Appendix 39

Meadowbank and Whale Tail 2025 Water Quality Monitoring Results

Sections identified by § are reported under NWB Mandate

TABLE OF CONTENTS

LIST OF TABLES

SECTION 1. MDMER AND EEM SAMPLING§

1.1 MEADOWBANK SITE§

Table 1-1 Meadowbank 2025 Vault Attenuation Pond Discharge MDMER Monitoring (ST-MMER-2)§

Month	As	Cu	CN	Pb	Ni	NH_3	Zn	TSS	Ra 226	pH	Results for Rainbow Trout Acute Lethality Tests (mean percentage mortality in 100% effluent test concentration)	Results for Daphnia magna Monitoring Tests (mean percentage mortality in 100% effluent test concentration)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
January												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
February												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
March												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
April												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
May												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
June												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
July												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
August												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
September												
2-Sep-25	0.00054	0.00443	< 0.00050	0.00041	0.0010	< 0.00040	0.0134	3	< 0.0050	7.60	NMR	NMR
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
22-Sep-25	0.00056	0.00274	< 0.00050	0.00026	0.0010	< 0.00040	0.0159	1	< 0.0050	7.54	0	0
29-Sep-25	0.00053	0.00219	< 0.00050	< 0.00020	0.0011	< 0.00040	0.0162	1	< 0.0050	7.31	NMR	NMR
October												
6-Oct-25	0.00059	0.00163	< 0.00050	< 0.00020	0.0011	< 0.00040	< 0.0050	3	< 0.0050	7.51	0	0
13-Oct-25	0.00063	0.00267	0.00076	0.00173	0.0013	< 0.00040	0.0120	4	< 0.0050	7.37	NMR	NMR
20-Oct-25	0.00057	0.00137	< 0.00050	< 0.00020	0.0010	< 0.00040	< 0.0050	2	< 0.0050	7.14	NMR	NMR
27-Oct-25	0.00062	0.00141	< 0.00050	< 0.00020	< 0.0010	< 0.00040	< 0.0050	1	< 0.0050	7.07	NMR	NMR
November												
5-Nov-25	0.00067	0.00148	< 0.00050	< 0.00020	0.0011	< 0.00054	< 0.0050	15	< 0.0050	8.12	0	0
8-Nov-25	0.00065	0.00154	< 0.00050	< 0.00020	0.0011	< 0.00040	< 0.0050	2	< 0.0050	7.80	NMR	NMR
10-Nov-25	0.00071	0.00165	< 0.00050	< 0.00020	0.0014	< 0.00040	< 0.0050	< 1	< 0.0050	7.61	0	0
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
December												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP

NDEP: No Deposit
NMR: No Measurement Required

Table 1-2 Meadowbank 2025 Vault Attenuation Pond Discharge MDMER Volume (ST-MMER-2)§

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
1	0	0	0	0	0	0	0	0	5,432	13,752	14,472	0	
2	0	0	0	0	0	0	0	0	10,602	13,968	14,424	0	
3	0	0	0	0	0	0	0	0	0	14,040	14,304	0	
4	0	0	0	0	0	0	0	0	0	13,680	14,256	0	
5	0	0	0	0	0	0	0	0	0	13,992	14,448	0	
6	0	0	0	0	0	0	0	0	0	13,920	14,352	0	
7	0	0	0	0	0	0	0	0	0	14,208	14,184	0	
8	0	0	0	0	0	0	0	0	0	15,624	14,160	0	
9	0	0	0	0	0	0	0	0	0	5,357	13,896	0	
10	0	0	0	0	0	0	0	0	0	9,375	7,644	0	
11	0	0	0	0	0	0	0	0	0	17,664	0	0	
12	0	0	0	0	0	0	0	0	0	17,496	0	0	
13	0	0	0	0	0	0	0	0	0	17,496	0	0	
14	0	0	0	0	0	0	0	0	0	9,466	0	0	
15	0	0	0	0	0	0	0	0	0	10,699	0	0	
16	0	0	0	0	0	0	0	0	0	14,856	0	0	
17	0	0	0	0	0	0	0	0	0	14,904	0	0	
18	0	0	0	0	0	0	0	0	0	14,808	0	0	
19	0	0	0	0	0	0	0	0	0	14,808	0	0	
20	0	0	0	0	0	0	0	0	0	14,832	0	0	
21	0	0	0	0	0	0	0	0	8,730	14,880	0	0	
22	0	0	0	0	0	0	0	0	11,664	14,952	0	0	
23	0	0	0	0	0	0	0	0	14,064	14,784	0	0	
24	0	0	0	0	0	0	0	0	14,256	14,760	0	0	
25	0	0	0	0	0	0	0	0	14,040	14,520	0	0	
26	0	0	0	0	0	0	0	0	13,992	14,640	0	0	
27	0	0	0	0	0	0	0	0	14,088	14,712	0	0	
28	0	0	0	0	0	0	0	0	13,992	14,592	0	0	
29	0	0	0	0	0	0	0	0	14,136	14,616	0	0	
30	0		0	0	0	0	0	0	13,848	14,376	0	0	
31	0		0		0		0	0		14,232		0	
Total (m^3)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**148,844**	**436,009**	**136,140**	**0**	**720,993**

Table 1-3 Meadowbank 2025 Vault Attenuation Pond Discharge EEM Monitoring (ST-MMER-2)§

	Alkalinity	Aluminum	Cadmium	Chloride	Chromium	Cobalt	Hardness	Iron	Manganese	Mercury	Molybdenum	Nitrate	Phosphorus	Selenium	Sulphate	Thallium	Uranium	Conductivity	T°	Sub-Lethal Toxicity			
	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg N/L	mg P/L	mg/L	mg/L	mg/L	mg/L	µS/cm	°C	*Ceriodaphia dubia*	*Fathead minnow*	*Lemna minor*	*Pseudokirchneriella subcapitata*
Effluent characterization (65°04'11.74'' N 95°58'51.01'' W) (ST-MMER-2-EEM)																							
02-Sep-25	31.0	0.0370	< 0.000010	2.3	< 0.0010	< 0.00020	60.0	0.262	0.0041	< 0.00001	0.0042	< 0.10	0.0024	< 0.00010	37	< 0.000010	0.00089	132.1	9.8	NMR	NMR	NMR	NMR
22-Sep-25	41.0	0.0111	< 0.000010	2.9	< 0.0010	< 0.00020	63.3	0.021	0.0029	< 0.00001	0.0036	< 0.10	0.0020	< 0.00010	37	< 0.000010	0.00084	123.3	8.7	without SE and without AL	invalid	without SE	without SE
06-Oct-25	33.0	0.0405	< 0.000010	2.5	< 0.0010	< 0.00020	61.7	0.080	0.0054	< 0.00001	0.0035	< 0.10	0.0047	< 0.00010	40	< 0.000010	0.00077	118.0	3.5	without SE and without AL	without SE and without AL	without SE	with SE
10-Nov-25	37.0	0.0223	< 0.000010	2.4	< 0.0010	< 0.00020	71.7	0.077	0.0100	< 0.00001	0.0035	< 0.10	0.0015	< 0.00010	43	< 0.000010	0.00099	112.4	1.6	without SE and without AL	without SE and without AL	without SE	with SE
***Annual Average**										***0.000005***				***0.00005***									

**Annual average calculated using half the detection limit*
SE: Sub-Lethal effects
AL: Acute Lethality
NMR: No measurement requirement

	Unionized Ammonia	Alkalinity	Aluminum	Cadmium	Chloride	Chromium	Cobalt	Hardness	Iron	Manganese	Mercury	Molybdenum	Nitrate	Phosphorus	Selenium	Sulphate	Thallium	Uranium
	mg N/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg N/L	mg P/L	mg/L	mg/L	mg/L	mg/L
Water Quality Monitoring Exposure Area (65°04'44.22" N 95°57'35.10" W) (ST-MMER-2-EEM-WLE)																		
21-Sep-25	< 0.00040	15.0	0.00683	< 0.0000050	< 1.0	< 0.00010	0.0000197	24.0	0.0223	0.00205	< 0.00001	0.000262	< 0.10	0.0017	< 0.000040	11	< 0.000002	0.0000715
04-Oct-25	< 0.00040	24.0	0.00594	< 0.0000050	< 1.0	< 0.00010	0.0000357	27.5	0.0197	0.00202	< 0.00001	0.000381	< 0.10	< 0.0010	< 0.000040	12	< 0.000002	0.0000830
Water Quality Monitoring Reference Area (64°58 '10.90" N 96°09' 51.37" W) (ST-MMER-1-EEM-TPS)																		
21-Sep-25	< 0.00040	6.6	0.00385	< 0.0000050	< 1.0	< 0.00010	0.0000114	10.6	0.0064	0.00159	< 0.00001	0.000100	< 0.10	< 0.0010	< 0.000040	4.2	< 0.0000020	0.0000352

	Conductivity	T°	pH	O_2	O_2	Arsenic	Copper	Cyanide	Lead	Nickel	Ra226	TSS	Zinc
	µS/cm	°C		%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	Bq/L	mg/L	mg/L
Water Quality Monitoring Exposure Area (65°04'44.22" N 95°57'35.10" W) (ST-MMER-2-EEM-WLE)													
21-Sep-25	35.3	8.9	6.75	105.8	11.83	0.000318	0.00125	0.00050	0.0000247	0.000513	< 0.0050	< 1	0.00046
04-Oct-25	66.5	5.1	7.36	167.0	13.61	0.000327	0.00117	< 0.00050	0.0000197	0.000494	< 0.0050	< 1	0.00081
Water Quality Monitoring Reference Area (64°58' 10.90" N 96°09' 51.37" W) (ST-MMER-1-EEM-TPS)													
21-Sep-25	71.2	7.19	7.07	107.7	12.56	0.000181	0.000434	< 0.00050	0.0000053	0.000555	< 0.0050	< 1	0.00021

Table 1-4 Meadowbank 2025 East Dike Discharge MDMER Monitoring (ST-MMER-3)[§]

Month	As	Cu	CN	Pb	Ni	NH_3	Zn	TSS	Ra 226	pH	Results for Rainbow Trout Acute Lethality Tests (mean percentage mortality in 100% effluent test concentration)	Results for Daphnia magna Monitoring Tests (mean percentage mortality in 100% effluent test concentration)
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L			
January												
6-Jan-25	0.00095	0.00125	< 0.00050	< 0.00020	< 0.0010	< 0.00460	< 0.0050	3	< 0.0050	9.06	0	0
13-Jan-25	0.00092	0.00157	< 0.00050	< 0.00020	< 0.0010	< 0.00250	< 0.0050	5	< 0.0050	8.78	NMR	NMR
20-Jan-25	NMR	NMR	NMR	NMR	NMR	< 0.00094	NMR	2	NMR	8.35	NMR	NMR
27-Jan-25	NMR	NMR	NMR	NMR	NMR	< 0.00075	NMR	3	NMR	8.27	NMR	NMR
February												
3-Feb-25	0.00081	0.00111	< 0.00050	< 0.00020	< 0.0010	< 0.00350	< 0.0050	3	< 0.0050	8.95	NMR	0
10-Feb-25	NMR	NMR	NMR	NMR	NMR	< 0.00170	NMR	4	NMR	8.62	NMR	NMR
17-Feb-25	NMR	NMR	NMR	NMR	NMR	< 0.00042	NMR	4	NMR	8.02	NMR	NMR
24-Feb-25	NMR	NMR	NMR	NMR	NMR	< 0.00040	NMR	3	NMR	7.57	NMR	NMR
March												
3-Mar-25	0.00094	0.00142	< 0.00050	< 0.00020	< 0.0010	< 0.00059	< 0.0050	2	< 0.0050	8.17	0	0
4-Mar-25	NMR	NMR	NMR	NMR	NMR	NMR	NMR	32	NMR	8.02	NMR	NMR
4-Mar-25*	NMR	NMR	NMR	NMR	NMR	NMR	NMR	30	NMR	8.02	NMR	NMR
23-Mar-25	NMR	NMR	NMR	NMR	NMR	NMR	NMR	5	NMR	7.78	NMR	NMR
24-Mar-25	0.00099	0.00110	< 0.00050	< 0.00020	< 0.0010	< 0.00044	< 0.0050	6	< 0.0050	8.02	NMR	NMR
25-Mar-25	NMR	NMR	NMR	NMR	NMR	NMR	NMR	4	NMR	8.04	NMR	NMR
26-Mar-25	NMR	NMR	NMR	NMR	NMR	NMR	NMR	5	NMR	7.55	NMR	NMR
27-Mar-25	NMR	NMR	NMR	NMR	NMR	NMR	NMR	6	NMR	8.54	NMR	NMR
28-Mar-25	NMR	NMR	NMR	NMR	NMR	NMR	NMR	3	NMR	7.85	NMR	NMR
29-Mar-25	NMR	NMR	NMR	NMR	NMR	NMR	NMR	3	NMR	8.26	NMR	NMR
30-Mar-25	NMR	NMR	NMR	NMR	NMR	NMR	NMR	3	NMR	8.23	NMR	NMR
31-Mar-25	NMR	NMR	NMR	NMR	NMR	0.00088	NMR	2	NMR	8.16	NMR	NMR
April												
7-Apr-25	0.00050	0.00095	< 0.00050	< 0.00020	< 0.0010	< 0.00090	< 0.0050	1	< 0.0050	8.32	0	0
14-Apr-25	NMR	NMR	NMR	NMR	NMR	< 0.00040	NMR	1	NMR	7.89	NMR	NMR
21-Apr-25	NMR	NMR	NMR	NMR	NMR	< 0.00084	NMR	3	NMR	8.31	NMR	NMR
28-Apr-25	NMR	NMR	NMR	NMR	NMR	< 0.00040	NMR	6	NMR	7.73	NMR	NMR
May												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
June												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
July												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
August												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
September												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
October												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
November												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
December												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP

NDEP: No Deposit
NMR: No Measurement Required
** Re-analysis results of original sample collected on March 4, 2025*

Table 1-5 Meadowbank 2025 East Dike Discharge MDMER Volume (ST-MMER-3)§

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
1	256	264	118	187	0	0	0	0	0	0	0	0	
2	263	263	379	165	0	0	0	0	0	0	0	0	
3	262	263	679	144	0	0	0	0	0	0	0	0	
4	262	263	399	145	0	0	0	0	0	0	0	0	
5	262	264	0	144	0	0	0	0	0	0	0	0	
6	262	264	0	146	0	0	0	0	0	0	0	0	
7	260	265	0	155	0	0	0	0	0	0	0	0	
8	230	265	0	215	0	0	0	0	0	0	0	0	
9	251	264	0	244	0	0	0	0	0	0	0	0	
10	261	264	0	231	0	0	0	0	0	0	0	0	
11	259	264	0	214	0	0	0	0	0	0	0	0	
12	260	263	0	219	0	0	0	0	0	0	0	0	
13	261	259	0	243	0	0	0	0	0	0	0	0	
14	261	265	0	315	0	0	0	0	0	0	0	0	
15	259	265	0	286	0	0	0	0	0	0	0	0	
16	253	300	0	263	0	0	0	0	0	0	0	0	
17	249	108	0	255	0	0	0	0	0	0	0	0	
18	259	109	0	252	0	0	0	0	0	0	0	0	
19	260	108	0	234	0	0	0	0	0	0	0	0	
20	261	108	0	236	0	0	0	0	0	0	0	0	
21	259	108	0	254	0	0	0	0	0	0	0	0	
22	259	111	0	247	0	0	0	0	0	0	0	0	
23	258	110	53	256	0	0	0	0	0	0	0	0	
24	255	109	249	251	0	0	0	0	0	0	0	0	
25	259	115	245	249	0	0	0	0	0	0	0	0	
26	259	120	237	246	0	0	0	0	0	0	0	0	
27	257	118	234	248	0	0	0	0	0	0	0	0	
28	261	118	228	245	0	0	0	0	0	0	0	0	
29	245		213	250	0	0	0	0	0	0	0	0	
30	254		211	249	0	0	0	0	0	0	0	0	
31	260		201		0		0	0		0		0	
Total (m^3)	**7,978**	**5,597**	**3,446**	**6,789**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**23,808**

Table 1-6 Meadowbank 2025 East Dike Discharge EEM Monitoring (ST-MMER-3)§

	Alkalinity	Aluminum	Cadmium	Chloride	Chromium	Cobalt	Hardness	Iron	Manganese	Mercury	Molybdenum	Nitrate	Phosphorus	Selenium	Sulphate	Thallium	Uranium	Conductivity	T°	Sub-Lethal Toxicity			
	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg N/L	mg P/L	mg/L	mg/L	mg/L	mg/L	µS/cm	°C	*Ceriodaphia dubia*	*Fathead minnow*	*Lemna minor*	*Pseudokirchneriella subcapitata*
Effluent characterization (65°01'11.21"N 96°02'32.00" W) (ST-MMER-3-EEM)																							
6-Jan-25	28	0.0457	< 0.000010	1.3	< 0.0010	< 0.00020	30.3	0.045	0.0013	< 0.00001	< 0.0010	< 0.10	0.0014	< 0.00010	8.4	< 0.000010	0.00038	71.4	0.8	NMR	NMR	NMR	NMR
13-Jan-25	28	0.0841	0.000012	1.1	< 0.0010	< 0.00020	34.0	0.109	0.0028	< 0.00001	< 0.0010	< 0.10	0.0032	< 0.00010	8.5	0.000015	0.00037	70.2	0.5	with SE and without AL	without SE and without AL	without SE	without SE
7-Apr-25	35	0.0344	< 0.000010	1.5	< 0.0010	< 0.00020	35.8	0.031	< 0.0010	< 0.00001	< 0.0010	< 0.10	< 0.0010	< 0.00010	8.6	< 0.000010	0.00022	85.8	0.7	without SE and without AL	without SE and without AL	without SE	without SE
***Annual Average**										***0.000005***				***0.00005***									

**Annual average calculated using half the detection limit*
SE: Sub-Lethal effects
AL: Acute Lethality
NMR: No measurement requirement

	Unionized Ammonia	Alkalinity	Aluminum	Cadmium	Chloride	Chromium	Cobalt	Hardness	Iron	Manganese	Mercury	Molybdenum	Nitrate	Phosphorus	Selenium	Sulphate	Thallium	Uranium
	mg N/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg N/L	mg P/L	mg/L	mg/L	mg/L	mg/L
Water Quality Monitoring Exposure Area (65°01' 10.81" N 96°02' 22.64"W) (ST-MMER-3-EEM-SPLE)																		
2-Feb-25	< 0.0004	11.0	0.00552	< 0.000005	1.0	< 0.00010	0.0000140	18.3	0.0076	0.000638	< 0.00001	0.000147	< 0.10	< 0.0010	< 0.000040	7.7	< 0.000002	0.0000680
24-Mar-25	< 0.0004	15.0	0.00587	< 0.000005	1.3	< 0.00010	< 0.0000050	19.3	0.0068	0.000449	< 0.00001	0.000145	< 0.10	< 0.0010	< 0.000040	7.4	< 0.000002	0.0000624
27-Apr-25	< 0.0004	15.0	0.00782	< 0.000005	1.2	< 0.00010	0.0000185	18.8	0.0112	0.000612	< 0.00001	0.000159	< 0.10	< 0.0010	< 0.000040	7.4	< 0.000002	0.0000685
Water Quality Monitoring Reference Area (64°58 '10.90" N 96°09' 51.37" W) (ST-MMER-1-EEM-TPS)																		
2-Feb-25	< 0.0004	6.8	0.00558	< 0.000005	< 1.0	< 0.00010	0.0000200	11.6	0.0057	0.000702	< 0.00001	0.000110	< 0.10	0.0014	< 0.000040	5.3	< 0.000002	0.0000580
24-Mar-25	< 0.0004	8.1	0.00466	< 0.000005	1.0	< 0.00010	0.0000089	11.5	0.0048	0.000501	< 0.00001	0.000106	< 0.10	< 0.0010	< 0.000040	5.1	< 0.000002	0.0000493
27-Apr-25	< 0.0004	10.0	0.00501	< 0.000005	< 1.0	0.00011	0.0000113	11.1	0.0058	0.000492	< 0.00001	0.000126	< 0.10	< 0.0010	< 0.000040	4.8	< 0.000002	0.0000522

	Conductivity	T°	pH	O_2	O_2	Arsenic	Copper	Cyanide	Lead	Nickel	Ra226	TSS	Zinc
	µS/cm	°C		%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	Bq/L	mg/L	mg/L
Water Quality Monitoring Exposure Area (65°01' 10.81" N 96°02' 22.64"W) (ST-MMER-3-EEM-SPLE)													
2-Feb-25	26.6	-0.01	6.25	92.5	13.78	0.000390	0.000647	< 0.00050	0.0000270	0.000703	< 0.0050	< 1	0.00032
24-Mar-25	28.0	0.21	6.74	117.5	16.56	0.000422	0.000658	< 0.00050	0.0000224	0.000703	< 0.0050	< 1	0.00069
27-Apr-25	35.2	0.61	7.20	129.8	18.02	0.000458	0.000686	0.0005	0.0000067	0.000919	< 0.0050	< 1	0.00139
Water Quality Monitoring Reference Area (64°58' 10.90" N 96°09' 51.37" W) (ST-MMER-1-EEM-TPS)													
2-Feb-25	28.0	0.07	6.27	104.3	14.67	0.000186	0.000445	< 0.00050	0.0000350	0.000618	< 0.0050	< 1	0.00063
24-Mar-25	42.7	0.35	6.71	110.7	15.35	0.000198	0.000426	0.00066	0.0000080	0.000595	< 0.0050	< 1	0.00050
27-Apr-25	29.7	0.47	7.04	122.8	17.11	0.000196	0.000501	0.00051	0.0000086	0.000696	< 0.0050	< 1	0.00057

1.2 WHALE TAIL SITE§

Table 1-7 Whale Tail 2025 Attenuation Pond Discharge MDMER Monitoring (ST-MDMER-8)§

Month	As	Cu	CN	Pb	Ni	NH_3	Zn	TSS	Ra 226	pH	Results for Rainbow Trout Acute Lethality Tests	Results for Daphnia magna Monitoring Tests
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		(mean percentage mortality in 100% effluent test concentration)	(mean percentage mortality in 100% effluent test concentration)
January												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
February												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
March												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
April												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
May												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
June												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
July												
7-Jul-25	0.01270	0.00139	0.00649	< 0.00020	0.0166	0.0024	0.0140	1	< 0.0050	7.27	10	0
14-Jul-25	0.01050	0.00081	0.00095	< 0.00020	0.0085	< 0.0004	< 0.0050	1	< 0.0050	7.35	NMR	NMR
21-Jul-25	0.01820	0.00084	0.00152	< 0.00020	0.0077	0.0010	< 0.0050	2	< 0.0050	7.64	NMR	NMR
28-Jul-25	0.03030	0.00317	0.01670	< 0.00020	0.0165	0.0082	0.0059	2	0.0100	7.76	NMR	NMR
August												
4-Aug-25	0.01490	0.00074	0.00401	< 0.00020	0.0125	0.0018	0.0086	1	0.0070	7.38	0	0
11-Aug-25	0.02580	0.00076	0.00120	< 0.00020	0.0067	< 0.0004	0.0053	2	< 0.0050	7.31	NMR	NMR
18-Aug-25	0.02060	0.00075	0.00868	< 0.00020	0.0075	0.0043	< 0.0050	1	< 0.0050	7.51	NMR	NMR
25-Aug-25	0.01740	0.00072	0.00284	< 0.00020	0.0075	0.0019	0.0051	1	< 0.0050	7.52	NMR	NMR
September												
1-Sep-25	0.01100	0.00070	0.00098	< 0.00020	0.0085	0.0005	< 0.0050	1	0.0100	7.42	NMR	NMR
8-Sep-25	0.00978	0.00062	0.00132	< 0.00020	0.0060	< 0.0004	< 0.0050	1	< 0.0050	7.36	0	0
15-Sep-25	0.01100	0.00073	0.00191	< 0.00020	0.0075	0.0005	< 0.0050	1	< 0.0050	7.43	NMR	NMR
22-Sep-25	0.01460	0.00074	0.00149	< 0.00020	0.0092	< 0.0004	< 0.0050	2	< 0.0050	6.99	NMR	NMR
October												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
November												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
December												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP

NDEP: No Deposit
NMR: No Measurement Required

Table 1-8 Whale Tail 2025 Attenuation Pond Discharge MDMER Volume (ST-MDMER-8)[§]

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
1	0	0	0	0	0	0	0	9,206	6,459	0	0	0	
2	0	0	0	0	0	0	0	9,791	6,286	0	0	0	
3	0	0	0	0	0	0	0	9,805	7,061	0	0	0	
4	0	0	0	0	0	0	0	8,169	7,074	0	0	0	
5	0	0	0	0	0	0	0	7,282	7,061	0	0	0	
6	0	0	0	0	0	0	7,701	7,068	6,840	0	0	0	
7	0	0	0	0	0	0	7,473	7,060	7,064	0	0	0	
8	0	0	0	0	0	0	10,364	7,059	7,044	0	0	0	
9	0	0	0	0	0	0	10,509	7,053	6,794	0	0	0	
10	0	0	0	0	0	0	10,473	7,058	7,024	0	0	0	
11	0	0	0	0	0	0	10,515	7,022	6,539	0	0	0	
12	0	0	0	0	0	0	10,430	7,028	6,304	0	0	0	
13	0	0	0	0	0	0	10,508	7,026	6,513	0	0	0	
14	0	0	0	0	0	0	10,462	7,040	6,499	0	0	0	
15	0	0	0	0	0	0	10,457	7,021	6,510	0	0	0	
16	0	0	0	0	0	0	10,413	7,017	6,508	0	0	0	
17	0	0	0	0	0	0	10,378	7,034	6,387	0	0	0	
18	0	0	0	0	0	0	10,338	7,017	6,478	0	0	0	
19	0	0	0	0	0	0	10,332	7,002	6,484	0	0	0	
20	0	0	0	0	0	0	10,415	7,027	6,476	0	0	0	
21	0	0	0	0	0	0	10,406	7,027	6,473	0	0	0	
22	0	0	0	0	0	0	10,210	7,049	6,146	0	0	0	
23	0	0	0	0	0	0	10,275	6,942	6,453	0	0	0	
24	0	0	0	0	0	0	10,291	7,001	6,456	0	0	0	
25	0	0	0	0	0	0	10,223	7,061	6,464	0	0	0	
26	0	0	0	0	0	0	10,089	7,069	6,460	0	0	0	
27	0	0	0	0	0	0	10,063	7,058	5,305	0	0	0	
28	0	0	0	0	0	0	10,323	7,075	0	0	0	0	
29	0	0	0	0	0	0	12,207	7,070	0	0	0	0	
30	0		0	0	0	0	12,020	7,084	0	0	0	0	
31	0		0		0		9,832	7,085		0		0	
Total (m^3)	**0**	**0**	**0**	**0**	**0**	**0**	**266,707**	**227,304**	**177,161**	**0**	**0**	**0**	**671,172**

Table 1-9 Whale Tail 2025 Attenuation Pond Discharge EEM Monitoring (ST-MDMER-8)§

	Alkalinity	Aluminum	Cadmium	Chloride	Chromium	Cobalt	Hardness	Iron	Manganese	Mercury	Molybdenum	Nitrate	Phosphorus	Selenium	Sulphate	Thallium	Uranium	Conductivity	T°	Sub-Lethal Toxicity			
	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg N/L	mg P/L	mg/L	mg/L	mg/L	mg/L	µS/cm	°C	*Ceriodaphia dubia*	*Fathead minnow*	*Lemna minor*	*Pseudokirchneriella subcapitata*
Effluent characterization (65°24'9.84" N 96°41' 05.32" W) (ST-MDMER-8-EEM)																							
07-Jul-25	49.0	0.0158	0.000011	43	< 0.0010	0.00138	155	0.250	0.1330	< 0.00001	0.0054	4.42	< 0.0010	0.00023	82	0.000025	0.00087	466.0	11.7	with SE and without AL	without SE and without	without SE	without SE
04-Aug-25	45.0	0.0100	0.000016	83	< 0.0010	0.00107	215	0.201	0.0900	< 0.00001	0.0061	4.15	< 0.0010	0.00026	96	0.000028	0.00196	473.7	14.0	without SE and without AL	without SE and without	without SE	without SE
08-Sep-25	46.0	0.0039	< 0.000010	80	< 0.0010	0.00074	242	0.198	0.0414	< 0.00001	0.0068	4.21	< 0.0010	0.00027	97	0.000020	0.00273	428.2	7.0	with SE and without AL	without SE and without AL	without SE	without SE
***Annual Average**										***0.000005***				***0.00025***									

**Annual average calculated using half the detection limit*
SE: Sub-Lethal effects
AL: Acute Lethality

	Unionized Ammonia	Alkalinity	Aluminum	Cadmium	Chloride	Chromium	Cobalt	Hardness	Iron	Manganese	Mercury	Molybdenum	Nitrate	Phosphorus	Selenium	Sulphate	Thallium	Uranium
	mg N/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg N/L	mg P/L	mg/L	mg/L	mg/L	mg/L
Water Quality Monitoring Exposure Area (65°23' 54.4" N 96°44' 21.6" W) (EEM-7-MAME-2)																		
08-Jul-25	< 0.00040	17.0	0.01070	< 0.0000050	14	0.00020	0.0000543	46.5	0.0268	0.00709	< 0.00001	0.000573	0.40	< 0.0010	< 0.000040	20	0.0000026	0.000122
10-Aug-25	0.00072	22.0	0.00544	< 0.0000050	18	0.00021	0.0000729	62.0	0.0223	0.00766	< 0.00001	0.000983	0.55	0.0015	0.000048	25	0.0000047	0.000254
09-Sep-25	< 0.00040	26.0	0.01130	< 0.0000050	21	0.00024	0.0000892	65.6	0.0293	0.02270	< 0.00001	0.001310	0.72	< 0.0010	0.000075	28	0.0000033	0.000314
Water Quality Monitoring Reference Area (64°58'10.90" N 96°09' 51.37" W) (ST-MMER-1-EEM-TPS)																		
08-Jul-25	< 0.00040	8.8	0.0102	< 0.0000050	< 1.0	< 0.00010	0.0000241	9.81	0.0124	0.00222	< 0.00001	0.000122	< 0.10	< 0.0010	< 0.000040	4.4	< 0.0000020	0.0000451
10-Aug-25	< 0.00040	8.1	0.0121	< 0.0000050	< 1.0	0.00016	0.0000230	11.20	0.0187	0.00243	< 0.00001	0.000116	< 0.10	< 0.0010	< 0.000040	4.6	< 0.0000020	0.0000509
09-Sep-25	< 0.00040	6.5	0.0160	< 0.0000050	< 1.0	< 0.00010	0.0000237	9.93	0.0128	0.00239	< 0.00001	0.000118	< 0.10	0.0037	< 0.000040	4.4	< 0.0000020	0.0000471

	Conductivity	T°	pH	O_2	O_2	Arsenic	Copper	Cyanide	Lead	Nickel	Ra226	TSS	Zinc
	µS/cm	°C		%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	Bq/L	mg/L	mg/L
Water Quality Monitoring Exposure Area (65°23'54.4" N 96°44' 21.6" W) (EEM-7-MAME-2)													
08-Jul-25	128.3	12.1	7.40	88.6	10.26	0.00150	0.000467	0.00058	0.0000247	0.00141	< 0.0050	< 1	0.00172
10-Aug-25	140.4	12.4	7.78	93.7	9.88	0.00200	0.000517	0.00079	0.0000144	0.00140	< 0.0050	1	0.00043
09-Sep-25	137.7	7.5	7.00	107.6	12.90	0.00191	0.000570	0.00209	0.0000190	0.00161	< 0.0050	7	0.00034
Water Quality Monitoring Reference Area (64°58'10.90" N 96°09 '51.37" W) (ST-MMER-1-EEM-TPS)													
08-Jul-25	28.5	4.11	6.71	110.1	13.93	0.000163	0.000478	< 0.00050	0.0000247	0.000780	< 0.0050	< 1	0.00089
10-Aug-25	21.5	10.1	7.18	94.0	10.40	0.000192	0.000457	0.00068	0.0000146	0.000619	< 0.0050	< 1	0.00038
09-Sep-25	27.4	9.66	6.72	96.5	10.98	0.000197	0.000627	< 0.00050	0.0000388	0.001030	< 0.0050	< 1	0.00336

Table 1-10 Whale Tail 2025 Attenuation Pond Discharge MDMER Monitoring (ST-MDMER-11)[§]

Month	As	Cu	CN	Pb	Ni	NH_3	Zn	TSS	Ra 226	pH	Results for Rainbow Trout Acute Lethality Tests	Results for Daphnia magna Monitoring Tests
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		(mean percentage mortality in 100% effluent test concentration)	(mean percentage mortality in 100% effluent test concentration)
January												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
February												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
March												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
April												
14-Apr-25	0.00496	0.00065	0.00540	< 0.00020	0.0095	< 0.0004	0.0059	1	0.0160	6.88	0	0
21-Apr-25	0.00685	0.00079	0.00730	< 0.00020	0.0154	0.0004	< 0.0050	1	0.0170	7.02	NMR	NMR
28-Apr-25	0.03350	0.00097	0.00780	< 0.00020	0.0146	0.0007	0.0057	5	0.0130	7.26	NMR	NMR
May												
5-May-25	0.01130	0.00079	0.00945	< 0.00020	0.0255	0.0006	0.0065	1	0.0180	7.15	0	0
12-May-25	0.01340	< 0.00050	0.00570	< 0.00020	0.0120	< 0.0004	< 0.0050	1	0.0190	7.13	NMR	NMR
19-May-25	0.01110	< 0.00050	0.00787	< 0.00020	0.0265	0.0014	< 0.0050	1	0.0090	7.58	NMR	NMR
27-May-25	0.00431	< 0.00050	0.00217	< 0.00020	0.0091	< 0.0004	0.0062	2	0.0060	7.15	NMR	NMR
June												
2-Jun-25	0.01310	0.00052	0.00134	< 0.00020	0.0125	0.0004	0.0056	2	< 0.0050	7.18	10	0
9-Jun-25	0.01170	0.00270	0.00277	< 0.00020	0.0138	0.0004	< 0.0050	3	< 0.0050	7.13	NMR	NMR
16-Jun-25	0.02130	0.00054	0.00446	< 0.00020	0.0212	< 0.0004	0.0050	3	< 0.0050	7.08	NMR	NMR
23-Jun-25	0.01910	0.00091	0.00161	< 0.00020	0.0139	0.0008	< 0.0050	2	0.0060	7.42	NMR	NMR
July												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
August												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
September												
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
October												
6-Oct-25	0.04660	0.00097	0.00426	< 0.00020	0.0134	0.0007	0.0073	2	< 0.0050	7.46	0	0
13-Oct-25	0.01630	0.00078	0.00919	< 0.00020	0.0176	0.0008	0.0052	2	0.0080	7.30	NMR	NMR
20-Oct-25	0.02860	0.00117	0.00627	< 0.00020	0.0159	0.0026	0.0052	2	0.0120	7.95	NMR	NMR
29-Oct-25	0.01650	0.00085	0.00435	< 0.00020	0.0147	0.0004	0.0068	2	< 0.0050	7.26	NMR	NMR
November												
5-Nov-25	0.01250	0.00114	0.00990	< 0.00020	0.0171	0.0007	0.0061	1	< 0.0050	7.44	NMR	NMR
8-Nov-25	0.01960	0.00070	0.00835	< 0.00020	0.0131	0.0007	< 0.0050	2	0.0180	7.54	0	0
10-Nov-25	0.02270	0.00129	0.00844	< 0.00020	0.0157	0.0004	0.0052	2	< 0.0050	7.23	NMR	NMR
17-Nov-25	0.02310	0.00098	0.00623	< 0.00020	0.0150	< 0.0004	< 0.0050	2	0.0160	7.11	NMR	NMR
24-Nov-25	0.00864	0.00098	0.01760	< 0.00020	0.0106	0.0015	0.0059	< 1	0.0130	7.34	NMR	NMR
December												
1-Dec-25	0.00777	0.00069	0.01040	< 0.00020	0.0067	< 0.0004	< 0.0050	2	< 0.0050	7.1	NMR	NMR
8-Dec-25	0.00906	0.00075	0.01380	< 0.00020	0.0094	0.0013	< 0.0050	1	0.0210	7.63	0	0
NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP	NDEP
29-Dec-25	0.00505	0.00057	0.00547	< 0.00020	0.0080	0.0006	0.0053	2	0.0190	7.52	NMR	NMR

NDEP: No Deposit
NMR: No Measurement Required

Table 1-11 Whale Tail 2025 Attenuation Pond Discharge MDMER Volume (ST-MDMER-11)§

Date	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
1	0	0	0	0	11,893	35,300	0	0	0	0	11,248	7,205	
2	0	0	0	0	11,930	35,240	0	0	0	0	11,719	6,669	
3	0	0	0	0	10,650	35,259	0	0	0	0	9,607	135	
4	0	0	0	0	12,057	36,008	0	0	0	0	8,855	1,984	
5	0	0	0	0	12,050	37,005	0	0	0	0	9,035	5,598	
6	0	0	0	0	11,967	38,480	0	0	0	5,207	9,444	6,146	
7	0	0	0	0	10,875	38,474	0	0	0	7,551	9,433	6,342	
8	0	0	0	0	9,470	39,110	0	0	0	9,475	9,412	6,192	
9	0	0	0	0	7,121	37,721	0	0	0	9,471	9,397	6,109	
10	0	0	0	0	7,075	37,646	0	0	0	7,869	9,362	6,130	
11	0	0	0	0	8,895	36,894	0	0	0	9,353	9,402	5,943	
12	0	0	0	0	13,053	35,978	0	0	0	9,366	9,344	5,978	
13	0	0	0	10,517	13,276	35,370	0	0	0	9,346	9,315	3,939	
14	0	0	0	11,873	13,302	34,952	0	0	0	9,358	9,288	0	
15	0	0	0	13,602	13,303	30,394	0	0	0	9,384	9,263	0	
16	0	0	0	13,611	13,324	25,597	0	0	0	10,888	9,232	0	
17	0	0	0	13,611	13,318	20,918	0	0	0	13,267	9,159	0	
18	0	0	0	13,610	13,279	6,924	0	0	0	15,325	9,138	0	
19	0	0	0	13,611	13,158	8,817	0	0	0	17,168	9,133	0	
20	0	0	0	12,484	17,247	12,911	0	0	0	17,048	9,153	0	
21	0	0	0	11,777	19,316	13,290	0	0	0	17,096	8,954	0	
22	0	0	0	11,631	19,375	13,295	0	0	0	16,998	9,202	0	
23	0	0	0	11,804	21,695	13,264	0	0	0	7,624	7,714	0	
24	0	0	0	11,958	22,462	13,245	0	0	0	14,628	7,934	0	
25	0	0	0	11,975	17,929	13,262	0	0	0	11,873	8,014	0	
26	0	0	0	11,984	20,394	12,996	0	0	0	11,222	7,626	0	
27	0	0	0	11,308	34,657	13,324	0	0	0	11,191	8,045	0	
28	0	0	0	10,955	35,624	11,926	0	0	0	11,221	6,956	1,183	
29	0		0	11,891	35,638	0	0	0	0	11,212	7,714	6,540	
30	0		0	11,801	35,564	0	0	0	0	11,214	7,499	6,424	
31	0		0		32,960		0	0		11,260		0	
Total (m^3)	**0**	**0**	**0**	**220,003**	**532,858**	**723,598**	**0**	**0**	**0**	**295,617**	**269,597**	**82,516**	**2,124,189**

Table 1-12 Whale Tail 2025 Attenuation Pond Discharge EEM Monitoring (ST-MDMER-11)§

	Alkalinity	Aluminum	Cadmium	Chloride	Chromium	Cobalt	Hardness	Iron	Manganese	Mercury	Molybdenum	Nitrate	Phosphorus	Selenium	Sulphate	Thallium	Uranium	Conductivity	T°
	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg N/L	mg P/L	mg/L	mg/L	mg/L	mg/L	µS/cm	°C
Effluent characterization (65°24' 9.84" N 96°41' 05.32" W) (ST-MDMER-11-EEM)																			
14-Apr-25	58.0	0.0049	0.000012	43	< 0.0010	0.00104	138.0	0.303	0.2670	< 0.00001	0.0055	1.22	< 0.0010	< 0.00010	66.0	0.000019	0.00079	381.0	0.4
2-Jun-25	34.0	0.0287	< 0.000010	34	< 0.0010	0.00143	103.0	0.403	0.2000	< 0.00001	0.0027	1.40	0.0010	0.00017	46.0	0.000012	0.00062	262.0	0.9
16-Jun-25	45.0	0.0185	0.000015	33	< 0.0010	0.00126	119.0	0.305	0.1780	< 0.00001	0.0049	2.60	< 0.0010	0.00019	60.0	0.000061	0.00103	326.0	1.8
6-Oct-25	47.0	0.0164	0.000012	91	< 0.0010	0.00112	231.0	0.753	0.0794	< 0.00001	0.0056	3.50	0.0027	0.00031	120.0	0.000017	0.00228	239.5	4.6
***Annual Average**										***0.000005***				***0.00018***					

**Annual average calculated using half the detection limit*

	Unionized Ammonia	Alkalinity	Aluminum	Cadmium	Chloride	Chromium	Cobalt	Hardness	Iron	Manganese	Mercury	Molybdenum	Nitrate	Phosphorus	Selenium	Sulphate	Thallium	Uranium
	mg N/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg $CaCO_3$/L	mg/L	mg/L	mg/L	mg/L	mg N/L	mg P/L	mg/L	mg/L	mg/L	mg/L
Water Quality Monitoring Exposure Area (65°23'45.88" N 96°41' 16.21" W) (WTSE-1)																		
21-Apr-25	< 0.00040	27.0	0.00676	< 0.0000050	23	0.00018	0.0000761	74.0	0.0215	0.00251	< 0.00001	0.001090	1.00	< 0.0010	0.000071	29.0	0.0000032	0.000229
28-Nov-25	< 0.00040	37.0	0.00545	< 0.0000050	26	0.00012	0.0001320	72.9	0.0304	0.02050	< 0.00001	0.001360	0.76	0.0021	< 0.000040	32.0	0.0000056	0.000277
12-Dec-25	< 0.00040	27.0	0.01190	< 0.0000050	23	0.00071	0.0001230	78.9	0.0331	0.01680	< 0.00001	0.001420	0.72	0.0015	0.000047	32.0	0.0000030	0.000282
30-Dec-25	0.00100	32.0	0.00556	< 0.0000050	24	0.00016	0.0001460	81.3	0.0249	0.02350	< 0.00001	0.001420	0.81	0.0013	0.000055	35.0	0.0000037	0.000245
Water Quality Monitoring Reference Area (64°58'10.90" N 96°09' 51.37" W) (ST-MMER-1-EEM-TPS)																		
20-Apr-25	< 0.00040	11.0	0.02280	< 0.0000050	1.1	0.00028	0.0000880	11.2	0.0896	0.002580	< 0.00001	0.000107	< 0.10	< 0.0010	< 0.000040	4.9	< 0.0000020	0.0000644
12-Dec-25	< 0.00270	15.0	0.00420	< 0.0000050	< 1.0	< 0.00010	0.0000130	10.7	0.0076	0.000980	< 0.00001	0.000118	< 0.10	< 0.0010	< 0.000040	4.6	< 0.0000020	0.0000450
30-Dec-25	< 0.00040	12.0	0.00350	< 0.0000050	1.0	< 0.00010	0.0000142	10.8	0.0041	0.000913	< 0.00001	0.000099	< 0.10	0.0012	< 0.000040	4.6	< 0.0000020	0.0000451

	Conductivity	T°	pH	O_2	O_2	Arsenic	Copper	Cyanide	Lead	Nickel	Ra226	TSS	Zinc
	µS/cm	°C		mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	Bq/L	mg/L	mg/L
Water Quality Monitoring Exposure Area (65°23'45.88" N 96°41' 16.21" W) (WTSE-1)													
21-Apr-25	172.4	0.00	7.00	13.06	98.8	0.000997	0.000624	0.00070	0.0000143	0.00361	< 0.0050	< 1	0.00101
28-Nov-25	215.0	0.57	7.30	15.00	105.5	0.001250	0.000489	0.00157	0.0001500	0.00301	< 0.0050	< 1	0.00311
12-Dec-25	154.2	1.00	7.40	13.53	97.1	0.000982	0.000534	0.00092	0.0000350	0.00289	< 0.0050	< 1	0.00100
30-Dec-25	219.2	0.63	8.11	15.35	108.4	0.001010	0.000496	0.00112	0.0000111	0.00301	< 0.0050	< 1	0.00076
Water Quality Monitoring Reference Area (64°58'10.90" N 96°09' 51.37" W) (ST-MMER-1-EEM-TPS)													
20-Apr-25	30.5	-0.02	6.94	17.97	126.8	0.001780	0.005640	< 0.00050	0.000387	0.00124	< 0.0050	< 1	0.00534
12-Dec-25	32.5	0.00	8.84	15.21	107.7	0.000179	0.000800	< 0.00050	0.000023	0.00056	< 0.0050	< 1	< 0.00100
30-Dec-25	11.8	0.00	7.55	14.71	100.4	0.000166	0.000442	< 0.00050	0.000010	0.00055	< 0.0050	< 1	0.00126

SECTION 2. MINE SITE WATER COLLECTION SYSTEM§

2.1 MEADOWBANK SITE§

Table 2-1 Meadowbank 2025 Non-Contact Water East Diversion Ditch Water Quality Monitoring (ST-5)§

ST-5	Unit	Max Grab	Monthly Mean	*Annual Average*					6/8/2025	7/12/2025	8/3/2025	9/8/2025	10/12/2025
Parameter				***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured													
Temperature	°C			*5.5*	*7.6*	*8.2*	*6.3*	*7.9*	4.6	13.7	12.4	8.7	0.1
pH	pH units			*7.87*	*7.93*	*7.67*	*7.65*	*8.07*	7.75	8.23	8.17	8.52	7.69
Conductivity	uS/cm			*120.9*	*134.0*	*151.7*	*202.5*	*160.4*	77.2	211.7	157.8	192.3	162.8
Turbidity	NTU			*2.94*	*5.78*	*3.72*	*8.05*	*4.72*	5.29	1.46	6.05	5.68	5.10
Conventional Parameters													
TSS	mg/L	30	15	*2*	*4*	*1*	*4*	*2*	1	1	2	2	2
Major Ions													
Cyanide	mg/L			*0.005*	*0.008*	*0.001*	*0.001*	*0.001*	< 0.00050	0.00053	0.00068	< 0.00050	< 0.00050
Sulfate	mg/L			*20*	*19*	*20*	*26*	*27*	5.8	33.0	17.0	38.0	40.0
Total Metals													
Aluminum	mg/L			*0.0633*	*0.1084*	*0.0356*	*0.1518*	*0.0561*	0.1200	0.0148	0.1090	0.0124	0.0244
Arsenic	mg/L			*0.0023*	*0.0025*	*0.0021*	*0.0052*	*0.0039*	0.00491	0.00248	0.00673	0.00314	0.00228
Copper	mg/L			*0.0040*	*0.0034*	*0.0026*	*0.0039*	*0.0043*	0.00572	0.00233	0.00815	0.00301	0.00219
Lead	mg/L			*0.0003*	*0.0005*	*0.0002*	*0.0005*	*0.0003*	0.00047	< 0.00020	0.00032	< 0.00020	< 0.00020
Nickel	mg/L			*0.0052*	*0.0073*	*0.0097*	*0.0092*	*0.0072*	0.0023	0.0088	0.0021	0.0085	0.0141
Zinc	mg/L			*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Radionuclides													
Radium-226	Bq/l			*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-2 Meadowbank 2025 Non-Contact Water West Diversion Ditch Water Quality Monitoring (ST-6)[§]

ST-6	Unit	Max Grab	Monthly Mean	*Annual Average*					6/8/2025	7/12/2025	8/3/2025	9/8/2025	10/12/2025
Parameter				***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured													
Temperature	°C			*5.8*	*6.1*	*5.6*	*5.4*	*7.0*	2.5	10.4	12.7	8.7	0.7
pH	pH units			*7.62*	*7.05*	*7.34*	*7.56*	*7.48*	7.93	7.49	7.52	7.10	7.36
Conductivity	uS/cm			*51.1*	*49.3*	*89.6*	*98.7*	*148.6*	28.3	39.2	279.9	191.8	204.0
Turbidity	NTU			*2.50*	*1.75*	*5.44*	*22.58*	*4.03*	0.98	1.81	5.65	10.20	1.49
Conventional Parameters													
TSS	mg/L	30	15	*1*	*1*	*6*	*18*	*2*	< 1	2	2	2	2
Major Ions													
Cyanide	mg/L			*0.005*	*0.005*	*0.001*	*0.001*	*0.001*	< 0.00050	< 0.00050	0.00154	0.00112	< 0.00050
Sulfate	mg/L			*9*	*5*	*16*	*10*	*25*	4.7	5.1	67.0	45.0	5.6
Total Metals													
Aluminum	mg/L			*0.0352*	*0.0114*	*0.1056*	*0.1460*	*0.0374*	0.0067	0.0208	0.0914	0.0601	0.0080
Arsenic	mg/L			*0.0005*	*0.0002*	*0.0009*	*0.0014*	*0.0017*	0.00024	0.00033	0.00435	0.00324	0.00023
Copper	mg/L			*0.0011*	*0.0005*	*0.0017*	*0.0016*	*0.0021*	< 0.00050	0.00053	0.00592	0.00281	0.00098
Lead	mg/L			*0.0002*	*0.0002*	*0.0003*	*0.0005*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Nickel	mg/L			*0.0016*	*0.0010*	*0.0038*	*0.0029*	*0.0071*	< 0.0010	< 0.0010	0.0136	0.0191	< 0.0010
Zinc	mg/L			*0.005*	*0.005*	*0.006*	*0.008*	*0.006*	< 0.0050	< 0.0050	0.0083	0.0058	< 0.0050
Radionuclides													
Radium-226	Bq/l			*0.005*	*0.006*	*0.006*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-3 Meadowbank 2025 East Dike Discharge Water Quality Monitoring (ST-8)[§]

ST-8 Parameter	Unit	Max Grab	Monthly Mean	*Annual Average* 2021	2022	2023	2024	2025	1/6/2025	1/13/2025	1/20/2025	1/27/2025	2/3/2025	2/10/2025	2/17/2025	2/24/2025	3/3/2025	3/4/2025	3/23/2025	3/24/2025
Field Measured																				
Temperature	°C			*1.7*	*0.5*	*0.3*	*1.9*	*0.4*	0.8	0.5	0.4	-0.1	0.4	0.1	-0.3	-0.1	-0.2	0.0	0.4	0.3
pH	pH units			*7.69*	*7.93*	*8.28*	*8.68*	*8.20*	9.06	8.78	8.35	8.27	8.95	8.62	8.02	7.57	8.17	8.02	7.78	8.02
Conductivity	uS/cm			*82.6*	*79.6*	*71.2*	*158.7*	*102.1*	71.9	79.0	159.4	144.8	82.1	74.4	82.8	86.6	101.5	77.0	268.0	85.2
Turbidity	NTU			*3.98*	*2.80*	*2.93*	*1.57*	*2.39*	1.04	2.33	1.72	1.30	2.22	2.57	2.66	1.26	2.24	11.70	3.59	0.81
Conventional Parameters																				
TSS	mg/L	30	15	*7*	*5*	*3*	*2*	*4*	3	5	2	3	3	4	4	3	2	32 30*	5	6
Major Ions																				
Cyanide	mg/L			*0.004*	*0.001*	*0.001*	*0.001*	*0.001*	< 0.00050	< 0.00050	-	-	< 0.00050	-	-	-	< 0.00050	-	-	< 0.00050
Sulfate	mg/L			*7*	*7*	*7*	*26*	*9*	8.5	8.1	-	-	8.8	-	-	-	11.0	-	-	8.4
Total Metals																				
Aluminum	mg/L			*0.0890*	*0.0670*	*0.0550*	*0.0340*	*0.0563*	0.0594	0.0728	-	-	0.0493	-	-	-	0.0386	-	-	0.0854
Arsenic	mg/L			*0.0008*	*0.0011*	*0.0013*	*0.0013*	*0.0009*	0.00095	0.00092	-	-	0.00081	-	-	-	0.00094	-	-	0.00099
Copper	mg/L			*0.0010*	*0.0014*	*0.0013*	*0.0024*	*0.0012*	0.00125	0.00157	-	-	0.00111	-	-	-	0.00142	-	-	0.00110
Lead	mg/L			*0.0002*	*0.0002*	*0.0002*	*0.0002*	*0.0002*	< 0.00020	< 0.00020	-	-	< 0.00020	-	-	-	< 0.00020	-	-	< 0.00020
Nickel	mg/L			*0.0033*	*0.0009*	*0.0011*	*0.0044*	*0.0010*	< 0.0010	< 0.0010	-	-	< 0.0010	-	-	-	< 0.0010	-	-	< 0.0010
Zinc	mg/L			*0.004*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	-	-	< 0.0050	-	-	-	< 0.0050	-	-	< 0.0050
Radionuclides																				
Radium-226	Bq/l			*0.005*	*0.006*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	-	-	< 0.0050	-	-	-	< 0.0050	-	-	< 0.0050

ST-8 Parameter	Unit	Max Grab	Monthly Mean	*Annual Average* 2021	2022	2023	2024	2025	3/25/2025	3/26/2025	3/27/2025	3/28/2025	3/29/2025	3/30/2025	3/31/2025	4/7/2025	4/14/2025	4/21/2025	4/28/2025
Field Measured																			
Temperature	°C			*1.7*	*0.5*	*0.3*	*1.9*	*0.4*	0.6	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.2	0.7
pH	pH units			*7.69*	*7.93*	*8.28*	*8.68*	*8.20*	8.04	7.55	8.54	7.85	8.26	8.23	8.16	8.32	7.89	8.31	7.73
Conductivity	uS/cm			*82.6*	*79.6*	*71.2*	*158.7*	*102.1*	78.8	92.9	116.0	102.6	84.2	92.0	83.7	121.6	107.3	83.0	74.6
Turbidity	NTU			*3.98*	*2.80*	*2.93*	*1.57*	*2.39*	1.50	1.70	1.86	2.29	1.87	2.00	1.34	1.16	3.95	1.52	2.30
Conventional Parameters																			
TSS	mg/L	30	15	*7*	*5*	*3*	*2*	*4*	4	5	6	3	3	3	2	1	1	3	6
Major Ions																			
Cyanide	mg/L			*0.004*	*0.001*	*0.001*	*0.001*	*0.001*	-	-	-	-	-	-	-	< 0.00050	-	-	-
Sulfate	mg/L			*7*	*7*	*7*	*26*	*9*	-	-	-	-	-	-	-	9.1	-	-	-
Total Metals																			
Aluminum	mg/L			*0.0890*	*0.0670*	*0.0550*	*0.0340*	*0.0563*	-	-	-	-	-	-	-	0.0324	-	-	-
Arsenic	mg/L			*0.0008*	*0.0011*	*0.0013*	*0.0013*	*0.0009*	-	-	-	-	-	-	-	0.00050	-	-	-
Copper	mg/L			*0.0010*	*0.0014*	*0.0013*	*0.0024*	*0.0012*	-	-	-	-	-	-	-	0.00095	-	-	-
Lead	mg/L			*0.0002*	*0.0002*	*0.0002*	*0.0002*	*0.0002*	-	-	-	-	-	-	-	< 0.00020	-	-	-
Nickel	mg/L			*0.0033*	*0.0009*	*0.0011*	*0.0044*	*0.0010*	-	-	-	-	-	-	-	< 0.0010	-	-	-
Zinc	mg/L			*0.004*	*0.005*	*0.005*	*0.005*	*0.005*	-	-	-	-	-	-	-	< 0.0050	-	-	-
Radionuclides																			
Radium-226	Bq/l			*0.005*	*0.006*	*0.005*	*0.005*	*0.005*	-	-	-	-	-	-	-	< 0.0050	-	-	-

**Re-analysis results of original sample collected on March 4, 2025*

Table 2-4 Meadowbank 2025 Vault Attenuation Pond Discharge Water Quality Monitoring (ST-10)[§]

ST-10 Parameter	Unit	Max Grab	Monthly Mean	*Annual Average 2025*	9/2/2025	9/22/2025	9/29/2025	10/6/2025	10/13/2025	10/20/2025	10/27/2025	11/5/2025	11/8/2025	11/10/2025
Field Measured														
Temperature	°C			*3.4*	9.8	8.7	7.9	3.5	0.5	-0.3	1.0	0.1	0.7	1.6
pH	pH units	6.0 - 9.0	6.0 - 9.0	*7.51*	7.60	7.54	7.31	7.51	7.37	7.14	7.07	8.12	7.80	7.61
Conductivity	uS/cm			*105.9*	132.1	123.3	134.2	118.0	97.2	118.2	101.5	5.0	116.8	112.4
Turbidity	NTU	15	15	*3.88*	5.14	4.97	2.99	3.68	5.39	2.21	2.52	3.66	3.90	4.30
Conventional Parameters														
Hardness, as $CaCO_3$	mg/L			*64.6*	57.8	64.0	61.6	62.0	66.0	60.2	62.8	67.5	66.6	77.6
Total alkalinity, as $CaCO_3$	mg/L			*33*	31	31	32	31	34	32	33	35	37	36
Carbonate, as $CaCO_3$	mg/L			*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L			*33*	31	31	32	31	33	32	33	34	37	35
TDS	mg/L			*74*	65	75	80	55	65	65	55	90	135	50
TSS	mg/L	30	15	*3*	3	1	1	3	4	2	1	15	2	< 1
Total organic carbon	mg/L			*2.5*	2.6	2.5	2.6	2.5	2.4	2.4	2.5	2.4	2.5	2.6
Dissolved organic carbon	mg/L			*2.4*	2.5	2.3	2.5	2.3	2.3	2.3	2.3	2.8	2.4	2.5
Major Ions														
Chloride	mg/L	1000	500	*2.5*	2.4	2.4	2.4	2.5	2.6	2.3	2.5	2.6	2.5	2.7
Cyanide	mg/L			*0.001*	< 0.00050	< 0.00050	< 0.00050	< 0.00050	0.00076	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Cyanide (free)	mg/L			*0.001*	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Silica	mg/L			*0.26*	0.16	0.08	0.12	0.20	0.28	0.38	0.34	0.34	0.38	0.36
Sulfate	mg/L			*38*	35	36	37	38	37	37	39	40	42	41
Nutrients														
Ammonia Nitrogen	mg N/L	40	20	*0.063*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.180	< 0.050	< 0.050	< 0.050	< 0.050
Nitrate	mg N/L	100	50	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg N/L			*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Kjeldahl nitrogen	mg N/L			*0.17*	0.14	0.18	0.30	0.13	0.15	0.17	0.14	0.18	0.14	0.16
Total phosphorus	mg P/L	3.0	1.5	*0.001*	< 0.0010	< 0.0010	< 0.0010	0.0032	0.0020	0.0010	< 0.0010	< 0.0010	0.0019	< 0.0010
Orthophosphate	mg P/L			*0.01*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals														
Aluminum	mg/L	3.0	1.5	*0.0306*	0.0209	0.0120	0.0155	0.0422	0.0835	0.0278	0.0244	0.0240	0.0292	0.0265
Antimony	mg/L			*0.0005*	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.2	0.1	*0.00061*	0.00054	0.00056	0.00053	0.00059	0.00063	0.00057	0.00062	0.00067	0.00065	0.00071
Barium	mg/L			*0.0100*	0.0087	0.0095	0.0097	0.0102	0.0106	0.0090	0.0094	0.0107	0.0107	0.0115
Beryllium	mg/L			*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L			*0.05*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	0.004	0.002	*0.00001*	< 0.000010	< 0.000010	< 0.000010	0.00001	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (total)	mg/L			*17.76*	16.10	17.90	17.00	17.00	18.00	16.60	17.50	18.30	18.00	21.20
Chromium	mg/L			*0.001*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	0.2	0.1	*0.00211*	0.00443	0.00274	0.00219	0.00163	0.00267	0.00137	0.00141	0.00148	0.00154	0.00165
Iron	mg/L			*0.070*	0.035	0.024	0.034	0.082	0.178	0.060	0.056	0.070	0.080	0.082
Lead	mg/L	0.2	0.1	*0.00038*	0.00041	0.00026	< 0.00020	< 0.00020	0.00173	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L			*0.002*	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium (total)	mg/L			*4.91*	4.26	4.68	4.63	4.73	5.10	4.55	4.64	5.30	5.26	5.95
Manganese	mg/L			*0.0065*	0.0030	0.0027	0.0033	0.0054	0.0075	0.0062	0.0070	0.0096	0.0093	0.0106
Mercury	mg/L	0.008	0.004	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L			*0.0035*	0.0034	0.0036	0.0034	0.0036	0.0035	0.0032	0.0031	0.0036	0.0034	0.0038
Nickel	mg/L	0.4	0.2	*0.0011*	0.0010	0.0010	0.0011	0.0011	0.0013	0.0010	< 0.0010	0.0011	0.0011	0.0014
Potassium (total)	mg/L			*1.40*	1.31	1.32	1.33	1.34	1.41	1.31	1.42	1.46	1.45	1.67
Selenium	mg/L			*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010

ST-10 Parameter	Unit	Max Grab	Monthly Mean	*Annual Average 2025*	9/2/2025	9/22/2025	9/29/2025	10/6/2025	10/13/2025	10/20/2025	10/27/2025	11/5/2025	11/8/2025	11/10/2025
Sodium (total)	mg/L			*1.68*	1.52	1.55	1.63	1.60	1.76	1.60	1.64	1.80	1.72	1.99
Strontium	mg/L			*0.0969*	0.0873	0.0948	0.0933	0.0979	0.0969	0.0908	0.0919	0.1030	0.1010	0.1120
Thallium	mg/L			*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L			*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L			*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L			*0.00093*	0.00087	0.00085	0.00082	0.00079	0.00102	0.00093	0.00097	0.00103	0.00094	0.00107
Vanadium	mg/L			*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.4	0.2	*0.0088*	0.0134	0.0159	0.0162	< 0.0050	0.0120	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Dissolved Metals														
Aluminum	mg/L	2.0	1.0	*0.0058*	0.0086	0.0064	0.0055	0.0087	0.0056	0.0067	0.0036	0.0041	0.0045	0.0046
Antimony	mg/L			*0.0005*	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L			*0.00092*	0.00193	0.00058	0.00185	0.00053	0.00058	0.00063	0.00122	0.00062	0.00063	0.00063
Barium	mg/L			*0.0100*	0.0092	0.0094	0.0101	0.0096	0.0098	0.0094	0.0102	0.0100	0.0111	0.0113
Beryllium	mg/L			*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L			*0.05*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L			*0.000010*	0.000011	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L			*0.001*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L			*0.00432*	0.02060	0.00762	0.00411	0.00130	0.00157	0.00169	0.00244	0.00125	0.00130	0.00133
Iron	mg/L			*0.0142*	0.0058	< 0.0050	< 0.0050	0.0120	0.0218	0.0173	0.0068	0.0208	0.0222	0.0251
Lead	mg/L			*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L			*0.002*	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L			*0.0045*	0.0028	0.0013	0.0021	0.0020	0.0041	0.0048	0.0062	0.0066	0.0073	0.0073
Mercury	mg/L			*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L			*0.0035*	0.0035	0.0034	0.0039	0.0034	0.0034	0.0034	0.0036	0.0032	0.0036	0.0037
Nickel	mg/L			*0.0020*	0.0095	0.0012	0.0017	< 0.0010	0.0011	< 0.0010	0.0014	< 0.0010	0.0010	0.0011
Selenium	mg/L			*0.00012*	0.00024	< 0.00010	0.00014	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Strontium	mg/L			*0.0995*	0.0904	0.0937	0.1020	0.0979	0.0948	0.0942	0.1020	0.1040	0.1070	0.1090
Thallium	mg/L			*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L			*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L			*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L			*0.00090*	0.00074	0.00089	0.00089	0.00082	0.00088	0.00098	0.00088	0.00086	0.00102	0.00105
Vanadium	mg/L			*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L			*0.0071*	0.0084	0.0172	0.0053	< 0.0050	0.0096	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Volatile Organics														
Petroleum Hydrocarbons F (C10-C50)	mg/L			*0.22*	< 0.20	0.25	< 0.20	< 0.20	0.33	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Table 2-5 Meadowbank 2025 East Dike Seepage Water Quality Monitoring (ST-S-1)[§]

ST-S-1	Unit	*Annual Average*					3/4/2025	3/5/2025	3/6/2025	3/7/2025	3/19/2025	5/18/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***						
Field Measured												
Temperature	°C	*5.8*	*2.7*	*3.6*	*3.5*	*3.0*	0.2	0.9	0.0	0.0	1.0	1.4
pH	pH units	*7.65*	*7.99*	*7.79*	*7.88*	*8.37*	7.99	7.80	7.69	7.99	8.07	8.54
Conductivity	uS/cm	*426.6*	*116.5*	*199.2*	*114.3*	*96.9*	124.6	73.7	71.6	81.2	80.7	70.6
Turbidity	NTU	*7.04*	*15.90*	*6.49*	*3.03*	*5.4*	17.00	5.33	4.25	4.41	1.59	1.30
Conventional Parameters												
Hardness, as $CaCO_3$	mg/L	*50.8*	*59.1*	*51.3*	*44.5*	*52.1*	-	-	-	-	32.7	35.1
Total alkalinity, as $CaCO_3$	mg/L	*31*	*33*	*34*	*35*	*33*	-	-	-	-	32	34
TDS	mg/L	*63*	*73*	*86*	*78*	*79*	-	-	-	-	35	45
TSS	mg/L	*9*	*6*	*8*	*4*	*5*	20	10	6	5	3	2
Major Ions												
Chloride	mg/L	*1.2*	*1.2*	*1.0*	*1.3*	*2.8*	-	-	-	-	1.5	1.5
Cyanide	mg/L	*0.005*	*0.001*	*0.001*	*0.001*	*0.001*	< 0.00050	-	-	-	< 0.00050	< 0.00050
Fluoride	mg/L	*0.12*	*0.12*	*0.11*	*0.11*	*0.12*	-	-	-	-	0.13	0.11
Sulfate	mg/L	*23*	*29*	*26*	*20*	*24*	8.7	-	-	-	7.7	8.5
Nutrients												
Ammonia Nitrogen	mg N/L	*0.070*	*0.060*	*0.050*	*0.050*	*0.128*	< 0.050	-	-	-	< 0.050	< 0.050
Nitrate	mg N/L	*0.37*	*0.41*	*0.35*	*0.36*	*0.30*	-	-	-	-	< 0.10	0.11
Nitrite	mg N/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	-	-	-	-	< 0.010	< 0.010
Total Metals												
Aluminum	mg/L	*0.1741*	*0.1263*	*0.1381*	*0.0492*	*0.0768*	0.233	-	-	-	0.0403	0.0346
Arsenic	mg/L	*0.0136*	*0.0022*	*0.0027*	*0.0019*	*0.0017*	0.00105	-	-	-	0.00086	0.00030
Barium	mg/L	*0.0098*	*0.0105*	*0.0098*	*0.0091*	*0.0098*	-	-	-	-	0.0080	0.0085
Cadmium	mg/L	*0.00001*	*0.00002*	*0.00001*	*0.00001*	*0.00002*	-	-	-	-	< 0.000010	< 0.000010
Chromium	mg/L	*0.0026*	*0.0015*	*0.0032*	*0.0008*	*0.0010*	-	-	-	-	< 0.0010	< 0.0010
Copper	mg/L	*0.0029*	*0.0021*	*0.0020*	*0.0017*	*0.0015*	0.00175	-	-	-	0.00107	0.00093
Iron	mg/L	*0.3488*	*0.2294*	*0.2463*	*0.0764*	*0.0870*	-	-	-	-	0.0500	0.0380
Lead	mg/L	*0.0008*	*0.0002*	*0.0003*	*0.0002*	*0.0002*	0.00022	-	-	-	< 0.00020	< 0.00020
Manganese	mg/L	*0.0201*	*0.0368*	*0.0063*	*0.0120*	*0.0174*	-	-	-	-	0.00140	0.00110
Mercury	mg/L	*0.00001*	*0.00001*	*0.00002*	*0.00001*	*0.00001*	-	-	-	-	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0012*	*0.0012*	*0.0028*	*0.0010*	*0.0012*	-	-	-	-	< 0.0010	< 0.0010
Nickel	mg/L	*0.0054*	*0.0089*	*0.0103*	*0.0033*	*0.0054*	0.0012	-	-	-	< 0.0010	< 0.0010
Selenium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	-	-	-	-	< 0.00010	< 0.00010
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	-	-	-	-	< 0.000020	< 0.000020
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	-	-	-	-	< 0.000010	< 0.000010
Zinc	mg/L	*0.008*	*0.008*	*0.006*	*0.006*	*0.0048*	< 0.0050	-	-	-	< 0.0050	< 0.0050

ST-S-1	Unit	*Annual Average*					6/15/2025	7/6/2025	8/3/2025	9/1/2025	10/27/2025	11/3/2025	11/10/2025	11/17/2025	12/15/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***									
Field Measured															
Temperature	°C	*5.8*	*2.7*	*3.6*	*3.5*	*2.4*	3.6	13.2	6.2	7.0	2.3	2.9	3.7	2.3	0.8
pH	pH units	*7.65*	*7.99*	*7.79*	*7.88*	*8.27*	7.65	7.58	8.20	8.31	8.86	8.90	9.17	9.19	9.62
Conductivity	uS/cm	*426.6*	*116.5*	*199.2*	*114.3*	*93.3*	309.0	33.8	122.0	130.8	90.0	46.9	101.2	55.1	62.5
Turbidity	NTU	*7.04*	*15.90*	*6.49*	*3.03*	*4.89*	2.41	2.67	14.10	15.60	2.64	1.48	3.40	3.38	1.66
Conventional Parameters															
Hardness, as $CaCO_3$	mg/L	*50.8*	*59.1*	*51.3*	*44.5*	*52.1*	38.4	150.0	65.8	59.7	54.3	35.3	33.7	36.5	31.8
Total alkalinity, as $CaCO_3$	mg/L	*31*	*33*	*34*	*35*	*33*	30	34	35	35	32	43	27	29	30
TDS	mg/L	*63*	*73*	*86*	*78*	*79*	50	215	125	105	60	65	35	85	45
TSS	mg/L	*9*	*6*	*8*	*4*	*5*	3	15	3	1	1	< 1	1	< 1	< 1
Major Ions															
Chloride	mg/L	*1.2*	*1.2*	*1.0*	*1.3*	*2.8*	1.5	8.5	4.3	6.3	2.1	1.5	1.1	1.5	1.2
Cyanide	mg/L	*0.005*	*0.001*	*0.001*	*0.001*	*0.001*	0.00058	< 0.00050	0.00062	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Fluoride	mg/L	*0.12*	*0.12*	*0.11*	*0.11*	*0.12*	< 0.10	0.19	0.12	0.12	0.12	0.13	0.11	0.12	0.12
Sulfate	mg/L	*23*	*29*	*26*	*20*	*24*	12.0	110.0	33.0	34.0	27.0	13.0	11.0	10.0	9.4
Nutrients															
Ammonia Nitrogen	mg N/L	*0.070*	*0.060*	*0.050*	*0.050*	*0.128*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.990	< 0.050	< 0.050	< 0.050
Nitrate	mg N/L	*0.37*	*0.41*	*0.35*	*0.36*	*0.30*	0.14	0.75	0.57	0.73	0.4	0.17	0.13	0.12	0.12
Nitrite	mg N/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals															
Aluminum	mg/L	*0.1741*	*0.1263*	*0.1381*	*0.0492*	*0.0768*	0.0477	0.3000	0.0597	0.0090	0.0560	0.0302	0.0329	0.0370	0.0414
Arsenic	mg/L	*0.0136*	*0.0022*	*0.0027*	*0.0019*	*0.0017*	0.00237	0.00562	0.00254	0.00173	0.00179	0.00126	0.00109	0.00129	0.00109
Barium	mg/L	*0.0098*	*0.0105*	*0.0098*	*0.0091*	*0.0098*	0.0086	0.0138	0.0141	0.0115	0.0102	0.0085	0.0075	0.0085	0.0082
Cadmium	mg/L	*0.00001*	*0.00002*	*0.00001*	*0.00001*	*0.00002*	< 0.000010	0.000091	< 0.000010	< 0.0000050	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.0026*	*0.0015*	*0.0032*	*0.0008*	*0.0010*	< 0.0010	0.00106	0.0017	< 0.00010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	*0.0029*	*0.0021*	*0.0020*	*0.0017*	*0.0015*	0.00102	0.00115	0.00188	0.00110	0.00183	0.00178	0.00144	0.00159	0.00200
Iron	mg/L	*0.3488*	*0.2294*	*0.2463*	*0.0764*	*0.0870*	0.0650	0.5080	0.1150	0.0085	0.0700	0.0220	0.0290	0.0280	0.0230
Lead	mg/L	*0.0008*	*0.0002*	*0.0003*	*0.0002*	*0.0002*	< 0.00020	0.000273	0.000350	0.000036	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Manganese	mg/L	*0.0201*	*0.0368*	*0.0063*	*0.0120*	*0.0174*	0.00430	0.17000	0.00510	0.00213	0.00340	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Mercury	mg/L	*0.00001*	*0.00001*	*0.00002*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0012*	*0.0012*	*0.0028*	*0.0010*	*0.0012*	< 0.0010	0.00317	0.00110	0.00113	0.00110	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	*0.0054*	*0.0089*	*0.0103*	*0.0033*	*0.0054*	0.00120	0.05070	0.00260	0.00144	0.00210	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Selenium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	0.000267	< 0.00010	0.000099	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.0000050	< 0.000020	< 0.000010	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	0.0000189	< 0.000010	0.0000054	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Zinc	mg/L	*0.008*	*0.008*	*0.006*	*0.006*	*0.005*	< 0.0050	0.00668	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-6 Meadowbank 2025 Portage WRSF Water Quality Monitoring (ST-16)§

ST-16	Unit	*Annual Average*					6/15/2025	7/14/2025	8/17/2025	9/8/2025	10/12/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*4.5*	*6.3*	*7.1*	*9.9*	*7.0*	5.2	13.7	9.8	6.3	0.1
pH	pH units	*7.67*	*7.27*	*7.45*	*7.35*	*7.50*	7.37	7.44	7.41	7.75	7.55
Conductivity	uS/cm	*281.8*	*294.7*	*294.3*	*269.9*	*333.5*	535.0	304.0	336.2	315.9	176.2
Turbidity	NTU	*12.91*	*23.23*	*12.85*	*12.72*	*13.58*	7.32	20.80	14.00	12.80	13.00
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*125.0*	*142.5*	*118.0*	*112.0*	*145.7*	82.3	121.0	168.0	172.0	185.0
Total alkalinity, as $CaCO_3$	mg/L	*63*	*86*	*75*	*65*	*92*	66	85	98	110	100
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*62*	*86*	*74*	*65*	*91*	65	85	97	110	100
TDS	mg/L	*182*	*174*	*174*	*182*	*211*	125	175	230	250	275
TSS	mg/L	*8*	*15*	*11*	*10*	*12*	8	18	8	4	21
Total organic carbon	mg/L	*2.9*	*4.2*	*3.9*	*3.4*	*3.5*	4.0	3.4	2.6	3.3	4.1
Dissolved organic carbon	mg/L	*2.6*	*3.8*	*3.7*	*3.0*	*3.2*	3.9	3.1	2.3	3.1	3.8
Colour	TCU	*12*	*16*	*15*	*14*	*13*	17	18	10	13	9
Major Ions											
Bromide	mg/L	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	*3.0*	*3.8*	*2.0*	*1.9*	*2.6*	1.2	2.0	2.6	3.5	3.9
Cyanide	mg/L	*0.005*	*0.002*	*0.002*	*0.003*	*0.002*	0.00246	0.00248	0.00283	0.00213	0.00232
Cyanide (free)	mg/L	*0.003*	*0.003*	*0.003*	*0.003*	*0.001*	0.00108	0.00107	< 0.00050	0.00111	0.00100
Cyanide (WAD)	mg/L	*0.002*	*0.001*	*0.001*	*0.001*	*0.001*	0.0016	0.0014	0.0015	0.0015	0.0012
Fluoride	mg/L	*0.20*	*0.19*	*0.18*	*0.18*	*0.20*	0.15	0.20	0.22	0.19	0.23
Silica	mg/L	*4.10*	*3.93*	*3.38*	*2.54*	*4.30*	2.6	4.4	4.3	4.1	6.1
Sulfate	mg/L	*64*	*70*	*62*	*64*	*83*	39	64	94	97	120
Thiocyanate	mg/L	*0.20*	*1.15*	*0.20*	*0.20*	*0.38*	< 0.50	< 0.50	< 0.50	< 0.20	< 0.20
Thiosulphates	mg/L	*0.20*	*1.15*	*0.20*	*0.20*	*0.20*	-	< 10.0*	< 10.0*	< 0.20	< 0.20
Nutrients											
Ammonia Nitrogen	mg N/L	*0.050*	*0.115*	*0.090*	*0.150*	*0.109*	0.100	0.130	0.075	0.160	0.081
Nitrate	mg N/L	*3.28*	*1.45*	*1.41*	*1.31*	*1.48*	0.19	0.71	1.24	1.71	3.54
Nitrite	mg N/L	*0.014*	*0.015*	*0.011*	*0.014*	*0.011*	< 0.010	0.012	< 0.010	< 0.010	0.013
Total Kjeldahl nitrogen	mg N/L	*0.23*	*0.27*	*0.33*	*0.45*	*0.25*	0.32	0.29	0.19	0.27	0.17
Total phosphorus	mg P/L	*0.013*	*0.013*	*0.012*	*0.011*	*0.011*	0.0120	0.0100	0.0094	0.0027	0.0230
Orthophosphate	mg P/L	*0.010*	*0.012*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chlorophyll a	mg/L	*0.0002*	*0.0003*	*0.0004*	*0.0012*	*0.0018*	< 0.0018	0.0031	0.00087	0.0022	< 0.0011

ST-16	Unit	*Annual Average*					6/15/2025	7/14/2025	8/17/2025	9/8/2025	10/12/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Total Metals											
Aluminum	mg/L	*0.2966*	*0.5739*	*0.2424*	*0.2772*	*0.1433*	0.2050	0.0733	0.1140	0.0272	0.2970
Antimony	mg/L	*0.00125*	*0.00080*	*0.00080*	*0.00067*	*0.00068*	< 0.00050	0.00089	0.00098	0.00052	< 0.00050
Arsenic	mg/L	*0.0464*	*0.0146*	*0.0140*	*0.0093*	*0.0083*	0.00594	0.00850	0.01280	0.00639	0.00786
Barium	mg/L	*0.0150*	*0.0181*	*0.0149*	*0.0162*	*0.0164*	0.0115	0.0134	0.0172	0.0205	0.0196
Beryllium	mg/L	*0.00010*	*0.00010*	*0.00010*	*0.00010*	*0.00010*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L	*0.050*	*0.050*	*0.050*	*0.050*	*0.050*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	*0.000011*	*0.000013*	*0.000011*	*0.000011*	*0.000010*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	0.000011
Calcium (total)	mg/L	*27.5*	*33.2*	*28.0*	*26.1*	*33.6*	19.0	27.6	38.3	38.2	44.8
Chromium	mg/L	*0.00566*	*0.00382*	*0.00375*	*0.00406*	*0.00250*	0.0025	0.0012	0.0017	< 0.0010	0.0061
Cobalt	mg/L	*0.0009*	*0.0012*	*0.0007*	*0.0010*	*0.0007*	0.00055	0.00059	0.00060	0.00069	0.00100
Copper	mg/L	*0.0050*	*0.0100*	*0.0049*	*0.0056*	*0.0051*	0.00619	0.00580	0.00498	0.00389	0.00441
Iron	mg/L	*0.514*	*1.466*	*0.611*	*0.740*	*0.586*	0.701	0.475	0.463	0.496	0.795
Lead	mg/L	*0.0003*	*0.0009*	*0.0004*	*0.0007*	*0.0003*	0.00021	< 0.00020	< 0.00020	< 0.00020	0.00071
Lithium	mg/L	*0.0020*	*0.0022*	*0.0020*	*0.0020*	*0.0020*	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium (total)	mg/L	*13.59*	*15.57*	*11.72*	*11.44*	*15.01*	8.47	12.70	17.60	18.50	17.80
Manganese	mg/L	*0.0594*	*0.1991*	*0.0613*	*0.0906*	*0.1096*	0.0694	0.1130	0.0746	0.2230	0.0680
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0209*	*0.0123*	*0.0132*	*0.0160*	*0.0138*	0.0105	0.0185	0.0171	0.0156	0.0071
Nickel	mg/L	*0.0094*	*0.0181*	*0.0062*	*0.0077*	*0.0070*	0.0064	0.0067	0.0070	0.0072	0.0078
Potassium (total)	mg/L	*6.98*	*6.87*	*5.10*	*4.95*	*6.55*	4.05	5.80	8.02	8.31	6.59
Selenium	mg/L	*0.0008*	*0.0003*	*0.0003*	*0.0003*	*0.0003*	< 0.00010	0.00033	0.00034	0.00024	0.00036
Silver	mg/L	*0.000021*	*0.000022*	*0.000020*	*0.000020*	*0.000020*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (total)	mg/L	*5.68*	*7.23*	*3.80*	*3.77*	*5.03*	2.68	4.36	6.19	6.10	5.81
Strontium	mg/L	*0.153*	*0.173*	*0.139*	*0.136*	*0.173*	0.0924	0.1530	0.2150	0.2030	0.2030
Thallium	mg/L	*0.00001*	*0.00002*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	0.000011	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	*0.0100*	*0.0123*	*0.0084*	*0.0095*	*0.0064*	0.0058	< 0.0050	< 0.0050	< 0.0050	0.0114
Uranium	mg/L	*0.0048*	*0.0048*	*0.0032*	*0.0026*	*0.0042*	0.00133	0.00312	0.00535	0.00542	0.00597
Vanadium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

ST-16	Unit	*Annual Average*					6/15/2025	7/14/2025	8/17/2025	9/8/2025	10/12/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Dissolved Metals											
Aluminum	mg/L	*0.0069*	*0.0088*	*0.0103*	*0.0128*	*0.0057*	0.0080	0.0056	0.0064	0.0056	< 0.0030
Antimony	mg/L	*0.00121*	*0.00078*	*0.00084*	*0.00070*	*0.00070*	< 0.00050	0.00091	0.00107	0.00052	< 0.00050
Arsenic	mg/L	*0.0434*	*0.0111*	*0.0125*	*0.0068*	*0.0059*	0.00602	0.00936	0.00958	0.00259	0.00199
Barium	mg/L	*0.0197*	*0.0146*	*0.0148*	*0.0158*	*0.0146*	0.0108	0.0125	0.0208	0.0226	0.0064
Beryllium	mg/L	*0.00010*	*0.00010*	*0.00010*	*0.00010*	*0.00010*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L	*0.0500*	*0.0500*	*0.0500*	*0.0500*	*0.0500*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	*0.00001*	*0.00002*	*0.00011*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	0.000014	< 0.000010	< 0.000010
Chromium	mg/L	*0.00100*	*0.00100*	*0.00100*	*0.00100*	*0.00100*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	*0.00046*	*0.00070*	*0.00051*	*0.00083*	*0.00058*	0.00043	0.00077	0.00078	0.00074	< 0.00020
Copper	mg/L	*0.00535*	*0.00606*	*0.00419*	*0.00616*	*0.00615*	0.00643	0.00527	0.00902	0.00527	0.00475
Iron	mg/L	*0.0492*	*0.0839*	*0.1114*	*0.1344*	*0.1212*	0.2050	0.1780	0.1220	0.0953	0.0058
Lead	mg/L	*0.00020*	*0.00037*	*0.00020*	*0.00024*	*0.00022*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00028
Lithium	mg/L	*0.0020*	*0.0020*	*0.0020*	*0.0020*	*0.0020*	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L	*0.0525*	*0.1019*	*0.0586*	*0.1118*	*0.1051*	0.0608	0.1240	0.0870	0.2500	0.0036
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00003*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.02130*	*0.01243*	*0.01450*	*0.01714*	*0.01370*	0.0120	0.0164	0.0208	0.0165	0.0028
Nickel	mg/L	*0.00660*	*0.01068*	*0.00507*	*0.00618*	*0.00872*	0.0059	0.0073	0.0078	0.0079	0.0147
Selenium	mg/L	*0.00072*	*0.00035*	*0.00040*	*0.00037*	*0.00025*	0.00011	0.00037	0.00039	0.00026	< 0.00010
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	*0.1524*	*0.1694*	*0.1526*	*0.1510*	*0.1555*	0.0974	0.1500	0.2210	0.2020	0.1070
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	*0.0050*	*0.0127*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	*0.0045*	*0.0045*	*0.0034*	*0.0030*	*0.0041*	0.00157	0.00363	0.00558	0.00599	0.00375
Vanadium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	*0.006*	*0.007*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	0.0051	< 0.0050	< 0.0050

**Parameter analyzed as total thiosalts (as S_2O_3) not thiosulphate - result not included in annual average calculation*

Table 2-7 Meadowbank 2025 NP-2 South Water Quality Monitoring§

NP2-South	Unit	*Annual Average*					6/15/2025	7/14/2025	8/17/2025	9/8/2025	10/12/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*5.3*	*7.7*	*10.0*	*10.2*	*7.1*	4.0	10.8	12.9	7.8	0.1
pH	pH units	*7.61*	*7.64*	*7.76*	*7.60*	*7.95*	7.38	8.08	8.39	8.33	7.56
Conductivity	uS/cm	*148.5*	*133.9*	*171.2*	*144.6*	*280.6*	653.0	251.0	187.0	171.3	140.6
Turbidity	NTU	*2.63*	*66.08*	*1.67*	*5.80*	*3.77*	2.89	2.19	1.82	8.90	3.04
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*64.0*	*64.5*	*71.0*	*62.0*	*94.5*	89.6	94.4	91.8	89.5	107.0
Total alkalinity, as $CaCO_3$	mg/L	*46*	*49*	*59*	*49*	*66*	61	65	64	70	70
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*45*	*49*	*58*	*48*	*66*	61	65	64	70	69
TDS	mg/L	*69*	*68*	*105*	*104*	*114*	150	100	90	105	125
TSS	mg/L	*2*	*2*	*1*	*2*	*1*	1	1	1	2	2
Total organic carbon	mg/L	*3.9*	*3.9*	*4.0*	*3.4*	*3.8*	3.5	3.8	3.9	4.0	4.0
Dissolved organic carbon	mg/L	*3.7*	*3.6*	*3.8*	*3.1*	*3.6*	3.4	3.4	3.8	3.9	3.6
Colour	TCU	*11*	*7*	*6*	*7*	*6*	8	7	6	5	5
Major Ions											
Bromide	mg/L	*1.0*	*1.0*	*1.0*	*1.0*	*1.0*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	*1.9*	*1.6*	*1.5*	*1.4*	*2.3*	2.1	2.1	2.3	2.3	2.7
Cyanide	mg/L	*0.005*	*0.001*	*0.001*	*0.001*	*0.001*	0.00095	0.0006	< 0.00050	< 0.00050	< 0.00050
Cyanide (free)	mg/L	*0.003*	*0.003*	*0.004*	*0.003*	*0.001*	0.00078	0.00051	< 0.00050	< 0.00050	< 0.00050
Cyanide (WAD)	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	0.00092	0.00052	< 0.00050	< 0.00050	< 0.00050
Fluoride	mg/L	*0.12*	*0.12*	*0.13*	*0.13*	*0.13*	0.10	0.13	0.14	0.13	0.16
Silica	mg/L	*0.76*	*0.50*	*0.94*	*0.71*	*0.84*	2.30	0.50	0.35	0.37	0.66
Sulfate	mg/L	*22*	*21*	*26*	*24*	*39*	36	39	39	40	42
Thiocyanate	mg/L	*0.20*	*0.96*	*0.20*	*0.20*	*0.38*	< 0.50	< 0.50	< 0.50	< 0.20	< 0.20
Thiosulphates	mg/L	*0.20*	*0.96*	*0.20*	*0.20*	*0.20*	-	< 10.0*	< 10.0*	< 0.20	< 0.20
Nutrients											
Ammonia Nitrogen	mg N/L	*0.050*	*0.050*	*0.050*	*0.050*	*0.060*	0.098	< 0.050	< 0.050	< 0.050	< 0.050
Nitrate	mg N/L	*0.19*	*0.11*	*0.11*	*0.14*	*0.17*	0.35	0.13	< 0.10	< 0.10	0.18
Nitrite	mg N/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Kjeldahl nitrogen	mg N/L	*0.18*	*0.18*	*0.20*	*0.17*	*0.23*	0.22	0.26	0.23	0.21	0.21
Total phosphorus	mg P/L	*0.004*	*0.005*	*0.003*	*0.004*	*0.002*	0.0019	0.0025	0.0020	0.0011	0.0018
Orthophosphate	mg P/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chlorophyll a	mg/L	*0.0015*	*0.0007*	*0.0011*	*0.0008*	*0.0039*	< 0.0018	0.0120	0.0017	0.0026	0.0015

NP2-South	Unit	*Annual Average*					6/15/2025	7/14/2025	8/17/2025	9/8/2025	10/12/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Total Metals											
Aluminum	mg/L	*0.0699*	*0.0365*	*0.0418*	*0.0493*	*0.0312*	0.0959	0.0143	0.0074	0.0113	0.0272
Antimony	mg/L	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	*0.00275*	*0.00186*	*0.00155*	*0.00342*	*0.00224*	0.00239	0.00224	0.00239	0.00198	0.00221
Barium	mg/L	*0.0049*	*0.0041*	*0.0048*	*0.0047*	*0.0060*	0.0079	0.0059	0.0048	0.0049	0.0063
Beryllium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (total)	mg/L	*16.1*	*16.8*	*18.0*	*15.5*	*23.1*	22.1	23.2	22.4	21.8	26.2
Chromium	mg/L	*0.0010*	*0.0011*	*0.0016*	*0.0012*	*0.0012*	0.0020	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	*0.00053*	*0.00030*	*0.00027*	*0.00028*	*0.00022*	0.00031	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	*0.0035*	*0.0027*	*0.0024*	*0.0020*	*0.0023*	0.00265	0.00243	0.00223	0.00188	0.00216
Iron	mg/L	*0.115*	*0.117*	*0.146*	*0.154*	*0.113*	0.263	0.094	0.044	0.058	0.105
Lead	mg/L	*0.00022*	*0.00026*	*0.00020*	*0.00035*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium (total)	mg/L	*5.73*	*5.86*	*6.30*	*5.77*	*8.93*	8.35	8.85	8.73	8.50	10.20
Manganese	mg/L	*0.0215*	*0.0189*	*0.0143*	*0.0202*	*0.0134*	0.0208	0.0170	0.0100	0.0083	0.0111
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0018*	*0.0017*	*0.0017*	*0.0016*	*0.0027*	0.0016	0.0027	0.0030	0.0030	0.0030
Nickel	mg/L	*0.0140*	*0.0094*	*0.0092*	*0.0083*	*0.0113*	0.0152	0.0092	0.0089	0.0088	0.0142
Potassium (total)	mg/L	*1.65*	*1.56*	*1.67*	*1.63*	*2.27*	2.13	2.30	2.14	2.28	2.48
Selenium	mg/L	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silver	mg/L	*0.0000*	*0.0000*	*0.0000*	*0.0000*	*0.0000*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (total)	mg/L	*2.66*	*2.35*	*2.21*	*1.82*	*2.58*	2.51	2.67	2.59	2.18	2.93
Strontium	mg/L	*0.0654*	*0.0655*	*0.0712*	*0.0626*	*0.0976*	0.0915	0.0977	0.0973	0.0926	0.1090
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00000*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	*0.0012*	*0.0012*	*0.0013*	*0.0013*	*0.0025*	0.00228	0.00262	0.00225	0.00220	0.00331
Vanadium	mg/L	*0.0050*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	*0.0050*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

NP2-South	Unit	*Annual Average*					6/15/2025	7/14/2025	8/17/2025	9/8/2025	10/12/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Dissolved Metals											
Aluminum	mg/L	*0.0163*	*0.0088*	*0.0049*	*0.0063*	*0.0052*	0.0047	0.0070	0.0063	0.0051	0.0031
Antimony	mg/L	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	*0.00234*	*0.00168*	*0.00207*	*0.00338*	*0.00219*	0.00192	0.00211	0.00269	0.00217	0.00206
Barium	mg/L	*0.0106*	*0.0042*	*0.0053*	*0.0050*	*0.0064*	0.0085	0.0059	0.0058	0.0056	0.0061
Beryllium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	*0.00001*	*0.00001*	*0.00004*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	*0.00039*	*0.00028*	*0.00069*	*0.00026*	*0.00020*	0.00022	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	*0.0031*	*0.0043*	*0.0037*	*0.0040*	*0.0038*	0.00359	0.00457	0.00236	0.00337	0.00511
Iron	mg/L	*0.031*	*0.032*	*0.029*	*0.028*	*0.018*	0.0302	0.0234	0.0123	0.0130	0.0133
Lead	mg/L	*0.0002*	*0.0003*	*0.0002*	*0.0002*	*0.0002*	< 0.00020	0.00029	< 0.00020	< 0.00020	0.00033
Lithium	mg/L	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L	*0.0147*	*0.0162*	*0.0133*	*0.0198*	*0.0072*	0.0161	0.0064	0.0039	0.0040	0.0054
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0018*	*0.0017*	*0.0021*	*0.0018*	*0.0027*	0.0018	0.0024	0.0031	0.0031	0.0031
Nickel	mg/L	*0.0119*	*0.0092*	*0.0102*	*0.0092*	*0.0110*	0.0137	0.0085	0.0090	0.0102	0.0135
Selenium	mg/L	*0.0001*	*0.0001*	*0.0002*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00014*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	*0.0640*	*0.0666*	*0.0800*	*0.0700*	*0.0979*	0.0892	0.0925	0.1020	0.0968	0.1090
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	*0.0011*	*0.0012*	*0.0015*	*0.0014*	*0.0027*	0.00230	0.00236	0.00262	0.00251	0.00351
Vanadium	mg/L	*0.00500*	*0.00500*	*0.00500*	*0.00500*	*0.00500*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	*0.0062*	*0.0056*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

**Parameter analyzed as total thiosalts (as S_2O_3) not thiosulphate - result not included in annual average calculation*

Table 2-8 Meadowbank 2025 North Portage Pit Water Quality Monitoring (ST-17)[§]

ST-17	Unit	*Annual Average*					1/5/2025	2/9/2025	3/24/2025	4/6/2025	5/13/2025	6/10/2025	7/6/2025	8/3/2025	9/1/2025	10/5/2025	11/16/2025	12/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***												
Field Measured																		
Temperature	°C	*4.8*	*4.0*	*6.6*	*5.4*	*3.7*	0.6	-0.2	-0.3	0.7	2.2	5.2	2.8	12.6	10.8	7.00	0.8	2.5
pH	pH units	*7.78*	*8.13*	*7.91*	*7.81*	*8.16*	8.18	8.14	8.37	8.31	8.29	7.89	8.13	8.06	7.86	8.13	8.27	8.26
Conductivity	uS/cm	*1776*	*2020*	*2762*	*2555*	*2969*	3599	3800	3695	4190	3507	2487	4197	3330	3550	291	2671	307
Turbidity	NTU	*7.44*	*13.25*	*21.98*	*19.02*	*4.18*	2.28	1.93	6.83	0.92	5.22	14.80	2.31	3.91	3.57	3.25	3.87	1.23
Conventional Parameters																		
Hardness, as $CaCO_3$	mg/L	*476*	*612*	*697*	*595*	*986*	975	1010	906	1090	1060	653	995	978	1040	869	1120	1130
Total alkalinity, as $CaCO_3$	mg/L	*78*	*114*	*130*	*113*	*122*	150	140	130	130	130	73	120	120	130	110	110	120
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	1.3	1.0	1.1	< 1.0	1.5	< 1.0	1.0	< 1.0	< 1.0	1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*78*	*113*	*129*	*111*	*122*	150	140	130	130	130	73	120	120	130	110	110	120
TDS	mg/L	*1178*	*1632*	*1961*	*1776*	*3407*	2830	6120	3230	3360	3400	1790	3430	3220	3150	3360	3430	3560
TSS	mg/L	*3*	*13*	*18*	*35*	*5*	2	3	6	6	5	9	7	6	5	4	4	4
Total organic carbon	mg/L	*11*	*20*	*22*	*19*	*35*	27	31	36	38	40	22	38	32	34	40	42	42
Dissolved organic carbon	mg/L	*10*	*17*	*19*	*16*	*35*	27	31	36	38	39	23	37	31	34	40	42	43
Sodium Adsorption Ratio	-	*3.0*	*4.1*	*4.4*	*3.9*	*5.6*	5.4	5.7	6.3	5.7	5.9	3.7	5.5	5.1	5.6	6.3	5.9	6.0
Oxidation-Reduction Potential	mV	*278*	*242*	*284*	*266*	*225*	240	250	160	220	190	220	240	280	240	190	230	240
Major Ions																		
Bromide	mg/L	*1.3*	*1.5*	*1.8*	*1.6*	*2.4*	2.4	2.7	2.7	2.8	2.5	1.1	2.0	1.8	2.2	2.4	2.6	3.2
Chloride	mg/L	*100*	*128*	*185*	*165*	*257*	220	260	270	280	290	130	290	230	270	270	280	290
Cyanide	mg/L	*0.132*	*0.085*	*0.463*	*0.493*	*1.174*	0.787	1.010	3.350	3.640	2.070	0.493	0.317	0.043	0.034	0.787	0.786	0.777
Cyanide (free)	mg/L	*0.193*	*0.040*	*0.237*	*0.237*	*0.545*	0.570	1.300	1.440	0.852	0.238	0.122	0.264	0.019	0.018	0.603	0.466	0.646
Cyanide (WAD)	mg/L	*0.086*	*0.052*	*0.278*	*0.427*	*0.946*	0.680	0.980	2.600	2.700	1.400	0.360	0.300	0.028	0.022	0.740	0.800	0.740
Fluoride	mg/L	*0.24*	*0.31*	*0.23*	*0.21*	*0.20*	0.23	0.24	0.20	0.23	0.17	0.15	0.17	0.22	0.21	0.18	0.19	0.19
Silica	mg/L	*3.7*	*6.0*	*5.8*	*6.1*	*5.9*	6.7	6.9	6.4	5.8	6.1	2.7	5.4	5.8	6.1	5.9	6.3	6.5
Sulfate	mg/L	*673*	*961*	*1164*	*1023*	*1589*	1600	1600	1700	1700	1800	670	1600	1600	1500	1700	1800	1800
Nutrients																		
Ammonia Nitrogen	mg N/L	*18*	*24*	*35*	*25*	*33*	46	40	38	39	37	21	31	29	31	31	31	27
Nitrate	mg N/L	*1.56*	*1.23*	*2.10*	*0.81*	*4.56*	1.12	2.64	3.74	4.30	4.61	2.05	5.35	4.46	4.25	6.38	7.70	8.08
Nitrite	mg N/L	*0.180*	*0.199*	*0.139*	*0.262*	*0.154*	0.278	0.207	0.153	0.153	0.129	0.062	0.102	0.089	0.156	0.142	0.180	0.199
Total Kjeldahl nitrogen	mg N/L	*28*	*38*	*52*	*41*	*75*	73	80	83	79	72	46	77	89	75	75	82	65
Total phosphorus	mg P/L	*0.028*	*0.169*	*0.069*	*0.090*	*0.042*	0.0076	0.019	0.013	< 0.010	0.075	0.240	0.028	0.019	0.018	0.025	0.026	0.026
Orthophosphate	mg P/L	*0.021*	*0.077*	*0.023*	*0.013*	*0.034*	< 0.010	0.013	< 0.010	< 0.010	0.058	0.160	0.011	0.033	0.025	0.022	0.027	0.027
Total Metals																		
Aluminum	mg/L	*0.0464*	*0.0876*	*0.1900*	*0.4616*	*0.0549*	0.0192	0.0447	0.0496	0.0209	0.0358	0.1240	0.0154	0.2190	0.0166	0.0421	0.0209	0.0510
Antimony	mg/L	*0.00304*	*0.00341*	*0.00430*	*0.00268*	*0.01113*	0.00596	0.00915	0.00916	0.01380	0.01250	0.00743	0.01150	0.01020	0.01200	0.01170	0.01470	0.01540
Arsenic	mg/L	*0.0808*	*0.1021*	*0.0737*	*0.0419*	*0.1393*	0.0733	0.1330	0.0755	0.1010	0.2760	0.1450	0.1470	0.1290	0.1280	0.1250	0.1780	0.1610
Barium	mg/L	*0.0256*	*0.0329*	*0.0397*	*0.0293*	*0.0722*	0.0577	0.0657	0.0732	0.0908	0.0800	0.0526	0.0684	0.0674	0.0672	0.0711	0.0876	0.0841
Beryllium	mg/L	*0.00009*	*0.00002*	*0.00002*	*0.00003*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000010	< 0.000020	< 0.000050	< 0.000050
Boron	mg/L	*0.0635*	*0.1498*	*0.1544*	*0.1484*	*0.2670*	0.251	0.255	0.234	0.264	0.288	0.171	0.307	0.263	0.244	0.253	0.329	0.345
Cadmium	mg/L	*0.00005*	*0.00003*	*0.00005*	*0.00003*	*0.00007*	0.000224	0.000110	0.000091	0.000102	0.000055	0.000028	0.000062	0.000095	< 0.0000050	0.000022	< 0.000025	< 0.000025
Calcium (total)	mg/L	*157.1*	*203.3*	*241.3*	*195.4*	*347.6*	333	357	319	390	374	230	350	337	365	308	401	407
Chromium	mg/L	*0.00070*	*0.00111*	*0.00360*	*0.00349*	*0.00058*	0.00032	0.00114	0.00071	< 0.00020	0.00033	0.00159	< 0.00020	0.00062	< 0.00010	0.00080	< 0.00050	< 0.00050
Copper	mg/L	*0.704*	*0.440*	*0.488*	*0.206*	*1.228*	0.616	1.310	1.730	2.250	2.160	1.150	1.090	0.676	0.371	1.280	1.040	1.060
Iron	mg/L	*0.291*	*0.628*	*0.722*	*1.480*	*0.137*	0.0357	0.1010	0.3120	0.2060	0.0739	0.3290	0.0048	0.3050	0.0089	0.1280	0.0316	0.1030
Lead	mg/L	*0.00097*	*0.00070*	*0.00101*	*0.00097*	*0.00094*	0.001080	0.001000	0.000654	0.000658	0.000589	0.001550	0.000043	0.000938	0.000128	0.001960	0.001780	0.000912
Lithium	mg/L	*0.00366*	*0.00509*	*0.00434*	*0.00513*	*0.00420*	0.00470	0.00530	0.00240	0.00180	0.00230	0.00320	0.00380	0.00470	0.00297	0.00330	0.00780	0.00810
Magnesium (total)	mg/L	*20.32*	*25.26*	*23.04*	*25.86*	*28.69*	35.0	28.6	26.6	28.9	30.1	19.1	29.5	33.0	30.6	24.1	30.0	28.8
Manganese	mg/L	*0.4986*	*0.5492*	*0.2561*	*0.3406*	*0.1170*	0.1120	0.0596	0.0306	0.0344	0.0264	0.1530	0.1660	0.3560	0.2440	0.0742	0.0727	0.0748

ST-17	Unit	*Annual Average*					1/5/2025	2/9/2025	3/24/2025	4/6/2025	5/13/2025	6/10/2025	7/6/2025	8/3/2025	9/1/2025	10/5/2025	11/16/2025	12/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***												
Mercury	mg/L	*0.00005*	*0.00010*	*0.00009*	*0.00010*	*0.00009*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00001	< 0.00010	< 0.00010	< 0.00001
Molybdenum	mg/L	*0.0702*	*0.0886*	*0.0791*	*0.0533*	*0.0861*	0.0924	0.0954	0.0795	0.0979	0.1000	0.0523	0.0867	0.0782	0.0933	0.0787	0.0819	0.0965
Nickel	mg/L	*0.4539*	*0.1984*	*0.2415*	*0.1775*	*0.2969*	0.292	0.143	0.549	0.669	0.696	0.334	0.173	0.151	0.141	0.124	0.144	0.147
Potassium (total)	mg/L	*49.30*	*64.17*	*84.35*	*65.46*	*148.04*	123	136	131	164	164	92.5	141	129	189	144	186	177
Selenium	mg/L	*0.0216*	*0.0256*	*0.0523*	*0.0332*	*0.0670*	0.0598	0.0678	0.0673	0.0904	0.0844	0.0466	0.0737	0.0634	0.0725	0.0614	0.0589	0.0572
Silver	mg/L	*0.00016*	*0.00009*	*0.00016*	*0.00007*	*0.00010*	0.000021	0.000017	0.000075	0.000023	0.000237	0.000057	0.000325	0.000078	0.000031	0.000306	< 0.000025	< 0.000025
Sodium (total)	mg/L	*181.3*	*221.0*	*250.3*	*199.4*	*397.1*	404	381	378	433	421	241	410	375	392	370	479	481
Strontium	mg/L	*0.519*	*0.873*	*1.234*	*1.042*	*2.041*	1.77	2.03	1.98	2.36	2.47	1.47	2.13	1.93	2.11	1.91	2.17	2.16
Thallium	mg/L	*0.00007*	*0.00001*	*0.00001*	*0.00002*	*0.00003*	0.0000248	0.0000160	0.0000092	0.0000130	0.0000106	0.0000158	0.0000155	0.0000207	0.0000248	0.0000380	0.0000550	0.0000580
Tin	mg/L	*0.0002*	*0.0003*	*0.0004*	*0.0003*	*0.0005*	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00020	< 0.00040	< 0.0010	< 0.0010
Titanium	mg/L	*0.0027*	*0.0023*	*0.0051*	*0.0084*	*0.0022*	< 0.0010	0.0018	< 0.0040	< 0.0010	< 0.0010	0.0033	< 0.0010	0.0018	< 0.0020	< 0.0040	< 0.0025	< 0.0025
Uranium	mg/L	*0.0090*	*0.0162*	*0.0152*	*0.0156*	*0.0171*	0.0227	0.0202	0.0161	0.0208	0.0180	0.0104	0.0158	0.0184	0.0227	0.0142	0.0145	0.0113
Vanadium	mg/L	*0.0003*	*0.0004*	*0.0007*	*0.0011*	*0.0006*	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	0.00131	< 0.00020	< 0.00040	< 0.0010	< 0.0010
Zinc	mg/L	*0.004*	*0.004*	*0.004*	*0.007*	*0.004*	0.00044	0.00118	< 0.00200	0.00023	0.00383	0.00215	0.00416	0.02730	0.00180	< 0.00200	< 0.00050	0.00105
Dissolved Metals																		
Aluminum	mg/L	*0.0077*	*0.0088*	*0.0099*	*0.0114*	*0.0317*	0.0074	0.0089	0.0117	0.0131	0.0201	0.1370	0.1150	0.0102	0.0088	0.0309	0.0116	0.0051
Antimony	mg/L	*0.00313*	*0.00335*	*0.00376*	*0.00302*	*0.01087*	0.00598	0.00937	0.01160	0.01320	0.01360	0.00427	0.00520	0.01040	0.01170	0.01400	0.01490	0.01620
Arsenic	mg/L	*0.05523*	*0.06373*	*0.04660*	*0.02469*	*0.12993*	0.0711	0.1180	0.0827	0.0910	0.2570	0.0784	0.1630	0.1180	0.1170	0.1270	0.1730	0.1630
Barium	mg/L	*0.0247*	*0.0321*	*0.0375*	*0.0300*	*0.0714*	0.0540	0.0654	0.0823	0.0847	0.0786	0.0372	0.0710	0.0649	0.0677	0.0819	0.0850	0.0836
Beryllium	mg/L	*0.00001*	*0.00002*	*0.00002*	*0.00001*	*0.00003*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000050	< 0.000010	< 0.000020	< 0.000010	< 0.000020	< 0.000020	< 0.000050	< 0.000050
Boron	mg/L	*0.081*	*0.131*	*0.141*	*0.157*	*0.269*	0.220	0.246	0.270	0.238	0.281	0.107	0.281	0.285	0.279	0.304	0.336	0.384
Cadmium	mg/L	*0.00002*	*0.00002*	*0.00005*	*0.00002*	*0.00008*	0.000213	0.000088	0.000097	0.000052	0.000047	0.000212	0.000023	0.000076	0.000063	0.000015	< 0.000025	< 0.000025
Chromium	mg/L	*0.00026*	*0.00019*	*0.00021*	*0.00017*	*0.00031*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00050	0.00023	0.00073	< 0.00010	< 0.00020	< 0.00020	< 0.00050	< 0.00050
Copper	mg/L	*0.563*	*0.255*	*0.293*	*0.153*	*1.174*	0.652	1.360	1.750	2.060	2.400	0.615	1.180	0.560	0.358	1.540	0.978	0.635
Iron	mg/L	*0.034*	*0.040*	*0.041*	*0.043*	*0.057*	0.0098	0.0145	0.1150	0.0892	0.0759	0.0958	0.2680	0.0020	< 0.0020	< 0.0020	< 0.0050	< 0.0050
Lead	mg/L	*0.0001*	*0.0002*	*0.0002*	*0.0001*	*0.0004*	0.000614	0.000360	0.000297	0.000776	0.000203	0.000575	0.000963	0.000055	0.000011	0.000206	0.001210	0.000068
Lithium	mg/L	*0.00339*	*0.00515*	*0.00408*	*0.00506*	*0.00438*	0.0056	0.0055	0.0027	0.0025	< 0.0025	0.0023	0.0042	0.0045	0.0040	0.0038	0.0073	0.0076
Manganese	mg/L	*0.4678*	*0.4717*	*0.2315*	*0.2993*	*0.1180*	0.1180	0.0599	0.0366	0.0447	0.0630	0.1230	0.1760	0.3360	0.2330	0.0856	0.0690	0.0717
Mercury	mg/L	*0.00005*	*0.00010*	*0.00009*	*0.00010*	*0.00009*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00001	< 0.00010	< 0.00010	< 0.00001
Molybdenum	mg/L	*0.0655*	*0.0880*	*0.0744*	*0.0613*	*0.0874*	0.0981	0.0950	0.0949	0.0936	0.0942	0.0324	0.0873	0.0840	0.0905	0.0938	0.0893	0.0956
Nickel	mg/L	*0.4255*	*0.1869*	*0.2155*	*0.1738*	*0.2800*	0.269	0.147	0.619	0.563	0.674	0.202	0.186	0.145	0.134	0.142	0.137	0.142
Selenium	mg/L	*0.0179*	*0.0257*	*0.0494*	*0.0400*	*0.0666*	0.0657	0.0638	0.0816	0.0872	0.0853	0.0289	0.0775	0.0613	0.0653	0.0707	0.0586	0.0537
Silver	mg/L	*0.00012*	*0.00007*	*0.00009*	*0.00002*	*0.00014*	0.000157	0.000094	0.000052	0.000214	0.000388	0.000050	0.000086	0.000188	< 0.000010	0.000388	< 0.000025	< 0.000025
Strontium	mg/L	*0.546*	*0.876*	*1.181*	*1.154*	*1.981*	1.700	2.020	2.280	2.120	2.260	0.842	1.930	1.840	2.210	2.250	2.110	2.210
Thallium	mg/L	*0.00007*	*0.00001*	*0.00001*	*0.00002*	*0.00003*	0.0000237	0.0000170	0.0000142	0.0000140	0.0000210	0.0000160	0.0000160	0.0000206	0.0000231	0.0000436	0.0000470	0.0000600
Tin	mg/L	*0.0002*	*0.0057*	*0.0014*	*0.0003*	*0.0007*	< 0.00040	< 0.00040	0.00163	< 0.00040	< 0.0010	0.00065	< 0.00040	< 0.00020	< 0.00040	< 0.00040	< 0.0010	< 0.0010
Titanium	mg/L	*0.0006*	*0.0008*	*0.0010*	*0.0007*	*0.0014*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0025	0.00105	0.00150	< 0.00050	< 0.0010	< 0.0010	< 0.0025	< 0.0025
Uranium	mg/L	*0.0082*	*0.0158*	*0.0147*	*0.0180*	*0.0161*	0.02450	0.02180	0.01780	0.01710	0.01900	0.00675	0.01640	0.01810	0.01870	0.01650	0.01310	0.00322
Vanadium	mg/L	*0.0002*	*0.0003*	*0.0004*	*0.0003*	*0.0007*	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.0010	0.00254	< 0.00040	< 0.00020	< 0.00040	< 0.00040	< 0.0010	< 0.0010
Zinc	mg/L	*0.006*	*0.004*	*0.003*	*0.003*	*0.010*	0.00140	0.00157	0.00332	0.00089	0.00263	0.10300	0.00103	0.00298	0.00145	0.00126	< 0.00050	0.00099

Table 2-9 Meadowbank 2025 South Portage Pit Water Quality Monitoring (ST-19)[§]

ST-19	Unit	*Annual Average*					1/5/2025	2/9/2025	3/24/2025	4/6/2025	5/18/2025	6/10/2025	7/6/2025	8/3/2025	9/1/2025	10/5/2025	11/9/2025	12/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***												
Field Measured																		
Temperature	°C	*3.9*	*4.7*	*6.2*	*5.3*	*3.7*	1.3	0.0	0.8	1.6	1.6	4.4	5.5	12.1	7.9	5.9	2.3	1.0
pH	pH units	*8.20*	*8.29*	*8.34*	*8.26*	*7.91*	7.92	7.89	7.89	7.84	7.89	7.77	7.89	8.04	7.79	8.00	7.87	8.10
Conductivity	uS/cm	*2971*	*4588*	*5648*	*6022*	*3176*	4760	4501	4086	4324	3624	944	2373	2616	3119	2576	2559	2633
Turbidity	NTU	*3.99*	*24.85*	*8.82*	*15.50*	*4.11*	0.68	1.31	1.23	1.34	3.51	10.00	2.72	3.19	7.61	2.20	8.80	6.75
Conventional Parameters																		
Hardness, as $CaCO_3$	mg/L	*988*	*1333*	*2773*	*1519*	*944*	1450	1230	1160	1030	1050	226	552	773	932	1030	970	930
Total alkalinity, as $CaCO_3$	mg/L	*91*	*103*	*103*	*99*	*116*	110	140	160	160	150	37	77	91	110	120	120	120
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*90*	*102*	*102*	*97*	*115*	110	140	160	160	150	37	77	90	110	110	120	120
TDS	mg/L	*2680*	*3719*	*4335*	*4858*	*2932*	4390	3780	3410	3470	3510	605	1730	2450	2860	2950	2970	3060
TSS	mg/L	*15*	*52*	*23*	*44*	*3*	3	2	1	2	2	6	3	4	6	2	3	3
Total organic carbon	mg/L	*26*	*54*	*78*	*92*	*39*	73	57	40	39	41	5.5	18	27	41	40	44	42
Dissolved organic carbon	mg/L	*25*	*52*	*76*	*86*	*39*	73	57	40	41	41	5.5	18	27	41	40	42	42
Sodium Adsorption Ratio	-	*5*	*6*	*7*	*8*	*5*	7.1	7.1	6.0	5.9	5.7	1.7	3.8	4.6	5.5	6.1	5.8	5.5
Oxidation-Reduction Potential	mV	*193*	*178*	*228*	*223*	*243*	240	270	190	280	110	260	250	300	300	260	240	220
Major Ions																		
Bromide	mg/L	*2*	*4*	*3*	*4*	*2*	3.3	3.2	2.9	2.9	2.7	< 1.0	1.4	1.4	1.4	2.3	2.5	2.7
Chloride	mg/L	*220*	*436*	*670*	*799*	*236*	370	310	270	280	290	34	130	170	230	250	250	250
Cyanide	mg/L	*0.310*	*1.733*	*4.101*	*6.652*	*0.721*	1.6500	0.7490	0.6460	0.7970	1.0400	0.0653	0.2480	0.3700	2.3600	0.5490	0.1180	0.0625
Cyanide (free)	mg/L	*0.3700*	*0.2021*	*0.7626*	*1.7692*	*0.2880*	0.9000	0.7400	0.2460	0.1670	0.3260	0.0251	0.1080	0.1330	0.6730	0.0882	0.0284	0.0217
Cyanide (WAD)	mg/L	*0.2300*	*0.8188*	*1.8038*	*3.3426*	*0.6198*	1.500	0.720	0.590	0.730	0.970	0.050	0.220	0.330	1.700	0.490	0.091	0.046
Fluoride	mg/L	*0.25*	*0.16*	*0.15*	*0.14*	*0.20*	0.17	0.25	0.30	0.24	0.26	< 0.10	0.12	0.15	0.18	0.17	0.24	0.18
Silica	mg/L	*6.00*	*7.14*	*6.13*	*4.88*	*5.58*	6.0	6.7	7.8	6.8	6.7	1.7	3.4	4.0	6.8	5.6	6.0	5.5
Sulfate	mg/L	*193*	*1808*	*2150*	*1969*	*1473*	1900	1800	1800	1800	1800	330	940	1200	1400	1600	1500	1600
Nutrients																		
Ammonia Nitrogen	mg N/L	*40*	*53*	*63*	*55*	*34*	49	44	46	47	45	5.8	18	25	31	32	31	30
Nitrate	mg N/L	*8.17*	*12.11*	*21.68*	*21.81*	*6.92*	19.10	12.20	4.77	4.22	4.65	1.11	2.58	4.29	6.97	6.72	8.38	8.09
Nitrite	mg N/L	*0.280*	*0.347*	*0.271*	*0.282*	*0.214*	0.332	0.414	0.259	0.228	0.183	0.039	0.109	0.103	0.180	0.188	0.269	0.264
Total Kjeldahl nitrogen	mg N/L	*66*	*110*	*141*	*148*	*79*	130	110	97	100	86	12	41	62	79	77	83	69
Total phosphorus	mg P/L	*0.027*	*0.031*	*0.045*	*0.028*	*0.005*	0.0150	0.0034	0.0031	0.0038	0.0029	0.0073	0.0017	0.0042	0.0082	0.0025	0.0036	0.0036
Orthophosphate	mg P/L	*0.039*	*0.038*	*0.032*	*0.045*	*0.011*	0.014	< 0.010	< 0.010	0.014	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals																		
Aluminum	mg/L	*0.0947*	*0.9945*	*0.4291*	*0.4841*	*0.0436*	0.0108	0.0112	0.0086	0.0056	0.0152	0.1990	0.1700	0.0170	0.0183	0.0270	0.0224	0.0176
Antimony	mg/L	*0.01139*	*0.01543*	*0.02274*	*0.01224*	*0.00841*	0.01720	0.01060	0.00736	0.00741	0.00815	0.00154	0.00412	0.00675	0.00902	0.00970	0.00976	0.00936
Arsenic	mg/L	*0.1296*	*0.1502*	*0.2602*	*0.1611*	*0.0353*	0.0999	0.0546	0.0309	0.0257	0.0235	0.0212	0.0187	0.0237	0.00961	0.0379	0.0397	0.0384
Barium	mg/L	*0.0893*	*0.1329*	*0.2675*	*0.1347*	*0.0449*	0.0843	0.0503	0.0491	0.0444	0.0467	0.0161	0.0261	0.0385	0.0495	0.0470	0.0438	0.0427
Beryllium	mg/L	*0.00002*	*0.00006*	*0.00009*	*0.00006*	*0.00002*	< 0.000050	< 0.000050	< 0.000020	< 0.000020	< 0.000020	0.000014	0.000012	< 0.000020	< 0.000010	< 0.000020	< 0.000020	< 0.000020
Boron	mg/L	*0.1990*	*0.2951*	*0.5493*	*0.3580*	*0.2561*	0.409	0.338	0.264	0.279	0.296	0.037	0.149	0.207	0.223	0.328	0.297	0.246
Cadmium	mg/L	*0.00007*	*0.00019*	*0.00056*	*0.00022*	*0.00005*	0.0001340	0.0000690	0.0000490	0.0000270	0.0000310	0.0000485	0.0000528	0.0000670	< 0.0000050	0.0000560	0.0000590	0.0000610
Calcium (total)	mg/L	*358.0*	*492.8*	*1049.2*	*575.5*	*336.2*	539	447	410	363	370	78.7	191	271	332	363	341	329
Chromium	mg/L	*0.00190*	*0.03978*	*0.01203*	*0.01555*	*0.00068*	< 0.00050	< 0.00050	< 0.00020	< 0.00020	< 0.00020	0.00357	0.00164	< 0.00020	< 0.00010	< 0.00020	0.00068	< 0.00020
Copper	mg/L	*2.451*	*3.178*	*10.461*	*7.744*	*0.867*	2.880	1.480	0.513	0.432	0.537	0.053	0.273	0.783	0.794	1.040	0.887	0.729
Iron	mg/L	*0.277*	*2.785*	*2.935*	*1.492*	*0.103*	0.0406	0.0680	0.0741	0.0580	0.0691	0.4670	0.2300	0.0178	< 0.0050	0.0694	0.0567	0.0769
Lead	mg/L	*0.00560*	*0.00912*	*0.00438*	*0.00295*	*0.00040*	0.000235	0.000283	0.000327	0.000221	0.000192	0.001540	0.000688	0.000172	0.000181	0.000352	0.000265	0.000339
Lithium	mg/L	*0.00337*	*0.00426*	*0.00549*	*0.00409*	*0.00407*	0.00520	0.00640	0.00450	0.00430	0.00490	0.00199	0.00342	0.00310	0.00268	0.00340	0.00470	0.00420
Magnesium (total)	mg/L	*23.40*	*24.87*	*37.53*	*19.90*	*25.52*	24.8	28.1	34.0	30.1	31.7	7.3	18.5	23.0	24.7	29.4	28.5	26.2

ST-19	Unit	*Annual Average*					1/5/2025	2/9/2025	3/24/2025	4/6/2025	5/18/2025	6/10/2025	7/6/2025	8/3/2025	9/1/2025	10/5/2025	11/9/2025	12/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***												
Manganese	mg/L	*0.046*	*0.125*	*0.096*	*0.071*	*0.170*	0.059	0.186	0.228	0.177	0.163	0.117	0.152	0.191	0.204	0.184	0.189	0.188
Mercury	mg/L	*0.00010*	*0.00022*	*0.00010*	*0.00024*	*0.00009*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00001
Molybdenum	mg/L	*0.1051*	*0.1097*	*0.2023*	*0.0935*	*0.0766*	0.0995	0.0912	0.0989	0.0931	0.0980	0.0129	0.0422	0.0580	0.0822	0.0845	0.0802	0.0784
Nickel	mg/L	*0.276*	*0.708*	*3.127*	*1.949*	*0.411*	0.423	0.322	0.282	0.266	0.347	0.0746	0.209	0.464	0.92	0.537	0.555	0.538
Potassium (total)	mg/L	*138.20*	*186.83*	*399.17*	*198.40*	*130.62*	186.0	155.0	155.0	148.0	157.0	21.1	68.1	98.2	165.0	142.0	138.0	134.0
Selenium	mg/L	*0.1071*	*0.1752*	*0.4149*	*0.2177*	*0.0985*	0.2210	0.1490	0.1070	0.0940	0.1020	0.0110	0.0361	0.0641	0.0934	0.0987	0.1050	0.1010
Silver	mg/L	*0.00040*	*0.00044*	*0.00132*	*0.00048*	*0.00015*	0.0002560	0.0001300	0.0000510	0.0000430	0.0000580	0.0000287	0.0000472	0.0001530	0.0003820	0.0001910	0.0001740	0.0002310
Sodium (total)	mg/L	*330.0*	*473.1*	*1040.8*	*634.8*	*387.1*	630	498	474	429	443	52.7	200	292	378	447	416	385
Strontium	mg/L	*1.346*	*2.169*	*5.868*	*3.272*	*1.933*	2.73	2.35	2.43	2.18	2.38	0.43	1.16	1.59	1.90	2.21	1.96	1.87
Thallium	mg/L	*0.00010*	*0.00003*	*0.00003*	*0.00004*	*0.00002*	0.0000120	0.0000270	0.0000198	0.0000127	0.0000160	0.0000169	0.0000210	0.0000254	0.0000322	0.0000288	0.0000298	0.0000274
Tin	mg/L	*0.0005*	*0.0009*	*0.0019*	*0.0012*	*0.0005*	< 0.0010	< 0.0010	< 0.00040	< 0.00040	< 0.00040	< 0.00020	< 0.00020	< 0.00040	< 0.00020	< 0.00040	< 0.00040	< 0.00040
Titanium	mg/L	*0.0018*	*0.0528*	*0.0212*	*0.0232*	*0.0021*	< 0.0025	< 0.0025	< 0.0010	< 0.0010	< 0.0010	0.00776	0.00341	< 0.0010	< 0.0020	< 0.0010	< 0.0010	< 0.0010
Uranium	mg/L	*0.0192*	*0.0148*	*0.0202*	*0.0095*	*0.0229*	0.0130	0.0290	0.0346	0.0329	0.0305	0.0047	0.0137	0.0189	0.0247	0.0237	0.0254	0.0238
Vanadium	mg/L	*0.0006*	*0.0038*	*0.0019*	*0.0020*	*0.0006*	< 0.0010	< 0.0010	< 0.00040	< 0.00040	< 0.00040	0.0006	0.00164	< 0.00040	< 0.00020	< 0.00040	< 0.00040	< 0.00040
Zinc	mg/L	*0.002*	*0.006*	*0.020*	*0.005*	*0.004*	0.00163	0.00100	0.00195	0.00052	0.02020	0.00756	0.00660	0.00170	0.00210	0.00169	0.00390	0.00248
Dissolved Metals																		
Aluminum	mg/L	*0.0085*	*0.0135*	*0.0191*	*0.0489*	*0.0315*	0.0082	0.0072	0.0053	0.0051	0.0064	0.0102	0.1240	0.1870	0.0103	0.0057	0.0074	0.0017
Antimony	mg/L	*0.01046*	*0.01616*	*0.01437*	*0.01458*	*0.00799*	0.01660	0.01040	0.00728	0.00738	0.00773	0.00184	0.00192	0.00648	0.00866	0.00873	0.00891	0.00998
Arsenic	mg/L	*0.12000*	*0.13282*	*0.16687*	*0.15849*	*0.03440*	0.0905	0.0534	0.0246	0.0221	0.0219	0.0183	0.0168	0.0242	0.0392	0.0306	0.0347	0.0365
Barium	mg/L	*0.0797*	*0.1268*	*0.1383*	*0.1357*	*0.0430*	0.0729	0.0469	0.0476	0.0464	0.0438	0.0178	0.0273	0.0393	0.0475	0.0404	0.0403	0.0455
Beryllium	mg/L	*0.00002*	*0.00004*	*0.00005*	*0.00005*	*0.00002*	< 0.000050	< 0.000050	< 0.000020	< 0.000020	< 0.000020	< 0.000010	< 0.000010	< 0.000010	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Boron	mg/L	*0.190*	*0.277*	*0.314*	*0.349*	*0.251*	0.378	0.331	0.310	0.238	0.278	0.045	0.146	0.214	0.247	0.263	0.287	0.277
Cadmium	mg/L	*0.00006*	*0.00014*	*0.00025*	*0.00016*	*0.00006*	0.0001220	0.0000930	0.0000450	0.0000410	0.0000310	0.0000320	0.0000520	0.0000767	0.0000800	0.0000440	0.0000550	0.0000380
Chromium	mg/L	*0.00029*	*0.00042*	*0.00055*	*0.00103*	*0.00037*	< 0.00050	< 0.00050	< 0.00020	0.00034	< 0.00020	0.00034	0.00016	0.00138	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	*2.0440*	*3.2285*	*3.6762*	*7.3170*	*0.7990*	2.7900	1.5100	0.4450	0.4350	0.4870	0.0579	0.2830	0.7480	1.4100	0.9070	0.3840	0.1310
Iron	mg/L	*0.011*	*0.147*	*0.302*	*0.093*	*0.029*	0.0222	0.0173	0.0093	0.0132	0.0096	0.0072	0.0160	0.2430	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Lead	mg/L	*0.00010*	*0.00029*	*0.00046*	*0.00094*	*0.00022*	0.000071	0.000330	0.000576	0.000505	0.000037	0.000044	0.000101	0.000667	0.000223	0.000029	0.000024	< 0.000010
Lithium	mg/L	*0.00345*	*0.00345*	*0.00367*	*0.00348*	*0.00418*	0.00590	0.00480	0.00580	0.00460	0.00440	0.00223	0.00343	0.00332	0.00360	0.00340	0.00440	0.00430
Manganese	mg/L	*0.0445*	*0.0403*	*0.0414*	*0.0360*	*0.1679*	0.0553	0.1860	0.2230	0.1830	0.1590	0.1300	0.1610	0.1870	0.1880	0.1670	0.1830	0.1920
Mercury	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0002*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00001
Molybdenum	mg/L	*0.0992*	*0.1075*	*0.1126*	*0.0924*	*0.0758*	0.0972	0.0914	0.0957	0.0941	0.0929	0.0157	0.0437	0.0610	0.0763	0.0762	0.0773	0.0878
Nickel	mg/L	*0.245*	*0.651*	*1.251*	*1.607*	*0.393*	0.3850	0.3260	0.2600	0.2730	0.3390	0.0901	0.2260	0.4360	0.8470	0.4750	0.5210	0.5360
Selenium	mg/L	*0.096*	*0.172*	*0.253*	*0.243*	*0.097*	0.2230	0.1740	0.0962	0.0949	0.0893	0.0138	0.0311	0.0602	0.0840	0.0936	0.1000	0.0990
Silver	mg/L	*0.00033*	*0.00068*	*0.00121*	*0.00385*	*0.00024*	0.0003220	0.0002770	0.0000360	0.0000150	0.0002010	0.0000526	0.0000080	0.0001500	0.0014000	0.0001790	0.0000620	0.0001930
Strontium	mg/L	*1.274*	*2.186*	*3.208*	*3.372*	*1.846*	2.550	2.260	2.330	2.050	2.130	0.477	1.050	1.450	1.900	1.960	1.880	2.110
Thallium	mg/L	*0.00005*	*0.00002*	*0.00002*	*0.00003*	*0.00002*	0.0000170	0.0000230	0.0000136	0.0000120	0.0000331	0.0000120	0.0000210	0.0000302	0.0000273	0.0000191	0.0000218	0.0000247
Tin	mg/L	*0.0005*	*0.0008*	*0.0011*	*0.0010*	*0.0005*	< 0.0010	< 0.0010	< 0.00040	< 0.00040	< 0.00040	< 0.00020	< 0.00020	< 0.00020	< 0.00040	< 0.00040	< 0.00040	< 0.00040
Titanium	mg/L	*0.0012*	*0.0021*	*0.0027*	*0.0025*	*0.0012*	< 0.0025	< 0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.00050	< 0.00050	0.00189	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Uranium	mg/L	*0.0190*	*0.0143*	*0.0110*	*0.0099*	*0.0207*	0.01260	0.02740	0.03280	0.02960	0.03160	0.00582	0.01470	0.01800	0.02100	0.02370	0.02350	0.00790
Vanadium	mg/L	*0.0010*	*0.0008*	*0.0010*	*0.0013*	*0.0005*	< 0.0010	< 0.0010	< 0.00040	< 0.00040	< 0.00040	< 0.00020	0.00058	0.00097	< 0.00040	< 0.00040	< 0.00040	< 0.00040
Zinc	mg/L	*0.001*	*0.002*	*0.004*	*0.005*	*0.003*	0.00149	0.00318	0.00196	0.00288	0.00243	0.00584	0.00883	0.00569	0.00183	0.00122	0.00194	0.00172

Table 2-10 Meadowbank 2025 Goose Pit Water Quality Monitoring (ST-20)§

ST-20	Unit	*Annual Average*					1/5/2025	2/24/2025	3/24/2025	4/21/2025	5/18/2025	6/15/2025	7/6/2025	8/3/2025	9/1/2025	10/5/2025	11/9/2025	12/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***												
Field Measured																		
Temperature	°C	*7.8*	*8.9*	*7.8*	*3.5*	*3.0*	0.7	0.1	0.0	0.0	0.3	5.0	6.1	8.2	7.9	5.9	0.3	0.9
pH	pH units	*8.02*	*7.81*	*7.92*	*7.62*	*7.60*	7.67	7.49	7.31	7.43	7.39	7.83	7.99	7.65	7.80	7.66	7.83	7.15
Conductivity	uS/cm	*2021*	*1441*	*1386*	*1888*	*1878*	2180	2366	2251	2438	2008	634	2306	1864	1944	1544	1515	1484
Turbidity	NTU	*3.87*	*3.35*	*23.14*	*11.85*	*7.96*	6.05	3.59	2.6	3.47	6.4	45.4	8.47	5.77	2.99	4.47	2.58	3.67
Conventional Parameters																		
Hardness, as $CaCO_3$	mg/L	*527*	*359*	*341*	*504*	*571*	628	630	735	600	599	137	562	605	599	585	612	560
Total alkalinity, as $CaCO_3$	mg/L	*100*	*78*	*72*	*100*	*108*	130	140	130	130	140	34	120	120	120	110	70	46
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*98*	*75*	*70*	*100*	*107*	130	130	130	130	140	34	120	120	120	110	70	46
TDS	mg/L	*1396*	*977*	*877*	*1345*	*1589*	1750	1840	1760	1760	1780	320	1460	1750	1690	1620	1650	1690
TSS	mg/L	*3*	*4*	*64*	*10*	*9*	5	5	5	5	4	58	12	7	4	2	2	3
Total organic carbon	mg/L	*13*	*7*	*7*	*6*	*3*	3.0	3.5	2.9	3.3	2.8	1.7	5.2	2.6	2.1	1.9	1.8	1.9
Dissolved organic carbon	mg/L	*12*	*6*	*4*	*5*	*2*	2.7	2.7	2.5	2.7	2.5	1.3	2.5	2.0	2.0	1.8	1.7	2.0
Sodium Adsorption Ratio	-	*3*	*2*	*2*	*3*	*3*	3.4	3.6	3.9	3.6	3.7	1.5	3.3	3.2	3.5	3.4	3.4	3.4
Oxidation-Reduction Potential	mV	*222*	*243*	*352*	*317*	*279*	230	460	180	480	240	270	240	350	200	210	250	240
Major Ions																		
Bromide	mg/L	*1*	*2*	*1*	*1*	*1*	1.0	1.0	< 1.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.1	< 1.0
Chloride	mg/L	*109*	*58*	*55*	*76*	*79*	91	88	89	93	89	17	78	79	82	78	82	82
Cyanide	mg/L	*0.058*	*0.018*	*0.021*	*0.027*	*0.042*	0.36800	0.02610	0.01290	0.03000	0.01420	0.00520	0.00995	0.01140	0.00916	0.00680	0.00497	0.00459
Cyanide (free)	mg/L	*0.0143*	*0.0059*	*0.0112*	*0.0069*	*0.0028*	0.00220	0.00260	0.00285	0.00398	0.00268	0.00360	0.00169	0.00354	0.00388	0.00366	0.00149	0.00138
Cyanide (WAD)	mg/L	*0.0336*	*0.0137*	*0.0147*	*0.0157*	*0.0080*	0.0070	0.0170	0.0036	0.0210	0.0069	0.0049	0.0074	0.0090	0.0073	0.0044	0.0036	0.0034
Fluoride	mg/L	*0.25*	*0.26*	*0.25*	*0.27*	*0.32*	0.31	0.39	0.34	0.34	0.38	0.12	0.29	0.30	0.33	0.31	0.36	0.34
Silica	mg/L	*5.9*	*4.8*	*4.6*	*5.9*	*7.2*	7.7	7.7	8.0	7.8	7.9	2.1	6.9	7.6	8.2	7.5	7.1	7.3
Sulfate	mg/L	*768*	*596*	*562*	*823*	*998*	1200	1100	1100	1200	1100	210	1000	1100	870	1000	1100	1000
Nutrients																		
Ammonia Nitrogen	mg N/L	*23.2*	*19.2*	*18.6*	*28.8*	*36.6*	41	42	42	45	43	8.2	38	39	38	37	34	32
Nitrate	mg N/L	*2.05*	*0.77*	*0.19*	*0.12*	*0.79*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.18	< 0.10	0.11	0.53	1.24	2.55	4.32
Nitrite	mg N/L	*0.462*	*0.614*	*0.333*	*0.049*	*0.038*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.022	0.062	0.180	0.116
Total Kjeldahl nitrogen	mg N/L	*36*	*24*	*22*	*33*	*37*	42	45	44	41	42	9	39	43	38	35	36	34
Total phosphorus	mg P/L	*0.023*	*0.017*	*0.075*	*0.037*	*0.173*	0.110	0.031	0.130	0.130	0.170	0.280	0.170	0.150	0.220	0.240	0.240	0.210
Orthophosphate	mg P/L	*0.15*	*0.07*	*0.05*	*0.04*	*0.16*	0.064	0.110	0.110	0.150	0.170	0.210	0.071	0.150	0.260	0.230	0.200	0.190
Total Metals																		
Aluminum	mg/L	*0.0526*	*0.0375*	*0.6159*	*0.1339*	*0.0720*	0.0273	0.0242	0.0317	0.0354	0.0298	0.5910	0.0370	0.0158	0.0094	0.0141	0.0141	0.0343
Antimony	mg/L	*0.0140*	*0.0086*	*0.0067*	*0.0083*	*0.0071*	0.009470	0.008690	0.009030	0.000928	0.007510	0.001770	0.007310	0.008140	0.008050	0.007780	0.008530	0.007890
Arsenic	mg/L	*0.5060*	*0.3106*	*0.2443*	*0.3249*	*0.3116*	0.4340	0.4000	0.4390	0.3390	0.3900	0.0757	0.2340	0.2670	0.2860	0.2830	0.2960	0.2950
Barium	mg/L	*0.0434*	*0.0308*	*0.0305*	*0.0374*	*0.0397*	0.0440	0.0451	0.0508	0.0414	0.0428	0.0163	0.0370	0.0403	0.0402	0.0393	0.0414	0.0377
Beryllium	mg/L	*0.00002*	*0.00001*	*0.00003*	*0.00002*	*0.00002*	< 0.000010	< 0.000020	< 0.000020	< 0.000020	< 0.000010	0.000039	< 0.000010	< 0.000020	< 0.000010	< 0.000010	< 0.000020	< 0.000010
Boron	mg/L	*0.137*	*0.099*	*0.090*	*0.141*	*0.167*	0.184	0.190	0.190	0.159	0.174	0.033	0.166	0.169	0.156	0.191	0.188	0.208
Cadmium	mg/L	*0.00001*	*0.00001*	*0.00002*	*0.00001*	*0.00001*	0.0000146	0.0000140	0.0000170	< 0.000010	0.0000107	0.0000191	0.0000141	< 0.000010	< 0.0000050	0.0000122	0.0000140	0.0000182
Calcium (total)	mg/L	*197.84*	*132.18*	*123.05*	*182.63*	*205.88*	226	229	266	216	216	47.5	203	219	217	209	221	201
Chromium	mg/L	*0.00063*	*0.00067*	*0.00973*	*0.00171*	*0.00068*	0.00029	0.00029	0.00035	< 0.00020	0.00042	0.00510	0.00030	< 0.00020	< 0.00010	< 0.00010	< 0.00020	0.00065
Copper	mg/L	*0.0245*	*0.0058*	*0.0104*	*0.0154*	*0.0052*	0.00774	0.00824	0.00934	0.00211	0.00685	0.00433	0.00423	0.00236	0.00250	0.00413	0.00484	0.00569
Iron	mg/L	*0.112*	*0.092*	*1.529*	*0.333*	*0.234*	0.1990	0.2420	0.3070	0.2150	0.3220	1.2300	0.0753	0.0479	0.0078	0.0361	0.0446	0.0819
Lead	mg/L	*0.00036*	*0.00018*	*0.00087*	*0.00074*	*0.00040*	0.000412	0.000361	0.000434	0.000388	0.000458	0.001310	0.000081	0.000060	< 0.000020	0.000028	0.000999	0.000300
Lithium	mg/L	*0.00345*	*0.00381*	*0.00337*	*0.00399*	*0.00444*	0.00409	0.00500	0.00530	0.00430	0.00499	0.00208	0.00462	0.00440	0.00386	0.00461	0.00540	0.00458
Magnesium (total)	mg/L	*9*	*7*	*8*	*12*	*14*	15.60	14.10	16.90	14.80	14.50	4.35	13.30	13.80	13.50	15.60	14.70	14.20

ST-20	Unit	*Annual Average*					1/5/2025	2/24/2025	3/24/2025	4/21/2025	5/18/2025	6/15/2025	7/6/2025	8/3/2025	9/1/2025	10/5/2025	11/9/2025	12/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***												
Manganese	mg/L	*0.0501*	*0.0528*	*0.0725*	*0.0988*	*0.1154*	0.1120	0.1190	0.1380	0.1220	0.1170	0.0611	0.1010	0.1210	0.0978	0.1330	0.1420	0.1210
Mercury	mg/L	*0.00008*	*0.00008*	*0.00009*	*0.00006*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0770*	*0.0493*	*0.0447*	*0.0647*	*0.0691*	0.0762	0.0794	0.0867	0.0730	0.0773	0.0133	0.0668	0.0690	0.0754	0.0696	0.0734	0.0694
Nickel	mg/L	*0.0653*	*0.0410*	*0.0473*	*0.0686*	*0.0631*	0.0697	0.0764	0.0870	0.0642	0.0644	0.0215	0.0548	0.0657	0.0576	0.0664	0.0701	0.0593
Potassium (total)	mg/L	*80.18*	*52.63*	*49.18*	*72.31*	*85.45*	90.1	94.7	108.0	88.0	94.0	18.1	79.2	84.6	106.0	86.3	92.2	84.2
Selenium	mg/L	*0.0329*	*0.0197*	*0.0162*	*0.0189*	*0.0157*	0.0220	0.0150	0.0170	0.0132	0.0151	0.0035	0.0158	0.0176	0.0179	0.0173	0.0180	0.0161
Silver	mg/L	*0.000040*	*0.000013*	*0.000019*	*0.000010*	*0.000010*	< 0.0000050	< 0.000010	< 0.000010	< 0.000010	< 0.0000050	< 0.0000050	0.0000271	< 0.000010	< 0.000010	< 0.0000050	< 0.000010	< 0.000010
Sodium (total)	mg/L	*157.9*	*104.7*	*96.8*	*154.3*	*179.0*	200.0	201.0	236.0	184.0	188.0	38.7	173.0	182.0	179.0	192.0	192.0	182.0
Strontium	mg/L	*0.543*	*0.396*	*0.380*	*0.591*	*0.705*	0.732	0.806	0.905	0.695	0.835	0.163	0.707	0.686	0.732	0.769	0.729	0.698
Thallium	mg/L	*0.00002*	*0.00001*	*0.00002*	*0.00001*	*0.00001*	0.0000076	0.0000069	0.0000093	0.0000042	0.0000072	0.0000238	0.0000061	0.0000095	0.0000308	0.0000138	0.0000116	0.0000093
Tin	mg/L	*0.0003*	*0.0003*	*0.0003*	*0.0003*	*0.0003*	< 0.00020	< 0.00040	< 0.00040	< 0.00040	< 0.00020	< 0.00020	0.00084	< 0.00040	< 0.00020	< 0.00020	< 0.00040	< 0.00020
Titanium	mg/L	*0.002*	*0.002*	*0.013*	*0.005*	*0.003*	< 0.00050	< 0.0010	< 0.0010	< 0.0010	0.0010	0.0204	0.00169	< 0.0010	< 0.0020	< 0.00050	< 0.0010	< 0.0020
Uranium	mg/L	*0.0064*	*0.0049*	*0.0055*	*0.0077*	*0.0086*	0.00922	0.00918	0.00992	0.00921	0.00888	0.00277	0.00772	0.00893	0.01070	0.00850	0.00963	0.00811
Vanadium	mg/L	*0.0005*	*0.0003*	*0.0014*	*0.0005*	*0.0004*	0.00025	< 0.00040	< 0.00040	< 0.00040	0.00027	0.00128	0.00033	< 0.00040	0.00031	0.00022	< 0.00040	< 0.00020
Zinc	mg/L	*0.0015*	*0.0014*	*0.0039*	*0.0019*	*0.0029*	0.00121	0.00131	0.00166	0.00874	0.00091	0.00662	0.00273	0.00137	0.00100	0.00121	0.00393	0.00400
Dissolved Metals																		
Aluminum	mg/L	*0.0111*	*0.0116*	*0.1143*	*0.0124*	*0.0334*	0.00690	0.00800	0.00880	0.02530	0.00490	0.01690	0.30500	0.00979	0.00440	0.00645	0.00291	0.00159
Antimony	mg/L	*0.01210*	*0.00872*	*0.00719*	*0.00783*	*0.00685*	0.00965	0.00754	0.00664	0.00501	0.00684	0.00166	0.00513	0.00789	0.00799	0.00772	0.00789	0.00818
Arsenic	mg/L	*0.3984*	*0.3085*	*0.2462*	*0.2666*	*0.2822*	0.359	0.378	0.381	0.389	0.241	0.052	0.232	0.230	0.268	0.270	0.294	0.292
Barium	mg/L	*0.0430*	*0.0305*	*0.0300*	*0.0359*	*0.0379*	0.0405	0.0443	0.0437	0.0456	0.0409	0.0129	0.0291	0.0414	0.0406	0.0380	0.0383	0.0394
Beryllium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00002*	*0.00001*	< 0.000020	< 0.000020	< 0.000020	< 0.000010	0.000021	< 0.000010	0.000010	< 0.000010	< 0.000020	0.000011	< 0.000010	< 0.000010
Boron	mg/L	*0.141*	*0.108*	*0.096*	*0.127*	*0.163*	0.183	0.187	0.194	0.175	0.186	0.033	0.127	0.177	0.172	0.172	0.175	0.179
Cadmium	mg/L	*0.000019*	*0.000011*	*0.000021*	*0.000011*	*0.000013*	0.0000170	< 0.000010	0.0000170	0.0000150	0.0000160	0.0000081	< 0.0000050	0.0000188	0.0000170	0.0000103	0.0000120	0.0000088
Chromium	mg/L	*0.0002*	*0.0002*	*0.0006*	*0.0002*	*0.0003*	< 0.00020	< 0.00020	< 0.00020	0.00025	< 0.00020	0.00023	0.00122	0.00010	< 0.00020	< 0.00010	< 0.00010	< 0.00010
Copper	mg/L	*0.0197*	*0.0033*	*0.0068*	*0.0056*	*0.0057*	0.00412	0.01530	0.00251	0.00860	0.00728	0.00202	0.00713	0.00803	0.00264	0.00334	0.00349	0.00422
Iron	mg/L	*0.007*	*0.009*	*0.118*	*0.009*	*0.093*	0.0270	0.1640	0.1910	0.2720	0.0058	0.0148	0.4120	0.0050	0.0047	0.0042	0.0039	0.0058
Lead	mg/L	*0.00012*	*0.00006*	*0.00021*	*0.00007*	*0.00010*	0.0000220	0.0000440	0.0000750	0.0002950	0.0000380	0.0000436	0.0005840	0.0000375	0.0000170	< 0.0000050	0.0000130	0.0000468
Lithium	mg/L	*0.00344*	*0.00389*	*0.00286*	*0.00349*	*0.00445*	0.00550	0.00480	0.00510	0.00488	0.00500	0.00108	0.00401	0.00453	0.00460	0.00444	0.00495	0.00453
Manganese	mg/L	*0.0413*	*0.0427*	*0.0442*	*0.0926*	*0.1077*	0.1170	0.1150	0.1220	0.1240	0.1220	0.0261	0.0856	0.1160	0.0962	0.1260	0.1190	0.1240
Mercury	mg/L	*0.00008*	*0.00008*	*0.00009*	*0.00006*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0705*	*0.0511*	*0.0465*	*0.0629*	*0.0677*	0.0815	0.0792	0.0766	0.0785	0.0751	0.0135	0.0493	0.0710	0.0748	0.0684	0.0694	0.0752
Nickel	mg/L	*0.0622*	*0.0398*	*0.0379*	*0.0612*	*0.0598*	0.0711	0.0743	0.0733	0.0755	0.0614	0.0147	0.0477	0.0615	0.0556	0.0651	0.0633	0.0540
Selenium	mg/L	*0.03218*	*0.02041*	*0.01674*	*0.01850*	*0.01541*	0.02600	0.01440	0.01460	0.01650	0.01410	0.00337	0.01110	0.01630	0.01690	0.01780	0.01700	0.01680
Silver	mg/L	*0.00002*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	0.000022	< 0.000010	< 0.0000050	0.000014	< 0.0000050	0.000015	0.000007	< 0.000010	< 0.0000050	< 0.0000050	< 0.0000050
Strontium	mg/L	*0.5940*	*0.4079*	*0.3887*	*0.5736*	*0.6639*	0.707	0.814	0.809	0.772	0.772	0.162	0.454	0.672	0.712	0.732	0.656	0.705
Thallium	mg/L	*0.00002*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.0000080	< 0.0000040	< 0.0000040	0.0000070	0.0000048	0.0000127	0.0000084	0.0000157	0.0000321	0.0000115	0.0000105	0.0000088
Tin	mg/L	*0.0003*	*0.0003*	*0.0002*	*0.0003*	*0.0004*	< 0.00040	< 0.00040	< 0.00040	< 0.00020	< 0.00040	0.00115	0.00061	< 0.00020	< 0.00040	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	*0.0006*	*0.0006*	*0.0019*	*0.0008*	*0.0011*	< 0.0010	< 0.0010	< 0.0010	0.00068	< 0.0010	< 0.00050	0.00449	< 0.00050	< 0.0010	< 0.00050	< 0.00050	< 0.00050
Uranium	mg/L	*0.0063*	*0.0048*	*0.0056*	*0.0075*	*0.0079*	0.00932	0.00938	0.00879	0.00959	0.00967	0.00297	0.00562	0.00861	0.00919	0.00921	0.00909	0.00392
Vanadium	mg/L	*0.0004*	*0.0003*	*0.0004*	*0.0004*	*0.0006*	< 0.00040	< 0.00040	< 0.00040	0.00034	< 0.00040	< 0.00020	0.00438	0.00025	< 0.00040	0.0002	0.00022	< 0.00020
Zinc	mg/L	*0.0029*	*0.0014*	*0.0043*	*0.0030*	*0.0040*	0.00368	0.00292	0.00267	0.00126	0.00242	0.00130	0.01980	0.00843	0.00061	0.00109	0.00206	0.00227

Table 2-11 Meadowbank 2025 Goose Pit Sump Water Quality Monitoring (ST-20 Pit Sump)[§]

ST-20 Pit Sump	Unit	*Annual Average*					6/15/2025	7/20/2025	8/3/2025	9/15/2025	10/13/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*10.7*	*9.1*	*7.3*	*6.5*	*7.6*	4.2	12.5	12.8	7.3	1.2
pH	pH units	*7.89*	*7.68*	*7.74*	*7.63*	*8.23*	7.79	8.84	8.37	8.07	8.08
Conductivity	uS/cm	*388.5*	*463.6*	*647.2*	*340.7*	*435.0*	608.0	395.0	413.2	399.9	359.0
Turbidity	NTU	*10.71*	*14.30*	*18.81*	*31.28*	*17.23*	48.50	4.10	8.40	6.97	18.20
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*193*	*210*	*213*	*160*	*200*	188	203	206	195	207
Total alkalinity, as $CaCO_3$	mg/L	*55*	*56*	*62*	*51*	*58*	56	57	60	58	59
TDS	mg/L	*306*	*307*	*332*	*243*	*339*	335	335	345	375	305
TSS	mg/L	*7*	*6*	*20*	*20*	*7*	16	4	7	1	7
Major Ions											
Chloride	mg/L	*7.4*	*13.4*	*8.4*	*6.7*	*9.7*	8.5	9.6	9.5	11.0	10.0
Cyanide	mg/L	*0.007*	*0.002*	*0.001*	*0.001*	*0.002*	0.00132	0.00070	< 0.00050	0.00590	< 0.00050
Cyanide (free)	mg/L	*0.0055*	*0.0030*	*0.0028*	*0.0021*	*0.0010*	0.00093	0.00066	< 0.00050	< 0.0025	< 0.00050
Cyanide (WAD)	mg/L	*0.0034*	*0.0010*	*0.0008*	*0.0009*	*0.0012*	0.00093	0.00063	< 0.00050	0.00330	< 0.00050
Fluoride	mg/L	*0.26*	*0.29*	*0.33*	*0.21*	*0.24*	0.19	0.21	0.25	0.25	0.28
Sulfate	mg/L	*145*	*160*	*165*	*115*	*164*	140	170	170	170	170
Nutrients											
Ammonia Nitrogen	mg N/L	*0.11*	*0.05*	*0.06*	*0.07*	*0.09*	0.120	< 0.050	< 0.050	< 0.050	0.180
Nitrate	mg N/L	*3.58*	*2.87*	*2.02*	*0.86*	*0.60*	0.96	0.52	0.45	0.54	0.51
Nitrite	mg N/L	*0.017*	*0.019*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals											
Aluminum	mg/L	*0.1801*	*0.1773*	*0.2489*	*0.3570*	*0.1575*	0.3870	0.0948	0.1070	0.0289	0.1700
Arsenic	mg/L	*0.00373*	*0.00365*	*0.00361*	*0.01156*	*0.00433*	0.00827	0.00487	0.00426	0.00209	0.00215
Barium	mg/L	*0.0214*	*0.0199*	*0.0221*	*0.0202*	*0.0193*	0.0231	0.0193	0.0187	0.0171	0.0185
Cadmium	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00003*	*0.00002*	0.0000301	0.0000120	0.0000096	0.0000157	0.0000145
Chromium	mg/L	*0.00137*	*0.00219*	*0.00208*	*0.00531*	*0.00127*	0.00287	0.00078	0.00064	0.00026	0.00178
Copper	mg/L	*0.0011*	*0.0012*	*0.0024*	*0.0027*	*0.0013*	0.00144	0.00111	0.00120	0.00144	0.00141
Iron	mg/L	*0.317*	*0.339*	*0.465*	*0.729*	*0.298*	0.790	0.167	0.188	0.052	0.292
Lead	mg/L	*0.00030*	*0.00039*	*0.00054*	*0.00184*	*0.00028*	0.000701	0.000171	0.000163	0.000064	0.000278
Manganese	mg/L	*0.0359*	*0.0316*	*0.0424*	*0.0803*	*0.0285*	0.0529	0.0284	0.0167	0.0251	0.0194
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0044*	*0.0043*	*0.0043*	*0.0026*	*0.0029*	0.00241	0.00304	0.00307	0.00311	0.00268
Nickel	mg/L	*0.0460*	*0.0377*	*0.0343*	*0.0470*	*0.0564*	0.0764	0.0497	0.0427	0.0573	0.0557
Selenium	mg/L	*0.0007*	*0.0006*	*0.0007*	*0.0003*	*0.0003*	0.000324	0.000317	0.000333	0.000305	0.000288
Silver	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.0000054	< 0.0000050	< 0.0000050	< 0.000010	< 0.000010
Thallium	mg/L	*0.00004*	*0.00003*	*0.00004*	*0.00004*	*0.00004*	0.0000353	0.0000359	0.0000345	0.0000343	0.0000359
Zinc	mg/L	*0.0022*	*0.0035*	*0.0039*	*0.0027*	*0.0014*	0.00308	0.00085	0.00091	< 0.0010	0.00110

Table 2-12 Meadowbank 2025 Tailings Storage Facility Water Quality Monitoring (ST-21)§

ST-21	Unit	*Annual Average*					6/10/2025	7/6/2025	8/3/2025	9/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*5.5*	*9.3*	*12.1*	*6.2*	*10.1*	7.5	9.1	17.4	6.5
pH	pH units	*8.12*	*7.37*	*7.83*	*7.72*	*7.92*	7.76	7.97	7.94	8.00
Conductivity	uS/cm	*1583*	*1202*	*1741*	*862*	*2834*	608	702	5559	4468
Turbidity	NTU	*36.36*	*23.00*	*27.41*	*31.52*	*11.90*	22.30	3.90	14.70	6.70
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*419*	*424*	*537*	*333*	*932*	161	285	1660	1620
Total alkalinity, as $CaCO_3$	mg/L	*88*	*68*	*83*	*69*	*82*	45	82	110	92
TDS	mg/L	*1186*	*835*	*1303*	*631*	*2781*	335	500	5320	4970
TSS	mg/L	*42*	*21*	*19*	*25*	*22*	11	5	13	58
Major Ions										
Chloride	mg/L	*101.8*	*34.0*	*104.0*	*10.9*	*137.7*	8.7	12.0	290.0	240.0
Cyanide	mg/L	*0.055*	*0.036*	*2.275*	*0.022*	*1.914*	0.018	0.006	0.842	6.790
Cyanide (free)	mg/L	*0.0420*	*0.0076*	*0.2403*	*0.0034*	*0.6003*	0.0052	0.0010	0.4450	1.95
Cyanide (WAD)	mg/L	*0.0138*	*0.0093*	*2.0988*	*0.0075*	*1.6292*	0.0053	0.0015	0.7100	5.80
Fluoride	mg/L	*0.23*	*0.21*	*0.23*	*0.18*	*0.20*	0.11	0.20	0.28	0.21
Sulfate	mg/L	*570*	*488*	*720*	*331*	*1083*	180	250	2200	1700
Nutrients										
Ammonia Nitrogen	mg N/L	*15.7*	*4.7*	*11.1*	*0.8*	*18.5*	1.300	0.092	64.000	8.800
Nitrate	mg N/L	*7.42*	*3.29*	*6.81*	*3.46*	*12.91*	2.28	4.26	24.20	20.90
Nitrite	mg N/L	*0.213*	*0.201*	*0.170*	*0.084*	*0.129*	0.055	0.051	0.213	0.197
Total Metals										
Aluminum	mg/L	*0.910*	*0.629*	*0.361*	*0.541*	*0.118*	0.3260	0.1110	0.0253	0.0077
Arsenic	mg/L	*0.0923*	*0.0466*	*0.0727*	*0.0607*	*0.1042*	0.0193	0.0376	0.146	0.214
Barium	mg/L	*0.0381*	*0.0327*	*0.0471*	*0.0283*	*0.0781*	0.0167	0.0335	0.1430	0.1190
Cadmium	mg/L	*0.00009*	*0.00009*	*0.00011*	*0.00008*	*0.00018*	0.0004440	0.0000479	0.0002160	< 0.0000050
Chromium	mg/L	*0.02466*	*0.01242*	*0.01299*	*0.01402*	*0.00123*	0.00253	0.00177	< 0.00050	< 0.00010
Copper	mg/L	*2.796*	*0.061*	*2.081*	*0.026*	*5.252*	0.0218	0.0167	7.17	13.80
Iron	mg/L	*2.614*	*1.619*	*1.137*	*1.527*	*0.252*	0.7030	0.2820	0.0166	0.0073
Lead	mg/L	*0.0153*	*0.0056*	*0.0043*	*0.0060*	*0.0012*	0.003110	0.001100	0.000311	0.000271
Manganese	mg/L	*0.3444*	*0.4976*	*0.4425*	*0.3534*	*0.2083*	0.188	0.253	0.223	0.169
Mercury	mg/L	*0.00006*	*0.00006*	*0.00004*	*0.00001*	*0.00006*	< 0.00001	< 0.00001	< 0.00010	< 0.00010
Molybdenum	mg/L	*0.0417*	*0.0267*	*0.0401*	*0.0137*	*0.0617*	0.00695	0.01200	0.11300	0.11500
Nickel	mg/L	*1.139*	*0.129*	*0.678*	*0.132*	*2.479*	0.0454	0.0717	2.5900	7.2100
Selenium	mg/L	*0.0417*	*0.0076*	*0.0403*	*0.0011*	*0.1009*	0.000799	0.000629	0.227000	0.175000
Silver	mg/L	*0.0009*	*0.0001*	*0.0009*	*0.0000*	*0.0010*	0.0000141	0.0000070	0.0010700	0.0027300
Thallium	mg/L	*0.00004*	*0.00002*	*0.00002*	*0.00002*	*0.00001*	0.0000150	0.0000076	0.0000150	0.0000215
Zinc	mg/L	*0.005*	*0.004*	*0.002*	*0.007*	*0.058*	0.22500	0.00144	0.00324	0.00290

Table 2-13 Meadowbank 2025 Vault Pit Water Quality Monitoring (ST-26)[§]

ST-26	Unit	*Annual Average*					6/15/2025	7/14/2025	8/4/2025	9/9/2025	10/6/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*6.7*	*8.8*	*8.2*	*8.7*	*8.2*	2.4	11.3	13.1	9.4	5.0
pH	pH units	*7.60*	*7.63*	*7.47*	*7.61*	*7.91*	7.69	7.86	7.94	7.97	8.08
Conductivity	uS/cm	*219.0*	*288.0*	*221.9*	*244.9*	*201.7*	174.8	221.0	202.7	196.3	213.9
Turbidity	NTU	*4.78*	*3.10*	*2.23*	*8.39*	*9.06*	5.36	3.70	2.33	15.60	18.30
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*104*	*114*	*96*	*107*	*94*	77.1	79.0	99.1	112	101
Total alkalinity, as $CaCO_3$	mg/L	*46*	*49*	*44*	*50*	*50*	39	45	55	57	56
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*45*	*49*	*43*	*50*	*50*	39	45	54	57	56
TDS	mg/L	*150*	*148*	*124*	*157*	*136*	130	120	140	145	145
TSS	mg/L	*8*	*2*	*3*	*25*	*4*	3	4	3	< 1	8
Total organic carbon	mg/L	*2*	*2*	*2*	*1*	*2*	1.7	1.5	1.4	1.5	1.5
Dissolved organic carbon	mg/L	*2*	*2*	*2*	*1*	*1*	1.3	1.3	1.5	1.4	1.4
Major Ions											
Chloride	mg/L	*7.1*	*8.2*	*5.8*	*7.3*	*8.3*	6.2	8.2	8.6	9.0	9.7
Cyanide	mg/L	*0.005*	*0.001*	*0.001*	*0.001*	*0.004*	0.00280	< 0.00050	< 0.00050	0.01310	0.00068
Cyanide (free)	mg/L	*0.0025*	*0.0024*	*0.0026*	*0.0024*	*0.0028*	0.00330	0.00051	< 0.00050	0.00900	< 0.00050
Silica	mg/L	*2.32*	*2.54*	*1.99*	*2.50*	*2.06*	1.8	1.8	2.1	2.1	2.5
Sulfate	mg/L	*53*	*59*	*49*	*58*	*50*	35	46	51	56	64
Nutrients											
Ammonia Nitrogen	mg N/L	*0.074*	*0.054*	*0.053*	*0.050*	*0.052*	< 0.050	< 0.050	< 0.050	< 0.050	0.061
Nitrate	mg N/L	*1.61*	*1.54*	*1.03*	*1.34*	*0.94*	0.58	0.76	0.80	1.11	1.44
Nitrite	mg N/L	*0.012*	*0.013*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Kjeldahl nitrogen	mg N/L	*0.13*	*0.12*	*0.16*	*0.15*	*0.16*	0.25	0.11	0.10	< 0.10	0.24
Total phosphorus	mg P/L	*0.006*	*0.003*	*0.004*	*0.010*	*0.002*	0.0025	0.0021	< 0.0010	< 0.0010	0.0041
Orthophosphate	mg P/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals											
Aluminum	mg/L	*0.2543*	*0.0419*	*0.0566*	*0.2107*	*0.1156*	0.0762	0.0691	0.0370	0.0439	0.3520
Antimony	mg/L	*0.0013*	*0.0013*	*0.0010*	*0.0013*	*0.0011*	0.000756	0.000773	0.001050	0.001490	0.001440
Arsenic	mg/L	*0.0032*	*0.0028*	*0.0027*	*0.0036*	*0.0031*	0.00238	0.00252	0.00277	0.00346	0.00451
Barium	mg/L	*0.01366*	*0.01484*	*0.01221*	*0.01213*	*0.01041*	0.00863	0.00821	0.01160	0.01160	0.01200
Beryllium	mg/L	*0.00010*	*0.00005*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	0.000015
Boron	mg/L	*0.04*	*0.03*	*0.01*	*0.01*	*0.01*	< 0.010	< 0.010	< 0.010	0.011	0.010
Cadmium	mg/L	*0.000014*	*0.000010*	*0.000013*	*0.000014*	*0.000012*	0.0000155	< 0.0000050	0.0000110	0.0000102	0.0000200
Calcium (total)	mg/L	*30.2*	*33.4*	*28.5*	*31.5*	*27.4*	22.6	22.9	29.5	32.9	29.1
Chromium	mg/L	*0.0010*	*0.0005*	*0.0008*	*0.0005*	*0.0003*	0.00019	0.00027	< 0.00010	< 0.00010	0.00078
Copper	mg/L	*0.0013*	*0.0011*	*0.0013*	*0.0013*	*0.0016*	0.00120	0.00109	0.00303	0.00104	0.00154
Iron	mg/L	*0.46*	*0.06*	*0.10*	*0.41*	*0.24*	0.1380	0.1470	0.0461	0.0326	0.8380
Lead	mg/L	*0.0009*	*0.0002*	*0.0006*	*0.0009*	*0.0005*	0.000413	0.000325	0.000159	0.000126	0.001510
Lithium	mg/L	*0.0023*	*0.0022*	*0.0019*	*0.0022*	*0.0019*	0.00156	0.00155	0.00180	0.00242	0.00200
Magnesium (total)	mg/L	*6.96*	*7.39*	*6.01*	*7.02*	*6.17*	5.03	5.30	6.21	7.36	6.93
Manganese	mg/L	*0.0194*	*0.0092*	*0.0119*	*0.0152*	*0.0115*	0.01720	0.01040	0.00550	0.00347	0.02070
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0212*	*0.0228*	*0.0201*	*0.0267*	*0.0251*	0.0154	0.0178	0.0251	0.0346	0.0327
Nickel	mg/L	*0.0022*	*0.0016*	*0.0046*	*0.0020*	*0.0015*	0.00137	0.00106	0.00136	0.00154	0.00219
Potassium (total)	mg/L	*2.72*	*2.67*	*2.19*	*2.41*	*2.07*	1.71	1.67	1.98	2.54	2.43
Selenium	mg/L	*0.0003*	*0.0003*	*0.0002*	*0.0002*	*0.0002*	0.000151	0.000145	0.000192	0.000243	0.000238
Sodium (total)	mg/L	*2.71*	*2.82*	*2.10*	*2.51*	*1.94*	1.61	1.67	1.93	2.33	2.17
Strontium	mg/L	*0.215*	*0.233*	*0.194*	*0.221*	*0.189*	0.142	0.153	0.182	0.246	0.221
Thallium	mg/L	*0.000017*	*0.000015*	*0.000012*	*0.000016*	*0.000014*	0.0000106	0.0000080	0.0000116	0.0000191	0.0000199
Tin	mg/L	*0.0040*	*0.0020*	*0.0004*	*0.0002*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	*0.0044*	*0.0027*	*0.0008*	*0.0026*	*0.0017*	0.00129	< 0.0020	0.00054	0.00121	0.00350
Uranium	mg/L	*0.0055*	*0.0056*	*0.0045*	*0.0055*	*0.0044*	0.00325	0.00286	0.00432	0.00566	0.00567
Vanadium	mg/L	*0.0040*	*0.0021*	*0.0002*	*0.0006*	*0.0003*	< 0.00020	< 0.00020	< 0.00020	0.00023	0.00048
Zinc	mg/L	*0.005*	*0.003*	*0.001*	*0.003*	*0.002*	0.00187	< 0.0010	0.00147	0.00083	0.00250
Dissolved Metals											
Aluminum	mg/L	*0.0190*	*0.0131*	*0.0172*	*0.0123*	*0.0162*	0.0147	0.0227	0.0135	0.0165	0.0138
Antimony	mg/L	*0.0013*	*0.0013*	*0.0010*	*0.0013*	*0.0012*	0.000747	0.000905	0.000984	0.001460	0.001750
Arsenic	mg/L	*0.0027*	*0.0028*	*0.0028*	*0.0039*	*0.0031*	0.00260	0.00307	0.00287	0.00342	0.00364
Barium	mg/L	*0.0127*	*0.0137*	*0.0118*	*0.0116*	*0.0105*	0.00772	0.00906	0.01210	0.01140	0.01210
Beryllium	mg/L	*0.00010*	*0.00005*	*0.00000*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Boron	mg/L	*0.04*	*0.03*	*0.01*	*0.01*	*0.01*	< 0.010	< 0.010	< 0.010	0.011	0.012
Cadmium	mg/L	*0.000011*	*0.000011*	*0.000016*	*0.000010*	*0.000009*	0.0000103	< 0.0000050	0.0000057	0.0000113	0.0000121
Chromium	mg/L	*0.0008*	*0.0005*	*0.0001*	*0.0001*	*0.0002*	< 0.00010	0.00035	< 0.00010	< 0.00010	< 0.00010
Copper	mg/L	*0.0010*	*0.0020*	*0.0017*	*0.0014*	*0.0021*	0.002460	0.003530	0.002880	0.000872	0.000725
Iron	mg/L	*0.0072*	*0.0104*	*0.0104*	*0.0061*	*0.0087*	0.0082	0.0276	0.0055	0.0010	0.0011
Lead	mg/L	*0.00017*	*0.00012*	*0.00006*	*0.00003*	*0.00003*	0.0000497	0.0000676	0.0000260	0.0000124	0.0000135
Lithium	mg/L	*0.0021*	*0.0023*	*0.0017*	*0.0020*	*0.0019*	0.00119	0.00172	0.00191	0.00236	0.00226
Manganese	mg/L	*0.0110*	*0.0083*	*0.0089*	*0.0077*	*0.0045*	0.013500	0.005740	0.003030	0.000161	0.000214
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0212*	*0.0224*	*0.0191*	*0.0268*	*0.0273*	0.0163	0.0199	0.0236	0.0365	0.0404
Nickel	mg/L	*0.0016*	*0.0021*	*0.0016*	*0.0020*	*0.0016*	0.00188	0.00168	0.00167	0.00132	0.00131
Selenium	mg/L	*0.0003*	*0.0003*	*0.0002*	*0.0003*	*0.0002*	0.000166	0.000196	0.000175	0.000240	0.000254
Strontium	mg/L	*0.215*	*0.230*	*0.188*	*0.222*	*0.202*	0.144	0.172	0.184	0.242	0.267
Thallium	mg/L	*0.000016*	*0.000012*	*0.000011*	*0.000012*	*0.000012*	0.0000066	0.0000073	0.0000101	0.0000166	0.0000194
Tin	mg/L	*0.0040*	*0.0020*	*0.0000*	*0.0003*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	*0.004*	*0.002*	*0.001*	*0.001*	*0.001*	< 0.00050	0.00054	< 0.00050	< 0.00050	< 0.00050
Uranium	mg/L	*0.0053*	*0.0056*	*0.0044*	*0.0055*	*0.0048*	0.00319	0.00406	0.00444	0.00590	0.00632
Vanadium	mg/L	*0.0040*	*0.0020*	*0.0002*	*0.0002*	*0.0003*	< 0.00020	< 0.00020	< 0.00020	0.00045	< 0.00020
Zinc	mg/L	*0.004*	*0.004*	*0.002*	*0.001*	*0.002*	0.00221	0.00442	0.00198	0.00047	0.00013

Table 2-14 Meadowbank 2025 Vault WRSF Water Quality Monitoring (ST-24)§

ST-24	Unit	*Annual Average*					6/15/2025	7/14/2025	8/4/2025	9/9/2025	10/6/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*7.45*	*8.14*	*8.40*	*9.70*	*7.62*	2.5	10.6	13.3	8.6	3.1
pH	pH units	*7.63*	*7.67*	*7.32*	*7.49*	*7.75*	7.35	7.78	7.89	7.78	7.94
Conductivity	uS/cm	*235.0*	*331.2*	*255.1*	*247.5*	*192.2*	150.7	166.8	205.4	218.7	219.5
Turbidity	NTU	*4.13*	*1.55*	*3.34*	*3.04*	*5.63*	8.50	2.88	1.72	7.78	7.28
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*110*	*139*	*108*	*95*	*96*	30.7	68.6	98.7	136.0	145.0
Total alkalinity, as $CaCO_3$	mg/L	*43*	*52*	*48*	*43*	*43*	21	34	44	56	61
TDS	mg/L	*158*	*173*	*160*	*144*	*121*	40	95	135	165	170
TSS	mg/L	*3*	*1*	*2*	*3*	*4*	3	8	1	4	3
Major Ions											
Chloride	mg/L	*4.6*	*3.1*	*1.3*	*1.1*	*1.4*	< 1.0	< 1.0	1.4	1.7	1.8
Cyanide	mg/L	*0.005*	*0.001*	*0.001*	*0.001*	*0.004*	0.00081	< 0.00050	< 0.00050	0.01740	< 0.00050
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.11*	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10	0.10
Sulfate	mg/L	*64*	*85*	*69*	*67*	*61*	15	43	68	86	95
Nutrients											
Ammonia Nitrogen	mg N/L	*0.61*	*0.07*	*0.06*	*0.05*	*0.06*	< 0.050	< 0.050	< 0.050	< 0.050	0.082
Nitrate	mg N/L	*1.16*	*1.10*	*0.77*	*0.67*	*0.53*	0.18	0.36	0.60	0.73	0.80
Nitrite	mg N/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals											
Aluminum	mg/L	*0.1059*	*0.0346*	*0.0606*	*0.0470*	*0.0580*	0.1250	0.1000	0.0243	0.0187	0.0218
Arsenic	mg/L	*0.0021*	*0.0018*	*0.0018*	*0.0017*	*0.0018*	0.00140	0.00219	0.00199	0.00194	0.00168
Barium	mg/L	*0.0127*	*0.0136*	*0.0103*	*0.0086*	*0.0086*	0.0046	0.0068	0.0092	0.0105	0.0121
Cadmium	mg/L	*0.00003*	*0.00002*	*0.00002*	*0.00001*	*0.00001*	0.000012	0.000010	0.000025	< 0.000010	< 0.000010
Chromium	mg/L	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	*0.0036*	*0.0034*	*0.0027*	*0.0023*	*0.0024*	0.00231	0.00320	0.00222	0.00216	0.00228
Iron	mg/L	*0.17*	*0.10*	*0.11*	*0.07*	*0.10*	0.209	0.206	0.029	0.025	0.031
Lead	mg/L	*0.0003*	*0.0002*	*0.0002*	*0.0002*	*0.0002*	0.00026	0.00026	< 0.00020	< 0.00020	< 0.00020
Manganese	mg/L	*0.0303*	*0.0185*	*0.0124*	*0.0068*	*0.0064*	0.0132	0.0058	0.0040	0.0030	0.0062
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0151*	*0.0170*	*0.0172*	*0.0231*	*0.0335*	0.0088	0.0235	0.0393	0.0482	0.0479
Nickel	mg/L	*0.0038*	*0.0026*	*0.0021*	*0.0016*	*0.0016*	0.0016	0.0017	0.0017	0.0013	0.0016
Selenium	mg/L	*0.0002*	*0.0003*	*0.0002*	*0.0003*	*0.0003*	< 0.00010	0.00020	0.00031	0.00038	0.00048
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	0.000012
Zinc	mg/L	*0.005*	*0.005*	*0.005*	*0.007*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-15 Meadowbank 2025 Vault Attenuation Pond Water Quality Monitoring (ST-25)[§]

ST-25	Unit	*Annual Average*					6/15/2025	7/14/2025	8/11/2025	9/4/2025	9/8/2025	10/6/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***						
Field Measured												
Temperature	°C	*6.7*	*8.5*	*9.8*	*10.4*	*7.4*	1.20	11.40	11.40	9.00	7.70	3.50
pH	pH units	*7.61*	*7.27*	*7.44*	*7.62*	*7.74*	7.72	7.74	7.90	7.77	7.96	7.36
Conductivity	uS/cm	*136.0*	*182.2*	*156.0*	*150.5*	*116.9*	81.3	146.7	119.2	111.4	115.7	127.0
Turbidity	NTU	*1.74*	*1.23*	*1.44*	*2.34*	*3.84*	4.35	1.54	3.75	1.56	5.80	6.04
Conventional Parameters												
Hardness, as $CaCO_3$	mg/L	*58*	*69*	*60*	*53*	*58*	33.7	57.3	56.4	67.7	66.6	64.1
Total alkalinity, as $CaCO_3$	mg/L	*21*	*28*	*29*	*30*	*30*	17	30	30	32	31	37
TDS	mg/L	*86*	*93*	*91*	*89*	*74*	45	65	60	95	105	75
TSS	mg/L	*2*	*2*	*1*	*2*	*5*	2	1	1	1	1	23
Major Ions												
Chloride	mg/L	*5.0*	*3.5*	*1.9*	*1.8*	*2.2*	1.3	2.3	2.4	2.3	2.6	2.2
Cyanide	mg/L	*0.005*	*0.001*	*0.001*	*0.001*	*0.001*	0.00103	< 0.00050	< 0.00050	0.00070	< 0.00050	< 0.00050
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10	-	-	0.11
Sulfate	mg/L	*36*	*46*	*41*	*36*	*34*	20	37	36	37	38	36
Nutrients												
Ammonia Nitrogen	mg N/L	*0.28*	*0.05*	*0.05*	*0.05*	*0.05*	0.054	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Nitrate	mg N/L	*0.59*	*0.26*	*0.12*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg N/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals												
Aluminum	mg/L	*0.041*	*0.022*	*0.017*	*0.017*	*0.070*	0.0406	0.0183	0.0135	0.0218	0.0144	0.3130
Arsenic	mg/L	*0.0005*	*0.0005*	*0.0004*	*0.0004*	*0.0006*	0.00042	0.00045	0.00045	0.00057	0.00055	0.00111
Barium	mg/L	*0.0127*	*0.0142*	*0.0115*	*0.0094*	*0.0094*	0.0064	0.0098	0.0085	0.0102	0.0098	0.0118
Cadmium	mg/L	*0.00002*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.000012	< 0.000010	< 0.000010	< 0.000010	< 0.000010	0.000013
Chromium	mg/L	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0011
Copper	mg/L	*0.0015*	*0.0018*	*0.0015*	*0.0012*	*0.0015*	0.00118	0.00147	0.00131	0.00148	0.00139	0.00205
Iron	mg/L	*0.060*	*0.032*	*0.020*	*0.028*	*0.125*	0.084	0.032	0.016	0.027	0.016	0.572
Lead	mg/L	*0.0002*	*0.0002*	*0.0002*	*0.0002*	*0.0003*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00087
Manganese	mg/L	*0.011*	*0.006*	*0.005*	*0.007*	*0.008*	0.0163	0.0055	0.0034	0.0033	0.0030	0.0160
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0044*	*0.0045*	*0.0036*	*0.0026*	*0.0031*	0.0017	0.0029	0.0031	0.0038	0.0037	0.0035
Nickel	mg/L	*0.0019*	*0.0017*	*0.0015*	*0.0012*	*0.0013*	0.0013	0.0012	0.0010	0.0011	0.0010	0.0020
Selenium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	-	-	< 0.000020
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Zinc	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-16 Meadowbank 2025 Waste Extension Pool WEP1 Water Quality Monitoring (ST-30)[§]

ST-30	Unit	*Annual Average*					6/8/2025	7/6/2025	8/3/2025	9/1/2025	10/12/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*7.1*	*8.8*	*6.4*	*7.0*	*8.4*	5.4	9.9	18.6	7.5	0.5
pH	pH units	*7.53*	*7.33*	*7.41*	*7.80*	*7.45*	7.28	7.85	7.34	7.45	7.32
Conductivity	uS/cm	*187.3*	*250.1*	*235.8*	*253.5*	*259.6*	166.6	241.0	304.6	323.6	262.1
Turbidity	NTU	*3.91*	*65.64*	*6.41*	*8.84*	*6.00*	17.70	3.56	2.87	3.21	2.64
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*92*	*111*	*104*	*107*	*130*	84.8	101.0	151.0	132.0	180.0
Total alkalinity, as $CaCO_3$	mg/L	*55*	*73*	*78*	*74*	*90*	51	86	91	110	110
TDS	mg/L	*145*	*151*	*149*	*150*	*185*	90	125	210	235	265
TSS	mg/L	*1*	*25*	*3*	*7*	*19*	87	2	3	3	2
Major Ions											
Chloride	mg/L	*2.1*	*3.1*	*1.8*	*1.7*	*2.6*	1.3	1.8	2.4	4.0	3.7
Cyanide	mg/L	*0.006*	*0.009*	*0.004*	*0.004*	*0.005*	0.00802	0.00361	0.00580	0.00355	0.00415
Cyanide (free)	mg/L	*0.005*	*0.004*	*0.004*	*0.003*	*0.002*	0.00132	0.00140	0.00305	0.00317	0.00136
Cyanide (WAD)	mg/L	*0.003*	*0.004*	*0.002*	*0.002*	*0.002*	0.0022	0.0017	0.0036	0.0031	0.0018
Fluoride	mg/L	*0.14*	*0.17*	*0.15*	*0.12*	*0.18*	0.11	0.15	0.21	0.24	0.18
Sulfate	mg/L	*40*	*41*	*47*	*46*	*55*	27	32	55	66	94
Nutrients											
Ammonia Nitrogen	mg N/L	*0.13*	*0.28*	*0.08*	*0.11*	*0.22*	0.230	< 0.050	0.075	0.520	0.220
Nitrate	mg N/L	*1.56*	*1.31*	*0.89*	*1.58*	*1.94*	0.27	0.16	1.22	3.65	4.41
Nitrite	mg N/L	*0.013*	*0.021*	*0.011*	*0.012*	*0.017*	0.012	< 0.010	0.014	0.028	0.019
Total Metals											
Aluminum	mg/L	*0.055*	*1.932*	*0.115*	*0.112*	*0.347*	1.5400	0.1210	0.0400	0.0037	0.0314
Arsenic	mg/L	*0.0108*	*0.0141*	*0.0056*	*0.0279*	*0.0046*	0.00661	0.00506	0.00587	0.00163	0.00381
Barium	mg/L	*0.0124*	*0.0266*	*0.0133*	*0.0138*	*0.0172*	0.0204	0.0124	0.0204	0.0137	0.0193
Cadmium	mg/L	*0.00001*	*0.00003*	*0.00001*	*0.00001*	*0.00002*	0.0000360	0.0000124	0.0000140	< 0.0000050	< 0.000010
Chromium	mg/L	*0.0014*	*0.0096*	*0.0014*	*0.0021*	*0.0022*	0.00840	0.00029	< 0.0010	< 0.00010	< 0.0010
Copper	mg/L	*0.0057*	*0.0112*	*0.0059*	*0.0040*	*0.0056*	0.01010	0.00568	0.00590	0.00267	0.00372
Iron	mg/L	*0.474*	*4.110*	*0.598*	*0.667*	*1.096*	3.5100	1.1000	0.6590	0.0767	0.1350
Lead	mg/L	*0.0002*	*0.0025*	*0.0003*	*0.0010*	*0.0005*	0.001770	0.000192	< 0.00020	< 0.000020	< 0.00020
Manganese	mg/L	*0.0392*	*0.2136*	*0.0781*	*0.1249*	*0.1587*	0.49200	0.05750	0.21500	0.00851	0.02040
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0035*	*0.0043*	*0.0029*	*0.0031*	*0.0034*	0.00230	0.00322	0.00560	0.00381	0.00230
Nickel	mg/L	*0.0028*	*0.0089*	*0.0030*	*0.0071*	*0.0040*	0.00730	0.00280	0.00420	0.00317	0.00270
Selenium	mg/L	*0.0003*	*0.0003*	*0.0002*	*0.0002*	*0.0003*	0.000140	0.000116	0.000230	0.000434	0.000400
Silver	mg/L	*0.00002*	*0.00003*	*0.00002*	*0.00001*	*0.00002*	0.000023	< 0.0000050	< 0.000020	< 0.000010	< 0.000020
Thallium	mg/L	*0.00001*	*0.00004*	*0.00001*	*0.00001*	*0.00001*	0.000029	0.0000056	< 0.000010	0.0000055	< 0.000010
Zinc	mg/L	*0.005*	*0.010*	*0.004*	*0.005*	*0.005*	0.0091	0.0072	< 0.0050	< 0.0010	< 0.0050

Table 2-17 Meadowbank 2025 Waste Extension Pool WEP2 Water Quality Monitoring (ST-31)[§]

ST-31	Unit	*Annual Average*					6/8/2025	7/6/2025	8/3/2025	9/1/2025	10/12/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*6.4*	*8.9*	*6.6*	*7.5*	*7.2*	6.4	6.1	15.0	8.3	0.4
pH	pH units	*7.34*	*7.43*	*7.39*	*7.51*	*7.53*	7.13	7.53	7.62	7.63	7.73
Conductivity	uS/cm	*190.7*	*232.2*	*225.8*	*219.4*	*207.4*	80.2	202.3	240.0	299.3	215.0
Turbidity	NTU	*4.06*	*7.90*	*10.39*	*6.88*	*10.09*	0.69	5.43	6.09	7.54	30.70
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*94*	*109*	*95*	*88*	*102*	39.7	87.3	125.0	116.0	144.0
Total alkalinity, as $CaCO_3$	mg/L	*60*	*79*	*78*	*66*	*87*	31	82	84	130	110
TDS	mg/L	*150*	*145*	*123*	*141*	*151*	50	105	170	215	215
TSS	mg/L	*4*	*6*	*14*	*6*	*12*	20	4	5	7	25
Major Ions											
Chloride	mg/L	*2.6*	*2.3*	*1.7*	*1.6*	*2.0*	< 1.0	1.3	1.4	3.0	3.5
Cyanide	mg/L	*0.005*	*0.002*	*0.001*	*0.001*	*0.001*	0.00267	0.00059	0.00133	0.00132	0.00060
Cyanide (free)	mg/L	*0.003*	*0.002*	*0.004*	*0.002*	*0.001*	0.00228	0.00068	0.00076	0.00131	< 0.00050
Cyanide (WAD)	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	0.00230	0.00061	0.00130	0.00110	< 0.00050
Fluoride	mg/L	*0.13*	*0.19*	*0.17*	*0.15*	*0.17*	< 0.10	0.13	0.17	0.26	0.21
Sulfate	mg/L	*39*	*38*	*39*	*38*	*38*	9.8	21.0	46.0	53.0	62.0
Nutrients											
Ammonia Nitrogen	mg N/L	*0.10*	*0.05*	*0.05*	*0.06*	*0.06*	< 0.050	< 0.050	< 0.050	0.098	< 0.050
Nitrate	mg N/L	*1.15*	*0.76*	*0.50*	*0.79*	*0.48*	0.17	< 0.10	0.12	0.89	1.13
Nitrite	mg N/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals											
Aluminum	mg/L	*0.099*	*0.194*	*0.293*	*0.127*	*0.297*	0.362	0.145	0.598	0.005	0.376
Arsenic	mg/L	*0.0594*	*0.0071*	*0.0038*	*0.0053*	*0.0051*	0.00721	0.00310	0.00685	0.00334	0.00485
Barium	mg/L	*0.0109*	*0.0119*	*0.0115*	*0.0099*	*0.0114*	0.00690	0.00917	0.01600	0.01140	0.01330
Cadmium	mg/L	*0.000011*	*0.000009*	*0.000011*	*0.000009*	*0.000011*	0.0000140	0.0000117	0.0000120	< 0.0000050	< 0.000010
Chromium	mg/L	*0.0021*	*0.0042*	*0.0052*	*0.0023*	*0.0047*	0.00590	0.00093	0.00860	< 0.00010	0.00780
Copper	mg/L	*0.0013*	*0.0016*	*0.0014*	*0.0016*	*0.0022*	0.00363	0.00196	0.00254	0.00118	0.00157
Iron	mg/L	*0.286*	*0.473*	*0.594*	*0.324*	*0.741*	0.810	0.437	1.620	0.074	0.764
Lead	mg/L	*0.0002*	*0.0002*	*0.0003*	*0.0004*	*0.0003*	0.000350	0.000176	0.000780	< 0.000020	0.000410
Manganese	mg/L	*0.0357*	*0.0583*	*0.0349*	*0.0285*	*0.0649*	0.0605	0.0937	0.0711	0.0192	0.0801
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0103*	*0.0058*	*0.0026*	*0.0034*	*0.0044*	0.00190	0.00274	0.00420	0.00698	0.00630
Nickel	mg/L	*0.0042*	*0.0042*	*0.0043*	*0.0035*	*0.0048*	0.00470	0.00390	0.00720	0.00174	0.00660
Selenium	mg/L	*0.0002*	*0.0002*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	0.000064	< 0.00010	0.000139	< 0.00010
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00001*	*0.00002*	< 0.000020	< 0.0000050	< 0.000020	< 0.000010	< 0.000020
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	0.0000054	0.0000120	0.0000058	< 0.000010
Zinc	mg/L	*0.005*	*0.004*	*0.005*	*0.005*	*0.005*	< 0.0050	0.00677	< 0.0050	< 0.0010	< 0.0050

Table 2-18 Meadowbank 2025 Saddle Dam 3 Water Quality Monitoring (ST-32)[§]

ST-32	Unit	*Annual Average*					6/8/2025	7/20/2025	8/3/2025	9/15/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*6.7*	*6.0*	*5.7*	*8.5*	*8.9*	2.8	12.8	13.5	6.5
pH	pH units	*7.69*	*7.45*	*7.53*	*7.49*	*7.78*	7.57	8.09	7.67	7.79
Conductivity	uS/cm	*411.1*	*468.1*	*439.9*	*450.2*	*470.4*	132.4	578.0	588.0	583.0
Turbidity	NTU	*30.76*	*39.21*	*74.81*	*24.25*	*11.93*	5.67	2.35	32.90	6.79
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*202*	*208*	*170*	*190*	*255*	61.2	309.0	322.0	327.0
Total alkalinity, as $CaCO_3$	mg/L	*66*	*74*	*68*	*68*	*74*	34	81	80	100
TDS	mg/L	*339*	*305*	*263*	*315*	*451*	75	550	600	580
TSS	mg/L	*16*	*28*	*63*	*17*	*23*	42	2	45	2
Major Ions										
Chloride	mg/L	*13.8*	*11.7*	*9.8*	*8.8*	*27.5*	2.1	30.0	37.0	41.0
Cyanide	mg/L	*0.009*	*0.010*	*0.004*	*0.005*	*0.004*	0.00847	0.00118	0.00248	< 0.0025
Fluoride	mg/L	*0.25*	*0.30*	*0.26*	*0.24*	*0.22*	< 0.10	0.24	0.28	0.26
Sulfate	mg/L	*115*	*113*	*101*	*135*	*152*	27	190	180	210
Nutrients										
Ammonia Nitrogen	mg N/L	*0.47*	*0.52*	*0.22*	*0.64*	*0.10*	< 0.050	< 0.050	0.17	0.11
Nitrate	mg N/L	*7.29*	*8.98*	*7.04*	*5.63*	*6.42*	0.52	7.25	7.30	10.60
Nitrite	mg N/L	*0.06*	*0.05*	*0.02*	*0.02*	*0.03*	0.018	0.027	0.030	0.028
Total Metals										
Aluminum	mg/L	*0.493*	*0.943*	*1.327*	*0.369*	*0.633*	1.3200	0.0333	1.1500	0.0302
Arsenic	mg/L	*0.0258*	*0.0393*	*0.0265*	*0.0252*	*0.0160*	0.0120	0.0167	0.0198	0.0155
Barium	mg/L	*0.0350*	*0.0416*	*0.0356*	*0.0269*	*0.0404*	0.0216	0.0534	0.0455	0.0411
Cadmium	mg/L	*0.00003*	*0.00003*	*0.00003*	*0.00003*	*0.00003*	0.000031	< 0.000010	0.000039	0.000022
Chromium	mg/L	*0.01056*	*0.01608*	*0.03497*	*0.00586*	*0.00800*	0.0140	< 0.0010	0.0160	< 0.0010
Copper	mg/L	*0.0095*	*0.0077*	*0.0076*	*0.0046*	*0.0059*	0.00903	0.00193	0.01030	0.00239
Iron	mg/L	*0.905*	*1.801*	*2.476*	*0.800*	*1.257*	2.400	0.076	2.480	0.073
Lead	mg/L	*0.0020*	*0.0047*	*0.0036*	*0.0026*	*0.0025*	0.00559	< 0.00020	0.00382	< 0.00020
Manganese	mg/L	*0.144*	*0.096*	*0.064*	*0.085*	*0.050*	0.0654	0.0111	0.1030	0.0203
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0089*	*0.0082*	*0.0056*	*0.0051*	*0.0054*	0.0030	0.0063	0.0071	0.0050
Nickel	mg/L	*0.039*	*0.044*	*0.041*	*0.035*	*0.045*	0.0179	0.0472	0.0580	0.0553
Selenium	mg/L	*0.0011*	*0.0008*	*0.0006*	*0.0004*	*0.0005*	0.00013	0.00063	0.00054	0.00071
Silver	mg/L	*0.00005*	*0.00002*	*0.00003*	*0.00002*	*0.00002*	0.000026	< 0.000020	0.000033	< 0.000020
Thallium	mg/L	*0.00005*	*0.00006*	*0.00005*	*0.00004*	*0.00005*	0.000038	0.000036	0.000081	0.000044
Zinc	mg/L	*0.005*	*0.006*	*0.008*	*0.005*	*0.006*	0.0058	< 0.0050	0.0067	< 0.0050

Table 2-19 Meadowbank 2025 Saddle Dam 1 Water Quality Monitoring (ST-S-2)[§]

ST-S-2	Unit	*Annual Average*					6/15/2025	7/14/2025	8/17/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***			
Field Measured									
Temperature	°C	*5.00*	*5.60*	*4.88*	*5.60*	*3.60*	1.6	4.7	4.5
pH	pH units	*7.64*	*7.64*	*7.29*	*7.31*	*7.67*	7.72	7.86	7.42
Conductivity	uS/cm	*490.4*	*778.2*	*822.9*	*894.8*	*467.7*	445	318	640
Turbidity	NTU	*21.37*	*33.61*	*11.26*	*5.94*	*12.39*	30.20	1.76	5.20
Conventional Parameters									
Hardness, as $CaCO_3$	mg/L	*238*	*361*	*327*	*378*	*313*	180	368	390
Total alkalinity, as $CaCO_3$	mg/L	*60*	*60*	*54*	*73*	*61*	62	60	61
TDS	mg/L	*396*	*579*	*587*	*638*	*493*	255	615	610
TSS	mg/L	*15*	*79*	*16*	*57*	*9*	22	3	3
Major Ions									
Chloride	mg/L	*6.2*	*8.7*	*6.9*	*7.6*	*5.8*	2.6	7.4	7.4
Cyanide	mg/L	*0.008*	*0.010*	*0.009*	*0.010*	*0.009*	0.01290	0.00582	0.00713
Cyanide (free)	mg/L	*0.004*	*0.003*	*0.004*	*0.002*	*0.001*	0.00095	0.00077	0.00079
Cyanide (WAD)	mg/L	*0.003*	*0.003*	*0.004*	*0.002*	*0.002*	0.0018	0.0013	0.0019
Fluoride	mg/L	*0.17*	*0.21*	*0.19*	*0.19*	*0.19*	0.14	0.22	0.21
Sulfate	mg/L	*186*	*322*	*337*	*340*	*280*	120	360	360
Nutrients									
Ammonia Nitrogen	mg N/L	*0.815*	*0.084*	*0.061*	*0.182*	*0.052*	0.055	< 0.050	< 0.050
Nitrate	mg N/L	*5.83*	*6.03*	*4.96*	*10.36*	*5.39*	3.07	6.93	6.18
Nitrite	mg N/L	*0.020*	*0.015*	*0.014*	*0.023*	*0.010*	< 0.010	< 0.010	< 0.010
Total Metals									
Aluminum	mg/L	*0.567*	*1.132*	*0.283*	*0.970*	*0.151*	0.3650	0.0320	0.0564
Arsenic	mg/L	*0.0204*	*0.0289*	*0.0199*	*0.0326*	*0.0152*	0.0123	0.0125	0.0209
Barium	mg/L	*0.022*	*0.029*	*0.023*	*0.025*	*0.021*	0.0179	0.0230	0.0231
Cadmium	mg/L	*0.00004*	*0.00008*	*0.00005*	*0.00007*	*0.00003*	0.000018	0.000031	0.000028
Chromium	mg/L	*0.0054*	*0.0120*	*0.0056*	*0.0137*	*0.0030*	0.0067	< 0.0010	0.0013
Copper	mg/L	*0.0043*	*0.0073*	*0.0031*	*0.0049*	*0.0019*	0.00228	0.00156	0.00199
Iron	mg/L	*0.918*	*2.431*	*0.648*	*2.704*	*0.347*	0.813	0.089	0.140
Lead	mg/L	*0.0023*	*0.0054*	*0.0020*	*0.0051*	*0.0006*	0.00131	< 0.00020	0.00026
Manganese	mg/L	*0.110*	*0.190*	*0.110*	*0.280*	*0.029*	0.0246	0.0390	0.0224
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0083*	*0.0110*	*0.0110*	*0.0140*	*0.0133*	0.0119	0.0139	0.0140
Nickel	mg/L	*0.0232*	*0.0544*	*0.0384*	*0.0529*	*0.0160*	0.0094	0.0154	0.0233
Selenium	mg/L	*0.0009*	*0.0014*	*0.0013*	*0.0015*	*0.0012*	0.00045	0.00169	0.00139
Silver	mg/L	*0.00002*	*0.00003*	*0.00002*	*0.00005*	*0.00002*	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.00002*	*0.00002*	*0.00001*	*0.00003*	*0.00001*	0.000013	< 0.000010	< 0.000010
Zinc	mg/L	*0.121*	*0.062*	*0.192*	*0.618*	*0.458*	0.167	0.565	0.641

Table 2-20 Meadowbank 2025 Central Dike Seepage Water Quality Monitoring (ST-S-5)[§]

ST-S-5	Unit	*Annual Average*					1/5/2025	2/24/2025	4/6/2025	5/13/2025	6/10/2025	7/6/2025	8/3/2025	9/1/2025	10/5/2025	11/9/2025	12/7/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***											
Field Measured																	
Temperature	°C	*1.8*	*2.1*	*3.3*	*3.3*	*3.2*	0.6	0.2	1.2	0.8	2.3	8.3	11.8	6.1	3.4	0	0.1
pH	pH units	*7.49*	*7.93*	*7.67*	*6.96*	*7.73*	7.71	7.74	7.61	7.73	7.76	7.91	7.85	7.93	7.83	7.54	7.45
Conductivity	uS/cm	*3335*	*2807*	*2322*	*2350*	*2093*	2649	2605	2923	2421	1322	2123	1822	1984	1581	1702	1891
Turbidity	NTU	*13.23*	*14.42*	*10.72*	*12.85*	*11.16*	8.44	3.56	2.96	28.70	9.83	6.73	17.60	7.93	22.50	7.14	7.41
Conventional Parameters																	
Hardness, as $CaCO_3$	mg/L	*838*	*774*	*699*	*677*	*781*	884	804	1060	802	356	625	712	755	794	905	894
Total alkalinity, as $CaCO_3$	mg/L	*122*	*138*	*145*	*153*	*165*	190	200	200	190	94	120	120	170	160	180	190
TDS	mg/L	*2438*	*1907*	*1758*	*1810*	*1884*	2100	2250	2250	2180	910	1540	1510	1970	1920	2020	2070
TSS	mg/L	*3*	*6*	*11*	*8*	*11*	7	9	8	42	7	5	11	13	14	4	3
Major Ions																	
Chloride	mg/L	*222.4*	*151.0*	*126.4*	*119.2*	*91.0*	100	100	110	110	42	72	80	87	90	100	110
Cyanide	mg/L	*0.076*	*0.047*	*0.037*	*0.043*	*0.301*	0.0839	0.1250	0.1330	2.4400	0.0554	0.0200	0.3480	0.0168	0.0287	0.0293	0.0340
Cyanide (free)	mg/L	*0.092*	*0.025*	*0.014*	*0.017*	*0.024*	0.01200	0.01700	0.02470	< 0.050	0.02520	0.00798	0.07340	0.00968	0.01150	0.01230	0.01520
Cyanide (WAD)	mg/L	*0.019*	*0.018*	*0.016*	*0.022*	*0.222*	0.021	0.020	0.050	1.900	0.036	0.011	0.340	0.011	0.018	0.018	0.017
Fluoride	mg/L	*0.47*	*0.49*	*0.45*	*0.43*	*0.41*	0.48	0.59	0.50	0.42	0.24	0.33	0.30	0.42	0.40	0.42	0.44
Sulfate	mg/L	*1403*	*1203*	*1126*	*1080*	*1106*	1300	1300	1300	1300	490	920	760	1100	1200	1200	1300
Nutrients																	
Ammonia Nitrogen	mg N/L	*28.57*	*22.02*	*19.08*	*17.03*	*17.61*	20	20	22	20	7.7	16	11	20	19	20	18
Nitrate	mg N/L	*0.27*	*0.28*	*0.29*	*0.37*	*0.54*	< 0.10	< 0.10	< 0.10	< 0.10	0.25	0.34	3.08	0.15	1.09	0.40	0.18
Nitrite	mg N/L	*0.026*	*0.026*	*0.027*	*0.022*	*0.032*	< 0.010	< 0.010	0.011	< 0.010	0.024	0.046	0.134	0.015	0.043	0.031	0.019
Total Metals																	
Aluminum	mg/L	*0.018*	*0.029*	*0.041*	*0.036*	*0.089*	< 0.0060	0.0060	< 0.0060	0.5180	0.0035	0.0880	0.0490	0.0059	0.2500	0.0379	< 0.0060
Arsenic	mg/L	*0.0465*	*0.0565*	*0.0880*	*0.0709*	*0.0419*	0.07740	0.09240	0.10400	0.05680	0.01020	0.02230	0.03000	0.00785	0.01730	0.02080	0.02230
Barium	mg/L	*0.0204*	*0.0191*	*0.0185*	*0.0181*	*0.0242*	0.0225	0.0200	0.0220	0.0198	0.0155	0.0213	0.0458	0.0187	0.0250	0.0291	0.0260
Cadmium	mg/L	*0.00002*	*0.00002*	*0.00003*	*0.00003*	*0.00004*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	0.000016	0.0000182	0.000186	< 0.0000050	0.000028	0.000034	< 0.000020
Chromium	mg/L	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	< 0.0020	< 0.0020	< 0.0020	0.0064	< 0.0010	0.00073	< 0.0010	< 0.00010	0.0046	< 0.0020	< 0.0020
Copper	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.010*	< 0.0010	< 0.0010	< 0.0010	0.0018	0.0165	0.00118	0.0853	0.00167	0.0039	< 0.0010	< 0.0010
Iron	mg/L	*1.2655*	*1.4000*	*2.0969*	*2.1132*	*1.4728*	2.880	2.970	3.850	2.470	< 0.010	0.529	0.824	0.033	1.020	0.691	0.924
Lead	mg/L	*0.0004*	*0.0006*	*0.0004*	*0.0008*	*0.0006*	< 0.00040	< 0.00040	< 0.00040	0.00257	< 0.00020	0.000133	0.00042	< 0.000020	0.00091	< 0.00040	< 0.00040
Manganese	mg/L	*1.61*	*1.55*	*1.44*	*1.49*	*1.69*	1.930	1.870	2.010	1.830	0.765	1.200	1.920	0.856	1.920	2.000	2.260
Mercury	mg/L	*0.00003*	*0.00009*	*0.00007*	*0.00009*	*0.00008*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00001	< 0.00001	< 0.00010	< 0.00010	< 0.00010
Molybdenum	mg/L	*0.1486*	*0.1032*	*0.0706*	*0.0575*	*0.0567*	0.0674	0.0593	0.0633	0.0628	0.0350	0.0535	0.0446	0.0637	0.0565	0.0569	0.0609
Nickel	mg/L	*0.0056*	*0.0072*	*0.0078*	*0.0083*	*0.0302*	< 0.0020	< 0.0020	< 0.0020	0.0058	0.0236	0.0199	0.1750	0.0138	0.0281	0.0289	0.0314
Selenium	mg/L	*0.0007*	*0.0007*	*0.0005*	*0.0008*	*0.0022*	0.000210	< 0.00020	0.000210	0.000310	0.000870	0.000581	0.013800	0.000868	0.002500	0.001880	0.002510
Silver	mg/L	*0.00004*	*0.00003*	*0.00004*	*0.00003*	*0.00004*	< 0.000040	< 0.000040	< 0.000040	< 0.000040	< 0.000020	0.0000064	0.000137	< 0.000010	< 0.000040	< 0.000040	< 0.000040
Thallium	mg/L	*0.00003*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000010	0.0000179	0.000040	0.0000113	< 0.000020	< 0.000020	< 0.000020
Zinc	mg/L	*0.010*	*0.009*	*0.009*	*0.008*	*0.008*	< 0.010	< 0.010	< 0.010	< 0.010	0.0073	0.00177	0.0065	< 0.0010	< 0.010	< 0.010	< 0.010
Dissolved Metals																	
Aluminum	mg/L	*0.007*	*0.007*	*0.010*	*0.006*	*0.019*	< 0.0060	< 0.0060	< 0.0060	< 0.0060	0.1540	0.00462	0.0112	0.0026	< 0.0060	0.0060	< 0.0060
Arsenic	mg/L	*0.0187*	*0.0227*	*0.0565*	*0.0531*	*0.0324*	0.08230	0.09860	0.09560	0.01610	0.01510	0.00940	0.00747	0.00742	0.00599	0.01260	0.00617
Barium	mg/L	*0.0198*	*0.0187*	*0.0196*	*0.0204*	*0.0241*	0.0239	0.0214	0.0222	0.0201	0.0158	0.0215	0.0430	0.0220	0.0218	0.0281	0.0252
Cadmium	mg/L	*0.00002*	*0.00002*	*0.00003*	*0.00003*	*0.00003*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	0.000025	< 0.0000050	0.000149	0.000014	0.000035	0.000027	< 0.000020
Chromium	mg/L	*0.0020*	*0.0017*	*0.0018*	*0.0015*	*0.0015*	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0010	< 0.00010	< 0.0010	< 0.00020	< 0.0020	< 0.0020	< 0.0020
Copper	mg/L	*0.0006*	*0.0009*	*0.0032*	*0.0036*	*0.0248*	< 0.00040	0.00506	0.00315	0.00376	0.01280	0.00242	0.11000	0.00104	0.01590	0.10000	0.01810
Iron	mg/L	*0.3614*	*0.3292*	*1.1418*	*1.2456*	*0.7176*	2.7600	2.7200	1.4800	0.0100	0.5290	0.0265	0.0066	0.0050	< 0.010	0.0680	0.2780
Lead	mg/L	*0.0004*	*0.0003*	*0.0004*	*0.0003*	*0.0004*	< 0.00040	< 0.00040	< 0.00040	< 0.00040	0.00094	0.000035	< 0.00020	< 0.000010	< 0.00040	< 0.00040	< 0.00040
Manganese	mg/L	*1.62*	*1.54*	*1.48*	*1.60*	*1.70*	2.070	2.000	2.090	1.870	0.768	1.140	1.790	1.630	1.760	1.490	2.100
Mercury	mg/L	*0.00003*	*0.00009*	*0.00008*	*0.00009*	*0.00009*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00001	< 0.00010	< 0.00010	< 0.00010
Molybdenum	mg/L	*0.145*	*0.104*	*0.073*	*0.063*	*0.056*	0.0689	0.0652	0.0632	0.0681	0.0340	0.0534	0.0363	0.0642	0.0505	0.0599	0.0568
Nickel	mg/L	*0.0057*	*0.0067*	*0.0070*	*0.0087*	*0.0442*	0.0022	0.0022	0.0023	0.0033	0.0274	0.0197	0.1960	0.0151	0.0298	0.1560	0.0323
Selenium	mg/L	*0.0007*	*0.0009*	*0.0007*	*0.0010*	*0.0046*	0.00046	0.00035	0.00037	0.00040	0.00107	0.000571	0.01450	0.000858	0.003130	0.02630	0.00247
Silver	mg/L	*0.00004*	*0.00004*	*0.00004*	*0.00006*	*0.00003*	< 0.000040	< 0.000040	< 0.000040	< 0.000040	0.000021	0.000008	< 0.000020	< 0.000010	< 0.000040	< 0.000040	< 0.000040
Thallium	mg/L	*0.00003*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	0.000012	0.000017	0.000038	0.0000089	< 0.000020	< 0.000020	< 0.000020
Zinc	mg/L	*0.010*	*0.009*	*0.010*	*0.008*	*0.008*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.0050	0.00392	0.00690	0.00043	< 0.010	< 0.010	< 0.010

Table 2-21 Meadowbank 2025 Phaser Pit Water Quality Monitoring (ST-41 Lake)[§]

ST-41 Lake	Unit	*Annual Average*					6/15/2025	7/20/2025	8/4/2025	9/9/2025	10/6/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*8.9*	*7.7*	*8.6*	*7.8*	*8.0*	1.2	12.3	13.5	8.6	4.2
pH	pH units	*7.79*	*7.76*	*7.47*	*7.72*	*7.86*	7.45	8.07	7.86	8.08	7.85
Conductivity	uS/cm	*151.4*	*200.4*	*135.5*	*207.4*	*141.3*	137.5	116.7	144.1	147.8	160.4
Turbidity	NTU	*4.56*	*2.38*	*2.42*	*2.65*	*4.56*	8.29	1.00	1.57	6.37	5.57
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*75*	*82*	*78*	*84*	*75*	45.5	60.7	71.7	92.6	104.0
Total alkalinity, as $CaCO_3$	mg/L	*37*	*44*	*41*	*47*	*42*	29	37	38	52	53
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*37*	*44*	*41*	*47*	*42*	29	37	38	51	53
TDS	mg/L	*103*	*115*	*109*	*132*	*88*	70	75	90	110	95
TSS	mg/L	*4*	*2*	*2*	*3*	*2*	4	1	< 1	< 1	< 1
Total organic carbon	mg/L	*2.8*	*2.4*	*3.0*	*2.3*	*2.4*	2.4	2.3	2.7	2.0	2.4
Dissolved organic carbon	mg/L	*2.6*	*2.3*	*2.7*	*2.3*	*2.3*	2.3	2.3	2.6	2.0	2.3
Major Ions											
Chloride	mg/L	*2.7*	*2.8*	*2.3*	*8.0*	*4.1*	2.6	3.3	4.0	4.6	6.1
Cyanide	mg/L	*0.005*	*0.001*	*0.001*	*0.001*	*0.004*	0.00350	0.00058	< 0.00050	0.01340	< 0.00050
Cyanide (free)	mg/L	*0.002*	*0.002*	*0.003*	*0.002*	*0.003*	0.00330	< 0.00050	0.00050	0.00840	< 0.00050
Silica	mg/L	*2.03*	*2.06*	*1.99*	*1.92*	*1.64*	1.4	1.3	1.7	1.6	2.2
Sulfate	mg/L	*37*	*37*	*36*	*40*	*32*	16	27	36	37	45
Nutrients											
Ammonia Nitrogen	mg N/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	< 0.050	< 0.050	< 0.050	< 0.050	0.061
Nitrate	mg N/L	*1.17*	*0.79*	*0.61*	*0.51*	*0.31*	0.18	0.24	0.30	0.36	0.47
Nitrite	mg N/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Kjeldahl nitrogen	mg N/L	*0.14*	*0.10*	*0.15*	*0.16*	*0.16*	0.14	0.18	0.23	< 0.10	0.14
Total phosphorus	mg P/L	*0.0048*	*0.0035*	*0.0147*	*0.0015*	*0.0018*	0.0052	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Orthophosphate	mg P/L	*0.01*	*0.01*	*0.01*	*0.03*	*0.01*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals											
Aluminum	mg/L	*0.116*	*0.062*	*0.060*	*0.057*	*0.048*	0.1370	0.0195	0.0363	0.0338	0.0133
Antimony	mg/L	*0.0006*	*0.0007*	*0.0005*	*0.0005*	*0.0004*	0.000215	0.000329	0.000364	0.000563	0.000606
Arsenic	mg/L	*0.0017*	*0.0016*	*0.0016*	*0.0015*	*0.0015*	0.00167	0.00169	0.00140	0.00130	0.00136
Barium	mg/L	*0.0142*	*0.0157*	*0.0135*	*0.0136*	*0.0109*	0.00706	0.00801	0.01130	0.01250	0.01560
Beryllium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Boron	mg/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	mg/L	*0.00002*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.0000146	0.0000055	0.0000089	0.0000080	0.0000063
Calcium (total)	mg/L	*23.03*	*25.28*	*24.08*	*25.54*	*22.38*	13.4	18.0	21.0	28.1	31.4
Chromium	mg/L	*0.0003*	*0.0003*	*0.0004*	*0.0002*	*0.0004*	0.00037	0.00108	0.00016	0.00021	< 0.00010
Copper	mg/L	*0.0034*	*0.0029*	*0.0035*	*0.0028*	*0.0031*	0.00268	0.00422	0.00286	0.00252	0.00310
Iron	mg/L	*0.1946*	*0.0974*	*0.1012*	*0.0723*	*0.0581*	0.2020	0.0080	0.0372	0.0337	0.0097
Lead	mg/L	*0.0005*	*0.0003*	*0.0003*	*0.0002*	*0.0002*	0.0004170	0.0000368	0.0002780	0.0002040	0.0000601
Lithium	mg/L	*0.0014*	*0.0014*	*0.0013*	*0.0014*	*0.0014*	0.00100	0.00128	0.00142	0.00157	0.00167
Magnesium (total)	mg/L	*4.33*	*4.69*	*4.28*	*4.86*	*4.63*	2.90	3.80	4.67	5.46	6.32
Manganese	mg/L	*0.0242*	*0.0060*	*0.0075*	*0.0050*	*0.0040*	0.01330	0.00205	0.00189	0.00114	0.00150
Mercury	mg/L	*0.00000*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0074*	*0.0095*	*0.0077*	*0.0100*	*0.0084*	0.00343	0.00606	0.01060	0.01170	0.01020
Nickel	mg/L	*0.0039*	*0.0019*	*0.0034*	*0.0020*	*0.0019*	0.00231	0.00203	0.00205	0.00123	0.00172
Potassium (total)	mg/L	*1.95*	*1.85*	*1.60*	*1.57*	*3.17*	10.10	1.06	1.43	1.61	1.63
Selenium	mg/L	*0.0002*	*0.0002*	*0.0001*	*0.0002*	*0.0001*	0.000066	0.000130	0.000115	0.000128	0.000144
Sodium (total)	mg/L	*1.34*	*1.30*	*1.21*	*1.29*	*1.24*	0.895	1.170	1.390	1.270	1.490
Strontium	mg/L	*0.127*	*0.130*	*0.120*	*0.130*	*0.113*	0.0679	0.0882	0.1030	0.1510	0.1570
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.0000056	0.0000051	0.0000070	0.0000099	0.0000062
Tin	mg/L	*0.0002*	*0.0002*	*0.0002*	*0.0002*	*0.0004*	< 0.00020	0.00102	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	*0.0023*	*0.0012*	*0.0013*	*0.0013*	*0.0013*	0.00319	< 0.00050	0.00108	0.00104	< 0.00050
Uranium	mg/L	*0.0039*	*0.0041*	*0.0038*	*0.0037*	*0.0027*	0.00141	0.00206	0.00274	0.00332	0.00417
Vanadium	mg/L	*0.0002*	*0.0002*	*0.0002*	*0.0004*	*0.0003*	< 0.00020	< 0.00020	0.00050	< 0.00020	< 0.00020
Zinc	mg/L	*0.003*	*0.001*	*0.001*	*0.003*	*0.002*	0.00253	0.00192	0.00334	0.00081	0.00019
Dissolved Metals											
Aluminum	mg/L	*0.027*	*0.022*	*0.040*	*0.023*	*0.011*	0.01340	0.00472	0.01590	0.01320	0.00894
Antimony	mg/L	*0.0006*	*0.0007*	*0.0005*	*0.0005*	*0.0004*	0.000212	0.000344	0.000362	0.000592	0.000582
Arsenic	mg/L	*0.0015*	*0.0019*	*0.0016*	*0.0019*	*0.0015*	0.00165	0.00124	0.00226	0.00129	0.00128
Barium	mg/L	*0.0133*	*0.0151*	*0.0131*	*0.0123*	*0.0104*	0.00549	0.00727	0.01190	0.01270	0.01470
Beryllium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Boron	mg/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	mg/L	*0.00002*	*0.00001*	*0.00006*	*0.00001*	*0.00001*	0.0000100	< 0.0000050	0.0000069	0.0000116	0.0000054
Chromium	mg/L	*0.0001*	*0.0002*	*0.0002*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	0.00010	< 0.00010	< 0.00010
Copper	mg/L	*0.003*	*0.003*	*0.003*	*0.004*	*0.004*	0.00387	0.00196	0.00984	0.00246	0.00289
Iron	mg/L	*0.031*	*0.024*	*0.024*	*0.014*	*0.006*	0.0156	0.0040	0.0070	0.0017	0.0022
Lead	mg/L	*0.0002*	*0.0002*	*0.0001*	*0.0001*	*0.0000*	0.0000905	0.0000164	0.0000362	0.0000739	0.0000077
Lithium	mg/L	*0.0014*	*0.0014*	*0.0012*	*0.0014*	*0.0012*	0.00058	0.00103	0.00126	0.00161	0.00163
Manganese	mg/L	*0.0209*	*0.0055*	*0.0080*	*0.0110*	*0.0027*	0.010400	0.000123	0.002550	0.000103	0.000173
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0073*	*0.0095*	*0.0074*	*0.0099*	*0.0085*	0.00342	0.00666	0.01040	0.01220	0.00983
Nickel	mg/L	*0.0035*	*0.0020*	*0.0026*	*0.0026*	*0.0019*	0.00207	0.00128	0.00307	0.00121	0.00174
Selenium	mg/L	*0.0002*	*0.0002*	*0.0002*	*0.0001*	*0.0001*	0.000071	0.000085	0.000121	0.000125	0.000131
Strontium	mg/L	*0.126*	*0.129*	*0.118*	*0.133*	*0.113*	0.0622	0.0840	0.1100	0.1520	0.1550
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.0000036	0.0000054	0.0000041	0.0000100	0.0000084
Tin	mg/L	*0.0002*	*0.0003*	*0.0004*	*0.0003*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	*0.0005*	*0.0005*	*0.0005*	*0.0007*	*0.0005*	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Uranium	mg/L	*0.0038*	*0.0042*	*0.0037*	*0.0037*	*0.0024*	0.001290	0.000481	0.002440	0.003550	0.004040
Vanadium	mg/L	*0.0002*	*0.0002*	*0.0003*	*0.0004*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Zinc	mg/L	*0.001*	*0.002*	*0.004*	*0.003*	*0.002*	0.00196	< 0.00010	0.00529	0.00071	0.00022

Table 2-22 Meadowbank 2025 BB Phaser Pit Water Quality Monitoring (ST-42 Lake)[§]

ST-42 Lake	Unit	*Annual Average*					6/15/2025	7/14/2025	8/4/2025	9/9/2025	10/6/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*5.1*	*7.7*	*8.1*	*8.5*	*7.9*	3.2	9.6	13.3	9.4	4.2
pH	pH units	*7.68*	*7.29*	*7.43*	*7.56*	*7.72*	7.23	7.80	7.82	7.92	7.82
Conductivity	uS/cm	*127.1*	*162.5*	*275.5*	*190.6*	*144.1*	206.3	127.8	120.7	122.7	143.0
Turbidity	NTU	*4.77*	*2.00*	*1.82*	*2.71*	*5.11*	6.45	3.28	1.16	8.77	5.89
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*61*	*64*	*75*	*65*	*58*	39.8	42.1	61.0	70.7	73.9
Total alkalinity, as $CaCO_3$	mg/L	*32*	*35*	*41*	*38*	*36*	25	32	34	40	48
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*32*	*34*	*41*	*38*	*36*	25	31	34	40	48
TDS	mg/L	*88*	*80*	*108*	*102*	*74*	55	65	70	85	95
TSS	mg/L	*5*	*2*	*1*	*2*	*2*	3	1	< 1	< 1	5
Total organic carbon	mg/L	*3.5*	*3.1*	*3.4*	*3.0*	*3.1*	2.8	2.8	3.5	3.2	3.3
Dissolved organic carbon	mg/L	*3.3*	*3.1*	*3.1*	*2.9*	*2.9*	2.7	2.6	3.3	3.0	3.1
Major Ions											
Chloride	mg/L	*2.2*	*2.0*	*1.8*	*2.0*	*3.4*	2.3	3.1	3.4	3.7	4.4
Cyanide	mg/L	*0.005*	*0.002*	*0.001*	*0.001*	*0.004*	0.00320	0.00058	< 0.00050	0.01350	< 0.00050
Cyanide (free)	mg/L	*0.002*	*0.003*	*0.002*	*0.002*	*0.003*	0.00310	< 0.00050	0.00051	0.00810	< 0.00050
Silica	mg/L	*2.3*	*2.4*	*2.7*	*2.4*	*2.1*	1.4	1.9	2.0	2.1	3.1
Sulfate	mg/L	*30*	*30*	*36*	*34*	*30*	15	26	30	35	46
Nutrients											
Ammonia Nitrogen	mg N/L	*0.05*	*0.06*	*0.07*	*0.05*	*0.06*	< 0.050	< 0.050	< 0.050	< 0.050	0.100
Nitrate	mg N/L	*0.76*	*0.67*	*0.70*	*0.53*	*0.33*	0.20	0.26	0.31	0.38	0.48
Nitrite	mg N/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Kjeldahl nitrogen	mg N/L	*0.14*	*0.12*	*0.12*	*0.15*	*0.20*	0.16	0.12	0.46	0.12	0.14
Total phosphorus	mg P/L	*0.0044*	*0.0035*	*0.0020*	*0.0022*	*0.0031*	0.0041	0.0047	0.0012	0.0013	0.0040
Orthophosphate	mg P/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals											
Aluminum	mg/L	*0.1497*	*0.0616*	*0.0411*	*0.0508*	*0.0564*	0.1510	0.0410	0.0410	0.0235	0.0257
Antimony	mg/L	*0.00055*	*0.00052*	*0.00060*	*0.00043*	*0.00029*	0.000180	0.000201	0.000302	0.000353	0.000411
Arsenic	mg/L	*0.00166*	*0.00150*	*0.00150*	*0.00140*	*0.00126*	0.001600	0.000974	0.001260	0.001280	0.001180
Barium	mg/L	*0.0113*	*0.0115*	*0.0135*	*0.0106*	*0.0087*	0.00688	0.00599	0.00855	0.01030	0.01200
Beryllium	mg/L	*0.00002*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.000011	< 0.000010	< 0.000010	< 0.000010	0.000015
Boron	mg/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	mg/L	*0.00002*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.0000135	0.0000090	0.0000182	0.0000099	0.0000133
Calcium (total)	mg/L	*18.7*	*19.7*	*23.2*	*19.7*	*16.9*	11.7	12.3	17.8	20.9	22.0
Chromium	mg/L	*0.00044*	*0.00021*	*0.00024*	*0.00023*	*0.00024*	0.00044	0.00031	0.00022	< 0.00010	0.00013
Copper	mg/L	*0.0045*	*0.0035*	*0.0036*	*0.0029*	*0.0028*	0.00245	0.00219	0.00312	0.00307	0.00301
Iron	mg/L	*0.271*	*0.087*	*0.062*	*0.082*	*0.077*	0.2110	0.0613	0.0438	0.0284	0.0397
Lead	mg/L	*0.00097*	*0.00016*	*0.00011*	*0.00014*	*0.00016*	0.0004190	0.0000950	0.0001070	0.0000652	0.0001380
Lithium	mg/L	*0.00128*	*0.00123*	*0.00133*	*0.00119*	*0.00116*	0.00104	0.00080	0.00137	0.00141	0.00117
Magnesium (total)	mg/L	*3.45*	*3.64*	*4.06*	*3.75*	*3.68*	2.59	2.76	4.00	4.48	4.58
Manganese	mg/L	*0.0206*	*0.0093*	*0.0059*	*0.0069*	*0.0063*	0.01540	0.00576	0.00434	0.00261	0.00347
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0043*	*0.0044*	*0.0049*	*0.0042*	*0.0035*	0.00257	0.00258	0.00390	0.00454	0.00410
Nickel	mg/L	*0.0044*	*0.0031*	*0.0034*	*0.0025*	*0.0024*	0.00283	0.00167	0.00255	0.00242	0.00234
Potassium (total)	mg/L	*1.50*	*1.45*	*1.51*	*1.26*	*1.09*	0.794	0.790	1.390	1.260	1.200
Selenium	mg/L	*0.00014*	*0.00012*	*0.00012*	*0.00010*	*0.00006*	0.000052	0.000043	0.000074	0.000063	0.000091
Sodium (total)	mg/L	*1.17*	*1.16*	*1.25*	*1.08*	*1.14*	1.11	0.80	1.34	1.20	1.25
Strontium	mg/L	*0.0902*	*0.0934*	*0.1112*	*0.0952*	*0.0810*	0.0530	0.0582	0.0810	0.1050	0.1080
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.0000065	0.0000030	0.0000067	0.0000068	0.0000063
Tin	mg/L	*0.0002*	*0.0002*	*0.0002*	*0.0002*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	*0.0034*	*0.0013*	*0.0010*	*0.0016*	*0.0017*	0.00315	< 0.0020	0.00079	< 0.00050	< 0.0020
Uranium	mg/L	*0.0034*	*0.0033*	*0.0039*	*0.0030*	*0.0021*	0.00137	0.00128	0.00217	0.00274	0.00314
Vanadium	mg/L	*0.0003*	*0.0002*	*0.0002*	*0.0002*	*0.0003*	0.00060	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Zinc	mg/L	*0.002*	*0.001*	*0.001*	*0.002*	*0.004*	0.00249	0.00120	0.01460	0.00094	0.00150
Dissolved Metals											
Aluminum	mg/L	*0.0384*	*0.0222*	*0.0207*	*0.0214*	*0.0179*	0.0273	0.0155	0.0186	0.0154	0.0126
Antimony	mg/L	*0.00054*	*0.00053*	*0.00059*	*0.00047*	*0.00032*	0.000183	0.000252	0.000325	0.000369	0.000459
Arsenic	mg/L	*0.00140*	*0.00170*	*0.00188*	*0.00190*	*0.00166*	0.00165	0.00138	0.00286	0.00121	0.00121
Barium	mg/L	*0.0103*	*0.0112*	*0.0139*	*0.0109*	*0.0091*	0.00516	0.00823	0.00820	0.01030	0.01360
Beryllium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	0.000011
Boron	mg/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Cadmium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.0000116	0.0000057	0.0000075	0.0000118	0.0000096
Chromium	mg/L	*0.00012*	*0.00012*	*0.00013*	*0.00013*	*0.00012*	0.00018	< 0.00010	0.00013	< 0.00010	< 0.00010
Copper	mg/L	*0.0037*	*0.0038*	*0.0044*	*0.0044*	*0.0055*	0.00303	0.00345	0.01500	0.00289	0.00329
Iron	mg/L	*0.042*	*0.018*	*0.022*	*0.018*	*0.012*	0.0301	0.0111	0.0096	0.0042	0.0052
Lead	mg/L	*0.00020*	*0.00010*	*0.00008*	*0.00007*	*0.00005*	0.000173	0.0000308	0.0000343	0.000009	0.0000061
Lithium	mg/L	*0.00117*	*0.00137*	*0.00128*	*0.00123*	*0.00114*	0.00059	0.00098	0.00108	0.00145	0.00160
Manganese	mg/L	*0.0126*	*0.0078*	*0.0056*	*0.0105*	*0.0050*	0.013600	0.006310	0.003790	0.000292	0.001000
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0042*	*0.0044*	*0.0047*	*0.0046*	*0.0038*	0.00235	0.00316	0.00394	0.00462	0.00493
Nickel	mg/L	*0.0040*	*0.0031*	*0.0033*	*0.0032*	*0.0036*	0.00273	0.00228	0.00819	0.00231	0.00262
Selenium	mg/L	*0.00013*	*0.00012*	*0.00013*	*0.00013*	*0.00015*	0.000056	0.000063	0.000459	0.000091	0.000086
Strontium	mg/L	*0.0876*	*0.0935*	*0.1123*	*0.1021*	*0.0872*	0.0500	0.0728	0.0821	0.1040	0.1270
Thallium	mg/L	*0.000008*	*0.000006*	*0.000006*	*0.000005*	*0.000005*	0.0000037	0.0000059	0.0000045	0.0000068	0.0000063
Tin	mg/L	*0.0003*	*0.0003*	*0.0004*	*0.0003*	*0.0003*	0.00058	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Titanium	mg/L	*0.0006*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Uranium	mg/L	*0.0034*	*0.0033*	*0.0038*	*0.0032*	*0.0023*	0.00120	0.00202	0.00195	0.00284	0.00349
Vanadium	mg/L	*0.0003*	*0.0002*	*0.0002*	*0.0002*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Zinc	mg/L	*0.004*	*0.003*	*0.003*	*0.004*	*0.002*	0.00320	0.00144	0.00264	0.00060	0.00056

Table 2-23 Meadowbank 2025 Phaser Attenuation Pond Water Quality Monitoring (ST-43)§

ST-43	Unit	*Annual Average*					6/15/2025	7/14/2025	8/4/2025	9/9/2025	10/6/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*8.1*	*9.2*	*8.4*	*11.9*	*7.7*	3.4	10.7	14.7	7.8	1.8
pH	pH units	*7.53*	*7.66*	*7.45*	*7.57*	*7.94*	8.25	7.73	8.02	7.90	7.81
Conductivity	uS/cm	*126.5*	*163.9*	*144.8*	*193.1*	*207.8*	472.0	167.0	156.0	130.4	113.6
Turbidity	NTU	*1.35*	*1.39*	*2.46*	*2.32*	*3.09*	3.43	1.35	1.85	5.50	3.34
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*62*	*70*	*64*	*75*	*76*	70.1	74.9	74.3	79.4	82.0
Total alkalinity, as $CaCO_3$	mg/L	*23*	*31*	*32*	*42*	*44*	37	52	38	46	46
TDS	mg/L	*85*	*87*	*99*	*121*	*97*	100	100	100	95	90
TSS	mg/L	*1*	*1*	*2*	*1*	*1*	2	1	1	1	1
Major Ions											
Chloride	mg/L	*2.8*	*3.7*	*2.8*	*3.8*	*5.8*	5.1	5.4	6.2	6.0	6.4
Cyanide	mg/L	*0.005*	*0.001*	*0.001*	*0.001*	*0.003*	0.00085	0.00057	0.00051	0.01370	< 0.00050
Cyanide (free)	mg/L	*0.0041*	*0.0022*	*0.0021*	*0.0021*	*0.0020*	0.00086	< 0.00050	< 0.00050	0.00780	< 0.00050
Cyanide (WAD)	mg/L	*0.0010*	*0.0008*	*0.0005*	*0.0005*	*0.0031*	0.00090	< 0.00050	< 0.00050	0.01300	< 0.00050
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.11*	*0.10*	< 0.10	< 0.10	0.10	0.11	0.11
Sulfate	mg/L	*39*	*41*	*34*	*43*	*37*	34	38	39	36	40
Nutrients											
Ammonia Nitrogen	mg N/L	*0.31*	*0.06*	*0.05*	*0.05*	*0.05*	< 0.050	< 0.050	< 0.050	< 0.050	0.065
Nitrate	mg N/L	*0.42*	*0.14*	*0.12*	*0.10*	*0.10*	0.11	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg N/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals											
Aluminum	mg/L	*0.051*	*0.037*	*0.039*	*0.030*	*0.029*	0.0347	0.0257	0.0282	0.0262	0.0317
Arsenic	mg/L	*0.00066*	*0.00068*	*0.00070*	*0.00063*	*0.00063*	0.000539	0.000648	0.000673	0.000674	0.000623
Barium	mg/L	*0.011*	*0.012*	*0.011*	*0.012*	*0.011*	0.0114	0.0104	0.0115	0.0105	0.0120
Cadmium	mg/L	*0.000050*	*0.000024*	*0.000018*	*0.000016*	*0.000012*	0.0000168	0.0000076	0.0000161	0.0000063	0.0000115
Chromium	mg/L	*0.00011*	*0.00013*	*0.00023*	*0.00013*	*0.00017*	0.00013	< 0.00010	0.00012	< 0.00010	0.00038
Copper	mg/L	*0.0030*	*0.0034*	*0.0028*	*0.0025*	*0.0026*	0.00206	0.00254	0.00268	0.00283	0.00276
Iron	mg/L	*0.204*	*0.140*	*0.152*	*0.112*	*0.126*	0.115	0.150	0.114	0.145	0.107
Lead	mg/L	*0.00022*	*0.00015*	*0.00015*	*0.00014*	*0.00012*	0.0000993	0.0001150	0.0001170	0.0001330	0.0001540
Manganese	mg/L	*0.0257*	*0.0140*	*0.0137*	*0.0108*	*0.0104*	0.01790	0.01020	0.00990	0.00727	0.00660
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0014*	*0.0018*	*0.0016*	*0.0014*	*0.0018*	0.00108	0.00152	0.00221	0.00212	0.00195
Nickel	mg/L	*0.0051*	*0.0035*	*0.0033*	*0.0022*	*0.0023*	0.00326	0.00199	0.00229	0.00174	0.00231
Selenium	mg/L	*0.00007*	*0.00006*	*0.00007*	*0.00007*	*0.00007*	0.000059	0.000073	0.000076	0.000085	0.000079
Silver	mg/L	*0.000012*	*0.000014*	*0.000010*	*0.000009*	*0.000008*	< 0.000005	0.0000079	< 0.000010	0.0000080	< 0.000010
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	0.0000045	0.0000063	0.0000066	0.0000067	0.0000056
Zinc	mg/L	*0.003*	*0.002*	*0.002*	*0.002*	*0.001*	0.00097	0.00063	0.00160	0.00124	0.00230

Table 2-24 Meadowbank 2025 KM 87 Water Quality Monitoring (ST-44)[§]

ST-44 Parameter	Unit	6/3/2025	6/8/2025	6/15/2025	6/22/2025	6/29/2025	7/7/2025	7/13/2025	7/21/2025	7/26/2025	8/3/2025
Field Measured											
pH	pH units	6.79	6.75	6.88	6.94	6.94	6.96	6.69	7.17	6.55	6.65
Conventional Parameters											
TSS	mg/L	21	5	10	6	3	3	2	2	2	1
General Organics											
Total oil and grease	mg/L	< 0.50	< 0.50	0.60	0.80	< 0.50	2.70	< 0.50	< 0.50	< 0.50	< 0.50
Volatile Organics											
Benzene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Xylenes	mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes	mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F2 (C10-C16)	mg/L	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
F3 (C16-C34)	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Petroleum Hydrocarbons F (C10-C50)	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

ST-44 Parameter	Unit	8/11/2025	8/17/2025	8/24/2025	9/1/2025	9/9/2025	9/15/2025	9/22/2025	9/28/2025	10/5/2025
Field Measured										
pH	pH units	7.56	6.69	6.71	7.91	7.10	6.75	6.86	7.31	8.14
Conventional Parameters										
TSS	mg/L	3	3	1	3	3	2	4	4	2
General Organics										
Total oil and grease	mg/L	< 0.50	0.60	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.80
Volatile Organics										
Benzene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00030	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Xylenes	mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes	mg/L	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F2 (C10-C16)	mg/L	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
F3 (C16-C34)	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Petroleum Hydrocarbons F (C10-C50)	mg/L	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Table 2-25 Meadowbank 2025 Landfarm Water Quality Monitoring (ST-14b)

ST-14b Parameter	Unit	6/15/2025	8/17/2025
Field Measured			
pH	pH units	7.46	7.95
Conventional Parameters			
TSS	mg/L	50	26
Total Metals			
Arsenic	mg/L	0.2110	0.0525
Copper	mg/L	0.00052	0.00410
Lead	mg/L	0.00098	0.00109
Nickel	mg/L	0.0328	0.0344
Volatile Organics			
Benzene	mg/L	< 0.00020	< 0.00020
Ethylbenzene	mg/L	< 0.00020	< 0.00020
Toluene	mg/L	< 0.00020	< 0.00020
Xylenes	mg/L	0.00077	< 0.00040
F2 (C10-C16)	mg/L	0.27	< 0.09
F3 (C16-C34)	mg/L	0.48	0.47
F4 (C34-C50)	mg/L	< 0.2	< 0.2
Petroleum Hydrocarbons F (C10-C50)	mg/L	0.89	0.60

2.2 WHALE TAIL SITE§

Table 2-26 Whale Tail Attenuation Pond 2025 Water Quality Monitoring (ST-WT-1)§

ST-WT-1	Unit	*Annual Average*					1/5/2025	2/2/2025	3/24/2025	4/14/2025	4/22/2025	5/12/2025	5/20/2025	5/27/2025	6/2/2025	6/9/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***										
Field Measured																
Temperature	°C	*2.0*	*4.0*	*3.0*	*4.0*	*4.8*	0.0	0.2	0.0	0.2	0.1	0.8	0.9	2.3	1.4	1.8
pH	pH units	*7.37*	*7.14*	*7.71*	*7.62*	*7.66*	7.87	7.58	7.24	7.27	7.35	7.56	7.73	7.83	7.72	7.69
Conductivity	uS/cm	*280.5*	*339.5*	*331.6*	*390.6*	*377.3*	315.0	285.0	409.0	403.0	246.0	264.0	360.0	311.0	388.0	297.0
Turbidity	NTU	*60.10*	*53.90*	*104.30*	*23.54*	*20.73*	9.91	9.85	5.97	15.20	6.88	5.48	23.80	67.20	34.40	45.50
Conventional Parameters																
Hardness, as $CaCO_3$	mg/L	*107*	*126*	*124*	*135*	*169*	113	109	158	139	114	109	141	114	150	115
Total alkalinity, as $CaCO_3$	mg/L	*49*	*46*	*48*	*52*	*55*	55	53	60	58	56	50	59	61	63	52
TDS	mg/L	*174*	*195*	*244*	*280*	*313*	175	175	275	235	190	150	255	275	355	210
TSS	mg/L	*64*	*41*	*84*	*21*	*16*	5	6	3	40	5	4	12	66	42	37
Major Ions																
Chloride	mg/L	*31*	*30*	*40*	*41*	*60*	34	31	42	39	34	31	47	45	45	34
Fluoride	mg/L	*0.14*	*0.13*	*0.14*	*0.14*	*0.13*	0.15	0.15	0.19	0.14	0.14	0.14	0.15	< 0.10	0.11	< 0.10
Sulfate	mg/L	*34*	*60*	*42*	*62*	*71*	45	45	72	58	40	42	53	38	68	47
Nutrients																
Ammonia (NH_3)	mg/L	*1.10*	*1.11*	*1.32*	*1.48*	*0.74*	0.25	0.27	0.43	0.27	0.30	0.12	0.24	0.29	1.30	0.80
Ammonia Nitrogen	mg N/L	*0.90*	*0.92*	*1.08*	*1.21*	*0.61*	0.21	0.22	0.36	0.22	0.25	0.10	0.20	0.24	1.10	0.66
Nitrate	mg N/L	*1.80*	*2.37*	*1.67*	*2.77*	*1.96*	0.48	0.51	1.33	1.07	0.43	0.37	1.64	0.76	3.10	1.43
Nitrite	mg N/L	*0.120*	*0.097*	*0.080*	*0.110*	*0.081*	< 0.010	< 0.010	0.024	0.016	0.018	< 0.010	0.032	0.051	0.072	0.053
Total phosphorus	mg P/L	*0.060*	*0.049*	*0.070*	*0.020*	*0.014*	0.0040	0.0032	0.0021	0.0270	0.0061	0.0060	0.0130	0.0610	0.0640	0.0290
Total Metals																
Aluminum	mg/L	*1.0800*	*0.8282*	*0.9700*	*0.3940*	*0.3490*	0.1200	0.0696	0.0473	0.4220	0.0393	0.0515	0.3710	1.8500	0.8450	0.8930
Arsenic	mg/L	*0.0399*	*0.1834*	*0.0790*	*0.0854*	*0.0974*	0.02520	0.01510	0.00986	0.01480	0.08980	0.09380	0.03560	0.13300	0.27800	0.13700
Barium	mg/L	*0.0655*	*0.0525*	*0.0555*	*0.0476*	*0.0576*	0.0549	0.0521	0.0568	0.0614	0.0603	0.0588	0.0600	0.0526	0.0469	0.0483
Cadmium	mg/L	*0.000021*	*0.000030*	*0.000026*	*0.000021*	*0.000029*	0.000017	0.000010	0.000013	0.000018	< 0.000010	< 0.00001	< 0.000010	0.000020	0.000016	0.000012
Chromium	mg/L	*0.0166*	*0.0082*	*0.0111*	*0.0061*	*0.0080*	0.00330	0.00120	0.00110	0.00690	< 0.0010	0.00100	0.00870	0.04350	0.01870	0.01940
Copper	mg/L	*0.0034*	*0.0034*	*0.0028*	*0.0038*	*0.0018*	0.01050	0.00302	0.00116	0.00155	0.00086	< 0.0005	0.00062	0.00167	0.00192	0.00282
Iron	mg/L	*2.69*	*1.94*	*2.57*	*1.01*	*0.87*	0.677	0.634	0.267	1.510	0.396	0.549	0.775	3.100	1.670	1.900
Lead	mg/L	*0.00204*	*0.00135*	*0.00155*	*0.00061*	*0.00041*	0.00053	0.00021	< 0.00020	0.00070	0.00084	0.00024	0.00037	0.00118	0.00076	0.00077
Manganese	mg/L	*0.330*	*0.295*	*0.277*	*0.206*	*0.234*	0.207	0.235	0.265	0.355	0.192	0.221	0.165	0.173	0.203	0.216
Mercury	mg/L	*0.00001*	*0.00001*	*0.00002*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0048*	*0.0089*	*0.0142*	*0.0092*	*0.0065*	0.01130	0.00670	0.00620	0.00480	0.00470	0.00370	0.00630	0.00350	0.00490	0.00430
Nickel	mg/L	*0.0146*	*0.0389*	*0.0172*	*0.0188*	*0.0176*	0.0075	0.0041	0.0088	0.0090	0.0101	0.0084	0.0137	0.0204	0.0343	0.0183
Selenium	mg/L	*0.00028*	*0.00033*	*0.00018*	*0.00020*	*0.00020*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00014	0.00013	0.00045	0.00020
Silver	mg/L	*0.000022*	*0.000020*	*0.000026*	*0.000020*	*0.000020*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.00003*	*0.00003*	*0.00003*	*0.00003*	*0.00002*	0.000013	0.00001	0.000027	0.000026	0.000014	0.000013	0.000026	0.000044	0.00003	0.000029
Zinc	mg/L	*0.0075*	*0.0090*	*0.0088*	*0.0072*	*0.0063*	0.0241	0.0076	< 0.0050	0.0076	< 0.0050	< 0.005	< 0.0050	0.0061	< 0.0050	< 0.0050

ST-WT-1	Unit	*Annual Average*					6/16/2025	6/24/2025	7/7/2025	7/14/2025	7/21/2025	7/28/2025	8/4/2025	8/11/2025	8/18/2025	8/25/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***										
Field Measured																
Temperature	°C	*2.0*	*4.0*	*3.0*	*4.0*	*4.8*	2.3	3.8	9.6	10.4	11.1	9.1	13.0	10.4	10.2	13.6
pH	pH units	*7.37*	*7.14*	*7.71*	*7.62*	*7.66*	7.62	7.71	7.63	7.92	7.73	8.20	8.02	7.66	7.81	7.95
Conductivity	uS/cm	*280.5*	*339.5*	*331.6*	*390.6*	*377.3*	254.0	359.0	473.0	453.0	521.0	671.0	469.2	439.0	506.0	380.1
Turbidity	NTU	*60.10*	*53.90*	*104.30*	*23.54*	*20.73*	46.10	34.40	15.00	19.90	23.40	17.70	18.70	12.50	16.10	15.80
Conventional Parameters																
Hardness, as $CaCO_3$	mg/L	*107*	*126*	*124*	*135*	*169*	102	128	192	153	212	242	230	187	241	175
Total alkalinity, as $CaCO_3$	mg/L	*49*	*46*	*48*	*52*	*55*	46	53	62	54	63	63	53	50	60	51
TDS	mg/L	*174*	*195*	*244*	*280*	*313*	195	285	350	315	430	555	430	420	445	330
TSS	mg/L	*64*	*41*	*84*	*21*	*16*	35	22	11	9	13	10	11	6	9	8
Major Ions																
Chloride	mg/L	*31*	*30*	*40*	*41*	*60*	27	45	44	49	65	100	80	83	110	67
Fluoride	mg/L	*0.14*	*0.13*	*0.14*	*0.14*	*0.13*	< 0.10	0.10	0.11	0.12	0.13	0.13	0.12	0.12	0.14	0.13
Sulfate	mg/L	*34*	*60*	*42*	*62*	*71*	37	52	110	79	100	120	98	83	96	71
Nutrients																
Ammonia (NH_3)	mg/L	*1.10*	*1.11*	*1.32*	*1.48*	*0.74*	1.40	1.80	1.80	1.60	0.59	2.10	1.00	0.55	1.10	0.61
Ammonia Nitrogen	mg N/L	*0.90*	*0.92*	*1.08*	*1.21*	*0.61*	1.20	1.50	1.50	1.30	0.48	1.70	0.86	0.45	0.93	0.50
Nitrate	mg N/L	*1.80*	*2.37*	*1.67*	*2.77*	*1.96*	2.20	2.97	5.04	2.68	2.63	4.28	2.89	1.72	3.53	2.18
Nitrite	mg N/L	*0.120*	*0.097*	*0.080*	*0.110*	*0.081*	0.086	0.131	0.261	0.156	0.137	0.227	0.134	0.068	0.150	0.096
Total phosphorus	mg P/L	*0.060*	*0.049*	*0.070*	*0.020*	*0.014*	0.0170	0.0079	0.0120	0.0053	0.0100	0.0058	0.0160	0.0074	0.0083	0.0110
Total Metals																
Aluminum	mg/L	*1.0800*	*0.8282*	*0.9700*	*0.3940*	*0.3490*	0.9630	0.4110	0.3050	0.2550	0.4790	0.1810	0.3050	0.1570	0.2520	0.1390
Arsenic	mg/L	*0.0399*	*0.1834*	*0.0790*	*0.0854*	*0.0974*	0.03320	0.03460	0.19800	0.06840	0.14300	0.19600	0.20100	0.11400	0.09170	0.08980
Barium	mg/L	*0.0655*	*0.0525*	*0.0555*	*0.0476*	*0.0576*	0.0493	0.0480	0.0588	0.0578	0.0633	0.0598	0.0604	0.0537	0.0619	0.0560
Cadmium	mg/L	*0.000021*	*0.000030*	*0.000026*	*0.000021*	*0.000029*	0.000012	0.000014	0.000022	0.000030	0.000059	0.000052	0.000046	0.000039	0.000043	0.000022
Chromium	mg/L	*0.0166*	*0.0082*	*0.0111*	*0.0061*	*0.0080*	0.02120	0.01000	0.00920	0.00610	0.01230	0.00450	0.00640	0.00350	0.00700	0.00310
Copper	mg/L	*0.0034*	*0.0034*	*0.0028*	*0.0038*	*0.0018*	0.00138	0.00250	0.00256	0.00201	0.00257	0.00155	0.00313	0.00080	0.00113	0.00093
Iron	mg/L	*2.69*	*1.94*	*2.57*	*1.01*	*0.87*	1.890	0.867	0.719	0.648	0.995	0.400	0.715	0.497	0.629	0.536
Lead	mg/L	*0.00204*	*0.00135*	*0.00155*	*0.00061*	*0.00041*	0.00057	0.00041	0.00035	0.00038	0.00048	0.00023	0.00038	< 0.00020	0.00033	0.00025
Manganese	mg/L	*0.330*	*0.295*	*0.277*	*0.206*	*0.234*	0.222	0.189	0.213	0.202	0.218	0.226	0.249	0.215	0.238	0.215
Mercury	mg/L	*0.00001*	*0.00001*	*0.00002*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0048*	*0.0089*	*0.0142*	*0.0092*	*0.0065*	0.00530	0.00550	0.00800	0.00760	0.00800	0.00840	0.00670	0.00490	0.00920	0.00720
Nickel	mg/L	*0.0146*	*0.0389*	*0.0172*	*0.0188*	*0.0176*	0.0132	0.0146	0.0376	0.0159	0.0292	0.0316	0.0259	0.0157	0.0199	0.0133
Selenium	mg/L	*0.00028*	*0.00033*	*0.00018*	*0.00020*	*0.00020*	< 0.00010	0.00014	0.00037	0.00022	0.00029	0.00043	0.00031	0.00022	0.00029	0.00021
Silver	mg/L	*0.000022*	*0.000020*	*0.000026*	*0.000020*	*0.000020*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.00003*	*0.00003*	*0.00003*	*0.00003*	*0.00002*	0.000027	0.000025	0.000032	0.000027	0.000034	0.000033	0.000032	0.000024	0.000032	0.000025
Zinc	mg/L	*0.0075*	*0.0090*	*0.0088*	*0.0072*	*0.0063*	< 0.0050	< 0.0050	< 0.0050	0.0057	0.0100	< 0.0050	0.0069	< 0.0050	< 0.0050	< 0.0050

ST-WT-1	Unit	*Annual Average*					9/1/2025	9/8/2025	9/15/2025	9/22/2025	10/6/2025	10/13/2025	11/3/2025	11/24/2025	12/8/2025	12/29/2025
Parameter		*2021*	*2022*	*2023*	*2024*	*2025*										
Field Measured																
Temperature	°C	*2.0*	*4.0*	*3.0*	*4.0*	*4.8*	7.4	6.2	8.5	7.6	3.4	2.9	3.2	1.0	0.4	3.4
pH	pH units	*7.37*	*7.14*	*7.71*	*7.62*	*7.66*	7.77	7.74	7.79	7.00	7.53	7.56	7.73	7.38	7.82	7.37
Conductivity	uS/cm	*280.5*	*339.5*	*331.6*	*390.6*	*377.3*	448.1	333.1	379.2	426.0	553.0	473.3	294.5	215.7	137.6	253.7
Turbidity	NTU	*60.10*	*53.90*	*104.30*	*23.54*	*20.73*	29.40	13.80	17.70	15.10	36.70	10.80	24.20	11.90	9.89	8.72
Conventional Parameters																
Hardness, as $CaCO_3$	mg/L	*107*	*126*	*124*	*135*	*169*	249	177	204	204	283	259	170	119	130	137
Total alkalinity, as $CaCO_3$	mg/L	*49*	*46*	*48*	*52*	*55*	49	50	49	52	58	55	58	49	55	57
TDS	mg/L	*174*	*195*	*244*	*280*	*313*	470	300	410	400	485	460	290	195	185	150
TSS	mg/L	*64*	*41*	*84*	*21*	*16*	29	9	7	6	43	8	14	6	7	5
Major Ions																
Chloride	mg/L	*31*	*30*	*40*	*41*	*60*	120	76	85	87	110	100	60	39	43	42
Fluoride	mg/L	*0.14*	*0.13*	*0.14*	*0.14*	*0.13*	0.16	0.12	0.12	0.12	0.16	0.14	0.15	0.12	0.13	0.16
Sulfate	mg/L	*34*	*60*	*42*	*62*	*71*	65	63	67	83	130	120	82	51	54	53
Nutrients																
Ammonia (NH_3)	mg/L	*1.10*	*1.11*	*1.32*	*1.48*	*0.74*	0.41	0.34	0.39	0.59	0.86	0.79	0.74	0.65	0.40	0.24
Ammonia Nitrogen	mg N/L	*0.90*	*0.92*	*1.08*	*1.21*	*0.61*	0.33	0.28	0.32	0.48	0.71	0.65	0.60	0.54	0.33	0.20
Nitrate	mg N/L	*1.80*	*2.37*	*1.67*	*2.77*	*1.96*	1.42	1.43	1.49	2.59	3.51	2.94	1.77	0.93	1.00	0.46
Nitrite	mg N/L	*0.120*	*0.097*	*0.080*	*0.110*	*0.081*	0.035	0.039	0.049	0.157	0.140	0.112	0.089	0.038	0.031	0.010
Total phosphorus	mg P/L	*0.060*	*0.049*	*0.070*	*0.020*	*0.014*	0.0210	0.0034	0.0055	0.0091	0.0502	0.0130	0.0055	0.0014	0.0043	0.0046
Total Metals																
Aluminum	mg/L	*1.0800*	*0.8282*	*0.9700*	*0.3940*	*0.3490*	0.5490	0.1740	0.1990	0.1730	0.3690	0.1080	0.3440	0.1220	0.1520	0.1240
Arsenic	mg/L	*0.0399*	*0.1834*	*0.0790*	*0.0854*	*0.0974*	0.05790	0.03560	0.04870	0.14800	0.17100	0.13500	0.14100	0.04870	0.06480	0.07050
Barium	mg/L	*0.0655*	*0.0525*	*0.0555*	*0.0476*	*0.0576*	0.0703	0.0533	0.0632	0.0576	0.0621	0.0603	0.0599	0.0510	0.0590	0.0705
Cadmium	mg/L	*0.000021*	*0.000030*	*0.000026*	*0.000021*	*0.000029*	0.000062	0.000031	0.000042	0.000049	0.000085	0.000058	0.000029	0.000018	0.000017	0.000012
Chromium	mg/L	*0.0166*	*0.0082*	*0.0111*	*0.0061*	*0.0080*	0.01110	0.00480	0.00480	0.00400	0.00415	0.00150	0.00960	0.00350	0.00420	0.00340
Copper	mg/L	*0.0034*	*0.0034*	*0.0028*	*0.0038*	*0.0018*	0.00153	0.00073	0.00101	0.00100	0.00143	0.00141	0.00118	0.00091	0.00199	< 0.00050
Iron	mg/L	*2.69*	*1.94*	*2.57*	*1.01*	*0.87*	1.290	0.617	0.638	0.632	0.752	0.352	0.885	0.642	0.480	0.337
Lead	mg/L	*0.00204*	*0.00135*	*0.00155*	*0.00061*	*0.00041*	0.00057	0.00022	0.00025	0.00023	0.00047	< 0.00020	0.00030	< 0.00020	< 0.00020	0.00020
Manganese	mg/L	*0.330*	*0.295*	*0.277*	*0.206*	*0.234*	0.250	0.204	0.221	0.220	0.322	0.299	0.285	0.275	0.249	0.267
Mercury	mg/L	*0.00001*	*0.00001*	*0.00002*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0048*	*0.0089*	*0.0142*	*0.0092*	*0.0065*	0.00680	0.00680	0.00760	0.00660	0.00732	0.00700	0.00710	0.00600	0.00650	0.00650
Nickel	mg/L	*0.0146*	*0.0389*	*0.0172*	*0.0188*	*0.0176*	0.0177	0.0109	0.0133	0.0223	0.0369	0.0290	0.0203	0.0080	0.0098	0.0089
Selenium	mg/L	*0.00028*	*0.00033*	*0.00018*	*0.00020*	*0.00020*	0.00018	0.00013	0.00015	0.00028	0.000389	0.00031	0.00015	< 0.00010	< 0.00010	< 0.00010
Silver	mg/L	*0.000022*	*0.000020*	*0.000026*	*0.000020*	*0.000020*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000010	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.00003*	*0.00003*	*0.00003*	*0.00003*	*0.00002*	0.000034	0.000020	0.000024	0.000025	0.0000323	0.000019	0.000022	0.000014	0.000018	0.000015
Zinc	mg/L	*0.0075*	*0.0090*	*0.0088*	*0.0072*	*0.0063*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0113	0.0059	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-27 Whale Tail 2025 IVR Attenuation Pond Water Quality Monitoring (ST-WT-23)[§]

ST-WT-23	Unit	*Annual Average*					3/24/2025	4/14/2025	4/21/2025	4/28/2025	5/5/2025	5/12/2025	5/19/2025	5/27/2025	6/2/2025	6/9/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***										
Field Measured																
Temperature	°C	*5.8*	*4.0*	*4.3*	*5.2*	*4.9*	0.6	0.5	0.7	1.5	0.6	0.6	0.4	2.1	0.4	1.3
pH	pH units	*7.31*	*7.09*	*7.39*	*7.58*	*7.56*	7.29	7.24	7.44	7.49	7.48	7.47	7.66	7.64	7.41	7.49
Conductivity	uS/cm	*335.1*	*416.5*	*403.4*	*420.5*	*399.0*	388.0	360.0	388.0	328.0	356.0	305.0	394.0	273.0	277.0	270.0
Turbidity	NTU	*44.70*	*26.90*	*13.52*	*9.24*	*13.94*	6.64	6.52	5.44	1.66	8.85	12.80	37.10	136.00	40.20	38.30
Conventional Parameters																
Hardness, as $CaCO_3$	mg/L	*127*	*158*	*145*	*149*	*183*	140	148	166	121	132	126	150	119	103	102
Total alkalinity, as $CaCO_3$	mg/L	*44*	*54*	*51*	*56*	*57*	62	65	69	63	59	54	60	56	43	43
TDS	mg/L	*232*	*262*	*265*	*313*	*323*	255	255	250	225	235	170	250	230	250	185
TSS	mg/L	*28*	*27*	*9*	*6*	*10*	2	4	2	1	2	15	28	120	29	18
Major Ions																
Chloride	mg/L	*35*	*49*	*51*	*52*	*65*	39	43	49	40	41	36	46	36	33	32
Fluoride	mg/L	*0.12*	*0.15*	*0.13*	*0.13*	*0.13*	0.16	0.16	0.18	0.14	0.18	0.14	0.15	< 0.10	< 0.10	< 0.10
Sulfate	mg/L	*50*	*59*	*48*	*59*	*79*	65	60	68	55	60	50	68	34	38	42
Nutrients																
Ammonia (NH_3)	mg/L	*0.97*	*0.87*	*1.64*	*0.65*	*0.35*	0.350	0.390	0.640	0.540	0.570	0.370	0.530	0.320	0.370	0.330
Ammonia Nitrogen	mg N/L	*0.77*	*0.71*	*1.33*	*0.53*	*0.29*	0.290	0.320	0.530	0.440	0.470	0.310	0.440	0.260	0.300	0.270
Nitrate	mg N/L	*2.26*	*3.11*	*3.21*	*3.00*	*2.89*	1.18	1.17	1.65	1.24	1.72	1.07	2.63	1.11	1.44	1.43
Nitrite	mg N/L	*0.136*	*0.064*	*0.077*	*0.052*	*0.042*	0.0190	0.0160	< 0.010	< 0.010	< 0.010	0.0190	0.0400	0.0290	0.0350	0.0390
Total phosphorus	mg P/L	*0.0220*	*0.0446*	*0.0096*	*0.0127*	*0.0128*	< 0.0010	0.0039	< 0.0010	< 0.0010	0.0075	0.0120	0.0460	0.0900	0.0730	0.0250
Total Metals																
Aluminum	mg/L	*0.748*	*0.497*	*0.195*	*0.113*	*0.245*	0.0568	0.0711	0.0236	0.0175	0.0408	0.2340	0.5650	3.5400	0.9810	0.5030
Arsenic	mg/L	*0.07119*	*0.25934*	*0.04490*	*0.14722*	*0.11246*	0.0129	0.0431	0.0645	0.0599	0.1800	0.1350	0.2600	0.1110	0.1120	0.1430
Barium	mg/L	*0.0554*	*0.0688*	*0.0602*	*0.0544*	*0.0603*	0.0538	0.0650	0.0708	0.0517	0.0557	0.0620	0.0618	0.0709	0.0440	0.0443
Cadmium	mg/L	*0.00003*	*0.00003*	*0.00002*	*0.00002*	*0.00002*	< 0.000010	0.000016	0.000010	< 0.000010	0.000013	< 0.000010	< 0.000010	0.000021	0.000014	0.000013
Chromium	mg/L	*0.0125*	*0.0072*	*0.0045*	*0.0022*	*0.0057*	0.0014	0.0015	< 0.0010	< 0.0010	< 0.0010	0.0040	0.0083	0.0818	0.0235	0.0106
Copper	mg/L	*0.00264*	*0.00256*	*0.00173*	*0.00100*	*0.00122*	0.00071	0.00068	0.00092	0.00063	0.00068	0.00077	0.00127	0.00585	0.00190	0.00125
Iron	mg/L	*1.77*	*1.20*	*0.65*	*0.33*	*0.60*	0.382	0.468	0.225	0.170	0.330	0.816	1.170	6.620	2.140	1.320
Lead	mg/L	*0.00124*	*0.00087*	*0.00087*	*0.00028*	*0.00032*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00028	0.00048	0.00242	0.00095	0.00062
Manganese	mg/L	*0.266*	*0.229*	*0.212*	*0.136*	*0.141*	0.2340	0.2650	0.3010	0.2420	0.2270	0.2220	0.2180	0.2400	0.2000	0.1980
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0031*	*0.0072*	*0.0164*	*0.0082*	*0.0063*	0.0051	0.0064	0.0092	0.0081	0.0079	0.0055	0.0082	0.0037	0.0032	0.0041
Nickel	mg/L	*0.0281*	*0.0470*	*0.0145*	*0.0165*	*0.0148*	0.0075	0.0102	0.0173	0.0163	0.0241	0.0153	0.0318	0.0390	0.0215	0.0188
Selenium	mg/L	*0.00039*	*0.00028*	*0.00019*	*0.00021*	*0.00021*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00013	< 0.00010	0.00019	0.00014	0.00017	0.00017
Silver	mg/L	*0.00003*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.00002	< 0.000020	< 0.00002	< 0.000020	0.000026	< 0.000020	< 0.000020
Thallium	mg/L	*0.000039*	*0.000028*	*0.000020*	*0.000020*	*0.000022*	0.000022	0.000022	0.000020	0.000017	0.000020	0.000016	0.000018	0.000065	0.000029	0.000023
Zinc	mg/L	*0.0072*	*0.0089*	*0.0100*	*0.0050*	*0.0057*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0053	< 0.0050	< 0.0050	0.0121	< 0.0050	< 0.0050

ST-WT-23	Unit	*Annual Average*					7/7/2025	7/14/2025	7/21/2025	7/28/2025	8/4/2025	8/11/2025	8/18/2025	9/1/2025	9/8/2025	9/15/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***										
Field Measured																
Temperature	°C	*5.8*	*4.0*	*4.3*	*5.2*	*4.9*	11.6	11.1	12.8	10.3	13.7	10.3	14.5	8.9	7.6	8.0
pH	pH units	*7.31*	*7.09*	*7.39*	*7.58*	*7.56*	7.55	7.68	7.82	7.99	7.82	7.80	7.91	7.45	7.61	7.84
Conductivity	uS/cm	*335.1*	*416.5*	*403.4*	*420.5*	*399.0*	442.0	410.0	429.0	575.0	469.9	455.0	485.0	445.3	448.5	404.6
Turbidity	NTU	*44.70*	*26.90*	*13.52*	*9.24*	*13.94*	11.40	4.17	6.47	14.90	9.27	2.47	4.28	6.29	3.45	4.61
Conventional Parameters																
Hardness, as $CaCO_3$	mg/L	*127*	*158*	*145*	*149*	*183*	162	132	163	192	222	195	208	218	224	226
Total alkalinity, as $CaCO_3$	mg/L	*44*	*54*	*51*	*56*	*57*	55	51	52	63	56	50	49	52	57	49
TDS	mg/L	*232*	*262*	*265*	*313*	*323*	295	250	320	455	450	360	370	410	390	410
TSS	mg/L	*28*	*27*	*9*	*6*	*10*	9	2	4	8	3	2	2	4	2	5
Major Ions																
Chloride	mg/L	*35*	*49*	*51*	*52*	*65*	43	43	49	81	82	80	85	82	86	83
Fluoride	mg/L	*0.12*	*0.15*	*0.13*	*0.13*	*0.13*	< 0.10	0.12	0.10	0.11	0.11	0.11	0.12	0.14	0.12	0.12
Sulfate	mg/L	*50*	*59*	*48*	*59*	*79*	75	69	74	92	88	94	89	90	94	83
Nutrients																
Ammonia (NH_3)	mg/L	*0.97*	*0.87*	*1.64*	*0.65*	*0.35*	0.800	< 0.061	0.094	0.890	0.170	0.066	0.200	0.130	0.076	0.078
Ammonia Nitrogen	mg N/L	*0.77*	*0.71*	*1.33*	*0.53*	*0.29*	0.660	< 0.050	0.078	0.730	0.140	0.054	0.170	0.110	0.063	0.064
Nitrate	mg N/L	*2.26*	*3.11*	*3.21*	*3.00*	*2.89*	5.13	4.55	3.87	3.96	4.16	3.49	3.40	4.26	4.19	2.88
Nitrite	mg N/L	*0.136*	*0.064*	*0.077*	*0.052*	*0.042*	0.1640	0.0360	0.0340	0.1190	0.0810	0.0130	0.0370	0.0480	0.0140	0.0130
Total phosphorus	mg P/L	*0.0220*	*0.0446*	*0.0096*	*0.0127*	*0.0128*	0.0069	0.0067	0.0088	0.0071	0.0030	0.0048	0.0057	0.0093	0.0064	0.0048
Total Metals																
Aluminum	mg/L	*0.748*	*0.497*	*0.195*	*0.113*	*0.245*	0.2230	0.0598	0.1230	0.1560	0.0785	0.0298	0.0556	0.0652	0.0311	0.0745
Arsenic	mg/L	*0.07119*	*0.25934*	*0.04490*	*0.14722*	*0.11246*	0.1700	0.1110	0.1100	0.1360	0.1340	0.0976	0.0911	0.1040	0.0993	0.0818
Barium	mg/L	*0.0554*	*0.0688*	*0.0602*	*0.0544*	*0.0603*	0.0604	0.0490	0.0521	0.0548	0.0628	0.0577	0.0575	0.0617	0.0593	0.0628
Cadmium	mg/L	*0.00003*	*0.00003*	*0.00002*	*0.00002*	*0.00002*	0.000013	< 0.000010	0.000013	0.000029	0.000021	< 0.000010	< 0.000010	0.000014	< 0.000010	0.000012
Chromium	mg/L	*0.0125*	*0.0072*	*0.0045*	*0.0022*	*0.0057*	0.0067	0.0017	0.0032	0.0042	0.0021	< 0.0010	0.0016	0.0016	< 0.0010	0.0019
Copper	mg/L	*0.00264*	*0.00256*	*0.00173*	*0.00100*	*0.00122*	0.00122	0.00099	0.00092	0.00128	0.00090	0.00085	0.00076	0.00078	0.00071	0.00076
Iron	mg/L	*1.77*	*1.20*	*0.65*	*0.33*	*0.60*	0.494	0.137	0.258	0.328	0.197	0.086	0.150	0.281	0.114	0.232
Lead	mg/L	*0.00124*	*0.00087*	*0.00087*	*0.00028*	*0.00032*	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Manganese	mg/L	*0.266*	*0.229*	*0.212*	*0.136*	*0.141*	0.1160	0.0315	0.0529	0.1150	0.0793	0.0258	0.0475	0.0380	0.0244	0.0588
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0031*	*0.0072*	*0.0164*	*0.0082*	*0.0063*	0.0066	0.0056	0.0067	0.0067	0.0062	0.0058	0.0063	0.0070	0.0070	0.0075
Nickel	mg/L	*0.0281*	*0.0470*	*0.0145*	*0.0165*	*0.0148*	0.0216	0.0082	0.0097	0.0182	0.0132	0.0068	0.0073	0.0077	0.0063	0.0068
Selenium	mg/L	*0.00039*	*0.00028*	*0.00019*	*0.00021*	*0.00021*	0.00028	0.00022	0.00023	0.0003	0.0003	0.00026	0.00024	0.00029	0.00028	0.00027
Silver	mg/L	*0.00003*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.000039*	*0.000028*	*0.000020*	*0.000020*	*0.000022*	0.000029	0.000025	0.000022	0.000030	0.000029	0.000023	0.000029	0.000022	0.000021	0.000020
Zinc	mg/L	*0.0072*	*0.0089*	*0.0100*	*0.0050*	*0.0057*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

ST-WT-23	Unit	*Annual Average*					9/22/2025	10/6/2025	10/13/2025	10/20/2025	10/27/2025	11/5/2025	11/10/2025	11/17/2025	11/24/2025	12/1/2025	12/8/2025
Parameter		*2021*	*2022*	*2023*	*2024*	*2025*											
Field Measured																	
Temperature	°C	*5.8*	*4.0*	*4.3*	*5.2*	*4.9*	8.3	2.8	1.1	1.5	6.5	3.6	1.4	2.4	2.5	1.5	2.9
pH	pH units	*7.31*	*7.09*	*7.39*	*7.58*	*7.56*	7.08	7.82	7.49	7.82	7.62	7.60	7.45	7.32	7.14	7.27	7.54
Conductivity	uS/cm	*335.1*	*416.5*	*403.4*	*420.5*	*399.0*	424.4	435.9	444.0	460.5	493.0	402.7	447.5	504.0	310.3	279.0	264.8
Turbidity	NTU	*44.70*	*26.90*	*13.52*	*9.24*	*13.94*	3.83	6.57	5.27	5.18	2.70	8.02	8.02	3.86	8.93	8.01	10.80
Conventional Parameters																	
Hardness, as $CaCO_3$	mg/L	*127*	*158*	*145*	*149*	*183*	230	248	257	230	268	238	244	261	158	154	130
Total alkalinity, as $CaCO_3$	mg/L	*44*	*54*	*51*	*56*	*57*	51	54	56	63	56	59	67	65	59	60	64
TDS	mg/L	*232*	*262*	*265*	*313*	*323*	420	380	440	425	395	360	405	445	265	200	250
TSS	mg/L	*28*	*27*	*9*	*6*	*10*	2	4	3	2	4	3	2	2	5	2	7
Major Ions																	
Chloride	mg/L	*35*	*49*	*51*	*52*	*65*	91	94	96	96	99	85	91	93	56	48	44
Fluoride	mg/L	*0.12*	*0.15*	*0.13*	*0.13*	*0.13*	0.12	0.13	0.12	0.11	0.12	0.14	0.13	0.14	0.13	0.12	0.14
Sulfate	mg/L	*50*	*59*	*48*	*59*	*79*	86	98	120	120	120	82	120	120	66	66	54
Nutrients																	
Ammonia (NH_3)	mg/L	*0.97*	*0.87*	*1.64*	*0.65*	*0.35*	0.140	0.210	0.400	0.340	0.200	0.400	0.270	0.250	0.850	0.300	0.400
Ammonia Nitrogen	mg N/L	*0.77*	*0.71*	*1.33*	*0.53*	*0.29*	0.110	0.180	0.330	0.280	0.170	0.330	0.220	0.200	0.700	0.250	0.330
Nitrate	mg N/L	*2.26*	*3.11*	*3.21*	*3.00*	*2.89*	3.25	3.76	3.99	4.10	4.33	3.19	3.51	3.98	1.94	2.00	1.04
Nitrite	mg N/L	*0.136*	*0.064*	*0.077*	*0.052*	*0.042*	0.0240	0.0410	0.0710	0.0610	0.0460	0.0640	0.0490	0.0390	0.0600	0.0170	0.0320
Total phosphorus	mg P/L	*0.0220*	*0.0446*	*0.0096*	*0.0127*	*0.0128*	0.0054	0.0076	0.0120	0.0082	0.0065	0.0048	0.0068	0.0096	0.0031	0.0027	0.0065
Total Metals																	
Aluminum	mg/L	*0.748*	*0.497*	*0.195*	*0.113*	*0.245*	0.0514	0.0684	0.0444	0.0286	0.0243	0.0706	0.0544	0.0397	0.1010	0.0435	0.1530
Arsenic	mg/L	*0.07119*	*0.25934*	*0.04490*	*0.14722*	*0.11246*	0.1180	0.1620	0.1470	0.1150	0.1220	0.1350	0.1160	0.1130	0.0767	0.0597	0.0658
Barium	mg/L	*0.0554*	*0.0688*	*0.0602*	*0.0544*	*0.0603*	0.0635	0.0629	0.0628	0.0579	0.0664	0.0719	0.0701	0.0799	0.0591	0.0557	0.0602
Cadmium	mg/L	*0.00003*	*0.00003*	*0.00002*	*0.00002*	*0.00002*	0.000010	0.000014	0.000025	0.000026	0.000022	0.000024	0.000024	0.000023	0.000017	0.000015	0.000016
Chromium	mg/L	*0.0125*	*0.0072*	*0.0045*	*0.0022*	*0.0057*	0.0014	0.00141	< 0.0010	< 0.0010	< 0.0010	0.0019	0.0014	0.0013	0.0029	0.0012	0.0041
Copper	mg/L	*0.00264*	*0.00256*	*0.00173*	*0.00100*	*0.00122*	0.00078	0.000878	0.00079	0.00517	0.00118	0.00090	0.00083	0.00110	0.00087	0.00083	0.00078
Iron	mg/L	*1.77*	*1.20*	*0.65*	*0.33*	*0.60*	0.185	0.179	0.140	0.110	0.090	0.269	0.199	0.241	0.408	0.332	0.491
Lead	mg/L	*0.00124*	*0.00087*	*0.00087*	*0.00028*	*0.00032*	< 0.00020	0.000117	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Manganese	mg/L	*0.266*	*0.229*	*0.212*	*0.136*	*0.141*	0.0617	0.0643	0.1080	0.0846	0.0712	0.1820	0.1300	0.1140	0.2080	0.1820	0.2410
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0031*	*0.0072*	*0.0164*	*0.0082*	*0.0063*	0.0067	0.00624	0.0063	0.0054	0.0058	0.0070	0.0061	0.0059	0.0069	0.0049	0.0065
Nickel	mg/L	*0.0281*	*0.0470*	*0.0145*	*0.0165*	*0.0148*	0.0097	0.0156	0.0181	0.0143	0.0146	0.0186	0.0156	0.0155	0.0115	0.0074	0.0098
Selenium	mg/L	*0.00039*	*0.00028*	*0.00019*	*0.00021*	*0.00021*	0.00025	0.000297	0.00033	0.0003	0.00032	0.00025	0.00024	0.00027	0.00013	0.0001	< 0.00010
Silver	mg/L	*0.00003*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.0000050	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.000039*	*0.000028*	*0.000020*	*0.000020*	*0.000022*	0.000022	0.0000172	0.000016	0.000019	0.000018	0.000018	0.000017	0.000020	0.000016	0.000013	0.000018
Zinc	mg/L	*0.0072*	*0.0089*	*0.0100*	*0.0050*	*0.0057*	< 0.0050	0.00259	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.0208	< 0.0050	< 0.0050	< 0.0050

Table 2-28 Whale Tail WRSF Pond 2025 Water Quality Monitoring (ST-WT-3)§

ST-WT-3	Unit	*Annual Average*					6/15/2025	7/6/2025	8/3/2025	9/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*5.4*	*6.8*	*6.7*	*7.3*	*9.5*	6.4	11.5	13.7	6.5
pH	pH units	*7.41*	*7.04*	*7.44*	*7.58*	*7.49*	7.23	7.57	7.61	7.53
Conductivity	uS/cm	*184.8*	*190.9*	*260.8*	*286.3*	*249.3*	172.8	263.0	266.0	295.2
Turbidity	NTU	*26.19*	*12.76*	*7.96*	*7.81*	*5.14*	6.87	2.47	1.66	9.54
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*74*	*79*	*97*	*111*	*114*	76.6	106.0	118.0	157.0
Total alkalinity, as $CaCO_3$	mg/L	*23*	*36*	*28*	*34*	*41*	30	48	40	44
TDS	mg/L	*132*	*117*	*177*	*209*	*200*	125	165	220	290
TSS	mg/L	*31*	*10*	*6*	*7*	*3*	4	1	2	4
Major Ions										
Chloride	mg/L	*4.9*	*4.1*	*2.3*	*3.2*	*3.0*	2.2	3.1	3.0	3.6
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.10*	*0.10*	< 0.10	0.11	< 0.10	< 0.10
Sulfate	mg/L	*47*	*48*	*75*	*90*	*92*	52	69	95	150
Nutrients										
Ammonia (NH_3)	mg/L	*0.17*	*0.07*	*0.11*	*0.06*	*0.08*	0.120	< 0.061	< 0.061	< 0.061
Ammonia Nitrogen	mg N/L	*0.14*	*0.06*	*0.09*	*0.05*	*0.06*	0.096	< 0.050	< 0.050	< 0.050
Nitrate	mg N/L	*2.05*	*1.61*	*4.00*	*3.13*	*1.80*	1.07	1.26	1.98	2.87
Nitrite	mg N/L	*0.010*	*0.020*	*0.010*	*0.040*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010
Total phosphorus	mg P/L	*0.030*	*0.018*	*0.013*	*0.012*	*0.005*	0.0068	0.0049	0.0036	0.0028
Total Metals										
Aluminum	mg/L	*0.7920*	*0.3610*	*0.1820*	*0.2110*	*0.0829*	0.1640	0.0464	0.0306	0.0907
Arsenic	mg/L	*0.0087*	*0.0084*	*0.0049*	*0.0077*	*0.0095*	0.00582	0.00955	0.01490	0.00765
Barium	mg/L	*0.0349*	*0.0327*	*0.0356*	*0.0351*	*0.0354*	0.0275	0.0362	0.0359	0.0421
Cadmium	mg/L	*0.000021*	*0.000013*	*0.000011*	*0.000015*	*0.000014*	0.000024	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.0141*	*0.0074*	*0.0034*	*0.0043*	*0.0017*	0.0033	0.0011	< 0.0010	0.0015
Copper	mg/L	*0.0029*	*0.0026*	*0.0017*	*0.0018*	*0.0018*	0.00147	0.00212	0.00172	0.00176
Iron	mg/L	*1.58*	*0.78*	*0.35*	*0.43*	*0.19*	0.301	0.126	0.069	0.251
Lead	mg/L	*0.0010*	*0.0007*	*0.0003*	*0.0003*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Manganese	mg/L	*0.1069*	*0.0534*	*0.0340*	*0.0503*	*0.0103*	0.0207	0.0060	0.0040	0.0103
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	< 0.0010	0.0016	0.0021	0.0012
Nickel	mg/L	*0.0166*	*0.0091*	*0.0075*	*0.0096*	*0.0057*	0.0073	0.0052	0.0041	0.0061
Selenium	mg/L	*0.00048*	*0.00039*	*0.00070*	*0.00060*	*0.00047*	0.00022	0.00032	0.00057	0.00075
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.000030*	*0.000023*	*0.000019*	*0.000019*	*0.000019*	0.000016	0.000020	0.000020	0.000018
Zinc	mg/L	*0.0067*	*0.0051*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Dissolved Metals										
Aluminum	mg/L	*0.0388*	*0.0176*	*0.0147*	*0.0134*	*0.0092*	0.0125	0.0096	0.0081	0.0064
Arsenic	mg/L	*0.00473*	*0.00559*	*0.00387*	*0.00649*	*0.00960*	0.00538	0.00867	0.01600	0.00836
Barium	mg/L	*0.0283*	*0.0306*	*0.0375*	*0.0348*	*0.0365*	0.0260	0.0355	0.0386	0.0457
Cadmium	mg/L	*0.000017*	*0.000010*	*0.000011*	*0.000013*	*0.000010*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.0012*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	*0.00180*	*0.00221*	*0.00179*	*0.00211*	*0.00380*	0.00277	0.00518	0.00557	0.00168
Iron	mg/L	*0.20*	*0.09*	*0.03*	*0.05*	*0.03*	0.0399	0.0325	0.0137	0.0152
Lead	mg/L	*0.00024*	*0.00020*	*0.00020*	*0.00021*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Manganese	mg/L	*0.0844*	*0.0447*	*0.0321*	*0.0488*	*0.0125*	0.0209	0.0071	0.0047	0.0174
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0010*	*0.0012*	*0.0011*	*0.0013*	*0.0016*	< 0.0010	0.0017	0.0022	0.0013
Nickel	mg/L	*0.011*	*0.006*	*0.007*	*0.008*	*0.006*	0.0068	0.0049	0.0045	0.0059
Selenium	mg/L	*0.00045*	*0.00037*	*0.00077*	*0.00065*	*0.00049*	0.00020	0.00031	0.00062	0.00084
Silver	mg/L	*0.00002*	*0.00002*	*0.00006*	*0.00009*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00001*	*0.00002*	0.000013	0.000021	0.000021	0.000017
Zinc	mg/L	*0.0050*	*0.0057*	*0.0050*	*0.0108*	*0.0051*	< 0.0050	0.0053	< 0.0050	< 0.0050

Table 2-29 Whale Tail Pit Sump 2025 Water Quality Monitoring (ST-WT-4)[§]

ST-WT-4	Unit	*Annual Average*					1/11/2025	1/21/2025	2/16/2025	3/2/2025	3/16/2025	4/30/2025	5/12/2025	6/4/2025	6/17/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***									
Field Measured															
Temperature	°C	*1.9*	*2.6*	*2.3*	*2.4*	*3.0*	0.2	0.0	0.8	0.1	0.5	0.0	0.6	1.5	2.3
pH	pH units	*7.48*	*7.24*	*7.74*	*7.79*	*8.06*	7.57	8.40	7.03	9.60	9.15	7.47	7.70	8.38	8.30
Conductivity	uS/cm	*417.0*	*492.0*	*483.1*	*492.5*	*468.6*	310.0	348.0	298.0	344.0	338.0	250.0	274.0	470.0	337.0
Turbidity	NTU	*77.90*	*13.10*	*17.43*	*62.20*	*199.32*	5.81	435.00	5.60	447.00	827.00	6.44	6.45	375.00	460.00
Conventional Parameters															
Hardness, as $CaCO_3$	mg/L	*255*	*188*	*179*	*181*	*249*	140	198	118	327	269	119	105	260	180
Total alkalinity, as $CaCO_3$	mg/L	*67*	*69*	*65*	*66*	*70*	59	60	59	43	61	60	61	63	60
TDS	mg/L	*275*	*394*	*321*	*336*	*372*	215	200	170	235	205	170	185	320	195
TSS	mg/L	*1813*	*12*	*24*	*76*	*291*	9	880	4	1200	840	16	8	740	370
Major Ions															
Chloride	mg/L	*49*	*47*	*59*	*50*	*74*	38	38	36	47	40	36	35	72	40
Fluoride	mg/L	*0.21*	*0.22*	*0.21*	*0.20*	*0.19*	0.20	0.21	0.21	0.19	0.18	0.16	0.15	0.22	0.18
Sulfate	mg/L	*54*	*84*	*6*	*81*	*94*	41	46	41	50	52	39	41	72	50
Nutrients															
Ammonia (NH_3)	mg/L	*1.64*	*2.99*	*5.00*	*3.23*	*1.78*	0.21	0.15	0.09	0.21	0.17	0.068	0.14	0.71	0.23
Ammonia Nitrogen	mg N/L	*1.38*	*2.46*	*4.12*	*2.65*	*1.46*	0.17	0.12	0.074	0.17	0.14	0.056	0.11	0.58	0.19
Nitrate	mg N/L	*2.76*	*4.14*	*5.01*	*4.09*	*3.20*	0.62	0.26	0.15	0.19	0.13	0.18	0.21	1.07	0.59
Nitrite	mg N/L	*0.219*	*0.230*	*0.184*	*0.206*	*0.171*	0.013	< 0.010	< 0.010	0.036	0.027	0.018	0.018	0.114	0.032
Total phosphorus	mg P/L	*0.930*	*0.040*	*0.040*	*0.080*	*0.230*	0.0073	0.5900	0.0052	0.8800	0.5500	0.0190	0.0190	0.7000	0.2500
Total Metals															
Aluminum	mg/L	*8.2520*	*0.4000*	*0.6800*	*1.4030*	*6.3860*	0.203	11.000	0.061	28.200	21.100	0.584	0.180	14.000	8.520
Arsenic	mg/L	*0.1453*	*0.6933*	*0.1512*	*0.1012*	*0.1438*	0.0258	0.0895	0.0231	0.1750	0.1210	0.0590	0.1490	0.7640	0.0761
Barium	mg/L	*0.183*	*0.077*	*0.075*	*0.074*	*0.152*	0.0679	0.2140	0.0593	0.4130	0.3090	0.0718	0.0593	0.2240	0.1500
Cadmium	mg/L	*0.000067*	*0.000023*	*0.000036*	*0.000050*	*0.000102*	0.000022	0.000103	< 0.000010	0.000186	0.000138	0.000014	< 0.000010	0.000060	0.000046
Chromium	mg/L	*0.2670*	*0.0136*	*0.0124*	*0.0313*	*0.1625*	0.0039	0.2650	0.0013	0.6790	0.4480	0.0108	0.0048	0.3750	0.2620
Copper	mg/L	*0.01390*	*0.00425*	*0.00144*	*0.00224*	*0.00767*	0.00719	0.00750	0.00097	0.02320	0.01310	0.00800	0.00139	0.00880	0.00490
Iron	mg/L	*15.09*	*1.02*	*1.49*	*2.49*	*10.89*	0.378	19.900	0.201	47.800	35.000	1.160	0.436	23.100	14.100
Lead	mg/L	*0.01095*	*0.00143*	*0.00139*	*0.00144*	*0.00368*	0.00097	0.00828	< 0.00020	0.01370	0.01090	0.00076	0.00037	0.00659	0.00316
Manganese	mg/L	*0.590*	*0.244*	*0.218*	*0.179*	*0.343*	0.1430	0.5000	0.1340	0.9100	0.7290	0.1060	0.0896	0.4690	0.2770
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00002*	*0.00002*	< 0.00001	< 0.00001	< 0.00001	< 0.00010	< 0.00001	< 0.00001	< 0.00001	< 0.00010	< 0.00001
Molybdenum	mg/L	*0.0093*	*0.0231*	*0.0361*	*0.0172*	*0.0116*	0.0139	0.0102	0.0078	0.0075	0.0064	0.0052	0.0047	0.0077	0.0076
Nickel	mg/L	*0.1237*	*0.1138*	*0.0326*	*0.0277*	*0.0650*	0.0083	0.0879	0.0035	0.2000	0.1360	0.0105	0.0102	0.1590	0.0799
Selenium	mg/L	*0.00048*	*0.00060*	*0.00034*	*0.00020*	*0.00030*	< 0.00010	< 0.00020	< 0.00010	< 0.00050	< 0.00050	< 0.00010	< 0.00010	< 0.00020	< 0.00020
Silver	mg/L	*0.00004*	*0.00004*	*0.00002*	*0.00002*	*0.00004*	< 0.000020	0.000048	< 0.000020	< 0.00010	< 0.00010	< 0.000020	< 0.000020	0.000055	0.000042
Thallium	mg/L	*0.000258*	*0.000027*	*0.000024*	*0.000046*	*0.000138*	0.000016	0.000243	< 0.000010	0.000566	0.000381	0.000027	0.000017	0.000285	0.000183
Zinc	mg/L	*0.0226*	*0.0111*	*0.0113*	*0.0153*	*0.0365*	0.0090	0.0460	< 0.0050	0.0960	0.0670	0.0081	< 0.0050	0.0410	0.0250

ST-WT-4	Unit	*Annual Average*					7/14/2025	7/20/2025	8/4/2025	8/17/2025	9/1/2025	9/21/2025	10/5/2025	11/5/2025	11/23/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***									
Field Measured															
Temperature	°C	*1.9*	*2.6*	*2.3*	*2.4*	*3.0*	5.8	9.0	9.9	6.8	3.3	5.1	2.3	3.6	2.3
pH	pH units	*7.48*	*7.24*	*7.74*	*7.79*	*8.06*	7.89	8.21	8.10	7.96	7.64	7.83	8.20	7.96	7.73
Conductivity	uS/cm	*417.0*	*492.0*	*483.1*	*492.5*	*468.6*	739.0	810.0	377.3	852.0	323.7	860.0	667.0	488.0	349.4
Turbidity	NTU	*77.90*	*13.10*	*17.43*	*62.20*	*199.32*	39.90	51.80	8.52	285.00	28.50	192.00	151.00	230.00	32.80
Conventional Parameters															
Hardness, as $CaCO_3$	mg/L	*255*	*188*	*179*	*181*	*249*	275	363	187	501	205	452	333	267	181
Total alkalinity, as $CaCO_3$	mg/L	*67*	*69*	*65*	*66*	*70*	69	58	55	89	59	150	77	110	71
TDS	mg/L	*275*	*394*	*321*	*336*	*372*	535	650	385	710	395	825	605	395	295
TSS	mg/L	*1813*	*12*	*24*	*76*	*291*	39	160	8	580	40	150	51	120	25
Major Ions															
Chloride	mg/L	*49*	*47*	*59*	*50*	*74*	120	91	57	150	82	170	130	77	67
Fluoride	mg/L	*0.21*	*0.22*	*0.21*	*0.20*	*0.19*	0.17	0.20	0.13	0.20	0.14	0.20	0.22	0.19	0.19
Sulfate	mg/L	*54*	*84*	*6*	*81*	*94*	120	220	87	200	77	200	190	100	72
Nutrients															
Ammonia (NH_3)	mg/L	*1.64*	*2.99*	*5.00*	*3.23*	*1.78*	2.80	0.35	0.27	4.50	0.11	4.50	5.00	11.00	1.50
Ammonia Nitrogen	mg N/L	*1.38*	*2.46*	*4.12*	*2.65*	*1.46*	2.30	0.29	0.23	3.70	0.095	3.70	4.10	8.90	1.30
Nitrate	mg N/L	*2.76*	*4.14*	*5.01*	*4.09*	*3.20*	4.67	2.59	0.53	10.40	0.56	13.80	8.13	12.10	1.37
Nitrite	mg N/L	*0.219*	*0.230*	*0.184*	*0.206*	*0.171*	0.400	0.069	0.019	0.469	< 0.010	0.606	0.693	0.454	0.071
Total phosphorus	mg P/L	*0.930*	*0.040*	*0.040*	*0.080*	*0.230*	0.0260	0.2400	0.0160	0.6500	0.0220	0.0680	0.0550	0.0340	0.0130
Total Metals															
Aluminum	mg/L	*8.2520*	*0.4000*	*0.6800*	*1.4030*	*6.3860*	1.170	3.880	0.155	14.500	0.882	3.440	1.560	4.630	0.882
Arsenic	mg/L	*0.1453*	*0.6933*	*0.1512*	*0.1012*	*0.1438*	0.1040	0.3680	0.1980	0.1800	0.0508	0.0734	0.0382	0.0648	0.0295
Barium	mg/L	*0.183*	*0.077*	*0.075*	*0.074*	*0.152*	0.0939	0.1150	0.0865	0.2490	0.0941	0.1380	0.1390	0.1560	0.0890
Cadmium	mg/L	*0.000067*	*0.000023*	*0.000036*	*0.000050*	*0.000102*	0.000025	0.000473	0.000064	0.000110	0.000055	0.000259	0.000208	0.000024	0.000022
Chromium	mg/L	*0.2670*	*0.0136*	*0.0124*	*0.0313*	*0.1625*	0.0399	0.1040	0.0044	0.3720	0.0261	0.0884	0.0427	0.1650	0.0319
Copper	mg/L	*0.01390*	*0.00425*	*0.00144*	*0.00224*	*0.00767*	0.02240	0.00749	< 0.00050	0.01160	< 0.00050	0.00681	0.00324	0.00896	0.00158
Iron	mg/L	*15.09*	*1.02*	*1.49*	*2.49*	*10.89*	2.180	6.890	0.443	24.400	1.720	6.290	2.970	7.500	1.620
Lead	mg/L	*0.01095*	*0.00143*	*0.00139*	*0.00144*	*0.00368*	0.00073	0.00165	< 0.00020	0.01060	0.00080	0.00323	0.00205	0.00174	0.00038
Manganese	mg/L	*0.590*	*0.244*	*0.218*	*0.179*	*0.343*	0.1460	0.4130	0.2130	0.5930	0.2580	0.4630	0.3260	0.2070	0.1900
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00002*	*0.00002*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0093*	*0.0231*	*0.0361*	*0.0172*	*0.0116*	0.0160	0.0116	0.0063	0.0187	0.0069	0.0219	0.0200	0.0225	0.0141
Nickel	mg/L	*0.1237*	*0.1138*	*0.0326*	*0.0277*	*0.0650*	0.0342	0.0765	0.0096	0.1490	0.0166	0.0751	0.0412	0.0591	0.0129
Selenium	mg/L	*0.00048*	*0.00060*	*0.00034*	*0.00020*	*0.00030*	0.00037	0.00057	< 0.00010	0.00063	< 0.00010	0.00077	0.000448	0.00030	< 0.00010
Silver	mg/L	*0.00004*	*0.00004*	*0.00002*	*0.00002*	*0.00004*	< 0.000020	< 0.000020	< 0.000020	0.000093	< 0.000020	0.000034	< 0.000010	0.000029	< 0.000020
Thallium	mg/L	*0.000258*	*0.000027*	*0.000024*	*0.000046*	*0.000138*	0.000051	0.000101	0.000019	0.000315	0.000031	0.000083	0.0000384	0.000092	0.000027
Zinc	mg/L	*0.0226*	*0.0111*	*0.0113*	*0.0153*	*0.0365*	0.0173	0.0933	0.0132	0.0570	0.0164	0.0772	0.0612	0.0117	0.0071

Table 2-30 Whale Tail 2025 IVR Pit Sump Water Quality Monitoring (ST-WT-18)[§]

ST-WT-18	Unit	*Annual Average*					4/8/2025	4/13/2025	4/27/2025	5/5/2025	5/12/2025	5/19/2025	6/4/2025	6/8/2025	6/15/2025
Parameter		*2021*	*2022*	*2023*	*2024*	*2025*									
Field Measured															
Temperature	°C	*4.3*	*5.5*	*6.5*	*2.3*	*6.1*	0.2	5.0	0.5	0.4	0.2	0.7	2.4	1.6	1.6
pH	pH units	*7.77*	*7.43*	*7.84*	*7.67*	*7.81*	7.36	7.52	7.64	7.56	7.55	8.22	7.56	7.56	7.70
Conductivity	uS/cm	*1971.8*	*1300.3*	*445.0*	*437.0*	*553.6*	331.0	351.0	305.0	453.0	373.0	511.0	273.0	337.0	425.0
Turbidity	NTU	*450.00*	*108.00*	*9.59*	*8.42*	*54.80*	3.56	3.97	2.57	5.30	80.60	258.00	317.00	67.50	57.00
Conventional Parameters															
Hardness, as $CaCO_3$	mg/L	*1400*	*534*	*156*	*161*	*265*	129	131	138	167	147	276	132	135	169
Total alkalinity, as $CaCO_3$	mg/L	*105*	*98*	*72*	*62*	*78*	68	63	56	67	58	70	56	64	61
TDS	mg/L	*1173*	*750*	*290*	*303*	*485*	180	205	185	315	220	315	195	245	335
TSS	mg/L	*7872*	*458*	*7*	*172*	*73*	2	3	2	5	230	500	260	100	110
Major Ions															
Chloride	mg/L	*378*	*203*	*31*	*42*	*53*	37	38	37	51	45	56	25	37	42
Fluoride	mg/L	*0.18*	*0.17*	*0.19*	*0.15*	*0.18*	0.14	0.15	0.16	0.15	0.13	0.16	< 0.10	< 0.10	0.11
Sulfate	mg/L	*198*	*180*	*88*	*77*	*168*	52	52	52	82	70	100	51	63	79
Nutrients															
Ammonia (NH_3)	mg/L	*10.70*	*9.80*	*4.80*	*1.50*	*2.79*	0.67	0.69	0.62	1.20	1.10	0.63	0.55	0.46	0.66
Ammonia Nitrogen	mg N/L	*9.00*	*8.00*	*3.90*	*1.20*	*2.29*	0.55	0.57	0.51	0.99	0.88	0.52	0.45	0.38	0.54
Nitrate	mg N/L	*15.4*	*15.3*	*5.6*	*3.8*	*7.8*	1.21	1.43	1.23	3.93	2.86	4.82	1.61	2.72	4.03
Nitrite	mg N/L	*1.510*	*0.980*	*0.170*	*0.100*	*0.534*	< 0.010	< 0.010	< 0.010	0.018	0.019	0.090	0.034	0.048	0.057
Total phosphorus	mg P/L	*3.840*	*0.200*	*0.020*	*0.110*	*0.121*	0.0010	< 0.0010	< 0.0010	0.0170	0.1900	0.5600	0.2300	0.1500	0.1300
Total Metals															
Aluminum	mg/L	*48.2000*	*6.5000*	*0.2000*	*1.0000*	*1.2160*	0.0382	0.0423	0.0167	0.0549	1.9900	8.9400	4.7000	1.3300	1.9200
Arsenic	mg/L	*3.4200*	*4.4930*	*0.4100*	*0.6600*	*0.9342*	0.0636	0.0721	0.0676	0.5010	0.2730	0.8870	0.3090	0.5650	0.7830
Barium	mg/L	*0.736*	*0.157*	*0.031*	*0.059*	*0.062*	0.0549	0.0568	0.0594	0.0565	0.0671	0.1900	0.0788	0.0564	0.0751
Cadmium	mg/L	*0.00036*	*0.00009*	*0.00001*	*0.00004*	*0.00004*	0.000019	0.000052	0.000016	0.000018	0.000022	0.000066	0.000035	0.000024	0.000032
Chromium	mg/L	*1.903*	*0.392*	*0.005*	*0.028*	*0.026*	0.0028	0.0012	< 0.0010	0.0016	0.0288	0.1920	0.0707	0.0270	0.0267
Copper	mg/L	*0.0610*	*0.0063*	*0.0016*	*0.0028*	*0.0046*	0.00965	0.00069	0.00064	0.00289	0.00461	0.01100	0.01070	0.01160	0.00591
Iron	mg/L	*81.0*	*10.5*	*0.5*	*2.1*	*2.6*	0.312	0.222	0.219	0.174	4.040	16.000	12.700	3.730	3.790
Lead	mg/L	*0.0402*	*0.0026*	*0.0004*	*0.0021*	*0.0013*	0.00053	< 0.00020	< 0.00020	< 0.00020	0.00144	0.00597	0.00461	0.00150	0.00156
Manganese	mg/L	*3.16*	*0.17*	*0.15*	*0.26*	*0.25*	0.2690	0.2560	0.2580	0.2110	0.2620	0.4890	0.4010	0.2140	0.2270
Mercury	mg/L	*0.000064*	*0.000010*	*0.000010*	*0.000015*	*0.000018*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.0001	< 0.00010	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0082*	*0.0163*	*0.0298*	*0.0094*	*0.0122*	0.0092	0.0097	0.0082	0.0123	0.0100	0.0107	0.0043	0.0063	0.0083
Nickel	mg/L	*1.031*	*0.306*	*0.055*	*0.054*	*0.093*	0.0174	0.0189	0.0157	0.0582	0.0470	0.1440	0.0612	0.0543	0.0698
Selenium	mg/L	*0.00289*	*0.00273*	*0.00060*	*0.00041*	*0.00100*	< 0.00010	< 0.00010	< 0.00010	0.00028	0.00016	0.00047	0.00019	0.00026	0.00033
Silver	mg/L	*0.00127*	*0.00015*	*0.00002*	*0.00003*	*0.00005*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	0.000062	0.000044	< 0.000020	0.000023
Thallium	mg/L	*0.001706*	*0.000164*	*0.000020*	*0.000048*	*0.000057*	0.000016	0.000016	0.000020	0.000024	0.000039	0.000207	0.000080	0.000041	0.000053
Zinc	mg/L	*0.110*	*0.054*	*0.005*	*0.015*	*0.016*	0.0193	< 0.0050	< 0.0050	0.0052	0.0091	0.0340	0.0213	0.0134	0.0119

ST-WT-18	Unit	*Annual Average*					6/22/2025	7/14/2025	8/4/2025	8/12/2025	8/17/2025	8/24/2025	8/31/2025	9/7/2025	9/14/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***									
Field Measured															
Temperature	°C	*4.3*	*5.5*	*6.5*	*2.3*	*6.1*	2.9	10.8	13.1	10.4	11.9	15.6	12.4	10.8	14.1
pH	pH units	*7.77*	*7.43*	*7.84*	*7.67*	*7.81*	7.58	7.96	7.94	8.02	8.07	7.93	7.43	7.98	7.94
Conductivity	uS/cm	*1971.8*	*1300.3*	*445.0*	*437.0*	*553.6*	349.0	762.0	777.0	721.0	818.0	87.5	822.0	809.0	839.0
Turbidity	NTU	*450.00*	*108.00*	*9.59*	*8.42*	*54.80*	122.00	2.92	2.52	1.50	2.52	0.97	3.04	3.17	2.07
Conventional Parameters															
Hardness, as $CaCO_3$	mg/L	*1400*	*534*	*156*	*161*	*265*	146	286	317	311	316	334	392	395	394
Total alkalinity, as $CaCO_3$	mg/L	*105*	*98*	*72*	*62*	*78*	54	99	110	110	110	110	100	100	100
TDS	mg/L	*1173*	*750*	*290*	*303*	*485*	275	575	710	715	690	695	745	700	745
TSS	mg/L	*7872*	*458*	*7*	*172*	*73*	190	7	1	1	1	< 1	1	< 1	2
Major Ions															
Chloride	mg/L	*378*	*203*	*31*	*42*	*53*	33	27	31	32	33	34	32	34	32
Fluoride	mg/L	*0.18*	*0.17*	*0.19*	*0.15*	*0.18*	0.10	0.13	0.18	0.21	0.22	0.24	0.21	0.22	0.21
Sulfate	mg/L	*198*	*180*	*88*	*77*	*168*	68	230	280	290	270	290	290	300	300
Nutrients															
Ammonia (NH_3)	mg/L	*10.70*	*9.80*	*4.80*	*1.50*	*2.79*	0.57	4.90	9.10	8.00	7.90	6.70	5.50	4.50	3.60
Ammonia Nitrogen	mg N/L	*9.00*	*8.00*	*3.90*	*1.20*	*2.29*	0.46	4.00	7.50	6.60	6.50	5.50	4.50	3.70	2.90
Nitrate	mg N/L	*15.4*	*15.3*	*5.6*	*3.8*	*7.8*	3.33	13.30	15.40	16.00	15.70	15.00	16.80	15.90	17.20
Nitrite	mg N/L	*1.510*	*0.980*	*0.170*	*0.100*	*0.534*	0.053	0.457	1.080	1.130	1.190	1.460	1.680	1.700	1.820
Total phosphorus	mg P/L	*3.840*	*0.200*	*0.020*	*0.110*	*0.121*	0.1900	0.0470	0.0420	0.0600	0.0910	0.1400	0.2300	0.1600	0.1900
Total Metals															
Aluminum	mg/L	*48.2000*	*6.5000*	*0.2000*	*1.0000*	*1.2160*	2.4100	0.0527	0.0250	< 0.015	0.0160	< 0.015	0.0180	< 0.015	0.0170
Arsenic	mg/L	*3.4200*	*4.4930*	*0.4100*	*0.6600*	*0.9342*	0.5960	1.1900	1.6100	1.5200	1.6900	1.7300	1.9400	2.0600	2.0700
Barium	mg/L	*0.736*	*0.157*	*0.031*	*0.059*	*0.062*	0.0667	0.0356	0.0355	0.0331	0.0348	0.0365	0.0408	0.0408	0.0399
Cadmium	mg/L	*0.00036*	*0.00009*	*0.00001*	*0.00004*	*0.00004*	0.000026	< 0.000020	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050
Chromium	mg/L	*1.903*	*0.392*	*0.005*	*0.028*	*0.026*	0.0342	< 0.0020	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Copper	mg/L	*0.0610*	*0.0063*	*0.0016*	*0.0028*	*0.0046*	0.00573	0.00320	0.00620	0.00320	0.00390	0.00300	< 0.0025	< 0.0025	< 0.0025
Iron	mg/L	*81.0*	*10.5*	*0.5*	*2.1*	*2.6*	5.200	0.087	0.052	< 0.050	< 0.050	< 0.050	< 0.050	0.053	< 0.050
Lead	mg/L	*0.0402*	*0.0026*	*0.0004*	*0.0021*	*0.0013*	0.00198	< 0.00040	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Manganese	mg/L	*3.16*	*0.17*	*0.15*	*0.26*	*0.25*	0.2320	0.1310	0.2190	0.1860	0.2150	0.2180	0.2300	0.2170	0.2370
Mercury	mg/L	*0.000064*	*0.000010*	*0.000010*	*0.000015*	*0.000018*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0082*	*0.0163*	*0.0298*	*0.0094*	*0.0122*	0.0063	0.0088	0.0201	0.0176	0.0174	0.0185	0.0183	0.0188	0.0182
Nickel	mg/L	*1.031*	*0.306*	*0.055*	*0.054*	*0.093*	0.0595	0.1240	0.1240	0.1220	0.1360	0.1510	0.1690	0.1630	0.1810
Selenium	mg/L	*0.00289*	*0.00273*	*0.00060*	*0.00041*	*0.00100*	0.00027	0.00128	0.00232	0.00192	0.00238	0.00222	0.00241	0.00233	0.00243
Silver	mg/L	*0.00127*	*0.00015*	*0.00002*	*0.00003*	*0.00005*	0.000023	< 0.000040	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Thallium	mg/L	*0.001706*	*0.000164*	*0.000020*	*0.000048*	*0.000057*	0.000051	0.000044	0.000063	0.000058	0.000051	0.000068	0.000074	0.000070	0.000071
Zinc	mg/L	*0.110*	*0.054*	*0.005*	*0.015*	*0.016*	0.0123	< 0.010	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025

ST-WT-18	Unit	*Annual Average*					9/21/2025	9/28/2025	10/5/2025	10/20/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*4.3*	*5.5*	*6.5*	*2.3*	*6.1*	6.3	6.5	3.9	2.6
pH	pH units	*7.77*	*7.43*	*7.84*	*7.67*	*7.81*	7.87	7.54	8.69	8.16
Conductivity	uS/cm	*1971.8*	*1300.3*	*445.0*	*437.0*	*553.6*	682.0	747.0	796.0	611.0
Turbidity	NTU	*450.00*	*108.00*	*9.59*	*8.42*	*54.80*	58.10	22.90	153.00	35.30
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*1400*	*534*	*156*	*161*	*265*	381	399	432	295
Total alkalinity, as $CaCO_3$	mg/L	*105*	*98*	*72*	*62*	*78*	71	62	65	68
TDS	mg/L	*1173*	*750*	*290*	*303*	*485*	690	775	650	510
TSS	mg/L	*7872*	*458*	*7*	*172*	*73*	33	15	120	23
Major Ions										
Chloride	mg/L	*378*	*203*	*31*	*42*	*53*	120	140	140	110
Fluoride	mg/L	*0.18*	*0.17*	*0.19*	*0.15*	*0.18*	0.23	0.28	0.26	0.19
Sulfate	mg/L	*198*	*180*	*88*	*77*	*168*	210	200	220	140
Nutrients										
Ammonia (NH_3)	mg/L	*10.70*	*9.80*	*4.80*	*1.50*	*2.79*	1.90	0.60	1.00	0.56
Ammonia Nitrogen	mg N/L	*9.00*	*8.00*	*3.90*	*1.20*	*2.29*	1.60	0.49	0.85	0.46
Nitrate	mg N/L	*15.4*	*15.3*	*5.6*	*3.8*	*7.8*	6.51	4.17	4.58	3.06
Nitrite	mg N/L	*1.510*	*0.980*	*0.170*	*0.100*	*0.534*	0.460	0.196	0.149	0.086
Total phosphorus	mg P/L	*3.840*	*0.200*	*0.020*	*0.110*	*0.121*	0.0940	0.0310	0.0696	0.0350
Total Metals										
Aluminum	mg/L	*48.2000*	*6.5000*	*0.2000*	*1.0000*	*1.2160*	0.9100	0.3120	3.1600	0.7550
Arsenic	mg/L	*3.4200*	*4.4930*	*0.4100*	*0.6600*	*0.9342*	0.6810	0.6880	0.7870	0.4690
Barium	mg/L	*0.736*	*0.157*	*0.031*	*0.059*	*0.062*	0.0748	0.0671	0.1060	0.0614
Cadmium	mg/L	*0.00036*	*0.00009*	*0.00001*	*0.00004*	*0.00004*	0.000049	0.000078	0.000133	0.000017
Chromium	mg/L	*1.903*	*0.392*	*0.005*	*0.028*	*0.026*	0.0246	0.0095	0.0877	0.0238
Copper	mg/L	*0.0610*	*0.0063*	*0.0016*	*0.0028*	*0.0046*	0.00336	0.00223	0.00294	0.00162
Iron	mg/L	*81.0*	*10.5*	*0.5*	*2.1*	*2.6*	1.490	1.190	5.400	1.270
Lead	mg/L	*0.0402*	*0.0026*	*0.0004*	*0.0021*	*0.0013*	0.00105	0.00137	0.00113	0.00026
Manganese	mg/L	*3.16*	*0.17*	*0.15*	*0.26*	*0.25*	0.2000	0.2820	0.4600	0.1910
Mercury	mg/L	*0.000064*	*0.000010*	*0.000010*	*0.000015*	*0.000018*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0082*	*0.0163*	*0.0298*	*0.0094*	*0.0122*	0.0131	0.0107	0.0102	0.0104
Nickel	mg/L	*1.031*	*0.306*	*0.055*	*0.054*	*0.093*	0.0803	0.0829	0.1060	0.0498
Selenium	mg/L	*0.00289*	*0.00273*	*0.00060*	*0.00041*	*0.00100*	0.00084	0.00066	0.000712	0.00033
Silver	mg/L	*0.00127*	*0.00015*	*0.00002*	*0.00003*	*0.00005*	< 0.000020	< 0.000020	0.000017	< 0.000020
Thallium	mg/L	*0.001706*	*0.000164*	*0.000020*	*0.000048*	*0.000057*	0.000057	0.000030	0.0000948	0.000032
Zinc	mg/L	*0.110*	*0.054*	*0.005*	*0.015*	*0.016*	0.0070	0.0100	0.0145	< 0.0050

Table 2-31 Whale Tail South Channel Water 2025 Quality Monitoring (ST-WT-13)[§]

ST-WT-13	Unit	Max Grab	Monthly Mean	*Annual Average*					6/8/2025	7/13/2025	8/4/2025	9/1/2025	10/6/2025
Parameter				***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured													
Temperature	°C			*5.5*	*6.5*	*6.1*	*7.5*	*7.1*	1.6	11.7	13.7	6.3	2.1
pH	pH units			*7.75*	*7.48*	*7.54*	*8.03*	*7.54*	7.39	7.39	7.37	7.99	7.57
Conductivity	uS/cm			*44.0*	*83.4*	*66.8*	*69.9*	*78.1*	80.7	94.5	77.9	73.7	63.9
Turbidity	NTU			*2.25*	*6.68*	*1.61*	*3.38*	*2.17*	5.23	1.02	1.72	1.75	1.11
Conventional Parameters													
TSS	mg/L	30	15	*2*	*3*	*1*	*2*	*1*	2	< 1	< 1	< 1	1
Major Ions													
Sulfate	mg/L			*2*	*5*	*6*	*7*	*11*	10	11	12	11	13
Nutrients													
Ammonia Nitrogen	mg N/L			*0.066*	*0.050*	*0.057*	*0.055*	*0.051*	< 0.050	< 0.050	< 0.050	0.056	< 0.050
Un-Ionized Ammonia, calculated	mg N/L			*0.00079*	*0.00060*	*0.00071*	*0.00281*	*0.00067*	< 0.00061	< 0.00061	< 0.00061	0.00091	< 0.00061
Total Metals													
Aluminum	mg/L			*0.0589*	*0.0936*	*0.0356*	*0.0884*	*0.0146*	0.0370	0.0091	0.0085	0.0102	0.0083
Arsenic	mg/L			*0.00148*	*0.00541*	*0.00229*	*0.00389*	*0.00139*	0.00103	0.00117	0.00123	0.00265	0.00089
Copper	mg/L			*0.00055*	*0.00089*	*0.00055*	*0.00067*	*0.00051*	< 0.00050	0.00054	< 0.00050	< 0.00050	< 0.00050
Lead	mg/L			*0.00020*	*0.00028*	*0.00020*	*0.00024*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Nickel	mg/L			*0.0018*	*0.0017*	*0.0020*	*0.0015*	*0.0011*	0.0015	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Zinc	mg/L			*0.0050*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-32 Whale Tail 2025 Lake A16 Outlet Water Quality Monitoring (ST-WT-14)[§]

ST-WT-14	Unit	*Annual Average*					6/17/2025	7/21/2025	8/10/2025	9/2/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*10.8*	*15.3*	*6.7*	*10.7*	*9.5*	3.2	13.6	11.4	9.9
pH	pH units	*7.66*	*7.06*	*6.96*	*7.40*	*7.52*	7.32	7.90	7.25	7.59
Conductivity	uS/cm	*107.1*	*113.0*	*132.8*	*120.2*	*106.9*	97.3	115.9	103.9	110.6
Turbidity	NTU	*0.75*	*0.70*	*1.02*	*1.11*	*1.25*	2.55	0.81	0.74	0.91
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*40*	*41*	*44*	*38*	*42*	38.0	42.1	42.6	46.3
Total alkalinity, as $CaCO_3$	mg/L	*11*	*14*	*16*	*23*	*19*	14	22	17	21
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*11*	*14*	*16*	*23*	*18*	14	21	17	21
TDS	mg/L	*70*	*82*	*74*	*83*	*64*	25	85	75	70
TSS	mg/L	*2*	*1*	*1*	*1*	*1*	2	1	< 1	< 1
Total organic carbon	mg/L	*1.9*	*2.6*	*2.2*	*2.2*	*2.3*	2.4	2.3	2.2	2.2
Dissolved organic carbon	mg/L	*1.7*	*2.3*	*2.2*	*2.1*	*2.3*	2.3	2.3	2.2	2.4
Major Ions										
Chloride	mg/L	*16*	*14*	*14*	*12*	*12*	9.9	12.0	13.0	14.0
Silica	mg/L	*0.9*	*0.3*	*0.8*	*0.5*	*0.6*	1.20	0.48	0.40	0.39
Sulfate	mg/L	*12*	*15*	*19*	*16*	*20*	17	20	20	23
Nutrients										
Ammonia (NH_3)	mg/L	*0.061*	*0.094*	*0.067*	*0.068*	*0.067*	0.085	< 0.061	< 0.061	< 0.061
Ammonia Nitrogen	mg N/L	*0.05*	*0.08*	*0.06*	*0.06*	*0.06*	0.070	< 0.050	< 0.050	< 0.050
Nitrate	mg N/L	*0.35*	*0.22*	*0.36*	*0.22*	*0.29*	0.32	0.26	0.27	0.31
Nitrite	mg N/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010
Total Kjeldahl nitrogen	mg N/L	*0.12*	*0.24*	*0.15*	*0.17*	*0.12*	0.10	0.10	0.13	0.13
Total phosphorus	mg P/L	*0.002*	*0.003*	*0.001*	*0.001*	*0.002*	0.0026	< 0.0010	0.0010	0.0016
Orthophosphate	mg P/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals										
Aluminum	mg/L	*0.0109*	*0.0062*	*0.0051*	*0.0062*	*0.0101*	0.0264	0.0040	0.0071	< 0.0030
Antimony	mg/L	*0.0005*	*0.0008*	*0.0005*	*0.0006*	*0.0006*	< 0.00050	0.00064	0.00070	0.00072
Arsenic	mg/L	*0.00059*	*0.00090*	*0.00063*	*0.00059*	*0.00080*	0.00072	0.00094	0.00078	0.00077
Barium	mg/L	*0.0171*	*0.0165*	*0.0148*	*0.0136*	*0.0144*	0.0141	0.0152	0.0138	0.0143
Beryllium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (total)	mg/L	*11.40*	*11.67*	*12.48*	*10.87*	*11.68*	10.6	11.8	11.6	12.7
Chromium	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	*0.00061*	*0.00069*	*0.00056*	*0.00067*	*0.00052*	0.00056	< 0.00050	0.00053	< 0.00050
Iron	mg/L	*0.028*	*0.018*	*0.022*	*0.025*	*0.036*	0.067	0.016	0.023	0.036
Lead	mg/L	*0.0002*	*0.0002*	*0.0002*	*0.0003*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium (total)	mg/L	*2.70*	*2.90*	*3.01*	*2.69*	*3.20*	2.81	3.09	3.31	3.57
Manganese	mg/L	*0.0035*	*0.0017*	*0.0020*	*0.0024*	*0.0034*	0.0037	0.0038	0.0019	0.0043
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	*0.0014*	*0.0010*	*0.0010*	*0.0016*	*0.0013*	0.0021	< 0.0010	< 0.0010	< 0.0010
Potassium (total)	mg/L	*2.50*	*2.80*	*2.70*	*2.35*	*2.63*	2.20	2.75	2.78	2.79
Selenium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Sodium (total)	mg/L	*1.72*	*2.15*	*2.23*	*1.98*	*2.35*	1.86	2.38	2.46	2.69
Strontium	mg/L	*0.0732*	*0.0820*	*0.0876*	*0.0731*	*0.0823*	0.0722	0.0853	0.0815	0.0902
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	*0.0050*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Dissolved Metals										
Aluminum	mg/L	*0.0047*	*0.0069*	*0.0035*	*0.0046*	*0.0048*	0.0048	0.0062	0.0053	< 0.0030
Antimony	mg/L	*0.0005*	*0.0008*	*0.0006*	*0.0006*	*0.0007*	< 0.00050	0.00066	0.00077	0.00080
Arsenic	mg/L	*0.00099*	*0.00099*	*0.00150*	*0.00091*	*0.00175*	0.00195	0.00264	0.00124	0.00118
Barium	mg/L	*0.0173*	*0.0157*	*0.0159*	*0.0148*	*0.0150*	0.0134	0.0152	0.0150	0.0162
Beryllium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	*0.000011*	*0.000010*	*0.000012*	*0.000014*	*0.000010*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	*0.00057*	*0.00160*	*0.00078*	*0.00114*	*0.00109*	0.00118	0.00112	0.00082	0.00124
Iron	mg/L	*0.009*	*0.008*	*0.007*	*0.011*	*0.009*	0.0103	0.0088	0.0085	0.0101
Lead	mg/L	*0.0002*	*0.0003*	*0.0002*	*0.0002*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L	*0.0019*	*0.0010*	*0.0028*	*0.0021*	*0.0032*	0.0045	0.0031	0.0010	0.004
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	*0.0015*	*0.0011*	*0.0013*	*0.0014*	*0.0015*	0.0022	0.0013	< 0.0010	0.0013
Selenium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Strontium	mg/L	*0.0732*	*0.0786*	*0.0972*	*0.0834*	*0.0870*	0.0704	0.0834	0.0933	0.1010
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	*0.0050*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	*0.005*	*0.008*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-33 Whale Tail 2025 Lake A15 Outlet Water Quality Monitoring (ST-WT-15)[§]

ST-WT-15	Unit	*Annual Average*					6/17/2025	7/21/2025	8/10/2025	9/2/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*11.2*	*14.5*	*6.1*	*12.1*	*8.8*	3.0	12.5	11.8	7.7
pH	pH units	*7.56*	*7.10*	*7.10*	*7.38*	*7.30*	7.21	7.49	7.28	7.22
Conductivity	uS/cm	*110.0*	*109.3*	*139.5*	*116.9*	*108.8*	104.4	118.3	107.5	105.1
Turbidity	NTU	*0.71*	*1.33*	*1.07*	*1.10*	*1.84*	2.22	0.41	3.53	1.19
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*39*	*40*	*47*	*40*	*42*	35.9	42.00	44.3	44.9
Total alkalinity, as $CaCO_3$	mg/L	*11*	*14*	*16*	*16*	*17*	15	18	17	17
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*11*	*14*	*16*	*16*	*17*	15	18	17	17
TDS	mg/L	*58*	*88*	*84*	*66*	*65*	35	90	55	80
TSS	mg/L	*1*	*2*	*2*	*1*	*1*	< 1	< 1	2	< 1
Total organic carbon	mg/L	*2.0*	*2.4*	*2.2*	*2.2*	*2.2*	2.3	2.2	2.3	2.0
Dissolved organic carbon	mg/L	*2.0*	*2.3*	*2.0*	*2.0*	*2.1*	2.0	2.2	2.1	2.1
Major Ions										
Chloride	mg/L	*15.7*	*13.7*	*13.8*	*11.8*	*12.3*	10.0	12.0	13.0	14.0
Silica	mg/L	*0.70*	*0.34*	*0.91*	*0.55*	*0.61*	1.10	0.50	0.35	0.49
Sulfate	mg/L	*12*	*15*	*22*	*16*	*19*	15	19	19	23
Nutrients										
Ammonia (NH_3)	mg/L	*0.06*	*0.06*	*0.07*	*0.06*	*0.07*	< 0.061	< 0.061	0.110	< 0.061
Ammonia Nitrogen	mg N/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.06*	< 0.050	< 0.050	0.090	< 0.050
Nitrate	mg N/L	*0.33*	*0.27*	*0.41*	*0.23*	*0.31*	0.34	0.28	0.29	0.34
Nitrite	mg N/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010
Total Kjeldahl nitrogen	mg N/L	*0.13*	*0.11*	*0.16*	*0.17*	*0.10*	0.11	0.10	< 0.10	< 0.10
Total phosphorus	mg P/L	*0.002*	*0.004*	*0.001*	*0.001*	*0.002*	< 0.0010	< 0.0010	0.0043	0.0015
Orthophosphate	mg P/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals										
Aluminum	mg/L	*0.0078*	*0.0390*	*0.0062*	*0.0114*	*0.0103*	0.0118	0.0032	0.0233	< 0.0030
Antimony	mg/L	*0.00063*	*0.00075*	*0.00053*	*0.00054*	*0.00063*	0.00052	0.00065	0.00074	0.00059
Arsenic	mg/L	*0.00076*	*0.00131*	*0.00058*	*0.00069*	*0.00084*	0.00093	0.00087	0.00091	0.00063
Barium	mg/L	*0.0160*	*0.0182*	*0.0168*	*0.0153*	*0.0149*	0.0144	0.0153	0.0154	0.0143
Beryllium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (total)	mg/L	*11.17*	*11.33*	*13.20*	*11.25*	*11.58*	10.1	11.7	12.1	12.4
Chromium	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	*0.00052*	*0.00077*	*0.00056*	*0.00051*	*0.00051*	< 0.00050	< 0.00050	0.00052	< 0.00050
Iron	mg/L	*0.02*	*0.11*	*0.02*	*0.03*	*0.04*	0.034	0.013	0.070	0.026
Lead	mg/L	*0.0002*	*0.0002*	*0.0004*	*0.0002*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium (total)	mg/L	*2.65*	*2.81*	*3.43*	*2.82*	*3.13*	2.60	3.07	3.43	3.42
Manganese	mg/L	*0.0016*	*0.0546*	*0.0019*	*0.0049*	*0.0034*	0.0029	0.0027	0.0064	0.0017
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	*0.0011*	*0.0022*	*0.0012*	*0.0011*	*0.0011*	0.0012	< 0.0010	< 0.0010	< 0.0010
Potassium (total)	mg/L	*2.50*	*2.73*	*2.66*	*2.45*	*2.55*	2.17	2.63	2.79	2.60
Selenium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Sodium (total)	mg/L	*1.72*	*2.10*	*2.28*	*2.07*	*2.26*	1.88	2.17	2.49	2.49
Strontium	mg/L	*0.0755*	*0.0796*	*0.0872*	*0.0769*	*0.0803*	0.0713	0.0829	0.0839	0.0829
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	*0.0050*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Dissolved Metals										
Aluminum	mg/L	*0.0037*	*0.0037*	*0.0030*	*0.0040*	*0.0041*	0.0046	< 0.0030	0.0053	0.0034
Antimony	mg/L	*0.0006*	*0.0007*	*0.0006*	*0.0006*	*0.0007*	0.00052	0.00066	0.00082	0.00067
Arsenic	mg/L	*0.00074*	*0.00064*	*0.00133*	*0.00066*	*0.00219*	0.00129	0.00477	0.00137	0.00132
Barium	mg/L	*0.0161*	*0.0160*	*0.0190*	*0.0156*	*0.0157*	0.0147	0.0150	0.0160	0.0172
Beryllium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	*0.00047*	*0.00085*	*0.00082*	*0.00090*	*0.00184*	0.00089	0.00264	0.00079	0.00304
Iron	mg/L	*0.0083*	*0.0057*	*0.0059*	*0.0104*	*0.0084*	0.0111	0.0056	0.0078	0.0092
Lead	mg/L	*0.0002*	*0.0002*	*0.0002*	*0.0002*	*0.0002*	< 0.00020	< 0.00020	0.00022	< 0.00020
Lithium	mg/L	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L	*0.0012*	*0.0015*	*0.0022*	*0.0024*	*0.0019*	0.0021	0.0024	0.0015	0.0017
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	*0.0011*	*0.0010*	*0.0015*	*0.0013*	*0.0013*	0.0013	0.0019	< 0.0010	0.0011
Selenium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	0.00021	< 0.00010	< 0.00010
Strontium	mg/L	*0.0757*	*0.0753*	*0.0978*	*0.0814*	*0.0875*	0.0712	0.0827	0.0964	0.0997
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	*0.0050*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-34 Whale Tail Dike Seepage 2025 Water Quality Monitoring (ST-WT-17)[§]

ST-WT-17	Unit	*Annual Average*					1/5/2025	2/2/2025	3/3/2025	4/7/2025	5/13/2025	6/8/2025	7/13/2025	8/4/2025	9/1/2025	10/20/2025	11/5/2025	12/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***												
Field Measured																		
Temperature	°C	*3.1*	*1.7*	*2.4*	*2.7*	*2.6*	0.0	0.2	-0.2	0.1	0.3	1.8	7.2	9.7	5.9	1.6	2.1	1.9
pH	pH units	*9.24*	*8.44*	*7.42*	*7.48*	*7.51*	8.39	7.03	7.51	7.37	7.28	7.15	7.45	7.62	7.61	8.04	7.48	7.23
Conductivity	uS/cm	*145.9*	*171.0*	*169.8*	*167.1*	*176.2*	202.4	213.5	206.5	210.7	196.3	196.8	202.8	147.1	135.7	130.5	126.4	145.7
Turbidity	NTU	*7.20*	*11.70*	*12.04*	*6.55*	*7.27*	8.25	15.00	6.17	6.22	5.51	8.91	4.31	7.62	2.74	4.18	14.10	4.21
Conventional Parameters																		
Hardness, as $CaCO_3$	mg/L	*57*	*63*	*63*	*61*	*75*	76.3	77.7	81.7	84.8	83.0	76.2	75.6	70.8	67.6	65.6	64.9	72.9
Total alkalinity, as $CaCO_3$	mg/L	*37*	*37*	*35*	*36*	*36*	35	37	40	38	40	38	36	34	34	31	32	33
TDS	mg/L	*93*	*101*	*115*	*108*	*123*	120	120	125	120	120	150	110	155	130	95	85	140
TSS	mg/L	*14*	*13*	*11*	*6*	*7*	8	23	5	6	6	8	4	1	1	1	16	5
Major Ions																		
Chloride	mg/L	*14*	*14*	*15*	*14*	*20*	20	20	21	22	23	20	18	17	18	16	18	21
Fluoride	mg/L	*0.11*	*0.11*	*0.10*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.10
Sulfate	mg/L	*12*	*17*	*24*	*23*	*33*	32	36	34	35	38	33	33	33	31	30	32	33
Nutrients																		
Ammonia (NH_3)	mg/L	*0.06*	*0.06*	*0.07*	*0.07*	*0.06*	0.080	< 0.061	< 0.061	< 0.061	< 0.061	< 0.061	< 0.061	< 0.061	< 0.061	0.067	0.073	< 0.061
Ammonia Nitrogen	mg N/L	*0.051*	*0.051*	*0.057*	*0.055*	*0.053*	0.066	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.055	0.060	< 0.050
Nitrate	mg N/L	*0.34*	*0.35*	*0.39*	*0.33*	*0.51*	0.57	0.61	0.72	0.61	0.64	0.56	0.45	0.46	0.36	0.35	0.36	0.43
Nitrite	mg N/L	*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total phosphorus	mg P/L	*0.013*	*0.013*	*0.008*	*0.004*	*0.003*	0.0049	< 0.0010	< 0.0010	0.0024	0.0025	0.0021	0.0014	0.0028	< 0.0010	< 0.0010	0.0130	0.0042
Total Metals																		
Aluminum	mg/L	*0.1630*	*0.3170*	*0.1730*	*0.0630*	*0.0733*	0.0790	0.2200	0.0471	0.0690	0.0641	0.0763	0.0261	0.0282	0.0186	0.0235	0.1910	0.0365
Arsenic	mg/L	*0.0076*	*0.0079*	*0.0051*	*0.0052*	*0.0047*	0.00604	0.00475	0.00476	0.00473	0.00432	0.00589	0.00461	0.00418	0.00359	0.00429	0.00477	0.00494
Barium	mg/L	*0.0261*	*0.0310*	*0.0327*	*0.0292*	*0.0375*	0.0347	0.0378	0.0392	0.0439	0.0431	0.0425	0.0402	0.0366	0.0327	0.0304	0.0340	0.0348
Cadmium	mg/L	*0.000013*	*0.000014*	*0.000016*	*0.000013*	*0.000019*	0.000021	< 0.000010	0.000015	0.000019	0.000013	0.000018	0.000018	0.000022	0.000046	0.000019	0.000015	0.000014
Chromium	mg/L	*0.003*	*0.008*	*0.003*	*0.001*	*0.001*	< 0.0010	0.0013	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0019	< 0.0010
Copper	mg/L	*0.002*	*0.002*	*0.001*	*0.001*	*0.001*	0.00112	0.00136	0.00140	0.00118	0.00111	0.00108	0.00141	0.00104	0.00089	0.00103	0.00124	0.00090
Iron	mg/L	*0.33*	*0.70*	*0.90*	*0.70*	*0.80*	0.995	1.240	0.949	1.090	0.931	0.802	0.609	0.556	0.455	0.448	0.836	0.704
Lead	mg/L	*0.0003*	*0.0004*	*0.0003*	*0.0002*	*0.0002*	< 0.00020	0.00029	< 0.00020	< 0.00020	0.00058	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00021	< 0.00020
Manganese	mg/L	*0.091*	*0.109*	*0.157*	*0.150*	*0.203*	0.200	0.205	0.238	0.268	0.277	0.232	0.176	0.160	0.135	0.140	0.188	0.213
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0020*	*0.0020*	*0.0017*	*0.0015*	*0.0014*	0.0015	0.0014	0.0014	0.0013	0.0013	0.0014	0.0015	0.0015	0.0013	0.0014	0.0014	0.0016
Nickel	mg/L	*0.0019*	*0.0033*	*0.0027*	*0.0011*	*0.0013*	0.0011	0.0014	< 0.0010	0.0011	0.0012	0.0015	0.0014	0.0013	0.0012	0.0010	0.0010	0.0018
Selenium	mg/L	*0.00025*	*0.00012*	*0.00010*	*0.00010*	*0.00010*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silver	mg/L	*0.00003*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.00003*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	0.000010	< 0.000010	< 0.000010	< 0.000010	0.000010	< 0.000010	0.000010	< 0.000010	0.000013	< 0.000010	< 0.000010
Zinc	mg/L	*0.005*	*0.006*	*0.006*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-35 Whale Tail WRSF Ponding 2025 Water Quality Monitoring (ST-WT-30)§

ST-WT-30	Unit	*Annual Average*					6/15/2025	7/6/2025	8/3/2025	9/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*7.7*	*6.5*	*7.1*	*9.0*	*9.0*	8.2	9.2	12.4	6.1
pH	pH units	*7.35*	*7.03*	*7.17*	*7.66*	*7.32*	7.20	7.10	7.34	7.64
Conductivity	uS/cm	*172.5*	*163.0*	*246.8*	*209.9*	*198.5*	107.5	235	260.9	190.4
Turbidity	NTU	*8.70*	*8.50*	*5.71*	*6.27*	*2.11*	2.05	3.11	1.98	1.31
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*70*	*76*	*91*	*80*	*93*	40.3	95.2	131.0	104.0
Total alkalinity, as $CaCO_3$	mg/L	*33*	*45*	*35*	*35*	*45*	33	45	49	52
TDS	mg/L	*113*	*121*	*157*	*159*	*156*	50	145	235	195
TSS	mg/L	*3*	*4*	*3*	*5*	*2*	4	1	2	2
Major Ions										
Chloride	mg/L	*4.2*	*3.8*	*2.5*	*1.8*	*1.6*	< 1.0	1.2	1.7	2.3
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10
Sulfate	mg/L	*32*	*35*	*60*	*53*	*56*	11	55	89	68
Nutrients										
Ammonia (NH_3)	mg/L	*0.19*	*0.09*	*0.08*	*0.06*	*0.06*	0.068	< 0.061	< 0.061	< 0.061
Ammonia Nitrogen	mg N/L	*0.153*	*0.075*	*0.065*	*0.053*	*0.052*	0.056	< 0.050	< 0.050	< 0.050
Nitrate	mg N/L	*2.71*	*1.60*	*5.03*	*3.59*	*2.34*	0.54	2.34	3.66	2.81
Nitrite	mg N/L	*0.029*	*0.019*	*0.019*	*0.015*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals										
Aluminum	mg/L	*0.1980*	*0.2614*	*0.1247*	*0.1661*	*0.0596*	0.1020	0.0605	0.0547	0.0210
Arsenic	mg/L	*0.0115*	*0.0113*	*0.0048*	*0.0106*	*0.0197*	0.00716	0.01990	0.03810	0.01380
Barium	mg/L	*0.0441*	*0.0442*	*0.0429*	*0.0365*	*0.0395*	0.0209	0.0455	0.0511	0.0404
Cadmium	mg/L	*0.000016*	*0.000017*	*0.000013*	*0.000011*	*0.000010*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.0057*	*0.0074*	*0.0031*	*0.0041*	*0.0018*	0.0026	0.0020	0.0016	< 0.0010
Copper	mg/L	*0.00204*	*0.00212*	*0.00137*	*0.00139*	*0.00149*	0.00146	0.00184	0.00141	0.00125
Iron	mg/L	*0.388*	*0.548*	*0.222*	*0.286*	*0.100*	0.161	0.099	0.083	0.056
Lead	mg/L	*0.00047*	*0.00049*	*0.00031*	*0.00031*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Manganese	mg/L	*0.117*	*0.124*	*0.068*	*0.032*	*0.006*	0.0103	0.0081	0.0035	0.0033
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.001*	*0.001*	*0.001*	*0.002*	*0.003*	< 0.0010	0.0022	0.0053	0.0019
Nickel	mg/L	*0.0125*	*0.0102*	*0.0076*	*0.0051*	*0.0044*	0.0044	0.0056	0.0044	0.0032
Selenium	mg/L	*0.00119*	*0.00067*	*0.00119*	*0.00090*	*0.00094*	0.00030	0.00121	0.00129	0.00097
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.000022*	*0.000019*	*0.000015*	*0.000016*	*0.000015*	0.000011	0.000018	0.000019	0.000010
Zinc	mg/L	*0.0055*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-36 Whale Tail WRSF Ponding 2025 Water Quality Monitoring (ST-WT-31)§

ST-WT-31	Unit	*Annual Average*					6/8/2025	7/6/2025	8/3/2025	9/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*6.7*	*6.7*	*5.4*	*8.2*	*6.7*	0.9	8.7	12.1	5.0
pH	pH units	*7.33*	*7.14*	*7.22*	*7.59*	*7.23*	7.24	7.29	7.05	7.34
Conductivity	uS/cm	*163.0*	*181.9*	*220.3*	*246.8*	*198.0*	29.6	140.8	301.8	319.6
Turbidity	NTU	*11.00*	*69.40*	*4.28*	*5.19*	*3.08*	5.17	3.26	1.67	2.22
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*64*	*73*	*82*	*94*	*100*	11.0	49.6	157.0	181.0
Total alkalinity, as $CaCO_3$	mg/L	*30*	*1*	*36*	*35*	*42*	12	37	58	62
TDS	mg/L	*104*	*121*	*157*	*174*	*183*	< 10	90	290	340
TSS	mg/L	*6*	*4*	*5*	*3*	*1*	2	< 1	< 1	1
Major Ions										
Chloride	mg/L	*3.8*	*2.9*	*2.0*	*1.6*	*1.4*	< 1.0	1.2	1.3	1.9
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10
Sulfate	mg/L	*31*	*33*	*55*	*65*	*77*	1.1	26.0	120.0	160.0
Nutrients										
Ammonia (NH_3)	mg/L	*0.12*	*0.07*	*0.09*	*0.06*	*0.06*	< 0.061	< 0.061	< 0.061	< 0.061
Ammonia Nitrogen	mg N/L	*0.096*	*0.057*	*0.077*	*0.050*	*0.050*	< 0.050	< 0.050	< 0.050	< 0.050
Nitrate	mg N/L	*2.68*	*1.92*	*4.13*	*4.91*	*2.90*	< 0.10	0.75	3.84	6.91
Nitrite	mg N/L	*0.015*	*0.022*	*0.014*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals										
Aluminum	mg/L	*0.2896*	*0.1576*	*0.1021*	*0.1283*	*0.0586*	0.1040	0.0737	0.0289	0.0277
Arsenic	mg/L	*0.0132*	*0.1580*	*0.0205*	*0.0196*	*0.0643*	0.0143	0.0556	0.0814	0.1060
Barium	mg/L	*0.0371*	*0.4040*	*0.0392*	*0.0382*	*0.0343*	0.0068	0.0216	0.0545	0.0542
Cadmium	mg/L	*0.000021*	*0.000029*	*0.000016*	*0.000013*	*0.000010*	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.0076*	*0.0043*	*0.0028*	*0.0032*	*0.0019*	0.0031	0.0024	0.0010	0.0010
Copper	mg/L	*0.00221*	*0.00204*	*0.00160*	*0.00165*	*0.00154*	0.00151	0.00223	0.00137	0.00104
Iron	mg/L	*0.464*	*0.262*	*0.185*	*0.214*	*0.096*	0.168	0.121	0.039	0.056
Lead	mg/L	*0.00049*	*0.00039*	*0.00028*	*0.00026*	*0.00022*	0.00027	< 0.00020	< 0.00020	< 0.00020
Manganese	mg/L	*0.035*	*0.026*	*0.052*	*0.018*	*0.007*	0.0196	0.0040	0.0028	0.0021
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0015*	*0.0019*	*0.0018*	*0.0019*	*0.0038*	< 0.0010	0.0024	0.0062	0.0057
Nickel	mg/L	*0.0105*	*0.0103*	*0.0102*	*0.0084*	*0.0059*	0.0033	0.0058	0.0073	0.0072
Selenium	mg/L	*0.00094*	*0.00073*	*0.00086*	*0.00110*	*0.00087*	< 0.00010	0.00048	0.0014	0.0015
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.000020*	*0.000024*	*0.000020*	*0.000021*	*0.000017*	< 0.000010	0.000018	0.000023	0.000016
Zinc	mg/L	*0.0050*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-37 Whale Tail WRSF Ponding 2025 Water Quality Monitoring (ST-WT-32)§

ST-WT-32	Unit	*Annual Average*					6/15/2025	7/6/2025	8/3/2025	9/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*6.9*	*6.5*	*4.9*	*3.5*	*5.6*	7.2	3.2	6.6	5.3
pH	pH units	*7.16*	*7.21*	*7.09*	*7.25*	*7.07*	6.79	7.00	6.90	7.59
Conductivity	uS/cm	*128.9*	*113.2*	*41.1*	*138.4*	*207.5*	45.8	257.0	298.1	229.1
Turbidity	NTU	*14.00*	*7.50*	*5.91*	*11.10*	*2.44*	3.40	1.71	2.54	2.11
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*51*	*42*	*60*	*55*	*102*	16.5	99.9	171.0	121.0
Total alkalinity, as $CaCO_3$	mg/L	*22*	*21*	*17*	*20*	*38*	12	35	51	53
TDS	mg/L	*86*	*50*	*120*	*105*	*179*	20	155	315	225
TSS	mg/L	*9*	*4*	*4*	*17*	*3*	2	1	7	3
Major Ions										
Chloride	mg/L	*4.0*	*1.8*	*1.2*	*1.4*	*1.3*	< 1.0	1.4	1.3	1.3
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10
Sulfate	mg/L	*27*	*30*	*44*	*39*	*71*	5.2	73.0	120.0	86.0
Nutrients										
Ammonia (NH_3)	mg/L	*0.11*	*0.06*	*0.10*	*0.12*	*0.08*	0.120	< 0.061	< 0.061	< 0.061
Ammonia Nitrogen	mg N/L	*0.093*	*0.052*	*0.084*	*0.095*	*0.063*	0.100	< 0.050	< 0.050	< 0.050
Nitrate	mg N/L	*1.45*	*1.59*	*2.85*	*2.93*	*3.90*	0.20	3.70	6.89	4.81
Nitrite	mg N/L	*0.018*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals										
Aluminum	mg/L	*0.3610*	*0.1403*	*0.1647*	*0.4057*	*0.0530*	0.1180	0.0230	0.0542	0.0166
Arsenic	mg/L	*0.0084*	*0.0105*	*0.0084*	*0.0102*	*0.0334*	0.00934	0.01720	0.03060	0.07640
Barium	mg/L	*0.0420*	*0.0298*	*0.0406*	*0.0383*	*0.0526*	0.0161	0.0558	0.0858	0.0527
Cadmium	mg/L	*0.000016*	*0.000010*	*0.000011*	*0.000016*	*0.000011*	0.000013	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.0097*	*0.0040*	*0.0032*	*0.0123*	*0.0014*	0.0018	< 0.0010	0.0019	< 0.0010
Copper	mg/L	*0.00145*	*0.00105*	*0.00104*	*0.00097*	*0.00135*	0.00129	0.00057	0.00280	0.00074
Iron	mg/L	*0.594*	*0.236*	*0.264*	*0.721*	*0.068*	0.111	0.031	0.109	0.021
Lead	mg/L	*0.00061*	*0.00039*	*0.00034*	*0.00061*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Manganese	mg/L	*0.066*	*0.020*	*0.025*	*0.032*	*0.007*	0.0206	0.0030	0.0033	0.0029
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.00125*	*0.00168*	*0.00130*	*0.00160*	*0.00590*	< 0.0010	0.0047	0.0098	0.0081
Nickel	mg/L	*0.0107*	*0.0056*	*0.0057*	*0.0063*	*0.0033*	0.0054	0.0028	0.0028	0.0023
Selenium	mg/L	*0.00085*	*0.00105*	*0.00094*	*0.00086*	*0.00120*	< 0.00010	0.00124	0.00189	0.00156
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.000020*	*0.000013*	*0.000012*	*0.000016*	*0.000012*	0.000015	< 0.000010	0.000013	0.000010
Zinc	mg/L	*0.006*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-38 Whale Tail WRSF Ponding 2025 Water Quality Monitoring (ST-WT-33)§

ST-WT-33	Unit	*Annual Average*					6/15/2025	7/6/2025	8/3/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***			
Field Measured									
Temperature	°C	*5.2*	*7.0*	*8.7*	*8.6*	*9.3*	8.8	9.2	9.8
pH	pH units	*7.12*	*7.29*	*7.36*	*7.92*	*7.40*	7.51	7.87	6.83
Conductivity	uS/cm	*207.5*	*196.3*	*192.6*	*177.1*	*277.2*	97.2	283.0	451.3
Turbidity	NTU	*9.00*	*40.90*	*38.90*	*123.65*	*29.40*	24.50	31.30	32.40
Conventional Parameters									
Hardness, as $CaCO_3$	mg/L	*88*	*79*	*73*	*68*	*159*	41.6	117.0	317.0
Total alkalinity, as $CaCO_3$	mg/L	*42*	*62*	*59*	*54*	*50*	41	62	47
TDS	mg/L	*135*	*131*	*133*	*110*	*272*	55	200	560
TSS	mg/L	*6*	*47*	*18*	*50*	*16*	13	11	23
Major Ions									
Chloride	mg/L	*6.2*	*3.4*	*1.4*	*1.0*	*2.1*	< 1.0	1.5	3.9
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10
Sulfate	mg/L	*42*	*25*	*29*	*28*	*112*	8.3	67.0	260.0
Nutrients									
Ammonia (NH_3)	mg/L	*0.14*	*0.10*	*0.15*	*0.06*	*0.07*	0.074	< 0.061	0.076
Ammonia Nitrogen	mg N/L	*0.114*	*0.083*	*0.123*	*0.050*	*0.058*	0.061	< 0.050	0.062
Nitrate	mg N/L	*1.80*	*0.65*	*1.03*	*0.72*	*3.09*	0.21	1.35	7.71
Nitrite	mg N/L	*0.055*	*0.031*	*0.019*	*0.011*	*0.016*	0.011	0.013	0.024
Total Metals									
Aluminum	mg/L	*0.3038*	*0.9886*	*0.7100*	*1.1790*	*0.5887*	0.552	0.633	0.581
Arsenic	mg/L	*0.0148*	*0.0340*	*0.0358*	*0.0604*	*0.0659*	0.038	0.103	0.0567
Barium	mg/L	*0.0597*	*0.0606*	*0.0471*	*0.0476*	*0.0509*	0.0288	0.0593	0.0647
Cadmium	mg/L	*0.000028*	*0.000015*	*0.000014*	*0.000014*	*0.000025*	< 0.000010	0.000014	0.000052
Chromium	mg/L	*0.0086*	*0.0370*	*0.0176*	*0.0347*	*0.0146*	0.0143	0.0210	0.0086
Copper	mg/L	*0.00189*	*0.00309*	*0.00207*	*0.00247*	*0.00263*	0.00316	0.00261	0.00211
Iron	mg/L	*0.586*	*1.975*	*1.290*	*2.087*	*1.028*	0.884	1.040	1.160
Lead	mg/L	*0.00058*	*0.00104*	*0.00161*	*0.00205*	*0.00153*	0.00103	0.00186	0.0017
Manganese	mg/L	*0.294*	*0.326*	*0.138*	*0.076*	*0.071*	0.0426	0.0310	0.139
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.00135*	*0.00248*	*0.00300*	*0.00355*	*0.00333*	< 0.0010	0.0036	0.0054
Nickel	mg/L	*0.0149*	*0.0189*	*0.0110*	*0.0151*	*0.0138*	0.0094	0.0117	0.0204
Selenium	mg/L	*0.00065*	*0.00057*	*0.00050*	*0.00064*	*0.00085*	0.00014	0.00072	0.00170
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.000031*	*0.000036*	*0.000035*	*0.000046*	*0.000045*	0.000027	0.000047	0.000062
Zinc	mg/L	*0.005*	*0.006*	*0.005*	*0.006*	*0.005*	< 0.0050	< 0.0050	0.0054

Table 2-39 Whale Tail 2025 IVR WRSF Sump Water Quality Monitoring (ST-WT-28)§

ST-WT-28	Unit	*Annual Average*				6/15/2025	7/6/2025	8/3/2025	9/1/2025
Parameter		***2022***	***2023***	***2024***	***2025***				
Field Measured									
Temperature	°C	*8.7*	*7.2*	*7.2*	*6.9*	1.3	9.4	11.7	5.3
pH	pH units	*7.05*	*7.30*	*7.15*	*7.57*	7.51	7.46	7.71	7.60
Conductivity	uS/cm	*296*	*963*	*1744*	*691*	325	835	575	1027
Turbidity	NTU	*8.60*	*24.20*	*18.05*	*9.05*	14.50	5.32	5.57	10.80
Conventional Parameters									
Hardness, as $CaCO_3$	mg/L	*1067*	*341*	*745*	*344*	134	327	270	646
Total alkalinity, as $CaCO_3$	mg/L	*54*	*54*	*53*	*69*	56	76	73	70
TDS	mg/L	*1323*	*674*	*1298*	*636*	270	640	505	1130
TSS	mg/L	*10*	*17*	*15*	*6*	8	4	5	8
Major Ions									
Chloride	mg/L	*712*	*246*	*524*	*128*	33	120	57	300
Fluoride	mg/L	*0.11*	*0.10*	*0.11*	*0.13*	< 0.10	0.15	0.12	0.13
Sulfate	mg/L	*99*	*83*	*100*	*142*	57	120	170	220
Nutrients									
Ammonia (NH_3)	mg/L	*0.45*	*0.28*	*0.39*	*0.10*	0.078	< 0.061	0.098	0.180
Ammonia Nitrogen	mg N/L	*0.370*	*0.230*	*0.320*	*0.086*	0.064	< 0.050	0.081	0.150
Nitrate	mg N/L	*6.76*	*5.05*	*5.11*	*7.03*	2.27	5.54	7.12	13.20
Nitrite	mg N/L	*0.063*	*0.037*	*0.055*	*0.022*	0.013	0.026	0.024	0.023
Total Metals									
Aluminum	mg/L	*0.2039*	*0.4800*	*0.2390*	*0.1433*	0.2580	0.0987	0.0834	0.1330
Arsenic	mg/L	*0.06270*	*0.16054*	*0.28000*	*0.78875*	0.746	0.815	1.100	0.494
Barium	mg/L	*0.2194*	*0.0972*	*0.1602*	*0.0737*	0.0506	0.0810	0.0678	0.0952
Cadmium	mg/L	*0.00024*	*0.00012*	*0.00046*	*0.00010*	0.000040	0.000098	0.000062	0.000211
Chromium	mg/L	*0.0075*	*0.0154*	*0.0069*	*0.0040*	0.0064	0.0030	0.0023	0.0041
Copper	mg/L	*0.00160*	*0.00156*	*0.00142*	*0.00092*	0.00087	0.00092	< 0.0010	0.00088
Iron	mg/L	*0.42*	*0.85*	*0.59*	*0.26*	0.437	0.202	0.163	0.256
Lead	mg/L	*0.00080*	*0.00080*	*0.00081*	*0.00033*	0.00041	0.00023	< 0.00040	0.00027
Manganese	mg/L	*2.038*	*0.679*	*1.677*	*0.740*	0.211	0.604	0.315	1.830
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0037*	*0.0017*	*0.0041*	*0.0062*	0.0034	0.0074	0.0080	0.0059
Nickel	mg/L	*0.0606*	*0.0470*	*0.0765*	*0.0473*	0.0278	0.0446	0.0463	0.0703
Selenium	mg/L	*0.00059*	*0.00053*	*0.00093*	*0.00106*	0.00049	0.00097	0.00133	0.00145
Silver	mg/L	*0.00005*	*0.00002*	*0.00004*	*0.00003*	< 0.000020	< 0.000020	< 0.000040	< 0.000020
Thallium	mg/L	*0.000138*	*0.000084*	*0.000087*	*0.000072*	0.000049	0.000084	0.000071	0.000082
Zinc	mg/L	*0.0120*	*0.0053*	*0.0092*	*0.0063*	< 0.0050	< 0.0050	< 0.010	< 0.0050

Table 2-40 Whale Tail 2025 IVR WRSF Ponding Water Quality Monitoring (ST-WT-34)[§]

ST-WT-34	Unit	*Annual Average*					6/8/2025	7/6/2025	8/3/2025	9/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*6.5*	*5.1*	*5.3*	*9.2*	*7.3*	3.0	9.3	11.4	5.3
pH	pH units	*6.94*	*6.96*	*7.35*	*7.53*	*7.51*	7.52	7.64	7.60	7.28
Conductivity	uS/cm	*1309.0*	*1195.0*	*1020.5*	*763.7*	*483.2*	213.3	531.0	55.4	1133.0
Turbidity	NTU	*8.39*	*142.90*	*142.53*	*63.03*	*20.20*	39.40	14.40	8.00	19.00
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*523*	*736*	*413*	*284*	*323*	83.5	210.0	267.0	731.0
Total alkalinity, as $CaCO_3$	mg/L	*51*	*74*	*89*	*63*	*79*	65	79	91	80
TDS	mg/L	*878*	*1156*	*647*	*688*	*575*	135	365	480	1320
TSS	mg/L	*4*	*106*	*86*	*51*	*13*	24	9	5	13
Major Ions										
Chloride	mg/L	*310*	*463*	*219*	*149*	*135*	14	60	77	390
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10
Sulfate	mg/L	*79*	*56*	*75*	*68*	*104*	23	73	120	200
Nutrients										
Ammonia (NH_3)	mg/L	*1.50*	*1.80*	*0.90*	*0.30*	*0.13*	0.100	0.086	0.130	0.190
Ammonia Nitrogen	mg N/L	*1.200*	*1.500*	*0.700*	*0.300*	*0.101*	0.084	0.071	0.100	0.150
Nitrate	mg N/L	*2.73*	*1.69*	*2.55*	*2.34*	*4.32*	0.55	2.63	3.98	10.10
Nitrite	mg N/L	*0.257*	*0.059*	*0.035*	*0.030*	*0.019*	0.011	0.017	0.021	0.025
Total Metals										
Aluminum	mg/L	*0.0587*	*2.4748*	*3.3060*	*1.1926*	*0.3473*	0.769	0.300	0.117	0.203
Arsenic	mg/L	*0.0228*	*0.0290*	*0.0653*	*0.0324*	*0.0488*	0.0468	0.0229	0.0951	0.0303
Barium	mg/L	*0.272*	*0.337*	*0.138*	*0.100*	*0.086*	0.0587	0.0802	0.0761	0.1300
Cadmium	mg/L	*0.000051*	*0.000179*	*0.000110*	*0.000047*	*0.000031*	0.000011	0.000025	0.000025	0.000063
Chromium	mg/L	*0.0017*	*0.0214*	*0.0654*	*0.0233*	*0.0093*	0.0214	0.0062	0.0033	0.0061
Copper	mg/L	*0.00091*	*0.00603*	*0.00797*	*0.00279*	*0.00151*	0.00145	0.00162	0.00136	0.00160
Iron	mg/L	*1.094*	*7.362*	*6.193*	*2.515*	*0.737*	1.430	0.647	0.290	0.579
Lead	mg/L	*0.00022*	*0.00348*	*0.00280*	*0.00153*	*0.00044*	0.00077	0.00040	< 0.00020	< 0.00040
Manganese	mg/L	*1.14*	*2.99*	*1.89*	*0.64*	*0.22*	0.097	0.154	0.269	0.346
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00003*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0021*	*0.0027*	*0.0028*	*0.0019*	*0.0043*	0.0027	0.0045	0.0056	0.0045
Nickel	mg/L	*0.0229*	*0.0327*	*0.0401*	*0.0168*	*0.0107*	0.0118	0.0085	0.0095	0.0131
Selenium	mg/L	*0.00053*	*0.00037*	*0.00041*	*0.00036*	*0.00057*	< 0.00010	0.00042	0.00057	0.00118
Silver	mg/L	*0.00002*	*0.00005*	*0.00003*	*0.00002*	*0.00003*	< 0.000020	< 0.000020	< 0.000020	< 0.000040
Thallium	mg/L	*0.000043*	*0.000062*	*0.000076*	*0.000037*	*0.000030*	0.000033	0.000027	0.000023	0.000036
Zinc	mg/L	*0.005*	*0.016*	*0.015*	*0.006*	*0.006*	< 0.0050	< 0.0050	< 0.0050	< 0.010

Table 2-41 Whale Tail 2025 IVR WRSF Ponding Water Quality Monitoring (ST-WT-35)[§]

ST-WT-35	Unit	*Annual Average*					6/8/2025	7/6/2025	8/3/2025	9/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*6.2*	*5.2*	*7.9*	*7.3*	*8.5*	1.2	11.0	15.0	6.7
pH	pH units	*7.35*	*7.22*	*7.26*	*7.60*	*7.65*	7.58	7.59	7.77	7.66
Conductivity	uS/cm	*236.0*	*106.0*	*217.8*	*319.5*	*224.9*	128.0	332.0	392.0	47.6
Turbidity	NTU	*2.80*	*24.20*	*20.58*	*43.96*	*33.78*	107.00	7.83	4.40	15.90
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*92*	*46*	*91*	*119*	*165*	69.2	138.0	178.0	274.0
Total alkalinity, as $CaCO_3$	mg/L	*50*	*40*	*46*	*49*	*56*	45	58	62	57
TDS	mg/L	*138*	*65*	*163*	*271*	*265*	75	215	305	465
TSS	mg/L	*3*	*25*	*19*	*38*	*22*	64	3	2	18
Major Ions										
Chloride	mg/L	*10*	*3*	*4*	*34*	*20*	5.2	12.0	23.0	39.0
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10
Sulfate	mg/L	*51*	*8*	*46*	*46*	*89*	14	67	93	180
Nutrients										
Ammonia (NH_3)	mg/L	*0.40*	*0.07*	*0.20*	*0.10*	*0.09*	0.160	< 0.061	< 0.061	< 0.061
Ammonia Nitrogen	mg N/L	*0.300*	*0.060*	*0.100*	*0.100*	*0.070*	0.130	< 0.050	< 0.050	< 0.050
Nitrate	mg N/L	*0.54*	*0.33*	*3.82*	*3.29*	*6.16*	0.57	3.78	6.70	13.60
Nitrite	mg N/L	*0.065*	*0.014*	*0.027*	*0.028*	*0.021*	0.015	0.014	0.033	0.020
Total Metals										
Aluminum	mg/L	*0.0815*	*0.8008*	*0.5190*	*0.7774*	*0.9157*	3.1100	0.1870	0.0816	0.2840
Arsenic	mg/L	*0.1365*	*0.0357*	*0.0229*	*0.0174*	*0.0306*	0.0511	0.0135	0.0232	0.0347
Barium	mg/L	*0.072*	*0.039*	*0.057*	*0.053*	*0.076*	0.0747	0.0778	0.0748	0.0784
Cadmium	mg/L	*0.000020*	*0.000021*	*0.000036*	*0.000051*	*0.000025*	0.000020	0.000019	0.000039	0.000020
Chromium	mg/L	*0.0019*	*0.0291*	*0.0142*	*0.0161*	*0.0287*	0.1000	0.0041	0.0022	0.0084
Copper	mg/L	*0.00099*	*0.00184*	*0.00152*	*0.00194*	*0.00186*	0.00399	0.00097	0.00132	0.00114
Iron	mg/L	*0.306*	*2.107*	*0.933*	*1.293*	*1.538*	5.210	0.307	0.135	0.498
Lead	mg/L	*0.00031*	*0.00080*	*0.00060*	*0.00101*	*0.00078*	0.00236	0.00034	< 0.00020	< 0.00020
Manganese	mg/L	*0.41*	*0.67*	*0.48*	*0.49*	*0.17*	0.166	0.195	0.221	0.102
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0019*	*0.0013*	*0.0017*	*0.0019*	*0.0028*	0.0013	0.0043	0.0033	0.0022
Nickel	mg/L	*0.0177*	*0.0158*	*0.0128*	*0.0096*	*0.0142*	0.0363	0.0062	0.0057	0.0086
Selenium	mg/L	*0.00038*	*0.00016*	*0.00052*	*0.00042*	*0.00089*	0.00022	0.00082	0.00096	0.00155
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.000031*	*0.000026*	*0.000030*	*0.000033*	*0.000043*	0.000074	0.000036	0.000033	0.000029
Zinc	mg/L	*0.005*	*0.009*	*0.005*	*0.005*	*0.006*	0.0082	< 0.0050	< 0.0050	< 0.0050

Table 2-42 Whale Tail 2025 IVR WRSF Ponding Water Quality Monitoring (ST-WT-36)[§]

ST-WT-36	Unit	*Annual Average*					6/8/2025	7/6/2025	8/3/2025	9/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***				
Field Measured										
Temperature	°C	*6.6*	*6.3*	*6.2*	*5.5*	*5.7*	0.6	6.7	10.8	4.5
pH	pH units	*7.45*	*7.21*	*7.32*	*7.60*	*7.57*	7.80	7.62	7.35	7.49
Conductivity	uS/cm	*209.0*	*176.0*	*261.5*	*283.0*	*277.3*	93.6	284.00	376.9	354.5
Turbidity	NTU	*6.90*	*28.00*	*9.80*	*22.80*	*12.37*	27.10	12.90	5.63	3.84
Conventional Parameters										
Hardness, as $CaCO_3$	mg/L	*82*	*74*	*98*	*100*	*127*	38.1	94.7	187.0	190.0
Total alkalinity, as $CaCO_3$	mg/L	*46*	*48*	*57*	*70*	*70*	39	75	70	95
TDS	mg/L	*148*	*104*	*177*	*153*	*236*	60	190	345	350
TSS	mg/L	*4*	*18*	*5*	*46*	*9*	11	16	5	3
Major Ions										
Chloride	mg/L	*7.0*	*5.0*	*5.0*	*5.0*	*6.2*	1.2	5.1	7.5	11.0
Fluoride	mg/L	*0.10*	*0.10*	*0.10*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10
Sulfate	mg/L	*27*	*28*	*61*	*48*	*86*	9.9	56.0	130.0	150.0
Nutrients										
Ammonia (NH_3)	mg/L	*0.60*	*0.10*	*0.20*	*0.10*	*0.10*	< 0.061	0.120	0.140	< 0.061
Ammonia Nitrogen	mg N/L	*0.500*	*0.080*	*0.200*	*0.100*	*0.077*	< 0.050	0.098	0.110	< 0.050
Nitrate	mg N/L	*4.25*	*0.93*	*1.67*	*1.22*	*2.72*	0.28	1.26	6.38	2.94
Nitrite	mg N/L	*0.070*	*0.017*	*0.017*	*0.017*	*0.018*	0.017	0.018	0.025	0.011
Total Metals										
Aluminum	mg/L	*0.2100*	*0.7500*	*0.1730*	*1.0420*	*0.2420*	0.3990	0.3860	0.1230	0.0599
Arsenic	mg/L	*0.1355*	*0.1460*	*0.2811*	*0.2715*	*0.1970*	0.292	0.129	0.156	0.211
Barium	mg/L	*0.067*	*0.063*	*0.066*	*0.055*	*0.060*	0.0203	0.0601	0.0856	0.0745
Cadmium	mg/L	*0.000010*	*0.000011*	*0.000020*	*0.000020*	*0.000019*	0.000011	0.000017	0.000027	0.000022
Chromium	mg/L	*0.0059*	*0.0264*	*0.0056*	*0.0230*	*0.0077*	0.0107	0.0140	0.0041	0.0018
Copper	mg/L	*0.00123*	*0.00146*	*0.00127*	*0.00181*	*0.00135*	0.00096	0.00094	0.00090	0.00258
Iron	mg/L	*0.327*	*1.317*	*0.438*	*1.945*	*0.481*	0.755	0.698	0.223	0.247
Lead	mg/L	*0.00030*	*0.00081*	*0.00039*	*0.00092*	*0.00139*	0.00064	0.00043	0.00023	0.00425
Manganese	mg/L	*0.0300*	*0.0679*	*0.3393*	*0.1643*	*0.6361*	0.0862	0.8950	0.8570	0.7060
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0013*	*0.0013*	*0.0020*	*0.0020*	*0.0032*	0.0011	0.0032	0.0052	0.0034
Nickel	mg/L	*0.0112*	*0.0200*	*0.0185*	*0.0200*	*0.0209*	0.0141	0.0221	0.0248	0.0226
Selenium	mg/L	*0.00058*	*0.00027*	*0.00041*	*0.00034*	*0.00040*	0.00012	0.00026	0.00080	0.00042
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00003*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.000021*	*0.000033*	*0.000032*	*0.000041*	*0.000045*	0.000019	0.000038	0.000063	0.000058
Zinc	mg/L	*0.005*	*0.005*	*0.005*	*0.007*	*0.007*	< 0.0050	< 0.0050	< 0.0050	0.0134

Table 2-43 Whale Tail 2025 IVR Diversion Ditch Water Quality Monitoring (ST-WT-37)[§]

ST-WT-37	Unit	Max Grab	Monthly Mean	*Annual Average*					6/8/2025	7/13/2025	8/3/2025	9/1/2025	10/6/2025
Parameter				***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured													
Temperature	°C			*6.6*	*5.0*	*5.5*	*7.7*	*6.2*	3.1	8.7	13.2	4.9	1.1
pH	pH units			*7.81*	*7.36*	*7.57*	*7.52*	*7.44*	7.28	7.31	7.39	7.63	7.58
Conductivity	uS/cm			*41.9*	*53.0*	*92.3*	*94.8*	*70.4*	27.5	80.4	65.4	89.5	89.1
Turbidity	NTU			*3.79*	*7.49*	*2.15*	*3.38*	*1.62*	1.33	0.78	0.91	3.84	1.24
Conventional Parameters													
TSS	mg/L	30	15	*2*	*5*	*3*	*3*	*1*	< 1	2	1	< 1	< 1
Major Ions													
Sulfate	mg/L			*3*	*4*	*10*	*10*	*11*	4.0	8.9	8.8	13.0	21.0
Nutrients													
Ammonia Nitrogen	mg N/L			*0.070*	*0.050*	*0.050*	*0.050*	*0.053*	< 0.050	< 0.050	< 0.050	0.063	< 0.050
Un-Ionized Ammonia, calculated	mg N/L			*0.00102*	*0.00061*	*0.00062*	*0.00073*	*0.00061*	< 0.00061	< 0.00061	< 0.00061	< 0.00061	< 0.00061
Total Metals													
Aluminum	mg/L			*0.1110*	*0.2170*	*0.0520*	*0.0670*	*0.0235*	0.0310	0.0107	0.0202	0.0397	0.0159
Arsenic	mg/L			*0.00231*	*0.00509*	*0.00232*	*0.00207*	*0.00149*	0.00093	0.00150	0.00183	0.00170	0.00148
Copper	mg/L			*0.0010*	*0.0011*	*0.0012*	*0.0012*	*0.0009*	0.00072	0.00096	0.00094	0.00102	0.00080
Lead	mg/L			*0.00020*	*0.00025*	*0.00023*	*0.00020*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Nickel	mg/L			*0.0025*	*0.0043*	*0.0031*	*0.0027*	*0.0021*	0.0016	0.0020	0.0020	0.0030	0.0021
Zinc	mg/L			*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Table 2-44 Whale Tail / IVR Attenuation Pond 2025 Discharge to Kangislulik Lake (ST-WT-2a)[§]

ST-WT-2A	Unit	Max Grab	Monthly Mean	*Annual Average*					7/7/2025	7/14/2025	7/21/2025	7/28/2025	8/4/2025	8/11/2025	8/18/2025	8/25/2025	9/1/2025	9/8/2025	9/15/2025	9/22/2025
Parameter				*2021*	*2022*	*2023*	*2024*	*2025*												
Field Measured																				
Temperature	°C			*7.1*	*7.7*	*9.1*	*9.7*	*11.0*	11.7	11.3	12.7	10.3	14.0	10.8	13.7	15.0	8.9	7.0	8.7	8.4
pH	pH units	6.0 - 9.5	6.0 - 9.5	*7.11*	*6.96*	*7.38*	*7.45*	*7.41*	7.27	7.35	7.64	7.76	7.38	7.31	7.51	7.52	7.42	7.36	7.43	6.99
Conductivity	uS/cm			*315.8*	*379.1*	*439.5*	*487.1*	*459.3*	466.0	408.0	430.0	585.0	473.7	462.4	482.0	441.2	493.6	428.2	413.2	427.8
Turbidity	NTU			*1.10*	*1.10*	*1.32*	*2.06*	*1.30*	1.18	1.39	0.94	1.05	1.96	1.72	1.29	1.55	1.31	0.60	1.23	1.41
Conventional Parameters																				
Hardness, as $CaCO_3$	mg/L			*121*	*136*	*146*	*167*	*198*	149	148	163	216	212	193	232	190	229	226	181	240
Total alkalinity, as $CaCO_3$	mg/L			*36*	*39*	*36*	*49*	*48*	50	56	48	52	45	44	49	47	48	45	47	46
Carbonate, as $CaCO_3$	mg/L			*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L			*36*	*39*	*36*	*49*	*48*	50	55	48	52	45	44	49	47	48	45	47	46
TDS	mg/L			*232*	*234*	*324*	*355*	*366*	270	245	295	370	445	395	380	380	415	370	420	410
TSS	mg/L	30	15	*1*	*2*	*1*	*3*	*1*	1	1	2	2	1	2	1	1	1	1	1	2
Total organic carbon	mg/L			*3.4*	*2.4*	*2.1*	*2.5*	*2.1*	1.7	2.1	2.0	2.2	2.0	2.2	2.5	1.9	2.0	2.1	2.0	2.3
Dissolved organic carbon	mg/L			*3.1*	*2.2*	*2.1*	*2.2*	*2.0*	1.7	2.0	1.9	2.2	2.1	2.1	2.0	1.9	2.3	2.0	2.0	2.3
Major Ions																				
Chloride	mg/L			*37*	*43*	*60*	*61*	*74*	43	43	47	81	81	82	98	76	83	80	84	91
Silica	mg/L			*5.5*	*4.6*	*4.3*	*4.2*	*4.4*	5.1	4.2	4.1	5.0	4.9	3.9	4.1	4.7	4.5	4.1	4.3	4.1
Sulfate	mg/L			*55*	*63*	*58*	*73*	*89*	87	71	74	87	100	100	94	88	90	98	87	89
Nutrients																				
Ammonia (NH_3)	mg/L			*1.07*	*0.49*	*0.78*	*0.38*	*0.28*	0.760	0.077	0.130	0.920	0.370	0.120	0.250	0.260	0.130	0.110	0.120	0.100
Ammonia Nitrogen	mg N/L	32	16	*0.890*	*0.410*	*0.630*	*0.310*	*0.230*	0.620	0.063	0.100	0.760	0.300	0.097	0.210	0.220	0.110	0.093	0.100	0.086
Nitrate	mg N/L			*2.36*	*3.47*	*2.79*	*3.56*	*3.92*	4.85	4.62	3.90	4.04	4.06	3.86	3.69	3.00	4.17	4.20	3.44	3.24
Nitrite	mg N/L			*0.185*	*0.075*	*0.069*	*0.065*	*0.052*	0.158	0.037	0.033	0.122	0.082	0.012	0.039	0.052	0.046	0.012	0.012	0.022
Total Kjeldahl nitrogen	mg N/L			*1.14*	*0.61*	*0.79*	*0.59*	*0.36*	0.63	< 0.20	0.18	0.72	0.53	0.12	0.25	0.31	0.43	0.48	0.23	0.18
Total phosphorus	mg P/L	0.6	0.3	*0.003*	*0.002*	*0.002*	*0.006*	*0.001*	< 0.0010	0.0018	0.0016	0.0018	< 0.0010	0.0014	0.0018	< 0.0010	0.0013	0.0012	< 0.0010	0.0015
Orthophosphate	mg P/L			*0.010*	*0.010*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals																				
Aluminum	mg/L	1	0.5	*0.0110*	*0.0100*	*0.0080*	*0.0430*	*0.0100*	0.0152	0.0046	0.0108	0.0289	0.0085	0.0103	0.0071	0.0105	0.0059	< 0.0030	0.0080	0.0072
Antimony	mg/L			*0.0085*	*0.0072*	*0.0040*	*0.0081*	*0.0095*	0.01060	0.01110	0.01050	0.01200	0.01090	0.00922	0.00986	0.00822	0.00949	0.00801	0.00605	0.00795
Arsenic	mg/L	0.2	0.1	*0.00847*	*0.00963*	*0.00663*	*0.04963*	*0.01640*	0.01270	0.01050	0.01820	0.03030	0.01490	0.02580	0.02060	0.01740	0.01100	0.00978	0.01100	0.01460
Barium	mg/L			*0.0479*	*0.0515*	*0.0514*	*0.0554*	*0.0574*	0.0542	0.0529	0.0493	0.0576	0.0614	0.0552	0.0622	0.058	0.0639	0.0578	0.0516	0.0645
Beryllium	mg/L			*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L			*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	0.058	< 0.050	< 0.050	0.058	0.057	< 0.050	< 0.050	< 0.050	0.051	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	0.004	0.002	*0.000017*	*0.000012*	*0.000014*	*0.000016*	*0.000011*	< 0.000010	< 0.000010	< 0.000010	0.000018	0.000014	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	0.000013
Calcium (total)	mg/L			*33.6*	*39.0*	*44.8*	*49.1*	*58.4*	42.0	42.2	47.1	64.2	62.3	56.3	68.3	56.0	68.6	66.6	54.1	73.0
Chromium	mg/L	0.04	0.02	*0.0010*	*0.0010*	*0.0010*	*0.0016*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	0.2	0.1	*0.00174*	*0.00099*	*0.00104*	*0.00103*	*0.00100*	0.00139	0.00081	0.00084	0.00317	0.00074	0.00076	0.00075	0.00072	0.00070	0.00062	0.00073	0.00074
Iron	mg/L	2	1	*0.181*	*0.262*	*0.268*	*0.519*	*0.239*	0.248	0.197	0.231	0.325	0.194	0.411	0.249	0.264	0.164	0.182	0.187	0.211
Lead	mg/L	0.10	0.05	*0.00021*	*0.00020*	*0.00020*	*0.00021*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L			*0.0062*	*0.0072*	*0.0103*	*0.0091*	*0.0121*	0.0073	0.0070	0.0084	0.0141	0.0136	0.0121	0.0147	0.0120	0.0144	0.0140	0.0110	0.0163
Magnesium (total)	mg/L			*9.14*	*9.48*	*8.15*	*10.67*	*12.74*	10.8	10.4	10.9	13.6	13.6	12.7	14.9	12.2	14.1	14.5	11.2	14.0
Manganese	mg/L			*0.247*	*0.177*	*0.170*	*0.094*	*0.071*	0.1250	0.0461	0.0489	0.1290	0.0907	0.0345	0.0611	0.0900	0.0587	0.0357	0.0580	0.0711
Mercury	mg/L	0.008	0.004	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L			*0.0029*	*0.0059*	*0.0083*	*0.0072*	*0.0062*	0.0051	0.0056	0.0068	0.0075	0.0059	0.0054	0.0057	0.0065	0.0068	0.0064	0.0060	0.0067
Nickel	mg/L	0.50	0.25	*0.0185*	*0.0213*	*0.0123*	*0.0142*	*0.0096*	0.0166	0.0085	0.0077	0.0165	0.0125	0.0067	0.0075	0.0075	0.0085	0.0060	0.0075	0.0092
Potassium (total)	mg/L			*8.65*	*9.47*	*8.05*	*10.22*	*12.62*	11.5	12.4	11.9	14.8	13.7	12.9	13.7	11.2	13.4	13.2	10.3	12.4
Selenium	mg/L			*0.00040*	*0.00026*	*0.00020*	*0.00022*	*0.00025*	0.00024	0.00019	0.00023	0.00034	0.00028	0.00025	0.00026	0.00020	0.00029	0.00027	0.00021	0.00025
Sodium (total)	mg/L			*6.72*	*11.32*	*7.59*	*8.85*	*12.09*	12.5	11.2	11.2	12.9	12.4	11.6	13.9	11.6	13.2	12.8	10.2	11.6

ST-WT-2A	Unit	Max Grab	Monthly Mean	*Annual Average*					7/7/2025	7/14/2025	7/21/2025	7/28/2025	8/4/2025	8/11/2025	8/18/2025	8/25/2025	9/1/2025	9/8/2025	9/15/2025	9/22/2025
Parameter				***2021***	***2022***	***2023***	***2024***	***2025***												
Strontium	mg/L			*0.274*	*0.341*	*0.442*	*0.490*	*0.610*	0.428	0.422	0.436	0.735	0.662	0.566	0.710	0.571	0.691	0.654	0.613	0.833
Thallium	mg/L			*0.000015*	*0.000021*	*0.000019*	*0.000021*	*0.000023*	0.000025	0.000024	0.000023	0.000028	0.000026	0.000023	0.000024	0.000026	0.000021	0.000018	0.000015	0.000020
Tin	mg/L			*0.0050*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L			*0.0050*	*0.0050*	*0.0050*	*0.0061*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L			*0.00116*	*0.00122*	*0.00117*	*0.00162*	*0.00205*	0.00085	0.00120	0.00228	0.00292	0.00183	0.00219	0.00230	0.00197	0.00240	0.00225	0.00196	0.00246
Vanadium	mg/L			*0.0050*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.2	0.1	*0.0081*	*0.0055*	*0.0075*	*0.0080*	*0.0062*	0.0140	< 0.0050	< 0.0050	0.0059	0.0086	0.0053	< 0.0050	0.0051	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Dissolved Metals																				
Aluminum	mg/L			*0.0042*	*0.0038*	*0.0038*	*0.0032*	*0.0033*	< 0.0030	< 0.0030	0.0035	< 0.0030	< 0.0030	< 0.0030	0.0041	0.0045	0.0031	< 0.0030	< 0.0030	< 0.0030
Antimony	mg/L			*0.00843*	*0.00749*	*0.00430*	*0.00860*	*0.00929*	0.01110	0.01030	0.00973	0.01180	0.01010	0.00975	0.00928	0.00921	0.00896	0.00784	0.00636	0.00706
Arsenic	mg/L			*0.00622*	*0.02057*	*0.00170*	*0.01179*	*0.00386*	0.00291	0.00213	0.00596	0.00764	0.00405	0.00292	0.00461	0.00436	0.00301	0.00210	0.00277	0.00389
Barium	mg/L			*0.04832*	*0.05180*	*0.05565*	*0.05876*	*0.05778*	0.0572	0.0497	0.0483	0.0569	0.0632	0.0624	0.0611	0.0614	0.0615	0.0573	0.0543	0.0600
Beryllium	mg/L			*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L			*0.05*	*0.05*	*0.05*	*0.05*	*0.06*	0.060	< 0.050	< 0.050	0.059	0.101	0.057	0.054	< 0.050	0.051	< 0.050	< 0.050	< 0.050
Cadmium	mg/L			*0.000018*	*0.000011*	*0.000015*	*0.000013*	*0.000012*	0.000011	< 0.000010	< 0.000010	0.000014	0.000019	< 0.000010	< 0.000010	0.000010	0.000013	< 0.000010	0.000011	< 0.000010
Chromium	mg/L			*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L			*0.00169*	*0.00120*	*0.00496*	*0.00140*	*0.00100*	0.00116	0.00165	0.00092	0.00148	0.00098	0.00084	0.00080	0.00092	0.00097	0.00081	0.00078	0.00073
Iron	mg/L			*0.085*	*0.017*	*0.015*	*0.021*	*0.009*	0.0127	0.0118	0.0103	0.0137	0.0092	0.0073	0.0083	0.0057	0.0101	0.0068	0.0063	0.0080
Lead	mg/L			*0.00021*	*0.00020*	*0.00020*	*0.00020*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L			*0.0059*	*0.0074*	*0.0117*	*0.0098*	*0.0125*	0.0072	0.0068	0.0081	0.0145	0.0159	0.0132	0.0145	0.0115	0.0139	0.0132	0.0147	0.0163
Manganese	mg/L			*0.2490*	*0.1758*	*0.1852*	*0.0991*	*0.0713*	0.1280	0.0434	0.0457	0.1210	0.0949	0.0375	0.0613	0.0986	0.0549	0.0379	0.0650	0.0668
Mercury	mg/L			*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L			*0.0029*	*0.0059*	*0.0088*	*0.0077*	*0.0062*	0.0053	0.0053	0.0062	0.0073	0.0060	0.0056	0.0066	0.0070	0.0065	0.0062	0.0064	0.0059
Nickel	mg/L			*0.0186*	*0.0240*	*0.0132*	*0.0147*	*0.0094*	0.0168	0.0081	0.0074	0.0151	0.0117	0.0070	0.0077	0.0092	0.0082	0.0064	0.0066	0.0083
Selenium	mg/L			*0.00041*	*0.00025*	*0.00021*	*0.00023*	*0.00025*	0.00022	0.00020	0.00021	0.00029	0.00029	0.00028	0.00025	0.00023	0.00028	0.00026	0.00023	0.00022
Strontium	mg/L			*0.2770*	*0.3462*	*0.4824*	*0.5196*	*0.6075*	0.444	0.377	0.436	0.707	0.698	0.699	0.681	0.570	0.684	0.655	0.621	0.718
Thallium	mg/L			*0.000016*	*0.000021*	*0.000019*	*0.000022*	*0.000024*	0.000028	0.000025	0.000022	0.000028	0.000028	0.000025	0.000025	0.000025	0.000026	0.000018	0.000018	0.000017
Tin	mg/L			*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L			*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L			*0.0011*	*0.0012*	*0.0012*	*0.0016*	*0.0021*	0.00092	0.00099	0.00199	0.00277	0.00173	0.00210	0.00247	0.00209	0.00215	0.00258	0.00240	0.00249
Vanadium	mg/L			*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L			*0.0093*	*0.0059*	*0.0092*	*0.0154*	*0.0060*	0.0083	0.0075	< 0.0050	< 0.0050	0.0082	< 0.0050	< 0.0050	< 0.0050	0.0064	0.0050	< 0.0050	0.0061
Volatile Organics																				
Petroleum Hydrocarbons F (C10-C50)	mg/L	6	3	*0.5*	*0.2*	*0.2*	*0.2*	*0.2*	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

Table 2-45 Whale Tail / IVR Attenuation Pond 2025 Discharge to Whale Tail South (ST-WT-24)[§]

ST-WT-24	Unit	Max Grab	Monthly Mean	*Annual Average*					4/14/2025	4/21/2025	4/28/2025	5/5/2025	5/12/2025	5/19/2025	5/27/2025	6/2/2025	6/9/2025	6/16/2025	6/23/2025
Parameter				*2021*	*2022*	*2023*	*2024*	*2025*											
Field Measured																			
Temperature	°C			*1.4*	*1.1*	*0.8*	*1.8*	*2.2*	0.4	0.5	0.8	0.5	0.3	0.5	2.2	0.9	1.6	1.8	8.2
pH	pH units	6.0 - 9.5	6.0 - 9.5	*7.01*	*7.04*	*7.02*	*7.30*	*7.30*	6.88	7.02	7.26	7.15	7.13	7.58	7.15	7.18	7.13	7.08	7.42
Conductivity	uS/cm			*308.0*	*430.0*	*371.5*	*393.9*	*357.2*	381.0	401.0	328.0	370.0	298.0	379.0	288.0	262.0	280.0	326.0	322.0
Turbidity	NTU			*0.80*	*1.40*	*1.30*	*1.46*	*2.16*	0.83	1.09	1.66	1.62	0.69	1.35	1.69	1.26	2.17	2.25	5.42
Conventional Parameters																			
Hardness, as $CaCO_3$	mg/L			*116*	*163*	*139*	*145*	*172*	142.0	153.0	132.0	133.0	117.0	150.0	109.0	97.7	94.7	124.0	119.0
Total alkalinity, as $CaCO_3$	mg/L			*41*	*57*	*50*	*46*	*53*	64	68	57	54	53	57	38	36	40	44	51
Carbonate, as $CaCO_3$	mg/L			*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L			*40*	*56*	*50*	*46*	*53*	64	68	57	53	53	57	38	35	40	44	50
TDS	mg/L			*196*	*272*	*230*	*319*	*295*	240	265	220	250	230	265	195	165	155	285	240
TSS	mg/L	30	15	*2*	*3*	*1*	*2*	*2*	1	1	5	1	1	1	2	2	3	3	2
Total organic carbon	mg/L			*2.6*	*2.9*	*2.6*	*2.3*	*2.3*	2.4	2.6	2.5	2.1	2.0	2.3	3.3	2.4	1.6	1.7	2.0
Dissolved organic carbon	mg/L			*2.5*	*2.6*	*2.4*	*2.1*	*2.1*	2.3	2.6	2.0	2.0	2.0	2.1	3.0	2.0	1.6	1.6	1.9
Major Ions																			
Chloride	mg/L			*34*	*51*	*44*	*51*	*59*	43	50	40	41	35	46	36	34	31	33	34
Silica	mg/L			*7.2*	*9.4*	*6.9*	*6.0*	*6.5*	9.0	10.0	8.7	8.4	8.2	8.0	3.4	3.2	3.6	4.5	4.6
Sulfate	mg/L			*51*	*66*	*56*	*74*	*80*	65	75	61	64	55	76	50	49	49	62	57
Nutrients																			
Ammonia (NH_3)	mg/L			*0.83*	*1.18*	*2.44*	*0.89*	*0.39*	0.38	0.60	0.52	0.62	0.28	0.54	0.34	0.40	0.41	0.37	0.24
Ammonia Nitrogen	mg N/L	32	16	*0.730*	*0.980*	*1.990*	*0.720*	*0.317*	0.31	0.49	0.43	0.51	0.23	0.44	0.28	0.33	0.34	0.30	0.20
Nitrate	mg N/L			*1.65*	*2.55*	*3.48*	*3.27*	*2.37*	1.16	1.62	1.36	1.69	1.03	2.67	1.13	1.40	1.53	2.68	2.80
Nitrite	mg N/L			*0.064*	*0.054*	*0.085*	*0.054*	*0.034*	0.015	< 0.010	< 0.010	< 0.010	0.014	0.021	0.034	0.027	0.030	0.044	0.035
Total Kjeldahl nitrogen	mg N/L			*0.90*	*1.19*	*2.39*	*0.87*	*0.45*	0.46	0.77	0.71	0.74	0.41	0.47	0.59	0.36	0.46	0.36	0.32
Total phosphorus	mg P/L	0.6	0.3	*0.009*	*0.003*	*0.002*	*0.002*	*0.005*	< 0.0010	0.0016	< 0.0020	< 0.0010	< 0.050	< 0.010	0.0011	< 0.0010	< 0.0010	< 0.0010	0.0047
Orthophosphate	mg P/L			*0.010*	*0.020*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals																			
Aluminum	mg/L	1	0.5	*0.0149*	*0.0179*	*0.0094*	*0.0092*	*0.0139*	0.0060	0.0050	0.0266	0.0062	0.0050	0.0093	0.0199	0.0220	0.0244	0.0249	0.0216
Antimony	mg/L			*0.00414*	*0.01579*	*0.00215*	*0.00650*	*0.00653*	0.00326	0.00388	0.00385	0.00670	0.00582	0.01070	0.00424	0.00504	0.00603	0.00959	0.00938
Arsenic	mg/L	0.2	0.1	*0.00373*	*0.05714*	*0.00273*	*0.01843*	*0.01596*	0.00496	0.00685	0.03350	0.01130	0.01340	0.01110	0.00431	0.01310	0.01170	0.02130	0.01910
Barium	mg/L			*0.04894*	*0.06541*	*0.06034*	*0.04881*	*0.05740*	0.0608	0.0625	0.0555	0.0567	0.0529	0.0556	0.0390	0.0341	0.0362	0.0460	0.0438
Beryllium	mg/L			*0.0002*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L			*0.044*	*0.050*	*0.050*	*0.050*	*0.051*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.059	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	0.004	0.002	*0.000018*	*0.000014*	*0.000013*	*0.000014*	*0.000015*	0.000012	0.000012	< 0.000010	0.000011	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	0.000018	0.000027
Calcium (total)	mg/L			*32.4*	*47.0*	*41.9*	*42.6*	*50.8*	41.2	44.6	38.8	39.2	33.7	42.6	33.3	29.3	28.4	35.7	34.2
Chromium	mg/L	0.04	0.02	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	0.2	0.1	*0.0014*	*0.0017*	*0.0011*	*0.0011*	*0.0009*	0.00065	0.00079	0.00097	0.00079	< 0.0005	< 0.00050	< 0.00050	0.00052	0.00270	0.00054	0.00091
Iron	mg/L	2	1	*0.231*	*0.285*	*0.256*	*0.343*	*0.386*	0.290	0.392	1.560	0.385	0.220	0.207	0.246	0.312	0.357	0.406	0.221
Lead	mg/L	0.10	0.05	*0.000196*	*0.000203*	*0.000200*	*0.000216*	*0.000200*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L			*0.0048*	*0.0079*	*0.0074*	*0.0075*	*0.0087*	0.0050	0.0052	0.0047	0.0051	0.0040	0.0056	0.0075	0.0066	0.0056	0.0057	0.0053
Magnesium (total)	mg/L			*8.1*	*11.2*	*8.5*	*9.5*	*11.0*	9.45	10.20	8.51	8.49	7.88	10.70	6.39	5.98	5.76	8.52	8.15
Manganese	mg/L			*0.261*	*0.294*	*0.297*	*0.189*	*0.192*	0.2770	0.2900	0.2690	0.2590	0.2170	0.2300	0.1790	0.1860	0.2010	0.2030	0.1100
Mercury	mg/L	0.008	0.004	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L			*0.0037*	*0.0072*	*0.0170*	*0.0068*	*0.0056*	0.0055	0.0079	0.0073	0.0068	0.0048	0.0081	0.0026	0.0025	0.0033	0.0051	0.0056
Nickel	mg/L	0.50	0.25	*0.0157*	*0.0541*	*0.0107*	*0.0175*	*0.0144*	0.0095	0.0154	0.0146	0.0255	0.0120	0.0265	0.0091	0.0125	0.0138	0.0212	0.0139
Potassium (total)	mg/L			*6.77*	*9.61*	*7.88*	*8.39*	*9.57*	7.25	7.41	6.35	7.14	5.79	9.20	9.54	7.67	7.64	9.68	9.24
Selenium	mg/L			*0.00033*	*0.00022*	*0.00015*	*0.00022*	*0.00018*	< 0.00010	< 0.00010	< 0.00010	0.00010	< 0.00010	0.00018	< 0.00010	0.00016	0.00016	0.00018	0.00016
Sodium (total)	mg/L			*6.47*	*10.95*	*7.48*	*8.28*	*10.58*	8.63	10.90	9.29	8.28	7.84	11.10	6.57	6.23	6.71	8.32	7.18

ST-WT-24	Unit	Max Grab	Monthly Mean	*Annual Average*					4/14/2025	4/21/2025	4/28/2025	5/5/2025	5/12/2025	5/19/2025	5/27/2025	6/2/2025	6/9/2025	6/16/2025	6/23/2025
Parameter				***2021***	***2022***	***2023***	***2024***	***2025***											
Strontium	mg/L			*0.254*	*0.392*	*0.353*	*0.407*	*0.492*	0.382	0.382	0.326	0.336	0.275	0.415	0.306	0.263	0.286	0.352	0.320
Thallium	mg/L			*0.000038*	*0.000017*	*0.000015*	*0.000017*	*0.000016*	0.000019	0.000018	0.000016	0.000018	0.000011	0.000010	< 0.000010	0.000011	0.000013	0.000017	0.000022
Tin	mg/L			*0.004*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L			*0.006*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L			*0.00117*	*0.00261*	*0.00144*	*0.00144*	*0.00154*	0.00080	0.00113	0.00093	0.00091	0.00074	0.00175	0.00043	0.00055	0.00074	0.00097	0.00168
Vanadium	mg/L			*0.00440*	*0.00500*	*0.00500*	*0.00500*	*0.00500*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.2	0.1	*0.0073*	*0.0070*	*0.0073*	*0.0077*	*0.0055*	0.0059	< 0.0050	0.0057	0.0065	< 0.0050	< 0.0050	0.0062	0.0056	< 0.0050	0.0050	< 0.0050
Dissolved Metals																			
Aluminum	mg/L			*0.0034*	*0.0030*	*0.0030*	*0.0033*	*0.0031*	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	0.0032
Antimony	mg/L			*0.00405*	*0.01547*	*0.00231*	*0.00702*	*0.00640*	0.00332	0.00401	0.00358	0.00677	0.00592	0.01080	0.00413	0.00524	0.00612	0.00903	0.00952
Arsenic	mg/L			*0.00226*	*0.04635*	*0.00123*	*0.00231*	*0.00269*	0.00262	0.00087	0.00097	0.00251	0.00182	0.00280	0.00293	0.00800	0.00313	0.00327	0.00760
Barium	mg/L			*0.0486*	*0.0647*	*0.0625*	*0.0536*	*0.0568*	0.0609	0.0635	0.0562	0.0575	0.0541	0.0554	0.0374	0.0369	0.0376	0.0439	0.0440
Beryllium	mg/L			*0.0002*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L			*0.0436*	*0.0501*	*0.0500*	*0.0504*	*0.0518*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L			*0.000016*	*0.000013*	*0.000014*	*0.000015*	*0.000015*	0.000013	0.000011	< 0.000010	0.000010	< 0.000010	< 0.000010	< 0.000010	0.000016	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L			*0.0009*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L			*0.00132*	*0.00163*	*0.00114*	*0.00162*	*0.00165*	0.00094	0.00121	0.00078	0.00106	0.00064	0.00100	0.00153	0.00080	0.00103	0.00104	0.00081
Iron	mg/L			*0.0691*	*0.0471*	*0.0684*	*0.0492*	*0.0481*	0.0663	0.0315	0.0248	0.1810	0.0312	0.0374	0.0891	0.0859	0.0492	0.0525	0.0142
Lead	mg/L			*0.00020*	*0.00020*	*0.00020*	*0.00023*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L			*0.0047*	*0.0079*	*0.0078*	*0.0086*	*0.0087*	0.0051	0.0054	0.0048	0.0049	0.0041	0.0060	0.0071	0.0071	0.0058	0.0056	0.0051
Manganese	mg/L			*0.241*	*0.293*	*0.303*	*0.211*	*0.193*	0.2800	0.3080	0.2730	0.2710	0.2290	0.2350	0.1700	0.2070	0.2080	0.1960	0.1120
Mercury	mg/L			*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L			*0.0036*	*0.0070*	*0.0171*	*0.0073*	*0.0056*	0.0055	0.0087	0.0074	0.0070	0.0050	0.0080	0.0026	0.0028	0.0034	0.0051	0.0058
Nickel	mg/L			*0.0163*	*0.0535*	*0.0111*	*0.0187*	*0.0145*	0.0100	0.0158	0.0149	0.0260	0.0128	0.0277	0.0089	0.0129	0.0141	0.0206	0.0141
Selenium	mg/L			*0.00031*	*0.00021*	*0.00016*	*0.00023*	*0.00017*	< 0.00010	< 0.00010	< 0.00010	0.00013	< 0.00010	0.00018	0.00013	0.00016	0.00016	0.00018	0.00016
Strontium	mg/L			*0.251*	*0.389*	*0.367*	*0.443*	*0.490*	0.383	0.385	0.352	0.363	0.277	0.443	0.290	0.323	0.300	0.354	0.329
Thallium	mg/L			*0.000038*	*0.000015*	*0.000016*	*0.000018*	*0.000015*	0.000018	0.000020	0.000015	0.000019	0.000012	< 0.000010	< 0.000010	0.000013	0.000012	0.000014	0.000019
Tin	mg/L			*0.004*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.005	< 0.0050	< 0.0050
Titanium	mg/L			*0.006*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.005	< 0.0050	< 0.0050
Uranium	mg/L			*0.00104*	*0.00251*	*0.00144*	*0.00150*	*0.00148*	0.00082	0.00117	0.00085	0.00098	0.00076	0.00174	0.00039	0.00052	0.00072	0.00101	0.00179
Vanadium	mg/L			*0.0044*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.005	< 0.0050	< 0.0050
Zinc	mg/L			*0.0079*	*0.0065*	*0.0082*	*0.0150*	*0.0063*	0.0068	0.0052	< 0.0050	0.0065	< 0.0050	0.0053	0.0084	0.0051	0.0052	0.0056	< 0.0050
Volatile Organics																			
Petroleum Hydrocarbons F (C10-C50)	mg/L	6	3	*0.4*	*0.2*	*0.2*	*0.2*	*0.2*	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20

ST-WT-24	Unit	Max Grab	Monthly Mean	*Annual Average*					10/6/2025	10/13/2025	10/20/2025	10/27/2025	11/5/2025	11/8/2025	11/10/2025	11/17/2025	11/24/2025	12/1/2025	12/8/2025	12/29/2025
Parameter				*2021*	*2022*	*2023*	*2024*	*2025*												
Field Measured																				
Temperature	°C			*1.4*	*1.1*	*0.8*	*1.8*	*2.2*	4.6	4.9	2.6	3.9	1.1	2.2	3.4	2.1	1.7	2.8	1.3	1.7
pH	pH units	6.0 - 9.5	6.0 - 9.5	*7.01*	*7.04*	*7.02*	*7.30*	*7.30*	7.46	7.30	7.95	7.26	7.44	7.54	7.23	7.11	7.34	7.10	7.63	7.52
Conductivity	uS/cm			*308.0*	*430.0*	*371.5*	*393.9*	*357.2*	239.5	491.0	486.5	460.8	376.8	434.6	472.0	528.0	298.8	308.1	240.2	243.9
Turbidity	NTU			*0.80*	*1.40*	*1.30*	*1.46*	*2.16*	2.84	2.34	4.72	1.60	1.72	3.91	1.74	1.72	1.54	3.93	1.65	1.84
Conventional Parameters																				
Hardness, as $CaCO_3$	mg/L			*116*	*163*	*139*	*145*	*172*	231.0	259.0	254.0	271.0	226.0	237.0	249.0	273.0	157.0	139.0	145.0	148.0
Total alkalinity, as $CaCO_3$	mg/L			*41*	*57*	*50*	*46*	*53*	48	61	50	50	57	59	59	60	48	63	52	51
Carbonate, as $CaCO_3$	mg/L			*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L			*40*	*56*	*50*	*46*	*53*	48	61	50	50	57	59	59	60	48	63	52	51
TDS	mg/L			*196*	*272*	*230*	*319*	*295*	395	455	430	455	405	420	400	355	285	205	240	240
TSS	mg/L	30	15	*2*	*3*	*1*	*2*	*2*	2	2	2	2	1	2	2	2	< 1	2	1	2
Total organic carbon	mg/L			*2.6*	*2.9*	*2.6*	*2.3*	*2.3*	2.3	2.2	2.3	2.3	2.1	2.5	2.5	2.6	2.3	2.3	1.8	1.8
Dissolved organic carbon	mg/L			*2.5*	*2.6*	*2.4*	*2.1*	*2.1*	2.1	2.1	2.2	2.4	2.2	2.3	2.3	2.4	1.9	2.1	1.6	1.9
Major Ions																				
Chloride	mg/L			*34*	*51*	*44*	*51*	*59*	97	97	95	99	86	89	93	94	57	49	42	43
Silica	mg/L			*7.2*	*9.4*	*6.9*	*6.0*	*6.5*	4.1	5.2	5.3	5.4	6.6	6.6	6.9	6.7	7.5	7.3	8.1	8.9
Sulfate	mg/L			*51*	*66*	*56*	*74*	*80*	110	120	120	120	100	120	120	120	73	69	58	56
Nutrients																				
Ammonia (NH_3)	mg/L			*0.83*	*1.18*	*2.44*	*0.89*	*0.39*	0.24	0.40	0.34	0.25	0.34	0.26	0.27	0.23	0.87	0.32	0.40	0.24
Ammonia Nitrogen	mg N/L	32	16	*0.730*	*0.980*	*1.990*	*0.720*	*0.317*	0.20	0.33	0.28	0.21	0.28	0.21	0.22	0.19	0.72	0.26	0.33	0.20
Nitrate	mg N/L			*1.65*	*2.55*	*3.48*	*3.27*	*2.37*	3.77	3.90	3.95	4.29	3.19	3.43	3.48	4.07	1.93	1.97	1.01	0.45
Nitrite	mg N/L			*0.064*	*0.054*	*0.085*	*0.054*	*0.034*	0.039	0.071	0.061	0.048	0.062	0.051	0.049	0.037	0.057	0.018	0.027	< 0.010
Total Kjeldahl nitrogen	mg N/L			*0.90*	*1.19*	*2.39*	*0.87*	*0.45*	0.35	0.50	0.27	0.45	0.35	0.19	0.32	0.37	0.77	0.36	0.55	0.31
Total phosphorus	mg P/L	0.6	0.3	*0.009*	*0.003*	*0.002*	*0.002*	*0.005*	0.0017	0.0013	0.0055	0.0010	0.0017	0.0017	0.0022	0.0061	0.0018	< 0.0010	0.0046	< 0.0010
Orthophosphate	mg P/L			*0.010*	*0.020*	*0.010*	*0.010*	*0.010*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals																				
Aluminum	mg/L	1	0.5	*0.0149*	*0.0179*	*0.0094*	*0.0092*	*0.0139*	0.0163	0.0049	0.0092	0.0036	0.0079	0.0161	0.0128	0.0081	0.0120	0.0116	0.0403	0.0066
Antimony	mg/L			*0.00414*	*0.01579*	*0.00215*	*0.00650*	*0.00653*	0.00839	0.00900	0.00854	0.00841	0.00773	0.00831	0.00899	0.00897	0.00431	0.00364	0.00301	0.00240
Arsenic	mg/L	0.2	0.1	*0.00373*	*0.05714*	*0.00273*	*0.01843*	*0.01596*	0.04660	0.01630	0.02860	0.01650	0.01250	0.01960	0.02270	0.02310	0.00864	0.00777	0.00906	0.00505
Barium	mg/L			*0.04894*	*0.06541*	*0.06034*	*0.04881*	*0.05740*	0.0595	0.0614	0.0603	0.0674	0.0647	0.0718	0.0733	0.0809	0.0588	0.0476	0.0618	0.0697
Beryllium	mg/L			*0.0002*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L			*0.044*	*0.050*	*0.050*	*0.050*	*0.051*	< 0.050	0.052	0.052	0.053	0.055	0.053	0.053	0.056	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	0.004	0.002	*0.000018*	*0.000014*	*0.000013*	*0.000014*	*0.000015*	0.000010	0.000018	0.000021	0.000026	0.000022	0.000024	0.000020	0.000018	0.000015	0.000013	0.000014	0.000011
Calcium (total)	mg/L			*32.4*	*47.0*	*41.9*	*42.6*	*50.8*	67.2	75.7	75.7	80.7	65.7	72.2	74.9	80.6	46.4	40.2	43.3	44.5
Chromium	mg/L	0.04	0.02	*0.0010*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0011	< 0.0010
Copper	mg/L	0.2	0.1	*0.0014*	*0.0017*	*0.0011*	*0.0011*	*0.0009*	0.00097	0.00078	0.00117	0.00085	0.00114	0.00070	0.00129	0.00098	0.00098	0.00069	0.00075	0.00057
Iron	mg/L	2	1	*0.231*	*0.285*	*0.256*	*0.343*	*0.386*	0.717	0.276	0.455	0.322	0.278	0.357	0.414	0.328	0.320	0.346	0.295	0.174
Lead	mg/L	0.10	0.05	*0.000196*	*0.000203*	*0.000200*	*0.000216*	*0.000200*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L			*0.0048*	*0.0079*	*0.0074*	*0.0075*	*0.0087*	0.0158	0.0172	0.0162	0.0171	0.0134	0.0124	0.0130	0.0136	0.0061	0.0057	0.0049	0.0043
Magnesium (total)	mg/L			*8.1*	*11.2*	*8.5*	*9.5*	*11.0*	15.40	16.80	15.80	16.90	15.00	13.80	15.10	17.50	9.88	9.33	8.85	9.02
Manganese	mg/L			*0.261*	*0.294*	*0.297*	*0.189*	*0.192*	0.0786	0.1220	0.1060	0.0902	0.1900	0.1310	0.1540	0.1250	0.2190	0.1810	0.2930	0.2960
Mercury	mg/L	0.008	0.004	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L			*0.0037*	*0.0072*	*0.0170*	*0.0068*	*0.0056*	0.0056	0.0058	0.0056	0.0055	0.0060	0.0056	0.0060	0.0059	0.0058	0.0041	0.0067	0.0065
Nickel	mg/L	0.50	0.25	*0.0157*	*0.0541*	*0.0107*	*0.0175*	*0.0144*	0.0134	0.0176	0.0159	0.0147	0.0171	0.0131	0.0157	0.0150	0.0106	0.0067	0.0094	0.0080
Potassium (total)	mg/L			*6.77*	*9.61*	*7.88*	*8.39*	*9.57*	12.80	13.90	13.80	14.10	12.00	12.40	12.30	14.40	8.14	7.01	6.82	5.44
Selenium	mg/L			*0.00033*	*0.00022*	*0.00015*	*0.00022*	*0.00018*	0.00028	0.00033	0.00029	0.00030	0.00024	0.00024	0.00025	0.00027	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Sodium (total)	mg/L			*6.47*	*10.95*	*7.48*	*8.28*	*10.58*	11.90	14.20	13.90	14.80	13.30	13.50	14.10	17.10	10.50	11.60	9.18	8.20

ST-WT-24	Unit	Max Grab	Monthly Mean	*Annual Average*					10/6/2025	10/13/2025	10/20/2025	10/27/2025	11/5/2025	11/8/2025	11/10/2025	11/17/2025	11/24/2025	12/1/2025	12/8/2025	12/29/2025
Parameter				*2021*	*2022*	*2023*	*2024*	*2025*												
Strontium	mg/L			*0.254*	*0.392*	*0.353*	*0.407*	*0.492*	0.787	0.810	0.785	0.809	0.684	0.768	0.734	0.832	0.410	0.366	0.380	0.306
Thallium	mg/L			*0.000038*	*0.000017*	*0.000015*	*0.000017*	*0.000016*	0.000016	0.000015	0.000019	0.000017	0.000016	0.000016	0.000017	0.000022	0.000015	0.000012	0.000015	0.000014
Tin	mg/L			*0.004*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L			*0.006*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L			*0.00117*	*0.00261*	*0.00144*	*0.00144*	*0.00154*	0.00231	0.00307	0.00309	0.00304	0.00235	0.00238	0.00269	0.00282	0.00092	0.00101	0.00067	0.00055
Vanadium	mg/L			*0.00440*	*0.00500*	*0.00500*	*0.00500*	*0.00500*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.2	0.1	*0.0073*	*0.0070*	*0.0073*	*0.0077*	*0.0055*	0.0073	0.0052	0.0052	0.0068	0.0061	< 0.0050	0.0052	< 0.0050	0.0059	< 0.0050	< 0.0050	0.0053
Dissolved Metals																				
Aluminum	mg/L			*0.0034*	*0.0030*	*0.0030*	*0.0033*	*0.0031*	< 0.0030	< 0.0030	0.0034	< 0.0030	0.0037	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Antimony	mg/L			*0.00405*	*0.01547*	*0.00231*	*0.00702*	*0.00640*	0.00782	0.00870	0.00853	0.00808	0.00732	0.00788	0.00829	0.00831	0.00457	0.00429	0.00282	0.00223
Arsenic	mg/L			*0.00226*	*0.04635*	*0.00123*	*0.00231*	*0.00269*	0.00323	0.00269	0.00284	0.00160	0.00219	0.00219	0.00227	0.00306	0.00101	0.00111	0.00186	0.00126
Barium	mg/L			*0.0486*	*0.0647*	*0.0625*	*0.0536*	*0.0568*	0.0537	0.0599	0.0651	0.0670	0.0626	0.0672	0.0707	0.0768	0.0618	0.0556	0.0572	0.0621
Beryllium	mg/L			*0.0002*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L			*0.0436*	*0.0501*	*0.0500*	*0.0504*	*0.0518*	< 0.050	< 0.050	0.055	0.053	0.057	0.059	0.061	0.056	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L			*0.000016*	*0.000013*	*0.000014*	*0.000015*	*0.000015*	0.000018	0.000031	0.000021	0.000019	0.000020	0.000019	0.000017	0.000021	0.000016	0.000013	0.000014	0.000011
Chromium	mg/L			*0.0009*	*0.0010*	*0.0010*	*0.0010*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L			*0.00132*	*0.00163*	*0.00114*	*0.00162*	*0.00165*	0.00118	0.00553	0.00300	0.00093	0.00351	0.00233	0.00187	0.00184	0.00096	0.00378	0.00063	0.00153
Iron	mg/L			*0.0691*	*0.0471*	*0.0684*	*0.0492*	*0.0481*	0.0601	0.0302	0.0415	0.0409	0.0475	0.0481	0.0306	0.0225	0.0581	0.0193	0.0205	0.0249
Lead	mg/L			*0.00020*	*0.00020*	*0.00020*	*0.00023*	*0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L			*0.0047*	*0.0079*	*0.0078*	*0.0086*	*0.0087*	0.0159	0.0153	0.0160	0.0160	0.0121	0.0136	0.0143	0.0139	0.0072	0.0063	0.0045	0.0044
Manganese	mg/L			*0.241*	*0.293*	*0.303*	*0.211*	*0.193*	0.0774	0.1160	0.1120	0.0862	0.1740	0.1420	0.1530	0.1180	0.2260	0.2040	0.2500	0.2810
Mercury	mg/L			*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L			*0.0036*	*0.0070*	*0.0171*	*0.0073*	*0.0056*	0.0053	0.0054	0.0059	0.0053	0.0052	0.0056	0.0060	0.0055	0.0064	0.0048	0.0063	0.0059
Nickel	mg/L			*0.0163*	*0.0535*	*0.0111*	*0.0187*	*0.0145*	0.0139	0.0171	0.0159	0.0140	0.0160	0.0145	0.0155	0.0142	0.0107	0.0075	0.0086	0.0076
Selenium	mg/L			*0.00031*	*0.00021*	*0.00016*	*0.00023*	*0.00017*	0.00033	0.00032	0.00029	0.00029	0.00020	0.00021	0.00022	0.00025	0.00011	< 0.00010	< 0.00010	< 0.00010
Strontium	mg/L			*0.251*	*0.389*	*0.367*	*0.443*	*0.490*	0.674	0.807	0.838	0.864	0.682	0.671	0.707	0.762	0.459	0.401	0.321	0.281
Thallium	mg/L			*0.000038*	*0.000015*	*0.000016*	*0.000018*	*0.000015*	0.000016	0.000019	0.000019	0.000017	0.000016	0.000015	0.000016	0.000019	0.000015	0.000013	0.000013	0.000012
Tin	mg/L			*0.004*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L			*0.006*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L			*0.00104*	*0.00251*	*0.00144*	*0.00150*	*0.00148*	0.00225	0.00282	0.00292	0.00247	0.00212	0.00241	0.00252	0.00264	0.00096	0.00096	0.00066	0.00050
Vanadium	mg/L			*0.0044*	*0.0050*	*0.0050*	*0.0050*	*0.0050*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L			*0.0079*	*0.0065*	*0.0082*	*0.0150*	*0.0063*	0.0081	0.0118	0.0077	0.0057	0.0062	0.0077	< 0.0050	0.0054	0.0073	0.0062	< 0.0050	0.0055
Volatile Organics																				
Petroleum Hydrocarbons F (C10-C50)	mg/L	6	3	*0.4*	*0.2*	*0.2*	*0.2*	*0.2*	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	0.21	< 0.20	0.22

Table 2-46 Whale Tail 2025 Landfarm Water Quality Monitoring (ST-WT-27)[§]

ST-WT-27 Parameter	Unit	*Annual Average*	6/1/2025	7/27/2025	8/18/2025	9/1/2025	10/13/2025
Field Measured							
pH	pH units	*7.69*	7.74	8.14	8.02	7.43	7.11
Conventional Parameters							
TSS	mg/L	*11*	8	15	14	6	12
Total Metals							
Arsenic	mg/L	*0.0767*	0.0552	0.1440	0.1010	0.0474	0.0360
Copper	mg/L	*0.00113*	0.00072	0.00288	0.00104	< 0.00050	< 0.00050
Lead	mg/L	*0.00035*	0.00040	0.00070	< 0.00020	0.00023	0.00022
Nickel	mg/L	*0.0179*	0.0142	0.0257	0.0202	0.0127	0.0169
Zinc	mg/L	*2.01*	0.0055	0.27	2.10	4.67	2.98
Volatile Organics							
Benzene	mg/L	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	mg/L	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	mg/L	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Xylenes	mg/L	*0.0004*	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
F2 (C10-C16)	mg/L	*0.09*	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
F3 (C16-C34)	mg/L	*0.31*	0.21	0.76	< 0.20	< 0.20	< 0.20
F4 (C34-C50)	mg/L	*0.20*	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Petroleum Hydrocarbons F (C10-C50)	mg/L	*0.34*	< 0.20	0.88	< 0.20	0.24	< 0.20

Table 2-47 Whale Tail 2025 Groundwater Storage Pond (GSP-1) Water Quality Monitoring (ST-WT-20)[§]

ST-WT-20	Unit	*Annual Average*					1/19/2025	2/2/2025	3/2/2025	4/7/2025	5/19/2025	6/4/2025	7/13/2025	8/4/2025	9/1/2025	10/5/2025	11/3/2025	12/1/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***												
Field Measured																		
Temperature	°C	*6.9*	*3.2*	*3.1*	*4.4*	*4.3*	-0.4	1.1	1.1	0.1	0.3	1.4	12.6	13.7	9.9	5.1	4.9	1.3
pH	pH units	*7.25*	*6.72*	*7.40*	*10.19*	*10.85*	11.23	11.36	11.63	11.34	11.93	11.41	9.59	9.22	9.80	10.61	10.98	11.09
Conductivity	uS/cm	*12673*	*18310*	*76581*	*7343*	*9111*	10760	11760	12170	NA	11960	5640	6460	6124	7990	9158	9477	8721
Turbidity	NTU	*5.10*	*2.80*	*2.13*	*2.36*	*5.02*	1.31	1.76	2.11	1.27	0.79	7.83	3.12	1.69	6.77	19.80	4.96	8.78
Conventional Parameters																		
Hardness, as $CaCO_3$	mg/L	*1778*	*3633*	*3945*	*3635*	*4838*	4560	5320	5200	5460	6070	2580	3050	3260	4380	5360	5970	6840
Total alkalinity, as $CaCO_3$	mg/L	*40*	*45*	*36*	*52*	*79*	110	110	110	140	170	60	14	12	31	52	51	86
TDS	mg/L	*2643*	*4598*	*5449*	*5375*	*7135*	6780	7250	7330	8210	9810	3820	4130	5090	7010	7670	9000	9520
TSS	mg/L	*10*	*6*	*8*	*8*	*11*	9	12	7	8	6	23	10	14	16	11	9	8
Major Ions																		
Chloride	mg/L	*1285*	*2369*	*2838*	*2849*	*3725*	3800	3900	4000	3900	4300	1800	2100	2500	3700	4300	5200	5200
Fluoride	mg/L	*0.10*	*0.10*	*0.11*	*0.18*	*0.23*	0.24	0.24	0.25	0.26	0.29	0.18	0.15	0.18	0.21	0.23	0.25	0.24
Sulfate	mg/L	*35*	*74*	*101*	*135*	*171*	180	210	200	200	210	110	120	130	160	160	180	190
Nutrients																		
Ammonia (NH_3)	mg/L	*14.5*	*32.7*	*33.8*	*19.3*	*15.6*	19.0	19.0	20.0	22.0	23.0	11.0	7.2	8.5	13.0	14.0	16.0	15.0
Ammonia Nitrogen	mg N/L	*12.0*	*26.9*	*27.7*	*16.0*	*12.9*	16.0	15.0	17.0	18.0	19.0	8.7	6.0	7.0	11.0	12.0	13.0	12.0
Un-Ionized Ammonia, calculated	mg N/L	*0.1*	*0.0*	*0.2*	*10.6*	*13.6*	18.0	18.0	20.0	21.0	22.0	10.0	3.4	2.5	7.1	12.0	15.0	14.0
Nitrate	mg N/L	*34.4*	*76.6*	*87.0*	*74.3*	*79.9*	88.0	97.8	91.6	90.9	93.8	44.0	49.2	51.3	71.0	87.7	90.1	103.0
Nitrite	mg N/L	*0.52*	*2.00*	*3.14*	*2.84*	*2.57*	3.16	3.19	3.22	3.22	3.24	1.40	1.56	1.78	2.17	2.52	2.58	2.75
Total Metals																		
Aluminum	mg/L	*0.1610*	*0.0790*	*0.0520*	*0.0720*	*0.2023*	< 0.030	< 0.030	< 0.030	< 0.030	< 0.060	0.259	0.112	0.768	0.082	0.903	0.064	< 0.060
Arsenic	mg/L	*0.0402*	*0.0092*	*0.0062*	*0.0032*	*0.0040*	0.00360	0.00340	0.00340	0.00310	0.00440	0.00481	0.00191	0.00440	0.00380	0.00730	0.00290	0.00450
Barium	mg/L	*0.379*	*0.645*	*0.618*	*0.495*	*0.567*	0.581	0.628	0.681	0.709	0.751	0.337	0.365	0.393	0.472	0.616	0.608	0.668
Cadmium	mg/L	*0.000824*	*0.002032*	*0.001399*	*0.000078*	*0.000117*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.000050	< 0.000050	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00020
Chromium	mg/L	*0.0058*	*0.0097*	*0.0088*	*0.0186*	*0.0315*	0.0280	0.0350	0.0360	0.0380	0.0430	0.0253	0.0211	0.0300	0.0220	0.0390	0.0290	0.0310
Copper	mg/L	*0.0021*	*0.0044*	*0.0042*	*0.0038*	*0.0058*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.010	0.0026	< 0.0025	< 0.0050	< 0.0050	< 0.0050	< 0.010	< 0.010
Iron	mg/L	*0.26*	*0.16*	*0.11*	*0.12*	*0.46*	< 0.10	< 0.10	0.110	< 0.10	< 0.20	0.994	0.072	1.550	< 0.10	1.820	< 0.20	< 0.20
Lead	mg/L	*0.00080*	*0.00176*	*0.00169*	*0.00153*	*0.00253*	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0040	< 0.0010	< 0.0010	< 0.0020	< 0.0020	0.0043	< 0.0040	< 0.0040
Manganese	mg/L	*1.81*	*3.97*	*2.93*	*0.12*	*0.03*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.020	0.0175	0.0383	0.0720	0.0300	0.0540	< 0.020	< 0.020
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0042*	*0.0088*	*0.0085*	*0.0124*	*0.0185*	0.019	0.020	0.019	0.021	0.024	0.013	0.0135	0.013	0.016	0.020	0.021	0.023
Nickel	mg/L	*0.0843*	*0.1652*	*0.1414*	*0.0206*	*0.0127*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.020	< 0.0050	0.0069	0.020	< 0.010	< 0.010	< 0.020	< 0.020
Selenium	mg/L	*0.00055*	*0.00102*	*0.00091*	*0.00084*	*0.00123*	0.0012	0.0012	0.0011	0.0012	< 0.0020	0.00057	0.00052	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0020
Silver	mg/L	*0.00008*	*0.00018*	*0.00017*	*0.00015*	*0.00023*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00040	< 0.00010	< 0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00040	< 0.00040
Thallium	mg/L	*0.00017*	*0.00032*	*0.00031*	*0.00018*	*0.00015*	0.00017	0.00018	0.00017	0.00018	< 0.00020	0.000061	0.000085	0.00011	0.00011	0.00016	< 0.00020	< 0.00020
Zinc	mg/L	*0.019*	*0.044*	*0.042*	*0.038*	*0.058*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.10	< 0.025	< 0.025	< 0.050	< 0.050	< 0.050	< 0.10	< 0.10

SECTION 3. SEWAGE TREATMENT PLANT§

3.1 MEADOWBANK SITE§

Table 3-1 Meadowbank 2025 Sewage Treatment Plant (STP-IN, STP-SEP, and LJ-MIX)§

STP-IN Parameter	Unit	1/7/2025	2/10/2025	3/3/2025	4/8/2025	5/6/2025	6/2/2025	7/14/2025	8/5/2025	9/1/2025	10/7/2025	11/10/2025	12/1/2025
Field Measured													
pH	pH units	6.80	7.00	7.20	7.10	6.60	6.80	6.60	7.00	7.50	7.00	7.20	6.80
Conventional Parameters													
TSS	mg/L	56	540	84	63	180	100	360	1300	510	820	92	500
Nutrients													
Ammonia Nitrogen	mg/L	60	69	63	75	77	84	77	96	78	78	77	91
Un-Ionized Ammonia, calculated	mg/L	0.19	0.34	0.45	0.53	0.17	0.22	0.11	0.29	1.10	0.44	0.56	0.08
Nitrate	mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Kjeldahl nitrogen	mg/L	74	84	76	82	84	100	82	100	92	82	93	100
Biochemical Oxygen Demand	mg/L	170	250	100	99	150	120	110	120	170	20	180	210
Chemical Oxygen Demand	mg/L	340	610	310	310	340	350	360	360	660	270	100	400
Total phosphorus	mg P/L	6.6	10.0	8.1	8.5	8.1	9.9	9.0	12.0	11.0	8.5	8.8	11.0
Coliforms													
Total Coliform	CFU/100mL	>80000000	28000000	N/D	21000000	22000000	11000000	10000000	< 1000000	26000000	15000000	8000000	32000000
Fecal Coliform	CFU/100mL	10000000	1730000	13000000	21000000	3500000	11000000	3500000	145500	16000000	15000000	3000000	9000000
Atypical colonies	CFU/100mL	N/A	88000000	>200000000	161000000	58000000	145000000	73000000	24000000	37000000	88000000	20000000	36000000

**N/D – Total coliforms cannot be determined due to the high atypical colonies count*

**N/A - Total atypical colonies cannot be determined due to high concentration*

STP-SEP Parameter	Unit	1/7/2025	2/10/2025	3/3/2025	4/8/2025	5/6/2025	6/2/2025	7/14/2025	8/5/2025	9/1/2025	10/7/2025	11/10/2025	12/1/2025
Field Measured													
pH	pH units	6.70	5.80	6.90	7.20	6.60	6.60	6.60	6.50	7.30	7.10	6.90	6.90
Conventional Parameters													
TSS	mg/L	5	6	7	15	6	4	5	8	5	15	10	8
Nutrients													
Ammonia Nitrogen	mg/L	36	37	36	46	47	41	46	49	38	64	26	39
Un-Ionized Ammonia, calculated	mg/L	0.072	0.012	0.100	0.330	0.085	0.070	0.059	0.073	0.350	0.630	0.076	0.130
Nitrate	mg/L	3.13	3.49	4.72	6.80	4.67	7.04	4.87	3.38	5.90	< 0.10	10.40	6.73
Nitrite	mg/L	1.35	1.50	1.38	1.26	1.42	1.82	1.45	1.70	1.78	< 0.010	1.47	1.19
Total Kjeldahl nitrogen	mg/L	39	42	39	46	46	44	46	50	44	67	33	43
Biochemical Oxygen Demand	mg/L	6	8	7	12	9	5	7	7	8	20	10	10
Chemical Oxygen Demand	mg/L	41	40	35	53	44	44	44	39	29	130	37	35
Coliforms													
Total Coliform	CFU/100mL	300	900	100	2900	4000	190	< 10000	30000	800	90000	1000	2500
Fecal Coliform	CFU/100mL	340	10	10	280	30	20	60	20	110	37000	50	180
Atypical colonies	CFU/100mL	700	3600	6600	9100	< 1000	290	170000	330000	7300	280000	< 1000	1400

STP-LJ-MIX Parameter	Unit	1/7/2025	2/10/2025	3/3/2025	4/8/2025	5/6/2025	6/2/2025	7/14/2025	8/5/2025	9/1/2025	10/7/2025	11/10/2025	12/1/2025
Field Measured													
pH	pH units	5.70	5.80	6.20	5.60	5.80	6.30	5.90	6.00	6.50	7.10	5.60	6.10
Conventional Parameters													
TSS	mg/L	6	14	6	30	12	7	8	17	7	21	10	9
Nutrients													
Ammonia Nitrogen	mg/L	9.2	9.9	23.0	16.0	13.0	21.0	19.0	17.0	16.0	37.0	18.0	22.0
Un-Ionized Ammonia, calculated	mg/L	0.0021	0.0033	0.0160	0.0031	0.0041	0.0140	0.0047	0.0069	0.0250	0.1800	0.0025	0.0100
Nitrate	mg/L	19.4	14.2	11.7	24.1	19.2	18.5	25.6	24.9	21.1	2.6	26.9	31.7
Nitrite	mg/L	0.184	0.269	0.548	0.244	0.171	0.396	0.108	0.186	0.422	0.404	0.050	0.115
Total Kjeldahl nitrogen	mg/L	10	13	27	16	16	24	17	20	20	41	15	25
Biochemical Oxygen Demand	mg/L	5	16	11	13	13	6	6	9	10	25	4	8
Chemical Oxygen Demand	mg/L	40	52	34	54	38	49	35	31	36	130	27	38
Coliforms													
Total Coliform	CFU/100mL	18000	4600	3000	4000	4000	18000	< 1000	4700	30000	>800000	3600	20000
Fecal Coliform	CFU/100mL	2600	1180	2100	1550	420	5000	400	410	18000	>60000	640	5000
Atypical colonies	CFU/100mL	10000	8900	29000	19000	37000	52000	13000	2100	51000	N/A	6400	28000

** N/A - Total atypical colonies cannot be determined due to high concentration*

3.2 WHALE TAIL SITE§

Table 3-2 Whale Tail 2025 Sewage Treatment Plant (ST-WT-11)§

ST-WT-11	Unit	*Annual Average*					1/6/2025	2/3/2025	3/3/2025	4/7/2025	5/6/2025	6/3/2025	6/9/2025	7/15/2025	8/5/2025	9/2/2025	10/21/2025	11/10/2025	12/2/2025
Parameter		*2021*	*2022*	*2023*	*2024*	*2025*													
Field Measured																			
pH	pH units	*7.10*	*6.90*	*6.86*	*7.01*	*7.16*	6.93	7.20	6.84	6.57	6.80	7.00	6.50	7.70	7.70	7.59	7.50	7.60	7.10
Total Chlorine Residual	mg/L	*0.1*	*0.2*	*0.1*	*0.2*	*0.1*	-	-	-	-	-	-	-	0.1	0.2	0.1	0.2	0.1	0.1
Conventional Parameters																			
Hardness, as $CaCO_3$	mg/L	*76*	*85*	*76*	*65*	*74*	85.2	83.9	82.7	79.2	80.9	111.0	81.1	46.2	50.7	51.4	60.1	71.3	74.1
Total alkalinity, as $CaCO_3$	mg/L	*55*	*35*	*34*	*46*	*43*	22	70	85	46	10	48	21	48	51	48	28	37	42
TDS	mg/L	*325*	*337*	*283*	*312*	*324*	310	340	380	335	315	450	395	270	330	280	230	300	275
TSS	mg/L	*3*	*2*	*2*	*9*	*1*	5	< 1	1	< 1	1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Major Ions																			
Chloride	mg/L	*75*	*75*	*66*	*64*	*72*	80	84	83	74	68	69	68	63	60	67	62	77	75
Fluoride	mg/L	*0.09*	*0.10*	*0.10*	*0.10*	*0.10*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Sulfate	mg/L	*38*	*53*	*53*	*53*	*67*	62	62	77	87	74	130	120	31	32	46	50	55	44
Nutrients																			
Ammonia (NH_3)	mg/L	*0.10*	*0.10*	*6.65*	*0.10*	*0.21*	0.071	< 0.061	< 0.061	0.099	< 0.061	1.900	< 0.061	< 0.061	< 0.061	< 0.061	0.064	< 0.061	< 0.061
Ammonia Nitrogen	mg N/L	*0.120*	*0.100*	*5.480*	*0.080*	*0.173*	0.059	< 0.050	< 0.050	0.082	< 0.050	1.600	< 0.050	< 0.050	< 0.050	< 0.050	0.052	< 0.050	< 0.050
Un-Ionized Ammonia, calculated	mg N/L	*-*	*0.0004*	*0.0068*	*0.0005*	*0.0010*	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	0.00560	< 0.00040	< 0.00065	< 0.00067	< 0.0011	0.00093	< 0.00075	< 0.00040
Nitrate	mg N/L	*12.12*	*14.03*	*8.20*	*10.50*	*9.55*	13.00	9.40	7.45	9.35	10.10	15.60	14.70	6.34	9.31	6.76	8.87	8.31	4.95
Nitrite	mg N/L	*0.050*	*0.030*	*0.020*	*0.010*	*0.016*	< 0.010	0.011	< 0.010	< 0.010	< 0.010	0.020	0.015	< 0.010	0.043	< 0.010	< 0.010	0.036	< 0.010
Biochemical Oxygen Demand	mg/L	*2*	*2*	*2*	*2*	*2*	3	< 2	< 2	< 2	< 2	< 2	< 2	2	< 2	< 2	< 2	< 2	< 2
Total phosphorus	mg P/L	*3.940*	*1.770*	*1.740*	*1.510*	*1.171*	0.78	0.22	0.13	0.21	0.58	1.20	1.10	2.30	3.30	1.50	1.20	1.00	1.70
Orthophosphate	mg P/L	*4.100*	*1.890*	*1.580*	*1.100*	*1.035*	0.70	0.23	0.13	0.19	0.48	0.73	0.93	2.10	3.30	1.30	1.10	0.87	1.40
General Organics																			
Total oil and grease	mg/L	*1.5*	*4.1*	*1.3*	*0.7*	*0.5*	< 0.50	< 0.50	< 0.50	0.50	0.50	< 0.50	< 0.50	0.70	< 0.50	< 0.50	0.50	< 0.50	0.70
Total Metals																			
Aluminum	mg/L	*0.0381*	*0.0384*	*0.0381*	*0.1271*	*0.0494*	0.1420	0.1050	0.0514	0.0251	0.0609	0.1410	0.0152	0.0142	0.0111	0.0166	0.0293	0.0169	0.0140
Arsenic	mg/L	*0.0053*	*0.0061*	*0.0066*	*0.0071*	*0.0057*	0.00803	0.00387	0.00308	0.00270	0.00300	0.00448	0.00313	0.00851	0.01140	0.00652	0.00903	0.00498	0.00514
Barium	mg/L	*0.0093*	*0.0045*	*0.0048*	*0.0042*	*0.0031*	0.0036	0.0033	0.0030	0.0034	0.0038	0.0065	0.0045	0.0015	0.0016	0.0016	0.0023	0.0032	0.0020
Cadmium	mg/L	*0.000031*	*0.000024*	*0.000020*	*0.000023*	*0.000013*	0.000013	< 0.000010	< 0.000010	< 0.000010	0.000014	0.000033	0.000012	0.000011	0.000014	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.0010*	*0.0010*	*0.0010*	*0.0013*	*0.0010*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Copper	mg/L	*0.0096*	*0.0049*	*0.0050*	*0.0081*	*0.0030*	0.00439	0.00356	0.00361	0.00228	0.00264	0.00321	0.00226	0.00443	0.00353	0.00367	0.00171	0.00200	0.00185
Iron	mg/L	*0.06*	*0.05*	*0.04*	*0.09*	*0.03*	0.057	0.021	0.025	0.025	0.036	0.018	< 0.010	0.034	0.038	0.034	0.033	0.026	0.030
Lead	mg/L	*0.00996*	*0.00056*	*0.00067*	*0.01146*	*0.00056*	0.00058	0.00072	0.00076	0.00042	0.00035	0.00160	0.00033	0.00066	0.00060	0.00051	0.00028	0.00023	0.00024
Manganese	mg/L	*0.0149*	*0.0317*	*0.0285*	*0.0246*	*0.0160*	0.0238	0.0105	0.0102	0.0185	0.0154	0.0094	0.0123	0.0097	0.0140	0.0165	0.0275	0.0162	0.0238
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.0011*	*0.0013*	*0.0012*	*0.0012*	*0.0012*	0.0014	0.0011	< 0.0010	0.0014	0.0013	< 0.0010	0.0017	0.0018	0.0012	< 0.0010	< 0.0010	< 0.0010	0.0013
Nickel	mg/L	*0.0090*	*0.0090*	*0.0134*	*0.0329*	*0.0105*	0.0137	0.0047	0.0084	0.0080	0.0082	0.0161	0.0075	0.0167	0.0144	0.0125	0.0067	0.0122	0.0069
Selenium	mg/L	*0.0003*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silver	mg/L	*0.00005*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Zinc	mg/L	*0.065*	*0.086*	*0.084*	*0.096*	*0.064*	0.0494	0.0376	0.0500	0.0458	0.0695	0.1760	0.0643	0.0752	0.0624	0.0669	0.0322	0.0534	0.0470
Coliforms																			
Total Coliform	CFU/100mL	*1877*	*210*	*4569*	*1057*	*1287*	TNI	< 10	780	ND	N/D	TNTC	7000	< 1000	2200	< 100	290	100	100
Fecal Coliform	CFU/100mL	*36*	*5*	*61*	*76*	*184*	>120	50	114	>120	109	-	1000	370	30	10	20	30	110
Atypical colonies	CFU/100mL	*27945*	*544*	*9403*	*5668*	*1603*	N/A	830	760	>2000	>2000	TNTC	< 1000	7000	100	3800	240	400	300

N/D – Total coliforms cannot be determined due to the high atypical colonies count
N/A - Total atypical colonies cannot be determined due to high concentration
TNI - Too Numerous for Identification TNTC - Too Numerous to Count.

SECTION 4. BULK FUEL STORAGE FACILITY§

4.1 BAKER LAKE MARSHALLING FACILITIES§

Table 4-1 Baker Lake 2025 Bulk Fuel Storage Facility Water Quality Monitoring (ST-38, ST-40.1, ST-40.2, ST-40.3)§

ST-38	Unit	Max Grab	Monthly Mean	6/3/2025	6/1/2025	9/1/2025	6/1/2025	9/1/2025	6/1/2025
Parameter				ST-38	ST-40.1	ST-40.1	ST-40.2	ST-40.2	ST-40.3
Field Measured									
pH	pH units	6.0 - 9.5	6.0 - 9.5	7.24	7.78	8.11	7.77	8.12	7.78
Conventional Parameters									
TSS	mg/L	30	15	14	4	< 1	6	6	6
Nutrients									
Total Ammonia (as NH3)	mg/L			0.083	< 0.061	< 0.061	< 0.061	< 0.061	< 0.061
Ammonia Nitrogen	mg/L	6	6	0.068	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
General Organics									
Total oil and grease	mg/L	5 and no visible sheen	5 and no visible sheen	< 0.50	< 0.50	0.50	< 0.50	0.50	< 0.50
Total Metals									
Arsenic	mg/L	1	0.5	0.00025	0.00025	0.00058	0.0006	0.00111	0.00049
Copper	mg/L	0.6	0.3	0.00296	0.00297	0.00543	0.00196	0.00482	0.00109
Lead	mg/L	0.1	0.1	0.00063	0.00029	< 0.00020	0.00032	0.00033	< 0.00020
Nickel	mg/L	1	0.5	0.0010	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.0010
Zinc	mg/L	1	0.5	0.0094	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Volatile Organics									
Benzene	mg/L	0.37	0.37	< 0.00020	< 0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	mg/L	0.09	0.09	< 0.00020	< 0.00020*	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	mg/L	0.002	0.002	< 0.00020	< 0.00020*	< 0.00030	< 0.00020	< 0.00030	< 0.00020
Xylenes	mg/L			< 0.00040	< 0.00040*	< 0.00040	< 0.00040	< 0.00040	< 0.00040
Petroleum Hydrocarbons F (C10-C50)	mg/L			< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

**Results from duplicate sample used as vial from original sample was broken during transport*

SECTION 5. SEEPAGE§

5.1 MEADOWBANK SITE§

Table 5-1 Meadowbank 2021-2025 Assay Road Seepage Trench and Well Water Quality Monitoring§

Date	Mill Trench				MW-04				MW-05				MW-06				MW-07				MW-08			
	CN t (mg/L)	Free CN (mg/L)	Cu (mg/L)	Fe (mg/L)	CN t (mg/L)	Free CN (mg/L)	Cu (mg/L)	Fe (mg/L)	CN t (mg/L)	Free CN (mg/L)	Cu (mg/L)	Fe (mg/L)	CN t (mg/L)	Free CN (mg/L)	Cu (mg/L)	Fe (mg/L)	CN t (mg/L)	Free CN (mg/L)	Cu (mg/L)	Fe (mg/L)	CN t (mg/L)	Free CN (mg/L)	Cu (mg/L)	Fe (mg/L)
Regulatory guideline Water License	**1**	**-**	**0.2**	**-**	**1**	**-**	**0.2**	**-**	**1**	**-**	**0.2**	**-**	**1**	**-**	**0.2**	**-**	**1**	**-**	**0.2**	**-**	**1**	**-**	**0.2**	**-**
Regulatory guideline MDMER	**1**	**-**	**0.6**	**-**	**1**	**-**	**0.6**	**-**	**1**	**-**	**0.6**	**-**	**1**	**-**	**0.6**	**-**	**1**	**-**	**0.6**	**-**	**1**	**-**	**0.6**	**-**
Regulatory guideline CCME	**-**	**0.005**	**0.002**	**0.3**	**-**	**0.005**	**0.002**	**0.3**	**-**	**0.005**	**0.002**	**0.3**	**-**	**0.005**	**0.002**	**0.3**	**-**	**0.005**	**0.002**	**0.3**	**-**	**0.005**	**0.002**	**0.3**
Annual Average																								
2021	0.046	0.012	0.006	1.84	Dry				Dry				Dry				0.006	0.002	0.024	24.55	Dry			
2022	0.030	0.021	0.005	1.00	Dry				< 0.050	< 0.002	1.310	369.00	Dry				0.0051	< 0.002	0.058	50.65	Dry			
2023	0.065	0.021	0.008	0.61	Dry				Dry				Dry				Dry				Dry			
2024	1.542	0.816	0.374	1.44	Dry				Dry				Dry				Dry				Dry			
2025																								
6/15/2025	0.031	0.022	0.006	0.22	Dry				Dry				Dry				Dry				Dry			
7/20/2025	0.018	0.015	0.005	0.18	Dry				Dry				Dry				Dry				Dry			
8/6/2025	0.029	0.008	0.007	0.36	Dry				Dry				Dry				Dry				Dry			
9/15/2025	0.022	0.012	0.005	0.04	Dry				Dry				Dry				Dry				Dry			
10/13/2025	0.006	0.002	0.005	0.30	Dry				Dry				Dry				Dry				Dry			
2025 Average	0.021	0.012	0.006	0.22	Dry				Dry				Dry				Dry				Dry			

Table 5-2 Meadowbank 2025 Assay Road Seepage Water Quality Monitoring (TPL-Assay)[§]

TPL-Assay	Unit	*Annual Average*					6/15/2025	7/20/2025	8/6/2025	9/15/2025	10/13/2025
Parameter		***2021***	***2022***	***2023***	***2024***	***2025***					
Field Measured											
Temperature	°C	*7.22*	*12.40*	*8.70*	*7.31*	*7.76*	3.5	13.1	13.8	7.6	0.8
pH	pH units	*7.60*	*7.40*	*7.71*	*7.65*	*7.81*	7.16	8.08	7.64	7.82	8.34
Conductivity	uS/cm	*99.2*	*100.2*	*113.3*	*151.4*	*160.8*	339.0	110.4	112.8	97.9	144.0
Turbidity	NTU	*1.00*	*1.10*	*1.28*	*2.78*	*3.76*	1.45	1.00	1.11	3.34	11.90
Conventional Parameters											
Hardness, as $CaCO_3$	mg/L	*41*	*38*	*44*	*55*	*51*	52.1	49.2	54.3	48.6	53.1
Total alkalinity, as $CaCO_3$	mg/L	*25*	*26*	*28*	*29*	*29*	30	29	30	29	29
Carbonate, as $CaCO_3$	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bicarbonate, as $CaCO_3$	mg/L	*25*	*26*	*28*	*29*	*29*	30	28	30	29	29
TDS	mg/L	*57*	*55*	*79*	*103*	*69*	80	60	60	80	65
TSS	mg/L	*1*	*1*	*1*	*1*	*1*	1	< 1	< 1	1	1
Total organic carbon	mg/L	*2*	*2*	*2*	*2*	*2*	1.9	1.9	2.5	2.0	2.0
Dissolved organic carbon	mg/L	*1.86*	*1.90*	*2.02*	*2.04*	*1.86*	1.9	1.8	1.9	1.9	1.8
Colour	TCU	*2.8*	*2.3*	*2.2*	*2.9*	*2.2*	3	< 2	2	< 2	< 2
Major Ions											
Bromide	mg/L	*1*	*1*	*1*	*1*	*1*	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	*5.7*	*5.2*	*5.6*	*11.7*	*8.8*	8.5	8.1	8.8	9.4	9.2
Cyanide	mg/L	*0.005*	*0.001*	*0.001*	*0.001*	*0.005*	0.00075	< 0.00050	0.00051	0.02170	< 0.00050
Cyanide (free)	mg/L	*0.002*	*0.002*	*0.003*	*0.002*	*0.001*	0.00099	< 0.00050	0.00083	0.00410	< 0.00050
Cyanide (WAD)	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.004*	0.0008	< 0.00050	< 0.00050	0.02000	< 0.00050
Fluoride	mg/L	*0.11*	*0.10*	*0.12*	*0.12*	*0.11*	< 0.10	< 0.10	< 0.10	0.13	0.11
Silica	mg/L	*0.46*	*0.34*	*0.74*	*0.97*	*0.76*	1.50	0.69	0.48	0.46	0.65
Sulfate	mg/L	*15.4*	*15.0*	*17.2*	*22.3*	*18.8*	19	19	19	18	19
Thiocyanate	mg/L	*0.2*	*0.2*	*0.2*	*0.2*	*0.4*	< 0.50	< 0.50	< 0.50	< 0.20	< 0.20
Thiosulphates	mg/L	*0.02*	*0.20*	*0.20*	*0.20*	*0.20*	-	< 10.0*	< 10.0*	< 0.20	< 0.20
Nutrients											
Ammonia Nitrogen	mg N/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.07*	< 0.050	< 0.050	< 0.050	< 0.050	0.15
Nitrate	mg N/L	*0.1*	*0.3*	*0.1*	*0.1*	*0.1*	0.11	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg N/L	*0.01*	*0.01*	*0.01*	*0.01*	*0.01*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Kjeldahl nitrogen	mg N/L	*0.12*	*0.15*	*0.15*	*0.16*	*0.14*	< 0.10	0.19	0.22	< 0.10	0.11
Total phosphorus	mg P/L	*0.001*	*0.003*	*0.002*	*0.002*	*0.002*	< 0.0010	< 0.0010	0.0049	< 0.0010	0.0030
Orthophosphate	mg P/L	*0.01*	*0.01*	*0.00*	*0.01*	*0.01*	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Chlorophyll a	mg/L	*0.002*	*0.001*	*0.001*	*0.001*	*0.007*	< 0.0018	0.0280	< 0.0027	0.0011	< 0.0011
Total Metals											
Aluminum	mg/L	*0.014*	*0.010*	*0.008*	*0.014*	*0.011*	0.0157	0.0099	0.0106	0.0103	0.0064
Antimony	mg/L	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	*0.0008*	*0.0010*	*0.0008*	*0.0008*	*0.0006*	0.00073	0.00065	0.00066	0.00053	0.00044
Barium	mg/L	*0.0060*	*0.0053*	*0.0054*	*0.0076*	*0.0064*	0.0079	0.0055	0.0067	0.0058	0.0059
Beryllium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium (total)	mg/L	*11.56*	*10.78*	*12.35*	*16.00*	*14.48*	14.6	13.9	15.2	13.7	15.0
Chromium	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	*0.0002*	*0.0002*	*0.0002*	*0.0002*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	*0.0008*	*0.0008*	*0.0007*	*0.0007*	*0.0008*	0.00070	0.00063	0.00128	0.00060	0.00068
Iron	mg/L	*0.036*	*0.052*	*0.045*	*0.061*	*0.045*	0.055	0.043	0.050	0.048	0.027
Lead	mg/L	*0.0002*	*0.0002*	*0.0002*	*0.0002*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium (total)	mg/L	*2.99*	*2.77*	*3.09*	*3.66*	*3.70*	3.78	3.53	3.93	3.47	3.81
Manganese	mg/L	*0.0049*	*0.0055*	*0.0082*	*0.0100*	*0.0068*	0.0092	0.0056	0.0063	0.0069	0.0058

TPL-Assay	Unit	Annual Average					6/15/2025	7/20/2025	8/6/2025	9/15/2025	10/13/2025
Parameter		2021	2022	2023	2024	2025					
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Potassium (total)	mg/L	*1.45*	*1.38*	*1.49*	*1.79*	*1.59*	1.69	1.59	1.63	1.48	1.56
Selenium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silver	mg/L	*0.00002*	*0.00002*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium (total)	mg/L	*1.99*	*1.70*	*1.81*	*2.02*	*1.95*	1.97	1.84	2.14	1.82	2.00
Strontium	mg/L	*0.06*	*0.06*	*0.06*	*0.09*	*0.08*	0.0794	0.0691	0.0820	0.0776	0.0742
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	*0.0002*	*0.0002*	*0.0003*	*0.0004*	*0.0003*	0.00031	0.00035	0.00028	0.00028	0.00050
Vanadium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.006*	< 0.0050	< 0.0050	0.0091	< 0.0050	< 0.0050
Dissolved Metals											
Aluminum	mg/L	*0.004*	*0.005*	*0.006*	*0.004*	*0.004*	0.0036	< 0.0030	0.0059	< 0.0030	0.0048
Antimony	mg/L	*0.0005*	*0.0005*	*0.0005*	*0.0005*	*0.0005*	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	*0.0007*	*0.0013*	*0.0009*	*0.0011*	*0.0015*	0.00101	0.00168	0.00108	0.00181	0.00208
Barium	mg/L	*0.0117*	*0.0057*	*0.0059*	*0.0079*	*0.0078*	0.0074	0.0118	0.0065	0.0066	0.0069
Beryllium	mg/L	*0.0000*	*0.0001*	*0.0001*	*0.0001*	*0.0001*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Boron	mg/L	*0.05*	*0.05*	*0.05*	*0.05*	*0.05*	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Cadmium	mg/L	*0.00001*	*0.00002*	*0.00009*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0030
Cobalt	mg/L	*0.0002*	*0.0002*	*0.0002*	*0.0002*	*0.0006*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00221
Copper	mg/L	*0.0007*	*0.0009*	*0.0019*	*0.0025*	*0.0082*	0.01200	0.00204	0.00828	0.00207	0.01650
Iron	mg/L	*0.009*	*0.019*	*0.011*	*0.013*	*0.007*	0.0121	0.0067	0.0073	< 0.0050	0.0057
Lead	mg/L	*0.0002*	*0.0003*	*0.0002*	*0.0002*	*0.0002*	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	< 0.0020	< 0.0020	< 0.0020	0.0021	0.0021
Manganese	mg/L	*0.003*	*0.006*	*0.008*	*0.009*	*0.009*	0.0077	0.0091	0.0038	0.0059	0.0194
Mercury	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0014
Nickel	mg/L	*0.001*	*0.001*	*0.001*	*0.002*	*0.005*	0.0011	< 0.0010	0.0014	0.0011	0.0194
Selenium	mg/L	*0.0001*	*0.0001*	*0.0001*	*0.0001*	*0.0003*	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00109
Silver	mg/L	*0.00002*	*0.00009*	*0.00002*	*0.00002*	*0.00002*	< 0.000020	< 0.000020	< 0.000020	< 0.000020	0.000029
Strontium	mg/L	*0.06*	*0.06*	*0.07*	*0.09*	*0.08*	0.0735	0.0789	0.0806	0.0825	0.0997
Thallium	mg/L	*0.00001*	*0.00001*	*0.00001*	*0.00001*	*0.00001*	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	*0.0002*	*0.0002*	*0.0004*	*0.0004*	*0.0005*	0.00031	0.00066	0.00028	0.00029	0.00085
Vanadium	mg/L	*0.005*	*0.005*	*0.005*	*0.005*	*0.005*	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	*0.006*	*0.006*	*0.005*	*0.006*	*0.005*	< 0.0050	< 0.0050	0.0053	< 0.0050	< 0.0050

**Parameter analyzed as total thiosalts (as S_2O_3) not thiosulphate - result not included in annual average calculation*