APPENDIX D

Hotel Creek Surface Water Data

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Hotel Creek Surface Water Data

Water quality monitoring has been required as part of the Environmental Monitoring of the Mill Seat Facility. Five locations have been monitored since 1993 and these are shown on the Sample Location Map included in this appendix. The locations are designated S-1, S-2, S-3, S-5 and S-8. Sample point S-8 is located several miles from the facility and is shown on the inset map on the Sample Location Map.

Sample point S-1 is the most upstream point and is located just east of Interstate Route 490 along Hotel Creek in the vicinity of Wetland RG-5. Sample point S-2 is located just west of Brew Road along Hotel Creek in the vicinity of Wetland RG-5. Sample point S-3 is located on a tributary north of Hotel Creek in Wetland RG-7. Sample point S-5 is located just east of Johnson Road on Hotel Creek. Sample point S-8 is the farthest downstream point and is located along Hotel Creek in the vicinity in which it crosses New York State Route 33A. All of these points, with the exception of S-1, have the potential of receiving surface water flows from the landfill site.

O'Brien & Gere provided selected data from the monitoring of Hotel Creek, including surface water temperature, dissolved oxygen, biological oxygen demand, chemical oxygen demand, pH, total dissolved solids and turbidity for the sample locations discussed above. For sample locations S-1, S-2, S-3 and S-5, quarterly data was available for all of the parameters over the entire time period. For sample location S-8, monthly data was available for surface water temperature and dissolved oxygen with the remaining parameters available from quarterly sampling. In addition to this data, MMCE obtained air temperature data for the entire time period from the Rochester Airport.

The following graphs were created for sample locations S-1, S-2, S-3 and S-5:

- April Surface Water and Air Temperature versus Time
- July Surface Water and Air Temperature versus Time
- October Surface Water and Air Temperature versus Time
- Dissolved Oxygen versus Time (Quarterly)
- Biological Oxygen Demand versus Time (Quarterly)
- Chemical Oxygen Demand versus Time(Quarterly)

- pH versus Time (Quarterly)
- Total Dissolved Solids versus Time (Quarterly)
- Turbidity versus Time (Quarterly)

The following graphs were created for sample location S-8:

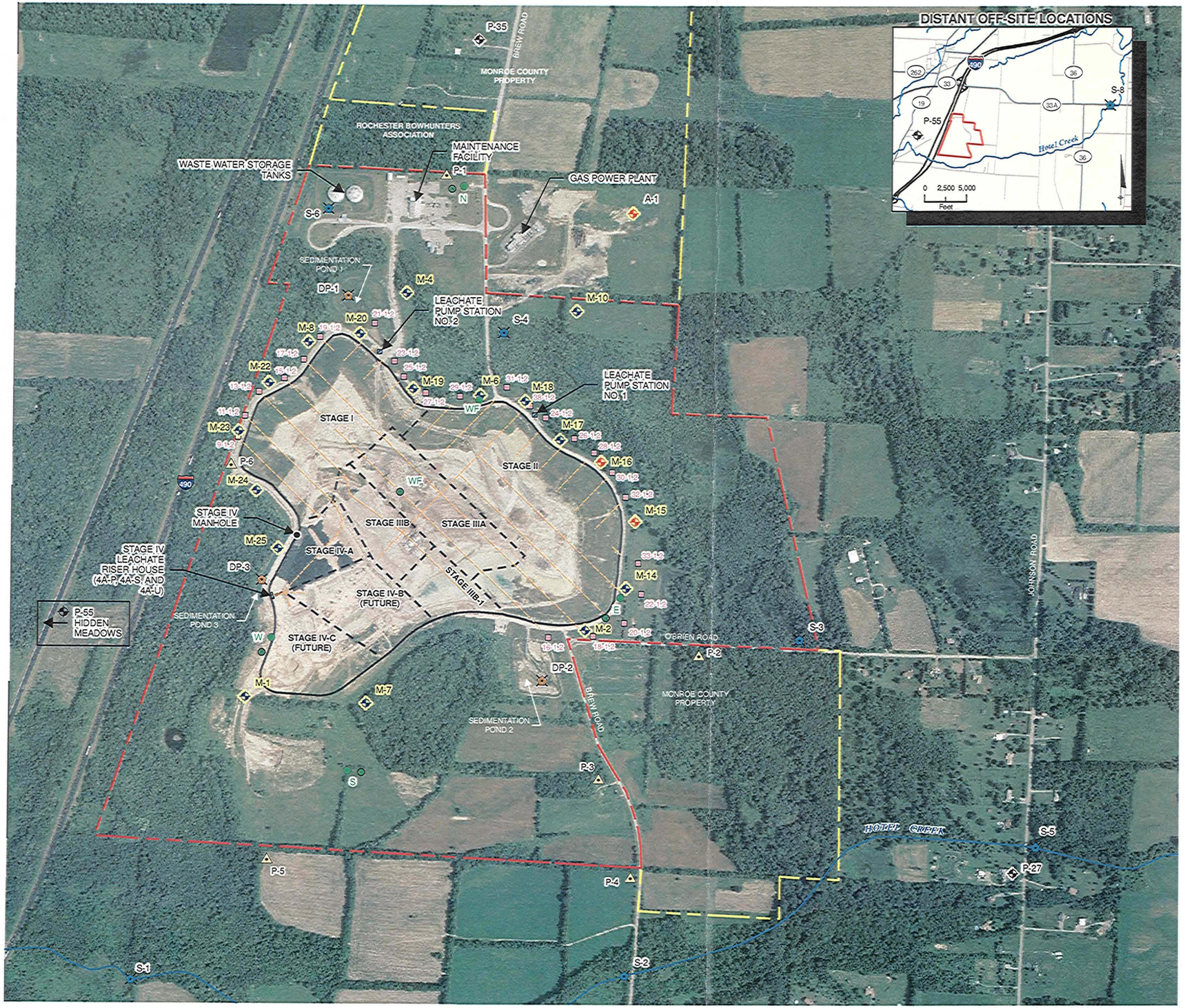
- April Surface Water and Air Temperature versus Time
- May Surface Water and Air Temperature versus Time
- June Surface Water and Air Temperature versus Time
- July Surface Water and Air Temperature versus Time
- August Surface Water and Air Temperature versus Time
- September Surface Water and Air Temperature versus Time
- October Surface Water and Air Temperature versus Time
- Dissolved Oxygen versus Time (Monthly)
- Biological Oxygen Demand versus Time (Quarterly)
- Chemical Oxygen Demand versus Time (Quarterly)
- pH versus Time (Quarterly)
- Total Dissolved Solids versus Time (Quarterly)

The data and graphs are presented on the following pages for each sample point in the order listed above. Note that no graph has been included for Biological Oxygen Demand due to the limited amount of collected data, the data that was available has been included in tabular format only. In addition to graphing the data points, a linear regression line (trend line) has been included for each set of data.

Sample Location Map

(Provided by O'Brien & Gere)

FIGURE 2



LEGEND

SAMPLE LOCATION TYPE

- AMBIENT AIR
- EXPLOSIVE GAS
- NOISE MONITORING LOCATION
- DETENTION POND
- SURFACE WATER
- PRIVATE WELL
- MONITORING WELL
- WELL WITH ARTESIAN FLOW
- PRIMARY AND SECONDARY LEACHATE MONITORING SYSTEM
- GROUNDWATER SUPPRESSION MONITORING LOCATION
- RISER HOUSE/PUMP STATION
- PROPERTY BOUNDARY
- OFF-SITE PARCEL BOUNDARY

NOTE:
ALL SAMPLE LOCATIONS ARE APPROXIMATE.

WASTE MANAGEMENT OF NEW YORK, LLC

MILL SEAT LANDFILL
BERGEN, NEW YORK

SAMPLE LOCATIONS

0 375 750 1,500
Feet

JANUARY 2010
3143.44416

O'BRIEN & GERE

This document was developed in color. Reproduction in B/W may not represent the data as intended.

Date of photography: July 2, 2008. Base prepared March 17, 2009, by Gold Assoc., Inc. Revised by O'Brien & Gere on October 29, 2009.

I:\Waste-Mgmt.3143\44416.Env-Monitoring\Docs\DWG\MXD\4th_QTR\Site_Plan.mxd

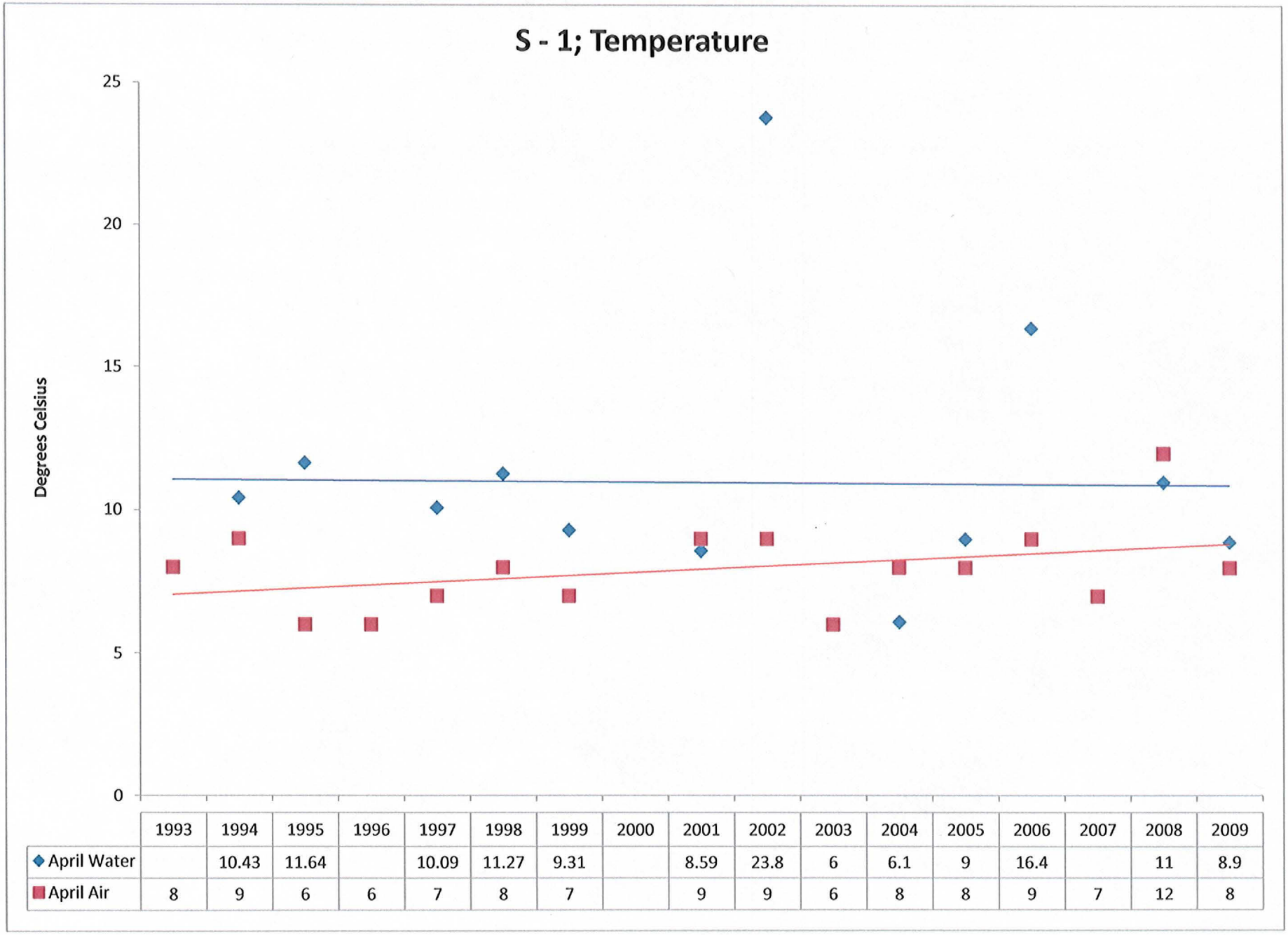
NAME: ReidtS

DATE: 2/1/2010 11:54:16 AM

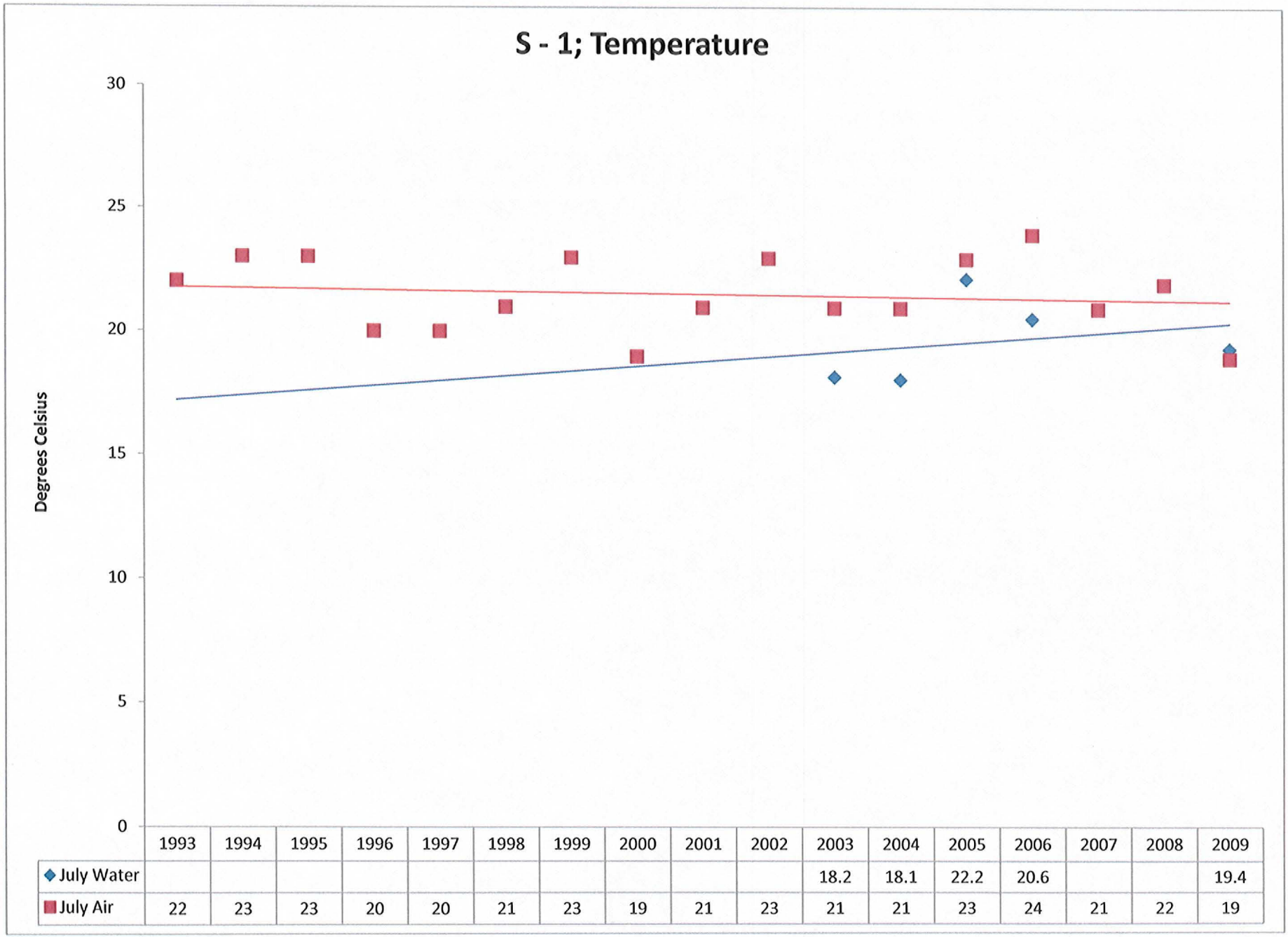
Data and Graphs for S-1

(Data provided by O'Brien & Gere)

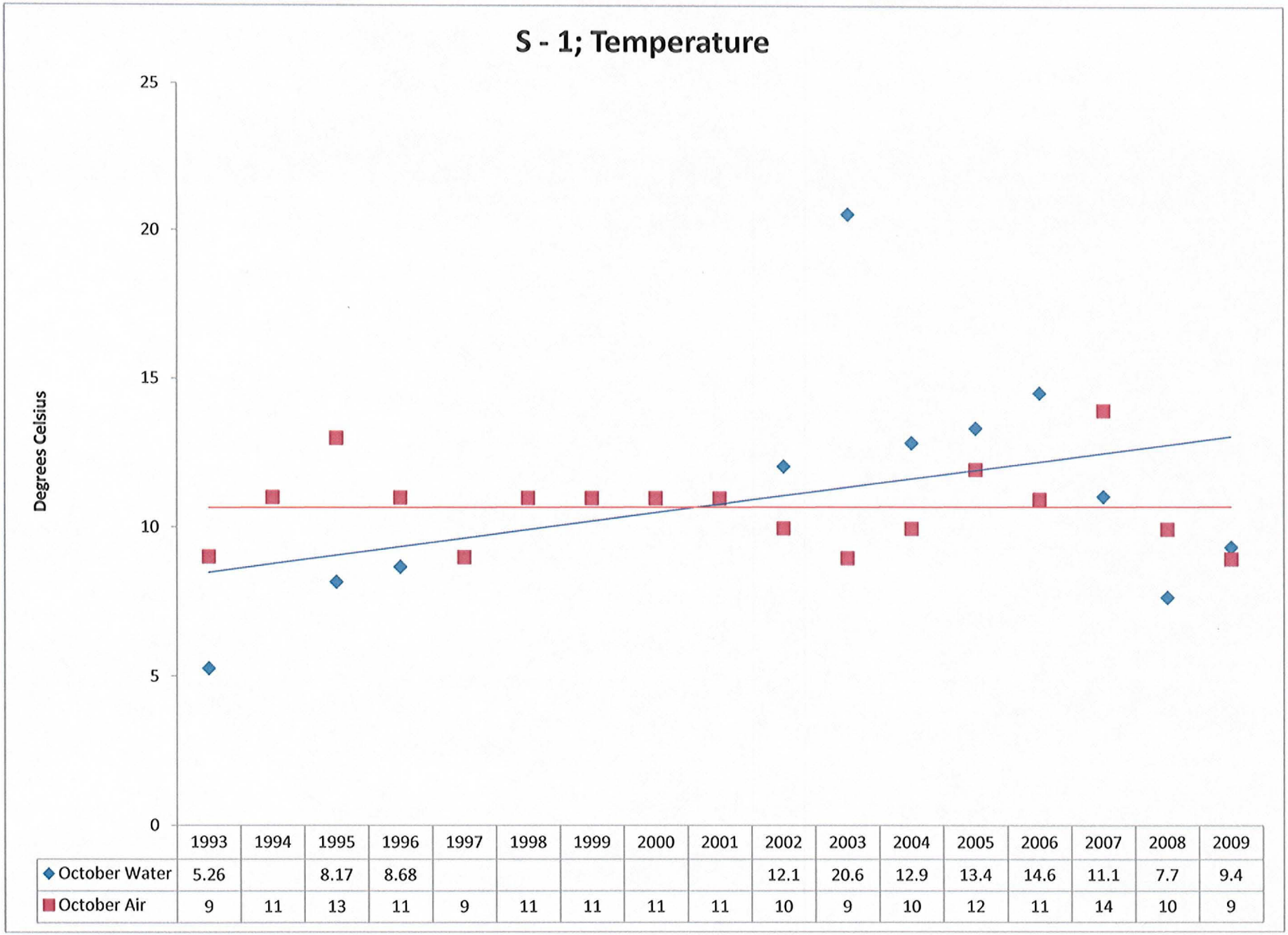
Graphs are as follows:
Surface Water and Air Temperature versus Time
Dissolved Oxygen versus Time
Biological Oxygen Demand versus Time
Chemical Oxygen Demand versus Time
pH versus Time
Total Dissolved Solids versus Time
Turbidity versus Time



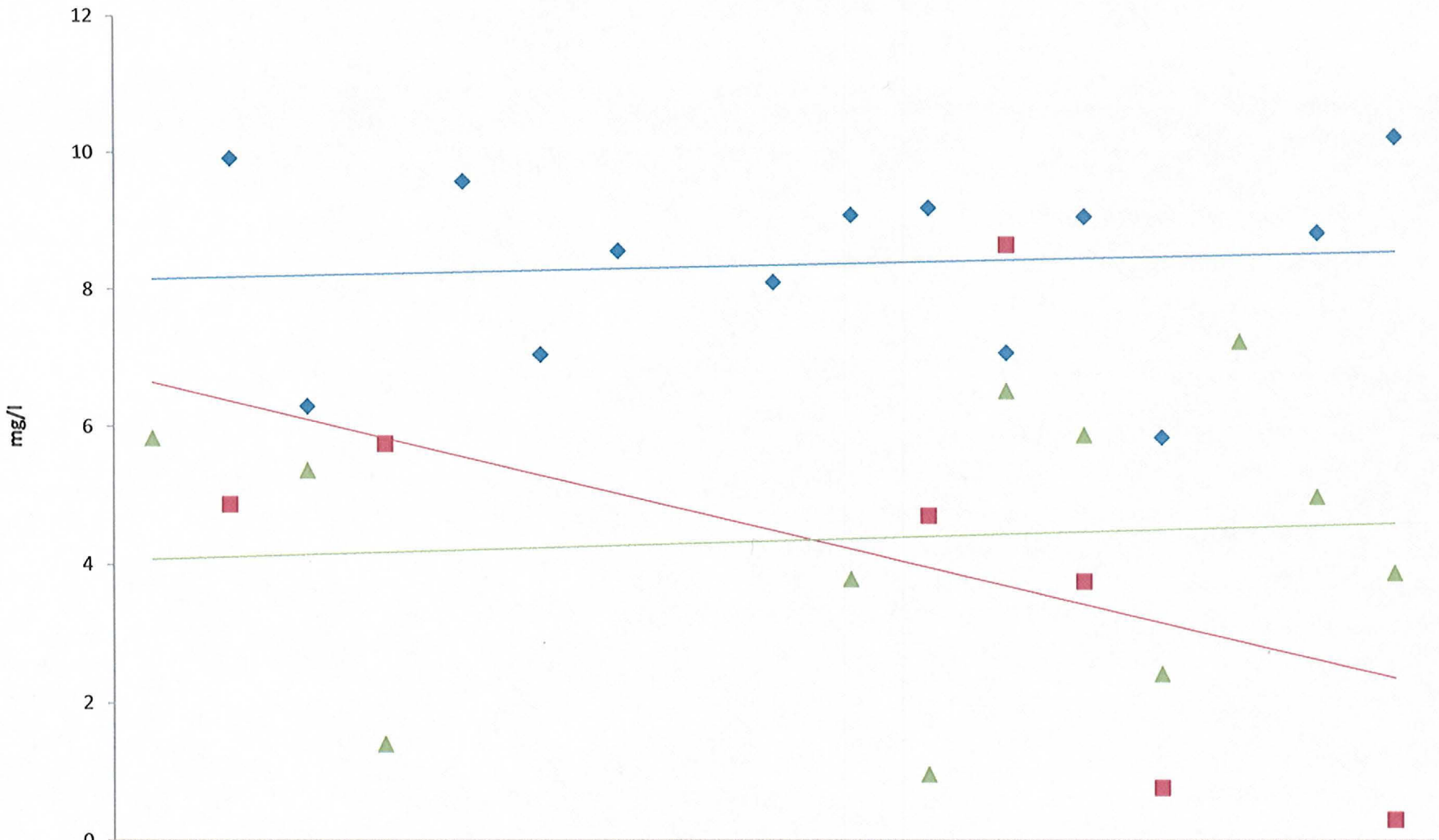
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April Water		10.43	11.64		10.09	11.27	9.31		8.59	23.8	6	6.1	9	16.4		11	8.9
April Air	8	9	6	6	7	8	7		9	9	6	8	8	9	7	12	8



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
July Water											18.2	18.1	22.2	20.6			19.4
July Air	22	23	23	20	20	21	23	19	21	23	21	21	23	24	21	22	19



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
October Water	5.26		8.17	8.68						12.1	20.6	12.9	13.4	14.6	11.1	7.7	9.4
October Air	9	11	13	11	9	11	11	11	11	10	9	10	12	11	14	10	9



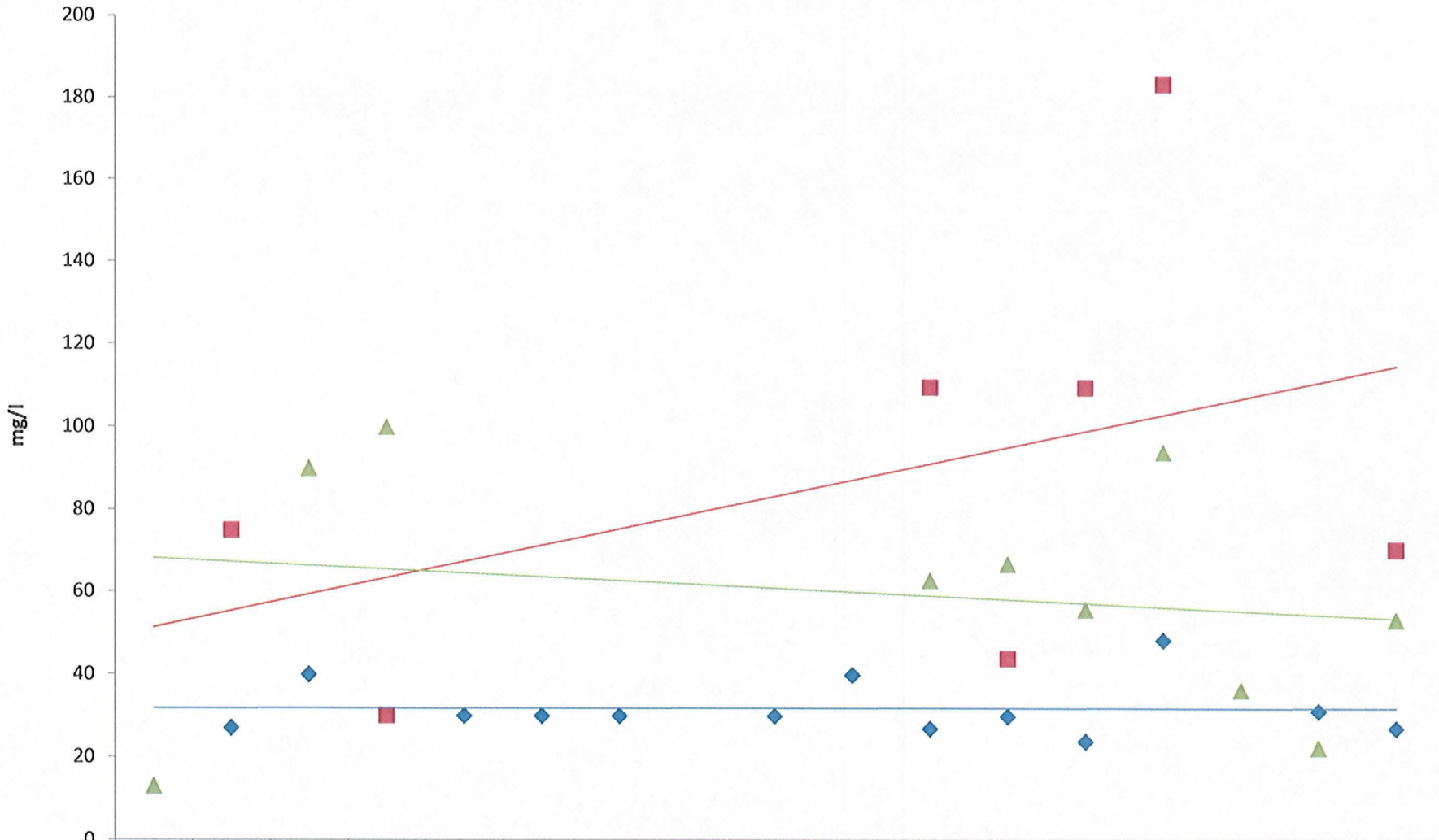
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		9.92	6.3		9.6	7.07	8.59		8.14	9.13	9.24	7.12	9.12	5.89		8.9	10.3
July		4.87		5.76							4.73	8.7	3.78	0.77			0.3
October	5.83		5.37	1.41						3.81	0.97	6.56	5.92	2.44	7.3	5.03	3.92

Hotel Creek S - 1: Biological Oxygen Demand

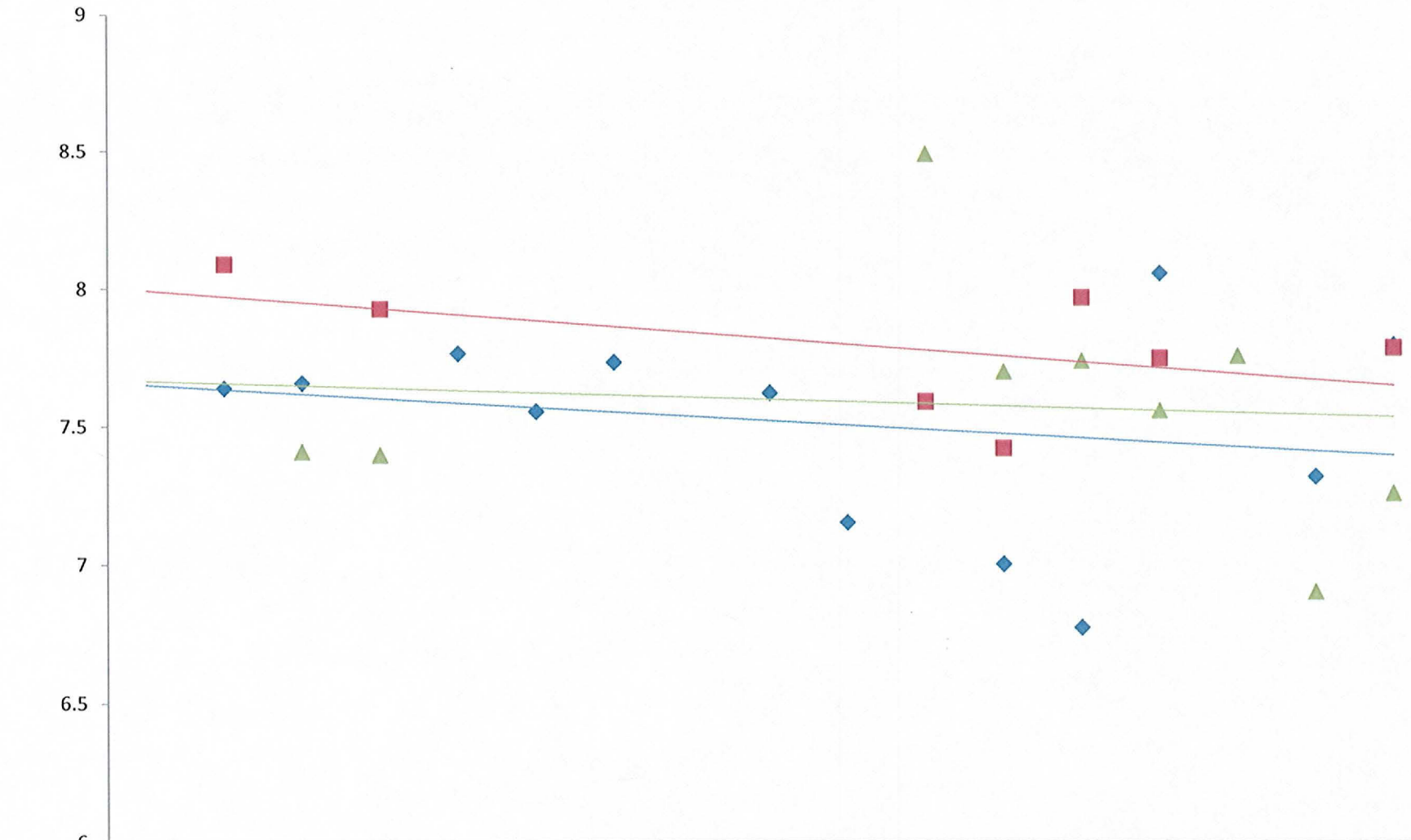
mg/l

	January	February	March	April	May	June	July	August	September	October	November	December	
1993						8							**1993**
1994							9						**1994**
1995										11			**1995**
1996													**1996**
1997													**1997**
1998													**1998**
1999													**1999**
2000													**2000**
2001				ND									**2001**
2002				ND				12		76			**2002**
2003				*ND*			5.5			34			**2003**
2004				2.4			4.2			13			**2004**
2005				ND			ND			3.6			**2005**
2006				ND			ND			2.1			**2006**
2007					14.9								**2007**
2008				ND				ND		6.3			**2008**
2009				ND			3			5.1			**2009**

The data for Biological Oxygen Demand is not suggestive of a trend. BOD was not detected (ND) in the samples indicated above at a detection limit of 2.0 mg/l.

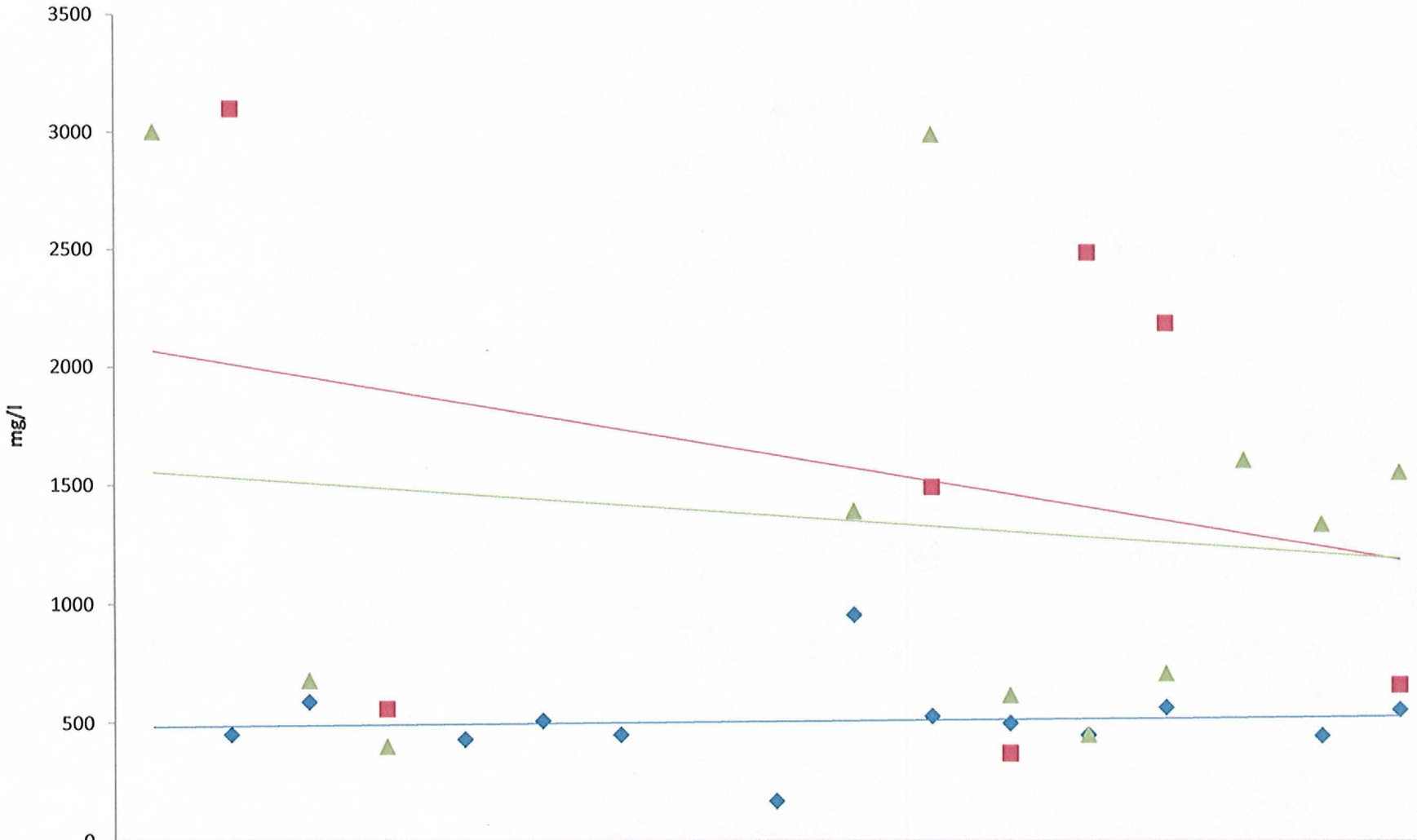


	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		27	40		30	30	30		30	40	27	30	24	48.6		31.4	27.2
July		75		30							110	44	110	184			70.6
October	13		90	100							63	67	56	94.4	36.5	22.6	53.6

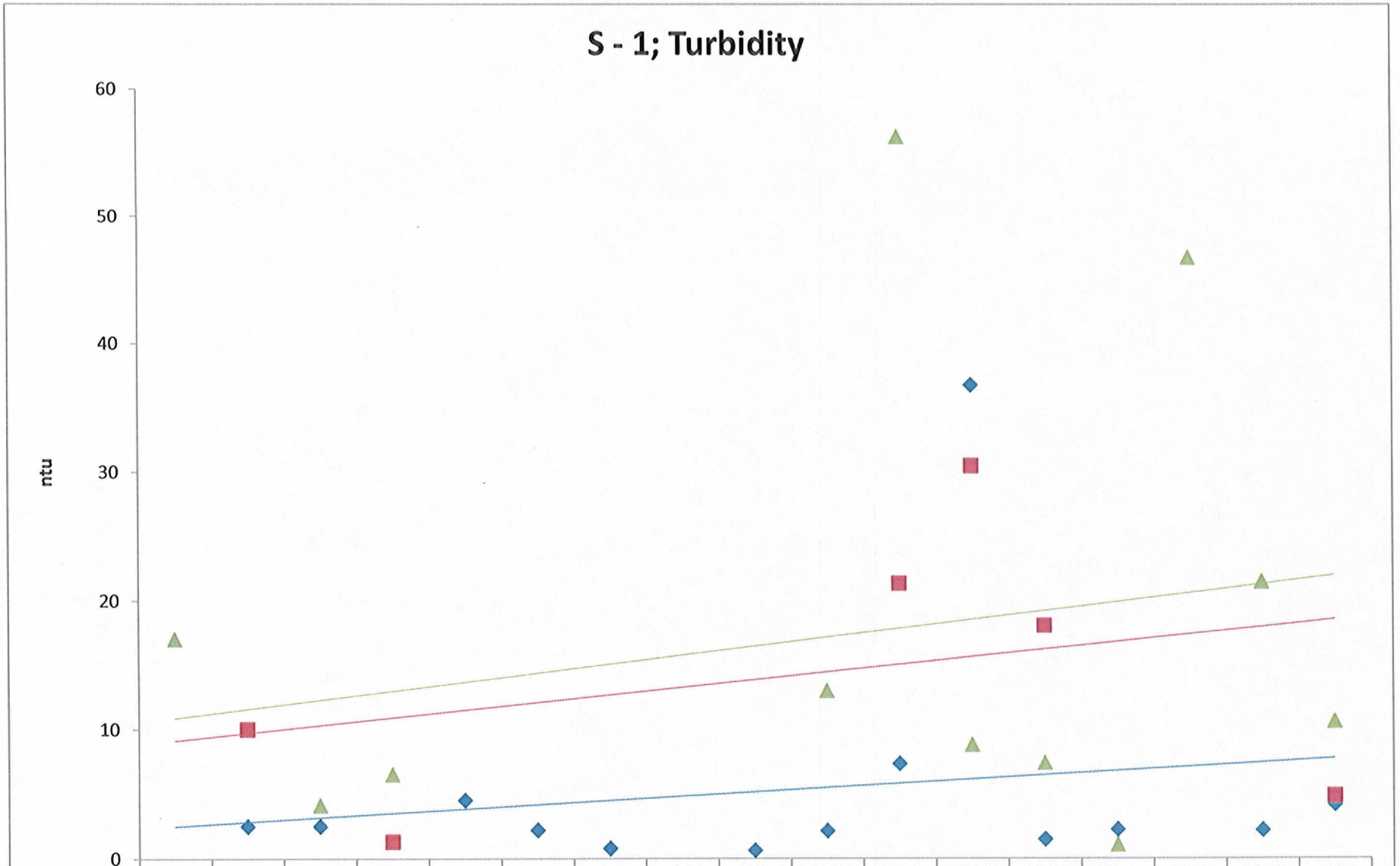


	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		7.64	7.66		7.77	7.56	7.74		7.63	7.16	7.6	7.01	6.78	8.07		7.33	7.81
July		8.09		7.93							7.6	7.43	7.98	7.76			7.8
October			7.41	7.4							8.5	7.71	7.75	7.57	7.77	6.91	7.27

S - 1; Total Dissolved Solids



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		450	590		430	510	450		170	960	530	500	450	569		448	560
July		3100		560							1500	370	2500	2200			664
October	3000		680	400						1400	3000	620	450	714	1620	1350	1570



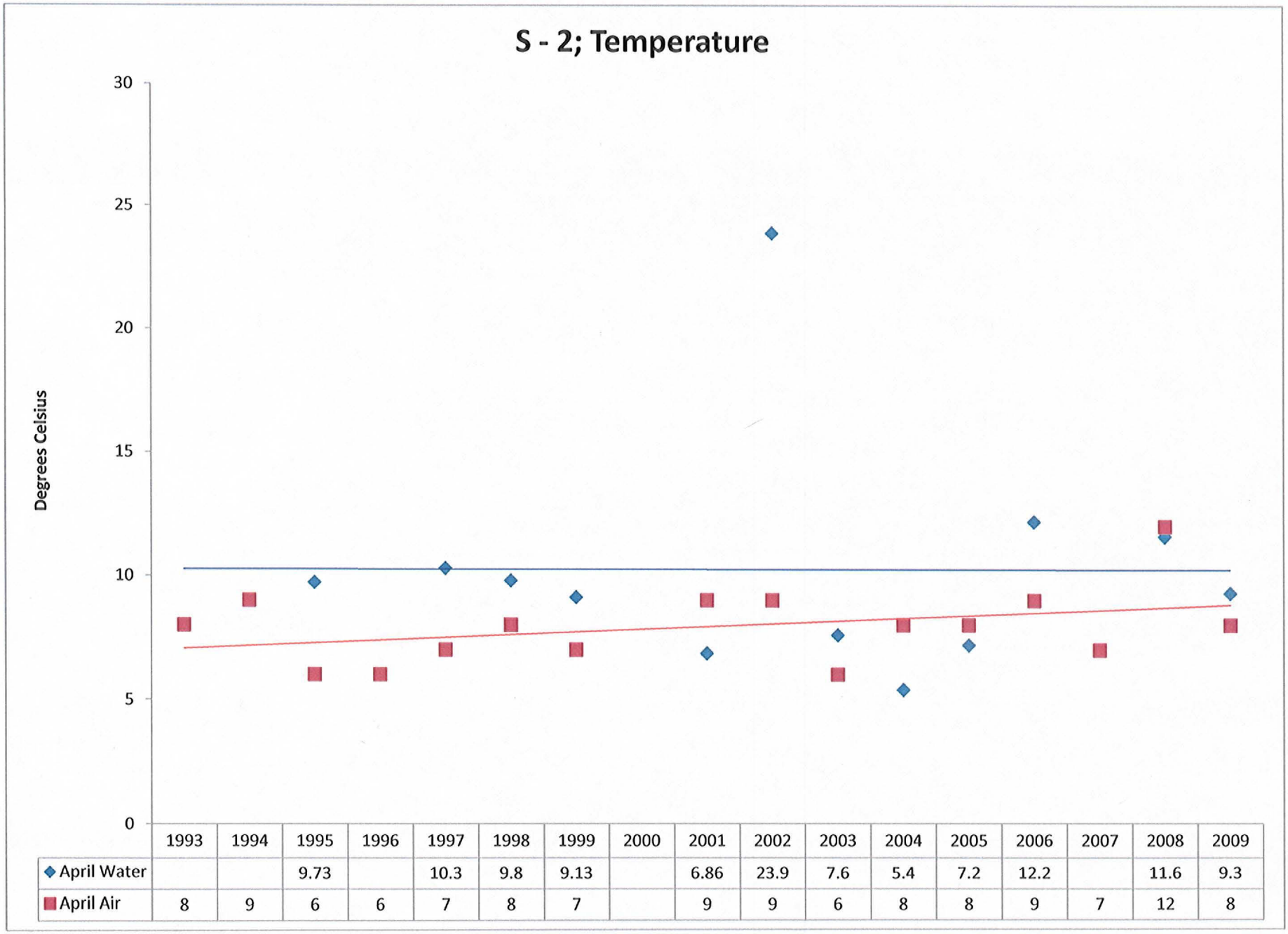
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		2.5	2.5		4.5	2.2	0.8		0.64	2.14	7.35	36.9	1.49	2.25		2.2	4.18
July		10		1.3							21.4	30.6	18.1				4.83
October	17		4.1	6.5						13.03	56.3	8.82	7.41	1.07	46.9	21.6	10.68

Data and Graphs for S-2

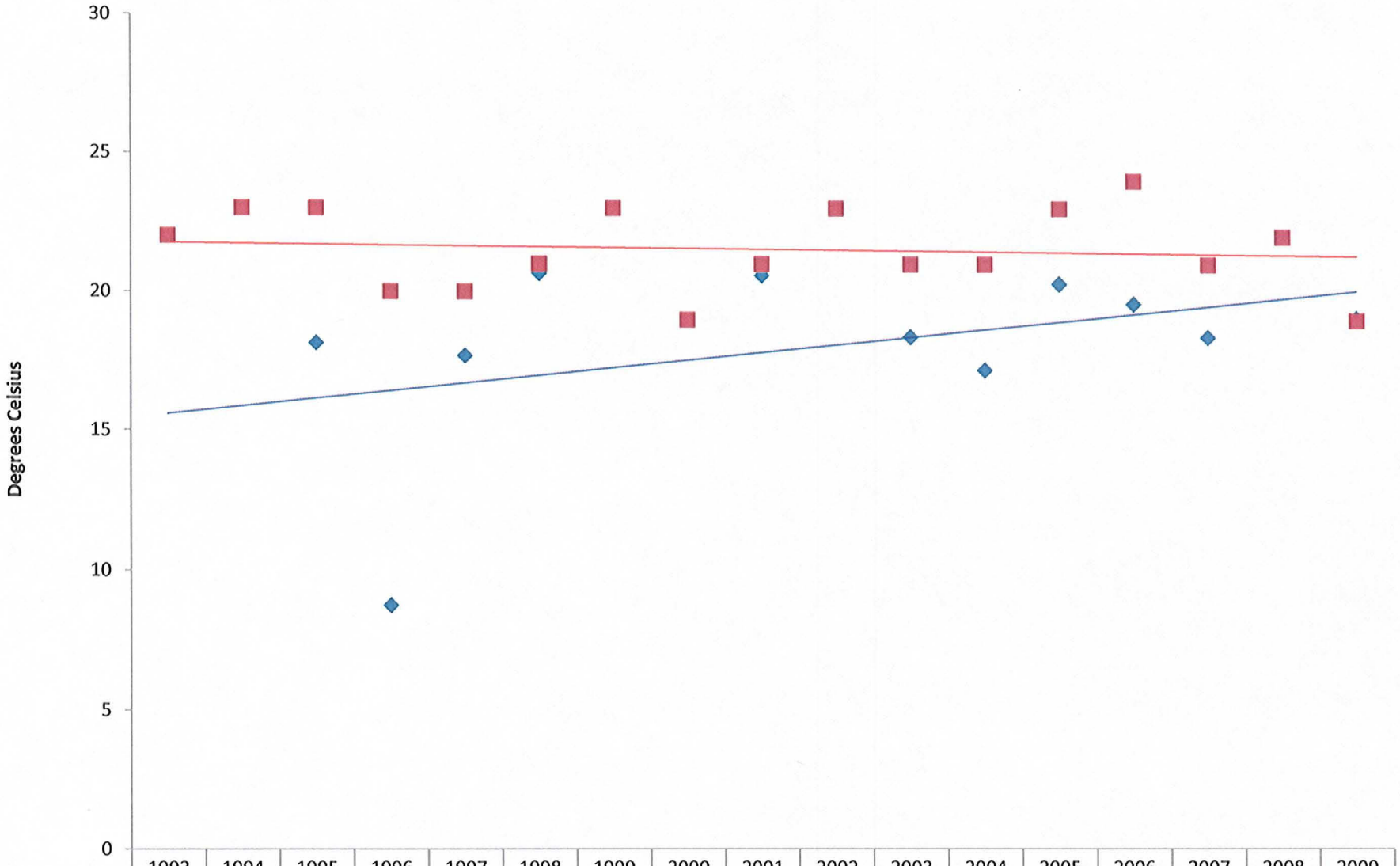
(Data provided by O'Brien & Gere)

Graphs are as follows:

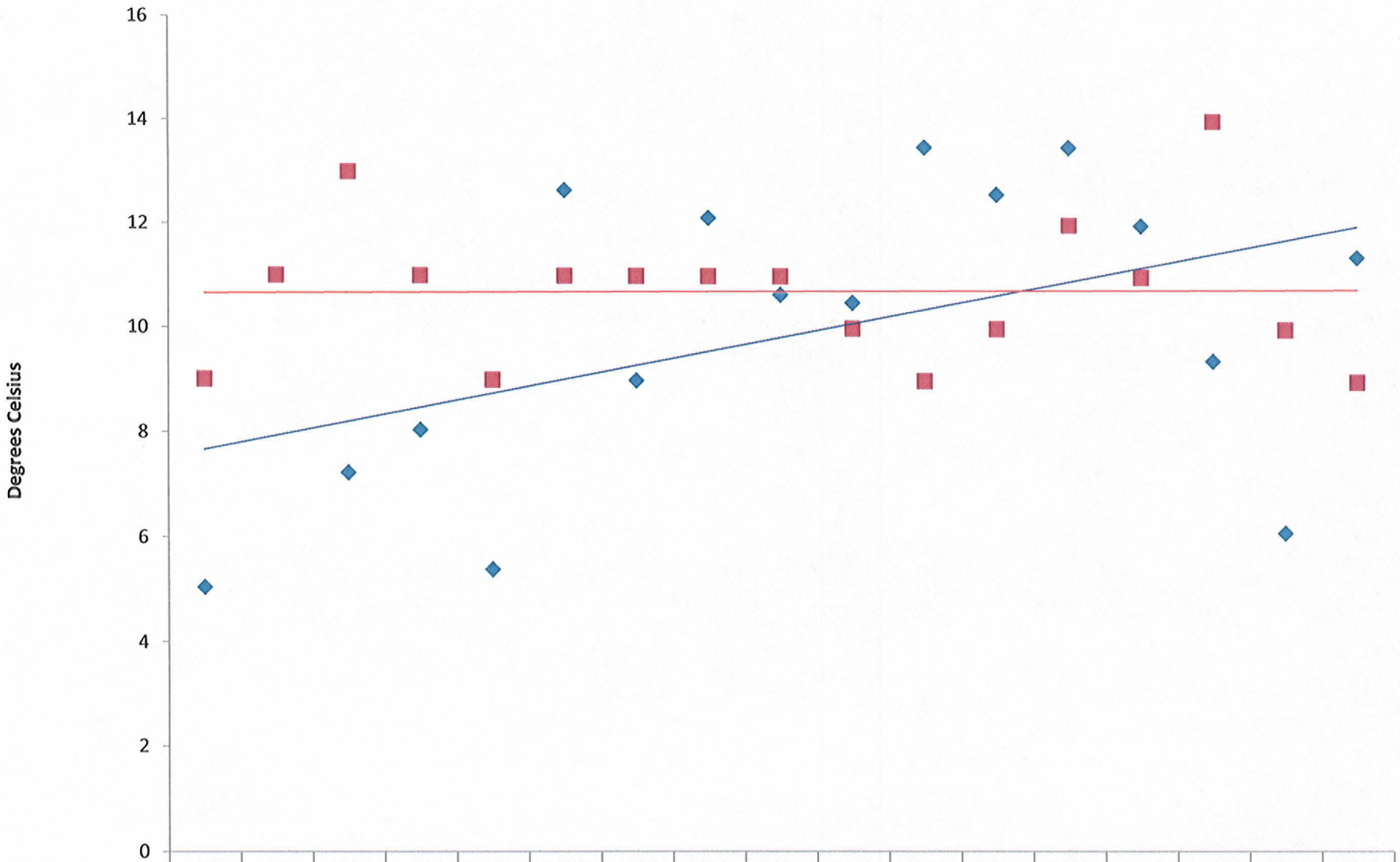
Surface Water and Air Temperature versus Time
Dissolved Oxygen versus Time
Biological Oxygen Demand versus Time
Chemical Oxygen Demand versus Time
pH versus Time
Total Dissolved Solids versus Time
Turbidity versus Time



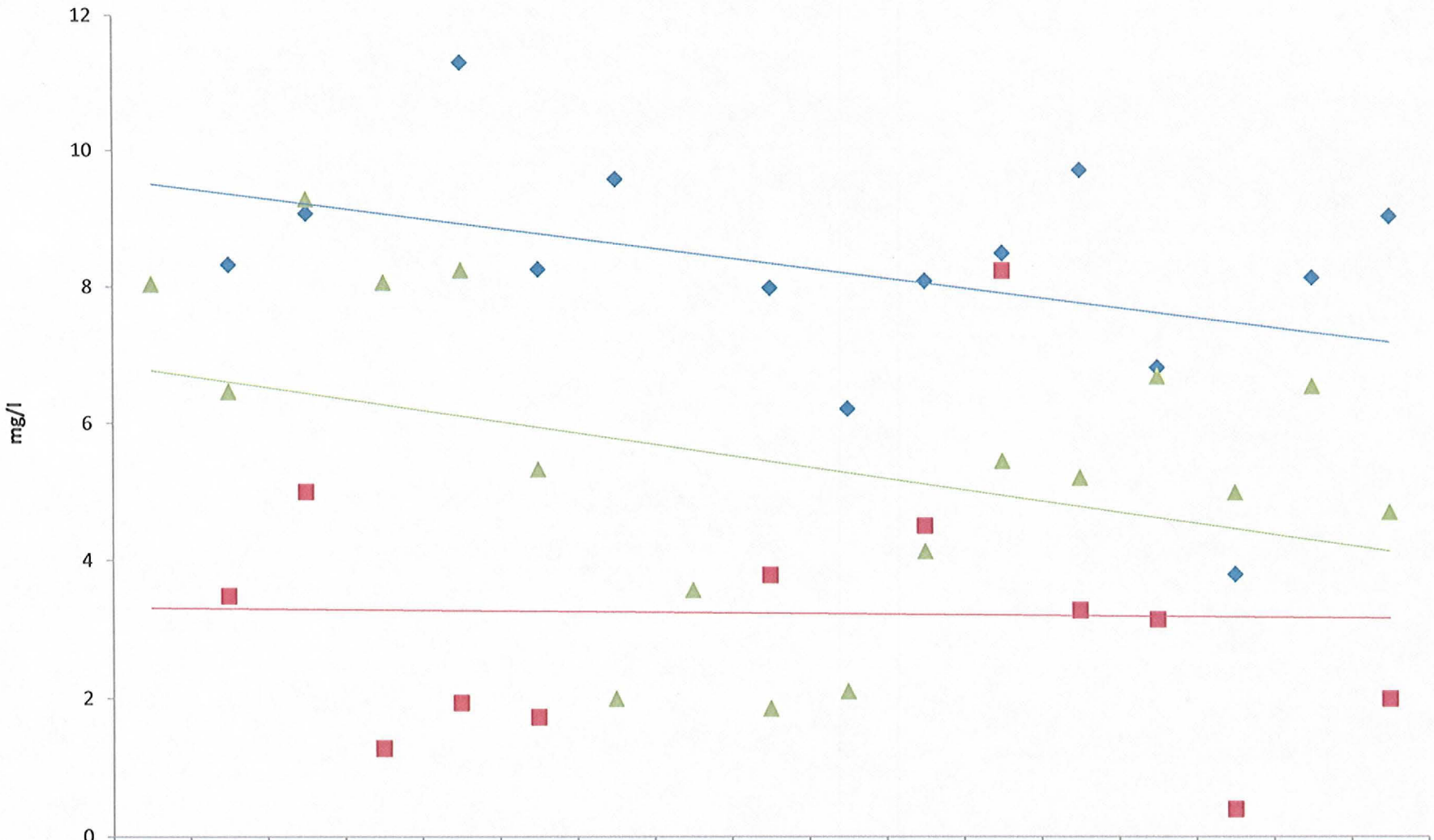
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April Water			9.73		10.3	9.8	9.13		6.86	23.9	7.6	5.4	7.2	12.2		11.6	9.3
April Air	8	9	6	6	7	8	7		9	9	6	8	8	9	7	12	8



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
July Water			18.16	8.75	17.7	20.67			20.6		18.4	17.2	20.31	19.6	18.4		19.1
July Air	22	23	23	20	20	21	23	19	21	23	21	21	23	24	21	22	19



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
October Water	5.05		7.23	8.05	5.39	12.66	9	12.13	10.65	10.5	13.5	12.6	13.5	12	9.4	6.1	11.4
October Air	9	11	13	11	9	11	11	11	11	10	9	10	12	11	14	10	9



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		8.33	9.08		11.32	8.28	9.6		8.02	6.25	8.13	8.54	9.76	6.87	3.83	8.2	9.1
July		3.48	5.01	1.28	1.94	1.73			3.8		4.53	8.28	3.29	3.16	0.4		2
October	8.04	6.47	9.29	8.08	8.26	5.35	2	3.58	1.86	2.11	4.16	5.49	5.25	6.74	5.04	6.6	4.75

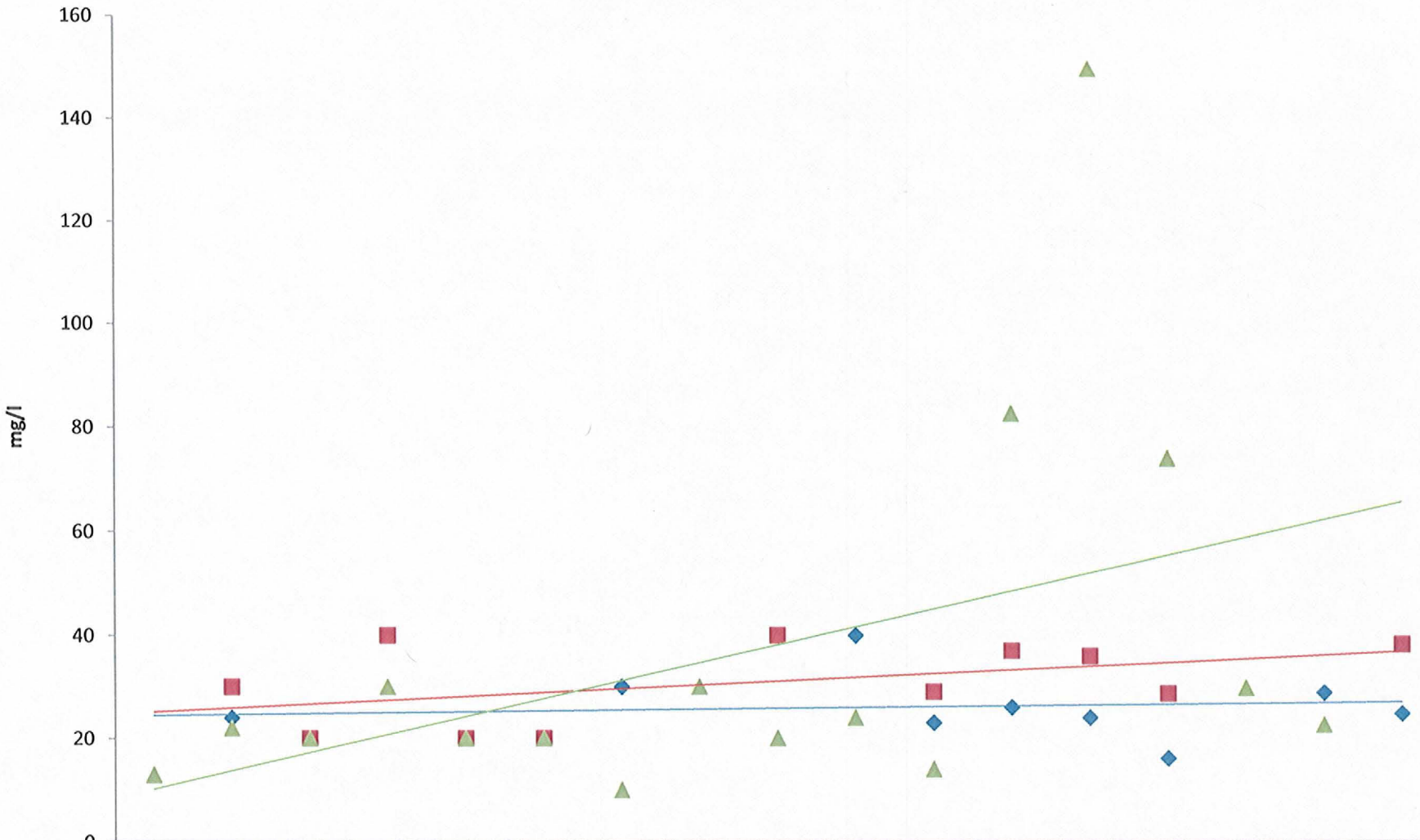
Hotel Creek S - 2: Biological Oxygen Demand

mg/l

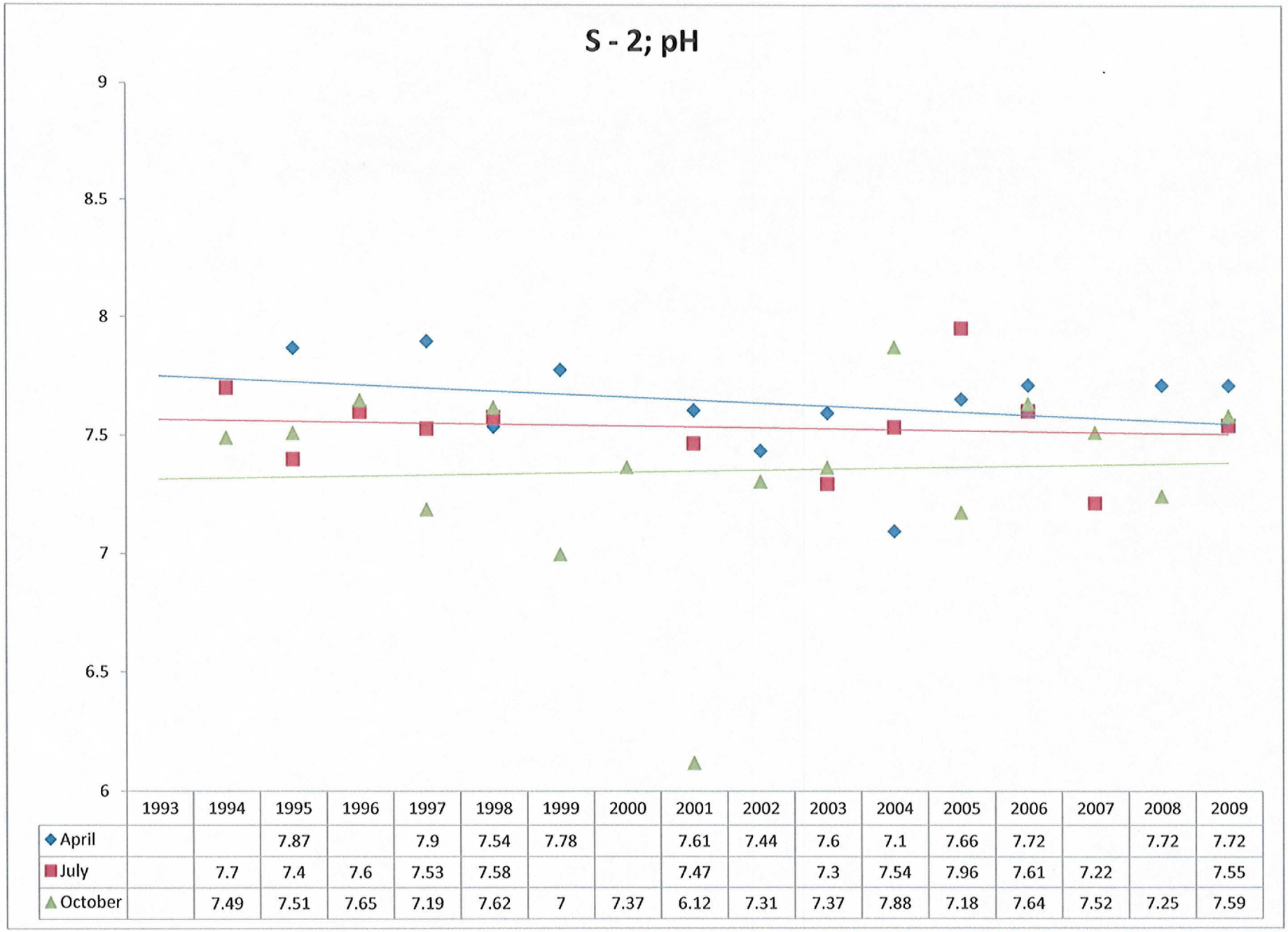
	January	February	March	April	May	June	July	August	September	October	November	December	
1993						8							**1993**
1994							5						**1994**
1995										2			**1995**
1996													**1996**
1997													**1997**
1998										3			**1998**
1999													**1999**
2000										3			**2000**
2001				ND			7			ND			**2001**
2002				ND				2		ND			**2002**
2003				ND			2.7			2.4			**2003**
2004				ND			2.5			ND			**2004**
2005				3.7			4.6			19			**2005**
2006				ND			2.8			ND			**2006**
2007					ND		ND			ND			**2007**
2008				ND				ND		3.6			**2008**
2009				ND			12.3			ND			**2009**

The data for Biological Oxygen Demand is not suggestive of a trend. BOD was not detected (ND) in the samples indicated above at a detection limit of 2.0 mg/l.

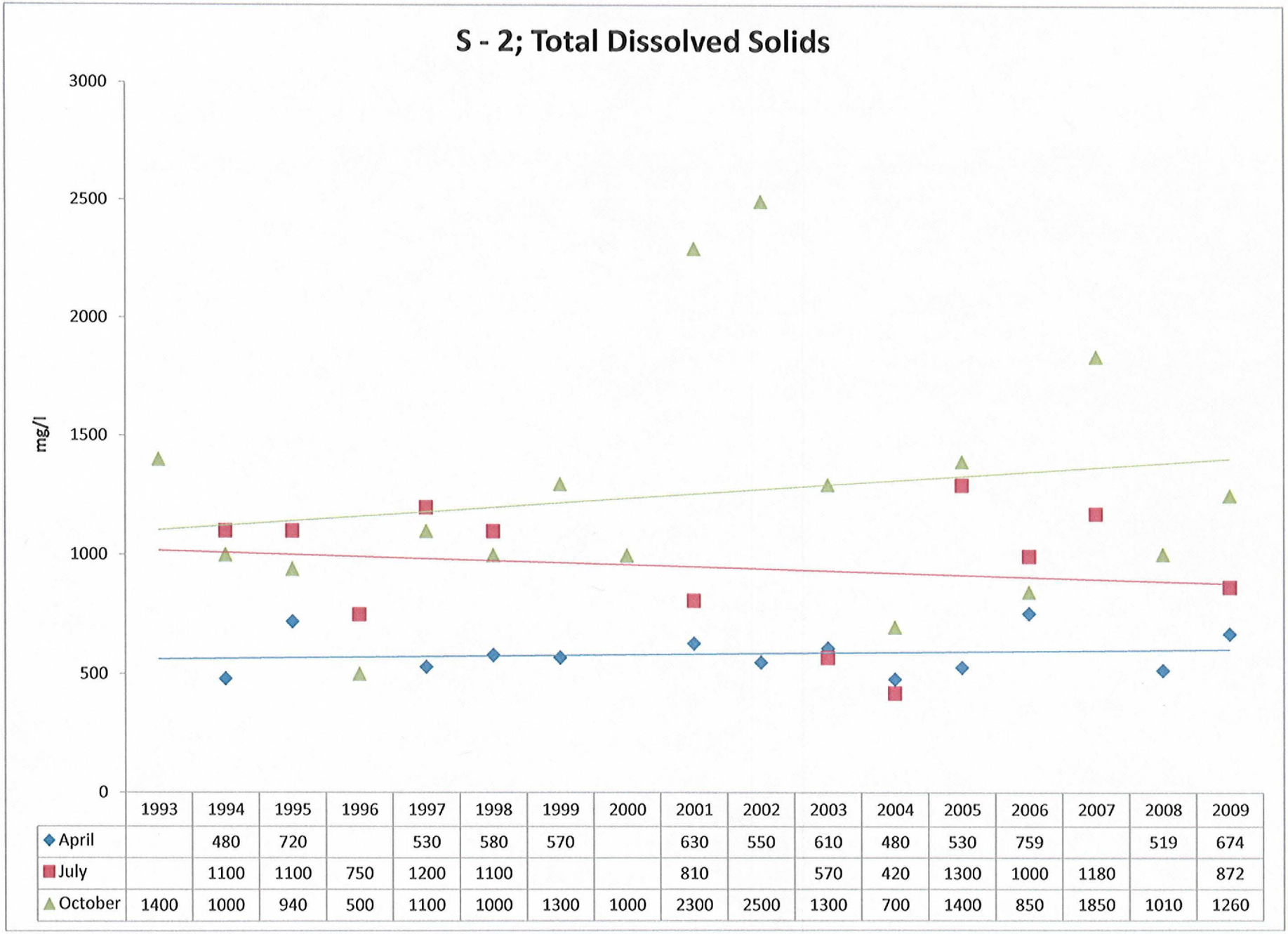
S - 2; Chemical Oxygen Demand



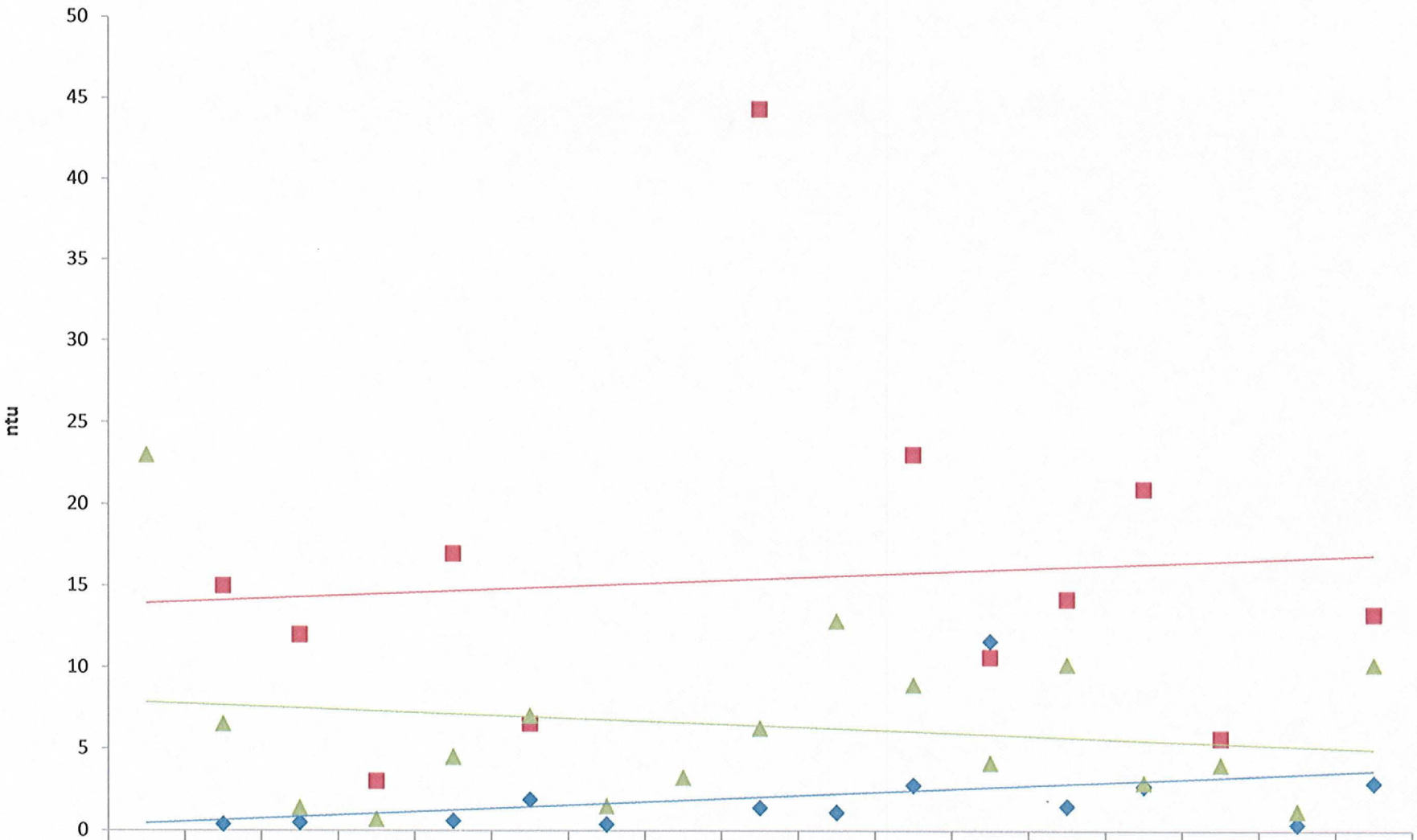
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		24	20		20	20	30		40	40	23	26	24	16.1		28.9	24.8
July		30	20	40	20	20			40		29	37	36	28.7			38.3
October	13	22	20	30	20	20	10	30	20	24	14	83	150	74.4	29.8	22.6	



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April			7.87		7.9	7.54	7.78		7.61	7.44	7.6	7.1	7.66	7.72		7.72	7.72
July		7.7	7.4	7.6	7.53	7.58			7.47		7.3	7.54	7.96	7.61	7.22		7.55
October		7.49	7.51	7.65	7.19	7.62	7	7.37	6.12	7.31	7.37	7.88	7.18	7.64	7.52	7.25	7.59



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		480	720		530	580	570		630	550	610	480	530	759		519	674
July		1100	1100	750	1200	1100			810		570	420	1300	1000	1180		872
October	1400	1000	940	500	1100	1000	1300	1000	2300	2500	1300	700	1400	850	1850	1010	1260



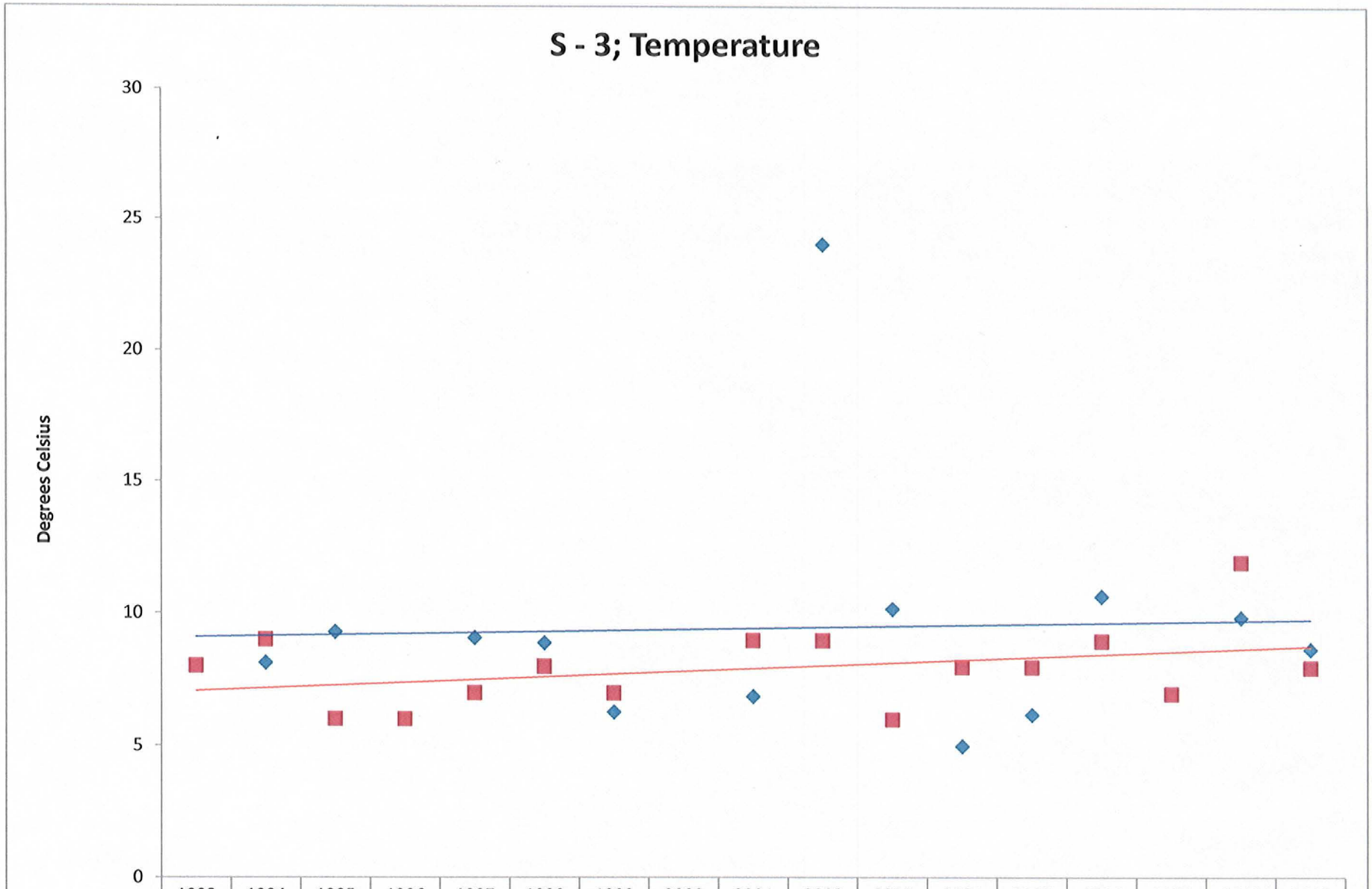
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		0.4	0.5		0.6	1.9	0.4		1.41	1.13	2.79	11.63	1.5	2.72		0.4	2.92
July		15	12	3	17	6.5			44.4		23.1	10.62	14.2	21	5.6		13.3
October	23	6.5	1.4	0.7	4.5	7	1.5	3.24	6.24	12.87	8.93	4.13	10.18	2.94	4.02	1.2	10.17

Data and Graphs for S-3

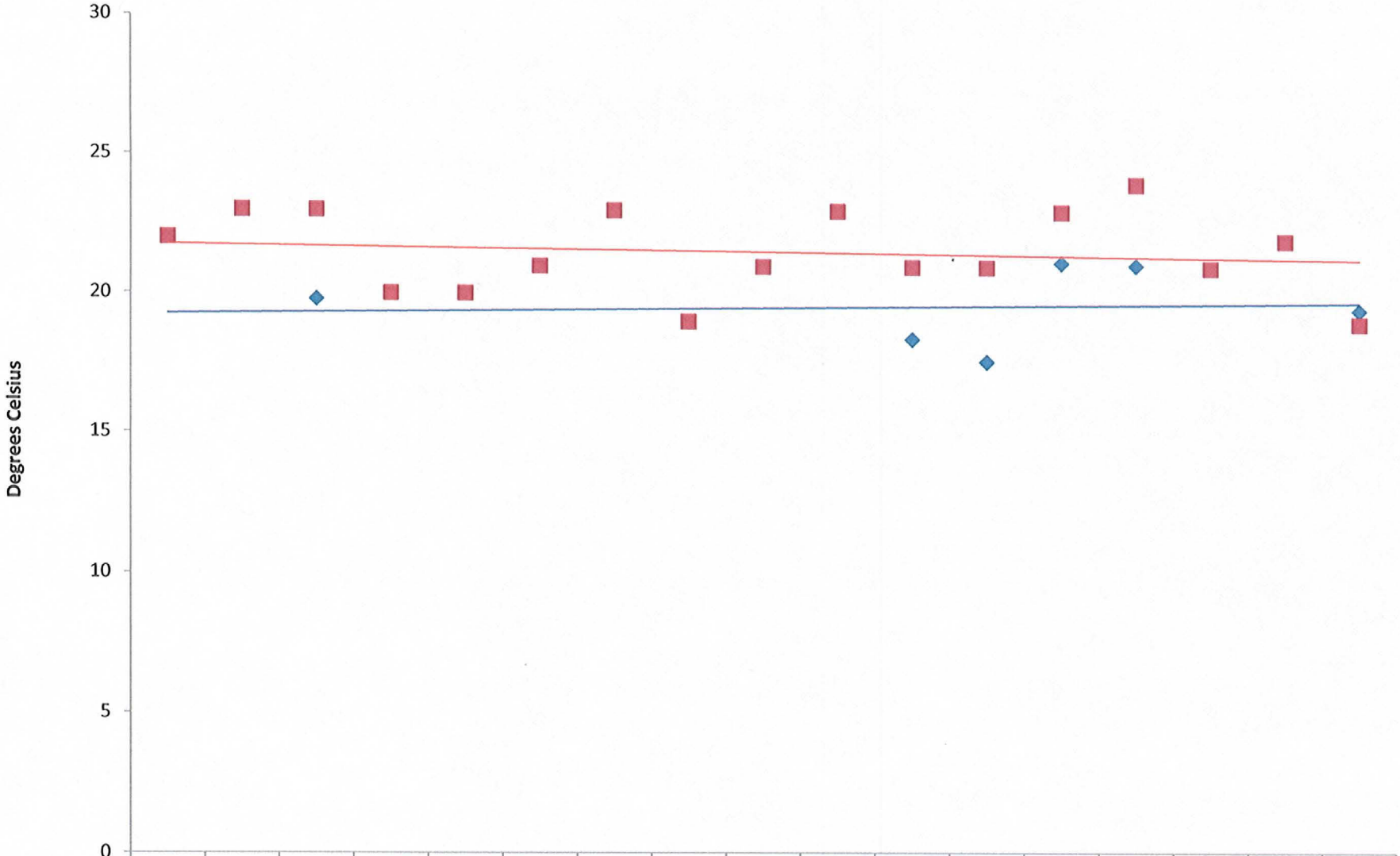
(Data provided by O'Brien & Gere)

Graphs are as follows:

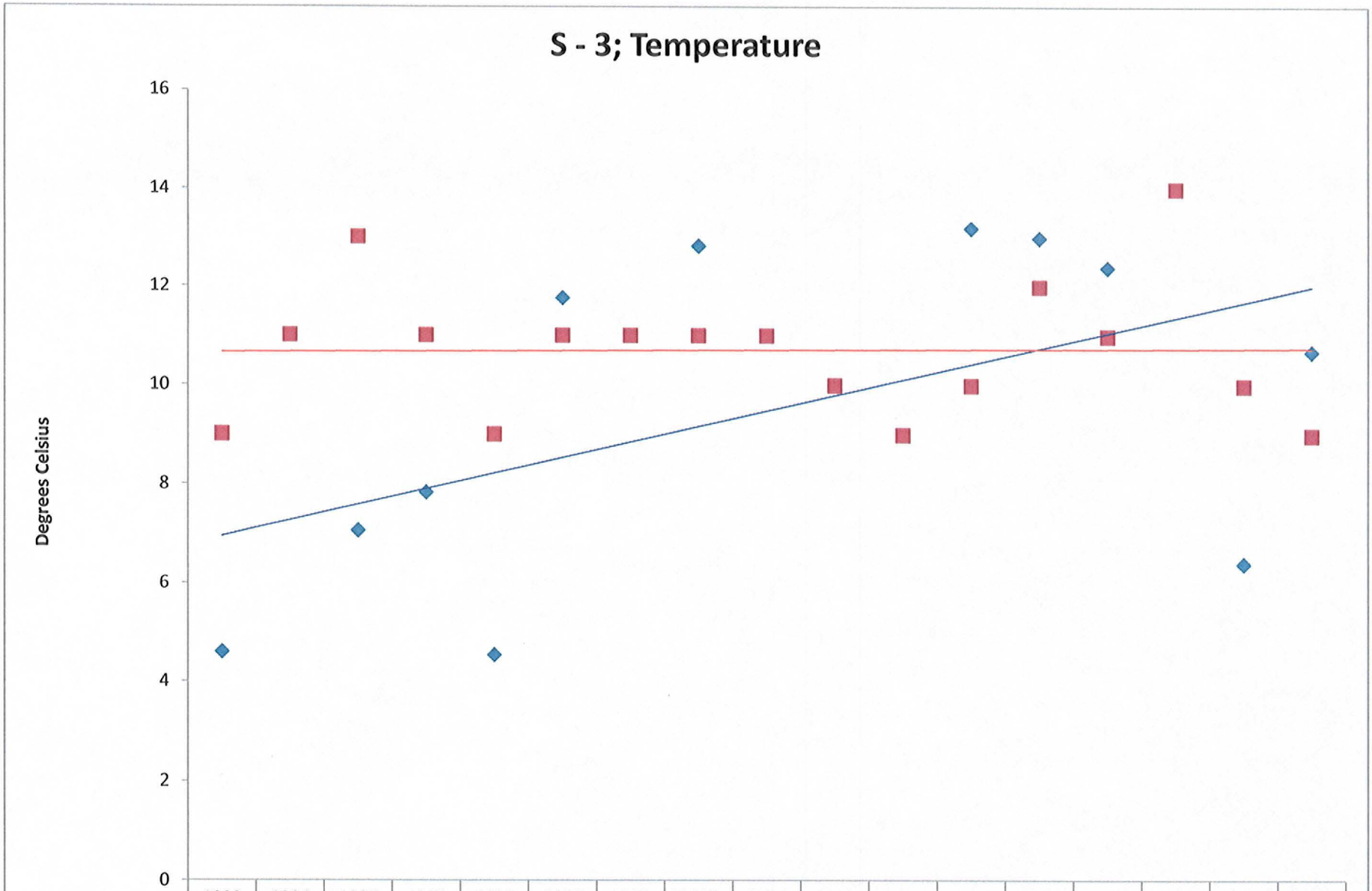
Surface Water and Air Temperature versus Time
Dissolved Oxygen versus Time
Biological Oxygen Demand versus Time
Chemical Oxygen Demand versus Time
pH versus Time
Total Dissolved Solids versus Time
Turbidity versus Time



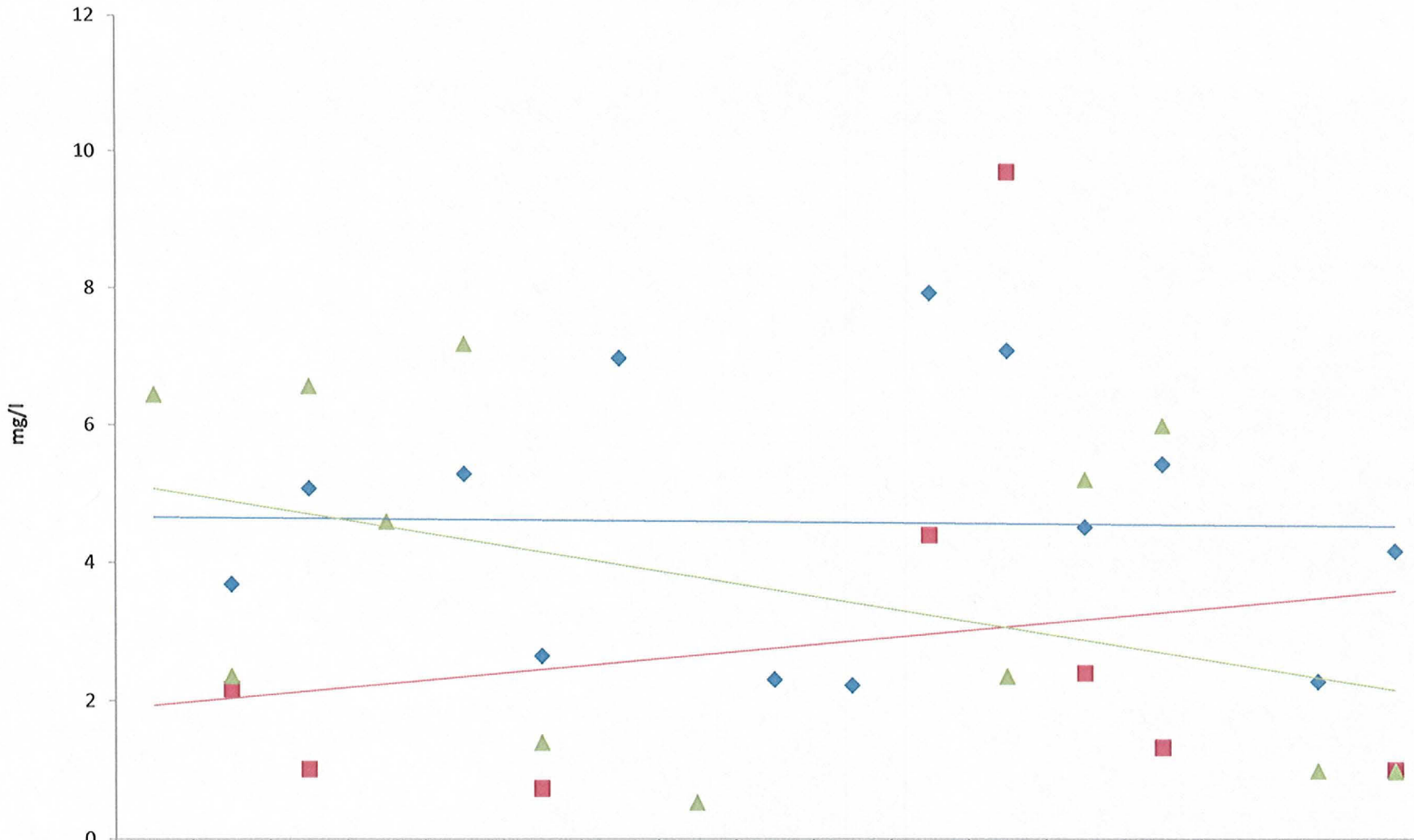
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April Water		8.12	9.29		9.08	8.89	6.28		6.88	24.1	10.2	5	6.2	10.7		9.9	8.7
April Air	8	9	6	6	7	8	7		9	9	6	8	8	9	7	12	8



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
July Water			19.78								18.4	17.6	21.18	21.1			19.5
July Air	22	23	23	20	20	21	23	19	21	23	21	21	23	24	21	22	19



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
October Water	4.6		7.06	7.83	4.54	11.77		12.83				13.2	13	12.4		6.4	10.7
October Air	9	11	13	11	9	11	11	11	11	10	9	10	12	11	14	10	9



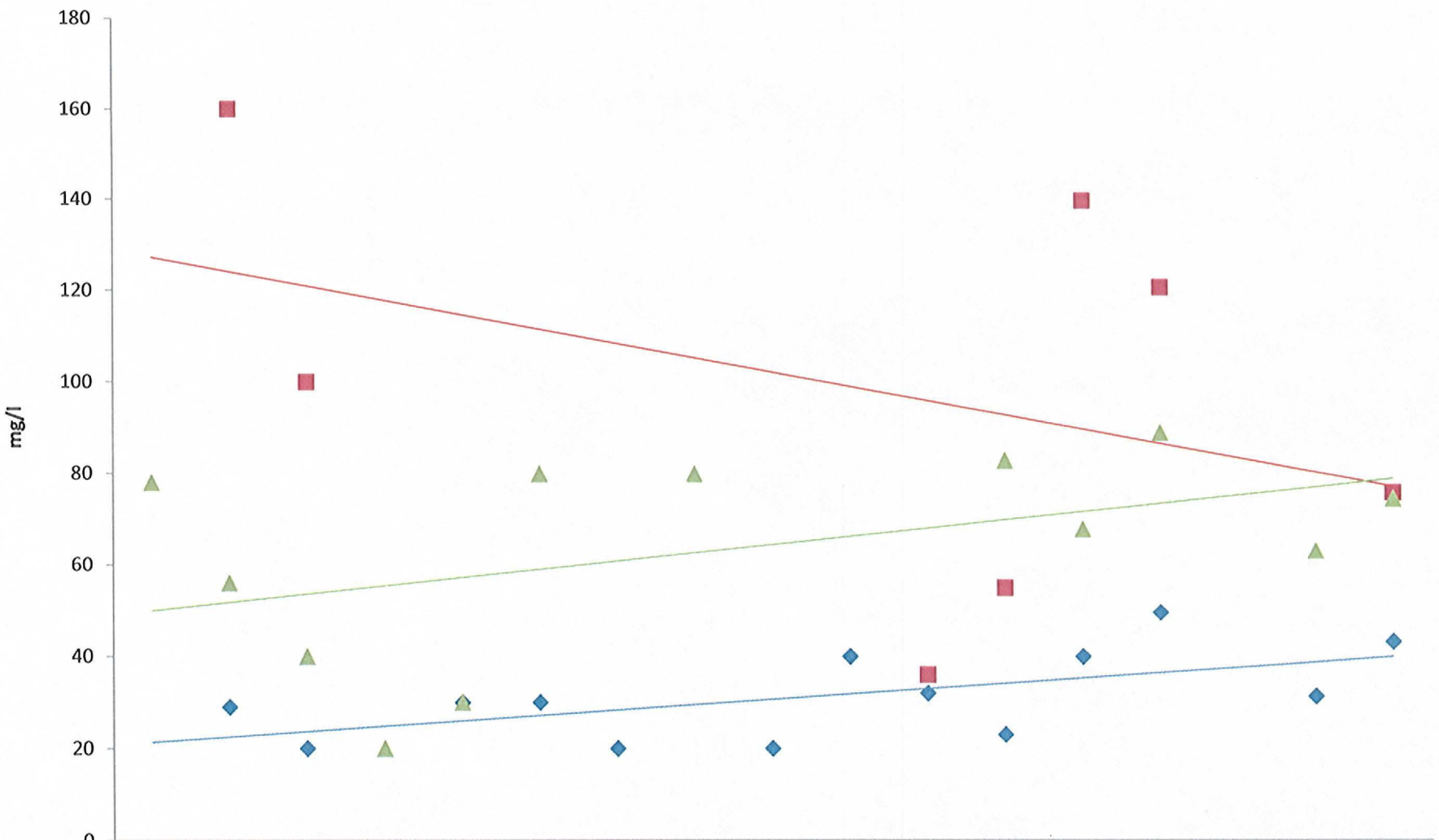
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		3.69	5.08		5.3	2.66	7		2.32	2.24	7.97	7.13	4.54	5.47		2.3	4.2
July		2.17	1.01			0.73					4.42	9.74	2.42	1.33			1
October	6.45	2.36	6.58	4.6	7.2	1.4		0.53				2.37	5.24	6.04		0.99	0.98

Hotel Creek S - 3: Biological Oxygen Demand

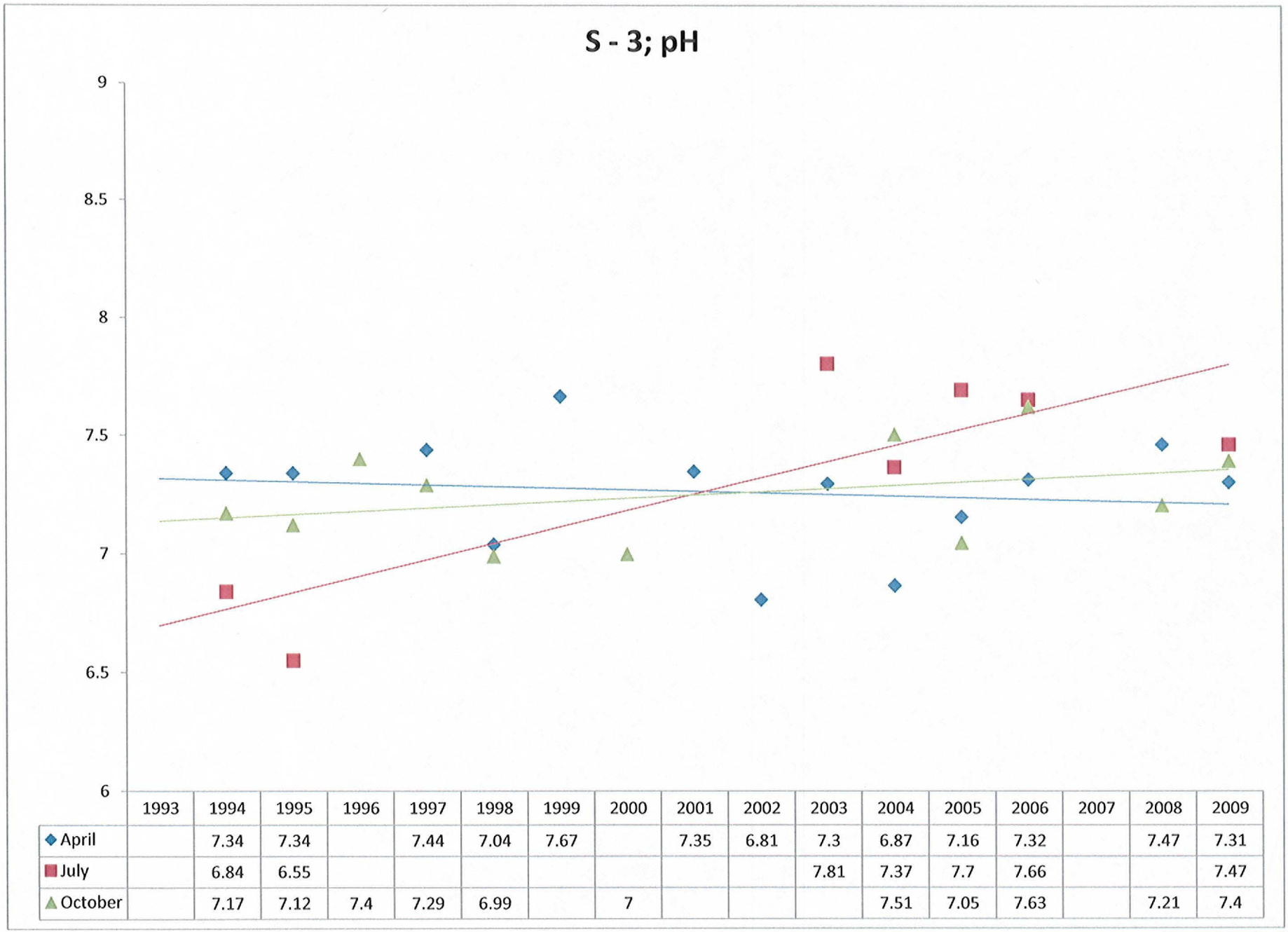
mg/l

	January	February	March	April	May	June	July	August	September	October	November	December	
1993						8							1993
1994													1994
1995													1995
1996													1996
1997													1997
1998										3			1998
1999													1999
2000										2			2000
2001				ND									2001
2002				ND									2002
2003				ND			2.2						2003
2004				ND			4.6			2.3			2004
2005				3.6			2.2			2			2005
2006				ND			5.5			5.4			2006
2007					ND								2007
2008				ND				ND		10.5			2008
2009				ND			6.3			2.2			2009

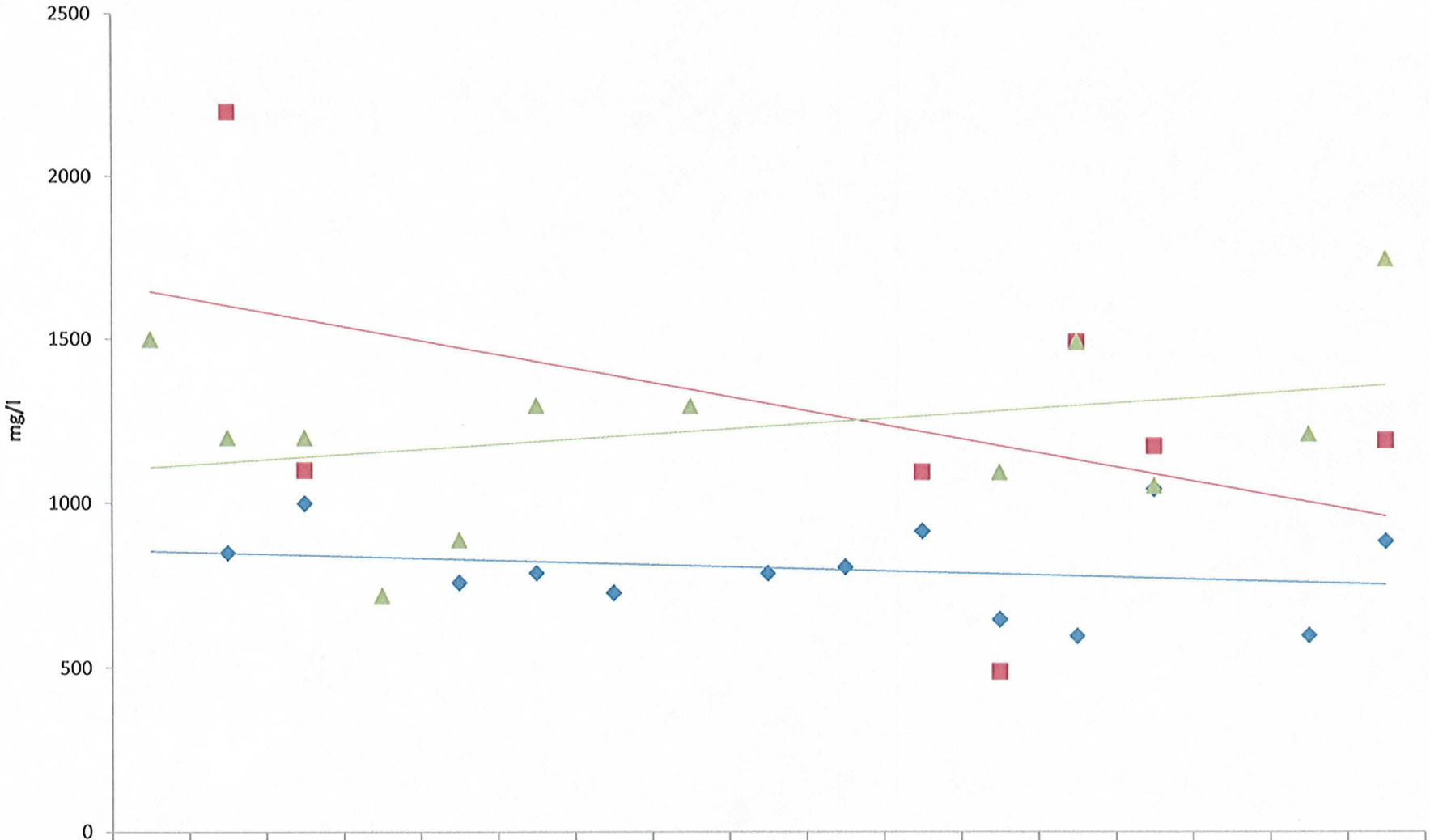
The data for Biological Oxygen Demand is not suggestive of a trend. BOD was not detected (ND) in the samples indicated above at a detection limit of 2.0 mg/l.



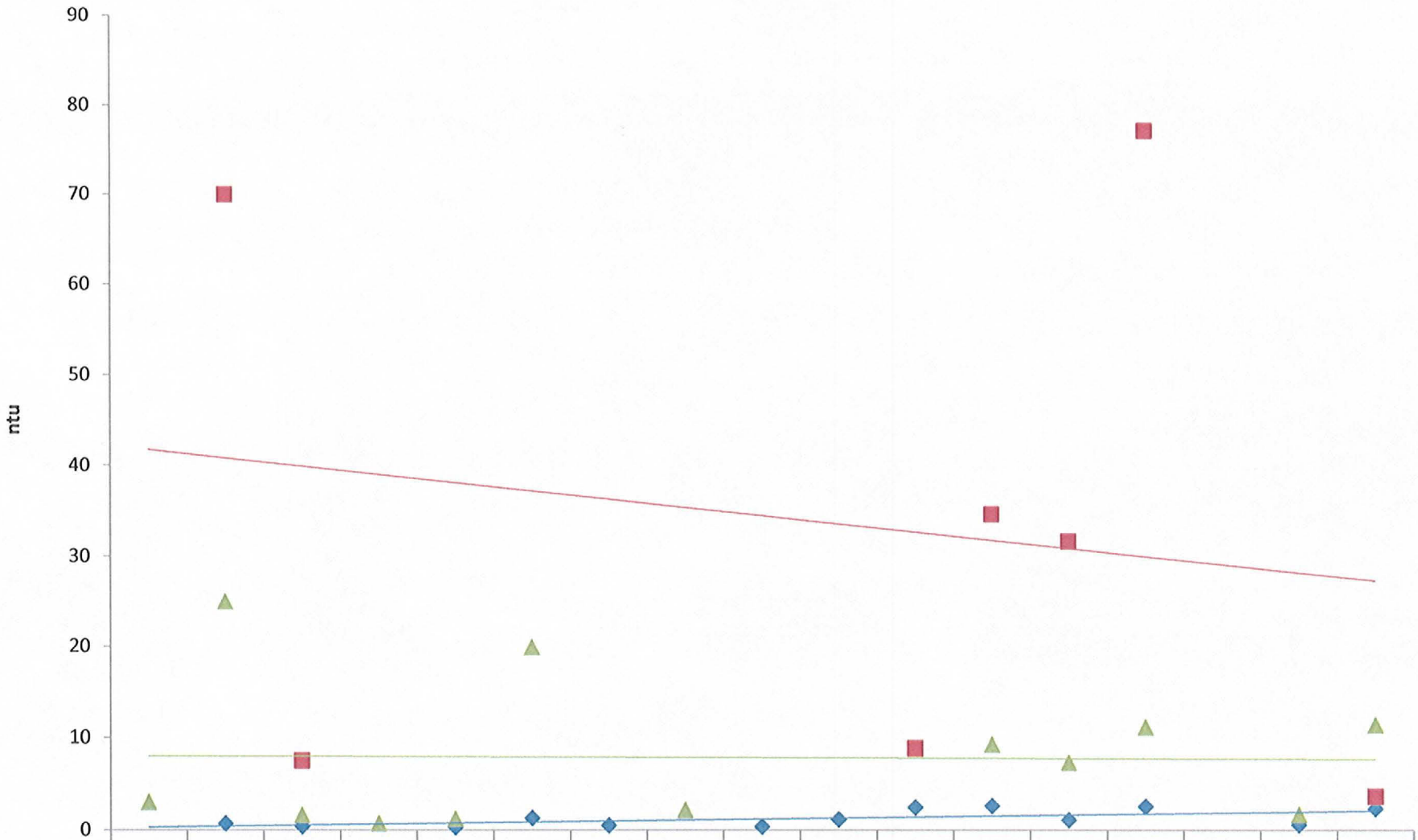
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		29	20		30	30	20		20	40	32	23	40	49.7		31.4	43.3
July		160	100								36	55	140	121			76.1
October	78	56	40	20	30	80		80				83	68	89.2		63.3	74.8



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		7.34	7.34		7.44	7.04	7.67		7.35	6.81	7.3	6.87	7.16	7.32		7.47	7.31
July		6.84	6.55								7.81	7.37	7.7	7.66			7.47
October		7.17	7.12	7.4	7.29	6.99		7				7.51	7.05	7.63		7.21	7.4



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		850	1000		760	790	730		790	810	920	650	600	1050		603	892
July		2200	1100								1100	490	1500	1180			1200
October	1500	1200	1200	720	890	1300		1300				1100	1500	1060		1220	1760



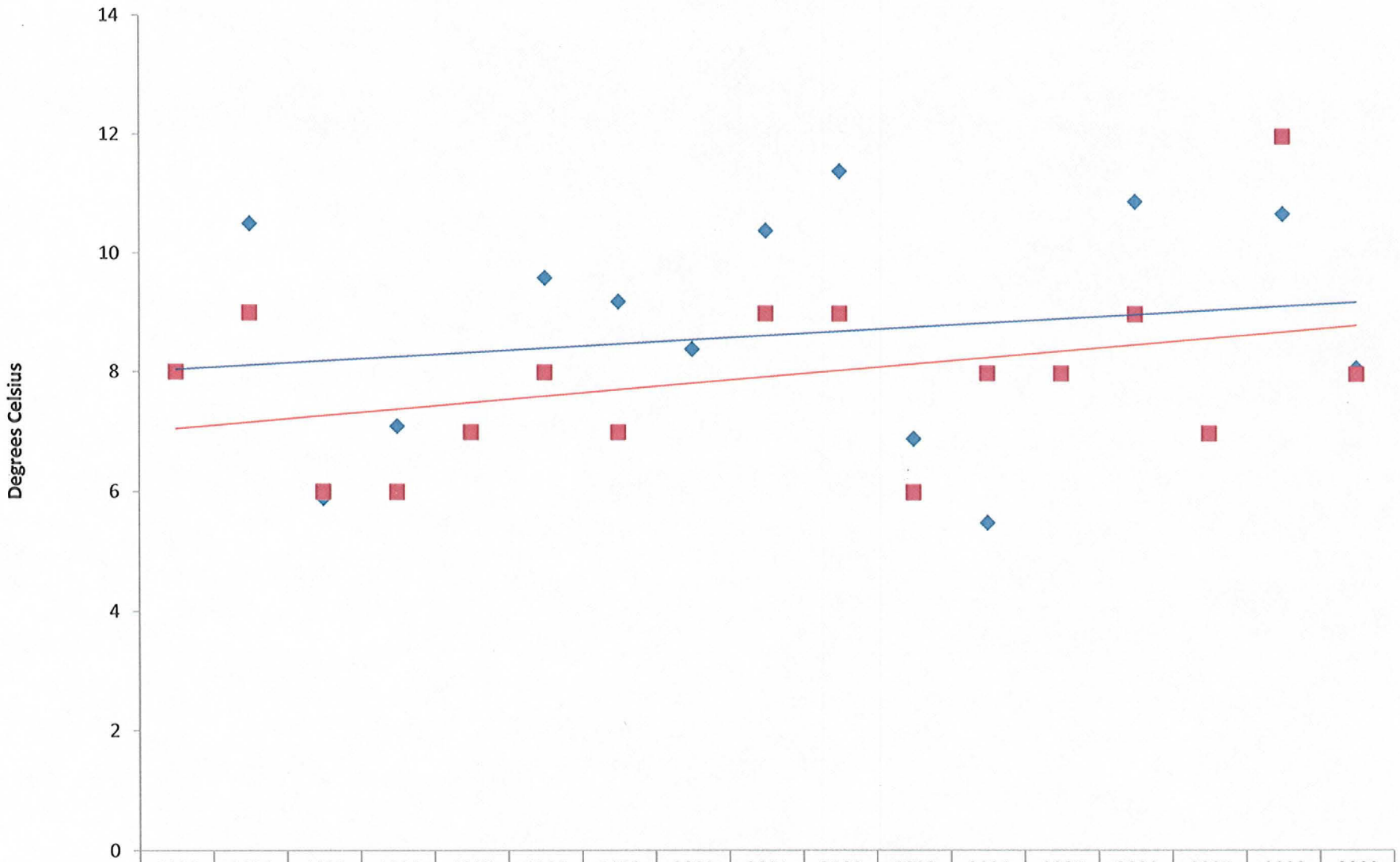
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		0.7	0.4		0.3	1.3	0.5		0.37	1.17	2.5	2.67	1.13	2.61		0.6	2.39
July		70	7.5								8.92	34.9	31.9	77.6			3.7
October	3	25	1.6	0.7	1.2	20		2.19				9.35	7.39	11.28		1.71	11.53

Data and Graphs for S-5

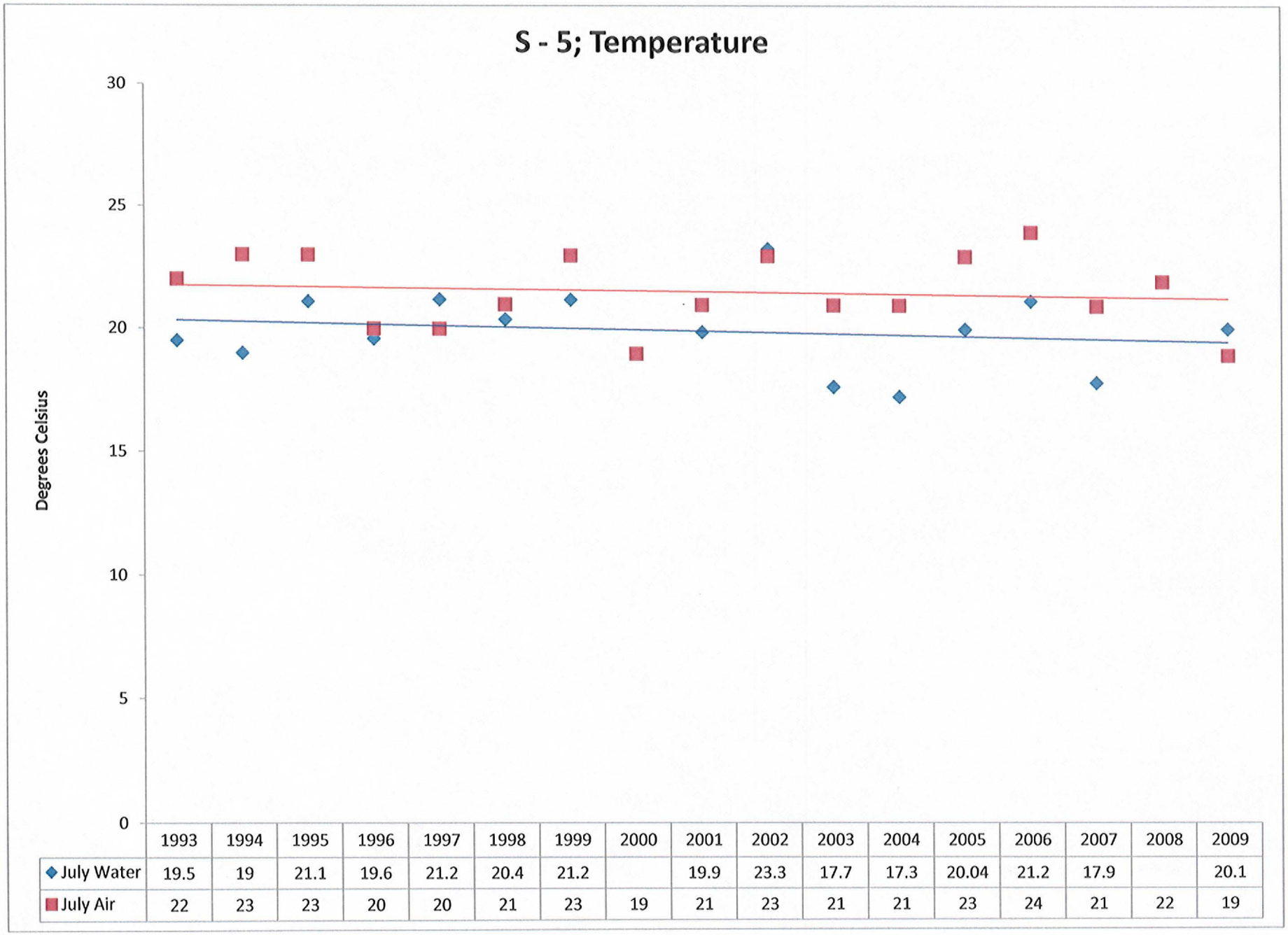
(Data provided by O'Brien & Gere)

Graphs are as follows:

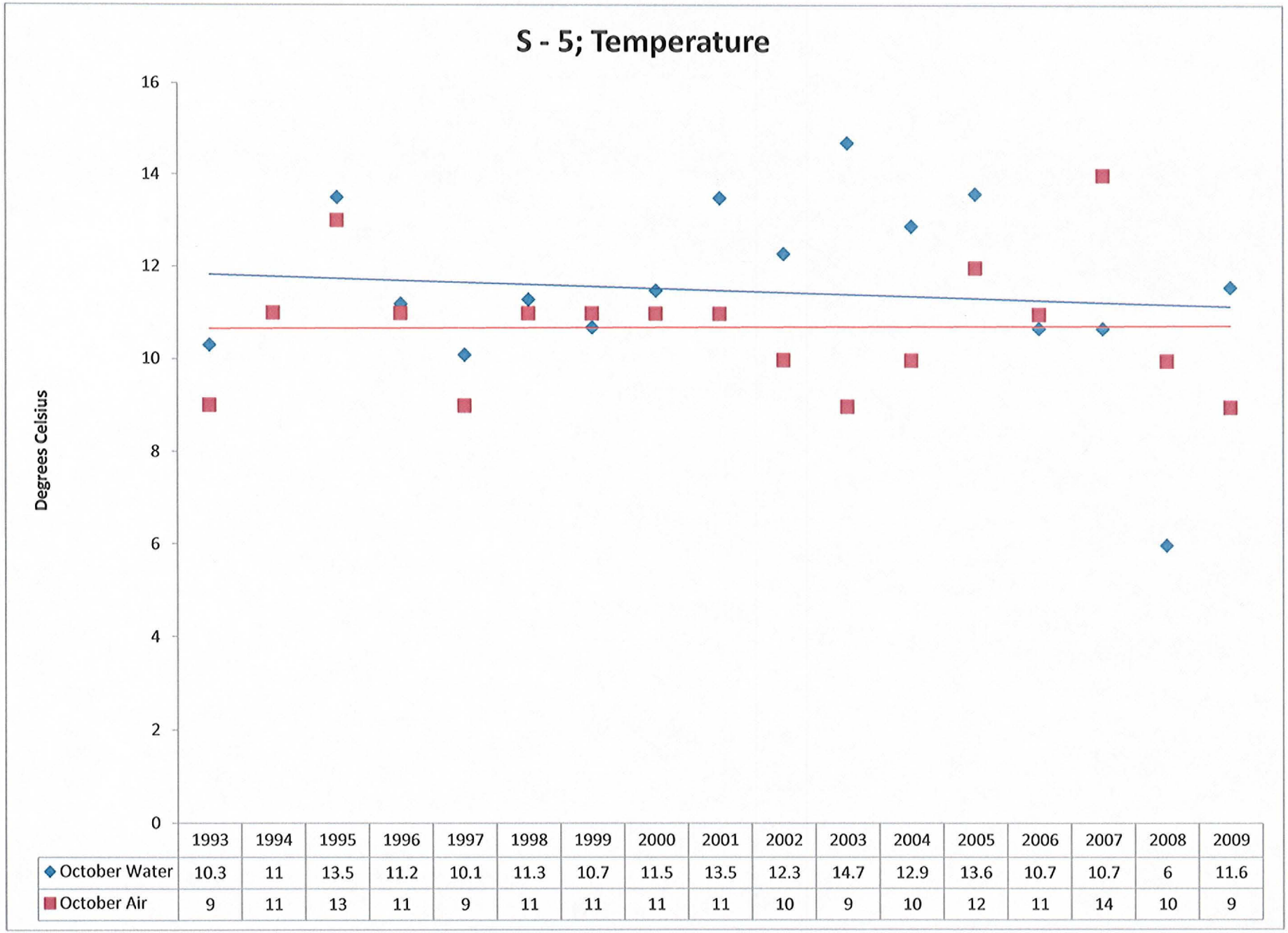
Surface Water and Air Temperature versus Time
Dissolved Oxygen versus Time
Biological Oxygen Demand versus Time
Chemical Oxygen Demand versus Time
pH versus Time
Total Dissolved Solids versus Time
Turbidity versus Time



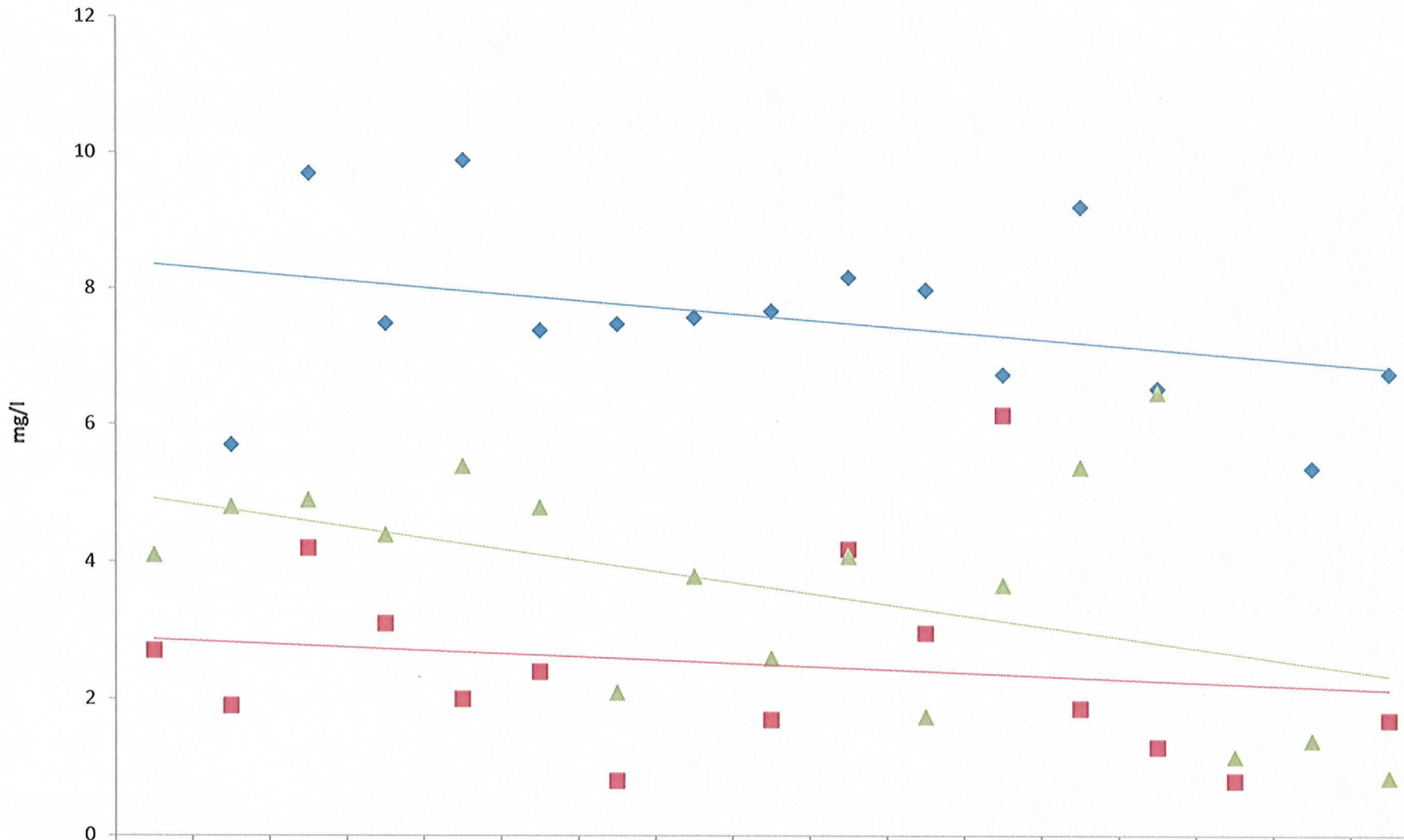
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April Water		10.5	5.9	7.1	7	9.6	9.2	8.4	10.4	11.4	6.9	5.5	8	10.9		10.7	8.1
April Air	8	9	6	6	7	8	7		9	9	6	8	8	9	7	12	8



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
July Water	19.5	19	21.1	19.6	21.2	20.4	21.2		19.9	23.3	17.7	17.3	20.04	21.2	17.9		20.1
July Air	22	23	23	20	20	21	23	19	21	23	21	21	23	24	21	22	19



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
October Water	10.3	11	13.5	11.2	10.1	11.3	10.7	11.5	13.5	12.3	14.7	12.9	13.6	10.7	10.7	6	11.6
October Air	9	11	13	11	9	11	11	11	11	10	9	10	12	11	14	10	9



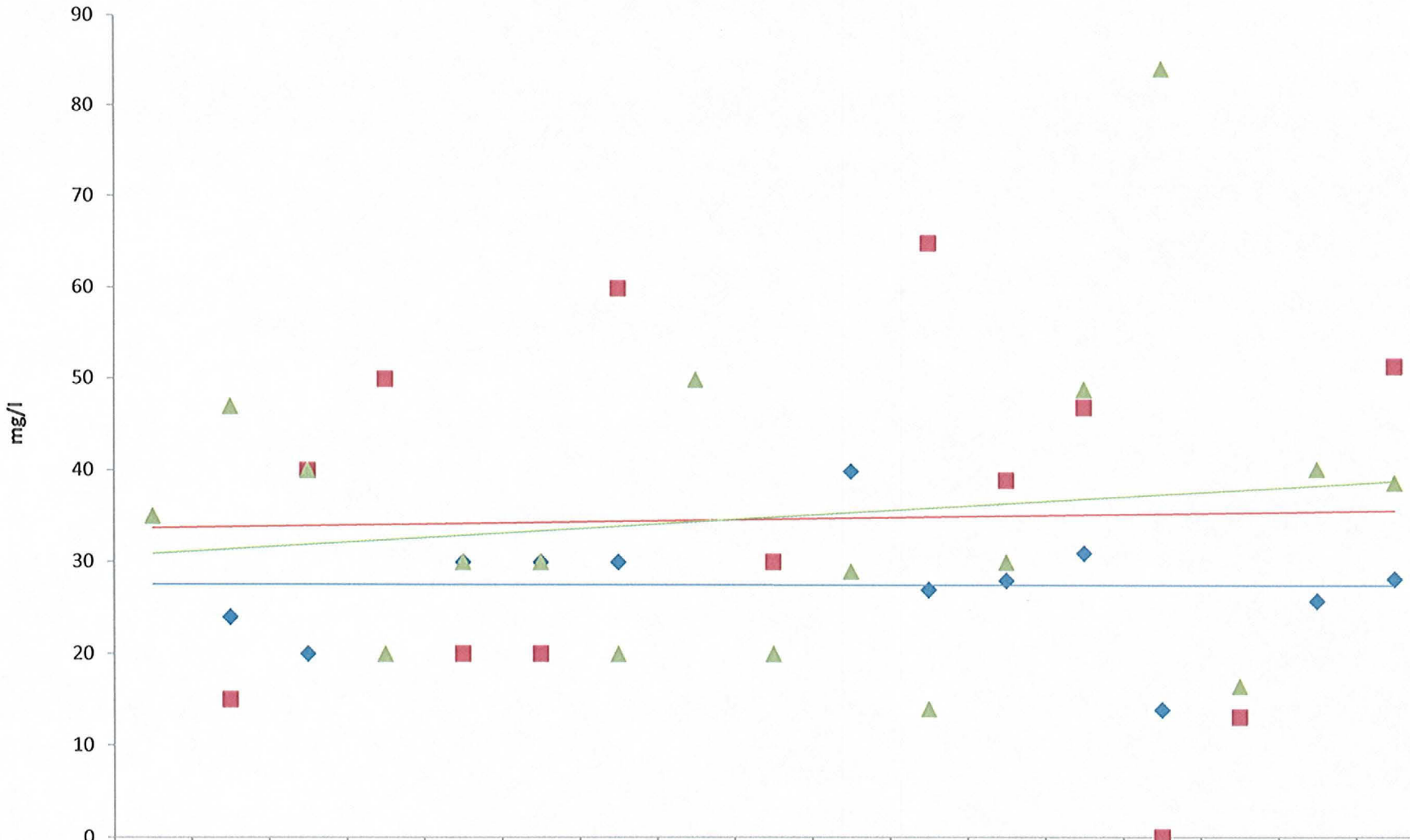
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		5.7	9.7	7.5	9.9	7.4	7.5	7.6	7.7	8.2	8.02	6.77	9.25	6.57		5.4	6.8
July	2.7	1.9	4.2	3.1	2	2.4	0.8		1.7	4.2	2.97	6.17	1.87	1.3	0.8		1.7
October	4.1	4.8	4.9	4.4	5.4	4.8	2.1	3.8	2.6	4.1	1.75	3.68	5.41	6.51	1.16	1.4	0.85

Hotel Creek S - 5: Biological Oxygen Demand

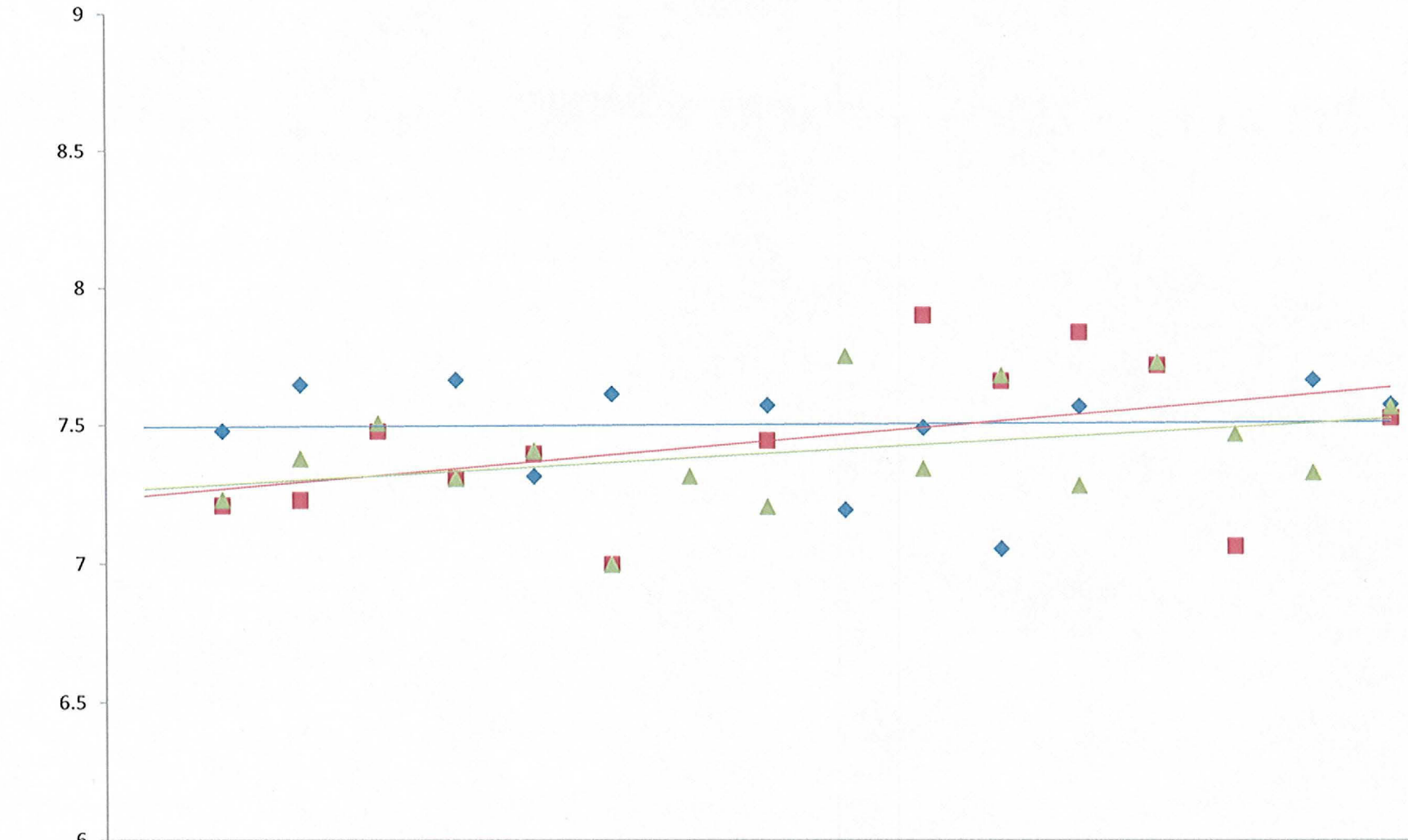
mg/l

	January	February	March	April	May	June	July	August	September	October	November	December	
1993						9							1993
1994							3						1994
1995													1995
1996													1996
1997													1997
1998										3			1998
1999							13						1999
2000										ND			2000
2001				ND			5			2			2001
2002				2				5		6			2002
2003				ND			4.9			2.4			2003
2004				2.9			3.9			3.1			2004
2005				3.6			3.4			4.7			2005
2006				ND			ND			ND			2006
2007					ND		ND			ND			2007
2008				ND				ND		3.4			2008
2009				ND			ND			ND			2009

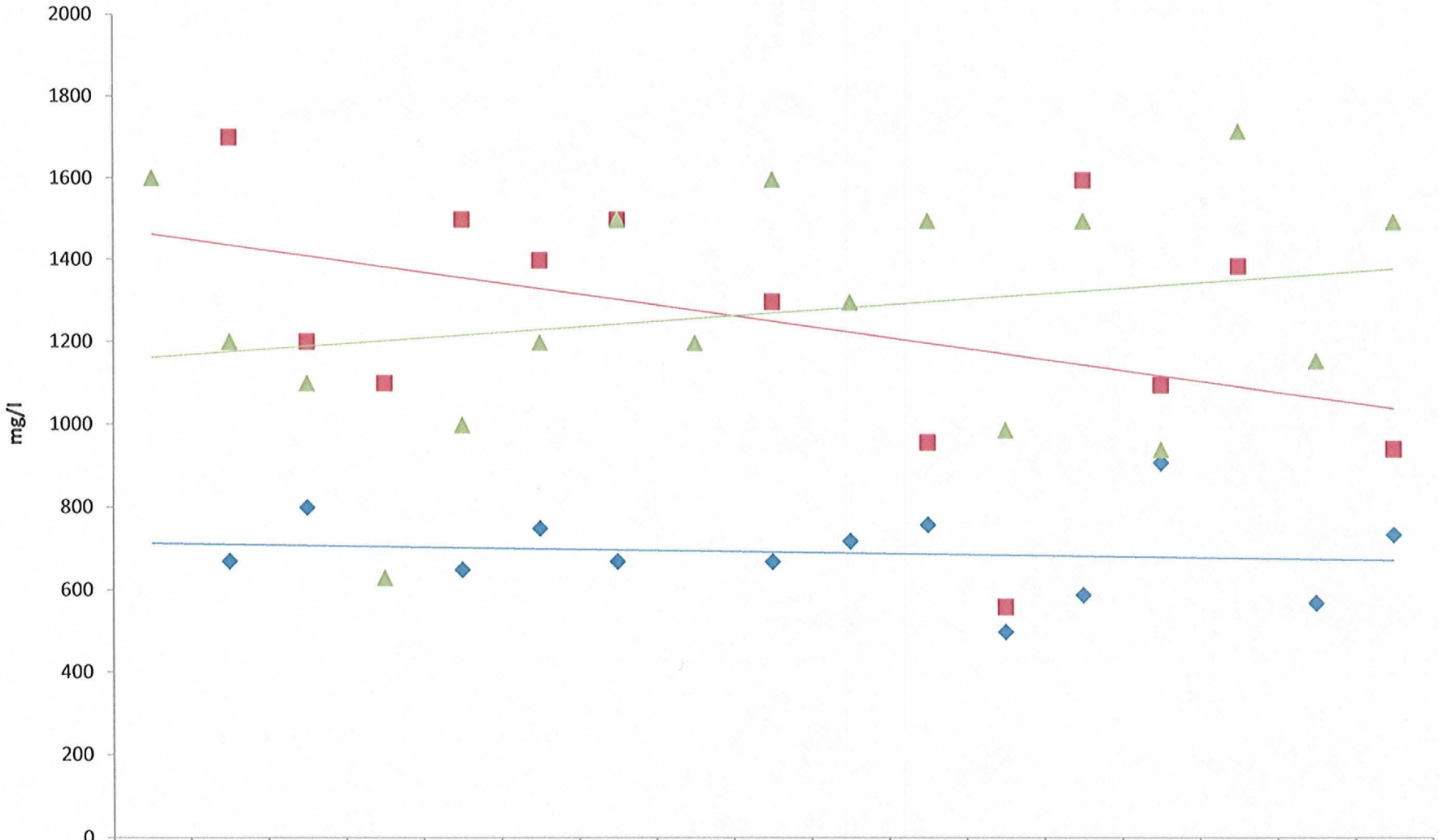
The data for Biological Oxygen Demand is not suggestive of a trend. BOD was not detected (ND) in the samples indicated above at a detection limit of 2.0 mg/l.



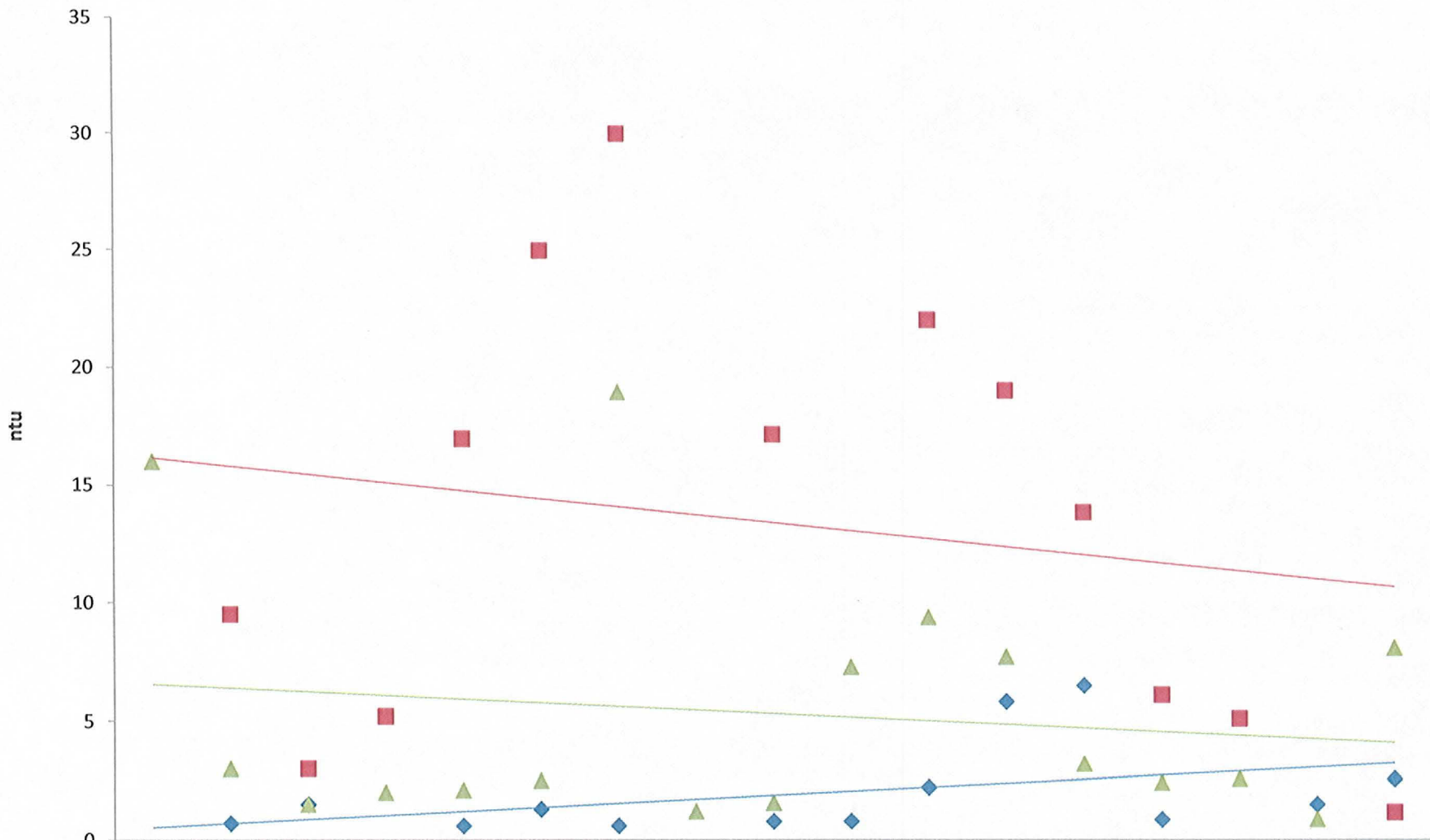
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		24	20		30	30	30		30	40	27	28	31	13.9		25.8	28.2
July		15	40	50	20	20	60		30		65	39	47	0	13.1		51.6
October	35	47	40	20	30	30	20	50	20	29	14	30	49	84.2	16.5	40.3	38.8



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		7.48	7.65		7.67	7.32	7.62		7.58	7.2	7.5	7.06	7.58	7.73		7.68	7.59
July		7.21	7.23	7.48	7.31	7.4	7		7.45		7.91	7.67	7.85	7.73	7.07		7.54
October		7.23	7.38	7.51	7.31	7.41	7	7.32	7.21	7.76	7.35	7.69	7.29	7.74	7.48	7.34	7.58



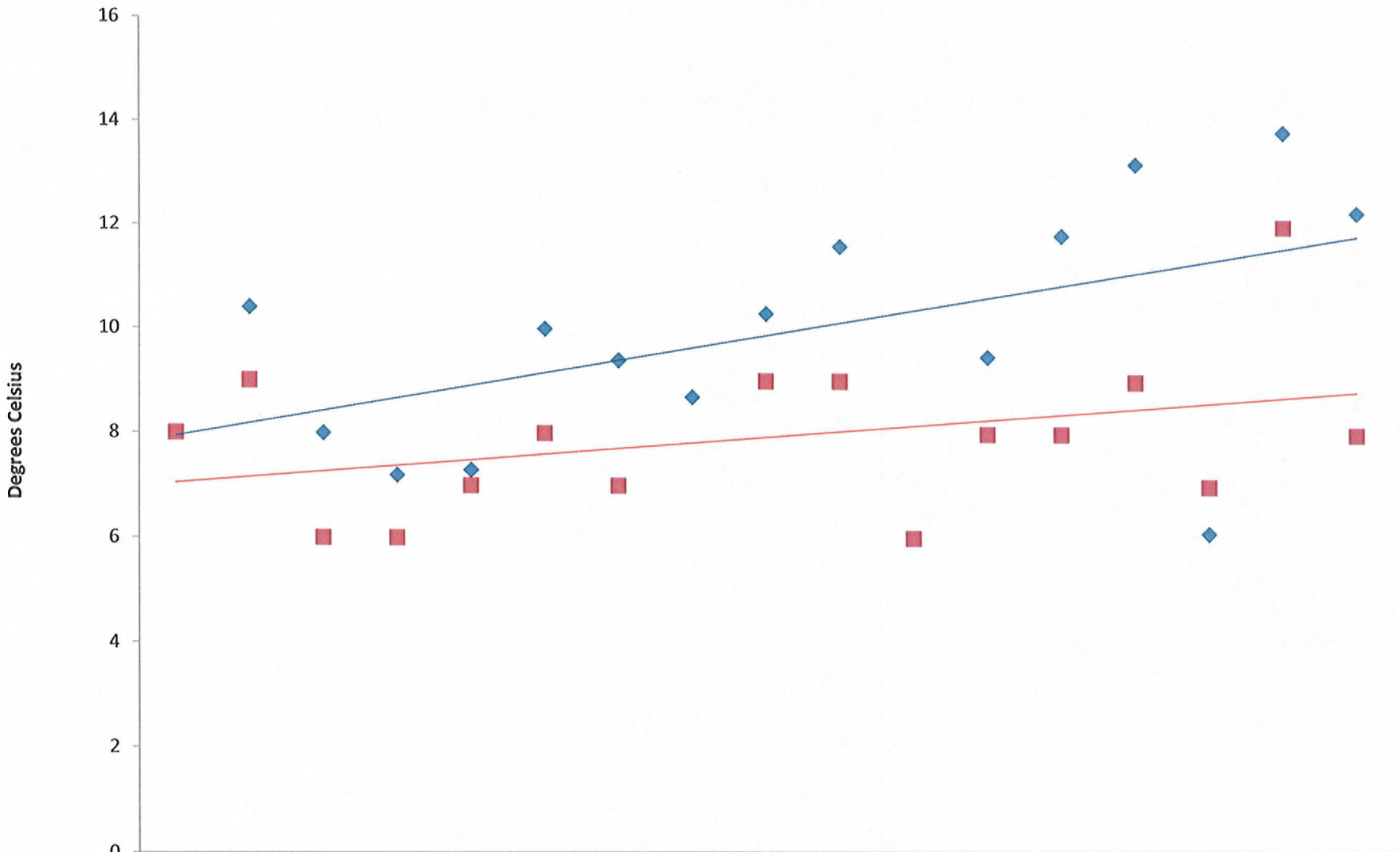
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		670	800		650	750	670		670	720	760	500	590	912		571	737
July		1700	1200	1100	1500	1400	1500		1300		960	560	1600	1100	1390		946
October	1600	1200	1100	630	1000	1200	1500	1200	1600	1300	1500	990	1500	944	1720	1160	1500



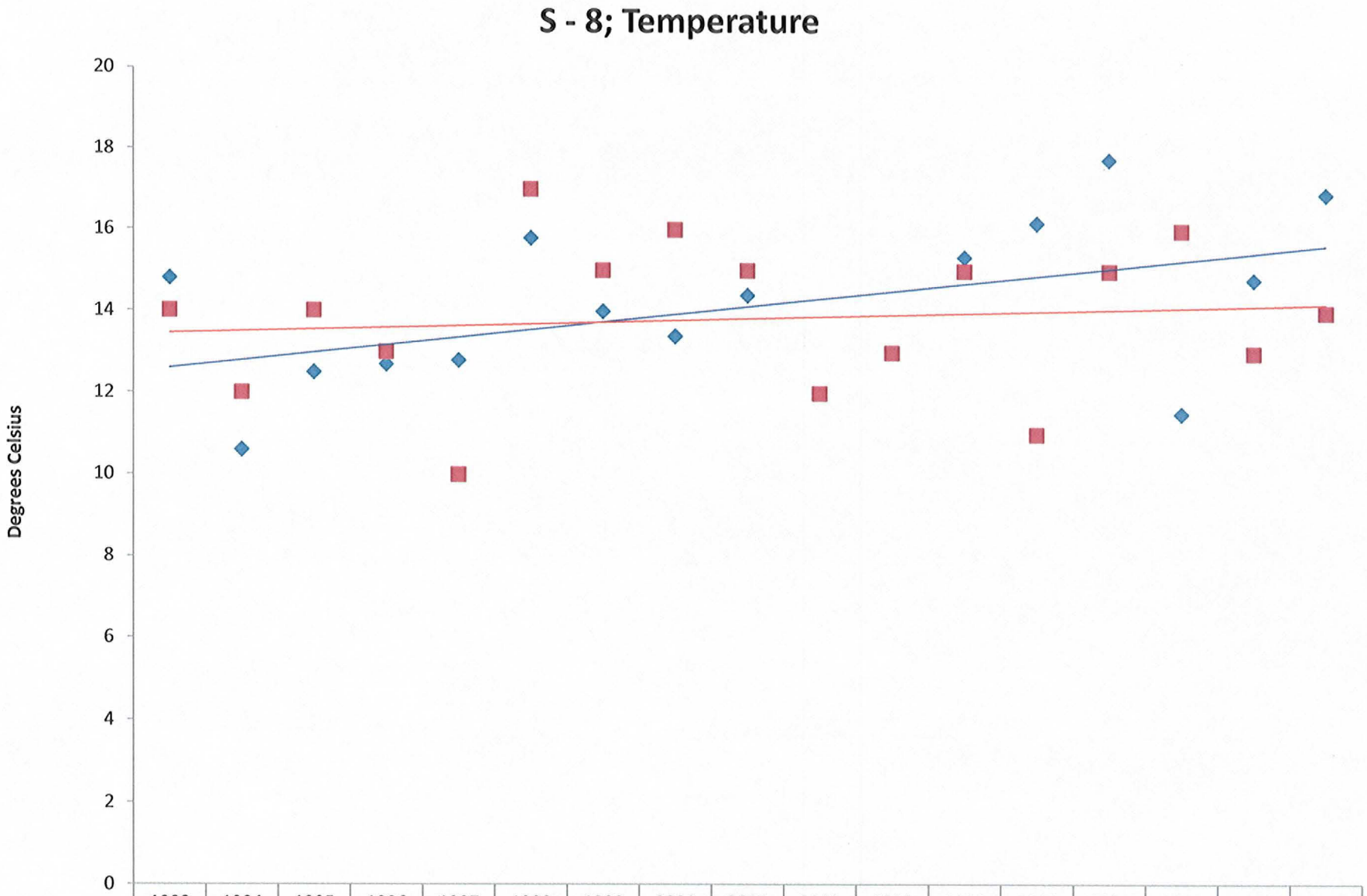
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		0.7	1.5		0.6	1.3	0.6		0.78	0.79	2.22	5.83	6.51	0.86		1.5	2.56
July		9.5	3	5.2	17	25	30		17.2		22.1	19.1	13.9	6.11	5.1		1.15
October	16	3	1.5	2	2.1	2.5	19	1.2	1.56	7.29	9.41	7.73	3.19	2.41	2.58	0.87	8.11

Data and Graphs for S-8

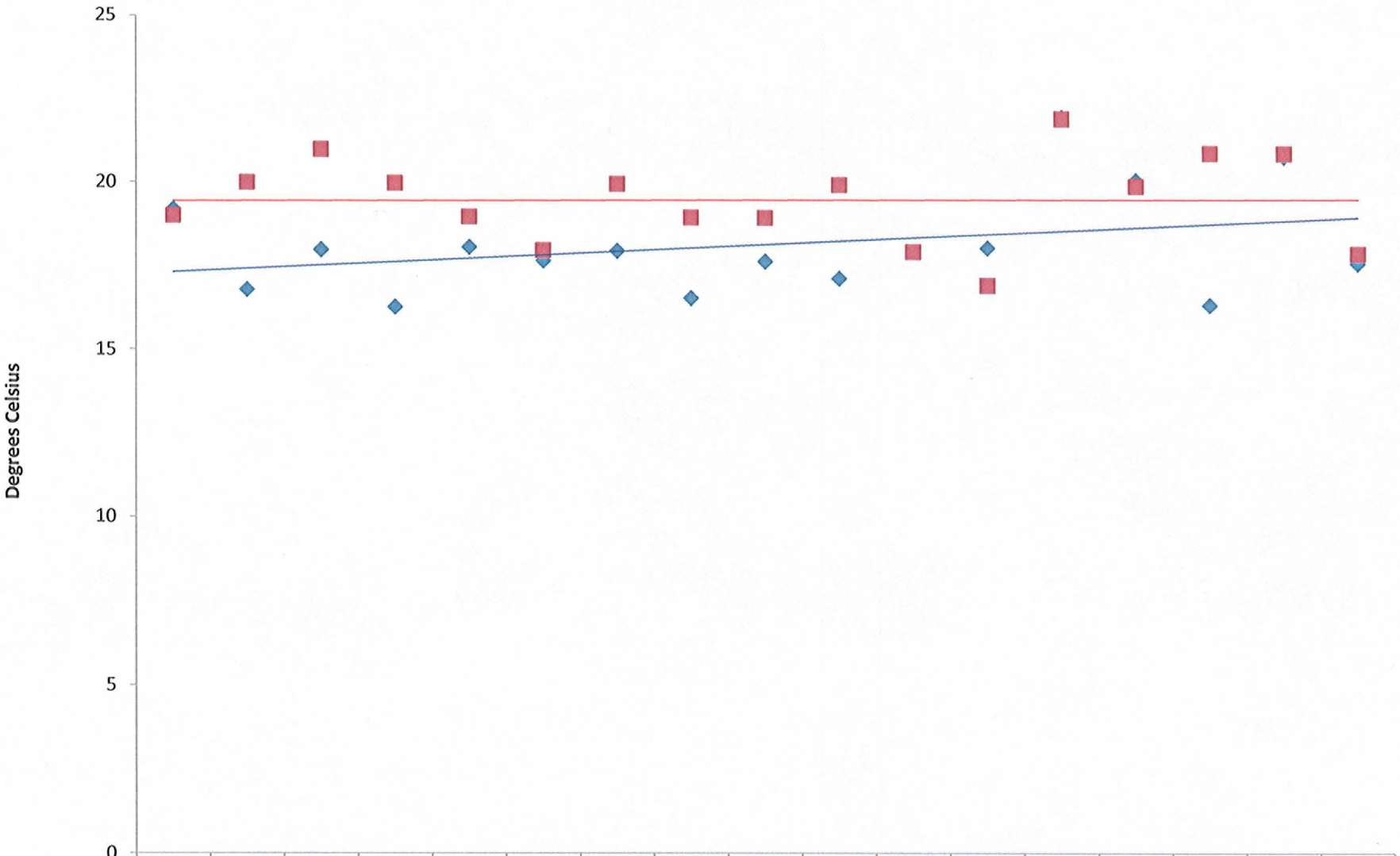
(Data provided by O'Brien & Gere)
Surface Water and Air Temperature versus Time
Dissolved Oxygen versus Time
Biological Oxygen Demand versus Time
Chemical Oxygen Demand versus Time
pH versus Time
Total Dissolved Solids versus Time
Turbidity versus Time



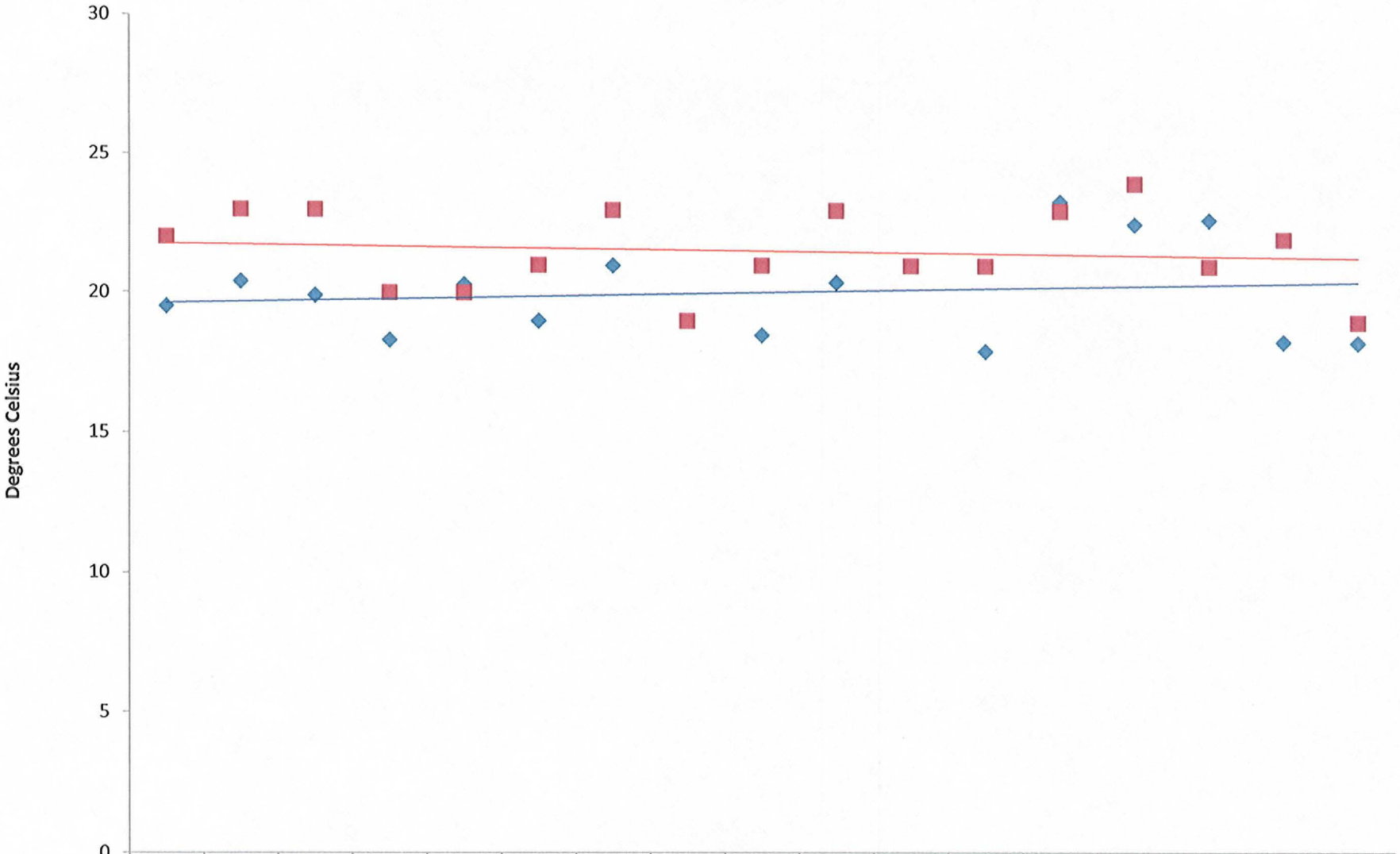
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April Water		10.4	8	7.2	7.3	10	9.4	8.7	10.3	11.6		9.48	11.82	13.21	6.11	13.83	12.28
April Air	8	9	6	6	7	8	7		9	9	6	8	8	9	7	12	8



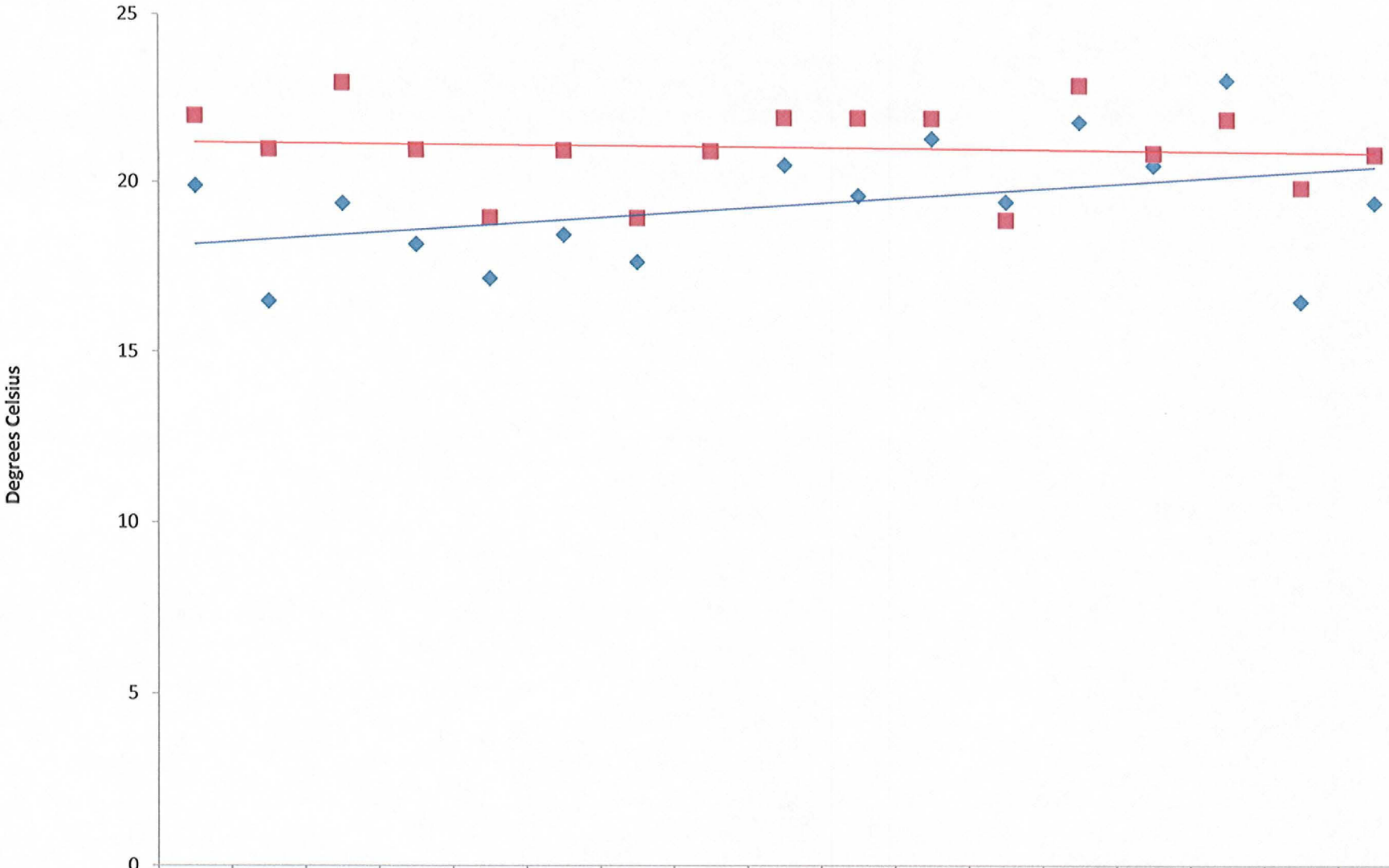
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
May Water	14.8	10.6	12.5	12.7	12.8	15.8	14	13.4	14.4	12		15.35	16.19	17.75	11.52	14.8	16.91
May Air	14	12	14	13	10	17	15	16	15	12	13	15	11	15	16	13	14



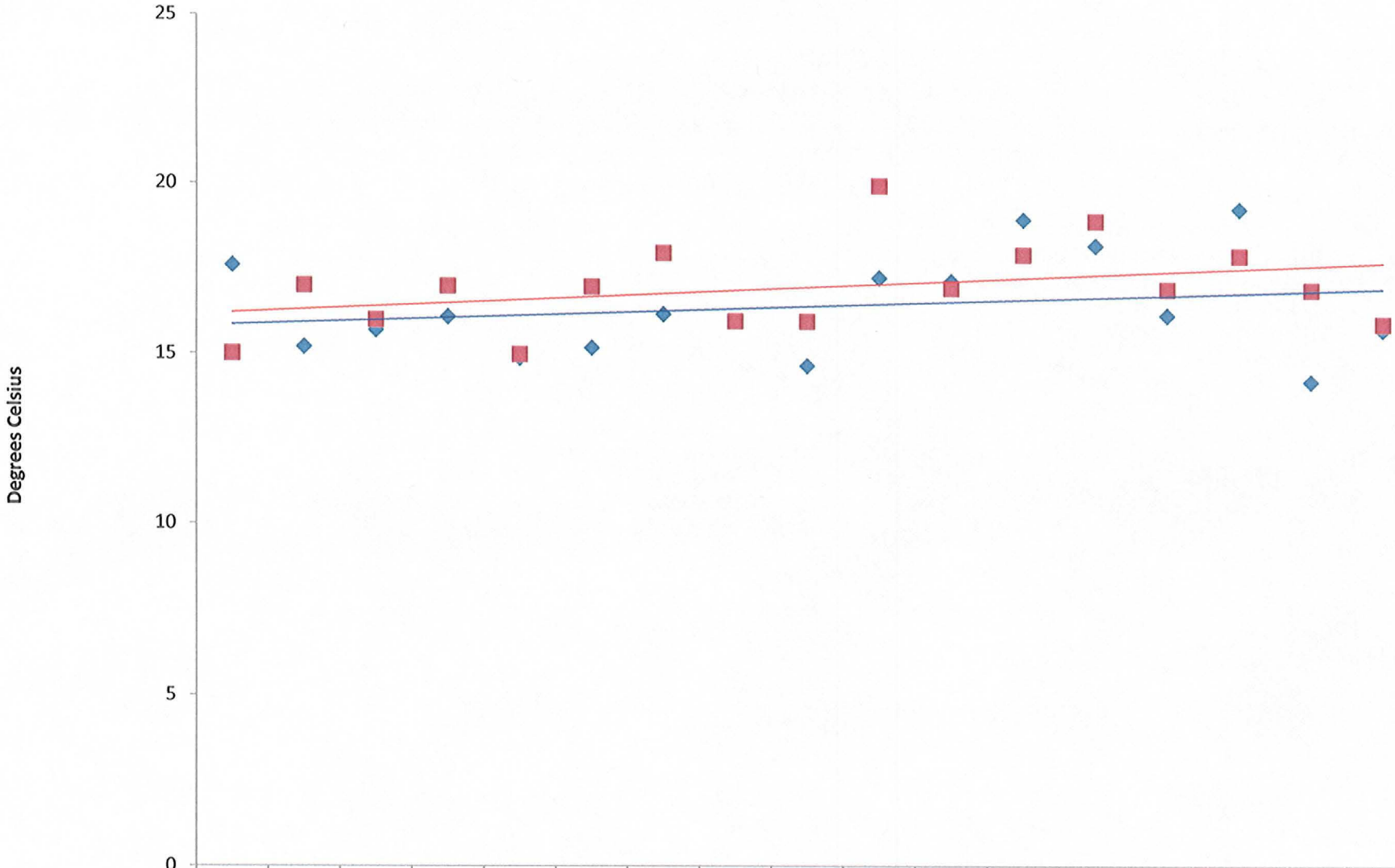
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
June Water	19.2	16.8	18	16.3	18.1	17.7	18	16.6	17.7	17.2		18.13	22.04	20.18	16.45	20.91	17.72
June Air	19	20	21	20	19	18	20	19	19	20	18	17	22	20	21	21	18



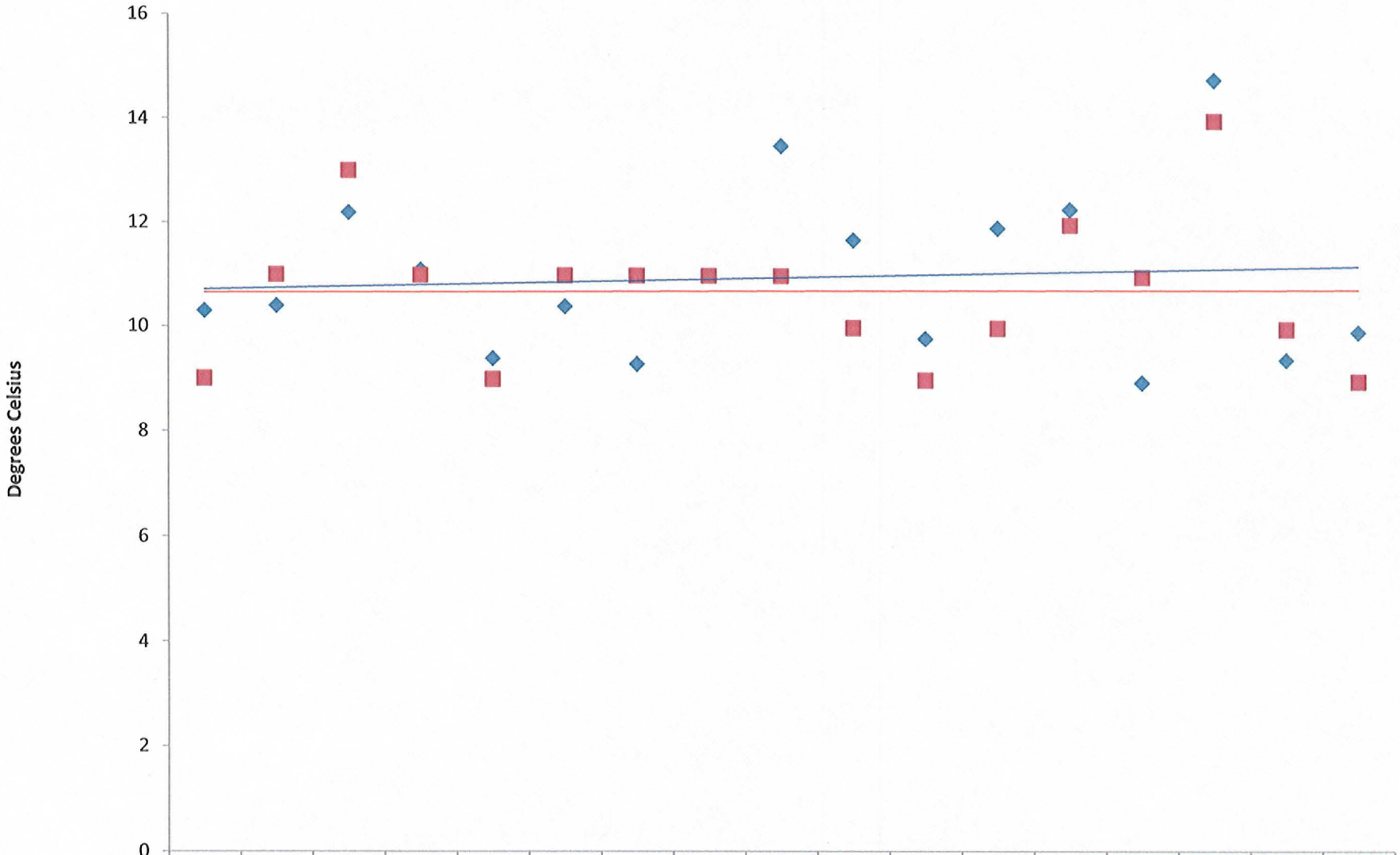
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
July Water	19.5	20.4	19.9	18.3	20.3	19	21		18.5	20.4		17.94	23.35	22.54	22.7	18.3	18.27
July Air	22	23	23	20	20	21	23	19	21	23	21	21	23	24	21	22	19



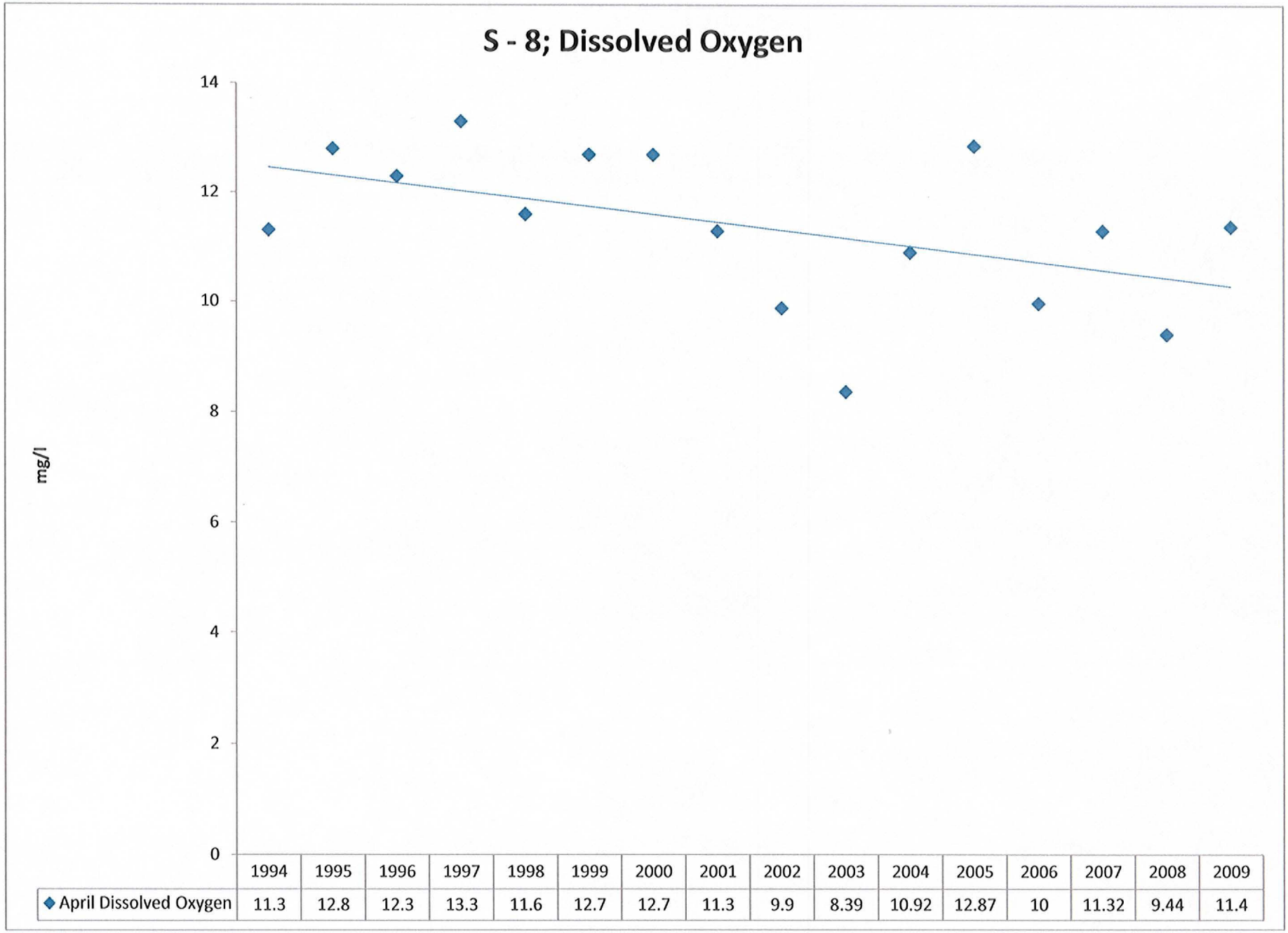
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
August Water	19.9	16.5	19.4	18.2	17.2	18.5	17.7		20.6	19.7	21.4	19.54	21.91	20.65	23.16	16.63	19.57
August Air	22	21	23	21	19	21	19	21	22	22	22	19	23	21	22	20	21



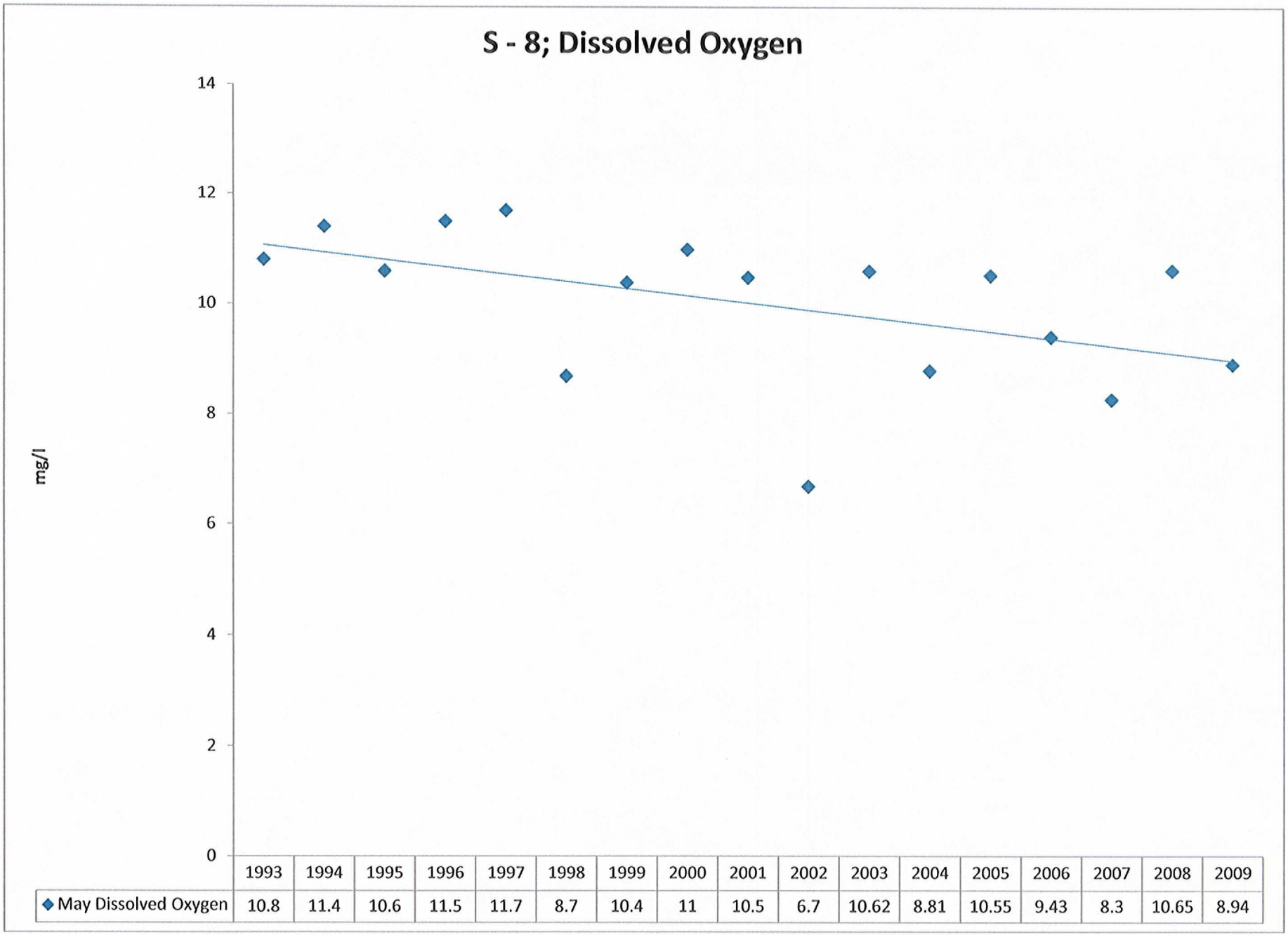
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
September Water	17.6	15.2	15.7	16.1	14.9	15.2	16.2		14.7	17.3	17.2	19.04	18.28	16.23	19.38	14.3	15.83
September Air	15	17	16	17	15	17	18	16	16	20	17	18	19	17	18	17	16



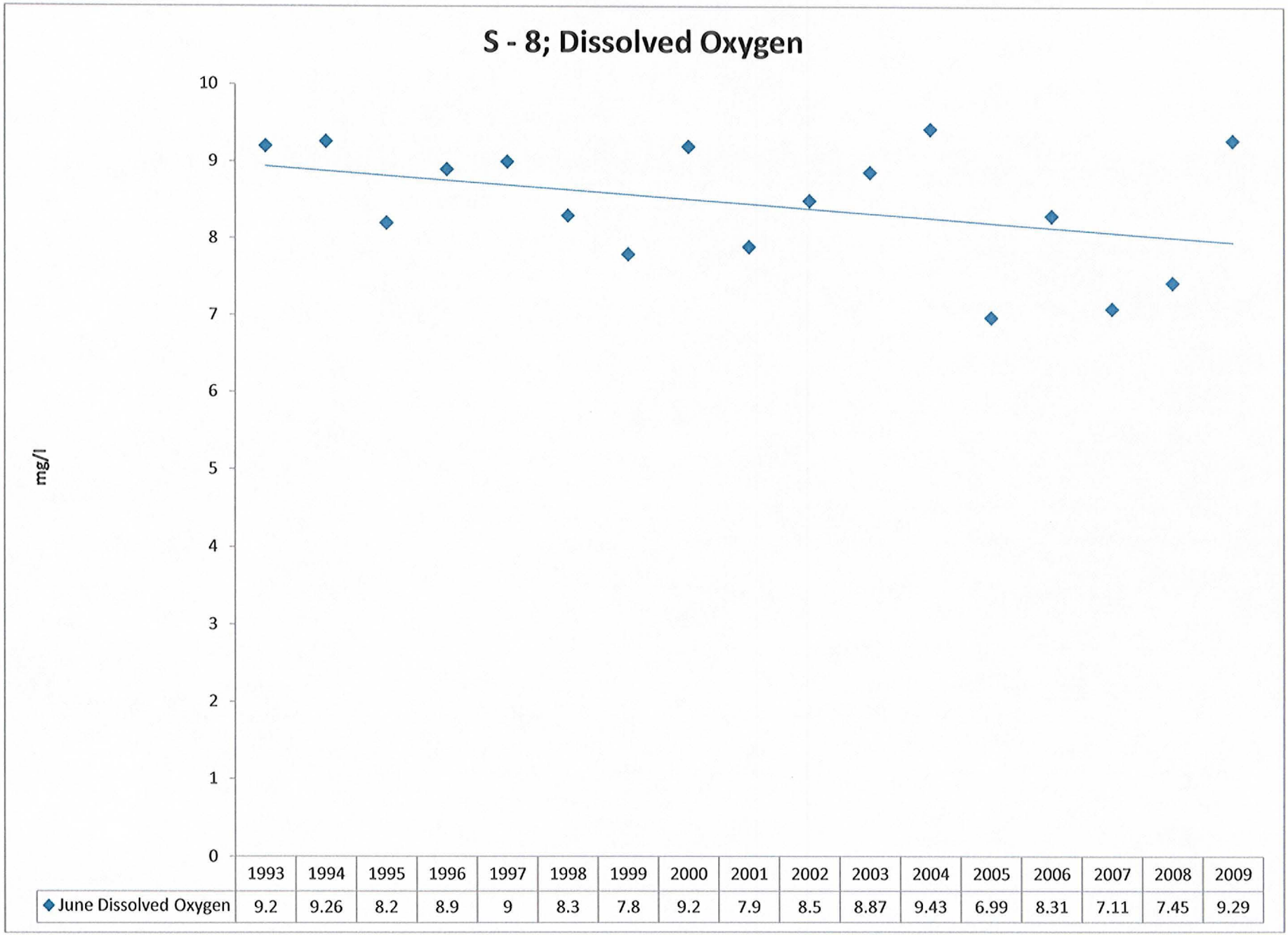
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
October Water	10.3	10.4	12.2	11.1	9.4	10.4	9.3	11	13.5	11.7	9.8	11.94	12.3	8.97	14.79	9.41	9.95
October Air	9	11	13	11	9	11	11	11	11	10	9	10	12	11	14	10	9



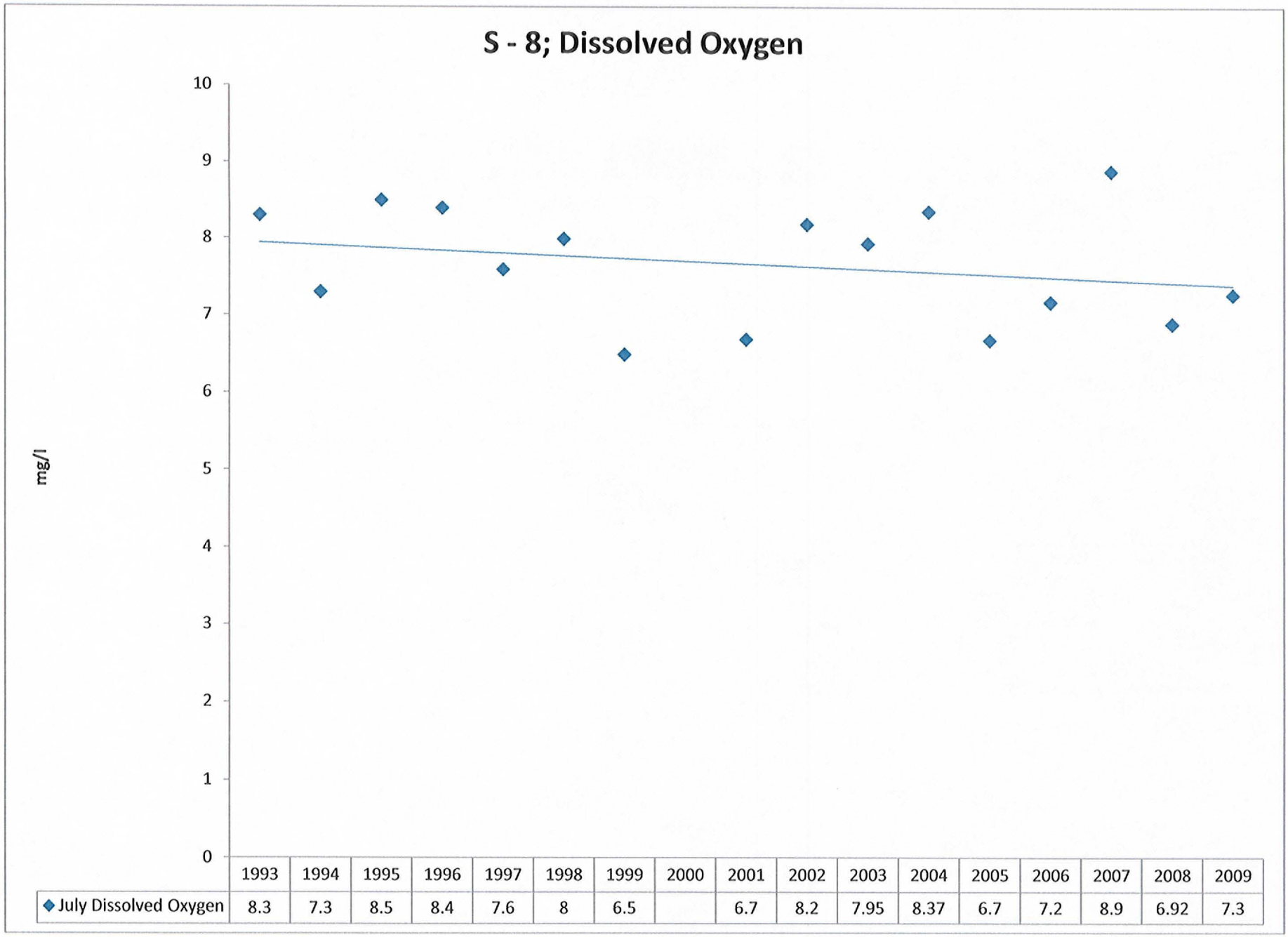
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April Dissolved Oxygen	11.3	12.8	12.3	13.3	11.6	12.7	12.7	11.3	9.9	8.39	10.92	12.87	10	11.32	9.44	11.4



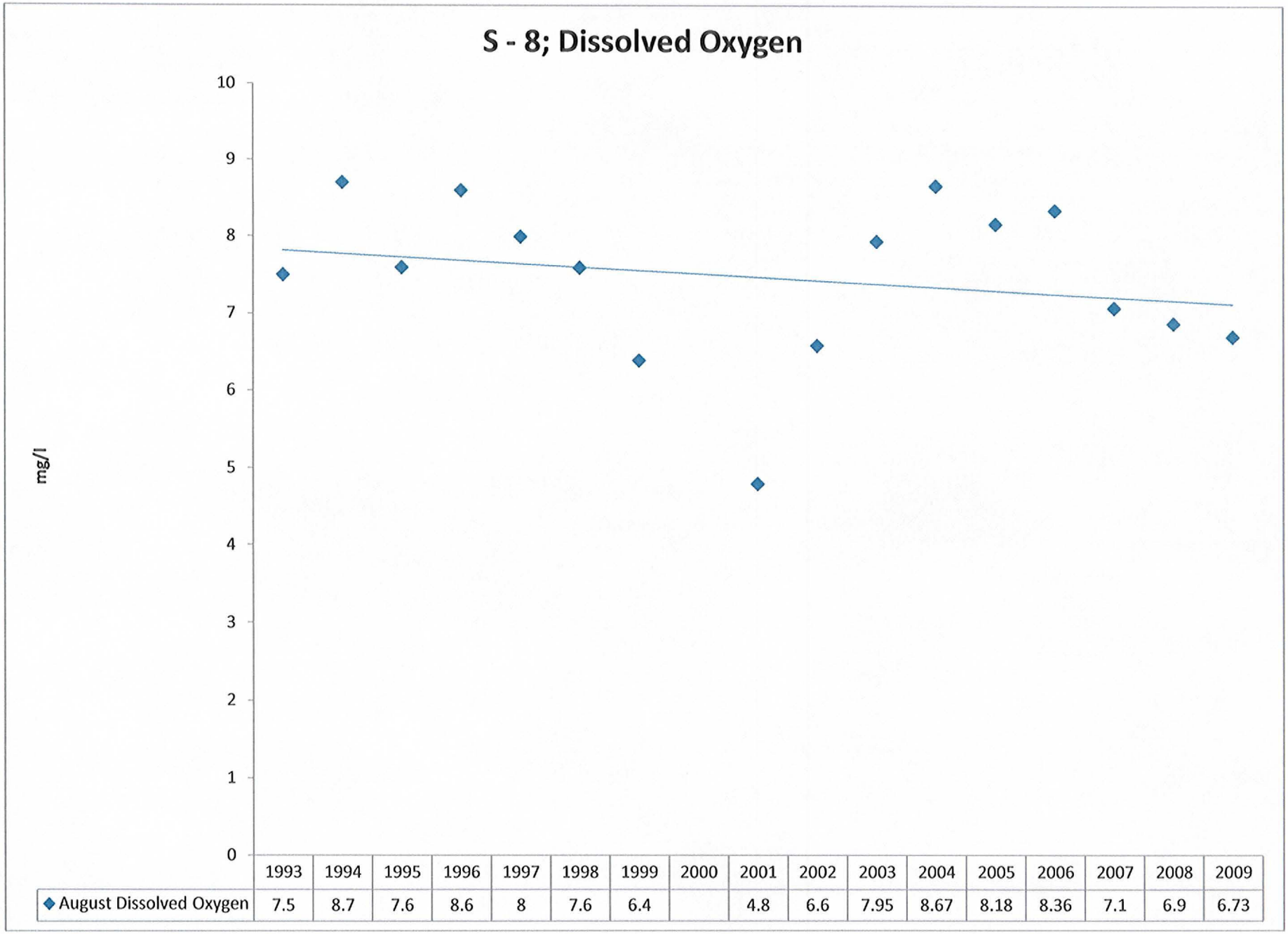
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
May Dissolved Oxygen	10.8	11.4	10.6	11.5	11.7	8.7	10.4	11	10.5	6.7	10.62	8.81	10.55	9.43	8.3	10.65	8.94



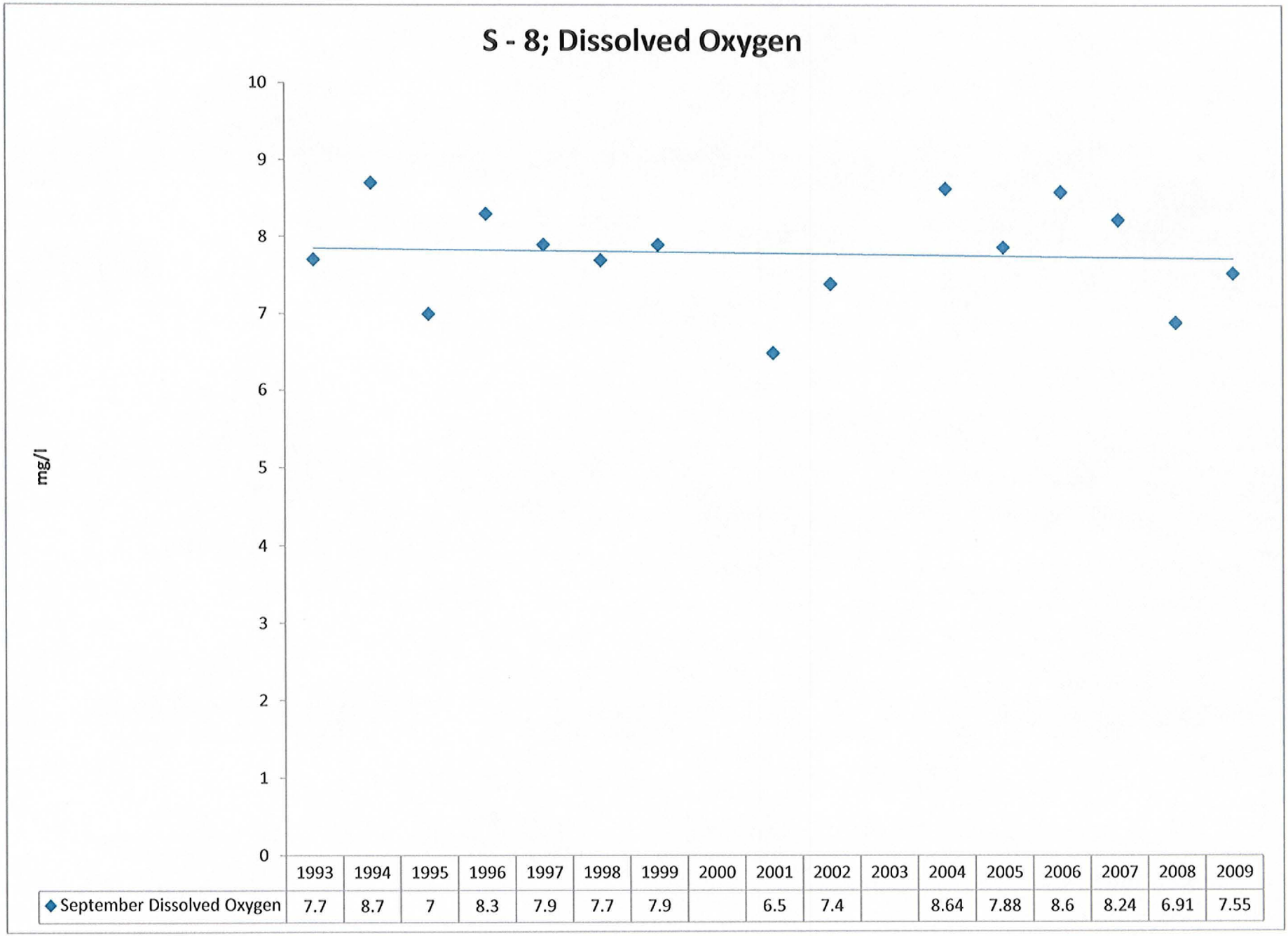
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
June Dissolved Oxygen	9.2	9.26	8.2	8.9	9	8.3	7.8	9.2	7.9	8.5	8.87	9.43	6.99	8.31	7.11	7.45	9.29



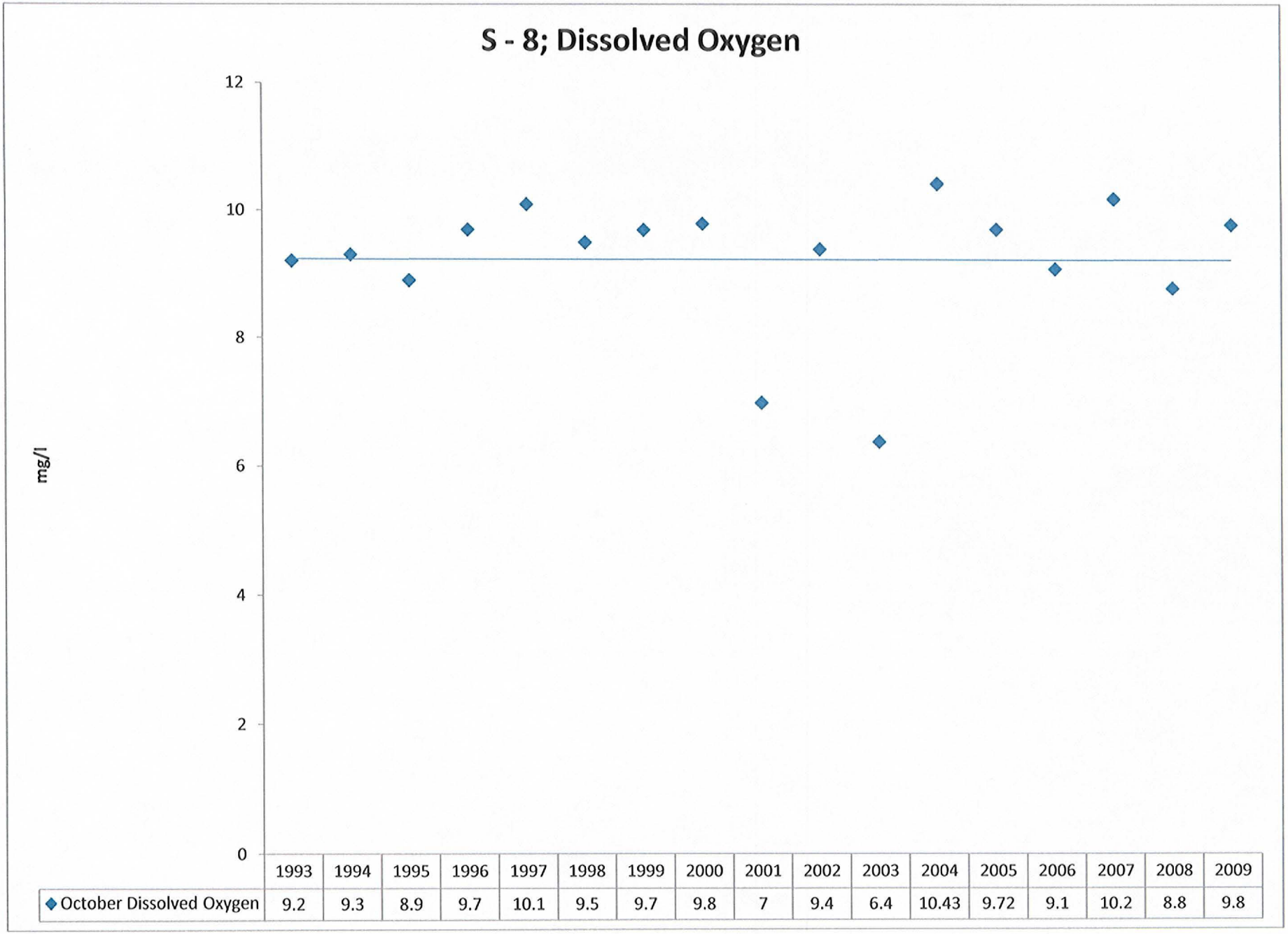
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
July Dissolved Oxygen	8.3	7.3	8.5	8.4	7.6	8	6.5		6.7	8.2	7.95	8.37	6.7	7.2	8.9	6.92	7.3



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
August Dissolved Oxygen	7.5	8.7	7.6	8.6	8	7.6	6.4		4.8	6.6	7.95	8.67	8.18	8.36	7.1	6.9	6.73



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
September Dissolved Oxygen	7.7	8.7	7	8.3	7.9	7.7	7.9		6.5	7.4		8.64	7.88	8.6	8.24	6.91	7.55



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
October Dissolved Oxygen	9.2	9.3	8.9	9.7	10.1	9.5	9.7	9.8	7	9.4	6.4	10.43	9.72	9.1	10.2	8.8	9.8

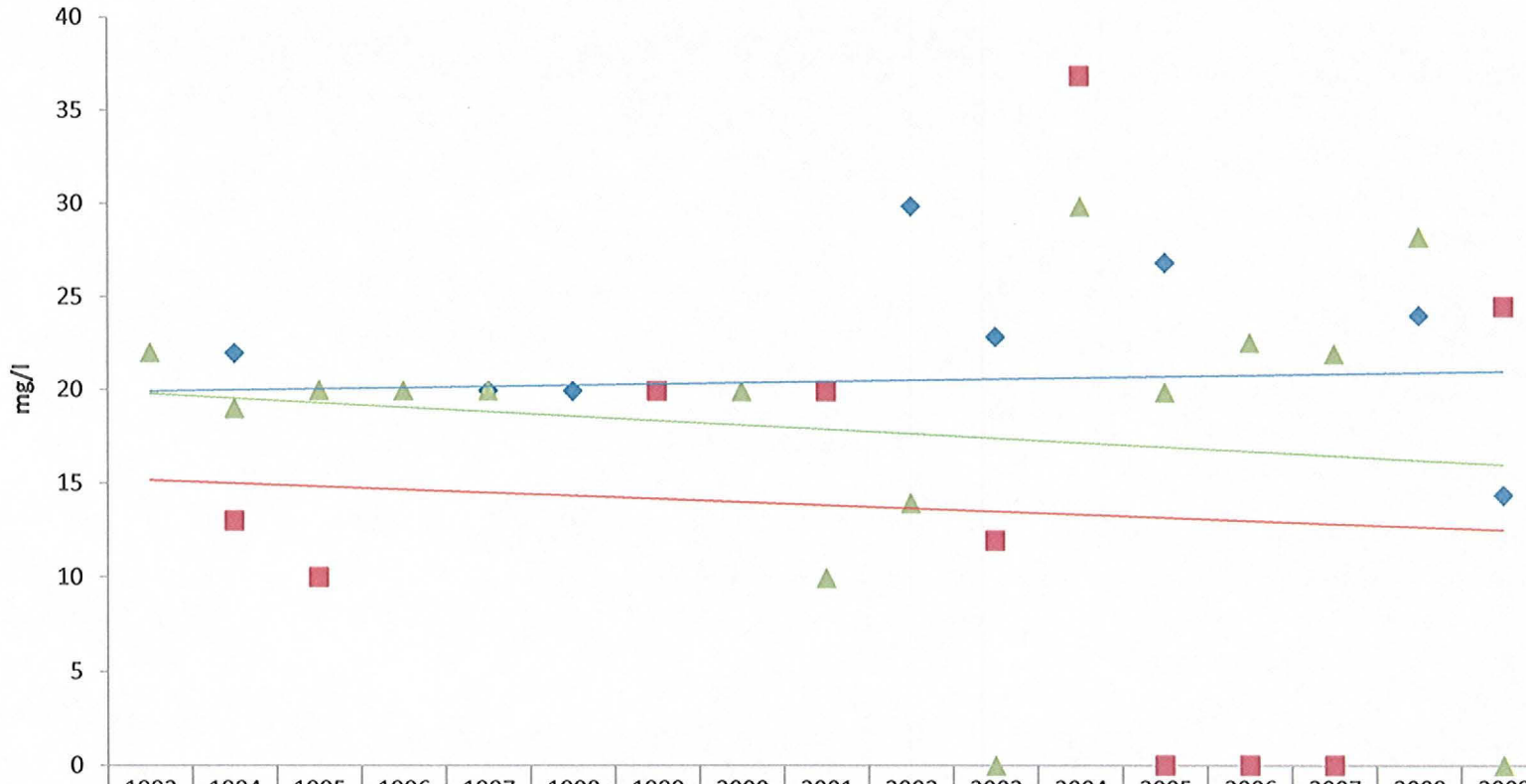
Hotel Creek S - 8: Biological Oxygen Demand

mg/l

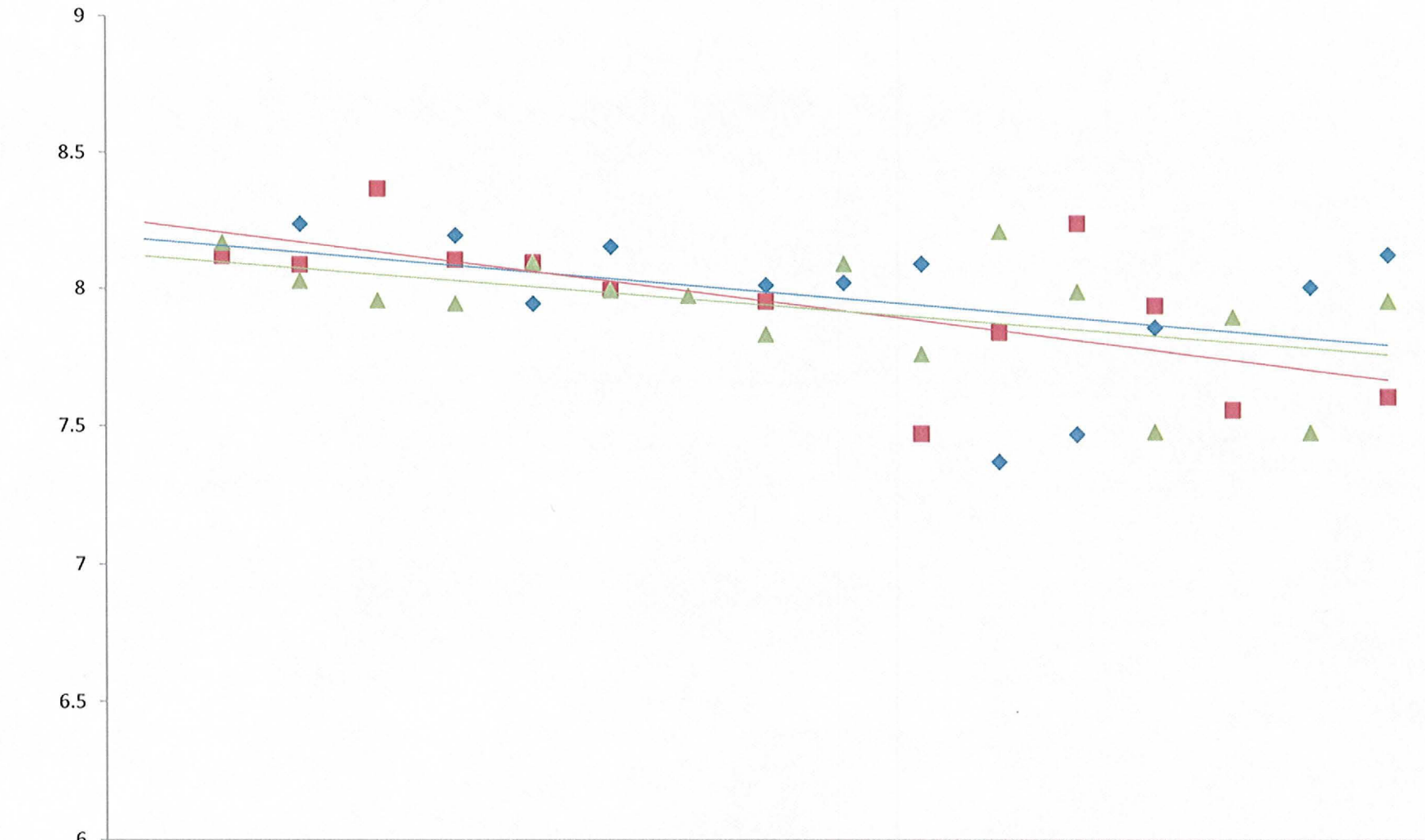
	January	February	March	April	May	June	July	August	September	October	November	December	
1993						9							1993
1994													1994
1995													1995
1996													1996
1997													1997
1998										2			1998
1999													1999
2000										ND			2000
2001				ND			ND			ND			2001
2002				2				ND		ND			2002
2003				ND			ND			ND			2003
2004				4.7			5.6			ND			2004
2005				4.6			ND			ND			2005
2006				14.1			3.9			ND			2006
2007					ND		ND			ND			2007
2008				ND				ND		7.8			2008
2009				ND			ND			ND			2009

The data for Biological Oxygen Demand is not suggestive of a trend. BOD was not detected (ND) in the samples indicated above at a detection limit of 2.0 mg/l.

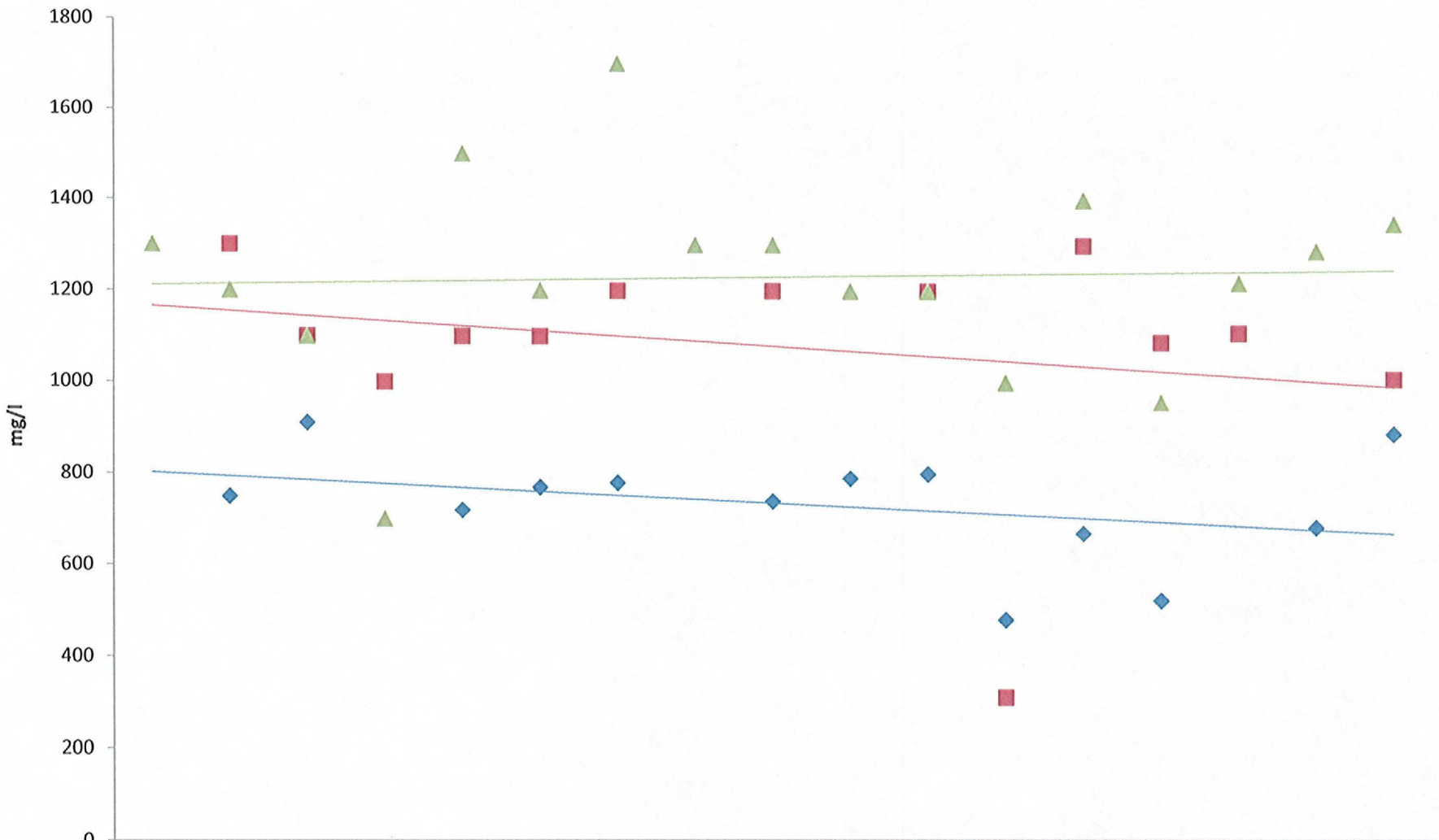
S - 8; Chemical Oxygen Demand



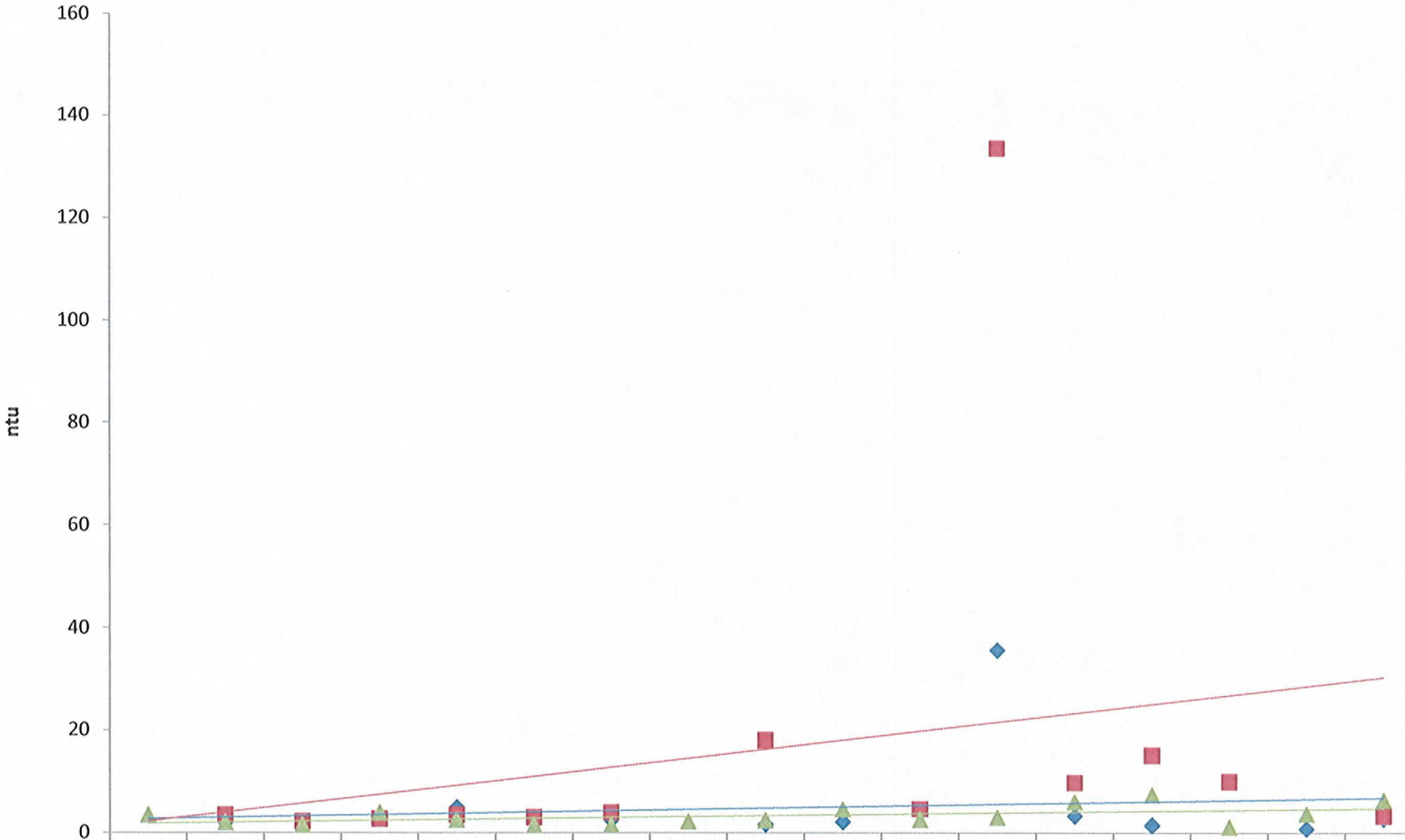
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		22	10		20	20	20		20	30	23	37	27	0		24.2	14.5
July		13	10				20		20		12	37	0	0	0		24.7
October	22	19	20	20	20			20	10	14	0	30	20	22.7	22.1	28.4	0



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April			8.24		8.2	7.95	8.16		8.02	8.03	8.1	7.38	7.48	7.87		8.02	8.14
July		8.12	8.09	8.37	8.11	8.1	8		7.96		7.48	7.85	8.25	7.95	7.57		7.62
October		8.17	8.03	7.96	7.95	8.1	8	7.98	7.84	8.1	7.77	8.22	8	7.49	7.91	7.49	7.97



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		750	910		720	770	780		740	790	800	480	670	523		684	890
July		1300	1100	1000	1100	1100	1200		1200		1200	310	1300	1090	1110		1010
October	1300	1200	1100	700	1500	1200	1700	1300	1300	1200	1200	1000	1400	958	1220	1290	1350



	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
April		2	1.5		5	2	2.5		1.65	2.12	4.43	35.7	3.27	1.47		0.8	2.79
July		3.5	2.2	2.7	3.5	3	4		18.1		4.64	134	9.87	15.2	10.1		3.28
October	3.5	2	1.5	4	2.5	1.5	1.5	2.2	2.42	4.62	2.57	3	6.13	7.55	1.14	3.72	6.49