

CHESTER COUNTY

395052075434502. Local number, CH 5177
(New Garden Township, Chester County, Spray Irrigation Project)

LOCATION--Lat 39°50'52", long 75°43'45", 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 35 ft, cased to 33 ft, closed end, screened from 23-33 ft.

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

DATUM--Elevation of land surface is 338.7 ft above sea level. 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 1998, are also available from the District Office. Data for this project are presented in tables on pages XXX, and XXX.

PERIOD OF RECORD--August 1, 1998 to current year.

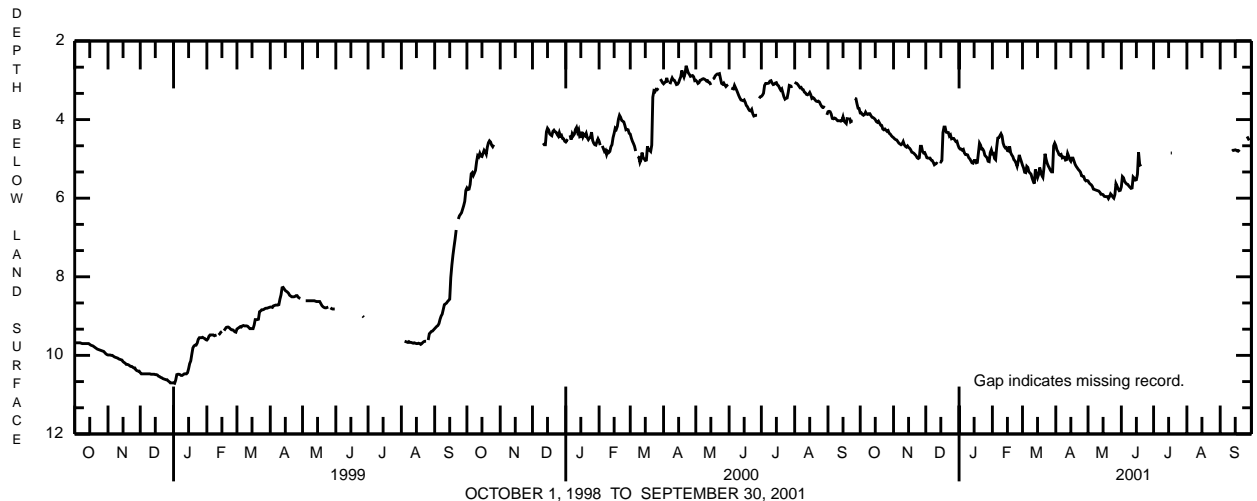
EXTREMES FOR PERIOD OF RECORD--The extremes shown are extremes of the instantaneous depth below land surface for the period of record indicated above.

Highest water level, 2.58 ft below land-surface datum, Apr. 22, 2000; lowest, 10.71 ft below land-surface datum, Jan. 1-3, 1999.

EXTREMES FOR CURRENT YEAR--Highest water level, 3.78 ft below land-surface datum, Oct. 6; lowest, 6.03 ft below land-surface datum, May 20, 25.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
 MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 3.83 | 4.46 | 4.90 | 4.72 | 4.87 | 5.16 | 4.66 | 5.56 | 5.71 | --- | --- | --- |
| 2 | 3.83 | 4.49 | 4.97 | 4.75 | 4.86 | 5.23 | 4.77 | 5.61 | 5.45 | --- | --- | --- |
| 3 | 3.87 | 4.51 | 4.98 | 4.75 | 4.99 | 5.34 | 4.82 | 5.64 | 5.48 | --- | --- | --- |
| 4 | 3.89 | 4.52 | 4.98 | 4.78 | 5.02 | 5.35 | 4.89 | 5.66 | 5.57 | --- | --- | --- |
| 5 | 3.87 | 4.56 | 4.98 | 4.76 | 4.71 | 5.19 | 4.91 | 5.70 | 5.61 | --- | --- | --- |
| 6 | 3.81 | 4.60 | 5.03 | 4.85 | 4.47 | 5.22 | 4.89 | 5.77 | 5.64 | --- | --- | --- |
| 7 | 3.86 | 4.62 | 5.04 | 4.89 | 4.46 | 5.33 | 4.97 | 5.78 | 5.65 | --- | --- | --- |
| 8 | 3.87 | 4.64 | 5.09 | 4.89 | 4.41 | 5.36 | 4.95 | 5.79 | 5.69 | --- | --- | --- |
| 9 | 3.85 | 4.62 | 5.15 | 4.90 | 4.36 | 5.39 | 4.96 | 5.80 | 5.72 | --- | --- | --- |
| 10 | 3.85 | 4.56 | 5.13 | 4.97 | 4.42 | 5.49 | 5.03 | 5.81 | 5.75 | --- | --- | 4.85 |
| 11 | 3.90 | 4.64 | 5.11 | 5.00 | 4.60 | 5.57 | 5.02 | 5.82 | 5.74 | --- | --- | --- |
| 12 | 3.94 | 4.68 | 5.13 | 5.05 | 4.68 | 5.63 | 4.86 | 5.85 | 5.46 | --- | --- | 4.80 |
| 13 | 3.95 | 4.70 | --- | 5.10 | 4.72 | 5.27 | 4.93 | 5.90 | 5.49 | --- | --- | 4.78 |
| 14 | 3.97 | 4.67 | 5.07 | 5.11 | 4.71 | 5.39 | 5.02 | 5.90 | 5.54 | --- | --- | 4.78 |
| 15 | 4.00 | 4.71 | 5.08 | 5.04 | 4.79 | 5.48 | 5.06 | 5.91 | 5.53 | --- | --- | 4.77 |
| 16 | 4.05 | 4.73 | 5.04 | 5.04 | 4.80 | 5.40 | 4.98 | 5.95 | 5.39 | --- | --- | 4.78 |
| 17 | 4.07 | 4.77 | 4.33 | 5.10 | 4.68 | 5.22 | 4.98 | 5.96 | 4.83 | 4.85 | --- | 4.80 |
| 18 | 4.04 | 4.83 | 4.19 | 5.09 | 4.84 | 5.32 | 5.06 | 5.96 | 5.13 | 4.85 | --- | 4.79 |
| 19 | 4.09 | 4.84 | 4.19 | 4.85 | 4.90 | 5.42 | 5.14 | 5.96 | 5.19 | --- | --- | 4.82 |
| 20 | 4.14 | 4.86 | 4.32 | 4.60 | 4.94 | 5.47 | 5.19 | 6.01 | --- | --- | --- | --- |
| 21 | 4.15 | 4.89 | 4.33 | 4.65 | 5.02 | 5.23 | 5.23 | 5.96 | --- | --- | 4.68 | --- |
| 22 | 4.24 | 4.92 | 4.33 | 4.75 | 5.05 | 4.87 | 5.27 | 5.89 | --- | --- | --- | --- |
| 23 | 4.26 | 4.97 | 4.42 | 4.75 | 5.11 | 5.01 | 5.30 | 5.92 | --- | --- | --- | --- |
| 24 | 4.24 | 4.99 | 4.39 | 4.80 | 5.19 | 5.11 | 5.34 | 5.97 | --- | --- | --- | --- |
| 25 | 4.27 | 4.97 | 4.49 | 4.91 | 5.07 | 5.18 | 5.43 | 6.00 | --- | --- | --- | --- |
| 26 | 4.30 | 4.68 | 4.48 | 4.94 | 4.90 | 5.23 | 5.44 | 5.91 | --- | --- | --- | 4.43 |
| 27 | 4.28 | 4.68 | 4.48 | 4.97 | 4.99 | 5.29 | 5.45 | 5.63 | 5.11 | --- | --- | 4.48 |
| 28 | 4.35 | 4.81 | 4.52 | 5.06 | 5.07 | 5.33 | 5.53 | 5.69 | --- | --- | --- | 4.53 |
| 29 | 4.37 | 4.85 | 4.56 | 5.07 | --- | 5.33 | 5.56 | 5.76 | --- | --- | 4.78 | --- |
| 30 | 4.41 | 4.84 | 4.55 | 4.84 | --- | 4.67 | 5.55 | 5.81 | --- | --- | --- | --- |
| 31 | 4.44 | --- | 4.65 | 4.77 | --- | 4.60 | --- | 5.80 | --- | --- | --- | --- |
| MEAN | 4.06 | 4.72 | 4.73 | 4.90 | 4.81 | 5.26 | 5.11 | 5.83 | 5.48 | 4.85 | 4.73 | 4.72 |
| MAX | 4.44 | 4.99 | 5.15 | 5.11 | 5.19 | 5.63 | 5.56 | 6.01 | 5.75 | 4.85 | 4.78 | 4.85 |
| MIN | 3.81 | 4.46 | 4.19 | 4.60 | 4.36 | 4.60 | 4.66 | 5.56 | 4.83 | 4.85 | 4.68 | 4.43 |



CHESTER COUNTY

395052075434502. Local number, CH 5177--Continued
 (New Garden Township, Chester County, Spray Irrigation Project)

WATER-QUALITY RECORDS

REMARKS.-- Samples collected with submersible pump from recovery water after well was pumped more than three casing volumes. Some values for "dissolved" parameters exceed values for the corresponding "total" parameter. These results are within the limits of analytical precision and methods. The sample holding time was exceeded for nitrogen dissolved, parameter 00602, for the May 31 sample.

PERIOD OF RECORD.--June 1998 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

| DATE | TIME | AGENCY ANA-LYZING SAMPLE NUMBER (00028) | AGENCY COLLECTING SAMPLE NUMBER (00027) | OXYGEN, DIS-SOLVED (MG/L) (00300) | PH WATER WHOLE FIELD (STAND-ARDS 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 2000 19... | 1000 | 9813 | 1028 | 8.6 | 5.8 | 411 | 12.3 | -- | -- | -- | -- |
| NOV 20... | 1100 | 9813 | 1028 | 7.7 | 5.9 | 408 | 12.5 | -- | -- | -- | -- |
| DEC 12... | 1300 | 9813 | 1028 | 4.6 | 6.0 | 408 | 12.5 | 54.9 | 12.2 | 2.22 | 11.8 |
| JAN 2001 18... | 1300 | 9813 | 1028 | 6.3 | 5.7 | 408 | 12.5 | -- | -- | -- | -- |
| FEB 27... | 1400 | 9813 | 1028 | 5.9 | 5.8 | 410 | 12.2 | -- | -- | -- | -- |
| MAR 28... | 1430 | 9813 | 1028 | 4.5 | 6.0 | 410 | 12.2 | 50.3 | 10.8 | 1.97 | 11.5 |
| MAY 09... | 1530 | 9813 | 1028 | 2.6 | 6.0 | 404 | 11.7 | -- | -- | -- | -- |
| 31... | 1200 | 9813 | 1028 | 2.5 | 5.9 | 404 | 11.6 | -- | -- | -- | -- |
| JUN 27... | 1300 | 9813 | 1028 | 2.0 | 5.9 | 391 | 11.5 | 47.2 | 10.2 | 2.26 | 11.2 |
| JUL 18... | 1500 | 9813 | 1028 | 1.8 | 5.7 | 401 | 11.6 | -- | -- | -- | -- |
| AUG 29... | 1000 | 9813 | 1028 | 4.8 | 5.9 | 404 | 12.0 | -- | -- | -- | -- |

| DATE | ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419) | BROMIDE DIS-SOLVED (MG/L AS BR) (71870) | 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) | SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300) | NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608) | NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610) | NITRO-GEN DIS-SOLVED (MG/L AS N) (00602) |
|----------------|--|---|--|---|---|--|---|---|--|--|
| OCT 2000 19... | 39 | -- | -- | -- | -- | -- | -- | <.020 | <.02 | 17 |
| NOV 20... | 41 | -- | -- | -- | -- | -- | -- | <.020 | <.02 | 15 |
| DEC 12... | 49 | <.20 | 21.0 | <.2 | 26.3 | 60.4 | 316 | <.020 | -- | 14 |
| JAN 2001 18... | 49 | -- | -- | -- | -- | -- | -- | <.020 | <.02 | 13 |
| FEB 27... | 38 | -- | -- | -- | -- | -- | -- | <.020 | <.02 | 11 |
| MAR 28... | 50 | <.20 | 24.8 | <.2 | 24.8 | 62.5 | 304 | <.020 | -- | 11 |
| MAY 09... | 53 | -- | -- | -- | -- | -- | -- | <.020 | <.02 | 9.7 |
| 31... | 55 | -- | -- | -- | -- | -- | -- | <.020 | <.02 | 5.6 |
| JUN 27... | 51 | <.20 | 27.2 | <.2 | 23.8 | 63.6 | 262 | <.020 | -- | 12 |
| JUL 18... | 59 | -- | -- | -- | -- | -- | -- | <.020 | <.02 | 9.8 |
| AUG 29... | 55 | -- | -- | -- | -- | -- | -- | <.020 | <.02 | 8.3 |

CHESTER COUNTY

395052075434502. Local number, CH 5177--Continued
 (New Garden Township, Chester County, Spray Irrigation Project)

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

| DATE | NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618) | 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) | CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681) | BORON, DIS- SOLVED (µG/L AS B) (01020) | IRON, DIS- SOLVED (µG/L AS FE) (01046) | MANGA- NESE, DIS- SOLVED (µG/L AS MN) (01056) | ZINC, DIS- SOLVED (µG/L AS ZN) (01090) |
|----------|--|--|--|--|---|---|---|---|---|
| OCT 2000 | | | | | | | | | |
| 19... | 15.9 | <.040 | .027 | .030 | -- | -- | -- | -- | -- |
| NOV | | | | | | | | | |
| 20... | 14.5 | <.040 | .028 | .030 | -- | -- | -- | -- | -- |
| DEC | | | | | | | | | |
| 12... | 14.4 | <.040 | .033 | .025 | 1.9 | <200 | <20 | <10.0 | <10 |
| JAN 2001 | | | | | | | | | |
| 18... | 12.7 | <.040 | .032 | .026 | -- | -- | -- | -- | -- |
| FEB | | | | | | | | | |
| 27... | 11.2 | <.040 | .023 | .024 | -- | -- | -- | -- | -- |
| MAR | | | | | | | | | |
| 28... | 10.2 | <.040 | .026 | .026 | 1.9 | <200 | <20 | <10.0 | <10 |
| MAY | | | | | | | | | |
| 09... | 9.32 | <.040 | .020 | .020 | -- | -- | -- | -- | -- |
| 31... | 8.54 | <.040 | .023 | .013 | -- | -- | -- | -- | -- |
| JUN | | | | | | | | | |
| 27... | 8.21 | <.040 | .020 | .021 | 1.6 | <200 | <20 | <10.0 | <10 |
| JUL | | | | | | | | | |
| 18... | 7.89 | <.040 | .024 | .015 | -- | -- | -- | -- | -- |
| AUG | | | | | | | | | |
| 29... | 7.49 | <.040 | .025 | .025 | -- | -- | -- | -- | -- |