Table K1 Cumulative Statistics on Exceedances

Parameters	Level of Exceedance	Total No. recorded in this reporting month	Total No. recorded since project commencement
1-hr TSP	Action	3	82
	Limit	0	5
24-hr TSP	Action	0	8
	Limit	0	4
Water Quality	Action	0	20
•	Limit	0	1
Impact Dolphin	Action	0	11
Monitoring	Limit	0	14

Table K2 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Cumulative Statistics				
	Complaints	Notifications of	Successful		
		Summons	Prosecutions		
This Reporting Month (December 2018)	0	0	0		
Total No. received since project commencement	16	1	0		

Email message

From

Environmental Resources Management

To Ramboll Hong Kong, Limited (ENPO) 2507, 25/F One Harbourfront

18 Tak Fung Street Hunghom, Kowloon

Hong Kong Telephone: (852) 2271 3000 Facsimile: (852) 2723 5660

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

ERM- Hong Kong, Limited

Date 14 December 2018



Dear Sir or Madam,

Ref/Project number

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

0212330_9December2018_1hrTSP_Station ASR1

One Action Level Exceedance was recorded on 9 December 2018.

Regards,

Dr Jasmine Ng

Environmental Team Leader

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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_9December2018_1hrTSP_Station ASR1				
		[Total No. of Exceedances = 1]			
Date		9 December 2018 (Measured)			
	14 December 2018 (Laboratory results received by ERM)				
Monitoring Station	AS	SR1, ASR5, ASR6, ASR10 and AQMS1			
Parameter(s) with Exceedance(s)		1-hr TSP			
Action Levels	24-hr TSP (μg/m³)	ASR1 = 213			
		ASR5 = 238			
		AQMS1 = 213			
		ASR6 = 238			
		ASR10 = 214			
	1-hr TSP (μg/m³)	ASR1 = 331			
		ASR5 = 340			
		AQMS1 = 335			
		ASR6 = 338			
		ASR10 = 337			
Limit Levels	1-hr TSP (μg/m³)	500			
	24-hr TSP (μg/m³)	260			
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at ASR1 (346 µg/m3) during 1044 – 1144 hrs.				
Works Undertaken (at	On 9 December 2018, no construction works was carried out on site.				
the time of monitoring					
event)					
Possible Reason for	The exceedance is unlikely to be due to this Contract, in view of the following:				
Action or Limit Level	According to the construction information provided by the Contractor, no construction				
Exceedance(s)	works was carried out on site on 9 December 2018. The Contractor has implemented the				
	required mitigation measures as per the EP, approved EIA and Updated EM&A Manual (e.g.				
	water spraying on expose	ed soil within the site and associated works areas; exposed soil			
	covered by tarpaulin shee	ets).			
	The exceedance is unlikel	y to be due to this Contract as dust suppression measures were			
	implemented properly on	n site. Water spraying was applied on site to prevent dust.			
	Based on the above, the exceedar	nces are unlikely to be due to this Contract.			

Actions Taken / To Be Taken	According to the construction information provided by the Contractor, no construction works was carried out on 9 December 2018. Dust suppression measures were properly implemented. Water spraying was applied to prevent dust. Photo record is provided in Annex A. Photos taken during
	AQM are also provided.
	The Contractor has been reminded to implement the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual including watering to maintain all exposed road surfaces and dust sources wet, use of sprinklers for water spraying, covering the materials having the potential to create dust by clean tarpaulin, use of water truck and watering on all exposed soil within the site) throughout the construction period.
Remarks	The monitoring results, wind data, and the locations of air quality monitoring stations are attached.



*Note: Photos taken on 9/12/2018



Water truck was used for dust control. (Works Area Portion N-C)



Water spraying was applied on the main haul road. (Works Area Portion N-C)



*Note: Photos taken on 9/12/2018



Water spraying was applied on the main haul road. (Works Area Portion N-A)



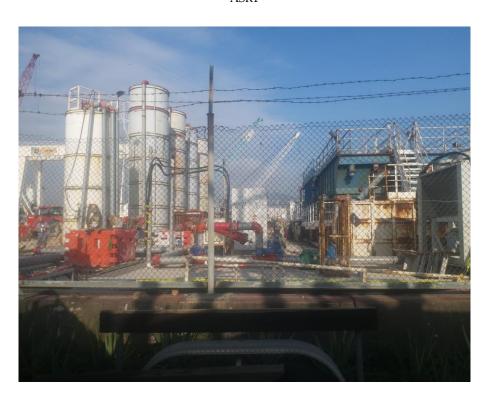
Dusty material was covered by tarpaulin sheets. (Works Area Portion N-A)



A Photos taken during AQM *Note: Photos taken on 9/12/2018 Annex A



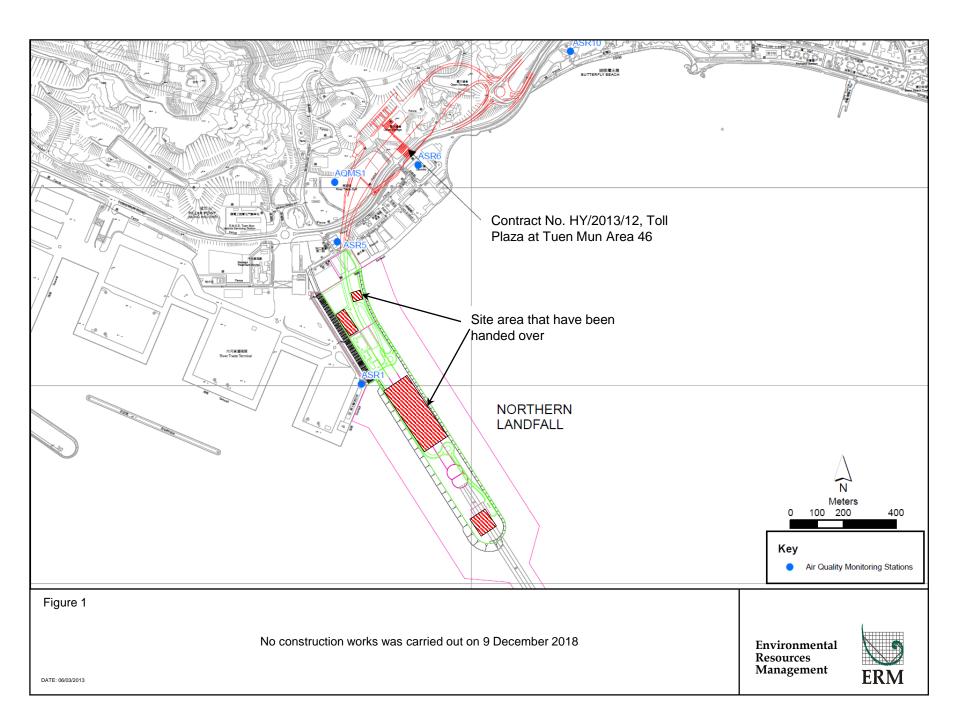
ASR1



ASR1

	Air quality monitoring results on 9/12/2018							
Project	Works	Date	Station	Weather	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	9/12/2018	AQMS1	Cloudy	8:52	1-hour TSP	79	ug/m3
TMCLKL	HY/2012/08	9/12/2018	AQMS1	Cloudy	9:54	1-hour TSP	57	ug/m3
TMCLKL	HY/2012/08	9/12/2018	AQMS1	Cloudy	10:56	1-hour TSP	75	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR1	Cloudy	8:40	1-hour TSP	135	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR1	Cloudy	9:42	1-hour TSP	212	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR1	Cloudy	10:44	1-hour TSP	346	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR10	Cloudy	8:05	1-hour TSP	74	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR10	Cloudy	9:07	1-hour TSP	79	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR10	Cloudy	10:09	1-hour TSP	83	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR5	Cloudy	8:28	1-hour TSP	201	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR5	Cloudy	9:30	1-hour TSP	194	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR5	Cloudy	10:32	1-hour TSP	194	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR6	Cloudy	8:16	1-hour TSP	134	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR6	Cloudy	9:18	1-hour TSP	97	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR6	Cloudy	10:20	1-hour TSP	112	ug/m3
TMCLKL	HY/2012/08	9/12/2018	AQMS1	Cloudy	11:58	24-hour TSP	35	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR1	Cloudy	11:46	24-hour TSP	62	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR10	Cloudy	11:09	24-hour TSP	40	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR5	Cloudy	11:34	24-hour TSP	117	ug/m3
TMCLKL	HY/2012/08	9/12/2018	ASR6	Cloudy	11:22	24-hour TSP	53	ug/m3

	Meteorological Data for Impact Monitoring in the reporting period					
Date (yy-mm-dd)	Time (24hrs)	Average of Wind Speed (m/s)	Average of Wind Direction(degree)			
18/12/09	0:00	2.7	21			
18/12/09	1:00	3.1	34			
18/12/09	2:00	2.2	55			
18/12/09	3:00	2.2	39			
18/12/09	4:00	1.3	18			
18/12/09	5:00	1.3	56			
18/12/09	6:00	1.8	56			
18/12/09	7:00	1.8	38			
18/12/09	8:00	2.2	36			
18/12/09	9:00	2.7	14			
18/12/09	10:00	1.8	32			
18/12/09	11:00	0.9	43			
18/12/09	12:00	0.9	41			
18/12/09	13:00	1.3	348			
18/12/09	14:00	2.2	331			
18/12/09	15:00	3.1	326			
18/12/09	16:00	1.8	330			
18/12/09	17:00	1.3	13			
18/12/09	18:00	1.3	4			
18/12/09	19:00	1.8	18			
18/12/09	20:00	1.8	53			
18/12/09	21:00	0.9	336			
18/12/09	22:00	1.3	27			
18/12/09	23:00	1.3	44			



Email message **Environmental** Resources Management

To Ramboll Hong Kong, Limited (ENPO) 2507, 25/F One Harbourfront

18 Tak Fung Street Hunghom, Kowloon

Hong Kong

Telephone: (852) 2271 3000 Facsimile: (852) 2723 5660

From ERM- Hong Kong, Limited

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 24 December 2018



Dear Sir or Madam,

Ref/Project number

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

0212330_12December2018_1hrTSP_Station ASR1

One Action Level Exceedance was recorded on 12 December 2018.

Regards,

Dr Jasmine Ng

Environmental Team Leader

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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_12December2018_1hrTSP_Station ASR1				
		[Total No. of Exceedances = 1]			
Date	12 December 2018 (Measured)				
	24 December 2018 (Laboratory results received by ERM)				
Monitoring Station	A:	SR1, ASR5, ASR6, ASR10 and AQMS1			
Parameter(s) with		1 LTCD			
Exceedance(s)		1-hr TSP			
Action Levels	24-hr TSP (μ g/m ³)	ASR1 = 213			
		ASR5 = 238			
		AQMS1 = 213			
		ASR6 = 238			
		ASR10 = 214			
	1-hr TSP (μg/m³)	ASR1 = 331			
		ASR5 = 340			
		AQMS1 = 335			
		ASR6 = 338			
		ASR10 = 337			
Limit Levels	1-hr TSP (μg/m³)	500			
	24-hr TSP (μg/m³)	260			
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at ASR1 (414 µg/m3) during 1331 – 1431 hrs.				
Works Undertaken (at	On 12 December 2018, TBM tunnel works and surcharge removal was carried out at Portion N-C on				
the time of monitoring	the site.				
event)					
Possible Reason for	The exceedance is unlikely to be	due to this Contract, in view of the following:			
Action or Limit Level	According to the construction information provided by the Contractor, the majority of				
Exceedance(s)	construction works on 12 December 2018 was TBM tunnel works and surcharge removal.				
	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 on exposed soil within the site and associated works areas; exposed soil covered by tarpaulin sheets).				
	, -	ly to be due to this Contract as dust suppression measures were			
		n site. Water spraying was applied on site to prevent dust.			
		nces are unlikely to be due to this Contract.			
	based of the above, the exceedan	ices are armicely to be due to time continue.			

Actions Taken/To Be Taken	According to the construction information provided by the Contractor, TBM tunnel works and surcharge removal was carried out on 12 December 2018. Dust suppression measures were properly implemented. Water spraying was applied to prevent dust. Photos are provided in
	Annex A. Photos taken during AQM are also provided in Annex A. The Contractor has been reminded to implement the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual including watering to maintain all exposed road surfaces and dust sources wet, use of sprinklers for water spraying, covering the materials having the potential to create dust by clean tarpaulin, use of water truck and watering on all exposed soil within the site) throughout the construction period.
Remarks	The monitoring results and the locations of air quality monitoring stations are attached.



*Note: Photos taken on 12/12/2018



Water truck was used for dust control during surcharge removal. (Works Area Portion N-C)



Water spraying was applied on the main haul road. (Works Area Portion N-C)



Annex A Photos taken during AQM

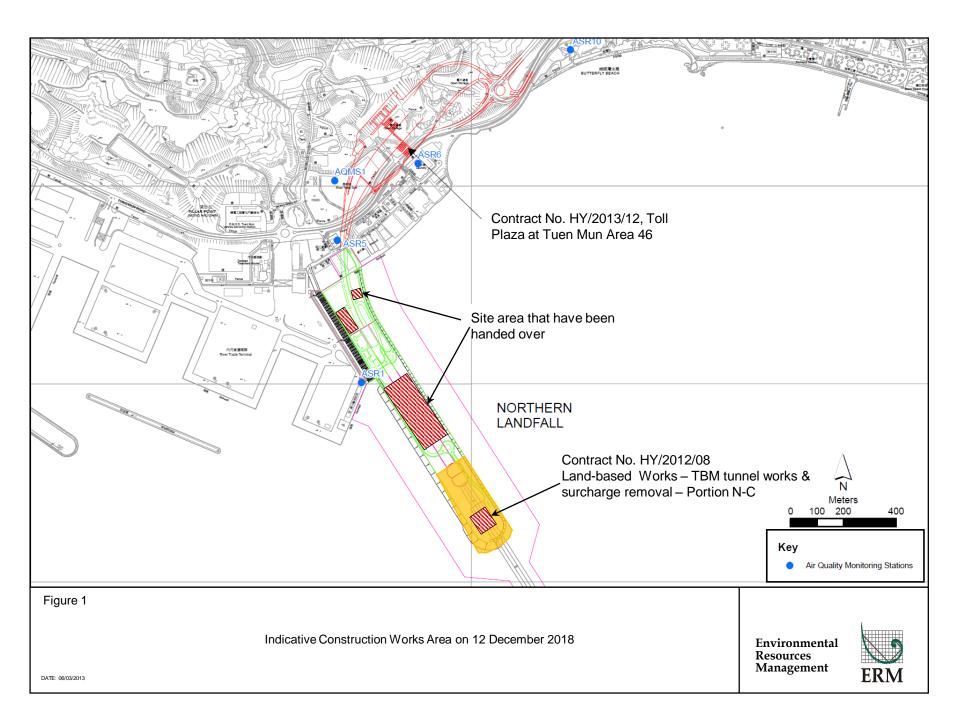
*Note: Photos taken on 12/12/2018



No significant dust impact was observed during AQM at ASR1.

	Air quality monitoring results on 12/12/2018							
Project	Works	Date	Station	Weather	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	12/12/2018	AQMS1	Cloudy	13:41	1-hour TSP	95	ug/m3
TMCLKL	HY/2012/08	12/12/2018	AQMS1	Cloudy	14:43	1-hour TSP	79	ug/m3
TMCLKL	HY/2012/08	12/12/2018	AQMS1	Cloudy	15:45	1-hour TSP	95	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR1	Cloudy	13:31	1-hour TSP	414	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR1	Cloudy	14:33	1-hour TSP	174	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR1	Cloudy	15:35	1-hour TSP	142	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR10	Cloudy	13:00	1-hour TSP	112	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR10	Cloudy	14:02	1-hour TSP	77	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR10	Cloudy	15:04	1-hour TSP	80	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR5	Cloudy	13:20	1-hour TSP	340	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR5	Cloudy	14:22	1-hour TSP	171	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR5	Cloudy	15:24	1-hour TSP	168	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR6	Cloudy	13:10	1-hour TSP	230	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR6	Cloudy	14:12	1-hour TSP	111	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR6	Cloudy	15:14	1-hour TSP	106	ug/m3
TMCLKL	HY/2012/08	12/12/2018	AQMS1	Cloudy	16:47	24-hour TSP	73	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR1	Cloudy	16:27	24-hour TSP	126	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR10	Cloudy	16:06	24-hour TSP	69	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR5	Cloudy	16:26	24-hour TSP	142	ug/m3
TMCLKL	HY/2012/08	12/12/2018	ASR6	Cloudy	16:16	24-hour TSP	93	ug/m3

	Meteorological Data for Impact Monitoring in the reporting period					
Date (yy-mm-dd)	Time (24hrs)	Average of Wind Speed (m/s)	Average of Wind Direction(degree)			
18/12/12	0:00	1.8	313			
18/12/12	1:00	1.8	282			
18/12/12	2:00	1.8	297			
18/12/12	3:00	1.8	306			
18/12/12	4:00	1.8	316			
18/12/12	5:00	0.9	348			
18/12/12	6:00	1.3	281			
18/12/12	7:00	1.3	55			
18/12/12	8:00	1.8	295			
18/12/12	9:00	1.3	298			
18/12/12	10:00	1.8	19			
18/12/12	11:00	1.3	344			
18/12/12	12:00	0.9	321			
18/12/12	13:00	1.3	347			
18/12/12	14:00	2.2	304			



Email message **Environmental** Resources Management

To Ramboll Hong Kong, Limited (ENPO)

2507, 25/F One Harbourfront 18 Tak Fung Street Hunghom, Kowloon

Hong Kong

Telephone: (852) 2271 3000 Facsimile: (852) 2723 5660

From ERM- Hong Kong, Limited

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 28 December 2018



Dear Sir or Madam,

Ref/Project number

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

0212330_18December2018_1hrTSP_Station ASR6

One Action Level Exceedance was recorded on 18 December 2018.

Regards,

Dr Jasmine Ng

Environmental Team Leader

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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_18December2018_1hrTSP_Station ASR6				
		[Total No. of Exceedances = 1]			
Date	18 December 2018 (Measured)				
	26 December 2018 (Laboratory results received by ERM)				
Monitoring Station	AS	SR1, ASR5, ASR6, ASR10 and AQMS1			
Parameter(s) with		1 L. TCD			
Exceedance(s)		1-hr TSP			
Action Levels	24-hr TSP (μg/m³)	ASR1 = 213			
		ASR5 = 238			
		AQMS1 = 213			
		ASR6 = 238			
		ASR10 = 214			
	1-hr TSP (μg/m³)	ASR1 = 331			
		ASR5 = 340			
		AQMS1 = 335			
		ASR6 = 338			
		ASR10 = 337			
Limit Levels	1-hr TSP (μg/m³)	500			
	24-hr TSP (μg/m³)	260			
Measured Levels	Action Level Exceedance for 1-hr TSP is observed at ASR6 (478 µg/m3) during 1416 – 1516 hrs.				
Works Undertaken (at	On 18 December 2018, TBM tunnel works and surcharge removal was carried out at Portion N-C.				
the time of monitoring					
event)					
Possible Reason for	The exceedance is unlikely to be due to this Contract, in view of the following:				
Action or Limit Level	According to the construction information provided by the Contractor, the majority of				
Exceedance(s)	construction works on 18 December 2018 was TBM tunnel works and surcharge removal.				
	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 on exposed soil within the site and associated works areas; exposed soil				
	covered by tarpaulin shee	·			
		y to be due to this Contract as dust suppression measures were			
		site. Water spraying was applied on site to prevent dust.			
	Based on the above, the exceedar	nces are unlikely to be due to this Contract.			

Actions Taken / To Be	According to the construction information provided by the Contractor, TBM tunnel works and
Actions Taken / To Be Taken	According to the construction information provided by the Contractor, TBM tunnel works and surcharge removal was carried out on 18 December 2018. Dust suppression measures were properly implemented. Water spraying was applied to prevent dust. Photos are provided in Annex A. The Contractor has been reminded to implement the required mitigation measures as per the EP, approved EIA and Updated EM&A Manual including watering to maintain all exposed road surfaces and dust sources wet, use of sprinklers for water spraying, covering the materials having the potential to create dust by clean tarpaulin, use of water truck and watering on all exposed soil within the site) throughout the construction period.
Remarks	The monitoring results, wind data and the locations of air quality monitoring stations are attached.



*Note: Photos taken on 18/12/2018



Water spraying was applied on the main haul road. (Works Area Portion N-A)



Water spraying was applied on the main haul road. (Works Area Portion N-A)



*Note: Photos taken on 18/12/2018



Water spraying was applied on the main haul road. (Works Area Portion N-A)



Water spraying was applied on the main haul road. (Works Area Portion N-C)

	Air quality monitoring results on 18/12/2018							
Project	Works	Date	Station	Weather	Start time	Parameters	Results	Unit
TMCLKL	HY/2012/08	18/12/2018	AQMS1	Sunny	13:49	1-hour TSP	118	ug/m3
TMCLKL	HY/2012/08	18/12/2018	AQMS1	Sunny	14:51	1-hour TSP	188	ug/m3
TMCLKL	HY/2012/08	18/12/2018	AQMS1	Sunny	15:53	1-hour TSP	151	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR1	Sunny	13:37	1-hour TSP	207	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR1	Sunny	14:39	1-hour TSP	113	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR1	Sunny	15:41	1-hour TSP	174	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR10	Sunny	13:03	1-hour TSP	126	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR10	Sunny	14:05	1-hour TSP	73	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR10	Sunny	15:07	1-hour TSP	106	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR5	Sunny	13:26	1-hour TSP	311	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR5	Sunny	14:30	1-hour TSP	193	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR5	Sunny	15:32	1-hour TSP	192	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR6	Sunny	13:14	1-hour TSP	224	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR6	Sunny	14:16	1-hour TSP	478	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR6	Sunny	15:18	1-hour TSP	123	ug/m3
TMCLKL	HY/2012/08	18/12/2018	AQMS1	Sunny	16:55	24-hour TSP	88	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR1	Sunny	16:43	24-hour TSP	131	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR10	Sunny	16:09	24-hour TSP	66	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR5	Sunny	16:34	24-hour TSP	134	ug/m3
TMCLKL	HY/2012/08	18/12/2018	ASR6	Sunny	16:20	24-hour TSP	94	ug/m3

Meteorological Data for Impact Monitoring in the reporting period						
Date (yy-mm-dd)	Time (24hrs)	Average of Wind Speed (m/s)	Average of Wind Direction(degree)			
18/12/18	0:00	1.3	339			
18/12/18	1:00	0.9	335			
18/12/18	2:00	0.4	50			
18/12/18	3:00	0.9	335			
18/12/18	4:00	0.9	56			
18/12/18	5:00	0.4	81			
18/12/18	6:00	0.9	81			
18/12/18	7:00	0.9	99			
18/12/18	8:00	1.3	83			
18/12/18	9:00	1.3	86			
18/12/18	10:00	1.3	35			
18/12/18	11:00	1.8	31			
18/12/18	12:00	1.3	130			
18/12/18	13:00	3.1	140			
18/12/18	14:00	3.6	103			
18/12/18	15:00	3.1	114			
18/12/18	16:00	4	132			
18/12/18	17:00	4	110			
18/12/18	18:00	2.7	84			
18/12/18	19:00	2.2	101			
18/12/18	20:00	1.8	36			
18/12/18	21:00	1.8	34			
18/12/18	22:00	1.8	43			
18/12/18	23:00	1.8	49			

