WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA

Water-quality data presented in this table were collected at stations (listed below) on 14 streams near where the streams cross the boundary of the Delaware Water Gap National Recreation Area in Pennsylvania and New Jersey. Measurements of plant nutrients and major ions were made October-December 2004. Data were collected as part of the Water Quality Assessment and Monitoring Program (a partnership between the USGS and the National Park Service), and will be used as a baseline from which to assess any future changes in the quality of streamwater entering the park.

Station Number	Station Name	Latitude	Longitude	Drainage Area (square miles)
01438301	Vandermark Creek at 4th Street at Milford, PA	411930	0744749	5.19
0143839602	Sawkill Cr 1000 feet above Mouth at Milford, PA	411900	0744759	24.7
01438400	Shimers Brook near Montague, NJ	411847	0744651	7.06
01438700	Raymondskill Creek near Milford, PA	411811	0745121	20.4
01438754	Adams Creek below Long Meadow Brook near Edgemere, PA	411540	0745324	3.71
01438892	Dingmans Cr above Dingmans Falls near Dingmans Ferry, PA	411347	0745350	13.9
01439092	Hornbecks Creek at Emery Road near Dingmans Ferry, PA	411145	0745436	6.43
01439400	Toms Creek at Egypt Mills, PA	410733	0745720	9.34
01439500	Bush Kill at Shoemakers, PA	410517	0750217	117.00
01439570	Sand Hill Creek at Bushkill, PA	410506	0750032	3.46
01439680	Little Bushkill Creek at Bushkill, PA	410552	0750015	32.6
01439830	Big Flat Brook at Tuttles Corner, NJ	411200	0744855	28.30
01439920	Little Flat Brook at Peters Valley, NJ	411154	0745009	14.70
01440100	Vancampens Brook near Millbrook, NJ	410328	0750012	7.40

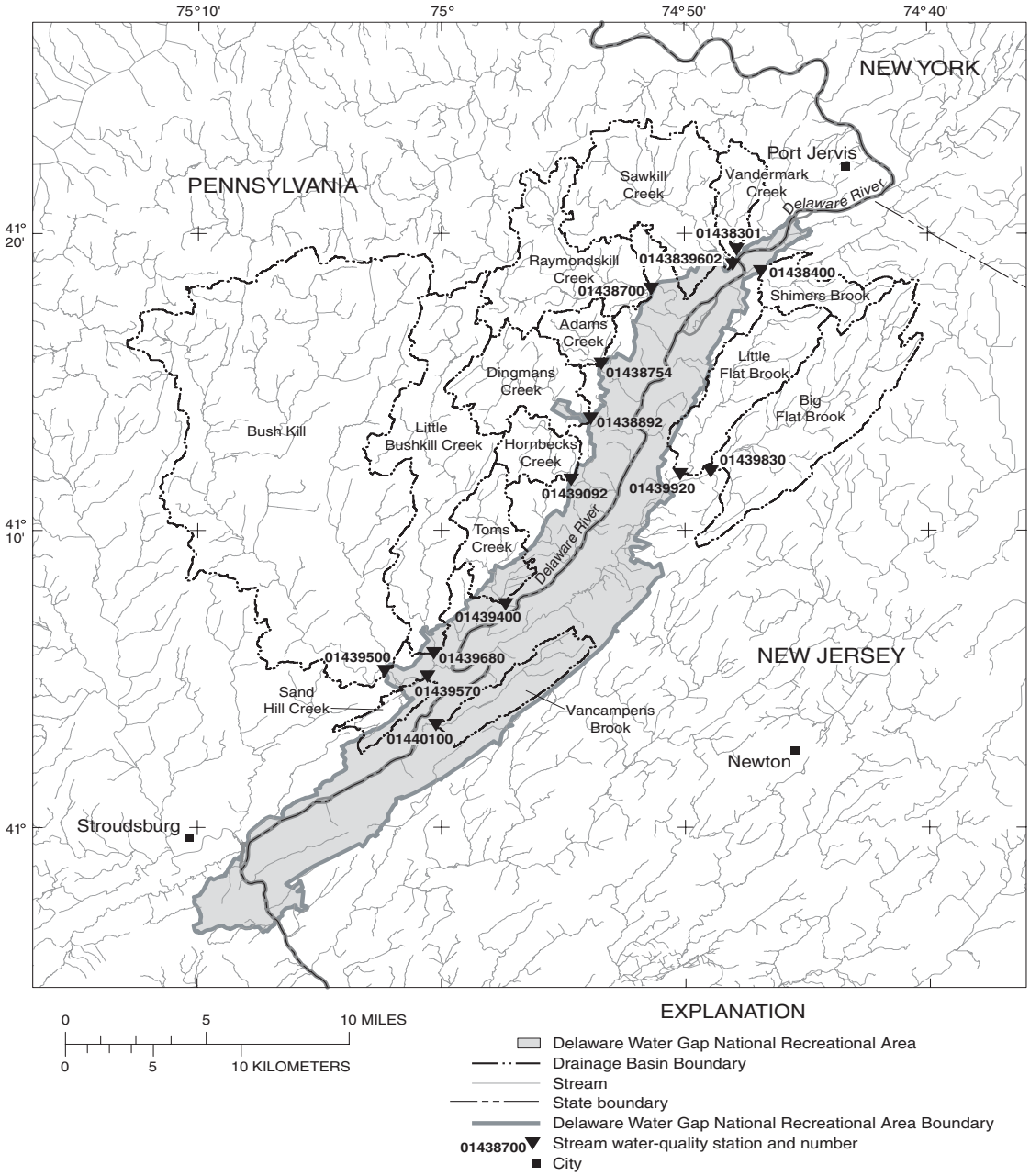

Figure 43. Location of surface-water sites sampled for the Delaware Water Gap National Recreation Area Study, water year 2005.

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES

Station number	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)	pH, water, unfltrd lab, std units (00403)	Specif. conductance, wat unf lab, uS/cm 25 degC (90095)	Specif. conductance, wat unf uS/cm 25 degC (00095)
01438301	10-07-04	1002	Environmental	--	762	10.4	92	7.1	--	--	74
	10-28-04	1000	Environmental	--	760	11.0	93	6.8	7.8	81	87
	11-18-04	1020	Environmental	--	758	11.4	92	6.7	--	--	85
	12-14-04	1155	Environmental	--	752	11.9	91	6.3	--	--	70
0143839602	10-07-04	0940	Environmental	46	764	10.1	87	7.2	--	--	102
	10-28-04	0930	Environmental	42	762	10.7	88	7.0	8.0	105	115
	11-18-04	0952	Environmental	34	757	11.8	94	6.9	--	--	115
	12-14-04	1130	Environmental	34	753	13.0	109	6.4	--	--	93
01438400	10-06-04	1200	Environmental	16	762	9.7	90	7.7	--	--	234
	10-27-04	1215	Environmental	E7.0	758	10.4	90	7.9	7.9	266	281
	11-17-04	1140	Environmental	4.9	760	12.2	95	7.9	--	--	340
	12-15-04	1154	Environmental	E15	760	12.8	90	7.5	--	--	209
01438700	10-05-04	0930	Environmental	38	750	8.0	72	6.4	--	--	83
	10-26-04	1137	Environmental	23	744	10.2	89	6.6	7.2	96	89
	11-16-04	1119	Environmental	13	749	12.0	93	6.4	--	--	99
	12-14-04	1107	Environmental	71	741	12.2	93	6.2	--	--	92
01438754	10-05-04	0955	Environmental	17	747	9.8	89	6.5	--	--	60
	10-26-04	1105	Environmental	8.5	742	9.9	88	6.6	7.3	71	66
	11-16-04	1052	Environmental	6.9	747	11.8	92	6.6	--	--	70
	12-14-04	1040	Environmental	33	739	11.8	88	6.1	--	--	68
01438892	10-05-04	1017	Environmental	E40	752	10.4	98	6.5	--	--	63
	10-26-04	1030	Environmental	E14	752	10.4	91	6.6	7.5	74	70
	11-16-04	1028	Environmental	E11	756	11.6	90	6.7	--	--	79
	12-14-04	1015	Environmental	E57	745	12.2	90	6.1	--	--	70
01439092	10-05-04	1047	Environmental	11	749	9.8	95	6.4	--	--	86
	10-26-04	0945	Environmental	4.7	747	8.9	79	6.7	7.2	101	97
	11-16-04	0957	Environmental	4.4	751	11.2	89	6.4	--	--	107
	12-14-04	0940	Environmental	20	742	11.6	88	6.3	--	--	96
01439400	10-04-04	1130	Environmental	12	754	10.2	93	7.1	--	--	88
	10-25-04	1235	Environmental	6.2	755	10.6	93	7.1	7.8	92	91
	11-15-04	1134	Environmental	5.7	767	11.8	91	7.1	--	--	90
	12-13-04	1130	Environmental	18	742	10.8	87	6.7	--	--	52
01439500	*10-04-04*	*1009*	*Field Blank*	--	--	--	--	--	--	--	--
	10-04-04	1010	Environmental	355	755	9.4	85	6.7	--	--	38
	10-25-04	1030	Environmental	154	755	10.2	88	6.9	7.5	49	40
	11-15-04	1020	Environmental	118	766	12.4	90	6.9	--	--	45
	12-13-04	1015	Environmental	584	741	12.2	97	6.0	--	--	39
01439570	10-04-04	1036	Environmental	4.2	755	9.1	85	7.6	--	--	250
	10-25-04	1120	Environmental	.70	754	10.5	--	7.8	7.9	295	--
	11-15-04	1044	Environmental	.80	766	13.0	95	7.9	--	--	300
	12-13-04	1040	Environmental	6.3	742	11.2	90	7.3	--	--	155
01439680	10-04-04	1055	Environmental	108	756	9.3	87	6.4	--	--	42
	10-25-04	1150	Environmental	42	756	10.5	90	6.7	7.2	43	44
	11-15-04	1105	Environmental	32	767	12.4	93	7.0	--	--	49
	12-13-04	1101	Environmental	189	742	--	--	6.5	--	--	--
01439830	10-06-04	1122	Environmental	39	761	9.5	84	7.2	--	--	79
	10-27-04	1130	Environmental	E22	755	10.3	89	7.3	8.1	89	93
	11-17-04	1109	Environmental	18	757	12.2	94	7.3	--	--	102
	12-15-04	1121	Environmental	E66	758	13.0	--	7.1	--	--	--
01439920	10-06-04	1055	Environmental	23	762	10.6	94	7.7	--	--	346
	10-27-04	1055	Environmental	E10	757	11.3	97	7.9	8.0	339	367
	11-17-04	1047	Environmental	9.6	760	13.2	101	7.7	--	--	369
	12-15-04	1057	Environmental	E26	760	13.2	93	7.5	--	--	294
	12-15-04	*1058*	*Split Replicate*	--	--	--	--	--	--	--	--
01440100	10-06-04	1009	Environmental	16	765	10.0	86	6.7	--	--	65
	10-27-04	1000	Environmental	E7.3	760	10.2	86	6.7	--	68	71
	11-17-04	1007	Environmental	6.0	762	12.0	92	6.6	--	--	74
	12-15-04	1017	Environmental	E22	763	12.4	90	6.7	--	--	62

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Temperature, air, deg C (00020)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, lab, mg/L as CaCO3 (90410)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)
01438301	10-07-04	10.0	10.0	--	--	--	--	--	--	--	--	--
	10-28-04	6.5	8.0	21	5.06	2.00	.69	6.36	11	11.5	<.1	6.7
	11-18-04	6.0	6.0	--	--	--	--	--	--	--	--	--
	12-14-04	.0	3.5	--	--	--	--	--	--	--	--	--
0143839602	10-07-04	9.5	9.0	--	--	--	--	--	--	--	--	--
	10-28-04	5.0	7.0	23	6.38	1.80	.56	10.8	13	18.6	<.1	5.4
	11-18-04	6.0	5.5	--	--	--	--	--	--	--	--	--
	12-14-04	-1.0	7.2	--	--	--	--	--	--	--	--	--
01438400	10-06-04	11.0	12.0	--	--	--	--	--	--	--	--	--
	10-27-04	12.5	9.0	120	36.3	6.64	.90	13.7	100	24.3	E.1	4.7
	11-17-04	9.0	4.5	--	--	--	--	--	--	--	--	--
	12-15-04	-2.0	1.0	--	--	--	--	--	--	--	--	--
01438700	10-05-04	9.0	10.0	--	--	--	--	--	--	--	--	--
	10-26-04	10.0	8.5	17	4.41	1.57	.40	10.2	9	17.2	<.1	6.1
	11-16-04	8.0	4.0	--	--	--	--	--	--	--	--	--
	12-14-04	-2.0	3.0	--	--	--	--	--	--	--	--	--
01438754	10-05-04	8.0	10.0	--	--	--	--	--	--	--	--	--
	10-26-04	9.0	9.0	15	3.64	1.47	.51	6.19	8	10.2	<.1	4.1
	11-16-04	8.0	4.0	--	--	--	--	--	--	--	--	--
	12-14-04	-3.0	2.0	--	--	--	--	--	--	--	--	--
01438892	10-05-04	9.0	12.0	--	--	--	--	--	--	--	--	--
	10-26-04	10.5	9.0	16	4.00	1.35	.51	7.01	9	10.7	<.1	4.3
	11-16-04	7.0	4.5	--	--	--	--	--	--	--	--	--
	12-14-04	-3.0	2.0	--	--	--	--	--	--	--	--	--
01439092	10-05-04	10.0	13.0	--	--	--	--	--	--	--	--	--
	10-26-04	12.0	9.0	20	5.12	1.76	.50	10.4	12	17.4	<.1	4.5
	11-16-04	7.0	5.0	--	--	--	--	--	--	--	--	--
	12-14-04	-2.0	2.9	--	--	--	--	--	--	--	--	--
01439400	10-04-04	14.0	11.0	--	--	--	--	--	--	--	--	--
	10-25-04	9.0	9.0	24	6.20	2.17	.44	6.89	14	12.1	E.1	6.4
	11-15-04	11.0	4.5	--	--	--	--	--	--	--	--	--
	12-13-04	6.5	5.1	--	--	--	--	--	--	--	--	--
01439500	*10-04-04*	--	--	--	--	--	--	--	--	--	--	--
	10-04-04	9.0	10.5	--	--	--	--	--	--	--	--	--
	10-25-04	9.5	8.5	13	3.44	1.06	.43	3.39	8	4.88	<.1	5.6
	11-15-04	8.0	2.5	--	--	--	--	--	--	--	--	--
	12-13-04	6.0	4.5	--	--	--	--	--	--	--	--	--
01439570	10-04-04	12.0	12.0	--	--	--	--	--	--	--	--	--
	10-25-04	8.0	9.0	140	52.8	2.32	.76	10.1	117	16.9	<.1	3.9
	11-15-04	6.0	2.5	--	--	--	--	--	--	--	--	--
	12-13-04	5.0	5.0	--	--	--	--	--	--	--	--	--
01439680	10-04-04	16.0	12.0	--	--	--	--	--	--	--	--	--
	10-25-04	9.0	8.5	12	3.00	1.07	.25	3.08	6	4.79	<.1	5.8
	11-15-04	11.0	3.5	--	--	--	--	--	--	--	--	--
	12-13-04	5.2	4.9	--	--	--	--	--	--	--	--	--
01439830	10-06-04	12.5	10.0	--	--	--	--	--	--	--	--	--
	10-27-04	12.0	8.5	27	7.23	2.11	.60	6.64	19	10.4	<.1	5.6
	11-17-04	10.0	4.0	--	--	--	--	--	--	--	--	--
	12-15-04	-2.5	1.0	--	--	--	--	--	--	--	--	--
01439920	10-06-04	13.5	10.0	--	--	--	--	--	--	--	--	--
	10-27-04	11.5	8.5	150	45.1	8.55	1.14	20.8	127	36.1	<.1	4.6
	11-17-04	13.0	4.0	--	--	--	--	--	--	--	--	--
	12-15-04	-2.0	1.0	--	--	--	--	--	--	--	--	--
	12-15-04	--	--	--	--	--	--	--	--	--	--	--
01440100	10-06-04	7.0	9.0	--	--	--	--	--	--	--	--	--
	10-27-04	10.0	8.0	28	7.40	2.23	.51	1.91	23	2.31	<.1	5.2
	11-17-04	6.0	4.0	--	--	--	--	--	--	--	--	--
	12-15-04	.0	2.0	--	--	--	--	--	--	--	--	--

WATER QUALITY IN STREAMS OF THE DELAWARE WATER GAP NATIONAL RECREATION AREA—Continued

MULTIPLE STATION ANALYSES—CONTINUED

Station number	Date	Sulfate water, fltrd, mg/L (00945)	Residue water, fltrd, sum of consti-tuents mg/L (70301)	Residue on evap. at 180degC wat flt mg/L (70300)	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)	Total nitro-gen, wat unf by anal ysis, mg/L (62855)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L (00665)	Boron, water, fltrd, ug/L (01020)	Sus-pended sedi-ment concen-tration mg/L (80154)
01438301	10-07-04	--	--	--	<.010	.31	<.008	.40	.008	.016	--	--
	10-28-04	7.3	47	51	<.010	.27	<.008	.34	.010	.015	E7	1
	11-18-04	--	--	--	<.010	.23	<.008	.29	E.003	.010	--	--
	12-14-04	--	--	--	<.010	.27	<.008	.34	.007	.012	--	--
0143839602	10-07-04	--	--	--	<.010	.25	<.008	.36	E.005	.013	--	--
	10-28-04	7.8	60	62	<.010	.20	<.008	.30	E.005	.009	E7	1
	11-18-04	--	--	--	<.010	.23	<.008	.30	<.006	.009	--	--
	12-14-04	--	--	--	<.010	.15	<.008	.28	<.006	.009	--	--
01438400	10-06-04	--	--	--	E.009	.17	<.008	.52	<.006	.015	--	--
	10-27-04	9.5	157	161	E.006	.24	<.008	.47	<.006	.009	8	1
	11-17-04	--	--	--	<.010	.31	<.008	.54	<.006	.009	--	--
	12-15-04	--	--	--	.021	.21	<.008	.50	<.006	.019	--	--
01438700	10-05-04	--	--	--	E.009	E.03	<.008	.30	E.003	.013	--	--
	10-26-04	5.0	50	70	E.008	<.06	<.008	.25	E.003	.013	E5	--
	11-16-04	--	--	--	E.006	E.04	<.008	.20	<.006	.012	--	--
	12-14-04	--	--	--	.013	.07	<.008	.26	<.006	.010	--	--
01438754	10-05-04	--	--	--	E.008	<.06	<.008	.16	<.006	.007	--	--
	10-26-04	6.1	37	43	<.010	<.06	<.008	.09	<.006	.006	E5	<1
	11-16-04	--	--	--	<.010	<.06	<.008	.09	<.006	E.004	--	--
	12-14-04	--	--	--	<.010	<.06	<.008	.12	<.006	.005	--	--
01438892	10-05-04	--	--	--	E.007	E.04	<.008	.26	<.006	.013	--	--
	10-26-04	5.7	39	54	E.005	E.03	<.008	.22	E.004	.012	E6	1
	11-16-04	--	--	--	E.005	.07	<.008	.21	<.006	.007	--	--
	12-14-04	--	--	--	<.010	E.06	<.008	.23	<.006	.008	--	--
01439092	10-05-04	--	--	--	E.005	.06	<.008	.26	<.006	.010	--	--
	10-26-04	7.0	54	68	E.006	E.04	<.008	.19	<.006	.008	E7	1
	11-16-04	--	--	--	E.005	E.03	<.008	.17	<.006	.009	--	--
	12-14-04	--	--	--	E.006	.10	<.008	.28	<.006	.008	--	--
01439400	10-04-04	--	--	--	<.010	.09	<.008	.16	E.005	.009	--	--
	10-25-04	8.6	51	65	<.010	E.04	<.008	.10	E.005	.008	E6	<1
	11-15-04	--	--	--	<.010	E.06	<.008	.10	E.003	.006	--	--
	12-13-04	--	--	--	<.010	.11	<.008	.19	<.006	.006	--	--
01439500	*10-04-04*	--	--	--	*<.010*	*<.06*	*<.008*	*<.06*	*<.006*	*<.004*	--	--
	10-04-04	--	--	--	<.010	<.06	<.008	.21	.006	.018	--	--
	10-25-04	5.8	30	41	E.005	.11	E.006	.30	.038	.054	E6	<1
	11-15-04	--	--	--	.028	.19	E.004	.36	.043	.066	--	--
	12-13-04	--	--	--	<.010	<.06	<.008	.16	E.003	.012	--	--
01439570	10-04-04	--	--	--	.013	.24	<.008	.47	.011	.021	--	--
	10-25-04	16.3	174	187	E.005	.16	<.008	.39	E.005	.012	E7	<1
	11-15-04	--	--	--	E.005	.13	<.008	.35	<.006	.010	--	--
	12-13-04	--	--	--	E.009	.28	E.004	.43	E.004	.013	--	--
01439680	10-04-04	--	--	--	<.010	E.04	<.008	.32	E.004	.018	--	--
	10-25-04	4.7	26	40	E.006	<.06	<.008	.31	E.005	.015	E4	1
	11-15-04	--	--	--	<.010	.07	E.005	.27	<.006	.011	--	--
	12-13-04	--	--	--	E.005	E.05	<.008	.28	<.006	.012	--	--
01439830	10-06-04	--	--	--	<.010	<.06	<.008	.16	<.006	.010	--	--
	10-27-04	7.4	51	63	<.010	<.06	<.008	.11	<.006	.006	E5	1
	11-17-04	--	--	--	<.010	<.06	<.008	.09	<.006	.005	--	--
	12-15-04	--	--	--	<.010	E.03	<.008	.12	<.006	.006	--	--
01439920	10-06-04	--	--	--	E.005	.30	<.008	.47	.009	.019	--	--
	10-27-04	10.6	204	206	<.010	.29	<.008	.43	<.006	.009	E8	1
	11-17-04	--	--	--	<.010	.35	<.008	.48	<.006	.007	--	--
	12-15-04	--	--	--	E.006	.32	<.008	.47	E.003	.012	--	--
	12-15-04	--	--	--	*E.006*	*.33*	*<.008*	*.46*	*E.003*	*.013*	--	--
01440100	10-06-04	--	--	--	<.010	<.06	<.008	.07	E.003	.009	--	--
	10-27-04	7.7	41	42	<.010	<.06	<.008	E.04	E.005	.006	E5	1
	11-17-04	--	--	--	<.010	<.06	<.008	<.06	<.006	E.003	--	--
	12-15-04	--	--	--	<.010	<.06	<.008	.07	<.006	.005	--	--