

Appendix 5-2
Additional Baseline Water Quality Survey Results
Conducted between September 2012 and
January 2013

Appendix 5-2 Results of Baseline Water Quality Sampling Between September 2012 and January 2013

Parameters	Unit	Effluent Discharge Std (Sp D), mg/l [#]	WQO Criteria, mg/l [#]	Wet Season Data ^{##}														Range		Average		Dry Season Data ^{###}				Range		Average	
				Raw Data														W1	W1	Raw Data				W1	W1				
				23/09/2012	26/09/2012	29/09/2012	2/10/2012	4/10/2012	6/10/2012	8/10/2012	10/10/2012	12/10/2012	15/10/2012	17/10/2012	19/10/2012	28/12/2012	3/1/2013			10/1/2013	17/01/2013								
				14:22	13:44	11:01	12:03	11:05	11:15	11:09	11:38	10:27	10:07	10:01	9:56	11:19	11:35	10:33	10:10										
Salinity	g/L	-		0.2	0.2	0.9	1.6	0.6	0.2	0.3	0.4	3	1.7	3.8	0.4	0.2	3.8	1.1	0.7	0.2	0.8	0.2	0.2	0.8	0.5				
Water Flow	L/s	-		39	132	710	57	<1.0*	15.4	25	25	140	<1.0*	<1.0*	10	<1.0*	710	128	18	24	30	5	5	30	19				
Water Depth	m	-		0.3	0.7	1.8	2.2	1.1	0.7	2	0.2	1.1	1.1	0.8	0.1	0.1	2.2	1.0	0.3	0.2	0.5	0.1	0.1	0.5	0.3				
Temperature	°C	30		30.6	30.7	25.9	27.7	28.7	28.8	28.5	28.1	26.8	26	26.2	25.9	25.9	30.7	27.8	20.1	20	15.1	18.4	15.1	20.1	18.4				
pH Value	-	6-10	6-9	7.3	7.7	7.5	7	7	8.1	8	7.2	7.2	7.2	7.1	7.2	7	8.1	7.4	7.3	7.2	7.4	7.2	7.2	7.4	7.3				
Dissolved Oxygen	mg/L	-	4	7.2	7.4	5	6.1	7.4	7.2	7.7	8.5	6.4	4.6	4	8.2	4	8.5	6.6	4.8	8.1	7.5	8.5	4.8	8.5	7.2				
Dissolved Oxygen - % Saturation	%	-	-	96.7	98.6	61.4	77.9	96.2	93	99	110	81.8	56.9	50.2	101	50.2	110	85.2	52.8	89	74.7	90.3	52.8	90.3	76.7				
Turbidity	NTU	-		41	98	14	43	67	45	62	56	18	33	48	53	14	98	48	34	16	32	37	16	37	30				
Biochemical Oxygen Demand	mg/L	20	5	2	8	4	4	3	3	3	3	4	3	6	4	2	8	4	6	3	6	6	3	6	5				
Chemical Oxygen Demand	mg/L	80	30	15	31	16	16	19	22	17	16	19	11	19	30	11	31	19	14	10	21	18	10	21	16				
Total Phosphorus	mg/L	5-10		0.4	0.6	0.4	0.5	0.5	0.4	0.6	0.5	0.4	0.4	0.6	0.6	0.4	0.6	0.5	@	@	@	@	@	@	@				
Reactive Phosphorus	mg/L	-		0.17	0.21	0.24	0.29	0.22	0.18	0.22	0.22	0.3	0.29	0.36	0.31	0.17	0.36	0.25	@	@	@	@	@	@	@				
Oil and grease	mg/L	10		<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*				
Electrical Conductivity @ 25°C	µS/cm			402	433	1780	2720	2320	498	527	728	5250	2880	5800	633	402	5800	1998	@	@	@	@	@	@	@				
Suspended Solids (SS)	mg/L	30	20	38	101	16	32	47	52	72	52	16	24	39	54	16	101	45	32	23	29	46	23	46	33				
Total Kjeldahl Nitrogen	mg/L	-		1.2	1.6	3.8	3.7	5.4	3.3	4.8	3.5	3.3	3.8	5.3	1.2	1.2	5.4	3.4	3.4	2.2	4	3.1	2.2	4	3.2				
Ammonia nitrogen	mg/L	10-20	0.021	0.61	0.72	1.57	2.05	3.77	2.16	1.05	0.97	1.66	3.06	3.63	1.07	0.61	3.77	1.86	1.6	1.1	3.15	2.32	1.1	3.15	2.04				
Escherichia coli (E. Coli)	cfu / 100 mL	1000	1000	3000	5400	4200	38000	14000	10000	18000	9000	4600	20000	19000	4200	3000	38000	12450	12000	18000	12000	4100	4100	18000	11525				
Faecal Coliforms	cfu / 100 mL	-		5400	8100	6700	44000	22000	14000	29000	14000	5400	40000	47000	4900	4900	47000	20042	@	@	@	@	@	@	@				
Aluminium	mg/L	-		0.52	1.47	0.26	0.59	1.07	1.16	1.31	1.74	0.17	0.37	1.01	1.22	0.17	1.74	0.91	@	@	@	@	@	@	@				
Copper	mg/L	-	Waste discharges shall not cause the toxins in water to attain such levels as to produce significant toxic carcinogenic, mutagenic or teratogenic effects in humans fish or any other aquatic organisms, with due regard to biologically cumulative effects in food chain and to toxicant interactions with each other. Waste discharges shall not cause a risk to any beneficial uses of the aquatic environment	0.005	0.01	0.004	0.005	0.007	0.011	0.01	0.009	0.003	0.005	0.004	0.007	0.003	0.011	0.007	@	@	@	@	@	@	@				
Chromium	mg/L	-		<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	@	@	@	@	@	@	@				
Lead	mg/L	-		0.004	0.012	0.003	0.004	0.004	0.01	0.009	0.01	0.002	0.003	0.003	0.006	0.002	0.012	0.006	@	@	@	@	@	@	@				
Zinc	mg/L	-		0.05	0.12	0.03	0.05	0.05	0.08	0.08	0.12	0.09	0.06	0.04	0.06	0.03	0.12	0.07	@	@	@	@	@	@	@				
Cadmium	mg/L	0.001-0.1		<0.0002*	0.0003	<0.0002*	<0.0002*	<0.0002*	0.0002	0.0003	0.0003	<0.0002*	<0.0002*	<0.0002*	0.0002	<0.0002*	0.0003	0.0003	@	@	@	@	@	@	@				
Sulphide as S2-	mg/L	1		<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	<0.1*	@	@	@	@	@	@	@				
Nitrate as N	mg/L	20-50 **		1.41	1.44	1.03	1.52	2.51	2.91	1.5	1.72	1.35	3.04	1.2	2.87	1.03	3.04	1.88	1.22	1.69	4.17	3.8	1.22	4.17	2.72				
Nitrite as N	mg/L	20-50 **		0.18	0.13	0.13	0.23	0.25	0.23	0.12	0.14	0.17	0.26	0.19	0.22	0.12	0.26	0.19	0.08	0.1	0.13	0.16	0.08	0.16	0.12				

		Wet Season Data [#]														Range		Average		Dry Season Data ^{##}				Range		Average			
Parameters	Unit	Effluent Discharge Std (Sp D), mg/l [#]	WQO Criteria, mg/l [#]	Raw Data														Range		Average		Raw Data				Range		Average	
				23/09/2012	26/09/2012	29/09/2012	2/10/2012	4/10/2012	6/10/2012	8/10/2012	10/10/2012	12/10/2012	15/10/2012	17/10/2012	19/10/2012	28/12/2012	3/1/2013	10/1/2013	17/01/2013	WE1	WE1	WE1	WE1	WE1	WE1				
				10:09	10:02	7:40	8:33	7:45	7:41	7:59	8:32	7:37	7:23	7:49	7:45	WE1	WE1	WE1	WE1	WE1	WE1	WE1	WE1	WE1	WE1				
Salinity	g/L	-		6.6	5.5	5.7	5.8	5.4	7	8	9.4	8.6	10	9.7	10.3	5.4	10.3	7.7	10.5	5.7	5.6	9.1	5.6	10.5	7.7				
Water Flow	L/s	-		<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *					
Water Depth	m	-		1.2	1.4	1	0.6	0.7	1.1	0.8	1.4	1.2	0.8	0.7	1	0.6	1.4	1.0	0.2	0.6	0.6	0.3	0.2	0.6	0.4				
Temperature	°C	30		29.3	27.9	26.3	25.7	26.8	26.9	28	27.2	25.4	25.7	25.9	23.9	23.9	29.3	26.6	18.3	17	16.5	18.6	16.5	18.6	17.6				
pH Value	-	6-10	6-9	7.1	7.5	7.5	7.1	7.1	7.3	6.7	7.1	7.3	7.1	7.2	7.2	6.7	7.5	7.2	7.3	7.3	7.6	8	7.3	8	7.6				
Dissolved Oxygen	mg/L	-	4	3.4	3.1	1.9	2.7	2	1.8	3.4	4.3	3.4	1.4	1.7	2.2	1.4	4.3	2.6	3.8	2.2	3.9	7.8	2.2	7.8	4.4				
Dissolved Oxygen - % Saturation	%	-	-	45.9	40.3	23.8	34	25.8	24	44.7	57.6	43.4	17.7	22.4	28.2	17.7	57.6	34.0	42.3	23.7	41.7	88.2	23.7	88.2	49.0				
Turbidity	NTU	-		6	8	4	7	12	7	14	7	11	11	6	16	4	16	9	8	9	29	22	8	29	17				
Biochemical Oxygen Demand	mg/L	20	5	3	3	4	5	5	7	6	6	8	5	4	5	3	8	5	20	5	9	16	5	20	13				
Chemical Oxygen Demand	mg/L	80	30	50	27	25	32	34	31	24	34	38	15	47	19	15	50	31	23	20	30	57	20	57	33				
Total Phosphorus	mg/L	5-10		1	1.2	1.2	1.1	0.9	1	1	0.8	0.7	0.8	0.8	0.9	0.7	1.2	1.0	@	@	@	@	@	@	@				
Reactive Phosphorus	mg/L	-		0.87	1.02	0.96	0.21	0.82	0.86	0.81	0.64	0.58	0.58	0.67	0.68	0.21	1.02	0.73	@	@	@	@	@	@	@				
Oil and grease	mg/L	10		<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *				
Electrical Conductivity @ 25°C	µS/cm			10300	9560	9740	9070	8750	10700	11600	14100	13100	14900	14800	15300	8750	15300	11827	@	@	@	@	@	@	@				
Suspended Solids (SS)	mg/L	30	20	7	6	5	14	7	4	7	9	8	7	10	8	4	14	8	9	8	46	27	8	46	23				
Total Kjeldahl Nitrogen	mg/L	-		6.7	6.2	13.7	6.9	6	5.8	7.8	4.2	4.4	5	4.3	5.7	4.2	13.7	6.4	6.6	6.2	7.1	5.8	5.8	7.1	6.4				
Ammonia nitrogen	mg/L	10-20	0.021	4.17	4.64	5.23	4.29	3.96	4.04	3.69	2.8	2.75	3.1	3	3.07	2.75	5.23	3.73	4.9	3.8	4.6	2.5	2.5	4.9	3.95				
Escherichia coli (E. Coli.)	cfu / 100 mL	1000	1000	1500	20000	150	1200	400	700	290	900	110	110	11000	130	110	20000	3041	1400	66000	240	27000	240	66000	23660				
Faecal Coliforms	cfu / 100 mL	-		2500	27000	180	1800	1000	1200	440	1300	270	300	79000	220	180	79000	9601	@	@	@	@	@	@	@				
Aluminium	mg/L	-		0.04	0.04	0.06	0.09	0.08	0.07	0.13	0.1	0.07	0.07	0.06	0.12	0.04	0.13	0.08	@	@	@	@	@	@	@				
Copper	mg/L	-	Waste discharges shall not cause the toxins in water to attain such levels as to produce significant toxic carcinogenic, mutagenic or teratogenic effects in humans fish or any other aquatic organisms, with due regard to biologically cumulative effects in food chain and to toxicant interactions with each other. Waste discharges shall not cause a risk to any beneficial uses of the aquatic environment	0.006	0.002	0.002	0.003	0.003	0.003	0.005	0.003	0.002	0.003	0.003	0.003	0.002	0.006	0.003	@	@	@	@	@	@	@				
Chromium	mg/L	-		<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	@	@	@	@	@	@	@				
Lead	mg/L	-		<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	<0.001 *	@	@	@	@	@	@	@				
Zinc	mg/L	-		0.02	0.02	0.02	0.02	0.01	0.01	0.03	0.02	0.02	0.04	0.02	0.01	0.01	0.04	0.02	@	@	@	@	@	@	@				
Cadmium	mg/L	0.001-0.1		<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	@	@	@	@	@	@	@				
Sulphide as S2-	mg/L	1		<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	@	@	@	@	@	@	@				
Nitrate as N	mg/L	20-50 **		0.33	0.22	0.13	0.31	0.39	0.32	0.33	0.46	0.45	0.46	0.4	0.37	0.13	0.46	0.35	0.34	0.28	0.29	0.59	0.28	0.59	0.38				
Nitrite as N	mg/L	20-50 **		0.16	0.12	0.06	0.14	0.21	0.19	0.15	0.21	0.18	0.19	0.13	0.15	0.06	0.21	0.16	0.15	0.12	0.15	0.24	0.12	0.24	0.17				

		Wet Season Data [#]																	Dry Season Data ^{##}												
Parameters	Unit	Effluent Discharge Std (Sp D), mg/l [#]	WQO Criteria, mg/l [#]	Raw Data															Range		Average		Raw Data					Range		Average	
				23/09/2012	26/09/2012	29/09/2012	2/10/2012	4/10/2012	6/10/2012	8/10/2012	10/10/2012	12/10/2012	15/10/2012	17/10/2012	19/10/2012	28/12/2012	3/1/2013	10/1/2013	17/01/2013												
				15:55	12:05	9:24	10:14	9:04	10:22	9:14	10:00	8:53	9:09																		
				WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2	WE2					
Salinity	g/L	-		5.7	6.9	6.6	5.9	2	9.2	11.4	10.5	13.4	11.4	11	12.8	2	13.4	8.9	9.2	2.7	3.6	7.7	2.7	9.2	5.8						
Water Flow	L/s	-		<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	1.8	1.8	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *	<1.0 *						
Water Depth	m	-		0.2	0.8	0.7	<0.1	<0.1	<0.1	0.2	0.2	0.5	0.8	0.4	0.2	0.2	0.2	0.8	0.4	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *						
Temperature	°C	30		30	29.8	25.5	27	29.3	26.9	28.2	26.7	27.2	25.4	26	24.4	24.4	30	27.2	19.8	18.1	13.5	16	13.5	19.8	16.9						
pH Value	-	6-10	6-9	6.9	7.8	7.2	7.2	7.2	7.3	7.2	7.2	7.4	7.1	7.3	7.3	6.9	7.8	7.3	7.7	7.8	7.8	7.7	7.7	7.8	7.8						
Dissolved Oxygen	mg/L	-	4	4.3	3	3.1	4.6	3.6	2.5	4.3	4.4	6.3	2.6	4	4.8	2.5	6.3	4.0	9.5	9.2	10.1	7.7	7.7	10.1	9.1						
Dissolved Oxygen - % Saturation	%	-	-	58.4	40.7	39.8	59.8	47.5	33.2	59	57.9	85.8	33.6	52.2	63	33.2	85.8	52.6	110	98.5	99.5	81.4	81.4	110	97.4						
Turbidity	NTU	-		15	14	18	10	18	33	36	14	25	30	12	18	10	36	20	4	4	11	5	4	11	6						
Biochemical Oxygen Demand	mg/L	20	5	2	3	5	2	2	5	5	6	7	5	4	<2	2	7	4	4	2	3	4	2	4	3						
Chemical Oxygen Demand	mg/L	80	30	50	19	32	28	31	34	29	34	34	32	44	44	19	50	34	26	13	19	27	13	27	21						
Total Phosphorus	mg/L	5-10		1	0.9	1.4	1.1	1.1	1.3	1	0.8	0.6	1	1	0.8	0.6	1.4	1.0	@	@	@	@	@	@	@						
Reactive Phosphorus	mg/L	-		0.87	0.74	0.98	0.9	0.87	0.81	0.55	0.54	0.33	0.62	0.84	0.57	0.33	0.98	0.72	@	@	@	@	@	@	@						
Oil and grease	mg/L	10		<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *	<5 *						
Electrical Conductivity @ 25°C	µS/cm			9020	11700	11200	9330	9700	13800	16600	15600	19500	17000	16500	18400	9020	19500	14029	@	@	@	@	@	@	@						
Suspended Solids (SS)	mg/L	30	20	7	12	14	8	23	40	19	18	15	29	6	16	6	40	17	4	4	13	10	4	13	8						
Total Kjeldahl Nitrogen	mg/L	-		5	5.9	3.4	3	3.4	4.8	5.2	4.5	4.8	3.6	2.9	2.7	2.7	5.9	4.1	2.2	3.4	2.2	3.3	2.2	3.4	2.8						
Ammonia nitrogen	mg/L	10-20	0.021	2.53	4.18	2.01	1.89	2.27	3.19	2.95	2.22	2.55	2.07	1.59	1.38	1.38	4.18	2.40	1.2	2.1	0.95	1.5	0.95	2.1	1.44						
Escherichia coli (E. Coli.)	cfu / 100 mL	1000	1000	1400	27000	1200	7200	500	5300	15000	2100	3100	1500	1800	1600	500	27000	5642	590	7200	3800	3900	590	7200	3873						
Faecal Coliforms	cfu / 100 mL	-		2700	31000	1700	8000	570	6400	26000	2800	4200	3100	6400	3100	570	31000	7998	@	@	@	@	@	@	@						
Aluminium	mg/L	-		0.12	0.14	0.1	0.11	0.38	1.67	2.8	0.21	0.14	0.13	0.06	0.23	0.06	2.8	0.51	@	@	@	@	@	@	@						
Copper	mg/L	-	Waste discharges shall not cause the toxins in water to attain such levels as to produce significant toxic carcinogenic, mutagenic or teratogenic effects in humans fish or any other aquatic organisms, with due regard to biologically cumulative effects in food chain and to toxicant interactions with each other. Waste discharges shall not cause a risk to any beneficial uses of the aquatic environment	0.006	0.003	0.006	0.003	0.005	0.013	0.01	0.003	0.005	0.005	0.004	0.005	0.003	0.013	0.006	@	@	@	@	@	@	@						
Chromium	mg/L	-		<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	<0.01 *	@	@	@	@	@	@	@						
Lead	mg/L	-		0.002	0.001	<0.001	<0.001	0.003	0.011	0.012	0.002	0.002	0.002	<0.001	0.002	0.001	0.012	0.004	@	@	@	@	@	@	@						
Zinc	mg/L	-		0.04	0.03	0.02	0.02	0.03	0.1	0.22	0.03	0.32	0.05	0.03	0.04	0.02	0.32	0.08	@	@	@	@	@	@	@						
Cadmium	mg/L	0.001-0.1		<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	0.0003	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	<0.0002 *	0.0003	0.0003	@	@	@	@	@	@	@						
Sulphide as S2-	mg/L	1		<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	<0.1 *	@	@	@	@	@	@	@						
Nitrate as N	mg/L	20-50 **		0.29	0.7	0.11	0.37	0.44	0.37	0.78	0.46	0.96	0.41	0.51	0.93	0.11	0.96	0.53	1.12	1.53	1.96	0.62	0.62	1.96	1.31						
Nitrite as N	mg/L	20-50 **		0.13	0.23	0.07	0.24	0.3	0.17	0.28	0.2	0.35	0.2	0.27	0.36	0.07	0.36	0.23	0.69	0.46	0.4	0.28	0.28	0.69	0.46						

Parameters	Unit	Effluent Discharge Std (Sp D), mg/l #	WQO Criteria, mg/l #	Wet Season Data ##													Range		Average		Dry Season Data ###					Range		Average	
				Raw Data													WE3	WE3	Raw Data					WE3	WE3				
				23/09/2012	26/09/2012	29/09/2012	2/10/2012	4/10/2012	6/10/2012	8/10/2012	10/10/2012	12/10/2012	15/10/2012	17/10/2012	19/10/2012	28/12/2012			3/1/2013	10/1/2013	17/01/2013								
				15:59	12:15	9:25	10:22	9:12	3:32	9:24	10:09	9:06	8:47	9:19	10:39	10:41	9:37	9:34											
Salinity	g/L	-	-	6.1	6.8	6.7	7.1	7.6	10.8	10.6	10.8	11.4	11.4	12.3	12.6	6.1	12.6	9.5	12.5	11.7	8.8	11.4	8.8	12.5	11.1				
Water Flow	l/s	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
Water Depth	m	-	-	0.1	0.3	0.2	<0.1*	<0.1*	0.1	0.1	0.2	0.5	0.2	0.1	0.1	<0.1*	0.5	0.2	<0.1*	<0.1*	0.1	<0.1*	<0.1*	0.1	0.1				
Temperature	°C	30	-	31.2	30.6	26.3	29.8	32	23.4	27.1	26.1	23.8	25.1	25.9	25.5	23.4	32	27.2	22.1	20.5	13.4	14.9	13.4	22.1	17.7				
pH Value	-	6-10	-	6.8	7.8	7.2	7.4	7.4	7.2	7.4	7.3	7.3	7.2	7.2	7.2	6.8	7.8	7.3	7.2	8.2	7.4	7.3	7.2	8.2	7.5				
Dissolved Oxygen	mg/L	-	4	3.7	5	5.1	7.6	5.2	5.5	4.5	6.9	5.3	2.5	5.8	6.7	2.5	7.6	5.3	2.4	0.5	4	2	0.5	4	2.2				
Dissolved Oxygen % Saturation	%	-	-	52.1	69.7	65.6	104	74	69	60.3	91	67.1	32.6	76.9	88.2	32.6	104	70.9	29.8	5.7	40.4	20.7	5.7	40.4	24.2				
Turbidity	NTU	-	-	114	11	22	52	40	36	45	29	26	11	43	28	11	114	38	54	184	16	26	16	184	70				
Biochemical Oxygen Demand	mg/L	20	5	6	4	7	9	6	11	8	9	12	6	12	11	4	12	8	3	64	24	63	3	64	39				
Chemical Oxygen Demand	mg/L	80	30	111	28	74	95	76	73	39	44	34	54	94	119	28	119	70	115	158	208	191	115	208	168				
Total Phosphorus	mg/L	5-10	-	1.8	1.2	1.7	1.6	1.6	1.6	1.3	1	1	2.5	1.7	1.2	1	2.5	1.5	@	@	@	@	@	@	@				
Reactive Phosphorus	mg/L	-	-	0.12	0.93	0.84	0.39	0.73	0.82	0.95	0.65	0.63	1.18	0.68	0.7	0.12	1.18	0.72	@	@	@	@	@	@	@				
Oil and grease	mg/L	10	-	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*	<5*				
Electrical Conductivity @ 25°C	µS/cm	-	-	9580	11700	11300	11000	12600	14600	15600	16000	16900	16900	18200	18200	9580	18200	14382	@	@	@	@	@	@	@				
Suspended Solids (SS)	mg/L	30	20	70	14	20	122	30	40	14	14	18	18	56	40	14	122	38	78	129	30	84	30	129	80				
Total Kjeldahl Nitrogen	mg/L	-	-	7.8	4.2	4.6	5.7	4.2	4.8	5.4	3.6	4.1	5.5	3.6	3.6	3.6	7.8	4.8	8.9	7.3	5.2	9.7	5.2	9.7	7.8				
Ammonia nitrogen	mg/L	10-20	0.021	1.78	3.53	0.77	1.08	1.48	2.06	1.94	1.42	1.33	1.45	0.64	0.77	0.64	3.53	1.52	4.1	2.6	1.24	2.4	1.24	4.1	2.59				
Escherichia coli (E. Coli.)	cfu / 100 mL	1000	1000	320	28000	800	2800	5000	28000	13000	5700	2900	3000	56000	14000	320	56000	13293	3900	380	880	300	300	3900	1365				
Faecal Coliforms	cfu / 100 mL	-	-	640	46000	1000	3700	5100	30000	16000	7700	3900	3200	67000	20000	640	67000	17020	@	@	@	@	@	@	@				
Aluminium	mg/L	-	-	0.17	0.04	0.03	0.26	0.15	0.26	0.08	0.06	0.06	0.09	0.09	0.13	0.03	0.26	0.12	@	@	@	@	@	@	@				
Copper	mg/L	-	-	0.004	0.002	0.002	0.006	0.004	0.005	0.005	0.004	0.002	0.003	0.004	0.005	0.002	0.006	0.004	@	@	@	@	@	@	@				
Chromium	mg/L	-	-	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	@	@	@	@	@	@	@				
Lead	mg/L	-	-	0.002	<0.001*	<0.001*	0.003	0.001	0.003	<0.001*	<0.001*	<0.001*	0.001	<0.001*	0.001	<0.001*	0.003	0.002	@	@	@	@	@	@	@				
Zinc	mg/L	-	-	0.04	0.02	0.01	0.03	0.02	0.03	0.01	0.03	0.04	0.02	0.02	0.03	0.01	0.04	0.03	@	@	@	@	@	@	@				
Cadmium	mg/L	0.001-0.1	-	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	<0.0002*	@	@	@	@	@	@	@				
Sulphide as S2-	mg/L	1	-	1.4	<0.1*	<0.1	0.8	0.4	0.7	<0.1*	<0.1*	<0.1*	0.4	<0.1*	0.3	<0.1*	1.4	0.7	@	@	@	@	@	@	@				
Nitrate as N	mg/L	20-50**	-	0.04	0.39	0.02	0.02	0.03	0.1	0.16	0.24	0.51	0.02	0.04	0.11	0.02	0.51	0.14	<0.01*	<0.01*	0.03	<0.01*	<0.01*	0.03	0.03				
Nitrite as N	mg/L	20-50**	-	0.02	0.15	<0.01*	0.02	0.03	0.08	0.12	0.14	0.27	0.02	0.04	0.1	<0.01*	0.27	0.09	<0.01*	<0.01*	0.04	0.01	<0.01*	0.04	0.03				

Remark:

* denotes that the measured concentration is below the laboratory's reporting limit

** Effluent discharge standard for "Nitrate + nitrite nitrogen"

According to the water quality standard stated in Section 5.2.2 of the EIA report.

Water samplings and testings were conducted by a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd.

Water samplings and testings were conducted by a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd. Testing parameters that were identified to be in poor condition during the water sampling in September 2012 and October 2012 as well as the key WQO parameters stated in Section 5.2.2 of the EIA report, have been selected for labor testing during the subsequent sampling in December 2012 and January 2013.

@ Parameter not tested.