WATER-QUALITY MONITORING PROGRAM
CHATFIELD BASIN AND RESERVOIR
DENVER METROPOLITAN AREA
FINAL BASIC-DATA REPORT
JANUARY 1998-DECEMBER 1998

ADVANCED
SCIENCES, INC.

WATER-QUALITY MONITORING PROGRAM
CHATFIELD BASIN AND RESERVOIR
DENVER METROPOLITAN AREA
FINAL BASIC-DATA REPORT
JANUARY 1998-DECEMBER 1998

Prepared For:

Chatfield Basin Authority
Denver, Colorado

Prepared By:

Commodore Advanced Sciences, Inc.
Lakewood, Colorado

CAS Project No. 8206.02

Final: February 12, 1999

File: 98 ANNUAL RPT

COMMODORE
ADVANCED SCIENCES, INC.

February 12, 1999

Mr. Bill Haas
Chair, Chatfield Basin Authority
Lockheed-Martin
P.O. Box 179, MS H-9080
Denver, CO 80201

Subject: Water-Quality Monitoring Program, Chatfield Basin and Reservoir, Denver Metropolitan Area: Final Basic-Data Report, January 1998-December 1998
CAS Project No. 8206.02

Dear Mr. Haas:

The 1998 Annual Basic-Data Report is submitted in fulfillment of the subject program's contract requirements. Chemical analyses were performed by ACZ Laboratories, Inc., Steamboat Springs, CO, and biological analyses were performed by Plateau Ecosystems Consulting, Inc. (PEC), Arvada, CO, with phytoplankton splits analyzed by Dr. Paul Kugrens of Colorado State University (CSU). A total of 20 duplicate samples were analyzed for chemical constituents in this year's program. No supplemental tributary (sites 2B, 3, 4A, 4B, 6, 6A, 6B, and 6C) data were collected during the 1998 sampling program and the associated Tables 10, and 12 through 21 have been omitted from this report.

The attached Tables 1 through 6 incorporate the field measurements and laboratory chemical data, chlorophyll-a concentrations and phytoplankton-species numbers collected by Commodore Advanced Sciences, Inc. (CAS) and available to date in conjunction with the Chatfield Basin and Reservoir Monitoring Program for the January-through-December 1998 period. Tables 1 through 4 contain stream inflow/outflow data, Table 5 contains reservoir data collected at the top one-meter, the mid-euphotic zone (as measures by the Secchi depth) and the bottom one-meter of the reservoir. Unless prohibited by dangerous ice conditions, the reservoir samples were collected by boat at the deepest area near the outlet works. Beginning in 1997, Table 6 contains data from an annual reservoir-bottom sediment sample analyzed for total phosphorous, five metals, and total organic carbon.

Figures 1 and 2 are maps showing the location of monitoring sites for inflow streams, in-reservoir, alluvial wells. Figure 3 (not included) provides the location of monitoring sites for supplemental tributary sampling. Time-series plots for the indicator in-reservoir variables (total phosphorus, chlorophyll-a, and Secchi depth) are given in Figures 4 through 6. Beginning in 1997, the time-series plots depict a point value, rather than an average value from three reservoir locations (RM, RP, and RS). Comparison of growing-season total-phosphorus versus chlorophyll-a concentrations are shown in Figure 7; note that the 1998 data point falls in the lower right-hand part of the historical-period cluster of data points. Time-series plots for 2 biological variables (*asterionella formosa* (diatoms) and *aphanizomenon flos-aquae* (blue-green algae)), as well as total cells are provided in Figures 8 through 10, respectively.

The phytoplankton and zooplankton results are provided in both tabular and graphical format (Appendix A). Appendix A includes the detailed biological (phytoplankton-species) and zoological data for the July through September 1998 growing season in-reservoir surveys, and a comparison of growing-season total

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phosphorous and chlorophyll-a concentrations. The CSU blind split phytoplankton results are also included in Appendix B. The CSU results indicate a higher species diversification and a lower overall cell density than the results from PEI. The difference in results appears to originate from the different analytical methods used by each consultant. PEC uses the Standard Method, which involves placing a known volume of sample on a microscope slide and counting all visible cells appearing within 6 random strips in a grid. In contrast, the CSU method involves placing a known volume of sample on a microscope slide and counting all visible cells appearing within the slide.

Appendix B includes tabular in-reservoir water-quality profiles for January 14 through December 8 water-quality surveys. The field parameter are presented at one-meter increments for pH, specific conductance, dissolved oxygen and temperature. These data are given in Table B-1 and shown graphically in Figures B-1 through B-15 (Appendix B).

CAS appreciates having the opportunity to provide the Chatfield Basin Authority with continuing water-quality monitoring and data compilation services. This interim Basic-Data Report constitutes the final deliverable under our 1998 calendar-year contract. If you have any questions, or need additional information, please give us a call.

Yours truly,

Tyler D. Smart, P.E.
Project Manager
Water-Resources Department

File: 8206.02

Attachments
- Monitoring Site Locations Figure 1; 2
- Water-Quality Basic Data Tables 1, 2, 3, 3A, 4 and 5;
- Sediment-Quality Basic Data Table 6;
- Appendix A - Phytoplankton and Zooplankton data;
- Appendix B - Table B-1 and Figures B-1 through B-15, and

Distribution - See following page.

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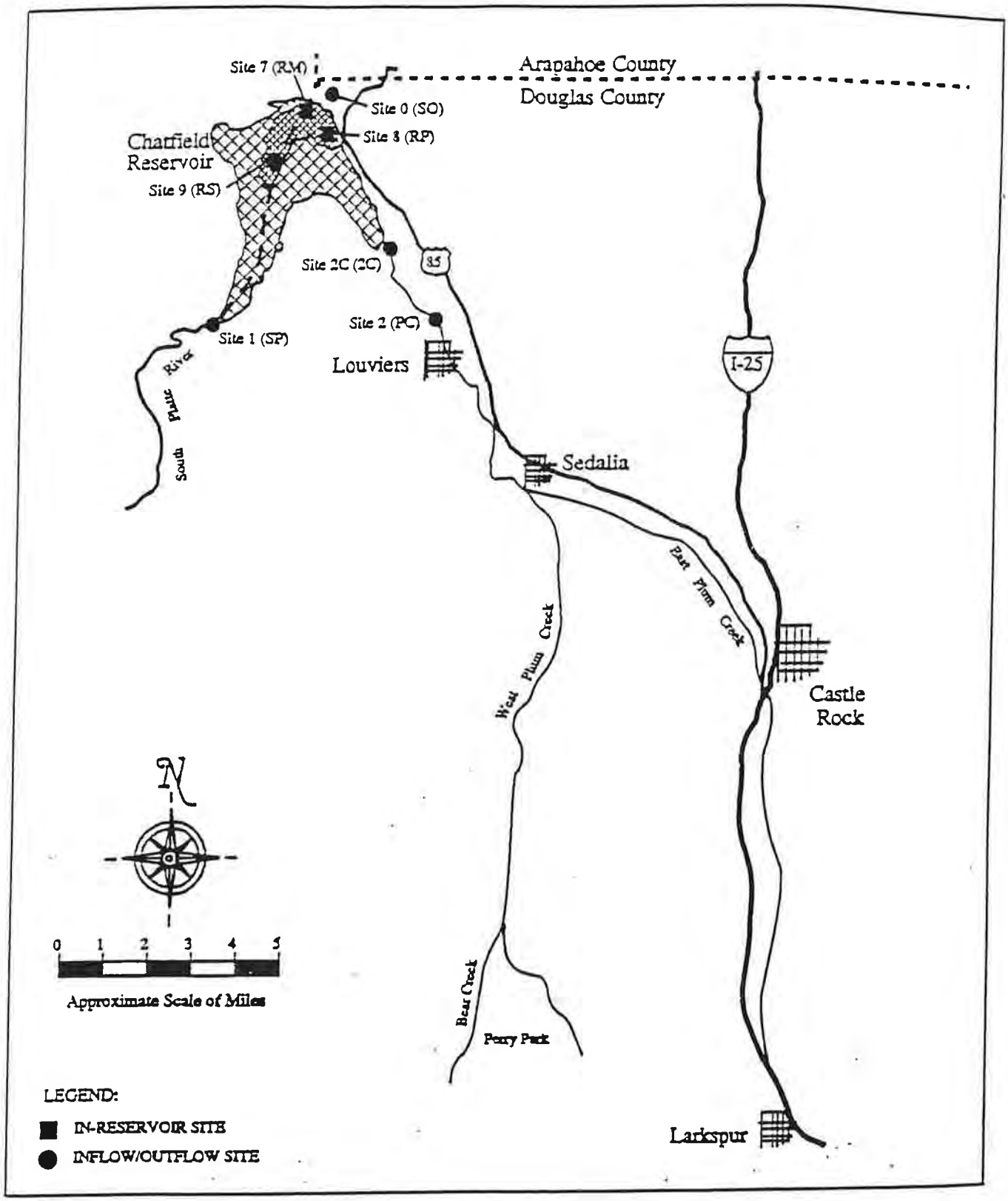
File: 98 ANNUAL RPT

FIGURES



INFLOW/OUTFLOW AND IN-RESERVOIR MONITORING LOCATIONS

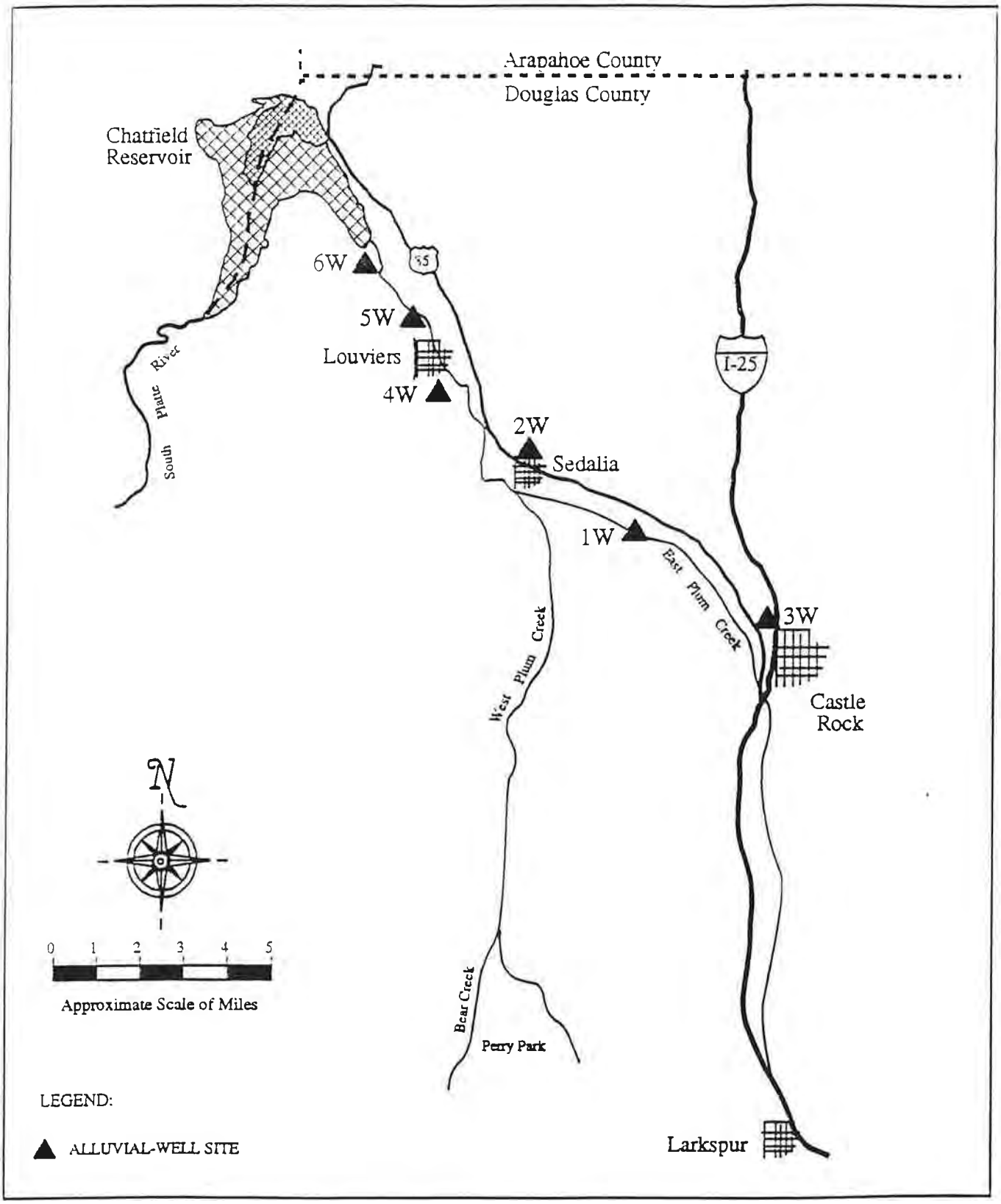
CHATFIELD BASIN AND RESERVOIR WATER-QUALITY MONITORING PROGRAM

PROJECT NO. 8144.60

FIGURE 1

File: CHATFIG1.DRW

Status: May 24, 1996



ALLUVIAL-WELL
MONITORING LOCATIONS

ADVANCED SCIENCES, INC.

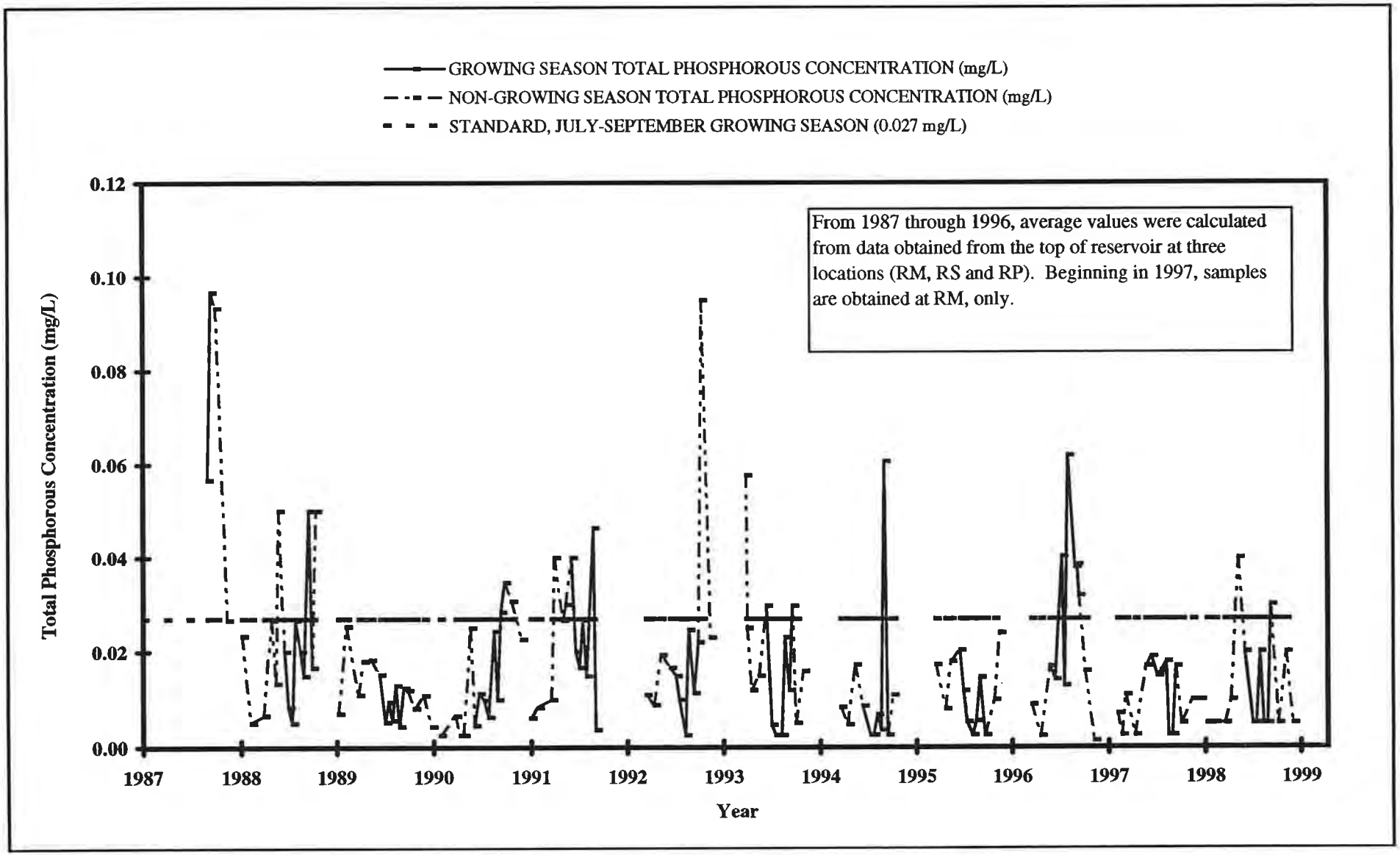
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

PROJECT NO. 8144.60

FIGURE 2

File: CHATFIG2.DRW

Status: 2/11/97



TIME SERIES OF AVERAGE TOTAL PHOSPHOROUS CONCENTRATION CHATFIELD RESERVOIR 1987 - 1998

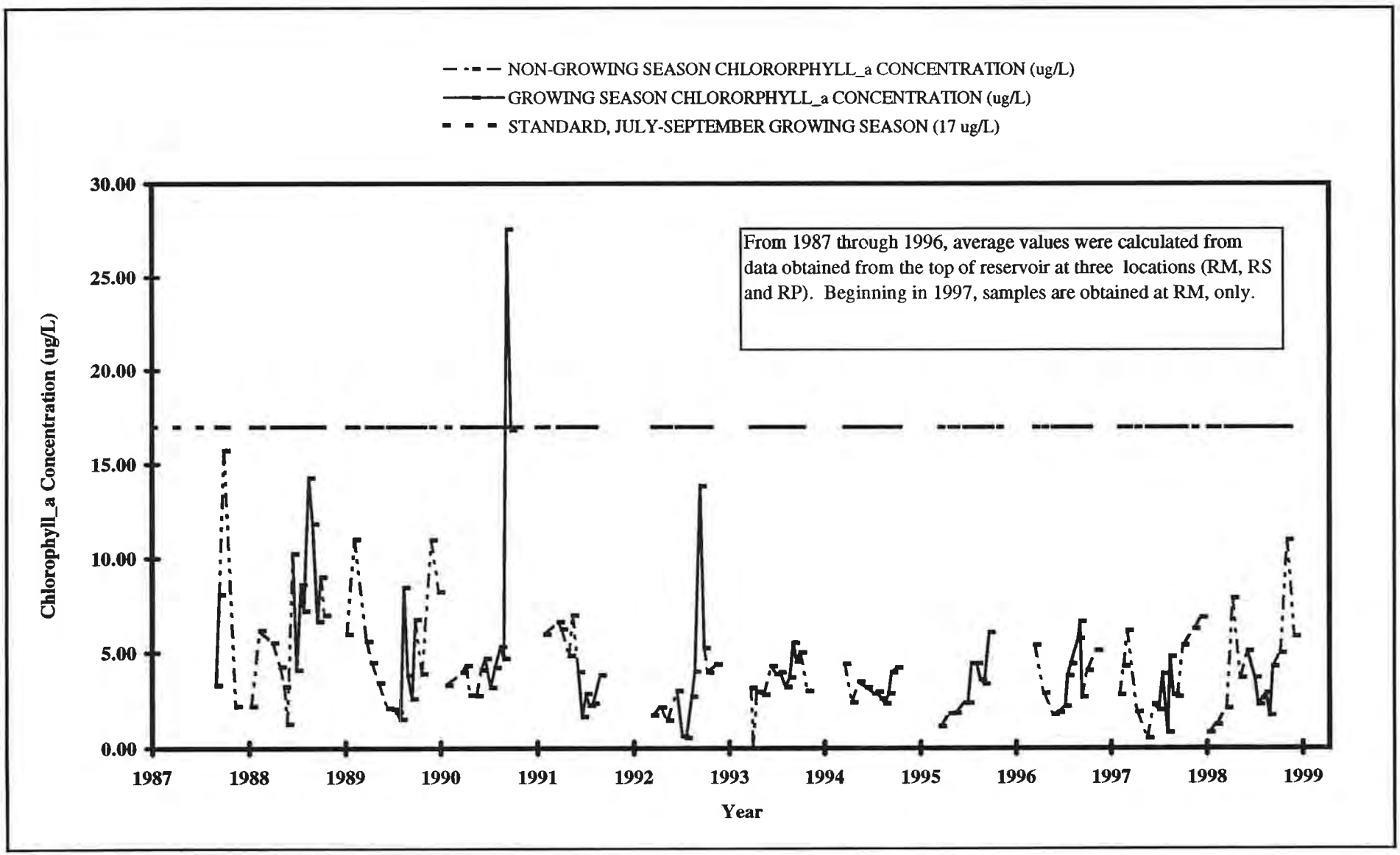
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure 4

File: Figs4-10

Status: 2/12/99



TIME SERIES OF AVERAGE CHLOROPHYLL_a CONCENTRATION
CHATFIELD RESERVOIR 1987 - 1998

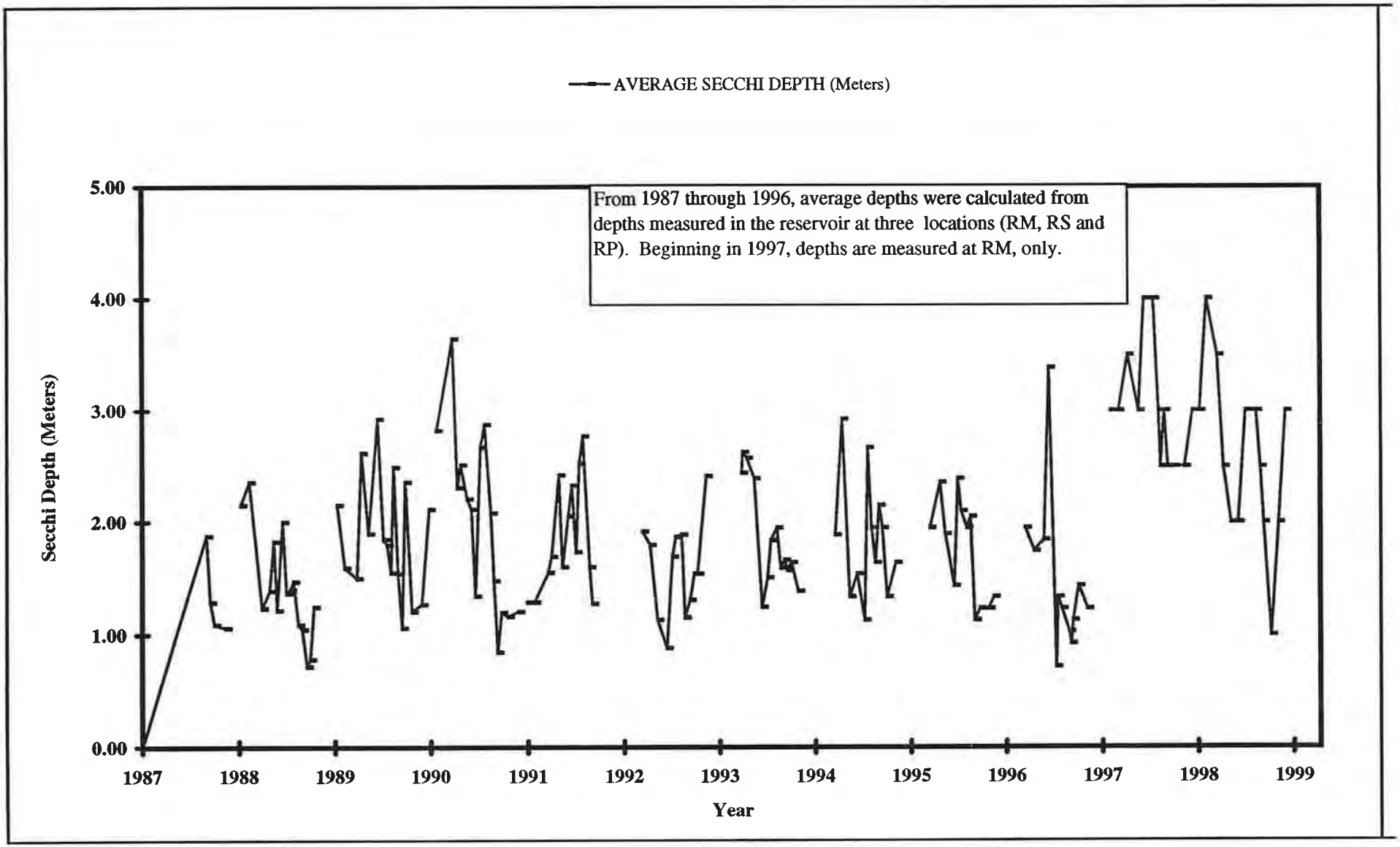
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure 5

File: Figs4-10

Status: 2/12/99



TIME SERIES OF AVERAGE SECCHI DEPTH
CHATFIELD RESERVOIR 1987 - 1998

CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

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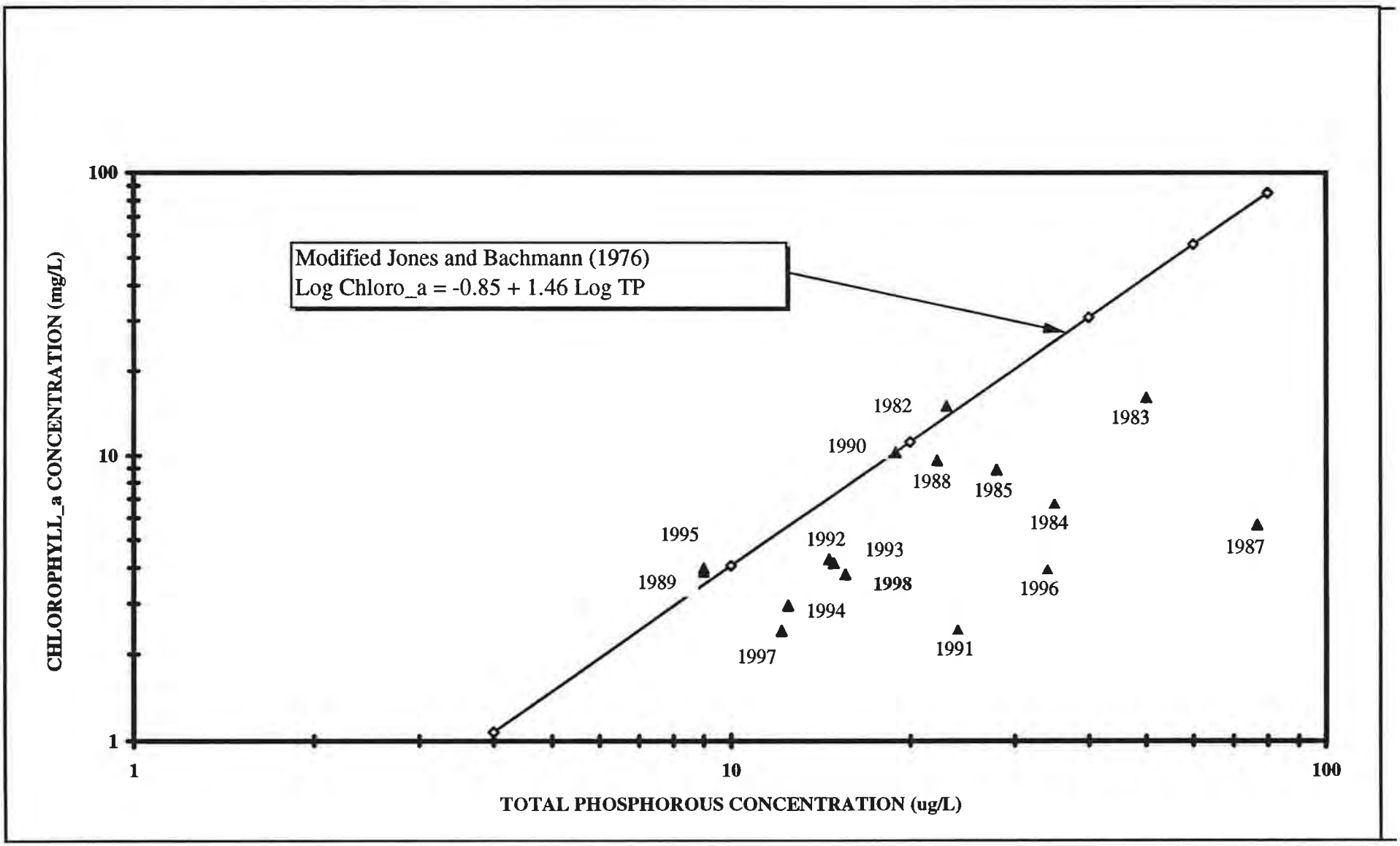
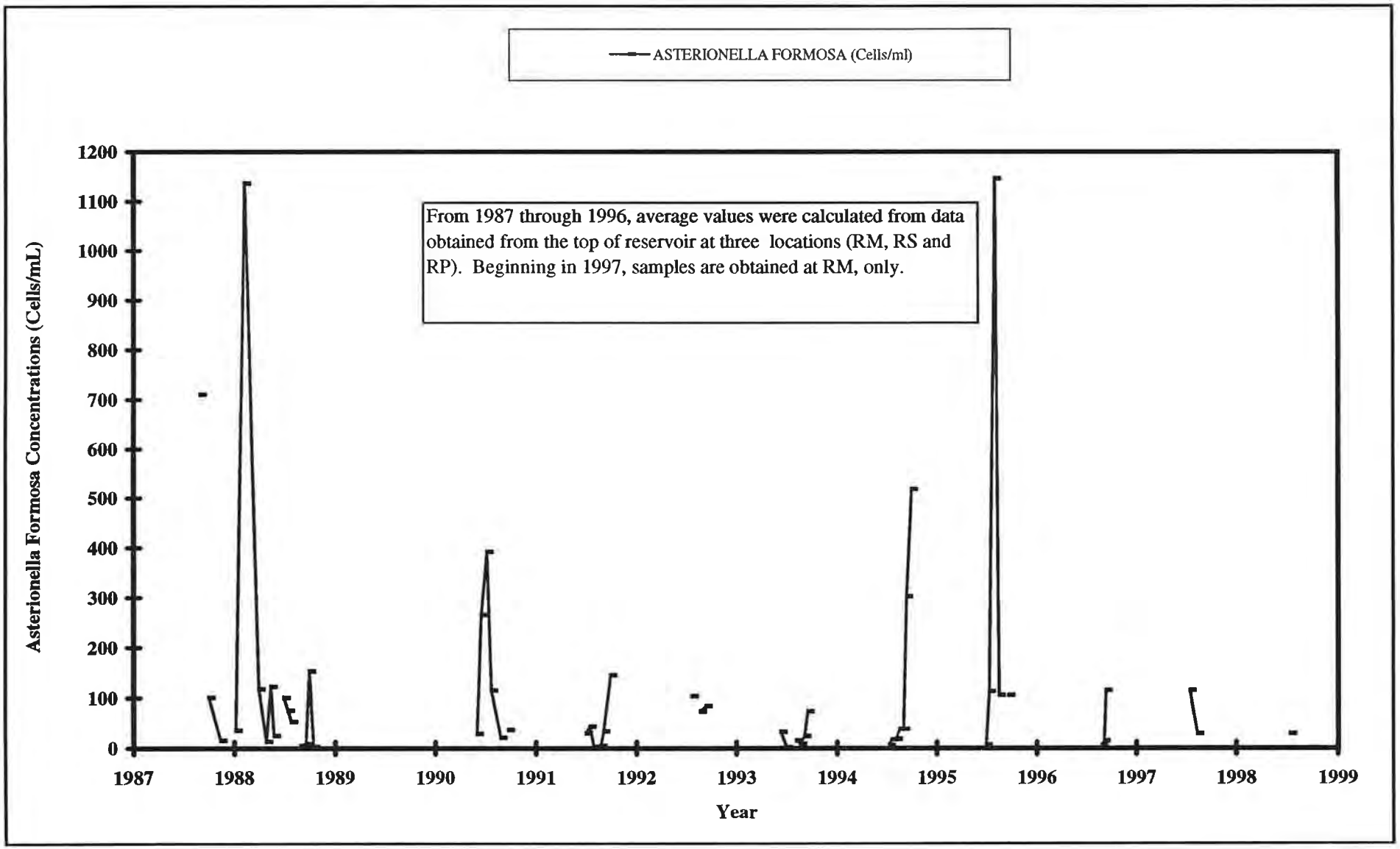
Figure 6

File: Figs4-10

Status: 2/12/99



JULY THROUGH SEPTEMBER VALUES OF CHLOROPHYLL_a vs. TOTAL PHOSPHOROUS
CHATFIELD RESERVOIR 1987 - 1998



TIME SERIES OF AVERAGE ASTERIONELLA FORMOSA (DIATOMS) CONCENTRATION
CHATFIELD RESERVOIR 1987 - 1998

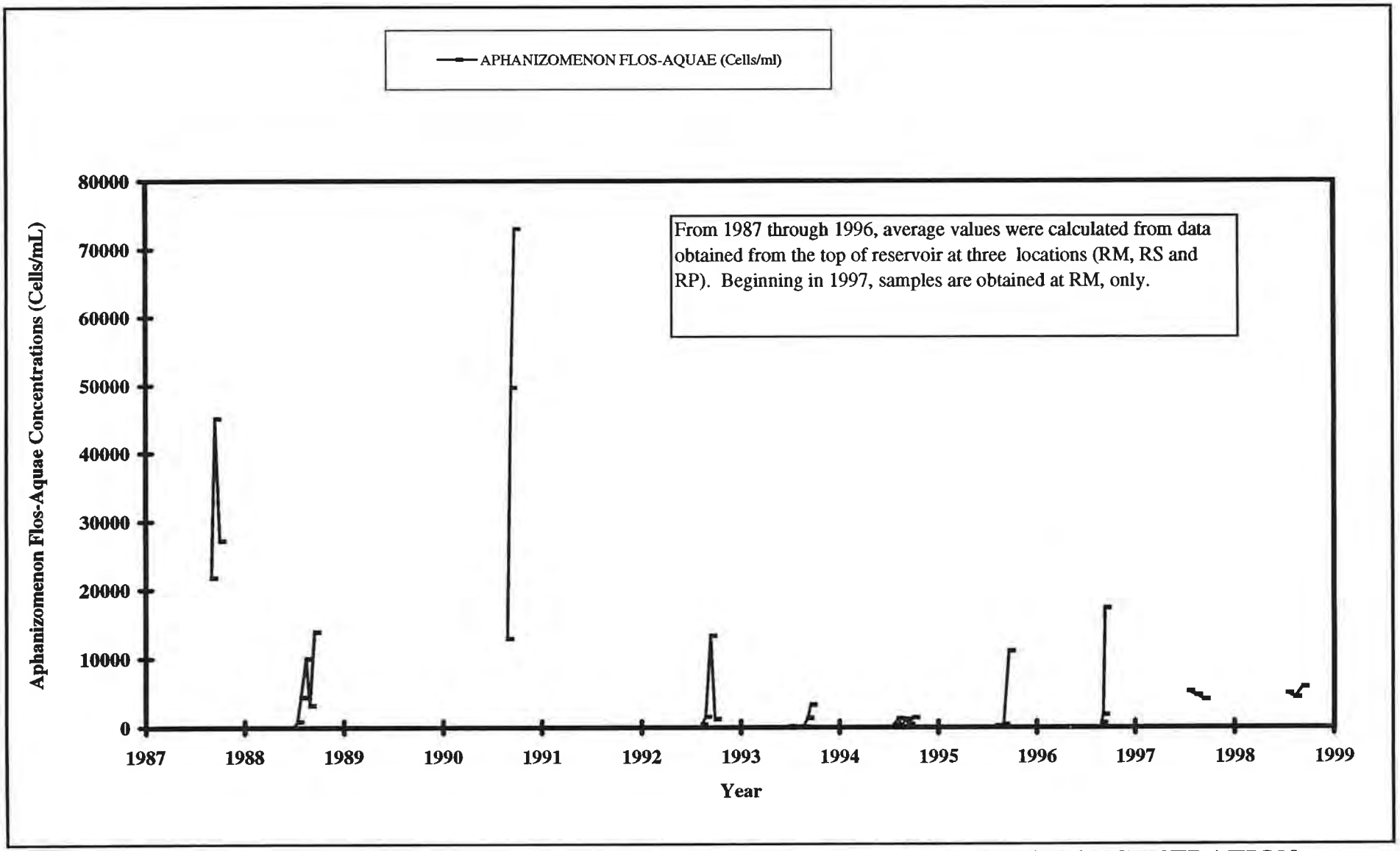
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure 8

File: Figs4-10

Status: 2/12/99



TIME SERIES OF AVERAGE APHANIZOMENON (BLUE-GREEN ALGAE) CONCENTRATION
CHATFIELD RESERVOIR 1987 - 1998

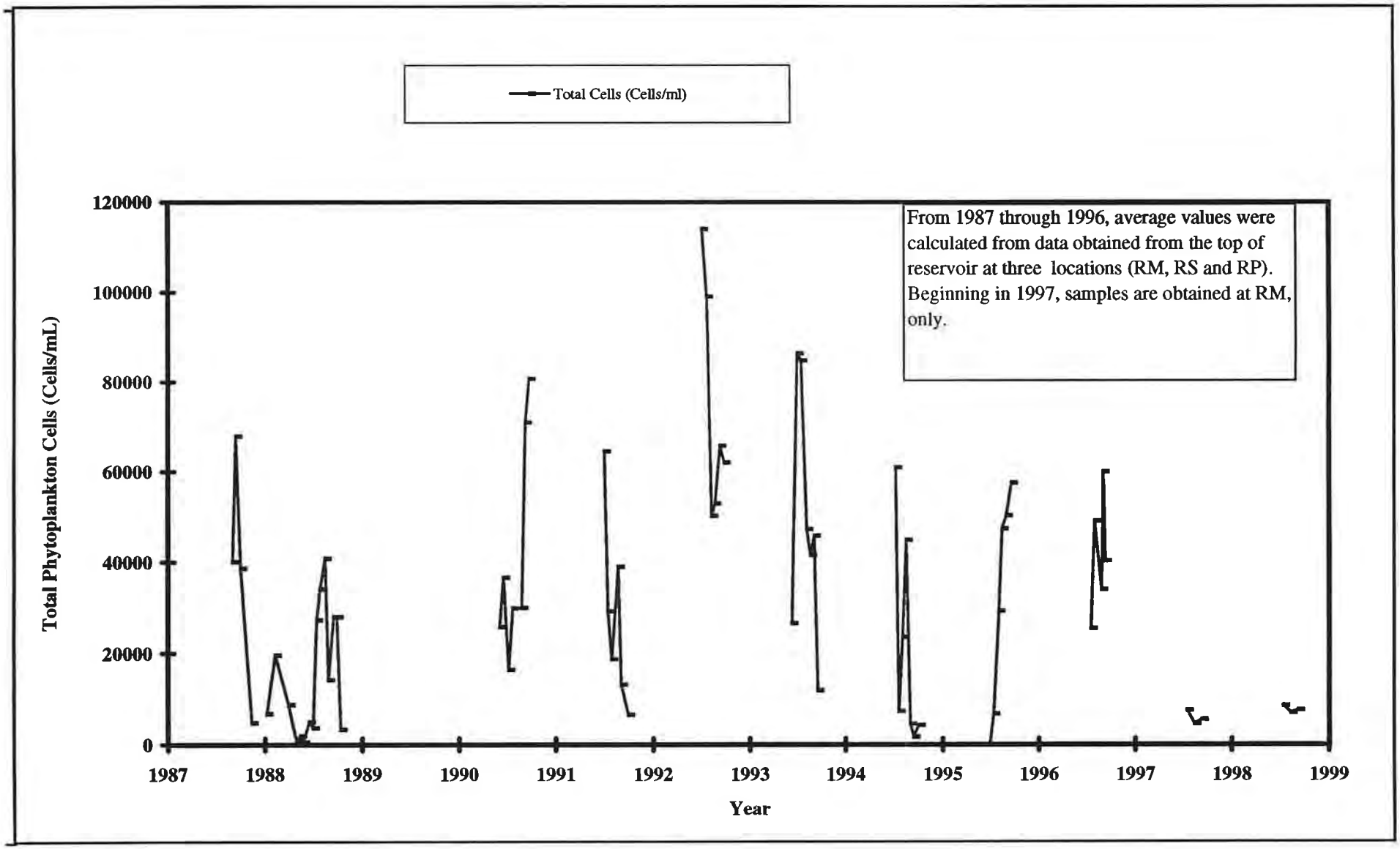
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure 9

File: Figs4-10

Status: 2/12/99



TIME SERIES OF AVERAGE TOTAL PHYTOPLANKTON CELLS
CHATFIELD RESERVOIR 1987 - 1998

CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02
Figure 10

File: Figs4-10
Status: 2/12/99

BASIC-DATA TABLES

File: 98 ANNUAL RPT

TABLE 1
CHATFIELD RESERVOIR OUTFLOW NEAR LITTLETON, CO (SITE 0), SO
06709601
WATER-QUALITY DATA

DATE	TIME	INSTANTANEOUS STREAMFLOW (CFS) [1]	pH, FIELD (STD. UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	OXYGEN, DISSOLVED (mg/L)	TEMPERATURE (Deg C)	ALKALINITY, TOTAL (mg/L)	BOD, 5-DAY (mg/L)	COLIFORM, FECAL (#/100 ML)
MDL [2]							2	2-6	1
PQL [3]							10	2-30	1
14-Jan-98	10:00	66	8.5	297	12.5	2.8		-6	-1
14-Jan-98	*9999*							*-6*	*-1*
11-Feb-98	9:10	61	8.1	337	12.2	3.2		-3	-1
23-Mar-98	10:40	101	8.2	315	12.2	7.0	93	-3	8
15-Apr-98	8:45	224	7.9	313	10.6	8.6		-3	-1
14-May-98	10:15	1170	7.9	230	10.9	13.0	61	-3	12
10-Jun-98	8:35	730	7.5	184	9.7	15.1		-3	2
9-Jul-98	8:30	300	6.7	194	11.7	19.5	59	-3	-1
9-Jul-98	*9999*						*59*	*-3*	*1*
22-Jul-98	8:00	175	7.5	201	8.0	18.7			
5-Aug-98	11:10	725	8.2	207	6.7	20.3		-6	62
19-Aug-98	8:05	250	7.7	228	8.3	19.4			
3-Sep-98	8:20	475	7.5	243	8.7	19.7		-3	2
16-Sep-98	8:10	5	7.7	249	6.5	17.9			
14-Oct-98	12:30	90	8.3	269	9.8	15.1	80	-2	-1
11-Nov-98	8:30	30	7.6	290	12.4	5.0		-3	10
8-Dec-98	9:00	0	8.3	311	11.9	0.1		-3	1

TABLE 1
CHATFIELD RESERVOIR OUTFLOW NEAR LITTLETON, CO (SITE 0), SO
06709601
WATER-QUALITY DATA

DATE	TIME	CYANIDE, WAD (mg/L)	HARDNESS (mg/L as CaCO3)	NITRATE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN, AMMONIA (mg/L)	NITROGEN, TOTAL (mg/L)	PHOSPHORUS ORTHO, TOTAL (mg/L as P)	PHOSPHORUS, TOTAL (mg/L as P)	SUSPENDED SEDIMENT, TOTAL (gm/M^3)
MDL [2]		0.01	1	0.02	0.01	0.05	0.1	0.005	0.01	5
PQL [3]		0.05	7	0.1	0.05	0.3	0.5	0.03	0.05	20
14-Jan-98	10:00		124	0.04	0.01	-0.05		-0.005	-0.010	8
14-Jan-98	*9999*		*126*	*0.05*	*0.01*	*-0.05*		*-0.005*	*-0.010*	*8*
11-Feb-98	9:10		**130**	**0.17**	-0.01	0.09		-0.005	-0.010	-5
23-Mar-98	10:40	-0.01	120	0.10	-0.01	-0.05	0.3	-0.005	-0.010	-5
15-Apr-98	8:45		121	0.09	-0.01	-0.05		-0.005	0.010	-5
14-May-98	10:15	-0.01	78	0.10	-0.01	0.14	**0.5**	0.006	0.050	14
10-Jun-98	8:35		74	0.09	-0.01	**0.24**		0.04	0.040	-5
9-Jul-98	8:30	-0.01	84	0.11	0.01	0.05	0.2	0.015	0.020	14
9-Jul-98	*9999*	*-0.01*	*85*	*0.10*	*-0.01*	*0.41*	*0.3*	*0.012*	*0.010*	*10*
22-Jul-98	8:00			0.10	-0.01	0.07		0.008	0.010	-5
5-Aug-98	11:10		88	-0.01	**0.12**	0.05		**0.093**	**0.130**	**32**
19-Aug-98	8:05			0.07	-0.01	-0.05		0.022	-0.010	6
3-Sep-98	8:20		101	0.05	0.01	-0.05		0.011	0.020	10
16-Sep-98	8:10			-0.02	-0.01	-0.05		0.007	0.010	14
14-Oct-98	12:30	-0.01	103	-0.02	-0.01	0.05	0.3	-0.005	0.010	6
11-Nov-98	8:30		115	0.04	-0.01	0.07		0.008	0.050	-5
8-Dec-98	9:00		126	-0.02	-0.01	-0.05		-0.005	-0.010	6

TABLE 1
CHATFIELD RESERVOIR OUTFLOW NEAR LITTLETON, CO (SITE 0), SO
06709601
WATER-QUALITY DATA

DATE	TIME	ARSENIC, TOTAL (mg/L)	CADMIUM, DISSOLVED (mg/L)	CALCIUM, DISSOLVED (mg/L)	COPPER, DISSOLVED (mg/L)	CHROMIUM, HEXAVALENT, DISSOLVED (mg/L)	CHROMIUM, TRIVALENT DISSOLVED (mg/L)	IRON, DISSOLVED (mg/L)	LEAD, DISSOLVED (mg/L)
MDL [2]		0.001	0.003	0.2	0.01	0.0006	0.0006	0.01	0.04
PQL [3]		0.005	0.02	1	0.05	0.005	0.005	0.05	0.2
14-Jan-98	10:00		**0.003**	35.2	**0.01**				
14-Jan-98	*9999*		*-0.003*	*36.0*	*0.01*				-0.04
11-Feb-98	9:10		-0.003	**37.4**	-0.01				*-0.04*
23-Mar-98	10:40	-0.001	-0.003	33.2	-0.01	-0.005	-0.005	0.01	-0.04
15-Apr-98	8:45		-0.003	34.6	-0.01				-0.04
14-May-98	10:15	**0.002**	-0.003	22.3	-0.01	-0.005	-0.005	**0.28**	-0.04
10-Jun-98	8:35		-0.003	21.3	-0.01				-0.04
9-Jul-98	8:30	-0.001	-0.003	24.0	-0.01			0.08	-0.04
9-Jul-98	*9999*	*-0.001*	*-0.003*	*24.3*	*-0.01*			*0.11*	-0.04
22-Jul-98	8:00					-0.005	-0.005		*-0.04*
5-Aug-98	11:10		-0.003	25.0	-0.01				
19-Aug-98	8:05								-0.04
3-Sep-98	8:20		-0.003	28.9	-0.01				
16-Sep-98	8:10								-0.04
14-Oct-98	12:30	0.001	-0.003	28.6	-0.01	-0.005	-0.005	0.05	
11-Nov-98	8:30		-0.003	32.2	-0.01				-0.04
8-Dec-98	9:00		-0.003	35.3	-0.01				-0.04
									-0.04

TABLE 1
CHATFIELD RESERVOIR OUTFLOW NEAR LITTLETON, CO (SITE 0), SO
06709601
WATER-QUALITY DATA

DATE	TIME	MAGNESIUM, DISSOLVED (mg/L)	MANGANESE DISSOLVED (mg/L)	MERCURY, DISSOLVED (mg/L)	NICKEL, DISSOLVED (mg/L)	SELENIUM, DISSOLVED (mg/L)	SILVER, DISSOLVED (mg/L)	ZINC, DISSOLVED (mg/L)	LABORATORY SAMPLE NUMBER
MDL [2]		0.2	0.005	0.0002	0.01	0.001	0.005	0.01	
PQL [3]		1	0.03	0.001	0.05	0.005	0.03	0.05	
14-Jan-98	10:00	8.8		-0.0002		-0.001			L17042-03
14-Jan-98	*9999*	*8.7*		*-0.0002*		*-0.001*			*L17042-04*
11-Feb-98	9:10	8.9		-0.0002		-0.001			L17380-04
23-Mar-98	10:40	8.9	**0.071**	-0.0002	-0.01	-0.001	-0.005	0.01	L17815-04
15-Apr-98	8:45	8.4		-0.0002		-0.001			L18115-04
14-May-98	10:15	5.4	0.048	-0.0002	-0.01	-0.001	-0.005	**0.04**	L18509-03
10-Jun-98	8:35	5.1		-0.0002		-0.001			L18895-08
9-Jul-98	8:30	5.9	0.024	-0.0002	-0.01	-0.001	-0.005	0.02	L19337-03
9-Jul-98	*9999*	*5.9*	*0.026*	*-0.0002*	*-0.01*	*-0.001*	*-0.005*	*0.02*	*L19337-04*
22-Jul-98	8:00								L19516-03
5-Aug-98	11:10	6.1		-0.0002		-0.001			L19698-03
19-Aug-98	8:05								L19913-03
3-Sep-98	8:20	7.0		-0.0002		-0.001			L20158-04
16-Sep-98	8:10								L20328-03
14-Oct-98	12:30	7.6	0.011	-0.0002	-0.01	-0.001	-0.005	-0.01	L20716-03
11-Nov-98	8:30	8.4		-0.0002		-0.001			L21112-04
8-Dec-98	9:00	**9.1**		-0.0002		-0.001			L21442-03

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.
BLANK RANGES INDICATE NO DATA WERE AVAILABLE.
TIME = 9999 (DATA ITALICIZED) MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.
MAXIMUM DETECTABLE VALUE IS INDICATED IN **BOLD**.
1) STREAMFLOW DATA SOURCE: U.S.ARMY CORPS OF ENGINEERS (WRITTEN COMMUNS., FEBRUARY 1, 1999)
2) MDL= METHOD DETECTION LIMIT. BOD VALUE VARIES.
3) PQL=PRACTICAL QUANTITATION LIMIT. BOD VALUE VARIES.

TABLE 2
SOUTH PLATTE RIVER AT WATERTON, CO (SITE 1), SP
06708000
WATER-QUALITY DATA

DATE	TIME	INSTANTANEOUS STREAMFLOW (CFS) [1]	pH, FIELD (STD. UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	OXYGEN, DISSOLVED (mg/L)	TEMPERATURE (Deg C)	ALKALINITY, TOTAL (mg/L)	BOD, 5-DAY (mg/L)	COLIFORM, FECAL (#/100 ML)
MDL [2]							2	2-6	1
PQL [3]							10	2-30	1
14-Jan-98	10:30	41	8.2	276	13.8	0.1		-6	-1
11-Feb-98	7:10	46	6.6	311	12.8	0.6		-3	1
23-Mar-98	8:10	36	6.9	299	12.4	4.8	**88**	-3	2
15-Apr-98	7:15	50	6.6	208	12.3	4.7		-3	2
14-May-98	9:45	682	7.7	161	11.8	9.5	51	-6	10
10-Jun-98	7:40	238	7.0	139	10.9	11.4		**6**	8
10-Jun-98	*9999*							*-3*	*9*
9-Jul-98	11:45	434	8.1	181	14.1	14.7	44	-6	36
22-Jul-98	7:00	355	.7.3	220	10.7	13.1			
5-Aug-98	9:00	561	7.7	218	7.3	15.5		-6	**230**
5-Aug-98	*9999*							*-6*	*170*
19-Aug-98	7:05	88	7.0	223	9.9	13.3			
3-Sep-98	7:00	313	6.8	200	10.9	12.5		-3	22
16-Sep-98	7:00	96	6.6	196	10.7	13.5			
14-Oct-98	10:15	34	6.8	257	12.6	9.5	82	-2	3
11-Nov-98	7:00	32	6.4	239	14.1	1.0		-3	2
8-Dec-98	8:30	61	7.3	677	10.7	0.7		-3	11

TABLE 2
SOUTH PLATTE RIVER AT WATERTON, CO (SITE 1), SP
06708000
WATER-QUALITY DATA

DATE	TIME	CYANIDE, WAD (mg/L)	HARDNESS (mg/L as CaCO3)	NITRATE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN, AMMONIA (mg/L)	NITROGEN, TOTAL (mg/L)	PHOSPHORUS ORTHO, TOTAL (mg/L as P)	PHOSPHORUS, TOTAL (mg/L as P)	SUSPENDED SEDIMENT, TOTAL (gm/M^3)
MDL [2]		0.01	1	0.02	0.01	0.05	0.1	0.005	0.01	5
PQL [3]		0.05	7	0.1	0.05	0.3	0.5	0.03	0.05	20
14-Jan-98	10:30		111	0.07	0.01	-0.05		0.006	-0.01	20
11-Feb-98	7:10		124	0.24	0.02	0.05		-0.005	-0.01	-5
23-Mar-98	8:10	-0.01	110	0.25	-0.01	-0.05	0.3	0.016	0.03	20
15-Apr-98	7:15		82	0.66	-0.01	-0.05		-0.005	0.02	6
14-May-98	9:45	-0.01	63	0.11	-0.01	0.08	**0.5**	0.006	0.03	20
10-Jun-98	7:40		54	0.04	-0.01	0.15		0.017	-0.01	10
10-Jun-98	*9999*		*54*	*0.04*	*-0.01*	*0.12*		*0.014*	*0.02*	*20*
9-Jul-98	11:45	-0.01	80	0.11	-0.01	0.11	0.2	0.009	0.01	12
22-Jul-98	7:00			0.10	-0.01	-0.05		0.006	-0.01	-5
5-Aug-98	9:00		81	-0.01	**0.05**	-0.05		**0.030**	**0.16**	**106**
5-Aug-98	*9999*		*81*	*-0.01*	*0.08*	*0.06*		*0.072*	*0.11*	*136*
19-Aug-98	7:05			0.19	-0.01	-0.05		0.016	-0.01	10
3-Sep-98	7:00		81	0.05	-0.01	-0.05		0.019	0.02	16
16-Sep-98	7:00			0.07	-0.01	0.05		0.008	-0.01	10
14-Oct-98	10:15	-0.01	102	-0.02	-0.01	0.06	0.2	-0.005	-0.01	-5
11-Nov-98	7:00		94	0.03	-0.01	-0.05		-0.005	-0.01	-5
8-Dec-98	8:30		**337**	**0.80**	-0.01	-0.05		0.014	-0.01	20

TABLE 2
SOUTH PLATTE RIVER AT WATERTON, CO (SITE 1), SP
06708000
WATER-QUALITY DATA

DATE	TIME	ARSENIC, TOTAL (mg/L)	CADMIUM, DISSOLVED (mg/L)	CALCIUM, DISSOLVED (mg/L)	COPPER, DISSOLVED (mg/L)	CHROMIUM, HEXAVALENT, DISSOLVED (mg/L)	CHROMIUM, TRIVALENT DISSOLVED (mg/L)	IRON, DISSOLVED (mg/L)	LEAD, DISSOLVED (mg/L)
MDL [2]		0.001	0.003	0.2	0.01	**0.0006**	**0.0006**	0.01	0.04
PQL [3]		0.005	0.02	1	0.05	**0.005**	**0.005**	0.05	0.2
14-Jan-98	10:30		-0.003	28.6	-0.01				-0.04
11-Feb-98	7:10		-0.003	31.7	-0.01				-0.04
23-Mar-98	8:10	-0.001	-0.003	28.5	-0.01	-0.005	-0.005	0.03	-0.04
15-Apr-98	7:15		-0.003	21.8	-0.01				-0.04
14-May-98	9:45	**0.001**	-0.003	16.8	-0.01	-0.005	-0.005	**0.23**	-0.04
10-Jun-98	7:40		-0.003	14.9	-0.01				-0.04
10-Jun-98	*9999*		*-0.003*	*14.9*	*-0.01*				*-0.04*
9-Jul-98	11:45	-0.001	-0.003	24.6	-0.01			0.12	-0.04
22-Jul-98	7:00					-0.005	-0.005		
5-Aug-98	9:00		-0.003	21.4	-0.01				-0.04
5-Aug-98	*9999*		*-0.003*	*21.5*	*-0.01*				*-0.04*
19-Aug-98	7:05								
3-Sep-98	7:00		-0.003	21.8	-0.01				-0.04
16-Sep-98	7:00								
14-Oct-98	10:15	-0.001	-0.003	26.7	-0.01	-0.005	-0.005	0.04	-0.04
11-Nov-98	7:00		-0.003	25.4	-0.01				-0.04
8-Dec-98	8:30		-0.003	**94.5**	-0.01				-0.04

TABLE 2
SOUTH PLATTE RIVER AT WATERTON, CO (SITE 1), SP
06708000
WATER-QUALITY DATA

DATE	TIME	MAGNESIUM, DISSOLVED (mg/L)	MANGANESE DISSOLVED (mg/L)	MERCURY, DISSOLVED (mg/L)	NICKEL, DISSOLVED (mg/L)	SELENIUM, DISSOLVED (mg/L)	SILVER, DISSOLVED (mg/L)	ZINC, DISSOLVED (mg/L)	LABORATORY SAMPLE NUMBER
MDL [2]		0.2	0.005	0.0002	0.01	0.001	0.005	0.01	
PQL [3]		1	0.03	0.001	0.05	0.005	0.03	0.05	
14-Jan-98	10:30	9.7		**0.0002**		-0.001			L17042-02
11-Feb-98	7:10	10.8		-0.0002		-0.001			L17380-01
23-Mar-98	8:10	9.4	0.038	-0.0002	-0.01	-0.001	-0.005	-0.01	L17815-02
15-Apr-98	7:15	6.6		-0.0002		-0.001			L18115-01
14-May-98	9:45	5	0.022	-0.0002	-0.01	-0.001	-0.005	0.02	L18509-01
10-Jun-98	7:40	4.1		-0.0002		-0.001			L18895-06
10-Jun-98	*9999*	*4.1*		*-0.0002*		*-0.001*			*L18895-09*
9-Jul-98	11:45	4.5	**0.042**	-0.0002	-0.01	-0.001	-0.005	**0.04**	L19337-01
22-Jul-98	7:00								L19516-01
5-Aug-98	9:00	6.6		-0.0002		-0.001			L19698-02
5-Aug-98	*9999*	*6.6*		*-0.0002*		*-0.001*			*L19698-04*
19-Aug-98	7:05								L19913-01
3-Sep-98	7:00	6.5		-0.0002		-0.001			L20158-03
16-Sep-98	7:00								L20328-01
14-Oct-98	10:15	8.6	0.013	-0.0002	-0.01	-0.001	-0.005	-0.01	L20716-01
11-Nov-98	7:00	7.3		-0.0002		-0.001			L21112-01
8-Dec-98	8:30	**24.5**		-0.0002		**0.002**			L21442-01

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.

BLANK RANGES INDICATE NO DATA WERE AVAILABLE.

TIME = 9999 (DATA ITALICIZED) MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.

MAXIMUM DETECTABLE VALUE IS INDICATED IN **BOLD**.

1) STREAMFLOW DATA SOURCE: COLORADO DIVISION OF WATER RESOURCES (WRITTEN COMMUNS., FEBRUARY 1,1999)

2) MDL= METHOD DETECTION LIMIT. BOD VALUE VARIES.

3) PQL=PRACTICAL QUANTITATION LIMIT. BOD VALUE VARIES.

TABLE 3
PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO (SITE 2), PC
06709530
WATER-QUALITY DATA

DATE	TIME	INSTANTANEOUS STREAMFLOW (CFS) [1]	pH, FIELD (STD. UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	OXYGEN, DISSOLVED (mg/L)	TEMPERATURE (Deg C)	ALKALINITY, TOTAL (mg/L)	BOD, 5-DAY (mg/L)	COLIFORM, FECAL (#/100 ML)
MDL [2]							2	3-6	1
PQL [3]							10	3-30	1
14-Jan-98	10:50	91	7.8	344	12.3	0.0		-6	7
11-Feb-98	7:30	5	7.4	380	12.7	-0.1		-3	5
23-Mar-98	8:25	38	7.7	325	11.1	5.9	85	-3	24
15-Apr-98	7:40	190	7.3	188	12.3	4.7		-6	270
14-May-98	9:30	307	7.0	119	11.0	10.3	36	-6	43
14-May-98	*9999*						*36*	*-6*	*71*
10-Jun-98	8:00	72	7.3	251	7.4	12.5		-3	260
9-Jul-98	11:15	62	7.5	303	8.0	19.1	83	-6	3400
22-Jul-98	7:30	[4]	7.2	332	5.4	19.6			
5-Aug-98	8:00	245	6.5	314	6.4	16.2		-10	**7200**
19-Aug-98	7:30	16	7.4	353	7.1	17.7			
3-Sep-98	7:15	12	7.0	360	7.8	16.2		-6	250
16-Sep-98	7:20	5	7.3	385	7.6	14.6			
16-Sep-98	*9999*								
14-Oct-98	10:45	8	6.8	428	7.3	10.6	**113**	-2	350
11-Nov-98	7:25	68	6.9	444	13.4	-0.1		-3	54
8-Dec-98	8:00	95	6.4	449	8.7	1.7		-3	23
8-Dec-98	*9999*							*-3*	*37*

TABLE 3
PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO (SITE 2), PC
06709530
WATER-QUALITY DATA

DATE	TIME	CYANIDE, WAD (mg/L)	HARDNESS (mg/L as CaCO3)	NITRATE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN, AMMONIA (mg/L)	NITROGEN, TOTAL (mg/L)	PHOSPHORUS ORTHO, TOTAL (mg/L as P)	PHOSPHORUS, TOTAL (mg/L as P)	SUSPENDED SEDIMENT, TOTAL (gm/M^3)
MDL [2]		0.01	1	0.02	0.01	0.05	0.1	0.005	0.01	5
PQL [3]		0.05	7	0.1	0.05	0.3	0.5	0.03	0.05	20
14-Jan-98	10:50		129	0.60	0.01	-0.05		0.016	0.02	24
11-Feb-98	7:30		135	0.98	0.01	0.11		0.008	-0.01	40
23-Mar-98	8:25	-0.01	114	0.59	-0.01	-0.05	**1.0**	0.009	0.13	212
15-Apr-98	7:40		64	0.25	0.01	0.09		0.102	0.32	270
14-May-98	9:30	-0.01	47	0.17	0.01	0.14	0.8	0.023	0.35	256
14-May-98	*9999*	*-0.01*	*46*	*0.72*	*-0.01*	*0.40*	*0.7*	*0.017*	*0.34*	*256*
10-Jun-98	8:00		97	0.28	-0.01	0.15		0.060	0.04	20
9-Jul-98	11:15	-0.01	117	0.47	0.02	**0.31**	1.4	**0.377**	0.39	258
22-Jul-98	7:30			-0.02	-0.01	-0.05		0.031	0.07	18
5-Aug-98	8:00		83	-0.01	**0.12**	0.14		0.302	**0.79**	**1520**
19-Aug-98	7:30			0.45	-0.01	0.07		0.070	0.05	70
3-Sep-98	7:15		144	0.22	-0.01	-0.10		0.076	0.08	52
16-Sep-98	7:20			0.21	-0.01	0.05		0.032	0.06	38
16-Sep-98	*9999*			*0.22*	*-0.01*	*-0.05*		*0.029*	*0.05*	*40*
14-Oct-98	10:45	-0.01	155	0.45	-0.01	0.13	0.8	0.033	0.07	63
11-Nov-98	7:25		154	**1.09**	0.02	0.11		0.053	0.06	134
8-Dec-98	8:00		**161**	0.56	-0.01	0.06		0.020	-0.01	-5
8-Dec-98	*9999*		*161*	*0.55*	*-0.01*	*-0.05*		*0.019*	*-0.01*	*14*

TABLE 3

PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO (SITE 2), PC

06709530

WATER-QUALITY DATA

DATE	TIME	ARSENIC, TOTAL (mg/L)	CADMIUM, DISSOLVED (mg/L)	CALCIUM, DISSOLVED (mg/L)	COPPER, DISSOLVED (mg/L)	CHROMIUM, HEXAVALENT, DISSOLVED (mg/L)	CHROMIUM, TRIVALENT DISSOLVED (mg/L)	IRON, DISSOLVED (mg/L)	LEAD, DISSOLVED (mg/L)
MDL [2]		0.001	0.003	0.2	0.01	0.0006	0.0006	0.01	0.04
PQL [3]		0.005	0.02	1	0.05	0.005	0.005	0.05	0.2
14-Jan-98	10:50		-0.003	41.2	-0.01				-0.04
11-Feb-98	7:30		-0.003	43.4	-0.01				-0.04
23-Mar-98	8:25	-0.001	-0.003	36.4	-0.01	-0.005	-0.005	0.16	-0.04
15-Apr-98	7:40		-0.003	20.2	-0.01				-0.04
14-May-98	9:30	0.002	-0.003	14.6	-0.01	-0.005	-0.005	**0.60**	-0.04
14-May-98	*9999*	*0.002*	*-0.003*	*14.6*	*-0.01*	*-0.005*	*0.005*	*0.55*	*-0.04*
10-Jun-98	8:00		-0.003	31.0	-0.01				-0.04
9-Jul-98	11:15	**0.003**	-0.003	38.0	-0.01			0.56	-0.04
22-Jul-98	7:30					-0.005	-0.005		
5-Aug-98	8:00		-0.003	22.5	-0.01				-0.04
19-Aug-98	7:30								
3-Sep-98	7:15		-0.003	47.1	-0.01				-0.04
16-Sep-98	7:20								
16-Sep-98	*9999*								
14-Oct-98	10:45	-0.001	-0.003	49.8	-0.01	-0.005	-0.005	0.12	-0.04
11-Nov-98	7:25		-0.003	49.6	-0.01				-0.04
8-Dec-98	8:00		-0.003	**52.0**	-0.01				-0.04
8-Dec-98	*9999*		*-0.003*	*51.9*	*-0.01*				*-0.04*

TABLE 3
PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO (SITE 2), PC
06709530
WATER-QUALITY DATA

DATE	TIME	MAGNESIUM, DISSOLVED (mg/L)	MANGANESE DISSOLVED (mg/L)	MERCURY, DISSOLVED (mg/L)	NICKEL, DISSOLVED (mg/L)	SELENIUM, DISSOLVED (mg/L)	SILVER, DISSOLVED (mg/L)	ZINC, DISSOLVED (mg/L)	LABORATORY SAMPLE NUMBER
MDL [2]		0.2	0.005	0.0002	0.01	0.001	0.005	0.01	
PQL [3]		1	0.03	0.001	0.05	0.005	0.03	0.05	
14-Jan-98	10:50	6.4		-0.0002		-0.001			L17042-01
11-Feb-98	7:30	6.5		-0.0002		**0.001**			L17380-02
23-Mar-98	8:25	5.7	0.021	-0.0002	-0.01	**0.001**	-0.005	0.04	L17815-03
15-Apr-98	7:40	3.3		-0.0002		-0.001			L18115-02
14-May-98	9:30	2.5	0.033	-0.0002	-0.01	-0.001	-0.005	0.08	L18509-02
14-May-98	*9999*	*2.4*	*0.033*	*-0.0002*	*-0.01*	*-0.001*	*-0.005*	*0.08*	*L18509-04*
10-Jun-98	8:00	4.7		-0.0002		-0.001			L18895-07
9-Jul-98	11:15	5.3	**0.153**	-0.0002	-0.01	-0.001	-0.005	**0.20**	L19337-02
22-Jul-98	7:30								L19516-02
5-Aug-98	8:00	6.5		-0.0002		-0.001			L19698-01
19-Aug-98	7:30								L19913-02
3-Sep-98	7:15	6.5		-0.0002		**0.001**			L20158-01
16-Sep-98	7:20								L20328-02
16-Sep-98	*9999*								*L20328-04*
14-Oct-98	10:45	7.3	0.142	-0.0002	-0.01	-0.001	-0.005	0.03	L20716-02
11-Nov-98	7:25	7.3		-0.0002		-0.001			L21112-02
8-Dec-98	8:00	**7.5**		-0.0002		-0.001			L21442-02
8-Dec-98	*9999*	*7.5*		*-0.0002*		*-0.001*			*L21442-04*

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.
BLANK RANGES INDICATE NO DATA WERE AVAILABLE.
TIME = 9999 (DATA ITALICIZED) MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.
MAXIMUM DETECTABLE VALUE IS INDICATED IN BOLD.

1) STREAMFLOW DATA SOURCE: U. S. GEOLOGICAL SURVEY (WRITTEN COMMUNS., FEBRUARY 11,1999)
2) MDL= METHOD DETECTION LIMIT. BOD VALUE VARIES.
2) MDL= METHOD DETECTION LIMIT. BOD VALUE VARIES.
4) JULY 22 FLOW RATE WAS REPORTED AS 0.0 CFS BY USGS DUE TO INTERPOLATION OF RATING CAUSED BY SHIFTING STREAM BOTTOM. MINIMUM FLOW RATE WAS OBSERVED DURING SAMPLING.

TABLE 3A
PLUM CREEK ABOVE CHATFIELD RESERVOIR (SITE 2C)
393214105024201
WATER-QUALITY DATA (PAIRED SAMPLE)

DATE	TIME	INSTANTANEOUS STREAMFLOW (CFS) [1]	pH, FIELD (STD. UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	OXYGEN, DISSOLVED (mg/L)	TEMPERATURE (Deg C)	BOD, 5-DAY (mg/L)	COLIFORM, FECAL (#/100 ML)
MDL [2]							2	3-6
PQL [3]							10	3-30
11-Feb-98	8:00		7.6	399	11.2	-0.2	-3	37
15-Apr-98	8:05		7.2	219	11.0	5.2	-6	**300**
3-Sep-98	7:45		7.2	355	8.6	14.6	-6	250
3-Sep-98	*9999*						*-3*	*260*
11-Nov-98	7:50		7.3	433	11.8	1.4	-3	110

TABLE 3A
PLUM CREEK ABOVE CHATFIELD RESERVOIR (SITE 2C)
393214105024201
WATER-QUALITY DATA (PAIRED SAMPLE)

DATE	TIME	HARDNESS (mg/L as CaCO3)	NITRATE (mg/L as N)	NITRATE/ NITRITE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN, AMMONIA (mg/L)	PHOSPHORUS ORTHO, TOTAL (mg/L as P)	PHOSPHORUS, TOTAL (mg/L as P)	SUSPENDED SEDIMENT, TOTAL (gm/M^3)
MDL [2]		1	0.01	1	0.02	0.02	0.01	0.05	0.1
PQL [3]		1	0.05	7	0.1	0.1	0.05	0.3	0.5
11-Feb-98	8:00	145	**0.84**	**0.84**	-0.01	0.10	-0.005	-0.01	-5
15-Apr-98	8:05	73	0.25	0.26	**0.01**	0.08	**0.105**	**0.22**	**140**
3-Sep-98	7:45	157	0.32	0.32	-0.01	-0.10	0.078	0.09	34
3-Sep-98	*9999*	*158*	*0.29*	*0.29*	*-0.01*	*-0.05*	*0.090*	*0.07*	*40*
11-Nov-98	7:50	**158**	0.79	0.79	-0.01	**0.22**	0.025	0.06	46

TABLE 3A
PLUM CREEK ABOVE CHATFIELD RESERVOIR (SITE 2C)
393214105024201
WATER-QUALITY DATA (PAIRED SAMPLE)

DATE	TIME	CADMIUM, DISSOLVED (mg/L)	CALCIUM, DISSOLVED (mg/L)	COPPER, DISSOLVED (mg/L)	LEAD, DISSOLVED (mg/L)	MAGNESIUM, DISSOLVED (mg/L)	MERCURY, DISSOLVED (mg/L)	SELENIUM, DISSOLVED (mg/L)	LABORATORY SAMPLE NUMBER
MDL [2]		0.005	0.01	5	0.001	0.003	0.2	0.01	**0.0006**
PQL [3]		0.03	0.05	20	0.005	0.02	1	0.05	**0.005**
11-Feb-98	8:00	-0.003	46.5	-0.01	-0.04	7.0	-0.0002	-0.001	L17380-03
15-Apr-98	8:05	-0.003	23.1	-0.01	-0.04	3.8	-0.0002	-0.001	L18115-03
3-Sep-98	7:45	-0.003	50.8	-0.01	-0.04	7.3	-0.0002	-0.001	L20158-02
3-Sep-98	*9999*	*-0.003*	*51.2*	*-0.01*	*-0.04*	*7.4*	*-0.0002*	*-0.001*	*L20158-05*
11-Nov-98	7:50	-0.003	**51.1**	-0.01	-0.04	**7.4**	-0.0002	-0.001	L21112-03

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.
BLANK RANGES INDICATE NO DATA WERE AVAILABLE.
TIME = 9999 (DATA ITALICIZED) MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.
MAXIMUM DETECTABLE VALUE IS INDICATED IN **BOLD**.
1) NO STREAM GAUGE DATA IS AVAILABLE.
2) MDL= METHOD DETECTION LIMIT. BOD VALUE VARIES.
2) MDL= METHOD DETECTION LIMIT. BOD VALUE VARIES.

TABLE 4
DEER CREEK ABOVE CHATFIELD RESERVOIR (SITE DC)
WATER-QUALITY DATA (Tributary High-Flow)

DATE	TIME	INSTANTANEOUS STREAMFLOW (CFS) [1]	pH, FIELD (STD. UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	OXYGEN, DISSOLVED (mg/L)	TEMPERATURE (Deg C)	ALKALINITY, TOTAL (mg/L)	BOD, 5-DAY (mg/L)	COLIFORM, FECAL (#/100 ML)
MDL [2]							2	3	1
PQL [3]							10	3	1
23-Mar-98	11:00		8.0	353	12.7	5.8	80	-3	120

TABLE 4
DEER CREEK ABOVE CHATFIELD RESERVOIR (SITE DC)
WATER-QUALITY DATA (Tributary High-Flow)

DATE	TIME	CYANIDE, WAD (mg/L)	HARDNESS (mg/L as CaCO3)	NITRATE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN, AMMONIA (mg/L)	NITROGEN, TOTAL (mg/L)	PHOSPHORUS ORTHO, TOTAL (mg/L as P)	PHOSPHORUS, TOTAL (mg/L as P)	SUSPENDED SEDIMENT, TOTAL (gm/M^3)
MDL [2]		0.01	1	0.02	0.01	0.05	0.1	0.005	0.01	5
PQL [3]		0.05	7	0.1	0.05	0.3	0.5	0.03	0.05	20
23-Mar-98	11:00	-0.01	127	0.46	-0.01	-0.05	0.6	0.017	0.1	78

TABLE 4
DEER CREEK ABOVE CHATFIELD RESERVOIR (SITE DC)
WATER-QUALITY DATA (Tributary High-Flow)

DATE	TIME	CYANIDE, WAD (mg/L)	HARDNESS (mg/L as CaCO3)	NITRATE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN, AMMONIA (mg/L)	NITROGEN, TOTAL (mg/L)	PHOSPHORUS ORTHO, TOTAL (mg/L as P)	PHOSPHORUS, TOTAL (mg/L as P)	SUSPENDED SEDIMENT, TOTAL (gm/M^3)
MDL [2]		0.01	1	0.02	0.01	0.05	0.1	0.005	0.01	5
PQL [3]		0.05	7	0.1	0.05	0.3	0.5	0.03	0.05	20
23-Mar-98	11:00	-0.01	127	0.46	-0.01	-0.05	0.6	0.017	0.1	78

TABLE 4
DEER CREEK ABOVE CHATFIELD RESERVOIR (SITE DC)
WATER-QUALITY DATA (Tributary High-Flow)

DATE	TIME	ARSENIC, TOTAL (mg/L)	CADMIUM, DISSOLVED (mg/L)	CALCIUM, DISSOLVED (mg/L)	COPPER, DISSOLVED (mg/L)	CHROMIUM, HEXAVALENT, DISSOLVED (mg/L)	CHROMIUM, TRIVALENT DISSOLVED (mg/L)	IRON, DISSOLVED (mg/L)	LEAD, DISSOLVED (mg/L)
MDL [2]		0.001	0.003	0.2	0.01	0.0006	0.0006	0.01	0.04
PQL [3]		0.005	0.02	1	0.05	0.005	0.005	0.05	0.2
23-Mar-98	11:00	0.002	-0.003	35.7	-0.01	-0.005	-0.005	0.26	-0.04

TABLE 4
DEER CREEK ABOVE CHATFIELD RESERVOIR (SITE DC)
WATER-QUALITY DATA (Tributary High-Flow)

DATE	TIME	MAGNESIUM, DISSOLVED (mg/L)	MANGANESE DISSOLVED (mg/L)	MERCURY, DISSOLVED (mg/L)	NICKEL, DISSOLVED (mg/L)	SELENIUM, DISSOLVED (mg/L)	SILVER, DISSOLVED (mg/L)	ZINC, DISSOLVED (mg/L)	LABORATORY SAMPLE NUMBER
MDL [2]		0.2	0.005	0.0002	0.01	0.001	0.005	0.01	
PQL [3]		1	0.03	0.001	0.05	0.005	0.03	0.05	
23-Mar-98	11:00	9.3	0.021	-0.0002	-0.01	-0.001	-0.005	0.03	L17815-01

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.
BLANK RANGES INDICATE NO DATA WERE AVAILABLE.
TIME = 9999 (DATA ITALICIZED) MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.
1) NO STREAM GAUGE DATA IS AVAILABLE. .
2) MDL= METHOD DETECTION LIMIT.
2) MDL= METHOD DETECTION LIMIT.

TABLE 5
CHATFIELD RESERVOIR NEAR DAM (SITE 7), RM
393319105033501
WATER-QUALITY DATA

DATE MDL [1] PQL [2]	TIME	SAMPLING DEPTH (Meters)	TOTAL DEPTH (Meters)	TRANSPARENCY SECCHI DISK (Meters)	pH, FIELD (STANDARD UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	OXYGEN, DISSOLVED (mg/L)	TEMPERATURE (Deg C)
14-Jan-98	9:30	1.0	9.0	3.0	8.9	281	10.2	3.0
14-Jan-98	9:15	1.5	9.0	3.0	8.6	283	9.7	3.2
14-Jan-98	9:00	8.0	9.0	3.0	7.5	278	10.7	3.8
11-Feb-98	8:40	1.0	6.0	4.0	8.5	310	10.1	4.1
11-Feb-98	8:50	2.0	6.0	4.0	8.4	311	10.4	4.1
11-Feb-98	9:00	5.0	6.0	4.0	8.0	322	10.4	3.7
23-Mar-98	10:00	1.0	10.0	3.5	8.3	318	12.3	5.9
23-Mar-98	9:40	1.8	10.0	3.5	8.3	318	12.3	5.9
23-Mar-98	*9999*							
23-Mar-98	9:25	9.0	10.0	3.5	8.1	317	12.4	6.0
15-Apr-98	9:20	1.0	11.0	2.5	8.4	314	10.9	9.2
15-Apr-98	*9999*							
15-Apr-98	9:30	1.3	11.0	2.5	8.4	314	10.9	9.2
15-Apr-98	9:45	10.0	11.0	2.5	8.1	315	10.8	9.0
15-Apr-98	*9999*							
14-May-98	11:00	1.0	11.0	2.0	8.5	199	9.8	14.3
14-May-98	11:15	1.0	11.0	2.0	8.5	199	9.8	14.3
14-May-98	11:30	10.0	11.0	2.0	8.4	198	9.5	12.3
14-May-98	*9999*							
10-Jun-98	11:40	1.0	11.0	2.0	7.9	181	9.5	15.9
10-Jun-98	*9999*							
10-Jun-98	11:35	1.0	11.0	2.0	7.9	181	9.5	15.9
10-Jun-98	11:30	10.0	11.0	2.0	7.7	173	8.0	14.5
09-Jul-98	10:40	1.0	11.0	3.0	7.9	212	11.8	21.4
09-Jul-98	*9999*							
09-Jul-98	10:50	1.5	11.0	3.0	7.9	211	11.6	21.5
09-Jul-98	11:00	10.0	11.0	3.0	7.1	206	8.8	18.1
22-Jul-98	10:10	1.0	11.0	3.0	7.9	207	8.6	22.5
22-Jul-98	10:00	1.5	11.0	3.0	7.8	207	8.6	22.4
22-Jul-98	9:50	10.0	11.0	3.0	7.1	200	5.1	17.9
05-Aug-98	10:30	1.0	11.0	3.0	8.0	209	8.2	20.5
05-Aug-98	10:15	1.5	11.0	3.0	7.8	209	8.3	20.2
05-Aug-98	10:00	10.0	11.0	3.0	7.9	209	7.7	19.8
19-Aug-98	9:15	1.0	11.0	3.0	8.0	229	8.0	20.6

TABLE 5
CHATFIELD RESERVOIR NEAR DAM (SITE 7), RM 393319105033501
WATER-QUALITY DATA

DATE	TIME	ALKALINITY, TOTAL (mg/L)	BOD, 5-DAY (mg/L)	CHLOROPHYLL_a (mg/M^3)	COLIFORM, FECAL (#/100 ML)	CYANIDE, WAD (mg/L)	HARDNESS (mg/L as CaCO3)	NITROGEN, TOTAL (mg/L)	PHOSPHORUS ORTHO, TOTAL (mg/L as P)	PHOSPHORUS, TOTAL (mg/L as P)
MDL [1]		2	3-6	0.3	1	0.01	1	0.1	0.005	0.01
PQL [2]		10	3-6		1	0.05	7	0.5	0.03	0.05
19-Aug-98	*9999*							*-0.5*	*0.009*	*-0.02*
19-Aug-98	9:30							0.5	0.008	-0.01
19-Aug-98	9:45							**0.7**	0.039	-0.01
3-Sep-98	10:05		-3	1.7	2		102	0.1	0.006	-0.01
3-Sep-98	10:00		-3		-1		101	0.4	-0.005	-0.01
3-Sep-98	*9999*		*-3*		2		*102*	*0.2*	*-0.005*	*-0.01*
3-Sep-98	9:45		-3		1		98	0.4	0.023	0.03
16-Sep-98	9:35			4.3				-1.0	-0.005	0.03
16-Sep-98	9:30							0.2 ~~-0.1~~	-0.005	-0.01
16-Sep-98	9:25							0.2	-0.005	0.01
14-Oct-98	11:50	80	-2	5.0	-1	-0.01	104	0.3	-0.005	-0.01
14-Oct-98	11:35	81	-2		-1	-0.01	106	0.3	-0.005	0.01
14-Oct-98	11:20	80	-2		1	-0.01	104	0.6	-0.005	-0.01
11-Nov-98	9:40		-3	11.0	5		109	-0.1	0.009	0.02
11-Nov-98	9:50		-3		10		111	-0.1	0.010	0.01
11-Nov-98	*9999*		*3*		*11*		*109*	*0.2*	*-0.030*	*-0.01*
11-Nov-98	10:00		-3		9		111	-0.1	0.011	0.01
8-Dec-98	9:40		-3	5.9	-1		119	0.2	-0.005	-0.01
8-Dec-98	9:55		-3		1		117	0.2	-0.005	-0.01
8-Dec-98	10:10		-3		-1		119	0.2	-0.005	0.02

TABLE 5
CHATFIELD RESERVOIR NEAR DAM (SITE 7), RM
393319105033501
WATER-QUALITY DATA

DATE	TIME	SUSPENDED SEDIMENT, TOTAL (gm/M^3)	ARSENIC, TOTAL (mg/L)	CADMIUM, DISSOLVED (mg/L)	CALCIUM, DISSOLVED (mg/L)	COPPER, DISSOLVED (mg/L)	CHROMIUM, HEXAVALENT, DISSOLVED (mg/L)	CHROMIUM, TRIVALENT DISSOLVED (mg/L)	IRON, DISSOLVED (mg/L)	LEAD, DISSOLVED (mg/L)
MDL [1]		5	0.001	0.003	0.2	0.01	0.0006	0.0006	0.01	0.04
PQL [2]		20	0.005	0.02	1	0.05	0.005	0.005	0.05	0.2
14-Jan-98	9:30	16		-0.003	33.3	**0.01**				
14-Jan-98	9:15	24		-0.003	32.5	**0.01**				-0.04
14-Jan-98	9:00	56		-0.003	32.9	-0.01				-0.04
11-Feb-98	8:40	-5		-0.003	33.3	-0.01				-0.04
11-Feb-98	8:50	-5		-0.003	32.9	-0.01				-0.04
11-Feb-98	9:00	-5		-0.003	**34.7**	-0.01				-0.04
23-Mar-98	10:00	-5	-0.001	-0.003	32.9	-0.01	-0.005	-0.005	0.01	-0.04
23-Mar-98	9:40	-5	-0.001	-0.003	32.6	-0.01	-0.005	-0.005	-0.01	-0.04
23-Mar-98	*9999*	*-5*	*-0.001*	*-0.003*	*32.7*	*-0.01*	*-0.005*	*-0.005*	*-0.01*	*-0.04*
23-Mar-98	9:25	10	-0.001	-0.003	33.1	-0.01	-0.005	-0.005	0.01	-0.04
15-Apr-98	9:20	-5		-0.003	34.2	-0.01				-0.04
15-Apr-98	*9999*									-0.04
15-Apr-98	9:30	-5		-0.003	34.1	-0.01				
15-Apr-98	9:45	-5		-0.003	34.5	-0.01				-0.04
15-Apr-98	*9999*	*-5*		*-0.003*	*34.6*	*-0.01*				-0.04
14-May-98	11:00	6	-0.001	-0.003	22.4	-0.01	-0.005	-0.005	0.26	*-0.04*
14-May-98	11:15	16	-0.001	-0.003	21.6	-0.01	-0.005	-0.005	**0.28**	-0.04
14-May-98	11:30	8	-0.001	-0.003	22.0	-0.01	-0.005	-0.005	0.24	-0.04
14-May-98	*9999*	*-5*	*-0.001*	*-0.003*	*23.1*	*-0.01*	*-0.005*	*-0.005*	*0.27*	-0.04
10-Jun-98	11:40	-5		-0.003	20.6	-0.01				*-0.04*
10-Jun-98	*9999*	*-5*		*-0.003*	*20.8*	*-0.01*				-0.04
10-Jun-98	11:35	-5		-0.003	20.8	-0.01				*-0.04*
10-Jun-98	11:30	-5		-0.003	20.3	-0.01				-0.04
09-Jul-98	10:40	10	-0.001	-0.003	23.3	-0.01				-0.04
09-Jul-98	*9999*								0.06	-0.04
09-Jul-98	10:50	10	-0.001	-0.003	24.1	-0.01				
09-Jul-98	11:00	12	-0.001	-0.003	24.1	-0.01			0.06	-0.04
22-Jul-98	10:10	-5							0.08	-0.04
22-Jul-98	10:00	-5					-0.005	-0.005		
22-Jul-98	9:50	-5					-0.005	-0.005		
05-Aug-98	10:30	21		-0.003	25.6	-0.01	-0.005	-0.005		
05-Aug-98	10:15	38		-0.003	25.8	-0.01				-0.04
05-Aug-98	10:00	**76**		-0.003	24.2	-0.01				-0.04
19-Aug-98	9:15	-5								-0.04

TABLE 5
CHATFIELD RESERVOIR NEAR DAM (SITE 7), RM
393319105033501
WATER-QUALITY DATA

DATE	TIME	SUSPENDED SEDIMENT, TOTAL (gm/M^3)	ARSENIC, TOTAL (mg/L)	CADMIUM, DISSOLVED (mg/L)	CALCIUM, DISSOLVED (mg/L)	COPPER, DISSOLVED (mg/L)	CHROMIUM, HEXAVALENT, DISSOLVED (mg/L)	CHROMIUM, TRIVALENT DISSOLVED (mg/L)	IRON, DISSOLVED (mg/L)	LEAD, DISSOLVED (mg/L)
MDL [1]		5	0.001	0.003	0.2	0.01	0.0006	0.0006	0.01	0.04
PQL [2]		20	0.005	0.02	1	0.05	0.005	0.005	0.05	0.2
19-Aug-98	*9999*	*-5*								
19-Aug-98	9:30	-5								
19-Aug-98	9:45	-5								
3-Sep-98	10:05	6		-0.003	29.3	-0.01				-0.04
3-Sep-98	10:00	-5		-0.003	29.0	-0.01				-0.04
3-Sep-98	*9999*	*-5*		*-0.003*	*29.3*	*-0.01*				*-0.04*
3-Sep-98	9:45	6		-0.003	27.7	-0.01				-0.04
16-Sep-98	9:35	6								
16-Sep-98	9:30	14								
16-Sep-98	9:25	20								
14-Oct-98	11:50	8	-0.001	-0.003	29.0	-0.01	-0.005	-0.005	0.05	-0.04
14-Oct-98	11:35	-5	**0.001**	-0.003	29.4	-0.01	-0.005	-0.005	0.06	-0.04
14-Oct-98	11:20	-5	-0.001	-0.003	29.1	-0.01	-0.005	-0.005	0.05	-0.04
11-Nov-98	9:40	8		-0.003	30.4	-0.01				-0.04
11-Nov-98	9:50	6		-0.003	30.8	-0.01				-0.04
11-Nov-98	*9999*	*-5*		*-0.003*	*30.2*	*-0.01*				*-0.04*
11-Nov-98	10:00	8		-0.003	31.0	-0.01				-0.04
8-Dec-98	9:40	6		-0.003	33.1	-0.01				-0.04
8-Dec-98	9:55	-5		-0.003	32.8	-0.01				-0.04
8-Dec-98	10:10	8		-0.003	33.1	-0.01				-0.04

TABLE 5
CHATFIELD RESERVOIR NEAR DAM (SITE 7), RM
393319105033501
WATER-QUALITY DATA

DATE	TIME	MAGNESIUM, DISSOLVED (mg/L)	MANGANESE, DISSOLVED (mg/L)	MERCURY, DISSOLVED (mg/L)	NICKEL, DISSOLVED (mg/L)	SELENIUM, DISSOLVED (mg/L)	SILVER, DISSOLVED (mg/L)	ZINC, DISSOLVED (mg/L)	LABORATORY SAMPLE NUMBER
MDL [1]		0.2	0.005	0.0002	0.01	0.001	0.005	0.01	
PQL [2]		1	0.03	0.001	0.05	0.005	0.03	0.05	
14-Jan-98	9:30	9.2		-0.0002		-0.001			L17042-05
14-Jan-98	9:15	9.1		-0.0002		-0.001			L17042-06
14-Jan-98	9:00	8.8		0.0002		-0.001			L17042-07
11-Feb-98	8:40	9.0		-0.0002		-0.001			L17380-05
11-Feb-98	8:50	8.9		-0.0002		-0.001			L17380-06
11-Feb-98	9:00	**9.3**		-0.0002		-0.001			L17380-07
23-Mar-98	10:00	8.8	**0.075**	0.0002	-0.01	-0.001	-0.005	0.02	L17815-06
23-Mar-98	9:40	8.7	**0.075**	0.0003	-0.01	-0.001	-0.005	0.01	L17815-07
23-Mar-98	*9999*	*8.7*	*0.075*	*0.0003*	*-0.01*	*-0.001*	*-0.005*	*0.01*	*L17815-05*
23-Mar-98	9:25	8.8	**0.075**	0.0003	-0.01	-0.001	-0.005	0.01	L17815-08
15-Apr-98	9:20	8.3		-0.0002		-0.001			L18115-05
15-Apr-98	*9999*								
15-Apr-98	9:30	8.3		0.0003		-0.001			L18115-06
15-Apr-98	9:45	8.4		-0.0002		-0.001			L18115-07
15-Apr-98	*9999*	*8.4*		*0.0002*		*-0.001*			*L18115-08*
14-May-98	11:00	5.4	0.039	**0.0007**	-0.01	-0.001	-0.005	0.02	L18509-05
14-May-98	11:15	5.2	0.041	-0.0002	-0.01	-0.001	-0.005	0.02	L18509-06
14-May-98	11:30	5.4	0.038	-0.0002	-0.01	-0.001	-0.005	0.02	L18509-07
14-May-98	*9999*	*5.4*	*0.042*	*-0.0002*	*-0.01*	*-0.001*	*-0.005*	*0.02*	*L18509-08*
10-Jun-98	11:40	5.1		0.0004		-0.001			L18895-10
10-Jun-98	*9999*	*5.1*		*0.0003*		*-0.001*			*L18895-13*
10-Jun-98	11:35	5.1		-0.0002		-0.001			L18895-11
10-Jun-98	11:30	5.1		-0.0002		-0.001			L18895-12
09-Jul-98	10:40	5.8	0.023	0.0007	-0.01	-0.001	-0.005	0.02	L19337-05
09-Jul-98	*9999*								
09-Jul-98	10:50	6.0	0.023	-0.0002	-0.01	**0.001**	-0.005	**0.05**	L19337-06
09-Jul-98	11:00	5.7	0.006	-0.0002	-0.01	-0.001	-0.005	0.03	L19337-07
22-Jul-98	10:10								L19516-04
22-Jul-98	10:00								L19516-05
22-Jul-98	9:50								L19516-06
05-Aug-98	10:30	6.0		-0.0002		-0.001			L19698-05
05-Aug-98	10:15	6.0		-0.0002		-0.001			L19698-06
05-Aug-98	10:00	6.3		0.0002		-0.001			L19698-07
19-Aug-98	9:15								L19913-04

TABLE 5
CHATFIELD RESERVOIR NEAR DAM (SITE 7), RM
393319105033501
WATER-QUALITY DATA

DATE	TIME	MAGNESIUM, DISSOLVED (mg/L)	MANGANESE, DISSOLVED (mg/L)	MERCURY, DISSOLVED (mg/L)	NICKEL, DISSOLVED (mg/L)	SELENIUM, DISSOLVED (mg/L)	SILVER, DISSOLVED (mg/L)	ZINC, DISSOLVED (mg/L)	LABORATORY SAMPLE NUMBER
MDL [1]		0.2	0.005	0.0002	0.01	0.001	0.005	0.01	
PQL [2]		1	0.03	0.001	0.05	0.005	0.03	0.05	
19-Aug-98	*9999*								*L19913-07*
19-Aug-98	9:30								L19913-05
19-Aug-98	9:45								L19913-06
3-Sep-98	10:05	7.0		-0.0002		-0.001			L20158-06
3-Sep-98	10:00	6.9		0.0002		-0.001			L20158-07
3-Sep-98	*9999*	*7.0*		*-0.0002*		*-0.001*			*L20158-09*
3-Sep-98	9:45	7.1		-0.0002		-0.001			L20158-08
16-Sep-98	9:35								L20328-05
16-Sep-98	9:30								L20328-06
16-Sep-98	9:25								L20328-07
14-Oct-98	11:50	7.7	0.016	0.0003	-0.01	-0.001	-0.005	0.01	L20716-04
14-Oct-98	11:35	7.8	0.015	0.0003	-0.01	-0.001	-0.005	0.02	L20716-05
14-Oct-98	11:20	7.7	0.013	0.0002	-0.01	-0.001	-0.005	0.02	L20716-06
11-Nov-98	9:40	8.1		0.0003		-0.001			L21112-05
11-Nov-98	9:50	8.2		-0.0002		-0.001			L21112-06
11-Nov-98	*9999*	*8.1*		*0.0003*		*-0.001*			*L21112-08*
11-Nov-98	10:00	8.2		-0.0002		-0.001			L21112-07
8-Dec-98	9:40	8.7		0.0002		-0.001			L21442-05
8-Dec-98	9:55	8.6		-0.0002		-0.001			L21442-06
8-Dec-98	10:10	8.7		-0.0002		-0.001			L21442-07

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.
BLANK RANGES INDICATE NO DATA WERE AVAILABLE.
TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.
MAXIMUM DETECTABLE VALUE IS INDICATED IN BOLD.
1) MDL= METHOD DETECTION LIMIT.
2) PQL=PRACTICAL QUANTITATION LIMIT.

TABLE 6
CHATFIELD RESERVOIR NEAR DAM (SITE 7), RM
393319105033501
SEDIMENT-QUALITY DATA

DATE	TIME	PHOSPHORUS, TOTAL (percent)	CADMIUM, DISSOLVED (mg/Kg)	COPPER, DISSOLVED (mg/Kg)	LEAD, DISSOLVED (mg/Kg)	MERCURY, DISSOLVED (mg/Kg)	SELENIUM, DISSOLVED (mg/Kg)
MDL [1]		0.01	0.4	1	5	0.0002	0.1
PQL [2]		0.1	2	7	30	0.001	0.7
20-Aug-97	10:15	0.07	8.8	37	48	0.0136	1.2
19-Aug-98	9:55	0.12	8.1	23	40	-0.02	1.9

DATE	TIME	CARBON, TOTAL ORGANIC (mg/Kg)	TEXTURE by HYDROMETER			Solids (percent)	LABORATORY SAMPLE NUMBER
			Sand (percent)	Silt (percent)	Clay (percent)		
MDL [1]		20	1	1	1	0.1	
PQL [2]		100	5	5	5	0.5	
20-Aug-97	10:15	29500	17.5	40.0	42.5	18.6	L15161-01
19-Aug-98	9:55	26100	5.0	52.5	42.5	19.9	L19922-01

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.
BLANK RANGES INDICATE NO DATA WERE AVAILABLE.
1) MDL= METHOD DETECTION LIMIT.
2) PQL=PRACTICAL QUANTITATION LIMIT.

TABLE 5
CHATFIELD RESERVOIR NEAR DAM (SITE 7), RM
393319105033501
WATER-QUALITY DATA

DATE MDL [1] PQL [2]	TIME	SAMPLING DEPTH (Meters)	TOTAL DEPTH (Meters)	TRANSPARENCY SECCHI DISK (Meters)	pH, FIELD (STANDARD UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	OXYGEN, DISSOLVED (mg/L)	TEMPERATURE (Deg C)
19-Aug-98	*9999*							
19-Aug-98	9:30	1.5	11.0	3.0	7.9	229	8.3	20.6
19-Aug-98	9:45	10.0	11.0	3.0	7.5	223	4.4	18.1
3-Sep-98	10:05	1.0	10.0	2.5	8.2	241	9.3	20.8
3-Sep-98	10:00	1.3	10.0	2.5	8.2	241	9.3	20.8
3-Sep-98	*9999*							
3-Sep-98	9:45	9.0	10.0	2.5	7.5	239	4.6	18.9
16-Sep-98	9:35	1.0	9.0	2.0	8.0	247	8.9	19.5
16-Sep-98	9:30	1.0	9.0	2.0	8.0	247	8.9	19.5
16-Sep-98	9:25	8.0	9.0	2.0	7.7	246	8.1	19.5
14-Oct-98	11:50	1.0	11.0	1.0	7.7	269	[3]	13.6
14-Oct-98	11:35	0.5	11.0	1.0	7.7	269	[3]	13.5
14-Oct-98	11:20	10.0	11.0	1.0	7.5	270	[3]	13.5
11-Nov-98	9:40	1.0	11.0	2.0	8.2	285	11.0	6.5
11-Nov-98	9:50	1.0	11.0	2.0	8.2	285	11.0	6.5
11-Nov-98	*9999*							
11-Nov-98	10:00	10.0	11.0	2.0	7.9	289	11.4	5.9
8-Dec-98	9:40	1.0	11.0	3.0	8.3	283	12.3	4.2
8-Dec-98	9:55	1.5	11.0	3.0	8.3	282	12.3	4.2
8-Dec-98	10:10	10.0	11.0	3.0	7.8	283	12.4	4.1

TABLE 5
CHATFIELD RESERVOIR NEAR DAM (SITE 7), RM
393319105033501
WATER-QUALITY DATA

DATE	TIME	ALKALINITY, TOTAL (mg/L)	BOD, 5-DAY (mg/L)	CHLOROPHYLL_a (mg/M^3)	COLIFORM, FECAL (#/100 ML)	CYANIDE, WAD (mg/L)	HARDNESS (mg/L as CaCO3)	NITROGEN, TOTAL (mg/L)	PHOSPHORUS ORTHO, TOTAL (mg/L as P)	PHOSPHORUS, TOTAL (mg/L as P)
MDL [1]		2	3-6	0.3	1	0.01	1	0.1	0.005	0.01
PQL [2]		10	3-6		1	0.05	7	0.5	0.03	0.05
14-Jan-98	9:30		-6	0.8	1		121	0.2	-0.005	-0.01
14-Jan-98	9:15		-6		-1		119	0.3	-0.005	-0.01
14-Jan-98	9:00		-6		-1		118	0.4	0.008	0.02
11-Feb-98	8:40		-3	1.2	-1		120	-0.1	-0.005	-0.01
11-Feb-98	8:50		-3		-1		119	0.1	-0.005	-0.01
11-Feb-98	9:00		-3		-1		**125**	0.4	-0.005	-0.01
23-Mar-98	10:00	**93**	-3	2.1	-1	-0.01	118	0.4	-0.005	-0.01
23-Mar-98	9:40	**93**	-3		1	-0.01	117	0.3	-0.005	-0.01
23-Mar-98	*9999*	*93*	*-3*		*-1*	*-0.01*	*118*	*0.2*	*-0.005*	*0.01*
23-Mar-98	9:25	**93**	-3		2	-0.01	119	0.6	-0.005	-0.01
15-Apr-98	9:20		-3	7.9	-1		120	0.2	-0.005	0.01
15-Apr-98	*9999*			*5.6*						
15-Apr-98	9:30		-3		-1		119	0.1	-0.005	-0.01
15-Apr-98	9:45		-3		1		121	0.2	-0.005	0.01
15-Apr-98	*9999*		*-3*		*-1*		*121*	*0.1*	*-0.005*	*-0.01*
14-May-98	11:00	59	-3	3.7	7	-0.01	78	0.5	0.013	0.04
14-May-98	11:15	59	-3		15	-0.01	75	0.4	0.019	0.05
14-May-98	11:30	61	-3		5	-0.01	77	0.4	0.015	0.03
14-May-98	*9999*	*61*	*-3*		*6*	*-0.01*	*80*	*0.4*	*0.009*	*0.04*
10-Jun-98	11:40		-3	5.1	2		73	0.5	-0.005	0.02
10-Jun-98	*9999*		*-3*		*-1*		*73*	*0.6*	*-0.005*	*0.03*
10-Jun-98	11:35		-3		1		73	0.4	-0.005	-0.01
10-Jun-98	11:30		-3		2		72	0.4	0.012	0.02
09-Jul-98	10:40	61	-3	3.7	-1	-0.01	82	0.2	0.007	-0.01
09-Jul-98	*9999*			*3.1*						
09-Jul-98	10:50	63	-3		1	-0.01	85	0.3	0.008	0.01
09-Jul-98	11:00	57	-3		2	-0.01	84	0.3	0.017	-0.01
22-Jul-98	10:10			2.3				0.2	-0.005	-0.01
22-Jul-98	10:00							0.3	-0.005	0.02
22-Jul-98	9:50							0.3	0.010	0.02
05-Aug-98	10:30		-3	2.6	12		89	0.4	0.020	0.02
05-Aug-98	10:15		-3		9		89	0.6	0.018	0.03
05-Aug-98	10:00		-6		**80**		86	0.6	**0.135**	**0.13**
19-Aug-98	9:15			2.9				-0.5	0.009	-0.01

TABLE 7
ALLUVIAL WELL NEAR PLUM CREEK WASTEWATER AUTHORITY WWTP (SITE 1W)
392520104542001
WATER-QUALITY DATA

DATE	TIME	pH, FIELD (STANDARD UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	TEMPERATURE (DEG C)	NITRATE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN TOTAL (MG/L as N)	PHOSPHORUS ORTHO, TOTAL (MG/L as P)	PHOSPHORUS, TOTAL (MG/L as P)	LABORATORY SAMPLE NUMBER
08-Apr-98	11:05	7.2	361	11.5	**2.51**	-0.01	**2.5**	0.101	**0.13**	L18034-01
23-Apr-98	9:10	6.8	333	11.6	2.08	-0.01	2.0	0.102	0.10	L18221-01
23-Apr-98	*9999*				*2.32*	*-0.01*	*2.7*	*0.104*	*0.12*	*L18221-06*
13-May-98	9:35	8.2	372	7.1	2.08	-0.01	2.4	0.081	0.10	L18509-09
27-May-98	8:55	7.2	344	12.0	2.42	-0.01	2.3	0.103	0.10	L18667-05
10-Jun-98	9:20	7.1	389	12.1	2.25	-0.01	2.3	**0.105**	0.08	L18895-05
24-Jun-98	10:15	7.1	348	13.0	2.19	-0.01	**2.5**	0.091	0.09	L19119-04

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE
BLANK RANGES INDICATE NO DATA WERE AVAILABLE.
TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.

TABLE 8
ALLUVIAL WELL NEAR TOWN OF SEDALIA (SITE 2W)
392620104574001
WATER-QUALITY DATA

DATE	TIME	pH, FIELD (STANDARD UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	TEMPERATURE (DEG C)	NITRATE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN TOTAL (MG/L as N)	PHOSPHORUS ORTHO, TOTAL (MG/L as P)	PHOSPHORUS, TOTAL (MG/L as P)	LABORATORY SAMPLE NUMBER
23-Apr-98	8:45	6.8	380	12.1	3.90	-0.01	2.8	**0.062**	0.04	L18221-02
13-May-98	9:15	7.8	443	11.9	3.61	-0.01	3.9	0.035	0.05	L18509-10
27-May-98	8:25	7.0	414	11.8	3.78	-0.01	3.6	0.053	0.04	L18667-04
27-May-98	*9999*				*3.73*	*-0.01*	*3.6*	*0.055*	*0.04*	*L18667-06*
10-Jun-98	8:45	7.1	449	13.6	3.46	-0.01	3.5	0.059	0.02	L18895-04
24-Jun-98	9:30	7.5	407	13.8	3.30	-0.01	3.5	0.044	**0.07**	L19119-03

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.
BLANK RANGES INDICATE NO DATA WERE AVAILABLE.
TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.
MAXIMUM DETECTABLE VALUE IS INDICATED IN **BOLD**.

TABLE 9
ALLUVIAL WELL IN TOWN OF CASTLE ROCK WELL FIELD (SITE 3W)
392145104513001
WATER-QUALITY DATA

DATE	TIME	pH, FIELD (STANDARD UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	TEMPERATURE (DEG C)	NITRATE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN, TOTAL (mg/L)	PHOSPHORUS ORTHO, TOTAL (mg/L as P)	PHOSPHORUS, TOTAL (mg/L as P)	LABORATORY SAMPLE NUMBER
23-Apr-98	9:45	6.8	394	11.7	3.74	-0.01	2.6	0.234	0.16	L18221-03
13-May-98	10:35	7.7	450	6.1	3.40	-0.01	3.6	0.247	0.28	L18509-11
27-May-98	9:50	6.8	388	12.5	3.73	-0.01	**3.7**	0.297	0.34	L18667-03
10-Jun-98	10:00	7.5	428	12.8	3.40	-0.01	3.5	0.297	0.25	L18895-03
24-Jun-98	11:00	6.8	393	13.2	3.25	-0.01	3.4	**0.391**	**0.50**	L19119-05

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.

BLANK RANGES INDICATE NO DATA WERE AVAILABLE.

TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.

TABLE 10

ALLUVIAL WELL AT FLYING C RANCH, SOUTH OF LOUVIERS (SITE 4W)

392905105000501

WATER-QUALITY DATA

DATE	TIME	pH, FIELD (STANDARD UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	TEMPERATURE (DEG C)	NITRATE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN TOTAL (MG/L as N)	PHOSPHORUS ORTHO, TOTAL (MG/L as P)	PHOSPHORUS TOTAL (MG/L as P)	LABORATORY SAMPLE NUMBER
23-Apr-98	8:30	6.9	249	15.9	-0.02	-0.01	-0.2	**0.005**	-0.01	L18221-04
13-May-98	8:45	7.2	281	16.1	-0.02	-0.01	-0.1	-0.005	-0.01	L18509-12
27-May-98	10:45	7.8	243	18.2	**0.06**	-0.01	-0.1	-0.005	-0.01	L18667-02
10-Jun-98	8:30	7.2	278	16.5	-0.02	-0.01	-0.1	-0.005	-0.01	L18895-02
24-Jun-98	9:10	7.4	258	18.1	-0.02	-0.01	-0.1	-0.005	**0.05**	L19119-02
24-Jun-98	*9999*				*-0.02*	*-0.01*	*0.1*	*-0.005*	*-0.01*	*L19119-06*

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.
BLANK RANGES INDICATE NO DATA WERE AVAILABLE.
TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.
MAXIMUM DETECTABLE VALUE IS INDICATED IN **BOLD**.

TABLE 11
ALLUVIAL WELL NEAR PLUM CREEK AT LOUVIERS ROAD (SITE 5W)
392905105000501
WATER-QUALITY DATA

DATE	TIME	pH, FIELD (STANDARD UNITS)	SPECIFIC CONDUCTANCE FIELD (US/CM)	TEMPERATURE (DEG C)	NITRATE (mg/L as N)	NITRITE (mg/L as N)	NITROGEN TOTAL (MG/L as N)	PHOSPHORUS ORTHO, TOTAL (MG/L as P)	PHOSPHORUS TOTAL (MG/L as P)	LABORATORY SAMPLE NUMBER
23-Apr-98	8:15	6.0	394	11.2	-0.02	-0.01	-0.1	0.012	-0.01	L18221-05
13-May-98	8:30	6.8	415	11.7	**0.03**	-0.01	0.2	-0.005	0.01	L18509-13
13-May-98	*9999*				*0.03*	*-0.01*	*0.2*	*-0.005*	*0.01*	*L18509-14*
27-May-98	8:00	5.9	392	10.7	**0.03**	-0.01	-0.1	0.008	0.01	L18667-01
10-Jun-98	8:10	7.0	408	11.7	-0.02	-0.01	**0.3**	0.010	0.01	L18895-01
24-Jun-98	8:40	6.3	398	11.8	-0.02	-0.01	-0.2	0.011	**0.06**	L19119-01

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE.

BLANK RANGES INDICATE NO DATA WERE AVAILABLE.

TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE SAMPLE IMMEDIATELY ABOVE.

APPENDIX A

PHYTOPLANKTON AND ZOOPLANKTON SPECIES AND DENSITY - 1998 CY

TABLE A-1
GROWING SEASON (JULY-THROUGH-SEPTEMBER)
TOTAL-PHOSPHORUS AND CHLOROPHYLL-a CONCENTRATIONS
CHATFIELD RESERVOIR

Year	Total-Phosphorus Concentration (mg/L)[1)2)]	Chlorophyll-a Concentration (ug/L)[1)3)]
1982	0.023	15
1983	0.050	16
1984	0.035	6.7
1985	0.028	8.9
1986	[4)]	[4)]
1987	0.077	5.7
1988	0.022	9.6
1989	0.009	3.9
1990	0.019	10.3
1991	0.024	2.4
1992	0.015	4.3
1993	0.015	4.2
1994	0.012	3.0
1995	0.009	3.8
1996	0.034	3.9
1997	0.012	2.4
1998	0.016	3.8
Mean	0.025	6.5
Std. Dev.	0.017	4.2
Maximum	0.077	16.0
Minimum	0.009	2.4
N	16	16

1) Average Reservoir values.
2) Growing-season standard = 0.027 mg/L.
3) Growing-season goal = 17 ug/L.
4) No data.

TABLE 1. Summary of results of phytoplankton analyses conducted for a sample collected at site RM-1, Chatfield Reservoir, 22 July 1998.

Taxa	Density (cells/mL)
BACILLARIOPHYTA (diatoms)	
Order Pennales	
Asterionella formosa var. *formosa*	29
Navicula sp.	15
Pinnularia sp.	15
CHLOROPHPYTA (green algae)	
Chlamydomonas sp.	58
Oocystis sp.	29
CYANOPHYTA (blue-green algae)	
Aphanizomenon flos-aquae	4,933
Aphanocapsa delicatissima	1,741
Chroococcus limneticus	813
Oscillatoria sp.	580
EUGLENOPHYTA (euglenids)	
Trachelomonas sp.	58
CYRPTOPHYTA (cryptomonadids)	
Cyrptomonas erosa	377
TOTAL DENSITY (cells/mL)	**8,648**
TOTAL NUMBER OF TAXA	**11**

Chatfield Reservoir Phytoplankton
July 1998

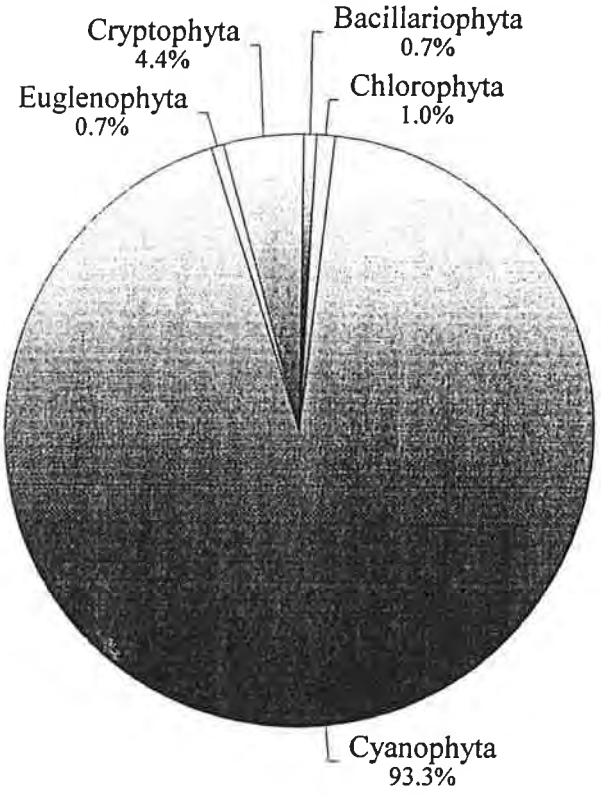


FIGURE 1. - Relative abundance (%) of phytoplankton sampled from site RM-1, Chatfield Reservoir, Colorado, July 22, 1998.

TABLE 2. Summary of results of phytoplankton analyses conducted for a sample collected at site RM-1, Chatfield Reservoir, 19 August 1998.

Taxa	Density (cells/mL)
BACILLARIOPHYTA (diatoms)	
Order Pennales	
Navicula sp.	29
CHLOROPHPYTA (green algae)	
Chlamydomonas sp.	290
CYANOPHYTA (blue-green algae)	
Aphanizomenon flos-aquae	4,324
Aphanocapsa delicatissima	580
Mersmopedia tennuissima	1,393
CHRYSOPHYTA (golden algae)	
Dinobryon bavaricum	203
EUGLENOPHYTA (euglenids)	
Trachelomonas sp.	58
CYRPTOPHYTA (cryptomonadids)	
Cyrptomonas erosa	203
TOTAL DENSITY (cells/mL)	**7,080**
TOTAL NUMBER OF TAXA	**8**

Chatfield Reservoir Phytoplankton
August 1998

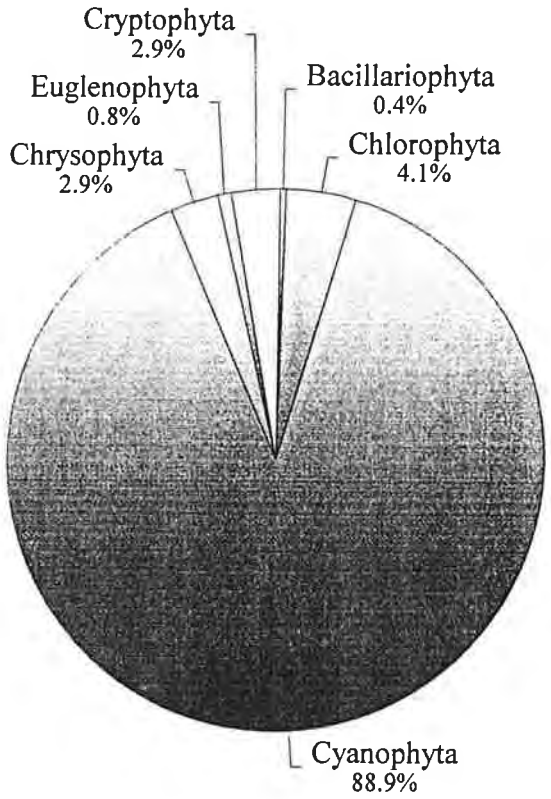


FIGURE 2. - Relative abundance (%) of phytoplankton sampled from site RM-1, Chatfield Reservoir, Colorado, August 19, 1998.

TABLE 3. Summary of results of phytoplankton analyses conducted for a sample collected at site RM-1, Chatfield Reservoir, 16 September 1998.

Taxa	Density (cells/mL)
BACILLARIOPHYTA (diatoms)	
Order Centrales	
Stepnanodiscus astraea	667
Order Pennales	
Fragilaria crotonensis var. *crotonensis*	435
CHLOROPHPYTA (green algae)	
Chlamydomonas sp.	29
Unidentified filamentous Chlorophyta	464
CYANOPHYTA (blue-green algae)	
Aphanocapsa delicatissima	5,804
CHRYSOPHYTA (golden algae)	
Dinobryon bavaricum	290
TOTAL DENSITY (cells/mL)	**7,689**
TOTAL NUMBER OF TAXA	**6**

Chatfield Reservoir Phytoplankton
September 1998

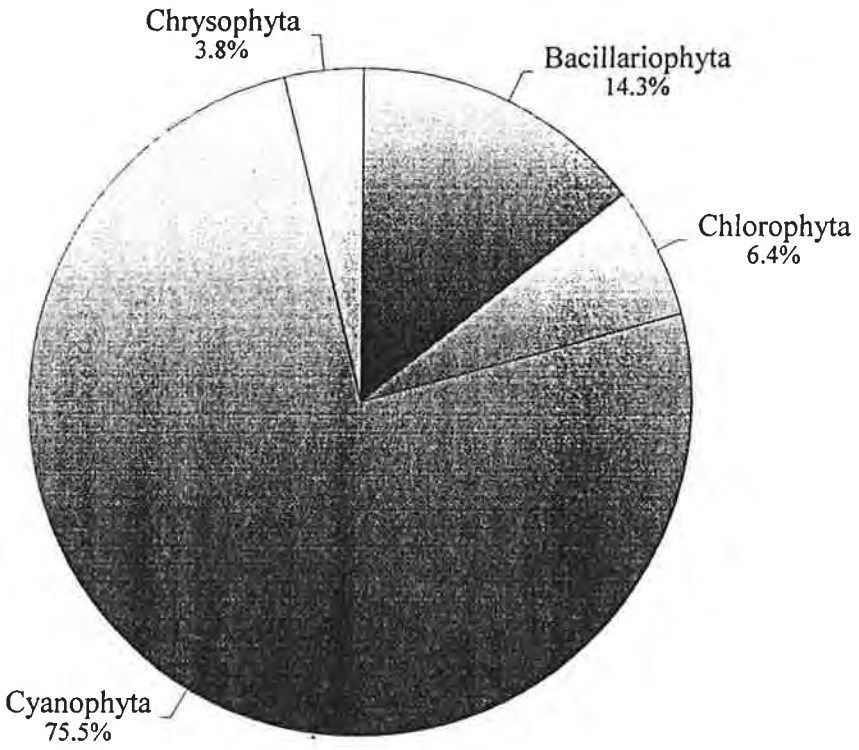


FIGURE 3. - Relative abundance (%) of phytoplankton sampled from site RM-1, Chatfield Reservoir, Colorado, September 16, 1998.

TABLE 4. Summary of results of zooplankton anaylses conducted for a composite sample collected at site RM, Chatfield Reservoir, 19 August 1998.

Taxa	Mean Density in Concentrate (organisms/mL)	Specific Density in Lake (organisms/mL)	General Density in Lake (organisms/mL)
ROTIFERS (rotifers)			
Asplanchna sp.	8.4	12.79	13
Conochiloides sp.	1.6	2.44	2
Kellicottia sp.	1.6	2.44	2
Keratella sp.	4.4	6.70	7
CLADOCERA (water fleas)			
Bosmina longirostris	1.0	1.52	2
Daphnia pulex	2.0	3.05	3
Daphnia rosea	2.6	3.96	4
COPEPODA (copepods)			
Canthocamptus sp.	0.6	0.91	1
Cyclops sp.	41.8	63.66	64
Leptodiaptomus sp.	0.8	1.22	1
Tropocyclops prasinu	2.2	3.35	2
TOTAL DENSITY (cells/mL)	67.0	**102.05**	**102**
TOTAL NUMBER OF TAXA	11.0	**11.00**	**11**

Chatfield Reservoir Zooplankton
August 1998

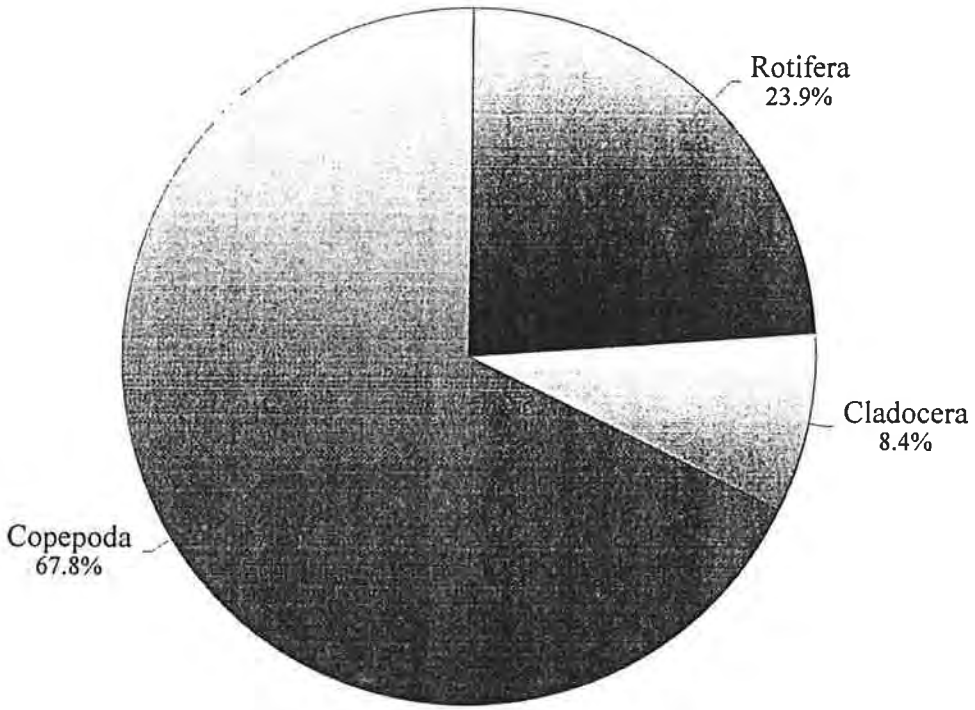


FIGURE 4. - Relative abundance (%) of zooplankton sampled from site RM, Chatfield Reservoir, Colorado, August 19, 1998.

CHATFIELD RESERVOIR PHYTOPLANKTON (ALGAL) SAMPLES FOR

GENUS/SPECIES	DATES		
	JULY 22	AUG. 19	SEPT. 16
Anabaena circinalis (BG)	22	41	--
Aphanizomenon flos-aquae (BG)	375	1632	--
Asterionella formosa (D)	52	36	14
Campylomonas reflexa (Cr)	--	7	--
Campylomonas rostratiformis (Cr)	--	--	--
Ceratium hirundinella (Di)	3	46	9
Chlorella minuta (G)	347	2145	451
Chromonas coerulea (Cr)	5	2	--
Cryptomonas marssonii (Cr)	33	33	--
Cryptomonas ovata (Cr)	1	21	--
Diatoma vulgare (D)	2	--	--
Didymocystis inconspicua (G)	42	--	--
Dinobryon divergens (C)	11	< 1	89
Fragilaaria crotonensis (D)	28	27	206
Komma caudata (Cr)	--	5	--
Mallomonas akrokomos (C)	--	5	5
Melosira (Aulacosira) granulata (D)	14	184	235
Nephrocystium agardhianum(G)	7	--	--
Oocystis lacustris (G)	7	9	16
Oocystis parva (G)	--	14	--
Plagioselmis nanoplanctica (Cr)	2	2	--
Sphaerocystis schroeteri (G)	599	5	--
Staurastrum chaetoceros (G)	--	--	--
Stephanodiscus astreae (D)	--	--	6
Sorcatula sp. (Cr)	--	1	--
Tabellaria fenestrata (D)	--	--	--
Urogelna americana (C)	--	--	--
TOTAL CELLS/ML	**1625**	**4215**	**1031**

NOTE: In parentheses: BG = Blue-green algae; C = Chrysophyte, Cr = cryptomonad; D = diatom; Di = dinoflagellate; E =euglenoids; G = green algae.

COMMENTS ON CHATFIELD RESERVOIR SAMPLES

The preservation of samples was poor, and it made it extremely difficult to identify non-diatom phytoplankton in the samples, particularly the cryptomonads. Only cells that contained cytoplasmic remnants were counted.

The samples were analyzed with the Utermohl technique using an inverted microscope.

Considerable debris and particulates in some samples made identification of nanoplankton even more difficult.

APPENDIX B

WATER-COLUMN INDICATOR-VARIABLE PROFILES
1998 CY MONITORING PROGRAM

TABLE B-1
CHATFIELD IN-RESERVOIR DEPTH-PROFILE DATA
SITE 7 (RM)

January 14, 1998, 0830 hours				
DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.9	281	10.2	3.0
2	8.6	283	10.6	3.0
3	8.5	283	9.7	3.2
4	8.5	282	9.7	3.3
5	8.4	282	9.8	3.4
6	8.2	281	10.0	3.6
7	7.9	280	10.1	3.8
8	7.5	278	10.7	3.8

February 11, 1998, 850 hours				
DEPTH (meters)	pH	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.5	310	10.1	4.1
2	8.4	311	10.4	4.1
3	8.3	317	10.7	4.1
4	8.3	319	10.6	3.9
5	8.0	322	10.4	3.7

March 18, 1998, 930 hours				
DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.3	318	12.3	5.9
2	8.3	318	12.3	5.9
3	8.3	318	12.0	5.9
4	8.3	318	12.4	5.9
5	8.3	318	12.3	5.9
6	8.3	317	12.4	5.9
7	8.3	317	12.6	5.9
8	8.3	317	12.6	5.9
9	8.3	317	12.5	6.0
10	8.1	317	12.4	6.0

TABLE B-1
CHATFIELD IN-RESERVOIR DEPTH-PROFILE DATA
SITE 7 (RM)

April 15, 1998, 920 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.4	314	10.9	9.2
2	8.3	314	10.6	9.1
3	8.3	314	11.1	9.1
4	8.3	314	11.1	9.1
5	8.3	314	11.0	9.1
6	8.3	314	11.1	9.1
7	8.3	314	11.2	9.1
8	8.3	314	10.8	9.1
9	8.3	314	11.2	9.0
10	8.1	315	10.8	9.0

May 14, 1998, 1045 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.5	199	9.8	14.3
2	8.5	201	9.8	14.3
3	8.6	201	9.9	14.0
4	8.6	202	9.7	13.8
5	8.6	202	9.8	13.8
6	8.5	202	9.8	13.8
7	8.5	202	9.8	13.2
8	8.4	202	9.8	12.8
9	8.4	202	9.8	12.5
10	8.4	198	9.5	12.3

June 10, 1998, 1130 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	7.9	181	9.5	15.9
2	7.9	181	9.3	15.9
3	7.8	183	9.3	15.8
4	7.8	183	9.2	15.8
5	7.8	183	9.2	15.7
6	7.7	179	8.8	15.4
7	7.7	175	7.6	15.0
8	7.8	176	8.0	14.5
9	7.7	173	8.0	14.3
10	7.7	173	8.0	14.5

TABLE B-1
CHATFIELD IN-RESERVOIR DEPTH-PROFILE DATA
SITE 7 (RM)

July 9, 1998, 1040 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	7.9	212	11.8	21.4
2	7.9	211	11.6	21.5
3	7.6	212	11.8	21.3
4	7.4	208	8.5	19.0
5	7.5	207	9.1	18.7
6	7.4	207	8.5	18.5
7	7.3	207	8.4	18.3
8	7.2	207	8.9	18.2
9	7.2	206	9.0	18.2
10	7.1	206	8.8	18.1

July 23, 1997, 0850 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	7.9	207	8.6	22.5
2	7.8	207	8.6	22.4
3	7.7	207	8.5	22.2
4	7.6	205	7.3	21.0
5	7.4	201	6.8	19.7
6	7.3	201	6.4	18.9
7	7.3	203	6.5	18.6
8	7.2	201	6.0	18.4
9	7.2	200	5.7	18.2
10	7.1	200	5.1	17.9

August 5, 1997, 1030 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.0	209	8.2	20.5
2	7.8	209	8.3	20.2
3	7.8	209	8.3	20.1
4	7.7	209	8.5	19.9
5	7.7	209	8.5	19.9
6	7.7	209	8.0	19.8
7	7.6	209	7.9	19.8
8	7.6	209	8.1	19.8
9	7.6	209	7.8	19.8
10	7.9	209	7.7	19.8

TABLE B-1
CHATFIELD IN-RESERVOIR DEPTH-PROFILE DATA
SITE 7 (RM)

August 19, 1998, 0915 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.0	229	8.0	20.6
2	7.9	229	8.3	20.6
3	8.0	230	8.1	20.6
4	7.9	230	7.9	20.5
5	7.8	231	7.8	20.4
6	7.6	230	6.9	19.9
7	7.5	226	5.7	18.9
8	7.4	225	5.3	18.5
9	7.4	224	5.0	18.4
10	7.5	223	4.4	18.1

September 3, 1998, 0945 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.2	241	9.3	20.8
2	8.3	241	9.2	20.8
3	8.3	241	9.3	20.7
4	8.2	241	9.3	20.6
5	8.1	241	9.3	20.6
6	7.9	242	8.9	20.3
7	7.4	239	4.9	19.3
8	7.5	240	5.1	19.0
9	7.5	239	4.6	18.9

September 16, 1998, 0930 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.0	247	8.9	19.5
2	7.9	247	8.9	19.5
3	7.8	246	8.5	19.5
4	7.8	246	8.7	19.5
5	7.8	246	8.7	19.5
6	7.8	246	8.5	19.5
7	7.7	246	8.6	19.5
8	7.7	246	8.1	19.5
9	7.6	243	6.4	19.4

TABLE B-1
CHATFIELD IN-RESERVOIR DEPTH-PROFILE DATA
SITE 7 (RM)

October 14, 1998, 1150 hours

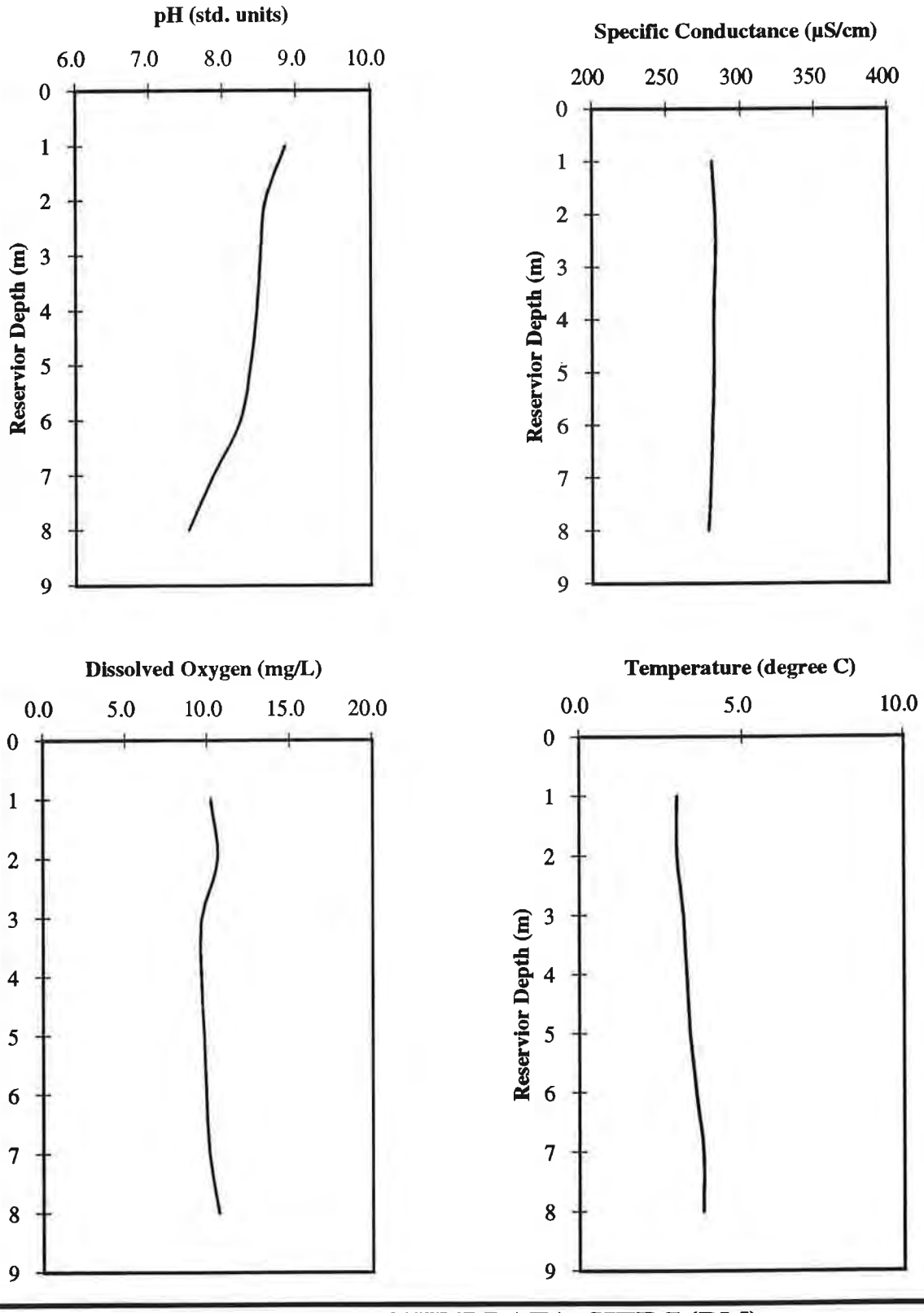
DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	7.7	269		13.6
2	7.8	269		13.5
3	7.8	269		13.5
4	7.8	269	No Data	13.5
5	7.6	269		13.5
6	7.5	270		13.5
7	7.5	270		13.4
8	7.5	270		13.5
9	7.5	270		13.5
10	7.5	270		13.5

November 11, 1998, 0940 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.2	285	11.0	6.5
2	8.1	284	10.8	6.4
3	8.1	286	10.7	6.4
4	8.1	286	10.8	6.4
5	8.1	286	10.5	6.3
6	8.0	286	11.2	6.3
7	8.0	287	10.9	6.3
8	8.0	287	11.4	6.2
9	7.9	288	11.3	6.0
10	7.9	289	11.4	5.9

December 8, 1998, 0940 hours

DEPTH (meters)	pH (s.u.)	SC (uS/cm)	DO (mg/L)	TEMP. (deg C)
1	8.3	283	12.3	4.2
2	8.3	283	12.3	4.2
3	8.3	283	12.3	4.2
4	8.2	283	12.3	4.2
5	8.1	283	12.3	4.2
6	8.0	283	12.3	4.1
7	7.9	283	12.3	4.1
8	7.9	283	12.4	4.1
9	7.8	283	12.3	4.1
10	7.8	283	12.4	4.1



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - JANUARY 14, 1998

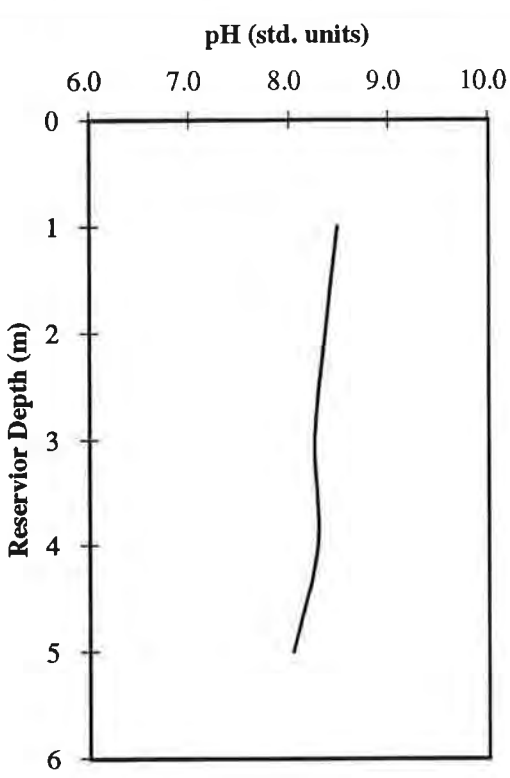
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

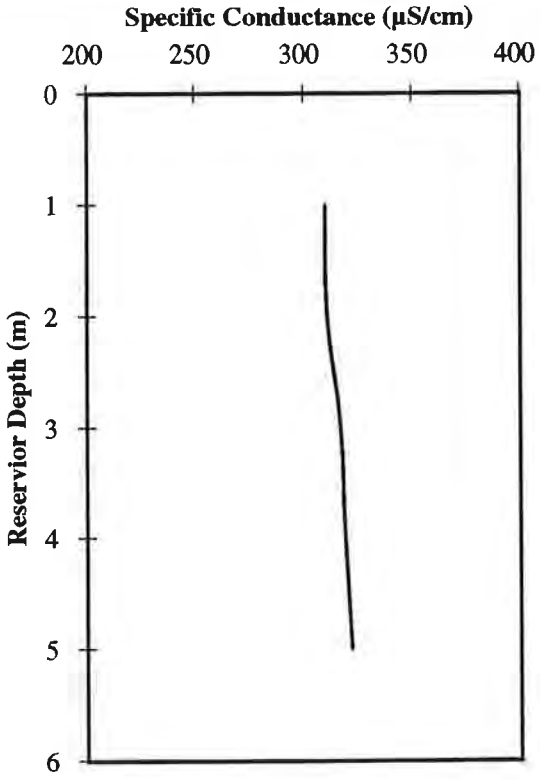
Project No. 8206.02

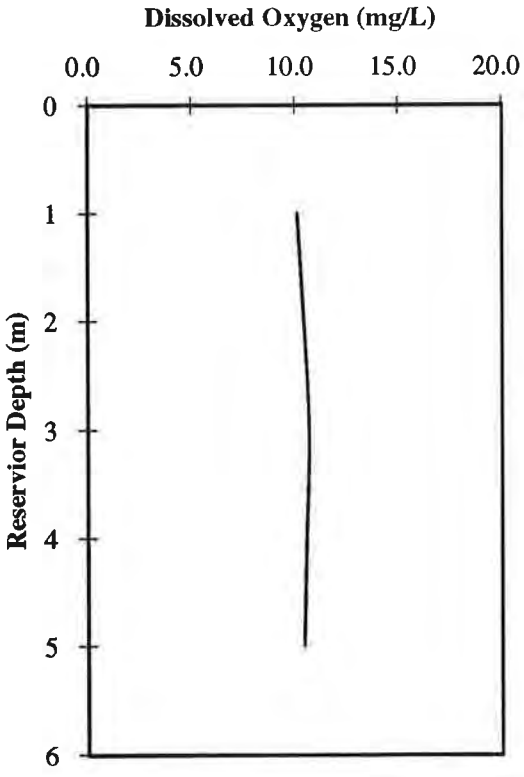
Figure B-1

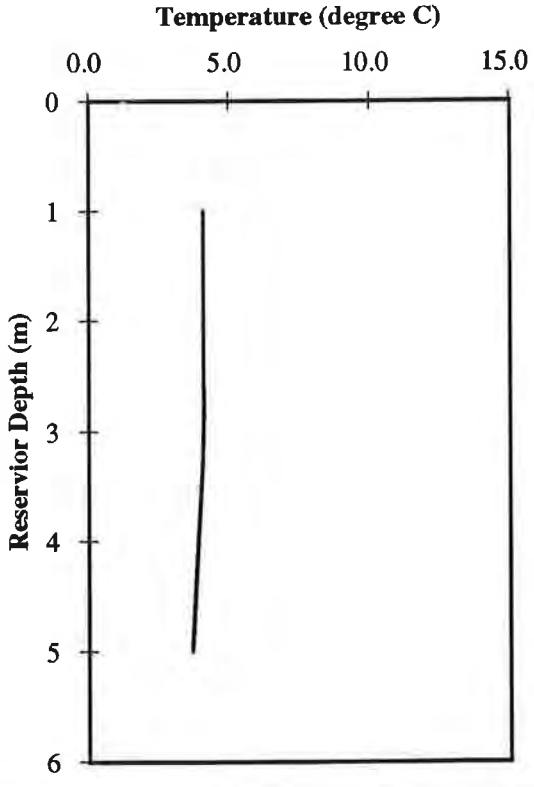
File: 98-Apx-B Res Profiles

Status Date: 2/12/99









IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - FEBRUARY 11, 1998

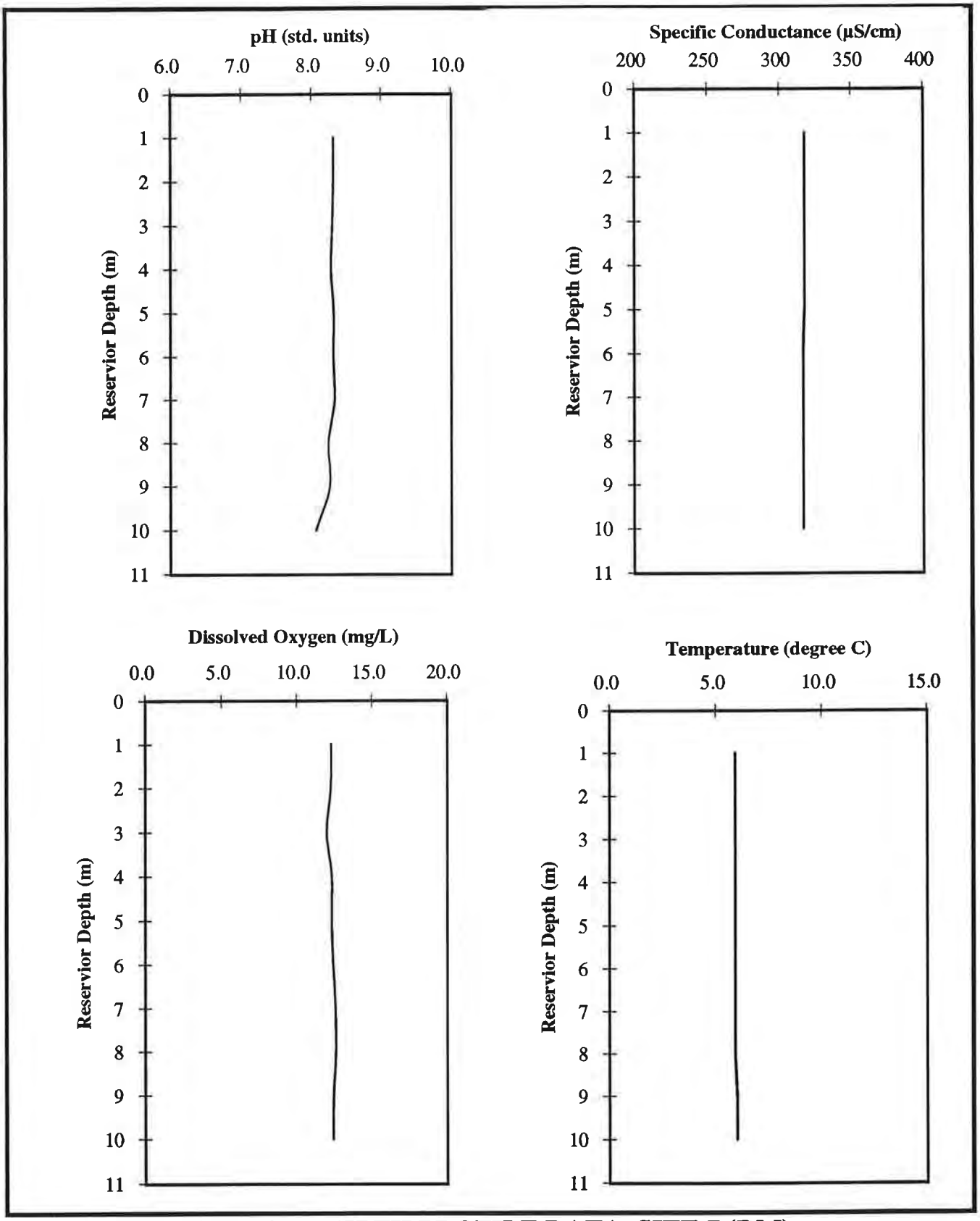
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-2

File: 98-Apx-B Res Profiles

Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - MARCH 18, 1998

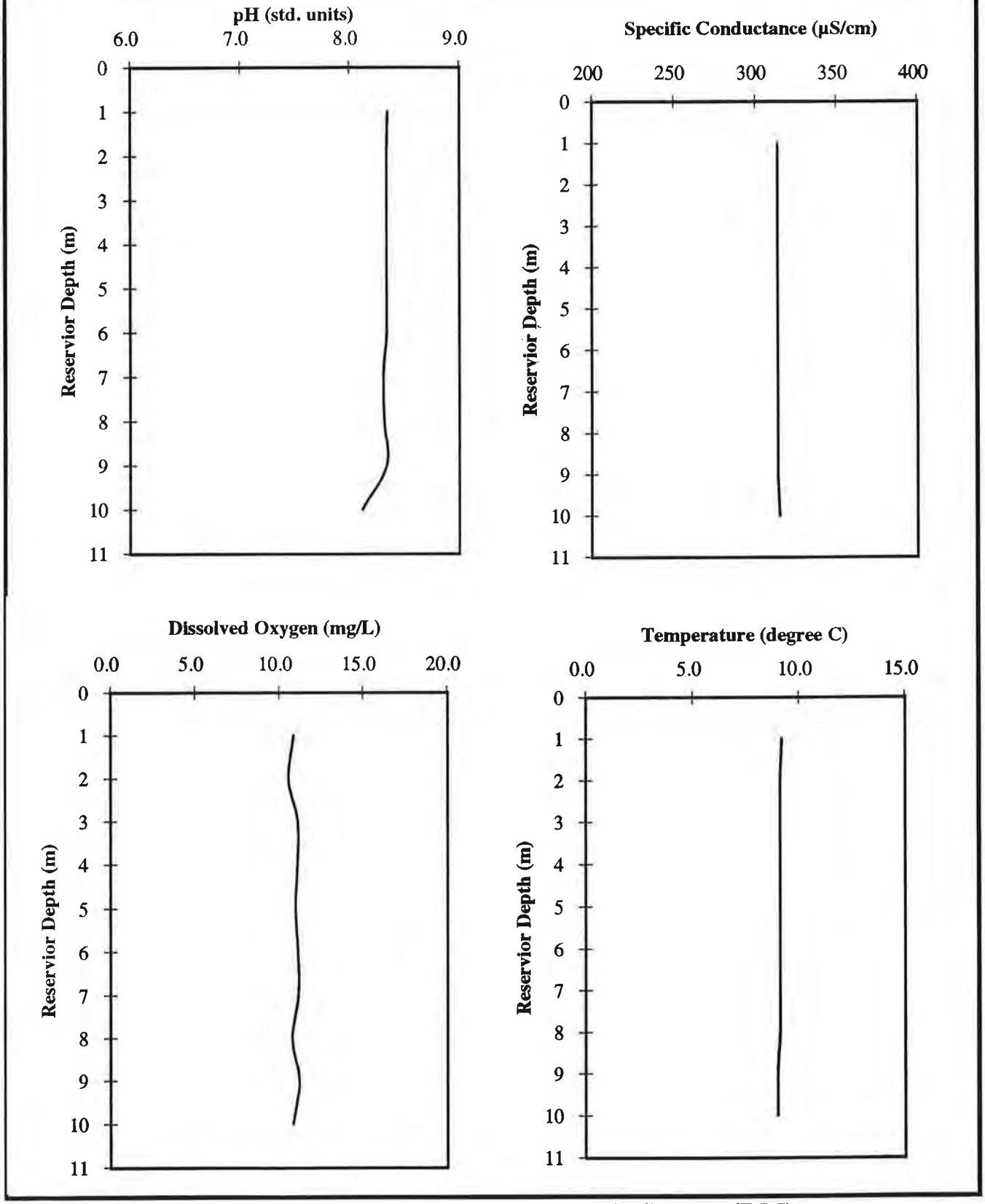
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-3

File: 98-Apx-B Res Profiles

Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - APRIL 15, 1998

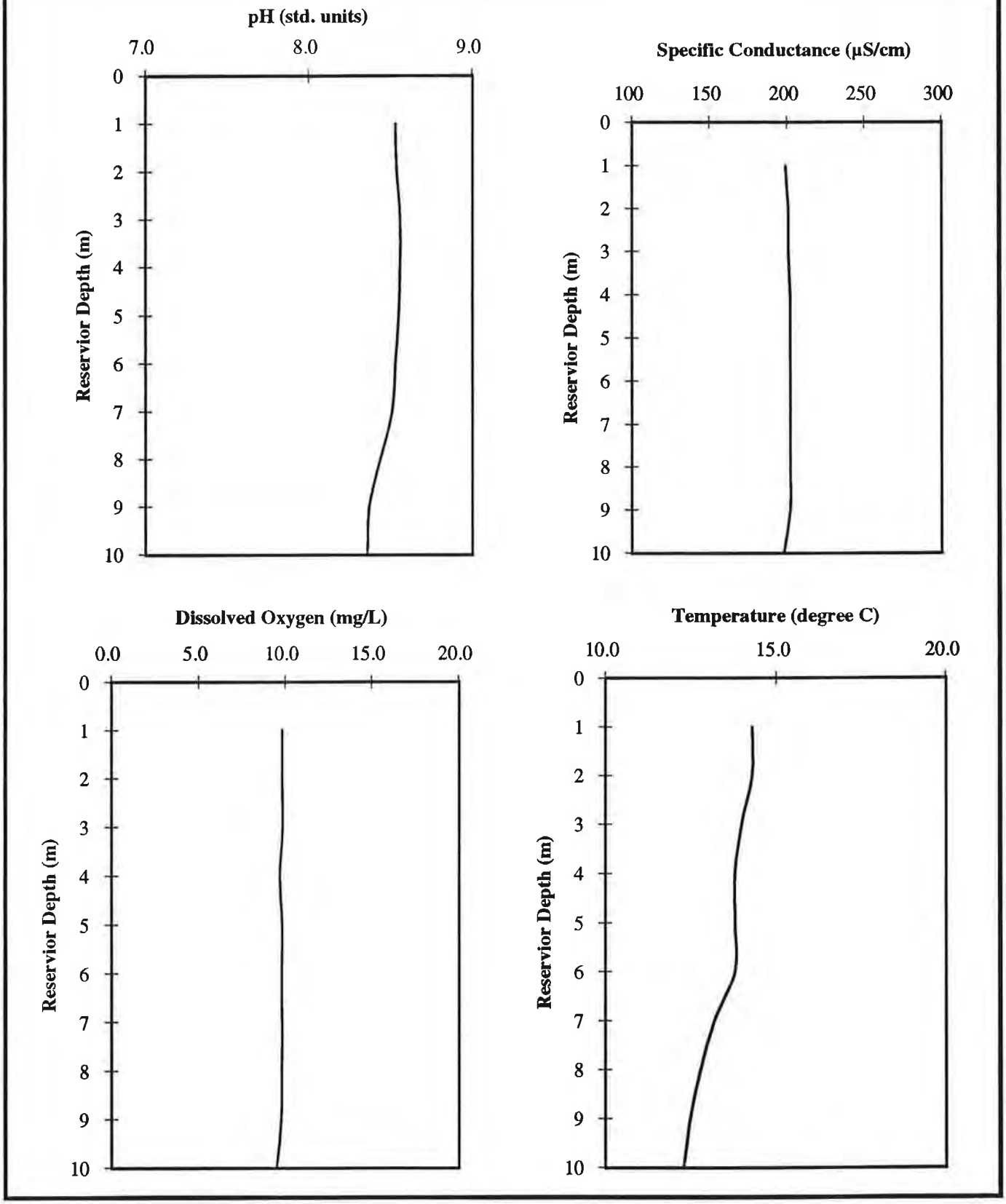
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-4

File: 98-Apx-B Res Profiles

Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - May 14, 1998

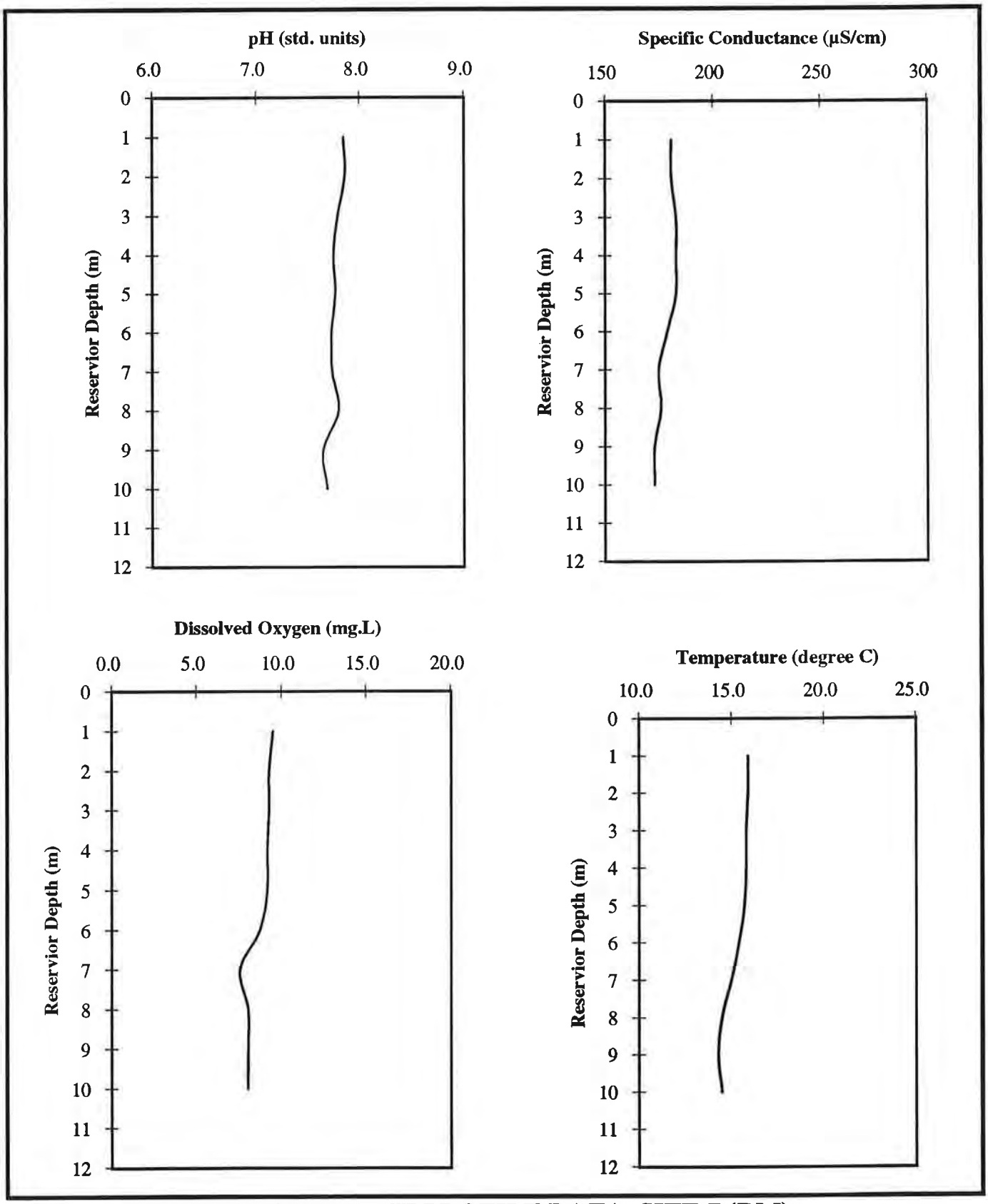
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

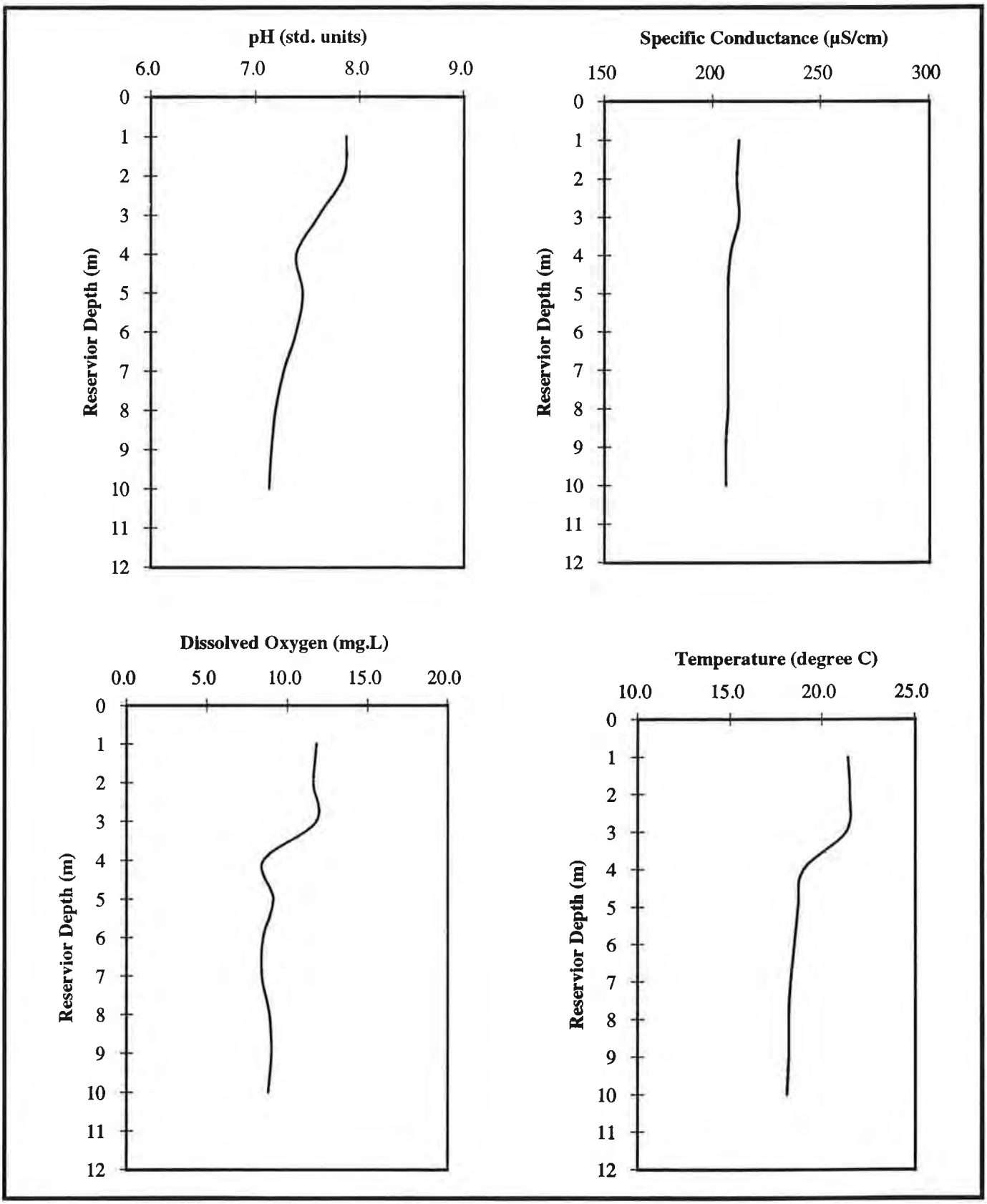
Figure B-5

File: 98-Apx-B Res Profiles

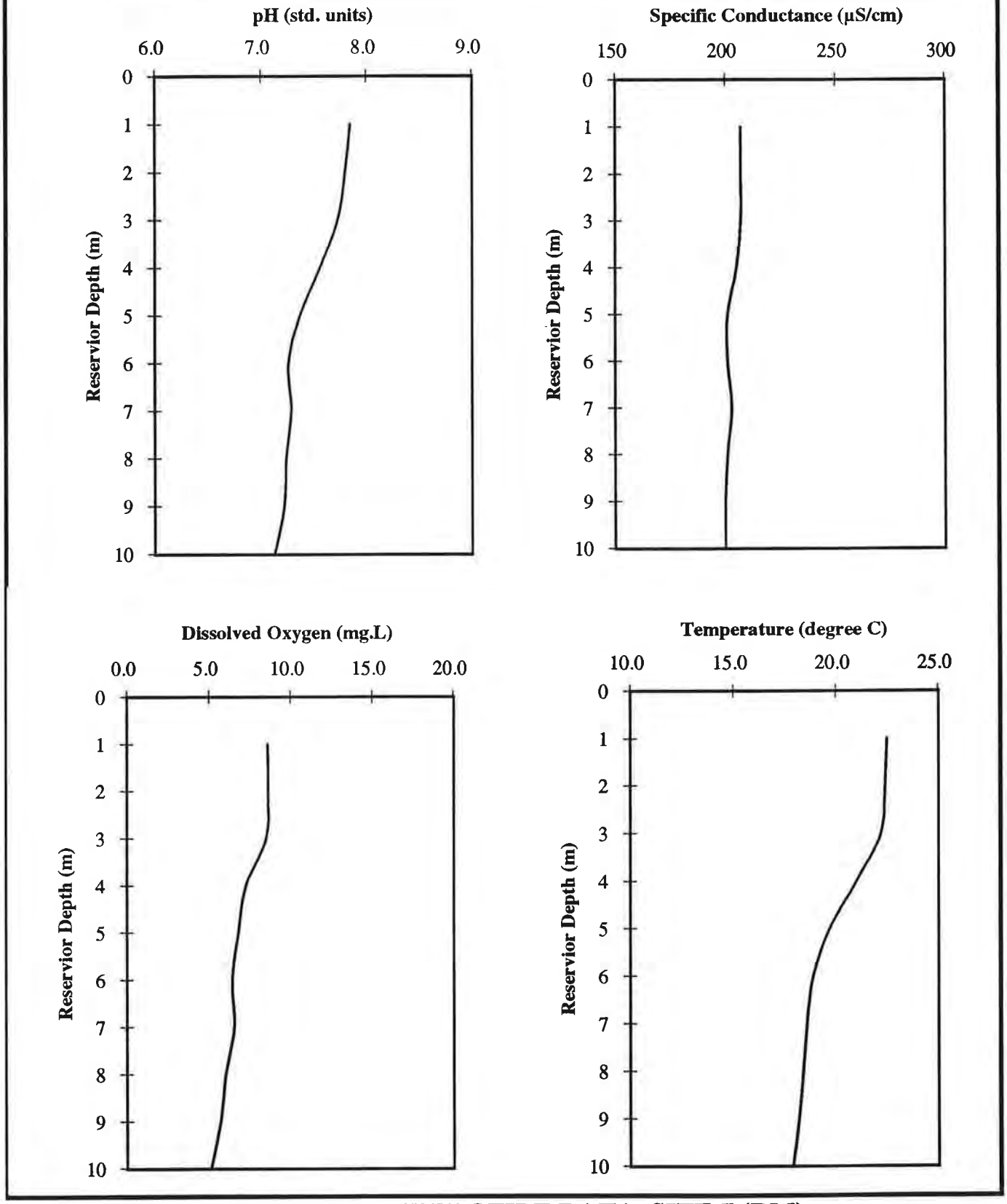
Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - JUNE 10, 1998



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - JULY 9, 1998



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - JULY 22, 1998

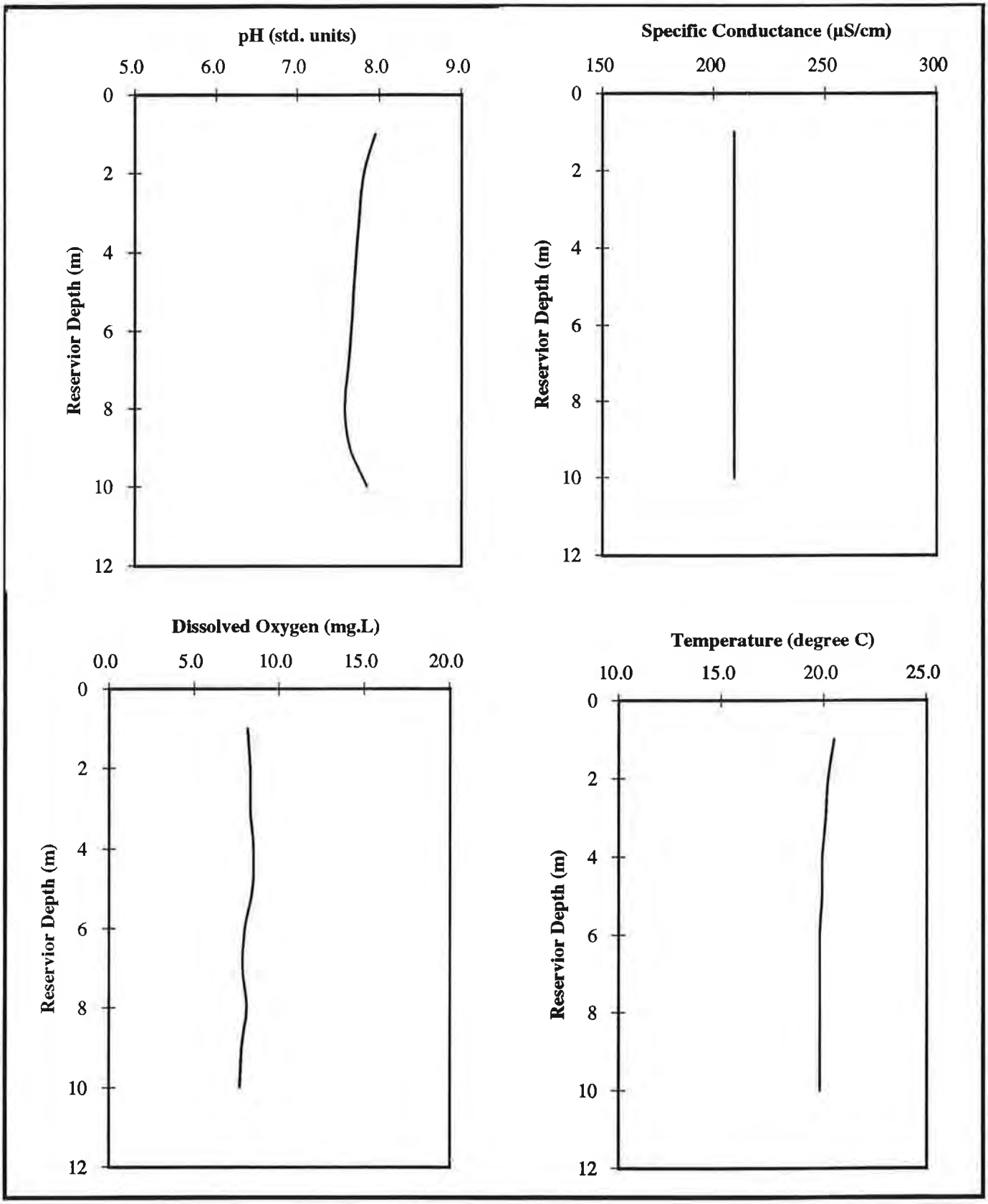
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-8

File: 98-Apx-B Res Profiles

Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - AUGUST 5, 1998

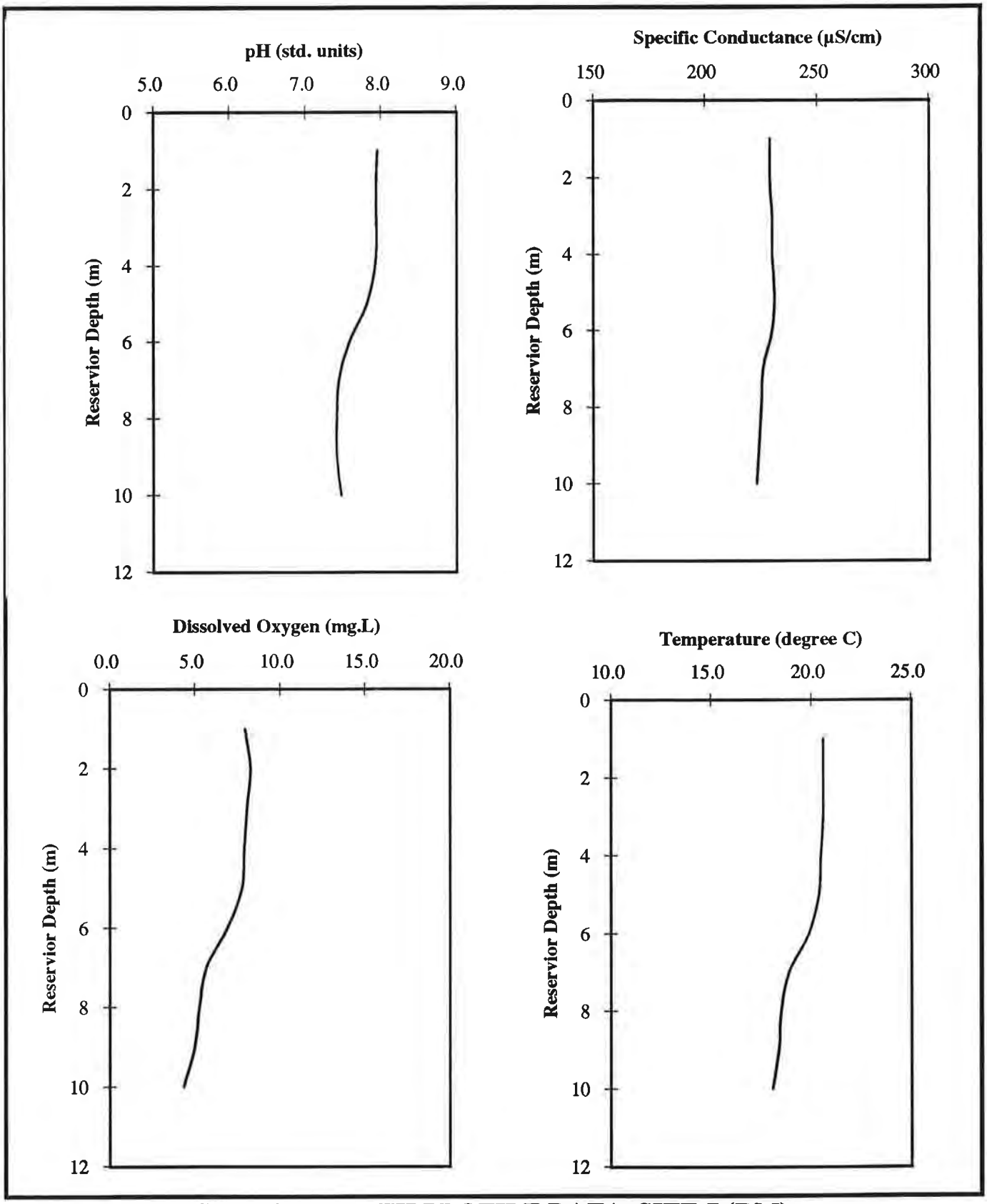
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-9

File: 98-Apx-B Res Profiles

Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - AUGUST 19, 1998

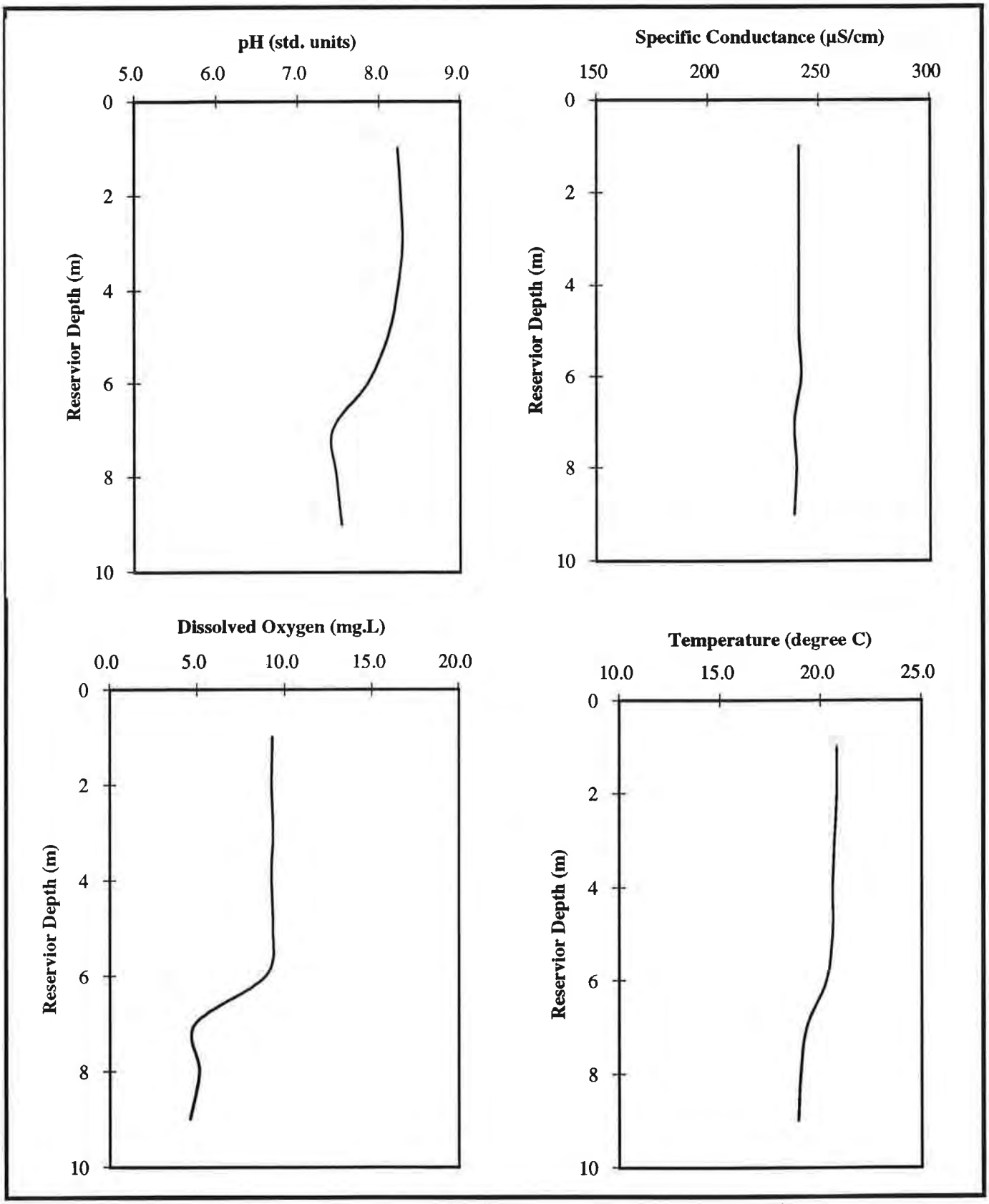
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-10

File: 98-Apx-B Res Profiles

Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - SEPTEMBER 3, 1998

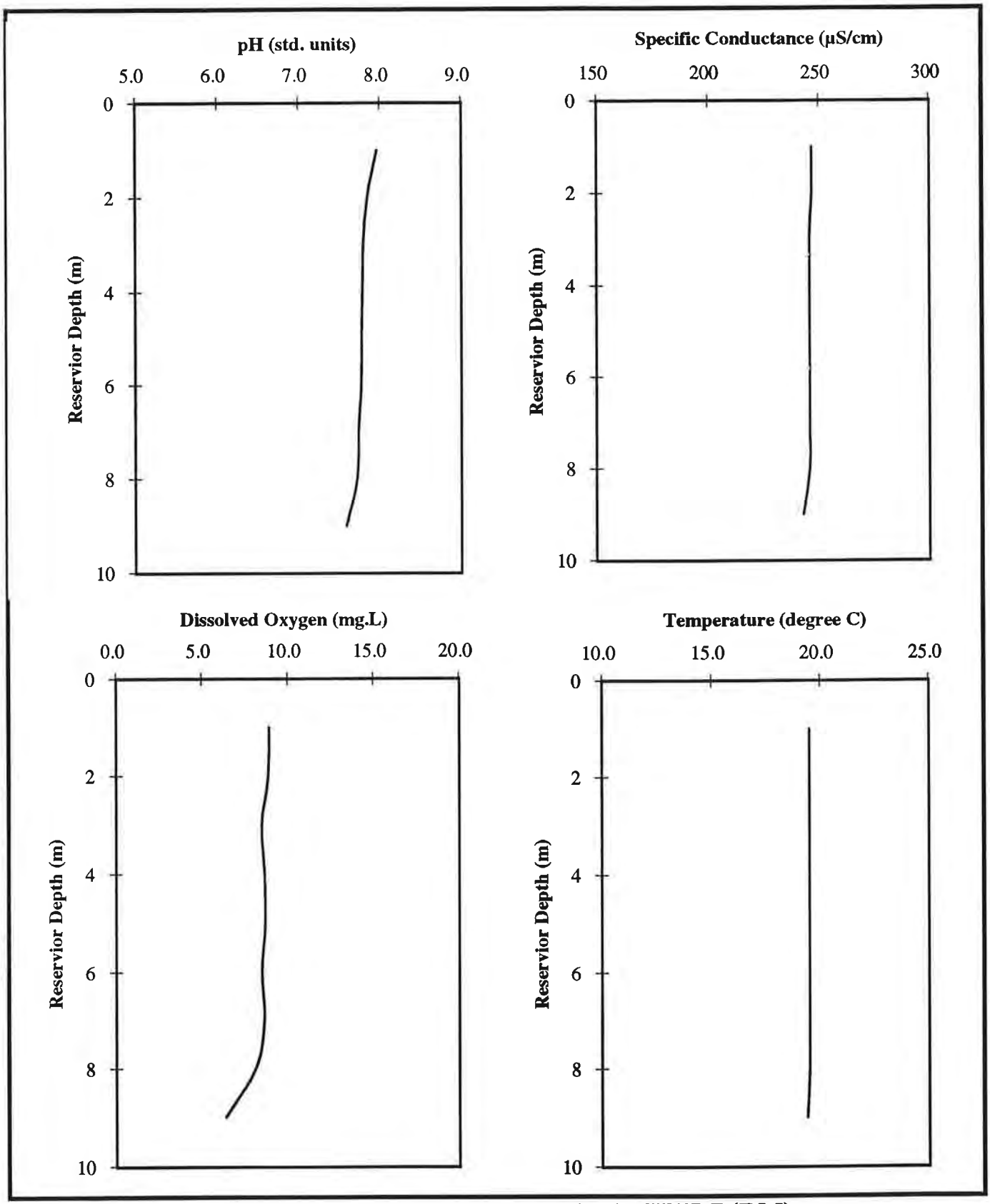
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-11

File: 98-Apx-B Res Profiles

Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - SEPTEMBER 16, 1998

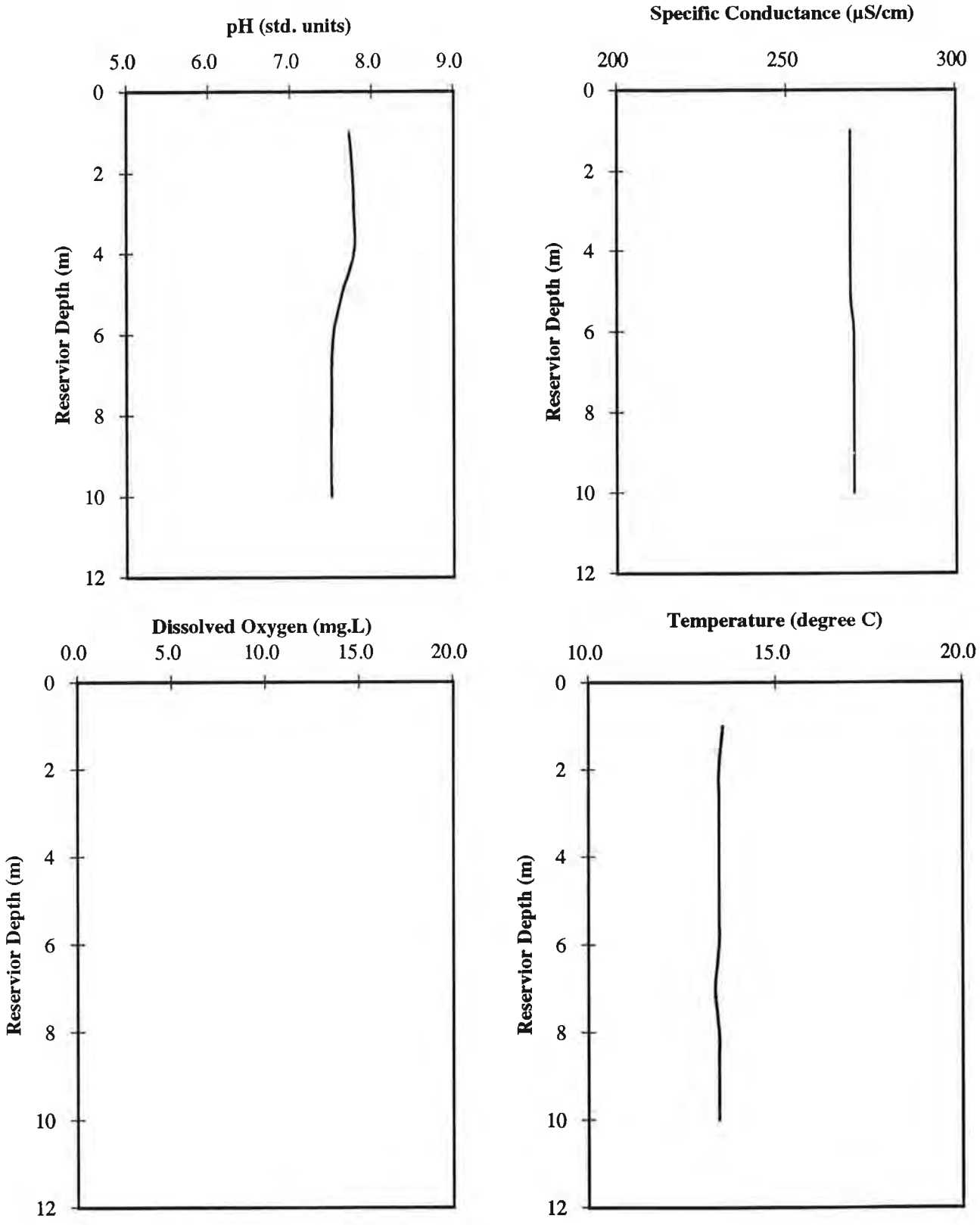
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-12

File: 98-Apx-B Res Profiles

Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - OCTOBER 14, 1998

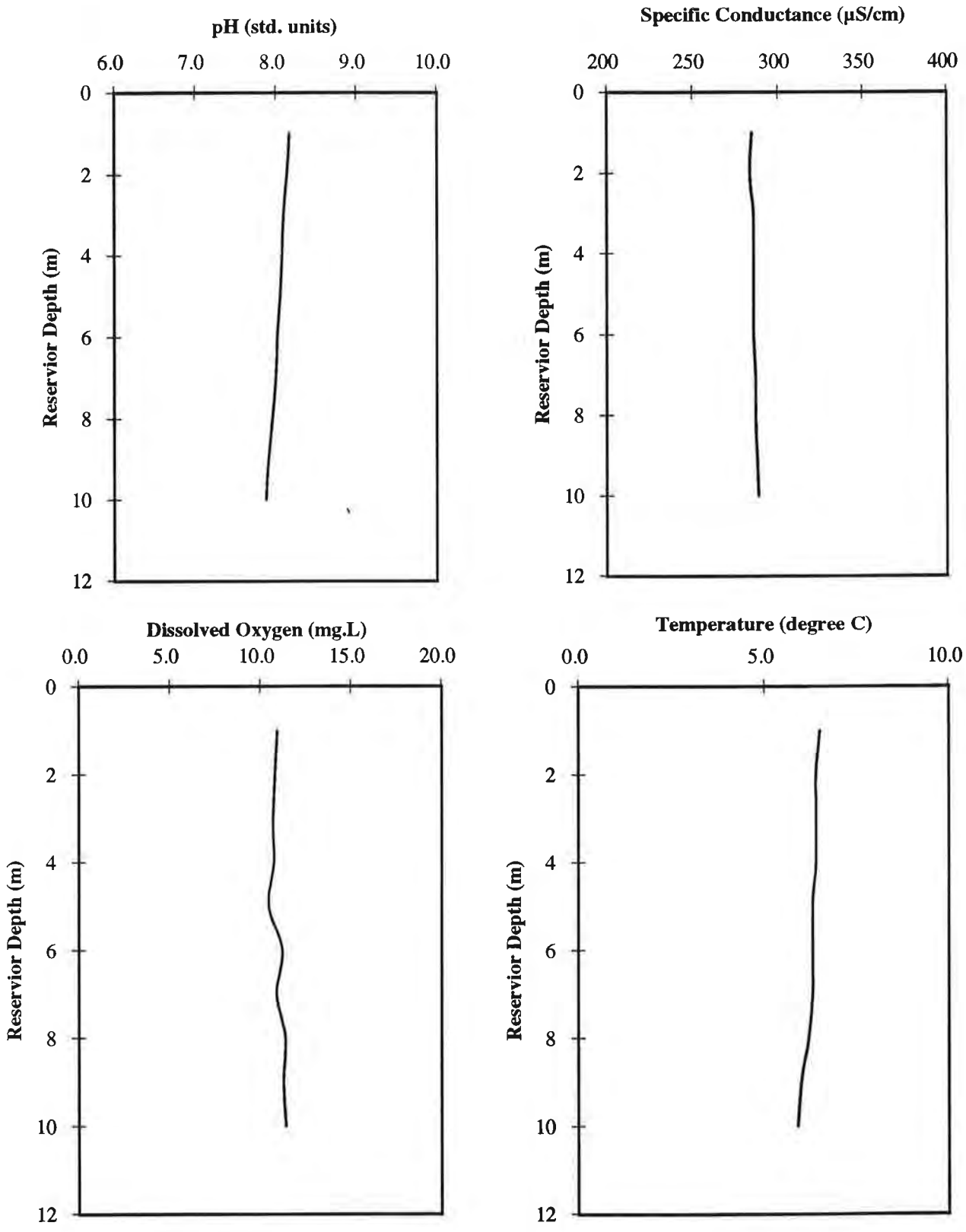
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-13

File: 98-Apx-B Res Profiles

Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - NOVEMBER 11, 1998

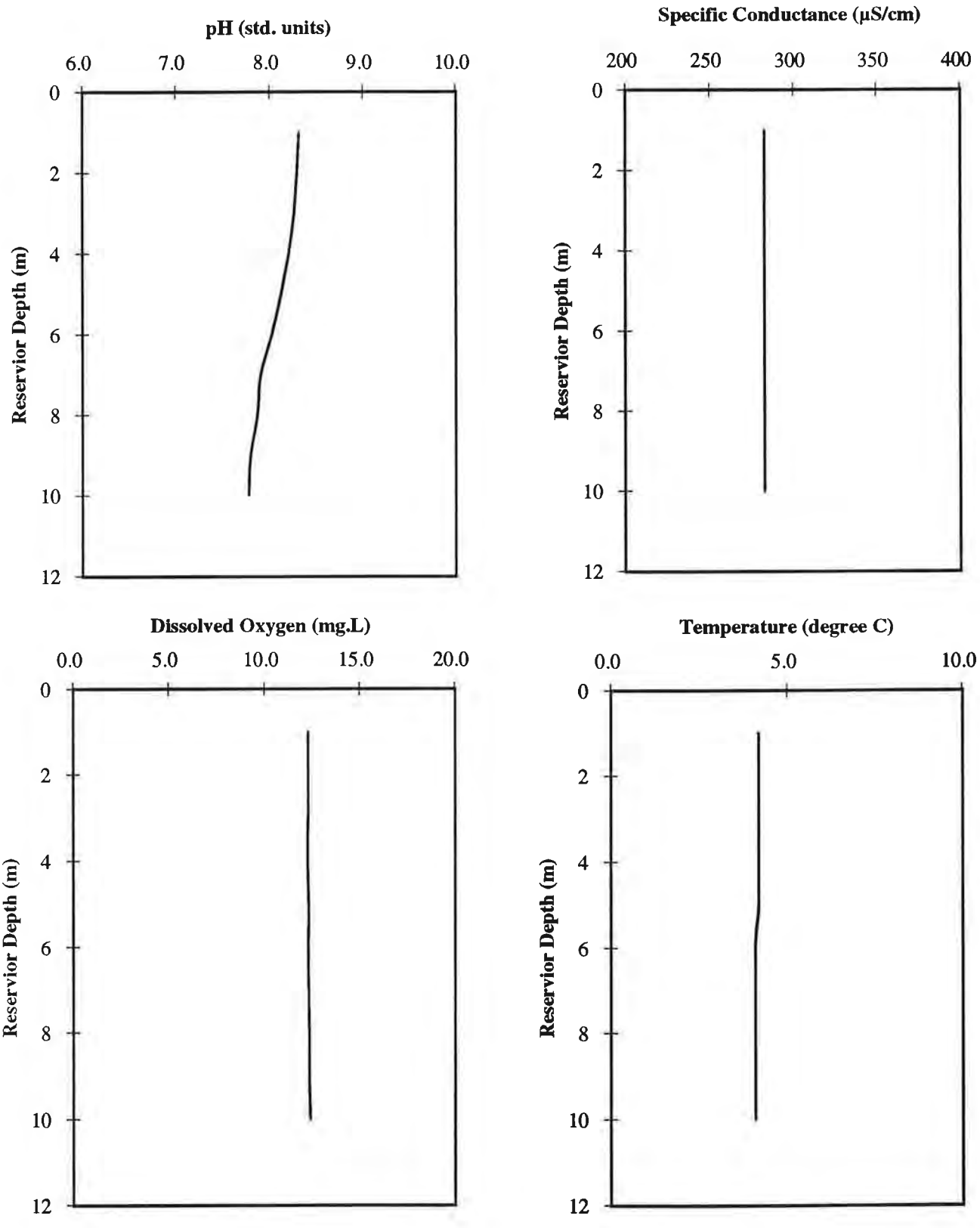
CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-14

File: 98-Apx-B Res Profiles

Status Date: 2/12/99



IN-RESERVOIR DEPTH PROFILE DATA, SITE 7 (RM)
CHATFIELD RESERVOIR - DECEMBER 1, 1998

CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

Project No. 8206.02

Figure B-15

File: 98-Apx-B Res Profiles

Status Date: 2/12/99