

**CHESTER COUNTY**

**395045075434702. Local number, CH 5173.**  
**(New Garden Township, Chester County, Spray Irrigation Project)**

**LOCATION.**--Lat 39°50'45", long 75°43'47", 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 2 in., depth 62 ft, cased to 62 ft, closed end, screened from 42-62 ft.

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

**DATUM.**--Elevation of land surface is 406 ft above sea level from a GPS unit. Measuring point: Top of plywood shelf, 1.9 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 XXX-XXX.

**PERIOD OF RECORD.**--July 31, 1998 to current year.

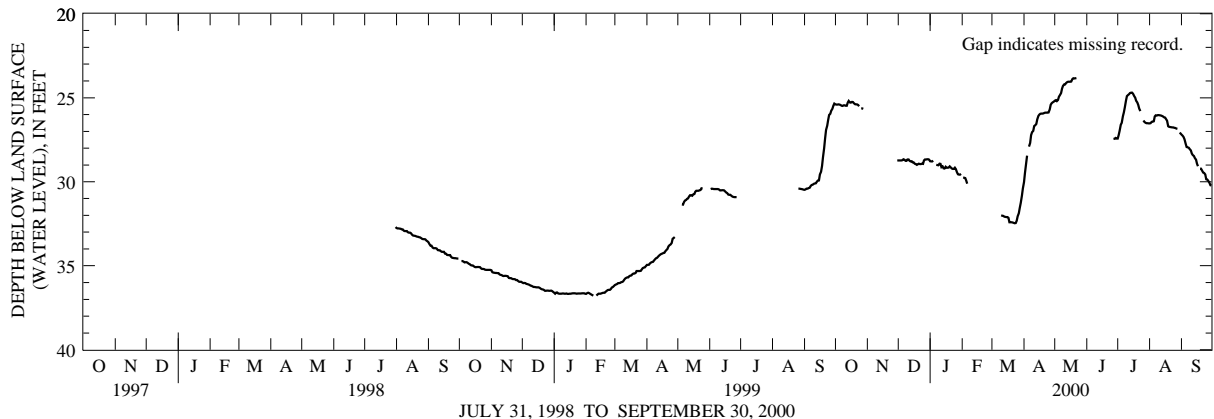
**EXTREMES FOR PERIOD OF RECORD.**--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 23.83 ft below land-surface datum, May 22, 2000; lowest, 36.81 ft below land-surface datum, Feb. 9, 1999.

**DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000**  
**DAILY MEAN VALUES**

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.39	---	28.73	28.78	---	---	30.02	25.18	---	27.43	26.53	27.19
2	25.41	---	28.73	28.79	29.75	---	29.47	25.14	---	27.22	26.51	27.26
3	25.41	---	28.73	28.79	29.76	---	29.00	25.20	---	26.97	26.44	27.34
4	25.39	---	28.73	28.74	29.78	---	28.45	25.13	---	26.61	26.42	27.47
5	25.41	---	28.72	---	29.93	---	---	24.94	---	26.49	26.40	27.74
6	25.43	---	28.66	---	30.11	---	27.91	24.84	---	26.10	26.12	27.93
7	25.48	---	28.69	28.99	---	---	27.69	24.72	---	25.88	26.05	27.95
8	25.49	---	28.75	29.01	---	---	27.22	24.46	---	25.58	26.06	27.98
9	25.45	---	28.75	29.02	---	---	27.05	24.30	---	25.18	26.03	28.06
10	25.45	---	28.67	28.92	---	32.00	26.97	24.20	---	24.90	26.04	28.14
11	25.47	---	28.67	28.94	---	32.02	26.68	24.20	---	24.84	26.05	28.32
12	25.47	---	28.75	29.13	---	32.03	26.63	24.13	---	24.79	26.06	28.41
13	25.29	---	28.79	29.08	---	32.08	26.56	24.07	---	24.72	26.08	28.47
14	25.19	---	28.78	29.20	---	32.09	26.29	24.04	---	24.70	26.11	28.59
15	25.28	---	28.85	29.21	---	32.10	26.08	24.04	---	24.70	26.16	28.68
16	25.29	---	28.85	29.11	---	32.10	26.00	24.04	---	24.77	26.18	28.93
17	25.25	---	28.92	29.17	---	32.15	25.96	24.03	---	24.90	26.27	29.07
18	25.26	---	28.95	29.16	---	32.41	25.94	23.88	---	24.99	26.37	---
19	25.33	---	28.99	29.15	---	32.41	25.94	23.84	---	25.18	26.70	29.22
20	25.38	---	28.96	29.08	---	32.41	25.93	23.85	---	25.28	26.73	29.22
21	25.40	---	28.93	29.15	---	32.42	25.90	23.84	---	25.43	26.74	29.35
22	25.39	---	28.95	29.21	---	32.45	25.89	23.83	---	25.65	26.75	29.45
23	25.43	---	28.95	29.23	---	32.47	25.89	---	---	25.80	26.76	29.47
24	25.51	---	28.93	29.23	---	32.46	25.89	---	---	---	26.77	29.56
25	---	---	28.94	29.17	---	32.32	25.87	---	---	---	26.79	29.85
26	25.64	---	28.73	29.24	---	32.06	25.69	---	---	26.36	26.80	29.87
27	25.64	---	28.67	29.44	---	31.87	25.42	---	27.45	26.44	26.83	29.95
28	25.66	---	28.67	29.55	---	31.55	25.33	---	27.44	26.49	26.84	30.05
29	---	---	28.66	29.58	---	31.26	25.27	---	27.39	26.51	---	30.21
30	---	28.74	28.66	29.58	---	30.84	25.23	---	27.43	26.52	27.09	30.22
31	---	---	28.69	29.53	---	30.40	---	---	---	26.53	27.12	---
MEAN	25.41	28.74	28.79	29.14	29.87	32.00	26.63	24.36	27.43	25.76	26.46	28.76
MAX	25.66	28.74	28.99	29.58	30.11	32.47	30.02	25.20	27.45	27.43	27.12	30.22
MIN	25.19	28.74	28.66	28.74	29.75	30.40	25.23	23.83	27.39	24.70	26.03	27.19

WTR YR 2000: HIGHEST RECORDED 23.83, MAY 22; LOWEST 32.47, MARCH 23.



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WATER-QUALITY RECORDS

REMARKS.-- Samples collected with disposable bailers from recovery water after well was bailed more than 3 times the casing volume.  
 PERIOD OF RECORD.--May 1998 to current year.

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

DATE	TIME	AGENCY ANA-LYZING SAMPLE NUMBER (00028)	AGENCY COL-LECTING SAMPLE NUMBER (00027)	OXYGEN, DIS-SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	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)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 1999											
25...	1300	9813	1028	--	5.5	135	12.4	--	--	--	--
NOV											
29...	1500	9813	1028	--	5.5	126	9.6	--	--	--	--
JAN 2000											
06...	1000	9813	1028	--	5.5	122	11.7	9.84	2.79	3.4	6.6
FEB											
01...	1200	9813	1028	--	5.4	121	9.9	--	--	--	--
MAR											
06...	1100	9813	1028	--	5.8	130	12.1	--	--	--	--
APR											
05...	1200	9813	1028	--	5.8	125	10.8	--	--	--	--
MAY											
23...	1100	9813	1028	--	6.3	123	12.4	10.3	2.59	3.5	6.2
JUN											
26...	1200	9813	1028	--	7.8	129	13.1	--	--	--	--
JUL											
24...	1100	9813	1028	--	6.1	124	14.6	8.43	2.63	3.0	6.2
AUG											
29...	1000	9813	1028	9.6	6.2	124	13.1	--	--	--	--
SEP											
18...	1100	9813	1028	--	6.0	124	14.1	24.3	4.53	4.2	6.1
DATE	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 TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, DIS-SOLVED (MG/L AS N) (00602)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)
OCT 1999											
25...	14	--	--	--	--	<.02	<.020	.410	.78	<.040	.034
NOV											
29...	9	--	--	--	--	<.02	<.020	.420	.70	<.040	.019
JAN 2000											
06...	9	1.6	<.2	20.3	36.3	--	<.020	.420	.66	<.040	.054
FEB											
01...	24	--	--	--	--	<.02	<.020	.440	.57	<.040	.055
MAR											
06...	18	--	--	--	--	<.02	<.020	.430	.55	<.040	.021
APR											
05...	12	--	--	--	--	<.02	<.020	.450	.58	<.040	.015
MAY											
23...	16	2.5	<.2	19.9	32.9	--	<.020	.510	.59	<.040	.018
JUN											
26...	22	--	--	--	--	<.02	<.020	.490	.64	<.040	.023
JUL											
24...	52	2.2	<.2	18.9	32.6	--	<.020	.500	.61	<.040	.038
AUG											
29...	23	--	--	--	--	<.02	<.020	.460	.56	<.040	.035
SEP											
18...	23	2.4	<.2	18.3	31.0	--	<.020	.480	.72	<.040	.018

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

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	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)	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)
OCT 1999											
25...	.009	--	--	--	--	--	--	--	--	--	--
NOV											
29...	.009	--	--	--	--	--	--	--	--	--	--
JAN 2000											
06...	.011	1.2	138	--	--	--	--	<200	<.20	--	--
FEB											
01...	.016	--	--	--	--	--	--	--	--	--	--
MAR											
06...	.015	--	--	--	--	--	--	--	--	--	--
APR											
05...	.018	--	--	--	--	--	--	--	--	--	--
MAY											
23...	.010	<1.0	104	16	--	--	--	<200	<.20	--	--
JUN											
26...	.012	--	--	--	--	--	--	--	--	--	--
JUL											
24...	.013	1.0	96	16	--	--	--	<200	<.20	--	--
AUG											
29...	.016	--	--	--	--	--	--	--	--	--	--
SEP											
18...	.018	<1.0	82	20	<2	<4.0	71	<200	<.20	<10.0	<4.0

DATE	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)	MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056)	MERCURY DIS- SOLVED (µG/L AS HG) (71890)	NICKEL, DIS- SOLVED (µG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (µG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (µG/L AS SR) (01080)	ZINC, DIS- SOLVED (µG/L AS ZN) (01090)
OCT 1999										
25...	--	--	--	--	--	--	--	--	--	--
NOV										
29...	--	--	--	--	--	--	--	--	--	--
JAN 2000										
06...	--	30	--	--	22	--	--	--	--	19
FEB										
01...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	--	--	--	--	--	--	--	--	--	--
APR										
05...	--	--	--	--	--	--	--	--	--	--
MAY										
23...	--	<20	--	--	33	--	--	--	--	11
JUN										
26...	--	--	--	--	--	--	--	--	--	--
JUL										
24...	--	<20	--	--	19	--	--	--	--	44
AUG										
29...	--	--	--	--	--	--	--	--	--	--
SEP										
18...	<4	<20	<1	<25.0	<10	<.2	11	<7.0	136	<10