

Appendix E Environmental Monitoring Data for Air, Noise and Water Quality

Appendix E
Air Quality Monitoring Results and their Graphical Presentation

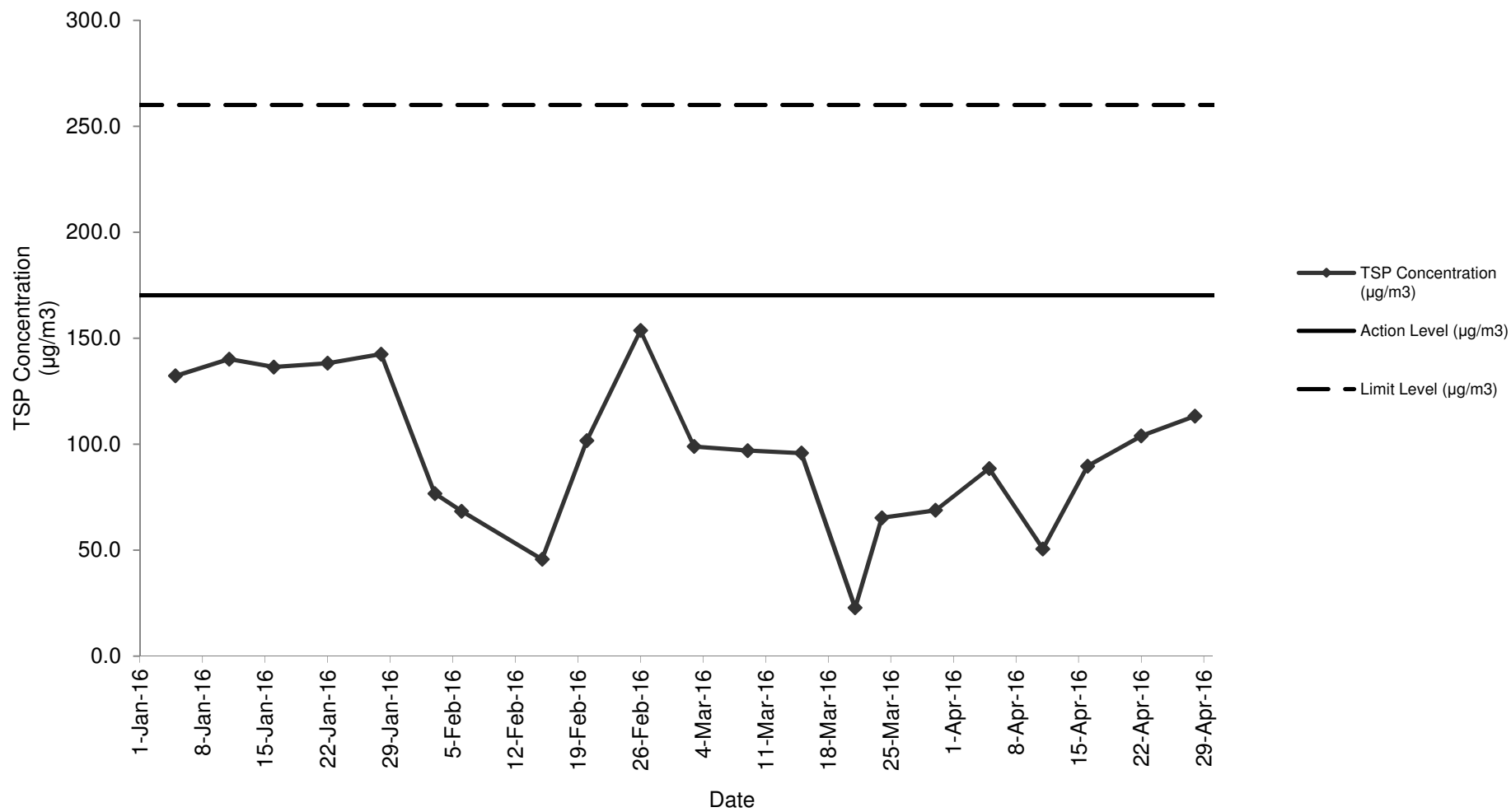
24-Hour TSP Monitoring Result at Station: SR77

Sampling Date	Weather Condition	Paper No.	Wt. of paper (g)			Elapse Time			Flow Rate (CFM)			Flow Rate (m ³ /min)			Total Volume (m ³)	TSP Concentration (µg/m ³)	Action Level (µg/m ³)	Limit Level (µg/m ³)	Wind speed m/s	Wind direction
			Initial Wt.	Final Wt.	Wt. of Dust	Initial	Final	Sampling Hour	Initial	Final	Avg Flow Rate	Initial	Final	Avg Flow Rate						
5-Jan-16	Cloudy	C144	2.8221	3.0971	0.2750	4252.67	4276.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	132.2	170.3	260.0	<5	N
11-Jan-16	Fine	C146	2.8195	3.1110	0.2915	4279.67	4303.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	140.2	170.3	260.0	<5	N
16-Jan-16	Cloudy	C148	2.8049	3.0886	0.2837	4306.67	4330.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	136.4	170.3	260.0	<5	N
22-Jan-16	Cloudy	C150	2.8134	3.1009	0.2875	4333.67	4357.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	138.2	170.3	260.0	<5	N
28-Jan-16	Cloudy	C152	2.8114	3.1078	0.2964	4360.67	4384.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	142.5	170.3	260.0	<5	N
3-Feb-16	Cloudy	C154	2.8024	2.9620	0.1596	4387.67	4411.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	76.7	170.3	260.0	<5	N
6-Feb-16	Cloudy	C156	2.7981	2.9403	0.1422	4414.67	4438.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	68.4	170.3	260.0	<5	N
15-Feb-16	Cloudy	C158	2.7951	2.8902	0.0951	4441.67	4465.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	45.7	170.3	260.0	<5	N
20-Feb-16	Cloudy	C160	2.8210	3.0325	0.2115	4468.67	4492.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	101.7	170.3	260.0	<5	N
26-Feb-16	Fine	C162	2.8027	3.1222	0.3195	4495.67	4519.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	153.6	170.3	260.0	<5	N
3-Mar-16	Sunny	C164	2.7614	2.9671	0.2057	4522.67	4546.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	98.9	170.3	260.0	<5	N
9-Mar-16	Cloudy	C166	2.8872	3.0889	0.2017	4549.67	4573.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	97.0	170.3	260.0	<5	N
15-Mar-16	Cloudy	C168	2.8043	3.0036	0.1993	4576.67	4600.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	95.8	170.3	260.0	<5	N
21-Mar-16	Rainy	C170	2.8121	2.8596	0.0475	4603.67	4627.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	22.8	170.3	260.0	<5	N
24-Mar-16	Rainy	C172	2.8087	2.9445	0.1358	4630.67	4654.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	65.3	170.3	260.0	<5	N
30-Mar-16	Cloudy	C174	2.8006	2.9438	0.1432	4657.67	4681.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	68.9	170.3	260.0	<5	N
5-Apr-16	Sunny	C176	2.8221	3.0062	0.1841	4684.67	4708.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	88.5	170.3	260.0	<5	N
11-Apr-16	Rainy	C178	2.8817	2.9870	0.1053	4711.67	4735.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	50.6	170.3	260.0	<5	N
16-Apr-16	Cloudy	C180	2.8874	3.0738	0.1864	4738.67	4762.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	89.6	170.3	260.0	<5	N
22-Apr-16	Rainy	C182	2.8541	3.0701	0.2160	4765.67	4789.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	103.9	170.3	260.0	<5	N
28-Apr-16	Fine	C184	2.8314	3.0668	0.2354	4792.67	4816.67	24.00	51	51	51.0	1.44	1.44	1.44	2079.59	113.2	170.3	260.0	<5	N

Summary For the Reporting Quarter (Feb 2016 - Apr 2016)	
Average	83.8
Minimum	22.8
Maximum	153.6

Note: No major dust source observed during the monitoring period

24-Hour TSP Monitoring Result at Station: SR77 (January 2016 - April 2016)



Appendix E
Air Quality Monitoring Results and their Graphical Presentation

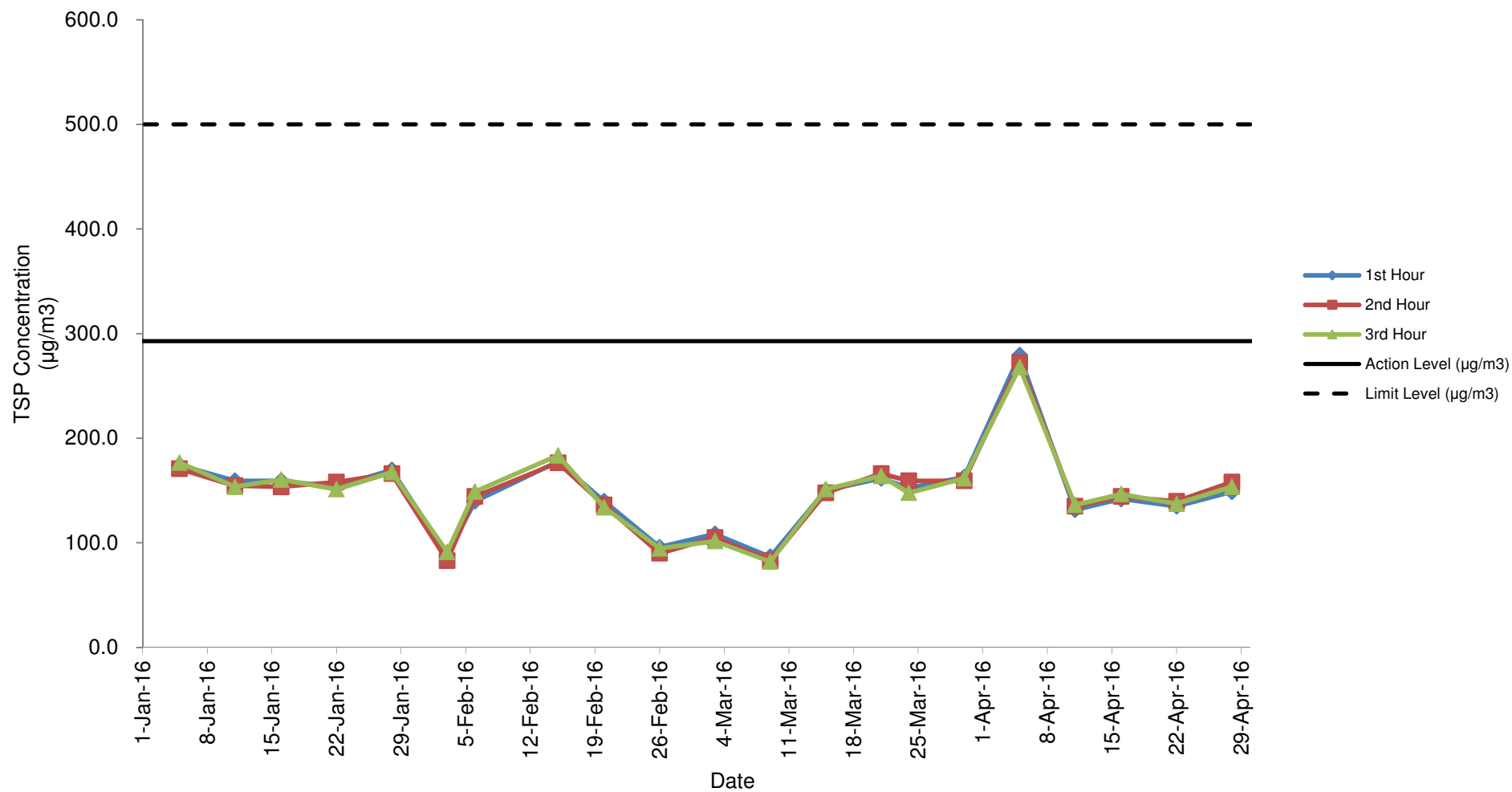
1-Hour TSP Monitoring Result at Station: SR77

Date	Weather Condition	Time	Conc.(µg/m ³)			Action Level (µg/m3)	Limit Level (µg/m3)
			1 st Hour	2 nd Hour	3 rd Hour		
5-Jan-16	Fine	9:00 - 12:07	174.3	170.8	176.6	292.7	500.0
11-Jan-16	Fine	9:00 - 12:06	159.3	154.6	153.5	292.7	500.0
16-Jan-16	Cloudy	9:00 - 12:06	159.3	153.5	160.4	292.7	500.0
22-Jan-16	Cloudy	9:00 - 12:07	153.5	158.1	151.2	292.7	500.0
28-Jan-16	Rainy	9:00 - 12:07	169.6	166.2	167.3	292.7	500.0
3-Feb-16	Cloudy	9:00 - 12:07	88.9	83.1	91.2	292.7	500.0
6-Feb-16	Cloudy	9:00 - 12:08	139.6	144.3	148.9	292.7	500.0
15-Feb-16	Cloudy	9:00 - 12:07	177.7	176.6	183.5	292.7	500.0
20-Feb-16	Cloudy	9:00 - 12:07	139.6	136.2	133.9	292.7	500.0
26-Feb-16	Fine	9:00 - 12:06	95.8	90.0	94.6	292.7	500.0
3-Mar-16	Sunny	9:00 - 12:07	108.5	105.0	101.6	292.7	500.0
9-Mar-16	Cloudy	9:00 - 12:06	86.6	83.1	81.9	292.7	500.0
15-Mar-16	Cloudy	9:00 - 12:08	150.0	147.7	151.2	292.7	500.0
21-Mar-16	Rainy	9:00 - 12:07	161.6	166.2	163.9	292.7	500.0
24-Mar-16	Rainy	9:00 - 12:06	152.3	159.3	147.7	292.7	500.0
30-Mar-16	Cloudy	9:00 - 12:06	162.7	159.3	161.6	292.7	500.0
5-Apr-16	Sunny	9:00 - 12:06	279.3	272.4	267.7	292.7	500.0
11-Apr-16	Cloudy	9:00 - 12:07	131.6	135.0	136.2	292.7	500.0
16-Apr-16	Cloudy	9:00 - 12:06	142.0	144.3	146.6	292.7	500.0
22-Apr-16	Cloudy	9:00 - 12:06	135.0	139.6	137.3	292.7	500.0
28-Apr-16	Fine	9:00 - 12:06	148.9	158.1	153.5	292.7	500.0

Summary For the Reporting Quarter (Feb 2016 - Apr 2016)	
Average	143.8
Minimum	81.9
Maximum	279.3

Note: No major dust source observed during the monitoring period

1-Hour TSP Monitoring Result at station: SR77 (January 2016 - April 2016)



Project Name: Contract No. CV/2012/09 Liantang / Heung Yuen Wai Boundary Control Point Site Formation and Infrastructure works - Contract 3
Entrusted Portion of Widening of Tolo Highway / Fanling Highway between Island House Interchange and Fanling - Stage 2

Noise Monitoring Result at SR77

Date	Weather Condition	Start Time	End Time	Measured Noise Level (dB(A))*			Baseline Corrected Level, dB(A)**	Baseline Noise Level (dB(A)), Leq(30min)	Limit Level dB(A)	Exceedance (Y / N)
				L10(30min)	L90(30min)	Leq(30min)				
2016/01/05	Fine	15:00	15:30	87.0	57.5	65.5	-	67.8	75.0	N
2016/01/11	Fine	14:30	15:00	87.0	57.0	63.5	-	67.8	75.0	N
2016/01/23	Cloudy	11:00	11:30	76.0	63.0	67.0	-	67.8	75.0	N
2016/01/29	Cloudy	15:00	15:30	85.5	57.5	62.5	-	67.8	75.0	N
2016/02/03	Cloudy	14:30	15:00	90.0	57.5	64.5	-	67.8	75.0	N
2016/02/15	Cloudy	15:00	15:30	87.0	56.5	64.0	-	67.8	75.0	N
2016/02/26	Fine	15:30	16:00	96.0	57.0	62.5	-	67.8	75.0	N
2016/03/03	Sunny	10:30	11:00	75.0	54.5	61.5	-	67.8	75.0	N
2016/03/09	Cloudy	10:00	10:30	78.5	56.0	60.5	-	67.8	75.0	N
2016/03/15	Cloudy	14:00	14:30	96.0	57.5	60.0	-	67.8	75.0	N
2016/03/21	Rainy	14:30	15:00	69.0	53.5	61.0	-	67.8	75.0	N
2016/03/30	Cloudy	15:30	16:00	77.5	65.5	68.5	-	67.8	75.0	N
2016/04/05	Sunny	13:30	14:00	85.0	60.0	63.0	-	67.8	75.0	N
2016/04/11	Cloudy	13:30	14:00	88.5	54.0	65.0	-	67.8	75.0	N
2016/04/22	Cloudy	14:00	14:30	67.0	60.0	62.0	-	67.8	75.0	N
2016/04/28	Fine	13:30	14:00	88.0	60.0	62.0	-	67.8	75.0	N

**Summary For the Reporting Quarter
(Feb 2016 - Apr 2016)**

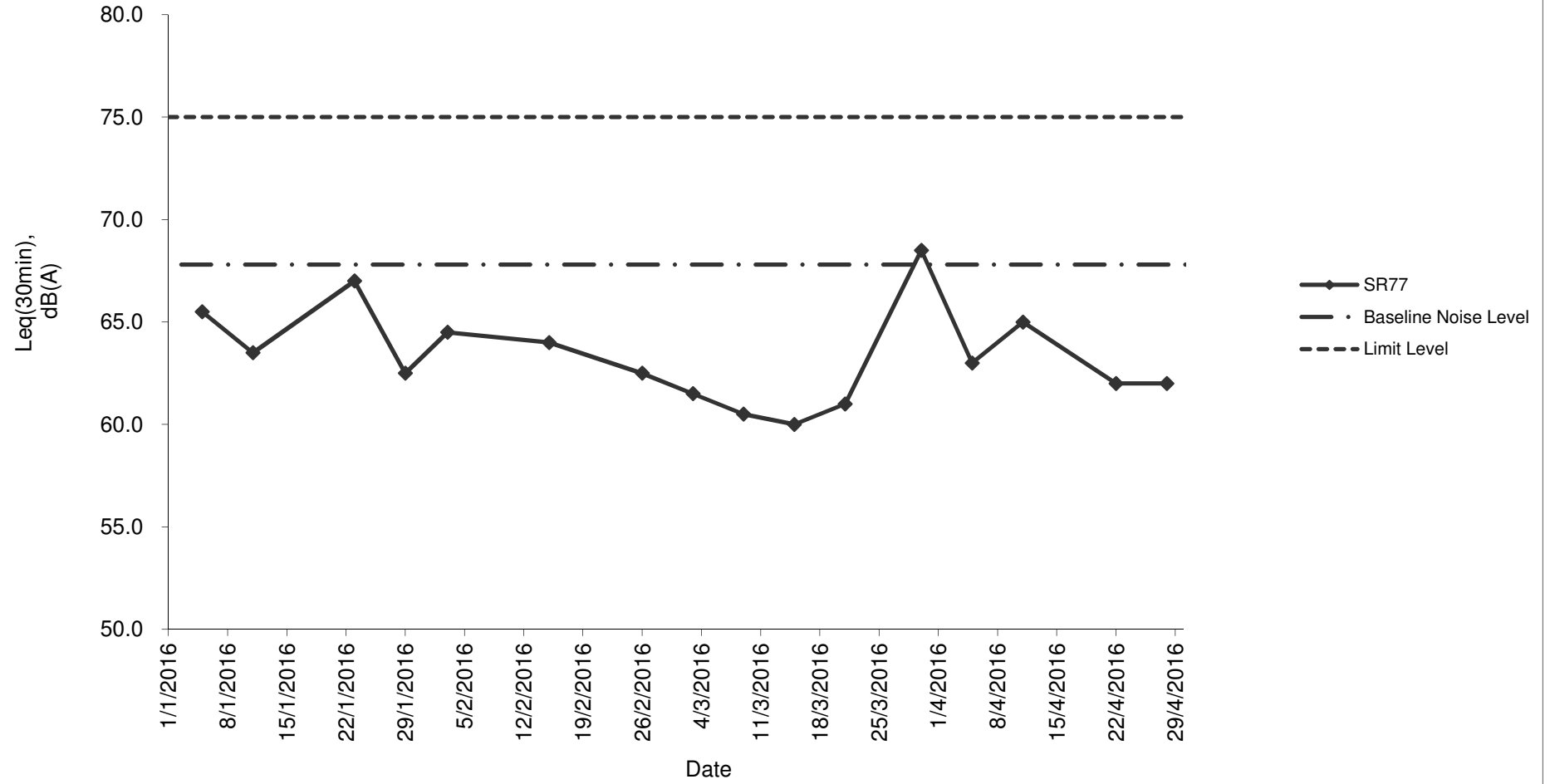
Average	62.9
Minimum	60.0
Maximum	68.5

Remarks

* +3dB(A) Façade effect correction included

** Baseline corrected level is only calculated when measured noise level (Leq) > limit level.

**Noise monitoring result: SR77
(January 2016 - April 2016)**



Project Name: Contract No. CV/2012/09 Liantang / Heung Yuen Wai Boundary Control Point Site Formation and Infrastructure works - Contract 3
 Entrusted Portion of Widening of Tolo Highway / Fanling Highway between Island House Interchange and Fanling - Stage 2

Date of Monitoring 19/2/2016 Weather : Cloudy

Monitoring Location	Time	Water Depth (m)	Temperature (oC)		pH		DO (mg/L)		DO (% saturation)		Turbidity (NTU)		Salinity (g/L)		SS (mg/L)	
			Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
C3a	14:53	<0.5	16.8	16.8	7.2	7.2	5.2	5.2	54.6	54.6	11.1	11.1	0.1	0.1	10.0	10.0
			16.8		7.2		5.2		54.6		11.1		0.1		10.0	
			15.7		7.3		8.6		8.6		87.0		46.9		<0.1	
C3b	14:36	<0.5	16.6	15.7	7.3	7.3	8.6	8.6	87.0	87.0	46.9	46.9	<0.1	<0.1	29.0	27.5
			15.7		7.3		8.6		87.0		46.9		<0.1		29.0	
			16.6		7.3		5.4		5.4		55.6		4.9		0.1	
I5	14:26	<0.5	16.6	16.6	7.3	7.3	5.4	5.4	55.2	55.2	4.9	4.9	0.1	0.1	3.7	3.7
			16.6		7.3		5.4		55.2		4.9		0.1		3.6	

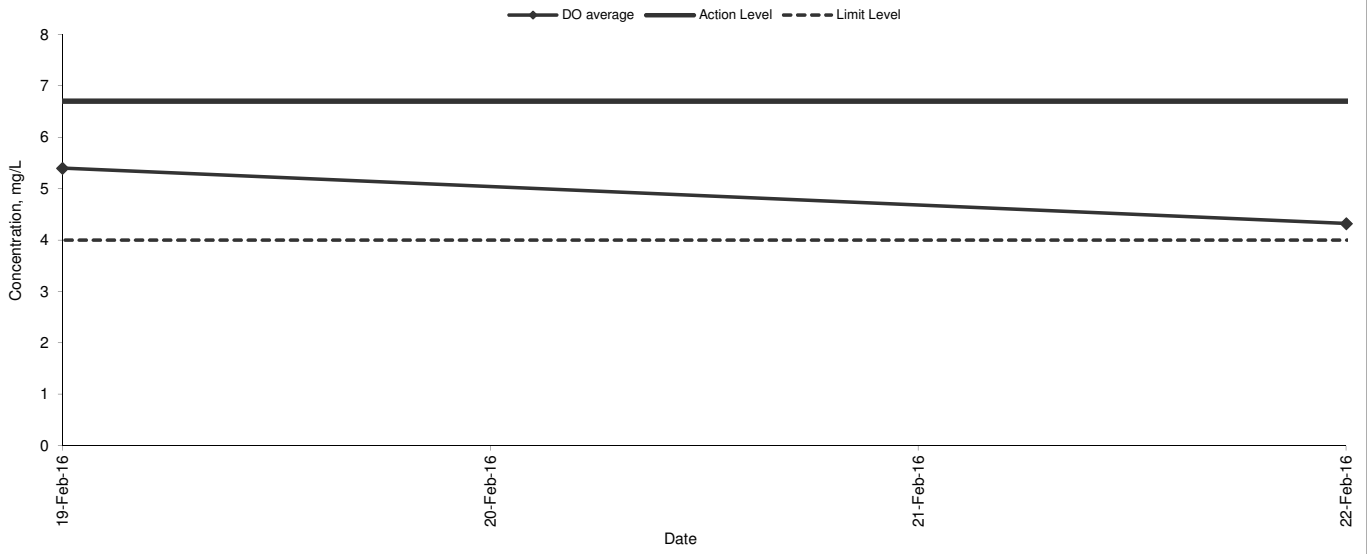
Date of Monitoring 22/2/2016 Weather : Cloudy

Monitoring Location	Time	Water Depth (m)	Temperature (oC)		pH		DO (mg/L)		DO (% saturation)		Turbidity (NTU)		Salinity (g/L)		SS (mg/L)	
			Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average
C3a	11:09	<0.5	17.5	17.5	7.5	7.5	7.6	7.6	79.3	79.3	4.1	4.1	<0.1	<0.1	18.0	19.0
			17.5		7.5		7.6		79.3		4.1		<0.1		20.0	
C3b	11:25	<0.5	16.7	16.7	7.7	7.7	9.2	9.2	94.1	94.1	4.8	4.8	<0.1	<0.1	4.9	5.1
			16.7		7.7		9.2		94.1		4.8		<0.1		5.3	
I5	11:47	<0.5	17.5	17.5	7.2	7.2	4.3	4.3	45.2	45.2	17.7	17.7	<0.1	<0.1	3.1	3.2
			17.5		7.2		4.3		45.2		17.7		<0.1		3.2	

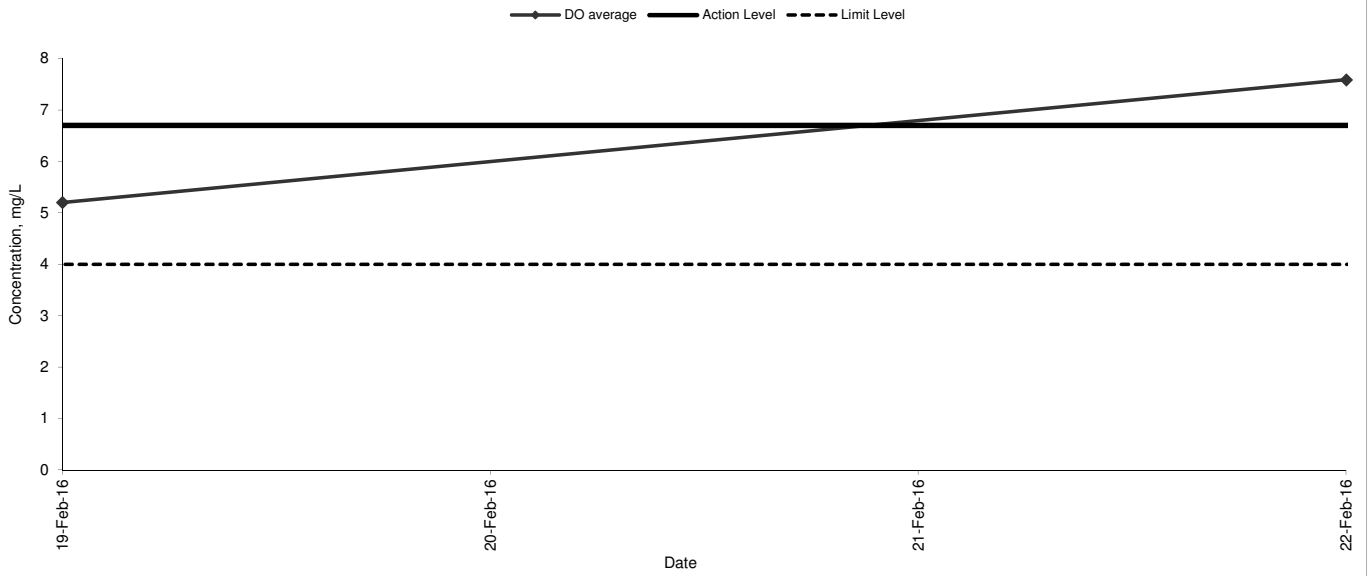
NOTE:
 Data in **Bold** denotes exceedance of respective Action Level
 Data in **Bold Underline** denotes exceedance of respective Limit Level

Dissolved Oxygen

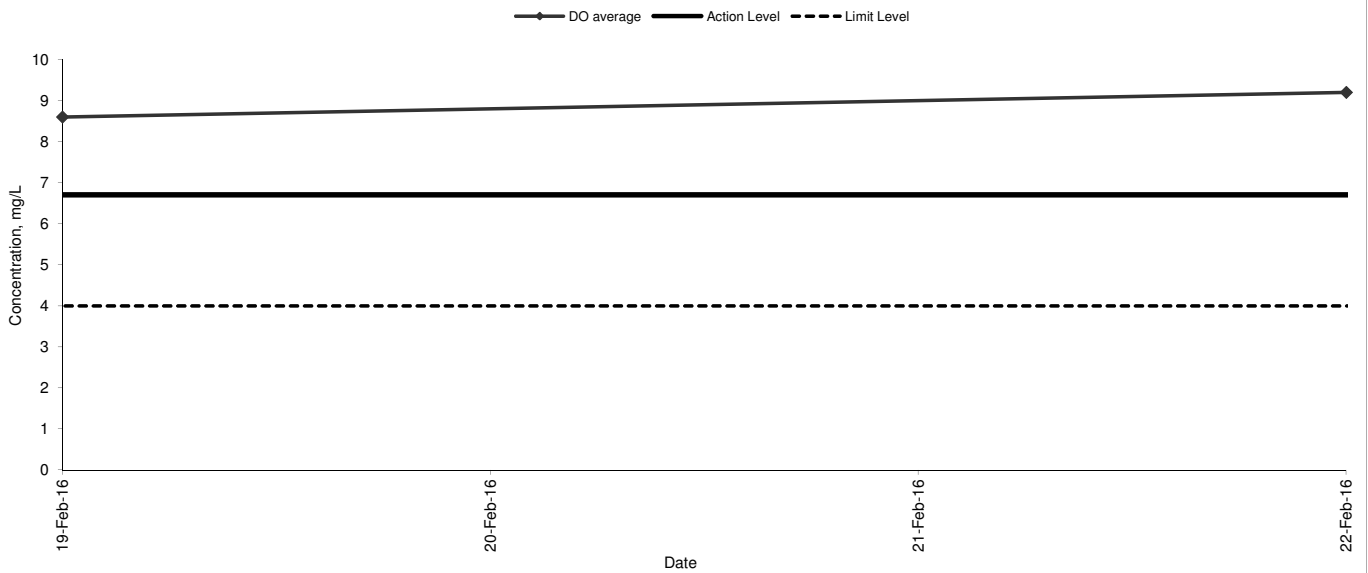
I5



C3a

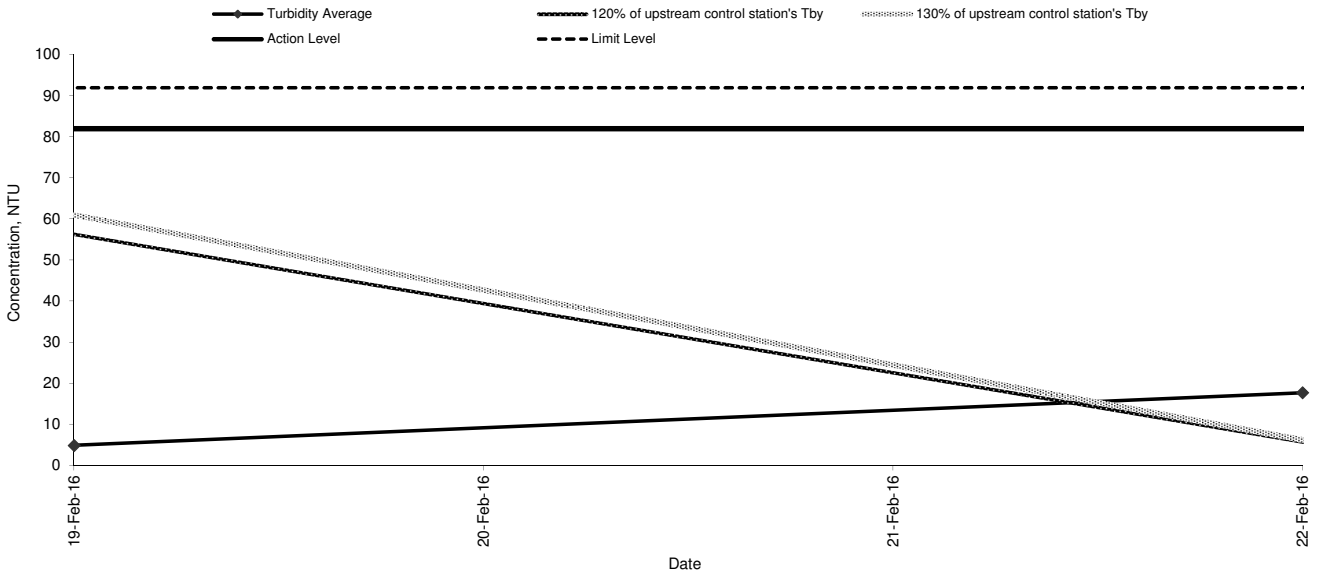


C3b

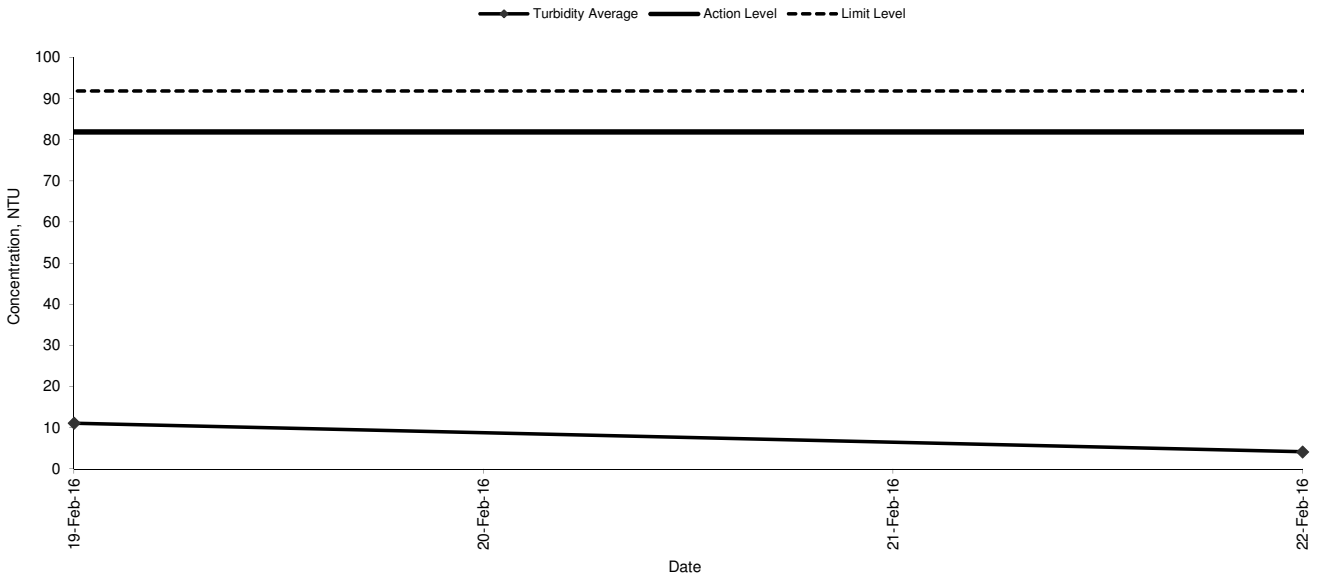


Turbidity

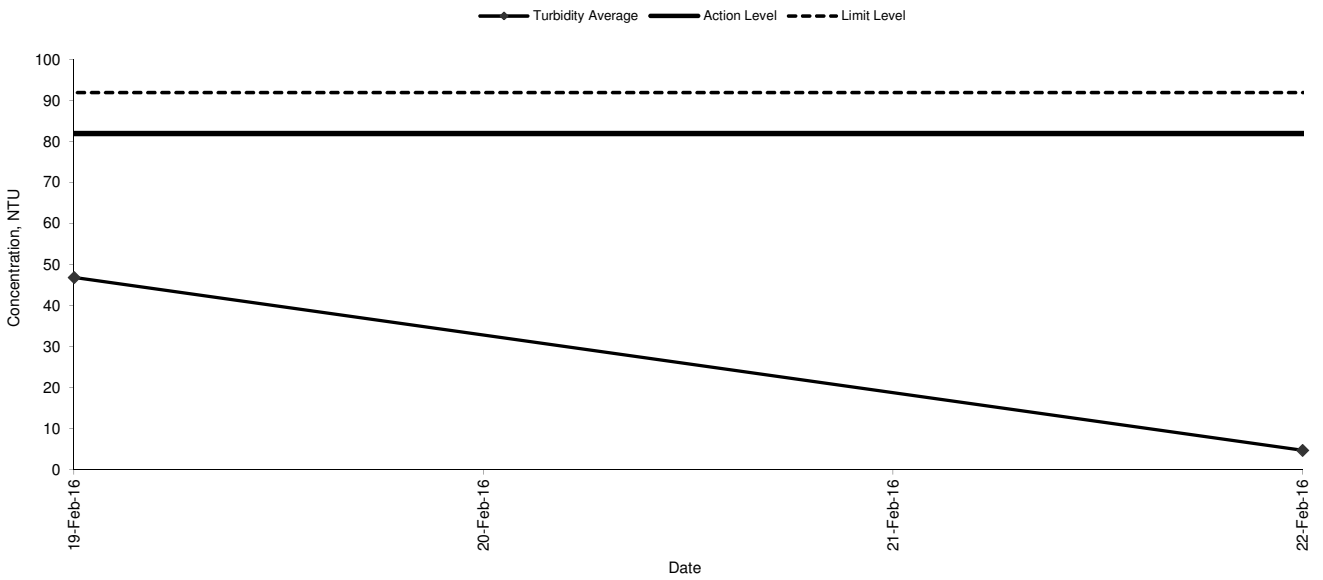
I5



C3a

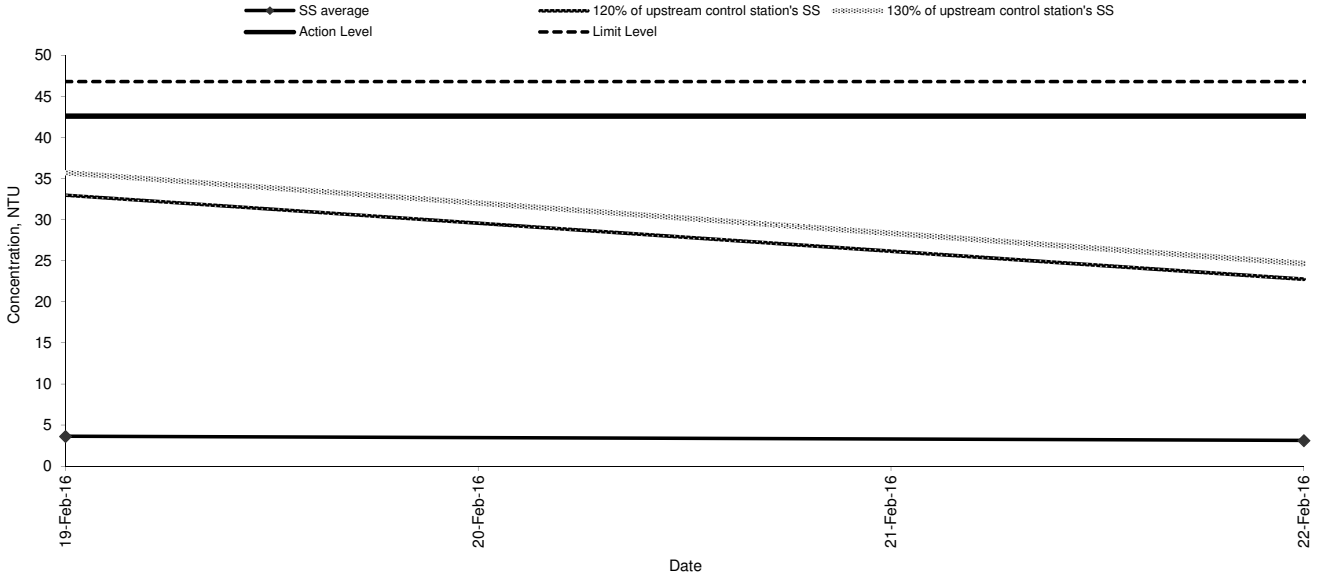


C3b

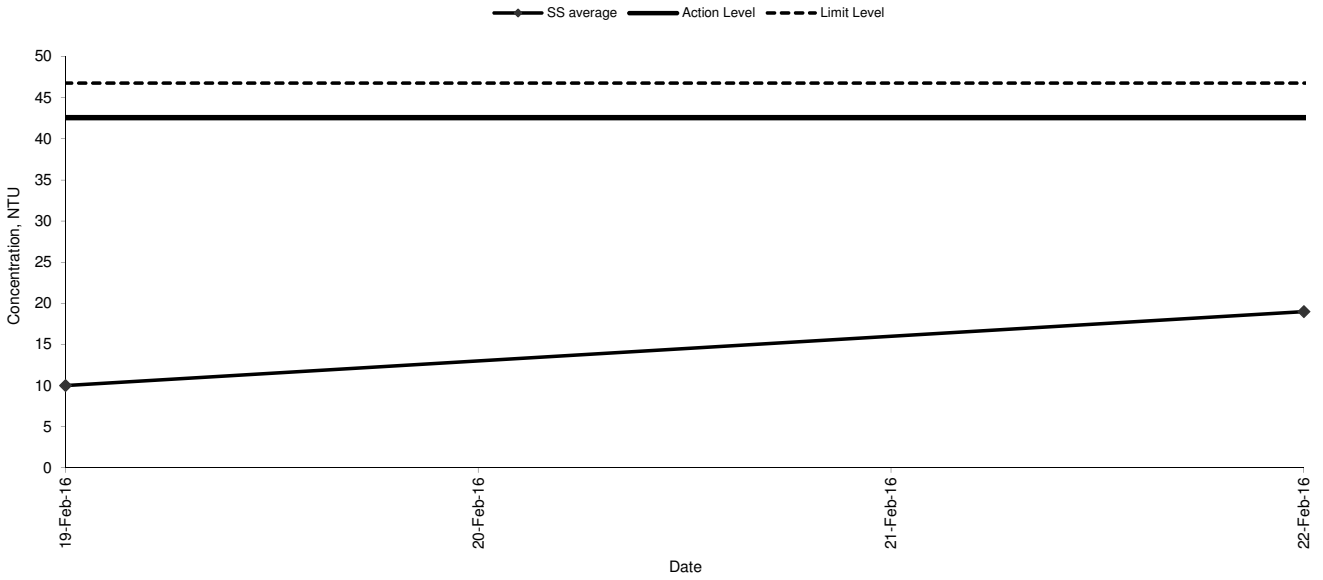


Suspended Solid

I5



C3a



C3b

