

NELHA Water Quality Laboratory

Anchialine Pond A3

7/9/2012 - 6/30/2025

Site ID	Date M/D/Y	Time (2400)	Tide (ft) cycle	PO ₄ ³⁻ (µM) (µg P/L)	NO ₃ ⁻ & NO ₂ ⁻ (µM) (µg N/L)	NH ₄ ⁺ & NH ₃ (µM) (µg Si/L)	Si (µM) (µg Si/L)	TDP (µM) (µg P/L)	TDN (µM) (µg N/L)	Turbidity (NTU)	Salinity (PSU)	Chloride (mg/L)	Temp. (°C)	pH (unit)	DO (ppm)	Chl a (µg/L)	OPR (mV)
A3	7/9/12	1111	1.2 Ebb	3.3 102	92.9 1301	0.8 10.7	562 15780	3.1 97	98.2 1376	0.39	13.76	7617	22.0	7.97	7.83	0.07	
A3	10/8/12	1035	1.8 High	3.4 106	97.5 1366	2.4 34.3	589 16537	3.4 106	103.7 1453	0.60	11.82	6543	22.0	7.94	7.30	0.32	
A3	1/3/13	1039	1.2 Ebb	3.5 107	94.1 1318	1.3 17.7	553 15523	3.5 108	100.2 1403	0.10	12.56	6952	20.9	7.99	7.90	0.04	
A3	4/1/13	1019	0.4 Ebb	3.6 110	95.7 1341	1.2 17.1	549 15431	3.4 104	96.0 1345	2.79	12.91	7146	20.9	7.84	6.90	0.12	
A3	7/8/13	950	-0.1 Low	3.3 102	92.6 1297	1.61 22.5	565 15859	3.26 101	103 1441	5.62	13.08	7240	22.6	7.68	7.44	1.21	
A3	10/10/13	1047	1.7 Ebb	3.2 100	92.5 1295	1.20 16.8	529 14871	3.06 95	92 1287	0.31	12.89	7135	23.6	7.94	7.85	0.19	
A3	1/22/14	855	0.7 High	3.3 102	104.0 1457	0.9 12	552 15512	3.3 101	107 1501	0.02	12.85	7113	21.0	7.97	7.04	0.03	
A3	4/9/14	1014	0.7 Flood	3.1 97	99.5 1393	2.3 32	513 14415	2.9 89	108 1511	0.05	12.84	7107	21.0	7.85	7.30	0.02	
A3	7/16/14	1058	0.5 Ebb	3.4 104	98.6 1381	1.58 22.1	503 14121	3.32 103	97 1353	0.18	13.59	7522	21.9	7.86	7.59	0.07	
A3	10/15/14	1218	1.5 Ebb	2.9 90	93.2 1306	0.79 11.1	494 13861	3.12 97	102 1428	0.41	14.60	8081	25.4	7.87	6.61	0.09	
A3	2/3/15	909	0.5 Ebb	3.9 122	120.2 1683	1.5 21	594 16682	4.2 129	118 1659	0.24	12.38	6853	20.3	7.73	7.21	0.04	
A3	5/5/15	1608	2.0 High	3.7 115	110.4 1547	1.1 16	430 12082	3.2 99	115 1616	0.58	12.94	7163	22.8	7.96	7.97	0.13	
A3	7/10/15	1044	1.4 Flood	3.5 109	105.0 1471	0.8 12	477 13411	3.7 116	109 1527	0.23	12.54	6941	21.5	7.77	8.01	0.04	
A3	11/5/15	935	1.2 Flood	3.7 115	115.4 1616	0.91 12.7	506 14218	3.61 112	123 1729	0.30	11.77	6515	21.7	7.72	7.03	0.13	
A3	1/19/16	1014	-0.2 Low	4.0 124	127.1 1781	0.6 9	486 13639	4.0 123	133 1858	0.61	12.31	6814	20.7	7.83	7.68	0.18	
A3	4/12/16	1154	0.2 Ebb	4.1 126	103.5 1450	0.7 10	479 13443	6.2 191	119 1673	2.33	12.72	7041	20.8	7.97	7.67	0.25	
A3	7/14/16	1126	1.4 Flood	3.4 107	101.2 1417	0.3 5	458 12876	3.2 100	102 1434	0.31	15.51	8585	22.7	7.97	6.88	0.19	
A3	10/20/16	1047	1.0 Ebb	6.3 196	174.4 2444	1.8 26	833 23391	7.2 222	182 2556	0.32	13.42	7428	24.3	8.04	6.80	0.26	
A3	2/23/17	1034	0.5 Flood	3.5 109	103.1 1444	0.3 4	528 14834	3.6 112	109 1531	0.26	12.00	6642	20.0	7.90	7.25	0.02	
A3	4/10/17	1013	-0.1 Flood	3.4 104	107.3 1503	0.8 12	527 14800	3.4 106	110 1545	0.29	13.44	7439	20.7	7.87	6.79	0.01	
A3	7/13/17	1056	0.3 Low	3.2 98	102.1 1430	0.5 7	515 14466	3.0 93	98 1377	0.14	13.65	7556	21.1	7.87	5.22	0.01	
A3	10/12/17	1032	2.0 High	3.2 98	101.7 1424	0.8 11	533 14961	3.2 98	105 1474	0.20	12.22	6764	21.9	7.77	6.45	0.01	
A3	1/11/18	1023	1.0 Flood	2.5 77	94.4 1322	0.7 10	442 12411	3.1 95	105 1474	0.11	12.31	6814	19.9	7.89	7.04	0.02	
A3	4/24/18	1033	0.8 Flood	3.3 101	104.0 1457	0.4 6	513 14412	3.4 107	107 1495	0.15	13.23	7323	20.0	7.84	7.20	0.01	
A3	7/12/18	1005	-0.3 Low	3.5 109	100.7 1411	0.5 7	493 13850	3.6 112	102 1432	0.18	13.07	7235	21.1	7.74	6.91	0.06	
A3	10/11/18	956	0.6 Ebb	3.3 102	101.2 1417	0.6 9	503 14139	3.2 101	103 1444	0.18	13.49	7467	21.5	7.72	4.90	0.05	
A3	1/15/19	1013	1.3 High	3.4 106	106.2 1488	0.4 5	473 13292	3.3 103	113 1580	0.21	12.86	7118	20.4	7.88	7.00	0.02	
A3	4/25/19	934	0.5 Ebb	3.5 110	103.1 1444	0.4 6	498 13977	3.5 109	111 1562	0.22	12.40	6864	20.7	7.67	7.03	0.09	
A3	7/17/19	959	0.0 Flood	3.9 120	100.6 1409	0.3 4	528 14833	3.6 113	100 1398	0.64	13.53	7489	21.5	7.90	7.49	0.17	
A3	10/8/19	1020	1.3 Flood	3.6 112	134.5 1884	1.0 15	530 14887	3.5 107	143 2001	0.42	12.45	6891	21.7	7.89	7.22	0.10	
A3	1/9/20	1005	0.4 Low	3.8 119	121.9 1708	0.7 11	541 15181	3.7 115	122 1713	0.27	13.59	7522	20.7	7.89	6.75	0.02	
A3	5/21/20	1121	0.5 Flood	3.3 102	103.6 1451	0.8 11	505 14193	3.3 103	118 1653	1.73	11.73	6493	21.6	7.91	7.92	0.85	
A3	7/14/20	1054	0.4 High	4.0 122	106.0 1484	0.3 4	457 12846	3.4 105	115 1608	0.44	10.70	5923	21.7	7.86	7.18	0.17	
A3	10/14/20	1010	0.2 Flood	3.8 117	117.8 1650	0.6 8	534 15010	3.3 102	114 1590	0.78	12.07	6681	21.7	7.84	7.74	0.29	
A3	1/14/21	934	0.9 Ebb	4.9 153	126.1 1766	2.4 33	505 14189	3.8 119	127 1778	0.65	12.09	6692	21.3	7.80	6.89	0.18	
A3	4/13/21	1007	-0.2 Low	3.3 104	105.1 1472	3.1 44	504 14148	3.3 102	115 1612.0	0.59	12.38	6853	21.2	7.83	7.86	0.19	
A3	7/1/21	1432	0.7 Low	2.9 90	105.4 1477	1.1 15	518 14536	3.0 93	107 1494	0.40	13.11	7257	21.9	7.99	8.89	0.18	
A3	10/19/21	1328	1.5 Flood	3.2 98	99.4 1392	1.1 15	493 13860	3.2 99	103 1442	1.01	12.82	7096	22.3	7.93	8.84	0.13	
A3	2/3/22	1023	0.3 Ebb	3.3 101	102.3 1432	0.8 11	507 14245	3.3 102	111 1553	0.68	12.35	6836	21.0	7.87	7.83	0.15	
A3	4/12/22	1053	0.7 Flood	3.0 94	121.2 1698	0.5 7	557 15639	3.2 98	114 1600	0.25	11.86	6565	21.7	7.98	9.42	0.19	

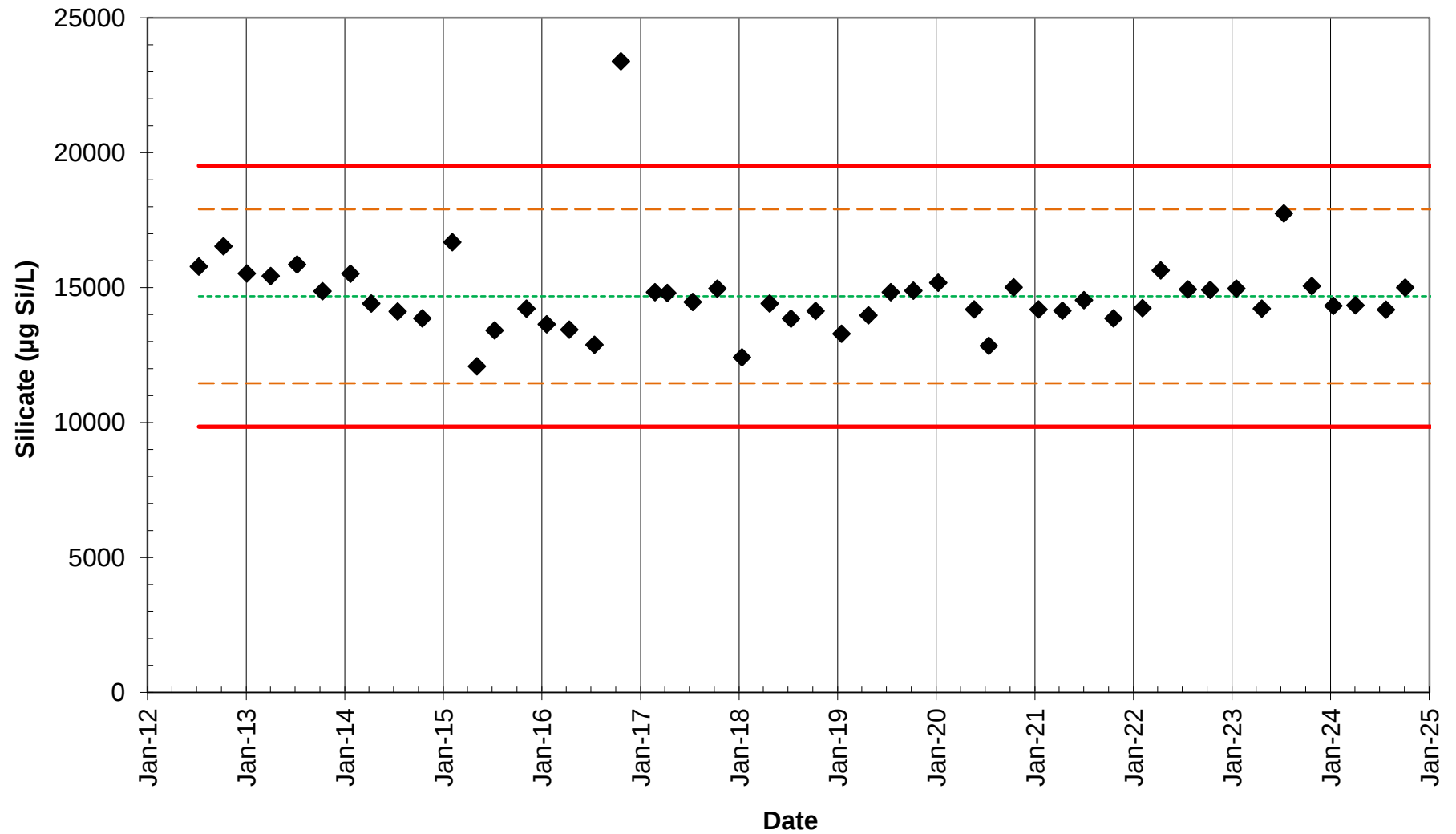
NELHA Water Quality Laboratory

Anchialine Pond A3

7/9/2012 - 6/30/2025

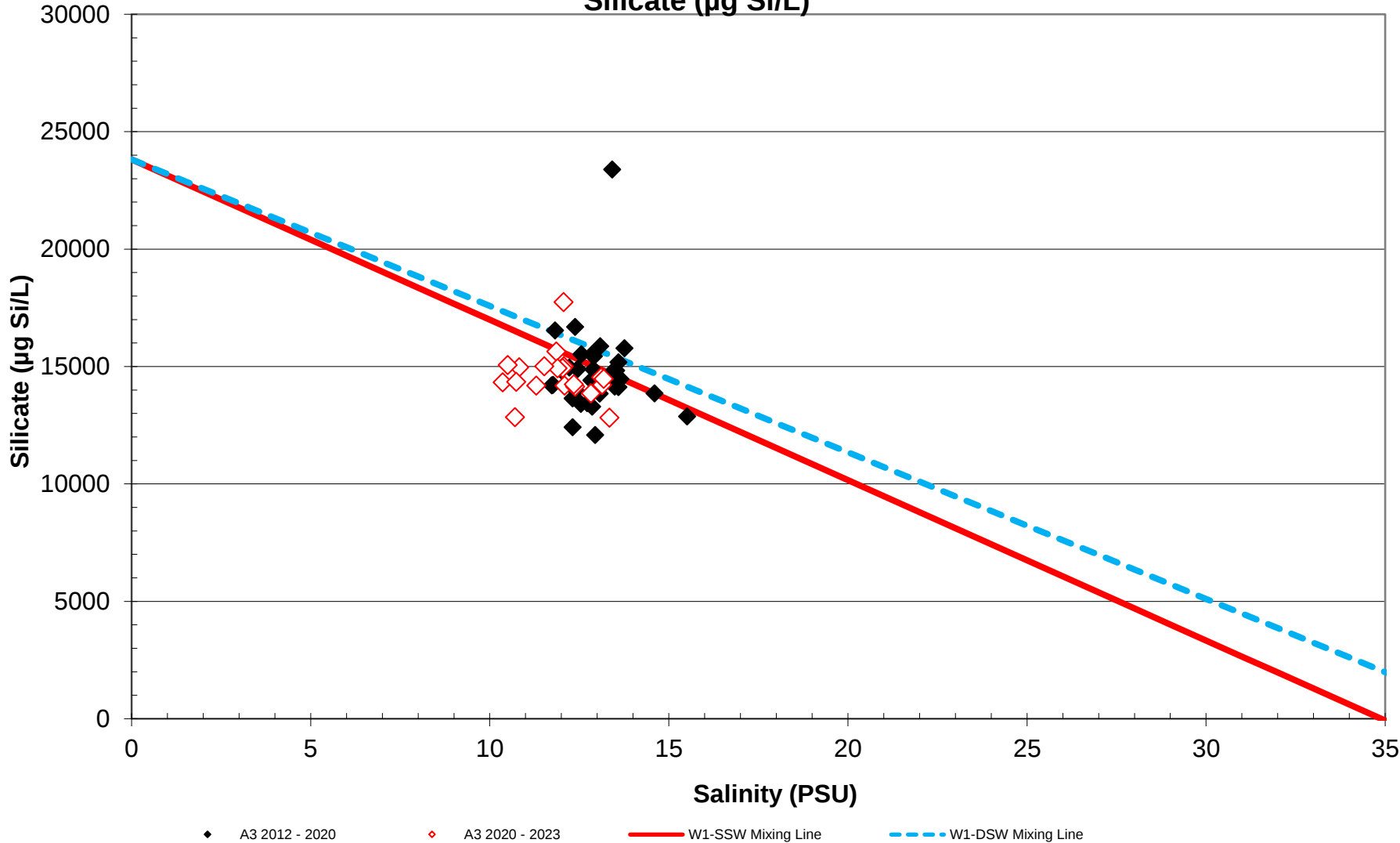
Site ID	Date M/D/Y	Time (2400)	Tide (ft) cycle	PO ₄ ³⁻ (μM) (μg P/L)		NO ₃ ⁻ & NO ₂ ⁻ (μM) (μg N/L)		NH ₄ ⁺ & NH ₃ (μM) (μg Si/L)		Si (μM) (μg Si/L)		TDP (μM) (μg P/L)		TDN (μM) (μg N/L)		Turbidity (NTU)	Salinity (PSU)	Chloride (mg/L)	Temp. (°C)	pH (unit)	DO (ppm)	Chl a (μg/L)	OPR (mV)
A3	7/21/22	1107	1.5 High	2.9	90	109.7	1536	1.2	17	532	14937	3.0	94	119	1668	0.51	12.03	6659	23.4	7.98	8.44	0.27	
A3	10/12/22	936	0.2 Low	4.2	130	115.3	1615	3.9	54	531	14920	4.2	132	119	1667	0.23	11.89	6581	23.5	7.89	7.24	0.20	
A3	1/17/23	951	1.0 High	3.3	102	116.4	1630	0.8	11	533	14963	3.3	102	116	1621	0.33	10.82	5989	20.6	8.01	8.14	0.10	
A3	4/21/23	1000	-0.2 Flood	3.0	94	107.7	1508	0.3	5	506	14220	3.0	94	108	1518.0	1.85	13.14	7273	20.4	7.94	8.29	1.50	
A3	7/12/23	1535	1.4 Ebb	3.1	95	107.8	1510	1.0	13	632	17746	3.0	93	109	1520	0.45	12.06	6676	25.0	7.99	9.45	0.07	
A3	10/24/23	1603	1.3 Ebb	3.1	96	119.3	1671	1.5	21	536	15062	3.1	97	127	1780	0.79	10.50	5812	24.7	8.07	9.60	0.25	
A3	1/11/24	1438	1.0 High	3.2	100	119.1	1668	0.6	8	510	14328	3.4	106	125	1754	0.48	10.36	5735	21.7	7.96	8.42	0.14	138.6
A3	4/2/24	1448	0.1 Low	3.0	93	114.3	1602	1.0	13	511	14348	2.9	91	120	1686.4	0.65	10.74	5945	21.4	8.05	8.70	0.14	234.6
A3	7/24/24	1006	0.3 Low	2.9	90	112.3	1572	0.9	13	505	14186	3.2	98	116	1626	0.48	11.30	6255	23.9	7.87	7.81	0.12	199.4
A3	10/4/24	952	0.5 Low	3.3	103	122.5	1716	0.9	12	534	15005	3.1	97	119	1662	0.86	11.52	6377	22.8	7.86	7.76	0.19	312.6
A3	1/7/25	917	1.4 High	2.9	90	114.0	1597	0.9	13	516	14479	2.8	88	117	1634	0.43	13.18	7295	21.9	7.87	7.77	0.06	260.0
A3	4/1/25	1035	-0.3 Low	2.7	83	93.8	1314	1.1	15	457	12824	2.9	89	103	1439.2	0.56	13.34	7384	23.3	7.95	8.47	0.30	236.9
Mean			0.74	3.44	107	108.4	1519	1.04	15	523	14680	3.45	107.0	112.7	1578	0.63	13	6948	21.81	7.89	8	0.2	230.4
Std. Dev.			1	0.58	18	13.7	192	0.71	10	57	1612	0.72	22.3	14.1	197	0.89	1	550	1.30	0.09	1	0.27	58.4
Maximum			2.00	6.3	196	174	2444	3.9	54	833	23391	7.2	222	182	2556	5.62	16	8585	25.4	8.07	10	1.5	312.6
Minimum			-0.32	2.49	77	92.45	1295	0.26	4	430	12082	3	87.5	92	1287	0.02	10	5735	19.93	7.67	5	0.01	138.6
n			52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	6

Anchialine Pond A3 Silicate ($\mu\text{g Si/L}$)

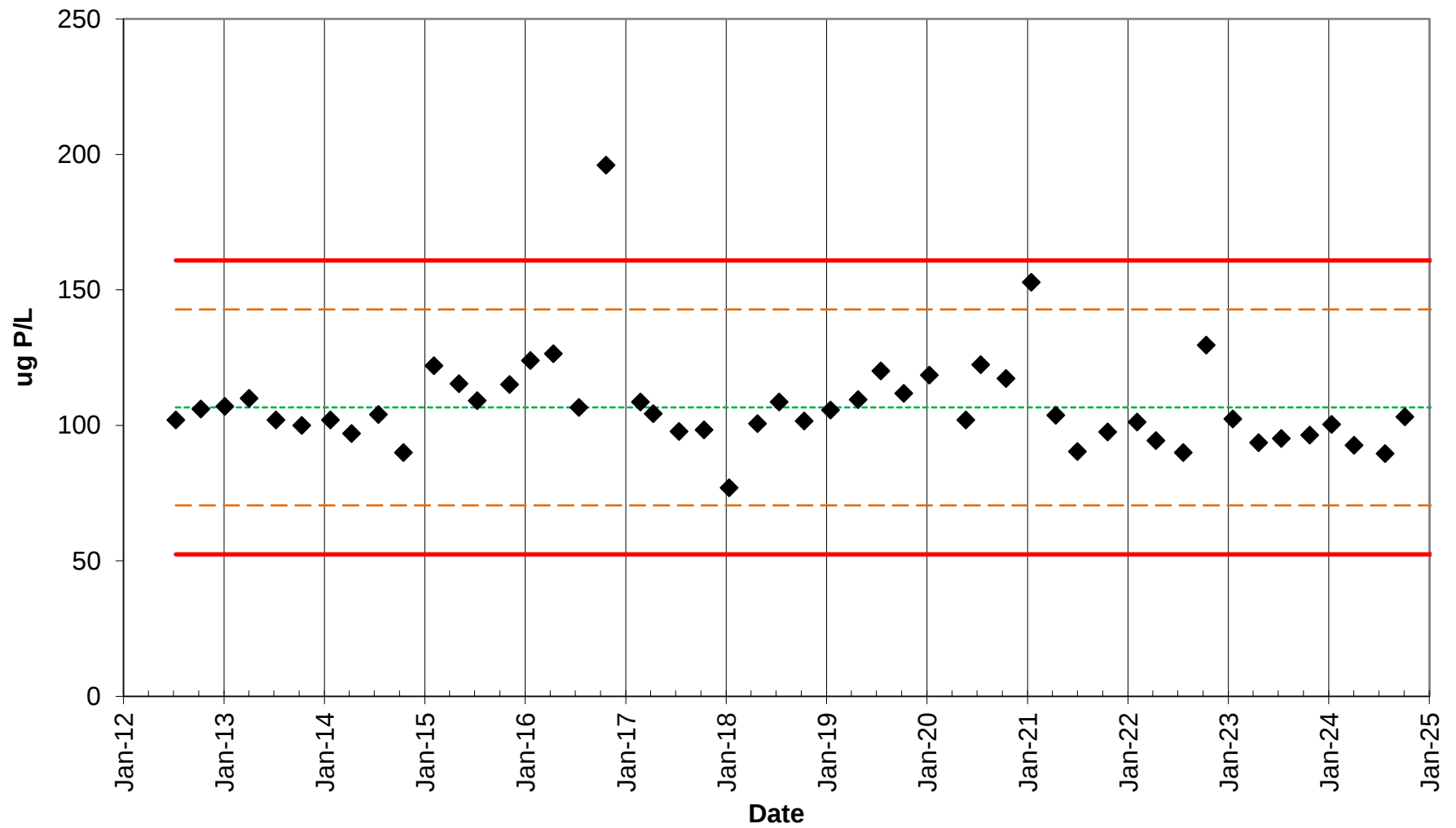


◆ A3 (n=52, Control Chart 2012 - 2017) +3s (19518 $\mu\text{g Si/L}$) +2s (17905 $\mu\text{g Si/L}$) - - - - Mean (14680 $\mu\text{g Si/L}$) - - - - -2s (11455 $\mu\text{g Si/L}$) -3s (9843 $\mu\text{g Si/L}$)

**Anchialine Pond A3
Conservative Mixing Model
Silicate ($\mu\text{g Si/L}$)**

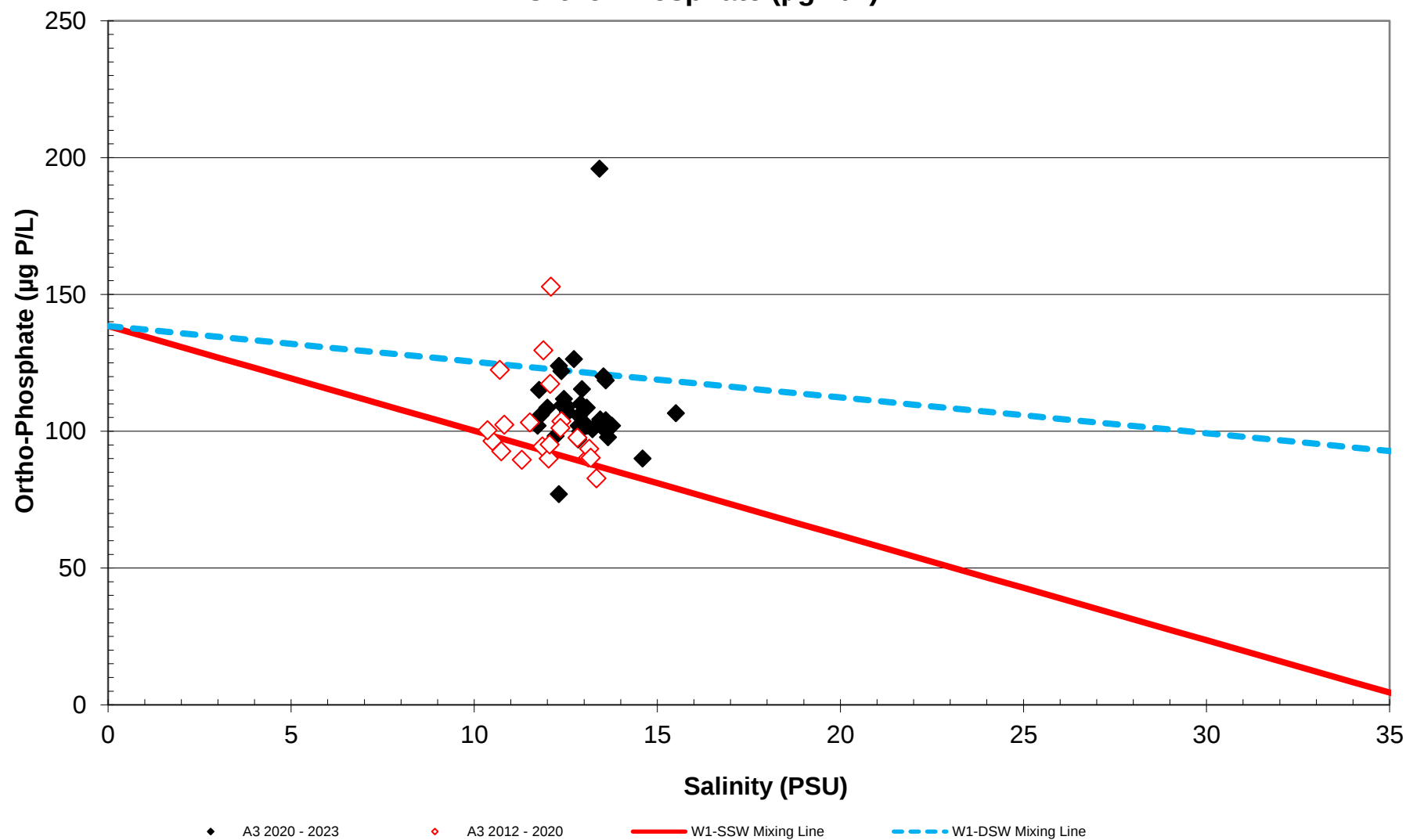


Anchialine Pond A3 Ortho-Phosphate

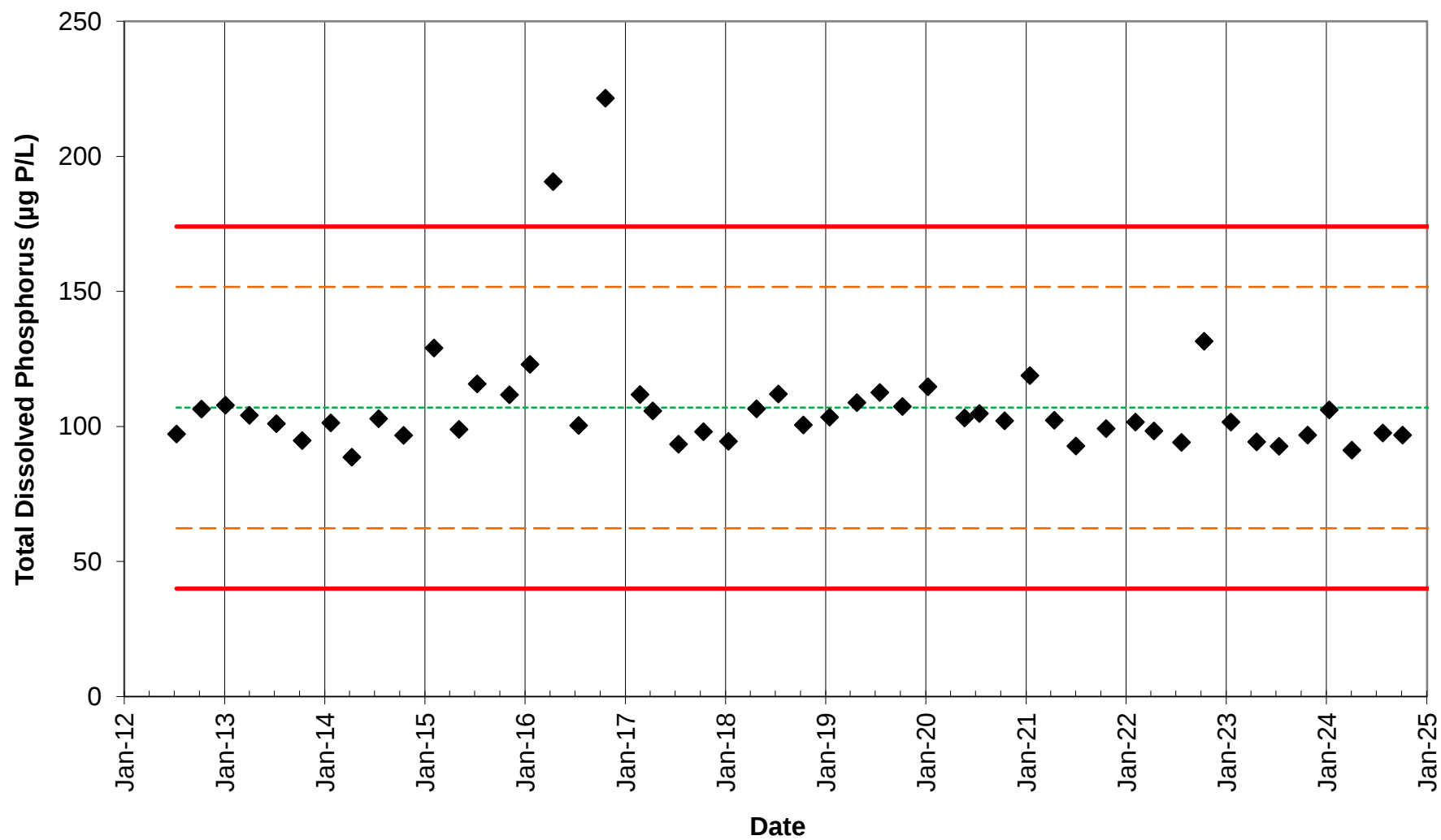


◆ A3 (n=52, Control Chart 2012 - 2017) -3s (52 µg P/L) -2s (70 µg P/L) - - - Mean (107 µg P/L) +2s (143 µg P/L) +3s (161 µg P/L)

Anchialine Pond A3
Conservative Mixing Model
Ortho-Phosphate ($\mu\text{g P/L}$)

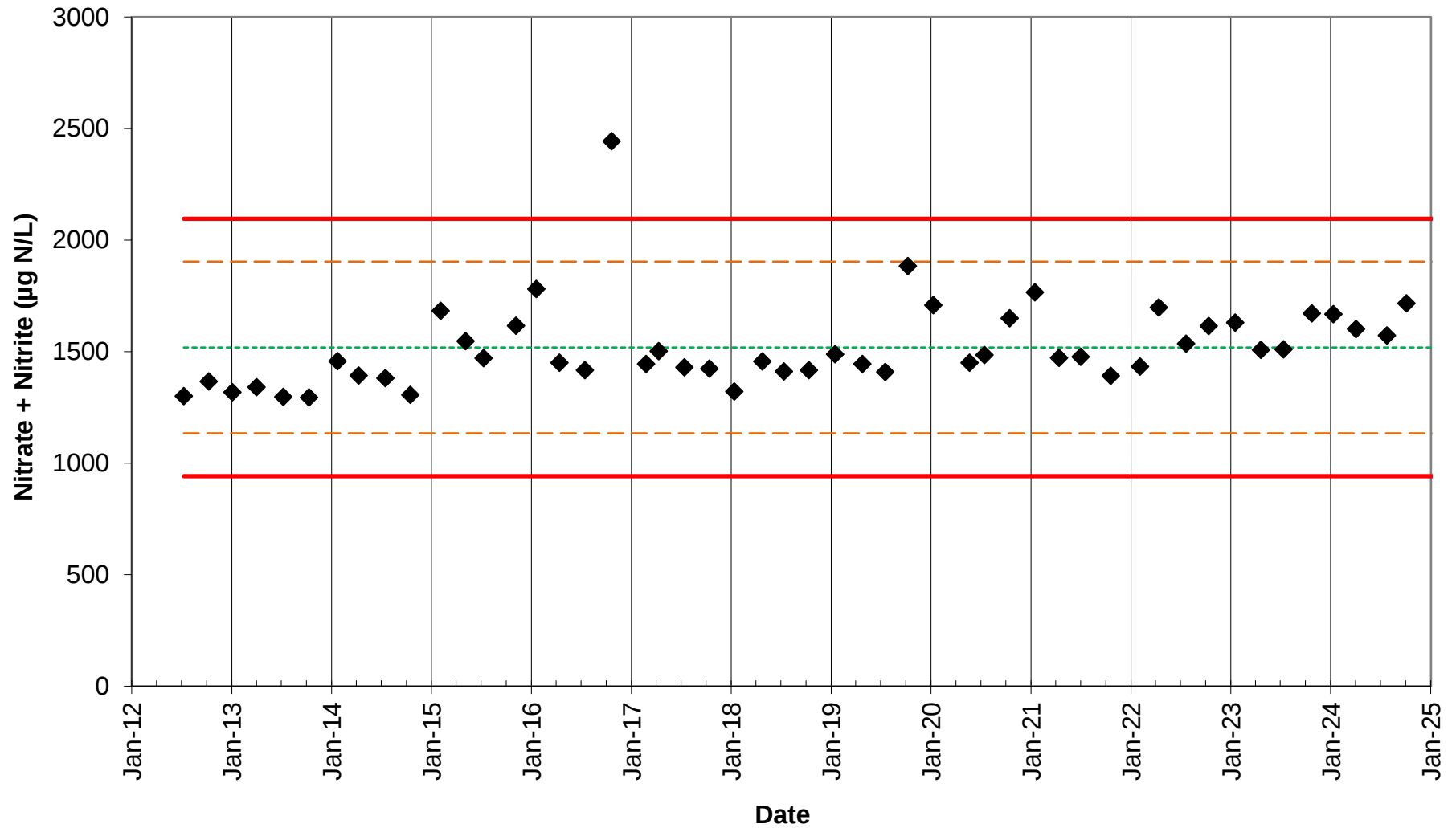


Anchialine Pond A3 Total Dissolved Phosphorus ($\mu\text{g P/L}$)



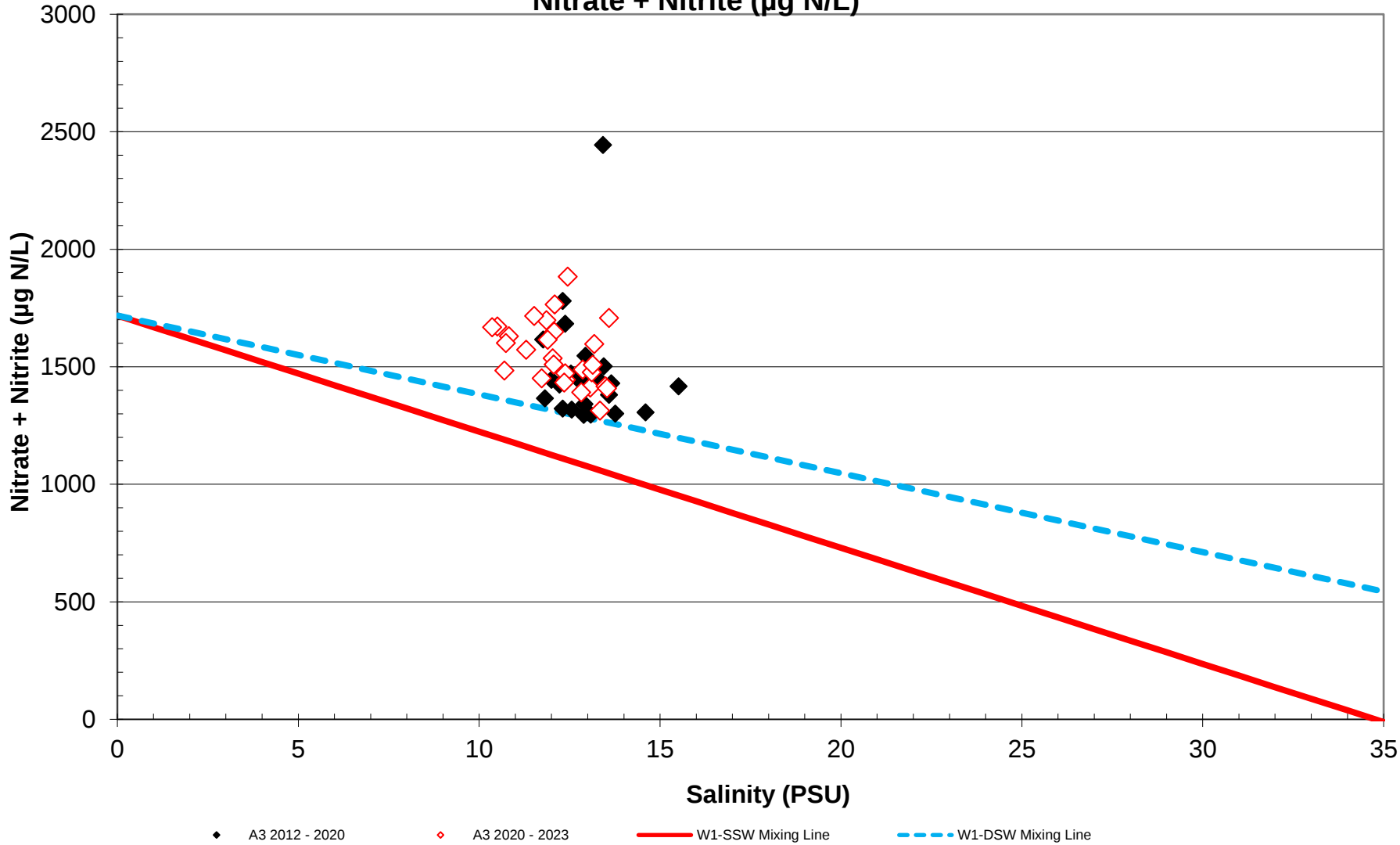
◆ A3 (n=52, Control Chart 2012 - Present) +3s (174 $\mu\text{g P/L}$) +2s (152 $\mu\text{g P/L}$) - - - - Mean (107 $\mu\text{g P/L}$) - - - - -2s (62 $\mu\text{g P/L}$) -3s (40 $\mu\text{g P/L}$)

Anchialine Pond A3
Nitrate + Nitrite ($\mu\text{g N/L}$)

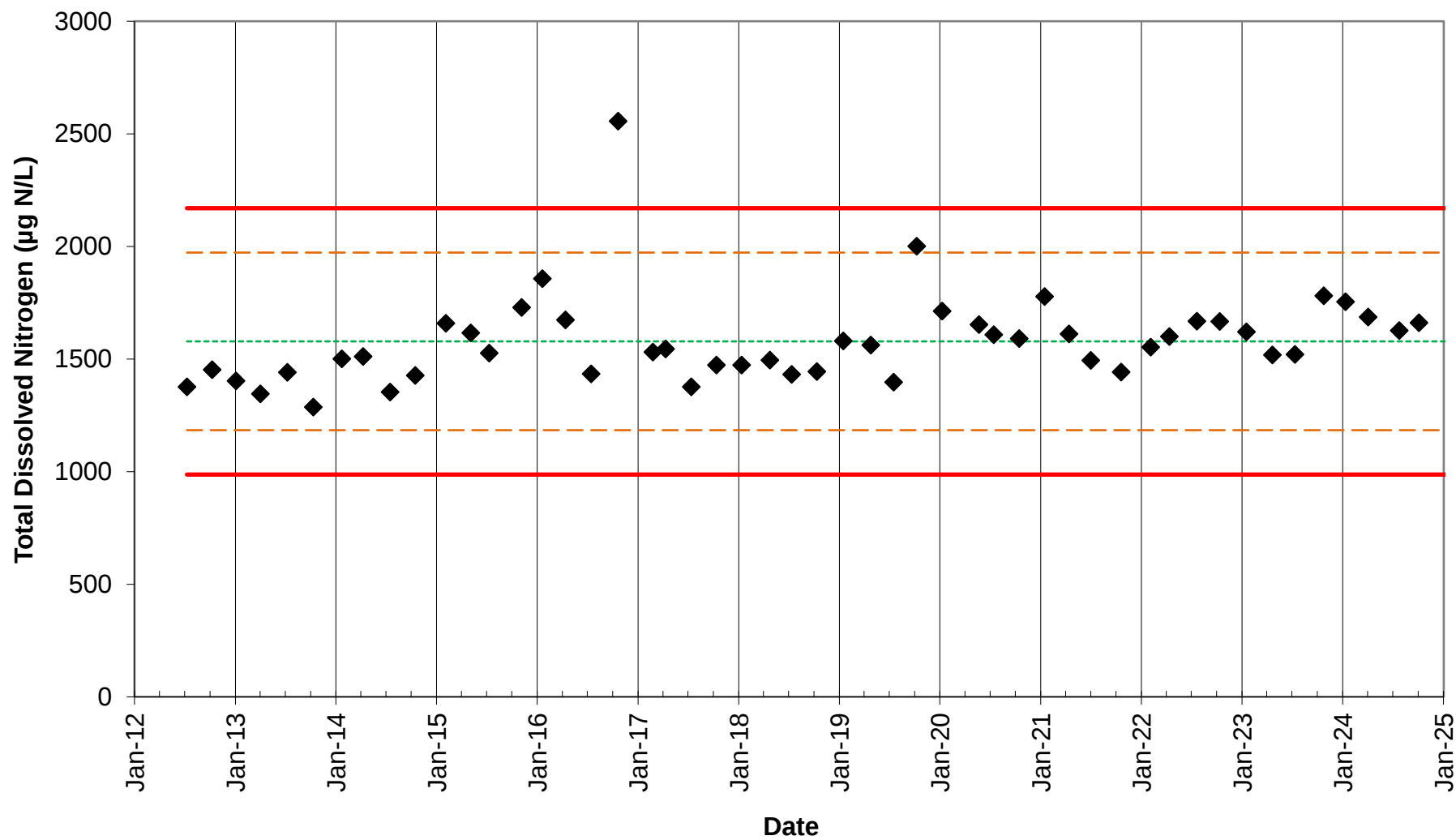


◆ A3 (n=52, Control Chart 2012 - 2017) — +3s (2096 $\mu\text{g N/L}$) - - +2s (1903 $\mu\text{g N/L}$) - - - Mean (1519 $\mu\text{g N/L}$) - - -2s (1134 $\mu\text{g N/L}$) — -3s (941 $\mu\text{g N/L}$)

Anchialine Pond A3
Conservative Mixing Model
Nitrate + Nitrite ($\mu\text{g N/L}$)

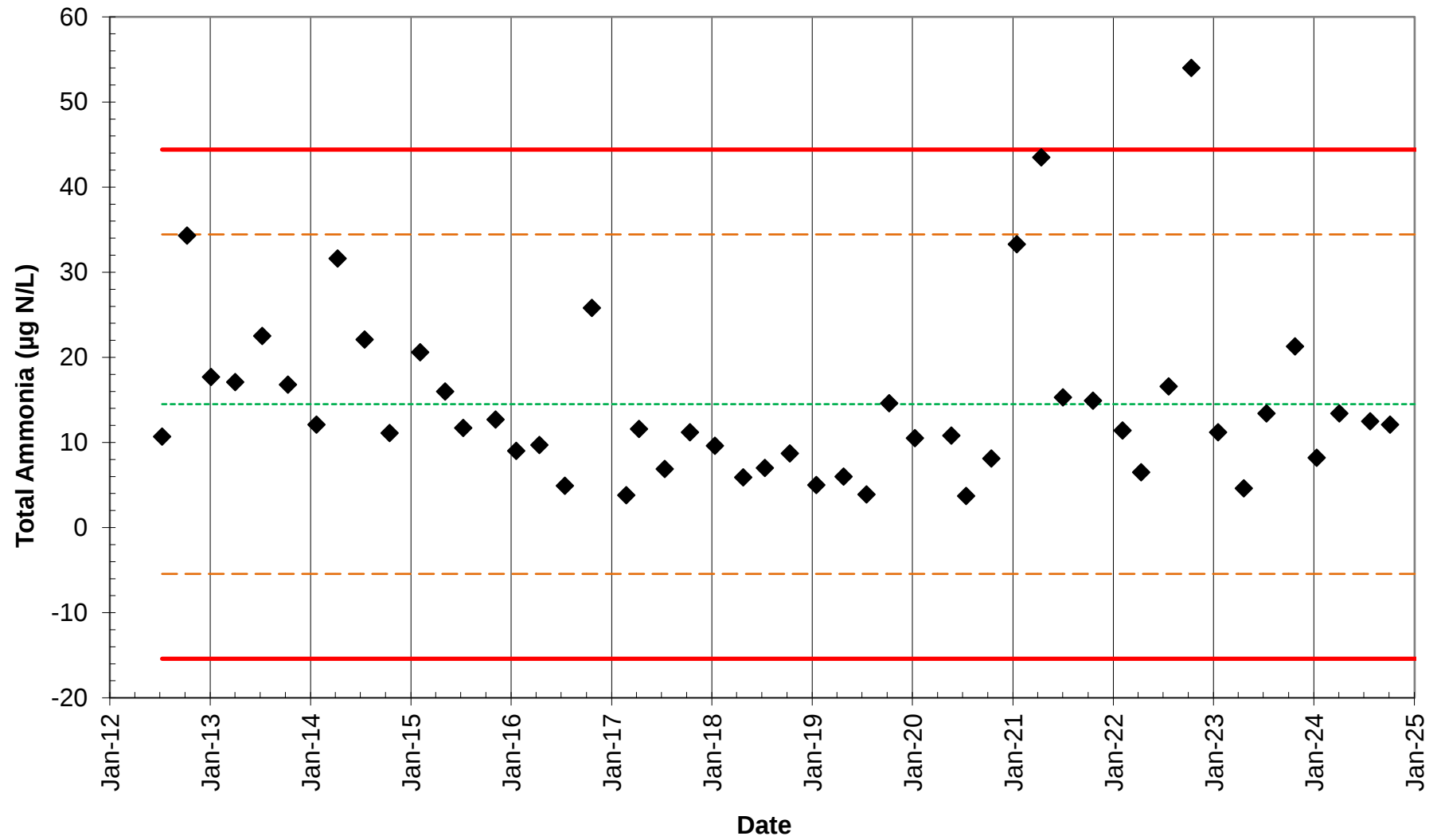


Anchialine Pond A3 Total Dissolved Nitrogen ($\mu\text{g N/L}$)



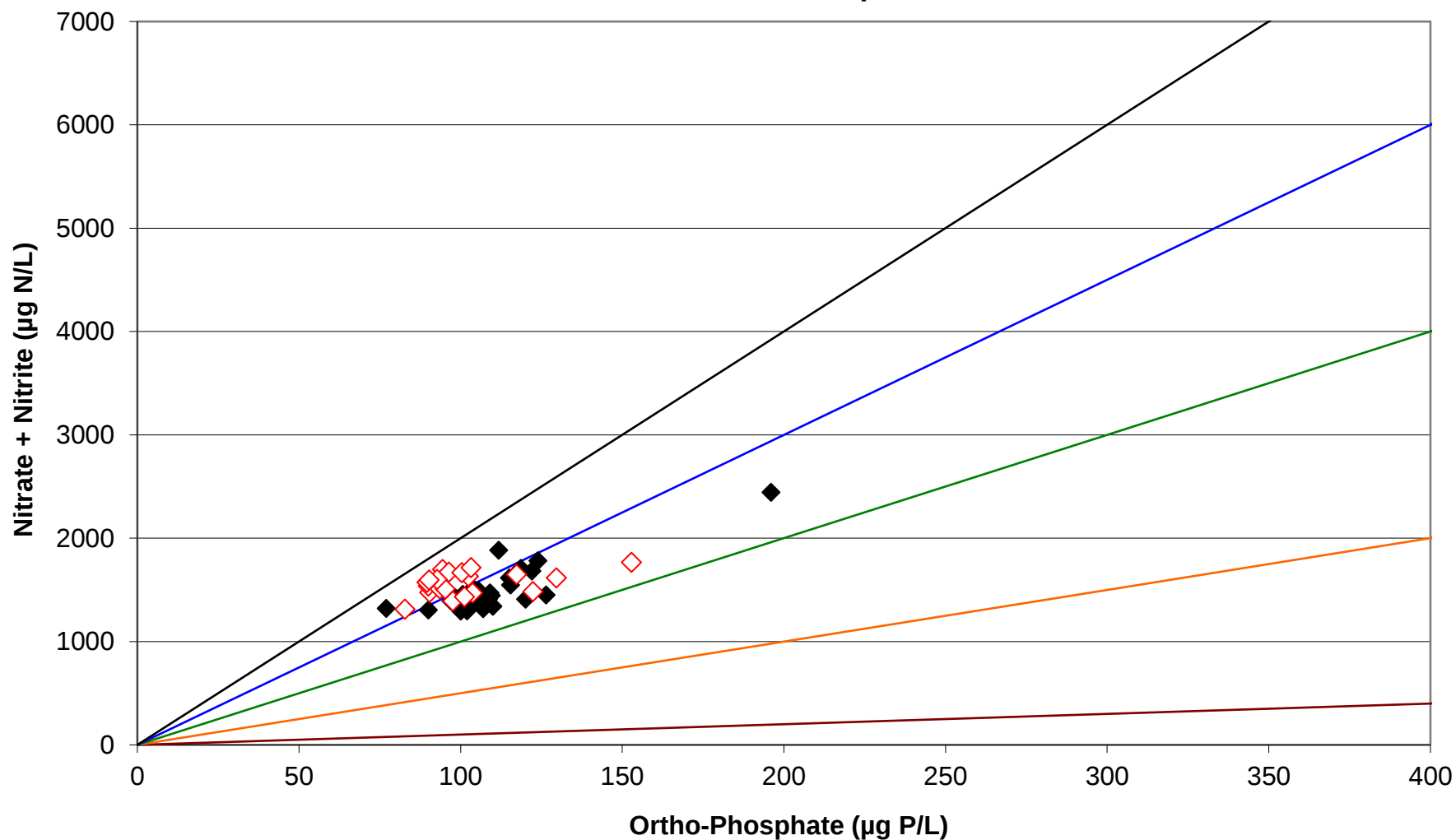
◆ A3 (n=52, Control Chart 2012 - Present) — -3s (987.0 $\mu\text{g N/L}$) - -2s (1184.1 $\mu\text{g N/L}$) - - Mean (1578.4 $\mu\text{g N/L}$) - +2s (1972.7 $\mu\text{g N/L}$) — +3s (2169.9 $\mu\text{g N/L}$)

Anchialine Pond A3 Total Ammonia ($\mu\text{g N/L}$)



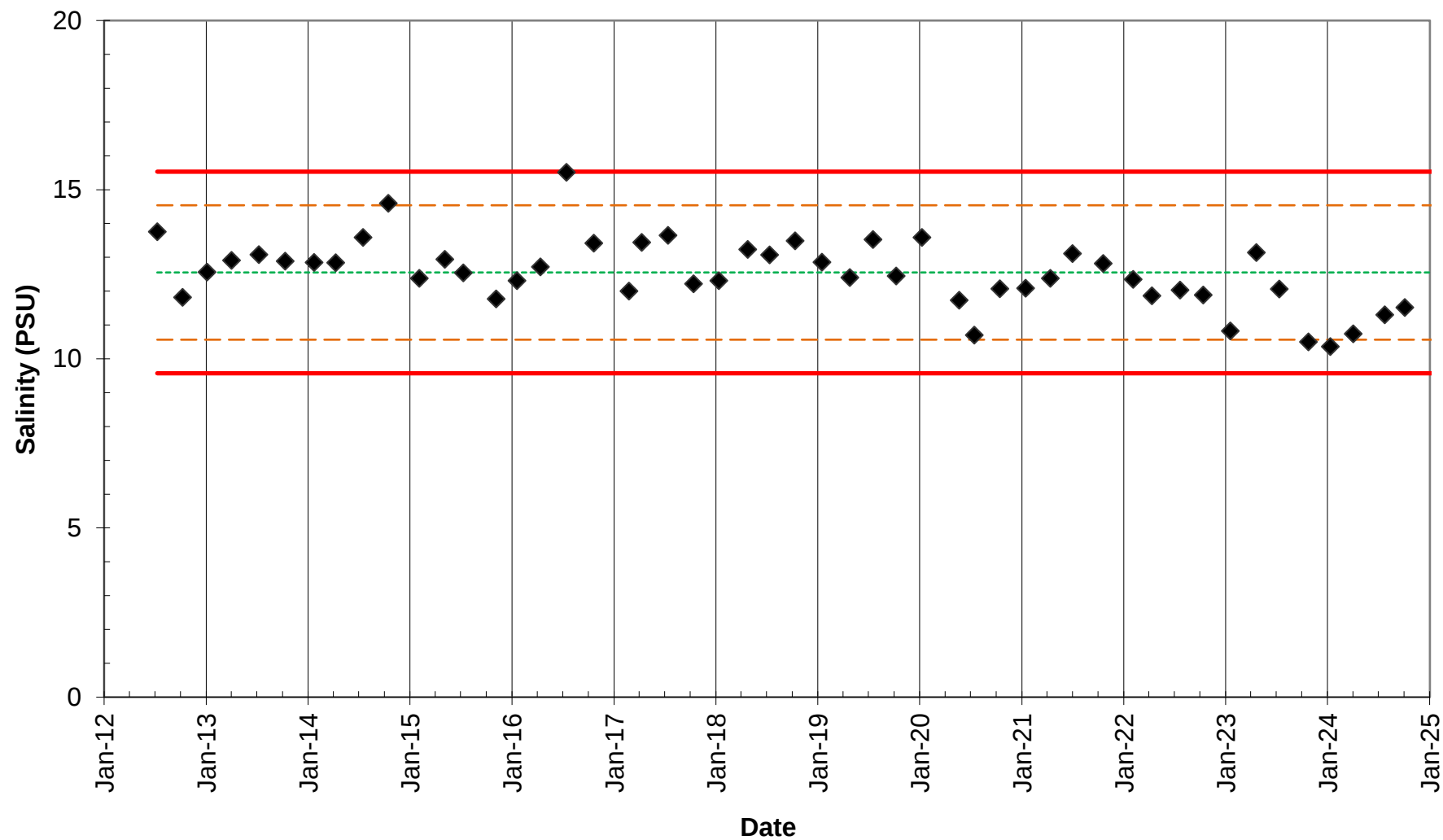
◆ A3 (n=52, Control Chart 2012 - 2017) — +3s (44.4 $\mu\text{g N/L}$) - - +2s (34.4 $\mu\text{g N/L}$) - - - Mean (14.68 $\mu\text{g N/L}$) - - -2s (-5.4 $\mu\text{g N/L}$) — -3s (-15.4 $\mu\text{g N/L}$)

Anchialine Pond A3
Nitrate + Nitrite to Ortho-Phosphate Ratio



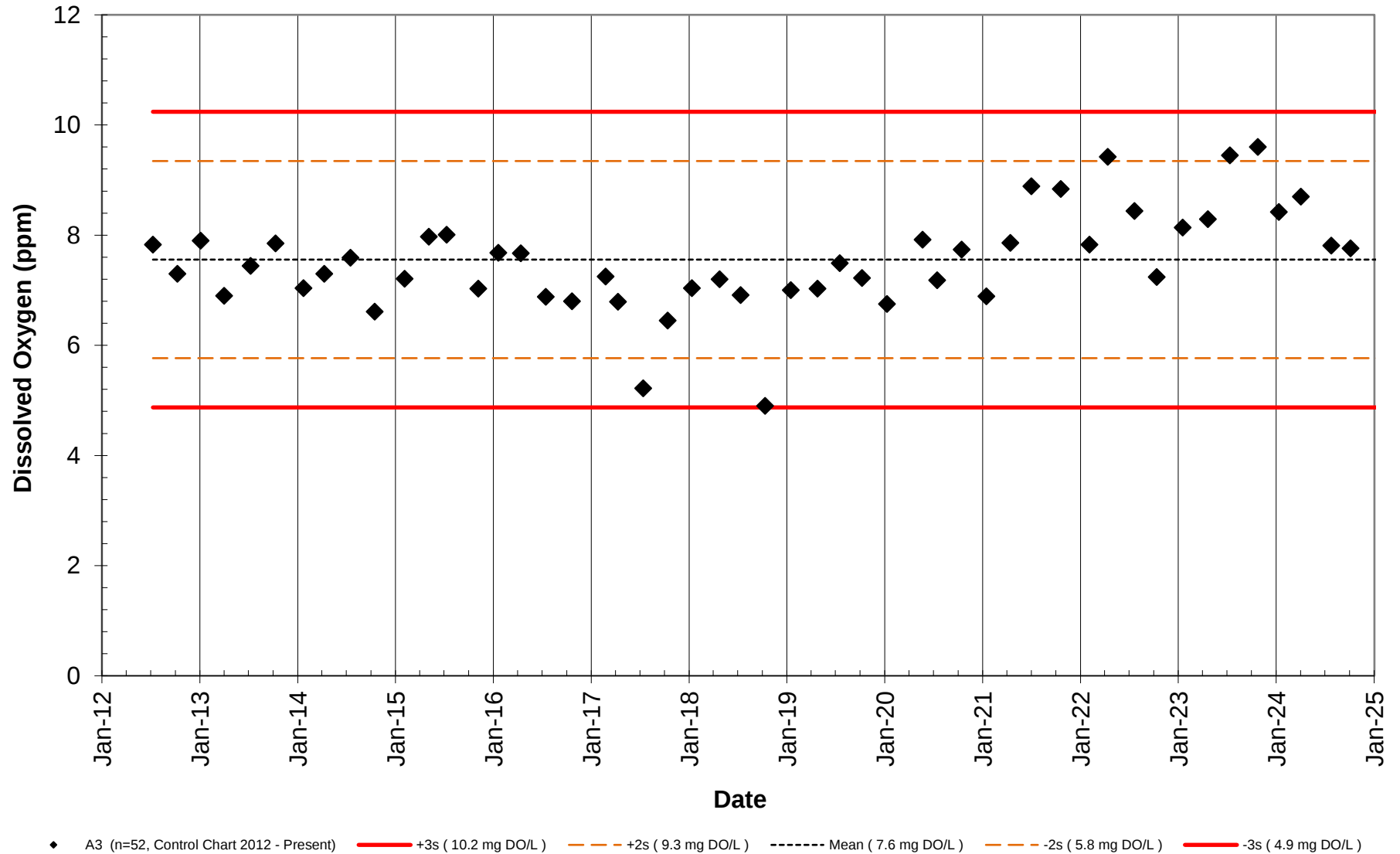
◆ A3 2012 - 2020 ◇ A3 2020 - 2023 — 1:1 — 5:1 — 10:1 — 15:1 — 20:01

Anchialine Pond A3 Salinity (PSU)

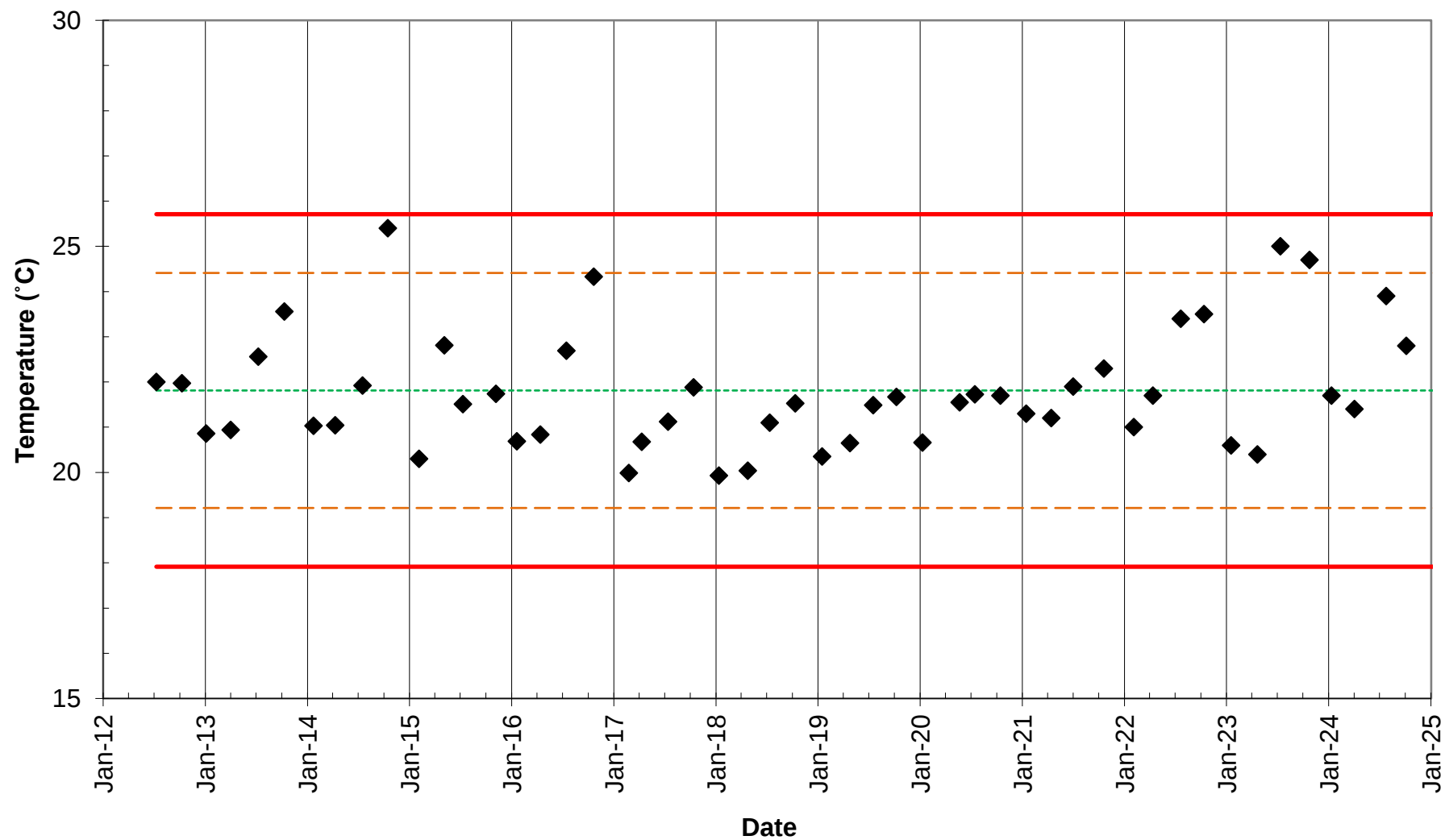


◆ A3 (n=52, Control Chart 2012 - Present) — +3s (15.5 PSU) - - +2s (14.5 PSU) - - - Mean (12.6 PSU) - - -2s (10.6 PSU) — -3s (9.6 PSU)

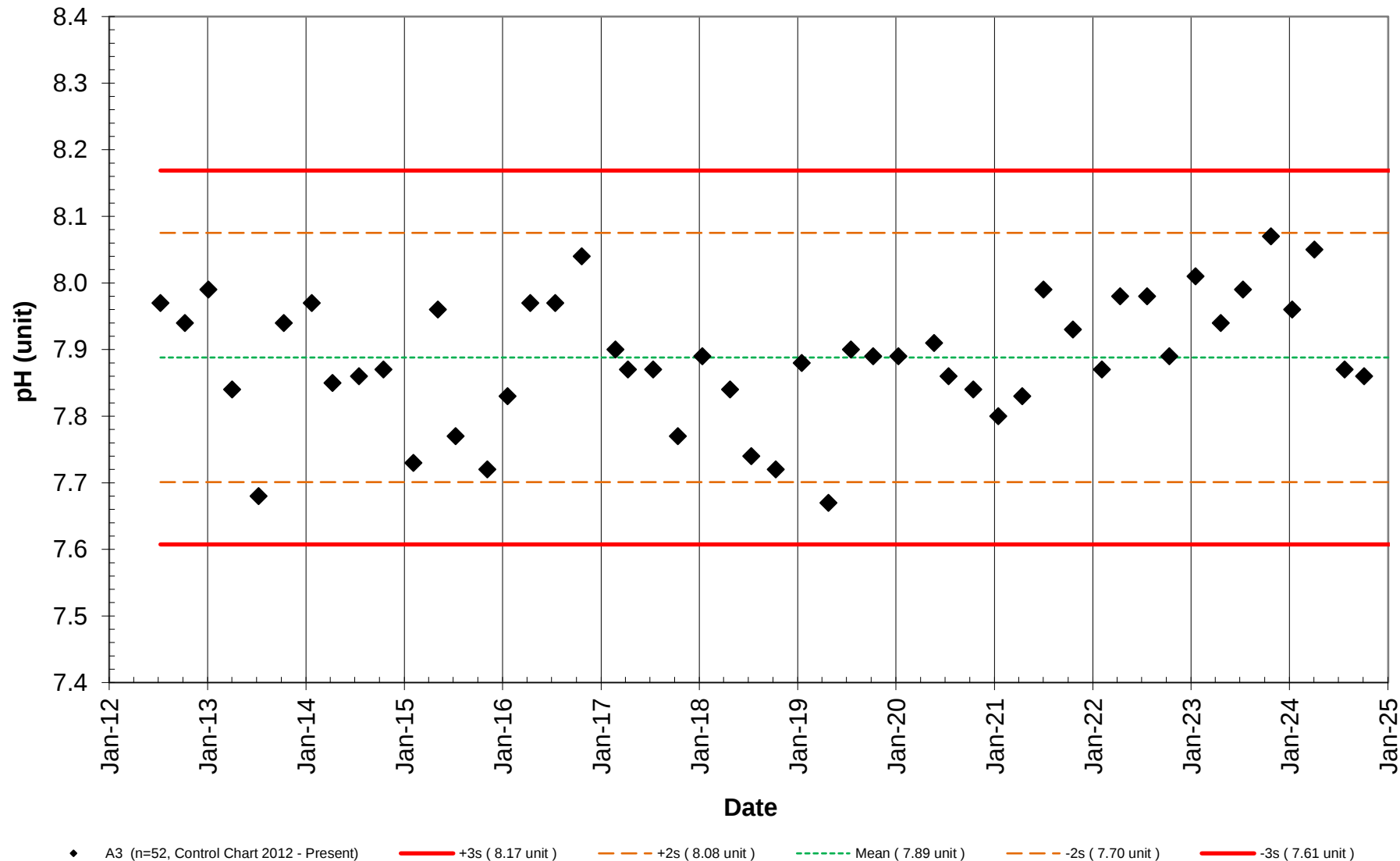
Anchialine Pond A3 Dissolved Oxygen (ppm)



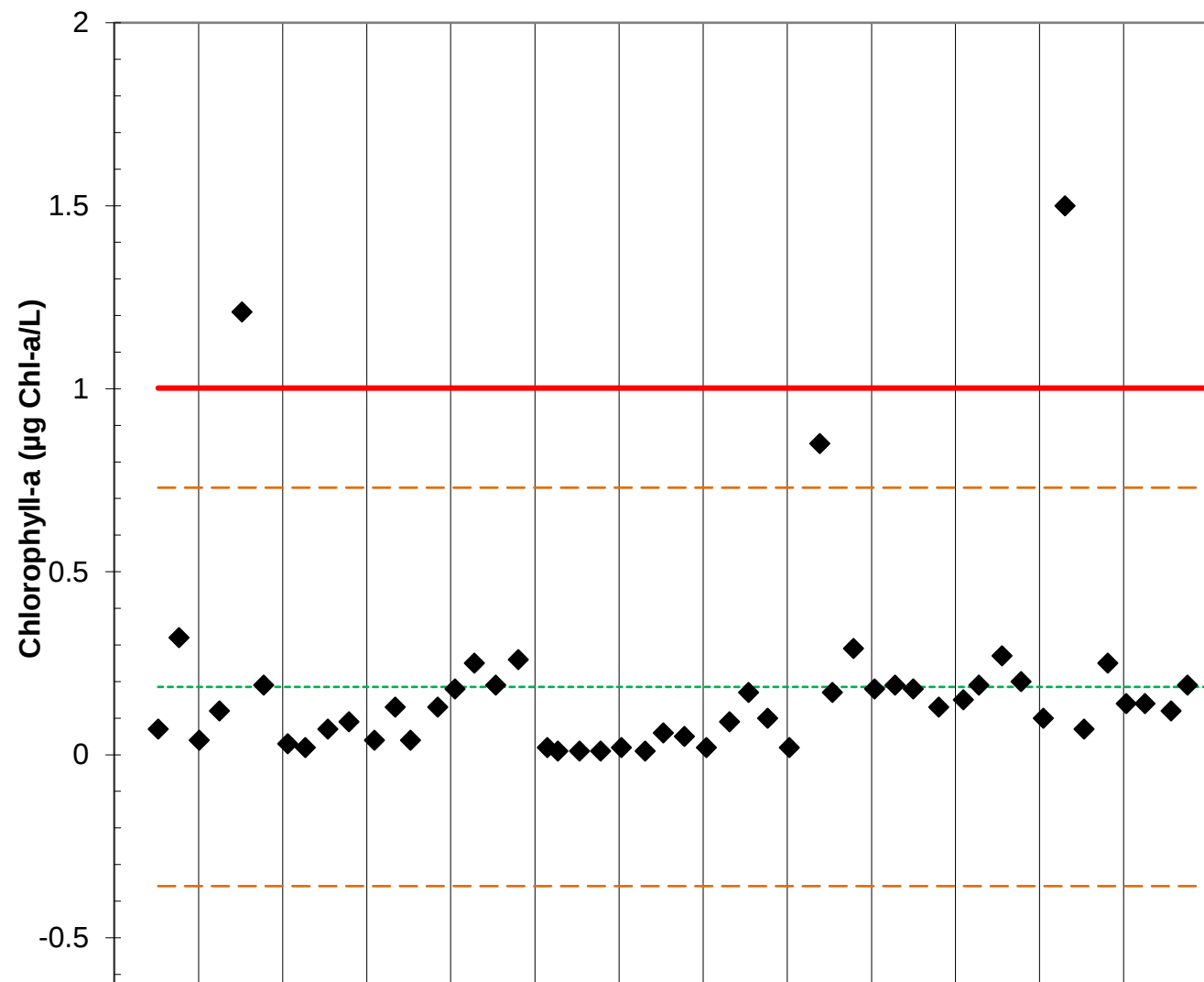
Anchialine Pond A3 Temperature (°C)



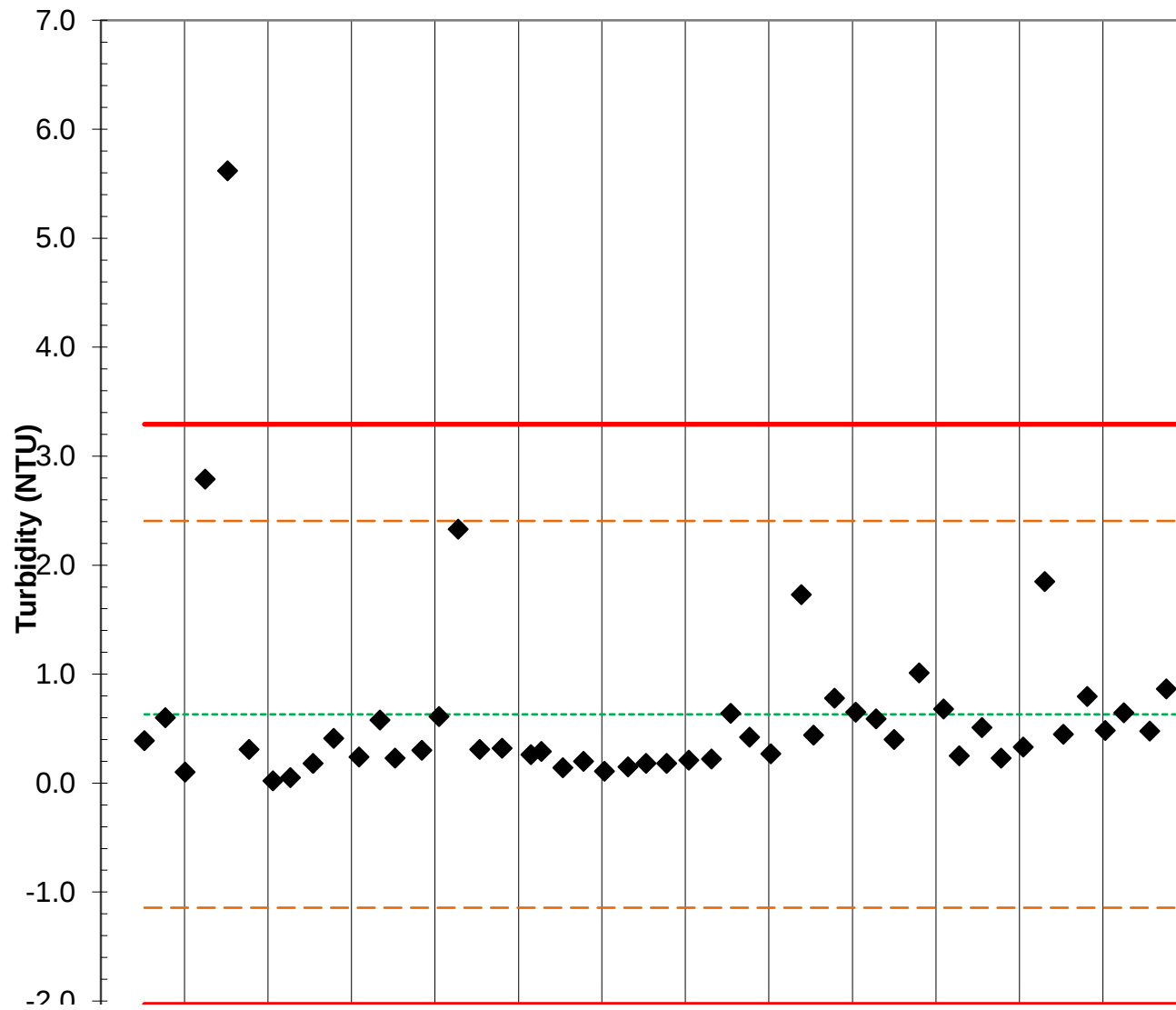
Anchialine Pond A3 pH (unit)



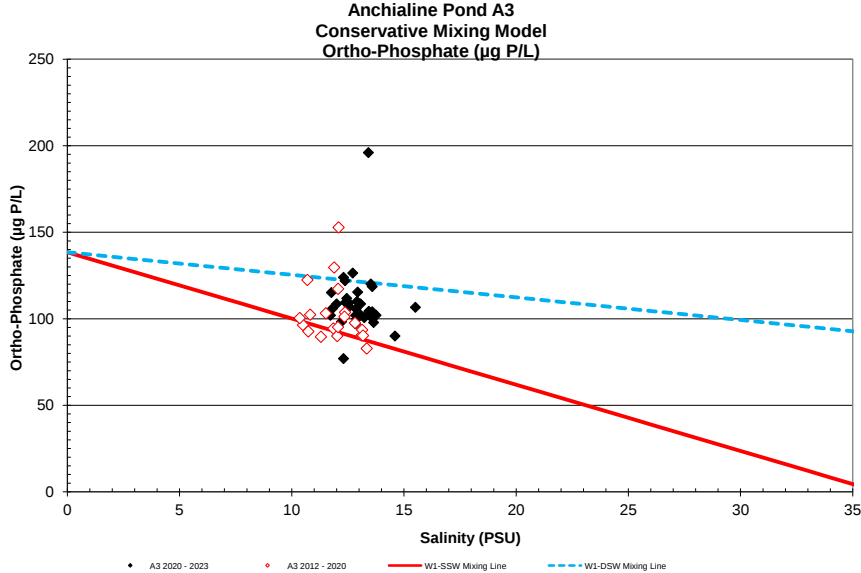
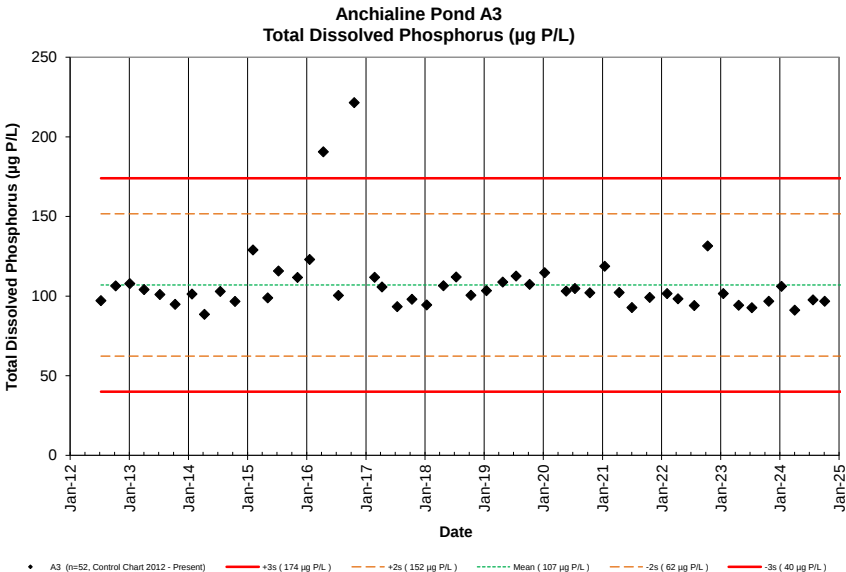
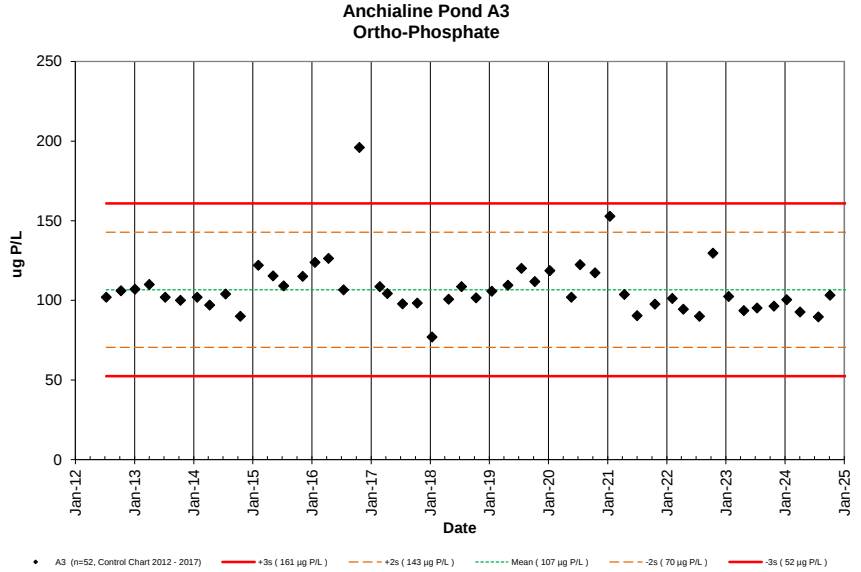
Anchialine Pond A3
Chlorophyll-a ($\mu\text{g Chl-a/L}$)



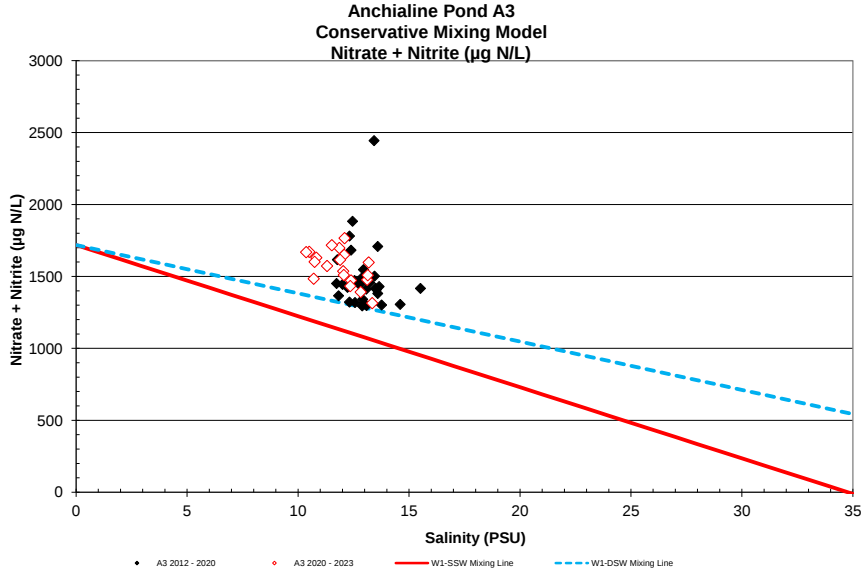
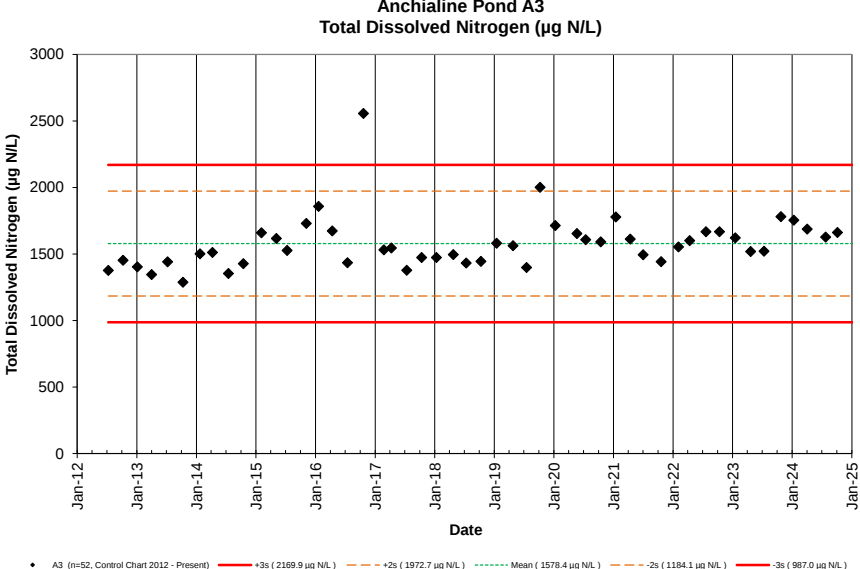
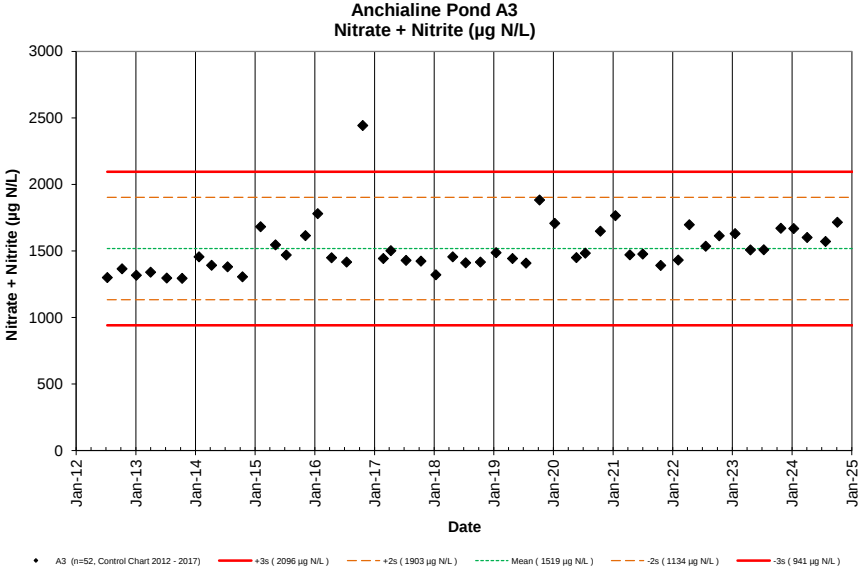
Anchialine Pond A3 Turbidity (NTU)



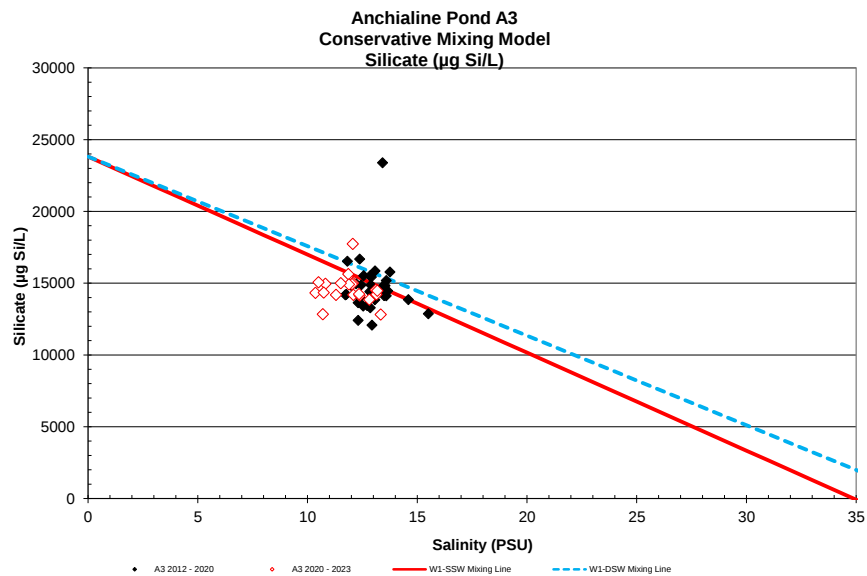
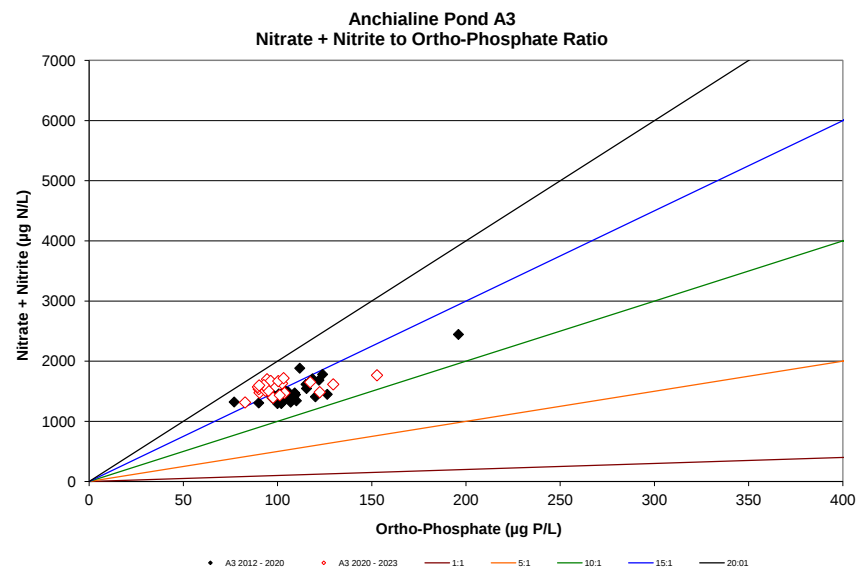
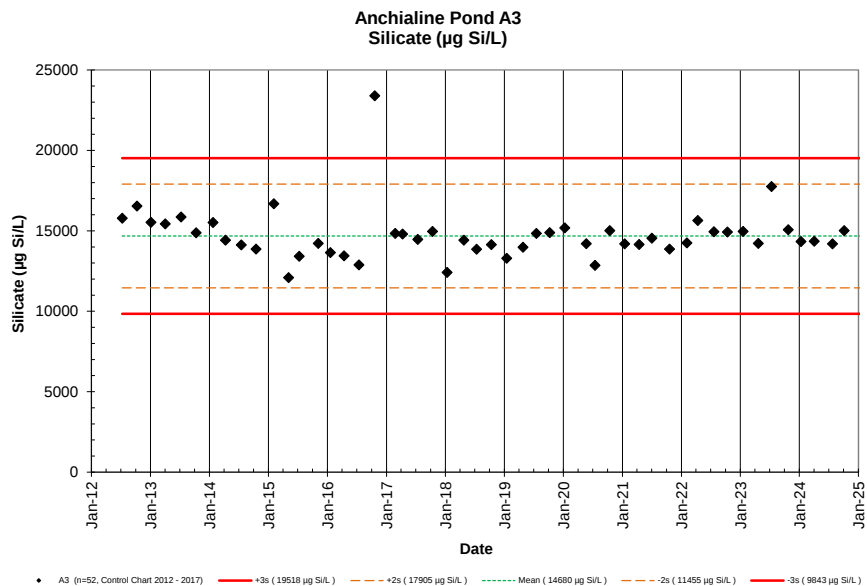
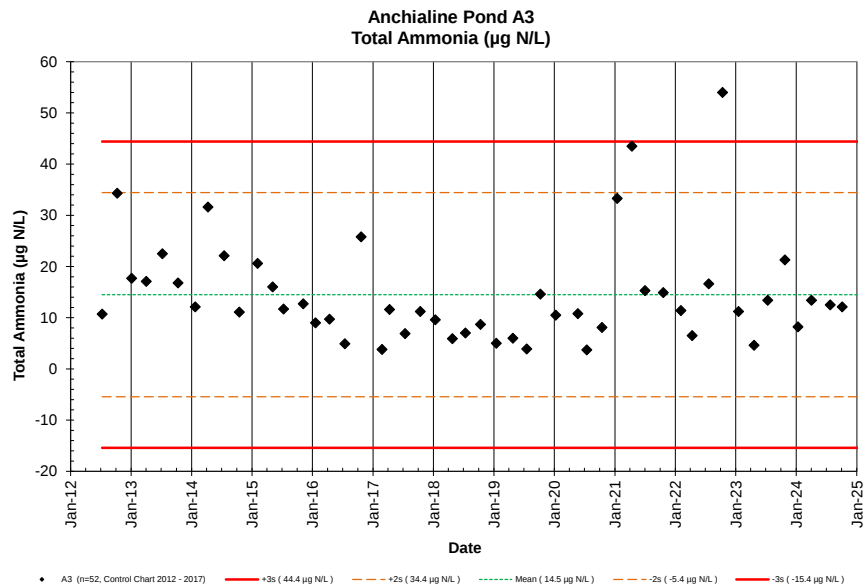
NELHA Water Quality Laboratory
Anchialine Pond A3 Charts
7/9/2012 - 6/30/2025



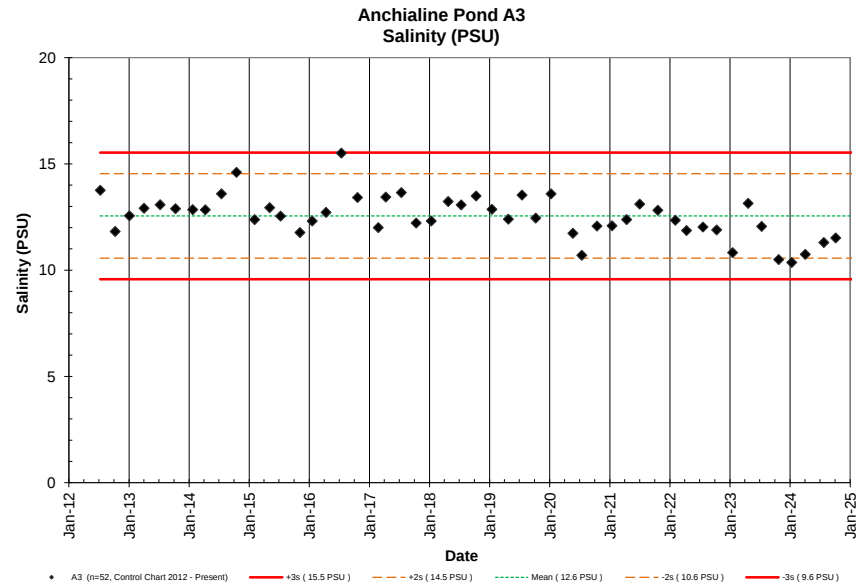
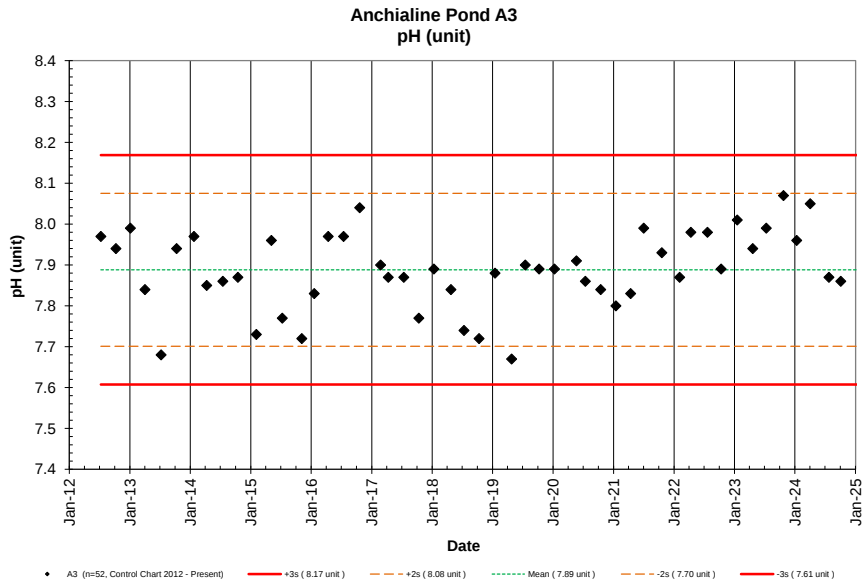
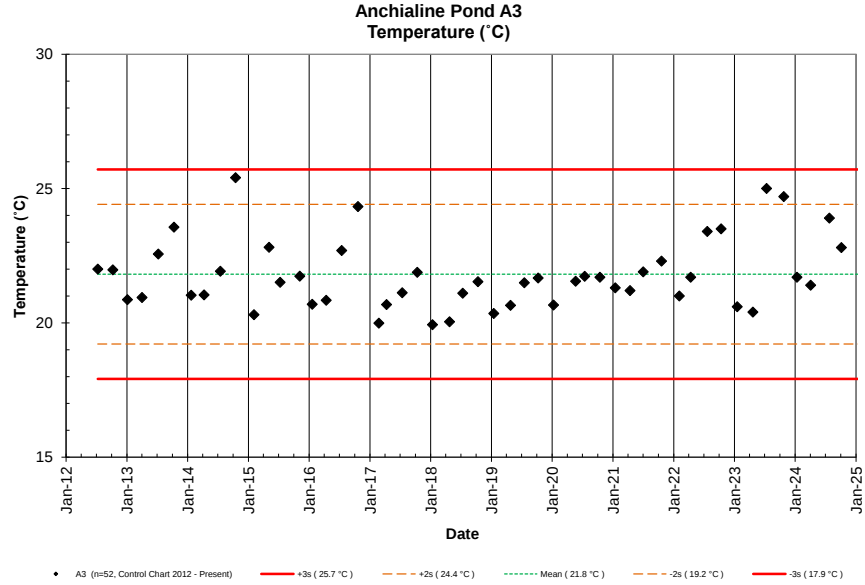
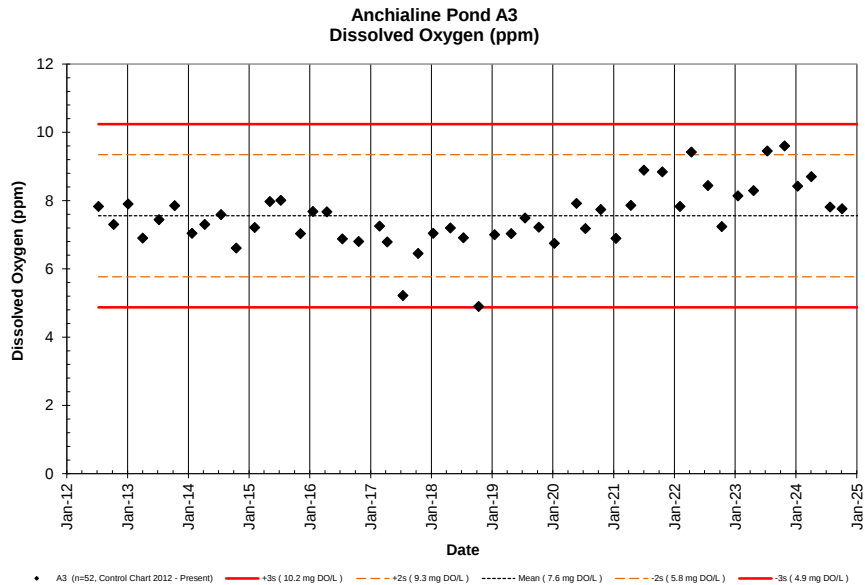
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