

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA
(Swatara Creek Project)

LOCATION.--Lat 40°39'28", long 76°20'43", Schuylkill County, Hydrologic Unit 02050305, on left bank 500 ft downstream from bridge on U.S. Highway 209. Located on Swatara Coal Company property.

DRAINAGE AREA.--2.92 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1996 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 900 ft above sea level, from topographic map.

REMARKS.--Records poor. Other data for this project presented in tables on pages 350-392. Diversion upstream from station by limestone treatment system used to aid in the remediation efforts of acid mine drainage.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than a base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Mar. 21	2015	*67	*2.12	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	1.7	3.5	2.6	1.9	9.1	8.5	3.4	3.7	4.2	2.3	2.0
2	8.3	3.0	3.5	2.6	1.8	7.9	7.6	3.5	3.8	3.7	2.2	.83
3	6.8	3.9	3.3	2.5	e1.7	6.7	7.0	3.1	3.2	3.6	1.5	.60
4	7.7	2.5	3.2	3.1	1.7	6.0	11	3.0	3.1	3.5	1.2	.51
5	7.5	2.3	3.0	3.2	1.7	5.3	7.5	2.9	3.0	3.1	.96	.47
6	5.5	2.2	3.4	2.5	1.6	4.7	6.7	2.7	8.8	2.6	.98	.44
7	4.6	2.2	2.9	2.4	1.5	4.2	6.1	2.6	4.3	2.4	.97	.43
8	4.1	2.2	2.7	2.3	e1.4	3.9	9.3	2.5	3.4	2.2	.87	.40
9	3.6	2.1	2.6	2.2	e1.4	3.7	14	2.4	3.0	2.1	.83	.39
10	8.3	2.1	2.7	6.2	1.5	3.4	11	3.1	2.7	2.0	.82	.38
11	5.1	2.0	2.6	5.4	1.7	4.6	10	2.9	2.7	1.8	.77	.39
12	4.0	2.0	2.4	4.0	1.7	11	8.9	2.5	3.7	1.7	.79	.59
13	3.6	2.0	2.4	3.9	1.6	5.9	7.7	2.9	3.5	1.6	.82	3.4
14	4.5	2.0	7.2	e3.5	3.7	5.5	6.9	3.3	4.4	1.8	.76	.68
15	4.0	2.0	7.3	3.5	3.4	5.2	6.3	2.6	3.8	6.3	.69	.58
16	3.5	2.0	5.8	3.4	2.7	5.1	5.8	2.4	3.6	2.6	.65	.51
17	3.3	1.9	5.3	e3.4	2.7	8.7	6.3	2.3	3.1	1.1	.62	.50
18	3.2	1.9	5.0	e3.2	2.7	5.9	6.3	2.2	3.0	1.0	.63	.54
19	3.0	1.9	4.6	3.0	2.7	5.5	5.2	3.3	2.8	1.0	.58	1.0
20	3.2	1.9	5.3	3.0	2.7	5.2	4.8	4.6	2.5	.97	.52	1.2
21	2.9	1.9	5.5	2.9	2.6	21	5.7	3.6	4.4	.96	.50	.68
22	2.8	1.7	4.5	e2.7	2.5	32	5.4	3.7	5.2	1.1	.47	.62
23	2.7	1.7	4.1	2.6	3.0	20	4.9	4.4	3.2	.82	.57	.62
24	2.5	1.7	3.9	2.4	4.0	15	4.5	7.8	2.8	.79	.56	.62
25	2.3	2.6	3.7	2.4	6.4	12	4.3	6.8	4.2	.76	.45	.70
26	2.3	5.1	3.6	2.3	7.9	10	4.3	5.5	11	.79	.43	1.1
27	2.2	7.3	3.5	e2.2	8.4	11	4.5	5.1	6.5	.79	.41	.86
28	2.1	4.0	3.3	e2.1	17	24	4.1	4.9	5.2	.76	.44	.72
29	2.0	3.8	3.1	2.0	11	14	3.8	4.4	5.1	.73	.40	.67
30	1.8	3.7	2.9	e1.9	---	12	3.6	3.9	4.9	2.1	.40	.67
31	1.8	---	2.8	e1.9	---	9.9	---	3.8	---	1.7	.40	---
TOTAL	130.2	77.3	119.6	91.3	104.6	298.4	202.0	112.1	124.6	60.57	24.49	23.10
MEAN	4.20	2.58	3.86	2.95	3.61	9.63	6.73	3.62	4.15	1.95	.79	.77
MAX	11	7.3	7.3	6.2	17	32	14	7.8	11	6.3	2.3	3.4
MIN	1.8	1.7	2.4	1.9	1.4	3.4	3.6	2.2	2.5	.73	.40	.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2000, BY WATER YEAR (WY)

MEAN	3.56	3.53	5.65	6.35	6.07	7.80	5.76	4.53	3.85	1.88	1.04	1.77
MAX	7.81	8.40	15.3	10.9	10.4	9.63	8.09	9.19	6.11	3.61	1.88	3.92
(WY)	1997	1997	1997	1998	1998	2000	1998	1998	1998	1996	1997	1999
MIN	1.10	.86	.71	2.95	3.61	5.60	3.95	2.05	.89	.10	.26	.42
(WY)	1999	1999	1999	2000	2000	1999	1999	1999	1999	1999	1999	1998

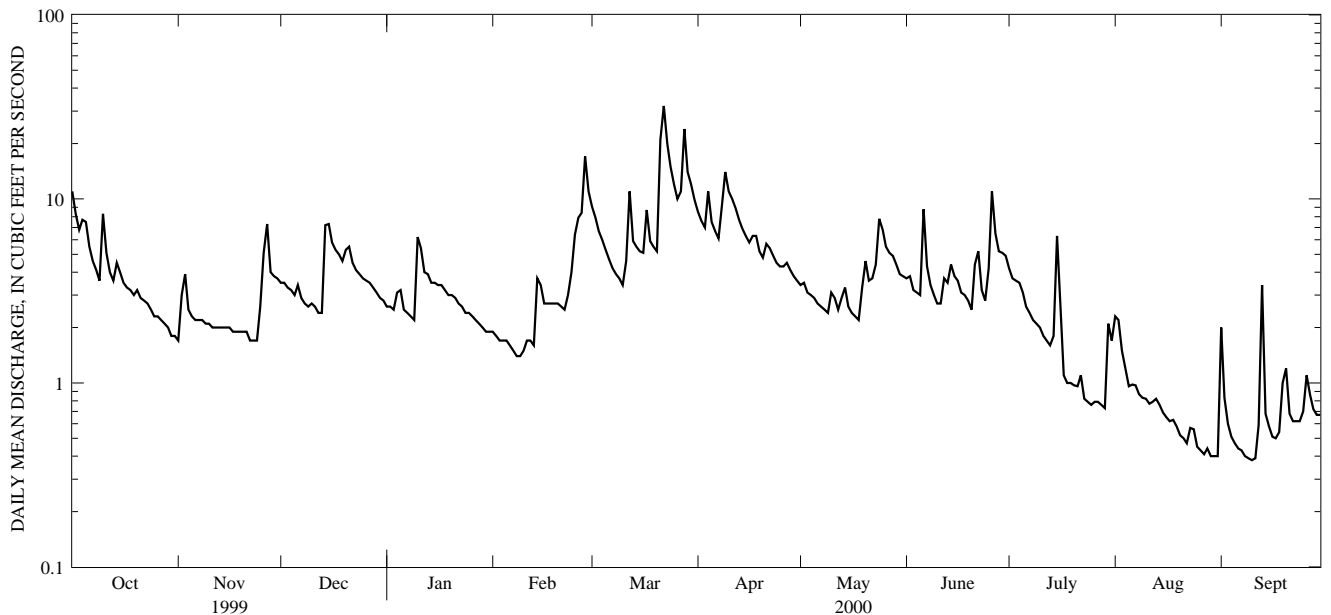
e Estimated.

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1996 - 2000	
ANNUAL TOTAL	1196.54		1368.26		4.26	
ANNUAL MEAN	3.28		3.74		5.48	
HIGHEST ANNUAL MEAN					1997	
LOWEST ANNUAL MEAN					1999	
HIGHEST DAILY MEAN	45	Jan 24	32	Mar 22	51	Oct 19 1996
LOWEST DAILY MEAN	.00	Jul 27 ^a	.38	Sep 10	.00	Jul 27 1999 ^a
ANNUAL SEVEN-DAY MINIMUM	.00	Jul 29	.41	Sep 5	.00	Jul 29 1999
INSTANTANEOUS PEAK FLOW			b67	Mar 21	b162	Jun 13 1998
INSTANTANEOUS PEAK STAGE			2.12	Mar 21	2.65	Jun 13 1998
INSTANTANEOUS LOW FLOW			.26	Sep 16	.00	Jul 27 1999 ^a
10 PERCENT EXCEEDS	6.5		7.5		8.9	
50 PERCENT EXCEEDS	2.6		3.0		2.7	
90 PERCENT EXCEEDS	.02		.68		.53	

^a Several days.
^b From rating curve extended above 44 ft³/s.



1-YEAR HYDROGRAPH
 OCTOBER 1, 1999 TO SEPTEMBER 30, 2000

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued
(Swatara Creek Project)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1996 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1996 to current year.

pH: July 1996 to current year.

WATER TEMPERATURE: July 1996 to current year.

INSTRUMENTATION.--Water-quality monitor (in situ system). Automatic pumping sampler for stormflow samples since July 1996.

REMARKS.--Specific conductance records rated fair except for periods Oct. 1 to Mar. 3, May 31 to June 7, and Sept. 13-30, which are poor. pH records rated poor. The pH probe is subject to fouling from precipitation of iron, adhesion of lime on electrodes, and occasional burial by sediment. Water temperature records rated good. Interruptions in the record were due to malfunctions of the instrumentation. Some values for "*dissolved*" parameters exceed values for the corresponding "*total*" parameter. These results are within the limits of analytical precision and methods. Other data for the Swatara Creek Project presented in tables on pages 350-392. Figure 9 shows the location of sites sampled as part of the Swatara Creek Project.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 438 microsiemens, Aug. 13, 1999; minimum, 51 microsiemens, July 24, 1997.

pH: Maximum, 8.1, Aug. 14, 1999; minimum, 3.6, Oct. 21-23, 25, Dec. 3, 1996.

WATER TEMPERATURE: Maximum, 23.5°C, July 5, 6, 1999; minimum, 0.0°C, many days during winters.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 307 microsiemens, Aug. 31; minimum, 82 microsiemens, Mar. 21.

pH: Maximum, 7.9, July 2; minimum, 4.5, Mar. 17.

WATER TEMPERATURE: Maximum, 20.5°C, June 26; minimum 0.0°C, many days during winter.

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	SPE- CIFIC CON- DUCT- ANCE (μ S/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
OCT											
18...	1300	80020	1028	3.2	93	10.3	7.1	7.1	159	11.1	11.0
DEC											
06...	1130	80020	1028	3.9	94	10.8	6.8	6.7	129	9.1	8.66
14...	1400	80020	1028	4.6	--	--	6.8	7.6	127	4.8	12.6
14...	1500	80020	1028	7.2	--	--	7.2	7.7	130	4.3	12.3
14...	1630	80020	1028	16	--	--	7.0	8.1	96	4.4	10.8
14...	1800	80020	1028	17	7	--	6.6	7.4	86	4.5	7.83
14...	1930	80020	1028	15	--	--	6.5	7.2	88	4.7	7.51
14...	2100	80020	1028	13	--	--	6.5	7.8	90	4.8	7.85
15...	0001	80020	1028	11	--	--	5.8	7.3	96	5.0	7.62
15...	0300	80020	1028	9.1	--	--	5.9	7.7	100	5.2	7.75
15...	0730	80020	1028	7.7	--	--	6.4	7.3	104	5.4	8.24
15...	1800	80020	1028	6.2	--	--	7.2	7.2	111	6.3	8.84
15...	2245	80020	1028	6.0	--	--	7.2	7.3	111	6.5	9.75
16...	0015	80020	1028	6.0	--	--	7.3	7.2	112	6.6	10.2
16...	1100	80020	1028	5.8	--	--	7.3	7.4	114	6.1	9.78
JAN											
19...	1000	9813	1028	2.9	106	15.3	6.6	--	157	.6	11.2
MAR											
03...	1000	9813	1028	6.9	106	1.5	5.3	--	154	5.4	8.14
17...	0001	9813	1028	7.2	--	--	5.3	--	165	8.2	18.1
17...	0300	9813	1028	9.7	--	--	4.9	--	129	7.8	12.5
17...	0600	9813	1028	11	--	--	4.7	--	127	6.7	10.2
17...	0730	9813	1028	11	--	--	4.7	--	127	6.3	9.33
17...	1030	9813	1028	10	--	--	4.5	--	128	5.9	8.04
17...	1330	9813	1028	8.2	--	--	4.6	--	136	6.4	8.49
17...	1800	9813	1028	7.4	--	--	4.7	--	136	4.9	8.50
22...	1745	9813	1028	27	--	--	5.8	--	158	7.7	7.65
27...	2145	9813	1028	13	--	--	5.3	6.3	141	8.5	11.5
27...	2230	9813	1028	18	--	--	5.2	6.3	133	8.6	11.0
28...	0130	9813	1028	41	--	--	5.4	5.8	111	8.4	6.65
28...	0300	9813	1028	42	--	--	5.5	5.9	116	8.1	7.04
28...	0600	9813	1028	30	--	--	5.6	5.9	126	7.5	7.12
28...	0900	9813	1028	23	--	--	5.6	5.7	130	7.5	7.68
28...	1330	9813	1028	18	--	--	5.6	5.8	121	8.9	7.53
28...	2100	9813	1028	16	--	--	5.6	5.8	134	8.0	8.44
29...	0730	9813	1028	15	--	--	5.6	5.7	146	7.1	8.07
APR											
04...	0430	9813	1028	12	--	--	5.7	6.0	138	11.0	8.57
04...	0600	9813	1028	15	--	--	5.8	5.6	135	10.7	7.56
04...	0730	9813	1028	15	--	--	5.5	5.4	126	10.6	6.56
04...	0900	9813	1028	14	--	--	5.6	5.2	127	10.5	6.38
04...	1030	9813	1028	13	--	--	5.6	5.1	127	10.6	6.40
04...	1200	9813	1028	13	--	--	5.6	5.2	127	10.6	6.43
04...	1330	9813	1028	12	--	--	5.6	5.2	129	10.5	6.54
04...	1500	9813	1028	11	--	--	5.6	5.3	131	10.5	6.62
17...	1100	9813	1028	6.0	94	10.9	6.0	6.3	154	9.1	9.46
MAY											
17...	0945	9813	1028	2.2	100	10.9	5.8	6.3	156	12.0	12.6
19...	0945	9813	1028	3.6	--	--	5.9	6.8	150	13.2	16.3
19...	1200	9813	1028	4.9	--	--	6.1	6.7	144	13.3	15.5
19...	1500	9813	1028	4.2	--	--	6.4	6.5	130	13.2	11.8
19...	1800	9813	1028	3.6	--	--	6.4	6.6	136	12.6	12.7
20...	0530	9813	1028	4.6	--	--	6.5	6.7	131	10.0	13.4
20...	1030	9813	1028	6.0	--	--	6.4	6.5	133	10.2	13.4
20...	1200	9813	1028	6.7	--	--	6.4	6.6	130	10.3	12.9
20...	1500	9813	1028	5.6	--	--	6.4	6.6	134	10.6	11.7
20...	1930	9813	1028	4.6	--	--	6.4	6.5	134	10.5	11.0
23...	2045	9813	1028	5.8	--	--	7.0	6.9	121	12.2	11.7
24...	0001	9813	1028	7.4	--	--	6.7	6.8	109	12.5	9.36
24...	0300	9813	1028	10	--	--	6.7	6.6	115	12.3	8.87
24...	0600	9813	1028	9.1	--	--	6.6	6.4	110	12.0	8.26
24...	0900	9813	1028	7.7	--	--	6.4	6.4	105	12.7	7.75

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	ACIDITY (MG/L AS CACO3) (00435)	ACIDITY TOTAL HEATED (MG/L AS CACO3) (70508)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)
OCT										
18...	--	5.85	--	--	--	6.6	--	.0	--	--
DEC										
06...	--	4.53	--	--	--	6.0	--	5.9	--	9
14...	--	4.57	--	--	--	5.6	--	--	--	--
14...	--	4.02	--	--	--	5.3	--	--	--	--
14...	--	3.16	--	--	--	4.8	--	--	--	--
14...	--	2.60	--	--	--	4.7	--	--	--	--
14...	--	2.44	--	--	--	5.1	--	--	--	--
14...	--	2.61	--	--	--	5.4	--	--	--	--
15...	--	2.82	--	--	--	5.5	--	--	--	--
15...	--	2.99	--	--	--	5.8	--	--	--	--
15...	--	3.17	--	--	--	6.0	--	--	--	--
15...	--	3.44	--	--	--	5.5	--	--	--	--
15...	--	3.62	--	--	--	6.0	--	--	--	--
16...	--	3.67	--	--	--	6.1	--	--	--	--
16...	--	3.88	--	--	--	6.2	--	--	--	--
JAN										
19...	15.3	6.61	6.65	<1.0	<1.0	5.7	5.7	--	.00	--
MAR										
03...	8.50	6.47	6.30	<1.0	<1.0	6.4	6.2	--	6.0	--
17...	166	5.18	6.87	--	--	7.5	7.8	.0	.00	--
17...	17.8	4.30	4.68	--	--	7.0	7.1	.0	.00	--
17...	10.5	4.03	4.21	--	--	6.8	6.9	.0	.60	--
17...	9.50	4.12	4.04	--	--	7.3	7.0	.0	1.2	--
17...	8.45	4.01	4.10	--	--	7.3	7.4	.0	2.0	--
17...	8.57	4.28	4.31	--	--	7.3	7.4	--	.00	--
17...	8.85	4.56	4.67	--	--	7.6	7.8	--	.00	--
22...	7.73	5.88	5.59	--	--	5.8	5.9	--	12	--
27...	15.7	5.47	5.88	--	--	5.9	6.2	--	.00	--
27...	15.7	5.47	5.15	--	--	5.8	6.0	.0	.00	--
28...	7.41	2.95	3.15	--	--	7.0	7.1	--	8.0	--
28...	7.41	2.82	3.00	--	--	7.5	7.2	--	8.0	--
28...	7.37	3.21	3.29	--	--	7.9	8.0	--	5.6	--
28...	7.73	3.82	3.76	--	--	8.0	7.7	--	5.0	--
28...	7.85	4.15	4.28	--	--	7.1	7.1	--	4.8	--
28...	8.93	5.04	5.25	--	--	6.6	6.8	--	6.6	--
29...	8.66	5.27	5.64	--	--	6.6	6.5	--	7.4	--
APR										
04...	8.91	4.85	4.98	--	--	6.7	7.0	--	8.2	--
04...	7.87	4.23	4.59	--	--	7.0	7.4	--	10	--
04...	6.79	3.75	3.99	--	--	7.5	7.6	--	11	--
04...	6.64	3.75	3.96	--	--	7.3	7.5	--	9.4	--
04...	6.70	3.84	4.04	--	--	7.3	7.5	--	9.6	--
04...	6.51	3.90	3.98	--	--	7.3	7.4	--	11	--
04...	6.68	4.00	4.12	--	--	7.3	7.4	--	8.4	--
04...	6.87	4.05	4.25	--	--	7.2	7.6	--	9.2	--
17...	14.1	6.50	6.50	<1.0	<1.0	6.3	6.3	--	3.2	--
MAY										
17...	13.9	7.16	7.27	--	--	7.4	7.7	--	.20	--
19...	18.2	5.75	6.19	--	--	6.7	6.8	--	.00	--
19...	18.9	5.03	5.04	--	--	7.1	7.1	--	.00	--
19...	12.9	4.22	4.15	--	--	6.4	6.5	--	.00	--
19...	13.9	4.38	4.47	--	--	6.6	6.4	--	.00	--
20...	17.8	4.59	4.89	--	--	6.5	6.7	--	.00	--
20...	15.7	4.72	4.87	--	--	6.7	6.9	--	.00	--
20...	15.3	4.56	4.73	--	--	6.4	6.4	--	.00	--
20...	15.5	3.93	3.82	--	--	6.4	6.4	--	.00	--
20...	11.3	4.11	4.03	--	--	7.0	6.9	--	.00	--
23...	17.8	4.27	4.40	--	--	6.6	6.9	--	.00	--
24...	16.4	3.69	3.75	--	--	6.0	6.0	--	.00	--
24...	14.0	3.37	3.60	--	--	6.1	6.3	--	.00	--
24...	11.1	3.22	3.33	--	--	6.8	6.7	--	2.2	--
24...	9.25	3.21	3.32	--	--	6.6	6.8	--	2.0	--

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	ANC WATER UNFLTRD FET LAB MG/L AS CACO3 (00417)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	OXID- ATION RED- DUCTION POTEN- TIAL (MV) (00090)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	ALUM- INUM, DIS- SOLVED (MG/L AS AL) (01106)
OCT										
18...	--	10.0	46.9	--	--	--	--	339	--	58
DEC										
06...	--	9.7	37.9	--	--	--	--	405	--	25
14...	--	9.2	42.8	--	--	--	--	--	--	47
14...	--	8.9	34.9	--	--	--	--	--	--	26
14...	--	7.9	28.1	--	--	--	--	--	--	41
14...	--	7.7	23.9	--	--	--	--	--	--	40
14...	--	8.3	22.4	--	--	--	--	--	--	43
14...	--	8.7	23.1	--	--	--	--	--	--	41
15...	--	8.9	25.2	--	--	--	--	--	--	48
15...	--	8.9	26.3	--	--	--	--	--	--	46
15...	--	9.4	27.4	--	--	--	--	--	--	38
15...	--	9.3	29.8	--	--	--	--	--	--	37
15...	--	9.2	31.0	--	--	--	--	--	--	34
16...	--	9.2	31.4	--	--	--	--	--	--	30
16...	--	9.2	32.5	--	--	--	--	--	--	40
JAN										
19...	10	8.4	52.5	--	--	--	--	369	8	<200
MAR										
03...	3	8.4	52.4	--	--	--	--	434	20	526
17...	34	12.1	40.7	--	--	--	--	--	78	716
17...	12	11.0	33.9	--	--	--	--	--	78	431
17...	8	11.6	32.6	--	--	--	--	--	28	<200
17...	7	12.7	31.8	--	--	--	--	--	24	<200
17...	6	12.1	32.7	--	--	--	--	--	26	<200
17...	6	12.3	34.6	--	--	--	--	--	48	<200
17...	5	13.0	37.1	--	--	--	--	--	16	<200
22...	2	9.5	53.3	--	--	--	--	496	10	641
27...	11	9.2	46.7	--	--	--	--	--	54	<200
27...	9	9.6	43.7	--	--	--	--	--	82	<200
28...	4	13.6	24.4	--	--	--	--	--	186	<200
28...	4	12.3	22.8	--	--	--	--	--	200	245
28...	4	12.6	25.8	--	--	--	--	--	80	<200
28...	4	12.0	30.6	--	--	--	--	--	36	<200
28...	4	11.4	35.2	--	--	--	--	--	32	<200
28...	4	10.9	40.4	--	--	--	--	--	26	<200
29...	3	9.3	45.6	--	--	--	--	--	18	<200
APR										
04...	6	9.9	44.5	.12	.57	--	.070	--	62	<200
04...	3	10.6	37.8	.15	.76	--	.040	--	222	<200
04...	3	10.8	34.1	.13	.56	--	.020	--	72	<200
04...	3	11.3	36.1	.14	.53	--	.020	--	28	<200
04...	3	10.8	33.9	.11	.50	--	.020	--	10	<200
04...	3	10.9	35.3	.12	.45	--	.020	--	56	<200
04...	3	10.6	35.0	.12	.44	--	.010	--	216	<200
04...	3	10.9	35.9	.11	.42	--	.010	--	66	<200
17...	7	9.5	50.0	--	--	--	--	399	24	<200
MAY										
17...	7	9.8	50.6	.03	.17	.12	<.010	159	8	<200
19...	16	9.4	47.4	.04	.37	.18	.020	--	10	<200
19...	15	10.3	42.3	.07	.42	.19	.020	--	32	<200
19...	12	10.7	36.1	.05	.31	.16	.010	--	18	<200
19...	12	11.0	38.1	.05	.28	.14	.010	--	6	<200
20...	14	9.3	39.9	.07	.43	.18	.030	--	20	<200
20...	12	9.9	41.1	.04	.32	.15	.020	--	18	<200
20...	12	10.0	39.0	.06	.41	.18	.030	--	44	<200
20...	12	10.2	32.5	.08	.44	.16	.030	--	72	<200
20...	11	10.0	33.4	.07	.31	.14	.020	--	10	<200
23...	12	10.3	34.2	.07	.40	.15	.020	--	40	<200
24...	11	9.9	32.3	.10	.47	.18	.020	--	72	<200
24...	10	9.8	31.3	.11	.59	.22	.020	--	122	<200
24...	8	10.3	27.2	.10	.43	.17	.010	--	46	<200
24...	7	10.3	28.0	.11	.36	.15	.010	--	24	<200

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (µG/L AS AL) (01105)	BARIUM, DIS- SOLVED (µG/L AS BA) (01005)	CADMIUM DIS- SOLVED (µG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (µG/L AS CR) (01030)	COBALT, DIS- SOLVED (µG/L AS CO) (01035)	COBALT, TOTAL RECOV- ERABLE (µG/L AS CO) (01037)	COPPER, DIS- SOLVED (µG/L AS CU) (01040)	COPPER, TOTAL RECOV- ERABLE (µG/L AS CU) (01042)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	IRON, TOTAL RECOV- ERABLE (µG/L AS FE) (01045)
OCT 18...	--	--	--	--	--	--	--	--	60	--
DEC 06...	--	--	--	--	--	--	--	--	80	--
14...	--	26	<8.0	<14.0	E7	--	<10	--	20	--
14...	--	20	<8.0	<14.0	<13	--	<10	--	E10	--
14...	--	19	<8.0	<14.0	E7	--	<10	--	20	--
14...	--	20	<8.0	<14.0	<13	--	<10	--	20	--
14...	--	22	<8.0	<14.0	<13	--	<10	--	30	--
14...	--	26	<8.0	<14.0	E6	--	<10	--	40	--
15...	--	28	<8.0	<14.0	E11	--	<10	--	50	--
15...	--	31	<8.0	<14.0	E10	--	<10	--	60	--
15...	--	32	<8.0	<14.0	E10	--	<10	--	60	--
15...	--	33	<8.0	<14.0	<13	--	<10	--	30	--
15...	--	34	<8.0	<14.0	E11	--	<10	--	30	--
16...	--	34	<8.0	<14.0	E8	--	<10	--	20	--
16...	--	35	<8.0	<14.0	E13	--	<10	--	60	--
JAN 19...	829	--	--	--	--	--	--	--	270	550
MAR 03...	1030	--	--	--	--	--	--	--	680	920
17...	23300	--	--	--	<50	121	11	92	830	39700
17...	4390	--	--	--	<50	<50	<10	16	680	5110
17...	2360	--	--	--	<50	<50	11	14	310	2720
17...	2210	--	--	--	<50	<50	<10	18	180	2220
17...	1600	--	--	--	<50	<50	<10	10	210	1320
17...	1340	--	--	--	<50	<50	<10	<10	230	1140
17...	1000	--	--	--	<50	<50	<10	11	370	1440
22...	1160	--	--	--	<50	<50	<10	<10	430	1090
27...	2510	--	--	--	<50	<50	<10	12	140	3460
27...	3400	--	--	--	<50	<50	<10	13	180	4570
28...	4900	--	--	--	<50	<50	<10	18	330	7840
28...	6190	--	--	--	<50	<50	<10	28	390	8750
28...	2830	--	--	--	<50	<50	<10	18	400	3330
28...	1790	--	--	--	<50	<50	<10	12	510	2450
28...	1250	--	--	--	<50	<50	<10	<10	470	1660
28...	1080	--	--	--	<50	<50	<10	25	490	1490
29...	1090	--	--	--	<50	<50	<10	<10	610	1020
APR 04...	3270	--	--	--	<50	<50	<10	<10	370	3950
04...	8060	--	--	--	<50	<50	<10	18	410	11400
04...	4620	--	--	--	<50	<50	<10	<10	380	3610
04...	2190	--	--	--	<50	<50	<10	<10	470	1960
04...	1940	--	--	--	<50	<50	<10	<10	500	1820
04...	1310	--	--	--	<50	<50	<10	<10	620	1430
04...	1320	--	--	--	<50	<50	<10	<10	590	1380
04...	1200	--	--	--	<50	<50	<10	<10	620	1330
17...	749	--	--	--	--	--	--	--	730	1140
MAY 17...	701	--	--	--	<50	<50	<10	<10	150	560
19...	1160	--	--	--	<50	<50	<10	<10	<20	1250
19...	2780	--	--	--	<50	<50	<10	<10	30	4810
19...	1380	--	--	--	<50	<50	14	<10	20	1470
19...	720	--	--	--	<50	<50	<10	<10	30	740
20...	1420	--	--	--	<50	<50	<10	<10	30	1550
20...	1270	--	--	--	<50	<50	<10	<10	30	1170
20...	3970	--	--	--	<50	<50	<10	<10	50	2960
20...	5990	--	--	--	<50	<50	<10	12	50	5120
20...	1350	--	--	--	<50	<50	<10	<10	30	1250
23...	2650	--	--	--	<50	<50	<10	<10	20	2160
24...	3010	--	--	--	<50	<50	<10	15	30	3510
24...	5480	--	--	--	<50	<50	<10	16	40	9920
24...	2980	--	--	--	<50	<50	<10	<10	90	2650
24...	1720	--	--	--	<50	<50	<10	13	110	1520

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	LEAD, DIS- SOLVED (µG/L AS PB) (01049)	LEAD, TOTAL RECOV- ERABLE (µG/L AS PB) (01051)	LITHIUM DIS- SOLVED (µG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	MANGA- NESE, TOTAL RECOV- ERABLE (µG/L AS MN) (01055)	NICKEL, DIS- SOLVED (µG/L AS NI) (01065)	NICKEL, TOTAL RECOV- ERABLE (µG/L AS NI) (01067)	STRON- TIUM, DIS- SOLVED (µG/L AS SR) (01080)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)	ZINC, TOTAL RECOV- ERABLE (µG/L AS ZN) (01092)
OCT 18...	--	--	--	444	--	--	--	--	--	--
DEC 06...	--	--	--	321	--	--	--	--	--	--
14...	<100	--	E2.5	254	--	<40	--	30.3	E13	--
14...	<100	--	<3.9	239	--	<40	--	29.2	<20	--
14...	<100	--	<3.9	215	--	<40	--	25.2	<20	--
14...	<100	--	<3.9	226	--	<40	--	21.6	<20	--
14...	<100	--	<3.9	238	--	<40	--	20.9	E17	--
14...	<100	--	<3.9	255	--	<40	--	22.7	21	--
15...	<100	--	<3.9	272	--	<40	--	23.0	29	--
15...	<100	--	<3.9	284	--	<40	--	23.6	32	--
15...	<100	--	E2.5	291	--	E25	--	25.1	29	--
15...	<100	--	E2.3	283	--	<40	--	26.2	28	--
15...	<100	--	E2.9	299	--	E18	--	27.5	29	--
16...	<100	--	<3.9	298	--	<40	--	28.3	34	--
16...	<100	--	E3.7	307	--	E32	--	28.5	33	--
JAN 19...	--	--	--	430	434	--	--	--	--	--
MAR 03...	--	--	--	496	492	--	--	--	--	--
17...	<1	27	--	229	1940	<50	171	--	28	967
17...	<1	3	--	334	477	<50	<50	--	33	143
17...	<1	2	--	355	427	<50	74	--	49	95
17...	<1	<1	--	380	397	<50	<50	--	48	82
17...	<1	2	--	375	388	<50	<50	--	52	66
17...	<1	<1	--	396	412	<50	<50	--	51	67
17...	<1	<1	--	412	426	108	127	--	57	63
22...	<1	2	--	452	451	<50	<50	--	85	81
27...	<1	<1	--	474	571	64	84	--	69	131
27...	1	<1	--	440	543	<50	<50	--	41	123
28...	<1	5	--	344	418	<50	<50	--	45	125
28...	<1	6	--	337	400	<50	81	--	57	97
28...	<1	2	--	338	369	<50	<50	--	55	86
28...	<1	2	--	380	395	<50	<50	--	56	75
28...	<1	1	--	401	445	<50	<50	--	62	76
28...	<1	1	--	457	484	51	55	--	71	81
29...	<1	1	--	445	466	<50	<50	--	66	78
APR 04...	<1	3	--	480	515	<50	<50	--	76	116
04...	<1	6	--	477	532	<50	<50	--	61	121
04...	<1	2	--	410	434	<50	<50	--	69	84
04...	<1	2	--	411	434	<50	<50	--	71	79
04...	<1	1	--	415	437	<50	<50	--	73	85
04...	<1	<1	--	417	425	<50	<50	--	72	74
04...	<1	<1	--	421	434	<50	<50	--	73	78
04...	<1	<1	--	423	443	<50	<50	--	72	81
17...	--	--	--	520	522	--	--	--	--	--
MAY 17...	<1	<1	--	462	466	<50	<50	--	74	86
19...	<1	3	--	400	453	<50	<50	--	15	84
19...	<1	3	--	381	448	<50	<50	--	10	96
19...	<1	1	--	330	349	<50	<50	--	11	61
19...	<1	<1	--	337	353	<50	<50	--	12	55
20...	<1	2	--	331	383	<50	<50	--	23	73
20...	<1	1	--	363	390	<50	<50	--	24	63
20...	<1	2	--	344	383	<50	<50	--	14	65
20...	<1	3	--	321	347	<50	<50	--	14	83
20...	<1	<1	--	358	371	<50	<50	--	23	69
23...	<1	2	--	313	346	<50	<50	--	65	18
24...	<1	2	--	303	344	<50	<50	--	19	84
24...	<1	4	--	320	399	<50	<50	--	21	111
24...	<1	2	--	309	330	<50	<50	--	47	72
24...	<1	1	--	300	311	<50	<50	--	45	82

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION) (00301)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD) (00400)	PH WATER WHOLE LAB (STAND-ARD) (00403)	SPE-CIFIC CON-DUCT-ANCE (µS/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV-ERABLE (MG/L AS CA) (00916)
JUN												
06...	0230	9813	1028	3.0	--	--	7.0	6.3	168	11.7	11.7	25.1
06...	0445	9813	1028	6.1	--	--	6.2	--	149	11.4	--	--
06...	0730	9813	1028	15	--	--	5.4	6.0	114	11.9	9.17	12.8
06...	1030	9813	1028	11	--	--	5.2	5.7	108	12.0	7.00	7.91
06...	1330	9813	1028	7.4	--	--	5.6	5.7	111	12.1	6.98	8.12
06...	1430	9813	1028	6.3	--	--	5.7	5.9	112	12.1	8.49	8.43
07...	1030	9813	1028	2.8	--	--	7.3	--	119	12.4	--	--
13...	1245	9813	1028	2.3	97	9.9	7.2	6.8	154	14.2	11.8	16.9
JUL												
14...	1930	9813	1028	--	--	--	--	6.9	--	--	20.7	98.6
14...	2100	9813	1028	--	--	--	--	6.4	--	--	20.7	26.5
15...	0001	9813	1028	--	--	--	--	6.3	--	--	20.5	23.1
15...	0300	9813	1028	--	--	--	--	6.4	--	--	17.8	20.5
15...	0900	9813	1028	--	--	--	--	6.3	--	--	16.3	19.2
15...	1330	9813	1028	--	--	--	--	6.3	--	--	15.9	16.8
15...	1500	9813	1028	--	--	--	--	6.3	--	--	16.1	19.0
15...	1600	9813	1028	--	--	--	--	6.3	--	--	16.4	26.0
15...	1700	9813	1028	--	--	--	--	6.5	--	--	16.1	45.1
15...	1800	9813	1028	--	--	--	--	6.3	--	--	12.5	20.7
15...	1930	9813	1028	--	--	--	--	5.9	--	--	8.43	10.3
15...	2100	9813	1028	--	--	--	--	6.1	--	--	9.63	12.3
15...	2230	9813	1028	--	--	--	--	6.1	--	--	9.71	10.2
16...	0130	9813	1028	--	--	--	--	6.3	--	--	10.8	11.3
AUG												
02...	1215	9813	1028	1.7	91	8.6	6.4	6.2	180	18.8	13.0	13.8
SEP												
13...	1100	9813	1028	2.0	94	9.1	7.0	6.5	156	17.2	13.4	13.9

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	MAGNE-SIUM, TOTAL RECOV-ERABLE (MG/L AS MG) (00927)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	POTAS-SIUM, TOTAL RECOV-ERABLE (MG/L AS K) (00937)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM, TOTAL RECOV-ERABLE (MG/L AS NA) (00929)	ACIDITY (MG/L AS CACO3) (00435)	ACIDITY TOTAL HEATED (MG/L AS CACO3) (70508)	ANC WATER UNFLTRD FET LAB (MG/L AS CACO3) (00417)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
JUN											
06...	5.47	5.93	--	--	6.0	5.8	--	.00	14	9.8	48.7
06...	--	--	--	--	--	--	--	--	--	--	--
06...	3.29	3.31	--	--	5.7	5.6	--	.00	11	8.7	28.0
06...	2.83	2.99	--	--	5.8	5.7	--	4.4	5	8.6	26.3
06...	3.13	3.36	--	--	5.9	6.0	--	4.0	5	9.3	29.0
06...	3.65	3.71	--	--	6.2	6.2	--	1.8	6	10.7	35.5
07...	--	--	--	--	--	--	--	--	--	--	--
13...	4.82	4.91	<1.0	<1.0	7.5	7.5	.0	.00	15	11.8	43.4
JUL											
14...	8.13	10.0	--	--	7.2	7.7	--	.00	28	10.7	62.2
14...	7.37	7.75	--	--	6.6	6.5	--	.00	22	9.5	58.4
15...	7.60	7.88	--	--	7.6	8.2	--	.00	19	11.8	59.7
15...	5.96	6.00	--	--	7.8	7.6	--	.00	17	11.5	50.9
15...	6.09	6.17	--	--	8.0	8.1	--	.00	16	12.2	49.1
15...	6.52	6.30	--	--	8.1	7.8	--	.00	14	12.1	50.6
15...	6.19	6.27	--	--	7.3	7.1	--	.00	16	11.1	48.3
15...	5.16	5.47	--	--	5.8	5.6	--	.00	20	8.8	40.9
15...	4.12	6.88	--	--	4.1	4.3	--	.00	28	6.3	30.0
15...	3.40	4.17	--	--	4.5	4.5	--	.00	16	7.4	28.1
15...	2.59	3.12	--	--	5.0	5.1	--	8.6	7	8.5	23.2
15...	3.17	3.60	--	--	5.2	5.2	--	.60	11	8.4	28.6
15...	3.54	3.79	--	--	5.4	5.4	--	1.8	10	8.6	29.9
16...	3.97	4.19	--	--	5.8	5.8	--	.00	11	9.1	33.8
AUG											
02...	7.41	7.78	<1.0	<1.0	6.0	6.3	--	1.4	8	9.4	59.5
SEP											
13...	5.86	5.93	2.0	1.9	5.9	6.0	.0	.00	11	45.8	44.3

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	OXID- ATION RED- UCTION POTEN- TIAL (MV) (00090)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	ALUM- INUM, DIS- SOLVED (µG/L AS AL) (01106)	ALUM- INUM, TOTAL RECOV- ERABLE (µG/L AS AL) (01105)	COBALT, DIS- SOLVED (µG/L AS CO) (01035)	COBALT, TOTAL RECOV- ERABLE (µG/L AS CO) (01037)	COPPER, DIS- SOLVED (µG/L AS CU) (01040)
JUN											
06...	.08	.56	.19	.040	--	102	<200	3690	<50	<50	<10
06...	--	--	--	--	--	--	--	--	--	--	--
06...	.13	.92	.22	.060	--	300	<200	9460	<50	<50	<10
06...	.10	.57	.16	.030	--	82	<200	4850	<50	<50	<10
06...	.09	.47	.15	.020	--	38	<200	3030	<50	<50	<10
06...	.06	.34	.14	.010	--	8	1020	<200	<50	<50	<10
07...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	286	30	<200	628	--	--	--
JUL											
14...	--	--	--	--	--	402	<200	16300	<50	104	<10
14...	--	--	--	--	--	218	<200	5690	<50	<50	<10
15...	--	--	--	--	--	42	<200	2950	<50	<50	<10
15...	--	--	--	--	--	110	<200	3470	<50	<50	<10
15...	--	--	--	--	--	32	243	2090	<50	<50	<10
15...	--	--	--	--	--	16	<200	1190	<50	<50	<10
15...	--	--	--	--	--	52	<200	2400	<50	<50	<10
15...	--	--	--	--	--	258	<200	5120	<50	<50	<10
15...	--	--	--	--	--	1060	<200	25700	<50	77	<10
15...	--	--	--	--	--	576	<200	11800	<50	62	<10
15...	--	--	--	--	--	326	<200	8830	<50	<50	<10
15...	--	--	--	--	--	164	<200	4980	<50	<50	<10
15...	--	--	--	--	--	136	<200	3670	<50	<50	<10
16...	--	--	--	--	--	50	<200	3930	<50	<50	<10
AUG											
02...	--	--	--	--	383	16	<200	384	--	--	--
SEP											
13...	--	--	--	--	363	38	1200	1660	--	--	--

DATE	COPPER, TOTAL RECOV- ERABLE (µG/L AS CU) (01042)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	IRON, TOTAL RECOV- ERABLE (µG/L AS FE) (01045)	LEAD, DIS- SOLVED (µG/L AS PB) (01049)	LEAD, TOTAL RECOV- ERABLE (µG/L AS PB) (01051)	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	MANGA- NESE, TOTAL RECOV- ERABLE (µG/L AS MN) (01055)	NICKEL, DIS- SOLVED (µG/L AS NI) (01065)	NICKEL, TOTAL RECOV- ERABLE (µG/L AS NI) (01067)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)	ZINC, TOTAL RECOV- ERABLE (µG/L AS ZN) (01092)
JUN											
06...	13	20	4690	<1	10	382	485	<50	<50	18	104
06...	--	--	--	--	--	--	--	--	--	--	--
06...	25	50	23200	<1	9	320	490	<50	53	14	163
06...	12	70	5880	<1	3	304	359	<50	<50	29	84
06...	<10	90	3520	<1	3	319	355	<50	<50	49	73
06...	<10	1170	120	<1	<1	350	352	<50	<50	56	37
07...	--	--	--	--	--	--	--	--	--	--	--
13...	--	100	800	--	--	403	420	--	--	--	--
JUL											
14...	65	70	42600	<1	23	184	1660	<50	145	110	726
14...	23	100	10300	<1	11	229	529	<50	<50	99	193
15...	11	80	5450	<1	3	376	544	<50	<50	89	195
15...	16	70	8550	<1	5	375	557	<50	<50	102	237
15...	<10	90	2740	<1	1	432	521	<50	<50	105	186
15...	<10	80	1670	<1	<1	456	481	<50	<50	113	148
15...	<10	70	4440	<1	4	392	505	<50	<50	97	186
15...	17	70	10400	<1	11	294	528	<50	<50	92	181
15...	79	110	60100	<1	38	182	1170	<50	87	88	426
15...	37	120	39700	<1	14	170	831	<50	69	89	352
15...	24	120	20900	<1	9	183	513	<50	<50	90	221
15...	17	<20	9070	<1	6	236	494	<50	<50	80	181
15...	11	90	5830	<1	3	261	396	<50	<50	77	163
16...	<10	110	3520	<1	2	326	5770	<50	<50	334	397
AUG											
02...	--	110	350	--	--	448	471	--	--	--	--
SEP											
13...	--	1260	1710	--	--	490	504	--	--	--	--

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	171	136	156	172	167	170	132	125	127	158	153	155
2	177	165	169	173	117	161	128	124	126	158	154	156
3	174	166	170	151	126	139	132	127	129	168	153	157
4	173	129	154	155	147	150	138	129	133	167	123	153
5	158	130	144	155	150	153	140	134	137	150	124	139
6	162	153	157	154	150	152	142	124	131	155	148	152
7	166	159	163	153	148	151	143	129	135	154	150	152
8	170	162	166	151	147	149	143	138	140	161	151	154
9	167	162	164	154	148	151	167	142	148	155	152	153
10	165	102	125	156	152	154	155	138	146	155	93	132
11	139	118	130	155	142	148	145	138	142	144	101	126
12	140	135	138	158	149	153	155	144	146	151	133	143
13	141	135	140	159	153	156	154	141	147	158	147	152
14	140	129	135	165	154	161	143	86	119	159	138	152
15	147	139	143	165	154	160	113	96	108	166	147	159
16	153	144	147	163	160	161	119	111	114	169	144	156
17	155	147	151	162	158	160	127	116	121	172	151	160
18	163	150	157	161	158	160	134	125	130	186	163	176
19	163	158	161	165	158	162	149	133	136	163	155	159
20	161	146	153	164	156	161	141	116	131	163	153	155
21	156	152	154	173	152	155	131	116	124	166	156	161
22	156	151	153	161	158	159	134	128	132	172	162	166
23	158	152	155	161	156	159	137	133	135	167	162	165
24	169	155	160	159	154	157	145	135	139	166	162	164
25	166	160	163	154	124	135	148	143	146	165	159	162
26	164	160	162	141	104	126	149	143	147	167	161	164
27	166	160	163	137	114	128	152	142	146	174	163	168
28	173	160	165	142	134	138	152	147	150	177	169	174
29	171	166	168	137	133	135	152	147	149	181	174	177
30	195	166	170	135	130	132	151	148	149	182	172	177
31	170	166	168	---	---	---	162	149	152	174	168	170
MONTH	195	102	155	173	104	151	167	86	136	186	93	158
	FEBRUARY			MARCH			APRIL			MAY		
1	169	164	166	145	127	135	161	155	157	161	156	159
2	170	164	167	150	127	137	158	154	156	157	149	153
3	172	167	169	157	133	150	159	152	156	158	154	156
4	176	167	172	155	151	153	153	126	135	158	154	155
5	188	167	174	159	151	153	146	139	143	161	155	158
6	185	177	181	160	153	155	150	145	146	162	151	154
7	182	169	173	157	151	154	150	147	148	158	152	155
8	186	167	175	165	150	153	154	108	139	159	155	157
9	191	167	179	156	150	153	128	109	119	160	157	159
10	181	172	175	154	150	152	137	123	130	164	120	150
11	189	171	176	155	118	140	142	136	140	146	127	140
12	199	171	184	160	102	130	148	141	145	159	145	150
13	210	180	196	159	136	143	150	147	148	157	136	152
14	213	119	155	169	144	148	151	148	149	158	133	145
15	151	128	142	170	146	150	152	149	150	159	152	155
16	157	143	151	165	146	153	162	148	151	159	155	158
17	146	140	143	165	125	134	156	139	148	157	154	156
18	167	138	142	156	142	149	146	140	143	159	155	156
19	159	141	147	208	155	180	158	144	149	158	129	145
20	152	147	150	194	183	188	154	151	153	145	125	135
21	157	141	150	197	82	164	154	135	144	148	137	145
22	148	137	144	170	115	142	145	136	139	147	127	138
23	197	136	148	170	148	157	143	139	142	132	109	126
24	146	114	133	162	146	154	145	142	144	116	104	110
25	157	98	119	159	144	148	145	139	142	121	107	115
26	103	97	99	162	143	151	150	140	143	127	115	122
27	103	97	101	160	117	150	148	140	143	131	126	129
28	139	88	104	137	109	125	146	142	144	136	128	131
29	143	110	127	152	136	146	155	145	149	139	130	136
30	---	---	---	155	151	153	172	152	156	141	136	138
31	---	---	---	157	154	155	---	---	---	158	137	144
MONTH	213	88	153	208	82	150	172	108	145	164	104	145

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25° CELSIUS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	158	140	152	---	---	---	272	115	234	306	130	205
2	161	140	151	---	---	---	242	134	185	272	219	251
3	175	160	166	176	154	165	257	158	230	284	268	276
4	184	173	178	171	151	159	266	192	236	288	276	282
5	185	165	178	182	132	169	266	254	260	290	280	285
6	176	95	118	186	174	180	267	253	261	296	285	290
7	141	113	124	188	170	183	273	248	262	300	289	293
8	149	127	139	189	182	185	280	268	273	300	289	295
9	160	137	150	189	177	183	286	275	280	302	294	297
10	169	158	161	187	171	178	292	282	286	303	295	299
11	173	159	168	182	173	178	296	285	290	304	296	299
12	173	147	156	188	178	182	298	283	292	304	145	291
13	180	151	162	191	185	188	296	284	290	246	95	173
14	154	126	144	194	125	184	299	290	294	276	242	263
15	165	138	149	184	84	142	298	290	294	283	270	277
16	147	125	139	209	112	165	301	290	294	302	279	285
17	172	136	152	269	209	241	299	292	296	295	284	289
18	176	166	171	280	264	273	300	292	296	295	289	292
19	177	167	170	281	272	278	299	290	296	297	170	264
20	178	146	170	284	277	280	300	294	297	267	189	232
21	179	92	165	286	228	277	304	295	298	280	265	274
22	151	107	128	278	209	251	304	296	300	283	274	279
23	162	148	154	288	271	276	305	283	294	288	280	284
24	166	157	160	298	271	276	297	281	291	290	283	286
25	171	96	160	279	272	275	300	291	295	290	250	281
26	142	99	119	279	273	276	302	292	297	272	213	236
27	141	124	133	282	273	278	303	289	299	261	216	244
28	157	139	148	286	277	282	303	294	299	277	260	270
29	151	139	144	286	278	282	305	294	300	284	273	279
30	149	110	142	284	128	217	305	297	301	289	279	284
31	---	---	---	261	130	207	307	297	302	---	---	---
MONTH	185	92	152	298	84	221	307	115	281	306	95	272
YEAR	307	82	176									

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
1	6.9	6.7	6.8	6.1	6.1	6.1	6.6	6.4	6.5	6.8	6.5	6.6
2	7.0	6.8	7.0	6.4	6.1	6.1	6.7	6.4	6.6	6.6	6.4	6.4
3	7.1	6.9	7.0	6.5	6.4	6.5	7.1	6.4	6.9	6.4	6.1	6.4
4	7.0	6.8	6.9	6.6	6.5	6.5	6.9	6.3	6.7	6.9	6.2	6.4
5	7.1	6.7	6.9	6.6	6.6	6.6	6.8	6.6	6.6	6.5	6.1	6.4
6	7.2	7.0	7.1	6.7	6.6	6.6	7.1	6.5	6.8	6.5	6.4	6.4
7	7.2	7.0	7.1	6.7	6.6	6.7	7.2	7.1	7.2	6.5	6.4	6.4
8	7.0	6.9	7.0	6.7	6.6	6.7	7.3	6.3	6.4	6.4	6.3	6.4
9	7.0	6.9	7.0	6.7	6.6	6.7	7.6	6.1	6.3	6.4	6.3	6.4
10	7.0	6.3	6.5	6.7	6.7	6.7	7.5	7.1	7.2	6.5	5.1	6.3
11	7.1	6.4	7.1	6.8	6.4	6.5	7.1	6.7	6.9	6.6	5.3	6.4
12	7.1	7.0	7.0	6.4	6.3	6.4	6.9	6.5	6.7	6.7	6.6	6.6
13	7.0	7.0	7.0	6.6	6.3	6.4	7.0	6.7	6.8	6.7	6.6	6.6
14	7.0	6.8	6.9	6.6	6.5	6.6	7.2	5.8	6.9	6.6	6.4	6.5
15	7.0	6.8	7.0	7.3	6.6	6.6	7.3	5.8	7.1	6.5	6.4	6.5
16	7.1	7.0	7.1	7.3	6.9	7.1	7.3	6.2	6.7	6.6	6.4	6.5
17	7.1	7.1	7.1	6.9	6.6	6.7	6.3	6.1	6.2	6.6	6.4	6.5
18	7.4	7.0	7.2	6.7	6.6	6.6	6.2	6.0	6.1	6.6	6.4	6.5
19	7.0	6.1	6.2	7.0	6.6	6.8	6.9	6.2	6.3	7.2	6.5	6.8
20	6.1	5.8	5.9	6.9	6.8	6.9	6.9	6.4	6.8	7.3	7.1	7.3
21	5.9	5.8	5.9	6.9	6.6	6.8	6.5	6.4	6.5	7.2	7.0	7.1
22	5.8	5.7	5.8	6.8	6.7	6.8	6.6	6.3	6.4	7.2	7.0	7.1
23	5.8	5.7	5.7	6.8	6.6	6.7	6.6	6.4	6.5	7.2	7.0	7.1
24	6.2	5.6	6.0	6.7	6.6	6.7	6.8	6.5	6.5	7.1	7.0	7.1
25	6.1	5.9	6.0	6.9	6.6	6.8	6.8	6.6	6.7	7.1	7.0	7.1
26	6.0	5.9	5.9	7.0	5.5	6.7	6.7	6.5	6.6	7.1	6.9	7.0
27	5.9	5.8	5.9	6.2	5.1	5.9	6.9	6.4	6.6	6.9	6.7	6.8
28	6.2	5.8	6.0	6.7	6.0	6.3	6.9	6.7	6.8	6.9	6.7	6.8
29	6.3	6.0	6.2	6.7	6.5	6.6	6.8	6.7	6.8	6.9	6.7	6.7
30	6.2	6.0	6.1	6.6	6.5	6.5	6.8	6.4	6.6	6.8	6.7	6.7
31	6.2	6.1	6.1	---	---	---	6.8	6.3	6.4	6.8	6.7	6.7
MAX	7.4	7.1	7.2	7.3	6.9	7.1	7.6	7.1	7.2	7.3	7.1	7.3
MIN	5.8	5.6	5.7	6.1	5.1	5.9	6.2	5.8	6.1	6.4	5.1	6.3

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	FEBRUARY			MARCH			APRIL			MAY		
1	6.8	6.6	6.7	5.3	5.1	5.2	6.1	5.7	5.8	7.0	6.8	6.9
2	6.7	6.6	6.7	5.4	5.1	5.3	5.9	5.8	5.8	7.1	7.0	7.0
3	6.7	6.5	6.6	5.6	5.2	5.4	5.9	5.7	5.8	7.0	6.9	7.0
4	6.6	6.4	6.5	5.8	5.5	5.7	5.8	5.5	5.6	7.0	6.9	6.9
5	6.5	6.4	6.4	6.6	5.7	5.8	5.8	5.7	5.8	6.9	6.8	6.9
6	6.6	6.4	6.5	6.7	6.4	6.5	6.1	5.7	5.8	6.9	6.7	6.8
7	6.5	6.4	6.4	6.7	6.5	6.6	6.0	5.8	5.9	7.0	6.9	7.0
8	6.6	6.3	6.4	6.8	6.4	6.6	6.2	5.6	5.8	7.0	6.1	6.5
9	6.6	6.3	6.5	6.9	6.7	6.8	5.9	5.5	5.7	6.1	5.9	6.0
10	6.5	6.3	6.4	6.8	6.4	6.6	5.8	5.6	5.6	6.4	5.8	5.9
11	6.5	6.3	6.4	6.5	5.6	6.4	5.7	5.6	5.6	6.4	6.2	6.4
12	6.5	6.3	6.4	5.9	4.8	5.0	5.6	5.5	5.6	6.4	6.1	6.2
13	6.3	6.1	6.2	6.0	5.0	5.1	5.7	5.6	5.6	6.1	5.8	6.0
14	6.6	6.2	6.3	5.9	5.1	5.5	5.7	5.5	5.5	6.3	5.8	5.9
15	6.9	6.6	6.9	5.4	5.1	5.2	5.6	5.5	5.5	6.0	5.8	5.9
16	7.0	6.8	6.9	5.5	5.2	5.3	6.0	5.5	5.5	5.9	5.7	5.8
17	7.0	6.9	6.9	5.3	4.5	4.7	6.1	5.8	6.0	5.8	5.7	5.7
18	7.0	6.9	6.9	4.8	4.6	4.7	6.3	5.9	6.2	5.8	5.6	5.7
19	7.0	6.8	6.8	5.4	4.7	5.2	7.0	6.2	6.4	6.6	5.6	6.1
20	6.8	6.7	6.7	5.3	5.0	5.2	7.2	7.0	7.1	6.6	6.3	6.4
21	6.8	6.7	6.7	5.6	4.6	4.9	7.2	6.9	7.0	6.6	6.2	6.3
22	6.8	6.6	6.7	5.9	5.5	5.8	7.1	6.9	7.0	6.8	6.2	6.4
23	6.7	6.6	6.7	5.9	5.1	5.5	7.0	6.8	6.9	7.2	6.7	7.1
24	6.8	6.7	6.7	5.3	4.6	5.2	6.9	6.8	6.9	6.7	6.3	6.5
25	6.7	5.4	6.5	4.6	4.5	4.6	6.9	6.7	6.8	7.1	6.4	6.9
26	5.5	4.8	5.0	5.3	4.5	5.0	7.1	6.7	6.7	6.9	6.7	6.9
27	5.5	5.1	5.4	5.4	5.2	5.3	7.2	7.1	7.2	6.7	6.5	6.7
28	5.5	5.1	5.3	5.6	5.3	5.6	7.2	7.0	7.0	6.5	6.3	6.4
29	5.5	5.1	5.3	5.6	5.5	5.6	7.0	6.9	6.9	6.5	6.3	6.4
30	---	---	---	5.7	5.6	5.6	7.0	6.8	6.9	6.4	6.3	6.3
31	---	---	---	5.7	5.6	5.7	---	---	---	7.4	6.0	6.3
MAX	7.0	6.9	6.9	6.9	6.7	6.8	7.2	7.1	7.2	7.4	7.0	7.1
MIN	5.5	4.8	5.0	4.6	4.5	4.6	5.6	5.5	5.5	5.8	5.6	5.7
DAY	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN	MAX	MIN	MEDIAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	7.3	6.4	7.1	6.8	6.6	6.7	7.0	6.1	6.5	6.9	6.3	6.6
2	6.9	6.4	6.6	7.9	6.6	7.4	7.5	6.5	6.8	6.7	6.5	6.6
3	6.6	6.3	6.4	7.7	6.6	7.2	7.1	6.3	6.5	6.6	6.6	6.6
4	6.9	6.6	6.7	7.1	6.7	6.9	6.8	6.5	6.6	6.6	6.5	6.6
5	7.1	5.6	6.9	6.9	6.6	6.9	6.6	6.4	6.5	6.6	6.5	6.6
6	7.0	5.1	5.7	6.9	6.7	6.8	6.5	6.3	6.4	6.6	6.5	6.6
7	7.6	6.1	7.0	6.8	6.5	6.6	6.5	6.3	6.4	6.7	6.5	6.6
8	7.6	7.5	7.6	6.6	6.4	6.5	6.5	6.3	6.4	6.7	6.5	6.6
9	7.6	7.4	7.5	7.1	6.4	6.5	6.4	6.2	6.3	6.6	6.5	6.6
10	7.5	7.3	7.4	6.7	6.5	6.6	6.3	6.2	6.2	6.6	6.5	6.6
11	7.3	7.1	7.2	6.6	6.5	6.5	6.2	6.1	6.2	6.6	6.4	6.6
12	7.3	6.8	7.1	6.6	6.5	6.5	6.2	6.0	6.1	6.5	6.3	6.4
13	7.5	6.8	7.2	6.6	6.4	6.5	6.1	5.9	6.0	6.9	6.3	6.7
14	7.0	6.8	6.9	6.6	6.1	6.4	6.1	6.0	6.0	6.8	6.7	6.8
15	7.0	6.5	6.9	6.8	5.1	6.5	6.2	6.0	6.1	6.7	6.6	6.7
16	7.0	6.4	6.7	7.1	5.8	6.4	6.3	6.1	6.2	6.7	6.5	6.6
17	7.3	6.8	6.9	7.1	6.2	6.5	6.3	6.2	6.2	6.7	6.6	6.6
18	7.3	7.0	7.1	7.7	7.1	7.5	6.3	6.1	6.2	6.7	6.5	6.6
19	7.2	6.8	7.1	7.5	7.2	7.4	6.3	6.1	6.2	7.2	6.2	6.5
20	7.0	6.7	6.8	7.2	7.0	7.1	6.3	6.2	6.3	7.2	6.7	6.8
21	6.8	5.0	6.7	7.3	6.8	6.9	6.3	6.2	6.3	6.8	6.7	6.7
22	7.0	5.6	6.7	7.4	6.9	7.2	6.3	6.2	6.3	6.7	6.5	6.5
23	7.3	7.0	7.2	7.0	6.7	6.8	6.3	6.1	6.2	6.5	6.4	6.5
24	7.3	7.2	7.2	6.7	6.5	6.6	6.3	6.1	6.2	6.4	6.3	6.4
25	7.4	5.3	7.2	6.6	6.4	6.5	6.4	6.3	6.3	6.4	6.2	6.4
26	6.4	5.3	5.9	6.5	6.3	6.4	6.4	6.2	6.3	6.5	6.1	6.3
27	7.2	6.2	6.9	6.4	6.2	6.3	6.3	6.2	6.2	6.5	6.2	6.3
28	7.2	7.0	7.1	6.4	6.2	6.3	6.3	6.2	6.2	6.3	6.1	6.3
29	7.1	6.7	6.9	6.4	6.2	6.3	6.3	6.3	6.3	6.2	6.0	6.1
30	6.9	6.7	6.8	7.0	6.1	6.6	6.3	6.3	6.3	6.1	6.0	6.1
31	---	---	---	7.2	6.5	6.7	6.3	6.3	6.3	---	---	---
MAX	7.6	7.5	7.6	7.9	7.2	7.5	7.5	6.5	6.8	7.2	6.7	6.8
MIN	6.4	5.0	5.7	6.4	5.1	6.3	6.1	5.9	6.0	6.1	6.0	6.1
YEAR	MAX			MAXIMUM	7.9	MINIMUM	4.6					
	MIN			MAXIMUM	7.5	MINIMUM	4.5					
	MEDIAN			MAXIMUM	7.6	MINIMUM	4.6					

SWATARA CREEK BASIN

0157155014 SWATARA CREEK, SITE C3, AT NEWTOWN, PA--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.0	11.0	12.0	12.0	9.0	10.5	3.0	2.0	2.5	4.0	1.5	3.0
2	13.5	11.0	12.5	13.5	10.0	11.5	4.5	2.5	3.5	6.0	3.5	4.5
3	13.5	11.5	12.5	11.5	6.5	8.5	6.5	4.0	5.0	7.5	6.0	7.0
4	13.5	11.5	12.5	7.5	5.5	6.5	8.5	5.5	7.0	9.0	6.5	8.0
5	11.5	9.5	11.0	8.5	5.0	7.0	9.5	7.0	8.0	6.5	2.5	4.0
6	11.5	8.5	10.0	10.5	7.0	8.5	9.5	7.5	8.5	3.0	1.0	2.0
7	10.0	8.0	9.0	8.0	5.5	7.0	8.0	5.0	6.5	4.5	2.5	3.0
8	10.5	7.0	9.0	7.0	5.0	5.5	6.0	4.0	5.0	3.0	1.5	2.5
9	12.5	10.5	11.5	8.5	4.5	7.0	6.0	4.0	5.0	4.5	2.5	4.0
10	13.5	12.0	13.0	11.0	8.0	10.0	6.5	4.5	5.5	5.5	4.5	5.0
11	14.0	11.0	13.0	10.5	5.5	9.0	5.0	4.0	4.5	5.0	4.0	4.5
12	12.0	9.5	11.0	7.0	5.0	6.0	5.0	3.0	4.0	4.5	3.5	4.0
13	12.5	10.0	11.5	9.0	6.5	7.5	5.0	3.0	4.0	4.0	1.0	3.5
14	12.5	8.5	10.5	9.5	6.0	7.5	5.5	4.0	5.0	1.0	.0	.5
15	10.0	7.5	9.0	7.0	5.5	6.0	6.5	5.0	6.0	2.0	.5	1.0
16	11.5	8.5	10.0	5.5	3.0	4.0	6.5	5.0	6.0	3.5	1.0	2.5
17	12.5	10.0	11.5	4.5	2.5	3.0	5.0	4.5	5.0	1.0	.0	.5
18	12.0	9.0	10.5	5.0	2.0	3.5	5.5	5.0	5.0	1.0	.0	.5
19	9.5	7.5	8.5	6.5	3.5	5.0	5.0	4.0	4.5	1.0	.0	.5
20	10.5	9.0	9.5	8.0	5.0	6.5	6.0	4.5	5.0	1.5	.5	1.0
21	10.0	7.5	8.5	9.5	7.0	8.0	6.0	4.0	5.0	.5	.0	.5
22	9.5	6.5	8.5	10.5	7.5	9.0	4.0	2.5	4.0	.5	.0	.5
23	9.0	8.0	8.5	10.5	9.5	10.0	4.0	2.0	3.0	1.5	.5	1.0
24	9.5	7.5	8.5	12.0	10.5	11.0	2.5	.5	1.5	2.5	1.0	1.5
25	9.5	7.0	8.0	11.0	8.5	9.5	1.5	.0	1.0	1.0	.0	.5
26	10.0	6.5	8.5	11.5	8.5	10.0	3.0	1.0	2.0	1.5	.5	1.0
27	9.0	6.5	8.0	11.0	8.5	9.5	3.0	2.0	2.5	.5	.0	.0
28	8.5	5.5	7.0	8.5	6.0	7.5	2.0	.5	1.5	.0	.0	.0
29	10.0	6.0	8.0	6.5	5.0	6.0	2.5	1.0	2.0	.5	.0	.5
30	11.0	7.5	9.5	5.0	3.0	4.5	4.0	1.5	2.5	1.0	.0	.5
31	12.0	8.0	10.0	---	---	---	4.5	3.0	3.5	1.0	.0	.5
MONTH	14.0	5.5	10.0	13.5	2.0	7.5	9.5	.0	4.3	9.0	.0	2.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	1.5	.0	1.0	6.0	4.5	5.5	9.5	5.5	7.5	12.0	6.5	9.5
2	1.5	.0	.5	6.0	5.0	5.5	9.5	7.5	8.5	13.5	9.0	11.5
3	1.0	.0	.5	6.0	4.5	5.0	12.0	9.0	10.5	14.0	7.5	10.5
4	2.0	.5	1.0	6.5	4.0	5.0	11.0	7.5	10.0	15.5	9.5	12.5
5	2.0	.5	1.0	7.5	4.5	6.0	8.0	6.0	7.0	16.5	11.5	14.0
6	2.0	.5	1.0	7.0	4.5	5.5	11.0	6.0	8.0	17.0	12.5	14.5
7	2.5	.5	1.5	8.5	4.0	6.5	9.5	7.0	8.5	18.5	13.0	15.5
8	1.0	.0	.5	11.0	6.5	8.5	12.0	7.5	9.5	18.5	13.5	16.0
9	1.0	.0	.5	10.5	7.0	8.5	7.5	4.5	6.5	19.0	14.0	16.5
10	3.0	.5	1.5	9.5	7.0	8.5	9.0	6.0	7.5	17.0	13.0	15.0
11	3.5	1.5	2.5	7.0	6.0	6.5	7.5	6.5	7.0	15.0	11.5	13.5
12	2.5	.5	1.0	6.0	4.0	5.5	9.0	6.0	7.5	15.0	12.5	14.0
13	1.0	.0	.5	6.5	3.5	5.0	9.0	5.0	7.0	15.5	13.0	14.0
14	1.5	1.0	1.0	7.5	4.0	5.5	9.5	6.0	8.0	15.0	11.5	13.0
15	2.5	1.0	2.0	8.5	4.5	6.5	10.5	7.5	9.0	13.0	9.5	11.5
16	4.0	1.0	2.5	9.0	6.0	7.5	14.0	9.5	11.0	12.5	8.5	10.5
17	2.5	1.0	1.5	8.0	3.5	6.0	10.5	7.5	9.0	13.5	10.5	12.0
18	1.5	.0	1.0	5.5	2.5	4.0	8.0	7.0	7.5	15.5	12.0	13.5
19	3.0	1.5	2.0	6.0	4.0	5.0	11.0	7.5	9.0	14.0	11.0	13.0
20	3.0	1.5	2.5	7.0	5.0	6.0	12.0	9.0	10.5	11.0	10.0	10.5
21	3.5	1.0	2.0	6.0	4.5	5.5	10.0	8.5	9.0	11.5	10.0	11.0
22	4.0	1.0	2.5	8.0	5.0	6.5	9.5	8.0	8.5	11.5	11.0	11.5
23	5.0	2.5	3.5	9.0	7.0	8.0	9.0	7.5	8.0	12.5	11.0	11.5
24	5.0	3.0	4.0	10.0	7.0	8.5	12.5	7.0	9.5	15.0	12.0	13.0
25	6.0	3.5	4.5	9.5	7.5	8.5	12.0	8.0	9.5	14.0	12.0	13.0
26	5.0	4.5	4.5	9.5	7.0	8.5	10.5	8.0	9.0	14.0	11.0	12.5
27	6.0	5.0	5.5	9.0	6.0	7.5	8.5	7.5	8.0	12.0	11.0	11.5
28	6.0	5.0	5.5	9.0	7.5	8.0	11.0	8.0	9.0	12.0	10.5	11.5
29	6.0	4.5	5.0	7.5	6.5	7.0	13.0	6.5	9.5	12.0	10.5	11.5
30	---	---	---	8.5	6.0	7.0	13.0	8.0	10.0	13.0	10.0	11.5
31	---	---	---	9.0	5.5	7.0	---	---	---	12.5	9.5	11.0
MONTH	6.0	.0	2.2	11.0	2.5	6.6	14.0	4.5	8.6	19.0	6.5	12.6

