CHESTER COUNTY

395046075434401. Local number, CH 5180
(New Garden Township, Chester County, Spray Irrigation Project)

LOCATION.--Lat 39°50'46", long 75°43'44", 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 32 ft, cased to 30 ft, closed end, screened from 20-30 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, 1.3 ft above land-surface datum.
REMARKS.--In addition to the daily mean water levels shown below, daily maximum and minimum water levels, since August 1999, are also available from the District Office. Data for this project are presented in tables on pages XXX-XXX.
PERIOD OF RECORD.--August 9, 1999 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, 16.85 ft below land-surface datum, Sept. 21, 1999; lowest, 27.63 ft below land-surface datum, Mar. 22, 2000.

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	---	---	---	---	---	---	---	---	---	---	---	24.12
2	---	---	---	---	---	---	---	---	---	---	---	24.03
3	---	---	---	---	---	---	---	---	---	---	---	23.96
4	---	---	---	---	---	---	---	---	---	---	---	23.91
5	---	---	---	---	---	---	---	---	---	---	---	23.82
6	---	---	---	---	---	---	---	---	---	---	---	23.77
7	---	---	---	---	---	---	---	---	---	---	---	23.72
8	---	---	---	---	---	---	---	---	---	---	---	23.70
9	---	---	---	---	---	---	---	---	---	---	24.97	23.61
10	---	---	---	---	---	---	---	---	---	---	24.87	23.53
11	---	---	---	---	---	---	---	---	---	---	24.84	23.51
12	---	---	---	---	---	---	---	---	---	---	---	23.44
13	---	---	---	---	---	---	---	---	---	---	24.78	23.35
14	---	---	---	---	---	---	---	---	---	---	---	23.25
15	---	---	---	---	---	---	---	---	---	---	---	23.15
16	---	---	---	---	---	---	---	---	---	---	---	22.61
17	---	---	---	---	---	---	---	---	---	---	---	19.49
18	---	---	---	---	---	---	---	---	---	---	---	18.37
19	---	---	---	---	---	---	---	---	---	---	---	17.69
20	---	---	---	---	---	---	---	---	---	---	24.66	17.20
21	---	---	---	---	---	---	---	---	---	---	24.65	16.91
22	---	---	---	---	---	---	---	---	---	---	24.64	---
23	---	---	---	---	---	---	---	---	---	---	---	16.89
24	---	---	---	---	---	---	---	---	---	---	24.60	16.93
25	---	---	---	---	---	---	---	---	---	---	---	17.03
26	---	---	---	---	---	---	---	---	---	---	---	17.21
27	---	---	---	---	---	---	---	---	---	---	24.45	17.31
28	---	---	---	---	---	---	---	---	---	---	24.43	17.40
29	---	---	---	---	---	---	---	---	---	---	24.35	17.45
30	---	---	---	---	---	---	---	---	---	---	24.31	17.55
31	---	---	---	---	---	---	---	---	---	---	24.22	---
MEAN	---	---	---	---	---	---	---	---	---	---	24.60	20.86
MAX	---	---	---	---	---	---	---	---	---	---	24.97	24.12
MIN	---	---	---	---	---	---	---	---	---	---	24.22	16.89

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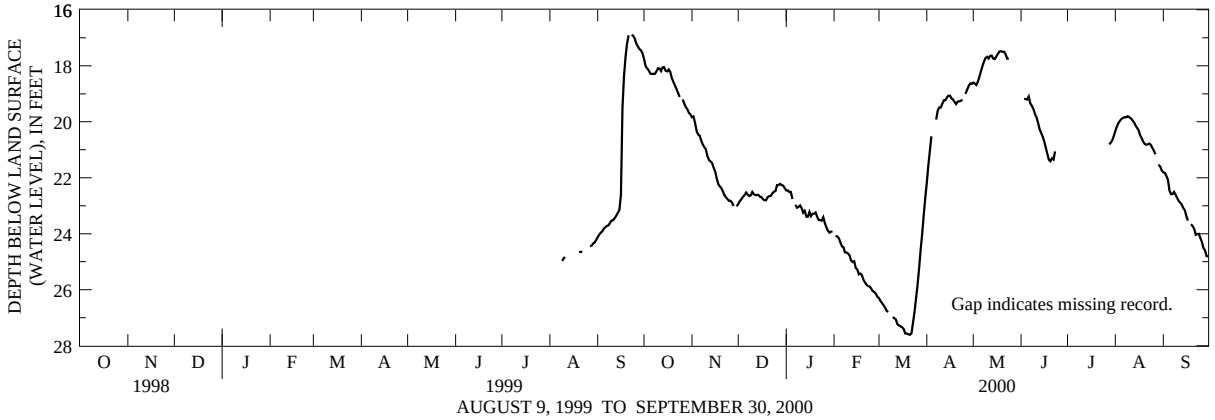
DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.75	19.84	22.93	22.45	---	26.30	22.18	18.60	---	---	20.33	21.81
2	18.02	19.81	22.84	22.45	24.07	26.40	21.57	18.63	---	---	20.17	21.83
3	18.10	20.04	22.76	22.51	24.09	26.48	21.04	18.69	19.18	---	20.05	21.94
4	18.17	20.33	22.68	22.51	24.16	26.55	20.52	18.57	19.19	---	19.96	22.07
5	18.28	20.45	22.62	22.76	24.31	26.64	---	18.39	19.21	---	19.90	22.46
6	18.29	20.50	22.53	---	24.45	26.75	---	18.20	19.10	---	19.86	22.58
7	18.29	20.66	22.60	22.97	24.48	26.79	19.92	18.01	19.34	---	19.84	22.58
8	18.29	20.81	22.65	23.07	24.67	---	19.60	17.85	19.44	---	19.84	22.51
9	18.20	20.90	22.63	23.04	24.67	---	19.49	17.72	19.56	---	19.80	22.61
10	18.09	20.98	22.51	22.99	24.71	26.98	19.49	17.68	19.74	---	19.84	22.72
11	18.10	21.22	22.59	23.08	24.78	27.02	19.35	17.74	19.85	---	19.88	22.83
12	18.19	21.37	22.62	23.25	24.96	27.06	19.24	17.65	20.05	---	19.94	22.89
13	18.06	21.42	22.62	23.18	25.01	27.23	19.23	17.64	20.28	---	20.02	22.96
14	18.05	21.48	22.61	23.39	24.98	27.27	19.13	17.74	20.40	---	20.13	23.08
15	18.18	21.64	22.68	23.39	25.22	27.31	19.07	17.76	20.54	---	20.22	23.16
16	18.20	21.78	22.69	23.22	25.27	27.34	19.07	17.67	20.71	---	20.30	23.37
17	18.13	22.03	22.77	23.37	25.45	27.40	19.17	17.58	20.93	---	20.48	23.53
18	18.22	22.22	22.80	23.29	25.42	27.56	19.21	17.49	21.15	---	20.58	---
19	18.44	22.31	22.80	23.28	25.48	27.57	19.30	17.48	21.36	---	20.71	23.66
20	18.57	22.37	22.69	23.24	25.64	27.59	19.37	17.50	21.41	---	20.79	23.73
21	18.70	22.49	22.66	23.39	25.74	27.61	19.28	17.50	21.31	---	20.82	23.83
22	18.84	22.62	22.65	23.51	25.82	27.56	19.27	17.60	21.35	---	20.81	24.04
23	18.98	22.70	22.56	23.51	25.87	27.19	19.26	17.75	21.06	---	20.78	24.01
24	19.11	22.76	22.50	23.53	25.89	26.79	19.20	17.74	---	---	20.83	24.00
25	---	22.83	22.47	23.41	25.96	26.31	---	---	---	---	20.94	24.15
26	19.20	22.82	22.26	23.62	26.05	25.82	19.00	---	---	---	21.04	24.30
27	19.35	22.89	22.26	23.77	26.08	25.23	18.86	---	---	---	21.16	24.51
28	19.48	23.01	22.22	23.89	26.15	24.57	18.72	---	---	20.81	---	24.59
29	19.55	---	22.26	23.96	26.25	24.00	18.63	---	---	20.75	21.53	24.80
30	19.68	23.02	22.28	23.93	---	23.34	18.65	---	---	20.66	21.61	24.81
31	19.74	---	22.37	23.91	---	22.73	---	---	---	20.51	21.74	---
MEAN	18.54	21.63	22.58	23.26	25.20	26.46	19.51	17.88	20.25	20.68	20.46	23.29
MAX	19.74	23.02	22.93	23.96	26.25	27.61	22.18	18.69	21.41	20.81	21.74	24.81
MIN	17.75	19.81	22.22	22.45	24.07	22.73	18.63	17.48	19.10	20.51	19.80	21.81

WTR YR 2000: HIGHEST 17.48, MAY 19; LOWEST 27.61, MARCH 21.



AUGUST 9, 1999 TO SEPTEMBER 30, 2000

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WATER-QUALITY RECORDS

REMARKS.--Samples collected with disposable bailer or a submersible pump from recovery water after well was bailed more than 3 casing volumes.
PERIOD OF RECORD.--June 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (µS/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419)
JUN											
28...	1515	9813	1028	5.5	79	13.6	5.43	3.67	1.1	3.0	--
JUL											
29...	1330	9813	1028	5.9	76	13.4	--	--	--	--	12
AUG											
25...	1300	9813	1028	5.7	95	13.5	--	--	--	--	15
SEP											
22...	1200	9813	1028	5.7	150	11.9	11.9	6.19	1.8	4.1	20

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN DISSOLVED (MG/L AS N) (00602)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)
JUN										
28...	2.5	<.2	8.2	14.2	--	<.020	.520	.75	<.040	.026
JUL										
29...	--	--	--	--	<.02	<.020	.800	1.0	<.040	.021
AUG										
25...	--	--	--	--	<.02	<.020	1.08	1.7	<.040	.040
SEP										
22...	15.8	<.2	5.4	11.4	--	<.020	1.44	1.9	<.040	.021

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	ANTIMONY, DISSOLVED (µG/L AS SB) (01095)	ARSENIC DISSOLVED (µG/L AS AS) (01000)	BARIUM, DISSOLVED (µG/L AS BA) (01005)	BORON, DISSOLVED (µG/L AS B) (01020)	BROMIDE DISSOLVED (MG/L AS BR) (71870)	CADMIUM DISSOLVED (µG/L AS CD) (01025)	CHROMIUM, DISSOLVED (µG/L AS CR) (01030)
JUN										
28...	<.002	1.1	--	--	--	--	<200	<.20	--	--
JUL										
29...	<.002	--	--	--	--	--	--	--	--	--
AUG										
25...	.016	--	--	--	--	--	--	--	--	--
SEP										
22...	.011	<1.0	98	<2	<4.0	36	<200	<.20	<10.0	<4.0

DATE	COPPER, DISSOLVED (µG/L AS CU) (01040)	IRON, DISSOLVED (µG/L AS FE) (01046)	LEAD, DISSOLVED (µG/L AS PB) (01049)	LITHIUM DISSOLVED (µG/L AS LI) (01130)	MANGANESE, DISSOLVED (µG/L AS MN) (01056)	MERCURY DISSOLVED (µG/L AS HG) (71890)	NICKEL, DISSOLVED (µG/L AS NI) (01065)	SELENIUM, DISSOLVED (µG/L AS SE) (01145)	STRONTIUM, DISSOLVED (µG/L AS SR) (01080)	ZINC, DISSOLVED (µG/L AS ZN) (01090)
JUN										
28...	--	<20	--	--	<10	--	--	--	--	<10
JUL										
29...	--	--	--	--	--	--	--	--	--	--
AUG										
25...	--	--	--	--	--	--	--	--	--	--
SEP										
22...	<4	<20	<1	<25.0	<10	<.2	<4	<7.0	43.0	21

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

DATE	TIME	AGENCY ANALYZING SAMPLE (CODE NUMBER) (00028)	AGENCY COLLECTING SAMPLE (CODE NUMBER) (00027)	OXYGEN, DISSOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	SPECIFIC CONDUCTANCE (µS/CM) (00095)	TEMPERATURE WATER (DEG C) (00010)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
OCT											
25...	1400	9813	1028	--	5.4	161	13.2	--	--	--	--
NOV											
29...	1300	9813	1028	--	5.2	190	12.3	--	--	--	--
JAN											
06...	1200	9813	1028	--	5.3	218	12.8	15.9	9.69	2.2	4.6
FEB											
01...	1300	9813	1028	--	5.4	215	9.8	--	--	--	--
MAR											
09...	1200	9813	1028	--	5.8	192	13.6	--	--	--	--
APR											
05...	1300	9813	1028	9.9	5.3	266	12.1	--	--	--	--
MAY											
25...	1200	9813	1028	--	6.1	281	13.5	23.6	12.4	1.7	4.7
JUN											
26...	1300	9813	1028	8.5	6.4	270	13.1	--	--	--	--
JUL											
27...	1300	9813	1028	6.6	5.9	267	11.9	25.5	14.3	2.0	4.7
AUG											
28...	1400	9813	1028	7.5	5.6	327	12.4	--	--	--	--
SEP											
18...	1400	9813	1028	8.2	5.7	312	13.3	29.1	16.9	2.7	4.9

DATE	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, NITRATE DISSOLVED (MG/L AS N) (00618)	NITROGEN DISSOLVED (MG/L AS N) (00602)	NITROGEN, NITRITE DISSOLVED (MG/L AS N) (00613)	PHOSPHORUS DISSOLVED (MG/L AS P) (00666)
OCT											
25...	23	--	--	--	--	<.02	.070	1.26	1.6	<.040	.016
NOV											
29...	10	--	--	--	--	<.02	<.020	1.17	1.5	<.040	.012
JAN											
06...	--	39.1	<.2	8.3	11.0	--	<.020	1.44	1.8	<.040	.076
FEB											
01...	18	--	--	--	--	<.02	<.020	1.46	1.8	<.040	.034
MAR											
09...	19	--	--	--	--	<.02	<.020	1.30	1.5	<.040	.045
APR											
05...	16	--	--	--	--	<.02	<.020	1.46	1.6	<.040	.028
MAY											
25...	28	49.0	<.2	5.5	14.6	--	<.020	1.04	1.3	.870	.010
JUN											
26...	--	--	--	--	--	<.02	<.020	1.90	2.1	<.040	.016
JUL											
27...	59	46.6	<.2	6.6	15.8	--	<.020	.940	1.2	<.040	.020
AUG											
28...	30	--	--	--	--	<.02	<.020	1.86	2.1	<.040	<.010
SEP											
18...	36	60.3	<.2	7.1	19.2	--	<.020	1.95	2.6	<.040	<.010

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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											
25...	<.002	--	--	--	--	--	--	--	--	--	--
NOV											
29...	.005	--	--	--	--	--	--	--	--	--	--
JAN											
06...	.011	1.2	198	--	--	--	--	<200	<.20	--	--
FEB											
01...	<.010	--	--	--	--	--	--	--	--	--	--
MAR											
09...	.013	--	--	--	--	--	--	--	--	--	--
APR											
05...	.015	--	--	--	--	--	--	--	--	--	--
MAY											
25...	<.010	<1.0	206	19	--	--	--	<200	<.20	--	--
JUN											
26...	<.010	--	--	--	--	--	--	--	--	--	--
JUL											
27...	.020	<1.0	196	16	--	--	--	<200	<.20	--	--
AUG											
28...	.018	--	--	--	--	--	--	--	--	--	--
SEP											
18...	.010	<1.0	214	14	<2	<4.0	101	<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										
25...	--	--	--	--	--	--	--	--	--	--
NOV										
29...	--	--	--	--	--	--	--	--	--	--
JAN										
06...	--	<20	--	--	<10	--	--	--	--	64
FEB										
01...	--	--	--	--	--	--	--	--	--	--
MAR										
09...	--	--	--	--	--	--	--	--	--	--
APR										
05...	--	--	--	--	--	--	--	--	--	--
MAY										
25...	--	<20	--	--	<10	--	--	--	--	19
JUN										
26...	--	--	--	--	--	--	--	--	--	--
JUL										
27...	--	50	--	--	<10	--	--	--	--	304
AUG										
28...	--	--	--	--	--	--	--	--	--	--
SEP										
18...	<4	<20	<1	<25.0	<10	<.2	<4	<7.0	143	178