



2004 Water Year SCHUYLKILL RIVER BASIN

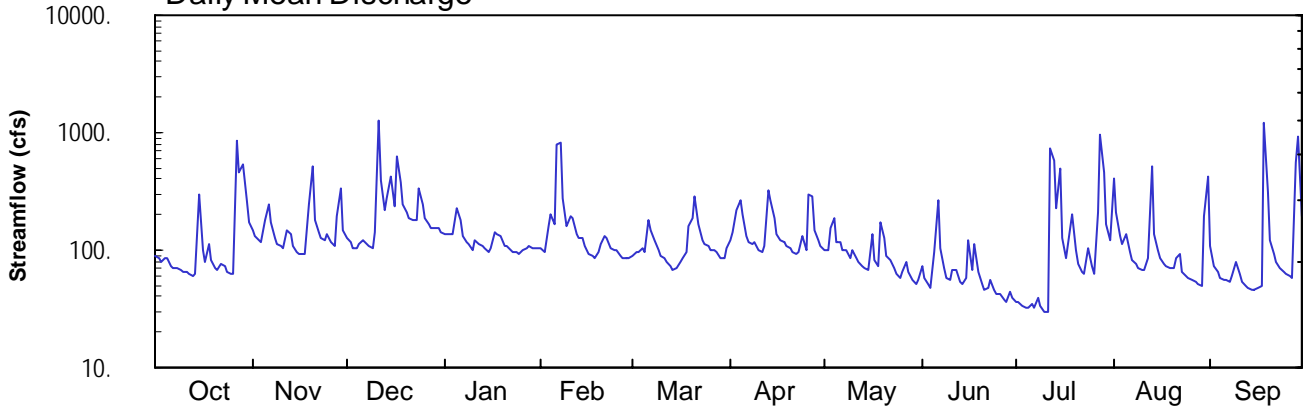
01472157 French Creek near Phoenixville, PA

Latitude: 40° 09 ' 05"
Chester County

Longitude: 075° 36 ' 06"
Datum: 160 feet

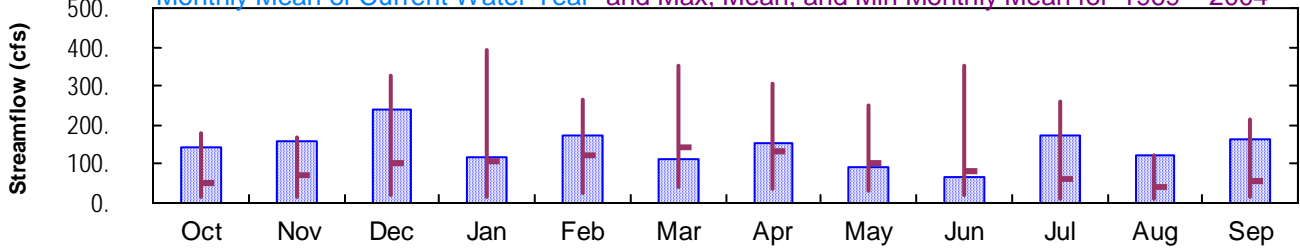
Hydrologic Unit Code: 02040203
Drainage Area: 59.1 mi²

Daily Mean Discharge

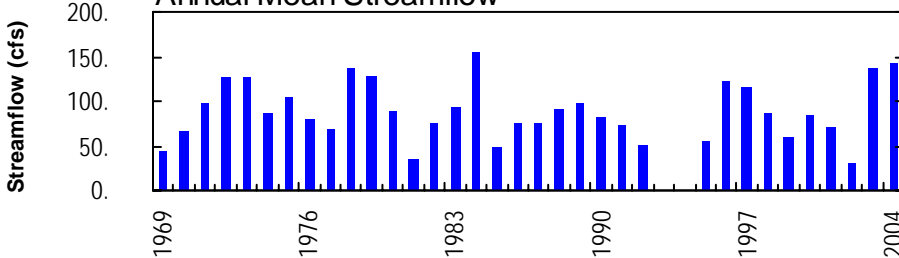


Monthly Statistics

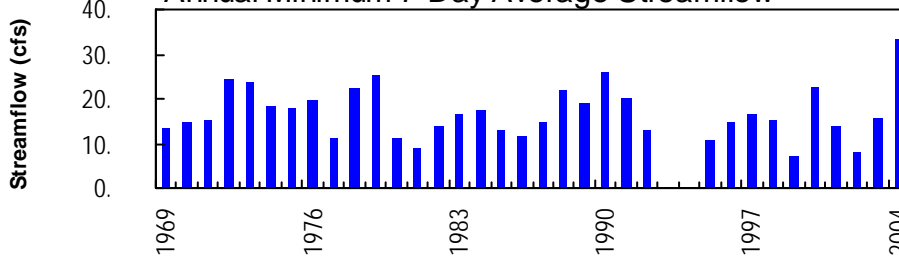
Monthly Mean of Current Water Year and Max, Mean, and Min Monthly Mean for 1969 – 2004



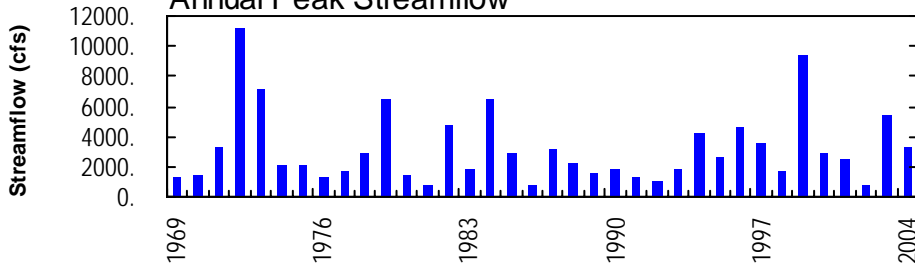
Annual Mean Streamflow



Annual Minimum 7-Day Average Streamflow



Annual Peak Streamflow



01472157-French Creek near Phoenixville

SCHUYLKILL RIVER BASIN

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA

LOCATION.--Lat 40°09'05", long 75°36'06", Chester County, Hydrologic Unit 02040203, on right bank 70 ft downstream from two-span county bridge on French Creek Road, 4.5 mi northwest of Phoenixville, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--59.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 160 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 7, 1968, nonrecording gage at site 70 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Satellite telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s (revised) and maximum (*):

Date	Time	Discharge ft ³ /s	Gage Height (ft)	Date	Time	Discharge ft ³ /s	Gage Height (ft)
Oct. 27	1645	1,550	7.86	July 28	0815	1,420	7.58
Dec. 11	1300	1,800	8.03	Aug. 13	0615	1,200	7.27
Dec. 17	1145	1,050	7.05	Sept. 18	1430	*3,360	*9.51
Feb. 6	----	Unknown	Ice jam	Sept. 28	2315	2,890	9.11
July 12	1830	2,840	9.07				

**DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	148	127	136	e102	89	121	102	73	36	404	108
2	84	133	116	135	98	95	140	99	59	36	207	73
3	78	124	106	135	e160	98	214	153	52	34	131	65
4	86	117	103	136	e200	103	262	185	47	32	111	59
5	86	176	112	226	164	97	201	119	98	32	135	56
6	75	250	123	180	e800	177	130	118	265	35	96	55
7	71	171	115	130	830	146	117	102	103	33	83	53
8	69	127	108	116	280	120	111	99	70	40	76	60
9	68	112	105	114	162	100	118	86	59	34	70	78
10	66	106	141	99	191	90	101	100	55	30	66	63
11	65	105	1280	119	185	85	95	86	67	30	67	53
12	62	146	389	113	137	80	108	78	67	721	85	49
13	59	134	220	109	127	72	327	73	53	582	524	48
14	61	108	273	103	126	69	262	70	51	224	137	46
15	297	97	420	95	110	70	187	68	57	488	100	46
16	98	93	232	104	e92	78	138	135	119	125	86	48
17	80	93	615	140	e88	87	124	81	68	85	77	50
18	112	93	380	138	87	96	115	74	111	152	72	1220
19	82	249	241	132	96	162	108	169	64	204	69	312
20	72	511	210	107	114	188	102	129	52	98	69	122
21	69	181	188	e110	130	285	97	89	46	77	86	92
22	76	143	181	e100	125	169	94	81	47	64	93	78
23	74	128	178	e98	104	122	98	69	56	62	66	71
24	65	122	331	e95	101	112	134	63	46	105	60	66
25	62	135	248	e93	99	107	99	57	42	73	57	63
26	63	116	183	e100	90	101	293	64	42	62	55	61
27	867	110	168	e105	86	101	286	79	38	209	53	59
28	454	196	156	e107	84	96	147	66	36	960	51	564
29	539	329	153	e105	85	86	120	56	44	453	50	910
30	261	149	154	e103	---	84	109	51	39	164	196	195
31	174	---	143	e102	---	105	---	55	---	122	420	---
TOTAL	4463	4702	7499	3685	5053	3470	4558	2856	2026	5402	3852	4823
MEAN	144	157	242	119	174	112	152	92.1	67.5	174	124	161
MAX	867	511	1280	226	830	285	327	185	265	960	524	1220
MIN	59	93	103	93	84	69	94	51	36	30	50	46
CFSM	2.44	2.65	4.09	2.01	2.95	1.89	2.57	1.56	1.14	2.95	2.10	2.72
IN.	2.81	2.96	4.72	2.32	3.18	2.18	2.87	1.80	1.28	3.40	2.42	3.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2004, BY WATER YEAR (WY)

MEAN	51.0	71.7	102	107	123	144	134	103	82.7	62.2	42.2	55.0
MAX	180	166	328	394	266	350	306	250	353	258	124	214
(WY)	1997	1973	1997	1979	1984	1994	1983	1989	1972	1984	2004	1999
MIN	16.7	17.3	19.2	13.7	24.8	40.5	35.6	31.9	22.2	11.1	11.7	14.1
(WY)	2002	2002	2002	1981	2002	1981	1985	1969	1999	1999	2002	1980

e Estimated.

SCHUYLKILL RIVER BASIN

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1969 - 2004	
ANNUAL TOTAL	58093		52389			
ANNUAL MEAN	159		143		89.6	
HIGHEST ANNUAL MEAN					155	1984
LOWEST ANNUAL MEAN					30.4	2002
HIGHEST DAILY MEAN	2130	Jun 21	1280	Dec 11	4530	Jun 22 1972
LOWEST DAILY MEAN	33	Aug 29	30	Jul 10,11	7.1	Aug 7 1999
ANNUAL SEVEN-DAY MINIMUM	34	Aug 25	33	Jul 5	7.3	Aug 2 1999
MAXIMUM PEAK FLOW			a3360	Sep 18	a11200	Jun 22 1972
MAXIMUM PEAK STAGE			9.51	Sep 18	13.66	Jun 22 1972
INSTANTANEOUS LOW FLOW			29	Jul 11,12	6.9	Aug 8 1999
ANNUAL RUNOFF (CFSM)	2.69		2.42		1.52	
ANNUAL RUNOFF (INCHES)	36.57		32.98		20.60	
10 PERCENT EXCEEDS	298		253		172	
50 PERCENT EXCEEDS	105		102		56	
90 PERCENT EXCEEDS	47		53		20	

a From rating curve extended above 2,500 ft³/s, on basis of slope-area measurement of peak flow.

SCHUYLKILL RIVER BASIN

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1950 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: November 1998 to April 1999, June 1999 to August 1999, June 2000 to September 2001.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Agency collecting sample, code (00027)	Agency analyzing sample, code (00028)	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	pH, water, unfltrd field, std units (00400)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat lab, µS/cm 25 degC (90095)	Specif. conductance, wat unfltrd, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT 07...	1300	1028	80020	70	11.8	7.8	7.7	164	168	10.8	14.8	5.11	1.68

Date	Sodium, water, fltrd, mg/L (00930)	Chloride, water, fltrd, mg/L (00940)	Silica, water, fltrd, mg/L (00955)	Sulfate, water, fltrd, mg/L (00945)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Boron, water, fltrd, µg/L (01020)	Iron, water, fltrd, µg/L (01046)
OCT 07...	8.25	12.8	17.3	12.2	<.04	1.56	E.004	<.02	21	146

SCHUYLKILL RIVER BASIN

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES

REMARKS.--Samples were collected using a Hess sampler with a mesh size of 500 µm. Each sample covered a total area of 2.4 m².

Date	10/07/03
Benthic Macroinvertebrate	Count
Platyhelminthes	
Turbellaria (FLATWORMS)	
Tricladida	
Planariidae	4
Nemertea (PROBOSCIS WORMS)	
Enopla	
Hoplonemertea	
Tetrastemmatidae	
<i>Prostoma</i>	15
Mollusca	
Gastropoda (SNAILS)	
Basommatophora	
Ancyliidae	
<i>Ferrissia</i>	6
Lymnaeidae	
<i>Fossaria</i>	2
Planorbidae	
<i>Gyraulus</i>	2
Mesogastropoda	
Hydrobiidae	2
Bivalvia (CLAMS)	
Veneroidea	
Sphaeriidae	
<i>Sphaerium</i>	6
Annelida	
Oligochaeta (AQUATIC EARTHWORMS)	
Lumbriculida	
Lumbriculidae	6
Arthropoda	
Acariformes	
Hydrachnidia (WATER MITES)	16
Amphipoda (SCUDS)	
Crangonyctidae	
<i>Stygonectes</i>	1
Insecta	
Ephemeroptera (MAYFLIES)	
Baetidae	
<i>Acentrella</i>	7
<i>Baetis</i>	16
Ephemerellidae	
<i>Eurylophella</i>	5
<i>Serratella</i>	6
Heptageniidae	
<i>Stenonema</i>	33
Isonychiidae	
<i>Isonychia</i>	29
Odonata (DRAGONFLIES AND DAMSELFLIES)	
Coenagrionidae	
<i>Argia</i>	3
Gomphidae	4

SCHUYLKILL RIVER BASIN

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

BIOLOGICAL DATA
BENTHIC MACROINVERTEBRATES--Continued

Date	10/07/03
Benthic Macroinvertebrate	Count
Plecoptera (STONEFLIES)	
Chloroperlidae	
<i>Haploperla</i>	3
Perlidae	
<i>Acroneuria</i>	7
<i>Paragnetina</i>	1
Megaloptera	
Corydalidae (FISHFLIES AND DOBSONFLIES)	
<i>Nigronia</i>	1
Trichoptera (CADDISFLIES)	
Apataniidae	
<i>Apatania</i>	37
Brachycentridae	
<i>Micrasema</i>	26
Glossosomatidae	
<i>Glossosoma</i>	6
Hydropsychidae	
<i>Cheumatopsyche</i>	53
<i>Hydropsyche</i>	118
<i>Potamyia</i>	18
Hydroptilidae	
<i>Leucotrichia</i>	38
Leptoceridae	
<i>Oecetis</i>	1
Philopotamidae	
<i>Chimarra</i>	5
Lepidoptera	
Pyralididae (MOTHS)	
<i>Petrophila</i>	2
Coleoptera (BEETLES)	
Elmidae (RIFFLE BEETLES)	
<i>Dubiraphia</i>	1
<i>Optioservus</i>	29
<i>Oulimnius</i>	6
<i>Stenelmis</i>	13
Psephenidae (WATER PENNIES)	
<i>Ectopria</i>	1
<i>Psephenus</i>	24
Diptera (TRUE FLIES)	
Ceratopogonidae	1
Chironomidae (MIDGES)	48
Empididae (DANCE FLIES)	
<i>Hemerodromia</i>	1
Simuliidae (BLACK FLIES)	
<i>Simulium</i>	9
Total Organisms	612
Total Taxa	42

SCHUYLKILL RIVER BASIN

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued
(National Water-Quality Assessment Station)

REMARKS.--These samples were collected as part of the Delaware River Basin National Water-Quality Assessment Program (DELNR NAWQA). For the definition of the type of quality-control data listed under SAMPLE TYPE, refer to "Water-Quality-Control Data" in the "Introduction."

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Barometric pressure, mm Hg (00025)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd uS/cm 25 degC (00095)	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Alkalinity, wat fltr inc tit field, mg/L as CaCO3 (39086)
NOV 13...	0910	Environmental	138	744	10.9	96	7.4	150	12.5	9.9	35
NOV 13...	0911	Split Replicate	--	--	--	--	--	--	--	--	--
DEC 08...	1050	Environmental	108	756	14.6	102	7.3	166	.0	.7	30
JAN 20...	1200	Environmental	115	761	14.9	102	7.2	174	-2.5	.1	29
MAR 16...	0900	Environmental	70	756	13.0	101	7.1	158	1.0	4.9	25
APR 12...	0950	Environmental	98	751	12.2	104	7.2	153	11.5	8.4	28
MAY 20...	1140	Environmental	124	764	10.1	106	7.8	150	21.5	17.8	32
JUN 16...	1040	Environmental	155	760	8.9	98	7.5	144	27.0	20.0	33
JUL 07...	0930	Environmental	32	754	8.9	100	7.8	165	25.0	20.9	43
SEP 01...	1030	Environmental	109	763	9.0	98	7.4	148	25.5	19.6	33

Date	Chloride, water, fltrd, mg/L (00940)	Sulfate, water, fltrd, mg/L (00945)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd, mg/L (00665)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons/d (80155)
NOV 13...	12.1	11.8	<.04	1.41	<.008	.009	.037	1.67	3	1.1
NOV 13...	12.0	11.8	<.04	1.40	<.008	.009	.028	1.62	3	--
DEC 08...	16.8	12.8	<.04	1.72	<.008	E.004	.015	1.83	1	.29
JAN 20...	22.9	13.1	<.04	1.92	<.008	.007	.017	2.10	3	.93
MAR 16...	14.7	11.3	<.04	1.57	E.004	<.006	.016	1.74	2	.38
APR 12...	14.2	10.8	<.04	1.51	<.008	E.003	.020	1.67	4	1.1
MAY 20...	13.1	8.0	<.04	1.08	.008	.018	.066	1.49	--	--
JUN 16...	12.7	9.4	<.04	1.16	.009	.024	.167	1.48	60	25
JUL 07...	13.0	11.9	<.04	1.14	<.008	.010	.028	1.28	3	.26
SEP 01...	11.3	17.1	E.02	.93	E.004	.052	.106	1.34	10	2.9

Remark codes used in this table:
< -- Less than
E -- Estimated value

SCHUYLKILL RIVER BASIN

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

WATER-COLUMN PESTICIDE ANALYSES

REMARKS.--The following were determined using laboratory schedule 2001. Only pesticides detected in one or more surface-water samples are listed in the following table.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	CIAT, water, fltrd, ug/L (04040)	Aceto- chlor, water, fltrd, ug/L (49260)	Ala- chlor, water, fltrd, ug/L (46342)	alpha- HCH, water, fltrd, ug/L (34253)	Atra- zine, water, fltrd, ug/L (39632)	Ben- flur- alin, water, fltrd 0.7u GF ug/L (82673)	Car- baryl, water, fltrd 0.7u GF ug/L (82680)	Chlor- pyrifos water, fltrd, ug/L (38933)	DCPA, water fltrd 0.7u GF ug/L (82682)
NOV 13...	0910	Environmental	E.008	<.006	<.005	<.005	.013	<.010	<.041	<.005	<.003
JAN 20...	1200	Environmental	E.025	<.006	<.005	<.005	.010	<.010	<.041	<.005	<.003
MAR 16...	0900	Environmental	E.019	<.006	<.005	<.005	.010	<.010	<.041	<.005	<.003
APR 12...	0950	Environmental	E.021	<.006	<.005	<.005	.011	<.010	E.008	<.005	<.003
MAY 20...	1140	Environmental	E.035	.009	<.005	<.005	.228	<.010	<.041	<.005	<.003
JUN 16...	1039	Field Blank	<.006	<.006	<.005	<.005	<.007	<.010	<.041	<.005	<.003
JUN 16...	1040	Environmental	E.031	.026	<.005	<.005	.223	<.010	E.026	.017	<.003
JUL 07...	0930	Environmental	E.035	<.006	<.005	<.005	.028	<.010	<.041	<.005	<.003
SEP 01...	1030	Environmental	E.019	<.006	<.005	<.005	.023	<.010	<.041	<.005	<.003

Date	Desulf- inyl fipro- nil, water, fltrd, ug/L (62170)	Diazi- non, water, fltrd, ug/L (39572)	Desulf- inyl- fipro- nil amide, wat flt ug/L (62169)	Fipro- nil sulfide water, fltrd, ug/L (62167)	Fipro- nil sulfone water, fltrd, ug/L (62168)	Fipro- nil, water, fltrd, ug/L (62166)	Lindane water, fltrd, ug/L (39341)	Metola- chlor, water, fltrd, ug/L (39415)	Pendi- meth- alin, water, fltrd 0.7u GF ug/L (82683)	Prome- ton, water, fltrd, ug/L (04037)	Sima- zine, water, fltrd, ug/L (04035)	Tebu- thiuron water fltrd 0.7u GF ug/L (82670)	Tri- flur- alin, water, fltrd 0.7u GF ug/L (82661)
NOV 13...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.009	<.022	M	.008	<.02	<.009
JAN 20...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.009	<.022	<.01	.007	<.02	<.009
MAR 16...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.009	<.022	<.01	.008	<.02	<.009
APR 12...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.008	<.022	<.01	.013	<.02	<.009
MAY 20...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.108	<.022	.01	.182	<.02	<.009
JUN 16...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	<.013	<.022	<.01	<.005	<.02	<.009
JUN 16...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.139	<.022	.01	.284	<.02	<.009
JUL 07...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	E.011	<.022	<.01	.035	<.02	<.009
SEP 01...	<.012	<.005	<.029	<.013	<.024	<.016	<.004	.035	<.022	.01	.019	<.02	<.009