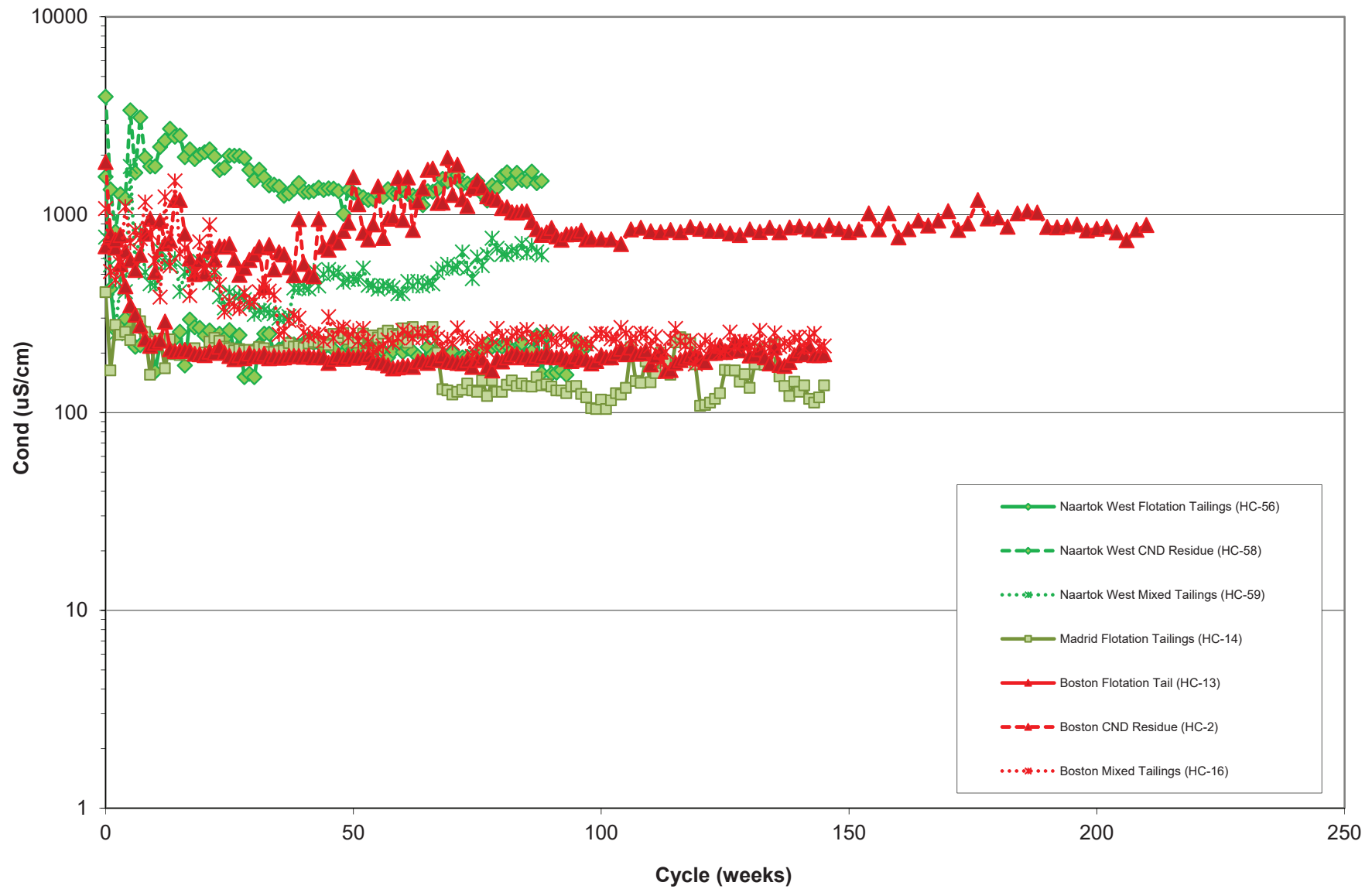
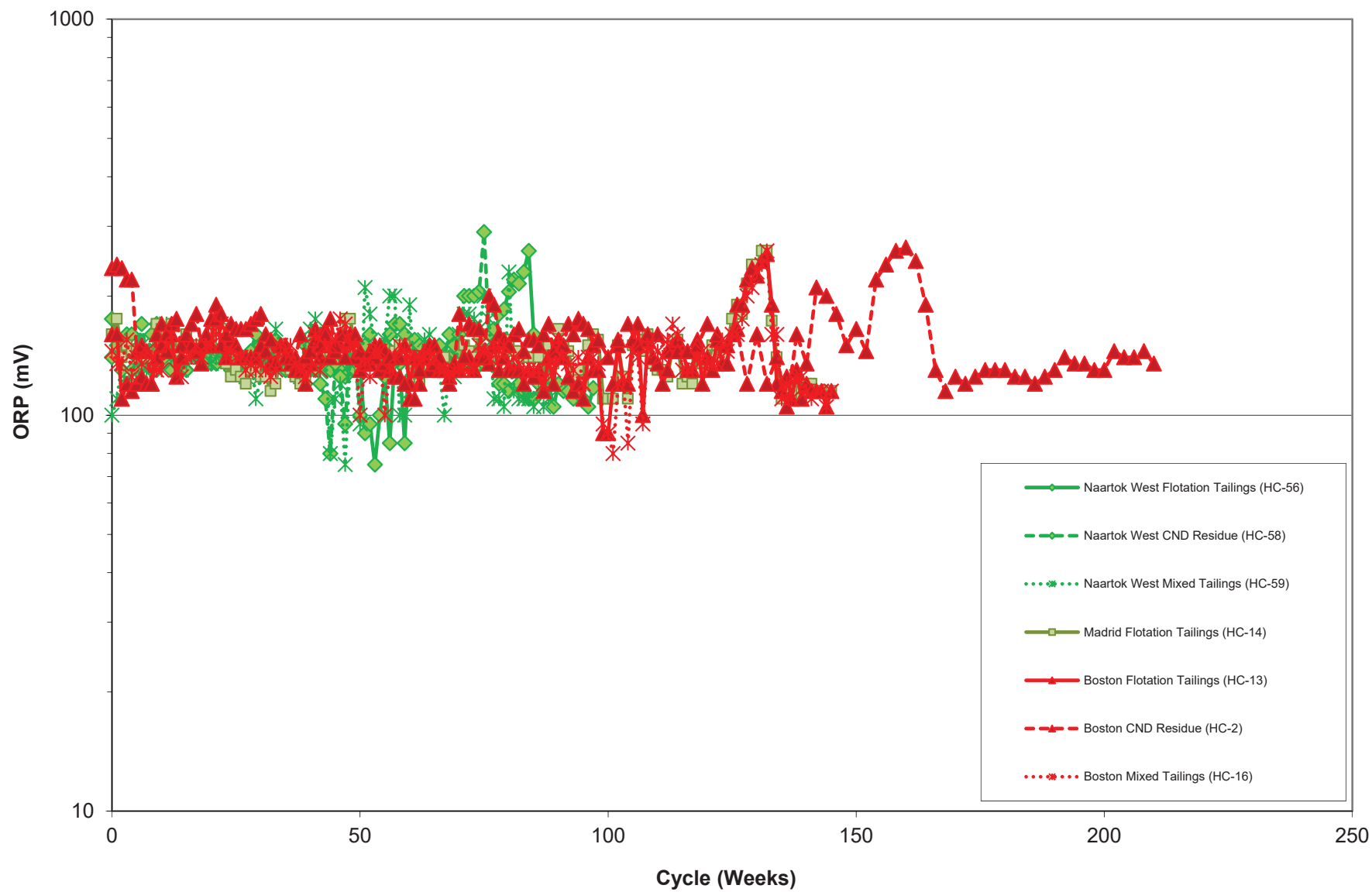
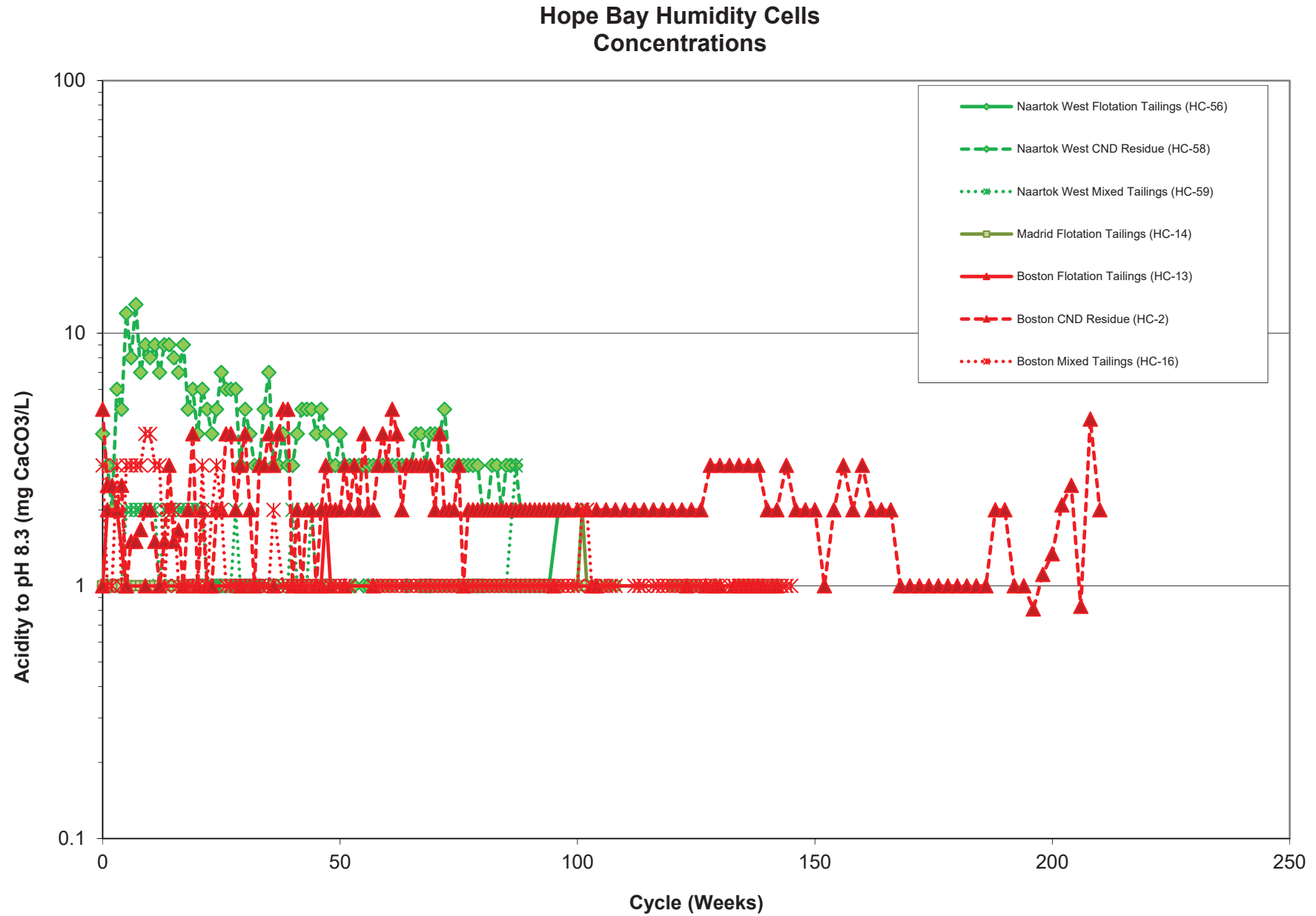


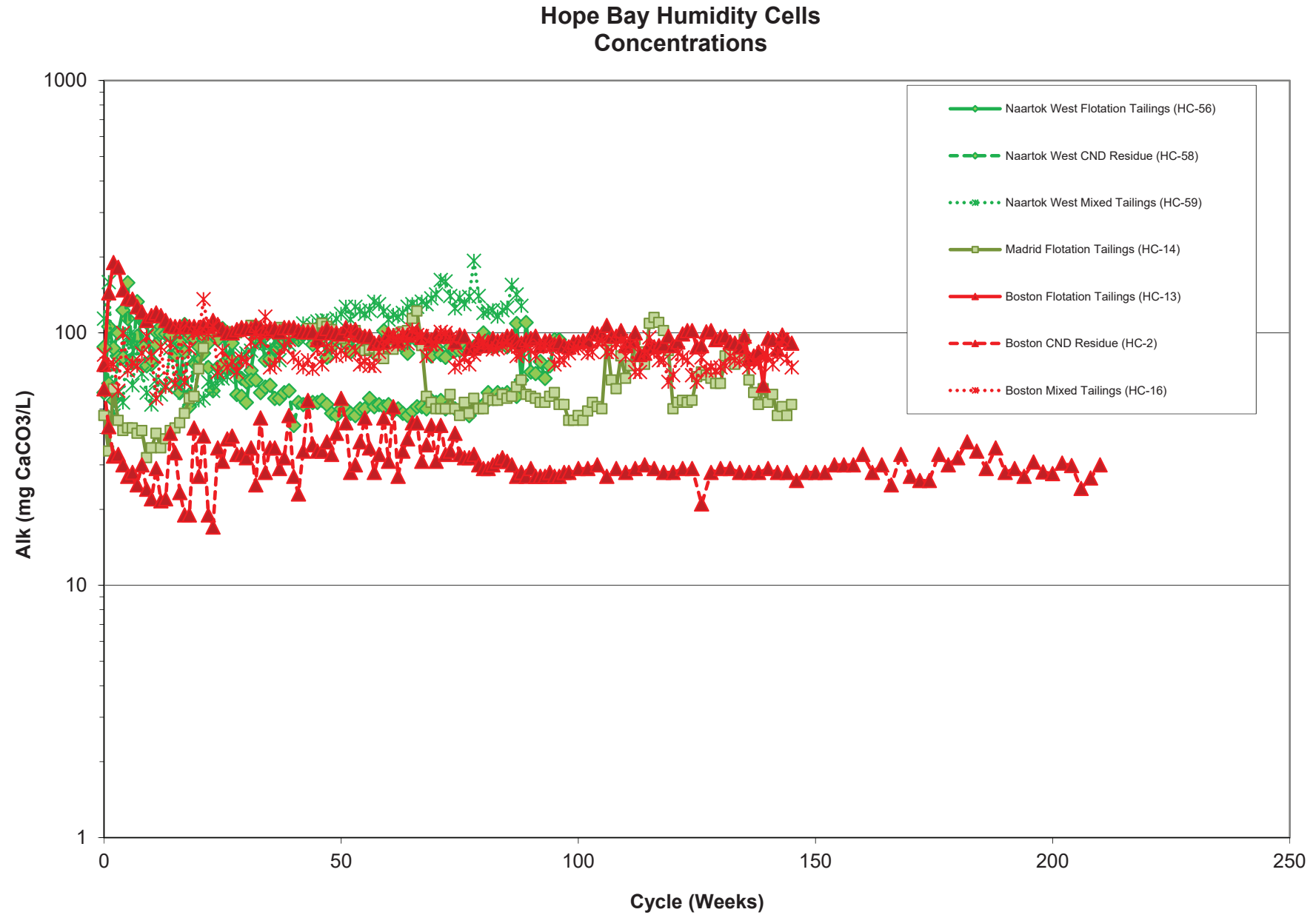
Hope Bay Humidity Cells

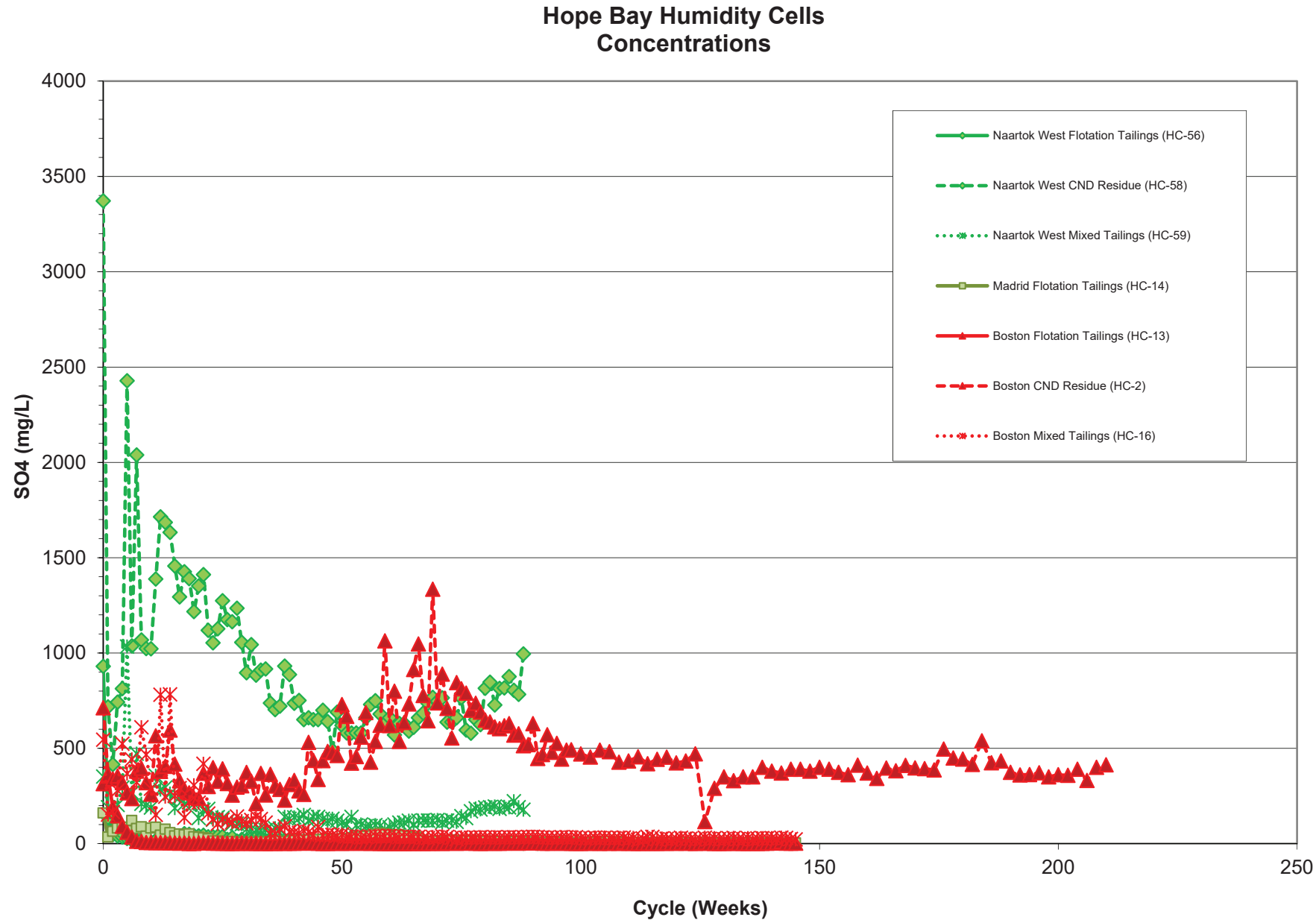


Hope Bay Humidity Cells

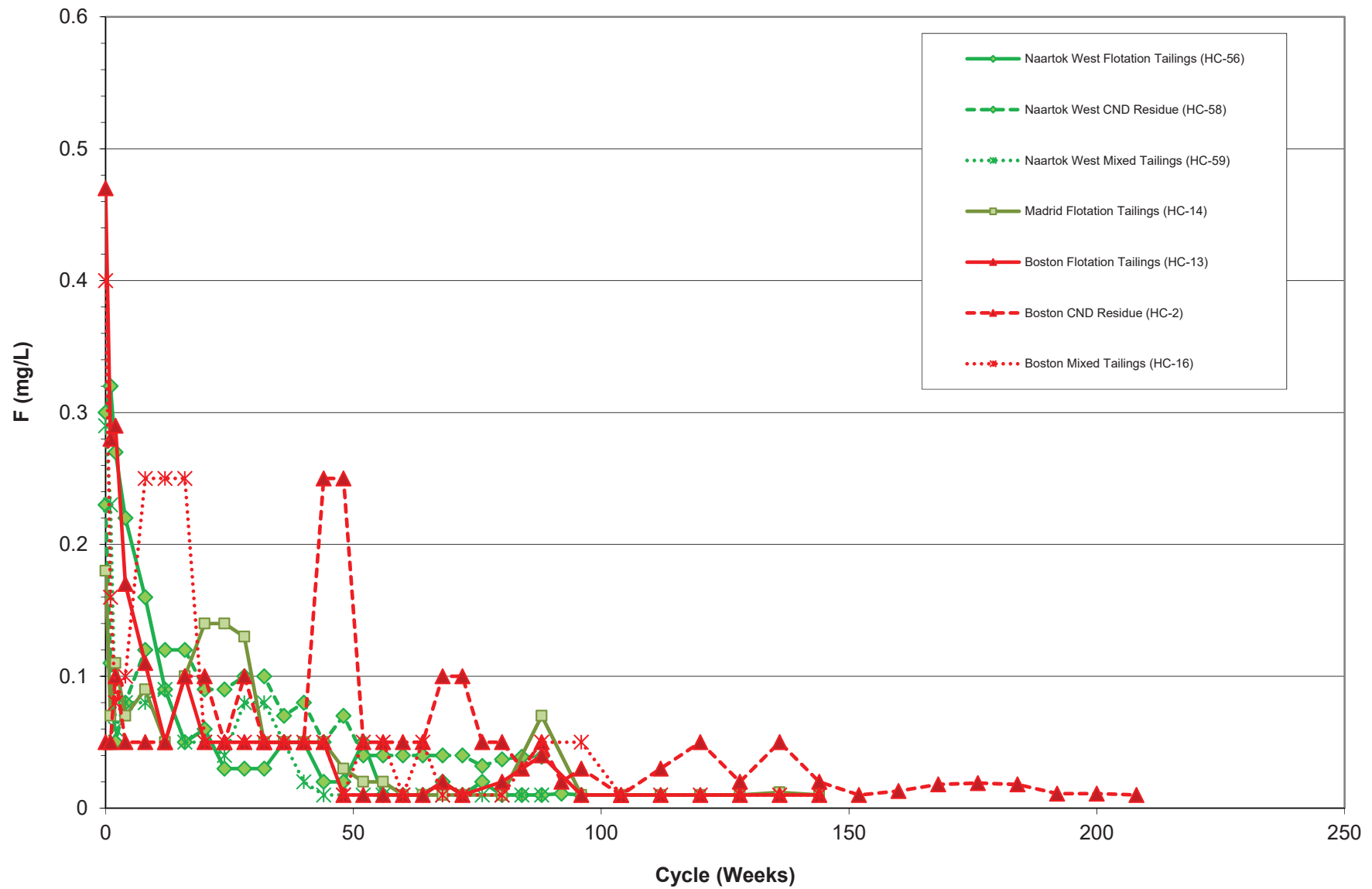


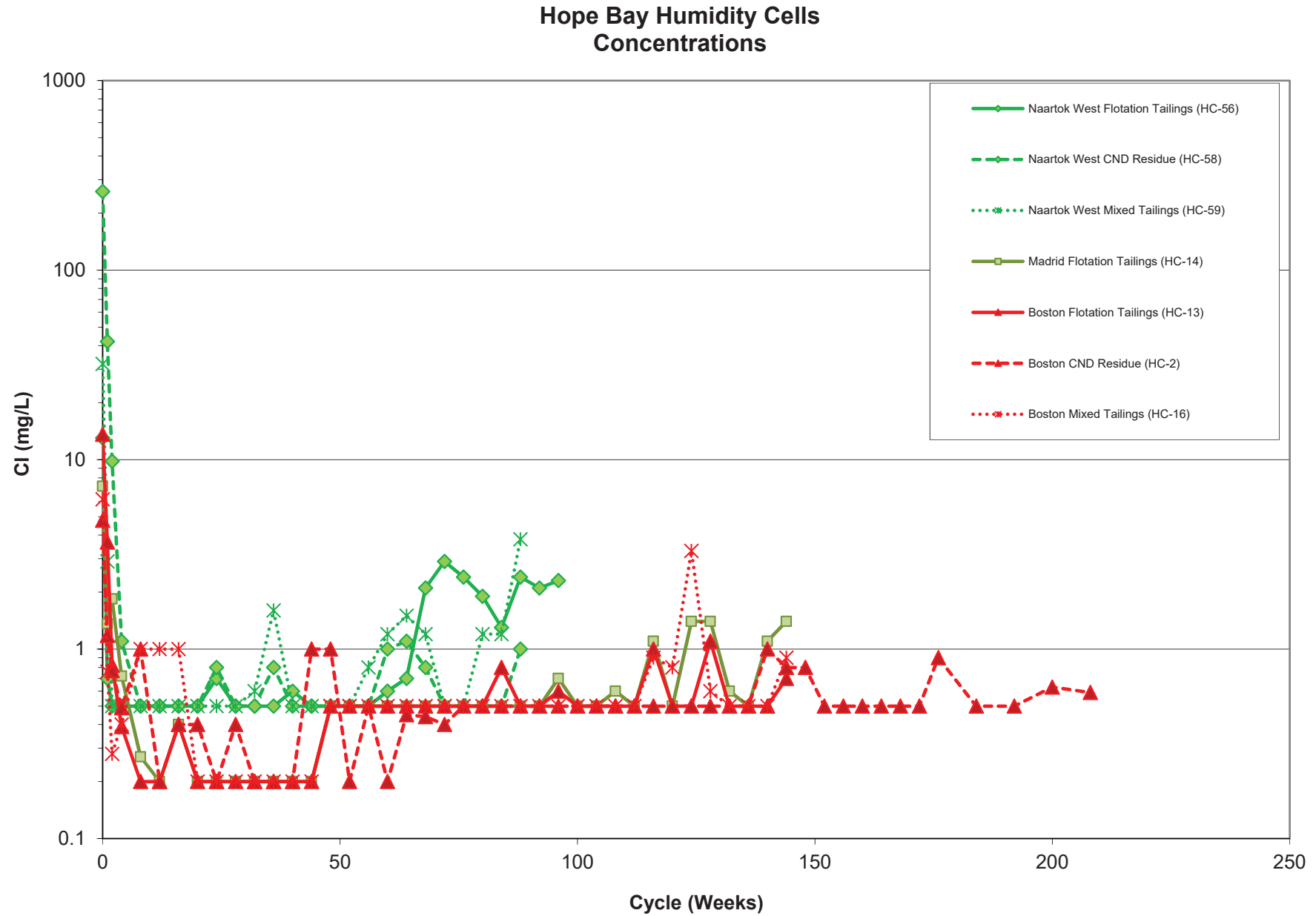


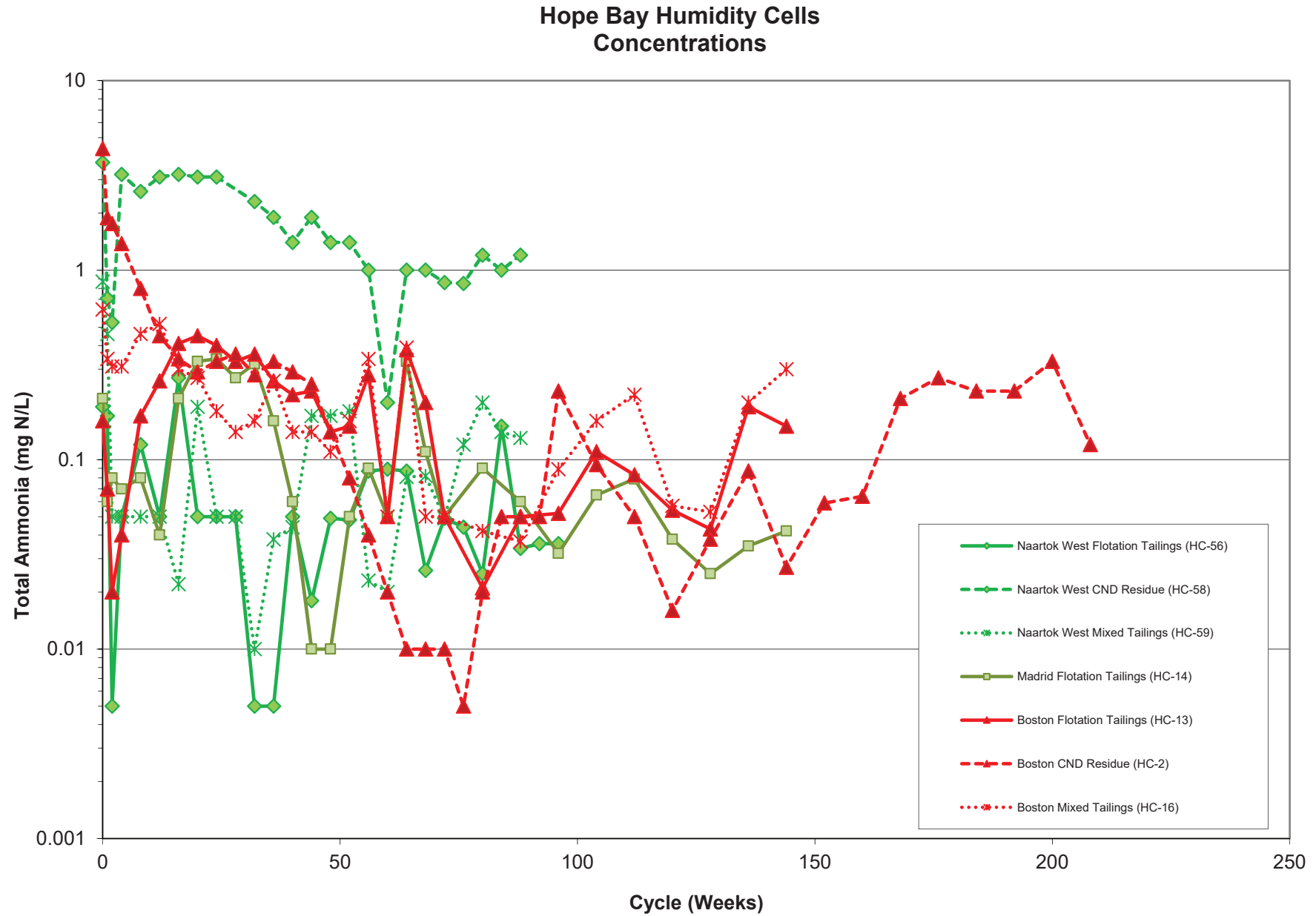




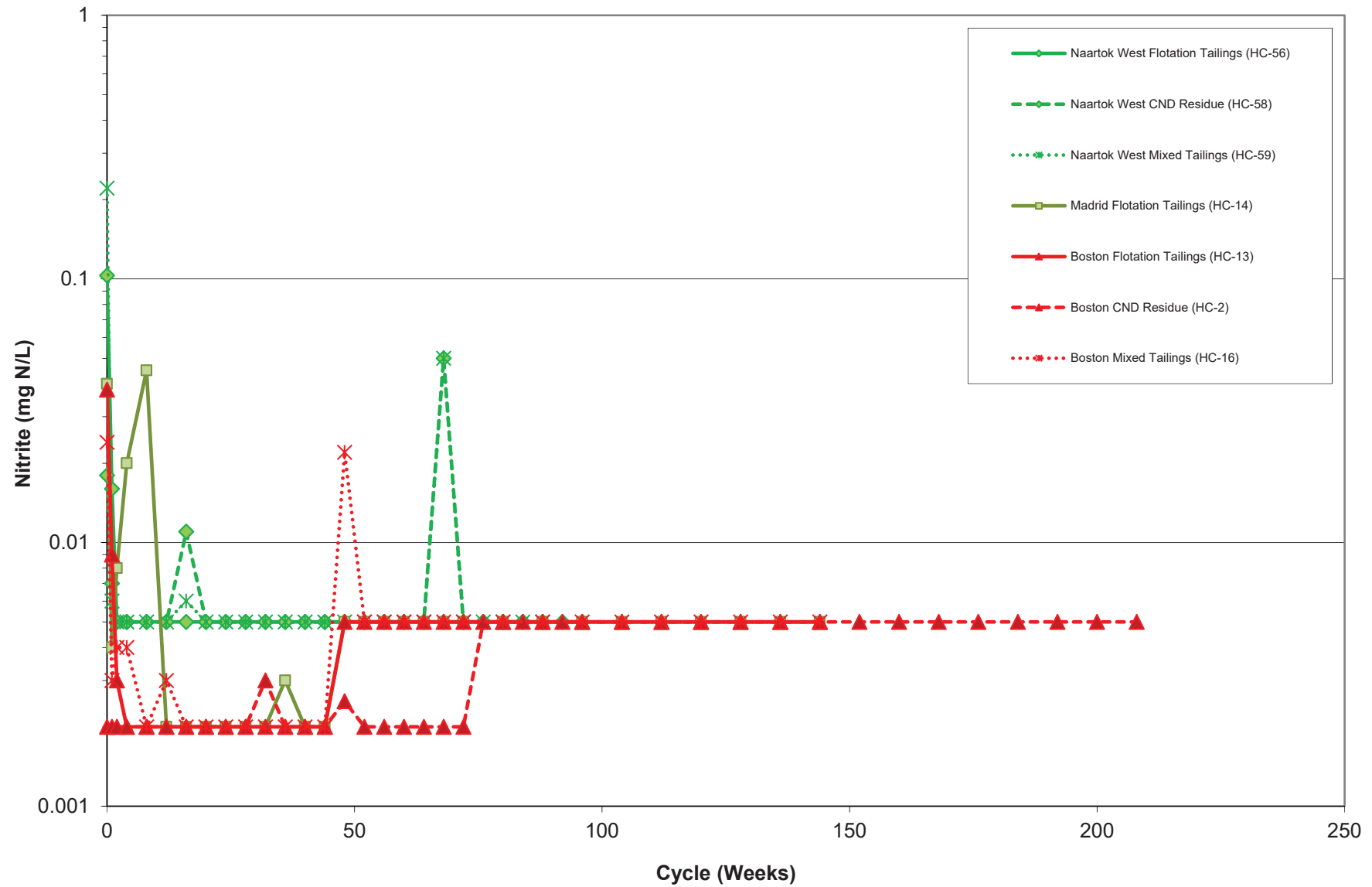
Hope Bay Humidity Cells Concentrations

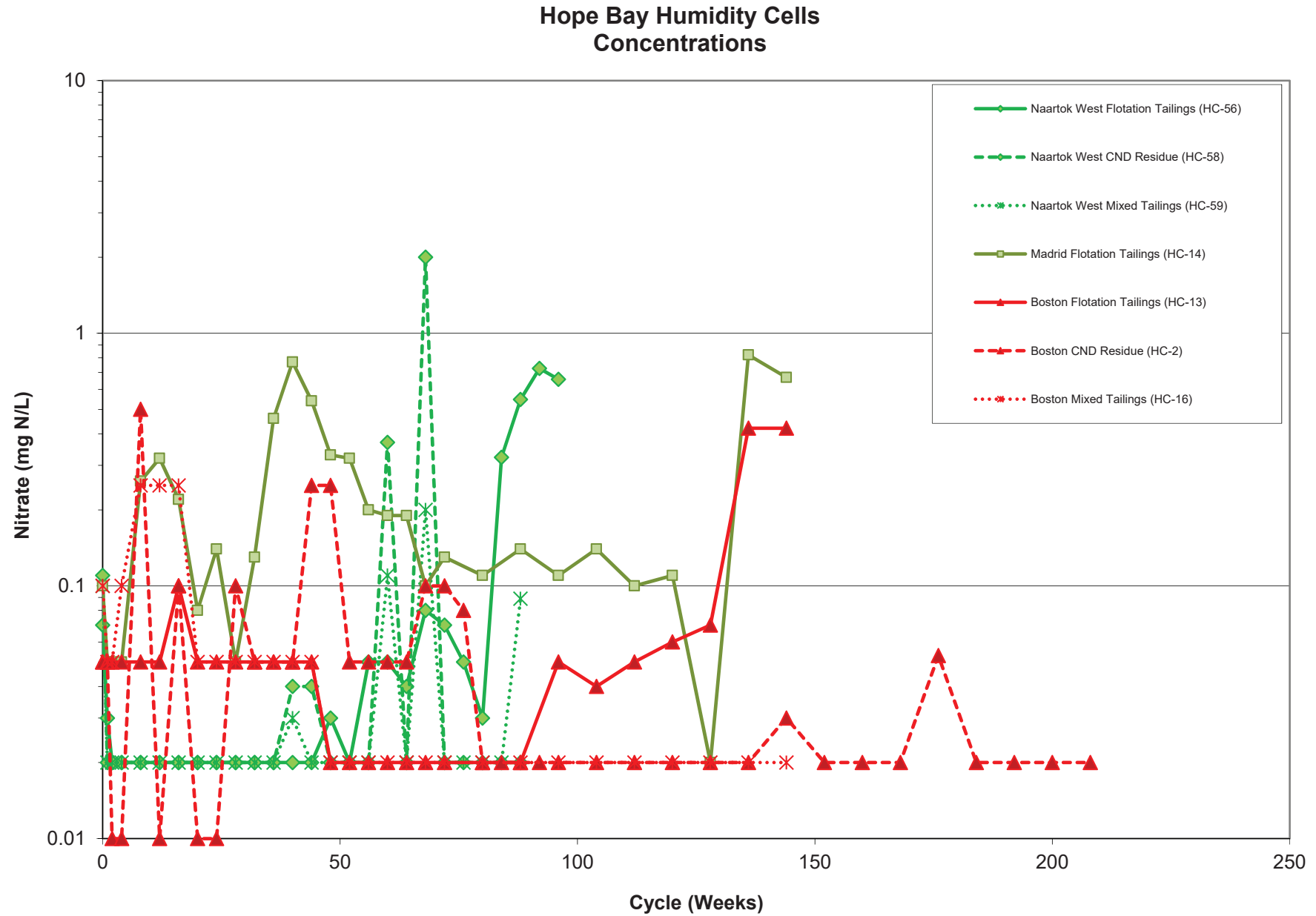


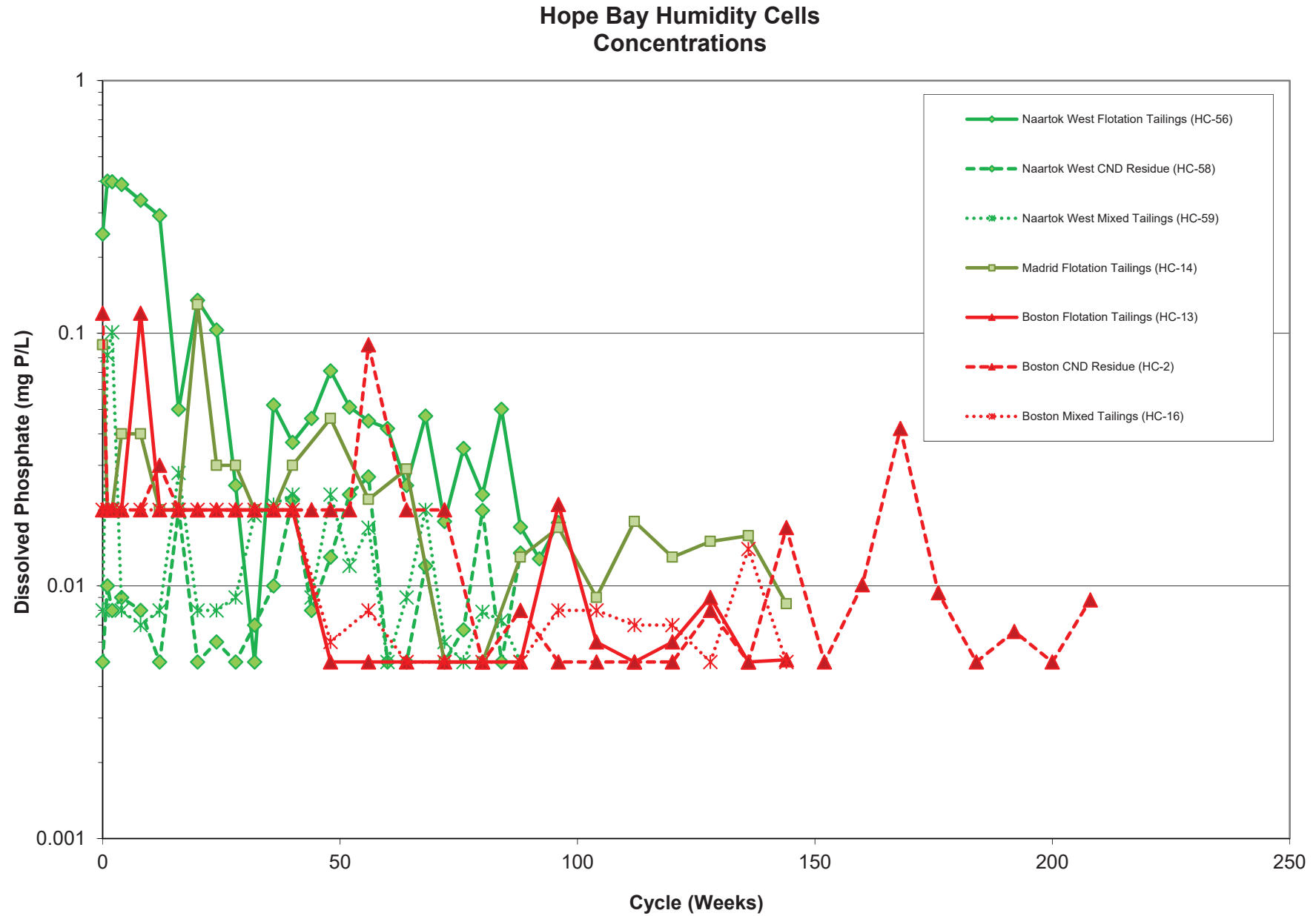


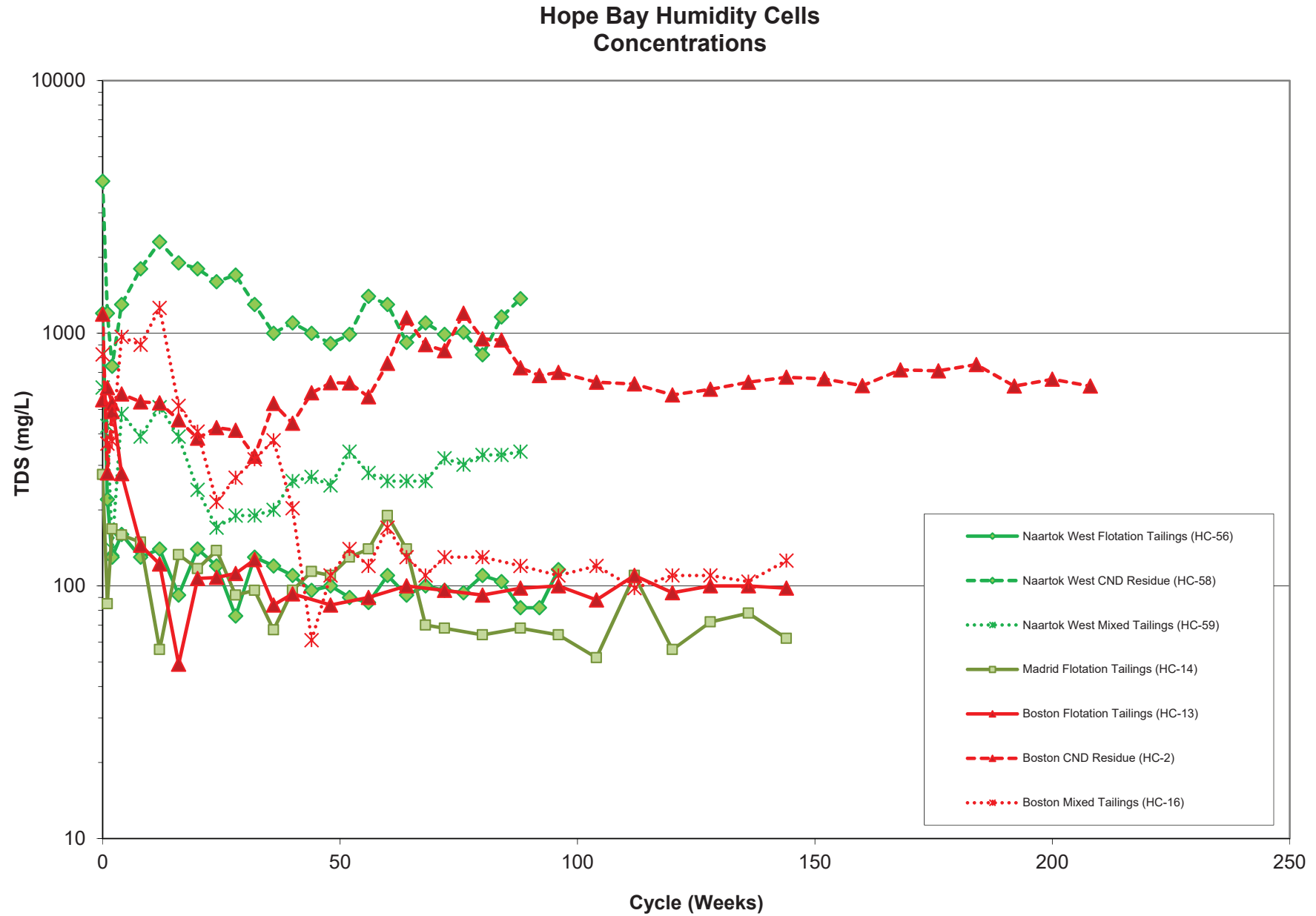


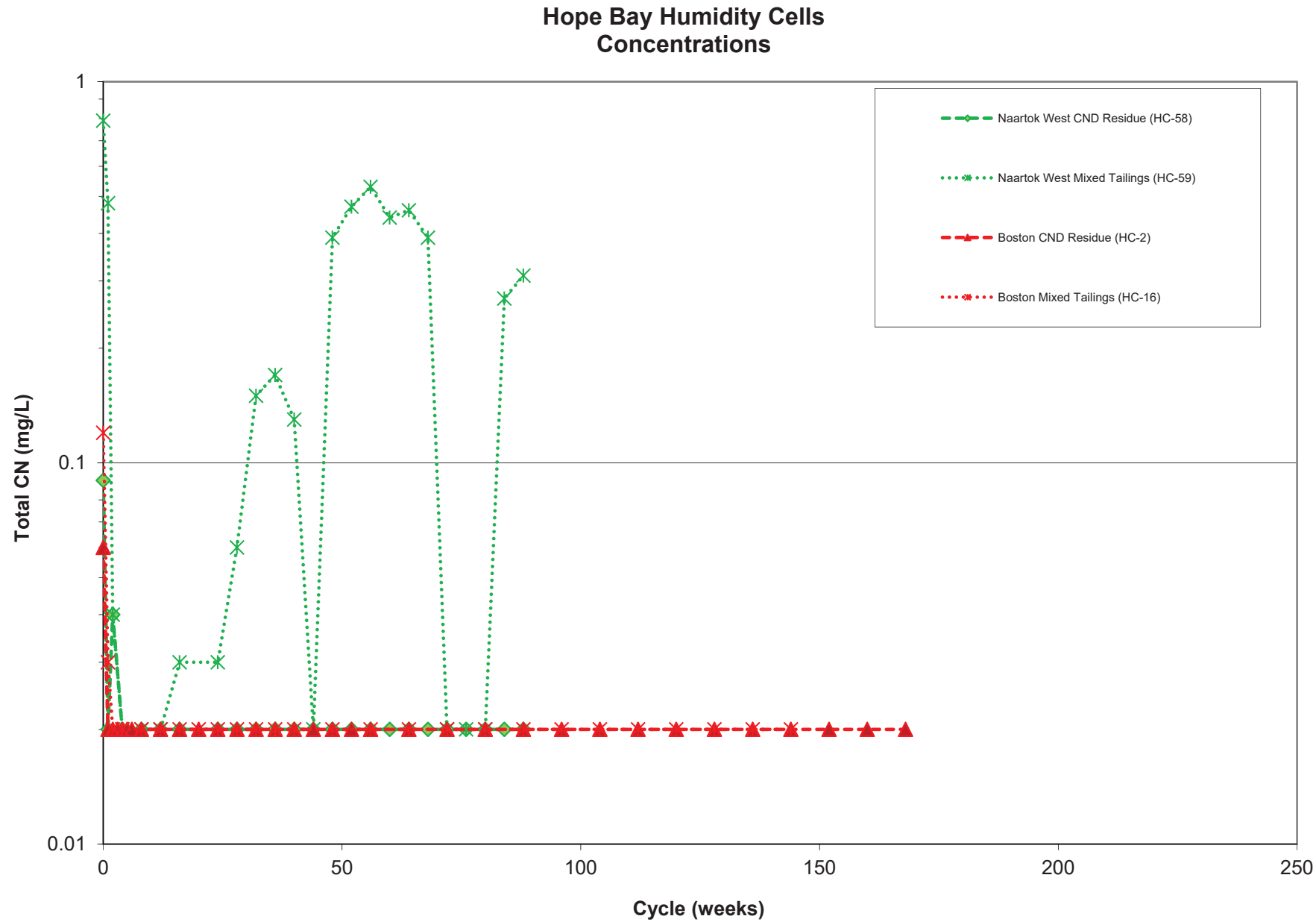
Hope Bay Humidity Cells Concentrations

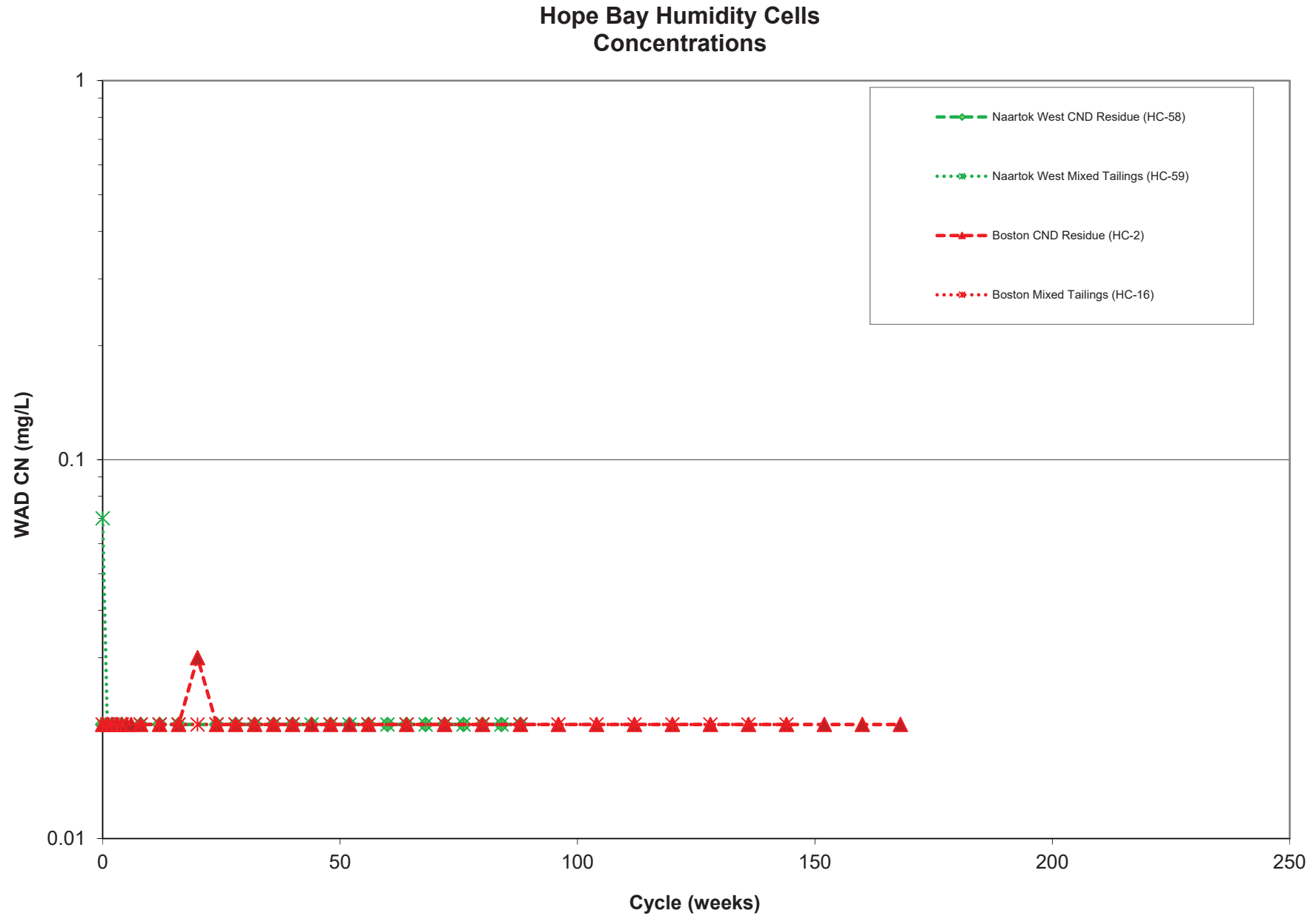


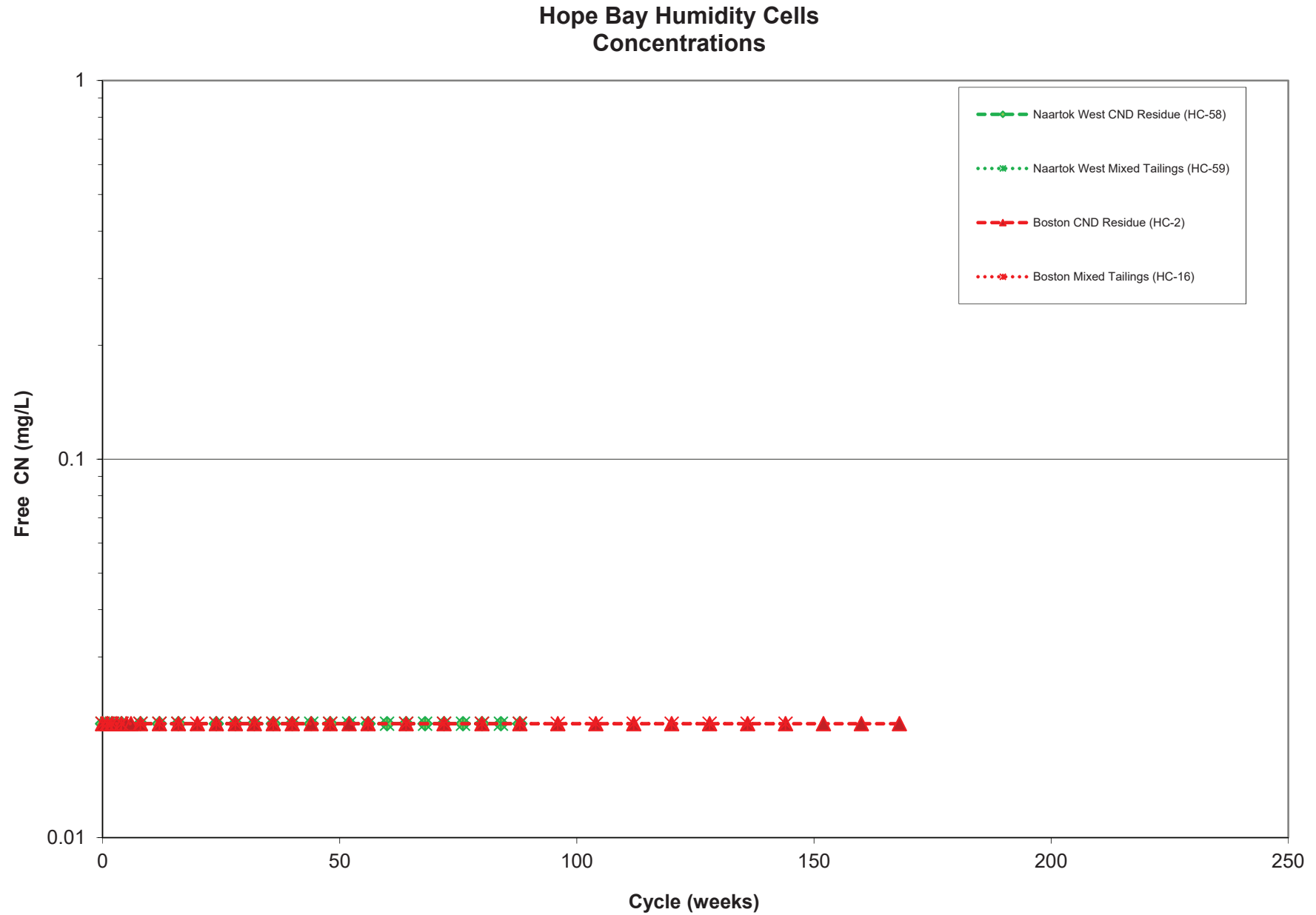


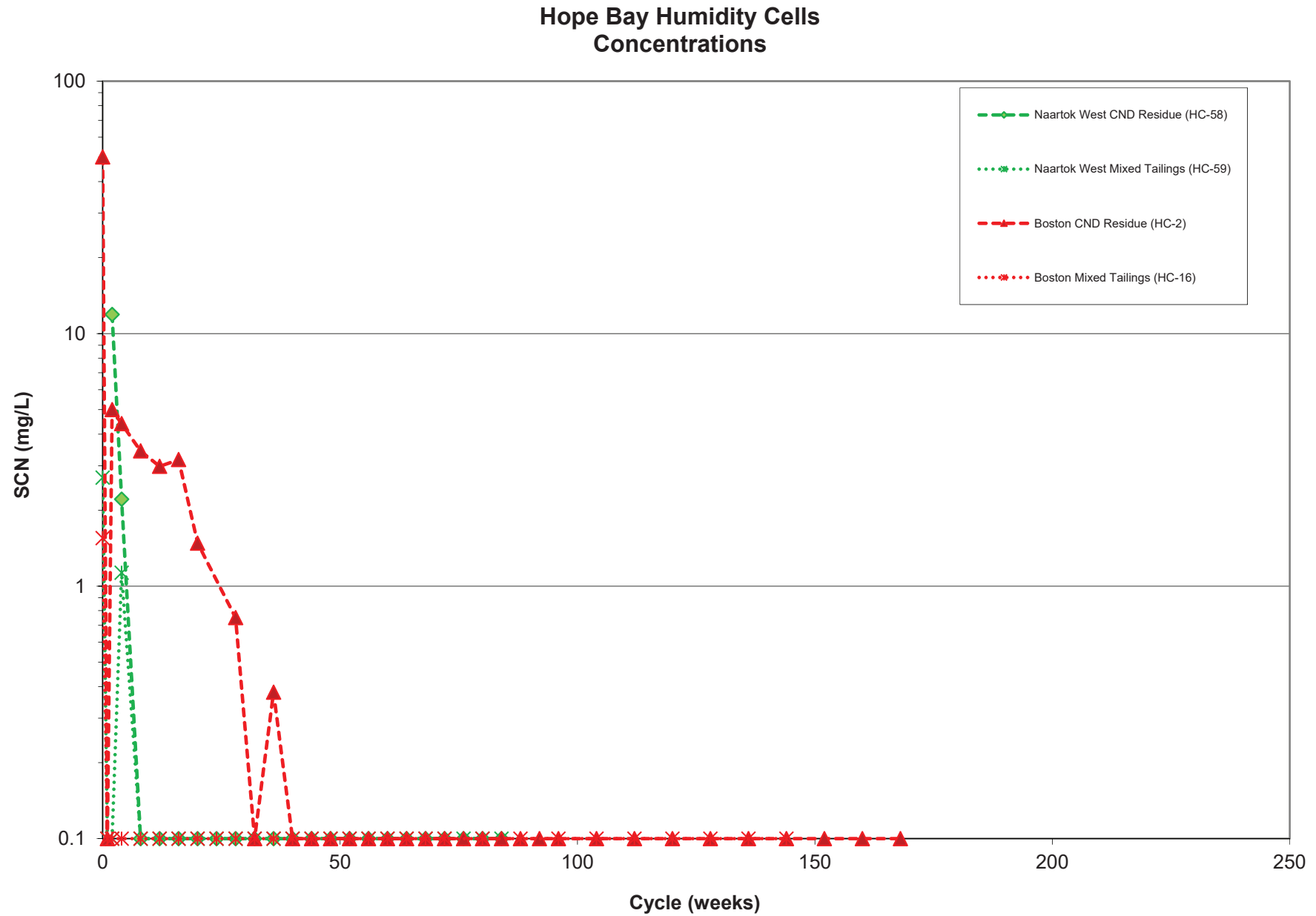


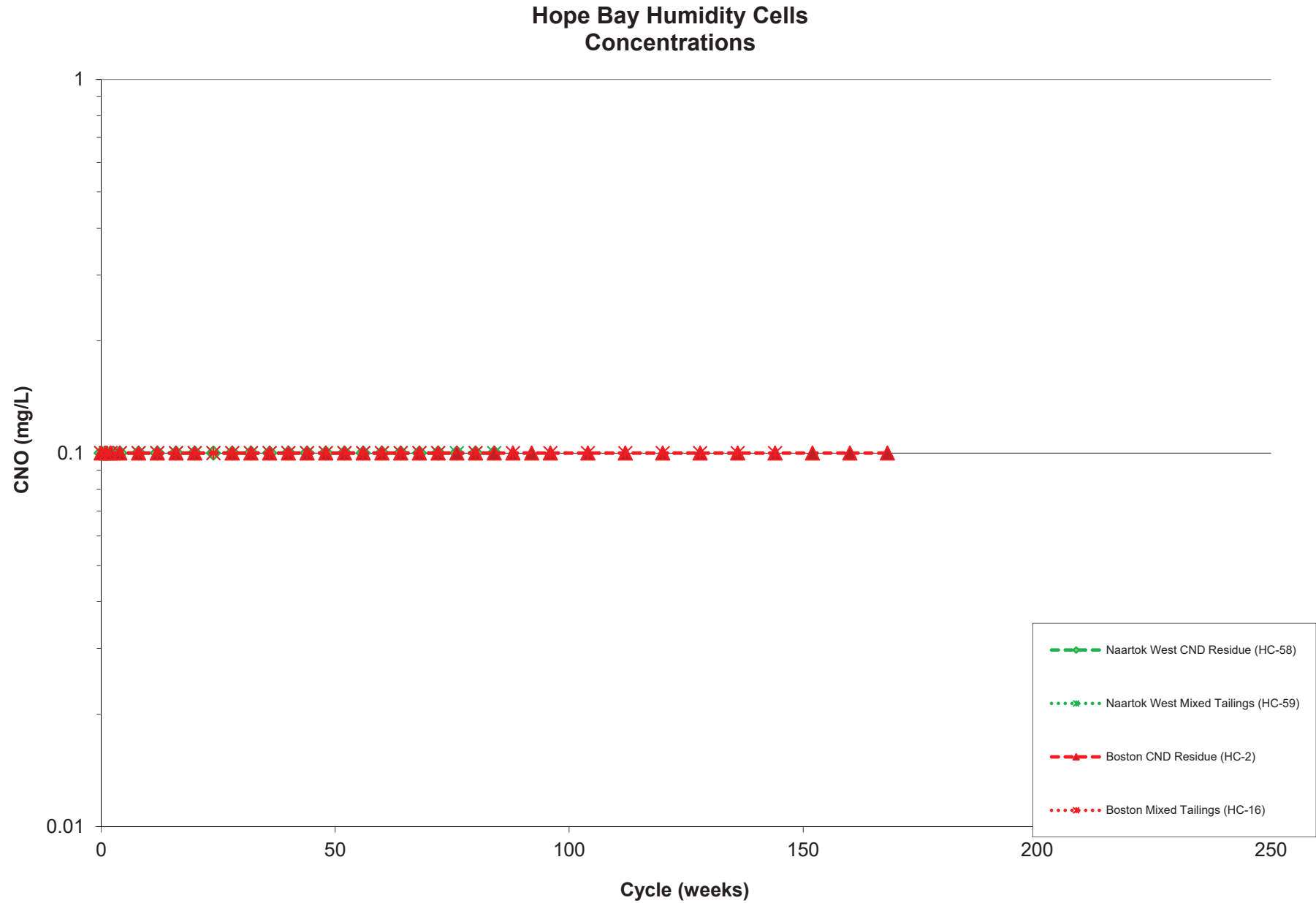


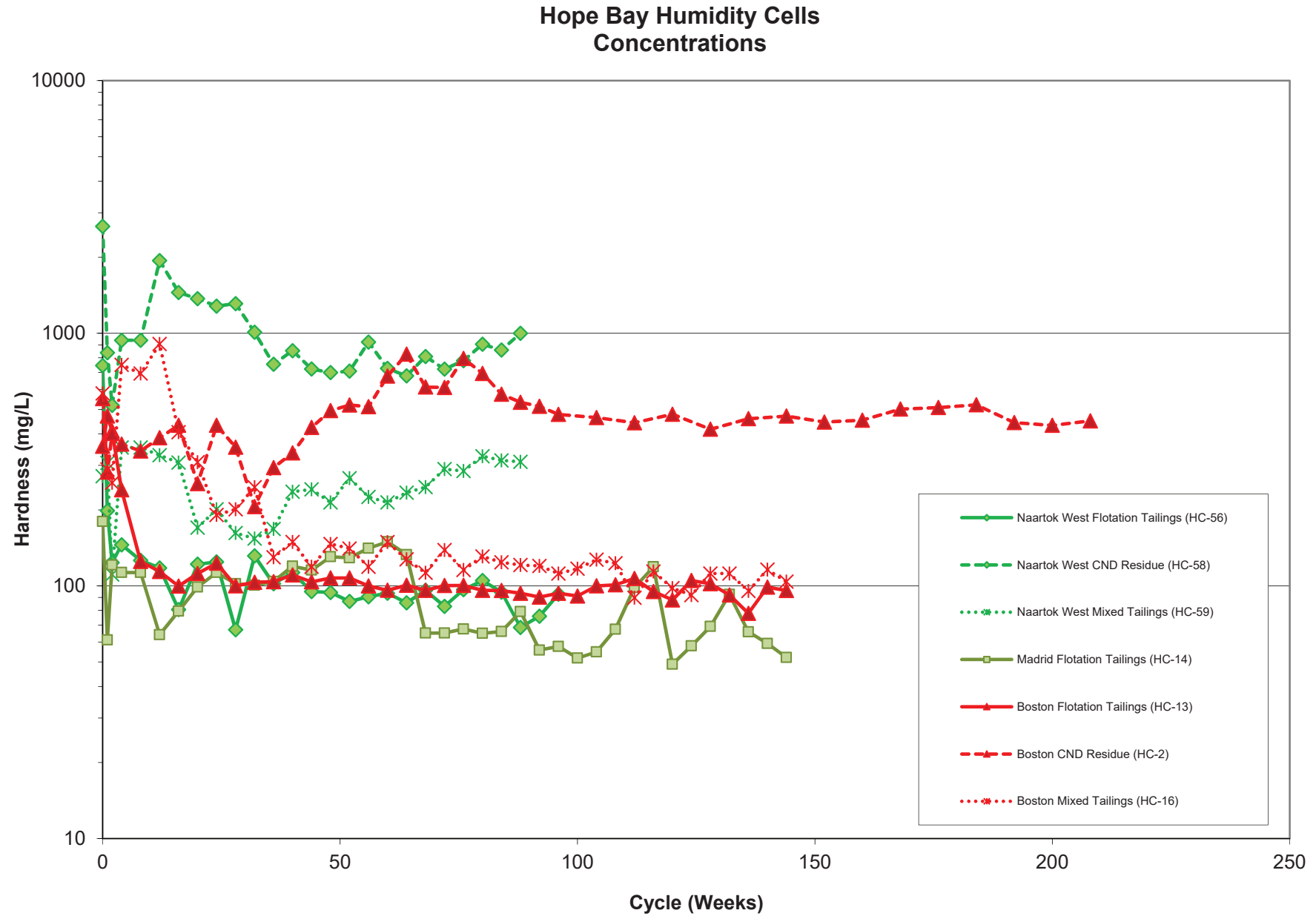


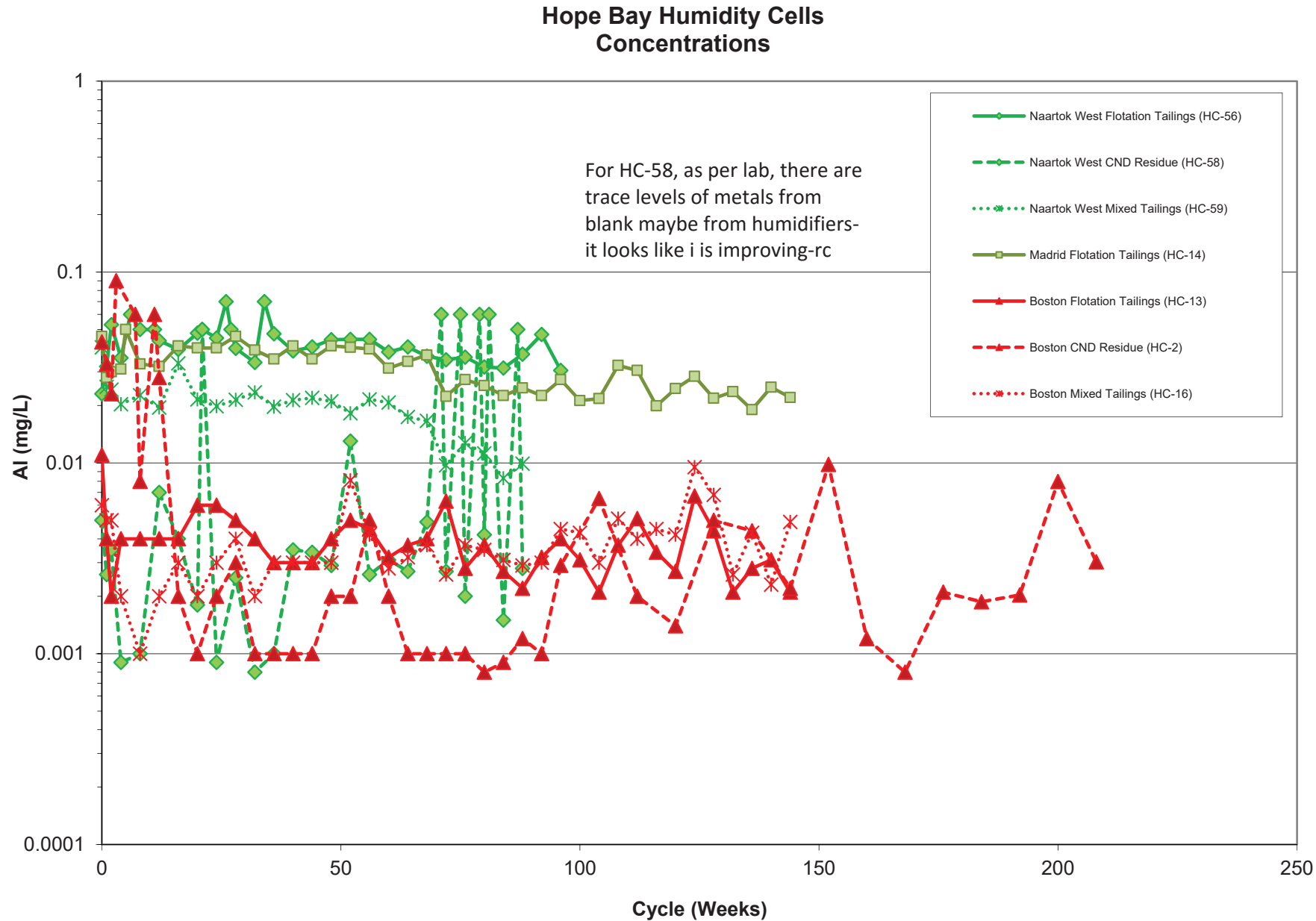


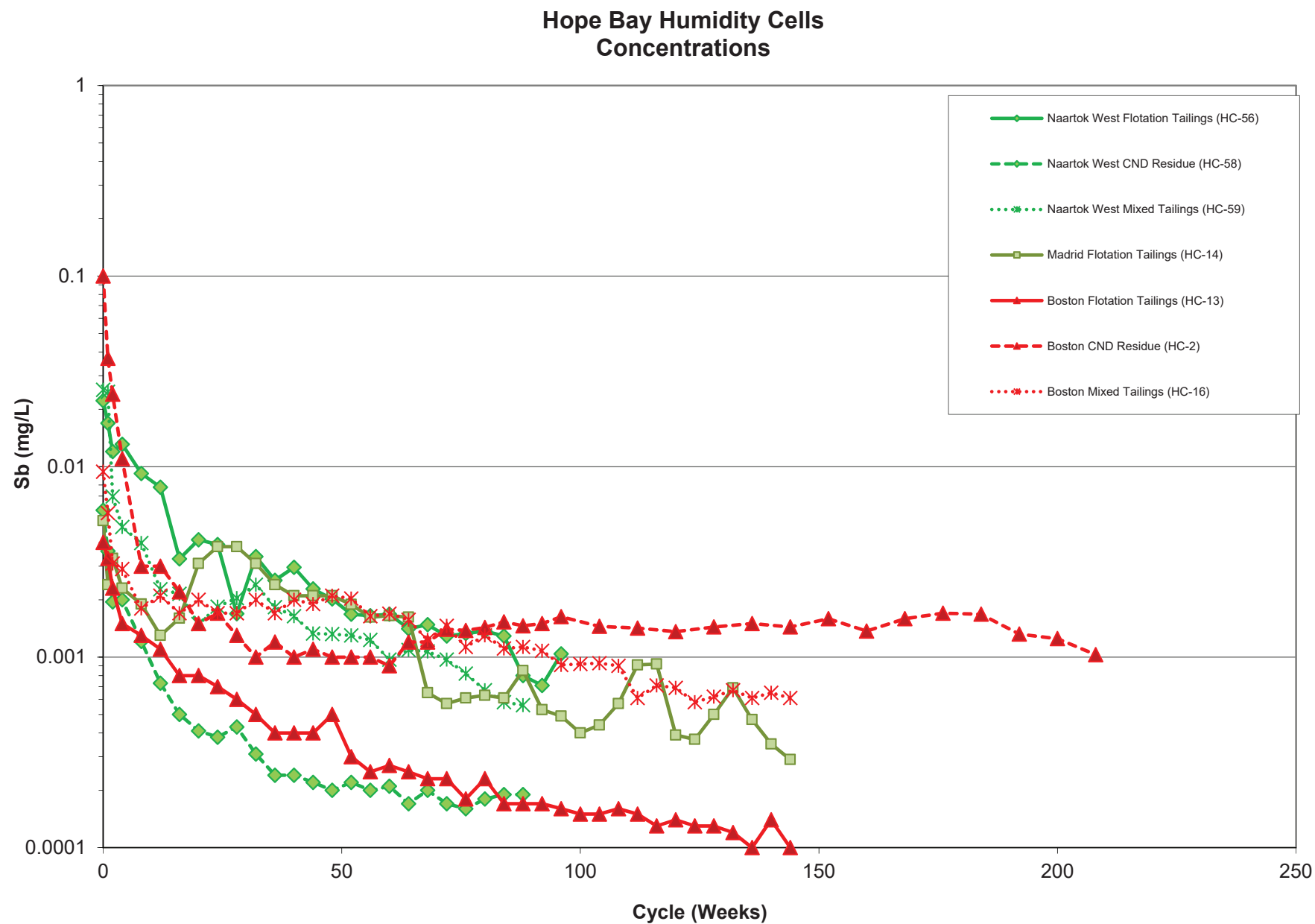


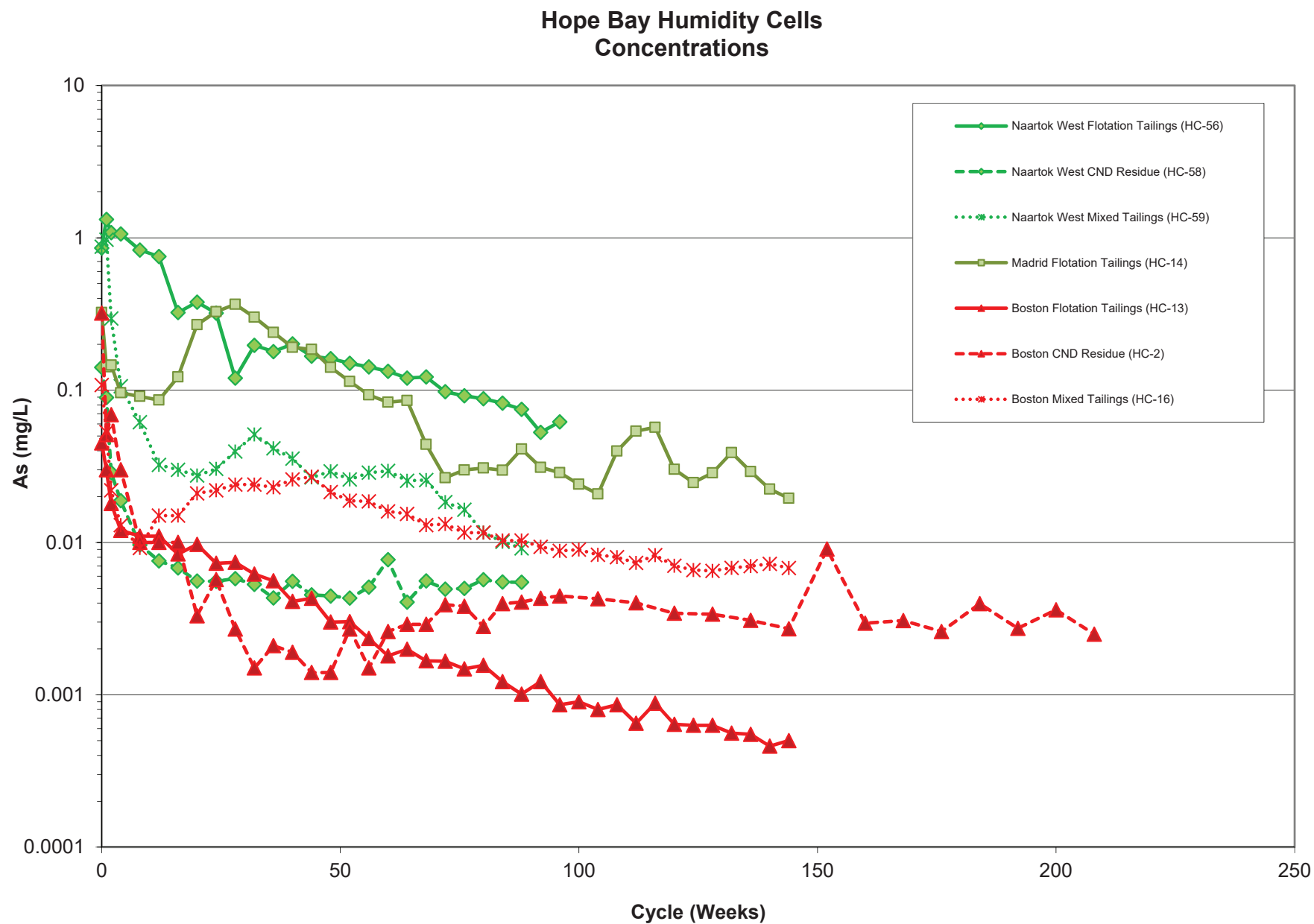


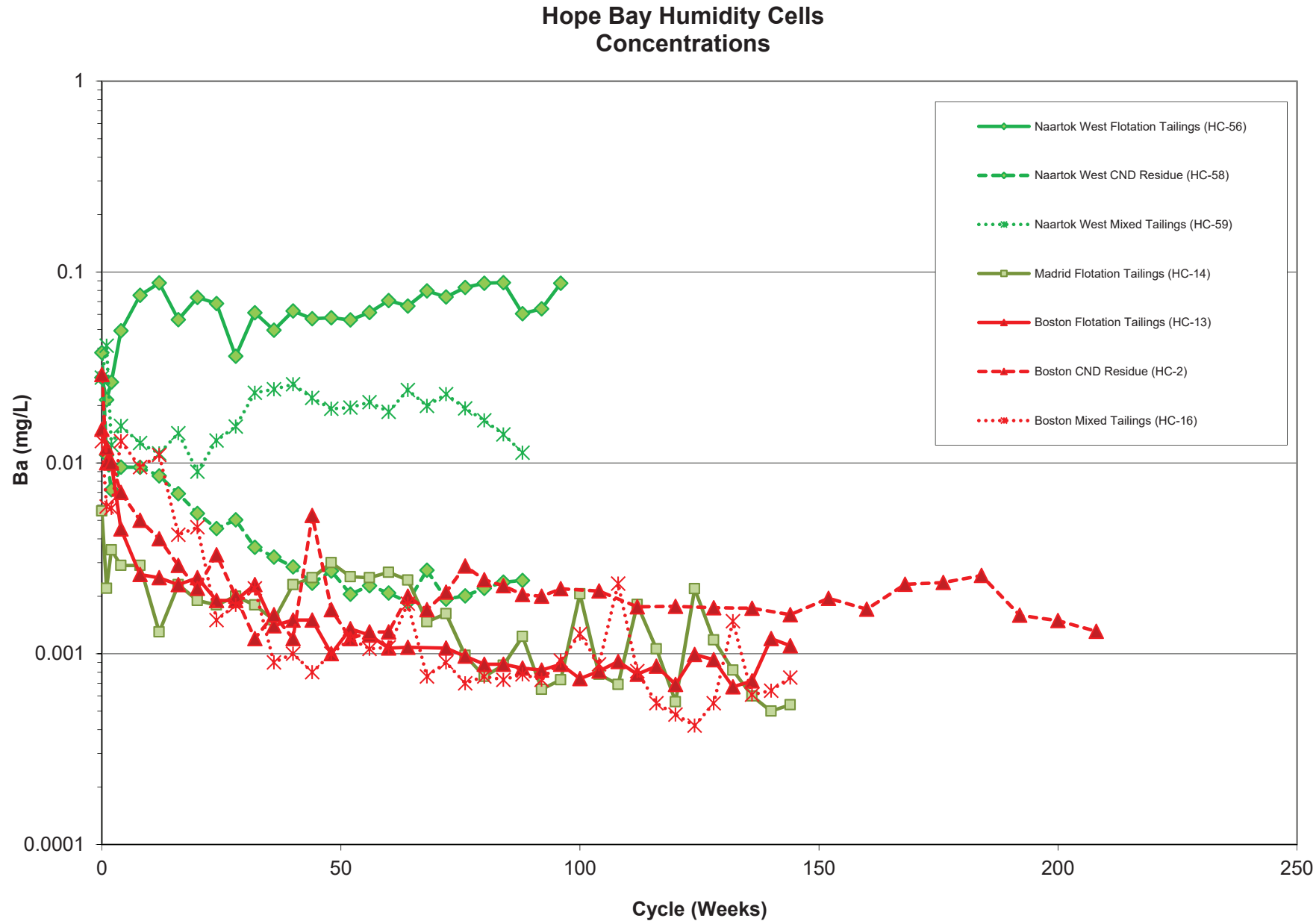


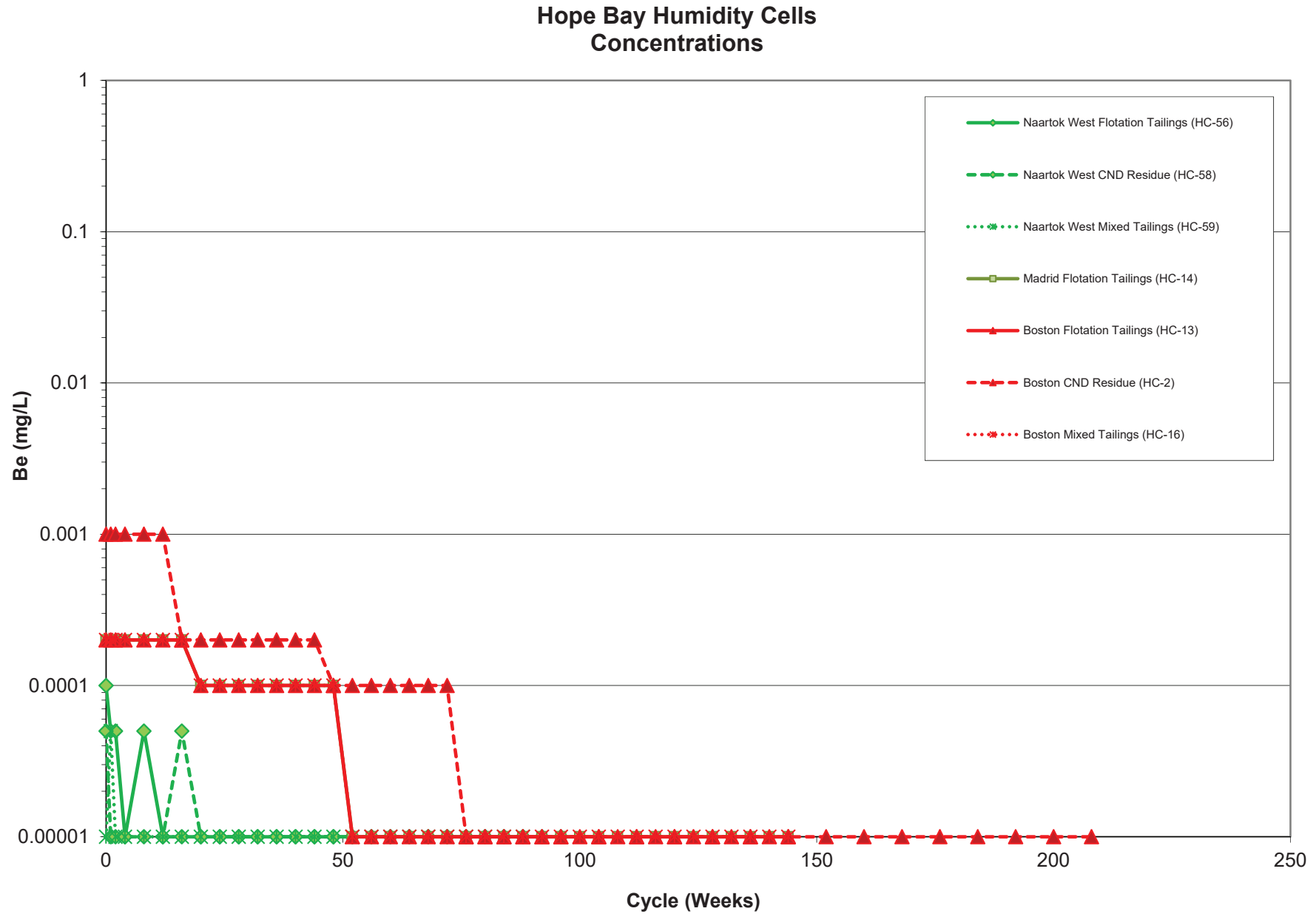


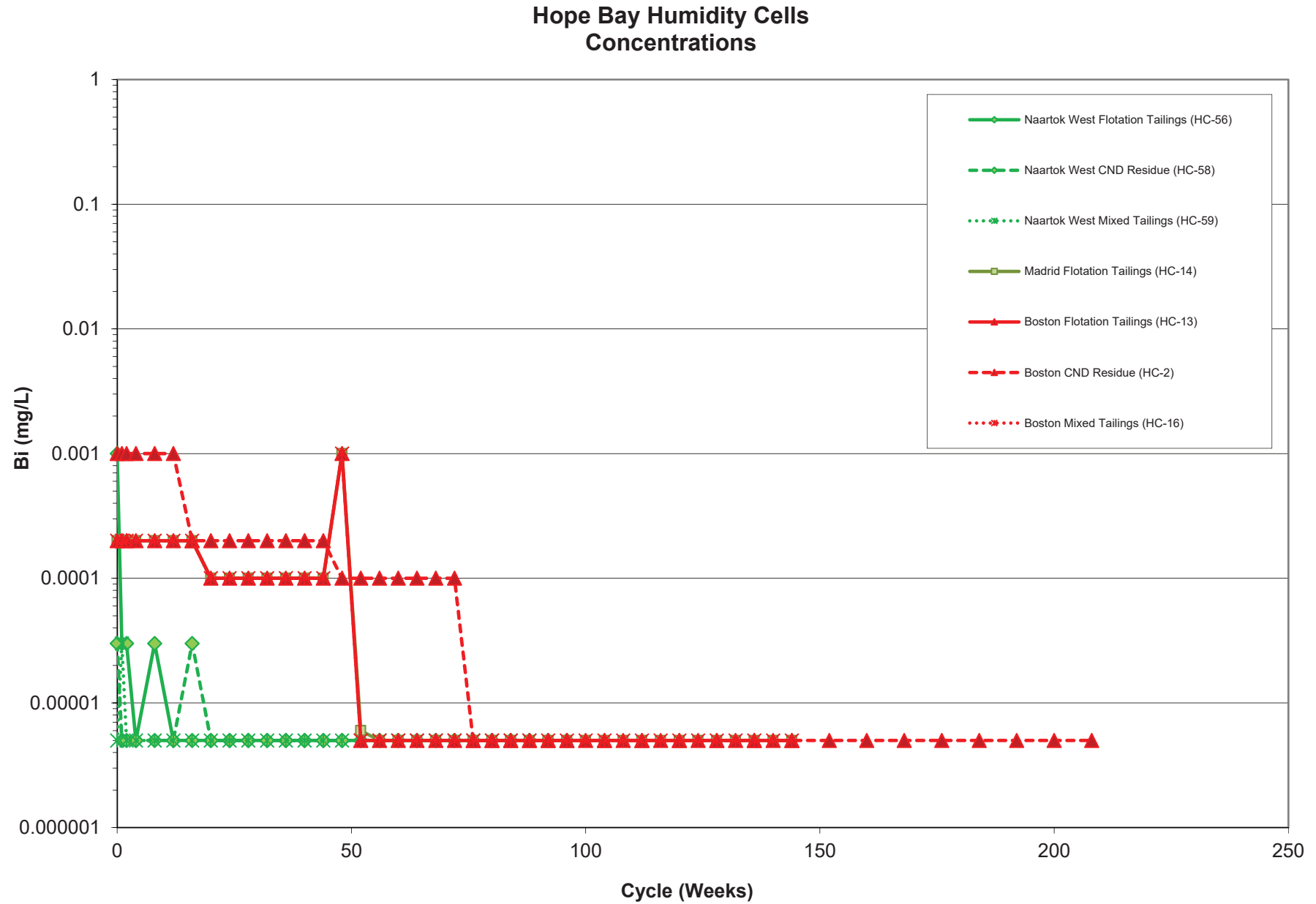


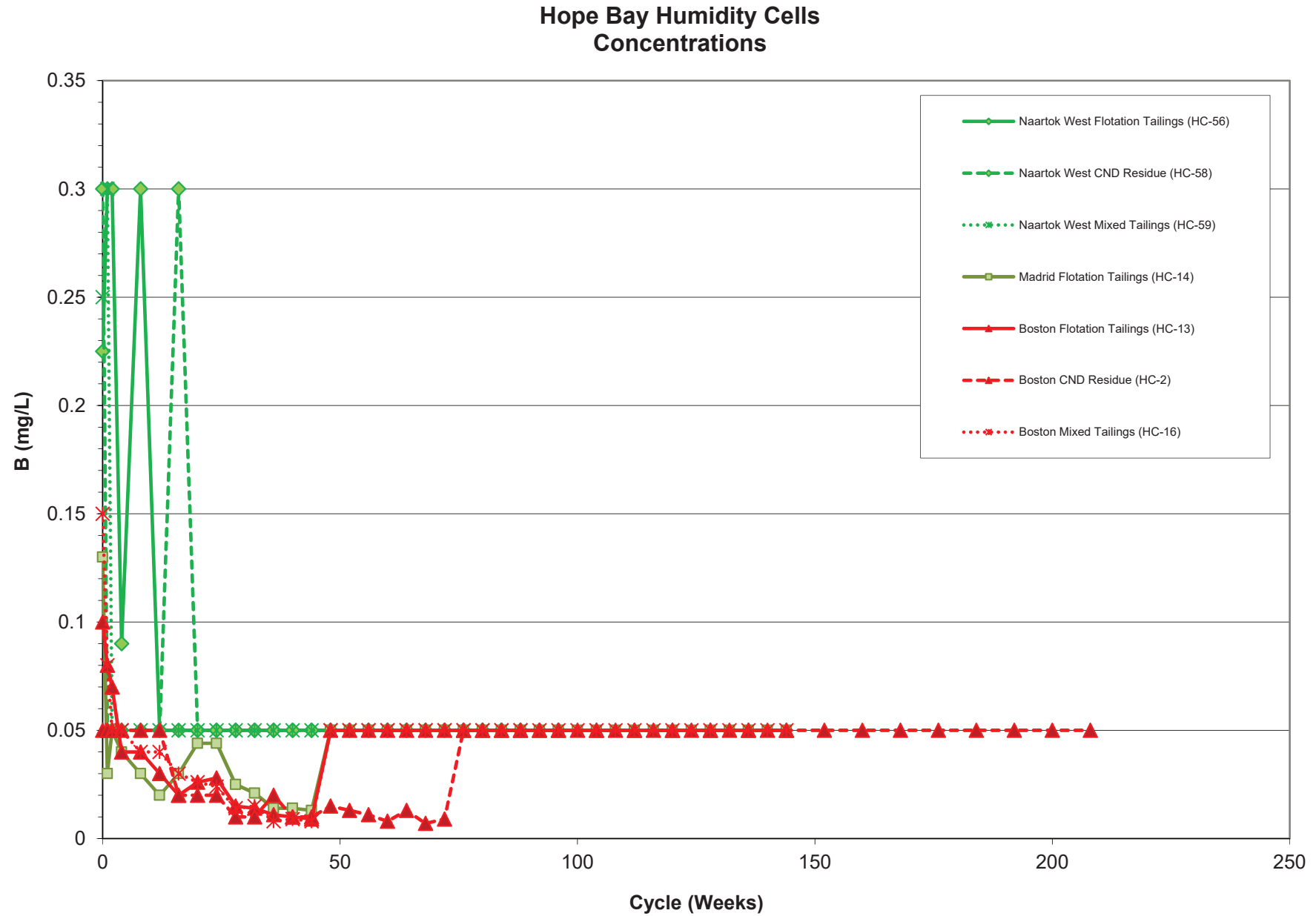


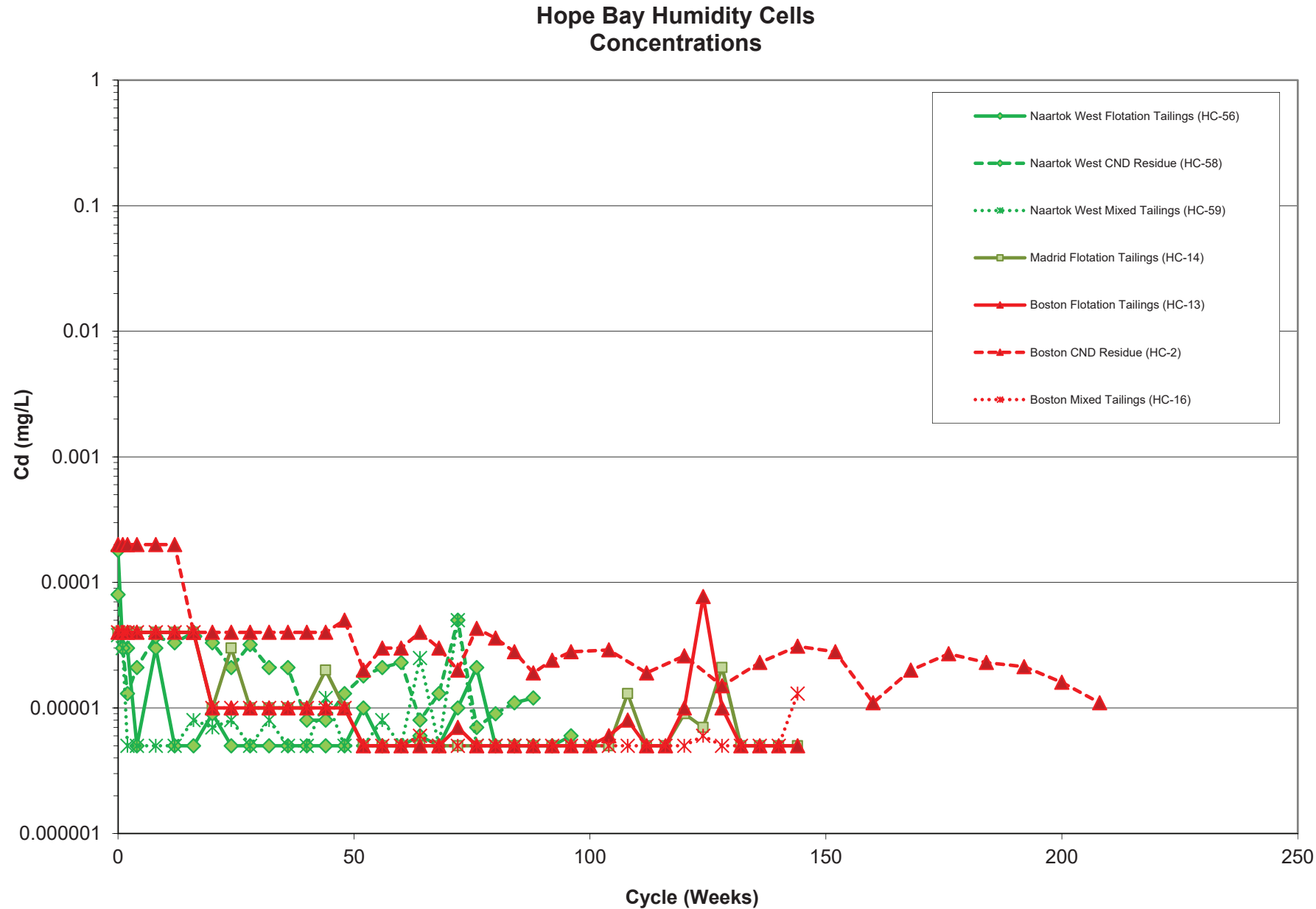


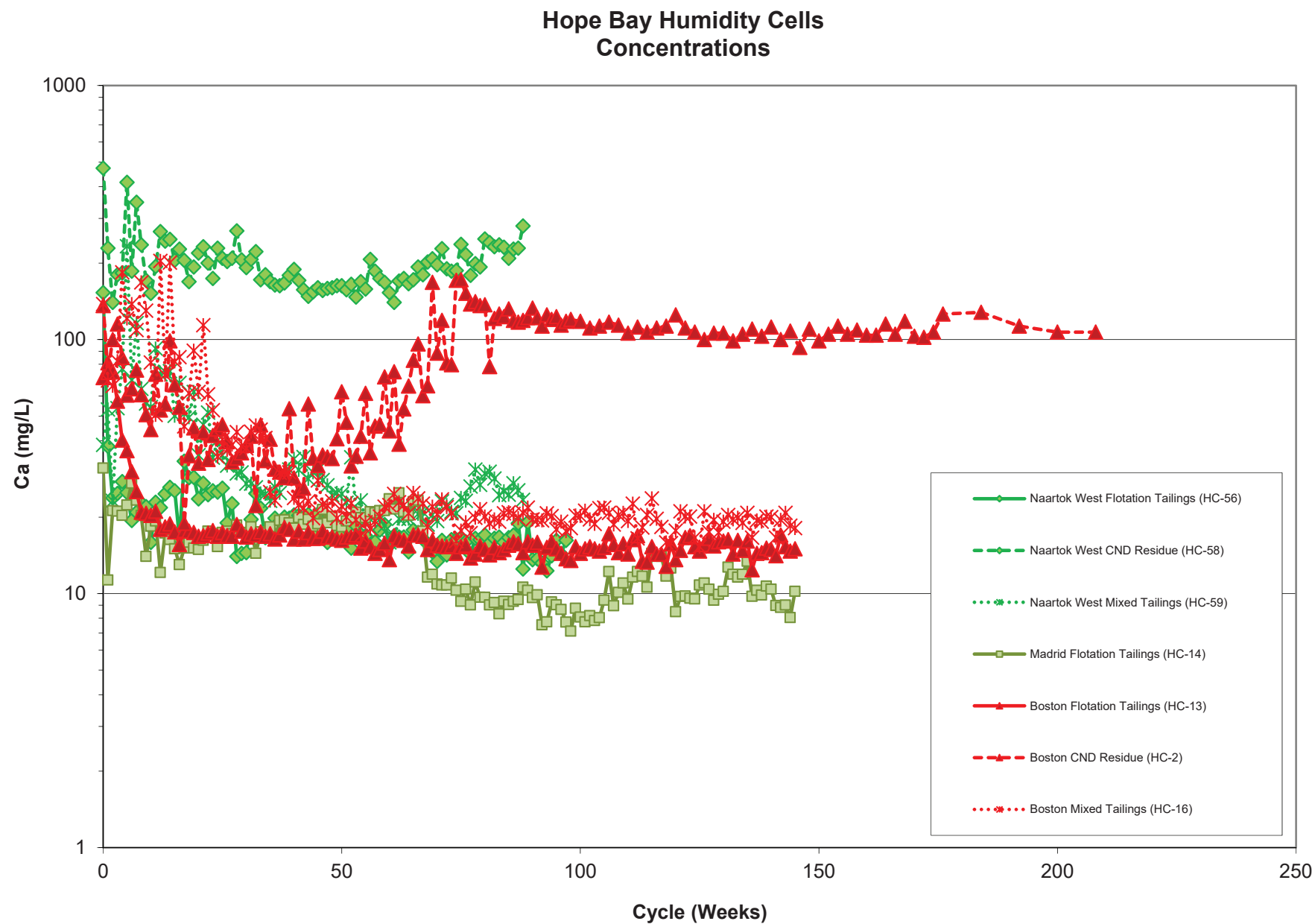


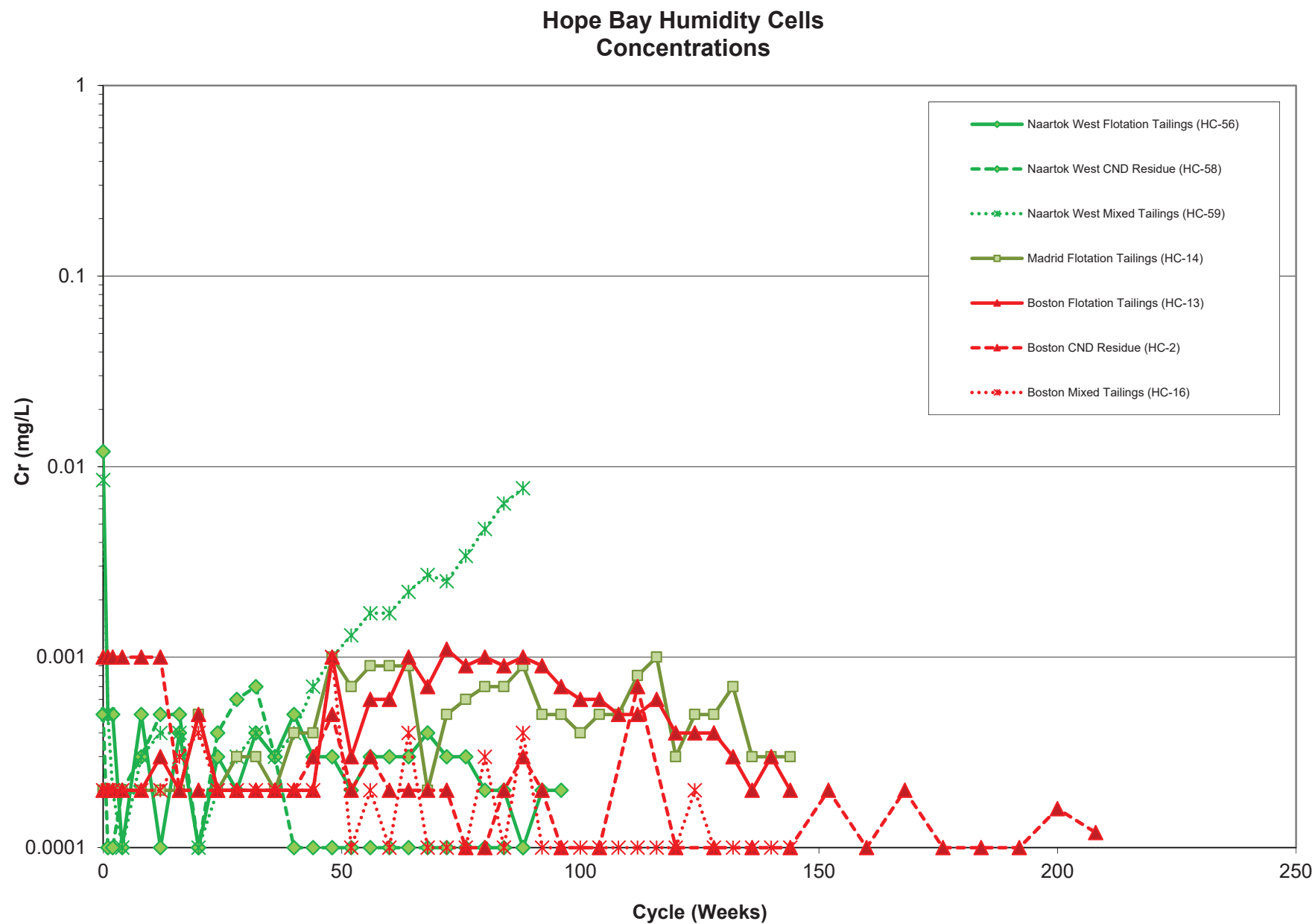


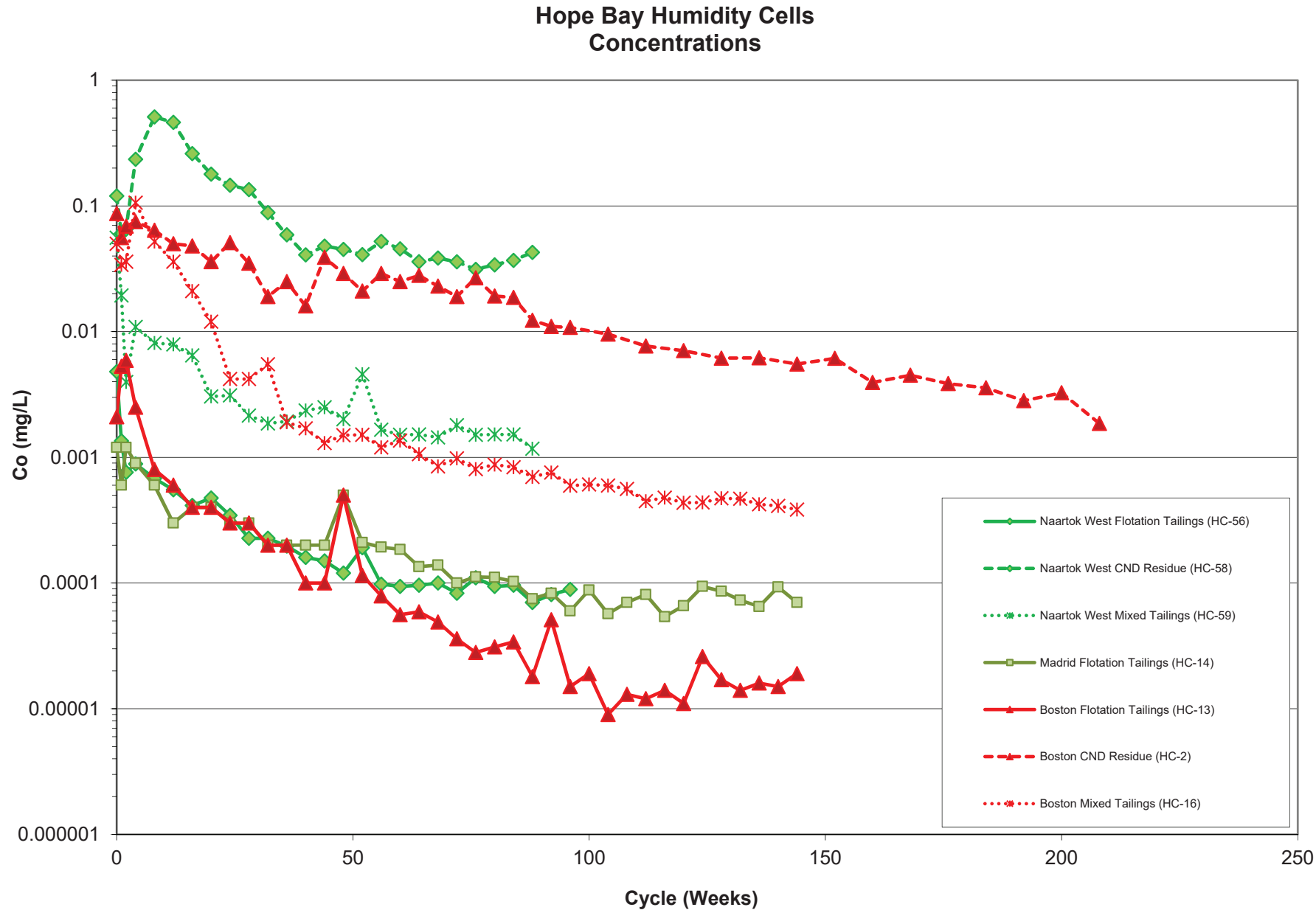


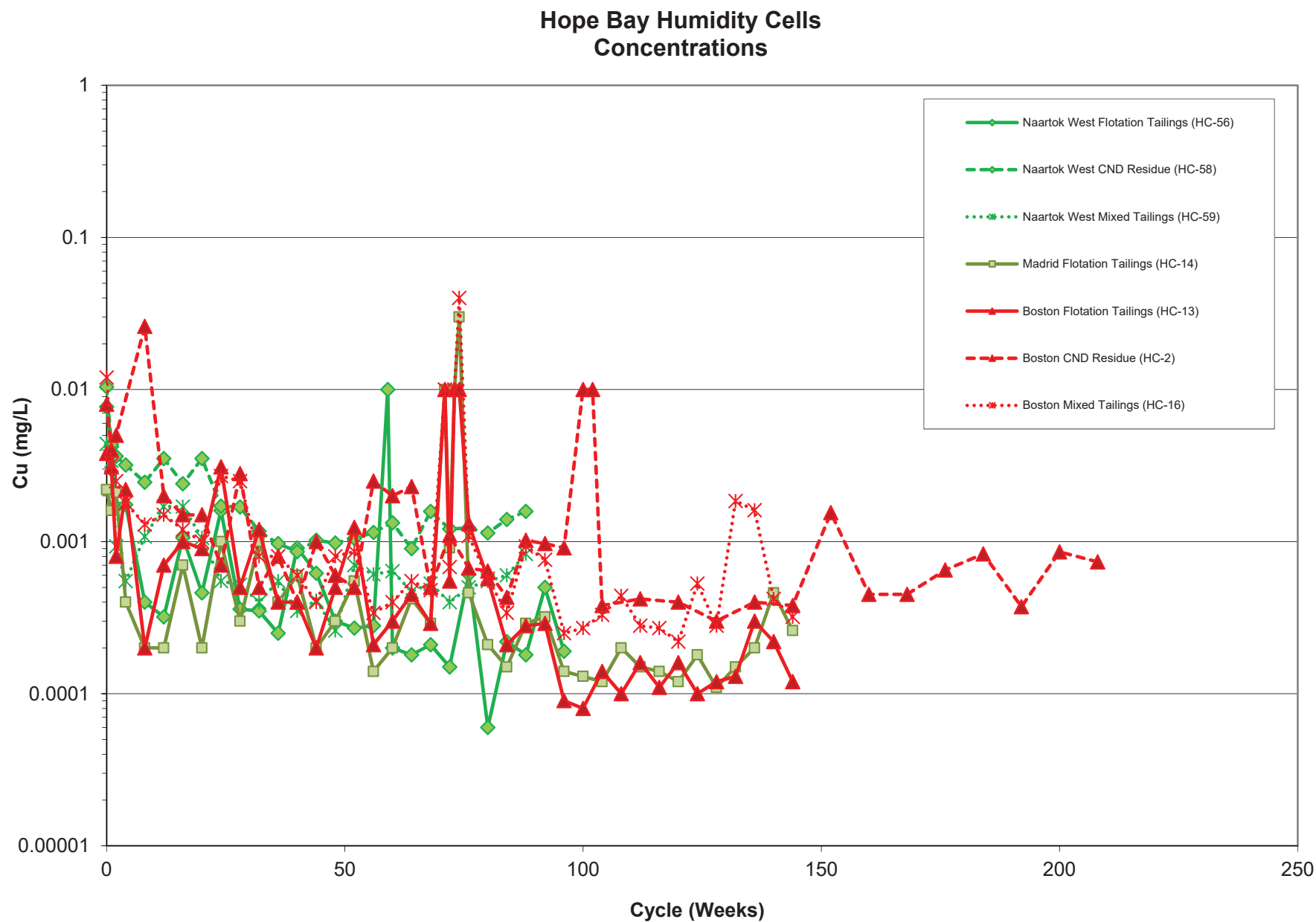




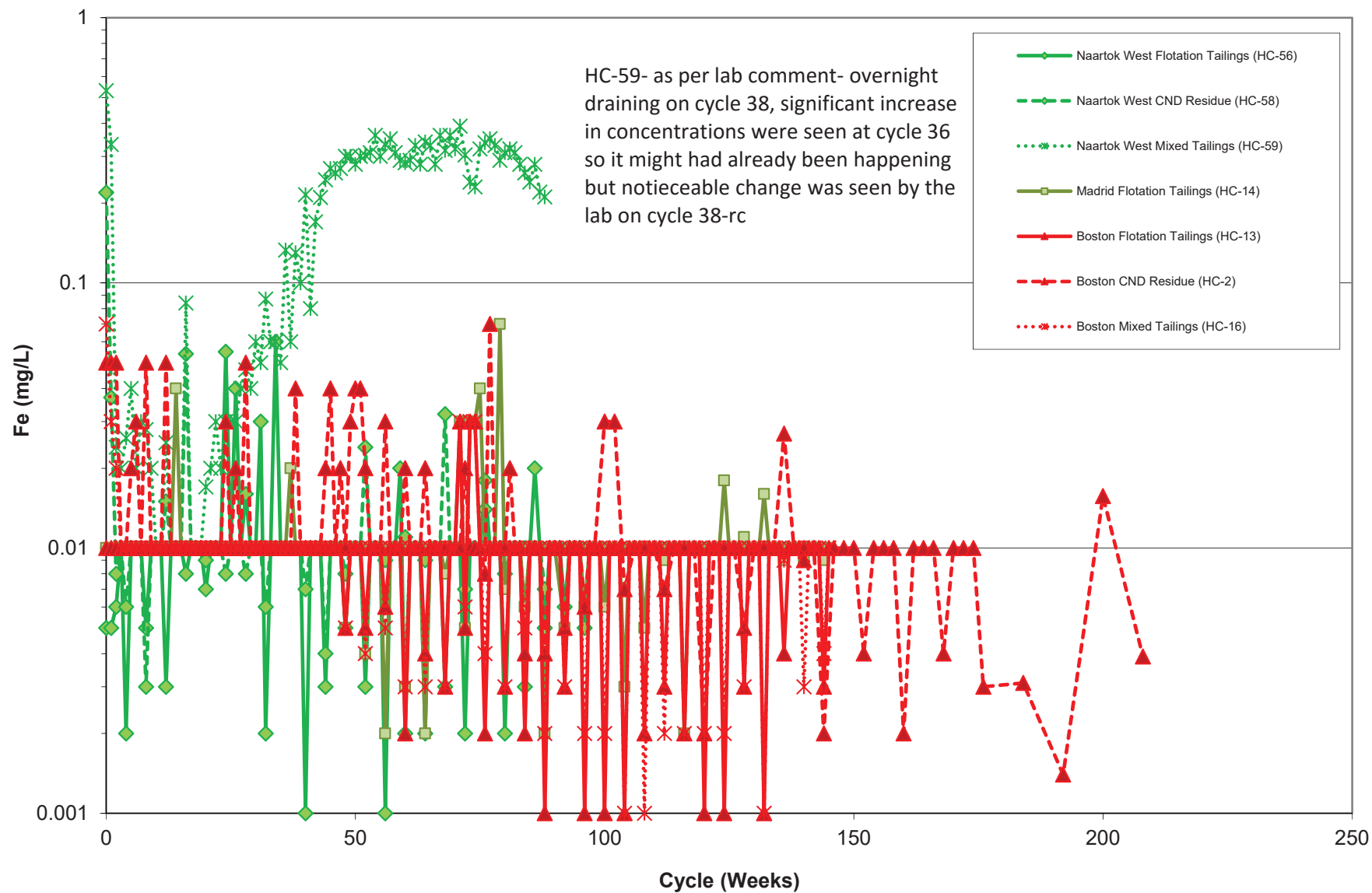


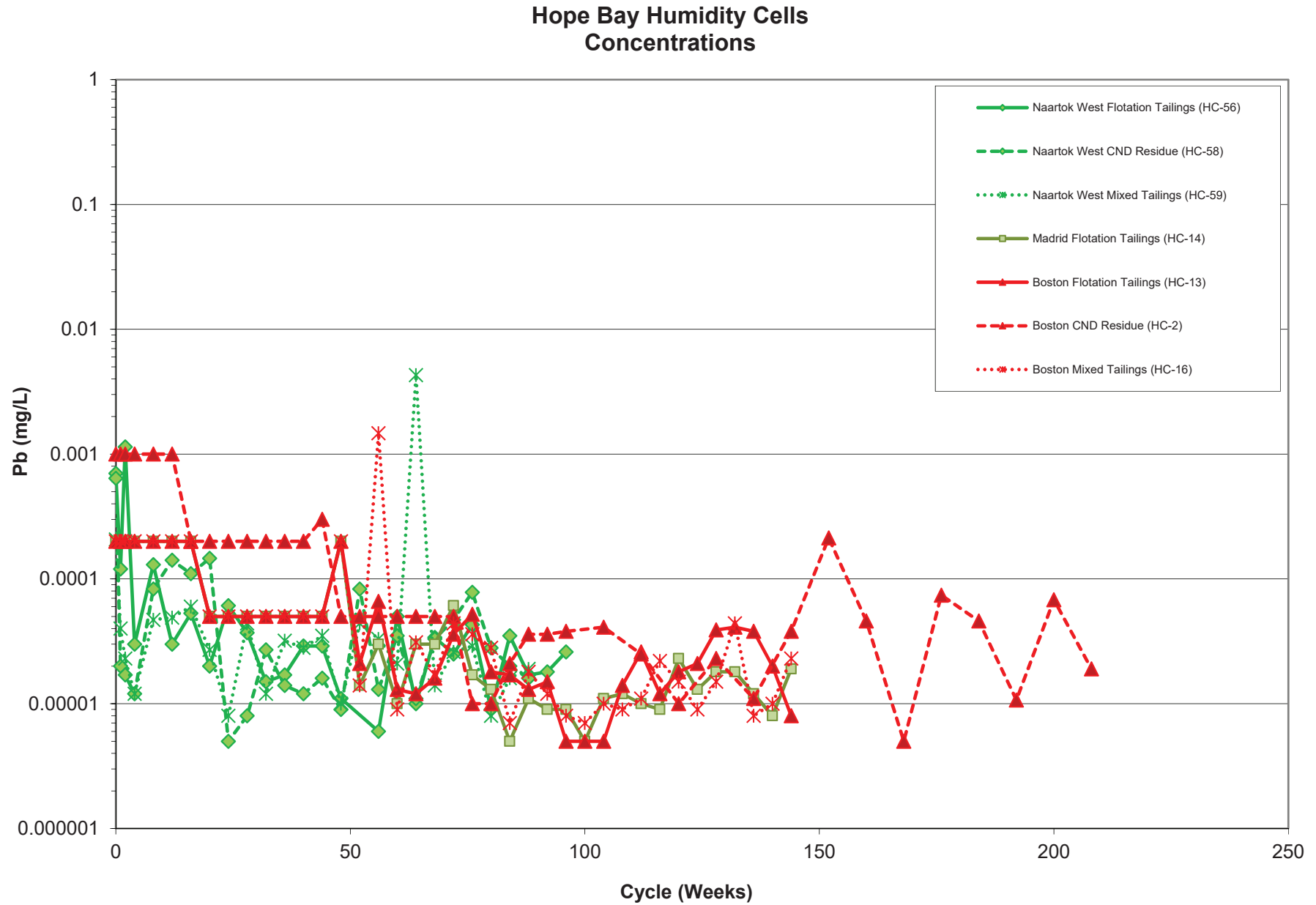


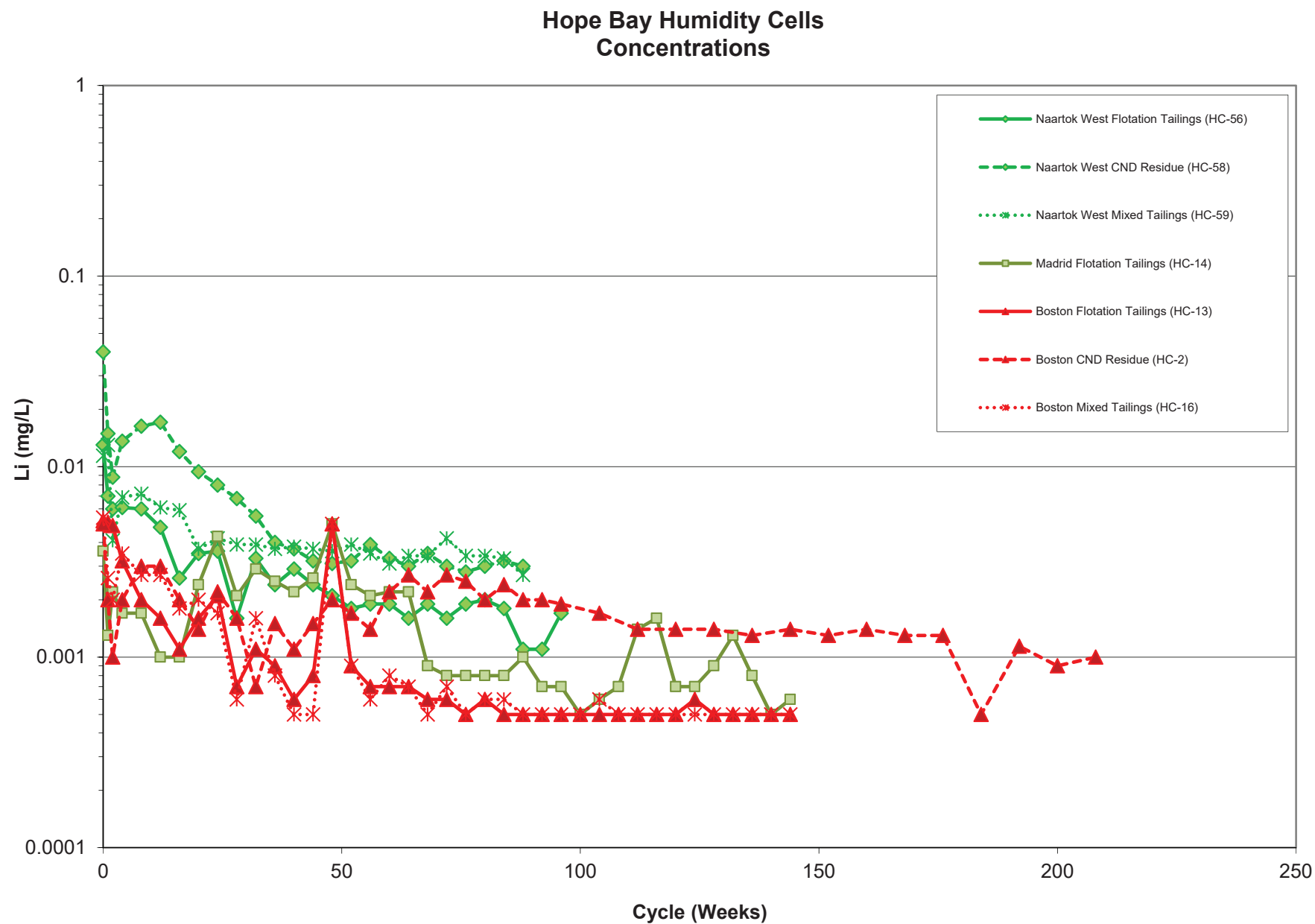


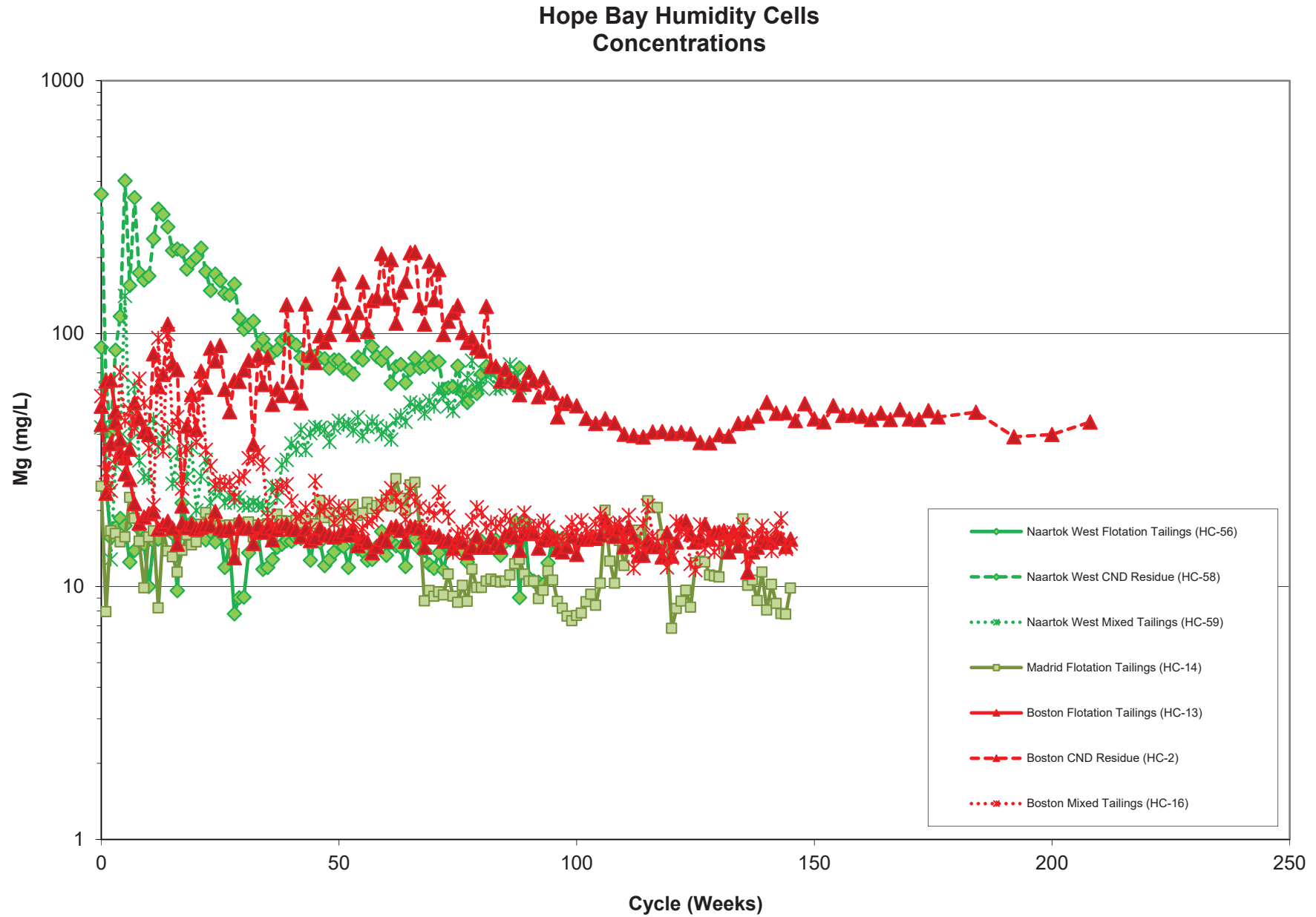


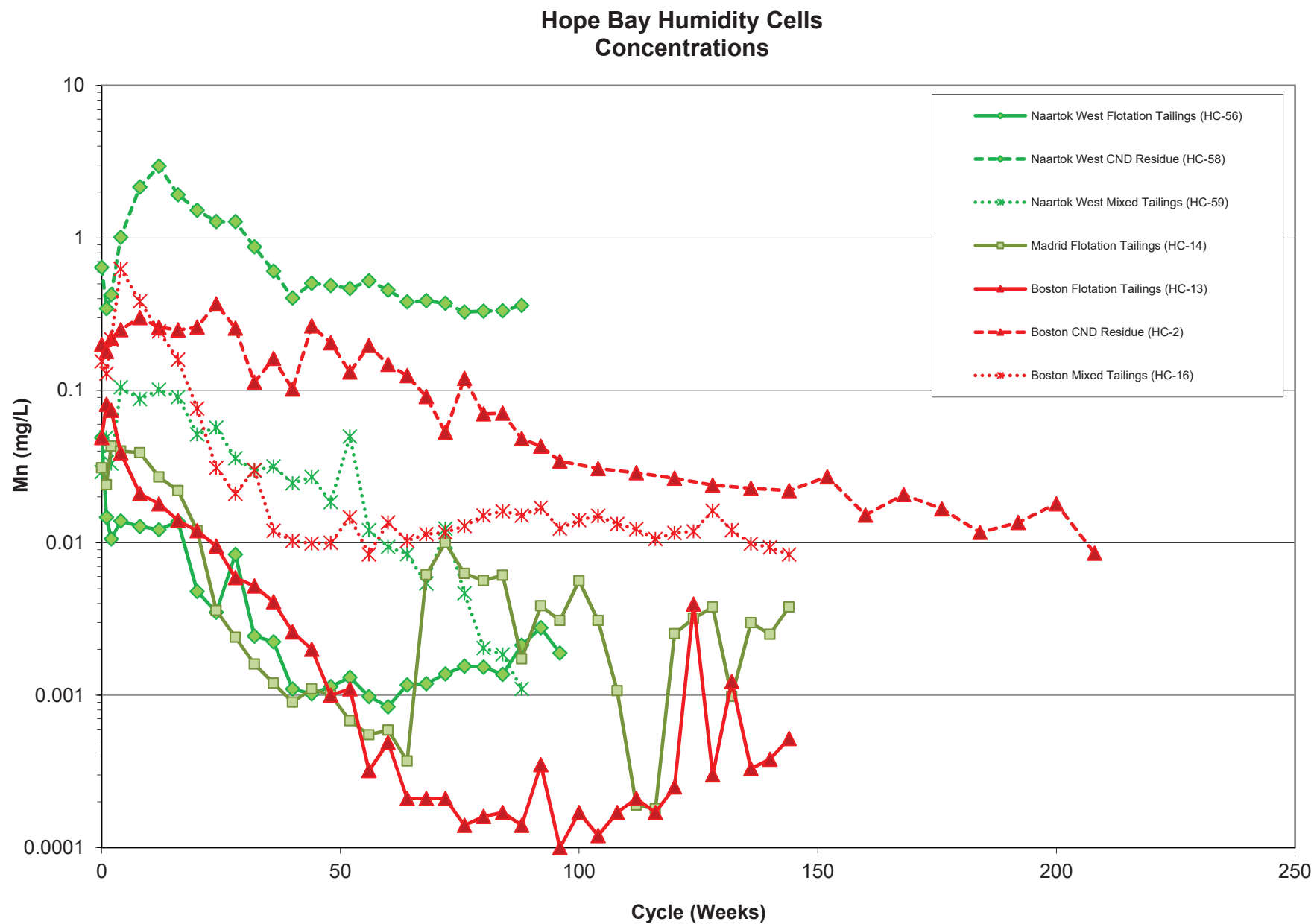
Hope Bay Humidity Cells Concentrations

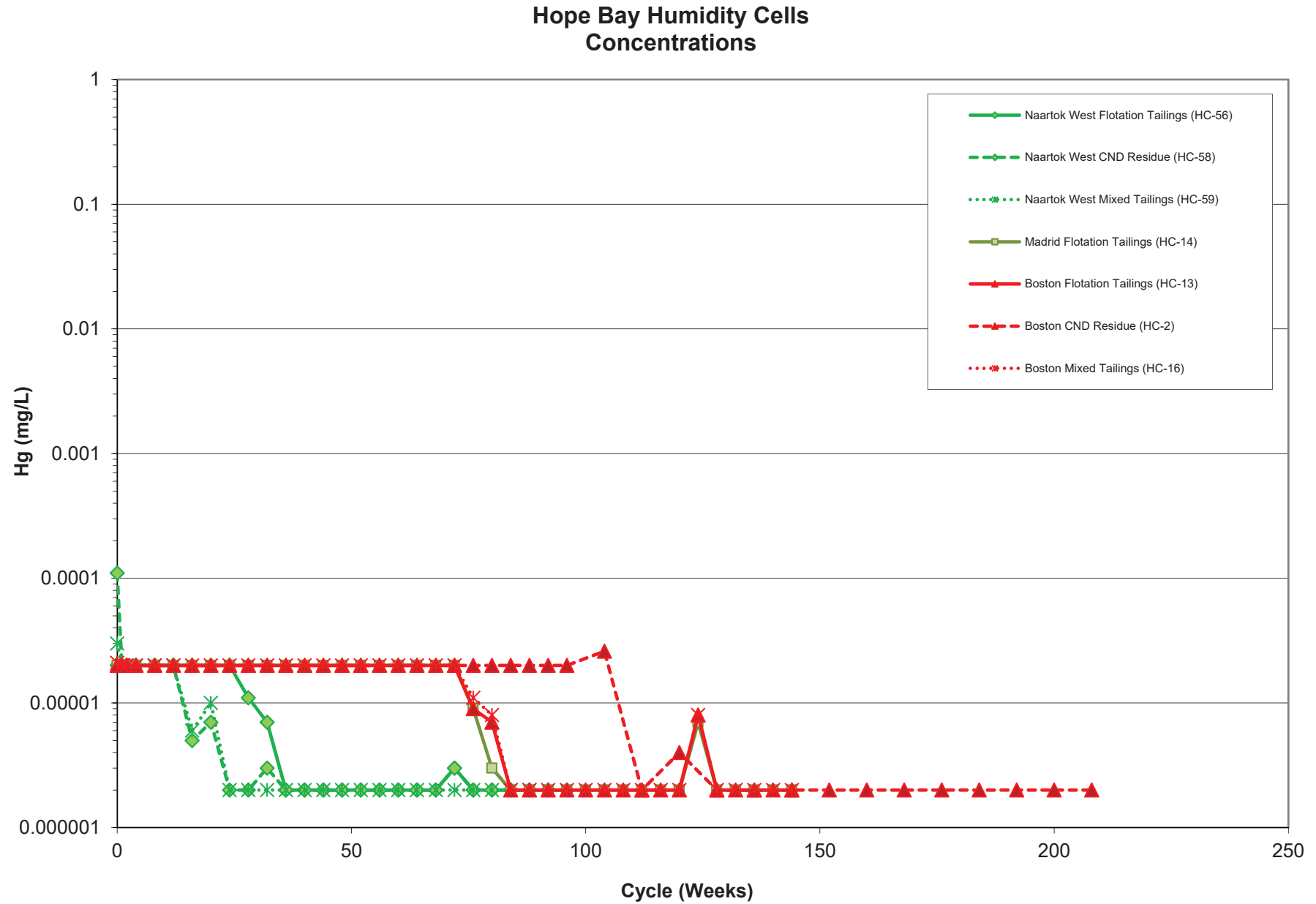


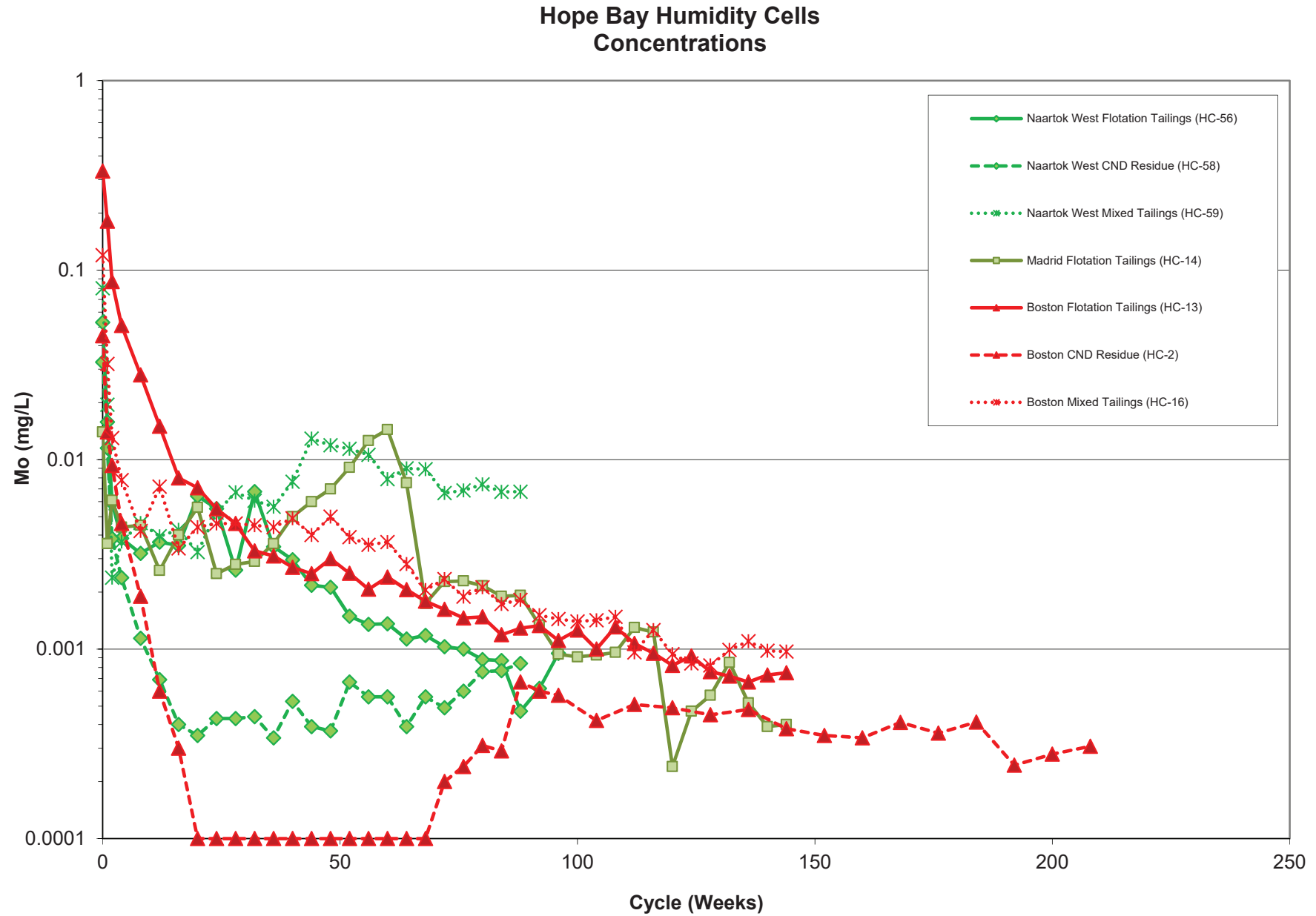


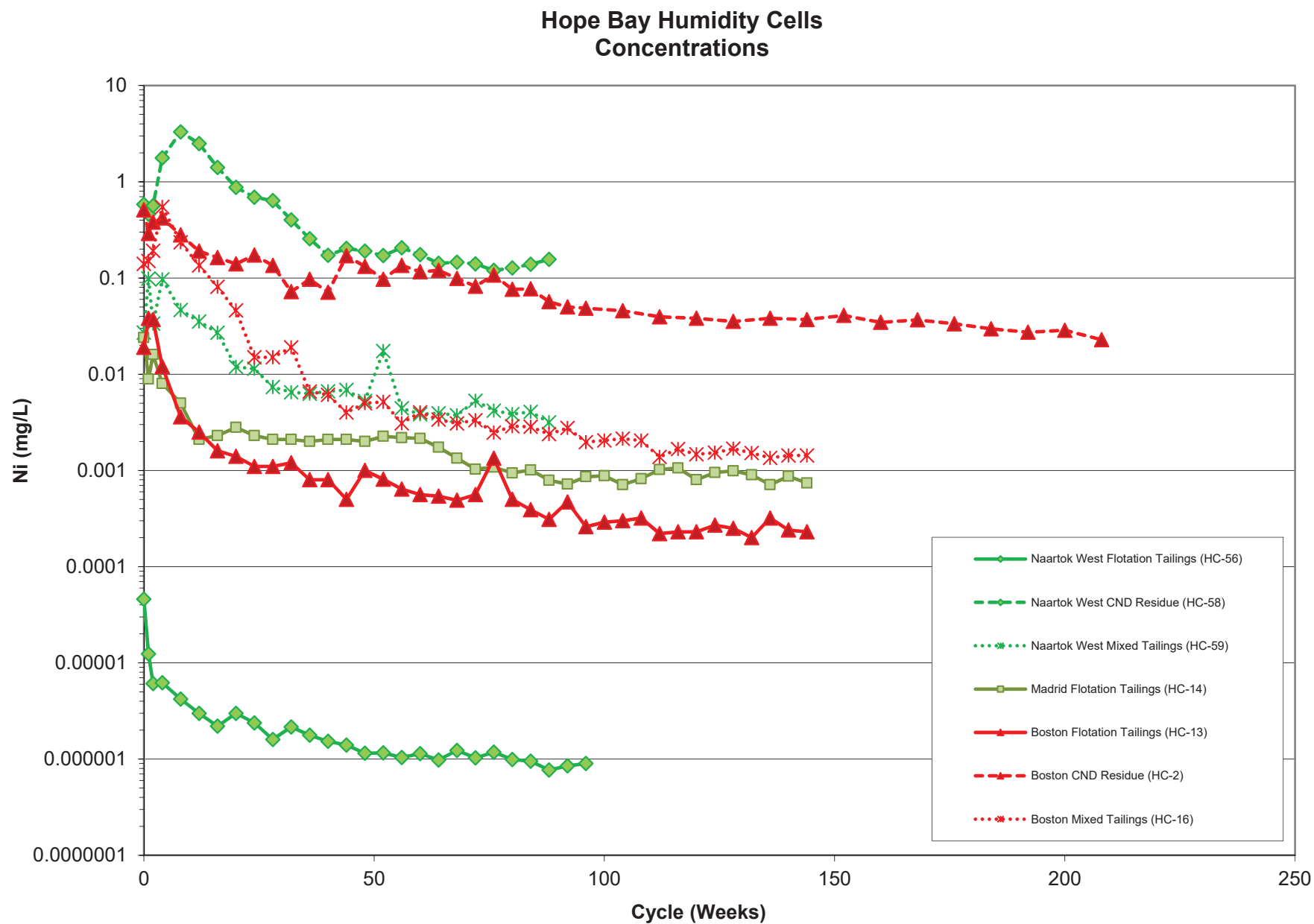




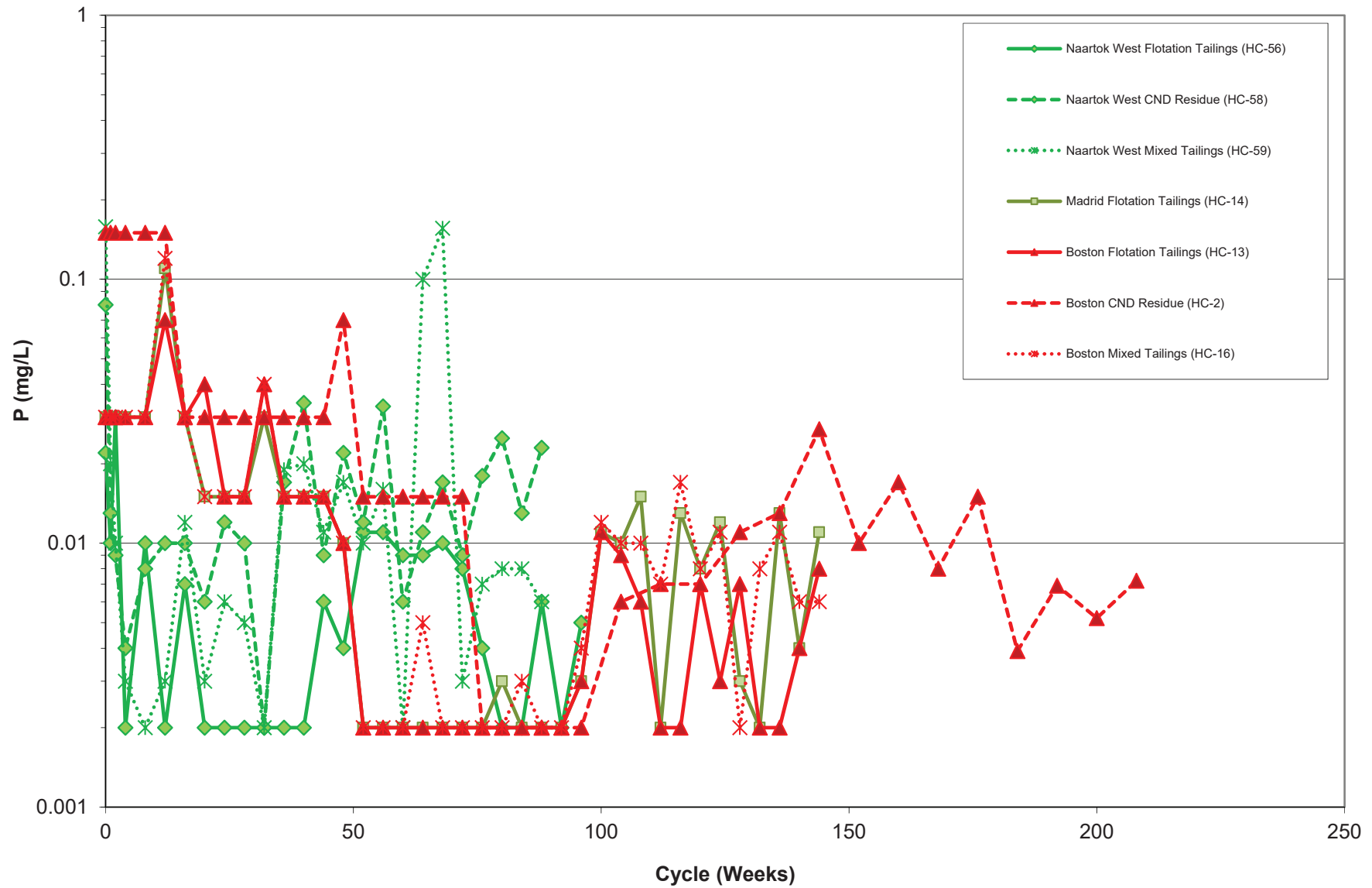


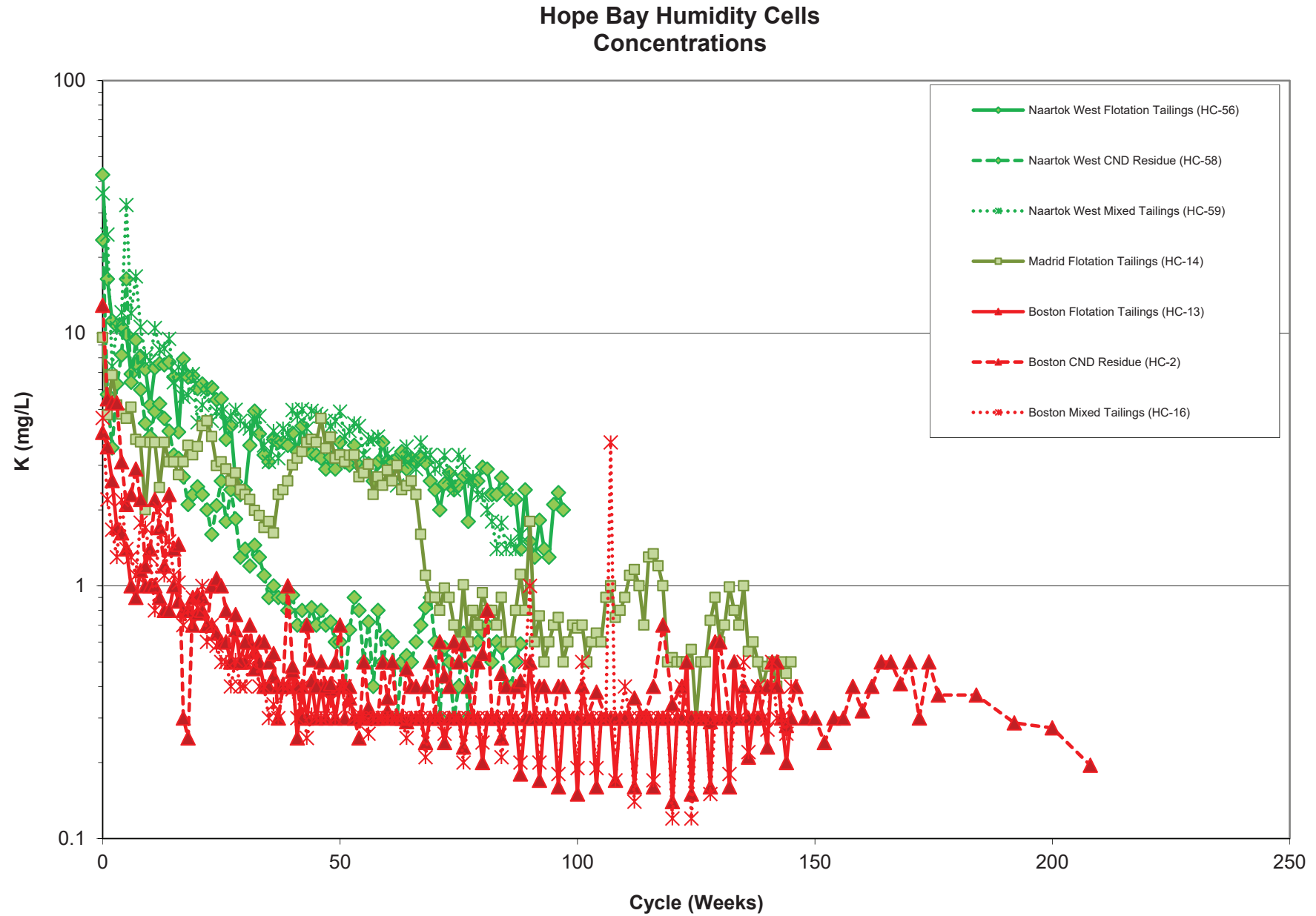


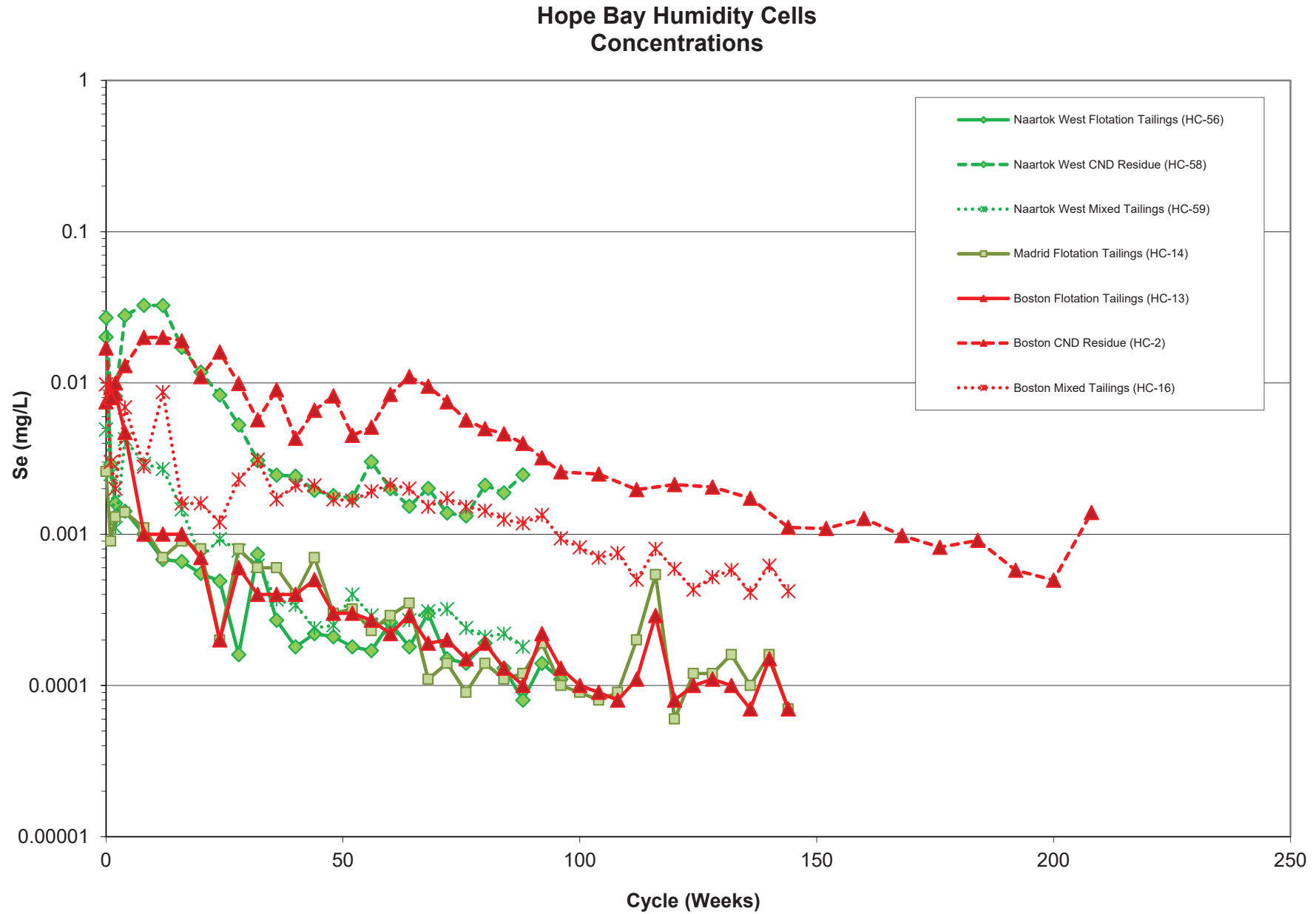


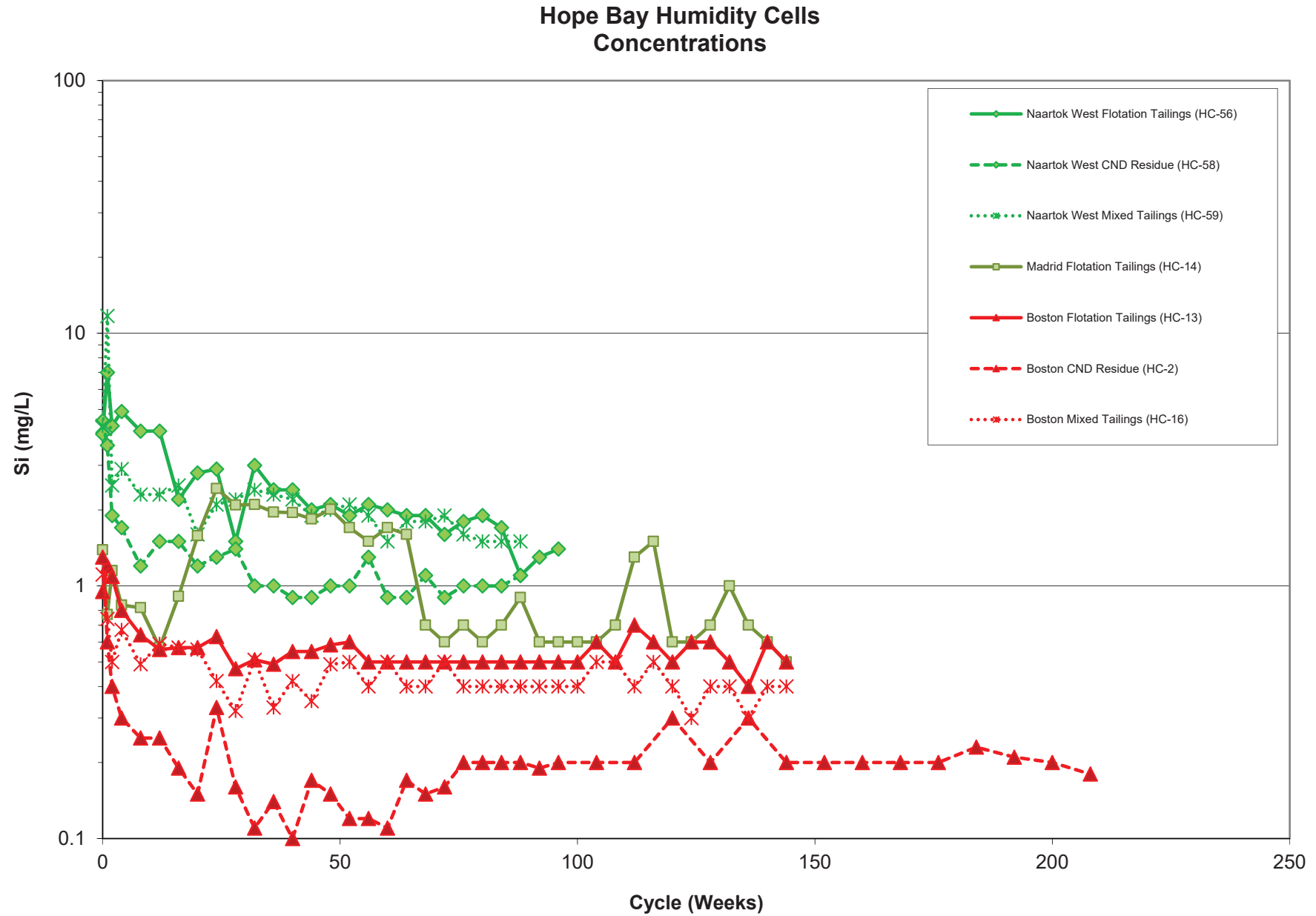


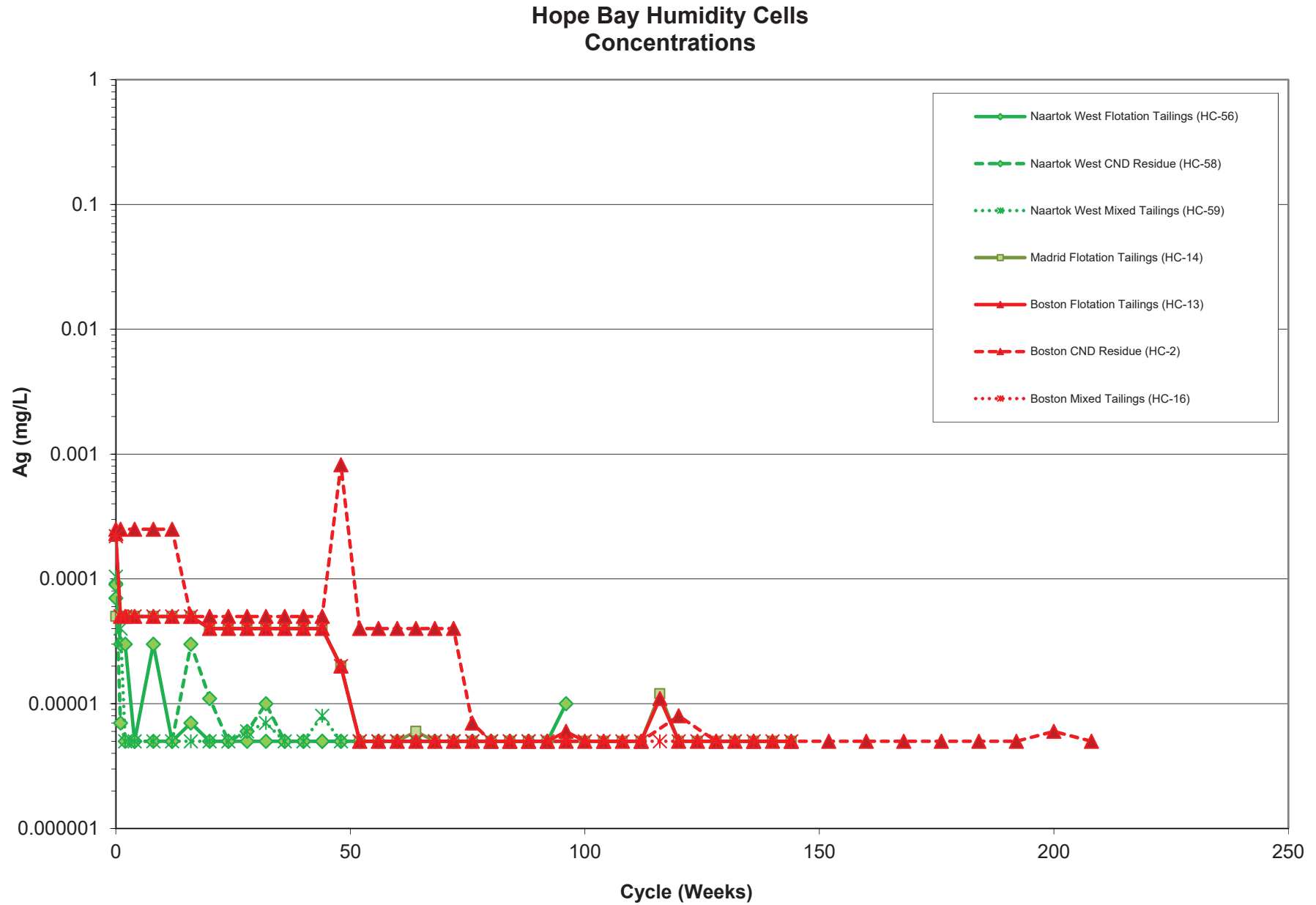
Hope Bay Humidity Cells Concentrations

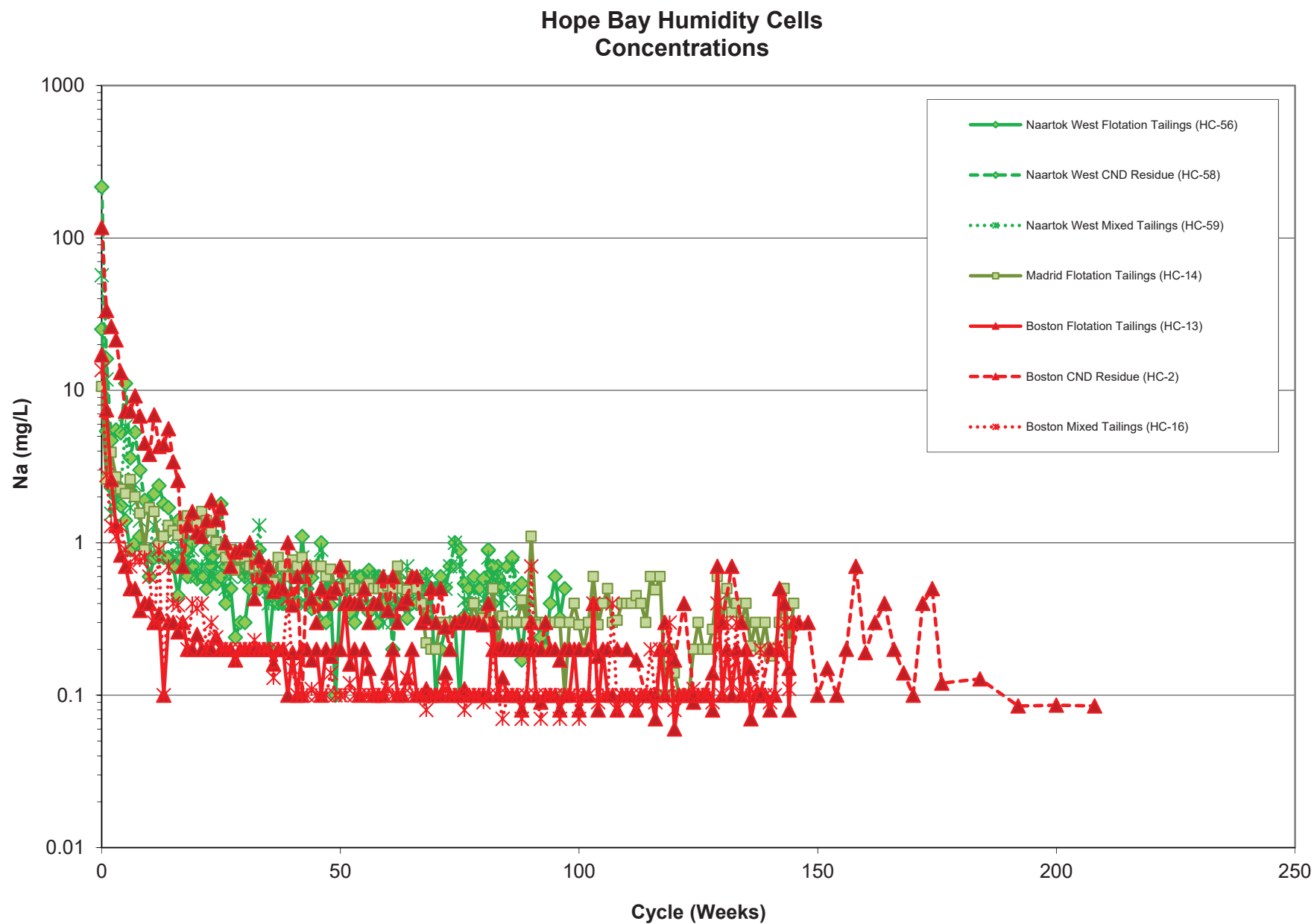


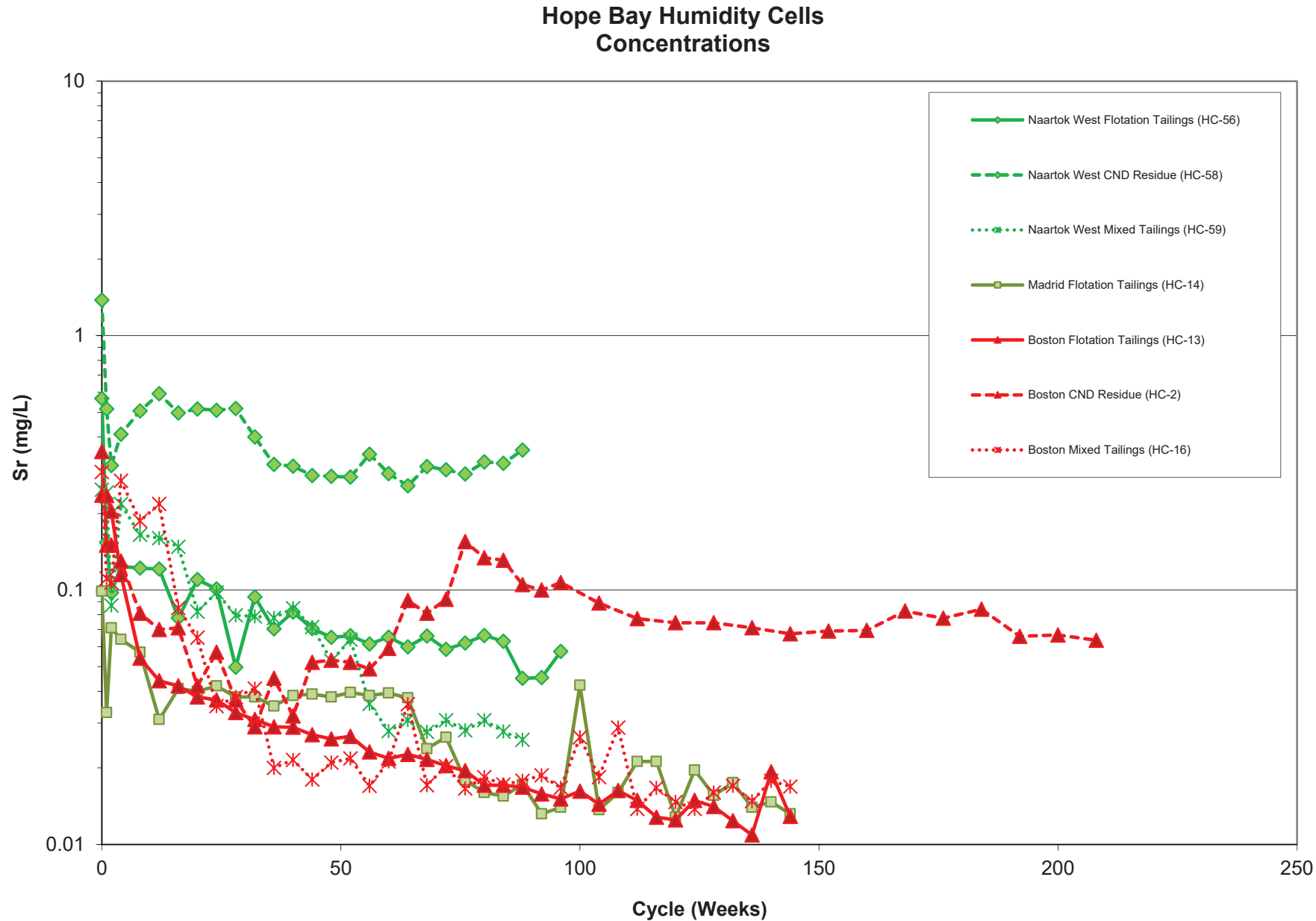


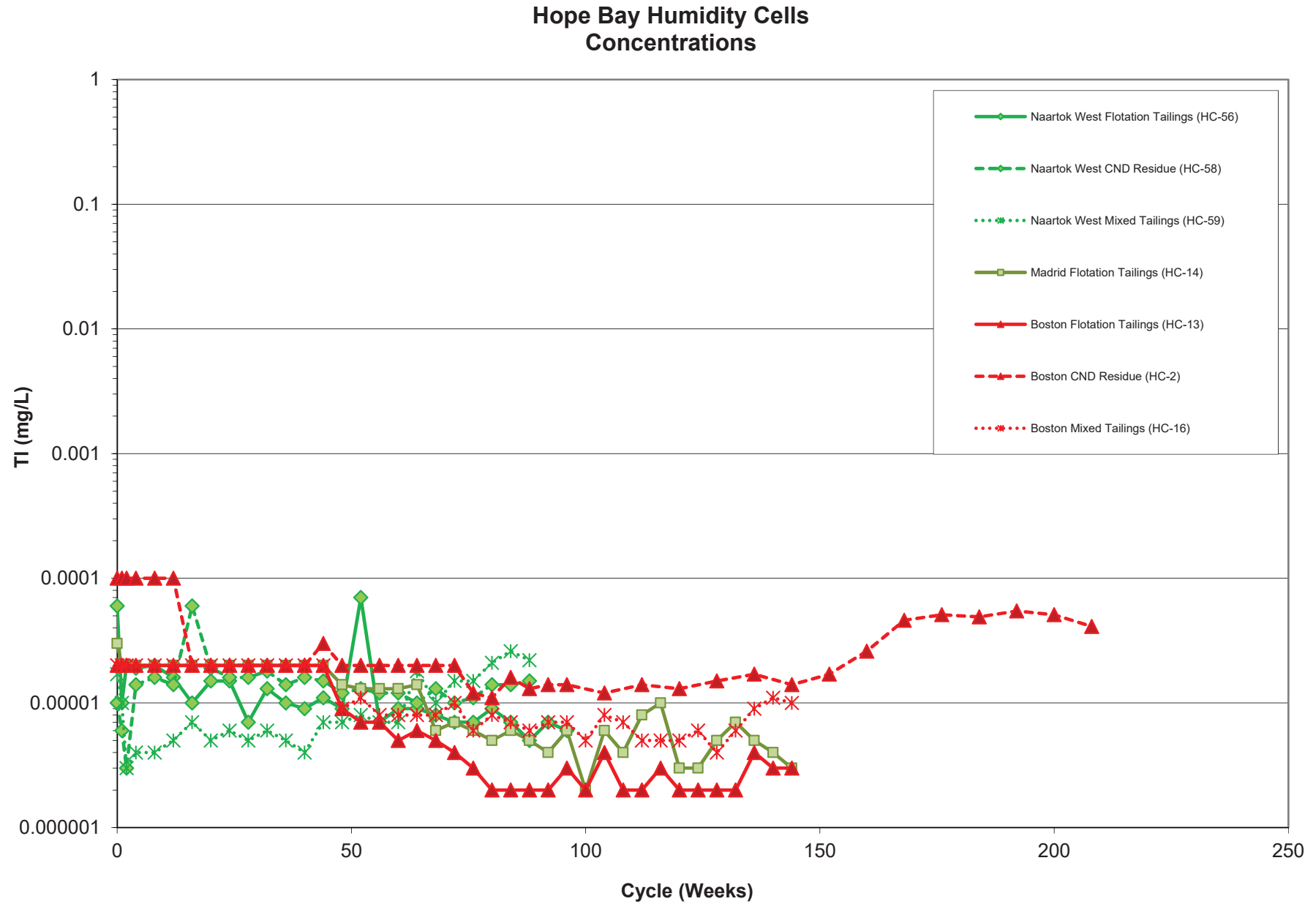


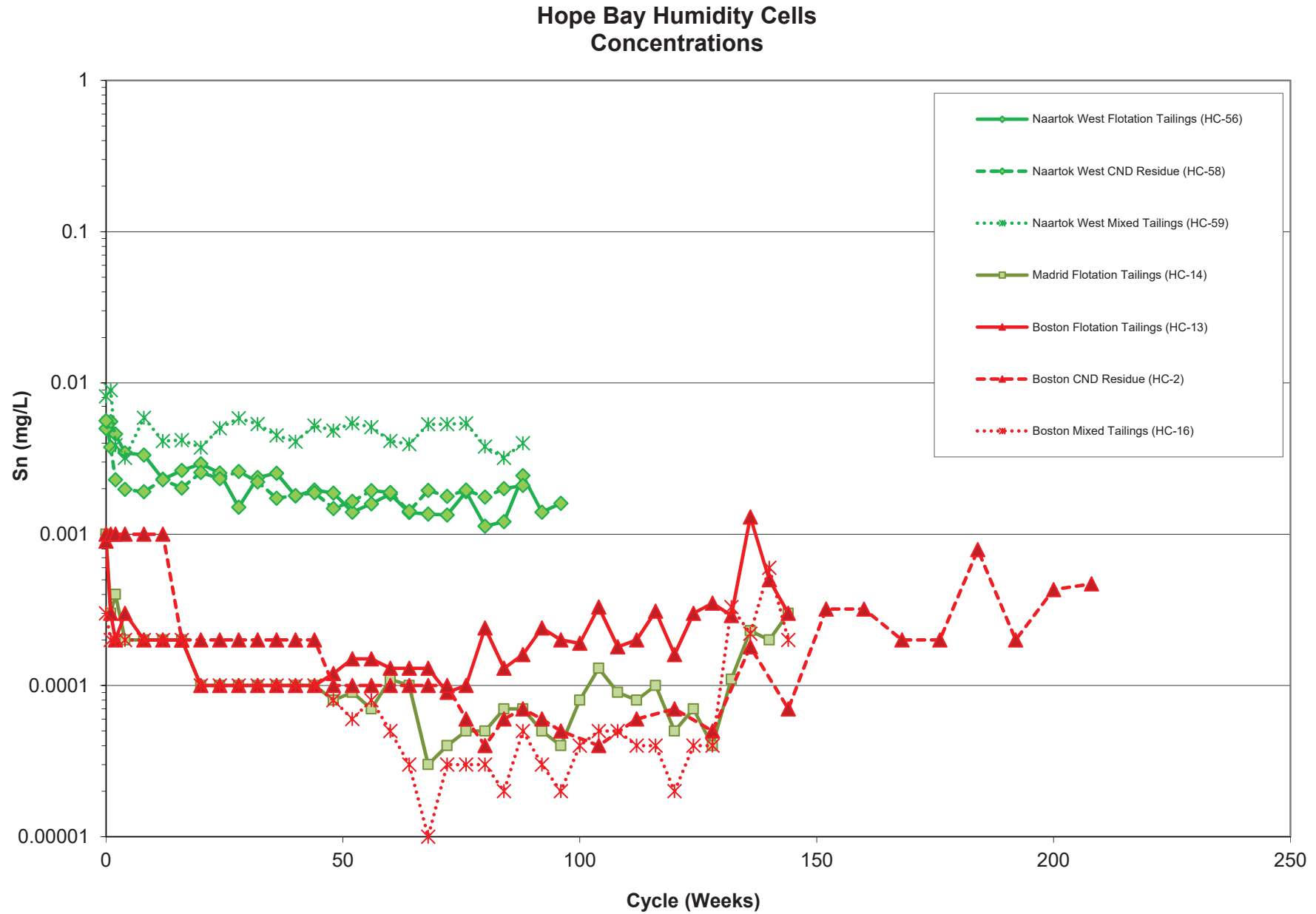


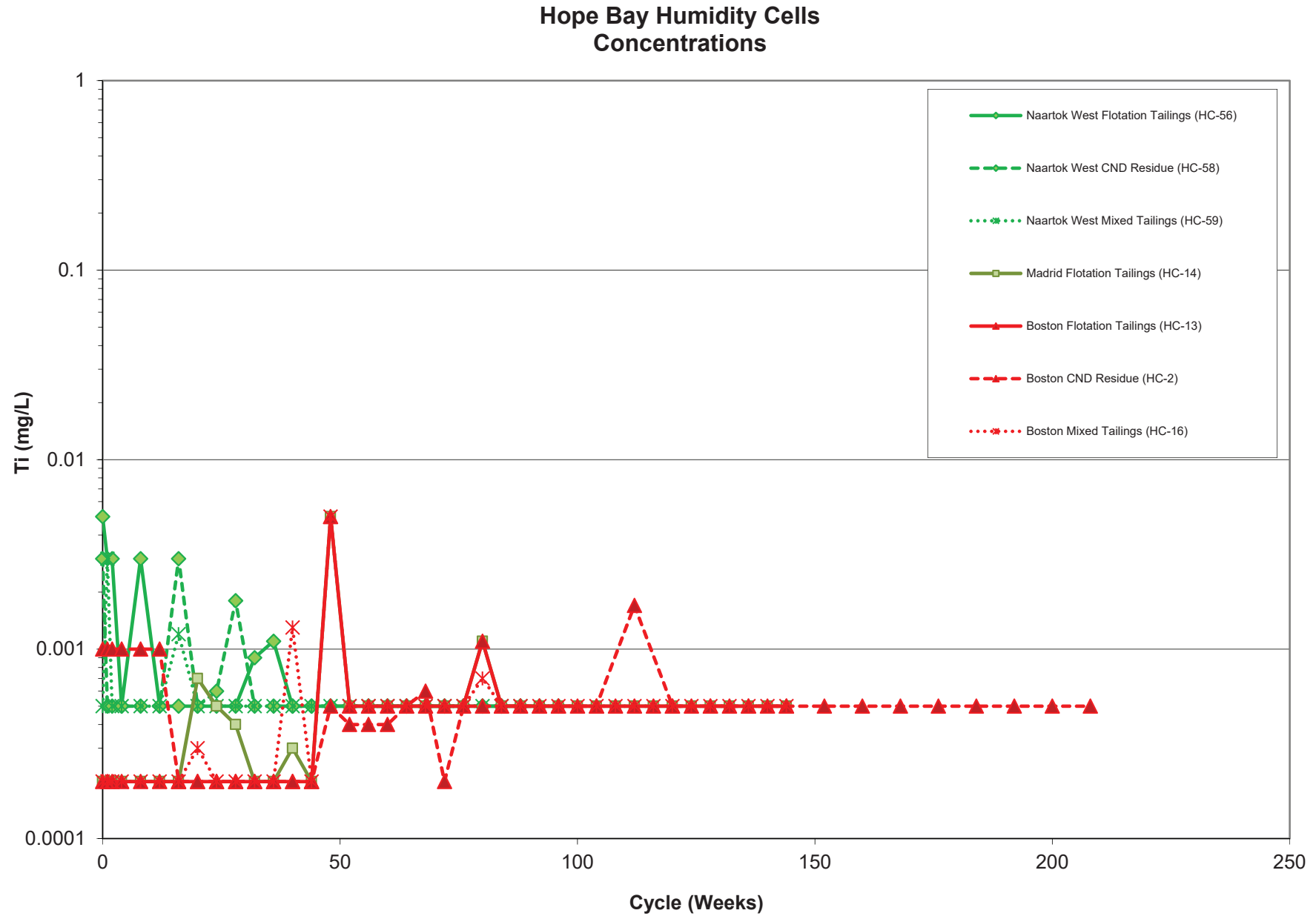


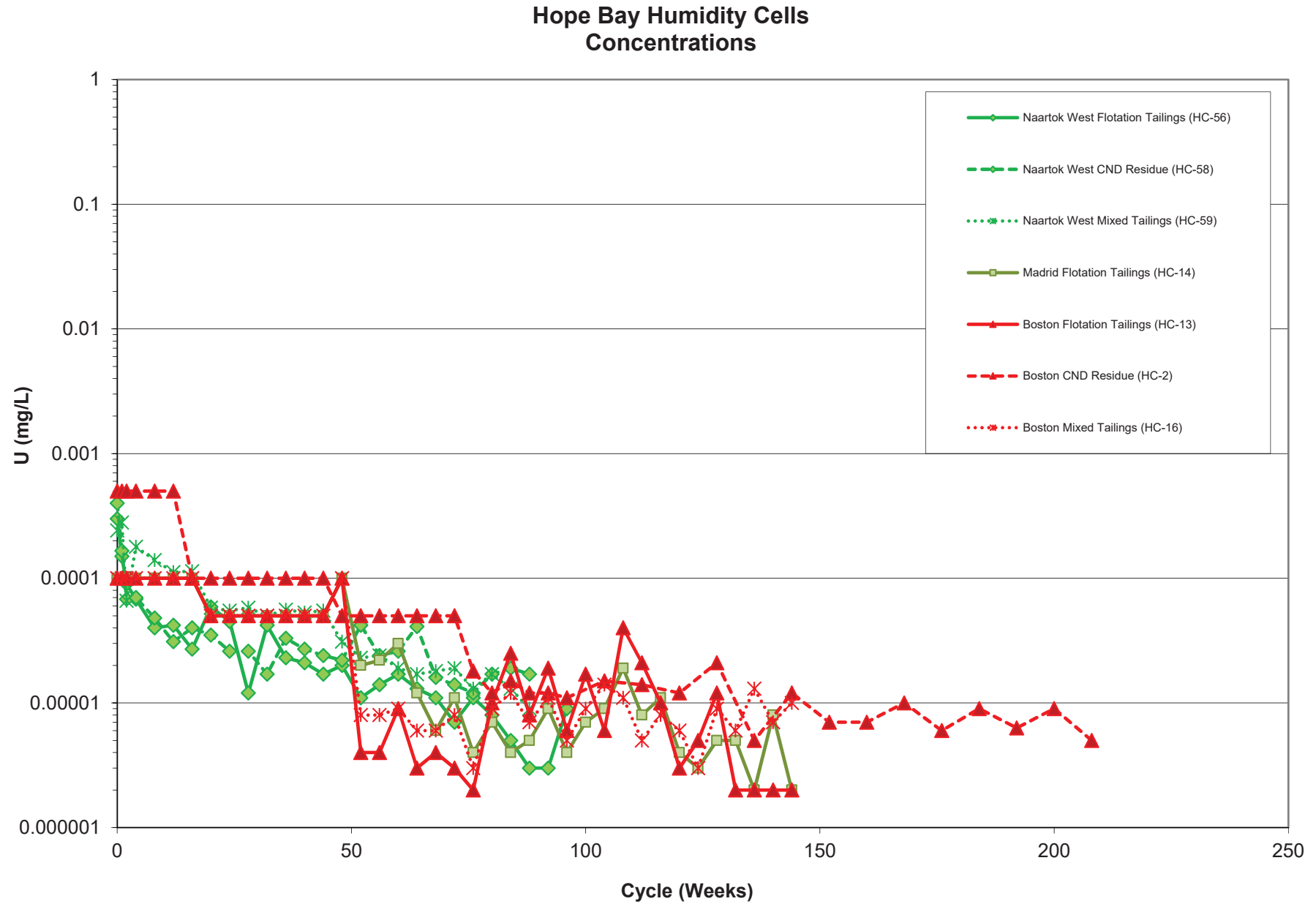


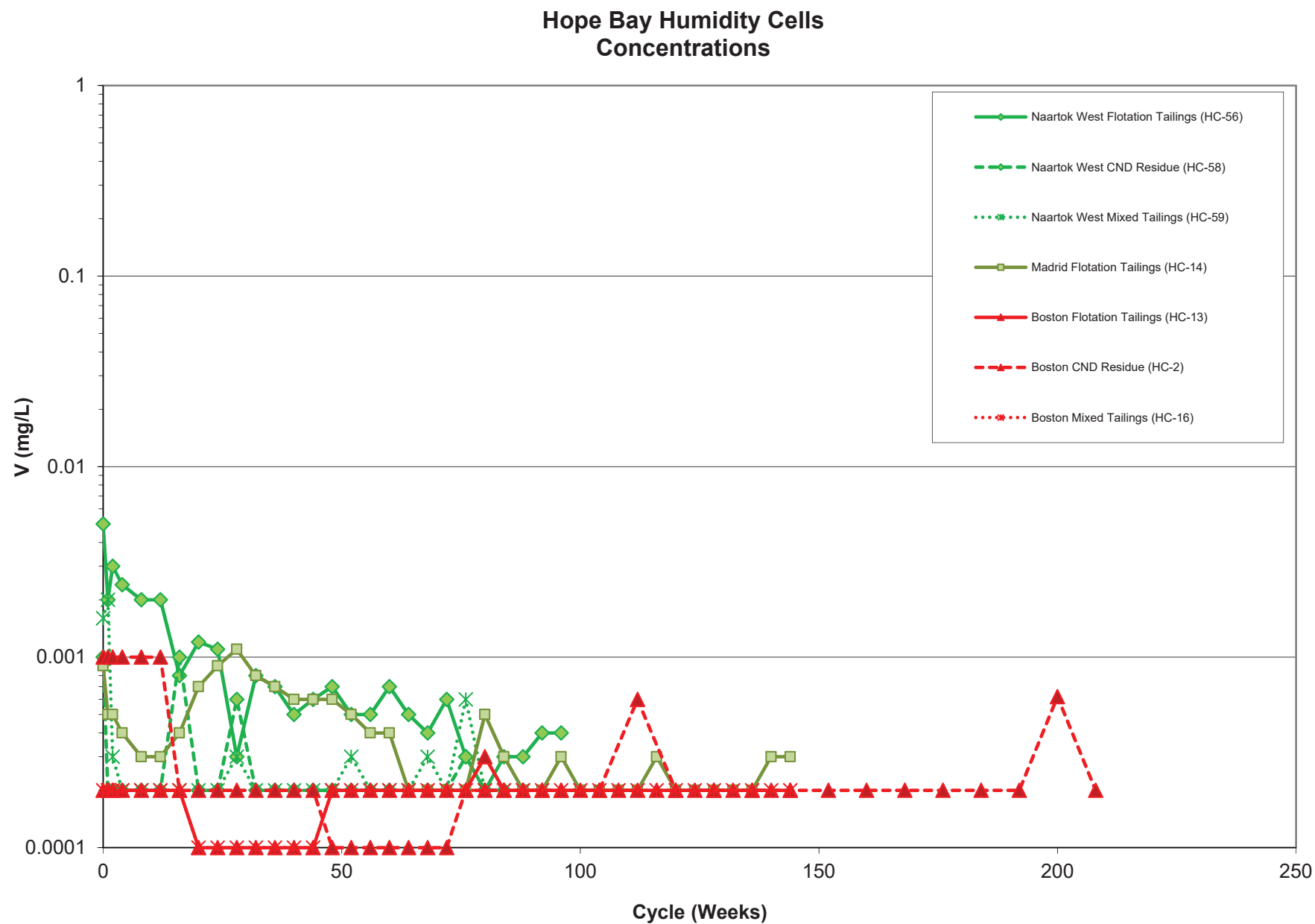


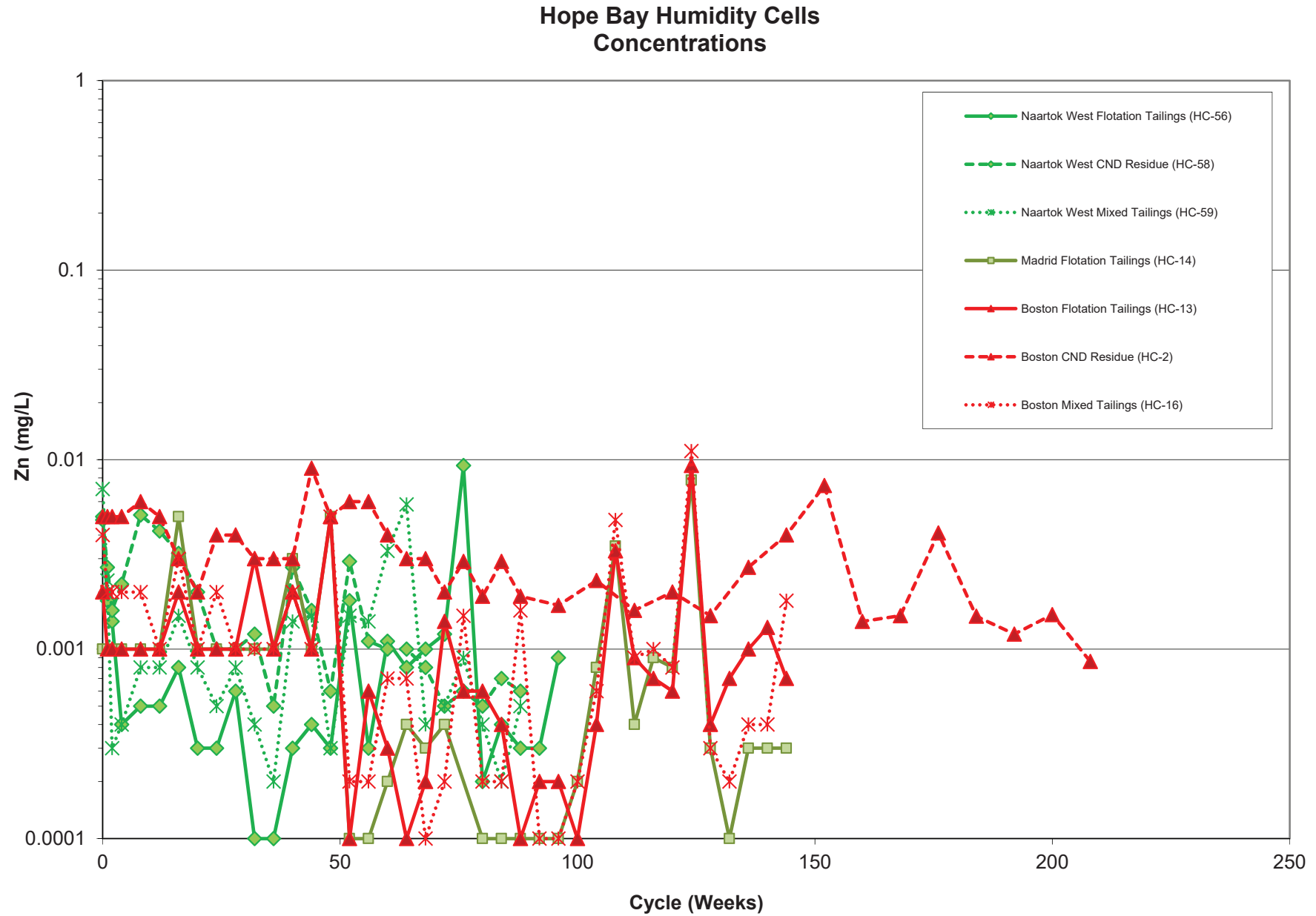


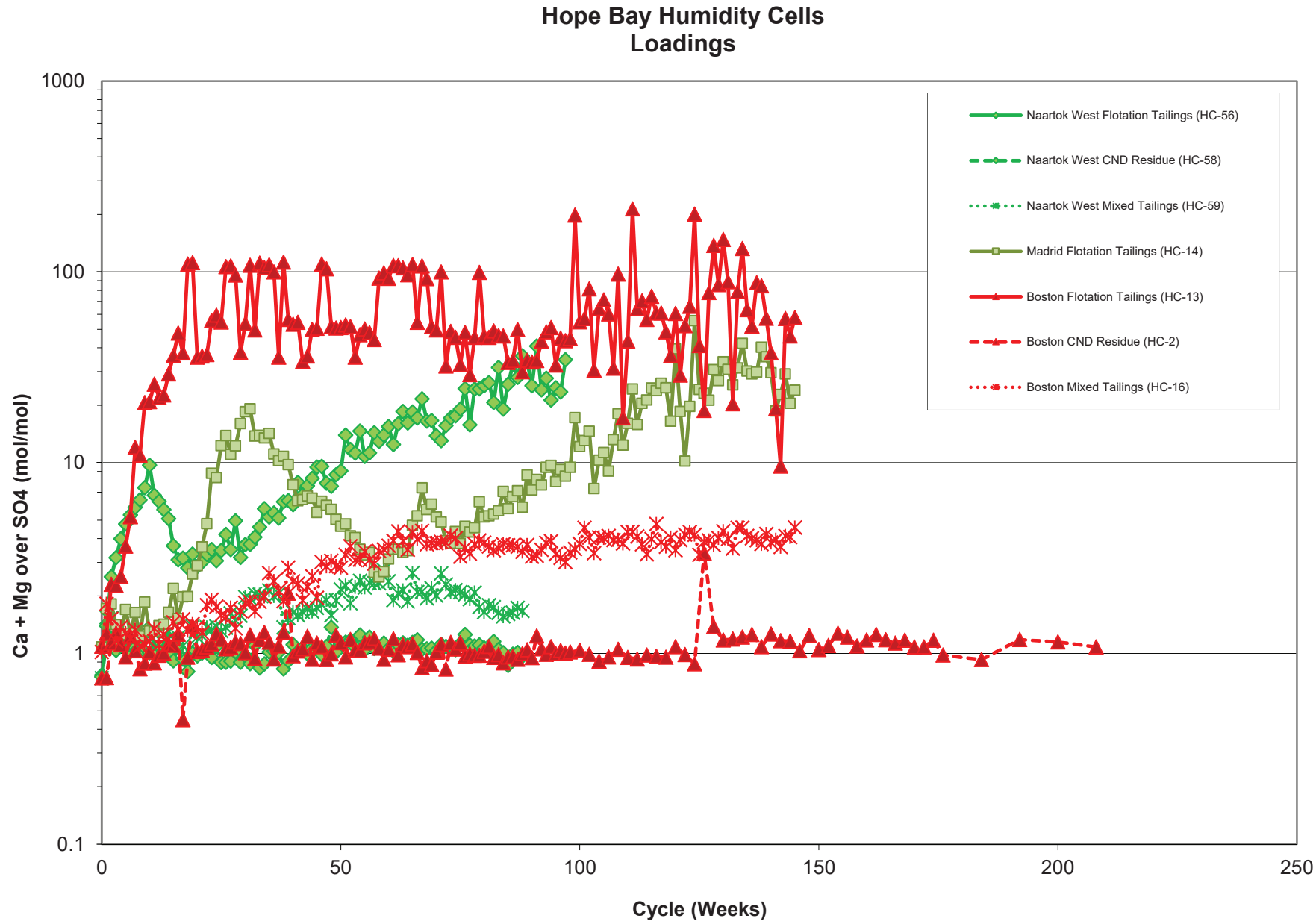












Appendix I – Initial and Final ABA and Trace Element Data, Humidity Cell Tests

Initial/Final ABA - Humidity Cell Tests

				Static Test Results									Trace Element Data											
Humidity	Deposit	Tailings Type	HC Test	Paste	Total C	TIC_%CO2	TIC	Total	Sulphate	Sulphide	Maximum Potential	Modified												
Cell #				pH	(Wt.%)	(%CO2)	(kg CaCO3/Tonne)	Sulphur (Wt.%)	Sulphur (Wt.%)	Sulphur (Wt.%)	Acidity (kg CaCO3/Tonne)	Sobek NP (kg CaCO3/Tonne)	Ag	Al	As	Au	B	Ba	Bi	Ca	Cd	Co	Cr	Cu
													ppm	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm
HC-56	Naartok West	Flotation	Initial Residue	8.5 9.03	-- 5.26	16.92 16.4	384.5 372.5	0.08 0.06	0.01 0.01	0.07 0.06	2.2 1.9	318.75 297.1	0.1 0.6	1.02 1.11	337.8 312	77.5 126	20 20	19 111	0.1 0.1	7.49 8.21	0.1 0.1	34.1 33.7	185 214	38.4 38.8
HC-58	Naartok West	CND Residue	Initial Residue	7.8 7.69	4.32 3.91	13.45 9.82	305.7 223.2	18.75 18.77	0.07 0.63	18.68 18.14	583.8 566.9	247.0 195.2	0.9 1.1	0.75 0.86	3665.3 3930	54.9 63.6	20 20	14 19	0.9 0.7	5.76 5.86	0.2 0.2	434 462	169 199	1584 1750
HC-59	Naartok West	Mixed	Initial Residue	8.5 8.78	4.84 4.99	18.63 15.6	423.4 354.8	0.98 0.92	0.01 0.01	0.97 0.91	30.3 28.4	307.0 236.2	0.1 0.3	1.03 1.09	520.9 539	161 154	20 20	20 94	0.1 0.1	7.54 8.33	0.1 0.1	56.8 59.4	196 234	112.5 123
HC-14	Madrid Composite	Flotation	Initial Residue	9.0 9.05	5.67 5.93	19.15 18.8	435.2 426.4	0.09 0.06	0.01 0.01	0.08 0.06	2.5 1.9	358.3 368.0	0.1 0.1	1.09 1.03	308.9 301	716 109	20 20	17 21	0.1 0.1	8.46 9.25	0.1 0.1	33.5 36.7	178 229	33 34.2
HC-13	Boston	Flotation	Initial Residue	8.5 8.99	-- 5.07	15.76 16.3	358.2 369.6	0.05 0.03	0.01 0.01	0.04 0.03	1.3 0.9	278.8 278.2	0.1 0.3	0.31 0.51	86.1 87.4	213.2 278	20 20	10 15	0.1 0.1	6.45 7.57	0.2 0.2	12.7 14.0	113 160	30.5 29.9
HC-2	Boston	CND Residue	Initial Residue	7.8 7.7	0.21 --	-- 9.05	-- 205.7	12.86 12.33	0.03 0.78	12.83 11.55	400.9 360.9	209.9 173.8	1.3 1.6	0.33 0.42	4161.9 4090	525.6 1480	20 20	16 18	0.4 0.3	5.84 5.38	1.2 1.1	243.9 268	162 181	581 637
HC-16	Boston	Mixed	Initial Residue	8.3 8.93	4.38 4.72	16.73 14.7	380.2 333.9	2.10 2.02	0.01 0.01	2.09 2.01	65.3 62.8	266.7 371.3	0.3 0.5	0.32 0.54	688.1 714	260.7 613	20 20	10 27	0.1 0.1	6.22 6.86	0.3 0.3	49.8 51.7	150 219	129 130

Initial/Final ABA - Humidity Cell Tests

Humidity Cell #	Deposit	Tailings Type	HC Test	Fe %	Ga ppm	Hg ppm	K %	La ppm	Mg %	Mn ppm	Mo ppm	Na %	Ni ppm	P %	Pb ppm	S %	Sb ppm	Sc ppm	Se ppm	Sr ppm	Th ppm	Ti %	Ti ppm	U ppm	V ppm	W ppm	Zn ppm
HC-56	Naartok West	Flotation	Initial Residue	5.93 5.99	3 4	0.01 0.01	0.08 0.13	3 3	3.45 3.50	1612 1620	0.9 0.7	0.012 0.029	269.2 278	0.046 0.051	1.8 13.1	0.06 0.05	0.7 0.4	11.7 15.7	0.5 0.5	136 128	0.3 0.3	0.021 0.019	0.1 0.1	0.1 0.1	54 68	3.9 4.7	39 54
HC-58	Naartok West	CND Residue	Initial Residue	20.4 21.5	3 3	0.1 0.11	0.04 0.06	2 2	2.64 2.36	1200 1260	11 11.9	0.044 0.013	1771.8 2050	0.04 0.044	29.7 28.8	10 10	4.2 3.2	7.3 9.7	9 8.2	100 88	0.5 0.5	0.002 0.002	0.3 0.2	0.1 0.1	46 54	3 3.3	78 82
HC-59	Naartok West	Mixed	Initial Residue	6.46 6.96	3 3	0.01 0.01	0.1 0.11	2 2	3.55 3.41	1567 1670	1.6 1.6	0.019 0.024	350.1 387	0.047 0.047	3.3 4.6	0.96 0.83	0.8 0.5	12 14.9	0.6 0.6	127 141	0.3 0.3	0.019 0.017	0.1 0.1	0.1 0.1	56 67	4.4 3.7	39 41
HC-14	Madrid Composite	Flotation	Initial Residue	6.09 6.22	3 4	0.01 0.01	0.07 0.09	3 4	4.04 4.20	1726 1910	0.9 0.7	0.014 0.019	299.3 316	0.045 0.054	2.6 3.1	0.08 0.05	0.3 0.3	12.9 17.4	0.5 0.5	150 155	0.3 0.3	0.006 0.006	0.1 0.1	0.1 0.1	65 78	2.5 2.2	36 34
HC-13	Boston	Flotation	Initial Residue	5.02 5.44	1 1	0.01 0.01	0.02 0.05	1 1	3.12 3.20	1639 1700	2.6 2.6	0.01 0.031	62.2 67.4	0.021 0.025	2.2 2.0	0.05 0.05	0.4 0.1	8.9 12.0	0.5 0.5	49 57	0.1 0.1	0.001 0.001	0.1 0.1	0.1 0.1	20 30	75.8 83.4	68 76
HC-2	Boston	CND Residue	Initial Residue	16.56 16.1	1 1	0.04 0.05	0.03 0.05	1 1	2.38 1.92	1282 1330	7.9 6.4	0.042 0.043	1027.3 1140	0.018 0.021	56.4 56.6	-- 0.05	4.8 13.7	7.8 9.9	9.6 8.4	49 38	0.1 0.1	0.001 0.001	0.1 0.1	0.1 0.1	23 26	42.3 44.3	259 258
HC-16	Boston	Mixed	Initial Residue	6.83 6.92	1 1	0.01 0.01	0.02 0.06	1 1	3.04 2.90	1527 1600	6 6.2	0.011 0.041	242 245	0.022 0.024	9.5 10.7	2.18 1.98	1.2 1.1	8.6 11.9	1.7 1.3	46 48	0.1 0.1	0.001 0.001	0.1 0.1	0.1 0.1	20 29	72.9 84.0	99 104

Appendix J – Kinetic Data, Sub-aqueous Column Tests

Kinetic Data, Subaqueous Column Tests - Madrid North, Madrid South & Boston Tailings

Sample ID

SAD Column 1; Sample ID: NW-BFT-2009-0316-C (Naartok West-Flotation)

Graphing ID

Madrid N, Flotation Tailings (SAD-1)

Sampling Period: 2 Day Cycle (Wednesday to Friday)	Cycle No.	Target Pore Vol. Collected	Input (DI Water) Analysis (done In-Situ)			Output (Sample) Analysis (done In-Situ)				Sulphate	Acidity		Total Alkalinity	Fluoride	Chloride	Nitrate-N	Nitrite-N	Total Ammonia	Diss.-P	TDS	Hardness CaCO3	Al	Sb	As	Ba	Be	Bi	B	Cd					
			Date Analyzed		ORP	Date Analyzed	pH	ORP	EC		to pH 4.5	to pH 8.3										mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				pH Units	mV		pH Units	mV	µS/cm		mg/L	mg CaCO3/L	mg CaCO3/L									mg/L	mg/L	mg/L	mg/L	mgN/L	mgP/L	mg/L	mg/L	LDL:0.0002; UDL: 50.0	0.00002	0.00002	0.00002	0.00001
Units:		ml																																
Detection Limits:		5.0		0.01	5.0		0.01	5.0	1.0	1.0	1.0	1.0	1.0	0.05	0.2	0.02	0.002	0.01	0.001	10	0.5	0.05												
12 to 14-May-10	0	250	12-May-10	6.8	311	14-May-10	8.44	357	588	124	--	--	154	0.23	21	0.02	0.005	0.03	0.299	340	182	0.0605	0.0221	0.73	0.0179	0.00001	0.000005	0.28	0.00007					
09 to 11-Jun-10	1	250	9-Jun-10	6.67	302	11-Jun-10	8.29	392	610	113	--	1	203	0.2	17	0.02	0.005	0.1	0.352	390	246	0.0254	0.0197	0.967	0.03	0.00001	0.000005	0.37	0.000044					
07 to 09-Jul-10	2	250	7-Jul-10	6.73	295	9-Jul-10	8.39	398	471	67	--	--	190	0.24	7.6	0.02	0.005	0.05	0.472	260	177	0.027	0.014	1.49	0.0147	0.00001	0.000005	0.4	0.00003					
04 to 06-Aug-10	3	250	4-Aug-10	6.75	297	6-Aug-10	8.3	413	412	44	--	--	173	0.24	2.4	0.02	0.005	0.05	0.432	220	149	0.0281	0.00741	2.37	0.0122	0.00001	0.000005	0.34	0.000014					
01 to 03-Sep-10	4	250	1-Sep-10	6.76	284	3-Sep-10	8.31	387	285	20	--	--	122	0.19	0.9	0.02	0.005	0.28	0.71	160	109	0.045	0.0038	2.47	0.0046	0.00001	0.000005	0.3	0.00003					
29-Sep-10 to 1-Oct-10	5	250	29-Sep-10	6.56	300	1-Oct-10	8.24	388	296	18	--	1	130	0.22	0.7	0.02	0.005	0.05	1.2	160	112	0.0257	0.00245	3.26	0.00631	0.00001	0.000005	0.24	0.000043					
27 to 29-Oct-10	6	250	27-Oct-10	6.38	275	29-Oct-10	8.26	315	275	15	--	1	123	0.21	0.5	0.02	0.005	0.05	1.4	150	103	0.026	0.0017	3.69	0.0057	0.00005	0.00003	0.3	0.00004					
24 to 26-Nov-10	7	250	24-Nov-10	6.2	235	26-Nov-10	8.22	298	185	9	--	1	90	0.18	1.2	0.02	0.005	0.053	0.85	110	85	0.045	0.0026	2.42	0.0055	0.00005	0.00003	0.3	0.00004					
22 to 24-Dec-10	8	250	22-Dec-10	6.52	239	24-Dec-10	8.21	352	190	8	--	1	88	0.14	0.5	0.02	0.005	0.005	0.82	110	77.7	0.041	0.0018	2.19	0.0119	0.00005	0.00003	0.3	0.00003					
19 to 21-Jan-11	9	250	19-Jan-11	6.6	280	21-Jan-11	8.24	355	166	5	--	1	77	0.13	0.9	0.02	0.005	0.11	0.67	110	67.9	0.055	0.0016	1.75	0.0045	0.00005	0.00003	0.3	0.00003					
16 to 18-Feb-11	10	250	16-Feb-11	6.39	296	18-Feb-11	8.35	310	160	3	--	--	68	0.12	0.7	0.2	0.005	0.066	0.498	120	63.2	0.046	0.0015	1.59	0.0025	0.00005	0.00003	0.3	0.00003					
16 to 18-Mar-11	11	250	16-Mar-11	6.37	304	18-Mar-11	8.4	386	175	4	--	--	77	0.18	7	0.05	0.005	--	0.68	110	55.5	0.05	0.0012	1.87	0.0034	0.00005	0.00003	0.3	0.00003					
13 to 15-Apr-11	12	250	13-Apr-11	6.43	267	15-Apr-11	8.45	368	140	4.1	--	--	75	0.12	4.3	0.02	0.005	0.046	0.74	96	63.4	0.045	0.001	2.38	0.0034	0.00005	0.00003	0.3	0.00003					
11 to 13-May-11	13	250	11-May-11	6.25	285	13-May-11	8.4	333	155	4.3	--	--	65	0.1	0.5	0.02	0.005	0.036	0.64	68	60.4	0.055	0.001	1.9	0.0026	0.00005	0.00003	0.3	0.00005					
8 to 10-Jun-11	14	250	8-Jun-11	6.39	286	10-Jun-11	8.66	397	95	1.7	--	--	33	0.04	0.6	0.02	0.005	0.059	0.289	58	33.9	0.0526	0.00122	0.867	0.00682	0.00001	0.000005	0.05	0.000012					
6 to 8-Jul-11	15	250	6-Jul-11	6.2	290	8-Jul-11	8.5	400	115	2.7	--	--	50	0.05	2.9	0.02	0.005	0.024	0.51	72	43.7	0.037	0.0009	1.45	0.0043	0.00005	0.00003	0.3	0.00003					
3 to 5-Aug-11	16	250	3-Aug-11	6.38	295	5-Aug-11	8.37	405	112	3.5	--	--	52	0.06	1.6	0.03	0.005	0.045	0.54	70	49.2	0.033	0.0009	1.45	0.0029	0.00005	0.00003	0.3	0.00013					
31-Aug to 2-Sept-11	17	250	31-Aug-11	6.1	280	2-Sept-11	8.2	415	85	3	--	1	35	0.04	1.2	0.02	0.005	0.051	0.341	46	30.8	0.02	0.00045	0.88	0.00145	0.00001	0.000005	0.05	0.000014					
28 to 30-Sept-11	18	250	28-Sep-11	5.99	290	30-Sep-11	8.28	405	51	0.9	--	1	25	0.03	0.6	0.2	0.05	0.061	0.043	32	20	0.0194	0.00034	0.477	0.00091	0.00001	0.000005	0.05	0.000026					
26 to 28-Oct-11	19	250	26-Oct-11	6.28	260	28-Oct-11	8.42	370	67	0.7	--	--	28	0.03	0.5	0.02	0.005	0.06	0.191	38	25.7	0.0241	0.00036	0.594	0.00118	0.00001	0.000005	0.05	0.000007					
23 to 25-Nov-11	20	250	23-Nov-11	6.23	250	25-Nov-11	8.05	320	78	0.68	--	1	27.5	0.037	0.9	0.02	0.005	0.11	0.192	40	26	0.0146	0.00026	0.487	0.00201	0.00001	0.000005	0.05	0.000006					
21 to 23-Dec-11	21	250	21-Dec-11	6.3	260	23-Dec-11	8.24	330	75	7.38	--	1	27.5	0.036	2.4	0.044	0.005	0.086	0.218	38	26.1	0.0154	0.00038	0.539	0.00136	0.00001	0.000005	0.05	0.000008					
18 to 20-Jan-12	22	250	20-Jan-12	6.3	250	20-Jan-12	8.32	360	49	1.12	--	--	18	0.027	0.7	0.02	0.005	0.053	0.186	26	16.4	0.0168	0.00018	0.442	0.00493	0.00001	0.000005	0.05	0.000021					
15 to 17-Feb-12	23	250	15-Feb-12	6.6	230	17-Feb-12	8.21	365	64	0.74	--	1	35	0.041	3.8	0.02	0.005	0.07	0.337	66	31.6	0.0185	0.0003	0.851	0.00368	0.00001	0.000005	0.07	0.000008					
Terminated																																		

Kinetic Data, Subaqueous Col

Sample ID

SAD Column 1; Sample ID: NW-BFT-2009-0316-C (Naartok West-Flotation)

Graphing ID

Madrid N, Flotation Tailings (SAD-1)

Sampling Period: 2 Day Cycle (Wednesday to Friday)	Cycle No.	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg (CVAF)	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	Te	Tl	Th	Sn	Ti	U	V	Zn	Zr
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Units:		LDL:0.05; UDL: 500.0	0.0001	0.000005	LDL: 0.00005; UDL: 10.0	LDL: 0.001; UDL: 50.0	0.000005	0.0005	LDL:0.05; UDL: 500.0	0.00005	0.000002	0.00005	0.00002	0.002	LDL: 0.05; UDL: 0.3	0.00004	0.1	0.000005	LDL:0.05; UDL: 500.0	0.00005	0.00002	0.000002	0.000005	0.00001	0.0005	0.000002	0.0002	LDL:0.00 01; UDL: 10.0	0.0001
Detection Limits:		0.05			0.02	0.01			0.05						0.3				0.1										0.005
12 to 14-May-10	0	27.2	0.0001	0.000903	0.00149	0.003	0.000719	0.0117	27.6	0.0169	0.00002	0.0469	0.0112	0.144	36.5	0.00042	3.4	0.000005	34.1	0.134	0.00004	0.000021	0.000005	0.00706	0.0005	0.000103	0.0023	0.0419	0.0001
09 to 11-Jun-10	1	29.5	0.0002	0.0029	0.00135	0.002	0.000466	0.0142	36	0.0271	0.00002	0.054	0.0158	0.158	47	0.00018	5.4	0.000005	37.5	0.146	0.00022	0.000019	0.000005	0.0503	0.0005	0.000084	0.0023	0.0215	0.0001
07 to 09-Jul-10	2	24.3	0.0001	0.00083	0.00005	0.001	0.00012	0.011	28.3	0.0174	0.00002	0.0379	0.0032	0.1	37.3	0.00004	4.6	0.000005	24.5	0.135	0.00002	0.000002	0.000005	0.0602	0.0005	0.00005	0.002	0.0187	0.0001
04 to 06-Aug-10	3	23.5	0.0001	0.000468	0.00151	0.016	0.000082	0.0073	21.8	0.0135	0.00002	0.0341	0.00352	0.033	26.8	0.00012	5.2	0.000023	15.5	0.113	0.00002	0.000003	0.000005	0.0545	0.0005	0.000046	0.0019	0.0106	0.0001
01 to 03-Sep-10	4	17.9	0.0001	0.00022	0.0009	0.007	0.00019	0.005	15.5	0.0087	0.00002	0.0199	0.0028	0.002	21.1	0.00004	3.6	0.000005	8.2	0.0909	0.0001	0.000002	0.000005	0.0393	0.0005	0.000002	0.001	0.0113	0.0001
29-Sep-10 to 1-Oct-10	5	19	0.0001	0.00019	0.00051	0.005	0.00012	0.0048	15.6	0.00899	0.000002	0.0278	0.00244	0.004	20.4	0.00008	4.3	0.00003	7.97	0.0977	0.00026	0.000004	0.000016	0.042	0.0005	0.00002	0.0004	0.0134	0.0001
27 to 29-Oct-10	6	17.6	0.0005	0.00013	0.0003	0.007	0.00014	0.004	14.3	0.008	0.000005	0.0279	0.0018	0.01	18.4	0.0002	4.4	0.00003	6.1	0.0975	0.0001	0.00001	0.00003	0.0344	0.003	0.00003	0.001	0.0133	0.0005
24 to 26-Nov-10	7	16.1	0.0005	0.00024	0.0005	0.005	0.00014	0.003	10.9	0.0081	0.000003	0.0148	0.0051	0.01	14.2	0.0002	3.3	0.00003	3.9	0.0804	0.0001	0.00001	0.00003	0.0298	0.003	0.00001	0.002	0.0152	0.0005
22 to 24-Dec-10	8	14	0.0005	0.00019	0.0008	0.005	0.00016	0.004	10.4	0.0089	0.000002	0.0158	0.0028	0.01	12.6	0.0002	2.8	0.00004	3.7	0.0715	0.0001	0.00001	0.00003	0.0265	0.003	0.00004	0.002	0.0068	0.0005
19 to 21-Jan-11	9	13.3	0.0005	0.00012	0.0005	0.005	0.00006	0.003	8.4	0.0086	0.000002	0.0118	0.002	0.05	10.2	0.0002	2.4	0.00003	2.8	0.0652	0.0001	0.00001	0.00003	0.0211	0.003	0.00004	0.002	0.0073	0.0005
16 to 18-Feb-11	10	12.5	0.0005	0.00015	0.0005	0.005	0.00007	0.003	7.7	0.0108	0.000002	0.0136	0.0019	0.01	9.6	0.0002	2.7	0.00003	2.4	0.0615	0.0001	0.00001	0.00003	0.0269	0.003	0.00001	0.002	0.001	0.0005
16 to 18-Mar-11	11	10.5	0.0005	0.00011	0.001	--	--	0.003	7.1	0.0095	0.000002	0.0115	0.0024	0.02	13	0.0009	2.3	--	2.5	0.0505	--	0.00004	0.00004	0.0202	0.003	0.00001	0.001	0.0127	0.0005
13 to 15-Apr-11	12	12.1	0.0005	0.00015	0.0006	0.005	0.00011	0.003	8.1	0.0129	0.000002	0.0131	0.0028	0.17	10.9	0.0002	2.4	0.00005	3	0.0607	0.0001	0.00002	0.00003	0.022	0.003	0.00001	0.001	0.0175	0.0005
11 to 13-May-11	13	12.4	0.0005	0.00013	0.0005	0.005	0.00007	0.003	7.2	0.0101	0.000002	0.0159	0.0022	0.01	8.7	0.0002	2.6	0.00006	2.3	0.0534	0.0001	0.00002	0.00003	0.019	0.003	0.00001	0.001	0.0141	0.0005
8 to 10-Jun-11	14	7.75	0.0001	0.000126	0.00073	0.001	0.000047	0.0014	3.54	0.00806	0.000002	0.00457	0.00229	0.008	4.68	0.00007	1.2	0.00002	1.04	0.0288	0.00009	0.000006	0.000005	0.00835	0.0005	0.000016	0.0009	0.009	0.0001
6 to 8-Jul-11	15	9.2	0.0005	0.00011	0.0008	0.005	0.00013	0.003	5	0.0126	0.000002	0.0081	0.0045	0.01	8.4	0.0002	1.9	0.00007	1.7	0.0408	0.0013	0.00001	0.00003	0.0147	0.003	0.00001	0.001	0.0117	0.0005
3 to 5-Aug-11	16	9.8	0.0005	0.00019	0.0014	0.005	0.00009	0.003	6	0.0163	0.000002	0.0087	0.0022	0.01	7.2	0.0004	1.8	0.00004	1.9	0.0467	0.0003	0.00003	0.00003	0.0142	0.003	0.00001	0.001	0.031	0.0005
31-Aug to 2-Sept-11	17	6.48	0.0001	0.00011	0.00042	0.002	0.000073	0.0016	3.55	0.0126	0.000002	0.00635	0.00193	0.016	4.38	0.00005	1.2	0.000026	1.22	0.0282	0.00008	0.00001	0.000005	0.00947	0.0005	0.000005	0.0007	0.0086	0.0001
28 to 30-Sept-11	18	4.29	0.0001	0.000076	0.00044	0.003	0.000697	0.001	2.26	0.00793	0.000002	0.00413	0.00117	0.01	2.53	0.00006	0.7	0.000038	0.79	0.0183	0.00014	0.000002	0.000005	0.00564	0.0005	0.000002	0.0007	0.0042	0.0003
26 to 28-Oct-11	19	5.42	0.0001	0.00009	0.00095	0.005	0.000073	0.0013	2.95	0.011	0.000002	0.005	0.00139	0.007	3.55	0.00004	0.9	0.000035	1.12	0.023	0.0001	0.000002	0.000005	0.00756	0.0005	0.00001	0.0004	0.0054	0.0001
23 to 25-Nov-11	20	5.55	0.0001	0.000232	0.00145	0.015	0.000073	0.0014	2.95	--	0.000002	0.00467	0.00198	0.027	3.67	0.00005	1.4	0.000014	1.42	0.0234	--	0.000003	0.000005	0.00783	0.0005	0.000014	0.0006	0.0046	0.0001
21 to 23-Dec-11	21	5.51	0.0001	0.000112	0.00104	0.007	0.000139	0.0014	3	0.0111	3.7E-06	0.00567	0.00329	0.051	5.16	0.00005	0.9	0.00005	1.25	0.0221	0.00011	0.000002	0.000005	0.0138	0.0005	0.000005	0.0003	0.0066	0.0001
18 to 20-Jan-12	22	3.5	0.0001	0.000097	0.00102	0.002	0.000076	0.0009	1.85	0.00676	2.4E-06	0.00373	0.00199	0.021	2.33	0.00004	0.9	0.000034	0.8	0.0146	0.00006	0.000002	0.000005	0.0069	0.0005	0.000004	0.0004	0.0067	0.0001
15 to 17-Feb-12	23	6.45	0.0001	0.000096	0.00111	0.002	0.000055	0.0016	3.75	0.00883	0.000002	0.00624	0.00388	0.064	8.09	0.00004	1.2	--	1.53	0.0273	0.00194	0.000003	0.000005	0.0113	0.0005	0.000007	0.0003	0.0056	0.0001
Terminated																													

Kinetic Data, Subaqueous Column Tests - Madrid North, Madrid South & Boston Tailings

Sample ID

SAD Column 2; Sample ID: B-BFT-2009-0129-C (Boston-Flotation)

Graphing ID

Boston, Flotation Tailings (SAD-3)

Sampling Period: 2 Day Cycle (Wednesday to Friday)	Cycle No.	Target Pore Vol. Collected	Input (DI Water) Analysis (done In-Situ)			Output (Sample) Analysis (done In-Situ)				Sulphate	Acidity		Total Alkalinity	Fluoride	Chloride	Nitrate-N	Nitrite-N	Total Ammonia	Diss.-P	TDS	Hardness CaCO3	Al	Sb	As	Ba	Be	Bi	B	Cd
			Date Analyzed		ORP	Date Analyzed	pH	ORP	EC		to pH 4.5	to pH 8.3										mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
				pH Units	mV		pH Units	mV	µS/cm		mg CaCO3/L		mg CaCO3/L									LDL:0.0002; UDL: 50.0							
Units:		ml								mg/L				mg/L	mg/L	mg/L	mg/L	mgN/L	mgP/L	mg/L	mg/L								
Detection Limits:		5.0		0.01	5.0		0.01	5.0	1.0	1.0	1.0	1.0	1.0	0.05	0.2	0.02	0.002	0.01	0.001	10	0.5	0.05							
12 to 14-May-10	0	250	12-May-10	6.26	298	14-May-10	8.13	309	546	98	--	1	185	0.31	14	0.02	0.005	0.08	0.019	310	253	0.0075	0.00096	0.0175	0.0224	0.00001	0.000005	0.12	0.000071
09 to 11-Jun-10	1	250	9-Jun-10	6.5	301	11-Jun-10	8.3	317	300	31	--	--	128	0.32	3.4	0.02	0.005	0.19	0.006	180	152	0.0065	0.00031	0.0121	0.0131	0.00001	0.000005	0.08	0.000034
07 to 09-Jul-10	2	250	7-Jul-10	6.36	292	9-Jul-10	8.35	319	253	18	--	--	125	0.38	1.8	0.02	0.005	0.05	0.006	130	121	0.004	0.0001	0.0215	0.0106	0.00001	0.000005	0.05	0.00007
04 to 06-Aug-10	3	250	4-Aug-10	6.8	288	6-Aug-10	8.32	315	196	9	--	--	90	0.35	1	0.02	0.005	0.05	0.017	110	91.9	0.0046	0.00012	0.0216	0.00799	0.00001	0.000005	0.06	0.000037
01 to 03-Sep-10	4	250	1-Sep-10	6.46	291	3-Sep-10	8.38	318	186	7	--	--	92	0.39	0.5	0.02	0.005	0.39	0.005	100	89.5	0.006	0.00002	0.0214	0.0063	0.00001	0.000005	0.05	0.00009
29-Sep-10 to 1-Oct-10	5	250	29-Sep-10	6.68	301	1-Oct-10	8.41	315	183	6	--	--	90	0.36	0.5	0.02	0.005	0.05	0.006	94	92.4	0.0062	0.00006	0.0226	0.00732	0.00001	0.000005	0.06	0.000118
27 to 29-Oct-10	6	250	27-Oct-10	6.48	269	29-Oct-10	8.2	292	196	6	--	1	80	0.33	0.5	0.02	0.005	0.05	0.014	92	84	0.0045	0.00006	0.0209	0.00588	0.00001	0.000005	0.05	0.000079
24 to 26-Nov-10	7	250	24-Nov-10	6.32	236	26-Nov-10	8.24	295	179	7	--	1	88	0.33	0.8	0.02	0.005	0.045	0.014	88	93.7	0.0047	0.00006	0.0215	0.00625	0.00001	0.000005	0.06	0.000069
22 to 24-Dec-10	8	250	22-Dec-10	6.5	263	24-Dec-10	8.3	305	169	8	--	--	83	0.22	0.8	0.02	0.005	0.05	0.018	100	85.5	0.0066	0.0001	0.0155	0.00586	0.00001	0.000005	0.05	0.000049
19 to 21-Jan-11	9	250	19-Jan-11	6.79	268	21-Jan-11	8.3	318	137	5	--	--	55	0.13	0.6	0.02	0.005	0.005	0.008	68	58	0.0075	0.00053	0.0116	0.00464	0.00001	0.000005	0.05	0.000036
16 to 18-Feb-11	10	250	16-Feb-11	6.45	288	18-Feb-11	8.36	295	160	4	--	--	69	0.17	0.5	0.2	0.005	0.03	0.008	84	74	0.0076	0.00021	0.0104	0.00318	0.00001	0.000005	0.05	0.000037
16 to 10-Mar-11	11	250	16-Mar-11	6.29	289	18-Mar-11	8.4	317	121	4	--	--	54	0.13	0.9	0.02	0.005	--	0.049	60	57.6	0.0076	0.00041	0.0113	0.00669	0.00001	0.000005	0.05	0.000014
13 to 15-Apr-11	12	250	13-Apr-11	6.48	287	15-Apr-11	8.39	313	119	3.4	--	--	52	0.14	0.6	0.02	0.005	0.048	0.008	110	56.2	0.0064	0.00028	0.00982	0.00922	0.00001	0.000005	0.05	0.000005
11 to 13-May-11	13	250	11-May-11	6.25	289	13-May-11	8.37	335	161	5.3	--	--	65	0.16	3.1	0.02	0.005	0.037	0.019	76	73.1	0.008	0.00012	0.0116	0.00583	0.00001	0.000005	0.07	0.000021
8 to 10-Jun-11	14	250	8-Jun-11	6.74	269	10-Jun-11	8.33	303	130	3.9	--	--	55	0.1	0.5	0.02	0.005	0.084	0.005	82	64.6	0.0092	0.00043	0.00978	0.00642	0.00001	0.000005	0.05	0.00001
6 to 8-Jul-11	15	250	6-Jul-11	6.76	270	8-Jul-11	8.65	320	82	1.3	--	--	50	0.04	2	0.344	0.046	0.021	0.008	50	37.7	0.0031	0.00014	0.00335	0.00716	0.00001	0.000005	0.05	0.000041
3 to 5-Aug-11	16	250	3-Aug-11	6.42	260	5-Aug-11	8.85	320	60	2.4	--	--	35	0.03	1.3	0.06	0.005	0.075	0.074	36	29	0.008	0.00011	0.00429	0.00369	0.00001	0.000005	0.05	0.000056
31-Aug to 2-Sept-11	17	250	31-Aug-11	6.5	290	2-Sep-11	8.52	300	63	2.7	--	--	28	0.03	0.8	0.02	0.005	0.062	0.008	32	29.5	0.0041	0.00008	0.00181	0.00334	0.00001	0.000005	0.05	0.000014
28 to 30-Sept-11	18	250	28-Sep-11	6.15	290	30-Sep-11	8.88	300	37	0.5	--	--	22	0.02	0.5	0.2	0.05	0.13	0.023	22	18.1	0.0051	0.00004	0.00133	0.00228	0.00001	0.000005	0.05	0.000008
26 to 28-Oct-11	19	250	26-Oct-11	6.48	270	28-Oct-11	8.67	280	48	0.5	--	--	22	0.02	0.5	0.02	0.005	0.059	0.013	30	23.5	0.0072	0.00004	0.00134	0.0041	0.00001	0.000005	0.05	0.000005
23 to 25-Nov-11	20	250	23-Nov-11	6.2	260	25-Nov-11	8.6	340	62	2.91	--	--	25	0.028	0.5	0.02	0.005	0.044	0.0098	34	28.1	0.0048	0.00007	0.00162	0.00136	0.00001	0.000005	0.05	0.000005
21 to 23-Dec-11	21	250	21-Dec-11	6.35	250	23-Dec-11	8.36	310	99	5.56	--	--	33.3	0.058	0.5	0.02	0.005	0.075	0.0132	50	42.8	0.0045	0.00008	0.00334	0.00241	0.00001	0.000005	0.05	0.000005
18 to 20-Jan-12	22	250	18-Jan-12	6.2	250	20-Jan-12	8.4	290	98	1.99	--	--	47	0.049	1	0.02	0.005	0.085	0.0131	50	42.6	0.0072	0.00011	0.00313	0.00392	0.00001	0.000005	0.05	0.000009
15 to 17-Feb-12	23	250	15-Feb-12	6.63	230	17-Feb-12	8.56	290	51	0.5	--	--	28	0.033	0.8	0.02	0.005	0.079	0.0328	54	32.9	0.006	0.00007	0.00248	0.00503	0.00001	0.000005	0.05	0.000005
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Kinetic Data, Subaqueous Col

Sample ID

SAD Column 2; Sample ID: B-BFT-2009-0129-C (Boston-Flotation)

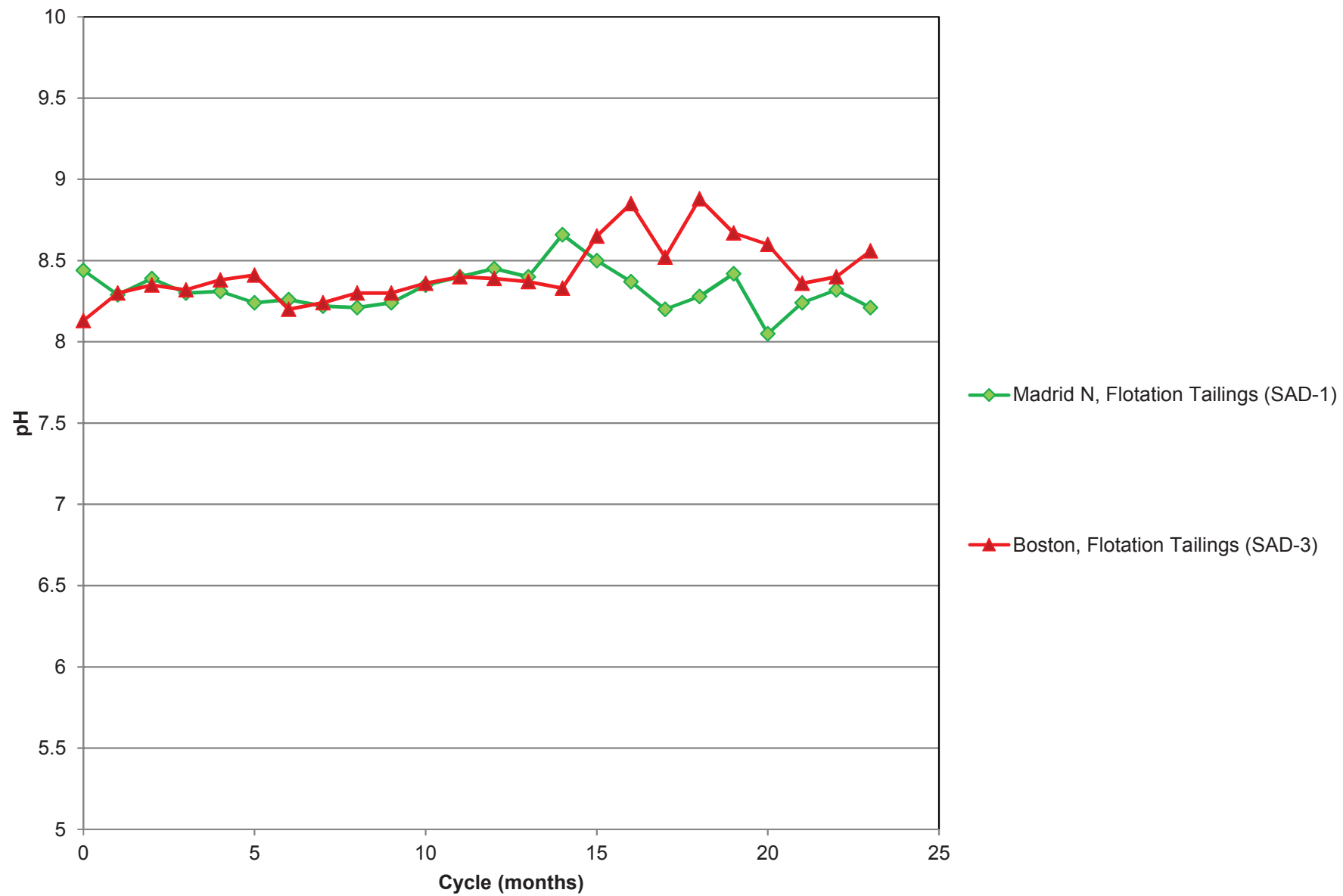
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Boston, Flotation Tailings (SAD-3)

Sampling Period: 2 Day Cycle (Wednesday to Friday)	Cycle No.	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn	Hg (CVAf)	Mo	Ni	P	K	Se	Si	Ag	Na	Sr	Te	Tl	Th	Sn	Ti	U	V	Zn	Zr
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Units:		LDL:0.05; UDL: 500.0	0.0001	0.000005	LDL: 0.00005; UDL: 10.0	LDL: 0.001; UDL: 50.0	0.000005	0.0005	LDL:0.05; UDL: 500.0	0.00005	0.000002	0.00005	0.00002	0.002	LDL: 0.05; UDL: 500.0	0.00004	0.1	0.000005	LDL:0.05; UDL: 500.0	0.00005	0.00002	0.000002	0.000005	0.00001	0.0005	0.000002	0.0002	LDL:0.0001; UDL: 10.0	0.0001
Detection Limits:		0.05			0.02	0.01			0.05						0.3				0.1										0.005
12 to 14-May-10	0	52.6	0.0002	0.001	0.00264	0.005	0.000337	0.0067	29.7	0.0697	0.00002	0.1	0.00803	0.023	5.94	0.00021	2	0.000009	19.6	0.234	0.00003	0.000014	0.000005	0.00428	0.0005	0.000028	0.0003	0.0351	0.0001
09 to 11-Jun-10	1	26.8	0.0001	0.000498	0.00109	0.001	0.000191	0.0083	17.8	0.0214	0.00002	0.103	0.0043	0.139	4.7	0.00005	2.5	0.000005	8.27	0.123	0.00004	0.000002	0.000005	0.0534	0.0005	0.000007	0.0002	0.0153	0.0001
07 to 09-Jul-10	2	23	0.0001	0.0003	0.0006	0.001	0.0001	0.009	15.5	0.0147	0.00002	0.127	0.001	0.02	3.8	0.00004	2.6	0.000005	6.1	0.111	0.00002	0.000002	0.000005	0.0752	0.0005	0.000002	0.0002	0.0108	0.0001
04 to 06-Aug-10	3	19.3	0.0002	0.000109	0.0012	0.004	0.00002	0.006	10.7	0.014	0.00002	0.131	0.00074	0.002	3.34	0.00004	2.2	0.000029	3.01	0.0784	0.00003	0.000002	0.000005	0.048	0.0005	0.000005	0.0002	0.0077	0.0001
01 to 03-Sep-10	4	18.4	0.0001	0.00004	0.001	0.001	0.00021	0.007	10.6	0.0154	0.00002	0.132	0.0005	0.002	2.9	0.00004	1.8	0.000005	2.4	0.0824	0.00002	0.000002	0.000005	0.0427	0.0005	0.000002	0.0002	0.0053	0.0001
29-Sep-10 to 1-Oct-10	5	20.5	0.0001	0.000111	0.00056	0.005	0.00034	0.0063	9.99	0.0172	0.000002	0.136	0.00045	0.002	2.76	0.00004	2.4	0.000033	1.88	0.0779	0.00003	0.000002	0.000005	0.0401	0.0005	0.000003	0.0002	0.0055	0.0001
27 to 29-Oct-10	6	18.4	0.0001	0.000162	0.00065	0.004	0.000063	0.0055	9.22	0.0179	0.000006	0.13	0.00103	0.01	2.79	0.00004	2.4	0.000014	1.47	0.0702	0.0001	0.000002	0.000005	0.0341	0.0005	0.000005	0.0002	0.0061	0.0001
24 to 26-Nov-10	7	20.8	0.0001	0.000104	0.00117	0.003	0.00007	0.0059	10.2	0.0213	0.000003	0.133	0.00068	0.009	2.83	0.00004	2.5	0.000019	1.49	0.0786	0.00005	0.000002	0.000005	0.0379	0.0005	0.000002	0.0002	0.0045	0.0001
22 to 24-Dec-10	8	19	0.0003	0.000143	0.00084	0.006	0.000109	0.0044	9.22	0.0161	0.000002	0.109	0.00082	0.005	2.51	0.00004	1.8	0.000014	0.96	0.0745	0.00004	0.000003	0.000005	0.0252	0.0005	0.000005	0.0002	0.0017	0.0001
19 to 21-Jan-11	9	14.1	0.0002	0.00012	0.00086	0.002	0.000036	0.0021	5.56	0.0225	0.000002	0.0655	0.00082	0.002	1.45	0.00006	1	0.000005	0.46	0.0458	0.00013	0.000002	0.000005	0.0172	0.0005	0.000003	0.0002	0.0029	0.0001
16 to 18-Feb-11	10	17.4	0.0001	0.000095	0.00056	0.007	0.000011	0.0032	7.42	0.0173	0.000002	0.0736	0.00036	0.002	1.42	0.00005	1.5	0.000005	0.61	0.0595	0.00002	0.000002	0.000005	0.0157	0.0005	0.000002	0.0002	0.0004	0.0001
16 to 10-Mar-11	11	13.6	0.0001	0.000107	0.00043	0.002	0.000035	0.002	5.72	0.0198	0.000002	0.0578	0.00083	0.06	1.61	0.00007	1	0.000006	0.5	0.0409	0.00005	0.000002	0.000005	0.0128	0.0005	0.000002	0.0002	0.0048	0.0001
13 to 15-Apr-11	12	13.6	0.0001	0.000087	0.00025	0.002	0.000044	0.0023	5.43	0.017	0.000002	0.066	0.00045	0.011	1.26	0.00005	1.2	0.000022	0.44	0.0478	0.00003	0.000005	0.000005	0.0163	0.0005	0.000002	0.0002	0.006	0.0001
11 to 13-May-11	13	17.1	0.0001	0.000133	0.00048	0.005	0.000044	0.0029	7.39	0.0229	0.000002	0.084	0.00089	0.022	4.56	0.00024	1.7	0.000023	0.65	0.0565	0.00173	0.000005	0.000005	0.0206	0.0005	0.000002	0.0002	0.0047	0.0001
8 to 10-Jun-11	14	15.2	0.0001	0.00013	0.00137	0.004	0.000063	0.002	6.48	0.0202	0.000002	0.0589	0.00246	0.011	1.39	0.00006	1.3	0.000005	0.5	0.0447	0.00009	0.000002	0.000005	0.0153	0.0005	0.000003	0.0002	0.0024	0.0001
6 to 8-Jul-11	15	9.18	0.0001	0.000349	0.00101	0.005	0.000036	0.0011	3.59	0.145	0.000002	0.0173	0.00232	0.009	1.73	0.00009	1.1	0.000008	0.75	0.0247	0.00037	0.000004	0.000005	0.00887	0.0005	0.000011	0.0002	0.0102	0.0001
3 to 5-Aug-11	16	7.23	0.0001	0.000054	0.0009	0.003	0.000042	0.0008	2.65	0.0165	0.000002	0.0158	0.00088	0.076	1.51	0.00012	0.4	0.000013	0.22	0.0175	0.00023	0.000008	0.000005	0.00686	0.0005	0.000004	0.0002	0.0105	0.0001
31-Aug to 2-Sept-11	17	7.29	0.0001	0.000037	0.00031	0.002	0.000045	0.0007	2.73	0.0158	0.000002	0.0129	0.00047	0.023	0.56	0.00004	0.5	0.000007	0.16	0.0163	0.00002	0.000002	0.000005	0.00747	0.0005	0.000002	0.0002	0.0023	0.0001
28 to 30-Sept-11	18	4.33	0.0001	0.000023	0.0003	0.002	0.000218	0.0005	1.78	0.00611	0.000002	0.00697	0.00035	0.017	0.51	0.00004	0.2	0.00001	0.14	0.00931	0.00002	0.000002	0.000005	0.00419	0.0005	0.000002	0.0002	0.001	0.0001
26 to 28-Oct-11	19	5.51	0.0001	0.000029	0.00045	0.002	0.000023	0.0006	2.37	0.00879	0.000002	0.0105	0.00035	0.013	0.51	0.00004	0.4	0.000005	0.19	0.0128	0.00004	0.000002	0.000005	0.00638	0.0005	0.000002	0.0002	0.0023	0.0001
23 to 25-Nov-11	20	6.67	0.0001	0.000034	0.00049	0.004	0.000037	0.0008	2.79	0.0125	0.000002	0.0145	0.00083	0.011	0.67	0.00004	0.4	0.000005	0.22	0.0156	0.00006	0.000002	0.000005	0.00849	0.0005	0.000002	0.0002	0.0005	0.0001
21 to 23-Dec-11	21	9.26	0.0001	0.000062	0.00067	0.005	0.000028	0.0017	4.79	0.0125	2.1E-06	0.0316	0.00083	0.012	0.96	0.00004	0.7	0.000005	0.39	0.0276	0.00004	0.000002	0.000005	0.0132	0.0005	0.000002	0.0002	0.0009	0.0001
18 to 20-Jan-12	22	9.39	0.0001	0.000109	0.00108	0.005	0.000072	0.0016	4.67	0.00988	0.000002	0.0287	0.00157	0.014	1.34	0.00004	0.8	0.000012	0.45	0.0286	0.00012	0.000002	0.000005	0.0118	0.0005	0.000006	0.0002	0.0017	0.0001
15 to 17-Feb-12	23	7.38	0.0001	0.000117	0.00116	0.004	0.000032	0.0009	3.51	0.00893	0.000002	0.0151	0.0012	0.041	0.85	0.00004	0.5	0.000008	0.28	0.0183	0.00002	0.000002	0.000005	0.0102	0.0005	0.000002	0.0002	0.002	0.0001
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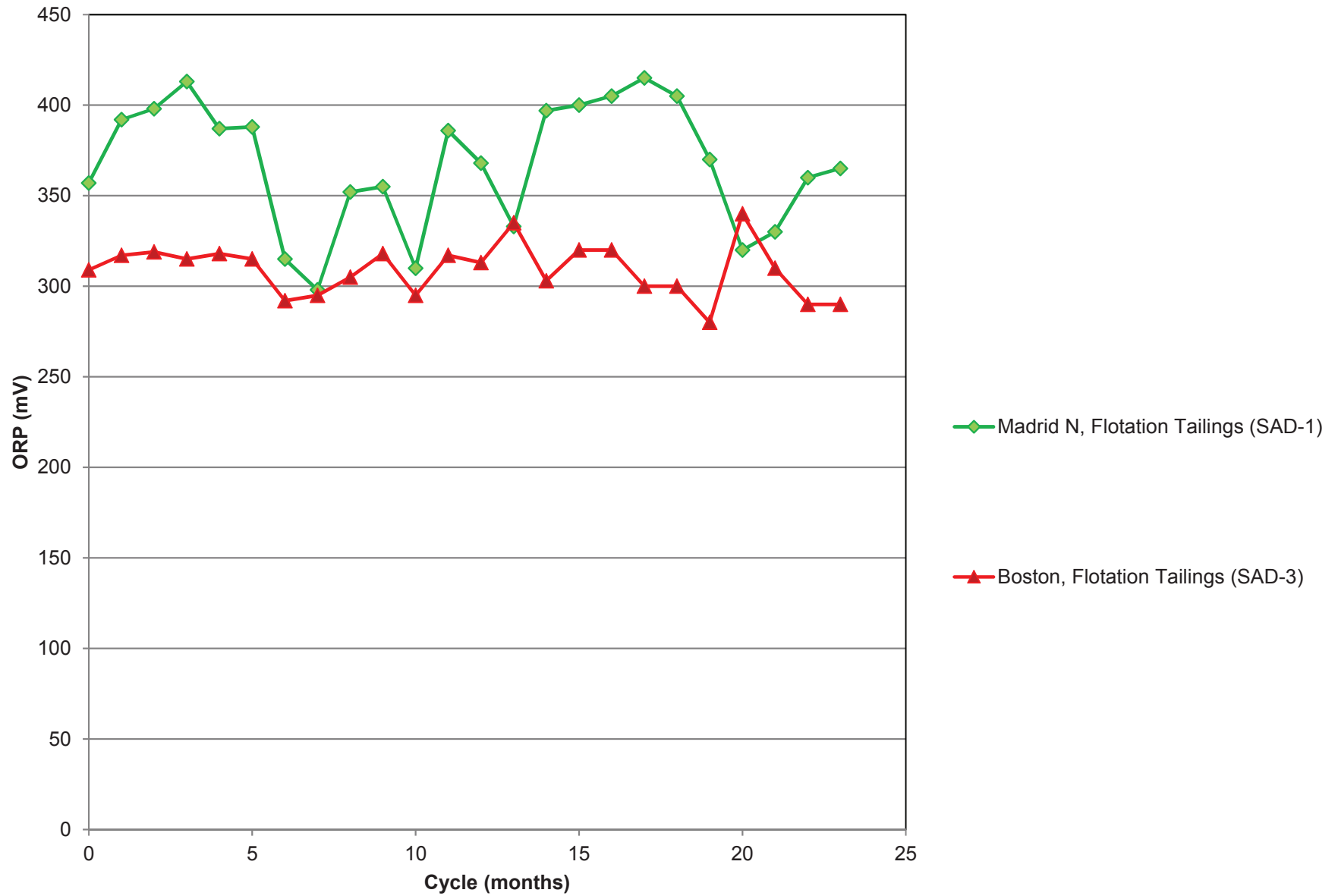
Appendix K – Figures, Sub-aqueous Column Tests

Appendix K: Figures, Sub-Aqueous Column Tests



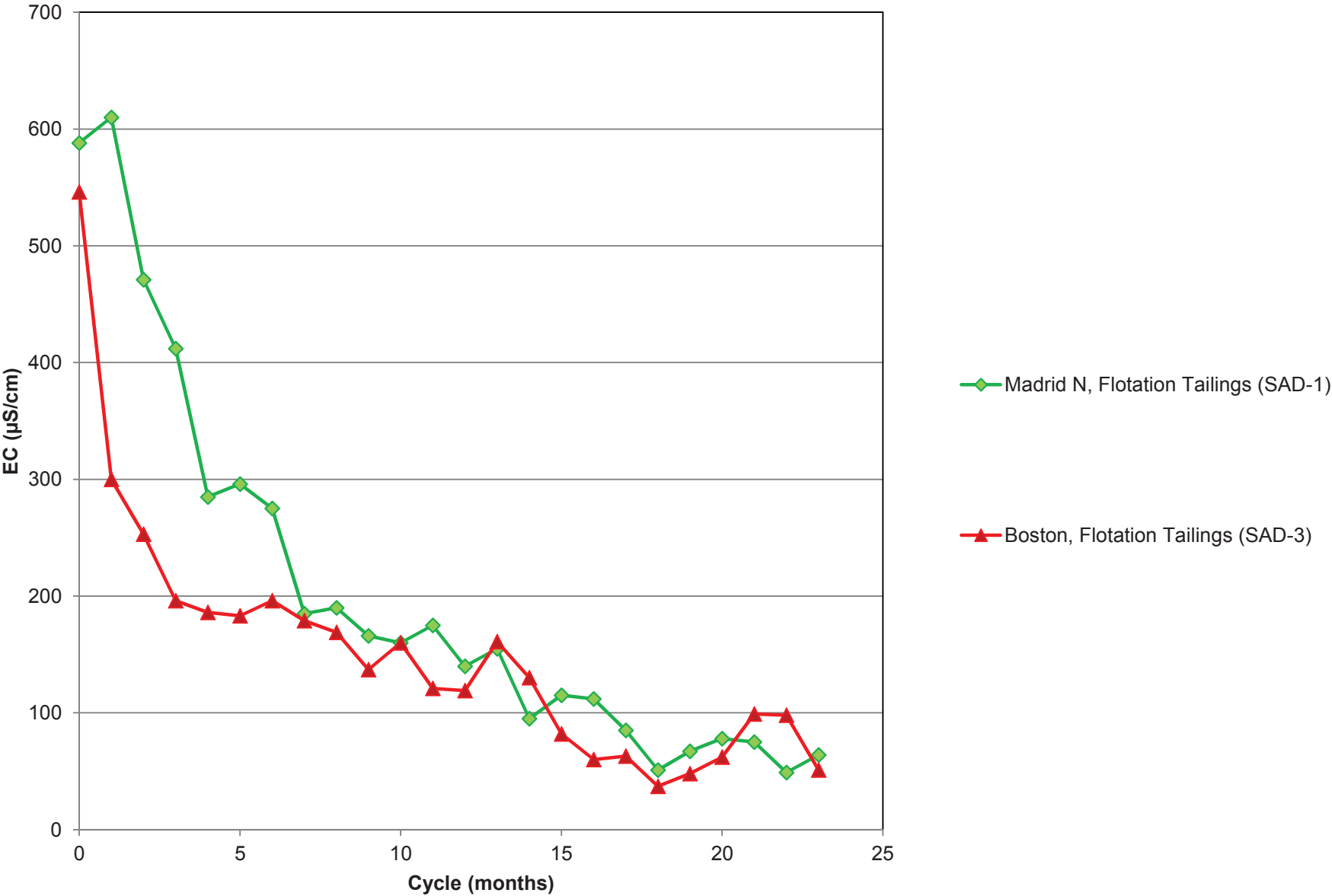
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Appendix K: Figures, Sub-Aqueous Column Tests



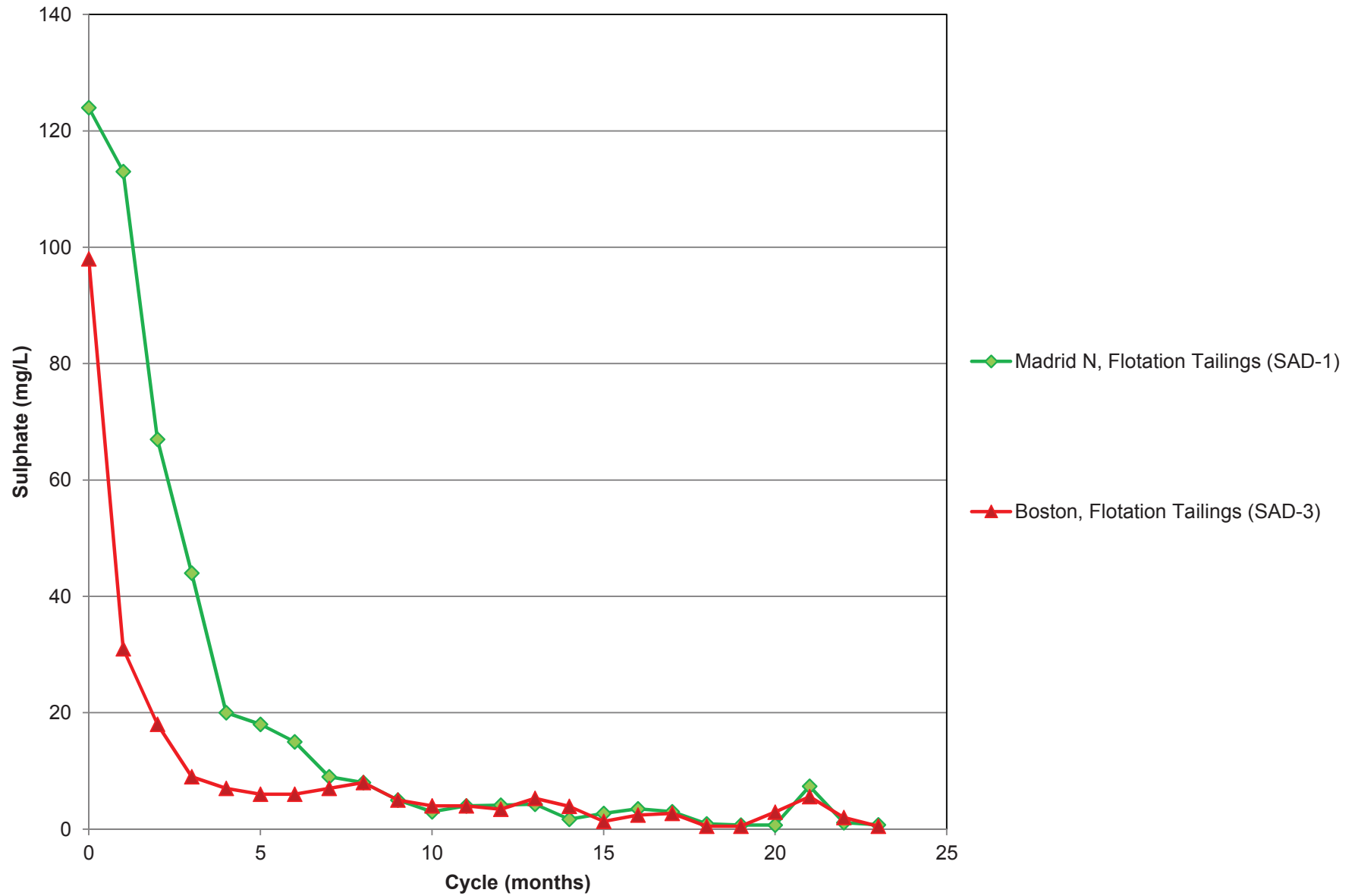
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Appendix K: Figures, Sub-Aqueous Column Tests

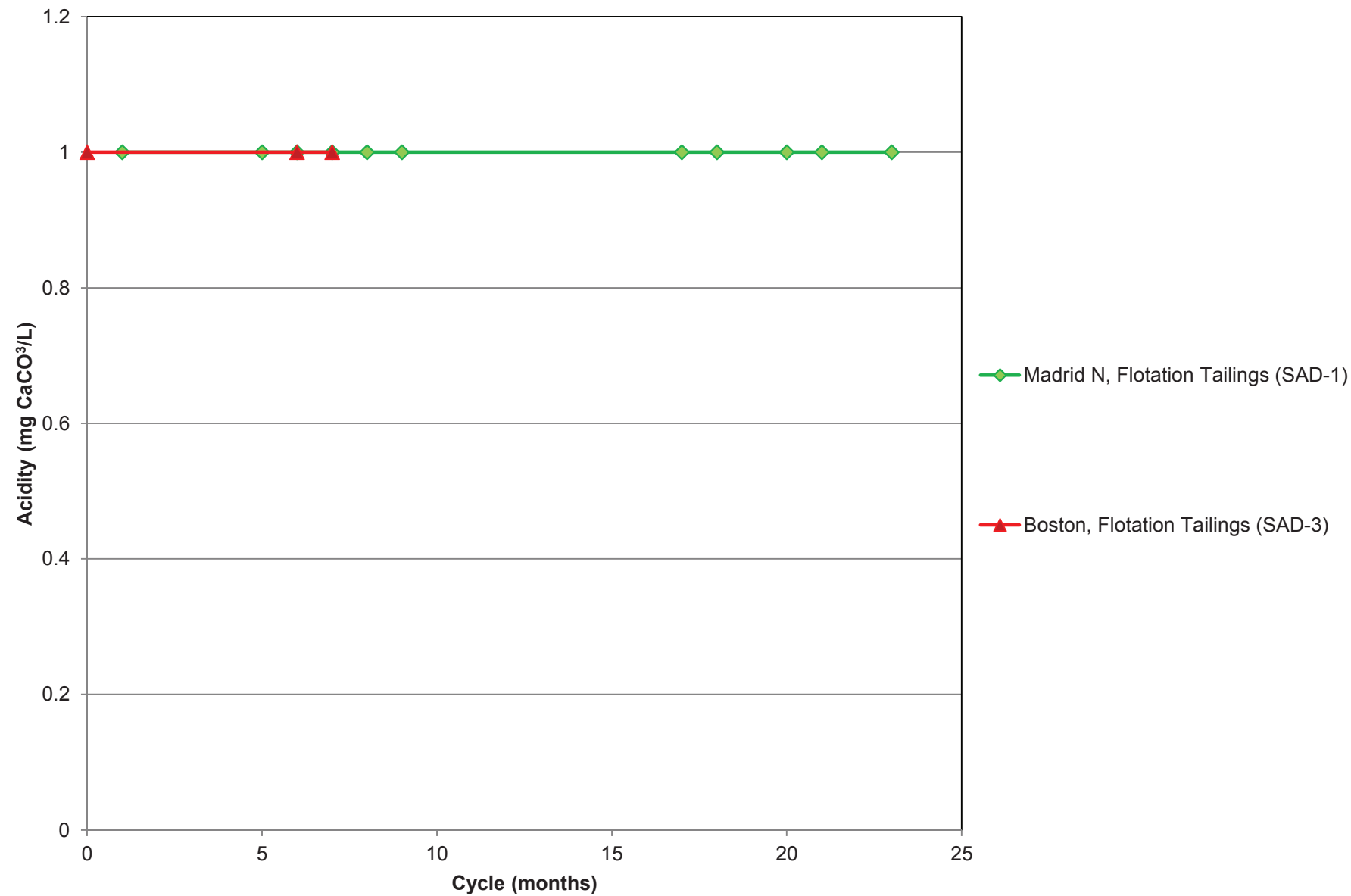


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Appendix K: Figures, Sub-Aqueous Column Tests

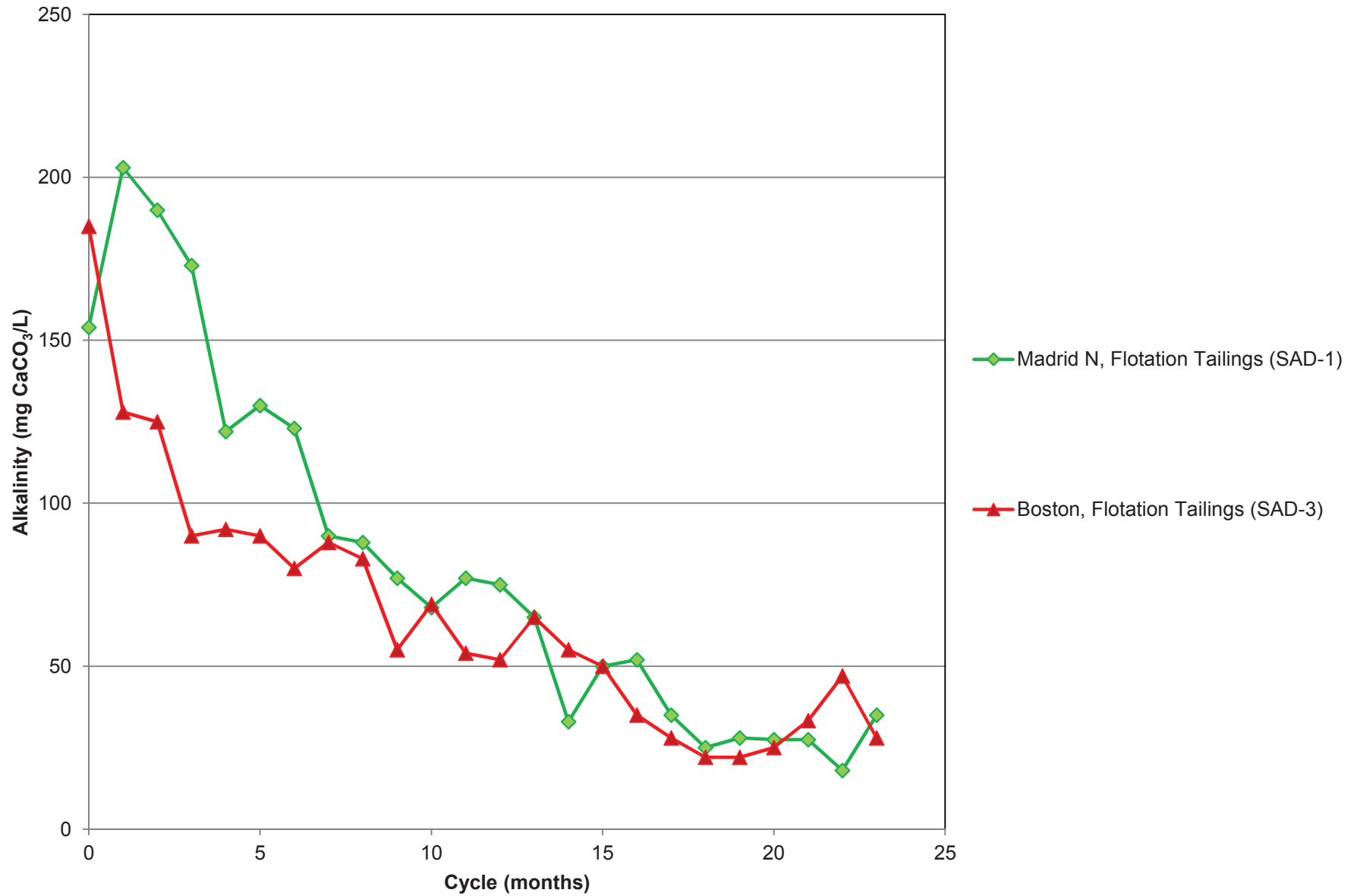


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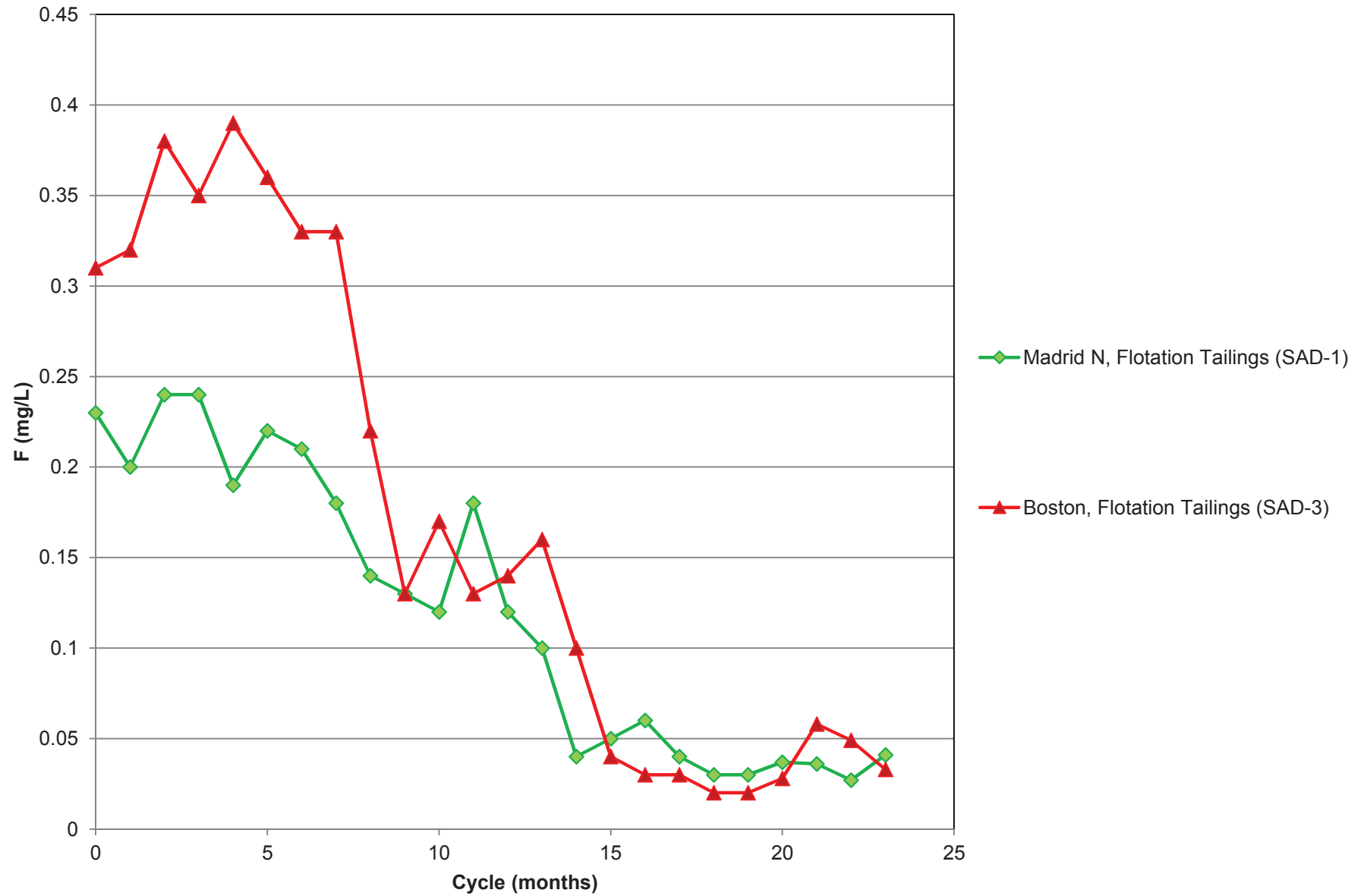
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Appendix K: Figures, Sub-Aqueous Column Tests

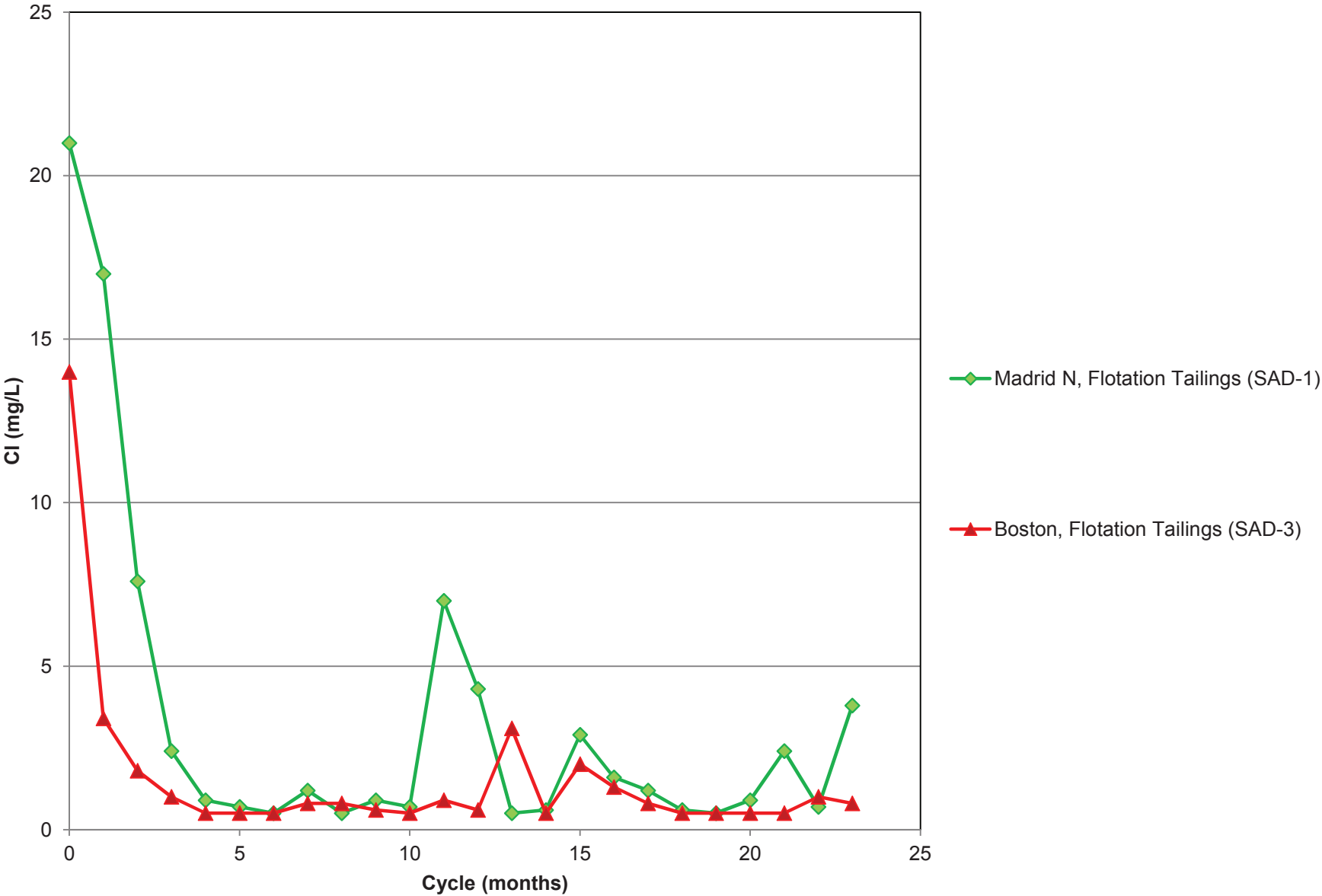


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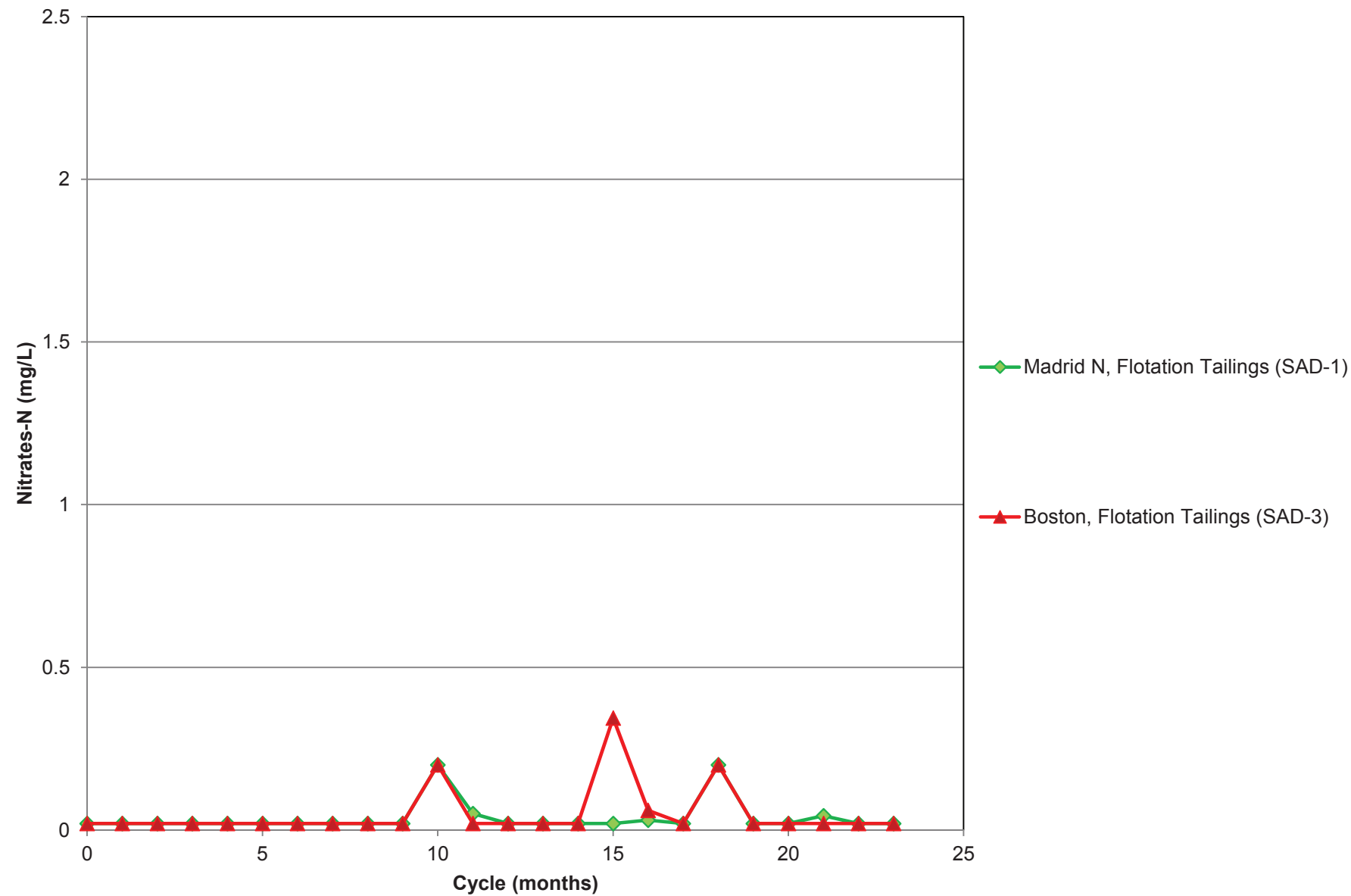
Appendix K: Figures, Sub-Aqueous Column Tests



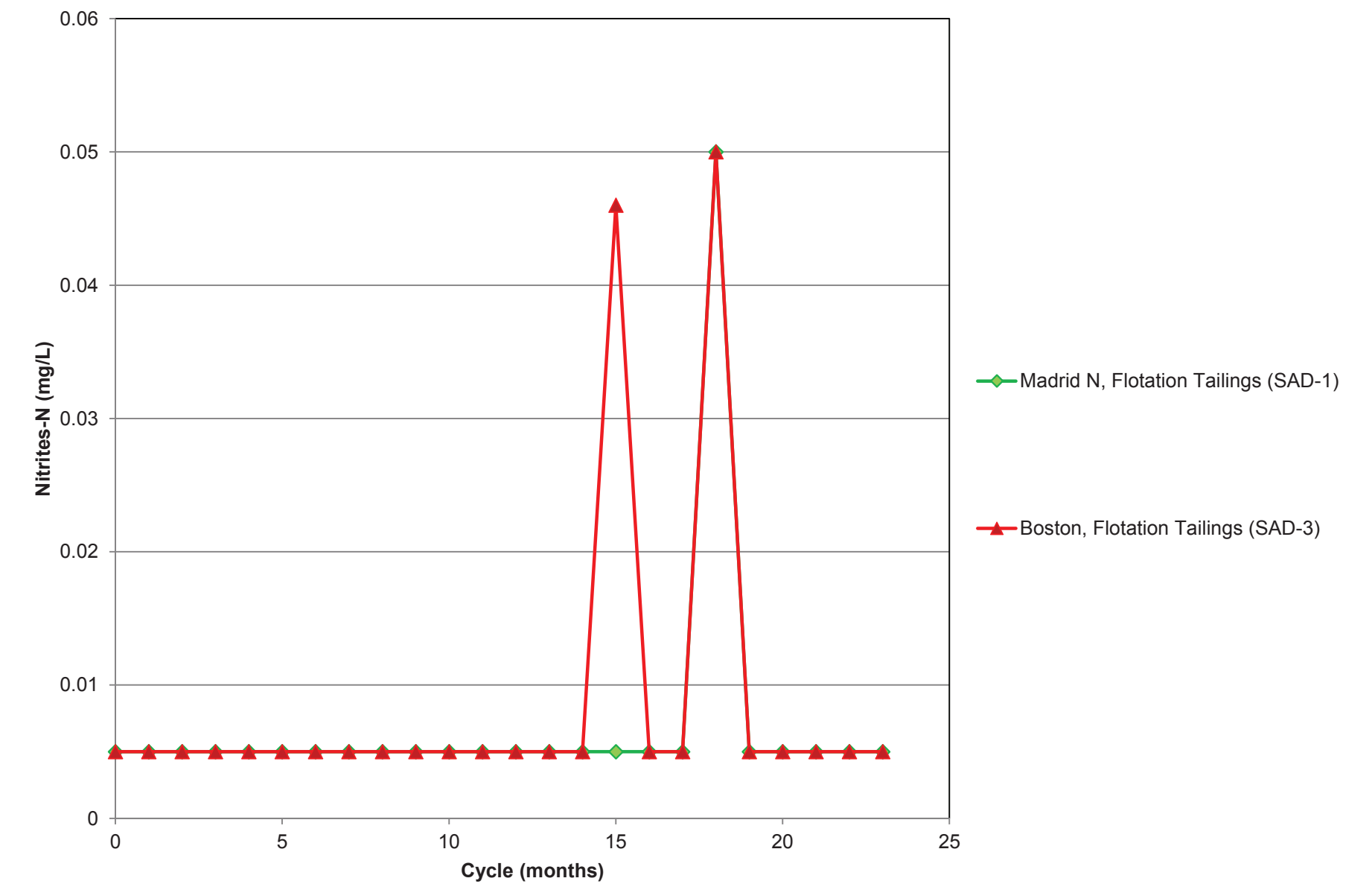
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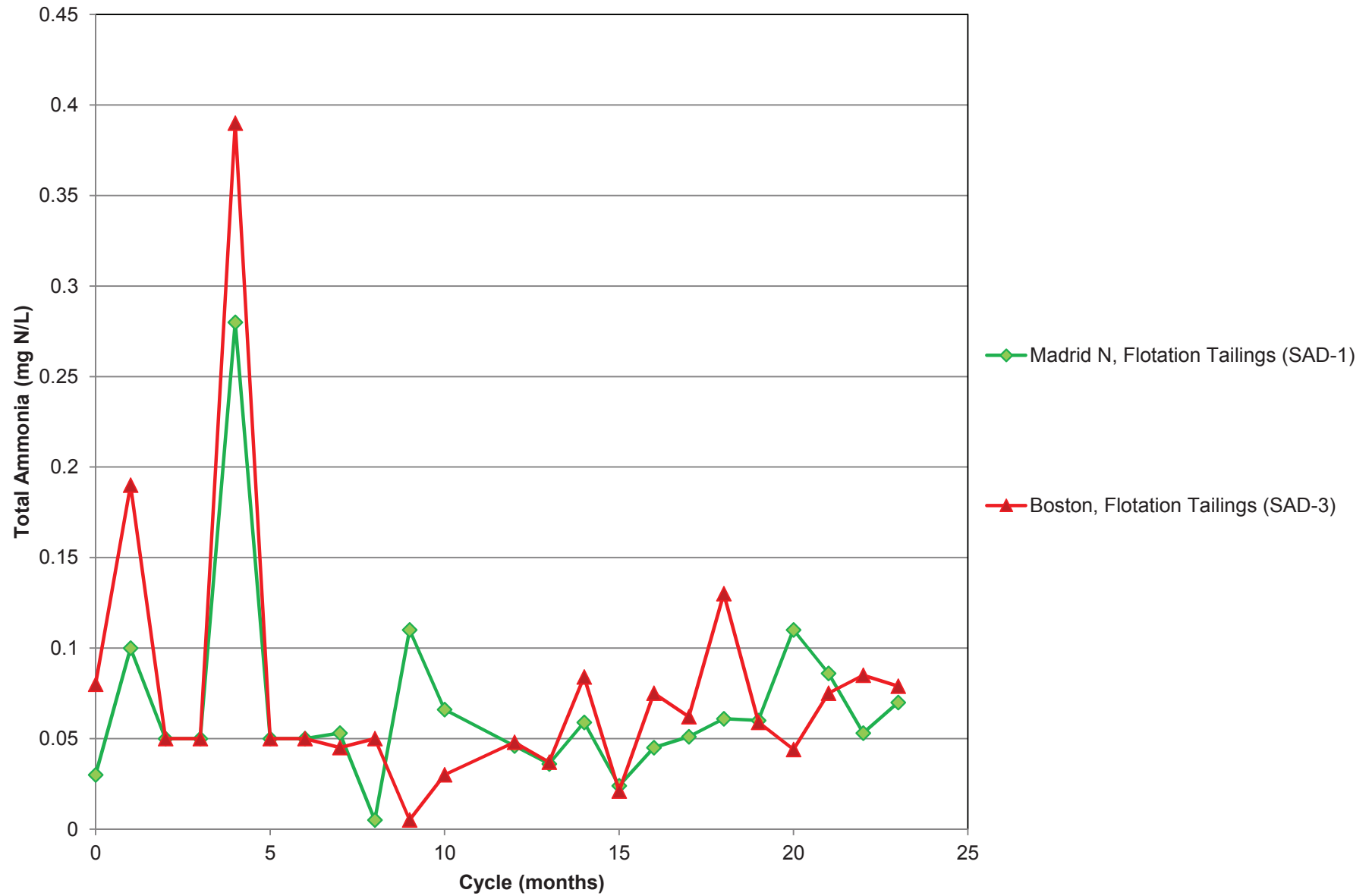


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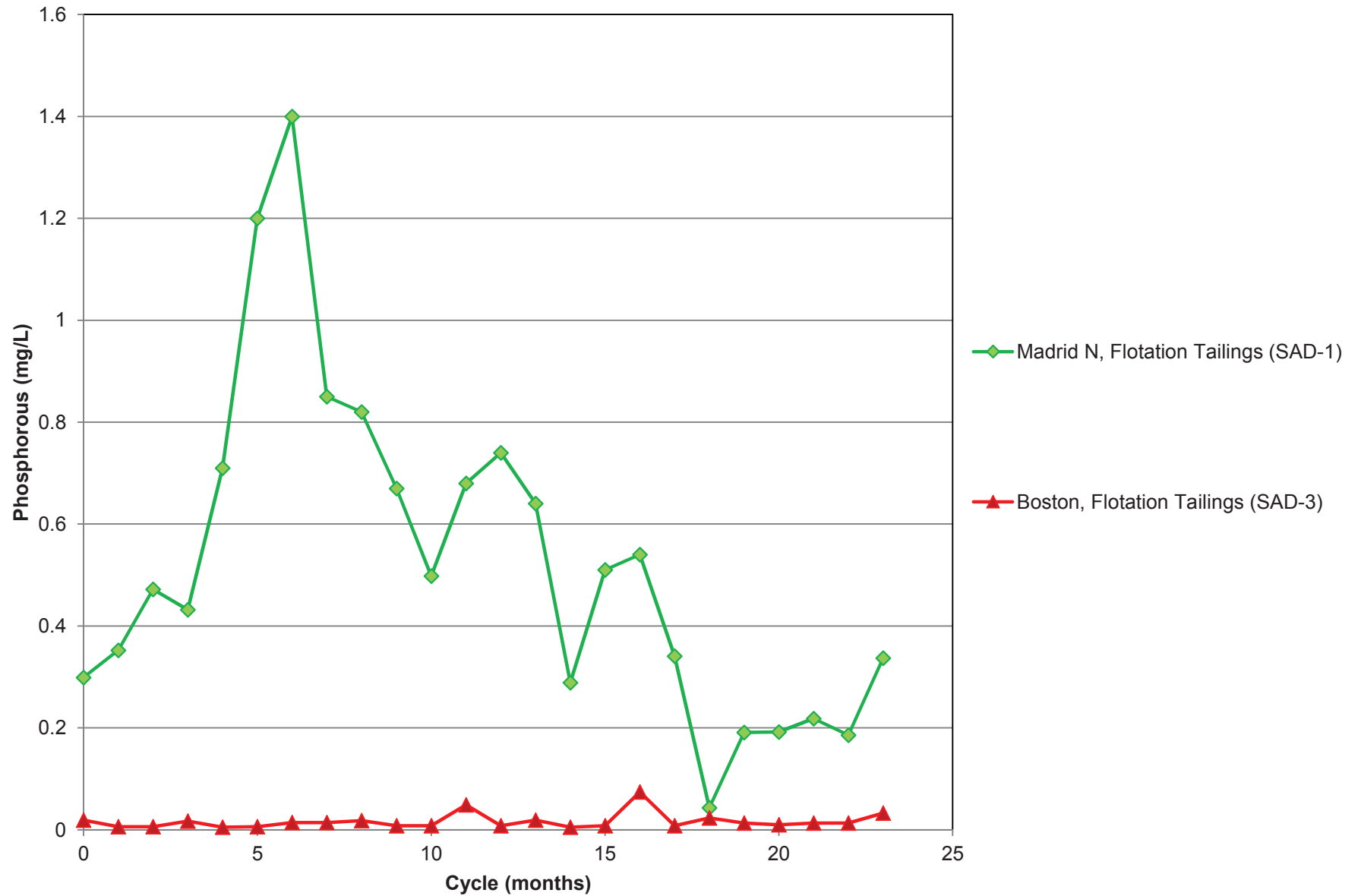
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Appendix K: Figures, Sub-Aqueous Column Tests



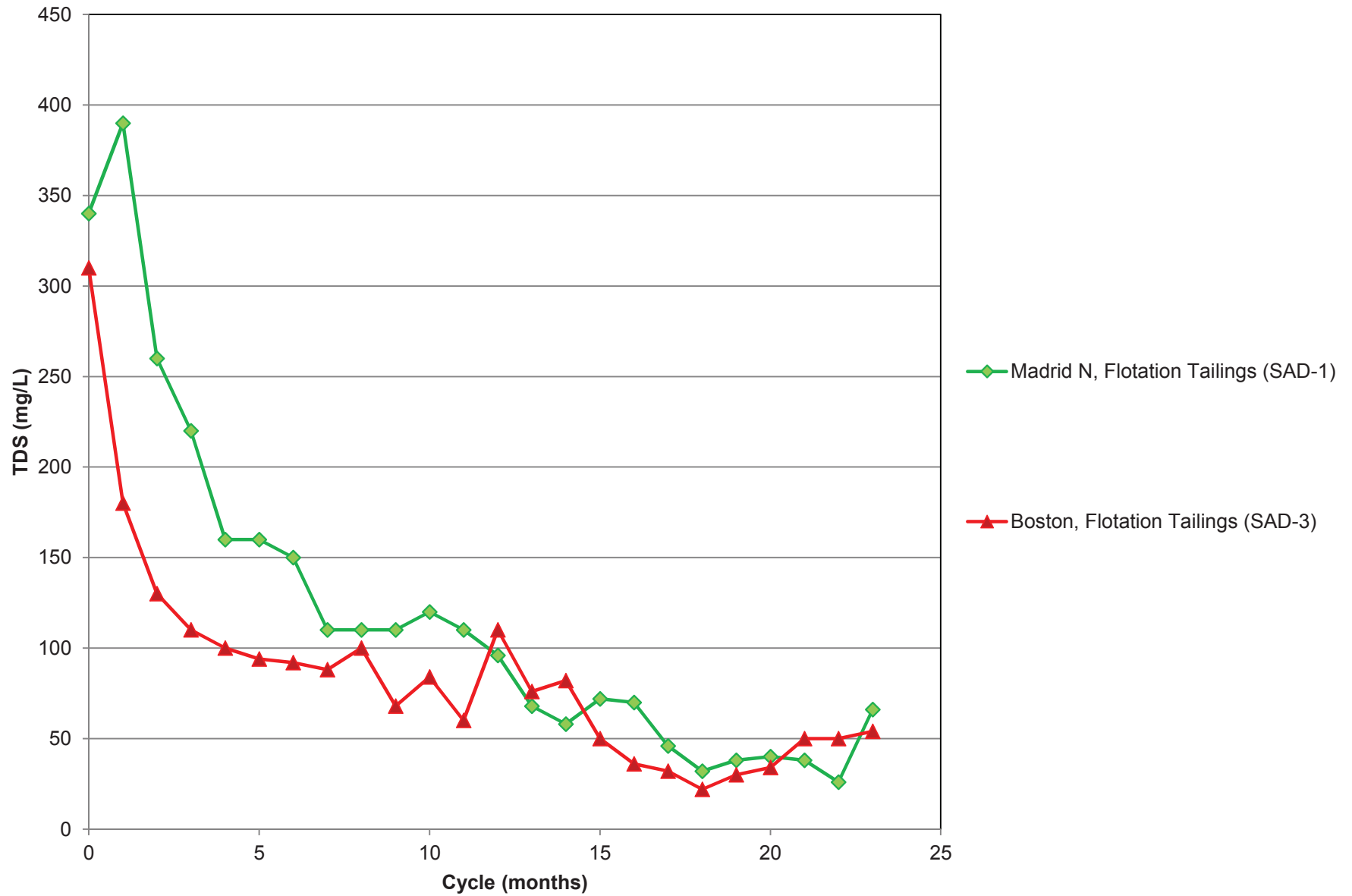
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Appendix K: Figures, Sub-Aqueous Column Tests



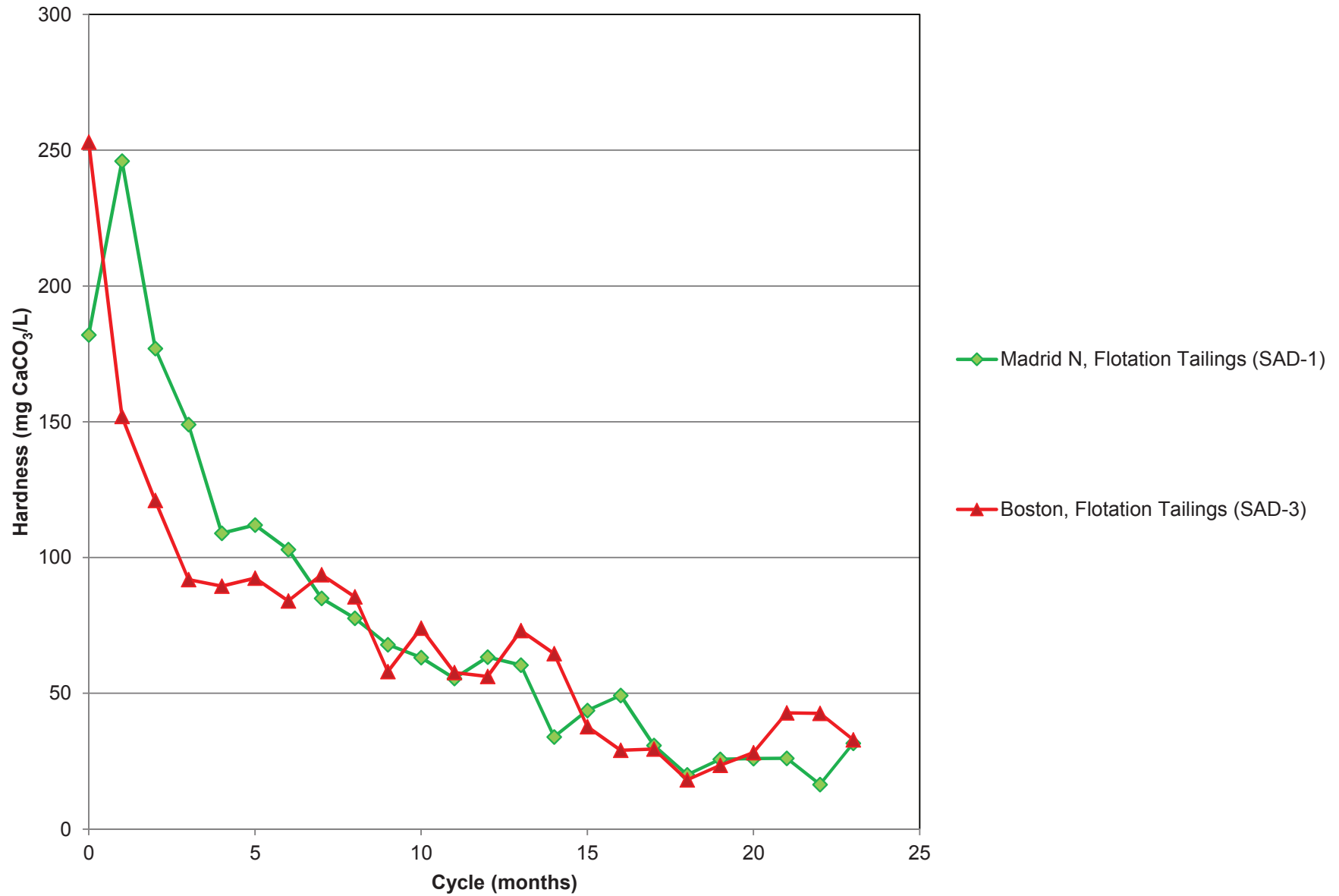
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Appendix K: Figures, Sub-Aqueous Column Tests



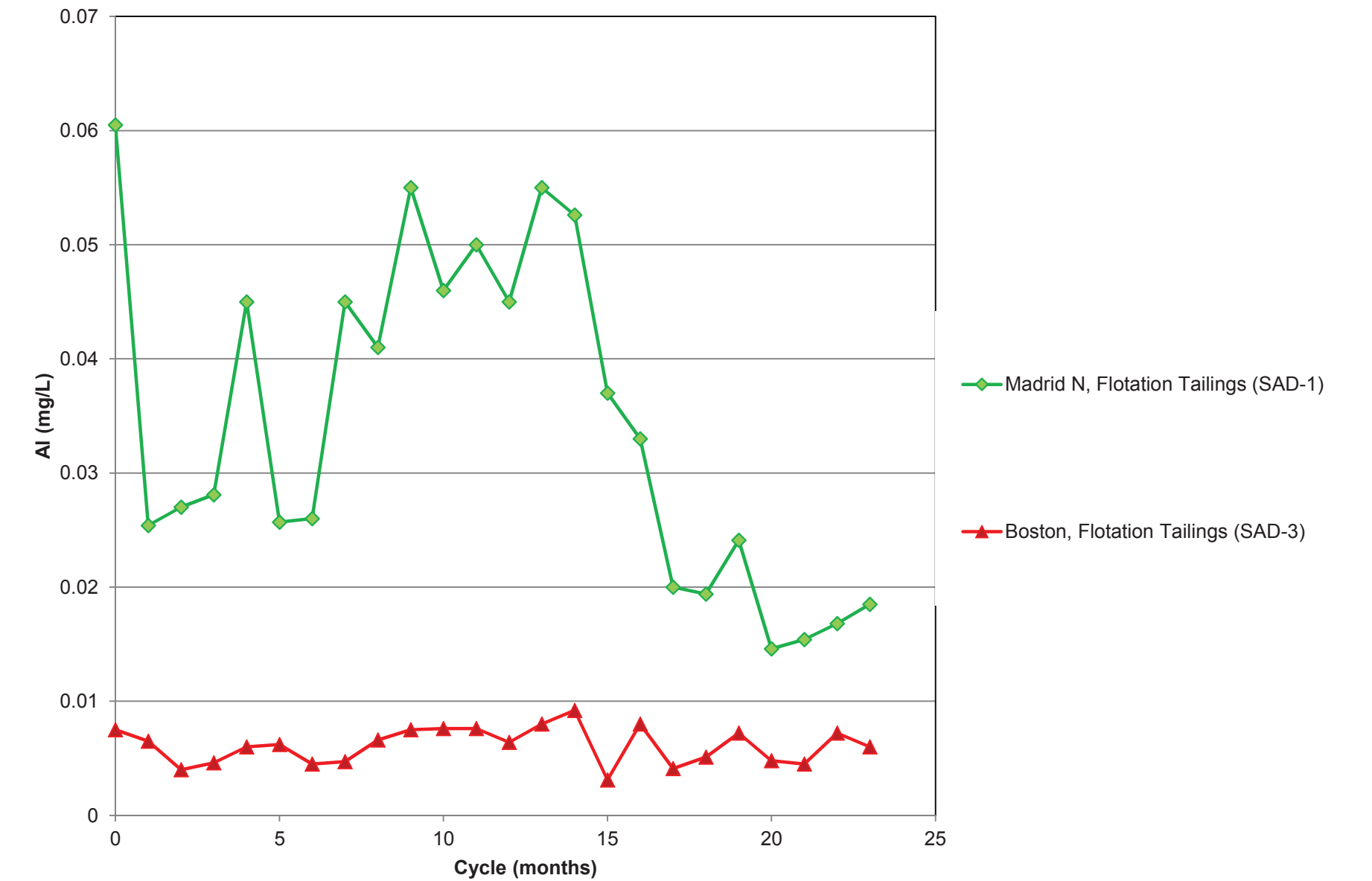
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Appendix K: Figures, Sub-Aqueous Column Tests

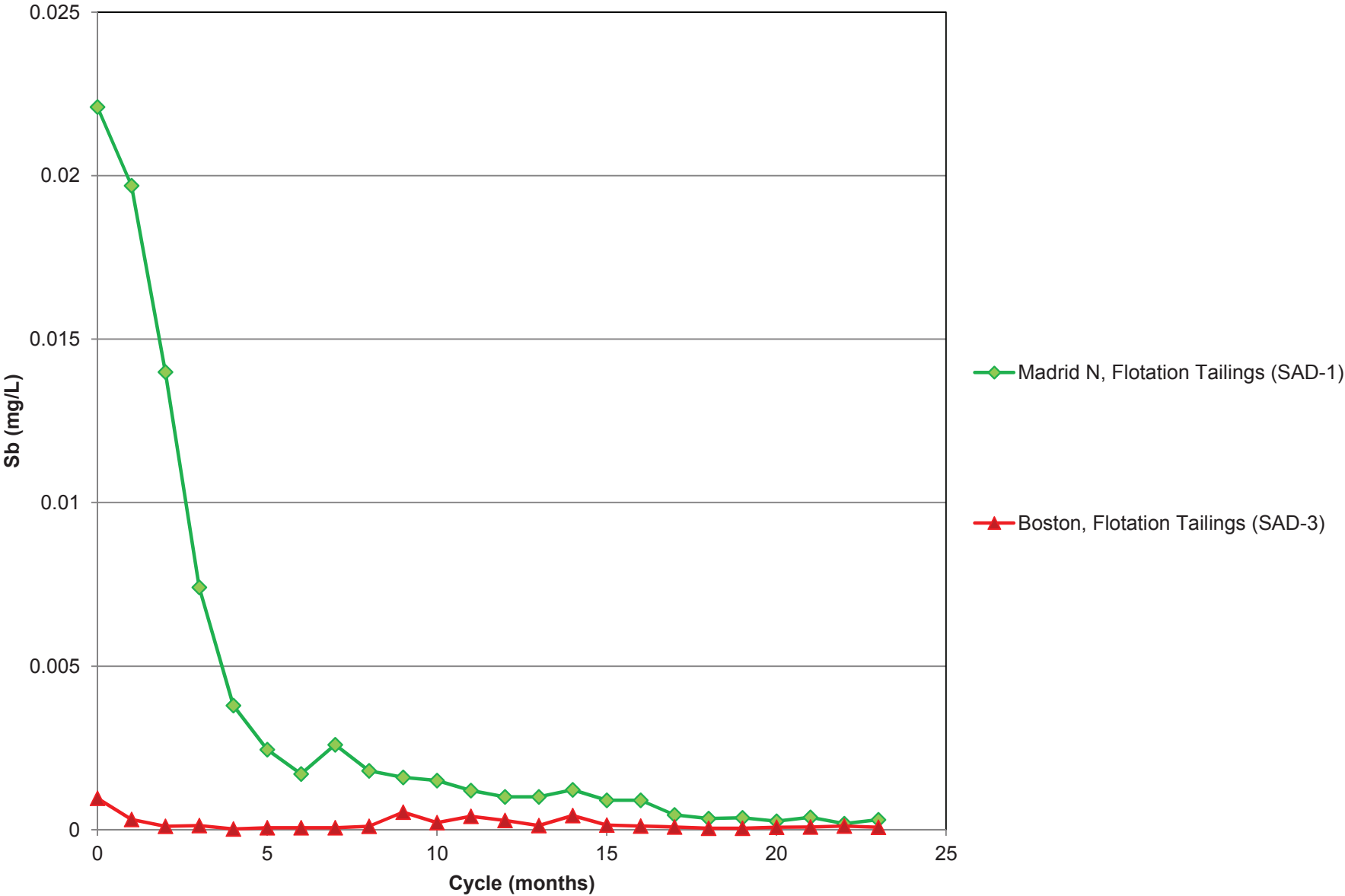


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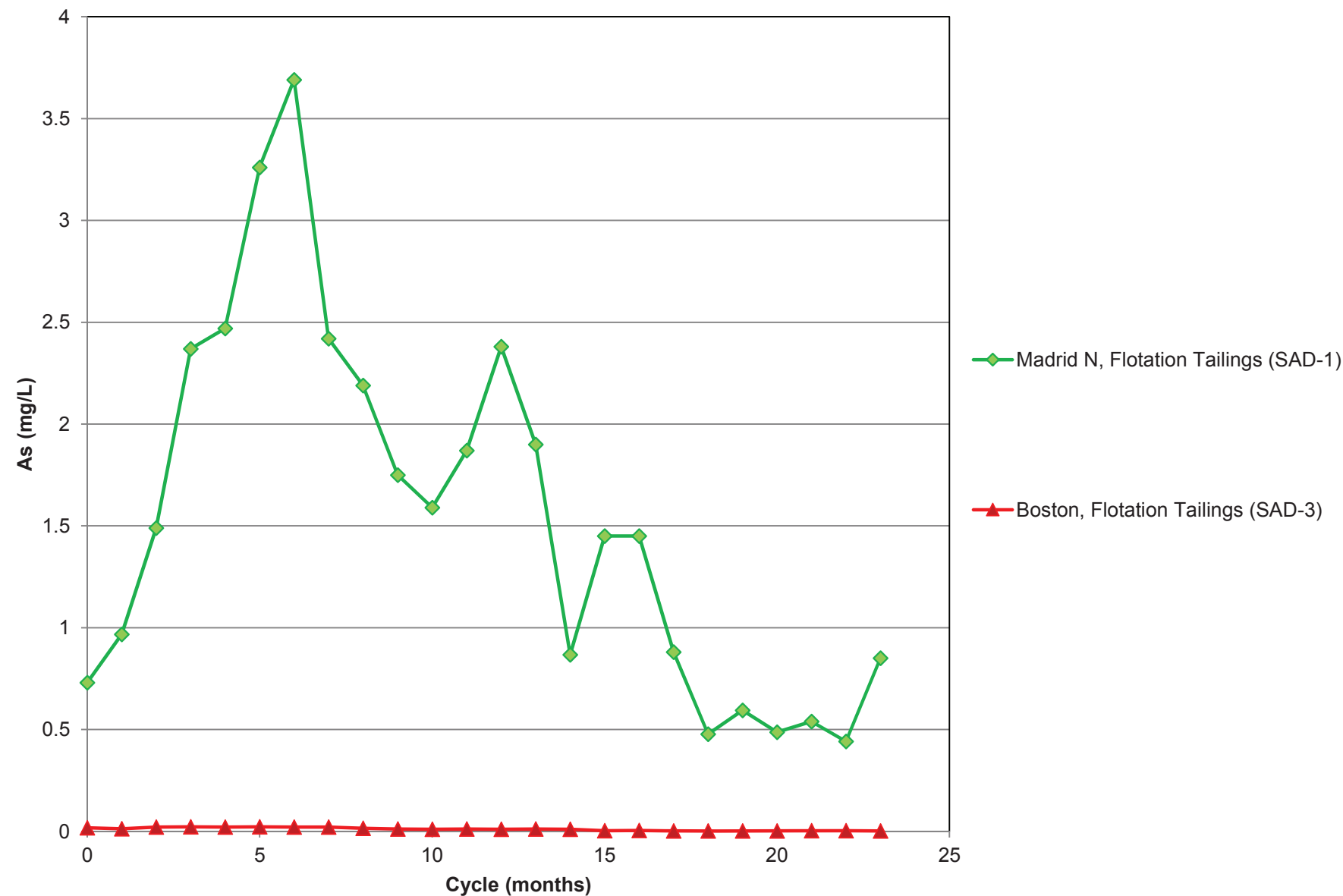
Appendix K: Figures, Sub-Aqueous Column Tests



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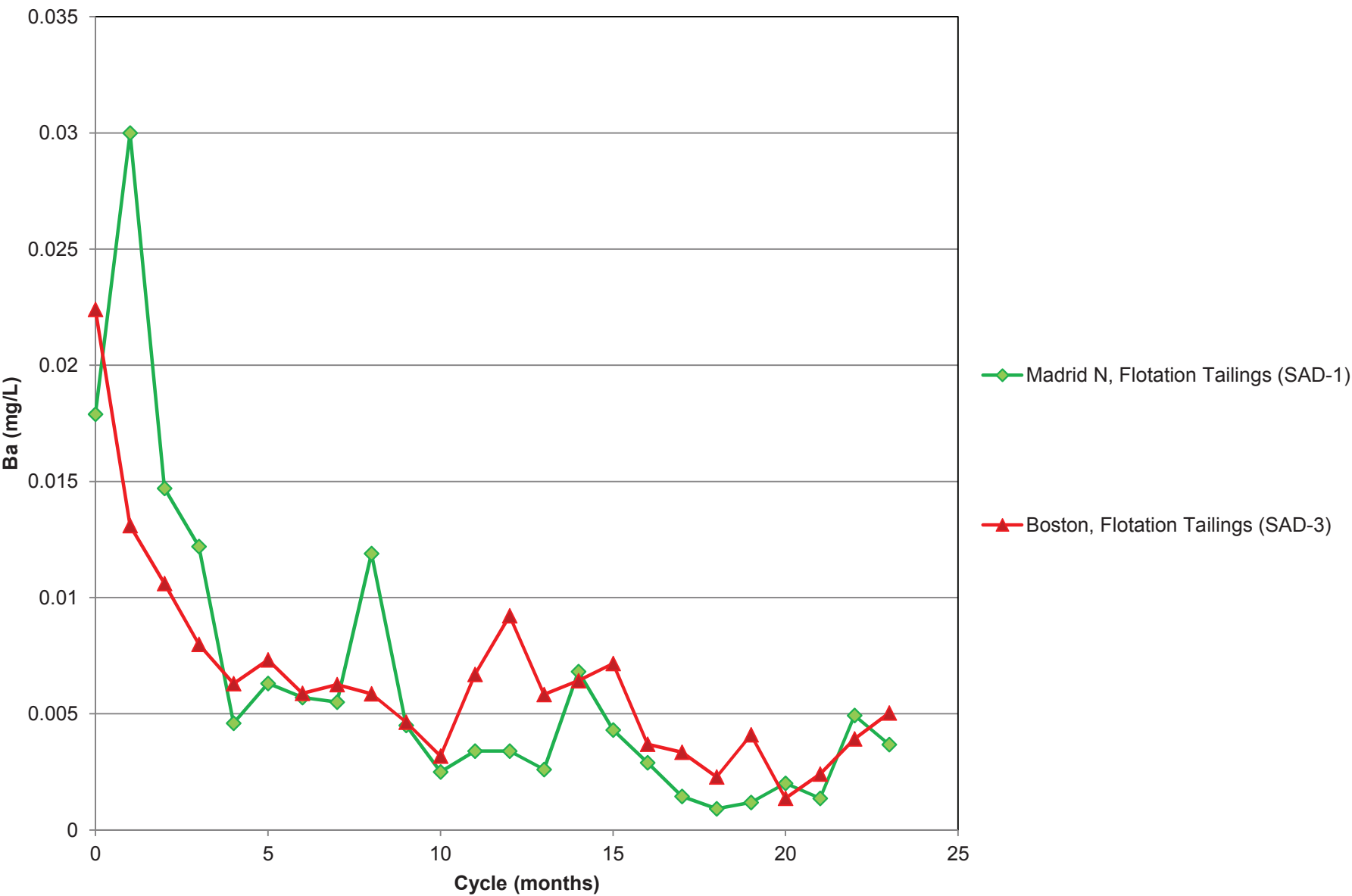


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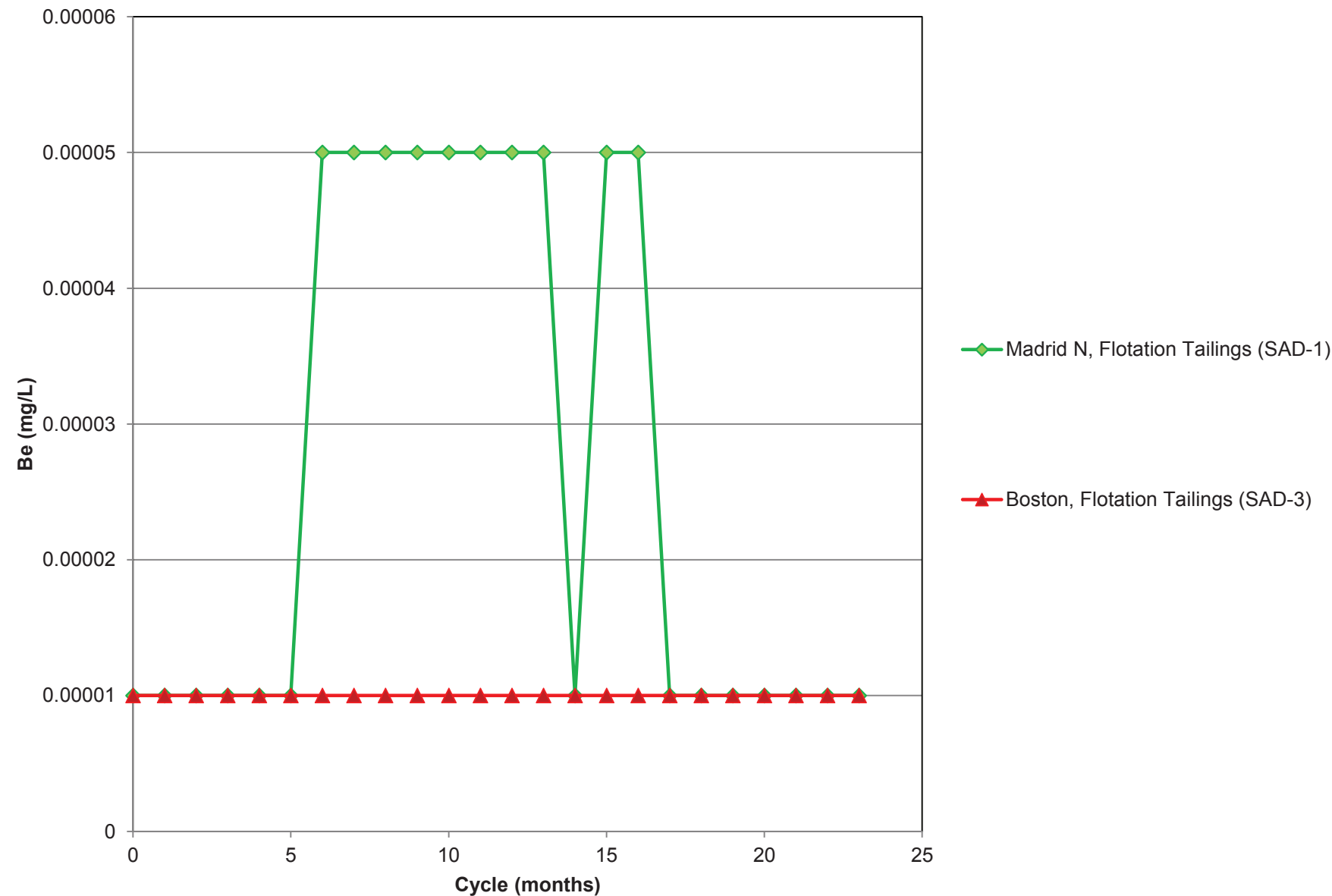
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Appendix K: Figures, Sub-Aqueous Column Tests



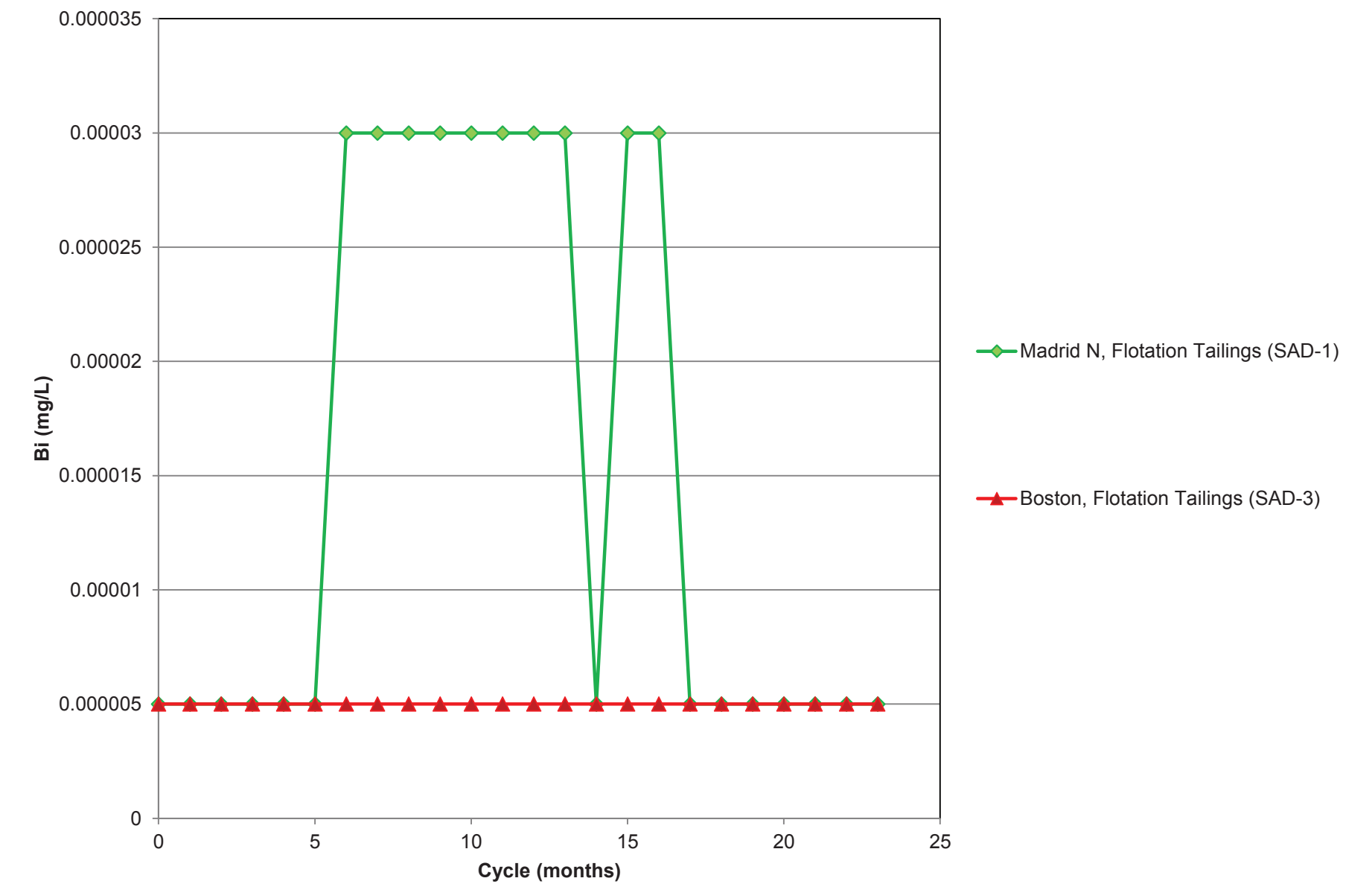
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Appendix K: Figures, Sub-Aqueous Column Tests



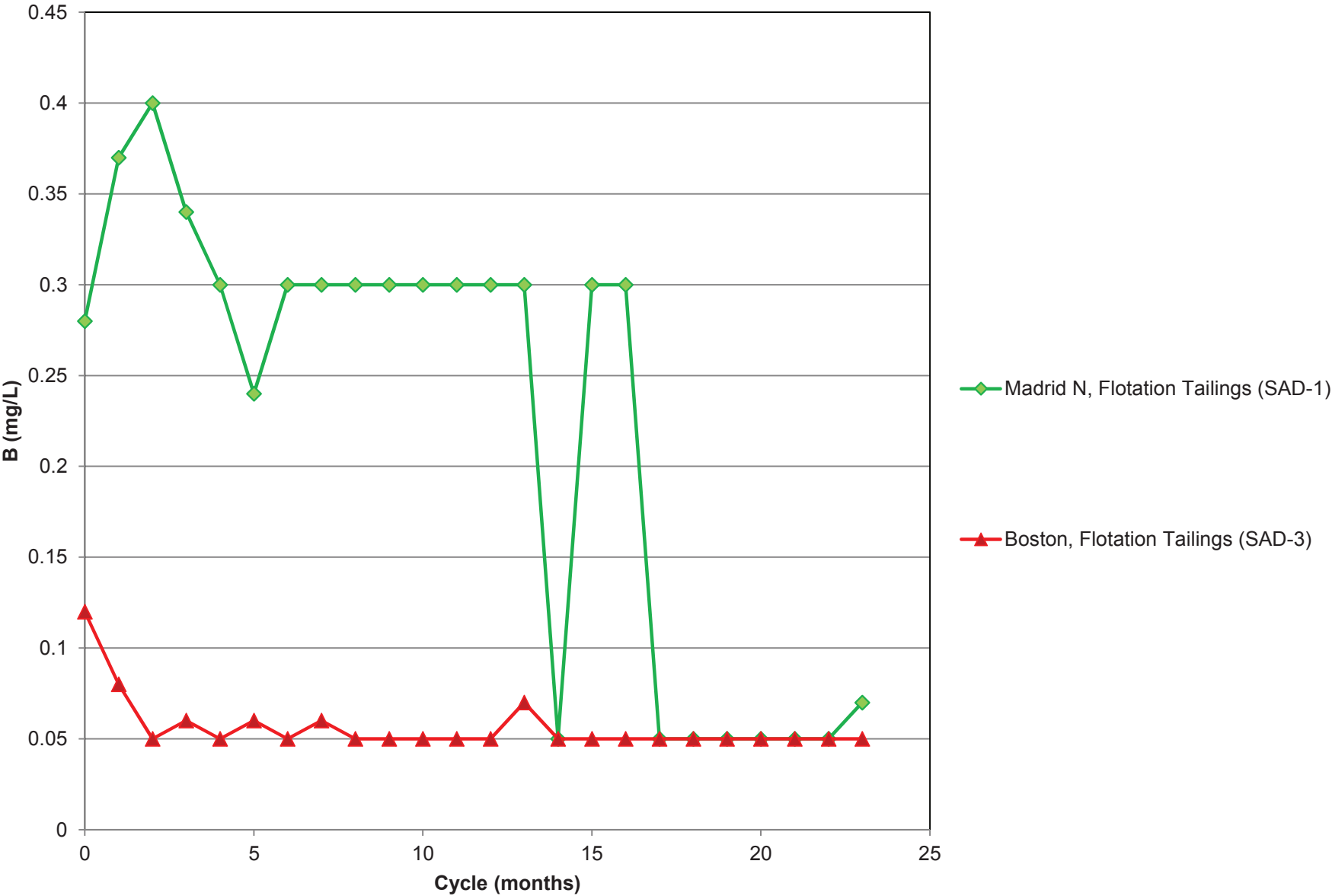
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Appendix K: Figures, Sub-Aqueous Column Tests



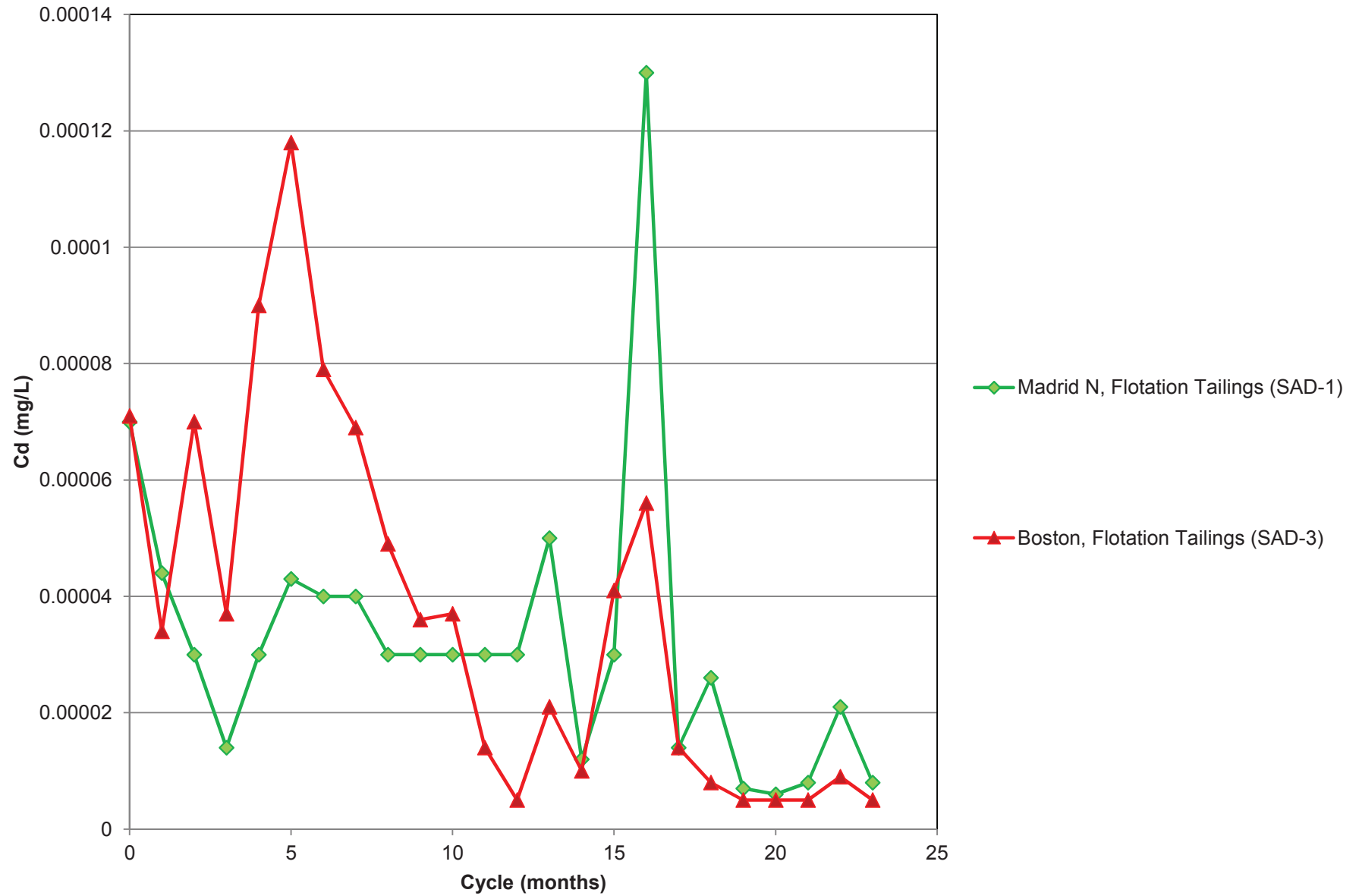
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Appendix K: Figures, Sub-Aqueous Column Tests

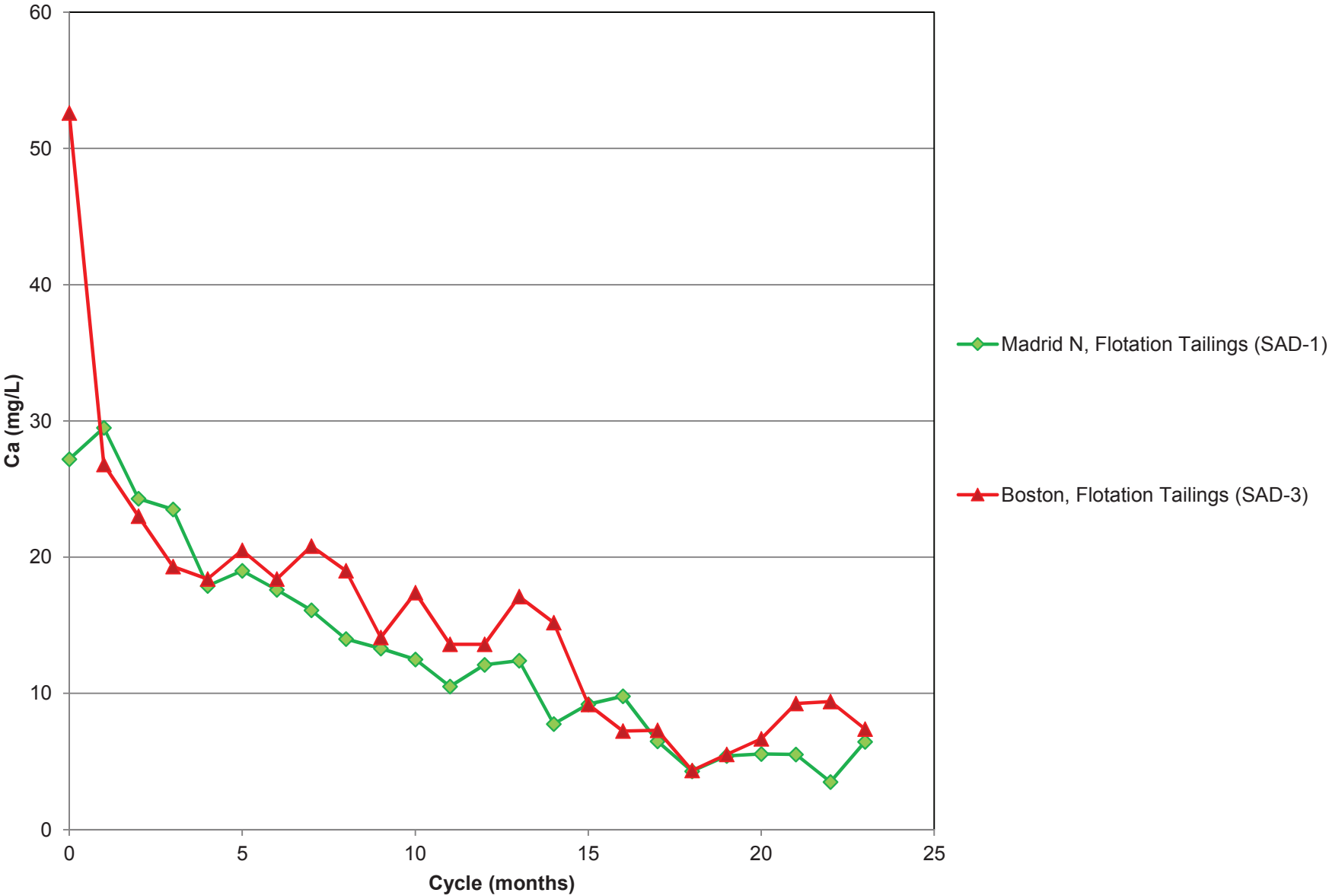


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Appendix K: Figures, Sub-Aqueous Column Tests

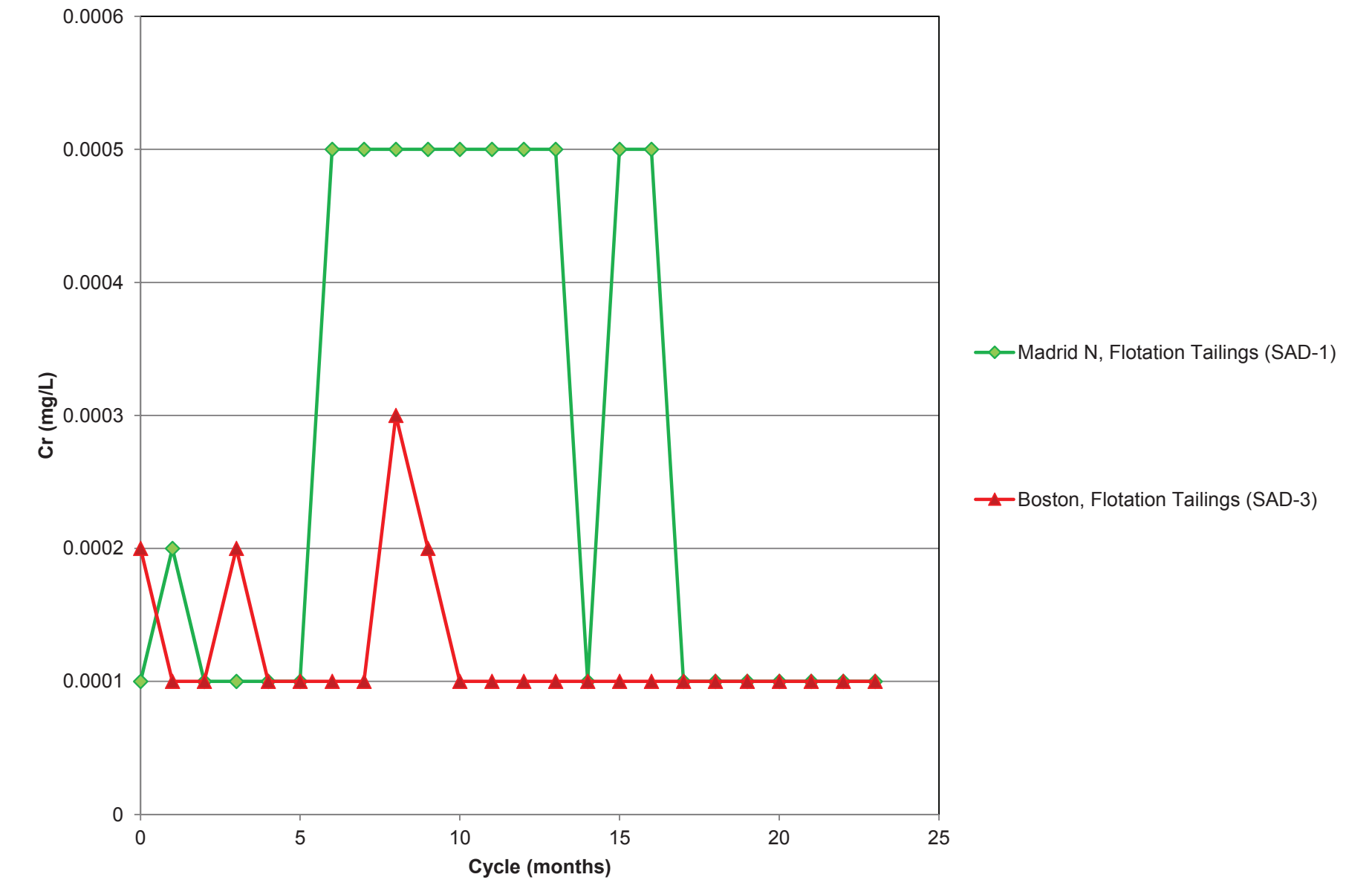


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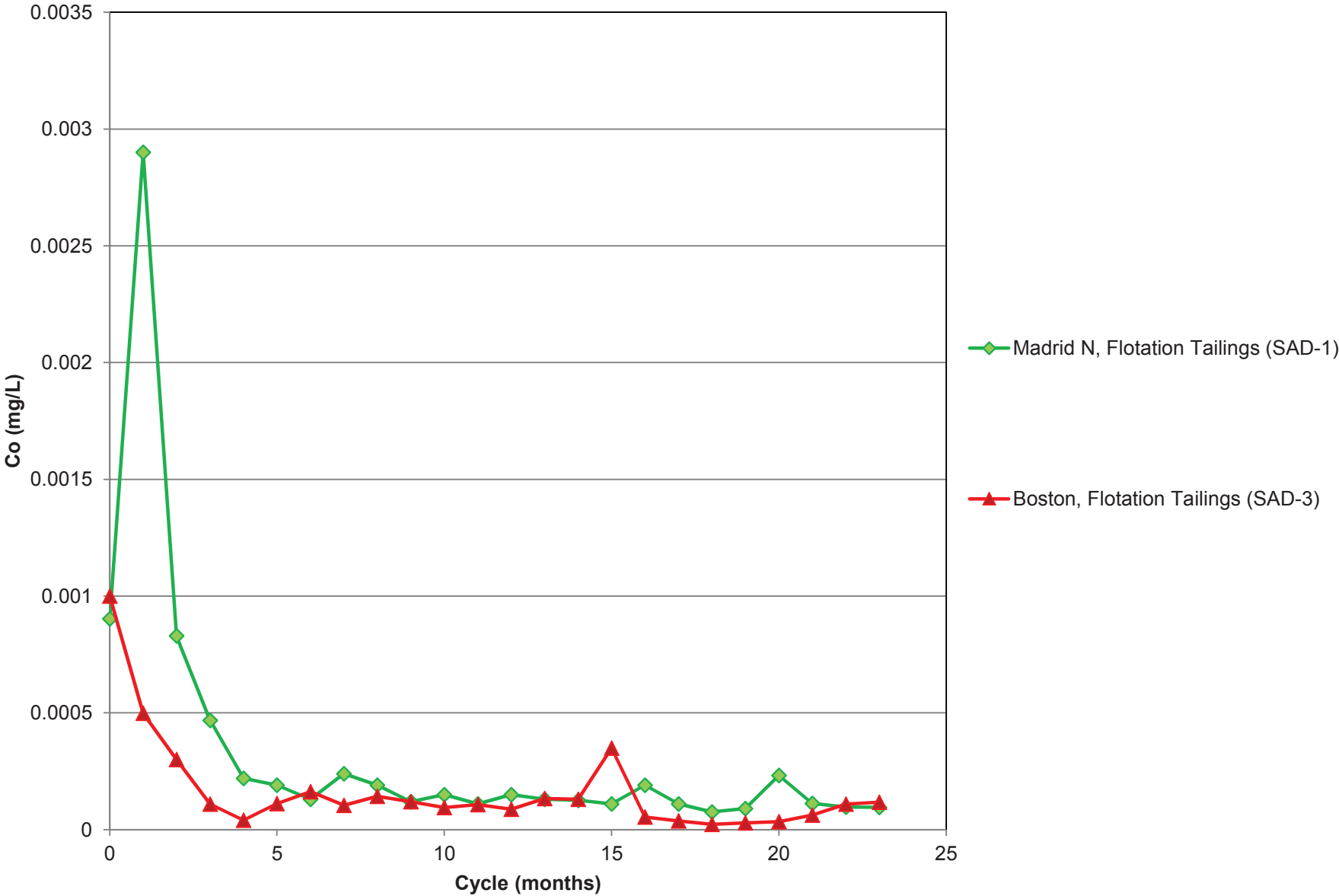


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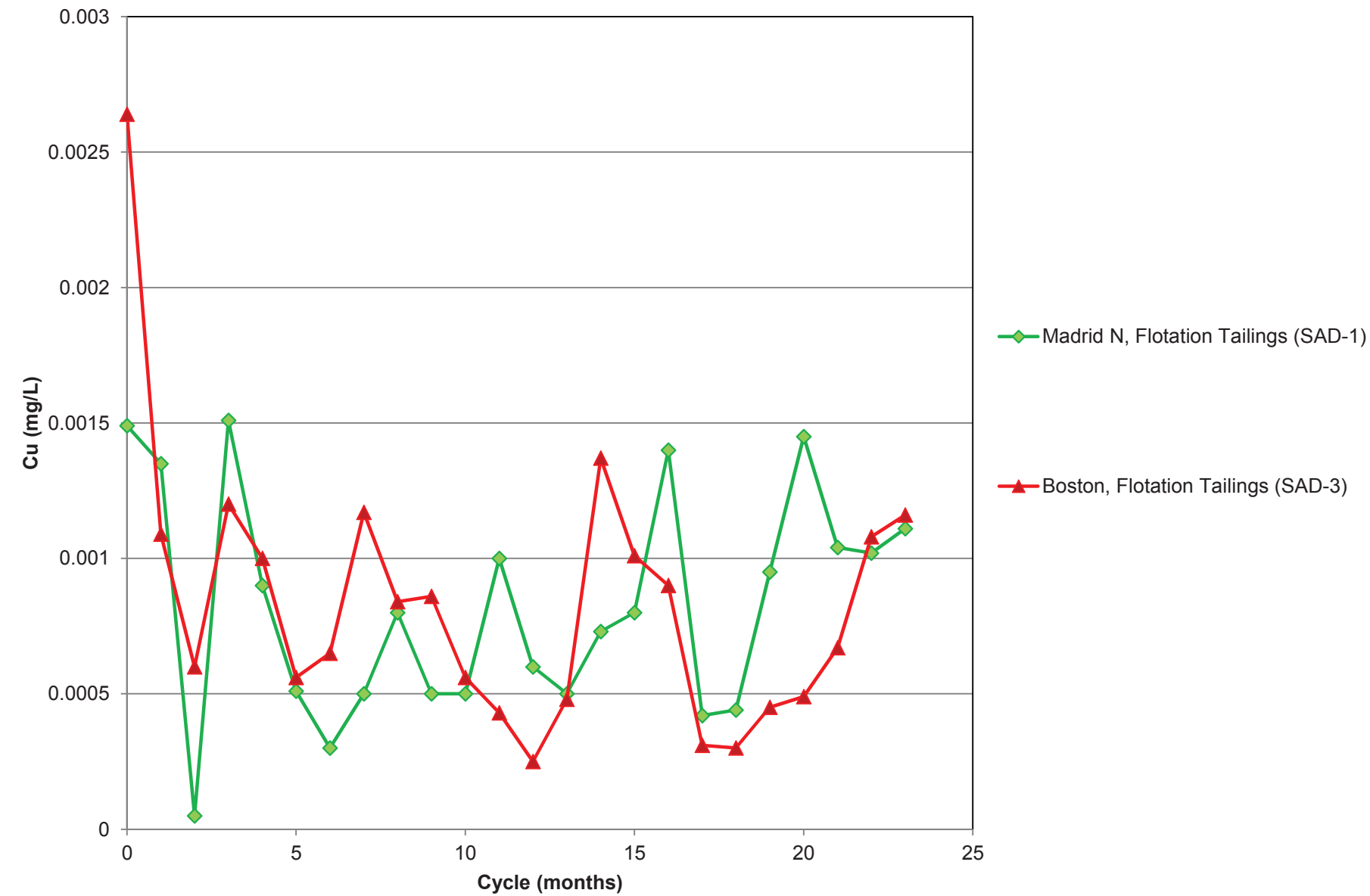
Appendix K: Figures, Sub-Aqueous Column Tests



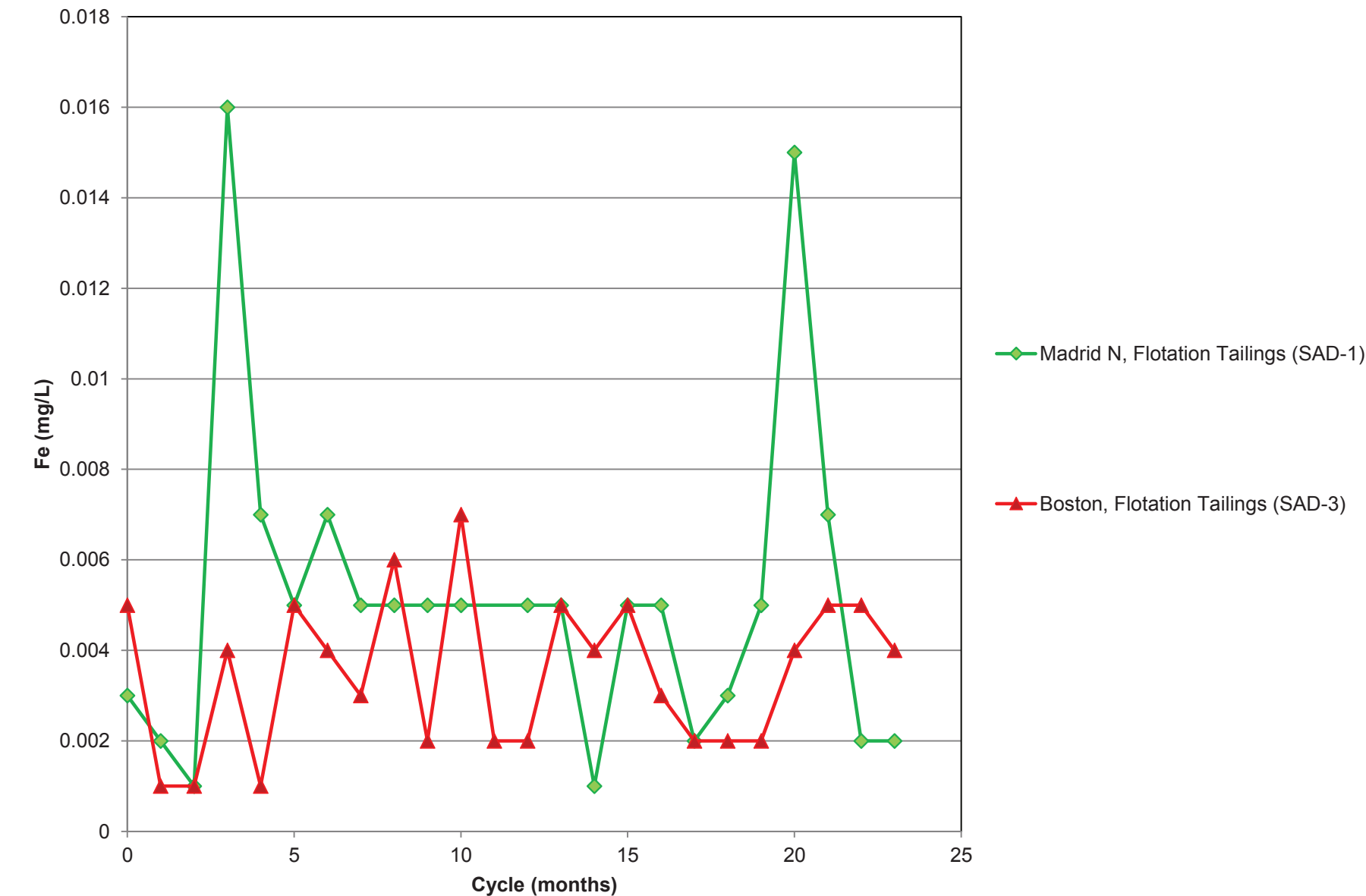
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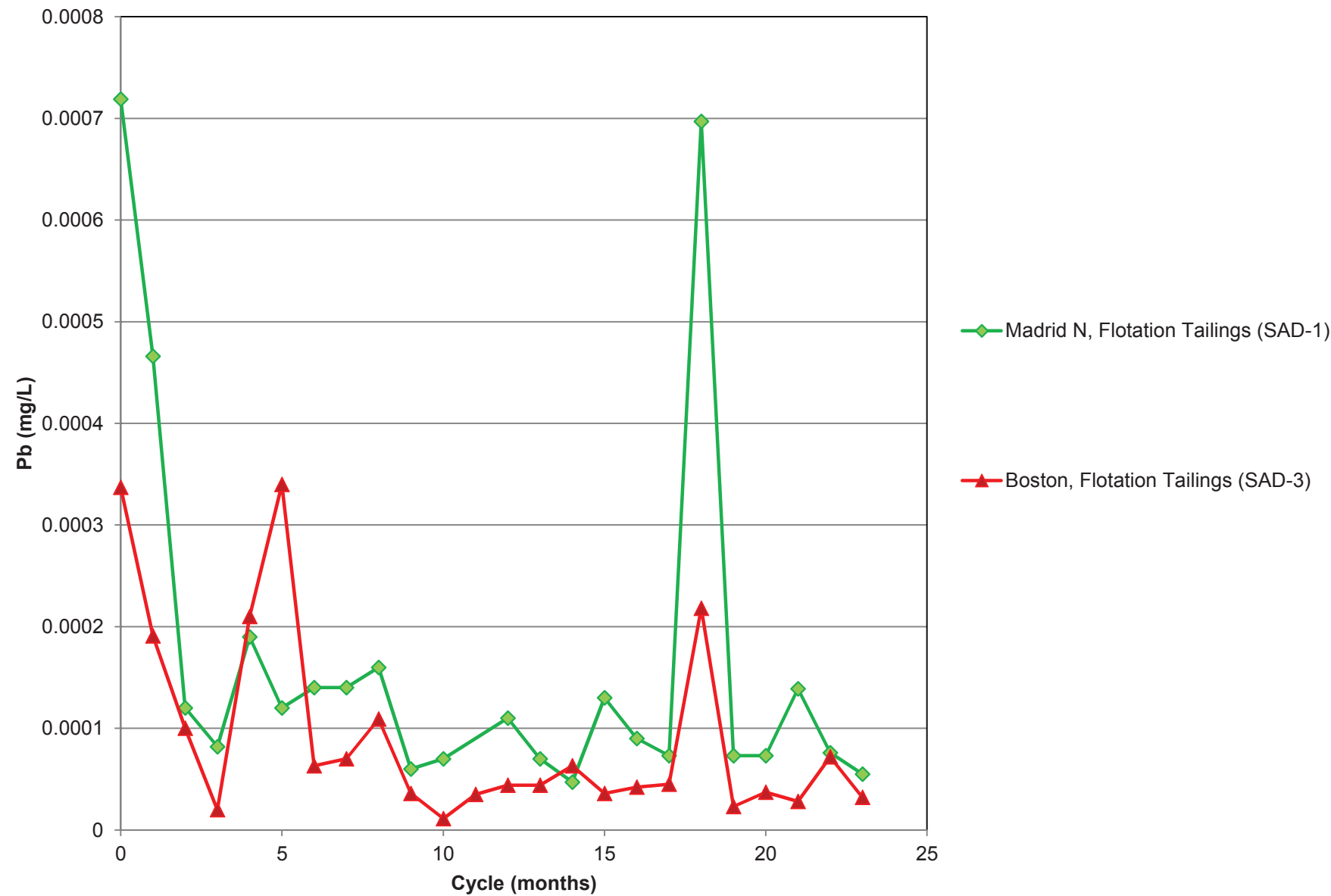
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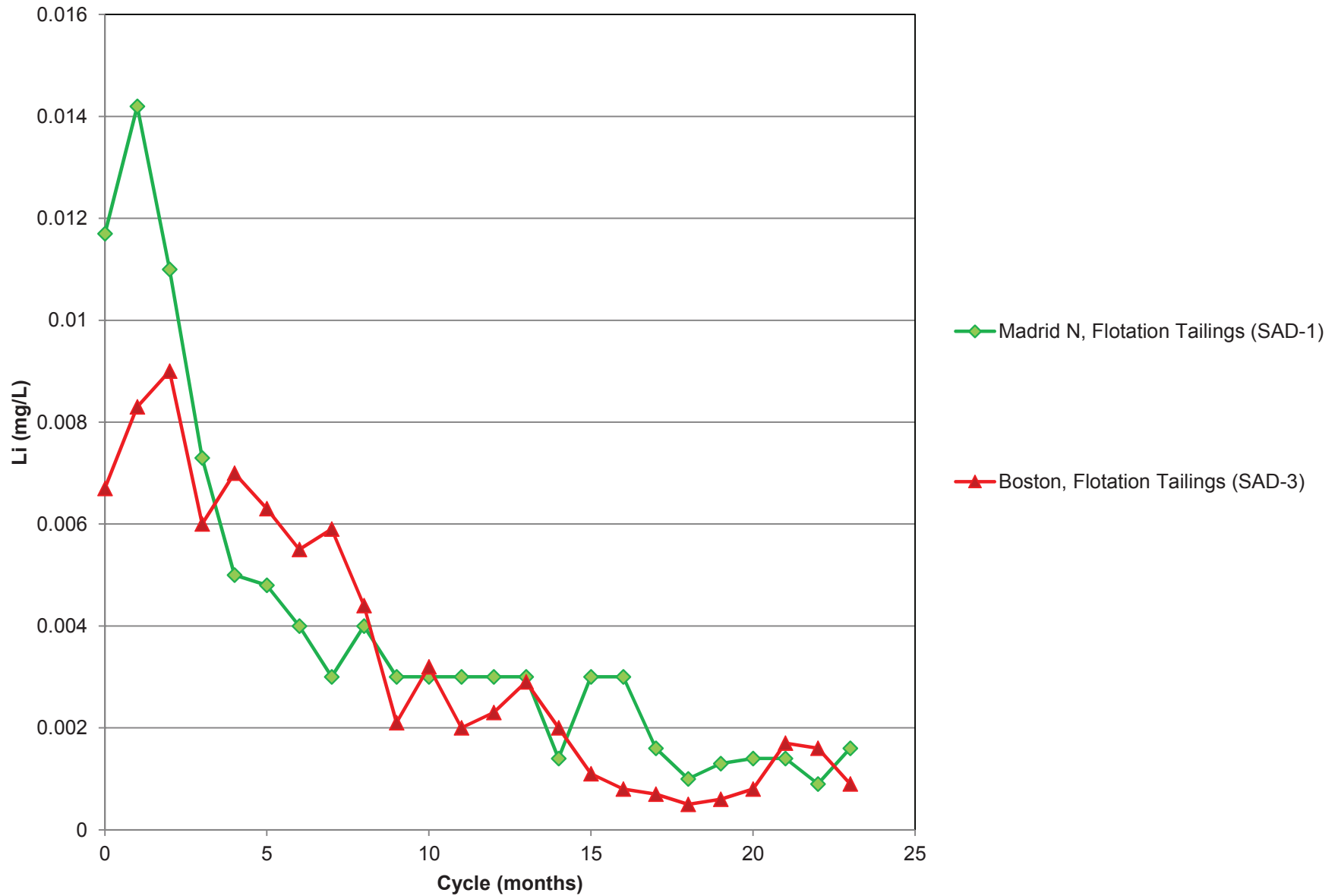


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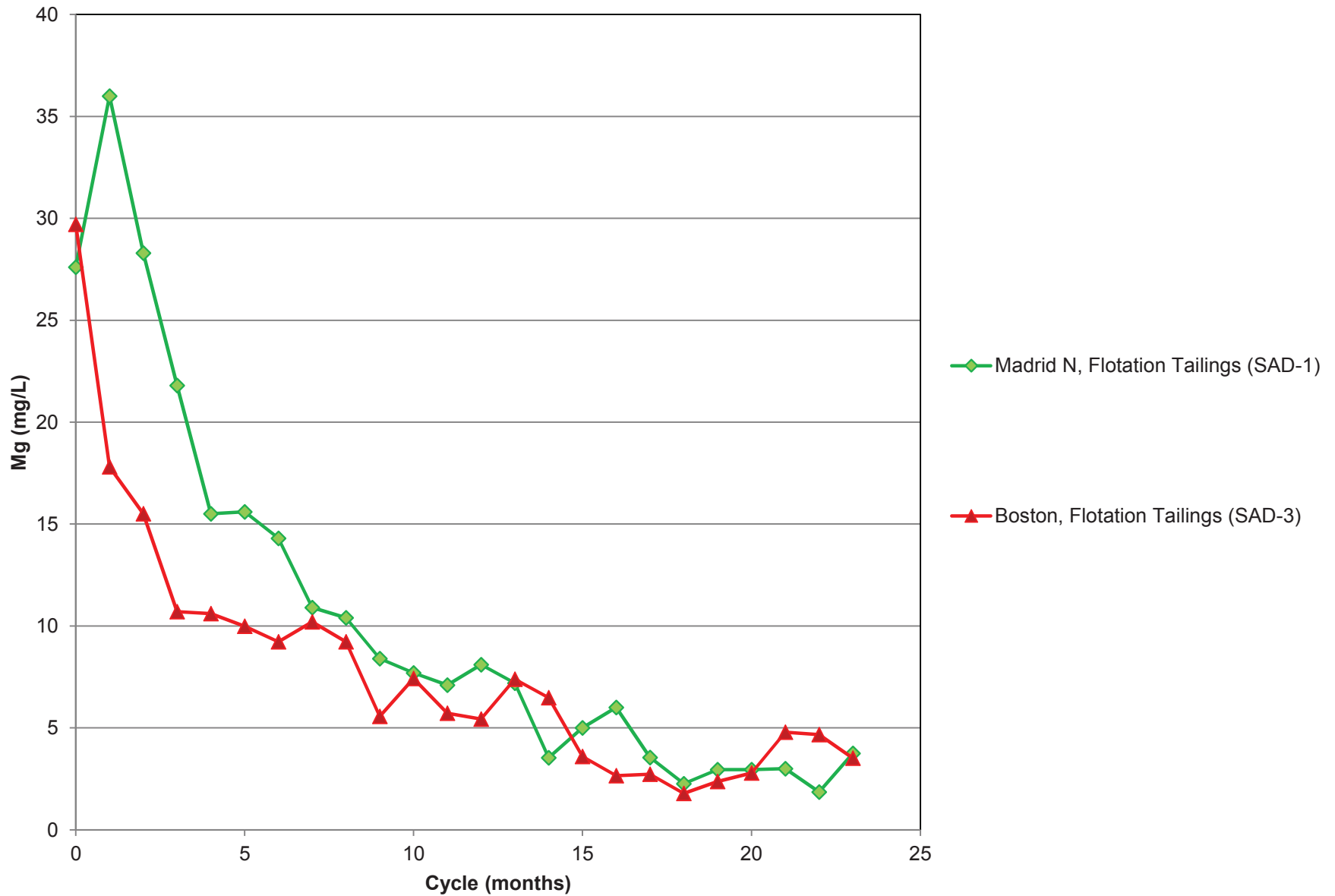
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Appendix K: Figures, Sub-Aqueous Column Tests

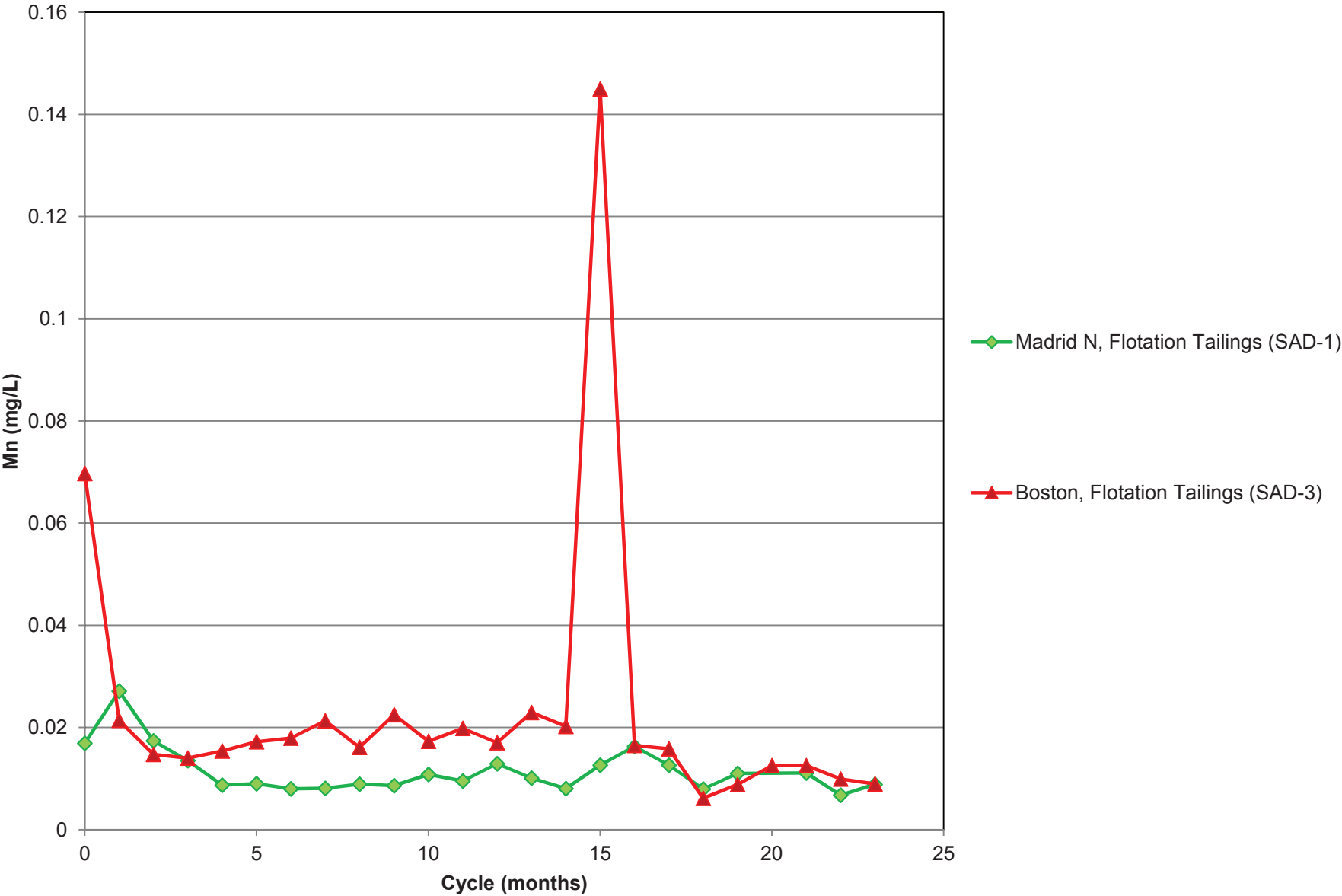


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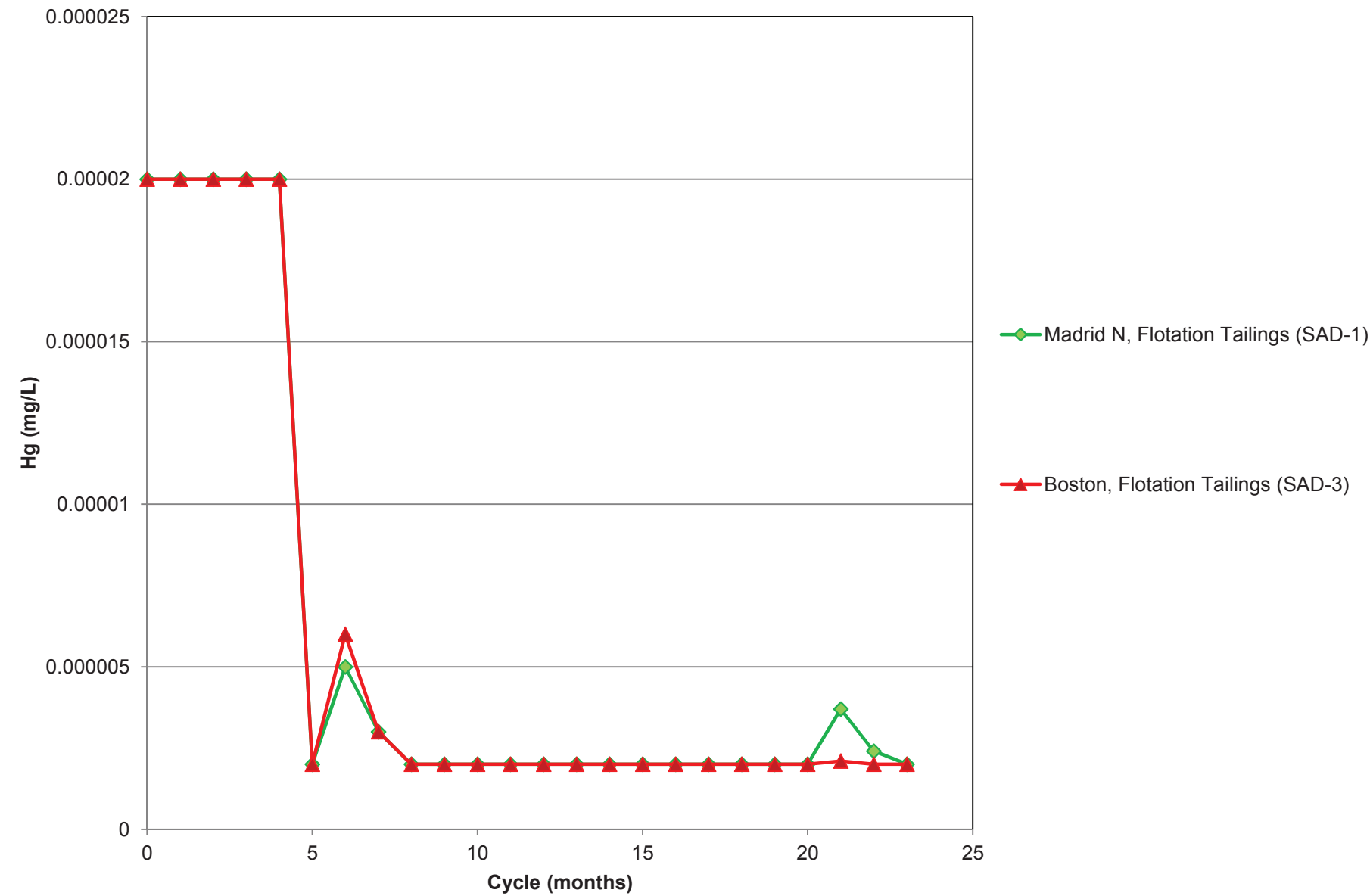
Appendix K: Figures, Sub-Aqueous Column Tests



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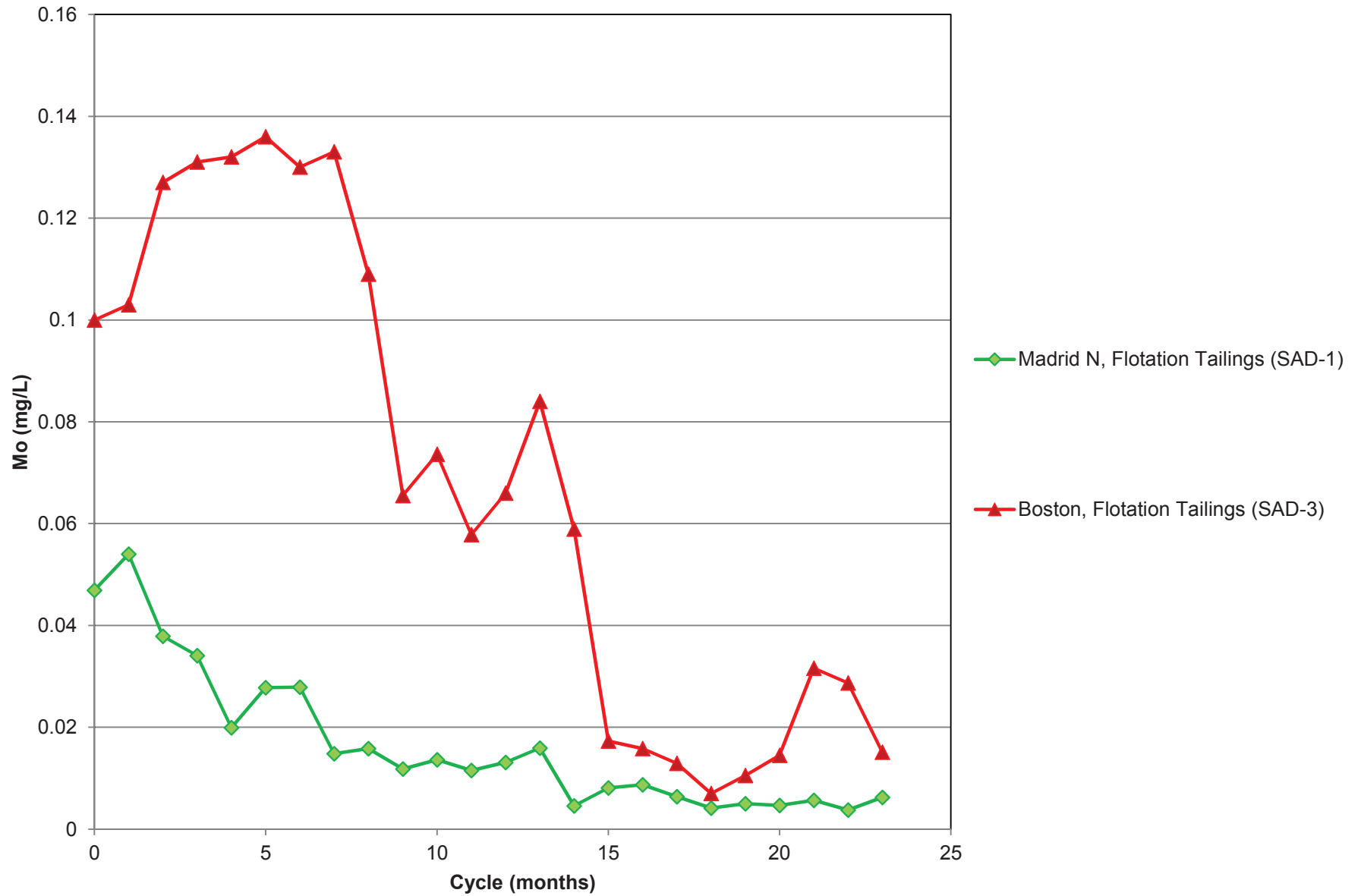


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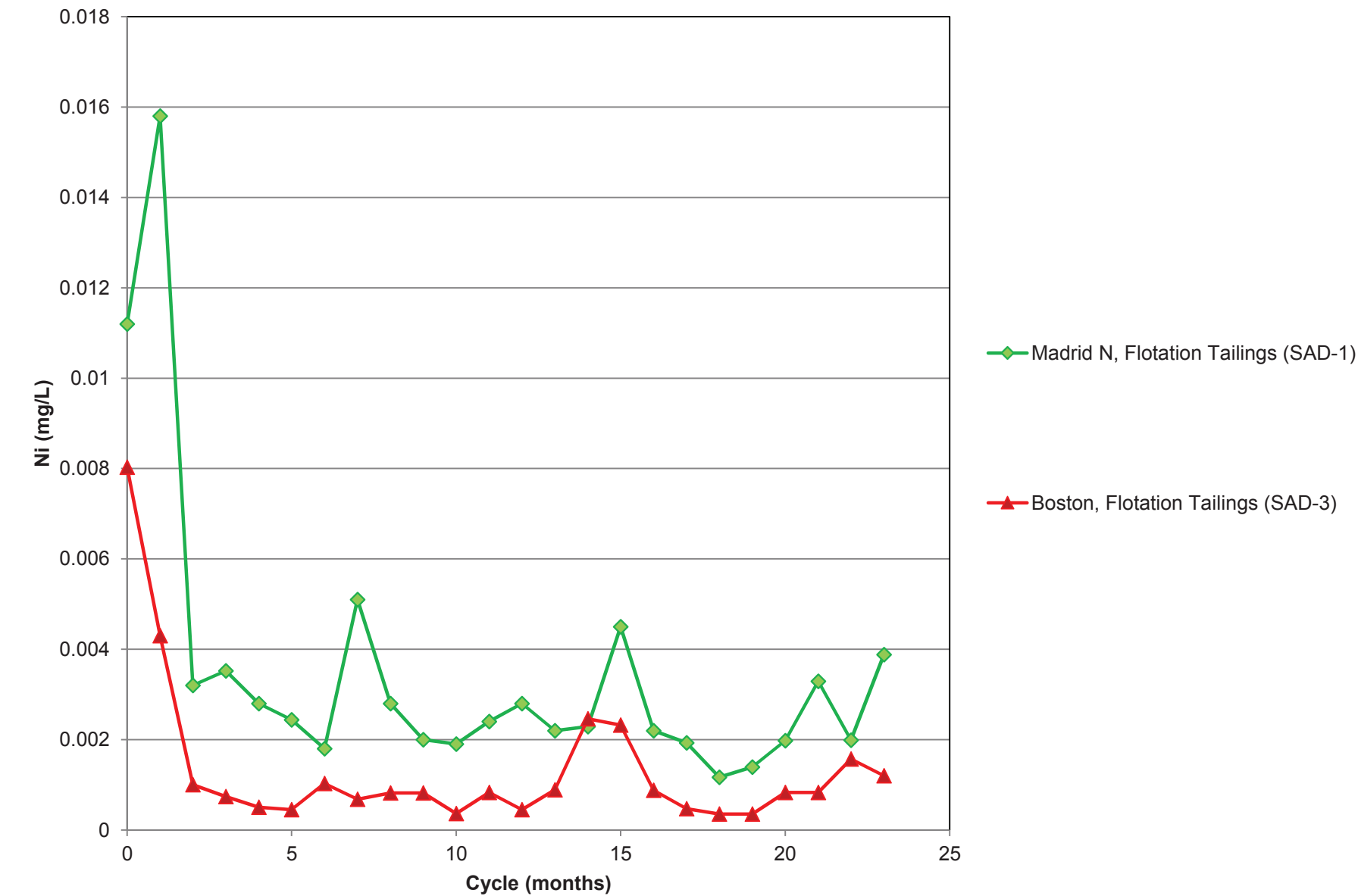


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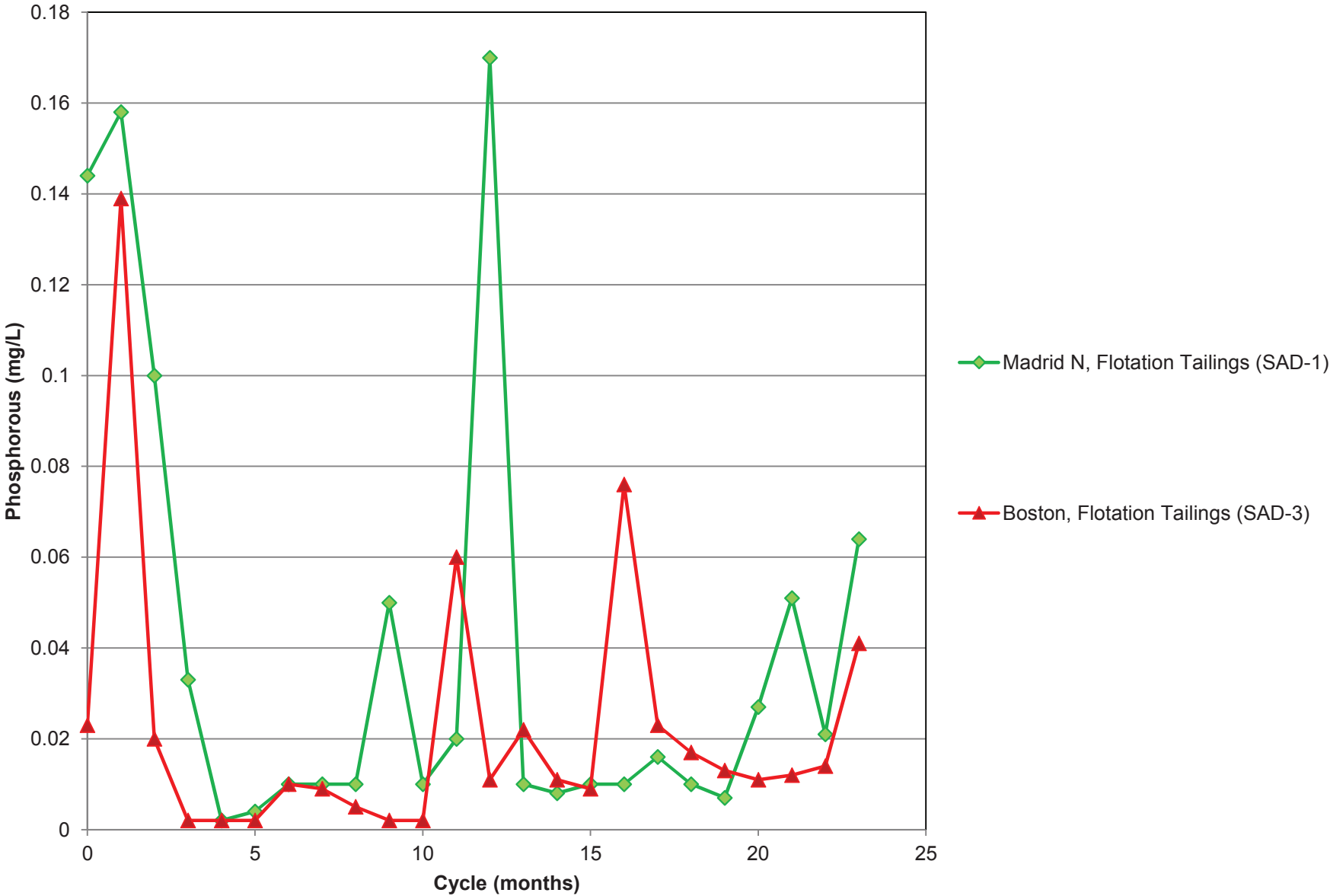
Appendix K: Figures, Sub-Aqueous Column Tests

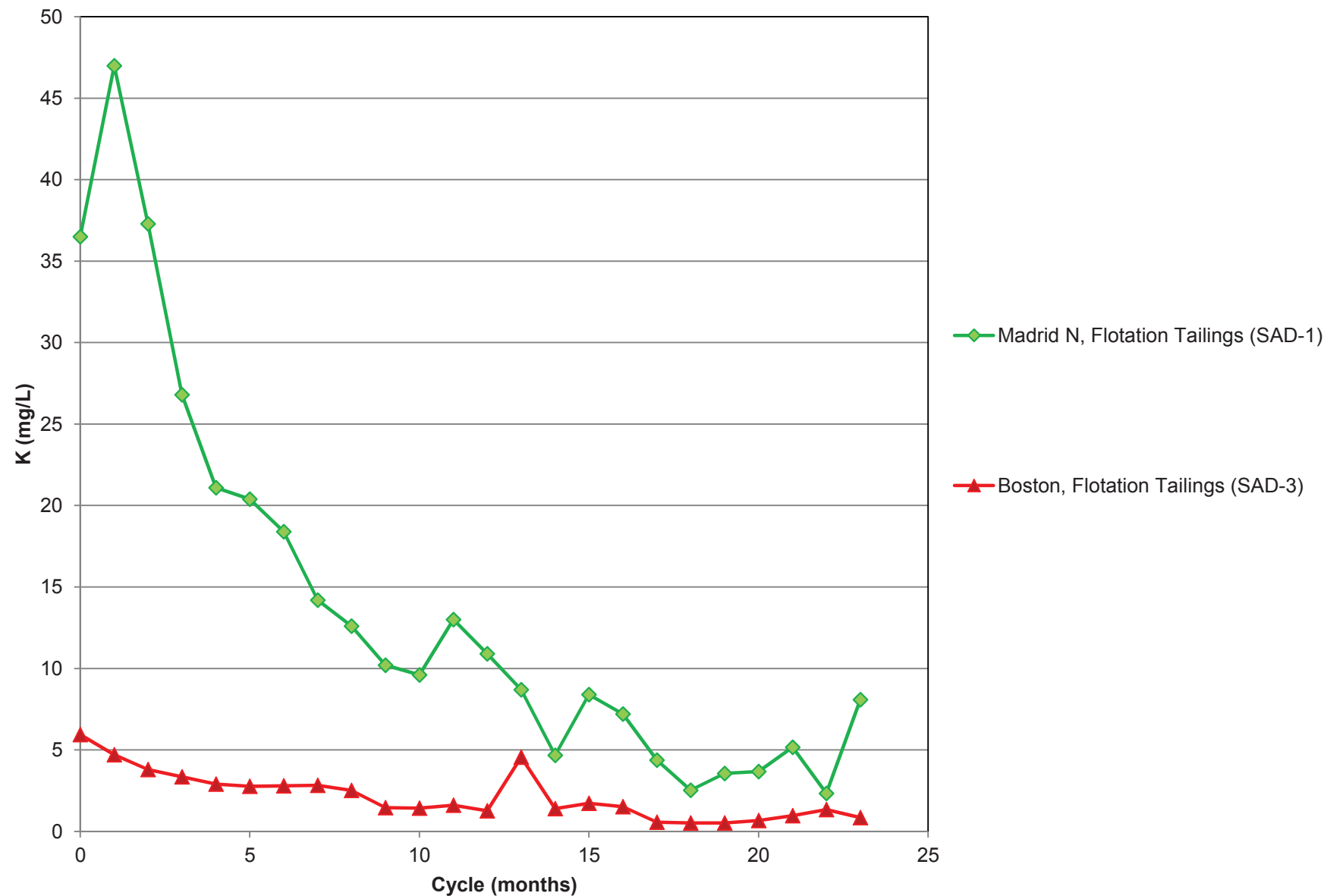


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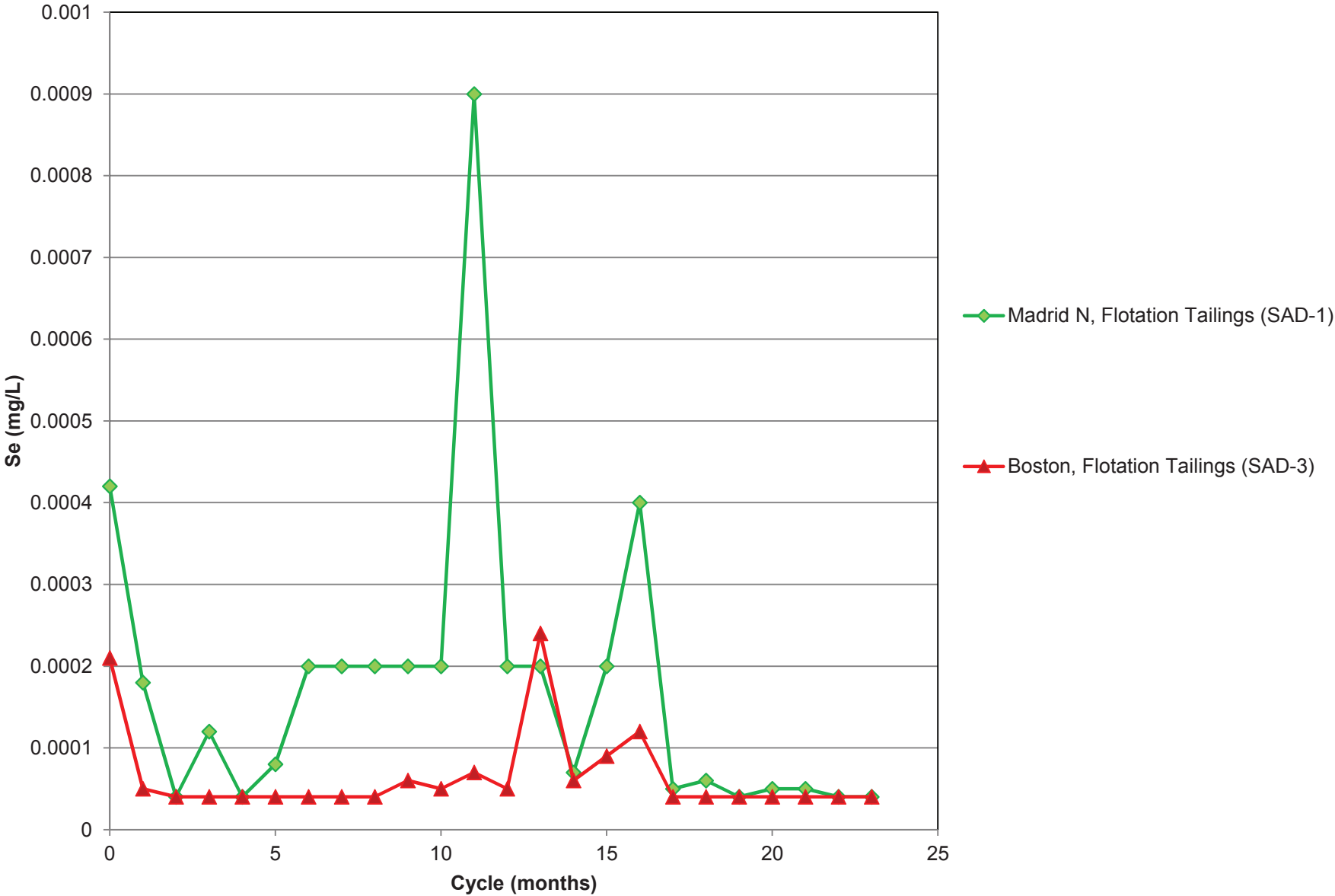
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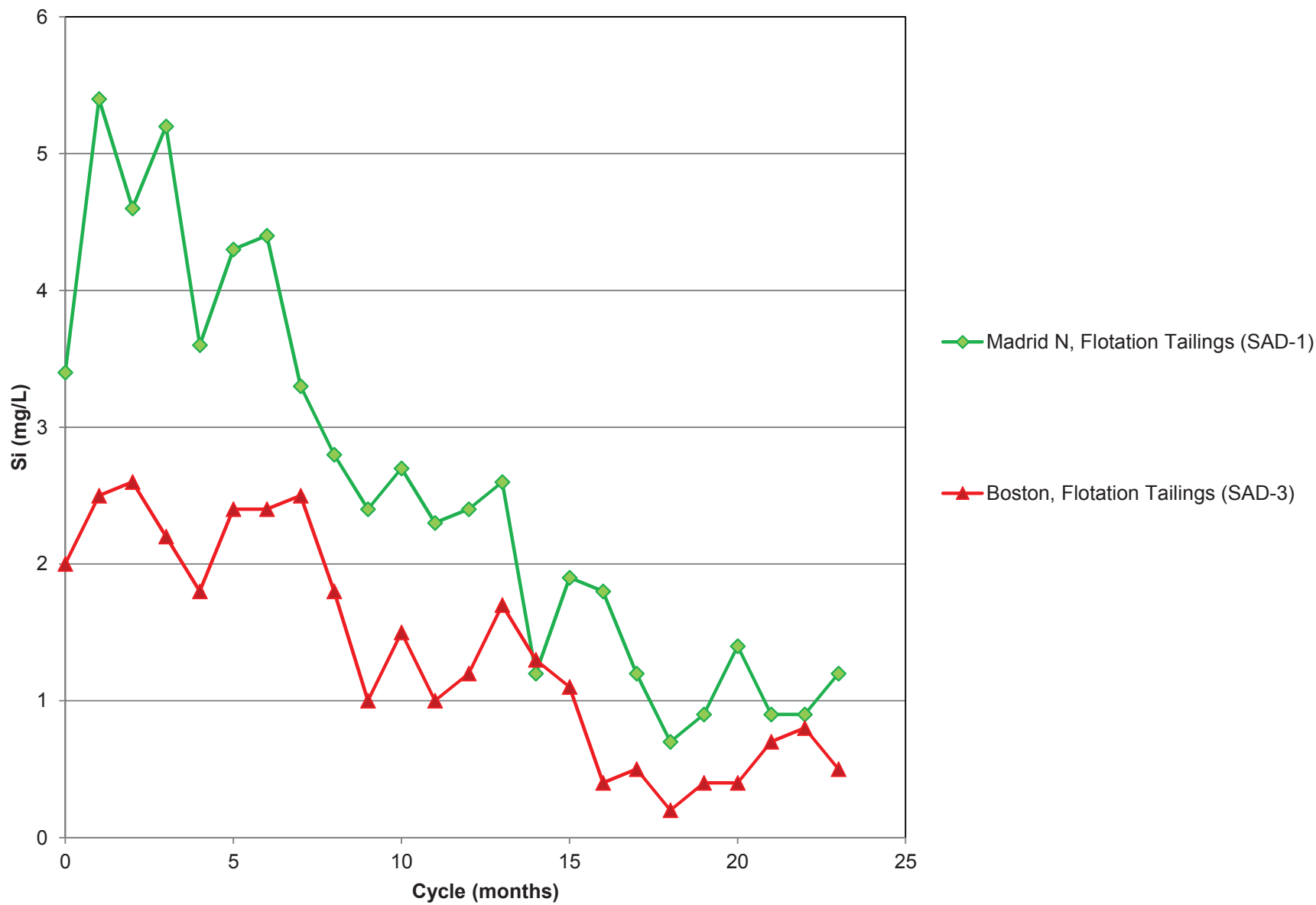


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Appendix K: Figures, Sub-Aqueous Column Tests

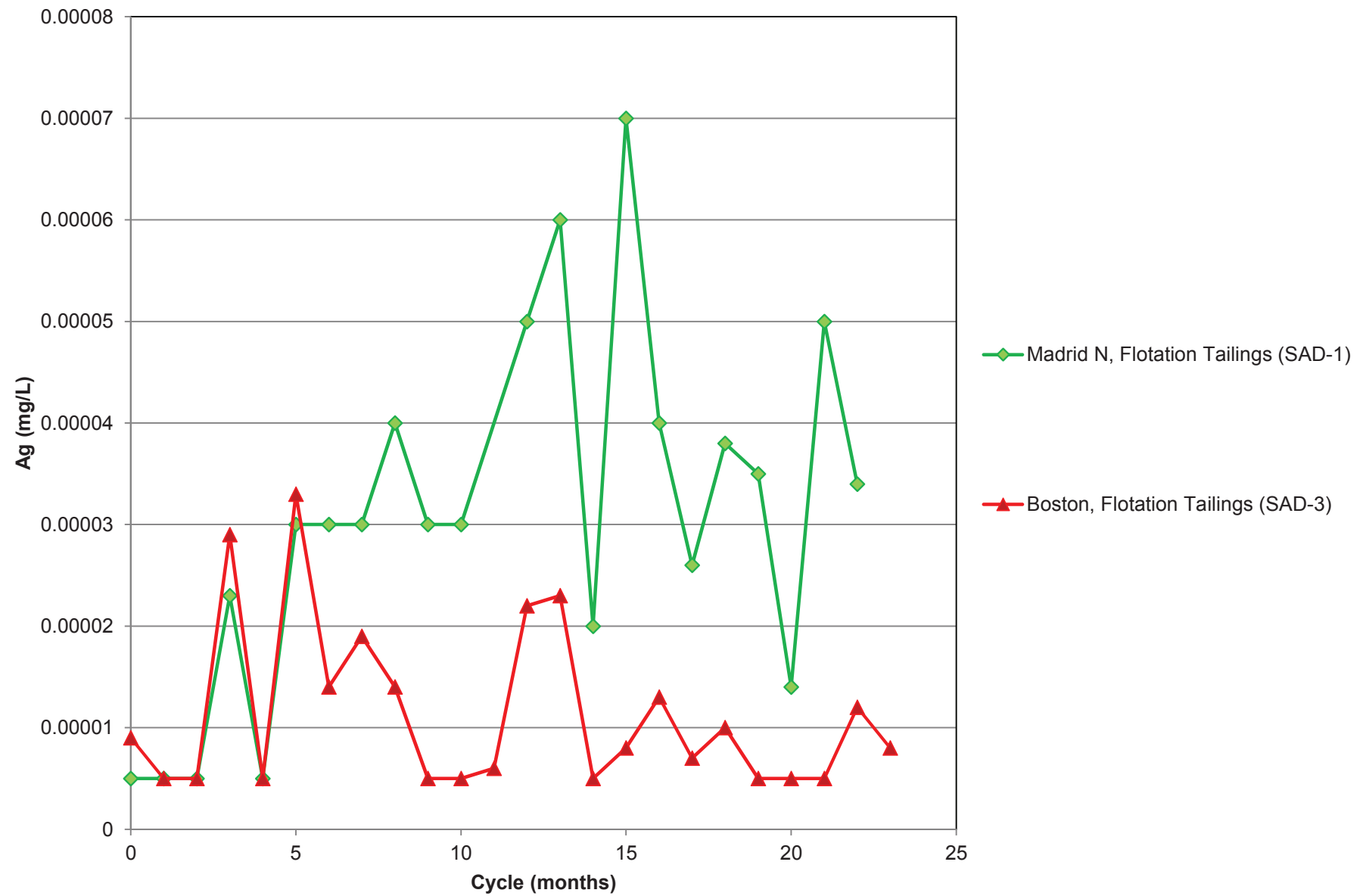


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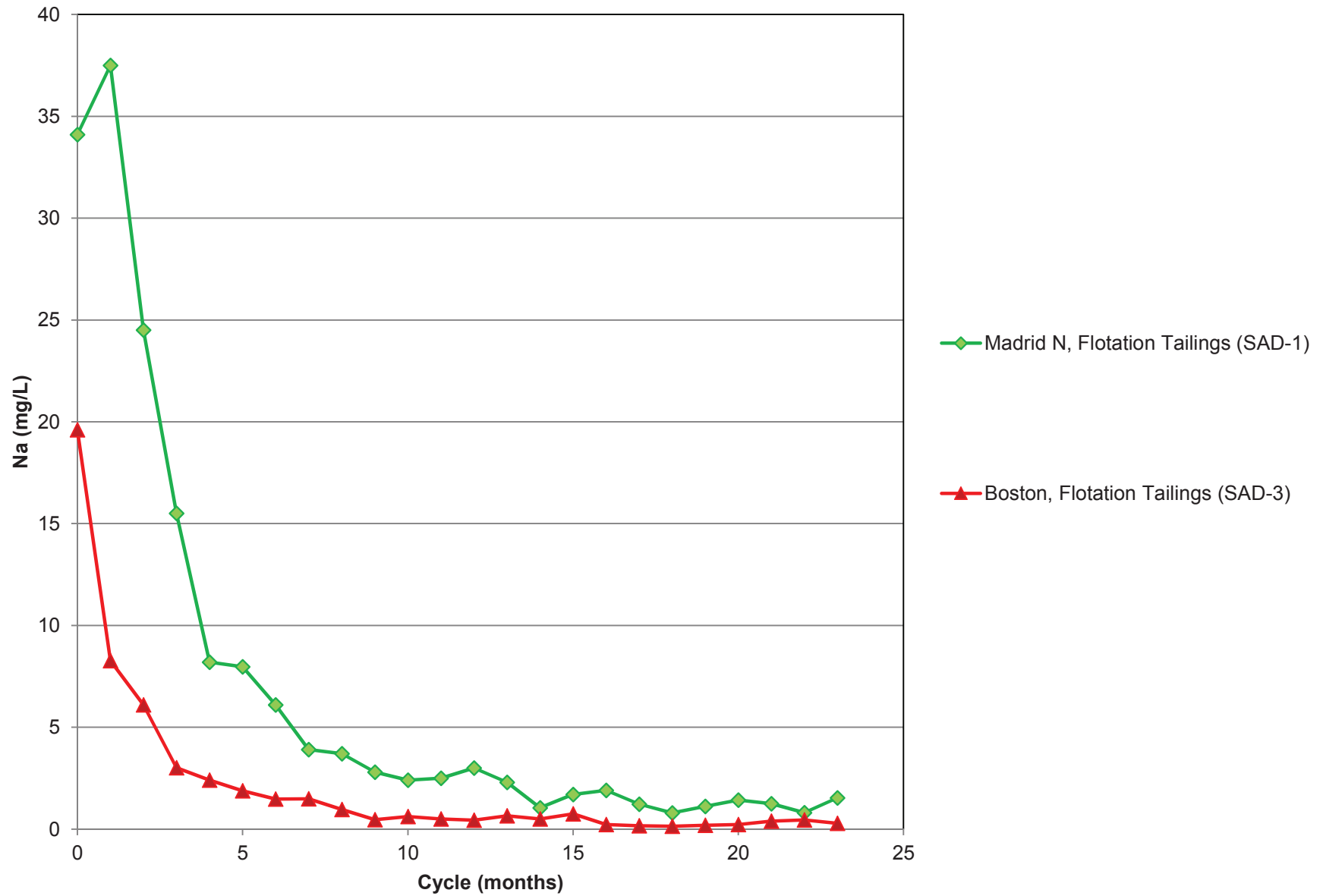
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Appendix K: Figures, Sub-Aqueous Column Tests



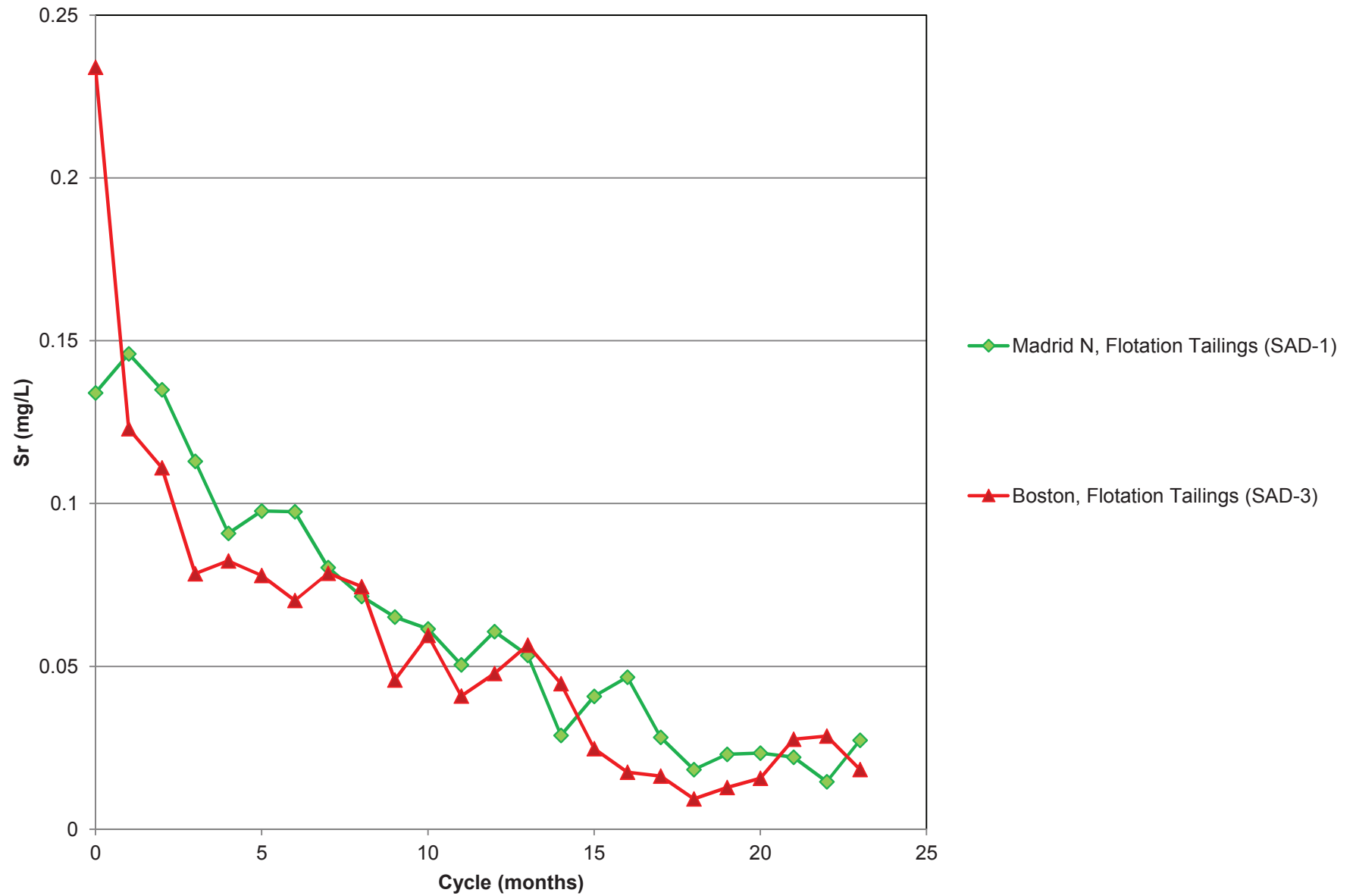
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Appendix K: Figures, Sub-Aqueous Column Tests



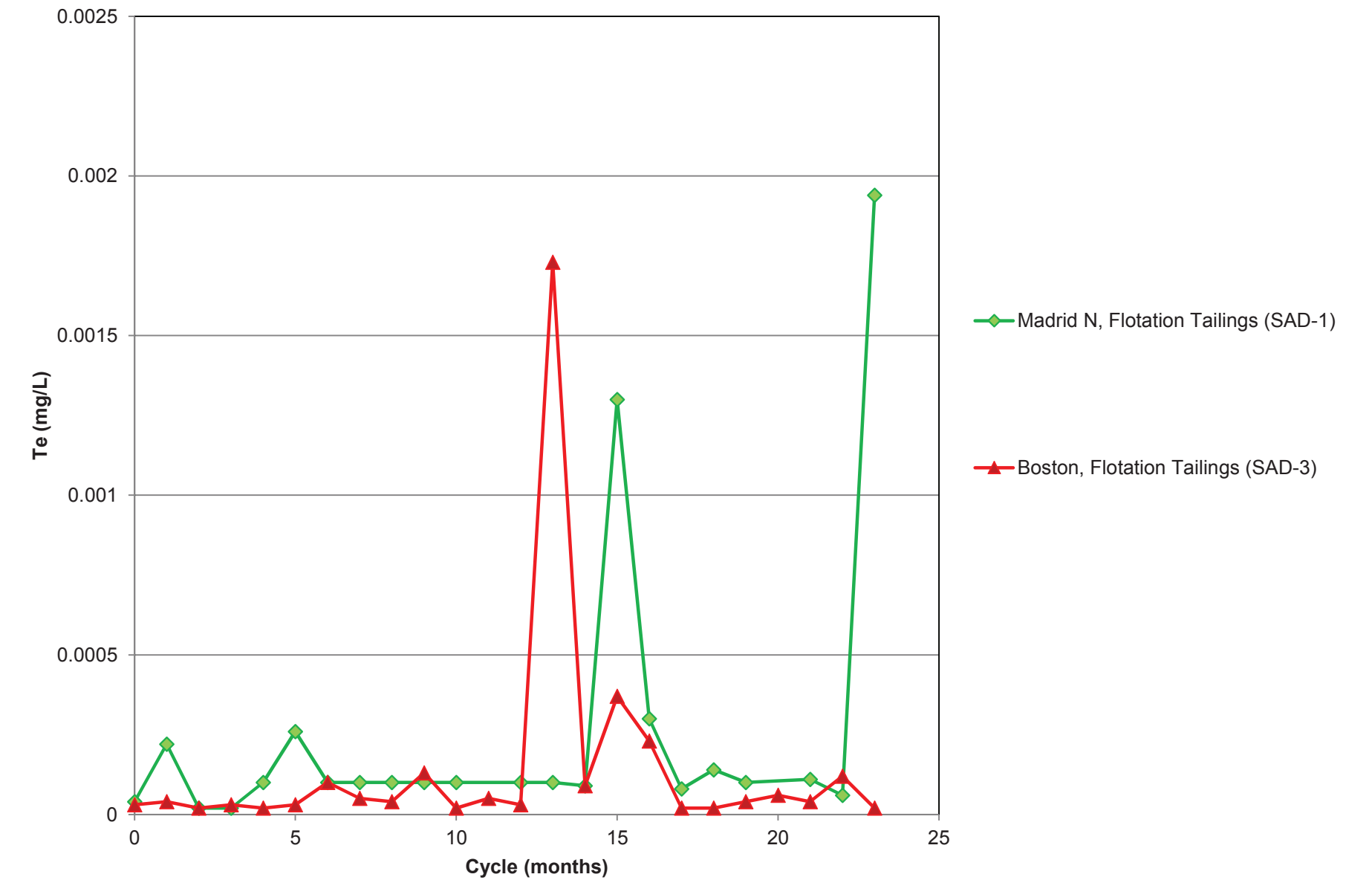
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Appendix K: Figures, Sub-Aqueous Column Tests



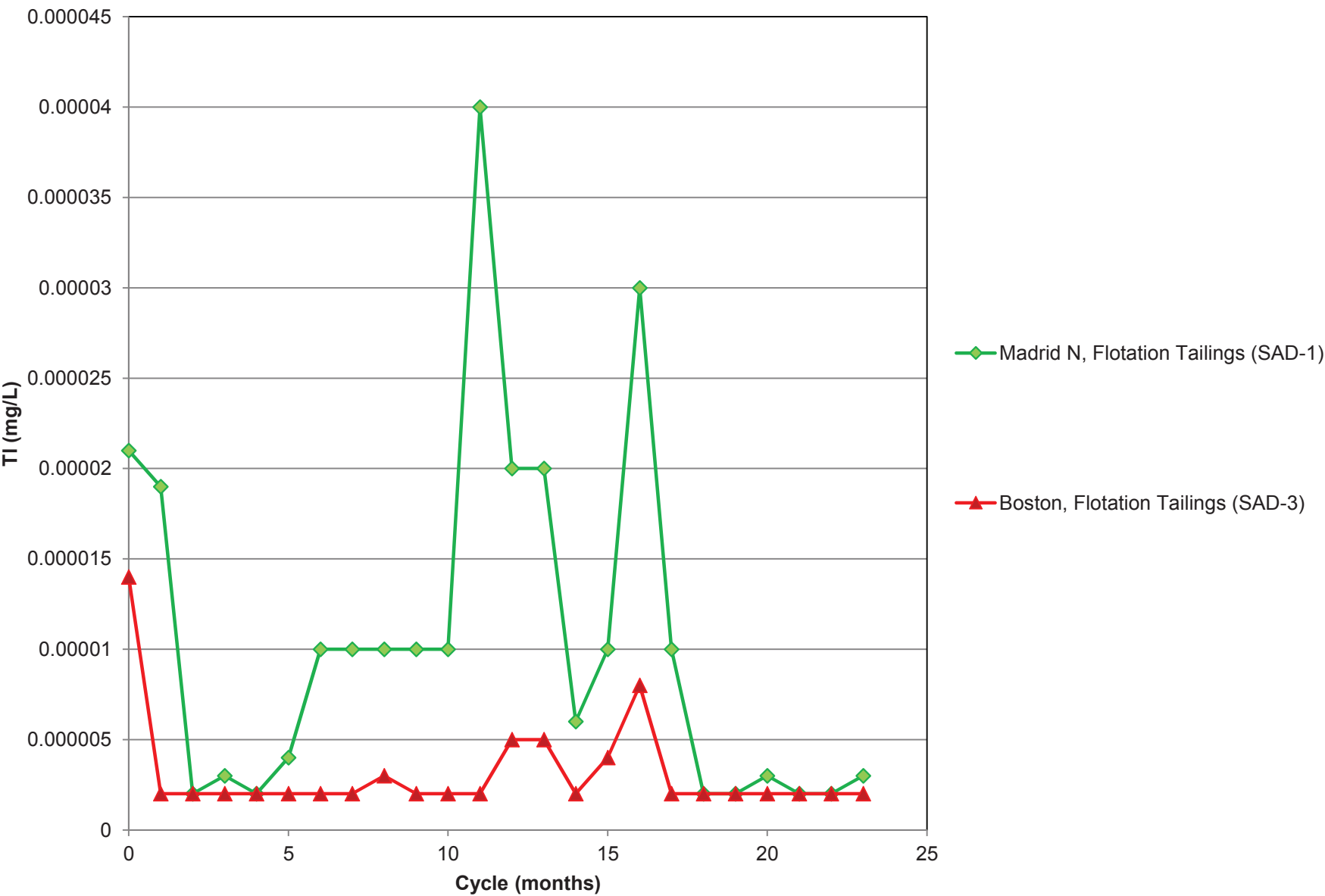
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Appendix K: Figures, Sub-Aqueous Column Tests



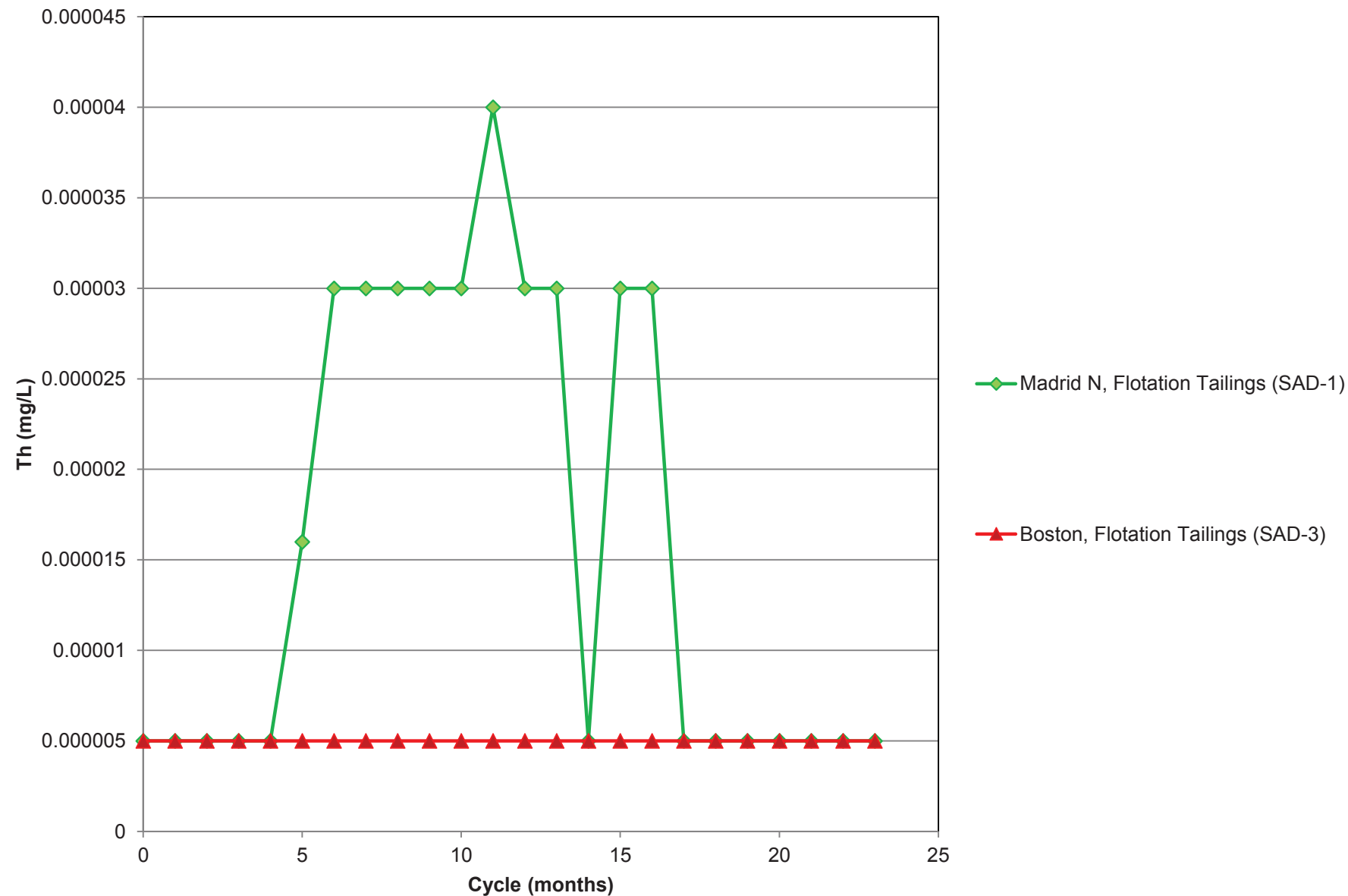
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Appendix K: Figures, Sub-Aqueous Column Tests



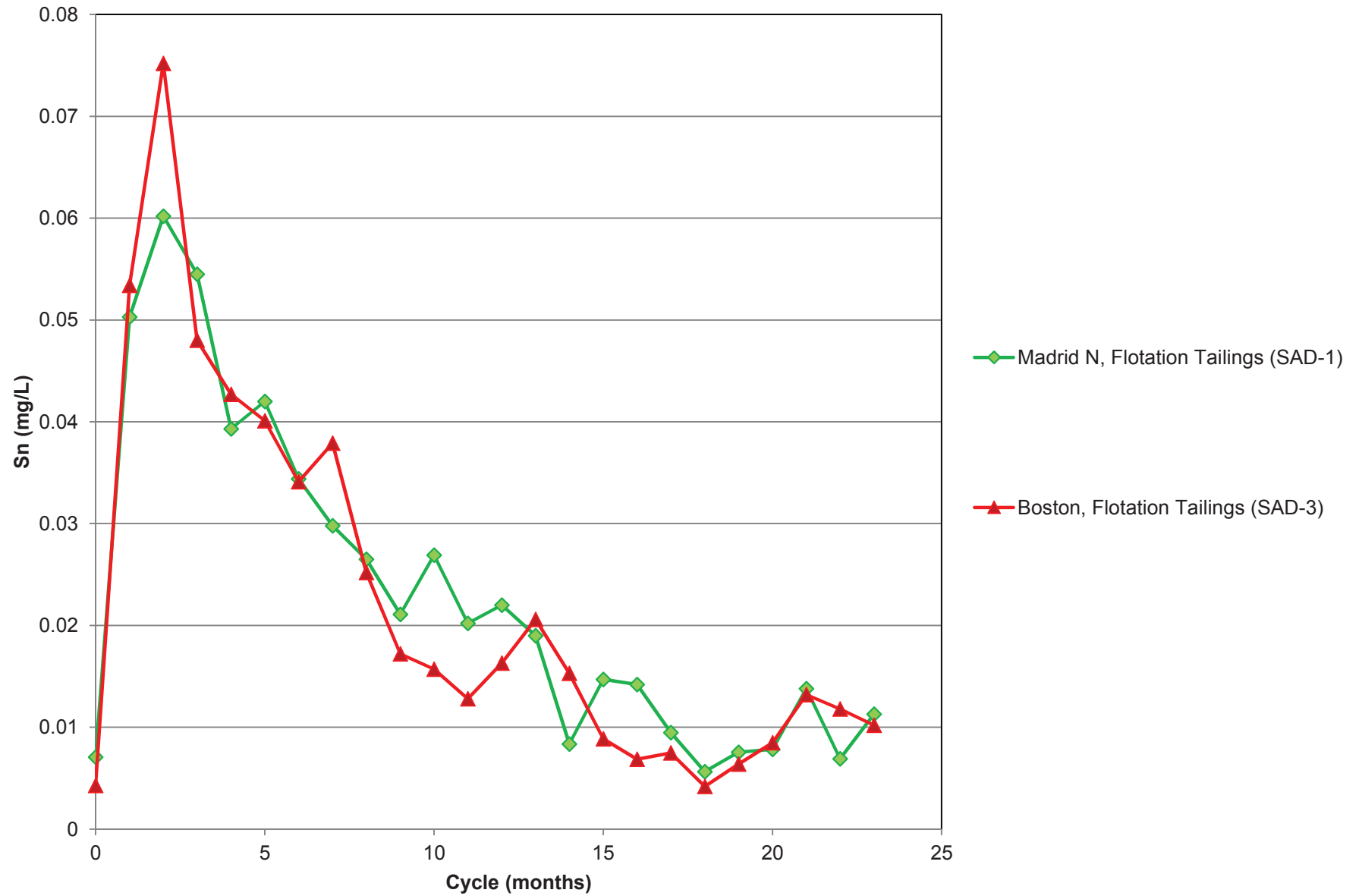
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Appendix K: Figures, Sub-Aqueous Column Tests

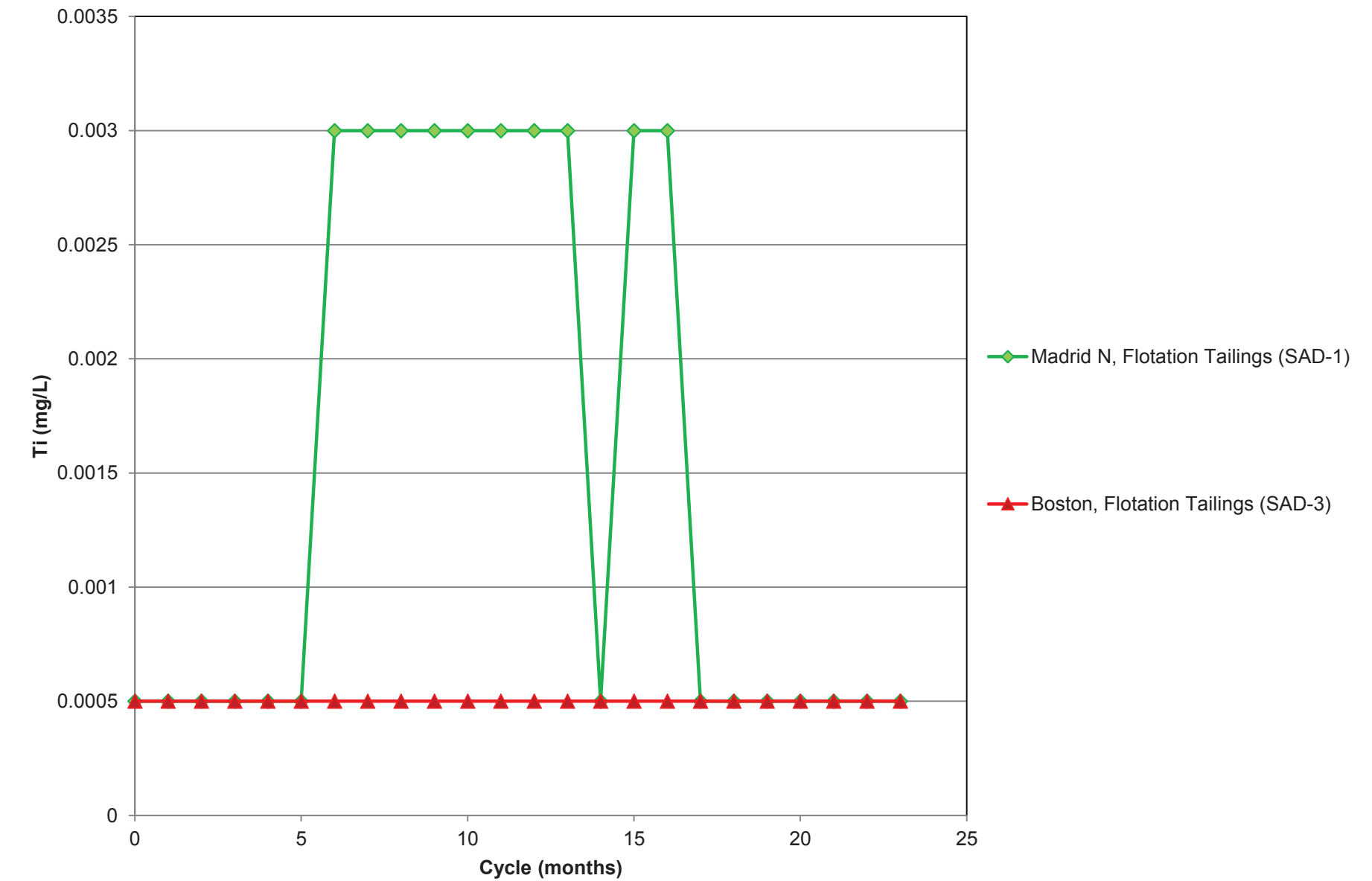


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Appendix K: Figures, Sub-Aqueous Column Tests

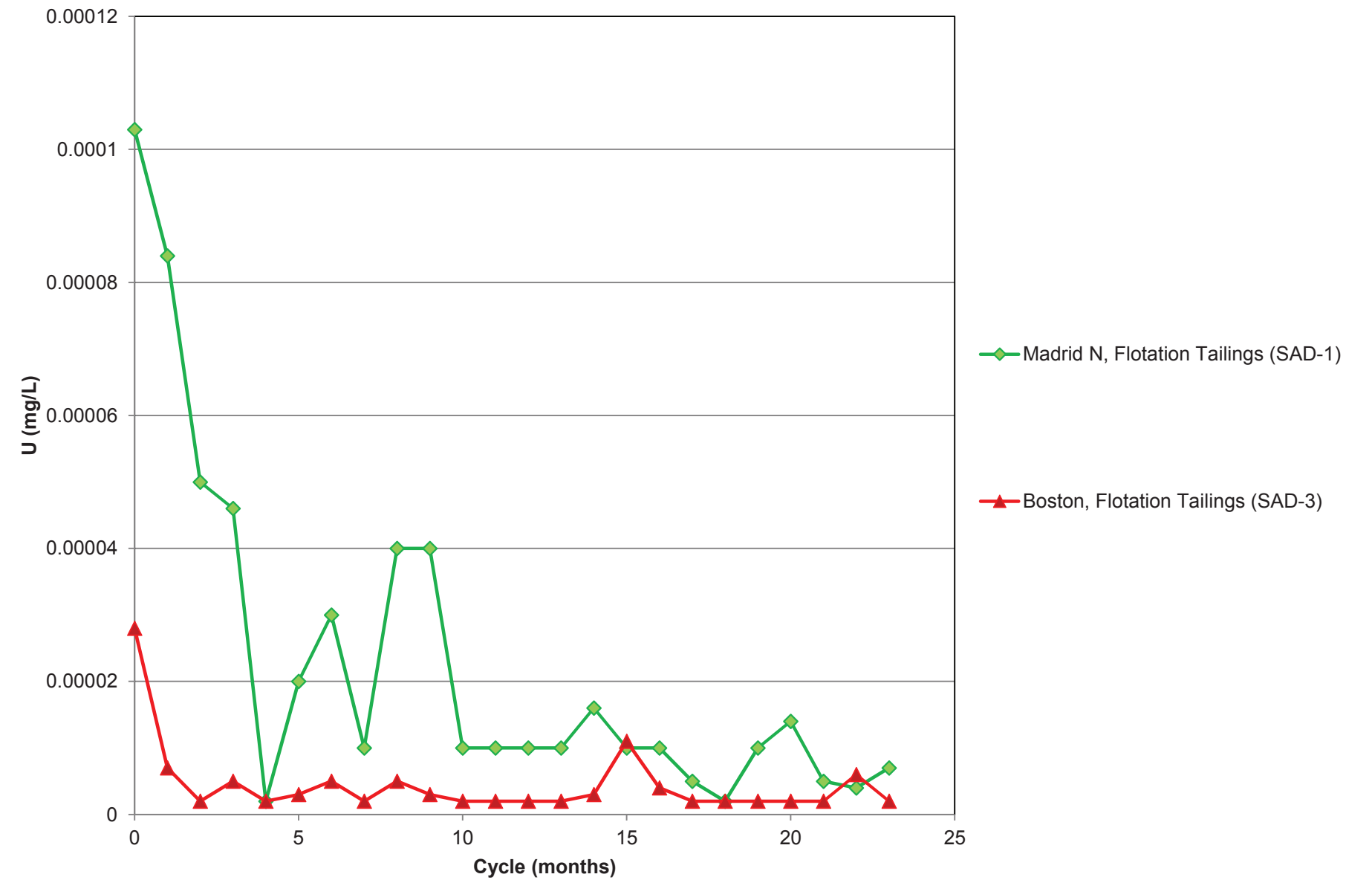


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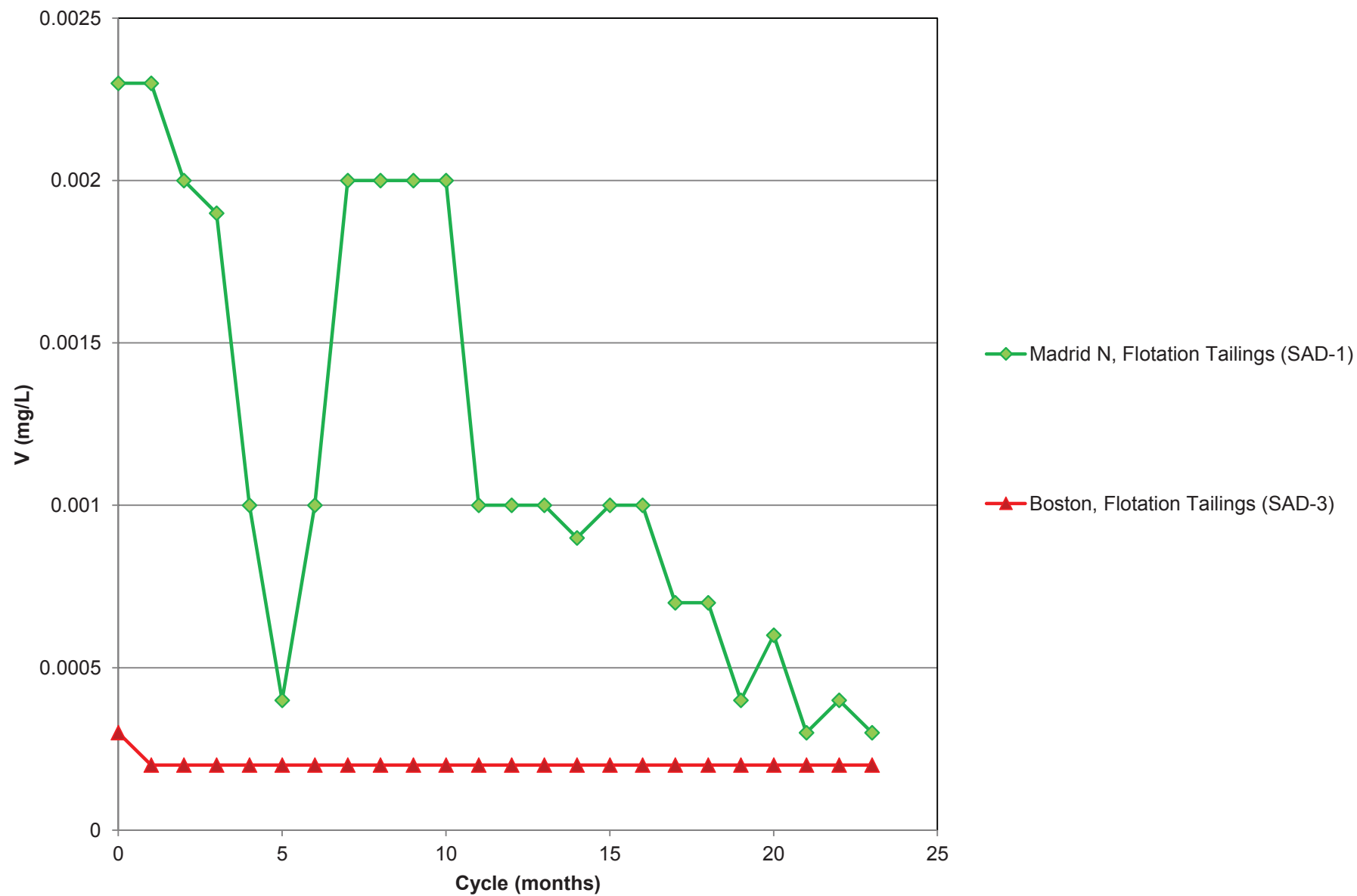
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Appendix K: Figures, Sub-Aqueous Column Tests



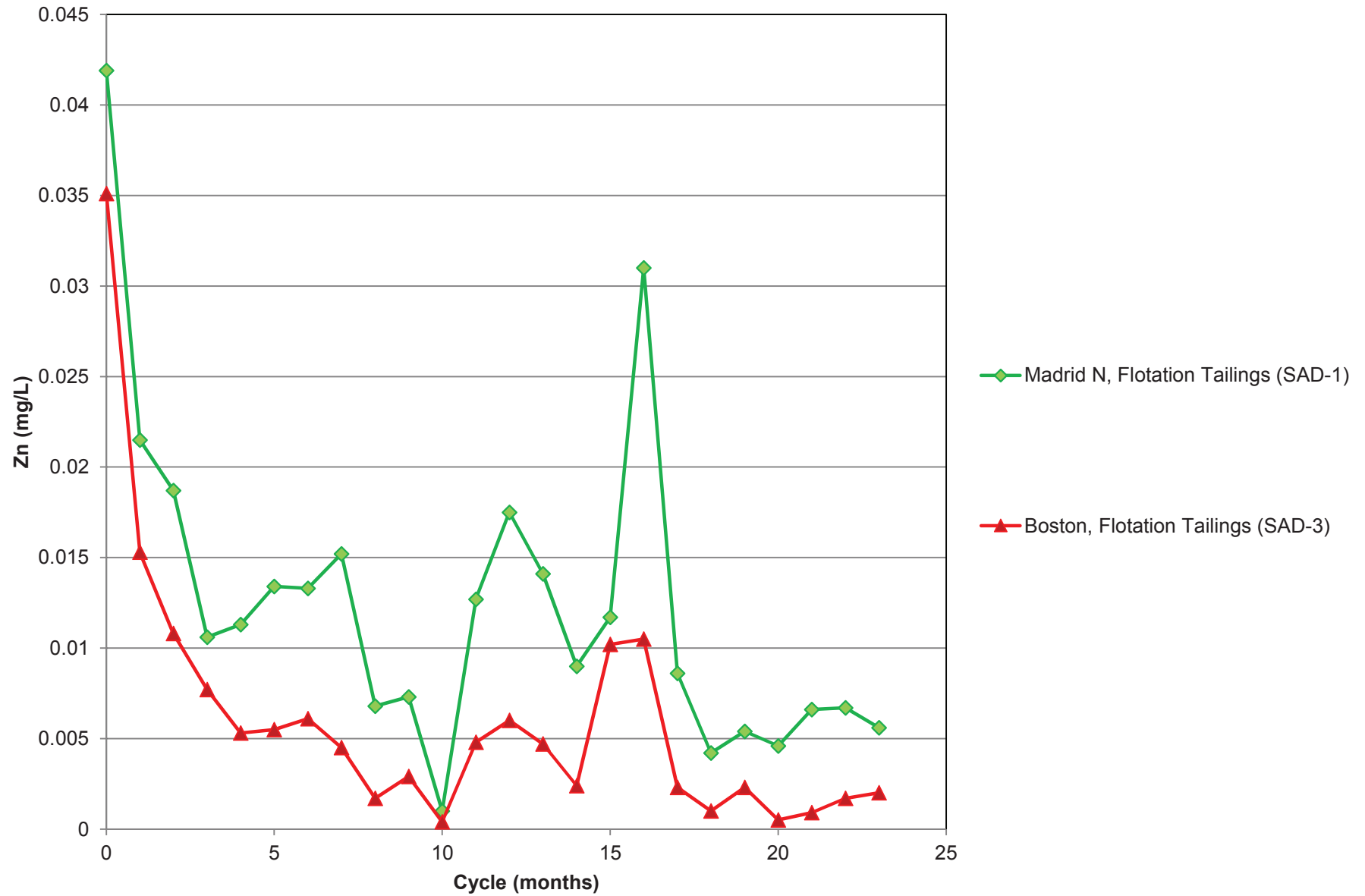
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Appendix K: Figures, Sub-Aqueous Column Tests

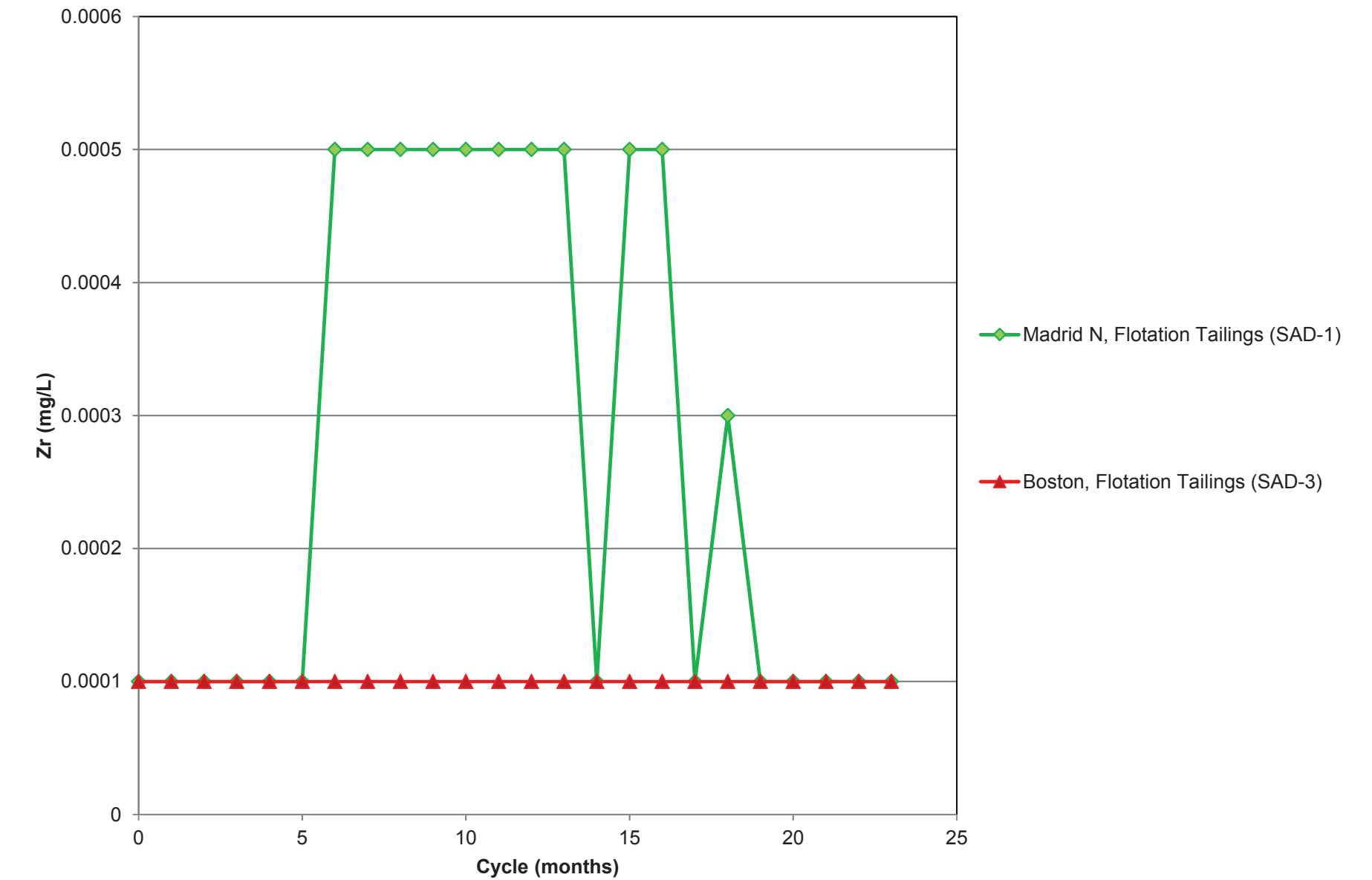


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Appendix K: Figures, Sub-Aqueous Column Tests



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Process Water Chemistry (Full Data)

Mine	Tailings Type	Ore Zone	Sample ID	EH mV	DO mg/L	pH units	Alkalinity mg/L as CaCO3	SO4 mg/L	Conductivity uS/cm	HCO3 mg/L as CaCO3	Carbonate mg/L as CaCO3	TDS mg/L	OH mg/L as CaCO3	Cl mg/L	F mg/L	TOC mg/L	TIC mg/L
Madrid North	Flotation	Naartok West	Naartok West Flotation Tailing	--	--	8.6	170	220	--	--	--	640	--	53	0.18	--	--
		Naartok East	Naartok East Flotation Tailings	410	--	8.5	160	310	--	--	--	730	--	56	0.12	26	--
		Suluk	Suluk Flotation Tailings	430	--	8.1	180	280	--	--	--	870	--	38	0.03	28	--
	Mixed	Naartok West	Naartok West Mixed Tailings	280	--	7.9	230	290	--	--	--	1000	--	51	0.12	21	--
Boston	Flotation	Main	Boston Flotation Tailings	--	--	8	130	120	--	--	--	350	--	21	0.35	--	--
		Main	Boston 2011 Flotation Tailings	--	--	8.5	230	20	--	--	--	240	--	17	0.2	12	--
	Detoxified tailings	Main	Boston CN Destruct Residue	--	--	8.1	110	510	1800	110	2	1400	2	15	--	48	37
	Mixed	Main	Boston Mixed Tailings	--	--	8.1	350	420	--	--	--	930	--	18	0.15	12	--

Notes:
red italics = value less than laboratory detection limit. Detection limit shown.
¹95% flotation; 5% detoxified tailings
²83% flotation; 17% detoxified tailings

Process Water Chemistry (Full Data)

Mine	Tailings Type	Ore Zone	Sample ID	C mg/L	Tot. Reactive P mg/L	CN(T) mg/L	CNWAD mg/L	CNO mg/L	CNS mg/L	CN(F) mg/L	(S2O3)2- mg/L	NH3 as N mg/L	NO2 as N mg/L	NO3 as N mg/L	Hardness mg/L as CaCO3	Ra 226 Bq/L	Ag mg/L	Al mg/L
Madrid North	Flotation	Naartok West	Naartok West Flotation Tailing	--	--	--	--	<i>0.01</i>	<i>0.1</i>	--	--	<i>1</i>	<i>0.02</i>	<i>0.05</i>	260	--	<i>0.00005</i>	<i>0.05</i>
		Naartok East	Naartok East Flotation Tailings	62	--	--	--	<i>0.01</i>	<i>0.1</i>	--	--	<i>1</i>	<i>0.02</i>	<i>0.05</i>	390	--	<i>0.00005</i>	0.15
		Suluk	Suluk Flotation Tailings	40	--	--	--	0.37	<i>0.1</i>	--	--	<i>1</i>	<i>0.02</i>	<i>0.05</i>	540	--	<i>0.00005</i>	<i>0.05</i>
	Mixed	Naartok West	Naartok West Mixed Tailings	48	--	9.9	4.3	1.1	9.8	2.8	--	0.78	<i>0.05</i>	0.05	330	--	<i>0.0005</i>	<i>0.05</i>
Boston	Flotation	Main	Boston Flotation Tailings	--	--	--	--	<i>0.01</i>	<i>0.1</i>	--	--	<i>1</i>	0.04	0.06	220	--	<i>0.00005</i>	<i>0.05</i>
		Main	Boston 2011 Flotation Tailings	47	--	0.13	<i>0.01</i>	--	--	0.02	--	0.11	<i>0.01</i>	<i>0.01</i>	73	--	<i>0.00017</i>	1.2
	Detoxified tailings	Main	Boston CN Destruct Residue	--	0.99	41	13	120	100	--	29	1.3	<i>0.06</i>	0.06	180	--	<i>0.014</i>	0.02
	Mixed	Main	Boston Mixed Tailings	58	--	2.3	<i>0.01</i>	25	17	<i>0.01</i>	4.8	2	0.03	0.33	500	--	<i>0.0005</i>	<i>0.01</i>

Notes:
red italics = value less than laboratory detection limit. Detection limit shown.
¹95% flotation; 5% detoxified tailings
²83% flotation; 17% detoxified tailings

Process Water Chemistry (Full Data)

Mine	Tailings Type	Ore Zone	Sample ID	As mg/L	B mg/L	Ba mg/L	Be mg/L	Bi mg/L	Ca mg/L	Cd mg/L	Co mg/L	Cr mg/L	Cu mg/L	Fe mg/L	Hg mg/L	K mg/L	Li mg/L	Mg mg/L	Mn mg/L	Mo mg/L
Madrid North	Flotation	Naartok West	Naartok West Flotation Tailing	1	--	0.0081	<i>0.0001</i>	--	34	0.00021	--	0.015	0.0012	<i>0.05</i>	<i>0.0001</i>	47	--	42	0.018	0.086
		Naartok East	Naartok East Flotation Tailings	0.98	--	0.0094	<i>0.0001</i>	--	48	0.00021	--	0.013	<i>0.001</i>	0.081	<i>0.0001</i>	44	--	65	0.025	0.099
		Suluk	Suluk Flotation Tailings	0.44	--	0.0099	<i>0.0001</i>	--	71	0.00025	--	0.0095	<i>0.001</i>	<i>0.05</i>	<i>0.0001</i>	45	--	89	0.021	0.1
	Mixed	Naartok West	Naartok West Mixed Tailings	0.64	--	0.0096	0.0026	--	44	<i>0.0002</i>	--	<i>0.002</i>	2.1	1.3	<i>0.0001</i>	47	--	54	0.024	0.099
Boston	Flotation	Main	Boston Flotation Tailings	0.0079	--	0.0087	<i>0.0001</i>	--	45	0.00043	--	<i>0.0002</i>	<i>0.001</i>	0.065	<i>0.0001</i>	5.1	--	27	0.019	0.16
		Main	Boston 2011 Flotation Tailings	0.011	--	0.0059	<i>0.0001</i>	--	24	0.00026	--	0.0045	0.012	0.34	3.7E-05	17	--	18	0.029	0.041
	Detoxified tailings	Main	Boston CN Destruct Residue	4.5	0.12	0.023	0.0002	<i>0.001</i>	56	<i>0.0003</i>	2.3	<i>0.05</i>	11	3.3	0.0001	19	0.003	9.8	0.031	0.33
	Mixed	Main	Boston Mixed Tailings	0.021	--	0.015	0.0003	--	160	<i>0.00002</i>	--	0.0053	0.022	0.3	9.4E-06	39	--	120	0.075	0.067

Notes:
red italics = value less than laboratory detection limit. Detection limit shown.
¹95% flotation; 5% detoxified tailings
²83% flotation; 17% detoxified tailings

Process Water Chemistry (Full Data)

Mine	Tailings Type	Ore Zone	Sample ID	Na mg/L	Ni ug/L	P ug/L	Pb ug/L	Sb ug/L	Se ug/L	Si ug/L	Sn ug/L	Sr ug/L	Ti ug/L	Tl ug/L	U ug/L	V ug/L	W ug/L	Y ug/L	Zn ug/L
Madrid North	Flotation	Naartok West	Naartok West Flotation Tailing	71	0.024	0.41	<i>0.0001</i>	0.025	0.012	3.5	--	0.18	--	<i>0.00003</i>	--	--	--	--	0.0074
		Naartok East	Naartok East Flotation Tailings	61	0.028	0.23	0.0001	0.012	0.011	3.6	--	0.23	--	<i>0.00003</i>	--	--	--	--	0.0084
		Suluk	Suluk Flotation Tailings	55	0.037	<i>0.05</i>	<i>0.0001</i>	0.0066	0.015	4.1	--	0.25	--	<i>0.00003</i>	--	--	--	--	0.012
	Mixed	Naartok West	Naartok West Mixed Tailings	100	0.29	0.17	<i>0.001</i>	0.018	0.0031	3.7	--	0.26	--	<i>0.0003</i>	<i>0.001</i>	--	--	--	0.0098
Boston	Flotation	Main	Boston Flotation Tailings	20	0.0057	0.09	<i>0.0001</i>	0.002	0.0012	0.94	--	0.21	--	<i>0.00003</i>	--	--	--	--	0.0037
		Main	Boston 2011 Flotation Tailings	51	0.0034	0.05	0.0007	0.0029	0.0007	--	--	0.084	--	0.00029	<i>0.0001</i>	--	--	--	0.036
	Detoxified tailings	Main	Boston CN Destruct Residue	650	5.2	<i>0.01</i>	<i>0.002</i>	1.8	0.2	2.1	<i>0.001</i>	0.17	<i>0.01</i>	<i>0.0002</i>	0.0018	0.024	0.045	<i>0.0001</i>	0.01
	Mixed	Main	Boston Mixed Tailings	240	0.028	<i>0.1</i>	0.0004	0.018	0.01	1.9	--	0.24	--	0.00033	<i>0.0001</i>	--	--	--	0.058

Notes:
red italics = value less than laboratory detection limit. Detection limit shown.
¹95% flotation; 5% detoxified tailings
²83% flotation; 17% detoxified tailings

Appendix M – Raw Data, Aging Tests

Madrid North Aging Tests
Naartok West Flotation Tailings

Week	Month	SRK ID	LIMS	Immediates (unfiltered)				Filtered samples												F
				Temp	Upon Receipt	pH	EC	EMF	EMF Reference	E _H	DO	pH	Alkalinity	Conductivity	HCO ₃	Carbonate	TDS	OH	Cl	
				°C		units	uS/cm	mV	mV	mV	mg/L	units	mg/L as CaCO ₃	uS/cm	mg/L as CaCO ₃	mg/L as CaCO ₃	mg/L	mg/L as CaCO ₃	mg/L	mg/L
OXIC AGING TEST																				
0	0	NW_Time 0		--		--	--	--	--	--	--	8.57	171	--	--	--	644	--	53.35	0.18
1	0.25	NW_Oxic 1wk		--		--	--	--	--	435	--	8.55	193	--	--	--	695	--	60.75	0.13
2	0.5	NW_Oxic 2wk		--		--	--	--	--	480	--	8.57	186	--	--	--	703	--	52.58	0.14
4	1	NW_Oxic 4wk		--		--	--	--	--	--	--	7.63	205	--	--	--	724	--	52.93	0.11
8	2	NW_Oxic 8 week		--		--	--	--	--	423	--	8.61	172	--	--	--	760	--	52.53	0.08
ANOXIC AGING TEST																				
0	0	NW_Time 0		--		--	--	--	--	--	--	8.57	171	--	--	--	644	--	53.35	0.18
4	1	NW_Anox 1mo		--		--	--	--	--	302	--	8.45	171	--	--	--	729	--	55.19	0.18
8	2	NW_Anox 2mo		--		--	--	--	--	321	--	8.08	164	--	--	--	643	--	36.95	0.09
16	4	NW_Anox 4 mo		--		--	--	--	--	--	--	8.43	169	--	--	--	728	--	53.13	0.22
32	8	NW_Anox 8mo		--		--	--	--	--	383	--	8.21	259	--	--	--	564	--	53.66	0.19

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok West Flotation Tailings

Week	Month	SRK ID	SO ₄ mg/L	NO ₂ as N mg/L	NO ₃ as N mg/L	NH3 as N mg/L	TOC mg/L	TIC mg/L	C mg/L	Tot. Reactive P mg/L	CN(T) mg/L	CN _{WAD} mg/L	CNO mg/L	CNS mg/L	CN(F) mg/L	(S2O3)2- mg/L	Hg ug/L	Hg mg/L	Hardness j/L as CaC	Ra 226 Bq/L	Ag ug/L
OXIC AGING TEST																					
0	0	NW_Time 0	221	0.02	0.05	1	--	--	--	--	--	--	0.01	0.1	--	--	0.1	0.0001	256	--	0.05
1	0.25	NW_Oxic 1wk	251.6	0.04	0.05	1	24	--	45	--	--	--	0.01	0.1	--	--	0.1	0.0001	293	--	0.05
2	0.5	NW_Oxic 2wk	252	0.12	0.05	1	23	--	46	--	--	--	0.01	0.1	--	--	0.1	0.0001	317	--	0.05
4	1	NW_Oxic 4wk	263.9	0.02	0.05	1	23	--	44	--	--	--	0.01	0.1	--	--	0.1	0.0001	349	--	0.05
8	2	NW_Oxic 8 week	286.1	0.03	0.05	1	25	--	41	--	--	--	0.01	0.1	--	--	0.1	0.0001	322	--	0.05
ANOXIC AGING TEST																					
0	0	NW_Time 0	221	0.02	0.05	1	--	--	--	--	--	--	0.01	0.1	--	--	0.1	0.0001	256	--	0.05
4	1	NW_Anox 1mo	202.6	0.2	0.5	1	25	--	38	--	--	--	0.01	0.1	--	--	0.1	0.0001	254	--	0.05
8	2	NW_Anox 2mo	161.2	0.02	0.05	1	27	--	39	--	--	--	0.01	0.1	--	--	0.1	0.0001	227	--	0.05
16	4	NW_Anox 4 mo	245	0.02	0.05	1	28	--	37	--	--	--	0.01	0.1	--	--	0.1	0.0001	285	--	0.5
32	8	NW_Anox 8mo	229	0.02	0.05	1	24	--	40	--	--	--	0.01	0.1	--	--	0.1	0.0001	202	--	0.5

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok West Flotation Tailings

Week	Month	SRK ID	Ag mg/L	Al mg/L	As ug/L	As mg/L	Ba ug/L	Ba mg/L	Be ug/L	Be mg/L	B mg/L	Bi mg/L	Ca mg/L	Cd ug/L	Cd mg/L	Co mg/L	Cr ug/L	Cr mg/L	Cu ug/L	Cu mg/L	Fe mg/L	K mg/L
OXIC AGING TEST																						
0	0	NW_Time 0	<i>0.00005</i>	<i>0.05</i>	1006.2	1.0062	8.09	0.00809	<i>0.1</i>	<i>0.0001</i>	--	--	33.7	0.21	0.00021	--	14.8	0.0148	1.2	0.0012	<i>0.05</i>	46.9
1	0.25	NW_Oxic 1wk	<i>0.00005</i>	145	824.2	0.8242	10.32	0.01032	<i>0.1</i>	<i>0.0001</i>	--	--	38.3	<i>0.02</i>	<i>0.00002</i>	--	0.9	0.0009	<i>1</i>	<i>0.001</i>	<i>0.05</i>	57
2	0.5	NW_Oxic 2wk	<i>0.00005</i>	<i>0.05</i>	710.5	0.7105	<i>20</i>	<i>0.02</i>	<i>0.1</i>	<i>0.0001</i>	--	--	38.9	0.23	0.00023	--	--	--	--	--	0.092	57.4
4	1	NW_Oxic 4wk	<i>0.00005</i>	<i>0.05</i>	538.9	0.5389	9.78	0.00978	<i>0.1</i>	<i>0.0001</i>	--	--	36.9	0.23	0.00023	--	2.5	0.0025	1.9	0.0019	<i>0.05</i>	100
8	2	NW_Oxic 8 week	<i>0.00005</i>	<i>0.05</i>	549.6	0.5496	8.43	0.00843	<i>0.1</i>	<i>0.0001</i>	--	--	25.9	0.27	0.00027	--	6.8	0.0068	1.2	0.0012	<i>0.05</i>	70.4
ANOXIC AGING TEST																						
0	0	NW_Time 0	<i>0.00005</i>	<i>0.05</i>	1006.2	1.0062	8.09	0.00809	<i>0.1</i>	<i>0.0001</i>	--	--	33.7	0.21	0.00021	--	14.8	0.0148	1.2	0.0012	<i>0.05</i>	46.9
4	1	NW_Anox 1mo	<i>0.00005</i>	<i>0.05</i>	1074.5	1.0745	7.88	0.00788	<i>0.1</i>	<i>0.0001</i>	--	--	31.4	0.24	0.00024	--	1.3	0.0013	1	0.001	0.054	46.2
8	2	NW_Anox 2mo	<i>0.00005</i>	<i>0.05</i>	952.7	0.9527	7.59	0.00759	<i>0.1</i>	<i>0.0001</i>	--	--	27.5	0.3	0.0003	--	5.6	0.0056	<i>1</i>	<i>0.001</i>	<i>0.05</i>	48.4
16	4	NW_Anox 4 mo	<i>0.0005</i>	<i>0.05</i>	1013	1.013	7.3	0.0073	<i>1</i>	<i>0.001</i>	--	--	35	0.26	0.00026	--	4.8	0.0048	<i>10</i>	<i>0.01</i>	<i>0.05</i>	55.2
32	8	NW_Anox 8mo	<i>0.0005</i>	<i>0.05</i>	853	0.853	7	0.007	<i>0.1</i>	<i>0.0001</i>	--	--	41.9	<i>0.02</i>	<i>0.00002</i>	--	<i>0.2</i>	<i>0.0002</i>	<i>1</i>	<i>0.001</i>	<i>0.05</i>	53.3

*Data red and italicized are below
the detection limit*

Madrid North Aging Tests
Naartok West Flotation Tailings

Week	Month	SRK ID	Li mg/L	Mg mg/L	Mn mg/L	Mo ug/L	Mo mg/L	Na mg/L	Ni ug/L	Ni mg/L	P mg/L	Pb ug/L	Pb mg/L	Sb ug/L	Sb mg/L	Se ug/L	Se mg/L	Si mg/L	Sn mg/L	Sr ug/L	Sr mg/L	Ti mg/L
OXIC AGING TEST																						
0	0	NW_Time 0	--	41.8	0.018	86.02	0.08602	70.5	23.8	0.0238	0.41	<i>0.1</i>	<i>0.0001</i>	24.73	0.02473	11.9	0.0119	3.47	--	177	0.177	--
1	0.25	NW_Oxic 1wk	--	48.1	0.011	89.88	0.08988	74.4	18.42	0.01842	0.36	<i>0.1</i>	<i>0.0001</i>	29.11	0.02911	8.6	0.0086	3.97	--	211	0.211	--
2	0.5	NW_Oxic 2wk	--	53.4	<i>0.01</i>	91.3	0.0913	80.6	--	--	0.44	<i>0.1</i>	<i>0.0001</i>	25.7	0.0257	11.7	0.0117	4.25	--	218	0.218	--
4	1	NW_Oxic 4wk	--	62.5	<i>0.01</i>	88.65	0.08865	93.3	8.48	0.00848	0.41	<i>0.1</i>	<i>0.0001</i>	24.42	0.02442	8.8	0.0088	3.85	--	208	0.208	--
8	2	NW_Oxic 8 week	--	62.6	0.011	100.61	0.10061	81.6	5.95	0.00595	0.62	<i>0.1</i>	<i>0.0001</i>	24.68	0.02468	10.6	0.0106	3.69	--	110	0.11	--
ANOXIC AGING TEST																						
0	0	NW_Time 0	--	41.8	0.018	86.02	0.08602	70.5	23.8	0.0238	0.41	<i>0.1</i>	<i>0.0001</i>	24.73	0.02473	11.9	0.0119	3.47	--	177	0.177	--
4	1	NW_Anox 1mo	--	42.7	0.013	101.99	0.10199	73.7	23.8	0.0238	0.45	<i>0.1</i>	<i>0.0001</i>	21.6	0.0216	8.5	0.0085	3.06	--	167	0.167	--
8	2	NW_Anox 2mo	--	38.6	0.01	87.8	0.0878	67.1	16.98	0.01698	0.51	<i>0.1</i>	<i>0.0001</i>	10.59	0.01059	9.2	0.0092	2.55	--	151	0.151	--
16	4	NW_Anox 4 mo	--	48	0.012	92.3	0.0923	78.9	18.6	0.0186	0.35	<i>1</i>	<i>0.001</i>	18.1	0.0181	8	0.008	2.45	--	185	0.185	--
32	8	NW_Anox 8mo	--	23.7	0.013	84.6	0.0846	93.7	17.5	0.0175	0.28	<i>0.1</i>	<i>0.0001</i>	15.7	0.0157	7.4	0.0074	3.07	--	218	0.218	--

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok West Flotation Tailings

Week	Month	SRK ID	TI ug/L	TI mg/L	U ug/L	U mg/L	V mg/L	W mg/L	Y mg/L	Zn mg/L
OXIC AGING TEST										
0	0	NW_Time 0	0.03	0.00003	--	--	--	--	--	0.0074
1	0.25	NW_Oxic 1wk	0.03	0.00003	--	--	--	--	--	0.0068
2	0.5	NW_Oxic 2wk	0.1	0.0001	--	--	--	--	--	--
4	1	NW_Oxic 4wk	0.03	0.00003	--	--	--	--	--	0.0072
8	2	NW_Oxic 8 week	0.03	0.00003	--	--	--	--	--	0.0093
ANOXIC AGING TEST										
0	0	NW_Time 0	0.03	0.00003	--	--	--	--	--	0.0074
4	1	NW_Anox 1mo	0.03	0.00003	--	--	--	--	--	0.0082
8	2	NW_Anox 2mo	0.03	0.00003	--	--	--	--	--	0.0073
16	4	NW_Anox 4 mo	0.3	0.0003	--	--	--	--	--	0.01
32	8	NW_Anox 8mo	0.1	0.0001	--	--	--	--	--	0.0063

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok West Mixed Tailings

Week	Month	SRK ID	LIMS	Immediates (unfiltered)					Filtered Samples											OH	Cl	F
				Temp	Upon Receipt	pH	EC	EMF	EMF Reference	E _H	DO	pH	Alkalinity	Conductivity	HCO ₃	Carbonate	TDS					
				°C		units	uS/cm	mV	mV	mV	mg/L	units	mg/L as CaCO ₃	uS/cm	mg/L as CaCO ₃	mg/L as CaCO ₃	mg/L	mg/L as CaCO ₃	mg/L	mg/L		
OXIC AGING TEST																						
0	0	Time 0		--		--	--	--	--	284	--	7.9	226	--	--	--	1040	--	51.2	0.12		
1	0.25	Oxic 1wk		--		--	--	--	--	358	--	8.32	207	--	--	--	753	--	51.7	0.14		
2	0.5	Oxic 2wk		--		--	--	--	--	418	--	8.24	208	--	--	--	758	--	59.7	0.12		
4	1	Oxic 4wk		--		--	--	--	--	305	--	8.46	189	--	--	--	778	--	52.9	0.1		
8	2	Oxic 8 week		--		--	--	--	--	302	--	8.02	146	--	--	--	926	--	55.2	0.05		
ANOXIC AGING TEST																						
0	0			--		--	--	--	--	284	--	7.9	226	--	--	--	1040	--	51.2	0.12		
4	1	Anox 1mo		--		--	--	--	--	318	--	8.31	202	--	--	--	714	--	51.8	0.15		
8	2	Anox 2mo		--		--	--	--	--	301	--	8.21	193	--	--	--	703	--	51.2	0.14		
16	4	Anox 4 mo		--		--	--	--	--	270	--	8.12	182	--	--	--	724	--	50.3	0.38		
32	8	Anox 8mo		--		--	--	--	--	257	--	8.24	215	--	--	--	717	--	51.9	0.1		

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok West Mixed Tailings

Week	Month	SRK ID	SO ₄ mg/L	NO ₂ as N mg/L	NO ₃ as N mg/L	NH3 as N mg/L	TOC mg/L	TIC mg/L	C mg/L	Tot. Reactive P mg/L	CN(T) mg/L	CN _{WAD} mg/L	CNO mg/L	CNS mg/L	CN(F) mg/L	(S2O3)2- mg/L	Hg ug/L	Hg mg/L	Hardness j/L as CaC	Ra 226 Bq/L	Ag ug/L
OXIC AGING TEST																					
0	0	Time 0	286.8	<i>0.05</i>	0.05	0.78	21	--	48	--	9.9	4.28	1.09	9.83	2.81	--	<i>0.1</i>	<i>0.0001</i>	331.6	--	<i>0.5</i>
1	0.25	Oxic 1wk	295	<i>0.05</i>	0.05	0.97	22	--	46	--	5.25	3.82	2.87	12.11	2.46	--	<i>0.1</i>	<i>0.0001</i>	306.4	--	0.98
2	0.5	Oxic 2wk	304	<i>0.05</i>	0.05	0.42	14	--	46	--	2.53	2.14	2.97	12.53	1.96	--	<i>0.1</i>	<i>0.0001</i>	300.1	--	<i>0.5</i>
4	1	Oxic 4wk	342	<i>0.05</i>	0.02	2.61	11	--	43	--	<i>0.01</i>	<i>0.01</i>	5.09	1.77	<i>0.01</i>	--	<i>0.1</i>	<i>0.0001</i>	328.3	--	0.06
8	2	Oxic 8 week	480	<i>0.05</i>	<i>0.02</i>	2.97	7	--	33	--	<i>0.01</i>	<i>0.01</i>	<i>0.01</i>	<i>0.1</i>	<i>0.01</i>	--	<i>0.1</i>	<i>0.0001</i>	490.9	--	<i>0.05</i>
ANOXIC AGING TEST																					
0	0		286.8	<i>0.05</i>	0.05	0.78	21	--	48	--	9.9	4.28	1.09	9.83	2.81	--	<i>0.1</i>	<i>0.0001</i>	331.6	--	<i>0.5</i>
4	1	Anox 1mo	290	1.03	0.14	0.45	18	--	44	--	3.92	1.78	1.65	11.6	1.03	--	<i>0.1</i>	<i>0.0001</i>	327.6	--	0.09
8	2	Anox 2mo	286	<i>0.05</i>	0.02	0.42	17	--	44	--	3.85	1.1	<i>0.01</i>	12.7	0.39	--	0.2	0.0002	352.1	--	<i>0.05</i>
16	4	Anox 4 mo	300	<i>0.01</i>	<i>0.01</i>	0.48	21	--	45	--	1.85	0.48	<i>0.01</i>	13.8	<i>0.01</i>	5.8	0.007	0.000007	296.4	--	<i>0.5</i>
32	8	Anox 8mo	283	<i>0.5</i>	<i>0.01</i>	0.5	19	--	46	--	1.49	0.03	<i>0.01</i>	12.23	0.06	<i>0.01</i>	0.009	0.000009	312.3	--	<i>0.05</i>

*Data red and italicized are below
the detection limit*

Madrid North Aging Tests
Naartok West Mixed Tailings

Week	Month	SRK ID	Ag mg/L	Al mg/L	As ug/L	As mg/L	Ba ug/L	Ba mg/L	Be ug/L	Be mg/L	B mg/L	Bi mg/L	Ca mg/L	Cd ug/L	Cd mg/L	Co mg/L	Cr ug/L	Cr mg/L	Cu ug/L	Cu mg/L	Fe mg/L	K mg/L
OXIC AGING TEST																						
0	0	Time 0	<i>0.0005</i>	<i>0.05</i>	638.7	0.6387	9.55	0.00955	2.6	0.0026	--	--	43.7	<i>0.2</i>	<i>0.0002</i>	--	<i>2</i>	<i>0.002</i>	2084.5	2.0845	1.27	46.9
1	0.25	Oxic 1wk	0.00098	<i>0.05</i>	826.8	0.8268	8.45	0.00845	2.6	0.0026	--	--	37.7	<i>0.2</i>	<i>0.0002</i>	--	<i>2</i>	<i>0.002</i>	2715.1	2.7151	0.125	48.4
2	0.5	Oxic 2wk	<i>0.0005</i>	<i>0.05</i>	851.8	0.8518	7.76	0.00776	2.7	0.0027	--	--	32.4	<i>0.2</i>	<i>0.0002</i>	--	<i>2</i>	<i>0.002</i>	1878.7	1.8787	0.06	48.6
4	1	Oxic 4wk	0.00006	<i>0.05</i>	554	0.554	10.6	0.0106	0.3	0.0003	--	--	30.5	0.24	0.00024	--	3	0.003	31.4	0.0314	<i>0.05</i>	56.2
8	2	Oxic 8 week	<i>0.00005</i>	<i>0.05</i>	193	0.193	11.1	0.0111	1.5	0.0015	--	--	43.7	<i>0.2</i>	<i>0.0002</i>	--	2.4	0.0024	15.9	0.0159	0.059	92.2
ANOXIC AGING TEST																						
0	0		<i>0.0005</i>	<i>0.05</i>	638.7	0.6387	9.55	0.00955	2.6	0.0026	--	--	43.7	<i>0.2</i>	<i>0.0002</i>	--	<i>2</i>	<i>0.002</i>	2084.5	2.0845	1.27	46.9
4	1	Anox 1mo	0.00009	<i>0.05</i>	658	0.658	10.1	0.0101	0.3	0.0003	--	--	41.6	0.22	0.00022	--	2.5	0.0025	233	0.233	1.01	48.4
8	2	Anox 2mo	<i>0.00005</i>	<i>0.05</i>	886	0.886	9.6	0.0096	1.5	0.0015	--	--	42	<i>0.2</i>	<i>0.0002</i>	--	4	0.004	575	0.575	1.18	66.4
16	4	Anox 4 mo	<i>0.0005</i>	<i>0.05</i>	803	0.803	9.5	0.0095	<i>1</i>	<i>0.001</i>	--	--	35.2	<i>0.2</i>	<i>0.0002</i>	--	0.5	0.0005	583	0.583	0.73	44.7
32	8	Anox 8mo	<i>0.00005</i>	<i>0.05</i>	701	0.701	9.81	0.00981	0.2	0.0002	--	--	36.3	<i>0.2</i>	<i>0.0002</i>	--	3	0.003	34.5	0.0345	0.78	50.6

*Data red and italicized are below
the detection limit*

Madrid North Aging Tests
Naartok West Mixed Tailings

Week	Month	SRK ID	Li mg/L	Mg mg/L	Mn mg/L	Mo ug/L	Mo mg/L	Na mg/L	Ni ug/L	Ni mg/L	P mg/L	Pb ug/L	Pb mg/L	Sb ug/L	Sb mg/L	Se ug/L	Se mg/L	Si mg/L	Sn mg/L	Sr ug/L
OXIC AGING TEST																				
0	0	Time 0	--	54.1	0.024	98.77	0.09877	102	290.11	0.29011	0.17	<i>1</i>	<i>0.001</i>	18.39	0.01839	3.1	0.0031	3.7	--	261
1	0.25	Oxic 1wk	--	51.6	0.0072	139.59	0.13959	102	634.18	0.63418	0.2	<i>1</i>	<i>0.001</i>	20.75	0.02075	5.4	0.0054	3.59	--	240.8
2	0.5	Oxic 2wk	--	53.3	0.0066	145.91	0.14591	101	654.92	0.65492	0.32	<i>1</i>	<i>0.001</i>	21.53	0.02153	6.7	0.0067	3.1	--	205.9
4	1	Oxic 4wk	--	61.3	0.016	126	0.126	115	70.2	0.0702	0.63	<i>0.1</i>	<i>0.0001</i>	21.2	0.0212	7	0.007	5.4	--	113
8	2	Oxic 8 week	--	92.8	0.035	151	0.151	155	16.8	0.0168	0.11	0.2	0.0002	12.6	0.0126	4.9	0.0049	4	--	122
ANOXIC AGING TEST																				
0	0		--	54.1	0.024	98.77	0.09877	102	290.11	0.29011	0.17	<i>1</i>	<i>0.001</i>	18.39	0.01839	3.1	0.0031	3.7	--	261
4	1	Anox 1mo	--	54.4	0.021	119.7	0.1197	111	181	0.181	<i>0.05</i>	<i>0.1</i>	<i>0.0001</i>	19.2	0.0192	8	0.008	4.12	--	268
8	2	Anox 2mo	--	60.1	0.018	119	0.119	133	108	0.108	0.18	<i>1</i>	<i>0.001</i>	18.3	0.0183	8.9	0.0089	3.6	--	204
16	4	Anox 4 mo	--	50.7	0.016	140	0.14	106	58	0.058	<i>0.1</i>	<i>1</i>	<i>0.001</i>	12.3	0.0123	5.2	0.0052	3.5	--	151
32	8	Anox 8mo	--	53.9	0.015	127	0.127	110	6.4	0.0064	0.2	0.1	0.0001	10.6	0.0106	5.6	0.0056	2.07	--	174

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok West Mixed Tailings

Week	Month	SRK ID	Sr mg/L	Ti mg/L	TI ug/L	TI mg/L	U ug/L	U mg/L	V mg/L	W mg/L	Y mg/L	Zn mg/L
OXIC AGING TEST												
0	0	Time 0	0.261	--	<i>0.3</i>	<i>0.0003</i>	<i>1</i>	<i>0.001</i>	--	--	--	0.0098
1	0.25	Oxic 1wk	0.2408	--	<i>0.3</i>	<i>0.0003</i>	<i>1</i>	<i>0.001</i>	--	--	--	0.086
2	0.5	Oxic 2wk	0.2059	--	<i>0.3</i>	<i>0.0003</i>	<i>1</i>	<i>0.001</i>	--	--	--	0.026
4	1	Oxic 4wk	0.113	--	<i>0.3</i>	<i>0.0003</i>	0.11	0.00011	--	--	--	0.0055
8	2	Oxic 8 week	0.122	--	0.05	0.00005	<i>1</i>	<i>0.001</i>	--	--	--	0.02
ANOXIC AGING TEST												
0	0		0.261	--	<i>0.3</i>	<i>0.0003</i>	<i>1</i>	<i>0.001</i>	--	--	--	0.0098
4	1	Anox 1mo	0.268	--	<i>0.3</i>	<i>0.0003</i>	0.35	0.00035	--	--	--	0.009
8	2	Anox 2mo	0.204	--	<i>0.3</i>	<i>0.0003</i>	0.31	0.00031	--	--	--	0.016
16	4	Anox 4 mo	0.151	--	<i>0.3</i>	<i>0.0003</i>	0.36	0.00036	--	--	--	0.04
32	8	Anox 8mo	0.174	--	<i>0.3</i>	<i>0.0003</i>	0.37	0.00037	--	--	--	0.027

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok East Flotation Tailings

Week	Month	SRK ID	LIMS	Temp Upon Receipt °C	Immediates (unfiltered)				Filtered Samples											OH mg/L as CaCO ₃	Cl mg/L	F mg/L
					pH units	EC uS/cm	EMF mV	EMF Reference mV	E _H mV	DO mg/L	pH units	Alkalinity ng/L as CaCO ₃	Conductivity uS/cm	HCO ₃ mg/L as CaCO ₃	Carbonate mg/L as CaCO ₃	TDS mg/L						
OXIC AGING TEST																						
0	0	NE_F_Time 0		--	--	--	--	--	410	--	8.51	158	--	--	--	727	--	56.1	0.12			
1	0.25	NE_F_Oxic 1wk		--	--	--	--	--	435	--	8.46	186	--	--	--	818	--	69.6	0.09			
2	0.5	NE_F_Oxic 2wk		--	--	--	--	--	440	--	8.55	186	--	--	--	803	--	54.8	0.08			
4	1	NE_F_Oxic 4wk		--	--	--	--	--	--	--	8.4	195	--	--	--	831	--	55.7	0.05			
8	2	NE_F_Oxic 8 weeks		--	--	--	--	--	--	--	8.6	166	--	--	--	880	--	44.4	0.04			
ANOXIC AGING TEST																						
0	0	NE_F_Time 0		--	--	--	--	--	410	--	8.51	158	--	--	--	727	--	56.1	0.12			
4	1	NE_F_Anox 1mo		--	--	--	--	--	304	--	8.32	171	--	--	--	729	--	51.3	0.1			
8	2	NE_F_Anox 2mo		--	--	--	--	--	460	--	8.22	158	--	--	--	643	--	40.5	0.06			
16	4	NE_F_Anox 4 mo		--	--	--	--	--	--	--	8.41	155	--	--	--	822	--	55.3	0.09			
32	8	NE_F_Anox 8mo		--	--	--	--	--	335	--	9.81	28	--	--	--	254	--	31.3	0.06			

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok East Flotation Tailings

Week	Month	SRK ID	SO ₄ mg/L	NO ₂ as N mg/L	NO ₃ as N mg/L	NH3 as N mg/L	TOC mg/L	TIC mg/L	C mg/L	Reacti mg/L	CN(T) mg/L	CN _{WAD} mg/L	CNO mg/L	CNS mg/L	CN(F) mg/L	(S2O3)2- mg/L	Hg ug/L	Hg mg/L	Hardness g/L as CaC	Ra 226 Bq/L	Ag ug/L	Ag mg/L
OXIC AGING TEST																						
0	0	NE_F_Time 0	313.2	0.02	0.05	1	26	--	62	--	--	--	0.01	0.1	--	--	0.1	0.0001	386	--	0.05	0.00005
1	0.25	NE_F_Oxic 1wk	354.2	0.04	0.05	1	26	--	44	--	--	--	0.01	0.1	--	--	0.1	0.0001	444	--	0.05	0.00005
2	0.5	NE_F_Oxic 2wk	340.2	0.12	0.05	1	26	--	43	--	--	--	0.01	0.1	--	--	0.1	0.0001	460	--	--	--
4	1	NE_F_Oxic 4wk	371.2	0.02	0.05	1	26	--	41	--	--	--	0.01	0.1	--	--	0.1	0.0001	501	--	0.06	0.00006
8	2	NE_F_Oxic 8 wee	337.2	0.03	0.05	1	24	--	38	--	--	--	0.01	0.1	--	--	0.1	0.0001	506	--	0.05	0.00005
ANOXIC AGING TEST																						
0	0	NE_F_Time 0	313.2	0.02	0.05	1	26	--	62	--	--	--	0.01	0.1	--	--	0.1	0.0001	386	--	0.05	0.00005
4	1	NE_F_Anox 1mo	295.6	0.2	0.05	1	27	--	36	--	--	--	0.01	0.1	--	--	0.1	0.0001	388	--	0.05	0.00005
8	2	NE_F_Anox 2mo	238.6	0.02	0.05	1	27	--	38	--	--	--	0.01	0.1	--	--	0.1	0.0001	391	--	0.05	0.00005
16	4	NE_F_Anox 4 mo	316	0.02	0.05	1	28	--	37	--	--	--	0.01	0.1	--	--	0.1	0.0001	415	--	0.5	0.0005
32	8	NE_F_Anox 8mo	110.5	0.02	0.05	--	10	--	6	--	--	--	--	--	--	--	0.1	0.0001	119	--	0.05	0.00005

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok East Flotation Tailings

Week	Month	SRK ID	Al mg/L	As ug/L	As mg/L	Ba ug/L	Ba mg/L	Be ug/L	Be mg/L	B mg/L	Bi mg/L	Ca mg/L	Cd ug/L	Cd mg/L	Co mg/L	Cr ug/L	Cr mg/L	Cu ug/L	Cu mg/L	Fe mg/L	K mg/L	Li mg/L
OXIC AGING TEST																						
0	0	NE_F_Time 0	0.147	976.3	0.9763	9.39	0.00939	0.1	0.0001	--	--	47.5	0.21	0.00021	--	12.9	0.0129	1	0.001	0.081	44.3	--
1	0.25	NE_F_Oxic 1wk	0.138	530.6	0.5306	10.73	0.01073	0.1	0.0001	--	--	51.1	0.27	0.00027	--	1.1	0.0011	1	0.001	0.05	47.9	--
2	0.5	NE_F_Oxic 2wk	0.05	389.4	0.3894	0.02	0.00002	0.1	0.0001	--	--	47.8	0.27	0.00027	--	--	--	--	--	0.078	47.1	--
4	1	NE_F_Oxic 4wk	0.05	227.5	0.2275	9.12	0.00912	0.1	0.0001	--	--	38.3	0.3	0.0003	--	2.4	0.0024	2.7	0.0027	0.05	77.8	--
8	2	NE_F_Oxic 8 wee	0.05	204.7	0.2047	7.79	0.00779	0.1	0.0001	--	--	29.7	0.3	0.0003	--	6	0.006	1.3	0.0013	0.05	56.1	--
ANOXIC AGING TEST																						
0	0	NE_F_Time 0	0.147	976.3	0.9763	9.39	0.00939	0.1	0.0001	--	--	47.5	0.21	0.00021	--	12.9	0.0129	1	0.001	0.081	44.3	--
4	1	NE_F_Anox 1mo	0.05	973	0.973	8.83	0.00883	0.1	0.0001	--	--	42.9	0.28	0.00028	--	1.3	0.0013	1.8	0.0018	0.072	42.1	--
8	2	NE_F_Anox 2mo	0.05	880.6	0.8806	8.93	0.00893	0.1	0.0001	--	--	43	0.24	0.00024	--	5.6	0.0056	1	0.001	0.05	46.8	--
16	4	NE_F_Anox 4 mo	0.05	940	0.94	8.6	0.0086	1	0.001	--	--	43.3	0.29	0.00029	--	4.7	0.0047	10	0.01	0.074	47	--
32	8	NE_F_Anox 8mo	0.05	149	0.149	1.34	0.00134	0.1	0.0001	--	--	8.78	0.02	0.00002	--	0.2	0.0002	1	0.001	0.187	14.8	--

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok East Flotation Tailings

Week	Month	SRK ID	Mg mg/L	Mn mg/L	Mo ug/L	Mo mg/L	Na mg/L	Ni ug/L	Ni mg/L	P mg/L	Pb ug/L	Pb mg/L	Sb ug/L	Sb mg/L	Se ug/L	Se mg/L	Si mg/L	Sn mg/L	Sr ug/L	Sr mg/L	Ti mg/L	Tl ug/L
OXIC AGING TEST																						
0	0	NE_F_Time 0	65.1	0.025	99.48	0.09948	60.5	27.72	0.02772	0.23	<i>0.1</i>	<i>0.0001</i>	11.72	0.01172	10.9	0.0109	3.6	--	231	0.231	--	<i>0.03</i>
1	0.25	NE_F_Oxic 1wk	76.9	0.016	102.6	0.1026	62.5	39.79	0.03979	0.43	<i>0.1</i>	<i>0.0001</i>	13	0.013	12.4	0.0124	4.04	--	232	0.232	--	0.04
2	0.5	NE_F_Oxic 2wk	82.9	0.017	104.2	0.1042	65.3	--	--	0.24	<i>0.1</i>	<i>0.0001</i>	12.2	0.0122	12.6	0.0126	3.88	--	190	0.19	--	<i>0.03</i>
4	1	NE_F_Oxic 4wk	98.6	0.013	109.67	0.10967	74	24.68	0.02468	0.41	0.2	0.0002	12.42	0.01242	10.2	0.0102	3.83	--	118	0.118	--	0.03
8	2	NE_F_Oxic 8 wee	105	0.01	110.87	0.11087	67.4	15.14	0.01514	0.41	<i>0.1</i>	<i>0.0001</i>	11.24	0.01124	10.6	0.0106	3.69	--	85	0.085	--	<i>0.03</i>
ANOXIC AGING TEST																						
0	0	NE_F_Time 0	65.1	0.025	99.48	0.09948	60.5	27.72	0.02772	0.23	<i>0.1</i>	<i>0.0001</i>	11.72	0.01172	10.9	0.0109	3.6	--	231	0.231	--	<i>0.03</i>
4	1	NE_F_Anox 1mo	68.3	0.014	101.99	0.10199	63.5	23.8	0.0238	0.35	<i>0.1</i>	<i>0.0001</i>	10.86	0.01086	9.4	0.0094	3.59	--	212	0.212	--	<i>0.03</i>
8	2	NE_F_Anox 2mo	69	0.01	101.38	0.10138	61	24.16	0.02416	0.51	<i>0.1</i>	<i>0.0001</i>	10.59	0.01059	9.2	0.0092	3.02	--	207	0.207	--	<i>0.03</i>
16	4	NE_F_Anox 4 mo	74.5	0.015	112.2	0.1122	65.8	5	0.005	0.34	<i>1</i>	<i>0.001</i>	8.6	0.0086	9	0.009	2.85	--	207	0.207	--	<i>0.3</i>
32	8	NE_F_Anox 8mo	23.7	0.013	19	0.019	34.6	19.3	0.0193	<i>0.05</i>	<i>0.1</i>	<i>0.0001</i>	1.6	0.0016	2.9	0.0029	0.14	--	44.8	0.0448	--	0.1

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Naartok East Flotation Tailings

Week	Month	SRK ID	Tl mg/L	U ug/L	U mg/L	V mg/L	W mg/L	Y mg/L	Zn mg/L
OXIC AGING TEST									
0	0	NE_F_Time 0	0.00003	--	--	--	--	--	0.0084
1	0.25	NE_F_Oxic 1wk	0.00004	--	--	--	--	--	0.0101
2	0.5	NE_F_Oxic 2wk	0.00003	--	--	--	--	--	--
4	1	NE_F_Oxic 4wk	0.00003	--	--	--	--	--	0.0072
8	2	NE_F_Oxic 8 wee	0.00003	--	--	--	--	--	0.011
ANOXIC AGING TEST									
0	0	NE_F_Time 0	0.00003	--	--	--	--	--	0.0084
4	1	NE_F_Anox 1mo	0.00003	--	--	--	--	--	0.009
8	2	NE_F_Anox 2mo	0.00003	--	--	--	--	--	0.0093
16	4	NE_F_Anox 4 mo	0.0003	--	--	--	--	--	0.001
32	8	NE_F_Anox 8mo	0.0001	--	--	--	--	--	0.0024

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Suluk Flotation Tailings

Week	Month	SRK ID	LIMS	Immediates (unfiltered)				Filtered Samples											
				Temp Upon Receipt	pH	EC	EMF	EMF Reference	E _H	DO	pH	Alkalinity	Conductivity	HCO ₃	Carbonate	TDS	OH	Cl	F
				°C	units	uS/cm	mV	mV	mV	mg/L	units	mg/L as CaCO ₃	uS/cm	mg/L as CaCO ₃	mg/L as CaCO ₃	mg/L	mg/L as CaCO ₃	mg/L	mg/L
OXIC AGING TEST																			
0	0	S_F_Time 0		--	--	--	--	--	429	--	8.1	175	--	--	--	870	--	37.6	0.03
1	0.25	S_F_Oxic 1wk		--	--	--	--	--	308	--	8.09	160	--	--	--	879	--	33.8	0.03
2	0.5	S_F_Oxic 2wk		--	--	--	--	--	--	--	8.33	149	--	--	--	889	--	37.9	0.02
4	1	S_F_Oxic 4wk		--	--	--	--	--	--	--	7.8	129	--	--	--	895	--	61.4	0.02
8	2	S_F_Oxic 8 week		--	--	--	--	--	--	--	8.06	128	--	--	--	1200	--	--	--
ANOXIC AGING TEST																			
0	0	S_F_Time 0		--	--	--	--	--	429	--	8.1	175	--	--	--	870	--	37.6	0.03
4	1	S_F_Anox 1mo		--	--	--	--	--	269	--	8.25	106	--	--	--	846	--	60.8	0.04
8	2	S_F_Anox 2mo		--	--	--	--	--	237	--	--	161	--	--	--	941	--	61.1	0.03
16	4	S_F_Anox 4 mo		--	--	--	--	--	254	--	8	156	--	--	--	848	--	61.7	0.05
32	8	S_F_Anox 8mo		--	--	--	--	--	405	--	8.09	273	--	--	--	880	--	61.2	<i>0.01</i>
BLANKS																			
		S_F_O Blk 7/21		--	--	--	--	--	--	--	5.31	13	--	--	--	<i>50</i>	--	--	--
		S_F_An Blk 1/29		--	--	--	--	--	--	--	6.59	113	--	--	--	<i>50</i>	--	<i>0.1</i>	<i>0.01</i>

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Suluk Flotation Tailings

Week	Month	SRK ID	SO ₄ mg/L	NO ₂ as N mg/L	NO ₃ as N mg/L	NH3 as N mg/L	TOC mg/L	TIC mg/L	C mg/L	Reacti mg/L	CN(T) mg/L	CN _{WAD} mg/L	CNO mg/L	CNS mg/L	CN(F) mg/L	(S2O3)2- mg/L	Hg ug/L	Hg mg/L	Hardness g/L as CaC	Ra 226 Bq/L	Ag ug/L	Ag mg/L
OXIC AGING TEST																						
0	0	S_F_Time 0	275.6	0.02	0.05	1	28	--	40	--	--	--	0.37	0.1	--	--	0.1	0.0001	543	--	0.05	0.00005
1	0.25	S_F_Oxic 1wk	263.1	0.02	0.05	1	26	--	32	--	--	--	0.36	0.1	--	--	0.1	0.0001	560	--	0.05	0.00005
2	0.5	S_F_Oxic 2wk	297.6	0.02	0.5	1	24	--	35	--	--	--	0.01	0.1	--	--	0.1	0.0001	572	--	0.05	0.00005
4	1	S_F_Oxic 4wk	485.8	0.02	0.07	1	23	--	31	--	--	--	0.01	0.1	--	--	0.1	0.0001	568	--	0.05	0.00005
8	2	S_F_Oxic 8 week	--	0.06	0.07	1	22	--	27	--	--	--	0.01	0.1	--	--	0.1	0.0001	619	--	0.05	0.00005
ANOXIC AGING TEST																						
0	0	S_F_Time 0	275.6	0.02	0.05	1	28	--	40	--	--	--	0.37	0.1	--	--	0.1	0.0001	543	--	0.05	0.00005
4	1	S_F_Anox 1mo	429	0.02	0.05	1	25	--	37	--	--	--	0.01	0.1	--	--	0.1	0.0001	547	--	0.05	0.00005
8	2	S_F_Anox 2mo	426	0.02	0.05	1	27	--	40	--	--	--	0.01	0.1	--	--	0.1	0.0001	556	--	0.05	0.00005
16	4	S_F_Anox 4 mo	430	0.02	0.05	1	25	--	36	--	--	--	0.01	0.1	--	--	0.1	0.0001	519	--	0.05	0.00005
32	8	S_F_Anox 8mo	426	0.16	0.05	1	26	--	37	--	--	--	0.01	0.71	--	--	0.1	0.0001	492	--	0.05	0.00005
BLANKS																						
		S_F_O Blk 7/21	--	--	--	--	1	--	1	--	--	--	--	--	--	--	0.1	0.0001	0.3	--	0.05	0.00005
		S_F_An Blk 1/29	0.6	0.02	0.05	1	1	--	1	--	--	--	0	0	--	--	0.1	0.0001	0.4	--	0.05	0.00005

Data red and italicized are below
the detection limit

Madrid North Aging Tests
Suluk Flotation Tailings

Week	Month	SRK ID	Al mg/L	As ug/L	As mg/L	Ba ug/L	Ba mg/L	Be ug/L	Be mg/L	B mg/L	Bi mg/L	Ca mg/L	Cd ug/L	Cd mg/L	Co mg/L	Cr ug/L	Cr mg/L	Cu ug/L	Cu mg/L	Fe mg/L	K mg/L	Li mg/L
OXIC AGING TEST																						
0	0	S_F_Time 0	0.05	438	0.438	9.85	0.00985	0.1	0.0001	--	--	71.3	0.25	0.00025	--	9.5	0.0095	1	0.001	0.05	45.1	--
1	0.25	S_F_Oxic 1wk	0.05	339.8	0.3398	10.82	0.01082	0.1	0.0001	--	--	75	0.02	0.00002	--	10	0.01	1.2	0.0012	0.05	45.4	--
2	0.5	S_F_Oxic 2wk	0.05	246.6	0.2466	10.2	0.0102	0.1	0.0001	--	--	66.4	0.3	0.0003	--	8.4	0.0084	1.8	0.0018	0.05	45.9	--
4	1	S_F_Oxic 4wk	0.05	211	0.211	10.9	0.0109	0.1	0.0001	--	--	59.6	0.22	0.00022	--	4.8	0.0048	1.4	0.0014	0.05	47.2	--
8	2	S_F_Oxic 8 week	0.05	192	0.192	9.64	0.00964	0.1	0.0001	--	--	60.1	0.27	0.00027	--	8.6	0.0086	1	0.001	0.628	52.3	--
ANOXIC AGING TEST																						
0	0	S_F_Time 0	0.05	438	0.438	9.85	0.00985	0.1	0.0001	--	--	71.3	0.25	0.00025	--	9.5	0.0095	1	0.001	0.05	45.1	--
4	1	S_F_Anox 1mo	0.05	490.3	0.4903	9.4	0.0094	0.1	0.0001	--	--	72.3	0.02	0.00002	--	6.4	0.0064	1.8	0.0018	0.05	45	--
8	2	S_F_Anox 2mo	0.05	491	0.491	8.9	0.0089	0.1	0.0001	--	--	74	0.27	0.00027	--	3.8	0.0038	1	0.001	0.05	43.2	--
16	4	S_F_Anox 4 mo	0.05	575	0.575	9.5	0.0095	0.4	0.0004	--	--	67	0.04	0.00004	--	2.7	0.0027	1.2	0.0012	0.05	44.3	--
32	8	S_F_Anox 8mo	0.05	420	0.42	8.6	0.0086	0.1	0.0001	--	--	63.1	0.02	0.00002	--	0.2	0.0002	1	0.001	0.072	34.1	--
BLANKS																						
		S_F_O Blk 7/21	0.05	0.2	0.0002	0.05	0.00005	0.1	0.0001	--	--	0.05	0.02	0.00002	--	0.2	--	1	0.001	0.05	0.05	--
		S_F_An Blk 1/29	0.05	0.2	0.0002	0.05	0.00005	0.1	0.0001	--	--	0.059	0.02	0.00002	--	0.2	--	1	0.001	0.05	0.05	--

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the detection limit

Madrid North Aging Tests
Suluk Flotation Tailings

Week	Month	SRK ID	Mg mg/L	Mn mg/L	Mo ug/L	Mo mg/L	Na mg/L	Ni ug/L	Ni mg/L	P mg/L	Pb ug/L	Pb mg/L	Sb ug/L	Sb mg/L	Se ug/L	Se mg/L	Si mg/L	Sn mg/L	Sr ug/L	Sr mg/L	Ti mg/L	Tl ug/L
OXIC AGING TEST																						
0	0	S_F_Time 0	88.8	0.021	102.3	0.1023	54.8	37.1	0.0371	0.05	0.1	0.0001	6.64	0.00664	15.3	0.0153	4.1	--	247	0.247	--	0.03
1	0.25	S_F_Oxic 1wk	90.6	0.042	100.76	0.10076	54.8	42.37	0.04237	0.34	0.1	0.0001	6.52	0.00652	14.5	0.0145	3.79	--	234	0.234	--	0.05
2	0.5	S_F_Oxic 2wk	98.8	0.052	103.71	0.10371	58.4	27.26	0.02726	0.25	0.7	0.0007	6.66	0.00666	15.2	0.0152	3.44	--	183	0.183	--	0.07
4	1	S_F_Oxic 4wk	102	0.056	123.3	0.1233	57.3	17.9	0.0179	0.29	0.1	0.0001	6.82	0.00682	14	0.014	3.18	--	147	0.147	--	0.03
8	2	S_F_Oxic 8 week	114	0.053	114.9	0.1149	62.5	10.9	0.0109	19.7	0.1	0.0001	6.09	0.00609	14	0.014	13.41	--	128	0.128	--	0.06
ANOXIC AGING TEST																						
0	0	S_F_Time 0	88.8	0.021	102.3	0.1023	54.8	37.1	0.0371	0.05	0.1	0.0001	6.64	0.00664	15.3	0.0153	4.1	--	247	0.247	--	0.03
4	1	S_F_Anox 1mo	89.1	0.024	110	0.11	56.8	20.2	0.0202	0.4	0.1	0.0001	3.2	0.0032	13.1	0.0131	2.6	--	244	0.244	--	0.03
8	2	S_F_Anox 2mo	90.3	0.025	102	0.102	58.3	20.1	0.0201	0.44	0.1	0.0001	3.1	0.0031	10.4	0.0104	2.8	--	249	0.249	--	0.05
16	4	S_F_Anox 4 mo	85.5	0.021	113	0.113	57.4	14.5	0.0145	0.32	0.1	0.0001	2.4	0.0024	7.4	0.0074	2.9	--	225	0.225	--	0.03
32	8	S_F_Anox 8mo	81.4	0.022	107	0.107	53.8	19.2	0.0192	0.07	0.1	0.0001	2.6	0.0026	3.3	0.0033	1.86	--	207	0.207	--	0.09
BLANKS																						
		S_F_O Blk 7/21	0.05	0.01	0.79	0.00079	0.05	0.02	0.00002	18	0.1	0.0001	0.06	0.00006	0.2	0.0002	18	--	0.05	0.00005	--	0.03
		S_F_An Blk 1/29	0.05	0.01	0.04	0.00004	0.239	0.02	0.00002	0.05	0.1	0.0001	0.04	0.00004	0.2	0.0002	0.05	--	0.05	0.00005	--	0.03

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the detection limit

Madrid North Aging Tests
Suluk Flotation Tailings

Week	Month	SRK ID	Tl mg/L	U ug/L	U mg/L	V mg/L	W mg/L	Y mg/L	Zn mg/L
OXIC AGING TEST									
0	0	S_F_Time 0	0.00003	--	--	--	--	--	0.0117
1	0.25	S_F_Oxic 1wk	0.00005	--	--	--	--	--	0.0139
2	0.5	S_F_Oxic 2wk	0.00007	--	--	--	--	--	0.017
4	1	S_F_Oxic 4wk	0.00003	--	--	--	--	--	0.015
8	2	S_F_Oxic 8 week	0.00006	--	--	--	--	--	0.018
ANOXIC AGING TEST									
0	0	S_F_Time 0	0.00003	--	--	--	--	--	0.0117
4	1	S_F_Anox 1mo	0.00003	--	--	--	--	--	0.015
8	2	S_F_Anox 2mo	0.00005	--	--	--	--	--	0.019
16	4	S_F_Anox 4 mo	0.00003	--	--	--	--	--	0.018
32	8	S_F_Anox 8mo	0.00009	--	--	--	--	--	0.016
BLANKS									
		S_F_O Blk 7/21	0.00003	--	--	--	--	--	0.0002
		S_F_An Blk 1/29	0.00003	--	--	--	--	--	0.0002

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the detection limit

Boston Aging Tests
Boston Flotation Tailings (2008)

Week	Month	SRK ID	LIMS	Temp Upon Receipt °C	Immediates (unfiltered)			Filtered Samples											
					pH units	EC uS/cm	EMF mV	EMF Reference mV	E _H mV	DO mg/L	pH units	Alkalinity mg/L as CaCO ₃	Conductivity uS/cm	HCO ₃ mg/L as CaCO ₃	Carbonate mg/L as CaCO ₃	TDS mg/L	OH µ/L as CaC	Cl mg/L	F mg/L
OXIC AGING TEST																			
0	0	B_F_Time 0		--	--	--	--	--	--	--	8.04	134	--	--	--	351	--	21.18	0.35
1	0.25	B_F_Oxic 1wk		--	--	--	--	--	524	--	8.51	107	--	--	--	318	--	21.15	0.42
2	0.5	B_F_Oxic 2wk		--	--	--	--	--	482	--	8.1	138	--	--	--	392	--	21.47	0.41
4	1	B_F_Oxic 4wk		--	--	--	--	--	398	--	8.43	136	--	--	--	404	--	21.46	0.36
8	2	B_F_Oxic 8 week		--	--	--	--	--	--	--	8.5	141	--	--	--	470	--	27.34	0.33
ANOXIC AGING TEST																			
0	0	B_F_Time 0		--	--	--	--	--	--	--	8.04	134	--	--	--	351	--	21.18	0.35
4	1	B_F_Anox 1mo		--	--	--	--	--	312	--	--	--	--	--	--	--	--	--	--
8	2	B_F_Anox 2mo		--	--	--	--	--	310	--	7.8	83	--	--	--	564	--	206.36	0.21
16	4	B_F_Anox 4 mo		--	--	--	--	--	309	--	8.14	106	--	--	--	320	--	20.29	0.33
32	8	B_F_Anox 8mo		--	--	--	--	--	447	--	8.18	107	--	--	--	290	--	20.9	0.34

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detection limit

Boston Aging Tests
Boston Flotation Tailings (2008)

Week	Month	SRK ID	SO ₄ mg/L	NO ₂ as N mg/L	NO ₃ mg/L	NH3 mg/L	TOC mg/L	TIC mg/L	C mg/L	t. Reactive mg/L	CN(T) mg/L	CN _{WAD} mg/L	CNO mg/L	CNS mg/L	CN(F) mg/L	(S2O3)2- mg/L	Hg ug/L	Hg mg/L	Hardness µ/L as CaC	Ra 226 Bq/L	Ag ug/L	Ag mg/L
OXIC AGING TEST																						
0	0	B_F_Time 0	115.2	0.04	0.06	1	--	--	--	--	--	--	0.01	0.1	--	--	0.1	0.0001	222	--	0.05	0.00005
1	0.25	B_F_Oxic 1wk	100.8	0.2	0.5	1	--	--	--	--	--	--	--	0.1	--	--	0.1	0.0001	180	--	0.05	0.00005
2	0.5	B_F_Oxic 2wk	129.9	0.06	0.08	1	--	--	--	--	--	--	--	0.1	--	--	0.1	0.0001	256	--	0.05	0.00005
4	1	B_F_Oxic 4wk	147.9	0.05	0.11	1	2	--	31	--	--	--	--	0.1	--	--	0.1	0.0001	267	--	0.05	0.00005
8	2	B_F_Oxic 8 week	183	0.29	0.1	1	2	--	31	--	--	--	--	0.1	--	--	0.1	0.0001	312	--	--	--
ANOXIC AGING TEST																						
0	0	B_F_Time 0	115.2	0.04	0.06	1	--	--	--	--	--	--	0.01	0.1	--	--	0.1	0.0001	222	--	0.05	0.00005
4	1	B_F_Anox 1mo	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	2	B_F_Anox 2mo	88.1	0.2	0.5	1	1	--	15	--	--	--	0.01	0.1	--	--	0.1	0.0001	169	--	0.1	0.0001
16	4	B_F_Anox 4 mo	100.3	0.06	0.07	1	2	--	25	--	--	--	0.01	0.1	--	--	0.1	0.0001	188	--	0.05	0.00005
32	8	B_F_Anox 8mo	99.4	0.1	0.05	1	2	--	24	--	--	--	0.01	0.1	--	--	0.1	0.0001	182	--	0.05	0.00005

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detection limit

Boston Aging Tests
Boston Flotation Tailings (2008)

Week	Month	SRK ID	Al mg/L	As ug/L	As mg/L	Ba ug/L	Ba mg/L	Be ug/L	Be mg/L	B mg/L	Bi mg/L	Ca mg/L	Cd ug/L	Cd mg/L	Co mg/L	Cr ug/L	Cr mg/L	Cu ug/L	Cu mg/L	Fe mg/L	K mg/L	Li mg/L	Mg mg/L
OXIC AGING TEST																							
0	0	B_F_Time 0	0.05	7.9	0.0079	8.67	0.00867	0.1	0.0001	--	--	45	0.43	0.00043	--	0.2	0.0002	1	0.001	0.065	5.1	--	26.6
1	0.25	B_F_Oxic 1wk	0.05	7.2	0.0072	5.2	0.0052	0.1	0.0001	--	--	36.8	0.31	0.00031	--	7.3	0.0073	1	0.001	0.05	3.95	--	21.4
2	0.5	B_F_Oxic 2wk	0.05	8.1	0.0081	7.8	0.0078	0.1	0.0001	--	--	48	0.02	0.00002	--	11.6	0.0116	1	0.001	0.081	6.91	--	33
4	1	B_F_Oxic 4wk	0.05	6.7	0.0067	7.18	0.00718	0.1	0.0001	--	--	44.4	0.02	0.00002	--	9.7	0.0097	1	0.001	0.05	5.48	--	37.9
8	2	B_F_Oxic 8 week	0.05	5.9	0.0059	20	0.02	0.1	0.0001	--	--	43.1	0.37	0.00037	--	--	--	--	--	0.05	5.32	--	49.8
ANOXIC AGING TEST																							
0	0	B_F_Time 0	0.05	7.9	0.0079	8.67	0.00867	0.1	0.0001	--	--	45	0.43	0.00043	--	0.2	0.0002	1	0.001	0.065	5.1	--	26.6
4	1	B_F_Anox 1mo	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	2	B_F_Anox 2mo	0.05	10.1	0.0101	8.54	0.00854	0.1	0.0001	--	--	29.3	0.3	0.0003	--	0.7	0.0007	1.8	0.0018	0.057	8.07	--	23.3
16	4	B_F_Anox 4 mo	0.05	6	0.006	6.31	0.00631	0.1	0.0001	--	--	36.5	0.02	0.00002	--	4.7	0.0047	1	0.001	0.05	4.4	--	23.6
32	8	B_F_Anox 8mo	0.05	4.4	0.0044	4.2	0.0042	0.1	0.0001	--	--	34	0.52	0.00052	--	0.2	0.0002	1	0.001	0.05	4.1	--	23.7

Data red and italicized are below the
detection limit

Boston Aging Tests
Boston Flotation Tailings (2008)

Week	Month	SRK ID	Mn mg/L	Mo ug/L	Mo mg/L	Na mg/L	Ni ug/L	Ni mg/L	P mg/L	Pb ug/L	Pb mg/L	Sb ug/L	Sb mg/L	Se ug/L	Se mg/L	Si mg/L	Sn mg/L	Sr ug/L	Sr mg/L	Ti mg/L	Tl ug/L	Tl mg/L
OXIC AGING TEST																						
0	0	B_F_Time 0	0.019	163.44	0.16344	20	5.66	0.00566	0.09	<i>0.1</i>	<i>0.0001</i>	1.96	0.00196	1.2	0.0012	0.94	--	207	0.207	--	<i>0.03</i>	0.00003
1	0.25	B_F_Oxic 1wk	0.029	117.97	0.11797	21	3.29	0.00329	0.09	<i>0.1</i>	<i>0.0001</i>	0.82	0.00082	0.6	0.0006	0.72	--	176	0.176	--	<i>0.03</i>	0.00003
2	0.5	B_F_Oxic 2wk	0.013	168.87	0.16887	22.8	3.96	0.00396	0.08	<i>0.1</i>	<i>0.0001</i>	1.8	0.0018	1.6	0.0016	1.08	--	232	0.232	--	<i>0.03</i>	0.00003
4	1	B_F_Oxic 4wk	<i>0.01</i>	152.84	0.15284	22.8	2.64	0.00264	<i>0.05</i>	<i>0.1</i>	<i>0.0001</i>	1.37	0.00137	1.7	0.0017	1.01	--	229	0.229	--	<i>0.03</i>	0.00003
8	2	B_F_Oxic 8 week	<i>0.01</i>	143.3	0.1433	21.1	--	--	0.08	<i>0.1</i>	<i>0.0001</i>	0.8	0.0008	1.7	0.0017	0.98	--	237	0.237	--	<i>0.1</i>	0.0001
ANOXIC AGING TEST																						
0	0	B_F_Time 0	0.019	163.44	0.16344	20	5.66	0.00566	0.09	<i>0.1</i>	<i>0.0001</i>	1.96	0.00196	1.2	0.0012	0.94	--	207	0.207	--	<i>0.03</i>	0.00003
4	1	B_F_Anox 1mo	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	2	B_F_Anox 2mo	0.018	108.14	0.10814	135	3.47	0.00347	0.06	<i>0.1</i>	<i>0.0001</i>	0.75	0.00075	11.5	0.0115	0.9	--	195	0.195	--	<i>0.03</i>	0.00003
16	4	B_F_Anox 4 mo	0.023	128.4	0.1284	21.7	3.04	0.00304	0.11	<i>0.1</i>	<i>0.0001</i>	0.1	0.0001	<i>0.2</i>	<i>0.0002</i>	0.76	--	187	0.187	--	<i>0.03</i>	0.00003
32	8	B_F_Anox 8mo	0.021	82.4	0.0824	22.7	2.01	0.00201	0.05	<i>0.1</i>	<i>0.0001</i>	0.08	0.00008	0.4	0.0004	0.74	--	177	0.177	--	<i>0.03</i>	0.00003

Data red and italicized are below the
detection limit

Boston Aging Tests
Boston Flotation Tailings (2008)

Week	Month	SRK ID	U ug/L	U mg/L	V mg/L	W mg/L	Y mg/L	Zn mg/L
OXIC AGING TEST								
0	0	B_F_Time 0	--	--	--	--	--	0.0037
1	0.25	B_F_Oxic 1wk	--	--	--	--	--	0.0032
2	0.5	B_F_Oxic 2wk	--	--	--	--	--	0.004
4	1	B_F_Oxic 4wk	--	--	--	--	--	0.0039
8	2	B_F_Oxic 8 week	--	--	--	--	--	--
ANOXIC AGING TEST								
0	0	B_F_Time 0	--	--	--	--	--	0.0037
4	1	B_F_Anox 1mo	--	--	--	--	--	--
8	2	B_F_Anox 2mo	--	--	--	--	--	0.0038
16	4	B_F_Anox 4 mo	--	--	--	--	--	0.004
32	8	B_F_Anox 8mo	--	--	--	--	--	<i>0.0002</i>

*Data red and italicized are below the
detection limit*

Boston Aging Tests
Boston Detoxified Tailings Residue (2008)

Week	Month	SRK ID	LIMS	Temp Upon Receipt °C	Immediates (unfiltered)			Filtered Samples								HCO ₃ mg/L as CaCO ₃	Carbonate mg/L as CaCO ₃
					pH units	EC uS/cm	EMF mV	EMF Reference mV	E _H mV	DO mg/L	pH units	Alkalinity mg/L as CaCO ₃	Conductivity uS/cm				
OXIC AGING TEST																	
0	0	CND Filtrate	SEP10322	--	--	--	242	--	--	--	8.05	111	1840	111	2		
1	0.25	Sept 15/08 BOS-A CND Comp Oxic - 1 Week	10425-SEP08	20	8.32	2040	162	206	368	--	8.22	112	1970	112	2		
2	0.5	Sept 23/08 BOS-B CND Comp Oxic - 2 Weeks	10675-SEP08	21	8.16	2130	117	206	323	--	8.2	136	2020	136	2		
4	1	Oct 6/08 BOS-C CND Comp Oxic-4 Weeks	10238-OCT08	18	8.26	2060	88	206	294	--	8.2	151	2010	151	2		
8	2	Nov 3/08 BOS-D CND Comp Oxic-8 Week	10072-NOV08	18	8.12	2220	45	206	251	--	8.34	147	2190	146	2		
ANOXIC AGING TEST																	
0	0	CND Filtrate	SEP10322	--	--	--	242	--	--	--	8.05	111	1840	111	2		
4	1	Oct 8/08 BOS-A CND Comp Anoxic-1 month	10318-OCT08	7	8.35	1964	26.2	206	232.2	--	8.3	120	1620	154	2		
8	2	Nov 7/08 BOS-B CND Comp Anoxic-2 Month	10207-NOV08	18	8.25	1860	18.4	206	224.4	--	8.19	115	1920	115	2		
16	4	Jan 8/09 BOS-C CND Comp Anoxic - 4 month	10152-JAN09	16	8.21	2020	65	206	271	--	8.37	176	2080	171	5		
32	8	May 8/09 BOS-D CND Comp Anoxic - 8 month	11183-May08	--	8.24	2480	111.4	206	317.4	0.58	8.11	189	2280	189	2		

Data red and italicized are below the detection limit

Boston Aging Tests
Boston Detoxified Tailings Residue (2008)

Week	Month	SRK ID	TDS mg/L	OH mg/L as CaCO ₃	Cl mg/L	F mg/L	SO ₄ mg/L	NO ₂ as N mg/L	NO ₃ as N mg/L	NH ₃ +NH ₄ as N mg/L	TOC mg/L	TIC mg/L	C mg/L	Reactiv mg/L	CN(T) mg/L	CN _{WAD} mg/L	CNO mg/L	CNS mg/L	CN(F) mg/L
OXIC AGING TEST																			
0	0	CND Filtrate	1350	2	15	--	510	0.06	0.06	1.3	48.2	37.4	--	0.99	40.7	12.5	120	100	--
1	0.25	Sept 15/08 BOS-A CND Comp Oxic - 1 Week	1410	2	15	--	550	0.06	0.06	1.8	48.8	60.4	109	0.84	10.4	4.74	130	110	2
2	0.5	Sept 23/08 BOS-B CND Comp Oxic - 2 Weeks	1460	2	15	--	580	0.06	0.12	2.6	34	31.2	65.2	1.1	1.3	0.71	120	130	1
4	1	Oct 6/08 BOS-C CND Comp Oxic-4 Weeks	1450	2	16	--	590	0.06	0.08	4.9	51.6	61.3	113	0.55	0.16	0.03	94	130	0.03
8	2	Nov 3/08 BOS-D CND Comp Oxic-8 Week	1530	2	15	--	710	0.06	0.06	7.3	49.7	47.2	96.8	0.09	0.33	0.01	96	130	
ANOXIC AGING TEST																			
0	0	CND Filtrate	1350	2	15	--	510	0.06	0.06	1.3	48.2	37.4	--	0.99	40.7	12.5	120	100	--
4	1	Oct 8/08 BOS-A CND Comp Anoxic-1 month	1320	2	15	--	530	0.06	0.22	1.6	56	59.9	116	0.54	4.27	1.7	110	110	2
8	2	Nov 7/08 BOS-B CND Comp Anoxic-2 Month	1300	2	14	--	580	0.06	0.3	2.7	36.9	63.9	101	0.94	1.43	0.05	110	120	
16	4	Jan 8/09 BOS-C CND Comp Anoxic - 4 month	1550	2	15	--	710	0.06	0.12	7.7	39.8	45.6	85.4	0.41	0.16	0.01	80	130	
32	8	May 8/09 BOS-D CND Comp Anoxic - 8 month	1710	2	15	--	840	0.06	1.14	19.6	33.1	52.2	85.3	0.04	0.23	0.01	29	130	

Data red and italicized are below the detection limit

Boston Aging Tests
Boston Detoxified Tailings Residue (2008)

Week	Month	SRK ID	(S2O3)2- mg/L	Hg ug/L	Hg mg/L	Hardness j/L as CaC	Ra 226 Bq/L	Ag ug/L	Ag mg/L	Al mg/L	As ug/L	As mg/L	Ba ug/L	Ba mg/L	Be ug/L	Be mg/L	B mg/L	Bi mg/L	Ca mg/L
OXIC AGING TEST																			
0	0	CND Filtrate	29	--	0.0001	180	--	--	0.014	0.02	--	4.5	--	0.023	--	0.002	0.12	<i>0.001</i>	56
1	0.25	Sept 15/08 BOS-A CND Comp Oxic - 1 Week		--	0.0003	192	--	--	0.012	0.02	--	3.43	--	0.0154	--	<i>0.0002</i>	0.06	0.0001	56
2	0.5	Sept 23/08 BOS-B CND Comp Oxic - 2 Weeks		--	0.0002	183	--	--	0.00459	<i>0.01</i>	--	2.88	--	0.0102	--	<i>0.00002</i>	0.0656	<i>0.00001</i>	45.3
4	1	Oct 6/08 BOS-C CND Comp Oxic-4 Weeks		--	<i>0.0001</i>	175	--	--	0.0007	<i>0.01</i>	--	1.83	--	0.008	--	<i>0.0002</i>	0.055	<i>0.0001</i>	34.9
8	2	Nov 3/08 BOS-D CND Comp Oxic-8 Week		--	<i>0.0001</i>	309	--	--	0.0003	0.03	--	0.529	--	0.0205	--	<i>0.0002</i>	0.081	0.0005	75.8
ANOXIC AGING TEST																			
0	0	CND Filtrate	29	--	0.0001	180	--	--	0.014	0.02	--	4.5	--	0.023	--	0.002	0.12	<i>0.001</i>	56
4	1	Oct 8/08 BOS-A CND Comp Anoxic-1 month		--	0.0002	203	--	--	0.008	0.04	--	2.9	--	0.0176	--	<i>0.0002</i>	0.072	0.003	54.2
8	2	Nov 7/08 BOS-B CND Comp Anoxic-2 Month		--	<i>0.0001</i>	242	--	--	<i>0.0001</i>	0.03	--	2.08	--	0.0192	--	<i>0.0002</i>	0.066	0.0005	60.1
16	4	Jan 8/09 BOS-C CND Comp Anoxic - 4 month		--	<i>0.0001</i>	363	--	--	<i>0.0001</i>	0.01	--	1.5	--	0.0444	--	<i>0.0002</i>	0.275	<i>0.0001</i>	82.1
32	8	May 8/09 BOS-D CND Comp Anoxic - 8 month		--	<i>0.0001</i>	465	--	--	<i>0.0001</i>	<i>0.01</i>	--	0.27	--	0.0305	--	<i>0.0002</i>	0.064	<i>0.0001</i>	101

Data red and italicized are below the detection limit

Boston Aging Tests
Boston Detoxified Tailings Residue (2008)

Week	Month	SRK ID	Cd ug/L	Cd mg/L	Co mg/L	Cr ug/L	Cr mg/L	Cu ug/L	Cu mg/L	Fe mg/L	K mg/L	Li mg/L	Mg mg/L	Mn mg/L	Mo ug/L	Mo mg/L	Na mg/L	Ni ug/L	Ni mg/L
OXIC AGING TEST																			
0	0	CND Filtrate	--	<i>0.0003</i>	2.33	--	<i>0.05</i>	--	10.5	3.29	19.3	0.003	9.78	0.031	--	0.331	645	--	5.18
1	0.25	Sept 15/08 BOS-A CND Comp Oxic - 1 Week	--	0.00009	1.59	--	<i>0.005</i>	--	2.34	1.32	19.7	<i>0.002</i>	12.8	0.0428	--	0.201	65.4	--	1.17
2	0.5	Sept 23/08 BOS-B CND Comp Oxic - 2 Weeks	--	0.00009	1.61	--	0.0017	--	0.152	0.01	18.7	<i>0.002</i>	17.1	0.00264	--	0.228	375	--	0.0084
4	1	Oct 6/08 BOS-C CND Comp Oxic-4 Weeks	--	0.0001	1.49	--	<i>0.005</i>	--	0.008	<i>0.01</i>	19.8	<i>0.002</i>	21.4	0.0218	--	0.225	366	--	0.053
8	2	Nov 3/08 BOS-D CND Comp Oxic-8 Week	--	0.00016	1.54	--	<i>0.005</i>	--	0.011	0.01	24.2	<i>0.002</i>	29.1	0.106	--	0.242	364	--	0.304
ANOXIC AGING TEST																			
0	0	CND Filtrate	--	<i>0.0003</i>	2.33	--	<i>0.05</i>	--	10.5	3.29	19.3	0.003	9.78	0.031	--	0.331	645	--	5.18
4	1	Oct 8/08 BOS-A CND Comp Anoxic-1 month	--	0.00013	1.63	--	0.01	--	0.598	0.84	19.9	0.002	16.4	0.0414	--	0.21	347	--	0.671
8	2	Nov 7/08 BOS-B CND Comp Anoxic-2 Month	--	0.00008	1.54	--	<i>0.005</i>	--	0.009	0.53	17.7	0.003	22.3	0.0323	--	0.187	303	--	0.031
16	4	Jan 8/09 BOS-C CND Comp Anoxic - 4 month	--	0.00012	1.34	--	<i>0.005</i>	--	<i>0.005</i>	0.01	18.2	<i>0.002</i>	38.5	0.0974	--	0.352	320	--	0.425
32	8	May 8/09 BOS-D CND Comp Anoxic - 8 month	--	0.00004	0.989	--	<i>0.005</i>	--	0.011	0.01	25.2	<i>0.002</i>	51.5	0.184	--	0.221	332	--	0.615

Data red and italicized are below the detection limit

Boston Aging Tests
Boston Detoxified Tailings Residue (2008)

Week	Month	SRK ID	P mg/L	Pb ug/L	Pb mg/L	Sb ug/L	Sb mg/L	Se ug/L	Se mg/L	Si mg/L	Sn mg/L	Sr ug/L	Sr mg/L	Ti mg/L	Tl ug/L	Tl mg/L	U ug/L	U mg/L
OXIC AGING TEST																		
0	0	CND Filtrate	0.01	--	0.002	--	1.78	--	0.2	2.1	0.001	--	0.174	0.01	--	0.0002	--	0.0018
1	0.25	Sept 15/08 BOS-A CND Comp Oxic - 1 Week	0.01	--	0.0005	--	1.05	--	0.1	2.11	0.0021	--	0.175	0.003	--	0.00002	--	0.00117
2	0.5	Sept 23/08 BOS-B CND Comp Oxic - 2 Weeks	0.01	--	0.00002	--	1.09	--	0.068	2.1	0.00068	--	0.158	0.0002	--	2E-06	--	0.00081
4	1	Oct 6/08 BOS-C CND Comp Oxic-4 Weeks	0.01	--	0.0002	--	0.832	--	0.03	2.02	0.0008	--	0.108	0.001	--	0.00002	--	0.00058
8	2	Nov 3/08 BOS-D CND Comp Oxic-8 Week	0.01	--	0.001	--	0.434	--	0.01	1.93	0.0021	--	0.222	0.001	--	0.00002	--	0.00099
ANOXIC AGING TEST																		
0	0	CND Filtrate	0.01	--	0.002	--	1.78	--	0.2	2.1	0.001	--	0.174	0.01	--	0.0002	--	0.0018
4	1	Oct 8/08 BOS-A CND Comp Anoxic-1 month	0.01	--	0.0004	--	0.837	--	0.01	2.19	0.0032	--	0.174	0.003	--	0.00008	--	0.00128
8	2	Nov 7/08 BOS-B CND Comp Anoxic-2 Month	0.17	--	0.0017	--	0.595	--	0.01	1.82	0.0017	--	0.199	0.002	--	0.00002	--	0.00117
16	4	Jan 8/09 BOS-C CND Comp Anoxic - 4 month	0.02	--	0.0016	--	0.052	--	0.46	1.8	0.0015	--	0.235	0.001	--	0.00002	--	0.0245
32	8	May 8/09 BOS-D CND Comp Anoxic - 8 month	0.01	--	0.0003	--	0.28	--	0.04	1.71	0.0014	--	0.276	0.009	--	0.00002	--	0.00119

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Boston Aging Tests
Boston Detoxified Tailings Residue (2008)

Week	Month	SRK ID	V mg/L	W mg/L	Y mg/L	Zn mg/L
OXIC AGING TEST						
0	0	CND Filtrate	0.024	0.045	<i>0.0001</i>	0.01
1	0.25	Sept 15/08 BOS-A CND Comp Oxic - 1 Week	0.001	0.0222	<i>0.00001</i>	0.01
2	0.5	Sept 23/08 BOS-B CND Comp Oxic - 2 Weeks	0.00124	0.03074	<i>1E-06</i>	<i>0.001</i>
4	1	Oct 6/08 BOS-C CND Comp Oxic-4 Weeks	0.0011	0.02	<i>0.00001</i>	<i>0.01</i>
8	2	Nov 3/08 BOS-D CND Comp Oxic-8 Week	<i>0.0003</i>	0.0094	0.00001	0.01
ANOXIC AGING TEST						
0	0	CND Filtrate	0.024	0.045	<i>0.0001</i>	0.01
4	1	Oct 8/08 BOS-A CND Comp Anoxic-1 month	<i>0.0003</i>	0.0224	<i>0.00001</i>	<i>0.01</i>
8	2	Nov 7/08 BOS-B CND Comp Anoxic-2 Month	<i>0.0003</i>	0.0196	<i>0.00001</i>	0.02
16	4	Jan 8/09 BOS-C CND Comp Anoxic - 4 month	<i>0.0003</i>	0.0182	<i>0.00001</i>	<i>0.01</i>
32	8	May 8/09 BOS-D CND Comp Anoxic - 8 month	<i>0.0003</i>	0.0023	<i>0.00001</i>	0.02

Data red and italicized are below the detection limit

Boston Aging Tests
Boston 2011 Flotation Tailings

Week	Month	SRK ID	LIMS	Temp	Upon Receipt	Immediates (unfiltered)				Filtered Samples									
						pH	EC	EMF	EMF Reference	E _H	DO	pH	Alkalinity	Conductivity	HCO ₃	Carbonate	TDS	OH	Cl
					°C	units	uS/cm	mV	mV	mV	mg/L	units	mg/L as CaCO ₃	uS/cm	mg/L as CaCO ₃	mg/L as CaCO ₃	mg/L	mg/L as CaCO ₃	mg/L
OXIC AGING TEST																			
0	0				--	--	--	--	--	--	--	8.45	228	--	--	--	244	--	16.6
1	0.25				--	--	--	--	--	--	--	8.39	198	--	--	--	248	--	18
2	0.5				--	--	--	--	--	--	--	8.48	198	--	--	--	264	--	16.1
4	1				--	--	--	--	--	--	--	8.44	212	--	--	--	298	--	17.7
8	2				--	--	--	--	--	--	--	8.4	201	--	--	--	300	--	16
ANOXIC AGING TEST																			
0	0				--	--	--	--	--	--	--	8.45	228	--	--	--	244	--	16.6
4	1				--	--	--	--	--	--	--	8.51	178	--	--	--	230	--	16.3
8	2				--	--	--	--	--	--	--	8.6	164	--	--	--	198	--	16.4
16	4				--	--	--	--	--	--	--	8.82	161	--	--	--	212	--	16
32	8				--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Data red and italicized are below
the detection limit

Boston Aging Tests
Boston 2011 Flotation Tailings

Week	Month	SRK ID	F mg/L	SO ₄ mg/L	NO ₂ as N mg/L	NO ₃ as N mg/L	NH3 as N mg/L	TOC mg/L	TIC mg/L	C mg/L	Tot. Reactive P mg/L	CN(T) mg/L	CN _{WAD} mg/L	CNO mg/L	CNS mg/L	CN(F) mg/L	(S2O3)2- mg/L	Hg ug/L	Hg mg/L	Hardness mg/L as CaCO ₃	Ra 226 Bq/L
OXIC AGING TEST																					
0	0		0.2	20.3	<i>0.01</i>	<i>0.01</i>	0.11	12	--	47	--	0.13	<i>0.01</i>	--	--	0.02	--	0.037	0.000037	--	--
1	0.25		0.23	28	<i>0.01</i>	<i>0.01</i>	0.01	7	--	44	--	0.04	<i>0.01</i>	--	--	<i>0.01</i>	--	0.012	0.000012	--	--
2	0.5		0.19	--	0.12	0.02	0.1	8	--	46	--	<i>0.01</i>	<i>0.01</i>	--	--	<i>0.01</i>	--	0.082	0.000082	--	--
4	1		0.21	45.4	<i>0.01</i>	<i>0.01</i>	0.31	7	--	48	--	--	--	--	--	--	--	0.003	0.000003	--	--
8	2		0.21	58.9	<i>0.01</i>	<i>0.01</i>	0.02	8	--	40	--	<i>0.01</i>	<i>0.01</i>	--	--	<i>0.01</i>	--	0.004	0.000004	--	--
ANOXIC AGING TEST																					
0	0		0.2	20.3	<i>0.01</i>	<i>0.01</i>	0.11	12	--	47	--	0.13	<i>0.01</i>	--	--	0.02	--	0.037	0.000037	--	--
4	1		0.21	--	--	<i>0.01</i>	--	5	--	45	--	0.05	0.56	--	--	<i>0.01</i>	--	<i>0.1</i>	<i>0.0001</i>	--	--
8	2		0.24	22	<i>0.01</i>	<i>0.01</i>	0.04	9	--	35	--	0.06	0.01	--	--	<i>0.01</i>	--	<i>0.1</i>	<i>0.0001</i>	--	--
16	4		0.18	22	<i>0.01</i>	<i>0.01</i>	0.05	--	--	--	--	<i>0.01</i>	--	--	--	--	<i>0.2</i>	--	--	--	--
32	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Data red and italicized are below
the detection limit

Boston Aging Tests
Boston 2011 Flotation Tailings

Week	Month	SRK ID	Ag ug/L	Ag mg/L	Al mg/L	As ug/L	As mg/L	Ba ug/L	Ba mg/L	Be ug/L	Be mg/L	B mg/L	Bi mg/L	Ca mg/L	Cd ug/L	Cd mg/L	Co mg/L	Cr ug/L	Cr mg/L	Cu ug/L	Cu mg/L	Fe mg/L
OXIC AGING TEST																						
0	0		0.17	0.00017	1.16	10.7	0.0107	5.87	0.00587	<i>0.1</i>	<i>0.0001</i>	--	--	24.2	0.26	0.00026	--	4.5	0.0045	11.7	0.0117	0.339
1	0.25		0.78	0.00078	<i>0.05</i>	26.9	0.0269	1.88	0.00188	<i>0.1</i>	<i>0.0001</i>	--	--	19.1	0.09	0.00009	--	18.3	0.0183	32.3	0.0323	0.06
2	0.5		<i>0.05</i>	<i>0.00005</i>	<i>0.05</i>	17.6	0.0176	1.24	0.00124	<i>0.1</i>	<i>0.0001</i>	--	--	20.1	<i>0.02</i>	<i>0.00002</i>	--	20.2	0.0202	<i>1</i>	<i>0.001</i>	1.67
4	1		<i>0.05</i>	<i>0.00005</i>	0.27	14.5	0.0145	1.24	0.00124	<i>0.1</i>	<i>0.0001</i>	--	--	20.9	<i>0.02</i>	<i>0.00002</i>	--	2.3	0.0023	<i>1</i>	<i>0.001</i>	<i>0.05</i>
8	2		<i>0.05</i>	<i>0.00005</i>	0.27	8.8	0.0088	1.04	0.00104	<i>0.1</i>	<i>0.0001</i>	--	--	20.7	<i>0.02</i>	<i>0.00002</i>	--	10.8	0.0108	1.2	0.0012	<i>0.05</i>
ANOXIC AGING TEST																						
0	0		0.17	0.00017	1.16	10.7	0.0107	5.87	0.00587	<i>0.1</i>	<i>0.0001</i>	--	--	24.2	0.26	0.00026	--	4.5	0.0045	11.7	0.0117	0.339
4	1		<i>0.05</i>	<i>0.00005</i>	<i>0.05</i>	7	0.007	1.57	0.00157	<i>0.1</i>	<i>0.0001</i>	--	--	15	<i>0.02</i>	<i>0.00002</i>	--	3	0.003	2	0.002	0.057
8	2		<i>0.05</i>	<i>0.00005</i>	<i>0.05</i>	10.7	0.0107	1.42	0.00142	<i>1</i>	<i>0.001</i>	--	--	12.2	<i>0.02</i>	<i>0.00002</i>	--	1.6	0.0016	<i>1</i>	<i>0.001</i>	0.109
16	4		0.12	0.00012	<i>0.05</i>	13	0.013	1.56	0.00156	0.1	0.0001	--	--	10.8	<i>0.02</i>	<i>0.00002</i>	--	3.9	0.0039	1	0.001	0.111
32	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Data red and italicized are below
the detection limit

Boston Aging Tests
Boston 2011 Flotation Tailings

Week	Month	SRK ID	K mg/L	Li mg/L	Mg mg/L	Mn mg/L	Mo ug/L	Mo mg/L	Na mg/L	Ni ug/L	Ni mg/L	P mg/L	Pb ug/L	Pb mg/L	Sb ug/L	Sb mg/L	Se ug/L	Se mg/L	Si mg/L	Sn mg/L
OXIC AGING TEST																				
0	0		16.5	--	17.8	0.029	41.2	0.0412	51.1	3.4	0.0034	0.05	0.7	0.0007	2.94	0.00294	0.7	0.0007	--	--
1	0.25		20.3	--	18.7	0.012	55	0.055	55.7	9.44	0.00944	0.7	<i>0.1</i>	<i>0.0001</i>	2.07	0.00207	0.8	0.0008	1.46	--
2	0.5		--	--	--	0.005	50.9	0.0509	--	4.08	0.00408	--	<i>0.1</i>	<i>0.0001</i>	2.3	0.0023	0.8	0.0008	1.82	--
4	1		21.9	--	22.8	0.003	52.8	0.0528	60.3	3.84	0.00384	0.48	<i>0.1</i>	<i>0.0001</i>	1.54	0.00154	0.4	0.0004	1.54	--
8	2		21.8	--	27.2	0.004	53.5	0.0535	59.3	1.7	0.0017	0.37	<i>0.1</i>	<i>0.0001</i>	1.01	0.00101	0.7	0.0007	1.57	--
ANOXIC AGING TEST																				
0	0		16.5	--	17.8	0.029	41.2	0.0412	51.1	3.4	0.0034	0.05	0.7	0.0007	2.94	0.00294	0.7	0.0007	--	--
4	1		18	--	14.9	0.011	46.2	0.0462	54.7	1.2	0.0012	1.04	<i>0.1</i>	<i>0.0001</i>	1.84	0.00184	0.9	0.0009	1.67	--
8	2		16.9	--	13.3	0.006	49.5	0.0495	55	0.53	0.00053	0.31	<i>0.1</i>	<i>0.0001</i>	1.77	0.00177	0.3	0.0003	1.57	--
16	4		12.9	--	3	0.005	52.2	0.0522	42.8	2	0.002	<i>0.1</i>	<i>0.1</i>	<i>0.0001</i>	1.57	0.00157	0.2	0.0002	1.4	--
32	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Data red and italicized are below
the detection limit

Boston Aging Tests
Boston 2011 Flotation Tailings

Week	Month	SRK ID	Sr ug/L	Sr mg/L	Ti mg/L	TI ug/L	TI mg/L	U ug/L	U mg/L	V mg/L	W mg/L	Y mg/L	Zn mg/L
OXIC AGING TEST													
0	0		84	0.084	--	0.29	0.00029	<i>0.1</i>	<i>0.0001</i>	--	--	--	0.036
1	0.25		84	0.084	--	<i>0.03</i>	<i>0.00003</i>	<i>0.1</i>	<i>0.0001</i>	--	--	--	0.002
2	0.5		72	0.072	--	<i>0.03</i>	<i>0.00003</i>	<i>0.1</i>	<i>0.0001</i>	--	--	--	0.006
4	1		66	0.066	--	<i>0.03</i>	<i>0.00003</i>	<i>0.1</i>	<i>0.0001</i>	--	--	--	0.013
8	2		70	0.07	--	<i>0.03</i>	<i>0.00003</i>	<i>0.1</i>	<i>0.0001</i>	--	--	--	0.039
ANOXIC AGING TEST													
0	0		84	0.084	--	0.29	0.00029	<i>0.1</i>	<i>0.0001</i>	--	--	--	0.036
4	1		70	0.07	--	<i>0.03</i>	<i>0.00003</i>	<i>0.1</i>	<i>0.0001</i>	--	--	--	0.039
8	2		70	0.07	--	<i>0.03</i>	<i>0.00003</i>	<i>0.1</i>	<i>0.0001</i>	--	--	--	0.041
16	4		61	0.061	--	0.09	0.00009	0.1	0.0001	--	--	--	15.5
32	8		--	--	--	--	--	--	--	--	--	--	--

*Data red and italicized are below
the detection limit*

Boston Aging Tests
Boston Mixed Tailings (2011)

Week	Month	Sample ID	LIMS	Immediates (unfiltered)				Filtered Samples										OH	Cl
				Temp Upon Receipt °C	pH units	EC uS/cm	EMF mV	EMF Reference mV	E _H mV	DO mg/L	pH units	Alkalinity mg/L as CaCO ₃	Conductivity uS/cm	HCO ₃ mg/L as CaCO ₃	Carbonate mg/L as CaCO ₃	TDS mg/L			
OXIC AGING TEST																			
0	0			--	--	--	--	--	--	--	8.06	352	--	--	--	925	--	17.9	
1	0.25			--	--	--	--	--	--	--	8.55	254	--	--	--	940	--	18.1	
2	0.5			--	--	--	--	--	--	--	8.39	216	--	--	--	1025	--	18.3	
4	1			--	--	--	--	--	--	--	8.43	--	--	--	--	1080	--	19.6	
8	2			--	--	--	--	--	--	--	8.19	172	--	--	--	--	--	--	
ANOXIC AGING TEST																			
0	0			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
4	1			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
8	2			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
16	4			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
32	8			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Data red and italicized are below
the detection limit

Boston Aging Tests
Boston Mixed Tailings (2011)

Week	Month	Sample ID	F mg/L	SO ₄ mg/L	NO ₂ as N mg/Las	NO ₃ mg/Las N	NH3 mg/L	TOC mg/L	TIC mg/L	C mg/L	Tot. Reactive P mg/L	CN(T) mg/L	CN _{WAD} mg/L	CNO mg/L	CNS mg/L	CN(F) mg/L	(S2O3)2- mg/L	Hg ug/L	Hg mg/L	Hardness µ/L as CaC	Ra 226 Bq/L	Ag ug/L
OXIC AGING TEST																						
0	0		0.15	423	0.03	0.33	2	12	--	58	--	2.28	<i>0.01</i>	25.2	16.7	<i>0.01</i>	4.8	--	9.4	--	--	0.5
1	0.25		0.13	469	0.04	0.14	2.9	7	--	53	--	1.59	<i>0.01</i>	19.8	17.5	<i>0.01</i>	<i>0.01</i>	--	5.9	--	--	<i>0.05</i>
2	0.5		0.12	500	0.03	0.17	4.8	6	--	48	--	<i>0.01</i>	<i>0.01</i>	20.7	2.94	<i>0.01</i>	<i>0.01</i>	--	--	--	--	<i>1</i>
4	1		0.1	620	<i>0.01</i>	0.05	10.1	6	--	41	--	<i>0.01</i>	<i>0.01</i>	3.4	<i>0.2</i>	<i>0.02</i>	<i>0.01</i>	--	--	--	--	<i>0.05</i>
8	2		--	671	--	--	11.4	--	--	--	--	<i>0.01</i>	<i>0.01</i>	--	--	0.02	--	--	--	--	--	<i>1</i>
ANOXIC AGING TEST																						
0	0		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	2		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
32	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Data red and italicized are below
the detection limit

Boston Aging Tests
Boston Mixed Tailings (2011)

Week	Month	Sample ID	Ag mg/L	Al mg/L	As ug/L	As mg/L	Ba ug/L	Ba mg/L	Be ug/L	Be mg/L	B mg/L	Bi mg/L	Ca mg/L	Cd ug/L	Cd mg/L	Co mg/L	Cr ug/L	Cr mg/L	Cu ug/L	Cu mg/L	Fe mg/L	K mg/L	Li mg/L
OXIC AGING TEST																							
0	0		0.0005	0.01	20.8	0.0208	15.2	0.0152	0.3	0.0003	--	--	162	0.02	0.00002	--	5.3	0.0053	22	0.022	0.3	39	--
1	0.25		0.00005	0.005	24.5	0.0245	14.7	0.0147	0.4	0.0004	--	--	158	0.02	0.00002	--	5.7	0.0057	7.6	0.0076	0.2	40	--
2	0.5		0.001	0.004	32.4	0.0324	14.3	0.0143	2	0.002	--	--	144	0.02	0.00002	--	6	0.006	20	0.02	0.2	39	--
4	1		0.00005	0.01	4.6	0.0046	10.9	0.0109	2	0.002	--	--	--	--	--	--	8.4	0.0084	7.7	0.0077	--	--	--
8	2		0.001	0.027	20	0.02	12.4	0.0124	20	0.02	--	--	78	--	--	--	4	0.004	20	0.02	0.3	20	--
ANOXIC AGING TEST																							
0	0		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	2		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
32	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Data red and italicized are below
the detection limit

Boston Aging Tests
Boston Mixed Tailings (2011)

Week	Month	Sample ID	Mg mg/L	Mn mg/L	Mo ug/L	Mo mg/L	Na mg/L	Ni ug/L	Ni mg/L	P mg/L	Pb ug/L	Pb mg/L	Sb ug/L	Sb mg/L	Se ug/L	Se mg/L	Si mg/L	Sn mg/L	Sr ug/L	Sr mg/L	Ti mg/L	TI ug/L	TI mg/L
OXIC AGING TEST																							
0	0		121	0.075	66.7	0.0667	244	28	0.028	<i>0.1</i>	0.4	0.0004	17.5	0.0175	10.4	0.0104	1.94	--	239	0.239	--	0.33	0.00033
1	0.25		126	0.055	65.8	0.0658	247	32	0.032	<i>0.1</i>	0.5	0.0005	12.7	0.0127	9.9	0.0099	1.89	--	251	0.251	--	0.35	0.00035
2	0.5		127	0.056	60.3	0.0603	242	42	0.042	<i>0.1</i>	<i>2</i>	<i>0.002</i>	9.6	0.0096	8.5	0.0085	1.84	--	244	0.244	--	<i>0.6</i>	<i>0.0006</i>
4	1		--	0.049	55.2	0.0552	--	35	0.035	<i>0.1</i>	<i>0.1</i>	<i>0.0001</i>	4.4	0.0044	3.6	0.0036	--	--	252	0.252	--	<i>0.03</i>	<i>0.00003</i>
8	2		79	0.038	46.5	0.0465	136	25.5	0.0255	<i>0.01</i>	<i>2</i>	<i>0.002</i>	4.9	0.0049	<i>20</i>	<i>0.02</i>	1.86	--	246	0.246	--	<i>2</i>	<i>0.002</i>
ANOXIC AGING TEST																							
0	0		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4	1		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
8	2		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16	4		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
32	8		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Data red and italicized are below
the detection limit

Boston Aging Tests
Boston Mixed Tailings (2011)

Week	Month	Sample ID	U ug/L	U mg/L	V mg/L	W mg/L	Y mg/L	Zn mg/L
OXIC AGING TEST								
0	0		<i>0.1</i>	<i>0.0001</i>	--	--	--	0.058
1	0.25		0.1	0.0001	--	--	--	0.02
2	0.5		<i>2</i>	<i>0.002</i>	--	--	--	0.018
4	1		<i>0.1</i>	<i>0.0001</i>	--	--	--	0.035
8	2		<i>2</i>	<i>0.002</i>	--	--	--	0.033
ANOXIC AGING TEST								
0	0		--	--	--	--	--	--
4	1		--	--	--	--	--	--
8	2		--	--	--	--	--	--
16	4		--	--	--	--	--	--
32	8		--	--	--	--	--	--

*Data red and italicized are below
the detection limit*

Appendix N – Figures, Aging Tests

