

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 308-313 and 499-542.

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, 25.34 ft below land-surface datum, Sept. 30, 1999; lowest, 36.81 ft below land-surface datum, Feb. 9, 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	---	---	---	---	---	---	---	---	---	---	32.76	33.60
2	---	---	---	---	---	---	---	---	---	---	32.78	33.72
3	---	---	---	---	---	---	---	---	---	---	32.78	33.80
4	---	---	---	---	---	---	---	---	---	---	32.79	33.81
5	---	---	---	---	---	---	---	---	---	---	32.80	33.92
6	---	---	---	---	---	---	---	---	---	---	32.83	33.95
7	---	---	---	---	---	---	---	---	---	---	32.83	33.95
8	---	---	---	---	---	---	---	---	---	---	32.92	33.95
9	---	---	---	---	---	---	---	---	---	---	32.94	33.98
10	---	---	---	---	---	---	---	---	---	---	32.94	34.07
11	---	---	---	---	---	---	---	---	---	---	32.94	34.08
12	---	---	---	---	---	---	---	---	---	---	33.01	34.08
13	---	---	---	---	---	---	---	---	---	---	33.03	34.14
14	---	---	---	---	---	---	---	---	---	---	33.03	34.17
15	---	---	---	---	---	---	---	---	---	---	33.06	34.17
16	---	---	---	---	---	---	---	---	---	---	33.15	34.17
17	---	---	---	---	---	---	---	---	---	---	33.20	34.27
18	---	---	---	---	---	---	---	---	---	---	33.21	34.29
19	---	---	---	---	---	---	---	---	---	---	33.22	34.35
20	---	---	---	---	---	---	---	---	---	---	33.25	34.36
21	---	---	---	---	---	---	---	---	---	---	33.27	34.36
22	---	---	---	---	---	---	---	---	---	---	33.28	34.36
23	---	---	---	---	---	---	---	---	---	---	33.30	34.47
24	---	---	---	---	---	---	---	---	---	---	33.32	34.53
25	---	---	---	---	---	---	---	---	---	---	33.36	34.54
26	---	---	---	---	---	---	---	---	---	---	33.41	34.55
27	---	---	---	---	---	---	---	---	---	---	33.42	34.55
28	---	---	---	---	---	---	---	---	---	---	33.42	34.56
29	---	---	---	---	---	---	---	---	---	---	33.43	34.57
30	---	---	---	---	---	---	---	---	---	---	33.51	34.57
31	---	---	---	---	---	---	---	---	---	32.70	33.54	---
MEAN	---	---	---	---	---	---	---	---	---	32.70	33.12	34.20
MAX	---	---	---	---	---	---	---	---	---	32.70	33.54	34.57
MIN	---	---	---	---	---	---	---	---	---	32.70	32.76	33.60

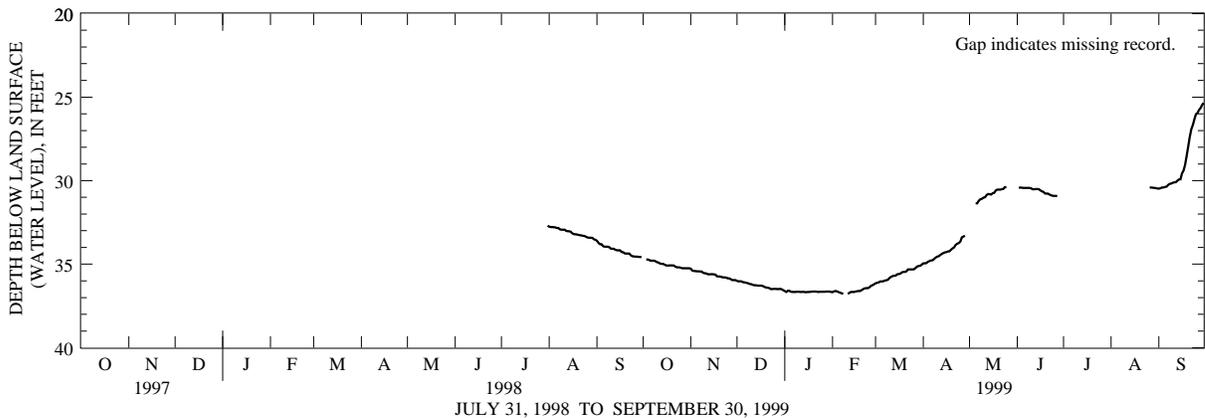
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DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	35.27	36.00	36.61	36.67	36.15	34.95	---	---	---	---	30.48
2	---	35.38	36.03	36.66	36.63	36.11	34.95	---	30.43	---	---	30.46
3	34.72	35.41	36.02	36.59	36.60	36.09	34.94	---	30.41	---	---	30.41
4	34.72	35.42	36.04	36.59	36.63	36.03	34.86	---	30.42	---	---	30.41
5	34.75	35.43	36.08	36.65	36.67	36.03	34.81	31.35	30.43	---	---	30.38
6	34.80	35.43	36.09	36.66	36.71	36.02	34.78	31.36	30.43	---	---	30.36
7	34.79	35.44	36.11	36.66	36.74	35.98	34.76	31.21	30.43	---	---	30.25
8	34.79	35.44	36.14	36.66	36.78	35.97	34.68	31.12	30.43	---	---	30.20
9	34.82	35.52	36.18	36.65	---	35.93	34.61	31.09	30.43	---	---	30.17
10	34.88	35.54	36.20	36.65	---	35.83	34.55	31.02	30.46	---	---	30.13
11	34.90	35.55	36.23	36.66	36.78	35.76	34.53	31.00	30.51	---	---	30.10
12	34.96	35.60	36.26	36.66	36.72	35.71	34.45	30.87	30.51	---	---	30.09
13	34.98	35.61	36.26	36.65	36.66	35.69	34.39	30.80	30.50	---	---	30.00
14	34.98	35.60	36.27	36.67	36.66	35.69	34.33	30.81	30.50	---	---	29.93
15	35.03	35.60	36.29	36.67	36.66	35.61	34.30	30.83	30.51	---	---	29.92
16	35.08	35.61	36.29	36.66	36.64	35.59	34.27	30.76	30.58	---	---	29.56
17	35.09	35.62	36.29	36.66	36.62	35.58	34.24	30.73	30.64	---	---	29.41
18	35.08	35.73	36.32	36.65	36.61	35.50	34.23	30.60	30.67	---	---	29.06
19	35.08	35.74	36.37	36.64	36.60	35.46	34.14	30.54	30.77	---	---	28.55
20	35.08	35.74	36.40	36.64	36.55	35.46	34.06	30.54	30.78	---	---	28.00
21	35.09	35.77	36.41	36.64	36.49	35.43	34.00	30.54	30.78	---	---	27.42
22	35.15	35.79	36.43	36.65	36.45	35.32	33.85	30.52	30.84	---	---	26.91
23	35.19	35.79	36.49	36.66	36.43	35.32	33.77	30.49	30.88	---	---	26.66
24	35.19	35.81	36.49	36.65	36.43	35.32	33.74	30.39	30.90	---	---	26.32
25	35.20	35.85	36.48	36.65	36.39	35.31	33.64	30.39	30.91	---	---	26.02
26	35.23	35.85	36.48	36.65	36.30	35.30	33.40	---	30.91	---	30.41	25.95
27	35.25	35.91	36.49	36.65	36.26	35.22	33.35	---	30.91	---	30.41	25.77
28	35.25	35.95	36.49	36.64	36.21	35.14	33.29	---	---	---	30.42	25.66
29	35.25	35.96	36.48	36.64	---	35.11	---	---	---	---	30.44	25.48
30	35.25	35.96	36.50	36.64	---	35.10	---	---	---	---	30.45	25.35
31	35.25	---	36.56	36.66	---	35.03	---	---	---	---	30.47	---
MEAN	35.03	35.64	36.30	36.65	36.57	35.61	34.28	30.81	30.61	---	30.43	28.65
MAX	35.25	35.96	36.56	36.67	36.78	36.15	34.95	31.36	30.91	---	30.47	30.48
MIN	34.72	35.27	36.00	36.59	36.21	35.03	33.29	30.39	30.41	---	30.41	25.35

WTR YR 1999: HIGHEST 25.35, SEPTEMBER 30; LOWEST 36.78, FEBRUARY 8, 11.



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 (New Garden Township, Chester County, Spray Irrigation Project)

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, MAY 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)
MAY 1998											
21...	1015	80020	1028	--	6.9	6.7	275	13.5	27	4.3	8.1
OCT 01...	1125	80020	1028	9.0	6.3	6.7	174	16.5	18	3.3	5.2
FEB 1999											
09...	1025	80020	1028	5.4	6.2	7.2	162	10.0	17	3.1	5.1
APR 29...	1237	80020	1028	9.3	5.7	6.1	139	14.5	12	3.0	3.8
JUN 01...	1400	80020	1028	--	5.9	--	140	13.2	--	--	--
30...	1505	9813	1028	--	5.5	--	133	13.0	9.1	2.6	3.2
JUL 29...	1130	9813	1028	--	5.9	--	128	14.3	--	--	--
AUG 25...	1500	9813	1028	--	5.7	--	128	14.3	--	--	--
SEP 22...	1300	9813	1028	--	5.8	--	123	13.2	9.4	2.7	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)
MAY 1998											
21...	9.7	14	1.7	<.10	18	62	.044	<.10	--	--	--
OCT 01...	5.6	29	1.6	<.10	20	39	.025	<.10	--	--	--
FEB 1999											
09...	5.1	14	1.3	<.10	22	43	<.020	E.08	--	--	--
APR 29...	6.4	30	12	<.10	20	3.8	<.020	E.05	--	--	--
JUN 01...	--	7	--	--	--	--	<.020	--	<.020	.69	.390
30...	7.3	8	1.7	<.20	19	37	<.020	--	--	1.2	.390
JUL 29...	--	16	--	--	--	--	.030	--	.040	.91	.400
AUG 25...	--	13	--	--	--	--	.030	--	.060	.91	.410
SEP 22...	6.5	15	1.6	<.20	19	34	<.020	--	--	.62	.410

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)
MAY 1998										
21...	.118	<.010	.018	.010	.149	168	<10	<1.0	<1	--
OCT 01...	.293	<.010	<.050	.012	E.040	111	<10	--	--	--
FEB 1999										
09...	.231	<.010	<.050	.014	.207	114	<10	--	--	--
APR 29...	.232	<.010	<.050	<.010	.224	107	E7.3	--	--	--
JUN 01...	--	<.040	.021	.011	--	--	--	--	--	--
30...	--	<.040	.035	.003	--	300	--	--	--	--
JUL 29...	--	<.040	.054	.010	--	--	--	--	--	--
AUG 25...	--	<.040	.077	.026	--	--	--	--	--	--
SEP 22...	--	<.040	.036	.013	--	98	--	<2.0	<4	62

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WATER-QUALITY DATA, MAY 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)
MAY 1998										
21...	1.3	<16	<.010	<8.0	--	<12	<1.0	28	<1.0	<4
OCT										
01...	--	<16	--	--	--	--	--	78	--	--
FEB 1999										
09...	--	<16	--	--	--	--	--	40	--	--
APR										
29...	--	E8.3	--	--	--	--	--	27	--	--
JUN										
01...	--	--	--	--	--	--	--	--	--	--
30...	--	<200	<.20	--	--	--	--	<20	--	--
JUL										
29...	--	--	--	--	--	--	--	--	--	--
AUG										
25...	--	--	--	--	--	--	--	--	--	--
SEP										
22...	--	<200	<.20	<10	<4.0	--	<4.0	28	<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)
MAY 1998										
21...	173	<.1	<60	9.2	3	<1.0	123	<10	175	5.5
OCT										
01...	66	--	--	--	--	--	--	--	153	1.4
FEB 1999										
09...	53	--	--	--	--	--	--	--	109	1.1
APR										
29...	38	--	--	--	--	--	--	--	206	.90
JUN										
01...	--	--	--	--	--	--	--	--	--	--
30...	26	--	--	--	--	--	--	--	81	1.6
JUL										
29...	--	--	--	--	--	--	--	--	--	--
AUG										
25...	--	--	--	--	--	--	--	--	--	--
SEP										
22...	19	<.2	--	<4.0	<7	--	78	--	17	<1.0