

**DRAINAGE SERVICES DEPARTMENT (DSD)
CONTRACT NO. DC/2005/02**

**CONSTRUCTION OF SEWERS, RISING MAINS &
SEWAGE PUMPING STATION AT KAM TIN, NAM SANG
WAI AND AU TAU IN YUEN LONG**



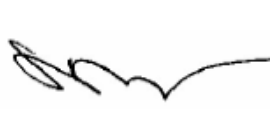


**MONTHLY CONSTRUCTION PHASE EM&A REPORT FOR
OCTOBER 2007
DESIGNATED ELEMENTS (NO.19)**

PREPARED FOR

LEADER CIVIL ENGINEERING CORPORATION LIMITED

Quality Index

| Date | Reference No. |
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TABLE OF CONTENTS

| | |
|--|----------|
| 1.0 BASIC PROJECT INFORMATION | 1 |
| 2.0 ENVIRONMENTAL STATUS | 2 |
| 3.0 SUMMARY OF EM&A REQUIREMENTS | 3 |
| 4.0 IMPLEMENTATION STATUS | 4 |
| 5.0 MONITORING RESULTS | 4 |
| 6.0 REPORT ON NON-COMPLIANCE (NC), COMPLAINTS, NOTIFICATIONS OF SUMMONS (NOS) AND SUCCESSFUL PROSECUTIONS | 9 |
| 7.0 OTHERS | 9 |

List of Tables

| | |
|-----------|--|
| Table 2-1 | Work Undertaken in the Reporting Month with Illustrations of Mitigation Measures |
| Table 2-2 | Description of the Monitoring Stations |
| Table 3-1 | Summary of EM&A Requirements |
| Table 3-2 | Action and Limit Levels for Air Quality |
| Table 3-3 | Action and Limit Levels for Construction Noise |
| Table 4-1 | Status of Environmental Permits and Licenses |
| Table 5-1 | Monitoring Equipment Used in Impact EM&A Program |
| Table 5-2 | Locations of Air Quality and Construction Noise Monitoring Stations/Locations |
| Table 5-3 | Summary of Air Quality Monitoring Results |
| Table 5-4 | Summary of Noise Monitoring Results at NM3 |
| Table 5-5 | Summary of Noise Monitoring Results at NM4 |
| Table 5-6 | Summary of Noise Monitoring Results at NM6 |
| Table 5-7 | Summary of Noise Monitoring Results at NM7 |
| Table 5-8 | Monitoring Schedule for the Next Reporting Month |
| Table 7-1 | Summary of Waste Quantities for Disposal |
| Table 7-2 | Summary of Waste Quantities for Reuse/Recycling |

List of Annexes

| | |
|---------|--|
| Annex A | Project Site Layout |
| Annex B | Project Organization and Management Structure |
| Annex C | Construction Program |
| Annex D | Photographical Records – Noise Barrier On-Sites |
| Annex E | Locations of Monitoring Stations |
| Annex F | Event and Action Plan |
| Annex G | Mitigation Implementation Schedule |
| Annex H | Equipment Calibration Certificates |
| Annex I | Meteorological Data in the Reporting Month |
| Annex J | Graphical Plots of Air Quality and Construction Noise Monitoring Results |
| Annex K | Proforma of Site Inspection and IEC Audit in the Reporting Month |

Executive Summary

- ES.01 Leader Civil Engineering Corporation Limited (the Contractor) has been awarded the DSD Contract DC/2005/02 Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long (the Project). The Project requires an Environmental Monitoring and Audit (EM&A) program to be implemented by an Environmental Team (ET) throughout the contract period in compliance with the requirements as stated in the project Environmental Permit (EP-220/2005) and the Project's Updated EM&A (Designated Elements) Manual.
- ES.02 This Monthly Environmental Monitoring & Audit (EM&A) Report for October 2007 (No. 19) reporting the environmental impact monitoring and audit (EM&A) conducted from 01 to 31 October 2007 for the Designated Elements. The EM&A program in October 2007 were covered air quality, construction noise and waste management.

Breach of Action and Limit (AL) Levels

- ES.03 No Action/Limit Level exceedance was recorded in this reporting month. All the monitoring results were complied with standard.

Complaint Log

- ES.04 No environmental complaint was received in this reporting month.

Notification of Any Summons and Successful Prosecution

- ES.05 There was no environmental summon or prosecution in this reporting month.

Reporting Changes

- ES.06 There are no changes to be reported in this reporting month.

Future Key Issues

- ES.07 Construction activities to be undertaken in November 2007 include backfilling & concreting at Kam Tin Pumping Station (P1), excavation & bore hole at Sha Po pumping station (P2), pipe laying, backfilling, & concreting at Nam Sang Wai pumping station (P3), excavation, pipe laying, backfilling, concreting, pipe jacking and grouting at Nam Sang Wai Road (S4); sheeting piling, excavation, pipe laying, backfilling, and extract sheet pile at Pok Wai South Road (S5 & S6). Potential environmental impacts arising from the works include air quality, noise and water quality (particularly site runoff). Environmental mitigation measures will be properly implemented and maintained as per the Mitigation Implementation Schedule to ensure site environmental performance is acceptable.

1.0 BASIC PROJECT INFORMATION

1.01 Leader Civil Engineering Corporation Ltd (the Contractor) has been awarded the DSD Contract DC/2005/02 Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long (the Project). The Project is part of the Yuen Long and Kam Tin Sewerage and Sewage Disposal (YLKTSSD) Scheme. A site layout map showing the site boundary and the work areas is shown in [Annex A](#).

1.02 This 19th Monthly Construction Phase EM&A Report for October 2007 (Report No. 19) summarizes the impact monitoring results and audit findings in the reporting month from 01 to 31 October 2007.

PROJECT ORGANIZATION

1.03 The organization chart and lines of communication with respect to the on-site environmental management and monitoring program are shown in [Annex B](#).

CONSTRUCTION PROGRAM OF THE REPORTING MONTH

1.04 A construction program showing the construction work undertaken in this reporting month was shown in [Annex C](#). Environmental mitigation measures implemented are shown in [Table 2-1](#).

MANAGEMENT STRUCTURE

1.05 The management structure of the Project is shown in [Annex B](#).

CONSTRUCTION ACTIVITIES UNDERTAKEN IN THE REPORTING MONTH

1.06 The major construction activities undertaken during the reporting month under the Environmental Permit (EP-220/2005) were shown as follows:

Kam Tin Pumping Station (P1)

- Excavation

Sha Po Pumping Station (P2)

- Excavation

Nam Sang Wai Pumping Station (P3)

- Excavation

Nam Sang Wai Road (S4)

- Sheet piling
- Excavation
- Pipe laying
- Backfilling
- Concreting
- Pipe jacking
- Grouting
- Extract sheet pile

Pok Wai South Road (S5 and S6)

- Sheet piling
- Excavation
- Pipe laying
- Backfilling
- Extract sheet pile

2.0 ENVIRONMENTAL STATUS

WORK UNDERTAKEN IN THE REPORTING MONTH WITH ILLUSTRATIONS

2.01 A summary of the work undertaken in this reporting month with illustrations and environmental mitigation measures implemented is shown in [Table 2-1](#).

Table 2-1 Work Undertaken in the Reporting Month with Illustrations of Mitigation Measures

| Location | Description of Construction Activities | Environmental Mitigation Measures | EM&A Ref. |
|-----------------------------------|--|--|-------------|
| P1 (Kam Tin Pumping Station) | <ul style="list-style-type: none"> • Sheet piling • Footing construction | <ul style="list-style-type: none"> • Erect 2.4m high noise barrier hoarding around the works area at P1, P2 and P3 • Remove dust and spray water at the construction access • Cover the stockpiles of dusty material properly • Spray water to all dusty materials immediately before loading and unloading | A1 & F6 |
| | | | A2 |
| P2 (Sha Po Pumping Station) | <ul style="list-style-type: none"> • Hoarding erection | <ul style="list-style-type: none"> • Wash the wheels of vehicles before leaving the site | A3 |
| | | | A4 |
| P3 (Nam Sang Wai Pumping Station) | <ul style="list-style-type: none"> • Pipe jacking | <ul style="list-style-type: none"> • Install and use power-operated cover at the dump trucks • Spray water at the pavement breaking locations • Spray the working area of excavation frequently • Maximize the use of quiet PME on site | A5 |
| | | | A6 |
| S4 (Nam Sang Wai Road) | <ul style="list-style-type: none"> • Drilling and grouting | <ul style="list-style-type: none"> • Apply and obtain appropriate waste disposal licenses • Handle, store and dispose of chemical wastes as per relevant regulations • Implement trip-ticket system for waste disposal • Restrict open fires and provide fire fighting equipment in the works area | A7 |
| | | | A8 |
| S5 & S6 (Pok Wai South Road) | <ul style="list-style-type: none"> • Pipe jacking | <ul style="list-style-type: none"> • Perform weekly inspection with ET and monthly audit with IEC • Conduct noise and dust monitoring as per EM&A manual during construction • Provide sedimentation tanks for treating site discharge. • Recycle wheel washing water and provide sedimentation tanks for treating site discharge. | B1, B2 & F5 |
| | | | D1 |
| | | | D2, D3 & D4 |
| | | | D5 |
| | | | F9 |
| | | | H1 |
| | | | I1 & I2 |
| | | | - |
| | | | - |

2.02 Photographic records showing the implemented 2.4m high noise barrier at the pumping station (S3) are shown in [Annex D](#).

PROJECT DRAWINGS

2.03 Drawings showing the work areas under EP-220/2005 and the locations of the designated monitoring stations are presented in [Annex E](#).

2.04 There are four designated air quality (AM1, AM5, AM6 & AM7) and four noise monitoring stations (AM1, AM5, AM6 & AM7) under the project EP. Locations of the monitoring stations and description are summary in the [Table 2-2](#).

Table 2-2 Description of the Monitoring Stations

| Station ID | Nature of Premise | Site Work Description | Station Coordinates |
|------------|----------------------|-------------------------------------|---------------------|
| AM1 | Site Boundary in NSW | Sheet piling and trench excavation. | 835829 N 822910 E |
| AM5 | Site Boundary in FKH | | 835121 N 823515 E |
| AM6 | Site Boundary in KT | | 833308 N 823987 E |
| AM7 | Site Boundary in NSW | | 836171 N 822586 E |
| NM3 | Village House in NSW | | 835808 N 822817 E |
| NM4 | Village House in NSW | | 835282 N 822811 E |
| NM6 | Village House in KT | | 833288 N 823999 E |
| NM7 | Village House in FKH | | 835121 N 823495 E |

2.05 In this reporting month, the impact monitoring was carried out at four designated air stations and four noise monitoring locations in according to the monitoring schedule.

3.0 SUMMARY OF EM&A REQUIREMENTS

MONITORING PARAMETERS

3.01 Environmental monitoring and audit requirements are set out in the Updated EM&A manual. Air quality and construction noise have been identified to be the key monitoring parameters during the impact phase for the construction of the project.

3.02 A summary of the impact EM&A requirements for air quality and construction noise as per the project Updated EM&A Manual are shown in [Table 3-1](#).

Table 3-1 Summary of EM&A Requirements

| Environmental Aspect | Monitoring Parameters |
|----------------------|--|
| Air Quality | 24-Hour TSP |
| Construction Noise | Leq 30min day time 07:00 to 19:00 (Supplementary L10 and L90 for reference.) |

ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

3.03 A summary of the Action/Limit (A/L) Levels for air quality and construction noise is shown in [Tables 3-2](#) and [3-3](#).

Table 3-2 Action and Limit Levels for Air Quality

| Monitoring Locations | Action Level ($\mu\text{g}/\text{m}^3$) | | Limit Level ($\mu\text{g}/\text{m}^3$) | |
|----------------------|---|-------------|--|-------------|
| | 1-Hour TSP | 24-Hour TSP | 1-Hour TSP | 24-Hour TSP |
| AM1 | > 391 | > 184 | > 500 | > 260 |
| AM5 | > 353 | > 237 | > 500 | > 260 |
| AM6 | > 329 | > 183 | > 500 | > 260 |
| AM7 | > 383 | > 204 | > 500 | > 260 |

Table 3-3 Action and Limit Levels for Construction Noise

| Monitoring Period | Action Level | Limit Level |
|------------------------------------|---|-------------|
| 0700-1900 hours on normal weekdays | When one or more documented complaints are received | > 75 dB(A) |

EVENT AND ACTION PLANS

3.04 An Event Action Plan for air quality and construction noise has been implemented for this project. Details of the Event Action Plan are presented in [Annex F](#).

ENVIRONMENTAL MITIGATION MEASURES

3.05 The project EIA report has recommended environmental mitigation measures to minimize potential environmental impacts arising from the construction of the project. A full list of the mitigation measures is detailed in [Annex G](#).

ENVIRONMENTAL REQUIREMENTS IN CONTRACT DOCUMENTS

3.06 The environmental requirements in the contract documents generally refer to the compliance of the requirements as stipulated in the project EP and the updated EM&A Manual.

4.0 IMPLEMENTATION STATUS

4.01 The implementation status of environmental protection and pollution control/mitigation measures as recommended in the project EIA report is summarized in **Table 2-1** and the implementation schedule as shown in **Annex G**.

4.02 A summary status of the permits, licences, and/or notifications on environmental protection for this Project in this reporting period is presented in **Table 4-1**.

Table 4-1 Status of Environmental Licenses and Permits

| Item | Item Description | License/Permit Status |
|------|--|------------------------------------|
| 1 | Environmental Permit No.: EP-220/2005 | Issued in June 2005 |
| 2 | Air Pollution Control (Construction Dust) | Notified EPD on 24 Dec 2005 |
| 3 | Chemical Waste Producer Registration (No. 5213-528-L2544-08) | Registration on 27 Jan 2006 |
| 4 | Water Pollution Control (Discharge License No. 1U434/1) | Issued on 08 May 2006 |
| 5 | Account for Disposal of Construction Waste No. 5004959 | Registration on 27 Dec 2005 |
| 6 | Piling Permit (CNP No. PP-RN0036-06) | Valid (8 Dec 2006 to 03 Sep 2007) |
| 7 | Piling Permit (CNP No. PP-RN0001-07) | Valid (7 Mar 2007 to 06 Dec 2007) |
| 8 | Piling Permit (CNP No. PP-RN0004-07) | Valid (7 May 2007 to 06 Feb 2008) |
| 9 | Construction Noise Permit (CNP No. GW-RN0083-07) | Valid (8 Mar 2007 to 07 Sep 2007) |
| 10 | Construction Noise Permit (CNP No. GW-RN0118-07) | Valid (28 Mar 2007 to 27 Sep 2007) |
| 11 | Construction Noise Permit (CNP No. GW-RN0183-07) | Valid (03 May 2007 to 02 Nov 2007) |
| 12 | Construction Noise Permit (CNP No. GW-RN0355-07) | Valid (24 Aug 2007 to 23 Feb 2008) |
| 13 | Construction Noise Permit (CNP No. GW-RN0379-07) | Valid (09 Sep 2007 to 02 Mar 2008) |

5.0 MONITORING RESULTS

MONITORING METHODOLOGY OF AIR QUALITY MONITORING

5.01 The 24-Hour TSP monitoring was carried out by a High Volume Sampler (HVS) in compliance with the updated EM&A Manual. 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 ±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.

- 5.02 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. In house QA/QC procedures for all monitoring practices to ensure the validity of monitoring data. Blank filters samples were collected and delivered to the HOKLAS-accredited laboratory for QA/QC check.
- 5.03 The meteorological information during the reporting period was obtained from Lau Fau Shan Station of the Hong Kong Observatory (HKO).

METHODOLOGY FOR CONSTRUCTION NOISE MONITORING

- 5.04 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (Leq) measured in decibels (dB). Supplementary statistical results (L₁₀ and L₉₀) were also obtained for reference.
- 5.05 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 baseline noise measurements.
- 5.06 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).
- 5.07 No noise measurement was made in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s.

LABORATORY AND MONITORING EQUIPMENT USED

- 5.08 A local HOKLAS-accredited laboratory, ALS Technichem (HK) Pty Ltd (HOKLAS No. 66), is responsible for the analytical testing of the 24-Hour TSP filter papers.
- 5.09 Monitoring equipment used in the impact EM&A program is presented in **Table 5-1**.

Table 5-1 Monitoring Equipment Used in Impact EM&A Program

| Env. Aspect | Parameters | Monitoring Equipment |
|-------------|---------------------|---|
| Air Quality | 24-Hour TSP | Greasby Anderson GMWS2310 High Volume Sampler |
| Noise | Leq30min | B&K Sound Level Meter Type 2238 |
| | On-site Calibration | B&K Noise Calibrator Type 4231 |

EQUIPMENT CALIBRATION

- 5.10 Initial calibration of the HVS was performed upon installation and thereafter at a six month intervals in accordance with the manufacturer's instruction using the NIST-certified standard calibrator (Tisch Calibration Kit Model TE-5025A). The calibration data are properly documented and the records are maintained by ET for future reference.

- 5.11 The sound level meters were 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 were considered valid only if the calibration levels before and after the noise measurement agree to within 1.0 dB.
- 5.12 The renew calibration certificates of the monitoring equipment used during the impact monitoring program in this month are attached in [Annex H](#).

PARAMETERS MONITORED

- 5.13 The environmental parameters monitoring in this reporting month were compliance with the monitoring requirements as in [Table 3-1](#).

MONITORING LOCATIONS

- 5.14 There are four designated air quality and four noise monitoring stations under the project EP. For this reporting month, monitoring was carried out at four designated air (AM1, AM5, AM6 & AM7) and four noise (NM3, NM4, NM6 & NM7) monitoring stations. The locations of the designated monitoring stations are shown in [Table 5-2](#) and geographically in [Annex E](#).

Table 5-2 Location of Air Quality and Construction Noise Monitoring Stations/Locations

| Air Quality (4 Stations) | |
|---|--|
| AM1 | Worksite boundary facing scattered house in Nam Sang Wai |
| AM5 | Worksite boundary facing Fung Kat Heung |
| AM6 | Worksite boundary facing scattered near Route 3 |
| AM7 | Worksite boundary facing scattered house in Nam Sang Wai |
| Construction Noise (4 Locations) | |
| NM3 | Village House in Nam Sang Wai |
| NM4 | Village House in Nam Sang Wai |
| NM6 | Scattered House near Route 3 |
| NM7 | Fung Kat Heung |

MONITORING FREQUENCY AND PERIOD

- 5.15 The impact 24-Hour TSP monitoring was conducted at the designated stations once every 6 days in compliance with the updated EM&A manual. A total of 19 monitoring events were carried out in this reporting month.
- 5.16 The impact noise monitoring was conducted at the designated stations once every 6 days in compliance with the updated EM&A manual. A total of 24 monitoring events were carried out in this reporting month.

MONITORING RESULTS WITH DATE AND TIME

- 5.17 Monitoring results in this reporting month for air quality and construction noise were summarized at [Table 5-3 to 5-7](#). No Action/Limit Level exceedance of air quality and construction noise was recorded in this reporting month.

Table 5-3 Summary of Air Quality Monitoring Results

| Date | 24-Hour TSP ($\mu\text{g}/\text{m}^3$) | | | |
|-----------------|--|-----------------|----------------|---------------|
| | AM1 | AM5 | AM6 | AM7 |
| 4-Oct-07 | 40 | 74 | 82 | 36 |
| 10-Oct-07 | 136 | 95 | 62 | 64 |
| 16-Oct-07 | 114 | 182 | 126 | 69 |
| 22-Oct-07 | 50 | 104 | 77 | 58 |
| 27-Oct-07 | Power Shortage | 102 | 72 | 66 |
| Average (Range) | 85 (40–136) | 111 (74–182) | 83 (62–126) | 59 (36–69) |

All 24-Hr TSP monitoring were preset to start at 00:00 on each monitoring date.

* Action/Limit Level exceedances were recorded.

Table 5-4 Summary of Noise Monitoring Results at NM3

| Date | Start Time | 1st Leq5 | 2nd Leq5 | 3rd Leq5 | 4th Leq5 | 5th Leq5 | 6th Leq5 | Leq30 | Corrected * Leq30 |
|--------------------|------------|----------|----------|----------|----------|----------|----------|-------|-------------------|
| 05-Oct-07 | 10:53 | 55.1 | 46.1 | 44.9 | 43.4 | 42.4 | 44.4 | 48.9 | 51.9 |
| 11-Oct-07 | 10:59 | 48.7 | 50.1 | 50.4 | 51.6 | 48.7 | 49.8 | 50.0 | 53.0 |
| 17-Oct-07 | 10:50 | 51.9 | 56.8 | 52.1 | 53.8 | 50.7 | 51.1 | 53.3 | 56.3 |
| 23-Oct-07 | 10:52 | 53.8 | 54.2 | 53.2 | 51.8 | 53.3 | 52.1 | 53.1 | 56.1 |
| 29-Oct-07 | 10:50 | 48.6 | 50.1 | 50.3 | 53.8 | 51.2 | 49.8 | 51.0 | 54.0 |
| Limit Level | | | | | | | | | 75 |

* A façade correction of +3 dB(A) has been added according to acoustical principles and EPD guidelines.

Table 5-5 Summary of Noise Monitoring Results at NM4

| Date | Start Time | 1st Leq5 | 2nd Leq5 | 3rd Leq5 | 4th Leq5 | 5th Leq5 | 6th Leq5 | Leq30 | Corrected * Leq30 |
|--------------------|------------|----------|----------|----------|----------|----------|----------|-------|-------------------|
| 05-Oct-07 | 9:50 | 57.9 | 56.6 | 55.9 | 51.6 | 52.1 | 55.6 | 55.5 | 58.5 |
| 11-Oct-07 | 9:51 | 53.5 | 54.3 | 52.0 | 53.0 | 51.6 | 51.9 | 52.8 | 55.8 |
| 17-Oct-07 | 10:18 | 48.7 | 51.0 | 50.9 | 49.0 | 52.8 | 51.4 | 50.9 | 53.9 |
| 23-Oct-07 | 9:43 | 52.4 | 53.3 | 53.6 | 52.7 | 52.5 | 54.2 | 53.2 | 56.2 |
| 29-Oct-07 | 10:34 | 50.8 | 51.6 | 51.0 | 51.4 | 51.1 | 50.6 | 51.1 | 54.1 |
| Limit Level | | | | | | | | | 75 |

* A façade correction of +3 dB(A) has been added according to acoustical principles and EPD guidelines.

Table 5-6 Summary of Noise Monitoring Results at NM6

| Date | Start Time | 1st Leq5 | 2nd Leq5 | 3rd Leq5 | 4th Leq5 | 5th Leq5 | 6th Leq5 | Leq30 | Corrected * Leq30 |
|--------------------|------------|----------|----------|----------|----------|----------|----------|-------|------------------------|
| 05-Oct-07 | 14:03 | 60.5 | 56.3 | 58.3 | 70.1 | 58.4 | 56.9 | 63.6 | No Correction Required |
| 11-Oct-07 | 14:25 | 62.0 | 58.8 | 57.2 | 56.9 | 57.0 | 66.4 | 61.4 | |
| 17-Oct-07 | 14:22 | 63.9 | 66.7 | 63.6 | 65.4 | 66.6 | 65.2 | 65.4 | |
| 23-Oct-07 | 14:20 | 57.4 | 63.6 | 61.8 | 57.2 | 60.5 | 58.6 | 60.5 | |
| 29-Oct-07 | 14:20 | 57.3 | 61.8 | 59.4 | 58.2 | 63.2 | 54.1 | 59.9 | |
| Limit Level | | | | | | | | | 75 |

* Noise monitoring was undertaken at the façade, correction was not necessary.

Table 5-7 Summary of Noise Monitoring Results at NM7

| Date | Start Time | 1st Leq5 | 2nd Leq5 | 3rd Leq5 | 4th Leq5 | 5th Leq5 | 6th Leq5 | Leq30 | Corrected * Leq30 |
|--------------------|------------|----------|----------|----------|----------|----------|----------|-------|------------------------|
| 05-Oct-07 | 10:25 | 55.7 | 58.1 | 56.6 | 56.2 | 56.3 | 57.1 | 56.7 | No Correction Required |
| 11-Oct-07 | 10:25 | 58.3 | 55.6 | 59.1 | 59.1 | 57.6 | 58.7 | 58.2 | |
| 17-Oct-07 | 10:55 | 54.4 | 52.9 | 54.2 | 54.1 | 56.4 | 55.3 | 54.7 | |
| 23-Oct-07 | 10:22 | 53.6 | 52.3 | 54.8 | 53.4 | 53.9 | 54.6 | 53.8 | |
| 29-Oct-07 | 11:18 | 51.8 | 50.2 | 52.0 | 51.4 | 51.8 | 52.9 | 51.8 | |
| Limit Level | | | | | | | | | 75 |

* Noise monitoring was undertaken at the façade, correction was not necessary.

5.18 The monitoring schedule for the next reporting month is shown in **Table 5-8**.

Table 5-8 Monitoring Schedule for the Next Reporting Month

| Date | | Air Quality | Noise Leq 30min |
|-----------|-----|-------------|-----------------|
| 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 | | |
| 26-Nov-07 | Mon | | |
| 27-Nov-07 | Tue | | |
| 28-Nov-07 | Wed | | |
| 29-Nov-07 | Thu | | |
| 30-Nov-07 | Fri | | |

| | |
|--|--------------------------|
| | Monitoring Day |
| | Sunday or Public Holiday |

WEATHER CONDITIONS DURING THE MONITORING MONTH

5.19 The meteorological data during the monitoring month are summarized in [Annex I](#).

GRAPHICAL PLOTS OF TRENDS OF MONITORED PARAMETERS

5.20 The graphical plots of air quality and construction noise monitoring data are presented in [Annex J](#).

WEATHER CONDITIONS THAT AFFECT THE MONITORING RESULTS

5.21 The weather conditions at the time of monitoring were considered acceptable for monitoring activities and did not have significant impact on the monitoring results obtained.

OTHER FACTORS INFLUENCING THE MONITORING RESULTS

5.22 There were no other noticeable external factors generally affecting the monitoring results in this reporting month.

QA/QC RESULTS AND DETECTION LIMITS

5.23 Not applicable.

6.0 REPORT ON NON-COMPLIANCE (NC), COMPLAINTS, NOTIFICATIONS OF SUMMONS (NoS) AND SUCCESSFUL PROSECUTIONS

RECORD OF NON-COMPLIANCE OF ACTION AND LIMIT LEVELS

6.01 There was no Action or Limit Level exceedance in this reporting month.

RECORD OF ENVIRONMENTAL COMPLAINTS RECEIVED

6.02 There was no environmental complaint received in this reporting month.

RECORD OF NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTION

6.03 There was no notification of summons or prosecution received in this reporting month.

REVIEW OF REASONS FOR AND IMPLICATIONS OF NC, COMPLAINTS AND NOS

6.04 No NC, complaints or NoS received in this reporting month.

DESCRIPTION OF FOLLOW-UP ACTIONS TAKEN

6.05 No NC, complaints or NoS received in this reporting month.

7.0 OTHERS

FUTURE KEY ISSUES

7.01 Construction activities to be undertaken in November 2007 include backfilling & concreting at Kam Tin Pumping Station (P1), excavation & bore hole at Sha Po pumping station (P2), pipe laying, backfilling, & concreting at Nam Sang Wai pumping station (P3), excavation, pipe laying, backfilling, concreting, pipe jacking and grouting at Nam Sang Wai Road (S4); sheeting piling, excavation, pipe laying, backfilling, and extract sheet pile at Pok Wai South Road (S5 & S6). Potential environmental impacts arising from the works include air quality, noise and water quality (particularly site runoff). Environmental mitigation measures will be properly implemented and maintained as per the Mitigation Implementation Schedule to ensure site environmental performance is acceptable.

SOLID AND LIQUID WASTE MANAGEMENT STATUS

7.02 The quantities of waste for disposal or reuse in this reporting month are summarized in [Tables 7-1](#) and [7-2](#).

Table 7-1 Summary of Waste Quantities for Disposal

| Type of Waste | Quantity | Disposal Location |
|---|----------|-------------------------|
| C&D Materials (Inert) (tons) – Disposed | 5,591 | Tuen Mun 38 Fill Bank |
| C&D Materials (Inert) (tons) – Reused | 160 | DSD Contract DC/2005/02 |
| C&D Materials (Non-Inert) (tons) | 0 | NA |
| Chemical Waste (Litres) | 0 | NA |
| General Refuse (tons) | 53 | Refuse Collector |

Table 7-2 Summary of Waste Quantities for Reuse/Recycling

| Type of Waste | Quantity | Disposal Location |
|-----------------------------|----------|-------------------|
| Metals for Recycling (kg) | 0 | NA |
| Paper for Recycling (kg) | 0 | NA |
| Plastics for Recycling (kg) | 0 | NA |

- 7.03 There was no site effluent discharged but an estimated volume of less than 50m³ of surface runoff was discharged in the reporting month.

SUBMISSION OF PROFORMA

- 7.04 Representatives of the Engineer, the Contractor and ET carried out regular weekly joint site inspection on 02, 09, 16, 25 and 30 October 2007 to evaluate the site environmental performance. The monthly IEC site inspection for October 2007 was held on 30 October 2007. No non-compliance was noted and seven observations were recorded in weekly and monthly site inspection.
- 7.05 Proforma of the weekly ET site inspection activities are presented in [Annex K](#).

Annex A
Project Site Layout

DATE: 11/15/50
 PROJECT: [unclear]
 DRAWING NO: [unclear]

FOR TENDER PURPOSES ONLY

| | | |
|-----|----------|-------------------|
| NO. | DATE | DESCRIPTION |
| 1 | 11/15/50 | ISSUED FOR TENDER |
| 2 | 11/15/50 | ISSUED FOR TENDER |
| 3 | 11/15/50 | ISSUED FOR TENDER |
| 4 | 11/15/50 | ISSUED FOR TENDER |
| 5 | 11/15/50 | ISSUED FOR TENDER |
| 6 | 11/15/50 | ISSUED FOR TENDER |
| 7 | 11/15/50 | ISSUED FOR TENDER |
| 8 | 11/15/50 | ISSUED FOR TENDER |
| 9 | 11/15/50 | ISSUED FOR TENDER |
| 10 | 11/15/50 | ISSUED FOR TENDER |

DATE OF WORK: [unclear]

COMPILED BY: [unclear]

ENGINEER: [unclear]

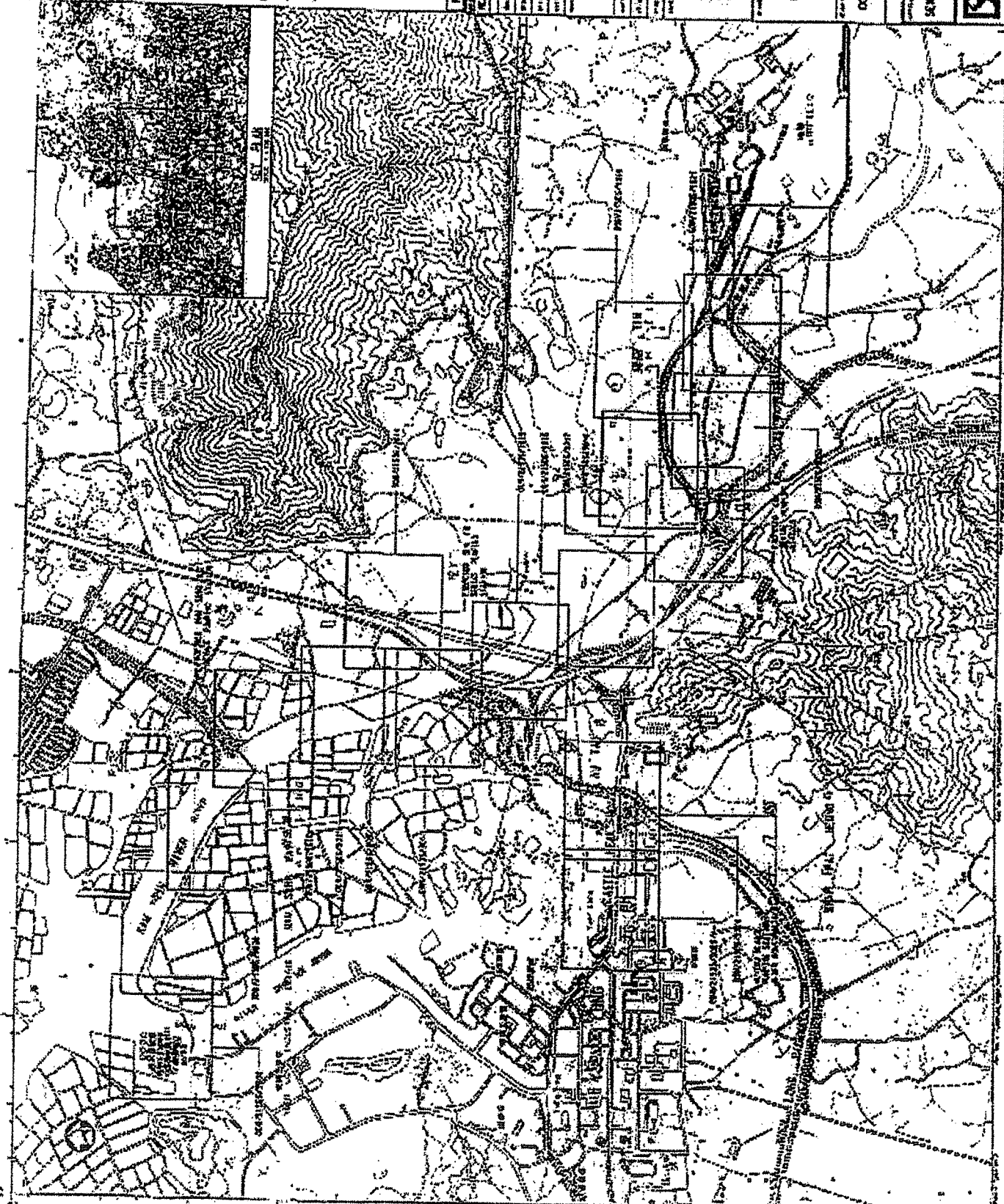
SCALE: [unclear]

PROJECT: [unclear]

DATE: [unclear]

PROJECT: [unclear]

DATE: [unclear]

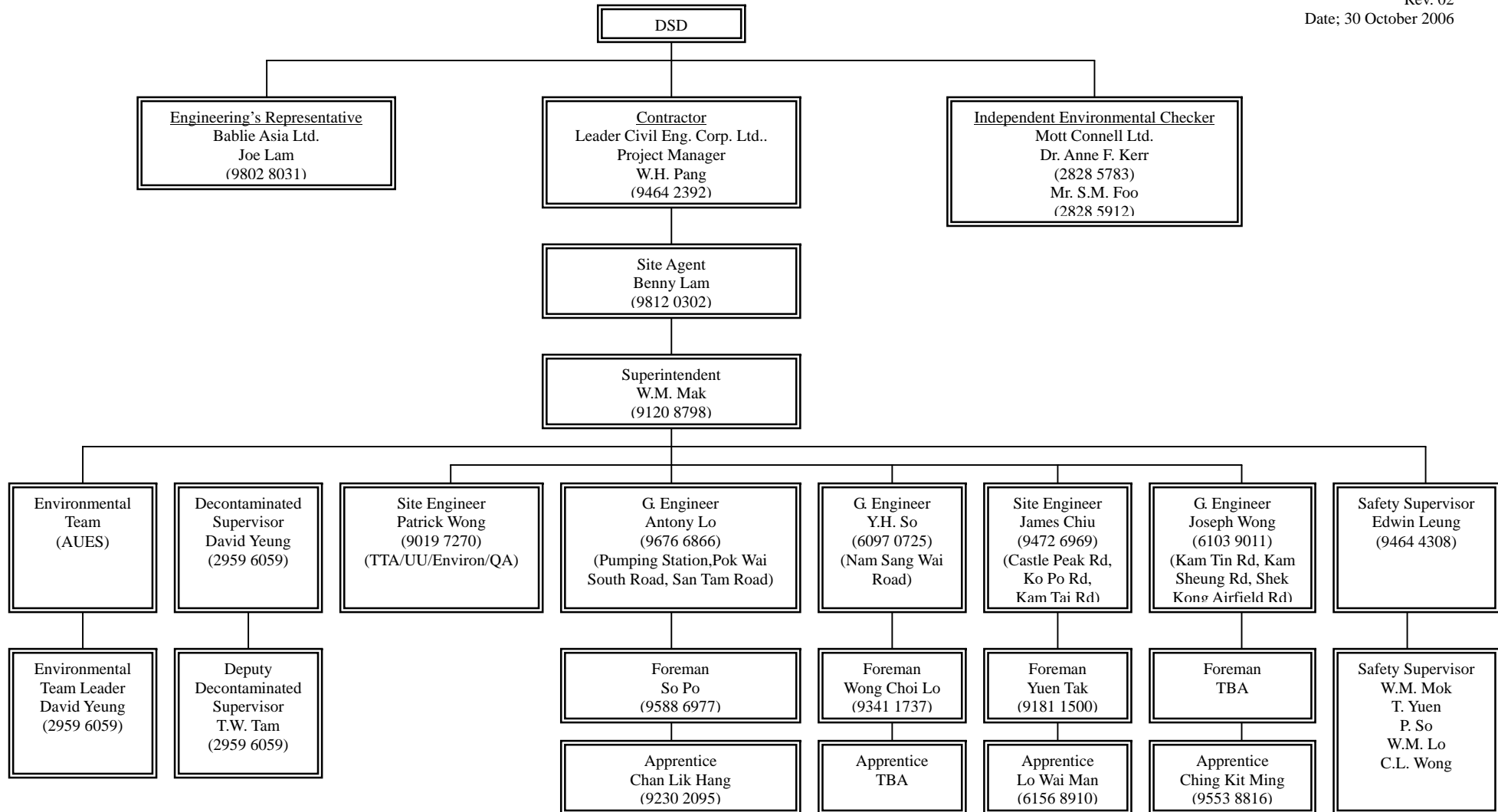


Annex B

Project Organization and Management Structure

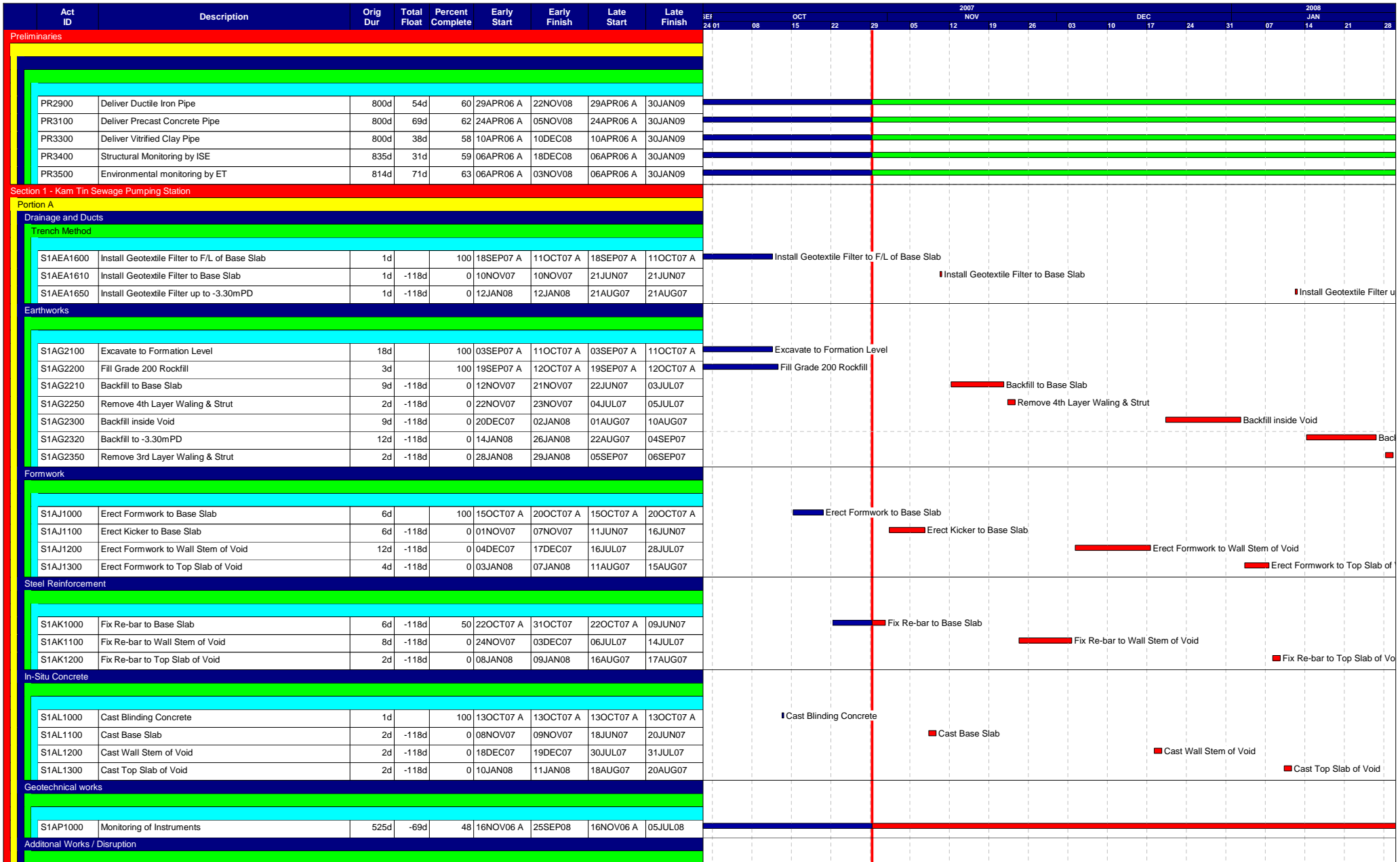
DSD Contract No. DC/2005/02
Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin,
Nam Sang Wai and Au Tau in Yuen Long
Project Environmental Organization Chart

Rev. 02
 Date: 30 October 2006



Annex C

Construction Program

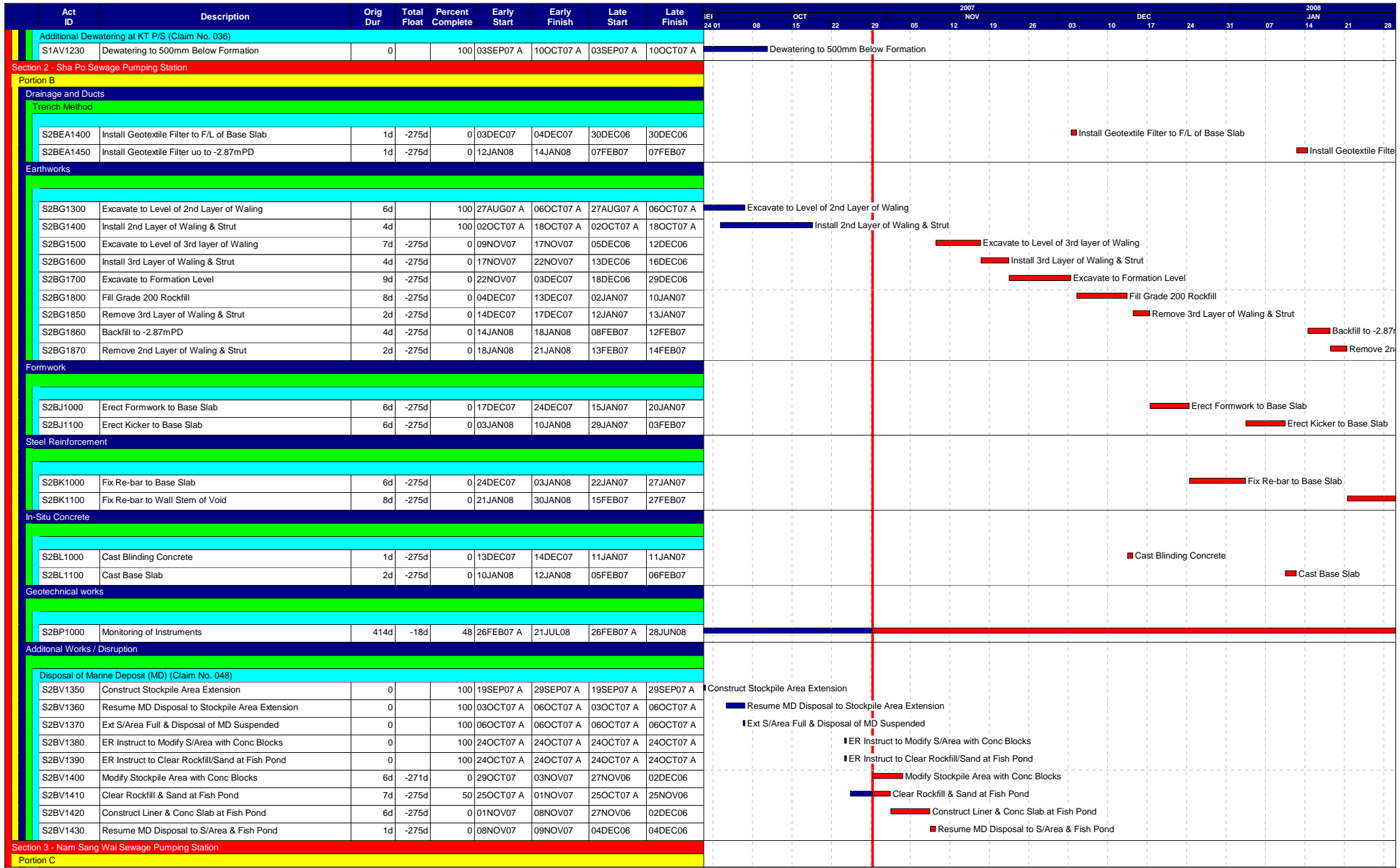


Start date 19DEC05
 Finish date 25MAY10
 Data date 29OCT07
 Page number 1A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 October 2007

- Early bar
- Progress bar
- Critical bar
- Summary bar
- ◆ Start milestone point
- ◆ Finish milestone point




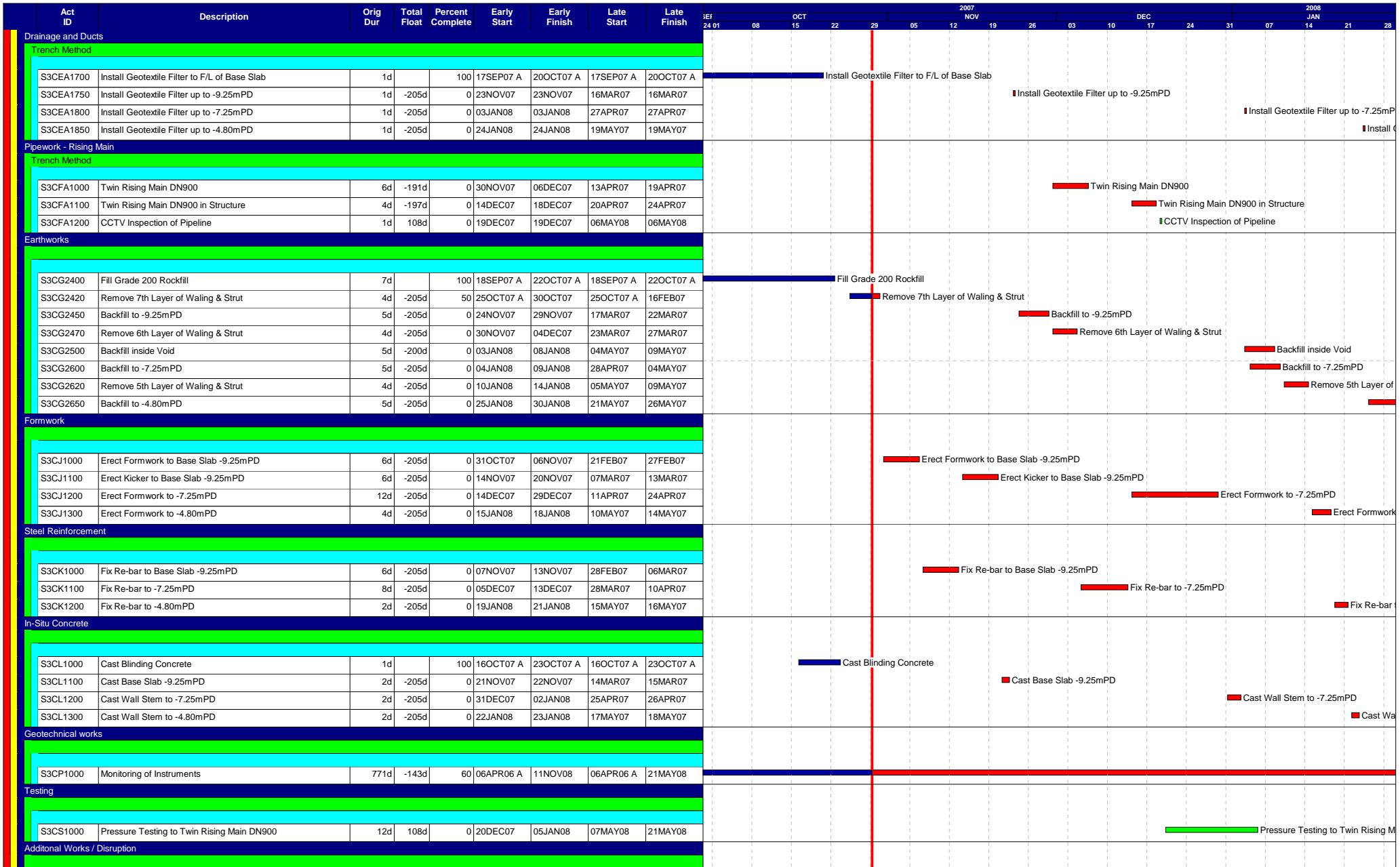


| | |
|---------------------------|---------|
| Start date | 19DEC05 |
| Finish date | 25MAY10 |
| Data date | 29OCT07 |
| Page number | 2A |
| © Primavera Systems, Inc. | |

Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 October 2007

| | |
|--|------------------------|
| | Early bar |
| | Progress bar |
| | Critical bar |
| | Summary bar |
| | Start milestone point |
| | Finish milestone point |



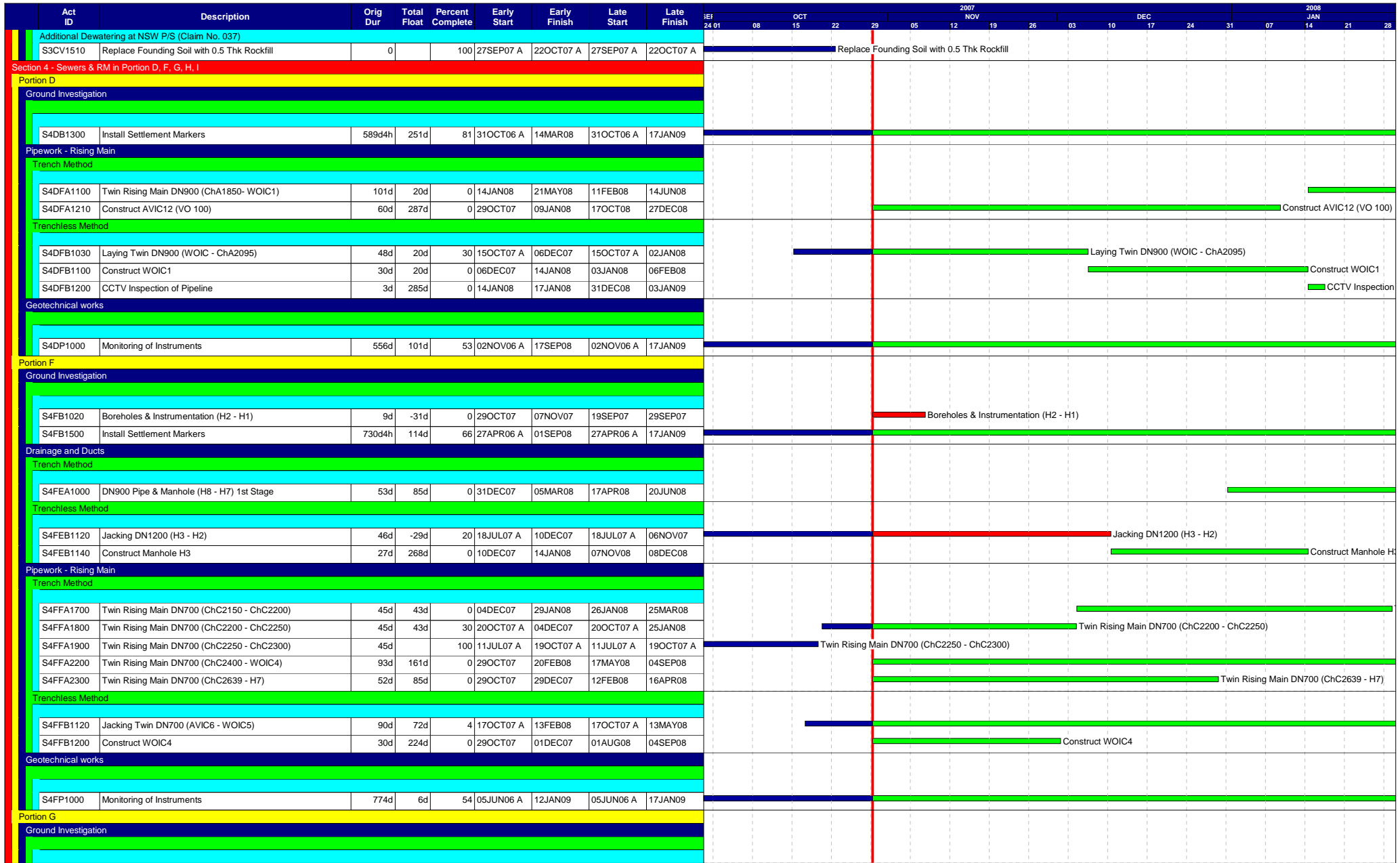


Start date 19DEC05
 Finish date 25MAY10
 Data date 29OCT07
 Page number 3A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 October 2007

- Early bar
- Progress bar
- Critical bar
- Summary bar
- ◆ Start milestone point
- ◆ Finish milestone point






Start date 19DEC05
 Finish date 25MAY10
 Data date 29OCT07
 Page number 4A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 October 2007

- Early bar
- Progress bar
- Critical bar
- Summary bar
- ◆ Start milestone point
- ◆ Finish milestone point



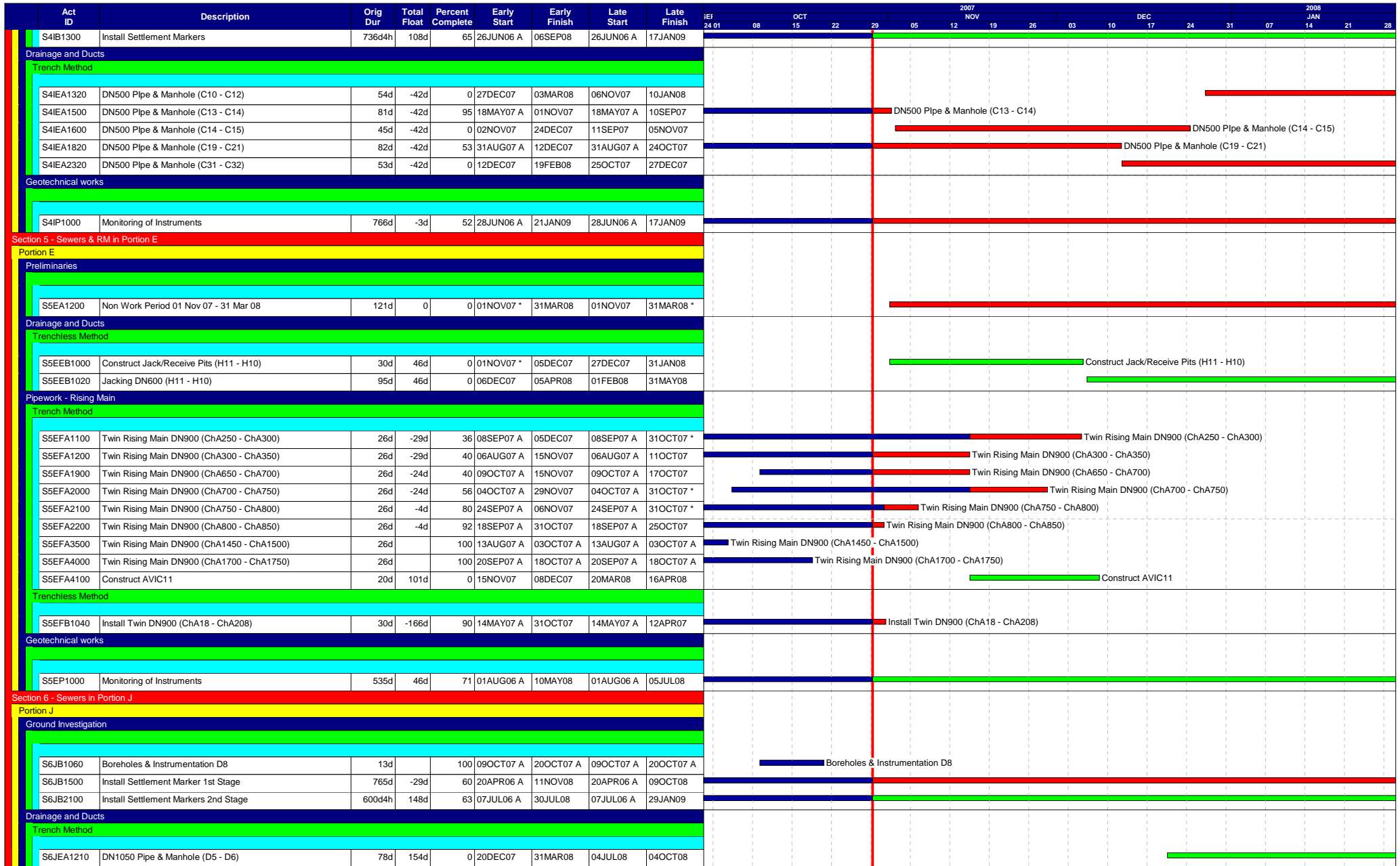
| Act ID | Description | Orig Dur | Total Float | Percent Complete | Early Start | Early Finish | Late Start | Late Finish | 2007 | | | | | | | | | | | | 2008 | | | | | | |
|---|---|----------|-------------|------------------|-------------|--------------|------------|-------------|---|-----|----|----|----|-----|----|----|----|-----|----|----|------|-----|----|----|----|----|----|
| | | | | | | | | | SEP | OCT | | | | NOV | | | | DEC | | | | JAN | | | | | |
| | | | | | | | | | 24 | 01 | 08 | 15 | 22 | 29 | 05 | 12 | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 |
| S4GB1500 | Install Settlement Markers | 748d4h | 96d | 64 | 21APR06 A | 22SEP08 | 21APR06 A | 17JAN09 | | | | | | | | | | | | | | | | | | | |
| Pipework - Rising Main | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trench Method | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S4GFA1300 | Twin Rising Main DN500 (ChB450 - ChB550) | 84d | 229d | 0 | 29OCT07 | 06FEB08 | 07AUG08 | 15NOV08 | | | | | | | | | | | | | | | | | | | |
| Trenchless Method | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S4GFB1000 | Construct Jack/Receive Pits (AVIC4 - P/S) | 57d | -7d | 40 | 16AUG07 A | 07DEC07 | 16AUG07 A | 28NOV07 | Construct Jack/Receive Pits (AVIC4 - P/S) | | | | | | | | | | | | | | | | | | |
| S4GFB1020 | Jacking Twin DN500 (AVIC4 - P/S) | 73d | -7d | 0 | 07DEC07 | 08MAR08 | 29NOV07 | 28FEB08 | | | | | | | | | | | | | | | | | | | |
| Geotechnical works | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S4GPI1000 | Monitoring of Instruments | 768d | 48d | 59 | 22APR06 A | 19NOV08 | 22APR06 A | 17JAN09 | | | | | | | | | | | | | | | | | | | |
| Portion H | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ground Investigation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S4HB1040 | Boreholes & Instrumentation (ChC1302 - ChC1376) | 10d | 38d | 0 | 29OCT07 | 08NOV07 | 12DEC07 | 22DEC07 | Boreholes & Instrumentation (ChC1302 - ChC1376) | | | | | | | | | | | | | | | | | | |
| S4HB1300 | Install Settlement Markers | 727d4h | 117d | 66 | 26MAY06 A | 27AUG08 | 26MAY06 A | 17JAN09 | | | | | | | | | | | | | | | | | | | |
| Drainage and Ducts | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trench Method | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S4HEA1100 | DN500 Pipe & Manhole (A6 - A9) | 100d | -19d | 0 | 29OCT07 | 28FEB08 | 05OCT07 | 02FEB08 | | | | | | | | | | | | | | | | | | | |
| S4HEA1400 | DN500 Pipe & Manhole (A14 - A16) | 109d | -14d | 0 | 08JAN08 | 23MAY08 | 19DEC07 | 07MAY08 | | | | | | | | | | | | | | | | | | | |
| S4HEA1500 | DN400 Pipe & Manhole (A16 - A17) | 37d | -14d | 0 | 29OCT07 | 10DEC07 | 11OCT07 | 24NOV07 | DN400 Pipe & Manhole (A16 - A17) | | | | | | | | | | | | | | | | | | |
| S4HEA1900 | DN300 Pipe & Manhole (B4 - B6) | 67d | 87d | 0 | 19DEC07 | 12MAR08 | 10APR08 | 30JUN08 | | | | | | | | | | | | | | | | | | | |
| S4HEA2000 | DN300 Pipe & Manhole (B6 - B8) | 44d | 87d | 0 | 29OCT07 * | 18DEC07 | 14FEB08 | 09APR08 | DN300 Pipe & Manhole (B6 - B8) | | | | | | | | | | | | | | | | | | |
| Pipework - Rising Main | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trench Method | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S4HFA1500 | Twin Rising Main DN700 (ChC570 - ChC610) | 21d | -14d | 0 | 11DEC07 | 07JAN08 | 24NOV07 | 19DEC07 | Twin Rising Main DN700 (ChC570 - ChC610) | | | | | | | | | | | | | | | | | | |
| S4HFA1800 | Twin Rising Main DN700 (ChC850 - ChC950) | 125d | -44d | 0 | 31DEC07 | 05JUN08 | 07NOV07 | 12APR08 | Twin Rising Main DN700 (ChC850 - ChC950) | | | | | | | | | | | | | | | | | | |
| S4HFA1900 | Twin Rising Main DN700 (ChC950 - ChC1000) | 44d | -44d | 0 | 07NOV07 | 31DEC07 | 13SEP07 | 07NOV07 | Twin Rising Main DN700 (ChC950 - ChC1000) | | | | | | | | | | | | | | | | | | |
| S4HFA1910 | Twin Rising Main DN700 (ChC1000 - ChC1050) | 43d | -44d | 80 | 03MAY07 A | 07NOV07 | 03MAY07 A | 13SEP07 | Twin Rising Main DN700 (ChC1000 - ChC1050) | | | | | | | | | | | | | | | | | | |
| S4HFA3000 | Construct AVIC9 | 20d | 61d | 0 | 31DEC07 | 24JAN08 | 15MAR08 | 12APR08 | Construct AVIC9 | | | | | | | | | | | | | | | | | | |
| S4HFA3100 | Construct WOIC8 | 20d | 61d | 0 | 31DEC07 | 24JAN08 | 15MAR08 | 12APR08 | Construct WOIC8 | | | | | | | | | | | | | | | | | | |
| Trenchless Method | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S4HFB1100 | Construct Jack/Receive Pits (AVIC8 - WOIC7) | 57d | -4d | 0 | 29DEC07 | 10MAR08 | 24DEC07 | 05MAR08 | Construct Jack/Receive Pits (AVIC8 - WOIC7) | | | | | | | | | | | | | | | | | | |
| Geotechnical works | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S4HP1000 | Monitoring of Instruments | 846d | -56d | 50 | 26MAY06 A | 27MAR09 | 26MAY06 A | 17JAN09 | | | | | | | | | | | | | | | | | | | |
| Additional Works / Disruption | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Twin R/M DN700 ChC1620 - ChC1661 (Claim No. 026) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S4HV1080 | Modify ELS & Construct Jack Pit & Receive Pit | 0 | | 100 | 10AUG07 A | 12OCT07 A | 10AUG07 A | 12OCT07 A | Modify ELS & Construct Jack Pit & Receive Pit | | | | | | | | | | | | | | | | | | |
| S4HV1090 | Set up for Pipe Jacking | 12d | -113d | 0 | 29OCT07 | 10NOV07 | 13JUN07 | 27JUN07 | Set up for Pipe Jacking | | | | | | | | | | | | | | | | | | |
| S4HV1100 | Jack Twin DN1200 Sleeve Pipes | 36d | -113d | 0 | 12NOV07 | 22DEC07 | 28JUN07 | 09AUG07 | Jack Twin DN1200 Sleeve Pipes | | | | | | | | | | | | | | | | | | |
| S4HV1110 | Install Twin DN700 DI Pipes & Grouting | 36d | -113d | 0 | 24DEC07 | 06FEB08 | 10AUG07 | 20SEP07 | | | | | | | | | | | | | | | | | | | |
| Portion I | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ground Investigation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S4IB1040 | Boreholes & Instrumentation (ChD0 to ChD55) | 8d | 157d | 0 | 29OCT07 | 06NOV07 | 13MAY08 | 21MAY08 | Boreholes & Instrumentation (ChD0 to ChD55) | | | | | | | | | | | | | | | | | | |

Start date 19DEC05
 Finish date 25MAY10
 Data date 29OCT07
 Page number 5A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 October 2007

- Early bar
- Progress bar
- Critical bar
- Summary bar
- ◆ Start milestone point
- ◆ Finish milestone point



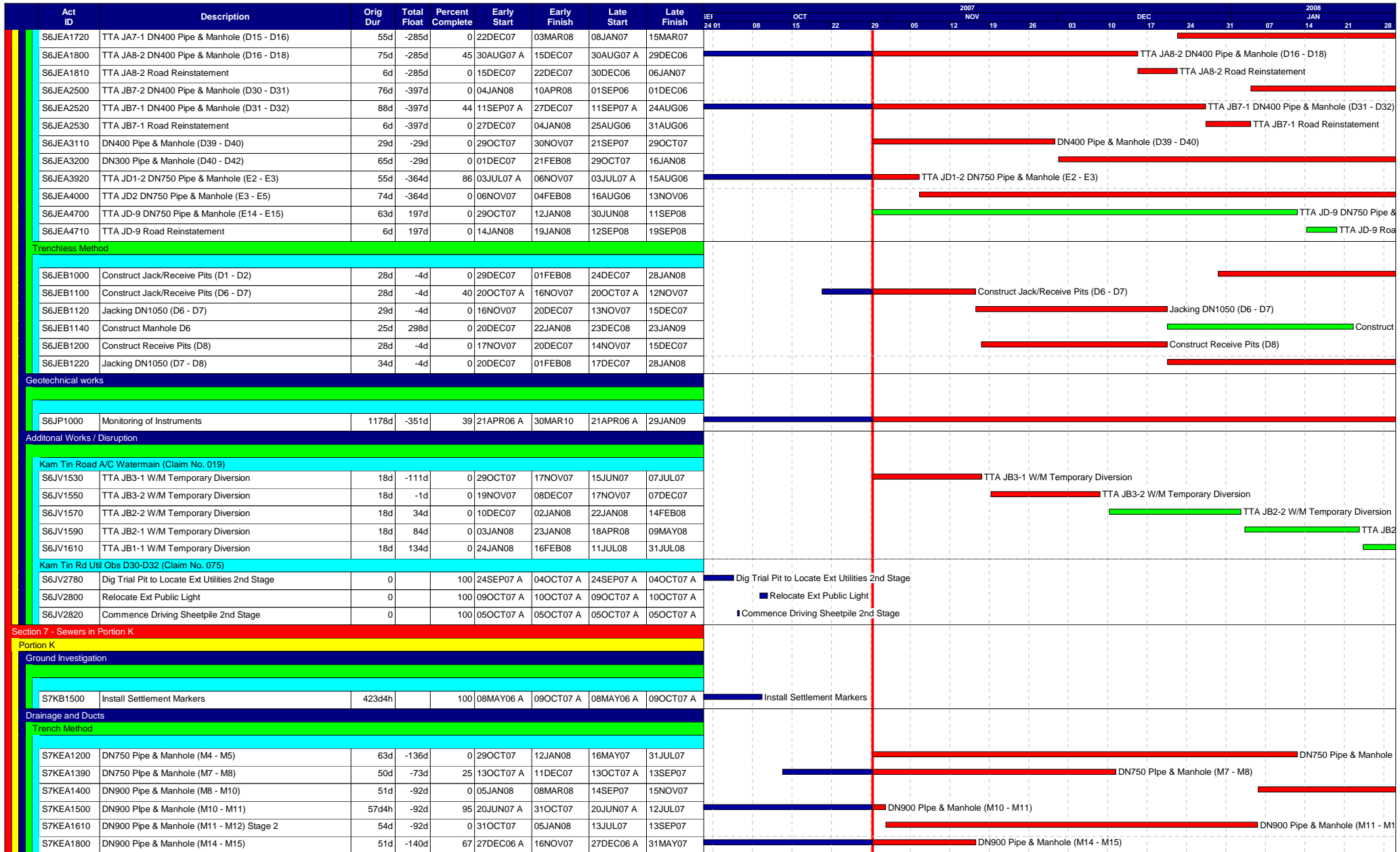


Start date 19DEC05
 Finish date 25MAY10
 Data date 29OCT07
 Page number 6A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 29 October 2007

- Early bar
- Progress bar
- Critical bar
- Summary bar
- ◆ Start milestone point
- ◆ Finish milestone point




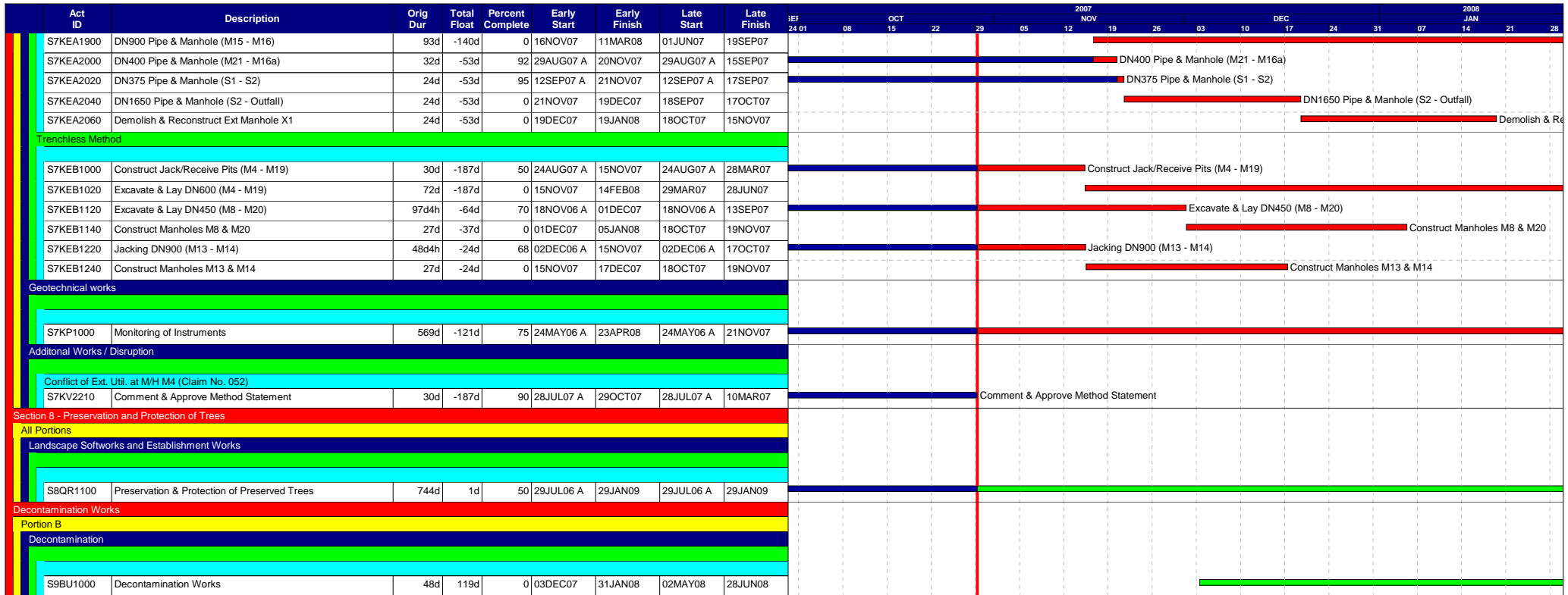


Start date 19DEC05
 Finish date 25MAY10
 Data date 29OCT07
 Page number 7A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 October 2007

- Early bar
- Progress bar
- Critical bar
- Summary bar
- ◆ Start milestone point
- ◆ Finish milestone point





Start date 19DEC05
 Finish date 25MAY10
 Data date 29OCT07
 Page number 8A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 29 October 2007

- Early bar
- Progress bar
- Critical bar
- Summary bar
- ◆ Start milestone point
- ◆ Finish milestone point



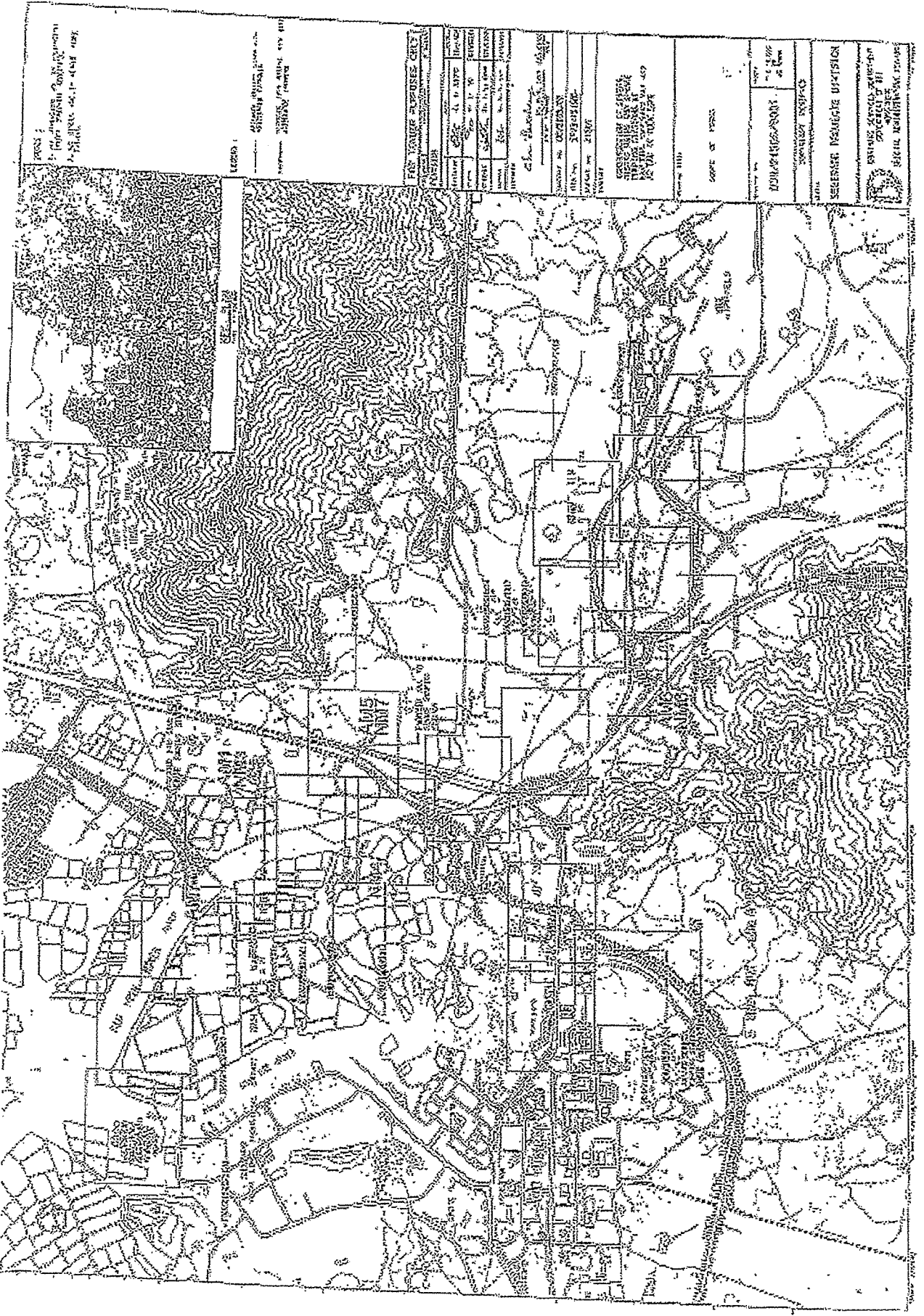
Annex D

Photographical Records – Noise Barrier On-Site



Annex E

Locations of Monitoring Stations



1:50,000
 1:50,000
 1:50,000
 1:50,000

1:50,000
 1:50,000
 1:50,000
 1:50,000

1:50,000
 1:50,000
 1:50,000
 1:50,000

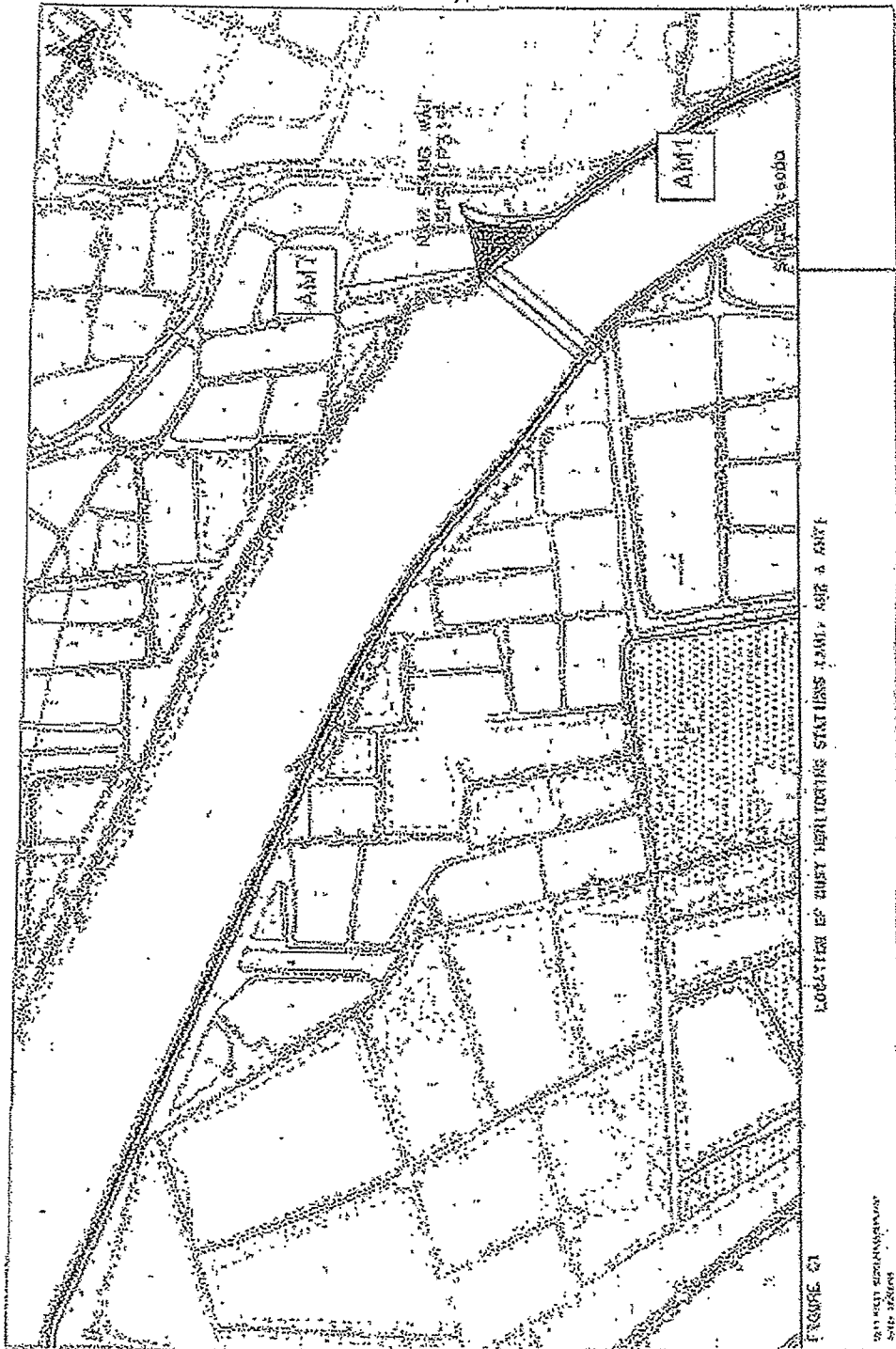
| | |
|-------------------|-----------|
| NAME | ADIS 1907 |
| CLASSIFICATION | SECRET |
| DATE | 1957 |
| SCALE | 1:50,000 |
| PROJECTION | UTM |
| COORDINATE SYSTEM | WGS 84 |
| UNIT | METERS |
| VERTICAL DATUM | ADIS 1907 |
| HORIZONTAL DATUM | ADIS 1907 |
| MAP SHEET | ADIS 1907 |
| SCALE | 1:50,000 |
| PROJECTION | UTM |
| COORDINATE SYSTEM | WGS 84 |
| UNIT | METERS |
| VERTICAL DATUM | ADIS 1907 |
| HORIZONTAL DATUM | ADIS 1907 |
| MAP SHEET | ADIS 1907 |

1:50,000
 1:50,000
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1:50,000
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1:50,000
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1:50,000
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 1:50,000



LOCATION OF THE STATIONS AND THE A.M.T.

FIGURE 61

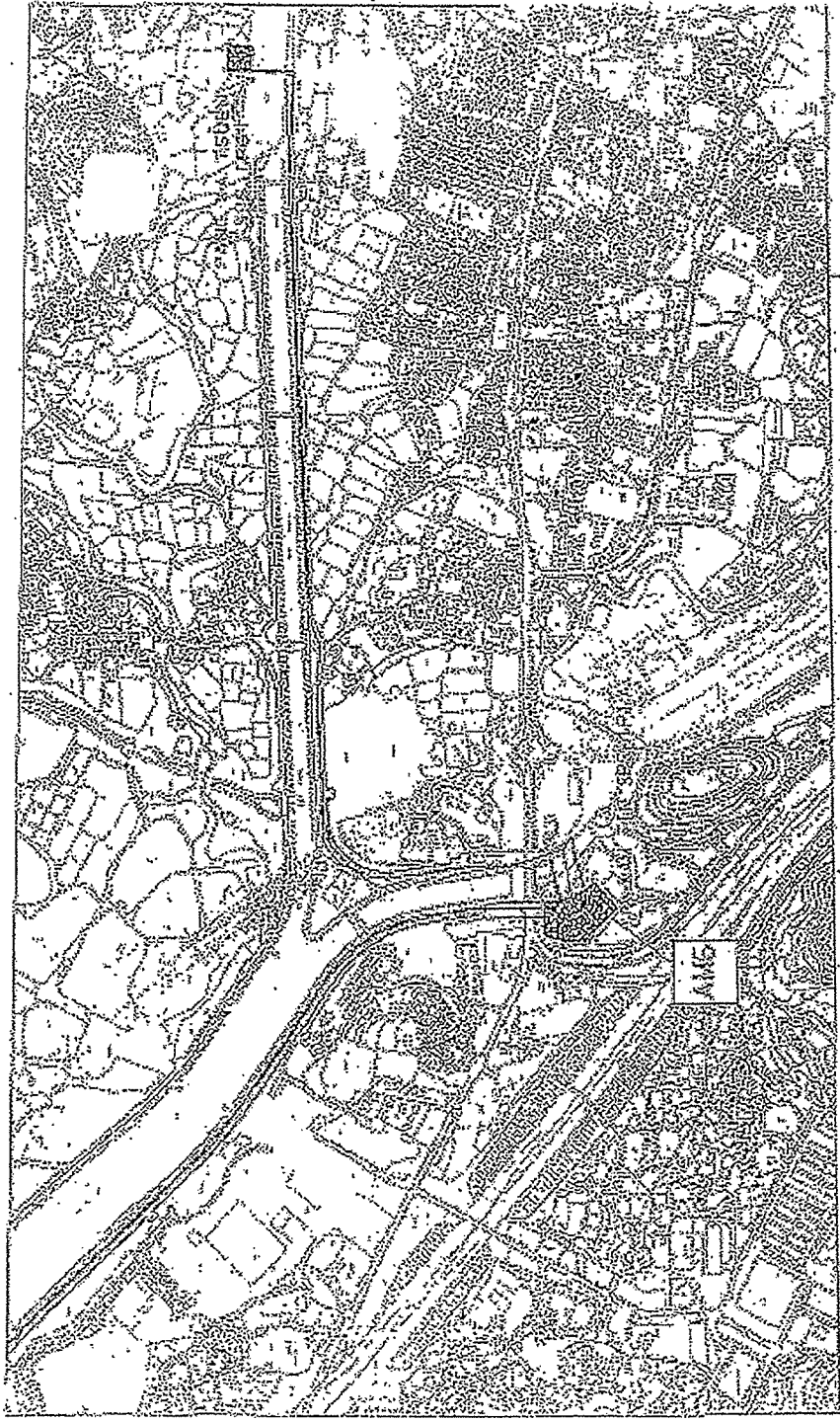
STATE ARCHIVES



FIGURE OF BEST MONITORING STATIONS (1981)

FIGURE 62

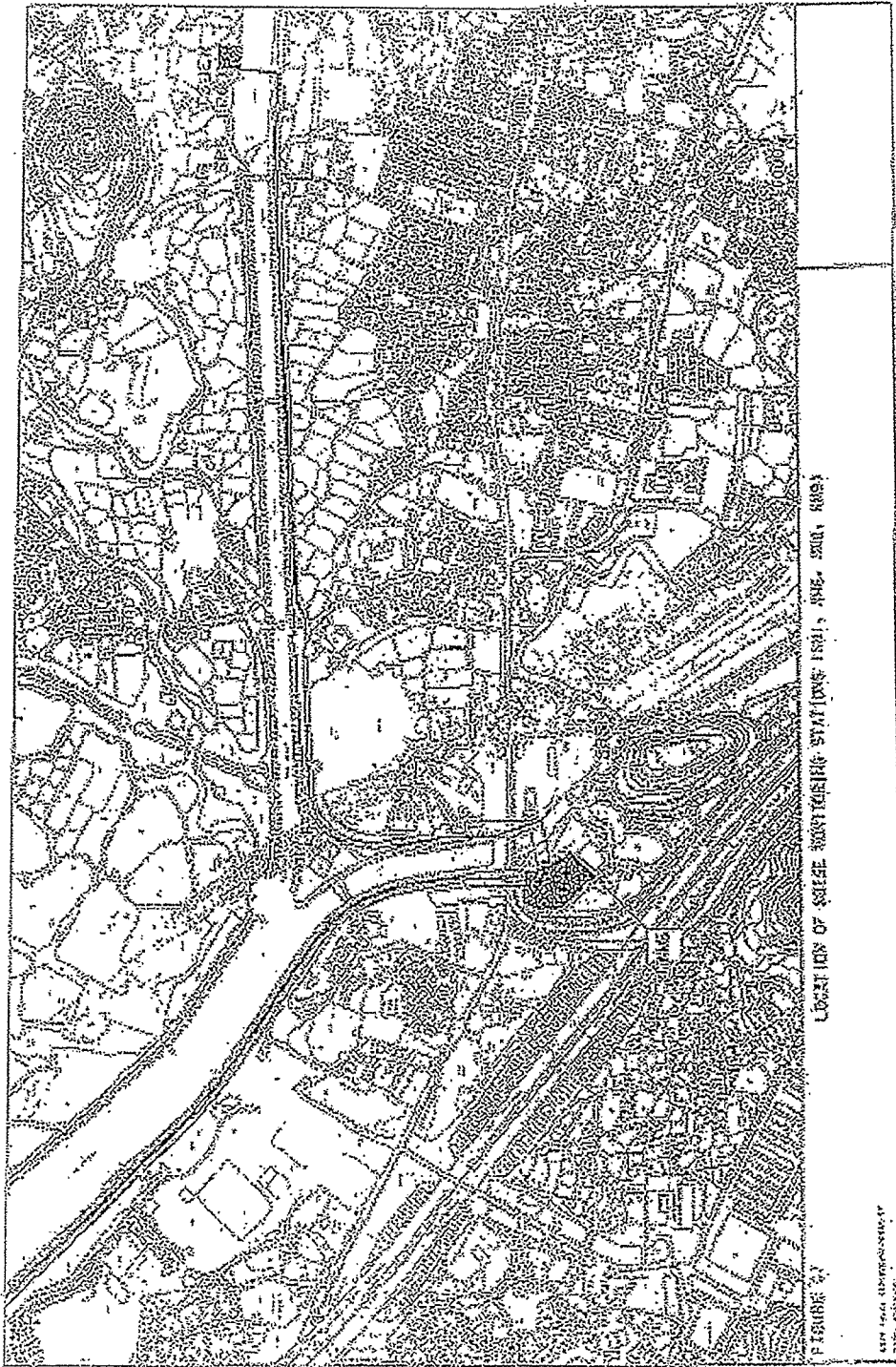
REVISED, 2001/02/02/03/04/05
6000 0000



LOCATION OF BEST MONITORING STATIONS (AMS, AMS 2, AMS3)

FIGURE 20

AMERICAN OVERSEAS AIRWAYS CORPORATION
1960-1961



LOCATION OF STATIONING STATIONS STA. 1581, STA. 210, STA. 888

FIGURE 4

NEW YORK UNIVERSITY
 CIVIL ENGINEERING

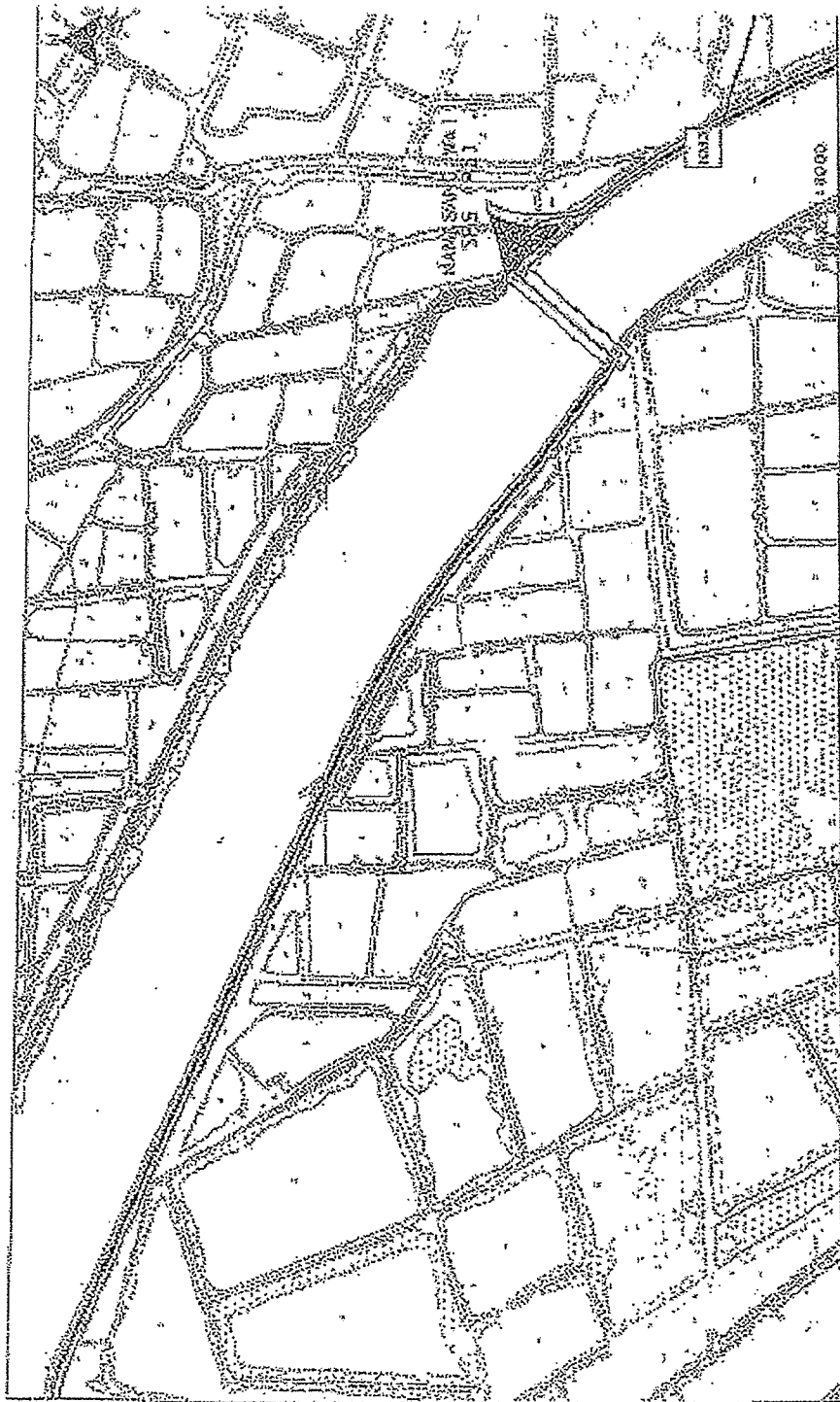


FIGURE 10

LOCATION OF HOUSE BUILDINGS STATIONS (IND.) AREA I

GENERAL ENGINEERING
BY P. P. P. P.



LOCATION OF NOISE MEASURING STATIONS FROM NO. 3

FIGURE NO. 2

ENVIRONMENTAL ENGINEERING
DIVISION

Annex F

Event and Action Plan

Event and Action Plan for Construction Phase Air Quality

| EVENT | ACTION | | | |
|--|---|---|--|---|
| | ET Leader | IEC | Engineer | Contractor |
| Action Level | | | | |
| Exceedance for one sample | <ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat dust measurements to confirm findings 3. Increase monitoring frequency to daily 4. Assess efficacy of remedial measures and keep the Contractor, IEC, and Engineer informed | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Check and confirm Contractors proposed remedial actions and working methods are appropriate | <ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Inform complainant of actions taken, if necessary | <ol style="list-style-type: none"> 1. Rectify any unacceptable practice 2. Liaise with Engineer and IEC to develop appropriate remedial measures to reduce dust impact 3. Amend working methods and remedial proposals if required by the Engineer or IEC 4. Implement the agreed remedial actions upon instruction from the Engineer and IEC |
| Exceedance for two or more consecutive samples | <ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat measurements to confirm findings 3. Increase the monitoring frequency to daily to assess the efficacy of remedial measures and keep the Contractor informed 4. Discuss remedial actions with IEC and Contractor 5. If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions 6. If exceedance stops, inform the Contractor and cease additional monitoring | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Discuss with Contractor and Engineer on possible remedial measures 4. Check and confirm Contractors proposed remedial measures are appropriate 5. Determine the efficacy of remedial actions and keep the Engineer informed | <ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Ensure remedial measures are properly implemented 5. Inform complainant of actions taken, if necessary. | <ol style="list-style-type: none"> 1. Rectify any unacceptable practice, if possible 2. Submit proposals for remedial actions to Engineer and IEC within three working days of notification 3. Discuss and amend remedial actions, if required, by the Engineer and IEC 4. Implement the remedial action (s) immediately upon instruction from the Engineer Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions |
| Limit Level | | | | |

Event and Action Plan for Construction Phase Air Quality

| EVENT | ACTION | | | |
|--|--|--|---|--|
| | ET Leader | IEC | Engineer | Contractor |
| Exceedance for one sample | <ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat dust measurements to confirm findings 3. Increase monitoring frequency to daily 4. Assess efficacy of remedial measures and keep the Contractor, IEC, Engineer and EPD informed | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Check and confirm Contractors proposed remedial actions and working methods are appropriate 4. Check and confirm Contractors proposed remedial measures are appropriate 5. Determine the efficacy of remedial actions and keep the Engineer informed | <ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC, 4. Ensure remedial measures are properly implemented 5. Inform complainant of actions taken, if necessary. | <ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to Engineer and IEC within three working days of notification 3. Discuss and amend remedial actions, if required, by the Engineer and IEC 4. Implement the remedial action (s) immediately upon instruction from the Engineer 5. Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions |
| Exceedance for two or more consecutive samples | <ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat measurements to confirm findings 3. Increase the monitoring frequency to daily to assess the efficacy of remedial measures and keep the Contractor informed 4. Discuss remedial actions with IEC and Contractor 5. If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions 6. If exceedance stops, inform the Contractor and cease additional monitoring. | <ol style="list-style-type: none"> 1. Discuss with Contractor and Engineer on possible remedial measures 2. Check and confirm Contractors proposed remedial measures are appropriate 3. Determine the efficacy of remedial actions and keep the Engineer informed | <ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Ensure remedial measures are properly implemented 5. If exceedance continues, instruct the Contractor to stop the relevant portion of work until the exceedance is abated 6. Inform complainant of actions taken, if necessary. | <ol style="list-style-type: none"> 1. Rectify any unacceptable practice, if possible 2. Submit proposals for remedial actions to Engineer and IEC within three working days of notification 3. Discuss and amend remedial actions, if required, by the Engineer and IEC 4. Implement the remedial action (s) immediately upon instruction from the Engineer 5. Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions |

| Event and Action Plan for Construction Noise | | | | |
|--|--|---|---|--|
| EVENT | ACTION | | | |
| | ET Leader | IEC | Engineer | Contractor |
| Limit Level | | | | |
| Exceedance for one sample | <ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat dust measurements to confirm findings 3. If repeat measurements confirm exceedance ,increase monitoring frequency to daily 4. Assess efficacy of remedial measures and keep the Contractor, IEC, and Engineer informed 5. If exceedance stops, inform Contractor and cease additional noise monitoring | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Check and confirm Contractors proposed remedial actions and working methods are appropriate | <ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Inform complainant of actions taken, if necessary | <ol style="list-style-type: none"> 1. Rectify any unacceptable practice 2. Liaise with Engineer and IEC to develop appropriate remedial measures to reduce noise impact 3. Amend working methods and remedial proposals if required by the Engineer or IEC 4. Implement the agreed remedial actions upon instruction from the Engineer and IEC |
| Exceedance for two or more consecutive samples | <ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat measurements to confirm findings 3. Increase the monitoring frequency to daily 4. Discuss remedial actions with IEC, Engineer and the EPD 5. Assess the efficacy of remedial measures and keep the Contractor informed 6. If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions 7. If exceedance stops, inform the Contractor and cease additional monitoring. | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Discuss with Contractor and Engineer on possible remedial measures 4. Check and confirm Contractors proposed remedial measures are appropriate 5. Determine the efficacy of remedial actions and keep the Engineer informed | <ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Ensure remedial measures are properly implemented 5. If exceedance continues, instruct the Contractor to stop the relevant portion of work until the exceedance is abated 6. Inform complainant of actions taken, if necessary. | <ol style="list-style-type: none"> 1. Rectify any unacceptable practice, if possible 2. Submit proposals for remedial actions to Engineer and IEC within three working days of notification 3. Discuss and amend remedial actions, if required, by the Engineer and IEC 4. Implement the remedial action (s) immediately upon instruction from the Engineer 5. Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions 6. Stop the relevant portion of work as determined by the Engineer until the exceedance is abated |

Annex G

Mitigation Implementation Schedule

| EIA* Ref. | EM&A Ref | Environmental Protection Measures | Objectives of the Recommended Measures & Main Concerns | Location of the measure | Implementation Agent | Implementation Stage** | | | | Relevant Legislation & Guidelines |
|---|----------|--|---|--|----------------------|------------------------|---|---|-----|--|
| | | | | | | Des | C | O | Dec | |
| CONSTRUCTION PHASE | | | | | | | | | | |
| AIR QUALITY - Construction Phase | | | | | | | | | | |
| | | The following measures are enforceable under the <i>Air Pollution Control (Construction Dust) Regulations</i> | | | | | | | | |
| 3.5 | A1 | <p>Site boundary and entrance</p> <ul style="list-style-type: none"> where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4 m high from ground level should be provided along the boundaries of the seven pumping stations sites and the works area where the Engineer's site office and the Contractor's site office erected; | To prevent access to the site and control potential dust impacts from construction works. | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Part III, Clause 13 (c), Air Pollution Control (Construction Dust) Regulations</i> |
| 3.5 | A2 | <p>Access Road</p> <ul style="list-style-type: none"> the portion of any road leading only to a construction site that is within 30 m of a discernible or designated vehicle entrance or exit should be kept clear of dusty materials; | To control potential dust impacts from vehicle movements. | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Part III, Clause 14, (b), Air Pollution Control (Construction Dust) Regulations</i> |
| 3.5 | A3 | <p>Stockpiling of Dusty Materials</p> <ul style="list-style-type: none"> any stockpile of dusty materials should be either covered entirely by impervious sheeting and placed in an area sheltered on the top and the 3 sides or sprayed with water so as to maintain the entire surface wet; | To control potential dust impacts during excavation and stockpiling activities. | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Part IV, Clause 18, (a, b & c), Air Pollution Control (Construction Dust) Regulations</i> |
| 3.5 | A4 | <p>Loading, unloading or transfer of dusty materials</p> <ul style="list-style-type: none"> all dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading and unloading so as to maintain the dusty materials wet; | To control potential dust impacts during material handling and truck movements. | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Part IV, Clause 19, Air Pollution Control (Construction Dust) Regulations</i> |
| 3.5 | A5 | <p>Use of vehicles</p> <ul style="list-style-type: none"> every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site; | To control potential dust impacts from vehicle movements. | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Part IV, Clause 21, (1), Air Pollution Control (Construction</i> |

| EIA* Ref. | EM&A Ref | Environmental Protection Measures | Objectives of the Recommended Measures & Main Concerns | Location of the measure | Implementation Agent | Implementation Stage** | | | | Relevant Legislation & Guidelines |
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| 3.5 | A6 | <ul style="list-style-type: none"> where a vehicle leaving a construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle; | To control potential dust impacts during material transportation. | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Dust) Regulations Part IV, Clause 21, (2), Air Pollution Control (Construction Dust) Regulations</i> |
| 3.5 | A7 | <p>Power-driven drilling, and cutting</p> <ul style="list-style-type: none"> water should be continuously sprayed on the surface where any mechanical breaking operation that causes dust emission is carried out, unless the process is accompanied by the operation of an effective dusty extraction and filtering device; | To control potential dust impacts during mechanical breaking. | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Part IV, Clause 22, Air Pollution Control (Construction Dust) Regulations</i> |
| 3.5 | A8 | <p>Excavation and earth moving</p> <ul style="list-style-type: none"> the working area of excavation should be sprayed with water immediately before, during and immediately after the operation so as to maintain the entire surface wet; | To control potential dust impacts arising from excavation works. | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Part IV, Clause 24, Air Pollution Control (Construction Dust) Regulations</i> |
| 3.5 | A9 | <p>Construction of the superstructure of a building</p> <ul style="list-style-type: none"> where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the round floor level of the SPS, or if a canopy is provided at the first floor level, from the first floor level, up to the highest level of the scaffolding; and | To control potential dust impacts from SPS building construction works. | Full duration of SPS construction contract. | The Contractor | | ✓ | | | <i>Part I, Clause 6, (a), Air Pollution Control (Construction Dust) Regulations</i> |
| 3.5 | A10 | <ul style="list-style-type: none"> any skip hoist for material transport should be totally enclosed by the impervious sheeting. | To control potential dust impacts during material transportation. | Full duration of SPS construction contract. | The Contractor | | ✓ | | | <i>Part I, Clause 6, (b), Air Pollution Control (Construction Dust) Regulations</i> |

| EIA* Ref. | EM&A Ref | Environmental Protection Measures | Objectives of the Recommended Measures & Main Concerns | Location of the measure | Implementation Agent | Implementation Stage** | | | | Relevant Legislation & Guidelines |
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| | | | | | | Des | C | O | Dec | |
| | | NOISE - Construction Phase | | | | | | | | |
| 4.7.1 | B1 | <p>General Site Clearance – Demolition Works</p> <ul style="list-style-type: none"> Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997</i> (Examples of these PME are shown in Table F2), | To control potential noise impacts during site clearance and demolition works | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Annex 5 of EIAO-TM</i> |
| 4.7.1 | B2 | <p>Construction of Sewage Pumping Stations P1, P2 & P3</p> <ul style="list-style-type: none"> Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997</i>, Adoption of temporary noise barrier, in the form of a site hoarding (with a superficial density of at least 20kg/m², with no substantial gaps), along the site boundary of the pumping station sites. | To minimise potential noise impacts arising during the construction of P1, P2 & P3 | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Annex 5 of EIAO-TM</i> |
| 4.7.1 | B3 | <p>Sewers and Rising Mains using Open Trench Method</p> <ul style="list-style-type: none"> Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997</i>, | To minimise potential noise impacts arising during the construction of P1, P2 & P3 | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Annex 5 of EIAO-TM</i> |
| 4.7.1 | B4 | <ul style="list-style-type: none"> Use of handheld breakers for all initial road opening activities, when breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached. | To control potential noise impacts during excavation works. | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Annex 5 of EIAO-TM</i> |
| 4.7.1 | B5 | <ul style="list-style-type: none"> Use of handheld breakers for all initial road opening activities, when breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached. | To control potential noise impacts during road opening activities. | Where there are NSRs located within 50m of the line of sight. Throughout the full duration of the road opening activities. | The Contractor | | ✓ | | | <i>Annex 5 of EIAO-TM</i> |
| 4.7.1 | B5 | <ul style="list-style-type: none"> Use of movable noise barriers or 3 sided enclosures for all initial road opening activities | To control potential noise impacts during road opening | Where there are NSRs located within 50m of the | The Contractor | | ✓ | | | <i>Annex 5 of EIAO-TM</i> |

| EIA* Ref. | EM&A Ref | Environmental Protection Measures | Objectives of the Recommended Measures & Main Concerns | Location of the measure | Implementation Agent | Implementation Stage** | | | | Relevant Legislation & Guidelines |
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| 4.7.1 | B6 | enclosures for all initial road opening activities (breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached), where there are NSRs located within 50m of the line of sight from the works area. Sewers and Rising Mains using Pipe Jacking Method • Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997,</i> | activities. To control potential noise impacts from PME during construction works | line of sight. Throughout the full duration of the road opening activities. Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Annex 5 of EIAO-TM</i> |
| 4.7.1 | B7 | Road Pavement and Finishes • Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997,</i> | To control potential noise impacts from PME during pavement and finish works | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | <i>Annex 5 of EIAO-TM</i> |
| | | WATER QUALITY - Construction Phase No water quality monitoring is required under this study. | | | | | | | | |
| 6.6.2 | D1 | WASTE - Construction Phase The Contractor shall obtain the necessary waste disposal permits from the appropriate authorities for the disposal of chemical and C&D waste, • Chemical Waste Producer and Chemical Waste Disposal Licence (<i>Waste Disposal (Chemical Waste) (General) Regulations</i>); and • Dumping Licence (<i>Land (Miscellaneous Provisions) Ordinance (Cap 28)</i>) | To monitor the collection, handling and disposal of chemical waste and C&D waste, and in compliance with relevant Hong Kong Standards and Regulations. | Site wide and throughout the full duration of the construction contract. | The Contractor | ✓ | ✓ | | | <i>Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste)(General) Regulation (Cap 354), the Land (Miscellaneous Provisions) Ordinance (Cap 28)</i> |

| EIA* Ref. | EM&A Ref | Environmental Protection Measures | Objectives of the Recommended Measures & Main Concerns | Location of the measure | Implementation Agent | Implementation Stage** | | | | Relevant Legislation & Guidelines |
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| 6.6.2 | D2 | <p>Chemical Waste Chemical waste that is produced, as defined by Schedule 1 of the <i>Waste Disposal (Chemical Waste) (General) Regulation</i>, should be handled in accordance with the regulations and Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows. All chemical waste producers should be registered with the EPD.</p> | To control the handling, storage and disposal of chemical waste, in order to minimise potential spillages/leakages and human health and environmental impacts. | To be implemented at all worksites throughout the full duration of the construction phase. | The Contractor | | ✓ | | | <i>Part II, (6) Waste Disposal (Chemical Waste) (General) Regulation</i> |
| 6.6.2 | D3 | <p>Storage, Packaging and Labelling of Chemical Waste Containers used for storage of chemical wastes should:</p> <ul style="list-style-type: none"> be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 L unless the specifications have been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations. | To ensure the proper storage, packaging and labelling of chemical waste in accordance with the Regulations. | To be implemented at all worksites throughout the full duration of the construction phase. | The Contractor | | ✓ | | | <i>Part IV, (9, 10, 11 & 12) Waste Disposal (Chemical Waste) (General) Regulation</i> |
| 6.6.2 | D4 | <p>Storage of chemical waste The storage area for chemical wastes should:</p> <ul style="list-style-type: none"> be clearly labelled and used solely for the storage of chemical waste; be enclosed on at least 3 sides; have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; have adequate ventilation; be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste, if necessary); and be arranged so that incompatible materials are | To ensure the proper storage of chemical waste in accordance with the Regulations. | To be implemented at all worksites throughout the full duration of the construction phase. | The Contractor | | ✓ | | | <i>Part IV, (13,14, 15, 16, 17, & 18) Waste Disposal (Chemical Waste) (General) Regulation</i> |

| EIA* Ref. | EM&A Ref | Environmental Protection Measures | Objectives of the Recommended Measures & Main Concerns | Location of the measure | Implementation Agent | Implementation Stage** | | | | Relevant Legislation & Guidelines |
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| | | adequately separate | | | | | | | | |
| 6.6.2 | D5 | <p>Disposal of chemical waste</p> <ul style="list-style-type: none"> The Contractor should ensure that the disposal of chemical waste is via a licensed Waste Collector and in accordance with the <i>Waste Disposal (Chemical Waste) (General) Regulations</i>. <p><i>Management of Waste Disposal</i> A trip-ticket system should be established which monitors the disposal of C&DM and solid wastes at public filling facilities and landfills and to control fly-tipping, in accordance with <i>Land (Miscellaneous Provisions) Ordinance (Cap28)</i> and the <i>Works Bureau Technical Circular No. 5/99</i>.</p> | <p>To control the disposal of chemical waste in accordance with the Regulations.</p> | To be implemented at all worksites throughout the full duration of the construction phase. | The Contractor | | ✓ | | | <i>Part IV, (20 -25) Waste Disposal (Chemical Waste) (General) Regulation</i> |
| | | <p>LAND CONTAMINATION- Construction Phase</p> <p>A revised CAP should be submitted to the EPD for approval before the commencement of the construction works. Following receipt of the EPD's approval, the CAP shall be implemented and the findings of the investigations will be reported in the Contaminated Assessment Report (CAR), before ground disturbance is allowed at the concerned sites. If land contamination is confirmed, a Remediation Action Plan (RAP) shall be prepared, and both the CAR and the RAP shall be submitted as a combined report to the EPD for approval before disturbing the ground of the concerned sites. If applicable and required in consultation with the</p> | <p>To monitor the disposal of C&DM and solid wastes at public filling facilities and landfills and to control fly-tipping.</p> | To be implemented at all worksites throughout the full duration of the construction phase. | The Engineer/ Contractor | | ✓ | | | <i>Land (Miscellaneous Provisions) Ordinance (Cap 295) and Works Bureau Technical Circular No. 5/99.</i> |
| 7.5.6 | E1 | <p>A revised CAP should be submitted to the EPD for approval before the commencement of the construction works. Following receipt of the EPD's approval, the CAP shall be implemented and the findings of the investigations will be reported in the Contaminated Assessment Report (CAR), before ground disturbance is allowed at the concerned sites. If land contamination is confirmed, a Remediation Action Plan (RAP) shall be prepared, and both the CAR and the RAP shall be submitted as a combined report to the EPD for approval before disturbing the ground of the concerned sites. If applicable and required in consultation with the</p> | <p>To determine the presence of soil and groundwater contamination and remedy any potential concerns to acceptable levels.</p> | To be implemented before the commencement of the construction works. | To be Implemented by DSD or their sub-consultants at the Detailed Design Stage, depending upon when site access can be gained. | ✓ | | | | <i>EIAO TM Annex 19/3.1.1 & 3.1.2</i> |

| EIA* Ref. | EM&A Ref | Environmental Protection Measures | Objectives of the Recommended Measures & Main Concerns | Location of the measure | Implementation Agent | Implementation Stage** | | | | Relevant Legislation & Guidelines |
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| | | EPD, the contaminated site(s) shall be remediated in accordance with the approved CAR/RAP. | | | | | | | | |
| 8.7.1 | F1 | <p>ECOLOGY - Construction Phase Mitigation Measures Adopted - Avoidance Construction activities shall be prohibited during the winter season (November to March) along the section of the proposed sewerage alignment, which fall within the Deep Bay Wetland Conservation Area and the Deep Bay Wetland Buffer Area (WCA and WBA) and close to the locations of ecologically sensitive species (including Intermediate Egret, Black-faced Spoonbill, Buzzard, Imperial Eagle and Avocet). (See Figure 8.7a attached). Regular site inspections (at least twice a month) should be conducted by the Environmental Team during the winter season (November to March) to ensure proper implementation of this restriction</p> | To schedule construction works in order to minimise potential impacts to winter visiting birds. To be confirmed by regular site inspections. | At identified location (<i>Figure 8.7a</i>) for the full duration of the construction contract. | The Contractor | | ✓ | | | |
| 8.7.2 | F2 | <p>Mitigation Measures Adopted - Minimisation Pipe jacking method should be used instead of dredging where sewers and rising mains cross over existing MDC within the WCA and WBA.</p> | To minimise potential construction noise impacts to ecological sensitive receivers within the WCA/WBA. | For the full duration of the construction contract. | The Contractor | | ✓ | | | |
| 8.7.2 | F4 | <p>Regular inspections (at least twice a month) should be conducted by the ET during the winter season (November to March) for the remaining sections of the proposed sewerage alignment (including parts of S4, S5 and S6) within the WCA and WBA, where construction activities cannot be rescheduled.</p> <p>The site inspections shall check and report the number of workfronts and implementation of</p> | To schedule noisy construction activities to minimise potential impacts to winter visiting birds. | Work fronts other than identified sections within WBA & WCA (see <i>Figure 8.7a</i> attached) throughout the full duration of the construction contract. | The Contractor | | ✓ | | | |

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| 8.7.3 | F5 | mitigation measures (i.e. erection of movable noise barriers with a suitable footing along the sites) in the monthly EM&A reports. Mitigation Measures Adopted Quietened construction plant and equipment (as shown in <i>Table F2</i>) should be used for the construction of pumping stations (P3 and P2) and sewerage alignment (S4, S5 and S6) located within the WCA and WBA. | Quiet construction plant shall minimise potential noise impacts to the wildlife, particularly rare birds including Black-faced Spoonbill, Buzzard, Hobby, Imperial Eagle, Intermediate Egret, Avocet and Black-eared Kite | At described locations and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | |
| 8.7.4 | F6 | Erection of fences along the boundary of pumping station construction sites (P1 to P3) before the commencement of construction works to prevent tipping, vehicle movements, and encroachment of personnel into adjacent areas, and P2 to avoid disturbance to the remaining pond areas (0.7 ha); | To erect fences to prevent encroachment of construction activities onto adjacent areas. | At P1 to P3 for full duration of the construction contract. | The Contractor | | ✓ | | | |
| 8.7.4 | F7 | No filling and dumping to the remaining abandoned fishpond at P2. | To avoid disturbance to abandoned fishponds from construction activities and illegal dumping. | At P2 for full duration of the construction contract | The Contractor | | ✓ | | | |
| 8.7.4 | F8 | Installation and operation of silt removal facilities at construction sites of P1 to P3. The silt removal facilities should be designed in accordance with Appendix A1 of ProPECC Note PN1/94 Construction Site Drainage. The minimal total combined volume of the silt removal facilities at Nam Sang Wai SPS (P3) should be 15m ³ . | To install silt removal facilities in potentially impact streams and ponds to prevent sedimentation. | At P1 to P3 for full duration of the construction contract. | The Contractor | | ✓ | | | |
| 8.7.4 | F9 | No open fires within the site boundary during | To prohibit open fires, thereby | Site wide and throughout | The Contractor | | ✓ | | | <i>Air Pollution Control</i> |

| EIA* Ref. | EM&A Ref | Environmental Protection Measures | Objectives of the Recommended Measures & Main Concerns | Location of the measure | Implementation Agent | Implementation Stage** | | | | Relevant Legislation & Guidelines |
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| | | | | | | Des | C | O | Dec | |
| 8.7.4 | F7 | construction and provide temporary fire fighting equipment in the work areas. No filling and dumping to the remaining abandoned fishpond at P2. | minimising potential damage to trees and shrubs. To avoid disturbance to abandoned fishponds from construction activities and illegal dumping. | the full duration of the construction contract. At P2 for full duration of the construction contract | The Contractor | | ✓ | | | (Open Burning) Regulation |
| 8.7.4 | F8 | Installation and operation of silt removal facilities at construction sites of P1 to P3. The silt removal facilities should be designed in accordance with Appendix A1 of ProPECC Note PN1/94 Construction Site Drainage. | To install silt removal facilities in potentially impact streams and ponds to prevent sedimentation. | At P1 to P3 for full duration of the construction contract. | The Contractor | | ✓ | | | |
| 8.7.4 | F9 | No open fires within the site boundary during construction and provide temporary fire fighting equipment in the work areas. | To prohibit open fires, thereby minimising potential damage to trees and shrubs. | Site wide and throughout the full duration of the construction contract. | The Contractor | | ✓ | | | Air Pollution Control (Open Burning) Regulation |
| | | FISHERIES - Construction Phase No specific mitigation measures are required for inclusion in the EP. | | | | | | | | |
| | | CULTURAL HERITAGE – Not Applicable for Package 1A-1T (DC/2005/02) | | | | | | | | |
| | | LANDSCAPE AND VISUAL - Construction Phase | | | | | | | | |
| | H1 | The site inspections shall check and report the implementation of mitigation measures (i.e. top-soil are reused and new compensatory planting works are carried out immediately after the construction of the civil structure) in the monthly EM&A reports. The first monthly EM&A Report should also report the appearance of the temporary hoarding barriers. | To minimise potential landscape and visual impacts. | To be implemented during the construction phases of the project. | The Contractor | | ✓ | | | |
| | H2 | Prior to application for an Environmental Permit, a set of landscape plans and building elevations of the proposed pumping stations should be | To minimise potential landscape and visual impacts. | To be implemented during the design and construction phases of the | DSD and The Contractor | ✓ | ✓ | | | |

| EIA* Ref. | EM&A Ref | Environmental Protection Measures | Objectives of the Recommended Measures & Main Concerns | Location of the measure | Implementation Agent | Implementation Stage** | | | | Relevant Legislation & Guidelines |
|-----------|----------|--|---|--|---|------------------------|---|---|-----|--|
| | | | | | | Des | C | O | Dec | |
| | | submitted for approval by the EPD. The landscape plans and pumping station elevations should demonstrate that the following elements are considered: <ul style="list-style-type: none"> existing landscape elements (such as mature trees), transplantation of valuable trees, new compensatory planting | | project. | | | | | | |
| | | <ul style="list-style-type: none"> incorporate information on materials, details and textures so as to be as visually recessive as possible and in a style that fits with the surrounding village buildings. colour should be of low chromatic intensity to reduce the potential contrast between the structures and their background. The external finishing of the Pumping Stations shall be designed in conjunction with the landscape scheme. a minimum screen planting of 3m width and use of trees with a dense canopy of up to 5 m in height subject to constraints such as engineering and land availability. felling of mature trees are kept to a minimum. | | | | | | | | |
| 3.7 | I1 | <p>EM&A REQUIEMENTS - Construction Phase</p> <p><i>Air Quality</i> Subject to the Environmental Protection Departments (EPDs) agreement, construction phase dust monitoring shall be undertaken at the following locations in accordance with the recommendations of the EIA.</p> <ul style="list-style-type: none"> Worksite boundary facing Scattered house in Nam Sang Wai (AM1); Worksite boundary facing Fung Kat Heung (AM5); Worksite boundary facing Scattered House near Route 3 (AM6); | Installations of the dust monitoring stations to ensure the action and limit levels are not exceeded. | At specified dust monitoring locations for the duration of the construction works. | To be undertaken by the Environmental Team (ET) and reviewed and audited by the Engineer /DSD | | ✓ | | | <i>Air Pollution Control (Construction Dust) Regulations</i> |

| EIA* Ref. | EM&A Ref | Environmental Protection Measures | Objectives of the Recommended Measures & Main Concerns | Location of the measure | Implementation Agent | Implementation Stage** | | | | Relevant Legislation & Guidelines |
|-----------|----------|---|--|--|--|------------------------|---|---|-----|-----------------------------------|
| | | | | | | Des | C | O | Dec | |
| 4.9.1 | I2 | <ul style="list-style-type: none"> at any additional locations, where considered necessary, in agreement with EPD. <p><i>Construction Noise</i> Subject to the Environmental Protection Departments (EPDs) agreement, construction phase noise monitoring shall be undertaken at the following locations in accordance with the recommendations of the EIA.</p> <ul style="list-style-type: none"> (NM3) Scattered House in Nam San Wai (D12); (NM4) Scattered House in Nam San Wai (D11); (NM6) Scattered House near Route 3 (D17); (NM7) Fung Kat Heung (D19); and at any additional locations, where considered necessary, in agreement with EPD | Installations of the noise monitoring stations to ensure the action and limit levels are not exceeded. | At specified noise monitoring locations throughout the duration of the construction works. | To be undertaken by the Environmental Team (ET) and reviewed and audited by the Engineer | | ✓ | | | <i>Noise Control Ordinance</i> |

Des = Design, C = Construction, O = Operation, Dec = Decommissioning

Annex H

Equipment Calibration Certificates

Equipment Calibration List for Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long Project

| Item | Aspect | Description of Equipment | Serial No. | Date of Calibration | Date of Next Calibration |
|------|--------|--|-------------|---------------------|--------------------------|
| 1 | Air | Greasby Anderson GMWS2310 High Volume Sampler | 0329 (AM1) | 19 Aug 07 | 19 Nov 07 |
| 2* | | Greasby Anderson GMWS2310 High Volume Sampler | 0355 (AM5) | 13 Oct 07 | 13 Jan 08 |
| 3* | | Greasby Anderson GMWS2310 High Volume Sampler | 10394 (AM6) | 02 Oct 07 | 02 Jan 08 |
| 4 | | Greasby Anderson GMWS2310 High Volume Sampler | 1283 (AM7) | 19 Aug 07 | 19 Nov 07 |
| 5 | Noise | Bruel & Kjaer 4231 Acoustical Calibrator | 2292168 | 17 Apr 07 | 17 Apr 08 |
| 6 | | Bruel & Kjaer 2238 Integrating Sound Level Meter | 2285721 | 17 Apr 07 | 17 Apr 08 |

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

* Calibration done in this reporting month, see calibration certificate attached.

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

| | |
|-----------------------------------|----------------------------------|
| Location : Sha Po Pumping Station | Date of Calibration: 13-Oct-07 |
| Location ID : AM5 | Next Calibration Date: 13-Jan-08 |
| | Technician: Mr. Ben Tam |

CONDITIONS

| | | | |
|--------------------------|--------|----------------------------|---------|
| Sea Level Pressure (hPa) | 1016.9 | Corrected Pressure (mm Hg) | 762.675 |
| Temperature (°C) | 25.8 | Temperature (K) | 299 |

CALIBRATION ORIFICE

| | |
|-----------------|----------------------------|
| Make-> TISCH | Qstd Slope -> 1.54431 |
| Model-> 515N | Qstd Intercept -> -0.01988 |
| Serial # -> 355 | |

CALIBRATION

| Plate No. | H2O (L) (in) | H2O (R) (in) | H2O (in) | Qstd (m3/min) | I (chart) | IC corrected | LINEAR REGRESSION | | |
|-----------|--------------|--------------|----------|---------------|-----------|--------------|--|-------------|----------------|
| | | | | | | | Slope = | Intercept = | Corr. coeff. = |
| 18 | 5.4 | 5.4 | 10.8 | 2.142 | 55 | 54.95 | Slope = 31.9590 Intercept = -15.0764 Corr. coeff. = 0.9947 | | |
| 13 | 4.2 | 4.2 | 8.4 | 1.890 | 44 | 43.96 | | | |
| 10 | 3.5 | 3.5 | 7 | 1.727 | 39 | 38.96 | | | |
| 7 | 2.5 | 2.5 | 5 | 1.461 | 32 | 31.97 | | | |
| 5 | 1.6 | 1.6 | 3.2 | 1.172 | 23 | 22.98 | | | |

Calculations :

$$Qstd = 1/m[\text{Sqrt}(H20(Pa/Pstd)(Tstd/Ta))-b]$$

$$IC = I[\text{Sqrt}(Pa/Pstd)(Tstd/Ta)]$$

Qstd = standard flow rate

IC = corrected chart responses

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:

$$1/m((I)[\text{Sqrt}(298/Tav)(Pav/760)]-b)$$

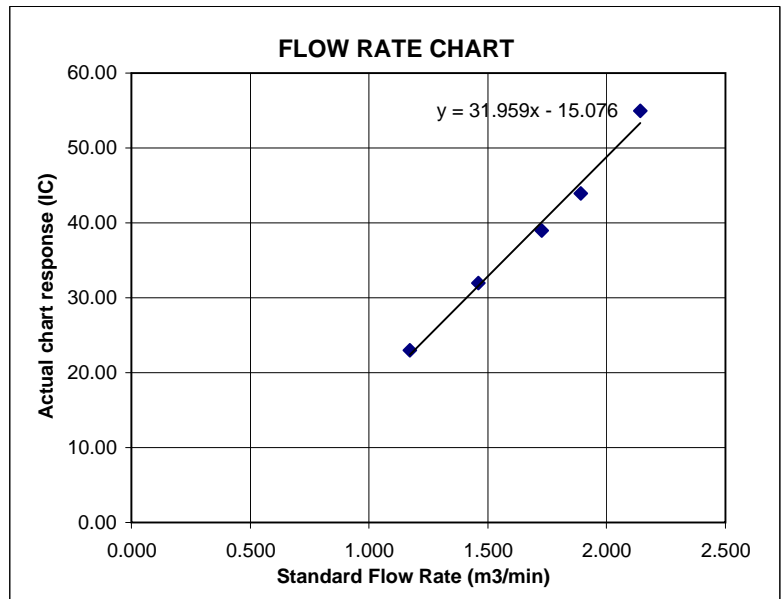
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Tai Hing Car Shop (Scattered House near Route 3) Date of Calibration: 2-Oct-07
 Location ID : AM 6 Next Calibration Date: 2-Jan-08
 Technician: Mr. Ben Tam

CONDITIONS

| | | | |
|--------------------------|--------|----------------------------|---------|
| Sea Level Pressure (hPa) | 1006.7 | Corrected Pressure (mm Hg) | 755.025 |
| Temperature (°C) | 26.8 | Temperature (K) | 300 |

CALIBRATION ORIFICE

| | |
|-------------------|-------------------|
| Make-> TISCH | Qstd Slope -> |
| Model-> 515N | 1.54431 |
| Serial # -> 10394 | Qstd Intercept -> |
| | -0.01988 |

CALIBRATION

| Plate No. | H2O (L) (in) | H2O (R) (in) | H2O (in) | Qstd (m3/min) | I (chart) | IC corrected | LINEAR REGRESSION | | |
|-----------|--------------|--------------|----------|---------------|-----------|--------------|-------------------|-------------|----------------|
| | | | | | | | Slope = | Intercept = | Corr. coeff. = |
| 18 | 4.8 | 4.8 | 9.6 | 2.007 | 56 | 55.48 | 37.2144 | -20.9116 | 0.9935 |
| 13 | 3.6 | 3.6 | 7.2 | 1.739 | 42 | 41.61 | | | |
| 10 | 2.7 | 2.7 | 5.4 | 1.508 | 35 | 34.68 | | | |
| 7 | 2.0 | 2.0 | 4.0 | 1.300 | 28 | 27.74 | | | |
| 5 | 1.5 | 1.5 | 3.0 | 1.127 | 22 | 21.80 | | | |

Calculations :

$$Qstd = 1/m[\text{Sqrt}(H20(Pa/Pstd)(Tstd/Ta))-b]$$

$$IC = I[\text{Sqrt}(Pa/Pstd)(Tstd/Ta)]$$

Qstd = standard flow rate

IC = corrected chart responses

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:

$$1/m((I)[\text{Sqrt}(298/Tav)(Pav/760)]-b)$$

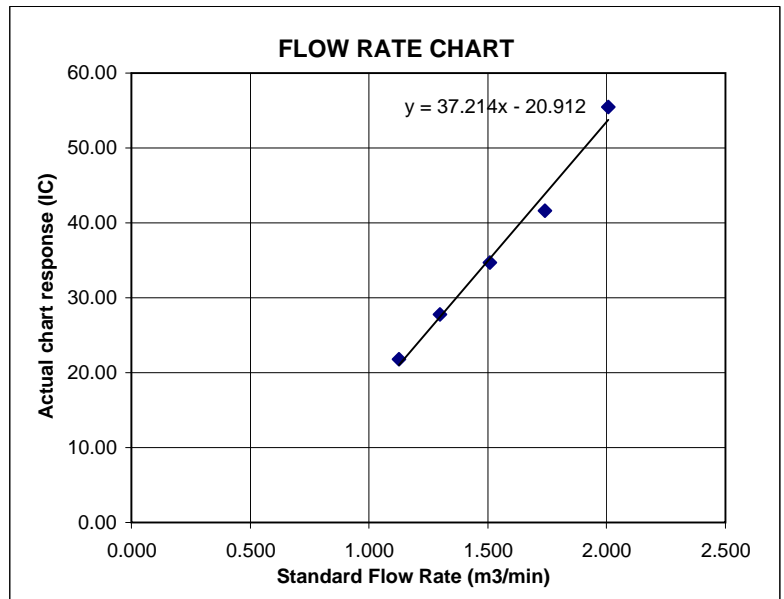
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



Annex I

Meteorological Data in the Reporting Month

Meteorological Data Extracted From the HK Observatory at Lau Fau Shan Weather Station

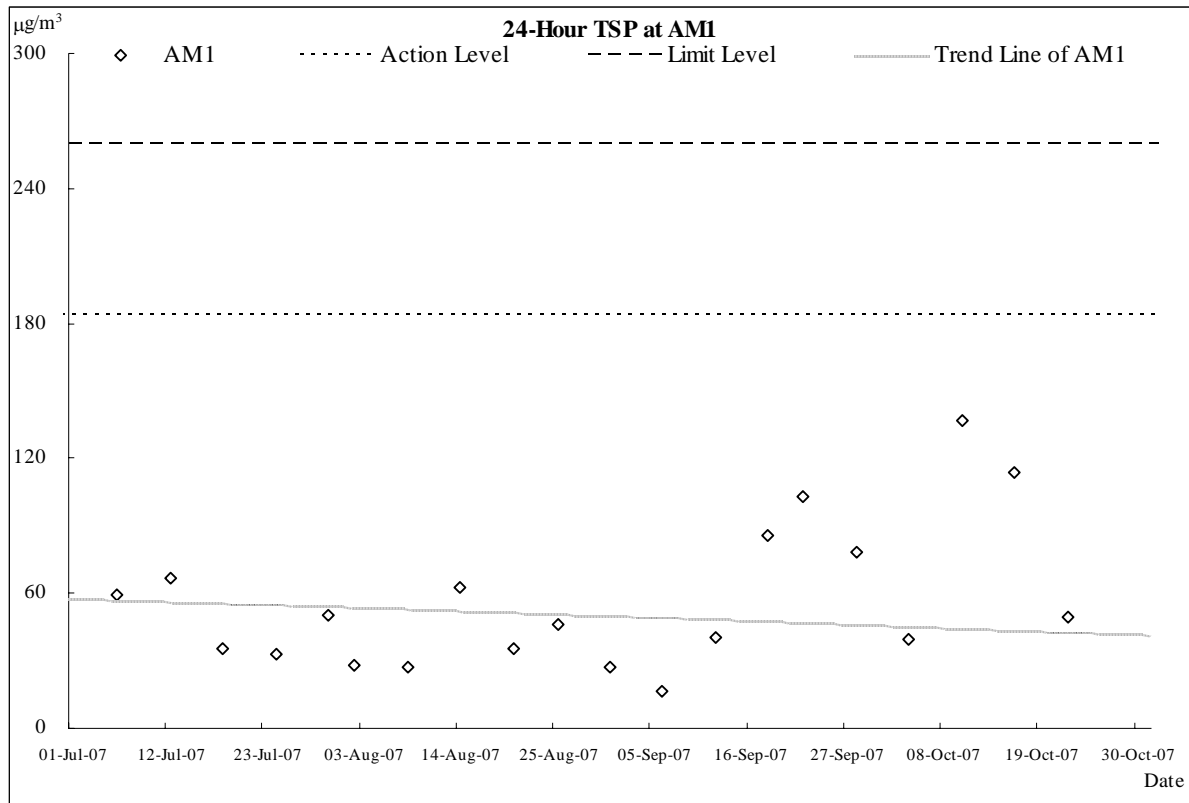
| Date | | Weather | Lau Fau Shan Station | | | | |
|-----------|-----|-------------------------------------|----------------------|---------------------------|-------------------|----------------------------|----------------|
| | | | Total Rainfall (mm) | Mean Air Temperature (°C) | Wind Speed (km/h) | Mean Relative Humidity (%) | Wind Direction |
| 1-Oct-07 | Mon | | | Holiday | | | |
| 2-Oct-07 | Tue | cloudy/squally showers/fresh/strong | 17.6 | 26.8 | 26.5 | 76.5 | E |
| 3-Oct-07 | Wed | cloudy/squally showers/fresh/strong | 22.2 | 26.8 | 23.5 | 82.5 | E |
| 4-Oct-07 | Thu | fine/moderate/fresh | 0 | 28.8 | 18.5 | 73.5 | E |
| 5-Oct-07 | Fri | fine/haze/moderate | 0 | 28.1 | 11.7 | 72 | S/SE |
| 6-Oct-07 | Sat | fine/dry/hazy/hot/moderate | 0 | 29 | 10 | 71 | W/SW |
| 7-Oct-07 | Sun | sunny periods/faze/moderate | 0 | 29.5 | 16 | 59.5 | S/SW |
| 8-Oct-07 | Mon | cloudy/haze/sunny periods/moderate | 0 | 28.5 | 9 | 69.5 | W/SW |
| 9-Oct-07 | Tue | fine/dry/moderate/fresh | Trace | 25.5 | 20.5 | 60 | NE |
| 10-Oct-07 | Wed | sunny periods/cloudy/rain/moderate | 2.1 | 25.6 | 11.5 | 56.5 | NE |
| 11-Oct-07 | Thu | cloudy/rain/moderate | Trace | 26.6 | 11 | 66.5 | E |
| 12-Oct-07 | Fri | cloudy/rain/moderate/fresh | 0.2 | 25.4 | 12.5 | 74 | E |
| 13-Oct-07 | Sat | sunny periods/fresh/dry | 0.2 | 26.8 | 13.5 | 76 | E |
| 14-Oct-07 | Sun | fine/dry/hazy/moderate | 0.2 | 25.9 | 16.5 | 65 | E/NE |
| 15-Oct-07 | Mon | fine/dry/hazy/moderate | 0 | 25.5 | 18 | 62.2 | NE |
| 16-Oct-07 | Tue | fine/dry/hazy/moderate | 0 | 25.2 | 20 | 61 | NE |
| 17-Oct-07 | Wed | fine/dry/moderate | Trace | 24 | 16.5 | 55 | NE |
| 18-Oct-07 | Thu | fine/dry/haze/moderate | Trace | 24.8 | 9.7 | 59.2 | E/NE |
| 19-Oct-07 | Fri | | | Holiday | | | |
| 20-Oct-07 | Sat | fine/very dry/moderate | 0 | 24.3 | 16.5 | 42 | E |
| 21-Oct-07 | Sun | fine/moderate/fresh | 0 | 23.8 | 11 | 70.5 | E/SE |
| 22-Oct-07 | Mon | fine/moderate/fresh | 0 | 24.6 | 6.7 | 69.7 | E |
| 23-Oct-07 | Tue | fine/dry/moderate/fresh | 0 | 25.5 | 12.5 | 67.5 | E |
| 24-Oct-07 | Wed | fine/dry/moderate/fresh | Trace | 26.2 | 12 | 64.7 | E |
| 25-Oct-07 | Thu | fine/dry/moderate | 0 | 27.3 | 12.2 | 66.2 | E/NE |
| 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 | E |
| 30-Oct-07 | Tue | cloudy/haze/rain/moderate | 6.3 | 23.3 | 13 | 65.5 | E |
| 31-Oct-07 | Wed | cloudy/rain/moderate | 1.7 | 21.4 | 12 | 76.5 | E/NE |

Annex J

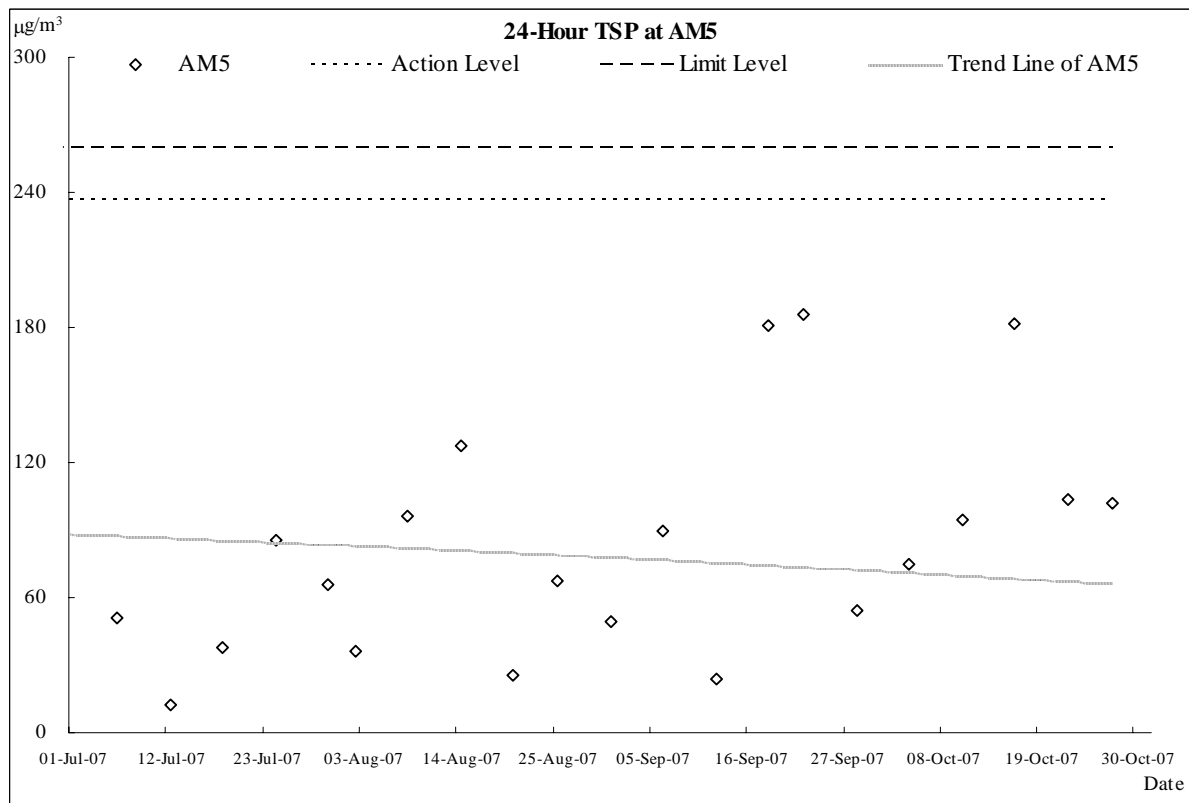
Graphical Plots of Air Quality and Construction Noise Monitoring Results

Air Quality

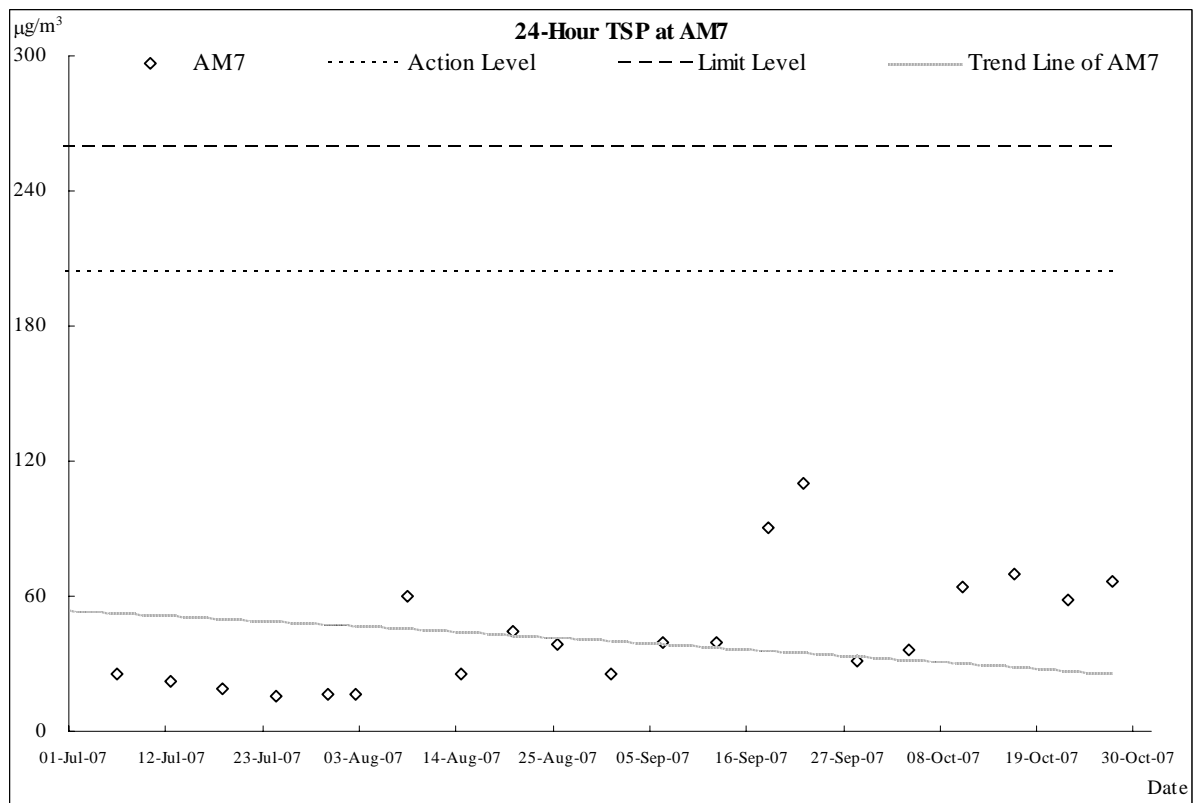
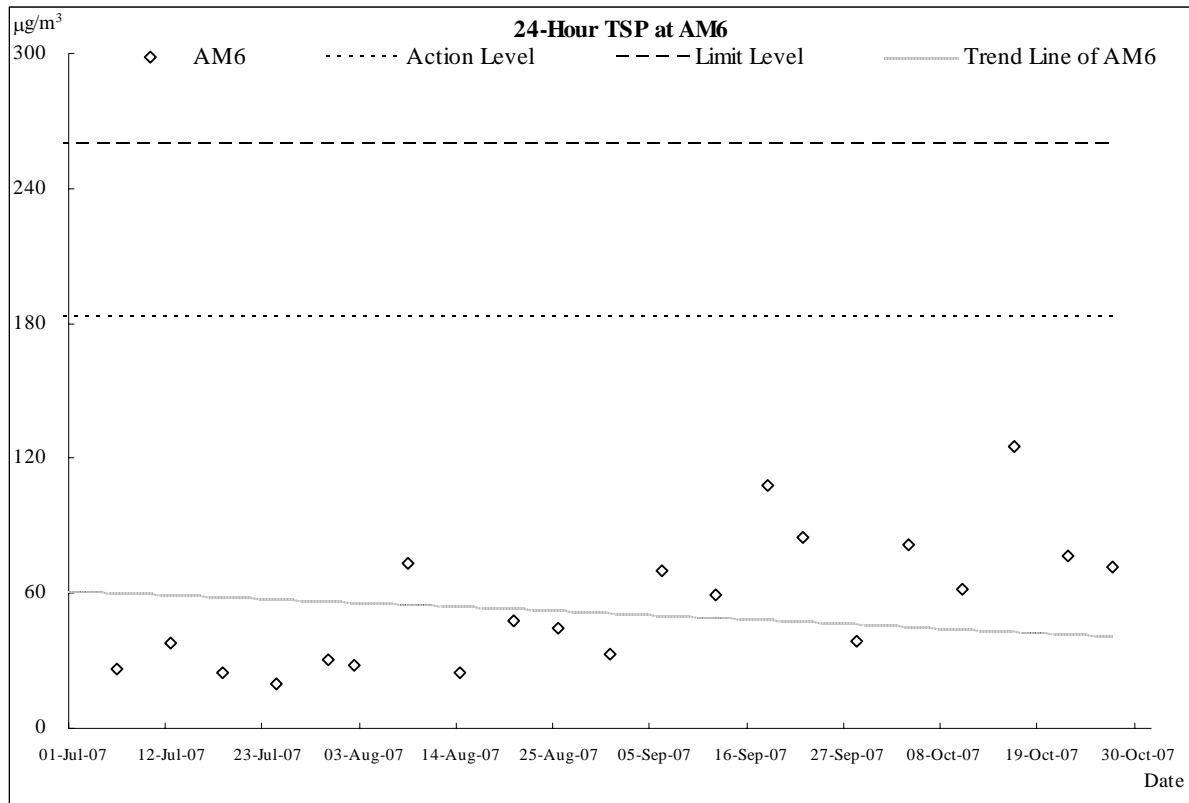
Air Quality Monitoring Results



Note: Power shortage on 27 October 2007, no monitoring result was available.

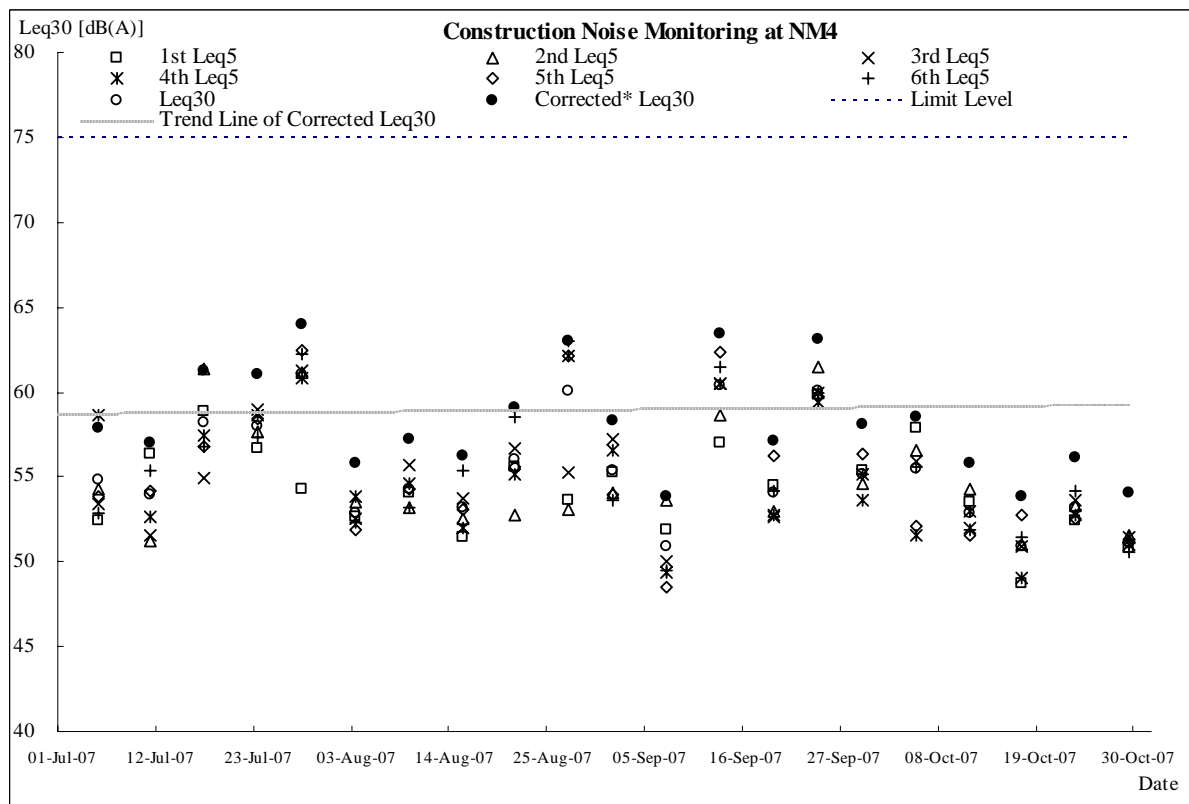
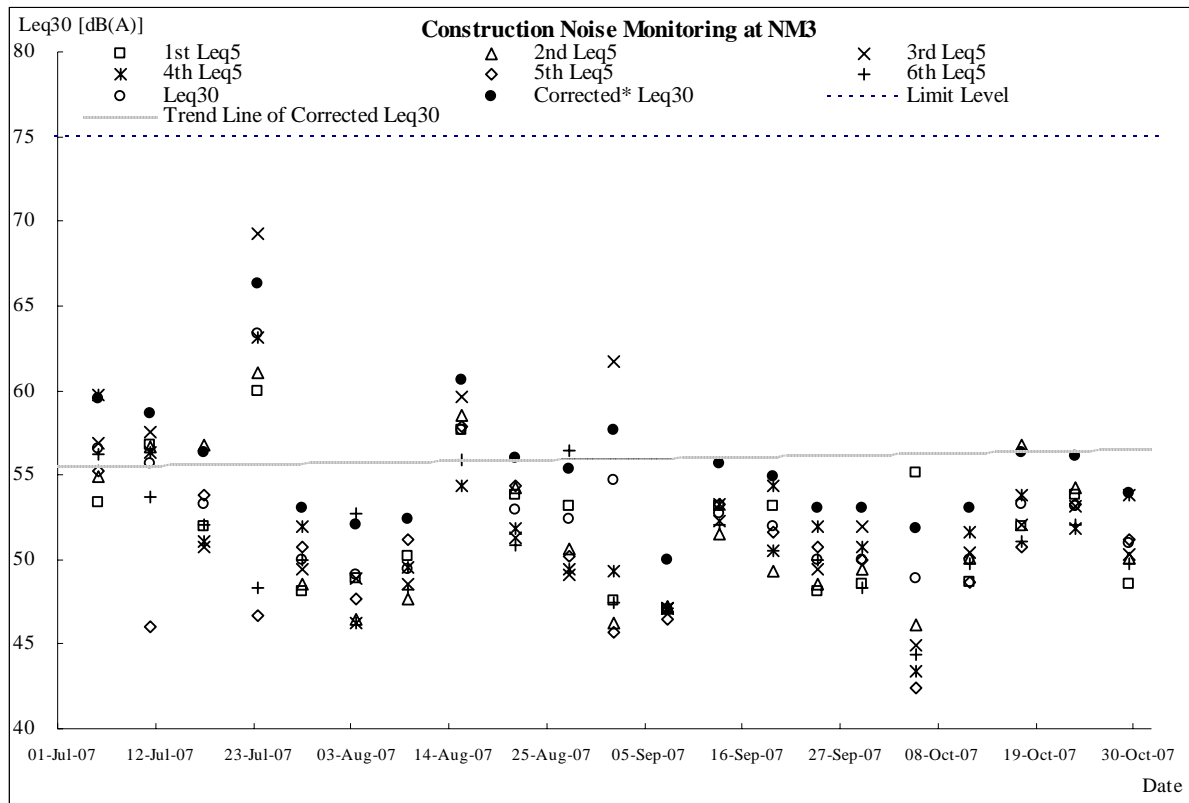


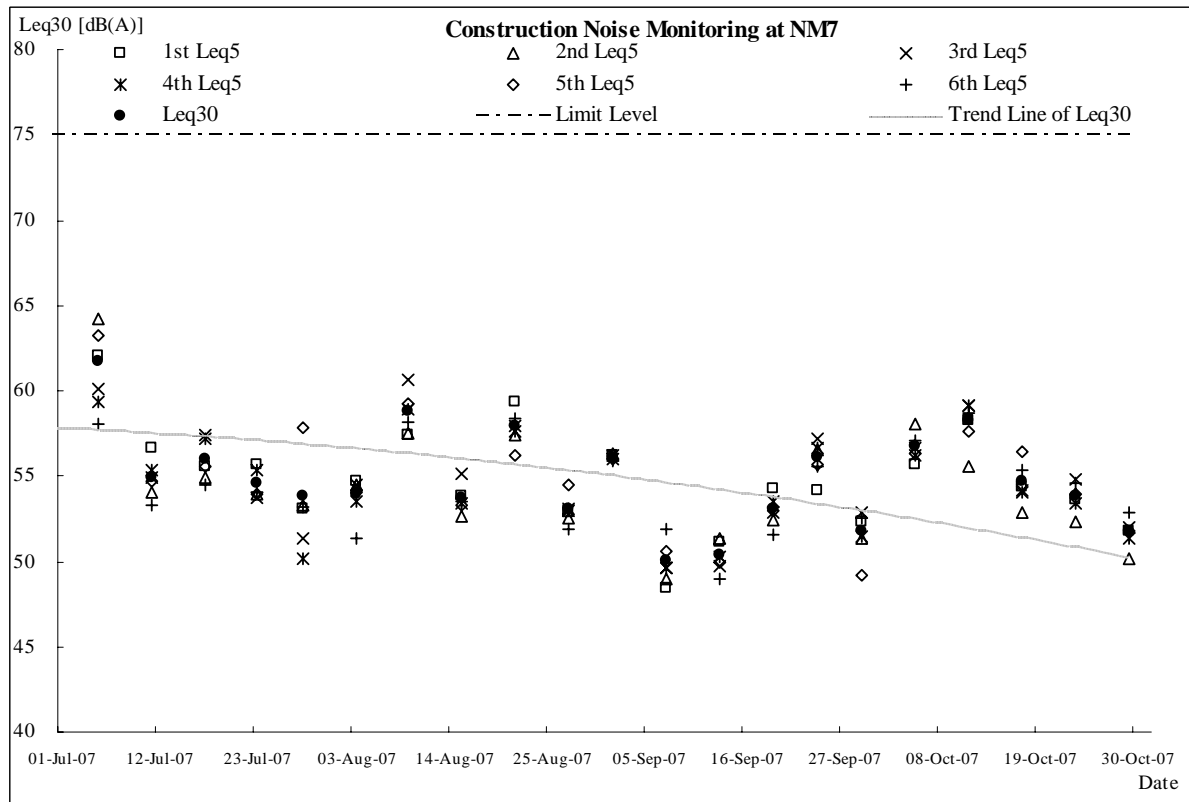
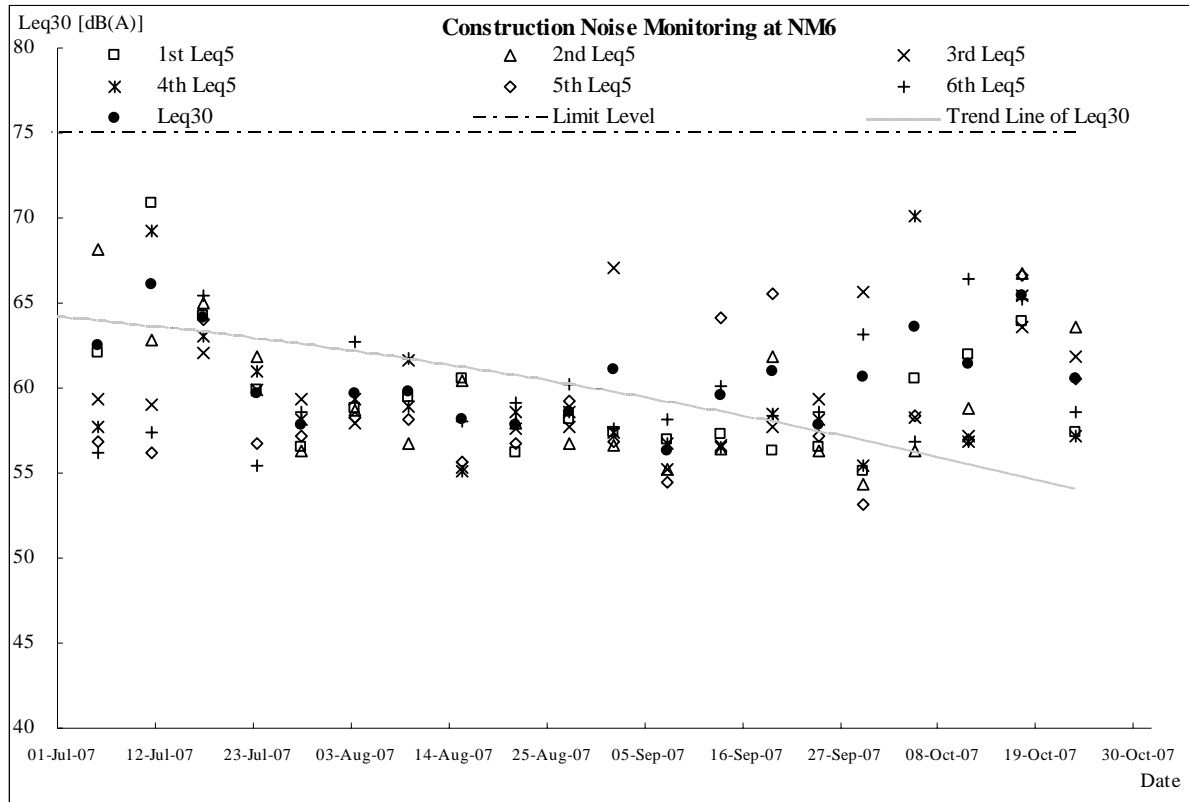
Air Quality Monitoring Results



Construction Noise

Construction Noise Monitoring Results





Annex K

Proforma of Site Inspection and IEC Audit in the Reporting Month

| | | | |
|----------------------|--|------------------------------------|--|
| Project | DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long | Contractor: | Leader Civil Engineering Corp. Ltd |
| Inspected by: | ET Auditor: Ben Tam | Engineer: | Babtie Asia Ltd |
| | Contractor Rep: Edwin/Benny | IEC: | Mott Connell Ltd |
| | IEC's Rep: | Environmental Team: | Action-United Environmental Services & Consulting |
| | RE's Rep: Mr. Hui | Inspection Date & Time: | 02 October 2007 |
| | | Checklist Reference No.: | DSD-AT021007 |

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality

| | Yes | No | NA | NC | Follow-up | Remarks |
|---|---|--|--------------------------|--------------------------|--------------------------|---------|
| Is hoarding of not less than 2.4m provided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are site vehicles traveling within controlled speed limit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are site vehicles movement confined to designated haul roads? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are public roads outside site exits kept clean and free from dust? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are haul roads and unpaved surfaces watered regularly to avoid dust generation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there wheel washing facilities provided at site exits? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is water spraying used during the main dust-generating activities? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the excavated or stockpile of dusty materials kept wet or covered by impermeable/tarpaulin sheet? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is exposed area of ground covered or watered frequently? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are load on vehicles covered by clean impervious sheeting? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are vehicles and equipment switched off while not in use? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are smoky emissions from plants/equipment avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is open burning avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Observable dust sources | <input checked="" type="checkbox"/> Wind erosion | <input type="checkbox"/> Vehicle/equipment movements | | | | |
| | <input type="checkbox"/> Loading/unloading of materials | <input checked="" type="checkbox"/> Others | Nil | | | |

Construction Noise

| | | | | | | |
|--|--|--|-------------------------------------|--------------------------|--------------------------|-------|
| Are the construction works scheduled to minimize noise nuisance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the works or equipment sited to minimize noise nuisance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are all plant and equipment well maintained and in good operating condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is idle equipment turned off or throttled down? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is powered mechanical equipment covered or shielded by appropriate acoustic materials? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is silenced equipment used where appropriate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are noise enclosures or noise barriers used where necessary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Does specified equipment has valid noise label? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are Construction Noise Permits (CNPs) available for inspection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Major Noise Source | <input type="checkbox"/> Traffic | <input checked="" type="checkbox"/> Construction activities inside of site | | | | |
| | <input type="checkbox"/> Construction activities outside of site | <input type="checkbox"/> Others | _____ | | | |

| Water Quality & Drainage | | Yes | No | NA | NC | Follow-up | Remarks |
|---|--|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|---------|
| Is a wastewater discharge license obtained for the Project? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is site effluent discharged in accordance with the discharge license? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is the discharge of silty water avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is drainage adequate? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is drainage system well maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there temporary ditches for runoff discharge into appropriate watercourse? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there sedimentation tanks for settling runoff prior to discharge? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the sedimentation tanks: | Constructed of pre-formed individual cells? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | With adequate capacity? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Free from silt and sediment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there neutralization tanks for concrete batching/mixing discharge? | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there oil interceptors in drainage system? | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is wheel wash facility provided at every site exit? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are vehicles and plant cleaned of earth, mud & debris before leaving the site? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are wheel washing facilities regularly inspected and maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are toilets provided on site? If so, are they properly maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are manholes covered and sealed? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is oil leakage or spillage avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Waste Management and Potential Land Contamination | | | | | | | |
| General Refuse: | Are receptacles (rubbish bins) available? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is there regular and proper disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is proper sorting and recycling implemented? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Construction Waste: | Is generation of construction waste minimized? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is waste sorting implemented on site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is construction waste reused where practicable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is construction waste properly disposed of? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are disposal records available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Chemical waste/waste oil | Is there designated storage area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is chemical waste stored properly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is there proper disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is chemical waste license available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Excavated Materials | Do excavated materials appear uncontaminated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are appropriate procedures followed if contaminated materials exist? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are disposal records available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Chemical/Fuel | Is chemical/fuel stored in bunded area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is bund capacity adequate (>110% of the largest tank)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are storage areas lockable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

Remarks:

Previous Audit Follow-up:

No silty water discharge from the sedimentation tank was observed at Kam Sheung Road.

Observations Recorded in this Site Inspection:

1. Sand and mud tail was observed at Nam San Wai Road, the Contractor was reminded to instruct the all vehicle drivers to undertake wheel washing before leaving the site.

Signatures:

Env Auditor


Contractor's Representative

IC(E) Auditor

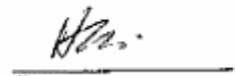
Resident Site Staff



Name Ken Wong


Name Benny Lam

Name


Name S. L. HUI

| | | | |
|----------------------|--|------------------------------------|--|
| Project | DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long | Contractor: | Leader Civil Engineering Corp. Ltd |
| Inspected by: | ET Auditor: Ben Tam | Engineer: | Babtie Asia Ltd |
| | Contractor Rep: Edwin/Benny | IEC: | Mott Connell Ltd |
| | IEC's Rep: | Environmental Team: | Action-United Environmental Services & Consulting |
| | RE's Rep: Mr. Hui | Inspection Date & Time: | 09 October 2007 |
| | | Checklist Reference No.: | DSD-AT091007 |

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality

| | Yes | No | NA | NC | Follow-up | Remarks |
|---|---|--|--------------------------|--------------------------|--------------------------|---------|
| Is hoarding of not less than 2.4m provided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are site vehicles traveling within controlled speed limit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are site vehicles movement confined to designated haul roads? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are public roads outside site exits kept clean and free from dust? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are haul roads and unpaved surfaces watered regularly to avoid dust generation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there wheel washing facilities provided at site exits? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is water spraying used during the main dust-generating activities? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the excavated or stockpile of dusty materials kept wet or covered by impermeable/tarpaulin sheet? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is exposed area of ground covered or watered frequently? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are load on vehicles covered by clean impervious sheeting? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are vehicles and equipment switched off while not in use? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are smoky emissions from plants/equipment avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is open burning avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Observable dust sources | <input checked="" type="checkbox"/> Wind erosion | <input type="checkbox"/> Vehicle/equipment movements | | | | |
| | <input type="checkbox"/> Loading/unloading of materials | <input checked="" type="checkbox"/> Others | Nil _____ | | | |

Construction Noise

| | | | | | | |
|--|--|--|-------------------------------------|--------------------------|--------------------------|-------|
| Are the construction works scheduled to minimize noise nuisance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the works or equipment sited to minimize noise nuisance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are all plant and equipment well maintained and in good operating condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is idle equipment turned off or throttled down? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is powered mechanical equipment covered or shielded by appropriate acoustic materials? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is silenced equipment used where appropriate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are noise enclosures or noise barriers used where necessary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Does specified equipment has valid noise label? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are Construction Noise Permits (CNPs) available for inspection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Major Noise Source | <input type="checkbox"/> Traffic | <input checked="" type="checkbox"/> Construction activities inside of site | | | | |
| | <input type="checkbox"/> Construction activities outside of site | <input type="checkbox"/> Others | _____ | | | |

| Water Quality & Drainage | | Yes | No | NA | NC | Follow-up | Remarks |
|---|--|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|---------|
| Is a wastewater discharge license obtained for the Project? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is site effluent discharged in accordance with the discharge license? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is the discharge of silty water avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is drainage adequate? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is drainage system well maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there temporary ditches for runoff discharge into appropriate watercourse? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there sedimentation tanks for settling runoff prior to discharge? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the sedimentation tanks: | Constructed of pre-formed individual cells? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | With adequate capacity? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Free from silt and sediment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there neutralization tanks for concrete batching/mixing discharge? | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there oil interceptors in drainage system? | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is wheel wash facility provided at every site exit? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are vehicles and plant cleaned of earth, mud & debris before leaving the site? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are wheel washing facilities regularly inspected and maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are toilets provided on site? If so, are they properly maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are manholes covered and sealed? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is oil leakage or spillage avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Waste Management and Potential Land Contamination | | | | | | | |
| General Refuse: | Are receptacles (rubbish bins) available? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is there regular and proper disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is proper sorting and recycling implemented? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Construction Waste: | Is generation of construction waste minimized? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is waste sorting implemented on site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is construction waste reused where practicable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is construction waste properly disposed of? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are disposal records available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Chemical waste/waste oil | Is there designated storage area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is chemical waste stored properly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is there proper disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is chemical waste license available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Excavated Materials | Do excavated materials appear uncontaminated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are appropriate procedures followed if contaminated materials exist? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are disposal records available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Chemical/Fuel | Is chemical/fuel stored in bunded area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is bund capacity adequate (>110% of the largest tank)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are storage areas lockable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

Remarks:

Previous Audit Follow-up:

No Sand and mud tail was observed at Nam San Wai Road.

Observations Recorded in this Site Inspection:

1. Silty water discharge from the sedimentation tank was observed at Nam San Wai Road, the Contractor was reminded to provide regular maintenance and maintain in proper efficiency.

Signatures:

Env. Auditor

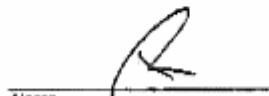
Contractor's Representative

IC(E) Auditor


Resident Site Staff



Name: Ken Wong


Name: Benny Lam

Name


Name: S L. HUI

| | | | |
|----------------------|--|------------------------------------|--|
| Project | DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long | Contractor: | Leader Civil Engineering Corp. Ltd |
| Inspected by: | ET Auditor: Ben Tam | Engineer: | Babtie Asia Ltd |
| | Contractor Rep: Edwin/Benny | IEC: | Mott Connell Ltd |
| | IEC's Rep: | Environmental Team: | Action-United Environmental Services & Consulting |
| | RE's Rep: Mr. Hui | Inspection Date & Time: | 16 October 2007 |
| | | Checklist Reference No.: | DSD-AT161007 |

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality

| | Yes | No | NA | NC | Follow-up | Remarks |
|---|---|--|--------------------------|--------------------------|--------------------------|---------|
| Is hoarding of not less than 2.4m provided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are site vehicles traveling within controlled speed limit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are site vehicles movement confined to designated haul roads? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are public roads outside site exits kept clean and free from dust? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are haul roads and unpaved surfaces watered regularly to avoid dust generation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there wheel washing facilities provided at site exits? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is water spraying used during the main dust-generating activities? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the excavated or stockpile of dusty materials kept wet or covered by impermeable/tarpaulin sheet? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is exposed area of ground covered or watered frequently? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are load on vehicles covered by clean impervious sheeting? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are vehicles and equipment switched off while not in use? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are smoky emissions from plants/equipment avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is open burning avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Observable dust sources | <input checked="" type="checkbox"/> Wind erosion | <input type="checkbox"/> Vehicle/equipment movements | | | | |
| | <input type="checkbox"/> Loading/unloading of materials | <input checked="" type="checkbox"/> Others | Nil _____ | | | |

Construction Noise

| | | | | | | |
|--|--|--|-------------------------------------|--------------------------|--------------------------|-------|
| Are the construction works scheduled to minimize noise nuisance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the works or equipment sited to minimize noise nuisance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are all plant and equipment well maintained and in good operating condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is idle equipment turned off or throttled down? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is powered mechanical equipment covered or shielded by appropriate acoustic materials? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is silenced equipment used where appropriate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are noise enclosures or noise barriers used where necessary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Does specified equipment has valid noise label? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are Construction Noise Permits (CNPs) available for inspection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Major Noise Source | <input type="checkbox"/> Traffic | <input checked="" type="checkbox"/> Construction activities inside of site | | | | |
| | <input type="checkbox"/> Construction activities outside of site | <input type="checkbox"/> Others | _____ | | | |

| Water Quality & Drainage | | Yes | No | NA | NC | Follow-up | Remarks |
|---|--|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|----------|
| Is a wastewater discharge license obtained for the Project? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is site effluent discharged in accordance with the discharge license? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is the discharge of silty water avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is drainage adequate? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is drainage system well maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there temporary ditches for runoff discharge into appropriate watercourse? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there sedimentation tanks for settling runoff prior to discharge? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the sedimentation tanks: | Constructed of pre-formed individual cells? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | With adequate capacity? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Free from silt and sediment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there neutralization tanks for concrete batching/mixing discharge? | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there oil interceptors in drainage system? | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is wheel wash facility provided at every site exit? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are vehicles and plant cleaned of earth, mud & debris before leaving the site? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are wheel washing facilities regularly inspected and maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are toilets provided on site? If so, are they properly maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are manholes covered and sealed? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is oil leakage or spillage avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Waste Management and Potential Land Contamination | | | | | | | |
| General Refuse: | Are receptacles (rubbish bins) available? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is there regular and proper disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is proper sorting and recycling implemented? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Construction Waste: | Is generation of construction waste minimized? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is waste sorting implemented on site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is construction waste reused where practicable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is construction waste properly disposed of? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are disposal records available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Chemical waste/waste oil | Is there designated storage area? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Remark 1 |
| | Is chemical waste stored properly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is there proper disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is chemical waste license available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Excavated Materials | Do excavated materials appear uncontaminated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are appropriate procedures followed if contaminated materials exist? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are disposal records available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Chemical/Fuel | Is chemical/fuel stored in bunded area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is bund capacity adequate (>110% of the largest tank)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are storage areas lockable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

Remarks:

Previous Audit Follow-up:

No silty water was discharged at Nam San Wai Road was observed.

Observations Recorded in this Site Inspection:

1. Oil drums without drip tray place on bared ground was observed at Nam San Wai Road, contractor should provide the drip tray for all free standing oil drums on site.

Signatures:

Env. Auditor

Contractor's Representative

IC(E) Auditor

Resident Site Staff



Name :Ken Wong

Name: _____

Name: _____

Name: _____

| | | | |
|----------------------|--|------------------------------------|--|
| Project | DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long | Contractor: | Leader Civil Engineering Corp. Ltd |
| Inspected by: | ET Auditor: Ben Tam | Engineer: | Babtie Asia Ltd |
| | Contractor Rep: Edwin/Benny | IEC: | Mott Connell Ltd |
| | IEC's Rep: | Environmental Team: | Action-United Environmental Services & Consulting |
| | RE's Rep: Mr. Hui | Inspection Date & Time: | 25 October 2007 |
| | | Checklist Reference No.: | DSD-AT251007 |

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality

| | Yes | No | NA | NC | Follow-up | Remarks |
|---|---|--|--------------------------|--------------------------|--------------------------|---------|
| Is hoarding of not less than 2.4m provided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are site vehicles traveling within controlled speed limit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are site vehicles movement confined to designated haul roads? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are public roads outside site exits kept clean and free from dust? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are haul roads and unpaved surfaces watered regularly to avoid dust generation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there wheel washing facilities provided at site exits? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is water spraying used during the main dust-generating activities? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the excavated or stockpile of dusty materials kept wet or covered by impermeable/tarpaulin sheet? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is exposed area of ground covered or watered frequently? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are load on vehicles covered by clean impervious sheeting? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are vehicles and equipment switched off while not in use? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are smoky emissions from plants/equipment avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is open burning avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Observable dust sources | <input checked="" type="checkbox"/> Wind erosion | <input type="checkbox"/> Vehicle/equipment movements | | | | |
| | <input type="checkbox"/> Loading/unloading of materials | <input checked="" type="checkbox"/> Others | Nil _____ | | | |

Construction Noise

| | | | | | | |
|--|--|--|-------------------------------------|--------------------------|--------------------------|-------|
| Are the construction works scheduled to minimize noise nuisance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the works or equipment sited to minimize noise nuisance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are all plant and equipment well maintained and in good operating condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is idle equipment turned off or throttled down? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is powered mechanical equipment covered or shielded by appropriate acoustic materials? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is silenced equipment used where appropriate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are noise enclosures or noise barriers used where necessary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Does specified equipment has valid noise label? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are Construction Noise Permits (CNPs) available for inspection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Major Noise Source | <input type="checkbox"/> Traffic | <input checked="" type="checkbox"/> Construction activities inside of site | | | | |
| | <input type="checkbox"/> Construction activities outside of site | <input type="checkbox"/> Others | _____ | | | |

| Water Quality & Drainage | | Yes | No | NA | NC | Follow-up | Remarks |
|---|--|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|----------|
| Is a wastewater discharge license obtained for the Project? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is site effluent discharged in accordance with the discharge license? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is the discharge of silty water avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is drainage adequate? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is drainage system well maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there temporary ditches for runoff discharge into appropriate watercourse? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there sedimentation tanks for settling runoff prior to discharge? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the sedimentation tanks: | Constructed of pre-formed individual cells? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | With adequate capacity? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Free from silt and sediment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there neutralization tanks for concrete batching/mixing discharge? | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there oil interceptors in drainage system? | | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is wheel wash facility provided at every site exit? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are vehicles and plant cleaned of earth, mud & debris before leaving the site? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are wheel washing facilities regularly inspected and maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are toilets provided on site? If so, are they properly maintained? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are manholes covered and sealed? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is oil leakage or spillage avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Waste Management and Potential Land Contamination | | | | | | | |
| General Refuse: | Are receptacles (rubbish bins) available? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is there regular and proper disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is proper sorting and recycling implemented? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Construction Waste: | Is generation of construction waste minimized? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is waste sorting implemented on site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is construction waste reused where practicable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is construction waste properly disposed of? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Remark 1 |
| | Are disposal records available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Chemical waste/waste oil | Is there designated storage area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is chemical waste stored properly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is there proper disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is chemical waste license available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Excavated Materials | Do excavated materials appear uncontaminated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are appropriate procedures followed if contaminated materials exist? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are disposal records available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Chemical/Fuel | Is chemical/fuel stored in bunded area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is bund capacity adequate (>110% of the largest tank)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are storage areas lockable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided? | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

Remarks:

Previous Audit Follow-up:

No free standing oil drum at Nam San Wai Road was observed.

Observations Recorded in this Site Inspection:

1. Housekeeping should be improve at Pok Wai South Road works front, C&D waste should be tidy up and deposited regularly.

Signatures:

Env. Auditor

Contractor's Representative

IC(E) Auditor

Resident Site Staff



Name :Ken Wong

Name: _____

Name: _____

Name: _____

| | | | |
|----------------------|--|------------------------------------|--|
| Project | DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long | Contractor: | Leader Civil Engineering Corp. Ltd |
| Inspected by: | ET Auditor: Ken Wong | Engineer: | Babtie Asia Ltd |
| | Contractor Rep: Edwin/Benny | IEC: | Mott Connell Ltd |
| | IEC's Rep: | Environmental Team: | Action-United Environmental Services & Consulting |
| | RE's Rep: Mr. Hui | Inspection Date & Time: | 30 October 2007 |
| | | Checklist Reference No.: | DSD-AT301007 |

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality

| | Yes | No | NA | NC | Follow-up | Remarks |
|---|---|--|--------------------------|--------------------------|--------------------------|---------|
| Is hoarding of not less than 2.4m provided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are site vehicles traveling within controlled speed limit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are site vehicles movement confined to designated haul roads? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are public roads outside site exits kept clean and free from dust? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are haul roads and unpaved surfaces watered regularly to avoid dust generation? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there wheel washing facilities provided at site exits? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is water spraying used during the main dust-generating activities? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the excavated or stockpile of dusty materials kept wet or covered by impermeable/tarpaulin sheet? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is exposed area of ground covered or watered frequently? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are load on vehicles covered by clean impervious sheeting? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are vehicles and equipment switched off while not in use? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are smoky emissions from plants/equipment avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is open burning avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Observable dust sources | <input checked="" type="checkbox"/> Wind erosion | <input type="checkbox"/> Vehicle/equipment movements | | | | |
| | <input type="checkbox"/> Loading/unloading of materials | <input checked="" type="checkbox"/> Others | Nil | | | |

Construction Noise

| | | | | | | |
|--|--|--|-------------------------------------|--------------------------|--------------------------|-------|
| Are the construction works scheduled to minimize noise nuisance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the works or equipment sited to minimize noise nuisance? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are all plant and equipment well maintained and in good operating condition? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is idle equipment turned off or throttled down? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is powered mechanical equipment covered or shielded by appropriate acoustic materials? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is silenced equipment used where appropriate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are noise enclosures or noise barriers used where necessary? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Does specified equipment has valid noise label? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are Construction Noise Permits (CNPs) available for inspection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Major Noise Source | <input type="checkbox"/> Traffic | <input checked="" type="checkbox"/> Construction activities inside of site | | | | |
| | <input type="checkbox"/> Construction activities outside of site | <input type="checkbox"/> Others | _____ | | | |

Water Quality & Drainage

| | Yes | No | NA | NC | Follow-up | Remarks |
|--|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|---------|
| Is a wastewater discharge license obtained for the Project? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is site effluent discharged in accordance with the discharge license? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is the discharge of silty water avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is drainage adequate? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is drainage system well maintained? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there temporary ditches for runoff discharge into appropriate watercourse? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there sedimentation tanks for settling runoff prior to discharge? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are the sedimentation tanks: Constructed of pre-formed individual cells? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| With adequate capacity? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Free from silt and sediment? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there neutralization tanks for concrete batching/mixing discharge? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are there oil interceptors in drainage system? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is wheel wash facility provided at every site exit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are vehicles and plant cleaned of earth, mud & debris before leaving the site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are wheel washing facilities regularly inspected and maintained? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are toilets provided on site? If so, are they properly maintained? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Are manholes covered and sealed? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Is oil leakage or spillage avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

Waste Management and Potential Land Contamination

| | | | | | | | |
|--------------------------|---|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|----------|
| General Refuse: | Are receptacles (rubbish bins) available? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is there regular and proper disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is proper sorting and recycling implemented? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Construction Waste: | Is generation of construction waste minimized? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is waste sorting implemented on site? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is construction waste reused where practicable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is construction waste properly disposed of? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Remark 1 |
| | Are disposal records available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Chemical waste/waste oil | Is there designated storage area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is chemical waste stored properly? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is there proper disposal? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is chemical waste license available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Excavated Materials | Do excavated materials appear uncontaminated? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are appropriate procedures followed if contaminated materials exist? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are disposal records available for inspection? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| Chemical/Fuel | Is chemical/fuel stored in bunded area? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is bund capacity adequate (>110% of the largest tank)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Are storage areas lockable? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| | Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ |

Remarks:

Previous Audit Follow-up:

Housekeeping at Pok Wai South Road works front had been improved.

Observations Recorded in this Site Inspection:

1. The Contractor was reminded to provide adequate sandbag along the site boundary to prevent site wastewater runoff on the public road.
2. The Contractor was reminded all the vehicle drivers to undertaken the wheel washing before leaving the construction site and maintain the site entrance free of dusty materials.
3. In according to the EP Condition 1.5, updated Environmental Permit should display at all vehicular site entrance/exists or at a convenient location for public's information at all time. No EP can found at the Nam Sang Wai Pumping Station.

Signatures:

Env. Auditor

Contractor's Representative

IC(E) Auditor

Resident Site Staff



Name :Ken Wong

Name: _____

Name: _____

Name: _____

Agreement No. CE37/2005 (EP)
Environmental Monitoring and Audit for
Kam Tin Trunk Sewerage Phase 1 and Au Tau trunk sewers

MONTHLY SITE INSPECTION CHECKLIST

| | | | | | |
|-----------------|------------|------|-----------|--------------|---|
| Inspection Date | 30/10/2007 | Time | 9:30 a.m. | Inspected By | Leader: Benny Lam ET: Ken Wong DSD: SL Hui IEC: SM Foo |
| Site Location | Kam Tin | | | | |

Weather

| | | | | | | | |
|-------------|--------------------------------|--------------------------------|--|---|-----------------------------------|--------------------------------|-------------------------------|
| Condition | <input type="checkbox"/> Sunny | <input type="checkbox"/> Fine | <input type="checkbox"/> Overcast | <input checked="" type="checkbox"/> Drizzle | <input type="checkbox"/> Rain | <input type="checkbox"/> Storm | <input type="checkbox"/> Hazy |
| Temperature | 25 °C | | Humidity | <input checked="" type="checkbox"/> High | <input type="checkbox"/> Moderate | <input type="checkbox"/> Low | |
| Wind | <input type="checkbox"/> Calm | <input type="checkbox"/> Light | <input checked="" type="checkbox"/> Breeze | <input type="checkbox"/> Strong | Direction | East | |

| EIA ref: | | Close-out on last comments Y/N | N/A or not obs | Yes | No | Photo/Remarks |
|---|--|---|--------------------------|-------------------------------------|-------------------------------------|---------------|
| Construction Phase | | | | | | |
| Air Quality - Construction Phase | | | | | | |
| 3.5 | • Are hoardings of not less than 2.4m high provided along the site boundary? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3.5 | • Is the portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit kept clear of dusty materials? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Photo 768 |
| 3.5 | • Are stockpiled dusty materials covered by impervious sheeting and placed in an area sheltered on top and 3 sides or sprayed with water? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3.5 | • Are dusty material loads on vehicles sprayed with water prior to loading and unloading? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3.5 | • Are all vehicles washed to remove dusty materials from its body and wheels before leaving site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3.5 | • Are vehicles which are carrying dusty materials covered entirely by impervious sheeting when leaving site? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3.5 | • Are surfaces where any mechanical breaking operation takes place sprayed? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3.5 | • Are working area of any excavation sprayed with water, immediately before, during and immediately after the operation? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3.5 | • Where a scaffolding is erected around the perimeter of a building under construction, are effective dust screens, sheeting or netting provided to enclose the scaffolding from the ground floor level of the SPS, or a canopy from the first floor level up to the highest level of the scaffolding? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 3.5 | • Are skip hoists for material transport totally enclosed? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |

- 3.7
- Have dust monitors been provided at the following locations:
 - Boundary facing scattered house in NSW (AM1)
 - Boundary facing Fung Kat Heung (AM5)
 - Boundary facing scattered house near route 3 (AM6)
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

Construction Noise
Demolition works

- 4.7.1
- Are quiet PME which meet the SWLs from BS 5228:Part 1: 1997 used?
- | | | | |
|--|---|--|--|
| | ✓ | | |
|--|---|--|--|

Sewage Pumping Stations P1, P2 & P3

- 4.7.1
- Are quiet PME which meet the SWLs from BS 5228:Part 1: 1997 used?
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

- 4.7.1
- Are temporary noise barrier, in the form of a site hoarding (with superficial density of at least 20kg/m², with no substantial gaps), along the site boundaries of the pumping station sites adopted?
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

Sewers and Rising Mains using Open Trench

- 4.7.1
- Are quiet PME which meet the SWLs from BS 5228:Part 1: 1997 used?
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

- 4.7.1
- Are handheld breakers used for all initial road opening activities, when breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached?
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

- 4.7.1
- Are movable noise barriers or 3 sided enclosures installed for all initial road opening activities (breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached) where there NSRs within 50m of the line of sight?
- | | | | |
|--|---|--|--|
| | ✓ | | |
|--|---|--|--|

Sewers and Rising Mains using Pipe Jacking

- 4.7.1
- Are quiet PME which meet the SWLs from BS 5228:Part 1: 1997 used?
- | | | | |
|--|---|--|--|
| | ✓ | | |
|--|---|--|--|

Road Pavement and Finishes

- 4.7.1
- Are quiet PME which meet the SWLs from BS 5228:Part 1: 1997 used?
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

- 4.9.1
- Have noise monitors been provided at the following locations:
 - (NM3) Scattered house in NSW
 - (NM4) Scattered house in NSW
 - (NM6) Scattered house near Route 3
 - (NM7) Fung Kat Heung
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

Construction Runoff and Site Drainage

- Are perimeter cut-off drains to direct off-site water around the site constructed with internal drainage works and erosion and sedimentation control facilities implemented. Are channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers provided on site to direct stormwater to silt removal facilities?
- | | | | |
|--|--|--|---|
| | | | ✓ |
|--|--|--|---|
- Photo 766

- Are dikes or embankments for flood protection implemented around the boundaries of earthwork areas. Are sediment/silt traps incorporated in the permanent drainage channels to enhance deposition rates?
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

- Are silt removal facilities provided with retention time for silt/sand traps of 5 minutes under maximum flow conditions?
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

- Are construction works programmed to minimize surface excavation works during the rainy seasons (April to September)?
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

- Are slopes minimised and erosion potential reduced?
- | | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

- Is deposited silt and grit removed regularly and disposed of by spreading evenly over stable, vegetated areas?
- | | | | |
|--|---|--|--|
| | ✓ | | |
|--|---|--|--|

- Are measures taken to minimise the ingress of site drainage into excavations? Is water pumped out from trenches or foundation excavations discharged into storm drains via silt removal facilities?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- Are open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m³ covered with tarpaulin or similar fabric during rainstorms?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- Are manholes (including newly constructed ones) adequately covered and temporarily sealed?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- Are precautions taken before rainstorms?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- Are all vehicles and plant cleaned before leaving site?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- Is solid waste, debris and rubbish on site appropriately collected, handled and disposed of properly to avoid water quality impacts?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- Are all fuel tanks and storage areas provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

Sewage Effluent - Construction Phase

- 1) Are portable chemical toilets and sewage holding tanks provided? Is handling the construction sewage generated for collection and disposal of this waste? Is a licensed contractor employed?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

Waste Management - Construction Phase

- 6.6.2 • Are the necessary waste disposal permits from the appropriate authorities in place for chemical and C&D wastes, in accordance with the Waste Disposal (Chemical Waste) (General) Regulations and the Land (Miscellaneous Provisions) Ordinance (Cap 28)?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- 6.6.2 • Is chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, being handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- 6.6.2 • Are containers used for the storage of chemical wastes suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; have a capacity of less than 450 liters unless the specification has been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- 6.6.2 • Is the storage area for chemical wastes clearly labelled and used solely for the storage of chemical waste; enclosed on at least 3 sides; have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20 % of the total volume of waste stored in that area, whichever is the greatest; have adequate ventilation; covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- 6.6.2 • Is disposal of chemical waste via a licensed waste collector; be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre which also offers a chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|
- 6.6.2 • Are trip tickets for disposal available to monitor disposal of C&DM and solid wastes at public filling and landfills, and to control fly tipping?

| | | | |
|--|--|---|--|
| | | ✓ | |
|--|--|---|--|

| | | | | | |
|--|---|--|---|---|--|
| Land Contamination - Construction Phase | | | | | |
| 7.5.6 | • Is a revised CAP submitted to the EPD before commencement of construction works? Is the CAP implemented and findings of the investigations reported in the CAR, before ground disturbance is allowed? | | ✓ | | |
| 7.5.6 | • If land contamination is confirmed, has a RAP been prepared and submitted to EPD? | | ✓ | | |
| 7.5.6 | • Are contaminated sites remediated in accordance with the approved CAR/RAP? | | ✓ | | |
| Ecology - Construction Phase | | | | | |
| 8.7.1 | • Are construction activities prohibited during November to March for the sections of works within the WCA and WBA, and close to locations of ecologically sensitive species. | | ✓ | | |
| 8.7.1 | • During November to March periods, are regular site inspections (at least twice a month) undertaken by ET to ensure proper implementation of this restriction? | | ✓ | | |
| 8.7.2 | • Is pipe jacking method used for sewers and rising mains crossing over MDC within the WCA and WBA? | | ✓ | | |
| 8.7.2 | • During November to March, are regular site inspections (at least twice a month) undertaken by ET for the remaining sewerage sections (including parts of S4, S5 and S6) within the WCA and WBA where construction activities cannot be rescheduled? | | ✓ | | |
| 8.7.2 | • The site inspections shall check and report the number of workfronts and implementation of mitigation measures in the monthly EM&A Report. | | | ✓ | |
| 8.7.3 | • Are quietened construction plant and equipment used for PS (P2 and P3) and sewers (S4, S5, S6) within the WCA and WBA? | | | ✓ | |
| 8.7.4 | • For P1-P3, have fences along the boundary of the pumping stations construction sites been erected? | | | ✓ | |
| 8.7.4 | • There shall be no filling and dumping to the remaining abandoned fishpond at P2. | | ✓ | | |
| 8.7.4 | • Are silt removal facilities, designed to the ProPECC Note PN1/94, installed and operated at the P1 to P3 sites? The minimal total combined volume of the silt removal facilities at P3 (NSW SPS) should be 15m3. | | ✓ | | |
| 8.7.4 | • There shall be no open fires within the site boundary. | | | ✓ | |
| 8.7.4 | • Have temporary fire fighting equipment provided in the works areas. | | | ✓ | |
| Landscape and Visual - Construction Phase | | | | | |
| | • Have the implementation of mitigation measures (i.e., top soil reused, new compensatory planting) been reported in the monthly EM&A? | | ✓ | | |
| | • The first monthly EM&A Report should report on the appearance of the temporary hoarding barriers. | | | ✓ | |
| | • Are screen planting (3m wide) and trees with dense canopy (up to 5m) provided? | | ✓ | | |
| | • Is felling of mature trees kept to a minimum? | | | ✓ | |

OTHER OBSERVATIONS

Yuen Long / Castle Peak Pipe Laying Site

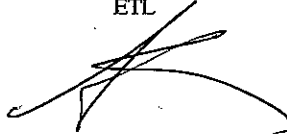
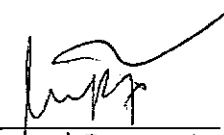
766 : The Contractor was reminded to provide adequate sandbagging along the site boundary to prevent site waste water from discharging into the street.

Nam Sang Wai Road

768 : The Contractor was reminded to keep the public road free of debris from construction vehicles.

Nam Sang Wai Pumping Station

771 : The environmental permit was not displayed on the notice board. The Contractor was reminded to display the environmental permit at the pumping station and all other related locations.

| DSD Representative | Contractor Representative | ETL | IEC |
|--------------------|---------------------------|--|--|
| () | () |  (Ken Wong) |  (Sun Foo) |

Agreement No. CE37/2005 (EP)
Environmental Monitoring and Audit for
Kam Tin Trunk Sewerage Phase 1 and Au Tau Trunk Sewers

MONTHLY SITE INSPECTION PHOTOS
30 October 2007
Environmental Observations

This month's observations

| This month's observations | This month's observations |
|--|---------------------------|
| Yuen Long / Castle Peak Pipe Jacking Site | |
|  | |
| 766: The Contractor was reminded to provide adequate sandbagging along the site boundary to prevent site wastewater from discharging into the street. | |
| Nam Sang Wai Road | |
|  | |
| 768: The Contractor was reminded to keep the public road free of debris from construction vehicles. | |
| Nam Sang Wai Pumping Station | |
|  | |
| 771: The environmental permit was not displayed on the notice board. The Contractor was reminded to display the environmental permit at the pumping station and all other related locations. | |