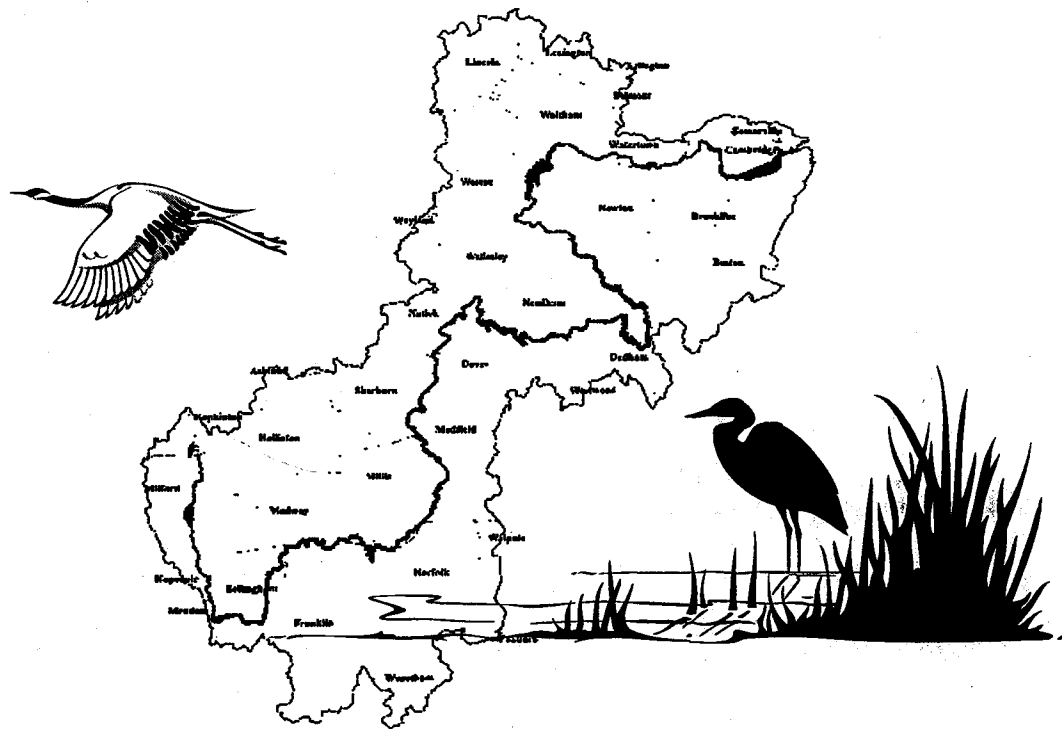


Charles River Water Quality Survey

Final Draft



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Prepared by:

U.S. Environmental Protection Agency
Region I, New England
Office of Environmental Measurement and Evaluation
Ecosystem Assessment

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1.0 INTRODUCTION

The Charles River is a priority waterbody for EPA's New England Office. EPA has created a Clean Charles 2005 Taskforce with the goal of creating a swimmable and fishable river by the year 2005. In order to meet this goal, current water quality conditions must be assessed to determine baseline conditions and where further controls are needed.

As part of the Commonwealth's 5 year basin cycle assessment program, the Massachusetts Department of Environmental Protection (MADEP) scheduled research and monitoring year was 1997. In March 1997, the MA DEP Charles River Basin team met to develop a monitoring plan for 1997.

To support these efforts, EPA's Office of Environmental Measurement and Evaluation agreed to conduct continuous diurnal Dissolved Oxygen (DO) monitoring at five locations throughout the river in support of EPA's Clean 2005 initiative and the MA DEP monitoring plan. The MA DEP, Charles River Watershed Association (CRWA) and EPA collaborated on the the 5 site locations (Figure 1). Multi-parameter instruments were used which allow for DO, temperature, pH, conductivity and salinity to be measured. In October 1997, EPA conducted additional salinity, conductivity, DO and temperature profiles between the Watertown Dam and the New Charles River Dam, which is described hereafter as the MDC (Metropolitan District Commission) basin. These measurements were conducted to evaluate the salt wedge and anoxic zone.

The continuous diurnal DO monitoring was conducted to evaluate daily fluctuations. DO fluctuations can be caused by aquatic plant photosynthesis and respiration, changes in oxygen demanding loadings, and climatological changes. Nutrients added to the river from non point and point sources can encourage aquatic plant growth leading to increased DO fluctuation. DO is a critical element in determining the River's ability to support fish and aquatic life in the River. The Charles is designated as a class B river, which requires a minimum DO of 5 mg/l to fully support aquatic life.

2.0 PROJECT DESCRIPTION & METHODS

During the week of August 11, 1997, continuous measurements were made at 5 locations with a deployable YSI 6000 sonde. In addition to measuring DO, temperature and pH at every site, conductivity measurements were made at sites CONT04 and CONT05. Instruments were deployed upstream and downstream of Populatic Pond, above the Cochrane Dam and at 2 locations in the MDC basin. On October 29, DO, temperature, conductivity, and salinity profiles were determined at selected sites in the MDC basin using a YSI model 85. All site were located with a Global Positioning System (GPS) and are plotted on Figures 1 and 2.

Each YSI 6000 sonde was suspended in the water column between an anchor and a float so that the probes were approximately 0.75 meters below the water's surface. This depth was chosen in order to stay in the light penetration zone where the major DO swings occur and to be deep enough to avoid possible damage from boat motors and vandalism. The YSI 6000 sondes were calibrated on site just before deployment. As a quality control check, measurements were made adjacent to the YSI6000 Sondes with a YSI 57. The YSI 57 was calibrated on the day of use. Each YSI 6000 sonde recorded data on 15 minute intervals. All YSI 6000 Sondes were retrieved on August 15, 1997. At this time, post calibration checks were performed.

3.0 DATA ANALYSIS

Sites CONT01 and CONT03 had recorded DO concentrations below the minimum 5 mg/l state standard. Sites CONT04 and CONT05 had pH concentrations above 8.3 (the state water quality criteria for aquatic life use support). Sites CONT02, CONT04, and CONT05 recorded similar diurnal DO patterns. Each of these sites experienced super saturated concentrations.

August 11 and 12, were warmer and clearer days than the rest of the week. On August 13, rain occurred and the flow at the Dover gauge increased. No obvious correlations could be made between DO measurements and climatological data. Table 1 presents a summary of the weather and flow conditions for this monitoring period. The graph in Figure 3a and 3b present the DO values measured at all sites during the monitoring period. Figures 4 through 8 are graphs of the parameters measured at each site. A complete listing of these data collected at each site are presented in the Appendix.

Salinity and Dissolved Oxygen Measurements in the MDC basin

On October 29, 1997, profile measurements were taken in the MDC basin. These measurements indicated a salt water influence up stream of the New Charles River Dam to the Harvard Boat Club, which is located just downstream from the Eloit Bridge. The area is separated from the Boston Harbor by the new Charles River Dam, although salt water intrusion occurs through the Dam's boat locks. Salinity concentrations were approximately 20 ppt near the Museum of Science. The graph in Figure 9 presents this salinity data. Bottom anoxic conditions were observed at 4 of the 5 sites between the BU bridge and the New Charles River Dam. This data is presented in the Appendix.

Continuous Recorded Data by site

Site CONT01 was located approximately 500 feet upstream of Populatic Pond, at center stream, in a deep hole that was 2.8 meters deep. At this site DO, temperature, and pH were recorded continuously from August 11 to August 15, 1997. The DO ranged from a low of 3.52 mg/l at 2100 hours on August 12 to a high of 7.04 mg/l at 0445 hours on

August 12. The temperature ranged from 21.09 °C to 24.86 °C and the pH ranged from 7.39 to 7.74. The 4 DO peaks occurred between 2300 and 1000 hours and 3 of the 5 DO sags occurred between 1800 and 2000 hours. The 2 other sags occurred at 0900. Because this DO data does not follow a typical pattern of peaking in late afternoon and sagging in early morning, it appears that DO fluctuations are not caused by local aquatic vegetation but rather by upstream sources. The recorded DO readings at this site are in question based on data from the adjacent YSI 57 measurements (refer to data usability section).

Site CONT02 was located downstream of Populatic Pond and the Charles River Pollution Control District Plant's discharge. This site was located slightly off the main channel toward the northern side of the river in approximately 2.0 meters of water. At this site DO and temperature were recorded continuously from August 12 to August 15, 1997. The DO ranged from a low of 5.75 mg/l on August 14 at 0730 hours to a high of 13.43 mg/l on August 14 at 1745 hours. The temperature ranged from 22.46 °C to 25.52 °C. The pH data did not meet quality control limits and is not presented in this report. The 3 DO peaks occurred between 1500 and 2100 hours. The 3 DO sags occurred in the morning between 0700 and 1100 hours.

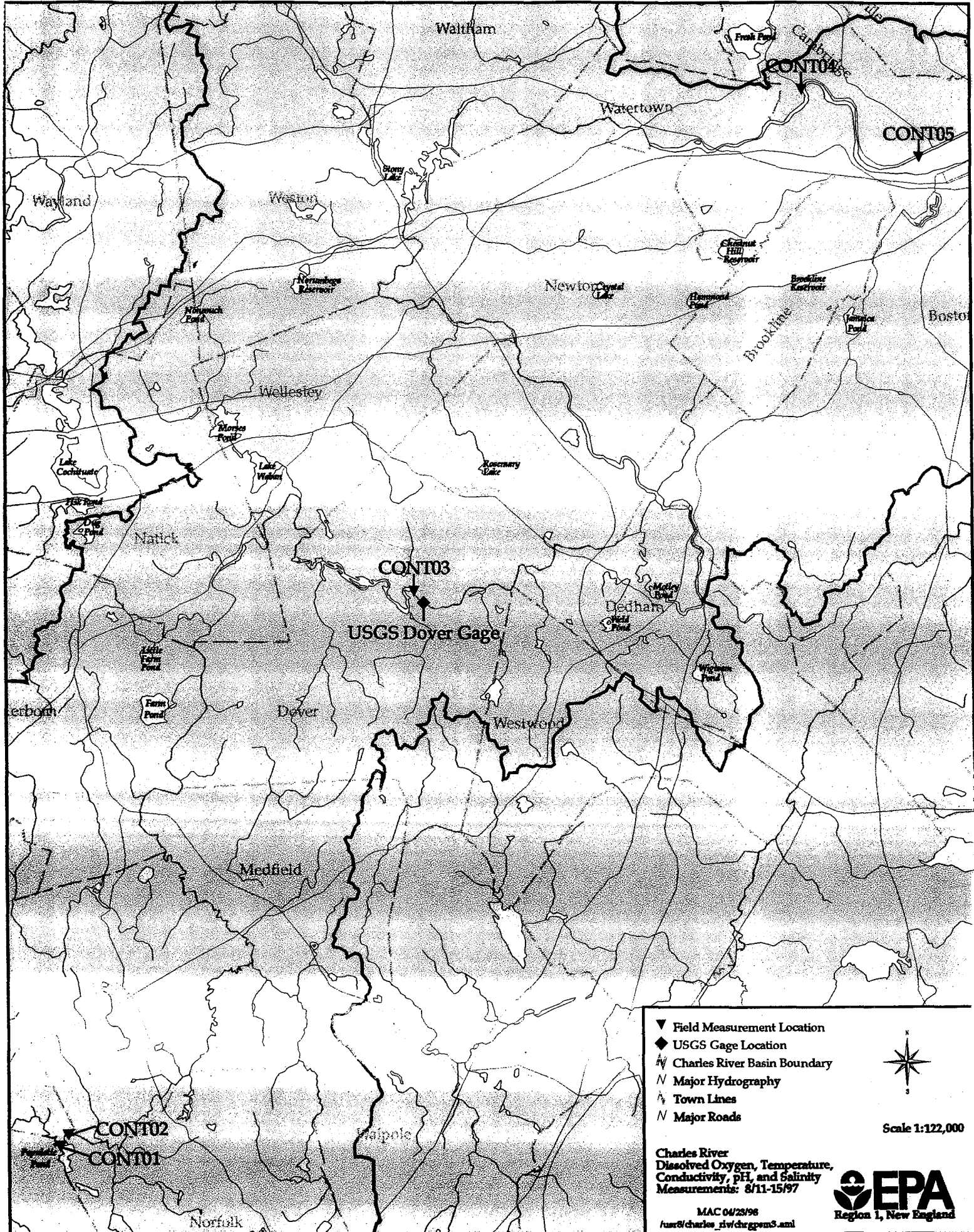
Site CONT03 was located approximately 50 feet above Cochrane Dam. The water depth at this site was 4.0 meters. At this site DO, temperature, and pH were recorded continuously from August 12 to August 15, 1997. The DO ranged from a low of 4.08 mg/l on August 14 at 0645 hours to a high of 6.79 mg/l on August 12 at 1915. The temperature ranged from 22.90 °C to 24.56 °C and the pH ranged from 7.06 to 7.28. The pH data are presented as estimates (refer to data usability section). Slight DO fluctuations were observed at this site and the concentrations do not appear to follow any diurnal cycle.

Site CONT04 was located at the Harvard Boat Club dock, which is just down stream of the Eliot Bridge in Cambridge. The water depth at this site was 1.5 meters. At this site DO, temperature, pH, specific conductivity and salinity were recorded continuously from August 13 to August 15, 1997. The DO ranged from a low of 6.23 mg/l on August 14 at 0600 hours to a high of 12.63 mg/l on August 14 at 1815 hours. The temperature ranged from 23.32 °C to 25.68 °C and the pH ranged from 7.17 to 8.64. The specific conductivity ranged from 0.597 mS/cm to 0.498 mS/cm and the salinity ranged from 0.24 to 0.29 ppt. The 2 DO sags occurred between 0600 and 0800 hours and the 3 major peaks occurred between 1300 and 1900 hours. During a short period on August 14, when DO concentrations were at highest supersaturated concentrations, pH measurements were above the state water quality standard of 8.3. The combination this high pH, super saturated levels of dissolved oxygen and the DO diurnal cycling indicate the influence of phytoplankton.

CONT05 was located at the MIT Boathouse dock, which is upstream of the Massachusetts Avenue Bridge in Cambridge. The water depth at this site was 5 meters.

At this site DO, temperature, pH, specific conductivity and salinity were recorded continuously from August 13 to August 15, 1997. The DO ranged from a low of 7.46 mg/l on August 15 at 0824 hours to a high of 12.09 mg/l on August 15, at 1539 hours. The temperature ranged from 23.60 °C to 25.20 °C and the pH ranged from 8.22 to 9.36. The specific conductivity ranged from 1.83 mS/cm to 2.36 mS/cm and the salinity ranged from 1.83 to 2.36 ppt. The 2 sags occurred between 0200 and 0900hrs. The pH at this site was elevated above the state water quality standard the majority of the time. Both, the high pH and the super saturated DO levels indicate the influence of phytoplankton. The recorded DO readings at this site are in question based on data from the adjacent YSI 57 measurements (refer to data usability section).

Figure 1: Continuous Diurnal Monitoring Locations



- ▼ Field Measurement Location
- ◆ USGS Gage Location
- ▬ Charles River Basin Boundary
- ~ Major Hydrography
- - - Town Lines
- == Major Roads



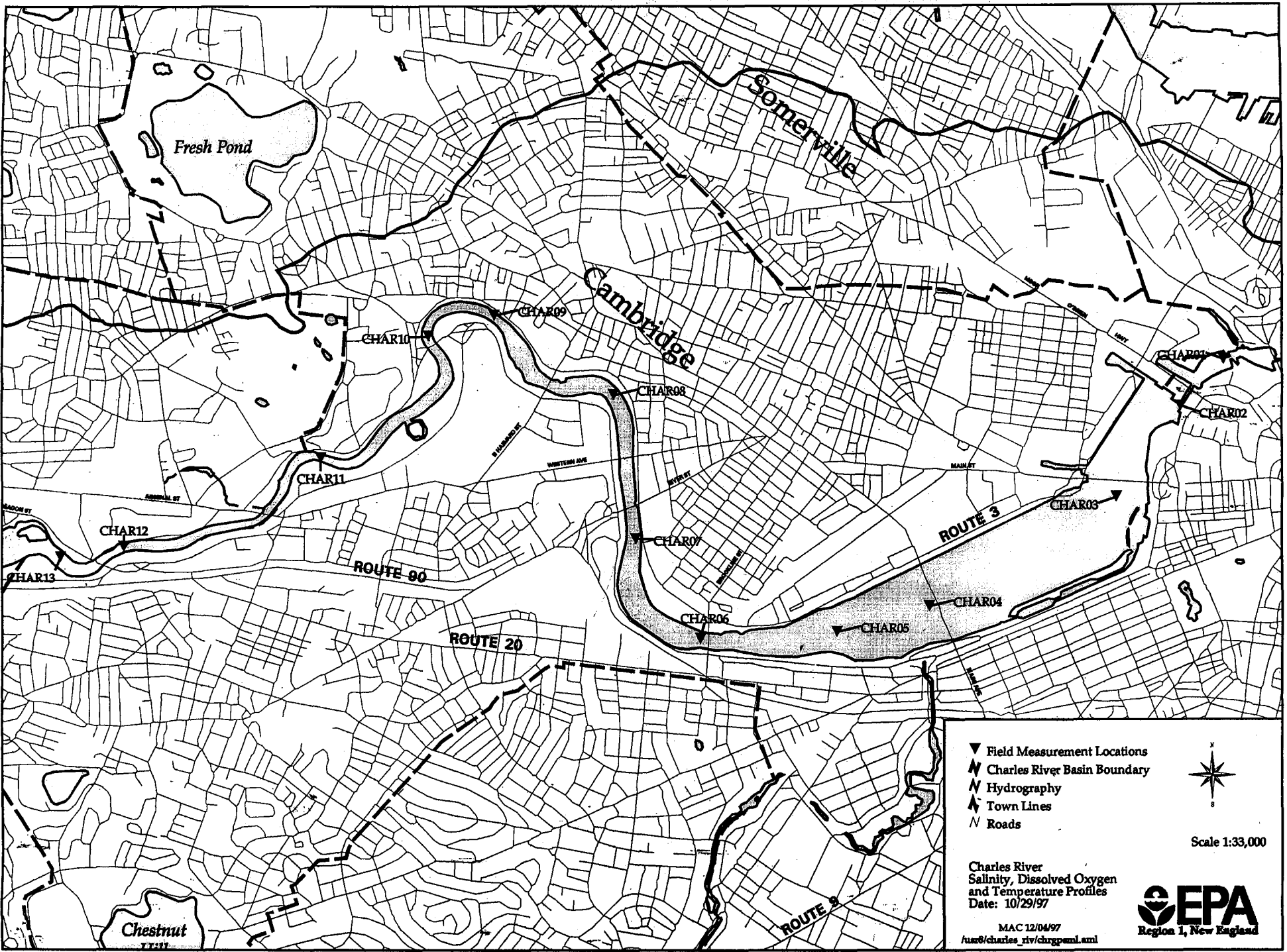
Scale 1:122,000

Charles River
 Dissolved Oxygen, Temperature,
 Conductivity, pH, and Salinity
 Measurements: 8/11-15/97



MAC 04/23/96
 /usr8/charles_riv/chrgpms3.sml

Figure 2 Charles River Field Measurement Locations



Dissolved Oxygen (mg/l)

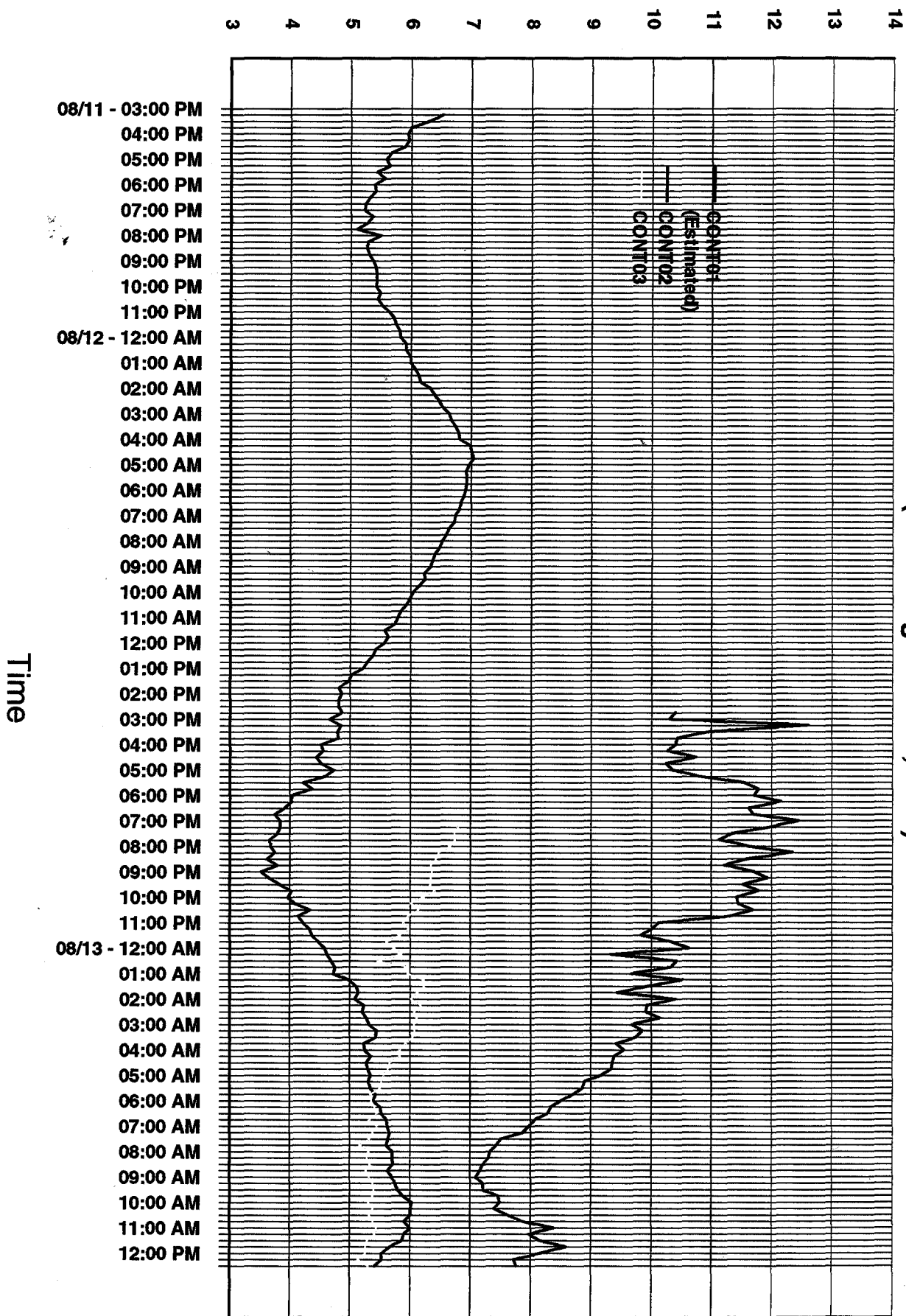


Figure 3a: Dissolved Oxygen Measurements
(From August 11-13, 1997)

**Figure 3b: Continuous Dissolved Oxygen Measurements
(From August 13 - 15, 1997)**

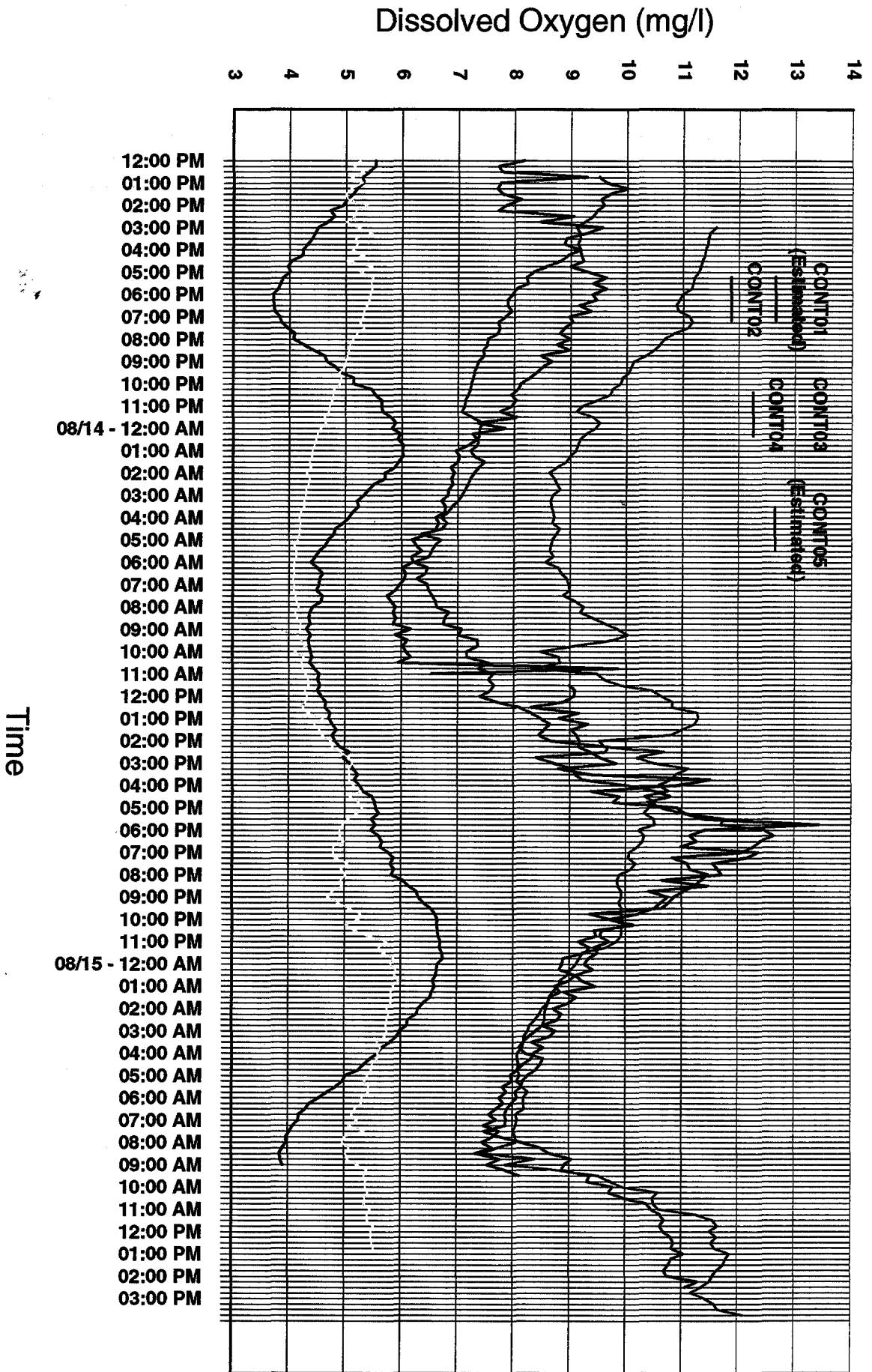


Table 1: Weather¹ and stream flow² summary

Day	Maximum instantaneous Temperature (°F)	Minimum instantaneous Temperature (°F)	Average daily Temperature (°F)	Total precipitation for the day (inches)	Weather Type	Sky Cover ³	Daily mean flow at Dover Gage (cfs)
8/10	90	61	75	0.00	Fog, Haze	1.5	21
8/11	86	66	76	0.01	Haze	3.8	18
8/12	77	59	68	0.01		5.8	18
8/13	72	61	66	0.65	Rain, Fog	10.0	26
8/14	79	63	71	trace	Fog, Haze	6.1	29
8/15	77	64	70	trace	Fog, Haze	9.4	25

Source: National Weather Service and USGS

Note:

- 1 - Except for precipitation information which is recorded at Logan Airport, all climatological data was recorded at Norwood, MA.
- 2 - Flow data collected from the USGS Dover gaging station, the station 7Q10 value is 12.9cfs
- 3 - Sky Cover is measured in tenths. 10.0 indicated total cloud cover through the entire day. 0.0 indicates nearly clear

4.0 DATA USABILITY

A Quality Assurance Project Plan was developed for this project which included QA/QC requirements. All instruments used for this project were calibrated on the day of sampling. On August 15, 1997, upon instrument retrieval, a calibration check was performed on each YSI 6000 sonde for all parameters monitored. Adjacent temperature and DO profile measurements were made at least two different times at each location with a YSI 57. At sites CONT04 and CONT05, conductivity and salinity profiles were also conducted.

Data which exceeded quality control limits are explained below. All quality control measurements are presented in the Appendix.

At site CONT01, all continuous monitored parameters were within the post calibration quality control limits. Field comparison, at two different times, indicate YSI 6000 DO readings to be approximately 1 mg/l lower than the YSI 57 readings. This difference cannot be explained and the data is presented as estimated.

At site CONT02, the post calibration check revealed that the pH and DO were not within the quality control limits. The DO post calibration exceeded the quality control limit by 0.04 mg/l. The field comparison with the YSI57 appeared to be in range. Therefore, the use of the DO data should not be limited. The pH data was rejected and is not included in this report.

At site CONT03, pH was the only parameter that did not meet the post calibration quality control limits, exceeding the accuracy limit by 0.05. The pH readings are presented but are estimates.

At site CONT05, all parameters met post calibration quality control limits. The field comparison with the YSI57 appeared not to meet the quality control limits. The YSI 6000 DO readings appeared to be 1 mg/l higher than the readings of the YSI 57. This difference cannot be explained and the data is presented as estimated.

The MDC Basin profile data collected on October 29, 1997 met the post calibration quality control limits. The use of this data should not be limited.

Figure 4: CONT01- Upstream of Populatic Pond, Medway

Measurements taken at 0.75m below water's surface

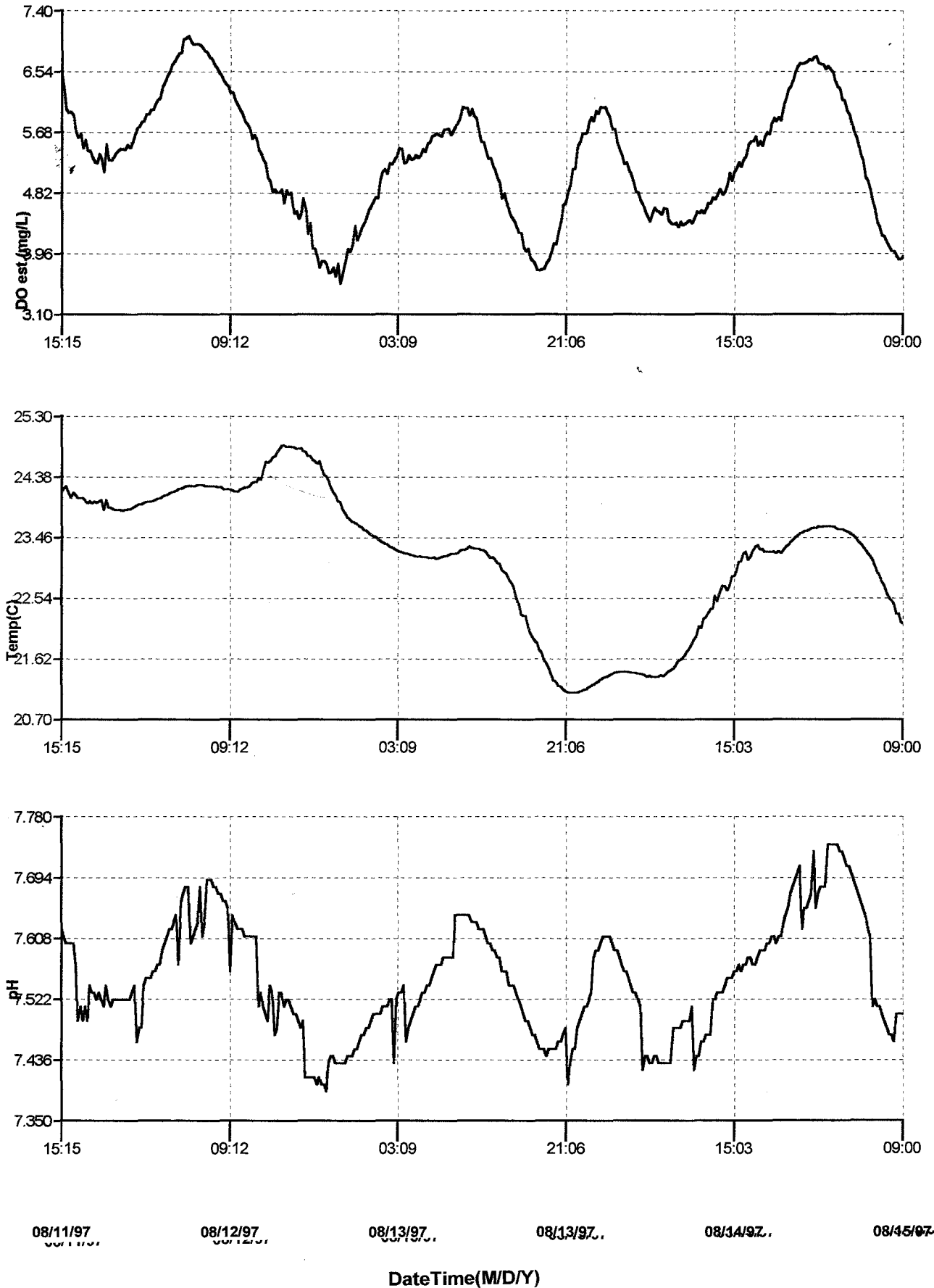


Figure 5: CONT02 - Downstream of Populatic Pond, Medway

Measurements taken at 0.75m below water's surface



08/12/97
08/12/97

08/13/97
08/13/97

08/13/97
08/13/97

08/14/97
08/14/97

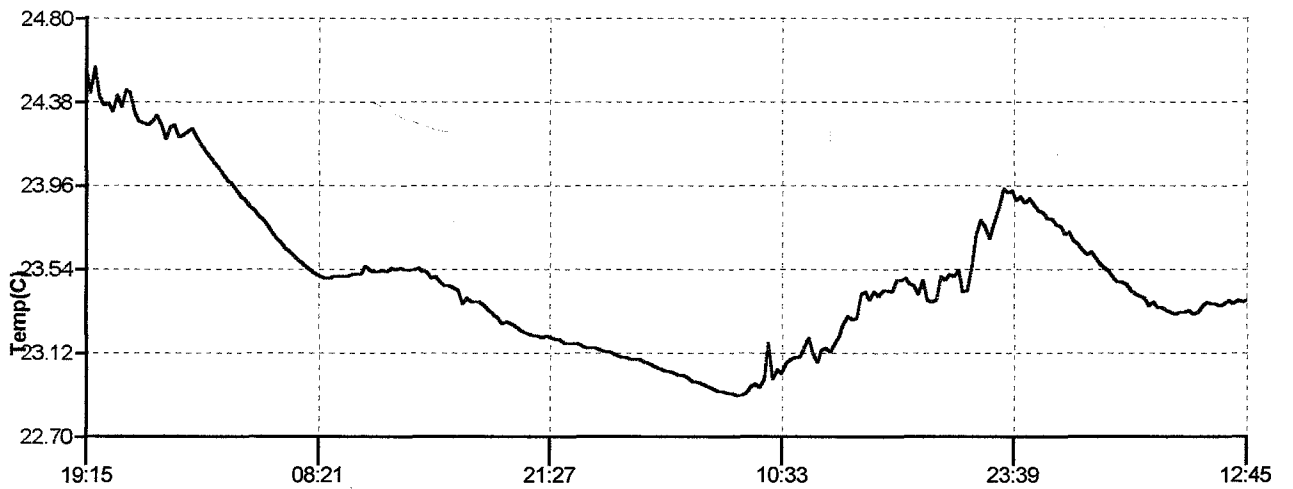
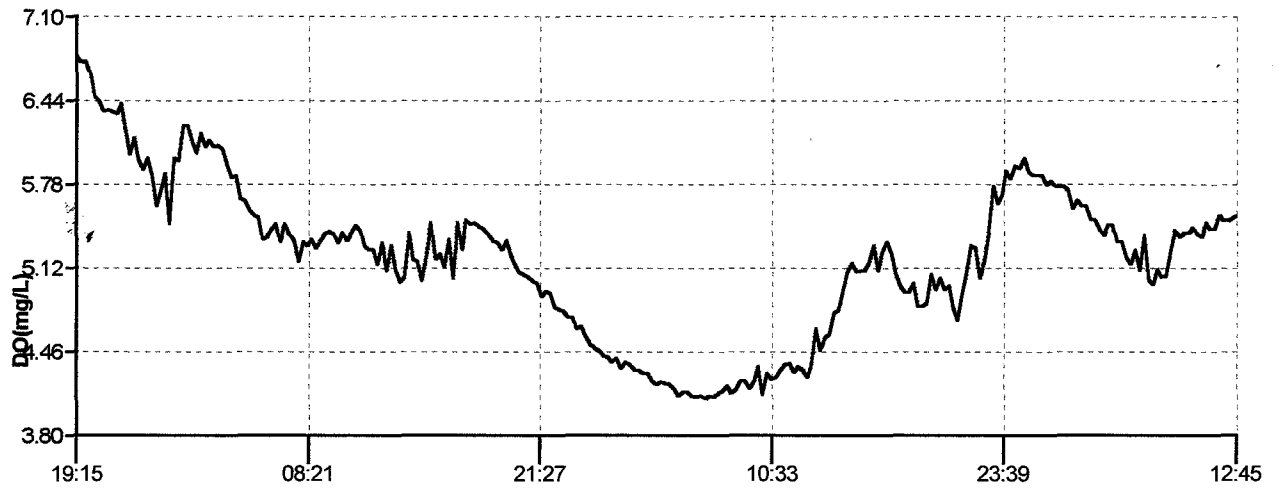
08/14/97
08/14/97

08/15/97
08/15/97

DateTime(M/D/Y)

Figure 6: CONT03 - Above Cochran Dam, Dover

Measurements recorded at 0.75m below the water's surface



08/12/97. 08/13/97. 08/13/97. 08/14/97. 08/14/97. 08/15/97.

DateTime(M/D/Y)

Figure 7: CONT04 - Harvard Boat Club Dock, Cambridge

Measurements taken at 0.75m below water's surface

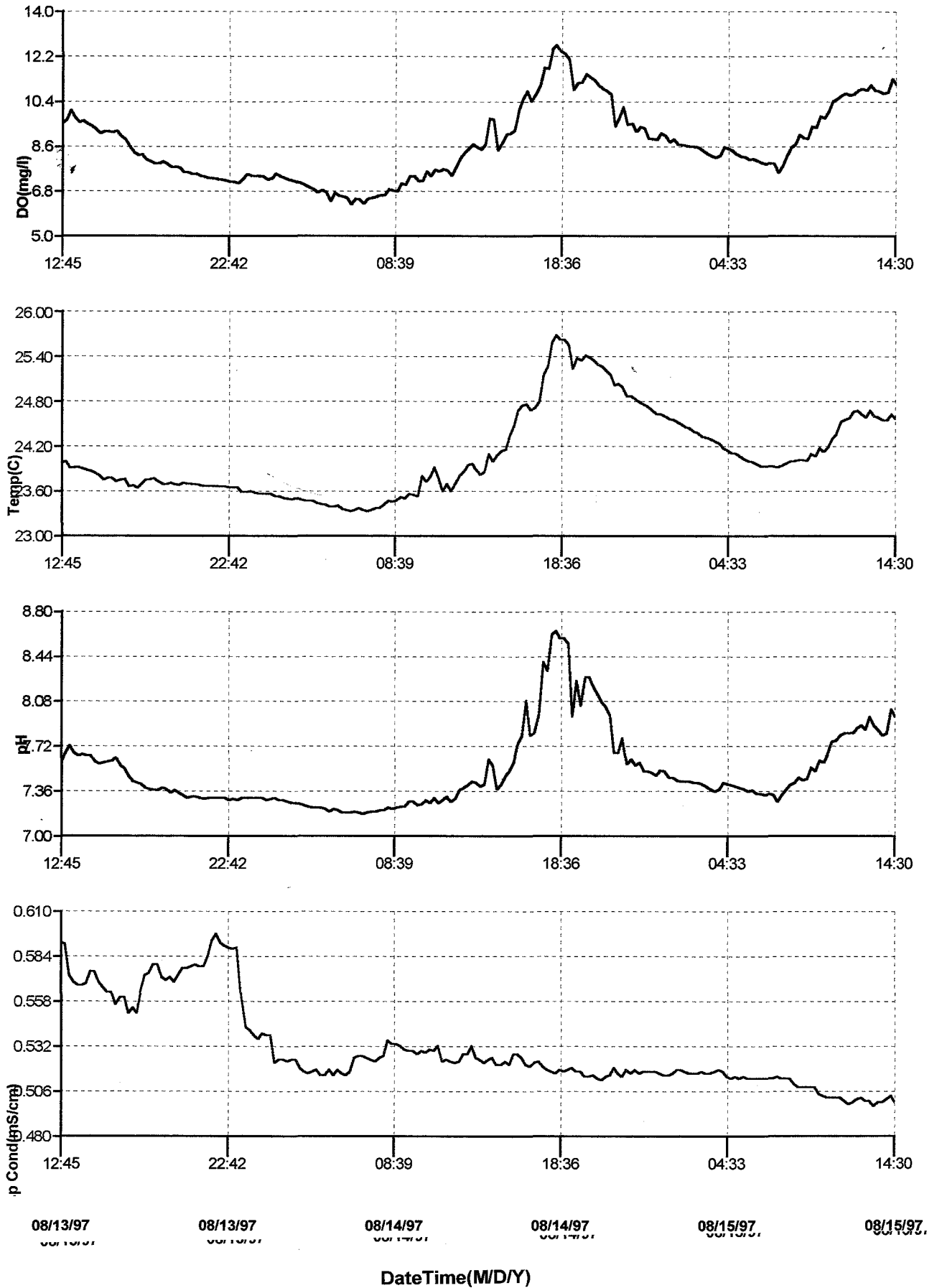


Figure 8: CONT05 - MIT boathouse Dock (upstream of MA Ave Bridge)

Measurements taken at 0.75m below water's surface

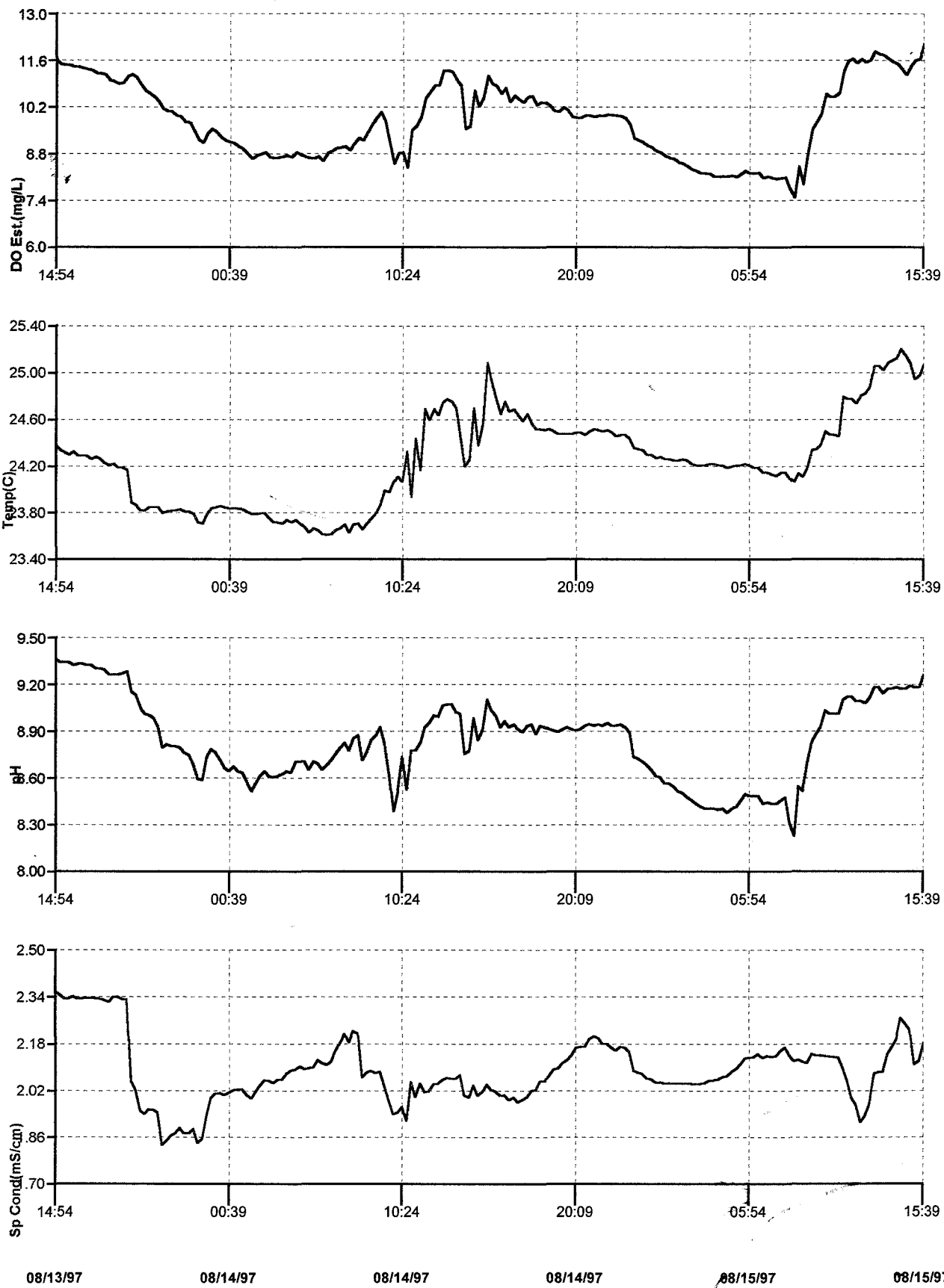
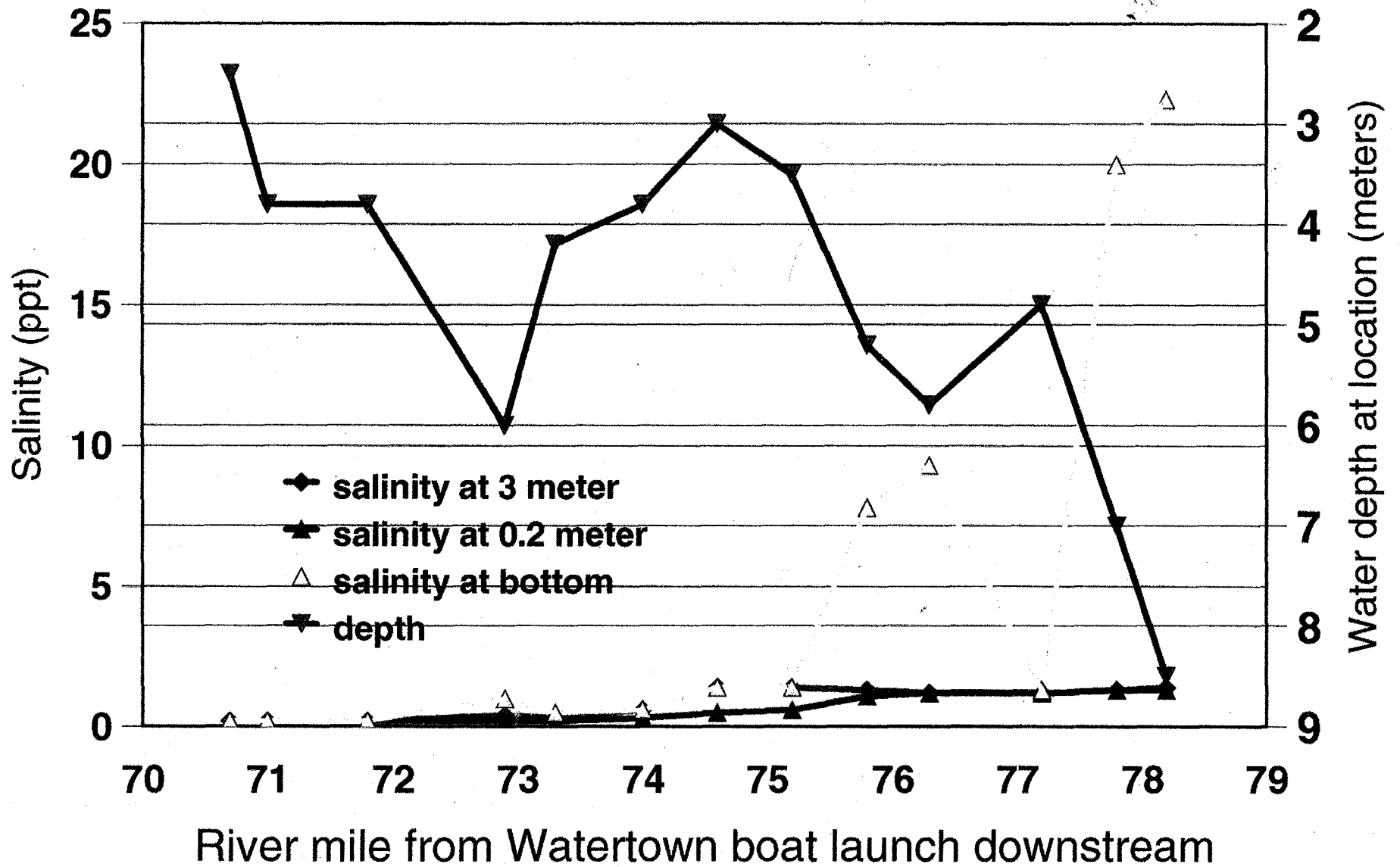


Figure 9: Salinity and Depth Measurements vs River Mile in the MDC Basin



5.0 APPENDIX

Data collected at CONT01

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (estimated data) (mg/L)	Temp (C)	pH
08/11/97	03:15:00 PM	6.53	24.15	7.62
08/11/97	03:30:00 PM	6.30	24.20	7.61
08/11/97	03:45:00 PM	6.00	24.23	7.60
08/11/97	04:00:00 PM	5.95	24.14	7.60
08/11/97	04:15:00 PM	5.96	24.06	7.60
08/11/97	04:30:00 PM	5.91	24.13	7.60
08/11/97	04:45:00 PM	5.67	24.09	7.57
08/11/97	05:00:00 PM	5.59	24.06	7.49
08/11/97	05:15:00 PM	5.65	24.05	7.51
08/11/97	05:30:00 PM	5.44	24.06	7.49
08/11/97	05:45:00 PM	5.56	24.02	7.51
08/11/97	06:00:00 PM	5.40	23.97	7.49
08/11/97	06:15:00 PM	5.41	24.01	7.54
08/11/97	06:30:00 PM	5.32	23.97	7.53
08/11/97	06:45:00 PM	5.25	24.00	7.53
08/11/97	07:00:00 PM	5.23	23.98	7.52
08/11/97	07:15:00 PM	5.36	24.01	7.53
08/11/97	07:30:00 PM	5.28	24.02	7.52
08/11/97	07:45:00 PM	5.10	23.87	7.51
08/11/97	08:00:00 PM	5.50	24.02	7.54
08/11/97	08:15:00 PM	5.28	23.91	7.52
08/11/97	08:30:00 PM	5.27	23.91	7.51
08/11/97	08:45:00 PM	5.31	23.89	7.52
08/11/97	09:00:00 PM	5.37	23.87	7.52
08/11/97	09:15:00 PM	5.41	23.87	7.52
08/11/97	09:30:00 PM	5.43	23.87	7.52
08/11/97	09:45:00 PM	5.43	23.86	7.52
08/11/97	10:00:00 PM	5.42	23.87	7.52
08/11/97	10:15:00 PM	5.49	23.88	7.52
08/11/97	10:30:00 PM	5.45	23.88	7.52
08/11/97	10:45:00 PM	5.53	23.90	7.53
08/11/97	11:00:00 PM	5.64	23.92	7.54
08/11/97	11:15:00 PM	5.72	23.94	7.46
08/11/97	11:30:00 PM	5.75	23.96	7.48
08/11/97	11:45:00 PM	5.81	23.95	7.48
08/12/97	12:00:00 AM	5.83	23.98	7.54
08/12/97	12:15:00 AM	5.92	23.99	7.55
08/12/97	12:30:00 AM	5.92	23.99	7.55
08/12/97	12:45:00 AM	5.99	24.00	7.55
08/12/97	01:00:00 AM	5.99	24.01	7.56
08/12/97	01:15:00 AM	6.07	24.02	7.56
08/12/97	01:30:00 AM	6.13	24.04	7.57
08/12/97	01:45:00 AM	6.16	24.04	7.57
08/12/97	02:00:00 AM	6.32	24.07	7.59
08/12/97	02:15:00 AM	6.39	24.09	7.60
08/12/97	02:30:00 AM	6.47	24.10	7.61
08/12/97	02:45:00 AM	6.53	24.12	7.62
08/12/97	03:00:00 AM	6.63	24.14	7.62
08/12/97	03:15:00 AM	6.67	24.15	7.63
08/12/97	03:30:00 AM	6.74	24.16	7.64
08/12/97	03:45:00 AM	6.79	24.19	7.57
08/12/97	04:00:00 AM	6.81	24.20	7.66
08/12/97	04:15:00 AM	6.99	24.21	7.67
08/12/97	04:30:00 AM	7.01	24.23	7.68

Data collected at CONT01

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (estimated data) (mg/L)	Temp (C)	pH
08/12/97	04:45:00 AM	7.04	24.24	7.68
08/12/97	05:00:00 AM	6.97	24.24	7.60
08/12/97	05:15:00 AM	6.92	24.23	7.61
08/12/97	05:30:00 AM	6.93	24.24	7.62
08/12/97	05:45:00 AM	6.93	24.25	7.63
08/12/97	06:00:00 AM	6.91	24.25	7.68
08/12/97	06:15:00 AM	6.88	24.25	7.61
08/12/97	06:30:00 AM	6.83	24.24	7.63
08/12/97	06:45:00 AM	6.80	24.23	7.69
08/12/97	07:00:00 AM	6.74	24.23	7.69
08/12/97	07:15:00 AM	6.72	24.23	7.69
08/12/97	07:30:00 AM	6.64	24.23	7.68
08/12/97	07:45:00 AM	6.59	24.23	7.68
08/12/97	08:00:00 AM	6.53	24.22	7.67
08/12/97	08:15:00 AM	6.48	24.22	7.67
08/12/97	08:30:00 AM	6.40	24.19	7.66
08/12/97	08:45:00 AM	6.36	24.18	7.66
08/12/97	09:00:00 AM	6.33	24.19	7.65
08/12/97	09:15:00 AM	6.23	24.18	7.56
08/12/97	09:30:00 AM	6.24	24.17	7.64
08/12/97	09:45:00 AM	6.14	24.15	7.63
08/12/97	10:00:00 AM	6.05	24.15	7.62
08/12/97	10:15:00 AM	5.99	24.18	7.62
08/12/97	10:30:00 AM	5.93	24.20	7.62
08/12/97	10:45:00 AM	5.84	24.21	7.61
08/12/97	11:00:00 AM	5.79	24.22	7.61
08/12/97	11:15:00 AM	5.74	24.23	7.61
08/12/97	11:30:00 AM	5.58	24.28	7.61
08/12/97	11:45:00 AM	5.63	24.29	7.61
08/12/97	12:00:00 PM	5.57	24.29	7.61
08/12/97	12:15:00 PM	5.42	24.36	7.51
08/12/97	12:30:00 PM	5.37	24.33	7.53
08/12/97	12:45:00 PM	5.28	24.47	7.51
08/12/97	01:00:00 PM	5.22	24.60	7.50
08/12/97	01:15:00 PM	5.02	24.59	7.49
08/12/97	01:30:00 PM	4.98	24.62	7.54
08/12/97	01:45:00 PM	4.82	24.68	7.53
08/12/97	02:00:00 PM	4.86	24.69	7.47
08/12/97	02:15:00 PM	4.81	24.76	7.48
08/12/97	02:30:00 PM	4.81	24.80	7.53
08/12/97	02:45:00 PM	4.86	24.85	7.53
08/12/97	03:00:00 PM	4.66	24.86	7.51
08/12/97	03:15:00 PM	4.85	24.83	7.52
08/12/97	03:30:00 PM	4.79	24.84	7.52
08/12/97	03:45:00 PM	4.81	24.84	7.51
08/12/97	04:00:00 PM	4.52	24.83	7.50
08/12/97	04:15:00 PM	4.55	24.80	7.50
08/12/97	04:30:00 PM	4.44	24.80	7.49
08/12/97	04:45:00 PM	4.52	24.81	7.48
08/12/97	05:00:00 PM	4.73	24.77	7.49
08/12/97	05:15:00 PM	4.59	24.75	7.41
08/12/97	05:30:00 PM	4.23	24.69	7.41
08/12/97	05:45:00 PM	4.38	24.69	7.41
08/12/97	06:00:00 PM	4.03	24.64	7.41

Data collected at CONT01

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (estimated data) (mg/L)	Temp (C)	pH
08/12/97	06:15:00 PM	4.02	24.61	7.41
08/12/97	06:30:00 PM	3.91	24.58	7.40
08/12/97	06:45:00 PM	3.75	24.61	7.41
08/12/97	07:00:00 PM	3.84	24.50	7.40
08/12/97	07:15:00 PM	3.84	24.41	7.40
08/12/97	07:30:00 PM	3.80	24.38	7.39
08/12/97	07:45:00 PM	3.67	24.31	7.43
08/12/97	08:00:00 PM	3.68	24.21	7.44
08/12/97	08:15:00 PM	3.75	24.14	7.44
08/12/97	08:30:00 PM	3.62	24.10	7.43
08/12/97	08:45:00 PM	3.80	24.01	7.43
08/12/97	09:00:00 PM	3.52	24.00	7.43
08/12/97	09:15:00 PM	3.66	23.89	7.43
08/12/97	09:30:00 PM	3.84	23.82	7.43
08/12/97	09:45:00 PM	4.02	23.76	7.44
08/12/97	10:00:00 PM	3.97	23.73	7.44
08/12/97	10:15:00 PM	4.08	23.70	7.44
08/12/97	10:30:00 PM	4.34	23.68	7.45
08/12/97	10:45:00 PM	4.14	23.66	7.45
08/12/97	11:00:00 PM	4.22	23.63	7.46
08/12/97	11:15:00 PM	4.33	23.61	7.47
08/12/97	11:30:00 PM	4.38	23.57	7.47
08/12/97	11:45:00 PM	4.47	23.56	7.48
08/13/97	12:00:00 AM	4.58	23.53	7.48
08/13/97	12:15:00 AM	4.62	23.50	7.49
08/13/97	12:30:00 AM	4.69	23.48	7.50
08/13/97	12:45:00 AM	4.75	23.46	7.50
08/13/97	01:00:00 AM	4.73	23.43	7.50
08/13/97	01:15:00 AM	4.99	23.40	7.50
08/13/97	01:30:00 AM	5.11	23.38	7.51
08/13/97	01:45:00 AM	5.14	23.36	7.51
08/13/97	02:00:00 AM	5.08	23.35	7.51
08/13/97	02:15:00 AM	5.23	23.32	7.52
08/13/97	02:30:00 AM	5.21	23.30	7.52
08/13/97	02:45:00 AM	5.28	23.28	7.43
08/13/97	03:00:00 AM	5.33	23.26	7.52
08/13/97	03:15:00 AM	5.45	23.24	7.53
08/13/97	03:30:00 AM	5.43	23.23	7.53
08/13/97	03:45:00 AM	5.23	23.22	7.54
08/13/97	04:00:00 AM	5.25	23.21	7.46
08/13/97	04:15:00 AM	5.35	23.20	7.48
08/13/97	04:30:00 AM	5.28	23.19	7.49
08/13/97	04:45:00 AM	5.30	23.18	7.50
08/13/97	05:00:00 AM	5.35	23.17	7.51
08/13/97	05:15:00 AM	5.31	23.16	7.51
08/13/97	05:30:00 AM	5.34	23.17	7.52
08/13/97	05:45:00 AM	5.43	23.15	7.53
08/13/97	06:00:00 AM	5.39	23.15	7.53
08/13/97	06:15:00 AM	5.51	23.15	7.54
08/13/97	06:30:00 AM	5.53	23.14	7.54
08/13/97	06:45:00 AM	5.62	23.14	7.55
08/13/97	07:00:00 AM	5.63	23.15	7.56
08/13/97	07:15:00 AM	5.66	23.13	7.57
08/13/97	07:30:00 AM	5.63	23.14	7.57

Data collected at CONT01

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (estimated data) (mg/L)	Temp (C)	pH
08/13/97	07:45:00 AM	5.61	23.15	7.57
08/13/97	08:00:00 AM	5.71	23.17	7.58
08/13/97	08:15:00 AM	5.71	23.17	7.58
08/13/97	08:30:00 AM	5.72	23.18	7.58
08/13/97	08:45:00 AM	5.63	23.20	7.58
08/13/97	09:00:00 AM	5.71	23.20	7.58
08/13/97	09:15:00 AM	5.75	23.20	7.64
08/13/97	09:30:00 AM	5.80	23.22	7.64
08/13/97	09:45:00 AM	5.88	23.25	7.64
08/13/97	10:00:00 AM	6.03	23.27	7.64
08/13/97	10:15:00 AM	6.01	23.26	7.64
08/13/97	10:30:00 AM	6.01	23.29	7.64
08/13/97	10:45:00 AM	5.91	23.32	7.64
08/13/97	11:00:00 AM	6.00	23.29	7.63
08/13/97	11:15:00 AM	5.90	23.29	7.63
08/13/97	11:30:00 AM	5.87	23.28	7.63
08/13/97	11:45:00 AM	5.66	23.28	7.62
08/13/97	12:00:00 PM	5.53	23.26	7.62
08/13/97	12:15:00 PM	5.53	23.26	7.62
08/13/97	12:30:00 PM	5.41	23.23	7.61
08/13/97	12:45:00 PM	5.30	23.19	7.60
08/13/97	01:00:00 PM	5.31	23.14	7.60
08/13/97	01:15:00 PM	5.20	23.15	7.59
08/13/97	01:30:00 PM	5.13	23.12	7.59
08/13/97	01:45:00 PM	5.02	23.07	7.58
08/13/97	02:00:00 PM	4.95	23.05	7.58
08/13/97	02:15:00 PM	4.73	22.96	7.56
08/13/97	02:30:00 PM	4.80	22.93	7.56
08/13/97	02:45:00 PM	4.68	22.90	7.56
08/13/97	03:00:00 PM	4.52	22.81	7.54
08/13/97	03:15:00 PM	4.46	22.76	7.54
08/13/97	03:30:00 PM	4.41	22.69	7.54
08/13/97	03:45:00 PM	4.33	22.54	7.53
08/13/97	04:00:00 PM	4.24	22.45	7.52
08/13/97	04:15:00 PM	4.24	22.29	7.51
08/13/97	04:30:00 PM	4.05	22.26	7.50
08/13/97	04:45:00 PM	3.98	22.26	7.49
08/13/97	05:00:00 PM	4.02	22.11	7.49
08/13/97	05:15:00 PM	3.89	22.00	7.48
08/13/97	05:30:00 PM	3.85	21.94	7.47
08/13/97	05:45:00 PM	3.81	21.89	7.47
08/13/97	06:00:00 PM	3.71	21.85	7.46
08/13/97	06:15:00 PM	3.71	21.74	7.45
08/13/97	06:30:00 PM	3.72	21.70	7.45
08/13/97	06:45:00 PM	3.74	21.59	7.45
08/13/97	07:00:00 PM	3.82	21.54	7.44
08/13/97	07:15:00 PM	3.86	21.47	7.45
08/13/97	07:30:00 PM	3.97	21.38	7.45
08/13/97	07:45:00 PM	4.09	21.28	7.45
08/13/97	08:00:00 PM	4.08	21.26	7.45
08/13/97	08:15:00 PM	4.25	21.20	7.46
08/13/97	08:30:00 PM	4.42	21.18	7.46
08/13/97	08:45:00 PM	4.63	21.15	7.47
08/13/97	09:00:00 PM	4.67	21.11	7.48

Data collected at CONT01

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (estimated data) (mg/L)	Temp (C)	pH
08/13/97	09:15:00 PM	4.82	21.10	7.40
08/13/97	09:30:00 PM	4.93	21.09	7.43
08/13/97	09:45:00 PM	5.15	21.09	7.45
08/13/97	10:00:00 PM	5.15	21.09	7.45
08/13/97	10:15:00 PM	5.47	21.09	7.48
08/13/97	10:30:00 PM	5.53	21.11	7.49
08/13/97	10:45:00 PM	5.65	21.12	7.50
08/13/97	11:00:00 PM	5.65	21.14	7.51
08/13/97	11:15:00 PM	5.67	21.15	7.51
08/13/97	11:30:00 PM	5.81	21.18	7.52
08/13/97	11:45:00 PM	5.89	21.20	7.53
08/14/97	12:00:00 AM	5.83	21.22	7.58
08/14/97	12:15:00 AM	5.97	21.24	7.59
08/14/97	12:30:00 AM	5.93	21.26	7.59
08/14/97	12:45:00 AM	6.03	21.29	7.60
08/14/97	01:00:00 AM	6.02	21.31	7.61
08/14/97	01:15:00 AM	6.03	21.33	7.61
08/14/97	01:30:00 AM	5.95	21.34	7.61
08/14/97	01:45:00 AM	5.88	21.36	7.61
08/14/97	02:00:00 AM	5.71	21.38	7.60
08/14/97	02:15:00 AM	5.71	21.39	7.59
08/14/97	02:30:00 AM	5.51	21.40	7.59
08/14/97	02:45:00 AM	5.42	21.41	7.58
08/14/97	03:00:00 AM	5.34	21.41	7.57
08/14/97	03:15:00 AM	5.22	21.41	7.56
08/14/97	03:30:00 AM	5.24	21.41	7.56
08/14/97	03:45:00 AM	5.14	21.41	7.55
08/14/97	04:00:00 AM	5.07	21.40	7.54
08/14/97	04:15:00 AM	4.97	21.39	7.53
08/14/97	04:30:00 AM	4.83	21.39	7.53
08/14/97	04:45:00 AM	4.81	21.38	7.52
08/14/97	05:00:00 AM	4.70	21.38	7.51
08/14/97	05:15:00 AM	4.64	21.37	7.42
08/14/97	05:30:00 AM	4.54	21.36	7.44
08/14/97	05:45:00 AM	4.47	21.33	7.44
08/14/97	06:00:00 AM	4.40	21.35	7.43
08/14/97	06:15:00 AM	4.51	21.33	7.43
08/14/97	06:30:00 AM	4.60	21.33	7.44
08/14/97	06:45:00 AM	4.55	21.33	7.44
08/14/97	07:00:00 AM	4.54	21.34	7.43
08/14/97	07:15:00 AM	4.50	21.36	7.43
08/14/97	07:30:00 AM	4.59	21.34	7.43
08/14/97	07:45:00 AM	4.58	21.38	7.43
08/14/97	08:00:00 AM	4.43	21.41	7.43
08/14/97	08:15:00 AM	4.38	21.43	7.43
08/14/97	08:30:00 AM	4.36	21.46	7.48
08/14/97	08:45:00 AM	4.39	21.50	7.48
08/14/97	09:00:00 AM	4.32	21.57	7.48
08/14/97	09:15:00 AM	4.40	21.59	7.48
08/14/97	09:30:00 AM	4.35	21.61	7.49
08/14/97	09:45:00 AM	4.37	21.66	7.49
08/14/97	10:00:00 AM	4.40	21.72	7.49
08/14/97	10:15:00 AM	4.42	21.76	7.49
08/14/97	10:30:00 AM	4.38	21.84	7.51

Data collected at CONT01

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (estimated data) (mg/L)	Temp (C)	pH
08/14/97	10:45:00 AM	4.46	21.90	7.42
08/14/97	11:00:00 AM	4.54	21.95	7.44
08/14/97	11:15:00 AM	4.52	22.10	7.44
08/14/97	11:30:00 AM	4.56	22.07	7.46
08/14/97	11:45:00 AM	4.52	22.21	7.46
08/14/97	12:00:00 PM	4.58	22.24	7.47
08/14/97	12:15:00 PM	4.66	22.30	7.47
08/14/97	12:30:00 PM	4.65	22.36	7.47
08/14/97	12:45:00 PM	4.74	22.37	7.52
08/14/97	01:00:00 PM	4.72	22.56	7.52
08/14/97	01:15:00 PM	4.78	22.48	7.53
08/14/97	01:30:00 PM	4.86	22.60	7.53
08/14/97	01:45:00 PM	4.78	22.72	7.53
08/14/97	02:00:00 PM	4.83	22.71	7.54
08/14/97	02:15:00 PM	4.92	22.65	7.55
08/14/97	02:30:00 PM	5.09	22.72	7.55
08/14/97	02:45:00 PM	4.98	22.86	7.55
08/14/97	03:00:00 PM	5.10	22.86	7.56
08/14/97	03:15:00 PM	5.16	22.94	7.56
08/14/97	03:30:00 PM	5.24	23.08	7.57
08/14/97	03:45:00 PM	5.18	23.09	7.56
08/14/97	04:00:00 PM	5.28	23.20	7.57
08/14/97	04:15:00 PM	5.33	23.23	7.57
08/14/97	04:30:00 PM	5.49	23.11	7.58
08/14/97	04:45:00 PM	5.54	23.16	7.58
08/14/97	05:00:00 PM	5.55	23.25	7.57
08/14/97	05:15:00 PM	5.61	23.31	7.57
08/14/97	05:30:00 PM	5.48	23.34	7.58
08/14/97	05:45:00 PM	5.55	23.27	7.59
08/14/97	06:00:00 PM	5.47	23.28	7.59
08/14/97	06:15:00 PM	5.61	23.23	7.59
08/14/97	06:30:00 PM	5.67	23.24	7.60
08/14/97	06:45:00 PM	5.64	23.23	7.60
08/14/97	07:00:00 PM	5.79	23.23	7.61
08/14/97	07:15:00 PM	5.87	23.23	7.61
08/14/97	07:30:00 PM	5.82	23.21	7.60
08/14/97	07:45:00 PM	5.88	23.24	7.61
08/14/97	08:00:00 PM	5.84	23.21	7.61
08/14/97	08:15:00 PM	6.04	23.26	7.63
08/14/97	08:30:00 PM	6.15	23.31	7.64
08/14/97	08:45:00 PM	6.28	23.34	7.65
08/14/97	09:00:00 PM	6.32	23.38	7.67
08/14/97	09:15:00 PM	6.41	23.41	7.68
08/14/97	09:30:00 PM	6.53	23.45	7.69
08/14/97	09:45:00 PM	6.61	23.48	7.70
08/14/97	10:00:00 PM	6.65	23.51	7.71
08/14/97	10:15:00 PM	6.64	23.52	7.62
08/14/97	10:30:00 PM	6.66	23.55	7.65
08/14/97	10:45:00 PM	6.67	23.55	7.65
08/14/97	11:00:00 PM	6.71	23.57	7.66
08/14/97	11:15:00 PM	6.69	23.59	7.67
08/14/97	11:30:00 PM	6.74	23.60	7.73
08/14/97	11:45:00 PM	6.75	23.59	7.65
08/15/97	12:00:00 AM	6.66	23.62	7.67

Data collected at CONT01

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (estimated data) (mg/L)	Temp (C)	pH
08/15/97	12:15:00 AM	6.64	23.61	7.68
08/15/97	12:30:00 AM	6.63	23.62	7.68
08/15/97	12:45:00 AM	6.57	23.62	7.68
08/15/97	01:00:00 AM	6.61	23.62	7.74
08/15/97	01:15:00 AM	6.56	23.62	7.74
08/15/97	01:30:00 AM	6.53	23.62	7.74
08/15/97	01:45:00 AM	6.41	23.61	7.74
08/15/97	02:00:00 AM	6.32	23.58	7.74
08/15/97	02:15:00 AM	6.29	23.58	7.73
08/15/97	02:30:00 AM	6.14	23.58	7.73
08/15/97	02:45:00 AM	6.12	23.56	7.72
08/15/97	03:00:00 AM	5.99	23.55	7.71
08/15/97	03:15:00 AM	5.93	23.53	7.71
08/15/97	03:30:00 AM	5.81	23.50	7.70
08/15/97	03:45:00 AM	5.68	23.47	7.69
08/15/97	04:00:00 AM	5.60	23.44	7.68
08/15/97	04:15:00 AM	5.47	23.39	7.67
08/15/97	04:30:00 AM	5.35	23.35	7.66
08/15/97	04:45:00 AM	5.26	23.31	7.65
08/15/97	05:00:00 AM	5.03	23.26	7.64
08/15/97	05:15:00 AM	4.98	23.21	7.62
08/15/97	05:30:00 AM	4.86	23.17	7.61
08/15/97	05:45:00 AM	4.70	23.12	7.51
08/15/97	06:00:00 AM	4.56	23.03	7.52
08/15/97	06:15:00 AM	4.39	22.93	7.51
08/15/97	06:30:00 AM	4.32	22.88	7.51
08/15/97	06:45:00 AM	4.20	22.78	7.50
08/15/97	07:00:00 AM	4.19	22.73	7.49
08/15/97	07:15:00 AM	4.10	22.61	7.48
08/15/97	07:30:00 AM	4.04	22.53	7.47
08/15/97	07:45:00 AM	3.98	22.49	7.47
08/15/97	08:00:00 AM	3.98	22.44	7.46
08/15/97	08:15:00 AM	3.91	22.29	7.50
08/15/97	08:30:00 AM	3.86	22.29	7.50
08/15/97	08:45:00 AM	3.87	22.17	7.50
08/15/97	09:00:00 AM	3.91	22.14	7.50

Data collected at CONT01

Site information

Site location: Upstream of Populatic Pond, Medway

Latitude: 42 07'58.24" N

Longitude: 71 22'51.52" W

Total water depth: 2.8 m

Probe depth: 0.75m

QA/QC and field measurements

YSI Model 57 results @ 1500 on 8/12/97

Depth (m)	DO (mg/L)	Temp (C)
0.20	5.60	26.00
0.50	5.40	25.20
1.00	5.90	25.00
1.50	5.80	24.80
2.00	5.85	24.80

YSI Model 57 results @ 09:00 on 8/15/97

Depth (m)	DO (mg/L)	Temp (C)
0.20	5.28	22.20
0.50	5.20	22.10
1.00	5.20	22.00
1.50	5.25	22.00
2.00	5.18	22.00
2.50	5.10	22.00

YSI 6000 post calibration check on 8/15/97

	Calibration value	Meter reading	difference	QA/QC limits
DO (mg/L)	8.43	8.02	-0.41	+/- 0.5
pH	7	7.05	+ 0.05	+/- 0.2
pH	4	4.06	+ 0.06	+/- 0.2

Data collected at CONT02

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (mg/L)	Temp (C)
08/12/97	02:45:00 PM	10.40	24.14
08/12/97	03:00:00 PM	10.31	24.31
08/12/97	03:15:00 PM	12.61	24.81
08/12/97	03:30:00 PM	10.96	24.47
08/12/97	03:45:00 PM	10.44	24.03
08/12/97	04:00:00 PM	10.40	24.99
08/12/97	04:15:00 PM	10.28	24.96
08/12/97	04:30:00 PM	10.75	24.87
08/12/97	04:45:00 PM	10.25	25.00
08/12/97	05:00:00 PM	10.36	25.49
08/12/97	05:15:00 PM	10.78	24.61
08/12/97	05:30:00 PM	11.55	25.20
08/12/97	05:45:00 PM	11.78	25.43
08/12/97	06:00:00 PM	11.71	24.57
08/12/97	06:15:00 PM	12.15	25.32
08/12/97	06:30:00 PM	11.63	25.17
08/12/97	06:45:00 PM	11.70	24.83
08/12/97	07:00:00 PM	12.45	25.27
08/12/97	07:15:00 PM	11.98	25.25
08/12/97	07:30:00 PM	11.35	25.39
08/12/97	07:45:00 PM	11.13	25.40
08/12/97	08:00:00 PM	11.62	24.91
08/12/97	08:15:00 PM	12.35	25.12
08/12/97	08:30:00 PM	11.59	25.52
08/12/97	08:45:00 PM	11.22	25.00
08/12/97	09:00:00 PM	11.71	25.40
08/12/97	09:15:00 PM	11.93	25.31
08/12/97	09:30:00 PM	11.53	24.90
08/12/97	09:45:00 PM	11.78	25.44
08/12/97	10:00:00 PM	11.42	25.35
08/12/97	10:15:00 PM	11.44	24.46
08/12/97	10:30:00 PM	11.69	25.43
08/12/97	10:45:00 PM	11.33	24.76
08/12/97	11:00:00 PM	10.13	24.03
08/12/97	11:15:00 PM	10.02	24.48
08/12/97	11:30:00 PM	9.84	24.15
08/12/97	11:45:00 PM	10.33	24.68
08/13/97	12:00:00 AM	10.63	24.85
08/13/97	12:15:00 AM	9.33	23.64
08/13/97	12:30:00 AM	10.43	24.88
08/13/97	12:45:00 AM	10.34	24.81
08/13/97	01:00:00 AM	9.68	23.94
08/13/97	01:15:00 AM	10.53	24.77
08/13/97	01:30:00 AM	9.95	24.52
08/13/97	01:45:00 AM	9.43	23.73
08/13/97	02:00:00 AM	10.41	24.58
08/13/97	02:15:00 AM	9.94	24.46
08/13/97	02:30:00 AM	9.92	24.34
08/13/97	02:45:00 AM	10.14	24.36
08/13/97	03:00:00 AM	9.69	24.04
08/13/97	03:15:00 AM	9.86	24.23
08/13/97	03:30:00 AM	9.75	24.17
08/13/97	03:45:00 AM	9.42	24.10
08/13/97	04:00:00 AM	9.55	24.03

Data collected at CONT02

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (mg/L)	Temp (C)
08/13/97	04:15:00 AM	9.39	23.96
08/13/97	04:30:00 AM	9.36	23.91
08/13/97	04:45:00 AM	9.34	23.82
08/13/97	05:00:00 AM	9.17	23.80
08/13/97	05:15:00 AM	8.90	23.73
08/13/97	05:30:00 AM	8.86	23.68
08/13/97	05:45:00 AM	8.71	23.69
08/13/97	06:00:00 AM	8.50	23.66
08/13/97	06:15:00 AM	8.35	23.63
08/13/97	06:30:00 AM	8.29	23.59
08/13/97	06:45:00 AM	8.08	23.56
08/13/97	07:00:00 AM	7.98	23.53
08/13/97	07:15:00 AM	7.88	23.51
08/13/97	07:30:00 AM	7.51	23.50
08/13/97	07:45:00 AM	7.44	23.48
08/13/97	08:00:00 AM	7.33	23.48
08/13/97	08:15:00 AM	7.30	23.51
08/13/97	08:30:00 AM	7.21	23.49
08/13/97	08:45:00 AM	7.16	23.51
08/13/97	09:00:00 AM	7.10	23.46
08/13/97	09:15:00 AM	7.21	23.55
08/13/97	09:30:00 AM	7.21	23.51
08/13/97	09:45:00 AM	7.46	23.58
08/13/97	10:00:00 AM	7.49	23.60
08/13/97	10:15:00 AM	7.40	23.54
08/13/97	10:30:00 AM	7.63	23.60
08/13/97	10:45:00 AM	7.88	23.66
08/13/97	11:00:00 AM	8.39	23.76
08/13/97	11:15:00 AM	7.98	23.62
08/13/97	11:30:00 AM	8.15	23.62
08/13/97	11:45:00 AM	8.59	23.74
08/13/97	12:00:00 PM	8.17	23.65
08/13/97	12:15:00 PM	7.73	23.51
08/13/97	12:30:00 PM	7.77	23.49
08/13/97	12:45:00 PM	9.27	23.89
08/13/97	01:00:00 PM	7.75	23.51
08/13/97	01:15:00 PM	7.69	23.51
08/13/97	01:30:00 PM	7.79	23.49
08/13/97	01:45:00 PM	8.12	23.55
08/13/97	02:00:00 PM	7.85	23.24
08/13/97	02:15:00 PM	7.71	23.32
08/13/97	02:30:00 PM	9.05	23.69
08/13/97	02:45:00 PM	8.46	23.19
08/13/97	03:00:00 PM	9.56	23.74
08/13/97	03:15:00 PM	9.29	23.49
08/13/97	03:30:00 PM	8.92	23.06
08/13/97	03:45:00 PM	8.89	23.32
08/13/97	04:00:00 PM	9.17	23.33
08/13/97	04:15:00 PM	9.19	23.27
08/13/97	04:30:00 PM	9.23	23.08
08/13/97	04:45:00 PM	9.00	23.08
08/13/97	05:00:00 PM	9.31	23.33
08/13/97	05:15:00 PM	9.64	23.34
08/13/97	05:30:00 PM	9.40	23.20

Data collected at CONT02

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (mg/L)	Temp (C)
08/13/97	05:45:00 PM	9.64	23.30
08/13/97	06:00:00 PM	9.38	23.13
08/13/97	06:15:00 PM	9.45	23.26
08/13/97	06:30:00 PM	9.15	23.13
08/13/97	06:45:00 PM	9.36	23.22
08/13/97	07:00:00 PM	8.98	23.06
08/13/97	07:15:00 PM	9.03	23.14
08/13/97	07:30:00 PM	8.89	23.05
08/13/97	07:45:00 PM	8.81	23.11
08/13/97	08:00:00 PM	8.98	23.01
08/13/97	08:15:00 PM	8.76	22.91
08/13/97	08:30:00 PM	8.97	23.06
08/13/97	08:45:00 PM	8.48	22.95
08/13/97	09:00:00 PM	8.67	23.03
08/13/97	09:15:00 PM	8.51	23.03
08/13/97	09:30:00 PM	8.40	23.01
08/13/97	09:45:00 PM	8.28	23.00
08/13/97	10:00:00 PM	8.13	22.98
08/13/97	10:15:00 PM	8.08	22.90
08/13/97	10:30:00 PM	7.96	22.77
08/13/97	10:45:00 PM	8.04	22.72
08/13/97	11:00:00 PM	7.96	22.84
08/13/97	11:15:00 PM	7.76	22.57
08/13/97	11:30:00 PM	8.05	22.86
08/13/97	11:45:00 PM	7.36	22.51
08/14/97	12:00:00 AM	7.84	22.80
08/14/97	12:15:00 AM	7.27	22.54
08/14/97	12:30:00 AM	7.34	22.64
08/14/97	12:45:00 AM	7.20	22.61
08/14/97	01:00:00 AM	6.97	22.46
08/14/97	01:15:00 AM	7.03	22.66
08/14/97	01:30:00 AM	7.00	22.61
08/14/97	01:45:00 AM	6.88	22.53
08/14/97	02:00:00 AM	6.94	22.72
08/14/97	02:15:00 AM	6.89	22.73
08/14/97	02:30:00 AM	6.92	22.53
08/14/97	02:45:00 AM	6.85	22.68
08/14/97	03:00:00 AM	6.83	22.79
08/14/97	03:15:00 AM	6.72	22.51
08/14/97	03:30:00 AM	6.79	22.77
08/14/97	03:45:00 AM	6.78	22.79
08/14/97	04:00:00 AM	6.62	22.73
08/14/97	04:15:00 AM	6.67	22.82
08/14/97	04:30:00 AM	6.62	22.83
08/14/97	04:45:00 AM	6.46	22.68
08/14/97	05:00:00 AM	6.20	22.81
08/14/97	05:15:00 AM	6.27	22.79
08/14/97	05:30:00 AM	6.36	22.68
08/14/97	05:45:00 AM	6.19	22.76
08/14/97	06:00:00 AM	6.20	22.69
08/14/97	06:15:00 AM	6.02	22.69
08/14/97	06:30:00 AM	6.08	22.66
08/14/97	06:45:00 AM	6.05	22.62
08/14/97	07:00:00 AM	5.98	22.64

Data collected at CONT02

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (mg/L)	Temp (C)
08/14/97	07:15:00 AM	5.90	22.60
08/14/97	07:30:00 AM	5.75	22.58
08/14/97	07:45:00 AM	5.82	22.59
08/14/97	08:00:00 AM	5.90	22.59
08/14/97	08:15:00 AM	5.86	22.60
08/14/97	08:30:00 AM	5.91	22.63
08/14/97	08:45:00 AM	5.86	22.61
08/14/97	09:00:00 AM	6.17	22.67
08/14/97	09:15:00 AM	5.90	22.64
08/14/97	09:30:00 AM	6.11	22.64
08/14/97	09:45:00 AM	6.04	22.67
08/14/97	10:00:00 AM	6.09	22.61
08/14/97	10:15:00 AM	6.17	22.74
08/14/97	10:30:00 AM	5.95	22.51
08/14/97	10:45:00 AM	9.85	22.99
08/14/97	11:00:00 AM	6.54	22.50
08/14/97	11:15:00 AM	7.86	22.53
08/14/97	11:30:00 AM	8.99	22.62
08/14/97	11:45:00 AM	9.09	22.61
08/14/97	12:00:00 PM	9.08	22.77
08/14/97	12:15:00 PM	8.88	22.88
08/14/97	12:30:00 PM	8.32	22.76
08/14/97	12:45:00 PM	9.16	22.88
08/14/97	01:00:00 PM	8.81	22.90
08/14/97	01:15:00 PM	9.32	23.14
08/14/97	01:30:00 PM	9.03	22.87
08/14/97	01:45:00 PM	9.12	23.14
08/14/97	02:00:00 PM	9.18	22.90
08/14/97	02:15:00 PM	9.16	22.92
08/14/97	02:30:00 PM	9.37	23.09
08/14/97	02:45:00 PM	9.55	23.25
08/14/97	03:00:00 PM	9.84	23.29
08/14/97	03:15:00 PM	8.80	23.38
08/14/97	03:30:00 PM	9.36	23.38
08/14/97	03:45:00 PM	11.50	23.22
08/14/97	04:00:00 PM	10.93	23.36
08/14/97	04:15:00 PM	9.38	23.56
08/14/97	04:30:00 PM	9.89	23.28
08/14/97	04:45:00 PM	9.78	23.41
08/14/97	05:00:00 PM	10.92	23.23
08/14/97	05:15:00 PM	11.04	23.31
08/14/97	05:30:00 PM	11.37	23.58
08/14/97	05:45:00 PM	13.43	23.71
08/14/97	06:00:00 PM	11.41	23.62
08/14/97	06:15:00 PM	11.14	24.34
08/14/97	06:30:00 PM	11.26	24.34
08/14/97	06:45:00 PM	10.99	24.30
08/14/97	07:00:00 PM	12.36	24.11
08/14/97	07:15:00 PM	12.16	24.24
08/14/97	07:30:00 PM	11.55	24.60
08/14/97	07:45:00 PM	11.64	24.89
08/14/97	08:00:00 PM	11.71	24.49
08/14/97	08:15:00 PM	10.65	24.71
08/14/97	08:30:00 PM	11.48	24.56

Data collected at CONT02

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (mg/L)	Temp (C)
08/14/97	08:45:00 PM	10.43	24.26
08/14/97	09:00:00 PM	10.76	24.73
08/14/97	09:15:00 PM	10.63	24.71
08/14/97	09:30:00 PM	10.53	24.50
08/14/97	09:45:00 PM	10.20	24.65
08/14/97	10:00:00 PM	9.73	24.39
08/14/97	10:15:00 PM	10.05	24.44
08/14/97	10:30:00 PM	9.57	24.27
08/14/97	10:45:00 PM	9.55	24.12
08/14/97	11:00:00 PM	9.71	24.33
08/14/97	11:15:00 PM	9.44	24.27
08/14/97	11:30:00 PM	9.50	24.27
08/14/97	11:45:00 PM	9.34	24.03
08/15/97	12:00:00 AM	9.27	23.97
08/15/97	12:15:00 AM	9.42	24.07
08/15/97	12:30:00 AM	9.12	23.85
08/15/97	12:45:00 AM	9.22	23.91
08/15/97	01:00:00 AM	9.47	24.14
08/15/97	01:15:00 AM	8.91	23.73
08/15/97	01:30:00 AM	9.13	23.95
08/15/97	01:45:00 AM	8.99	23.97
08/15/97	02:00:00 AM	8.73	23.65
08/15/97	02:15:00 AM	8.86	23.89
08/15/97	02:30:00 AM	8.80	23.78
08/15/97	02:45:00 AM	8.54	23.66
08/15/97	03:00:00 AM	8.75	23.72
08/15/97	03:15:00 AM	8.66	23.73
08/15/97	03:30:00 AM	8.34	23.57
08/15/97	03:45:00 AM	8.54	23.66
08/15/97	04:00:00 AM	8.38	23.72
08/15/97	04:15:00 AM	8.33	23.66
08/15/97	04:30:00 AM	8.20	23.67
08/15/97	04:45:00 AM	8.08	23.61
08/15/97	05:00:00 AM	7.97	23.64
08/15/97	05:15:00 AM	7.99	23.57
08/15/97	05:30:00 AM	7.83	23.54
08/15/97	05:45:00 AM	7.89	23.54
08/15/97	06:00:00 AM	7.77	23.53
08/15/97	06:15:00 AM	7.84	23.48
08/15/97	06:30:00 AM	7.71	23.50
08/15/97	06:45:00 AM	7.58	23.42
08/15/97	07:00:00 AM	7.71	23.47
08/15/97	07:15:00 AM	7.49	23.45
08/15/97	07:30:00 AM	7.76	23.41
08/15/97	07:45:00 AM	7.66	23.43
08/15/97	08:00:00 AM	7.46	23.42
08/15/97	08:15:00 AM	7.64	23.39
08/15/97	08:30:00 AM	7.34	23.40
08/15/97	08:45:00 AM	7.77	23.43
08/15/97	09:00:00 AM	7.55	23.46
08/15/97	09:15:00 AM	7.87	23.48
08/15/97	09:30:00 AM	8.12	23.48

Data collected at CONT02

Site information

Site location: Downstream of Populatic Pond, Medway

Latitude: 42 08'07.77" N

Longitude: 71 22'42.19" W

Total water depth: 2.0 m

Probe depth: 0.75m

QA/QC and field measurements

YSI Model 57 results @ 1300 on 8/12/97

Depth (m)	DO (mg/L)	Temp (C)
0.20	11.80	26.00
0.50	12.25	24.80
1.00	8.70	22.50
1.50	6.00	22.00

YSI Model 57 results @ 0923 on 8/15/97

Depth (m)	DO (mg/L)	Temp (C)
0.20	9.00	23.90
0.50	9.05	23.80
1.00	6.50	23.10
1.50	5.30	21.80

YSI Model 57 results @ 0930 on 8/15/97

Depth (m)	DO (mg/L)	Temp (C)
0.75	8.00	23.30

YSI 6000 post calibration check on 8/15/97

	Calibration value	Meter reading	difference	QA/QC limits
DO (mg/L)	8.43	7.89	-0.54	+/- 0.5
pH	7	6.82	-0.18	+/- 0.2
pH	4	2.73	2.73	+/- 0.2

Data collected at CONT03

Date (MM/DD/YY)	Time (hh:mm:ss)	DO Conc (mg/L)	Temp (C)	pH (estimated data)
08/12/97	07:15:00 PM	6.79	24.56	7.26
08/12/97	07:30:00 PM	6.74	24.42	7.28
08/12/97	07:45:00 PM	6.75	24.55	7.28
08/12/97	08:00:00 PM	6.66	24.4	7.28
08/12/97	08:15:00 PM	6.47	24.36	7.26
08/12/97	08:30:00 PM	6.43	24.37	7.26
08/12/97	08:45:00 PM	6.35	24.33	7.24
08/12/97	09:00:00 PM	6.36	24.41	7.25
08/12/97	09:15:00 PM	6.35	24.35	7.24
08/12/97	09:30:00 PM	6.33	24.44	7.26
08/12/97	09:45:00 PM	6.41	24.42	7.25
08/12/97	10:00:00 PM	6.21	24.32	7.23
08/12/97	10:15:00 PM	6.01	24.28	7.21
08/12/97	10:30:00 PM	6.14	24.27	7.22
08/12/97	10:45:00 PM	5.96	24.26	7.2
08/12/97	11:00:00 PM	5.89	24.28	7.2
08/12/97	11:15:00 PM	5.98	24.31	7.21
08/12/97	11:30:00 PM	5.84	24.26	7.19
08/12/97	11:45:00 PM	5.6	24.19	7.16
08/13/97	12:00:00 AM	5.73	24.25	7.18
08/13/97	12:15:00 AM	5.86	24.26	7.21
08/13/97	12:30:00 AM	5.46	24.2	7.22
08/13/97	12:45:00 AM	5.98	24.21	7.22
08/13/97	01:00:00 AM	5.96	24.23	7.22
08/13/97	01:15:00 AM	6.24	24.24	7.27
08/13/97	01:30:00 AM	6.24	24.2	7.26
08/13/97	01:45:00 AM	6.12	24.16	7.25
08/13/97	02:00:00 AM	6.02	24.13	7.24
08/13/97	02:15:00 AM	6.18	24.1	7.25
08/13/97	02:30:00 AM	6.07	24.07	7.24
08/13/97	02:45:00 AM	6.12	24.05	7.25
08/13/97	03:00:00 AM	6.07	24.01	7.24
08/13/97	03:15:00 AM	6.08	23.98	7.25
08/13/97	03:30:00 AM	6.05	23.96	7.24
08/13/97	03:45:00 AM	5.93	23.93	7.23
08/13/97	04:00:00 AM	5.83	23.9	7.21
08/13/97	04:15:00 AM	5.84	23.88	7.22
08/13/97	04:30:00 AM	5.66	23.85	7.2
08/13/97	04:45:00 AM	5.64	23.83	7.2
08/13/97	05:00:00 AM	5.57	23.8	7.2
08/13/97	05:15:00 AM	5.53	23.78	7.18
08/13/97	05:30:00 AM	5.51	23.75	7.18
08/13/97	05:45:00 AM	5.34	23.72	7.17
08/13/97	06:00:00 AM	5.36	23.69	7.16
08/13/97	06:15:00 AM	5.41	23.67	7.16
08/13/97	06:30:00 AM	5.46	23.64	7.18
08/13/97	06:45:00 AM	5.32	23.62	7.17
08/13/97	07:00:00 AM	5.46	23.6	7.17
08/13/97	07:15:00 AM	5.38	23.58	7.17
08/13/97	07:30:00 AM	5.33	23.56	7.15
08/13/97	07:45:00 AM	5.16	23.54	7.15
08/13/97	08:00:00 AM	5.32	23.52	7.16
08/13/97	08:15:00 AM	5.29	23.51	7.15
08/13/97	08:30:00 AM	5.34	23.5	7.16

Data collected at CONT03

Date (MM/DD/YY)	Time (hh:mm:ss)	DO Conc (mg/L)	Temp (C)	pH (estimated data)
08/13/97	08:45:00 AM	5.27	23.49	7.15
08/13/97	09:00:00 AM	5.33	23.49	7.16
08/13/97	09:15:00 AM	5.38	23.5	7.18
08/13/97	09:30:00 AM	5.4	23.5	7.16
08/13/97	09:45:00 AM	5.38	23.5	7.16
08/13/97	10:00:00 AM	5.31	23.5	7.15
08/13/97	10:15:00 AM	5.39	23.51	7.16
08/13/97	10:30:00 AM	5.33	23.51	7.16
08/13/97	10:45:00 AM	5.39	23.51	7.16
08/13/97	11:00:00 AM	5.45	23.55	7.17
08/13/97	11:15:00 AM	5.41	23.53	7.16
08/13/97	11:30:00 AM	5.29	23.52	7.14
08/13/97	11:45:00 AM	5.26	23.52	7.14
08/13/97	12:00:00 PM	5.26	23.53	7.14
08/13/97	12:15:00 PM	5.14	23.52	7.12
08/13/97	12:30:00 PM	5.31	23.54	7.14
08/13/97	12:45:00 PM	5.09	23.53	7.12
08/13/97	01:00:00 PM	5.29	23.54	7.14
08/13/97	01:15:00 PM	5.1	23.53	7.13
08/13/97	01:30:00 PM	5	23.53	7.13
08/13/97	01:45:00 PM	5.04	23.53	7.12
08/13/97	02:00:00 PM	5.39	23.54	7.13
08/13/97	02:15:00 PM	5.18	23.52	7.13
08/13/97	02:30:00 PM	5.16	23.52	7.13
08/13/97	02:45:00 PM	5.01	23.49	7.11
08/13/97	03:00:00 PM	5.21	23.5	7.13
08/13/97	03:15:00 PM	5.47	23.47	7.17
08/13/97	03:30:00 PM	5.18	23.45	7.13
08/13/97	03:45:00 PM	5.22	23.45	7.14
08/13/97	04:00:00 PM	5.12	23.44	7.13
08/13/97	04:15:00 PM	5.34	23.43	7.16
08/13/97	04:30:00 PM	5.03	23.36	7.13
08/13/97	04:45:00 PM	5.47	23.39	7.17
08/13/97	05:00:00 PM	5.26	23.37	7.13
08/13/97	05:15:00 PM	5.49	23.37	7.17
08/13/97	05:30:00 PM	5.46	23.37	7.16
08/13/97	05:45:00 PM	5.47	23.35	7.17
08/13/97	06:00:00 PM	5.44	23.33	7.17
08/13/97	06:15:00 PM	5.42	23.31	7.15
08/13/97	06:30:00 PM	5.38	23.29	7.15
08/13/97	06:45:00 PM	5.33	23.26	7.12
08/13/97	07:00:00 PM	5.31	23.27	7.15
08/13/97	07:15:00 PM	5.26	23.26	7.15
08/13/97	07:30:00 PM	5.33	23.25	7.15
08/13/97	07:45:00 PM	5.21	23.23	7.14
08/13/97	08:00:00 PM	5.14	23.22	7.13
08/13/97	08:15:00 PM	5.08	23.21	7.14
08/13/97	08:30:00 PM	5.06	23.2	7.14
08/13/97	08:45:00 PM	5.04	23.2	7.13
08/13/97	09:00:00 PM	5.01	23.19	7.12
08/13/97	09:15:00 PM	4.99	23.2	7.12
08/13/97	09:30:00 PM	4.89	23.19	7.13
08/13/97	09:45:00 PM	4.93	23.18	7.12
08/13/97	10:00:00 PM	4.91	23.18	7.13

Data collected at CONT03

Date (MM/DD/YY)	Time (hh:mm:ss)	DO Conc (mg/L)	Temp (C)	pH (estimated data)
08/13/97	10:15:00 PM	4.8	23.16	7.12
08/13/97	10:30:00 PM	4.79	23.16	7.12
08/13/97	10:45:00 PM	4.77	23.16	7.12
08/13/97	11:00:00 PM	4.73	23.16	7.11
08/13/97	11:15:00 PM	4.72	23.15	7.11
08/13/97	11:30:00 PM	4.63	23.14	7.11
08/13/97	11:45:00 PM	4.65	23.14	7.1
08/14/97	12:00:00 AM	4.57	23.14	7.1
08/14/97	12:15:00 AM	4.51	23.13	7.09
08/14/97	12:30:00 AM	4.48	23.12	7.09
08/14/97	12:45:00 AM	4.46	23.12	7.09
08/14/97	01:00:00 AM	4.42	23.11	7.09
08/14/97	01:15:00 AM	4.41	23.1	7.09
08/14/97	01:30:00 AM	4.37	23.09	7.09
08/14/97	01:45:00 AM	4.4	23.09	7.08
08/14/97	02:00:00 AM	4.32	23.08	7.08
08/14/97	02:15:00 AM	4.37	23.08	7.09
08/14/97	02:30:00 AM	4.35	23.08	7.09
08/14/97	02:45:00 AM	4.31	23.07	7.08
08/14/97	03:00:00 AM	4.3	23.06	7.09
08/14/97	03:15:00 AM	4.28	23.05	7.08
08/14/97	03:30:00 AM	4.28	23.04	7.08
08/14/97	03:45:00 AM	4.22	23.03	7.08
08/14/97	04:00:00 AM	4.19	23.02	7.08
08/14/97	04:15:00 AM	4.21	23.02	7.08
08/14/97	04:30:00 AM	4.2	23.01	7.08
08/14/97	04:45:00 AM	4.19	23	7.08
08/14/97	05:00:00 AM	4.16	23	7.07
08/14/97	05:15:00 AM	4.1	22.99	7.07
08/14/97	05:30:00 AM	4.13	22.97	7.07
08/14/97	05:45:00 AM	4.13	22.97	7.07
08/14/97	06:00:00 AM	4.1	22.96	7.07
08/14/97	06:15:00 AM	4.09	22.95	7.07
08/14/97	06:30:00 AM	4.1	22.94	7.07
08/14/97	06:45:00 AM	4.08	22.93	7.07
08/14/97	07:00:00 AM	4.1	22.92	7.06
08/14/97	07:15:00 AM	4.09	22.92	7.07
08/14/97	07:30:00 AM	4.12	22.91	7.07
08/14/97	07:45:00 AM	4.14	22.91	7.07
08/14/97	08:00:00 AM	4.18	22.9	7.08
08/14/97	08:15:00 AM	4.12	22.9	7.07
08/14/97	08:30:00 AM	4.15	22.91	7.07
08/14/97	08:45:00 AM	4.22	22.94	7.07
08/14/97	09:00:00 AM	4.22	22.96	7.08
08/14/97	09:15:00 AM	4.16	22.94	7.07
08/14/97	09:30:00 AM	4.22	22.98	7.08
08/14/97	09:45:00 AM	4.33	23.16	7.1
08/14/97	10:00:00 AM	4.11	22.98	7.07
08/14/97	10:15:00 AM	4.28	23.03	7.08
08/14/97	10:30:00 AM	4.23	23.01	7.08
08/14/97	10:45:00 AM	4.25	23.06	7.08
08/14/97	11:00:00 AM	4.3	23.08	7.08
08/14/97	11:15:00 AM	4.35	23.09	7.08
08/14/97	11:30:00 AM	4.36	23.09	7.08

Data collected at CONT03

Date (MM/DD/YY)	Time (hh:mm:ss)	DO Conc (mg/L)	Temp (C)	pH (estimated data)
08/14/97	11:45:00 AM	4.29	23.14	7.08
08/14/97	12:00:00 PM	4.33	23.19	7.08
08/14/97	12:15:00 PM	4.3	23.11	7.08
08/14/97	12:30:00 PM	4.25	23.07	7.07
08/14/97	12:45:00 PM	4.34	23.13	7.07
08/14/97	01:00:00 PM	4.63	23.14	7.09
08/14/97	01:15:00 PM	4.46	23.12	7.08
08/14/97	01:30:00 PM	4.56	23.16	7.08
08/14/97	01:45:00 PM	4.59	23.2	7.07
08/14/97	02:00:00 PM	4.76	23.26	7.08
08/14/97	02:15:00 PM	4.78	23.3	7.09
08/14/97	02:30:00 PM	4.93	23.28	7.09
08/14/97	02:45:00 PM	5.08	23.29	7.11
08/14/97	03:00:00 PM	5.15	23.41	7.1
08/14/97	03:15:00 PM	5.08	23.42	7.1
08/14/97	03:30:00 PM	5.09	23.38	7.09
08/14/97	03:45:00 PM	5.09	23.42	7.09
08/14/97	04:00:00 PM	5.16	23.4	7.09
08/14/97	04:15:00 PM	5.29	23.43	7.1
08/14/97	04:30:00 PM	5.09	23.43	7.1
08/14/97	04:45:00 PM	5.25	23.42	7.1
08/14/97	05:00:00 PM	5.32	23.48	7.11
08/14/97	05:15:00 PM	5.23	23.48	7.11
08/14/97	05:30:00 PM	5.06	23.49	7.12
08/14/97	05:45:00 PM	4.97	23.46	7.11
08/14/97	06:00:00 PM	4.92	23.45	7.11
08/14/97	06:15:00 PM	4.92	23.41	7.11
08/14/97	06:30:00 PM	4.99	23.48	7.11
08/14/97	06:45:00 PM	4.81	23.38	7.1
08/14/97	07:00:00 PM	4.81	23.37	7.1
08/14/97	07:15:00 PM	4.83	23.38	7.1
08/14/97	07:30:00 PM	5.06	23.5	7.12
08/14/97	07:45:00 PM	4.94	23.48	7.11
08/14/97	08:00:00 PM	5.03	23.51	7.12
08/14/97	08:15:00 PM	4.94	23.5	7.11
08/14/97	08:30:00 PM	4.97	23.53	7.12
08/14/97	08:45:00 PM	4.8	23.42	7.1
08/14/97	09:00:00 PM	4.7	23.43	7.1
08/14/97	09:15:00 PM	4.9	23.54	7.12
08/14/97	09:30:00 PM	5.07	23.71	7.14
08/14/97	09:45:00 PM	5.29	23.78	7.16
08/14/97	10:00:00 PM	5.27	23.75	7.14
08/14/97	10:15:00 PM	5.03	23.69	7.14
08/14/97	10:30:00 PM	5.18	23.77	7.16
08/14/97	10:45:00 PM	5.41	23.84	7.16
08/14/97	11:00:00 PM	5.76	23.94	7.2
08/14/97	11:15:00 PM	5.62	23.92	7.2
08/14/97	11:30:00 PM	5.69	23.93	7.19
08/14/97	11:45:00 PM	5.88	23.88	7.19
08/15/97	12:00:00 AM	5.82	23.9	7.22
08/15/97	12:15:00 AM	5.92	23.87	7.21
08/15/97	12:30:00 AM	5.9	23.89	7.24
08/15/97	12:45:00 AM	5.98	23.86	7.22
08/15/97	01:00:00 AM	5.87	23.83	7.21

Data collected at CONT03

Date (MM/DD/YY)	Time (hh:mm:ss)	DO Conc (mg/L)	Temp (C)	pH (estimated data)
08/15/97	01:15:00 AM	5.84	23.82	7.2
08/15/97	01:30:00 AM	5.84	23.79	7.2
08/15/97	01:45:00 AM	5.84	23.79	7.21
08/15/97	02:00:00 AM	5.77	23.76	7.21
08/15/97	02:15:00 AM	5.8	23.75	7.21
08/15/97	02:30:00 AM	5.77	23.71	7.19
08/15/97	02:45:00 AM	5.75	23.72	7.21
08/15/97	03:00:00 AM	5.76	23.68	7.19
08/15/97	03:15:00 AM	5.73	23.66	7.2
08/15/97	03:30:00 AM	5.58	23.63	7.19
08/15/97	03:45:00 AM	5.65	23.61	7.19
08/15/97	04:00:00 AM	5.6	23.62	7.19
08/15/97	04:15:00 AM	5.6	23.59	7.18
08/15/97	04:30:00 AM	5.5	23.56	7.17
08/15/97	04:45:00 AM	5.49	23.54	7.17
08/15/97	05:00:00 AM	5.42	23.52	7.17
08/15/97	05:15:00 AM	5.37	23.49	7.16
08/15/97	05:30:00 AM	5.45	23.47	7.16
08/15/97	05:45:00 AM	5.45	23.47	7.16
08/15/97	06:00:00 AM	5.32	23.46	7.16
08/15/97	06:15:00 AM	5.32	23.43	7.15
08/15/97	06:30:00 AM	5.2	23.41	7.15
08/15/97	06:45:00 AM	5.14	23.4	7.15
08/15/97	07:00:00 AM	5.25	23.39	7.15
08/15/97	07:15:00 AM	5.09	23.35	7.13
08/15/97	07:30:00 AM	5.37	23.37	7.15
08/15/97	07:45:00 AM	5.02	23.34	7.13
08/15/97	08:00:00 AM	4.98	23.34	7.13
08/15/97	08:15:00 AM	5.1	23.33	7.14
08/15/97	08:30:00 AM	5.04	23.32	7.13
08/15/97	08:45:00 AM	5.05	23.31	7.13
08/15/97	09:00:00 AM	5.24	23.32	7.15
08/15/97	09:15:00 AM	5.41	23.32	7.15
08/15/97	09:30:00 AM	5.36	23.33	7.14
08/15/97	09:45:00 AM	5.39	23.31	7.14
08/15/97	10:00:00 AM	5.39	23.32	7.15
08/15/97	10:15:00 AM	5.43	23.35	7.16
08/15/97	10:30:00 AM	5.38	23.37	7.16
08/15/97	10:45:00 AM	5.36	23.36	7.15
08/15/97	11:00:00 AM	5.47	23.36	7.16
08/15/97	11:15:00 AM	5.42	23.35	7.14
08/15/97	11:30:00 AM	5.42	23.36	7.14
08/15/97	11:45:00 AM	5.53	23.38	7.16
08/15/97	12:00:00 PM	5.49	23.36	7.16
08/15/97	12:15:00 PM	5.49	23.38	7.16
08/15/97	12:30:00 PM	5.51	23.37	7.14
08/15/97	12:45:00 PM	5.53	23.38	7.14

Site Information

Site location: CONT03 - Above Cochrane Dam, Dover

Latitude: 42 15'31.73" N

Longitude: 71 15'46.50" W

Total water depth: 4.0 m

Probe depth: 0.75m

QA/QC and field measurements

YSI Model 57 results @ 1801 on 8/12/97

Depth (m)	DO (mg/L)	Temp (C)
0.20	7.15	25.80
0.50	6.75	25.20
1.00	6.19	24.60
1.50	5.00	24.10
2.00	4.10	23.70
2.50	0.30	22.90
3.00	0.05	21.80
3.50	0.00	21.00

YSI Model 57 results @1230 on 8/15/97

Depth (m)	DO (mg/L)	Temp (C)
0.20	6.20	23.90
0.50	5.60	23.50
0.75	5.40	23.50
1.00	5.20	23.20
1.50	4.40	23.10
2.00	3.52	23.00
2.50	2.80	22.90
3.00	1.45	22.50

YSI 6000 post calibration check on 8/15/97

	Calibration value	Meter reading	difference	QA/QC limits
DO (mg/L)	8.4	8.55	0.15	+/- 0.5
SpCond (mS/cm)	0.718	0.556	-0.162	+/- 0.010
pH	7	6.75	-0.25	+/- 0.2
pH	4	3.80	-0.2	+/- 0.2

Data collected at CONT04

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (mg/L)	Temp (C)	pH	SpCond (mS/cm)	Salinity (ppt)
08/13/97	12:45:00 PM	9.50	23.97	7.59	0.592	0.29
08/13/97	01:00:00 PM	9.63	23.99	7.66	0.591	0.29
08/13/97	01:15:00 PM	10.01	23.90	7.72	0.573	0.28
08/13/97	01:30:00 PM	9.70	23.91	7.66	0.569	0.27
08/13/97	01:45:00 PM	9.54	23.91	7.64	0.567	0.27
08/13/97	02:00:00 PM	9.59	23.89	7.65	0.567	0.27
08/13/97	02:15:00 PM	9.47	23.87	7.64	0.568	0.27
08/13/97	02:30:00 PM	9.39	23.86	7.64	0.575	0.28
08/13/97	02:45:00 PM	9.25	23.83	7.59	0.575	0.28
08/13/97	03:00:00 PM	9.10	23.80	7.57	0.569	0.27
08/13/97	03:15:00 PM	9.16	23.74	7.58	0.566	0.27
08/13/97	03:30:00 PM	9.17	23.77	7.59	0.563	0.27
08/13/97	03:45:00 PM	9.13	23.77	7.60	0.563	0.27
08/13/97	04:00:00 PM	9.18	23.72	7.62	0.556	0.27
08/13/97	04:15:00 PM	8.96	23.74	7.56	0.560	0.27
08/13/97	04:30:00 PM	8.83	23.75	7.53	0.560	0.27
08/13/97	04:45:00 PM	8.57	23.65	7.47	0.551	0.27
08/13/97	05:00:00 PM	8.35	23.67	7.43	0.554	0.27
08/13/97	05:15:00 PM	8.22	23.63	7.42	0.551	0.27
08/13/97	05:30:00 PM	8.25	23.69	7.41	0.564	0.27
08/13/97	05:45:00 PM	8.05	23.74	7.38	0.573	0.28
08/13/97	06:00:00 PM	7.97	23.74	7.37	0.574	0.28
08/13/97	06:15:00 PM	7.88	23.76	7.36	0.579	0.28
08/13/97	06:30:00 PM	7.88	23.72	7.36	0.579	0.28
08/13/97	06:45:00 PM	7.95	23.69	7.38	0.572	0.28
08/13/97	07:00:00 PM	7.85	23.68	7.37	0.570	0.28
08/13/97	07:15:00 PM	7.72	23.70	7.34	0.572	0.28
08/13/97	07:30:00 PM	7.74	23.68	7.36	0.569	0.27
08/13/97	07:45:00 PM	7.71	23.67	7.34	0.573	0.28
08/13/97	08:00:00 PM	7.53	23.70	7.32	0.577	0.28
08/13/97	08:15:00 PM	7.52	23.69	7.30	0.577	0.28
08/13/97	08:30:00 PM	7.45	23.69	7.31	0.578	0.28
08/13/97	08:45:00 PM	7.46	23.68	7.31	0.579	0.28
08/13/97	09:00:00 PM	7.37	23.67	7.30	0.578	0.28
08/13/97	09:15:00 PM	7.33	23.66	7.29	0.578	0.28
08/13/97	09:30:00 PM	7.29	23.66	7.30	0.584	0.28
08/13/97	09:45:00 PM	7.28	23.66	7.30	0.593	0.29
08/13/97	10:00:00 PM	7.24	23.66	7.30	0.597	0.29
08/13/97	10:15:00 PM	7.23	23.65	7.30	0.592	0.29
08/13/97	10:30:00 PM	7.19	23.65	7.30	0.590	0.29
08/13/97	10:45:00 PM	7.14	23.64	7.28	0.589	0.28
08/13/97	11:00:00 PM	7.13	23.64	7.29	0.588	0.28
08/13/97	11:15:00 PM	7.08	23.64	7.28	0.589	0.28
08/13/97	11:30:00 PM	7.25	23.58	7.30	0.561	0.27
08/13/97	11:45:00 PM	7.44	23.58	7.30	0.543	0.26
08/14/97	12:00:00 AM	7.39	23.59	7.30	0.541	0.26
08/14/97	12:15:00 AM	7.38	23.57	7.30	0.538	0.26
08/14/97	12:30:00 AM	7.37	23.56	7.30	0.536	0.26
08/14/97	12:45:00 AM	7.35	23.56	7.30	0.539	0.26
08/14/97	01:00:00 AM	7.23	23.55	7.28	0.538	0.26
08/14/97	01:15:00 AM	7.29	23.55	7.29	0.538	0.26
08/14/97	01:30:00 AM	7.47	23.52	7.30	0.522	0.25
08/14/97	01:45:00 AM	7.38	23.52	7.28	0.524	0.25
08/14/97	02:00:00 AM	7.30	23.50	7.28	0.524	0.25

Data collected at CONT04

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (mg/L)	Temp (C)	pH	SpCond (mS/cm)	Salinity (ppt)
08/14/97	02:15:00 AM	7.23	23.49	7.27	0.523	0.25
08/14/97	02:30:00 AM	7.19	23.48	7.26	0.524	0.25
08/14/97	02:45:00 AM	7.14	23.50	7.26	0.524	0.25
08/14/97	03:00:00 AM	7.08	23.48	7.25	0.519	0.25
08/14/97	03:15:00 AM	7.01	23.47	7.24	0.517	0.25
08/14/97	03:30:00 AM	6.91	23.46	7.23	0.516	0.25
08/14/97	03:45:00 AM	6.84	23.46	7.22	0.517	0.25
08/14/97	04:00:00 AM	6.72	23.43	7.22	0.518	0.25
08/14/97	04:15:00 AM	6.81	23.42	7.22	0.515	0.25
08/14/97	04:30:00 AM	6.73	23.41	7.21	0.515	0.25
08/14/97	04:45:00 AM	6.37	23.38	7.19	0.518	0.25
08/14/97	05:00:00 AM	6.70	23.38	7.21	0.515	0.25
08/14/97	05:15:00 AM	6.59	23.40	7.20	0.518	0.25
08/14/97	05:30:00 AM	6.54	23.35	7.18	0.516	0.25
08/14/97	05:45:00 AM	6.49	23.34	7.18	0.515	0.25
08/14/97	06:00:00 AM	6.23	23.32	7.18	0.517	0.25
08/14/97	06:15:00 AM	6.46	23.34	7.19	0.525	0.25
08/14/97	06:30:00 AM	6.43	23.36	7.18	0.526	0.25
08/14/97	06:45:00 AM	6.28	23.34	7.17	0.526	0.25
08/14/97	07:00:00 AM	6.46	23.32	7.18	0.525	0.25
08/14/97	07:15:00 AM	6.49	23.34	7.19	0.524	0.25
08/14/97	07:30:00 AM	6.55	23.36	7.19	0.523	0.25
08/14/97	07:45:00 AM	6.61	23.37	7.20	0.525	0.25
08/14/97	08:00:00 AM	6.63	23.41	7.20	0.526	0.25
08/14/97	08:15:00 AM	6.85	23.46	7.22	0.535	0.26
08/14/97	08:30:00 AM	6.78	23.45	7.21	0.533	0.26
08/14/97	08:45:00 AM	6.75	23.47	7.22	0.533	0.26
08/14/97	09:00:00 AM	7.08	23.51	7.23	0.532	0.26
08/14/97	09:15:00 AM	7.02	23.49	7.23	0.530	0.26
08/14/97	09:30:00 AM	7.36	23.55	7.27	0.529	0.25
08/14/97	09:45:00 AM	7.37	23.54	7.27	0.529	0.25
08/14/97	10:00:00 AM	7.17	23.52	7.24	0.527	0.25
08/14/97	10:15:00 AM	7.17	23.79	7.25	0.529	0.25
08/14/97	10:30:00 AM	7.56	23.72	7.28	0.528	0.25
08/14/97	10:45:00 AM	7.37	23.78	7.26	0.530	0.26
08/14/97	11:00:00 AM	7.63	23.91	7.30	0.529	0.25
08/14/97	11:15:00 AM	7.56	23.76	7.26	0.532	0.26
08/14/97	11:30:00 AM	7.65	23.59	7.28	0.523	0.25
08/14/97	11:45:00 AM	7.59	23.69	7.31	0.524	0.25
08/14/97	12:00:00 PM	7.40	23.59	7.27	0.523	0.25
08/14/97	12:15:00 PM	7.71	23.69	7.29	0.522	0.25
08/14/97	12:30:00 PM	8.10	23.80	7.36	0.523	0.25
08/14/97	12:45:00 PM	8.32	23.85	7.38	0.527	0.25
08/14/97	01:00:00 PM	8.48	23.94	7.40	0.527	0.25
08/14/97	01:15:00 PM	8.65	23.96	7.43	0.532	0.26
08/14/97	01:30:00 PM	8.55	23.87	7.42	0.525	0.25
08/14/97	01:45:00 PM	8.45	23.81	7.39	0.524	0.25
08/14/97	02:00:00 PM	8.65	23.85	7.41	0.522	0.25
08/14/97	02:15:00 PM	9.68	24.09	7.61	0.524	0.25
08/14/97	02:30:00 PM	9.65	23.99	7.56	0.525	0.25
08/14/97	02:45:00 PM	8.41	24.07	7.37	0.521	0.25
08/14/97	03:00:00 PM	8.73	24.13	7.41	0.521	0.25
08/14/97	03:15:00 PM	9.05	24.15	7.48	0.523	0.25
08/14/97	03:30:00 PM	9.10	24.34	7.52	0.521	0.25

Data collected at CONT04

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (mg/L)	Temp (C)	pH	SpCond (mS/cm)	Salinity (ppt)
08/14/97	03:45:00 PM	9.23	24.47	7.59	0.527	0.25
08/14/97	04:00:00 PM	10.04	24.68	7.73	0.527	0.25
08/14/97	04:15:00 PM	10.50	24.74	7.80	0.525	0.25
08/14/97	04:30:00 PM	10.79	24.76	8.08	0.521	0.25
08/14/97	04:45:00 PM	10.39	24.68	7.80	0.520	0.25
08/14/97	05:00:00 PM	10.64	24.70	7.82	0.522	0.25
08/14/97	05:15:00 PM	10.99	24.79	7.97	0.523	0.25
08/14/97	05:30:00 PM	11.74	25.15	8.39	0.520	0.25
08/14/97	05:45:00 PM	11.69	25.26	8.32	0.518	0.25
08/14/97	06:00:00 PM	12.47	25.59	8.61	0.517	0.25
08/14/97	06:15:00 PM	12.63	25.68	8.64	0.516	0.25
08/14/97	06:30:00 PM	12.39	25.62	8.58	0.518	0.25
08/14/97	06:45:00 PM	12.28	25.62	8.58	0.517	0.25
08/14/97	07:00:00 PM	12.06	25.55	8.54	0.518	0.25
08/14/97	07:15:00 PM	10.84	25.23	7.95	0.519	0.25
08/14/97	07:30:00 PM	11.10	25.37	8.24	0.517	0.25
08/14/97	07:45:00 PM	11.14	25.34	8.04	0.517	0.25
08/14/97	08:00:00 PM	11.47	25.41	8.27	0.514	0.25
08/14/97	08:15:00 PM	11.35	25.38	8.27	0.514	0.25
08/14/97	08:30:00 PM	11.23	25.34	8.19	0.515	0.25
08/14/97	08:45:00 PM	11.04	25.29	8.13	0.513	0.25
08/14/97	09:00:00 PM	10.87	25.26	8.07	0.512	0.25
08/14/97	09:15:00 PM	10.78	25.21	8.03	0.514	0.25
08/14/97	09:30:00 PM	10.66	25.15	7.96	0.515	0.25
08/14/97	09:45:00 PM	9.37	25.01	7.66	0.519	0.25
08/14/97	10:00:00 PM	9.72	25.03	7.66	0.516	0.25
08/14/97	10:15:00 PM	10.14	24.98	7.78	0.514	0.25
08/14/97	10:30:00 PM	9.44	24.86	7.57	0.518	0.25
08/14/97	10:45:00 PM	9.48	24.86	7.61	0.516	0.25
08/14/97	11:00:00 PM	9.17	24.82	7.56	0.518	0.25
08/14/97	11:15:00 PM	9.36	24.78	7.58	0.516	0.25
08/14/97	11:30:00 PM	9.29	24.75	7.51	0.517	0.25
08/14/97	11:45:00 PM	8.89	24.72	7.51	0.517	0.25
08/15/97	12:00:00 AM	8.87	24.68	7.50	0.517	0.25
08/15/97	12:15:00 AM	8.83	24.63	7.48	0.517	0.25
08/15/97	12:30:00 AM	9.10	24.62	7.52	0.516	0.25
08/15/97	12:45:00 AM	9.01	24.60	7.51	0.515	0.25
08/15/97	01:00:00 AM	8.74	24.56	7.46	0.515	0.25
08/15/97	01:15:00 AM	8.85	24.55	7.46	0.516	0.25
08/15/97	01:30:00 AM	8.66	24.52	7.44	0.518	0.25
08/15/97	01:45:00 AM	8.63	24.49	7.43	0.518	0.25
08/15/97	02:00:00 AM	8.59	24.45	7.43	0.517	0.25
08/15/97	02:15:00 AM	8.57	24.43	7.43	0.516	0.25
08/15/97	02:30:00 AM	8.57	24.39	7.42	0.516	0.25
08/15/97	02:45:00 AM	8.53	24.37	7.42	0.516	0.25
08/15/97	03:00:00 AM	8.42	24.32	7.41	0.517	0.25
08/15/97	03:15:00 AM	8.28	24.31	7.39	0.516	0.25
08/15/97	03:30:00 AM	8.19	24.29	7.37	0.516	0.25
08/15/97	03:45:00 AM	8.12	24.26	7.35	0.517	0.25
08/15/97	04:00:00 AM	8.22	24.23	7.37	0.518	0.25
08/15/97	04:15:00 AM	8.54	24.17	7.42	0.517	0.25
08/15/97	04:30:00 AM	8.49	24.14	7.41	0.514	0.25
08/15/97	04:45:00 AM	8.41	24.10	7.40	0.513	0.25
08/15/97	05:00:00 AM	8.27	24.10	7.39	0.514	0.25

Data collected at CONT04

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (mg/L)	Temp (C)	pH	SpCond (mS/cm)	Salinity (ppt)
08/15/97	05:15:00 AM	8.18	24.06	7.38	0.513	0.25
08/15/97	05:30:00 AM	8.16	24.02	7.37	0.514	0.25
08/15/97	05:45:00 AM	8.05	24.00	7.35	0.513	0.25
08/15/97	06:00:00 AM	8.08	23.98	7.36	0.513	0.25
08/15/97	06:15:00 AM	7.98	23.95	7.33	0.513	0.25
08/15/97	06:30:00 AM	7.91	23.92	7.33	0.513	0.25
08/15/97	06:45:00 AM	7.86	23.92	7.32	0.513	0.25
08/15/97	07:00:00 AM	7.89	23.92	7.33	0.513	0.25
08/15/97	07:15:00 AM	7.87	23.92	7.32	0.513	0.25
08/15/97	07:30:00 AM	7.50	23.91	7.27	0.514	0.25
08/15/97	07:45:00 AM	7.77	23.93	7.32	0.513	0.25
08/15/97	08:00:00 AM	8.15	23.96	7.36	0.513	0.25
08/15/97	08:15:00 AM	8.50	23.99	7.40	0.513	0.25
08/15/97	08:30:00 AM	8.65	24.00	7.42	0.510	0.25
08/15/97	08:45:00 AM	9.04	24.01	7.46	0.508	0.24
08/15/97	09:00:00 AM	8.91	24.01	7.44	0.508	0.24
08/15/97	09:15:00 AM	8.87	24.00	7.45	0.508	0.24
08/15/97	09:30:00 AM	9.37	24.09	7.54	0.508	0.24
08/15/97	09:45:00 AM	9.32	24.06	7.51	0.508	0.24
08/15/97	10:00:00 AM	9.78	24.17	7.60	0.504	0.24
08/15/97	10:15:00 AM	9.71	24.12	7.58	0.503	0.24
08/15/97	10:30:00 AM	9.97	24.18	7.65	0.502	0.24
08/15/97	10:45:00 AM	10.38	24.29	7.75	0.502	0.24
08/15/97	11:00:00 AM	10.47	24.35	7.76	0.502	0.24
08/15/97	11:15:00 AM	10.62	24.52	7.80	0.502	0.24
08/15/97	11:30:00 AM	10.69	24.55	7.82	0.500	0.24
08/15/97	11:45:00 AM	10.62	24.57	7.82	0.498	0.24
08/15/97	12:00:00 PM	10.67	24.65	7.82	0.499	0.24
08/15/97	12:15:00 PM	10.82	24.67	7.86	0.501	0.24
08/15/97	12:30:00 PM	10.87	24.62	7.88	0.502	0.24
08/15/97	12:45:00 PM	10.83	24.58	7.85	0.500	0.24
08/15/97	01:00:00 PM	11.04	24.67	7.95	0.500	0.24
08/15/97	01:15:00 PM	10.83	24.60	7.88	0.497	0.24
08/15/97	01:30:00 PM	10.78	24.58	7.85	0.499	0.24
08/15/97	01:45:00 PM	10.70	24.54	7.80	0.499	0.24
08/15/97	02:00:00 PM	10.74	24.55	7.82	0.501	0.24
08/15/97	02:15:00 PM	11.29	24.62	8.01	0.503	0.24
08/15/97	02:30:00 PM	11.07	24.56	7.95	0.499	0.24

Data collected at CONT04

Site information

Site: CONT04 - Harvard boat Club Dock, Cambridge

Latitude: 42 21'18.45" N

Longitude: 71 05'49.84" W

Total water depth: 1.5 m

Probe depth: 0.75m

QA/QC and field measurements

YSI Model 57 & 30 results @ 1240 on 8/13/97

Depth (m)	DO (mg/L)	Temp (C)
0.2	9.25	24.00
0.5	9.20	24.00
1.0	9.20	24.00

YSI Model 57 & 30 results @ 1430 on 8/15/97

Depth (m)	DO (mg/L)	Temp (C)	SpCond (mS/cm)	Salinity (ppt)
0.20	11.60	24.80	0.494	0.2
0.50	11.40	24.80	0.494	0.2
0.75	11.20	24.50	0.487	0.2
1.00	11.10	24.40	0.485	0.2

YSI 6000 post calibration check on 8/15/97

	Calibration value	Meter reading	difference	QA/QC limits
DO (mg/L)	8.35	8.41	0.06	+/- 0.5
SpCond (mS/cm)	0.718	0.722	0.004	+/- 0.010
pH	7	7.08	0.08	+/- 0.2
pH	4	4.13	0.13	+/- 0.2

Data collected at CONT05

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (Estimated data) (mg/L)	Temp (C)	pH	SpCond (mS/cm)	Salinity (ppt)
08/13/97	02:54:05 PM	11.59	24.37	9.36	2.36	1.21
08/13/97	03:09:05 PM	11.48	24.33	9.34	2.35	1.20
08/13/97	03:24:05 PM	11.45	24.31	9.34	2.33	1.20
08/13/97	03:39:05 PM	11.44	24.29	9.34	2.33	1.20
08/13/97	03:54:05 PM	11.40	24.32	9.32	2.34	1.20
08/13/97	04:09:05 PM	11.39	24.28	9.33	2.33	1.20
08/13/97	04:24:05 PM	11.35	24.28	9.33	2.33	1.20
08/13/97	04:39:05 PM	11.32	24.28	9.32	2.34	1.20
08/13/97	04:54:05 PM	11.29	24.25	9.32	2.33	1.20
08/13/97	05:09:05 PM	11.21	24.27	9.30	2.34	1.20
08/13/97	05:24:05 PM	11.19	24.25	9.30	2.33	1.20
08/13/97	05:39:05 PM	11.16	24.22	9.29	2.33	1.19
08/13/97	05:54:05 PM	10.99	24.20	9.26	2.32	1.19
08/13/97	06:09:05 PM	10.94	24.21	9.26	2.34	1.20
08/13/97	06:24:05 PM	10.88	24.18	9.26	2.34	1.20
08/13/97	06:39:05 PM	10.92	24.18	9.27	2.33	1.20
08/13/97	06:54:05 PM	11.11	24.16	9.28	2.33	1.19
08/13/97	07:09:05 PM	11.17	23.88	9.15	2.05	1.04
08/13/97	07:24:05 PM	11.08	23.86	9.13	2.02	1.03
08/13/97	07:39:05 PM	10.85	23.81	9.05	1.95	0.99
08/13/97	07:54:05 PM	10.67	23.81	9.01	1.94	0.98
08/13/97	08:09:05 PM	10.59	23.84	9.00	1.95	0.99
08/13/97	08:24:05 PM	10.49	23.84	8.98	1.95	0.99
08/13/97	08:39:05 PM	10.35	23.84	8.92	1.94	0.99
08/13/97	08:54:05 PM	10.13	23.79	8.79	1.83	0.93
08/13/97	09:09:05 PM	10.08	23.80	8.81	1.84	0.94
08/13/97	09:24:05 PM	10.04	23.81	8.80	1.86	0.95
08/13/97	09:39:05 PM	9.93	23.81	8.80	1.87	0.95
08/13/97	09:54:05 PM	9.90	23.82	8.79	1.89	0.96
08/13/97	10:09:05 PM	9.75	23.80	8.76	1.87	0.95
08/13/97	10:24:05 PM	9.72	23.80	8.74	1.87	0.95
08/13/97	10:39:05 PM	9.48	23.78	8.68	1.89	0.96
08/13/97	10:54:05 PM	9.21	23.71	8.59	1.84	0.93
08/13/97	11:09:05 PM	9.12	23.70	8.58	1.85	0.94
08/13/97	11:24:05 PM	9.40	23.78	8.73	1.93	0.98
08/13/97	11:39:05 PM	9.52	23.83	8.78	1.99	1.01
08/13/97	11:54:05 PM	9.44	23.84	8.76	2.01	1.02
08/14/97	12:09:05 AM	9.28	23.85	8.71	2.01	1.02
08/14/97	12:24:05 AM	9.18	23.84	8.66	2.00	1.02
08/14/97	12:39:05 AM	9.14	23.83	8.64	2.01	1.02
08/14/97	12:54:05 AM	9.10	23.83	8.67	2.02	1.03
08/14/97	01:09:05 AM	9.00	23.83	8.64	2.02	1.03
08/14/97	01:24:05 AM	8.93	23.82	8.63	2.02	1.03
08/14/97	01:39:05 AM	8.77	23.80	8.57	2.00	1.02
08/14/97	01:54:05 AM	8.63	23.78	8.51	1.99	1.01
08/14/97	02:09:05 AM	8.72	23.78	8.56	2.01	1.03
08/14/97	02:24:05 AM	8.77	23.79	8.61	2.03	1.04
08/14/97	02:39:05 AM	8.82	23.79	8.64	2.05	1.05
08/14/97	02:54:05 AM	8.69	23.75	8.61	2.05	1.05
08/14/97	03:09:05 AM	8.66	23.71	8.60	2.04	1.04
08/14/97	03:24:05 AM	8.67	23.71	8.61	2.05	1.05
08/14/97	03:39:05 AM	8.70	23.70	8.62	2.06	1.05
08/14/97	03:54:05 AM	8.72	23.73	8.64	2.08	1.06
08/14/97	04:09:05 AM	8.69	23.71	8.63	2.09	1.06

Data collected at CONT05

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (Estimated data) (mg/L)	Temp (C)	pH	SpCond (mS/cm)	Salinity (ppt)
08/14/97	04:24:05 AM	8.82	23.73	8.70	2.09	1.07
08/14/97	04:39:05 AM	8.76	23.70	8.70	2.10	1.07
08/14/97	04:54:05 AM	8.68	23.67	8.70	2.09	1.07
08/14/97	05:09:05 AM	8.66	23.62	8.65	2.09	1.07
08/14/97	05:24:05 AM	8.64	23.66	8.70	2.10	1.07
08/14/97	05:39:05 AM	8.70	23.64	8.69	2.12	1.08
08/14/97	05:54:05 AM	8.56	23.61	8.65	2.11	1.08
08/14/97	06:09:05 AM	8.79	23.60	8.68	2.11	1.07
08/14/97	06:24:05 AM	8.85	23.61	8.71	2.12	1.08
08/14/97	06:39:05 AM	8.94	23.64	8.75	2.15	1.10
08/14/97	06:54:05 AM	8.97	23.66	8.79	2.18	1.12
08/14/97	07:09:05 AM	8.99	23.69	8.82	2.21	1.13
08/14/97	07:24:05 AM	8.88	23.62	8.77	2.18	1.12
08/14/97	07:39:05 AM	9.09	23.69	8.85	2.22	1.14
08/14/97	07:54:05 AM	9.25	23.70	8.87	2.21	1.13
08/14/97	08:09:05 AM	9.19	23.65	8.71	2.06	1.05
08/14/97	08:24:05 AM	9.41	23.70	8.76	2.08	1.06
08/14/97	08:39:05 AM	9.64	23.74	8.84	2.09	1.06
08/14/97	08:54:05 AM	9.85	23.79	8.87	2.08	1.06
08/14/97	09:09:05 AM	10.03	23.86	8.92	2.08	1.06
08/14/97	09:24:05 AM	9.78	23.98	8.82	2.03	1.04
08/14/97	09:39:05 AM	9.10	23.97	8.62	1.98	1.01
08/14/97	09:54:05 AM	8.48	24.06	8.38	1.94	0.98
08/14/97	10:09:05 AM	8.80	24.10	8.51	1.94	0.99
08/14/97	10:24:05 AM	8.83	24.06	8.73	1.96	1.00
08/14/97	10:39:05 AM	8.36	24.32	8.52	1.91	0.97
08/14/97	10:54:05 AM	9.49	23.93	8.77	2.05	1.04
08/14/97	11:09:05 AM	9.61	24.43	8.77	2.00	1.01
08/14/97	11:24:05 AM	9.90	24.16	8.82	2.04	1.04
08/14/97	11:39:05 AM	10.46	24.68	8.92	2.01	1.02
08/14/97	11:54:05 AM	10.63	24.59	8.95	2.02	1.03
08/14/97	12:09:05 PM	10.83	24.68	9.00	2.04	1.04
08/14/97	12:24:05 PM	10.83	24.63	8.99	2.04	1.04
08/14/97	12:39:05 PM	11.28	24.74	9.06	2.05	1.05
08/14/97	12:54:05 PM	11.29	24.77	9.07	2.06	1.05
08/14/97	01:09:05 PM	11.23	24.75	9.07	2.06	1.05
08/14/97	01:24:05 PM	11.00	24.69	9.02	2.06	1.05
08/14/97	01:39:05 PM	10.82	24.44	9.01	2.07	1.05
08/14/97	01:54:05 PM	9.53	24.19	8.75	2.00	1.02
08/14/97	02:09:05 PM	9.62	24.25	8.77	1.99	1.01
08/14/97	02:24:05 PM	10.68	24.69	8.98	2.03	1.04
08/14/97	02:39:05 PM	10.20	24.37	8.84	2.00	1.02
08/14/97	02:54:05 PM	10.49	24.56	8.91	2.01	1.02
08/14/97	03:09:05 PM	11.12	25.08	9.10	2.04	1.04
08/14/97	03:24:05 PM	10.90	24.92	9.03	2.02	1.03
08/14/97	03:39:05 PM	10.82	24.78	9.00	2.01	1.02
08/14/97	03:54:05 PM	10.59	24.64	8.92	2.00	1.02
08/14/97	04:09:05 PM	10.76	24.75	8.96	2.00	1.02
08/14/97	04:24:05 PM	10.34	24.66	8.92	1.99	1.01
08/14/97	04:39:05 PM	10.53	24.68	8.94	1.99	1.01
08/14/97	04:54:05 PM	10.41	24.63	8.91	1.98	1.00
08/14/97	05:09:05 PM	10.33	24.58	8.89	1.99	1.01
08/14/97	05:24:05 PM	10.49	24.64	8.93	2.00	1.01
08/14/97	05:39:05 PM	10.52	24.56	8.94	2.02	1.03

Data collected at CONT05

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (Estimated data) (mg/L)	Temp (C)	pH	SpCond (mS/cm)	Salinity (ppt)
08/14/97	05:54:05 PM	10.24	24.51	8.88	2.02	1.03
08/14/97	06:09:05 PM	10.33	24.51	8.93	2.05	1.04
08/14/97	06:24:05 PM	10.31	24.50	8.92	2.05	1.04
08/14/97	06:39:05 PM	10.21	24.51	8.91	2.07	1.05
08/14/97	06:54:05 PM	10.07	24.49	8.90	2.09	1.06
08/14/97	07:09:05 PM	10.05	24.47	8.89	2.09	1.07
08/14/97	07:24:05 PM	10.18	24.47	8.91	2.11	1.08
08/14/97	07:39:05 PM	10.09	24.47	8.92	2.12	1.08
08/14/97	07:54:05 PM	9.90	24.47	8.91	2.14	1.09
08/14/97	08:09:05 PM	9.85	24.48	8.90	2.16	1.10
08/14/97	08:24:05 PM	9.87	24.48	8.91	2.17	1.11
08/14/97	08:39:05 PM	9.93	24.46	8.93	2.17	1.11
08/14/97	08:54:05 PM	9.93	24.49	8.94	2.19	1.12
08/14/97	09:09:05 PM	9.89	24.51	8.93	2.20	1.13
08/14/97	09:24:05 PM	9.93	24.50	8.94	2.20	1.12
08/14/97	09:39:05 PM	9.91	24.49	8.93	2.18	1.11
08/14/97	09:54:05 PM	9.95	24.50	8.95	2.18	1.11
08/14/97	10:09:05 PM	9.94	24.48	8.93	2.16	1.10
08/14/97	10:24:05 PM	9.93	24.45	8.93	2.15	1.10
08/14/97	10:39:05 PM	9.92	24.46	8.94	2.17	1.11
08/14/97	10:54:05 PM	9.84	24.46	8.92	2.16	1.11
08/14/97	11:09:05 PM	9.66	24.43	8.89	2.15	1.10
08/14/97	11:24:05 PM	9.24	24.35	8.73	2.09	1.06
08/14/97	11:39:05 PM	9.18	24.34	8.72	2.08	1.06
08/14/97	11:54:05 PM	9.12	24.33	8.70	2.07	1.06
08/15/97	12:09:05 AM	9.03	24.29	8.68	2.06	1.05
08/15/97	12:24:05 AM	8.96	24.29	8.65	2.06	1.05
08/15/97	12:39:05 AM	8.85	24.26	8.61	2.04	1.04
08/15/97	12:54:05 AM	8.81	24.27	8.60	2.05	1.04
08/15/97	01:09:05 AM	8.71	24.25	8.56	2.04	1.04
08/15/97	01:24:05 AM	8.65	24.25	8.56	2.04	1.04
08/15/97	01:39:05 AM	8.62	24.24	8.54	2.04	1.04
08/15/97	01:54:05 AM	8.52	24.24	8.51	2.04	1.04
08/15/97	02:09:05 AM	8.48	24.25	8.50	2.04	1.04
08/15/97	02:24:05 AM	8.40	24.24	8.47	2.04	1.04
08/15/97	02:39:05 AM	8.31	24.21	8.45	2.04	1.04
08/15/97	02:54:05 AM	8.27	24.20	8.43	2.04	1.04
08/15/97	03:09:05 AM	8.20	24.20	8.41	2.04	1.04
08/15/97	03:24:05 AM	8.20	24.20	8.40	2.04	1.04
08/15/97	03:39:05 AM	8.17	24.21	8.40	2.05	1.04
08/15/97	03:54:05 AM	8.09	24.21	8.40	2.05	1.05
08/15/97	04:09:05 AM	8.09	24.20	8.39	2.06	1.05
08/15/97	04:24:05 AM	8.11	24.20	8.40	2.06	1.05
08/15/97	04:39:05 AM	8.09	24.18	8.37	2.07	1.05
08/15/97	04:54:05 AM	8.13	24.19	8.40	2.08	1.06
08/15/97	05:09:05 AM	8.08	24.20	8.41	2.09	1.07
08/15/97	05:24:05 AM	8.17	24.20	8.45	2.11	1.08
08/15/97	05:39:05 AM	8.27	24.21	8.49	2.13	1.09
08/15/97	05:54:05 AM	8.20	24.20	8.48	2.13	1.09
08/15/97	06:09:05 AM	8.20	24.18	8.48	2.13	1.09
08/15/97	06:24:05 AM	8.21	24.18	8.48	2.14	1.09
08/15/97	06:39:05 AM	8.06	24.14	8.43	2.13	1.09
08/15/97	06:54:05 AM	8.09	24.14	8.44	2.14	1.09
08/15/97	07:09:05 AM	8.06	24.12	8.43	2.13	1.09

Data collected at CONT05

Date (MM/DD/YY)	Time (hh:mm:ss)	DO (Estimated data) (mg/L)	Temp (C)	pH	SpCond (mS/cm)	Salinity (ppt)
08/15/97	07:24:05 AM	8.02	24.11	8.43	2.14	1.09
08/15/97	07:39:05 AM	8.06	24.14	8.45	2.15	1.10
08/15/97	07:54:05 AM	8.07	24.14	8.47	2.17	1.11
08/15/97	08:09:05 AM	7.73	24.09	8.31	2.14	1.09
08/15/97	08:24:05 AM	7.46	24.06	8.22	2.12	1.08
08/15/97	08:39:05 AM	8.40	24.13	8.54	2.12	1.08
08/15/97	08:54:05 AM	7.87	24.10	8.51	2.12	1.08
08/15/97	09:09:05 AM	8.77	24.18	8.69	2.11	1.08
08/15/97	09:24:05 AM	9.53	24.33	8.83	2.14	1.09
08/15/97	09:39:05 AM	9.74	24.34	8.88	2.14	1.09
08/15/97	09:54:05 AM	9.95	24.37	8.92	2.14	1.09
08/15/97	10:09:05 AM	10.58	24.49	9.03	2.14	1.09
08/15/97	10:24:05 AM	10.49	24.46	9.01	2.13	1.09
08/15/97	10:39:05 AM	10.50	24.46	9.01	2.13	1.09
08/15/97	10:54:05 AM	10.60	24.45	9.01	2.13	1.09
08/15/97	11:09:05 AM	11.26	24.79	9.10	2.09	1.07
08/15/97	11:24:05 AM	11.56	24.77	9.12	2.05	1.04
08/15/97	11:39:05 AM	11.64	24.77	9.12	1.99	1.01
08/15/97	11:54:05 AM	11.51	24.73	9.09	1.97	1.00
08/15/97	12:09:05 PM	11.62	24.80	9.09	1.91	0.97
08/15/97	12:24:05 PM	11.54	24.82	9.08	1.93	0.98
08/15/97	12:39:05 PM	11.59	24.87	9.11	1.97	1.00
08/15/97	12:54:05 PM	11.86	25.05	9.18	2.08	1.06
08/15/97	01:09:05 PM	11.79	25.05	9.18	2.08	1.06
08/15/97	01:24:05 PM	11.75	25.02	9.14	2.08	1.06
08/15/97	01:39:05 PM	11.63	25.08	9.17	2.14	1.09
08/15/97	01:54:05 PM	11.55	25.10	9.17	2.17	1.11
08/15/97	02:09:05 PM	11.50	25.12	9.18	2.19	1.12
08/15/97	02:24:05 PM	11.35	25.20	9.17	2.27	1.16
08/15/97	02:39:05 PM	11.17	25.14	9.17	2.25	1.15
08/15/97	02:54:05 PM	11.42	25.08	9.19	2.23	1.14
08/15/97	03:09:05 PM	11.59	24.94	9.18	2.11	1.07
08/15/97	03:24:05 PM	11.64	24.97	9.18	2.12	1.08
08/15/97	03:39:05 PM	12.09	25.07	9.26	2.18	1.11

Site information

Site location: CONT05 - MIT Boathouse Dock (upstream of Mass ave Bridge)

Latitude: 42 22'19.60" N

Longitude: 71 08'00.92" W

Total water depth: 5.0 m

Probe depth: 0.75m

QA/QC and field measurements

YSI Model 57 & 30 results @ 1445 on 8/13/97

Depth (m)	DO (mg/L)	Temp (C)	SpCond (mS/cm)	Salinity (ppt)
0.2	10.10	24.30	2.33	1.20
0.5	10.20	24.50	2.33	1.20
1.0	10.32	24.50	2.33	1.20
1.5	10.40	24.40	2.33	1.20
2.0	10.25	24.30	2.32	1.20
2.5	9.50	24.20	2.31	1.20
3.0	9.50	24.30	2.31	1.20
3.5	7.60	24.20	2.32	1.20
4.0	0.00	22.10	13.47	7.50
4.5	0.00	21.00	18.39	10.80

YSI Model 57 & 30 results @ 1530 on 8/15/97

Depth (m)	DO (mg/L)	Temp (C)	SpCond (mS/cm)	Salinity (ppt)
0.2	11.00	25.00	2.08	1.10
0.5	10.80	25.00	2.08	1.10
1.0	10.60	25.00	2.09	1.10
1.5	10.40	24.90	2.10	1.10
2.0	9.50	24.80	2.07	1.10
2.5	9.20	24.20	1.94	1.00
3.0	9.20	9.20	1.93	1.00
3.5	7.60	5.00	2.88	1.40
4.0	0.00	0.10	5.60	2.70
4.5	0.00	0.00	16.00	9.70

YSI 6000 post calibration check on 8/15/97

	Calibration value	Meter reading	Difference	QA/QC limits
DO (mg/L)	8.36	8.40	0.04	+/- 0.5
SpCond (mS/cm)	0.718	0.728	0.01	+/- 0.010
pH	7	7.14	0.14	+/- 0.2
pH	4	4.08	0.08	+/- 0.2

Charles River Field Measurements
 (All measurements taken between 1045 and 1500 on 10/29/97)

Site	Site Description	River Mile	Latitude	Longitude	Rive Mile	Temp (°C)	DO (mg/L)	Spcond (ms/cm)	Salinity (ppt)
CHAR01	Up Stream Railroad Bridge	78.2	42°22'07.73	71°03'58.78	0.2	10.2	11.56	2.6	1.3
					1	10.2	11.40	2.6	1.4
					2	10.2	11.35	2.6	1.4
					3	10.1	11.00	2.7	1.4
					4	10.1	10.25	3.5	1.9
					5	10.7	7.00	12.0	6.7
					6	11.5	5.40	22.1	13.3
					7	13.1	0.11	30.5	19.0
					8	13.6	2.40	35.7	22.3
				8.5 = bottom					
CHAR02	Old Dam Channel - Museum of Sc	77.8	42°21'57.77	71°04'12.42	0.2	10.2	11.28	2.4	1.3
					1	10.2	11.20	1.7	1.3
					2	10.2	11.20	2.5	1.3
					3	10.3	11.08	2.5	1.3
					4	10.3	11.08	2.5	1.3
					5	10.7	7.90	3.4	1.8
					6	14.4	0.60	20.0	13.3
					7	14.2	0.10	32.0	20.0
				7 = bottom					
CHAR03	Upstream of Longfellow Bridge	77.2	42°21'38.15	71°04'33.22	0.2	10.0	10.95	2.40	1.2
					1	9.9	10.75	2.40	1.2
					2	9.8	10.65	2.40	1.2
					3	9.8	10.54	2.40	1.2
					4	9.8	10.38	2.40	1.3
				4.8 = bottom					
CHAR04	Upstream from Mass Ave Bridge	76.3	42°21'15.43	71°05'31.21	0.2	9.8	10.99	2.3	1.2
					1	9.7	10.81	2.3	1.2
					2	9.7	10.68	2.3	1.2
					3	9.7	10.65	2.3	1.2
					4	9.8	10.41	2.5	1.3
				5	15.1	0.10	15.8	9.3	
				5.8 = bottom					
CHAR05	Between BU and Mass Ave Bridg	75.8	42°21'10.43	71°05'59.45	0.2	9.8	10.95	2.2	1.1
					1	9.8	10.96	2.2	1.1
					2	9.8	10.80	2.3	1.2
					3	9.7	10.29	2.5	1.3
					4	10.0	7.00	2.7	1.4
				5	14.3	0.15	13.6	7.8	
				5.2 = bottom					
CHAR06	Upstream of BU Bridge	75.2	42°21'10.18	71°06'40.84	0.2	9.3	10.22	1.2	0.6
					1	9.2	10.20	1.2	0.6
					2	9.3	10.30	1.3	0.6
					3	10.2	9.60	2.6	1.4
				3.5 = bottom					
CHAR07	Downstream of River Street Bridg	74.6	42°21'33.24	71°06'59.24	0.2	9.3	9.42	1.0	0.5
					1	9.4	9.40	1.0	0.5
					2	9.6	9.00	1.2	0.6
					3	10.4	8.75	2.7	1.4
				3 = bottom					
CHAR08	Downstream of Anderson Bridge	74	42°22'05.47	71°07'04.15	0.2	9.0	8.71	0.7	0.3
					1	9.0	8.50	0.7	0.3
					2	9.0	8.40	0.7	0.3
					3	9.4	7.82	1.1	0.6
				3.8 = bottom					
CHAR09	Across from Harvard's Rec. Fields	73.3	42°22'24.25	71°07'39.33	0.2	9.0	8.60	0.5	0.2
					1	8.8	8.47	0.5	0.2
					2	8.8	8.09	0.5	0.2
					3	8.9	7.94	0.6	0.3
					4	10.0	4.30	1.0	0.5
				4.2 = bottom					
CHAR10	Harvard Boat Club & Eliot Bridge	72.9	42°22'20.11	71°07'59.43	0.2	9.0	8.95	0.4	0.2
					1	8.9	8.37	0.4	0.2
					2	8.6	8.30	0.5	0.2
					3	9.1	6.40	0.8	0.4
					4	10.6	3.19	1.5	0.8
					5	11.3	1.81	1.9	1.0
				6	11.6	0.63	2.0	1.0	
				6 = bottom					
CHAR11	Upstream of Notheastern Boathou	71.8	42°21'53.92	71°08'33.51	0.2	9.0	9.10	0.4	0.2
					1	8.8	9.00	0.4	0.2
					2	8.7	9.00	0.4	0.2
					3	8.7	8.82	0.4	0.2
				3.8 = bottom					
CHAR12	Downstream of Beacon St.	71	42°21'35.91	71°09'34.28	0.2	8.3	10.85	0.4	0.2
					1	8.2	10.50	0.4	0.2
					2	8.0	10.54	0.4	0.2
					3	8.0	10.33	0.4	0.2
				3.8 = bottom					
CHAR13	Watertown Boat Launch	70.7	42°21'34.13	71°09'53.92	0.2	8.5	11.1	0.449	0.2
					1	8.4	11.0	0.449	0.2
					2	8.3	11.1	0.446	0.2
									2.5 = bottom