

Table J1 *Cumulative Statistics on Exceedances*

Monitoring Parameters	Action/Limit Level	Total No. recorded in this reporting quarter	Total No. recorded since project commencement
1-Hr TSP	Action	2	30
	Limit	0	2
24-Hr TSP	Action	0	5
	Limit	0	1
Water Quality	Action	0	6
	Limit	0	1
Impact Dolphin Monitoring	Action	0	7
	Limit	1	1

Table J2 *Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions*

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This Reporting Period (Dec 2014 to Feb 2015)	0	0	0
Total No. received since project commencement	4	0	0

Email
message

Environmental
Resources
Management

To ENVIRON - Hong Kong, Limited (ENPO)

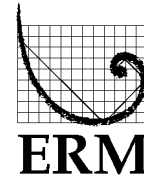
From ERM- Hong Kong, Limited

Ref/Project number Contract No. HY/2012/08 Tuen Mun-Chek Lap
Kok Link-Northern Connection Sub-sea Tunnel
Section

Subject Notification of Exceedance for Air Quality
Impact Monitoring

Date 12 December 2014

16/F Berkshire House,
25 Westlands Road
Quarry Bay, Hong Kong
Telephone: (852) 2271 3113
Facsimile: (852) 2723 5660
E-mail: jovy.tam@erm.com



Dear Sir or Madam,

Please find attached the Notification of Exceedance (NOE) of the following
Log no.:

0212330_2December2014_1hrTSP_Station ASR5

A total of one Action Level Exceedance was recorded on 2 December 2014.

Regards,

Mr Jovy Tam
Environmental Team Leader

CONFIDENTIALITY NOTICE

This facsimile transmission is intended only for the use of the addressee and is confidential. If you are not the addressee it may be unlawful for you to read, copy, distribute, disclose or otherwise use the information in this facsimile. If you are not the intended recipient, please telephone or fax us.



ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08
TUEN MUN – CHEK LAP KOK LINK –
NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Air Quality Impact Monitoring
Notification of Exceedance

Log No.	0212330_2December2014_1hrTSP_Station ASR5 [Total No. of Exceedances = 1]	
Date	2 December 2014 (Measured) 11 December 2014 (Laboratory results received by ERM)	
Monitoring Station	ASR1, ASR5, ASR6, ASR10 and AQMS1	
Parameter(s) with Exceedance(s)	1-hr TSP	
Action Levels	1-hr TSP ($\mu\text{g}/\text{m}^3$)	ASR5 = 340
	24-hr TSP ($\mu\text{g}/\text{m}^3$)	ASR5 = 238
Limit Levels	1-hr TSP ($\mu\text{g}/\text{m}^3$)	500
	24-hr TSP ($\mu\text{g}/\text{m}^3$)	260
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at ASR5 ($346 \mu\text{g}/\text{m}^3$) during 1510 - 1610 hrs.	
Works Undertaken (at the time of monitoring event)	On 2 December 2014, Excavation Works for launching shaft were carried out at Reclamation Works Area Portion N-A; Land Bored Piling Works at Reclamation Works Area Portion N-A and Surcharge Set Up at Reclamation Works Area Portions N-B and N-C.	

Possible Reason for Action or Limit Level Exceedance(s)	<p>The exceedance(s) are unlikely to be due to the Project, in view of the following:</p> <ul style="list-style-type: none"> • Considering the relatively higher levels of 1-hour TSP between 1500 and 1700 hrs at most monitoring stations, it is probably unlikely that the level of land-based construction works under this Contract can cause increase in 1-hour TSP of this magnitude and scale. It is considered that the observed exceedances for 1-hour TSP at ASR5 may represent sporadic event associated with traffic emissions and anthropogenic activities during afternoon rush hour at River Trade Terminal. • According to the construction information provided by the Contractor, the majority of construction works on 2 December 2014 were Excavation Works for launching shaft at Reclamation Works Area Portion N-A; Land Bored Piling Works at Reclamation Works Area Portion N-A and Surcharge Set Up at Reclamation Works Area Portions N-B and N-C. During the period of the land-based construction works, the Contractor has implemented the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual (e.g. water spraying by water trucks on exposed soil within the Project site and associated work areas; use of wheel washing facilities; hydro-seeding of area where works have been completed). • Whilst exceedances of Action Level were observed at ASR5, the 24-hr TSP level at the monitoring station (ASR1 = 127 µg/m³) on 2 December 2014 were in compliance with the Action and Limit Levels. • Same level and extent of construction works were carried out at the same works area on 29th November and 5th December whilst no exceedance was recorded. • With reference to the recorded wind direction (ranged between 34° and 65°, blowing from a North-Easterly direction) during the period of the observed 1-hr TSP exceedances, Station ASR5 is located upstream to the land-based construction activities at the Reclamation Works Area, thus the observed exceedance should not be affected by the dust, if any, generated by the construction activities under this Contract. • As stated in the EIA report (Section 4.2.3), the background TSP level of Tuen Mun is higher than the other region of Hong Kong, thus the exceedances may be also contributed cumulatively by the other construction works / traffic within the Tuen Mun Area rather than causing by the construction works of the Project.
Actions Taken/ To Be Taken	<p>Based on the record of subsequent weekly site inspection on 3 December 2014, no dust nuisance was recorded at the Reclamation Works Area and activities conducted in this Contract's work has strictly followed the requirements stated in the EP (EP-354/2009/B) (see photo records on <i>Annex A</i>). In addition, the Contractor has implemented the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual (e.g. watering at least 12 times per day on all exposed soil within the Project site and associated work areas; use of wheel washing facilities; hydro-seeding of area where works have been completed) throughout the construction period, no additional mitigation is deemed necessary. The Enhanced TSP Monitoring has commenced on 24 October 2014, the ET will monitor for future trends in exceedances.</p>
Remarks	<p>The monitoring results and the locations of air quality monitoring stations are attached.</p>

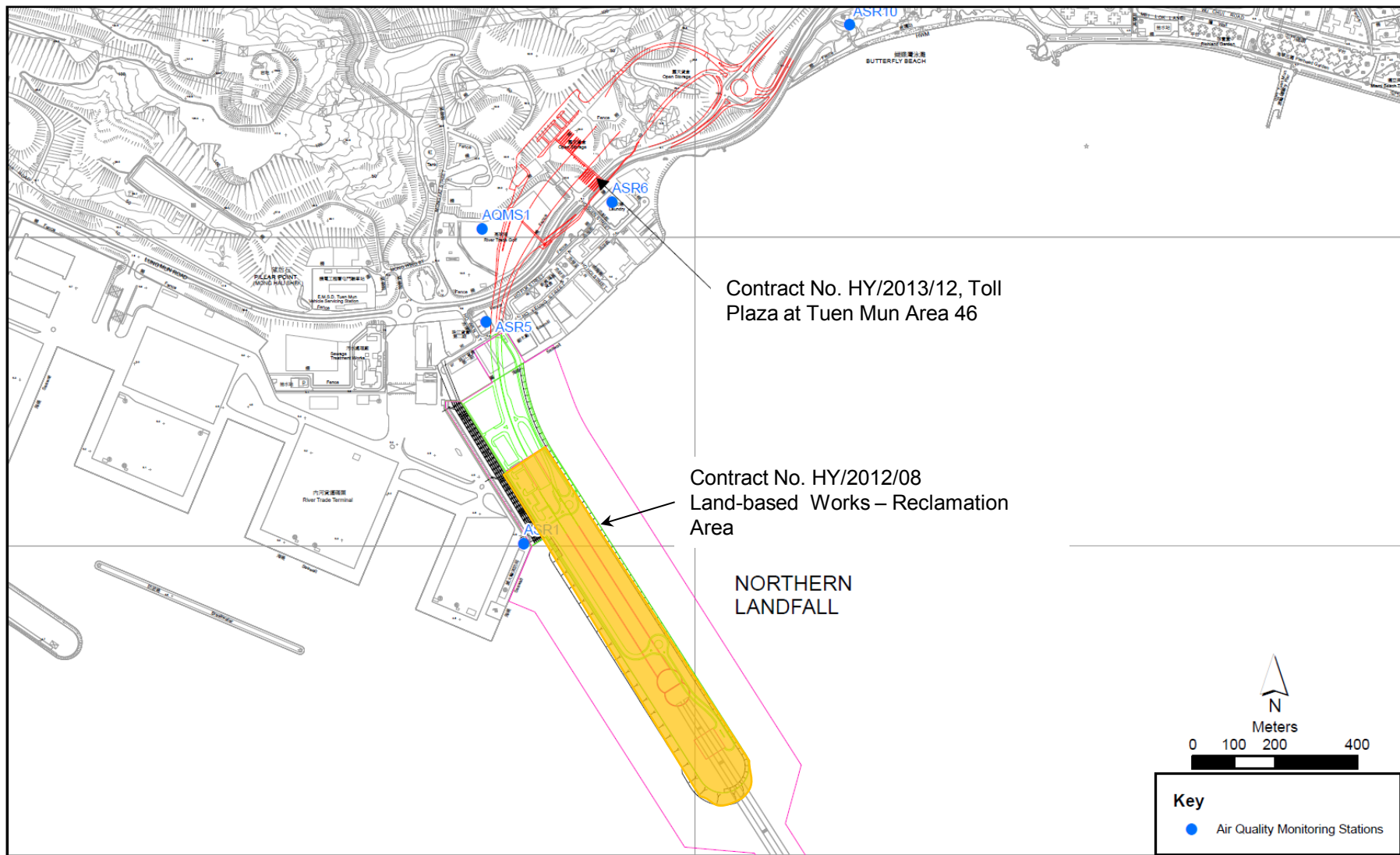


Figure 1

Indicative Construction Works Area on 2 December 2014

Project	Works	Date	Station	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	29-11-2014	ASR10	8:00	1-hour TSP	92	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR10	9:02	1-hour TSP	85	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR10	10:04	1-hour TSP	64	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR6	8:12	1-hour TSP	163	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR6	9:14	1-hour TSP	180	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR6	10:16	1-hour TSP	142	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR5	8:23	1-hour TSP	197	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR5	9:25	1-hour TSP	172	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR5	10:27	1-hour TSP	201	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR1	8:34	1-hour TSP	116	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR1	9:36	1-hour TSP	146	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR1	10:38	1-hour TSP	144	ug/m3
TMCLKL	HY/2012/08	29-11-2014	AQMS1	8:45	1-hour TSP	200	ug/m3
TMCLKL	HY/2012/08	29-11-2014	AQMS1	9:47	1-hour TSP	157	ug/m3
TMCLKL	HY/2012/08	29-11-2014	AQMS1	10:49	1-hour TSP	139	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR10	11:06	24-hour TSP	60	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR6	11:18	24-hour TSP	85	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR5	11:29	24-hour TSP	98	ug/m3
TMCLKL	HY/2012/08	29-11-2014	ASR1	11:40	24-hour TSP	73	ug/m3
TMCLKL	HY/2012/08	29-11-2014	AQMS1	11:51	24-hour TSP	89	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR6	12:55	1-hour TSP	73	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR6	13:57	1-hour TSP	105	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR6	14:59	1-hour TSP	106	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR10	12:43	1-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR10	13:45	1-hour TSP	76	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR10	14:47	1-hour TSP	90	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR5	13:06	1-hour TSP	198	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR5	14:08	1-hour TSP	311	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR5	15:10	1-hour TSP	346	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR1	13:17	1-hour TSP	225	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR1	14:19	1-hour TSP	150	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR1	15:21	1-hour TSP	183	ug/m3
TMCLKL	HY/2012/08	02-12-2014	AQMS1	13:29	1-hour TSP	115	ug/m3
TMCLKL	HY/2012/08	02-12-2014	AQMS1	14:31	1-hour TSP	93	ug/m3
TMCLKL	HY/2012/08	02-12-2014	AQMS1	15:33	1-hour TSP	124	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR6	16:01	24-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR10	15:49	24-hour TSP	65	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR5	16:02	24-hour TSP	127	ug/m3
TMCLKL	HY/2012/08	02-12-2014	ASR1	16:23	24-hour TSP	100	ug/m3
TMCLKL	HY/2012/08	02-12-2014	AQMS1	16:35	24-hour TSP	79	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR1	8:38	1-hour TSP	323	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR1	9:40	1-hour TSP	261	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR1	10:42	1-hour TSP	295	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR5	8:27	1-hour TSP	209	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR5	9:29	1-hour TSP	165	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR5	10:31	1-hour TSP	171	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR6	8:16	1-hour TSP	90	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR6	9:18	1-hour TSP	79	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR6	10:20	1-hour TSP	98	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR10	8:05	1-hour TSP	65	ug/m3

TMCLKL	HY/2012/08	05-12-2014	ASR10	9:07	1-hour TSP	60	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR10	10:09	1-hour TSP	58	ug/m3
TMCLKL	HY/2012/08	05-12-2014	AQMS1	8:50	1-hour TSP	107	ug/m3
TMCLKL	HY/2012/08	05-12-2014	AQMS1	9:52	1-hour TSP	88	ug/m3
TMCLKL	HY/2012/08	05-12-2014	AQMS1	10:54	1-hour TSP	84	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR1	11:44	24-hour TSP	118	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR5	11:33	24-hour TSP	106	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR6	11:22	24-hour TSP	81	ug/m3
TMCLKL	HY/2012/08	05-12-2014	ASR10	11:11	24-hour TSP	59	ug/m3
TMCLKL	HY/2012/08	05-12-2014	AQMS1	11:56	24-hour TSP	86	ug/m3

Meteorological Data for Air Quality Impact Monitoring on 2/12/2014			
Date (yy-mm-dd)	Time (24hrs)	Average of Wind Speed (m/s)	Average of Wind Direction (degree)
14/12/02	0:00	3.1	45
14/12/02	1:00	2.2	43
14/12/02	2:00	3.1	36
14/12/02	3:00	3.1	32
14/12/02	4:00	3.1	21
14/12/02	5:00	4	24
14/12/02	6:00	4	28
14/12/02	7:00	3.1	25
14/12/02	8:00	3.1	23
14/12/02	9:00	3.6	33
14/12/02	10:00	3.1	32
14/12/02	11:00	2.7	38
14/12/02	12:00	2.2	33
14/12/02	13:00	1.8	19
14/12/02	14:00	1.8	25
14/12/02	15:00	2.2	34
14/12/02	16:00	1.8	62
14/12/02	17:00	2.2	65
14/12/02	18:00	2.2	68
14/12/02	19:00	2.2	61
14/12/02	20:00	2.2	54
14/12/02	21:00	2.2	39
14/12/02	22:00	2.2	51
14/12/02	23:00	2.7	57
14/12/03	0:00	2.7	30
14/12/03	1:00	2.2	55
14/12/03	2:00	2.2	50
14/12/03	3:00	1.8	64
14/12/03	4:00	1.3	27
14/12/03	5:00	1.3	51
14/12/03	6:00	0.9	32
14/12/03	7:00	0.9	44
14/12/03	8:00	1.3	47
14/12/03	9:00	1.3	58
14/12/03	10:00	1.3	62
14/12/03	11:00	1.3	27
14/12/03	12:00	1.8	116
14/12/03	13:00	2.2	124
14/12/03	14:00	1.3	113
14/12/03	15:00	1.3	103
14/12/03	16:00	0.9	127
14/12/03	17:00	1.3	140
14/12/03	18:00	0.4	122



Annex A Photo Records taken during Weekly Site Inspection

*Note: Photos taken on 3/12/2014



Hydro-seeding of area where works have been completed. (Reclamation Works Area)

Email
message

Environmental
Resources
Management

To ENVIRON - Hong Kong, Limited (ENPO)

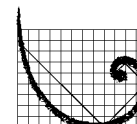
From ERM- Hong Kong, Limited

Ref/Project number Contract No. HY/2012/08 Tuen Mun-Chek Lap
Kok Link-Northern Connection Sub-sea Tunnel
Section

Subject Notification of Exceedance for Air Quality
Impact Monitoring

Date 29 December 2014

16/F Berkshire House,
25 Westlands Road
Quarry Bay, Hong Kong
Telephone: (852) 2271 3113
Facsimile: (852) 2723 5660
E-mail: jovy.tam@erm.com



ERM

Dear Sir or Madam,

Please find attached the Notification of Exceedance (NOE) of the following
Log no.:

0212330_17December2014_1hrTSP_Station AQMS1

A total of one Action Level Exceedance was recorded on 17 December 2014.

Regards,

Mr Jovy Tam
Environmental Team Leader

CONFIDENTIALITY NOTICE

This facsimile transmission is intended only for the use of the addressee and is confidential. If you are not the addressee it may be unlawful for you to read, copy, distribute, disclose or otherwise use the information in this facsimile. If you are not the intended recipient, please telephone or fax us.



ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08 TUEN MUN – CHEK LAP KOK LINK – NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Air Quality Impact Monitoring Notification of Exceedance

Log No.	0212330_17December2014_1hrTSP_Station AQMS1 [Total No. of Exceedances = 1]	
Date	17 December 2014 (Measured) 24 December 2014 (Laboratory results received by ERM)	
Monitoring Station	ASR1, ASR5, ASR6, ASR10 and AQMS1	
Parameter(s) with Exceedance(s)	1-hr TSP	
Action Levels	1-hr TSP ($\mu\text{g}/\text{m}^3$)	AQMS1 = 335
	24-hr TSP ($\mu\text{g}/\text{m}^3$)	AQMS1 = 213
Limit Levels	1-hr TSP ($\mu\text{g}/\text{m}^3$)	500
	24-hr TSP ($\mu\text{g}/\text{m}^3$)	260
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at AQMS1 ($348 \mu\text{g}/\text{m}^3$) during 1444 - 1544 hrs.	
Works Undertaken (at the time of monitoring event)	On 17 December 2014, Land Bored Piling Works were carried out at Reclamation Works Area Portion N-A and Surcharge Set Up at Reclamation Works Area Portions N-B and N-C.	
Possible Reason for Action or Limit Level Exceedance(s)	<p>The exceedance(s) are unlikely to be due to the Project, in view of the following:</p> <ul style="list-style-type: none"> According to the construction information provided by the Contractor, the majority of construction works on 17 December 2014 were Land Bored Piling Works at Reclamation Works Area Portion N-A and Surcharge Set Up at Reclamation Works Area Portions N-B and N-C. During the period of the land-based construction works, the Contractor has implemented the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual (e.g. water spraying by water trucks on exposed soil within the Project site and associated work areas; use of wheel washing facilities; hydro-seeding of area where works have been completed). Whilst exceedances of Action Level were observed at AQMS1, the 24-hr TSP level at the monitoring station (AQMS1 = $155 \mu\text{g}/\text{m}^3$) on 17 December 2014 were in compliance with the Action and Limit Levels. Same level and extent of construction works were carried out at the same works area on 14th December and 20th December whilst no exceedance was recorded. It is thus considered that the observed exceedances for 1-hour TSP at AQMS1 may represent sporadic event associated with traffic emissions and anthropogenic activities during afternoon rush hour at Lung Mun Road. With reference to the recorded wind direction (ranged between 44° and 60°, blowing from a North-Easterly direction) and wind speed (ranged from 2.7 to 5.4 m/s) during the period of the observed 1-hr TSP exceedances, Station AQMS1 is located upstream to the land-based construction activities at the Reclamation Works Area, thus the observed exceedance should not be affected by the dust, if any, generated by the construction activities under this Contract. As stated in the EIA report (Section 4.2.3), the background TSP level of Tuen Mun is higher than the other region of Hong Kong, thus the exceedances may be also contributed cumulatively by the other construction works / traffic within the Tuen Mun Area rather than causing by the construction works of the Project. 	

Actions Taken/ To Be Taken	Based on the record of weekly site inspection on 17 December 2014, no dust nuisance was recorded at the Reclamation Works Area and activities conducted in this Contract's work has strictly followed the requirements stated in the EP (EP-354/2009/C) (see photo records on <i>Annex A</i>). In addition, the Contractor has implemented the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual (e.g. use of water truck on exposed soil within the Project site and associated work areas; use of wheel washing facilities; hydro-seeding of area where works have been completed) throughout the construction period, no additional mitigation is deemed necessary. The Enhanced TSP Monitoring has commenced on 24 October 2014, the ET will monitor for future trends in exceedances.
Remarks	The monitoring results and the locations of air quality monitoring stations are attached.

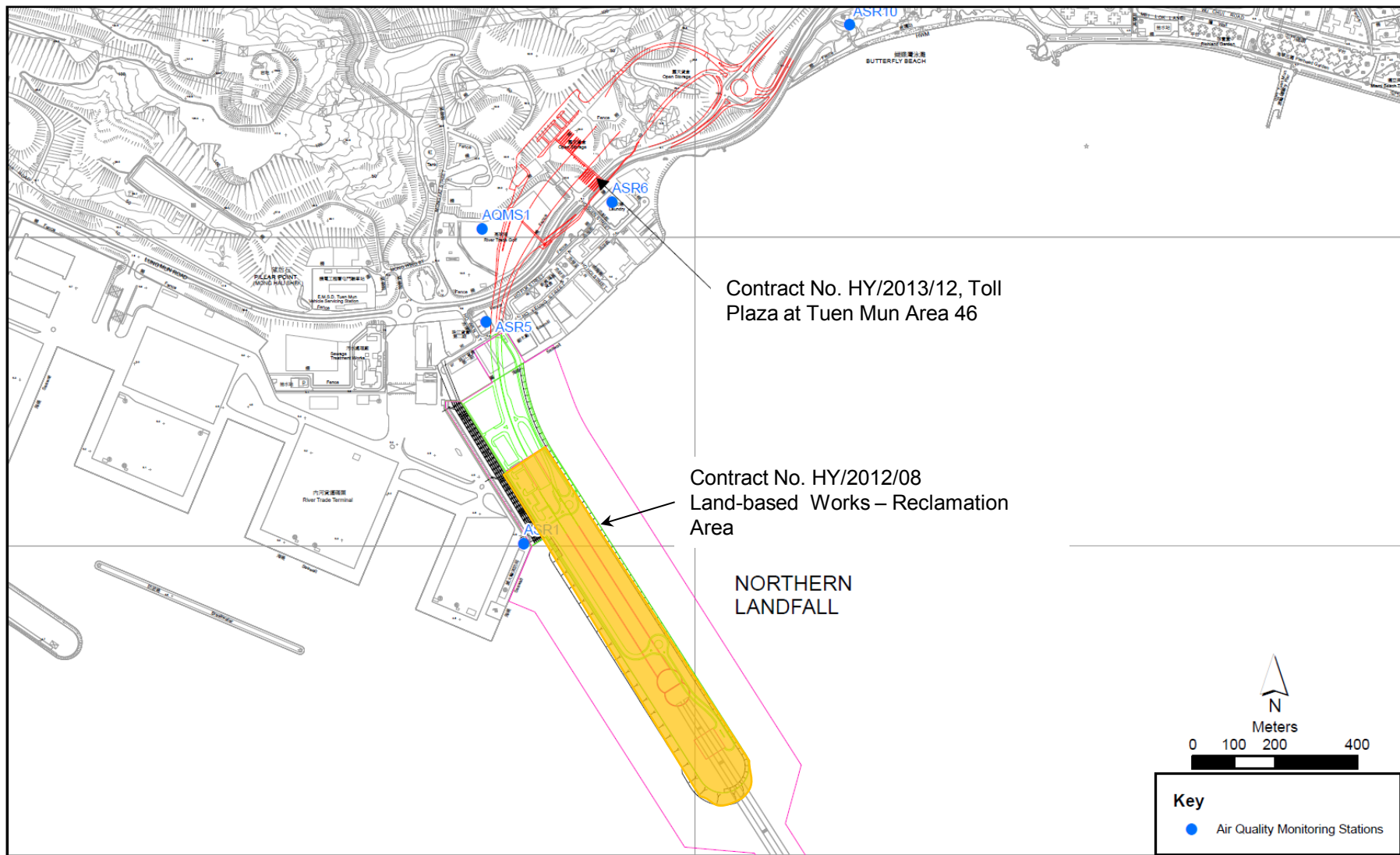


Figure 1

Indicative Construction Works Area on 17 December 2014

Project	Works	Date	Station	Weather	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	2014-12-14	AQMS1	Sunny	08:45	1-hour TSP	183	ug/m3
TMCLKL	HY/2012/08	2014-12-14	AQMS1	Sunny	09:47	1-hour TSP	118	ug/m3
TMCLKL	HY/2012/08	2014-12-14	AQMS1	Sunny	10:49	1-hour TSP	126	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR1	Sunny	08:34	1-hour TSP	329	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR1	Sunny	09:36	1-hour TSP	223	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR1	Sunny	10:38	1-hour TSP	190	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR5	Sunny	08:23	1-hour TSP	273	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR5	Sunny	09:25	1-hour TSP	158	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR5	Sunny	10:27	1-hour TSP	117	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR6	Sunny	08:12	1-hour TSP	177	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR6	Sunny	09:14	1-hour TSP	109	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR6	Sunny	10:16	1-hour TSP	126	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR10	Sunny	08:00	1-hour TSP	151	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR10	Sunny	09:02	1-hour TSP	124	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR10	Sunny	10:04	1-hour TSP	133	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR10	Sunny	12:57	1-hour TSP	218	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR10	Sunny	13:59	1-hour TSP	245	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR10	Sunny	15:01	1-hour TSP	128	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR6	Sunny	13:09	1-hour TSP	100	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR6	Sunny	14:11	1-hour TSP	91	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR6	Sunny	15:13	1-hour TSP	181	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR5	Sunny	13:20	1-hour TSP	207	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR5	Sunny	14:22	1-hour TSP	212	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR5	Sunny	15:24	1-hour TSP	232	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR1	Sunny	13:30	1-hour TSP	298	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR1	Sunny	14:32	1-hour TSP	298	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR1	Sunny	15:34	1-hour TSP	233	ug/m3
TMCLKL	HY/2012/08	2014-12-17	AQMS1	Sunny	13:42	1-hour TSP	325	ug/m3
TMCLKL	HY/2012/08	2014-12-17	AQMS1	Sunny	14:44	1-hour TSP	348	ug/m3
TMCLKL	HY/2012/08	2014-12-17	AQMS1	Sunny	15:46	1-hour TSP	333	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR10	Sunny	08:00	1-hour TSP	124	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR10	Sunny	09:02	1-hour TSP	79	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR10	Sunny	10:04	1-hour TSP	89	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR6	Sunny	08:10	1-hour TSP	159	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR6	Sunny	09:12	1-hour TSP	117	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR6	Sunny	10:14	1-hour TSP	81	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR5	Sunny	08:23	1-hour TSP	272	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR5	Sunny	09:25	1-hour TSP	238	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR5	Sunny	10:27	1-hour TSP	212	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR1	Sunny	08:33	1-hour TSP	238	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR1	Sunny	09:35	1-hour TSP	219	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR1	Sunny	10:37	1-hour TSP	171	ug/m3
TMCLKL	HY/2012/08	2014-12-20	AQMS1	Sunny	08:45	1-hour TSP	184	ug/m3
TMCLKL	HY/2012/08	2014-12-20	AQMS1	Sunny	09:47	1-hour TSP	113	ug/m3
TMCLKL	HY/2012/08	2014-12-20	AQMS1	Sunny	10:49	1-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2014-12-14	AQMS1	Sunny	11:51	24-hour TSP	98	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR1	Sunny	11:40	24-hour TSP	112	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR5	Sunny	11:29	24-hour TSP	93	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR6	Sunny	11:18	24-hour TSP	90	ug/m3
TMCLKL	HY/2012/08	2014-12-14	ASR10	Sunny	11:06	24-hour TSP	93	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR10	Sunny	16:03	24-hour TSP	82	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR6	Sunny	16:15	24-hour TSP	103	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR5	Sunny	16:26	24-hour TSP	127	ug/m3
TMCLKL	HY/2012/08	2014-12-17	ASR1	Sunny	16:36	24-hour TSP	147	ug/m3
TMCLKL	HY/2012/08	2014-12-17	AQMS1	Sunny	16:48	24-hour TSP	155	ug/m3

Project	Works	Date	Station	Weather	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	2014-12-20	ASR10	Sunny	11:06	24-hour TSP	68	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR6	Sunny	11:16	24-hour TSP	93	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR5	Sunny	11:29	24-hour TSP	117	ug/m3
TMCLKL	HY/2012/08	2014-12-20	ASR1	Sunny	11:39	24-hour TSP	128	ug/m3
TMCLKL	HY/2012/08	2014-12-20	AQMS1	Sunny	11:51	24-hour TSP	92	ug/m3

Date (yy-mm-dd)	Time (24hrs)	Average of Wind Speed (m/s)	Average of Wind Direction (degree)
14/12/17	0:00	4.5	48
14/12/17	1:00	5.4	45
14/12/17	2:00	4.9	41
14/12/17	3:00	5.4	42
14/12/17	4:00	5.8	50
14/12/17	5:00	4.9	15
14/12/17	6:00	5.8	19
14/12/17	7:00	4.9	20
14/12/17	8:00	5.8	25
14/12/17	9:00	6.3	36
14/12/17	10:00	6.7	51
14/12/17	11:00	5.4	44
14/12/17	12:00	4	48
14/12/17	13:00	3.1	52
14/12/17	14:00	3.1	59
14/12/17	15:00	2.7	56
14/12/17	16:00	2.7	60
14/12/17	17:00	2.2	47
14/12/17	18:00	1.8	13
14/12/17	19:00	0	53
14/12/17	20:00	0.9	5
14/12/17	21:00	1.3	11
14/12/17	22:00	1.3	14
14/12/17	23:00	4	37



Annex A Photo Records taken during Weekly Site Inspection

*Note: Photos taken on 17/12/2014



Hydro-seeding of area where works have been completed. (Reclamation Works Area)



Use of water truck on exposed soil within the Project site and associated work areas. (Reclamation Works Area)

Email
message

Environmental
Resources
Management

To ENVIRON - Hong Kong, Limited (ENPO)

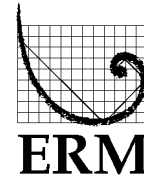
From ERM- Hong Kong, Limited

Ref/Project number Contract No. HY/2012/08 Tuen Mun–Chek Lap
Kok Link–Northern Connection Sub-sea Tunnel
Section

Subject Notification of Exceedance for Impact Dolphin
Monitoring

Date 3 July 2015

16/F Berkshire House,
25 Westlands Road
Quarry Bay, Hong Kong
Telephone: (852) 2271 3113
Facsimile: (852) 2723 5660
E-mail: jovy.tam@erm.com



Dear Sir or Madam,

Please find attached the Notification of Exceedance (NOE) of the following
Log no.:

0212330_Dec2014/Feb2015_dolphin_STG&ANI_NEL&NWL

A total of one limit level exceedance was recorded in the quarterly impact
dolphin monitoring data between December 2014 and February 2015.

Regards,

Mr Jovy Tam
Environmental Team Leader

CONFIDENTIALITY NOTICE

This facsimile transmission is intended only for the use of the addressee and is confidential. If you are not the addressee it may be unlawful for you to read, copy, distribute, disclose or otherwise use the information in this facsimile. If you are not the intended recipient, please telephone or fax us.



ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08

TUEN MUN – CHEK LAP KOK LINK – NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Impact Dolphin Monitoring Notification of Exceedance

Log No.	0212330_Dec2014/Feb2015_dolphin_STG&ANI_NEL&NWL [Total No. of Exceedances = 1 Limit Level Exceedance]	
Date	December 2014 to February 2015 (monitored) 2 April 2015 (results received by ERM)	
Monitoring Area	Northeast Lantau (NEL) and Northwest Lantau (NWL)	
Parameter(s) with Exceedance(s)	Quarterly encounter rate of dolphin sightings (STG) Quarterly encounter rate of total number of dolphins (ANI)	
Action Levels	North Lantau Social cluster	NEL: STG < 4.2 & ANI < 15.5 or NWL: STG < 6.9 & ANI < 31.3
Limit Levels		NEL: STG < 2.4 & ANI < 8.9 and NWL: STG < 3.9 & ANI < 17.9
Recorded Levels	NEL	STG = 0 & ANI = 0
	NWL	STG = 2.9 & ANI = 11.3
	One Limit Level Exceedance is recorded in the quarterly impact dolphin monitoring at NEL and NWL between December 2014 and February 2015. The exceedance was reported in the approved <i>Sixteenth Monthly EM&A Report</i> dated 12 March 2015.	
Statistical Analyses	<p>Further to the review of the available and relevant dolphin monitoring data in the EM&A programme under this Contract, statistical analyses were conducted as follows:</p> <ul style="list-style-type: none"> A two-way ANOVA with repeated measures and unequal sample size was conducted using Period (2 levels: baseline vs impact – present quarter, December 2014 to February 2015) and Location (2 levels: NEL and NWL) as fixed factors to examine whether there were any significant differences in the averages encounter rates between the baseline and present impact monitoring quarter. By setting $\alpha = 0.05$ as the significance level in the statistical tests, significant difference in STG ($p = 0.0059$) and in ANI ($p = 0.0330$) between Period were detected. A two-way ANOVA with repeated measures and unequal sample size was conducted using Cumulative Period (2 levels: baseline vs impact – cumulative quarters*, December 2012 to February 2015) and Location (2 levels: NEL and NWL) as fixed factors to examine whether there were any significant differences in the averages encounter rates between the baseline and cumulative impact monitoring quarters. By setting $\alpha = 0.01$ as the significance level in the statistical tests, significant difference in STG ($p = 0.0009$) and in ANI ($p = 0.0003$) between Cumulative Period and Location were detected. <p>*Note: The commencement date under <i>Contract No. HY/2012/08</i> is 1 November 2013.</p>	
Works Undertaken (in the monitoring quarter)	<p>In the quarter between December 2014 and February 2015, the major marine works under <i>Contract No. HY/2012/08</i> included:</p> <ul style="list-style-type: none"> Phase-I reclamation was completed on 8 December 2014. Rock bund deposition for marine sheet piling remedial works at Marine Works Area – Portion N-A 	

Possible Reason for Action or Limit Level Exceedance(s)	<p>The exceedance is considered not caused by the Project, in view of the following:</p> <ul style="list-style-type: none"> • The <i>Monitoring of Marine Mammals in Hong Kong Waters (2013 – 14)</i> ⁽¹⁾ reported that dolphin usage and traveling activities to the northern side of the airport (dolphin traveling corridor) are affected by frequent high-speed ferry traffic from Sky Pier (not related to this project), which is likely a contributing factor for the decrease in dolphin abundances in NEL. • As per the findings from the EIA report (Section 8.11.9), the major influences on the Chinese White Dolphin (CWD) are marine traffics, dredging works and reclamation/filling works. The Contractor has implemented the marine traffic control as per the requirements in the EP-354/2009/C and the updated EM&A Manual. Filling works were undertaken within 200m leading seawall throughout the filling period and the working rate described in the EP and the approved EIA Report were strictly followed. On 8 December 2014, Phase-I reclamation was completed. No dredging or marine sheet piling works were carried out during the monitoring quarter. During this quarter of dolphin monitoring, no unacceptable impact on CWD due to the activities under this Contract was observed. • According to the findings of the approved EIA report (Section 8.11.9), filling works are expected to increase the level of suspended solids (SS) in the vicinity waters of the project, which would lead to indirect loss of prey availability and increase in level of bioaccumulative contaminants in CWD. According to the findings in the quarterly water monitoring results between December 2014 and February 2015, the impact mean level of SS (Mid-ebb: 7.5 mg/L; Mid-flood: 7.4 mg/L) in this quarter is below of the baseline mean level of SS (Mid-ebb: 10.0 mg/L; Mid-flood: 10.3 mg/L). This would imply that no unacceptable impact on SS levels was associated with the marine works under this Contract, and thus no indirect impacts on marine habitat quality due to change in water quality is observed in this Contract.
Actions Taken/ To Be Taken	<p>With reference to the site inspection records in this quarter, the respective marine ecological mitigation measures (including 250 m dolphin exclusion zone, passive acoustic monitoring, underwater acoustic decoupling plan and marine traffic control) have been implemented properly by the Contractor throughout the marine works period. No immediate additional action is considered necessary. The ET will monitor for future trends in exceedance(s).</p> <p>A meeting was held on 27 April 2015 with attendance of ENPO, Resident Site Staff (RSS), Environmental Team (ET) and dolphin specialist for Contract No. HY/2010/02, RSS, ET, dolphin specialist and main Contractor for Contract No. HY/2011/03. The discussion/recommendation as recorded in the minutes of the meeting, which might be relevant to this Contract are summarized below. It was concluded that the HZMB works is one of the contributing factors affecting the dolphins. It was also concluded the contribution of impacts due to the HZMB works as a whole (or individual marine contracts) cannot be quantified nor separate from the other stress factors. It was reminded that the ETs shall keep reviewing the implementation status of the dolphin related mitigation measures and remind the contractor to ensure the relevant measures were fully implemented. It was recommended that the marine works of HZMB projects should be completed as soon as possible so as to reduce the overall duration of impacts and allow the dolphins population to recover as early as possible.</p>
Remarks	<p>The results of impact water quality and impact dolphin monitoring, the status of implemented marine ecological mitigation measures are documented in the approved <i>Fourteenth to Sixteenth EM&A Monthly Reports</i>.</p>

(1) Hung SKY (2014). Prepared for AFCD. Available from:
http://www.afcd.gov.hk/english/conservation/con_mar/con_mar_chi/con_mar_chi_chi/con_mar_chi_chi.html