

APPENDIX 20 2024 DDH WATER SAMPLES RESULTS

DDH	Sample date	1/29/2024	2/26/2024	4/20/2024	6/15/2024	9/3/2024	9/3/2024
	Name	ML-425-146-D4	325-104-F1	ML325-114-D3	DDH-M425-181-U2	DDH-ML-425-9225-D5-016	DDH-ML-425-9950-D20
Parameter	Unit	C438861	C463634	C4C2730	C4I9010	C4W0342	C4T5251
Conventional Parameters							
pH	pH units	7.05	7.44	7.22	7.39	7.48	7.13
Turbidity	NTU	50	78	68	32	390	55
Conductivity	ms/cm	-	-	63	49.4	67.6	81.7
Conductivity	umhos/cm	75000	64000	-	-	-	-
Hardness, as CaCO3	mg/L	12200	8700	-	-	-	-
Hardness, as CaCO3 (dissolved)	mg/L	13500	9350	10700	7070	10200	13900
Total alkalinity, as CaCO3	mg/L	55	140	130	110	69	38
Carbonate, as CaCO3	mg/L	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as CaCO3	mg/L	55	140	130	110	69	38
TDS	mg/L	54000	48200	47900	28700	46000	59800
TSS	mg/L	44	31	45	75	700	33
Total organic carbon	mg/L	1.8	6.1	5.8	3.1	3.5	1.1
Dissolved organic carbon	mg/L	1.7	6.1	5.5	2.8	3.6	1.1
Major Ions							
Chloride	mg/L	35000	35000	31000	21000	31000	40000
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	0.15	< 0.10	0.12
Silica	mg/L	3.7	5.2	4.9	5.4	4.2	5.9
Sulfate	mg/L	3400	2800	82	2000	2900	3500
Nutrients and Chlorophyll a							
Ammonia Nitrogen (as N)	mg/L	4.2	3.8	3.6	2.3	4	3.2
Nitrate (as N)	mg/L	< 0.10	< 0.50	< 0.10	< 0.10	< 0.50	< 1.0
Nitrite (as N)	mg/L	< 0.010	< 0.050	< 0.010	< 0.010	< 0.050	< 0.10
Nitrate + nitrite (as N)	mg/L	< 0.10	< 0.50	< 0.10	< 0.10	< 0.50	< 1.0
Total Kjeldahl nitrogen	mg/L	5.9	5	5.2	3.1	5.7	5.7
Total phosphorus	mg/L	0.031	0.087	0.056	0.068	0.38	< 0.020
Orthophosphate (P)	mg/L	< 0.10	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals							
Aluminum	mg/L	0.3	0.58	< 0.15	1.68	14.4	< 0.30
Antimony	mg/L	< 0.025	< 0.025	< 0.025	< 0.010	< 0.025	< 0.050
Arsenic	mg/L	< 0.0050	< 0.0050	< 0.0050	0.046	0.0943	< 0.010
Barium	mg/L	< 0.050	< 0.050	< 0.050	0.028	0.085	< 0.10
Beryllium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0020	< 0.0050	< 0.010
Bismuth	mg/L	< 0.050	< 0.050	-	-	-	-
Boron	mg/L	< 2.5	< 2.5	< 2.5	2	< 2.5	< 5.0
Cadmium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00020	< 0.00050	< 0.0010
Calcium (total)	mg/L	1510	990	904	727	1280	1740
Chromium	mg/L	< 0.050	< 0.050	< 0.050	< 0.020	0.127	< 0.10
Cobalt	mg/L	< 0.010	< 0.010	< 0.010	< 0.0040	0.013	< 0.020
Copper	mg/L	< 0.025	< 0.025	< 0.025	0.011	0.051	< 0.050
Iron	mg/L	4.18	5.74	3.94	5.84	33.9	2.9
Lead	mg/L	< 0.010	< 0.010	< 0.010	< 0.0040	< 0.010	< 0.020
Lithium	mg/L	0.3	0.34	0.31	0.14	0.29	< 0.20
Magnesium (total)	mg/L	2050	1510	1510	1030	1600	1780
Manganese	mg/L	0.952	0.786	0.661	0.459	1.6	0.83
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	< 0.050	< 0.050	< 0.020	< 0.050	< 0.10
Nickel	mg/L	< 0.050	< 0.050	< 0.050	< 0.020	0.051	< 0.10
Potassium (total)	mg/L	350	350	327	219	336	266
Selenium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0020	< 0.0050	< 0.010
Silicon	mg/L	< 5.0	< 5.0	-	-	-	-
Silver	mg/L	< 0.0010	< 0.0010	< 0.0010	0.00092	0.014	< 0.0020
Sodium (total)	mg/L	13600	11400	11300	8120	12200	13400
Strontium	mg/L	44.8	25.4	26.1	25.1	39.9	52.8
Sulphur	mg/L	969	924	-	-	-	-
Thallium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00020	< 0.00050	< 0.0010
Tin	mg/L	< 0.25	< 0.25	< 0.25	< 0.10	< 0.25	< 0.50
Titanium	mg/L	< 0.25	< 0.25	< 0.25	< 0.10	0.46	< 0.50
Uranium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0020	< 0.0050	< 0.010
Vanadium	mg/L	< 0.25	< 0.25	< 0.25	< 0.10	< 0.25	< 0.50
Zinc	mg/L	< 0.25	< 0.25	< 0.25	< 0.10	< 0.25	< 0.50
Zirconium	mg/L	< 0.0050	< 0.0050	-	-	-	-

Dissolved Metals							
Aluminum	mg/L	< 0.15	< 0.15	< 0.15	< 0.15	0.39	< 0.15
Antimony	mg/L	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
Arsenic	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Barium	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Beryllium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Bismuth	mg/L	< 0.050	< 0.050	-	-	-	-
Boron	mg/L	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
Cadmium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	0.00084
Calcium (Dissolved)	mg/L	1580	1080	1160	867	1360	2040
Chromium	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cobalt	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Copper	mg/L	< 0.010	0.018	< 0.010	< 0.010	< 0.010	< 0.010
Iron	mg/L	2.45	2	2.23	0.26	0.49	1.39
Lead	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Lithium	mg/L	0.33	0.37	0.36	0.17	0.27	0.24
Magnesium (Dissolved)	mg/L	2330	1620	1900	1190	1660	2140
Manganese	mg/L	1	0.818	0.739	0.482	0.851	0.951
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Nickel	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Potassium (Dissolved)	mg/L	377	376	394	256	370	316
Selenium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Silicon	mg/L	< 5.0	< 5.0	-	-	-	-
Silver	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0024	< 0.0010
Sodium (Dissolved)	mg/L	15100	12300	14100	9780	12800	15600
Strontium	mg/L	48.8	27.5	29.5	26.2	41.6	61.7
Sulphur	mg/L	1060	1010	-	-	-	-
Thallium	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Tin	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Titanium	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Uranium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Vanadium	mg/L	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Zinc	mg/L	< 0.25	0.7	< 0.25	< 0.25	< 0.25	< 0.25
Zirconium	mg/L	< 0.0050	< 0.0050	-	-	-	-
Radium-226	Bq/l	1.5	0.32	0.5	2.3	0.42	0.88