

Summary Report - Water Quality - Routine Water Quality Monitoring for ESC CMPs

Date: 8 January 2020

Station ID	Replicate	Arsenic ug/L	Cadmium ug/L	Chromium ug/L	Copper ug/L	Lead ug/L	Mercury ug/L	Nickel ug/L	Silver ug/L	Zinc ug/L	NH3-N mg/L	TIN mg/L	BOD5 mg/L	SS mg/L
Reporting Limit		1.0	0.5	1.0	1.0	1.0	0.5	1.0	1.0	4.0	0.05	0.05	0.5	2
ESC-IPE1A	1	1.9	<0.5	1.0	9.9	2.2	<0.5	2.2	<1	36.9	0.25	0.90	1.3	5.5
ESC-IPE1A	2	2.0	<0.5	<1	4.2	1.0	<0.5	1.8	<1	7.0	0.19	0.76	2.1	4.8
ESC-IPE1A	3	2.0	<0.5	<1	11.5	1.2	<0.5	2.1	<1	14.3	0.32	0.98	1.6	5.6
ESC-IPE1A	4	2.0	<0.5	<1	4.1	1.7	<0.5	1.9	<1	8.5	0.21	0.80	1.8	4.7
ESC-IPE1A	5	2.2	<0.5	<1	4.7	1.2	<0.5	1.6	<1	6.3	0.26	0.85	1.3	5.2
ESC-IPE1A	6	2.1	<0.5	<1	4.9	2.2	<0.5	1.8	<1	5.3	0.21	0.86	2.0	4.7
ESC-IPE1A	7	2.0	<0.5	<1	4.1	1.1	<0.5	1.9	<1	18.0	0.40	1.13	1.6	5.5
ESC-IPE1A	8	2.0	<0.5	<1	6.0	1.4	<0.5	1.8	<1	11.7	0.15	0.74	1.7	4.9
ESC-IPE2A	1	2.2	<0.5	<1	11.6	1.2	<0.5	1.9	<1	9.5	0.21	0.92	1.9	5.5
ESC-IPE2A	2	2.1	<0.5	<1	12.2	1.1	<0.5	1.9	<1	9.4	0.19	0.89	1.7	7.1
ESC-IPE2A	3	2.3	<0.5	<1	11.0	1.7	<0.5	2.6	<1	20.4	0.29	1.03	2.7	5.4
ESC-IPE2A	4	1.9	<0.5	<1	9.0	<1	<0.5	1.8	<1	11.3	0.21	0.98	2.8	7.4
ESC-IPE2A	5	1.9	<0.5	<1	9.4	1.0	<0.5	1.8	<1	29.0	0.21	0.92	2.0	5.6
ESC-IPE2A	6	2.0	<0.5	<1	10.9	2.1	<0.5	1.9	<1	17.0	0.18	0.89	1.6	6.8
ESC-IPE2A	7	2.0	<0.5	<1	12.3	1.5	<0.5	1.9	<1	6.8	0.20	0.89	2.8	5.7
ESC-IPE2A	8	2.1	<0.5	<1	9.2	<1	<0.5	2.0	<1	9.3	0.24	0.95	2.0	7.2
ESC-IPE3	1	1.9	<0.5	<1	20.4	2.6	<0.5	1.7	<1	15.8	0.27	0.96	1.8	4.9
ESC-IPE3	2	1.9	<0.5	<1	20.0	1.3	<0.5	1.8	<1	24.9	0.27	0.93	1.8	5.2
ESC-IPE3	3	1.9	<0.5	<1	14.6	<1	<0.5	1.6	<1	14.4	0.25	0.85	1.4	4.7
ESC-IPE3	4	2.1	<0.5	4.2	17.2	2.0	<0.5	1.2	<1	8.2	0.19	0.88	1.7	5.0
ESC-IPE3	5	2.0	<0.5	<1	16.4	1.6	<0.5	1.9	<1	8.3	0.17	0.79	2.3	5.1
ESC-IPE3	6	2.1	<0.5	<1	14.0	1.4	<0.5	1.6	<1	11.6	0.18	0.79	1.9	5.3
ESC-IPE3	7	1.9	<0.5	<1	24.1	<1	<0.5	1.6	<1	10.2	0.15	0.81	1.4	5.0
ESC-IPE3	8	1.9	<0.5	<1	31.0	1.5	<0.5	1.9	<1	22.7	0.21	0.85	1.8	5.2
ESC-IPE4	1	2.1	<0.5	<1	2.6	<1	<0.5	1.4	<1	4.5	0.24	0.89	1.7	6.2
ESC-IPE4	2	1.8	<0.5	<1	3.3	1.5	<0.5	1.6	<1	9.5	0.16	0.75	1.8	5.4
ESC-IPE4	3	2.1	<0.5	1.0	3.3	3.1	<0.5	1.6	<1	7.1	0.20	0.83	1.8	6.1
ESC-IPE4	4	1.9	<0.5	<1	3.3	2.6	<0.5	1.5	<1	10.6	0.19	0.80	1.9	5.5
ESC-IPE4	5	2.0	<0.5	<1	3.5	1.7	<0.5	1.6	<1	22.6	0.19	0.77	1.8	6.1
ESC-IPE4	6	1.9	<0.5	<1	3.2	1.5	<0.5	1.8	<1	10.0	0.28	0.84	1.8	5.3
ESC-IPE4	7	2.0	<0.5	<1	3.2	1.2	<0.5	1.4	<1	4.7	0.26	0.85	1.7	5.9
ESC-IPE4	8	1.9	<0.5	<1	3.1	1.4	<0.5	1.4	<1	4.7	0.23	0.81	1.9	5.3
ESC-IPE5	1	1.9	<0.5	<1	3.8	1.3	<0.5	1.4	<1	7.2	0.21	0.74	1.9	5.6
ESC-IPE5	2	1.5	<0.5	<1	2.8	<1	<0.5	1.4	<1	5.0	0.22	0.79	2.0	5.8
ESC-IPE5	3	2.0	<0.5	<1	3.5	1.1	<0.5	1.4	<1	5.0	0.21	0.78	1.9	5.6
ESC-IPE5	4	1.9	<0.5	<1	3.8	1.1	<0.5	1.5	<1	5.7	0.18	0.94	1.7	5.5
ESC-IPE5	5	2.1	<0.5	<1	12.7	1.3	<0.5	1.5	<1	9.3	0.17	0.76	2.0	5.8
ESC-IPE5	6	2.0	<0.5	<1	3.6	<1	<0.5	1.7	<1	6.4	0.16	0.73	2.0	6.1
ESC-IPE5	7	2.1	<0.5	<1	8.1	1.3	<0.5	1.5	<1	14.8	0.36	1.03	1.9	5.4
ESC-IPE5	8	2.0	<0.5	<1	6.0	1.5	<0.5	1.6	<1	10.0	0.19	0.76	1.6	5.9
ESC-INE1A	1	2.0	<0.5	<1	6.4	1.2	<0.5	1.2	<1	5.0	0.24	0.75	1.4	5.9
ESC-INE1A	2	1.9	<0.5	<1	6.4	1.2	<0.5	1.0	<1	7.8	0.16	0.71	1.7	5.8
ESC-INE1A	3	2.0	<0.5	<1	6.3	1.4	<0.5	1.8	<1	6.0	0.21	0.82	1.5	6.0
ESC-INE1A	4	2.0	<0.5	<1	6.0	<1	<0.5	1.3	<1	7.0	0.16	0.71	2.1	5.8
ESC-INE1A	5	2.0	<0.5	<1	9.4	1.4	<0.5	1.3	<1	7.0	0.22	0.75	1.4	6.2
ESC-INE1A	6	2.0	<0.5	<1	7.2	1.6	<0.5	1.5	<1	7.5	0.20	0.72	1.7	5.9
ESC-INE1A	7	1.9	<0.5	<1	6.5	1.1	<0.5	1.5	<1	12.2	0.19	0.68	1.5	5.6
ESC-INE1A	8	2.0	<0.5	<1	7.3	1.2	<0.5	1.5	<1	8.1	0.14	0.62	2.1	5.7
ESC-INE2A	1	1.9	<0.5	<1	5.7	1.2	<0.5	1.3	<1	7.3	0.19	0.69	1.4	6.0
ESC-INE2A	2	2.0	<0.5	<1	4.7	1.6	<0.5	1.3	<1	13.0	0.16	0.69	1.0	6.4
ESC-INE2A	3	1.9	<0.5	<1	3.8	1.5	<0.5	1.3	<1	4.3	0.12	0.66	1.8	6.2
ESC-INE2A	4	2.0	<0.5	<1	4.3	1.9	<0.5	1.6	<1	9.2	0.15	0.69	1.2	6.9
ESC-INE2A	5	1.9	<0.5	<1	8.4	2.8	<0.5	1.4	<1	9.7	0.14	0.68	1.3	5.7
ESC-INE2A	6	1.8	<0.5	<1	3.6	1.4	<0.5	1.3	<1	18.0	0.13	0.65	1.0	6.5
ESC-INE2A	7	2.0	<0.5	<1	5.3	1.7	<0.5	1.2	<1	8.1	0.16	0.73	1.8	6.4
ESC-INE2A	8	1.8	<0.5	<1	4.3	1.4	<0.5	1.4	<1	6.7	0.15	0.68	1.1	6.7

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Reporting Limit		1.0	0.5	1.0	1.0	1.0	0.5	1.0	1.0	4.0	0.05	0.05	0.5	2
ESC-INE3A	1	1.8	<0.5	<1	7.0	1.6	<0.5	<1	<1	8.4	0.20	0.62	1.2	4.9
ESC-INE3A	2	1.8	<0.5	<1	6.5	1.3	<0.5	1.1	<1	8.2	0.17	0.66	1.1	3.6
ESC-INE3A	3	2.0	<0.5	<1	6.7	1.1	<0.5	1.2	<1	10.5	0.22	0.65	0.9	4.8
ESC-INE3A	4	2.0	<0.5	<1	4.2	1.2	<0.5	1.3	<1	6.7	0.19	0.62	1.1	3.8
ESC-INE3A	5	2.2	<0.5	<1	5.4	1.3	<0.5	1.2	<1	6.1	0.18	0.62	1.1	4.8
ESC-INE3A	6	1.9	<0.5	<1	5.8	1.1	<0.5	1.2	<1	12.9	0.18	0.63	1.1	3.6
ESC-INE3A	7	2.0	<0.5	<1	6.6	1.3	<0.5	1.2	<1	10.3	0.14	0.62	0.9	4.9
ESC-INE3A	8	1.9	<0.5	<1	3.4	1.2	<0.5	1.2	<1	33.7	0.22	0.68	1.0	3.6
ESC-INE4A	1	2.0	<0.5	<1	3.0	<1	<0.5	1.2	<1	5.3	0.39	0.92	1.2	6.2
ESC-INE4A	2	2.1	<0.5	<1	3.2	1.2	<0.5	1.6	<1	4.1	0.35	0.97	1.5	5.9
ESC-INE4A	3	2.1	<0.5	<1	3.5	1.3	<0.5	1.4	<1	19.4	0.32	0.86	1.1	6.4
ESC-INE4A	4	1.9	<0.5	<1	3.2	1.3	<0.5	1.2	<1	5.1	0.32	0.90	1.0	6.1
ESC-INE4A	5	1.8	<0.5	<1	10.3	1.3	<0.5	1.3	<1	8.3	0.28	0.81	1.2	6.1
ESC-INE4A	6	1.9	<0.5	<1	3.1	1.1	<0.5	2.0	<1	5.5	0.30	0.84	1.4	5.8
ESC-INE4A	7	2.1	<0.5	1.0	3.4	1.1	<0.5	1.3	<1	8.6	0.31	0.86	1.0	5.9
ESC-INE4A	8	2.0	<0.5	<1	2.9	1.2	<0.5	1.4	<1	4.3	0.31	0.87	1.0	5.7
ESC-INE5A	1	2.0	<0.5	<1	4.0	1.3	<0.5	1.4	<1	8.2	0.27	0.96	1.0	6.5
ESC-INE5A	2	1.8	<0.5	<1	3.5	1.0	<0.5	2.3	<1	5.7	0.23	0.85	1.1	8.4
ESC-INE5A	3	1.9	<0.5	<1	5.2	<1	<0.5	1.7	<1	8.4	0.26	0.90	1.5	6.2
ESC-INE5A	4	2.3	<0.5	<1	3.3	<1	<0.5	1.7	<1	6.5	0.24	0.90	1.3	8.7
ESC-INE5A	5	2.2	<0.5	<1	4.2	1.2	<0.5	1.3	<1	9.3	0.24	0.88	1.1	6.2
ESC-INE5A	6	2.0	<0.5	<1	4.0	1.1	<0.5	1.7	<1	17.0	0.24	0.92	1.1	8.2
ESC-INE5A	7	1.9	<0.5	<1	4.3	<1	<0.5	1.8	<1	14.5	0.27	0.95	1.5	6.4
ESC-INE5A	8	2.0	<0.5	<1	3.5	1.0	<0.5	1.8	<1	5.0	0.28	0.96	1.4	8.4
ESC-RFE1	1	2.1	<0.5	<1	11.0	1.9	<0.5	1.7	<1	10.4	0.28	0.96	1.7	11.3
ESC-RFE1	2	1.9	<0.5	<1	18.2	2.0	<0.5	2.0	<1	16.4	0.27	0.99	1.4	9.5
ESC-RFE1	3	2.0	<0.5	<1	18.3	1.5	<0.5	1.9	<1	19.9	0.26	0.85	2.1	10.8
ESC-RFE1	4	2.1	<0.5	<1	14.9	1.6	<0.5	2.1	<1	32.6	0.32	0.88	1.7	9.6
ESC-RFE1	5	2.1	<0.5	<1	18.8	1.5	<0.5	1.9	<1	17.3	0.36	0.98	1.8	11.1
ESC-RFE1	6	2.0	<0.5	<1	13.1	1.9	<0.5	1.7	<1	11.7	0.27	0.85	1.3	9.9
ESC-RFE1	7	2.1	<0.5	<1	10.2	1.9	<0.5	2.0	<1	10.0	0.28	0.90	2.1	11.2
ESC-RFE1	8	2.0	<0.5	<1	9.2	<1	<0.5	1.7	<1	9.9	0.40	0.97	1.7	9.7
ESC-RFE2	1	2.0	<0.5	<1	5.8	1.3	<0.5	1.9	<1	16.0	0.32	0.95	2.1	8.8
ESC-RFE2	2	2.2	<0.5	<1	4.0	1.1	<0.5	1.8	<1	8.3	0.23	0.85	1.5	8.6
ESC-RFE2	3	1.8	<0.5	<1	3.9	<1	<0.5	2.2	<1	9.0	0.40	1.11	1.6	8.7
ESC-RFE2	4	2.0	<0.5	<1	4.2	<1	<0.5	1.9	<1	27.4	0.35	0.98	1.5	8.3
ESC-RFE2	5	2.0	<0.5	<1	7.1	1.2	<0.5	2.0	<1	7.1	0.32	0.91	2.1	9.3
ESC-RFE2	6	2.0	<0.5	<1	5.8	1.8	<0.5	2.3	<1	11.8	0.55	1.23	1.6	8.4
ESC-RFE2	7	2.0	<0.5	<1	7.2	1.2	<0.5	2.3	<1	7.2	0.28	0.94	1.5	8.3
ESC-RFE2	8	2.1	<0.5	<1	4.7	1.1	<0.5	2.0	<1	7.1	0.33	0.93	1.6	8.4
ESC-RFE3	1	2.0	<0.5	<1	7.2	1.7	<0.5	2.7	<1	23.8	0.25	0.88	1.6	7.8
ESC-RFE3	2	2.1	<0.5	<1	5.8	1.5	<0.5	2.1	<1	9.5	0.37	1.05	1.5	7.3
ESC-RFE3	3	1.9	<0.5	<1	3.8	<1	<0.5	2.1	<1	6.2	0.29	0.94	2.0	8.1
ESC-RFE3	4	1.9	<0.5	<1	6.6	1.4	<0.5	1.8	<1	7.7	0.30	0.96	1.6	7.5
ESC-RFE3	5	1.9	<0.5	<1	10.6	2.7	<0.5	2.3	<1	8.9	0.27	0.99	1.5	7.7
ESC-RFE3	6	2.2	<0.5	<1	6.1	1.4	<0.5	2.2	<1	6.7	0.21	0.86	1.5	7.3
ESC-RFE3	7	2.0	<0.5	<1	6.0	1.3	<0.5	1.9	<1	5.5	0.25	0.97	2.0	7.3
ESC-RFE3	8	1.8	<0.5	<1	9.0	1.5	<0.5	1.8	<1	7.3	0.22	0.89	1.5	7.2
ESC-RFE4	1	2.1	<0.5	<1	23.0	1.6	<0.5	2.2	<1	24.4	0.20	0.77	1.6	6.4
ESC-RFE4	2	2.2	<0.5	1.0	17.3	1.1	<0.5	2.4	<1	20.3	0.12	0.68	1.8	5.8
ESC-RFE4	3	2.1	<0.5	<1	11.3	3.0	<0.5	2.0	<1	74.2	0.20	0.76	1.6	6.3
ESC-RFE4	4	2.0	<0.5	<1	10.7	1.1	<0.5	2.0	<1	23.8	0.21	0.80	2.1	5.8
ESC-RFE4	5	2.1	<0.5	<1	12.0	1.5	<0.5	2.3	<1	8.9	0.21	0.77	1.7	6.6
ESC-RFE4	6	2.0	<0.5	<1	12.7	1.7	<0.5	2.2	<1	8.1	0.19	0.77	1.8	6.0
ESC-RFE4	7	1.9	<0.5	<1	24.4	2.9	<0.5	2.4	<1	19.6	0.26	0.86	1.7	6.2
ESC-RFE4	8	1.9	<0.5	<1	10.3	1.5	<0.5	2.9	<1	11.3	0.23	0.80	2.1	5.9
ESC-RFE5	1	2.1	<0.5	<1	8.0	<1	<0.5	2.4	<1	11.6	0.23	0.78	1.6	6.6
ESC-RFE5	2	2.0	<0.5	<1	14.5	1.8	<0.5	3.1	<1	19.5	0.24	0.80	1.7	7.7
ESC-RFE5	3	1.9	<0.5	<1	11.4	1.8	<0.5	2.9	<1	11.0	0.27	0.80	1.6	6.3
ESC-RFE5	4	1.9	<0.5	<1	8.8	<1	<0.5	2.0	<1	13.0	0.28	0.81	1.6	7.5
ESC-RFE5	5	1.9	<0.5	<1	13.8	1.6	<0.5	2.4	<1	15.3	0.25	0.75	1.6	6.3
ESC-RFE5	6	2.0	<0.5	<1	11.0	1.5	<0.5	2.8	<1	17.6	0.22	0.73	1.7	7.6
ESC-RFE5	7	2.0	<0.5	<1	8.8	<1	<0.5	1.9	<1	11.9	0.24	0.77	1.6	6.7
ESC-RFE5	8	1.9	<0.5	<1	12.3	10.1	<0.5	5.1	<1	10.6	0.23	0.80	1.6	7.5
MW1-M-R1	1	1.9	<0.5	<1	3.2	<1	<0.5	<1	<1	7.8	0.25	0.64	1.8	3.7
MW1-M-R2	2	2.1	<0.5	<1	3.9	<1	<0.5	<1	<1	8.7	0.23	0.59	2.0	4.2
MW1-M-R3	3	2.0	<0.5	<1	3.4	<1	<0.5	1.2	<1	8.1	0.23	0.58	2.7	3.6
MW1-M-R4	4	2.0	<0.5	<1	3.6	<1	<0.5	1.2	<1	8.9	0.26	0.69	2.3	4.2
MW1-M-R5	5	1.8	<0.5	<1	3.8	1.0	<0.5	1.6	<1	9.8	0.24	0.58	1.7	3.5
MW1-M-R6	6	2.0	<0.5	<1	2.8	<1	<0.5	1.1	<1	6.6	0.25	0.59	2.0	4.4
MW1-M-R7	7	1.8	<0.5	<1	4.2	<1	<0.5	1.1	<1	7.3	0.25	0.61	2.7	3.5

Summary Report - Water Quality - Routine Water Quality Monitoring for ESC CMPs

Date: 8 January 2020

Station ID	Replicate	Arsenic	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Silver	Zinc	NH3-N	TIN	BOD5	SS
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L
Reporting Limit		1.0	0.5	1.0	1.0	1.0	0.5	1.0	1.0	4.0	0.05	0.05	0.5	2
MW1-M-R8	8	1.9	<0.5	<1	3.8	<1	<0.5	1.1	<1	8.3	0.25	0.59	2.4	4.1

Note: ESC-INF/INE - Intermediate stations; ESC-IPF/IPE - Impact stations; ESC-RFE/RFE - Reference stations; MW - Ma Wan station.