

CHESTER COUNTY

395052075434201. Local number, CH 5181
(New Garden Township, Chester County, Spray Irrigation Project)

LOCATION.--Lat 39°50'52", long 75°43'42", Hydrologic Unit 02040205, at Spray Irrigation Site in New Garden Township.

Owner: New Garden Township Municipal Authority.

AQUIFER.--Felsic Gneiss of Precambrian age.

WATER-LEVEL RECORDS

WELL CHARACTERISTICS.--Drilled observation well, diameter 4 in., depth 40 ft, cased to 40 ft, closed end, screened from 30-40 ft.

INSTRUMENTATION.--Electronic data logger with 60-minute recording interval.

DATUM.--Elevation of land surface is 339 ft above sea level from a GPS unit. Measuring point: Top of plywood shelf, 2.25 ft above land-surface datum.

REMARKS.--In addition to the daily mean water levels shown below, daily maximum and minimum water levels, since July 1998, are also available from the District Office. Data for this project are presented in tables on pages 308-313 and 499-542.

PERIOD OF RECORD.--July 14, 1998 to current year.

EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 6.99 ft below land-surface datum, Sept. 30, 1999; lowest, 11.54 ft below land-surface datum, Jan. 1-3, 1999.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	9.64	10.24
2	---	---	---	---	---	---	---	---	---	---	9.65	10.26
3	---	---	---	---	---	---	---	---	---	---	9.68	10.28
4	---	---	---	---	---	---	---	---	---	---	9.70	10.29
5	---	---	---	---	---	---	---	---	---	---	9.74	10.32
6	---	---	---	---	---	---	---	---	---	---	9.77	10.33
7	---	---	---	---	---	---	---	---	---	---	9.81	10.34
8	---	---	---	---	---	---	---	---	---	---	9.84	10.36
9	---	---	---	---	---	---	---	---	---	---	9.85	10.39
10	---	---	---	---	---	---	---	---	---	---	9.87	10.41
11	---	---	---	---	---	---	---	---	---	---	9.87	10.43
12	---	---	---	---	---	---	---	---	---	---	9.90	10.44
13	---	---	---	---	---	---	---	---	---	---	9.93	10.46
14	---	---	---	---	---	---	---	---	---	9.14	9.94	10.48
15	---	---	---	---	---	---	---	---	---	9.16	9.95	10.49
16	---	---	---	---	---	---	---	---	---	9.19	9.99	10.51
17	---	---	---	---	---	---	---	---	---	9.21	10.00	10.53
18	---	---	---	---	---	---	---	---	---	9.24	10.00	10.55
19	---	---	---	---	---	---	---	---	---	9.27	10.02	10.57
20	---	---	---	---	---	---	---	---	---	9.29	10.03	10.59
21	---	---	---	---	---	---	---	---	---	9.33	10.04	10.60
22	---	---	---	---	---	---	---	---	---	9.35	10.05	10.60
23	---	---	---	---	---	---	---	---	---	9.38	10.07	10.62
24	---	---	---	---	---	---	---	---	---	9.42	10.08	10.64
25	---	---	---	---	---	---	---	---	---	9.44	10.10	10.64
26	---	---	---	---	---	---	---	---	---	9.46	10.13	10.65
27	---	---	---	---	---	---	---	---	---	9.48	10.15	10.65
28	---	---	---	---	---	---	---	---	---	9.51	10.17	10.68
29	---	---	---	---	---	---	---	---	---	9.54	10.19	10.69
30	---	---	---	---	---	---	---	---	---	9.59	10.21	10.70
31	---	---	---	---	---	---	---	---	---	9.60	10.23	---
MEAN	---	---	---	---	---	---	---	---	---	9.37	9.95	10.49
MAX	---	---	---	---	---	---	---	---	---	9.60	10.23	10.70
MIN	---	---	---	---	---	---	---	---	---	9.14	9.64	10.24

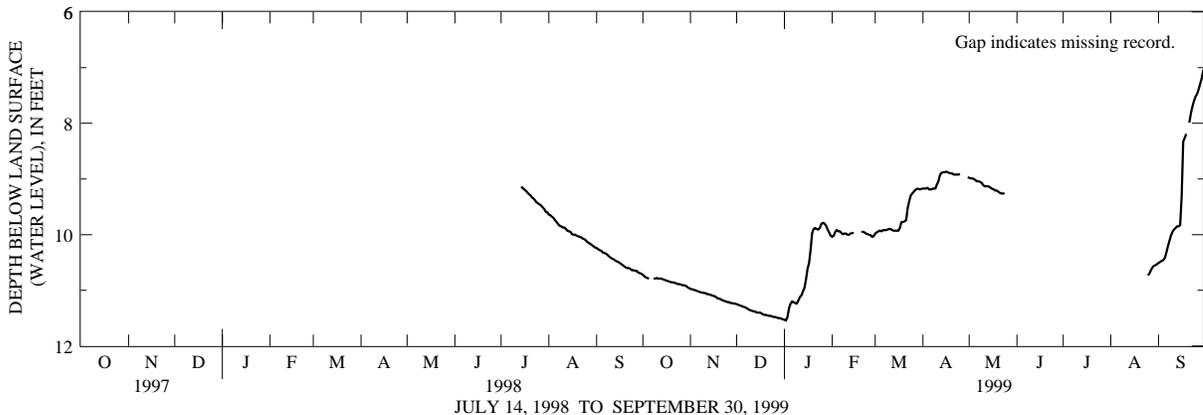
CHESTER COUNTY

395052075434201. Local number, CH 5181--Continued

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.72	10.97	11.25	11.53	10.04	9.98	9.17	8.98	---	---	---	10.51
2	10.75	10.98	11.26	11.54	10.02	9.96	9.17	8.99	---	---	---	10.49
3	10.77	10.99	11.27	11.48	9.95	9.94	9.17	8.99	---	---	---	10.47
4	10.78	11.00	11.28	11.32	9.92	9.93	9.16	9.00	---	---	---	10.46
5	10.79	11.01	11.29	11.24	9.94	9.94	9.19	9.02	---	---	---	10.42
6	---	11.02	11.30	11.20	9.94	9.92	9.19	9.04	---	---	---	10.32
7	---	11.03	11.31	11.21	9.97	9.92	9.18	9.04	---	---	---	10.21
8	10.79	11.04	11.33	11.23	9.99	9.92	9.17	9.05	---	---	---	10.11
9	10.79	11.04	11.35	11.24	9.98	9.91	9.17	9.07	---	---	---	10.02
10	10.78	11.05	11.36	11.19	9.98	9.90	9.10	9.11	---	---	---	9.95
11	10.79	11.05	11.37	11.12	10.00	9.90	9.04	9.13	---	---	---	9.91
12	10.79	11.07	11.38	11.09	10.00	9.92	8.93	9.13	---	---	---	9.88
13	10.79	11.07	11.38	11.02	9.98	9.93	8.89	9.13	---	---	---	9.85
14	10.80	11.08	11.40	10.95	9.97	9.93	8.88	9.14	---	---	---	9.85
15	10.81	11.09	11.40	10.80	9.97	9.93	8.88	9.16	---	---	---	9.83
16	10.82	11.10	11.40	10.61	---	9.93	8.87	9.18	---	---	---	9.31
17	10.83	11.11	11.41	10.51	---	9.88	8.88	9.19	---	---	---	8.33
18	10.84	11.13	11.43	10.27	---	9.78	8.89	9.21	---	---	---	8.26
19	10.85	11.15	11.44	9.97	---	9.77	8.90	9.21	---	---	---	8.19
20	10.86	11.15	11.44	9.90	9.95	9.76	8.90	9.23	---	---	---	---
21	10.86	11.17	11.45	9.88	9.95	9.74	8.92	9.25	---	---	---	7.99
22	10.87	11.18	11.46	9.90	9.96	9.52	8.92	9.26	---	---	---	7.81
23	10.88	11.19	11.46	9.91	9.98	9.40	8.92	9.26	---	---	---	7.69
24	10.89	11.20	11.47	9.88	9.99	9.30	8.92	9.26	---	---	---	7.59
25	10.89	11.21	11.48	9.81	10.00	9.26	8.91	---	---	---	10.73	7.52
26	10.90	11.21	11.48	9.79	10.01	9.23	---	---	---	---	10.70	7.47
27	10.91	11.23	11.49	9.80	10.04	9.20	---	---	---	---	10.64	7.39
28	10.91	11.23	11.50	9.84	10.03	9.18	---	---	---	---	10.59	7.29
29	10.92	11.24	11.50	9.91	---	9.18	---	---	---	---	10.56	7.19
30	10.94	11.24	11.51	9.96	---	9.19	8.97	---	---	---	10.55	7.04
31	10.96	---	11.52	10.02	---	9.18	---	---	---	---	10.53	---
MEAN	10.84	11.11	11.40	10.58	9.98	9.69	9.01	9.13	---	---	10.61	9.01
MAX	10.96	11.24	11.52	11.54	10.04	9.98	9.19	9.26	---	---	10.73	10.51
MIN	10.72	10.97	11.25	9.79	9.92	9.18	8.87	8.98	---	---	10.53	7.04

WTR YR 1999: HIGHEST 7.04, SEPTEMBER 30; LOWEST 11.54, JANUARY 2.



CHESTER COUNTY

395052075434201. Local number, CH 5181--Continued
 (New Garden Township, Chester County, Spray Irrigation Project)

WATER-QUALITY RECORDS

REMARKS.-- Samples collected with submersible pump from recovery water after well was pumped dry.
 PERIOD OF RECORD.--June 1998 to current year.

WATER-QUALITY DATA, JUNE 1998 TO SEPTEMBER 1999

DATE	TIME	AGENCY ANA-LYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COL-LECTING SAMPLE (CODE NUMBER) (00027)	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 (µS/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
JUN 1998	15...	80020	1028	--	6.2	7.0	292	--	30	6.4	13
OCT	06...	80020	1028	2.3	6.6	6.7	271	14.0	26	6.4	6.5
FEB 1999	19...	80020	1028	4.2	6.2	6.4	269	11.5	27	6.8	6.3
APR	26...	80020	1028	4.6	5.9	6.6	266	16.5	27	6.6	5.9
MAY	27...	80020	1028	3.8	6.3	--	275	14.7	--	--	--
JUN	29...	9813	1028	--	5.8	--	261	15.5	29	7.0	6.0
JUL	27...	9813	1028	2.4	6.3	--	260	14.4	--	--	--
AUG	23...	9813	1028	2.1	6.1	--	261	16.3	--	--	--
SEP	20...	9813	1028	.2	6.5	--	252	15.9	28	6.8	5.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)
JUN 1998	7.7	51	6.7	<.10	19	41	.167	.29	--	--	8.78
OCT	7.3	58	8.0	<.10	15	34	1.54	2.0	--	--	5.85
FEB 1999	7.1	51	7.4	<.10	23	37	.110	.16	--	--	8.83
APR	7.0	33	7.6	<.10	19	36	.068	.17	--	--	8.65
MAY	--	47	--	--	--	--	.080	--	.080	16	7.40
JUN	7.9	39	7.7	<.20	19	36	.050	--	--	8.0	7.70
JUL	--	42	--	--	--	--	.090	--	.100	7.1	7.40
AUG	--	40	--	--	--	--	.100	--	.090	6.9	6.70
SEP	7.6	49	7.4	<.20	13	33	.220	--	--	4.9	4.06

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	ALUM-INUM, DIS-SOLVED (µG/L AS AL) (01106)	ANTI-MONY, DIS-SOLVED (µG/L AS SB) (01095)	ARSENIC DIS-SOLVED (µG/L AS AS) (01000)	BARIUM, DIS-SOLVED (µG/L AS BA) (01005)
JUN 1998	8.82	9.1	.049	.042	.111	.094	209	<10	<1.0	<1	78
OCT	5.89	7.8	.036	<.050	<.010	<.050	157	<10	--	--	--
FEB 1999	8.85	9.0	.013	<.050	<.010	<.050	172	<10	--	--	--
APR	8.68	8.8	.027	<.050	<.010	<.050	178	<10	--	--	--
MAY	--	--	<.040	.012	.010	--	--	--	--	--	--
JUN	--	--	<.040	.016	.010	--	--	--	--	--	--
JUL	--	--	<.040	.003	.002	--	--	--	--	--	--
AUG	--	--	<.040	.011	<.002	--	--	--	--	--	--
SEP	--	--	<.040	.016	.003	--	190	--	<2.0	<4	65

CHESTER COUNTY

395052075434201. Local number, CH 5181--Continued

WATER-QUALITY DATA, JUNE 1998 TO SEPTEMBER 1999

DATE	BERYL- LIUM, DIS- SOLVED (µG/L AS BE) (01010)	BORON, DIS- SOLVED (µG/L AS B) (01020)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	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)	COPPER, DIS- SOLVED (µG/L AS CU) (01040)	IRON, DIS- SOLVED (µG/L AS FE) (01046)	LEAD, DIS- SOLVED (µG/L AS PB) (01049)	LITHIUM DIS- SOLVED (µG/L AS LI) (01130)
JUN 1998 15...	<1.0	<16	--	<8.0	3.1	<12	<1.0	320	<1.0	8
OCT 06...	--	<16	--	--	--	--	--	250	--	--
FEB 1999 19...	--	<16	--	--	--	--	--	190	--	--
APR 26...	--	E8.5	--	--	--	--	--	86	--	--
MAY 27...	--	--	--	--	--	--	--	--	--	--
JUN 29...	--	<200	<.20	--	--	--	--	62	--	--
JUL 27...	--	--	--	--	--	--	--	--	--	--
AUG 23...	--	--	--	--	--	--	--	--	--	--
SEP 20...	--	<200	<.20	<10	<4.0	--	<4.0	660	<1.0	<25

DATE	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	MERCURY DIS- SOLVED (µG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (µG/L AS MO) (01060)	NICKEL, DIS- SOLVED (µG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (µG/L AS SE) (01145)	SILVER, DIS- SOLVED (µG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (µG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (µG/L AS V) (01085)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
JUN 1998 15...	169	<.1	<60	3.8	1	<1.0	146	<10	49	.80
OCT 06...	286	--	--	--	--	--	--	--	34	.70
FEB 1999 19...	153	--	--	--	--	--	--	--	73	.70
APR 26...	133	--	--	--	--	--	--	--	129	.60
MAY 27...	--	--	--	--	--	--	--	--	--	--
JUN 29...	95	--	--	--	--	--	--	--	12	1.1
JUL 27...	--	--	--	--	--	--	--	--	--	--
AUG 23...	--	--	--	--	--	--	--	--	--	--
SEP 20...	304	<.2	--	<4.0	<7	--	104	--	<10	<1.0