

CHESTER COUNTY

395048075434701. Local number, CH 5174.
(New Garden Township, Chester County, Spray Irrigation Project)

LOCATION.--Lat 39°50'48", 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 4 in., depth 99.4 ft, cased to 99 ft, closed end, screened from 79-99 ft.

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

DATUM.--Elevation of land surface is 371 ft above sea level from a GPS unit. Measuring point: Top of plywood shelf, 1.7 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.

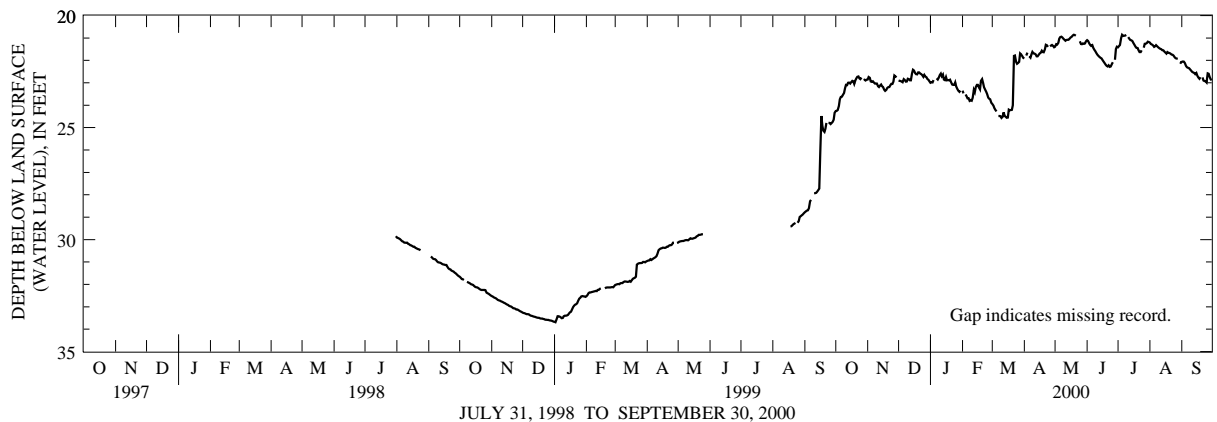
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 20.83 ft below land-surface datum, May 19, 2000; lowest, 33.70 ft below land-surface datum, Jan. 1, 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	24.26	22.85	22.90	23.00	23.35	23.94	21.91	21.39	21.10	21.41	21.21	22.07
2	24.25	22.74	22.91	22.97	23.47	24.02	---	21.28	21.13	21.36	21.27	22.05
3	24.22	22.78	22.92	22.98	---	24.13	21.78	21.29	21.24	21.31	21.29	22.06
4	24.04	22.94	22.95	22.88	23.52	24.21	21.65	21.22	21.31	21.00	21.33	22.12
5	23.74	22.96	22.97	---	23.60	24.28	---	21.03	21.35	20.86	21.40	22.25
6	23.63	22.93	22.84	---	23.69	---	21.82	20.96	21.32	20.91	21.37	22.31
7	23.62	22.98	22.87	22.80	23.69	24.48	21.88	20.94	21.44	20.90	21.32	22.33
8	23.54	23.03	22.95	22.85	23.81	24.48	21.73	20.98	21.52	20.89	21.37	22.35
9	23.45	23.03	22.94	22.78	23.77	24.49	21.62	21.03	21.59	20.87	21.41	22.40
10	23.25	23.03	22.82	22.65	23.80	24.57	21.69	21.08	21.67	---	21.45	22.46
11	23.09	23.15	22.84	22.59	23.67	24.52	21.70	21.12	21.74	20.96	21.48	22.51
12	23.10	23.19	22.89	22.71	23.32	24.32	21.73	21.09	21.80	21.04	21.50	22.54
13	23.00	23.13	22.89	22.63	23.42	24.48	21.82	21.08	21.84	21.09	21.54	22.56
14	22.99	23.08	22.58	22.85	23.20	24.52	21.82	21.08	21.89	21.11	21.55	22.61
15	23.03	23.15	22.42	22.88	23.09	24.56	21.75	21.03	21.91	21.14	21.60	22.56
16	22.97	23.19	22.45	22.74	23.09	24.55	21.69	20.98	21.98	21.23	21.65	22.68
17	22.91	23.31	22.56	22.89	23.20	24.20	21.66	20.95	22.06	21.31	21.70	22.76
18	22.93	23.36	22.61	22.88	23.29	24.23	21.57	20.89	22.12	21.39	21.63	22.82
19	23.05	23.32	22.62	22.89	22.91	24.22	21.63	20.86	22.19	21.44	21.66	22.75
20	22.89	23.23	22.54	22.86	22.84	24.21	21.64	20.87	22.25	21.45	21.67	---
21	22.80	23.20	22.54	22.98	23.00	24.00	21.51	20.90	22.27	21.55	21.70	22.76
22	22.73	23.19	22.59	23.08	23.20	21.80	21.30	---	22.22	21.63	21.74	22.90
23	22.72	23.11	22.61	23.09	23.31	21.78	21.33	---	22.29	21.63	21.75	22.92
24	22.80	23.05	22.66	23.09	23.39	22.07	21.40	---	22.27	21.55	21.78	22.93
25	22.84	23.05	22.73	22.98	23.50	22.15	---	21.15	22.16	---	21.86	22.98
26	22.77	22.95	22.65	23.16	23.66	22.12	21.37	21.27	22.08	21.43	21.90	22.58
27	---	22.67	22.72	23.27	23.71	22.07	21.34	21.28	---	21.26	21.92	22.60
28	22.88	22.72	22.75	23.35	23.74	21.69	21.31	21.24	21.97	21.25	21.93	22.73
29	22.86	22.76	22.83	23.40	23.89	21.73	21.35	21.26	21.49	21.23	---	22.85
30	22.90	---	22.87	23.35	---	21.81	21.41	21.24	21.39	21.17	22.08	22.88
31	22.86	---	22.94	---	---	21.89	---	21.15	---	21.18	22.11	---
MEAN	23.20	23.04	22.75	22.95	23.43	23.52	21.61	21.09	21.78	21.23	21.61	22.56
MAX	24.26	23.36	22.97	23.40	23.89	24.57	21.91	21.39	22.29	21.63	22.11	22.98
MIN	22.72	22.67	22.42	22.59	22.84	21.69	21.30	20.86	21.10	20.86	21.21	22.05

WTR YR 2000: HIGHEST 20.86, MAY 19, JULY 5; LOWEST 24.57, MARCH 10.



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WATER-QUALITY RECORDS

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

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

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)	SPE-CIFIC CON-DUCT-ANCE (US/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											
27...	1000	9813	1028	.8	7.6	180	11.9	--	--	--	--
NOV											
30...	1100	9813	1028	.3	7.5	224	11.5	--	--	--	--
JAN 2000											
05...	1000	9813	1028	.8	7.7	223	11.7	32.4	3.42	2.8	4.4
FEB											
03...	1400	9813	1028	.4	7.7	221	11.3	--	--	--	--
MAR											
06...	1200	9813	1028	.3	5.6	219	11.9	--	--	--	--
APR											
05...	1400	9813	1028	.9	7.3	222	12.5	--	--	--	--
MAY											
23...	1400	9813	1028	1.3	8.2	218	12.9	32.7	3.39	2.7	4.2
JUN											
27...	1300	9813	1028	1.6	7.0	223	13.3	--	--	--	--
JUL											
25...	1300	9813	1028	3.8	8.1	226	12.6	34.2	3.37	2.3	3.8
AUG											
29...	1200	9813	1028	.8	8.1	222	12.8	--	--	--	--
SEP											
20...	1300	9813	1028	.6	8.1	201	12.8	31.8	3.69	3.0	4.6

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											
27...	65	--	--	--	--	<.02	<.020	<.040	<.06	<.040	.007
NOV											
30...	61	--	--	--	--	<.02	<.020	<.040	.14	<.040	<.010
JAN 2000											
05...	61	4.6	<.2	14.7	28.7	--	<.020	<.040	.12	<.040	.068
FEB											
03...	68	--	--	--	--	<.02	<.020	<.040	<.06	<.010	.016
MAR											
06...	70	--	--	--	--	<.02	<.020	<.040	<.06	<.040	<.010
APR											
05...	75	--	--	--	--	<.02	<.020	<.040	<.06	<.040	.016
MAY											
23...	71	4.3	<.2	14.6	28.2	--	<.020	<.040	<.06	<.040	.014
JUN											
27...	74	--	--	--	--	<.02	<.020	<.040	.10	<.040	.010
JUL											
25...	73	4.2	<.2	13.4	29.0	--	<.020	<.040	.16	<.040	.021
AUG											
29...	61	--	--	--	--	<.02	<.020	<.040	<.06	<.040	<.010
SEP											
20...	68	3.7	<.2	16.2	27.4	--	<.020	<.040	<.06	<.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 1999											
27...	<.002	--	--	--	--	--	--	--	--	--	--
NOV											
30...	.002	--	--	--	--	--	--	--	--	--	--
JAN 2000											
05...	<.010	<1.0	132	--	--	--	--	<200	<.20	--	--
FEB											
03...	.016	--	--	--	--	--	--	--	--	--	--
MAR											
06...	<.010	--	--	--	--	--	--	--	--	--	--
APR											
05...	<.010	--	--	--	--	--	--	--	--	--	--
MAY											
23...	.012	<1.0	146	15	--	--	--	<200	<.20	--	--
JUN											
27...	.013	--	--	--	--	--	--	--	--	--	--
JUL											
25...	<.010	<1.0	128	12	--	--	--	<200	<.20	--	--
AUG											
29...	<.010	--	--	--	--	--	--	--	--	--	--
SEP											
20...	<.010	<1.0	396	17	<2	<4.0	18	<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										
27...	--	--	--	--	--	--	--	--	--	--
NOV										
30...	--	--	--	--	--	--	--	--	--	--
JAN 2000										
05...	--	110	--	--	24	--	--	--	--	<10
FEB										
03...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	--	--	--	--	--	--	--	--	--	--
APR										
05...	--	--	--	--	--	--	--	--	--	--
MAY										
23...	--	70	--	--	24	--	--	--	--	<10
JUN										
27...	--	--	--	--	--	--	--	--	--	--
JUL										
25...	--	120	--	--	26	--	--	--	--	<10
AUG										
29...	--	--	--	--	--	--	--	--	--	--
SEP										
20...	<4	60	<1	<25.0	25	<.2	<4	<7.0	73.0	<10