

CHESTER COUNTY

395045075434701. Local number, CH 5172.
(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 4 in., depth 125 ft, cased to 123 ft, closed end, screened from 96.5-121.5 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, 2.5 ft above land-surface datum.

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

PERIOD OF RECORD.--May 29, 1998 to current year.

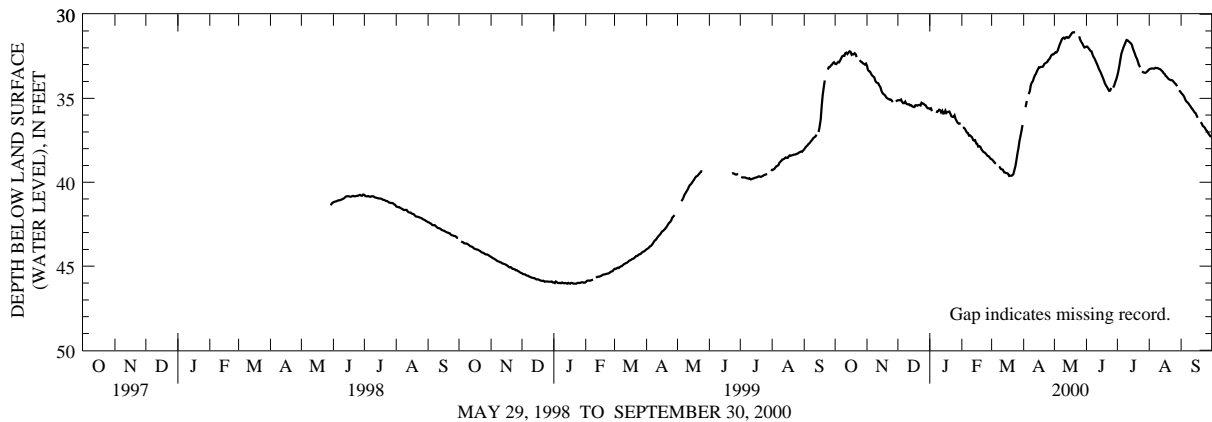
EXTREMES FOR PERIOD OF RECORD.--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 31.05 ft below land-surface datum, May 21, 2000; lowest, 46.04 ft below land-surface datum, Jan. 13-15, 17, 18, 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	32.95	33.08	35.12	35.64	---	38.63	---	32.33	31.92	33.65	33.28	34.67
2	32.97	33.32	35.12	35.60	36.76	38.69	---	32.26	31.93	33.39	33.25	34.75
3	32.92	33.40	35.12	35.77	36.75	38.77	35.53	32.27	32.02	33.09	33.23	34.82
4	32.84	33.42	35.08	---	36.82	38.83	35.17	32.17	32.10	32.66	33.22	34.91
5	32.86	33.54	35.20	---	36.93	38.90	---	31.99	32.18	32.34	33.23	35.09
6	32.76	33.64	35.29	---	37.04	---	34.75	31.83	32.22	32.14	33.23	35.19
7	32.61	33.70	35.29	35.80	37.07	---	34.57	31.66	32.41	31.97	33.19	35.25
8	32.50	33.76	35.20	35.82	37.22	39.09	34.23	31.52	32.54	31.83	33.20	35.30
9	32.47	33.95	35.31	35.76	37.21	39.11	34.07	31.43	32.65	31.66	33.20	35.39
10	32.48	34.05	35.35	35.68	37.27	39.21	33.98	31.40	32.79	31.53	33.23	35.49
11	32.32	34.09	35.37	35.71	37.33	39.23	33.79	31.45	32.92	31.55	33.26	35.58
12	32.29	34.11	35.36	35.84	37.49	39.26	33.62	31.38	33.07	31.61	33.29	35.65
13	32.36	34.24	35.43	35.74	37.52	39.40	33.54	31.36	33.23	31.67	33.35	35.75
14	32.29	34.34	35.42	35.91	37.50	39.42	33.40	31.41	33.37	31.72	33.42	35.84
15	32.20	34.55	35.49	35.90	37.69	39.45	33.26	31.38	33.48	31.81	33.51	35.90
16	32.23	34.67	35.51	35.74	37.72	39.46	33.16	31.29	33.63	32.00	33.56	36.04
17	32.41	34.75	35.52	35.87	37.88	39.50	33.17	31.21	33.79	32.19	33.68	36.16
18	32.37	34.79	35.42	35.82	37.85	39.62	33.13	31.11	33.94	32.34	33.71	---
19	32.39	34.88	35.42	35.82	37.89	39.61	33.13	31.08	34.11	32.52	33.80	---
20	32.32	34.97	35.44	35.79	38.03	39.61	33.11	31.08	34.24	32.65	33.86	36.42
21	32.38	35.02	35.41	35.94	38.12	39.60	32.97	31.07	34.33	32.82	33.90	36.51
22	32.55	35.04	35.40	36.08	38.19	39.52	32.91	---	34.43	33.01	33.92	36.65
23	---	35.09	35.43	36.10	38.23	39.30	32.88	---	34.56	33.16	33.92	36.69
24	---	35.07	35.27	36.12	38.27	39.04	32.83	---	34.55	---	33.96	36.76
25	32.73	35.13	35.32	36.02	38.34	38.71	32.73	31.32	34.39	33.40	34.04	36.88
26	32.82	35.23	35.33	36.22	38.43	38.33	32.66	31.53	---	33.45	34.11	36.95
27	32.85	---	35.39	36.35	38.45	37.96	32.56	31.65	34.36	33.47	34.18	37.06
28	32.93	---	35.43	36.46	38.51	37.56	32.45	31.72	34.23	33.48	34.29	37.14
29	32.95	35.19	35.53	36.52	38.61	37.28	32.39	31.87	34.03	33.46	---	37.25
30	33.00	35.14	35.60	36.50	---	36.93	32.39	31.98	33.88	33.41	34.52	37.30
31	32.94	---	35.60	36.49	---	36.59	---	31.97	---	33.34	34.59	---
MEAN	32.61	34.36	35.36	35.96	37.68	38.85	33.42	31.60	33.36	32.58	33.64	35.98
MAX	33.00	35.23	35.60	36.52	38.61	39.62	35.53	32.33	34.56	33.65	34.59	37.30
MIN	32.20	33.08	35.08	35.60	36.75	36.59	32.39	31.07	31.92	31.53	33.19	34.67

WTR YR 2000: HIGHEST RECORDED 31.07, MAY 21; LOWEST 39.62, MARCH 18.



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WATER-QUALITY RECORDS

REMARKS.-- Samples collected with submersible pump from recovery water after well was pumped 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											
25...	1200	9813	1028	4.4	7.8	231	12.6	--	--	--	--
NOV											
29...	1400	9813	1028	3.9	7.8	212	11.9	--	--	--	--
JAN 2000											
06...	1100	9813	1028	4.0	7.2	212	12.7	23.5	4.73	4.6	6.5
FEB											
01...	1100	9813	1028	6.5	6.8	212	9.8	--	--	--	--
MAR											
06...	1000	9813	1028	5.0	7.0	222	11.5	--	--	--	--
APR											
05...	1000	9813	1028	5.4	7.2	210	12.3	--	--	--	--
MAY											
23...	1000	9813	1028	4.4	8.1	209	12.2	23.7	4.62	4.2	6.3
JUN											
26...	1100	9813	1028	4.4	6.8	212	13.6	--	--	--	--
JUL											
24...	1200	9813	1028	4.1	7.7	207	14.0	25.0	4.52	3.9	6.4
AUG											
29...	0900	9813	1028	4.6	7.5	203	13.3	--	--	--	--
SEP											
18...	1200	9813	1028	4.8	7.8	195	12.9	23.3	4.60	4.1	6.2

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...	46	--	--	--	--	<.02	<.020	.220	.40	<.040	.017
NOV											
29...	42	--	--	--	--	<.02	<.020	.200	.45	<.040	<.010
JAN 2000											
06...	46	1.5	<.2	18.3	45.9	--	<.020	.210	.43	<.040	.030
FEB											
01...	58	--	--	--	--	<.02	<.020	.190	.30	<.040	.030
MAR											
06...	50	--	--	--	--	<.02	<.020	.160	.21	<.040	.046
APR											
05...	35	--	--	--	--	<.02	<.020	.220	.26	<.040	.010
MAY											
23...	51	1.6	<.2	18.3	45.3	--	<.020	.230	.27	<.040	.010
JUN											
26...	62	--	--	--	--	<.02	<.020	.250	.31	<.040	.043
JUL											
24...	62	1.8	<.2	16.9	44.0	--	<.020	.240	.08	<.040	.014
AUG											
29...	44	--	--	--	--	<.02	<.020	.260	.37	<.040	<.010
SEP											
18...	59	2.0	<.2	18.6	M41.5	--	<.020	.270	.40	<.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											
25...	<.002	--	--	--	--	--	--	--	--	--	--
NOV											
29...	<.002	--	--	--	--	--	--	--	--	--	--
JAN 2000											
06...	.011	1.3	190	--	--	--	--	<200	<.20	--	--
FEB											
01...	.019	--	--	--	--	--	--	--	--	--	--
MAR											
06...	.025	--	--	--	--	--	--	--	--	--	--
APR											
05...	<.010	--	--	--	--	--	--	--	--	--	--
MAY											
23...	.010	<1.0	146	15	--	--	--	<200	<.20	--	--
JUN											
26...	.011	--	--	--	--	--	--	--	--	--	--
JUL											
24...	.010	<1.0	150	16	--	--	--	<200	<.20	--	--
AUG											
29...	<.010	--	--	--	--	--	--	--	--	--	--
SEP											
18...	<.010	<1.0	124	21	<2	<4.0	6	<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...	--	50	--	--	<10	--	--	--	--	<10
FEB										
01...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	--	--	--	--	--	--	--	--	--	--
APR										
05...	--	--	--	--	--	--	--	--	--	--
MAY										
23...	--	<20	--	--	<10	--	--	--	--	<10
JUN										
26...	--	--	--	--	--	--	--	--	--	--
JUL										
24...	--	<20	--	--	10	--	--	--	--	34
AUG										
29...	--	--	--	--	--	--	--	--	--	--
SEP										
18...	<4	<20	<1	<25.0	<10	<.2	<4	<7.0	138	<10