

Kowloon-Canton Railway Corporation

# KCRC East Rail Extensions Sheung Shui to Lok Ma Chau

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Monthly EM&A Report –  
June 2003

July 2003

Report no: EA00761/R99/1



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## EXECUTIVE SUMMARY

### INTRODUCTION

This Report (in HTML format) is the twelfth Monthly EM&A Report for the Sheung Shui to Lok Ma Chau Spur Line and includes the Monthly EM&A Reports for construction contracts LDB201, LCC202 and LCC300. This Report and all monitoring data collected under the EM&A Programme are available on the KCRC East Rail Extensions Environmental Monitoring and Audit Website at [www.env-ere.kcrc.com](http://www.env-ere.kcrc.com).

### LDB201 Shueng Shui to Chau Tau Tunnels

The construction works for LDB201 commenced in late November. This report presents the EM&A findings in the period from 26 May to 25 June 2003. The main construction activities undertaken in the reporting month include:

- East Approach Area – San Wan Road & East Rail Area: Sheet pile installation for pumping station, excavation and shoring for the pumping station, excavation and storm drainage diversion, retaining walls and pipe barriers for interim stage, track formation and drainage for interim stage, protection to Po Shek Wu Road Bridge Columns, excavation and shoring for watermain diversion, cross road ducts for CLP cable diversion, breaking lower portion ramp of west side footbridge and erection of OHL mast of interim stage;
- Sheung Shui Launching Shaft Area: Shaft excavation, struts installation, reinforcement fixing, concreting for gantry beam of launching shaft, base slab construction and conveyor;
- TBM Works area: Works area installation, spoil basin concreting and backfilling, building workshop and TBM Main Drive Refurbishment;
- East EAP (EAP 2): Guide wall construction and site installation works;
- West EAP (EAP 5): Site formation works, tree felling and clearance;
- Kwu Tung Enabling Works Area: Site formation works, hoarding erection, erection of noise barriers along site boundary, DSD open channel diversion and construction of access road, and guide wall and diaphragm wall construction; and
- West Approach Area: Site clearance and site installation.

LDB201 has undertaken the routine monitoring works at these monitoring locations: AM1 and AM2 for air quality, NM1, NM2, NM3, NM4, NM5, NM6, NM7, NM8 and NM9 for noise, and URS, SR1, URB and RB1 for water quality, in this reporting month.

TSP monitoring was conducted once every six days and three sets of 1-hr TSP monitoring were conducted once every six days at the two monitoring locations. Three Action Level exceedances on the monitoring parameters were recorded at the AM2 in this reporting month. Ad hoc monitoring works were conducted in the following day and the results were found in compliance with the A/L Levels.

Noise monitoring of  $L_{eq(30min)}$  was conducted once every six days during non-restricted hours at the identified monitoring locations. There was no exceedance recorded in the reporting month. As no construction works were conducted during restricted hours, monitoring during that time period is not necessary.

Water quality monitoring was conducted at the identified water quality monitoring locations. Exceedances of dissolved oxygen and pH value were recorded during the reporting month. Contractor explained that the potential cause of the exceedances would be the natural variation.

No notification of summons was received during the reporting month. One complaint was received from a resident in Chau Tau regarding the accumulated water within the shaft works at Chau Tau site where the breeding of mosquito may occur and the overgrown of plants along the access road between the former Hop Kwan Carpark and the nearby farmlands will affect the access of residents. A yellow notice was received from EPD on 12 June 2003 regarding the effluent quality failed to comply with the limit in accordance with the Effluent Discharge Licence and inadequate treatment of wastewater.

Weekly site inspections were carried out by the CET and an IEC monthly site audit was conducted on 18 June 2003. The Contractor has proposed mitigation measures to rectify the environmental deficiencies in response to the observations raised by the IEC during the monthly site audit. The proposed mitigation measures include covering of the excavated soil and stockpiles, cleaning up of sediments in the AquaSed, diverting surface runoff to the wheel washing bay for recycling, regular watering of the access road, applying anti-mosquito agent into the wheel washing bay, providing sandbags along the edge of downstream of DSD channel, providing drip tray for oil filling, and cleaning up of oil stain on the ground. The implementation and effectiveness of the corrective actions will be assessed during the next site audit.

### **LCC202 West Section Alignment and Associated Works**

The commencement date for LCC202 started on 26 March 2003. This report presents the EM&A works during the period from 26 May to 25 June 2003. Within this reporting month, the major construction works include drainage installation and transformer room construction at the site office area; noise barriers erection at W55-57; pre-bore drilling at P3, W24-37, W40-49 and W55-57 as well as bored piling at W24-37, W40-49 and W50-54. No construction works conducted during restricted hours.

LCC202 has undertaken the routine monitoring works at these monitoring locations: AM4 for air quality, NM15 for noise, and FP1, FP2, FP3, USRT and STR1 for water quality, in this reporting month.

TSP monitoring was conducted once every six days and three sets of 1-hr TSP monitoring were conducted once every six days at the monitoring location. No exceedance was recorded at the monitoring locations in this reporting month.

Noise monitoring of  $L_{eq(30min)}$  was conducted once every six days during non-restricted hours at the identified monitoring location. There was no exceedance recorded in the reporting month.

Water monitoring was undertaken at one upstream station USTR, one downstream monitoring location STR1 at San Tin River, and three selected fishponds, namely, FP1, FP2 and FP3. Exceedances on dissolved oxygen, pH, turbidity and suspended solids were recorded in this reporting month. The contractor explained that the exceedances are unlikely related to their construction works and possible background fluctuation of the water body.

No notification of summons and complaint was received during the reporting month.

The ET Leader has carried out weekly site inspections and an IEC monthly site audit has been conducted on 22 May 2003. In response to the non-compliance and the observations raised by the ET Leader and the IEC, the Contractor has proposed mitigation measures including cleaning up of concrete waste, carrying out enhancement works to the existing noise barriers, applied larvicidal oil to stagnant water and fish ponds, handling and disposal of the waste battery as chemical waste, cleaning up rainwater in the drip tray, proper fencing of trees, relocating materials away from the trees, enhancing the performance of the noise barriers and covering the stockpiles. The implementation and effectiveness of the corrective actions will be assessed during the next site audit.

### **LCC300 Lok Ma Chau Station and Associated Works**

The EM&A programme for LCC300 commenced in mid-December. This report summarises the EM&A works conducted during the period from 26 May to 25 June. During the reporting month the principal work activities include filling, earthworks, site investigation, instrumentation, piling and EVA works.

LCC300 has undertaken the routine monitoring works at these monitoring locations: AM4 for air quality, NM13, NM14, NM15, NSR21, NSR26, NSR28 and NMBBL1 for noise, and FP3, USRT and STR1 for water quality, in this reporting month. Alternative water quality monitoring locations, namely WQBBL1 (formerly BBL1), WQBBL2 (formerly BBL2) and WQBBL3 (formerly BBL3), were identified to isolate the impacts from the adjacent construction works. Water quality monitoring at WQBBL1 and WQBBL3 has already undertaken and the access to WQBBL2 is under negotiation.

TSP monitoring was conducted once every six days and three sets of 1-hr TSP monitoring were conducted once every six days at the monitoring location. No exceedance was recorded at the monitoring locations in this reporting month.

Noise monitoring of  $L_{eq(30min)}$  was conducted once every six days during non-restricted hours at the identified monitoring locations. There was no exceedance recorded in the reporting month.

Water quality monitoring was conducted at one upstream station USTR, one downstream monitoring location STR1 at San Tin River, and the selected fishponds, namely FP3, WQBBL1 and WQBBL3. There were a number of exceedances recorded on dissolved oxygen and pH during the reporting month. The Contractor explained that the exceedances were not related to Contract LCC300 as there was no construction works conducted in the vicinity of the monitoring locations and it is likely due to seasonal fluctuations and other adjacent construction works.

No complaint or notification of summons was received during the reporting month.

ET Leader and the Engineer have conducted regular site inspections and the IEC has conducted a monthly site audit on 18 June during the reporting month. In response to the five non-compliances raised by the IEC, these resulted in the improvements including removing the rubbish along the walkway, reinstalling the wheel washing facilities, stabilizing the bund using cement and hydroseeding, better maintenance of sand pump and maintaining the waste management records. The implementation and effectiveness of the corrective actions will be assessed during the next site audit.

# 1 Introduction

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Hyder has been commissioned by KCRC as the IEC for the East Rail Extensions, which include the Ma On Shan to Tai Wai Rail, the Hung Hom to Tsim Sha Tsui Extension and the Lok Ma Chau Spur Line. A requirement of the Contract is for the IEC to prepare a combined EM&A Report on a monthly basis for each of the above rail lines. The combined report combines the Monthly EM&A Reports for each of the construction contracts within each rail line. This Report (in HTML format) is the twelfth IEC Monthly EM&A Report for the Sheung Shui to Lok Ma Chau Spur Line and includes the Monthly EM&A Reports for construction contracts LDB201, LCC202 and LCC300 and a summary of the reports. It also includes a brief summary of the IEC Site Audits and information supplied by KCRC on Public Consultation activities.

## 2 IEC monthly site audits

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IEC monthly site audits were conducted on 18 June for LDB201 and LCC300, and on 24 June for LCC202. Non-compliances and observations issued by the IEC are based on the requirements of KCRC's Environmental Management System.

### 2.1 Contract LDB201

The IEC site audit for LDB201 was undertaken on 18 June. The main construction activities undertaken in the reporting month include:

- East Approach Area – San Wan Road & East Rail Area: Sheet pile installation for pumping station, excavation and shoring for the pumping station, excavation and storm drainage diversion, retaining walls and pipe barriers for interim stage, track formation and drainage for interim stage, protection to Po Shek Wu Road Bridge Columns, excavation and shoring for watermain diversion, cross road ducts for CLP cable diversion, breaking lower portion ramp of west side footbridge and erection of OHL mast of interim stage;
- Sheung Shui Launching Shaft Area: Shaft excavation, struts installation, reinforcement fixing, concreting for gantry beam of launching shaft, base slab construction and conveyor;
- TBM Works area: Works area installation, spoil basin concreting and backfilling, building workshop and TBM Main Drive Refurbishment;
- East EAP (EAP 2): Guide wall construction and site installation works;
- West EAP (EAP 5): Site formation works, tree felling and clearance;

- Kwu Tung Enabling Works Area: Site formation works, hoarding erection, erection of noise barriers along site boundary, DSD open channel diversion and construction of access road, and guide wall and diaphragm wall construction; and
- West Approach Area: Site clearance and site installation.

Six observations have been raised during the site audit:

Observations:

East Approach Area – San Wan Road

1. Oil filling / transferring was conducted without drip tray.

East EAP

2. Oil stain was observed on bare ground.

Kwu Tung Enabling Works Area

3. Bund is required to direct the wheel washing water back into the wheel washing bay.
4. Stockpile near the wheel washing bay was not entirely covered.
5. Temporary stockpile positioned next to the DSD channel should be prevented.
6. Purpose-built noise barriers along the northern boundary were not completed yet.

As a result of the observation raised by the IEC, the contractor proposed mitigation measures including providing drip tray for oil filling/transferring, cleaning up of oil stain on the ground, diverting surface runoff into the wheel washing bay for recycling and providing sandbags along the edge of downstream of DSD channel. The implementation and effectiveness of the corrective actions will be assessed during the next site audit.

## 2.2 Contract LCC202

The IEC site audit for LCC202 was undertaken on 24 June. The major construction works include the drainage installation and transformer room construction at the site office area; noise barriers erection at W55-57; pre-bore drilling at P3, W24-37, W40-49 and W55-57 as well as bored piling at W24-37, W40-49 and W50-54. Five observations have been raised during the site audit:

Observations:

Ha Wan Tsuen

1. Stockpile was not covered.

Ha Wan Tsuen



2. Some trees were not fenced off from the construction materials.

#### Ha Wan Tsuen

3. Water in drip tray was observed.

#### Ha Wan Tsuen – Pier W47

4. Noise barrier to shield the construction works was not completed yet but works were already started at Pier W47.

#### Area P3

5. Battery was found inside the stockpile of general refuse. (N.B. Battery just discovered in a trial pit excavation.)

As a result of the observation raised by the IEC, the contractor proposed mitigation measures including handling and disposal of the waste battery as chemical waste, cleaning up rainwater in the drip tray, proper fencing of trees, relocating materials away from the trees, enhancing the performance of the noise barriers and covering the stockpiles. The implementation and effectiveness of the corrective actions will be assessed during the next site audit.

## 2.3 Contract LCC300

The IEC site audit was conducted on 18 June. The major construction works include sand filling, earthworks, site investigation, instrumentation, piling and EVA works. Five observations have been raised during the site audit:

#### Observations:

#### LMC Station site area

1. Rubbish along the walkway next to the wheel washing bay was observed.
2. Muddy road right outside the site exit was observed. The provision of wheel washing facilities was inadequate.
3. Soil on the bund along the western drainage channel was likely to wash down into the channel.
4. Dark smoke emission from sand pump was observed.
5. Waste management records for general refuse should be available for inspection.

In response to the five observations raised by the IEC, the Contractor has proposed some improvement measures including removing the rubbish along the walkway, reinstalling the wheel washing facilities, stabilizing the bund using cement and hydroseeding, better maintenance of sand pump and maintaining the waste management records. The implementation and

effectiveness of the measures will be assessed and verified during the next site audit.

### 3 Public Consultation

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No public consultation was conducted in the reporting month.

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