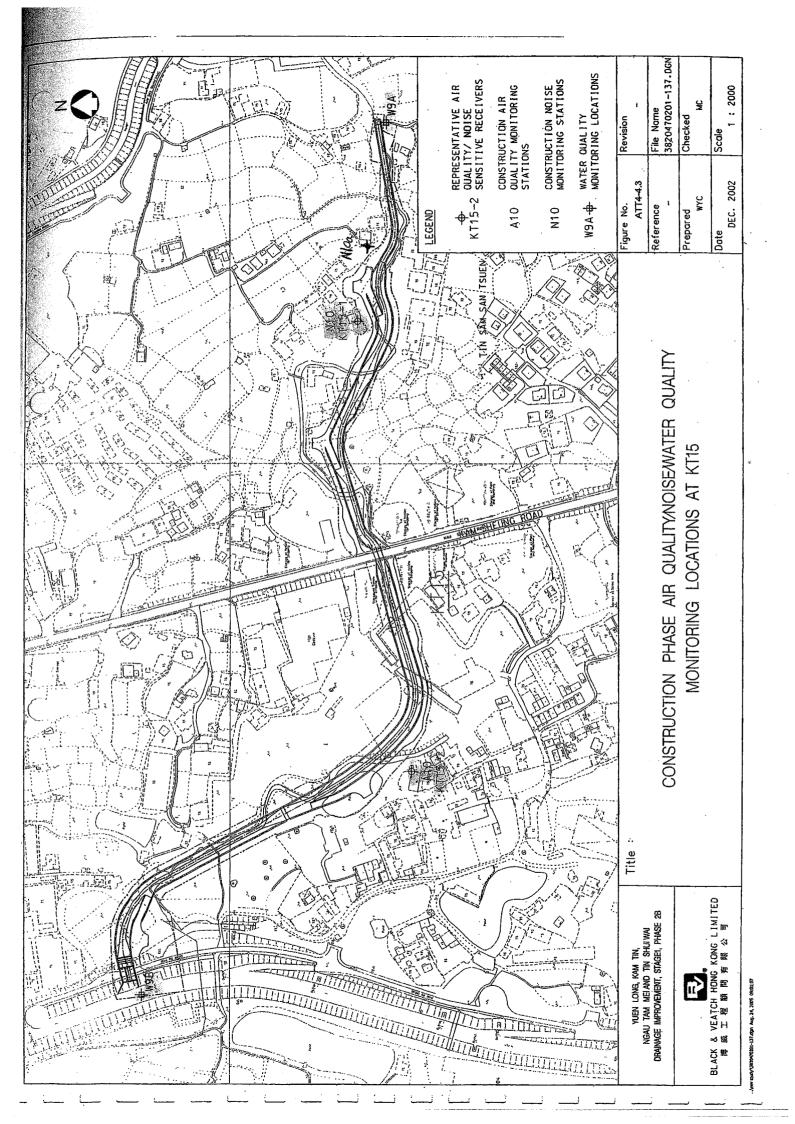
CCC (Contractor) ENSR (IEC)

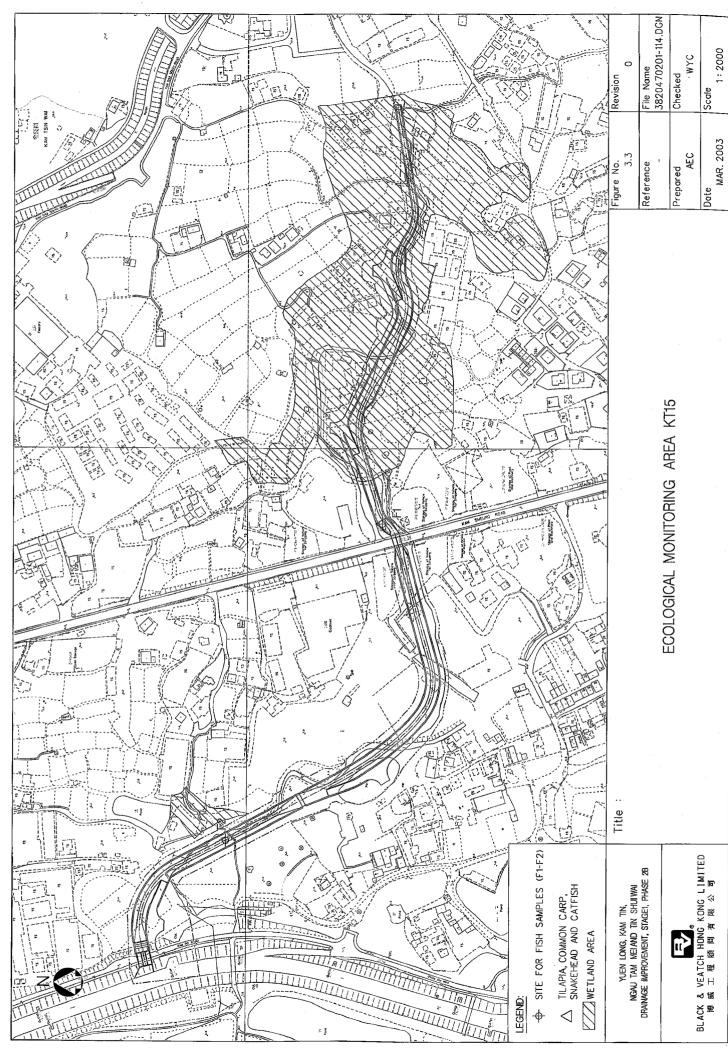
AUES (ET) Action-United Environmental Services & Consulting



Appendix D

Locations of Designated Monitoring Station/Locations/Area





m studr√3820470201-114.dgn Aug. 24, 2005 09:03:



Appendix E

Event/Action Plan for Air Quality, Construction Noise, Stream Water Quality and Ecology



Event/Action Plan for Air Quality

EXTENT		ACTION		
EVENT	ET	IEC	Engineer	Contractor
ACTION LEVEL				
Exeedance for one sample	Identify source Inform IEC and Engineer Repeat measurement to confirm finding Increase monitoring frequency to daily	Check monitoring data submitted by ET Check Contractor's working method	Notify Contractor	Rectify any unacceptable practice Amend working methods if appropriate
Exeedance for two or more consecutive samples	Identify source Inform IEC and Engineer Repeat measurements to confirm findings Increase monitoring frequency to daily Discuss with IEC and Contractor on remedial actions required If exceedance continues, arrange meeting with IEC and Engineer 7. If exceedance stops, cease additional monitoring	Check monitoring data submitted by ET Check Contractor's working method Discuss with ET and Contractor on possible remedial measures Advice Engineer on the effectiveness of the proposed remedial measures Supervise implementation of remedial measures	Confirm receipt of notification of failure in writing Notify Contractor Ensure remedial measures properly implemented	Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate
LIMIT LEVEL				
Exeedance for one sample	Identify source Inform Engineer and EPD Repeat measurement to confirm finding Increase monitoring frequency to daily Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results	Check monitoring data submitted by ET Check Contractor's working method Discuss with ET and Contractor on possible remedial measures Advice Engineer on the effectiveness of the proposed remedial measures Supervise implementation of remedial measures	Confirm receipt of notification of failure in writing Notify Contractor Ensure remedial measures properly implemented	Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate
Exceedance for two or more consecutive samples	1. Notify IEC, Engineer 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 Engineer to discuss the remedial actions to be taken 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results 8. If exceedance stops, cease additional monitoring	Discuss amongst Engineer, ET and Contractor on potential remedial actions Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly Supervise implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented 4. Discuss amongst Environmental Team Leader and the Contractor potential remedial actions 5. Ensure remedial measures properly implemented 6. 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 Engineer until the exceedance is abated

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for November 2007 (No. 5)



Event/Action Plan for Construction Noise

EVENT		ACTION		
EVENT	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL	Notify Contractor and Engineer Carry out investigation Report the results of investigation to the IEC and Contractor Discuss with the Contractor and formulate remedial measures Increase monitoring frequency to check mitigation effectiveness	Review the analysed results submitted by ET Review the proposed remedial measures by the Contractor and advice the Engineer accordingly Supervise implementation of remedial measures	Confirm receipt of notification of failure in writing Notify Contractor Require Contractor to propose remedial measures for the analysed noise problem Ensure remedial measures properly implemented	Submit noise mitigation proposals for remedial actions to IEC Implement the agreed proposals
LIMIT LEVEL	Notify IEC, Engineer, EPD and Contractor Identify source Repeat measurement to confirm findings Increase monitoring frequency Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented Inform IEC, Engineer and EPD the causes & actions taken for the exceedances Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results If exceedance stops, cease additional monitoring	Discuss amongst Engineer, ET and Contractor on potential remedial actions Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly Supervise implementation of remedial measures	Confirm receipt of notification of failure in writing Notify Contractor Require Contractor to propose remedial measures for the analysed noise problem Ensure remedial measures properly implemented 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 Engineer until the exceedance is abated



Event and Action Plan for Stream Water Quality

Event	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL (being exceeded by one sampling day)	Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC and Contractor Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC and Contractor Repeat measurement on next day of exceedance	Discuss with ET and Contractor on the mitigation measures Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly Assess the effectiveness of the implemented mitigation measures	Discuss with IEC on the proposed mitigation measures Make agreement on the mitigation measures to be implemented	Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET and Contractor and propose mitigation measures to IEC and Engineer Implement the agreed mitigation
ACTION LEVEL (being exceeded by more than one sampling day)	Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC, Contractor and EPD Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC, Engineer and Contractor Repeat measurement on next day of exceedance Ensure mitigation measures are implemented Prepare to increase the monitoring frequency to daily Repeat measurement on next day of exceedance	Discuss with ET and Contractor on the mitigation measures Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly Assess the effectiveness of the implemented mitigation measures	Discuss with IEC on the proposed mitigation measures Make agreement on the mitigation measures to be implemented Assess the effectiveness of the implemented mitigation measures	measures 1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET and IEC and propose mitigation measures to IEC and Engineer within 3 working days 6. Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by one sampling days)	Repeat in-situ measurement to confirm findings Identify source(s) of impact Inform IEC, Contractor and EPD Check monitoring data, all plant, equipment and Contractor's working methods Discuss mitigation measures IEC, Engineer and Contractor Ensure mitigation measures are implemented Increase the monitoring frequency to daily until no exceedance of Limit level	Discuss with ET and Contractor on the mitigation measures Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly Assess the effectiveness of the implemented mitigation measures	Discuss with IEC, ET and Contractor on the proposed mitigation measures Request Contractor to critically review the working methods Make agreement on the mitigation measures to be implemented Assess the effectiveness of the implemented mitigation measures	Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by more than one sampling days)	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform Contractor, Engineer, IEC and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, Engineer and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level	Discuss with ET and Contractor on the mitigation measures Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly Assess the effectiveness of the implemented mitigation measures	Discuss with IEC, ET and Contractor on the proposed mitigation measures Request Contractor to critically review the working methods Make agreement on the mitigation measures to be implemented Assess the effectiveness of the implemented mitigation measures Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until daily until no exceedance of Limit level	Inform Engineer and confirm notification of the non-compliance in writing Rectify unacceptable practice Check all plant and equipment Consider changes of working methods Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days Propose mitigation measures to Engineer within 3 working days Implement the agreed mitigation measures; As directed by Engineer, to slow down or to stop all or part of the construction activities

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for November 2007 (No. 5)



Event/Action Plan for Ecology

Event	ET Leader	IEC	Engineer	Contractor
Fauna The total number of species or individuals of the surveyed wetland dependent faunal groups is reduced by 20-40% from baseline	Notify IEC and Contractor; Check the position and state of the current works to identify the causes; Discuss mitigation measures with IEC and Contractor	Discuss with ET and Contractor on the mitigation measures Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly Assess the effectiveness of the implemented mitigation measures	Discuss with IEC on the proposed mitigation measures; Reach agreement on the mitigation measures to be implemented	Inform Engineer and confirm notification of the non-compliance in writing Take immediate action to avoid further exceedances; Check all plant and equipment and working methods, especially noise emanating ones Discuss with ET and IEC and propose mitigation measures to IEC and Engineer Implement the agreed mitigation measures



Appendix F

Equipment Calibration Certificates



Equipment Calibration List for Construction of Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai Project

Item	Aspect	Description of Equipment	Date of Calibration	Date of Next Calibration
1*	Air	Greasby Anderson GMWS2310 High Volume Sampler	03 Nov 07	03 Jan 08
2		EQ094 - Sibata LD-3 Laser Dust Meter	22 Jun 07	21 Jun 08
3		EQ096 - Sibata LD-3 Laser Dust Meter	22 Jun 07	21 Jun 08
4	Noise	Bruel & Kjaer 4231 Acoustical Calibrator	17 Apr 07	17 Apr 08
5		Bruel & Kjaer 2238 Integrating Sound Level Meter	17 Apr 07	17 Apr 08
6	Water	YSI 550A or YSI 85/10FT DO Meter	15 Oct 07	15 Jan 08
7		Hanna HI 98128	13 Oct 07	13 Jan 08
8		Hach 2100p	15 Oct 07	15 Jan 08
9		ATAGO refractometer	15 Oct 07	15 Jan 08

Note: *Calibration certificates will only be provided if monitoring equipment is re-calibrated or new.

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location: Tin Sam San Tsuen

Date of Calibration: 3-Nov-07

Location ID: A10

Next Calibration Date: 3-Jan-08

Technician: Mr. Ben Tam

CONDITIONS

Sea Level Pressure (hPa)
Temperature (°C)

1020.6 19.1 Corrected Pressure (mm Hg) Temperature (K) 765.45 292

CALIBRATION ORIFICE

Make-> TISCH Model-> 515N Serial # -> 9833620 Qstd Slope -> Qstd Intercept ->

1.94872 0.00202

CALIBRATION

Plate	H20 (L)	H2O (R)	H20	Qstd		IC	LINEAR
No.	(in)	(in)	(in)	(m3/min)	(chart)	corrected	REGRESSION
18	4.2	4.2	8.4	1.507	42	43.00	Slope = 36.5658
13	3.1	3.1	6.2	1.294	35	35.83	Intercept = -12.3541
10	2.2	2.2	4.4	1.090	25	25.60	Corr. coeff. = 0.9949
7	1.5	1.5	3	0.900	20	20.48	
5	1	1	2	0.735	15	15.36	

Calculations:

Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]

IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

Qstd = standard flow rate

IC = corrected chart respones

I = actual chart response

m = calibrator Qstd slope

b = calibrator Qstd intercept

Ta = actual temperature during calibration (deg K)
Pstd = actual pressure during calibration (mm Hg)

For subsequent calculation of sampler flow:

1/m((I)[Sqrt(298/Tav)(Pav/760)]-b)

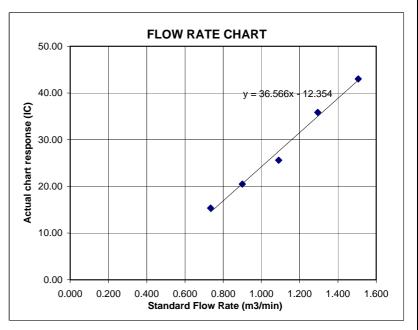
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure





Equipment Calibrated:

Type: Laser Dust monitor

Manufacturer: Sibata

Serial No. 362337

Equipment Ref: EQ094

Sensitivity 722 CPM

Standard Equipment:

Standard Equipment: Higher Volume Sampler

Location & Location ID: Au Tau abutment next to Yoho Town Phase 2

Equipment Ref: AM 7

Last Calibration Date: 20 May 2007

Equipment Calibration Results:

Calibration Date: 22 June 2007

Hour	Time	Temp °C	RH %	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
1	13:12 ~ 14:12	32.3	74	0.133	3613	60.2
1	14:15 ~ 15:15	31.7	77	0.139	3872	64.5
1	15:20 ~ 16:20	31.3	79	0.122	3204	53.4

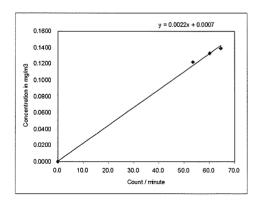
Sensitivity Adjustment Scale Setting (Before Calibration) 722 (CPM)
Sensitivity Adjustment Scale Setting (After Calibration) 722 (CPM)

Linear Regression of Y or X

Slope (K-factor): 0.0022

Correlation Coefficient 0.9987

Validity of Calibration Record 25 June 2007



Operator : Ben Tam Signature : Date : 25 June 2007

QC Reviewer: Con works Signature: Date: 25 The 2007



Equipment Calibrated:

Type: Laser Dust monitor

Manufacturer: Sibata

Serial No. 362359

Equipment Ref: EQ096

Sensitivity 769 CPM

Standard Equipment:

Standard Equipment: Higher Volume Sampler

Location & Location ID: Au Tau abutment next to Yoho Town Phase 2

Equipment Ref: AM 7

Last Calibration Date: 20 May 2007

Equipment Calibration Results:

Calibration Date: 22 June 2007

Hour	Time	Temp °C	RH %	Concentration in mg/m ³ (Standard Equipment)	Total Count (Calibrated Equipment)	Count/Minute (Total Count/60min)
1	13:12 ~ 14:12	32.3	74	0.133	3603	60.1
1	14:15 ~ 15:15	31.7	77	0.139	3930	65.5
1	15:20 ~ 16:20	31.3	79	0.122	3311	55.2

Sensitivity Adjustment Scale Setting (Before Calibration) 709 (CPM) Sensitivity Adjustment Scale Setting (After Calibration) 709 (CPM)

Linear Regression of Y or X

Slope (K-factor): 0.0021 **Correlation Coefficient** 0.9990

Validity of Calibration Record 25 June 2007

y = 0.0022x + 0.0005 0.1600 0.1400 0.1200 0.1000 0.0600 0.0000 30.0

Operator: Ben Tom Signature:

QC Reviewer: Kan Won 6 Signature:



輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No.: C071764

Certificate of Calibration

This is to certify that the equipment

Description: Acoustical Calibrator (EQ017)

Manufacturer: Bruel & Kjaer

Model No.: 4231

Serial No.: 2292168

has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C071764.

The equipment is supplied by

Co. Name: Action-United Environmental Services and Consulting

Address: Unit A, 20/F., Gold King Industrial Building. 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

Date of Issue: 17 April 2007

Certified by:

K O Lee

The test equipment used for testing are traceable to the National Standards as specified in this report. This report shall not be reproduced except in full and with prior written approval from this laboratory.



輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No.: C071765

Certificate of Calibration

This is to certify that the equipment

Description: Integrating Sound Level Meter (EQ010)

Manufacturer: Bruel & Kjaer

Model No.: 2238

Serial No.: 2285721

has been calibrated for the specific items and ranges. The results are shown in the Calibration Report No. C071765.

The equipment is supplied by

Co. Name: Action-United Environmental Services and Consulting

Address: Unit A, 20/F., Gold King Industrial Building, 35-41 Tai Lin Pai Road, Kwai Chung, N.T.

Date of Issue: 17 April 2007

Certified by:

K.C. Lee

The test equipment used for testing are traceable to the National Standards as specified in this report. This report shall not be reproduced except in full and with prior written approval from this laboratory.

Fax: 2744 8986

E-mail: callab@suncreation.com

Website: www.suncreation.com

CERTIFICATE OF ANALYSIS

Date of Issue: Client:

HK0714833 18/10/2007 ACTION UNITED ENVIRO SERVICES

Client Reference:

Calibration of DO System

YSI Multimeter Item:

YSI 550A Model No.:

05F2063AZ Serial No.:

HK0607963 Equipment No.:

This meter was calibrated in accordance with standard method APHA (18th Ed.) 4500-0C & G Calibration Method:

15 October, 2007 Date of Calibration:

Testing Results:

Recording Reading 1.40 mg/L 3.24 mg/L 7.81 mg/L ±0.2 mg/L Expected Reading Allowing Deviation 3.14 mg/L 7.76 mg/L 1.31 mg/L

Laboratory Manager - Hong Kong Ms Wong Wai Man, Allice

CERTIFICATE OF ANALYSIS

HK0714834 18/10/2007 ACTION UNITED ENVIRO SERVICES

Client Reference:

Date of Issue:

Batch:

Client:

Calibration of pH System

HANNA pH Meter Item:

HI98128 Model No.:

S229924 Serial No.:

EQ110 Equipment No.:

This meter was calibrated in accordance with standard method APHA (19th Ed.) 4500-H*B Calibration Method:

13 October, 2007 Date of Calibration:

Testing Results:

Recording Reading	3.94 7.00 9.86	+ 0.2
Expected Reading	4.00 7.00 10.0	Allowing Deviation

Laboratory Manager - Hong Kong Ms Wong Wai Man Alice

CERTIFICATE OF ANALYSIS

Date of Issue: Client: Batch:

HK0714836 18/10/2007 ACTION UNITED ENVIRO SERVICES

Client Reference:

Calibration of Tubidimeter

HACH Turbidimeter Item:

HACH 2100P Model No.:

950900008735 Serial No.:

EQ091 Equipment No.: This meter was calibrated in accordance with standard method APHA (19th Ed.) 2130B Calibration Method:

15 October, 2007 Date of Calibration:

Testing Results:

Expected Reading	Recording Reading
0.0 NTU	0.1 NTU
4.0 NTU	3.7 NTU
16.0 NTU	15.1 NTU
40.0 NTU	39.0 NTU
80.0 NTU	81.2 NTU
Allowing Deviation	±10%

Laboratory Manager - Hong Kong Ms Wong Wai Man, Alice

ALS Technichem (HK) Pty Ltd

ALS Environmental

CERTIFICATE OF ANALYSIS

Date of Issue:

HK0714835 18/10/2007 ACTION UNITED ENVIRO SERVICES

Client Reference:

Client:

Calibration of Salinity System

HAND REFRACTOMETER Item :

ATAGO Model No.:

289468 Serial No.: EQ114 Equipment No.:

This meter was calibrated in accordance with standard method APHA (19th Ed.) 2520 A and B Calibration Method:

15 October, 2007 Date of Calibration:

Testing Results:

Expected Reading	Recording Reading
10 a/L	10 0/
20 g/L	18 g/L
30 g/L	28 g/L
Allowing Deviation	±10%

Laboratory Manager - Hong Kong Ms Wong Wai Man, Alice



Appendix G

Impact Monitoring Schedules



Impact Monitoring Schedules in this Reporting Period

Date		Air Q	uality	Noise Leq 30min	Stream Water	Ecology Surveys
Date		1-Hour TSP	24-Hour TSP	140ise Leq 30iiiii	Quality	Ecology Surveys
26-Oct-07	Fri					
27-Oct-07	Sat					
28-Oct-07	Sun					
29-Oct-07	Mon					
30-Oct-07	Tue					
31-Oct-07	Wed					
1-Nov-07	Thu					
2-Nov-07	Fri					
3-Nov-07	Sat					
4-Nov-07	Sun					
5-Nov-07	Mon					
6-Nov-07	Tue					
7-Nov-07	Wed					
8-Nov-07	Thu					
9-Nov-07	Fri					
10-Nov-07	Sat					
11-Nov-07	Sun					
12-Nov-07	Mon					
13-Nov-07	Tue					
14-Nov-07	Wed					
15-Nov-07	Thu					
16-Nov-07	Fri					
17-Nov-07	Sat					
18-Nov-07	Sun					
19-Nov-07	Mon					
20-Nov-07	Tue					
21-Nov-07	Wed					
22-Nov-07	Thu					
23-Nov-07	Fri					
24-Nov-07	Sat					
25-Nov-07	Sun					

Monitoring Day
Sunday or Public Holiday

KT15 – Monthly EM&A Report for November 2007 (No. 5)



Impact Monitoring Schedules in the Next Reporting Period

Date		Air	Quality	Noise Leq 30min	Stream Water	Ecology Surveys
Bate		1-Hour TSP	24-Hour TSP	Troise Leg Somm	Quality	Leology Bulveys
26-Nov-07	Mon					
27-Nov-07	Tue					
28-Nov-07	Wed					
29-Nov-07	Thu					
30-Nov-07	Fri					
1-Dec-07	Sat					
2-Dec-07	Sun					
3-Dec-07	Mon					
4-Dec-07	Tue					
5-Dec-07	Wed					
6-Dec-07	Thu					
7-Dec-07	Fri					
8-Dec-07	Sat					
9-Dec-07	Sun					
10-Dec-07	Mon					
11-Dec-07	Tue					
12-Dec-07	Wed					
13-Dec-07	Thu					
14-Dec-07	Fri					
15-Dec-07	Sat					
16-Dec-07	Sun					
17-Dec-07	Mon					
18-Dec-07	Tue					
19-Dec-07	Wed					
20-Dec-07	Thu					
21-Dec-07	Fri					
22-Dec-07	Sat					
23-Dec-07	Sun					
24-Dec-07	Mon					
25-Dec-07	Tue					

Monitoring Day
Sunday or Public Holiday



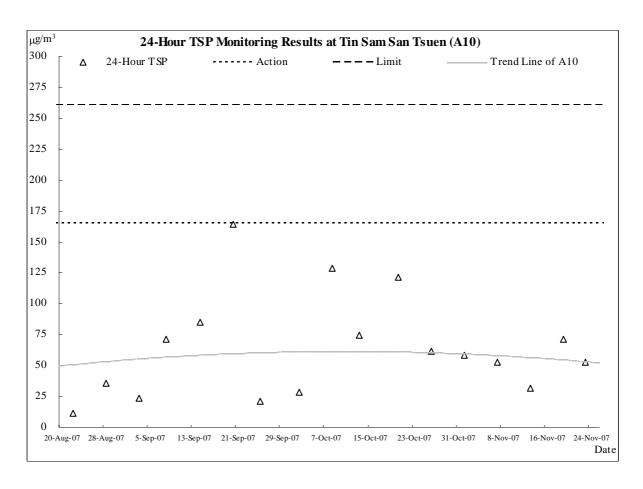
Appendix H

Graphical Plots of Air Quality, Construction Noise and Stream Water Quality Monitoring Results



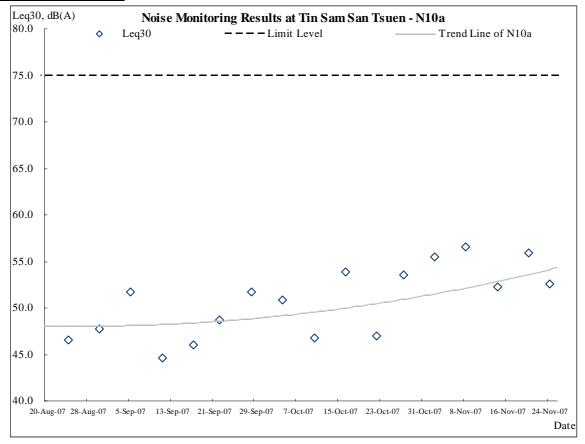
Air Quality







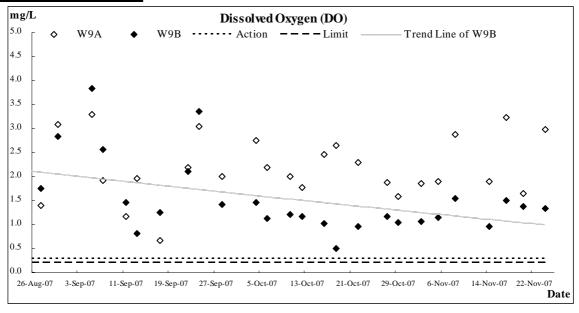
Construction Noise

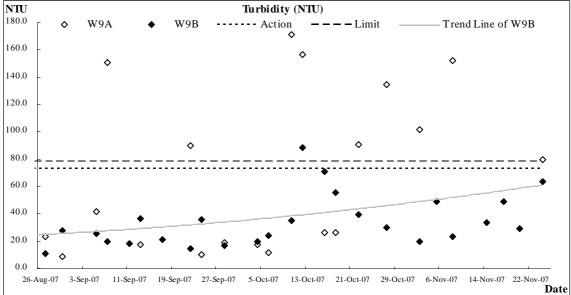


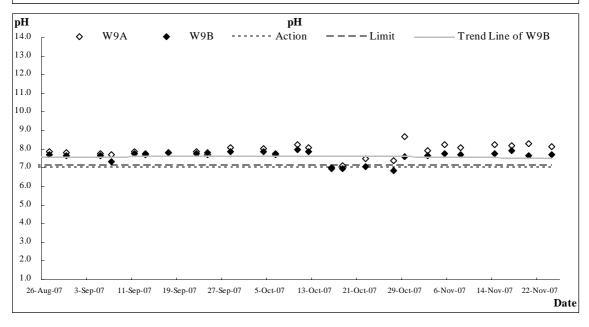
KT15 – Monthly EM&A Report for November 2007 (No. 5)



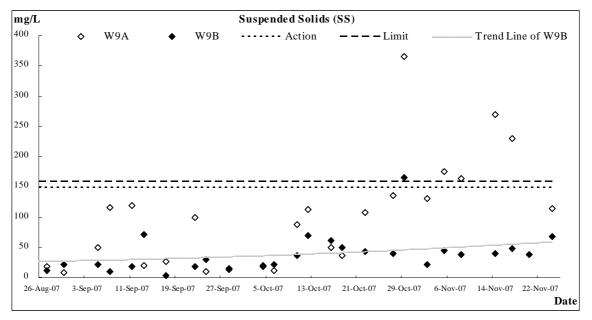
Stream Water Quality

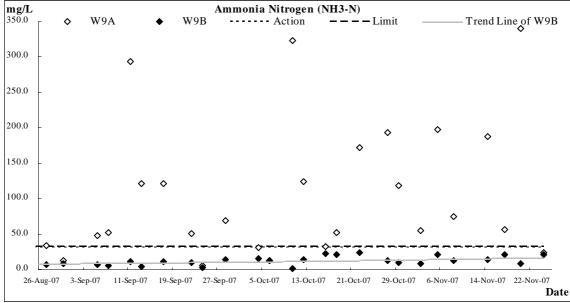


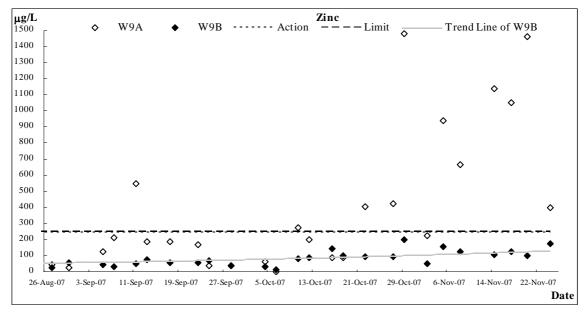












DSD Contract No. DC/2006/02

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for November 2007 (No. 5)



Date	2	7-Oct-07															
Location	Time	Depth (m)	Tem	Temp (oC)		(mg/L)	DO	S (%)	Turbidi	ty (NTU)	5	Salinity]	рH	SS	NH3-N	Zinc
W9A	14:27	0.10	25.9	25.9	1.87	1.00	22.6	23.0	135.0	1245	0	0.0	7.39	7.39	125.0	193.0	421.0
W9A	14:27	0.18	25.9	23.9	1.9	1.89 F	23.3	23.0	134.0	134.5	0	0.0	7.39	7.39	135.0	193.0	421.0
WOD	14.40	0.26	27.0	27.0	1.15	1.16	14.4	14.6	29.4	20.4	0	0.0	6.86	6 97	20.0	12.2	01.0
W9B	14:48	0.26	27.0	27.0	1.17	1.16	14.8	14.6	31.3	30.4	0	0.0	6.87	6.87	39.0	12.2	91.0

Date	29	9-Oct-07															
Location	Time	Depth (m)	Tem	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	5	Salinity]	рH	SS	NH3-N	Zinc
W9A	15:28	0.13	25.0	25.0	1.56	1.58	18.7	19.0	243.0	246.0	0	0.0	8.69	8.70	365.0	118.0	1480.0
W9A	13.20	0.13	25.0	23.0	1.59	1.56	19.3	19.0	249.0	240.0	0	0.0	8.70	6.70	303.0	110.0	1460.0
W9B	15.40	0.27	27.2	27.2	1.04	1.05	13.1	12.0	190.0	102.5	0	0.0	7.61	7.62	165.0	0.2	100.0
W9B	15:40	0.27	27.2	27.2	1.05	1.05	13.3	13.2	197.0	193.5	0	0.0	7.62	7.62	165.0	9.3	198.0

Date	2	-Nov-07															
Location	Time	Depth (m)	Ten	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
W9A	14:55	0.14	23.1	23.1	1.85	1.86	21.8	21.9	101.0	101.5	0	0.0	7.93	7.94	131.0	55.3	224.0
WAA	14.33	0.14	23.1	23.1	1.86	1.00	21.9	21.9	102.0	101.5	0	0.0	7.94	7.94	131.0	33.3	224.0
W9B	15:15	0.26	21.9	21.9	1.05	1.06	11.7	11.0	19.0	10.6	0	0.0	7.68	7.68	22.0	8.8	52.0
WAD	13:13	0.26	21.9	21.9	1.06	1.00	12.0	11.9	20.2	19.6	0	0.0	7.68	7.08	22.0	0.0	32.0

Date	5	-Nov-07															
Location	Time	Depth (m)	Tem	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
M/O A	15.51	0.14	21.3	21.2	1.92	1.90	21.8	21.6	229.0	220.5	0	0.0	8.24	9.24	175.0	100.0	040.0
W9A 15:51	:51 0.14	21.3	21.3	1.88	1.90	21.3	21.6	232.0	230.5	0	0.0	8.24	8.24	175.0	198.0	940.0	
WOD	16.05	0.27	23.5	22.5	1.17	1 15	13.9	12.7	49.0	40.2	0	0.0	7.79	7.70	44.0	20.7	157.0
W9B 16:05	6:05 0.27	23.5	23.5	1.13	1.15	13.4	13.7	49.6	49.3	0	0.0	7.76	7.78	44.0	20.7	157.0	

Date	8	-Nov-07															
Location	Time	Depth (m)	Tem	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	S	Salinity]	pН	SS	NH3-N	Zinc
WOA	16.25	0.17	20.9	20.9	2.86	2.88	31.9	32.2	152.0	152.5	0	0.0	8.08	8.09	164.0	74.7	663.0
W9A 16:25	0.17	20.9	20.9	2.89	2.00	32.4	32.2	153.0	132.3	0	0.0	8.09	6.09	104.0	74.7	003.0	
W9B	16:34	0.22	21.1	21.1	1.55	1.54	17.9	17.0	23.4	22.6	0	0.0	7.74	7.74	29.0	12.1	127.0
WAD	10:34	0.33	21.1	21.1	1.53	1.54	17.6	17.8	23.7	23.6	0	0.0	7.73	7.74	38.0	13.1	127.0

DSD Contract No. DC/2006/02

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for November 2007 (No. 5)



Date	14	1-Nov-07															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO	S (%)	Turbidi	ty (NTU)	5	Salinity]	рH	SS	NH3-N	Zinc
W9A	15:30	0.21	22.4	22.4	1.9	1.90	21.9	21.9	276.0	276.5	0	0.0	8.24	8.24	269.0	188.0	1140.0
W9A	13:30	0.21	22.3	22.4	1.9	1.90	21.9	21.9	277.0	270.3	0	0.0	8.24	0.24	209.0	100.0	1140.0
WOD	15.40	0.27	25.1	25.1	0.94	0.05	11.4	11.6	33.5	22.0	0	0.0	7.75	7.75	40.0	12.5	102.0
W9B	15:40	0.27	25.1	25.1	0.96	0.95	11.7	11.6	34.1	33.8	0	0.0	7.75	7.75	40.0	13.5	103.0

Date	17	7-Nov-07															
Location	Time	Depth (m)	Temp (oC)		DO (mg/L)		DO	S (%)	Turbidi	ty (NTU)	S	Salinity]	рH	SS	NH3-N	Zinc
W9A	9:54	0.21	21.8	21.9	3.21	3.23	36.5	36.8	200.0	207.0	0	0.0	8.21	8.22	229.0	56.5	1050.0
W9A	9:34	0.21	21.9	21.9	3.24	3.23	37.0	30.8	214.0	207.0	0	0.0	8.22	8.22	229.0	30.3	1030.0
W9B	10:16	0.36	24.2	24.2	1.52	1.51	17.8	17.5	49.1	48.7	0	0.0	7.91	7.92	48.0	21.2	123.0
WAP	10:10	0.30	24.1	24.2	1.49	1.31	17.2	17.5	48.3	46.7	0	0.0	7.92	1.92	46.0	21.2	123.0

Date	20)-Nov-07															
Location	Time	Depth (m)	Tem	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	S	Salinity		pН	SS	NH3-N	Zinc
W9A	16:03	0.12	21.6	21.6	1.64	1.65	18.6	18.7	885.0	890.5	0	0.0	8.31	8.32	545.0	340.0	1460.0
WAA	10.03	0.12	21.6	21.0	1.65	1.05	18.8	10.7	896.0	690.5	0	0.0	8.32	0.32	343.0	340.0	1400.0
W9B	16.10	0.48	23.2	23.2	1.36	1.37	15.9	15.9	28.5	29.3	0	0.0	7.65	7.65	29.0	7.9	97.0
WAD	16:18	0.48	23.2	23.2	1.37	1.57	15.9	13.9	30.1	29.3	0	0.0	7.65	7.03	38.0	7.9	97.0

Date	24	1-Nov-07															
Location	Time	Depth (m)	Tem	ıp (oC)	DO	(mg/L)	DO	S (%)	Turbidi	ty (NTU)	5	Salinity]	pН	SS	NH3-N	Zinc
W9A	11:26	0.18	21.2	21.2	2.97	2.99	33.1	33.5	80.3	79.4	0	0.0	8.12	8.13	114.0	24.4	398.0
W9A	11.20	0.16	21.2	21.2	3	2.99	33.8	33.3	78.5	79.4	0	0.0	8.13	0.13	114.0	24.4	396.0
WOD	11.14	0.27	23.0	22.0	1.35	1 24	15.8	15.0	61.9	(2.6	0	0.0	7.69	7.60	(7.0	20.9	172.0
W9B	11:14	0.37	23.0	23.0	1.32	1.34	15.4	15.6	65.2	63.6	0	0.0	7.69	7.69	67.0	20.9	172.0

Client : ACTION UNITED ENVIRO SERVICES

Work Order HK0715654



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results				
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)			
EA/ED: Physical and Aggi	regate Properties (QC Lot: 523862	2)									
HK0715619-005	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	<2	<2	0.0			
HK0715652-005	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	<2	2	0.0			
ED/EK: Inorganic Nonmet	allic Parameters (QC Lot: 524920)										
HK0715654-005	W9B - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	12.2	11.0	10.3			
HK0715667-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.2	0.2	0.0			
EG: Metals and Major Cati	EG: Metals and Major Cations (QC Lot: 523843)										
HK0715654-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	μg/L	73	74	0.0			

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (ME	3) Results	Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results				S) Results		
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Os (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Properti	ies (QCLot: 523862)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	101		85	115		
ED/EK: Inorganic Nonmetallic Parameter	rs (QCLot: 524920)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	95.0		85	115		
EG: Metals and Major Cations (QCLot: 523843)											
EG020: Zinc	7440-66-6	10	μg/L	<10	100 μg/L	92.6		85	115		

Matrix Type: WATER					Matrix S	Spike (MS) and Matrix S	pike Duplica	ate (MSD) Re	sults	
				Spike	Spike Rec	overy (%)	Recovery	Limits (%)	RPDs (%	6)
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonme	tallic Parameters (QCLot:	524920)								
HK0715654-001	W1A - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined		75	125		
EG: Metals and Major Ca	G: Metals and Major Cations (QCLot: 523843)									
HK0715654-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 μg/L	89.0		75	125		

Client : ACTION UNITED ENVIRO SERVICES

Work Order HK0715736



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)					
EA/ED: Physical and Agg	regate Properties (QC Lot: 525906	5)											
HK0715695-001	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	5	5	0.0					
HK0715746-002	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	4	4	0.0					
ED/EK: Inorganic Nonme	ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 526358)												
HK0715786-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.2	0.2	0.0					
HK0715756-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	836	836	0.0					
EG: Metals and Major Cat	EG: Metals and Major Cations (QC Lot: 525910)												
HK0715736-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	μg/L	213	207	2.5					

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (ME	B) Results Single Control Spike (SCS) and Duplicate Control Spike (DCS) Resu			S) Results				
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPD	9s (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Property	ties (QCLot: 525906)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	88.0		85	115		
ED/EK: Inorganic Nonmetallic Paramete	ers (QCLot: 526358)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.3		85	115		
EG: Metals and Major Cations (QCLot: 525910)											
EG020: Zinc	7440-66-6	10	μg/L	<10	100 μg/L	91.6		85	115		

Matrix Type: WATER					Matrix	Spike (MS) and Matrix S	Spike Duplic	ate (MSD) Re	sults	
				Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPDs (%	%)
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonme	tallic Parameters (QCLot:									
HK0715781-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	104		75	125		
EG: Metals and Major Car	G: Metals and Major Cations (QCLot: 525910)									
HK0715736-001							75	125		

Client : ACTION UNITED ENVIRO SERVICES

Work Order HK0715992



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Agg	regate Properties (QC Lot: 52763	4)						
HK0715991-001	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	<2	<2	0.0
HK0715992-002	W1B (1 & 2 MIX)	EA025: Suspended Solids (SS)		2	mg/L	86	84	2.2
ED/EK: Inorganic Nonmet	allic Parameters (QC Lot: 528117)						
HK0715915-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	12.1	11.0	9.9
HK0715943-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	37.4	38.0	1.6
EG: Metals and Major Cat	ions (QC Lot: 527668)							
HK0715901-003	Anonymous	EG020: Zinc	7440-66-6	10	μg/L	<10	<10	0.0
HK0715992-002	W1B (1 & 2 MIX)	EG020: Zinc	7440-66-6	10	μg/L	52	54	3.0

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (ME	3) Results	Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results					CS) Results	
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	9s (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	rties (QCLot: 527634)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	89.5		85	115		
ED/EK: Inorganic Nonmetallic Paramet	ers (QCLot: 528117)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	96.7		85	115		
EG: Metals and Major Cations (QCLot: 527668)											
EG020: Zinc	7440-66-6	10	μg/L	<10	100 μg/L	94.1		85	115		

Matrix Type: WATER					Matrix	Spike (MS) and Matrix S	Spike Duplic	ate (MSD) Re	sults	
				Spike	Spike Red	overy (%)	Recovery	Limits (%)	RPDs (%	6)
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonme	tallic Parameters (QCLot: 5									
HK0715943-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	95.7		75	125		
EG: Metals and Major Cat	G: Metals and Major Cations (QCLot: 527668)									
HK0715901-002	Anonymous	EG020: Zinc	7440-66-6	100 μg/L	87.1		75	125		

Client : ACTION UNITED ENVIRO SERVICES

Work Order HK0716121



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results						
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)					
EA/ED: Physical and Ago	regate Properties (QC Lot: 529	569)											
HK0716058-002	Anonymous	EA025: Suspended Solids (SS)		3	mg/L	55	59	7.1					
HK0716091-006	Anonymous	EA025: Suspended Solids (SS)		3	mg/L	8480	8590	1.3					
ED/EK: Inorganic Nonme	tallic Parameters (QC Lot: 5300	063)											
HK0716121-001	W1A - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	2.62	2.62	0.0					
HK0716127-010	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	1.2	1.2	0.0					
ED/EK: Inorganic Nonme	HK0716127-010 Anonymous EK055A: Ammonia as N 7664-41-7 0.1 mg/L 1.2 1.2 0.0 ED/EK: Inorganic Nonmetallic Parameters (QC Lot: 530064)												
HK0716085-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	5.86	5.80	1.0					
HK0716127-011	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	1.2	1.2	0.0					
EG: Metals and Major Ca	tions (QC Lot: 529593)												
HK0716121-005	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	μg/L	157	159	1.4					
EG: Metals and Major Ca	tions (QC Lot: 530205)												
HK0716127-014	Anonymous	EG020: Zinc	7440-66-6	10	μg/L	149	145	2.7					

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (MB	3) Results		Single Co	ontrol Spike (SCS) and D	uplicate Con	trol Spike (DC	DCS) Results	
					Spike	Spike Re	covery (%)	Recovery	Limits (%)	RPL	Os (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	rties (QCLot: 529569)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	94.5		85	115		
ED/EK: Inorganic Nonmetallic Paramet	ers (QCLot: 530063)	•									
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	98.1		85	115		
ED/EK: Inorganic Nonmetallic Paramet	ers (QCLot: 530064)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	99.0		85	115		
EG: Metals and Major Cations (QCLot:	: 529593)										
EG020: Zinc	7440-66-6	10	μg/L	<10	100 μg/L	96.0		85	115		
EG: Metals and Major Cations (QCLot:	: 530205)										
EG020: Zinc	7440-66-6	10	μg/L	<10	100 μg/L	90.7		85	115		

Matrix Type: WATER			Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results							
		Spike	Spike Red	overy (%)	Recovery	Limits (%)	RPDs (%	6)		
Laboratory Sample ID	Client Sample ID	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit	
ED/EK: Inorganic Nonm	etallic Parameters (QCLot: 5	530063)								
HK0716012-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined		75	125		
ED/EK: Inorganic Nonm	etallic Parameters (QCLot:	530064)	<u> </u>			<u> </u>				

Client : ACTION UNITED ENVIRO SERVICES

Work Order HK0716121



Matrix Type: WATER	trix Type: WATER				Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results					
				Spike	Spike Red	overy (%)	Recovery	Limits (%)	RPDs (%	6)
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonm	etallic Parameters (QCLot:	530064) - continued								
HK0716127-010	Anonymous	EK055A: Ammonia as N	7664-41-7	5.0 mg/L	107		75	125		
EG: Metals and Major Ca	ations (QCLot: 529593)									
HK0716121-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 μg/L	83.6		75	125		
EG: Metals and Major Ca	ations (QCLot: 530205)									
HK0716127-014	Anonymous	EG020: Zinc	7440-66-6	1000 μg/L	87.9		75	125		

Client : ACTION UNITED ENVIRO SERVICES

Work Order HK0716385



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results			
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)		
EA/ED: Physical and Aggi	regate Properties (QC Lot: 532718	3)								
HK0716381-009	Anonymous	EA025: Suspended Solids (SS)		2	mg/L	<2	<2	0.0		
ED/EK: Inorganic Nonmet	allic Parameters (QC Lot: 534214)									
HK0716385-005	W9B 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	13.1	12.8	2.3		
HK0716429-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.3	0.3	0.0		
EG: Metals and Major Cat	G: Metals and Major Cations (QC Lot: 532753)									
HK0716286-001	Anonymous	EG020: Zinc	7440-66-6	10	μg/L	157	179	13.0		

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results		Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results							
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	Os (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Propert	ies (QCLot: 532718)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	88.0		85	115		
ED/EK: Inorganic Nonmetallic Paramete	ers (QCLot: 534214)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	97.3		85	115		
EG: Metals and Major Cations (QCLot:	532753)										
EG020: Zinc	7440-66-6	10	μg/L	<10	100 μg/L	91.8		85	115		

Matrix Type: WATER					Matrix S	Spike (MS) and Matrix S	Spike Duplic	ate (MSD) Re	sults	
						overy (%)	Recovery	Limits (%)	RPDs (%	6)
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonme	tallic Parameters (QCLot:	534214)								
HK0716385-001	W1A 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined		75	125		
EG: Metals and Major Car	tions (QCLot: 532753)									
HK0716286-001	Anonymous	EG020: Zinc	7440-66-6	100 μg/L	92.7		75	125		

Client : ACTION UNITED ENVIRO SERVICES

Work Order HK0716599



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Agg	regate Properties (QC Lot: 53595	5)						
HK0716592-003	Anonymous	EA025: Suspended Solids (SS)		3	mg/L	24	26	6.0
HK0716596-002	Anonymous	EA025: Suspended Solids (SS)		3	mg/L	<3	<3	0.0
ED/EK: Inorganic Nonme	tallic Parameters (QC Lot: 536588							
HK0716575-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	29.9	30.7	2.6
HK0716595-002	Anonymous	EK055A: Ammonia as N	7664-41-7	0.1	mg/L	0.2	0.1	0.0
EG: Metals and Major Cat	ions (QC Lot: 535943)							
HK0716599-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	μg/L	82	82	0.0

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER		Method Blank (MB) Results			Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results							
					Spike	Spike Red	covery (%)	Recovery	Limits (%)	RPL	9s (%)	
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit	
EA/ED: Physical and Aggregate Proper	rties (QCLot: 535955)			_								
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	102		85	115			
ED/EK: Inorganic Nonmetallic Paramet	ers (QCLot: 536588)											
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	5.0 mg/L	105		85	115			
EG: Metals and Major Cations (QCLot:	: 535943)											
EG020: Zinc	7440-66-6	10	μg/L	<10	100 μg/L	88.5		85	115			

Matrix Type: WATER					Matrix S	Spike (MS) and Matrix S	Spike Duplica	ate (MSD) Re	sults	
						overy (%)	Recovery	Limits (%)	RPDs (%	6)
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonme	tallic Parameters (QCLot:	536588)								
HK0716594-001	Anonymous	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined		75	125		
EG: Metals and Major Ca	tions (QCLot: 535943)									
HK0716599-001	W1A - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 μg/L	93.8		75	125		

Client : ACTION UNITED ENVIRO SERVICES

Work Order HK0716839



Quality Control - Laboratory Duplicate (DUP) Results

Matrix Type: WATER						Duplicate (DUP)	Results	
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	LOR	Units	Original Result	Duplicate Result	RPD (%)
EA/ED: Physical and Ag	gregate Properties (QC Lot: 53913	1)						
HK0716805-001	Anonymous	EA025: Suspended Solids (SS)		3	mg/L	4	4	0.0
HK0716835-003	Anonymous	EA025: Suspended Solids (SS)		3	mg/L	4240	4370	3.1
ED/EK: Inorganic Nonm	etallic Parameters (QC Lot: 539606)						
HK0716776-004	Anonymous	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	23.6	23.6	0.0
HK0716839-004	W9A - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.01	mg/L	56.5	59.3	4.8
EG: Metals and Major Ca	ations (QC Lot: 539163)							
HK0716773-022	Anonymous	EG020: Zinc	7440-66-6	10	μg/L	<10	<10	0.0
HK0716773-031	Anonymous	EG020: Zinc	7440-66-6	10	μg/L	<10	<10	0.0
EG: Metals and Major Ca	ations (QC Lot: 539173)							
HK0716839-003	W1C - 1 & 2 MIX	EG020: Zinc	7440-66-6	10	μg/L	34	38	9.5

Quality Control - Method Blank (MB), Single Control Spike (SCS) and Duplicate Control Spike (DCS) Results

Matrix Type: WATER			Method Blank (ME	3) Results		Single Co	ntrol Spike (SCS) and D	uplicate Con	trol Spike (DC	S) Results	
					Spike	Spike Re	covery (%)	Recovery	Limits (%)	RPD)s (%)
Method: Analysis Description	CAS number	LOR	Units	Result	Concentration	scs	DCS	Low	High	Value	Control Limit
EA/ED: Physical and Aggregate Proper	rties (QCLot: 539131)										
EA025: Suspended Solids (SS)		2	mg/L	<2	20 mg/L	97.5		85	115		
ED/EK: Inorganic Nonmetallic Paramet	ers (QCLot: 539606)										
EK055A: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	98.0		85	115		
EG: Metals and Major Cations (QCLot:	539163)										
EG020: Zinc	7440-66-6	10	μg/L	<10	100 μg/L	87.6		85	115		
EG: Metals and Major Cations (QCLot:	539173)										
EG020: Zinc	7440-66-6	10	μg/L	<10	100 μg/L	85.3		85	115		

Matrix Type: WATER					Matrix S	Spike (MS) and Matrix S	pike Duplic	ate (MSD) Re	sults	
				Spike	Spike Red	overy (%)	Recovery	Limits (%)	RPDs (%	5)
Laboratory Sample ID	Client Sample ID	Method: Analysis Description	CAS number	Concentration	MS	MSD	Low	High	Value	Control Limit
ED/EK: Inorganic Nonme	tallic Parameters (QCLot: 5	39606)								
HK0716839-001	W1A - 1 & 2 MIX	EK055A: Ammonia as N	7664-41-7	0.5 mg/L	Not Determined		75	125		
EG: Metals and Major Cat	tions (QCLot: 539163)									
HK0716773-021	Anonymous	EG020: Zinc	7440-66-6	100 μg/L	76.5		75	125		
EG: Metals and Major Cat	ions (QCLot: 539173)									
HK0716839-002	W1B - 1 & 2 MIX	EG020: Zinc	7440-66-6	100 μg/L	87.3		75	125		

KT15 – Monthly EM&A Report for November 2007 (No. 5)



Appendix I

Meteorological Data in the Reporting Period



Meteorological Data Extracted from HKO in the Reporting Period

				Lau Fau Shan Weather Station					
Date		Weather	Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction		
26-Oct-07	Fri	fine/dry/hazy/moderate	0	26.5	13	66	E		
27-Oct-07	Sat	fine/dry/haze/moderate/fresh	0	25.6	10.5	66	E/SE		
28-Oct-07	Sun	sunny intervals/moderate/fresh	0	24.8	9	72.5	W/SW		
29-Oct-07	Mon	sunny periods/cloudy/moderate/fresh	0	25.2	12	68.1	Е		
30-Oct-07	Tue	cloudy/haze/rain/moderate	6.3	23.3	13	65.5	Е		
31-Oct-07	Wed	cloudy/rain/moderate	1.7	21.4	12	76.5	E/NE		
1-Nov-07	Thu	cloudy/rain/fresh/strong	2.1	18.8	15.5	85.5	E/NE		
2-Nov-07	Fri	cloudy/bright/fresh/strong	1.6	17.9	21	78	N/NE		
3-Nov-07	Sat	sunny periods/dry/moderate/fresh	Trace	20.8	16	58	NE		
4-Nov-07	Sun	fine/dry/moderate/fresh	0.2	21.8	8.7	51.7	Е		
5-Nov-07	Mon	fine/dry/moderate/fresh	0	21.3	10	58.7	E		
6-Nov-07	Tue	fine/dry/moderate/fresh	0	22.7	14	49.2	N/NE		
7-Nov-07	Wed	dry/sunny intervals/moderate/fresh/strong	Trace	21.2	16.5	54	N/NE		
8-Nov-07	Thu	cloudy/rain/moderate/fresh	Trace	18.4	10.7	73	N/NE		
9-Nov-07	Fri	fine/dry/moderate/fresh	0	23.9	11.2	65.5	N/NE		
10-Nov-07	Sat	fine/dry/moderate	0	23.1	12.5	65.5	E/NE		
11-Nov-07	Sun	fine/dry/moderate/fresh	0	21.5	8.5	63	E/SE		
12-Nov-07	Mon	fine/dry/moderate/fresh	0	21.7	10.5	69.5	Е		
13-Nov-07	Tue	fine/dry/moderate/fresh	0	22.4	11	62.5	E/SE		
14-Nov-07	Wed	fine/dry/moderate/fresh	0	22.7	10.5	62	E/SE		
15-Nov-07	Thu	fine/dry/moderate/fresh	0	23.2	9	Maintenance	Е		
16-Nov-07	Fri	fine/dry/moderate/fresh	0	23.9	12.5	Maintenance	E/SE		
17-Nov-07	Sat	fine/moderate/fresh	0	24.2	9	65.2	Е		
18-Nov-07	Sun	cloudy/dry/sunny intervals/moderate	0	22.3	19	61.5	E/NE		
19-Nov-07	Mon	dry/sunny intervals/cloudy/moderate	Trace	20.5	15.2	65	N/NE		
20-Nov-07	Tue	fine/dry/moderate/fresh	0	19	14.5	58.5	NE		
21-Nov-07	Wed	fine/dry/moderate/fresh	Trace	21.2	9.7	57.5	E/NE		
22-Nov-07	Thu	sunny periods/dry/moderate	0	21.7	9	65	E/NE		
23-Nov-07	Fri	fine/dry/moderate	0	20.3	9	65	E/NE		
24-Nov-07	Sat	dry/sunny periods/moderate/fresh	0	21.5	14.5	65	E/NE		
25-Nov-07	Sun	dry/sunny periods/cloudy/fresh	0	22	13.5	53.5	N		



Appendix J

Environmental Team Site Inspection Checklists



Proje	ct: Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B –	Inspected by ui -								
	Cheung Chun San Tsuen and Kam Tsin Wai		RE/RE's rep			A.F. Ng	WL Chan			
Inspe			EC/IEC's re	-		Ben Tam				
Date: Time:			ETL/ ET's re Contractor'	-		M.K. Ng / K.M. Lui				
111110.	05.00		Checklist N	-	intative.	KT15-311007				
PART	A: GENERAL INFORMATION Environmen	tal P	ermit No. I	EP-231/20	05/A					
Weath		 [Rainy		••••					
Temp	erature: 23 °C	_								
Humio	dity: High Moderate Low									
Wind:	Strong Breeze ✓ Light		Calm							
PART	B: SITE AUDIT									
I AKI	D. GITE AGDIT		Not			F-11		District		
			Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks		
Section	on 1: Water Quality						-			
1.01	Is an effluent discharge license obtained for the Project?			\checkmark						
1.02	Is the effluent discharged in accordance with the dischalicence?	rge		\checkmark						
1.03	Is the discharge of turbid water avoided?			\checkmark						
1.04	Are there proper desilting facilities in the drainage systems reduce SS levels in effluent?	to		\checkmark						
1.05	Are there channels, sandbags or bunds to direct surface run-of sedimentation tanks?	f to	\checkmark							
1.06	Are there any perimeter channels provided at site boundaries intercept storm runoff from crossing the site?	to	\checkmark							
1.07	Is drainage system well maintained?				\checkmark					
1.08	As excavation proceeds, are temporary access roads protected crushed stone or gravel?	by					$\overline{\checkmark}$			
1.09	Are temporary exposed slopes properly covered?						$\overline{\checkmark}$			
1.10	Are earthworks final surfaces well compacted or protected?						\checkmark			
1.11	Are manholes adequately covered or temporarily sealed?			\checkmark						
1.12	Are there any procedures and equipment for rainstorm protection	n?		\checkmark						
1.13	Are wheel washing facilities well maintained?						$\overline{\checkmark}$			
1.14	Is runoff from wheel washing facilities avoided?						$\overline{\checkmark}$			
1.15	Are there toilets provided on site?			\checkmark						
1.16	Are toilets properly maintained?			\checkmark						
1.17	Are the vehicle and plant servicing areas paved and located wir roofed areas?	thin					$\overline{\checkmark}$			
1.18	Is the oil leakage or spillage avoided?			\checkmark						
1.19	Are there any measures to prevent leaked oil from entering drainage system?	the		\checkmark						
1.20	Are there any measures to collect spilt cement and concrwashings during concreting works?	ete					\checkmark			
1.21	Are there any oil interceptors/grease traps in the drainage syste for vehicle and plant servicing areas, canteen kitchen, etc?	ms					$\overline{\checkmark}$			



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?					\checkmark	
1.23	Is used bentonite recycled where appropriate?					\checkmark	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	\checkmark					
1.25	No excavation is undertaken in the settlement area.		\checkmark				
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.					\checkmark	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.		\checkmark				
1.25	License collector should be employed for handling the sewage of mobile toilet.		\checkmark				
1.26	Any stagnant water accumulated within the excavation trench or site working area.		\checkmark				
Sectio	n 2: Air Quality						
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?		\checkmark				
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?		\checkmark				
2.03	Are the excavated materials sprayed with water during handling?	\checkmark					
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?		\checkmark				
2.05	Is the exposed earth properly treated within six months after the last construction activities?					\checkmark	
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?		\checkmark				
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?					\checkmark	
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?	\checkmark					
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?	\checkmark					
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?		\checkmark				
2.11	Is dark smoke emission from plant/equipment avoided?		\checkmark				
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?					\checkmark	
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?		\checkmark				
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?		\checkmark				
2.15	Is open burning avoided?		\checkmark				
2.16	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.					\checkmark	
Sectio	n 3: Noise						
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?		\checkmark				
3.02	Is silenced equipment adopted?	\checkmark					
3.03	Is idle equipment turned off or throttled down?		\checkmark				
3.04	Are all plant and equipment well maintained and in good condition?		\checkmark				
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?	\checkmark					
3.06	Are hand held breakers fitted with valid noise emission labels during operation?					\checkmark	



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?					\checkmark	
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	\checkmark					
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)	\checkmark					
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	\checkmark					
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		$\overline{\checkmark}$				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?	\checkmark					
4.04	Is general refuse disposed of properly and regularly?		$\overline{\checkmark}$				
4.05	Is the Contractor registered as a chemical waste producer?		$\overline{\checkmark}$				
4.06	Are the chemical waste containers properly labelled?		$\overline{\checkmark}$				
4.07	Are the chemical wastes stored in proper storage areas?		$\overline{\checkmark}$				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		$\overline{\checkmark}$				
4.11	Are the chemical wastes disposed of by licensed collectors?					\checkmark	
4.12	Are trip tickets for chemical wastes disposal available for inspection?					\checkmark	
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?	\checkmark					
4.17	Are construction wastes disposed of properly?		$\overline{\checkmark}$				
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		$\overline{\checkmark}$				
4.20	Are appropriate procedures followed if contaminated material exists?					\checkmark	
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.					\checkmark	
Section	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	\checkmark					
Section	on 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?					\checkmark	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Section	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				

Remarks

Last Site Inspection:

C&D wastes at CH471 were removed.

Findings of Site Inspection on 31 October 2007:

Site Inspection was covered the site area from CH230-290, CH471-670 and Portion 8.



Standing water accumulated on-site was found at CH290, the Contractor was reminded to clean more frequency after each the rainy day.

RE's representative IEC's representative ET's representative Contractor's representative



Projec	ct:	Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	·	pected b	oy oresentat	ive:					
Inspe	ction		IEC	/IEC's r	epresenta	itive:					
Date:		8 November 2007	ETL	JET's r	epresenta	ative:	Ben Tam				
Time:	:	14:00	Contractor's representative:				K.M. Lui				
	Checklist No.							1107			
PART		GENERAL INFORMATION Environmental	Perr		EP-231/20	05/A					
Weath		Sunny Fine ✓ Cloudy 24 °C		Rainy							
Humic	erature: ditv:	High ✓ Moderate Low									
Wind:	•	Strong Breeze ✓ Light		Calm							
PART	В:	SITE AUDIT									
				Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks		
Section	on 1: W	ater Quality									
1.01	ls an e	affluent discharge license obtained for the Project?			\checkmark						
1.02	Is the	e effluent discharged in accordance with the discharge e?	•		\checkmark						
1.03	Is the	discharge of turbid water avoided?			\checkmark						
1.04		here proper desilting facilities in the drainage systems to eSS levels in effluent?)			\checkmark					
1.05	sedim	ere channels, sandbags or bunds to direct surface run-off to entation tanks?		\checkmark							
1.06		ere any perimeter channels provided at site boundaries to ept storm runoff from crossing the site?)	\checkmark							
1.07	Is drai	nage system well maintained?			\checkmark						
1.08		cavation proceeds, are temporary access roads protected by ed stone or gravel?	,					\checkmark			
1.09	Are te	mporary exposed slopes properly covered?						\checkmark			
1.10	Are ea	rthworks final surfaces well compacted or protected?						\checkmark			
1.11	Are ma	anholes adequately covered or temporarily sealed?			$\overline{\checkmark}$						
1.12	Are the	ere any procedures and equipment for rainstorm protection?			$\overline{\checkmark}$						
1.13	Are wh	neel washing facilities well maintained?						$\overline{\checkmark}$			
1.14	Is rund	off from wheel washing facilities avoided?						$\overline{\checkmark}$			
1.15	Are the	ere toilets provided on site?			$\overline{\checkmark}$						
1.16	Are to	lets properly maintained?			\checkmark						
1.17		e vehicle and plant servicing areas paved and located within areas?	1					\checkmark			
1.18	Is the	oil leakage or spillage avoided?			\checkmark						
1.19		ere any measures to prevent leaked oil from entering the ge system?)		\checkmark						
1.20		nere any measures to collect spilt cement and concreteings during concreting works?	:					\checkmark			
1.21		ere any oil interceptors/grease traps in the drainage systems nicle and plant servicing areas, canteen kitchen, etc?	3					\checkmark			



		Not Obs.	Yes	No	Follow	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?					$\overline{\checkmark}$	
1.23	Is used bentonite recycled where appropriate?					\checkmark	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	\checkmark					
1.25	No excavation is undertaken in the settlement area.		\checkmark				
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.					\checkmark	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.		\checkmark				
1.25	License collector should be employed for handling the sewage of mobile toilet.		\checkmark				
1.26	Any stagnant water accumulated within the excavation trench or site working area.		\checkmark				
Sectio	n 2: Air Quality						
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?		\checkmark				
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?		\checkmark				
2.03	Are the excavated materials sprayed with water during handling?	\checkmark					
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?		\checkmark				
2.05	Is the exposed earth properly treated within six months after the last construction activities?					\checkmark	
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?		\checkmark				
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?					\checkmark	
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?	\checkmark					
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?	\checkmark					
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?		\checkmark				
2.11	Is dark smoke emission from plant/equipment avoided?		\checkmark				
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?					\checkmark	
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?		\checkmark				
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?		\checkmark				
2.15	Is open burning avoided?		\checkmark				
2.16	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.					\checkmark	
Sectio	n 3: Noise						
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?		\checkmark				
3.02	Is silenced equipment adopted?	\checkmark					
3.03	Is idle equipment turned off or throttled down?		\checkmark				
3.04	Are all plant and equipment well maintained and in good condition?		\checkmark				
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?	\checkmark					
3.06	Are hand held breakers fitted with valid noise emission labels during operation?					\checkmark	



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?					\checkmark	
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	\checkmark					
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)	\checkmark					
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).	\checkmark					
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		\checkmark				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?	\checkmark					
4.04	Is general refuse disposed of properly and regularly?		\checkmark				
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?					\checkmark	
4.12	Are trip tickets for chemical wastes disposal available for inspection?					\checkmark	
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?	\checkmark					
4.17	Are construction wastes disposed of properly?		\checkmark				
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?					\checkmark	
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.					\checkmark	
Section	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	\checkmark					
Section	on 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?					\checkmark	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Section	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?		\checkmark				



Remarks

Last Site Inspection:

Standing water was cumulated at CH290 was cleaned

Findings of Site Inspection on 8 November 2007:

Site Inspection was covered the site area from CH230-290, CH471-670 and Portion 8.



Discharge water from the sedimentation tank directly hit on the exposed surface, the Contractor was reminded to provide the tarpaulin sheet to protect the exposed surface to prevent the any soil runoff from the discharge water into the stream.

RE's representative IEC's representative ET's representative Contractor's representative



Projec	ct:	Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui									
		Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	RE/RE's re	ive:	A.F. Ng	/ W.L. Cha	n				
Inspe	ction	_	IEC/IEC's re	epresenta	tive:	Benny Liu					
Date:		15 November 2007	ETL/ ET's r	epresenta	itive:	Ken Wong K.M. Lui					
Time:	-	15:00	Contractor'	s represe	ntative:						
			Checklist N	0.		KT15-151107					
PART	A :	GENERAL INFORMATION Environmental		EP-231/20	05/A						
Weath		✓ Sunny Fine Cloudy	Rainy								
•	erature:	21 °C									
Humid	-	High ✓ Moderate Low									
Wind:		Strong Breeze ✓ Light	Calm								
PART	В:	SITE AUDIT									
			Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks			
Section	on 1: Wa	ater Quality									
1.01	Is an e	ffluent discharge license obtained for the Project?		\checkmark							
1.02	Is the licence	effluent discharged in accordance with the discharge ?		\checkmark							
1.03	Is the o	discharge of turbid water avoided?		\checkmark							
1.04		ere proper desilting facilities in the drainage systems to SS levels in effluent?) <u> </u>	\checkmark							
1.05		ere channels, sandbags or bunds to direct surface run-off to entation tanks?	· 🗸								
1.06		ere any perimeter channels provided at site boundaries to pt storm runoff from crossing the site?	· 🗸								
1.07	Is drair	nage system well maintained?	\checkmark								
1.08		avation proceeds, are temporary access roads protected by d stone or gravel?	′ 🔲	\checkmark							
1.09	Are ter	nporary exposed slopes properly covered?		\checkmark							
1.10	Are ea	rthworks final surfaces well compacted or protected?					$\overline{\checkmark}$				
1.11	Are ma	anholes adequately covered or temporarily sealed?		\checkmark							
1.12	Are the	ere any procedures and equipment for rainstorm protection?		\checkmark							
1.13	Are wh	neel washing facilities well maintained?		\checkmark							
1.14	Is runo	ff from wheel washing facilities avoided?		\checkmark							
1.15	Are the	ere toilets provided on site?		\checkmark							
1.16	Are toil	lets properly maintained?		\checkmark							
1.17		e vehicle and plant servicing areas paved and located within areas?					$\overline{\checkmark}$				
1.18	Is the o	oil leakage or spillage avoided?		\checkmark							
1.19		ere any measures to prevent leaked oil from entering the ge system?		\checkmark							
1.20		ere any measures to collect spilt cement and concrete igs during concreting works?					$\overline{\checkmark}$				
1.21		ere any oil interceptors/grease traps in the drainage systems icle and plant servicing areas, canteen kitchen, etc?					$\overline{\checkmark}$				



		Not Obs.	Yes	No	Follow	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?					\checkmark	
1.23	Is used bentonite recycled where appropriate?	\checkmark				\checkmark	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	\checkmark					
1.25	No excavation is undertaken in the settlement area.		\checkmark				
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.					\checkmark	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.		\checkmark				
1.25	License collector should be employed for handling the sewage of mobile toilet.		\checkmark				
1.26	Prevent stagnant water accumulated within the excavation trench or site working area.		\checkmark				
Sectio	n 2: Air Quality						
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?		\checkmark				
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?		\checkmark				
2.03	Are the excavated materials sprayed with water during handling?	\checkmark					
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?		\checkmark				
2.05	Is the exposed earth properly treated within six months after the last construction activities?					\checkmark	
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?				\checkmark		
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?	\checkmark					
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?		\checkmark				
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?		\checkmark				
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?		\checkmark				
2.11	Is dark smoke emission from plant/equipment avoided?		\checkmark				
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?					\checkmark	
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?		\checkmark				
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?		\checkmark				
2.15	Is open burning avoided?		\checkmark				
2.16	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.		\checkmark				
Sectio	n 3: Noise						
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?		\checkmark				
3.02	Is silenced equipment adopted?	\checkmark					
3.03	Is idle equipment turned off or throttled down?		\checkmark				
3.04	Are all plant and equipment well maintained and in good condition?		\checkmark				
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?		\checkmark				
3.06	Are hand held breakers fitted with valid noise emission labels during operation?					\checkmark	



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?					\checkmark	
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	\checkmark					
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)		\checkmark				
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).		\checkmark				
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		\checkmark				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?	\checkmark					
4.04	Is general refuse disposed of properly and regularly?		\checkmark				
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?					\checkmark	
4.12	Are trip tickets for chemical wastes disposal available for inspection?					\checkmark	
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?	\checkmark					
4.17	Are construction wastes disposed of properly?			\checkmark			
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?		\checkmark				
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.		\checkmark				
Section 5: Landscape & Visual							
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	\checkmark					
Section 6: Ecology							
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?					\checkmark	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Section 7: Others							
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?			\checkmark			



Remarks

Last Site Inspection:

Tarpaulin sheet covered the exposed surface had been provide to prevent the soil runoff next to the sedimentation tank.

Findings of Site Inspection on 15 November 2007:

Site Inspection was covered the site area from CH000-800, Potion 7 and Portion 8.



Fugitive dusts emission from the dry haul road was observed at CH080-150. The Contractor was reminded to provide water spray more frequency on the dry and windy season.



Stagnant water accumulated on-site next to the wheel washing bay was observed. The Contractor was reminded to clean up in regular basis.



Some C&D wastes accumulated on-site was found at CH 015-020. The Contractor was reminded to clean up and disposal the C&D wastes in regular basis.



According to the EP Condition 1.5, full set copy of the EP should display at all vehicular site entrance/exit. The Contractor was reminded to display full set copy of EP at all vehicular site entrance.

RE's representative		IEC's representative		ET's representative	Contractor's representative
()	()	(Ken Wong)	()

ENSK | HELLOW Environmental Site Inspection Checklist for KT15 Inspected by Contract No.: DC/2006/02 Project: Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B -RE's representative: Cheung Chun San Tsuen and Kam Tsin Wai IEC's representative: Inspection November 2007 ET's representative: Date: Contractor's representative: Time: Checklist No. Environmental Permit No. EP-231/2005/A GENERAL INFORMATION PART A: Cloudy Rainy Fine Sunny Weather. Temperature: Low Humidity: High Moderate Calm Light Strong Breeze Wind: PART B: SITE AUDIT Photo/ Follow Not N/A Yes Nο Remarks Qbs. uр Section 1: Water Quality Is an effluent discharge license obtained for the Project? 1.01 Is the effluent discharged in accordance with the discharge 1.02 licence? Is the discharge of turbid water avoided? 1.03 Are there proper desitting facilities in the drainage systems to 1.04 reduce SS levels in effluent? Are there channels, sandbags or bunds to direct surface run-off to 1.05 sedimentation tanks? Are there any perimeter channels provided at site boundaries to 1.06 intercept storm runoff from crossing the site? 1,07 Is drainage system well maintained? As excavation proceeds, are temporary access roads protected by Ø 1.08 crushed stone or gravel? $\overline{}$ Are temporary exposed slopes properly covered? 1.09 1.10 Are earthworks final surfaces well compacted or protected? V Are manholes adequately covered or temporarily sealed? 1.11 Are there any procedures and equipment for rainstorm protection? 1.12 Are wheel washing facilities well maintained? 1.13 Z Is runoff from wheel washing facilities avoided? $\overline{\mathsf{V}}$ Are there toilets provided on site? 1.15 ∇ Are toilets properly maintained? 1.16 Are the vehicle and plant servicing areas paved and located within M 1.17 roofed areas? 1.18 Is the oil leakage or spillage avoided? Are there any measures to prevent leaked oil from entering the 1.19 drainage system? Are there any measures to collect spilt cement and concrete И 1.20 washings during concreting works? Are there any oil interceptors/grease traps in the drainage systems И 1.21 for vehicle and plant servicing areas, canteen kitchen, etc? V Are the oil interceptors/grease traps maintained properly? 1.22

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NO. 268 P. 8

MAUNSELL AECOM

		Not Obs.	Yes	No	Follow	N/A	Photo/ Remarks
1.23	Tooyday Where appropriate;					_	
1.24	Is designated settlement area for runoff / wheel wash water provided and located at the streambed with 1-2m deep, 12m long and around 50m ³ capacities for sedimentation?	Ø					
1.25	Is excavation prohibited in the settlement area?		otin abla				
1.26	Is concreting wastes water neutralized below the pH Action Levels before discharge?			П			· — · — —
1.27	Are mobile toilets provided on site and located away from the KT15 stream course?		V				
1.25	Is License collector employed for handling the sewage of mobile toilet?		_ _		<u> </u>		<u> </u>
Sec	ion 2: Air Quality			_	-		
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?		Ø				
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?		Ø				
2.03	Are the excavated materials sprayed with water during handling?	\square					
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?		\square				
2.05	Is the exposed earth properly treated within six months after the last construction activities?						· <u>·</u> ·
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?				abla		$\overline{\mathcal{D}}$
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?						
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?		Q				
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?		v				,
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?		\square				
2.11	Is dark smoke emission from plant/equipment avoided?		\square				
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?						
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?						
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?		\square				
2.15	Is open burning avoided?		abla			\Box	
2.16	Are excavated materials from the stream removed form site on the same day and be stored in covered impermeable sklps while awaiting removal from site?		\square				
Section	on 3: Noise					-	·
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?						
3.02	Is silenced equipment adopted?	otin oti					
3.03	Is idle equipment turned off or throttled down?		V				<u> </u>
3.04	Are all plant and equipment well maintained and in good condition?					\Box	<u> </u>
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?		Ø			\Box	
3.06	Are hand held breakers fitted with valid noise emission labels during operation?					☞ -	
3.07	Are air compressors fitted with valid noise emission tabels during operation?					☑ -	
3.08	Are flaps and panels of mechanical equipment closed during operation?		Ø			□ -	
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					<u> </u>	

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NO. 268 P. 9
MAUNSELL AECOM

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					Q/	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?						
3.12	Is quiet plant used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures)?						
3.13	Are temporary / moveable noise barrier or site hoarding provided or erected at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments be shielded by the noise barrier which cannot be visible from NSRs (Level 2 mitigation measure)?						<u></u>
3.14	Are temporary / moveable noise barrier equal to or more than 3m height with 10kg/m² provided for noise mitigation measures (Level 2 mitigation measures)?					□ <i>(</i>	B)
Sect	ion 4: Waste/Chemical Management						
4.01	Is the Waste Management Plan submitted to Engineer for approval?						
4.02	Are receptacles available for general refuse collection?						
4.03	is general refuse sorting or recycling implemented?						
4.04	Is general refuse disposed of properly and regularly?		V				
4.05	Is the Contractor registered as a chemical waste producer?		\square				
4.06	Are the chemical waste containers properly labelled?		Ø				
4.07	Are the chemical wastes stored in proper storage areas?	. 🗆	d				
4.08	Is the chemical waste storage area properly labelled?		V				···
4.09	Is the chemical waste storage area used for storage of chemical waste only?		V				
4.10	Are incompatible chemical wastes stored in different areas?		\square				
4.11	Are the chemical wastes disposed of by licensed collectors?						
4.12	Are trip tickets for chemical wastes disposal available for inspection?						
4.13	Are chemical/fuel storage areas bunded?						
4.14	Are designated areas identified for storage and sorting of construction wastes?		Ū∕				
4.15	Are construction wastes sorted (inert and non-inert) on site?		Ø				<u>-</u>
4.16	Are construction wastes reused?	Ø					
4.17	Are construction wastes disposed of properly?		\Box	\square			2)
4.18	Are site hoardings and signboards made of durable materials instead of timber?						,
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?						, -
4.20	Are appropriate procedures followed if contaminated material exists?						
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?						
4.22	Is site cleanliness and appropriate waste management training provided for the site workers?		\(\rightarrow\)				
4.23	Are contaminated sediments managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002?						· · · · · · · · · · · · · · · · · · ·
Sectio	n 5: Landscape & Visual		/			_	<u></u>
5.01	Are retained and transplanted trees in health condition?		v				

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NO. 268 P. 10 ALCOM

		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
5.02	Are retained and transplanted trees properly protected?						
5.03	Are surgery works carried out for the damaged trees?	$\sqrt{2}$					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		ŪŽ				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	\square					
Section	on 6: Ecology						_
6.01	Are gabion banks and base provided for channel linings and banks for typical sections of KT15?						
6.02	Is site effluent/runoff discharge to the seasonal wetlands at KT15 prevented?						. —
6.03	Are stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 prohibited?		□ ∕				
Section	n 7: Others		1			·	
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?						

Remarks

Follow yethou previous site inspection:

- Cover was provided for the gap between barge & pier to evoid sphaling materials with the sea.

- Open stockpile at CH(600 was removed.

- Concrete bare ground in front of wheel washing bay was still not repaired, but labour was deployed for clearing the mind at site entrance cite lucaeution was covered at CHO - CH 700

Site luspection was covered at CHO-CH700 d berthing area at Portion 7.

The Contractor was reminded to review the theprency of hand road watering.

1 Cd D weste was observed at U-clamal at CH15-20.

3) Stagnant water was observed nearby wheel washing boy at

Remodes: The Contractor was reminded to provide lab result for water

discharge licence.

The Contractor has reminded to check the noise borise location according to Project Artile.

RE's representative

IEC's representative

ET's representative

Contractor's representative

A.T. NA

) (Benny Lien

Page 5 of 5

MENZ



Proje	ct: Contract No.: DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B –	Ins	spected b	ру						
	Cheung Chun San Tsuen and Kam Tsin Wai			oresentati		A.F. Ng	/ W.L. Cha	n		
Inspe		IEC/IEC's representative:			- Den Tem					
Date: Time:	22 November 2007			epresenta		Ben Tam				
iiine:	14:00		ntractor ecklist N	s represe	ntative:	e: K.M. Lui KT15-221107				
PART	A: GENERAL INFORMATION Environment				05/A	11110 22				
Weath		ai Fei	Rainy	LF-23 1/20	UJ/A					
	erature: 24 °C									
Humio										
Wind:	Strong Breeze Light		Calm							
DADT										
PART	B: SITE AUDIT									
			Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks		
Section	on 1: Water Quality									
1.01	Is an effluent discharge license obtained for the Project?			\checkmark						
1.02	Is the effluent discharged in accordance with the discharglicence?	ge		\checkmark						
1.03	Is the discharge of turbid water avoided?			\checkmark						
1.04	Are there proper desilting facilities in the drainage systems reduce SS levels in effluent?	to				\checkmark				
1.05	Are there channels, sandbags or bunds to direct surface run-off sedimentation tanks?	to	$\overline{\checkmark}$							
1.06	Are there any perimeter channels provided at site boundaries intercept storm runoff from crossing the site?	to	$\overline{\checkmark}$							
1.07	Is drainage system well maintained?		\checkmark							
1.08	As excavation proceeds, are temporary access roads protected crushed stone or gravel?	by		\checkmark						
1.09	Are temporary exposed slopes properly covered?			\checkmark						
1.10	Are earthworks final surfaces well compacted or protected?						$\overline{\checkmark}$			
1.11	Are manholes adequately covered or temporarily sealed?			\checkmark						
1.12	Are there any procedures and equipment for rainstorm protection	1?		\checkmark						
1.13	Are wheel washing facilities well maintained?			\checkmark						
1.14	Is runoff from wheel washing facilities avoided?			\checkmark						
1.15	Are there toilets provided on site?			\checkmark						
1.16	Are toilets properly maintained?			\checkmark						
1.17	Are the vehicle and plant servicing areas paved and located with roofed areas?	nin					$\overline{\checkmark}$			
1.18	Is the oil leakage or spillage avoided?			\checkmark						
1.19	Are there any measures to prevent leaked oil from entering to drainage system?	he		\checkmark						
1.20	Are there any measures to collect spilt cement and concrewashings during concreting works?	ete					\checkmark			
1.21	Are there any oil interceptors/grease traps in the drainage system for vehicle and plant servicing areas, canteen kitchen, etc?	ms					\checkmark			



		Not Obs.	Yes	No	Follow	N/A	Photo/ Remarks
1.22	Are the oil interceptors/grease traps maintained properly?					$\overline{\checkmark}$	
1.23	Is used bentonite recycled where appropriate?	\checkmark				\checkmark	
1.24	Designated settlement area for runoff/wheel wash waste is provide and located at the streambed with 1-2m deep, 12m long and around 50m3 capacities for sedimentation.	\checkmark					
1.25	No excavation is undertaken in the settlement area.		\checkmark				
1.26	Concreting wastes water should be neutralized below the pH Action Levels before discharge.					\checkmark	
1.27	Mobile toilets should provide on site and located away the KT15 stream course.		\checkmark				
1.25	License collector should be employed for handling the sewage of mobile toilet.		\checkmark				
1.26	Prevent stagnant water accumulated within the excavation trench or site working area.		\checkmark				
Section	n 2: Air Quality						
2.01	Are there wheel washing facilities with high pressure jets provided at every vehicle exit point?		\checkmark				
2.02	Are vehicles washed to remove any dusty materials from their bodies and wheels before leaving construction sites?		\checkmark				
2.03	Are the excavated materials sprayed with water during handling?	\checkmark					
2.04	Are stockpiles of dusty materials sprayed with water, covered or placed in sheltered areas?		\checkmark				
2.05	Is the exposed earth properly treated within six months after the last construction activities?					\checkmark	
2.06	Are the access roads sprayed with water to maintain the entire road surface wet or paved?				\checkmark		
2.07	Is the surface where any drilling, cutting, polishing or breaking operation continuously sprayed with water?	\checkmark					
2.08	Is the load on vehicles covered entirely by clean impervious sheeting?		\checkmark				
2.09	Is the loading of materials to a level higher than the side and tail boards during transportation by vehicles avoided?		\checkmark				
2.10	Is the road leading to the construction site within 30m of the vehicle entrance kept clear of dusty materials?		\checkmark				
2.11	Is dark smoke emission from plant/equipment avoided?		\checkmark				
2.12	Are de-bagging, batching and mixing processes carried out in sheltered areas during the use of bagged cement?					\checkmark	
2.13	Are site vehicles travelling within the speed limit not more than 15km/hour?		\checkmark				
2.14	Are hoardings of not less than 2.4m high provided along the site boundary, which adjoins areas accessible to the public?		\checkmark				
2.15	Is open burning avoided?		\checkmark				
2.16	Excavated materials from the stream must remove form site on the same day. The materials shall be stored in covered impermeable skips awaiting removal from site.		\checkmark				
Sectio	n 3: Noise						
3.01	Are noisy equipment and activities positioned as far as practicable from the sensitive receivers?		\checkmark				
3.02	Is silenced equipment adopted?	\checkmark					
3.03	Is idle equipment turned off or throttled down?		\checkmark				
3.04	Are all plant and equipment well maintained and in good condition?		\checkmark				
3.05	Are noise barriers or enclosures provided at areas where construction activities cause noise impact on sensitive receivers?		\checkmark				
3.06	Are hand held breakers fitted with valid noise emission labels during operation?					\checkmark	



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
3.07	Are air compressors fitted with valid noise emission labels during operation?					\checkmark	
3.08	Are flaps and panels of mechanical equipment closed during operation?		\checkmark				
3.09	Are Construction Noise Permit(s) applied for percussive piling works?					\checkmark	
3.10	Are Construction Noise Permit(s) applied for general construction works during restricted hours?					\checkmark	
3.11	Are valid Construction Noise Permit(s) posted at site entrances?					\checkmark	
3.12	Use of quiet plant had been used on site to minimise the construction noise impact to the surrounding residences/dwellings (Level 1 mitigation measures).	\checkmark					
3.13	Temporary/Moveable noise barrier or site hoarding are provide or erect at the site boundary to minimise the noise impact of the closest NSRs or stationary equipments shield by the noise barrier which cannot visible from NSRs (Level 2 mitigation measure)		\checkmark				
3.14	Temporary/Moveable noise barrier equal to or more than 3m height with 10kg/m2 are provide for noise mitigation measures (Level 2 mitigation measures).		\checkmark				
Sectio	n 4: Waste/Chemical Management						
4.01	Waste Management Plan had been submit to Engineer for approval.		$\overline{\checkmark}$				
4.02	Are receptacles available for general refuse collection?		\checkmark				
4.03	Is general refuse sorting or recycling implemented?	\checkmark					
4.04	Is general refuse disposed of properly and regularly?			$\overline{\checkmark}$			
4.05	Is the Contractor registered as a chemical waste producer?		\checkmark				
4.06	Are the chemical waste containers properly labelled?		\checkmark				
4.07	Are the chemical wastes stored in proper storage areas?		\checkmark				
4.08	Is the chemical waste storage area properly labelled?		\checkmark				
4.09	Is the chemical waste storage area used for storage of chemical waste only?		\checkmark				
4.10	Are incompatible chemical wastes stored in different areas?		\checkmark				
4.11	Are the chemical wastes disposed of by licensed collectors?					\checkmark	
4.12	Are trip tickets for chemical wastes disposal available for inspection?					\checkmark	
4.13	Are chemical/fuel storage areas bunded?		\checkmark				
4.14	Are designated areas identified for storage and sorting of construction wastes?		\checkmark				
4.15	Are construction wastes sorted (inert and non-inert) on site?		\checkmark				
4.16	Are construction wastes reused?	\checkmark					
4.17	Are construction wastes disposed of properly?			$\overline{\checkmark}$			
4.18	Are site hoardings and signboards made of durable materials instead of timber?		\checkmark				
4.19	Is trip ticket system implemented for the disposal of construction wastes and records available for inspection?		\checkmark				
4.20	Are appropriate procedures followed if contaminated material exists?		\checkmark				
4.21	Is relevant license/ permit for disposal of construction waste or excavated materials available for inspection?		\checkmark				
4.22	Site cleanliness and appropriate waste management training had provided for the site workers.		\checkmark				



		Not Obs.	Yes	No	Follow up	N/A	Photo/ Remarks
4.23	Contaminated sediments will managed according to WBTC No.12/2000 and EWTB TC(W) No. 34/2002.		V				
Section	on 5: Landscape & Visual						
5.01	Are retained and transplanted trees in health condition?		\checkmark				
5.02	Are retained and transplanted trees properly protected?		\checkmark				
5.03	Are surgery works carried out for the damaged trees?	\checkmark					
5.04	Is damage to trees outside site boundary due to construction activities avoided?		\checkmark				
5.05	Is the night-time lighting controlled to minimize glare to sensitive receivers?	\checkmark					
Section	on 6: Ecology						
6.01	Gabion banks and base had been provide for channel linings and banks for typical sections of KT15?					\checkmark	
6.02	Prevent site effluent/runoff discharge to the seasonal wetlands at KT15?		\checkmark				
6.03	Stockpiling or disposal of materials, and any dredging or construction activities at the seasonal wetlands at KT15 are prohibited?		\checkmark				
Section	on 7: Others						
7.01	Are relevant Environmental Permits posted at all vehicle site entrances/exits?			\checkmark			



Remarks

Last Site Inspection:



Water spraying was observed at the haul road to minimize the dust generation.

N/S I

Full set copy of the EP was displayed at all vehicular site entrance/exit.

C&D waste at CH 015-020 was removed and cleaned

Findings of Site Inspection on 22 November 2007:

Site Inspection was covered the site area from CH230-290, CH471-670 and Portion 8.

Stagnant water next to the wheel washing bay was cleaned.



Plastic tube connected to the sedimentation tank was broken; Contractor was reminded to repair immediately.



Waste skip was observed full at the site office, contractor was reminded to clean the general waste more frequency.

KT15 – Monthly EM&A Report for November 2007 (No. 5)



Appendix K

Response to Comments

DSD Contract No. DC/2006/02

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai KT15 – Monthly EM&A Report for November 2007 (No. 5)



Contract No. DC/2006/02

Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai Response to IEC's comments on KT15 Monthly EM&A Report for November 2007 (Revision 0) [Received from e-mail on 04 Dec 2007 15:26]

No.	Section / Paragraph	Comments	Ref.	Response to Comments
1	Various	An NOE for ecology was received on 29 November 2007 (Ref: TCS00371/07/300/F0356), regarding	-	Investigation Report had been
		exceedance for the wetland dependent bird species number, the investigation report is not yet received, please submit the report accordingly.		issued to relevant parties on 05 December 2007 (Our Ref.:
				TCS00371/07/300/F0369)