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**DATA REPORT: MAJOR ION COMPOSITION
AND INSTANTANEOUS DISCHARGE
OF STREAM WATERS IN THE
TURKEY LAKES WATERSHED
JANUARY 1980 TO MAY 1986**

by

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MANAGEMENT PERSPECTIVE

This report is a summary of stream water chemistry and stream hydrology and fulfills NWRI's commitment to provide an updated data base to other individuals/agencies involved in LRTAP research at the Turkey Lakes Watershed. The analytical results, which are stored in NAQUADAT, have been subjected to quality assurance and editing procedures and represent over six years of sampling effort at the calibrated watershed. As only limited interpretation is provided in the report, there are no direct implications for policy or planning operations within Environment Canada.

PERSPECTIVE - GESTION

Ce rapport porte sur la chimie de l'eau et l'hydrologie du bassin hydrographique des lacs Turkey; c'est le résultat du travail que l'INRE s'est engagé à réaliser afin de mettre à jour la base de données mise à la disposition des individus et organismes participant aux travaux de recherche sur le TADPA. Les résultats des analyses, versés dans la banque NADAQUAT, ont fait l'objet d'une vérification de la qualité et d'une édition; ils représentent plus de six ans d'échantillonnages réalisés dans le bassin hydrographique. L'interprétation présentée étant limitée, elle ne peut avoir d'influence directe sur la politique ou sur les opérations de planification d'Environnement Canada.

ABSTRACT

This report presents a statistical summary and data listing of the major ion chemistry and instantaneous discharge at six stations (S0 to S5) located along Norberg Creek In the Turkey Lakes Watershed. The period of study extends from January 1980 to May 31, 1986. In addition, recent major ion data for a stream influent to Turkey Lake (S4a) are presented. The sampling, analytical and data processing methods are briefly discussed.

(1)

RÉSUMÉ

On présente un résumé statistique ainsi que la liste des données recueillies sur la chimie des principaux ions et sur le débit instantané dans six stations (de S0 à S5) situées sur le ruisseau Norberg dans le bassin hydrographique des lacs Turkey. Les travaux ont commencé en janvier 1980 et se sont terminés le 31 mai 1986. On présente aussi des données récemment recueillies sur les principaux ions dans un affluent du lac Turkey (S4a). On décrit brièvement les méthodes d'échantillonnage, d'analyse et de traitement des données utilisées.

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INTRODUCTION

This report presents the major ion chemistry and instantaneous discharge data from six sites along Norberg Creek in the Turkey Lakes Watershed from the beginning of sampling in 1980 through May 31, 1986. Chemical data is also presented for a sampling station located on a relatively small stream influent to Turkey Lake and operational only since September, 1985. The chemical and hydrological information updates that presented in an earlier report (Jeffries and Semkin, 1983) and extends the stream data base from two to six water years. A water year has been defined as the period from June 1 to May 31 for purposes of mass balance calculations and modelling. All physical and chemical data have been stored in the NAQUADAT data base at the National Water Research Institute in Burlington, Ontario and have been subjected to a systematic editing procedure to correct and/or remove erroneous values. Details of the sampling and analytical methodology as well as data processing are given below.

SAMPLING LOCATION

The Turkey Lakes Watershed (TLW) is an undisturbed, forested basin located approximately 50 km north of Sault Ste. Marie, Ontario. Basin characteristics are documented by Jeffries and Semkin (1982) and

Jeffries et al. (submitted). The TLW contains a chain of four lakes, namely (from highest to lowest elevation) Batchawana, Wishart, Little Turkey and Turkey Lake. The outlets from these lakes are designated stream stations S0, S2, S3 and S4, respectively (Figure 1). Stream Station S1 is situated between Batchawana and Wishart Lakes. A significant portion of the discharge at S1 originates from the southeast side of Batchawana mountain in addition to that from the Batchawana Lake Basin. Station S5 is located approximately half way between the Turkey Lake outflow and the Batchawana River and represents the exit from the TLW. S4a is on a small stream influent to Turkey Lake and originates in a headwater lake at the southernmost end of the watershed (Figure 1). Site elevation and drainage area for the respective stream sites are recorded in Table 1.

SAMPLING AND ANALYTICAL METHODS

With the exception of site S0 which was consistently monitored only from 1982, all stations along Norberg Creek have routinely been gauged and sampled since the initiation of the study in early 1980. Station S4a is a recent addition to the network with samples first being collected in September, 1985.

The streams were sampled on a weekly basis over most of the study period (i.e. since 1982). Deviation from this schedule occurred during spring melt when daily sampling was often conducted to coincide with rapid fluctuations in the stream hydrographs.

Stream water was collected in grab samples usually at the mid-point in the stream channel. Field samples were taken in an acid-washed, 2-litre, polyethylene bottle which was rinsed at least three times with the stream water.

Concomitant with sampling, measurements of water temperature and water level, or stage, were taken at each of the stream sites. On most sampling occasions, instantaneous stream discharge was also measured with a current meter (Price or Pygmy models). Weirs have been constructed at stations S0, S1 and S4a, primarily to allow for the measurement of low stream discharges during the summer months. In these instances, the discharge was recorded by a bucket measurement over a known time interval.

Stream samples were kept at 4°C and in the dark to preclude sample deterioration prior to chemical analysis in Sault Ste. Marie. Field personnel determined pH, conductivity and alkalinity as soon after sampling as possible; other analyses were generally completed within two weeks of collection following methods prescribed by the Department of the Environment (1979).

DATA STORAGE AND LISTING

Data for major ion chemistry and stream discharge were recorded on coding forms (Jeffries and Semkin, 1982) and entered into the NAQUADAT data base at the Canada Centre for Inland Waters in Burlington. Once stored, the data were subjected to a systematic

reviewing procedure to correct and/or delete erroneous values. This editing process has been described by Jeffries and Semkin (1983).

Data retrieved from NAQUADAT for the period January 1980 to May 1986 have been reformatted for presentation in this report. Appendices I to VII contain the instantaneous stream discharge and major ion chemistry for stations S0 to S5.

STATISTICAL DATA SUMMARY

Statistical summaries of instantaneous discharge and major ion chemistry at the monitoring stations are provided in Tables 2 to 13. Box plots (Figures 2 through 14) are used to display the distribution of major ions at a given stream station and to allow for intersite comparisons.

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Table 1. Elevation and drainage area of stream stations in the Turkey
Lakes Watershed.

Site	Elevation (m.a.s.l.)	Drainage Area(ha)
S0	495	86
S1	457	185
S2	380	344
S3	371	491
S4	368	803
S4a	380	-
S5	340	1050

1 ha = 10^4 m²

TABLE 2. SUMMARY STATISTICS FOR INSTANTANEOUS STREAM DISCHARGE (m³/sec).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	348	367	368	373	381	-	392
Median	0.0185	0.0370	0.0610	0.1100	0.1650	-	0.2320
Maximum	0.655	3.33	2.193	9.000	3.509	-	4.340
Minimum	0.000	0.000	0.002	0.001	0.000	-	0.006
Max/Min Ratio	-	-	1097	9000	-	-	723
Mean	0.0042	0.1016	0.1552	0.2592	0.3380	-	0.4589
Std. Deviation	0.0073	0.2375	0.2536	0.5892	0.4961	-	0.6436
C _v	1.74	2.34	1.63	2.27	1.47	-	1.40
C _{s(m)}	-0.0197	5.817	2.445	39.592	4.446	-	5.841
0.90 Quantile	0.0970	0.220	0.365	0.556	0.745	-	1.040
0.10 Quantile	0.0040	0.0070	0.013	0.028	0.052	-	0.067
Interquantile Range	0.0930	0.213	0.352	0.528	0.698	-	0.973

C_v = Coefficient of Variation = $\frac{s}{\bar{x}}$

C_{s(m)} = Moment Coefficient of Skew = $\frac{n}{(n-1)(n-2)} \sum_{i=1}^n (x_i - \bar{x})^3$

TABLE 3. SUMMARY STATISTICS FOR CONDUCTIVITY ($\mu\text{S}/\text{cm}$).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	391	438	440	435	448	62	431
Median	24.2	25.5	30.0	33.7	37.0	39.6	39.5
Maximum	40.0	41.3	47.5	56.2	58.6	49.9	66.3
Minimum	17.8	16.8	18.7	22.1	27.0	27.9	27.5
Max/Min Ratio	2.25	2.46	2.54	2.54	2.17	1.79	2.41
Mean	24.7	25.7	30.1	34.3	37.7	39.2	40.1
Std. Deviation	3.5	4.2	4.2	4.4	4.3	5.0	5.6
C_v	0.143	0.165	0.139	0.128	0.114	0.129	0.140
$C_{s(m)}$	230.7	-1246.1	-1847.6	-1439.6	3648.2	-42.2	-1395.4
0.90 Quantile	29.3	31.3	35.2	40.4	43.0	44.9	47.6
0.10 Quantile	20.7	20.5	24.9	29.3	32.8	32.1	33.2
Interquantile Range	8.6	10.8	10.3	11.1	10.2	12.8	14.4

$$C_v = \text{Coefficient of Variation} = \frac{s}{\bar{x}}$$

$$C_{s(m)} = \text{Moment Coefficient of Skew} = \frac{\sum_{i=1}^n (x_i - \bar{x})^3}{(n-1)(n-2)}$$

TABLE 4. SUMMARY STATISTICS FOR pH.

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	395	439	441	436	449	62	432
Median	5.90	6.11	6.42	6.54	6.60	6.79	6.72
Maximum	6.70	6.65	6.96	7.63	7.60	7.17	7.26
Minimum	4.86	5.29	5.65	5.84	5.95	6.48	6.11
Max/Min Ratio	-	-	-	-	-	-	-
Mean	-	-	-	-	-	-	-
Std. Deviation	-	-	-	-	-	-	-
C _v	-	-	-	-	-	-	-
C _{s(m)}	-	-	-	-	-	-	-
0.90 Quantile	6.36	6.42	6.75	7.12	7.17	6.99	7.06
0.10 Quantile	5.38	5.64	6.06	6.22	6.28	6.55	6.42
Interquantile Range	0.98	0.78	0.69	0.90	0.89	0.44	0.64

C_v = Coefficient of Variation = $\frac{s}{\bar{x}}$

C_{s(m)} = Moment Coefficient of Skew = $\frac{n}{(n-1)(n-2)} \sum_{i=1}^n (x_i - \bar{x})^3$

TABLE 5. SUMMARY STATISTICS FOR CALCIUM (mg/L).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	392	428	424	420	435	62	409
Median	2.66	3.04	3.79	4.56	5.33	6.64	5.62
Maximum	3.98	5.14	6.24	6.03	6.59	8.68	8.96
Minimum	1.26	1.41	1.79	2.38	2.66	4.18	2.32
Max/Min Ratio	3.16	3.65	3.49	2.53	2.48	2.08	3.86
Mean	2.65	3.01	3.75	4.53	5.26	6.48	5.59
Std. Deviation	0.32	0.47	0.45	0.49	0.52	1.12	0.75
C_v	0.121	0.157	0.120	0.108	0.099	0.172	0.135
$C_{s(m)}$	-0.063	-0.269	0.400	0.414	3.664	-0.439	0.383
0.90 Quantile	3.03	3.52	4.21	5.10	5.78	7.85	6.41
0.10 Quantile	2.25	2.38	3.19	3.97	4.57	4.83	4.67
Interquantile	0.78	1.14	1.02	1.13	1.21	3.02	1.74
Range							

$C_v = \text{Coefficient of Variation} = \frac{s}{\bar{x}}$

$$C_{s(m)} = \text{Moment Coefficient of Skew} = \frac{\sum_{i=1}^n (x_i - \bar{x})^3}{(n-1)(n-2)}$$

TABLE 6. SUMMARY STATISTICS FOR MAGNESIUM (mg/L).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	395	433	436	426	441	62	427
Median	0.44	0.43	0.48	0.51	0.51	0.53	0.56
Maximum	0.86	0.78	0.70	0.83	0.74	0.62	1.00
Minimum	0.33	0.23	0.29	0.30	0.28	0.37	0.01
Max/Min Ratio	2.61	3.39	2.41	2.77	2.64	1.68	100
Mean	0.46	0.44	0.48	0.51	0.52	0.52	0.56
Std. Deviation	0.06	0.07	0.06	0.07	0.06	0.06	0.09
C_v	0.141	0.168	0.132	0.133	0.121	0.123	0.154
$C_{s(m)}$	0.002	-0.004	-0.002	-9.3×10^{-4}	-8.4×10^{-4}	-1.5×10^{-4}	-2.2×10^{-4}
0.90 Quantile	0.54	0.53	0.57	0.60	0.60	0.59	0.66
0.10 Quantile	0.38	0.34	0.40	0.43	0.46	0.41	0.46
Interquantile Range	0.16	0.19	0.17	0.17	0.14	0.18	0.20

$$C_v = \text{Coefficient of Variation} = \frac{s}{\bar{x}}$$

$$C_{s(m)} = \text{Moment Coefficient of Skew} = \frac{n}{(n-1)(n-2)} \sum_{i=1}^n (x_i - \bar{x})^3$$

TABLE 7. SUMMARY STATISTICS FOR SODIUM (mg/L).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	387	430	434	416	436	62	418
Median	0.48	0.51	0.54	0.58	0.59	0.56	0.63
Maximum	0.93	0.90	0.94	0.94	1.00	0.69	1.40
Minimum	0.14	0.23	0.28	0.17	0.29	0.39	0.26
Max/Min Ratio	6.64	3.91	3.36	5.53	3.45	1.77	5.38
Mean	0.50	0.52	0.56	0.59	0.60	0.55	0.66
Std. Deviation	0.10	0.11	0.11	0.11	0.11	0.07	0.13
C _v	0.206	0.207	0.194	0.188	0.184	0.131	0.196
C _{s(m)}	0.007	-0.012	-0.018	-0.003	-0.022	-5.6x10 ⁻⁵	-0.016
0.90 Quantile	0.65	0.67	0.70	0.74	0.76	0.63	0.83
0.10 Quantile	0.40	0.40	0.44	0.46	0.47	0.45	0.51
Interquantile Range	0.25	0.27	0.26	0.28	0.29	0.18	0.32

C_v = Coefficient of Variation = $\frac{s}{\bar{x}}$

$$C_{s(m)} = \text{Moment Coefficient of Skew} = \frac{n}{(n-1)(n-2)} \sum_{i=1}^n (x_i - \bar{x})^3$$

TABLE 8. SUMMARY STATISTICS FOR POTASSIUM (mg/L).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	388	435	436	422	445	62	428
Median	0.24	0.21	0.23	0.24	0.24	0.20	0.24
Maximum	0.58	0.94	0.85	0.54	0.98	0.30	0.74
Minimum	0.07	0.02	0.01	0.08	0.03	0.00	0.01
Max/Min Ratio	8.29	47.0	85.0	6.75	32.7	-	74.0
Mean	0.24	0.22	0.24	0.25	0.26	0.19	0.26
Std. Deviation	0.07	0.09	0.08	0.08	0.09	0.04	0.09
C _v	0.305	0.428	0.346	0.300	0.357	0.228	0.339
C _{s(m)}	0.002	-0.033	-0.018	-0.003	5.39	-9.83x10 ⁻⁵	-0.010
0.90 Quantile	0.34	0.32	0.33	0.35	0.36	0.24	0.37
0.10 Quantile	0.16	0.12	0.15	0.17	0.18	0.14	0.18
Interquantile Range	0.18	0.20	0.18	0.18	0.18	0.10	0.19

C_v = Coefficient of Variation = $\frac{s}{\bar{x}}$

C_{s(m)} = Moment Coefficient of Skew = $\frac{n}{(n-1)(n-2)} \sum_{i=1}^n (x_i - \bar{x})^3$

TABLE 9. SUMMARY STATISTICS FOR AMMONIUM (mg/L-N).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	381	421	424	418	434	62	417
Median	0.0585	0.011	0.026	0.041	0.031	0.025	0.018
Maximum	0.249	0.125	0.196	0.543	0.534	0.108	0.594
Minimum	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Max/Min Ratio	-	-	-	-	-	-	-
Mean	0.058	0.018	0.031	0.045	0.035	0.030	0.025
Std. Deviation	0.034	0.019	0.025	0.039	0.034	0.021	0.038
C _v	0.594	1.07	0.813	0.886	0.990	0.714	1.51
C _{s(m)}	4.5x10 ⁻⁴	-1.7x10 ⁻⁴	-3.2x10 ⁻⁴	-0.003	-0.006	1.1x10 ⁻⁵	-0.004
0.90 Quantile	0.095	0.035	0.061	0.072	0.064	0.053	0.046
0.10 Quantile	0.013	0.004	0.007	0.010	0.007	0.005	0.004
Interquartile Range	0.082	0.031	0.054	0.062	0.057	0.048	0.042

$$C_v = \text{Coefficient of Variation} = \frac{s}{\bar{x}}$$

$$C_{s(m)} = \text{Moment Coefficient of Skew} = \frac{n}{(n-1)(n-2)} \sum_{i=1}^n (x_i - \bar{x})^3$$

TABLE 10. SUMMARY STATISTICS FOR ALKALINITY (mg/L CaCO₃).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	382	427	422	418	436	61	422
Median	2.26	1.91	4.30	6.56	8.64	11.46	9.03
Maximum	7.42	8.60	9.28	9.84	15.05	15.59	20.57
Minimum	<0.0	0.15	1.51	3.40	4.05	5.81	3.19
Max/Min Ratio	-	57.3	6.15	2.89	3.72	2.68	6.45
Mean	2.34	2.11	4.39	6.52	8.48	10.91	9.11
Std. Deviation	0.96	1.09	1.39	1.17	1.45	2.95	2.55
C _v	0.409	0.517	0.316	0.180	0.170	0.270	0.280
C _{s(m)}	6.95	-21.6	-6.03	0.62	5.95	0.64	-105.9
0.90 Quantile	3.45	3.55	6.14	8.06	9.96	15.00	12.46
0.10 Quantile	1.11	0.88	2.55	4.83	6.44	7.34	5.95
Interquantile Range	2.34	2.67	3.59	3.23	3.52	7.66	6.51

C_v = Coefficient of Variation = $\frac{s}{\bar{x}}$

C_{s(m)} = Moment Coefficient of Skew = $\frac{n}{(n-1)(n-2)} \sum_{i=1}^n (x_i - \bar{x})^3$

TABLE 11. SUMMARY STATISTICS FOR SULPHATE (mg/L).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	382	425	415	409	430	52	413
Median	5.43	5.84	5.79	5.99	6.00	5.10	6.17
Maximum	9.75	11.20	8.20	7.81	8.40	6.39	9.32
Minimum	3.88	3.71	3.91	3.95	4.46	3.84	4.31
Max/Min Ratio	2.51	3.02	2.10	1.98	1.88	1.66	2.16
Mean	5.50	5.84	5.80	6.00	6.06	5.21	6.17
Std. Deviation	0.69	0.92	0.78	0.72	0.67	0.72	0.70
C_v	0.126	0.158	0.134	0.120	0.111	0.138	0.113
$C_{s(m)}$	3.54	-7.84	-0.69	0.011	-1.04	0.003	-0.28
0.90 Quantile	6.41	7.04	6.92	6.92	6.94	6.08	7.09
0.10 Quantile	4.68	4.76	4.77	5.06	5.26	4.23	5.24
Interquantile Range	1.73	2.28	2.15	1.86	1.68	1.85	1.85

$$C_v = \text{Coefficient of Variation} = \frac{s}{\bar{x}}$$

$$C_{s(m)} = \text{Moment Coefficient of Skew} = \frac{n}{(n-1)(n-2)} \sum_{i=1}^n (x_i - \bar{x})^3$$

FIG 3 DISCHARGE

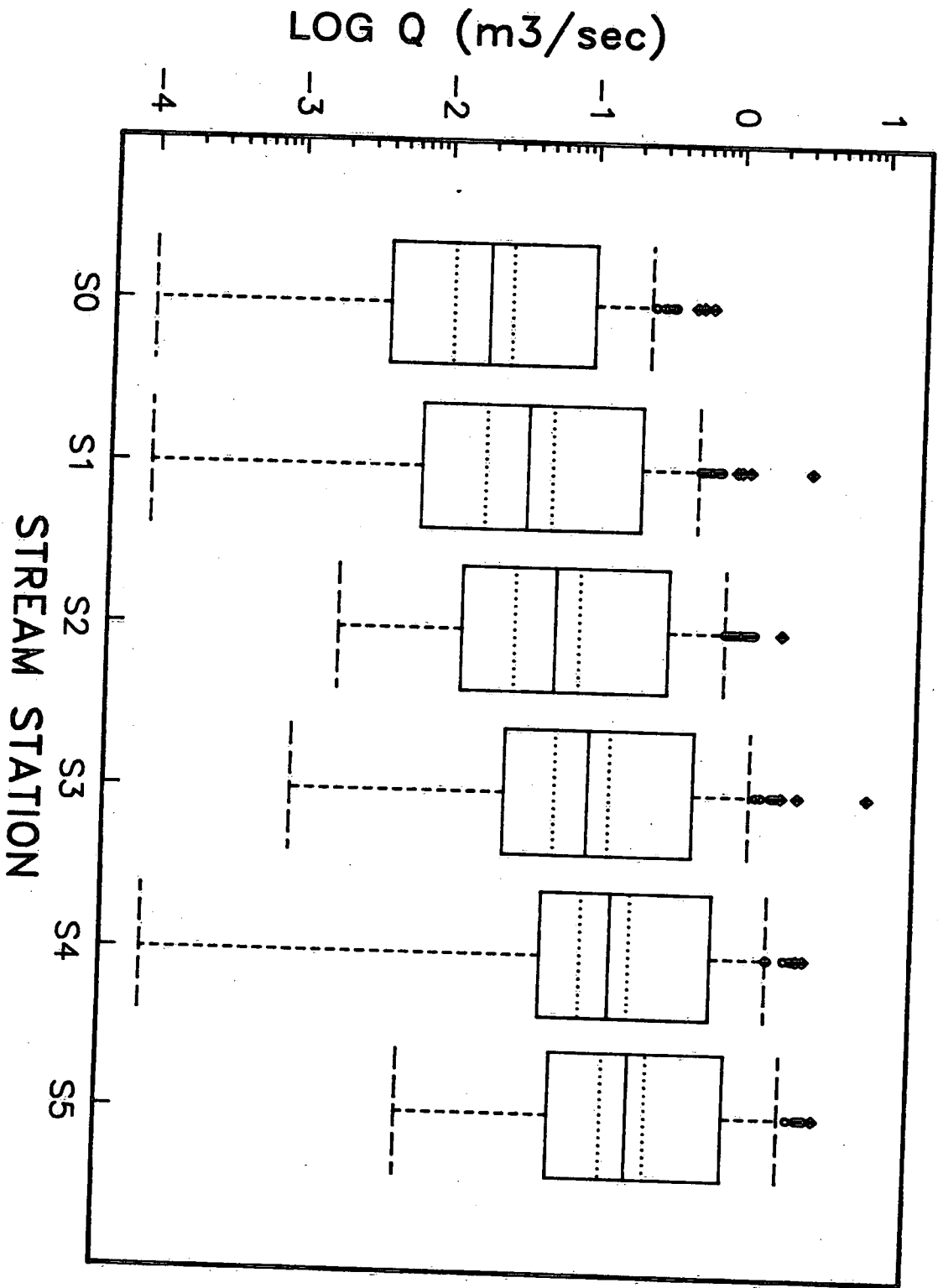


FIG 4 CONDUCTIVITY

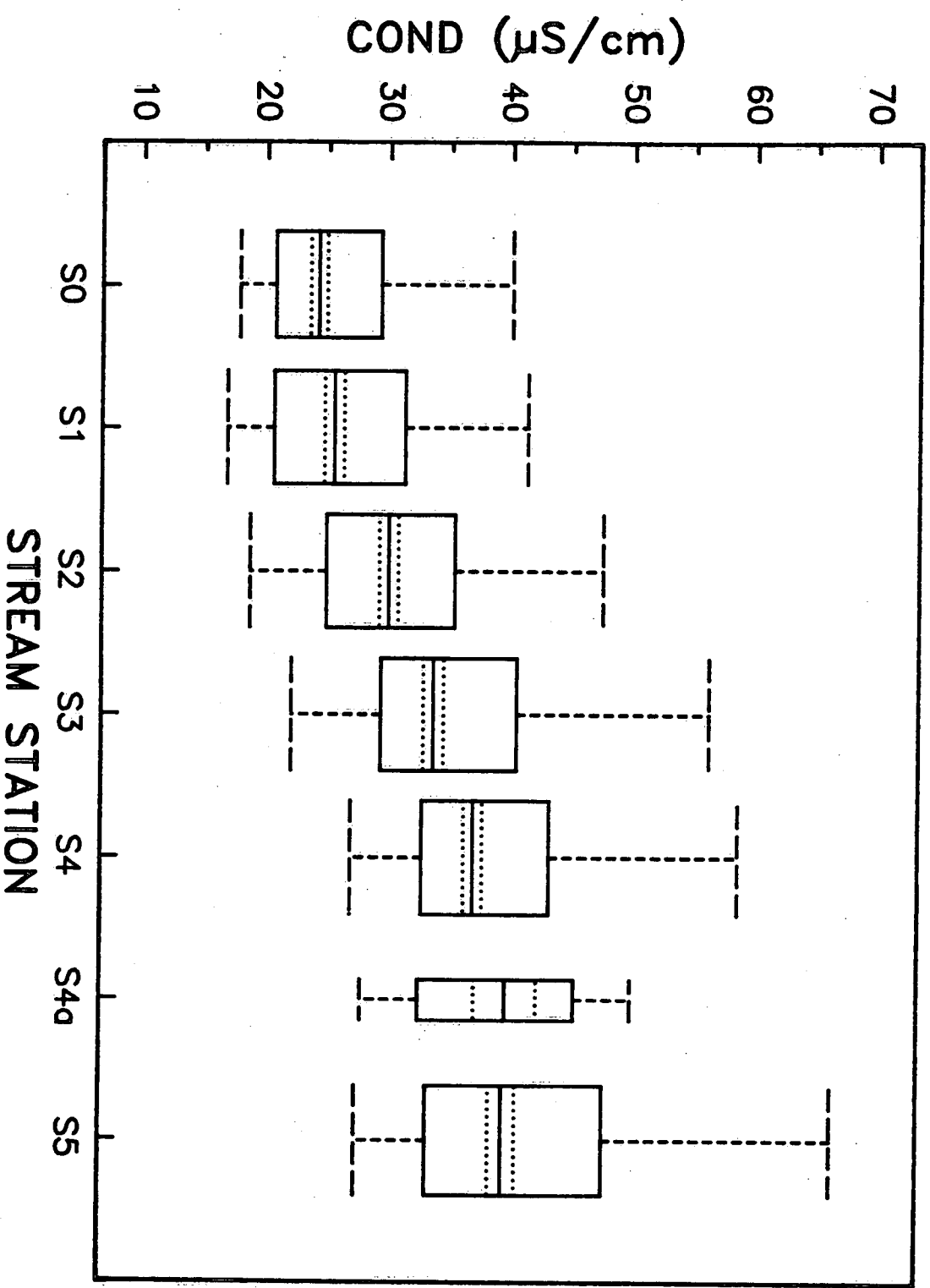


FIG 5
pH

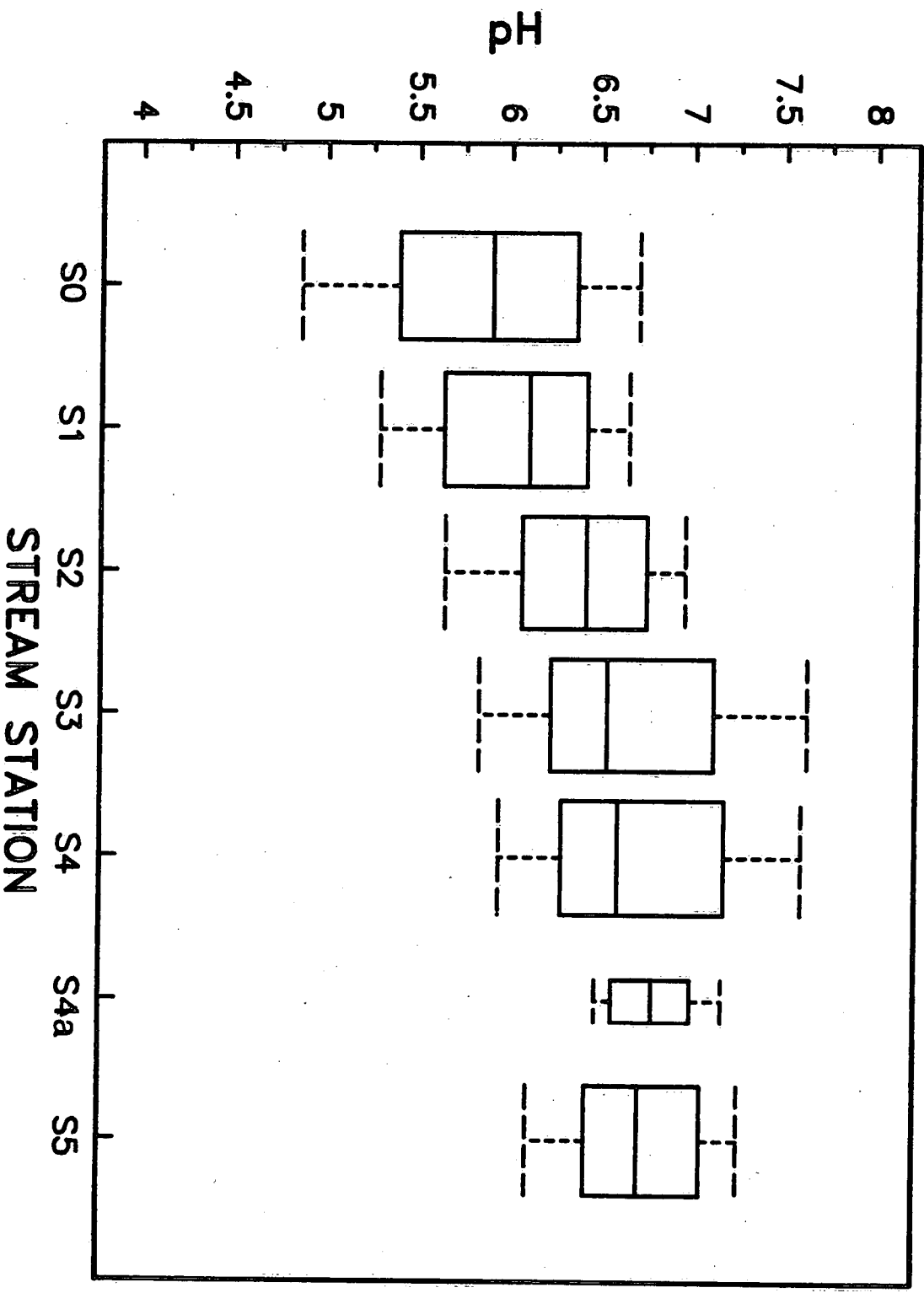


FIG 6
CALCIUM

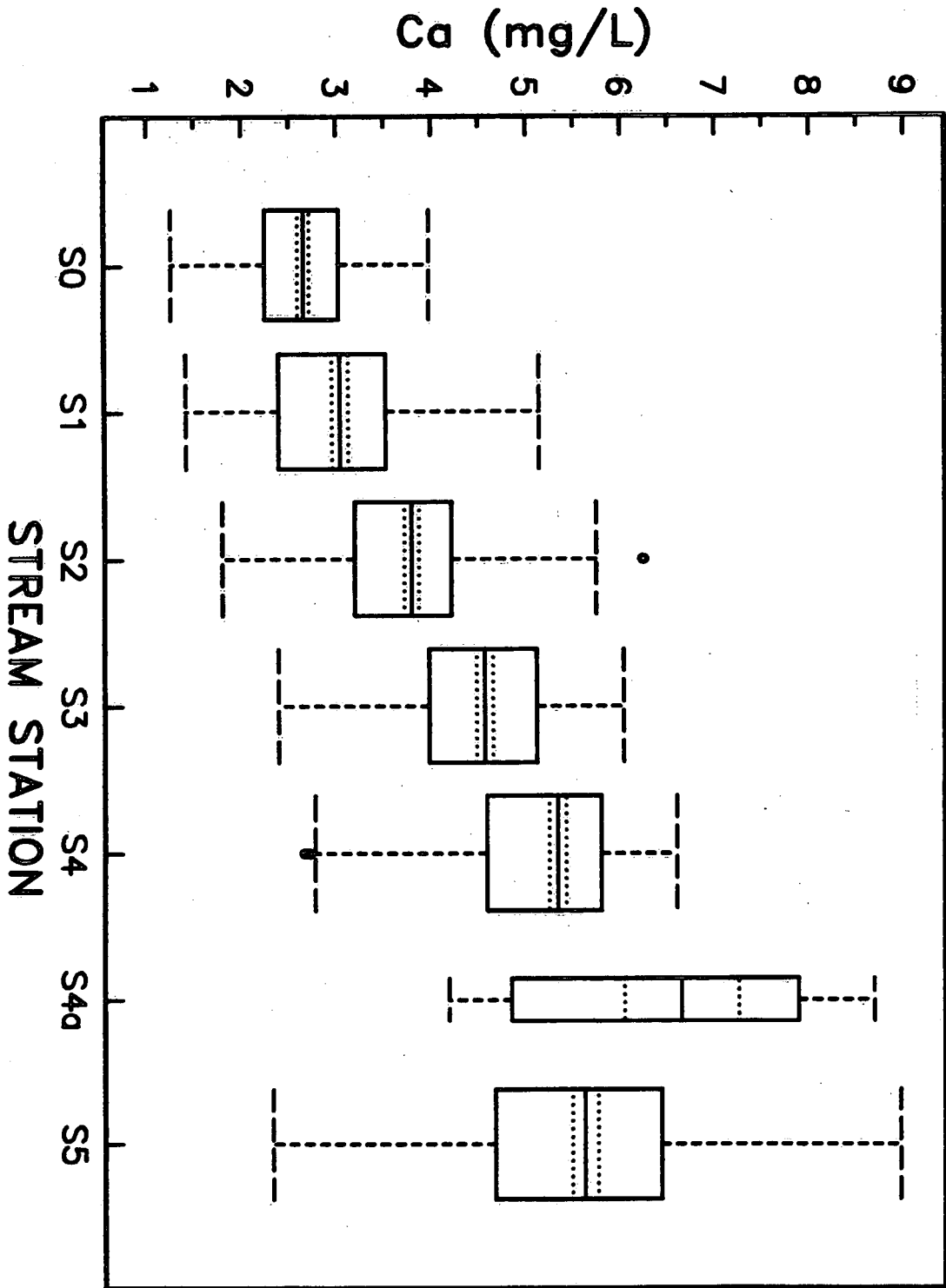


FIG 7
MAGNESIUM

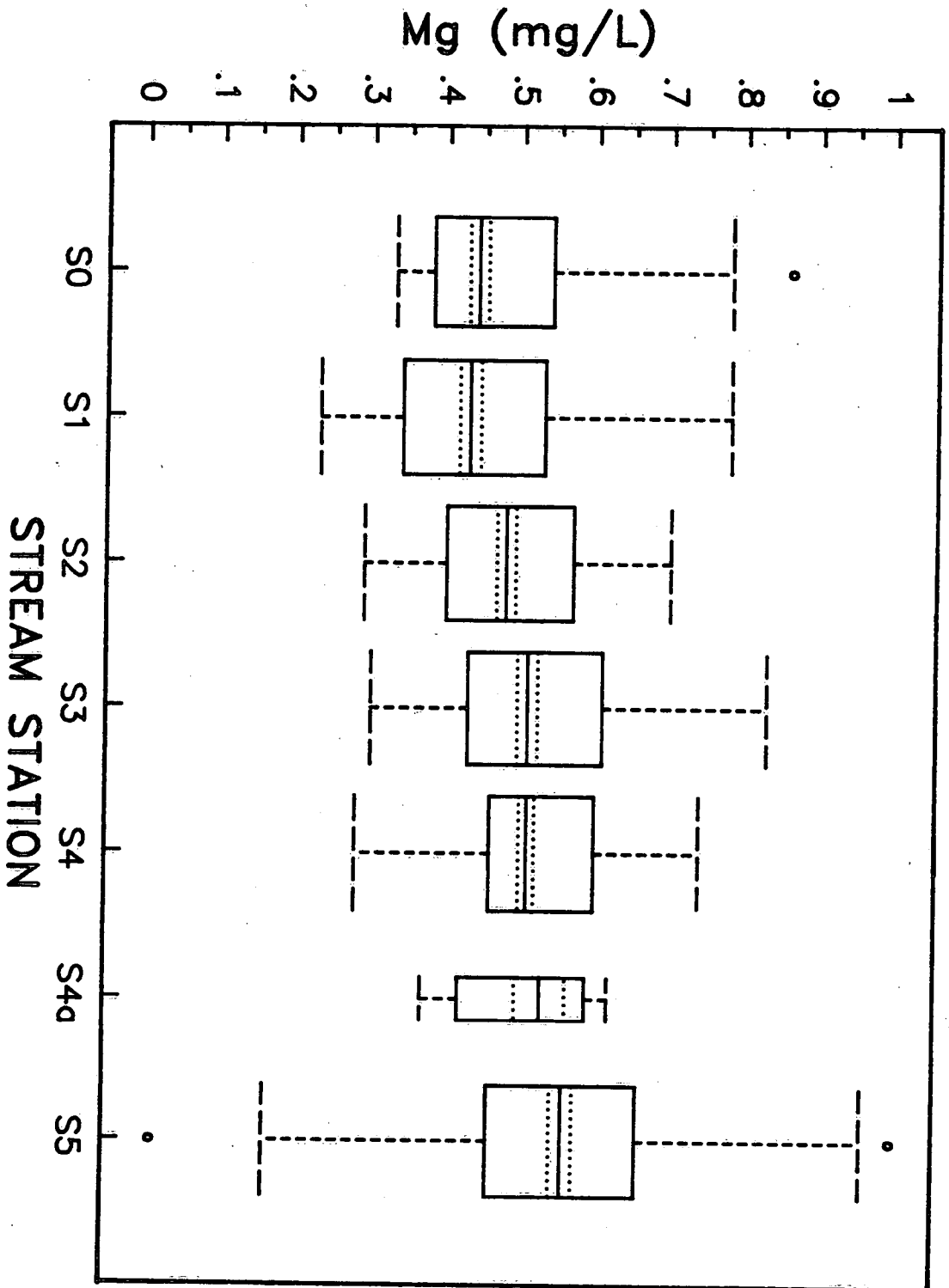


FIG 8 SODIUM

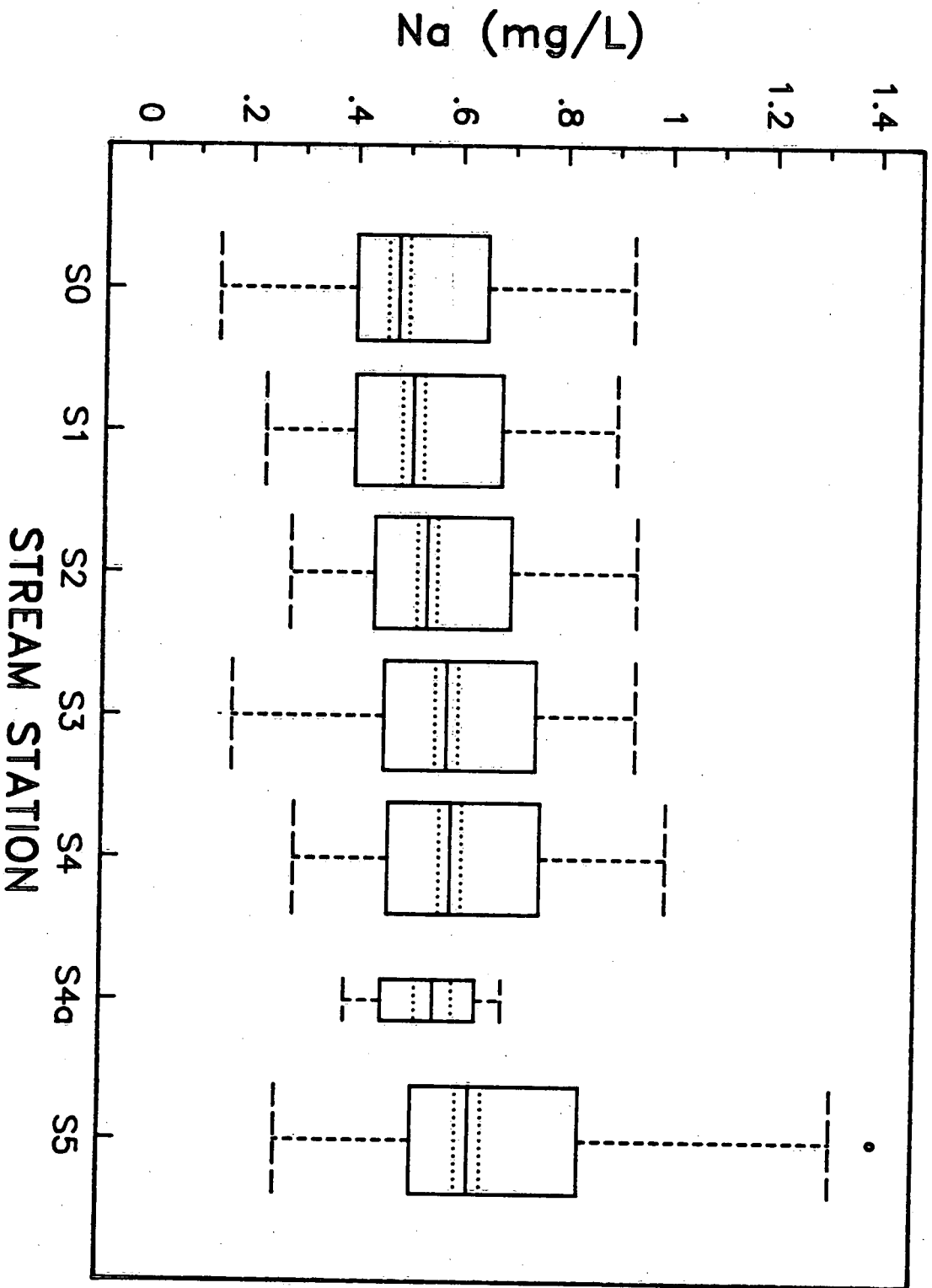


FIG 9 POTASSIUM

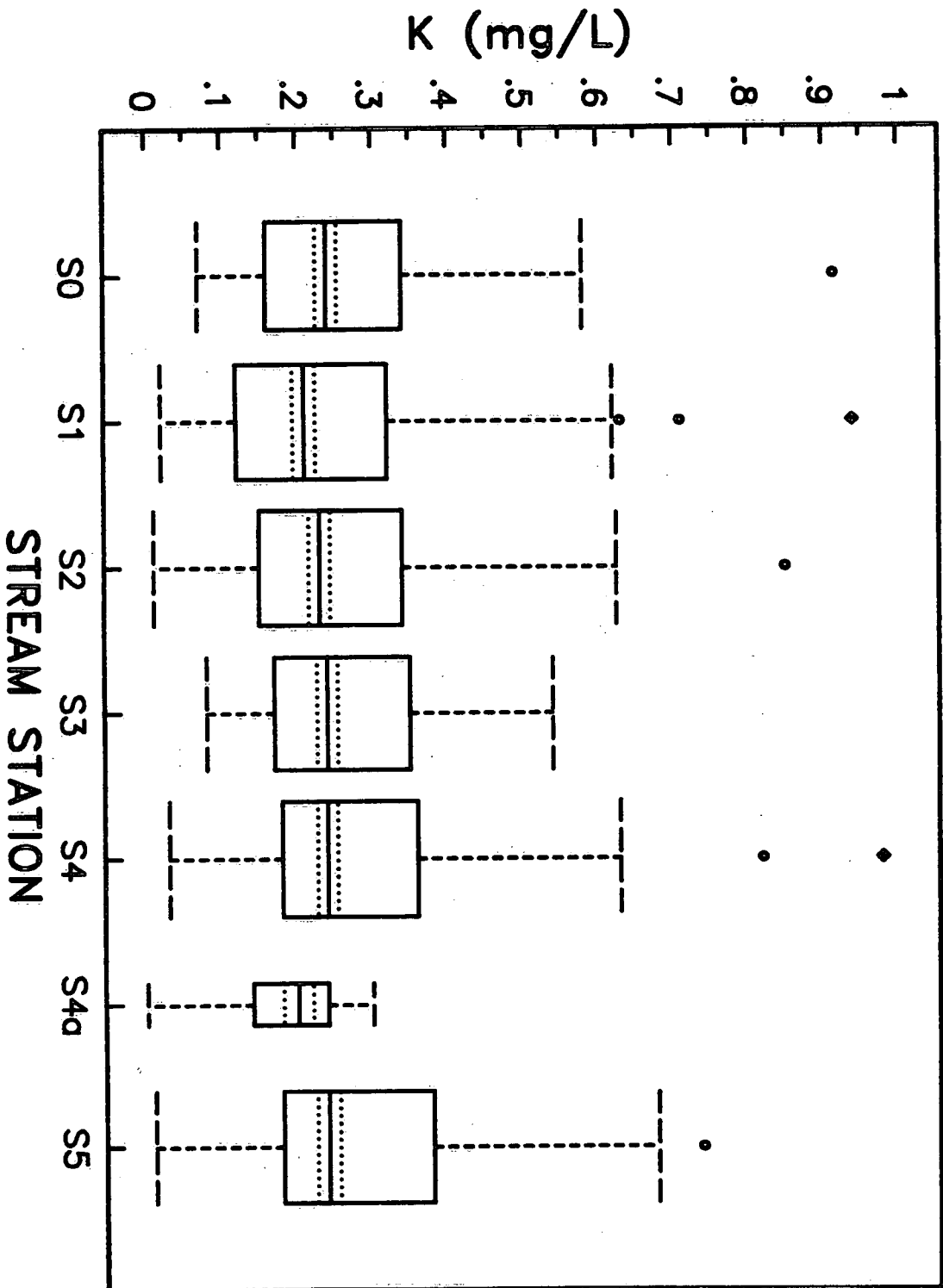


FIG 10 AMMONIUM

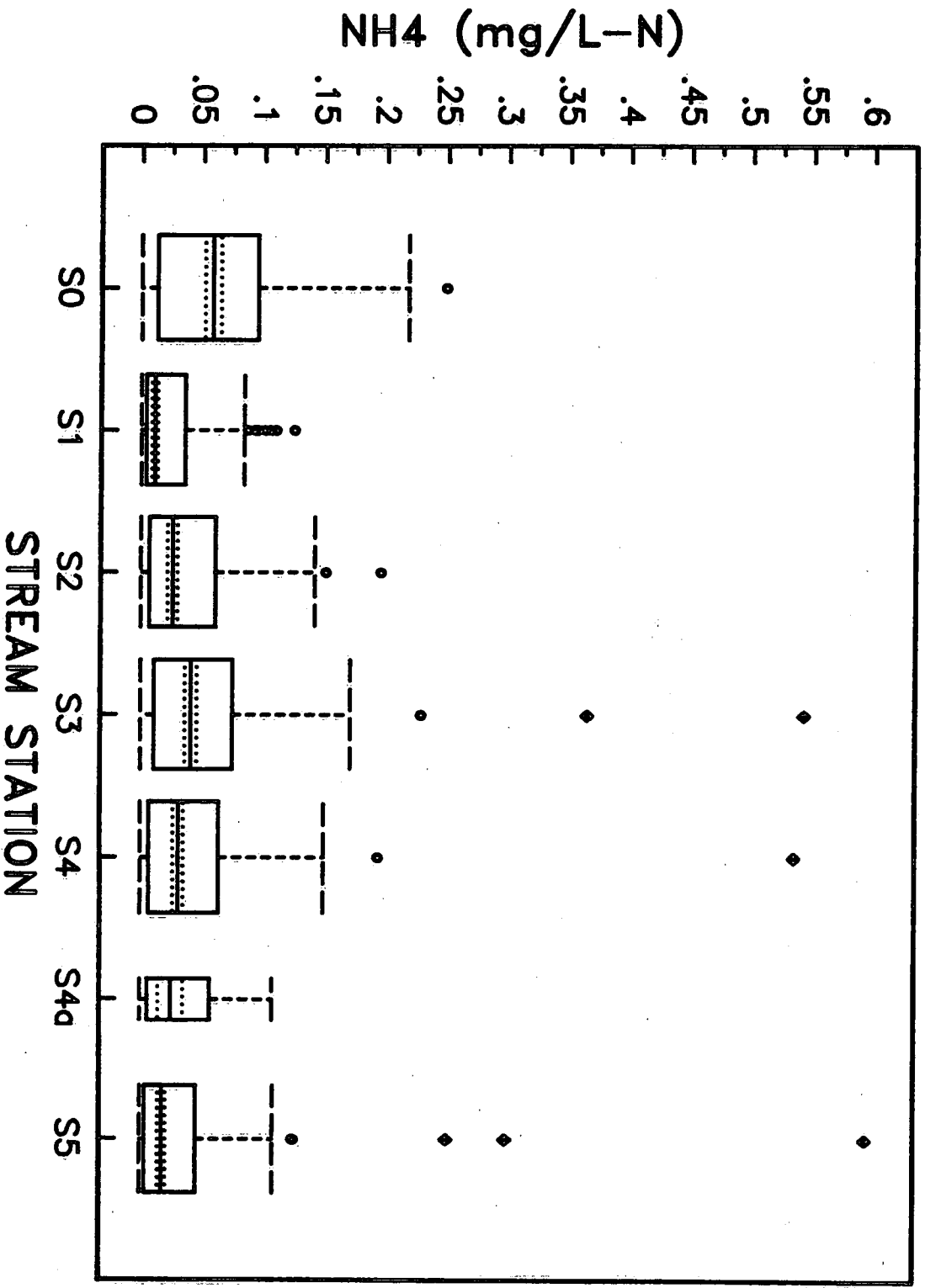


FIG 11 SULPHATE

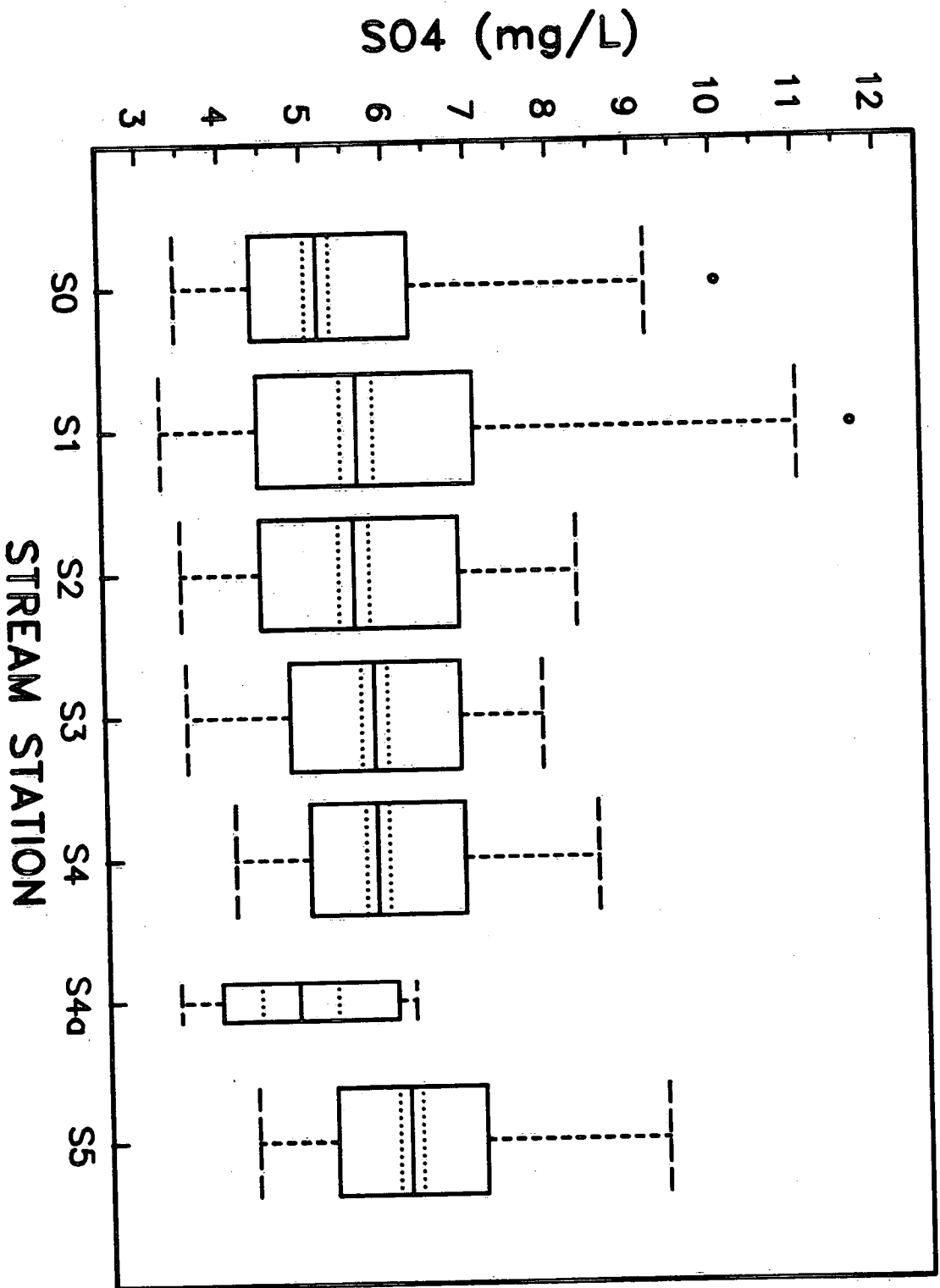


FIG 12 ALKALINITY

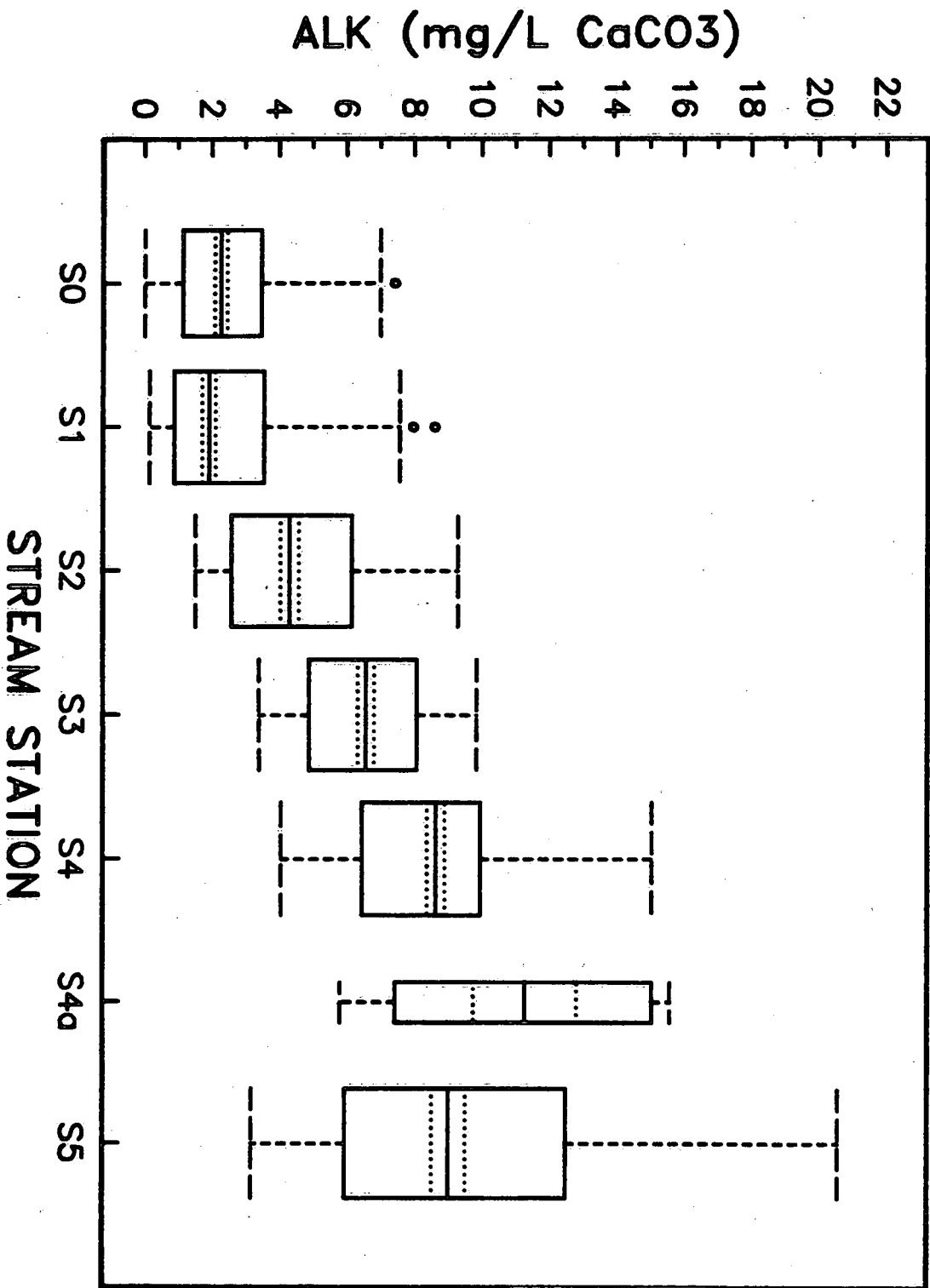


TABLE 12. SUMMARY STATISTICS FOR CHLORIDE (mg/L).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	385	421	415	412	433	62	420
Median	0.348	0.329	0.310	0.331	0.334	0.248	0.331
Maximum	0.915	0.802	0.762	0.785	0.779	0.534	0.779
Minimum	0.165	0.160	0.122	0.068	0.106	0.154	0.130
Max/Min Ratio	5.55	5.01	6.25	11.54	7.35	3.47	5.99
Mean	0.363	0.349	0.329	0.347	0.344	0.262	0.344
Std. Deviation	0.106	0.111	0.097	0.098	0.084	0.072	0.092
C _v	0.291	0.319	0.295	0.281	0.245	0.273	0.268
C _{s(m)}	0.015	-0.015	-0.007	-0.007	-0.012	5.29x10 ⁻⁴	-0.007
0.90 Quantile	0.484	0.502	0.455	0.468	0.448	0.314	0.466
0.10 Quantile	0.247	0.230	0.227	0.244	0.250	0.180	0.250
Interquantile Range	0.237	0.272	0.228	0.224	0.198	0.134	0.216

$$C_v = \text{Coefficient of Variation} = \frac{s}{\bar{x}}$$

$$C_{s(m)} = \text{Moment Coefficient of Skew} = \frac{n}{(n-1)(n-2)} \sum_{i=1}^n (x_i - \bar{x})^3$$

FIG 13 CHLORIDE

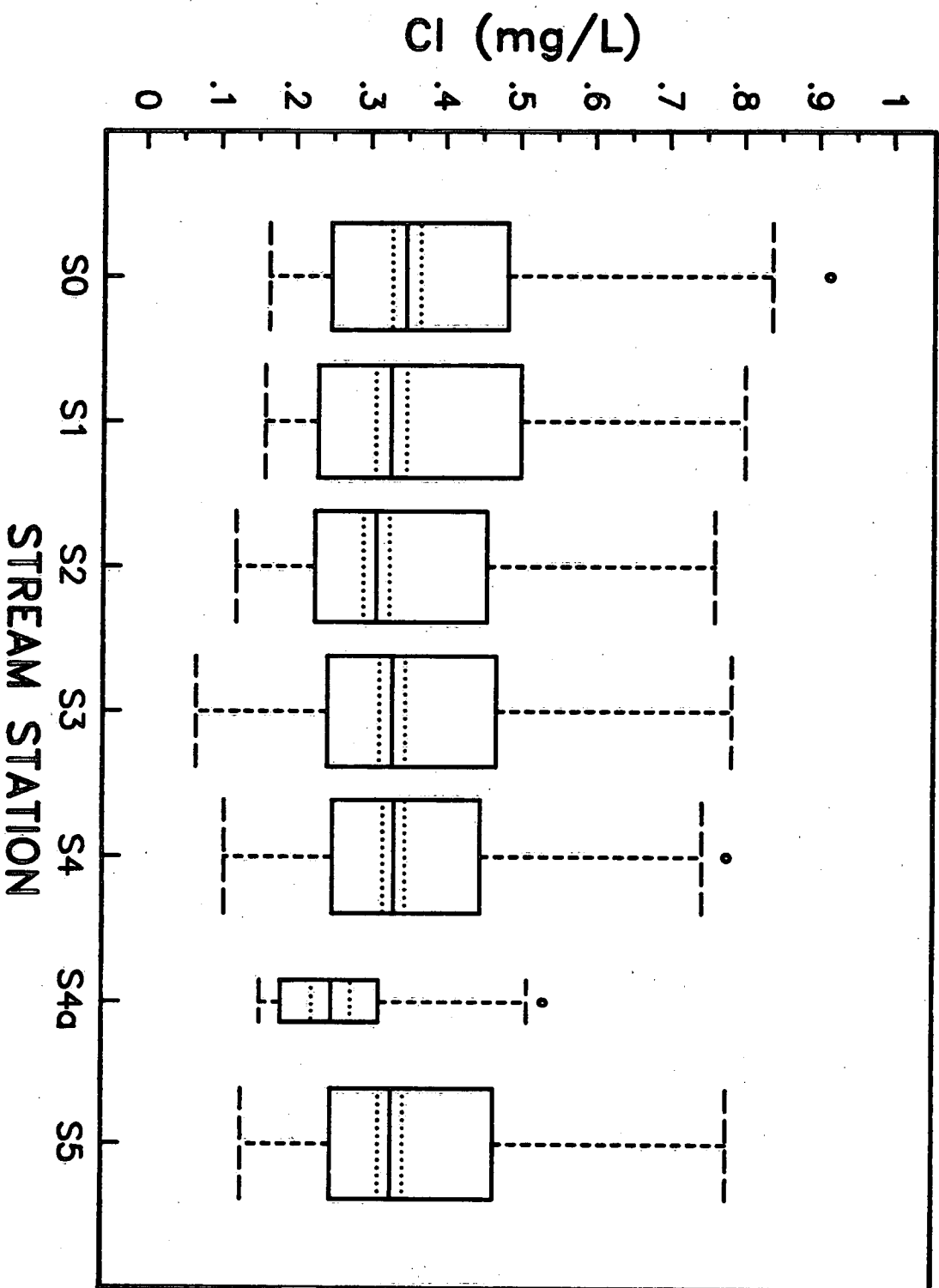
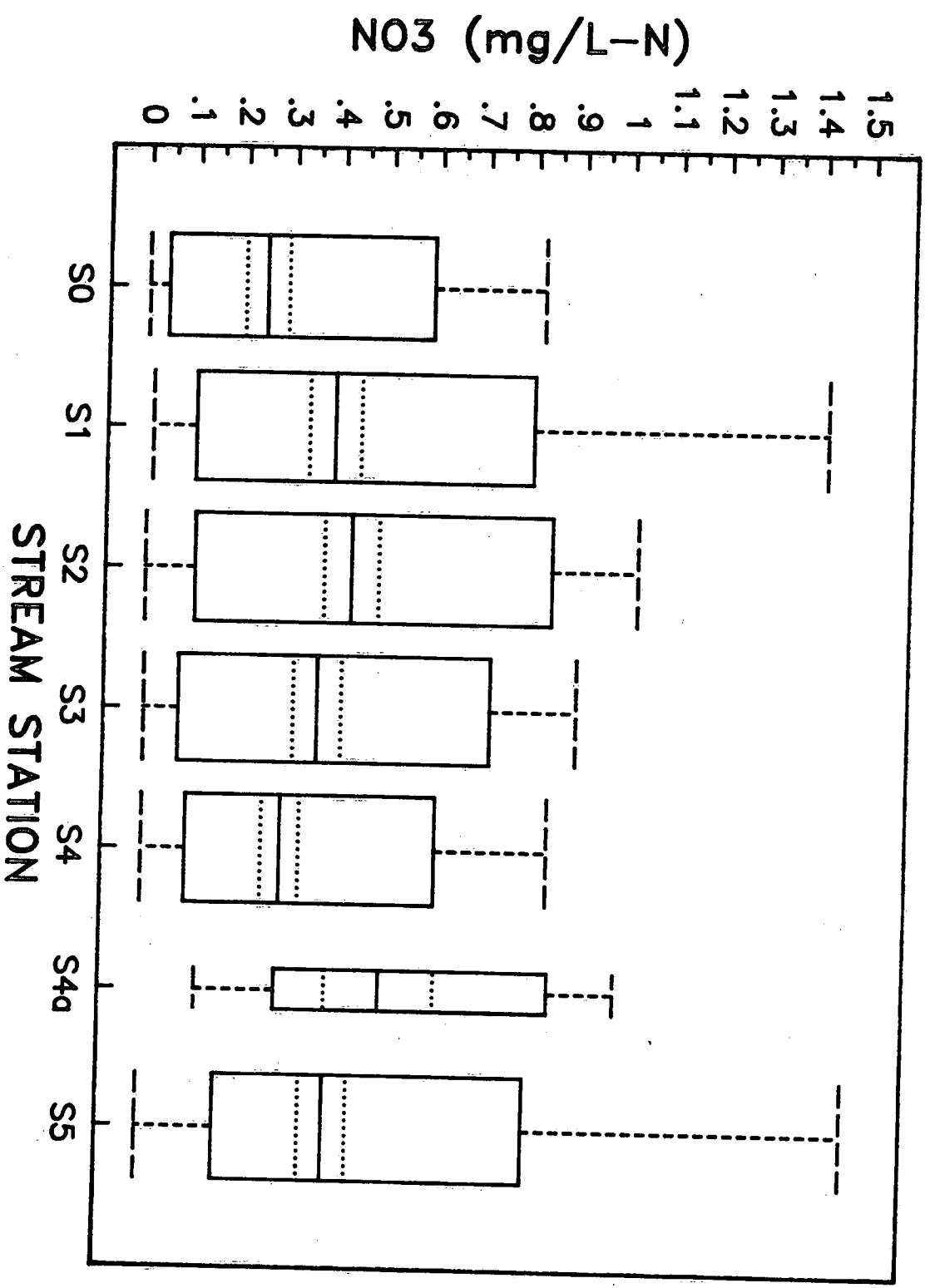


FIG 14 NITRATE



APPENDIX I

MAJOR ION CHEMISTRY AND INSTANTANEOUS DISCHARGE AT STREAM STATION S0

DATE YR MO DY	STREAM DISCHARGE M3/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
80 9 29		6.14	2.35	.399	.320	.140	.025	2.55	5.95	.480		20.0
80 10 8		6.19	3.09	.477	.365	.195	.028	3.10	5.51	.480		21.3
80 10 16		6.26	3.50	.500	.490	.153	.037	3.50	5.95			22.3
80 10 22		6.36	3.33	.453	.540	.220		3.60	6.42	.400	.077	20.6
80 10 29		6.36	3.22	.440	.510	.240		3.30	6.25	.470	.032	20.8
80 11 13		6.11	3.36	.469	.435	.172	.067	3.10	6.75	.430		23.8
80 11 19		5.70	3.17	.490	.501	.077	.042		6.20	.370		29.3
80 12 3		5.79	2.99	.570	.410	.170	.060	3.35	6.59	.360		27.3
80 12 22		5.75	2.48	.468	.527	.223	.060	2.15	5.98	.300		27.0
81 1 13		5.79	2.67	.303	.310	.097	.067	2.15	5.60	.420	.095	24.2
81 2 11		5.93	2.76	.391	.303	.156	.089	2.90	5.90	.480	.144	25.5
81 3 11				.511	.476	.218	.050		6.06	.340	.203	31.8
81 4 6		5.26	2.66	.462	.567	.320			6.48	.360		31.4
81 4 9		5.49	2.66	.462	.507	.282			6.11	.520		29.9
81 5 14		6.31	2.72	.481	.707	.253	.010	1.00	5.82	.390	.307	27.3
81 5 20		6.70	2.77	.450		.250	.035	2.20		.330	.180	28.0
81 6 11		6.23	2.72	.470	.760		.018	1.75	5.76	.430	.170	20.6
81 6 23		6.13	2.61	.430	.700		.028	1.20	5.66	.440	.183	22.3
81 7 22		6.13	3.22	.470	.510	.190	.026	4.15	6.04	.260	.019	25.6
81 8 6		6.30	2.56	.430	.410	.200	.021	3.25	6.23	.420	.055	22.7
81 8 20		6.24	3.00	.520	.550	.270	.015	2.00	5.87	.480	<.040	18.5
81 9 23		6.01	3.02	.520	.330	.130	.019	3.50	6.77	.340	<.040	30.7
81 10 6		6.12	3.11	.460	.270	.190	.017	3.45		.320	.049	29.4
81 10 20		6.47	2.03	.460	.260	.200	<.010	3.25	5.67	.360		26.7
82 2 10		6.14	2.09	.509	.555	.315	.070	3.60	5.36	.360	.099	18.5
82 2 24		6.07	2.81	.556	.515	.353	.070	3.95	5.78	.264	.097	26.8
82 3 10	.004	6.30	2.97	.523	.540	.315	.062	4.00	5.00	.196	.117	27.6
82 3 11		6.39	2.96	.524	.570	.330	.066	3.20	5.94	.230	.119	27.0
82 3 17		6.07	2.97	.591	.690	.430	.072	4.25	6.61	.375	.194	28.9
82 3 18		6.12	3.03	.542	.600	.400	.063	3.35	6.50	.283	.213	29.1
82 3 19	.010	6.29	3.03	.536	.700	.410	.072	4.00	6.37	.400	.210	29.2
82 3 23	.000	6.11	2.94	.532	.545	.321	.074		6.44	.277	.103	27.8
82 3 24	.011	6.30	2.94	.530	.530	.310	.079		6.35	.319	.203	27.8
82 3 26	.011	6.40	3.00	.551	.530	.313	.066	3.55	6.35	.556	.172	28.0
82 3 29	.007	6.10	2.94	.529	.435	.313	.073	3.55	6.33	.392	.182	28.2
82 3 30	.005	6.20	3.06	.567	.520	.336	.089	3.55	6.71	.425	.197	27.4
82 3 31	.058	6.14	3.27	.611	.520	.207	.086	3.35	6.09	.444	.243	30.2
82 4 1	.053	6.14	3.01	.574	.515	.355	.095	3.40	6.53	.481	.191	28.1
82 4 3		6.06	3.34	.606	.500	.300	.089	3.30	7.50	.476	.298	30.8
82 4 4	.120	6.03	3.10	.556	.491	.310	.072	3.65	7.14	.542	.273	29.8
82 4 5	.052	5.99	3.07	.546	.625	.392	.064	2.70	7.16	.496	.322	29.6
82 4 6	.039	5.97	3.02	.522	.453	.277	.063	2.15	6.94	.357	.312	28.6
82 4 7	.023	6.01	2.87	.513	.552	.363	.070	2.30	6.76	.627	.277	28.7
82 4 13		6.09	2.81	.533	.570	.376	.072	2.15	6.72	.359	.321	27.9
82 4 14		6.06	2.00	.533	.570	.305	.066	2.30	6.50	.347	.353	28.0
82 4 15		5.90	2.87	.498	.515	.237	.057	2.50	6.96	.310	.256	28.7
82 4 16	.025	5.98		.591	.515	.260	.059	2.55	6.92	.311	.281	28.6
82 4 17		6.00	3.12	.533	.500	.277	.062	2.00	6.93	.405	.321	28.6
82 4 18		5.93	2.90	.520	.590	.373	.063	2.15	7.08	.423	.356	29.6
82 4 19	.068	5.90	2.02	.492	.570	.365	.071		6.06	.358	.337	28.7
82 4 20		5.07		.504	.500	.377	.065	1.95	6.70	.420	.346	28.6
82 4 21	.043	5.95	2.74	.498	.570	.370	.067	1.05	7.14	.260	.326	28.3
82 4 22		5.07	2.70	.493	.575	.353	.070	1.95	7.06	.242	.306	27.1
82 4 25	.192	5.70	2.74	.450	.495	.340	.058	2.25	6.95	.295	.379	28.9
82 4 26	.303	5.70	2.70	.438	.473	.323	.065	.05	6.61	.314	.362	26.4
82 4 27		5.64	2.44	.417	.595	.390	.087	1.20	6.49	.479	.390	28.1
82 4 28	.155	5.72	2.60	.418	.523	.320	.066	.75	6.98	.310	.303	27.1
82 4 29		5.63	2.59	.463	.507	.303	.067	.95	6.04	.237	.379	26.4
82 5 1	.210	5.66	2.41	.436	.484	.313	.060	.90	6.11	.348	.359	24.6
82 5 7		5.66	1.98	.347	.365	.217	.040	1.00	5.59	.365	.266	21.2
82 5 11	.109	5.98	2.00	.442	.452	.253	.043	2.45	5.00		.180	25.4
82 5 17	.024	6.33	2.74	.444	.436	.247	.031	1.50	5.55	.301		22.9
82 6 2	.004	6.54	2.44	.406	.447	.215	<.010	2.20	6.07	.239	.047	21.9
82 6 10	.002	6.31	2.90	.440	.300	.210	.050	2.95				25.8

DATE YR MO DY	STREAM DISCHARGE FS/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
82 6 15	.004	6.49	2.56	.478	.463	.247	.028	2.35	6.17	.282	< .040	23.1
82 6 22	.003	6.55	2.48	.390	.368	.198		2.80	5.92	.376	.113	24.8
82 7 1	.000	6.32	3.03	.480	.358	.190	< .010		6.11	.266	< .040	26.7
82 7 8	.000	6.31	3.47	.518	.480	.140	< .010	4.30	7.50	.476	.041	32.9
82 7 14	.001	6.56	2.74	.418	.330	.160			6.09	.420	< .040	23.5
82 7 21	.004	6.57	2.92	.540	.460	.160	.010	2.55	5.55	.331	< .040	25.1
82 7 28	.000	6.28	3.06	.500	.470	.210	.024	3.30	6.44	.483	< .040	26.6
82 8 3	.000	6.27	3.98	.630	.380	.180	.077	3.10	7.03	.348	.152	30.4
82 8 10	.000	6.29	3.37	.580	.430	.170	< .010	4.70	6.37	.312	< .040	26.4
82 8 24	.000	6.49	3.06	.560	.440	.250	< .010	4.30	5.72	.375	< .040	22.7
82 9 7	.019	6.54	3.17	.560	.440	.260	.005		5.62	.462	< .040	23.9
82 9 14	.004	6.50	2.89	.566	.464	.309	.014	2.75	5.89	.445	< .040	22.4
82 9 20	.040	6.34	2.91	.500	.360	< .010		3.35	5.00	.352	< .040	23.5
82 9 29	.017	6.38	3.10	.554	.486	.269	< .010	3.40	5.54	.459	< .040	24.3
82 10 4	.024	6.47	3.84	.554	.464	.251	.017	2.65	5.69		< .040	22.7
82 10 7	.200	6.33	3.14	.632	.470	.266	.014	2.85	5.82	.408	< .040	23.0
82 10 14	.044	6.12	2.92	.567	.390	.317	.030	2.93	5.72	.484	.042	23.6
82 10 18	.026	6.22	3.84	.570	.505	.372	.057	3.32	6.07	.602	< .040	23.0
82 10 27	.022	6.07	2.71	.513	.439	.340	.040	1.90	5.68	.496	< .040	21.4
82 11 2	.011	6.21	2.76	.500	.470	.360	.031		5.48	.513	< .040	21.3
82 11 10	.021	6.10	2.68	.490	.480	.310	.026	2.15	5.74	.443	.073	21.5
82 11 16	.034	6.12	2.60	.543	.437	.299	.024	1.87	5.74	.380	.104	21.7
82 11 24	.029	5.95	2.72	.560	.500	.350	.044	2.11	5.54	.371	.109	21.4
82 12 2	.016	5.91	2.89	.580	.600	.380	.054	2.98	6.00	.378	.126	21.6
82 12 7	.042	5.98	2.72	.540	.520	.330	.045		5.55	.553	.126	19.7
83 1 5	.019	5.64	2.59	.460	.450	.250	.053	1.11	6.00	.523	.236	23.3
83 1 13	.012	5.62	2.56	.460	.340	.210	.057	1.13	5.78	.344	.185	21.2
83 1 19		5.76	2.69	.480	.350	.200	.061	2.63	5.91	.333	.202	21.6
83 1 25	.008	5.75	2.73	.550			.086	2.75		.466	.118	22.3
83 2 1	.009	5.63	2.53	.510	.720		.084	1.70	5.61	.407	.170	21.8
83 2 7	.009	5.63	2.71	.510	.700		.092	2.10	5.70	.384	.164	22.1
83 2 16	.006	5.71	2.69	.540	.580		.098	2.52	5.28	.567	.176	22.3
83 2 21	.006	5.77	2.64	.540	.630	.440	.107	2.55	5.86	.371	.169	21.9
83 2 23	.006	5.70	2.72	.520	.660	.440	.108	2.81	5.73	.281	.155	21.6
83 2 28	.006	5.62	2.66	.520	.640	.370	.121	2.18		.300	.153	22.5
83 3 2	.005	5.68	2.54	.500	.640	.360	.159	2.20	5.46	.345	.121	21.3
83 3 6	.006	5.56	2.78	.520	.680	.330	.153	2.78	5.59	.556	.239	23.7
83 3 8	.092	5.39	2.81	.560	.640	.330	.159	1.65	6.41	.396	.467	26.1
83 3 9	.141	5.70	2.77	.510	.520	.290	.147	1.20	6.02	.513	.419	23.6
83 3 10	.062	5.63	2.91	.520	.600	.300	.124	2.26	5.91	.253	.522	25.1
83 3 11	.040	5.61	2.79	.540	.670	.410	.150	.95	5.90	.380	.492	24.8
83 3 12	.020	5.51	2.61	.530	.770	.280	.146	.89	5.98	.322	.514	24.9
83 3 13	.024	5.53	2.77	.530	.650	.270	.134	1.18	6.03	.323	.541	22.2
83 3 14	.023	5.55					.110		5.74	.242	.512	22.7
83 3 15	.021	5.55	2.88	.530	.750	.280	.088	.95	6.21	.307	.525	24.5
83 3 16	.020	5.65	2.77	.530	.730	.320	.100	1.28	6.34	.268	.514	22.5
83 3 17	.017	5.58	2.86	.540	.680	.280	.095	1.03	6.21	.262	.505	23.6
83 3 18	.016	5.69	2.92	.560	.690	.300	.099	2.01	6.23	.282	.502	24.2
83 3 21		5.58	2.69	.540	.550	.300	.100	1.18	5.72	.265	.451	26.0
83 3 22	.017	5.74	2.70	.530	.510	.310	.099	1.95	5.79	.302	.447	21.7
83 3 24	.013	5.56	3.03	.460	.690	.260	.093	1.51	5.96	.301	.460	25.3
83 3 28	.010	5.51	3.06	.470	.700	.250	.092	2.01	6.07	.340	.468	24.6
83 3 31	.009	5.54	3.13	.470	.260	.260	.098	3.24	6.01	.304	.429	25.9
83 4 4	.008	5.59	3.08	.480	.740	.270	.089	2.55	6.09	.318	.419	25.7
83 4 6	.010	5.76	3.13	.490	.700	.230	.066	2.04	5.94	.274	.397	26.5
83 4 7	.010	5.79	2.93	.470	.690	.240	.073	2.29	5.92	.302	.392	24.1
83 4 8	.013	5.74	2.89	.460	.760	.230	.077	1.77	5.89	.285	.386	25.7
83 4 9	.013	5.77	3.01	.460	.700	.240	.069	1.75	5.79	.259	.370	24.5
83 4 10	.017	5.76	3.00	.440	.730	.370	.073	2.39	5.87	.325	.350	24.1
83 4 11	.022	5.76	2.99	.460	.690	.340	.067	2.41	5.82	.318	.351	24.4
83 4 12	.025	5.83	2.91	.440	.740	.310	.055	1.88	5.83	.330	.348	23.9
83 4 13	.031	5.74	2.78	.440	.210	.210	.065	2.04	6.06	.346	.366	24.2
83 4 14	.205	5.70	2.73	.420	.650	.210	.077	1.41	6.10	.422	.367	23.3
83 4 15	.263	5.51	2.24	.370	.570	.320	.065	.67	5.62	.379	.368	21.0

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
83 4 16	.081	5.38	2.22	.380	.580	.320	.066	.69	5.76	.247	.391	28.5
83 4 19	.056	5.17	2.43	.380	.590	.310	.048	.84	5.77	.242	.427	24.0
83 4 20	.024	5.38	2.39	.380	.590	.310	.044	1.07	5.87	.248	.416	22.9
83 4 25	.047	5.48	2.37	.390	.600	.280	.043	1.51	5.28	.233	.358	21.2
83 4 26	.199	5.55	2.44	.380	.530	.240	.046	1.27	5.58	.235	.335	21.3
83 4 28	.181	5.36	2.11	.360	.570	.230	.044	.32	5.10	.247	.296	19.9
83 4 29	.105	5.42	2.18	.330	.530	.200	.035	1.00	4.88	.215	.280	18.7
83 5 4	.065	5.62	2.06	.340	.440	.210	.031	1.17	4.60	.266	.235	17.8
83 5 11	.020	5.79	2.60	.410	.510	.270	.084	2.20	4.77	.271	.193	26.1
83 5 17	.014	6.06	2.54	.400	.490	.230	.083	2.62	4.78	.298	.196	21.7
83 5 25	.084	6.22	2.46	.380	.450	.230	.021	2.43	5.48	.357	.134	21.1
83 5 31	.105	5.65	2.31	.360	.450	.210	.013	1.76	5.08	.212	.136	19.1
83 6 8	.026	6.31	2.34	.370	.490	.280	.013	1.93	5.04	.286	.085	18.9
83 6 14	.017	6.10	2.39	.400	.500	.220	.017	2.17	5.24	.279	.074	22.6
83 6 21		6.30	2.39	.400	.560	.250		2.05			.028	21.1
83 6 27	.005	6.31	2.30	.420	.540	.310	.007	1.87	5.08	.295	.482	28.6
83 7 5	.006	6.35	2.26	.470	.400	.160	.003	3.71	5.17	.322	.048	21.2
83 7 14	.008	6.10	2.52	.440	.450	.240	.030	3.31	5.23	.350	.002	24.0
83 7 19	.004	6.19	2.59	.430	.500	.200	.006	3.38	5.30	.356	<.040	24.7
83 7 27	.000	6.12	2.42	.430	.420	.170	.007	3.44	5.73	.349		22.4
83 8 2	.002	6.23	2.13	.390	.550	.170	.010	2.77	5.01	.262		22.0
83 8 10	.003	6.50	2.02	.420	.520	.170	.003	2.18	5.25	.234		22.6
83 8 16	.001	6.34	2.23	.420	.650	.270	.017	2.87	5.43	.434		23.5
83 8 24	.001	6.09	2.53	.410	.470	.280	.005	2.65	4.77	.371	.005	22.4
83 8 30	.000	6.45	2.70	.540	.510	.380	.013	5.12	6.31	.286	.004	23.6
83 9 6	.002	6.03	2.52	.470	.450	.230	.075	2.22	6.03	.249	.026	23.6
83 9 13	.004	6.19	2.34	.440	.410	.160	.044	2.20	5.53	.417	.008	23.6
83 9 21	.011	5.93	2.43	.380	.460	.200	.024	2.95	6.53	.014	.008	22.5
83 9 27	.008	6.18	2.39	.500	.460	.220	.005	2.37	5.30	.308		24.2
83 10 5	.034	6.28	2.74	.440	.500	.310		3.47				23.6
83 10 11	.013	6.21	2.62	.700	.510	.280		2.76				24.3
83 10 19	.025	6.18	2.63	.400	.490	.290		2.47				21.3
83 10 24	.011	6.25	2.58	.420		.290		2.28				24.6
83 11 2	.012	6.17	2.67	.430	.520	.330	.052	2.42	5.96	.402	.057	22.4
83 11 9	.006	6.22	2.69	.440	.500	.300	.024	1.52	4.77	.327	.054	22.7
83 11 14		6.39	2.99	.470	.560	.320	.031	2.84	5.77	.459	.065	25.6
83 11 22	.109	5.05	2.42	.460	.580	.390	.027	1.64	5.48	.518	.183	23.9
83 11 29	.027	5.76	2.41	.400	.540	.320	.028	1.41	5.37	.400	.179	22.4
83 12 7	.013	6.04	2.26	.430	.610	.500	.047	1.64	5.09	.663	.147	22.1
83 12 12	.016	6.00	2.70	.420	.520	.420	.056	1.84	5.07	.430	.106	22.7
84 1 11	.007	5.78	2.42	.430	.420	.380	.052	2.08	5.11	.484	.090	23.7
84 1 17	.010	5.97	2.39	.430	.410	.160	.046	2.31	5.18	.371	.080	23.6
84 2 1	.005	5.73	2.31	.430	.500	.200	.050	2.93	5.20	.432	.096	23.2
84 2 7	.011	6.00	2.42	.420	.480	.180	.063	2.15	5.22	.429	.106	23.2
84 2 13	.012	5.80	2.52	.420	.460	.210	.090	3.20	4.82	.497	.167	25.3
84 2 14	.022	5.82	2.66	.470	.510	.230	.058	3.52	5.29	.495	.193	25.2
84 2 15	.031	5.60	3.10	.500	.500	.230	.057	.73	5.51	.542	.425	27.1
84 2 16	.029	5.73	2.69	.430	.460	.200	.061	2.35	5.34	.447	.203	25.6
84 2 17	.026	5.73	2.67	.440	.630	.300	.073	2.11	5.36	.792	.262	26.4
84 2 18	.025	5.76	2.64	.060	.470	.170	.078	2.41	5.19	.511	.318	25.3
84 2 20	.024	5.70	2.60	.510	.400	.180	.123	1.61	5.11	.392	.292	23.9
84 2 21	.022	5.68	2.15	.410	.480	.230	.064	2.42	5.06	.387	.274	25.4
84 2 22	.020	5.71	2.59	.440	.430	.180	.142	1.66	5.12	.285	.303	24.1
84 2 23	.018	5.69	2.62	.440	.440	.190	.108	1.82	5.32	.387	.317	24.4
84 2 24	.018	5.65	2.78	.420	.580	.240	.054	2.41	5.18	.581	.306	25.9
84 2 27	.017	5.68	2.67	.470	.520	.120	.044	2.21	5.26	.278	.341	26.2
84 2 29	.010	5.72	2.34	.480	.610	.280	.051	2.14	5.40	.523	.355	28.0
84 3 2	.014	5.58	2.78	.460	.620	.300	.051	2.10	5.76	.500	.356	27.0
84 3 5	.007	5.74	2.77	.430	.720	.330	.058	2.35	5.46	.416	.342	26.3
84 3 8	.012	5.86	2.80	.480	.650	.270	.062	2.30	5.20	.507	.320	28.8
84 3 13	.011	5.73	2.74	.480		.370	.088	1.25	5.36		.314	27.2
84 3 15	.006	5.69	2.64	.430	.530	.210	.109	2.45	5.41	.412	.287	26.7
84 3 20	.010	5.75	2.69	.460	.550	.170	.094	7.42	5.35	.331	.266	27.1
84 3 21	.007	5.72	2.84	.460	.470	.170	.089	3.05	5.04	.269	.280	27.3

DATE YR MO DV	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
84 3 23	.022	5.76	2.81	.470	.520	.270	.062	1.73	5.23	.510	.243	26.8
84 3 26	.016	5.63	2.82	.480	.500	.280	.099	2.44	5.35	.357	.300	25.8
84 3 27	.010	5.92	3.18	.490	.500	.070	.049	1.49	5.39	.305	.311	25.9
84 3 28	.010	5.88	3.04	.480	.510	.120	.078	1.76	5.44	.347	.319	24.9
84 3 29	.014	5.81	2.98	.480	.530	.500	.045	2.15	5.36	.620	.378	27.4
84 3 30	.010	5.90	3.00	.500	.520	.220	.112	2.51	5.43	.361	.390	25.5
84 4 1	.017	5.86	2.98	.520	.490	.200	.034	2.90	5.38	.251	.345	26.8
84 4 2	.011	5.90	2.98	.500	.540	.200	.077	2.39	5.46	.284	.368	26.7
84 4 3	.022	5.87	3.02	.520	.520	.300	.033	2.32	5.67	.337	.399	26.2
84 4 4	.021	5.83	2.94	.500	.540	.500	.117	1.75	5.98	.706	.447	27.0
84 4 5	.043	5.78	2.87	.500	.510	.300	.060	2.17	5.85	.419	.563	28.5
84 4 6	.032	5.74	3.14	.530	.620	.170	.051	1.63	6.16	.303	.554	29.1
84 4 7	.048	5.79	3.02	.500	.550	.200	.152	2.00	5.91	.283	.563	26.2
84 4 8	.042	5.76	2.90	.540	.520	.500	.044	1.87	5.84	.298	.591	26.3
84 4 9	.046	5.74	2.93	.500	.530	.230	.085	1.71	5.79	.342	.588	28.0
84 4 10	.064	5.69	2.73	.500	.700	.260	.063	1.99	5.66	.238	.621	28.1
84 4 11	.073	5.70	3.02	.480	.720	.260	.059	1.47	5.58	.233	.649	26.5
84 4 12	.080	5.69	2.97	.480	.680	.260	.058	1.35	5.50	.200	.631	26.2
84 4 13	.118	5.62	2.68	.460	.700	.360	.097	1.72	5.36	.299	.583	25.7
84 4 14	.116	5.57	2.66	.480	.440	.360	.031	.94	5.19	.165	.563	24.0
84 4 15	.118	5.55	2.66	.470	.440	.340	.062	1.42	5.02	.179	.673	23.5
84 4 16	.167	5.52	2.21	.680	.540	.230	.055	.92	4.31	.307	.478	22.4
84 4 17	.185	5.56	2.34	.410	.470	.270	.065	.96	4.97	.325	.460	22.4
84 4 18	.057	5.48	2.32	.390	.420	.270	.048	.70	4.79	.331	.492	22.5
84 4 19	.062	5.48	2.23	.390	.470	.240	.041	.75	4.83	.327	.483	21.8
84 4 24	.060	5.75	2.80	.370	.530	.220	.038	1.54	4.08	.301	.324	23.7
84 4 26	.053	5.77	1.87	.330	.430	.260	.012	1.47	3.95	.399	.263	19.8
84 4 30	.056	6.15	2.71	.420	.480	.270	.042	2.25	4.60	.407	.199	24.5
84 5 2	.047	6.15	2.56	.420	.590	.220	.068	1.99	4.47	.351	.201	24.9
84 5 3	.044	6.23	2.62	.430	.660	.270	.044	2.49	4.49	.450	.198	24.6
84 5 8	.086	6.34	2.60	.480	.400	.220	.033	2.19	4.73	.445	.252	25.2
84 5 10	.041	6.33	2.30	.300	.400	.200	.017	2.26	4.63	.539	.312	24.4
84 5 14	.016	6.47	2.62	.480	.510	.200	.019	2.05	4.68	.435	.378	24.8
84 5 16	.010	6.40	2.59	.300	.510	.270	.026	2.01	4.84	.425	.190	26.9
84 5 22	.001	6.42	2.64	.430	.930	.190	.013	2.23	4.71	.308	.132	27.5
84 5 30	.011	6.46	2.62	.440	.420	.140	.016	2.48	5.15	.396	.117	27.7
84 6 6	.006	6.49	2.83	.450	.450	.100	.035	2.76	5.06	.419	.173	28.2
84 6 13	.000	6.63	3.44	.500	.460	.220	.027	4.30	4.77	.414	.059	32.7
84 6 19	.000	6.68	2.89	.440	.470	.200	.005	2.96	4.89	.345	.028	28.3
84 6 27	.004	6.38	2.43	.430	.400	.130	.016	2.96	5.33	.281	.012	27.3
84 7 3	.004	6.38	2.71	.470	.500	.190	.020	5.79		.280	.013	27.4
84 7 11	.000	6.53	2.83	.460	.740	.350	.103	1.57	5.70	.771	.009	31.6
84 7 17	.006	6.26	2.55	.470	.430	.160	.017	1.91	5.07	.300	.003	20.9
84 7 25	.003	6.33	2.72	.470	.410	.140	.050	3.53	5.36	.242	.011	27.5
84 7 31	.004	6.25	2.78	.500	.410	.140	.017	2.92	5.40	.347	.000	23.9
84 8 9	.005	6.32	2.72	.460	.450	.130	.030	3.10	5.18	.337	.008	29.5
84 8 13	.004	6.35	2.91	.520	.480	.130	.020	3.29	5.24	.347	.002	28.2
84 8 21	.000	6.61	3.49	.540	.430	.220	.026	3.66	5.60	.449	.000	30.1
84 8 29	.000	6.45	2.67	.490	.510	.310	.011	6.17	5.57	.556	.005	29.2
84 9 4	.000	6.32	2.68	.440	.450	.310	.012	3.13	5.58	.498	.000	30.3
84 9 12	.017	6.32	2.90	.450	.450	.390	.018	2.82	6.04	.627	.010	31.1
84 9 18	.013	6.48	2.86	.490	.480	.230	.023	2.16	5.63	.439	.021	28.8
84 9 26	.093											
84 9 27	.048	6.32	2.62	.420	.460	.300	.026	2.85	5.47	.426	.028	28.9
84 10 4	.024	6.33	2.54	.430	.470	.270	.046	2.40	5.24	.376	.044	29.5
84 10 10	.021	6.43	2.67	.420	.470	.320	.077	2.69	5.55	.456	.046	27.6
84 10 16	.010	6.29	2.74	.420	.500		.031	1.97	5.61		.052	37.5
84 10 24	.024	6.36	2.67	.440	.550	.220	.088	5.12	5.34	.366	.059	36.5
84 11 1	.655	6.19	2.46	.420	.460	.290	.056	2.11	5.34	.374	.109	31.4
84 11 2	.174	6.15	2.43	.410	.480	.330	.052	1.82	5.27	.417	.127	40.0
84 11 5	.037	6.27	2.67	.440	.500	.280	.047	1.51	5.28	.446	.141	35.8
84 11 7	.039	6.33	2.58	.430	.500	.300	.050	1.77	5.70	.434	.161	30.3
84 11 13	.020	6.11	2.73	.410	.460	.200	.049	.82	5.52	.483	.160	20.9
84 11 21	.017	5.92	2.49	.410	.500	.190	.040	1.54	5.57	.329	.200	29.5

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
84 11 27	.020	5.92	2.51	.430	.500	.250	.060	2.01	5.06	.330	.242	31.0
84 12 4	.025	5.94	2.19	.380	.510	.240	.055	1.76	5.64	.345	.187	32.6
84 12 12	.019	5.78	2.45	.410	.510	.260	.054	.76	5.44	.419	.237	32.8
84 12 19	.040	5.53	2.25	.400	.670	.220	.069	.75	4.98	.632	.310	27.8
84 12 27	.024	5.50	2.36	.410	.470	.230	.044	.78	5.10	.402	.310	30.4
85 1 2	.025	5.53	2.42	.410	.490	.200	.046	1.41	5.45	.355	.317	21.3
85 1 9	.013	5.74	2.37	.400	.450	.220	.080	1.15	5.23	.337	.292	30.0
85 1 16	.007	5.07	2.45	.396	.500	.260	.091	1.59	5.52	.304	.273	32.7
85 1 20	.006	6.02	2.65	.430	.770	.240	.060	1.48	5.56	.767	.244	29.3
85 2 6	.008	5.00	2.55	.410	.540	.200	.069	2.43	5.74	.331	.207	30.8
85 2 13	.007	5.46	2.52	.390	.520	.230	.095	2.04	5.21	.406	.204	32.0
85 2 20	.007	5.72	2.46	.380	.620	.220	.083	1.30	9.75	.358	.196	26.0
85 2 25	.008	5.49	2.42	.370	.140	.260	.078	2.98	5.28	.353	.197	29.8
85 2 28	.008	5.46	2.44	.390	.520	.280	.087	2.96	5.26	.402	.199	22.2
85 3 6	.009	5.93	2.50	.410	.510	.290	.249	3.15	5.45	.346	.209	29.3
85 3 11	.009	5.93	2.56	.400	.460	.240	.184	2.79	5.22	.475	.219	29.3
85 3 12	.007	5.09	2.63	.430	.490	.250	.076	2.30	5.23	.352	.210	28.0
85 3 14	.009	5.92	2.63	.440	.480	.230	.076	3.10	5.21	.376	.237	31.8
85 3 18	.009	5.05	2.72	.440	.500	.230	.064	2.33	5.30	.378	.265	30.3
85 3 19		5.05	2.65	.430	.480	.250		3.14	5.10	.341		34.9
85 3 20	.005	5.65	2.77	.430	.490	.250	.079	2.96	5.12	.340	.270	23.7
85 3 21	.005	5.52	2.02	.440	.430	.240	.039	3.34	5.11	.364	.272	23.5
85 3 23	.004	5.63	2.60	.430	.430	.240	.045	3.30	5.02	.360	.265	23.5
85 3 25	.006	5.63	2.49	.430	.470	.260	.060	2.94	5.44	.376	.242	24.0
85 3 27	.007	5.39	2.68	.440	.480	.240	.103	2.45	5.33	.344	.312	24.7
85 3 28	.034	5.50	2.30	.420	.390	.310	.081	1.67	5.03	.345	.238	22.7
85 3 29	.074	5.34	2.34	.450	.400	.270	.047	2.26	5.00	.353	.561	24.9
85 3 30	.037	5.33	2.24	.440	.420	.300	.126	1.95	5.09	.401	.654	24.9
85 3 31	.027	5.37	2.69	.480	.420	.290	.080	.00	5.09	.321	.710	25.2
85 4 1	.029	5.38	2.53	.450	.440	.280	.084	2.25	5.00	.377	.630	25.6
85 4 2	.023	5.36	2.74	.460	.500	.290	.082	2.47	5.35	.308	.569	24.9
85 4 3	.021	5.30	2.77	.460	.530	.310	.078	.54	5.22	.458	.639	24.9
85 4 4	.017	5.33	2.07	.490	.550	.330	.076	2.13	4.84	.396	.577	25.3
85 4 5	.015	5.30	2.67	.470	.500	.310	.066	1.29	4.91	.301	.557	24.6
85 4 8	.018	5.43	2.70	.450	.510	.260	.087	3.06	5.01	.356	.590	26.2
85 4 9	.015	5.20	2.70	.400	.490	.270	.087	2.54	5.44	.213	.620	24.3
85 4 10	.014	5.20	2.00	.380	.500	.280	.055	1.27	5.53	.239	.618	25.8
85 4 11	.013	5.33	2.03	.390	.560	.280	.147	2.43	5.61	.357	.611	25.6
85 4 12	.012	5.42	2.91	.480	.460	.200	.077	2.20	4.93	.315	.605	25.2
85 4 13		5.41	3.01	.480	.510	.210	.056	1.00	4.79	.353	.602	24.4
85 4 14	.031	5.32	2.65	.480	.470	.200	.084	1.73	5.47	.353	.409	24.1
85 4 15	.067	5.39	3.03	.500	.480	.170	.059	4.08	5.63	.339	.647	27.9
85 4 16	.009	5.56	2.60	.480	.490	.250	.056	1.00	7.32	.372	.694	27.3
85 4 17	.064	5.35	2.92	.470	.520	.260	.070	1.19	5.52	.339	.719	27.1
85 4 18	.045	5.32	2.56	.470	.510	.280	.071	.66	6.67	.375	.733	26.6
85 4 19	.006	5.33	2.00	.400	.470	.260	.071	1.39	6.78	.413	.019	27.7
85 4 20	.311	5.23	1.44	.400	.540	.230	.078	1.54	5.60	.372	.790	26.3
85 4 21	.506	5.10	1.30	.450	.450	.260	.069	.97	5.29	.308	.772	26.4
85 4 22	.360	5.17	1.26	.450	.420	.260	.057	.59	4.99	.328	.702	25.2
85 4 23	.564	5.05	2.11	.400	.460	.240	.093	.47	5.00	.407	.758	23.4
85 4 24	.346	5.01	2.05	.300	.450	.220	.077	.56	5.66	.354	.754	22.5
85 4 25	.227	4.06	1.94	.340	.430	.240	.074	.67	5.71	.344	.754	22.0
85 4 26	.111	4.92	1.95	.350	.450	.250	.070	.90	5.36	.357	.737	21.1
85 4 29	.048	5.00	1.96	.340	.420	.270	.058	.76	4.59	.238	.643	21.1
85 4 30	.061	5.55	1.97	.340	.400	.260	.064	.76	4.61	.263	.626	23.8
85 5 2	.033	5.64	2.04	.360	.360	.200	.041	1.00	4.39	.260	.533	21.2
85 5 6	.057	5.77	2.14	.370	.360	.190	.043	2.00	4.50	.201	.471	22.6
85 5 8	.030	5.94	2.15	.380	.300	.230	.103	2.10	4.65	.266	.454	22.3
85 5 9	.025	5.07	2.14	.300	.410	.210	.010	2.14	4.66	.305	.426	22.2
85 5 14	.022	6.14	2.02	.410	.400	.230	.021	2.65	4.60	.302	.370	21.0
85 5 21	.010	6.30	2.16	.360	.340	.220	.027	2.02	4.61	.103	.337	21.7
85 5 28	.000	6.45	2.34	.390	.460	.180	.020	2.46	4.45	.313	.300	22.6
85 6 4	.022	6.43	2.29	.300	.460	.210		2.23	4.50	.359	.522	21.2
85 6 10	.014	6.31	2.20	.300	.460	.170	.024	2.77	4.41	.340	.060	24.5

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
85 6 18		6.19	2.52	.468	.420	.178		3.28	4.65	.336		23.5
85 6 19	.018	6.12	2.44	.418	.420	.168	.026	2.81	4.86	.915	.194	21.3
85 6 25	.026	6.42	2.44	.438	.438	.168	.011	2.79	4.77	.278	.163	23.6
85 7 2	.006	6.37	2.56	.398	.488	.198	.012	2.45	5.69	.388	.097	25.1
85 7 9	.001	6.88	2.41	.428	.418	.188	.009	3.18	4.81	.313	.052	28.5
85 7 17	.001	6.18	2.52	.458	.438	.168	.003	2.27	4.88	.485	.008	21.4
85 7 24	.003	5.91	2.51	.438	.368	.198	.011	3.39	4.93	.252	.029	28.6
85 7 29	.003	6.14	2.58	.438	.488	.178	.009	3.72	5.37	.377	.015	21.7
85 8 7	.003	6.03	2.52	.418	.438	.178	.013	3.79	4.85	.383	.016	21.7
85 8 14	.005	6.84	2.46	.448	.488	.128	.013	4.86	4.85	.259	.015	22.3
85 8 28	.005	6.88	2.51	.438	.488	.178	.048	4.38	4.92	.225	.043	21.1
85 8 27	.007	6.44	2.58	.428	.418	.168	.018	3.99	5.25	.287	.008	23.8
85 9 3	.011	6.15	2.52	.438	.278	.188	.008	3.63	5.64	.382	.035	22.2
85 9 18	.032	6.25	2.48	.428	.488	.168		3.18	5.35	.315		
85 9 16	.018	6.23	2.35	.418	.438	.188	.049	3.98	5.26	.386	.008	
85 9 23	.019	6.25	2.58	.428	.588	.168	.022	3.45	4.95	.355	.038	
85 9 38	.037	6.12	2.55	.488	.398	.198	.019	3.48	5.43	.289	.039	
85 10 8	.039	6.89	2.67	.418	.328	.188	.058	4.29	4.87	.392	.067	19.8
85 10 15	.025	6.26	2.55	.438	.488	.218	.079		5.33	.423	.066	22.3
85 10 22	.023	6.16	2.56	.428	.338	.188	.078	1.95	5.36	.398	.038	28.7
85 10 28	.026	6.31	2.66	.418	.318	.158	.037	2.74	5.26	.572	.072	19.6
85 11 5	.058	6.38	2.51	.418	.438	.198	.046	2.88	4.97	.417	.035	19.2
85 11 12	.018	6.35	2.58	.438	.498	.178	.189	2.81	5.36	.441	.279	28.7
85 11 19	.028	6.13	2.59	.488	.428	.188	.048	2.57	4.89	.368	.124	19.9
85 11 27	.018	6.83	2.26	.488	.438	.178	.138	1.94	5.13	.389	.141	21.6
85 12 4	.016	6.13	2.36	.398	.498	.198	.032	2.41	5.12	.468	.141	28.4
85 12 18	.009	6.85	2.52	.418	.438	.198	.049	2.82	5.18	.414	.157	21.4
85 12 16	.018	6.16	2.48	.418	.428	.188	.043	2.25	5.46	.337	.124	21.2
85 12 38	.011	6.18	2.44	.488	.448	.218	.139	2.66	5.43	.477	.181	28.3
86 1 8	.007	6.19	2.65	.418	.448	.288	.139	2.65	5.24	.378	.183	28.6
86 1 13	.008	6.12	2.61	.398	.478	.218	.084	2.48	5.27	.251	.098	19.4
86 1 15		6.84	2.57	.488	.478	.258	.071	2.55	5.88	.386	.095	28.4
86 1 21	.007	6.88	2.48	.438	.378	.178	.064	2.71	5.48	.349	.186	28.7
86 1 29	.009	6.81	2.58	.418	.418	.178	.058	2.47	5.89	.438	.096	28.8
86 2 5	.007	6.83	2.63	.428	.468	.188	.065	3.56	5.13	.451	.131	28.8
86 2 18	.005	5.89	2.59	.428	.418	.198	.067	2.86	5.13	.238	.125	19.5
86 2 19	.005	6.88	2.59	.418	.398	.178	.055	2.54	4.88	.262	.128	19.3
86 2 26	.006	6.88	2.58	.488	.428	.188	.056	2.76	5.82	.243	.119	28.9
86 3 4	.003	5.98	2.44	.418	.428	.178	.064	3.38	4.54	.388	.114	28.8
86 3 18	.005	5.96	2.67	.438	.438	.188	.053	2.82	4.78	.385	.098	19.8
86 3 13		5.96	2.62	.418	.418	.258	.062	2.79	4.76	.338	.129	28.2
86 3 28	.018	6.86	2.53	.438	.478	.198	.055	3.21	4.75	.384	.119	28.6
86 3 26	.009	6.34	2.64	.418	.448	.188	.068	3.37	4.44	.247	.162	
86 3 28	.018	5.88	3.87	.498	.588	.168	.076	3.14	4.77	.255	.443	23.4
86 3 29	.024	5.63	3.84	.478	.598	.298	.072	3.28	4.73	.298	.453	26.5
86 3 31	.067	5.62	2.97	.478	.638	.238	.068	2.91	4.75	.244	.588	25.6
86 4 1	.092	5.58	3.18	.478	.558	.178	.075	3.53	5.18	.253	.579	24.2
86 4 2	.088	5.63	2.89	.468	.468	.288	.067	2.29	5.46	.315	.621	25.1
86 4 3	.077	5.53	2.72	.448	.458	.188	.084	2.22	4.82	.323	.576	23.3
86 4 4	.061	5.49	2.85	.488	.448	.178	.074	2.88	4.66	.278	.679	24.1
86 4 5	.067	5.58	2.83	.478	.468	.178	.077	1.98	4.64	.273	.631	24.2
86 4 6	.097	5.46	2.88	.468	.468	.168	.075	1.89	4.66	.292	.655	24.6
86 4 7	.089	5.32	2.75	.468	.448	.168	.068	1.79	4.56	.288	.635	23.1
86 4 8	.132	5.42	2.75	.468	.438	.138	.068	2.84	4.72	.244	.628	23.9
86 4 9	.078	5.41	2.55	.458	.448	.138	.076	2.11	4.68	.258	.564	23.8
86 4 18	.046	5.36	2.71	.458	.418	.128	.073	1.88	4.71	.277	.574	23.6
86 4 11	.033	5.25	2.52	.458	.498	.288	.073	1.98	4.81	.245	.573	23.4
86 4 12	.029	5.42	2.47	.448	.478	.288	.069	1.83	5.18	.266	.588	24.1
86 4 14	.048	5.42	2.73	.458	.468	.198	.058	2.12	4.99	.268	.599	23.5
86 4 15	.079	5.43	2.65	.468	.438	.198	.042	1.98	4.98	.275	.638	23.7
86 4 16	.077	5.42	2.63	.458	.468	.198	.057	1.73	4.83	.169	.585	22.2
86 4 17	.093	5.31	2.52	.428	.428	.178	.057	1.55	4.51	.282	.579	22.4
86 4 18	.112	5.48	2.48	.438	.428	.188	.056	1.62	4.55	.274	.573	22.9
86 4 19	.239	5.31	2.22	.388	.428	.218	.063	1.53	4.38	.312	.497	21.4

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
86 4 20	.149	5.16	2.21	.388	.388	.178	.851	1.57	4.27	.257	.585	20.8
86 4 21	.117	5.24	2.16	.388	.488	.178	.853	1.56	4.43	.224	.513	21.5
86 4 22	.855	5.18	2.13	.388	.398	.178	.854	1.42	4.38	.249	.476	20.7
86 4 23	.847	5.35	2.22	.378	.388	.168	.855	1.63	4.38	.194	.496	22.5
86 4 24	.847	5.35	2.16	.398	.458	.198	.864	1.65	4.26	.261	.491	21.1
86 4 25	.846	5.36	2.13	.378	.378	.158	.855	1.49	4.76	.195	.459	19.8
86 4 28	.123	5.45	2.25	.378	.488	.178	.827	2.71	3.88	.256	.294	18.5
86 4 30	.849	5.63	2.38	.378	.418	.178	.822	2.34		.211	.278	19.3
86 5 5	.824	5.72	2.37	.398	.428	.198	.857	2.44	4.86	.251	.262	18.8
86 5 8	.817	6.81	2.59	.488	.418	.158	.838	2.23		.228	.229	19.2
86 5 13	.818	6.88	2.69	.418	.438	.158	.812	2.51	4.87	.615	.228	19.2
86 5 22	.886	6.23	2.63	.428	.438	.168	.889	2.91	4.97	.239	.142	18.8
86 5 27	.883	6.25	2.54	.428	.438	.178	.829	2.75		.384	.867	19.1

APPENDIX II

MAJOR ION CHEMISTRY AND INSTANTANEOUS DISCHARGE AT STREAM STATION S1

DATE YR MO DY	STREAM DISCHARGE MS/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
80 2 15	.886	6.14	3.38	.588	.588	.158	.884	< 2.48		.388	.476	31.8
80 3 18		5.95		.548	.558	.288	.885	< 2.88	6.78		.447	26.5
80 3 28		5.93							6.88			
80 4 18	.143	5.36	2.63	.419	.478	.398	.822	1.85	5.85	.288	.848	21.9
80 4 14	.821	5.46	3.11	.483	.521	.388	.838	.85	6.19	.288	.828	26.8
80 4 17	.823	5.52	1.89	.372	.557	.276	.886	.65	6.23	.258	.738	21.4
80 4 22	.246	5.74	2.82	.372	.497	.258	.846	.38	5.56	.248	.578	18.7
80 4 25	.885	5.61	1.89	.341	.542	.266	.842	.85	5.38	.288	.518	17.9
80 4 38	.118	5.66	2.82	.341	.452	.234	.818	1.88	5.42	.348	.358	17.4
80 5 5	.824	6.12	2.82	.318	.584	.258	.816	1.78	5.62	.368	.247	18.8
80 5 8	.817	6.16	2.66	.332		.218	.889	1.58	5.73	.348	.252	19.9
80 5 12	.183	5.97	3.88	.297	.458	.222	.817	1.45	5.95	.348	.287	19.2
80 5 28	.816	6.86		.312	.432	.227	.827	2.85	5.69	.318	.288	21.4
80 5 26	.881	5.91		.488	.394	.197	.835	2.25	6.88	.318	.288	28.1
80 6 2	.827	6.88	2.64	.422	.379	.882	.813	2.85	6.42	.348	.138	21.8
80 6 9	.883	5.97	2.12	.388		.241	.886	2.88	5.95		.888	18.8
80 6 16	.868	6.86	2.79	.388	.242				6.87	.368		18.6
80 6 23	.887	6.14	2.51	.352	.388	.186	.812	2.95	5.51	.298	.287	21.9
80 7 2	.849	6.85		.294	.398	.186	.889	2.18	5.88	.478	.883	28.4
80 7 7	.888	6.16		.386	.558	.136	< .881	3.85	5.65	.328	.168	22.1
80 7 14	.884	6.87					.889		5.58	.388		24.6
80 7 21	.814	6.12	3.11		.388	.111		3.55	5.19	.398		21.7
80 7 28	.884	6.28	2.81	.318	.418	.898		3.95		.358		23.3
80 8 5	.811	6.21	2.82	.238	.238	.135	.884	2.28	5.84	.318		22.5
80 8 11		6.17		.371	.445	.127		3.95	4.79	.398		21.8
80 8 18	.815	6.17	2.43	.262	.392	.868		3.75	4.88	.378		28.9
80 8 25	.817	6.27		.388	.288	.868	.883	3.25	5.28	.348		22.4
80 9 8	.887	6.24	2.77	.318	.648	.188	.885	3.88	5.14	.258		21.8
80 9 15	.829	6.12	3.35	.427	.455	.186	.882	2.85	7.68	.438		28.5
80 9 22	.285	5.77		.362	.388	.163	.884	1.35	6.58	.588		18.6
80 10 6	.828	6.88	3.32	.454	.537		.881	3.78	6.13		.858	22.6
80 10 14	.818	6.28	3.33	.468	.538	.138	.881	2.98	6.31		.858	21.8
80 10 28	.863	6.87	3.21	.418	.638	.248	.888	2.25	6.68	.448	.863	28.4
80 10 28	.863	6.17	3.28	.391	.478	.198	.813	1.48	4.48	.428		28.1
80 11 11	.848	6.81	3.29	.427	.388	.874	.822	3.55	7.18	.438	.895	24.1
80 11 17	.822	6.22	3.34	.414	.415	.887	.889	2.38	7.65	.368	.229	25.5
80 12 3	.888	5.74	4.28		.428	.128	.885	1.88	7.28	.338	.291	32.8
80 12 16	.812		3.28	.528	.357	.858	.883		6.95	.328	.268	
80 12 29	.813	5.68	3.32	.518	.366	.853	.884	2.25	6.98	.358	.268	38.6
81 1 12	.811	5.82	3.53	.423	.473	.153	.888	2.78		.498	.355	31.5
81 1 28	.884	5.87	3.47	.416	.324	.848	.886	2.48		.368	.348	31.2
81 2 9	.885	6.82	3.34	.489	.332	.872	.821	2.78	6.48	.348	.318	32.2
81 2 23	.862	5.52		.526	.617	.236	.813	1.95	7.29	.398	.699	28.4
81 3 9	.822	5.91	3.88	.511	.744	.283	.867	2.85	7.46	.248	.598	34.7
81 3 27	.837	5.82	4.86	.511	.582	.133	.819	2.85	7.56	.388	.582	34.9
81 3 31	.494	5.54	3.52		.473	.384	.832	.78	7.84	.438	.755	29.9
81 4 1	.586	5.42	3.88	.458	.472	.292	.849		6.28	.458	.793	33.3
81 4 2	.361	5.31	3.14	.459	.521	.714	.829	.65	6.99	.388	.775	33.4
81 4 3	.385	5.58	3.24	.448	.452	.388	.834	.88	7.13	.358	.691	26.4
81 4 4	1.817	5.48	2.94	.423	.498	.293	.833	.78	6.42	.368	.725	28.7
81 4 6	.191	5.59	3.84	.421	.474	.276	.812		6.53	.368	.616	29.9
81 4 7	.159	5.64	2.97	.421	.582	.274	.819	1.88	6.53	.378	.647	31.3
81 4 8	.142	5.38	2.97	.414	.481	.254	.818		6.11	.338	.737	29.5
81 4 14	.378	5.62	2.41	.488	.388	.268	.821		6.33	.358	.515	23.7
81 5 7	.898	6.83	2.48	.395	.455	.334	< .818	.95	6.51	.318	.362	26.7
81 5 21	.818	6.44	3.33	.448	.448	.228	< .818	2.18	6.89	.288	.242	29.6
81 6 3	.753	5.89	3.39	.628	.428	.288	.812	1.85			.293	27.7
81 6 17	.164	6.81	3.85	.368	.438	.138	.811	1.65			.184	19.2
81 7 2	.842	6.34	2.72		.428	.118	.818	2.88	6.32	.368	.876	21.1
81 7 15	.881	6.28	3.56	.488	.558	.228	.816	3.85	5.15	.549	.377	27.2
81 7 29	.881	6.47	3.58	.498	.588	.238	.818	3.95			.538	38.6
81 8 12	.886	6.44	3.58	.588	.788	.258	.828	3.15	7.26	.446	.885	28.8
81 8 27	.881	6.31	3.67		.768	.328	< .818	1.48	6.61	.328	.488	38.4
81 9 29	.881	6.58	3.49	.478	.588	.248	.817	3.95	6.85	.442	.195	27.1

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
81 10 16	.028	6.16	3.87	.588	.348	.218	< .010	1.80			.123	39.6
81 10 20		5.98	3.28	.438	.288	.388	< .010	1.45	7.86		.084	28.1
81 10 28	.037	6.25		.648	.668	.268	< .010	1.60	6.77	.502	.141	29.8
81 11 11	.048	6.31	3.89	.548	.418	.168	< .010	1.50	6.74	.331	.116	27.1
81 12 16	.015	6.42	3.72	.648	.668	.268		3.40	6.60	.389	.298	31.3
82 1 22		6.42	3.46	.788		.268	< .010	3.65	6.59		.296	31.5
82 2 24	.007	6.38	3.68	.595	.685	.277	< .010	3.28	6.88	.363	.339	31.7
82 3 10	.008	6.46	3.88	.575	.657	.248	< .010	4.88	6.93	.211	.415	32.5
82 3 17		6.87	3.79	.616	.788	.498	< .010	4.45	7.97	.342	.471	34.1
82 3 18		6.18	3.68	.563	.778	.428	< .010	4.88	7.62	.395	.425	33.8
82 3 19	.025	6.26	3.58	.537	.748	.418	.011	2.78	7.39	.488	.398	31.5
82 3 23	.028	6.18	3.29	.517	.585	.271	< .010	2.58	7.48	.261	.357	29.6
82 3 24	.023	6.32	3.52	.563	.575	.283	.012	3.95	7.43	.316	.443	31.1
82 3 26	.016	6.42	3.24	.538		.275	< .010	4.75	7.24	.582	.369	30.2
82 3 29	.018	6.38	3.59	.538	.585	.265	< .010	2.68	7.46	.483	.365	31.3
82 3 30	.018	6.33	3.63	.581	.688	.292	< .010	3.58	7.62	.355	.368	30.8
82 3 31	.098	6.14	3.78	.588	.585	.318	.029	2.35	7.48	.368	.488	31.5
82 4 1	.141	5.96	3.64	.578	.535	.413	.015	1.48	7.66	.588	.468	31.9
82 4 3		5.94	3.17	.583	.478	.366	.016	1.35	7.62	.583	.397	29.8
82 4 4	.241	5.79	3.11	.474	.466	.345	.015	1.35	7.66	.272	.488	29.3
82 4 5	.288	5.85	3.13	.467	.459	.389	< .010	1.58	7.55	.412	.363	28.6
82 4 6	.143	5.87	3.14	.483	.458	.387	< .010	1.48	7.56	.395	.336	28.6
82 4 7	.188	5.99	3.13	.478	.521	.338	.016	1.38	7.38	.484	.318	28.6
82 4 13		6.22	3.17	.582	.578	.328	< .010	2.88	7.17	.364	.488	28.8
82 4 14		6.89	3.17	.583	.569	.325	< .010	1.68	6.97	.322	.484	29.8
82 4 15		6.11	3.22	.498	.535	.272		1.35	7.46	.255	.348	29.6
82 4 16	.058	6.14	2.91	.513	.535	.227	< .010	1.85	7.48	.324	.367	29.7
82 4 17		5.94	3.19	.461	.515	.277	< .010	1.58	7.31	.435	.449	29.6
82 4 18		6.84	2.96	.469	.618	.368	.015	1.68	7.41	.488	.377	29.1
82 4 19	.196	5.99	2.97	.463	.598	.345	.014	1.35	7.19	.399	.371	28.4
82 4 20		6.88	2.94	.468	.595	.342	< .010	1.35	6.96	.259	.355	27.8
82 4 21	.081	6.18	2.92	.461	.588	.338	< .010	.65	7.42	.161	.349	28.2
82 4 22		6.89	2.96	.468	.588	.315	< .010	1.85	7.49	.328	.333	27.4
82 4 25	.683	5.95	2.68	.374	.477	.318	.018	.75	6.63	.273	.368	25.7
82 4 26	.794	5.98	2.38	.374	.467	.318	.022	.78	6.51	.311	.366	24.8
82 4 27		5.89	2.72	.374	.478	.347	< .010	.68	6.56	.485	.369	26.3
82 4 28		5.94	2.79	.281	.587	.315	< .010	1.55	6.86	.194	.345	25.8
82 4 29		5.98	2.59	.394	.474	.273	< .010	.58	6.41	.168	.315	23.4
82 4 30	.443	5.97	2.63	.489	.595	.292	< .010	.15	6.46	.383	.328	24.2
82 5 6	.614	5.98	2.84	.338	.387	.278		1.15	5.83	.233	.234	28.3
82 5 11	.298	6.11	2.44	.348	.486	.272	< .010	1.15	5.71	.176	.181	22.7
82 5 17	.056	6.32	2.78	.381	.446	.224	< .010	2.88	5.68	.368		21.8
82 6 2		6.48	2.78	.444	.514	.216		4.88	6.88	.214	.118	24.9
82 6 18	.008	6.46	3.14	.418	.438	.258	< .101	2.65				26.1
82 6 15	.016	6.57	2.88	.463	.587	.233	< .101	3.25	5.83	.283	.137	23.8
82 6 22	.006	6.51	2.86	.398	.438	.178		3.38	6.11	.387	.186	26.4
82 7 1	.002	6.68	3.34	.448	.488	.288	< .101	2.65	6.13	.283	.298	27.6
82 7 7	.002	6.56	3.47	.448	.478	.238	< .010	3.15	7.62	.583	.415	29.8
82 7 14	.008	6.52	3.69	.468	.588	.148		3.75	7.32	.486	.118	29.1
82 7 21	.004	6.58	3.61	.538	.528	.288		2.95	5.86	.349	.154	28.5
82 7 28	.001	6.46	4.89	.618	.578	.238	< .010	5.64	6.72	.495	.365	32.5
82 8 3	.015	6.43	3.66	.538	.458	.348	.015	3.78	5.72	.341	.483	28.8
82 8 18	.003	6.54	3.63	.548	.538	.288	< .010	3.85	6.52	.348	.215	27.9
82 8 24	.004	6.56	3.89	.598	.558	.228	< .010	5.15	6.66	.416	.218	27.8
82 9 7	.038	6.56	3.37	.498	.458	.178	.003	3.15	6.84	.431	< .848	24.2
82 9 14		6.85	3.44	.586	.424	.445	.006		7.38	.732	< .848	27.3
82 9 28	.189	6.27	3.82	.488	.578	.248	< .010	2.15	5.84	.529	< .848	21.5
82 9 29	.048	6.32	3.87	.493	.582	.233	.004	2.87	5.68	.529	< .848	22.8
82 10 4	.065	6.36	3.16	.512	.586	.251	< .010	2.47	6.15		< .848	22.4
82 10 7	.787	5.89	3.36	.576	.468		.001	1.15	7.23	.774	< .848	23.4
82 10 14	.228	6.24	2.93	.482	.482	.236	.004	2.25	5.91	.582	.846	21.2
82 10 18	.062	6.28	2.96	.588	.454	.212	.011	1.62	6.38	.436	.876	28.5
82 10 27	.046	6.19	2.83	.466	.467	.245	.004	1.68	5.87	.431	.893	21.1
82 11 2	.034	6.38	2.89	.468	.458	.238	< .010	2.28	5.86	.346	.128	21.2

DATE YR MO DV	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
82 11 18	.069	6.11	2.88	.448	.588	.288	< .018	1.49	6.12	.584	.146	22.1
82 11 16	.068	6.15	2.61	.582	.432	.197	.003		5.88	.311	.186	21.5
82 11 24	.068	6.06	2.89	.528	.538	.238	.008		5.85	.318	.183	21.8
82 12 2	.052	6.82	3.86	.538	.558	.228	.002	1.64	6.12	.229	.258	21.9
82 12 7	.089	6.88	2.76	.498	.538	.288	.004	1.82	5.86	.568	.188	19.3
82 12 22	.023	6.11	2.82	.468	.368	.148	.018	2.48	5.86	.281	.262	22.8
82 12 29	.178	5.79	2.57	.398	.348	.118	.007	1.17	6.02	.161	.312	21.4
83 1 6	.051	6.88	2.88	.438	.388	.158	.009	1.67	6.11	.282	.328	23.8
83 1 13	.037	6.85	2.98	.468	.378	.158	.015	1.68	6.39	.294	.324	22.2
83 1 19	.089	6.12	3.83	.478	.388	.158	.012	1.55	6.33	.286	.353	22.9
83 1 25	.087	6.89	2.96	.528	.788	.418	.023	2.11	6.28	.485	.343	22.4
83 2 1	.016	6.83	3.13	.538	.788	.438	< .018	2.89	6.31	.451	.359	23.8
83 2 7	.011	6.86	3.22	.528	.798	.438	< .018	2.16	6.13	.313	.344	23.8
83 2 16		6.13	3.36	.558	.638	.358	< .018	3.85	6.85	.373	.377	25.8
83 2 21		6.13	2.64	.548	.638	.448	< .018	2.18	5.86	.371	.474	25.9
83 2 23		6.17	3.31	.548	.748	.348	< .018	2.26	6.36	.271	.483	24.5
83 2 28		6.88	3.49	.578	.718	.388	.014	2.87	6.48	.258	.464	27.2
83 3 2	.013	6.19	3.38	.538	.728	.288	.026	4.14	6.32	.325	.439	27.4
83 3 6		6.12	3.54	.578	.768	.268	.042	2.74	6.35	.442	.687	27.2
83 3 8	.333	5.64	3.12	.518	.788	.318	.021	.76	5.88	.391	.887	25.5
83 3 9		5.78	3.22	.498	.528	.268	.005	1.24	6.85	.343	.669	25.3
83 3 18	.178	5.88	3.24	.518	.568	.268	.015	.88	6.89	.278	.589	26.6
83 3 11	.112	5.95	3.11	.538		.398	.017	1.86	6.84	.348	.588	25.3
83 3 12	.059	6.82	3.18	.518	.658	.268	.016	1.28	6.18	.297	.598	24.8
83 3 13	.061	6.12	3.19	.528	.668	.268	.012		6.17	.259	.597	22.3
83 3 14	.056	6.13	3.18	.518	.838	.258	.005	3.33	5.97	.287	.615	22.8
83 3 15	.035	6.82	3.87	.518		.318	.026	1.37	6.35	.362	.573	24.8
83 3 16	.046	6.11	3.84	.518		.268	.017	1.89	6.32	.216	.593	22.3
83 3 17	.027	6.13	3.13	.528	.848	.248	.014	1.64	6.28	.257	.573	22.8
83 3 18	.043	6.15	3.18	.528	.788	.248	.018	1.37	6.32	.225	.565	23.1
83 3 21	.026	6.13	3.83	.528	.688	.268	.025	1.79	5.89	.292	.531	26.8
83 3 22	.034	6.18	3.88	.538	.628	.278	.015	1.12	5.97	.273	.525	23.4
83 3 24	.012	6.85	3.11	.438	.748	.218	.005	1.12	6.15	.262	.558	25.2
83 3 28		6.89	3.29	.448	.748	.288	.009	1.52	6.23	.268	.533	24.4
83 3 31	.028	6.12	3.42	.438		.288	.005	2.15	6.28	.265	.587	25.6
83 4 4		6.19	3.44	.448	.848	.198	.005	1.91	6.31	.294	.477	25.6
83 4 6		6.27	3.31	.438	.758	.198	< .018	1.72	6.24	.235	.462	25.8
83 4 7	.029	6.29	3.24	.438	.738	.198	< .018	2.88	6.12	.248	.469	24.2
83 4 8	.038	6.27	3.29	.448	.758	.198	< .018	2.82	6.25	.268	.449	25.4
83 4 9	.038	6.27	3.38	.438	.758	.288	< .018	2.75	6.21	.268	.417	23.3
83 4 18	.065	6.27	3.32	.428	.738	.338	< .018	2.82	6.88	.289	.438	24.3
83 4 11	.073	6.27	3.32	.428	.738	.388	< .018	2.61	6.18	.328	.417	24.4
83 4 12	.084	6.29	3.88	.428	.788	.328	< .018	1.71	6.89	.349	.388	23.2
83 4 13	.072	6.22	3.88	.488	.688	.188	.008	1.82	6.37	.385	.424	22.9
83 4 14	3.338	5.71	2.63	.338	.578	.428	.077	1.38	5.48	.362	.571	21.6
83 4 15	.544	5.98	2.68	.378	.588	.338	.019	.49	5.73	.385	.458	28.5
83 4 16	.289	6.82	2.71	.378	.688	.388	.016	1.28	5.91	.253	.425	28.7
83 4 19	.061	5.78	2.93	.388	.638	.278	.003	1.26	5.89	.281	.476	24.2
83 4 28	.054	6.81	2.78	.388	.598	.268	< .018	.87	5.97	.282	.458	22.8
83 4 25	.188	5.95	2.49	.338	.638	.238	.004	1.38	5.42	.195	.381	28.2
83 4 26	.518	5.87	2.38	.318	.568	.258	.013	.85	5.13	.251	.359	18.8
83 4 28	.231	5.96	2.32	.328	.558	.218	.029	.97	5.86	.228	.294	18.7
83 4 29	.232	5.96	2.39	.328	.568	.218	.021	.85	5.81		.341	18.7
83 5 3	.229	6.88	2.27	.318	.478	.258	.004	1.17	4.76	.297	.252	17.4
83 5 5	.187	6.12	2.38	.348	.488	.238	.003	1.33	5.84	.273	.244	18.4
83 5 11	.058	6.16	2.54	.368	.588	.218	.002	1.88	4.96	.289	.174	28.5
83 5 17	.034	6.17	2.56	.378	.548	.218	.006	1.62	5.25	.278	.168	21.4
83 5 25	.285	6.12	2.46	.328	.518	.228	.026	2.19	6.89	.361	.119	21.8
83 5 31	.297	5.51	2.33	.318	.458	.288	.005	1.47	5.69	.265	.117	19.3
83 6 8	.051	6.35	2.32	.338	.518	.248	.006	1.99	5.44	.248	.868	19.2
83 6 14	.035	6.33	2.68	.378	.638	.258	.024	3.12	5.57	.289	.872	24.2
83 6 21		6.35	2.76	.388	.658	.268	< .018	2.83			.821	23.8
83 6 27	.011	6.31	2.81	.418	.568	.388	.003	3.87	4.93	.349	.823	24.8
83 7 5	.021	6.39	2.97	.488	.468	.128	< .018	2.79	5.27	.484	.877	23.7

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
83 7 14	.001	6.21	3.18	.478	.588	.238	.005	3.55	5.28	.398	.437	38.8
83 7 19	.005	6.39	3.24	.428	.548	.238	.001	4.77	5.44	.328	.382	27.6
83 7 27	.008	6.32	3.99	.568	.698	.258	.007	6.48	5.91	.311		35.1
83 8 2	.006	6.38	4.82	.568	.678	.268	.005	3.27	18.28	.231	.282	34.7
83 8 18	.003	6.48	2.78	.438	.558	.198	.009	3.18	5.98	.237	.257	27.1
83 8 16	.001						.018				.463	
83 8 24	.008	6.44	5.89	.688	.798	.518	.011	8.68	4.76	.437	.544	37.8
83 8 38	.008	6.22	4.48	.628	.988	.378	.058	7.96	7.28	.484		33.9
83 9 6	.012	6.17	5.14	.678	.678	.318	.017	2.71	11.28	.378	.179	41.3
83 9 13	.006	6.21	4.16	.688	.568	.168	.034		9.28	.576	.094	36.8
83 9 21	.057	6.89	3.79	.438	.518	.148	.012	2.62	9.81	.584	.178	28.7
83 9 27	.024	6.26	2.91	.438	.518	.138	.018	2.43	6.87	.365	.038	26.5
83 10 5	.068	6.24	2.96	.398	.568	.288		1.38				25.5
83 10 11	.017	6.29	2.93	.588	.588	.248		2.46				29.5
83 10 19	.043	6.21	2.66	.378	.518	.238		1.64				21.8
83 10 24	.014	6.23	2.78	.428	.688	.258	.008	1.63	7.11	.417	.098	24.8
83 11 2	.011	6.23	3.89	.438	.688	.228	.016	.95	6.97	.435	.147	23.5
83 11 9	.005	6.24	3.28	.438	.688	.248		2.18	6.88	.315	.184	24.3
83 11 14	.017	6.22	3.23	.468	.628	.288		1.74	6.22	.423	.213	26.2
83 11 22	.127	5.82	2.83	.438	.688	.638	.018	1.83	5.98	.882	.322	24.8
83 11 29	.049	5.96	2.69	.418	.578	.258	.006	.55	5.73	.388	.285	22.7
83 12 7	.011	6.25	2.83	.428	.578	.388	.018	1.67	5.86	.539	.283	23.7
83 12 12	.024	6.13	3.81	.418	.668	.948	.118	1.71	5.52	.774	.292	25.5
84 1 11	.013	6.84	2.88	.468	.468	.138	< .018	2.92	5.74	.298	.289	26.2
84 1 17	.028	6.16	2.94	.468	.528	.148	.038	2.87	5.93	.481	.288	26.3
84 2 1	.012	6.82	3.82	.468	.488	.118	.062	2.52	5.98	.231	.318	26.8
84 2 7	.015	6.14	3.88	.438	.438	.068	.012	2.38	5.91	.269	.337	25.8
84 2 13	.047	5.91	3.68	.588	.588	.188	.054	2.35	5.92	.428	.797	31.4
84 2 14	.057	5.98	3.97	.548	.538	.288	.019	3.83	6.59	.527	.998	32.1
84 2 15	.074	5.71	4.12	.548	.588	.228	.022	2.38	6.31	.489	.929	31.8
84 2 16	.056	5.85	3.41	.588	.588	.178	.015	1.49	6.28	.471	.785	38.1
84 2 17	.062	5.86	3.34	.478	.548	.148	.017	1.58	6.81	.449	.668	28.7
84 2 18	.056	5.91	3.18	.668	.468	.148	.032	1.83	5.71	.437	.645	28.5
84 2 28	.052	5.98	3.12	.588	.468	.138	.003	1.24	5.71	.347	.578	26.5
84 2 21	.047	5.94	2.57	.428	.538	.168	.034	1.97	5.67	.298	.569	27.1
84 2 22	.043	5.96	3.83	.468	.478	.168	.014	1.15	5.67	.273	.568	26.7
84 2 23	.041	5.94	3.87	.448	.448	.148	.029	1.58	5.89	.356	.556	26.9
84 2 24	.047	5.85	3.87	.438	.518	.168	< .018	1.67	5.89	.329	.593	26.7
84 2 27	.037	6.88	3.21	.488	.588	.178	< .018	1.55	5.79	.394	.542	27.6
84 2 29	.039	6.87	2.83	.478	.568	.148	< .018	1.87	5.77	.286	.543	28.7
84 3 2	.028	5.92	3.36	.468	.578	.168	< .018	2.88	6.84	.336	.532	28.7
84 3 5	.019	6.11	3.43	.438	.638	.138	< .018	1.88	5.89	.349	.525	27.1
84 3 8	.029	6.15	3.24	.478	.588	.128	.007	1.55	5.78	.263	.518	28.6
84 3 13	.013	6.14	3.85	.468	.578	.138	.036	2.87	5.91	.383	.485	28.7
84 3 15	.012	5.99	3.88	.448	.578	.138	.053	1.76	5.93	.342	.483	28.8
84 3 28	.011	6.85	3.19	.498	.688	.138	.028	2.36	5.83	.288	.469	28.9
84 3 21	.018	5.97	3.52	.498	.578	.198	.023	2.42	5.97	.277	.586	29.8
84 3 23	.037	6.88	3.33	.478	.558	.248	.011	2.23	6.85	.558	.527	28.1
84 3 26	.026	5.98	3.28	.478	.548	.238	.019	1.37	5.91	.489	.514	27.7
84 3 27	.027	6.35	3.48	.488	.548	.828	.028	2.76	5.92	.336	.535	26.7
84 3 28	.038	6.24	3.58	.488	.548	.898	.021	1.98	6.87	.281	.546	26.7
84 3 29	.036	6.86	3.48	.488	.618	.248	< .018	2.34	6.81	.437	.638	28.5
84 3 38	.029	6.29	3.38	.488	.598	.288	< .018	1.98	5.93	.316	.645	26.8
84 4 1		6.25	3.28	.588	.278	.168	< .018	1.66	5.87	.238	.641	29.4
84 4 2	.058	6.28	3.26	.488	.588	.188	.035	1.91	5.93	.277	.666	27.7
84 4 3		6.28	3.14	.488	.568	.188	.027	1.53	5.86	.223	.654	27.2
84 4 4	.093	6.14	2.89	.448	.558	.268	.066	1.33	5.82	.475	.688	28.8
84 4 5	.148	6.89	3.86	.438	.558	.388	.095	1.21	5.58	.686	.772	27.4
84 4 6	.185	6.11	3.31	.478	.788	.328	.001	.92	6.85	.428	.692	27.7
84 4 7	.073	6.18	3.82	.588	.568	.388		1.37	5.88	.272		26.4
84 4 8	.139	6.16	3.88	.468	.688	.228	.006	1.75	5.61	.298	.715	26.5
84 4 9	.126	6.88	3.14	.468	.518	.218	.012	1.32	5.39	.383	.726	26.2
84 4 18	.135	6.87	2.89	.448	.688	.248	.013	1.31	5.35	.275	.781	26.7
84 4 11	.127	6.83	3.86	.418	.748	.248	.084	.95	5.18	.178	.829	25.7

DATE	STREAM	PH	CA	MG	NA	K	NH4	ALK	SO4	CL	NO3	COND
YR MO DV	DISCHARGE		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	US/CM
	MG/SEC						N	CACO3			N	25 C
84 4 12	.163	6.81	3.14	.438	.688	.248	.811	.59	5.14	.285	.732	25.3
84 4 14	.257	5.95	2.93	.468	.498	.428	.811	1.31	4.94	.168	.737	23.8
84 4 15	.278	5.95	2.76	.428	.458	.368	< .818	.71	4.65	.217	.746	23.3
84 4 16	.323	5.84	2.47	.498	.538	.288	.813	.85	4.16	.319	.614	21.8
84 4 17	.211	5.91	2.49	.388	.528	.238	.811	.79	4.86	.389	.538	21.4
84 4 18	.895	5.94	2.58	.378	.488	.318	.884	.79	4.83	.388	.563	22.2
84 4 19	.112	6.88	2.46	.378	.538	.228	.883	.82	4.67	.365	.548	21.6
84 4 24	.128	6.12	2.23	.338	.428	.288	.837	.92	4.15	.267	.385	23.9
84 4 26	.883	6.38	2.11	.338	.488	.168	< .818	.83	3.96	.315	.296	21.2
84 4 38	.895	6.27	2.51	.378	.568	.278	< .818	1.31	4.58	.538	.251	22.6
84 5 1	.225	6.12	2.31	.338	.438	.238	< .818	.98	4.56	.377	.297	21.2
84 5 2	.866	6.26	2.37	.368	.588	.288	.811	1.22	4.55	.445	.273	22.2
84 5 3	.875	6.29	2.48	.378	.548	.288	.818	.94	4.56	.373	.276	22.2
84 5 8	.144	6.25	2.48	.338	.418	.288	.822	.91	4.85	.679	.313	24.9
84 5 18	.878	6.36	2.39	.348	.428	.188	.885	.83	4.88	.582	.296	22.9
84 5 14	.831	6.48	2.47	.378	.488	.198	.818	1.72	4.94	.382	.374	23.8
84 5 16	.828	6.32	2.71	.358	.728	.348	.125	1.95	5.16	.558	.289	28.8
84 5 22	.889	6.49	2.74	.398	.498	.188	.885	1.85	5.82	.478	.284	26.7
84 5 38	.814	6.52	2.63	.388	.458	.898	.816	2.26	5.58	.311	.144	25.7
84 6 6	.813	6.54	2.85	.378	.588	.188	.881	2.46	5.29	.293	.187	26.9
84 6 13	.888	6.59	3.74	.478	.548	.198	.815	2.89	4.85	.429	.179	28.6
84 6 19	.887	6.62	3.81	.488	.548	.188	.884	2.65	4.66	.312	.178	26.8
84 6 27	.851	6.41	3.84	.418	.438	.888	.894	2.84	5.28	.512	.135	27.4
84 7 3	.889	6.48	2.87	.428	.988	.218	.888	3.16	5.38	.568	.212	29.5
84 7 11	.818	6.62	3.14	.428	.548	.178	.882	3.29	5.61	.374	.288	31.5
84 7 17	.846	6.33	3.25	.318	.468	.138	.816	3.15	4.93	.428	.127	22.8
84 7 25	.818	6.53	3.83	.428	.438	.188	.819	3.17	5.26	.238	.184	27.3
84 7 31	.885	6.43	3.11	.478	.488	.898	.838	4.76	5.29	.269	.254	25.2
84 8 9	.815	6.42	3.47	.478	.528	.188	.818	3.82	3.89	.549	.173	38.2
84 8 13	.887	6.54	3.39	.488	.558	.188	.886	4.86	4.74	.355	.193	28.7
84 8 21	.882	6.65	3.78	.528	.578	.188	.812	4.72	5.24	.443	.388	29.9
84 8 29	.814	6.57	3.36	.478	.578	.258	.827	3.61	5.54	.683	.127	29.3
84 9 4	.886	6.48	3.31	.488	.558	.288	.889	4.87	4.95	.578	.283	38.9
84 9 12	.831	6.48	2.61	.398	.518	.398	.884	2.78	6.44	.753	.866	38.8
84 9 18	.822	6.54	3.33	.448	.518	.128	.818	3.15	5.89	.373	.882	28.8
84 9 26	.154	6.23	2.77	.368	.458	.368	.888	1.77	6.33	.656	.181	38.9
84 9 27	.188	6.34	2.63	.368	.478	.298	.885	.92	5.89	.556	.857	26.4
84 10 4	.866	6.42	2.68	.388	.478	.318	.888	1.88	5.55	.538	.862	38.2
84 10 18	.824	6.58	2.81	.388	.528	.218	.887	4.18	5.65	.458	.866	27.8
84 10 16	.818	6.48	2.93	.398	.518	.258	.826	3.37	5.53	.488	.889	35.7
84 10 24	.853	6.43	2.72	.488	.638	.168	.836	3.89	5.56	.452	.136	34.8
84 11 1	1.182	5.85	2.38	.348	.458	.358	.816	.96	5.42	.497	.244	27.5
84 11 2	.255	6.86	2.34	.338	.468	.268	.832	.46	5.44	.426	.228	48.3
84 11 5	.898	6.31	2.69	.388	.518	.228	.861	1.84	5.82	.387	.294	37.8
84 11 7	.888	6.32	2.73	.398	.498	.198	.887	1.22	5.86	.379	.287	31.4
84 11 13	.847	6.11	2.75	.418	.588	.198	.889	1.31	5.88	.488	.298	23.5
84 11 21	.837	6.18	2.84	.418	.528	.168	.818	1.89	5.82	.324	.329	32.8
84 11 27	.888	6.81	2.86	.388	.528	.148	.848	1.87	5.78	.293	.468	27.9
84 12 4	.854	6.84	2.68	.378	.578	.168	.819	1.32	5.95	.385	.377	28.8
84 12 12	.866	5.88	3.83	.418	.488	.168	.865	1.38	5.83	.277	.622	31.2
84 12 19	.865	5.69	2.63	.388	.718	.178	.893	1.16	5.15	.777	.585	29.9
84 12 27	.834	5.72	2.78	.488	.498	.198	.888	1.42	5.28	.373	.449	31.8
85 1 2	.835	6.84	2.77	.488	.848	.168	.818	1.32	5.68	.383	.472	24.4
85 1 9	.822	5.91	2.79	.418	.518	.178	.856	1.43	5.56	.384	.472	28.3
85 1 16	.815	6.88	2.86	.488	.688	.218	.852	1.88	5.94	.538	.464	38.5
85 1 28	.812	6.19	3.88	.448	.578	.188	.818	.88	5.93	.259	.456	29.6
85 2 6	.811	6.85	3.82	.418	.698	.198	.826	1.47	6.11	.274	.433	32.6
85 2 13	.889	5.65	3.18	.418	.578	.288	.813	2.22	5.66	.321	.455	34.5
85 2 28	.813	5.88	2.98	.428	.428	.178	.868	1.98	6.38	.342	.456	38.6
85 2 25	.817	5.85	3.26	.418	.568	.168	.813	2.83	6.88	.488	.546	34.4
85 2 28	.812	5.89	2.99	.438	.588	.238	.816	2.96	5.81	.371	.584	25.5
85 3 6	.812	6.37	3.17	.438	.548	.198	.878	2.58	6.88	.253	.479	31.4
85 3 11	.813	6.31	3.31	.448	.558	.198	.846	2.23	5.78	.411	.535	33.8
85 3 12	.818	6.29	3.37	.468	.568	.178	.855	2.87	5.89	.388	.644	33.7

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
85 3 14	.816	6.38	3.48	.468	.598	.188	.829	2.13	5.87	.318	.688	32.8
85 3 18	.813	6.38	3.22	.448	.568	.198	.818	1.74	5.86	.354	.574	35.4
85 3 28	.814	6.86	3.19	.458	.578	.188	.818	2.63	5.68	.314	.627	26.2
85 3 21	.814	5.92	3.36	.458	.478	.288	.818	2.67	5.66	.283	.632	26.2
85 3 23	.813	6.81	3.31	.478	.478	.168	.818	3.86	5.65	.381	.678	26.3
85 3 25	.817	6.84	3.31	.498	.578	.288	.818	3.34	6.33	.291	.654	28.1
85 3 27	.837	5.78	3.48	.488	.568	.248	.848	2.96	6.12	.275	.923	38.7
85 3 28	.186	5.59	3.79	.528	.498	.378	.888	2.83	5.76	.368	1.418	34.1
85 3 29	.882	5.52	3.11	.488	.478	.348	.821	.84	6.26	.378	1.228	29.8
85 3 38	.887	5.57	2.77	.458	.468	.388	.828	2.15	6.28	.484	1.818	27.5
85 3 31	.867	5.69	3.82	.468	.468	.288	.819	1.88	5.37	.328	.968	26.5
85 4 1	.879	5.67	2.98	.488	.488	.278	.818	3.88	5.36	.352	.987	27.1
85 4 2	.857	5.66	3.19	.468	.528	.268	.818	1.88	5.79	.386	.777	26.4
85 4 3	.838	5.68	3.17	.468	.588	.298	.817	2.16	5.24	.297	.845	25.5
85 4 4	.838	5.71	3.24	.458	.548	.388	.812	1.31	5.86	.326	.846	27.8
85 4 5	.837	5.78	3.13	.488	.558	.288	.852	.62	5.14	.386	.816	25.5
85 4 8	.838	5.84	2.86	.448	.528	.238	.888	.88	5.22	.284	.888	26.1
85 4 9	.831	5.78	3.87	.398	.518	.238	.888	2.43	5.82	.335	.827	25.3
85 4 18	.834	5.88	3.21	.388	.578	.228	.811	1.51	5.82	.224	.838	27.1
85 4 11	.829	5.79	3.28	.448	.578	.298	.884	3.12	5.85	.345	.845	26.6
85 4 12	.829	5.85	3.48	.478	.548	.188	.888	1.98	5.83	.558	.813	27.8
85 4 13	.835	5.76	3.46	.458	.568	.178	.893	1.65	4.91	.315	.869	25.4
85 4 14	.118	5.61	3.55	.588	.588	.168	.838	1.87	6.89	.324	.912	29.1
85 4 15	.896	5.48	3.36	.488	.518	.168	.887	2.88	5.78	.323	.962	29.8
85 4 16	.198	5.47	3.86	.478	.528	.288	.824	1.99	6.59	.364	1.848	28.6
85 4 17	.185	5.59	3.19	.458	.498	.258	.816	2.72	5.46	.328	.965	27.6
85 4 18	.891	5.68	2.89	.448	.548	.258	.816	2.37	6.74	.387	.894	27.4
85 4 19	.144	5.67	3.88	.448	.528	.248	.816	1.18	6.64	.369	.985	27.8
85 4 28	.667	5.42	1.53	.448	.588	.298	.828	1.83	4.87	.326	1.118	25.8
85 4 21	1.248	5.29	1.48	.428	.468	.298	.833	.78	4.73	.247	1.888	26.3
85 4 22	.683	5.58	1.41	.438	.498	.298	.824	.46	4.82	.332	.998	25.6
85 4 23	1.826	5.42	2.31	.378	.448	.278	.821	.78	5.26	.376	.851	22.8
85 4 24	.534	5.48	2.36	.378	.448	.278	.822	.59	5.56	.351	.885	22.1
85 4 25	.569	5.36	2.22	.338	.438	.288	.822	.69	4.94	.333	.729	21.1
85 4 26	.264	5.51	2.29	.348	.448	.268	.814	1.49	5.51	.332	.683	28.4
85 4 29	.181	5.46	2.28	.338	.438	.278	.887	.69	4.72	.237	.668	21.1
85 4 38	.168	5.96	2.17	.328	.398	.248	.812	.55	4.56	.253	.567	24.6
85 5 2	.188	5.94	2.13	.328	.368	.188	.822	.68	4.27	.268	.511	21.3
85 5 6	.897	5.99	2.24	.348	.388	.218	.816	.49	4.53	.273	.587	22.3
85 5 8	.849	6.88	2.38	.348	.398	.288	.823	.99	4.81	.263	.464	21.7
85 5 9	.852	6.19	2.21	.348	.488	.238	.814	.94	4.87	.388	.587	22.2
85 5 14	.837	6.29	2.14	.378	.488	.258	.883	2.88	4.92	.362	.328	22.3
85 5 21	.824	6.36	2.33	.328	.458	.218	.881	1.86	4.96	.188	.383	22.1
85 5 28	.816	6.44	2.43	.368	.518	.178	.825	2.38	4.83	.324	.263	24.8
85 6 4	.846	6.55	2.35	.378	.478	.138		2.13	4.81	.322	.542	22.8
85 6 18	.825	6.37	2.58	.358	.448	.188	.812	2.18	4.68	.382	.162	23.3
85 6 19	.825	6.12	2.71	.488	.388	.868	.828	2.71	5.13	.535	.281	21.7
85 6 25	.849	6.42	2.61	.418	.458	.868	.884	3.84	5.13	.276	.168	24.3
85 7 2	.888	6.48	2.91	.358	.498	.198	.889	3.76	5.28	.688	.292	26.2
85 7 9	.882	6.18	2.96	.438	.588	.178	.883	2.48	4.69	.298	.431	25.1
85 7 17	.883	6.28	3.53	.448	.498	.158	.884	3.49	5.86		.397	24.9
85 7 24	.885	6.88	3.13	.438	.448	.148	.885	4.87	5.18	.296	.266	23.9
85 7 29	.885	6.21	3.15	.438	.438	.148	.889	3.96	5.13	.381	.389	25.8
85 8 7	.889	6.19	3.35	.448	.448	.148	.887	4.82	5.89	.398	.235	25.3
85 8 14	.815	6.18	3.48	.458	.578	.888	.885	3.62	5.33	.378	.136	26.1
85 8 28	.813	6.26	3.23	.448	.528	.128	.888	4.85	4.81	.293	.284	24.2
85 8 27	.825	6.56	3.17	.398	.448	.878	.881	4.37	5.14	.349	.872	24.8
85 9 3	.162	6.28	3.43	.418	.338	.178	.884	3.26	6.35	.588	.133	24.8
85 9 18	.875	6.29	2.72	.378	.418	.868	.887	3.49	5.56	.389	.812	28.7
85 9 16	.812	6.48	2.72	.388	.468	.188	.888	3.86	4.94	.328	.841	22.4
85 9 23	.892	6.29	3.14	.398	.688	.188	.818	3.27	5.32	.593	.876	23.5
85 9 38	.116	6.27	2.98	.378	.468	.218	.812	3.87	5.94	.446	.862	22.2
85 18 8	.878	6.28	2.82	.388	.358	.168	.837	1.56	5.89	.428	.882	19.7
85 18 15	.858	6.37	2.64	.398	.458	.168	.824	2.88	5.68	.431	.892	21.7

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
85 10 22	.842	6.28	2.66	.380	.340	.110	.019	3.26	5.64	.390	.087	20.4
85 10 28	.845	6.38	2.78	.380	.390	.150	.043	1.66	5.61	.631	.135	19.7
85 11 5	.120	6.25	2.55	.380	.410	.140	.008	1.71	5.33	.236	.100	19.6
85 11 12	.029	6.37	2.78	.410	.440	.100	.046	2.11	5.79	.337	.101	20.2
85 11 19	.115	6.25	2.98	.410	.440	.130	.017	1.99	5.25	.394	.309	21.2
85 11 27	.036	6.19	2.67	.390	.450	.120	.021	1.89	5.68	.259	.273	22.5
85 12 4	.032	6.27	2.78	.380	.460	.100	.000	2.18	5.56	.310	.274	21.6
85 12 10	.014	6.19	2.86	.410	.470	.150	.001	2.22	5.58	.356	.309	22.2
85 12 16	.014	6.38	2.88	.410	.380	.110	.018	1.68	6.08	.291	.310	22.7
85 12 30		6.24	2.99	.420	.420	.150	.017	2.66	6.03	.272	.270	22.7
86 1 8	.013	6.34	3.14	.430	.500	.140	.023	2.60	5.86	.335	.303	22.4
86 1 13	.012	6.26	3.06	.410	.550	.120	.012	2.10	5.94	.250	.318	22.6
86 1 21	.011	6.24	3.18	.410	.440	.200	.004	2.53	6.01	.319	.340	22.9
86 1 29	.018	6.33	3.26	.430	.430	.120	.026	2.59	5.57	.344	.339	22.8
86 2 5	.014	6.37	3.32	.440	.450	.130	.001	3.10	5.71	.400	.365	23.9
86 2 10	.010	6.24	3.17	.430	.440	.150	.012	2.73	5.83	.187	.394	23.4
86 2 19	.010	6.24	3.39	.450	.500	.140	.018	3.14	5.63	.197	.390	24.9
86 2 26	.011	6.40	3.23	.430	.470	.120	.006	2.73	5.76	.223	.388	23.8
86 3 4	.008	6.25	3.13	.450	.490	.120	.002	2.73	5.19	.223	.408	24.0
86 3 10	.017	6.42	3.34	.460	.560	.120	.004	3.20	5.50	.243	.395	24.2
86 3 20	.036	6.41	3.42	.460	.530	.140	.000	2.25	5.53	.331	.432	23.9
86 3 26	.036	6.22	3.91	.510	.520	.190	.106	3.92	5.20	.239	.838	30.1
86 3 28	.072	5.78	4.02	.540	.440	.180	.020	3.01	5.31	.250	.921	28.5
86 3 29	.079	5.85	3.69	.480	.480	.190	.021	2.78	5.21	.272	.869	27.1
86 3 31	.137	5.73	3.40	.450	.480	.180	.023	2.27	5.08	.250	.926	28.8
86 4 1	.190	5.49	3.52	.450	.570	.190	.021	2.03	5.46	.283	.919	26.3
86 4 2	.258	5.47	3.14	.430	.460	.230	.015	1.65	5.83	.276	.866	25.3
86 4 3	.244	5.51	3.07	.420	.460	.190	.013	1.78	5.08	.316	.827	24.2
86 4 4	.214	5.51	3.07	.430	.460	.170	.016	1.05	4.76	.267	.804	24.1
86 4 5	.226	5.60	2.97	.430	.480	.170	.014	1.78	4.67	.254	.832	23.5
86 4 6	.243	5.65	3.01	.430	.460	.140	.014	1.75	4.61	.250	.793	24.9
86 4 7	.221	5.56	2.97	.430	.450	.160	.025	1.89	4.70	.266	.904	23.7
86 4 8	.328	5.58	2.76	.410	.430	.130	.020	1.69	4.66	.261	.766	23.8
86 4 9	.189	5.66	2.82	.430	.440	.110	.019	1.85	4.76	.249	.705	23.8
86 4 10	.134	5.67	2.83	.430	.450	.120	.018	1.69	4.80	.336	.683	24.0
86 4 11	.080	5.64	2.82	.410	.510	.190	.014	1.93	4.98	.222	.692	23.3
86 4 12		5.80	2.75	.420	.500	.190	.010	1.92	5.36	.271	.710	23.7
86 4 14	.142	5.77	3.03	.420	.480	.170	.008	1.88	4.89	.246	.733	23.7
86 4 15	.226	5.74	2.79	.410	.440	.180	.007	1.78	4.72	.290	.722	22.6
86 4 16	.195	5.77	2.81	.410	.460	.170	.010	1.77	4.61	.188	.704	21.6
86 4 17	.239	5.68	2.64	.390	.440	.150	.013	1.86	4.38	.262	.654	21.5
86 4 18	.294	5.72	2.58	.390	.430	.160	.021	1.63	4.34	.243	.647	22.4
86 4 19	.716	5.59	2.42	.350	.460	.220	.018	1.50	4.04	.333	.669	21.4
86 4 20	.491	5.55	2.44	.350	.380	.160	.008	1.66	4.09	.225	.601	19.3
86 4 21	.331	5.58	2.38	.350	.480	.160	.014	1.60	4.26	.195	.579	20.7
86 4 22	.130	5.60	2.42	.350	.390	.160	.025	1.58	4.19	.224	.562	20.6
86 4 23	.130	5.83	2.58	.370	.420	.150	.024	1.70	4.30	.177	.587	21.3
86 4 24	.113	5.85	2.40	.350	.440	.140	.010	1.67	4.20	.172	.561	21.2
86 4 25		5.70	2.32	.330	.380	.140	.010	1.57	3.90	.188	.513	18.6
86 4 28	.286	5.64	2.10	.310	.380	.150	.003	1.62	3.77	.233	.351	16.8
86 4 30	.113	5.74	2.20	.320	.400	.160	.010	1.67	3.71	.183	.330	17.6
86 5 2	.102	5.70	2.15	.360	.400	.150	.014	1.61	3.71	.209	.344	18.5
86 5 5	.058	5.85	2.30	.340	.430	.160	.023	1.79	5.02	.210	.325	18.4
86 5 8	.038	6.03	2.60	.360	.440	.140	.047	2.25		.261	.243	19.0
86 5 13	.023	5.93	2.79	.380	.470	.150	.012	2.50	4.44	.594	.312	19.8
86 5 22	.012	6.22	2.88	.400	.480	.150	.009	2.99	5.14	.239	.192	19.4
86 5 27	.005	6.21	3.05	.420	.520	.180	.013	3.03		.331	.235	21.5

APPENDIX III

MAJOR ION CHEMISTRY AND INSTANTANEOUS DISCHARGE AT STREAM STATION S2

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
80 2 15		6.41	4.18	.538	.588	.168	.826	< 4.25	8.28	.318	.628	36.8
80 3 18		6.37	4.99	.588	.588	.288	.823	< 5.58	6.78	.588	.518	32.6
80 3 28		6.38							6.88	.168		
80 4 18	.246	5.82	2.63	.467	.598	.339	.829	1.55	6.83	.278	.918	23.9
80 4 14	.864	5.83	2.63	.451	.585	.356	.867	1.55	5.95	.278	.918	26.8
80 4 17	.842	5.89	2.63	.419	.539	.294	.838		5.68	.288	.938	24.4
80 4 22	.447	6.88		.356	.591	.245	.828	2.55	5.52	.238	.598	22.1
80 4 25	.264	5.96	2.88	.387	.487	.258	.825	3.88	5.28	.268	.538	23.5
80 4 38	.224	6.29	3.11	.387	.531	.245	.822	3.35	5.26	.288	.588	24.5
80 5 5	.892	6.48	2.98	.483	.562	.266	.816	3.88	5.57	.318	.247	26.6
80 5 8	.876	6.38	3.68	.438	.435	.188	.811	3.88	5.58	.278	.474	26.3
80 5 12	.123	6.38		.337	.413	.262	.819	3.78	5.58	.258	.449	26.8
80 5 28	.892	6.43		.344	.467	.239	.829	4.18	5.41	.298	.468	28.8
80 5 26	.878	6.51		.518	.392	.197	.836	4.28	6.85	.288	.488	26.4
80 6 2	.231	6.28	3.44	.479	.398	.138	.887	4.98	5.96	.238	.368	29.9
80 6 9	.312	6.38		.468	.485	.211	.887	4.98	5.92	.368	.278	26.4
80 6 16	.246	6.54	3.82	.468	.312	.266	.888	4.25	5.94	.328	.248	26.3
80 6 23	.878	6.48	4.84	.383	.328	.125	.884	4.58	5.77	.298	.237	27.8
80 7 2	.862											
80 7 7	.852											
80 7 14	.842											
80 7 21	.835	6.44	3.93		.448	.135		5.78	5.97	.298		28.7
80 7 28	.822	6.51	3.58	.361	.458	.123	.885	6.18	5.77	.248	.124	29.3
80 8 5	.812	6.56	3.68	.294	.288	.196		5.78	5.46	.248		29.9
80 8 11	.828	6.43	3.87	.433	.675	.189		6.88	5.84	.328		38.8
80 8 18	.851	6.37	3.32	.318	.346	.128			5.65			26.8
80 8 25	.848	6.58	3.82	.378	.454	.185	.885		5.56	.268	.268	23.6
80 9 8	.825	6.38	3.55	.371	.468	.148	.882	6.28	5.83	.225		24.8
80 9 15	.848	6.49		.511	.535	.174	.882	5.65	6.89	.378		24.9
80 9 22	.613	6.32		.448	.588	.126	.829	5.68	6.28	.588		23.5
80 10 1		6.48	3.89	.466	.487		.812	4.78				23.7
80 10 6	.873	6.33	4.81	.493	.388		.882	4.78	6.88	.458	.873	25.3
80 10 14	.838	6.26		.513	.688	.153	.883	4.85	6.38		.876	25.2
80 10 28	.866	6.55	4.88	.448	.498	.228	.888	4.88	6.57	.388	.878	25.8
80 10 28	.119	6.53	4.88	.447	.758	.248	.885	4.45	6.92	.388	.118	23.8
80 11 11	.882	6.48	4.14	.462	.589	.133	.824	6.85	7.88	.488	.164	38.2
80 11 13		6.31	4.29	.498	.467	.138	.838	5.95				25.3
80 11 17	.861	6.39	4.29	.456	.447	.135	.828	5.58	7.35	.398	.195	38.9
80 11 19		6.17	4.48	.528	.646	.857	.844	6.15				37.1
80 12 3	.894	6.85	4.33		.398	.138	.839	4.58	7.88	.338	.247	33.1
80 12 17	.837	6.85		.573	.651	.185	.817	3.58	6.79	.378	.228	32.4
80 12 22		6.82	4.52	.539	.638	.157	.838	3.58				34.2
80 12 38	.836	6.18	4.11	.538	.418	.886	.823	4.15	6.75	.328	.255	36.3
81 1 12	.822	6.26	4.16	.443	.669	.112	.838	6.18		.418	.345	32.3
81 1 13		6.84	4.18	.526	.327	.893	.841	4.45			.258	32.1
81 1 28	.814	6.21	4.22	.443	.495	.858	.896	5.48		.318	.688	34.8
81 2 9	.814	6.42	4.39	.483	.536	.868	.839	5.35	6.55	.388	.331	32.6
81 2 11		5.98	4.35	.464	.488	.859	.872	5.28			.473	35.2
81 2 23	.856	6.21		.567	.535	.258	.843	4.35	7.82	.318	.986	31.8
81 3 18	.841	6.26	4.86	.581	.816	.191	.822	4.28	7.57	.268	.678	39.6
81 3 11		5.88	4.56	.541	.552	.197	.862	3.75			.589	38.6
81 3 27	.876	6.23	4.84	.556	.597	.178	.823	4.15	7.45	.388	.598	39.9
81 3 31	1.814	6.17	3.88		.475	.363	.867	2.38	6.97	.378	.778	34.8
81 4 1	.868	6.83	3.84	.514	.534	.347	.863	2.28	6.84	.468	.768	36.6
81 4 2	.718	5.89	3.78	.489	.532	.322	.878	1.95	7.39	.368	.757	37.5
81 4 3	.665	5.89	3.94	.582	.539	.314	.877	2.85	7.27	.378	.761	34.1
81 4 4	1.412	5.97	3.57	.459	.588	.293	.851	1.85	6.69	.388	.696	31.9
81 4 6	.455	5.99	3.52	.454	.461	.264	.848	1.65	6.48	.368	.693	25.2
81 4 7	.354	5.65	3.68	.467	.441	.287	.837		6.34	.418	.738	35.4
81 4 8	.316	5.91	3.64	.457	.463	.266	.848	2.18	6.29	.348	.746	33.5
81 4 14	.897	6.11	3.26	.428	.418	.268	.858	1.55	6.58	.318	.617	28.5
81 5 7	.337	6.88	3.76	.497	.497	.238	.843	4.85	6.37	.288	.426	33.9
81 5 21	.834	6.73	4.87	.478	.448	.228	< .818	4.88		.298	.371	37.2
81 6 3	.157	6.49	4.11	.428	.498	.288	.813	3.65			.385	34.4

DATE VR MO DY	STREAM DISCHARGE M3/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
81 6 17	.484	6.57	3.94	.488	.488	.288	.817	3.45			.211	27.3
81 7 2	.159	6.64		.688	.458	.188	.811	3.75	6.51	.396	.152	27.7
81 7 15	.821	6.78	3.83	.488	.488	.218	< .818	4.98		.363		33.5
81 7 29	.818	6.75	4.88	.588	.528	.288	.817	5.35			.241	35.2
81 8 12	.815	6.72	3.94	.528	.768	.328	.834	5.35	6.66	.321	.865	38.9
81 8 27	.884	6.77	4.11		.768	.328	< .818	5.88	6.39	.263	.218	34.1
81 9 29	.886	6.79	4.33	.528	.488	.228	.818	7.88	6.78	.318	.185	33.1
81 18 16	.833	6.59		.628	.348	.488	.813	5.65	5.73	.369	< .848	31.2
81 18 28		6.62	3.88	.488	.338	.218	< .818	4.98	6.28	.418	< .848	38.5
81 18 28	.861	6.75		.688		.398	< .818	4.95	5.53	.483	.878	38.8
81 11 11	.845	6.76	3.91	.518	.448	.288	.821	5.18	6.81	.382	.898	32.2
81 12 16	.818	6.88		.698	.788	.328	.826	5.78	6.41	.284	.288	35.9
82 1 22		6.68	4.28	.688	.648	.298	.828	5.75	6.33	.263	.239	37.1
82 2 24	.813	6.57	4.55	.628	.685	.295	.826	6.25	6.53	.236	.283	37.4
82 3 18	.818	6.61	4.72	.611	.679	.288	.825	5.95	6.61	.286	.352	36.7
82 3 17		6.47	4.37	.686	.798	.378	.843	5.85	7.88	.288	.366	37.5
82 3 18		6.48	4.39	.589	.888	.398	.835	5.25	7.24	.329	.474	37.9
82 3 19	.833	6.51	4.38	.685	.888	.485	.849	4.85	7.15	.415	.495	37.6
82 3 23	.824	6.36	4.22	.683	.633	.316	.838	4.85	7.43	.383	.469	35.2
82 3 24	.826	6.53	4.22	.686	.648	.318	.841	5.48	7.24	.334	.492	35.8
82 3 26	.825	6.57	4.18	.688	.675	.382	.821	5.88	7.13	.541	.449	35.4
82 3 29	.822	6.56	4.38	.586	.547	.385	.815	5.88	7.35	.392	.468	36.1
82 3 38	.819	6.66	4.33	.638	.618	.294	.825	4.88	7.56	.452	.463	34.8
82 3 31		6.59	4.22	.633	.628	.347	.846	4.78	7.22	.371	.463	35.4
82 4 1	.874	6.58	4.16	.622	.585	.292	.838	3.95	7.68	.582	.428	34.7
82 4 3		6.44	4.81	.598	.558	.338	.848	3.75	7.61	.586	.428	33.8
82 4 4	.271	6.47	3.76	.539	.511	.295	.846	3.68	7.37	.258	.411	32.5
82 4 5	.252	6.44	3.74	.526	.588	.289	.835	3.38	7.39	.472	.488	32.2
82 4 6	.213	6.42	3.79	.522	.511	.293	.832	3.76	7.26	.373	.393	32.8
82 4 7	.168	6.47	3.72	.522	.528	.388	.813	3.65	7.18	.357	.384	31.9
82 4 13		6.61	4.86	.567	.628	.374	.818	3.45	7.31	.335	.532	34.2
82 4 14		6.63	4.86	.553	.611	.368	.817	3.88	7.11	.387	.518	33.7
82 4 15		6.39		.542	.575	.388	.812	2.95	7.59	.439	.427	34.8
82 4 16	.858	6.57	3.98	.533	.588	.263	.818	3.78	7.43	.349	.429	34.4
82 4 17		6.58	4.81	.528	.578	.253	.828	3.88	7.26	.441	.426	33.7
82 4 18		6.45	3.87	.548	.678	.377	.842	3.55	7.34	.474	.487	33.5
82 4 19	.285	6.48	3.72	.581	.625	.368	.843	3.85	7.88	.386	.389	32.3
82 4 28		6.49	3.61	.588	.625	.347	.823	3.28	6.92	.318	.481	31.7
82 4 21	.175	6.51	3.69	.496	.625	.362	.826	3.98	7.53	.174	.397	32.8
82 4 22		6.42	3.67	.581	.638	.321	.824	3.18	7.44	.272	.487	31.5
82 4 25	.774	6.45	3.39	.433	.548	.325	.847	3.18	6.93	.387	.483	38.6
82 4 26	1.841	6.37	3.33	.428	.513	.323	.858	3.48	6.58	.348	.394	28.8
82 4 27		6.39	3.37	.411	.528	.355	.845	2.65	6.52	.453	.417	29.5
82 4 28		6.31	3.42	.474	.563	.333	.834	2.78	7.88	.265	.413	38.5
82 4 29		6.38	3.19	.463	.543	.383	.844		6.83	.267	.396	28.5
82 4 38	.656	6.32	3.88	.442	.522	.383	.832	1.88	6.77	.384	.378	27.2
82 5 6	.695	6.24	2.44	.341	.383	.218	.838	1.75	5.57	.236	.268	22.2
82 5 11	.338	6.68	3.86	.469	.493	.247	.893	6.15	5.75		.264	29.8
82 5 17	.188	6.78	3.88	.444	.486	.245	.832	5.28	5.53	.387		28.6
82 6 2		6.81	3.52	.489	.587	.237		4.58	6.38	.253	.188	28.7
82 6 18	.812	6.96	3.92	.428	.418	.218		5.15				31.1
82 6 15	.889	6.83	3.83	.517	.527	.283		5.88	6.35	.282	.238	31.7
82 6 22	.888	6.53	3.78	.388	.448	.228		5.25	6.31	.352	.166	31.2
82 7 1	.883	6.88	3.97	.438	.428	.238	< .818	5.48	6.33	.271	.125	38.2
82 7 8	.885	6.75	4.82	.448	.538	.228	< .818	5.48	7.61	.586		34.9
82 7 14	.887	6.85	3.96	.518	.418	.198		5.98	6.48	.332	.899	38.9
82 7 21	.889	6.83	4.86	.568	.618	.258		6.38	5.97	.294	.181	31.8
82 7 28	.889	6.73	4.28	.578	.568	.268		5.68	6.94	.473	.135	31.2
82 8 3	.887	6.79	4.58	.578	.518	.328	.818	6.35	6.14	.268	.297	32.1
82 8 18	.885	6.86	4.17	.578	.558	.218	< .818	6.65	6.57	.297	.148	31.6
82 8 24	.885	6.85	4.33	.588	.558	.268	< .818	6.88	6.26	.321	.151	29.6
82 9 7	.837	6.84	3.98	.578	.528	.248	< .818	5.55	5.91	.432	< .848	29.8
82 9 14		6.62	3.68	.562	.518	.291	.884		6.11	.381	< .848	26.8
82 9 28	.128	6.67	3.96	.588			< .818	5.48	5.75	.373	< .848	27.2

DATE	STREAM	PH	CA	MG	NA	K	NH4	ALK	SO4	CL	NO3	COND
YR MO DY	DISCHARGE		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	US/CM
	MG/SEC						N	CACO3			N	25 C
82 9 29	.867	6.63	3.88	.587	.588	.285	.884	5.96	5.87	.455	< .848	33.9
82 10 4	.878	6.69	4.84	.589	.577	.267	< .818	5.43	6.83	.688	< .848	28.2
82 10 7	.264	6.58	4.82	.647	.572	.388	.888		6.17	.365	< .848	26.7
82 10 14	.213	6.61	3.96	.598	.482	.484	.888	6.36	5.96	.623	< .848	27.6
82 10 18	.131	6.72	4.88	.577	.516	.298	.821	4.46	6.52	.533		26.6
82 10 27	.872	6.48	3.69	.522	.523	.364	.886		6.82		.853	24.9
82 11 2	.869	6.58	3.66	.588	.468	.338	< .818	4.55	5.88	.488	.898	25.2
82 11 18	.183	6.49	3.69	.518	.478	.318	.881	3.94	5.69	.358	.186	25.6
82 11 16	.173	6.56	3.46	.552	.475	.288	.813		5.89	.423	.154	25.5
82 11 24	.159	6.46	3.61	.578	.568	.318	.836	2.96	5.77	.341	.171	24.8
82 12 2	.866	6.39		.578	.688	.338	.826	3.22	6.88	.351	.283	25.9
82 12 8	.133	6.51	3.72	.568	.598	.288	.836	3.26	5.73	.588	.193	23.7
82 12 22	.828	6.26	3.39	.478	.378	.178	.825	3.22	5.88	.278	.234	25.3
82 12 29	.216	6.28	3.18	.438	.398	.158	.817	1.51	5.99	.177	.327	24.9
83 1 5	.883	6.36	3.44	.468	.488	.178	.815	3.11	6.13	.296	.363	25.5
83 1 12		6.35	3.89	.488	.398	.178	.819	3.41	6.87	.262	.328	25.4
83 1 19	.593	6.29	3.88	.528	.428	.288	.837	3.33	6.38	.341	.378	26.7
83 1 25	.826	6.36	3.48	.558		.458	.858	3.71	6.14	.516	.342	26.3
83 2 2	.821	6.37	3.79	.548	.888	.448	.823	4.27	6.16		.358	26.8
83 2 7	.828	6.38	3.98	.558	.858	.588	.831	3.87	6.15		.334	28.1
83 2 16	.889	6.43	4.82	.568	.628	.418	.816	4.96	5.95	.451	.373	28.8
83 2 21	.818	6.45	4.88	.578	.738	.438	.827	5.45	6.24	.252	.373	28.2
83 2 23	.818	6.42	4.86	.558	.768	.358	.818	5.11	6.25	.388	.355	27.7
83 2 28	.811	6.38	3.98	.568	.758	.368	.836	5.14	6.89	.267	.374	32.9
83 3 2	.814	6.34	3.94	.568	.768	.318	.831	4.32	6.15	.337	.379	28.8
83 3 6	.816	6.42	4.88	.588	.718	.268	.839	5.17	6.16	.318	.455	29.3
83 3 7	.848	6.35	4.87	.598	.858	.288	.869	3.94	6.48	.478	.489	32.8
83 3 8	.176	6.17	3.87	.598	.648	.298	.879	4.17	6.42	.388	.594	29.9
83 3 9	.365	6.27	3.86	.538	.558	.268	.838	3.86	6.88	.336	.784	27.9
83 3 18	.348	6.24	3.57	.568	.678	.268	.845	4.37	5.91	.278	.637	27.5
83 3 11	.258	6.38	3.76	.578	.758	.368	.846	3.68	5.96	.338	.682	29.1
83 3 12	.181	6.35	3.64	.578	.768	.278	.848	2.85	6.85	.276	.725	28.7
83 3 13	.145	6.38	3.72	.578	.768	.278	.855	2.32	6.27		.723	24.6
83 3 14	.899	6.46	3.88	.578	.768	.288	.852	2.47	6.36	.356	.735	25.7
83 3 15	.893	6.32	3.66	.568	.888	.278	.836		6.39	.237	.782	26.5
83 3 16	.863	6.48	3.67	.568	.788	.278	.831	3.87	6.42	.258	.782	25.2
83 3 17	.881	6.37	3.73	.578		.268	.832	4.12	6.29	.288	.695	26.3
83 3 18	.857	6.45	3.93	.588	.758	.268	.831	2.97	6.48		.682	26.6
83 3 21	.888	6.38	3.77	.578	.648	.288	.829	3.41	6.81	.294	.648	31.2
83 3 22	.853	6.33	3.77	.578	.888	.288	.826	2.81	6.18	.271	.646	27.8
83 3 24	.867	6.31	3.71	.488	.758	.228	.821	3.28	6.16	.258	.669	28.3
83 3 28	.843	6.38	3.98	.488	.888	.288	.828	3.59	6.85	.247	.626	28.8
83 3 31	.837	6.39	4.19	.498	.778	.228	.818	3.32	6.14	.263	.598	28.5
83 4 4	.836	6.44	4.17	.588		.238	.822	5.21	6.37	.281	.594	38.8
83 4 6	.838	6.53	4.18	.588	.988	.298	.813	4.49	6.37	.361	.614	31.8
83 4 7	.842	6.52	4.32	.518	.878	.228	.814	4.29	6.34	.254	.596	28.5
83 4 8	.847	6.53	4.86	.498	.798	.218	.814	4.72	6.44	.254	.585	38.2
83 4 9	.848	6.58	4.16	.488	.828	.418	.812	4.85	6.41	.267	.555	29.6
83 4 18	.863	6.55	4.14	.498	.788	.488	.816	4.32	6.41	.298	.568	29.1
83 4 11	.884	6.54	4.89	.498	.788	.338	.818	4.87	6.45		.542	31.2
83 4 12	.188	6.54	3.98	.488	.778	.398	.816	3.92	6.24	.262	.528	28.6
83 4 13	.134	6.58	3.84	.478	.768	.198	.813	5.28	6.51	.387	.553	27.7
83 4 14	.887	6.34	3.57	.448	.758	.258	.834	3.38	6.18	.384	.548	26.4
83 4 15	.954	6.31	3.27	.488	.638	.338	.847	2.21	5.78	.375	.493	23.5
83 4 16	.539	6.33	3.16	.488	.698	.318	.842	2.67	5.77	.228	.513	22.4
83 4 19	.168	6.12	3.46	.418	.628	.388	.819	3.14	5.83	.235	.587	27.2
83 4 28	.131	6.28	3.58	.418	.638	.288	.813	3.74	5.84	.215	.587	25.7
83 4 26	.328	6.38	3.29	.418	.628	.828	.828	2.69	5.59	.223	.582	25.4
83 4 29	.481	6.28	2.69	.368	.558	.218	.813	1.96	5.85	.293	.373	21.1
83 5 3	.398	6.34	2.46	.328	.458	.288	.826	2.88	4.43	.244	.388	18.7
83 5 5	.251	6.48	3.38	.418	.528	.258	.881	4.28	4.74	.282	.285	24.8
83 5 11	.886	6.67	3.91	.438	.578	.258	.834	5.22	4.84	.299	.372	29.1
83 5 17	.861	6.65	3.87	.448	.688	.258	.812	5.16	5.28	.239	.483	27.9
83 5 25	.316	6.68	3.77	.488	.518	.258	.842	3.87	5.98	.311	.261	27.2

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
83 5 31	.354	6.06	3.49	.390	.540	.310	.014	4.41	5.63	.245	.260	24.7
83 6 8	.124	6.61	3.49	.390	.540	.250	.010	4.75	5.47	.304	.216	25.3
83 6 14	.080	6.50	3.47	.420	.660	.270	.015	4.75	5.44	.301	.234	28.8
83 6 21		6.61	3.53	.420	.640	.280	< .010	5.16			.214	27.3
83 6 27	.089	6.64	3.69	.440	.610	.290	.002	5.55	5.44	.255	.184	30.5
83 7 5	.013	6.66	3.56	.500	.490	.180	< .010		5.53	.254	.102	28.6
83 7 14		6.46	3.92	.470	.590	.260	.002	6.14	5.55	.254	.177	32.2
83 7 19	.017	6.58	3.91	.440	.570	.250	.002	6.00	5.67	.266	.188	32.1
83 7 27	.006	6.64	3.79	.470	.620	.220	.020	6.60	5.61	.207		31.0
83 8 2	.009	6.64	3.48	.440	.700	.330	.003	6.24	4.76	.214	.157	30.3
83 8 10	.011	6.77	3.17	.470	.640	.230	.004	6.14	5.34	.229	.117	30.0
83 8 16	.006	6.70	3.39	.470	.700	.260	.000		6.12	.254	.183	31.9
83 8 24	.004	6.70	3.84	.460	.780	.410	.050	6.65	4.80	.206	.215	33.3
83 8 30	.004	6.62	4.16	.560	.810	.370	.009	7.49	5.82	.308	.274	32.1
83 9 6	.008	6.60	4.13	.500	.710	.380	.022	5.68	6.58	.242	.295	32.8
83 9 13	.012	6.49	3.61	.510	.730	.340	.045	6.40	5.54	.466	.045	30.0
83 9 21	.036	6.30	3.58	.420	.620	.260	.011	6.46	6.02	.762	.016	27.4
83 9 27	.035	6.56	3.68	.490	.640	.240	.006		5.95	.344		31.3
83 10 5	.099	6.66	3.62	.480	.620	.320						29.9
83 10 11	.061	6.65	3.82	.560	.640	.380		5.95				31.3
83 10 19	.134	6.67	3.69	.430	.530	.320		5.25				28.2
83 10 24	.041	6.66	3.80	.440	.670	.300	.004	6.55	6.83	.474	.000	30.3
83 11 2	.057	6.56	3.74	.470	.630	.350	.022	6.09	6.37	.509	.129	28.7
83 11 9	.034	6.59	4.12	.470	.640	.380	.013	7.15	5.55	.310	.163	30.7
83 11 14	.044	6.68	4.21	.500	.670	.340	.013	7.93	5.82	.472	.163	32.1
83 11 22	.372	6.32	3.38	.460	.650	.420	.011	2.50	5.82	.589	.320	28.5
83 11 29	.114	6.25	3.46	.420	.780	.290	.009	2.31	5.75	.662	.341	26.3
83 12 7	.052	6.42	3.43	.490	.560	.500	.018	3.40	5.60	.430	.299	27.4
83 12 12	.053	6.50	3.72	.440	.560	.330	.018	4.35	5.46	.352	.271	27.8
84 1 11	.026	6.29	3.70	.500	.480	.170	.009	4.96	5.71	.339	.279	31.6
84 1 17	.029	6.42	3.68	.490	.520	.200	.005	4.62	5.96	.512	.273	29.2
84 2 1	.015	6.18	3.80	.480	.510	.140	.003	5.87	5.77	.272	.307	30.1
84 2 8	.020	6.25	3.73	.480	.460	.100	.026	5.23	5.78	.302	.321	32.9
84 2 14	.036	6.30	3.61	.480	.530	.280	.027	6.24	5.78	.657	.370	30.9
84 2 15	.042	6.18	3.94	.530	.510	.180	.032	4.55	5.69	.341	.439	30.8
84 2 16	.044	6.35	3.94	.480	.540	.140	.030	4.89	5.81	.436	.570	31.6
84 2 17	.053	6.26	3.94	.500	.490	.140	.027	3.54	5.81	.415	.639	31.8
84 2 20	.059	6.23	3.79	.520	.480	.170	.026	3.30	5.88	.457	.649	30.3
84 2 21	.050	6.24	3.28	.500	.570	.170	.025	3.30	5.90	.291	.651	31.8
84 2 22	.054	6.30	3.78	.500	.520	.160	.001	3.59	5.95	.294	.647	30.4
84 2 23	.051	6.29	3.62	.470	.510	.170	.115	3.37	5.85	.364	.628	30.6
84 2 24	.051	6.04	3.74	.470	.540	.170	.011	3.19	5.90	.555	.627	30.8
84 2 27	.046	6.26	3.88	.510	.570	.210	.015	3.70	5.92	.325	.626	31.7
84 2 29	.036	6.33	3.42	.500	.580	.230	.015	3.31	5.93	.332	.613	33.5
84 3 2	.041	6.14	4.10	.490	.580	.140	.012	3.64	5.94	.377	.608	32.4
84 3 5	.031	6.33	3.97	.460	.540	.200	.015	3.59	5.71	.415	.611	31.8
84 3 8	.041	6.37	4.21	.530	.530	.140	.024	3.78	5.92	.227	.617	33.6
84 3 13	.025	6.33	3.80	.490	.590	.170	.035	4.08	6.06	.487	.539	34.2
84 3 15	.028	6.19	3.97	.500	.600	.160		4.38	6.09	.364	.579	32.6
84 3 20	.021	6.42	3.94	.520	.620	.140	.052	4.47	6.01	.260	.563	34.1
84 3 21	.023	6.39	4.11	.500	.630	.170	.022	5.24	5.63	.273	.547	33.8
84 3 23	.041	6.39	4.12	.520	.580	.280	.009	3.85	6.00	.696	.527	32.4
84 3 26	.038	6.18	4.21	.520	.570	.200	.034	3.89	6.11	.359	.566	32.5
84 3 27	.039	6.60	4.15	.540	.560	.010	.036	4.24	6.17	.305	.502	31.1
84 3 28	.035	6.59	6.24	.610	.700	.130	.016	9.28	6.47	.311	.551	30.9
84 3 29	.036	6.36	4.32	.540	.610	.200	< .010	4.14	6.19	.368	.665	33.8
84 3 30	.042	6.60	4.12	.540	.570	.460	.037	4.17	6.21	.491	.666	32.8
84 4 1	.044	6.60	4.12	.560	.580	.220	< .010	3.75	6.43	.263	.634	33.6
84 4 2	.050	6.55	4.28	.560	.620	.240	.063	3.76	6.66	.265	.659	32.4
84 4 3	.063	6.55	4.00	.560	.610	.200	.003	4.20	6.79	.289	.600	32.8
84 4 4	.087	6.50	3.69	.530	.620	.280	.050	3.50	6.73	.361	.670	33.4
84 4 5	.144	6.46	3.93	.520	.610	.340	.018	3.29	6.57	.420	.697	33.3
84 4 6	.159	6.44	3.92	.510	.620	.240	.006	3.14	6.43	.445	.746	32.1
84 4 7	.171	6.47	3.92	.600	.600	.200		3.52	6.13	.290		31.0

DATE YR MO DY	STREAM DISCHARGE M3/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SD4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
84 4 8	.177	6.44	3.98	.518	.628	.218	.834	2.98	5.93	.385	.842	31.8
84 4 9	.237	6.37	3.71	.498	.548	.228	.856	2.54	5.74	.522	.882	38.3
84 4 18	.275	6.39	3.91	.488	.688	.248	.825	2.64	5.52	.275	.882	29.9
84 4 11	.336	6.37	3.83	.488	.788	.228	.837	2.34	5.31	.196	.865	32.1
84 4 12	.482	6.48	3.49	.478	.668	.248	.836	2.78	5.29	.281	.853	38.2
84 4 13	.574	6.48	3.48	.468	.528	.288	.831	2.42	4.88	.211	.764	28.1
84 4 14	.556	6.35	3.28	.488	.588	.368	.841	2.61	4.82	.187	.797	26.3
84 4 15	.614	6.37	3.22	.448	.488	.348	.841	2.43	4.55	.171	.814	26.1
84 4 16	.745	6.38	3.82	.468	.568	.288	.852	2.69	3.99	.288	.595	38.7
84 4 17	.585	6.32	2.97	.488	.538	.248	.842	2.13	4.48	.383	.657	23.5
84 4 18	.336	6.22	2.92	.488	.538	.268	.819	2.12	4.39	.386	.628	24.4
84 4 24	.238	6.68	3.39	.488	.478	.198	.186	4.61	3.91	.278	.435	29.8
84 4 26	.221	6.78	4.81	.478	.618	.228	.151	6.37	4.15	.329	.396	31.3
84 4 30	.188	6.15	3.64	.428	.598	.298	.114	5.48	4.23	.431	.488	29.6
84 5 1	.365	6.77	3.61	.418	.538	.288	.114	5.31	4.32	.316	.389	38.1
84 5 2	.268	6.84	3.78	.438	.628	.248	.133	5.29	4.38	.428	.396	29.9
84 5 3	.282	6.85	3.48	.448	.688	.388	.118	5.81	4.32	.493	.394	38.4
84 5 8	.187	6.84	3.54	.418	.428	.218	.865	4.31	4.55	.454	.431	32.3
84 5 18	.166	6.88	3.54	.428	.438	.288	.845	4.36	4.53	.451	.443	28.9
84 5 14	.875	6.76	3.59	.428	.588	.138	.833	4.28	4.69	.318	.646	29.8
84 5 16	.855	6.75	3.38	.418	.518	.188	.895	4.53	4.88	.389	.438	32.3
84 5 17	.851	6.78	3.35	.418	.468	.198	.836	4.58	4.86	.328	.429	32.7
84 5 22	.828	6.74	3.78	.488	.498	.198	.889	3.66	4.69	.463	.399	31.7
84 5 38	.827	6.88	3.63	.458	.498	.138	.828	4.78	5.37	.326	.363	32.3
84 6 6	.816	6.77	3.98	.448	.598	.288	.818	5.46	5.26	.298	.387	33.9
84 6 13	.819	6.84	3.87	.498	.548	.288	.817	5.27	4.82	.378	.282	36.3
84 6 19	.813	6.82	4.12	.488	.578	.288	.882	5.61	4.89	.298	.244	32.7
84 6 27	.818	6.74	3.56	.458	.518	.148	.888	5.68	5.48	.232	.218	33.4
84 7 3	.817	6.69	3.63	.478	.818	.168	.812	6.14		.377	.218	33.7
84 7 11	.819	6.81	3.88	.498	.578	.238	.881	6.83	5.75	.362	.283	38.3
84 7 17	.832	6.74	4.88	.518	.548	.218	.886	5.52	4.98	.328	.149	27.7
84 7 25	.828	6.88	3.78	.498	.518	.178	.877	6.48	5.22	.231	.189	33.8
84 7 31	.828	6.77	4.16	.538	.568	.168	.812	8.86	5.28	.267	.129	38.1
84 8 9	.816	6.71	4.11	.558	.668	.238	.823	7.38	4.77	.489	.138	38.1
84 8 13	.815	6.83	4.23	.558	.618	.178	.887	6.76	4.88	.356	.117	35.8
84 8 21	.888	6.85	4.51	.558	.598	.288	.887	7.13	5.81	.355	.169	33.6
84 8 29	.816	6.88	4.24	.548	.588	.338	.827	7.12	5.87	.469	.889	36.2
84 9 4	.811	6.73	4.24	.478	.588	.268	.883	7.79	4.94	.427	.185	36.2
84 9 12	.848	6.75	3.76	.488	.618	.248	.883	7.46	5.57	.442	.847	37.9
84 9 18	.847	6.82	4.38	.538	.658	.228	.884	7.94	5.38	.458	.852	35.8
84 9 26	.313	6.77	3.57	.428	.578	.318	.888	5.31	5.14	.417	.887	34.6
84 9 27	.249	6.72	3.57	.448	.588	.858	.816	4.38	5.85		.834	32.4
84 18 4	.893	6.69	4.83	.488	.688	.438	.885	5.98	5.83	.538	.856	35.8
84 18 18	.862	6.73	3.89	.458	.598	.318	.878	6.17	5.37	.454	.862	34.9
84 18 16	.844	6.64	3.98	.458	.568	.328	.126	6.11	5.46	.478	.888	44.6
84 18 24	.888	6.77	3.79	.488	.598	.238	.821	5.85	5.26	.378	.865	42.9
84 11 1	1.248	6.59	3.32	.428	.528	.338	.829	4.17	5.23	.378	.165	36.8
84 11 2	.616	6.45	3.13	.418	.588	.388	.829	3.84	5.34	.463	.286	47.5
84 11 5	.218	6.61	3.44	.438	.518	.318	.825	3.48	5.57	.438	.228	38.3
84 11 7	.158	6.55	3.42	.438	.528	.288	.815	3.69	5.73	.414	.242	34.1
84 11 13	.189	6.45	3.59	.458	.538	.298	.816	3.84	5.66	.452	.259	27.2
84 11 21	.892	6.14	3.49	.438	.528	.268	.823	3.16	5.62	.367	.381	34.1
84 11 27	.855	6.24	3.52	.438	.548	.258	.837	3.48	5.73	.333	.346	33.8
84 12 4	.188	6.12	3.83	.398	.558	.288	.828	2.58	5.96	.358	.398	32.6
84 12 12	.865	6.86	3.33	.428	.488	.238	.828	2.64	5.69	.362	.481	31.7
84 12 19	.187	5.97	3.38	.438	.678	.238	.839	2.78	5.25	.583	.484	36.7
84 12 28	.896	5.98	3.48	.448	.498	.218	.817	2.93	5.33	.387	.466	35.5
85 1 9	.856	6.81	3.46	.448	.538	.198	.858	3.16	5.56	.279	.475	32.3
85 1 16	.841	6.32	3.48	.428	.948	.218	.838	3.69	5.89	.211	.488	37.3
85 1 28	.829	6.29	3.65	.478	.618	.198	.822	4.12	5.79	.277	.472	33.4
85 2 7	.822	6.15	3.98	.468	.688	.218	.844	4.99	6.89	.554	.431	42.6
85 2 14	.823	5.98	4.13	.458		.238	.871	5.16	5.33		.445	39.9
85 2 28	.821	6.84	4.28	.478	.848	.288	.866	5.75	6.22	.388	.449	38.8
85 2 25	.823	6.85	4.84	.458	.688	.198	.858	5.85	5.73	.581	.448	43.7

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
85 2 28	.882	6.21	4.88	.488	.628	.258	.855	5.12	5.68	.364	.453	29.9
85 3 6	.824	6.75	4.84	.498	.598	.198	.891	5.78	5.79	.243	.461	39.4
85 3 11	.823	6.67	4.22	.478	.688	.218	.878	5.32	5.54	.389	.588	37.4
85 3 12	.822	6.66	4.11	.498	.618	.288	.852	5.23	5.58	.288	.484	36.2
85 3 14	.826	6.68	4.88	.498	.688	.188	.842	5.43	5.62	.333	.517	37.8
85 3 18	.821	6.68	4.28	.498	.598	.218	.836	5.16	5.62	.326	.586	43.9
85 3 28	.821	6.56	4.85	.588	.688		.829	5.41	5.52	.298	.548	38.4
85 3 21	.822	6.34	4.12	.488	.588	.238	.828	5.12	5.51	.263	.555	38.1
85 3 23	.818	6.45	4.18	.588	.498	.288	.828	5.12	5.44	.388	.562	29.9
85 3 25	.822	6.48	3.91	.498	.588	.228	.823	5.38	5.99	.312	.517	31.1
85 3 27	.842	6.23	3.86	.518	.578	.278	.888	4.88	5.93	.229	.624	31.8
85 3 28	.888	6.29	3.63	.478	.588	.288	.889	7.82	5.42	.264	.587	38.8
85 3 29	.114	6.22	3.21	.488	.588	.218	.831	4.94	6.14	.388	.888	38.7
85 3 38	.114	6.15	3.21	.488	.498	.258	.834	5.78	6.28	.396	1.818	38.1
85 3 31	.117	6.23	3.67	.518	.498	.278	.839	3.84	5.38	.384	.975	31.1
85 4 1	.138	6.15	3.68	.528	.588	.278	.834	3.12	5.29	.358	.955	31.8
85 4 2	.129	6.12	4.83	.528	.688	.278	.832	3.16	5.89	.381	.915	31.1
85 4 3	.889	6.14	3.98	.528	.588	.288	.829	3.51	5.27	.291	.971	31.1
85 4 4	.877	6.18	4.28	.538	.568	.338	.827	1.68	5.12	.385	.912	38.3
85 4 5	.878	6.19	4.84	.558	.688	.388	.829	2.74	5.21	.341	.892	29.8
85 4 8	.878	6.33	3.79	.498	.588	.238	.836	4.27	5.24	.384	.895	38.2
85 4 9	.858	6.17	3.91	.438	.568	.278	.811	3.69	5.75	.219	.896	29.3
85 4 18	.878	6.24	3.94	.428	.578	.238	.814	3.88	5.89	.289	.984	31.3
85 4 11	.864	6.18	4.86	.468	.578	.328	.889	3.83	5.86	.352	.981	38.5
85 4 12	.859	6.33	4.14	.518	.588	.198	.813	4.42	4.93	.384	.861	38.7
85 4 13	.857	6.16	4.16	.528	.598	.188	.888	3.62	4.91	.321	.848	29.5
85 4 14	.893	6.15	4.87	.518	.578	.138	.827	3.48	5.88	.388	.834	31.1
85 4 15	.131	6.28	4.88	.528	.578	.148	.817	3.93	5.88	.296	.983	32.6
85 4 16	.232	6.88	3.52	.498	.558	.238	.838	3.68	7.81	.358	.876	31.4
85 4 17	.312	6.15	4.18	.518	.488	.228	.835	3.54	5.63	.388	.953	38.9
85 4 18	.279	6.88	3.59	.588	.578	.238	.821	3.12	6.94	.369	.977	29.7
85 4 19	.285	6.89	3.64	.498	.518	.238	.827	2.54	7.18	.374	.991	38.6
85 4 28	.581	6.86	1.99	.588	.568	.218	.838	2.41	5.39	.337	1.828	38.3
85 4 21	2.193	5.98	1.87	.478	.588	.268	.861	2.15	5.24	.318	.968	29.2
85 4 22	1.375	5.97	1.79	.468	.528	.298	.853	2.38	4.98	.326	.919	28.1
85 4 23	1.383	5.97	3.84	.458	.488	.288	.854	2.91	5.93	.382	.838	26.4
85 4 24	1.148	5.93	2.83	.418	.488	.248	.855	1.86	5.71	.336	.771	23.6
85 4 25	1.139	5.84	2.62	.368	.478	.278	.842	1.98	5.78	.335	.724	22.8
85 4 26	.579	5.95	2.75	.488	.428	.238	.845	1.71	5.55	.314	.788	23.1
85 4 29	.278	5.92	2.44	.328	.398	.238	.842	2.38	4.24	.186	.738	22.1
85 4 38	.291	6.25	2.69	.368	.488	.238	.847	2.48	4.54	.214	.765	28.1
85 5 2	.215	6.47	3.14	.488	.488	.218	.854	4.14	4.58	.219	.661	28.2
85 5 6	.265	6.55	3.27	.418	.448	.218	.879	4.96	4.65	.249	.667	28.6
85 5 8	.169	6.54	3.28	.488	.488	.228	.866	3.81	4.88	.237	.666	28.8
85 5 9	.147	6.66	3.28	.418	.528	.248	.828	4.94	4.84	.248	.677	29.9
85 5 14	.888	6.55	3.85	.428	.458	.258	.827	4.13	4.77	.387	.688	27.8
85 5 21	.881	6.66	3.11	.378	.488	.238	.819	4.28	4.78	.122	.572	28.8
85 5 28	.854	6.72	3.35	.418	.338	.228	.862	4.12	4.82	.315	.557	28.4
85 6 4	.182	6.86	3.29	.428	.468	.198	.818	4.81	4.74	.272	.592	27.8
85 6 18	.872	6.68	3.52	.428	.448	.168	.828	4.71	4.73	.388	.328	31.2
85 6 19	.851	6.58	3.69	.488	.468	.168	.818	4.98	5.24		.374	28.8
85 6 25	.885	6.88	3.65	.488	.588	.168	.883	5.55	5.18	.716	.325	32.7
85 7 2	.847	6.75	3.77	.428	.498	.228	.887	5.73	5.58	.278	.313	38.7
85 7 9	.823	6.42	3.69	.458	.498	.198	.889	6.15	5.23	.236	.286	27.8
85 7 17	.814	6.51	4.29	.478	.588	.178	.882	6.18	5.34	.281	.268	29.6
85 7 24	.815	6.41	3.81	.478	.688	.198	.882	6.18	5.51	.233	.284	32.1
85 7 29	.817	6.53	3.85	.468	.478	.288	.883	6.18	5.25	.341	.287	29.7
85 8 7	.813	6.53	4.88	.438	.478	.228	.889	6.54	5.25	.286	.212	31.3
85 8 14	.816	6.35	3.81	.478	.538	.178	.882	6.24	5.38	.237	.185	38.8
85 8 28	.814	6.55	3.85	.588	.588	.188	.884	6.26	5.42	.171	.136	29.1
85 8 27	.821	6.86	3.82	.458	.578	.198	.884	6.39	5.88	.265	.831	38.6
85 9 3	.858	6.78	3.62	.488	.478	.198	.888	6.83	5.89	.257	.875	28.8
85 9 18	.188	6.58	3.46	.478	.498	.178	.196	5.84	5.61	.284	.633	27.8
85 9 16	.853	6.46	3.73	.458	.498	.178	.888	5.41	5.38	.324	.888	28.4

DATE YR MO DY	STREAM DISCHARGE MS/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
85 9 23	.059	6.67	3.67	.460	.570	.160	.009	4.79	5.21	.282	.039	27.4
85 9 30	.093	6.56	3.64	.440	.520	.210	.025		5.68	.257	.024	27.0
85 10 8	.193	6.56	3.70	.460	.590	.180	.030	4.97	4.99	.353	.063	24.4
85 10 15	.009	6.56	3.49	.450	.480	.180	.010		5.59	.406	.083	26.8
85 10 22	.078	6.51	3.57	.430	.460	.150	.027		5.66	.349	.060	25.5
85 11 5	.104	6.61	3.60	.460	.470	.170	.020	4.42	4.95	.227	.076	24.5
85 11 12	.061	6.67	3.08	.460	.500	.150	.014	5.11	5.66	.388	.241	25.5
85 11 19	.049	6.62	3.77	.480	.520	.170	.019	4.49	5.03	.368	.182	25.1
85 11 20	.077	6.50	3.39	.440	.460	.150	.014	3.55	5.46	.319	.245	23.7
85 12 4	.061	6.26	3.46	.430	.510	.150	.006	5.09	5.52	.324	.249	24.6
85 12 10	.045	6.40	3.53	.450	.520	.160	.019	4.43	5.54	.441	.275	25.5
85 12 16	.045	6.41	3.52	.430	.470	.160	.026	4.39	5.93	.314	.278	26.2
85 12 30		6.55	3.08	.470	.450	.180	.041	4.93	5.96	.367	.259	26.0
86 1 8	.025	6.46	3.06	.450	.530	.160	.037	4.96	5.66	.306	.205	26.6
86 1 13	.025	6.62	4.00	.460	.600	.140	.021	5.25	5.03	.284	.295	27.5
86 1 21	.022	6.52	3.88	.470	.460	.180	.031	5.18	5.02	.287	.321	27.1
86 1 29	.020	6.50	4.09	.480	.520	.150	.057	5.74	5.30	.264	.330	27.6
86 2 5	.016	6.63	4.16	.480	.510	.150	.028	5.55	5.48	.397	.352	28.3
86 2 10	.017	6.41	3.96	.490	.500	.150	.032	5.65	5.54	.230	.371	27.8
86 2 19	.014	6.41	4.20	.490	.510	.140	.033	5.70	5.36	.197	.309	27.1
86 2 26	.014	6.66	4.19	.480	.530	.140	.061	6.10	5.30	.232	.377	28.8
86 3 4	.030	6.55	4.01	.470	.480	.180	.030	5.53	4.06	.219	.407	28.2
86 3 10	.018	6.60	4.17	.500	.500	.150	.035	5.05	5.29	.239	.362	29.0
86 3 20	.025	6.65	4.22	.500	.600	.170	.097	6.13	4.90	.296	.350	28.3
86 3 26	.034	6.30	4.31	.480	.560	.170	.004	6.97	4.74	.412	.407	29.5
86 3 28	.051	6.19	4.25	.490	.530	.200	.040	5.98	4.04	.217	.414	27.8
86 3 29	.061	6.17	4.02	.480	.530	.200	.005	4.08	4.94	.253	.547	27.4
86 3 31	.067	6.13	3.95	.470	.530	.200	.052	3.95	4.94	.247	.004	29.3
86 4 1	.195	6.04	4.04	.490	.620	.200	.043	3.56	5.47	.256	.070	28.7
86 4 2		6.11	3.75	.490	.550	.190	.034	3.10	5.79	.259	.907	28.2
86 4 3		6.00	3.62	.470	.490	.180	.032	3.21	4.00	.295	.077	26.0
86 4 4		6.07	3.76	.500	.490	.180	.020	2.97	4.71	.258	.929	28.4
86 4 5	.344	6.00	3.60	.500	.500	.170	.039	2.91	4.63	.271	.905	27.1
86 4 6		6.07	3.69	.490	.530	.290	.024	2.97	4.61	.255	.918	27.9
86 4 7		6.01	3.68	.470	.490	.160	.018	3.12	4.56	.254	.755	27.1
86 4 8		6.06	3.65	.470	.470	.110	.030	3.04	4.50	.254	.079	26.9
86 4 9		6.05	3.56	.490	.470	.120	.024	2.79	4.50	.228	.047	27.0
86 4 10		6.05	3.54	.460	.460	.110	.023	2.97	4.57	.223	.088	27.8
86 4 11		6.07	3.59	.490	.520	.200	.022	3.09	4.02	.215	.912	27.8
86 4 12		6.15	3.58	.480	.530	.190	.023	3.60	5.19	.311	.919	28.8
86 4 14		6.18	3.09	.480	.520	.190	.027	3.69	4.07	.274	.917	28.2
86 4 15		6.11	3.67	.470	.490	.180	.026	3.50	4.70	.261	.070	27.1
86 4 16		6.16	3.42	.440	.470	.180	.019	3.12	4.52	.223	.001	24.0
86 4 17		6.02	3.33	.440	.480	.170	.025	3.07	4.36	.267	.025	25.7
86 4 18		6.10	3.15	.420	.450	.150	.031	2.64	4.26	.239	.760	25.3
86 4 19	.705	6.01	3.07	.400	.440	.160	.022	2.52	4.10	.214	.704	24.4
86 4 20		6.01	2.99	.400	.430	.170	.039	2.52	4.05	.230	.665	23.4
86 4 21		6.00	2.00	.390	.410	.160	.029	2.40	4.64	.187	.670	23.3
86 4 22		5.90	2.01	.300	.400	.160	.010	2.49	4.64	.215	.654	22.4
86 4 23		6.15	2.90	.300	.410	.150	.016	2.55	4.70	.164	.664	23.6
86 4 24		6.24	3.01	.390	.420	.140	.020	3.00	4.70	.160	.667	24.0
86 4 25		6.30	3.19	.390	.420	.140	.043	3.50	4.55	.160	.644	22.5
86 4 20		6.35	3.24	.390	.470	.170	.047	4.04		.231	.502	23.4
86 4 30		6.28	3.37	.400	.480	.170	.030	3.97		.187	.519	24.0
86 5 2		6.25	3.11	.420	.460	.150	.029	3.90		.204	.512	23.0
86 5 5		6.15	3.30	.400	.460	.170	.024	3.09	4.94	.197	.521	23.9
86 5 8		6.29	3.59	.430	.490	.160	.066	4.17		.109	.548	25.0
86 5 13		6.20	3.79	.430	.500	.130	.005	4.44		.513	.402	24.7
86 5 22		6.44	3.02	.430	.490	.170	.019	4.77	5.21	.192	.403	25.9
86 5 27		6.46	3.79	.460	.500	.160	.035	4.72		.230	.346	25.7

APPENDIX IV

MAJOR ION CHEMISTRY AND INSTANTANEOUS DISCHARGE AT STREAM STATION S3

DATE YR MO DV	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
80 4 17		5.84	3.33	.483	.527	.326		3.48	5.93	.248		
80 4 22	.828	6.88	3.33	.419	.678	.267	.831	3.58	5.49	.268	.518	23.9
80 4 25	.619	5.91		.483	.646	.268	.834	4.15	5.68	.298	.588	25.2
80 4 30	.382	6.25	3.33	.429	.513	.278	.837	5.45	5.95	.368	.368	28.9
80 5 5	.184	6.35	4.88	.356		.338	.816	5.95	5.93	.358	.338	31.5
80 5 8	.157	6.44	4.49	.394	.437	.218	.825	5.88	6.88	.318	.334	38.6
80 5 12	.222	6.48	4.89	.387	.465	.245	.834		5.75	.298	.328	38.2
80 5 28	.182	6.53	4.86	.374	.474	.261	.841	6.85	5.56	.318	.388	27.8
80 5 26	.117	6.42		.547	.417	.219	.814	6.88	6.28	.388	.288	31.6
80 6 2	.149	6.57	4.17	.484	.458	.176	.828	6.75	6.19	.268	.258	38.8
80 6 9	.188	6.61		.588	.414	.361	.888	6.95	5.96	.328	.228	38.4
80 6 16	.758	6.43		.478	.364	.284	.815	6.58	6.85	.358	.228	31.4
80 6 23		6.69		.461	.488	.148	.813	6.88	6.32	.288	.285	31.2
80 7 2	.839	6.52		.348	.788	.231	.834	6.58	6.38	.318	.181	31.4
80 7 7	.842	6.58		.358	.652	.221	.889	7.25	6.31	.328	.162	31.3
80 7 14	.886	5.97					.848	7.68	6.88	.328	.149	31.9
80 7 21	.829	6.25	4.12		.488	.128		7.15	6.22	.338		32.1
80 7 28		6.47	3.93	.316	.438	.126	.823	7.18	5.99	.258	.896	31.5
80 8 5		6.33	4.28	.383	.258	.196			6.48	.288		33.3
80 8 11		6.41	3.83	.436	.364	.199	.812		6.82	.328		32.8
80 8 18		6.53	3.93	.312	.637	.142	.887	7.48	5.93	.378		38.7
80 8 25		6.51		.344	.316	.129	.816	6.88	6.14	.288		24.7
80 9 8		6.48	3.99	.379	.518	.158	.889	7.48	5.25	.285		25.8
80 9 15		6.72	5.81	.533	.565	.195		8.88	5.54	.358		26.4
80 9 22	.556	6.42	5.53	.499	.492	.146	.828	7.85	6.58			38.6
80 18 1		6.75	4.87									38.5
80 18 6	.826	6.48	4.47	.497	.425		.818	8.35	5.88	.438	.869	38.9
80 18 14		6.57		.548	.568	.165	.817	7.95	6.38		.876	31.4
80 18 28	.183	6.58	5.18	.476	.618	.258	.815	8.15	6.48	.388	.858	38.7
80 18 28	.116	6.66	5.38	.492	.638	.258	.818	8.15	6.55	.398	.471	29.5
80 11 11	.883	6.68	5.33	.589	.584	.157	.831	7.68	6.65	.338	.142	35.6
80 11 13		6.56	5.28									28.8
80 11 17	.872	6.58	5.36	.513	.787	.144	.822	7.75	7.85	.378	.145	36.2
80 11 19		6.47	5.17									48.6
80 12 3	.862	6.28	5.88	.838	.588	.168	.831	8.48	7.71	.358	.286	41.1
80 12 17	.871	6.19	5.52	.612	.726	.238	.835	7.88	6.85	.368	.191	43.5
80 12 38	.881	6.17	4.91	.588			.838	7.25	6.85	.398	.211	39.5
81 1 12	.825	6.27	4.99	.479	.579	.128	.848	8.88		.378	.335	36.8
81 1 14		6.36	4.91									35.8
81 1 28	.822	6.22	5.88	.456	.682	.875		7.88		.348	.259	39.6
81 2 9	.813	6.42	5.32	.514	.488	.892	.868	7.88	6.65	.338		37.7
81 2 18		6.45	4.65									36.7
81 3 18	.878	6.31	5.58	.683	.688	.191	.848	6.65	7.58	.298	.548	44.2
81 3 11		6.69	6.83									43.7
81 3 27	.842	6.87	5.69	.589	.625	.285	.845	6.65	7.44	.328	.586	46.3
81 3 31	1.361	6.19	4.81	.548	.548	.331	.843	5.18	7.81	.478	.586	38.6
81 4 1	.869	6.32	4.69	.532	.539	.336	.891	4.88	6.81	.538	.632	41.3
81 4 2	.981	6.22	4.64	.512	.524	.339	.895	4.75	7.31	.328	.644	42.9
81 4 3	.917	6.25	4.64	.522	.582	.367	.866	4.38	7.37	.378	.657	38.2
81 4 4	1.281	6.15	4.48	.588	.544	.318	.868	4.25	6.92	.388	.611	36.8
81 4 6		6.86	4.29	.491	.581	.383	.854	4.88	6.65	.358	.624	38.5
81 4 7	.481	6.14	4.27	.487	.589	.295	.848	3.98	6.47	.338	.629	39.1
81 4 8	.416	6.14	4.22	.478	.539	.273	.857	3.85	6.38	.348	.622	37.4
81 4 14		6.35	3.97	.428	.448	.388	.847	4.25	6.58	.358	.582	31.3
81 5 7		6.96	4.41	.511	.472	.251	.827	5.98	6.55	.318	.373	37.9
81 5 21		6.95	4.71	.588	.538	.258	.813	6.28	5.91	.348	.279	38.5
81 6 3	.164	6.95	4.94	.478	.548	.218	.824	6.18			.278	42.3
81 6 17	.887	6.57	4.67	.438	.468	.218	.814	5.38			.227	36.5
81 7 2	.257	7.86	4.11	.578	.478	.188	.816	5.75	6.71	.586	.145	33.1
81 7 15	.831	7.27	4.22	.488	.568	.218	.819	6.15	5.52	.496	.897	33.8
81 7 29	.888	7.21	4.17	.488	.538	.218	.818	6.55			.886	34.6
81 8 12	.875	7.32	4.58	.548	.778	.368	.819	6.85	6.33	.387	.859	34.5
81 8 27	.889	7.84	4.28	.718	.788	.318	.828	6.55	6.31	.282	.848	34.2
81 9 29	.881	7.19	5.48	.548	.638	.258	.858	9.15	6.83	.538	.841	41.3

DATE YR MO DY	STREAM DISCHARGE MG/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
81 10 16	.845	6.98	4.94	.588	.368	.198	.824	8.55	5.46	.358	.846	36.4
81 10 20		6.84	4.74	.498	.368	.288	.828	8.45	5.95	.349	.849	36.4
81 10 28	.886	6.94	5.58	.628			.821	8.98	5.88	.431	.868	37.2
81 11 11	.889	6.94	4.75	.498	.458	.288	.828	8.45	5.31	.267	.884	37.2
81 12 16	.865	6.99	5.68	.698			.858	9.88	6.84	.282	.119	42.6
82 1 22	.841	6.78	5.39	.718	.698	.328	.855	8.45	6.41	.241	.159	42.8
82 2 24	.821	6.58	5.31	.654	.695	.349	.888	9.38	6.65		.187	42.4
82 3 18	.819	6.65	5.52	.641	.778	.388	.868	8.88	6.68	.243	.234	42.6
82 3 17	.876	6.59	5.12	.631	.878	.398	.868	8.28	7.84	.378	.221	41.6
82 3 18	.874	6.62	5.18	.686	.888	.398	.865	9.88	6.91	.329	.222	41.4
82 3 19	.851	6.75	5.81	.688	.868	.388	.869	9.38	6.76	.395	.247	41.6
82 3 23	.845	6.45	4.95	.628	.675	.316	.868	6.98	7.18	.326	.341	38.8
82 3 24	.857	6.68	4.87	.628	.682	.316	.861	7.28	7.87	.395	.358	39.8
82 3 26	.842	6.62	4.88	.618	.713	.312	.856	9.38	6.92		.313	39.9
82 3 29	.835	6.67	4.91	.598	.598	.385	.856	7.18	7.13	.424	.366	39.3
82 3 38	.844	6.78	5.86	.648	.648	.298	.872	7.58	7.24	.394	.298	38.6
82 3 31	.131	6.68	5.24	.674	.668	.383	.886	7.55	7.34	.452	.382	41.3
82 4 1	.122	6.72	5.18	.664	.658	.385	.872	7.35	7.27	.522	.365	40.3
82 4 3	.235	6.68	5.85	.645	.625	.315	.878	6.88	7.47	.556	.392	40.3
82 4 4	.294	6.56	4.59	.584	.564	.282	.848	6.18	7.44	.268	.358	37.2
82 4 5	.352	6.59	4.68	.572	.545	.288	.847	6.15	7.37	.489	.379	37.4
82 4 6	.332	6.58	4.69	.577	.572	.296	.862	6.88	7.37	.456	.393	38.5
82 4 7	.295	6.57	4.65	.576	.592	.321	.845	6.58	7.27	.418	.375	38.5
82 4 13	.216	6.68	4.97	.619	.721	.376	.866	6.48	7.38	.387	.489	40.5
82 4 14	.281	6.75	5.88	.628	.685	.374	.849	6.45	7.22	.385	.531	40.7
82 4 15	.189	6.71		.544	.655	.275	.848	6.45	7.81	.269	.448	40.7
82 4 16	.123	6.65	5.27	.621	.645	.275	.839	6.65	7.78	.548	.461	41.9
82 4 17		6.76	5.11	.612	.648	.288	.858	6.55	7.51	.382	.478	41.8
82 4 18	.277	6.75	5.12	.587	.785	.488	.845	6.55	7.54	.537	.464	41.8
82 4 19	.322	6.62	4.51	.539	.665	.368	.849	5.28	7.14	.361	.395	36.6
82 4 28	.334	6.62	4.88	.561	.698	.398	.836	6.85	7.83	.323	.396	38.5
82 4 21	.296	6.68	4.62	.558	.665	.385	.838	5.15	7.64	.388	.388	37.2
82 4 22	.291	6.69	4.52	.556	.655	.345	.837	5.55	7.62	.296	.488	35.5
82 4 25	.745	6.55	4.36	.494	.595	.332	.859		7.24	.356	.412	36.6
82 4 26	1.546	6.62	4.26	.486	.588	.328	.858	5.48	6.84	.361	.348	35.3
82 4 27	1.218	6.42	4.86	.465	.545	.378	.843	4.78	6.56		.418	34.3
82 4 28	.928	6.45	4.64	.536	.615	.364	.851	6.25	7.26	.389	.431	36.3
82 4 29	.848	6.46	4.86	.484	.565	.349	.851	4.35	6.94	.446	.488	32.6
82 4 38	.892	6.55	4.24	.529	.627	.347	.867	4.88	6.92	.325	.428	34.1
82 5 6	1.827	6.54	5.78	.418	.472	.265	.837	4.45	5.46	.369	.282	29.1
82 5 11	.556	6.58		.518	.572	.268	.818	6.48	6.44	.868	.227	29.1
82 5 17	.286	6.83		.489	.588	.268	.819	5.75	5.96	.485		33.1
82 6 2	.867	7.17	4.24	.519	.535	.248	< .818	6.28	6.65	.181	.164	34.8
82 6 18	.841	7.86	4.67	.478	.448	.218	.827	7.15				35.9
82 6 15	.842	7.83	4.38	.529	.568	.238	.883	6.88	6.57	.221	.141	34.4
82 6 22	.816	6.88	4.35	.398	.468	.228		6.28	6.52	.488	.149	35.7
82 7 1	.887	7.65	4.56	.438	.448	.268	< .818	7.58	6.58	.283	.865	35.8
82 7 7	.887	7.26	4.52	.478	.588	.228	< .818	7.55	7.47	.556	.122	35.8
82 7 14	.825	7.25	4.42	.478	.428	.198		6.58	6.59	.388	.878	33.8
82 7 21	.825	7.42	4.45	.518	.578	.278	< .818	5.85	6.19	.348	.861	35.3
82 7 28	.888	7.47	4.48	.538	.598	.288	.821	6.45	6.97	.498	< .848	35.2
82 8 5	.817	7.38	4.39	.528	.588	.238	.832	8.38	6.37	.356	< .848	32.5
82 8 18	.815	7.29	4.56	.548	.548	.258	< .818	6.85	6.66	.358	< .848	35.3
82 8 24	.815	7.59	4.56	.538	.558	.278	< .818	6.68	6.36	.359	< .848	29.4
82 9 7	.864	7.25	4.78	.578	.558	.278	.818	8.85	6.88	.488	< .848	32.1
82 9 14		7.18	4.45	.589	.581	.388	.885		6.87	.347	< .848	29.1
82 9 28	.169	7.89	4.79	.688		.388	< .818	6.25		.277	< .848	31.3
82 9 29	.188	7.14	4.87	.598	.617	.275	.883	6.55	5.91	.698	< .848	32.1
82 10 4	.116	7.18	4.88	.682	.689	.288	.881	7.44	6.82	.369	< .848	31.8
82 10 7	.238	7.89	5.18	.685	.628	.295	.882	7.61	6.16	.371	< .848	32.2
82 10 14	.298	6.84	4.88	.634	.511	.328	.814	7.25	5.92	.487	< .848	32.5
82 10 18	.226	6.86	5.88	.648	.561	.385	.817	7.44	6.48	.395	< .848	32.5
82 10 27	.257	6.65	4.98	.587	.658	.345	.821	7.55	6.84	.455	< .848	31.1
82 11 2	.118	6.75	4.68	.568	.518	.318	< .818	6.55	5.89	.385	< .848	31.1

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
82 11 18	.148	6.72	4.74	.578	.538	.328	.811	7.25	5.92	.383	.865	31.6
82 11 24	.321	6.67	4.67	.638	.648	.358	.833	6.76	5.91	.446	.184	38.8
82 12 2	.133	6.61	4.89	.638	.658	.358	.828	6.67	6.19	.321	.112	38.2
82 12 8	.281	6.74	4.89	.628	.658	.358	.838	6.11	5.99	.613	.115	29.5
82 12 22	.182	6.43	4.38	.548	.188	.428	.848	6.58	6.16	.274	.218	38.8
82 12 29	.268	6.34	4.26	.588	.178	.448	.838	5.52	6.34	.339	.387	38.8
83 1 5	.158	6.48	4.89	.588	.578	.198	.824	6.98	6.77	.443	.314	34.2
83 1 12		6.45	4.44	.548	.458	.198	.835	5.49	6.43	.298	.382	38.9
83 1 19	.875	6.41	4.53	.568	.458	.198	.847	5.93	6.47	.317	.313	38.7
83 1 25	.898	6.41	4.39	.598	.928	.528	.853	6.32	6.44	.557	.293	29.7
83 2 1	.841	6.42	4.68	.588	.878	.548	.849	5.97	6.42	.398	.259	31.6
83 2 9	.835	6.43	4.88	.588	.868	.588	.856	6.26	6.37	.774	.236	32.5
83 2 16	.839	6.58	4.86		.738	.478	.864	6.97	6.22	.496	.257	32.5
83 2 21	.838	6.49	4.87	.638	.888	.448	.864	7.45	6.47	.277	.277	32.9
83 2 23	.834	6.48	4.96	.628	.818	.488	.863	7.42	6.47	.327	.242	31.9
83 2 28	.829	6.43	4.74	.628	.798	.368	.889	6.75	6.25	.322	.253	32.6
83 3 2	.835	6.43	4.79	.688	.788	.368	.875	7.86	6.38	.372	.246	32.6
83 3 6	.833	6.41	4.78	.618	.848	.318	.187	8.17	6.36	.785	.335	34.3
83 3 8	.131	6.38	4.74	.528	.838	.258	.131	6.18	6.55	.387	.436	34.7
83 3 9	.235	6.58	4.88	.598	.618	.268	.121	5.39	6.51	.338	.685	32.7
83 3 18	.378	6.43	4.11	.588	.718	.278	.892	5.18	6.84	.265	.559	38.1
83 3 11	.383	6.49	4.37	.688	.818	.368	.887	4.33	6.19	.343	.584	31.2
83 3 12	.321	6.58	4.44	.598	.888	.288	.885	5.22	6.16	.273	.582	32.4
83 3 13	.258	6.46	4.29	.598		.288	.899	4.76	6.31	.287	.698	27.1
83 3 14	.285	6.52	4.52	.688		.388	.181	4.59	6.36	.356	.667	29.3
83 3 15	.188	6.47	4.31	.688		.288	.843		6.66	.228	.788	38.3
83 3 16	.154	6.49	4.39	.688	.788	.288	.863	4.78	6.73	.234	.633	28.7
83 3 17	.136	6.46	4.68	.688	.778	.288	.863	5.88	6.58	.228	.642	29.3
83 3 18	.118	6.48	4.54	.618	.788	.288	.856	5.42	6.71	.218	.666	38.2
83 3 21	.128	6.44	4.49	.618	.718	.298	.849		6.38	.294	.622	34.6
83 3 22	.118	6.61	4.66	.618	.948	.388	.853	5.38	6.34	.286	.686	38.6
83 3 24	.898	6.45	4.74	.518	.828	.258	.847	5.39	6.46	.337	.626	33.8
83 3 28	.872	6.46	4.88	.528	.818	.238	.847	6.33	6.47	.313	.596	33.8
83 3 31	.857	6.44	4.87	.528	.868	.258	.847	6.23	6.44	.264	.558	32.4
83 4 4	.859	6.52	4.76	.538		.258	.855	6.21	6.69	.388	.514	33.7
83 4 6	.862	6.65		.588		.228	.823	6.33	6.66	.276	.589	36.9
83 4 7	.877	6.58	4.82	.538		.248	.844	5.88	6.55	.313	.548	32.8
83 4 8	.873	6.56	4.97	.548	.838	.238	.848	6.16	6.64	.386	.557	35.2
83 4 9	.881	6.61	5.82	.538	.858	.368	.848	7.83	6.67	.333	.541	33.8
83 4 18	.881	6.68	4.94	.548	.858	.378	.842	6.54	6.68	.294	.568	34.2
83 4 11	.115	6.62	4.73	.538	.838	.318	.836	6.24	6.69	.332	.569	33.9
83 4 12	.136	6.61	4.68	.538	.828	.338	.831	5.55	6.49	.385	.575	33.7
83 4 13	.154	6.66	5.83	.548	.868	.218	.828	6.41	6.71	.482	.597	35.2
83 4 14	.446	6.53	4.16	.478	.848	.218	.825	5.38	6.58	.388	.523	38.3
83 4 15	1.678	6.39	4.89	.448	.698	.388	.858	5.27	6.12	.243	.452	28.9
83 4 16	1.892	6.48	3.97	.428	.668	.318	.863	4.61	6.88	.244	.489	26.8
83 4 19	.346	6.28	4.11	.438	.678	.298	.826	4.52	6.86		.522	31.1
83 4 28	.256	6.48	4.87	.468	.678	.298	.824	4.58	6.18	.244	.537	29.7
83 4 26	.343	6.48	3.99	.438	.648	.258	.834	5.28	5.72	.232	.472	27.6
83 4 29	.661	6.46	3.81	.488	.538	.248	.825	5.52	5.13	.211	.369	26.2
83 5 3	.589	6.48	3.78	.418	.548	.228	.825	4.68	5.19	.248	.294	26.6
83 5 5	.458	6.33	4.34	.478	.598	.278	.819	5.71	5.67	.481	.312	29.6
83 5 11	.159	6.52	4.28	.478	.618	.288	.886	6.43	5.45	.271	.265	33.8
83 5 17	.897	6.74	4.49	.488	.638	.288	.886	6.49	5.71	.313	.388	31.8
83 5 25	.367	6.82	4.53	.448	.528	.278	.825	6.32	6.33	.335	.239	38.2
83 5 31	.448	6.45	4.28	.438	.568	.288	.818	6.82	6.18	.312	.266	29.9
83 6 8	.228	6.89		.438	.638	.328	.887		5.84	.296	.217	28.8
83 6 14	.111	6.99	4.41	.488	.658	.388	.818	6.52	5.98	.254	.282	34.3
83 6 21		7.31	4.22	.468	.668	.318	.881	6.19			.149	31.3
83 6 27	.828	7.12	4.13	.478	.648	.378	.814	5.84		.359	.188	33.2
83 7 5	.837	7.21	4.27	.538	.588	.218	< .818	7.18	5.74	.383	.894	33.3
83 7 14	.827	7.15	4.19	.438	.588	.248	.827	6.41	5.91	.266	.139	33.1
83 7 19	.822	7.17	3.89	.448	.568	.248	.818	6.77	5.96	.387	.883	33.9
83 7 27	.882	7.89	4.32	.518	.598	.328	.821		6.61	.275	.835	35.8

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
83 8 2	.016	7.18	3.86	.430	.810	.340	.014	6.18	6.11	.402	.063	32.5
83 8 10	.009	7.18		.440	.600	.260	.024		5.67	.200		31.6
83 8 16	.005	7.20	3.66	.490	.660	.350	.017	7.35	5.95	.452	.000	34.3
83 8 24	.004	7.16	4.06	.420			.037	6.37		.341	.045	31.7
83 8 30	.003	7.00	4.64	.570	.640	.340	.018				.015	34.0
83 9 6	.029	7.16	4.14	.440	.630	.200	.028	6.33	6.64	.236	.024	31.9
83 9 13	.020	7.00	3.07	.490	.570	.260	.028		5.00	.435	.022	32.3
83 9 21	.050	6.59	4.19	.420	.500	.250	.028	6.05	6.40	.405	.000	29.8
83 9 27	.044	6.93	4.19	.440	.690	.200	.011	6.81	6.50	.315	.000	33.9
83 10 5	.100	7.09	4.04	.450	.660	.290		7.48				33.5
83 10 11	.075	6.90	4.17	.530	.690	.310		6.52				34.6
83 10 19	.201	6.04	4.33	.400	.530	.290		6.70				32.4
83 10 24	.120	6.04	4.47	.490	.670	.330		7.30				34.5
83 11 2	.097	6.68	4.63	.490	.600	.360	.061	8.25	6.48	.464	.134	33.1
83 11 9	.096	6.66	4.72	.500	.670	.330	.037	6.60	5.73	.425	.100	34.2
83 11 14	.065	6.77	4.74	.510	.710	.360	.014	7.74	5.75	.445	.079	35.0
83 11 22	.659	6.65	4.60	.510	.670	.430	.019	7.06	5.89	.520	.087	35.1
83 11 29	.222	6.42	4.64	.500	.700	.440	.019	6.45	6.17	.540	.299	32.7
83 12 7	.099	6.49	4.46	.520	.710	.400	.041	6.35	5.96	.403	.263	32.6
83 12 12	.149	6.49	4.36	.400	.620	.350	.065	6.07	5.67	.340	.236	32.2
84 1 11	.029	6.35	4.27	.520	.510	.540	.041	6.70	5.79	.711	.201	35.0
84 1 17	.066	6.48	4.30	.520	.540	.270	.063	6.93	5.97	.552	.185	33.2
84 2 1	.033	6.30	4.49	.520	.530	.170	.062	7.44	5.92	.206	.211	34.4
84 2 8	.045	6.34	4.92	.500	.470	.090	.052	7.22	5.90	.272	.218	37.1
84 2 14	.045	6.30	4.39	.510	.500	.220	.047	7.51	6.00	.470	.264	34.3
84 2 15	.057	6.33	4.79	.520	.560	.190	.051	6.92	5.89	.436	.259	34.7
84 2 16	.054	6.42	4.67	.520	.590	.170	.052	7.04	5.92	.460	.255	34.0
84 2 17	.071	6.43	4.43	.520	.500	.170	.077	7.03	5.90	.429	.206	34.3
84 2 20	.101	6.35	4.69	.560	.570	.200	.087	6.00	6.03	.549	.539	35.1
84 2 21	.101	6.33	4.06	.520	.610	.170	.154	6.32	6.02	.251	.499	36.0
84 2 22	.102	6.30	4.60	.540	.590	.430	.116	5.89	6.00	.701	.533	34.0
84 2 23	.102	6.42	4.64	.520	.550	.100	.063	6.36	6.04	.439	.400	35.9
84 2 24	.102	6.15	4.46	.520	.540	.190	.051	6.64	6.00	.500	.530	34.0
84 2 27	.095	6.32	4.63	.560	.590	.170	.070	5.79	6.13	.356	.531	35.7
84 2 29	.055	6.30	4.30	.520	.610	.200	.039	5.63	6.23	.437	.543	37.7
84 3 2	.074	6.30	4.77	.530	.600	.190	.032	6.00	6.34	.331	.502	36.0
84 3 5	.054	6.42	4.77	.500	.760	.200	.030	5.90	5.96	.539	.493	35.3
84 3 8	.063	6.49	5.30	.610	.700	.160	.039	6.67	6.42	.436	.572	39.9
84 3 13	.060	6.30	4.46	.560	.650	.170	.050	8.79	6.46	.409	.539	30.0
84 3 15	.044	6.25	4.73	.540	.660	.160	.229	6.02	6.42	.354	.536	30.1
84 3 20	.054	6.40	4.56	.500	.600	.160	.009	6.03	6.32	.357	.470	39.1
84 3 21	.051	6.41	4.90	.560	.600	.190	.050	5.03	5.99	.319	.447	30.1
84 3 23	.001	6.40	5.17	.610	.620	.160	.032	0.50	6.30	.407	.461	37.9
84 3 26	.074	6.31	5.34	.600	.630	.240	.072	6.71	6.51	.421	.496	43.2
84 3 27	.055	6.67	5.60	.600	.620	.140	.037	7.46	6.74	.326	.527	37.3
84 3 28	.055	6.67	5.52	.610	.660	.130	.041	6.77	6.81	.340	.527	37.7
84 3 29	.050	6.40	5.10	.600	.660	.200	.044	6.66	6.77	.369	.603	39.2
84 3 30	.053	6.79	5.02	.640	.670	.200	.051	0.49	6.76	.404	.661	41.0
84 4 1	.057	6.64	5.12	.600	.650	.220	.017	6.57	6.90	.253	.577	30.0
84 4 2	.064	6.62	4.94	.620	.670	.340	.045	6.75	6.97	.412	.570	30.0
84 4 3	.070	6.64	5.10	.620	.650	.260	.037	6.00	6.92	.251	.564	37.7
84 4 4	.077	6.50	4.79	.600	.650	.300	.099	6.57	6.92	.395	.550	39.6
84 4 5	.111	6.57	5.40	.610	.720	.200	.040	6.00	6.97	.355	.763	41.2
84 4 6	.134	6.49	4.57	.570	.640	.100	.016	4.52	6.04	.341	.690	36.7
84 4 7	.204	6.60	4.04	.660	.610	.260	.046	5.39	6.37	.290	.034	35.2
84 4 8	.170	6.57	4.70	.540	.610	.210	.024	4.01	6.23	.346	.709	34.0
84 4 9	.206	6.40	4.50	.540	.500	.210	.049	4.79	6.46	.321	.770	35.0
84 4 10	.267	6.49	4.00	.560	.020	.200	.047	4.00	6.12	.251	.096	39.2
84 4 11	.356	6.51	4.19	.510	.600	.260	.061	6.09	5.07	.224	.654	35.0
84 4 12	.393	6.52	4.92	.530	.740	.260	.050	5.41	5.94	.236	.693	36.6
84 4 13	.639	6.46	4.26	.500	.620	.300	.000	5.26	5.51	.373	.506	32.9
84 4 14	.001	6.49	4.43	.530	.540	.300	.040	4.03	5.51	.244	.646	31.0
84 4 15	.069	6.44	3.02	.420	.450	.340	.051	4.74	4.52	.109	.693	20.0
84 4 16	1.106	6.43	3.93	.460	.610	.210	.051	4.00	4.42	.315	.557	30.0

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
84 4 17	.935	6.49	3.98	.448	.518	.258	.837	4.62	4.88	.381	.585	28.7
84 4 18	.689	6.43	3.82	.468	.748	.268	.829	4.41	4.76	.363	.587	28.3
84 4 24	.469	6.54	3.56	.488	.528	.388	.827	6.88	4.26	.455	.442	32.2
84 4 26	.431	6.72	3.97	.488	.618	.238	.838	6.33	4.62	.343	.438	33.5
84 4 30	.389	6.78	4.12	.478	.578	.318	.845	5.48	5.84	.418	.487	33.8
84 5 1	.514	6.71	4.21	.478	.528	.238	.837	5.81	5.18	.316	.395	33.1
84 5 2	.534	6.71	3.98	.498	.688	.238	.856	7.35	5.84	.371	.388	33.2
84 5 3	.497	6.76	4.13	.498	.628	.238	.837	6.38	5.82	.368	.395	34.3
84 5 8	.261	6.89	4.42	.468	.548	.218	.845	6.23	5.14	.687	.434	35.7
84 5 18	.383	6.98	4.83	.448	.468	.238	.831	6.23	5.88	.496	.464	34.7
84 5 14	.252	6.95	4.23	.468	.528	.148	.828	6.39	5.24	.313	.688	34.2
84 5 16	.189	6.98	4.13	.438	.538	.288	.837	6.12	5.38	.338	.483	35.5
84 5 17	.125	6.98	4.88	.448	.538	.198	.879	6.19	5.38	.331	.392	35.4
84 5 22	.876	7.89	4.48	.488	.798	.288	.826	5.96	5.17	.559	.377	35.3
84 5 30	.853	7.88	4.52	.488	.758	.268	.844	6.35	5.83	.767	.348	35.4
84 6 6	.842	7.89	4.28	.488	.538	.198	.815	6.48	5.66	.387	.368	36.3
84 6 13	.841	7.17	4.53	.588	.558	.198	.821	6.68	5.21	.379	.299	38.2
84 6 19	.833	7.23	4.51	.528	.618	.298	.894	6.63	5.33	.392	.266	37.3
84 6 27	.849	7.18	4.39	.498	.568	.138	.883	6.93	5.98	.257	.247	37.9
84 7 3	.839	7.86	4.32	.488	.838	.288	.824	6.72		.281	.225	36.8
84 7 11	.829	7.89	4.76	.538	.638	.328	.815	9.83	6.89	.535	.288	42.8
84 7 17	.855	7.16	4.55	.518	.588	.218	.817	6.88	5.52	.367	.197	31.5
84 7 25	.841	7.24	4.46	.498	.518	.188	.821	7.13	5.86	.252	.175	37.4
84 7 31	.838	7.38	4.49	.538	.568	.178	.847	6.76	5.88	.294	.141	33.5
84 8 9	.846	7.25	4.44	.548	.588	.178	.819	6.82	5.73	.386	.114	39.5
84 8 13	.829	7.31	4.52	.538	.718	.258	.819	7.28	5.82	.689	.186	37.4
84 8 21	.811	7.25	4.27	.538	.558	.278	.826	7.88	5.87	.333	.866	34.3
84 8 29	.843	7.42	4.48	.528	.618	.318	.818	7.35	6.87	.541	.859	37.2
84 9 4	.824	7.32	4.34	.468	.548	.248	.888	7.37	6.84	.438	.871	48.1
84 9 12	.843	7.19	4.18	.488	.688	.318	.818	7.75	6.42	.518	.869	48.4
84 9 18	.869	7.22	4.88	.548	.588	.238	.886	8.28	6.18	.422	.871	38.5
84 9 26	.288	7.17	4.58	.458	.578	.368	.812	7.24	5.66	.426	.888	42.4
84 9 27	.263	7.88	4.47	.468	.578	.268	.831	7.82	5.49	.383	.838	38.5
84 10 4	.255	6.83	4.69	.498	.578	.328	.819	6.98	5.47	.362	.863	39.7
84 10 18	.125	6.98	4.72	.478	.588	.248	.845	8.18	5.76	.332	.866	41.5
84 10 16	.889	6.84	4.63	.488	.688	.288	.835	8.37	5.86		.874	48.5
84 10 24	.115	6.91	5.28	.518	.628	.288	.843	8.48	5.61	.311	.862	46.8
84 11 1	.743	6.76	4.64	.588	.588	.278	.842	8.89	5.31	.364	.115	58.1
84 11 2	1.398	6.66	4.59	.498	.558	.258	.857	7.69	5.37	.377	.119	56.2
84 11 5	.425	6.73	4.76	.518	.568	.258	.855	7.28	5.82	.415	.129	44.8
84 11 7	.383	6.72	4.93	.528	.588	.248	.833	8.15	5.77	.388	.171	42.4
84 11 13	.195	6.63	4.94	.588	.588	.288	.839	8.86	5.76	.416	.183	35.2
84 11 21	.153	6.36	4.67	.498	.588	.288	.858	7.29	5.71	.368	.288	39.2
84 11 27	.131	6.25	4.37	.478	.578	.278	.858	6.66	5.69	.392	.252	38.8
84 12 4	.219	6.25	3.81	.448	.598	.228	.822	5.13	6.12	.428	.315	37.8
84 12 12	.149	6.26	4.15	.478	.528	.228	.833	5.63	5.88	.363	.341	37.9
84 12 19	.247	6.87	4.85	.478	.648	.218	.851	4.98	5.68	.441	.468	33.4
84 12 28	.212	6.88	4.76	.518	.588	.228	.825	6.75	5.85	.399	.457	42.2
85 1 9	.188	6.18	4.18	.498	.578	.228	.847	5.86	5.92	.299	.422	35.3
85 1 16	.873	6.38	4.89	.478	.758	.318	.858	6.88	6.18	.382	.415	41.2
85 1 28	.845	6.42	4.62	.528	.528	.228	.836	6.43	5.92		.365	37.9
85 2 7	.838	6.22	4.61	.488	.618	.198	.864	5.36	6.22	.478	.358	46.7
85 2 14	.843	6.83	4.68	.498	.798	.248	.869	6.69	5.46	.539	.359	43.6
85 2 28	.835	6.11	4.88	.488	.768	.288	.853	7.16	6.29	.363	.292	39.6
85 2 25	.843	6.85	4.87	.498	.748	.288	.859	8.84	5.78	.395	.315	45.3
85 2 28	.853	6.26	4.56	.498	.658	.298	.867	7.79	5.78	.488	.312	33.5
85 3 6	.835	6.78	4.81	.528	.648	.238	.891	7.71	5.94	.273	.344	42.8
85 3 11	.838	6.66	4.98	.518	.688	.238	.365	7.59	5.62	.444	.361	43.4
85 3 12	.858	6.67	4.56	.518	.688	.248	.859	7.85	5.65	.332	.321	39.8
85 3 14	.846	6.65	4.82	.528	.628	.288	.882	8.84	5.78	.357	.334	48.2
85 3 18	.838	6.68	4.77	.518	.598	.228	.858	7.45	5.68	.352	.369	45.2
85 3 28	.841	6.35	4.69	.528	.618		.836	7.85	5.53	.332	.394	33.9
85 3 21	.839	6.23	4.92	.518	.538	.218	.836	7.63	5.41	.317	.448	34.2
85 3 23	.842	6.44	4.76	.548	.518	.328	.837	7.55	5.48	.319	.486	34.8

DATE YR MO DY	STREAM DISCHARGE M3/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
85 3 25	.837	6.38	4.58	.538	.628	.278	.858	7.57	6.86	.355	.362	36.8
85 3 27	.875	6.24	4.57	.538	.628	.258	.897	7.28	5.95	.311	.439	35.3
85 3 28	.895	6.41	4.55	.588	.568	.228	.878	7.28	5.54	.298	.499	37.8
85 3 29	.114	6.28	3.94	.528	.538	.488		6.78	6.45	.324		34.5
85 3 30	.124	6.23	3.79	.538	.558	.278	.894	6.68	6.55	.393	.765	34.8
85 3 31	.148	6.48	4.61	.558	.558	.248	.889	6.96	5.78	.311	.874	35.6
85 4 1	.158	6.26	4.38	.558	.538	.268	.861	6.18	5.53	.356	.847	34.4
85 4 2	.154	6.24	4.28	.558	.518	.198	.157	6.15	5.84	.349	.778	32.8
85 4 3	.162	6.26	4.55	.548	.658	.388	.859	5.43	5.41	.319	.851	34.4
85 4 4	.168	6.25	4.77	.578	.628	.278	.857	6.18	5.32	.385	.869	35.6
85 4 5	.162	6.27	4.68	.578	.618	.388	.833	5.42	5.41	.369	.813	33.4
85 4 8	.141	6.35	5.98	.588	.688	.258	.845	6.17	5.47	.328	.776	34.3
85 4 9	.142	6.22	5.88	.518	.628	.258	.819	6.94	6.89	.181	.855	35.5
85 4 10	.127	6.23	4.97	.588	.618	.278	.884	6.37	6.16	.327	.758	35.4
85 4 11	.122	6.28	4.89	.498	.668	.318	.836	8.86	6.17	.372	.717	34.5
85 4 12	.116	6.36	5.84	.568	.588	.198	.892	6.87	5.12	.328	.729	34.7
85 4 13	.119	6.36	5.38	.588	.658	.198	.841	6.63	5.14	.334	.815	35.7
85 4 14	.147	6.29	4.71	.568	.578	.148	.846	6.58	5.99	.314	.737	35.8
85 4 15	.159	6.16	4.72	.548	.688	.168	.835	5.97	6.83	.342	.868	36.3
85 4 16	.215	6.27	4.37	.548	.558	.238	.848	6.21	7.27	.342	.858	35.3
85 4 17	.298	6.27	4.68	.548	.568	.218	.853	5.79	5.97	.383	.847	34.8
85 4 18	.333	6.13	4.41	.558	.688	.268	.843	5.32	7.41	.389	.858	34.4
85 4 19	.378	6.25	4.45	.538	.538	.248	.853	5.87	7.43	.484	.857	35.1
85 4 20	.576	6.18	2.55	.548	.488	.218	.878	5.33	6.11	.321	.887	34.5
85 4 21	1.966	6.84	2.54	.588	.498	.248	.886	5.54	5.88	.315	.798	34.5
85 4 22	2.388	6.12	2.38	.498	.468	.258	.888	5.68	5.41	.315	.794	32.6
85 4 23	2.384	6.83	3.79	.478	.588	.258	.868	4.38	6.48	.483	.734	38.2
85 4 24	2.831	6.83	3.32	.418	.468	.238	.866	3.71	5.97	.328	.785	26.8
85 4 25	2.115	5.98	3.42	.398	.458	.258	.845	3.94	5.75	.342	.721	26.6
85 4 26	1.388	6.86	3.32	.418	.458	.248	.842	3.89	5.53	.326	.694	25.2
85 4 29	.515	6.89	3.35	.398	.468	.268	.842	4.58	5.83	.248	.681	28.8
85 4 30	.461	6.35	3.42	.488	.468	.258	.846	5.82	5.11	.258	.666	32.6
85 5 2	.481	6.48	3.98	.458	.518	.228	.848	5.98	5.48	.228	.489	32.4
85 5 6	.398	6.56	3.84	.438	.478	.238	.854	5.89	5.11	.251	.558	35.3
85 5 8	.284	6.56	3.85	.458	.528	.238	.821	5.21	5.32	.271	.547	32.4
85 5 9	.257	6.74	4.85	.458	.598	.258	.831	6.91	5.47	.292	.547	33.6
85 5 14	.178	6.67	3.67	.478	.548	.298	.824	6.18	5.28	.378	.522	32.3
85 5 21	.124	7.85	3.69	.398	.488	.228	.812	6.47	5.16	.282	.512	31.2
85 5 28	.878	6.99	3.98	.438	.558	.228	.818	5.58	5.83	.298	.488	31.5
85 6 4	.154	7.18	3.94	.448	.588	.288	.543	6.18	5.87	.291	.569	32.2
85 6 18	.186	7.85	4.48	.448	.498	.218	.824	5.45	5.86	.387	.327	36.1
85 6 19	.887	6.77	4.55	.588	.558	.288	.856	6.21	5.26	.359	.389	32.1
85 6 25	.182	7.21	4.35	.518	.558	.218	.818	6.62	5.31	.278	.372	34.7
85 7 2	.868	6.95	4.39	.448	.558	.238	.818	6.82	5.84	.279	.313	35.3
85 7 9	.839	6.97	4.83	.468	.488	.218	.814	6.98	5.42	.298	.288	38.6
85 7 17	.823	7.87	4.78	.478	.528	.198	.888	7.12	5.55	.254	.252	32.6
85 7 24	.829	7.82	4.33	.468	.728	.248	.887	7.58	5.65	.368	.237	31.6
85 7 29	.824	7.16	4.35	.468	.588	.218	.889	7.29	5.16	.387	.285	32.3
85 8 7	.832	7.88	4.59	.538	.478	.268	.814	7.22	5.28	.481	.244	32.6
85 8 14	.837	7.88	4.28	.468	.588	.188	.887	6.78	5.38	.388	.283	32.9
85 8 28	.825	7.34	4.43	.588	.688	.238	.883	8.38	5.41	.237	.191	31.6
85 8 27	.837	7.25	4.36	.448	.568	.218	.884	7.88	5.85	.294	.142	33.4
85 9 3	.183	7.12	4.38	.488	.448	.218	.888	7.96	6.84	.262	.175	32.8
85 9 18	.193	6.95	4.39	.588	.528	.198	.811	7.48	5.78	.255	.162	33.8
85 9 16	.883	6.93	4.47	.488	.578	.288	.888	7.63	5.26	.344	.112	33.2
85 9 23	.116	6.96	4.36	.488	.588	.168	.813	7.51	5.34	.273	.144	31.8
85 9 30	.163	6.91	4.56	.488	.578	.288	.833	8.75	5.71	.216	.166	32.7
85 10 8	.324	6.66	4.88	.588	.458	.188	.847	8.82	4.97	.384	.158	38.8
85 10 15	.183	6.81	4.43	.498	.518	.218	.832	7.47	5.59	.377	.151	34.2
85 10 22	.163	6.67	4.61	.498	.498	.188	.843	7.93	5.67	.316	.114	38.8
85 10 28	.178	6.62	4.44	.498	.518	.198	.817	8.83	5.64	.583	.149	29.7
85 11 5	.231	6.81	4.69	.588	.528	.288	.848	7.54	4.84	.285	.141	38.7
85 11 12	.158	6.77	5.84	.518	.538	.188	.817	8.15	5.47	.356	.162	32.8
85 11 19	.132	6.86	4.74	.528	.638	.198	.842	7.68	4.66	.314	.153	31.3

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
85 11 28	.157	6.68	4.36	.488	.548	.188	.831	6.48	5.64	.298	.252	29.7
85 12 5	.114	6.39	4.58	.498	.528	.168	.828	7.81	5.57	.362	.228	29.8
85 12 18	.884	6.54	4.45	.498	.588	.188	.836	6.76	5.73	.447	.288	31.4
85 12 16	.872	6.52	4.32	.498	.548	.288	.836	6.77	6.12	.343	.238	31.2
85 12 38		6.69	4.63	.498	.538	.198	.871	6.92	6.22	.331	.241	38.7
86 1 9	.831	6.68	4.76	.588	.578	.198	.837	7.35	5.89	.393	.256	32.1
86 1 13	.837	6.65	4.86	.588	.628	.178	.845	7.27	6.87	.313	.196	32.5
86 1 21	.834	6.58	5.22	.588	.548	.198	.872	8.59	6.12	.389	.278	34.3
86 1 29	.848	6.58	5.19	.518	.548	.178	.854	8.82	5.43	.392	.243	31.9
86 2 5	.822	6.64	4.93	.518	.538	.188	.859	7.92	5.73	.439	.248	31.9
86 2 18	.828	6.49	4.78	.518	.498	.188	.129	7.93	5.66	.258	.246	31.8
86 2 19	.818	6.51	4.92	.528	.548	.178	.859	8.85	5.42	.244	.263	31.1
86 2 26	.829	6.65	4.79	.518	.588	.168	.877	7.93	5.56	.298	.262	31.9
86 3 4		6.58	4.85	.538	.518	.178	.871	8.88	4.98	.253	.287	31.2
86 3 18	.835	6.65	4.96	.528	.598	.168	.868	8.87	5.44	.293	.222	31.1
86 3 28	.849	6.63	4.92	.548	.618	.188	.868	8.18	5.84	.382	.273	32.3
86 3 26	.858	6.32	4.74	.528	.658	.178	.878	7.99	4.75	.249	.289	32.7
86 3 28	.878	6.32	5.38	.548	.568	.178	.878	7.99	4.78	.257	.342	32.7
86 3 29	.882	6.48	4.72	.528	.548	.158	.872	7.63	4.92	.286	.396	32.8
86 3 31	.136	6.32	4.86	.528	.568	.168	.868	6.36	4.89	.213	.598	33.6
86 4 1	.188	6.24	4.83	.528	.528	.268	.858	6.34	5.67	.243	.784	31.5
86 4 2	.282	6.25	4.36	.538	.578	.188	.852	5.68	6.84	.252	.766	31.7
86 4 3	.387	6.38	4.45	.518	.528	.188	.855	5.53	4.84	.275	.783	31.6
86 4 4	.459	6.27	4.58	.538	.538	.198	.855	5.34	4.75	.276	.841	32.5
86 4 5	.458	6.22	4.66	.558	.558	.238	.869	5.84	4.71	.294	.849	32.5
86 4 6	.556	6.28	4.45	.528	.558	.188	.851	5.44	4.58	.298	.782	31.7
86 4 7	.581	6.25	4.48	.518	.538	.188	.843	5.26	4.74	.386	.764	31.3
86 4 8	.774	6.19	4.58	.538	.528	.138	.852	5.65	4.73	.263	.754	31.6
86 4 9	.725	6.19	4.41	.518	.588	.128	.851	5.43	4.67	.218	.723	31.3
86 4 18	.577	6.21	4.44	.518	.588	.128	.848	5.49	4.64	.234	.753	31.5
86 4 11	.454	6.21	4.45	.588	.548	.218	.839	5.48	4.91	.215	.775	31.3
86 4 12	.358	6.25	4.35	.528	.578	.228	.838	5.78	5.48	.314	.839	32.7
86 4 14	.314	6.24	4.69	.518	.558	.198	.858	5.55	4.98	.264	.796	32.1
86 4 15	.418	6.28	4.42	.498	.588	.288	.848	5.32	4.89	.267	.773	31.4
86 4 16	.582	6.29	4.21	.478	.588	.198	.879	5.63	4.42	.152	.648	28.9
86 4 17	.574	6.29	4.88	.478	.518	.188	.843	5.29	4.54	.295	.668	38.6
86 4 18	.696	6.26	3.89	.458	.478	.178	.855	4.45	4.42	.245	.638	29.8
86 4 19	.968	6.22	3.67	.428	.468	.178	.841	4.48	4.25	.249	.682	28.1
86 4 28	1.139	6.18	3.65	.418	.458	.178	.836	4.67	5.23	.244	.582	27.8
86 4 21	1.889	6.26	3.99	.448	.458	.188	.835	5.42	5.38	.216	.688	29.8
86 4 22	.748	6.21	3.83	.448	.458	.178	.851	4.75	5.17	.239	.573	28.1
86 4 23	.596	6.28	4.21	.418	.488	.178	.834	5.64	5.48	.185	.618	38.5
86 4 24	.457	6.44	3.82	.428	.468	.158	.838	5.22	5.88	.171	.564	28.3
86 4 25	.467	6.25	3.21	.358	.378	.128	.853	4.26	4.83	.178	.487	22.1
86 4 28	.827	6.14	4.84	.458	.538	.198	.834	5.98	3.95	.255	.418	28.3
86 4 38	.537	6.36	4.11	.468	.528	.288	.831	5.61		.327	.456	28.8
86 5 2	.394	6.28	4.11	.488	.538	.188	.828	5.57		.247	.478	28.3
86 5 5	.248	6.38	4.15	.428	.528	.198	.875	5.65	4.41	.231	.438	29.1
86 5 8	.177	6.51	4.68	.478	.538	.178	.829	6.16		.216	.464	29.1
86 5 13	.185	6.58	4.36	.478	.518	.168	.887	5.98		.558	.487	28.8
86 5 22	.869	6.73	4.69	.488	.558	.198	.851	6.78	5.76	.243	.362	29.1
86 5 27	.848	6.78	4.59	.518	.548	.198	.835	6.91		.269	.346	38.1

APPENDIX V

MAJOR ION CHEMISTRY AND INSTANTANEOUS DISCHARGE AT STREAM STATION S4

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
80 2 15		6.59	5.80	.680	.680	.280	.831	8.70	8.40	.380	.385	43.0
80 3 28		6.25							7.80			
80 4 18	1.720	6.12	3.11	.356	.733	.488		5.40	6.33	.380	.520	29.4
80 4 14	.785	6.87	3.71	.429	.574	.326		4.60	6.33	.380	.740	30.2
80 4 17	.392	6.87	4.47	.356	.562	.298	.876	4.85	6.30	.270	.670	30.0
80 4 22	.812	6.13	3.33	.387	.573	.288	.892	4.15	5.60	.270	.610	27.0
80 4 25	.728	5.95	3.89	.467	.558	.288	.829	5.55	5.75	.340	.490	28.6
80 4 30	.449	6.41	4.68	.483	.647	.269	.826	6.90	5.73	.330	.330	30.2
80 5 5	.249	6.55	4.68	.429	.654	.267	.888	7.55	5.86	.330	.384	32.8
80 5 8	.153	6.61	5.22	.392	.481	.223	.812	7.70	5.93	.310	.296	32.8
80 5 12	.283	6.66	5.44	.364	.464	.242	.832	7.80	5.75	.380	.296	32.8
80 5 20	.148	6.82	5.56	.383	.581	.261	.837	8.30	5.42	.330	.270	35.2
80 5 26	.871	7.81			.428	.288	.839		6.20	.310	.240	35.9
80 6 2	.185	6.95	4.78	.498	.458	.149			6.21	.290		34.4
80 6 9	.222	6.96	5.41	.428	.586		.889	9.85	5.95	.350	.280	34.0
80 6 16	.421	6.98		.478	.366	.275	.811	8.78	5.83	.510	.218	34.0
80 6 23	.188	7.21	5.22	.458	.358	.148	.888	8.78	5.78	.330	.198	34.2
80 7 2	.157	6.94		.358	.648	.253	.811	8.85	5.82	.340	.192	34.2
80 7 7	.128	7.84	5.41	.368	.899	.244	.887	9.18	6.18	.320	.164	34.2
80 7 14	.872	6.68						9.60	5.96	.368		35.5
80 7 21	.895	7.81	4.52		.488	.162		9.50	5.76	.358		35.0
80 7 28	.843	7.21	4.69	.334	.718	.188		9.68	5.88	.378		36.0
80 8 5	.841	7.15		.383	.298	.211	.884	18.88	6.95	.348		36.7
80 8 11	.848	6.93		.439	.484	.278		18.78	6.45	.398		36.2
80 8 18	.187	7.89		.288	.489	.143	.818	9.28	6.18	.328		33.6
80 8 25	.888	7.68		.334	.341	.146	.884	9.58	5.65	.388	.332	36.8
80 9 8	.845	7.18	4.55	.398	.788	.188	.887	9.88	6.83	.251		35.6
80 9 15	.874	7.88	5.82	.333	.568	.287	.815	9.68	6.32	.378		34.6
80 9 22	.489	6.77	5.41	.487	.498	.161	.888	9.15	6.35	.528		31.7
80 9 29		6.87						9.28				33.1
80 10 2			5.67	.497	.447		.812		5.85	.488		
80 10 6	.164	6.81		.581	.459		.828	9.65	5.85	.428	.115	33.5
80 10 8		7.85	5.65	.511	.478	.228	.887	9.58	5.85	.388	.268	31.3
80 10 14	.874	6.84	5.94	.331	.668	.186	.887	18.45	6.29		.896	34.5
80 10 16		6.98	6.13	.522	.558	.186	.811	9.75	6.38		.142	35.7
80 10 20	.133	6.92	5.78	.478	.688	.248	.818	9.58	6.68	.348	.898	33.7
80 10 23		6.69	5.74	.461	.638	.258	.812	11.75	6.57	.348	.119	32.4
80 10 28	.225	6.58	6.83	.498	.568	.248		9.25	6.78	.348	.548	33.1
80 10 29		6.65	6.18	.522	.638	.198		9.65	6.31	.318	.317	32.2
80 11 11	.199	6.49	5.85	.473	.698	.221	.889	9.88	6.55	.338	.197	40.2
80 11 13		6.44	5.74	.483	.623	.153	.844	9.85	6.63	.338		33.5
80 11 17	.168	6.59	5.98	.497	.449	.174	.885	8.95	6.85	.348	.281	48.8
80 11 19		6.52	5.89		.538	.148	.811	8.78	6.75	.358		45.7
80 12 3	.115	6.45	6.59	.748	.528	.198	.822	18.75	7.72	.348	.227	37.3
80 12 16	.133	6.28	6.22	.612	.675	.218	.854	9.95	6.88	.398	.285	45.4
80 12 29	.115	6.24	5.78	.588	.421	.834	.828	9.45	6.75	.378	.288	44.2
81 1 12	.888	6.42	5.52	.471	.419	.883	.828	8.45		.388	.275	39.8
81 1 14		6.41	5.64	.486		.131	.853	8.88	6.78	.428		41.6
81 1 28	.865	6.32	5.82	.481	.483	.899	.853	9.58		.388	.227	43.7
81 2 9	.867	6.45	5.76	.526	.571	.183	.888	9.68	6.82	.368		48.8
81 2 18		6.61	6.11	.518	.448	.126	.858	9.88	6.66	.368		48.6
81 2 23	.889	6.49	6.58	.617	.911	.236	.874	9.35	7.87	.338	.352	44.8
81 3 18	.122	6.38	6.83	.596		.218	.842	7.85	7.52	.298	.441	47.4
81 3 12			5.84	.588	.615	.236	.862	7.55	7.19	.288		45.8
81 3 27	.886	6.22	6.22	.593	.684	.236	.845	8.85	7.45	.348	.435	47.5
81 3 31	1.998	6.43	5.48	.661	.572	.258	.868	7.45	6.74	.348	.433	48.5
81 4 1	1.928	6.34	5.89	.537	.561	.338	.865	6.15	6.63	.428	.539	44.3
81 4 2	1.788	6.81	5.86	.522	.532	.328	.884	5.65	7.42	.448	.563	45.1
81 4 3	1.588	6.38	5.28	.541	.516	.398	.871	6.85	7.37	.358	.558	38.8
81 4 4	1.958	6.11	4.93	.588	.539	.314	.862	5.35	7.88	.488	.682	39.4
81 4 6		6.24	4.86	.586	.554	.292	.852	5.35	6.79	.398	.685	41.3
81 4 7	1.258	6.21	4.99	.512	.495	.383	.868	5.65	6.78	.368	.689	43.4
81 4 8	1.818	6.19	4.99	.582	.539	.288	.879	5.85	6.46	.488	.569	42.3
81 4 14	1.338	6.14	4.48	.438	.438	.318	.864	4.98	6.72	.368	.575	34.7

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
81 5 7	.695	7.81	5.40	.529	.658	.274	.815	8.25	6.58	.358	.288	43.2
81 5 21	.128	7.15	5.64	.588	.478	.258	< .818	9.88	5.76	.458	.219	46.1
81 6 3	.465	6.97	5.78	.498	.548	.238	.819	8.58			.229	44.8
81 6 17	1.518	6.87	5.88	.438	.528	.228	.814	7.98			.284	38.8
81 7 2	.381	7.19	4.89	.538	.498	.288	.823	7.98	6.64		.161	36.8
81 7 15	.864	7.24	5.22	.518	.528	.238	.811	8.38		.425	.135	41.6
81 7 29	.811	7.14	5.28	.528	.598	.228	.882	9.35			.897	42.4
81 8 12	.869	7.22	5.28	.558	.778	.348	.819	8.98	6.35	.348	.868	39.4
81 8 27	.812	7.89	5.44			.368	.834	9.48	6.18	.282	.874	41.2
81 9 29		7.25	5.64	.498	.498	.248	.825	9.88	6.61	.342	.882	41.2
81 10 16	.887	6.95	5.79	.518	.388	.258	.819	18.88	6.33	.483	.894	42.2
81 10 28		6.93	5.26	.488	.388	.248	.817	9.25	6.78	.442	.185	38.9
81 10 28	.165	6.98	6.11			.388	.811	9.45	4.98	.343	.137	39.3
81 11 11	.133	6.85	5.44	.468	.468	.228	< .818	9.95	5.19	.246	.191	48.1
81 12 16	.898	6.88		.788	.828	.488	.853	18.18	6.14	.242	.176	47.5
82 1 22	.866	6.78	5.89	.718	.728	.348	.847	9.98	6.36	.212	.189	45.1
82 2 24	.828	6.57	5.76	.621	.655	.332	.849	18.75	6.61	.351	.179	44.4
82 3 18	.825	6.71	5.84	.661		.323	.828	9.15	7.83		.213	
82 3 17	.881	6.62	5.73	.617	.918	.428	.842	18.55	7.16	.367	.216	45.8
82 3 18	.885	6.78	5.63	.572	.858	.488	.844	9.35	6.78	.365	.194	43.5
82 3 19	.888	6.71	5.56	.583	.878	.418	.855	11.65	6.78	.333	.222	44.2
82 3 23	.866	6.48	5.44	.581	.657	.384	.844	18.55	6.85	.298	.288	41.5
82 3 24	.875	6.69	5.47	.591	.786	.382	.849	9.28	6.65	.421	.289	48.9
82 3 26	.875	6.68	5.33	.581	.728	.385	.841	9.85	6.55	.319	.188	42.3
82 3 29	.868	6.78	5.58	.589	.592	.385	.844	9.85	6.76	.354	.238	42.5
82 3 38	.864	6.71	5.58	.636	.648	.388	.848	9.58	6.97	.348	.227	48.9
82 3 31	.123	6.75	5.63	.633	.648	.318	.857	8.88	7.86	.382	.271	42.5
82 4 1	.134	6.74	5.67	.638	.638	.311	.851	9.68	7.79	.583	.254	42.8
82 4 3	.268	6.52	5.71	.638	.658	.455	.851	7.58	7.36	.468	.437	44.8
82 4 4	.481	6.65	5.52	.688	.586	.384	.833	9.28	7.43	.226	.338	42.4
82 4 5	.416	6.69	5.41	.584	.583	.289	.837	8.25	7.32	.464	.333	42.8
82 4 6	.427	6.68	5.31	.568	.572	.288	.837	8.88	6.95	.321	.386	41.2
82 4 7	.398	6.69	5.34	.591	.575	.384	.832	8.38	6.98	.391	.329	41.8
82 4 13	.384	6.81	5.49	.681	.693	.411	.852	8.85	7.28	.488	.437	42.5
82 4 14	.276	6.82	5.54	.681	.676	.383	.844	7.98	6.91	.318	.429	42.3
82 4 15	.249	6.78	5.86	.591	.635	.285	.841	8.35	7.36	.332	.332	42.6
82 4 16	.232	6.65	5.45	.572	.648	.288	.848	7.68	7.27	.483	.368	43.2
82 4 17	.276	6.83	5.68	.583	.625	.387	.845	8.88	7.88	.488	.368	42.9
82 4 18	.325	6.78	5.34	.594	.738	.438	.858		7.54	.459	.425	42.9
82 4 19	.398	6.68	5.51	.567	.718	.488	.856	8.38	7.12	.324	.368	43.3
82 4 28	.425	6.64	5.58	.589	.715	.415	.844	8.85	7.13	.352	.415	43.7
82 4 21	.412	6.71	5.17	.464	.698	.385	.839	7.68	7.48	.313	.358	41.6
82 4 22	.414	6.69	5.38	.561	.698	.335	.848	7.38	7.48	.385	.368	48.2
82 4 25	.859	6.57	4.87	.511	.615	.364	.848	6.28	7.38	.334	.445	39.4
82 4 26	1.521	6.65	5.38	.538	.628	.183	.854	7.45	7.26	.437	.433	42.9
82 4 27	1.678	6.52	4.61	.481	.585	.368	.827		6.62	.481	.347	37.4
82 4 28	1.498	6.54	4.91	.548	.663	.392	.838	6.15	7.32	.234	.368	38.7
82 4 29	1.368	6.53	4.49	.518	.618	.384	.848	5.15	6.91	.292	.398	35.6
82 4 38	1.434	6.61	4.67	.538	.615	.357	.851	5.88	6.82	.314	.397	36.4
82 5 6	1.812	6.45	3.81	.488	.468	.261	.835	4.75	5.55	.288	.293	38.2
82 5 11	.984	6.65		.558	.625	.297		9.45	6.62		.211	41.5
82 5 17	.484	6.81		.521	.593	.287	.816	8.75	6.82	.338		48.1
82 6 2	.884	7.31	5.28	.554	.613	.255	< .818	8.75	6.94	.278	.135	38.9
82 6 18	.862	7.13	5.79	.498	.498	.228	.864	18.75				41.6
82 6 15	.862	7.27	5.41	.569	.681	.255	.884	9.58	6.68	.223	.128	42.8
82 6 22	.838	7.84	5.68	.498	.518	.228			6.75	.322	.148	42.1
82 7 1	.812	7.35	5.86	.588	.498	.248	< .818	9.58	6.75	.362	.861	41.7
82 7 7	.818	7.21	6.12	.538	.578	.258	.838	11.68	7.36	.468	.131	42.9
82 7 14	.852	7.24	5.88	.528	.478	.218	< .818	18.25	6.57	.413	.896	42.6
82 7 21	.845	7.48	6.88	.688	.628	.298	< .818	18.35	6.13	.378	.881	48.9
82 7 28	.818	7.34	6.89	.628	.638	.288	.818	18.48	7.84	.537	< .848	43.4
82 8 3	.817	7.22	6.58	.698	.718	.388	.879	12.68	6.51	.374	.864	44.2
82 8 18	.823	7.36	5.89	.618	.628	.288	< .818	8.75	6.88	.378	< .848	41.2
82 8 24	.818	7.37	6.41	.628	.628	.218	.818	13.68	6.48	.391	< .848	39.8

DATE YR MO DY	STREAM DISCHARGE MS/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
82 9 7	.898	7.33	5.91	.598	.568	.288	.883	13.18	5.97	.433	< .848	38.2
82 9 14		7.86	5.71	.621	.639	.342	.887	9.98	6.33	.395	< .848	36.2
82 9 28	.213	7.28	5.74	.628	.768	.418	< .818		5.74	.274	< .848	35.8
82 9 29	.162	7.27	5.71	.617	.631	.296	.884	9.68	5.91		< .848	36.7
82 10 4	.165	7.23	5.94	.623	.639	.384	.888	18.54	6.82	.464	< .848	36.2
82 10 7	.338	6.94			.658	.423	.883	9.56	6.44	.398	.842	36.7
82 10 14	.489	7.83	5.78	.638	.521	.338	.814	9.73	5.88	.779	.846	35.8
82 10 18	.368	7.87	5.73	.637	.571	.314	.814	9.27	6.41	.359	.865	35.8
82 10 27	.432	6.73	5.53	.586	.644	.322	.818	9.15	5.94	.427	.841	35.1
82 11 2	.222	6.98	5.56	.568	.548	.388	< .818	9.48	5.98	.263	.845	34.2
82 11 18	.234	6.75	5.56	.578	.548	.318	< .818	9.88	5.82	.328	.188	35.1
82 11 16	.631	6.78	5.46	.647	.576	.289	.888	11.45	6.85	.374	.137	35.9
82 11 24	.535	6.66	5.83	.668	.688	.358	.811	9.39	5.98	.383	.131	35.7
82 12 2	.228	6.61	5.94	.668	.698	.358	.815	8.89	5.99	.293	.133	35.4
82 12 8	.313	6.64	5.83	.648	.688	.348	.813	8.95	5.95	.495	.155	34.1
82 12 22	.194	6.53	5.24	.568	.468	.288	.821	7.93	6.22	.271	.177	33.8
82 12 29	.367	6.45	4.97	.568	.468	.288	.825	7.23	6.37	.218	.233	34.1
83 1 5	.298	6.55	4.94	.548	.458	.218	.819	7.48	6.41	.317	.251	33.6
83 1 13	.178	6.34	5.88	.548	.448	.228	.825	7.65	6.29	.276	.226	33.2
83 1 19	.113	6.53	5.12	.548	.448	.218	.828	7.46	6.42	.634	.246	33.2
83 1 25	.899	6.47	5.63	.628	.918	.518	.846	8.72	6.68	.597	.289	34.8
83 2 2	.882	6.48	5.46	.688	.868	.498	.838	8.88	6.33	.343	.243	35.5
83 2 9	.886	6.51	5.44		.678	.478	.831	9.37	6.17	.355	.214	36.3
83 2 16	.859	6.54	5.49	.628	.698	.448	.838	8.86	6.13	.445	.235	35.3
83 2 21	.866	6.54	5.63	.638	.788	.528	.846	8.58	6.41	.312	.231	36.6
83 2 23	.864	6.51	5.47	.628	.958	.428	.839	8.89	6.43	.489	.232	35.5
83 2 28	.859	6.47	5.48	.618	.798	.398	.867	7.73	6.28	.356	.238	35.9
83 3 2	.857	6.46	5.28	.688	.778	.388	.843		6.28	.291	.234	35.2
83 3 6	.857	6.56	5.35	.628		.328	.859	8.48	6.58	.524	.291	36.8
83 3 8	.121	6.38	5.52	.548	.828	.288	.118	8.73	6.57	.329	.417	36.7
83 3 9	.196	6.51	5.59	.628	.678	.348	.884	7.53	6.69	.449	.627	41.3
83 3 18	.387	6.48	5.38	.628	.778	.328	.126	7.82	6.35	.314	.365	35.4
83 3 11	.393	6.59	5.22	.628	1.888	.358	.114	7.36	6.33		.487	35.5
83 3 12	.393	6.58	4.99	.688	.778	.388	.867	7.56	6.17	.318	.479	34.8
83 3 13	.388	6.51	5.88	.688		.388	.872	7.32	6.11	.389	.458	38.4
83 3 14	.338	6.57	5.11	.618	.798	.388	.851		6.25	.311	.511	31.4
83 3 15	.322	6.57	5.81	.618	.838	.388	.841	7.86	6.63	.248	.517	34.8
83 3 16	.263	6.66	5.21	.688	.888	.328	.852	6.75	6.54	.387	.464	31.3
83 3 17	.252	6.55	5.19	.618	.778	.388	.857	6.32	6.57	.232	.477	32.5
83 3 18	.243	6.57	5.16	.688		.388	.853		6.59	.253	.584	32.7
83 3 21	.234	6.46	5.82	.688	.868	.338	.879	6.63	6.27	.342	.498	37.7
83 3 22	.223	6.59	5.16	.518		.278	.873		6.28	.321	.586	32.1
83 3 24	.175	6.48	5.88	.518	.798	.248	.863	6.54	6.46	.383	.552	35.8
83 3 28	.126	6.53	5.52	.548		.258	.858	6.98	6.53	.299	.537	35.9
83 3 31	.188	6.58	5.34	.528	.858	.278	.851	6.75	6.42	.318	.522	35.8
83 4 4	.188	6.58	5.59	.578		.268	.836	8.52	6.19	.383	.498	37.1
83 4 6	.187	6.64	5.64	.548	.948	.288	.833	8.21	6.37	.364	.518	39.3
83 4 7	.123	6.58	5.47	.548	.838	.278	.831	8.17	6.46	.298	.582	35.8
83 4 8	.127	6.59	5.58	.538	.838	.278	.831		6.89	.284	.582	38.5
83 4 9	.135	6.68	5.58	.548	.888	.398	.836	7.64	6.61	.319	.588	36.6
83 4 18	.144	6.58	5.61	.588	.888	.388	.831	7.57	6.56	.354	.526	35.9
83 4 11	.172	6.62	5.37	.548	.858	.498	.838	7.85	6.49	.388	.511	35.7
83 4 12	.198	6.59	5.37	.538	.858	.468	.836	6.94	6.48	.271	.585	36.4
83 4 13	.281	6.68	5.37	.518	.888	.238	.836	7.87	6.77	.351	.587	35.5
83 4 14	.577	6.33	4.28	.448	.658	.468	.827	4.37	5.94	.386	.683	29.8
83 4 15	1.475	6.54	4.58	.478	.758	.298	.823	6.42	6.21	.388	.588	38.7
83 4 16	1.624	6.57	4.57	.478		.298	.836	6.22	6.14	.384	.393	29.3
83 4 19	.783	6.33	4.67	.478	.698	.298	.825	6.23	6.19	.262	.477	33.8
83 4 28	.541	6.44	4.68	.468	.688	.298	.826	6.45	5.85	.186	.488	31.4
83 4 26	.386	6.52	4.82	.468	.738	.278	.818	6.66	5.83	.268	.419	33.2
83 4 29	.981	6.51	4.57	.478	.628	.268	.816	6.89	5.58	.239	.365	38.9
83 5 3	.814	6.52	5.17	.478	.638	.258	.812	7.64	5.39	.269	.242	32.2
83 5 5	.711	6.55	5.17	.498	.638	.288	.818	8.81	5.58	.464	.234	34.8
83 5 11	.288	6.58	5.26	.588	.678	.388	.881	8.65	5.58	.283	.284	35.9

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
83 5 17	.176	6.25	5.39	.500	.670	.290	.001	8.78	5.84	.277	.226	36.5
83 5 25	.488	7.01	5.42	.460	.590	.290	.021	8.44	6.67	.376	.167	36.4
83 5 31	.367	6.56	5.33	.460	.570	.270	.014	8.79	6.25	.229	.203	35.5
83 6 8	.359	7.05	5.47	.440	.590	.280	.028	8.30	5.94	.301	.167	34.2
83 6 14	.209	7.10	5.10	.490	.640	.310	.006	8.33	6.01	.298	.169	38.4
83 6 21		7.29	5.32	.500	.640	.290	.001	8.74			.135	36.3
83 6 27	.073	7.17		.490	.640	.350	.011	8.56	5.98	.337	.121	38.6
83 7 5	.074	7.32	5.13	.560	.550	.220	.008	9.02	5.00	.342	.073	37.2
83 7 14	.055	7.23	5.00	.480	.590	.300	.008	8.00	5.93	.358	.111	39.1
83 7 19	.052	7.12	5.01	.500	.630	.260	.019	10.50	6.02	.339	.074	41.1
83 7 27	.000	6.95	5.49	.540	.760	.270	.027	11.41	7.13	.395	.006	40.5
83 8 2	.051	7.21	4.82	.480	.680	.320	.008	9.00	6.20	.301	.063	37.3
83 8 10	.051	7.10	4.43	.490	.770	.360	.005	8.64	5.01	.348	.031	37.9
83 8 16	.003	7.14	4.79	.510	.930	.320	.016	11.12	5.94	.526		41.0
83 8 24	.002	7.12	5.21	.490	.670	.290	.018	9.73	5.05	.295	.050	35.8
83 8 30	.000	6.93	5.98	.660	.020	.340	.009		7.54	.429	.008	42.3
83 9 6	.023	7.09	5.99	.580	.030	.290	.028	10.33	7.93	.388	.113	42.6
83 9 13	.041	7.06	4.03	.510	.580	.240	.033	8.79	5.93	.466	.036	37.5
83 9 21	.069	6.63	5.49	.480	.650	.280	.015	8.98	8.23	.445	.026	39.0
83 9 27	.070	6.95	5.20	.500	.640	.270	.011	9.91	6.60	.290	.009	38.6
83 10 5	.111	7.13	5.09	.470	.650	.320		9.64				38.2
83 10 11	.106	7.00	5.00	.540	.650	.370		8.81				38.4
83 10 19	.406	7.02	5.04	.400	.640	.020		10.01				35.7
83 10 24	.235	7.01	5.10	.400	.660	.310		9.11				38.1
83 11 2	.177	6.04	5.12	.460	.700	.400	.026	9.58	6.33	.354	.004	35.7
83 11 9	.118	6.79	5.44	.500	.690	.330	.000	9.18	5.70	.361	.103	36.7
83 11 14	.119	6.75	5.56	.510	.660	.340	.001	9.10	5.66	.435	.137	37.2
83 11 22	.465	6.60	5.23	.490	.690	.300	.004	8.45	6.10	.400	.206	36.8
83 11 29	.401	6.56	5.30	.400	.690	.340	.014	8.97	5.07	.368	.170	35.9
83 12 7	.193	6.62	5.23	.500	.680	.390	.019	9.04	5.75	.333	.100	36.2
83 12 12	.220	6.58	5.21	.490	.620	.430	.073	8.53	5.63	.370	.100	34.8
84 1 12	.098	6.50	4.92	.510	.530	.230	.020	8.53	5.67	.377	.172	37.7
84 1 17	.087	6.51	4.88	.500	.530	.200	.050	8.70	5.00	.566	.153	37.4
84 2 2	.065	6.41	5.27	.530	.600	.200	.052	9.32	5.93	.321	.192	38.0
84 2 8	.079	6.44	5.01	.480	.460	.210	.027	8.83	5.75	.341	.170	39.5
84 2 14	.086	6.42	5.06	.510	.530	.210	.031	8.47	5.99	.420	.242	36.8
84 2 15	.089	6.36	5.36	.540	.500	.210	.037	8.75	5.97	.495	.220	36.9
84 2 16	.075	6.46	5.40	.500	.570	.180	.044	8.53	5.94	.464	.229	37.4
84 2 17	.092	6.50	5.24	.520	.560	.210	.030	8.57	5.93	.412	.232	36.9
84 2 20	.113	6.44	5.11	.530	.510	.180	.085	8.40	5.06	.360	.279	37.0
84 2 21	.117	6.52	4.48	.530	.590	.200	.008	8.51	5.00	.281	.276	37.8
84 2 22	.118	6.49	5.33	.530	.540	.200	.072	8.65	6.00	.401	.273	37.1
84 2 23	.120	6.44	5.00	.500	.550	.180	.070	8.04	5.99	.373	.277	37.4
84 2 24	.123	6.27	5.00	.510	.610	.200	.052	9.14	6.01	.324	.320	37.0
84 2 27	.117	6.40	4.30	.520	.610	.190	.032	7.79	5.96	.407	.344	37.5
84 2 29	.098	6.52	5.33	.530	.500	.180	.031	7.61	6.07	.370	.339	40.7
84 3 2	.109	6.32	5.64	.500	.660	.190	.020	7.03	6.20	.403	.307	40.1
84 3 5	.094	6.43	5.40	.490	.600	.200	.044	7.50	5.01	.202	.329	38.1
84 3 8	.105	6.54	5.63	.600	.500	.180	.020	8.33	6.13	.200	.418	41.0
84 3 13	.090	6.42	5.22	.560	.700	.220	.035	8.79	6.33	.407	.398	42.6
84 3 15	.005	6.35	4.73	.540	.600	.160	.031	8.52	6.25	.440	.434	40.2
84 3 20	.004	6.43	5.39	.570	.650	.210	.033	8.61	6.21	.315	.376	41.6
84 3 21	.000	6.42	5.99	.500	.600	.240	.077	0.53	6.07	.272	.420	41.9
84 3 23	.113	6.46	5.49	.560	.590	.180	.016	8.50	6.10	.493	.358	38.5
84 3 26	.109	6.40	6.01	.600	.590	.210	.050	8.12	6.30	.350	.302	43.0
84 3 27	.097	6.66	6.01	.500	.570	.140	.022	8.20	6.50	.314	.406	38.7
84 3 28	.092	6.65	6.24	.590	.630	.140	.024	7.03	6.51	.326	.402	39.9
84 3 29	.098	6.40	5.74	.600	.650	.320	.034	0.26	6.51	.432	.474	42.1
84 3 30	.091	6.65	5.60	.600	.620	.300	.042	8.65	6.46	.435	.473	39.3
84 4 1	.099	6.64	5.54	.500	.630	.260	.005	8.57	6.53	.250	.447	41.1
84 4 2	.095	6.61	5.70	.620	.650	.340	.020	8.46	6.70	.330	.466	41.3
84 4 3	.105	6.65	5.60	.500	.630	.340	.043	8.56	6.74	.319	.476	39.9
84 4 4	.095	6.50	5.36	.570	.600	.400	.002	8.54	6.07	.435	.464	42.0
84 4 5	.124	6.59	5.72	.600	.670	.240	.010	7.95	6.41	.300	.624	40.6

DATE YR MO DV	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
84 4 6	.134	6.56	5.74	.598	.638	.228	.899	8.48	6.83	.378	.478	42.2
84 4 7	.175	6.63	5.42	.668	.648	.348	.868	8.82	6.45	.361	.591	37.3
84 4 8	.185	6.61	5.53	.588	.728	.268	.849	7.96	6.58	.335	.581	48.4
84 4 9	.258	6.68	5.66	.578	.648	.278	.872	8.26	6.15	.312	.491	48.8
84 4 10	.278	6.57	5.43	.568	.788	.288	.833	9.91	6.28	.228	.642	48.8
84 4 11	.377	6.63	5.78	.548	.728	.288	.828	8.18	6.12	.219	.538	39.5
84 4 12	.463	6.62	5.78	.568	.748	.328	.831	7.71	6.88	.224	.582	38.9
84 4 13	.745	6.59	5.26	.538	.788	.388	.829	7.77	6.83	.268	.449	37.8
84 4 14	.948	6.57	4.88	.548	.588	.988	.828	6.64	5.87	.187	.637	34.7
84 4 15	1.164	6.52	4.48	.588	.568	.488	.824	5.75	5.38	.288	.699	32.7
84 4 16	1.596	6.54	4.58	.498	.688	.198	.837	5.79	5.12	.383	.528	32.9
84 4 17	1.538	6.56	4.36	.498	.618	.248	.824	5.76	5.17	.331	.569	32.5
84 4 18	1.218	6.51	4.43	.488	.768	.478	.827	5.86	5.88	.517	.593	31.8
84 4 24	.718	6.58	4.16	.448	.558	.218	.818	7.11	4.75	.291	.367	38.2
84 4 26	.616	6.64	4.68	.478	.518	.288	.818	7.88	4.66	.344	.278	36.5
84 4 30	.559	6.69	5.12	.488	.568	.318	.885	8.53	5.32	.341	.242	37.8
84 5 1	.788	6.88	5.18	.488	.548	.318	.883	8.13	5.38	.418	.278	36.4
84 5 2	.676	6.79	5.87	.588	.648	.318	.888	8.64	5.26	.448	.265	37.4
84 5 3	.638	6.88	4.59	.588	.838	.328	.887	8.73	5.17	.654	.256	37.3
84 5 8	.455	6.87	5.89	.478	.478	.238	.815	8.44	5.35	.728	.318	38.7
84 5 18	.436	6.96	4.84	.468	.478	.238	.886	8.55	5.26	.475	.338	38.8
84 5 14	.311	7.85	4.72	.478	.568	.238	.882	8.23	5.48	.343	.613	36.4
84 5 16	.251	7.82	4.63	.468	.568	.218	.815	8.51	5.54	.349	.285	48.5
84 5 22	.165	7.15	5.48	.498	.718	.288	.888	8.78	5.27	.479	.257	38.7
84 5 30	.188	7.22	5.59	.588	.518	.118	.194	8.65	5.98	.319	.252	38.9
84 6 6	.865	7.27	5.43	.518	.578	.288	.822	9.18	5.83	.326	.274	41.1
84 6 13	.871	7.38	5.62	.558	.598	.218	.818	9.39	5.27	.398	.282	45.8
84 6 19	.855	7.33	5.86	.538	.628	.258	.889	8.91	5.33	.388	.184	48.2
84 6 27	.868	7.18	5.49	.528	.558	.148	.888	9.69	5.91	.292	.151	41.5
84 7 3	.856	7.11	5.18	.588	.778	.288	.883	9.53	6.26	.257	.158	42.1
84 7 11	.844	7.16	5.58	.528	.588	.268	.811	9.58	6.21	.428	.141	46.1
84 7 17	.882	7.12	5.56	.558	.568	.218	.813	9.53	5.49	.327	.126	35.8
84 7 25	.856	7.23	5.42	.518	.568	.288	.843	9.37	5.96	.334	.121	41.7
84 7 31	.849	7.32	5.58	.568	.578	.188	.887	10.22	5.97	.384	.896	38.8
84 8 9	.858	7.26	5.66	.588	.638	.278	.816	9.17	5.69	.588	.185	46.3
84 8 13	.844	7.29	5.74	.568	.618	.288	.815	9.29	5.98	.546	.884	41.6
84 8 21	.818	7.24	6.84	.578	.748	.388	.817	12.45	6.86	.687	.849	41.9
84 8 29	.858	7.47	5.64	.568	.648	.318	.821	18.62	6.81	.548	.855	41.8
84 9 4	.838	7.34	5.67	.588	.588	.328	.812	18.48	6.13	.458	.862	43.4
84 9 12	.863	7.22	5.56	.488	.598	.278	.825	9.27	6.23	.468	.868	45.6
84 9 18	.888	7.28	4.56	.688	.648	.258	.889	9.15	6.15	.393	.875	48.8
84 9 26	.272	7.26	5.34	.458	.568	.418	.811	11.33	5.75	.469	.898	45.2
84 9 27	.298	7.15	5.11	.468	.568	.988	.817	8.36	5.58	.361	.847	41.6
84 10 4	.289	7.82	5.26	.488	.698	.328	.815	8.66	5.68	.352	.865	43.9
84 10 18	.288	7.11	5.26	.488	.628	.288	.841	15.84	5.98	.346	.873	42.7
84 10 16	.146	6.97	5.27	.478	.688	.278	.813	9.87	5.91	.398	.872	51.7
84 10 24	.171	7.11	5.46	.528	.638	.288	.844	18.12	5.74	.288	.872	51.4
84 11 1	1.187	6.84	4.98	.468	.558	.368	.811	7.72	5.46	.355	.164	51.9
84 11 2	1.688	6.88	4.88	.478	.518	.268	.824	8.93	5.58	.381	.141	58.6
84 11 5	.824	6.43	5.47	.588	.578	.228	.825	9.12	5.88	.287	.162	45.1
84 11 7	.592	6.79	5.46	.588	.578	.228	.832	9.58	5.77	.364	.188	43.8
84 11 13	.347	6.62	5.36	.478	.568	.278	.817	18.64	5.74	.372	.188	36.9
84 11 21	.267	6.45	5.51	.498	.558	.238	.823	9.84	5.64	.282	.187	48.6
84 11 27	.238	6.41	5.12	.478	.568	.248	.834	9.48	5.45	.344	.213	39.8
84 12 4	.397	6.32	5.84	.458	.678	.238	.814	9.89	6.81	.583	.188	41.1
84 12 12	.258	6.33	5.22	.588	.558	.238	.827	7.84	5.95	.343	.355	42.7
84 12 19	.328	6.17	4.93	.588	.778	.238	.127	7.56	5.58	.645	.337	42.3
84 12 28	.388	6.15	5.17	.588	.688	.238	.831	7.99	5.68	.373	.358	42.9
85 1 9	.188	6.42	4.77	.498	.658	.228	.855	7.47	5.96	.385	.358	48.4
85 1 16	.129	6.34	4.82	.488	.659	.292	.851	7.47	6.18	.248	.344	39.5
85 1 28	.885	6.45	5.36	.518	.798	.268	.833	8.12	5.87	.589	.318	42.4
85 2 7	.868	6.24	5.19	.478	.858	.188	.834	7.98	6.83	.266	.288	49.3
85 2 14	.875	6.17	5.33	.468	.688	.258	.831	8.63	5.33	.287	.278	45.8
85 2 28	.875	6.19	5.37	.468	.928	.288	.828	8.58	6.24	.387	.269	45.5

DATE YR MO DY	STREAM DISCHARGE MG/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
85 2 25	.885	6.18	5.25	.470	.710	.180	.837	8.57	5.70	.315	.289	44.8
85 2 28	.883	6.29	5.40	.510	.660	.300	.839	9.86	5.80	.333	.312	36.5
85 3 6	.876	6.75	4.99	.500	.640	.240	.871	8.85	5.93	.251	.286	42.8
85 3 11	.881	6.71	5.50	.490	.570	.220	.862	8.84	5.61	.444	.294	41.8
85 3 12	.889	6.72	5.38	.520	.660	.290	.185	8.86	5.82	.385	.332	49.2
85 3 14	.887	6.69	5.36	.510	.610	.210	.836	8.96	5.71	.344	.387	48.0
85 3 18	.878	6.64	5.14	.500	.570	.210	.841	8.82	5.66	.331	.303	46.3
85 3 20	.875	6.51	5.38	.540	.650	.250	.821	9.45	5.67	.372	.344	37.2
85 3 21	.871	6.34	5.32	.490	.490	.230	.831	8.38	5.47	.327	.312	34.2
85 3 23	.865	6.44	5.44	.530	.490	.230	.820	8.41	5.43	.281	.321	34.8
85 3 25	.859	6.43	6.52	.550	.610	.190	.826	8.71	6.14	.356	.295	37.9
85 3 27	.888	6.26	4.51	.500	.520	.260	.889	8.20	6.84	.293	.485	38.1
85 3 28	.118	6.37	4.68	.480	.510	.220	.867	7.98	5.45	.278	.488	37.3
85 3 29	.136	6.29	4.38	.510	.520	.200	.854	8.18	6.39	.345	.434	36.2
85 3 30	.151	6.34	4.17	.500	.540	.230	.852	8.67	6.43	.397	.422	35.9
85 3 31	.166	6.42	5.00	.540	.580	.240	.856	8.79	5.57	.338	.580	37.0
85 4 1	.186	6.36	4.90	.510	.580	.240	.866	8.72	5.35	.357	.421	35.9
85 4 2	.187	6.34	4.78	.540	.580	.180	.862	8.57	5.72	.328	.438	35.1
85 4 3	.286	6.38	5.08	.530	.680	.270	.844	7.17	5.28	.383	.492	35.3
85 4 4	.283	6.34	5.19	.560	.610	.270	.854	7.28	5.22	.324	.626	36.4
85 4 5	.283	6.33	5.24	.550	.650	.310	.856	7.53	5.27	.382	.523	34.8
85 4 8	.215	6.48	4.98	.490	.530	.220	.841	8.85	5.33	.329	.595	35.1
85 4 9	.288	6.27	5.34	.460	.610	.260	.825	7.57	6.86	.287	.725	35.7
85 4 10	.285	6.29	5.18	.480	.570	.240	.830	8.86	6.87	.289	.526	36.3
85 4 11	.198	6.26	5.18	.480	.620	.280	.857	7.46	6.18	.489	.622	35.2
85 4 12	.187	6.48	5.38	.540	.560	.180	.825	6.76	4.97	.371	.632	36.1
85 4 13	.199	6.32	5.68	.570	.630	.190	.825	7.73	4.98	.343	.691	35.5
85 4 14	.262	6.31	5.81	.540	.550	.150	.839	7.49	5.94	.387	.578	36.3
85 4 15	.268	6.32	5.18	.570	.560	.180	.826	7.22	5.93	.353	.633	37.8
85 4 16	.387	6.35	4.81	.520	.580	.260	.838	7.44	7.23	.332	.633	38.1
85 4 17	.344	6.33	5.45	.550	.550	.230	.849	7.28	5.99	.325	.636	37.6
85 4 18	.398	6.27	5.82	.550	.590	.230	.841	7.38	7.58	.486	.636	36.7
85 4 19	.488	6.35	4.94	.530	.530	.240	.838	7.78	7.42	.395	.633	38.2
85 4 20	.637	6.31	3.83	.560	.580	.280	.846	6.98	6.11	.363	.713	37.6
85 4 21	1.885	6.23	2.71	.540	.640	.278	.848	5.78	5.89	.411	.840	36.2
85 4 22	2.911	6.28	2.66	.580	.470	.318	.858	5.92	5.46	.312	.787	33.5
85 4 23	3.158	6.24	4.24	.490	.518	.288	.868	5.92	6.83	.489	.638	33.6
85 4 24	3.877	6.19	4.15	.468	.548	.228	.871	5.27	7.81	.349	.677	31.8
85 4 25	3.589	6.13	4.83	.448	.548	.248	.851	4.74	6.52	.366	.668	38.8
85 4 26	2.688	6.28	4.25	.498	.548	.238	.848	5.89	6.68	.355	.617	31.4
85 4 29	.944	6.22	4.19	.418	.478	.258	.838	6.38	5.49	.255	.529	32.6
85 4 30	.831	6.43	4.31	.418	.518	.248	.847	5.89	5.45	.275	.682	34.2
85 5 2	.647	6.68	4.71	.448	.458	.288	.816	7.55	5.56	.229	.488	35.9
85 5 6	.561	6.88	4.76	.458	.528	.218	.822	8.81	5.64	.256	.349	37.5
85 5 8	.453	6.78	4.94	.478	.458	.288	.883	7.68	5.83	.268	.378	37.8
85 5 9	.428	6.68	4.79	.478	.688	.258	.828	8.12	5.84	.335	.375	39.3
85 5 14	.313	6.74	4.48	.488	.548	.258	.886	8.28	5.51	.383	.356	35.8
85 5 21	.287	7.18	4.69	.418	.498	.198	.889	8.58	5.47	.212	.346	37.8
85 5 28	.143	7.88	4.98	.458	.588	.218	.831	8.35	5.38	.311	.338	37.7
85 6 4	.286	7.18	5.18	.478	.558	.198	.535	8.29	5.21	.387	.558	36.3
85 6 18	.168	7.13	5.14	.468	.548	.288	.813	8.29	5.29	.333	.236	48.4
85 6 19	.145	7.88	5.46	.528	.498	.148	.889	9.87	5.48	.262	.298	35.5
85 6 25	.163	7.25	5.47	.488	.528	.168	.887	9.41	5.52	.278	.284	39.9
85 7 2	.188	7.26	5.53	.478	.458	.228	.886	11.24	6.88	.318	.261	42.6
85 7 9	.859	7.89	5.81	.588	.588	.218	.889	8.65	5.55	.314	.248	41.7
85 7 17	.838	6.96	5.66	.588	.548	.218	.822	18.84	5.76	.371	.285	37.7
85 7 24	.845	7.81	5.53	.528	.578	.288	.885	9.82	5.71	.348	.185	36.9
85 7 29	.858	7.85	5.42	.588	.638	.248	.811	9.96	5.25	.438	.235	37.2
85 8 7	.848	6.95	5.67	.498	.518	.248	.818	18.34	5.54	.318	.218	39.8
85 8 14	.857	7.15	5.49	.588	.558	.178	.815	9.93	5.38	.294	.178	38.5
85 8 28	.841	7.12	5.57	.528	.618	.228	.824	9.67	5.38	.246	.226	38.2
85 8 27	.872	7.28	5.53	.468	.528	.178	.885	9.15	5.92	.322	.126	37.8
85 9 3	.111	7.87	5.43	.528	.478	.248	.883	9.66	6.16	.317	.162	38.4
85 9 18	.338	6.82	5.15	.498	.598	.218	.886	9.48	5.86	.258	.164	38.3

DATE	STREAM	PH	CA	MG	NA	K	NH4	ALK	SO4	CL	NO3	COND
VR MO DV	DISCHARGE		MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	MG/L	US/CM
	FS/SEC						N	CAC03			N	25 C
85 9 16	.163	7.86	5.39	.490	.570	.210	.000	10.13	5.21	.302	.121	38.6
85 9 23	.161	7.10	5.23	.480	.680	.180	.013	9.28	5.35	.425	.164	36.2
85 9 30	.239	6.95	5.24	.480	.620	.250	.011	9.18	5.86	.241	.000	36.7
85 10 8	.496	6.89	5.32	.490	.450	.200	.025	8.75	5.03	.275	.177	32.5
85 10 15	.301	6.97	5.41	.490	.330	.150	.015	9.75	5.65	.347	.190	36.5
85 10 22	.254	6.73	5.10	.470	.450	.190	.025	10.49	5.72	.269	.162	33.0
85 10 28	.254	6.93	5.14	.470	.410	.180	.000	9.96	5.50	.449	.195	32.5
85 11 5	.318	6.89	5.25	.480	.530	.220	.011	9.61	4.87	.182	.160	33.9
85 11 12	.259	6.81	5.29	.500	.530	.190	.044	9.20	5.41	.332	.159	33.3
85 11 19	.233	6.75	5.32	.500	.500	.200	.023	8.93	4.60	.298	.247	33.3
85 11 28	.228	6.71	5.36	.510	.540	.240	.012	9.45	5.35	.292	.245	33.6
85 12 4	.209	6.55	5.55	.480	.580	.200	.006	5.43	5.43	.360	.245	35.1
85 12 10	.140	6.60	5.29	.520	.630	.220	.023	9.23	5.63	.464	.270	35.6
85 12 16	.142	6.62	5.17	.490	.540	.220	.019	8.42	6.08	.340	.236	34.3
85 12 30		6.75	5.58	.530	.540	.230	.056	9.18	6.32	.339	.258	36.2
86 1 8	.090	6.54	5.62	.520	.570	.190	.032	9.83	5.94	.331	.331	32.5
86 1 13	.093	6.53	5.25	.470	.590	.190	.037	9.19	5.75	.328	.233	31.8
86 1 21	.059	6.58	5.30	.520	.550	.160	.044	9.41	6.17	.340	.271	35.3
86 1 29	.073	6.58	5.44	.510	.510	.200	.026	8.96	5.38	.332	.263	34.1
86 2 5	.065	6.64	5.56	.490	.450	.200	.003	8.96	5.75	.448	.266	35.2
86 2 10	.057	6.60	5.60	.540	.570	.220	.037	10.02	5.82	.303	.291	34.2
86 2 19	.048	6.55	5.49	.500	.550	.190	.062	9.11	5.43	.231	.259	33.5
86 2 26	.051	6.66	5.22	.500	.500	.200	.077	8.71	5.55	.300	.275	34.4
86 3 4		6.50	5.65	.550	.560	.200	.033	9.93	4.99	.297	.306	34.8
86 3 10	.061	6.60	5.28	.520	.540	.180	.015	9.10	5.44	.294	.244	33.0
86 3 20	.098	6.62	5.52	.510	.500	.220	.012	8.58	4.75	.283	.281	33.0
86 3 26	.095	6.35	5.58	.520	.570	.170	.035	9.54	4.85	.224	.300	35.9
86 3 28	.099	6.36	5.58	.500	.620	.170	.032	8.58	4.71	.255	.200	33.1
86 3 29		6.35	5.44	.500	.610	.180	.041	8.96	4.79	.279	.202	33.7
86 3 31		6.40	5.47	.520	.610	.160	.075	8.96	4.93	.258	.326	37.8
86 4 1	.206	6.34	5.44	.530	.640	.200	.054	9.05	5.75	.308	.376	34.8
86 4 2	.269	6.36	5.56	.560	.600	.200	.057	8.90	5.19	.288	.351	36.4
86 4 3	.379	6.43	5.30	.540	.610	.180	.003	8.12	5.29	.285	.500	36.1
86 4 4	.485	6.30	5.11	.550	.560	.180	.062	7.38	4.69	.293	.685	35.2
86 4 5		6.34	5.12	.560	.570	.200	.063	7.39	4.58	.268	.760	34.3
86 4 6	.653	6.31	5.00	.540	.540	.190	.037	6.67	4.63	.270	.785	34.8
86 4 7	.024	6.26	4.94	.530	.530	.170	.041	6.77	4.71	.276	.679	33.4
86 4 8	1.020	6.24	4.80	.530	.530	.180	.033	6.44	4.67	.273	.769	33.4
86 4 9	1.029	6.32	4.90	.490	.480	.130	.041	6.77	4.66	.246	.647	34.4
86 4 10	.962	6.30	4.86	.530	.530	.130	.043	7.02	4.55	.175	.632	34.0
86 4 11	.749	6.27	4.70	.510	.540	.220	.036	6.76	5.84	.236	.661	33.6
86 4 12		6.30	5.19	.520	.560	.220	.034	7.16	5.10	.238	.682	34.1
86 4 14	.542	6.34	5.21	.520	.570	.220	.044	7.18	5.08	.203	.625	34.7
86 4 15	.505	6.34	5.40	.520	.560	.220	.054	7.89	5.13	.310	.541	35.4
86 4 16	.674	6.39	5.15	.510	.560	.220	.046	7.94	4.88	.188	.560	33.3
86 4 17	.734	6.29	4.70	.500	.530	.210	.052	7.12	4.81	.349	.586	34.0
86 4 18	.078	6.30	4.31	.460	.470	.180	.060	6.16	4.59	.254	.624	32.1
86 4 19		6.32	4.42	.460	.480	.200	.034	5.72	4.46	.267	.670	30.8
86 4 20	1.360	6.25	4.41	.450	.470	.190	.037	5.82	5.37	.239	.618	30.0
86 4 21	1.437	6.25	4.89	.440	.460	.180	.035	5.75	5.33	.201	.607	30.3
86 4 22	1.205	6.24	4.89	.440	.470	.170	.040	4.84	5.01	.273	.591	29.4
86 4 23	.969	6.40	4.49	.440	.480	.180	.029	6.43	5.42	.186	.557	31.5
86 4 24	.770	6.52	4.50	.460	.490	.170	.035	6.36	5.53	.200	.576	32.6
86 4 25		6.37	4.56	.450	.500	.180	.008	6.29	4.54	.219	.572	39.9
86 4 28	1.159	6.28	4.81	.460	.540	.220	.012	8.23		.256	.330	32.6
86 4 30	.019	6.28	5.15	.470	.530	.210	.007	8.11		.220	.332	32.8
86 5 2	.647	6.28	5.34	.490	.540	.210	.007	8.06		.243	.339	32.7
86 5 5	.422	6.22	5.14	.470	.540	.210	.000	7.44	5.91	.246	.343	33.5
86 5 8	.208	6.44	5.61	.500	.560	.190	.005	8.64		.234	.356	34.1
86 5 13	.109	6.53	5.51	.490	.560	.170	.040	8.59		.524	.317	32.9
86 5 20		6.56	5.54	.490	.540	.200	.050	8.21	5.89	.277	.293	33.1
86 5 21		6.73	5.51	.500	.500	.200	.109	8.22	5.90	.286	.284	33.7
86 5 22	.109	6.88	5.53	.470	.550	.200	.019	8.24		.258	.280	33.7
86 5 26		6.02	5.66	.500	.550	.210	.040	9.59		.282	.275	35.6

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
86 5 27	.888	6.81	5.57	.518	.558	.288	.845	9.88		.283	.258	33.4
86 5 28		6.82	5.45	.518	.688	.268	.848	8.67	5.95	.358	.272	34.3
86 5 29		6.72	5.57	.518	.688	.248	.836	18.82	5.94	.344	.265	35.6

APPENDIX VI

MAJOR ION CHEMISTRY AT STREAM STATION S4a

DATE YR MO DY	STREAM DISCHARGE MS/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
85 9 30	.035	7.06	6.31	.520	.600	.290	.013	11.45	6.22	.357	.116	41.4
85 10 8	.033	6.98	6.64	.540	.460	.240	.042	11.86	5.29	.395	.175	38.1
85 10 22	.014	6.84	6.82	.570	.600	.180	.043	12.78	6.39	.314	.228	42.6
85 10 28	.013	6.98	6.63	.540	.480	.170	.000	12.58	6.08	.534	.255	39.2
85 11 12	.013	6.99	6.82	.540	.600	.120	.012	12.54	5.91	.305	.287	40.9
85 11 19	.030	6.97	5.95	.500	.600	.200	.014	11.11	4.96	.314	.286	34.9
85 11 28	.012	6.88	6.75	.530	.580	.170	.023	11.88	5.90	.245	.329	39.3
85 12 5	.010	6.51	6.78	.530	.600	.160	.001	12.71	5.68	.309	.310	39.8
85 12 17	.009	7.03	6.75	.500	.540	.230	.021		6.04	.289	.281	40.1
85 12 30		6.99	7.00	.510	.530	.220	.009	12.75	6.20	.306	.276	39.4
86 1 9	.004	6.05	7.38	.530	.590	.210	.052	13.12	5.91	.308	.233	40.8
86 1 13	.004	6.89	7.02	.540	.580	.190	.006	12.81	6.07	.204	.324	41.7
86 1 22	.003	6.80	7.28	.560	.540	.000	.025	13.73	6.21	.206	.363	43.0
86 1 29	.003	6.90	7.48	.550	.530	.200	.006	13.32	5.26	.293	.394	42.2
86 2 5	.001	6.93	7.31	.560	.590	.230	.026	14.25	5.80	.432	.421	44.9
86 2 10	.001	7.00	7.74	.590	.610	.240	.040	14.25	5.69	.242	.445	41.3
86 2 19	.001	7.17	8.04	.620	.590	.220	.005	15.58	5.18	.225	.430	44.7
86 2 26	.001	6.96	7.55	.580	.610	.230	.022	15.25	5.51	.205	.477	45.7
86 3 5		6.94	7.88	.610	.570	.230	.035	12.05	4.84	.234	.515	47.3
86 3 10		7.01	8.02	.600	.610	.210	.018	15.48	5.22	.270	.407	44.2
86 3 20		7.15	7.95	.580	.600	.300	.077	15.53		.368	.334	44.4
86 3 26	.009	6.48	8.68	.620	.560	.170	.108	14.12	4.72	.200	.657	49.9
86 3 28	.007	6.74	7.93	.580	.640	.210	.030	13.32	4.93	.244	.674	45.8
86 3 29		6.70	7.75	.580	.660	.190	.031	13.74	5.15	.266	.841	47.5
86 3 31		6.60	6.72	.540	.450	.190	.044	10.07	4.58	.197	.981	42.7
86 4 1	.042	6.57	6.27	.530	.530	.260	.049	8.99	5.05	.255	.984	39.4
86 4 2	.039	6.62	6.10	.510	.510	.240	.061	8.84	4.79	.310	.938	38.3
86 4 3	.038	6.74	6.04	.520	.510	.210	.060	8.99	4.49	.296	.891	39.7
86 4 4	.037	6.72	6.35	.550	.530	.200	.043	9.05	4.36	.250	.852	40.0
86 4 5		6.69	6.07	.530	.530	.190	.028	8.60	4.35	.240	.893	39.1
86 4 6	.065	6.61	6.08	.510	.510	.210	.032	8.11	4.23	.279	.847	38.2
86 4 7	.059	6.61	5.90	.520	.500	.220	.048	8.59	4.29	.245	.791	39.0
86 4 8	.082	6.58	5.44	.480	.460	.200	.057	7.49	4.01	.263	.793	35.3
86 4 9	.053	6.64	5.84	.480	.460	.140	.043	8.00	4.45	.304	.794	37.9
86 4 10	.030	6.69	5.97	.500	.530	.130	.031	8.32	4.53	.219	.798	39.0
86 4 11	.027	6.79	5.91	.520	.570	.210	.020	8.62	4.97	.215	.815	40.9
86 4 12		6.79	6.64	.510	.580	.210	.018	8.97	5.01	.236	.782	40.0
86 4 14	.037	6.80	6.11	.490	.520	.200	.014	9.05	4.69	.241	.763	34.2
86 4 15	.051	6.70	5.47	.450	.500	.200	.023	7.44	4.45	.276	.729	33.2
86 4 16	.056	6.76	5.47	.530	.560	.200	.025	7.33	4.22	.179	.683	33.2
86 4 17	.056	6.66	4.95	.440	.470	.170	.031	7.69		.244	.662	33.2
86 4 18	.071	6.65	4.74	.410	.440	.170	.022	6.77	4.10	.207	.642	32.1
86 4 19		6.54	4.20	.370	.390	.170	.026	5.81		.220	.608	27.9
86 4 20	.003	6.51	4.24	.300	.420	.150	.020	6.07	4.74	.180	.597	28.2
86 4 21	.059	6.59	4.18	.300	.410	.140	.024	6.37	3.84	.195	.582	29.6
86 4 22	.044	6.55	4.51	.400	.440	.150	.016	7.18	4.95	.204	.570	30.3
86 4 23	.037	6.82	4.84	.420	.480	.140	.020	7.86	5.13	.154	.581	33.1
86 4 24	.033	6.85	4.03	.420	.460	.140	.016	8.02	5.06	.165	.551	32.6
86 4 25		6.75	4.99	.420	.460	.160	.042	8.26	4.95	.180	.532	30.6
86 4 28	.056	6.66	5.00	.400	.520	.180	.001	7.03		.212	.484	32.6
86 4 30		6.74	5.77	.460	.550	.190	.057	8.05		.182	.511	35.8
86 5 2	.022	6.61	5.55	.470	.530	.160	.019	8.73		.188	.498	35.6
86 5 5	.014	6.63	5.88	.460	.570	.200	.009	9.24	5.93	.185	.482	36.2
86 5 8	.009	6.71	7.13	.520	.620	.190	.035	11.86		.173	.431	39.3
86 5 13	.005	6.78	7.39	.550	.640	.180	.003	13.17		.469	.385	42.1
86 5 20	.007	6.55	6.93	.530	.610	.190	.052	13.09	6.04	.229	.295	40.2
86 5 21		6.81	7.32	.540	.630	.200	.005	13.28	6.08	.233	.297	40.8
86 5 22		7.11	7.27	.530	.620	.200	.053	13.06	6.00	.222	.349	39.3
86 5 26		6.83	7.05	.610	.600	.230	.003	14.99		.253	.355	44.8
86 5 27	.003	6.97	7.59	.590	.680	.250	.022	15.05		.303	.347	45.3
86 5 28		6.90	7.69	.580	.690	.240	.023	15.09	6.22	.306	.373	46.0
86 5 29		6.96	8.02	.600	.670	.250	.006	15.08	6.22	.259	.383	44.3

APPENDIX VII

MAJOR ION CHEMISTRY AND INSTANTANEOUS DISCHARGE AT STREAM STATION S5

DATE YR MO DY	STREAM DISCHARGE MG/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CaCO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
81 1 12	.522	6.53	6.89	.536	.688	.898	.828	9.95		.348	.345	43.7
81 1 28	.882	6.49	6.41	.581	.498	.182	.832	18.68		.358	.385	48.2
81 2 9	.868	6.64	6.28	.552	.583	.112	.828	9.95	7.88	.378		43.5
81 2 23	.168	6.46		.612	.783	.243	.833	8.55	7.86	.328	.689	39.3
81 3 9	.148	6.68	6.39	.626	.624	.223	.887	8.95	7.62	.358	.549	49.9
81 3 27	.133	6.58		.649	.789	.243	.819	8.98	7.51	.388	.598	51.2
81 3 31	2.412	6.58	5.17	.583	.538	.295	.831	6.38	6.71	.338	.526	39.5
81 4 1	2.397	6.45	5.86	.522	.588	.287	.851	5.45	7.42	.328	.624	43.8
81 4 2	2.859	6.46	5.89	.528	.547	.338	.879	5.68	7.47	.368	.648	44.8
81 4 3	1.994	6.48	5.89	.522	.545	.298	.841	5.35	7.38	.388	.638	38.6
81 4 4	2.323	6.33	4.69	.494	.524	.274	.848	4.85	6.89	.388	.656	38.7
81 4 6	1.822	6.45	4.86	.582	.518	.272	.844	5.28	6.78	.388	.621	42.1
81 4 7	1.421	6.41	4.99	.586	.558	.278	.852	5.75	6.61	.388	.614	43.9
81 4 8	1.222	6.45	5.89	.514	.538	.272	.868	5.95	6.72	.418	.597	42.9
81 4 14	1.728	6.33	4.51	.428	.468	.278	.839	4.68	6.52	.348	.594	33.8
81 5 7	.859	7.18	5.25	.529	.575	.264	.811	7.65	6.75	.388	.355	42.9
81 5 21	.138	7.18	6.18	.578	.688	.258	<.818	18.35	6.19	.298	.254	49.6
81 6 3	.798	6.64	5.78	.528	.528	.278	.817	6.98			.485	44.4
81 6 17	1.775	6.62	5.88	.468	.528	.288	.815	7.45			.288	33.1
81 7 2	.489	6.98	5.22	.568	.528	.288	.823	9.18	6.89	.688	.171	39.8
81 7 15	.897	7.87	6.11	.688	.618	.228	.812	11.78	5.49	.441	.156	47.3
81 7 29	.827	7.84	6.39	.638	.768	.288	.821	14.48			.119	49.2
81 8 12	.876	6.99	6.22	.668	.958	.418	.819	12.88	6.28	.475	.873	45.8
81 8 27	.835	7.25				.528	.829	15.58	5.87	.243	.115	47.7
81 9 29	.829	7.85	6.64	.628	.628	.388	.813	13.55	6.62	.369	.188	45.6
81 10 16	.849	6.89	7.82	.788	.568	.498	.814	14.85	7.78	.632	.117	51.8
81 10 28		6.76	5.56	.568	.418	.338	<.818	9.25	7.84	.489	.151	42.4
81 10 28	.188	6.84	6.28	.698	.678	.338	<.818	9.68		.351	.188	42.3
81 11 11	.168	6.91	5.74	.518	.488	.218	<.818	11.58	5.48	.235	.282	42.3
81 12 16	.116	6.95		.718		.378	.188	12.18	5.83	.194	.238	47.6
82 1 22	.339	6.74	6.22	.728	.798	.358	.818	11.48	6.46	.218	.245	48.9
82 2 24	.843	6.64	6.48	.688	.795	.359	.818	11.58	6.75	.274	.268	48.6
82 3 18	.844	6.74	6.81	.694		.326	.811	11.65	7.16		.389	
82 3 17	.137	6.59	6.88	.642	.948	.418	.826	11.28	7.22	.261	.317	47.8
82 3 18	.158	6.65	6.84	.631	.988	.418	.823	18.58	7.89	.468	.338	46.9
82 3 19	.897	6.74	5.96	.633	.948	.418	.828	11.68	6.85	.333	.319	46.2
82 3 23	.885	6.66	5.93	.644	.756	.384	.838	18.38	7.14	.488	.311	45.5
82 3 24	.181	6.78	5.83	.652	.778	.385	.834	18.68	6.92	.268	.338	45.8
82 3 26	.899	6.78	5.84	.668	.888	.312	.816	18.38	6.95	.355	.329	45.8
82 3 29	.889	6.84	6.88	.638	.678	.385	.811	14.75	7.83	.485	.327	46.2
82 3 38	.879	7.19	6.27	.785	.388	.823	.823	18.98	7.24	.378	.328	45.4
82 3 31	1.158	6.61	5.67	.664	.658	.489	.845	7.78	7.37	.445	.688	43.5
82 4 1	.317	6.56	5.83	.664	.678	.415	.848	7.55	7.38	.478	.611	44.7
82 4 3	1.938	6.64	5.42	.638	.698	.513	.831	6.65	7.28	.495	.683	43.1
82 4 4	.384	6.56	5.21	.582	.566	.339	.824	7.15	7.62	.483	.475	41.8
82 4 5	.557	6.68	5.41	.596	.593	.295	.827	8.18	7.36	.338	.415	42.8
82 4 6	.462	6.73	5.29	.582	.597	.285	.827	7.48	7.15	.479	.361	42.8
82 4 7	.552	6.76	5.34	.682	.689	.387	.818	8.85	7.89	.544	.371	42.2
82 4 13	.328	6.97	5.64	.619	.721	.376	.829	8.28	7.88	.338	.458	43.2
82 4 14	.277	6.89	5.68	.628	.714	.385	.827	8.18	6.96	.391	.478	43.5
82 4 15	.267	6.83	5.51	.588	.688	.285	.821	9.38	7.53	.513	.488	43.7
82 4 16	.344	6.98		.682	.665	.277	.816		7.26	.482	.419	43.9
82 4 17	.764	6.72	5.15	.589	.688	.325	.818	6.18	7.28	.262	.578	48.4
82 4 18	.585	6.79	5.34	.556	.715	.385	.827	8.68	7.24	.452	.478	42.8
82 4 19	.685	6.88	5.42	.567	.735	.395	.832	7.28	7.16	.356	.481	42.3
82 4 28	.612	6.88	5.47	.574	.718	.382	.823	7.68	7.72	.386	.447	45.5
82 4 21	.555	6.85	5.51	.561	.715	.378	.828	7.68	7.61	.333	.342	43.8
82 4 22	.566	6.85	5.48	.579	.728	.345		8.48	7.51	.388		41.2
82 4 25	2.298	6.54	4.29	.433	.548	.355	.823	5.25	6.63	.317	.464	34.4
82 4 26	1.974	6.79	4.67	.478	.575		.834	6.87	6.87	.487	.465	38.9
82 4 27	2.818	6.76	4.78	.467	.585	.345	.826	6.28	6.56	.418	.395	37.7
82 4 28	1.828	6.77	4.76	.528	.657	.347	.838	5.98	7.19	.276	.389	37.8
82 4 29	2.188	6.78	4.52	.524	.648	.342	.824	5.48	7.83	.283	.424	36.3
82 4 38	1.836	6.75	4.67	.531	.527	.343	.827	5.58	6.78	.287	.422	36.3

DATE YR MO DY	STREAM DISCHARGE MS/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
82 5 6	2.157	6.75	5.81	.417	.471	.242	.026	5.40	5.00	.375	.306	31.6
82 5 11	1.206	6.96	5.79	.538	.593	.273		7.95	6.67		.234	40.0
82 5 17	.493	7.03	5.90	.538	.616	.282	< .010	10.05	6.54	.297		40.2
82 6 2	.195	7.06	5.83	.619	.673	.272		11.40	6.98	.259	.128	43.2
82 6 10	.213	7.11	6.64	.500	.570	.230	< .010	12.90				46.4
82 6 15	.075	7.01	6.22	.667	.258	.737	.002	12.45	7.01	.233	.138	45.9
82 6 22	.042	6.99	6.36	.590	.630	.230		12.55	7.07	.359	.163	45.1
82 7 1	.029	7.15	6.93	.620	.630	.270	< .010	13.55	6.00	.368	.107	48.3
82 7 8	.023	7.09	7.53	.700	.750	.200		15.50	7.20	.495	.155	52.4
82 7 14	.056	7.08	6.75	.620	.640	.240		12.20	7.66	.429	.136	48.3
82 7 21	.057	7.05	6.09	.710	.730	.290	< .010	12.55	6.25	.448	.095	46.4
82 7 28	.024	7.08	7.52	.790	.810	.340	< .010	13.90	7.16	.591	.070	50.3
82 8 3	.021	7.07	7.72	.860	.860	.360	.014	16.40	6.46	.319	.157	51.7
82 8 10	.039	7.17	7.53	.830	.840	.360	< .010	15.60	7.01	.388	.125	50.4
82 8 24	.035	7.22		.520	.657	.347	< .010	15.55	7.19	.276	.178	47.6
82 9 7	.132	7.13		.524	.640	.342	.003	11.30	7.03	.283	< .040	41.3
82 9 14		6.03	6.47	.062	.702	.504	.004		7.39	.548	.047	39.5
82 9 20	.337	6.05	6.02	.600		.410	< .010	9.00	6.14	.295	.047	37.7
82 9 29	.217	6.94	6.27	.671	.695	.329	.003	10.97	6.51	.767	.042	40.6
82 10 4	.252	6.94	6.33	.694	.712	.338	.000	10.66	6.42	.563	.045	38.2
82 10 7	.030	6.60	6.32	.757	.672	.645	.003		7.52	.594	.132	37.9
82 10 14	.630	6.77	5.68	.660	.605	.333	.003	9.16	6.19	.435	.067	37.0
82 10 18	.511	6.90	6.00	.664	.610	.305	.008	9.00	6.69	.344	.082	36.7
82 10 27	.578	6.00	5.78	.603	.654	.317	.004	9.20	6.11	.542	.072	35.5
82 11 2	.274	6.00	5.06	.610	.600	.290	< .010	10.60	6.26	.294	.096	36.3
82 11 10	.315	6.03	5.74	.600	.640	.330	.001	9.05	6.22	.300	.166	36.8
82 11 16	.025	6.07	5.53	.655	.579	.273	.006	9.00	6.00	.362	.170	36.3
82 11 24	.669	6.05	5.03	.600	.710	.340	.009	8.63	6.05	.299	.171	35.6
82 12 2	.316	6.76	6.00	.690	.740	.330	.010	9.69	6.26	.277	.206	36.7
82 12 8	.442	6.67	5.78	.660	.760	.320	.007	9.09	6.22	.779	.201	34.0
82 12 22	.364	6.61	5.49	.570	.470	.200	.013	9.16	6.26	.231	.216	34.4
82 12 30	.552	6.57	5.00	.540	.460	.190	.015	8.02	6.33	.171	.310	35.7
83 1 5	.364	6.71	5.20	.570	.460	.200	.015	8.06	6.42	.307	.276	35.1
83 1 13	.227	6.69	5.47	.600	.500	.220	.022	7.44	6.74	.293	.321	35.9
83 1 19	.353	6.62	5.67	.620	.530	.220	.023	10.40	6.74	.379	.333	37.4
83 1 25	.101	6.64	5.66	.640	.940	.600	.030	9.07	6.57	.514	.347	35.8
83 2 2	.109	6.65	5.66	.640	.960	.500	.023	9.01	6.60	.321	.327	38.2
83 2 9	.083	6.61	5.94	.760	.750	.440	.020	9.14	6.50	.318	.317	39.1
83 2 16	.082	6.72	6.04	.690	.700	.420	.020	9.50	6.36	.448	.335	39.2
83 2 21	.082	6.69	6.12	.710	.890	.510	.056	10.05	6.84	.296	.401	40.7
83 2 23	.077	6.75	6.02	.700	.960	.430	.021	9.00	6.77	.200	.336	38.5
83 2 28	.082	6.66	5.94	.700	.910	.300	.040	10.17	6.73	.360	.309	40.7
83 3 2	.075	6.66	5.06	.600	.910	.370	.040	0.56	6.50	.260	.367	40.1
83 3 6	.009	6.67	5.04	.690	.870	.320	.033	9.47	6.54	.343	.430	41.1
83 3 8	.400	6.46	5.48	.530	.960	.310	.021	5.51	6.18	.454	1.050	36.8
83 3 9	.504	6.62	5.60	.610	.630	.290	.020	6.26	6.21	.350	.992	37.9
83 3 10	.405	6.71	5.59	.660	.790	.200	.061	7.36	6.25	.250	.642	37.5
83 3 11	.524	6.76	5.36	.630	.810	.360	.007	7.45	6.34	.350	.572	37.5
83 3 12	.532	6.05	5.32	.620	.960	.200	.050	7.17	6.27	.376	.561	37.9
83 3 13	.400	6.73	5.23	.620	1.000	.290	.034	6.00	6.10	.300	.569	32.0
83 3 14	.447	6.01	5.30	.620	.930	.290	.039	7.21	6.23	.326	.569	33.6
83 3 15	.425	6.79	5.21	.620	.830	.300	.029	7.22	6.61	.209	.568	34.5
83 3 16	.353	6.03	5.40	.630	.840	.300	.033	6.75	6.67	.304	.575	32.2
83 3 17	.353	6.79	5.54	.640	.840	.290	.035	7.16	6.65	.254	.570	32.5
83 3 18	.324	6.03	5.54	.630	.860	.290	.036	7.15	6.72	.174	.500	34.5
83 3 21	.344	6.70	5.24	.630	.710	.320	.040	7.14	6.29	.320	.570	30.2
83 3 22	.322	6.01	5.50	.540	1.000	.300	.043	6.92	6.40	.326	.570	34.5
83 3 24	.254	6.66	5.92	.560	.900	.250	.030	7.06	6.64	.351	.642	30.5
83 3 20	.167	6.77	5.91	.500	.860	.240	.032	7.03	6.55	.287	.590	37.8
83 3 31	.137	6.68	5.96	.500	.920	.250	.026	0.27	6.50	.305	.505	30.3
83 4 4	.144	6.73	5.69	.500		.250	.015	7.94	6.30	.309	.575	30.3
83 4 6	.161	6.79	5.76	.500		.310	.012	8.12	6.43	.276	.610	40.4
83 4 7	.106	6.79	5.07	.590	.900	.250	.012	7.66	6.33	.276	.610	36.5
83 4 8	.207	6.04	5.06	.500	.930	.200	.013	7.03	6.25	.172	.600	39.6

DATE YR MO DV	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
83 4 9	.212	6.84	6.83	.588	.928	.378	.813	7.77	6.68	.278	.613	37.9
83 4 18	.293	6.78	5.61	.568	.878	.338	.812	6.75	6.42	.338	.652	39.9
83 4 11	.326	6.88	5.38	.548	.878	.468	.812	7.17	6.48	.365	.688	36.6
83 4 12	.336	6.88	5.37	.548	.878	.528	.815	7.66	6.32	.285	.657	36.8
83 4 13	.394	6.78	5.21	.538	.858	.228	.888	7.82	6.56	.349	.694	35.6
83 4 14	3.538	6.37	3.93	.418	.618	.518	.844	3.19	5.31	.448	.834	27.5
83 4 15	1.743	6.68	4.68	.478		.318	.818	5.26	6.11	.372	.642	38.7
83 4 16	1.852	6.82	4.67	.448	.928	.288	.838	6.73	6.11	.288	.468	29.9
83 4 19	.894	6.61	4.81	.478	.718	.278	.813	6.87	6.28	.258	.524	35.1
83 4 28	.748	6.71	5.81	.488	.728	.268	.816	6.51	6.16	.258	.556	34.1
83 4 26	.688	6.68	4.66	.468	.788	.258	.888	5.96	6.84	.367	.556	32.6
83 4 29	1.195	6.75	4.51	.448	.598	.268	.814	6.19	5.47	.277	.462	38.3
83 5 3	1.851	6.86	4.88	.478	.638	.258	.883	7.84	5.58	.278	.389	31.4
83 5 5	.879	6.78	4.99	.498	.628	.268	.884	7.29	5.47	.251	.284	33.6
83 5 11	.388	6.86	5.53	.528	.688	.288	.881		5.53	.268	.245	37.8
83 5 17	.213	6.63	5.93	.568	.788	.288	.885	9.64	5.94	.287	.282	37.5
83 5 25	.647	6.86	5.29	.498	.668	.288	.814	8.68	6.82	.385	.264	37.3
83 5 31	1.848	6.47	5.88	.468	.628	.298	.886	7.78	6.36	.282	.289	31.5
83 6 8	.487	7.81		.488	.578	.318	.811	8.78	6.86	.341	.198	35.8
83 6 14	.566	6.93	5.73	.548	.758	.388	.889	9.68	6.89	.389	.288	48.8
83 6 21		7.12	5.87	.548	.778	.388	.883	18.61			.286	48.8
83 6 27	.899	7.13	6.27	.588	.888	.448	.887	11.76	6.86	.353	.111	43.9
83 7 5	.183	7.11	6.88	.668	.698	.288	.818	18.78	6.34	.348	.134	42.3
83 7 14	.861	7.82	5.84	.538	.678	.288	.882	11.68	6.18	.311	.223	44.6
83 7 19	.836	7.83	6.84	.638	.828	.318	.888		6.11	.435	.284	48.8
83 7 27	.889	7.81	7.29	.718	.978	.338	.818	16.87	6.57	.338	.218	58.8
83 8 2	.843	7.82	6.43	.648	1.818	.438	.886	14.28	7.87	.321	.242	49.7
83 8 18	.841	7.18	5.89	.568	1.878	.378	.888	12.57	5.87	.378		44.4
83 8 16	.818	7.86		.628	1.488	.458	.886	16.95	6.84	.312	.177	51.8
83 8 24	.888	6.98	7.31	.738	.988	.488	.812	17.23	5.79	.326	.212	48.4
83 8 38	.886	6.95	8.13	.888			.813	28.56	6.68	.411	.174	56.3
83 9 6	.847	6.96	8.96	1.888		.458	.848	15.84		.474	.644	66.3
83 9 13	.854	7.88	5.88	.648	.798	.298	.885	13.31	6.64	.444	.889	44.9
83 9 21	.114	6.63	6.62	.638	.828	.288	.811	11.87	9.32	.485	.215	46.1
83 9 27	.881	6.92	5.64	.598	.858	.288	.884	18.18	6.81	.368	.879	43.8
83 18 5	.166	6.97	5.83	.588	.758	.388		18.25				42.8
83 18 11	.137	6.97	5.62	.688	.868	.398		11.28				42.6
83 18 19	.527	6.89	5.16	.498	.618	.318		18.89				36.3
83 18 24	.383	6.98	4.96	.518	.718	.348		18.28				39.4
83 11 2	.222	6.86	5.83	.538	.738	.338	.818	18.23	6.74	.398	.175	38.2
83 11 9	.154	6.82	5.78	.568	.768	.328	.888	18.28	6.13	.356	.192	39.2
83 11 14	.121	6.86	5.81	.588	.758	.318	.888	18.12	6.88	.481	.241	48.9
83 11 22	.618	6.71	5.87	.518	.728	.358	.884	7.67	6.88	.466	.413	38.5
83 11 29	.587	6.78	5.14	.498	.718	.388	.811	8.99	5.87	.514	.238	36.8
83 12 7	.252	6.72	5.59	.568	.728	.428	.826	9.71	6.82	.363	.243	37.4
83 12 12	.232	6.64	5.22	.538	.728	.388	.814	9.14	5.71	.318	.248	35.7
84 1 12	.164	6.56	5.68	.578	.578	.218	.887	9.68	5.91	.351	.265	41.8
84 1 17	.174	6.55	5.53	.588	.638	.218	.844	9.41	6.15	.432	.248	38.8
84 2 2	.883	6.58	6.81	.598	.638	.198	.841	9.72	6.87	.348	.269	48.3
84 2 8	.198	6.53	5.64	.548	.568	.128	.819	9.58	6.11	.363	.279	43.8
84 2 14	.258	6.48	5.64	.618	.628	.198	.821	7.79	6.46	.438	.827	41.8
84 2 15	.157	6.45	5.79	.618	.618	.178	.828	8.83	6.16	.453	.645	48.8
84 2 16	.141	6.54	5.68	.578	.688	.178	.828	8.55	6.16	.393	.561	41.3
84 2 17	.126	6.58	5.52	.588	.628	.188	.817	8.75	6.19	.465	.546	48.4
84 2 28	.142	6.57	5.61	.548	.688	.188	.832	9.75	6.89	.386	.518	39.7
84 2 21	.142	6.57	5.68	.588	.688	.198	.817	8.72	6.15	.257	.489	41.6
84 2 22	.142	6.62	5.56	.688	.628	.328	.851	8.57	6.67	.544	.458	48.5
84 2 23	.142	6.58	5.78	.548	.638	.218	.825	8.57	6.18	.363	.466	48.4
84 2 24	.161	6.38	5.29	.568	.638	.288	.889	8.31	6.25	.232	.543	39.6
84 2 27	.157	6.51	4.55	.588	.638	.198	.826	9.28	6.29	.338	.581	41.2
84 2 29	.151	6.63	5.78	.598	.718	.218	.828	8.68	6.54	.396	.516	43.4
84 3 2	.139	6.46	5.84	.548	.638	.238	.815	8.65	6.58	.353	.518	43.2
84 3 5	.122	6.56	5.69	.568	.758	.198	.817	8.78	6.86	.339	.487	41.3
84 3 8	.126	6.66	6.16	.648	.648	.178	.851	9.82	6.48	.331	.484	43.5

DATE YR MO DY	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
84 3 13	.161	6.57	5.68	.588	.698	.288	.812	9.34	6.58	.424	.463	43.9
84 3 15	.185	6.48	5.62	.568	.748	.198	.251	9.48	6.54	.482	.465	41.9
84 3 20	.188	6.53	5.94	.618	.698	.188	.825	9.49	6.39	.298	.469	43.7
84 3 21	.158	6.53	6.19	.688	.698	.218	.826	8.97	6.12	.247	.529	43.5
84 3 23	.139	6.58	6.86	.628	.668	.198	.865	9.25	6.47	.438	.582	41.8
84 3 26	.119	6.61	6.89	.618	.668	.228	.858	9.48	6.46	.356	.382	46.8
84 3 27	.136	6.93	6.37	.628	.788	.148	.815	9.38	6.54	.358	.525	41.4
84 3 28	.144	6.82	4.32	.538	.628	.178	.887	3.84	6.22	.583	.579	48.6
84 3 29	.142	6.62	6.26	.648	.728	.288	.813	8.52	6.66	.348	.681	43.8
84 3 30	.138	6.98	5.84	.648	.688	.288	.813	8.64	6.58	.391	.673	38.8
84 4 1	.142	6.86	5.68	.628	.718	.228	.818	8.21	6.56	.277	.767	42.6
84 4 2	.171	6.82	5.82	.648	.728	.268	.819	7.68	6.56	.249	.866	42.8
84 4 3	.171	6.81	5.88	.628	.688	.248	.884	7.94	6.53	.256	.989	41.9
84 4 4	.249	6.75	5.41	.688	.678	.328	.857	7.82	6.26	.345	.995	42.3
84 4 5	.348	6.72	5.57	.598	.678	.178	.815	7.75	6.89	.369	1.898	48.9
84 4 6	.382	6.78	5.66	.628	.688	.198	.884	7.27	6.45	.354	.916	48.9
84 4 7	.161	6.85	5.78	.668	.668	.348	.812	7.57	6.17	.388	.947	48.1
84 4 8	.392	6.79	5.68	.588	.698	.278	.829	7.85	6.19	.422	.946	39.4
84 4 9	.469	6.75	5.46	.598	.728	.238	.813	6.83	5.99	.298	.926	48.7
84 4 10	.556	6.76	5.58	.578	.688	.288	.818	6.71	5.82	.213	1.818	48.1
84 4 11	.665	6.81	5.64	.578	.848	.268	.859	6.98	5.82	.198	.854	38.3
84 4 12	.784	6.77	5.63	.548	.688	.288	.816	6.58	5.71	.253	.938	39.8
84 4 13	1.185	6.75	4.92	.538	.768	.388	.813	5.97	5.52	.387	.733	35.8
84 4 14	1.381	6.74	4.98	.568	.578	.368	.811	5.87	5.68	.188	.849	32.3
84 4 15	1.638	6.68	4.52	.518	.518	.368	.881	5.66	5.27	.178	.672	33.1
84 4 16	1.914	6.67	4.46	.498	.548	.238	.889	5.58	5.38	.343	.628	33.7
84 4 17	1.895	6.75	4.37	.488	.688	.318	.813	5.38	5.21	.399	.634	31.8
84 4 18	1.675	6.69	4.89	.478	.668	.268	.811	5.54	5.86	.379	.647	31.6
84 4 26	.812	6.92	4.27	.468	.648	.288	.818	7.64	4.57	.283	.341	36.4
84 4 30	.693	7.87	5.24	.588	.598	.248	.885	8.31	5.34	.311	.348	41.8
84 5 1	.966	6.95	5.82	.488	.548	.238	.882	7.72	5.16	.359	.367	36.1
84 5 2	.843	7.82	5.26	.588	.788	.238	.888	8.18	5.24	.381	.324	38.9
84 5 3	.772	7.83	4.91	.588	.888	.238	.888	8.48	5.38	.514	.328	36.7
84 5 8	.734	7.88	4.82	.488	.458	.218	.816	7.85	5.41	.637	.425	39.6
84 5 18	.552	7.86	4.88	.488	.498	.238	.885	8.38	5.38	.472	.388	38.8
84 5 14	.388	7.11	5.28	.498	.578	.228	.888	8.67	5.58	.337	.623	37.7
84 5 16	.331	7.86	5.84	.498	.618	.218	.828	9.14	5.65	.316	.341	41.6
84 5 22	.232	7.18	6.82	.548	.688	.288	.812	9.78	5.49	.459	.328	41.2
84 5 30	.115	7.15	5.44	.578	.618	.288	.821	18.18	6.18	.355	.389	42.1
84 6 6	.896	7.17	5.92	.588	.678	.238	.812	18.72	6.83	.535	.328	44.8
84 6 13	.112	7.15	6.59	.678	.678	.228	.889	11.39	5.45	.382	.289	47.8
84 6 19	.875	7.28	6.52	.668	.738	.278	.883	11.86	5.46	.318	.286	45.9
84 6 27	.123	7.85	6.88	.658	.728	.168	.852	11.92	6.59	.355	.333	49.4
84 7 3	.877	7.88	6.87	.688	.838	.238	.812	11.77	5.83	.389	.271	45.5
84 7 11	.855	7.88	6.48	.648	.788	.388	.886	12.62	6.35	.448	.275	52.2
84 7 17	.125	7.86	6.53	.678	.658	.228	.882	11.76	5.86	.325	.221	42.8
84 7 25	.869	7.12	6.14	.628	.688	.218	.823	12.36	6.88	.252	.218	47.7
84 7 31	.845	7.89	6.57	.658	.788	.228	.834	13.49	6.81	.314	.225	44.7
84 8 9	.879	7.18	6.82	.728	.778	.238	.888	13.21	5.89	.417	.216	53.5
84 8 13	.861	7.18	6.88	.698	.798	.278	.889	12.64	6.85	.592	.187	47.6
84 8 21	.826	7.17	7.12	.728	.848	.488	.887	14.73	6.25	.527	.281	47.7
84 8 29	.869	7.26	6.48	.678	.748	.348	.823	12.67	6.32	.474	.163	48.6
84 9 4	.849	7.18	6.97	.638	.758	.348	.882	14.18	6.37	.426	.184	51.3
84 9 12	.878	7.12	6.52	.618	.888	.318	.837	12.55	6.57	.587	.156	51.1
84 9 18	.135	7.22	6.88	.788	.768	.268	.882	11.33	6.47	.465	.143	45.8
84 9 26	.487	7.89	5.44	.588	.578	.488	.888	9.28	6.29	.456	.236	47.7
84 9 27	.447	7.86	5.46	.528	.688	.388	.818	9.91	6.88	.339	.115	42.6
84 10 4	.362	6.97	6.59	.548	.638	.358	.888	9.69	5.99	.381	.115	45.7
84 10 18	.246	7.13	5.73	.548	.718	.268	.818	18.88	6.12	.393	.114	48.7
84 10 16	.187	6.97	5.61	.538	.678	.318	.886	11.32	6.12	.458	.131	55.8
84 10 24	.259	7.85	5.96	.558	.728	.218	.817	18.73	6.89	.367	.156	52.5
84 11 1	2.928	6.76	4.24	.458	.598	.448	.828	4.66	5.64	.482	.343	37.8
84 11 2	1.888	6.88	4.68	.458	.528	.278	.812	6.48	5.65	.387	.192	56.5
84 11 5	.984	6.98	5.34	.518	.588	.218	.888	8.69	5.89	.263	.288	46.4

DATE YR MO DV	STREAM DISCHARGE MS/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
84 11 7	.729	6.92	5.51	.510	.580	.220	.016	9.75	6.06	.277	.226	42.6
84 11 13	.474	6.77	5.61	.510	.590	.230	.013	9.30	5.83	.322	.253	37.9
84 11 21	.394	6.46	5.54	.510	.600	.220	.028	10.16	5.73	.273	.269	47.5
84 11 27	.385	6.50	5.32	.510	.630	.220	.029	9.04	5.66	.320	.364	44.0
84 12 4	.502	6.44	5.13	.500	.750	.210	.010	9.05	6.11	.505	.255	46.3
84 12 12	.448	6.37	5.25	.520	.560	.230	.028	7.77	6.04	.318	.430	46.0
84 12 19	.465	6.30	5.33	.510	.640	.230	.126	7.93	5.81	.274	.390	39.9
84 12 28	.434	6.27	5.19	.520	.600	.220	.016	8.39	5.85	.378	.390	44.5
85 1 9	.246	6.49	5.28	.530	.660	.220	.037	8.45	6.14	.303	.426	43.8
85 1 16	.173	6.42	5.24	.530	.650	.270	.041	8.26	6.23	.297	.425	44.7
85 1 28	.128	6.39	5.08	.570	.720	.210	.029	9.43	6.12	.341	.419	42.6
85 2 7	.118	6.31	5.64	.550	.770	.190	.023	9.83	6.21	.317	.391	50.4
85 2 14	.104	6.25	5.75	.570	.030	.210	.025	9.20	5.58	.275	.304	49.2
85 2 25	.118	6.23	5.00	.540	.610	.200	.026	9.63	6.00	.572	.408	47.8
85 2 28	.130	6.50	5.71	.540	.710	.290	.033	9.85	5.94	.354	.393	39.7
85 3 6	.105	6.95	5.01	.590	.660	.210	.125	9.37	6.25	.262	.398	51.5
85 3 11	.121	6.93	5.78	.540	.690	.210	.029	5.87	5.87	.451	.418	48.5
85 3 12	.135	6.88	5.72	.570	.690	.230	.035	9.82	5.95	.312	.491	51.6
85 3 14	.127	6.89	5.61	.560	.600	.200	.023	9.98	5.91	.337	.449	41.8
85 3 18	.105	6.85	5.62	.570	.600	.220	.046	9.63	6.04	.318	.439	52.4
85 3 20	.093	6.67	5.53	.570	.690	.230	.299	9.71	5.89	.298	.480	39.2
85 3 21	.105	6.63	5.78	.500	.650	.210	.070	10.36	5.89	.334	.492	41.0
85 3 25	.103	6.61	5.97	.610	.770	.230	.012	9.38	6.50	.351	.468	42.2
85 3 27	.199	6.43	5.00	.590	.500	.230	.072	8.04	6.20	.296	.020	40.8
85 3 28	.433	6.26	5.51	.620	.560	.290	.067	6.57	5.67	.305	1.460	43.5
85 3 29	.299	6.41	4.56	.540	.560	.210	.014	9.95	6.27	.298	1.090	38.1
85 3 30	.232	6.51	4.41	.540	.570	.270	.019	9.14	6.48	.306	.900	38.6
85 3 31	.236	6.64	5.15	.540	.500	.220	.031	8.23	5.50	.312	.004	38.2
85 4 1	.287	6.56	4.99	.550	.540	.230	.039	7.86	5.39	.331	.749	38.7
85 4 2	.278	6.60	5.09	.560	.570	.260	.030	8.69	5.76	.302	.636	37.2
85 4 3	.291	6.60	5.76	.010	.630	.270	.043	10.05	5.35	.307	.705	38.1
85 4 4	.258	6.57	5.44	.500	.620	.270	.040	7.20	5.23	.301	.679	37.1
85 4 5	.250	6.63	5.61	.570	.660	.260	.031	7.05	5.29	.341	.660	37.2
85 4 8	.307	6.64	6.06	.510	.650	.240	.017	6.78	5.32	.348	.719	39.2
85 4 9	.284	6.48	5.51	.400	.610	.240	.062	7.34	6.00	.170	.719	36.5
85 4 10	.272	6.56	5.55	.500	.640	.240	.020	8.08	6.21	.305	.735	39.9
85 4 11	.269	6.53	5.47	.500	.660	.310	.012	8.08	6.17	.350	.738	38.0
85 4 12	.263	6.64	5.70	.570	.600	.180	.010	8.41	4.98	.326	.727	38.6
85 4 13	.240	6.57	5.67	.570	.630	.180	.000	7.03	4.93	.343	.745	36.6
85 4 14	.450	6.59	5.39	.560	.590	.160	.023	7.79	6.02	.310	.855	38.6
85 4 15	.402	6.39	5.44	.500	.600	.150	.009	7.36	5.09	.349	.978	40.2
85 4 16	.656	6.42	4.90	.550	.600	.260	.017	6.03	7.04	.336	1.160	39.8
85 4 17	.651	6.50	4.99	.550	.630	.210	.020	6.33	5.71	.341	1.010	38.5
85 4 18	.590	6.61	5.16	.560	.640	.250	.024	7.30	7.34	.395	.041	38.1
85 4 19	.909	6.56	4.63	.530	.500	.230	.022	5.76	7.15	.305	.966	38.1
85 4 20	1.322	6.36	2.82	.560	.610	.220	.020	6.30	5.62	.266	1.090	36.8
85 4 21	3.377	6.24	2.32	.500	.560	.290	.031	3.89	5.12	.340	1.040	32.5
85 4 22	4.340	6.32	2.55	.500	.530	.250	.030	5.17	5.35	.295	.797	32.5
85 4 23	3.767	6.42	4.10	.470	.530	.230	.040	5.15	6.73	.379	.764	32.1
85 4 24	3.771	6.42	4.18	.460	.540	.200	.053	4.25	7.31	.342	.717	30.1
85 4 25	3.794	6.40	3.00	.410	.530	.250	.039	4.39	6.17	.351	.701	30.1
85 4 29	1.148	6.51	4.03	.400	.400	.250	.026	5.19	5.24	.251	.664	31.8
85 4 30	1.001	6.65	4.00	.400	.450	.220	.000	5.57	5.09	.239	.000	34.2
85 5 2	.769	6.69	4.76	.480	.520	.210	.005	7.59	5.69	.244	.442	37.4
85 5 6	.702	6.82	4.94	.470	.540	.460	.007	7.69	5.76	.236	.456	37.7
85 5 8	.615	6.00	4.96	.470	.620	.220	.034	8.25	5.00	.266	.450	37.9
85 5 9	.500	6.95	5.03	.400	.600	.220	.012	8.21	5.00	.310	.432	38.2
85 5 14	.369	6.98	4.67	.530	.590	.240	.010	8.97	5.61	.305	.422	38.4
85 5 21	.275	7.05	5.34	.400	.570	.240	.007	9.30	5.57	.205	.422	39.0
85 5 28	.169	7.13	5.53	.520	.630	.210	.040	9.36	5.40	.327	.418	40.8
85 6 4	.232	7.04	5.52	.520	.620	.210	.094	9.29	5.41	.202	.504	38.7
85 6 10	.212	7.04	5.64	.520	.640	.180	.010	9.42	5.47	.399	.275	43.1
85 6 19	.187	6.86	5.93	.570	.590	.170	.004	9.82	5.65	.257	.344	39.5
85 6 25	.203	7.10	5.76	.530	.500	.150	.002	10.01	5.75	.253	.329	43.7

DATE YR MO DV	STREAM DISCHARGE M ³ /SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO ₃	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
85 7 2	.131	7.13	6.18	.558	.668	.268	.885	18.97	5.98	.317	.327	45.8
85 7 9	.883	6.91	5.92	.588	.688	.238	.823	11.55	5.72	.281	.383	41.7
85 7 17	.853	6.79	6.96	.648	.658	.228	.884	12.43	5.99	.384	.297	45.2
85 7 24	.862	6.73	6.62	.638	.788	.238	.887	12.13	5.94	.396	.274	44.2
85 7 29	.869	6.84	6.53	.628	.628	.228	.888	12.59	5.41	.482	.328	44.5
85 8 7	.861	6.81	7.11	.738	.658	.288	.814	13.35	5.65	.451	.383	46.8
85 8 14	.872	6.86	6.95	.658	.828	.228	.813	13.82	5.71	.353	.272	47.1
85 8 28	.856	6.84	6.78	.658	.788	.238	.885	12.85	5.57	.248	.252	45.4
85 8 27	.872	7.11	6.68	.618	.728	.218	.882	12.69	6.28	.386	.218	45.6
85 9 3	.222	6.87	6.77	.668	.478	.268	.888	11.19	7.25	.447	.316	45.2
85 9 18	.419	6.95	5.52	.548	.598	.218	.883	18.22	6.15	.262	.182	36.4
85 9 16	.191	7.81	5.98	.558	.618	.218	.888	18.28	5.33	.322	.168	41.3
85 9 23	.265	6.98	6.17	.588	.718	.238	.813	18.23	5.81	.353	.236	41.7
85 9 38	.397	6.88	5.74	.568	.618	.258	.816	9.96	6.34	.278	.121	39.6
85 10 8	.658	6.77	5.58	.518	.458	.288	.823	9.47	5.21	.278	.284	33.8
85 10 15	.392		5.59	.548	.688	.218	.887	18.69	5.85	.358	.225	38.1
85 10 22	.338	6.81	5.55	.528	.548	.198	.817	18.82	5.97	.277	.212	36.2
85 10 28	.331	6.81	5.58	.518	.518	.178	.888	18.14	5.85	.443	.251	34.4
85 11 5	.446	6.97	5.42	.518	.568	.198	.825	8.86	5.14	.195	.239	34.4
85 11 12	.334	6.92	6.84	.598	.588	.158	.821	18.48	5.59	.319	.222	34.5
85 11 19	.387	6.91	5.37	.558	.598	.198	.824	9.42	4.86	.259	.372	34.9
85 11 27	.332	6.64	5.56	.538	.568	.288	.888	9.71	5.88	.328	.313	39.6
85 12 4	.288	6.71	5.63	.518	.588	.188	.888	18.29	5.55	.347	.311	36.2
85 12 18	.173	6.68	5.64	.538	.628	.218	.818	9.62	5.82	.365	.348	37.4
85 12 16	.178	6.86	5.53	.568	.688	.218	.838	9.52	6.41	.325	.341	37.6
85 12 38		6.98	5.75	.548	.588	.228	.826	9.72	6.39	.337	.316	35.6
86 1 8	.127	6.67	6.26	.568	.678	.198	.825	9.65	6.23	.334	.323	37.5
86 1 13	.122	6.75	6.86	.668	.668	.188	.818	18.26	6.48	.313	.335	37.3
86 1 21	.892	6.72	5.68	.588	.688	.818	.818	18.13	6.44	.385	.363	38.5
86 1 29	.888	6.69	6.81	.578	.568	.118	.812	18.36	5.64	.337	.375	36.8
86 2 5	.883	6.75	5.95	.568	.538	.288	.828	18.14	6.81	.479	.368	36.3
86 2 18	.865	6.79	5.91	.598	.568	.218	.867	18.75	6.83	.287	.388	37.2
86 2 19	.869	6.72	6.27	.598	.638	.178	.846	18.61	5.74	.247	.388	37.1
86 2 26	.868	6.81	5.99	.598	.658	.188	.817	18.97	6.81	.293	.488	39.2
86 3 4		6.75	6.89	.618	.688	.288	.816	18.69	5.19	.273	.429	38.2
86 3 18	.878	6.85	6.13	.688	.678	.188	.848	18.51	5.85	.288	.378	38.5
86 3 28	.189	6.88	5.91	.578	.668	.218	.816	9.79	4.94	.331	.385	35.3
86 3 26	.167	6.43	6.19	.618	.598	.288	.871	8.99	5.27	.275	.678	48.1
86 3 28	.162	6.44	6.84	.688	.588	.198	.824	8.75	5.81	.263	.676	37.8
86 3 29	.211	6.45	5.81	.588	.568	.288	.826	8.33	5.81	.381	.858	37.4
86 3 31	.333	6.41	5.88	.568	.598	.198	.838	7.95	4.82	.218	1.868	38.4
86 4 1	.685	6.48	5.36	.558	.688	.218	.828	6.38	5.13	.268	1.298	36.8
86 4 2	.539	6.54	5.59	.578	.638	.288	.828	6.88	4.71	.368	1.878	37.9
86 4 3	.642	6.56	5.62	.568	.688	.188	.859	7.65	4.86	.291	.969	35.8
86 4 4	.771	6.58	5.48	.578	.598	.188	.837	7.46	4.63	.298	.918	36.1
86 4 5		6.52	5.27	.568	.578	.188	.868	6.37	4.58	.268	1.818	35.5
86 4 6	1.118	6.45	5.18	.548	.548	.198	.838	6.45	4.49	.262	1.828	35.8
86 4 7	1.234	6.43	5.13	.538	.528	.188	.838	6.74	4.57	.272	.881	34.6
86 4 8	1.454	6.48	4.98	.518	.588	.148	.824	5.82	4.55	.253	.899	33.3
86 4 9	1.298	6.45	4.92	.588	.588	.138	.848	6.53	4.75	.281	.881	34.2
86 4 18	1.148	6.51	5.12	.548	.538	.138	.827	7.39	4.68	.237	.743	35.2
86 4 11	.976	6.55	5.88	.538	.578	.218	.828	7.23	5.88	.251	.755	34.4
86 4 12		6.59	5.35	.528	.598	.218	.825	7.13	5.88	.258	.726	34.8
86 4 14	.887	6.64	5.21	.538	.578	.218	.838	6.94	5.81	.271	.818	35.4
86 4 15	.953	6.54	5.12	.518	.558	.218	.825	6.55	4.82	.388	.844	33.7
86 4 16	.952	6.62	4.94	.448	.498	.188	.835	6.89	4.78	.285	.754	33.4
86 4 17	1.891	6.58	4.74	.588	.548	.288	.836	6.38	4.61	.285	.766	33.4
86 4 18	1.238	6.47	4.66	.498	.518	.198	.827	6.52	4.63	.249	.775	33.2
86 4 19		6.48	4.39	.468	.478	.198	.828	4.88	4.31	.256	.786	38.8
86 4 28	1.776	6.48	4.23	.448	.468	.188	.825	5.14	5.31	.242	.719	38.1
86 4 21	1.784	6.39	4.81	.448	.458	.178	.828	5.42	5.21	.231	.663	29.5
86 4 22	1.515	6.34	4.82	.438	.498	.178	.822	5.16	5.19	.257	.636	29.4
86 4 23	1.256	6.68	4.39	.468	.498	.168	.825	6.27	5.42	.182	.636	31.1
86 4 24	1.814	6.67	4.32	.448	.488	.158	.836	6.13	5.27	.188	.641	38.6

DATE YR MO DY	STREAM DISCHARGE CFS/SEC	PH	CA MG/L	MG MG/L	NA MG/L	K MG/L	NH4 MG/L N	ALK MG/L CACO3	SO4 MG/L	CL MG/L	NO3 MG/L N	COND US/CM 25 C
86 4 25		6.57	4.42	.440	.470	.170	.012	5.69	5.15	.207	.681	29.0
86 4 28	1.450	6.52	4.91	.460	.500	.210	.002	8.26		.261	.377	32.7
86 4 30	1.030	6.63	5.15	.490	.560	.220	.011	7.00		.225	.379	33.6
86 5 2	.825	6.62	5.06	.510	.550	.200	.014	7.94		.225	.396	32.7
86 5 5	.540	6.55	5.34	.490	.570	.230	.078	7.42	5.93	.215	.417	33.9
86 5 8	.303	6.72	6.00	.530	.600	.190	.024	8.51		.200	.414	35.1
86 5 13	.243	6.66	6.12	.540	.640	.180	.013	9.13		.500	.382	35.9
86 5 22	.152	6.86	6.17	.560	.650	.210	.007	9.54	6.10	.240	.269	36.4
86 5 27	.110	6.00	6.27	.580	.660	.220	.020	11.11		.203	.334	37.5

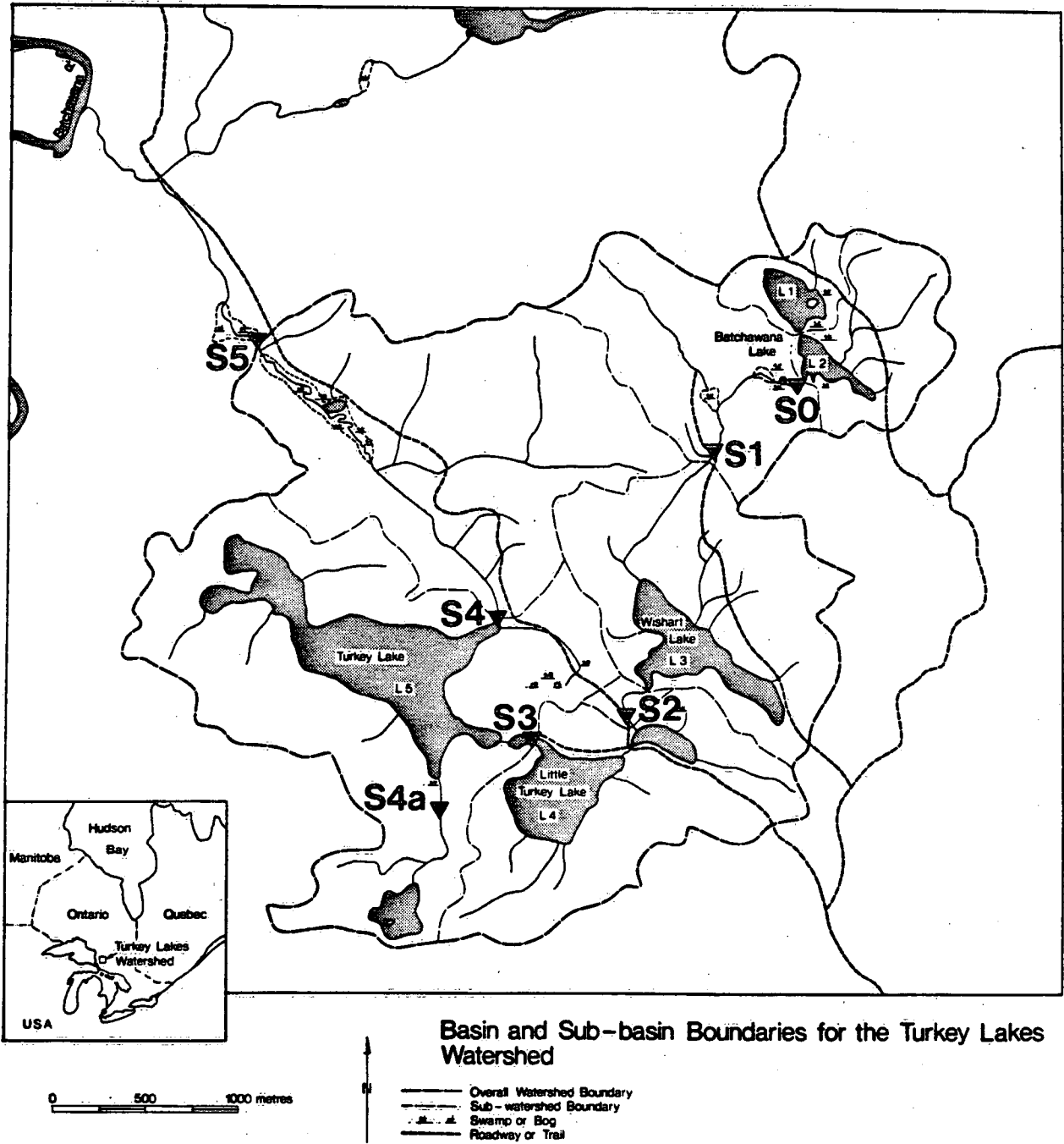
TABLE 13. SUMMARY STATISTICS FOR NITRATE (mg/L-N).

	Stream Station						
	S0	S1	S2	S3	S4	S4a	S5
Sample Size	372	420	419	412	425	62	413
Median	0.243	0.388	0.426	0.359	0.288	0.491	0.388
Maximum	0.819	1.41	1.02	0.896	0.840	0.984	1.46
Minimum	0.000	0.012	0.000	0.000	0.000	0.116	0.000
Max/Min Ratio	-	117.5	-	-	-	8.48	-
Mean	0.278	0.428	0.449	0.379	0.322	0.531	0.444
Std. Deviation	0.207	0.253	0.256	0.231	0.184	0.226	0.253
C _v	0.744	0.591	0.570	0.609	0.573	0.426	0.571
C _{s(m)}	0.109	-0.076	-0.031	-0.023	-0.029	-0.004	-0.082
0.90 Quantile	0.588	0.797	0.834	0.705	0.603	0.841	0.797
0.10 Quantile	0.040	0.101	0.101	0.069	0.084	0.276	0.157
Interquantile Range	0.548	0.696	0.733	0.636	0.518	0.565	0.640

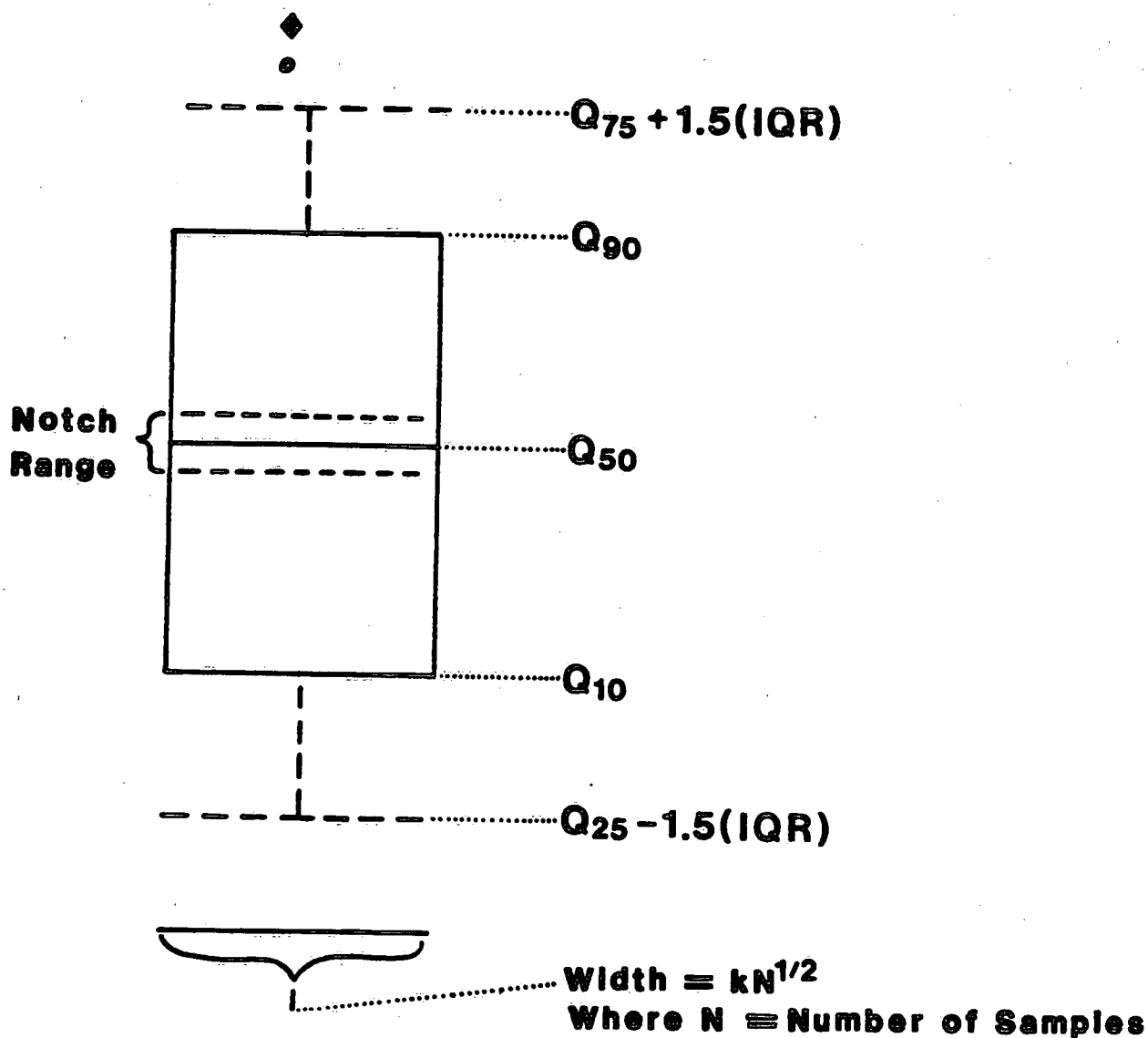
C_v = Coefficient of Variation = $\frac{s}{\bar{x}}$

C_{s(m)} = Moment Coefficient of Skew = $\frac{n}{(n-1)(n-2)} \sum_{i=1}^n (x_i - \bar{x})^3$

Fig 1 Location of Stream Stations in the Turkey Lakes Watershed



**Fig 2 Box Plot Schematic for Interpretation of Data
from the Turkey Lakes Watershed**



Notes:

1. IQR = Interquartile Range = $Q_{75} - Q_{25}$
2. Outliers: \circ values between $Q_{75} + 3(IQR)$ and $Q_{25} - 3(IQR)$
 \blacklozenge values outside the above limits
3. Notch Range: If notches between adjacent box plots do not overlap, then a significant difference is indicated at a "rough 95% level".