VIII. Appendix

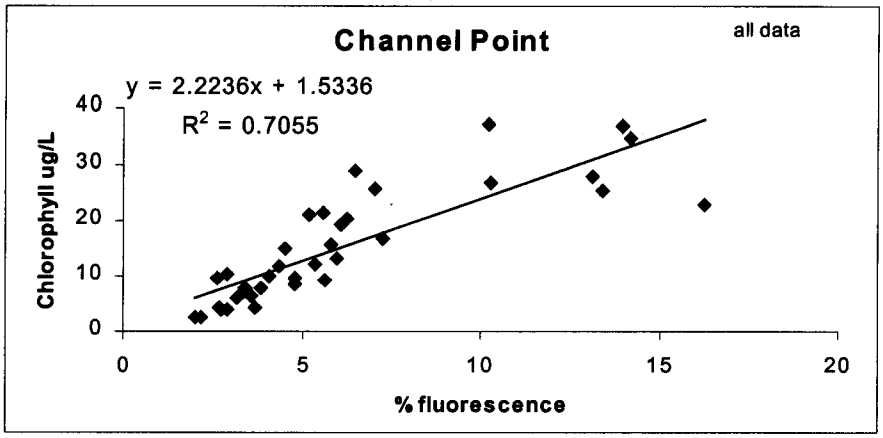
Appendix A

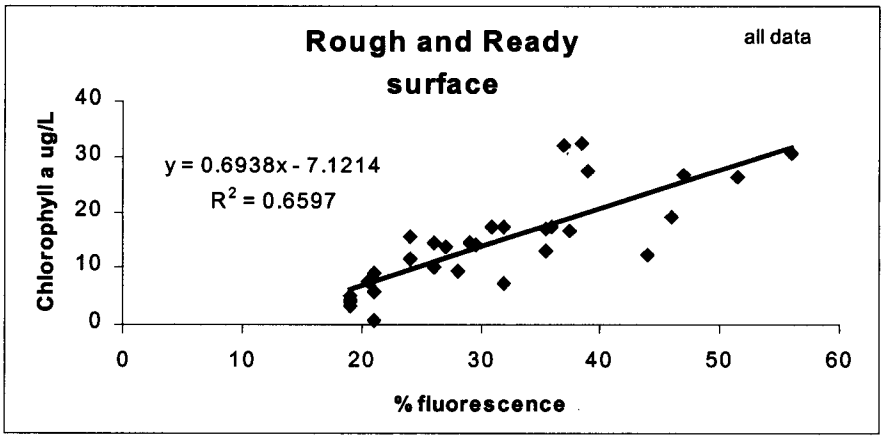
Methods used for water quality analyses

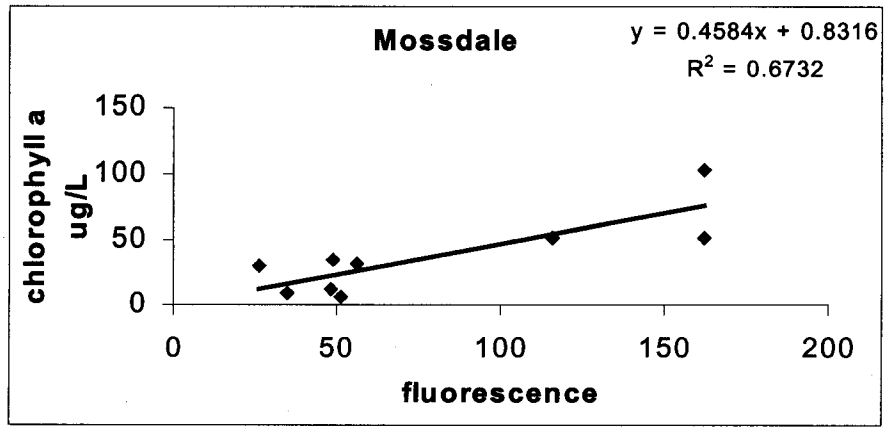
DWR San Joaquin Dissolved Oxygen Study Methods

Label:	Method	Size	Preservative	Handling	Container Note:	Reporting Limit	Note
Dissolved Organic Carbon	EPA 415.1 (D), Organic Carbon (Dissolved)	40 ml Vial	H2PO4, pH <2	Ice, 4° C	Do Not Overfill. Vial Contains Acid.	0.10	
Total Organic Carbon	EPA 415.1 (T), Organic Carbon (Total)	40 ml Vial	H2PO4, pH <2	Ice, 4° C	Do Not Overfill. Vial Contains Acid.	0.10	
Chlorophyll a and Phaeophytin	Std Method 10200 H, Spectrometric Determination of Chlorophyll & Phaeophytin			Frozen, Dry Ice	Freeze Immediately	0.05	
Chloride	EPA 325.2, Chloride	1 Pint		Ice, 4° C		1.00	
Nitrate + Nitrite	Std Method 4500-NO3-F Modified, Nitrite, Nitrate (DWR Modified) (Dissolved)	1/2 Pint		Ice, 4° C	Freeze if held more than 24 Hrs.	0.01	
Total Kjeldahl Nitrogen	EPA 351.2, Kjeldahl Nitrogen	1/2 Pint		Ice, 4° C	Freeze if held more than 24 Hrs.	0.10	
Total Suspended Solids	EPA 160.2, Total Suspended Solids	1 Quart		Ice, 4° C	Freeze if held more than 24 Hrs.	1.00	
Volatile Suspended Solids	EPA 160.4, Volatile Suspended Solids	1 Quart		Ice, 4° C		1.00	
Total Phosphorus	EPA 365.4, Phosphorus (Total)	1/2 Pint		Ice, 4° C		0.01	
Ammonia	EPA 350.1, Ammonia, Nitrogen (Dissolved)	1/2 Pint		Ice, 4° C	Freeze if held more than 24 Hrs.	0.01	
Orthophosphate	EPA 365.1 (DWR Modified), DWR Othro-Phosphate (Dissolved)	1/2 Pint		Ice, 4° C	Freeze if held more than 24 Hrs.	0.01	
Biochemical Oxygen Demand	Std Method 5210B	1/2 gal		Ice, 4° C		1.00	
Carbonaceous Biochemical Oxygen Demand	Std Method 5210B	1/2 gal		Ice, 4° C		1.00	Hach Powder # 253; 0.16g/300ml (inhibitor)

Appendix B. Calibration curves for chlorophyll *a* measured by YSI 6600 fluorometers and DWR continuous monitors.







Appendix C: Tables and Figures

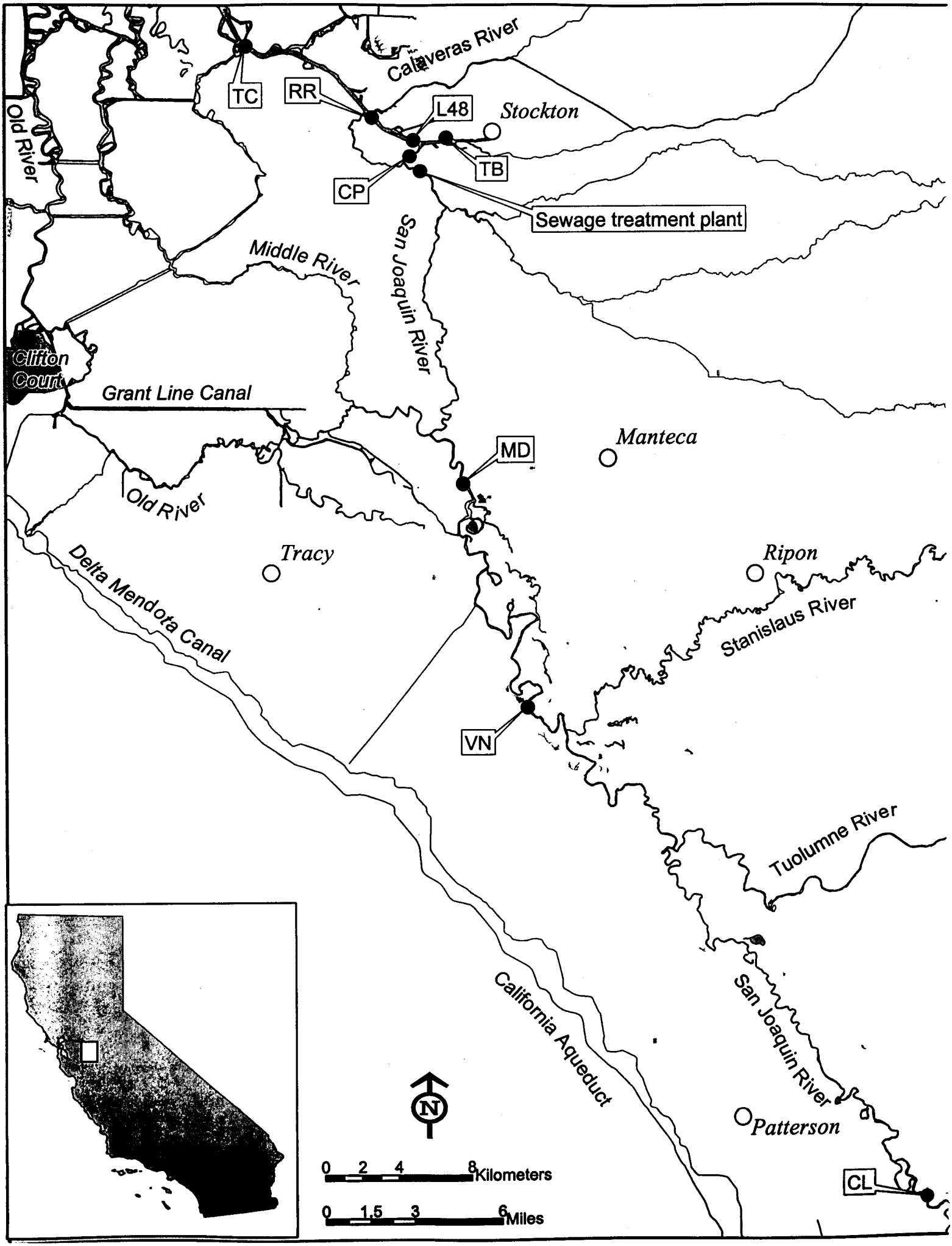
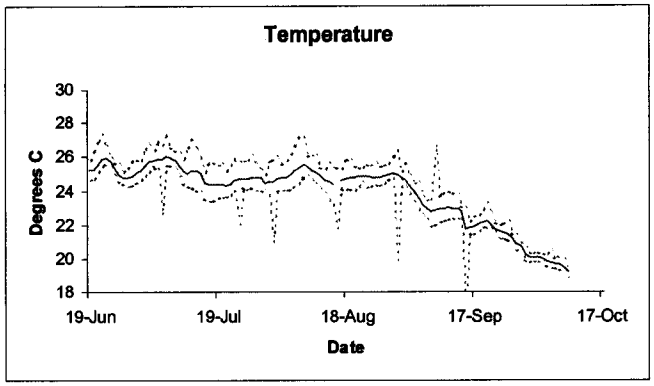
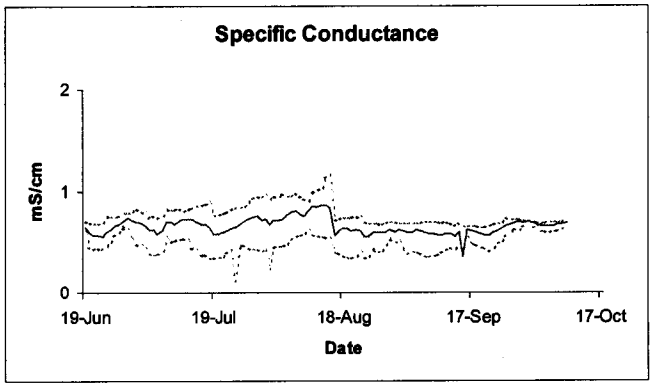
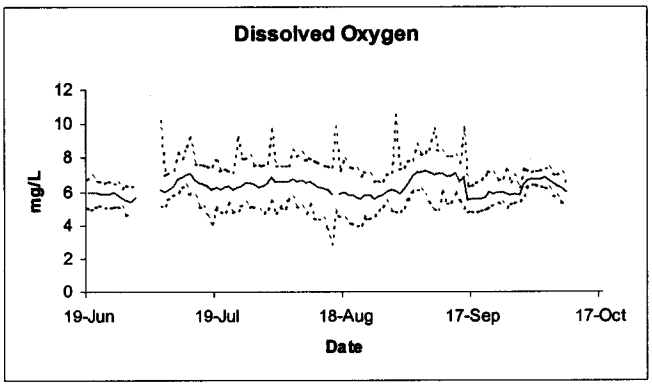
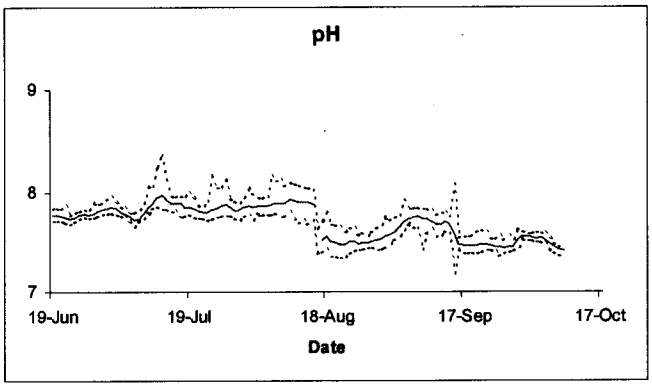

Calaveras River
TC
RR
L48
Stockton
TB
CP
Sewage treatment plant
Old River
Middle River
San Joaquin River
Clifton Court
Grant Line Canal
MD
Manteca
Old River
Tracy
Delta Mendota Canal
Ripon
Stanislaus River
VN
Tuolumne River
California Aqueduct
San Joaquin River
Patterson
CL
N
0 2 4 8 Kilometers
0 1.5 3 6 Miles

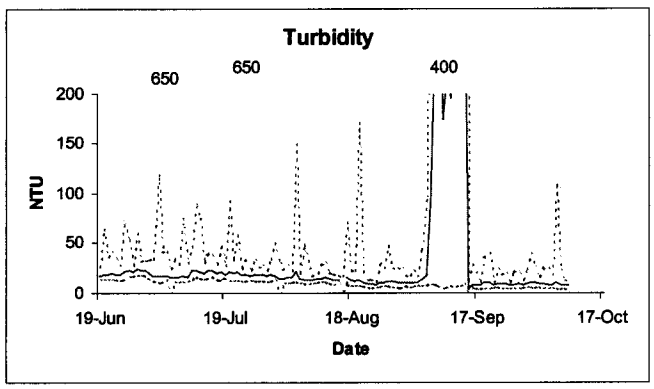
Fig. II-2a. Daily average, minimum and maximum water quality measurements collected using a YSI monitor at Turner Cut.











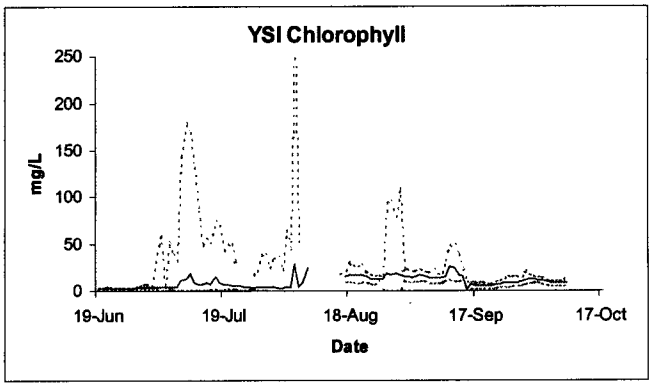
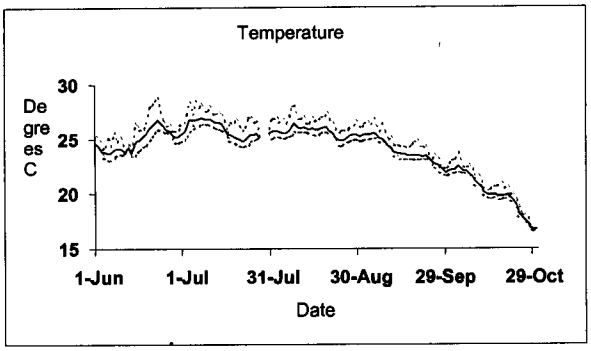
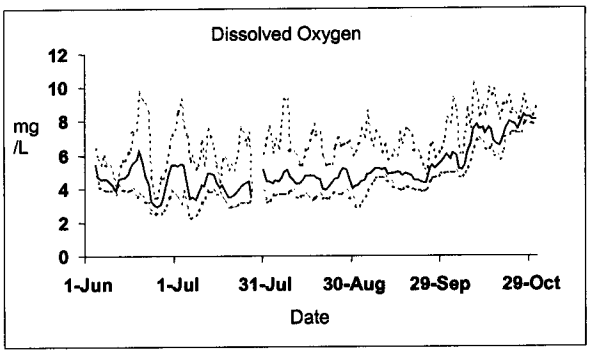
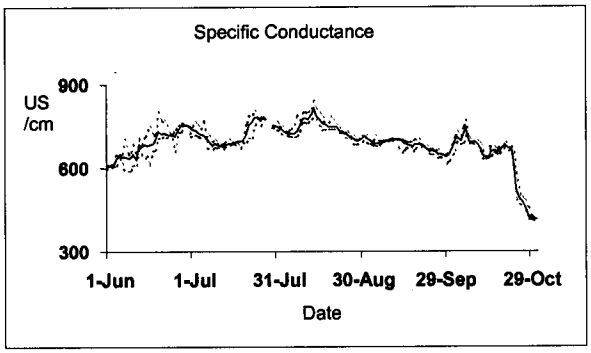
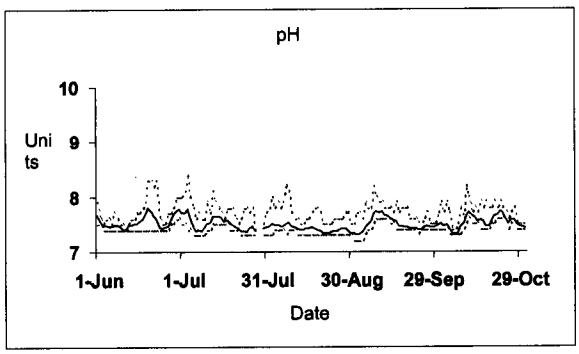


Fig. II-2b. Daily average, minimum and maximum water quality measurements collected using a Schneider water quality monitor at 1 m depth for Rough and Ready Island.









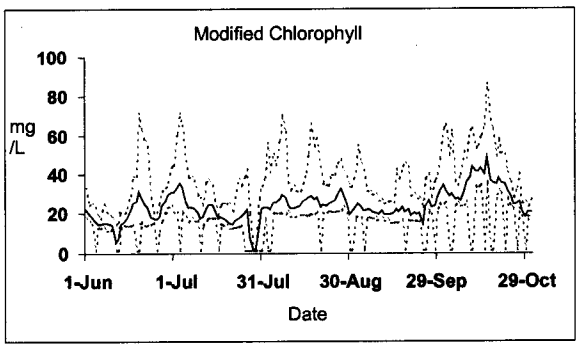


Fig. II-2c. Daily average, minimum and maximum water quality measurements collected using a YSI monitor at 1 m from the bottom for Rough and Ready Island.

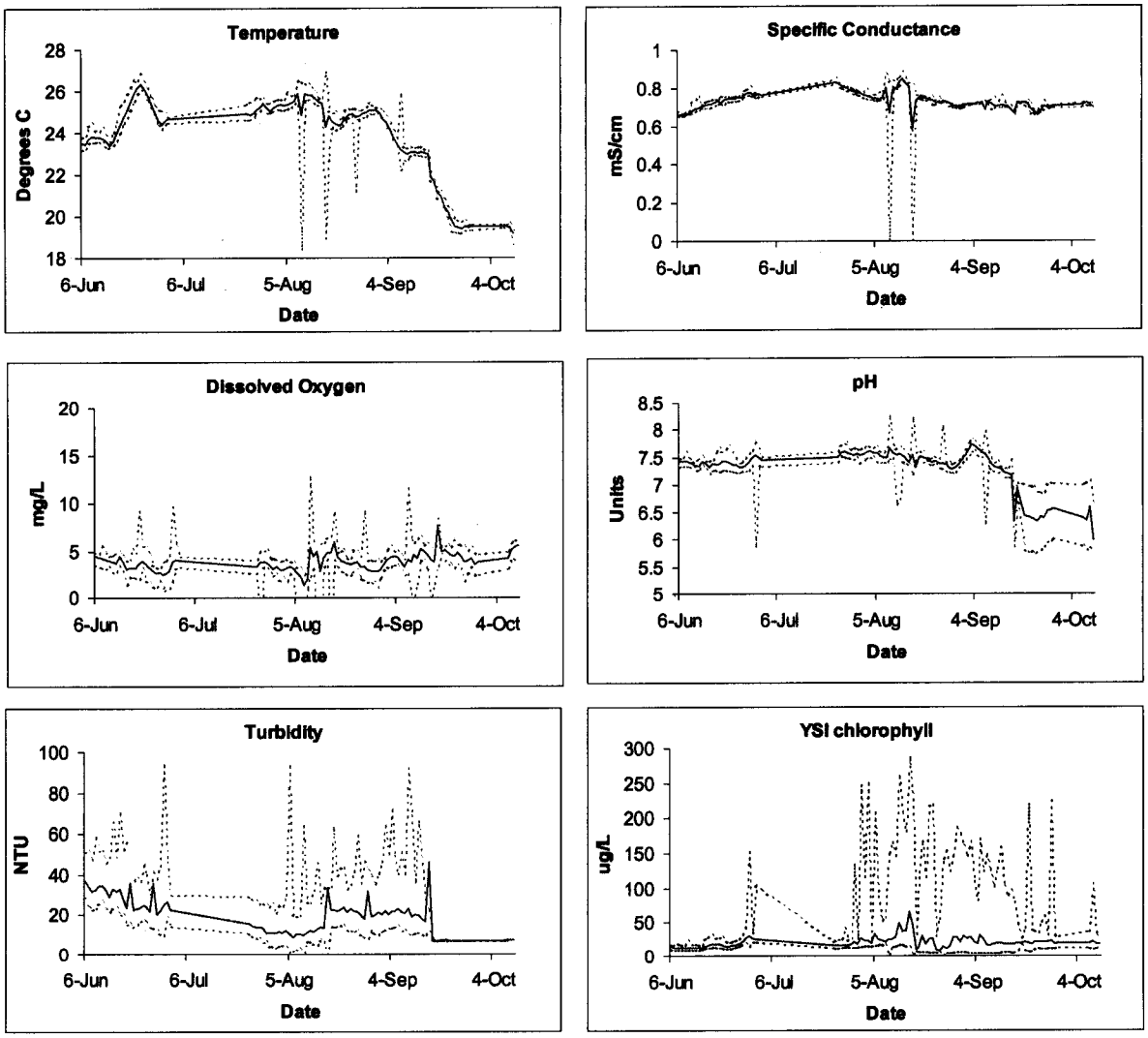


Fig. II-2d. Daily average, minimum and maximum water quality measurements collected using a YSI monitor at 1 m depth in the Turning Basin.

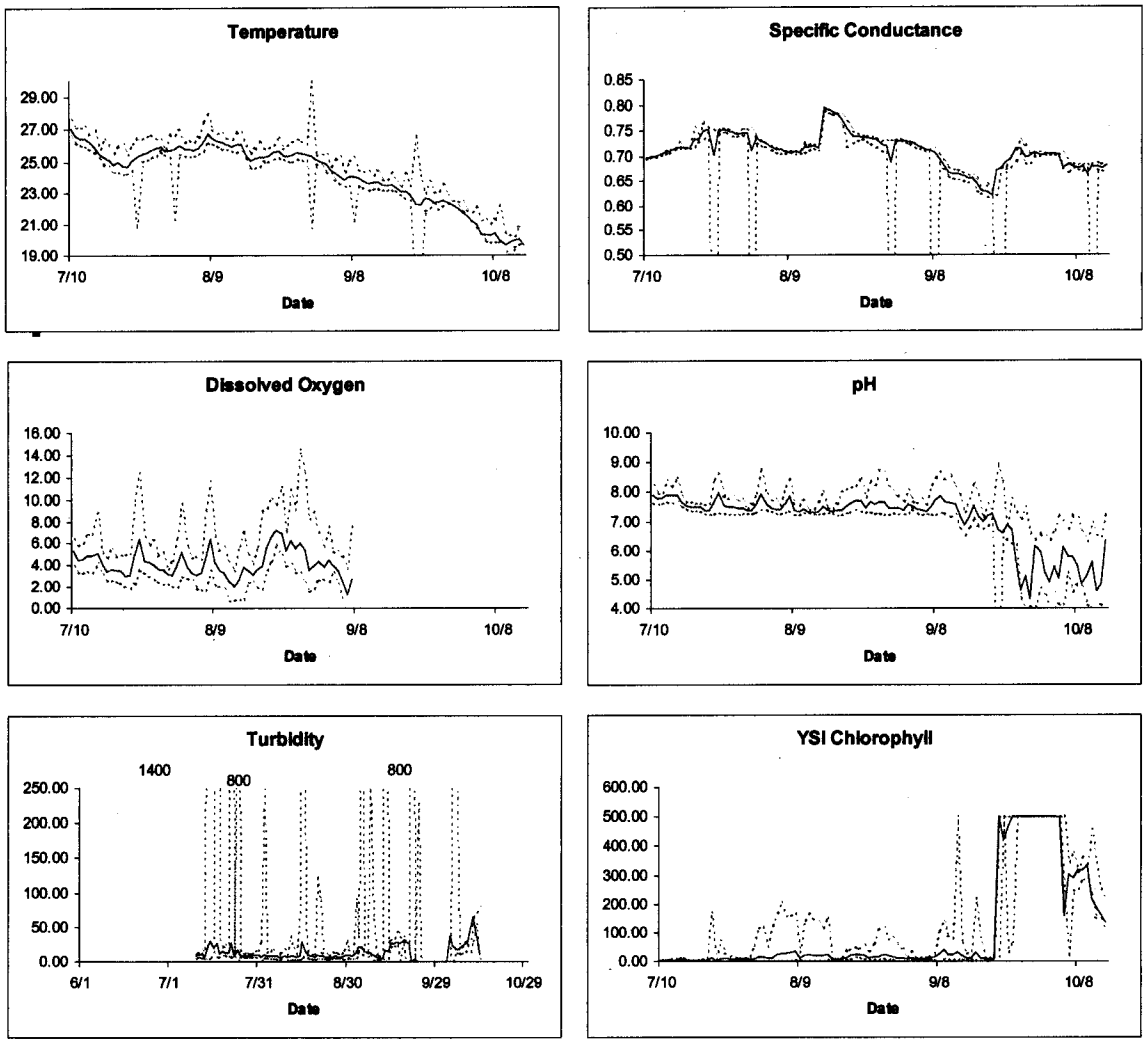
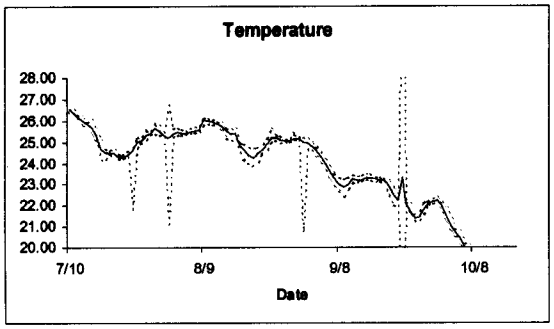
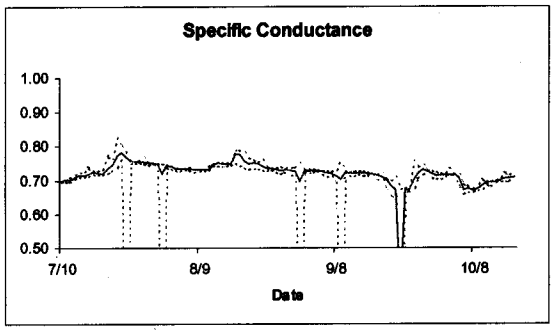
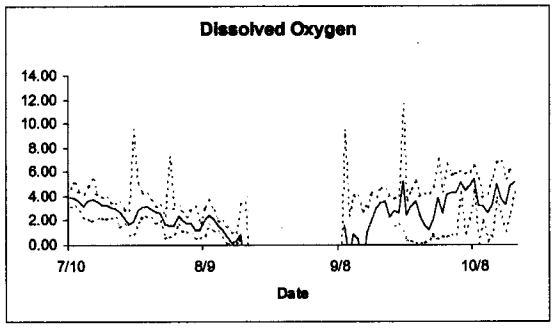
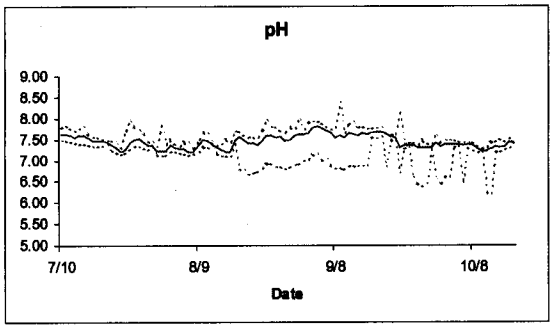


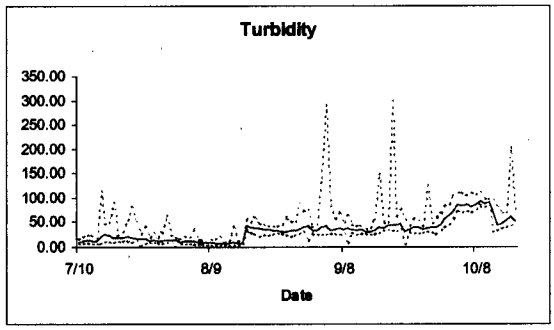
Fig. II-2e. Daily average, minimum and maximum water quality measurements collected using a YSI monitor at 1 m above the bottom in the Turning Basin.











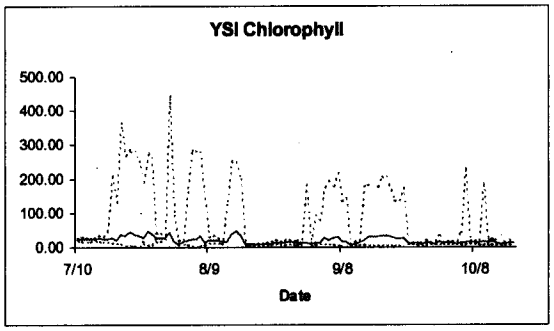


Fig. II-2f. Daily average, minimum and maximum water quality measurements collected using a YSI monitor at Channel Point.

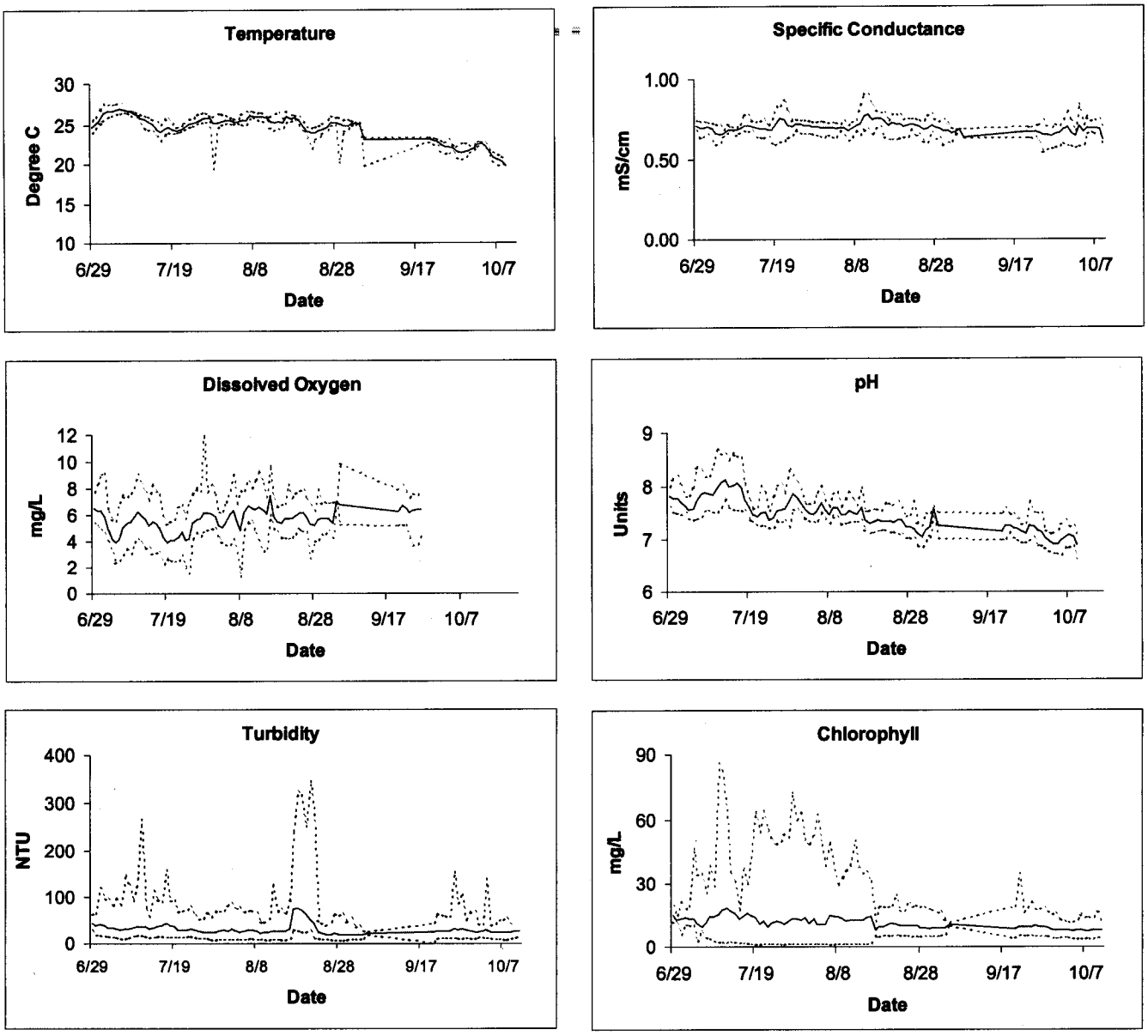


Fig. II-2g. Daily average, minimum and maximum water quality measurements collected using a Schneider water quality monitor at Mossdale.

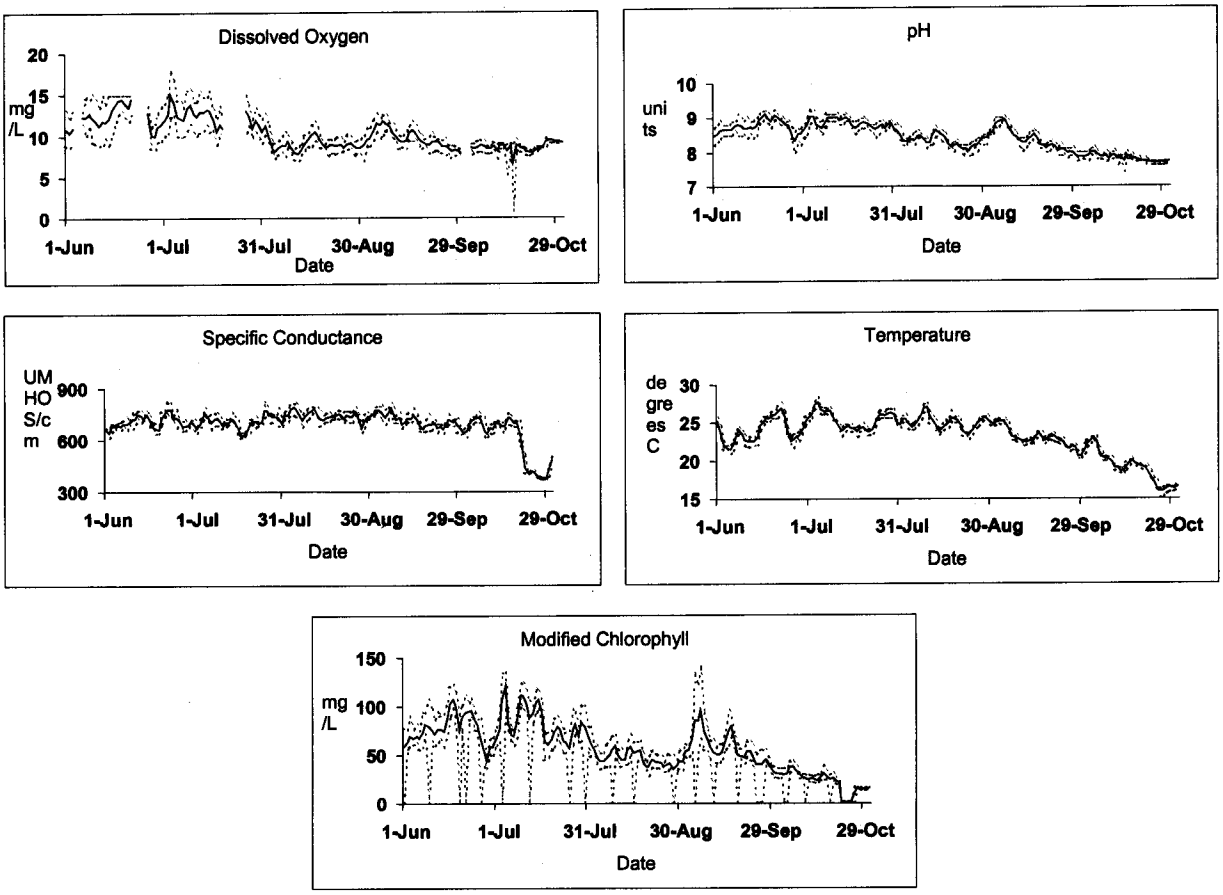


Fig. II-3a. Vertical profiles of water quality variables near Turner Cut

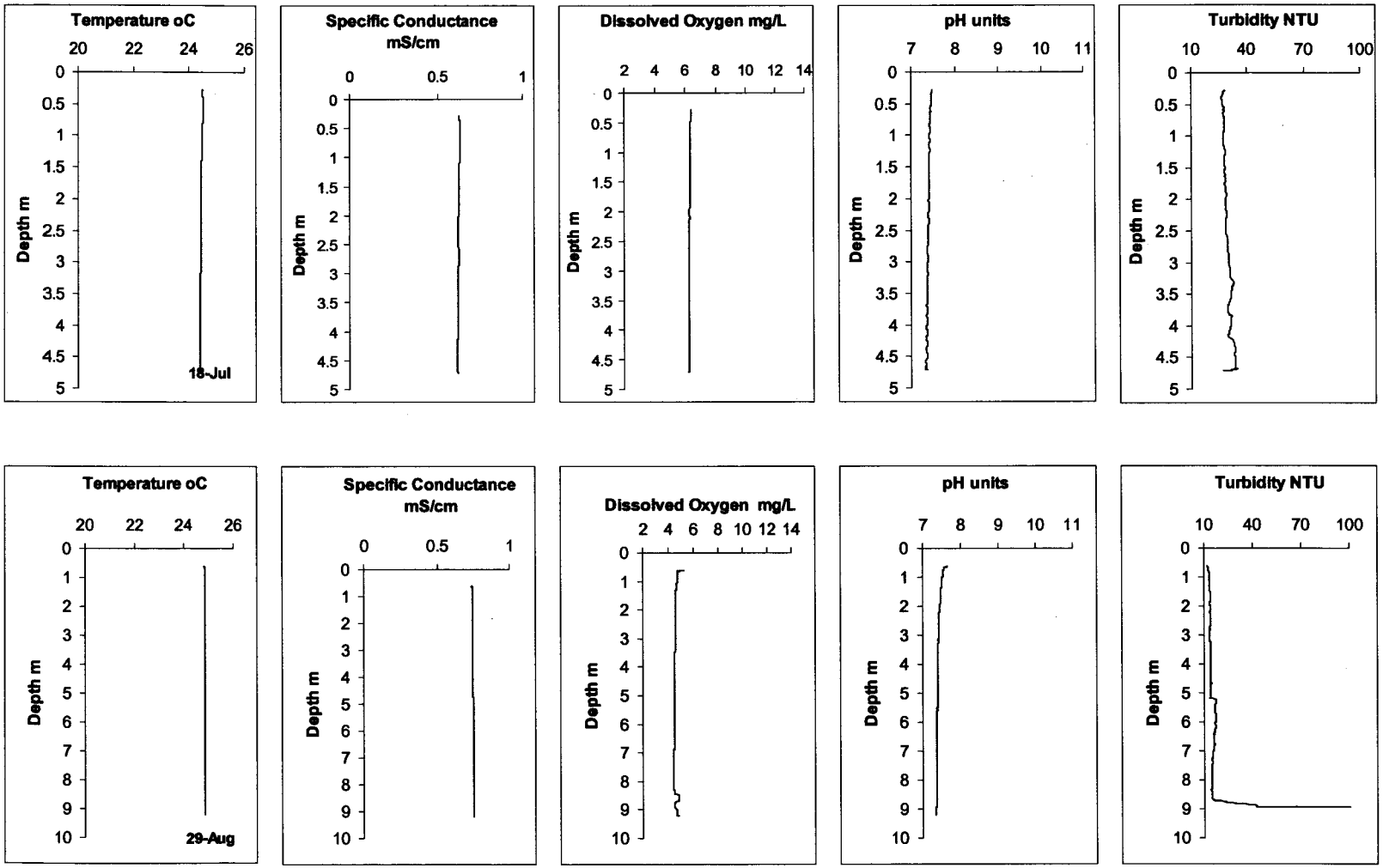


Fig. II-3a. Vertical profiles of water quality variables near Turner Cut.

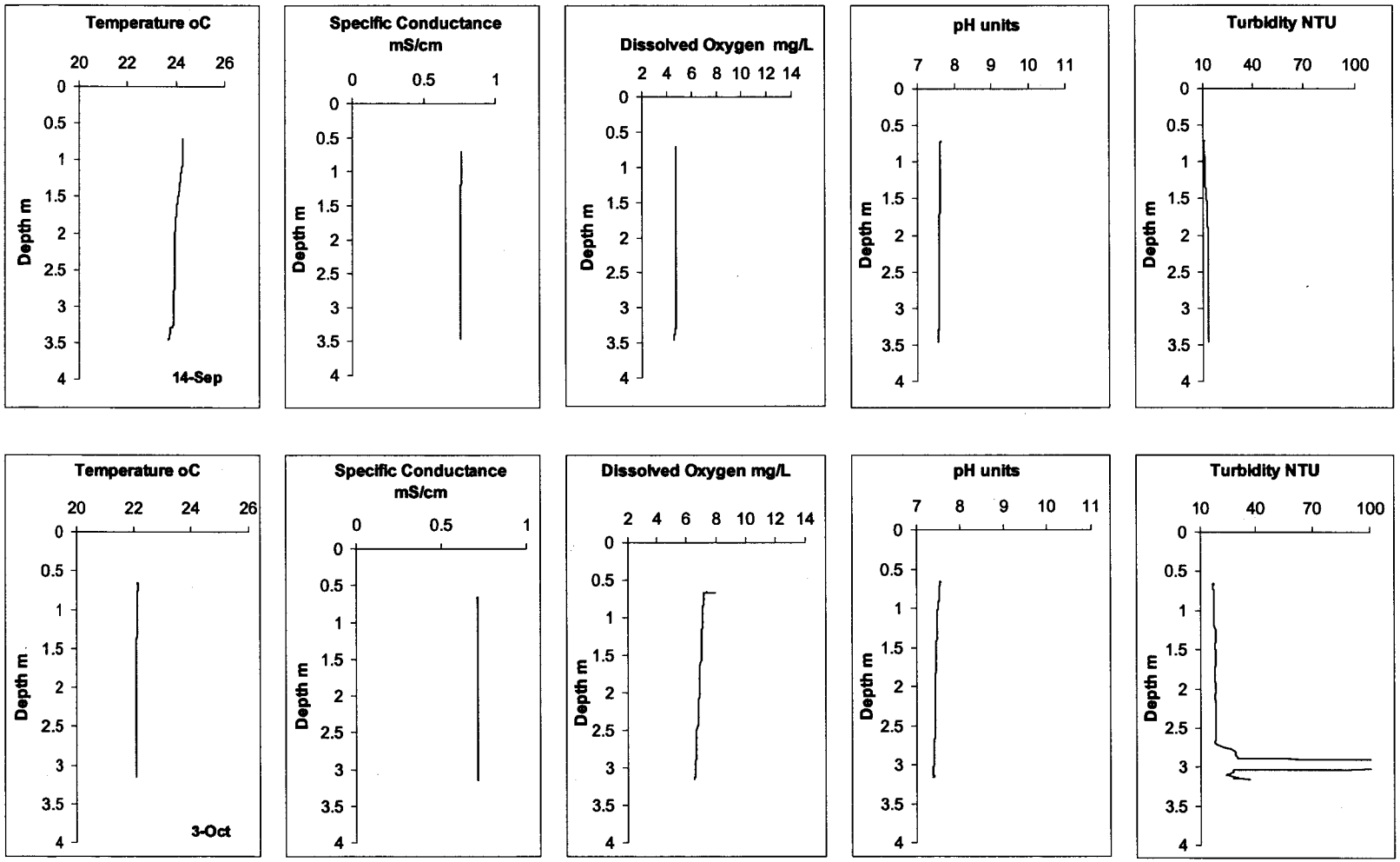


Fig. II-3b. Vertical Profiles of water quality variable near Rough and Ready Island.

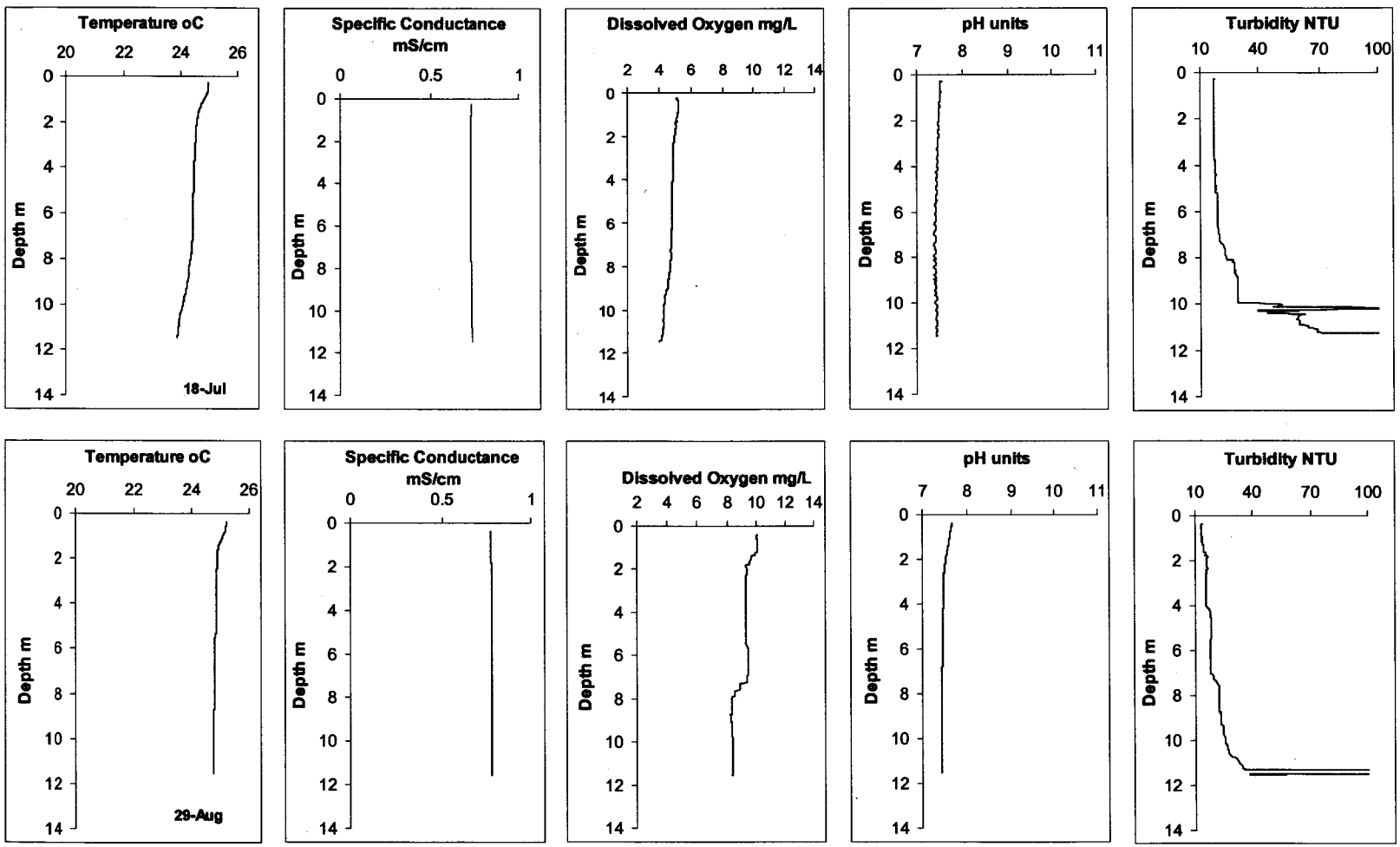


Fig. II-3b. Vertical Profiles of water quality variable near Rough and Ready Island.

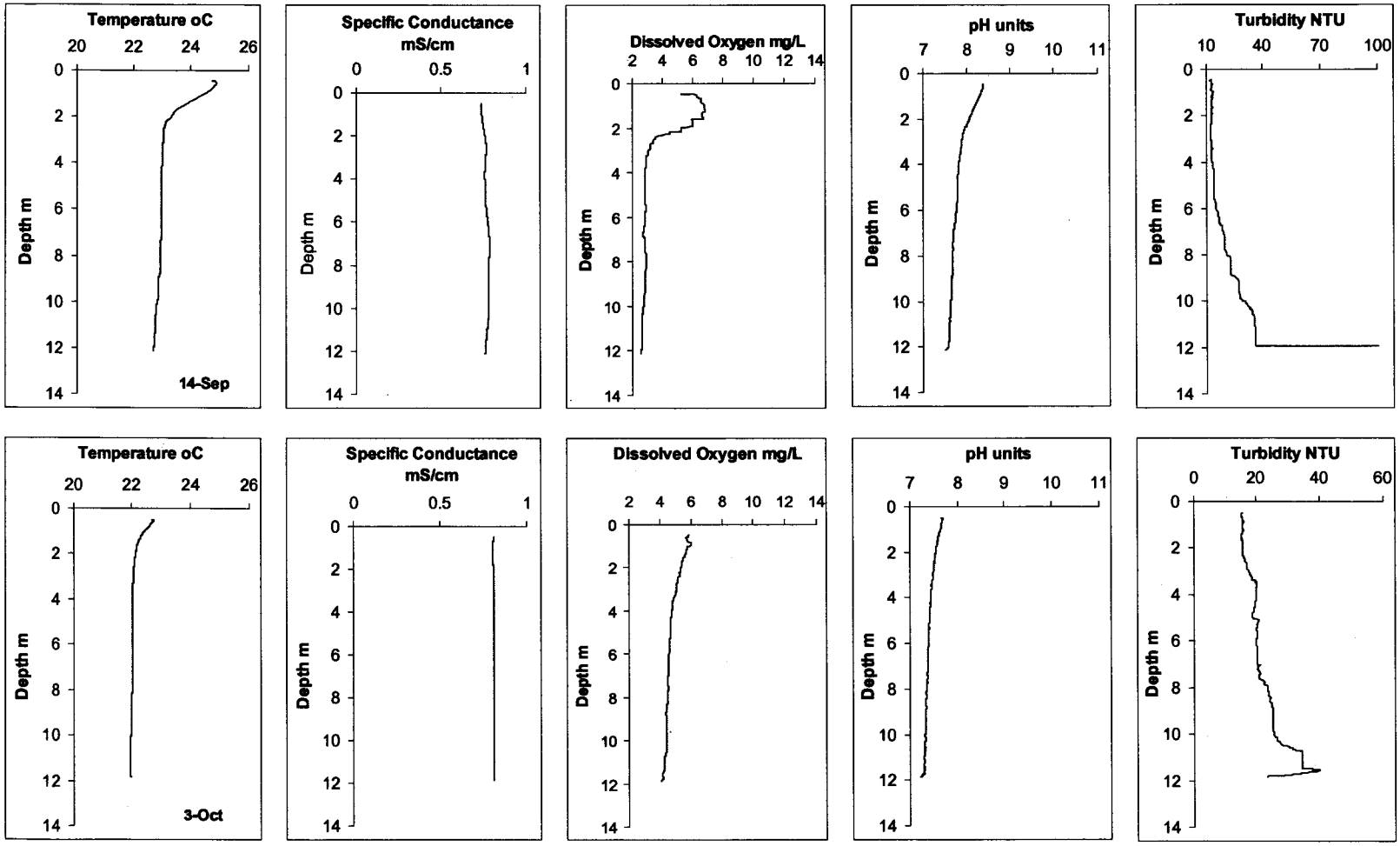


Fig. II-3c. Vertical Profiles of water quality variable near Navigation Light 48.

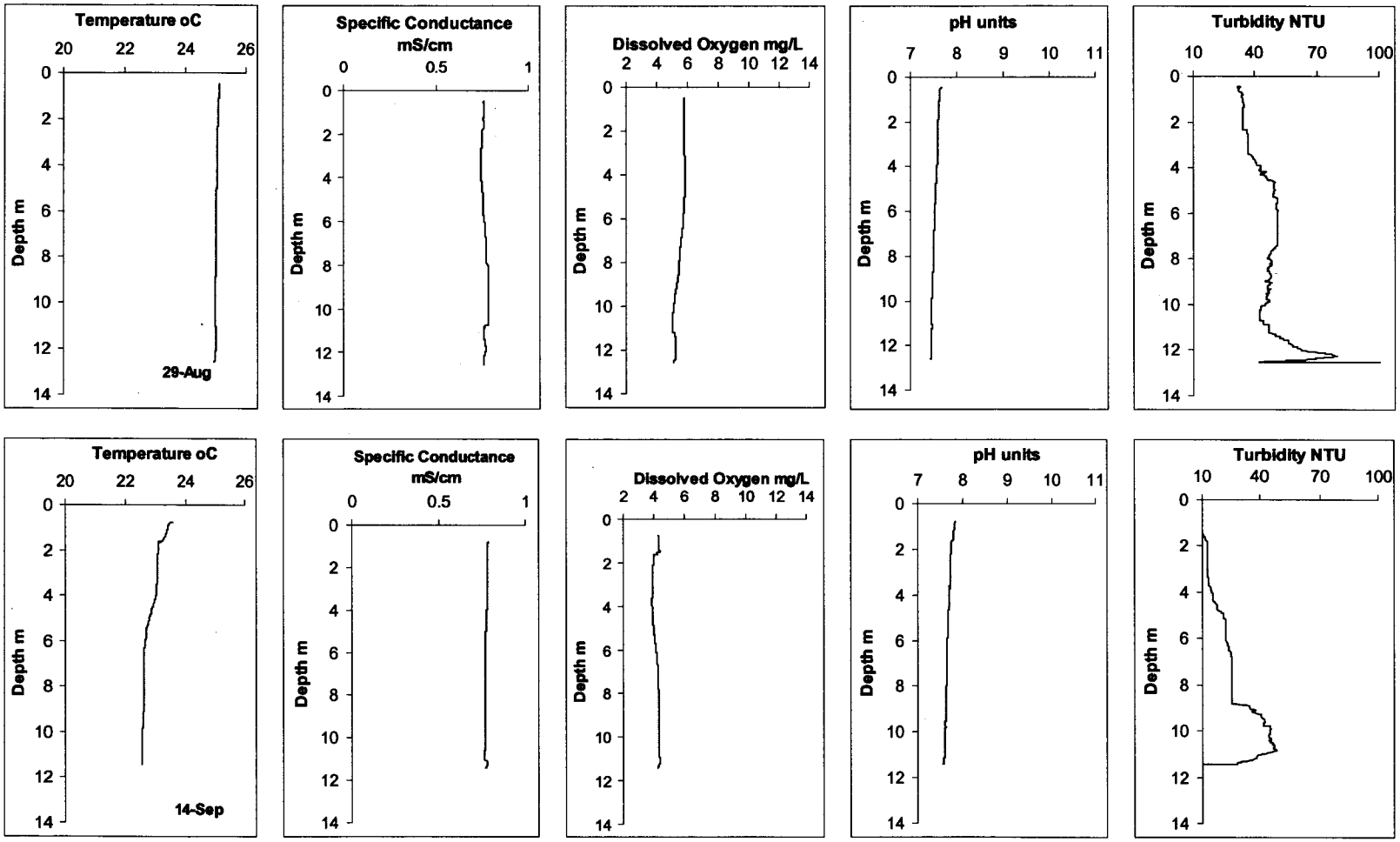


Fig. II-3c. Vertical Profiles of water quality variable near Navigation Light 48.

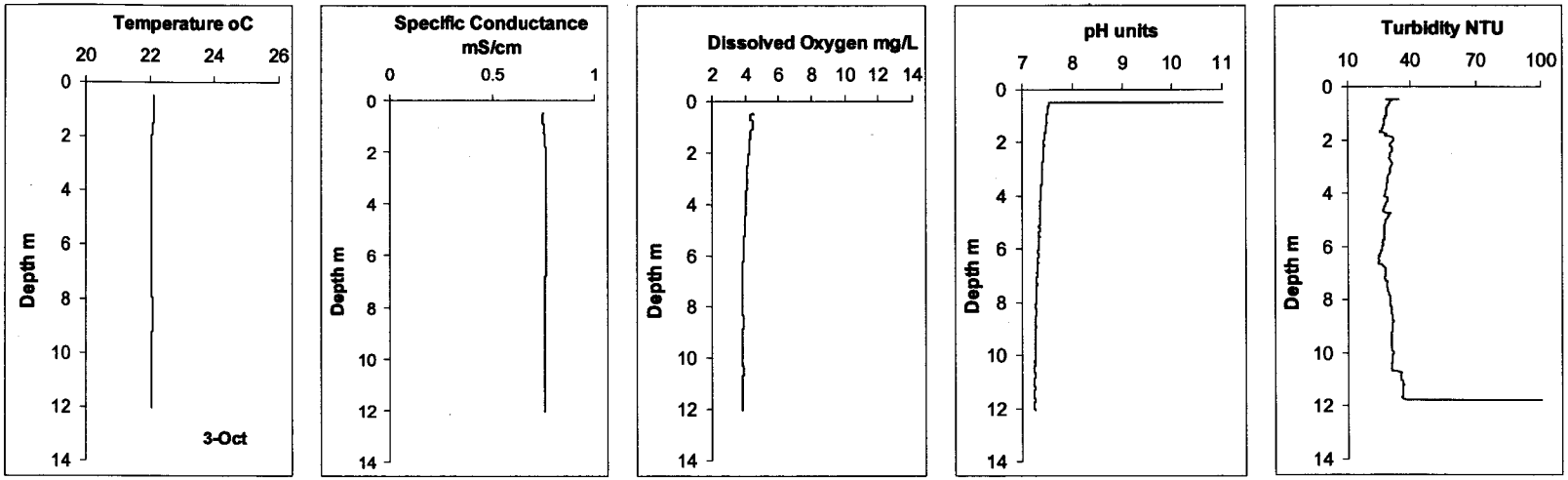


Fig. II-3d. Vertical Profiles of water quality variables near Turning Basin.

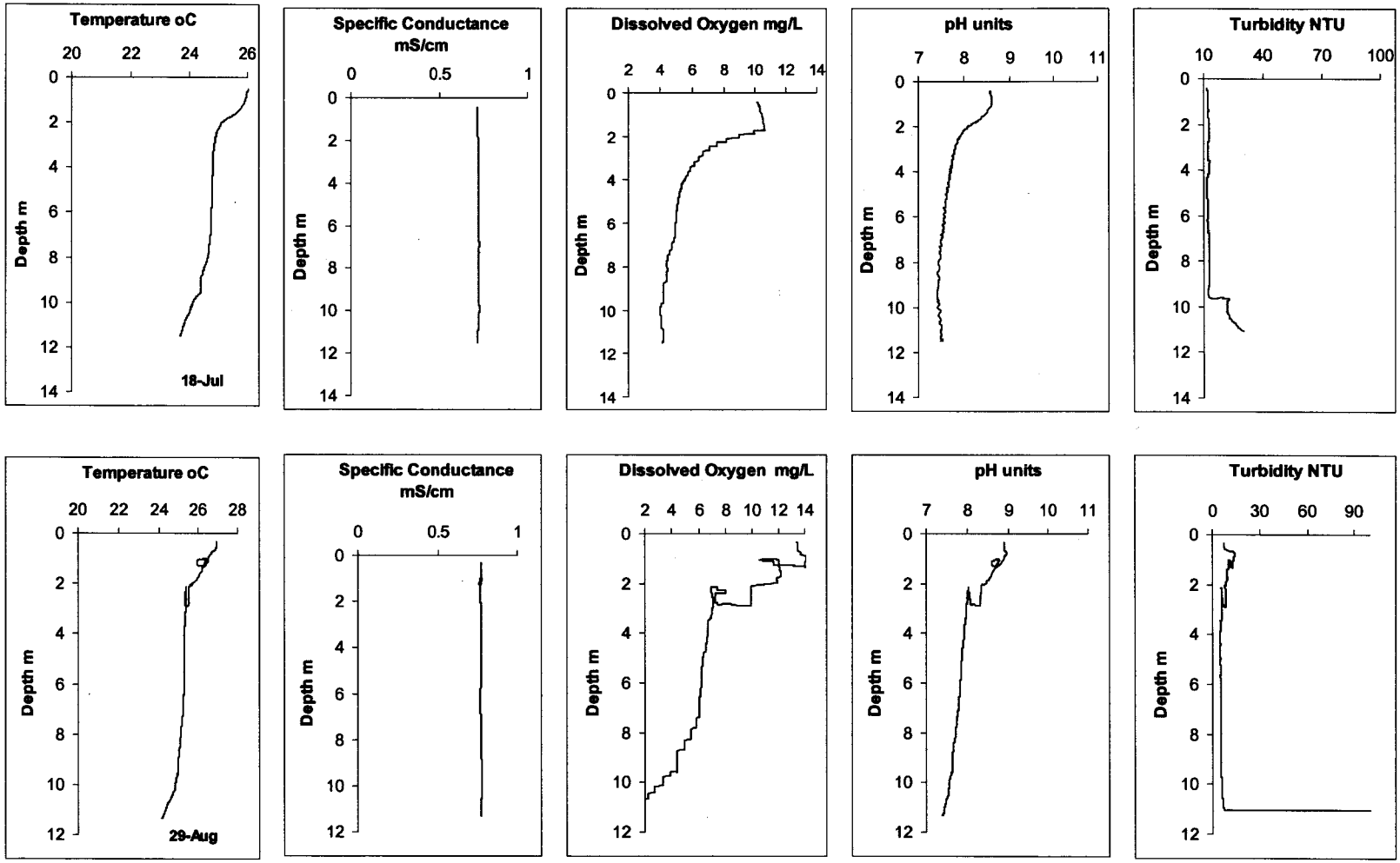


Fig. II-3d. Vertical Profiles of water quality variable near Turning Basin.

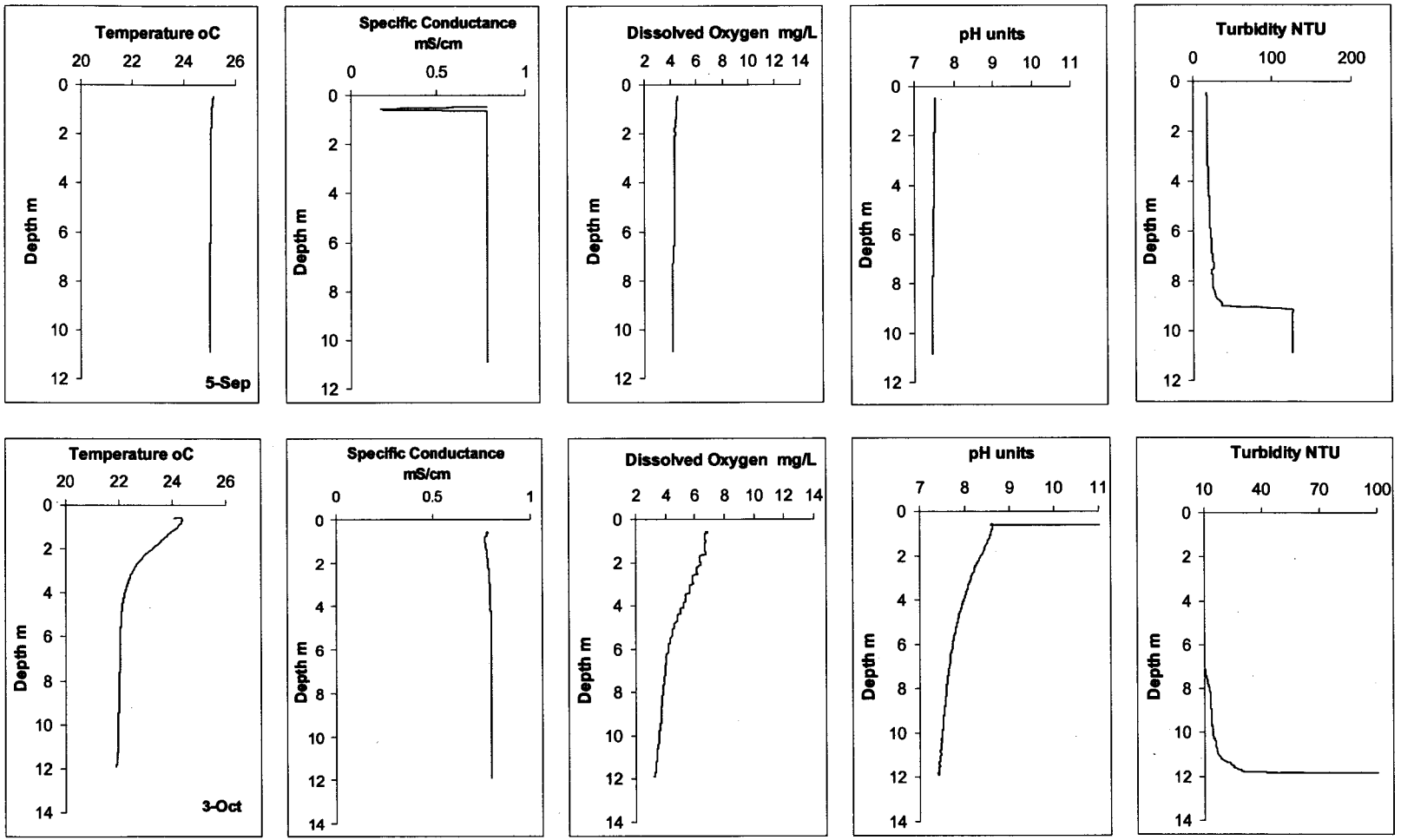


Fig. II-3d. Vertical Profiles of water quality variable near Turning Basin.

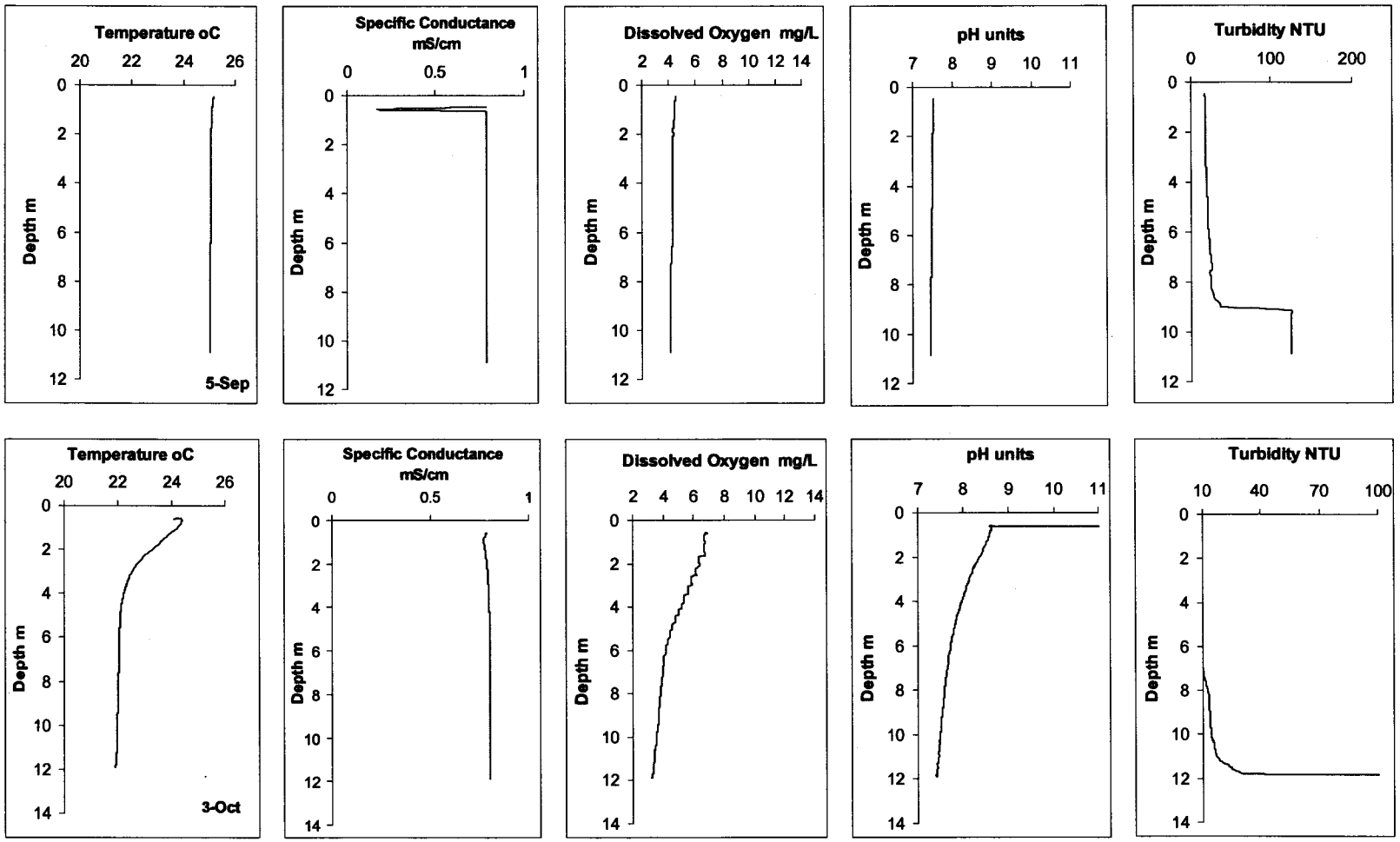


Fig. II-3e. Vertical profiles of water quality variables near Channel Point.

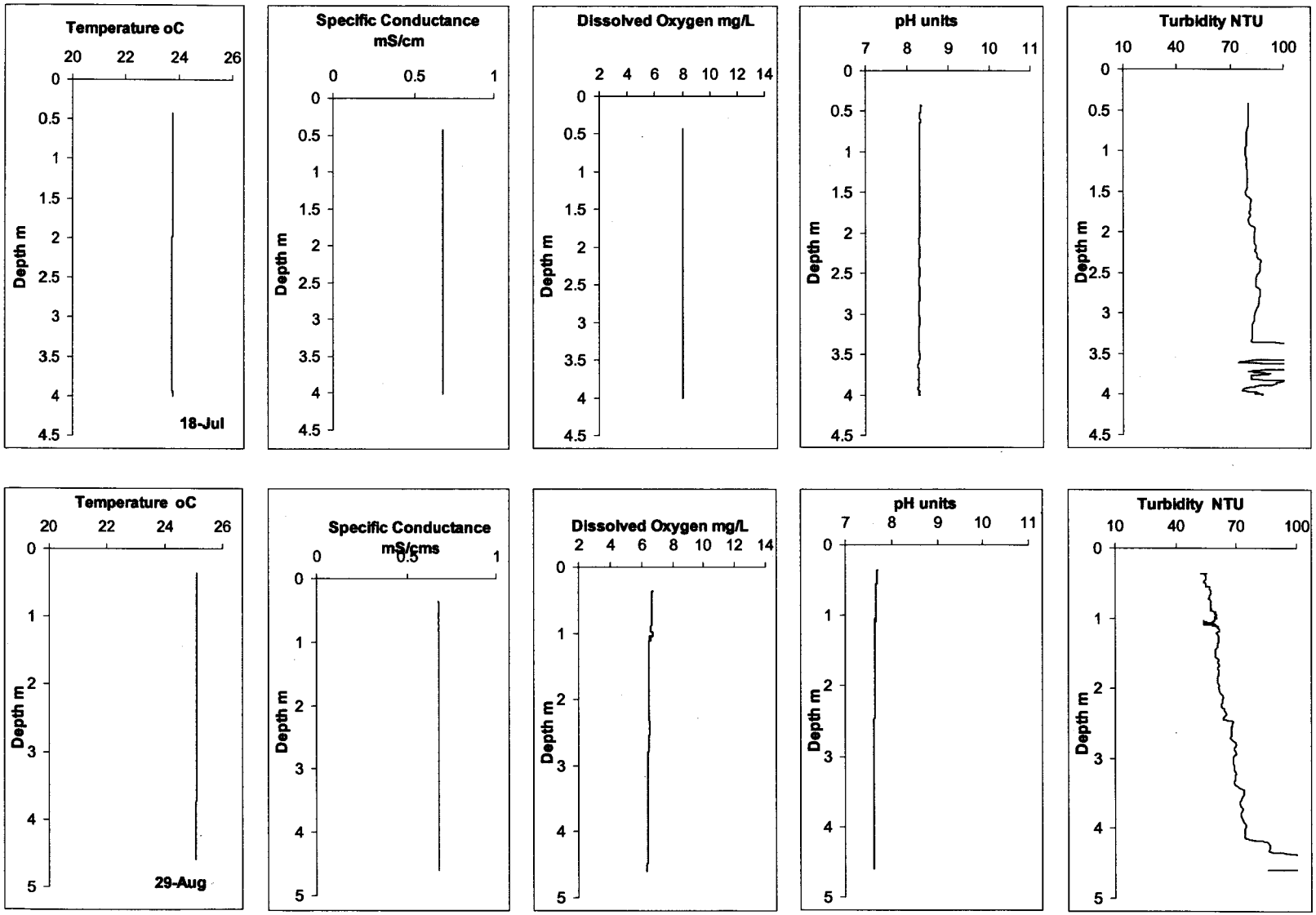


Fig. II-3e. Vertical profiles of water quality variables near Channel Point.

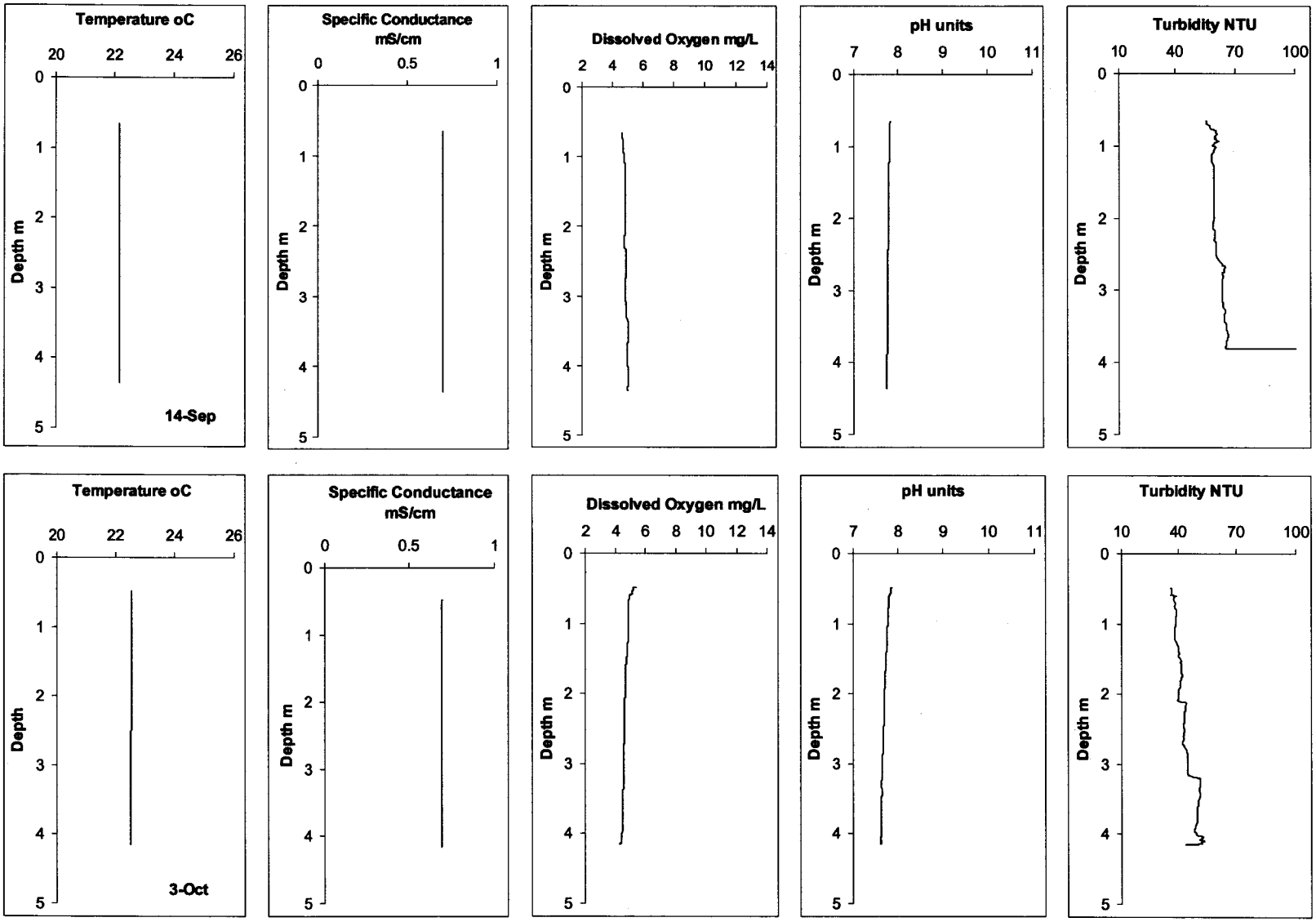


Fig. III-1. Monthly average chlorophyll *a* concentration measured at Rough and Ready Island between 1970 and 2000.

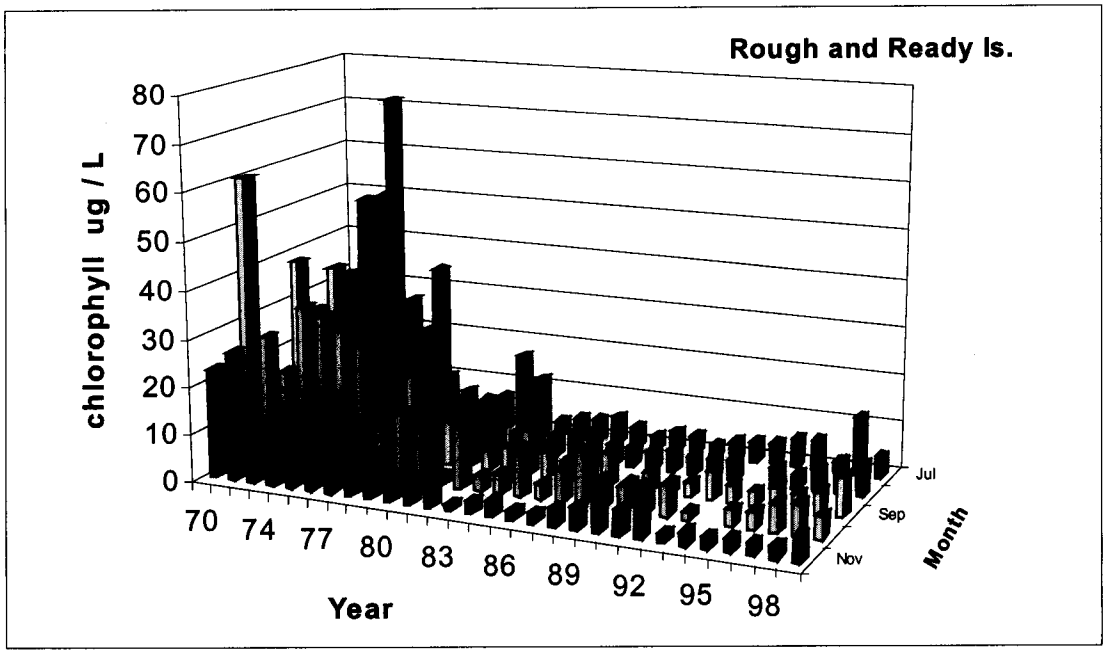


Fig. III-2. Chlorophyll *a* load at Vernalis between 1970 and 2000.

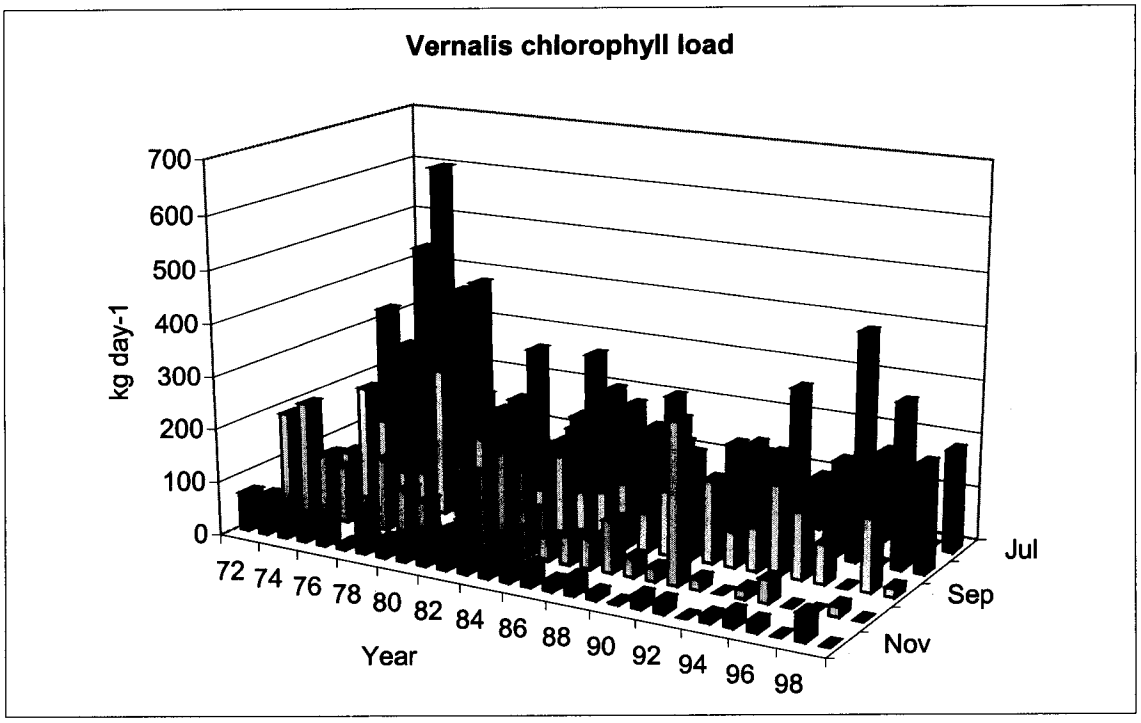


Fig. III-3. Mean and standard deviation of net plankton production rate in the photic zone for stations in the San Joaquin River. Turner Cut (TC), Rough and Ready (RR), Light 48 (L48), Turning Basin (TB), Channel Point (CP), Mossdale (MD), Vernalis (V), Crows Landing (CL).

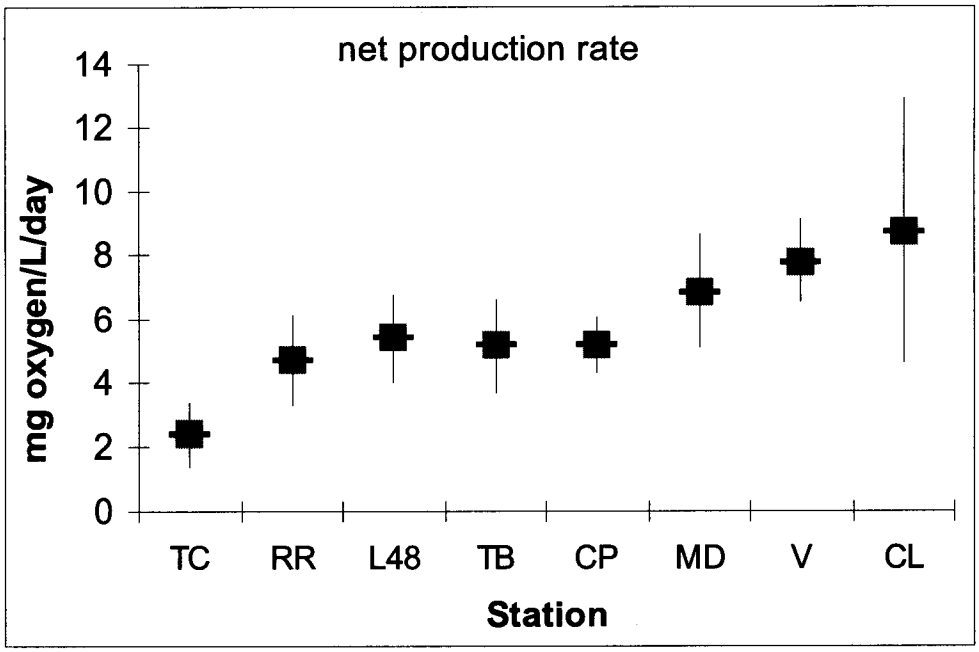


Fig. III-4. Mean and standard deviation of plankton respiration rate measured at stations in the San Joaquin River. Stations as in Fig. III-3.

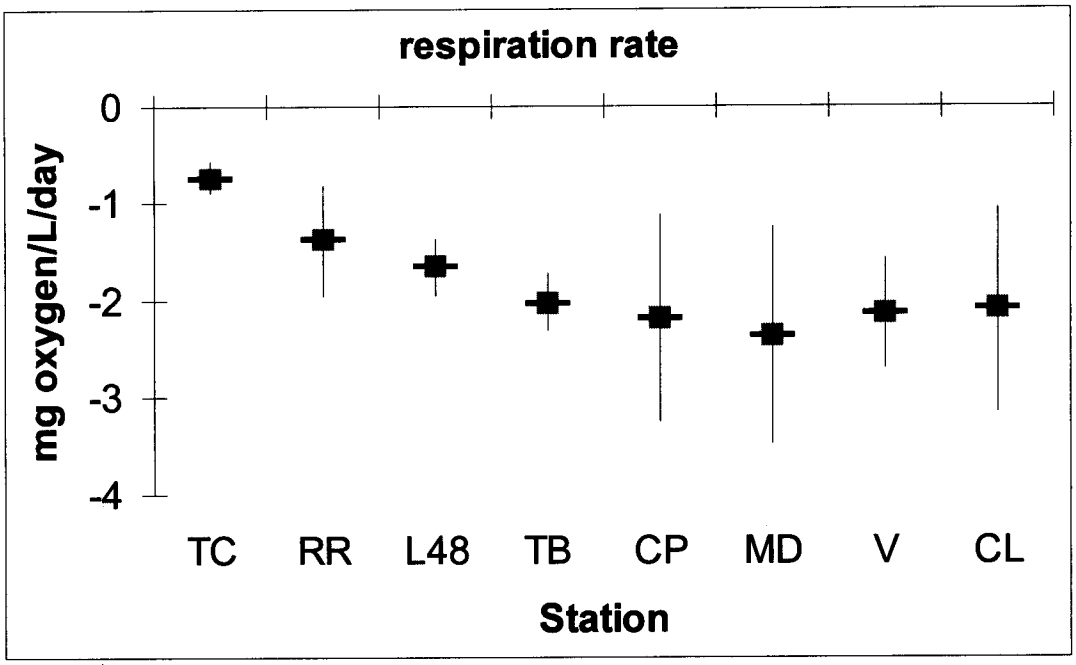


Fig. III-5. Mean and standard deviation of net plankton production rate normalized to chlorophyll *a* concentration at stations in the San Joaquin River. Stations as in Fig. III-3.

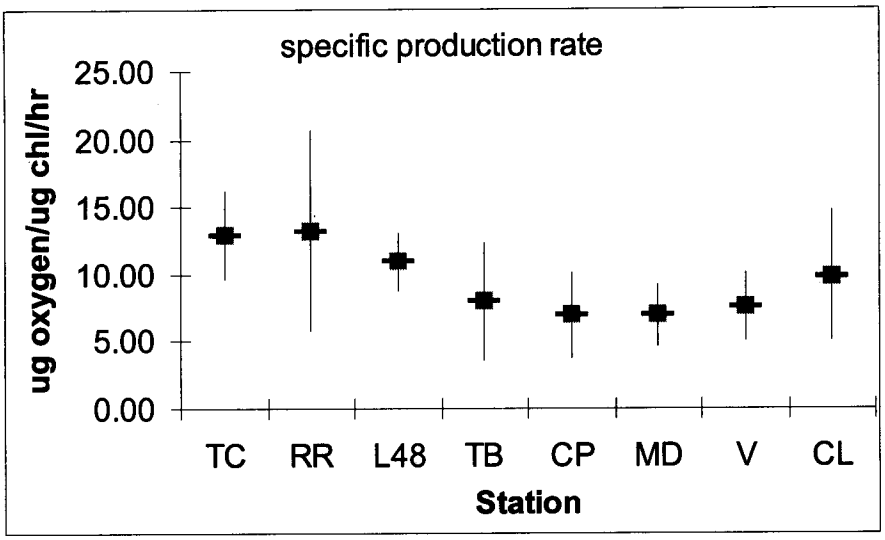


Fig. III-6 a. Comparison of total and dissolved BOD5 and BOD10 and total and dissolved carbonaceous BOD5 and BOD10 at Turner Cut.

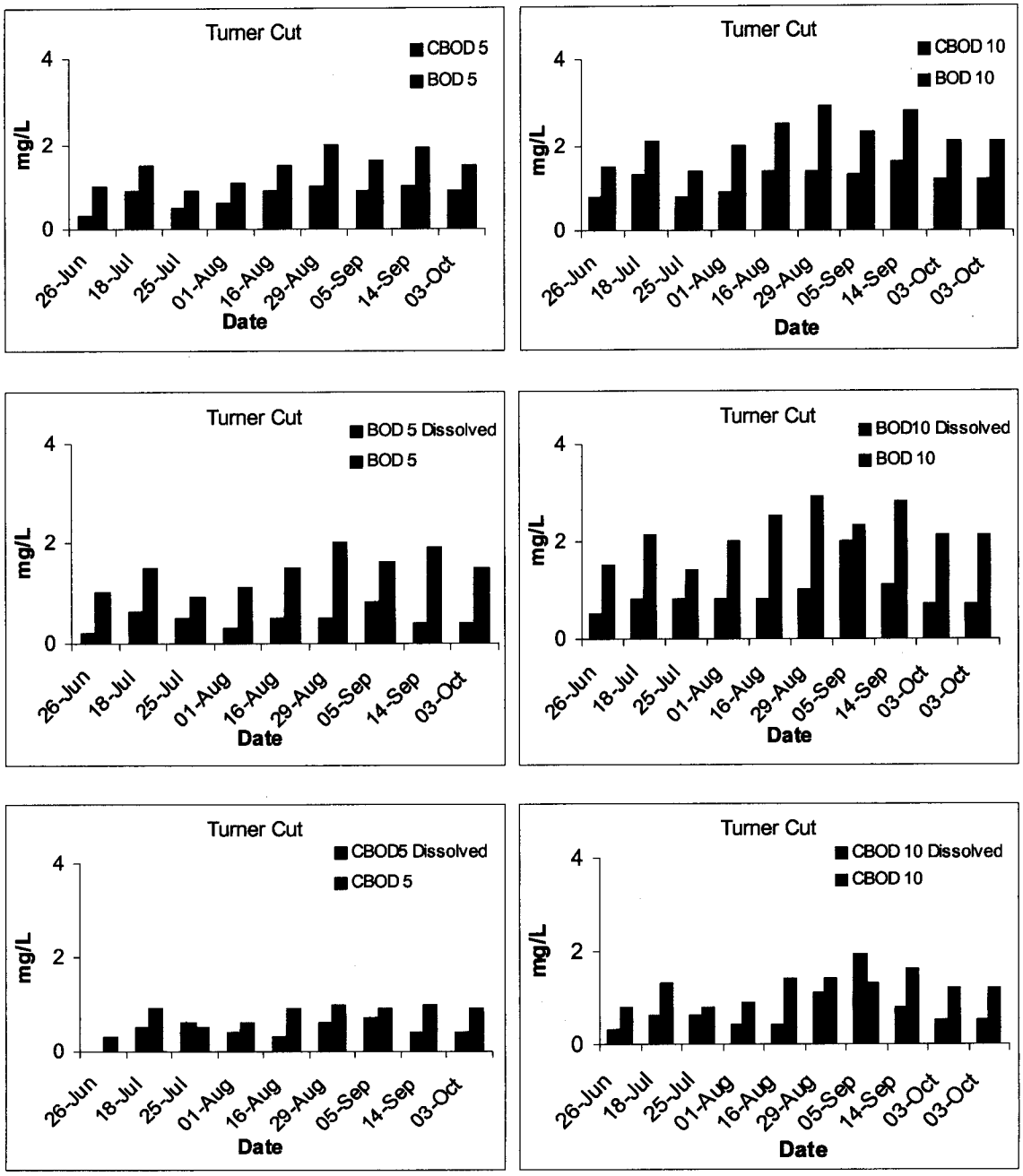


Fig. III-6 b. Comparison of total and dissolved BOD5 and BOD10 and total and dissolved carbonaceous BOD5 and BOD10 at Rough and Ready Island.

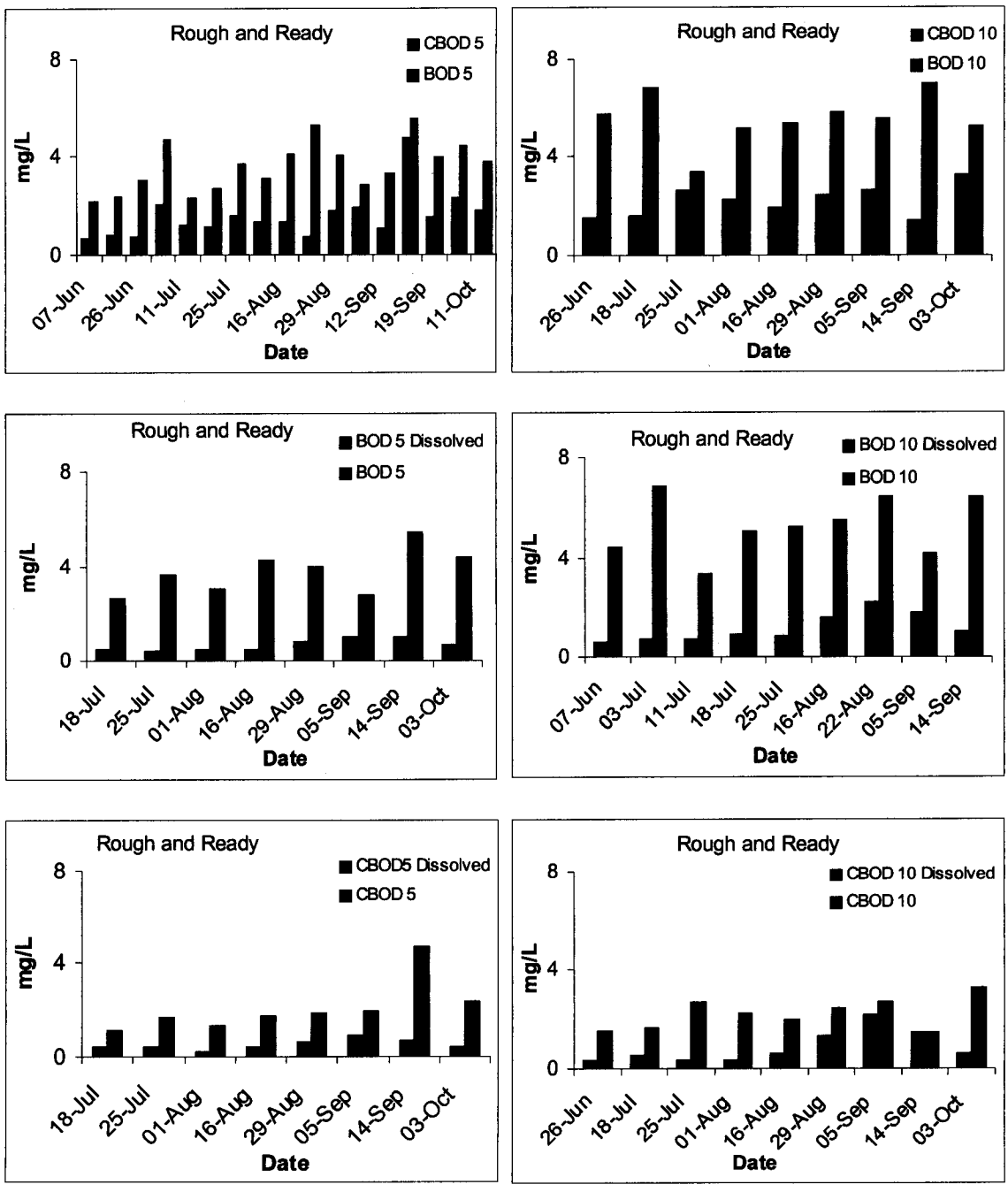


Fig. III-6 c. Comparison of total and dissolved BOD5 and BOD10 and total and dissolved carbonaceous BOD5 and BOD10 at Navigation Light 48.

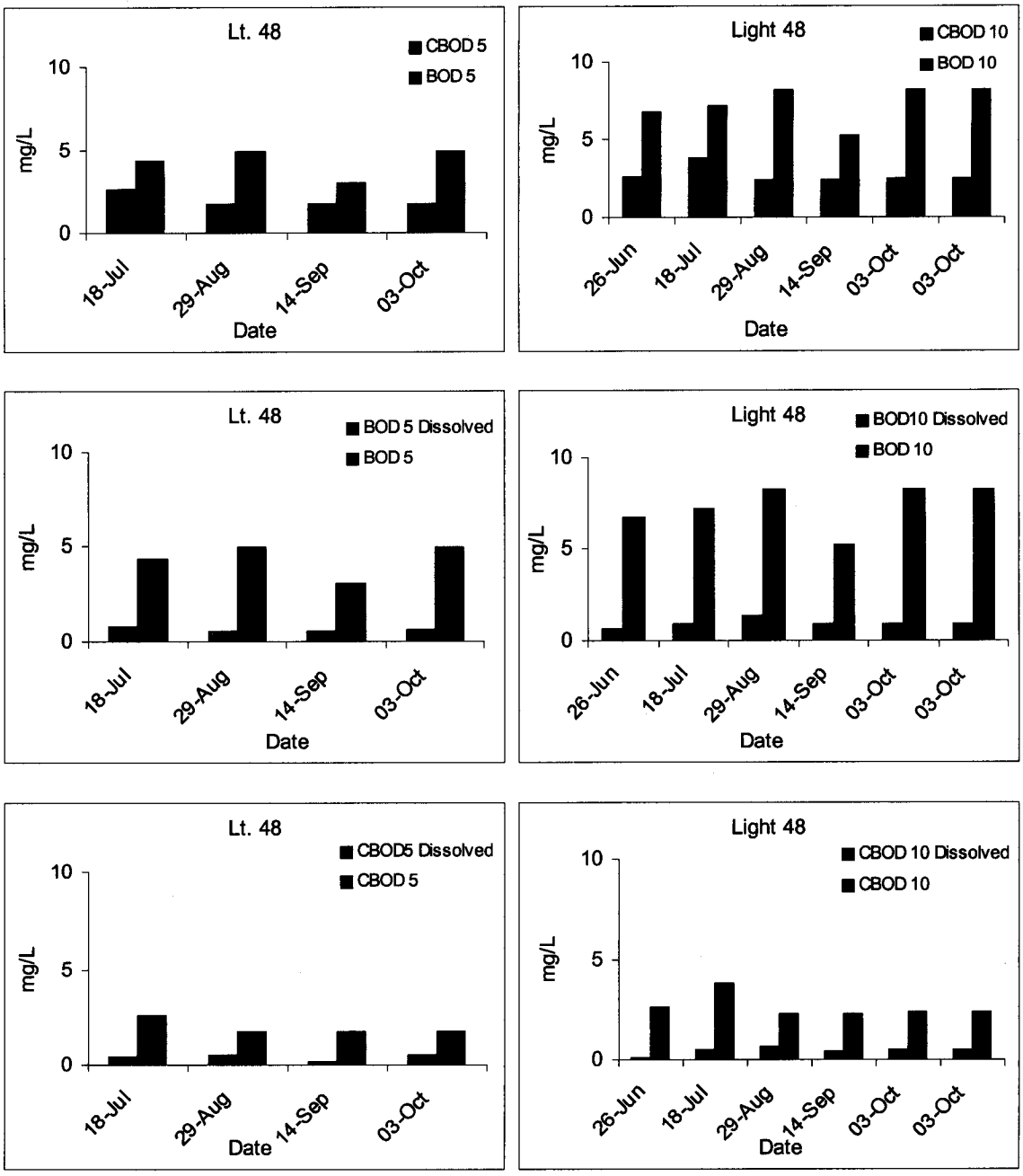
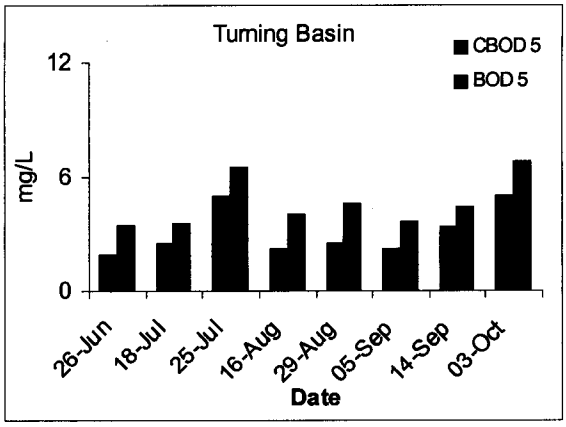
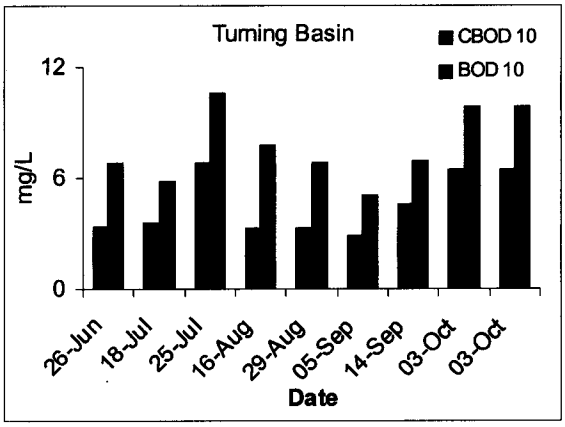
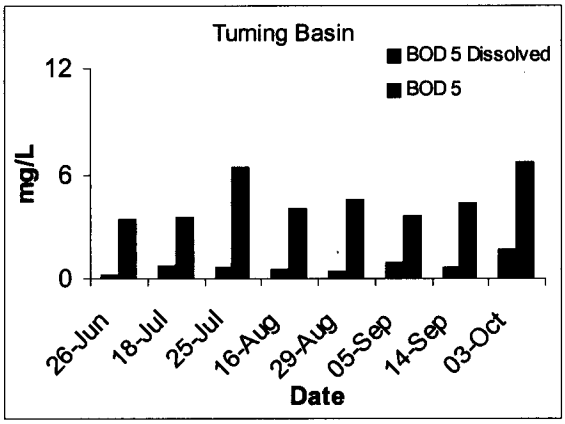
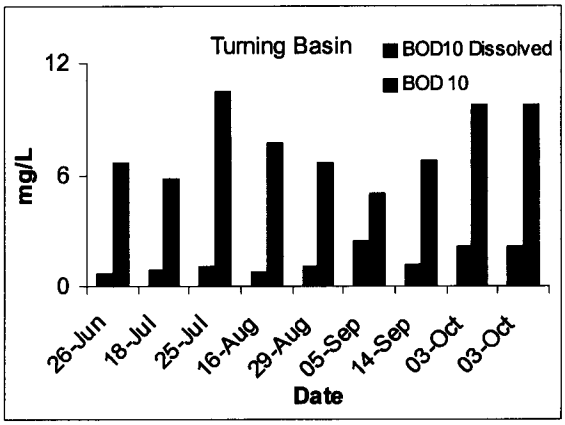


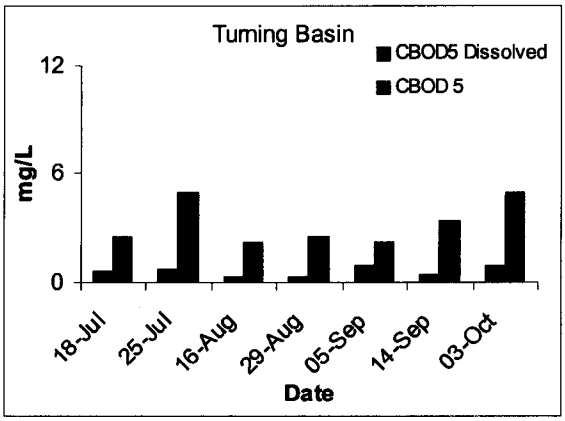
Fig. III-6 d. Comparison of total and dissolved BOD5 and BOD10 and total and dissolved carbonaceous BOD5 and BOD10 at Turning Basin.











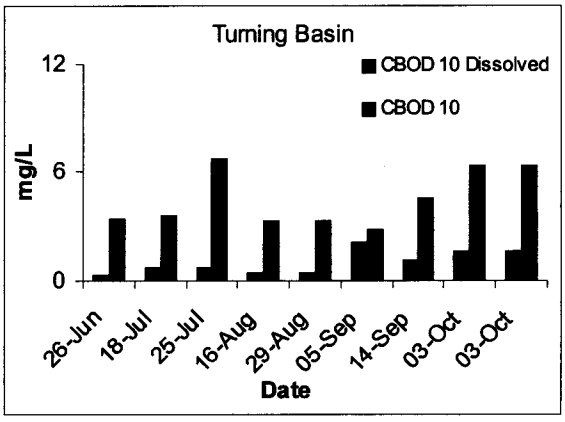


Fig. III-6 e. Comparison of total and dissolved BOD5 and BOD10 and total and dissolved carbonaceous BOD5 and BOD10 at Channel Point.

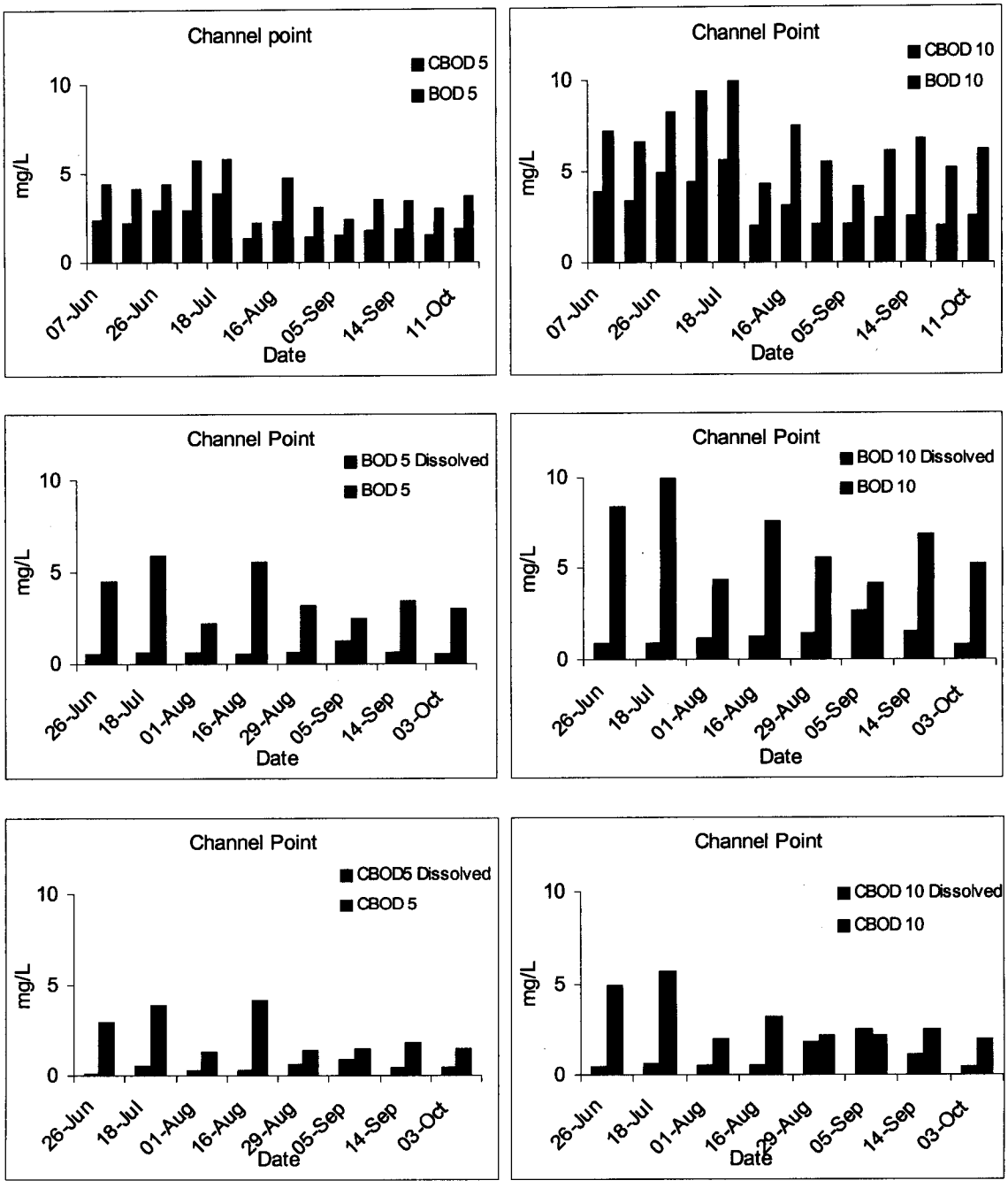


Fig. III-6 f. Comparison of total and dissolved BOD5 and BOD10 and total and dissolved carbonaceous BOD5 and BOD10 at Mossdale.

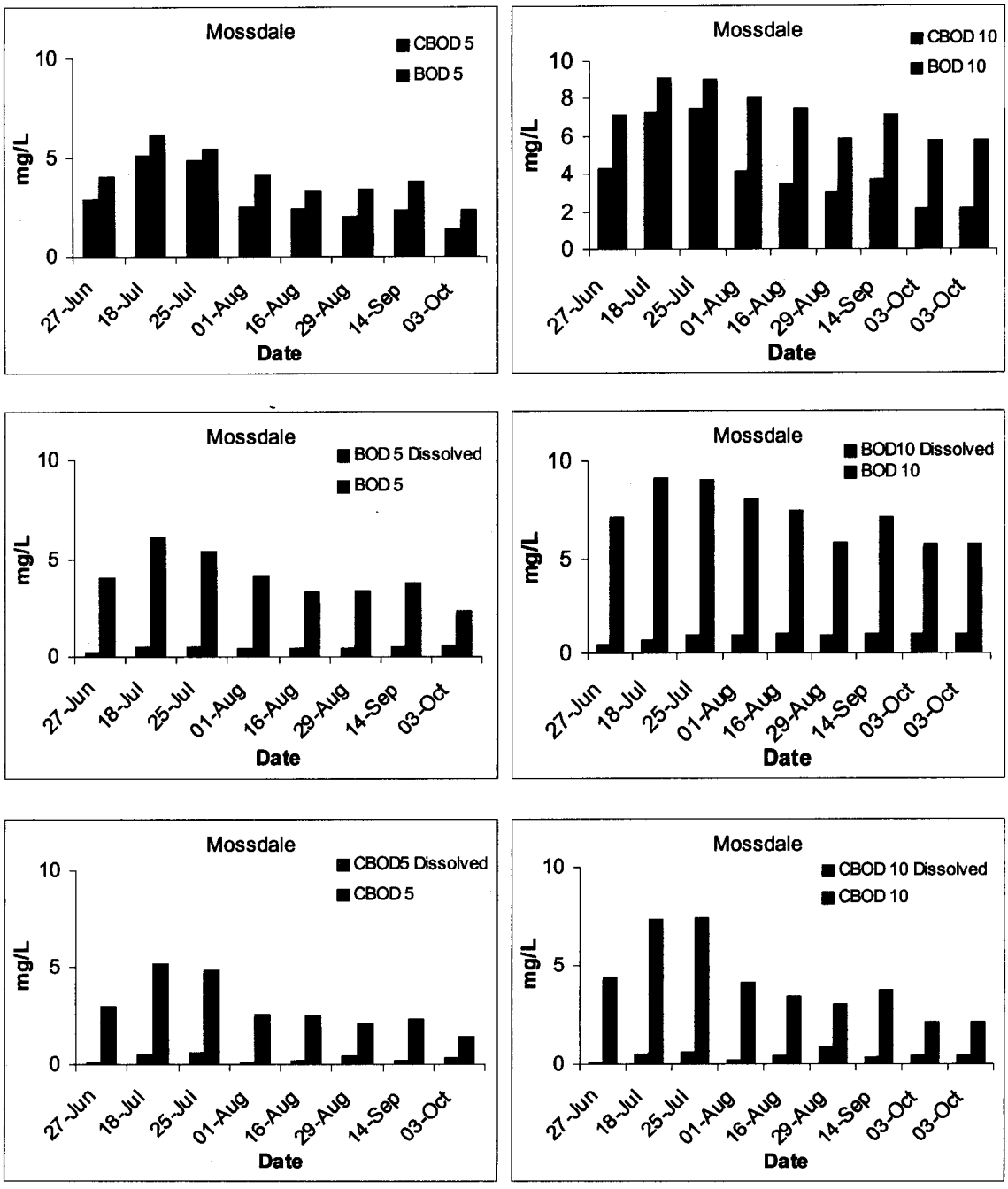


Fig. III-6 g. Comparison of total and dissolved BOD5 and BOD10 and total and dissolved carbonaceous BOD5 and BOD10 at Vernalis.

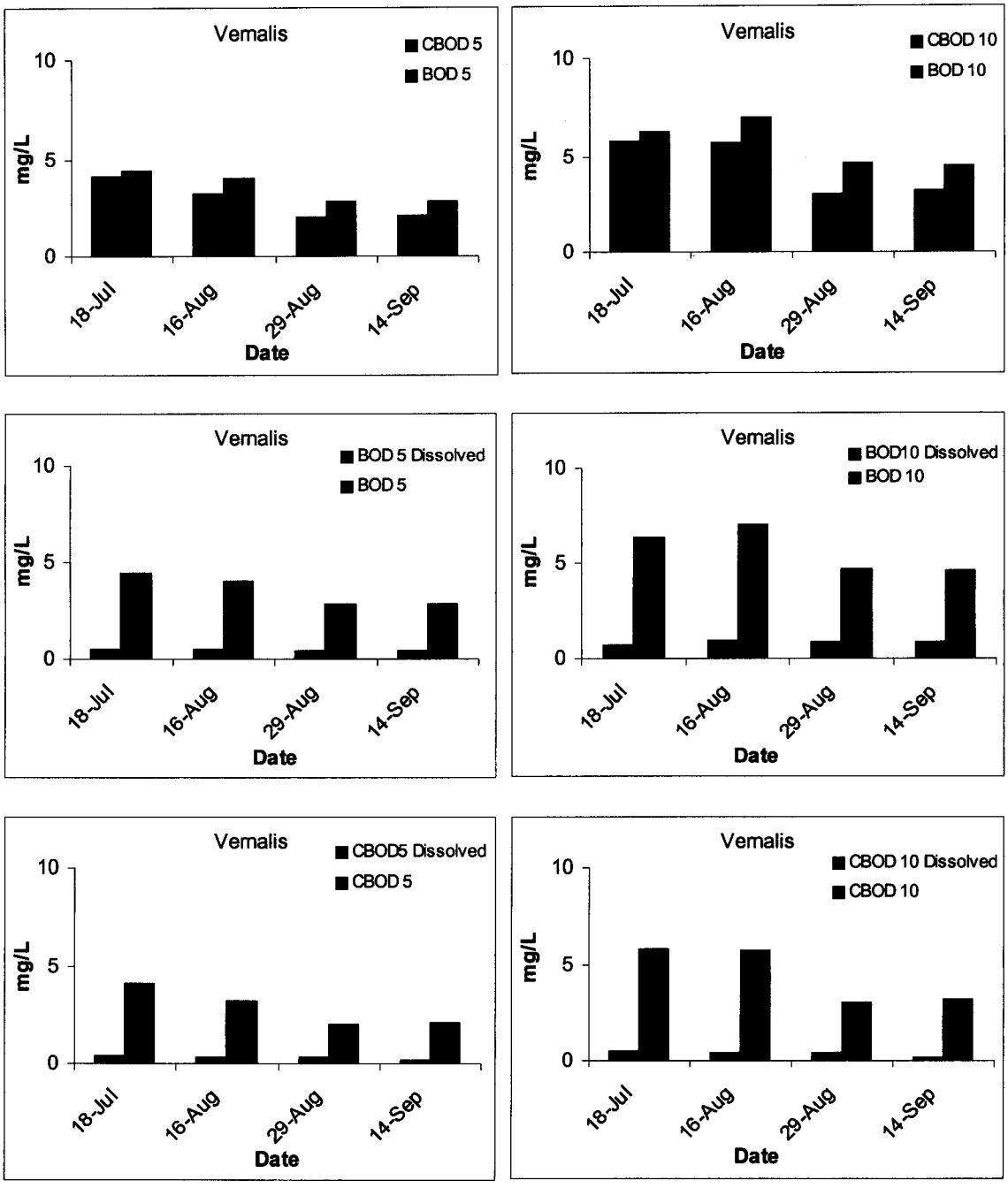


Fig. III-6 h. Comparison of total and dissolved BOD5 and BOD10 and total and dissolved carbonaceous BOD5 and BOD10 at Crows Landing.