

CHESTER COUNTY

395043075440701. Local number, CH 5182
(New Garden Township, Chester County, Spray Irrigation Project)

LOCATION.--Lat 39°50'43", long 75°44'07", 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 195 ft, cased to 195 ft, closed end, screened from 165-195 ft.

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

DATUM.--Elevation of land surface is 385 ft. above sea level from a GPS unit. Measuring point: Top of plywood shelf, 1.1 ft above land-surface datum.

REMARKS.--In addition to the daily mean water levels shown below, daily maximum and minimum water levels, since June 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.--June 24, 1998 to current year.

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

Highest water level, 20.00 ft below land-surface datum, June 26, 1998; lowest, 25.77 ft below land-surface datum, Mar. 19, 20, 22, 29-31, 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	---	---	---	---	---	---	---	---	---	20.10	20.87	21.70
2	---	---	---	---	---	---	---	---	---	20.19	20.87	21.70
3	---	---	---	---	---	---	---	---	---	20.20	20.87	21.76
4	---	---	---	---	---	---	---	---	---	20.17	20.91	21.79
5	---	---	---	---	---	---	---	---	---	20.21	20.94	21.87
6	---	---	---	---	---	---	---	---	---	20.26	20.97	21.86
7	---	---	---	---	---	---	---	---	---	20.25	21.01	21.84
8	---	---	---	---	---	---	---	---	---	20.21	21.05	21.88
9	---	---	---	---	---	---	---	---	---	20.24	21.06	21.96
10	---	---	---	---	---	---	---	---	---	20.26	21.03	22.01
11	---	---	---	---	---	---	---	---	---	20.31	21.05	22.03
12	---	---	---	---	---	---	---	---	---	20.33	21.14	22.03
13	---	---	---	---	---	---	---	---	---	20.35	21.18	22.08
14	---	---	---	---	---	---	---	---	---	20.37	21.18	22.13
15	---	---	---	---	---	---	---	---	---	20.38	21.19	22.15
16	---	---	---	---	---	---	---	---	---	20.38	21.24	22.17
17	---	---	---	---	---	---	---	---	---	20.37	21.25	22.20
18	---	---	---	---	---	---	---	---	---	20.42	21.28	22.24
19	---	---	---	---	---	---	---	---	---	20.47	21.35	22.27
20	---	---	---	---	---	---	---	---	---	20.47	21.40	22.29
21	---	---	---	---	---	---	---	---	---	20.51	21.40	22.31
22	---	---	---	---	---	---	---	---	---	20.52	21.41	22.33
23	---	---	---	---	---	---	---	---	---	20.52	21.42	22.41
24	---	---	---	---	---	---	---	---	20.09	20.58	21.44	22.45
25	---	---	---	---	---	---	---	---	20.10	20.64	21.48	22.45
26	---	---	---	---	---	---	---	---	20.05	20.65	21.52	22.48
27	---	---	---	---	---	---	---	---	20.05	20.66	21.57	22.47
28	---	---	---	---	---	---	---	---	20.14	20.67	21.58	22.51
29	---	---	---	---	---	---	---	---	20.10	20.68	21.59	22.57
30	---	---	---	---	---	---	---	---	20.03	20.73	21.64	22.57
31	---	---	---	---	---	---	---	---	---	20.76	21.67	---
MEAN	---	---	---	---	---	---	---	---	20.08	20.41	21.24	22.15
MAX	---	---	---	---	---	---	---	---	20.14	20.76	21.67	22.57
MIN	---	---	---	---	---	---	---	---	20.03	20.10	20.87	21.70

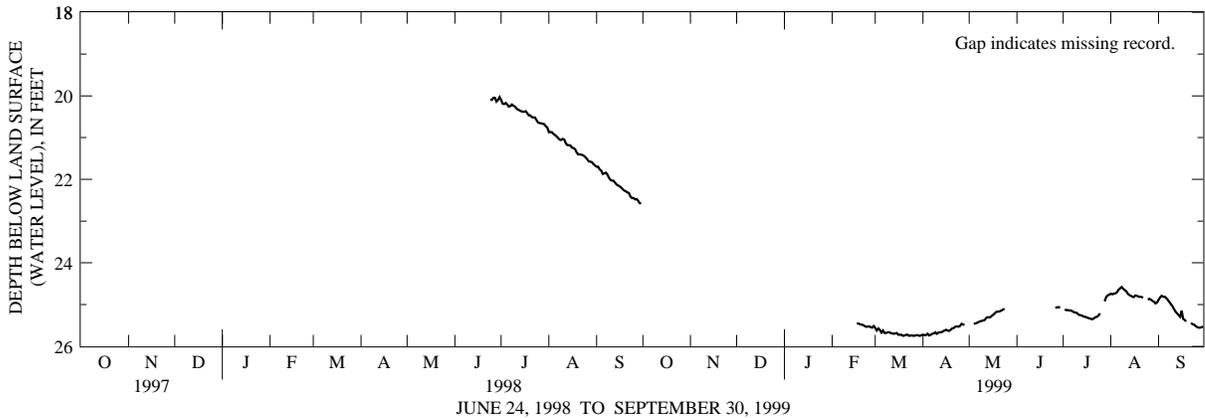
CHESTER COUNTY

395043075440701. Local number, CH 5182--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	---	---	---	---	---	25.55	25.72	---	---	---	24.74	24.89
2	---	---	---	---	---	25.62	25.73	---	---	25.12	24.75	24.83
3	---	---	---	---	---	25.57	25.73	---	---	25.13	24.74	24.79
4	---	---	---	---	---	25.61	25.70	25.46	---	25.13	24.73	24.81
5	---	---	---	---	---	25.67	25.74	25.45	---	25.14	24.70	24.81
6	---	---	---	---	---	25.62	25.72	25.44	---	25.14	24.64	24.85
7	---	---	---	---	---	25.68	25.70	25.42	---	25.16	24.61	24.89
8	---	---	---	---	---	25.68	25.69	25.40	---	25.18	24.58	24.94
9	---	---	---	---	---	25.66	25.66	25.39	---	25.19	24.62	24.99
10	---	---	---	---	---	25.66	25.70	25.38	---	25.20	24.65	25.04
11	---	---	---	---	---	25.68	25.67	25.37	---	25.24	24.68	25.11
12	---	---	---	---	---	25.69	25.66	25.32	---	25.25	24.74	25.17
13	---	---	---	---	---	25.70	25.66	25.30	---	25.26	24.77	25.21
14	---	---	---	---	---	25.69	25.64	25.31	---	25.28	24.79	25.25
15	---	---	---	---	---	25.68	25.62	25.29	---	25.29	24.81	25.29
16	---	---	---	---	---	25.72	25.60	25.26	---	25.30	24.82	25.15
17	---	---	---	---	25.45	25.72	25.62	25.23	---	25.32	24.78	25.34
18	---	---	---	---	25.45	25.72	25.63	25.19	---	25.33	24.79	25.37
19	---	---	---	---	25.47	25.75	25.60	25.17	---	25.34	24.81	25.40
20	---	---	---	---	25.48	25.74	25.57	25.17	---	25.35	24.81	---
21	---	---	---	---	25.49	25.72	25.56	25.16	---	25.33	24.82	---
22	---	---	---	---	25.51	25.72	25.53	25.14	---	25.30	24.83	25.44
23	---	---	---	---	25.53	25.75	25.52	25.12	---	25.29	---	25.47
24	---	---	---	---	25.53	25.74	25.53	25.10	---	25.26	---	25.48
25	---	---	---	---	25.52	25.74	25.51	---	---	25.21	24.88	25.51
26	---	---	---	---	25.54	25.75	25.46	---	25.06	---	24.86	25.54
27	---	---	---	---	25.55	25.74	25.48	---	25.07	---	24.88	25.55
28	---	---	---	---	25.51	25.73	25.48	---	25.06	24.92	24.91	25.55
29	---	---	---	---	---	25.74	---	---	25.07	24.82	24.93	25.54
30	---	---	---	---	---	25.75	---	---	---	24.78	24.97	25.53
31	---	---	---	---	---	25.73	---	---	---	24.76	24.95	---
MEAN	---	---	---	---	25.50	25.69	25.62	25.29	25.06	25.18	24.78	25.20
MAX	---	---	---	---	25.55	25.75	25.74	25.46	25.07	25.35	24.97	25.55
MIN	---	---	---	---	25.45	25.55	25.46	25.10	25.06	24.76	24.58	24.79

WTR YR 1999: HIGHEST 24.58, AUGUST 8; LOWEST 25.77, MARCH 19, 23, 26, 30.



CHESTER COUNTY

395043075440701. Local number, CH 5182--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 more than 3 casing volumes.
 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	16...	80020	1028	--	7.9	7.8	180	--	26	2.8	2.7
OCT	02...	80020	1028	.9	7.9	8.0	204	13.0	29	3.5	2.9
FEB 1999	11...	80020	1028	1.6	8.0	7.8	193	12.3	28	3.5	2.9
APR	30...	80020	1028	.8	7.3	8.1	187	13.5	27	3.3	2.7
JUN	30...	9813	1028	.1	7.4	--	199	13.0	29	3.2	2.8
JUL	26...	9813	1028	.2	7.3	--	183	12.5	--	--	--
AUG	23...	9813	1028	.9	7.8	--	190	13.6	--	--	--
SEP	20...	9813	1028	1.0	6.8	--	180	12.2	28	3.7	2.6

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	3.6	110	1.6	<.10	15	13	.027	<.10	--	--	--
OCT	5.1	68	3.2	<.10	16	18	.023	<.10	--	--	--
FEB 1999	4.8	71	3.1	<.10	17	16	<.020	<.10	--	--	--
APR	4.2	68	3.6	.12	16	14	.034	<.10	--	--	--
JUN	4.7	87	3.3	<.20	15	15	<.020	--	--	<.06	<.040
JUL	--	--	--	--	--	--	<.020	--	.020	<.04	<.040
AUG	--	79	--	--	--	--	.040	--	.030	<.06	<.040
SEP	4.6	--	3.1	<.20	15	15	<.020	--	--	.06	<.040

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	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	<.050	<.010	<.010	.015	.014	114	<10	<1.0	<1	7.7
OCT	.055	<.010	<.050	.014	<.050	126	<10	--	--	--
FEB 1999	<.050	<.010	<.050	.018	<.050	128	<10	--	--	--
APR	<.050	<.010	<.050	.024	<.050	122	<10	--	--	--
JUN	--	<.040	.011	.010	--	138	--	--	--	--
JUL	--	<.040	.010	<.002	--	--	--	--	--	--
AUG	--	<.040	.017	<.002	--	--	--	--	--	--
SEP	--	<.040	.014	.003	--	160	--	<2.0	<4	11

CHESTER COUNTY

395043075440701. Local number, CH 5182--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 16...	<1.0	20	.010	<8.0	<1.0	<12	<1.0	26	<1.0	5
OCT 02...	--	17	--	--	--	--	--	130	--	--
FEB 1999 11...	--	E10	--	--	--	--	--	88	--	--
APR 30...	--	18	--	--	--	--	--	60	--	--
JUN 30...	--	<200	<.20	--	--	--	--	240	--	--
JUL 26...	--	--	--	--	--	--	--	--	--	--
AUG 23...	--	--	--	--	--	--	--	--	--	--
SEP 20...	--	<200	<.20	<10	<4.0	--	<4.0	380	<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 16...	14	<.1	<60	1.3	<1	<1.0	69	<10	133	.50
OCT 02...	23	--	--	--	--	--	--	--	23	1.0
FEB 1999 11...	22	--	--	--	--	--	--	--	25	.70
APR 30...	19	--	--	--	--	--	--	--	E12	.50
JUN 30...	23	--	--	--	--	--	--	--	79	<1.0
JUL 26...	--	--	--	--	--	--	--	--	--	--
AUG 23...	--	--	--	--	--	--	--	--	--	--
SEP 20...	82	<.2	--	<4.0	<7	--	62	--	54	<1.0