Appendix 4-3: Water Year 2004 Dissolved Oxygen Data for STA-1W

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Table 1. Statistical summary of diel parameters at the ouflow stations (G251D and G310) and transect and marsh stations in the Refuge for each deployment period.

Period	Location	Station	Temperature (°C)						Specific Conductivity (µmhos/cm)						Water pH						Dissolved Oxygen (mg/L)					
			No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation
07/21/2003 - 07/25/2003	Transect X	X1	179	27.03	25.15	26.87	30.33	1.32	216	996.5	977	997	1021	12.2	216	7.19	7.10	7.18	7.41	0.06	179	1.10	0.56	0.95	4.21	0.57
		X2	234	27.99	26.35	27.59	35.85	1.65	----	----	----	----	----	----	----	----	----	----	----	----	234	2.54	0.61	2.46	6.02	1.25
		X2	179	28.21	24.93	27.68	35.85	2.42	----	----	----	----	----	----	----	----	----	----	----	----	179	1.43	0.02	0.84	6.02	1.49
		X3	195	28.49	24.73	27.69	36.69	3.02	----	----	----	----	----	----	----	----	----	----	----	----	195	2.91	0.77	2.76	7.04	1.68
		X4	----	----	----	----	----	----	180	353.9	4	366	436	90.3	179	6.79	6.61	6.73	7.63	0.19	----	----	----	----	----	----
	Transect Y	Y4	179	27.35	24.71	26.74	34.26	2.10	----	----	----	----	----	----	180	7.11	6.77	6.98	9.70	0.51	179	1.79	0.74	1.21	8.53	1.41
	Transect Z	Z1	179	27.47	26.38	26.95	32.37	1.28	140	1,291.5	1260	1280	1355	25.8	----	----	----	----	----	----	179	0.78	0.44	0.71	1.76	0.27
		Z2	180	27.49	22.89	26.99	33.95	2.49	140	1,272.5	1237	1254	1370	38.0	179	6.12	5.82	6.00	6.89	0.28	180	2.50	0.77	1.84	9.21	2.07
		Z3	----	----	----	----	----	----	141	1,188.1	1137	1190	1235	32.4	140	7.43	7.39	7.43	7.49	0.03	----	----	----	----	----	----
	Transect MESO	MESO01	179	28.53	22.71	27.86	36.53	3.19	141	1,243.7	1198	1244	1277	18.5	140	7.38	7.31	7.37	7.47	0.04	179	3.57	1.11	2.60	9.08	2.32
08/04/2003 - 08/07/2003	Outflow	G251D	140	28.72	27.70	28.57	30.09	0.71	188	1,140.4	1121	1131	1168	16.3	141	7.52	7.45	7.53	7.61	0.04	140	1.54	0.77	1.16	3.29	0.78
		G310	140	29.77	28.61	29.70	31.27	0.71	160	869.2	849	867	892	11.7	141	7.73	7.64	7.70	7.93	0.08	140	2.88	1.45	2.77	4.74	1.00
09/15/2003 - 09/18/2003	Outflow	G251D	141	28.76	28.07	28.73	29.73	0.47	216	245.1	236	245	255	5.9	160	7.60	7.49	7.61	7.69	0.05	141	1.45	0.21	1.57	2.87	0.72
		G310	141	29.26	28.40	29.15	30.87	0.59	189	237.1	227	237	244	3.5	216	7.02	6.92	7.02	7.12	0.05	141	3.12	1.79	2.82	5.82	1.06
	Transect X	X1	188	26.05	25.33	26.11	27.02	0.38	160	1,069.1	1063	1069	1075	3.9	216	6.86	6.76	6.86	6.99	0.05	188	0.63	0.53	0.56	1.87	0.20
		X3	216	27.83	26.91	27.76	28.61	0.44	----	----	----	----	----	----	161	6.89	6.77	6.88	7.08	0.08	216	5.93	0.40	4.75	17.10	4.91
		X4	216	28.81	27.35	28.78	30.64	0.83	216	326.1	303	325	340	8.9	160	7.33	7.27	7.33	7.37	0.03	216	3.38	1.28	3.26	6.20	1.19
	Transect Y	Y4	189	27.69	26.44	27.75	29.13	0.64	----	----	----	----	----	----	----	----	----	----	----	----	189	1.35	0.67	1.19	3.68	0.59
	Transect Z	Z1	188	26.29	26.15	26.29	26.40	0.06	----	----	----	----	----	----	216	6.91	6.79	6.86	7.28	0.13	----	----	----	----	----	----
		Z2	----	----	----	----	----	----	181	1,090.0	1035	1082	1160	35.3	----	----	----	----	----	----	216	1.89	0.77	1.70	5.03	0.82
		Z3	216	28.27	26.26	28.02	31.18	1.34	201	958.2	899	967	983	21.2	----	----	----	----	----	----	----	----	----	----	----	----
		Z4	----	----	----	----	----	----	161	609.4	571	603	657	24.7	181	7.23	7.17	7.21	7.34	0.04	----	----	----	----	----	----
	Transect MESO	MESO01	----	----	----	----	----	----	161	242.3	237	242	247	3.0	161	7.45	7.32	7.44	7.75	0.07	181	0.06	0.02	0.05	0.43	0.05

Table 1. Continued.

Period	Location	Station	Temperature (°C)						Specific Conductivity (µmhos/cm)						Water pH						Dissolved Oxygen (mg/L)					
			No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation	No. of Samples	Mean	Minimum	Median	Maximum	Standard Deviation
11/03/2003 - 11/07/2003	Transect X	X1	181	23.24	22.83	23.08	24.15	0.43	161	233.4	226	233	243	4.6	201	7.15	7.05	7.12	7.32	0.06	201	1.06	0.01	0.87	3.83	0.94
		X2	201	24.14	23.48	24.10	24.69	0.27	181	1,057.9	951	1071	1094	33.8	201	6.82	6.73	6.82	6.99	0.04	201	2.05	0.91	1.81	4.51	0.98
		X3	201	23.94	23.49	23.98	24.41	0.23	201	893.8	783	908	929	37.1	181	6.81	6.69	6.79	6.99	0.08	201	3.41	1.87	3.04	5.69	0.98
		X4	201	24.63	23.74	24.55	25.81	0.54	201	338.7	307	344	358	17.9	181	7.18	7.10	7.19	7.27	0.04	181	1.48	0.04	1.53	3.18	0.88
	Transect Y	Y4	181	23.94	23.35	23.96	24.33	0.21	201	210.3	203	211	217	4.0	201	7.25	7.16	7.22	7.48	0.07	181	0.25	0.06	0.11	1.28	0.28
	Transect Z	Z1	181	23.44	22.79	23.41	24.63	0.31	----	----	----	----	----	----	201	7.02	6.86	7.03	7.16	0.08	201	0.64	0.00	0.00	4.64	1.15
		Z2	201	24.19	23.08	24.01	26.27	0.78	145	1,336.4	1174	1365	1406	63.2	201	6.82	6.61	6.83	6.96	0.07	201	2.69	1.14	2.64	4.23	0.77
		Z3	201	24.43	23.90	24.42	25.57	0.35	145	1,297.0	1263	1286	1364	22.4	----	----	----	----	----	----	201	4.23	2.48	4.07	6.31	0.82
		Z4	201	24.8	23.94	24.75	25.76	0.44	128	1,135.6	1113	1138	1150	12.6	145	7.55	7.30	7.61	7.71	0.12	----	----	----	----	----	----
	Transect MESO	MESO01	----	----	----	----	----	----	130	1,121.0	1118	1121	1124	1.3	145	7.70	7.61	7.68	7.91	0.09	145	2.15	0.61	2.23	3.94	0.94
	Outflow	G251D	145	25.55	24.43	25.60	26.73	0.72	198	969.2	965	969	975	1.9	128	7.65	7.57	7.63	7.78	0.07	145	2.97	1.86	2.97	4.81	0.87
		G310	145	25.57	24.63	25.40	26.46	0.52	201	677.1	662	673	698	11.1	130	7.93	7.82	7.92	8.07	0.05	128	5.43	4.28	5.10	6.91	0.83
01/05/2004 - 01/08/2004	Outflow	G251D	128	20.39	18.37	20.53	22.13	0.98	201	290.9	287	291	296	1.9	181	7.36	7.27	7.36	7.48	0.04	130	6.45	5.53	6.37	7.72	0.59
		G310	130	20.32	18.41	20.67	22.06	1.08	181	1,162.8	1159	1162	1169	2.7	198	7.34	7.25	7.34	7.52	0.05	181	1.53	0.69	1.43	3.27	0.42
	Transect X	X1	181	16.08	14.65	16.28	16.85	0.65	201	963.8	958	964	970	2.7	201	7.21	7.08	7.20	7.44	0.07	198	2.85	0.89	2.70	7.02	1.21
		X2	198	18.41	15.84	18.83	20.20	1.36	201	479.6	454	482	508	13.5	201	6.77	6.65	6.77	6.96	0.07	201	4.13	1.46	4.05	7.77	1.17
		X3	201	18.24	15.79	18.77	19.68	1.23	146	266.2	262	267	269	1.9	181	6.89	6.76	6.87	7.16	0.09	201	3.96	2.16	3.90	6.96	0.99
		X4	201	19.4	16.32	19.60	21.86	1.73	----	----	----	----	----	----	201	7.36	7.29	7.36	7.48	0.04	181	2.40	1.03	2.38	4.31	0.68
	Transect Y	Y4	181	19.02	15.87	19.03	22.30	1.88	189	898.4	1	928	936	162.8	201	7.16	6.99	7.14	7.37	0.09	201	2.41	0.17	2.39	5.44	1.36
	Transect Z	Z1	181	16.47	15.22	16.57	17.24	0.59	201	666.0	612	673	707	28.9	146	7.05	6.91	7.02	7.30	0.10	----	----	----	----	----	----
		Z2	201	18.64	14.93	18.75	21.24	1.94	205	381.2	364	380	404	12.7	----	----	----	----	----	----	146	4.47	2.65	4.38	7.15	1.02
		Z3	201	19.67	16.34	19.54	22.21	1.93	205	285.9	278	287	292	3.6	183	7.38	7.34	7.38	7.44	0.03	----	----	----	----	----	----
		Z4	146	20.65	16.67	20.76	23.77	1.96	183	336.9	334	337	342	1.4	201	7.24	7.17	7.23	7.31	0.03	183	1.50	0.99	1.43	3.09	0.43
	Transect MESO	MESO01	----	----	----	----	----	----	183	1,005.1	995	1005	1014	3.4	205	6.96	6.89	6.96	7.05	0.03	205	3.30	1.77	3.01	9.10	1.21
03/08/2004 - 03/12/2004	Transect X	X1	189	17.14	14.33	16.93	22.84	1.71	205	911.1	901	909	937	7.9	205	6.66	6.51	6.66	6.91	0.09	205	2.43	0.76	2.28	4.81	0.94
		X2	205	19.67	15.51	19.34	24.27	2.35	205	367.8	362	367	376	3.6	183	6.79	6.64	6.80	6.97	0.07	205	2.23	0.66	2.20	5.18	0.81
		X3	205	19.03	15.82	18.79	22.77	1.97	205	268.7	262	268	281	4.2	183	7.29	7.19	7.28	7.39	0.05	161	2.69	1.41	2.59	4.76	0.70
		X4	205	19.74	15.89	19.41	23.96	2.22	----	----	----	----	----	----	205	7.49	7.30	7.44	7.89	0.14	183	2.33	1.60	2.19	3.48	0.52
	Transect Y	Y4	183	19.18	16.32	18.96	22.97	1.66	----	----	----	----	----	----	205	6.91	6.73	6.87	7.14	0.10	----	----	----	----	----	----
	Transect Z	Z1	183	17.85	14.99	17.62	22.00	1.63	----	----	----	----	----	----	205	6.86	6.68	6.85	7.08	0.11	161	2.79	1.23	2.60	4.73	0.89
		Z2	205	19.21	13.48	18.71	25.62	3.22	----	----	----	----	----	----	----	----	----	----	----	----	205	2.05	0.26	2.05	4.75	1.09
		Z3	205	20.42	16.06	20.04	25.38	2.67	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
		Z4	205	19.95	17.25	19.67	23.64	1.69	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
	Transect MESO	MESO01	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

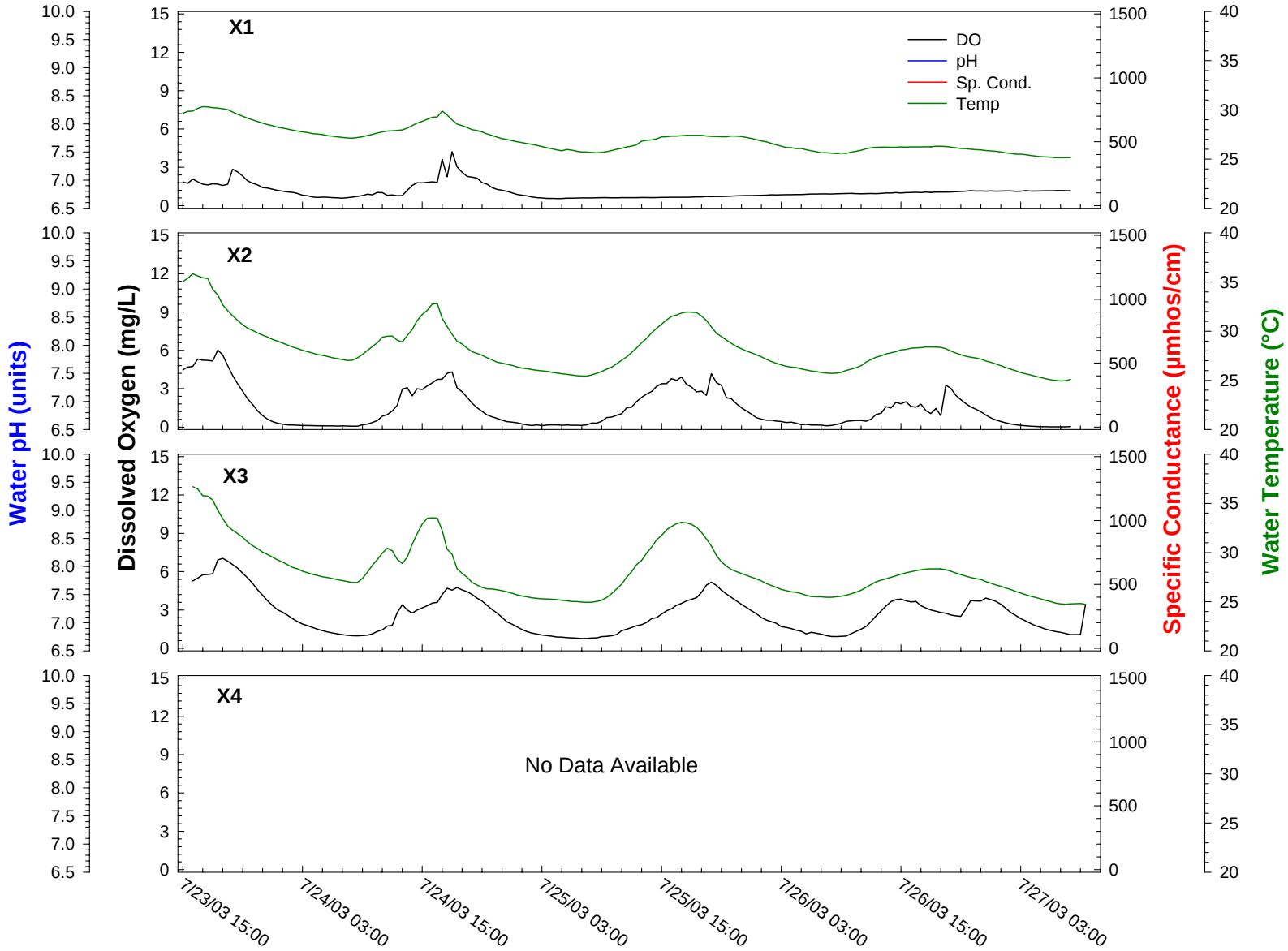

Figure 1. Diel measurements along Transect X, July 21–25, 2003.

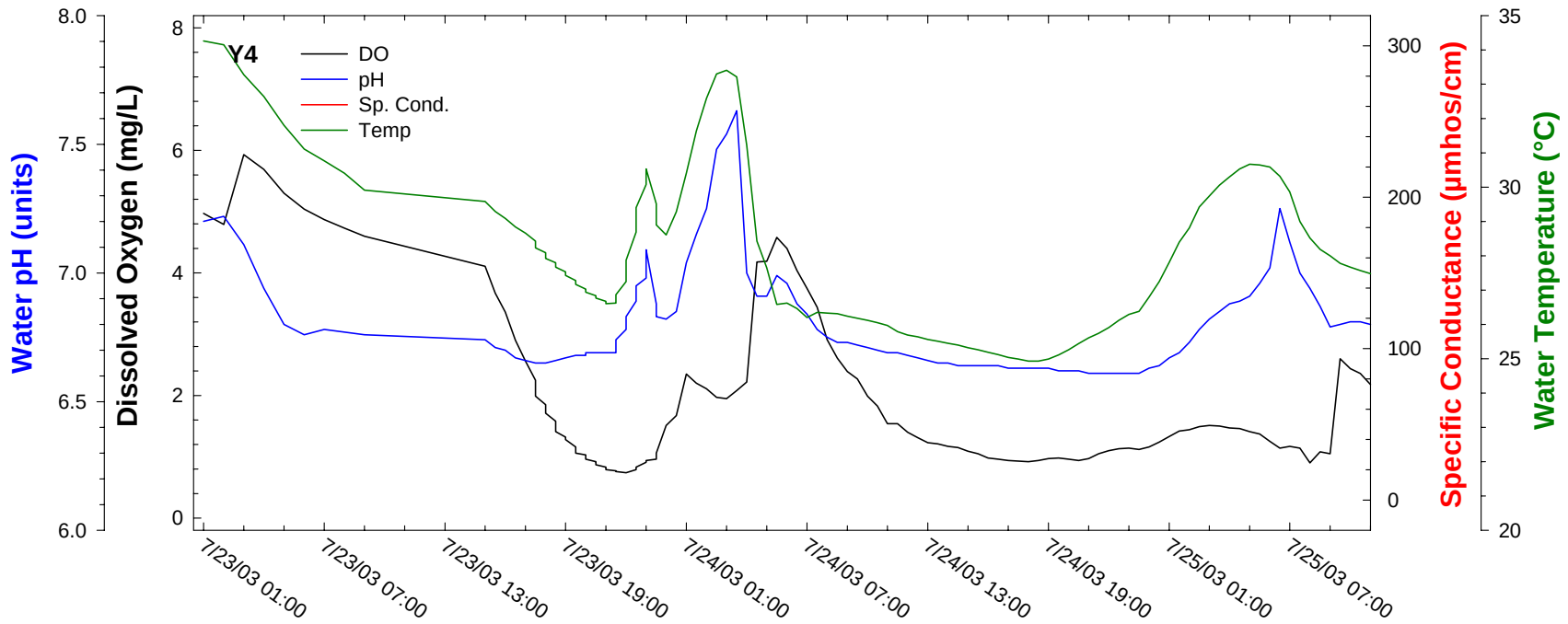

Figure 2. Diel measurements along Transect Y, July 23–24, 2003.

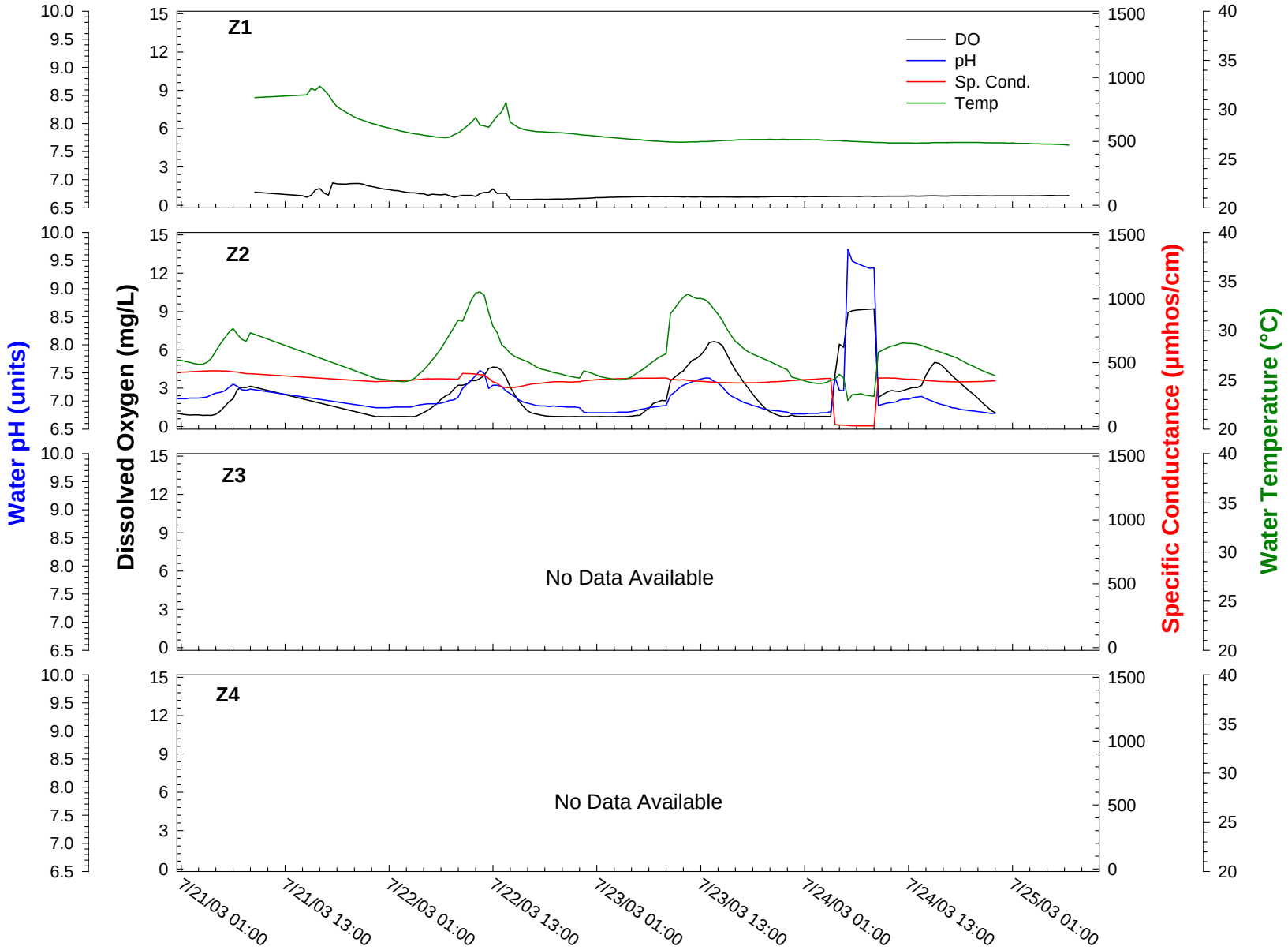

Figure 3. Diel measurements along Transect Z, July 21–25, 2003.

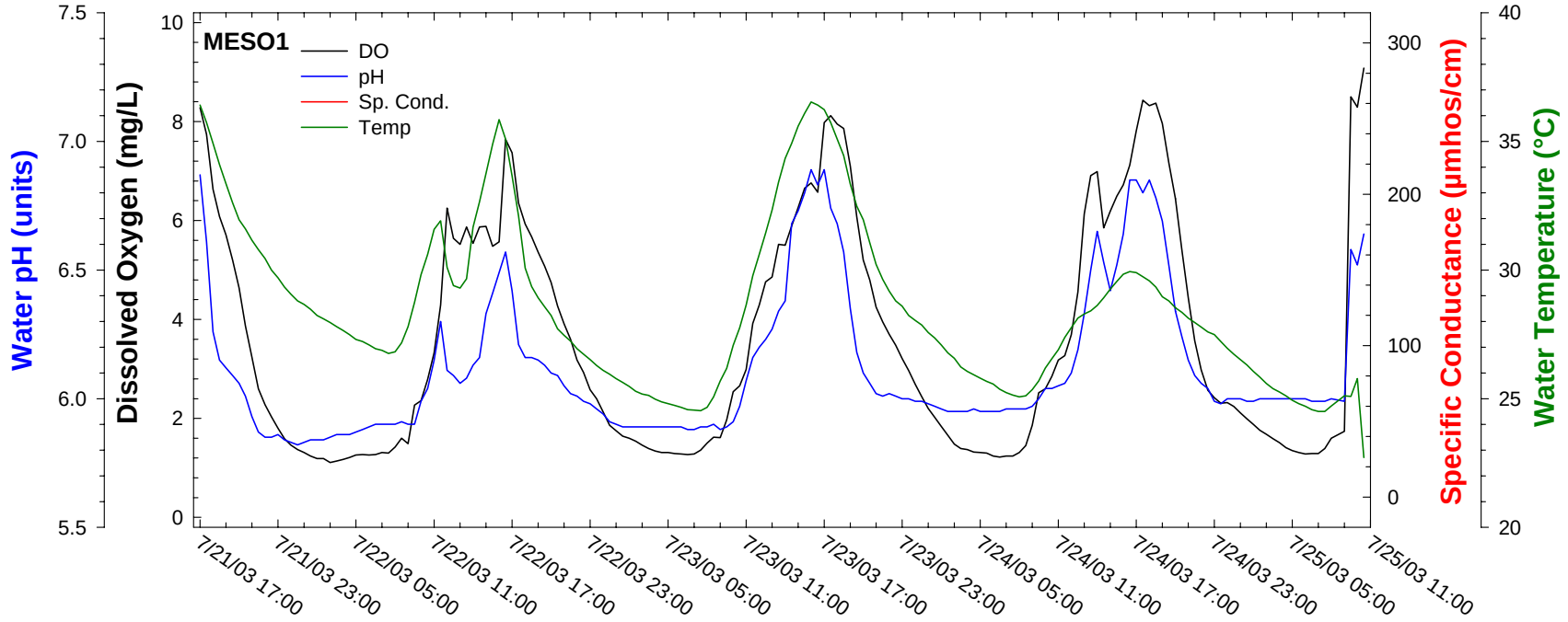

Figure 4. Diel measurements at marsh site MESO1, July 23–25, 2003.

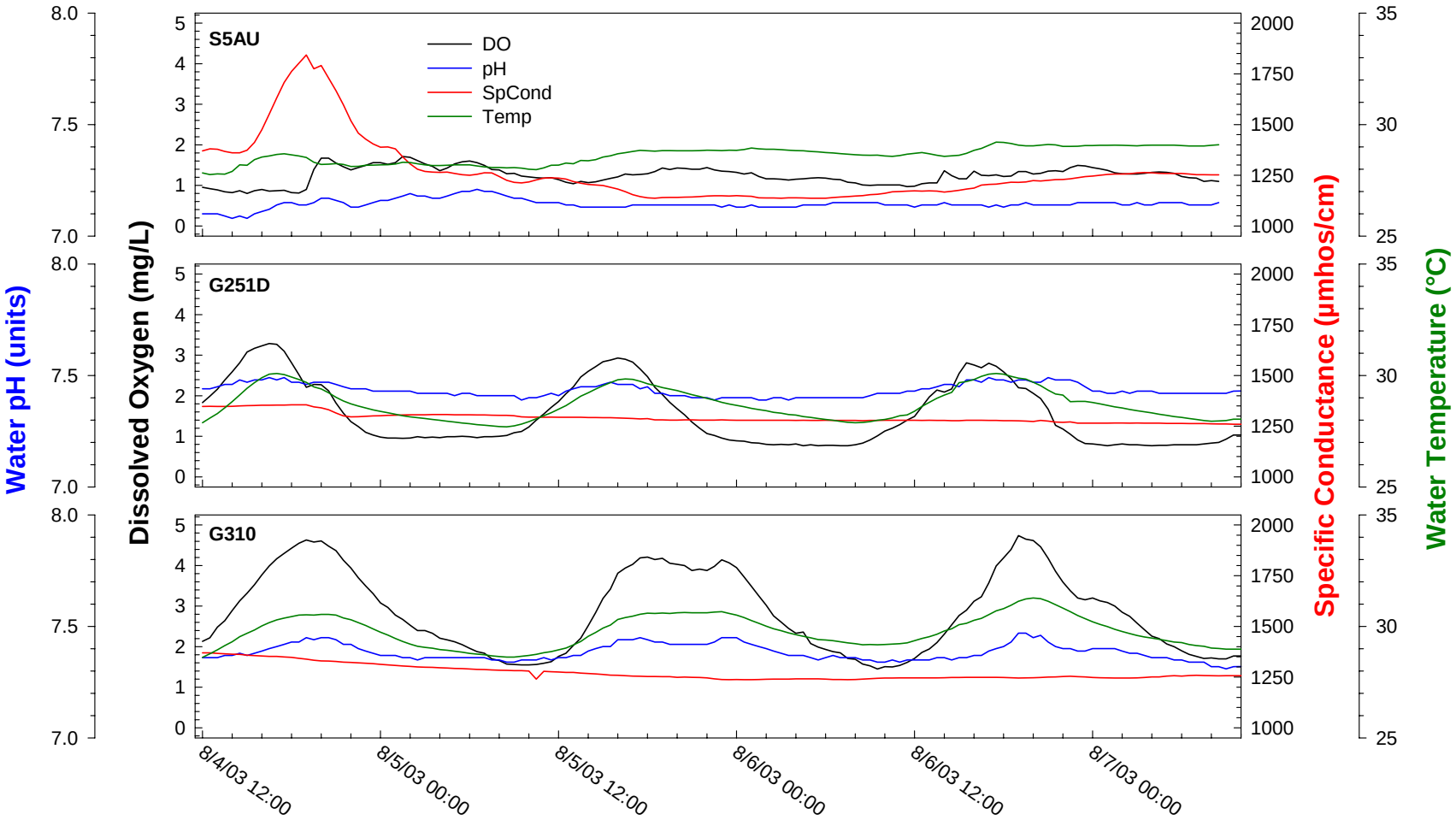

Figure 5. Diel measurements at S5AU, G251D, and G310 in ST1W, August 4–7, 2003.

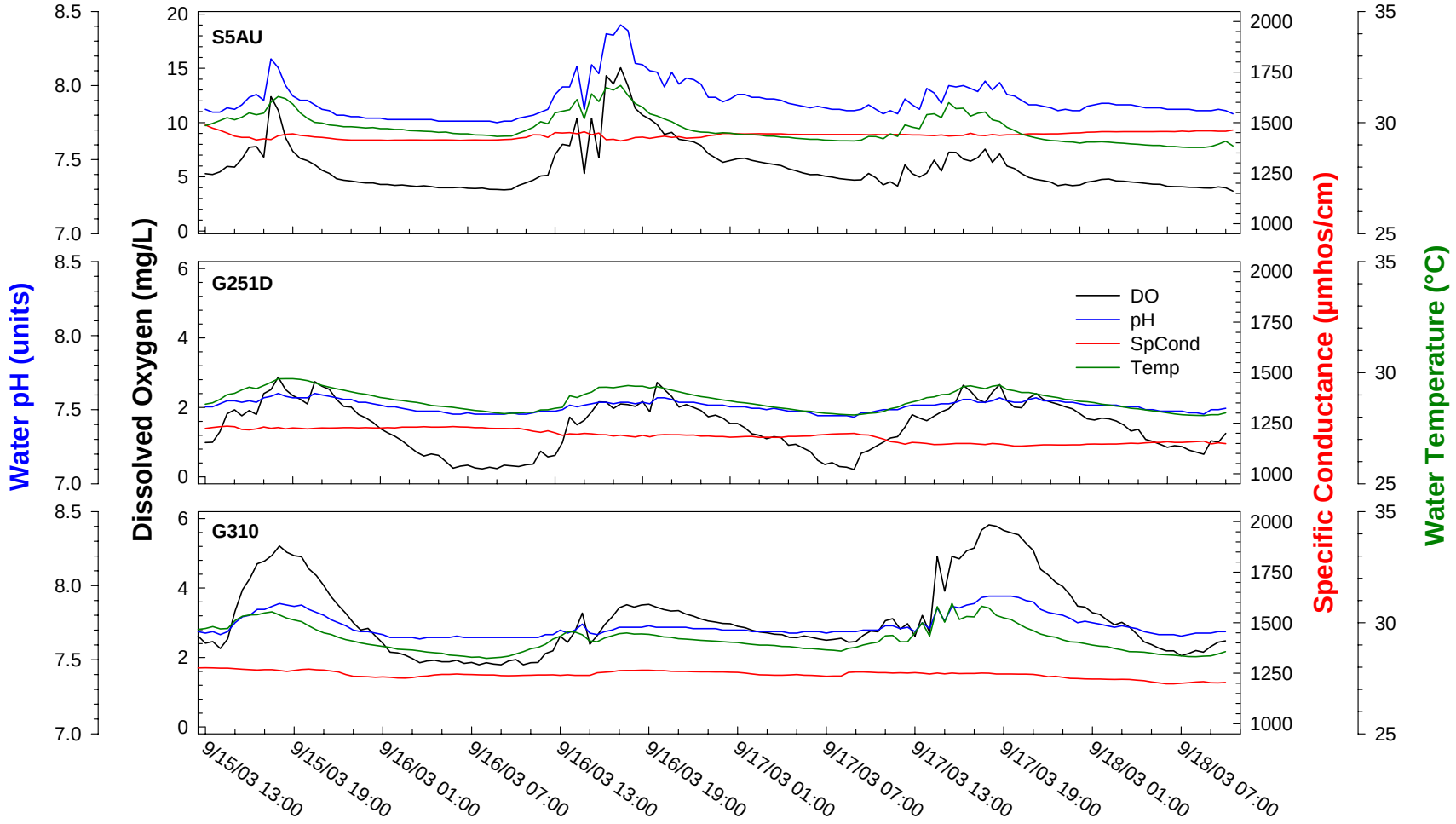

Figure 6. Diel measurements at S5AU, G251D, and G310 in ST1W, September 15–18, 2003.

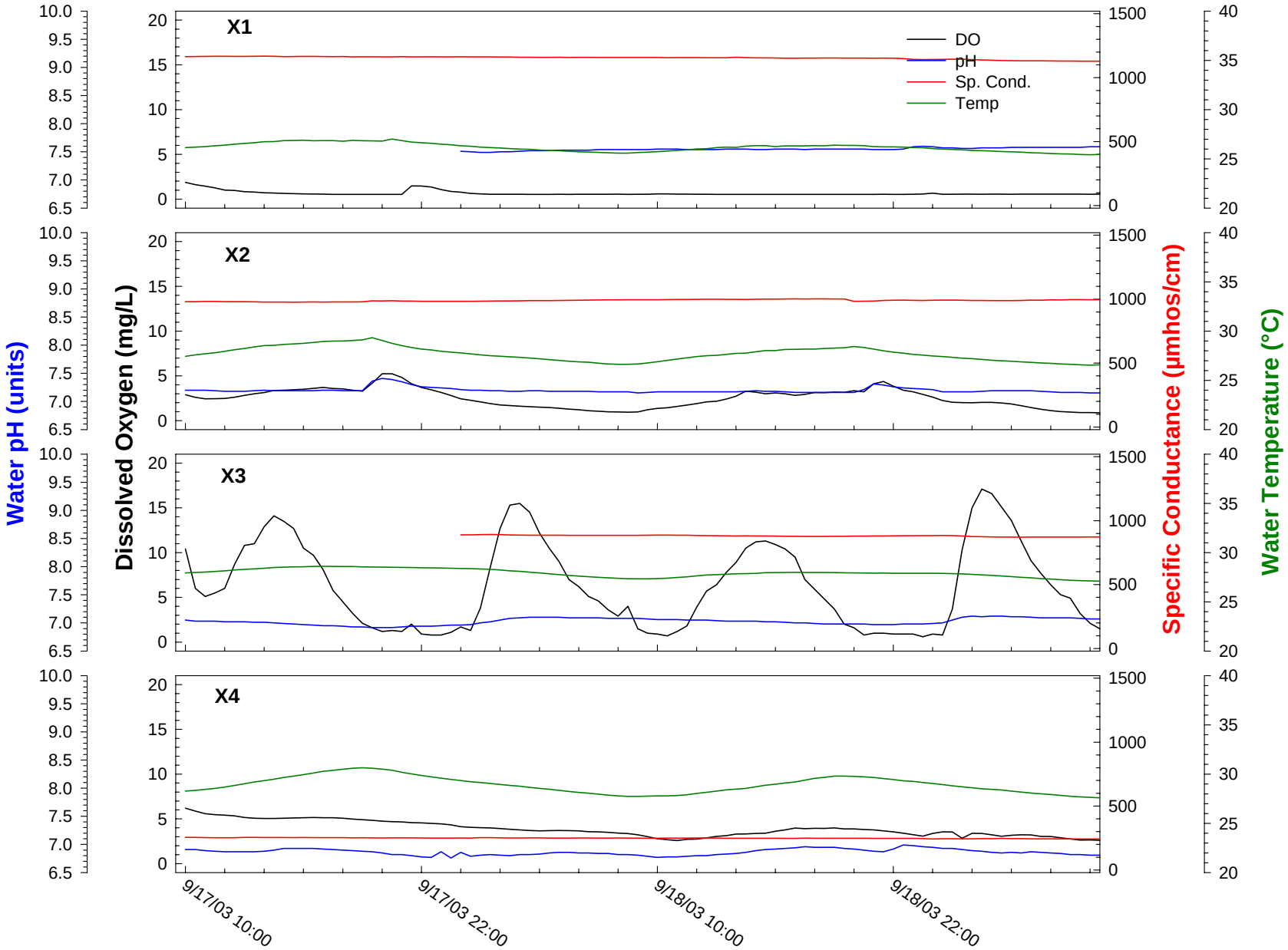

Figure 7. Diel measurements along Transect X, September 17–18, 2003.

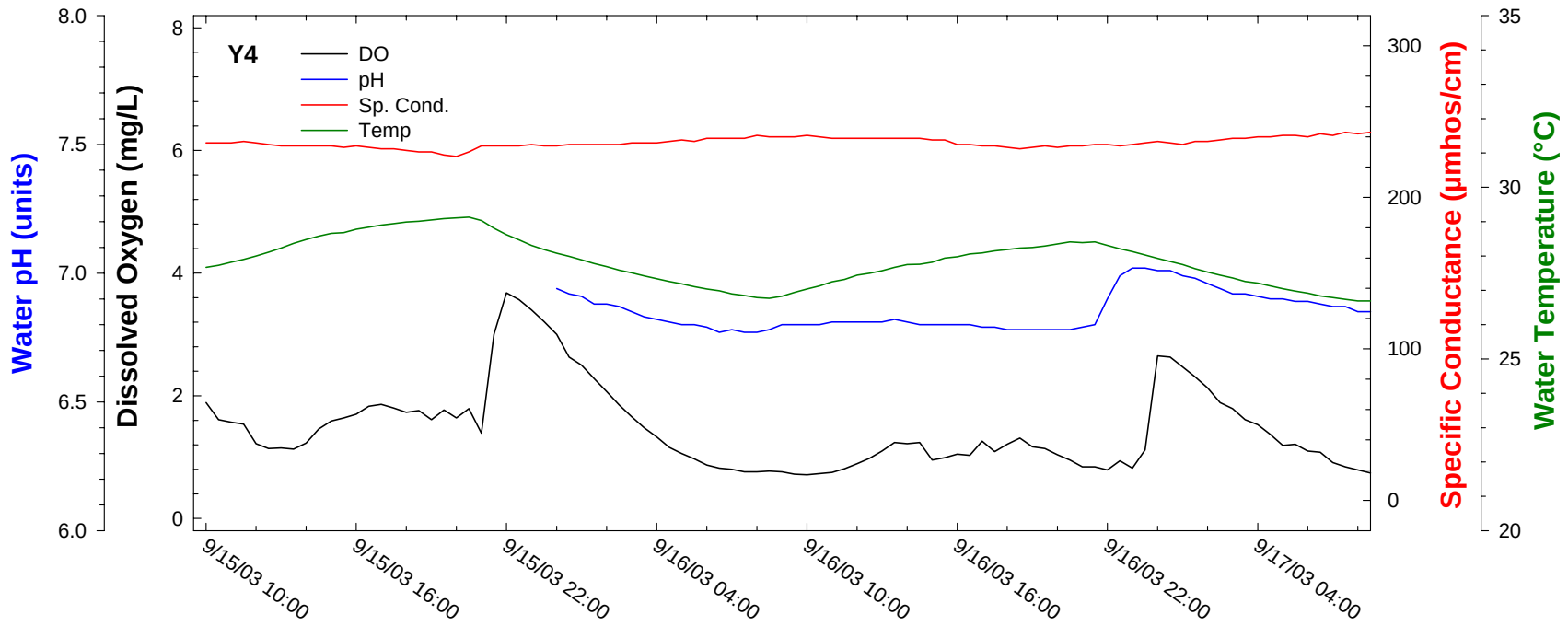

Figure 8. Diel measurements along Transect Y, September 15–17, 2003.

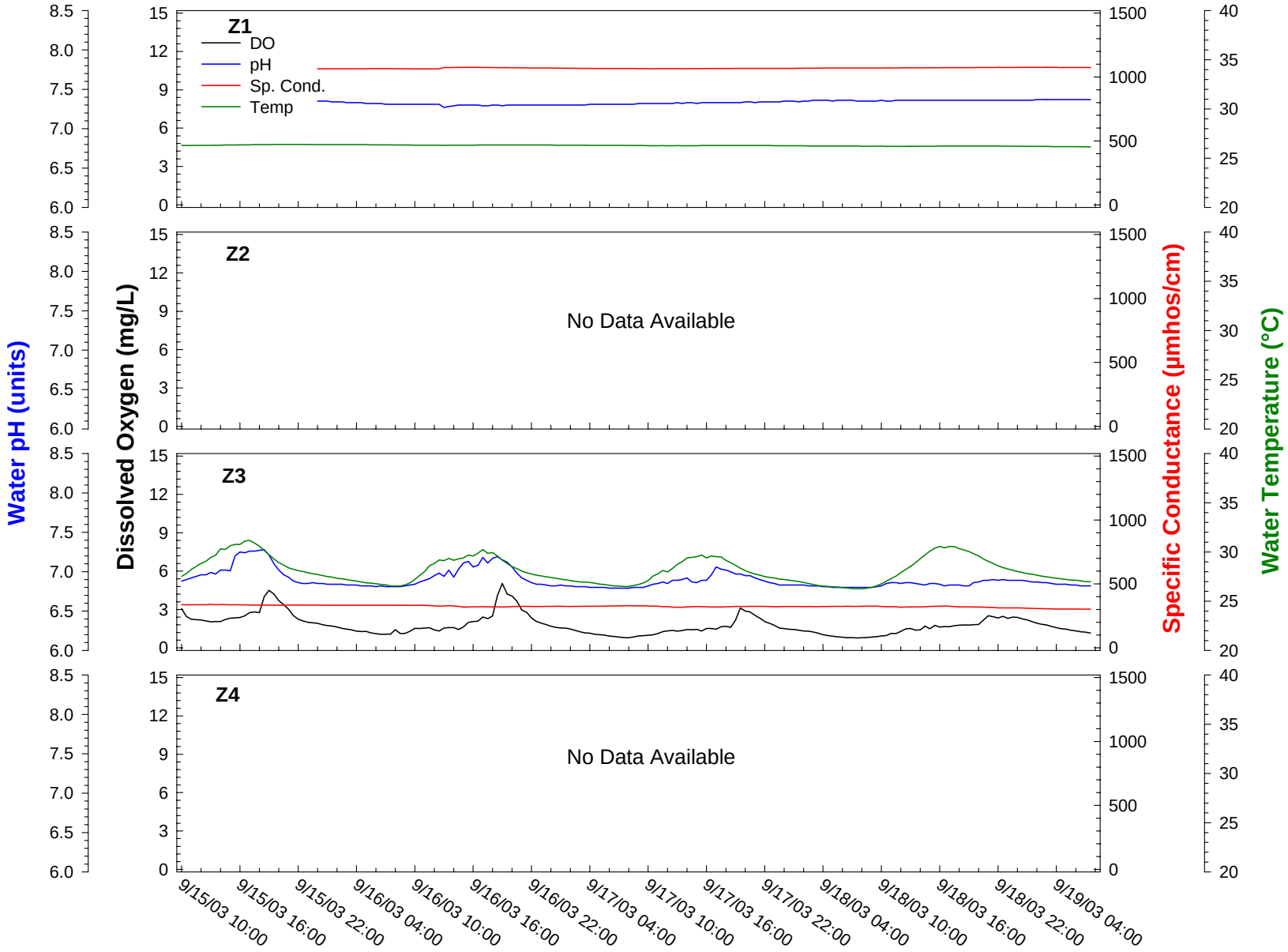

Figure 9. Diel measurements along Transect Z, September 15–19, 2003.

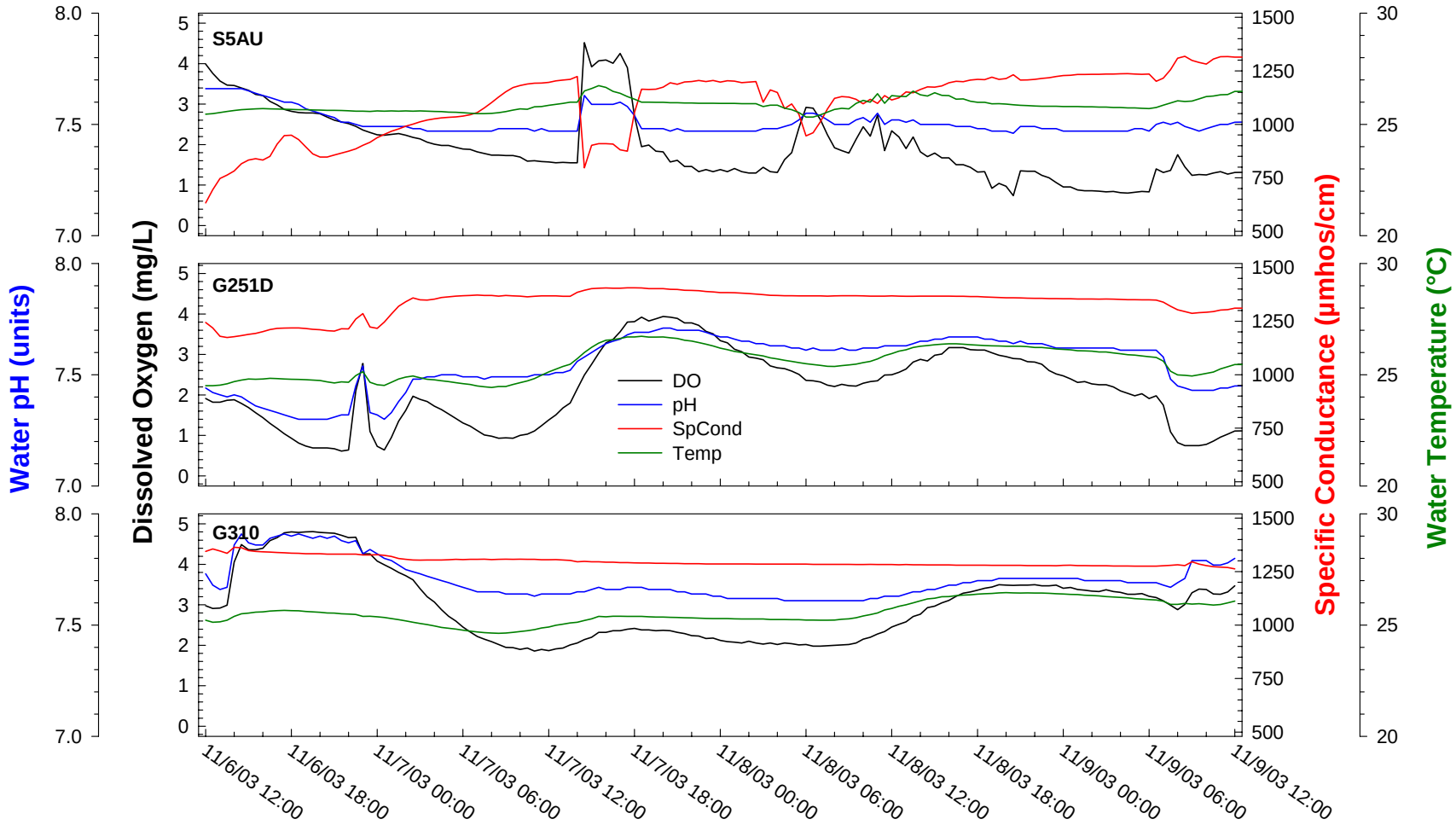

Figure 10. Diel measurements at S5AU, G251D and G310 in ST1W, November 6–9, 2003.

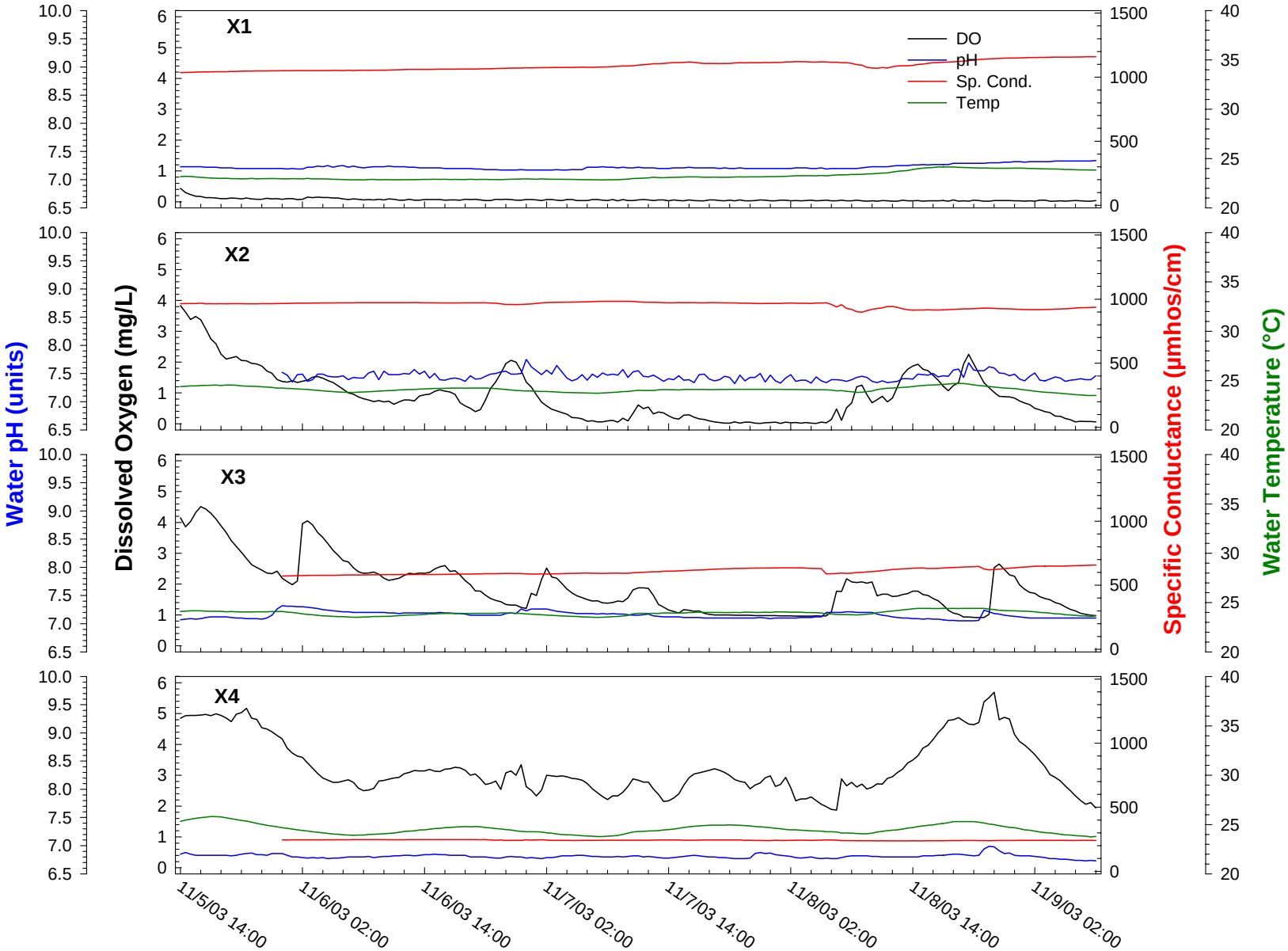

Figure 11. Diel measurements along Transect X, November 5–9, 2003.

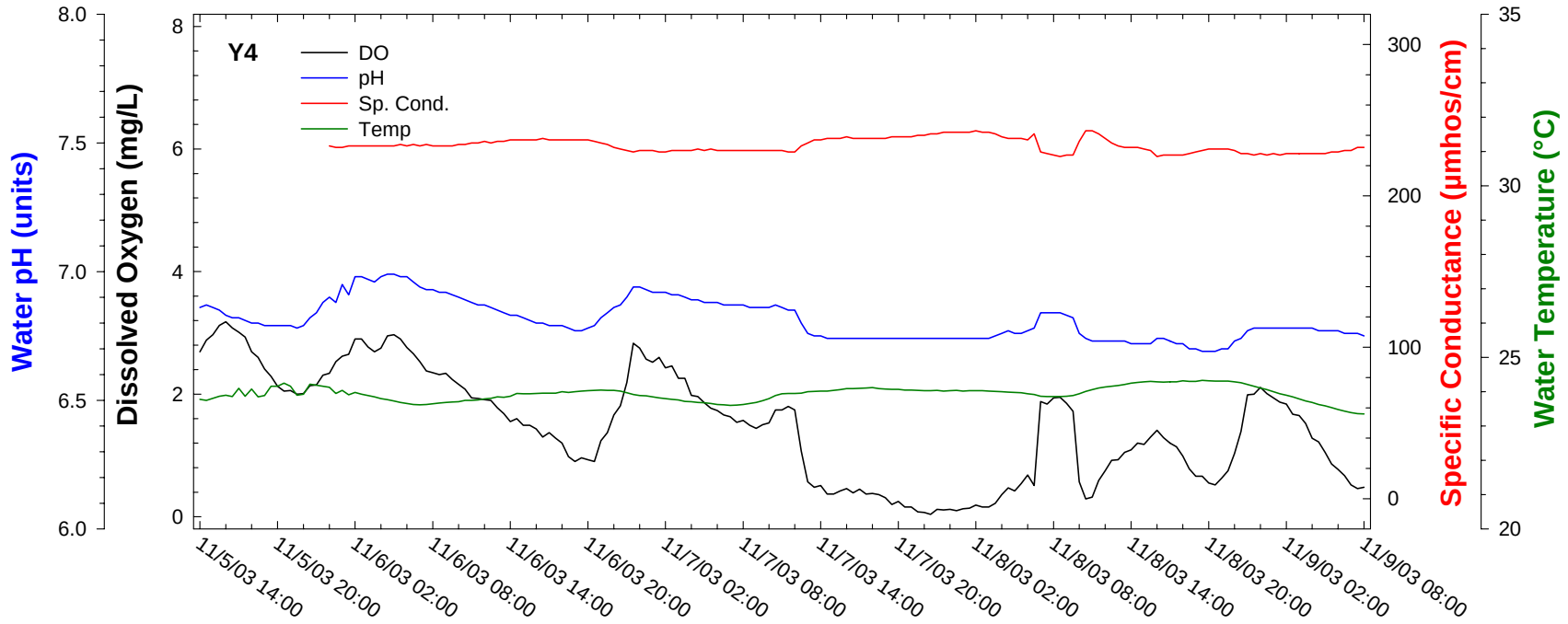

Figure 12. Diel measurements along Transect Y, November 5–9, 2003.

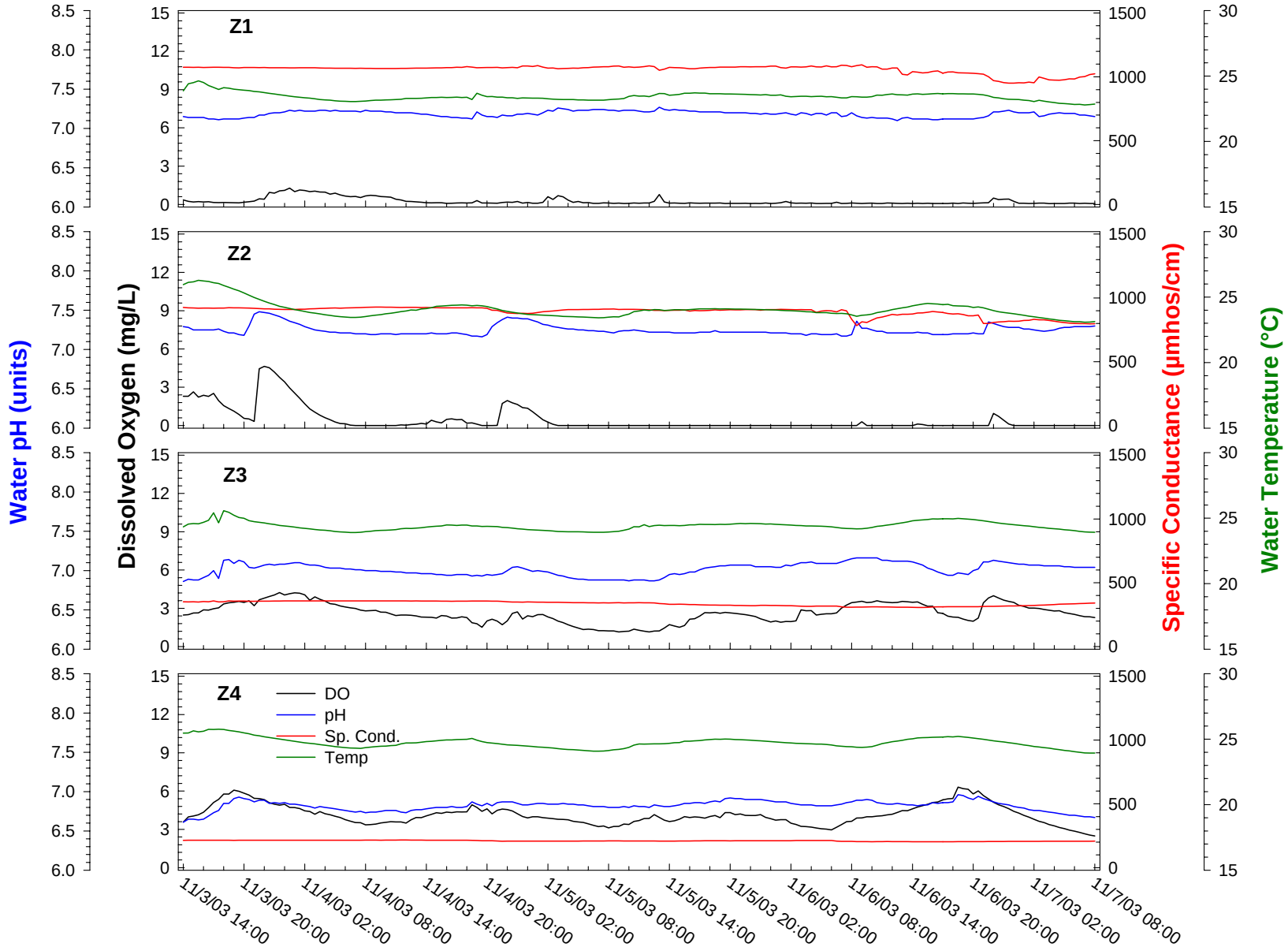

Figure 13. Diel measurements along Transect Z, November 5–9, 2003.

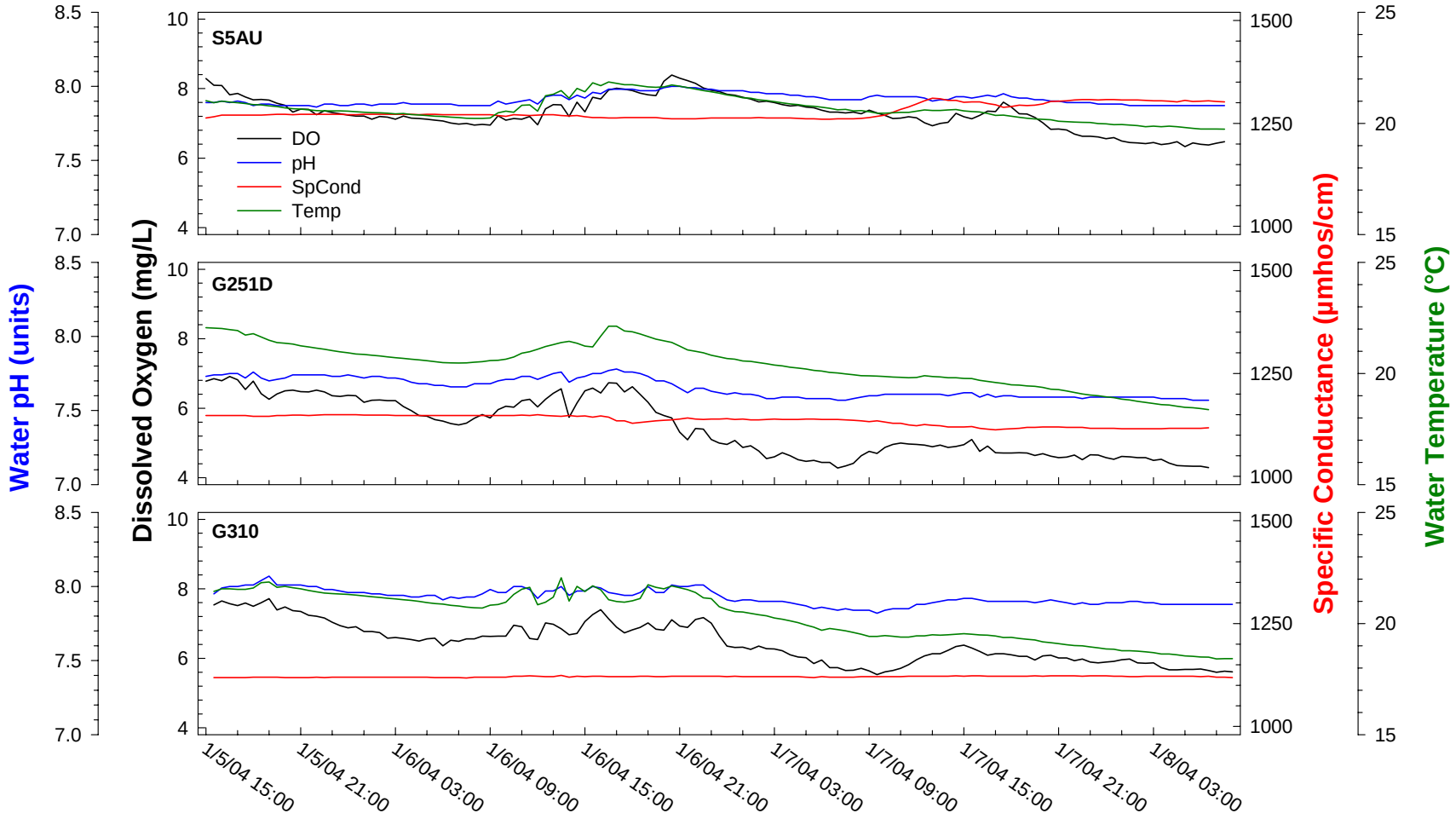

Figure 14. Diel measurements at S5AU, G251D, and G310 in ST1W, January 5–8, 2004.

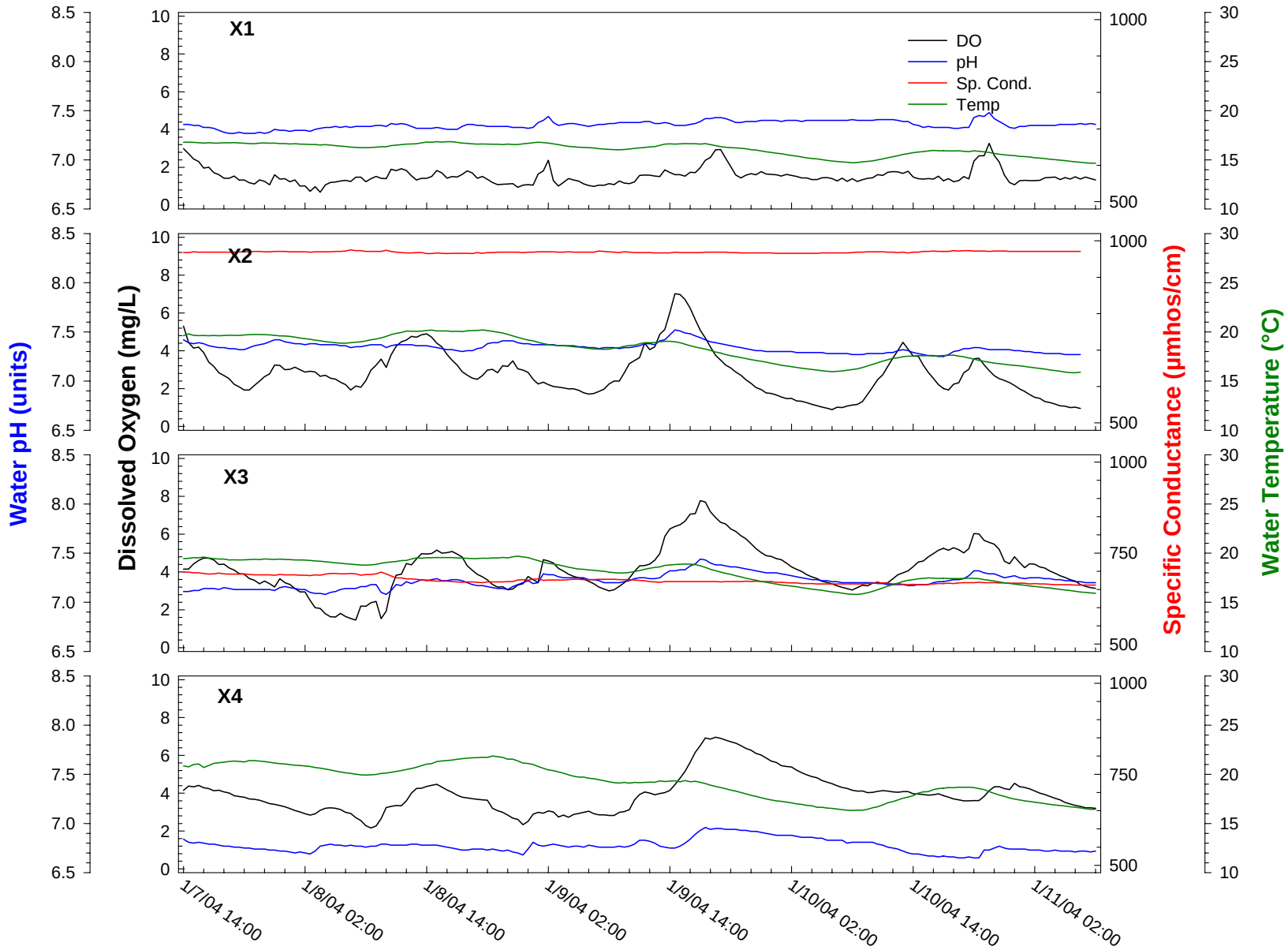

Figure 15. Diel measurements along Transect X, January 7–11, 2004.

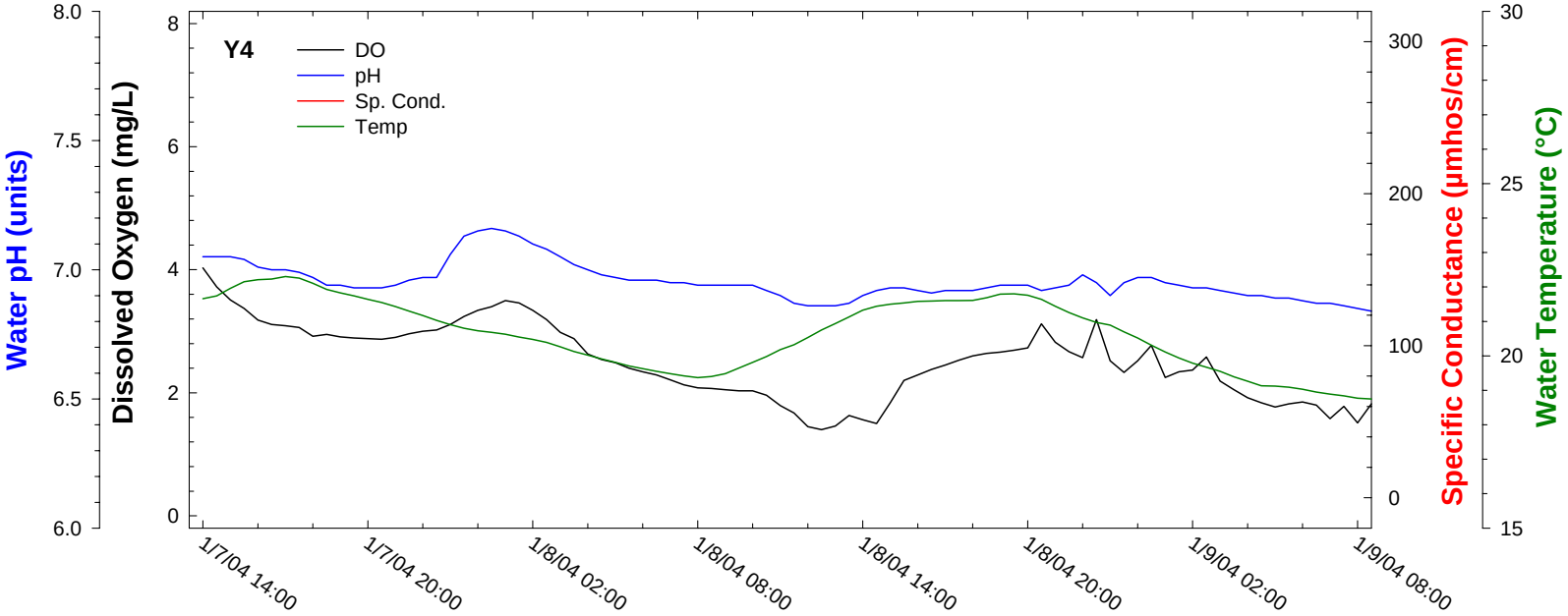

Figure 16. Diel measurements along Transect Y, January 7–9, 2004.

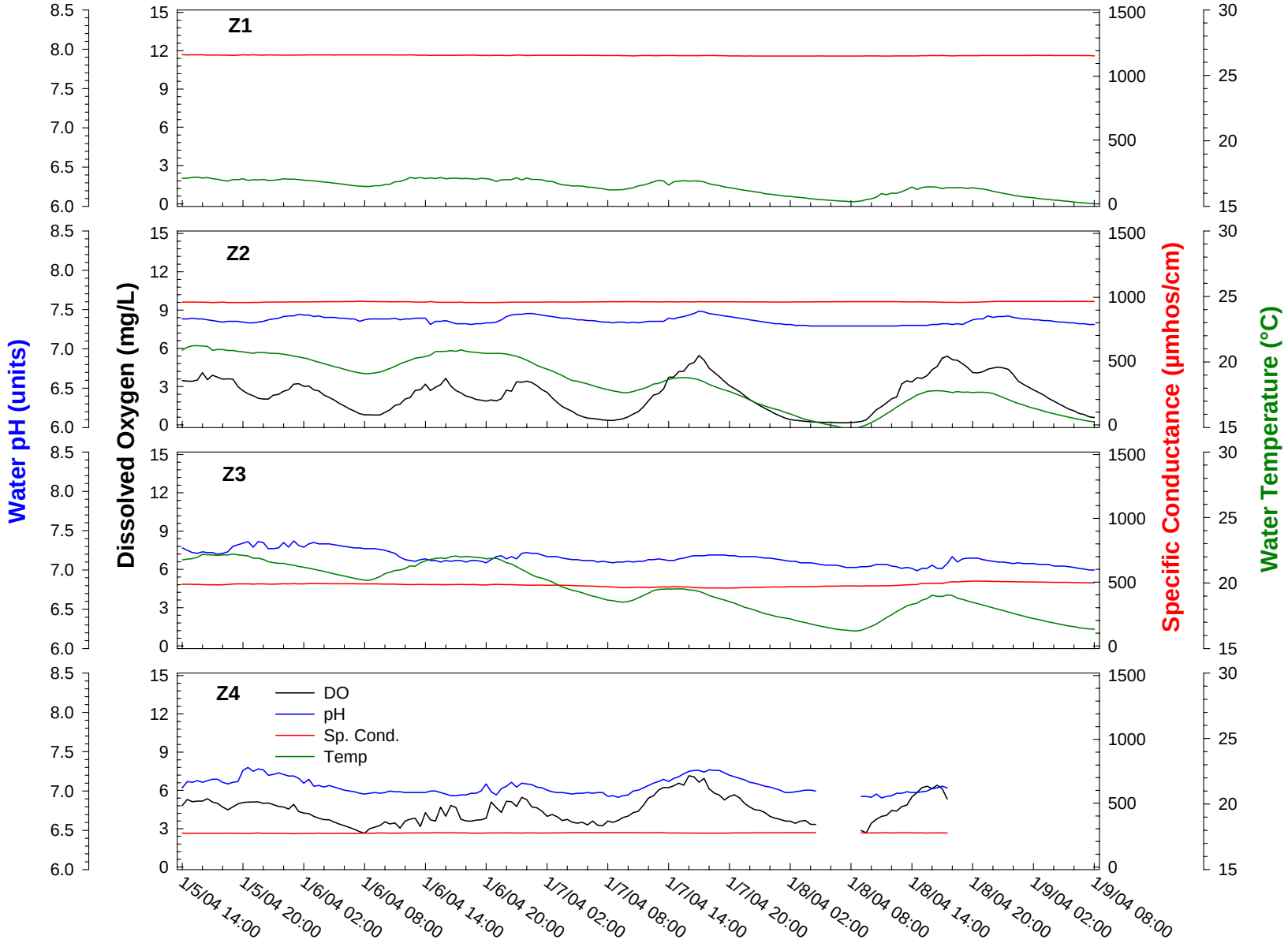

Figure 17. Diel measurements along Transect Z, January 5–9, 2004.

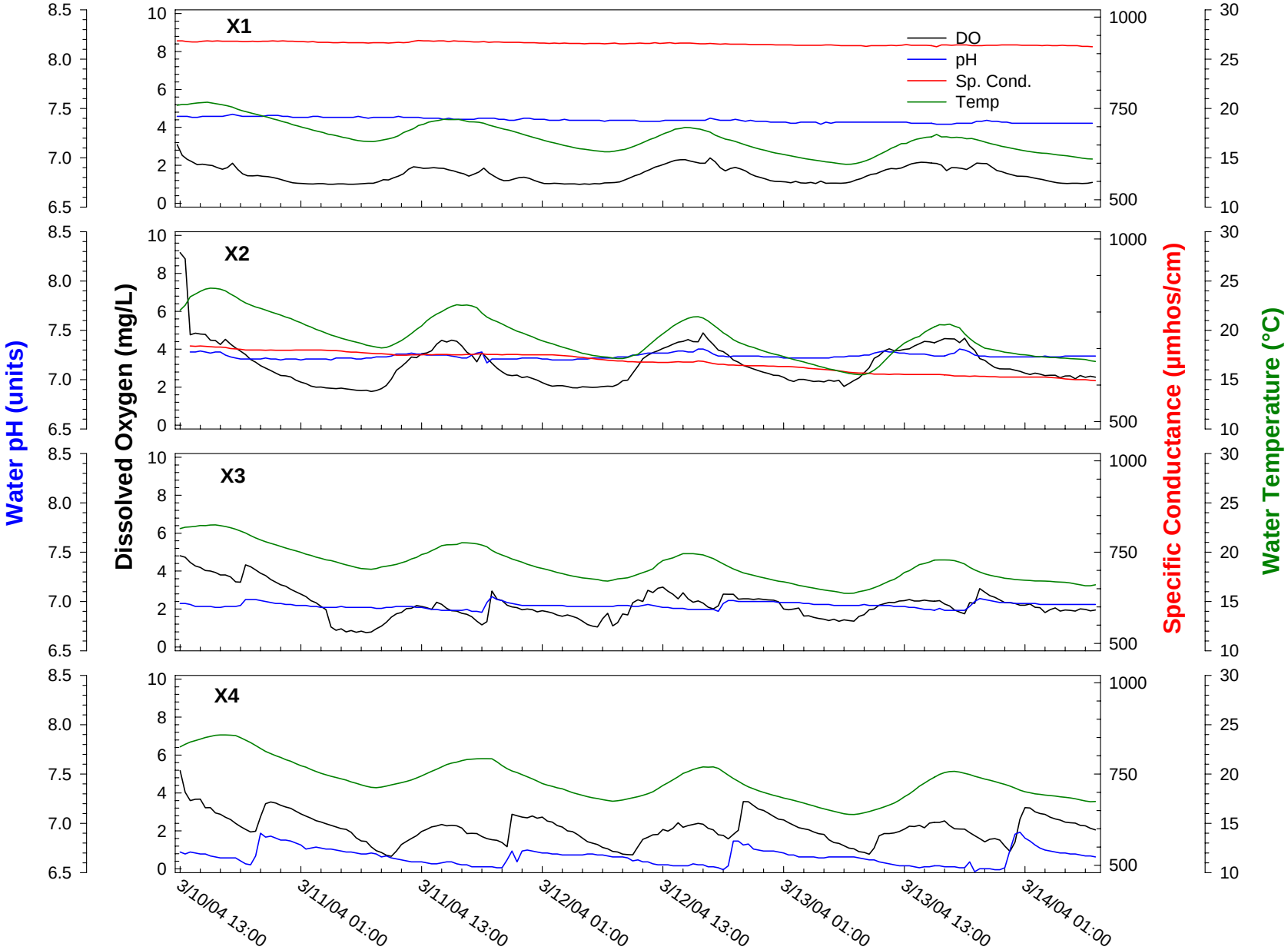

Figure 18. Diel measurements along Transect X, March 10–14, 2004.

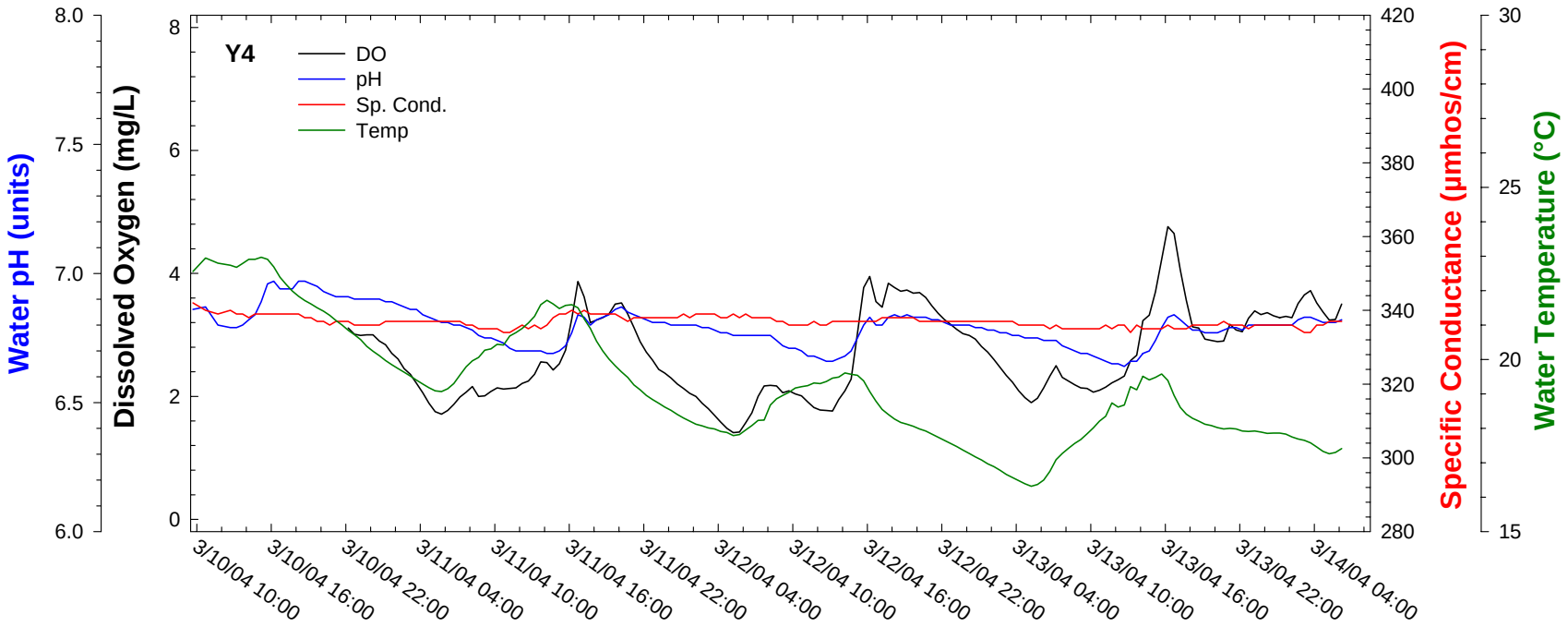

Figure 19. Diel measurements along Transect Y, March 10–14, 2004.

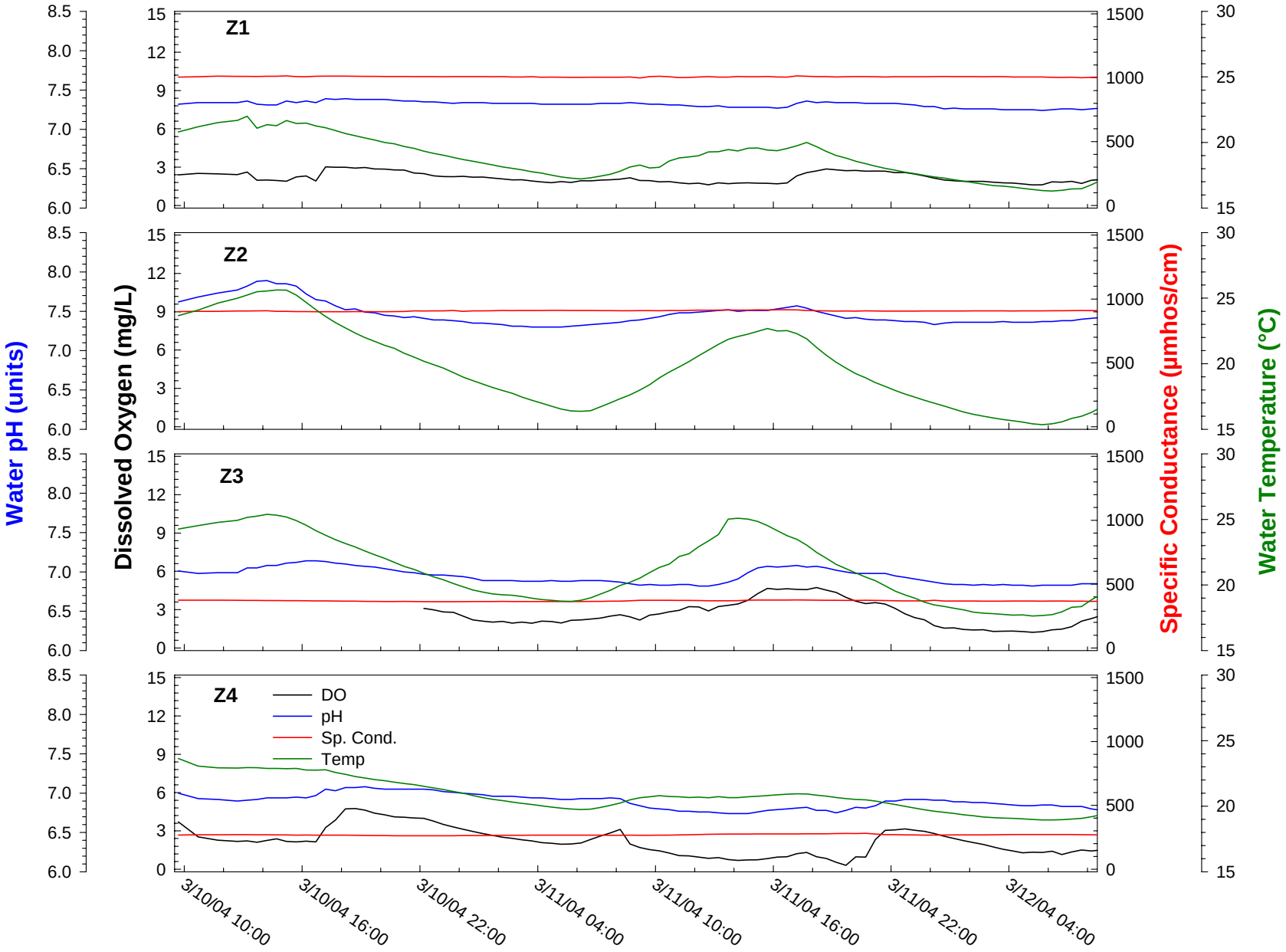

Figure 20. Diel measurements along Transect Z, March 10–12, 2004.