

Water Resources Data Maryland and Delaware Water Year 1996

Volume 2. Ground-Water Data



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-96-2
Prepared in cooperation with the States of Maryland and Delaware
and with other agencies

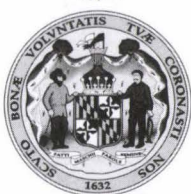
CALENDAR FOR WATER YEAR 1996

1995

OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4						1	2
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23
29	30	31					26	27	28	29	30			24	25	26	27	28	29	30
														31						

1996

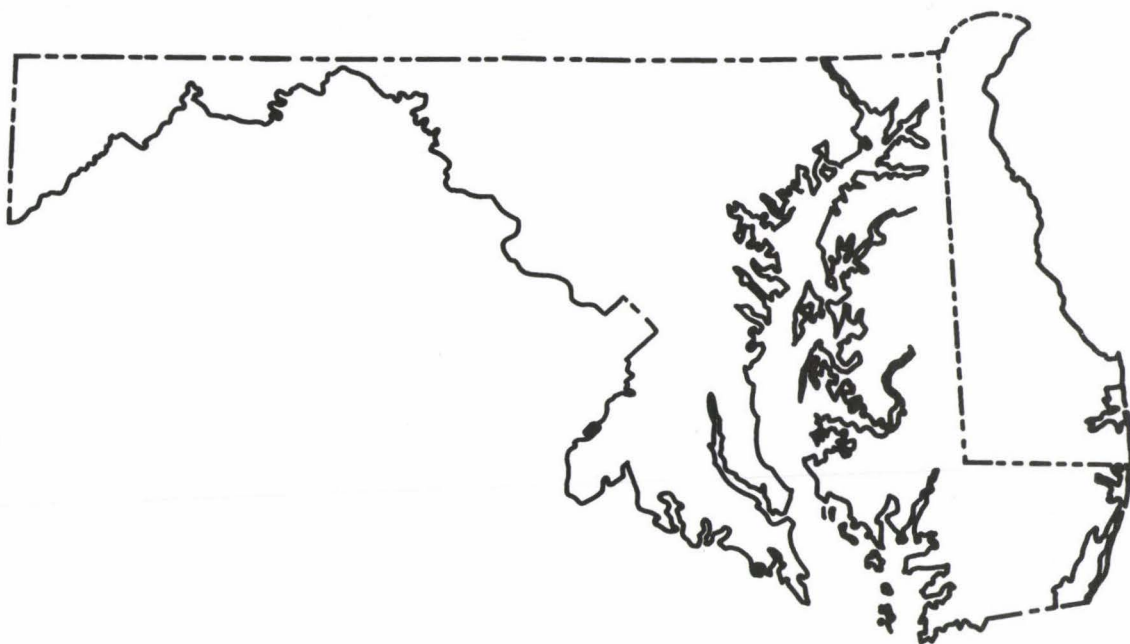
JANUARY							FEBRUARY							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3						1	2
7	8	9	10	11	12	13	4	5	6	7	8	9	10	3	4	5	6	7	8	9
14	15	16	17	18	19	20	11	12	13	14	15	16	17	10	11	12	13	14	15	16
21	22	23	24	25	26	27	18	19	20	21	22	23	24	17	18	19	20	21	22	23
28	29	30	31				25	26	27	28	29			24	25	26	27	28	29	30
														31						
APRIL							MAY							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6				1	2	3	4							1
7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
28	29	30					26	27	28	29	30	31		23	24	25	26	27	28	29
														30						
JULY							AUGUST							SEPTEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6					1	2	3	1	2	3	4	5	6	7
7	8	9	10	11	12	13	4	5	6	7	8	9	10	8	9	10	11	12	13	14
14	15	16	17	18	19	20	11	12	13	14	15	16	17	15	16	17	18	19	20	21
	22	23	24	25	26	27	18	19	20	21	22	23	24	22	23	24	25	26	27	28
28	29	30	31				25	26	27	28	29	30	31	29	30					



Water Resources Data Maryland and Delaware Water Year 1996

Volume 2. Ground-Water Data

by M.J. Smigaj, R.W. Saffer, R.J. Starsoneck, and J.L. Tegeler



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-96-2
Prepared in cooperation with the States of Maryland and Delaware
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

Gordon P. Eaton, Director

Robert M. Hirsch, Chief Hydrologist

*
* Dedicated to the Memory of Robert H. Simmons (1928-1996) *
* for his exemplary service with the U.S. Geological Survey (1954-1996) *
* in Surface Water studies, especially his expertise in the quality and *
* accuracy in this series of reports for the Maryland, Delaware, and *
* Washington, D.C., Water Resources Division District. *
*

For additional information write to
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U.S. Geological Survey
8987 Yellow Brick Road
Baltimore, Maryland 21237

PREFACE

This volume of the annual hydrologic data report of Maryland and Delaware is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Maryland, Delaware, and the District of Columbia are contained in two volumes:

Volume 1. Surface Water Data

Volume 2. Ground Water Data

This report (Volume 2) is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey, Maryland Geological Survey, and Delaware Geological Survey, who collected, compiled, analyzed, and verified, the data for this report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines. The following projects, and individuals contributed to the collection, and data processing on the GWSI, ADAPS, and QWDATA data bases.

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Andrew E. LaMotte produced figures 3 through 5, using a Geographic Information System mapping, program. James R. Dine was instrumental in providing computer word processing assistance and initiating graphing programs for the ground-water sites.

This report was prepared under the general supervision of James M. Gerhart, District Chief, MD-DE-DC District, William J. Carswell, Jr., Regional Hydrologist, Northeastern Region, and in cooperation with the States of Maryland and Delaware, and with other Federal, State, and local agencies.

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13. ABSTRACT (Maximum 200 words) Water resources data for the 1996 water year for Maryland and Delaware consist of records of water levels and water quality of ground-water wells. This report (Volume 2. Ground-Water Data) contains water levels at 380 observation wells, discharge records for 5 springs and water quality at 196 wells. Locations of ground-water level wells are shown on figures 3 and 4. Locations of ground-water-quality sites are shown on figure 5. The data in this report represents that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Maryland and Delaware.				
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GROUND-WATER SPRING DISCHARGE

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MARYLAND:**CECIL COUNTY**

Spring 393459076045001 Local number CE Cc 40..... 44

FREDRICK COUNTY

Spring 392552077262201 Local number FR Dd 178..... 45

Spring 391846077370501 Local number FR Fb 12..... 46

HARFORD COUNTY

Spring 394153076325701 Local number HA Aa 9..... 47

WASHINGTON COUNTY

Spring 392836077442701 Local number WA Di 103..... 48

GROUND-WATER LEVELS

DELAWARE:**KENT COUNTY**

Well 390607075331501 Local number Jd42-03..... 49

Well 390224075391601 Local number Kc31-01..... 50

Well 385041075395601 Local number Mc51-01..... 51

Well 385310075331301 Local number Md22-01..... 52

NEWCASTLE COUNTY

Well 393917075401601 Local number Db15-05..... 53

Well 393856075415602 Local number Db24-17..... 54

Well 393734075371103 Local number Db33-17..... 55

Well 393734075371102 Local number Db33-18..... 56

Well 393734075371101 Local number Db33-19..... 57

Well 393755075364801 Local number Dc34-05..... 58

Well 393755075364802 Local number Dc34-06..... 59

Well 393316075421601 Local number Eb23-22..... 60

Well 393316075421602 Local number Eb23-23..... 61

Well 393316075421603 Local number Eb23-24..... 62

Well 393316075421604 Local number Eb23-25..... 63

Well 391949075410701 Local number Hb14-01..... 64

SUSSEX COUNTY

Well 384639075353101 Local number Nc45-01..... 65

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Well 384504075242601 Local number Nf51-03..... 67

Well 384504075242603 Local number Nf51-04..... 68

Well 384955075192801 Local number Ng11-01..... 69

Well 384558075083501 Local number Ni52-11..... 70

Well 384558075083502 Local number Ni52-12..... 71

Well 384418075231102 Local number Of12-03..... 72

Well 384418075231103 Local number Of12-04..... 73

Well 384418075231101 Local number Of12-05..... 74

Well 384433075234901 Local number Of12-06..... 75

Well 384435075234901 Local number Of12-07..... 76

Well 384436075234701 Local number Of12-08..... 77

Well 384436075234801 Local number Of12-09..... 78

Well 384437075234501 Local number Of12-10..... 79

Well 384437075234502 Local number Of12-11..... 80

Well 384438075234802 Local number Of12-12..... 81

Well 384438075234801 Local number Of12-13..... 82-83

Well 384438075234803 Local number Of12-14..... 84

Well 384444075233702 Local number Of12-15..... 85

Well 384441075233701 Local number Of12-16..... 86

Well 384444075233901 Local number Of12-17..... 87

Well 384444075234101 Local number Of12-18..... 88

Well 384444075234102 Local number Of12-19..... 89

Well 384401075224903 Local number Of13-01..... 90

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Well 384403075224701 Local number Of13-04..... 94

Well 384404075225001 Local number Of13-05..... 95

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Well 384405075224601 Local number Of13-07..... 97

Well 384406075224601 Local number Of13-08..... 98-99

Well 384406075224603 Local number Of13-09..... 100

Well 384406075224602 Local number Of13-10..... 101

Well 384406075224401 Local number Of13-11..... 102

Well 384343075230402 Local number Of22-02..... 103

Well 384343075230403 Local number Of22-03..... 104

Well 384343075230401 Local number Of22-04..... 105-106

Well 384343075230301 Local number Of22-05..... 107

Well 384343075230201 Local number Of22-06..... 108

Well 384343075230101 Local number Of22-07..... 109

Well 384344075230301 Local number Of22-08..... 110

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Well 384341075230003 Local number Of22-10..... 112

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Well 384341075230001	Local number	Of22-11.....	113-114
Well 384333075222903	Local number	Of23-01.....	115
Well 384333075222902	Local number	Of23-02.....	116
Well 384333075222901	Local number	Of23-03.....	117-118
Well 384341075223803	Local number	Of23-04.....	119
Well 384341075223801	Local number	Of23-05.....	120
Well 384341075223802	Local number	Of23-06.....	121
Well 384038075110001	Local number	Oh54-01.....	122
Well 384038075110002	Local number	Oh54-02.....	123
Well 384258075063101	Local number	Oi24-06.....	124
Well 383138075260201	Local number	Qe44-01.....	125
Well 383050075105201	Local number	Qh54-04.....	126
Well 383050075105202	Local number	Qh54-05.....	127
Well 383050075105203	Local number	Qh54-06.....	128
Well 383050075105204	Local number	Qh54-07.....	129
Well 383210075035802	Local number	Qj32-17.....	130
Well 382808075030501	Local number	Rj22-05.....	131
Well 382808075030502	Local number	Rj22-06.....	132
Well 382808075030503	Local number	Rj22-07.....	133
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MARYLAND:**ALLEGANY COUNTY**

Well 394024078273401	Local number	AL Ah 1.....	135
Well 393930078460901	Local number	AL Bd 2.....	136
Well 393009079025201	Local number	AL Ca 19.....	137
Well 393148079010601	Local number	AL Ca 20.....	138

ANNE ARUNDEL COUNTY

Well 391101076404001	Local number	AA Ac 11.....	139
Well 391015076373501	Local number	AA Ad 29.....	140
Well 391032076385902	Local number	AA Ad 90.....	141
Well 391032076385904	Local number	AA Ad 102.....	142
Well 391032076385906	Local number	AA Ad 108.....	143
Well 391006076380101	Local number	AA Ad 109.....	144-145
Well 391032076385907	Local number	AA Ad 110.....	146
Well 390950076391101	Local number	AA Bd 91.....	147
Well 390821076365401	Local number	AA Bd 152.....	148-149
Well 390938076383701	Local number	AA Bd 155.....	150-151
Well 390922076371001	Local number	AA Bd 156.....	152-153
Well 390737076374401	Local number	AA Bd 157.....	154-155
Well 390744076390001	Local number	AA Bd 158.....	156
Well 390737076374402	Local number	AA Bd 159.....	157
Well 390908076394402	Local number	AA Bd 160.....	158-159
Well 390945076285601	Local number	AA Bf 3.....	160
Well 390303076463201	Local number	AA Cb 1.....	161-162
Well 390423076432001	Local number	AA Cc 40.....	163
Well 390450076343402	Local number	AA Ce 117.....	164-165
Well 390150076283003	Local number	AA Cf 98.....	166
Well 390150076283002	Local number	AA Cf 99.....	167
Well 390123076241602	Local number	AA Cg 23.....	168-169
Well 390127076240301	Local number	AA Cg 25.....	170
Well 385808076373502	Local number	AA Dd 42.....	171
Well 385915076340401	Local number	AA De 1.....	172-173
Well 385920076322401	Local number	AA De 140.....	174
Well 385920076322402	Local number	AA De 144.....	175
Well 385921076270701	Local number	AA Df 19.....	176
Well 385916076270702	Local number	AA Df 20.....	177-178
Well 385905076293601	Local number	AA Df 79.....	179-180
Well 385623076274401	Local number	AA Df 103.....	181
Well 385406076383901	Local number	AA Ed 45.....	182
Well 384646076352401	Local number	AA Fd 43.....	183

BALTIMORE CITY

Well 391617076322001	Local number	2S5E- 1.....	184
Well 391600076353301	Local number	3S2E- 5.....	185
Well 391556076315301	Local number	3S5E- 46.....	186
Well 391349076354501	Local number	5S2E- 24.....	187

BALTIMORE COUNTY

Well 393129076384201	Local number	BA Cd 26.....	188
Well 393102076341801	Local number	BA Ce 21.....	189
Well 392931076410301	Local number	BA Dc 444.....	190
Well 392045076512501	Local number	BA Ea 18.....	191
Well 392305076432001	Local number	BA Ec 43.....	192
Well 391607076312901	Local number	BA Fe 19.....	193
Well 391356076293501	Local number	BA Gf 11.....	194
Well 391257076282501	Local number	BA Gf 168.....	195
Well 391226076253401	Local number	BA Gf 178.....	196

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Well 384331076395201	Local number CA Bb	27.....	197
Well 384334076394501	Local number CA Bb	28.....	198
Well 383930076314301	Local number CA Cc	18.....	199
Well 383605076344601	Local number CA Cc	57.....	200
Well 383239076354201	Local number CA Db	47.....	201
Well 383216076351401	Local number CA Db	65.....	202
Well 383216076351402	Local number CA Db	66.....	203
Well 383216076351403	Local number CA Db	67.....	204
Well 383050076305501	Local number CA Dc	35.....	205
Well 382549076260101	Local number CA Ed	52.....	206
Well 382343076302901	Local number CA Fc	13.....	207-208
Well 382408076260401	Local number CA Fd	51.....	209
Well 382407076260301	Local number CA Fd	54.....	210
Well 382318076242401	Local number CA Fe	22.....	211
Well 381952076270901	Local number CA Gd	6.....	212

CAROLINE COUNTY

Well 390333075504501	Local number CO Bc	1.....	213
Well 390227075470201	Local number CO Bd	53.....	214
Well 385310075503601	Local number CO Dc	129.....	215
Well 385217075490601	Local number CO Dd	47.....	216

CARROLL COUNTY

Well 394008077005601	Local number CL Ad	47.....	217
Well 393638076510001	Local number CL Bf	1.....	218
Well 393754076512401	Local number CL Bf	184.....	219
Well 392259077052401	Local number CL Ec	75.....	220

CECIL COUNTY

Well 393637075535001	Local number CE Be	73.....	221
Well 393637075535002	Local number CE Be	74.....	222
Well 393615075475901	Local number CE Bf	81.....	223
Well 393537075492001	Local number CE Bf	82.....	224
Well 393432075593601	Local number CE Cd	51.....	225
Well 393432075593602	Local number CE Cd	52.....	226
Well 393216075564201	Local number CE Cd	53.....	227
Well 393433075544901	Local number CE Ce	54.....	228
Well 393241075500201	Local number CE Ce	55.....	229
Well 393026075523101	Local number CE Ce	56.....	230
Well 392536075593201	Local number CE Dd	81.....	231
Well 392403075521801	Local number CE Ee	29.....	232

CHARLES COUNTY

Well 383524077111802	Local number CH Bb	17.....	233-234
Well 383524077094401	Local number CH Bc	5.....	235-236
Well 383633077083001	Local number CH Bc	24.....	237-238
Well 383819076555501	Local number CH Be	43.....	239-240
Well 383706076575601	Local number CH Be	57.....	241
Well 383706076575604	Local number CH Be	60.....	242
Well 383853076532601	Local number CH Bf	101.....	243-244
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Well 383508076540703	Local number CH Bf	151.....	248-249
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Well 383732076531902	Local number CH Bf	158.....	251
Well 383746076482901	Local number CH Bg	12.....	252
Well 383652076495701	Local number CH Bg	13.....	253
Well 383422077114601	Local number CH Cb	7.....	254-255
Well 383236076563901	Local number CH Ce	37.....	256-257
Well 383340076511601	Local number CH Cf	33.....	258
Well 382607077002601	Local number CH Dd	33.....	259
Well 382925077010101	Local number CH Dd	38.....	260
Well 382927076552301	Local number CH De	45.....	261
Well 382103076560201	Local number CH Ee	16.....	262
Well 382154076574801	Local number CH Ee	70.....	263
Well 382240076582801	Local number CH Ee	78.....	264-265
Well 382456076562201	Local number CH Ee	90.....	266

DORCHESTER COUNTY

Well 383708075503801	Local number DO Bg	59.....	267
Well 383151076080801	Local number DO Cd	1.....	268
Well 383340076041601	Local number DO Ce	5.....	269
Well 383408076042402	Local number DO Ce	15.....	270
Well 383346076030301	Local number DO Ce	21.....	271
Well 383243076042301	Local number DO Ce	78.....	272
Well 383401076032001	Local number DO Ce	88.....	273
Well 382800076180701	Local number DO Db	17.....	274
Well 382807076175801	Local number DO Db	18.....	275
Well 382847076190901	Local number DO Db	19.....	276
Well 382916075491702	Local number DO Dh	27.....	277-278

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MARYLAND-Continued:**FREDRICK COUNTY**

Well 394200077190701	Local number FR Af	27.....	279
Well 393733077274801	Local number FR Bd	96.....	280
Well 393156077135701	Local number FR Cg	1.....	281
Well 392517077190401	Local number FR Df	35.....	282
Well 392257077095601	Local number FR Eh	11.....	283

GARRETT COUNTY

Well 394017078581701	Local number GA Ag	1.....	284
Well 393749079190301	Local number GA Bc	1.....	285
Well 392439079231801	Local number GA Eb	78.....	286
Well 391512079270901	Local number GA Fa	28.....	287
Well 391512079270902	Local number GA Fa	29.....	288
Well 391539079254601	Local number GA Fa	31.....	289
Well 391539079254602	Local number GA Fa	32.....	290
Well 391539079254603	Local number GA Fa	33.....	291
Well 391539079254604	Local number GA Fa	34.....	292
Well 391501079260001	Local number GA Fa	38.....	293
Well 391530079244401	Local number GA Fb	22.....	294
Well 391530079244403	Local number GA Fb	24.....	295
Well 391530079244404	Local number GA Fb	25.....	296
Well 391513079243602	Local number GA Fb	27.....	297
Well 391513079243605	Local number GA Fb	30.....	298
Well 391602079240301	Local number GA Fb	31.....	299
Well 391602079240302	Local number GA Fb	32.....	300
Well 391602079240304	Local number GA Fb	34.....	301
Well 391715079223105	Local number GA Fb	39.....	302
Well 391420079264901	Local number GA Ga	16.....	303

HARFORD COUNTY

Well 393902076160001	Local number HA Bd	31.....	304
Well 393158076302601	Local number HA Ca	23.....	305
Well 392529076180901	Local number HA Dd	89.....	306
Well 392721076150301	Local number HA Dd	91.....	307
Well 392721076150302	Local number HA Dd	92.....	308
Well 392921076100401	Local number HA De	66.....	309
Well 392606076145801	Local number HA De	181.....	310
Well 392606076145802	Local number HA De	182.....	311
Well 392606076145803	Local number HA De	183.....	312
Well 392914076110301	Local number HA De	195.....	313
Well 392819076130902	Local number HA De	198.....	314-315
Well 392435076203301	Local number HA Ec	11.....	316
Well 392408076210101	Local number HA Ec	46.....	317
Well 392343076161901	Local number HA Ed	24.....	318
Well 392455076192101	Local number HA Ed	47.....	319
Well 392455076192102	Local number HA Ed	48.....	320
Well 392455076192103	Local number HA Ed	49.....	321
Well 391817076173701	Local number HA Fd	6.....	322-323
Well 391816076173801	Local number HA Fd	8.....	324-325
Well 391814076173801	Local number HA Fd	21.....	326-327
Well 391814076173803	Local number HA Fd	23.....	328-329
Well 391825076172601	Local number HA Fd	26.....	330-331
Well 391825076172603	Local number HA Fd	28.....	332-333
Well 391812076173101	Local number HA Fd	29.....	334-335
Well 391812076173103	Local number HA Fd	31.....	336-337
Well 391809076174301	Local number HA Fd	32.....	338-339
Well 391809076174303	Local number HA Fd	34.....	340-341
Well 391809076174601	Local number HA Fd	35.....	342-343
Well 391809076174603	Local number HA Fd	37.....	344-345
Well 391826076173101	Local number HA Fd	38.....	346-347
Well 391826076173103	Local number HA Fd	40.....	348-349
Well 391810076172801	Local number HA Fd	44.....	350-351

HOWARD COUNTY

Well 391910076565701	Local number HO Bd	1.....	352
Well 391445076555101	Local number HO Cd	79.....	353
Well 391001076540001	Local number HO Ce	38.....	354

KENT COUNTY

Well 392007076075501	Local number KE Ac	20.....	355
Well 391659076050402	Local number KE Bc	185.....	356
Well 391650076050403	Local number KE Bc	186.....	357
Well 391823075594701	Local number KE Be	43.....	358
Well 391643075550901	Local number KE Be	171.....	359
Well 391815075472101	Local number KE Bg	33.....	360
Well 391815075472102	Local number KE Bg	34.....	361
Well 391400076101401	Local number KE Ch	36.....	362

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Well 391124076101001	Local number KE Cb	97.....	363
Well 391124076101002	Local number KE Cb	98.....	364
Well 391124076101003	Local number KE Cb	99.....	365
Well 391124076101004	Local number KE Cb	100.....	366
Well 391251076142201	Local number KE Cb	101.....	367
Well 391124076101005	Local number KE Cb	103.....	368
Well 391432076015501	Local number KE Cd	44.....	369
Well 390837076140401	Local number KE Db	40.....	370
Well 390626076083301	Local number KE Dc	89.....	371
Well 390626076083302	Local number KE Dc	91.....	372

MONTGOMERY COUNTY

Well 391142077280601	Local number MO Cb	26.....	373
Well 391314077224201	Local number MO Cc	14.....	374
Well 390802077283801	Local number MO Db	68.....	375
Well 390917077244401	Local number MO Dc	59.....	376
Well 390451077245901	Local number MO Ec	10.....	377
Well 390434076573002	Local number MO Eh	20.....	378

PRINCE GEORGES COUNTY

Well 390151076561501	Local number PG Bc	16.....	379
Well 385130076465501	Local number PG De	21.....	380
Well 385152076431301	Local number PG Df	2.....	381
Well 384423077004501	Local number PG Fb	36.....	382
Well 384230076555501	Local number PG Fc	17.....	383
Well 384131076533301	Local number PG Fd	41.....	384
Well 383228076410601	Local number PG Hf	35.....	385
Well 383348076411301	Local number PG Hf	40.....	386-387
Well 383348076411302	Local number PG Hf	41.....	388-389
Well 383348076411303	Local number PG Hf	42.....	390-391
Well 383250076405304	Local number PG Hf	44.....	392

QUEEN ANNES COUNTY

Well 391203076024301	Local number QA Be	15.....	393
Well 391203076024302	Local number QA Be	16.....	394
Well 391203076024303	Local number QA Be	17.....	395
Well 390841075515201	Local number QA Cg	1.....	396
Well 390201076182701	Local number QA Db	30.....	397
Well 390201076182703	Local number QA Db	32.....	398
Well 390023076174301	Local number QA Db	34.....	399
Well 390119076191001	Local number QA Db	35.....	400
Well 390023076174302	Local number QA Db	37.....	401
Well 385718076211501	Local number QA Ea	77.....	402
Well 385718076211502	Local number QA Ea	78.....	403
Well 385757076200101	Local number QA Ea	79.....	404
Well 385757076200102	Local number QA Ea	80.....	405
Well 385718076211503	Local number QA Ea	81.....	406
Well 385751076171603	Local number QA Eb	110.....	407
Well 385751076171601	Local number QA Eb	111.....	408
Well 385751076171602	Local number QA Eb	112.....	409
Well 385748076172001	Local number QA Eb	113.....	410
Well 385843076155302	Local number QA Eb	155.....	411
Well 385852076195201	Local number QA Eb	156.....	412
Well 385852076195202	Local number QA Eb	157.....	413
Well 385756076105301	Local number QA Ec	1.....	414
Well 385534075573601	Local number QA Ef	29.....	415
Well 385429076120201	Local number QA Fc	7.....	416

ST. MARYS COUNTY

Well 382838076470101	Local number SM Bb	15.....	417
Well 382838076470102	Local number SM Bb	22.....	418
Well 381616076364701	Local number SM Dd	46.....	419
Well 381616076364702	Local number SM Dd	49.....	420
Well 381807076380001	Local number SM Dd	50.....	421
Well 381616076364703	Local number SM Dd	62.....	422
Well 381615076364701	Local number SM Dd	63.....	423
Well 381841076284401	Local number SM Df	66.....	424
Well 381527076283101	Local number SM Df	71.....	425
Well 381548076272102	Local number SM Df	84.....	426
Well 381052076253001	Local number SM Ef	80.....	427
Well 381213076222801	Local number SM Eg	27.....	428
Well 380834076303401	Local number SM Fe	30.....	429
Well 380834076303402	Local number SM Fe	31.....	430
Well 380711076222201	Local number SM Fg	45.....	431

SOMERSET COUNTY

Well 381156075412501	Local number SO Be	42.....	432
Well 380927075423701	Local number SO Ce	42.....	433-434
Well 380616075380701	Local number SO Cf	2.....	435

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MARYLAND-Continued:**TALBOT COUNTY**

Well 385242075593101	Local number TA Bf	73.....	436
Well 385242075593102	Local number TA Bf	74.....	437
Well 384923076100601	Local number TA Cc	35.....	438
Well 384514076103701	Local number TA Cc	36.....	439
Well 384709076050301	Local number TA Cd	57.....	440
Well 384643076043801	Local number TA Ce	7.....	441

WASHINGTON COUNTY

Well 394154078103501	Local number WA Ac	1.....	442
Well 393638078001301	Local number WA Be	2.....	443
Well 393851077343001	Local number WA Bk	25.....	444
Well 393414077461801	Local number WA Ch	106.....	445
Well 393402077434201	Local number WA Ci	82.....	446
Well 392904077371501	Local number WA Dj	2.....	447

WICOMICO COUNTY

Well 382150075352101	Local number WI Ce	13.....	448
Well 382404075355401	Local number WI Ce	204.....	449
Well 382037075310801	Local number WI Cf	3.....	450
Well 382429075344501	Local number WI Cf	147.....	451
Well 382329075263701	Local number WI Cg	20.....	452

WORCESTER COUNTY

Well 382621075174201	Local number WO Ae	23.....	453
Well 382621075174202	Local number WO Ae	24.....	454
Well 382621075174203	Local number WO Ae	25.....	455
Well 382632075031801	Local number WO Ah	6.....	456
Well 382635075030601	Local number WO Ah	35.....	457
Well 382635075030602	Local number WO Ah	36.....	458-459
Well 382635075030603	Local number WO Ah	37.....	460
Well 382022075072401	Local number WO Bg	1.....	461
Well 382359075094501	Local number WO Bg	15.....	462
Well 382358075094501	Local number WO Bg	45.....	463
Well 382358075094502	Local number WO Bg	46.....	464
Well 382325075063301	Local number WO Bg	47.....	465-466
Well 382325075063302	Local number WO Bg	48.....	467-468
Well 382038075065901	Local number WO Bg	49.....	469-470
Well 382215075041801	Local number WO Bh	31.....	471-472
Well 382443075033501	Local number WO Bh	34.....	473-474
Well 382215075041901	Local number WO Bh	84.....	475
Well 382215075041902	Local number WO Bh	85.....	476
Well 382215075041903	Local number WO Bh	89.....	477-478
Well 382127075043802	Local number WO Bh	98.....	479-480
Well 381939075052101	Local number WO Cg	72.....	481
Well 381037075234301	Local number WO Dd	7.....	482
Well 381457075174101	Local number WO De	36.....	483
Well 381427075081102	Local number WO Dg	21.....	484
Well 380408075335701	Local number WO Fb	2.....	485

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DELAWARE:

SUSSEX COUNTY

Well	384418075231102	Local number	Of12-03.....	487-489
Well	384418075231101	Local number	Of12-05.....	487-489
Well	384438075234802	Local number	Of12-12.....	487-489
Well	384438075234801	Local number	Of12-13.....	487-489
Well	384438075234803	Local number	Of12-14.....	487-489
Well	384401075224903	Local number	Of13-01.....	487-489
Well	384402075225002	Local number	Of13-02.....	487-489
Well	384401075224901	Local number	Of13-03.....	487-489
Well	384406075224601	Local number	Of13-08.....	487-489
Well	384406075224603	Local number	Of13-09.....	487-489
Well	384406075224602	Local number	Of13-10.....	487-489
Well	384343075230402	Local number	Of22-02.....	487-489
Well	384343075230403	Local number	Of22-03.....	487-489
Well	384343075230401	Local number	Of22-04.....	487-489
Well	384344075230102	Local number	Of22-09.....	487-489
Well	384344075230103	Local number	Of22-10.....	487-489
Well	384344075230101	Local number	Of22-11.....	487-489
Well	384338075222303	Local number	Of23-01.....	487-489
Well	384333075222902	Local number	Of23-02.....	487-489
Well	384333075222901	Local number	Of23-03.....	487-489
Well	384341075223803	Local number	Of23-04.....	487-489
Well	384341075223801	Local number	Of23-05.....	487-489
Well	384341075223802	Local number	Of23-06.....	487-489

MARYLAND:

BALTIMORE COUNTY

Well	394206076470201	Local number	BA Ab 51.....	490-498
Well	394130076360101	Local number	BA Ad 145.....	490-498
Well	394019076374501	Local number	BA Ad 146.....	490-498
Well	394243076383201	Local number	BA Ad 147.....	490-498
Well	393843076462401	Local number	BA Bb 139.....	490-498
Well	393723076471401	Local number	BA Bb 141.....	490-498
Well	393540076455801	Local number	BA Bb 145.....	490-498
Well	393641076493501	Local number	BA Bb 147.....	490-498
Well	393529076454601	Local number	BA Bb 152.....	490-498
Well	393633076443801	Local number	BA Bc 267.....	490-498
Well	393639076435501	Local number	BA Bc 274.....	490-498
Well	393520076372201	Local number	BA Bd 224.....	490-498
Well	393028076465301	Local number	BA Cb 133.....	490-498
Well	393243076450901	Local number	BA Cb 134.....	490-498
Well	393119076454501	Local number	BA Cb 136.....	490-498
Well	393403076454201	Local number	BA Cb 137.....	490-498
Well	393237076495601	Local number	BA Cb 138.....	490-498
Well	393454076495101	Local number	BA Cb 140.....	490-498
Well	393221076483401	Local number	BA Cb 142.....	490-516
Well	393114076462701	Local number	BA Cb 143.....	499-516
Well	393036076452901	Local number	BA Cb 144.....	499-516
Well	393427076412201	Local number	BA Cc 253.....	499-516
Well	393158076431301	Local number	BA Cc 259.....	499-516
Well	393150076374201	Local number	BA Cd 229.....	499-516
Well	393313076373701	Local number	BA Cd 235.....	499-516
Well	393123076341301	Local number	BA Ce 314.....	499-516
Well	393122076340101	Local number	BA Ce 315.....	499-516
Well	392703076510301	Local number	BA Da 122.....	499-516
Well	392843076473101	Local number	BA Db 261.....	499-516
Well	392931076410301	Local number	BA Dc 444.....	499-516
Well	392841076400201	Local number	BA Dc 445.....	499-516
Well	392730076420301	Local number	BA Dc 448.....	499-516
Well	392620076440101	Local number	BA Dc 451.....	499-516
Well	392745076421101	Local number	BA Dc 451.....	499-516
Well	392745076420301	Local number	BA Dc 453.....	499-516
Well	392928076380601	Local number	BA Dd 300.....	499-516
Well	392859076323601	Local number	BA De 633.....	499-516
Well	392959076310401	Local number	BA De 636.....	499-516
Well	392713076300101	Local number	BA De 639.....	517-525
Well	392635076312501	Local number	BA De 640.....	517-525
Well	392636076312501	Local number	BA De 641.....	517-525
Well	392806076275401	Local number	BA Df 354.....	517-525
Well	392904076291201	Local number	BA Df 355.....	517-525
Well	392341076521801	Local number	BA Ea 92.....	517-525
Well	392358076500901	Local number	BA Ea 93.....	517-525
Well	392159076520101	Local number	BA Ea 95.....	517-525
Well	392446076434301	Local number	BA Ec 205.....	517-525
Well	391857076474301	Local number	BA Fb 81.....	517-525

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MARYLAND:**CAROLINE COUNTY**

Well 393444077021201	Local number	CO Cd	181.....	527-528
Well 393437077020101	Local number	CO Cd	182.....	527-528
Well 392504077002401	Local number	CO Dd	192.....	527-528
Well 392504077001801	Local number	CO Dd	193.....	527-528
Well 392845076551801	Local number	CO De	5.....	527-528
Well 392852076551901	Local number	CO De	280.....	527-528
Well 392841076551401	Local number	CO De	282.....	527-528
Well 392345077082701	Local number	CO Ec	106.....	527-528
Well 392354077083301	Local number	CO Ec	107.....	527-528

CECIL COUNTY

Well 394140075570301	Local number	CE Ad	68.....	529
Well 394130075570501	Local number	CE Ad	68.....	529

CHARLES COUNTY

Well 383645077062402	Local number	CH Bc	80.....	530
Well 383441077063901	Local number	CH Cc	34.....	530

FREDERICK COUNTY

Well 392648077340401	Local number	FR Dc	67.....	531
Well 392650077343001	Local number	FR Dc	68.....	531
Well 392826077244801	Local number	FR De	58.....	531
Well 392750077150101	Local number	FR Df	40.....	531
Well 392325077112501	Local number	FR Eg	35.....	531
Well 391910077260002	Local number	FR Fd	90.....	531

HARFORD COUNTY

Well 394126076312601	Local number	HA Aa	27.....	532-533
Well 394108076312201	Local number	HA Aa	28.....	532-533
Well 394130076312501	Local number	HA Aa	30.....	532-533
Well 394107076225801	Local number	HA Ac	55.....	532-533
Well 394103076230301	Local number	HA Ac	56.....	532-533
Well 393628076222601	Local number	HA Bc	32.....	532-533
Well 393627076221301	Local number	HA Bc	33.....	532-533
Well 393153076252301	Local number	HA Cb	284.....	532-533
Well 393143076252801	Local number	HA Cb	285.....	532-533

HOWARD COUNTY

Well 392043077051901	Local number	HO Ab	139.....	534-535
Well 392039077052701	Local number	HO Ab	140.....	534-535
Well 392116077040701	Local number	HO Ac	112.....	534-535
Well 392113077042001	Local number	HO Ac	126.....	534-535
Well 391723077034601	Local number	HO Bc	305.....	534-535
Well 391723077040001	Local number	HO Bc	306.....	534-535
Well 391600076595401	Local number	HO Bd	411.....	534-535
Well 391613076594601	Local number	HO Bd	412.....	534-535

MONTGOMERY COUNTY

Well 391403077114001	Local number	MO Ce	18.....	536
Well 391410077114001	Local number	MO Ce	19.....	536
Well 391411077114701	Local number	MO Ce	20.....	536

QUEEN ANNES COUNTY

Well 390055076184501	Local number	QA Db	14.....	536-537
Well 390059076191801	Local number	QA Db	17.....	536-537
Well 390033076184501	Local number	QA Db	23.....	536-537
Well 390117076191301	Local number	QA Db	27.....	536-537
Well 390201076182701	Local number	QA Db	30.....	536-537
Well 390201076182703	Local number	QA Db	32.....	536-537
Well 390023076174301	Local number	QA Db	34.....	536-537
Well 390119076191001	Local number	QA Db	35.....	536-537
Well 390023076174302	Local number	QA Db	37.....	536-537
Well 385825076202901	Local number	QA Ea	39.....	536-537
Well 385820076202501	Local number	QA Ea	42.....	536-537
Well 385554076213801	Local number	QA Ea	45.....	536-537
Well 385825076261201	Local number	QA Ea	48.....	536-537
Well 385505076215001	Local number	QA Ea	59.....	536-537
Well 385701076212501	Local number	QA Ea	60.....	536-537
Well 385812076202801	Local number	QA Ea	61.....	536-537
Well 385742076205801	Local number	QA Ea	71.....	536-537
Well 385718076211501	Local number	QA Ea	77.....	536-537
Well 385718076211502	Local number	QA Ea	78.....	536-537
Well 385757076200101	Local number	QA Ea	79.....	536-537
Well 385757076200102	Local number	QA Ea	80.....	536-537
Well 385718076211503	Local number	QA Ea	81.....	536-537
Well 385705076212002	Local number	QA Ea	82.....	536-537
Well 385705076212001	Local number	QA Ea	83.....	536-537
Well 385843076155302	Local number	QA Eb	155.....	536-537
Well 385852076195201	Local number	QA Eb	156.....	536-537
Well 385852076195202	Local number	QA Eb	157.....	536-537
Well 385354076212701	Local number	QA Fa	49.....	536-537
Well 385024076222501	Local number	QA Fa	54.....	536-537
Well 385254076201901	Local number	QA Fa	60.....	536-537

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MARYLAND:**QUEEN ANNES COUNTY--Continued**

Well 385434076215601	Local	number	QA Fa	63.....	536-537
Well 385454076214901	Local	number	QA Fa	64.....	536-537
Well 385236076215201	Local	number	QA Fa	66.....	536-537
Well 385023076222201	Local	number	QA Fa	67.....	536-537
Well 385254076201301	Local	number	QA Fa	72.....	536-537
Well 385227076215401	Local	number	QA Fa	74.....	536-537
Well 385155076200401	Local	number	QA Fa	75.....	536-537

WASHINGTON COUNTY

Well 394253077390501	Local	number	WA Aj	75.....	538
Well 394219077335301	Local	number	WA Ak	99.....	538
Well 393512077451701	Local	number	WA Bh	73.....	538
Well 393625077375501	Local	number	WA Bj	141.....	538

WORCESTER COUNTY

Well 382632075031901	Local	number	WO Ah	34.....	539-540
Well 382635075030602	Local	number	WO Ah	36.....	539-540
Well 382214075041901	Local	number	WO Bh	28.....	539-540
Well 382443075033501	Local	number	WO Bh	34.....	539-540
Well 382215075041901	Local	number	WO Bh	84.....	539-540
Well 382215075041902	Local	number	WO Bh	85.....	539-540
Well 382215075041903	Local	number	WO Bh	89.....	539-540
Well 382127075043803	Local	number	WO Bh	97.....	539-540
Well 382127075043802	Local	number	WO Bh	98.....	539-540
Well 381941075052201	Local	number	WO Cg	32.....	539-540
Well 381939075052102	Local	number	WO Cg	75.....	539-540

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1996

VOLUME 2. GROUND-WATER DATA

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Maryland and Delaware each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled **"Water Resources Data - Maryland and Delaware."**

This series of annual reports for Maryland and Delaware began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format was changed to present, in one volume, data on quantities of surface water, quality of surface and ground water, and ground-water levels. In the 1989 water year, the report format was changed to two volumes. Both volumes contained data on quantities of surface water, quality of surface and ground water, and ground-water levels. Volume 1 contained data on the Atlantic Slope Basins (Delaware River thru Patuxent River) and Volume 2 contained data on the Monongahela and Potomac River basins. Beginning with the 1991 water year, Volume 1 contains all information on quantities of surface water and surface-water-quality data and Volume 2 contains ground-water levels and ground-water-quality data.

This report is Volume 2 in our 1996 series and includes records of water levels and water quality of ground-water wells and springs. It contains records for water levels at 380 observation wells, discharge data for 5 springs, and water quality at 196 wells. Location of ground-water level wells are shown on figures 3 and 4. The location for the ground-water-quality sites are shown on figures 5. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Maryland and Delaware.

Prior to introduction of this series and for several water years concurrent with it, water resources data for Maryland and Delaware were published in U.S. Geological Survey Water-Supply Papers. Data on water levels for the 1935 through 1974 water years were published under the title **"Ground-Water Levels in the United States."** The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Books and Open-File Reports Section, Federal Center, Bldg. 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as **"U.S. Geological Survey Water-Data Report MD-DE-96-2."** For archiving and general distribution, the reports for 1971-74 water years also are identified as water data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Data for the 1991-94 water years are also available on Compact Disc - Read Only Memory (CD-ROM).

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (410)238-4200.

COOPERATION

The U.S. Geological Survey and agencies of the State of Maryland have had cooperative agreements for the collection of water-resource records from 1896 to 1909 and since 1924. Similar cooperative agreements have existed between the Survey and agencies of the State of Delaware, since 1943. Organizations that assisted in the funding or services in this report through cooperative agreements with the Survey or through the Maryland Geological Survey and Delaware Geological Survey are:

Maryland Geological Survey, Emery T. Cleaves, Director.

Delaware Geological Survey, Robert R. Jordan, State Geologist.

Delaware Department of Transportation, Anne P. Canby, Secretary of Transportation.

Delaware Department of Natural Resources and Environmental Control, Christophe Tulou,
Secretary of Natural Resources and Environmental Control.

Maryland Department of Natural Resources, Tidewater Ecosystem Assessment, Robert Magnien,
Director.

Maryland Department of Natural Resources, Research Assessment Service, Power Plant
Research Program, Peter Dunbar, Director.

Baltimore County Department of Environmental Protection and Resource Management,
Water Well Program, Susan Farinetti, Supervisor.

City of Salisbury, Department of Public Works, Newell W. Messick, Deputy Director.

Town of Ocean City, Water Department, Ronald Ellis, Superintendent

U.S. Army Garrison, Aberdeen Proving Ground, Environmental Conservation and Restoration Division, Kenneth P. Stachiw, Division Chief.

U.S. Navy, Naval Surface Warfare Center, Indian Head Division, James Sirinakis, Utilities Division Chief.

Dover Air Force Base, 436TH Support Group, Civil Engineering Squadron, Environmental Flight, Charles Mikula, Restoration Program Manager.

Organizations and projects that provided data are acknowledged in the site Remarks description.

SUMMARY OF HYDROLOGIC CONDITIONS

Ground-Water Levels

Ground-water levels in water-table and artesian observation wells in Maryland and Delaware fluctuate in response to precipitation and ground-water withdrawal. Water-table levels were below normal levels throughout the bi-State area at the beginning of the 1996 water year (fig. 1). In western and southern Maryland, water-table levels rose above normal in November, and remained above normal throughout the remainder of the water year. In January, after several heavy snowstorms, a warming trend occurred which resulted in major flooding over the bi-State area, especially in the Potomac River Basin. It was not until this warming trend that water-table levels rose above normal, in central Maryland. On the Delmarva Peninsula, water-table levels did not rise above normal until May when the first of a record number of tropical storms moved up the east coast from the Gulf of Mexico. These tropical storms were responsible for most of the precipitation that occurred from June through September in the bi-State region. Normal local summertime thunderstorms did not occur as is typical for this region. Because of this trend in precipitation, ground-water-table levels rose sharply as tropical storms passed through the area, with levels then declining, until the next tropical storm. In early September, Hurricane Fran surged up the east coast and dumped between 4 to 8 inches of rain on the region with larger amounts falling on western Maryland and the Delmarva Peninsula. This major storm recharged the ground-water systems in the region to keep ground-water-table levels above normal into the 1997 water year throughout Maryland and Delaware.

In the bi-State areas where artesian aquifers are the main source for municipal water supplies, the water levels continued to decline for most of the area. In some areas, because of the record number of tropical storms, the declines in water levels in the artesian aquifers were slightly stalled. Water-level conditions are summarized below for each of the physiographic provinces:

Appalachian Plateau.-- Water-table levels were slightly below normal at the beginning of the water year. Heavy snowstorms in January, followed by a warming trend, caused water-table levels to rise significantly. Water levels remained well above normal through much of the spring. With little precipitation in April, water-table levels dropped to normal levels. In May, an early tropical storm came up the eastern edge of the Appalachians and dropped most of its precipitation on the western part of the region causing water-table levels to rise sharply again. June and August also produced tropical storms that recharged the ground-water systems quickly, but with little or no summer thunderstorms water levels declined. In September, Hurricane Fran came up the east coast and dumped large amounts (over 8 inches) of rain on the region. Ground-water levels at the end of the water year were well above average, but no new high water levels were recorded in any of the long-term observation wells.

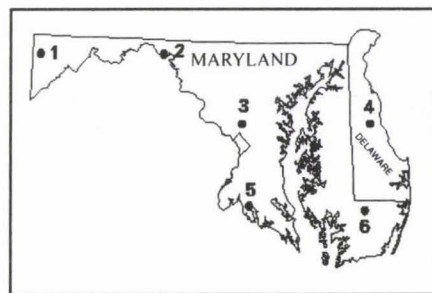
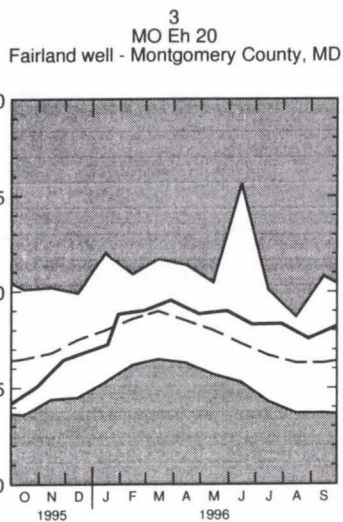
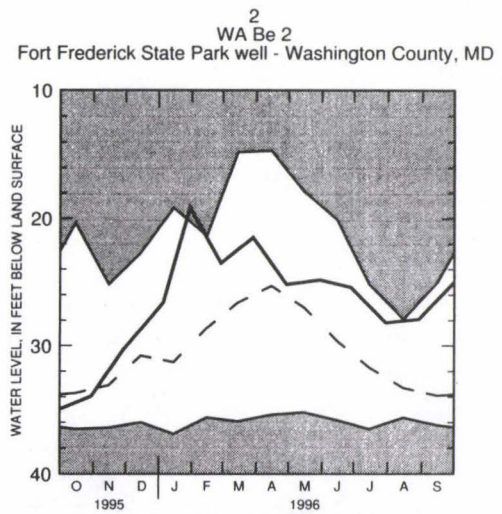
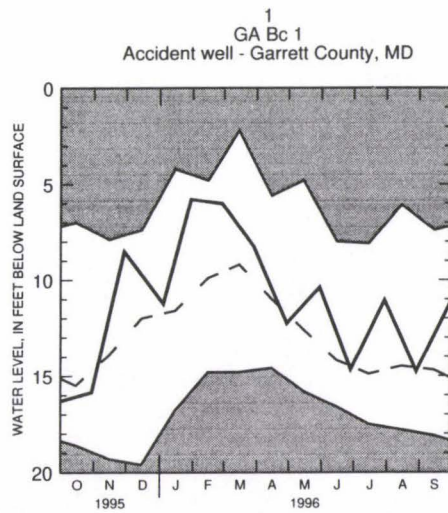
Valley and Ridge.-- Ground-water-table levels were slightly below normal at the beginning of the 1996 water year. The water-table levels rose above normal in November as heavy rain showers moved across the region. With snowfalls coupled with a warming trend in January, record-high water-table levels occurred for this time of year. Ground-water levels were to remain above normal for the rest of the water year with no record-high levels recorded.

Blue Ridge.-- Water-table levels were at or below normal at the beginning of the water year. Heavy rains in November caused ground-water levels to rise above normal. With a warming trend in January, winter snows melted rapidly with ground-water levels rising to above-normal levels. In late spring and throughout the summer months, tropical storms and Hurricane Fran in September kept ground-water levels well above normal into the 1997 water year. No record-high or -low water levels were set in this area during the water year.

Piedmont.-- Water-table levels at the beginning of the water year were below normal. In November, heavy rains caused ground-water levels to rise. With snow showers and rainstorms in December and January along with a warming trend, ground-water levels rose above normal. In late spring and throughout the summer, many tropical storms from the Gulf of Mexico dumped appreciable amounts of rain on the area, accounting for above-normal ground-water levels. In September, Hurricane Fran, with nearly 6 inches of rain in the region, kept ground-water levels above normal into the 1997 water year. No new record-high or -low ground-water levels were recorded during the water year in this province.

Coastal Plain.-- Water-table levels on the western shore of the Chesapeake Bay were slightly below normal at the beginning of the 1996 water year. Water-table levels rose above normal in November from heavy rains, and again in January. The early tropical storms that affected most of the bi-State area did not drop as much precipitation on southern Maryland and the Delmarva Peninsula. Ground-water levels fluctuated at normal or above-normal levels through the remainder of the water year.

Artesian aquifers on the western shore of the Chesapeake Bay lie close to their surface-recharge zones at the northwestern boundary with the Piedmont Physiographic Province. It is this outcrop belt where these aquifers receive most of their ground-water recharge. This area is heavily populated because of its close proximity to the Baltimore-Washington and Annapolis metropolitan area. These areas rely exclusively on ground-water supplies, except for the northwestern part of Prince Georges County where the Washington Suburban Sanitary Commission supplies surface water from the Potomac and Patuxent Rivers. Artesian aquifers (identified in parentheses) in the following towns or areas of Maryland continued to decline due to the general regional increase in ground-water withdrawals: Annapolis and vicinity (Patapsco), Cecilton (Potomac), Charlotte Hall (Aquia), La Plata (Patapsco), Leonardtown (Aquia, Piney Point), Lexington Park (Aquia, Piney Point), Potomac Heights (Patuxent), Prince Frederick (Aquia), St. Charles (Patuxent, Lower Patapsco, Magothy), Solomons Island (Aquia), southern Anne Arundel County (Aquia), and Waldorf (Patuxent, Patapsco, Magothy).



EXPLANATION

Unshaded areas show range between highest and lowest month-end water levels of record.

— 1996 Water Year
- - - Average

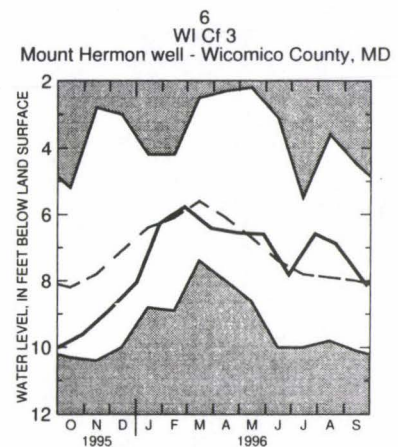
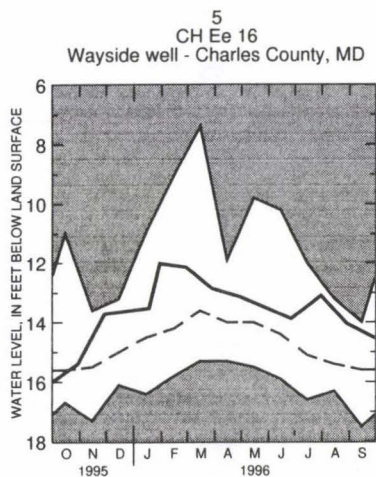
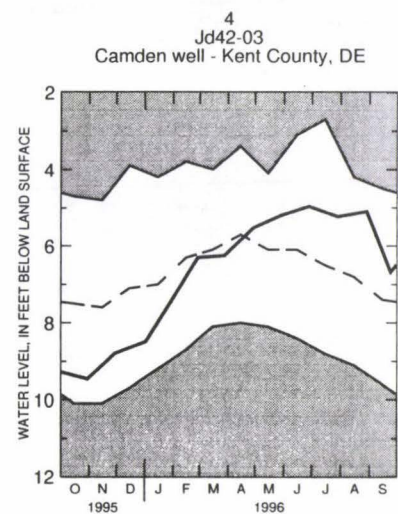


Figure 1.--Monthly ground-water levels at key observation wells.

EXPLANATION OF THE RECORDS

The ground-water-levels and quality-of-ground-water records published in this report are for the 1996 water year that began October 1, 1995, and ended September 30, 1996. A calendar of the water year is provided on the inside of the front cover. The records contain ground-water-level data and water-quality data for ground water. The locations of the wells where the data were collected are shown in figures 3, 4, and 5. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

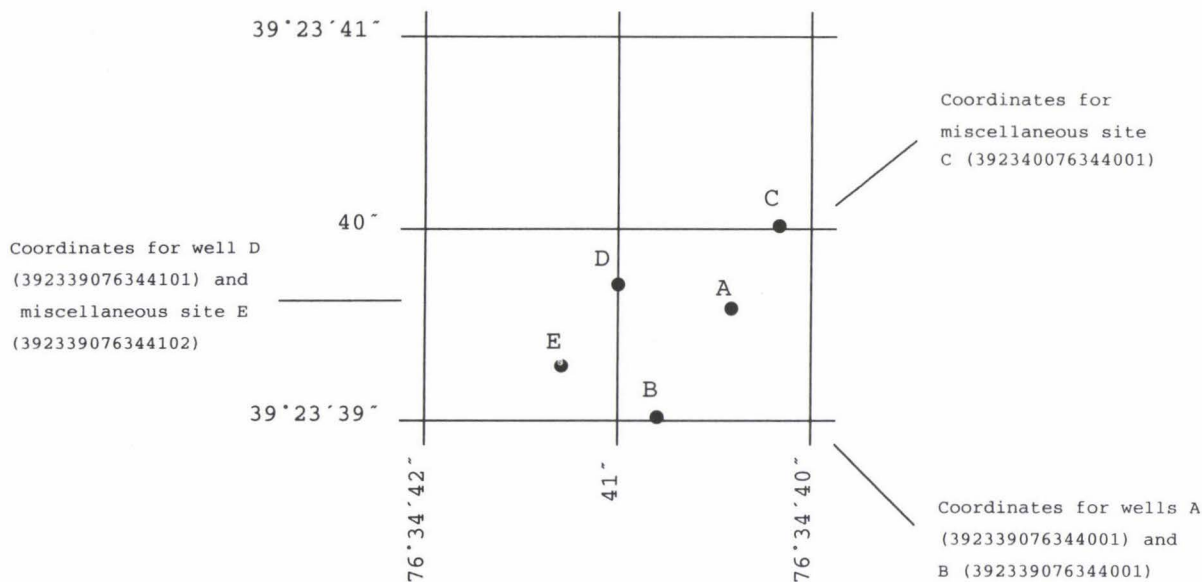


Figure 2.--System for numbering wells and miscellaneous sites (latitude and longitude)

Station Identification Numbers

Each well in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given well and to no other. The number usually is assigned when a well is first established and is retained for that well indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for ground-water well sites is on geographic location. The "latitude-longitude" system is used for wells.

Latitude-Longitude System

The identification numbers for wells are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the **LOCATION** paragraph of the station description. (See Figure 2 above.)

Well Numbering System

Wells in Maryland are also identified on the basis of a second numbering system established by the Maryland Geological Survey. The first two letters of the well number are the county prefix (for example, AL for Allegany). The second part of the well number consists of two letters that designate a 5-minute quadrangle within the county; the first letter (a capital letter) denotes a 5-minute segment of latitude from north to south, and the second letter (lower case) denotes a 5-minute segment of longitude from west to east. The wells are numbered sequentially within each 5-minute quadrangle. For example, well AL Ah 1 is the first well inventoried within the Ah 5-minute quadrangle in Allegany County. Baltimore City well numbers are based on 1-mile grids, with reference to the Washington Monument as the center. Thus, well 7S4E-1 is in the grid cell 7 miles south and 4 miles east of the Washington Monument and is the first well inventoried in that grid cell.

Delaware wells are identified by a numbering system instituted by the Delaware Geological Survey. The State is divided into 5-minute quadrangles of latitude and longitude. The quadrangles are lettered north to south with capital letters. Each 5-minute quadrangle is further subdivided into 25 1-minute blocks which are numbered from north to south from 1 to 5 and are numbered in the sequence in which they are inventoried. The identity of a well is established by prefixing the sequence number with an upper and lower case letter followed by two numbers to designate the 5-minute and 1-minute blocks, respectively, in which the well is located for example, well number Cb41-03 is the third well to be scheduled in the 1-minute block 41 that has coordinate "Cb41".

Records of Ground-Water Levels

Water-level data from the Maryland and Delaware Observation-Well Networks and observation wells from 5 ground-water projects are reported. These data are intended to provide historical water-level information for ground-water management and identify ground-water conditions in project areas. The observation well networks were established to observe ground-water level fluctuations through time and to identify areas of man-induced stress on the ground-water flow system. The locations of these observation wells in Maryland and Delaware are shown in Figure 3. The locations of project wells are shown in Figure 4.

Data Collection and Computation

Measurements of water levels are made in many types of water wells under various conditions. These methods of measurement are standardized to incorporate continuous precision. The equipment and measuring techniques used at each observation well ensures that the measurements at each well are of consistent accuracy and reliability.

The water-level data tables and hydrographs are presented in alphabetical order by counties. The primary identification number is the state well number that appears in the upper left hand corner (see Latitude-Longitude System section on page 4). The secondary identification number is the 15-digit number.

Water levels are measured manually by steel tape or by an electric sensing device approximately every 4 to 6 weeks; some wells are equipped with continuous graph or punch tape water-level recorders to observe daily fluctuations. The water levels are reported to the nearest hundredth of a foot above or below land-surface datum (lsd) or sea level. Land-surface datum is a datum plane that is approximately at land surface at each well. The elevation of the land-surface datum and the height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels for wells equipped with graphic or digital recorders report the daily maximum and minimum values.

Data Presentation

A description of each observation well precedes the water-level tables and hydrographs. The following information is given in the description:

WELL NUMBER.--(See Well Numbering System section on page 4.)

SITE ID.--A 15-digit number: the first 6 digits are the latitude, the next 7 digits are the longitude, and the last 2 digits refer to the sequence number for identifying one or more wells at a particular latitude and longitude. The site ID is the best location at the time of inventory. The actual latitude and longitude may be slightly different as a result of more up-to-date knowledge of location. The site ID is basically used as an identification number and not an exact location. (See Latitude-Longitude System section on page 4.)

PERMIT NUMBER.--The permit number is the state permit number required for drilling wells in Maryland and Delaware. Upon completion of the well, the driller must submit a completion report which documents specific data on the construction of the well. This document also reports the pumpage results in terms of pumping period, yield as gallons per minute and drawdown.

LOCATION.--The location is the latitude and longitude in the appropriate designation of degrees, minutes, and seconds. The hydrologic unit is a code for the river basin where the well is located (U.S. Geological Survey, 1974: Hydrologic Unit Map). Also a brief local description of the location is given along with the well-owner's name.

AQUIFER.--The aquifer is the geologic formation from which the well receives its water supply. Each aquifer is identified by its geologic age and U.S. Geological Survey GWSI data base aquifer code.

WELL CHARACTERISTICS.--This describes the type of well, the physical characteristics of the well, and the known construction information.

INSTRUMENTATION.--This provides information on the frequency of measurement of water levels and the continuous water-level equipment used.

DATUM.--This lists the altitude of land surface above sea level at the well to the nearest 10 feet as determined from a 7-1/2 minute quadrangle topographic map, or to the nearest hundredth of a foot as determined from surveying. The measuring point (MP) is the distance above or below the land surface at the point, at which the measurements are made.

REMARKS.--This section gives important miscellaneous data relevant to the well site.

PERIOD OF RECORD.--The period of record lists the beginning and ending month and year of water-level record or "current year" if the records are to be continued into the following year.

EXTREMES FOR PERIOD OF RECORD.--The extremes for period identify the date or dates of highest and lowest water-level measurements and the dates of their occurrence.

Spring Discharge Tables

A table of discharge in gallons per minute follows the station description for each spring. The data appears in a tabling format of date and discharge. The data are measured volumetrically or by use of a flow meter.

Water-Level Tables

A table of water levels follows the station description for each well. Water levels are reported in either of the following table formats:

Hand-held measurements.--If the data are collected by hand held measurements, the data appears in a tabling format of date and water level with the datum in reference to land surface. These values are reported to the nearest hundredth of a foot.

Recorder.--Water levels are presented in a two page 6-month format by water year with columns for daily maximums and minimums. These data are reported in reference to either land surface or sea level datum. The daily maximum column for land surface data represents the lowest daily water level recorded. The daily minimum column for land surface data represents the highest water level recorded. For sea level data, the daily maximum column represents highest daily water level recorded. The daily minimum column represents the lowest daily water level recorded. Missing data are represented by dashes in the table.

Hydrographs

The hydrographs are a graphic display of water level fluctuations over a period of time. In this report a 5-year hydrograph is shown starting October 1, 1991 through September 30, 1996. Those hydrographs which display hand measured values are referenced to land surface datum. Each measurement is indicated by a circle and connected with a dashed line to indicate the trend from one measurement to the next. The trend line should be interpreted as a general direction of water level movement. Actual water levels may deviate from this line. The trend line is not drawn if the measurements are greater than 60 days apart. Recorder data are graphed as a continuous line using the lowest water level recorded for each day. Missing data are indicated by a blank space. Missing data result from recorder malfunctions, battery or clock failures, and mechanical problems related to the response of water level movement in a well.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate or chloride concentrations. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes. The locations of these water-quality wells in Maryland and Delaware are shown in Figure 5.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality Statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" publications referred to in the "On-site Measurements and Sample Collection" and the "Laboratory Measurements" sections in this data report. In addition, the TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled **QUALITY OF GROUND WATER** immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well or spring number (**Well Number**). The prime identification number for wells or springs sampled is the 15-digit (**site ID**) number derived from the latitude-longitude locations. The site ID includes a two digit sequence number for use at locations having multiple sites. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National **WATER** Data **STOR**age and **RE**trieval System (**WATSTORE**) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products, ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using **WATSTORE**. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

- * **Station Header File** - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.
- * **Daily Values File** - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperature, specific conductance, sediment concentrations, sediment discharges, and ground-water levels.
- * **Peak Flow File** - Contains approximately 500,000 maximum (peak) streamflow and gage-height values at surface-water sites.
- * **Water Quality File** - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, radio-chemical characteristics of both surface and ground water.
- * **Ground-Water Site Inventory Data Base** - Contains inventory data for more than 900,000 well, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened **WATSTORE** to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to **WATSTORE**. The system can be accessed either synchronously or asynchronously. The requestor will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, Virginia 22092

In addition to providing direct access to **WATSTORE**, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on **CD-ROM** discs. Beginning with the 1991 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (**CD-ROM**). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single **CD-ROM** disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.) A limited number of **CD-ROM** discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, Colorado 80225.

DEFINITION OF TERMS

Terms related to water-quality and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C plus or minus 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C plus or minus 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C plus or minus 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square mile (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zoo-plankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloro-platinate ion. Color is expressed in units of the platinum-cobalt scale.

Dissolved refers to that material in a representative water sample which passes through a 0.45 μ m membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground-water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram ($\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter ($\mu\text{g/L}$, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/L , mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m^2), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The U.S. Environmental Protection Agency assigns and approves all requests for new codes.

Partial-record station is a particular site where limited water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m².time)] for periphyton and macrophytes and [mg C/(m³.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O₂/(m².time)] for periphyton and macrophytes and [mg O₂/(m³.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Sea level: In this report "sea level" refers to the National Geodetic Datum of 1929 (NGVD of 1929) - a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total." Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom..... Animal
Phylum..... Arthropoda
Class..... Insecta
Order..... Ephemeroptera
Family..... Ephemeridae
Genus..... Hexagenia
Species..... Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1996, is called the "1996 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25286, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. **Water temperature--influential factors, field measurements, and data presentation**, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. **Guidelines for collection and field analysis of ground-water samples for selected unstable constituents**, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. **Application of surface geophysics to ground-water investigations**, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-D2. **Application of seismic-refraction techniques to hydrologic studies**, by F. P. Haeni: USGS--TWRI Book 2, Chapter d2. 1988. 86 pages.
- 2-E1. **Application of borehole geophysics to water-resources investigations**, by W. S. Keys, and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 2-E2. **Borehole geophysics applied to ground-water investigations**, by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.
- 2-F1. **Application of drilling, coring, and sampling techniques to test holes and wells**, by Eugene Shuter, and Warren E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.
- 3-A1. **General field and office procedures for indirect discharge measurements**, by M. A. Benson, and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. **Measurement of peak discharge by the slope-area method**, by Tate Dalrymple, and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. **Measurement of peak discharge at culverts by indirect methods**, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. **Measurement of peak discharge at width contractions by indirect methods**, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. **Measurement of peak discharge at dams by indirect methods**, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. **General procedure for gaging streams**, by R. W. Carter, and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. **Stage measurements at gaging stations**, T. J. Buchanan, and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. **Discharge measurements at gaging stations**, by T. J. Buchanan, and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. **Measurement of time of travel and dispersion in streams by dye tracing**, by F. A. Kilpatrick, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.
- 3-A10. **Discharge ratings at gaging stations**, E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. **Measurement of discharge by moving-boat method**, by G. F. Smoot, and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A12. **Fluorimetric procedures for dye tracing**, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 41 pages.
- 3-A13. **Computation of continuous records of streamflow**, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. **Use of flumes in measuring discharge**, by F. A. Kilpatrick, and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. **Computation of water-surface profiles in open channels**, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-A16. **Measurement of discharge using tracers**, by F. A. Kilpatrick, and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

- 3-A17. **Acoustic velocity meter systems**, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.
- 3-A18. **Determination of stream reaeration coefficients by use of tracers**, by F. A. Kilpatrick, R. E. Rathbun, N. Yotsukura, G. W. Parker, and L. L. Delong: USGS--TWRI Book 3, Chapter 18A. 1989. 52 pages.
- 3-A19. **Levels of streamflow gaging stations**, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.
- 3-A20. **Simulation of soluble waste transport and buildup in surface waters using tracers**, by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.
- 3-A21. **Stream-gaging cableways**, by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 pages.
- 3-B1. **Aquifer-test design, observation, and data analysis**, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. **Introduction to ground-water hydraulics, a programmed text for self-instruction**, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. **Type curves for selected problems of flow to wells in confined aquifers**, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-B4. **Regression modeling of ground-water flow**, by Richard L. Cooley, and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 3-B5. **Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems --An introduction**, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.
- 3-B6. **The principle of superposition and its application in ground-water hydraulics**, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.
- 3-B7. **Analytical solutions for one-, two-, and three dimensional solute transport in ground-water systems with uniform flow**, by E. W. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 pages.
- 3-C1. **Fluvial sediment concepts**, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. **Field methods of measurement of fluvial sediment**, by H. P. Guy, and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. **Computation of fluvial-sediment discharge**, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. **Some statistical tools in hydrology**, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. **Frequency curves**, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. **Low-flow investigations**, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. **Storage analyses for water supply**, by H. C. Riggs, and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. **Regional analyses of streamflow characteristics**, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. **Computation of rate and volume of stream depletion by wells**, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. **Methods for determination of inorganic substances in water and fluvial sediments**, by M. J. Fishman, and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.
- 5-A2. **Determination of minor elements in water by emission spectroscopy**, by P. R. Barnett, and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. **Methods for determination of organic substances in water and fluvial sediments**, by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.
- 5-A4. **Methods for collection and analysis of aquatic biological and microbiological samples**, by L. J. Britton, and P. E. Greenson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.
- 5-A5. **Methods for determination of radioactive substances in water and fluvial sediments**, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

- 5-A6. **Quality assurance practices for the chemical and biological analyses of water and fluvial sediments**, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. **Laboratory theory and methods for sediment analysis**, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 6-A1. **A modular three-dimensional finite-difference ground-water flow model**, by M. G. McDonald, and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.
- 6-A2. **Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model**, by S.A. Leake and D.E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.
- 6-A3. **A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual**, by L. J. Torak: USGS--TWRI Book 6, Chapter 3. 1993. 136 pages.
- 6-A4. **A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element, equations and comparisons with analytical solutions**, by R.L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.
- 6-A5. **A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details**, by L. J. Torak: USGS--TWRI Book 6, Chapter A5. 1993. 243 pages.
- 6-A6. **A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction**, by E.D. Swain and E.J. Wexler: USGS--TWRI Book 6, Chapter A6. 1995. 125 pages.
- 7-C1. **Finite difference model for aquifer simulation in two dimensions with results of numerical experiments**, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. **Computer model of two-dimensional solute transport and dispersion in ground water**, by L. F. Konikow, and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. **A model for simulation of flow in singular and interconnected channels**, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. **Methods of measuring water levels in deep wells**, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. **Installation and service manual for U. S. Geological Survey manometers**, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. **Calibration and maintenance of vertical-axis type current meters**, by G. F. Smoot, and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN DELAWARE

Listed below is a selection of reports on ground-water resources in Delaware which are available through the U.S. Geological Survey, Book and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, Colorado 80225.

Professional Papers

Base flow as an indicator of aquifer characteristics in the Coastal Plain of Delaware, by R.H. Johnston: U.S. Geological Survey Professional Paper 750-D. 1971. pages D212-D215.

Structural and stratigraphic frameworks and spatial distribution of the permeability of the Atlantic Coastal Plain, New York to North Carolina, by P.M. Brown, J.A. Miller, and F.M. Swain: U.S. Geological Survey Professional Paper 796. 1972.

Water resources of the Delmarva Peninsula, by E.M. Cushing, I.H. Kantrowitz, and K.R. Taylor: U.S. Geological Survey Professional Paper 822. 1972. 58 pages.

Hydrogeologic framework of the Coastal Plain sediments in Maryland, Delaware, and the District of Columbia, as developed for the Northern Atlantic Regional Aquifer Systems Analysis (RASA), by D.A. Vroblesky, and W.B. Fleck: U.S. Geological Survey Professional Paper 1404-E. 1989. 45 pages.

Simulation of the ground-water flow system of the Coastal Plain sediments, Maryland, Delaware, and the District of Columbia, by W.B. Fleck, and D.A. Vroblesky: U.S. Geological Survey Professional Paper 1404-J. 1996.

Geohydrology and simulation of ground-water flow in the northern Atlantic Coastal Plain aquifer system, by P.P. Leahy: U.S. Geological Survey Professional Paper 1404-K. 1994. 81 pages.

Water-Supply Papers

Beach-area water supplies between Ocean City, Maryland, and Rehobeth Beach, Delaware, by T.H. Slaughter: U.S. Geological Survey Water-Supply Paper 1619-T. 1962.

Ground-water resources of southern New Castle County, Delaware, by D.R. Rima, O.J. Coskery, and P.W. Anderson: U.S. Geological Survey Water-Supply Paper 1756. 1964.

Effects of eustatic sea-level changes on saltwater-freshwater in the northern Atlantic Coastal Plain, by Harold Meisler, P.P. Leahy, and L.L. Knobel: U.S. Geological Survey Water-Supply Paper 2255. 1984. 28 pages.

Delaware ground-water resources, in National Water Summary 1984, by A.L. Hodges, Jr.: U.S. Geological Survey Water-Supply Paper 2275. 1985. pages 167-172.

Delaware water supply and use, by A.L. Hodges, Jr., R.D. Varrin, and P.J. Cherry, in National Water Summary 1987--Water supply and use: U.S. Geological Survey Water-Supply Paper 2350. 1989, pages 207-214.

Ground-water-quality assessment of the Delmarva Peninsula, Delaware, Maryland, and Virginia: Analysis of available water-quality data through 1987, by P.A. Hamilton, and R.J. Shedlock: U.S. Geological Survey Water-Supply Paper 2355-B. 1989, 186 pages.

Hydrologic Investigation Atlases

Water-table, surface-drainage, and engineering soils map of the St. Georges area, Delaware, by J.K. Adams, and D.H. Boggess: U.S. Geological Survey Hydrologic Investigation Atlas 60. 1963. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Newark area, Delaware, by D.H. Boggess, and J.K. Adams: U.S. Geological Survey Hydrologic Investigation Atlas 64. 1963. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Wilmington area, Delaware, by J.K. Adams, and D.H. Boggess: U.S. Geological Survey Hydrologic Investigation Atlas 79. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Taylors Bridge area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 80. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Smyrna area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 81. 1964. 1 map. scale 1:24,000.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN DELAWARE--Continued

Water-table, surface-drainage and engineering soils map of the Middletown area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 82. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Clayton area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 83. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Sharptown area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 84. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Greenwood quadrangle, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 99. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Hickman area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 100. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Ellendale quadrangle, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 101. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Milton quadrangle, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 102. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Lewes area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 103. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Seaford West area, Delaware, by D.H. Boggess, J.K. Adams, and others: U.S. Geological Survey Hydrologic Investigation Atlas 105. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Seaford East area, Delaware, by D.H. Boggess, J.K. Adams, and others: U.S. Geological Survey Hydrologic Investigation Atlas 106. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Georgetown quadrangle, Delaware, by D.H. Boggess, J.K. Adams, and others: U.S. Geological Survey Hydrologic Investigation Atlas 107. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Harbeson quadrangle, Delaware, by D.H. Boggess, J.K. Adams, and others: U.S. Geological Survey Hydrologic Investigation Atlas 108. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Rehoboth Beach area, Delaware, by D.H. Boggess, J.K. Adams, and others: U.S. Geological Survey Hydrologic Investigation Atlas 109. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Frankford area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 119. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Trap Pond area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 120. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Millsboro area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 121. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Bethany Beach area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 122. 1964. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Laurel area, Delaware, by J.K. Adams, D.H. Boggess, and others: U.S. Geological Survey Hydrologic Investigation Atlas 123. 1964. 1 map. scale 1:24,000.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN DELAWARE--Continued

Water-table, surface-drainage and engineering soils map of the Marydel area, Delaware,
by D.H. Boggess, C.F. Davis, and others: U.S. Geological Survey Hydrologic Investigation Atlas 132.
1964-65. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Milford quadrangle, Delaware,
by D.H. Boggess, C.F. Davis, and others: U.S. Geological Survey Hydrologic Investigation Atlas 133.
1964-65. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Little Creek quadrangle, Delaware,
by D.H. Boggess, C.F. Davis, and others: U.S. Geological Survey Hydrologic Investigation Atlas 134.
1964-65. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Burrsville area, Delaware,
by D.H. Boggess, C.F. Davis, and others: U.S. Geological Survey Hydrologic Investigation Atlas 135.
1964-65. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Harrington quadrangle, Delaware,
by D.H. Boggess, C.F. Davis, and others: U.S. Geological Survey Hydrologic Investigation Atlas 136.
1964-65. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Mispillion River, Delaware,
by D.H. Boggess, C.F. Davis, and others: U.S. Geological Survey Hydrologic Investigation Atlas 137.
1964-65. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Kenton area, Delaware,
by D.H. Boggess, C.F. Davis, and others: U.S. Geological Survey Hydrologic Investigation Atlas 138.
1964-65. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Dover quadrangle, Delaware,
by D.H. Boggess, C.F. Davis, and others: U.S. Geological Survey Hydrologic Investigation Atlas 139.
1964-65. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Frederica area, Delaware,
by D.H. Boggess, C.F. Davis, and others: U.S. Geological Survey Hydrologic Investigation Atlas 140.
1964-65. 1 map. scale 1:24,000.

Water-table, surface-drainage and engineering soils map of the Wyoming quadrangle, Delaware,
by D.H. Boggess, C.F. Davis, and others: U.S. Geological Survey Hydrologic Investigation Atlas 141.
1964-65. 1 map. scale 1:24,000.

Water-Resources Investigations Report

A three-dimensional ground-water flow model modified to reduce computer memory requirements and better simulate confining bed and aquifer pinchouts, by P.P. Leahy: U.S. Geological Survey Water-Resources Investigations Report 82-4023. 1982. 59 pages.

Ground-water temperature of the Wyoming quadrangle in central Delaware, with application to ground-water-source heat pumps, by A.L. Hodges, Jr.: U.S. Geological Survey Water-Resources Investigations Report 82-53. 1983. 29 pages.

Simulated ground-water flow in the Potomac aquifers, New Castle County, Delaware, by M.M. Martin: U.S. Geological Survey Water-Resources Investigations Report 84-4007.

Hydrogeology, degradation of groundwater quality, and simulation of infiltration from the Delaware River into the Potomac aquifers, northern Delaware, by S.W. Phillips: U.S. Geological Survey Water-Resources Investigations Report 87-4185. 1988. 86 pages.

Water levels, chloride concentrations, and pumpage in the Coastal aquifers of Delaware and Maryland, by D.J. Phelan: U.S. Geological Survey Water-Resources Investigations Report 87-4229. 1988. 106 pages.

Water Use in the St. Jones River Basin, Kent County, Delaware, 1983-86, by D.J. Phelan: U.S. Geological Survey Water-Resources Investigation Report 90-4094. 1990. 30 pages.

Open-File Reports

Availability of ground water on the Delmarva Peninsula, by A.J. Hodges, Jr.: U.S. Geological Survey Open-File Report 77-759. 1978. 6 pages.

Preliminary deliniation of salty ground-water in the northern Atlantic Coastal Plain, by Harold Meisler: U.S. Geological Survey Open-File Report 81-71. 1981. 12 pages.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN DELAWARE--Continued

Hydrologic data for the Potomac Formation in New Castle County, Delaware, by M.M. Martin: U.S. Geological Survey Open-File Report 81-916. 1982. 148 pages.

Ground-water-quality data for the Atlantic Coastal Plain, Delaware, Maryland, Virginia, and North Carolina, by L.L. Knobel: U.S. Geological Survey Open-File Report 85-154. 1986. 84 pages.

Ground-water quality assessment of the Delmarva Peninsula, Delaware, Maryland, and Virginia, project description, by L.J. Bachman, R.J. Shedlock, and P.J. Phillips: U.S. Geological Survey Open-File Report 87-112. 1988. 18 pages.

Groundwater assessment of the Delmarva Peninsula, Delaware, Maryland, and Virginia: Analysis of available water-quality data through 1987, by P.A. Hamilton, R.J. Shedlock, and P.J. Phillips: U.S. Geological Survey Open-File Report 89-34. 1990. 71 pages.

Distribution of dissolved atrazine and two metabolites in the confined aquifer, southeastern Delaware, by J.M. Denver, and M.W. Sandstrom: U.S. Geological Survey Open-File Report 91-88. 1992. 48 pages.

Water quality assessment of the Delmarva Peninsula, Delaware, Maryland and Virginia -- Effects of agriculture activities on and distribution of, nitrate and other inorganic constituents in surficial aquifers, by P.A. Hamilton, J.M. Denver, P.J. Phillips, and R.J. Shedlock: U.S. Geological Survey Open-File Report 93-40. 1993. 87 pages.

Potentiometric maps and ground-water-level data for the industrial area northwest of Delaware City, Delaware, 1993-94, by C.A. Donnelly, and K.C. Hinaman: U.S. Geological Survey Open-File Report 95-318. 1996. 1 plate.

Water-Level data for the industrial area northwest of Delaware City, Delaware, 1993-94, by C.A. Donnelly, and K.C. Hinaman: U.S. Geological Survey Open-File Report 96-125. 1996. 23 pages.

Unnumbered Reports

A summary of geologic and hydrologic data from an exploratory well drilled near Greenwood, Delaware; U.S. Geological Survey. 1971. 18 pages.

Circular

Northern Atlantic Coastal Plain regional aquifer-system study, by Harold Meisler, in Regional Aquifer-System Analysis Program of the U.S. Geological Survey summary of projects, 1978-1984, R.J. Sun, editor: U.S. Geological Survey Circular 1002. 1986. pages 162-194.

Are Fertilizers and Pesticides in the Ground Water? A case study of the Delmarva Peninsula, Delaware, Maryland, and Virginia, by P.A. Hamilton and R.J. Shedlock: U.S. Geological Survey Circular 1080. 1992. 16 pages.

SELECTED DELAWARE GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN DELAWARE

Listed below is a selection of reports on ground-water resources in Delaware which are available through the Delaware Geological Survey, by writing: Publications, Delaware Geological Survey, University of Delaware, Newark, DE 19716-7501.

Report of Investigations

High-capacity test well developed at the Dover Air Force Base, by W.C. Rasmussen, J.J. Groot, and A.J. Depman: Delaware Geological Survey Report of Investigation No. 2. 1958. 36 pages.

Wells for the observation of chloride and water levels in aquifers that cross the Chesapeake and Delaware Canal, by W.C. Rasmussen, J.J. Groot, and N.H. Beamer: Delaware Geological Survey Report of Investigation No. 3. 1958. 22 pages.

Ground-water levels in Delaware, January 1962-June 1966, by K.D. Woodruff: Delaware Geological Survey Report of Investigation No. 9. 1967. 28 pages.

The Occurrence of saline ground-water in Delaware aquifers, by K.D. Woodruff: Delaware Geological Survey Report of Investigation No. 13. 1969. 45 pages.

SELECTED DELAWARE GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN DELAWARE--Continued

General ground-water quality in fresh-aquifers of Delaware, by K.D. Woodruff: Delaware Geological Survey Report of Investigation No. 15. 1970. 32 pages.

Ground-water geology of the Delaware Atlantic seashore, by J.C. Miller: Delaware Geological Survey Report of Investigation No. 17. 1971. 33 pages.

Geology and ground water, University of Delaware, Newark, Delaware, by K.D. Woodruff, J.C. Miller, R.R. Jordan, N. Spoljaric and T.E. Pickett: Delaware Geological Survey Report of Investigation No. 18. 1972. 40 pages.

Configuration on the base and thickness of the unconfined aquifer in southeastern Sussex County, Delaware, by J.M. Denver: Delaware Geological Survey Report of Investigation No. 20. 1983. 12 pages.

Hydrogeology of selected sites in the greater Newark area, Delaware, by J.H. Talley: Delaware Geological Survey Report of Investigation No. 22. 1974. 61 pages.

Relation of ground water to surface water in four small basins of the Delaware Coastal Plain, by R.H. Johnston: Delaware Geological Survey Report of Investigation No. 24. 1976. 56 pages.

Hydraulic characteristics of the Piney Point aquifer and overlying confining bed near Dover, Delaware, by P.P. Leahy: Delaware Geological Survey Report of Investigation No. 26. 1976. 24 pages.

Ground-water investigations in the Delaware Piedmont for the City of Newark, 1976, by W.F. Hahn: Delaware Geological Survey Report of Investigation No. 27. 1977. 26 pages.

Well and aquifer tests, Laird Tract well field, Newark, Delaware, by J.H. Talley, and W.F. Hahn: Delaware Geological Survey Report of Investigation No. 28. 1978. 26 pages.

Digital model of the Piney Point aquifer in Kent County, Delaware, by P.P. Leahy: Delaware Geological Survey Report of Investigation No. 29. 1979. 81 pages.

Ground-water levels in Delaware, July, 1966-December, 1977, by J.H. Talley: Delaware Geological Survey Report of Investigation No. 30. 1979. 50 pages.

Hydrology of the Manokin, Ocean City, and Pokomoke aquifers of southeastern Delaware, by A.L. Hodges: Delaware Geological Survey Report of Investigation No. 38. 1983. 60 pages.

Sodium concentrations in water from the Piney Point Formation, Dover area, Delaware, by N. Spoljaric: Delaware Geological Survey Report of Investigation No. 40. 1986. 14 pages.

Hydrogeology and geochemistry of the unconfined aquifer, west-central and southwestern Delaware, by J.M. Denver: Delaware Geological Survey Report of Investigation No. 41. 1986. 100 pages.

Estimate of direct discharge of fresh ground water to Rehoboth and Indian River Bays, by A.S. Andres: Delaware Geological Survey Report of Investigation No. 43. 1987. 37 pages.

Ground-water levels in Delaware, January 1978-December 1987, by J.H. Talley: Delaware Geological Survey Report of Investigation No. 44. 1988. 58 pages.

Effects of agricultural practices and septic-system effluent on the quality of water in the unconfined aquifer in parts of eastern Sussex County, Delaware, by J.M. Denver: Delaware Geological Survey Report of Investigation No. 45. 1989. 66 pages.

Results of the coastal Sussex County, Delaware, ground-water quality survey, by A.S. Andres: Delaware Geological Survey Report of Investigation No. 49. 1991. 28 pages.

Herbicides in shallow ground-water at two agriculture sites in Delaware, by J.M. Denver: Delaware Geological Survey Report of Investigation No. 51. 1993. 28 pages.

Quality and Geochemistry of Ground Water in Southern New Castle County, Delaware, by L.J. Bachman and M.J. Ferrari: Delaware Geological Survey Report of Investigation No. 52. 1995. 31 pages.

Bulletin

Ground-water problems in highway construction and maintenance, by W.C. Rasmussen, and L.B. Haigler: Delaware Geological Survey Bulletin No. 1. 1953. 24 pages.

Geology and ground-water resources of the Newark area, Delaware, by J.J. Groot, and W.C. Rasmussen: Delaware Geological Survey Bulletin No. 2. 1954. 133 pages.

Preliminary report on the geology and ground-water resources of Delaware, by I.W. Marine, and W.C. Rasmussen: Delaware Geological Survey Bulletin No. 4. 1955. 336 pages.

SELECTED DELAWARE GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN DELAWARE--Continued

Ground-water resources of southern New Castle County, Delaware, by D.R. Rima, O.J. Coskery, and P.W. Anderson: Delaware Geological Survey Bulletin No. 11. 1964. 54 pages.

Geology, hydrology and geophysics of Columbia sediments in the Middletown-Odessa area, Delaware, by N. Spoljaric, and K.D. Woodruff: Delaware Geological Survey Bulletin No. 14. 1973. 78 pages.

Hydrology of the Columbia (Pleistocene) deposits of Delaware, by R.H. Johnston: Delaware Geological Survey Bulletin No. 14. 1973. 7 pages.

Digital model of the unconfined aquifer in central and southeastern Delaware, by R.H. Johnston: Delaware Geological Survey Bulletin 15. 1977. 47 pages.

Ground-water resources of the Piney Point and Cheswold aquifers in central Delaware as determined by a flow model, by P.P. Leahy: Delaware Geological Survey Bulletin 16. 1982. 68 pages.

Geology and Hydrology of the Cockeysville Formation Northern New Castle County, Delaware, by K.D. Woodruff and M. O. Plank, Geohydrology of the Hockessin area with emphasis on the Cockeysville Aquifer, by W.H. Werkeiser: Delaware Geological Survey Bulletin No. 19. 1995. 59 pages.

Open File Reports

A preliminary report on nitrate contamination of shallow ground waters in Delaware, by J.C. Miller: Delaware Geological Survey Open File Report No. 1. 1971. 7 pages.

Geologic and Hydrologic aspects of landfills, by N. Spoljaric, and J.H. Talley: Delaware Geological Survey Open File Report No. 16. 1982. 22 pages.

Ground-water availability in southern New Castle County, Delaware, by J.J. Groot, P.M. Demicco, and P.J. Cherry: Delaware Geological Survey Open File Report No. 23. 1983. 20 pages.

Saturated thickness of the water-table aquifer in southern New Castle County, Delaware, by J.J. Groot, P.M. Demicco, and P.J. Cherry: Delaware Geological Survey Open File Report No. 24. 1983. 1 map.

Saturated thickness of the Columbia Formation in southern New Castle County, Delaware, by J.J. Groot, P.M. Demicco, and P.J. Cherry: Delaware Geological Survey Open File Report No. 25. 1983. 1 map.

Salinity distribution and ground-water circulation beneath the Coastal Plain of Delaware and the adjacent Continental Shelf, by J.J. Groot: Delaware Geological Survey Open File Report No. 26. 1983. 24 pages.

Potential for ground-water recharge in the Coastal Plain of New Castle County, Delaware, sheet 1, Northern New Castle County (1983); 2 sheets, Chesapeake and Delaware Canal area (1985), by S. Petty, W.D. Miller, and B.A. Lanam; K.D. Woodruff, editor: Delaware Geological Survey Open File Report No. 28. maps with discussion. scale 1:24,000.

Source of ground-water contamination, by J.H. Talley: Delaware Geological Survey Open File Report No. 29. 1985. 20 pages.

Water Level Reports

Ground-water level and chemistry data from coastal Sussex County, Delaware, Ground-water quality survey, by A.S. Andres: Delaware Geological Survey Open File Report No. 33. 1991. 31 pages.

Methodology for mapping ground-water recharge area in Delaware's Coastal Plain, by A.S. Andres: Delaware Geological Survey Open File Report No. 34. 1991. 18 pages. (reprinted 1992).

Estimate of nitrate flux to Rehoboth and Indian River Bays, Delaware through direct discharge of ground-water, by A.S. Andres: Delaware Geological Survey Open File Report No. 35. 1992. 36 pages.

Water levels and artesian pressures in Delaware-1952, by I.W. Marine: Delaware Geological Survey Water Level Report No. 1. 1954. 11 pages.

Water levels and artesian pressures in Delaware-1953, by D.H. Boggess, and O.J. Coskery: Delaware Geological Survey Water Level Report No. 2. 1954. 10 pages.

Water levels and artesian pressures in Delaware-1954, by D.H. Boggess, and O.J. Coskery: Delaware Geological Survey Water Level Report No. 3. 1955. 10 pages.

Water levels and artesian pressures in Delaware-1955, by O.J. Coskery: Delaware Geological Survey Water Level Report No. 4. 1956. 10 pages.

SELECTED DELAWARE GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN DELAWARE--Continued

Water levels in Delaware-1956, by O.J. Coskery Delaware Geological Survey Water Level Report No. 5. 1958. 21 pages.

Water levels in Delaware-1957, by O.J. Coskery Delaware Geological Survey Water Level Report No. 6. 1961. 22 pages.

Water levels in Delaware-1958, by O.J. Coskery Delaware Geological Survey Water Level Report No. 7. 1961. 17 pages.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND

Listed below is a selection of reports on ground-water resources in Maryland which are available through the U.S. Geological Survey, Book and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, Colorado 80225.

Professional Papers

Hydrochemical facies and ground-water flow patterns in northern part of Atlantic Coastal Plain, by William Back: U.S. Geological Survey Professional Paper 498-A. 1966.

Relationships of fresh and salty ground water in the northern Atlantic Coastal Plain of the United States, in Geological Survey Research, by J.E. Upson: U.S. Geological Survey Professional Paper 550-C. 1966. p. C235-C243.

Structural and stratigraphic frameworks and spatial distribution of the permeability of the Atlantic Coastal Plain, New York to North Carolina, by P.M. Brown, J.A. Miller, and F.M. Swain: U.S. Geological Survey Professional Paper 796. 1972.

Summary appraisals of the Nation's ground-water resources Mid-Atlantic Region, by Allen Sinnott, and E.M. Cushing: U.S. Geological Survey Professional Paper 813-I. 1976.

Water Resources of the Delmarva Peninsula, by E.M. Cushing, I.H. Kantrowitz, and K.R. Taylor: U.S. Geological Survey Professional Paper 822. 1973. 58 pages.

The regional aquifer system underlying the northern Atlantic Coastal Plain in parts of North Carolina, Virginia, Maryland, Delaware, New Jersey, and New York--Summary, by Henry Trapp, Jr., and Harold Meisler: U.S. Geological Survey Professional Paper 1404-A. 1992. 33 pages.

The occurrence and geochemistry of salty ground water in the northern Atlantic Coastal Plain, by Harold Meisler: U.S. Geological Survey Professional Paper 1404-D. 1989. 51 pages.

Hydrogeologic framework of the Coastal Plain sediments in Maryland, Delaware and the District of Columbia, as developed for the Northern Atlantic Region Aquifer Systems Analysis (RASA), U.S. Geological Survey, by D.A. Vroblesky, and W.B. Fleck: U.S. Geological Survey Professional Paper 1404-E. 1989. 45 pages.

Conceptualization and analysis of ground-water flow system in the Coastal Plain of Virginia and adjacent parts of Maryland and North Carolina, by J.F. Harsh and R.J. Lazniak: U.S. Geological Survey Professional Paper 1404-F. 1990. 100 pages.

Hydrogeologic framework of the northern Atlantic Coastal Plain in parts of North Carolina, Virginia, Maryland, Delaware, New Jersey, and New York, by Henry Trapp, Jr.: U.S. Geological Survey Professional Paper 1404-G. 1992. 33 pages.

Simulation of the ground-water flow system in the Coastal Plain sediments, Maryland, Delaware, and the District of Columbia, by W.B. Fleck, and D.A. Vroblesky--Regional Aquifer-System Analysis-Northern Atlantic Coastal Plain: U.S. Geological Survey Professional Paper 1404-J. 1996. 41 pages. 9 plates

Geohydrology and simulation of ground-water flow in the northern Atlantic Coastal Plain, by P.P. Leahy, and Mary Martin--Regional Aquifer-System Analysis-Northern Atlantic Coastal Plain: U.S. Geological Survey Professional Paper 1404-K. 1993. 81 pages.

Geochemistry of the northern Atlantic Coastal Plain aquifer system, by L.L. Knobel, F.H. Chapelle, and Harold Meisler--Regional Aquifer-System Analysis-Northern Atlantic Coastal Plain: U.S. Geological Survey Professional Paper 1404-L. (in press)

Estimated Hydrologic characteristics of shallow aquifer systems in the Valley and Ridge, the Blue Ridge, and the Piedmont Physiographic provinces based on analysis of streamflow recession and base flow, by A.T. Rutledge and T.O. Mesko--Regional Aquifer-System Analysis-Appalachian Valley and Piedmont: U.S. Geological Survey Professional Paper 1422-B. 1996. 58 pages.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

Water-Supply Papers

Water Levels and Artesian Pressure in Observation Wells in the United States in 1943, Part 2. Southeastern States, by O.E. Meinzer, L.K. Wenzel, and others, in Maryland, by R.R. Bennett, R.R. Meyer, and A.H. Horton: U.S. Geological Survey Water-Supply Paper 987. 1945. pages 87-105.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1944, Part 2. Southeastern States, by A.N. Sayre and others, in Maryland, by R.R. Bennett: U.S. Geological Survey Water-Supply Paper 1017. 1947. pages 269-289.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1945, Part 2. Southeastern States, by C.G. Paulsen and others, in Maryland, by R.R. Bennett: U.S. Geological Survey Water-Supply Paper 1024. 1949. pages 145-164.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1946, Part 2. Southeastern States, by C.G. Paulsen and others, in Maryland, by R.R. Meyer: U.S. Geological Survey Water-Supply Paper 1072. 1950. pages 167-191.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1947, Part 2. Southeastern States, by C.G. Paulsen and others, in Maryland, by R.R. Meyer: U.S. Geological Survey Water-Supply Paper 1097. 1951. pages 162-193.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1948, Part 2. Southeastern States, by C.G. Paulsen and others, in Maryland, by Gerald Meyer: U.S. Geological Survey Water-Supply Paper 1127. 1951. pages 155-176.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1949, Part 2. Southeastern States, by C.G. Paulsen and others, in Maryland, by Gerald Meyer: U.S. Geological Survey Water-Supply Paper 1157. 1952. pages 156-186.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1950, Part 2. Southeastern States, by C.G. Paulsen and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 1166. 1953. pages 180-207.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1951, Part 2. Southeastern States, by A.N. Sayre and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 1192. 1954. pages 146-170.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1952, Part 2. Southeastern States, by A.N. Sayre and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 1222. 1955. pages 168-199.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1953, Part 2. Southeastern States, by A.N. Sayre and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 1266. 1956. pages 179-210.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1954, Part 2. Southeastern States, by A.N. Sayre and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 1322. 1956. pages 185-206.

Water Levels and Artesian Pressure in Observation Wells in the United States in 1955, Part 2. Southeastern States, by A.N. Sayre and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 1405. 1957. pages 180-200.

Ground-Water Levels in the United States 1956-1958 Southeastern States, by O.M. Hackett and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 1538. 1962. pages 126-135.

Ground-Water Levels in the United States 1959-1963 Southeastern States, by O.M. Hackett and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 1803. 1965. pages 167-176.

Ground-Water Levels in the United States 1964-1968 Southeastern States, by O.M. Hackett and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 1978. 1971. pages 145-152.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

- Hydrologic budget of the Beaver Creek basin, Maryland, by W.C. Rasmussen, and G.E. Andreasen: U.S. Geological Survey Water-Supply Paper 1472. 1959. 106 pages.
- Water resources of the Baltimore area, Maryland, by E.G. Otton, R.O.R. Martin and W.H. Durum: U.S. Geological Survey Water-Supply Paper 1499-F. 1964. pages 105.
- Reverse Water-Level Fluctuations, by G.E. Andreasen and J.W. Brookhart in *Methods of Collecting and Interpreting Ground-Water Data*, compiled by Ray Bental: U.S. Geological Survey Water-Supply Paper 1544-H. 1963. pages H30-H35.
- Beach-area water supplies between Ocean City, Maryland, and Rehobeth Beach, Delaware, by T.H. Slaughter: U.S. Geological Survey Water-Supply Paper 1619-T. 1962.
- Geology and ground-water Resources of Washington, D.C., and vicinity, by P.M. Johnston: U.S. Geological Survey Water-Supply Paper 1776. 1964. 97 pages.
- Geohydrologic reconnaissance of the Upper Potomac River basin, by F.W. Trainer, and F.A. Watkins, Jr.: U.S. Geological Water-Supply Paper 2035. 1975. 68 pages.
- Ground Water in the Piedmont Upland of Central Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 2077. 1982. 42 pages.
- Ground-Water Levels in the United States 1974 Southeastern States, by O.M. Hackett and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 2165. 1975. pages 147-153.
- Ground-Water Levels in the United States 1969-1973 Southeastern States, by J.S. Cragwall and others, in Maryland, by C.A. Richardson: U.S. Geological Survey Water-Supply Paper 2171. 1975. pages 147-153.
- Test well DO-Ce 88 at Cambridge, Dorchester county, Maryland, by H. Trapp, Jr., L.L. Knobel, Harold Meisler, and P.P. Leahy: U.S. Geological Survey Water-Supply Paper 2229. 1984. 48 pages.
- The effect of eustatic sea-level changes on saltwater-freshwater relations in the northern Atlantic Coastal Plain, by Harold Meisler, P.P. Leahy, and L.L. Knobel: U.S. Geological Survey Water-Supply Paper 2255. 1984. 28 pages.
- Maryland and the District of Columbia water supply and use, by J.C. Wheeler, in *National Water Summary 1987--Water supply and use*: U.S. Geological Survey Water-Supply Paper 2350, pp. 291-298.
- Ground-Water-Quality assesment of the Delmarva Peninsula, Delaware, Maryland, and Virginia: *Analysis of available water-quality data through 1987*, by P.A. Hamilton, and R.J. Shedlock: U.S. Geological Survey Water-Supply Paper 2355-B. 1989. 186 pages.
- Ground-Water, Surface-Water, and Bottom Sediment Contamination in the O-Field area, Aberdeen Proving Ground, Maryland and the possible effects of selected remedial actions on Ground Water, by D.A. Vroblesky, M.M. Lorah, and J.P. Oliveros: U.S. Geological Survey Water-Supply Paper 2399. 1995. 95 pages.
- Hydrologic Investigation Atlas
- Water resources of southern Maryland, by J.M. Weigle, W.E. Webb, and R.A. Gardner: U.S. Geological Survey Hydrologic Investigation Atlas 365. 1970.
- Water-Resources Investigations Report
- Ground Water in the Piedmont Upland of Central Maryland, by C. A. Richardson: U.S. Geological Survey Water-Resources Investigations 80-18. 1980. 42 pages.
- Map showing the potentiometric surface of the Magothy aquifer in southern Maryland, September 1982, F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Water-Resources Investigations Report 83-4282. 1983. 1 sheet.
- Map showing the difference between the potentiometric surfaces of the Magothy aquifer of September 1975 and September 1982 in southern Maryland, F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Water-Resources Investigations Report 83-4283. 1983. 1 sheet.
- Nitrate in the Columbia Aquifer, Central Delmarva Peninsula, Maryland, by L. J. Bachman: U.S. Geological Survey Water-Resources Investigations Report 84-4322. 51 pages.
- The potentiometric surface of the Magothy aquifer in southern Maryland, September 1984, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Water-Resources Investigations Report 85-4203. 1985. 1 sheet.
- Hydrogeology and water quality of the Catoctin Mountain National Park area, Frederick County, Maryland, by T.J. Trombley: U.S. Geological Survey Water-Resources Investigations Report 85-4241. 1985. 41 pages.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

The difference between the potentiometric surfaces of the Magothy aquifer of September 1982 and September 1984 in southern Maryland, by F.K. Mack, J.C. Wheeler, S.E. Curtin and D.C. Andreasen: U.S. Geological Survey Water-Resources Investigations Report 85-4337. 1985. 1 sheet.

Preliminary map showing the potentiometric surface of the Aquia aquifer in southern Maryland, September 1984, by F.K. Mack, J.C. Wheeler, S.E. Curtin and D.C. Andreasen: U.S. Geological Survey Water-Resources Investigations Report 85-4338. 1985. 1 sheet.

Preliminary map showing the difference between the potentiometric surfaces of the Aquia aquifer of September 1982 and September 1984 in southern Maryland, by F.K. Mack, J.C. Wheeler, S.E. Curtin and D.C. Andreasen: U.S. Geological Survey Water-Resources Investigations Report 85-4339. 1985. 1 sheet.

Reconnaissance of the groundwater, surface-water system in the Zekiah swamp Run Basin, Charles and Prince Georges Counties, Maryland, by H.T. Hopkins, G.T. Fisher, and L.J. McGreevy: U.S. Geological Survey Water-Resources Investigations Report 86-4097. 1986. 49 pages.

The Potentiometric surface of the Magothy aquifer in southern Maryland, September 1985, by F.K. Mack, J.C. Wheeler, S.E. Curtin, and D.C. Andreasen: U.S. Geological Survey Water-Resources Investigations Report 87-4025. 1987. 1 sheet.

The Potentiometric surface of the Aquia aquifer in southern Maryland, September 1985, by F.K. Mack, J.C. Wheeler, S.E. Curtin, and D.C. Andreasen: U.S. Geological Survey Water-Resources Investigations Report 87-4029. 1987. 1 sheet.

Potentiometric surface of the Aquia aquifer in southern Maryland during the fall of 1986, by F.K. Mack, J.C. Wheeler, S.E. Curtin, and D.C. Andreasen: U.S. Geological Survey Water-Resources Investigations Report 87-4214. 1987. 1 sheet.

Difference between the potentiometric surfaces of the Aquia aquifer in spring of 1979 and fall of 1986 in southern Maryland, by F.K. Mack, J.C. Wheeler, S.E. Curtin, and D.C. Andreasen: U.S. Geological Survey Water-Resources Investigations Report 87-4215. 1987. 1 sheet.

Potentiometric surface of the Magothy aquifer in southern Maryland, during fall of 1986, by F.K. Mack, D.C. Andreasen, S.E. Curtin, and J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 87-4216. 1987. 1 sheet.

Difference between the potentiometric surfaces of the Magothy aquifer in fall of 1975 and fall of 1986 in southern Maryland, by F.K. Mack, D.C. Andreasen, S.E. Curtin, and J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 87-4217. 1987. 1 sheet.

Water Levels, chloride concentrations, and pumpage in the coastal aquifers of Maryland and Delaware, by D. J. Phelan: U.S. Geological Survey Water-Resources Investigations Report 87-4229. 1987. 106 pages.

Potentiometric surface of the Aquia aquifer in southern Maryland during the fall of 1987, by F.K. Mack, J.C. Wheeler, S.E. Curtin, and D.C. Andreasen: U.S. Geological Survey Water-Resources Investigations Report 89-4012. 1989. 1 sheet.

Potentiometric surface of the Magothy aquifer in southern Maryland, during the fall of 1987, by F.K. Mack, D.C. Andreasen, S.E. Curtin, and J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 89-4013. 1989. 1 sheet.

Hydrogeology of the Canal Creek area of Aberdeen Proving Ground Maryland, by J.P. Oliveros, and D.A. Vroblesky: U.S. Geological Survey Water-Resources Investigations Report 89-4021. 1989. 50 pages.

Inorganic and organic groundwater chemistry in the Canal Creek area of Aberdeen Proving Ground, Maryland, by M.M. Lorah, and D.A. Vroblesky: U.S. Geological Survey Water-Resources Investigations Report 89-4022. 1989. 97 pages.

Potentiometric surface of the Aquia aquifer in southern Maryland, during September 1988, by F.K. Mack, D.C. Andreasen, S.E. Curtin, and J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 90-4037. 1990. 1 sheet.

The difference between the potentiometric surfaces of the Magothy aquifer of September 1986 and September 1988 in southern Maryland, by F.K. Mack, D.C. Andreasen, S.E. Curtin, and J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 90-4038. 1990. 1 sheet.

The difference between the potentiometric surfaces of the Aquia aquifer of September 1986 and September 1988 in southern Maryland, by F.K. Mack, D.C. Andreasen, S.E. Curtin, and J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 90-4039. 1990. 1 sheet.

Potentiometric surface of the Magothy aquifer in southern Maryland, during September 1988, by F.K. Mack, D.C. Andreasen, S.E. Curtin, and J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 90-4040. 1990. 1 sheet.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

Preliminary assessment of the geologic framework, hydrogeology, and groundwater quality of the Potomac Group aquifer system, northwestern Charles County, Maryland, by S.N. Hiortdahl: U.S. Geological Survey Water-Resources Investigations Report 91-4059. (in press).

Potentiometric surface of the Magothy aquifer in southern Maryland, September 1989, by F.K. Mack, S.E. Curtin, D.C. Andreasen, and J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 91-4093. 1991. 1 sheet.

Potentiometric surface of the Aquia aquifer in southern Maryland, September 1989, by F.K. Mack, S.E. Curtin, D.C. Andreasen, and J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 91-4094. 1991. 1 sheet.

Water withdrawal and use in Maryland, 1988-89, by J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 91-4179. 1992. 40 pages.

Hydrologic and soil gas at J-Field, Aberdeen Proving Ground, Maryland, by W.B. Hughes: U.S. Geological Survey Water-Resources Investigations Report 92-4087. 1992. 83 pages.

Water withdrawal and use in Maryland, 1990-91, by J.C. Wheeler: U.S. Geological Survey Water-Resources Investigations Report 93-4225. 1993. 42 pages.

Relation of land use to nitrogen concentration in Ground Water in the Patuxent River Basin, Maryland, by E.R. McFarland: U.S. Geological Survey Water-Resources Investigations Report 94-4170. 1995. 20 pages.

Hydrogeology and Water Quality in the Graces Quarters area of Aberdeen Proving Ground, Maryland, by F.J. Tenbus and J.D. Blomquist: U.S. Geological Survey Water-Resources Investigations Report 94-4175. 1995. 115 pages.

Ground-Water flow and the possible effects of remedial actions at J-Field, Aberdeen Proving Ground, Maryland, by W.B. Hughes: U.S. Geological Survey Water-Resources Investigations Report 95-4075. 1995. 39 pages.

Nitrate in Ground Water in the Great Valley Carbonate subunit of the Potomac River Basin, by M.J. Ferrari and S.W. Ator: U.S. Geological Survey Water-Resources Investigations Report 95-4099. 1995. 6 pages.

Water-Quality Assessment of the Potomac River Basin: Basin Description and Analysis of available nutrient data, 1970-1990, by J.D. Blomquist, G.T. Fisher, J.M. Denis, W.H. Werkheiser and J.W. Brakebill: U.S. Geological Survey Water-Resources Investigations Report 95-4221. 1996. 88 pages.

Hydrogeologic setting, Hydraulic properties, and Ground-Water Flow at the O-Field area of Aberdeen Proving Ground, Maryland, by W.S.L. Banks, B.S. Smith and C.A. Donnelly: U.S. Geological Survey Water-Resources Investigations Report 95-4248. 1996. 29 pages.

Ground-water flow and the potential effects of remediation at Graces Quarters, Aberdeen Proving Ground, Maryland, by F.J. Tenbus, and W.B. Fleck: U.S. Geological Survey Water-Resources Investigations Report 96-4044. 1996. 31 pages.

Radon in Ground Water of the Lower Susquehanna and Potomac River Basins, by B.D. Lindsey and S.W. Ator: U.S. Geological Survey Water-Resources Investigations Report 96-4156. 1996. 6 pages.

Hydrogeology and Chemical Quality of Water and Soil at Carroll Island, Aberdeen Proving Ground, Maryland, by F.J. Tenbus and S.W. Phillips: U.S. Geological Survey Water-Resources Investigations Report 96-4169. 1996. 156 pages.

Relation of Nitrogen and Phosphorus in Ground Water to Land Use in Four subunits of the Potomac River Basin, by S.W. Ator and J.M. Denis: U.S. Geological Survey Water-Resources Investigations Report 96-4268. (in press).

Open-File Reports

Geochemistry of water in the Salisbury, Maryland well field, by S.G. Heidel and E.G. Otton: U.S. Geological Survey Open-File Report. 1963. 48 pages.

The Ground-Water Situation in the Cambridge Area, Maryland, by F.K. Mack and E.G. Otton: U.S. Geological Survey Open-File Report. 1969. 55 pages.

Progress Report on the analog model study of the Magothy aquifer in the Annapolis, Maryland Area, by F.K. Mack: U.S. Geological Survey Open-File Report. 1971. 23 pages.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

Geologic and Hydrologic Data from a test well drilled near Chestertown, Maryland, by I.H. Kantrowitz and W.E. Webb: U.S. Geological Survey Open-File Report. 1971. 18 pages.

Environmental geohydrology folio no. 1, White Marsh 7-1/2 minute quadrangle, Maryland, by E.G. Otton: U.S. Geological Survey Open-File Report 74-737, 1974. 4 pages.

Areas of shallow water table, Prince Georges County, Maryland, by C.A. Richardson: U.S. Geological Survey Open-File Report 76-194. 1976. 2 pages. 1 plate.

Availability of ground water in Prince Georges County, Maryland, by C.A. Richardson: U.S. Geological Survey Open-File Report 76-197. 1976. 6 pages. 4 plates.

Preliminary analysis of geohydrologic data from test wells drilled near Chalk Point, Prince Georges County, Maryland, by F.K. Mack: U.S. Geological Survey Open-File Report 76-322. 1976. 31 pages.

Approximate depth to water table, Montgomery County, Maryland, by C.A. Richardson: U.S. Geological Survey Open-File Report 76-881. 1976. 2 pages. 1 plate.

Availability of ground water in Montgomery County, Maryland, by C.A. Richardson: U.S. Geological Survey Open-File Report 76-882. 1976. 6 pages. 1 plate.

Westminster quadrangle: Hydrogeologic atlas, by E.G. Otton: U.S. Geological Survey Open-File Report 77-793.

New Windsor quadrangle: Hydrogeologic atlas, by E. G. Otton: U.S. Geological Survey Open-File Report 78-769. 1978

Map showing the potentiometric surface of the Magothy aquifer in southern Maryland, September 1977, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 78-999. 1978. 1 sheet.

Finksburg quadrangle, Maryland, by J.F. Williams III: U.S. Geological Survey Open-File Report 79-1536. 1979. 50 pages.

Hampstead quadrangle, Maryland: Hydrogeology, by M.T. Duigon: U.S. Geological Survey Open-File Report 80-561. 1980. 50 pages.

Map showing the potentiometric surface of the Magothy aquifer in southern Maryland, September 1979, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 80-959. 1980. 1 sheet.

Hereford quadrangle, Maryland: Hydrogeology, by M.T. Duigon: U.S. Geological Survey Open-File Report 80-962. 1980. 50 pages.

Reisterstown quadrangle, Maryland: Hydrogeology, by M.T. Duigon: U.S. Geological Survey Open-File Report 80-1009. 1980. 55 pages.

Lineboro quadrangle, Maryland: Hydrogeology, by M.T. Duigon: U.S. Geological Survey Open-File Report 80-1010. 1980. 50 pages.

Ellicott City quadrangle, Maryland: Hydrogeology, by M.T. Duigon: U.S. Geological Survey Open-File Report 80-1011. 1980. 56 pages.

New Freedom quadrangle, Maryland: Hydrogeology, by M.T. Duigon: U.S. Geological Survey Open-File Report 80-1012. 1980. 54 pages.

Hydrogeologic Atlas, Union Bridge and Woodsboro quadrangles, Carroll County, Maryland, by J.M. Weigle: U.S. Geological Survey Open-File Report 80-1013. 1981. 10 pages.

Hydrogeologic Atlas, Taneytown and Emmitsburg quadrangles, Carroll County, Maryland, by J.M. Weigle: U.S. Geological Survey Open-File Report 80-1014. 1981. 40 pages.

Hydrogeologic Atlas, Littlestown quadrangle, Carroll County, Maryland, by J.M. Weigle: U.S. Geological Survey Open-File Report 80-1015. 1981. 44 pages.

Phoenix quadrangle, Baltimore and Harford counties, Maryland: Hydrogeology, by E.G. Otton: U.S. Geological Survey Open-File Report 81-65. 1982. 46 pages.

Map showing the potentiometric surface of the Aquia aquifer May 19-23, 1980, by F.J. Chapelle, D.D. Drummond, and Tracey Curley: U.S. Geological Survey Open-File Report 81-416. 1982. 1 sheet.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

Map showing how the potentiometric surface of the Magothy aquifer of August 1980 differed from the potentiometric surface of September 1977, in southern Maryland, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 81-631. 1982. 1 sheet.

Map showing how the potentiometric surface of the Magothy aquifer of September 1979 differed from the potentiometric surface of September 1977, in southern Maryland, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 81-632. 1982. 1 sheet.

Map showing the potentiometric surface of the Magothy aquifer, in southern Maryland, August 1980, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 81-633. 1982. 1 sheet.

Map showing the potentiometric surface of the Magothy aquifer, in southern Maryland, September 1981, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 82-257. 1983. 1 sheet.

The difference between the potentiometric surface of the Magothy aquifer of September 1975, and September 1981 in southern Maryland, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 82-339. 1983. 1 sheet.

Preliminary analysis of geohydrologic data from the test wells drilled near Chester, on Kent Island, Queen Annes County, Maryland, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 82-854. 1983. 33 pages.

Water level declines in the Magothy aquifer in southern Maryland related to increase in pumpage, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 82-919. 1983. 29 pages.

The difference between the potentiometric surface of the Aquia aquifer of September 1975 and September 1981 in southern Maryland, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 83-339. 1984. 1 sheet.

Preliminary map showing the potentiometric surface of the Aquia aquifer in southern Maryland, September 1982, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 83-929. 1984. 1 sheet.

Preliminary map showing the difference between the potentiometric surfaces of the Aquia aquifer of April 1979 and September 1982 in southern Maryland, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey Open-File Report 83-930. 1984. 1 sheet.

Hydrologic data: South branch Casselman River, Garrett County, and Marsh Run, Washington County, Maryland, by J.T. Hilleary: U.S. Geological Survey Open-File Report 84-426. 1985. 63 pages.

Ground-water-quality data for the Atlantic Coastal Plain, Delaware, Maryland, Virginia, and North Carolina, by L.L. Knobel: U.S. Geological Survey Open-File Report 85-154. 1986. pp. 42-55.

Ground-water quality assessment of the Delmarva Peninsula, Delaware, Maryland, and Virginia, by L.J. Bachman, R.J. Shedlock, and P.J. Phillips: U.S. Geological Survey Open-File Report 87-112. 1988. 18 pages.

Groundwater use in the Coastal Plain of Maryland, 1900-1980, by J.C. Wheeler, and F.W. Wilde: U.S. Geological Survey Open-File Report 87-540. 1989. 173 pages.

Maryland and the District of Columbia ground-water quality, by J.C. Wheeler: U.S. Geological Survey Open-File Report 87-0730. 1988. 10 pages.

Ground-water quality assessment of the Delmarva Peninsula, Delaware, Maryland, and Virginia, project description, by L.J. Bachman, R.J. Shedlock, and P.J. Phillips: U.S. Geological Survey Open-File Report 87-112. 18 pages.

Ground-water use on the Coastal Plain of Maryland, 1900-1980, by J.C. Wheeler and Franceska D. Wilde: U.S. Geological Survey Open-File Report 87-540. 1989. 173 pages.

Water withdrawal and use in Maryland, 1986, by J.C. Wheeler: U.S. Geological Survey Open-File Report 88-714. 1990. 30 pages.

Groundwater assessment of the Delmarva Peninsula, Delaware, Maryland, and Virginia: Analysis of available water-quality data through 1987, by P.A. Hamilton, R.J. Shedlock, and P.J. Phillips: U.S. Geological Survey Open-File Report 89-34. 1990. 71 pages.

Hydrogeologic and chemical data for the O-Field area, Aberdeen Proving Ground, Maryland, by D.A. Vroblesky, and P.R. Nemoff: U.S. Geological Survey Open-File Report 89-238. 1990. 70 pages.

SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

Hydrogeologic data for Canal Creek area of Aberdeen Proving Ground, Maryland, by J.P. Oliveros, and Patrice Gernhardt: U.S. Geological Survey Open-File Report 89-387. 1990. 71 pages.

Hydrogeologic data for Carroll Island, Aberdeen Proving Ground, Maryland, by L.K. Ham, L.N. Sears, S.W. Phillips, and F.T. Tenbus: U.S. Geological Survey Open-File Report 89-388. 1990. 105 pages.

Groundwater, surface-water, and bottom-sediments effects of selected remedial actions in the O-Field area of Aberdeen Proving Ground, Maryland, by D.A. Vroblesky, M.M. Lorah, and J.P. Oliveros: U.S. Geological Survey Open-File Report 89-399. 1990. 162 pages.

Study approach for the hydrogeologic assessment of Carroll Island and Graces Quarters, Aberdeen Proving Ground, Maryland, by F.J. Tenbus, and S.W. Phillips: U.S. Geological Survey Open-File Report 90-181. 1991. 68 pages.

Water withdrawal and use in Maryland, 1987, by J.C. Wheeler: U.S. Geological Survey Open-File Report 90-572. 1991. 28 pages.

Hydrogeologic data for Graces Quarters, Aberdeen Proving Ground, Maryland, by L.K. Ham, F.J. Tenbus, L.N. Sears, and S.W. Phillips: U.S. Geological Survey Open-File Report 91-71. 1991. 68 pages.

Potentiometric surface of the Aquia aquifer in southern Maryland, September 1990, by F.K. Mack, S.E. Curtin, D.C. Andreasen, and J.C. Wheeler: U.S. Geological Survey Open-File Report 92-459. 1992. 1 sheet.

Potentiometric surface of the Magothy aquifer in southern Maryland, September 1990, by F.K. Mack, S.E. Curtin, D.C. Andreasen, and J.C. Wheeler: U.S. Geological Survey Open-File Report 92-460. 1992. 1 sheet.

Potentiometric surface of the Upper Patapsco aquifer in southern Maryland, September 1990, by F.K. Mack, S.E. Curtin, D.C. Andreasen, and J.C. Wheeler: U.S. Geological Survey Open-File Report 92-461. 1992. 1 sheet.

Potentiometric surface of the Lower Patapsco aquifer in southern Maryland, September 1990, by F.K. Mack, S.E. Curtin, D.C. Andreasen, and J.C. Wheeler: U.S. Geological Survey Open-File Report 92-462. 1992. 1 sheet.

The difference between the potentiometric surfaces of the Aquia aquifer of September 1982 and September 1990 in southern Maryland, by F.K. Mack, S.E. Curtin, D.C. Andreasen, and J.C. Wheeler: U.S. Geological Survey Open-File Report 92-463. 1992. 1 sheet.

The difference between the potentiometric surfaces of the Magothy aquifer of September 1975 and September 1990 in southern Maryland, by F.K. Mack, S.E. Curtin, D.C. Andreasen, and J.C. Wheeler: U.S. Geological Survey Open-File Report 92-464. 1992. 1 sheet.

Water quality assessment of the Delmarve Peninsula, Delaware, Maryland and Virginia -- Effects of agriculture activities on and distribution of, nitrate and other inorganic constituents in surficial aquifers, by P.A. Hamilton, J.M. Denver, P.J. Phillips, and R.J. Shedlock: U.S. Geological Survey Open-File Report 93-40. 1993. 87 pages.

Potentiometric surface of the Aquia aquifer in southern Maryland, September 1991, by S.E. Curtin, D.C. Andreasen, and F.K. Mack: U.S. Geological Survey Open-File Report 93-652. 1994. 1 sheet.

Potentiometric surface of the Magothy aquifer in southern Maryland, September 1991, by S.E. Curtin, D.C. Andreasen, and F.K. Mack: U.S. Geological Survey Open-File Report 93-653. 1994. 1 sheet.

Potentiometric surface of the Upper Patapsco aquifer in southern Maryland, September 1991, by S.E. Curtin, D.C. Andreasen, and F.K. Mack: U.S. Geological Survey Open-File Report 93-654. 1994. 1 sheet.

Potentiometric surface of the Lower Patapsco aquifer in southern Maryland, September 1991 by S.E. Curtin, D.C. Andreasen, and F.K. Mack: U.S. Geological Survey Open-File Report 93-655. 1994. 1 sheet.

Potentiometric surface of the Aquia aquifer in southern Maryland, September 1993, by S.E. Curtin, F.K. Mack, and D.C. Andreasen: U.S. Geological Survey Open-File Report 94-390. 1995. 1 sheet.

Potentiometric surface of the Magothy aquifer in southern Maryland, September 1993, by S.E. Curtin, F.K. Mack, and D.C. Andreasen: U.S. Geological Survey Open-File Report 94-391. 1995. 1 sheet.

Potentiometric surface of the Upper Patapsco aquifer in southern Maryland, September 1993, by S.E. Curtin, F.K. Mack, and D.C. Andreasen: U.S. Geological Survey Open-File Report 94-392. 1995. 1 sheet.

Potentiometric surface of the Lower Patapsco aquifer in southern Maryland, September 1991 by S.E. Curtin, F.K. Mack, and D.C. Andreasen,: U.S. Geological Survey Open-File Report 94-393. 1995. 1 sheet.

SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

The difference between the potentiometric surfaces of the Aquia aquifer of September 1982 and September 1993 in southern Maryland, by S.E. Curtin, F.K. Mack, and D.C. Andreasen: U.S. Geological Survey Open-File Report 94-394. 1995. 1 sheet.

The difference between the potentiometric surfaces of the Magothy aquifer of September 1975 and September 1993 in southern Maryland, by S.E. Curtin, F.K. Mack, and D.C. Andreasen: U.S. Geological Survey Open-File Report 94-395. 1995. 1 sheet.

Documentation of hydrochemical-facies data and ranges of dissolved-solids concentrations for the northern Atlantic Coastal Plain Aquifer System: New Jersey, Delaware, Maryland, Virginia, and North Carolina, by Harold Meisler and L.L. Knobel: U.S. Geological Survey Open-File Report 94-492. 1994. 6 pages.
1 - 3 1/2 inch floppy disc.

Ground-water Flow, Geochemistry, and Effects of Agricultural Practices on Nitrogen Transport at study sites in the Piedmont and Coastal Plain Physiographic Provinces, Patuxent river Basin, Maryland, by E. Randolph McFarland: U.S. Geological Survey Open-File Report 94-507. 1995. 78 pages.

Potentiometric Surface of the Aquia Aquifer in Southern Maryland, September 1994, by S. E. Curtin, F.K. Mack, and D.C. Andreasen: U.S. Geological Survey Open-File Report 95-743. 1995. 1 sheet.

Potentiometric Surface of the Magothy Aquifer in Southern Maryland, September 1994, by S. E. Curtin, F.K. Mack, and D.C. Andreasen: U.S. Geological Survey Open-File Report 95-744. 1995. 1 sheet.

Potentiometric Surface of the Magothy Aquifer in Southern Maryland, September 1994, by S. E. Curtin, F.K. Mack, and D.C. Andreasen: U.S. Geological Survey Open-File Report 95-744. 1995. 1 sheet.

Potentiometric Surface of the Upper Patapsco Aquifer in Southern Maryland, September 1994, by S. E. Curtin, F.K. Mack, and D.C. Andreasen: U.S. Geological Survey Open-File Report 95-745. 1995. 1 sheet.

Potentiometric Surface of the Lower Patapsco Aquifer in Southern Maryland, September 1994, by S. E. Curtin, and D.C. Andreasen: U.S. Geological Survey Open-File Report 95-746. 1995. 1 sheet.

Contamination of ground water, surface water, and soil, and evaluation of selected ground-water pumping alternatives in the Canal Creek area of Aberdeen Proving Ground, Maryland, by M.M. Lorah, and J.S. Clark: U.S. Geological Survey Open-File Report 95-282. 1996. 318 pages.

Hydrogeologic, Soil, and Water-Quality Data for J-Field, Aberdeen Proving Ground, Maryland, 1989-94, by D.J. Phelan, E. H. Marchand, M.L. Cashel, M.T. Koterba, L.D. Olsen, and P.R. Nemoff: U.S. Geological Survey Open-File Report 96-128. 1996. 191 pages.

Fact Sheets

Monitoring Ground Water at Jefferson Patterson Park Museum, The Effects of Agricultural Practices on Ground-Water Quality, by M.A. Hayes and L.J. Bachman: U.S. Geological Survey Fact Sheet FS-185-96. 1996. 4 pages.

Unnumbered Reports

Geophysical cross-section of the Cretaceous sediments of southern Maryland: U.S. Geological Survey. 1968. 46 pages.

Preliminary results of an exploratory water well at Ocean City, Maryland: U.S. Geological Survey. 1969. 18 pages.

Geologic and hydrologic data from a test well drilled near Chestertown, Maryland: U.S. Geological Survey. 1971. 20 pages.

Environmental geohydrology, Cockeysville quadrangle 6, by E.G. Otton: U.S. Geological Survey. 1975. 4 pages.

Miscellaneous Maps

Water resources of Southern Maryland, by J.M. Weigle, W.E. Webb, and R.A. Gardner: U.S. Geological Survey Miscellaneous Maps No. HA-365. 1970. 3 sheets.

SELECTED U.S. GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

Circular

Are Fertilizers and Pesticides in the Ground Water? A case study of the Delmarva Peninsula, Delaware, Maryland, and Virginia, by P.A. Hamilton and R.J. Shedlock: U.S. Geological Survey Circular 1080. 1992. 16 pages.

Unpublished Reports

Map showing the potentiometric surface of the Magothy aquifer in southern Maryland, September 1975, by F.K. Mack, J.C. Wheeler, and S.E. Curtin: U.S. Geological Survey, 1978. 1 sheet.

SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND

Listed below is a selection of reports on ground-water resources in Maryland which are available through the Maryland Geological Survey, 2300 St. Paul Street, Baltimore, Maryland 21218.

Basic Data Reports

Records of wells and springs in Baltimore County, Maryland, by C.P. Laughlin: Maryland Geological Survey Basic Data Report No. 1. 1966. 406 pages.

Records of wells and springs, chemical analysis, and selected well logs in Charles County, Maryland, by T.H. Slaughter and C.P. Laughlin: Maryland Geological Survey Basic Data Report No. 2. 1966. 93 pages.

Hydrogeologic data from the Janes Island State Park test well (1,514 Feet), Somerset County, Maryland, by H.J. Hansen: Maryland Geological Survey Basic Data Report No. 3. 1967. 24 pages.

Southern Maryland - Records of selected wells, water levels, and chemical analysis of water, by J.M. Weigle and W.F. Webb: Maryland Geological Survey Basic Data Report No. 4. 1970. 48 pages.

Deep wells of Maryland, by Jonathan Edwards, Jr.: Maryland Geological Survey Basic Data Report No. 5. 1970. 160 pages.

Worcester County Ground-Water information: Well records, chemical quality data, and pumpage, by R.C. Lucas: Maryland Geological Survey Basic Data Report No. 6. 1972. 90 pages.

Harford County Ground-Water information: Selected well records, chemical quality data, and pumpage, by L.J. Nutter and M.J. Smigaj: Maryland Geological Survey Basic Data Report No. 7. 1975. 89 pages.

Anne Arundel County Ground-Water information: Selected well records, chemical-quality data, pumpage, appropriation data, and selected well logs, by R.C. Lucas: Maryland Geological Survey Basic Data Report No. 8. 1976. 149 pages.

Maryland Ground-Water information: chemical quality data, by R.S. Woll: Maryland Geological Survey Basic Data Report No. 10. 1978. 125 pages.

Garrett County Water-Well records, chemical-quality data, ground-water use, coal test-hole, and surface-water data, by L.J. Nutter, L.L. Knobel, and M.J. Smigaj, with a section on gas-well records compiled by K.A. Schwarz, and Jonathan Edwards, Jr.: Maryland Geological Survey Basic Data Report No. 11. 1980. 102 pages.

Carroll County Ground-Water information: Well records, chemical-quality data, by J.T. Hilleary, and J.M. Weigle: Maryland Geological Survey Basic Data Report No. 12. 1981. 252 pages.

Prince George's County Ground-Water information: Well records, chemical-quality data, pumpage, appropriation data, observation well records, and well logs, by M.D. Tompkins: Maryland Geological Survey Basic Data Report No. 13. 1983. 160 pages.

Records of selected wells, Calvert and St. Mary's Counties, Maryland, by D.D. Drummond: Maryland Geological Survey Basic Data Report No. 14. 1984. 117 pages.

Ground-Water and Surface-Water data Frederick County, Maryland, by J.R. Dine, M.D. Tompkins, and M.T. Duigon: Maryland Geological Survey Basic Data Report No. 15. 1985. 240 pages.

SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

- Hydrologic data for Cecil County, Maryland**, by R. E. Willey, R. A. McGregor, J. de Grouchy, and M.D. Tompkins: Maryland Geological Survey Basic Data Report No. 16. 1987. 150 pages.
- Ground-Water levels from the Maryland observation-well network, 1943-86**, by M.J. Smigaj, and R.G. Davis, Jr: Maryland Geological Survey Basic Data Report No. 17. 1987. 234 pages.
- Ground-Water and Surface-Water data for Washington County, Maryland**, by M.T. Duigon, J.R. Dine, and M.D. Tompkins: Maryland Geological Survey Basic Data Report No. 18. 1989. 273 pages.
- Hydrologic data for Howard County, Maryland**, by J.R. Dine, J.C. Adamski, and M.D. Tompkins: Maryland Geological Survey Basic Data Report No. 19. 1992. 240 pages.
- Ground-Water and Surface-Water data for Kent County, Maryland**, by M. D. Tompkins, B.F. Cooper, and D.D. Drummond: Maryland Geological Survey Basic Data Report No. 20. 1994. 155 pages.
- Ground-Water Level Data in Southern Maryland, 1946-94**, by S.E. Curtin and J.R. Dine: Maryland Geological Survey Basic Data Report No. 21. 1995. 365 pages.

Bulletins

- Geology and ground-water resources of the Baltimore Area**, by R.R. Bennett, and R.R. Meyer: Department of Geology, Mines and Water Resources Bulletin No. 4. 1952. 573 pages.
- Water resources of Anne Arundel County**, by V.R. Bennion and J.W. Brookhart: Department of Geology, Mines and Water Resources Bulletin No. 5. 1949. 149 pages.
- Water resources of Calvert County**, by V.R. Bennion, D.F. Dougherty, and R.M. Overbeck: Department of Geology, Mines and Water Resources Bulletin No. 8. 1951. 100 pages.
- Geology and water resources of Prince George's County**, by C.W. Cooke, R.O.R. Martin, and Gerald Meyer: Department of Geology, Mines and Water Resources Bulletin No. 10. 1952. 270 pages.
- Water resources of St. Mary's County**, by R.O.R. Martin, and H.F. Ferguson: Department of Geology, Mines and Water Resources Bulletin No. 11. 1953. 195 pages.
- Geology and water resources of Garrett County**, by T.W. Amsden, R.M. Overbeck, and R.O.R. Martin: Department of Geology, Mines and Water Resources Bulletin No. 13. 1954. 349 pages.
- Water resources of Howard and Montgomery Counties**, by R.J. Dingman, Gerald Meyer, and R.O.R. Martin: Department of Geology, Mines and Water Resources Bulletin No. 14. 1954. 260 pages.
- Ground-water resources of the southern Maryland Coastal Plain**, by E.G. Otton: Department of Geology, Mines and Water Resources Bulletin No. 15. 1955. 347 pages.
- Water resources of Somerset, Wicomico, and Worcester Counties**, by W.C. Rasmussen, T.H. Slaughter, and A.E. Hulme, with a section on the Salisbury area, by R.R. Meyer and R.R. Bennett: Department of Geology, Mines and Water Resources Bulletin No. 16. 1955. 535 pages.
- Water resources of Baltimore and Harford Counties**, by R.J. Dingman, H.F. Ferguson, and R.O.R. Martin: Department of Geology, Mines and Water Resources Bulletin No. 17. 1956. 465 pages.
- Water resources of Caroline, Dorchester, and Talbot Counties**, by W.C. Rasmussen, T.C. Slaughter A.E. Hulme, and J.J. Murphy: Department of Geology, Mines and Water Resources Bulletin No. 18. 1957. 465 pages.
- Water resources of Cecil, Kent, and Queen Anne's Counties**, by R.M. Overbeck, T.C. Slaughter, and A.E. Hulme: Department of Geology, Mines and Water Resources Bulletin No. 21. 1958. 478 pages.
- Water resources of Carroll and Frederick Counties**, by Gerald Meyer and R.M. Beall: Department of Geology, Mines and Water Resources Bulletin No. 22. 1958. 355 pages.
- Water resources of Allegany and Washington Counties**, by T.H. Slaughter, and J.M. Darling: Department of Geology, Mines and Water Resources Bulletin No. 24. 1962. 408 pages.
- Ground-water supplies for industrial and urban development in Anne Arundel County**, by F.K. Mack, and C.A. Richardson: Department of Geology, Mines and Water Resources Bulletin No. 26. 1962. 90 pages.
- Ground water in Prince George's County**, by F.K. Mack: Maryland Geological Survey Bulletin No. 29. 1966. 101 pages.
- Availability of ground water in Charles County**, by T.H. Slaughter, E.G. Otton, and C.P. Laughlin: Maryland Geological Survey Bulletin No. 30. 1968. 101 pages.

SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

Geohydrology of channel-fill deposits near Salisbury, Maryland, by F.K. Mack, W.O. Thomas, and J.M. Weigle: Maryland Geological Survey Bulletin No. 31. 1972. 124 pages.

Ground-water resources in Harford County, by L.J. Nutter: Maryland Geological Survey Bulletin No. 33. 1977. 44 pages.

Water resources of Frederick County, Maryland, by M.T. Duigon, and J.R. Dine: Maryland Geological Survey Bulletin No. 33. 1987. 102 pages.

Water resources and estimated effects of ground-water development, Cecil County, Maryland, by E.G. Otton, R.E. Willey, R.A. McGregor, Grufron Achmad, S.N. Hiortdahl, and J.M. Gerhart: Maryland Geological Survey Bulletin No. 34. 1988. 133 pages.

Hydrogeology and ground-water of Somerset County, Maryland, by W.H. Werkheiser: Maryland Geological Survey Bulletin No. 35. 1990. 156 pages.

Water resources of Washington County, by M.T. Duigon, and J.R. Dine: Maryland Geological Survey Bulletin No. 36. 1991. 126 pages.

Water Resources of Howard County, by J. R. Dine, J.C. Adamski, and M. T. Duigon: Maryland Geological Survey Bulletin No. 38. 1995. 128 pages

Report of Investigations

Water resources of the Salisbury area, Maryland, by D.H. Boggess, and S.G. Heidel: Maryland Geological Survey Report of Investigations No. 3. 1968. 69 pages.

Ground-water occurrence in the Maryland Piedmont, by L.J. Nutter, and E.G. Otton: Maryland Geological Survey Report of Investigations No. 10. 1969. 56 pages.

Water resources of Dorchester and Talbot Counties, Maryland with special emphasis on the ground-water potential of the Cambridge and Easton areas, by F.K. Mack, W.E. Webb, and R.A. Gardner: Maryland Geological Survey Report of Investigations No. 17. 1971. 107 pages.

Solid-waste disposal in the geohydrologic environment of Maryland, by E.G. Otton: Maryland Geological Survey Report of Investigations No. 18. 1972. 59 pages.

Hydrogeology of the carbonate rocks, Frederick and Hagerstown valleys, Maryland, by L.J. Nutter: Maryland Geological Survey Report of Investigations No. 19. 1973. 70 pages.

Hydrogeology of the formation and neutralization of acid water draining from underground coal mines of western Maryland, by E.F. Holiday, and S.W. McKenzie: Maryland Geological Survey Report of Investigations No. 20. 1973. 50 pages.

An evaluation of the Magothy Aquifer in the Annapolis Area, Maryland, by F.K. Mack: Maryland Geological Survey Report of Investigations No. 22. 1974. 75 pages.

Availability of fresh ground water in northern Worcester County, Maryland, with Special Emphasis on the Ocean City area, by J.M. Weigle: Maryland Geological Survey Report of Investigations No. 24. 1974. 64 pages.

Hydrogeology of the Triassic Rocks of Maryland, by L.J. Nutter: Maryland Geological Survey Report of Investigations No. 26. 1975. 37 pages.

Digital simulation and prediction of water levels in the Magothy aquifer in southern Maryland, by F.K. Mack, and R.J. Mandle: Maryland Geological Survey Report of Investigations No. 28. 1977. 42 pages.

Simulated changes in water level in the Piney Point aquifer in Maryland, by J.F. Williams: Maryland Geological Survey Report of Investigations No. 31. 1979. 50 pages.

A quasi three-dimensional finite-difference ground-water flow model with a field application, by Grufron Achmad, and J.M. Weigle: Maryland Geological Survey Report of Investigations No. 33. 1979. 58 pages.

The Availability in ground water in western Montgomery County, Maryland, by E.G. Otton: Maryland Geological Survey Report of Investigations No. 34. 1981. 76 pages.

Geohydrology of the fresh aquifer system in the vicinity of Ocean City, Maryland with a section on simulated Water-Level Changes, by J.M. Weigle, and Grufron Achmad: Maryland Geological Survey Report of Investigations No. 37. 1982. 55 pages.

SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

Hydrogeology, digital simulation, and geochemistry of the Aquia and Piney Point-Nanjemoy aquifer system in Southern Maryland, by F.H. Chapelle, and D.D. Drummond: Maryland Geological Survey Report of Investigations No. 38. 1983. 100 pages.

Hydrogeology of the upper Chesapeake Bay area Maryland, with emphasis on aquifers of the Potomac Group, by E.G. Otton, and R.J. Mandle: Maryland Geological Survey Report of Investigations No. 39. 1984. 62 pages.

The Columbia aquifer of the Eastern Shore of Maryland. Part 1: Hydrogeology, by L.J. Bachman, 1984. 34 pages. Part 2: Selected water-well records, chemical analysis, water-level measurements, lithologic logs, and geophysical logs, by J.M. Wilson, 1984. 110 pages: Maryland Geological Survey Report of Investigations No. 40.

First report on the hydrologic effects of underground coal mining in southern Garrett County, Maryland, by M.T. Duigon, and M.J. Smigaj: Maryland Geological Survey Report of Investigations No. 41. 1985. 99 pages.

Hydrologic and mining data from an area of underground coal mining in Garrett County, Maryland, by S. N. Hiortdahl: Maryland Geological Survey Report of Investigations No. 41-A. 1988. 81 pages.

Maryland springs - Their physical, thermal, and chemical characteristics, by E. G. Otton, and J. T. Hilleary: Maryland Geological Survey Report of Investigations No. 44. 1985. 151 pages.

Hydrogeology, digital solute-transport simulation, and geochemistry of the Lower Cretaceous aquifer system near Baltimore, Maryland, by F.H. Chapelle: Maryland Geological Survey Report of Investigations No. 43. 1985. 120 pages.

Simulation of ground-water flow and base flow in weathered crystalline rock, Upper Cattail Creek, Howard County, Maryland, by R.E. Willey, and Grufron Achmad: Maryland Geological Survey Report of Investigations No. 45. 1986. 68 pages.

Evaluation of the water-supply potential of aquifers in the Potomac Group of Anne Arundel County, Maryland, by F.K. Mack, and Grufron Achmad: Maryland Geological Survey Report of Investigations No. 46. 1986. 111 pages.

Hydrogeology, brackish-water occurrence, and simulation of flow and brackish-water movement in the Aquia aquifer in the Kent Island area, Maryland, by D.D. Drummond: Maryland Geological Survey Report of Investigations No. 51. 1988. 131 pages.

Geology and hydrologic assessment of Coastal Plain aquifers in the Waldorf area, Charles County, Maryland, by J.M. Wilson, and W.B. Fleck: Maryland Geological Survey Report of Investigations No. 53. 1990. 138 pages.

Simulated hydrologic effects of the development of the Patapsco aquifer system in Glen Burnie, Anne Arundel County, Maryland, by Grufron Achmad: Maryland Geological Survey Report of Investigations No. 54. 1991. 96 pages.

Effects of development and novel construction techniques on yield of water well drilled in crystalline rock, Westminster, Maryland, by M. T. Duigon: Maryland Geological Survey Report of Investigations No. 56. 1992. 53 pages.

Hydrogeologic framework and the distribution and movement of brackish water in the Ocean City - Manokin Aquifer system at Ocean City, Maryland, by Grufron Achmad and J. M. Wilson: Maryland Geological Survey Report of Investigations No. 57. 1993. 125 pages.

Hydrogeology, water-supply potential, and water quality of the Coastal Plain aquifers of Harford County, Maryland, by D. D. Drummond and J. D. Blomquist: Maryland Geological Survey Report of Investigations No. 58. 1993. 160 pages.

Geochemistry and Factors affecting Ground-Water Quality at three Storm-Water management sites in Maryland, by F. D. Wilde: Maryland Geological Survey Report of Investigation No. 59. 1994. 201 pages.

Delineation of Wellhead Protection areas using particle tracking analysis and hydrogeologic mapping, Northern Anne Arundel County, Maryland, by J.M. Wilson and G. Achmad: Maryland Geological Survey Report of Investigation No. 61. 1995. 121 pages.

Geohydrologic framework, ground-water quality and flow, and brackish-water intrusion in east-central Anne Arundel County, Maryland, with a section on potential for brackish-water intrusion in the Aquia aquifer in the Annapolis area, Maryland, by W.B. Fleck, D.C. Andreasen, and B.S. Smith: Maryland Geological Survey Report of Investigation No. 62.

SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

Open-File Reports
Hydrogeology

Availability of ground water for urban and industrial development in upper Montgomery County, Maryland, by P.M. Johnston, and E.G. Otton: Maryland Geological Survey Open-File Report No. 63-02-1. 1963. 47 pages.

Ground-water aquifers and mineral commodities of Maryland, Prepared in cooperation with the Maryland Department of State Planning: Maryland Geological Survey Open-File Report No. 69-06-1. 1969. 36 pages.

A User's guide for the Artesian aquifers of the Maryland Coastal Plain. Part One: Introductory definitions and examples. 86 pages. Part Two: Aquifer characteristics. by H.J. Hansen: Maryland Geological Survey Open-File Report No. 72-02-01. 1972. 123 pages.

Geologic and hydrologic data from two core holes drilled through the Aquia Formation (Eocene-Paleocene) in Prince George's and Queen Anne's Counties, Maryland, by H.J. Hansen: Maryland Geological Survey Open-File Report No. 77-02-1. 1977. 77 pages.

Waste Gate Formation. Part One: Hydrogeologic framework and potential utilization of the brine aquifers of the Waste Gate Formation, a new unit of the Potomac Group underlying the Delmarva Peninsula, by H.J. Hansen, 1982. 50 pages. Part Two: Palynology of the continental Cretaceous sediments, Crisfield geothermal test well, eastern Maryland, by J.A. Doyle: Maryland Geological Survey Open-File Report No. 82-02-1. 1982. 37 pages.

Summary of hydrogeologic data from a deep (2,678 Ft.) well at Lexington Park, St. Mary's County, Maryland, by H.J. Hansen, and J.M. Wilson: Maryland Geological Survey Open-File Report No. 84-02-1. 1984. 61 pages.

Stratigraphy, hydrogeology, and water chemistry of the Cretaceous aquifers of the Waldorf/La Plata Area, Charles County, Maryland, by J.M. Wilson: Maryland Geological Survey Open-File Report No. 86-02-2. 1986. 66 pages.

Summary of hydrogeologic data from a test well (1,725 Ft.) drilled in Tuckahoe State Park, Queen Anne's County, Maryland, by D.C. Andreasen, and H.J. Hansen: Maryland Geological Survey Open-File Report No. 87-02-3. 1987. 47 pages.

Selected geohydrologic characteristics of the Patapsco aquifers at Chalk Point, Prince George's County, by F.K. Mack: Maryland Geological Survey Open-File Report No. 88-02-4. 1988. 36 pages.

Hydrogeology and stratigraphy of a 1,515-Foot test Well drilled near Princess Anne, Somerset County, Maryland, by H.J. Hansen, and J.M. Wilson: Maryland Geological Survey Open-File Report No. 91-02-5. 1990. 59 pages.

Geohydrologic data for the Coastal Plain sediments underlying Broadneck peninsula, Anne Arundel County, Maryland, by F.K. Mack, and D.C. Andreasen: Maryland Geological Survey Open-File Report No. 92-02-6. 1991. 76 pages.

Stratigraphy of Upper Cretaceous and Tertiary sediments in a core-hole drilled near Chesterville, Kent County, Maryland, by H.J. Hansen: Maryland Geological Survey Open-File Report No. 93-02-7. 1992. 38 pages.

Hydrostratigraphic framework of the Piney Point-Nanjemoy aquifer and Aquia aquifer in Calvert and St. Mary's Counties, Maryland, by H.J. Hansen: Maryland Geological Survey Open-File Report No. 96-02-8. 1996. 45 pages.

Information Circulars

The Electric Log: Geophysic's contribution to ground-water prospecting and evaluation, by H.J. Hansen: Maryland Geological Survey Information Circular No. 4. 1967. 11 pages.

Well yields in the bedrock aquifers of Maryland, by L.J. Nutter: Maryland Geological Survey Information Circular No. 16. 1974. 24 pages.

A digital simulation model of the Aquia aquifer in southern Maryland, by G.W. Kapple, and H.J. Hansen: Maryland Geological Survey Information Circular No. 20. 1976. 34 pages.

Hydrogeologic characteristics of the Waste Gate Formation, A new subsurface unit of the Potomac Group underlying the eastern Delmarva Peninsula, by H.J. Hansen: Maryland Geological Survey Information Circular No. 39. 1984. 24 pages.

SELECTED MARYLAND GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN MARYLAND--Continued

Maps
Quadrangle Atlases

Cockeysville Quadrangle: Geology, hydrology, and mineral resources, by E.G. Otton, E.T. Cleaves, W.P. Crowley, K.R. Kuff, and Jurgen Reinhardt: Maryland Geological Survey Quadrangle Atlas No. 3. 1975. 8 maps.

White Marsh Quadrangle: Geology, hydrology, and mineral resources, by E.T. Cleaves, K.R. Kuff, W.P. Crowley, and Jurgen Reinhardt: Maryland Geological Survey Quadrangle Atlas No. 4. 1979. 3 maps. Five other maps for this atlas are available for inspection at MGS: by E.T. Cleaves, and E.G. Otton.

Jarrettsville Quadrangle hydrogeology, by L.J. Nutter: Maryland Geological Survey Quadrangle Atlas No. 5. 1977. 4 maps.

Bel Air Quadrangle hydrogeology, by L.J. Nutter: Maryland Geological Survey Quadrangle Atlas No. 6. 1977. 4 maps.

Hydrogeologic Atlas, Reisterstown Quadrangle, Baltimore County, Maryland, by M.T. Duigon, and W.P. Crowley: Maryland Geological Survey Quadrangle Atlas No. 7. 1983. 6 maps.

Hydrogeologic Atlas Westminster Quadrangle, Carroll County, Maryland, by E.G. Otton: Maryland Geological Survey Quadrangle Atlas No. 9. 1979. 5 maps.

Hydrogeologic Atlas Winfield Quadrangle, Carroll County, Maryland, by E.G. Otton: Maryland Geological Survey Quadrangle Atlas No. 10. 1980. 5 maps.

Hydrogeologic Atlas New Windsor Quadrangle, Carroll County, Maryland, by E.G. Otton: Maryland Geological Survey Quadrangle Atlas No. 11. 1980. 5 maps.

Hydrogeologic Atlas Hampstead Quadrangle, Carroll County, Maryland, by M.T. Duigon: Maryland Geological Survey Quadrangle Atlas No. 12. 1981. 5 maps.

Hydrogeologic Atlas Lineboro Quadrangle, Carroll County, Maryland, by M.T. Duigon, E.G. Otton, and J.T. Hilleary: Maryland Geological Survey Quadrangle Atlas No. 13. 1981. 5 maps.

Hydrogeologic Atlas Littlestown Quadrangle, Carroll County, Maryland, by J.M. Weigle, and J.T. Hilleary: Maryland Geological Survey Quadrangle Atlas No. 14. 1981. 5 maps.

Hydrogeologic Atlas Manchester Quadrangle, Carroll County, Maryland, by E.G. Otton: Maryland Geological Survey Quadrangle Atlas No. 15. 1981. 5 maps.

Hydrogeologic Atlas Taneytown-Emmitsburg Quadrangles, Carroll County, Maryland, by J.M. Weigle: Maryland Geological Survey Quadrangle Atlas No. 16. 1981. 5 maps.

Hydrogeologic Atlas Union Bridge-Woodsboro Quadrangles, Carroll County, Maryland, by J.M. Weigle: Maryland Geological Survey Quadrangle Atlas No. 17. 1981. 5 maps.

Hydrogeologic Atlas Hereford Quadrangle, Baltimore County, Maryland, by M.T. Duigon, and J.T. Hilleary: Maryland Geological Survey Quadrangle Atlas No. 18. 1981. 5 maps.

Hydrogeologic Atlas Finksburg Quadrangle, Carroll County, Maryland, by J.F. Williams: Maryland Geological Survey Quadrangle Atlas No. 19. 1981. 5 maps.

Hydrogeologic Atlas New Freedom Quadrangle, Baltimore County, Maryland, by M.T. Duigon: Maryland Geological Survey Quadrangle Atlas No. 20. 1983. 5 maps.

Hydrogeologic Atlas Ellicott City Quadrangle, Baltimore and Howard Counties, Maryland, by M.T. Duigon: Maryland Geological Survey Quadrangle Atlas No. 21. 1983. 5 maps.

Hydrogeologic Atlas Phoenix Quadrangle, Baltimore and Harford Counties, Maryland, by E.G. Otton: Maryland Geological Survey Quadrangle Atlas No. 22. 1983. 5 maps.

Hydrogeologic Atlas Norrisville Quadrangle, Baltimore and Harford Counties, Maryland, by E.G. Otton: Maryland Geological Survey Quadrangle Atlas No. 23. 1983. 5 maps.

SELECTED U.S.GEOLOGICAL SURVEY REPORTS ON GROUND-WATER RESOURCES IN THE DISTRICT OF COLUMBIA

Listed below is a selection of reports on ground-water resources in Washington, D.C. which are available through the U.S. Geological Survey, Book and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, Colorado 80225.

Water-Supply Paper

Geology and ground-water resources of Washington, D.C., and vicinity, by P. M. Johnston, with a section on Chemical quality of the water, by D. E. Weaver and Leonard Siu: U.S. Geological Survey Water-Supply Paper 1776. 1964. 133 pages.

Maryland and the District of Columbia water supply and use, by J.C. Wheeler, in National Water Summary 1987--Water supply and use: U.S. Geological Survey Water-Supply Paper 2350, 1989. pages 291-298.

Open-File Report

Maryland and the District of Columbia ground-water quality, by J.C. Wheeler and L.B. Maclin: U. S. Geological Survey Open-File Report 87-0730. 1988. 10 pages.

Circular

Water from the Coastal Plain aquifers in the Washington, D.C., metropolitan area, by S.S. Papadopoulos, R.R. Bennett, F.K. Mack, and P.C. Trescott: U.S. Geological Survey Circular 697. 1974. 11 pages.

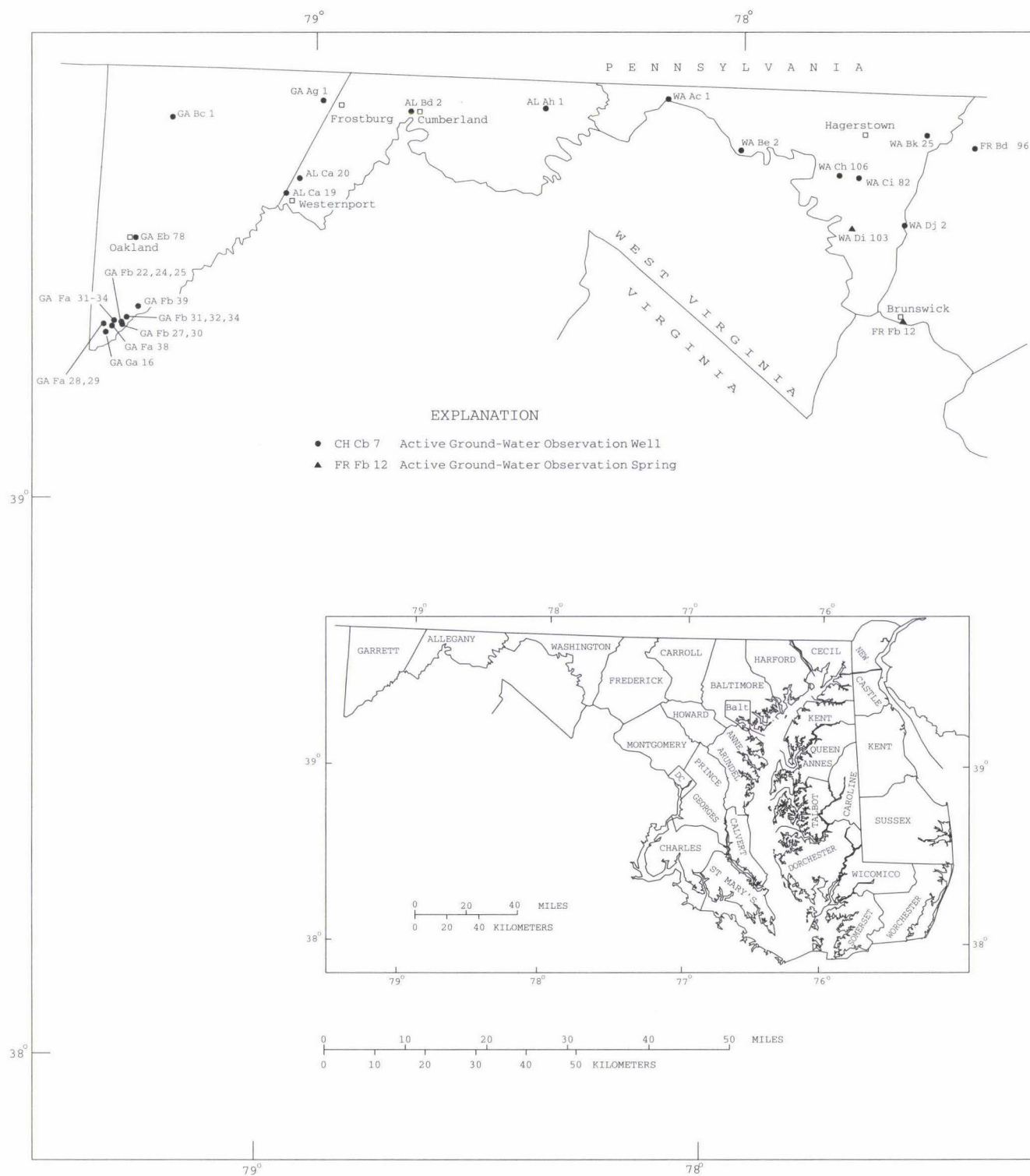


Figure 3. Location of Maryland and Delaware ground-water network observation wells and springs.



WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1996

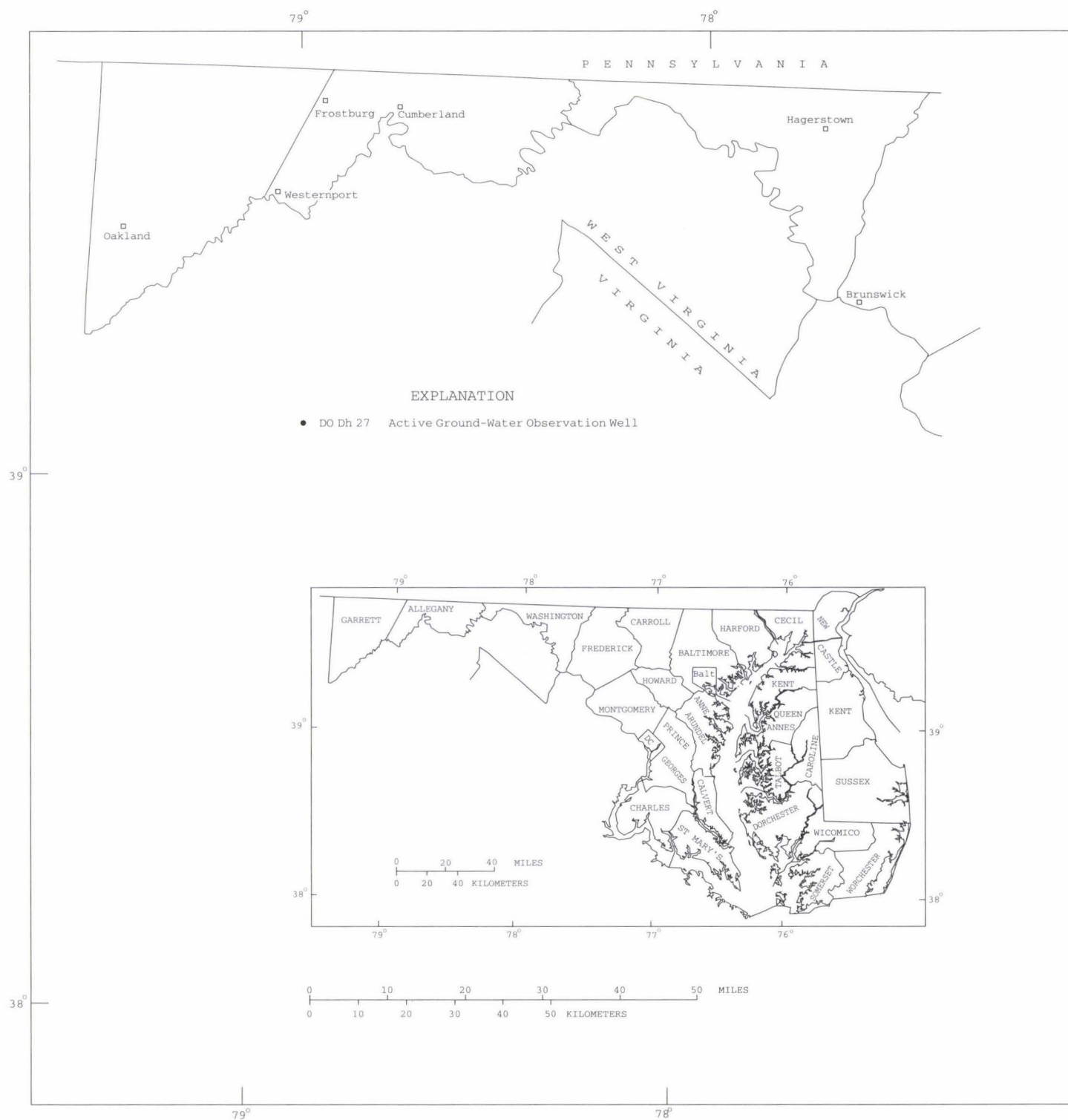
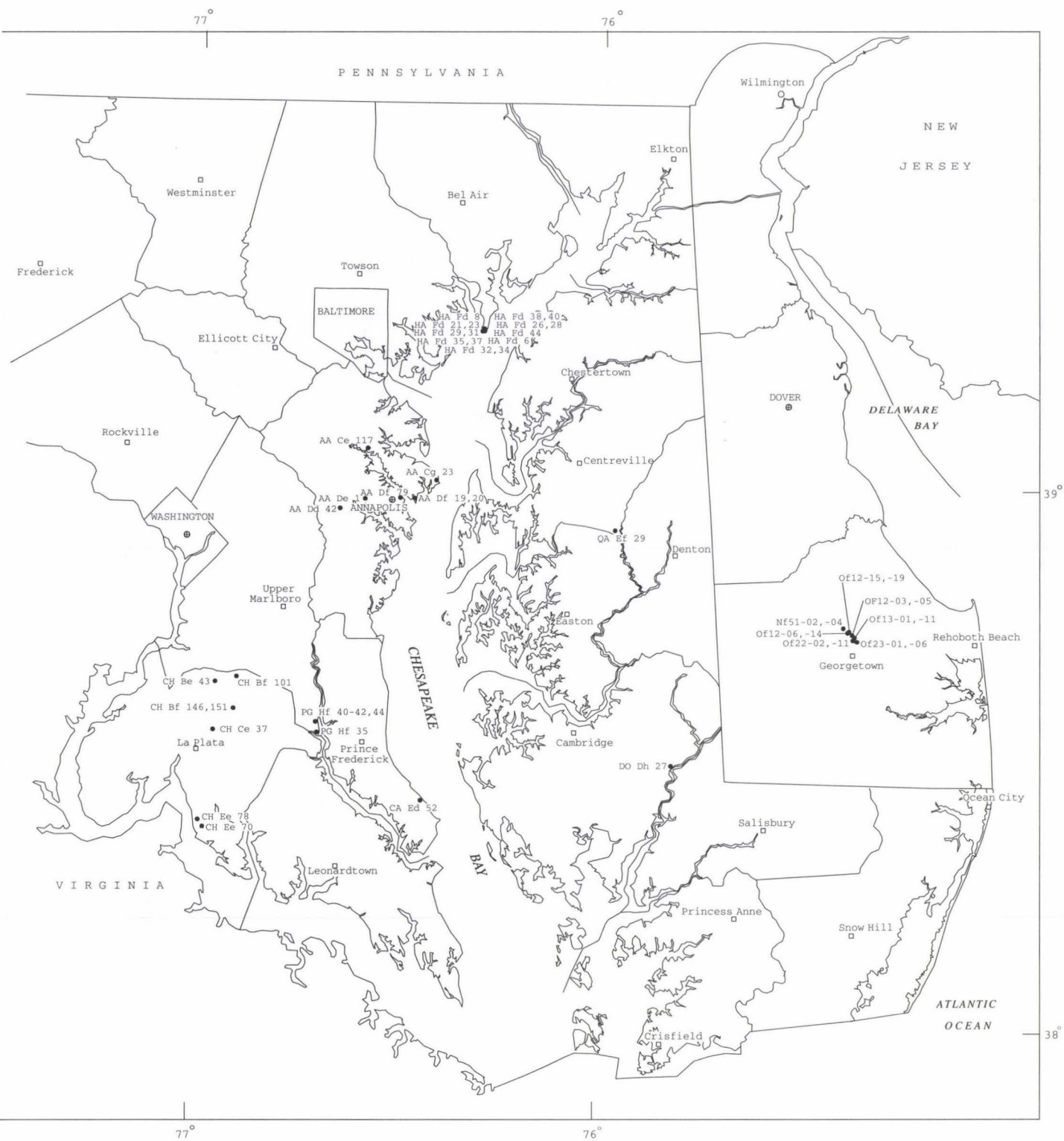


Figure 4. Location of Maryland and Delaware ground-water project observation wells



WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1996

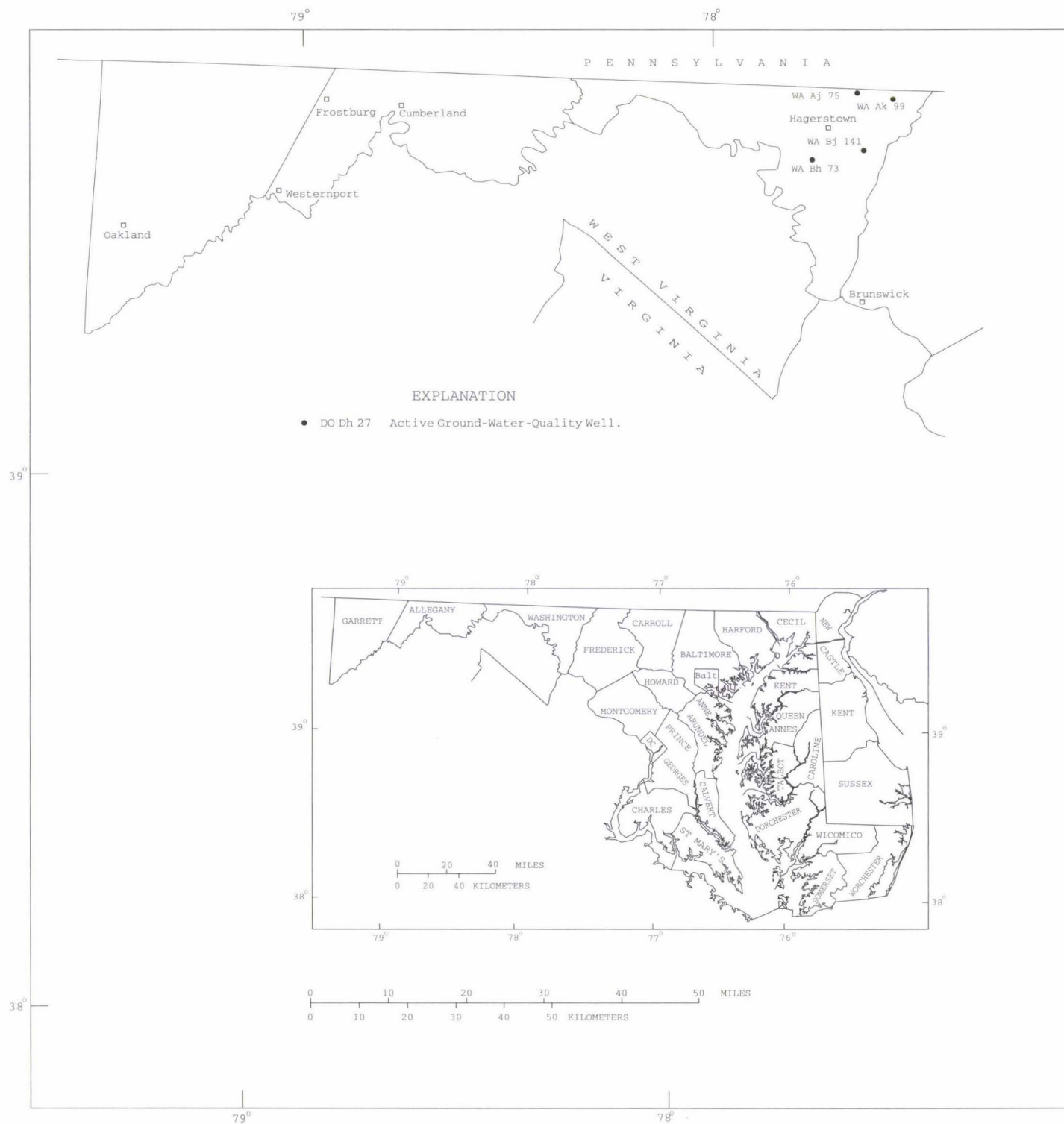


Figure 4. Location of Maryland and Delaware ground-water-quality wells.

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1996



GROUND-WATER SPRING DISCHARGE

MARYLAND

CECIL COUNTY

SPRING NUMBER.--CE Cc 40. SITE ID.--393459076045001.

LOCATION.--Lat 39°34'59", long 76°04'50", Hydrologic Unit 02050306, 0.1 mi north of intersection of Cokesbury and St. Marks Church Rd., 0.8 mi northeast of Perryman.

Owner: John McMullen.

AQUIFER.--James Run Formation, Frenchtown Member of Paleozoic age. Aquifer code: 300JMSR.

SPRING IMPROVEMENTS.--2 in. outflow pipe.

INSTRUMENTATION.--Monthly volumetric measurements by USGS personnel.

DATUM.--Elevation of land surface is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map.

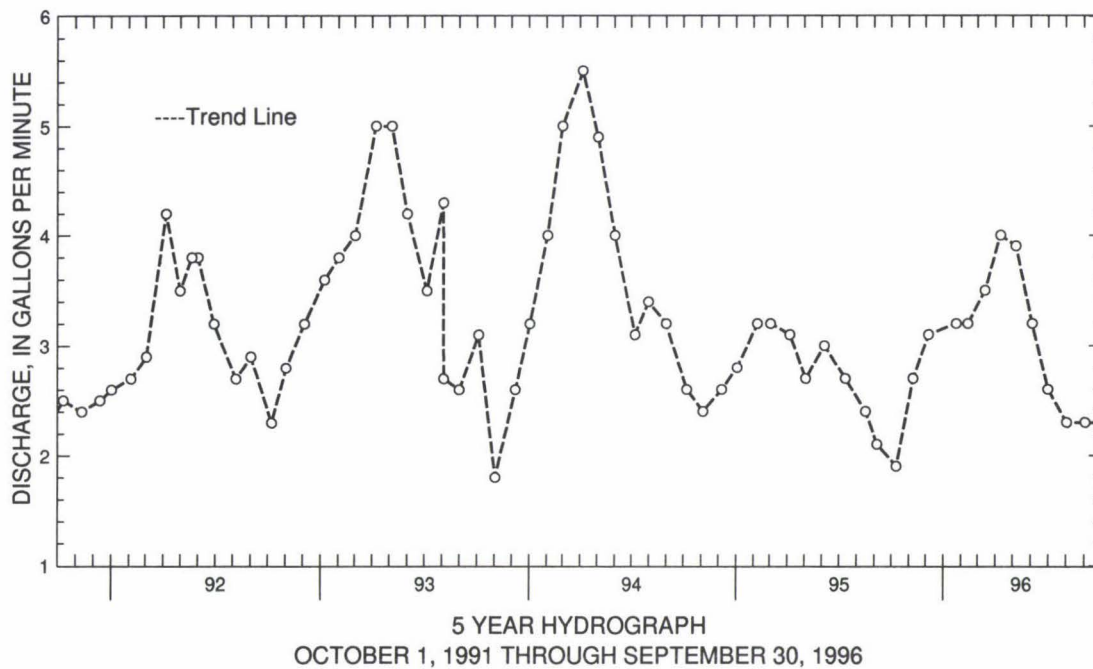
REMARKS.--Maryland Water-Level and Water Quality Network observation spring. Temperatures are available.

PERIOD OF RECORD.--April 1981, Aug. 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 5.91 gal/min, June 7, 1990;
minimum discharge measured, 1.8 gal/min, Nov. 2, 1993.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 10, 1995	1.9	JAN 24, 1996	3.2	APR 10, 1996	4.0	JUL 1, 1996	2.6
NOV 9	2.7	FEB 13	3.2	MAY 7	3.9	AUG 2	2.3
DEC 6	3.1	MAR 14	3.5	JUN 4	3.2	SEP 3	2.3
WATER YEAR 1996	MAXIMUM	4.0	APR 10, 1996	MINIMUM	1.9	OCT 10, 1995	



GROUND-WATER SPRING DISCHARGE

MARYLAND--Continued

FREDERICK COUNTY

SPRING NUMBER.--FR Dd 178. SITE ID.--392552077262201.

LOCATION.--Lat 39°25'52", long 77°26'22", Hydrologic Unit 02070009, at Montview State Hospital.

Owner: Montview State Hospital.

AQUIFER.--Frederick Limestone of Lower Cambrian age. Aquifer code: 377FDCK.

SPRING IMPROVEMENTS.--Springhouse with discharge pipe.

INSTRUMENTATION.--Monthly current meter discharge measurements by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 315 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Maryland Water-Level and Water Quality Network observation spring. Temperatures are available.

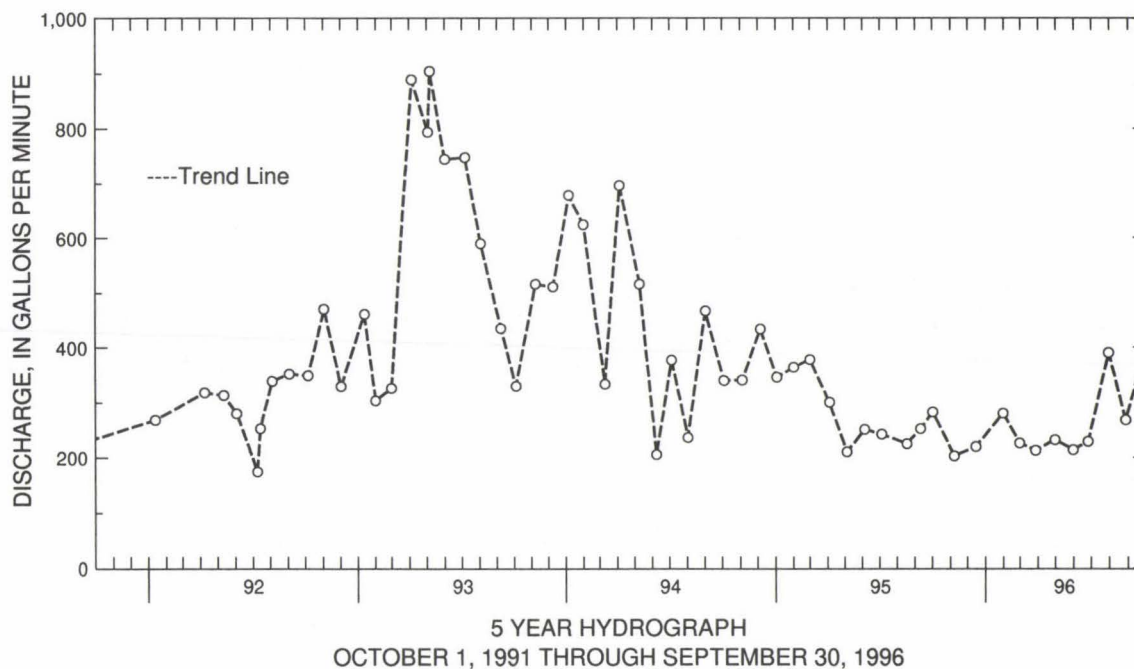
PERIOD OF RECORD.--April 1981, February 1989, September 1989, April 1991 and March 1992 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 904 gal/min, May 6, 1993;

minimum discharge measured, 180 gal/min, April 17, 1991.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 2, 1995	230.2	JAN 31, 1996	280.0	APR 30, 1996	232.0	JUL 31, 1996	390.0
NOV 8	202.8	FEB 29	226.1	MAY 31	214.0	AUG 28	267.4
DEC 15	219.4	MAR 28	212.7	JUN 26	228.8	SEP 26	375.2
WATER YEAR 1996	MAXIMUM	390.0	JUL 31, 1996	MINIMUM	202.8	NOV 8, 1995	



GROUND-WATER SPRING DISCHARGE

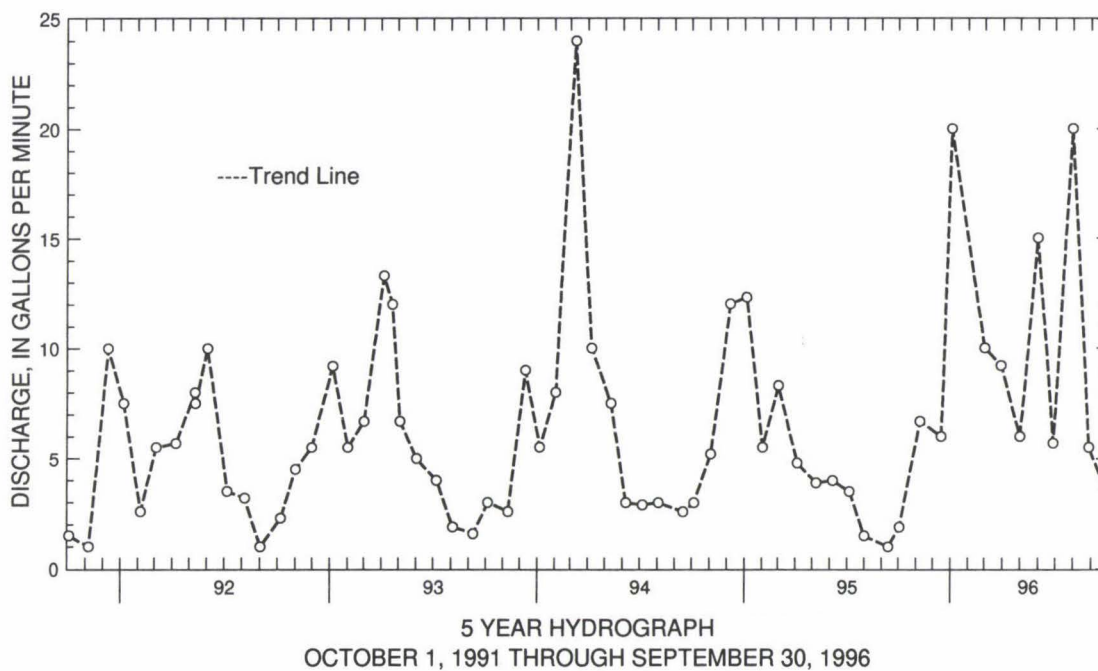
MARYLAND--Continued

FREDERICK COUNTY--Continued

SPRING NUMBER.--FR Fb 12. SITE ID.--391846077370501.
 LOCATION.--Lat 39°18'46", long 77°37'05", Hydrologic Unit 02070008, at Brunswick, off Park Ave., 300 ft north of intersection of Potomac St.
 Owner: Town of Brunswick.
 AQUIFER.--Precambrian Erathem of Precambrian age. Aquifer code: 400PCMB.
 SPRING IMPROVEMENTS.--2 in. outflow pipe.
 INSTRUMENTATION.--Monthly volumetric measurements by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 REMARKS.--Maryland Water-Level and Water Quality Network observation spring. Temperature readings are available.
 PERIOD OF RECORD.--January 1960 to April 1964, March 1965, August 1967, December 1968, July 1972, April 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 36.0 gal/min, April 30, 1964;
 minimum discharge measured, 0.8 gal/min, Oct. 1, 1986.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 3, 1995	1.9	JAN 3, 1996	20.0	APR 30, 1996	6.0	JUL 31, 1996	20.0
NOV 8	6.7	FEB 29	10.0	MAY 31	15.0	AUG 28	5.5
DEC 15	6.0	MAR 28	9.2	JUN 27	5.7	SEP 26	3.6
WATER YEAR 1996	MAXIMUM	20.0	JAN 3, and JUL 31, 1996	MINIMUM	3.6	SEP 26, 1996	



GROUND-WATER SPRING DISCHARGE

MARYLAND--Continued

HARFORD COUNTY

SPRING NUMBER.--HA Aa 9. SITE ID.--394153076325701.

LOCATION.--Lat 39°41'53", long 76°32'57", Hydrologic Unit 02050306, 30 ft south of Church Lane, .5 mi west of Norrisville.

Owner: Milton Smith.

AQUIFER.--Prettyboy Schist of Paleozoic age. Aquifer code: 300PTRB.

SPRING IMPROVEMENTS.--4 in. plastic outflow pipe.

INSTRUMENTATION.--Monthly volumetric measurements by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 640 ft above National Geodetic Vertical Datum of 1929, from topographic map.

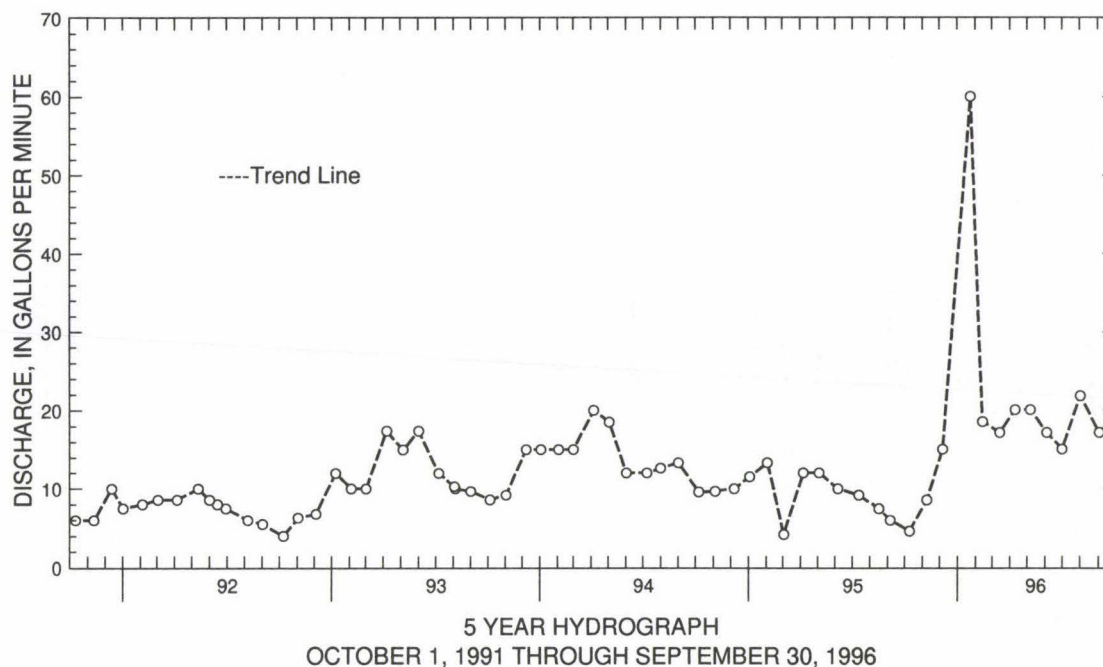
REMARKS.--Maryland Water-Level and Water Quality Network observation spring. Temperature readings are available.

PERIOD OF RECORD.--October 1980, August 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 60.0 gal/min, Jan. 24, 1996;
minimum discharge measured, 4.0 gal/min, Oct. 8, 1992.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 10, 1995	4.6	JAN 24, 1996	60.0	APR 10, 1996	20.0	JUL 1, 1996	15.0
NOV 9	8.6	FEB 13	18.5	MAY 7	20.0	AUG 2	21.8
DEC 6	15.0	MAR 14	17.1	JUN 4	17.1	SEP 3	17.1
WATER YEAR 1996		MAXIMUM	60.0	JAN 24, 1996	MINIMUM	4.6	OCT 10, 1995



GROUND-WATER SPRING DISCHARGE

MARYLAND--Continued

WASHINGTON COUNTY

SPRING NUMBER.--WA Di 103. SITE ID.--392836077442701.

LOCATION.--Lat 39°28'36", long 77°44'27", Hydrologic Unit 02070004, 0.2 mi southeast of Smoketown Rd. and Mummas Lane, 1.0 mi north of Sharpsburg.

Owner: National Park Service, Antietam National Battlefield.

AQUIFER.--Conococheague Limestone of Upper Cambrian age. Aquifer code: 371CCCG.

SPRING IMPROVEMENTS.--Springhouse with cement trough.

INSTRUMENTATION.--Monthly volumetric discharge measurements by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 475 ft above National Geodetic Vertical Datum of 1929, from topographic map.

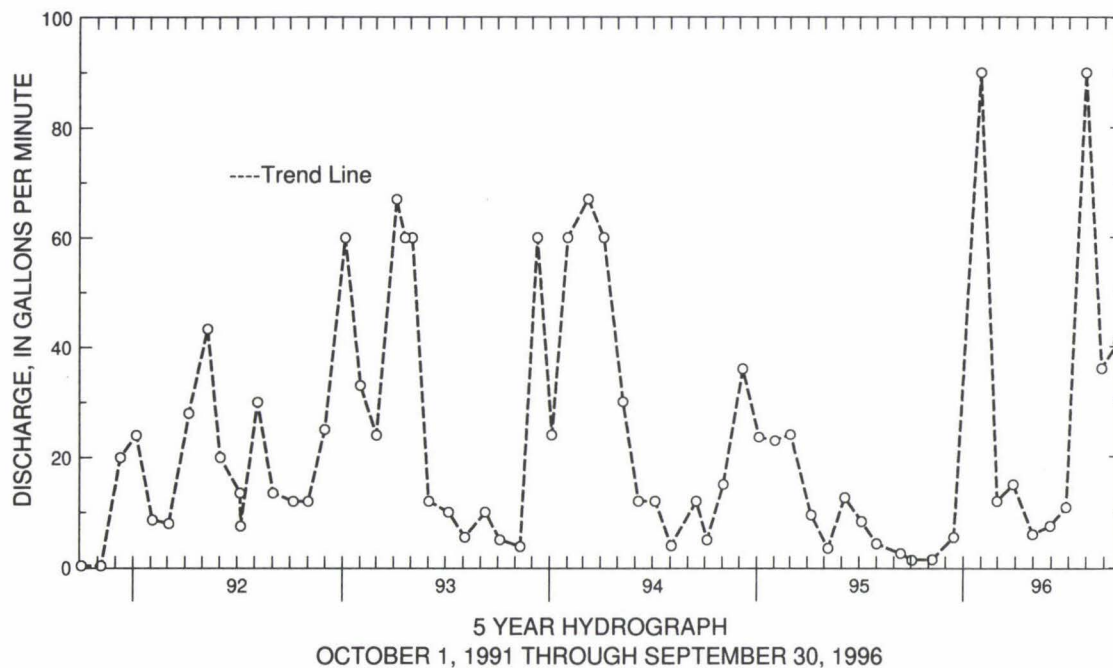
REMARKS.--Maryland Water-Level and Water Quality Network observation spring. Temperature readings are available.

PERIOD OF RECORD.--May 1969, April 1987, and January 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 90.0 gal/min, Jan. 31 and July 31, 1996,; minimum discharge measured, 0.3 gal/min, Oct. 4, 1991 and Nov. 7, 1991.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 3, 1995	1.4	JAN 31, 1996	90.0	APR 30, 1996	6.0	JUL 31, 1996	90.0
NOV 8	1.5	FEB 29	12.0	MAY 30	7.5	AUG 28	36.0
DEC 15	5.5	MAR 28	15.0	JUN 27	10.9	SEP 26	40.8
WATER YEAR 1996		MAXIMUM	90.0	JAN 31, and JUL 31, 1996		MINIMUM	1.4
						OCT 3, 1995	



GROUND-WATER LEVELS

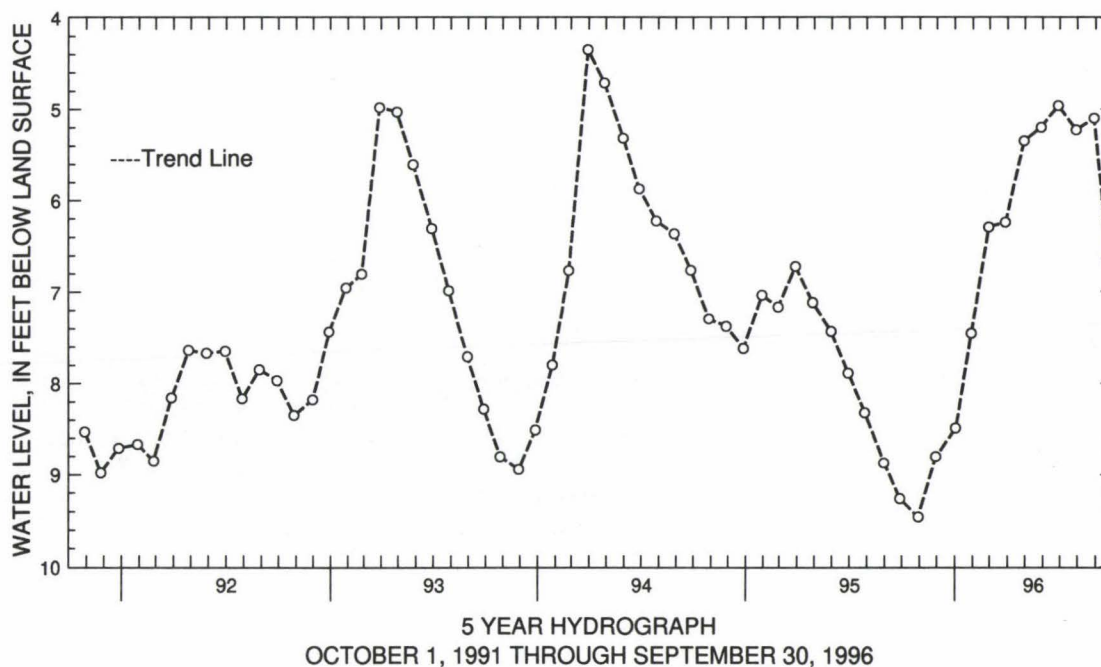
DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--Jd42-03. SITE ID.--390607075331501. PERMIT NUMBER.--10230.
 LOCATION.--Lat 39°06'07", long 75°33'15", Hydrologic Unit 02040207, 1 mi south of Camden.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 11 ft; casing diameter 1.25 in., to 8.5 ft; well point from 8.5 to 11 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape or electric sensing device by U.S. Geological Survey or Delaware Geological Survey personnel.
 DATUM.--Elevation of land surface is 44 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing at land surface.
 PERIOD OF RECORD.--October 1950 to December 1961, August 1971 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.69 ft below land surface, July 18, 1975; lowest measured, 10.10 ft below land surface, Nov. 28, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	9.46	JAN 29, 1996	7.46	APR 29, 1996	5.35	JUL 29, 1996	5.23
NOV 29	8.80	FEB 28	6.30	MAY 29	5.20	AUG 29	5.10
JAN 02, 1996	8.49	MAR 28	6.25	JUN 28	4.96	SEP 24	6.68
WATER YEAR 1996		HIGHEST	4.96	JUN 28, 1996	LOWEST	9.46	OCT 30, 1995



GROUND-WATER LEVELS

DELAWARE

KENT COUNTY

WELL NUMBER.--Kc31-01. SITE ID.--390224075391601. PERMIT NUMBER.--33610.

LOCATION.--Lat 39°02'24", long 75°39'16", Hydrologic Unit 02060005, 1.1 mi southwest of Petersburg, off Ironmine Rd. at Norman G. Wilder State Wildlife Area.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 380 ft; casing diameter 2 in., to 370 ft; screen diameter 2 in. from 370 to 380 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land surface.

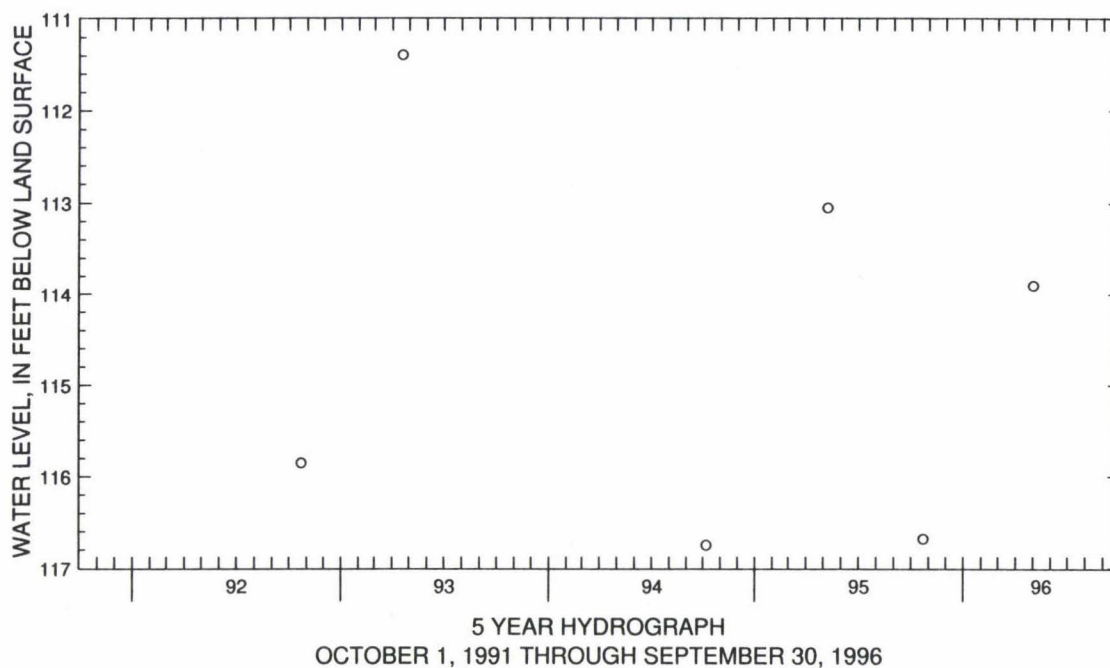
PERIOD OF RECORD.--February 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 92.99 ft below land surface, Feb. 20, 1975; lowest measured, 116.77 ft below land surface, Oct. 29, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23	116.68	MAY 01	113.90

WATER YEAR 1996 HIGHEST 113.90 MAY 01, 1996 LOWEST 116.68 OCT 23, 1995



GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--Mc51-01. SITE ID.--385041075395601.

LOCATION.--Lat 38°50'41", long 75°39'56", Hydrologic Unit 02060008, 1.3 mi northeast of Adamsville.

Owner: Delaware Department of Transportation.

AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 2 in., to 15 ft; well point from 15 to 19 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

DATUM.--Elevation of land surface is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map.

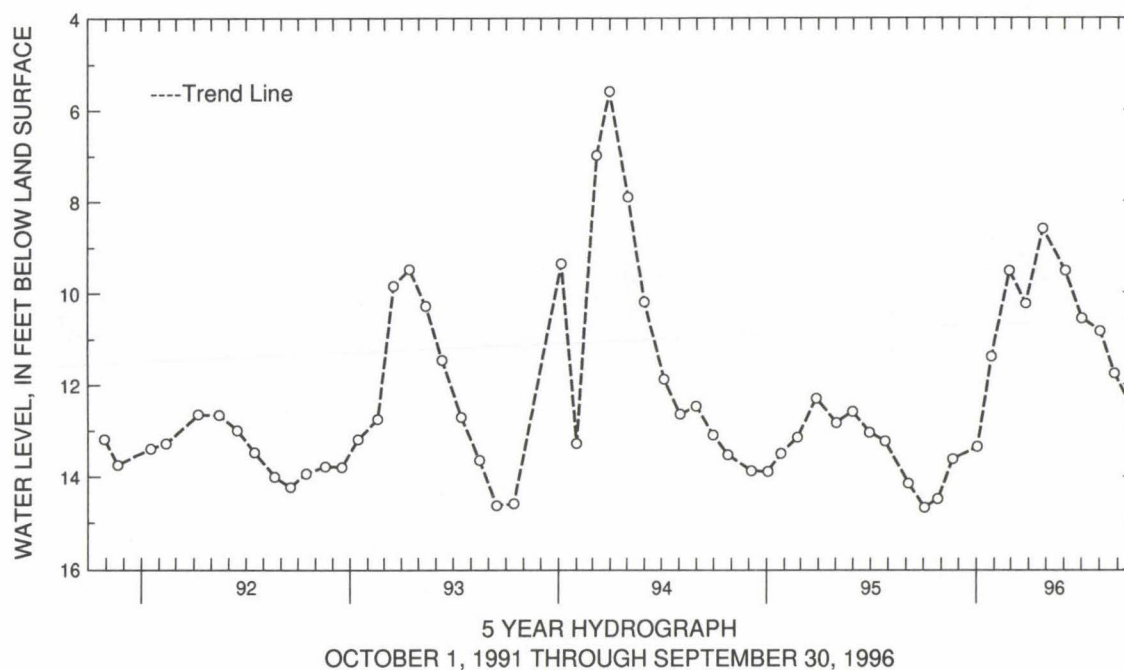
Measuring point: Top of casing at land surface.

PERIOD OF RECORD.--September 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.28 ft below land surface, May 31, 1984; lowest measured, 16.29 ft below land surface, Jan. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	14.67	JAN 26, 1996	11.40	JUN 03, 1996	9.53	SEP 30, 1996	12.63
26	14.48	FEB 27	9.53	JUL 01	10.57		
NOV 20	13.62	MAR 26	10.25	AUG 01	10.85		
JAN 02, 1996	13.35	APR 25	8.61	26	11.77		
WATER YEAR 1996		HIGHEST 8.61	APR 25, 1996	LOWEST 14.67	OCT 03, 1995		



GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--Md22-01. SITE ID.--385310075331301. PERMIT NUMBER.--10221.

LOCATION.--Lat 38°53'10", long 75°33'13", Hydrologic Unit 02040207, 2.4 mi west of Williamsville.

Owner: Delaware Department of Transportation.

AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 17 ft; casing diameter 1 in., to 14 ft; well point from 14 to 17 ft.

INSTRUMENTATION.--Bimonthly measurements with chalked steel tape by U.S. Geological Survey, and Delaware Geological Survey personnel.

DATUM.--Elevation of land surface is 58 ft above National Geodetic Vertical Datum of 1929, from topographic map.

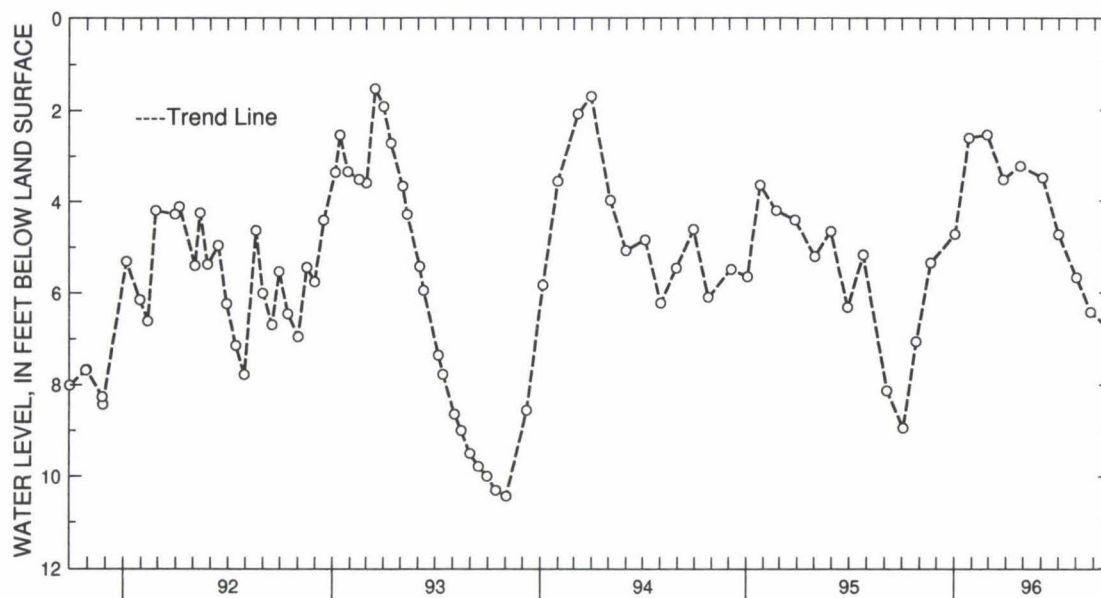
Measuring point: Top of casing at land surface.

PERIOD OF RECORD.--September 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.07 ft below land surface, July 14, 1975; lowest measured, 11.14 ft below land surface, Jan. 6, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	8.94	JAN 26, 1996	2.61	JUN 03, 1996	3.49	SEP 30, 1996	6.81
26	7.07	FEB 27	2.54	JUL 01	4.74		
NOV 20	5.35	MAR 26	3.53	AUG 01	5.67		
JAN 02, 1996	4.73	APR 25	3.23	26	6.42		
WATER YEAR 1996		HIGHEST	2.54 FEB 27, 1996	LOWEST	8.94 OCT 03, 1995		



GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY

WELL NUMBER.--Db15-05. SITE ID.--393917075401601.

LOCATION.--Lat 39°39'17", long 75°40'16", Hydrologic Unit 02040205, Smalley's Dam,
at the Wilmington Suburban Water Co. plant.

Owner: Wilmington Suburban Water Co.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 306 ft; casing diameter 12 in., to 215.5 ft,
and 238.5 to 273.5 ft, screen diameter 12 in., from 215.5 to 238.5 ft and 273.5 to 306 ft.INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
Equipped with graphic water-level recorder from March 1979 to November 1981.DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.
Measuring Point: Top of 12 in. casing, 1.5 ft above land surface.

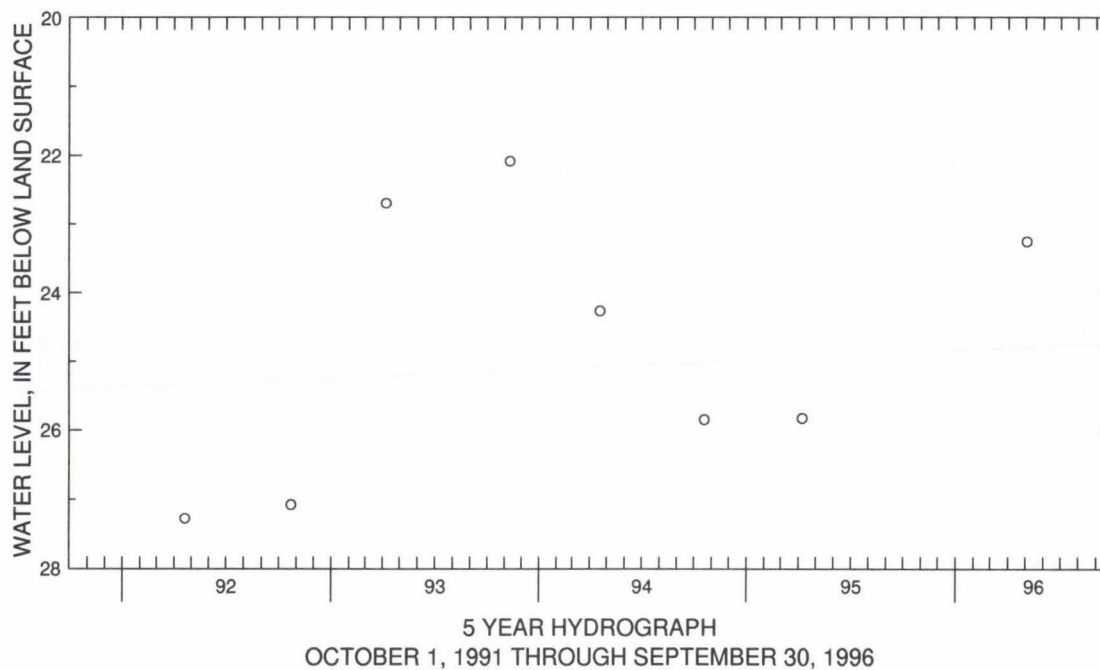
PERIOD OF RECORD.--March 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.09 ft below land surface, Nov. 10, 1993;
lowest measured, 39.31 ft below land surface, Sept. 30, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL
MAY 03, 1996	23.27

WATER YEAR 1996	HIGHEST	23.27	MAY 03, 1996	LOWEST	23.27	MAY 03, 1996
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GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Db24-17. SITE ID.--393856075415402. PERMIT NUMBER.--65430.

LOCATION.--Lat 39°38'56", long 75°41'54", Hydrologic Unit 02040205, 2 mi south of Ogletown.

Owner: Delaware Department of Transportation.

AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 22 ft; casing diameter 2 in., to 17 ft; screen diameter 2 in., from 17 to 22 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

DATUM.--Elevation of land surface is 77 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.55 ft above land surface.

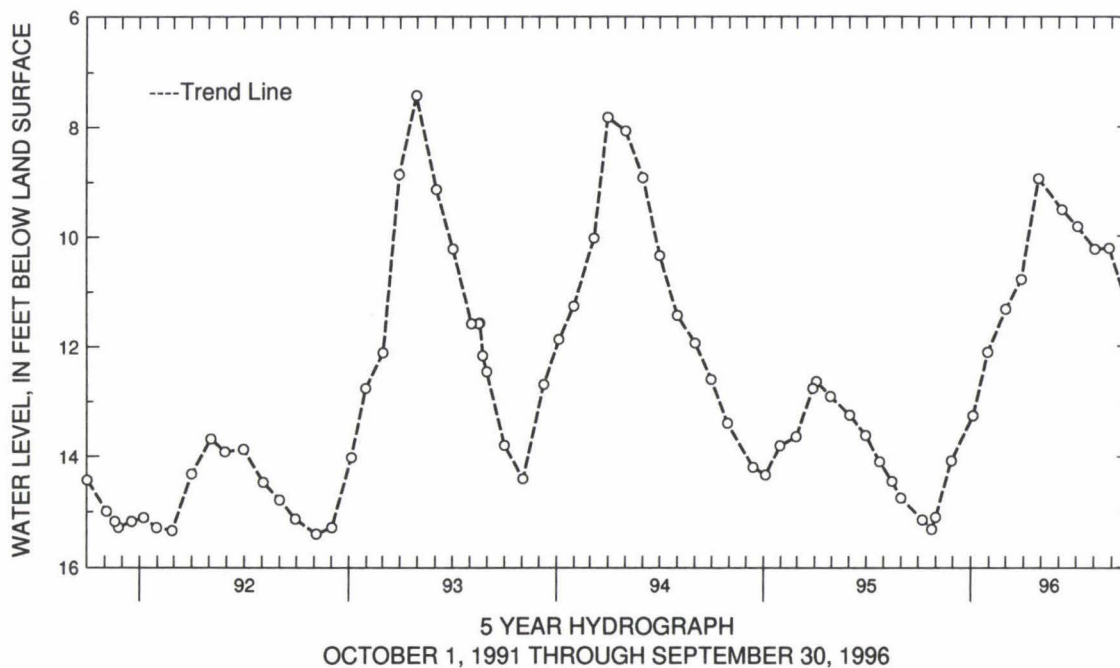
REMARKS.--Water-level measurements furnished by Delaware Geological Survey.

PERIOD OF RECORD.--June 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.42 ft below land surface, April 29, 1993; lowest measured, 15.74 ft below land surface, Nov. 10, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09, 1995	15.14	JAN 04, 1996	13.26	APR 26, 1996	8.95	AUG 27, 1996	10.22
25	15.31	29	12.11	JUN 06	9.52		
NOV 01	15.10	FEB 29	11.33	JUL 03	9.83		
28	14.07	MAR 27	10.79	AUG 02	10.24		
WATER YEAR 1996		HIGHEST	8.95 APR 26, 1996	LOWEST		15.31 OCT 25, 1995	



GROUND-WATER LEVELS

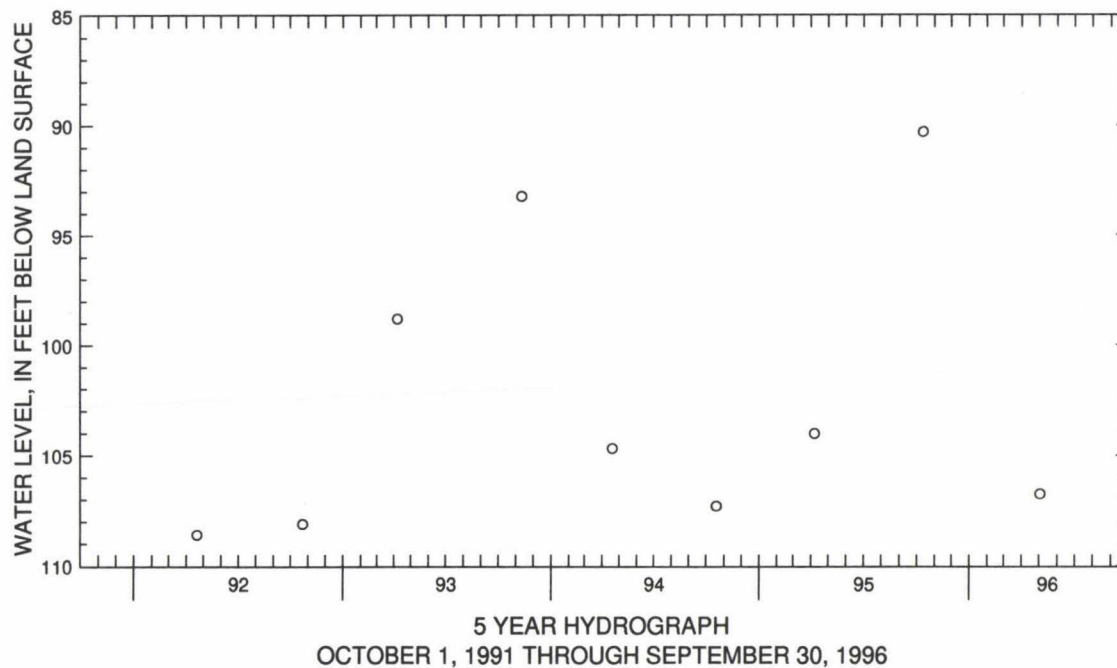
DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Db33-17. SITE ID.--393734075371103. PERMIT NUMBER--44612.
 LOCATION.--Lat 39°37'34", long 75°37'11", Hydrologic Unit 02040205, off Salem Church Rd., near Beck's Pond.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 189 ft; casing diameter 2 in., to 185 ft; screen diameter 2 in., from 185 to 189 ft. Installed in a 8 in. borehole with Db33-18, and Db33-19.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured monthly from October 1980 to November 1981.
 DATUM.--Elevation of land surface is 48 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of coupling, 1.75 ft above land surface.
 REMARKS.--Delaware Water-Level Network observation well.
 PERIOD OF RECORD.--October 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 90.30 ft below land surface, Oct. 12, 1995;
 lowest measured, 115.82 ft below land surface, Oct. 15, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	90.30	MAY 03, 1996	106.74
WATER YEAR 1996		HIGHEST 90.30 OCT 12, 1995	LOWEST 106.74 MAY 03, 1996



GROUND-WATER LEVELS

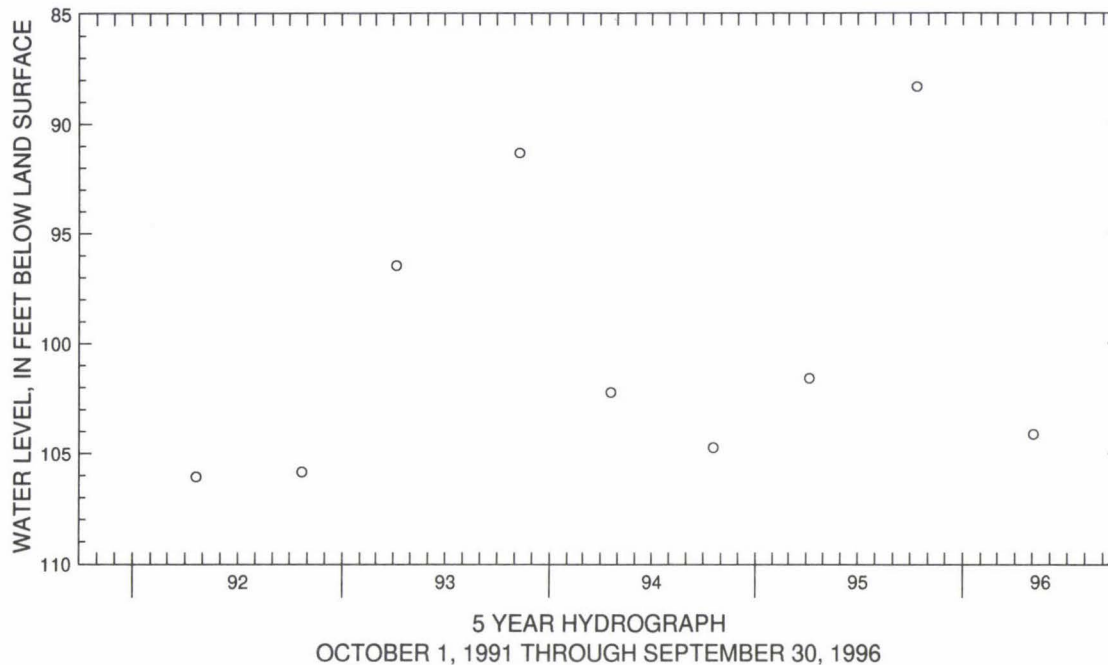
DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Db33-18. SITE ID.--393734075371102. PERMIT NUMBER--44612.
 LOCATION.--Lat 39°37'34", long 75°37'11", Hydrologic Unit 02040205, off Salem Church Rd., near Beck's Pond.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 143 ft; casing diameter 2 in., to 139 ft; screen diameter 2 in., from 139 to 143 ft. Installed in a 8 in. borehole with Db33-17, and Db33-19.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured monthly from October 1980 to November 1981.
 DATUM.--Elevation of land surface is 48 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of coupling, 1.75 ft above land surface.
 REMARKS.--Delaware Water-Level Network observation well.
 PERIOD OF RECORD.--October 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.31 ft below land surface, Oct. 12, 1995;
 lowest measured, 113.44 ft below land surface, Oct. 15, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	88.31	MAY 03, 1996	104.16
WATER YEAR 1996	HIGHEST 88.31	OCT 12, 1995	LOWEST 104.16



GROUND-WATER LEVELS

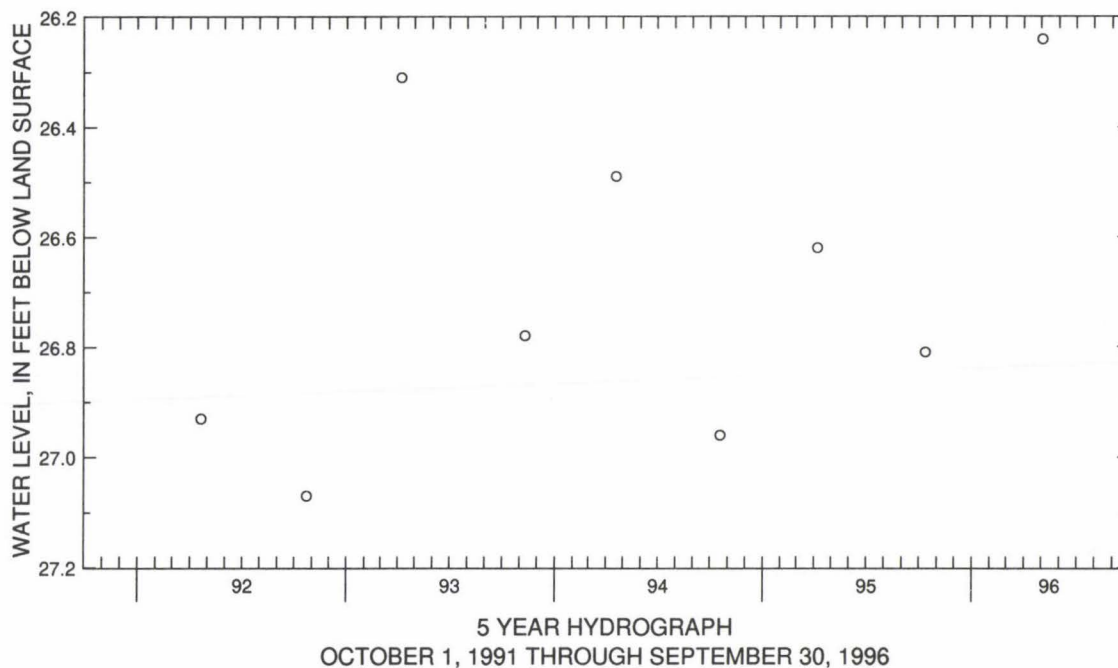
DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Db33-19. SITE ID.--393734075371101. PERMIT NUMBER.--44612.
 LOCATION.--Lat 39°37'34", long 75°37'11", Hydrologic Unit 02040205, off Salem Church Rd., nr Beck's Pond.
 Owner: U.S. Geological Survey.
 AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 39 ft; casing diameter 2 in; to 35 ft; screen diameter 2 in., from 35 to 39 ft. Installed in a 8 in. borehole with Db33-17, and Db33-18.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured monthly from October 1980 to November 1981.
 DATUM.--Elevation of land surface is 48 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of coupling, 1.75 ft above land surface.
 REMARKS.--Delaware Water-Level Network observation well.
 PERIOD OF RECORD.--October 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.35 ft below land surface, July 14, 1981;
 lowest measured 28.23 ft below land surface, April 3, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	26.81	MAY 03, 1996	26.24
WATER YEAR 1996 HIGHEST 26.24 MAY 03, 1996 LOWEST 26.81 OCT 12, 1995			



GROUND-WATER LEVELS

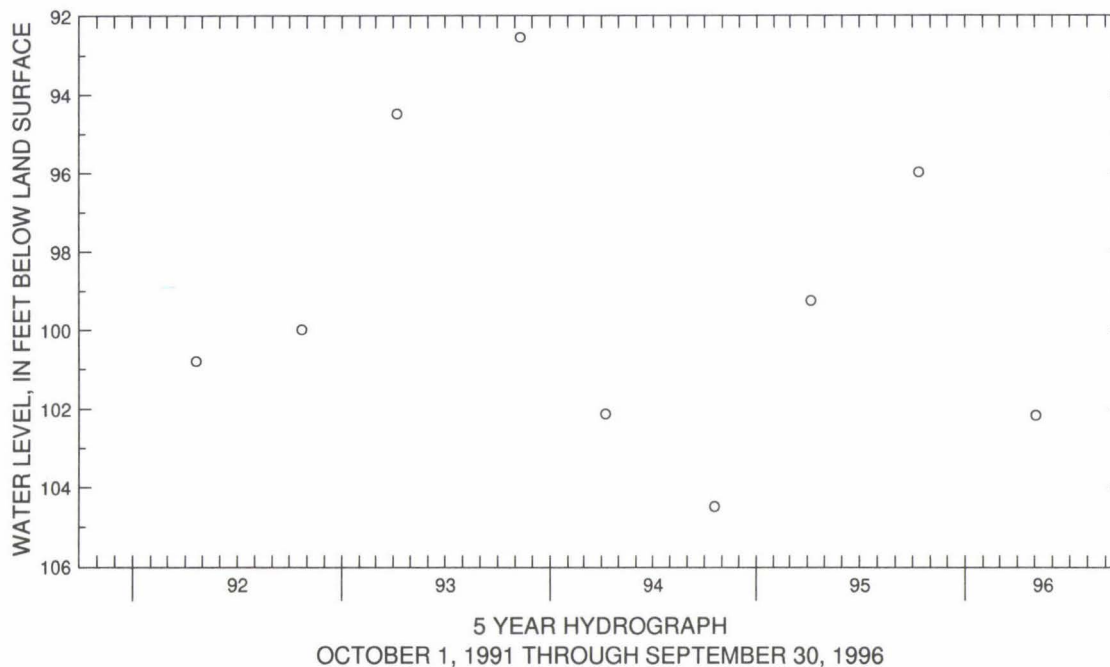
DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Dc34-05. SITE ID.--393755075364801.
 LOCATION.--Lat 39°37'55", long 75°36'48", Hydrologic Unit 02040205, east side of Rt. 9,
 at National Guard Rifle Range.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 579 ft; casing diameter 2 in., to 574 ft; screen
 diameter 2 in., from 574 to 579 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured monthly from November 1975 to November 1981.
 DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of coupling, 2.1 ft above land surface.
 REMARKS.--Delaware Water-Level Network observation well.
 PERIOD OF RECORD.--November 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.38 ft below land surface, Oct. 10, 1984;
 lowest measured, 130.62 ft below land surface, May 5, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	95.98	MAY 03, 1996	102.17
WATER YEAR 1996 HIGHEST 95.98 OCT 12, 1995 LOWEST 102.17 MAY 03, 1996			



GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Dc34-06. SITE ID.--393755075364802.

LOCATION.--Lat 39°37'55", long 75°36'48", Hydrologic Unit 02040205, east side of Rt. 9,
at National Guard Rifle Range.

Owner: U.S. Geological Survey

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 188 ft; casing diameter 2 in., to 183 ft;
screened from 183 to 188 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from November 1975 to October 1982. Beginning March 1982, water- level
measured twice yearly.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of 6 in. casing, 2.0 ft above land surface.

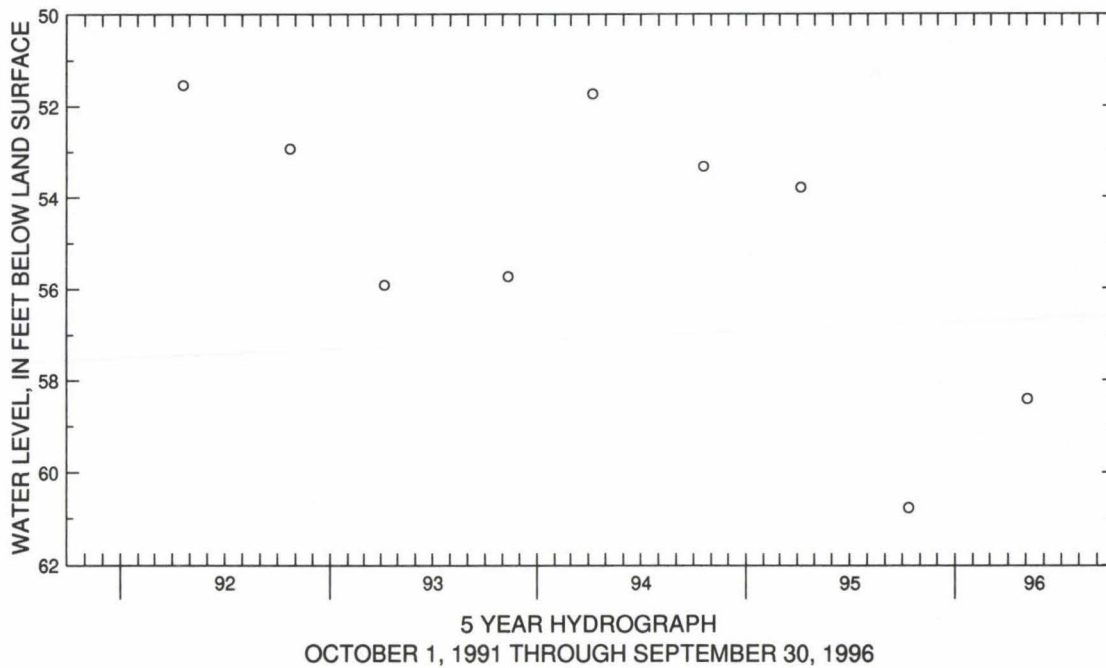
REMARKS.--Delaware Water-Level Network observation well.

PERIOD OF RECORD.--November 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.94 ft below land surface, Feb. 15, 1976;
lowest measured, 62.37 ft below land surface, Oct. 15, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	60.77	MAY 03, 1996	58.42
WATER YEAR 1996		HIGHEST 58.42 MAY 03, 1996	LOWEST 60.77 OCT 12, 1995



GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-22. SITE ID.--393316075421601.

LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 105 ft; casing diameter 2 in., to 101 ft, screened from 101 to 105 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.50 ft above land surface.

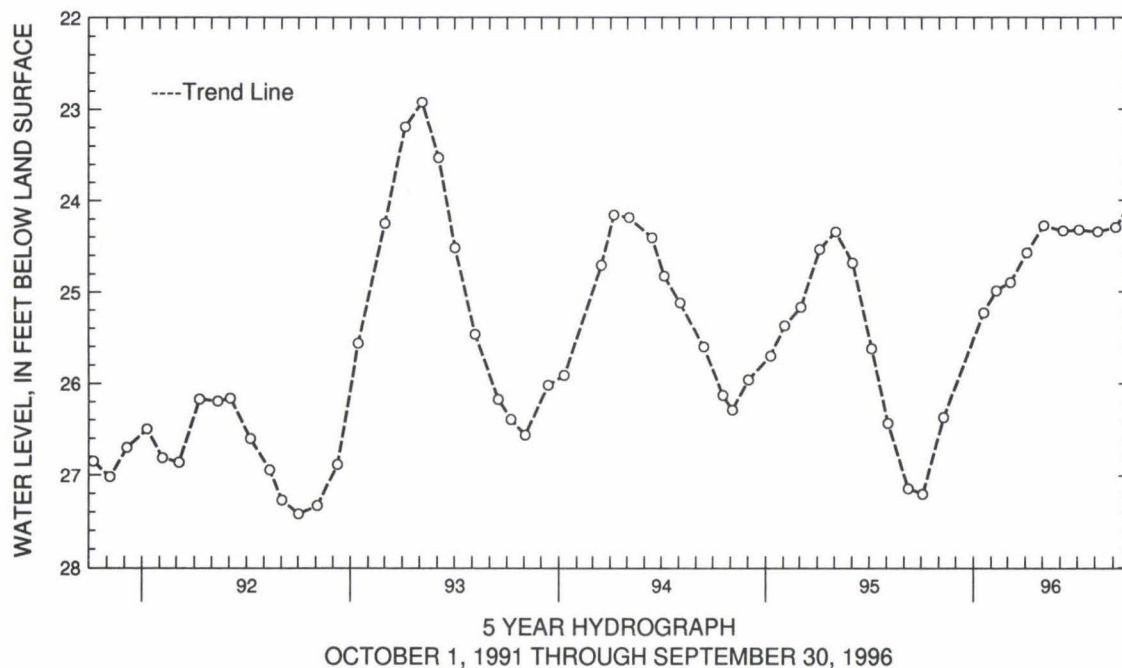
REMARKS.--Delaware Water-Level Network observation well.

PERIOD OF RECORD.--November 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.92 ft below land surface, May 5, 1993;
lowest measured, 27.42 ft below land surface, Oct. 2, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	27.20	FEB 09, 1996	24.99	MAY 02, 1996	24.28	AUG 05, 1996	24.35
NOV 09	26.37	MAR 05	24.90	JUN 05	24.34	SEP 09	24.30
JAN 18, 1996	25.23	APR 03	24.58	JUL 03	24.33		
WATER YEAR 1996		HIGHEST	24.28	MAY 02, 1996	LOWEST	27.20	OCT 04, 1995



GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-23. SITE ID.--393316075421602.

LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 292 ft; casing diameter 2 in., to 288 ft, screened from 288 to 292 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.35 ft above land surface.

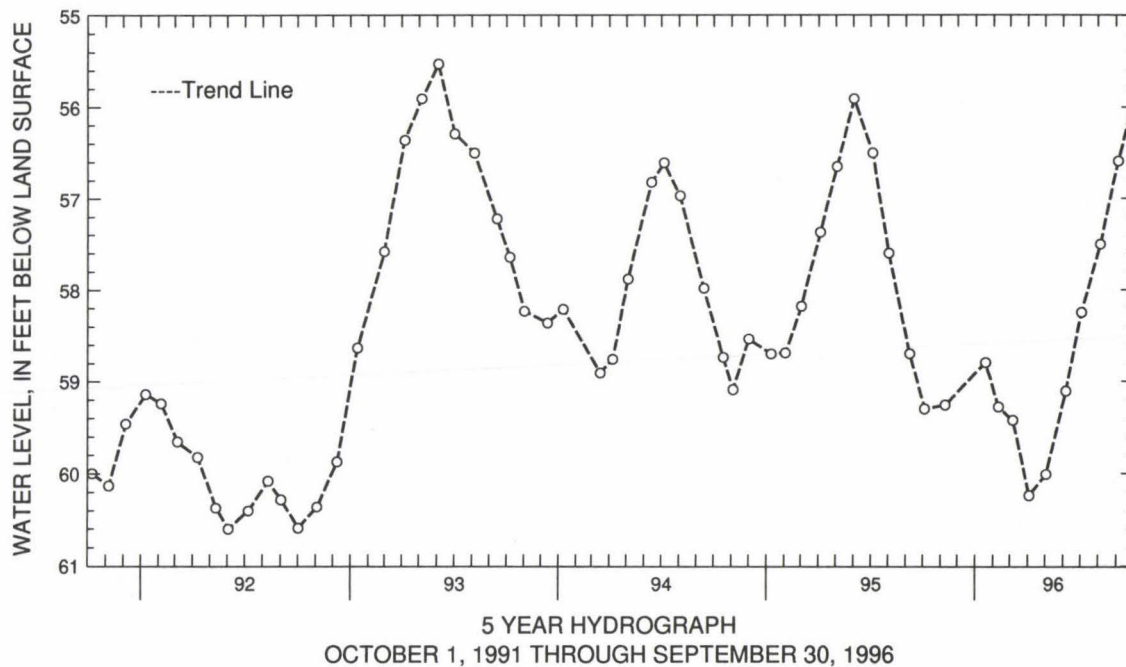
REMARKS.--Delaware Water-Level Network observation well.

PERIOD OF RECORD.--November 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 52.38 ft below land surface, Oct. 12, 1982; lowest measured, 60.60 ft below land surface, June 3, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	59.30	FEB 09, 1996	59.28	MAY 02, 1996	60.01	AUG 05, 1996	57.50
NOV 09	59.26	MAR 05	59.42	JUN 05	59.11	SEP 05	56.59
JAN 18, 1996	58.80	APR 03	60.24	JUL 03	58.25		
WATER YEAR 1996		HIGHEST	56.59	SEP 05, 1996	LOWEST	60.24	APR 03, 1996



GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-24. SITE ID.--393316075421603.

LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 436 ft; casing diameter 2 in., to 432 ft, screened from 432 to 436 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.38 ft above land surface.

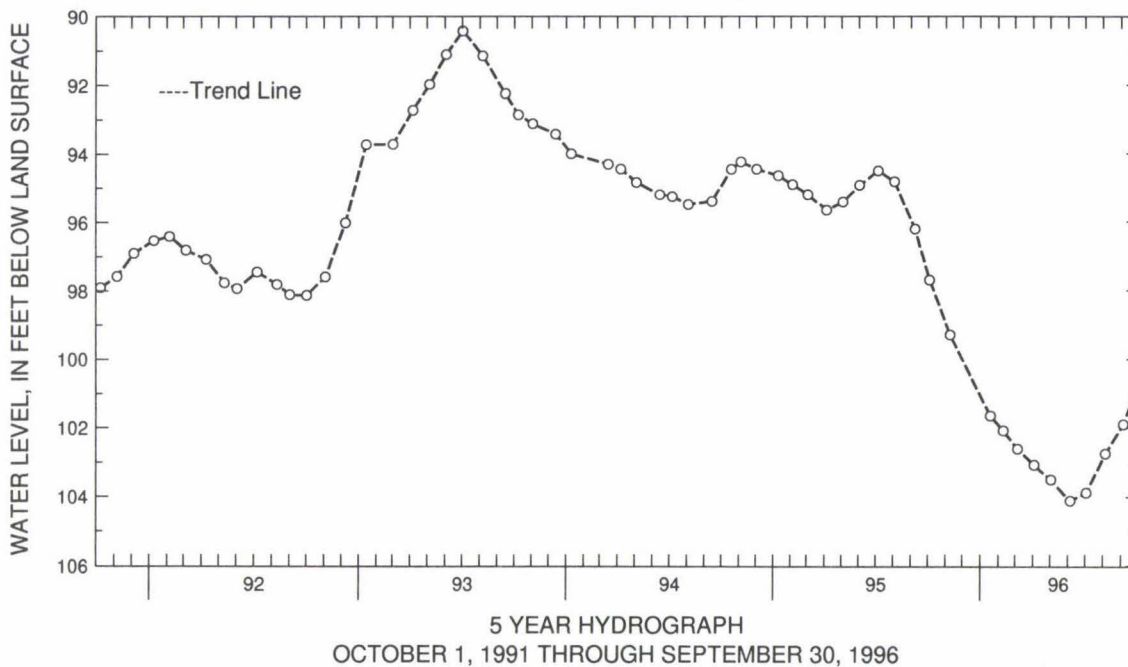
REMARKS.--Delaware Water-Level Network observation well.

PERIOD OF RECORD.--November 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.17 ft below land surface, Nov. 13, 1980; lowest measured, 104.11 ft below land surface, June 5, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	97.69	FEB 09, 1996	102.08	MAY 02, 1996	103.50	AUG 05, 1996	102.75
NOV 09	99.29	MAR 05	102.61	JUN 05	104.11	SEP 05	101.90
JAN 18, 1996	101.65	APR 03	103.07	JUL 03	103.88		
WATER YEAR 1996		HIGHEST	97.69	OCT 04, 1995	LOWEST	104.11	JUN 05, 1996



GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Eb23-25. SITE ID.--393316075421604.

LOCATION.--Lat 39°33'16", long 75°42'16", Hydrologic Unit 02040205, at Lums Pond State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 604 ft; screen diameter 2 in., to 600 ft, screened from 600 to 604 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.0 ft above land surface.

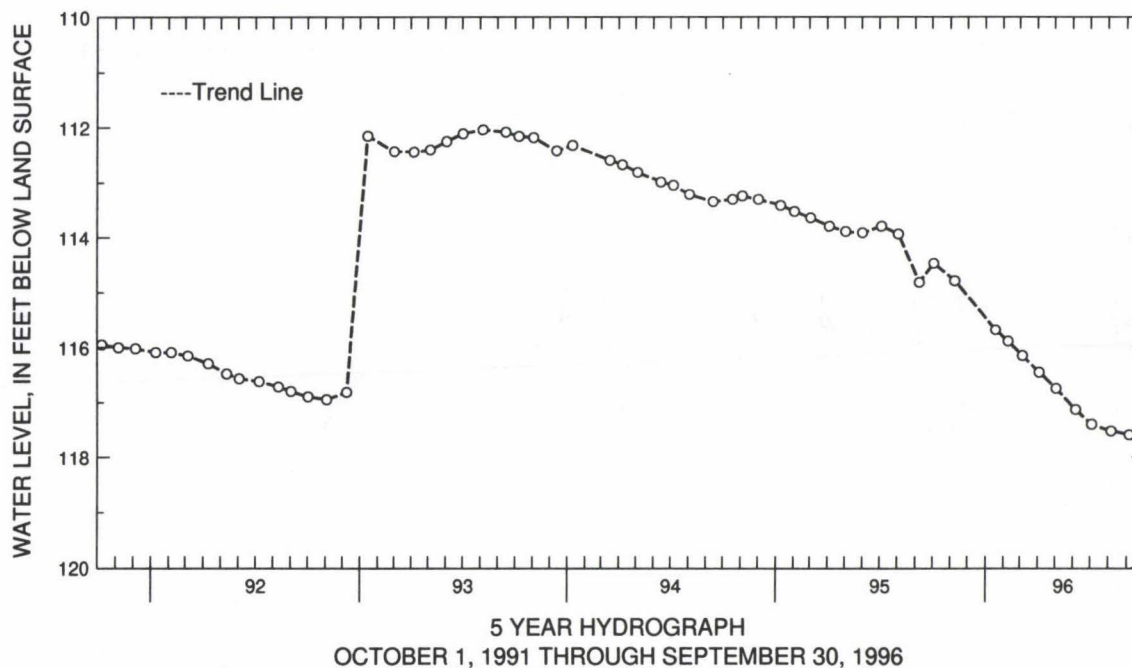
REMARKS.--Delaware Water-Level Network observation well.

PERIOD OF RECORD.--November 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 105.07 ft below land surface, April 20, 1982; lowest measured, 117.60 ft below land surface, Sept. 5, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	114.48	FEB 09, 1996	115.91	MAY 02, 1996	116.76	AUG 05, 1996	117.53
NOV 09	114.80	MAR 05	116.17	JUN 05	117.14	SEP 05	117.60
JAN 18, 1996	115.70	APR 03	116.47	JUL 03	117.41		
WATER YEAR 1996		HIGHEST 114.48	OCT 04, 1996	LOWEST 117.60	SEP 05, 1996		



GROUND-WATER LEVELS

DELAWARE--Continued

NEW CASTLE COUNTY--Continued

WELL NUMBER.--Hb14-01. SITE ID.--391949075410701.

LOCATION.--Lat 39°19'49", long 75°41'07", Hydrologic Unit 02040205, at Prices Corners.

Owner: Delaware Department of Transportation.

AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 1 in., to 16 ft; well point from 16 to 19 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape or electric sensing device by

U.S. Geological Survey and Delaware Geological Survey personnel.

DATUM.--Elevation of land surface is 72 ft above National Geodetic Vertical Datum of 1929, from topographic map.

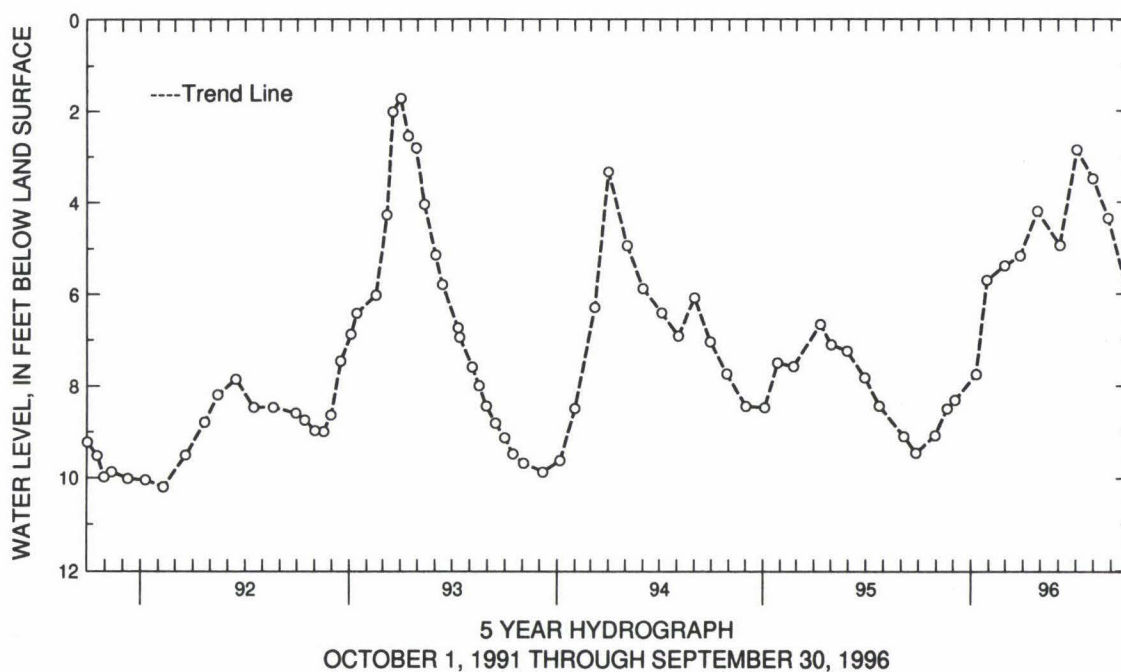
Measuring point: Top of casing at land surface.

PERIOD OF RECORD.--October 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.49 ft below land surface, April 7, 1958; lowest measured, 11.95 ft below land surface, Aug. 31, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	9.08	JAN 10, 1996	7.75	MAR 27, 1996	5.17	JUL 03, 1996	2.85
NOV 20	8.50	29	5.70	APR 26	4.20	31	3.48
DEC 04	8.31	FEB 29	5.39	JUN 04	4.94	AUG 27	4.35
WATER YEAR 1996		HIGHEST	2.85	JUL 03, 1996		LOWEST	9.08
				OCT 30, 1995			



GROUND-WATER LEVELS

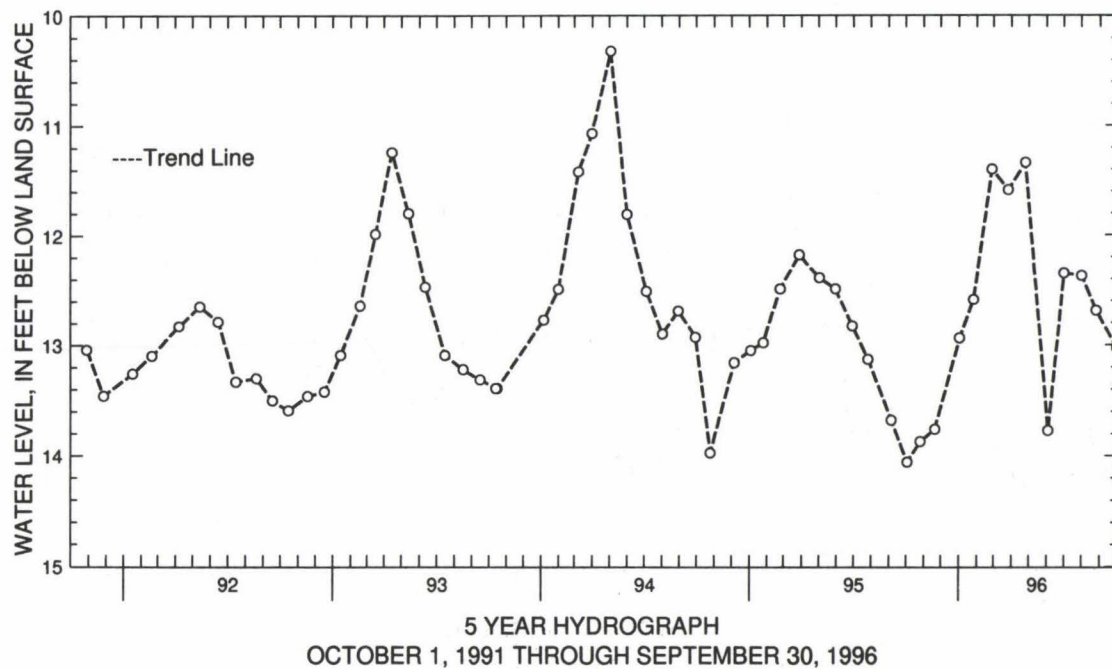
DELAWARE--Continued

SUSSEX COUNTY

WELL NUMBER.--Nc45-01. SITE ID.--384639075353101. PERMIT NUMBER.--10226.
 LOCATION.--Lat 38°46'39", long 75°35'31", Hydrologic Unit 02060008, 2.0 mi south of Greenwood.
 Owner: P. H. Cannon.
 AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Driven, observation, water-table well, depth 15 ft; casing diameter 1 in., to 14 ft; screened from 14 to 15 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.
 DATUM.--Elevation of land surface is 43 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 1.0 ft above land surface.
 REMARKS.--Delaware Water-Level Network observation well.
 PERIOD OF RECORD.--January 1956 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.82 ft below land surface, April 9, 1958; lowest measured, 14.66 ft below land surface, Dec. 11, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	14.06	JAN 26, 1996	12.59	JUN 03, 1996	13.77	SEP 30, 1996	13.03
26	13.87	FEB 27	11.40	JUL 01	12.35		
NOV 20	13.76	MAR 26	11.59	AUG 01	12.37		
JAN 02, 1996	12.94	APR 25	11.34	26	12.69		
WATER YEAR 1996		HIGHEST	11.34	APR 25, 1996	LOWEST	14.06	OCT 03, 1995



GROUND-WATER LEVELS

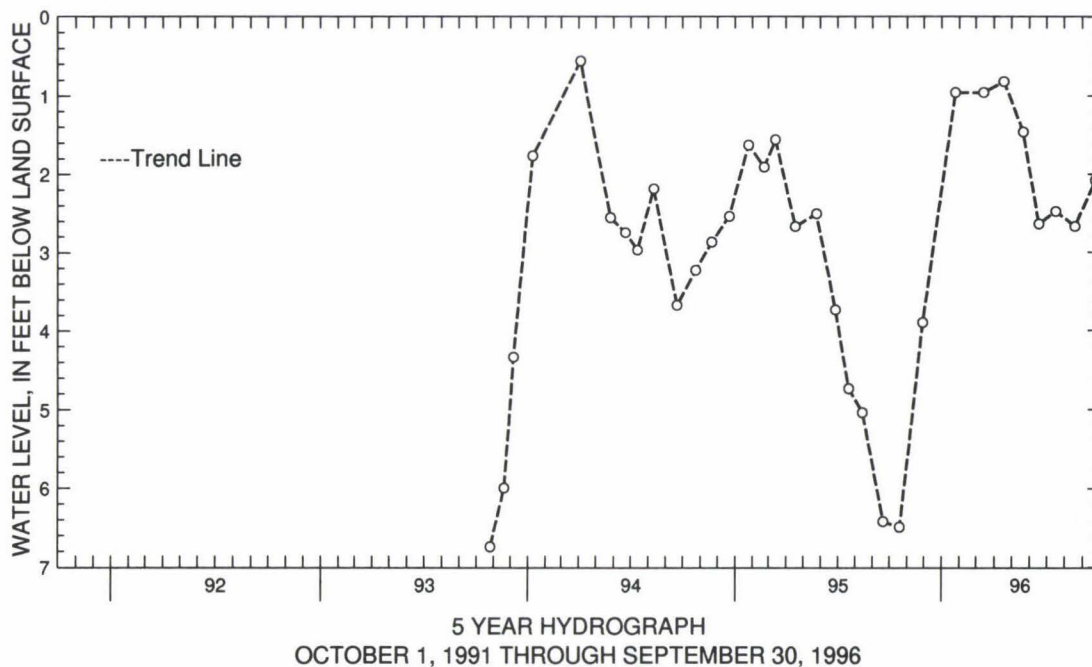
DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Nf51-02. SITE ID.--384504075242602. PERMIT NUMBER.--95733.
 LOCATION.--Lat 38°45'04", long 75°24'26", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 53 ft; casing diameter 2 in., to 50 ft; screen diameter 2 in. from 50 to 53 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 44.72 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 1.91 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.56 ft below land surface, April 4, 1994;
 lowest measured, 7.38 ft below land surface, Sept. 30, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	6.49	MAR 14, 1996	.96	JUN 17, 1996	2.64	SEP 24, 1996	2.08
NOV 28	3.90	APR 18	.82	JUL 17	2.48		
JAN 25, 1996	.96	MAY 21	1.46	AUG 19	2.67		
WATER YEAR 1996		HIGHEST .82 APR 18, 1996		LOWEST 6.49 OCT 19, 1995			



GROUND-WATER LEVELS

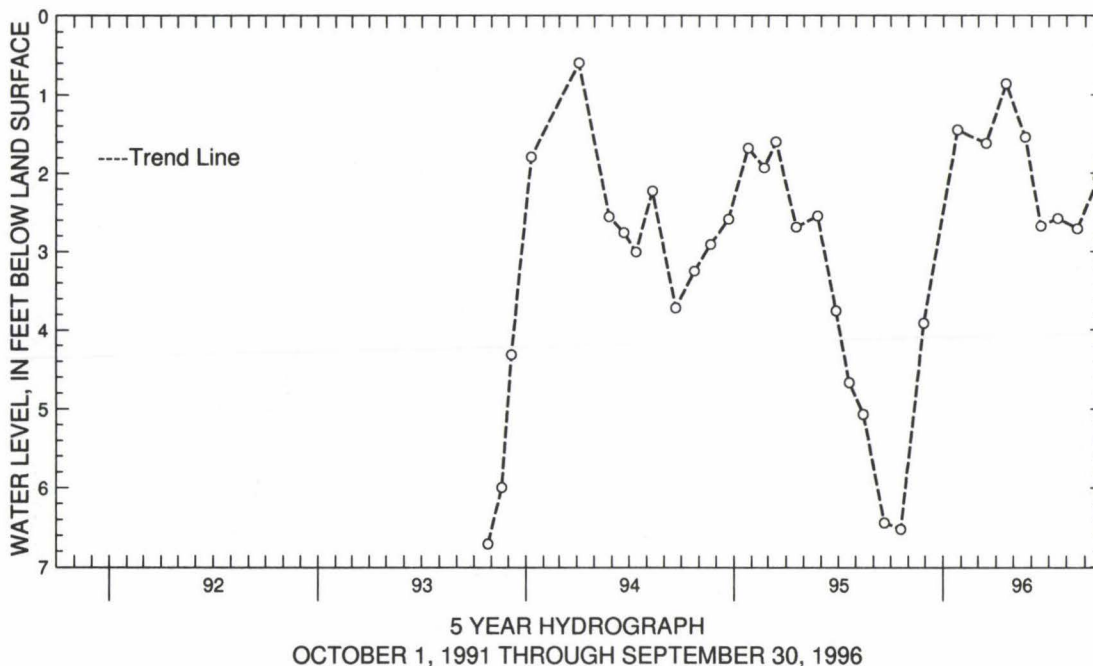
DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Nf51-03. SITE ID.--384504075242601. PERMIT NUMBER.--95750.
 LOCATION.--Lat 38°45'04", long 75°24'26", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 18 ft; casing diameter 2 in., to 15 ft; screen diameter 2 in. from 15 to 18 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 44.71 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.23 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.60 ft below land surface, April 4, 1994;
 lowest measured, 6.71 ft below land surface, Oct. 26, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	6.52	MAR 14, 1996	1.62	JUN 17, 1996	2.68	SEP 24, 1996	2.06
NOV 28	3.92	APR 18	.86	JUL 17	2.58		
JAN 25, 1996	1.45	MAY 21	1.54	AUG 19	2.71		
WATER YEAR 1996		HIGHEST	.86	APR 18, 1996		LOWEST	6.52
							OCT 19, 1995



GROUND-WATER LEVELS

DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Nf51-04. SITE ID.--384504075242603. PERMIT NUMBER.--95747.

LOCATION.--Lat 38°45'04", long 75°24'26", Hydrologic Unit 02040207, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 80 ft; casing diameter 2 in., to 77 ft; screen diameter 2 in. from 77 to 80 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 44.52 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of metal sleeve, 2.3 ft above land surface.

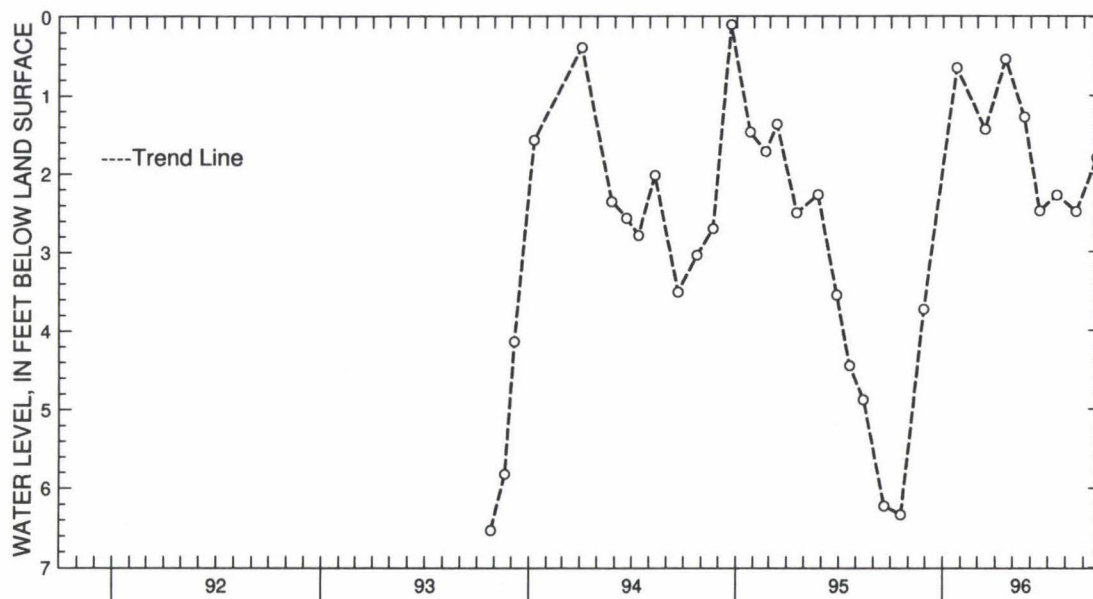
REMARKS.--Delaware Department of Transportation Project observation well.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.10 ft below land surface, Dec. 22, 1994;
lowest measured, 6.53 ft below land surface, Oct. 26, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	6.33	MAR 14, 1996	1.44	JUN 17, 1996	2.48	SEP 24, 1996	1.80
NOV 28	3.73	APR 18	.54	JUL 17	2.28		
JAN 25, 1996	.65	MAY 21	1.28	AUG 19	2.49		
WATER YEAR 1996		HIGHEST	.54 APR 18, 1996	LOWEST		6.33 OCT 19, 1995	



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

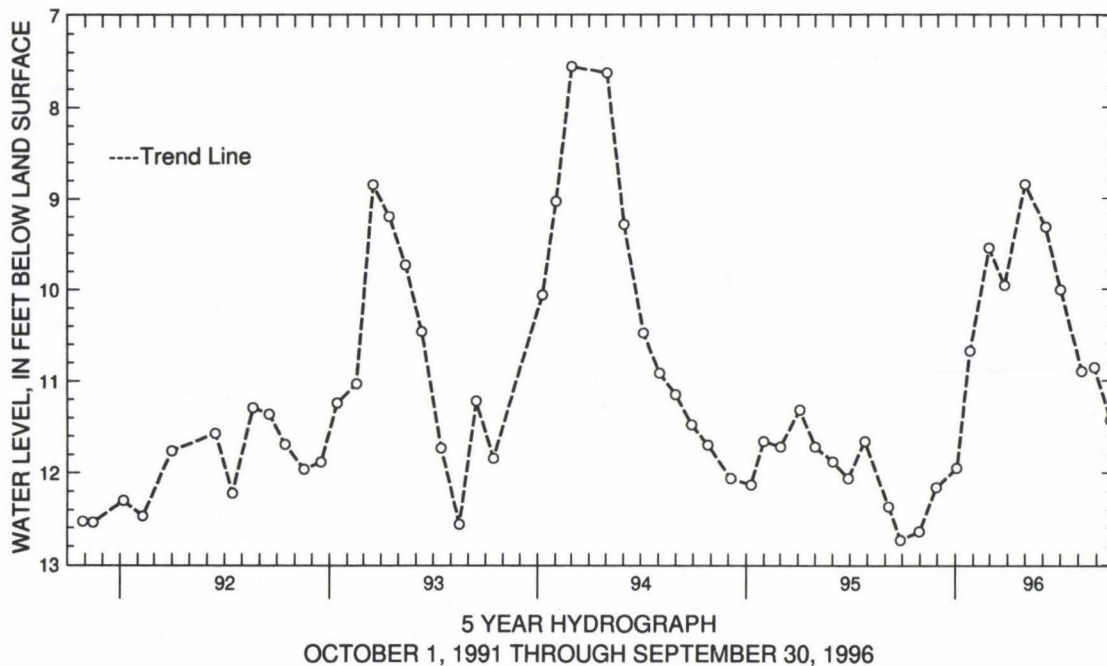
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Ng11-01. SITE ID.--384955075192801. PERMIT NUMBER.--10227.
 LOCATION.--Lat 38°49'55", long 75°19'28", Hydrologic Unit 02040207, 1.2 mi east of Jefferson Crossroads.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 1 in., to 16 ft; well point from 16 to 19 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.
 DATUM.--Elevation of land surface is 24 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing at land surface.
 PERIOD OF RECORD.--September 1959 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.91 ft below land surface, April 10, 1984; lowest measured, 14.64 ft below land surface, Jan. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	12.64	JAN 26, 1996	10.68	APR 30, 1996	8.85	AUG 06, 1996	10.90
NOV 29	12.16	FEB 28	9.55	JUN 05	9.32	28	10.86
JAN 03, 1996	11.95	MAR 26	9.96	JUL 01	10.01	SEP 25	11.43
WATER YEAR 1996		HIGHEST	8.85	APR 30, 1996		LOWEST	12.64
							OCT 31, 1995



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Ni52-11. SITE ID.--384558075083501. PERMIT NUMBER.--057363.

LOCATION.--Lat 38°45'58", long 75°08'35", Hydrologic Unit 02040207, in Lewes Library Park, nr railroad tracks.
Owner: Town of Lewes.

AQUIFER.--Pocomoke aquifer of Upper Miocene-Pliocene age. Aquifer code: 122PCMK.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 155 ft; casing diameter 4 in., to 145 ft; screened from 145 to 155 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

Intermittent measurements from May 1985 to July 1987. Twice yearly measurements February 1988 to January 1992.

Equipped with digital water-level recorder--60-minute recorder interval from 1985 to current year.

DATUM.--Elevation of land surface is 16 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 0.5 ft above land surface.

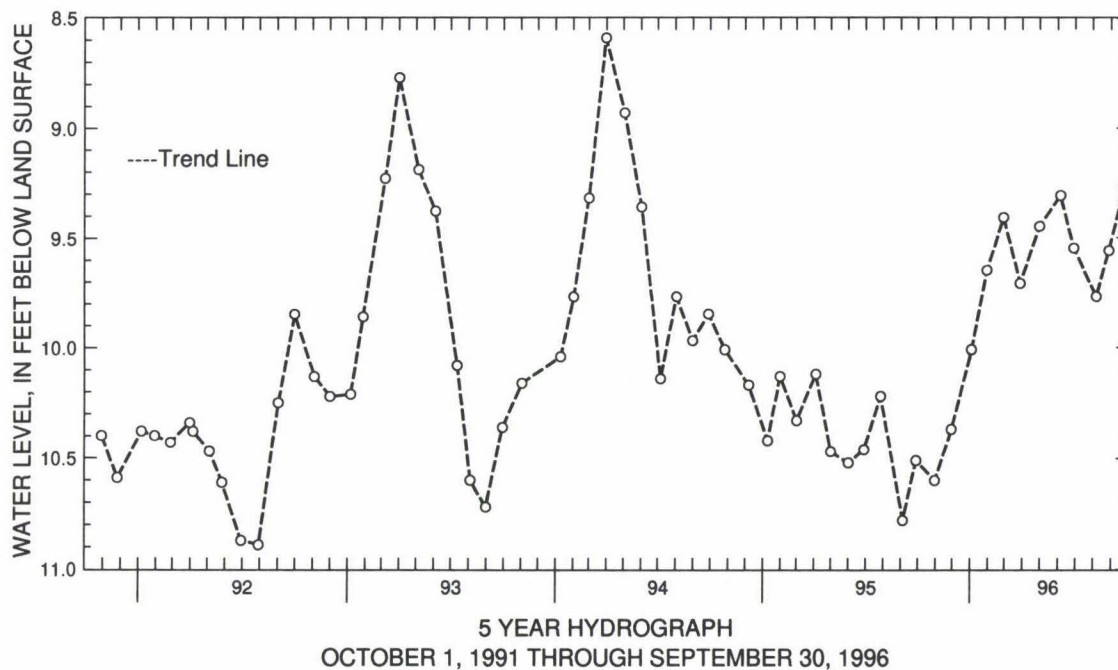
REMARKS.--Delaware Water-Level Network observation well.

PERIOD OF RECORD.-- May 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.59 ft below land surface, March 31, 1994;
lowest measured, 11.47 ft below land surface, Nov. 10, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	10.60	JAN 30, 1996	9.65	APR 30, 1996	9.45	AUG 06, 1996	9.77
NOV 29	10.37	FEB 28	9.41	JUN 05	9.31	28	9.56
JAN 03, 1996	10.01	MAR 28	9.71	28	9.55	SEP 25	9.26
WATER YEAR 1996		HIGHEST	9.26	SEP 25, 1996		LOWEST	10.60
							OCT 31, 1995



GROUND-WATER LEVELS

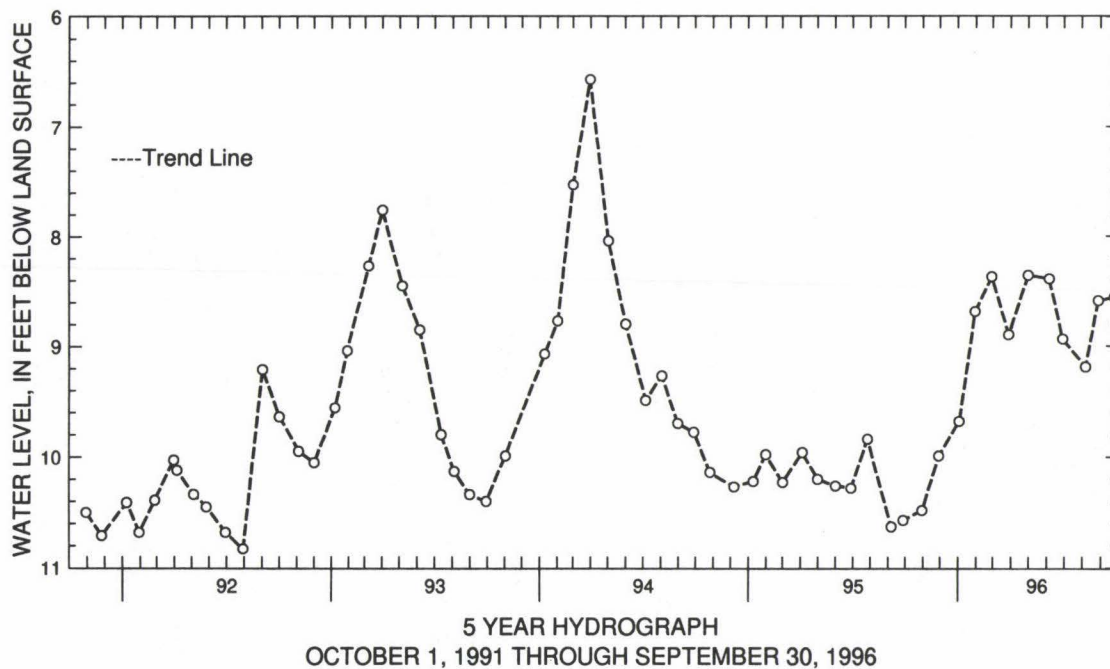
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Ni52-12. SITE ID.--384558075083502. PERMIT NUMBER.--057365.
 LOCATION.--Lat 38°45'58", long 75°08'35", Hydrologic Unit 02040207, in Lewes Library Park, nr railroad tracks.
 Owner: Town of Lewes.
 AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 80 ft; casing diameter 2 in., to 70 ft; screened from 70 to 80 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel. Intermittent measurements from July 1986 to July 1987. Twice yearly measurements from February 1988 to January 1992. Measurements from 1986 to 1992 taken by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 16 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of 6 in. casing.
 REMARKS.--Delaware Water-Level Network observation well.
 PERIOD OF RECORD.--July 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.57 ft below land surface, March 31, 1994; lowest measured, 11.70 ft below land surface, Nov. 20, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	10.48	JAN 30, 1996	8.69	APR 30, 1996	8.36	AUG 06, 1996	9.19
NOV 29	9.99	FEB 28	8.37	JUN 05	8.39	28	8.59
JAN 03, 1996	9.68	MAR 28	8.90	28	8.94	SEP 25	8.56
WATER YEAR 1996		HIGHEST	8.36	APR 30, 1996	LOWEST	10.48	OCT 31, 1995



GROUND-WATER LEVELS

DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of12-03. SITE ID.--384418075231102. PERMIT NUMBER.--97464.

LOCATION.--Lat 38°44'18", long 75°23'11", Hydrologic Unit 02040207, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 35 ft; casing diameter 2 in., to 32 ft; screen diameter 2 in. from 32 to 35 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 49.09 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of metal sleeve, 2.36 ft above land surface.

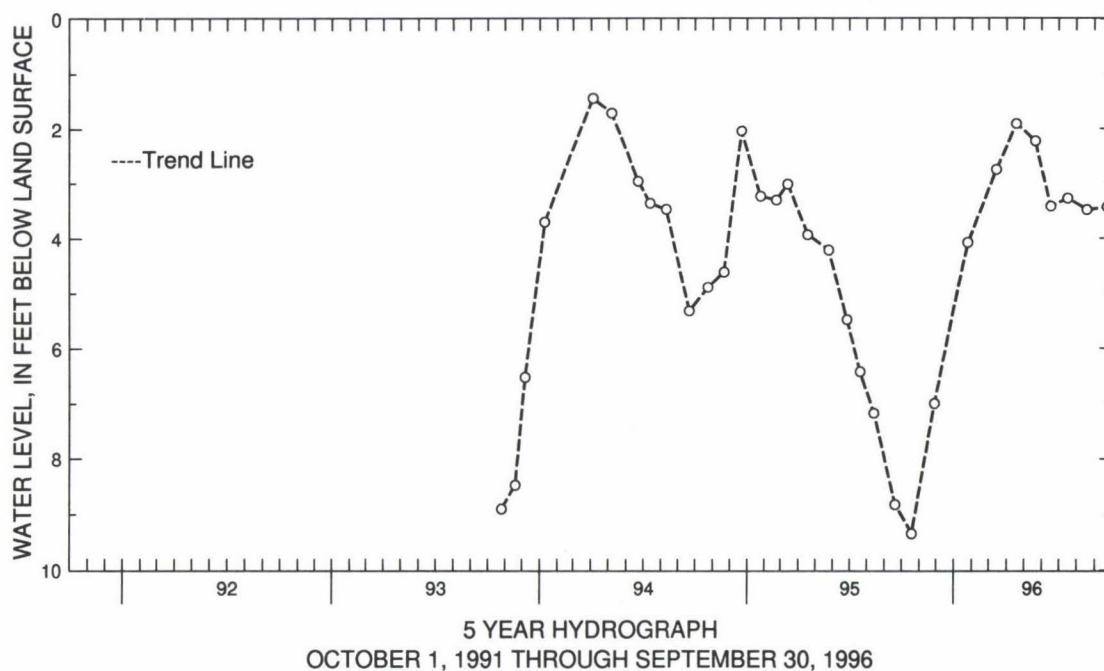
REMARKS.--Delaware Department of Transportation Project observation well.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.44 ft below land surface, April 4, 1994
lowest measured, 9.34 ft below land surface, Oct. 13, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	9.34	MAR 14, 1996	2.75	JUN 17, 1996	3.42	SEP 24, 1996	3.43
NOV 28	6.99	APR 18	1.91	JUL 17	3.27		
JAN 25, 1996	4.08	MAY 21	2.23	AUG 19	3.48		
WATER YEAR 1996		HIGHEST	1.91	APR 18, 1996		LOWEST	9.34
							OCT 19, 1995



GROUND-WATER LEVELS

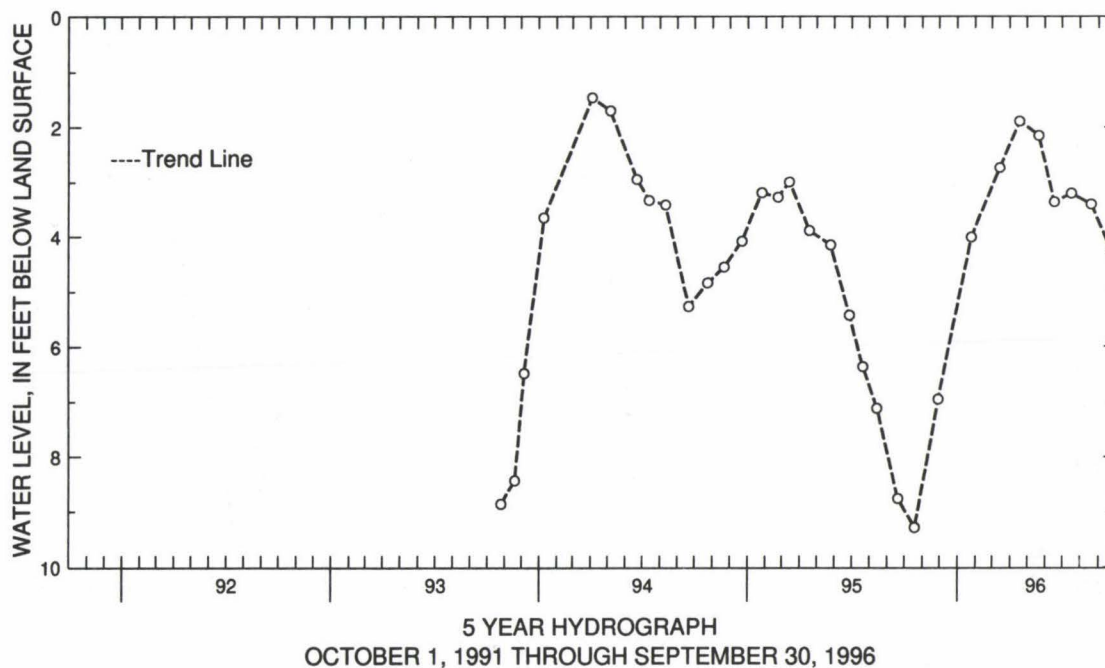
DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of12-04. SITE ID.--384418075231103. PERMIT NUMBER.--97467.
 LOCATION.--Lat 38°44'18", long 75°23'11", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 77 ft; casing diameter 2 in., to 74 ft; screen diameter 2 in. from 74 to 77 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 48.98 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.32 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.46 ft below land surface, April 4, 1994;
 lowest measured, 9.28 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	9.28	MAR 14, 1996	2.74	JUN 17, 1996	3.37	SEP 24, 1996	4.31
NOV 28	6.96	APR 18	1.89	JUL 17	3.21		
JAN 25, 1996	4.01	MAY 21	2.15	AUG 19	3.41		
WATER YEAR 1996		HIGHEST 1.89 APR 18, 1996		LOWEST 9.28 OCT 19, 1995			



GROUND-WATER LEVELS

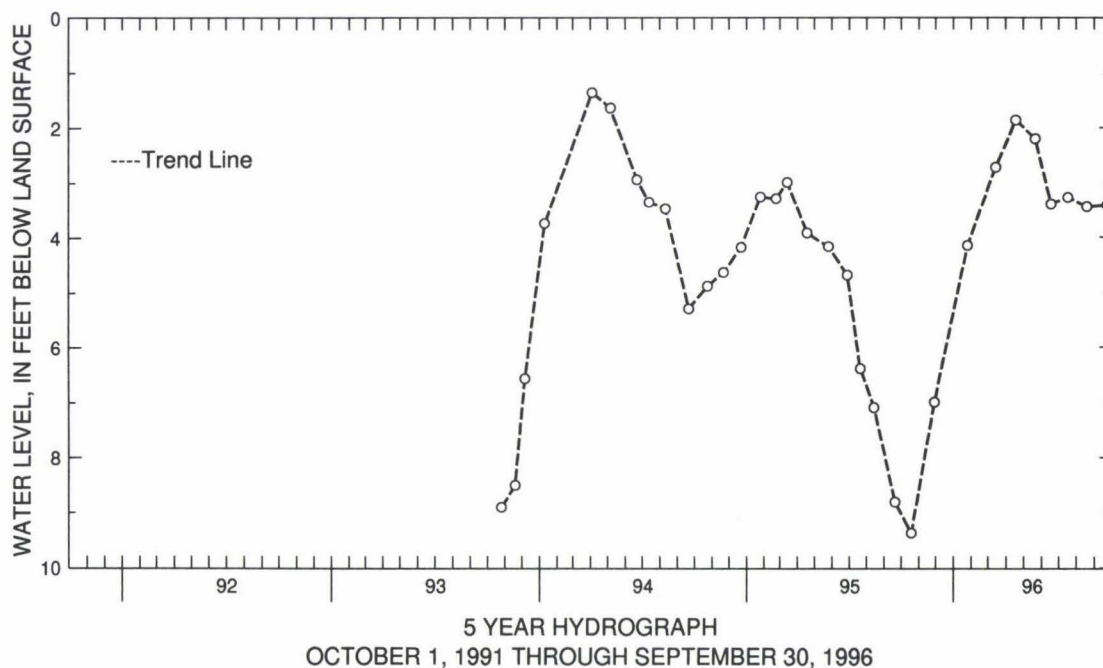
DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of12-05. SITE ID.--384418075231101. PERMIT NUMBER.--97471.
 LOCATION.--Lat 38°44'18", long 75°23'11", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 13 ft; casing diameter 2 in., to 10 ft;
 screen diameter 2 in. from 10 to 13 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 49.13 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.4 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.36 ft below land surface, April 4, 1994;
 lowest measured, 9.37 ft below land surface, Oct. 19, 1995

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	9.37	MAR 14, 1996	2.72	JUN 17, 1996	3.39	SEP 24, 1996	3.41
NOV 28	7.00	APR 18	1.86	JUL 17	3.27		
JAN 25, 1996	4.15	MAY 21	2.20	AUG 19	3.44		
WATER YEAR 1996		HIGHEST	1.86	APR 18, 1996	LOWEST	9.37	OCT 19, 1995



GROUND-WATER LEVELS

DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of12-06. SITE ID.--384433075234901. PERMIT NUMBER.--97472.

LOCATION.--Lat 38°44'33", long 75°23'49", Hydrologic Unit 02040207, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 47.50 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of metal sleeve, 2.24 ft above land surface.

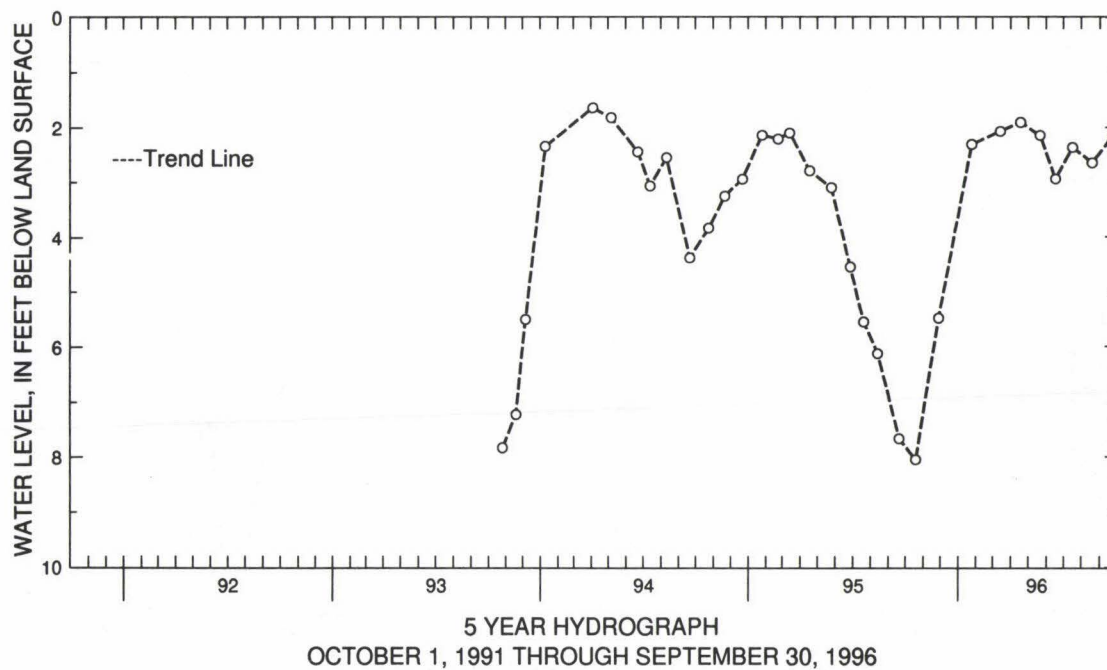
REMARKS.--Delaware Department of Transportation Project observation well.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.64 ft below land surface, April 4, 1994;
lowest measured, 8.05 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	8.05	MAR 14, 1996	2.07	JUN 17, 1996	2.94	SEP 24, 1996	2.14
NOV 28	5.48	APR 18	1.91	JUL 17	2.37		
JAN 25, 1996	2.31	MAY 21	2.15	AUG 19	2.65		
WATER YEAR 1996		HIGHEST	1.91	APR 18, 1996	LOWEST	8.05	OCT 19, 1995



GROUND-WATER LEVELS

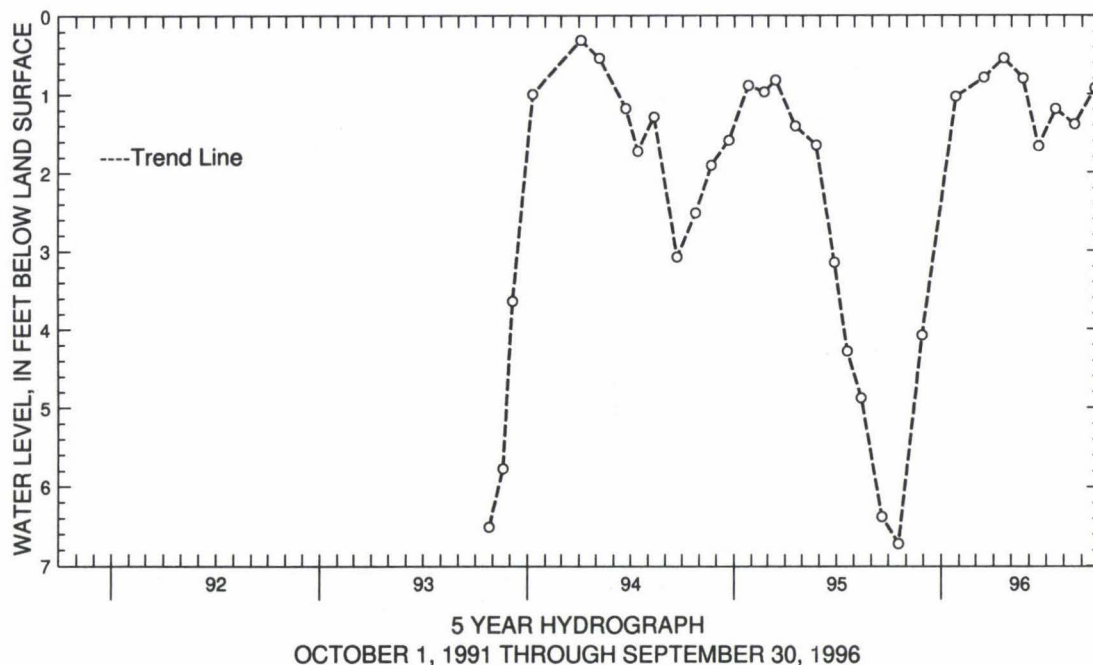
DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of12-07. SITE ID.--384435075234901. PERMIT NUMBER.--95736.
 LOCATION.--Lat 38°44'35", long 75°23'49", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 46.13 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.27 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.31 ft below land surface, April 4, 1994;
 lowest measured, 6.72 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	6.72	MAR 14, 1996	.79	JUN 17, 1996	1.67	SEP 24, 1996	.92
NOV 28	4.08	APR 18	.54	JUL 17	1.19		
JAN 25, 1996	1.03	MAY 21	.80	AUG 19	1.39		
WATER YEAR 1996		HIGHEST	.54	APR 18, 1996		LOWEST	6.72
							OCT 19, 1995



GROUND-WATER LEVELS

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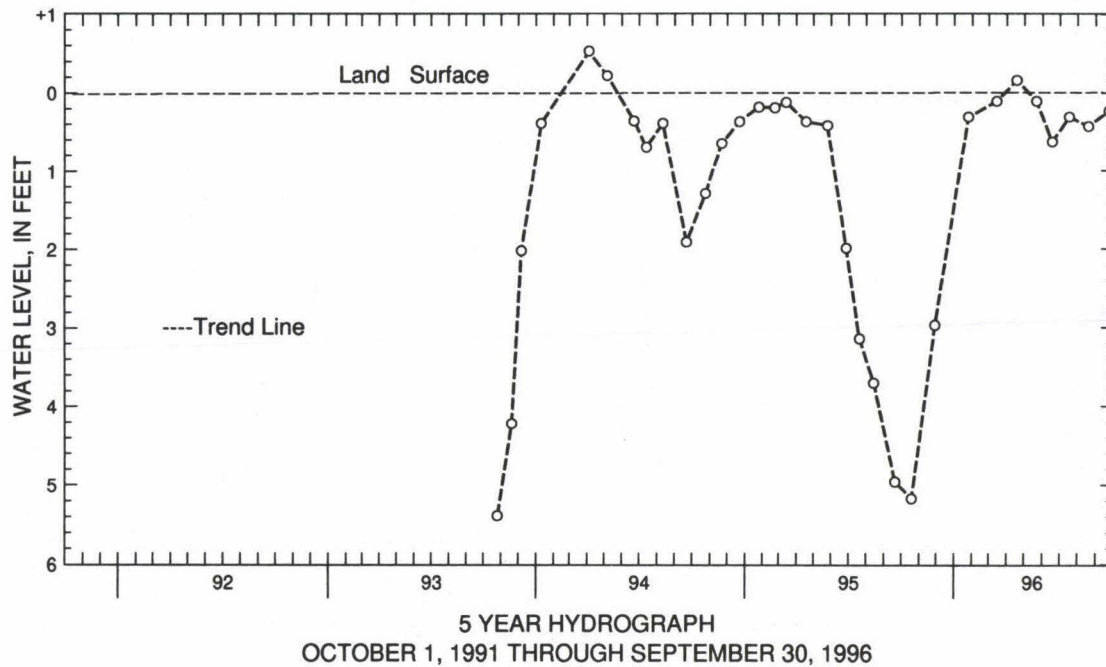
DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of12-08. SITE ID.--384436075234701. PERMIT NUMBER.--95734.
 LOCATION.--Lat 38°44'36", long 75°23'47", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 13 ft; casing diameter 2 in., to 10 ft; screen diameter 2 in. from 10 to 13 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 45.08 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.01 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.53 ft above land surface, April 4, 1994; lowest measured, 5.39 ft below land surface, Oct. 26, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	5.17	MAR 14, 1996	.11	JUN 17, 1996	.63	SEP 24, 1996	.23
NOV 28	2.97	APR 18	+.16	JUL 17	.31		
JAN 25, 1996	.31	MAY 21	.11	AUG 19	.43		
WATER YEAR 1996		HIGHEST	+.16	APR 18, 1996	LOWEST	5.17	OCT 19, 1995



GROUND-WATER LEVELS

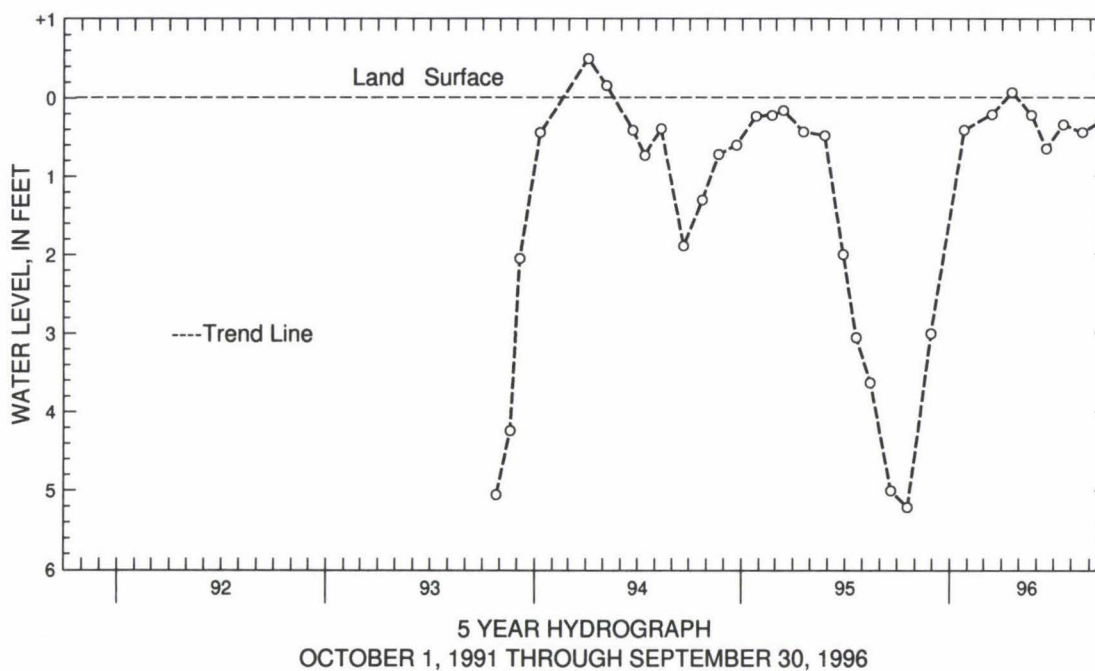
DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of12-09. SITE ID.--384436075234801. PERMIT NUMBER.--95751.
 LOCATION.--Lat 38°44'36", long 75°23'48", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 13 ft; casing diameter 2 in., to 10 ft; screen diameter 2 in. from 10 to 13 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 45.13 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.34 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.50 ft above land surface, April 4, 1994;
 lowest measured, 5.21 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	5.21	MAR 14, 1996	.21	JUN 17, 1996	.65	SEP 24, 1996	.28
NOV 28	3.01	APR 18	+.07	JUL 17	.34		
JAN 25, 1996	.41	MAY 22	.22	AUG 19	.44		
WATER YEAR 1996		HIGHEST	+.07	APR 18, 1996	LOWEST	5.21	OCT 19, 1995



GROUND-WATER LEVELS

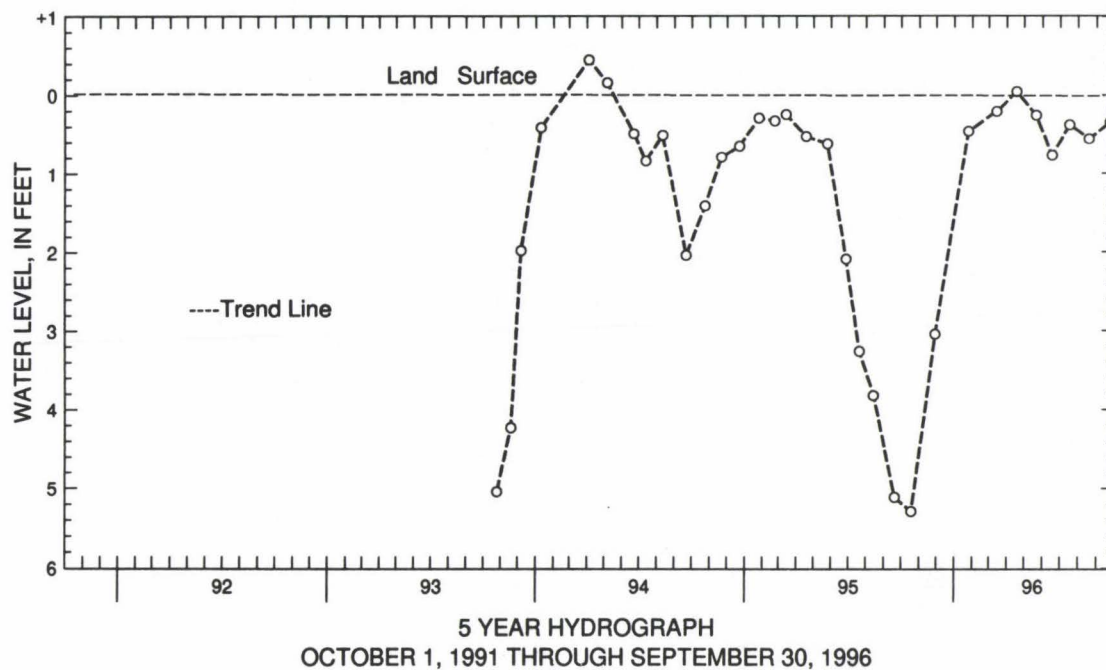
DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of12-10. SITE ID.--384437075234501. PERMIT NUMBER.--95735.
 LOCATION.--Lat 38°44'37", long 75°23'45", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 15 ft; casing diameter 2 in., to 12 ft; screen diameter 2 in. from 12 to 15 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 45.07 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.31 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.45 ft above land surface, April 4, 1994;
 lowest measured, 5.29 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	5.29	MAR 14, 1996	.21	JUN 17, 1996	.77	SEP 24, 1996	.35
NOV 28	3.05	APR 18	+.04	JUL 17	.38		
JAN 25, 1996	.46	MAY 21	.26	AUG 19	.56		
WATER YEAR 1996		HIGHEST	+.04	APR 18, 1996	LOWEST	5.29	OCT 19, 1995



GROUND-WATER LEVELS

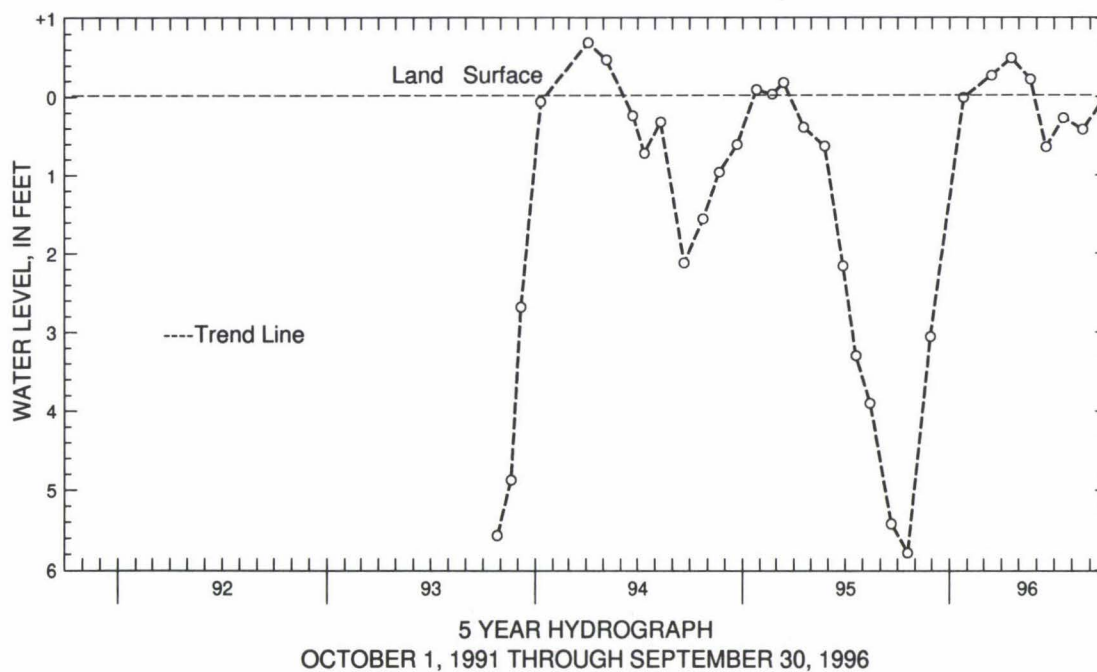
DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of12-11. SITE ID.--384437075234502. PERMIT NUMBER.--95748.
 LOCATION.--Lat 38°44'37", long 75°23'45", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 73 ft; casing diameter 2 in., to 70 ft; screen diameter 2 in. from 70 to 73 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 45.11 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.07 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.69 ft above land surface, April 4, 1994;
 lowest measured, 5.78 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	5.78	MAR 14, 1996	+0.27	JUN 17, 1996	.64	SEP 24, 1996	.04
NOV 28	3.06	APR 18	+0.49	JUL 17	.27		
JAN 25, 1996	.01	MAY 21	+0.22	AUG 19	.42		
WATER YEAR 1996		HIGHEST	+0.49 APR 18, 1996	LOWEST		5.78 OCT 19, 1995	



GROUND-WATER LEVELS

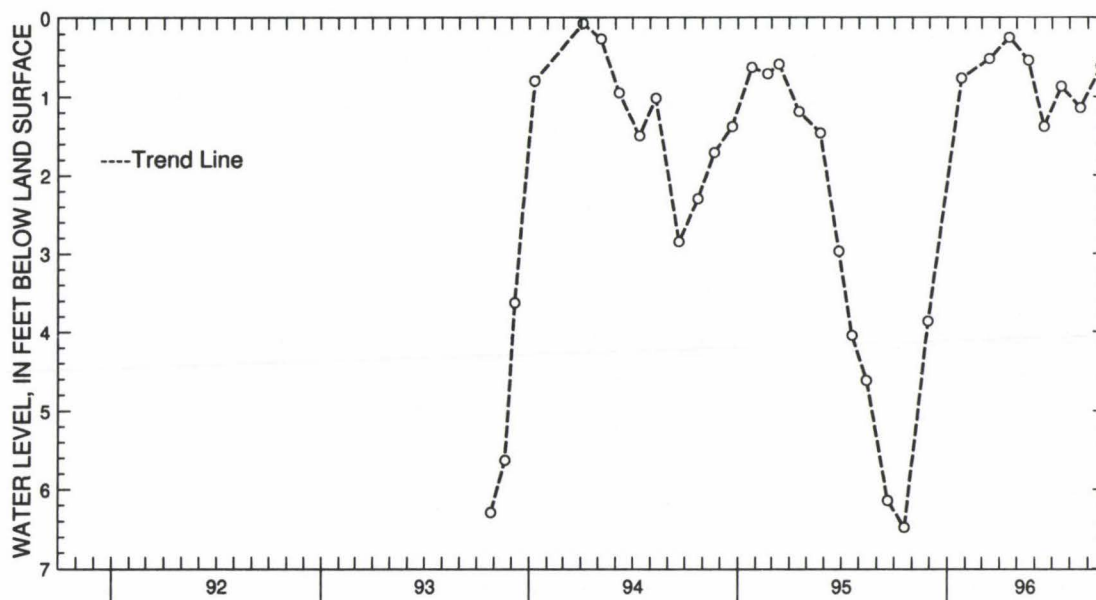
DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of12-12. SITE ID.--384438075234802. PERMIT NUMBER.--97465.
 LOCATION.--Lat 38°44'38", long 75°23'48", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 59 ft; casing diameter 2 in., to 56 ft; screen diameter 2 in. from 56 to 59 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 45.89 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.5 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.07 ft below land surface, April 4, 1994;
 lowest measured, 6.48 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	6.48	MAR 14, 1996	.52	JUN 17, 1996	1.38	SEP 24, 1996	.61
NOV 28	3.87	APR 18	.25	JUL 17	.87		
JAN 25, 1996	.77	MAY 21	.54	AUG 19	1.14		
WATER YEAR 1996		HIGHEST	.25	APR 18, 1996		LOWEST	6.48
							OCT 19, 1995



5 YEAR HYDROGRAPH
 OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of12-13. SITE ID.--384438075234801. PERMIT NUMBER.--07473.
 LOCATION.--Lat 38°44'38", long 75°23'48", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 17 ft; casing diameter 2 in., to 14 ft;
 screen diameter 2 in. from 14 to 17 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey.
 Equipped with digital level recorder--60-minute recorder interval from Dec. 7, 1993, to current year.
 DATUM.--Altitude of land surface is 46.36 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 2.58 ft above land surface.
 REMARKS.--Delaware Department of Transportation Wetlands Project observation well.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.06 ft below land surface, March 3, 1994;
 lowest measured, 6.90 ft below land surface, Oct. 19, 1995.

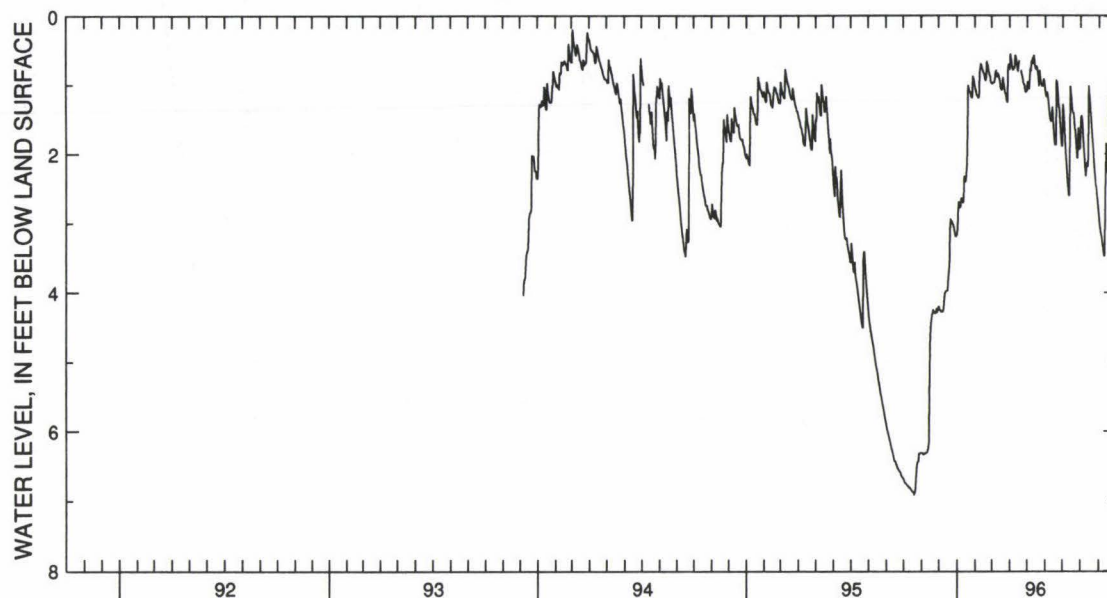
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.69	6.67	6.31	6.31	4.20	4.13	3.17	3.09	1.06	1.01	.99	.98
2	6.71	6.69	6.31	6.30	4.25	4.16	3.09	2.79	1.08	1.06	.99	.96
3	6.73	6.71	6.31	6.30	4.25	4.20	2.79	2.61	1.12	1.08	.97	.94
4	6.74	6.73	6.33	6.31	4.27	4.20	2.69	2.61	1.16	1.12	.97	.96
5	6.74	6.74	6.33	6.32	4.28	4.25	2.74	2.69	1.17	1.16	.97	.92
6	6.76	6.74	6.32	6.32	4.27	4.24	2.77	2.74	1.18	1.17	.92	.81
7	6.77	6.76	6.32	6.28	4.26	4.23	2.76	2.56	1.19	1.18	.81	.66
8	6.78	6.77	6.31	6.28	4.27	4.24	2.64	2.55	1.18	.83	.80	.66
9	6.79	6.78	6.31	6.31	4.24	4.10	2.64	2.60	.83	.75	.85	.80
10	6.79	6.79	6.31	6.30	4.10	4.01	2.69	2.60	.75	.70	.88	.85
11	6.81	6.79	6.30	6.22	4.01	3.99	2.70	2.68	.70	.63	.88	.85
12	6.81	6.81	6.27	6.24	3.99	3.98	2.68	2.31	.71	.63	.85	.84
13	6.82	6.81	6.24	6.16	3.98	3.97	2.32	2.30	.77	.71	.87	.84
14	6.83	6.82	6.16	5.42	3.97	3.93	2.35	2.32	.78	.77	.92	.87
15	6.85	6.83	5.42	4.76	3.97	3.93	2.40	2.33	.82	.78	.94	.92
16	6.86	6.85	4.76	4.52	3.97	3.80	2.39	2.27	.83	.82	1.06	.94
17	6.87	6.86	4.52	4.42	3.80	3.69	2.27	2.14	.87	.83	1.07	1.05
18	6.87	6.87	4.42	4.33	3.69	3.62	2.14	1.69	.93	.87	1.08	1.06
19	6.90	6.87	4.33	4.31	3.62	3.08	1.69	.90	.94	.91	1.07	.85
20	6.88	6.88	4.31	4.26	3.08	2.95	1.01	.96	.91	.66	.89	.85
21	6.88	6.82	4.26	4.23	2.95	2.91	1.06	1.01	.66	.63	.97	.89
22	6.82	6.65	4.28	4.26	2.96	2.93	1.10	1.06	.71	.65	1.02	.97
23	6.65	6.53	4.28	4.26	2.97	2.96	1.11	1.10	.71	.69	1.10	1.02
24	6.53	6.45	4.30	4.27	3.00	2.97	1.11	1.02	.77	.69	1.13	1.10
25	6.45	6.44	4.30	4.28	3.01	3.00	1.17	1.08	.82	.77	1.15	1.13
26	6.44	6.43	4.28	4.25	3.04	3.01	1.19	1.17	.86	.82	1.22	1.14
27	6.43	6.32	4.25	4.23	3.09	3.04	1.19	.78	.87	.86	1.26	1.22
28	6.32	6.31	4.28	4.24	3.14	3.09	.87	.79	.96	.87	1.26	.77
29	6.32	6.31	4.26	4.23	3.18	3.14	.91	.87	.98	.96	.77	.59
30	6.31	6.31	4.23	4.20	3.19	3.18	.94	.91	---	---	.70	.62
31	6.31	6.31	---	---	3.18	3.17	1.01	.94	---	---	.76	.70
MONTH	6.90	6.31	6.33	4.20	4.28	2.91	3.17	.78	1.19	.63	1.26	.59

GROUND-WATER LEVELS
DELAWARE-Continued
SUSSEX COUNTY--Continued
Of12-13--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	.78	.44	.96	.89	1.11	1.03	1.29	1.19	1.47	1.24	2.92	2.83
2	.55	.44	1.02	.96	1.17	1.11	1.37	1.29	1.46	1.24	3.01	2.92
3	.61	.55	1.04	1.00	1.17	.99	1.51	1.37	1.51	1.46	3.07	3.01
4	.68	.61	1.07	.90	1.11	.99	1.68	1.51	1.67	1.51	3.12	3.06
5	.76	.68	.90	.69	1.17	1.09	1.89	1.68	1.84	1.67	3.17	3.12
6	.78	.76	.76	.66	1.25	1.17	2.03	1.88	1.98	1.84	3.20	3.17
7	.78	.69	.80	.63	1.32	1.25	2.15	2.03	2.11	1.98	3.28	3.20
8	.75	.69	.66	.61	1.42	1.32	2.27	2.15	2.23	2.11	3.34	3.28
9	.75	.57	.66	.51	1.50	1.42	2.40	2.27	2.32	2.17	3.41	3.34
10	.57	.46	.61	.54	1.52	1.48	2.50	2.38	2.17	1.75	3.47	3.41
11	.59	.48	.70	.45	1.54	1.22	2.60	2.50	2.13	1.89	3.47	2.34
12	.66	.59	.57	.45	1.41	1.22	2.60	1.80	2.19	2.07	2.34	1.75
13	.70	.66	.65	.57	1.33	1.18	1.80	.85	2.07	.88	1.85	1.74
14	.79	.70	.73	.65	1.49	1.33	1.03	.87	1.02	.89	2.07	1.85
15	.80	.72	.77	.73	1.65	1.49	1.13	1.03	1.14	1.02	2.25	2.07
16	.72	.50	.77	.65	1.78	1.65	1.22	1.10	1.24	1.14	2.28	1.74
17	.65	.56	.73	.66	1.87	1.78	1.36	1.22	1.33	1.24	1.74	.99
18	---	---	.78	.73	1.87	1.83	1.41	1.36	1.46	1.33	1.18	1.03
19	---	---	.85	.78	1.87	.80	1.41	1.17	1.60	1.46	1.34	1.18
20	.79	.76	.93	.85	.95	.83	1.47	1.22	1.74	1.60	1.48	1.34
21	.84	.79	1.03	.69	.96	.83	1.64	1.47	1.85	1.74	1.59	1.48
22	.87	.84	.79	.66	1.08	.96	1.67	1.64	1.99	1.85	1.59	.82
23	.91	.87	.89	.79	1.25	1.08	1.79	1.67	2.13	1.99	.99	.85
24	.98	.91	.96	.89	1.34	1.18	1.93	1.79	2.24	2.12	1.07	.99
25	1.00	.95	1.00	.96	1.34	1.17	2.06	1.93	2.33	2.24	1.19	1.05
26	1.01	.96	1.02	1.00	1.50	1.34	2.06	1.29	2.44	2.33	1.27	1.19
27	1.10	1.01	1.02	1.02	1.63	1.50	1.63	1.39	2.49	2.44	1.33	1.27
28	1.11	1.08	1.02	.92	1.78	1.63	1.79	1.63	2.58	2.49	1.40	1.05
29	1.10	1.04	.92	.80	1.89	1.78	1.93	1.79	2.65	2.58	1.05	.80
30	1.10	.89	.94	.80	1.89	1.19	1.93	1.67	2.75	2.65	.99	.86
31	---	---	1.03	.94	---	---	1.79	1.47	2.83	2.75	---	---
MONTH	1.11	.44	1.07	.45	1.89	.80	2.60	.85	2.83	.88	3.47	.80
YEAR	6.90	.44										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of12-14. SITE ID.--384438075234803. PERMIT NUMBER.--97468.

LOCATION.--Lat 38°44'38", long 75°23'48", Hydrologic Unit 02060008, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 80 ft; casing diameter 2 in., to 77 ft; screen diameter 2 in. from 77 to 80 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 45.94 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of metal sleeve, 2.56 ft above land surface.

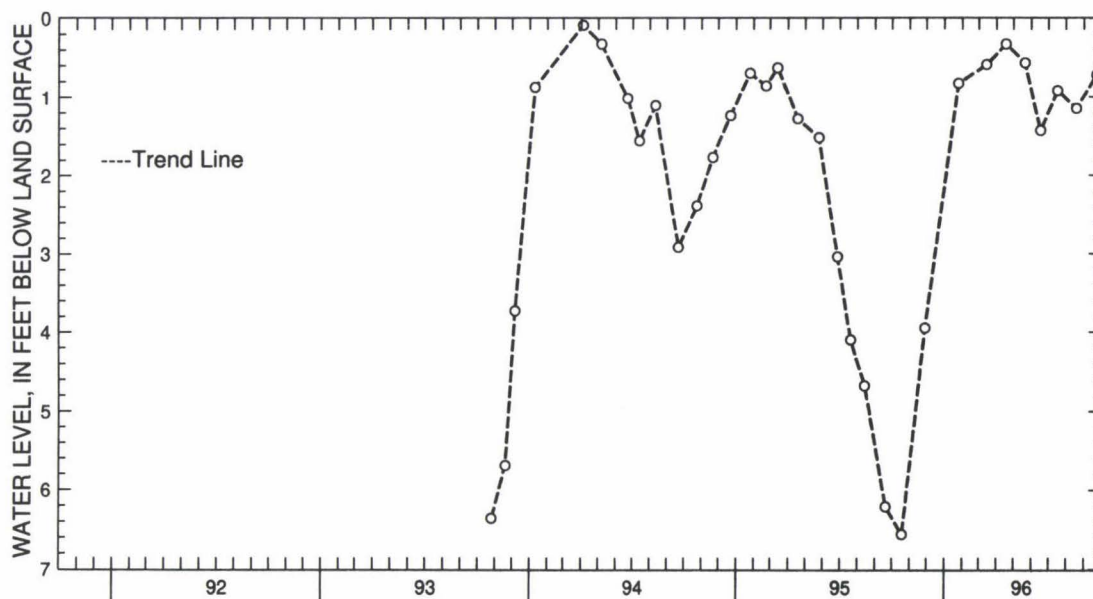
REMARKS.--Delaware Department of Transportation Project observation well.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.09 ft below land surface, April 4, 1994;
lowest measured, 6.56 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	6.56	MAR 14, 1996	.59	JUN 17, 1996	1.43	SEP 24, 1996	.72
NOV 28	3.95	APR 18	.33	JUL 17	.92		
JAN 25, 1996	.83	MAY 21	.57	AUG 19	1.15		
WATER YEAR 1996		HIGHEST	.33	APR 18, 1996		LOWEST	6.56 OCT 19, 1995



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

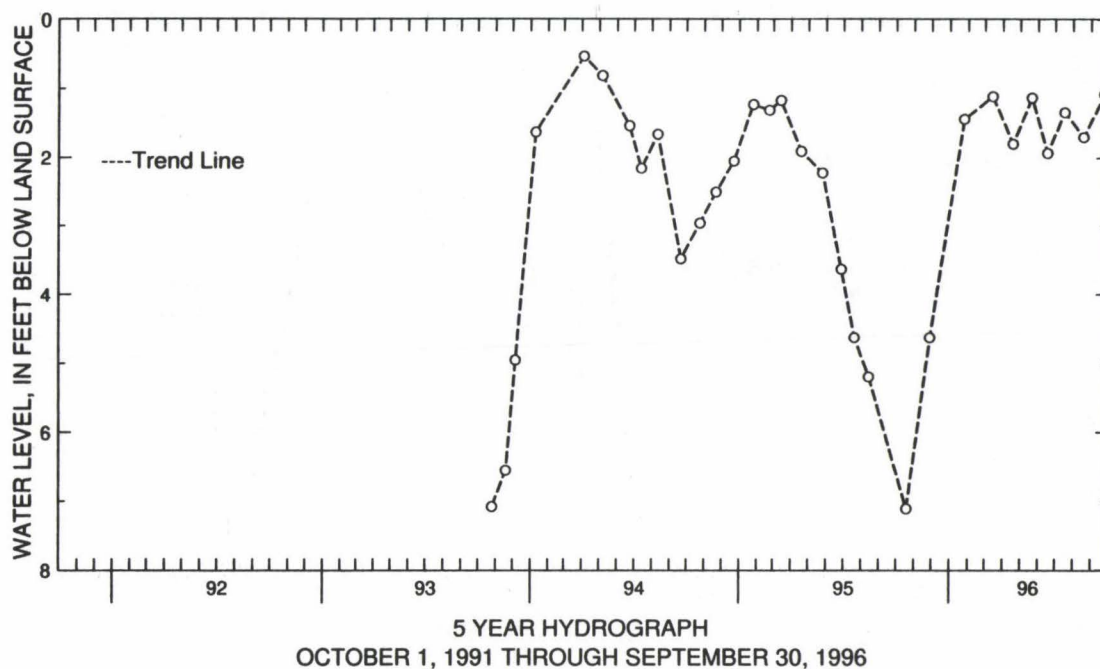
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of12-15. SITE ID.--384441075233702. PERMIT NUMBER.--95737.
 LOCATION.--Lat 38°44'41", long 75°23'37", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 82 ft; casing diameter 2 in., to 79 ft; screen diameter 2 in. from 79 to 82 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 46.72 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.59 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.53 ft below land surface, April 4, 1994;
 lowest measured, 7.11 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.11	MAR 14, 1996	1.11	JUN 17, 1996	1.93	SEP 24, 1996	1.08
NOV 28	4.63	APR 18	1.80	JUL 17	1.34		
JAN 25, 1996	1.44	MAY 21	1.13	AUG 19	1.70		
WATER YEAR 1996		HIGHEST	1.08	SEP 24, 1996	LOWEST	7.11	OCT 19, 1995



GROUND-WATER LEVELS

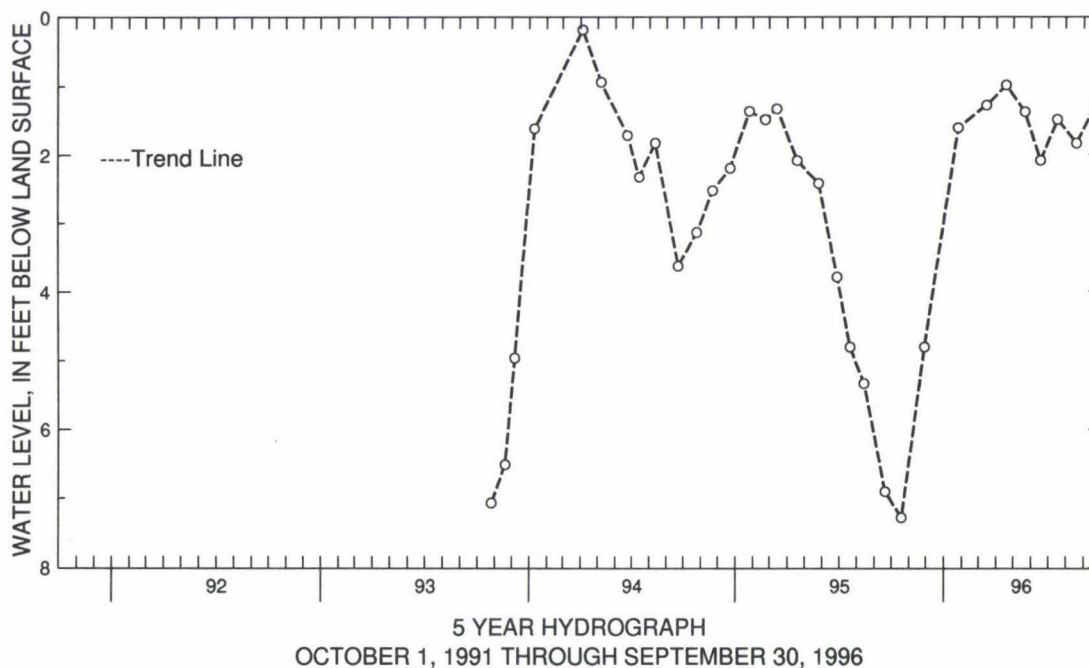
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of12-16. SITE ID.--384441075233701. PERMIT NUMBER.--95738.
 LOCATION.--Lat 38°44'41", long 75°23'37", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 46.72 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.46 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.18 ft below land surface, April 4, 1994;
 lowest measured, 7.28 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.28	MAR 14, 1996	1.28	JUN 17, 1996	2.09	SEP 24, 1996	1.23
NOV 28	4.81	APR 18	.99	JUL 17	1.49		
JAN 25, 1996	1.61	MAY 21	1.38	AUG 19	1.84		
WATER YEAR 1996		HIGHEST .99	APR 18, 1996	LOWEST 7.28	OCT 19, 1995		



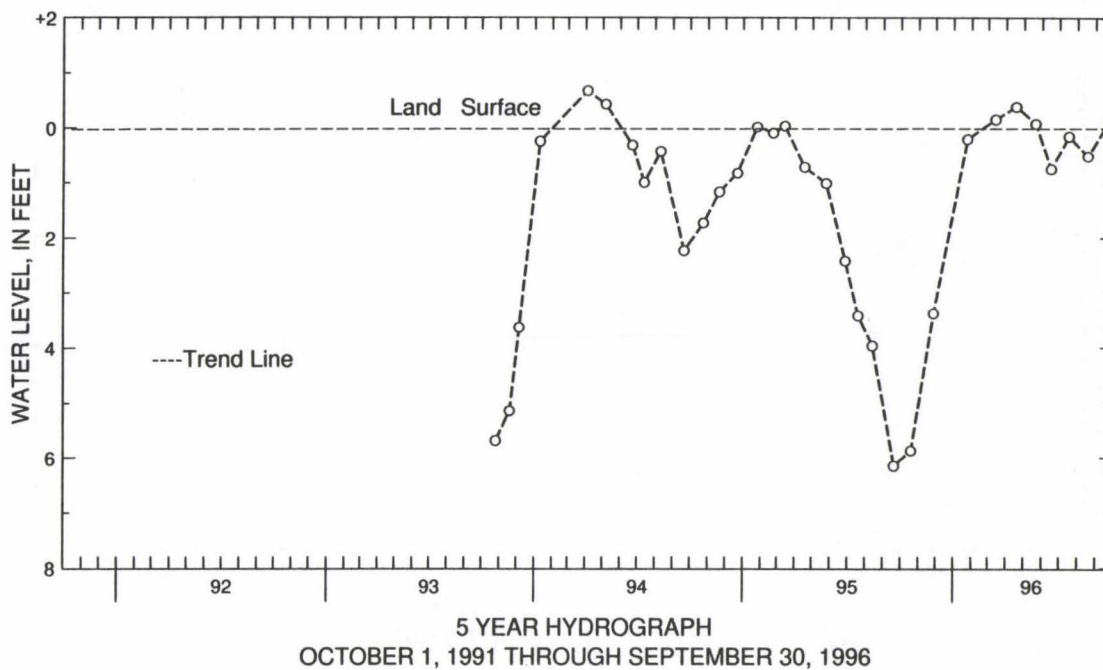
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of12-17. SITE ID.--384444075233901. PERMIT NUMBER.--95739.
 LOCATION.--Lat 38°44'44", long 75°23'39", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 39 ft; casing diameter 2 in., to 36 ft; screen diameter 2 in. from 36 to 39 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 45.32 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 3.18 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.68 ft above land surface, April 4, 1994;
 lowest measured, 6.15 ft below land surface, Sept. 20, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	5.87	MAR 14, 1996	+ .16	JUN 17, 1996	.74	SEP 24, 1996	+ .13
NOV 28	3.38	APR 18	+ .39	JUL 17	.15		
JAN 25, 1996	.20	MAY 21	+ .08	AUG 19	.51		
WATER YEAR 1996		HIGHEST	+ .39	APR 18, 1996	LOWEST	5.87	OCT 19, 1995



GROUND-WATER LEVELS

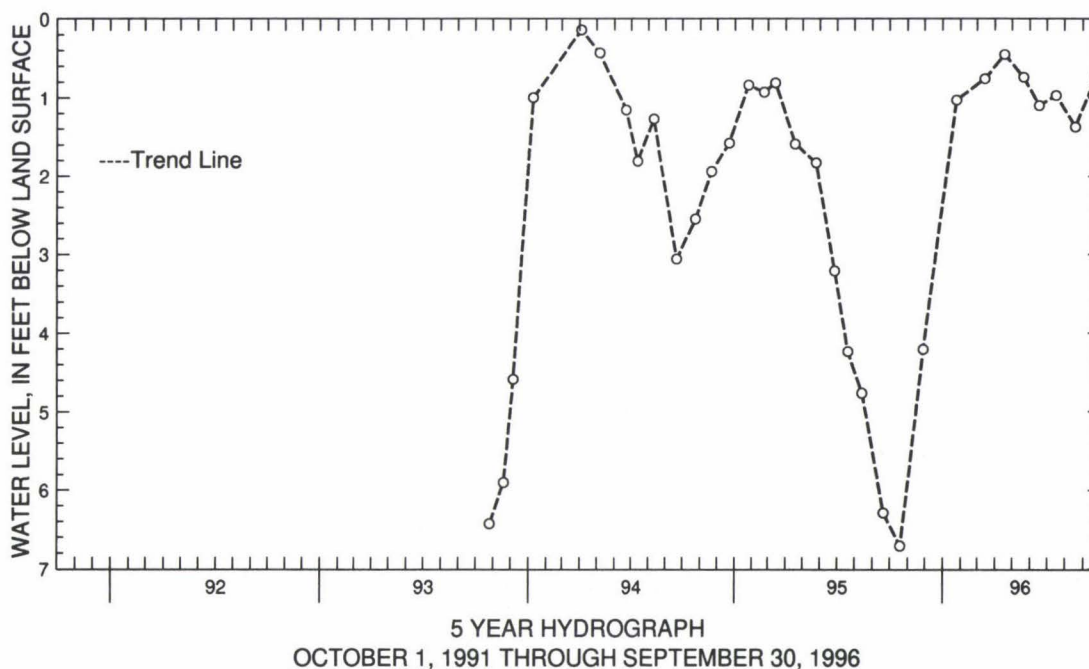
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of12-18. SITE ID.--384444075234101. PERMIT NUMBER.--95752.
 LOCATION.--Lat 38°44'44", long 75°23'41", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 15 ft; casing diameter 2 in., to 12 ft; screen diameter 2 in. from 12 to 15 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 46.07 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.39 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.14 ft below land surface, April 4, 1994;
 lowest measured, 6.71 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	6.71	MAR 14, 1996	.76	JUN 17, 1996	1.10	SEP 24, 1996	.72
NOV 28	4.21	APR 18	.45	JUL 17	.97		
JAN 25, 1996	1.03	MAY 21	.74	AUG 19	1.37		
WATER YEAR 1996		HIGHEST	.45	APR 18, 1996		LOWEST	6.71 OCT 19, 1995



GROUND-WATER LEVELS

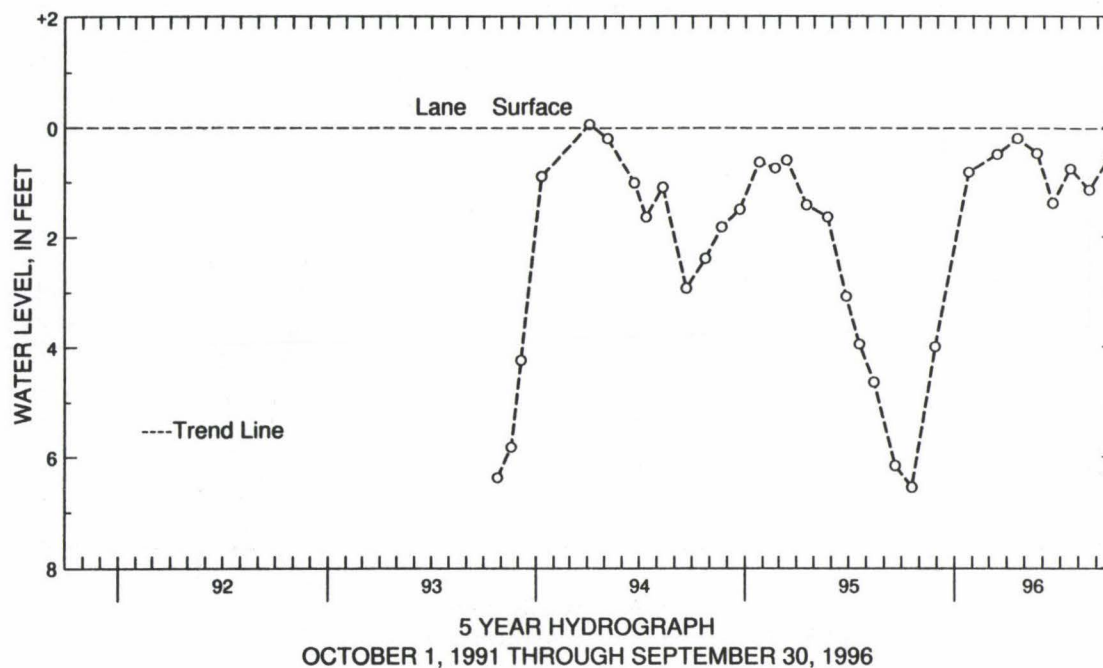
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of12-19. SITE ID.--384444075234102. PERMIT NUMBER.--95749.
 LOCATION.--Lat 38°44'44", long 75°23'41", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 79 ft; casing diameter 2 in., to 76 ft;
 screen diameter 2 in. from 76 to 79 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 45.96 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.62 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.05 ft above land surface, April 4, 1994;
 lowest measured, 6.55 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	6.55	MAR 14, 1996	.50	JUN 17, 1996	1.39	SEP 24, 1996	.53
NOV 28	4.00	APR 18	.21	JUL 17	.77		
JAN 25, 1996	.83	MAY 21	.48	AUG 19	1.15		
WATER YEAR 1996		HIGHEST	.21	APR 18, 1996		LOWEST	6.55
						OCT 19, 1995	



GROUND-WATER LEVELS

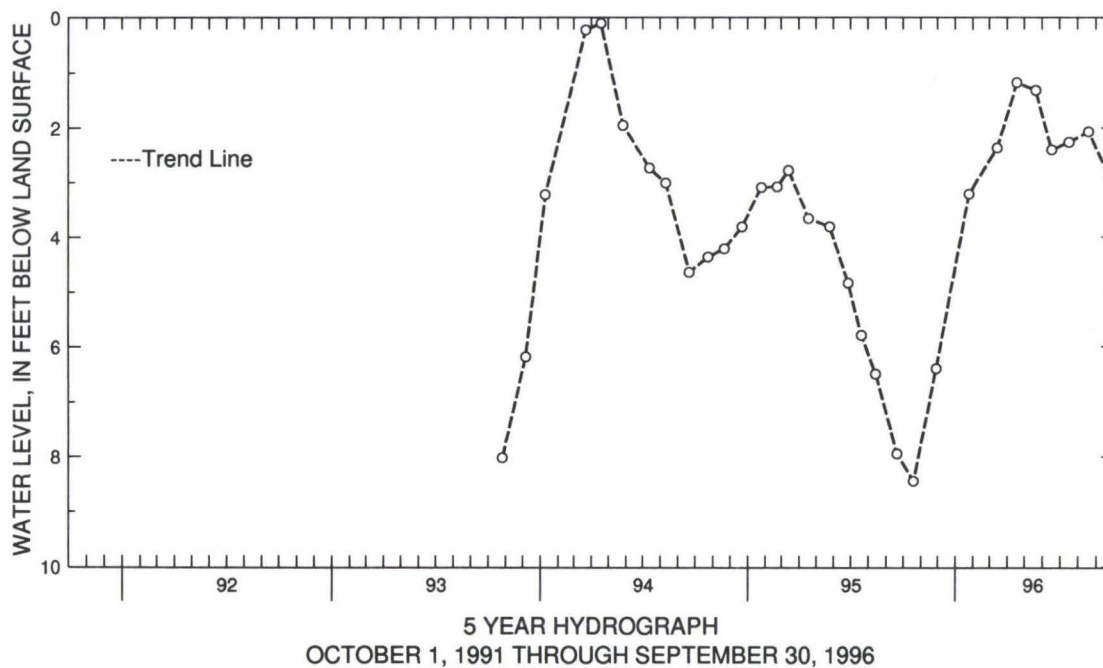
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of13-01. SITE ID.--384401075224903. PERMIT NUMBER.--95778.
 LOCATION.--Lat 38°44'02", long 75°22'50", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 103 ft; casing diameter 2 in., to 100 ft;
 screen diameter 2 in. from 100 to 103 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 48.29 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.29 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.10 ft below land surface, April 18, 1994;
 lowest measured, 8.44 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	8.44	MAR 14, 1996	2.37	JUN 17, 1996	2.40	SEP 24, 1996	2.90
NOV 28	6.40	APR 18	1.18	JUL 17	2.26		
JAN 25, 1996	3.21	MAY 21	1.32	AUG 19	2.07		
WATER YEAR 1996		HIGHEST	1.18	APR 18, 1996	LOWEST	8.44	OCT 19, 1995



GROUND-WATER LEVELS

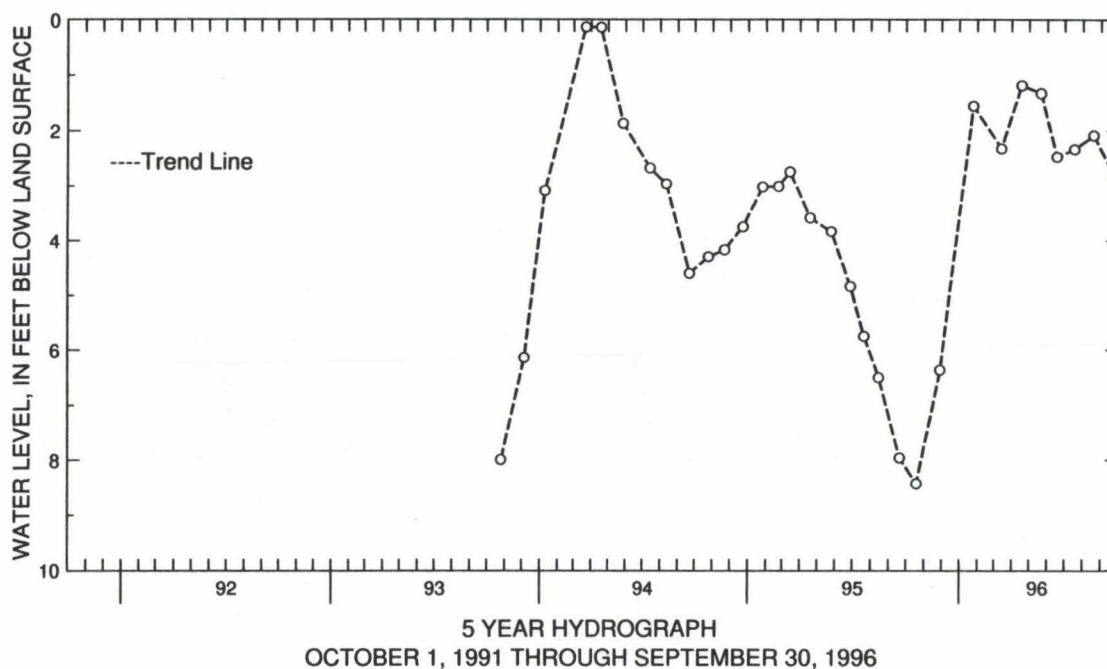
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of13-02. SITE ID.--384402075225002. PERMIT NUMBER.--95787.
 LOCATION.--Lat 38°44'02", long 75°22'50", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 52 ft; casing diameter 2 in., to 49 ft; screen diameter 2 in. from 49 to 52 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 48.28 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.33 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .12 ft below land surface, March 22, 1994;
 lowest measured, 8.42 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	8.42	MAR 14, 1996	2.32	JUN 17, 1996	2.47	SEP 24, 1996	2.83
NOV 28	6.37	APR 18	1.18	JUL 17	2.33		
JAN 25, 1996	1.55	MAY 21	1.32	AUG 19	2.08		
WATER YEAR 1996		HIGHEST 1.18 APR 18, 1996		LOWEST 8.42 OCT 19, 1995			



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

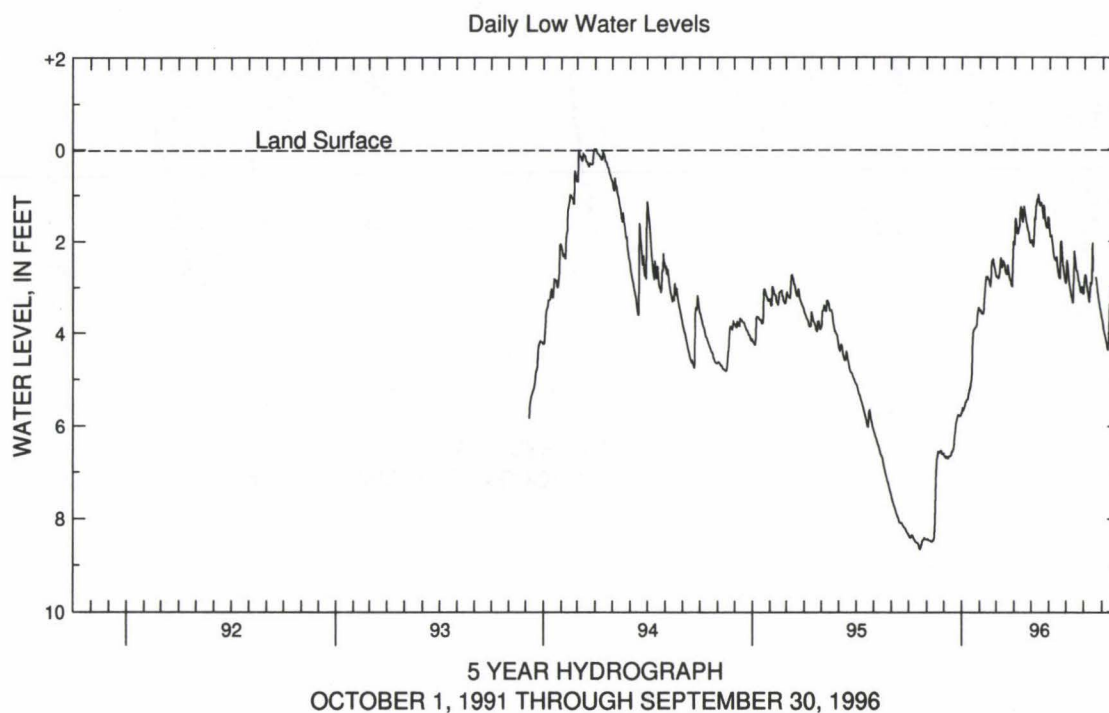
WELL NUMBER.--Of13-03. SITE ID.--384401075224901. PERMIT NUMBER.--95801.
 LOCATION.--Lat 38°44'01", long 75°22'49", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code:112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 20 ft; casing diameter 2 in., to 17 ft; screen diameter 2 in. from 17 to 20 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from Dec. 7, 1993 to current year.
 DATUM.--Altitude of land surface is 48.37 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 3.28 ft above land surface.
 REMARKS.--Delaware Department of Transportation Wetlands Project observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.06 ft above land surface, March 3, 1994; lowest measured, 8.65 ft below land surface, Oct. 21, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "--")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.35	8.33	8.45	8.44	6.60	6.55	5.72	5.71	3.51	3.48	2.78	2.76
2	8.37	8.35	8.45	8.44	6.66	6.58	5.71	5.63	3.50	3.47	2.77	2.72
3	8.40	8.37	8.44	8.44	6.66	6.62	5.63	5.62	3.52	3.46	2.77	2.70
4	8.41	8.40	8.46	8.44	6.68	6.62	5.66	5.63	3.56	3.52	2.81	2.77
5	8.41	8.36	8.47	8.46	6.70	6.66	5.64	5.61	3.57	3.55	2.79	2.69
6	8.36	8.35	8.47	8.47	6.67	6.65	5.61	5.56	3.58	3.55	2.69	2.53
7	8.35	8.35	8.47	8.44	6.69	6.67	5.56	5.43	3.58	3.53	2.54	2.27
8	8.37	8.35	8.47	8.44	6.71	6.69	5.48	5.43	3.53	3.27	2.36	2.27
9	8.40	8.37	8.49	8.47	6.71	6.63	5.48	5.43	3.27	3.05	2.52	2.36
10	8.43	8.40	8.49	8.49	6.66	6.64	5.43	5.43	3.05	2.90	2.58	2.52
11	8.45	8.43	8.49	8.43	6.66	6.65	5.43	5.42	2.90	2.74	2.54	2.42
12	8.47	8.45	8.46	8.44	6.66	6.66	5.42	5.30	2.77	2.74	2.42	2.40
13	8.50	8.47	8.46	8.40	6.66	6.65	5.31	5.27	2.80	2.77	2.46	2.40
14	8.51	8.50	8.40	8.18	6.65	6.57	5.27	5.19	2.78	2.72	2.49	2.46
15	8.51	8.51	8.18	7.73	6.57	6.56	5.19	5.19	2.83	2.77	2.52	2.48
16	8.52	8.51	7.73	7.21	6.57	6.53	5.19	5.09	2.83	2.76	2.66	2.52
17	8.54	8.52	7.21	6.91	6.53	6.51	5.09	5.04	2.85	2.79	2.69	2.66
18	8.55	8.54	6.91	6.73	6.51	6.42	5.04	4.86	2.94	2.85	2.72	2.69
19	8.63	8.55	6.73	6.67	6.42	6.24	4.86	4.20	2.97	2.89	2.72	2.44
20	8.64	8.63	6.67	6.57	6.24	6.15	4.20	3.98	2.89	2.50	2.51	2.44
21	8.65	8.62	6.57	6.53	6.15	6.00	3.98	3.93	2.50	2.41	2.64	2.51
22	8.62	8.56	6.58	6.57	6.00	5.91	3.93	3.92	2.43	2.41	2.72	2.64
23	8.56	8.52	6.57	6.54	5.91	5.85	3.92	3.88	2.42	2.33	2.80	2.72
24	8.52	8.47	6.58	6.55	5.85	5.81	3.88	3.86	2.40	2.29	2.85	2.80
25	8.47	8.46	6.55	6.53	5.81	5.76	3.88	3.81	2.49	2.40	2.85	2.85
26	8.46	8.45	6.55	6.51	5.76	5.76	3.86	3.82	2.56	2.49	2.94	2.85
27	8.45	8.42	6.54	6.51	5.76	5.76	3.82	3.63	2.59	2.56	2.98	2.94
28	8.42	8.41	6.61	6.54	5.77	5.76	3.63	3.52	2.68	2.54	2.98	2.38
29	8.43	8.41	6.61	6.61	5.79	5.77	3.52	3.44	2.76	2.68	2.38	1.97
30	8.44	8.43	6.61	6.60	5.78	5.77	3.44	3.42	--	--	2.00	1.97
31	8.44	8.44	--	--	5.77	5.72	3.48	3.40	--	--	2.06	2.00
MONTH	8.65	8.33	8.49	6.51	6.71	5.72	5.72	3.40	3.58	2.29	2.98	1.97

GROUND-WATER LEVELS
DELAWARE--Continued
SUSSEX COUNTY--Continued
Of13-03--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.07	1.49	1.97	1.84	1.81	1.69	2.41	2.29	2.79	2.53	3.79	3.71
2	1.50	1.48	2.08	1.97	1.91	1.81	2.49	2.41	2.72	2.53	3.87	3.79
3	1.55	1.50	2.10	2.05	1.91	1.66	2.62	2.49	2.76	2.72	3.94	3.87
4	1.66	1.55	2.13	1.81	1.89	1.67	2.78	2.62	2.89	2.76	3.98	3.94
5	1.82	1.66	1.81	1.42	2.00	1.87	2.91	2.78	3.00	2.89	4.05	3.98
6	1.84	1.82	1.47	1.30	2.09	2.00	2.98	2.91	3.08	3.00	4.09	4.05
7	1.83	1.64	1.54	1.24	2.18	2.09	3.05	2.98	3.16	3.08	4.16	4.09
8	1.71	1.64	1.24	1.16	2.29	2.18	3.13	3.04	3.26	3.16	4.22	4.16
9	1.71	1.41	1.22	.98	2.37	2.29	3.20	3.12	3.33	3.09	4.28	4.22
10	1.41	1.22	1.08	1.01	2.39	2.35	3.26	3.19	3.09	2.57	4.35	4.28
11	1.25	1.23	1.16	.82	2.41	2.14	3.34	3.26	2.89	2.68	4.35	3.88
12	1.29	1.25	.98	.82	2.39	2.15	3.34	2.85	2.95	2.88	3.88	3.33
13	1.38	1.29	1.09	.98	2.34	2.15	2.85	1.94	2.88	1.83	3.36	3.32
14	1.56	1.38	1.18	1.09	2.50	2.34	2.21	1.99	2.03	1.83	3.49	3.36
15	1.59	1.45	1.23	1.18	2.60	2.50	2.34	2.20	2.65	2.03	3.60	3.49
16	1.45	1.18	1.23	1.04	2.70	2.60	2.45	2.24	---	---	3.64	3.38
17	1.24	1.19	1.16	1.05	2.78	2.70	2.61	2.43	---	---	3.38	2.90
18	1.34	1.24	1.22	1.16	2.81	2.74	2.65	2.61	---	---	3.01	2.90
19	1.42	1.34	1.32	1.22	2.81	1.84	2.65	2.41	---	---	3.15	3.01
20	1.49	1.42	1.43	1.32	2.03	1.75	2.74	2.47	2.78	2.74	3.26	3.15
21	1.60	1.49	1.52	1.14	1.99	1.75	2.86	2.74	2.87	2.77	3.33	3.26
22	1.64	1.60	1.22	1.09	2.17	1.99	2.87	2.86	2.97	2.87	3.33	2.84
23	1.71	1.64	1.39	1.22	2.41	2.17	2.96	2.87	3.08	2.97	2.96	2.84
24	1.78	1.71	1.54	1.39	2.53	2.32	3.03	2.96	3.17	3.09	3.02	2.96
25	1.80	1.78	1.63	1.54	2.55	2.31	3.11	3.03	3.26	3.17	3.17	3.02
26	1.88	1.80	1.69	1.63	2.68	2.55	3.11	2.70	3.35	3.26	3.24	3.17
27	1.99	1.88	1.71	1.69	2.77	2.68	2.98	2.79	3.42	3.35	3.30	3.24
28	2.03	1.99	1.71	1.46	2.86	2.77	3.07	2.98	3.49	3.42	3.35	3.30
29	2.03	1.98	1.47	1.27	2.91	2.86	3.14	3.07	3.56	3.49	3.35	2.80
30	2.01	1.84	1.50	1.28	2.90	2.29	3.14	2.92	3.65	3.56	2.96	2.83
31	---	---	1.69	1.50	---	---	2.99	2.79	3.71	3.65	---	---
MONTH	2.07	1.18	2.13	.82	2.91	1.66	3.34	1.94	3.71	1.83	4.35	2.80
YEAR	8.65	.82										



GROUND-WATER LEVELS

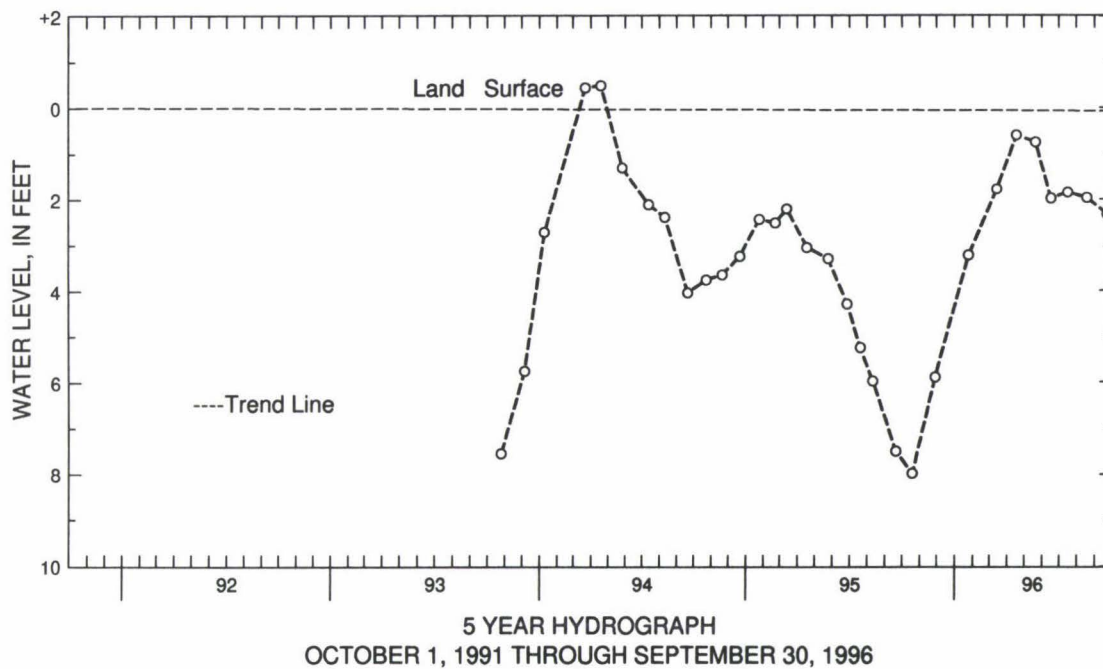
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of13-04. SITE ID.--384403075224701. PERMIT NUMBER.--95779.
 LOCATION.--Lat 38°44'03", long 75°22'47", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 47.75 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.41 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.49 ft above land surface, April 18, 1994;
 lowest measured, 7.98 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.98	MAR 14, 1996	1.78	JUN 17, 1996	1.98	SEP 24, 1996	2.33
NOV 28	5.90	APR 18	.60	JUL 17	1.85		
JAN 25, 1996	3.23	MAY 21	.75	AUG 19	1.97		
WATER YEAR 1996		HIGHEST	.60	APR 18, 1996		LOWEST	7.98
							OCT 19, 1995



GROUND-WATER LEVELS

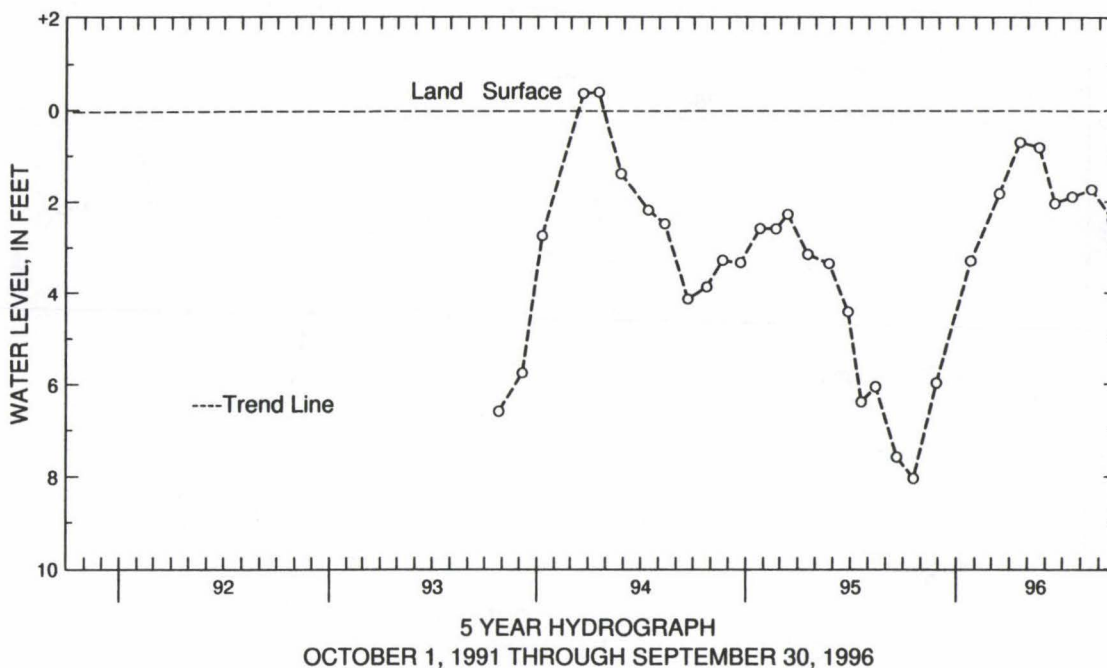
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of13-05. SITE ID.--384404075225001. PERMIT NUMBER.--95802.
 LOCATION.--Lat 38°44'04", long 75°22'50", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 47.84 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.26 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.38 ft above land surface, April 18, 1994;
 lowest measured, 8.04 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	8.04	MAR 14, 1996	1.83	JUN 17, 1996	2.04	SEP 24, 1996	2.40
NOV 28	5.98	APR 18	.71	JUL 17	1.90		
JAN 25, 1996	3.30	MAY 21	.82	AUG 19	1.74		
WATER YEAR 1996		HIGHEST	.71 APR 18, 1996	LOWEST		8.04 OCT 19, 1995	



GROUND-WATER LEVELS

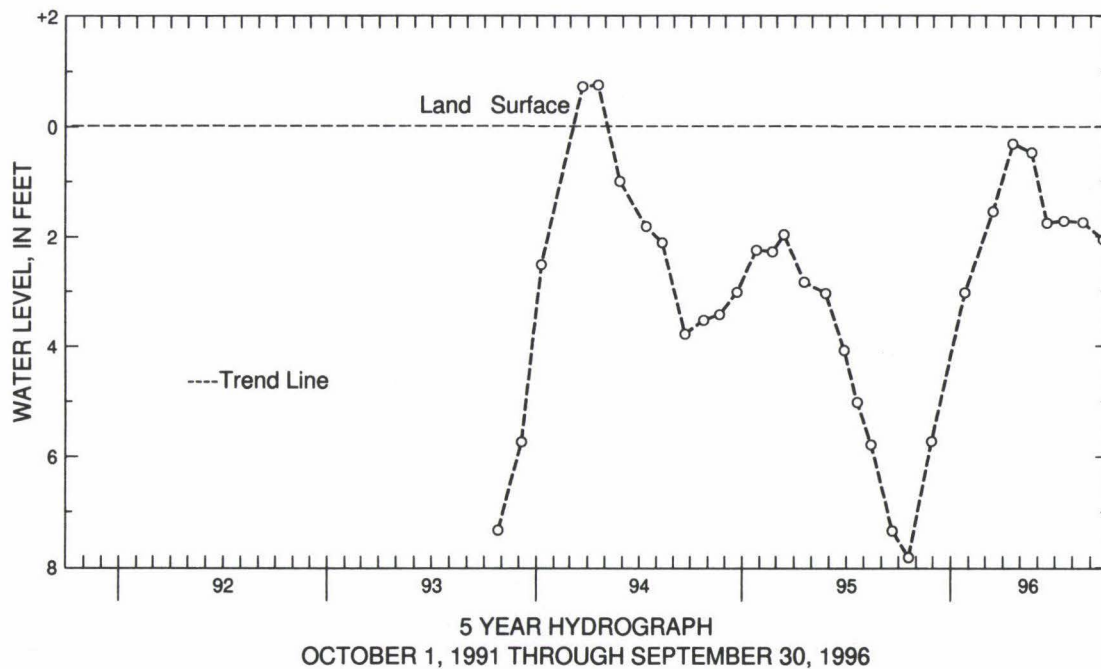
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of13-06. SITE ID.--384405075224701. PERMIT NUMBER.--95780.
 LOCATION.--Lat 38°44'05", long 75°22'47", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 47.49 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.22 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.76 ft above land surface, April 18, 1994;
 lowest measured, 7.82 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.82	MAR 14, 1996	1.55	JUN 17, 1996	1.76	SEP 24, 1996	2.06
NOV 28	5.72	APR 18	.32	JUL 17	1.72		
JAN 25, 1996	3.03	MAY 21	.48	AUG 19	1.75		
WATER YEAR 1996		HIGHEST .32 APR 18, 1996		LOWEST 7.82 OCT 19, 1995			



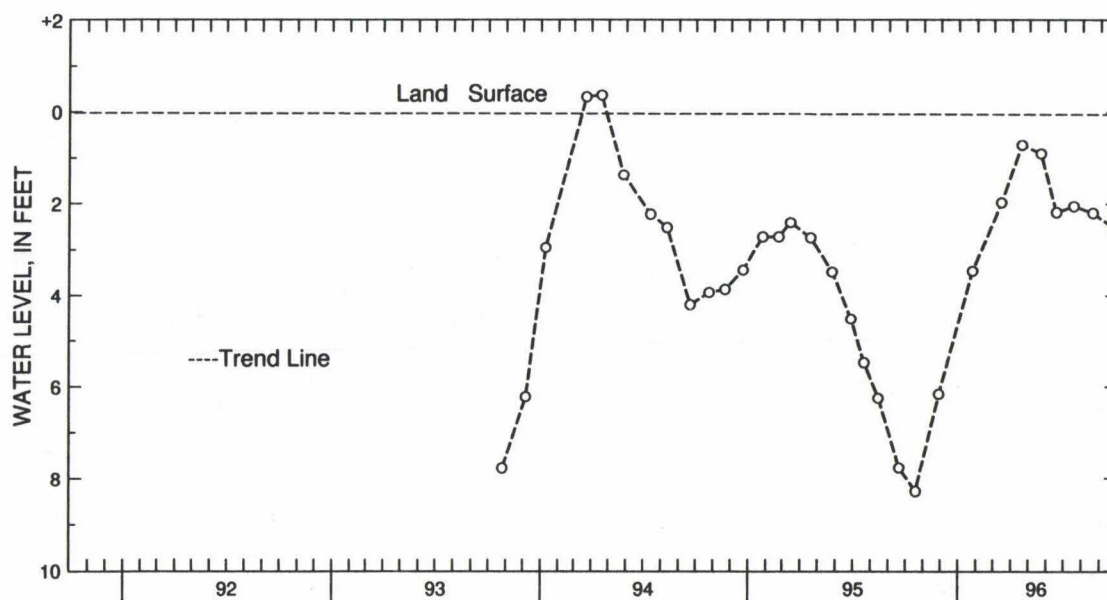
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of13-07. SITE ID.--384405075224601. PERMIT NUMBER.--95781.
 LOCATION.--Lat 38°44'05", long 75°22'46", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 47.92 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.38 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.37 ft above land surface, April 18, 1994; lowest measured, 8.28 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	8.28	MAR 14, 1996	1.97	JUN 17, 1996	2.18	SEP 24, 1996	2.52
NOV 28	6.16	APR 18	.71	JUL 17	2.05		
JAN 25, 1996	3.46	MAY 21	.90	AUG 19	2.19		
WATER YEAR 1996		HIGHEST	.71	APR 18, 1996		LOWEST	8.28
							OCT 19, 1995



5 YEAR HYDROGRAPH
 OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of13-08. SITE ID.--384406075224601. PERMIT NUMBER.--97463.
 LOCATION.--Lat 38°44'06", long 75°22'46", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in; to 13 ft;
 screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with water-level recorder--60-minute recorder interval from Dec. 7, 1993 to current year.
 DATUM.--Altitude of land surface is 48.91 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 3.28 ft above land surface.
 REMARKS.--Delaware Department of Transportation Wetlands Project observation well.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.40 ft below land surface, March 3, 1994;
 lowest measured, 9.36 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.05	9.03	9.21	9.21	7.23	7.21	6.42	6.42	4.12	4.10	3.29	3.27
2	9.07	9.05	9.21	9.21	7.24	7.22	6.42	6.38	4.12	4.12	3.29	3.27
3	9.09	9.07	9.21	9.20	7.24	7.24	6.38	6.36	4.12	4.11	3.29	3.26
4	9.11	9.09	9.20	9.20	7.29	7.24	6.36	6.36	4.16	4.12	3.31	3.29
5	9.11	9.11	9.20	9.20	7.30	7.29	6.36	6.35	4.17	4.16	3.31	3.24
6	9.12	9.11	9.20	9.20	7.30	7.30	6.35	6.31	4.18	4.17	3.24	3.14
7	9.12	9.12	9.20	9.19	7.31	7.30	6.31	6.18	4.18	4.15	3.14	2.90
8	9.13	9.12	9.19	9.19	7.35	7.31	6.18	6.18	4.15	4.04	2.93	2.88
9	9.14	9.13	9.20	9.19	7.35	7.33	6.18	6.17	4.04	3.88	3.02	2.93
10	9.16	9.14	9.21	9.20	7.33	7.33	6.17	6.17	3.88	3.71	3.07	3.02
11	9.18	9.16	9.21	9.18	7.34	7.33	6.17	6.14	3.71	3.49	3.07	2.99
12	9.20	9.18	9.18	9.18	7.34	7.34	6.14	6.06	3.49	3.43	2.99	2.96
13	9.21	9.20	9.18	9.18	7.34	7.33	6.06	6.05	3.43	3.42	2.98	2.96
14	9.22	9.21	9.18	9.08	7.33	7.26	6.05	5.98	3.42	3.36	3.01	2.98
15	9.23	9.22	9.08	8.76	7.26	7.26	5.98	5.97	3.39	3.36	3.03	3.01
16	9.25	9.23	8.76	8.16	7.26	7.25	5.97	5.90	3.39	3.37	3.15	3.03
17	9.28	9.25	8.16	7.79	7.25	7.23	5.90	5.86	3.40	3.37	3.18	3.15
18	9.29	9.28	7.79	7.52	7.23	7.17	5.86	5.77	3.51	3.40	3.21	3.18
19	9.36	9.29	7.52	7.41	7.17	7.03	5.77	5.15	3.55	3.51	3.21	3.07
20	9.34	9.34	7.41	7.29	7.03	6.99	5.15	4.77	3.53	3.22	3.07	3.03
21	9.34	9.34	7.29	7.23	6.99	6.81	4.77	4.64	3.22	3.05	3.12	3.03
22	9.34	9.34	7.23	7.23	6.81	6.67	4.64	4.58	3.05	3.04	3.19	3.12
23	9.34	9.33	7.23	7.21	6.67	6.56	4.58	4.52	3.04	2.95	3.27	3.19
24	9.33	9.29	7.21	7.21	6.56	6.50	4.52	4.46	2.99	2.93	3.32	3.27
25	9.29	9.28	7.21	7.19	6.50	6.44	4.50	4.46	3.05	2.99	3.32	3.32
26	9.28	9.27	7.19	7.18	6.44	6.43	4.52	4.49	3.11	3.05	3.43	3.32
27	9.27	9.23	7.18	7.17	6.43	6.43	4.49	4.38	3.13	3.11	3.48	3.43
28	9.23	9.22	7.22	7.17	6.43	6.43	4.38	4.23	3.20	3.12	3.48	3.10
29	9.22	9.21	7.22	7.22	6.43	6.43	4.23	4.12	3.27	3.20	3.10	2.46
30	9.21	9.21	7.23	7.22	6.43	6.43	4.12	4.08	---	---	2.49	2.46
31	9.21	9.21	---	---	6.43	6.42	4.10	4.08	---	---	2.57	2.49
MONTH	9.36	9.03	9.21	7.17	7.35	6.42	6.42	4.08	4.18	2.93	3.48	2.46

GROUND-WATER LEVELS

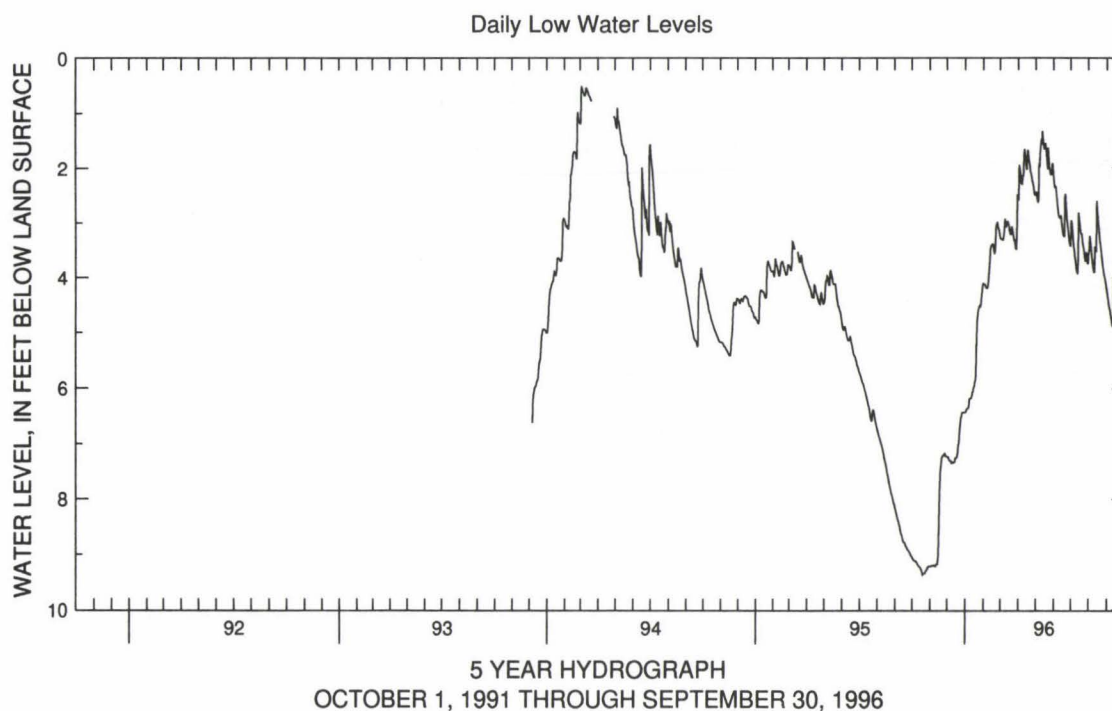
99

DELAWARE--Continued

SUSSEX COUNTY--Continued

Of13-08--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.59	1.90	2.44	2.39	2.26	2.11	2.96	2.92	3.51	3.15	4.29	4.21
2	1.95	1.88	2.57	2.44	2.36	2.26	2.99	2.94	3.24	3.14	4.37	4.29
3	2.02	1.95	2.59	2.57	2.36	2.16	3.11	2.99	3.30	3.24	4.43	4.37
4	2.12	2.02	2.64	2.58	2.35	2.16	3.27	3.11	3.43	3.30	4.49	4.43
5	2.27	2.12	2.58	1.90	2.46	2.35	3.43	3.27	3.56	3.43	4.55	4.49
6	2.30	2.27	1.92	1.77	2.58	2.46	3.48	3.43	3.67	3.56	4.59	4.55
7	2.30	2.05	1.99	1.73	2.66	2.58	3.60	3.48	3.76	3.67	4.68	4.59
8	2.15	2.05	1.73	1.53	2.78	2.66	3.67	3.60	3.84	3.76	4.74	4.68
9	2.15	1.77	1.62	1.29	2.87	2.78	3.76	3.67	3.90	3.84	4.81	4.74
10	1.77	1.49	1.47	1.35	2.90	2.87	3.85	3.76	3.90	3.26	4.87	4.81
11	1.66	1.49	1.57	1.12	2.91	2.75	3.91	3.85	3.44	3.27	4.87	4.52
12	1.77	1.66	1.33	1.12	2.90	2.74	3.92	3.73	3.52	3.44	4.52	3.95
13	1.85	1.77	1.48	1.33	2.87	2.74	3.73	2.62	3.52	2.43	3.95	3.90
14	2.00	1.85	1.58	1.48	2.99	2.86	2.82	2.62	2.61	2.43	3.99	3.90
15	2.04	1.83	1.66	1.58	3.08	2.99	2.94	2.82	2.81	2.61	4.10	3.99
16	1.83	1.42	1.66	1.38	3.17	3.08	3.02	2.92	2.94	2.81	---	---
17	1.68	1.48	1.56	1.40	3.22	3.17	3.16	3.02	3.03	2.94	4.13	3.57
18	1.81	1.68	1.64	1.56	3.25	3.22	3.20	3.16	3.14	3.03	3.58	3.55
19	1.89	1.81	1.76	1.64	3.25	2.39	3.20	3.04	3.28	3.14	3.71	3.58
20	1.95	1.89	1.89	1.76	2.53	2.28	3.27	3.05	3.37	3.28	3.82	3.71
21	2.07	1.95	2.03	1.47	2.48	2.27	3.41	3.27	3.46	3.37	3.90	3.82
22	2.11	2.07	1.64	1.37	2.71	2.48	3.43	3.41	3.56	3.46	3.90	3.51
23	2.16	2.11	1.83	1.64	2.92	2.71	3.52	3.43	3.66	3.56	3.52	3.48
24	2.25	2.16	1.99	1.83	3.00	2.92	3.61	3.52	3.76	3.66	3.58	3.52
25	2.28	2.25	2.07	1.99	3.05	2.93	3.69	3.61	3.83	3.76	3.74	3.58
26	2.33	2.28	2.13	2.07	3.17	3.05	3.69	3.37	3.91	3.83	3.81	3.74
27	2.44	2.33	2.13	2.13	3.27	3.17	3.54	3.37	3.97	3.91	3.87	3.81
28	2.50	2.44	2.13	1.93	3.36	3.27	3.66	3.54	4.02	3.97	3.91	3.87
29	2.50	2.50	1.93	1.68	3.42	3.36	3.74	3.66	4.08	4.02	3.91	3.46
30	2.50	2.39	1.93	1.68	3.42	2.96	3.74	3.59	4.15	4.08	3.49	3.45
31	---	---	2.11	1.93	---	---	3.59	3.51	4.21	4.15	---	---
MONTH	2.59	1.42	2.64	1.12	3.42	2.11	3.92	2.62	4.21	2.43	4.87	3.45
YEAR	9.36	1.12										



GROUND-WATER LEVELS

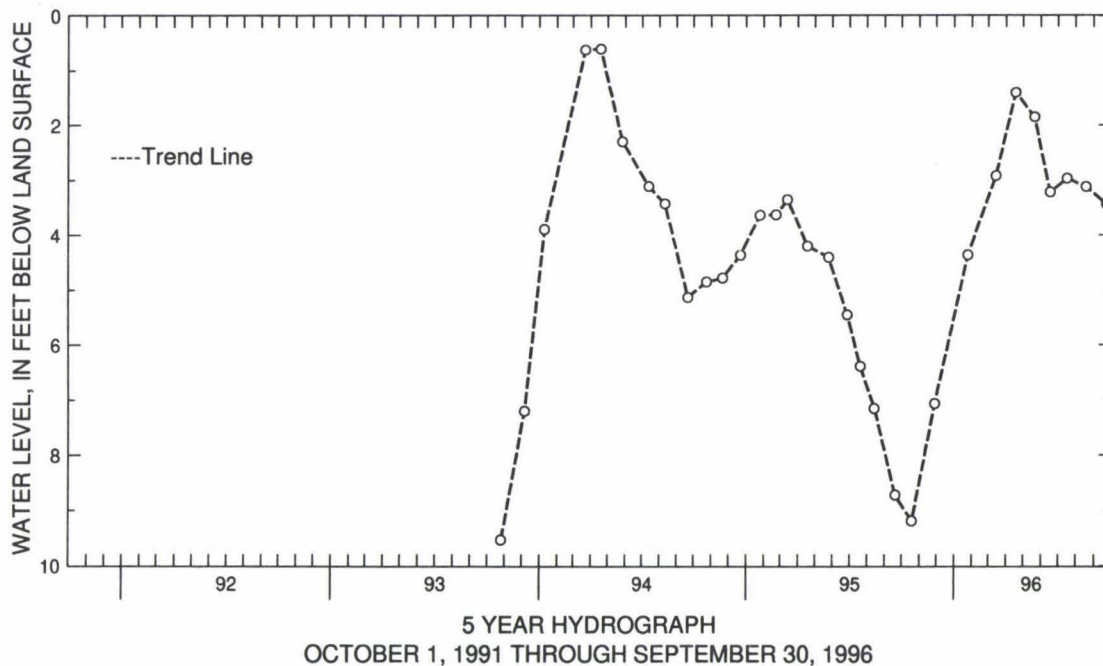
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of13-09. SITE ID.--384406075224603. PERMIT NUMBER.--97469.
 LOCATION.--Lat 38°44'06", long 75°22'46", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 80 ft; casing diameter 2 in., to 77 ft; screen diameter 2 in. from 77 to 80 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 48.82 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.30 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.60 ft below land surface, April 18, 1994;
 lowest measured, 9.53 ft below land surface, Oct. 26, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	9.19	MAR 14, 1996	2.92	JUN 17, 1996	3.22	SEP 24, 1996	3.44
NOV 28	7.07	APR 18	1.40	JUL 17	2.97		
JAN 25, 1996	4.36	MAY 21	1.85	AUG 19	3.12		
WATER YEAR 1996		HIGHEST 1.40	APR 18, 1996	LOWEST 9.19	OCT 19, 1995		



GROUND-WATER LEVELS

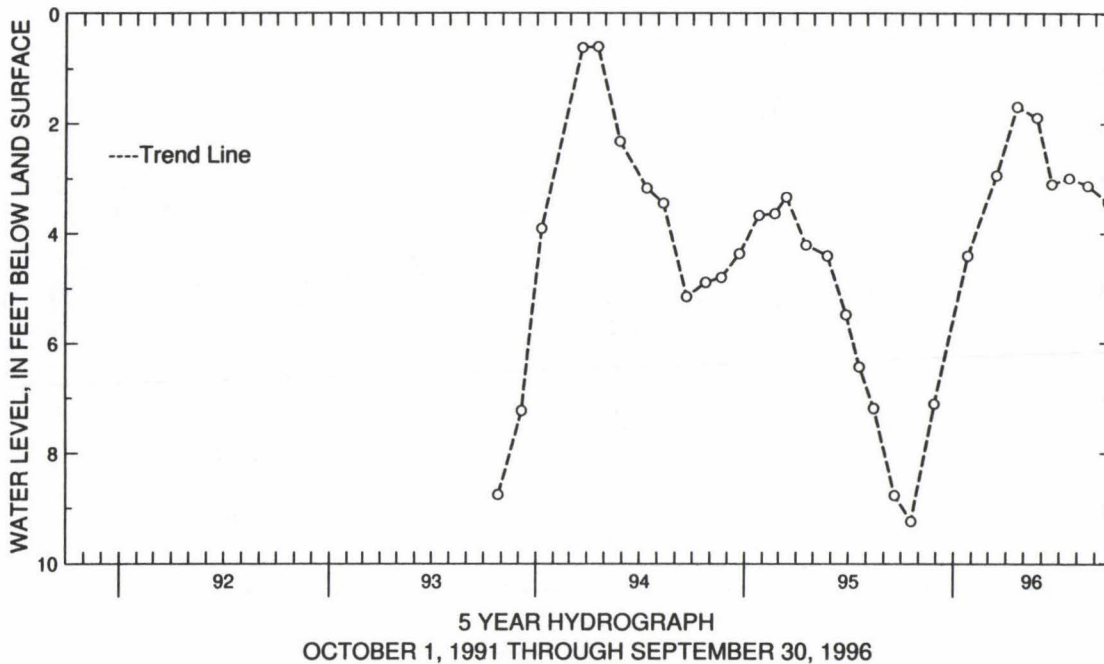
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of13-10. SITE ID.--384406075224602. PERMIT NUMBER.--95789.
 LOCATION.--Lat 38°44'06", long 75°22'46", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 48 ft; casing diameter 2 in., to 45 ft; screen diameter 2 in. from 43 to 45 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 48.86 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.43 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.59 ft below land surface, April 18, 1994;
 lowest measured, 9.24 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	9.24	MAR 14, 1996	2.94	JUN 17, 1996	3.10	SEP 24, 1996	3.44
NOV 28	7.11	APR 18	1.69	JUL 17	2.99		
JAN 25, 1996	4.41	MAY 22	1.89	AUG 19	3.13		
WATER YEAR 1996		HIGHEST	1.69	APR 18, 1996	LOWEST	9.24	OCT 19, 1995



GROUND-WATER LEVELS

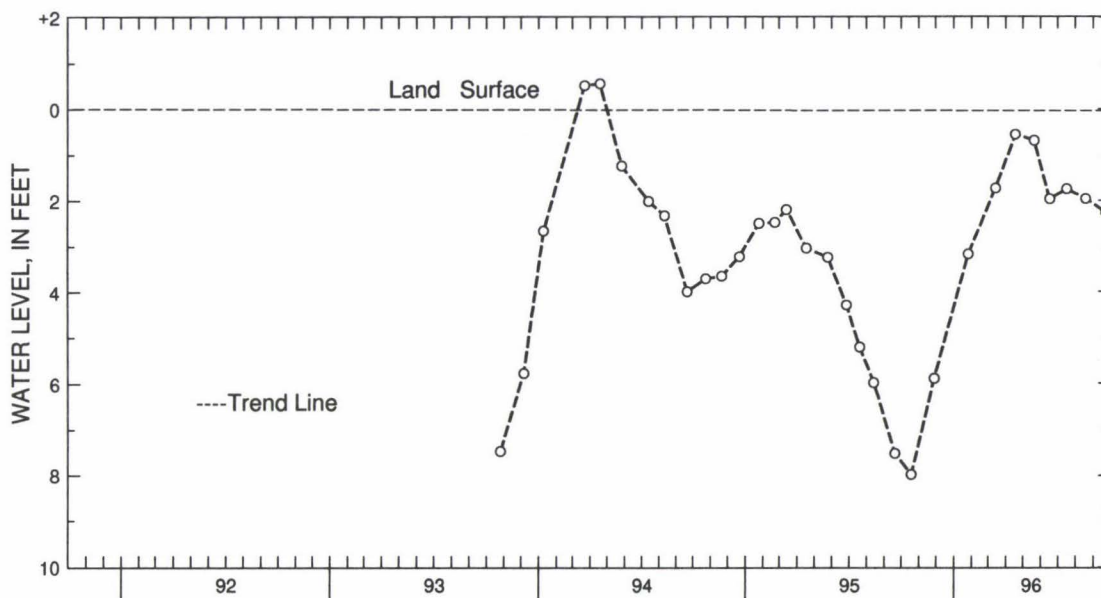
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of13-11. SITE ID.--384406075224401. PERMIT NUMBER.--95788.
 LOCATION.--Lat 38°44'06", long 75°22'44", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 47.67 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.12 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.56 ft above land surface, April 18, 1994;
 lowest measured, 7.98 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.98	MAR 14, 1996	1.73	JUN 17, 1996	1.97	SEP 24, 1996	2.27
NOV 28	5.89	APR 18	.56	JUL 17	1.75		
JAN 26, 1996	3.17	MAY 21	.69	AUG 19	1.96		
WATER YEAR 1996		HIGHEST	.56	APR 18, 1996		LOWEST	7.98
						OCT 19, 1995	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

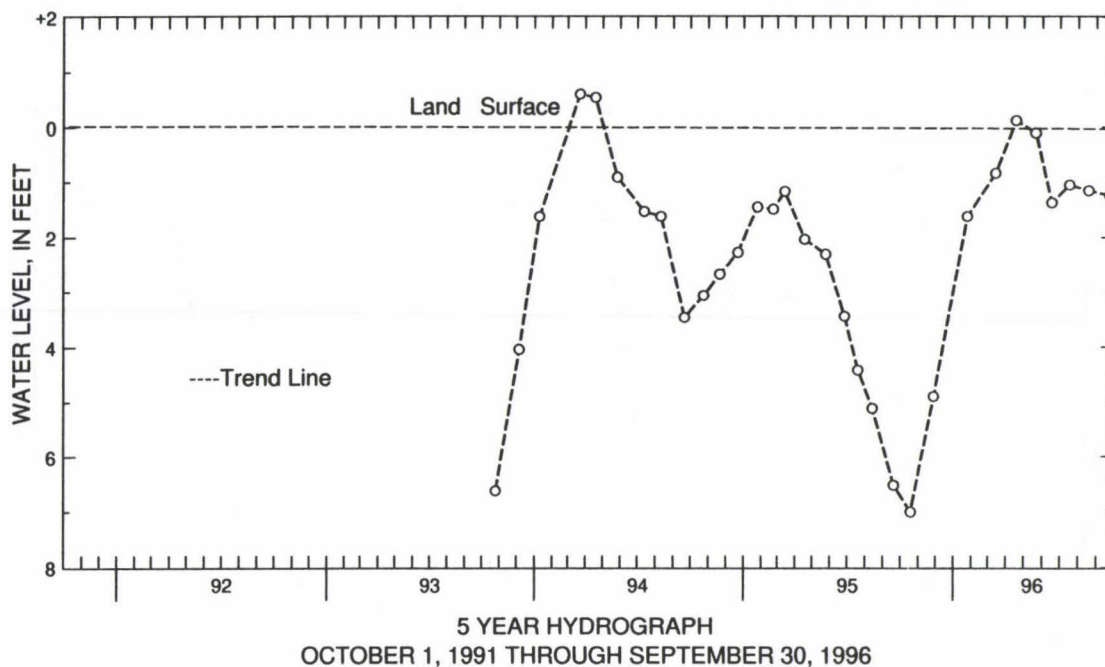
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of22-02. SITE ID.--384343075230402. PERMIT NUMBER.--95785.
 LOCATION.--Lat 38°43'43", long 75°23'04", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 56 ft; casing diameter 2 in., to 53 ft; screen diameter 2 in. from 53 to 56 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 47.36 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.18 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.60 ft above land surface, March 22, 1994;
 lowest measured, 7.00 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.00	MAR 14, 1996	.84	JUN 17, 1996	1.37	SEP 24, 1996	1.24
NOV 28	4.90	APR 18	+.12	JUL 17	1.05		
JAN 25, 1996	1.62	MAY 21	.10	AUG 19	1.15		
WATER YEAR 1996		HIGHEST	+.12	APR 18, 1996	LOWEST	7.00	OCT 19, 1995



GROUND-WATER LEVELS

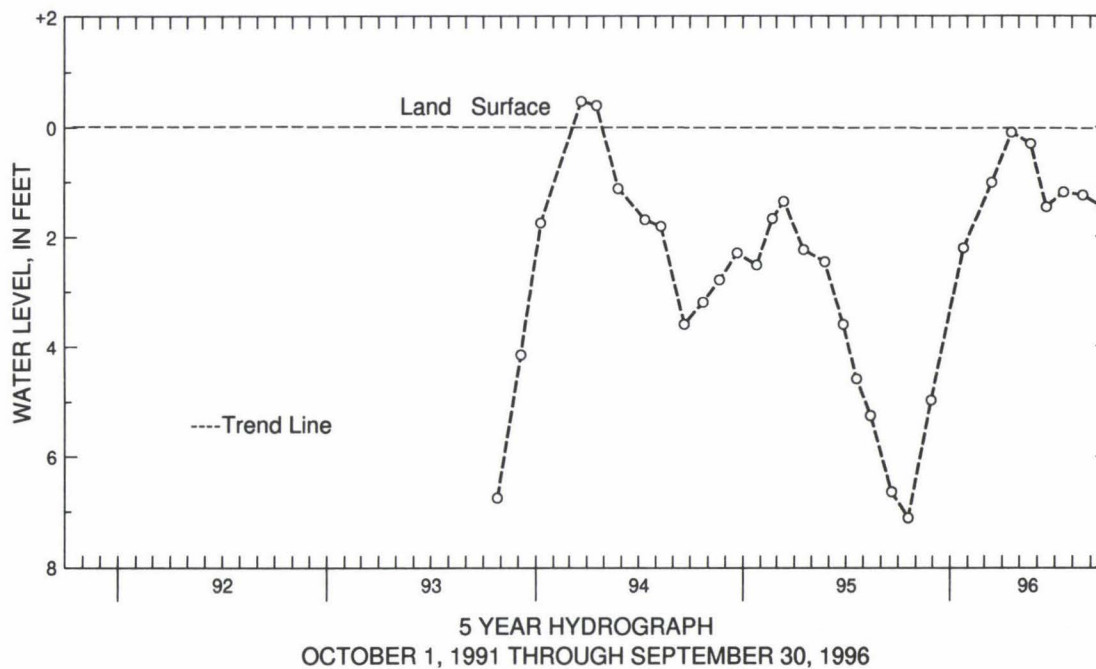
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of22-03. SITE ID.--384343075230403. PERMIT NUMBER.--95798.
 LOCATION.--Lat 38°43'43", long 75°23'04", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 118 ft; casing diameter 2 in., to 96 ft; screen diameter 2 in. from 96 to 99 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 47.41 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.38 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.47 ft above land surface, March 22, 1994; lowest measured, 7.11 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.11	MAR 14, 1996	1.02	JUN 17, 1996	1.46	SEP 24, 1996	1.48
NOV 28	4.98	APR 18	.10	JUL 17	1.19		
JAN 25, 1996	2.21	MAY 21	.31	AUG 19	1.25		
WATER YEAR 1996		HIGHEST .10	APR 18, 1996	LOWEST 7.11	OCT 19, 1995		



DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of22-04. SITE ID.--384343075230401. PERMIT NUMBER.--95800.
 LOCATION.--Lat 38°43'43", long 75°23'04", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 15 ft; casing diameter 2 in., to 12 ft; screen diameter 2 in. from 12 to 15 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from Dec. 7, 1993 to current year.
 DATUM.--Altitude of land surface is 47.62 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 3.83 ft above land surface.
 REMARKS.--Delaware Department of Transportation wetlands Project observation well.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.75 ft above land surface, March 3, 1994; lowest measured, 7.20 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.93	6.91	6.85	6.85	5.05	5.01	4.24	4.24	1.87	1.85	1.09	.92
2	6.95	6.93	6.85	6.84	5.06	5.02	4.24	4.17	1.89	1.86	1.12	1.01
3	6.97	6.95	6.84	6.84	5.06	5.05	4.17	4.09	1.93	1.86	1.12	1.03
4	6.99	6.97	6.85	6.84	5.09	5.05	4.09	4.06	1.99	1.93	1.03	.73
5	6.99	6.99	6.86	6.85	5.10	5.09	4.06	4.03	2.00	1.99	.75	.44
6	7.01	6.99	6.86	6.86	5.10	5.09	4.03	4.00	2.02	2.00	.57	.45
7	7.02	7.01	6.86	6.86	5.10	5.10	---	---	2.02	1.88	.72	.57
8	7.03	7.02	6.86	6.85	5.11	5.10	---	---	1.88	1.35	.81	.72
9	7.04	7.03	6.86	6.85	5.11	5.07	---	---	1.35	1.16	.77	.69
10	7.06	7.04	6.86	6.86	5.07	5.04	---	---	1.16	.90	.70	.69
11	7.08	7.06	6.86	6.83	5.04	4.99	---	---	.90	.76	.81	.70
12	7.09	7.08	6.84	6.83	4.99	4.98	---	---	.94	.80	---	---
13	7.10	7.09	6.84	6.82	4.98	4.97	---	---	.99	.92	---	---
14	7.11	7.10	6.82	6.70	4.97	4.93	---	---	1.01	.91	---	---
15	7.13	7.11	6.70	5.76	4.94	4.93	---	---	1.11	1.01	.90	.85
16	7.15	7.13	5.76	5.32	4.94	4.93	---	---	1.12	1.06	1.03	.90
17	7.17	7.15	5.32	5.18	4.94	4.87	---	---	1.17	1.12	1.08	1.03
18	7.18	7.17	5.18	5.10	4.87	4.81	---	---	1.33	1.17	1.12	1.08
19	7.20	7.18	5.10	5.07	4.81	4.67	---	---	1.34	.98	1.12	.65
20	7.18	7.18	5.07	5.03	4.67	4.52	---	---	.98	.56	.79	.65
21	7.19	7.18	5.03	5.00	4.52	4.35	---	---	.59	.56	.94	.79
22	7.19	7.18	5.01	5.00	4.35	4.31	---	---	.64	.51	1.07	.94
23	7.18	7.10	5.01	5.00	4.31	4.26	---	---	.51	.49	1.19	1.07
24	7.10	7.00	5.02	5.01	4.26	4.24	---	---	.83	.49	1.25	1.19
25	7.00	6.95	5.02	5.01	4.24	4.23	---	---	.87	.83	1.26	1.25
26	6.95	6.90	5.01	5.00	4.23	4.22	2.23	2.15	.96	.84	1.36	1.26
27	6.90	6.86	5.00	5.00	4.22	4.21	2.15	1.73	1.08	.96	1.41	1.36
28	6.86	6.85	5.04	5.00	4.23	4.21	1.75	1.73	1.13	1.08	1.41	.47
29	6.85	6.85	5.04	5.04	4.25	4.23	1.75	1.72	1.13	1.04	.47	.19
30	6.85	6.85	5.05	5.04	4.25	4.25	1.74	1.71	---	---	.23	.19
31	6.85	6.85	---	---	4.25	4.24	1.85	1.71	---	---	.29	.23
MONTH	7.20	6.85	6.86	5.00	5.11	4.21	4.24	1.71	2.02	.49	1.41	.19

GROUND-WATER LEVELS

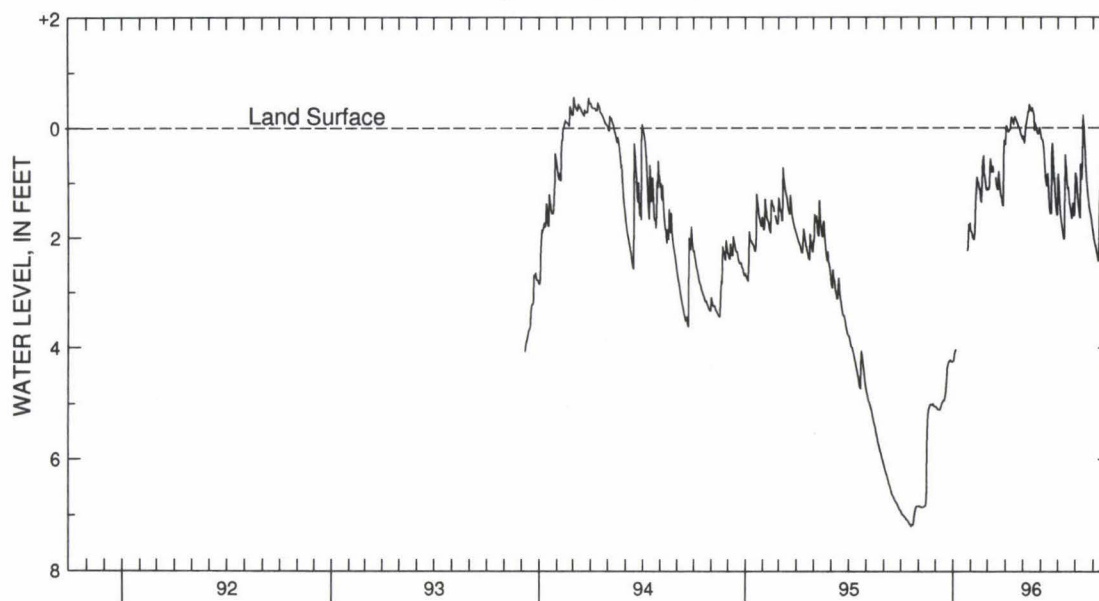
DELAWARE--Continued

SUSSEX COUNTY--Continued

Of22-04--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	.30	-.06	.15	.12	.14	.07	.84	.62	.82	.45	1.91	1.84
2	-.03	-.06	.22	.15	.21	.14	.96	.83	.87	.52	2.01	1.91
3	-.01	-.03	.24	.22	.21	.13	1.14	.96	.93	.87	2.05	2.00
4	.02	-.01	.29	.13	.23	.13	1.36	1.14	1.12	.93	2.09	2.05
5	.07	.02	.13	-.04	.29	.22	1.55	1.36	1.29	1.12	2.13	2.09
6	.08	.06	-.04	-.09	.40	.29	1.63	1.55	1.40	1.29	2.17	2.12
7	.06	-.01	-.06	-.15	.53	.40	1.72	1.62	1.49	1.39	2.24	2.17
8	.04	.00	-.15	-.19	.72	.53	1.79	1.70	1.59	1.49	2.29	2.24
9	.04	-.12	-.19	-.31	.91	.72	1.86	1.78	1.64	.66	2.35	2.29
10	-.12	-.22	-.30	-.31	.99	.90	1.95	1.85	.66	.27	2.41	2.35
11	-.19	-.22	-.27	-.45	1.06	.58	2.01	1.95	.84	.50	2.40	1.50
12	-.16	-.19	-.42	-.45	.89	.60	2.01	1.22	.94	.65	1.50	.89
13	-.12	-.16	-.38	-.42	.83	.58	1.22	.17	.65	-.31	1.12	.91
14	-.08	-.13	-.34	-.38	1.08	.83	.49	.23	-.23	-.31	1.31	1.12
15	-.07	-.15	-.30	-.34	1.29	1.08	.67	.47	-.09	-.23	1.42	1.31
16	-.15	-.26	-.30	-.35	1.45	1.29	.77	.46	.02	-.09	1.44	.80
17	-.20	-.24	-.34	-.36	1.55	1.44	1.01	.77	.19	.02	.80	.28
18	-.17	-.20	-.31	-.34	1.55	1.46	1.11	1.01	.39	.19	.68	.36
19	-.15	-.17	-.26	-.31	1.55	.30	1.08	.66	.65	.39	.93	.68
20	-.12	-.15	-.22	-.27	.45	.21	1.19	.79	.86	.64	1.07	.93
21	-.08	-.12	.06	-.22	.29	.20	1.36	1.18	1.00	.86	1.16	1.07
22	-.07	-.08	-.09	-.13	.47	.29	1.39	1.36	1.13	1.00	1.15	.20
23	-.02	-.07	-.04	-.09	.74	.47	1.47	1.36	1.25	1.12	.59	.28
24	.00	-.02	.02	-.04	.95	.64	1.55	1.46	1.32	1.25	---	---
25	.02	.00	.06	.02	.94	.64	1.64	1.55	1.43	1.32	1.68	1.44
26	.05	.02	.10	.06	1.20	.94	1.64	.81	1.50	1.42	1.79	1.68
27	.11	.05	.12	.09	1.36	1.20	1.36	1.07	1.55	1.50	1.88	1.79
28	.14	.10	.12	.04	1.49	1.36	1.48	1.36	1.61	1.54	1.91	1.18
29	.17	.14	.04	-.05	1.58	1.48	1.59	1.48	1.67	1.60	1.18	.87
30	.19	.12	.00	-.06	1.58	.62	1.59	1.05	1.78	1.67	1.29	1.00
31	---	---	.07	.00	---	---	1.28	.82	1.84	1.77	---	---
MONTH	.30	-.26	.29	-.45	1.58	.07	2.01	.17	1.84	-.31	2.41	.20
YEAR	7.20	-.45										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

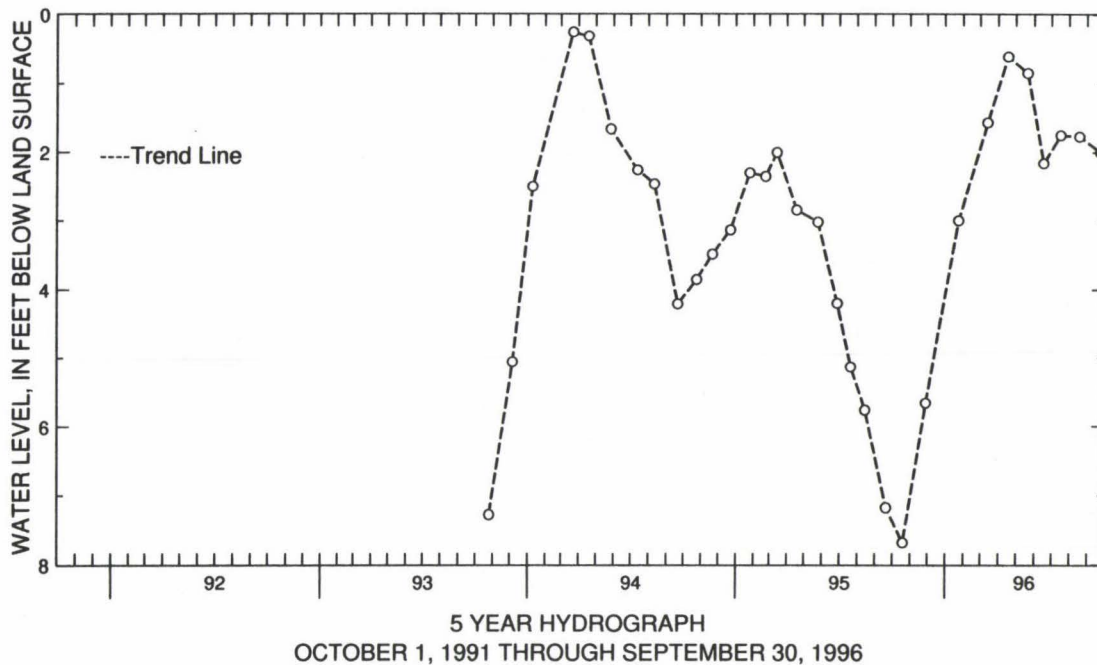
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of22-05. SITE ID.--384343075230301. PERMIT NUMBER.--95786.
 LOCATION.--Lat 38°43'43", long 75°23'03", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 48.31 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.29 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.25 ft below land surface, March 22, 1994;
 lowest measured, 7.68 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.68	MAR 14, 1996	1.57	JUN 17, 1996	2.16	SEP 24, 1996	2.00
NOV 28	5.66	APR 18	.61	JUL 17	1.75		
JAN 25, 1996	3.00	MAY 21	.85	AUG 19	1.77		
WATER YEAR 1996		HIGHEST	.61	APR 18, 1996		LOWEST	7.68
							OCT 19, 1995



GROUND-WATER LEVELS

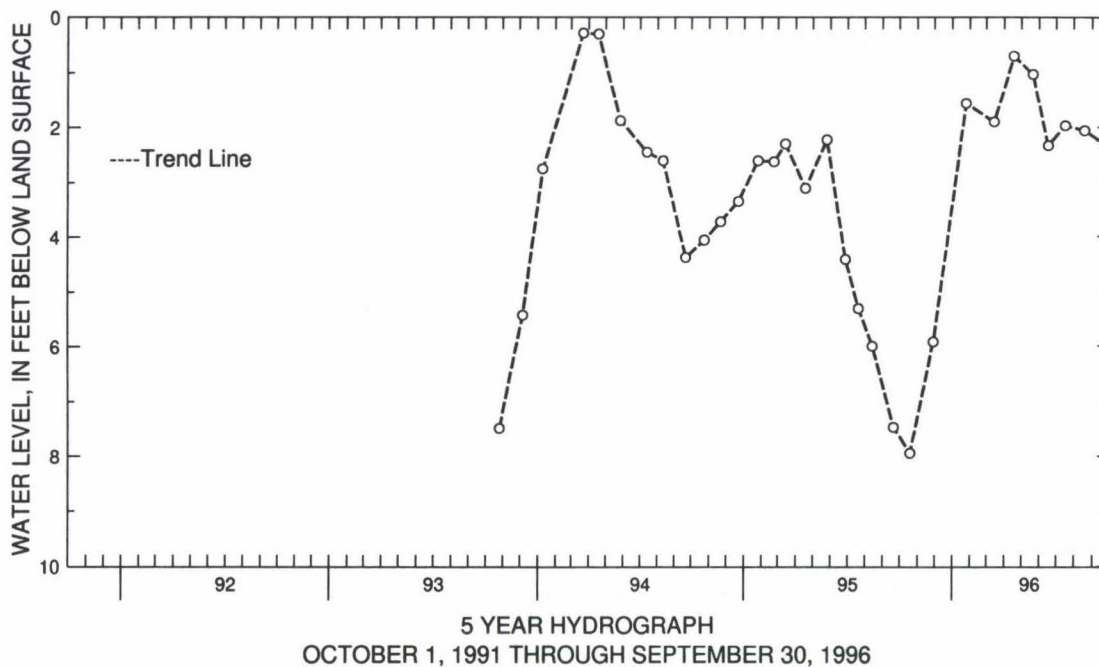
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of22-06. SITE ID.--384343075230201. PERMIT NUMBER.--95797.
 LOCATION.--Lat 38°43'43", long 75°23'02", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 48.46 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.32 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .28 ft. below land surface, March 22, 1994;
 lowest measured, 7.94 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.94	MAR 14, 1996	1.90	JUN 17, 1996	2.33	SEP 24, 1996	2.32
NOV 28	5.92	APR 18	.70	JUL 17	1.97		
JAN 25, 1996	1.56	MAY 21	1.03	AUG 19	2.06		
WATER YEAR 1996		HIGHEST	.70	APR 18, 1996		LOWEST	7.94
							OCT 19, 1995



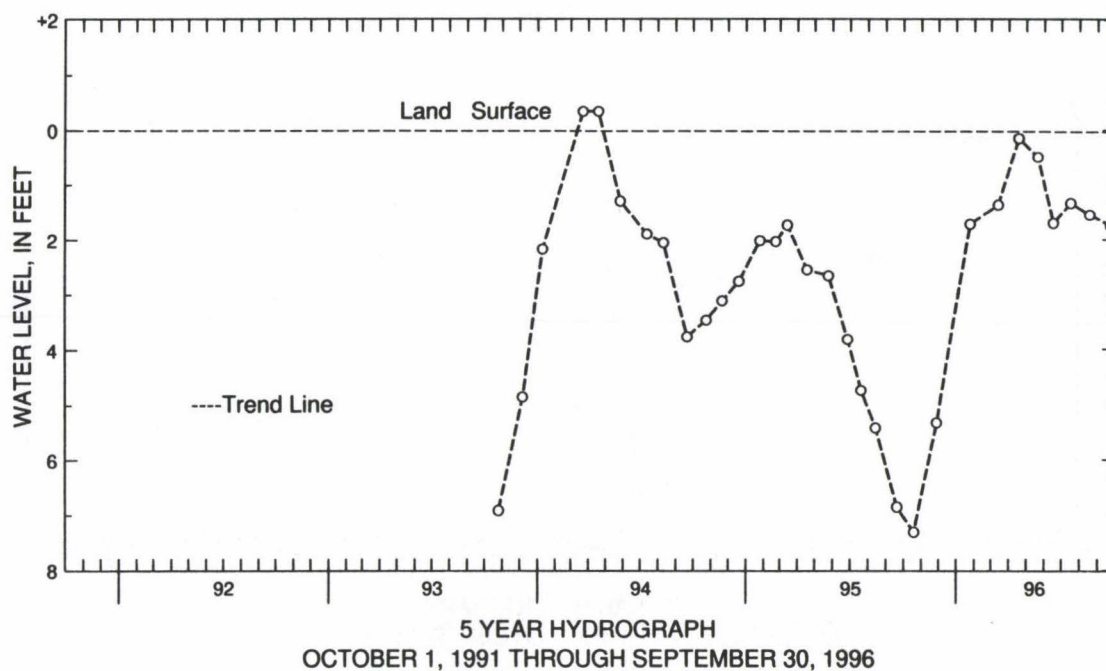
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of22-07. SITE ID.--384343075230101. PERMIT NUMBER.--95796.
 LOCATION.--Lat 38°43'43", long 75°23'01", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 47.85 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.13 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.34 ft above land surface, March 22, 1994, and April 18, 1994; lowest measured, 7.31 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.31	MAR 14, 1996	1.37	JUN 17, 1996	1.70	SEP 24, 1996	1.75
NOV 28	5.33	APR 18	.15	JUL 17	1.34		
JAN 25, 1996	1.72	MAY 21	.49	AUG 19	1.55		
WATER YEAR 1996		HIGHEST .15 APR 18, 1996		LOWEST 7.31 OCT 19, 1995			



GROUND-WATER LEVELS

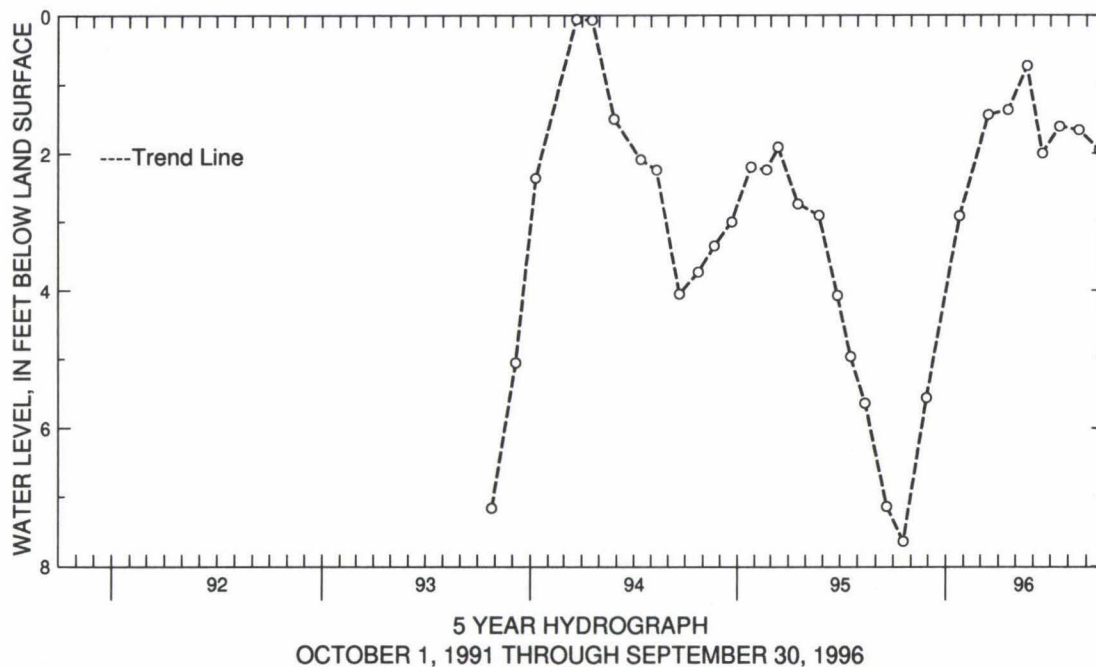
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of22-08. SITE ID.--384344075230301. PERMIT NUMBER.--95799.
 LOCATION.--Lat 38°43'44", long 75°23'03", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 48.13 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 1.96 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.05 ft below land surface, March 22, 1994;
 lowest measured, 7.64 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.64	MAR 14, 1996	1.44	JUN 17, 1996	2.00	SEP 24, 1996	1.96
NOV 28	5.56	APR 18	1.37	JUL 17	1.61		
JAN 25, 1996	2.92	MAY 21	.73	AUG 19	1.66		
WATER YEAR 1996		HIGHEST	.73 MAY 21, 1996	LOWEST		7.64 OCT 19, 1995	



GROUND-WATER LEVELS

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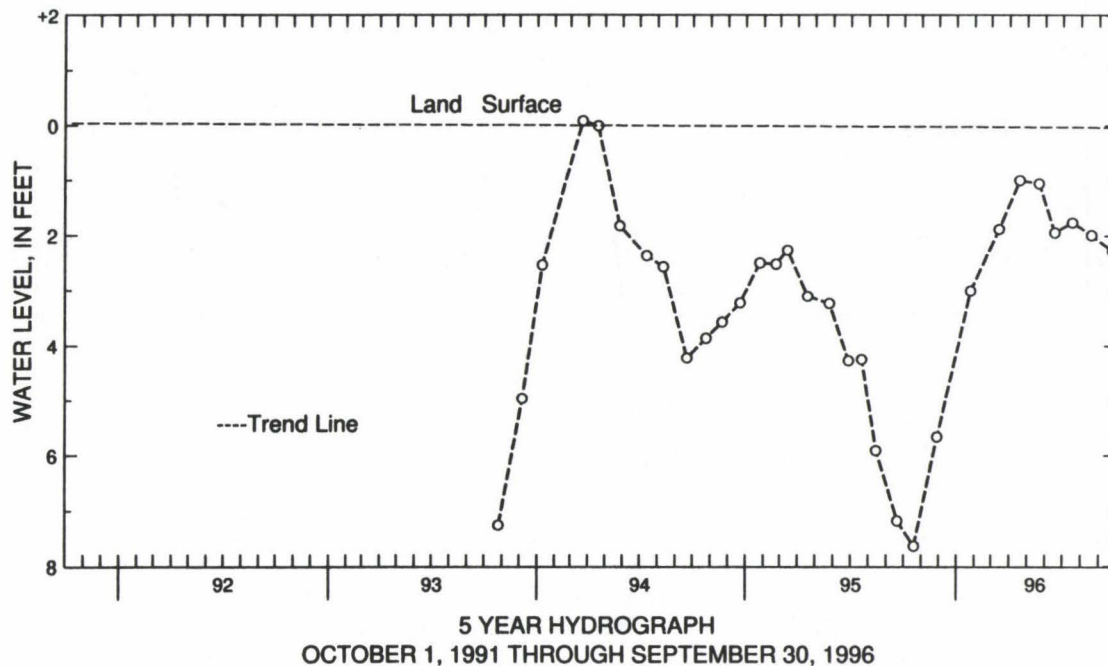
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of22-09. SITE ID.--384344075230102. PERMIT NUMBER.--95784.
 LOCATION.--Lat 38°43'44", long 75°23'01", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 55 ft; casing diameter 2 in., to 52 ft; screen diameter 2 in. from 52 to 55 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 47.85 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.34 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.09 ft above land surface, March 22, 1994;
 lowest measured, 7.64 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.64	MAR 14, 1996	1.88	JUN 17, 1996	1.94	SEP 24, 1996	2.28
NOV 28	5.66	APR 18	.99	JUL 17	1.76		
JAN 25, 1996	3.00	MAY 21	1.05	AUG 19	1.99		
WATER YEAR 1996		HIGHEST .99 APR 18, 1996		LOWEST 7.64 OCT 19, 1995			



GROUND-WATER LEVELS

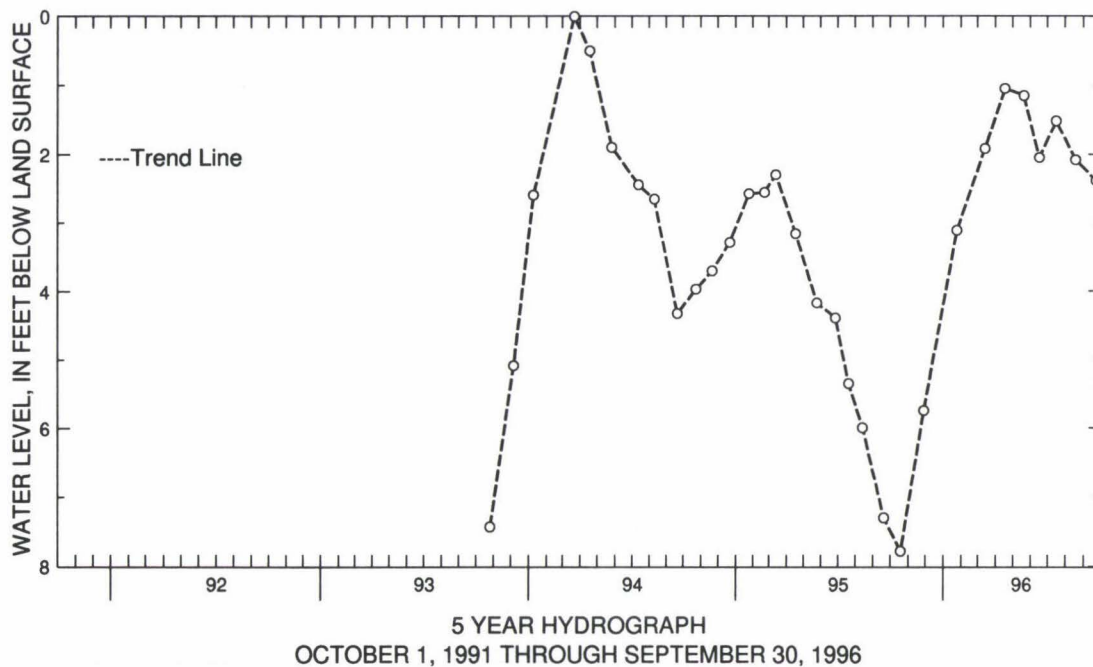
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of22-10. SITE ID.--384341075230003. PERMIT NUMBER.--95777.
 LOCATION.--Lat 38°43'41", long 75°23'00", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 118 ft; casing diameter 2 in., to 115 ft; screen diameter 2 in. from 115 to 118 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 47.95 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.20 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.00 ft at land surface, March 22, 1994;
 lowest measured, 7.78 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	7.78	MAR 14, 1996	1.92	JUN 17, 1996	2.05	SEP 24, 1996	2.39
NOV 28	5.75	APR 18	1.05	JUL 17	1.52		
JAN 25, 1996	3.11	MAY 21	1.15	AUG 19	2.08		
WATER YEAR 1996		HIGHEST	1.05	APR 18, 1996	LOWEST	7.78	OCT 19, 1995



DELAWARE---Continued

SUSSEX COUNTY---Continued

WELL NUMBER.--Of22-11. SITE ID.--384341075230001. PERMIT NUMBER.--95795.

LOCATION.--Lat 38°43'44", long 75°23'01", Hydrologic Unit 02040207, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 16 ft; casing diameter 2 in., to 13 ft; screen diameter 2 in. from 13 to 16 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from Dec. 7, 1993 to current year.

DATUM.--Altitude of land surface is 47.92 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 3.73 ft above land surface.

REMARKS.--Delaware Department of Transportation Wetlands Project observation well.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--September 1993 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.53 ft above land surface, March 3, 1994; lowest measured, 7.41 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
(READINGS ABOVE LAND SURFACE INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	7.14	7.10	7.06	7.06	5.39	5.33	4.74	4.73	2.26	2.21	1.71	1.63
2	7.16	7.13	7.06	7.04	5.41	5.36	4.74	4.67	2.29	2.25	1.66	1.59
3	7.19	7.15	7.07	7.05	5.42	5.37	4.67	4.64	2.29	2.26	1.66	1.57
4	7.22	7.19	7.11	7.07	5.44	5.39	4.64	4.60	2.36	2.29	1.69	1.62
5	7.22	7.09	7.13	7.09	5.45	5.42	4.60	4.56	2.38	2.35	1.65	1.53
6	7.09	7.04	7.13	7.09	5.46	5.42	4.56	4.52	2.42	2.36	1.57	1.26
7	7.10	7.06	7.13	7.12	5.49	5.46	4.53	4.42	2.42	2.35	1.31	.86
8	7.15	7.10	7.14	7.11	5.52	5.49	4.46	4.42	2.36	1.98	1.15	.89
9	7.18	7.14	7.15	7.12	5.52	5.49	4.46	4.41	1.98	1.81	1.35	1.15
10	7.22	7.18	7.16	7.14	5.49	5.45	4.41	4.39	1.91	1.80	1.44	1.31
11	7.24	7.21	7.17	7.14	5.45	5.42	4.41	4.38	1.85	1.79	1.32	1.19
12	7.28	7.23	7.17	7.13	5.46	5.41	4.38	4.31	1.83	1.33	1.25	1.19
13	7.29	7.27	7.14	7.09	5.44	5.42	4.31	4.24	1.60	1.53	1.36	1.25
14	7.31	7.28	7.10	6.90	5.43	5.37	4.24	4.19	1.63	1.47	1.47	1.36
15	7.31	7.25	6.90	5.98	5.37	5.35	4.19	4.18	1.73	1.63	1.49	1.40
16	7.30	7.26	5.98	5.72	5.37	5.36	4.18	4.11	1.73	1.63	1.66	1.49
17	7.33	7.30	5.72	5.58	5.37	5.31	4.11	4.04	1.77	1.70	1.67	1.63
18	7.34	7.30	5.58	5.50	5.33	5.29	4.04	3.85	1.83	1.76	1.69	1.65
19	7.41	7.33	5.50	5.43	5.29	5.22	3.85	3.12	1.86	1.72	1.69	1.20
20	7.38	7.36	5.44	5.38	5.22	5.10	---	---	1.72	1.10	1.33	1.20
21	7.39	7.35	5.39	5.33	5.10	5.03	---	---	1.11	1.04	1.47	1.33
22	7.35	7.22	5.38	5.35	5.05	4.99	---	---	1.21	1.10	1.63	1.47
23	7.23	7.13	5.37	5.31	5.04	4.98	---	---	1.10	1.01	1.70	1.63
24	7.15	7.05	5.37	5.34	5.02	4.97	---	---	1.25	1.01	1.77	1.70
25	7.08	7.03	5.37	5.35	5.01	4.72	---	---	1.36	1.25	1.77	1.72
26	7.04	6.99	5.36	5.32	4.72	4.70	2.71	2.66	1.47	1.36	1.85	1.74
27	7.03	6.99	5.35	5.30	4.72	4.70	2.66	2.19	1.51	1.43	1.88	1.85
28	7.03	6.99	5.38	5.32	4.75	4.72	2.19	2.13	1.61	1.39	1.88	.89
29	7.04	7.01	5.40	5.38	4.77	4.75	2.16	2.13	1.67	1.61	.89	.71
30	7.05	7.01	5.40	5.36	4.77	4.74	2.17	2.12	---	---	.77	.69
31	7.06	7.04	---	---	4.75	4.73	2.21	2.13	---	---	.83	.77
MONTH	7.41	6.99	7.17	5.30	5.52	4.70	4.74	2.12	2.42	1.01	1.88	.69

GROUND-WATER LEVELS

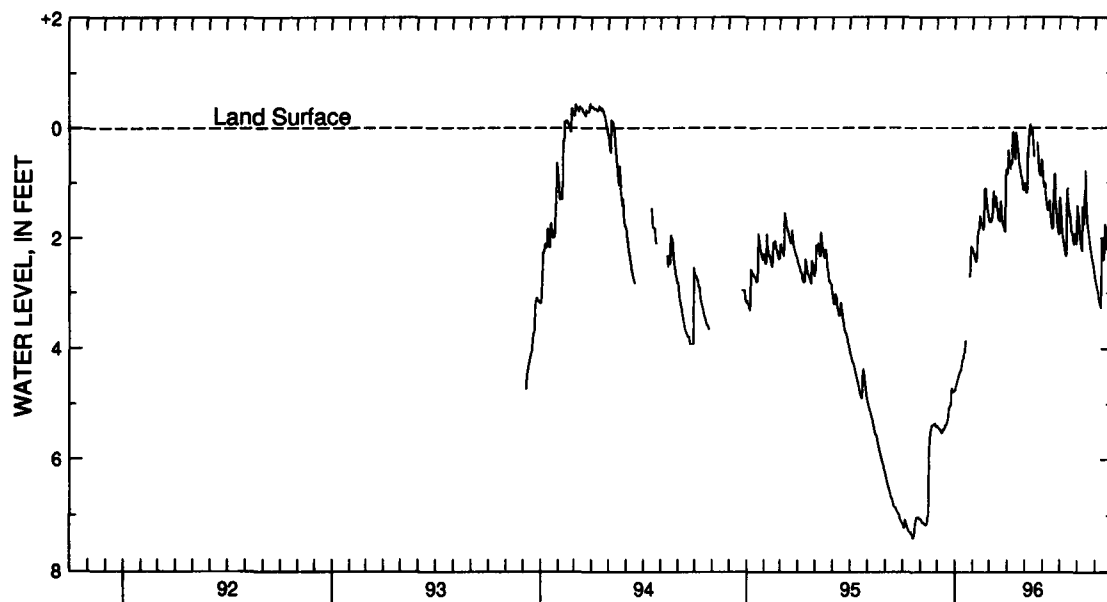
DELAWARE--Continued

SUSSEX COUNTY--Continued

Of22-11--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	.86	.69	1.00	.79	1.00	.86	1.26	.99	1.41	1.07	2.76	2.67
2	.69	.25	1.15	1.00	1.08	1.00	1.38	1.26	1.57	1.19	2.82	2.75
3	.41	.27	1.18	1.07	1.08	.74	1.58	1.38	1.59	1.57	2.86	2.82
4	.56	.41	1.18	1.15	1.00	.78	1.77	1.58	1.80	1.59	2.90	2.86
5	.72	.55	1.18	.19	1.14	.95	1.95	1.77	1.94	1.80	2.95	2.90
6	.74	.62	.40	.13	1.25	1.14	1.98	1.93	2.03	1.94	2.98	2.95
7	.62	.37	.54	.13	1.31	1.24	2.07	1.97	2.12	2.03	3.09	2.98
8	.66	.51	.16	.07	1.40	1.31	2.10	2.04	2.19	2.12	3.14	3.09
9	.66	.10	.16	-.06	1.49	1.40	2.19	2.10	2.24	1.43	3.20	3.14
10	.10	-.07	-.02	-.21	1.49	1.42	2.29	2.19	1.43	.86	3.25	3.20
11	.09	.01	-.06	-.20	1.47	1.01	2.33	2.28	1.71	1.35	3.26	2.61
12	.18	.09	.07	-.06	1.37	1.03	2.33	1.55	1.76	1.58	2.61	1.89
13	.32	.18	.12	-.02	1.31	1.03	1.55	.28	1.58	.18	2.03	1.91
14	.55	.32	.01	-.02	1.54	1.31	1.10	.62	.78	.37	2.24	2.03
15	.58	.08	.17	.01	1.66	1.54	1.28	1.05	1.11	.78	2.38	2.24
16	.09	-.07	.32	.17	1.75	1.66	1.40	1.04	1.32	1.11	2.40	2.09
17	.13	.02	.53	.32	1.83	1.73	1.51	1.40	1.46	1.32	2.09	1.35
18	.27	.13	---	---	1.83	1.75	1.61	1.51	1.67	1.46	1.75	1.43
19	.38	.27	---	---	1.80	.36	1.59	1.22	1.79	1.67	2.00	1.75
20	.47	.38	---	---	.87	.30	1.75	1.37	1.87	1.79	2.13	2.00
21	.65	.47	---	---	.83	.36	1.90	1.75	1.95	1.87	2.20	2.13
22	.71	.65	.27	.07	1.08	.83	1.90	1.89	2.05	1.95	2.20	1.38
23	.77	.69	.43	.27	1.39	1.08	1.94	1.88	2.14	2.05	1.78	1.49
24	.88	.77	.66	.43	1.47	1.14	2.04	1.94	2.22	2.14	1.87	1.78
25	.90	.87	.81	.66	1.48	1.14	2.11	2.04	2.27	2.22	2.07	1.87
26	.94	.89	.86	.81	1.69	1.48	2.11	1.30	2.36	2.27	2.15	2.07
27	1.09	.94	.87	.85	1.79	1.69	1.91	1.61	2.40	2.36	2.21	2.15
28	1.13	1.09	.87	.55	1.87	1.78	2.00	1.91	2.46	2.40	2.26	1.76
29	1.13	1.05	.58	.29	1.93	1.87	2.09	2.00	2.51	2.46	1.76	1.45
30	1.11	.76	.61	.33	1.93	.93	2.10	1.62	2.61	2.51	1.81	1.54
31	---	---	.86	.61	---	---	1.83	1.39	2.68	2.61	---	---
MONTH	1.13	-.07	1.18	-.21	1.93	.30	2.33	.28	2.68	.18	3.26	1.35
YEAR	7.41	-.21										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

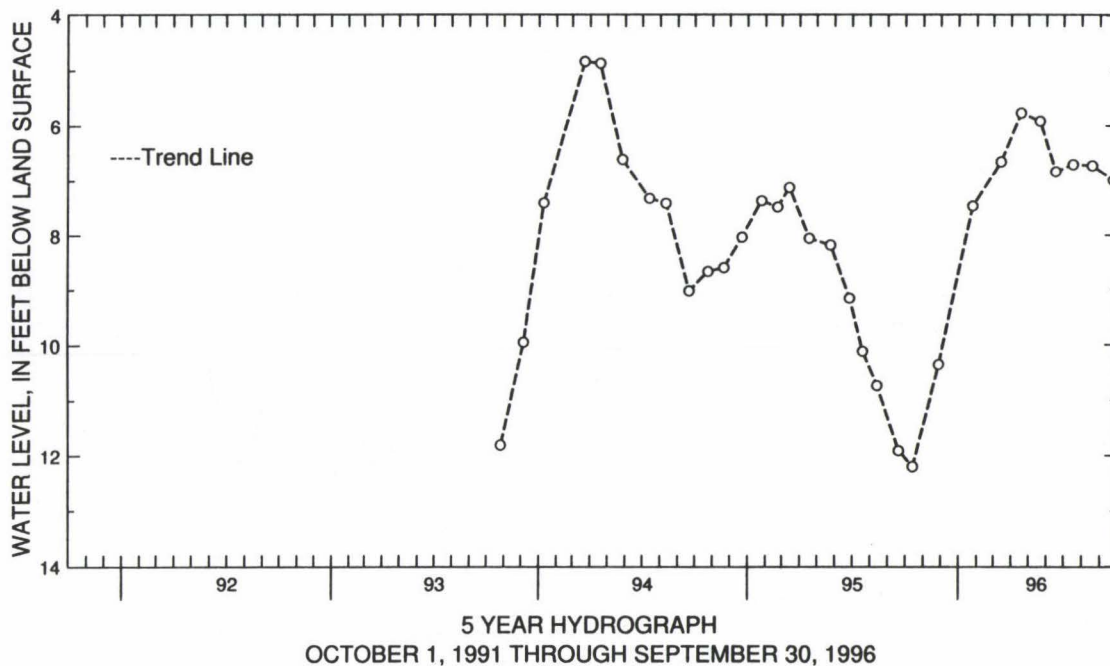
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of23-01. SITE ID.--384338075222303. PERMIT NUMBER.--95775.
 LOCATION.--Lat 38°43'33", long 75°22'29", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 99 ft; casing diameter 2 in., to 96 ft; screen diameter 2 in. from 96 to 99 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 51.22 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.38 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.84 ft below land surface, March 22, 1994;
 lowest measured, 12.20 ft below land surface, Oct. 14, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14, 1995	12.20	MAR 14, 1996	6.66	JUN 17, 1996	6.84	SEP 24, 1996	7.00
NOV 28	10.36	APR 18	5.77	JUL 17	6.71		
JAN 25, 1996	7.47	MAY 21	5.92	AUG 19	6.73		
WATER YEAR 1996		HIGHEST 5.77	APR 18, 1996	LOWEST 12.20	OCT 14, 1995		



GROUND-WATER LEVELS

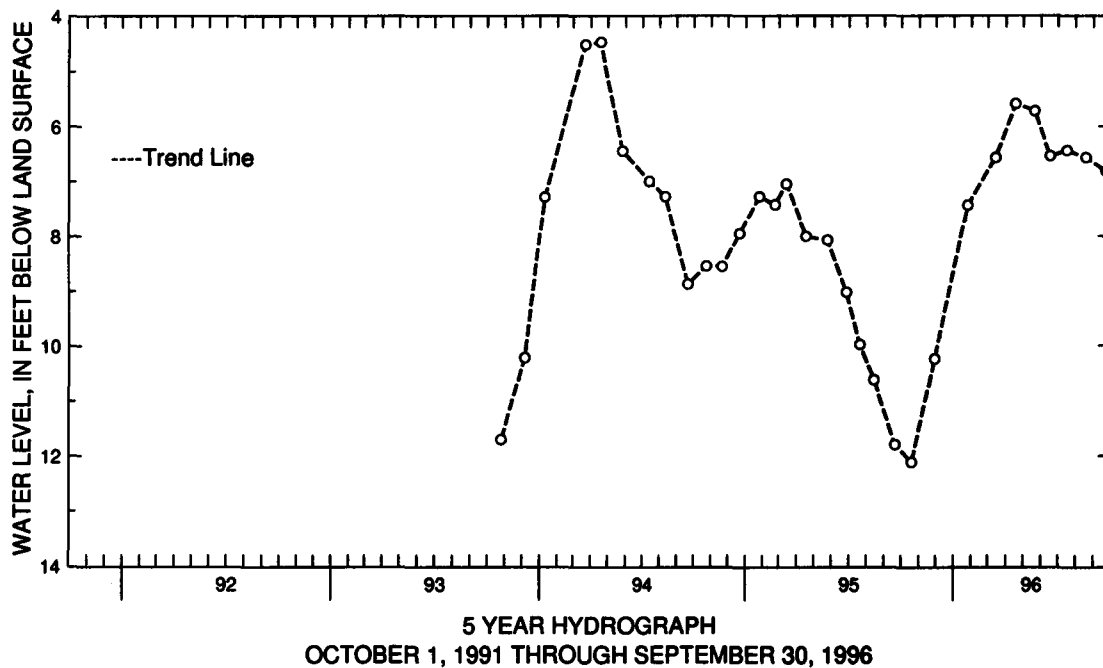
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of23-02. SITE ID.--384333075222902. PERMIT NUMBER.--95782.
 LOCATION.--Lat 38°43'33", long 75°22'29", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 50 ft; casing diameter 2 in., to 47 ft; screen diameter 2 in. from 47 to 50 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 51.25 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.25 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.47 ft below land surface, April 18, 1994;
 lowest measured, 12.11 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	12.11	MAR 14, 1996	6.57	JUN 17, 1996	6.53	SEP 24, 1996	6.82
NOV 28	10.24	APR 18	5.59	JUL 17	6.44		
JAN 25, 1996	7.44	MAY 21	5.72	AUG 19	6.57		
WATER YEAR 1996		HIGHEST 5.59 APR 18, 1996		LOWEST 12.11 OCT 19, 1995			



GROUND-WATER LEVELS

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DELAWARE---Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of23-03. SITE ID.--384333075222901. PERMIT NUMBER.--95793.

LOCATION.--Lat 38°43'33", long 75°22'29", Hydrologic Unit 02040207, near Redden State Forest.

Owner: Delaware Department of Transportation.

AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 20 ft; casing diameter 2 in., to 17 ft; screen diameter 2 in. from 17 to 20 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from Dec. 7, 1993 to current year.

DATUM.--Altitude of land surface is 51.40 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 3.22 ft above land surface.

REMARKS.--Delaware Department of Transportation Wetlands Project observation well.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--September 1993 to current year.

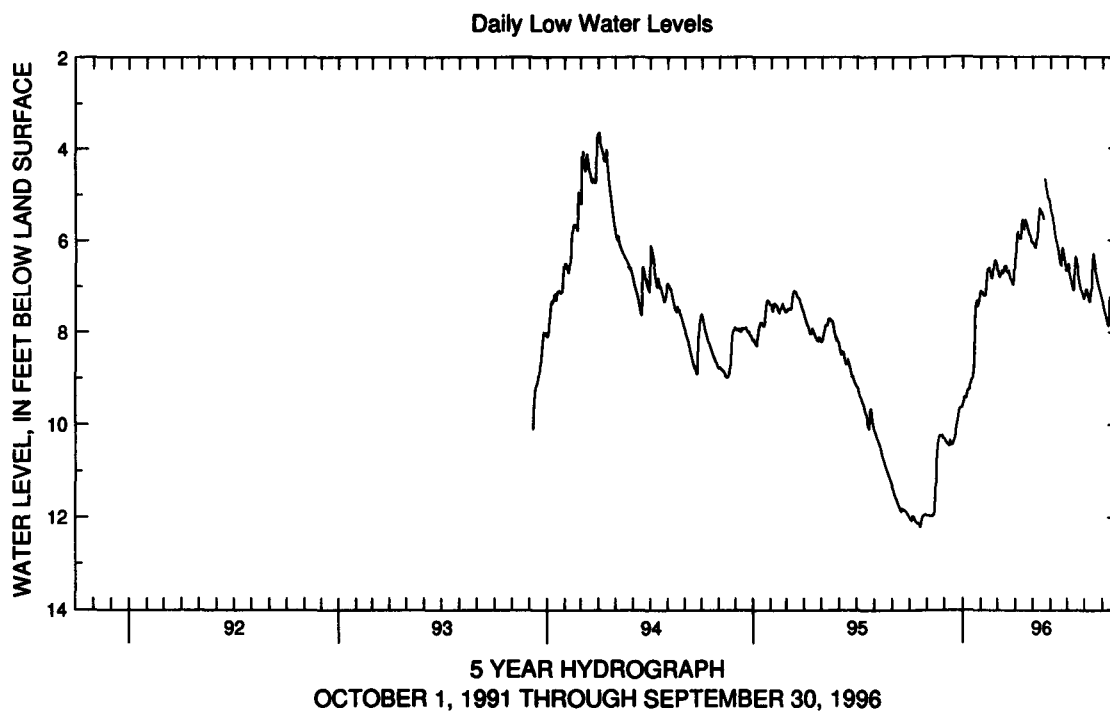
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.34 ft below land surface, April 1, 1994; lowest measured, 12.23 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.02	12.00	11.97	11.96	10.30	10.27	9.53	9.51	7.12	7.10	6.66	6.64
2	12.04	12.02	11.97	11.97	10.37	10.29	9.51	9.40	7.12	7.08	6.66	6.64
3	12.07	12.04	11.97	11.97	10.37	10.34	9.40	9.37	7.13	7.08	6.77	6.65
4	12.08	12.07	11.97	11.97	10.40	10.34	9.41	9.37	7.18	7.13	6.79	6.77
5	12.08	11.98	11.97	11.97	10.42	10.40	9.40	9.39	7.19	7.18	6.78	6.70
6	11.98	11.97	11.98	11.97	10.40	10.39	9.42	9.39	7.21	7.19	6.72	6.69
7	11.98	11.97	11.98	11.98	10.41	10.39	9.40	9.25	7.21	7.20	6.72	6.61
8	11.99	11.98	11.98	11.97	10.46	10.41	9.27	9.24	7.20	7.08	6.67	6.62
9	12.02	11.99	11.97	11.97	10.45	10.36	9.27	9.23	7.08	6.95	6.70	6.67
10	12.06	12.02	11.98	11.97	10.36	10.36	9.23	9.23	6.95	6.71	6.71	6.68
11	12.08	12.06	11.98	11.95	10.39	10.36	9.23	9.23	6.71	6.62	6.68	6.57
12	12.10	12.08	11.96	11.93	10.42	10.39	9.23	9.11	6.62	6.59	6.57	6.55
13	12.12	12.10	11.93	11.89	10.43	10.42	9.11	9.08	6.60	6.57	6.56	6.55
14	12.14	12.12	11.89	11.52	10.43	10.38	9.08	9.03	6.60	6.53	6.56	6.56
15	12.14	12.12	11.52	11.18	10.38	10.37	9.03	9.01	6.67	6.60	6.59	6.55
16	12.12	12.12	11.18	10.80	10.37	10.31	9.01	8.91	6.67	6.61	6.67	6.59
17	12.13	12.12	10.80	10.55	10.31	10.29	8.91	8.82	6.70	6.65	6.68	6.67
18	12.15	12.13	10.55	10.41	10.29	10.22	8.82	8.65	6.80	6.70	6.70	6.68
19	12.23	12.15	10.41	10.33	10.22	10.04	8.65	8.17	6.82	6.80	6.70	6.60
20	12.18	12.18	10.33	10.27	10.04	10.01	8.17	7.63	6.82	6.69	6.67	6.63
21	12.19	12.09	10.27	10.23	10.01	9.95	7.63	7.42	6.69	6.58	6.74	6.67
22	12.09	12.03	10.24	10.24	9.95	9.88	7.42	7.35	6.58	6.51	6.79	6.74
23	12.03	11.99	10.24	10.23	9.88	9.78	7.35	7.30	6.51	6.43	6.84	6.79
24	11.99	11.97	10.23	10.23	9.78	9.71	7.32	7.21	6.44	6.39	6.86	6.84
25	11.97	11.97	10.23	10.23	9.71	9.64	7.43	7.32	6.44	6.44	6.86	6.85
26	11.97	11.96	10.24	10.23	9.64	9.63	7.42	7.36	6.48	6.44	6.92	6.85
27	11.96	11.95	10.23	10.23	9.63	9.62	7.36	7.25	6.50	6.48	6.96	6.92
28	11.95	11.94	10.30	10.23	9.62	9.62	7.28	7.22	6.59	6.46	6.96	6.80
29	11.94	11.94	10.30	10.28	9.62	9.62	7.22	7.12	6.64	6.59	6.80	6.53
30	11.95	11.94	10.30	10.28	9.62	9.60	7.12	7.06	---	---	6.53	6.35
31	11.96	11.95	---	---	9.60	9.53	7.10	7.05	---	---	6.35	6.28
MONTH	12.23	11.94	11.98	10.23	10.46	9.53	9.53	7.05	7.21	6.39	6.96	6.28

GROUND-WATER LEVELS
DELAWARE--Continued
SUSSEX COUNTY--Continued
Of23-03--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.28	6.05	6.08	6.07	5.36	5.28	6.53	6.52	7.21	7.10	7.35	7.28
2	6.05	5.87	6.12	6.08	5.42	5.36	6.52	6.52	7.10	7.06	7.41	7.35
3	5.87	5.81	6.15	6.12	5.45	5.42	6.56	6.52	7.06	7.05	7.48	7.41
4	5.84	5.81	6.17	6.15	5.53	5.45	6.68	6.56	7.06	7.05	7.52	7.48
5	5.93	5.84	6.17	6.00	5.61	5.53	6.75	6.68	7.12	7.06	7.58	7.52
6	5.95	5.93	6.00	5.96	5.69	5.61	6.79	6.75	7.17	7.12	7.61	7.58
7	5.95	5.94	5.98	5.92	5.76	5.69	6.85	6.79	7.24	7.17	7.68	7.61
8	5.97	5.94	5.92	5.80	5.86	5.76	6.91	6.85	7.30	7.24	7.72	7.68
9	5.97	5.85	5.80	5.54	5.95	5.86	6.96	6.90	7.33	7.30	7.79	7.72
10	5.85	5.62	5.54	5.45	6.01	5.95	7.03	6.96	7.32	7.10	7.84	7.79
11	5.62	5.54	5.45	5.32	6.06	6.01	7.08	7.03	7.10	7.08	7.85	7.68
12	5.55	5.54	5.32	5.26	6.12	6.06	7.09	7.01	7.08	7.03	7.68	7.31
13	5.59	5.55	5.33	5.27	6.16	6.12	7.01	6.46	7.03	6.32	7.31	7.23
14	5.73	5.59	5.38	5.33	6.25	6.16	6.46	6.37	6.32	6.27	7.23	7.22
15	5.75	5.67	5.41	5.38	6.35	6.25	6.37	6.37	6.30	6.27	7.24	7.22
16	5.67	5.53	5.40	5.37	6.45	6.35	6.40	6.37	6.39	6.30	7.24	7.18
17	5.55	5.54	5.44	5.38	6.51	6.45	6.50	6.40	6.45	6.39	7.18	7.03
18	5.60	5.55	5.49	5.44	6.55	6.51	6.55	6.50	6.52	6.45	7.03	6.92
19	5.63	5.59	5.56	5.49	6.55	6.26	6.58	6.52	6.62	6.52	6.92	6.89
20	5.66	5.63	---	---	6.26	6.18	6.74	6.58	6.69	6.62	6.92	6.89
21	5.75	5.66	---	---	6.18	6.17	6.84	6.74	6.74	6.69	6.95	6.92
22	5.77	5.75	4.67	4.62	6.20	6.18	6.88	6.84	6.82	6.74	6.95	6.87
23	5.84	5.77	4.74	4.64	6.30	6.20	6.97	6.88	6.87	6.82	6.87	6.85
24	5.88	5.84	4.85	4.74	6.36	6.30	7.04	6.97	6.94	6.87	6.87	5.81
25	5.89	5.88	4.93	4.85	6.42	6.35	7.09	7.04	6.98	6.94	5.90	5.85
26	5.93	5.88	5.01	4.93	6.49	6.42	7.09	7.06	7.04	6.98	5.94	5.90
27	6.02	5.93	5.09	5.01	6.56	6.49	7.13	7.06	7.09	7.04	5.97	5.94
28	6.05	6.02	5.11	5.09	6.62	6.56	7.18	7.13	7.14	7.09	5.99	5.97
29	6.05	6.04	5.12	5.10	6.67	6.62	7.23	7.18	7.19	7.14	5.99	5.91
30	6.07	6.04	5.18	5.10	6.67	6.53	7.26	7.21	7.24	7.19	5.91	5.88
31	---	---	5.28	5.18	---	---	7.22	7.21	7.28	7.24	---	---
MONTH	6.28	5.53	6.17	4.62	6.67	5.28	7.26	6.37	7.33	6.27	7.85	5.81
YEAR	12.23	4.62										



GROUND-WATER LEVELS

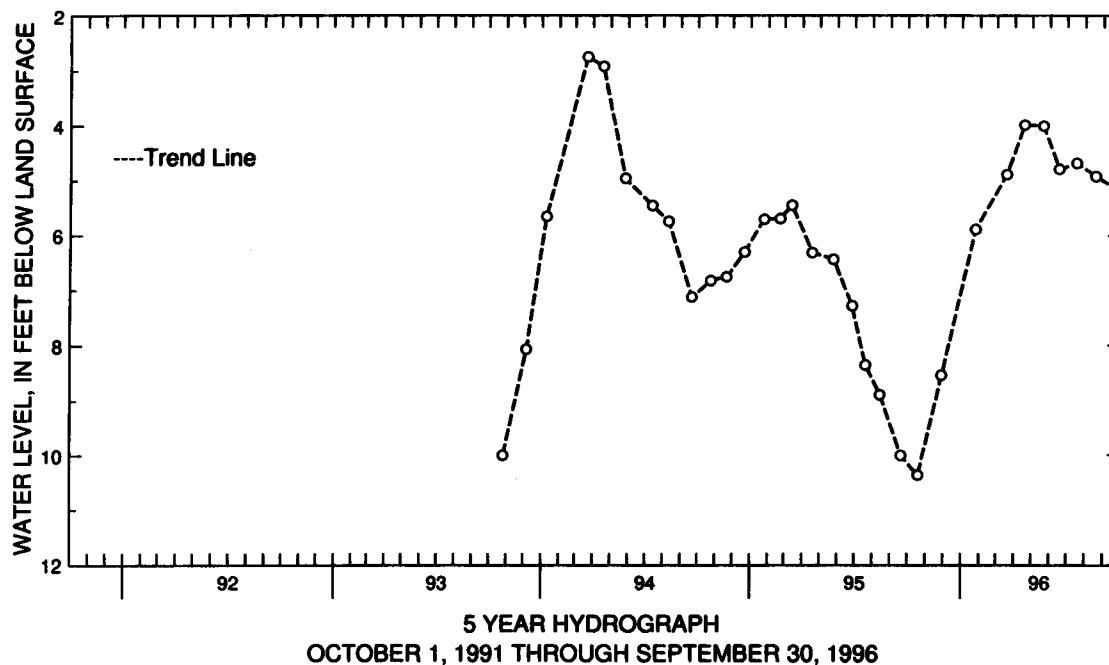
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of23-04. SITE ID.--384341075223803. PERMIT NUMBER.--95776.
 LOCATION.--Lat 38°43'41", long 75°22'38", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 104 ft; casing diameter 2 in., to 101 ft; screen diameter 2 in. from 101 to 104 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 49.95 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.24 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.74 ft below land surface, March 22, 1994;
 lowest measured, 10.37 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	10.37	MAR 18, 1996	4.88	JUN 17, 1996	4.78	SEP 24, 1996	5.15
NOV 28	8.55	APR 18	3.98	JUL 17	4.67		
JAN 25, 1996	5.89	MAY 21	4.00	AUG 19	4.91		
WATER YEAR 1996		HIGHEST	3.98	APR 18, 1996	LOWEST	10.37	OCT 19, 1995



GROUND-WATER LEVELS

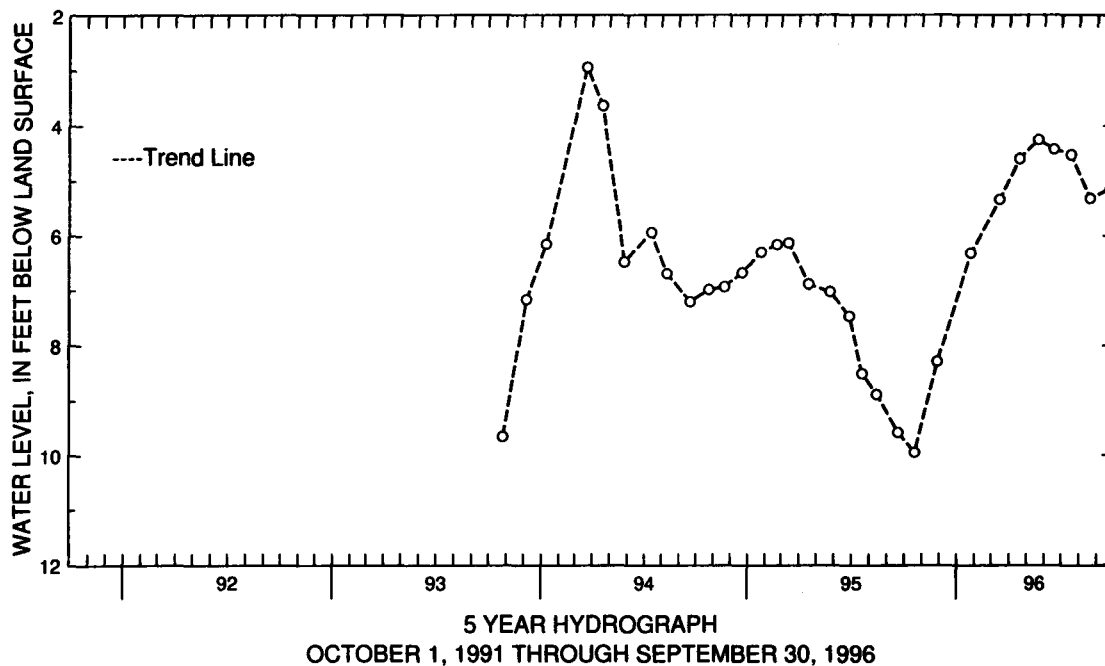
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Of23-05. SITE ID.--384341075223801. PERMIT NUMBER.--95794.
 LOCATION.--Lat 38°43'41", long 75°22'38", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 18 ft; casing diameter 2 in., to 15 ft; screen diameter 2 in. from 15 to 18 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 50.13 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 1.83 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.94 ft below land surface, March 22, 1994; lowest measured, 9.95 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	9.95	MAR 14, 1996	5.34	JUN 17, 1996	4.42	SEP 24, 1996	5.13
NOV 28	8.29	APR 18	4.59	JUL 17	4.52		
JAN 25, 1996	6.32	MAY 21	4.25	AUG 19	5.32		
WATER YEAR 1996		HIGHEST	4.25	MAY 21, 1996	LOWEST	9.95	OCT 19, 1995



GROUND-WATER LEVELS

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DELAWARE--Continued

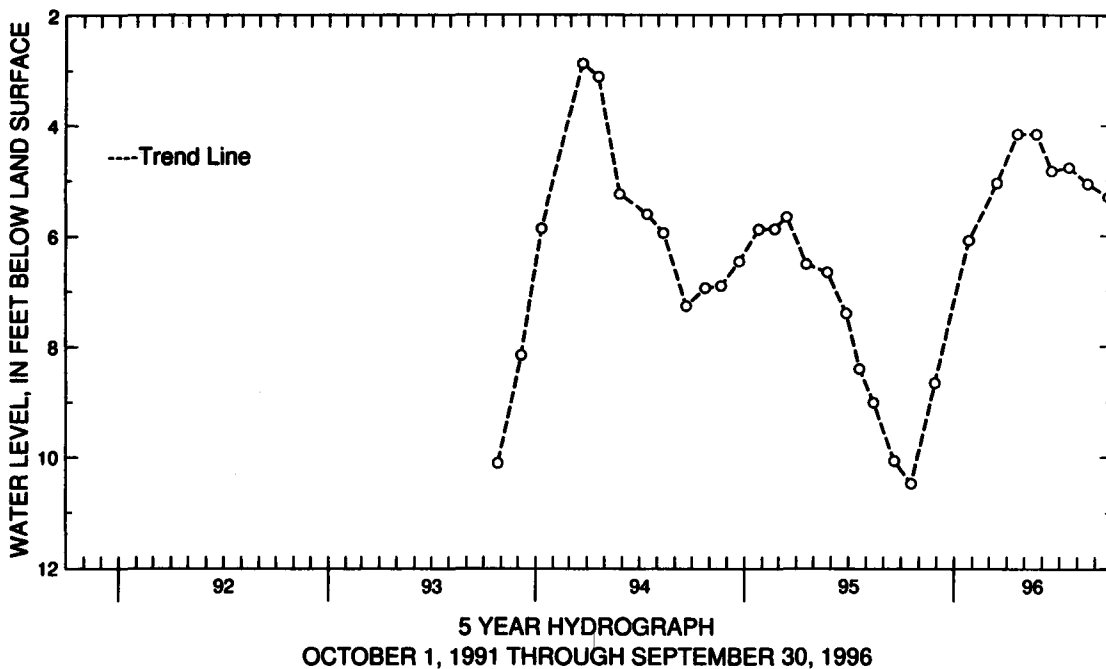
SUSSEX COUNTY--Continued

WELL NUMBER.--Of23-06. SITE ID.--384341075223802. PERMIT NUMBER.--95783.
 LOCATION.--Lat 38°43'41", long 75°22'38", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 55 ft; casing diameter 2 in., to 52 ft; screen diameter 2 in. from 52 to 55 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 50.14 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.42 ft above land surface.
 REMARKS.--Delaware Department of Transportation Project observation well.
 PERIOD OF RECORD.--September 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.87 ft below land surface, March 22, 1994;
 lowest measured, 10.48 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	10.48	MAR 14, 1996	5.05	JUN 17, 1996	4.83	SEP 24, 1996	5.30
NOV 28	8.66	APR 18	4.16	JUL 17	4.77		
JAN 25, 1996	6.09	MAY 21	4.16	AUG 19	5.06		

WATER YEAR 1996 HIGHEST 4.16 APR 18, 1996 MAY 21, 1996
 LOWEST 10.48 OCT 19, 1995



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Oh54-01. SITE ID.--384038075110001.

LOCATION.--Lat 38°40'38", long 75°11'00", Hydrologic Unit 02060010, at intersection of DE Rts 24 and 277, near Angola.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 290 ft; casing diameter 2 in., to 280 ft; screen diameter 2 in., from 280 to 290 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

Measured monthly from November 1977 to December 1979; twice yearly from March 1980 to October 1984. Monthly measurements by U.S. Geological Survey and Delaware Geological Survey personnel from February 1985 to July 1987.

DATUM.--Elevation of land surface is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map.

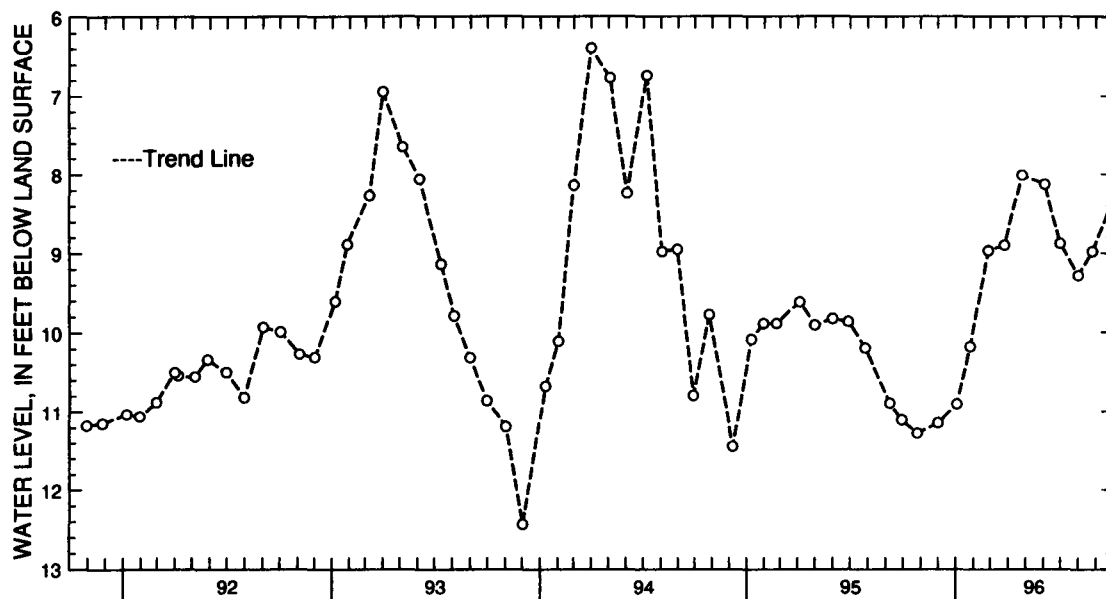
Measuring Point: Top of steel casing, 1.5 ft above land surface.

PERIOD OF RECORD.--November 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.35 ft below land surface, April 4, 1984; lowest measured, 12.44 ft below land surface, Dec. 1, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1995	11.28	JAN 26, 1996	10.18	APR 25, 1996	8.01	AUG 01, 1996	9.28
NOV 30	11.15	FEB 27	8.97	JUN 03	8.13	26	8.98
JAN 02, 1996	10.91	MAR 26	8.90	JUL 01	8.88	SEP 30	8.35
WATER YEAR 1996		HIGHEST	8.01	APR 25, 1996		LOWEST	11.28
							OCT 26, 1995



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Oh54-02. SITE ID.--384038075110002.

LOCATION.--Lat 38°40'38", long 75°11'00", Hydrologic Unit 02060010, at intersection of DE Rts. 24 and 277, near Angola.

Owner: U.S. Geological Survey.

AQUIFER.--Pocomoke aquifer of Upper Miocene-Pliocene age. Aquifer code: 122PCMK.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 189 ft; casing diameter 2 in., to 179 ft; screen diameter 2 in., from 179 to 189 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel. Measured monthly from November 1977 to December 1979; twice yearly from March 1980 to October 1984. Measured monthly by U.S. Geological Survey and Delaware Geological Survey personnel from February 1985 to July 1987.

DATUM.--Elevation of land surface is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map.

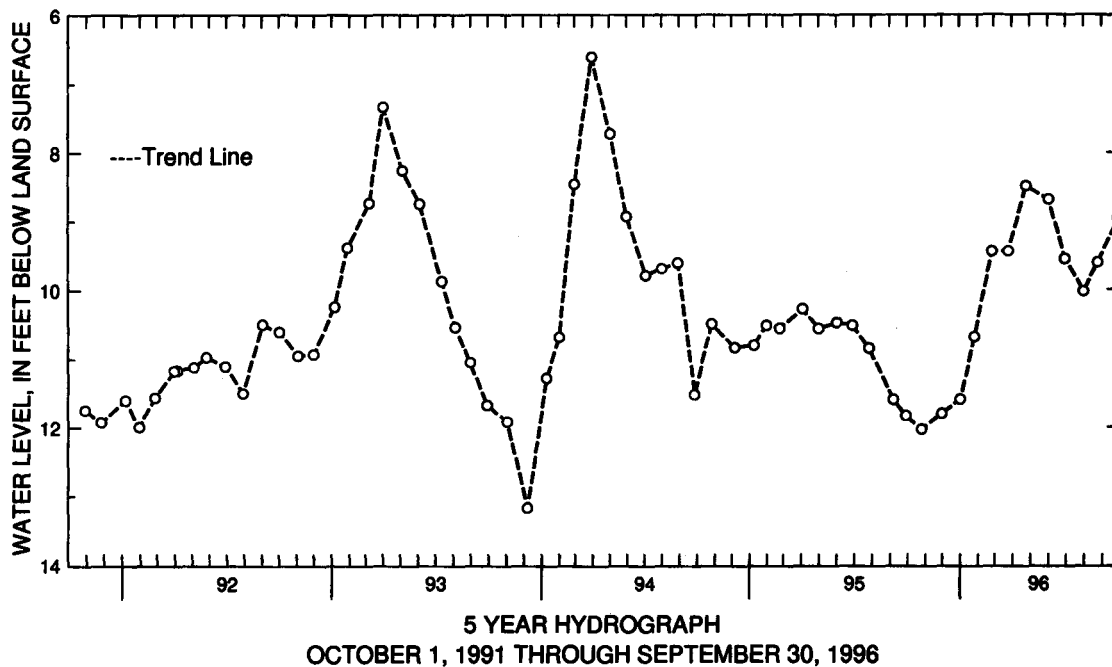
Measuring Point: Top of steel casing, 1.5 ft above land surface.

PERIOD OF RECORD.--November 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.44 ft below land surface, April 2, 1979; lowest measured, 13.85 ft below land surface, Sept. 23, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1995	12.03	JAN 26, 1996	10.69	APR 25, 1996	8.50	AUG 01, 1996	10.03
NOV 30	11.80	FEB 27	9.44	JUN 03	8.69	26	9.60
JAN 02, 1996	11.59	MAR 26	9.44	JUL 01	9.55	SEP 30	8.95
WATER YEAR 1996		HIGHEST	8.50	APR 25, 1996	LOWEST	12.03	OCT 26, 1995



GROUND-WATER LEVELS

DELAWARE--Continued

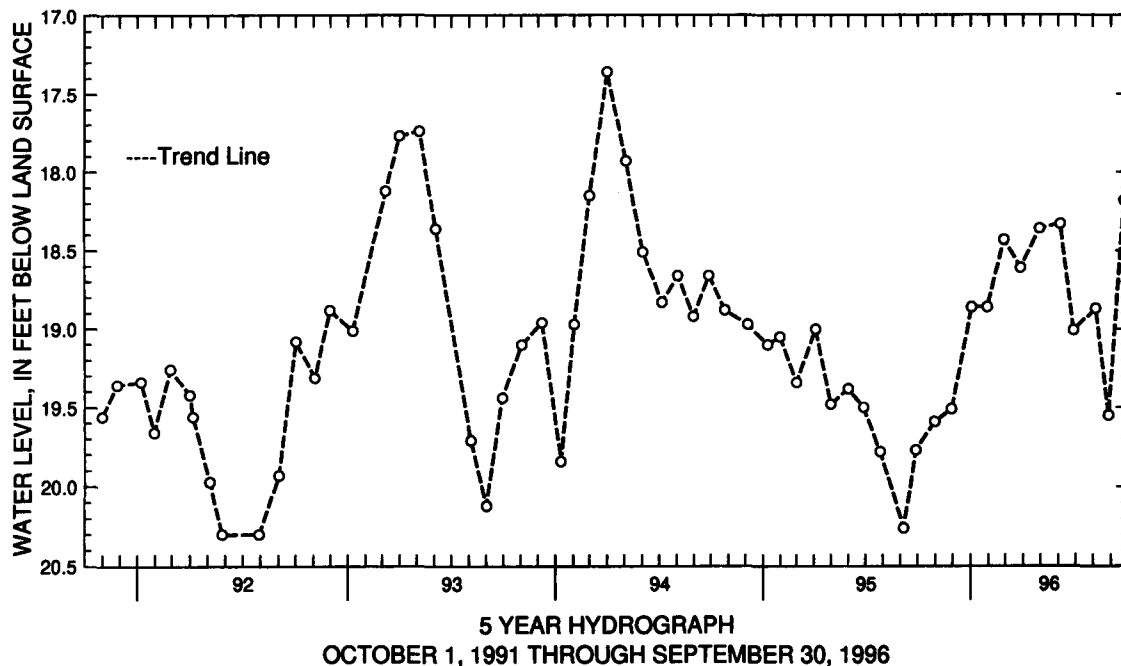
SUSSEX COUNTY--Continued

WELL NUMBER.--0124-06. SITE ID.--384258075063101. PERMIT NUMBER.--03489.
 LOCATION.--Lat 38°42'58", long 75°06'31", Hydrologic Unit 02060010, nr DE Rt. 1, at Rehoboth Water Pumping Station.
 Owner: City of Rehoboth.
 AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 250 ft; casing diameter 4 in., to 230 ft; screened 230 to 250 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel. Equipped with graphic water-level recorder from June 1976 to December 1979.
 Measured monthly January 1980 to December 1981.
 DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 0.70 ft above land surface.
 REMARKS.--Delaware Water-Level Network observation well.
 PERIOD OF RECORD.--May 1976 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.90 ft below land surface, March 25, 1979. lowest measured, 20.49 ft below land surface, July 24, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	19.59	JAN 30, 1996	18.86	APR 30, 1996	18.36	AUG 06, 1996	18.87
NOV 29	19.51	FEB 28	18.43	JUN 05	18.33	28	19.55
JAN 03, 1996	18.86	MAR 28	18.61	28	19.01	SEP 25	18.18

WATER YEAR 1996 HIGHEST 18.18 SEP 25, 1996 LOWEST 19.59 OCT 31, 1995



DELAWARE-- Continued

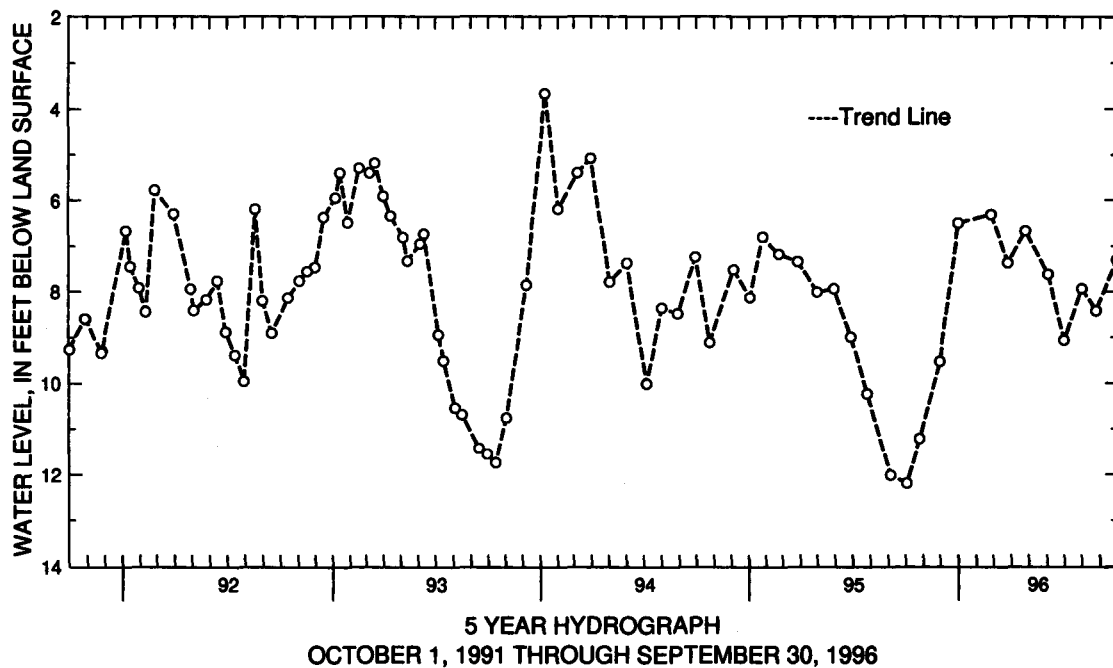
SUSSEX COUNTY--Continued

WELL NUMBER.--Qe44-01. SITE ID.--383138075260201. PERMIT NUMBER.--49320.
 LOCATION.--Lat 38°31'38", long 75°26'02", Hydrologic Unit 02060008, 1.0 mi east of Whaleys Crossroads.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25 ft; casing diameter 1 in., to 22 ft; well point from 22 to 25 ft.
 INSTRUMENTATION.--Bimonthly measurements with chalked steel tape by U.S. Geological Survey and Delaware Geological Survey personnel.
 DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing at land surface.
 PERIOD OF RECORD.--September 1959 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.66 ft below land surface, Jan. 10, 1994; lowest measured, 12.22 ft below land surface, Dec. 2, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	12.20	JAN 02, 1996	6.50	APR 25, 1996	6.68	AUG 01, 1996	7.94
26	11.23	FEB 27	6.31	JUN 03	7.63	26	8.42
NOV 30	9.54	MAR 26	7.38	JUL 01	9.08	SEP 30	7.30

WATER YEAR 1996 HIGHEST 6.31 FEB 27, 1996 LOWEST 12.20 OCT 03, 1995



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-04. SITE ID.--383050075105201.

LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010, at Pyle Center, Omar.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 328 ft; casing diameter 2 in., to 324 ft; screen diameter 2 in., from 324 to 328 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by Delaware Geological Survey personnel.

Measured monthly from November 1978 to December 1979. Intermittent measurements March 1980 to February 1985.

Measured monthly from April 1985 to November 1988.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.

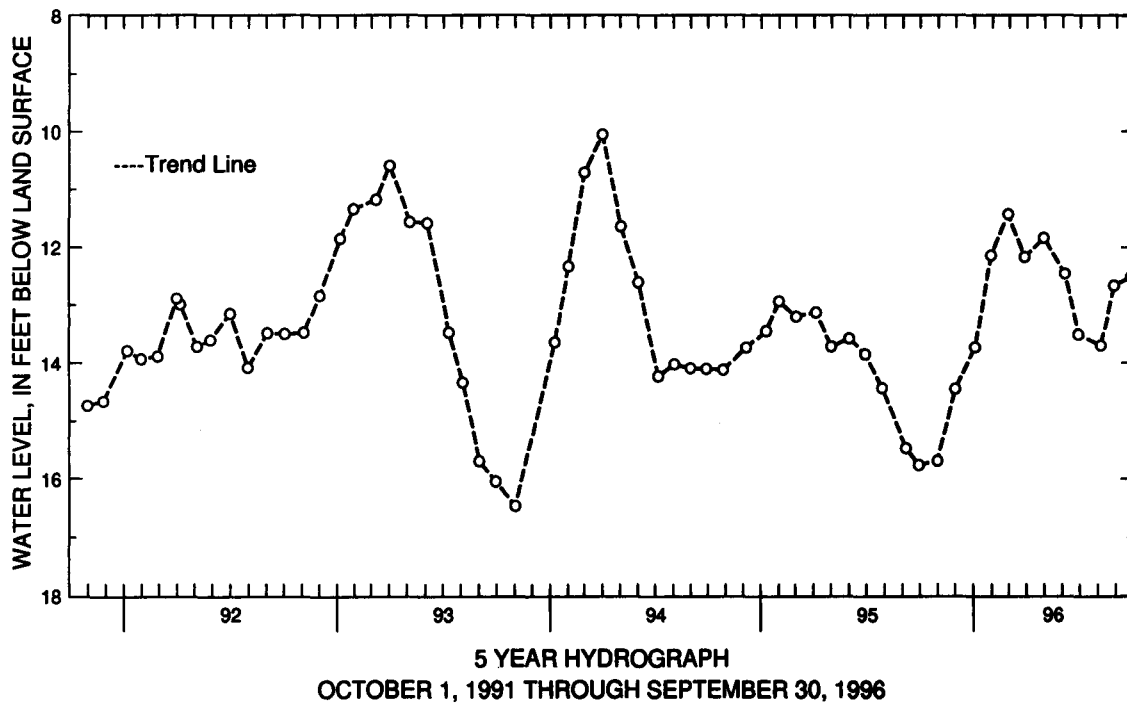
Measuring Point: Top of casing, 2.0 ft above land surface.

PERIOD OF RECORD.--November 1978 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.07 ft below land surface, April 2, 1979; lowest measured, 16.46 ft below land surface, Oct. 21, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	15.69	JAN 30, 1996	12.14	APR 30, 1996	11.84	AUG 06, 1996	13.70
NOV 30	14.45	FEB 28	11.43	JUN 05	12.46	28	12.67
JAN 03, 1996	13.73	MAR 28	12.17	28	13.51	SEP 26	12.52
WATER YEAR 1996		HIGHEST	11.43	FEB 28, 1996	LOWEST	15.69	OCT 31, 1995



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-05. SITE ID.--383050075105202.

LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010, at Pyle Center, Omar.

Owner: U.S. Geological Survey.

AQUIFER.--Ocean City aquifer of Upper Miocene age. Aquifer code: 1220CNC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 232 ft; casing diameter 2 in., to 229 ft; screen diameter 2 in., from 229 to 232 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

Measured monthly from November 1978 to December 1979 and April 1985 to November 1988.

Intermittent measurements from March 1980 to February 1985.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.

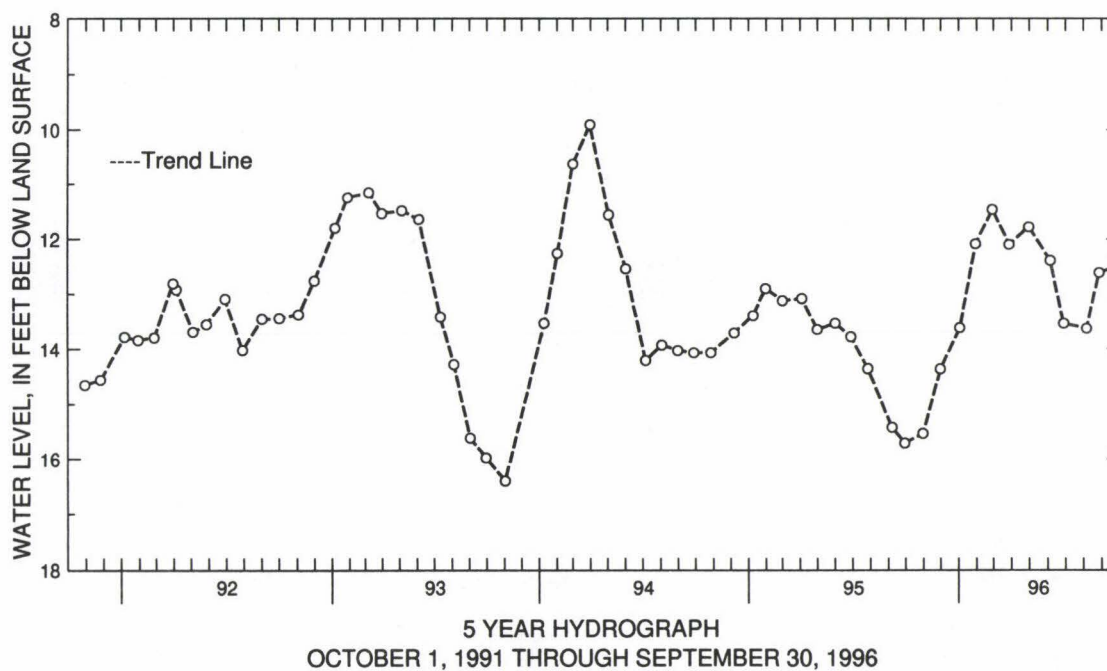
Measuring Point: Top of casing, 2.0 ft above land surface.

PERIOD OF RECORD.--November 1978 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.63 ft below land surface, March 1, 1979; lowest measured, 16.43 ft below land surface, Oct. 21, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	15.54	JAN 30, 1996	12.09	APR 30, 1996	11.78	AUG 06, 1996	13.63
NOV 30	14.37	FEB 28	11.46	JUN 05	12.39	28	12.61
JAN 03, 1996	13.62	MAR 28	12.10	28	13.54	SEP 26	12.50
WATER YEAR 1996		HIGHEST	11.46	FEB 28, 1996		LOWEST	15.54
							OCT 31, 1995



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-06. SITE ID.--383050075105203.

LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010, at Pyle Center, Omar.

Owner: U.S. Geological Survey.

AQUIFER.--Pocomoke aquifer of Upper Miocene-Pliocene age. Aquifer code: 122PCMK.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 148 ft; casing diameter 2 in., to 144 ft; screen diameter 2 in., from 144 to 148 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

Measured monthly from November 1978 to December 1979. Intermittent measurements March 1980 to February 1985.

Measured monthly from April 1985 to November 1988.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.

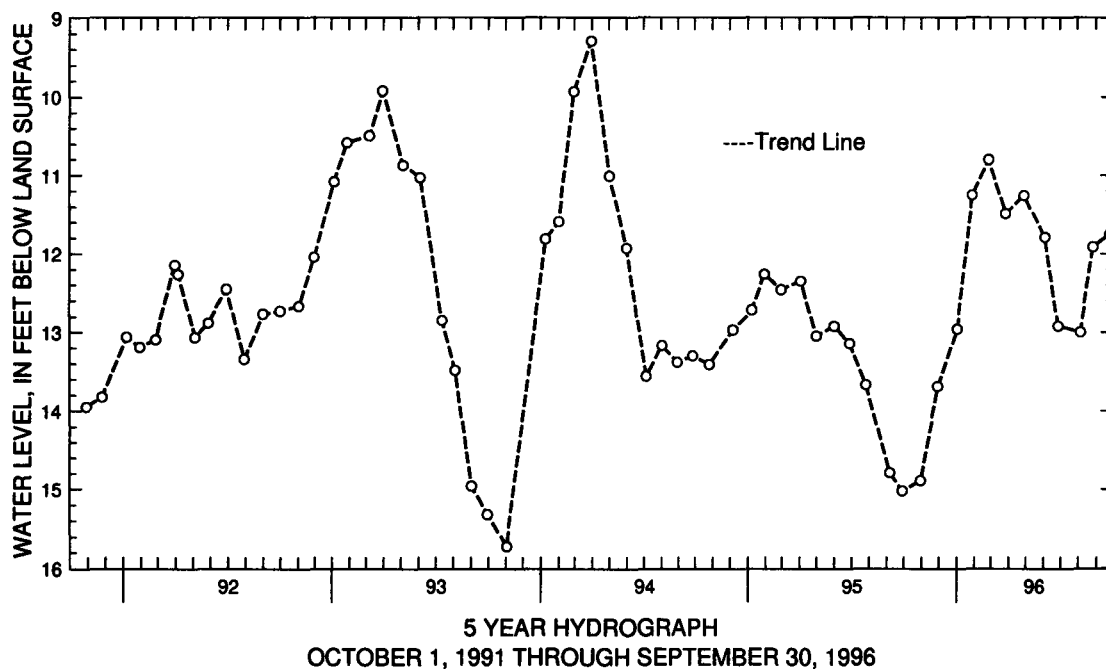
Measuring Point: Top of casing, 2.0 ft above land surface.

PERIOD OF RECORD.--November 1978 to present.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.95 ft below land surface, March 1, 1979; lowest measured, 17.10 ft below land surface, July 24, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	14.89	JAN 30, 1996	11.25	APR 30, 1996	11.26	AUG 06, 1996	12.99
NOV 30	13.69	FEB 28	10.80	JUN 05	11.79	28	11.91
JAN 03, 1996	12.96	MAR 28	11.49	28	12.92	SEP 26	11.75
WATER YEAR 1996		HIGHEST	10.80	FEB 28, 1996	LOWEST	14.89	OCT 31, 1995



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Qh54-07. SITE ID.--383050075105204.

LOCATION.--Lat 39°30'50", long 75°10'52", Hydrologic Unit 02060010, at Pyle Center, Omar.

Owner: U.S. Geological Survey.

AQUIFER.--Columbia group of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 108 ft; casing diameter 2 in., to 104 ft; screen diameter 2 in., from 104 to 108 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

Measured monthly from November 1978 to December 1979, and April 1985 to November 1988. Intermittent measurements from March 1980 to February 1985.

DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929.

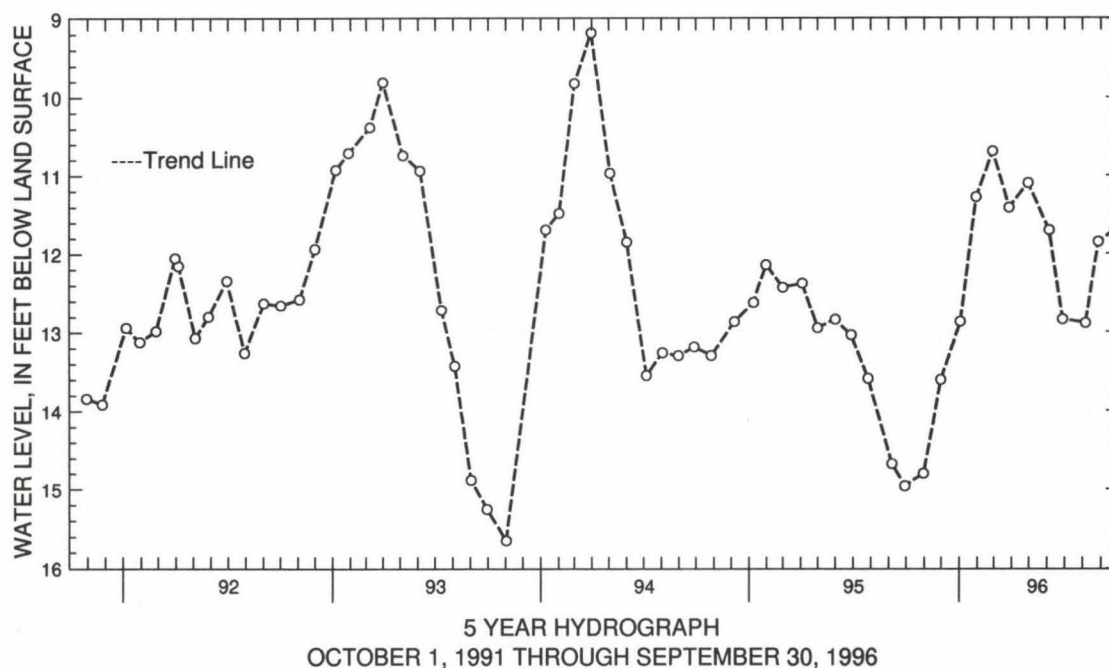
Measuring Point: Top of casing, 2.0 ft above land surface.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.83 ft below land surface, March 1, 1979; lowest measured, 15.69 ft below land surface, Oct. 21, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	14.80	JAN 30, 1996	11.28	APR 30, 1996	11.10	AUG 06, 1996	12.89
NOV 30	13.61	FEB 28	10.69	JUN 05	11.70	28	11.85
JAN 03, 1996	12.87	MAR 28	11.41	28	12.84	SEP 26	11.70
WATER YEAR 1996		HIGHEST	10.69 FEB 28, 1996	LOWEST	14.80 OCT 31, 1995		



GROUND-WATER LEVELS

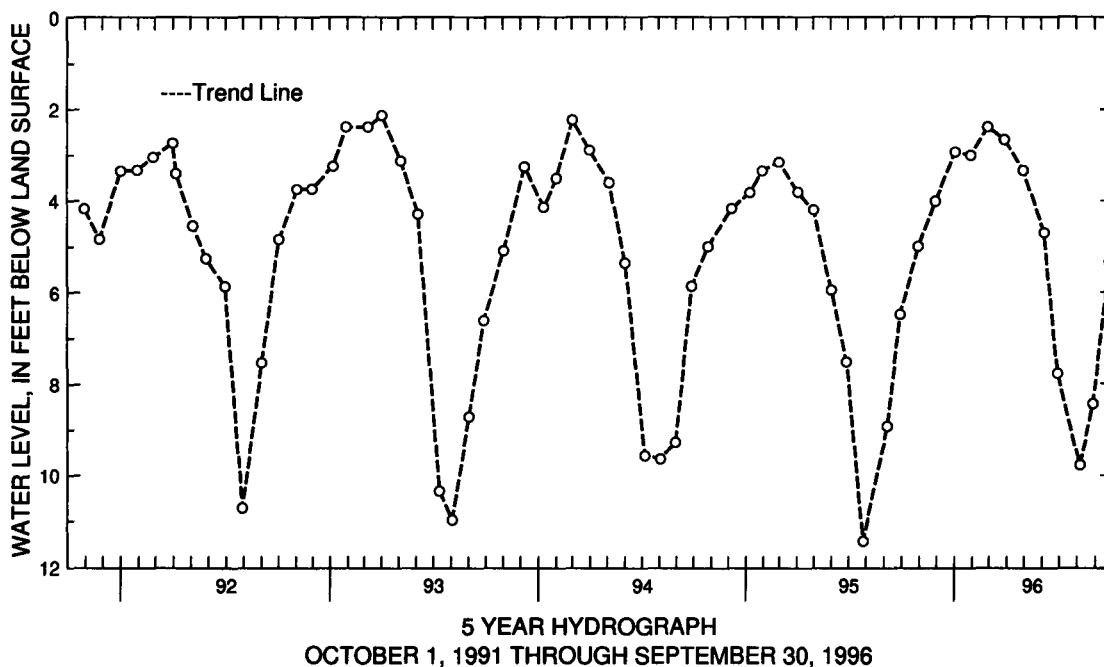
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Qj32-17. SITE ID.--383210075035802. PERMIT NUMBER.--45428.
 LOCATION.--Lat 38°32'10", long 75°03'58", Hydrologic Unit 02060010, 0.5 mi southwest of intersection
 of Del Rts. 1 and 26, Bethany Beach.
 Owner: Town of Bethany Beach.
 AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 400 ft; casing diameter 4 in., to 335 ft;
 screen diameter 4 in. from 335 to 400 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.
 DATUM.--Elevation of land surface is 7 ft. above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, at land surface.
 REMARKS.--Delaware Water-Level Network observation well.
 PERIOD OF RECORD.--February 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.12 ft below land surface, April 1, 1993;
 lowest measured, 11.43 ft below land surface, July 27, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	5.00	JAN 30, 1996	3.00	APR 30, 1996	3.34	AUG 06, 1996	9.78
NOV 29	4.01	FEB 28	2.38	JUN 05	4.70	28	8.44
JAN 03, 1996	2.93	MAR 28	2.66	28	7.79	SEP 26	5.33
WATER YEAR 1996		HIGHEST	2.38 FEB 28, 1996	LOWEST		9.78 AUG 06, 1996	



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Rj22-05. SITE ID.--382808075030501.

LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010, at Fenwick Island State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 455 ft; casing diameter 1.25 in., to 450 ft; screen diameter 2 in., from 450 to 455 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

Measured monthly from April 1977 to March 1980, and April 1985 to July 1987. Intermittent measurements from September 1980 to February 1985.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

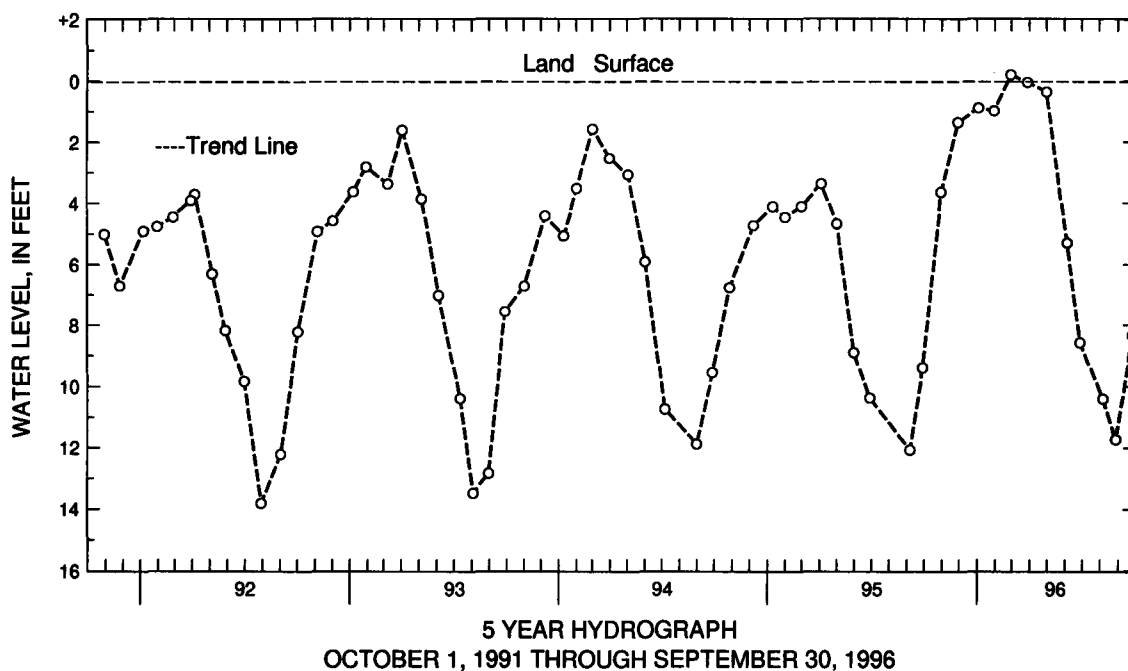
Measuring Point: Top of casing, 1.0 ft above land surface.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .80 ft above land surface, April 4, 1984; lowest measured, 13.81 ft below land surface, July 30, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	3.65	JAN 30, 1996	.98	APR 30, 1996	.36	AUG 06, 1996	10.41
NOV 29	1.35	FEB 28	+.20	JUN 05	5.31	28	11.73
JAN 03, 1996	.88	MAR 28	.05	28	8.59	SEP 26	8.35
WATER YEAR 1996		HIGHEST	+.20 FEB 28, 1996	LOWEST	11.73	AUG 28, 1996	



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Rj22-06. SITE ID.--382808075030502.

LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010, at Fenwick Island State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 295 ft; casing diameter 1.25 in., to 290 ft; screen diameter 2 in., from 290 to 295 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

Measured monthly from April 1977 to March 1980, and April 1985 to July 1987. Intermittent measurements from September 1980 to February 1985.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

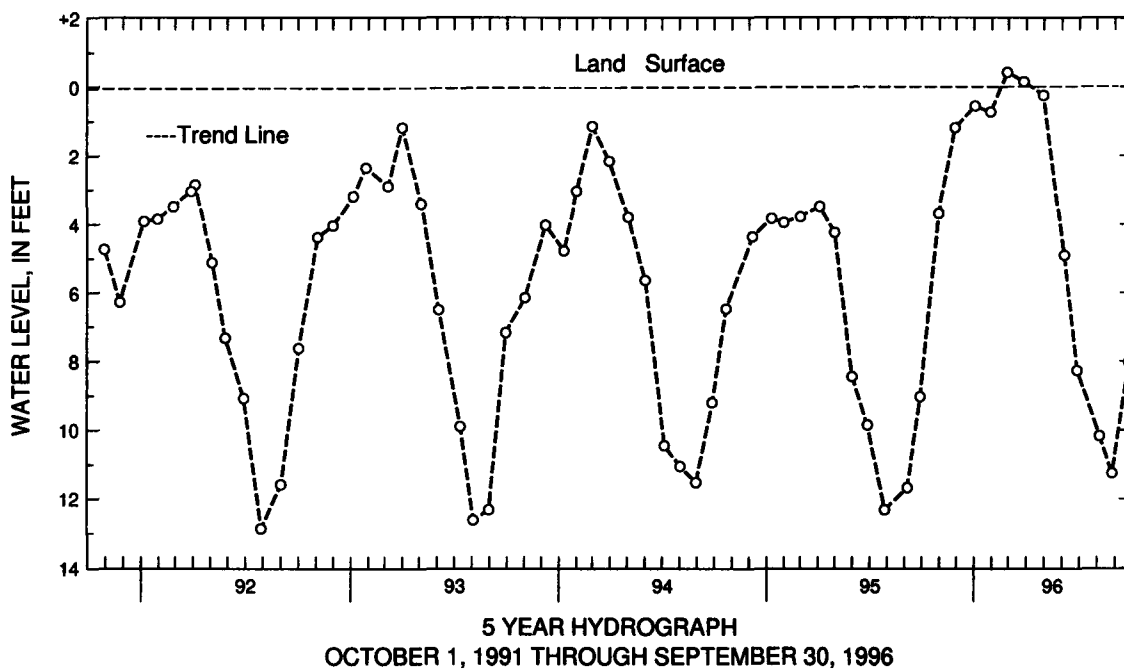
Measuring Point: Top of casing, 1.0 ft above land surface.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.00 ft above land surface, April 2, 1979, and April 4, 1984; lowest measured, 12.86 ft below land surface, July 30, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	3.68	JAN 30, 1996	.72	APR 30, 1996	.24	AUG 06, 1996	10.17
NOV 29	1.17	FEB 28	+4.43	JUN 05	4.90	28	11.26
JAN 03, 1996	.55	MAR 28	+1.16	28	8.27	SEP 26	8.03
WATER YEAR 1996		HIGHEST	+4.43 FEB 28, 1996	LOWEST		11.26 AUG 28, 1996	



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Rj22-07. SITE ID.--382808075030503.

LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010, at Fenwick Island State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Ocean City aquifer of Upper Miocene age. Aquifer code: 1220CNC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 185 ft; casing diameter 1.25 in., to 180 ft; screen diameter 2 in., from 180 to 185 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

Measured monthly from April 1977 to March 1980 and April 1985 to July 1987. Intermittent measurements from September 1980 to February 1985.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

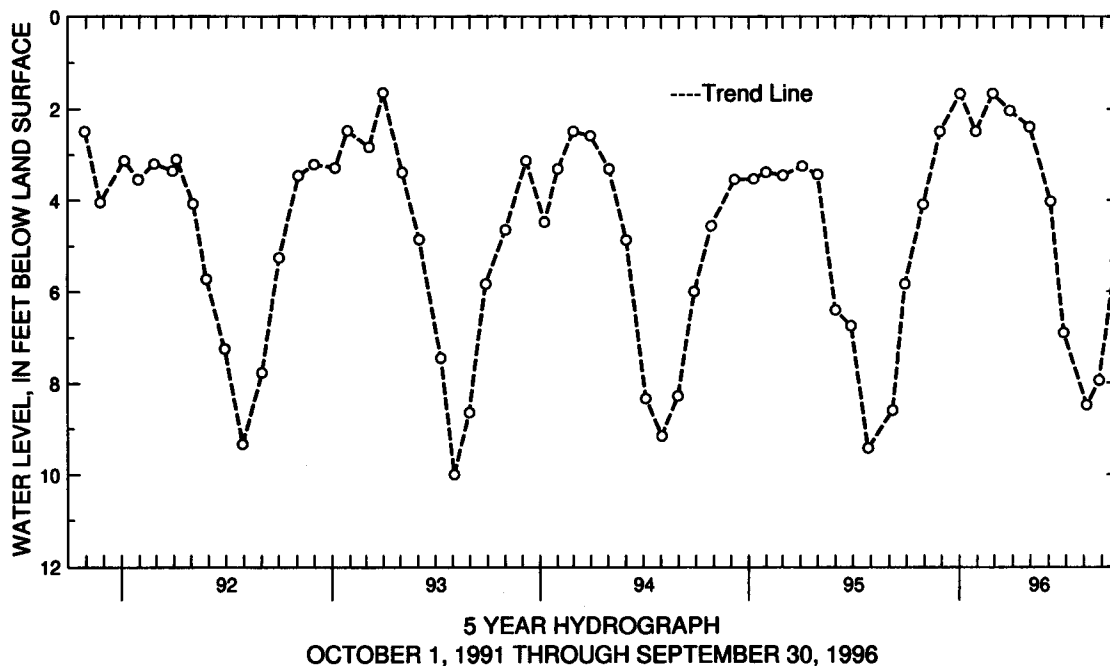
Measuring Point: Top of casing, 1.0 ft above land surface.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .33 ft above land surface, Feb. 20, 1986; lowest measured, 10.00 ft below land surface, Aug 4, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	4.09	JAN 30, 1996	2.49	APR 30, 1996	2.39	AUG 06, 1996	8.49
NOV 29	2.49	FEB 28	1.66	JUN 05	4.03	28	7.95
JAN 03, 1996	1.67	MAR 28	2.04	28	6.91	SEP 26	5.34
WATER YEAR 1996		HIGHEST	1.66 FEB 28, 1996	LOWEST	8.49 AUG 06, 1996		



GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Rj22-08. SITE ID.--382808075030504.

LOCATION.--Lat 38°28'08", long 75°03'05", Hydrologic Unit 02060010, at Fenwick Island State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Pleistocene-Pliocene Formation of Pleistocene age. Aquifer code: 112PCPC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 115 ft; casing diameter 1.25 in., to 110 ft; screen diameter 2 in., from 110 to 115 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by Delaware Geological Survey personnel.

Measured monthly from April 1977 to March 1980, and April 1985 to July 1987. Intermittent measurements from September 1980 to February 1985.

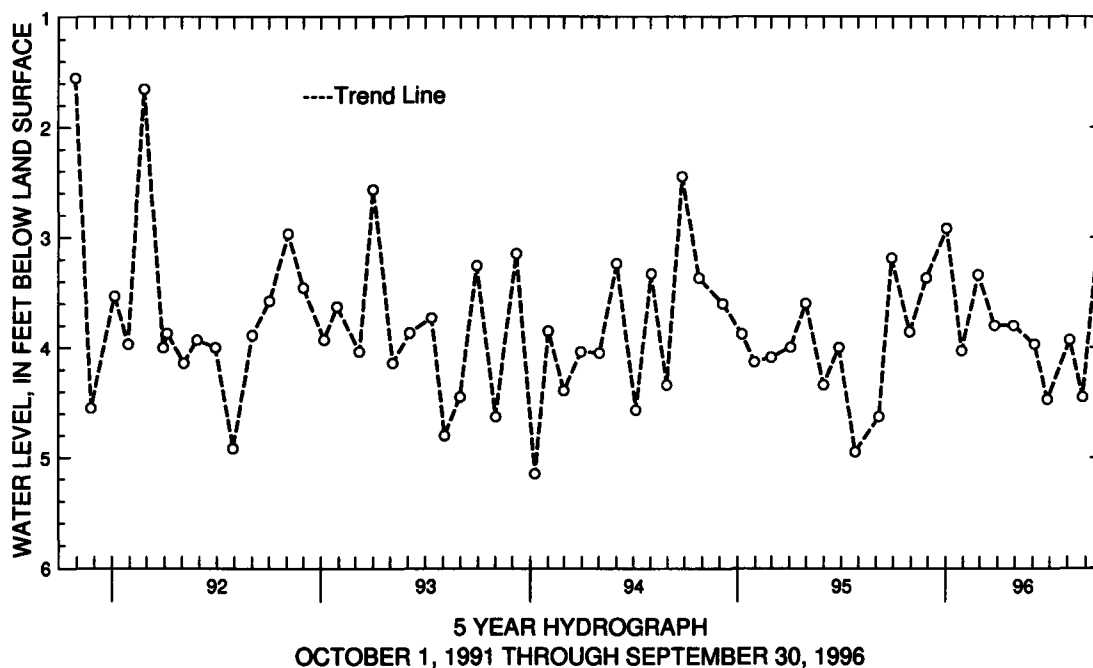
DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring Point: Top of casing, 1.0 ft above land surface.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.28 ft below land surface, March 27, 1978; lowest measured, 5.39 ft below land surface, July 24, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
OCT 31, 1995	3.86	JAN 30, 1996	4.03	APR 30, 1996	3.80	AUG 06, 1996	3.93	
NOV 29	3.37	FEB 28	3.34	JUN 05	3.97	28	4.45	
JAN 03, 1996	2.92	MAR 28	3.80	28	4.47	SEP 26	2.89	
WATER YEAR 1996		HIGHEST	2.89	SEP 26, 1996	LOWEST	4.47	JUN 28, 1996	



MARYLAND

ALLEGANY COUNTY

WELL NUMBER.--AL Ah 1. SITE ID.--394024078273401.

LOCATION.--Lat 39°40'24", long 78°27'34", Hydrologic Unit 02070003, near Fifteen Mile Creek, 2.8 mi southeast of Pratt.

Owner: Green Ridge State Forest.

AQUIFER.--Jennings Formation of Upper Devonian Age. Aquifer code: 341JNGS.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, reported depth 300 ft, measured depth 114.5 ft; casing diameter 8 in. to unknown depth; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 720 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of sanitary seal in casing, 0.3 ft above land surface.

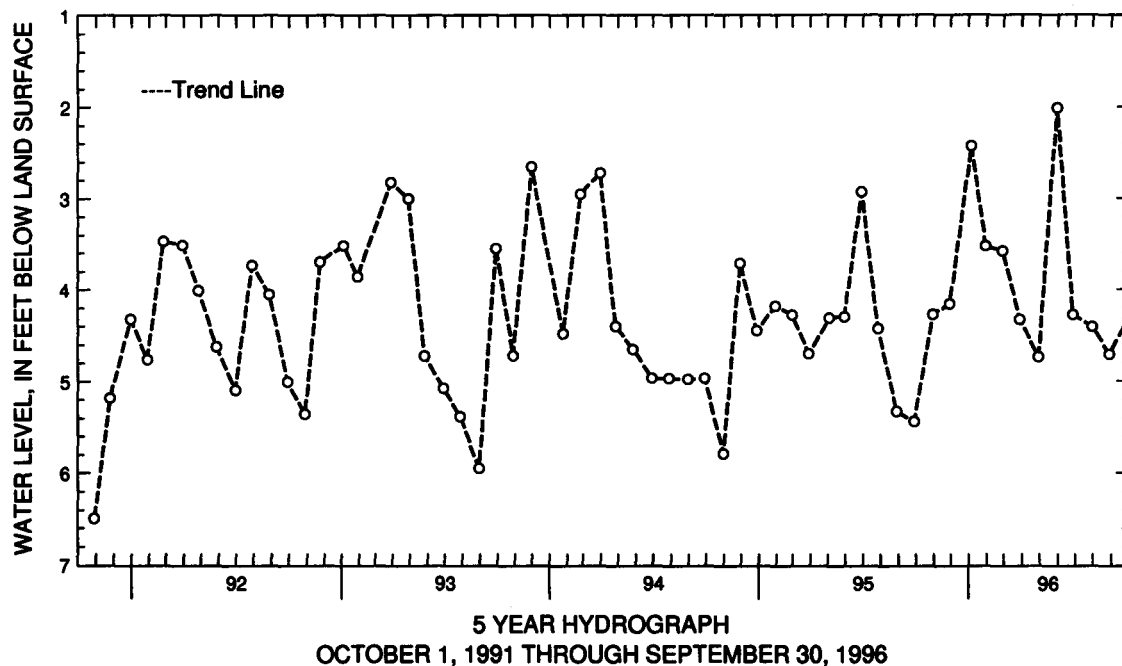
REMARKS.--Maryland Water-Level Network observation well. Water level was more than 40 ft below land surface on Nov. 19, 1969, and Feb. 12, 1970, when well was being pumped. Water levels may be affected by nearby pumping.

PERIOD OF RECORD.--December 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.80 ft below land surface, May 18, 1978; lowest measured 19.75 ft below land surface, July 17, 1968.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	4.28	JAN 30, 1996	3.52	APR 29, 1996	4.74	JUL 30, 1996	4.41
NOV 29	4.16	FEB 28	3.58	MAY 30	2.01	AUG 29	4.71
JAN 05, 1996	2.43	MAR 28	4.33	JUN 27	4.28	SEP 30	4.32
WATER YEAR 1996		HIGHEST	2.01	MAY 30, 1996		LOWEST	4.74
				APR 29, 1996			



GROUND-WATER LEVELS

MARYLAND--Continued

ALLEGANY COUNTY--Continued

WELL NUMBER.--AL Bd 2. SITE ID.--393930078460901.

LOCATION.--Lat 39°39'30", long 78°46'09", Hydrologic Unit 02070002, at Henderson Ave. and Valley St., Cumberland.

Owner: formerly Cumberland Brewing Company.

AQUIFER.--Tonoloway Limestone of Upper Silurian age. Aquifer code: 351TNLY.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, Reported depth 100 ft, measured depth 91 ft; casing diameter 6 in. to unknown depth; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 640 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land surface.

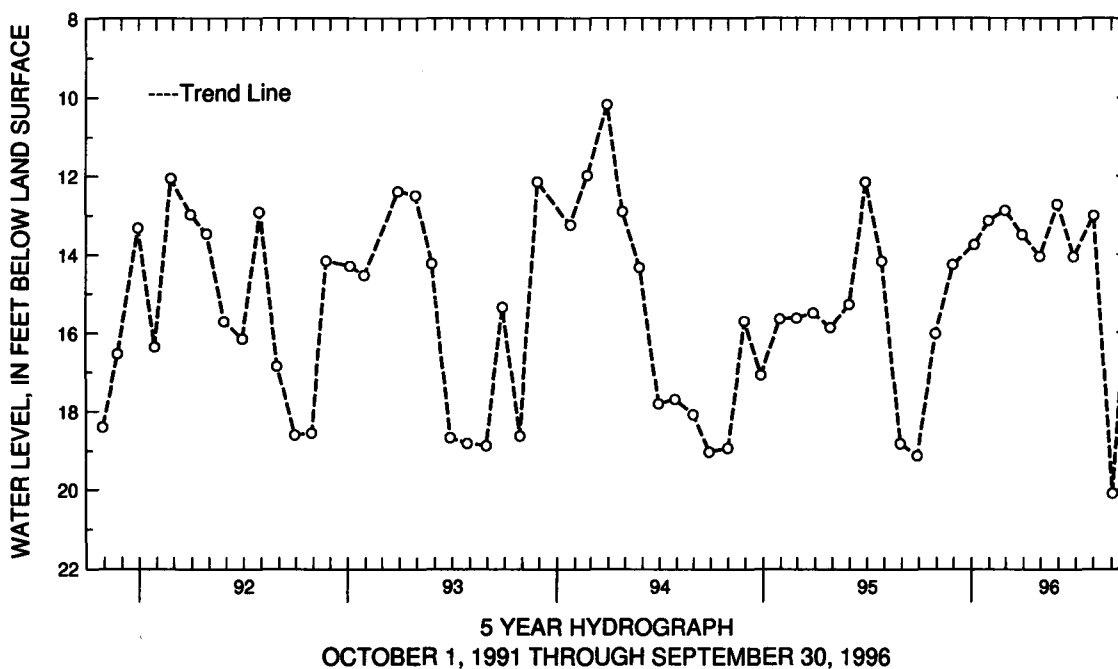
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.24 ft below land surface, Feb. 8, 1973; lowest measured, 32.55 ft below land surface, Sept. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	16.03	JAN 30, 1996	13.14	APR 29, 1996	14.05	AUG 01, 1996	13.01
NOV 29	14.26	FEB 28	12.88	MAY 30	12.73	SEP 03	20.09
JAN 05, 1996	13.75	MAR 29	13.50	JUN 27	14.06	30	14.18
WATER YEAR 1996		HIGHEST	12.73	MAY 30, 1996		LOWEST	20.09
						SEP 03, 1996	



GROUND-WATER LEVELS

MARYLAND--Continued

ALLEGANY COUNTY--Continued

WELL NUMBER.--AL Ca 19. SITE ID.--393009079025201. PERMIT NUMBER.--AL-05-0057.

LOCATION.--Lat 39°30'09", long 79°02'52", Hydrologic Unit 02070002, north end of Franklin.

Owner: Carl Arthur.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, measured depth 86 ft;

casing diameter 6 in., to 46 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 1,035 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.0 ft above land surface.

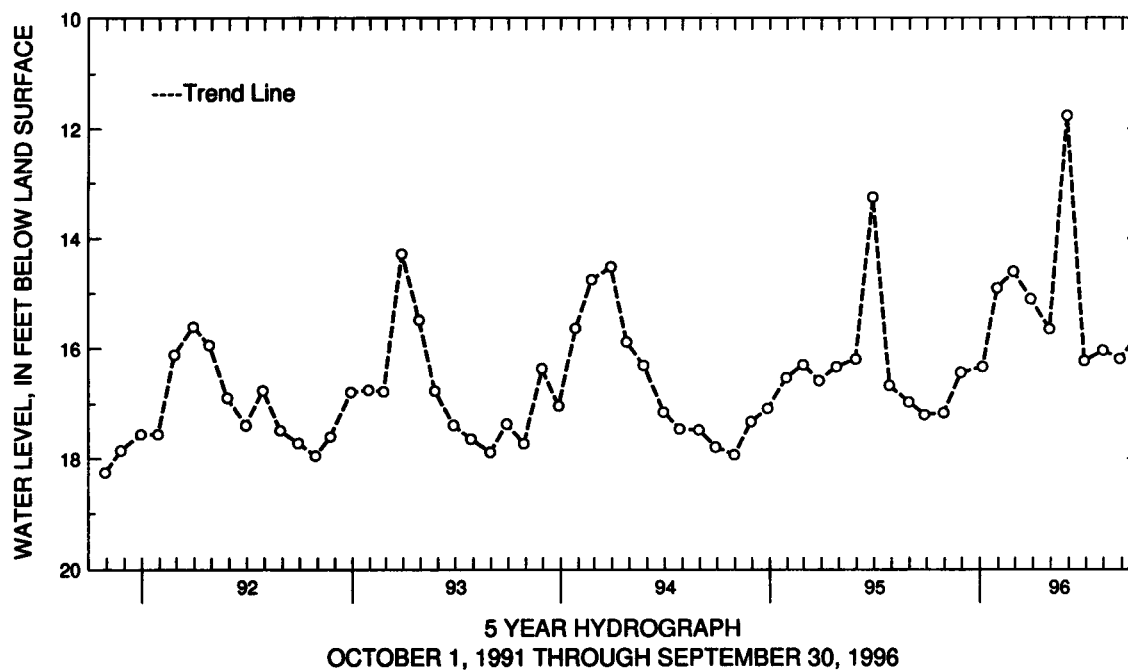
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--July 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.88 ft below land surface, March 19, 1984; lowest measured, 19.30 ft below land surface, Nov. 1, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	17.17	JAN 30, 1996	14.90	APR 29, 1996	15.65	JUL 30, 1996	16.04
NOV 29	16.44	FEB 27	14.60	MAY 29	11.76	AUG 28	16.19
JAN 05, 1996	16.33	MAR 28	15.10	JUN 28	16.23	SEP 30	15.76
WATER YEAR 1996		HIGHEST	11.76	MAY 29, 1996		LOWEST	17.17
							OCT 30, 1995



GROUND-WATER LEVELS

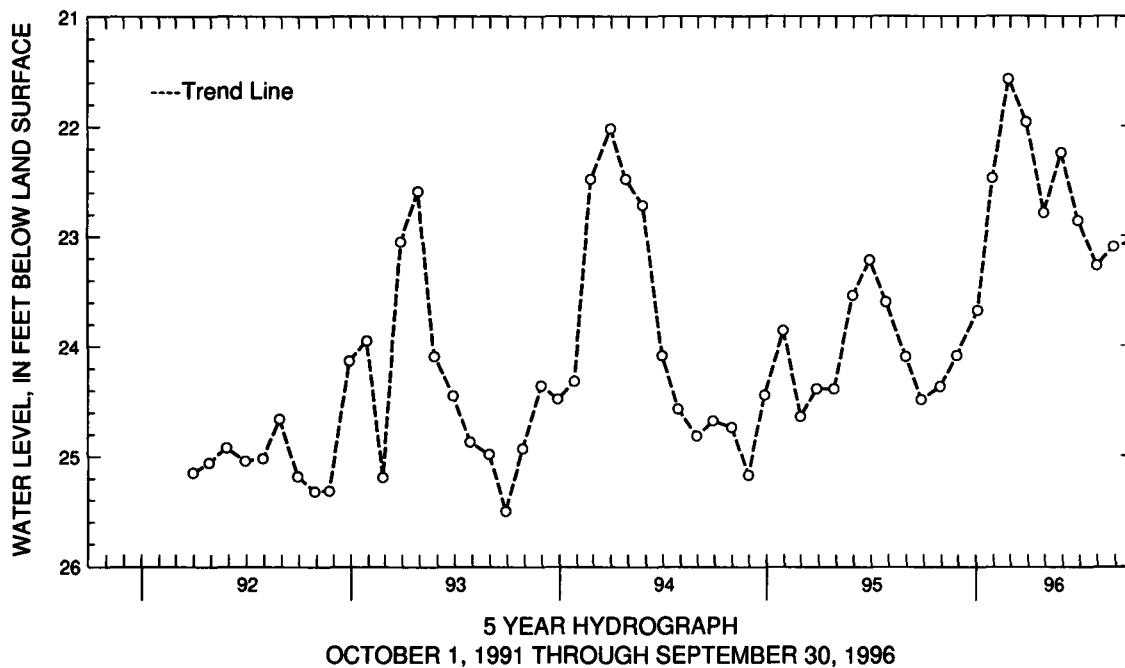
MARYLAND--Continued

ALLEGANY COUNTY--Continued

WELL NUMBER.--AL Ca 20. SITE ID.--393148079010601. PERMIT NUMBER.--AL-81-0477.
 LOCATION.--Lat 39°31'48", long 79°01'06", Hydrologic Unit 02070002, at Barton Municipal Park.
 Owner: Town of Barton.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 71 ft; casing diameter 8 in., to 20 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel March 1992.
 DATUM.--Altitude of land surface is 1,250 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 1.7 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--March 1992 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.57 ft below land surface, Feb. 27, 1996; lowest measured, 26.00 ft below land surface, March 17, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	24.37	JAN 30, 1996	22.47	APR 29, 1996	22.79	JUL 30, 1996	23.27
NOV 29	24.09	FEB 27	21.57	MAY 29	22.24	AUG 28	23.10
JAN 05, 1996	23.68	MAR 29	21.96	JUN 28	22.86	SEP 30	23.05
WATER YEAR 1996		HIGHEST	21.57 FEB 27, 1996	LOWEST		24.37 OCT 30, 1995	



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY

WELL NUMBER.--AA Ac 11. SITE ID.--391101076404001. PERMIT NUMBER.--AA-00-2445.

LOCATION.--Lat 39°11'01", long 76°40'40", Hydrologic Unit 02060003, west end of runway 15, Baltimore-Washington International Airport.

Owner: Maryland Department of Transportation.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 320 ft; casing diameter 6 in., to 312 ft; screened from 312 to 320 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 136.9 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.0 above land surface.

REMARKS.--Maryland Water-Level Network observation well. Well used during construction of airport.

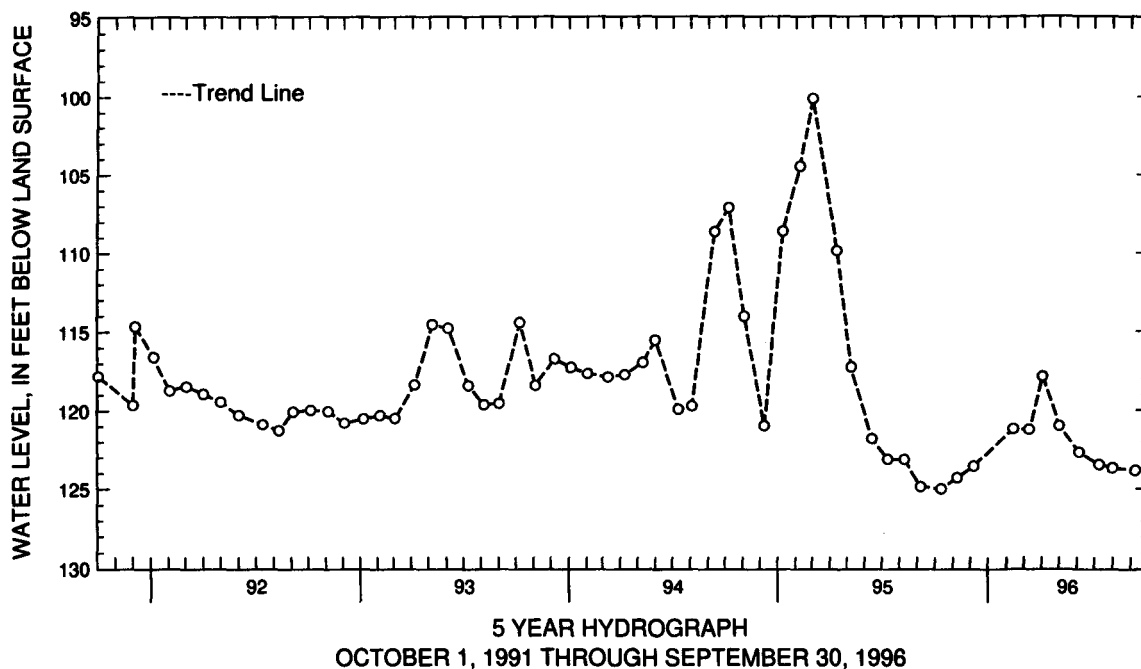
Water level reported by driller 90 ft below land surface, April 23, 1948.

PERIOD OF RECORD.--June 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.60 ft below land surface, March 9, 1965; lowest measured, 125.12 ft below land surface, Oct. 9, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	125.00	FEB 13, 1996	121.19	MAY 02, 1996	121.00	AUG 01, 1996	123.68
NOV 09	124.29	MAR 11	121.23	JUN 05	122.70	SEP 09	123.83
DEC 08	123.59	APR 03	117.87	JUL 09	123.47		
WATER YEAR 1996		HIGHEST 117.87	APR 03, 1996	LOWEST 125.00	OCT 12, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 29. SITE ID.--391015076373501.

LOCATION.--Lat 39°10'15", long 76°37'35", Hydrologic Unit 02060003, near Linden Lane, Glen Burnie, near the Anne Arundel County Department of Public Works office.

Owner: Anne Arundel County Department of Public Works.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 500 ft; casing diameter 3 in., to 395 ft, and from 400 to 420 ft; casing diameter 2 in. from 420 to 460 ft; screened with 3 in. slotted pipe from 395 to 400 ft; screened with 2 in. slotted pipe from 460 to 500 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from July 19, 1948 to Jan. 18, 1968.

DATUM.--Altitude of land surface is 37.0 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.47 ft above land surface.

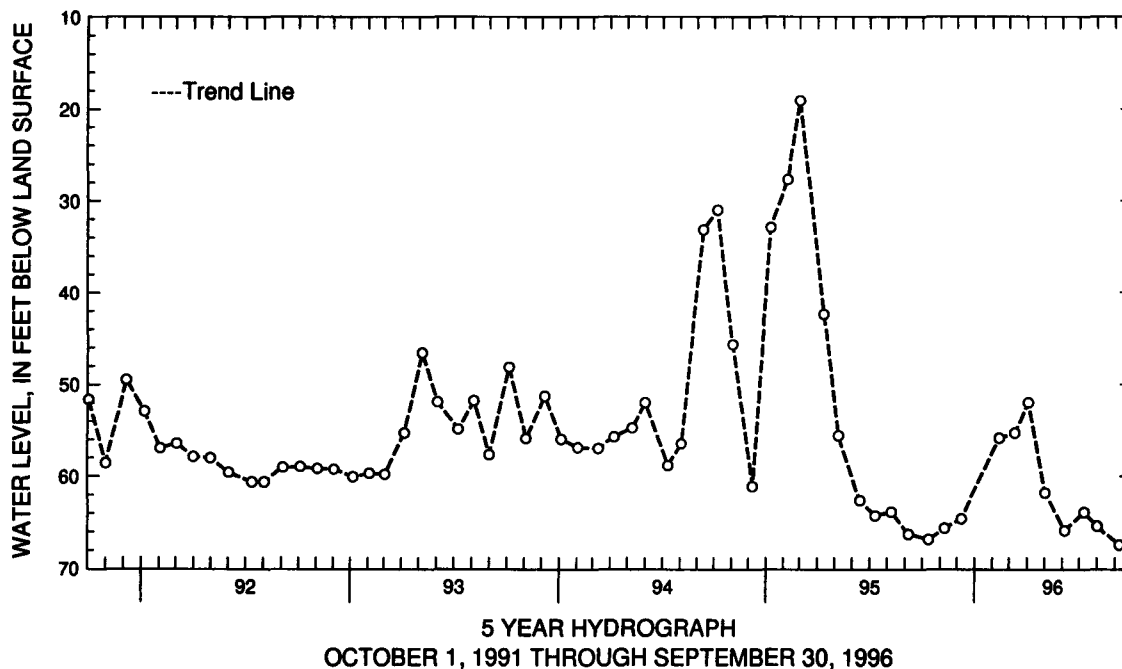
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.

PERIOD OF RECORD.--June 1948 to February 1968, April 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.04 ft above land surface, Sept. 2, 1952; lowest measured, 67.41 ft below land surface, Sept. 9, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	66.73	FEB 13, 1996	55.85	MAY 02, 1996	61.77	AUG 01, 1996	65.33
NOV 09	65.57	MAR 11	55.28	JUN 05	65.84	SEP 09	67.41
DEC 08	64.58	APR 03	51.98	JUL 09	63.85		
WATER YEAR 1996		HIGHEST	51.98	APR 03, 1996	LOWEST	67.41	SEP 09, 1996



MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 90. SITE ID.--391032076385902. PERMIT NUMBER.--AA-04-0298.

LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Aviation Blvd,
0.5 mi north of Dorsey Rd. intersection.

Owner: Anne Arundel County Department of Public Works.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 453 ft; casing diameter 6 in., to 443 ft;
screen diameter 6 in. from 443 to 453 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from Aug. 19, 1977 to Sept. 4, 1979. Periodic measurements from
September 1979 to March 1980. Equipped with digital water-level recorder--30--minute recorder interval from
March 1980 to Dec. 31, 1984, and August 1989 to current year.

DATUM.--Altitude of land surface is 77.85 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 2.2 ft above land surface.

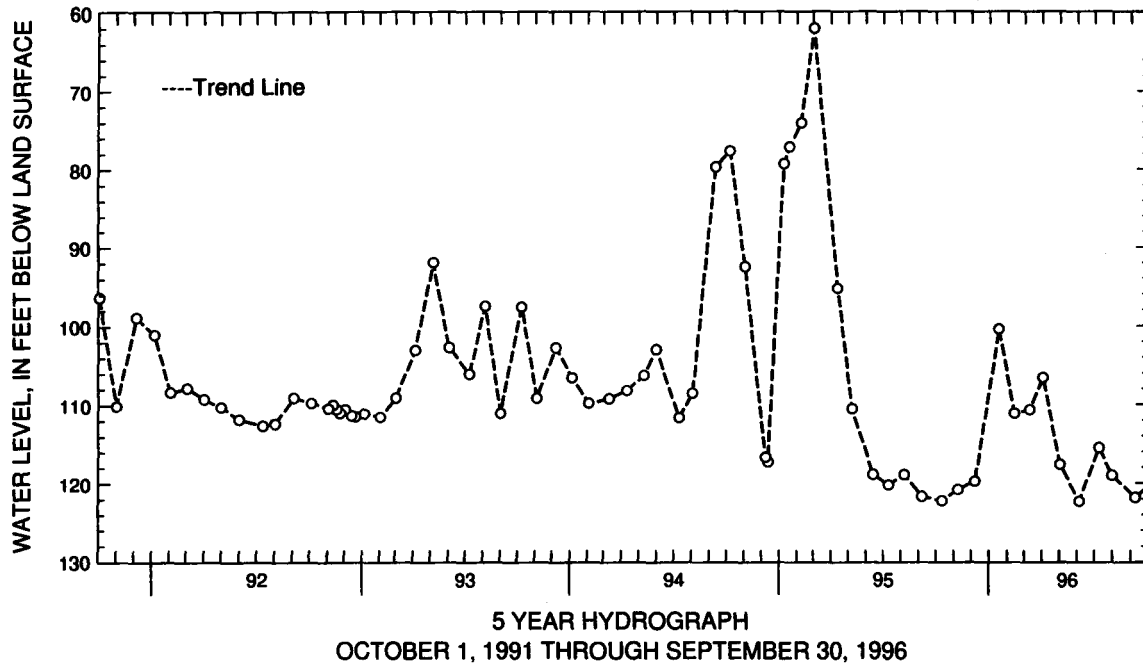
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.98 ft below land surface, Nov. 20, 1978;
lowest measured, 122.27 ft below land surface, June 5, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	122.23	JAN 18, 1996	100.42	APR 03, 1996	106.57	JUL 09, 1996	115.54
NOV 09	120.81	FEB 13	111.08	MAY 02	117.65	AUG 01	118.97
DEC 08	119.79	MAR 11	110.70	JUN 05	122.27	SEP 09	121.79
WATER YEAR 1996		HIGHEST 100.42	JAN 18, 1996	LOWEST 122.27	JUN 05, 1996		



GROUND-WATER LEVELS

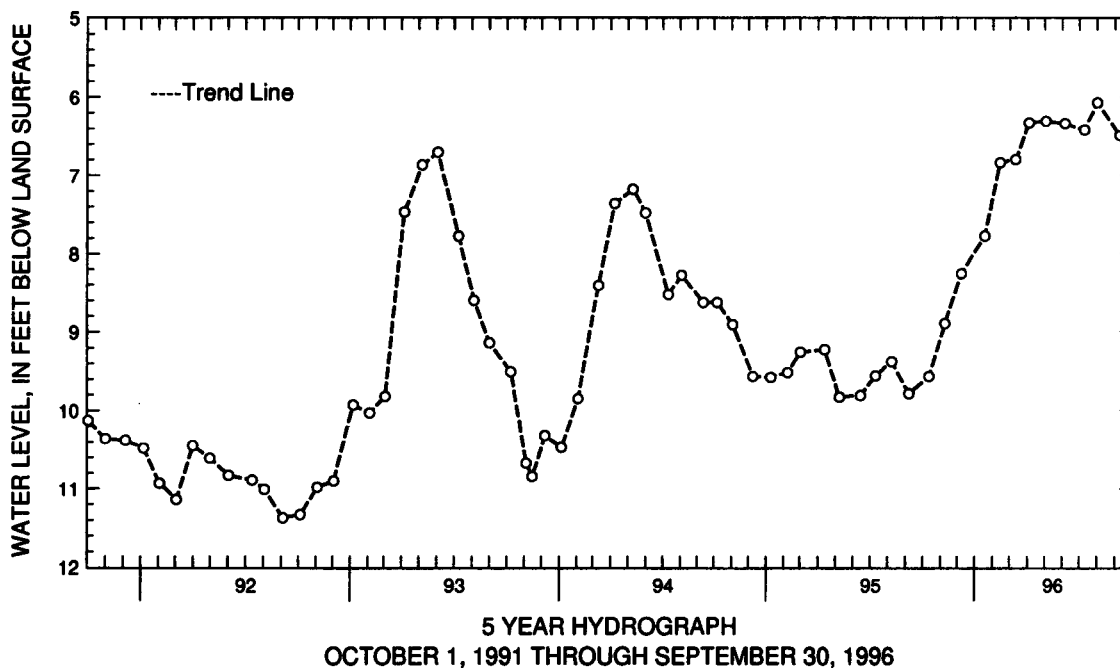
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 102. SITE ID.--391032076385904. PERMIT NUMBER.--AA-81-2641.
 LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Aviation Blvd.,
 0.5 mi north of Dorsey Rd. intersection.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 90; casing diameter 6 in., to 80 ft;
 screen diameter 6 in. from 80 to 90 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from Dec. 1983 to Oct. 2, 1990.
 DATUM.--Altitude of land surface is 73.72 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 5.27 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels maybe affected by nearby pumping.
 PERIOD OF RECORD.--December 1983 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.07 ft below land surface, Aug. 1, 1996;
 lowest measured, 14.74 ft below land surface, Oct. 31, 1986 and Nov. 1, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	9.57	JAN 18, 1996	7.78	APR 03, 1996	6.33	JUL 09, 1996	6.42
NOV 09	8.90	FEB 13	6.84	MAY 02	6.31	AUG 01	6.07
DEC 08	8.26	MAR 11	6.80	JUN 05	6.34	SEP 09	6.49
WATER YEAR 1996		HIGHEST	6.07	AUG 01, 1996	LOWEST	9.57	OCT 12, 1995



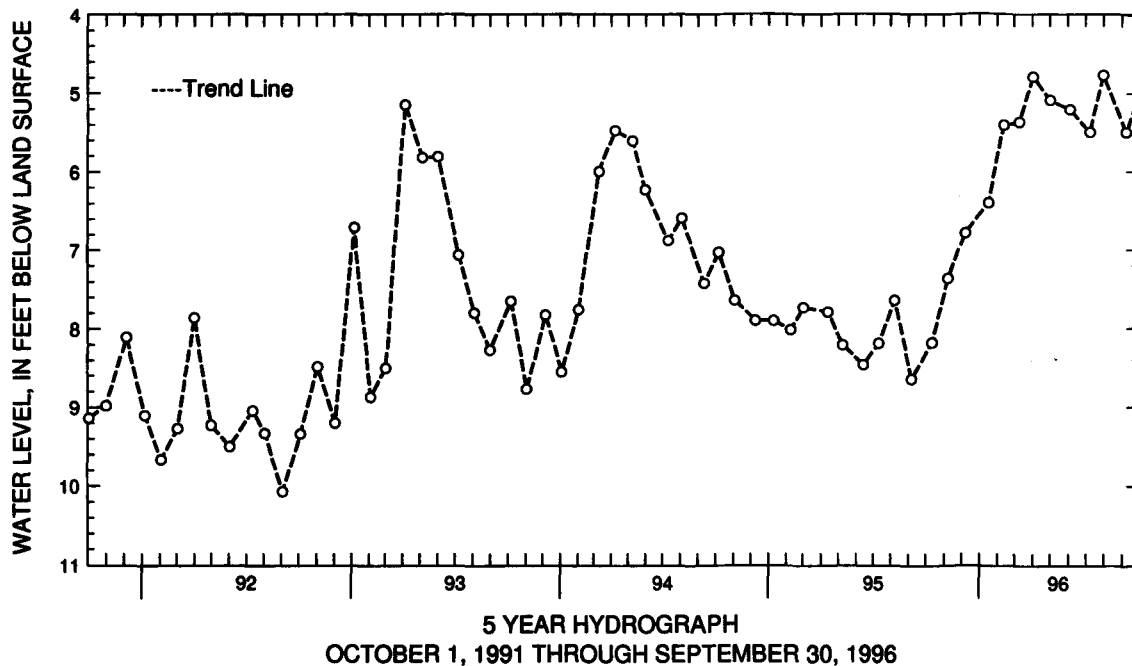
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 108. SITE ID.--391032076385906. PERMIT NUMBER.--AA-81-3475.
 LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Hammonds Ferry Rd.,
 0.5 mi north of Dorsey Rd. intersection.
 Owner: U.S. Geological Survey.
 AQUIFER.--Upper Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 11.5 ft; casing diameter 4 in., to 6 ft;
 screen diameter 4 in. from 6 to 11 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from Feb. 23, 1986,
 to Sept. 30, 1990.
 DATUM.--Altitude of land surface is 78.31 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 5.5 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Glen Burnie Project observation well. Water levels
 before Feb. 23, 1986 are not currently available.
 PERIOD OF RECORD.--August 1984 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.46 ft below land surface, Aug. 7, 1989;
 lowest measured, Dry on Aug. 22, 1985; Jan. 17, 1986; May 20, 1986; July 8, 1986 and Nov. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	8.18	JAN 18, 1996	6.40	APR 03, 1996	4.79	JUL 09, 1996	5.50
NOV 09	7.36	FEB 13	5.40	MAY 02	5.09	AUG 01	4.77
DEC 08	6.78	MAR 11	5.37	JUN 05	5.21	SEP 09	5.50
WATER YEAR 1996		HIGHEST	4.77	AUG 01, 1996	LOWEST	8.18	OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 109. SITE ID.--391006076380101. PERMIT NUMBER.--AA-81-4890.
 LOCATION.--Lat 39°10'06", long 76°38'01", Hydrologic Unit 02060003, 0.05 mi south of Dorsey Rd.,
 0.17 mi west of MD Rt. 648.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 46 ft; casing diameter 4 in., to 36 ft;
 screen diameter 4 in. from 36 to 46 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from October 1985 to current year.
 DATUM.--Altitude of land surface is 35.78 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 4.29 ft above land surface. On Aug. 1, 1996, 1.15 ft of casing
 were added. The new MP height is 5.44 ft. This extended casing was later removed on March 24, 1997.
 REMARKS.--Anne Arundel Co. observation well network. Water levels before Feb. 23, 1986 are not currently
 available. Water are levels affected by nearby pumping. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, (See Measuring Point) 39.17 ft above sea level
 (flowing), April 13-30, 1994, and May 1-17, 25, 26, 1994; with added casing highest level measured, 39.87 ft
 above sea level; lowest measured, 20.20 ft above sea level, Oct. 15, 1987.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	38.08	38.00	38.24	38.13	38.71	38.50	38.66	38.63	39.09	39.03	39.17	39.17
2	38.09	38.08	38.36	38.24	38.62	38.38	38.83	38.63	39.16	39.06	39.17	39.17
3	38.10	38.07	38.37	38.28	38.55	38.38	38.88	38.68	39.16	39.16	39.17	39.11
4	38.10	38.05	38.28	38.12	38.56	38.39	38.68	38.49	39.16	39.16	39.16	39.08
5	38.26	38.05	38.17	38.10	38.51	38.37	38.49	38.44	39.16	39.16	39.17	39.16
6	38.26	38.11	38.25	38.17	38.54	38.47	38.44	38.39	39.16	39.16	39.17	39.17
7	38.11	38.03	38.49	38.25	38.51	38.44	38.95	38.44	39.16	39.14	39.17	39.17
8	38.03	37.96	38.46	38.21	38.44	38.35	38.95	38.72	---	---	39.17	39.17
9	37.97	37.94	38.21	38.10	38.58	38.39	38.73	38.60	---	---	39.17	39.10
10	37.98	37.96	38.18	38.10	38.53	38.45	38.60	38.47	---	---	39.11	39.02
11	37.98	37.96	38.62	38.18	38.48	38.41	38.85	38.51	---	---	39.16	39.11
12	38.00	37.97	38.60	38.24	38.42	38.36	38.69	38.55	---	---	39.16	39.16
13	38.03	38.00	38.31	38.24	38.37	38.35	38.62	38.53	---	---	39.17	39.16
14	38.29	38.03	38.70	38.31	38.57	38.37	38.53	38.38	39.17	39.16	39.17	39.17
15	38.29	38.15	38.70	38.32	38.57	38.49	38.59	38.38	39.17	39.17	39.17	39.17
16	38.15	37.99	38.32	38.29	38.57	38.49	38.60	38.58	39.17	39.17	39.17	39.17
17	37.99	37.94	38.29	38.27	38.51	38.42	39.08	38.58	39.17	39.17	39.17	39.17
18	38.04	37.96	38.41	38.27	38.58	38.43	39.16	38.65	39.17	39.12	39.17	39.17
19	38.05	38.04	38.43	38.38	38.86	38.58	38.79	38.67	39.12	39.08	39.17	39.17
20	38.24	38.05	38.50	38.38	38.85	38.64	38.91	38.77	39.17	39.11	39.17	39.17
21	38.37	38.20	38.58	38.49	38.65	38.61	39.11	38.91	39.17	39.17	39.17	39.17
22	38.20	38.09	38.49	38.37	38.61	38.54	39.16	38.88	39.17	39.17	39.17	39.17
23	38.09	38.06	38.43	38.37	38.56	38.54	38.88	38.75	39.17	39.17	39.17	39.17
24	38.24	38.09	38.42	38.31	38.58	38.56	39.16	38.75	39.17	39.17	39.17	39.16
25	38.21	38.15	38.46	38.31	38.63	38.56	39.16	38.91	39.17	39.17	39.17	39.16
26	38.21	38.17	38.54	38.46	38.63	38.61	38.96	38.89	39.17	39.17	39.17	39.17
27	38.39	38.21	38.61	38.54	38.61	38.55	39.10	38.96	39.17	39.17	39.17	39.13
28	38.44	38.29	38.59	38.39	38.55	38.45	39.16	39.10	39.17	39.17	39.16	39.16
29	38.29	38.10	38.46	38.40	38.45	38.40	39.16	39.00	39.17	39.17	39.16	39.16
30	38.10	38.07	38.50	38.42	38.53	38.41	39.09	39.03	---	---	39.16	39.16
31	38.13	38.09	---	---	38.66	38.53	39.15	39.03	---	---	39.16	39.16
MONTH	38.44	37.94	38.70	38.10	38.86	38.35	39.16	38.38	39.17	39.03	39.17	39.02

GROUND-WATER LEVELS

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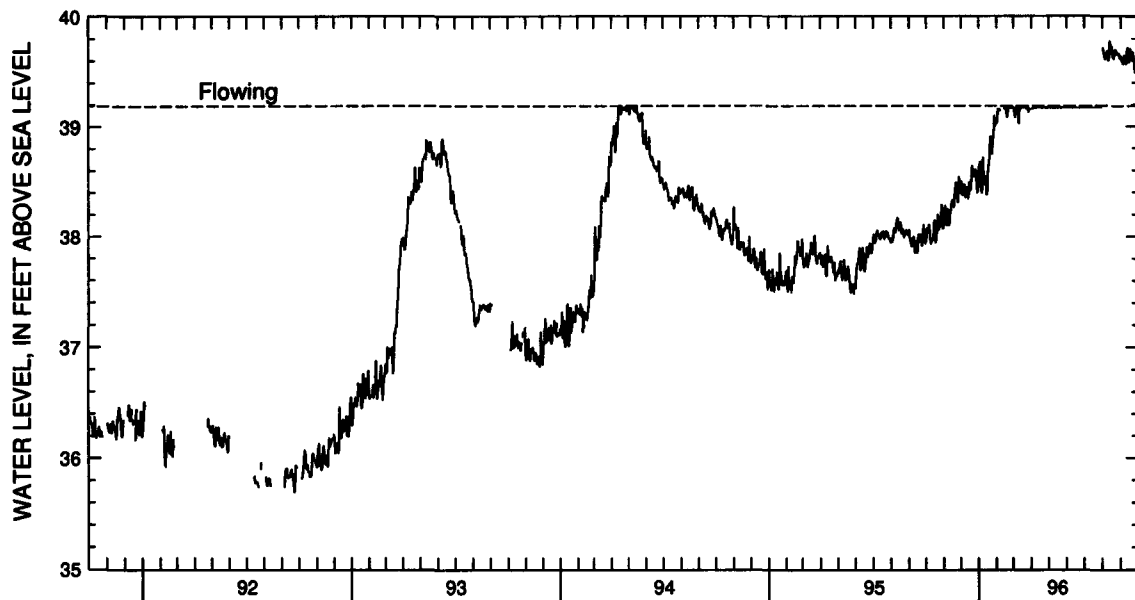
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Ad 109--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	39.16	39.16	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.66	39.64
2	39.16	39.16	39.17	39.17	39.17	39.17	39.17	39.17	39.77	39.72	39.66	39.63
3	39.17	39.16	39.17	39.17	39.17	39.17	39.17	39.17	39.72	39.67	39.63	39.60
4	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.67	39.64	39.60	39.60
5	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.64	39.61	39.60	39.57
6	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.64	39.62	39.78	39.57
7	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.65	39.63	39.76	39.65
8	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.69	39.65	39.69	39.63
9	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.73	39.69	39.65	39.60
10	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.73	39.66	39.60	39.57
11	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.66	39.60	39.69	39.57
12	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.78	39.62	39.72	39.69
13	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.87	39.78	39.76	39.72
14	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.80	39.74	39.72	39.64
15	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.74	39.72	39.64	39.59
16	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.75	39.73	39.71	39.59
17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.73	39.72	39.85	39.71
18	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.72	39.67	39.78	39.69
19	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.67	39.63	39.69	39.65
20	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.65	39.62	39.65	39.61
21	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.72	39.65	39.68	39.61
22	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.72	39.70	39.83	39.68
23	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.72	39.68	39.80	39.63
24	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.72	39.69	39.68	39.62
25	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.69	39.66	39.68	39.53
26	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.69	39.67	39.53	39.49
27	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.75	39.66	39.58	39.51
28	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.71	39.66	39.73	39.58
29	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.68	39.66	39.73	39.60
30	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.66	39.63	39.60	39.52
31	---	---	39.17	39.17	---	---	39.17	39.17	39.64	39.62	---	---
MONTH	39.17	39.16	39.17	39.17	39.17	39.17	39.17	39.17	39.87	39.60	39.85	39.49
YEAR	39.87	37.94										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

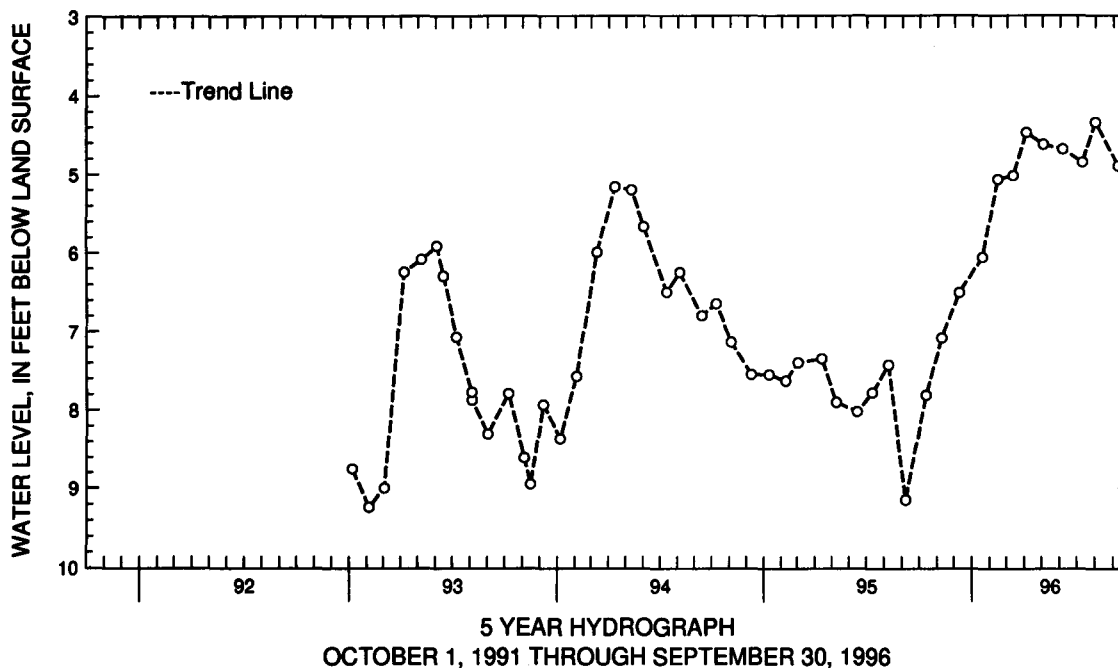
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ad 110. SITE ID.--391032076385907. PERMIT NUMBER.--AA-88-8878.
 LOCATION.--Lat 39°10'32", long 76°38'59", Hydrologic Unit 02060003, off Hammonds Ferry Rd.
 0.5 mi of Dorsey Rd. intersection.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 28 ft; casing diameter 4 in., to 18 ft;
 screen diameter 4 in. from 18 to 28 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Altitude of land surface is 80 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 5.03 ft. above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--December 1992 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.35 ft below land surface, Aug. 1, 1996;
 lowest measured, 9.89 ft below land surface, December 3, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	7.82	JAN 18, 1996	6.07	APR 03, 1996	4.48	JUL 09, 1996	4.86
NOV 09	7.10	FEB 13	5.08	MAY 02	4.63	AUG 01	4.35
DEC 08	6.52	MAR 11	5.03	JUN 05	4.69	SEP 09	4.91
WATER YEAR 1996		HIGHEST	4.35	AUG 01, 1996	LOWEST	7.82	OCT 12, 1995



GROUND-WATER LEVELS

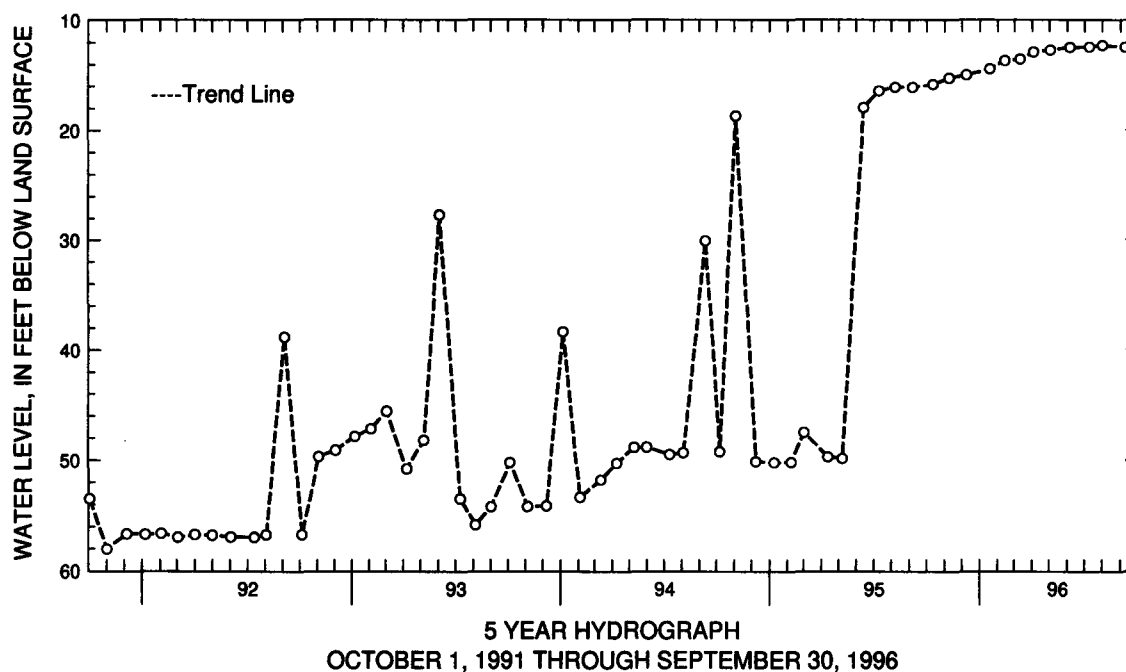
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 91. SITE ID.--390950076391101. PERMIT NUMBER.--AA-04-2029.
 LOCATION.--Lat 39°09'50", long 76°39'11", Hydrologic Unit 02060003, .3 mi southeast of the intersection of Dorsey Rd. and Baltimore Annapolis Blvd., in the median of MD Route 176, Glen Burnie.
 Owner: Anne Arundel County Department of Public Works.
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, artesian, observation well, depth 160 ft; casing diameter 6 in., to 119 ft; casing diameter 4 in. from 119 to 155 ft; screen diameter 2 in. from 155 to 160 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital recorder April 1981 to March 1986.
 DATUM.--Altitude of land surface is 82.63 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of shelter platform, 3.25 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels were affected by nearby pumping up to May 1995; when the nearby pumping station discontinued ground-water withdrawal from the Patapsco aquifer.
 PERIOD OF RECORD.--March 1977 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.26 ft below land surface, Aug. 1, 1996; lowest measured, 75.20 ft below land surface, Sept. 1, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	15.85	JAN 18, 1996	14.42	APR 03, 1996	12.88	JUL 09, 1996	12.42
NOV 09	15.26	FEB 13	13.66	MAY 02	12.70	AUG 01	12.26
DEC 08	14.90	MAR 11	13.53	JUN 05	12.46	SEP 09	12.43
WATER YEAR 1996		HIGHEST	12.26	AUG 01, 1996	LOWEST	15.85	OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 152. SITE ID.--390821076365401. PERMIT NUMBER.--AA-81-3463.
 LOCATION.--Lat 39°08'21", long 76°36'54", Hydrologic Unit 02060003, 100 ft north of MD Rt 100,
 0.2 mi east of Oakwood Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 103 ft; casing diameter 6 in., to 90 ft;
 screen diameter 4 in. from 90 to 100 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from March 14, 1985 to current year.
 DATUM.--Altitude of land surface is 53.29 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 3.0 ft above land surface.
 REMARKS.--Anne Arundel Co. observation well network. Water levels before Feb. 23, 1986 are not currently
 available. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--March 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.98 ft above sea level, April 14, 1994;
 lowest measured, 19.88 ft above sea level, Aug. 21, 1987.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.44	21.07	21.87	20.97	22.38	21.30	21.24	21.06	21.54	21.33	22.18	21.88
2	21.25	21.04	21.77	21.61	21.85	21.24	21.24	21.07	21.74	21.32	22.56	22.12
3	21.21	21.02	21.66	21.22	21.39	21.18	21.41	21.11	22.06	21.44	22.15	21.60
4	21.21	20.98	21.34	21.04	21.20	20.85	21.11	20.76	21.91	21.45	21.83	21.49
5	21.39	20.98	21.39	21.01	21.13	20.84	20.85	20.66	21.45	21.25	22.31	21.79
6	21.34	21.09	21.25	21.10	21.09	20.93	20.72	20.60	21.48	21.22	22.41	21.99
7	21.31	21.01	21.47	21.10	21.13	20.91	21.13	20.68	21.60	21.20	22.63	22.25
8	21.18	20.95	21.60	21.15	21.02	20.90	21.28	21.00	22.02	21.42	22.56	22.11
9	21.09	20.92	21.17	20.93	21.01	20.89	21.00	20.89	21.91	21.51	22.24	21.66
10	21.01	20.84	21.24	20.91	20.89	20.74	20.94	20.70	21.98	21.46	21.88	21.52
11	21.06	20.84	21.67	21.04	20.74	20.63	20.70	20.61	22.10	21.70	21.94	21.48
12	21.14	20.89	21.82	21.25	20.63	20.55	21.35	20.65	21.71	21.28	22.20	21.88
13	21.17	20.96	21.25	20.97	20.57	20.53	21.31	21.02	21.53	21.24	22.28	21.89
14	21.36	21.03	21.60	20.97	20.79	20.57	21.07	20.91	21.93	21.40	22.43	21.93
15	21.35	21.07	21.75	21.24	20.79	20.71	20.96	20.67	21.78	21.42	22.68	22.29
16	21.07	20.76	21.31	21.06	21.23	20.72	20.67	20.56	21.91	21.40	22.71	22.10
17	20.84	20.75	21.22	21.02	21.07	20.88	21.11	20.63	22.03	21.55	22.41	22.03
18	20.91	20.75	21.57	21.01	20.97	20.86	21.13	20.86	21.86	21.42	22.27	21.96
19	20.98	20.81	21.41	21.13	21.50	20.95	21.82	21.10	21.58	21.26	22.45	21.95
20	21.03	20.84	21.16	21.08	21.64	21.25	21.15	20.79	21.77	21.24	22.66	22.31
21	21.53	21.03	21.19	21.03	21.59	21.22	20.86	20.75	21.99	21.63	22.66	22.07
22	21.13	20.89	21.32	21.02	21.46	21.15	20.75	20.71	22.04	21.74	22.15	21.75
23	20.95	20.86	21.17	21.01	21.46	21.12	20.97	20.73	22.10	21.71	22.04	21.64
24	21.26	20.86	21.01	20.78	21.23	21.03	21.37	20.97	22.32	21.80	21.64	21.48
25	21.36	21.08	21.11	20.77	21.27	20.98	21.22	21.20	21.80	21.56	21.50	21.46
26	21.36	21.08	21.09	20.97	21.69	21.18	21.27	21.03	21.64	21.42	21.47	21.32
27	21.47	21.11	21.05	21.01	21.48	21.16	21.81	21.03	22.03	21.42	21.95	21.31
28	21.75	21.27	21.04	20.85	21.17	20.91	21.41	20.97	22.34	22.00	22.47	21.85
29	21.44	21.07	21.09	20.87	21.13	20.88	20.99	20.91	22.15	21.93	22.98	22.47
30	21.07	20.91	21.31	21.03	21.32	20.91	21.71	20.98	---	---	23.10	22.68
31	21.15	20.89	---	---	21.21	21.06	21.98	21.45	---	---	23.42	22.80
MONTH	21.75	20.75	21.87	20.77	22.38	20.53	21.98	20.56	22.34	21.20	23.42	21.31

GROUND-WATER LEVELS

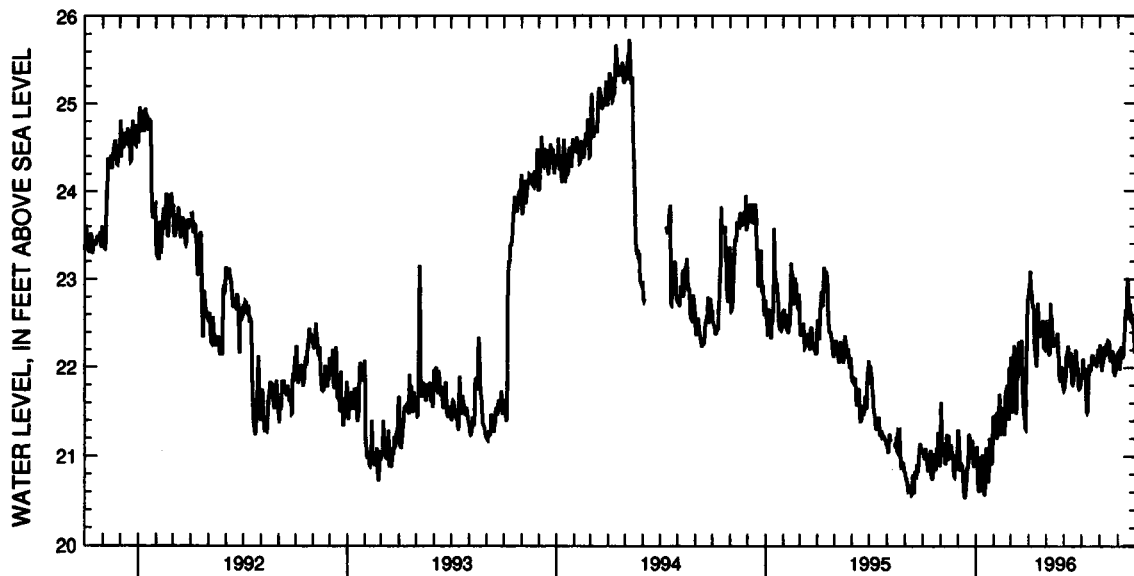
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Bd 152--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	23.32	22.80	22.80	22.50	21.85	21.75	22.05	21.90	22.71	22.15	22.39	22.16
2	23.27	22.91	22.57	22.25	21.90	21.77	22.15	21.92	22.63	22.26	22.48	22.17
3	23.37	22.90	22.58	22.25	21.91	21.85	22.33	21.92	22.47	22.19	22.26	22.01
4	23.40	23.09	22.73	22.39	22.26	21.90	22.42	22.10	22.31	22.13	22.09	21.99
5	23.45	22.90	22.41	22.30	22.45	22.13	22.25	22.01	22.13	21.96	22.26	21.99
6	23.29	22.83	22.61	22.16	22.50	22.15	22.14	21.96	22.24	22.02	22.41	22.10
7	23.41	22.82	22.31	22.14	22.58	22.18	22.17	21.94	22.25	22.10	22.48	22.24
8	23.17	22.70	22.73	22.21	22.61	22.25	22.12	21.95	22.29	22.09	22.42	22.20
9	23.14	22.68	23.37	22.73	22.29	22.06	21.95	21.81	22.47	22.20	22.40	22.14
10	23.05	22.70	22.82	22.55	22.25	22.04	21.81	21.51	22.53	22.24	22.36	22.13
11	22.70	22.29	22.97	22.55	22.23	22.03	21.56	21.49	22.35	22.16	22.45	22.15
12	22.29	22.19	22.81	22.41	22.17	22.01	21.77	21.51	22.28	22.14	22.72	22.34
13	22.50	22.17	22.46	22.25	22.91	22.17	22.72	21.77	22.53	22.26	22.85	22.42
14	22.32	22.05	22.52	22.25	22.32	22.01	22.23	22.03	22.55	22.26	23.11	22.63
15	22.37	22.01	22.45	22.25	22.01	21.82	22.14	21.97	22.67	22.30	23.12	22.62
16	22.85	22.37	22.38	22.25	22.07	21.81	22.33	21.97	22.51	22.29	23.01	22.60
17	22.99	22.73	22.50	22.30	22.04	21.85	22.14	21.97	22.81	22.29	23.44	23.01
18	22.91	22.46	22.48	22.31	22.27	21.94	22.21	21.98	22.44	22.21	23.35	22.98
19	22.74	22.46	22.43	22.33	22.14	21.97	22.48	22.12	22.24	22.11	23.22	22.76
20	22.76	22.48	22.75	22.37	22.41	22.03	22.47	22.15	22.22	22.07	22.90	22.57
21	22.70	22.36	22.63	22.39	22.46	22.20	22.28	22.09	22.33	22.14	23.14	22.56
22	22.73	22.36	22.39	22.14	22.45	22.16	22.14	22.03	22.37	22.19	23.27	22.72
23	22.73	22.43	22.33	22.12	22.27	22.03	22.51	22.12	22.33	22.17	23.02	22.55
24	22.51	22.37	22.14	21.91	22.03	21.94	22.33	22.08	22.35	22.17	22.84	22.53
25	23.07	22.51	21.99	21.88	22.41	22.00	22.11	22.03	22.19	21.96	23.12	22.57
26	22.98	22.53	21.91	21.84	22.08	21.78	22.32	22.06	22.04	21.95	22.88	22.51
27	22.65	22.24	22.31	21.90	21.81	21.76	22.16	22.01	22.00	21.91	22.97	22.50
28	22.43	22.22	22.12	22.01	21.93	21.77	22.41	22.04	22.04	21.96	22.81	22.49
29	22.66	22.21	22.11	21.99	21.83	21.77	22.47	22.17	22.33	21.97	22.61	22.35
30	23.16	22.49	22.09	21.92	22.12	21.82	22.38	22.16	22.28	22.09	22.42	22.18
31	---	---	21.92	21.78	---	---	22.29	22.16	22.34	22.08	---	---
MONTH	23.45	22.01	23.37	21.78	22.91	21.75	22.72	21.49	22.81	21.91	23.44	21.99
YEAR	23.45	20.53										

Daily Low Water Levels



5 YEAR HYDROGRAPH OCTOBER 1, 1991
THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 155. SITE ID.--390938076383701. PERMIT NUMBER.--AA-81-3460.
 LOCATION.--Lat 39°09'38", long 76°38'37", Hydrologic Unit 02060003, 200 ft off MD Rt. 3,
 0.4 mi south of MD Rt. 176 intersection.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 159 ft; casing diameter 6 in., to 145 ft.
 screen diameter 4 in. from 145 to 155 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from Oct. 23, 1984 to current year.
 DATUM.--Altitude of land surface is 57.50 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 2.5 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1984 to current year
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.07 ft above sea level, August 23, 1990;
 lowest measured, 34.54 ft above sea level, Oct. 10, 1986.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	46.21	46.13	46.52	46.41	47.01	46.85	46.92	46.86	47.46	47.38	47.71	47.61
2	46.21	46.17	46.61	46.52	46.90	46.69	47.04	46.87	47.52	47.46	47.82	47.71
3	46.21	46.16	46.60	46.49	46.88	46.70	47.10	46.89	47.55	47.46	47.79	47.47
4	46.19	46.14	46.49	46.36	46.87	46.71	46.89	46.74	47.47	47.40	47.63	47.47
5	46.36	46.15	46.45	46.36	46.85	46.69	46.78	46.73	47.55	47.40	47.84	47.63
6	46.36	46.22	46.52	46.44	46.87	46.76	46.81	46.71	47.50	47.42	47.86	47.74
7	46.24	46.16	46.74	46.52	46.83	46.74	47.24	46.81	47.61	47.45	47.86	47.74
8	46.16	46.12	46.68	46.47	46.75	46.67	47.22	46.93	47.74	47.61	47.79	47.58
9	46.16	46.11	46.47	46.41	46.90	46.75	47.02	46.92	47.74	47.55	47.58	47.47
10	46.16	46.12	46.54	46.44	46.80	46.75	47.00	46.78	47.72	47.52	47.56	47.44
11	46.16	46.12	46.91	46.54	46.78	46.70	46.85	46.77	47.77	47.62	47.77	47.56
12	46.17	46.13	46.86	46.59	---	---	47.14	46.85	47.62	47.51	47.85	47.77
13	46.20	46.15	46.67	46.58	46.71	46.66	47.05	46.93	47.70	47.51	47.82	47.79
14	46.44	46.19	46.98	46.67	46.88	46.71	46.98	46.90	47.84	47.68	47.87	47.80
15	46.42	46.31	46.98	46.61	46.86	46.77	46.98	46.76	47.68	47.58	47.97	47.83
16	46.31	46.18	46.65	46.61	46.85	46.78	46.94	46.76	47.74	47.58	47.83	47.70
17	46.21	46.16	46.65	46.62	46.79	46.71	47.00	46.94	47.70	47.62	47.79	47.70
18	46.28	46.21	46.78	46.63	46.87	46.75	47.20	46.94	47.68	47.48	47.79	47.74
19	46.29	46.25	46.77	46.70	47.11	46.87	47.48	47.11	47.51	47.46	48.11	47.78
20	46.43	46.27	46.83	46.71	47.07	46.85	47.11	47.04	47.67	47.51	48.02	47.85
21	46.52	46.37	46.91	46.79	46.92	46.85	47.22	47.10	47.69	47.65	47.85	47.73
22	46.37	46.31	46.79	46.70	46.86	46.80	47.27	47.19	47.70	47.67	47.77	47.70
23	46.36	46.30	46.81	46.70	46.85	46.80	47.40	47.27	47.78	47.70	47.70	47.63
24	46.49	46.34	46.77	46.69	46.87	46.83	47.56	47.31	47.84	47.66	47.70	47.58
25	46.42	46.36	46.86	46.70	46.91	46.83	47.31	47.13	47.69	47.65	47.82	47.70
26	46.45	46.39	46.91	46.83	46.90	46.86	47.37	47.15	47.69	47.66	47.80	47.61
27	46.58	46.42	46.97	46.90	46.87	46.81	47.66	47.37	47.81	47.66	47.62	47.54
28	46.62	46.47	46.92	46.74	46.81	46.73	47.41	47.27	47.87	47.62	47.95	47.62
29	46.47	46.34	46.82	46.74	46.73	46.70	47.49	47.31	47.62	47.56	47.99	47.87
30	46.38	46.33	46.85	46.77	46.82	46.72	47.58	47.48	---	---	47.93	47.87
31	46.43	46.37	---	---	46.92	46.82	47.60	47.40	---	---	48.00	47.92
MONTH	46.62	46.11	46.98	46.36	47.11	46.66	47.66	46.71	47.87	47.38	48.11	47.44

GROUND-WATER LEVELS

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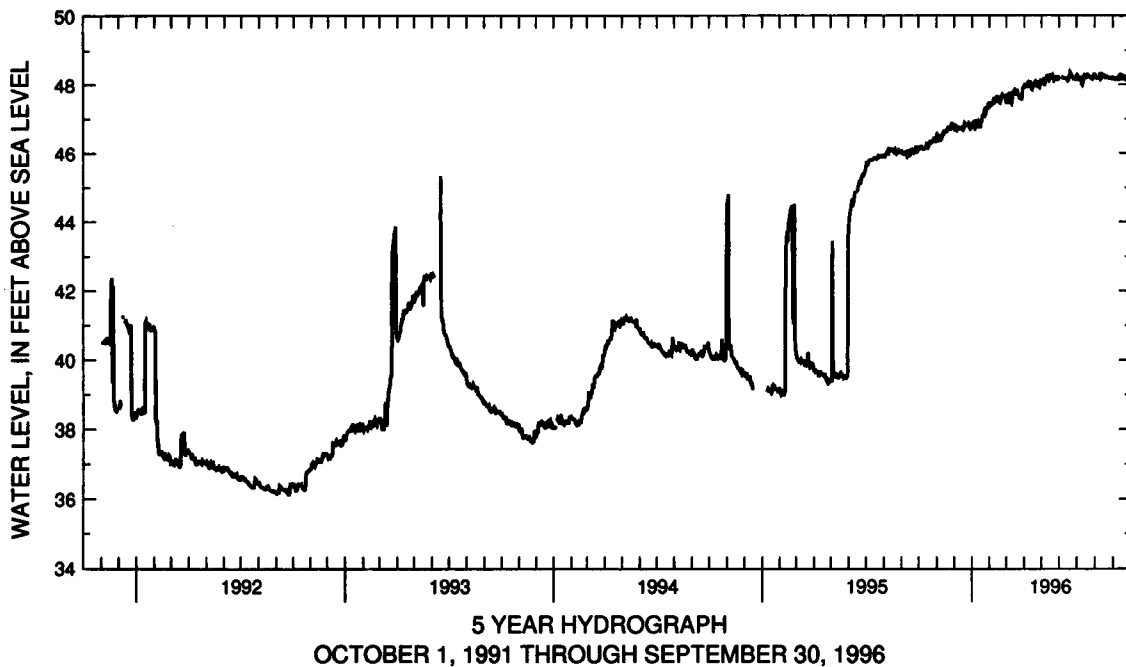
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Bd 155--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	48.08	47.96	48.12	48.05	48.29	48.21	48.32	48.26	48.36	48.31	48.25	48.21
2	48.01	47.92	48.11	48.07	---	---	48.34	48.29	48.31	48.26	48.22	48.18
3	48.12	47.93	48.15	48.07	---	---	48.37	48.27	48.27	48.23	48.18	48.16
4	48.11	48.01	48.19	48.12	---	---	48.27	48.17	48.23	48.20	48.19	48.16
5	48.07	47.94	48.18	48.05	---	---	48.17	48.14	48.23	48.20	48.17	48.15
6	48.06	47.94	48.20	47.99	48.23	48.18	48.21	48.14	48.22	48.19	48.33	48.16
7	48.10	48.02	48.14	47.99	48.28	48.22	48.24	48.19	48.22	48.20	48.32	48.21
8	48.05	47.99	48.20	48.14	48.26	48.21	48.27	48.24	48.25	48.20	48.27	48.21
9	48.11	48.05	48.23	48.18	48.21	48.18	48.26	48.13	48.27	48.25	48.23	48.18
10	48.07	48.02	48.32	48.18	48.23	48.19	48.13	48.01	48.25	48.20	48.18	48.15
11	48.03	47.98	48.42	48.29	48.24	48.20	48.04	47.98	48.20	48.16	48.29	48.15
12	48.09	48.02	48.29	48.15	48.26	48.20	48.24	48.04	48.34	48.18	48.30	48.26
13	48.04	47.95	48.17	48.12	48.25	48.20	48.57	48.24	48.42	48.34	48.36	48.28
14	48.00	47.85	48.17	48.10	48.22	48.18	48.35	48.28	48.34	48.29	48.28	48.20
15	48.19	47.84	48.28	48.13	48.20	48.14	48.32	48.26	48.32	48.28	48.21	48.16
16	48.23	48.04	48.35	48.28	48.16	48.11	48.26	48.21	48.32	48.28	48.31	48.16
17	48.04	47.98	48.31	48.28	48.24	48.13	48.24	48.22	48.31	48.28	48.43	48.31
18	48.07	47.97	48.35	48.27	48.28	48.23	48.33	48.22	48.28	48.23	48.31	48.24
19	48.12	48.05	48.34	48.29	48.40	48.23	48.45	48.33	48.23	48.21	48.25	48.22
20	48.17	48.08	48.33	48.30	48.40	48.36	48.36	48.25	48.24	48.21	48.22	48.18
21	48.11	48.02	48.32	48.21	48.37	48.32	48.28	48.24	48.29	48.24	48.27	48.19
22	48.14	48.01	48.25	48.18	48.38	48.30	48.30	48.25	48.28	48.25	48.40	48.27
23	48.23	48.08	48.22	48.12	48.36	48.24	48.31	48.26	48.27	48.23	48.35	48.18
24	48.08	48.01	48.20	48.14	48.33	48.24	48.26	48.23	48.26	48.22	48.28	48.18
25	48.21	48.06	48.26	48.20	48.34	48.21	48.28	48.22	48.24	48.20	48.24	48.12
26	48.24	48.10	48.27	48.23	48.21	48.16	48.32	48.22	48.24	48.20	48.15	48.09
27	48.10	47.94	48.30	48.23	48.23	48.16	48.22	48.17	48.26	48.19	48.21	48.13
28	48.02	47.92	48.25	48.15	48.23	48.17	48.21	48.16	48.24	48.21	48.33	48.20
29	48.20	48.02	48.20	48.15	48.23	48.16	48.24	48.19	48.26	48.21	48.27	48.17
30	48.27	48.09	48.22	48.15	48.36	48.23	48.31	48.23	48.22	48.19	48.17	48.12
31	---	---	48.31	48.22	---	---	48.36	48.31	48.23	48.18	---	---
MONTH	48.27	47.84	48.42	47.99	48.40	48.11	48.57	47.98	48.42	48.16	48.43	48.09
YEAR	48.57	46.11										

Daily Low Water Levels



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 156. SITE ID.--390922076371001. PERMIT NUMBER.--AA-81-3462.
 LOCATION.--Lat 39°09'22", long 76°37'10", Hydrologic Unit 02060003, off Wardour Rd.,
 0.3 mi north of Aquahart Rd. intersection.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 173 ft; casing diameter 6 in., to 160 ft;
 casing diameter 4 in. from 170 to 173 ft; screen diameter 4 in. from 160 to 170 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--30-minute recorder interval from October 1984 to current year.
 DATUM.--Altitude of land surface is 68.99 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 2.26 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1984 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.04 ft above sea level, May 8, 1994;
 lowest measured, 13.47 ft above sea level, Feb. 10, 1988.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.27	20.11	21.83	19.84	22.44	20.02	---	---	---	---	---	---
2	20.67	20.10	20.94	20.47	21.14	19.79	---	---	---	---	---	---
3	20.73	20.09	20.86	20.01	20.28	19.75	---	---	---	---	---	---
4	20.67	20.08	20.54	19.81	19.93	19.57	---	---	---	---	---	---
5	21.05	20.09	20.90	19.80	20.47	19.56	---	---	---	---	---	---
6	20.71	20.15	20.38	19.95	20.24	19.73	---	---	---	---	---	---
7	20.77	20.02	20.58	19.95	20.50	19.73	---	---	---	---	---	---
8	20.58	19.98	21.28	19.91	---	---	---	---	---	---	---	---
9	20.42	19.90	20.48	19.68	---	---	---	---	---	---	---	---
10	20.30	19.86	20.72	19.67	---	---	---	---	---	---	---	---
11	20.40	19.85	21.28	19.81	---	---	---	---	---	---	---	---
12	20.72	19.91	21.48	19.83	---	---	---	---	---	---	---	---
13	20.73	19.99	19.83	19.58	---	---	---	---	---	---	---	---
14	20.56	20.04	20.71	19.57	---	---	---	---	---	---	---	---
15	20.56	19.97	21.17	19.69	---	---	---	---	---	---	---	---
16	20.09	19.69	20.30	19.56	---	---	---	---	---	---	---	---
17	20.01	19.67	20.40	19.56	---	---	---	---	---	---	---	---
18	20.08	19.71	21.08	19.64	---	---	---	---	---	---	---	---
19	20.24	19.79	20.52	19.88	---	---	---	---	---	---	---	---
20	20.25	19.83	20.03	19.84	---	---	---	---	---	---	---	---
21	20.78	19.93	19.99	19.64	---	---	---	---	---	---	---	---
22	20.30	19.77	20.72	19.63	---	---	---	---	---	---	---	---
23	20.08	19.75	20.21	19.59	---	---	---	---	---	---	---	---
24	20.86	19.79	19.67	19.40	---	---	---	---	---	---	---	---
25	21.07	20.00	20.04	19.39	---	---	---	---	---	---	---	---
26	20.88	20.03	19.90	19.62	---	---	---	---	---	---	---	---
27	20.95	20.05	19.72	19.63	---	---	---	---	---	---	---	---
28	21.23	20.11	19.88	19.38	---	---	---	---	---	---	---	---
29	20.92	19.85	19.77	19.39	---	---	---	---	---	---	---	---
30	20.17	19.71	20.50	19.50	---	---	---	---	---	---	---	---
31	20.48	19.71	---	---	---	---	---	---	---	---	---	---
MONTH	21.27	19.67	21.83	19.38	22.44	19.56	---	---	---	---	---	---

GROUND-WATER LEVELS

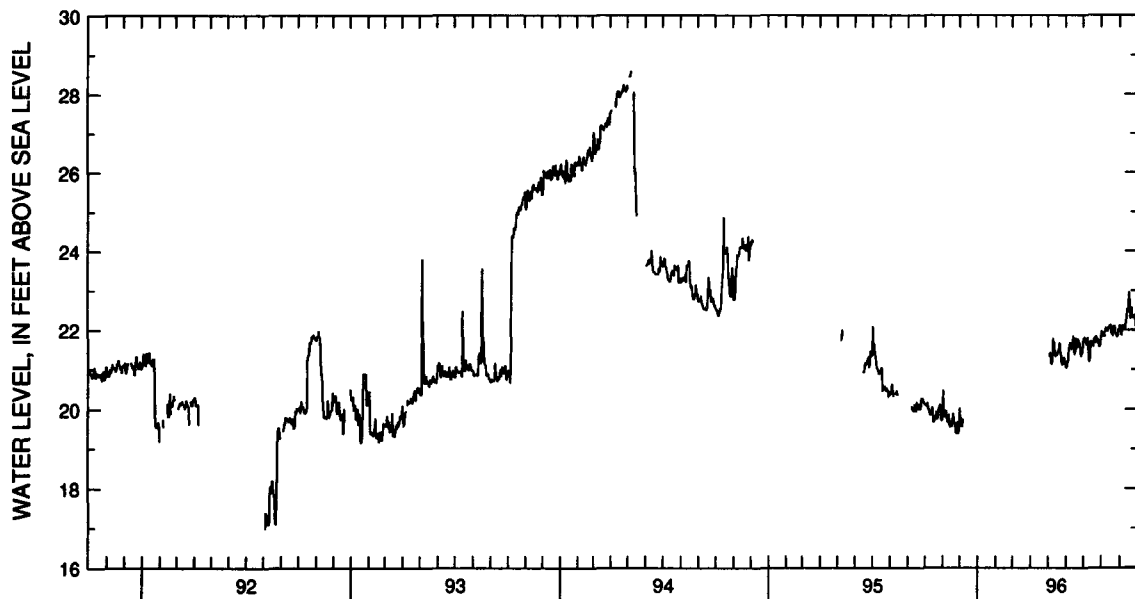
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Bd 156--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	21.20	21.04	22.12	21.76	22.96	21.83	22.73	22.08
2	---	---	---	---	21.21	21.07	22.18	21.75	22.74	21.97	22.96	22.12
3	---	---	22.19	21.33	21.20	21.20	22.65	21.82	22.65	21.90	22.22	21.90
4	---	---	22.02	21.43	22.22	21.20	23.01	21.73	22.40	21.87	22.16	21.88
5	---	---	21.70	21.34	22.71	21.54	22.62	21.70	21.98	21.83	22.60	21.91
6	---	---	22.17	21.14	22.86	21.55	22.23	21.64	22.23	21.83	22.66	22.00
7	---	---	21.56	21.14	22.83	21.63	22.39	21.68	22.35	21.95	22.79	22.11
8	---	---	22.17	21.24	23.06	21.68	21.97	21.80	22.38	21.95	22.83	22.10
9	---	---	23.58	21.79	21.94	21.52	22.07	21.58	22.74	22.04	22.56	22.00
10	---	---	22.04	21.66	22.26	21.51	21.58	21.26	23.01	22.02	22.84	22.00
11	---	---	22.40	21.66	22.20	21.58	21.42	21.21	22.53	21.98	22.84	22.08
12	---	---	22.06	21.37	22.01	21.55	21.53	21.26	22.45	21.97	23.48	22.19
13	---	---	21.73	21.34	23.77	21.85	23.32	21.52	22.66	22.05	23.48	22.28
14	---	---	21.90	21.39	22.02	21.57	22.17	21.72	22.99	22.05	23.96	22.53
15	---	---	21.79	21.37	21.60	21.39	22.07	21.63	23.21	22.09	24.02	22.50
16	---	---	21.53	21.37	22.26	21.39	22.88	21.63	22.73	22.11	23.82	22.50
17	---	---	21.90	21.45	22.13	21.79	22.14	21.63	23.45	22.11	24.25	22.96
18	---	---	21.80	21.44	22.12	21.63	21.83	21.57	22.51	22.00	24.15	22.78
19	---	---	21.75	21.49	21.63	21.55	22.68	21.75	22.27	21.89	23.97	22.34
20	---	---	22.48	21.67	22.75	21.59	22.87	21.78	22.25	21.87	23.26	22.29
21	---	---	22.13	21.60	22.81	21.77	22.36	21.71	22.49	21.99	24.00	22.52
22	---	---	21.69	21.39	22.77	21.72	21.98	21.69	22.57	22.07	24.00	22.58
23	---	---	21.90	21.36	22.12	21.68	23.11	21.81	22.46	22.05	23.65	22.32
24	---	---	21.37	21.16	21.68	21.53	22.52	21.78	22.47	22.07	23.37	22.31
25	---	---	21.29	21.13	22.84	21.64	22.00	21.73	22.10	21.90	24.00	22.36
26	---	---	21.19	21.16	21.69	21.38	22.39	21.74	21.99	21.87	23.58	22.36
27	---	---	22.22	21.16	21.45	21.35	22.20	21.64	21.93	21.83	23.75	22.37
28	---	---	21.40	21.31	21.78	21.44	21.69	21.57	22.19	21.84	22.85	22.28
29	---	---	21.36	21.25	21.66	21.42	21.71	21.58	22.85	21.91	22.65	22.09
30	---	---	21.59	21.16	22.03	21.54	22.25	21.67	22.59	21.99	22.40	21.94
31	---	---	21.16	21.05	---	---	22.16	21.84	22.66	21.97	---	---
MONTH	---	---	23.58	21.05	23.77	21.04	23.32	21.21	23.45	21.83	24.25	21.88
YEAR	24.25	19.38										

Daily Low water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 157. SITE ID.--390737076374401. PERMIT NUMBER.--AA-81-3464.
 LOCATION.--Lat 39°07'37", long 76°37'44", Hydrologic Unit 02060003, off Nolfield Dr.,
 0.14 mi east of Phirne Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 180 ft; casing diameter 6 in., to 167 ft;
 screen diameter 4 in. from 167 to 177 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from March 1985 to current year.
 DATUM.--Altitude of land surface is 75.75 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 2.5 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--March 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.55 ft above sea level, Jan. 31, 1991;
 lowest measured, 32.95 ft above sea level, Oct. 2, 1992.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	34.50	34.19	35.00	34.41	35.26	34.62	34.62	34.41	35.09	34.79	35.52	35.22
2	34.38	34.17	35.01	34.73	34.90	34.49	34.55	34.42	35.19	34.79	35.83	35.30
3	34.34	34.16	34.98	34.61	34.73	34.48	34.73	34.42	35.31	34.88	35.49	34.96
4	34.38	34.17	34.80	34.47	34.52	34.29	34.42	34.21	35.20	34.79	35.26	34.94
5	34.48	34.17	34.77	34.45	34.51	34.29	34.33	34.16	34.97	34.75	35.57	35.18
6	34.57	34.30	34.67	34.52	34.55	34.32	34.27	34.14	35.04	34.77	35.66	35.29
7	34.60	34.26	34.83	34.52	34.53	34.32	34.58	34.22	35.06	34.76	35.84	35.52
8	34.52	34.24	34.92	34.53	34.43	34.26	34.75	34.43	35.36	34.91	35.84	35.36
9	34.45	34.22	34.63	34.39	34.38	34.27	34.44	34.40	35.26	34.89	35.61	35.04
10	34.39	34.19	34.65	34.39	34.27	34.21	34.50	34.25	35.24	34.88	35.31	34.99
11	34.44	34.18	34.86	34.46	34.21	34.13	34.25	34.21	35.37	35.00	35.41	34.97
12	34.45	34.20	34.84	34.54	34.13	34.08	34.76	34.23	35.09	34.81	35.58	35.24
13	34.45	34.24	34.54	34.50	34.10	34.08	34.75	34.42	35.04	34.80	35.56	35.23
14	34.57	34.29	34.86	34.50	34.23	34.10	34.60	34.37	35.30	34.90	35.68	35.24
15	34.67	34.39	35.03	34.60	34.22	34.16	34.56	34.22	35.21	34.87	35.89	35.54
16	34.39	34.19	34.75	34.51	34.57	34.17	34.26	34.20	35.27	34.87	35.95	35.37
17	34.31	34.18	34.67	34.46	34.43	34.25	34.61	34.26	35.32	34.98	35.71	35.34
18	34.34	34.19	34.85	34.46	34.34	34.25	34.60	34.35	35.23	34.82	35.61	35.30
19	34.40	34.22	34.77	34.50	34.68	34.33	35.11	34.53	35.04	34.78	35.71	35.30
20	34.41	34.23	34.55	34.50	34.86	34.48	34.64	34.42	35.19	34.77	35.86	35.57
21	34.83	34.36	34.63	34.47	34.72	34.47	34.54	34.42	35.33	35.02	35.94	35.36
22	34.56	34.31	34.72	34.43	34.72	34.42	34.42	34.40	35.35	35.08	35.56	35.25
23	34.44	34.31	34.61	34.42	34.76	34.41	34.62	34.42	35.40	35.07	35.62	35.15
24	34.62	34.31	34.45	34.31	34.62	34.39	34.92	34.58	35.58	35.07	35.26	35.07
25	34.68	34.40	34.62	34.31	34.61	34.37	34.93	34.74	35.22	34.98	35.10	35.09
26	34.70	34.41	34.57	34.44	34.88	34.48	34.97	34.70	35.13	34.92	35.15	34.97
27	34.77	34.44	34.52	34.47	34.74	34.43	35.21	34.70	35.37	34.92	35.41	34.97
28	35.01	34.59	34.57	34.36	34.57	34.31	34.85	34.62	35.58	35.24	35.80	35.31
29	34.79	34.44	34.61	34.37	34.52	34.29	34.66	34.61	35.46	35.22	36.17	35.80
30	34.54	34.38	34.73	34.48	34.62	34.29	35.09	34.65	---	---	36.22	35.96
31	34.57	34.37	---	---	34.56	34.40	35.26	34.80	---	---	36.39	35.92
MONTH	35.01	34.16	35.03	34.31	35.26	34.08	35.26	34.14	35.58	34.75	36.39	34.94

GROUND-WATER LEVELS

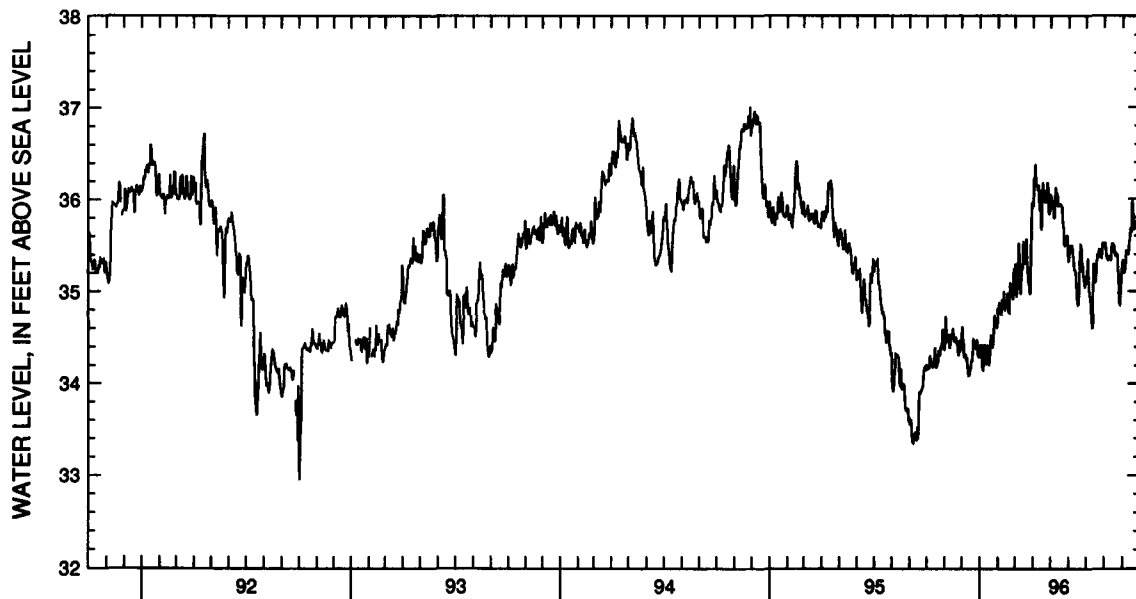
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Bd 157--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	36.43	35.92	36.37	36.03	35.53	35.32	35.41	35.15	36.00	35.48	35.63	35.32
2	36.48	36.23	36.31	35.90	35.59	35.42	35.43	35.14	35.90	35.53	35.67	35.34
3	36.54	36.23	36.24	35.90	35.51	35.48	35.54	35.21	35.82	35.48	35.34	35.20
4	36.63	36.38	36.42	35.98	35.75	35.47	35.70	35.35	35.68	35.42	35.32	35.20
5	36.67	36.17	36.16	35.95	35.85	35.46	35.58	35.12	35.44	35.36	35.53	35.22
6	36.55	36.15	36.29	35.79	35.85	35.49	35.34	35.01	35.54	35.35	35.60	35.28
7	36.63	36.15	36.11	35.79	35.84	35.49	35.20	34.96	35.55	35.33	35.73	35.43
8	36.55	36.10	36.30	35.91	35.87	35.38	35.04	34.93	35.52	35.33	35.66	35.42
9	36.52	36.10	36.65	36.13	35.59	35.37	35.01	34.86	35.67	35.36	35.71	35.43
10	36.55	36.15	36.42	36.06	35.64	35.26	34.86	34.60	35.71	35.38	35.64	35.40
11	36.15	35.91	36.50	36.06	35.54	35.22	34.78	34.60	35.60	35.35	35.69	35.40
12	36.02	35.88	36.42	36.03	35.42	35.22	35.04	34.64	35.54	35.34	35.87	35.53
13	36.15	35.87	36.21	35.92	35.75	35.20	35.82	35.04	35.80	35.50	35.94	35.56
14	36.04	35.68	36.26	35.92	35.40	35.07	35.56	35.30	35.81	35.49	36.13	35.68
15	35.98	35.66	36.20	35.93	35.26	34.96	35.50	35.28	35.84	35.51	36.11	35.64
16	36.37	35.98	36.10	35.93	35.12	34.88	35.63	35.25	35.80	35.50	36.01	35.64
17	36.44	36.18	36.26	35.94	35.02	34.85	35.47	35.09	35.93	35.50	36.36	36.00
18	36.47	36.00	36.19	35.93	35.33	34.86	35.52	35.14	35.70	35.45	36.26	35.89
19	36.40	36.00	36.14	35.92	35.36	35.08	35.71	35.32	35.58	35.39	36.17	35.71
20	36.47	36.09	36.26	35.92	35.69	35.35	35.75	35.40	35.54	35.38	35.93	35.66
21	36.39	35.96	36.09	35.77	35.78	35.50	35.65	35.38	35.60	35.38	36.11	35.69
22	36.30	35.96	35.92	35.72	35.77	35.49	35.54	35.37	35.63	35.40	36.21	35.76
23	36.28	36.05	35.93	35.68	35.64	35.37	35.77	35.46	35.56	35.38	36.10	35.69
24	36.25	36.05	35.68	35.50	35.37	35.23	35.65	35.38	35.56	35.22	35.98	35.69
25	36.54	36.18	35.68	35.49	35.65	35.28	35.49	35.37	35.23	35.17	36.16	35.68
26	36.53	36.08	35.60	35.51	35.31	35.16	35.67	35.37	35.18	34.90	36.02	35.67
27	36.34	35.85	35.90	35.55	35.26	35.16	35.58	35.35	34.98	34.86	36.06	35.67
28	36.15	35.84	35.73	35.60	35.41	35.06	35.85	35.46	35.04	34.85	36.07	35.72
29	36.16	35.86	35.77	35.60	35.19	35.05	35.90	35.53	35.43	35.04	36.01	35.67
30	36.56	36.04	35.80	35.50	35.45	35.08	35.74	35.51	35.49	35.21	35.86	35.57
31	---	---	35.55	35.32	---	---	35.65	35.49	35.58	35.24	---	---
MONTH	36.67	35.66	36.65	35.32	35.87	34.85	35.90	34.60	36.00	34.85	36.36	35.20
YEAR	36.67	34.08										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 158. SITE ID.--390744076390001. PERMIT NUMBER.--AA-81-3459.

LOCATION.--Lat 39°07'44", long 76°39'00", Hydrologic Unit 02060003, 0.05 mi off Stevenson Rd.,
0.45 mi west of New Cut Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 187 ft; casing diameter 6 in., to 174 ft;
screen diameter 4 in. from 174 to 184 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from January 1985 to current year.

DATUM.--Altitude of land surface is 108.25 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 2.6 ft above land surface.

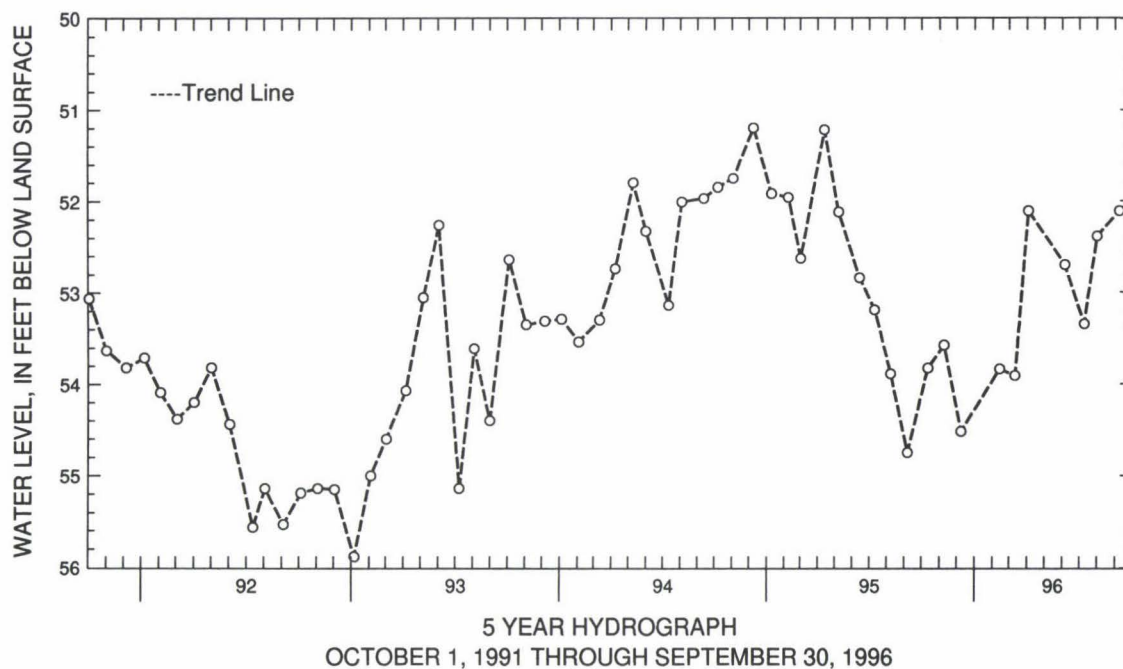
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--January 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.23 ft below land surface, Jan. 11, 1985;
lowest measured, 55.90 ft below land surface, Sept. 14, 1987 and Jan. 15, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	53.83	FEB 13, 1996	53.84	JUN 05, 1996	52.70	SEP 09, 1996	52.11
NOV 09	53.58	MAR 11	53.91	JUL 09	53.35		
DEC 08	54.52	APR 03	52.11	AUG 01	52.39		
WATER YEAR 1996		HIGHEST	52.11	APR 03, 1996	SEP 09, 1996	LOWEST	54.52
		DEC 08, 1995					



MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 159. SITE ID.--390737076374402. PERMIT NUMBER.--AA-81-3949.

LOCATION.--Lat 39°07'37", long 76°37'44", Hydrologic Unit 02060003, off Nolfield Dr.,
0.14 mi east of Phrine Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Upper Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 100 ft; casing diameter 6 in., to 89 ft;
screen diameter 4 in. from 89 to 99 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval interval from March 1985,
to July 24, 1989.

DATUM.--Altitude of land surface is 75.48 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.5 ft above land surface.

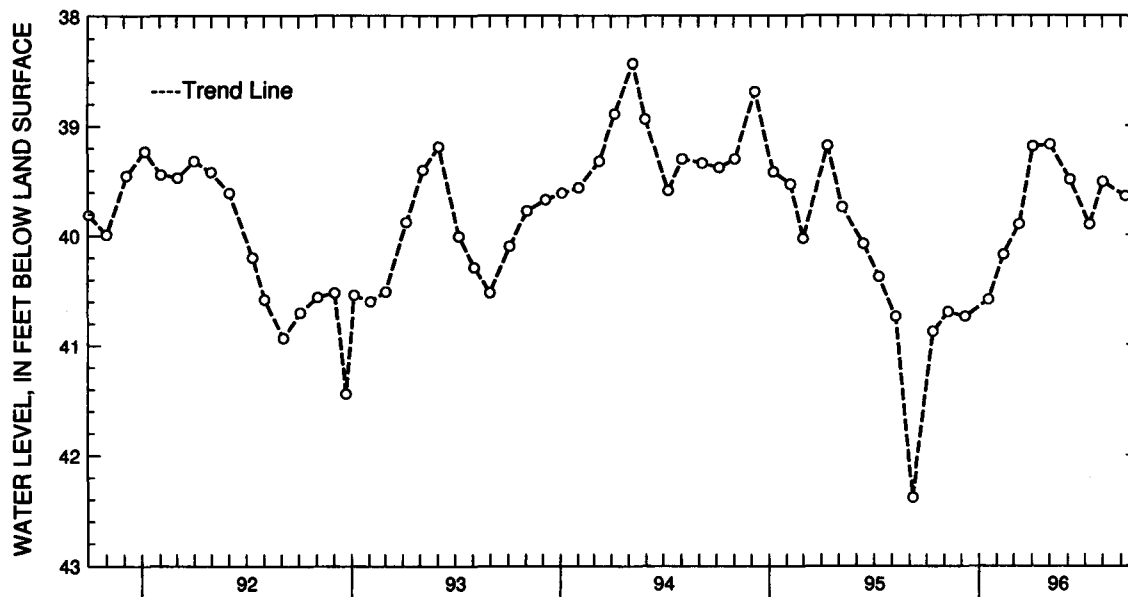
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.

PERIOD OF RECORD.--March 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.77 ft below land surface, Sept. 14, 1987;
lowest measured, 42.38 ft below land surface, Sept. 7, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	40.88	JAN 18, 1996	40.59	APR 03, 1996	39.19	JUL 09, 1996	39.90
NOV 09	40.70	FEB 13	40.18	MAY 02	39.17	AUG 01	39.51
DEC 08	40.74	MAR 11	39.90	JUN 05	39.49	SEP 09	39.64
WATER YEAR 1996		HIGHEST	39.17	MAY 02, 1996	LOWEST	40.88	OCT 12, 1995



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bd 160. SITE ID.--390908076394402. PERMIT NUMBER.--AA-81-3461.
 LOCATION.--Lat 39°09'08", long 76°39'44", Hydrologic Unit 02060003, 0.08 mi north of Queenstown Rd.,
 0.41 mi. east of WB & A Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 118 ft; casing diameter 6 in., to 105 ft.
 screen diameter 4 in. from 105 to 115 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from April 1985 to current year.
 DATUM.--Altitude of land surface is 88 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 2.5 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--April 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.68 ft above sea level, May 29, 1990;
 lowest measured, 68.57 ft above sea level, Oct. 7, 1986.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	71.65	71.23	72.17	71.80	72.16	71.99	71.76	71.71	73.42	73.37	72.95	72.87
2	71.62	71.31	72.10	71.80	71.99	71.80	71.88	71.71	73.49	73.42	73.14	72.87
3	71.50	71.31	72.08	71.84	71.89	71.81	71.95	71.81	73.53	73.46	73.18	72.71
4	71.69	71.33	72.02	71.73	71.95	71.79	71.81	71.68	73.46	73.42	72.88	72.71
5	71.81	71.40	71.96	71.73	72.11	71.79	72.07	71.68	73.45	72.96	73.12	72.80
6	71.94	71.50	72.14	71.79	71.92	71.80	72.15	71.72	72.96	72.68	73.05	72.92
7	71.92	71.47	72.52	72.14	71.83	71.75	72.89	72.15	72.76	72.68	73.05	72.92
8	71.82	71.40	72.59	72.52	---	---	72.93	72.77	72.88	72.76	73.09	72.79
9	71.77	71.39	72.53	72.49	71.83	71.72	72.79	72.19	72.88	72.76	73.03	72.68
10	71.74	71.39	72.60	72.49	71.78	71.73	72.19	71.84	72.82	72.74	72.95	72.66
11	71.78	71.39	72.87	72.60	71.73	71.68	71.84	71.81	72.95	72.82	---	---
12	71.67	71.39	72.84	72.67	71.68	71.64	72.70	71.83	73.39	72.79	73.10	72.89
13	71.74	71.40	72.69	72.19	71.65	71.64	72.75	72.70	73.58	73.39	73.28	72.99
14	71.94	71.43	72.48	72.22	71.78	71.65	72.76	72.71	73.73	73.46	73.27	73.00
15	72.08	71.62	72.56	71.97	71.77	71.72	72.77	72.59	73.61	73.28	73.27	73.07
16	71.80	71.48	72.17	72.02	71.78	71.72	72.73	72.59	73.58	73.05	73.19	72.94
17	71.84	71.48	72.35	72.00	71.73	71.66	72.80	72.73	73.13	72.89	73.28	72.93
18	71.83	71.48	72.38	72.00	71.77	71.66	72.93	72.76	73.07	72.73	73.16	72.98
19	71.86	71.51	72.53	72.02	71.99	71.77	73.22	72.93	72.79	72.68	73.33	72.99
20	71.93	71.55	72.44	72.01	71.95	71.78	73.00	72.93	72.84	72.68	73.47	73.14
21	72.23	71.69	72.65	72.30	71.82	71.76	73.06	72.96	72.81	72.79	73.26	72.99
22	72.03	71.61	72.58	72.33	71.76	71.74	73.13	73.05	73.04	72.79	73.25	72.96
23	71.93	71.60	72.71	72.58	71.77	71.74	73.19	73.08	72.89	72.84	73.09	72.87
24	72.06	71.61	72.72	72.68	71.77	71.75	73.41	73.19	73.17	72.86	73.15	72.85
25	72.10	71.70	72.81	72.69	71.79	71.74	73.30	73.14	73.07	72.85	73.14	72.89
26	72.09	71.70	72.86	72.81	71.79	71.76	73.26	73.13	72.91	72.82	73.11	72.84
27	72.14	71.71	72.92	72.86	71.77	71.72	73.51	73.26	72.99	72.82	72.97	72.81
28	72.41	71.83	72.89	72.25	71.72	71.62	73.41	73.26	73.11	72.84	73.62	72.81
29	72.22	71.70	72.25	71.99	71.62	71.59	73.42	73.27	73.27	72.82	73.92	73.60
30	72.02	71.68	72.32	71.99	71.68	71.60	73.51	73.42	---	---	73.95	73.72
31	72.13	71.75	---	---	71.76	71.68	73.55	73.37	---	---	74.00	73.73
MONTH	72.41	71.23	72.92	71.73	72.16	71.59	73.55	71.68	73.73	72.68	74.00	72.66

GROUND-WATER LEVELS

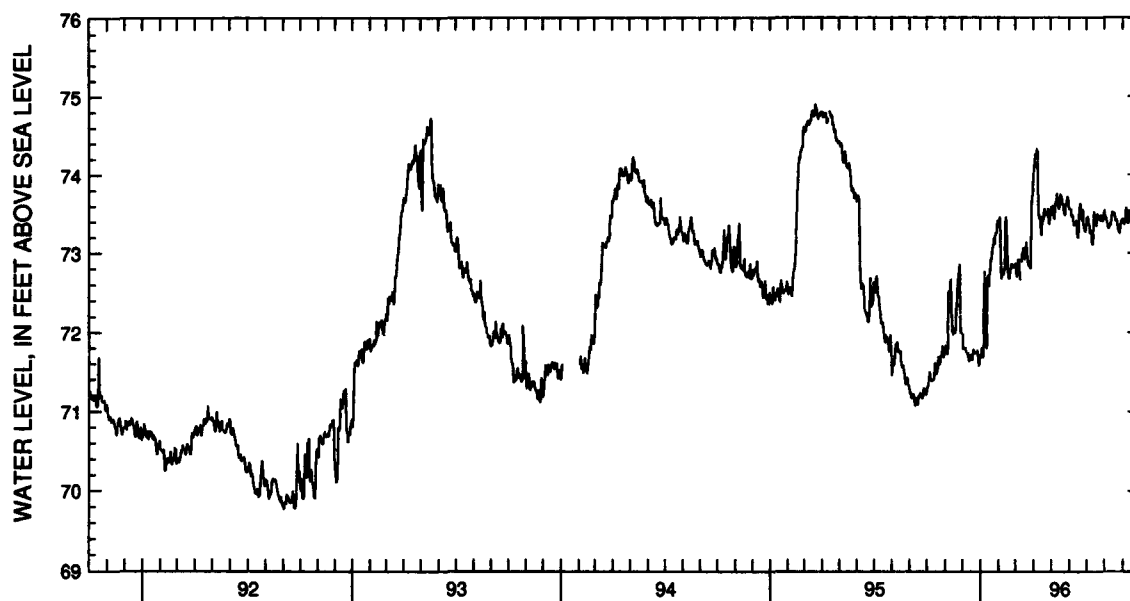
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Bd 160--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	74.13	73.96	74.07	73.59	74.00	73.57	73.70	73.44	73.98	73.54	73.78	73.44
2	74.16	74.05	73.88	73.50	73.81	73.56	73.66	73.44	73.67	73.46	73.71	73.40
3	74.29	74.14	73.85	73.50	73.60	73.56	73.74	73.47	73.93	73.46	73.60	73.38
4	74.33	74.26	74.07	73.60	73.87	73.56	73.86	73.42	73.76	73.44	73.59	73.37
5	74.32	74.22	73.90	73.60	73.72	73.47	73.75	73.36	73.66	73.40	73.70	73.39
6	74.32	74.22	73.91	73.45	73.70	73.47	73.68	73.35	73.46	73.37	74.09	73.40
7	74.36	74.32	73.77	73.44	73.64	73.49	73.35	73.26	73.40	73.33	74.20	73.58
8	74.33	74.31	74.02	73.61	73.62	73.43	73.34	73.29	73.39	73.32	74.01	73.56
9	74.39	73.77	74.06	73.65	73.43	73.35	73.33	73.28	73.38	73.33	73.96	73.47
10	73.77	73.51	74.05	73.65	73.47	73.39	73.33	73.15	73.72	73.37	73.47	73.38
11	73.57	73.44	74.14	73.76	73.61	73.40	73.15	73.11	73.69	73.38	73.48	73.38
12	73.71	73.44	74.22	73.71	73.76	73.40	73.32	73.11	73.64	73.37	73.55	73.47
13	73.62	73.40	73.92	73.60	73.77	73.41	74.12	73.32	73.96	73.47	74.10	73.55
14	73.60	73.25	73.94	73.57	73.46	73.34	73.95	73.53	73.93	73.53	73.65	73.46
15	73.47	73.23	73.94	73.57	73.39	73.24	73.77	73.48	73.78	73.49	73.47	73.39
16	73.68	73.47	74.10	73.64	73.47	73.20	73.73	73.42	73.78	73.49	73.47	73.39
17	73.85	73.41	74.10	73.74	73.75	73.20	73.57	73.36	73.85	73.49	73.62	73.47
18	73.75	73.41	74.08	73.73	73.87	73.48	73.50	73.35	73.98	73.52	73.53	73.45
19	73.94	73.50	73.95	73.71	74.02	73.57	73.83	73.45	73.72	73.47	73.45	73.42
20	74.02	73.57	73.71	73.62	73.96	73.63	73.95	73.50	73.54	73.41	73.42	73.40
21	73.96	73.50	73.72	73.62	73.90	73.57	73.80	73.45	73.60	73.41	73.46	73.40
22	73.80	73.49	74.25	73.62	73.87	73.55	73.67	73.44	73.59	73.42	73.60	73.46
23	73.71	73.51	73.97	73.52	73.78	73.43	73.76	73.46	73.42	73.38	73.60	73.45
24	73.79	73.50	73.77	73.50	73.62	73.41	73.66	73.42	73.38	73.32	73.52	73.44
25	73.83	73.50	73.81	73.49	74.13	73.56	73.70	73.42	73.32	73.28	73.51	73.41
26	73.96	73.57	74.05	73.60	73.56	73.36	74.05	73.49	73.30	73.27	73.41	73.40
27	73.74	73.39	74.11	73.63	73.36	73.33	73.86	73.42	73.34	73.26	73.46	73.40
28	73.76	73.38	74.04	73.66	73.43	73.29	73.80	73.42	73.65	73.33	73.60	73.46
29	73.58	73.43	74.06	73.72	73.38	73.28	73.51	73.41	73.75	73.39	73.60	73.49
30	74.18	73.53	74.09	73.69	73.72	73.31	73.86	73.41	73.70	73.41	73.49	73.42
31	---	---	73.97	73.60	---	---	73.81	73.53	73.78	73.40	---	---
MONTH	74.39	73.23	74.25	73.44	74.13	73.20	74.12	73.11	73.98	73.26	74.20	73.37
YEAR	74.39	71.23										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Bf 3. SITE ID.--390945076285601.

LOCATION.--Lat 39°09'45", long 76°28'56", Hydrologic Unit 02060003, 8 mi east of Glen Burnie at Fort Smallwood Park.

Owner: Baltimore City Department of Recreation and Parks.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Dug, brick-lined, unused, water-table well, diameter 48 in., depth 22.8 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 20.38 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Hole in concrete cover at land surface.

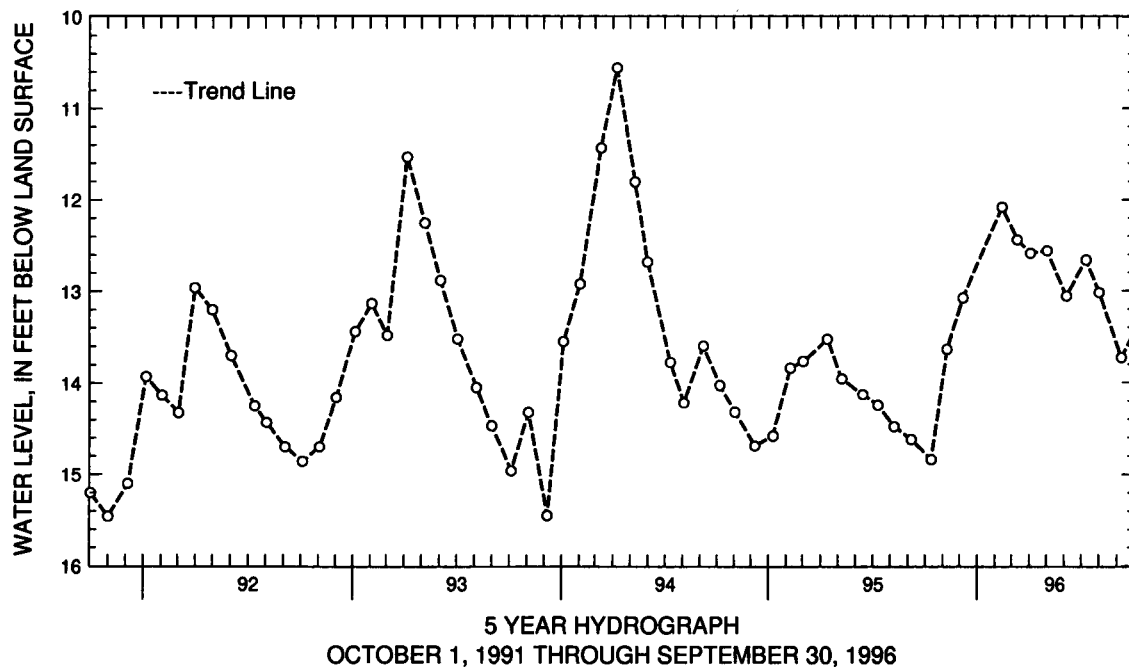
REMARKS.--Maryland Water-Level Network observation well. Water level measured 14.10 ft below land surface, Jan. 27, 1944.

PERIOD OF RECORD.--April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.40 ft below land surface, March 31, 1958; lowest measured, 19.09 ft below land surface, Dec. 7, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	14.84	FEB 13, 1996	12.08	MAY 02, 1996	12.56	AUG 01, 1996	13.02
NOV 09	13.64	MAR 11	12.44	JUN 05	13.06	SEP 09	13.73
DEC 07	13.08	APR 03	12.59	JUL 09	12.66		
WATER YEAR 1996		HIGHEST	12.08	FEB 13, 1996		LOWEST	14.84
							OCT 12, 1995



MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cb 1. SITE ID.--390303076463201. PERMIT NUMBER.--AA-03-5695.

LOCATION.--Lat 39°03'03", long 76°46'32", Hydrologic Unit 02060006, on Duvall Bridge Rd., Patuxent Wildlife Research Center.

Owner: U.S. Army.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 505 ft; casing diameter 6 in. to 485 ft; screen diameter 6 in. from 485 to 505 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from July 2, 1984 to current year.

DATUM.--Altitude of land surface is 129.10 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top lip of 3 in. extension pipe, 3.35 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--March 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 85.40 ft above sea level, May 1, 1962; lowest measured, 33.16 ft above sea level, Aug. 10, 1987.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	47.54	47.32	---	---	47.40	47.28	47.46	47.40	47.95	47.80
2	---	---	47.83	47.54	---	---	47.74	47.40	---	---	48.13	47.95
3	---	---	47.98	47.83	---	---	47.86	47.69	---	---	48.15	47.92
4	---	---	48.00	47.93	---	---	47.69	47.51	---	---	48.07	47.92
5	---	---	48.15	47.95	---	---	47.51	47.32	---	---	48.36	48.07
6	---	---	48.38	48.15	---	---	---	---	---	---	48.53	48.36
7	45.63	45.38	48.83	48.38	---	---	---	---	---	---	48.62	48.46
8	45.38	45.21	48.85	48.79	---	---	---	---	---	---	48.59	48.56
9	45.21	45.11	48.79	48.73	---	---	---	---	---	---	48.56	48.34
10	45.11	45.00	48.77	48.71	---	---	---	---	---	---	48.34	48.12
11	45.00	44.90	49.09	48.77	---	---	---	---	---	---	48.18	48.13
12	44.90	44.81	49.19	49.09	---	---	---	---	---	---	48.20	48.18
13	44.84	44.79	49.13	49.05	---	---	---	---	---	---	48.18	48.15
14	45.24	44.84	49.05	49.03	---	---	---	---	---	---	48.27	48.15
15	45.29	45.23	49.03	48.89	48.40	48.18	---	---	---	---	48.50	48.27
16	45.23	45.11	48.89	48.62	48.18	47.98	---	---	48.15	47.98	48.41	48.35
17	45.11	45.03	48.62	48.31	47.98	47.77	---	---	48.24	48.13	48.60	48.37
18	45.21	45.07	48.31	48.22	47.81	47.77	---	---	48.24	48.19	48.76	48.58
19	45.40	45.21	---	---	48.01	47.79	---	---	48.19	48.06	49.23	48.76
20	45.82	45.40	---	---	48.00	47.83	---	---	48.17	48.06	49.24	49.19
21	46.17	45.82	---	---	47.83	47.72	---	---	48.14	48.08	49.23	49.08
22	46.22	46.12	---	---	47.72	47.49	---	---	48.08	48.00	49.08	48.97
23	46.29	46.19	---	---	47.49	47.34	---	---	48.00	47.93	48.97	48.88
24	46.47	46.26	---	---	47.34	47.25	47.57	47.32	47.97	47.72	48.96	48.85
25	46.51	46.41	---	---	47.25	47.22	47.32	47.16	47.72	47.66	49.17	48.96
26	46.71	46.50	---	---	47.25	47.19	47.32	47.13	47.69	47.66	49.17	49.10
27	47.06	46.71	---	---	47.19	47.04	47.59	47.32	47.89	47.67	49.18	49.08
28	47.26	47.06	---	---	47.04	46.87	47.38	47.26	47.98	47.84	49.56	49.18
29	47.22	47.15	---	---	46.87	46.83	47.43	47.26	47.84	47.80	49.64	49.56
30	47.19	47.12	---	---	47.04	46.85	47.56	47.43	---	---	49.60	49.55
31	47.32	47.19	---	---	47.28	47.04	47.57	47.46	---	---	49.65	49.58
MONTH	47.32	44.79	49.19	47.32	48.40	46.83	47.86	47.13	48.24	47.40	49.65	47.80

GROUND-WATER LEVELS

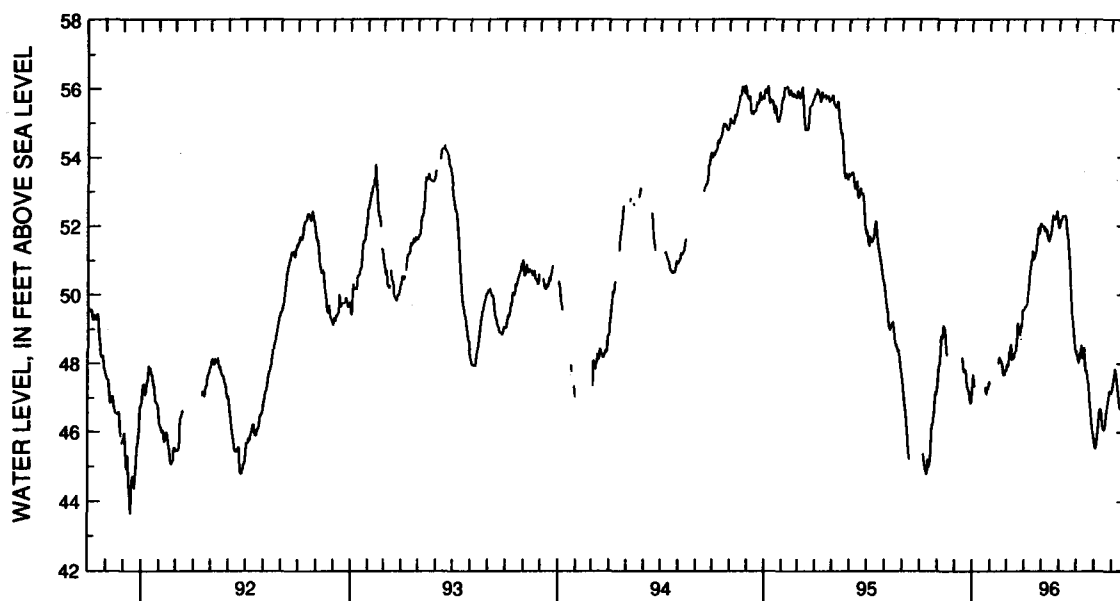
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Cb 1--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	49.75	49.60	52.15	52.06	52.04	51.94	48.44	48.34	45.84	45.70	47.31	47.19
2	49.71	49.65	52.12	52.03	52.03	51.94	48.34	48.26	45.70	45.56	47.39	47.30
3	49.77	49.65	52.05	51.99	52.19	52.03	48.32	48.23	45.56	45.53	47.47	47.39
4	49.80	49.69	52.09	52.00	52.22	52.17	48.23	48.10	45.67	45.55	47.59	47.47
5	49.80	49.70	52.14	51.98	52.20	52.16	48.10	48.04	45.87	45.67	47.67	47.58
6	49.96	49.76	52.15	51.98	52.23	52.18	48.23	48.09	46.03	45.87	47.96	47.67
7	50.09	49.96	51.98	51.88	52.30	52.23	48.37	48.23	46.18	46.03	47.95	47.85
8	50.29	50.09	51.96	51.92	52.31	52.29	48.54	48.37	46.39	46.18	47.86	47.80
9	50.53	50.29	51.96	51.85	52.31	52.28	48.60	48.54	46.60	46.39	47.80	47.62
10	50.67	50.53	51.93	51.83	52.32	52.27	48.54	48.32	46.70	46.60	47.62	47.43
11	50.79	50.67	51.99	51.91	52.34	52.28	48.32	48.18	46.74	46.68	47.43	47.31
12	50.93	50.79	51.92	51.73	52.36	52.29	48.39	48.16	46.79	46.68	47.31	47.17
13	51.09	50.89	51.73	51.64	52.35	52.25	48.65	48.39	46.86	46.66	47.18	47.00
14	51.13	51.01	51.64	51.57	52.25	52.04	48.54	48.47	46.66	46.43	47.00	46.82
15	51.35	51.01	51.64	51.56	52.04	51.82	48.48	48.35	46.43	46.22	46.82	46.71
16	51.42	51.28	51.78	51.63	51.82	51.67	48.35	48.10	46.22	46.10	46.82	46.68
17	51.28	51.10	51.79	51.73	51.67	51.55	48.10	47.82	46.10	46.06	---	---
18	51.10	51.03	51.89	51.78	51.60	51.26	47.82	47.75	46.09	46.05	46.88	46.75
19	51.15	51.07	52.00	51.88	51.26	50.98	47.89	47.81	46.15	46.08	46.75	46.67
20	51.26	51.14	52.17	52.00	50.98	50.64	47.84	47.62	46.30	46.15	46.67	46.61
21	51.25	51.20	52.31	52.17	50.64	50.12	47.62	47.48	46.50	46.30	46.77	46.63
22	51.45	51.25	52.31	52.29	50.12	49.77	47.48	47.44	46.60	46.50	47.00	46.77
23	51.73	51.45	52.31	52.27	49.77	49.39	47.44	47.19	46.74	46.60	47.03	46.91
24	51.73	51.64	52.28	52.23	49.39	49.32	47.19	46.90	46.84	46.74	47.01	46.91
25	51.95	51.73	52.25	52.19	49.38	49.17	46.90	46.75	46.94	46.83	46.99	46.93
26	52.05	51.95	52.29	52.23	49.17	48.95	46.77	46.53	47.07	46.94	47.02	46.93
27	51.97	51.83	52.33	52.28	48.95	48.72	46.53	46.28	47.20	47.05	47.21	47.00
28	51.87	51.78	52.44	52.33	48.72	48.48	46.28	46.13	47.28	47.19	47.49	47.21
29	52.06	51.87	52.49	52.44	48.48	48.36	46.13	46.01	47.27	47.20	47.52	47.46
30	52.15	52.05	52.44	52.23	48.46	48.37	46.03	45.92	47.20	47.14	47.48	47.46
31	---	---	52.23	52.04	---	---	45.94	45.84	47.20	47.13	---	---
MONTH	52.15	49.60	52.49	51.56	52.36	48.36	48.65	45.84	47.28	45.53	47.96	46.61
YEAR	52.49	44.79										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cc 40. SITE ID.--390423076432001. PERMIT NUMBER.--AA-03-5693.

LOCATION.--Lat 39°04'23", long 76°43'20", Hydrologic Unit 02060006, on Rifle Range Rd.,
Fort George G. Meade.

Owner: U.S. Army.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 238 ft; casing diameter 6 in., to 208 ft;
screened diameter 6 in., from 208 to 238 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from Dec. 4, 1959 to July 21, 1960 and Jan. 12, 1978 to
December 1985.

DATUM.--Altitude of land surface is 136.92 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.60 ft above land surface.

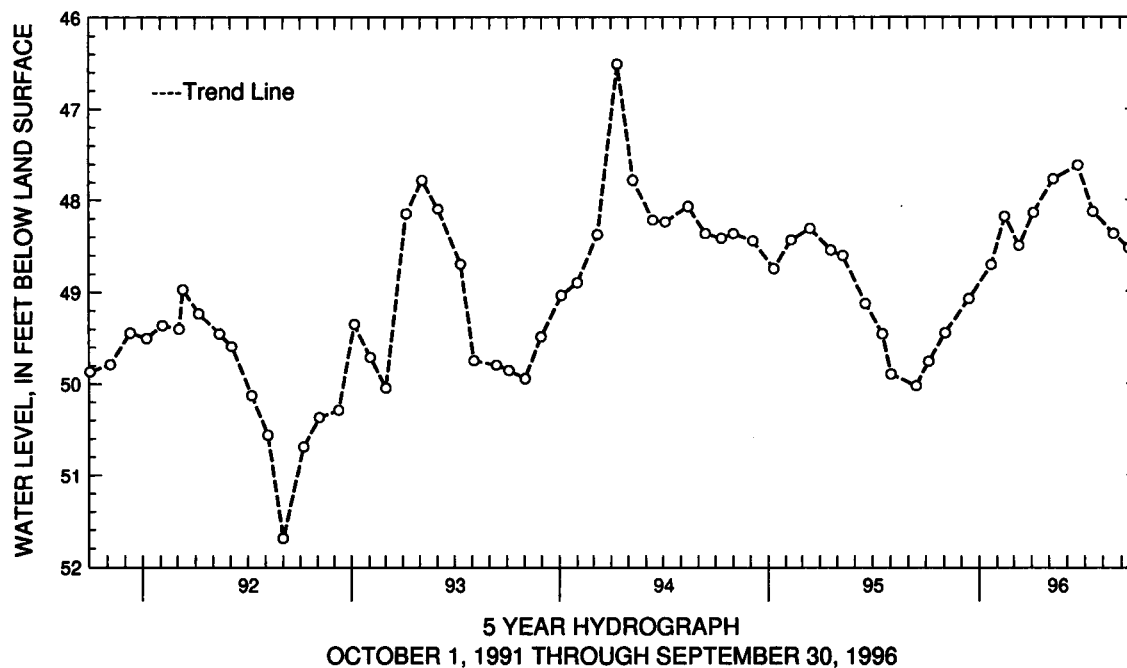
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.

PERIOD OF RECORD.--December 1959 to current year

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.58 ft below land surface, March 25, 1961;
lowest measured, 51.69 ft below land surface, Sept. 1, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1995	49.76	JAN 22, 1996	48.71	APR 05, 1996	48.14	JUL 17, 1996	48.13
NOV 03	49.45	FEB 15	48.18	MAY 10	47.77	AUG 21	48.37
DEC 14	49.08	MAR 11	48.50	JUN 21	47.62	SEP 16	48.53
WATER YEAR 1996		HIGHEST	47.62	JUN 21, 1996	LOWEST	49.76	OCT 06, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ce 117. SITE ID.--390450076343402. PERMIT NUMBER.--AA-73-0172.

LOCATION.--Lat 39°04'50", long 76°34'34", Hydrologic Unit 02060004, 0.1 mi southwest of intersection of Severndale Rd. and Southway Rd.

Owner: Anne Arundel County Department of Public Works.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 922 ft; casing diameter 6 in., to 836 ft, 851 to 870 ft, and 890 to 907 ft; screen diameter 6 in. from 836 to 851 ft, 870 to 890 ft, and 907 to 922 ft. INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--30-minute recorder interval from Aug. 18, 1977 to April 1980 and August 1983 to current year.

DATUM.--Altitude of land surface is 86.0 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 0.5 ft above land surface.

REMARKS.--Anne Arundel Co. observation well network. Water levels are affected by nearby pumping.

PERIOD OF RECORD.--August 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.58 ft above sea level, March 27, 1978; lowest measured, 3.14 ft above sea level, Sept. 4, 1987.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.96	4.47	5.75	5.22	7.65	7.05	---	---	7.86	7.46	8.26	7.87
2	4.99	4.54	6.01	5.43	7.56	7.21	---	---	7.90	7.55	8.42	8.01
3	5.01	4.53	6.09	5.56	7.44	6.96	---	---	7.89	7.58	8.46	7.79
4	5.03	4.57	5.98	5.51	7.44	7.12	---	---	7.77	7.47	8.02	7.71
5	5.17	4.56	5.91	5.39	7.44	7.01	---	---	7.83	7.38	8.28	7.74
6	5.18	4.66	6.02	5.54	7.50	7.18	---	---	7.85	7.47	8.38	7.95
7	5.09	4.64	6.46	5.61	7.49	7.11	---	---	8.02	7.46	8.41	7.98
8	5.02	4.53	6.41	5.99	7.54	7.04	---	---	8.28	7.73	8.40	7.92
9	4.95	4.48	6.20	5.74	---	---	---	---	8.27	7.92	8.15	7.72
10	4.86	4.74	6.27	5.70	---	---	---	---	8.28	7.80	7.96	7.60
11	4.85	4.40	6.76	5.93	---	---	---	---	8.39	8.01	8.11	7.59
12	4.84	4.40	6.65	6.42	---	---	---	---	8.30	7.91	8.30	7.85
13	4.91	4.66	6.56	6.15	---	---	---	---	8.21	7.79	8.42	8.02
14	5.15	4.55	7.01	6.21	---	---	---	---	8.48	8.06	8.54	8.15
15	5.14	4.66	7.05	6.59	---	---	---	---	8.35	7.98	8.71	8.26
16	5.02	4.45	6.81	6.37	---	---	---	---	8.42	8.05	8.58	8.15
17	4.78	4.38	6.70	6.37	---	---	---	---	8.37	8.01	8.54	8.16
18	4.78	4.35	6.91	6.43	---	---	---	---	8.41	7.90	8.54	8.16
19	4.92	4.43	6.94	6.57	---	---	---	---	8.24	7.88	8.98	8.19
20	5.11	4.50	7.04	6.68	---	---	---	---	8.33	7.87	8.93	8.57
21	5.32	4.80	7.22	6.78	---	---	---	---	8.37	8.02	8.86	8.38
22	5.17	4.71	7.12	6.76	---	---	---	---	8.39	8.01	8.68	8.27
23	5.08	4.61	7.13	6.63	---	---	---	---	8.47	8.06	8.54	8.22
24	5.26	4.63	7.06	6.69	---	---	8.20	7.66	8.52	8.08	8.33	8.24
25	5.23	4.74	7.11	6.56	---	---	7.99	7.54	8.37	8.06	8.50	8.21
26	5.31	4.73	7.28	6.74	---	---	7.73	7.27	8.30	7.95	8.50	8.15
27	5.62	4.92	7.39	6.98	---	---	8.12	7.46	8.41	7.96	8.28	7.92
28	5.74	5.24	7.39	7.04	---	---	7.94	7.43	8.58	8.17	8.52	7.99
29	5.58	5.11	7.22	6.85	---	---	7.76	7.64	8.34	7.87	8.57	8.42
30	5.34	4.94	7.31	6.87	---	---	7.99	7.48	---	---	8.61	8.21
31	5.56	5.00	---	---	---	---	8.02	7.78	---	---	8.74	8.36
MONTH	5.74	4.35	7.39	5.22	7.65	6.96	8.20	7.27	8.58	7.38	8.98	7.59

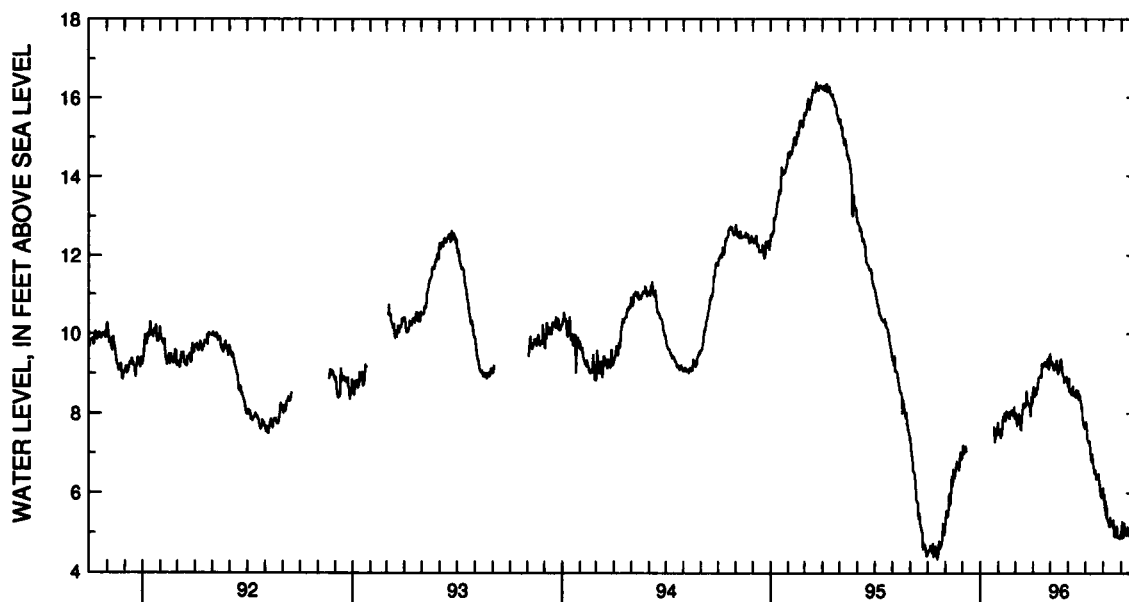
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Ce 117--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.89	8.68	9.58	9.28	8.97	8.66	7.94	7.76	6.33	6.14	5.32	5.04
2	8.81	8.49	9.58	9.24	8.97	8.88	7.98	7.78	6.26	5.81	5.33	4.87
3	8.91	8.41	9.58	9.22	9.04	8.53	7.94	7.66	6.17	5.97	5.32	5.29
4	8.95	8.62	9.60	9.29	9.06	8.62	7.80	7.35	6.04	5.55	5.33	4.87
5	8.91	8.62	9.57	9.26	9.02	8.53	7.58	7.31	5.91	5.80	5.32	4.87
6	8.91	8.45	9.59	9.11	8.91	8.48	7.47	7.27	5.80	5.38	5.61	4.92
7	8.96	8.65	9.45	9.09	8.95	8.51	7.47	7.31	5.75	5.69	5.63	5.26
8	9.00	8.59	9.50	9.16	8.94	8.55	7.49	7.31	5.74	5.32	5.47	5.06
9	9.10	8.75	9.57	9.23	8.88	8.69	7.40	7.10	5.74	5.33	5.41	5.05
10	9.09	8.89	9.59	9.22	8.87	8.46	7.17	6.91	5.73	5.32	5.40	4.96
11	9.08	8.91	9.73	9.33	8.88	8.48	7.00	6.80	5.58	5.18	5.40	4.93
12	9.24	8.92	9.65	9.33	8.88	8.44	6.99	6.77	5.70	5.16	5.47	4.96
13	9.25	8.93	9.43	9.05	8.89	8.47	7.33	6.99	5.88	5.40	5.52	5.13
14	9.27	8.97	9.32	8.99	8.78	8.39	7.16	6.76	5.71	5.29	5.51	5.11
15	9.48	8.89	9.31	9.01	8.74	8.59	7.10	6.66	5.73	5.26	5.48	4.93
16	9.60	9.27	9.48	9.18	8.63	8.44	6.98	6.58	5.61	5.25	5.41	4.92
17	9.38	9.14	9.45	9.18	8.68	8.43	6.92	6.47	5.67	5.19	5.59	5.11
18	9.31	9.23	9.45	9.33	8.78	8.58	6.86	6.60	5.56	5.14	5.40	4.95
19	9.42	9.21	9.56	9.35	8.89	8.33	7.09	6.48	5.48	5.34	5.35	4.85
20	9.51	9.26	9.50	9.30	8.91	8.47	6.94	6.34	5.38	4.89	5.29	4.79
21	9.47	9.31	9.49	9.08	8.90	8.45	6.78	6.34	5.38	5.13	5.32	4.79
22	9.45	9.18	9.43	9.00	8.73	8.29	6.73	6.48	5.40	4.96	5.48	4.97
23	9.60	9.30	9.36	8.93	8.70	8.26	6.81	6.36	5.36	4.90	5.38	4.92
24	9.50	9.17	9.30	8.93	8.47	8.11	6.69	6.49	5.35	4.90	5.36	4.76
25	9.67	9.18	9.19	8.78	8.57	8.17	6.68	6.22	5.30	5.18	5.35	4.77
26	9.76	9.38	9.21	8.79	8.33	7.83	6.66	6.22	5.30	4.90	5.17	4.66
27	9.62	9.13	9.19	8.84	8.15	7.81	6.56	5.94	5.34	4.87	5.19	4.59
28	9.45	9.12	9.22	8.90	8.11	7.66	6.41	5.94	5.32	4.87	5.32	4.68
29	9.64	9.45	9.24	8.91	7.96	7.70	6.38	5.89	5.35	4.90	5.28	4.77
30	9.71	9.48	9.19	8.88	8.10	7.61	6.40	5.94	5.38	4.86	5.17	4.61
31	---	---	9.02	8.69	---	---	6.39	5.96	5.28	4.87	---	---
MONTH	9.76	8.41	9.73	8.69	9.06	7.61	7.98	5.89	6.33	4.86	5.63	4.59
YEAR	9.76	4.35										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

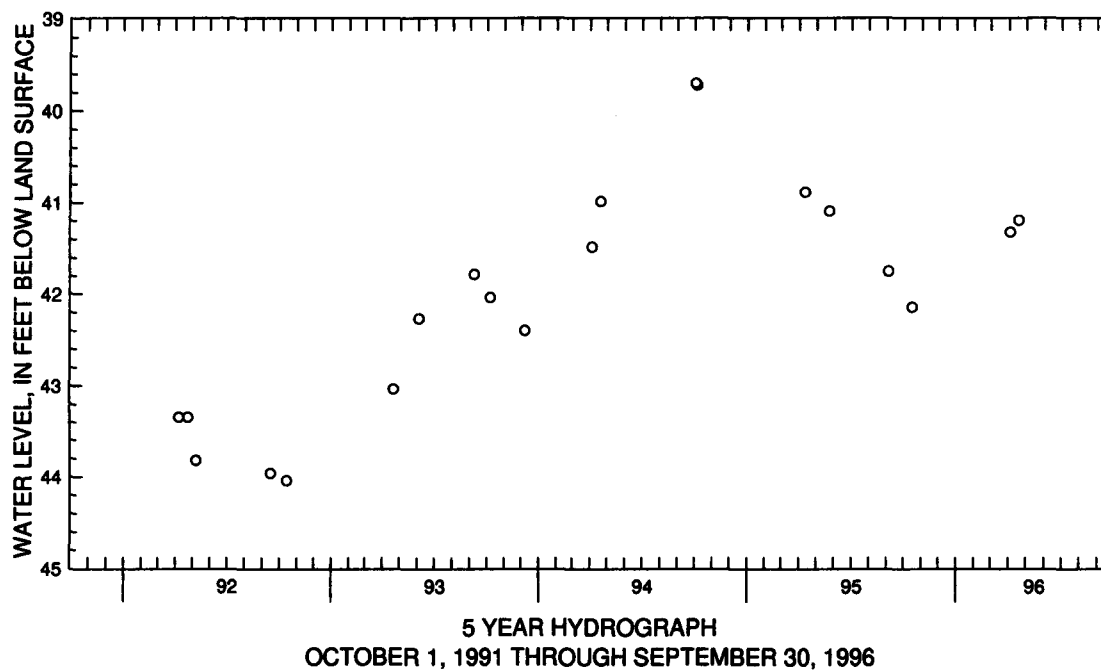
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cf 98. SITE ID.--390150076283003. PERMIT NUMBER.--AA-70-0199.
 LOCATION.--Lat 39°01'50", long 76°28'30", Hydrologic Unit 02060004, 3.1 mi northeast of Annapolis,
 at Broad Neck.
 Owner: Anne Arundel Co. Dept. of Recreation and Parks.
 AQUIFER.--Severn Formation of Upper Cretaceous age. Aquifer code: 211SVRN.
 WELL CHARACTERISTICS.--Drilled, artesian, observation well, depth 100 ft; casing diameter 2 in., to 90 ft;
 screen diameter 2 in. from 90 to 100 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Altitude of land surface is 93.42 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.51 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--September 1969 to September 1986, April 1989 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.14 ft below land surface, Aug. 3, 1972;
 lowest measured, 44.39 ft below land surface, Nov. 15, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	42.15	APR 04, 1996	41.33	APR 19, 1996	41.20
WATER YEAR 1996		HIGHEST	41.20	APR 19, 1996	LOWEST
					42.15
					OCT 16, 1995



GROUND-WATER LEVELS

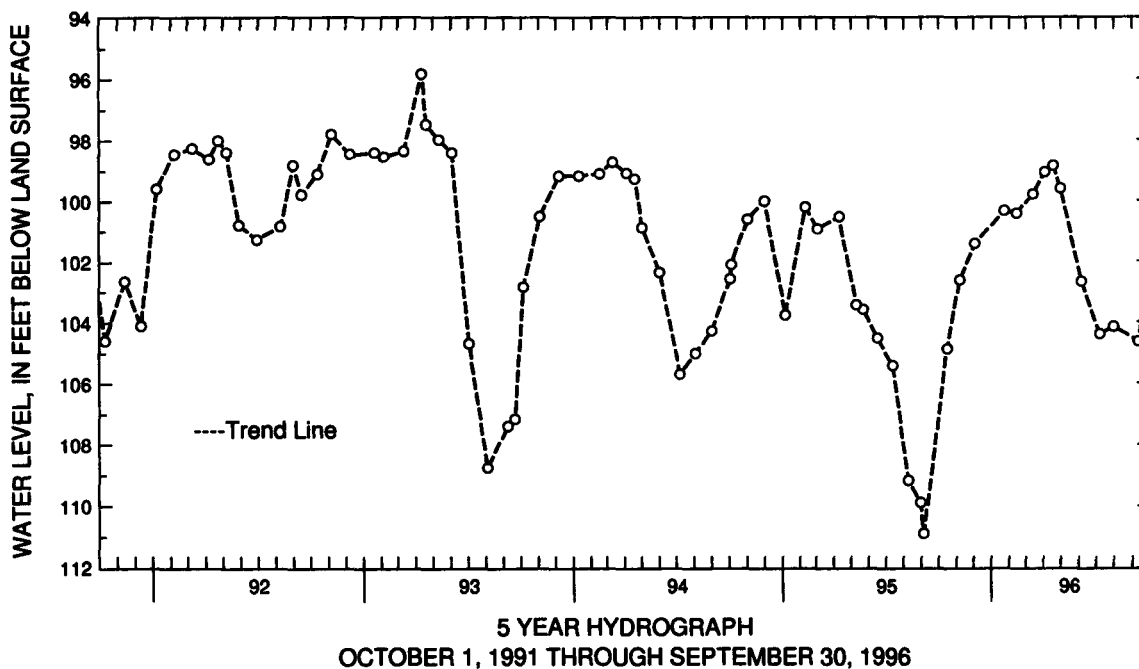
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cf 99. SITE ID.--390150076283002. PERMIT NUMBER.--AA-70-0199.
 LOCATION.--Lat 39°01'50", long 76°28'30", Hydrologic Unit 02060004, 3.1 mi northeast of Annapolis,
 at Broad Neck.
 Owner: Anne Arundel Co. Dept. of Recreation and Parks.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, artesian, observation well, depth 220 ft; casing diameter 2 in., to 210 ft;
 screen diameter 2 in. from 210 to 220 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from Sept. 28, 1969 to July 13, 1971.
 DATUM.--Altitude of land surface is 93.70 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.60 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--January 1971 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 89.29 ft below land surface, April 13, 1976;
 lowest measured, 115.65 ft below land surface, July 11, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	104.87	FEB 14, 1996	100.45	MAY 01, 1996	99.60	SEP 12, 1996	104.64
NOV 07	102.62	MAR 14	99.79	JUN 06	102.67		
DEC 04	101.42	APR 04	99.06	JUL 08	104.39		
JAN 24, 1996	100.34	19	98.85	AUG 01	104.15		
WATER YEAR 1996		HIGHEST	98.85	APR 19, 1996	LOWEST	104.87	OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cg 23. SITE ID.--390123076241602. PERMIT NUMBER.--AA-73-8959.
 LOCATION.--Lat 39°01'23", long 76°24'16", Hydrologic Unit 02060004, 1500 ft northeast of Oceanic Dr.
 and South Beach Rd., at Sandy Point State Park.
 Owner: U.S. Geological Survey
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 986 ft; casing diameter 10 in., to 163 ft;
 casing diameter 4 in., to 968 ft and 978 to 986 ft; screen diameter 4 in. from 968 to 978 ft.
 INSTRUMENTATION.-- Equipped with a graphic water-level recorder from Sept. 9, 1978 to Feb. 21, 1980.
 Equipped with digital water-level recorder--60-minute recorder interval from Sept. 11, 1990 to current year.
 DATUM.--Altitude of land surface is 12.57 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 3.43 ft above land surface.
 REMARKS.--Anne Arundel Co. observation well network. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.-- September 1978 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.07 ft above sea level, May 3, 1980;
 lowest measured, 15.15 ft below sea level, Sept. 24, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-14.37	-13.40	-14.83	-13.71	-13.92	-14.14	-14.14	-13.99	-13.97	-14.28	-14.03	-14.31
2	-14.28	-13.46	-14.55	-13.96	-14.23	-13.56	-13.85	-13.89	-14.02	-14.20	-13.69	-14.05
3	---	-13.33	-14.46	---	-14.43	-13.54	-13.56	-13.86	-14.20	-14.47	-13.57	-14.29
4	---	-13.86	-14.71	-14.19	-14.44	-14.09	-13.72	-13.93	-14.29	-14.45	-14.29	-14.57
5	---	-13.75	-14.84	-14.35	-14.35	-14.05	-14.14	-13.81	-14.13	-14.49	-14.08	-14.41
6	-13.92	-13.71	-14.75	-14.34	-14.23	-13.83	-14.36	-13.77	-14.11	-14.35	-14.04	-14.23
7	-14.13	-13.60	-14.06	-14.43	-14.44	-13.82	-14.03	-13.98	-13.99	-14.35	-13.85	-14.24
8	-14.22	-13.28	-14.19	-14.06	-14.53	-13.75	-13.97	-14.19	-13.75	-14.05	-13.88	-14.30
9	-14.47	-13.25	-14.74	-13.55	-14.35	-13.74	-13.72	-14.11	-13.83	-14.04	-14.30	-14.54
10	-14.46	-13.20	-14.41	-13.56	-14.36	-14.01	-13.72	-13.76	-13.80	-14.11	-14.50	-14.77
11	-14.50	-13.54	-13.92	-13.99	-14.52	-13.97	-14.06	-14.36	-13.71	-13.91	-14.42	-14.70
12	-14.58	-14.02	-14.01	-14.26	-14.89	-14.00	-13.61	-14.12	-13.89	-14.26	-14.07	-14.42
13	-14.65	-13.90	-14.63	-14.34	-14.71	-13.99	-13.61	-13.98	-14.00	-14.51	-13.75	-14.07
14	-14.55	-13.83	-14.25	-14.58	-14.35	-13.97	-13.83	-14.00	-13.67	-14.02	-13.67	-13.91
15	-14.31	-13.86	-14.07	-14.59	-14.28	-14.35	-13.88	-14.42	-13.94	-14.18	-13.44	-13.79
16	-14.75	-14.00	-14.41	-14.65	-14.33	-13.95	-14.29	-14.58	-13.85	-14.21	-13.61	-13.86
17	-14.96	-13.95	-14.70	-14.44	-14.40	-13.77	-14.03	-14.37	-13.96	-14.31	-13.61	-13.86
18	-15.00	-14.10	-14.45	-14.32	-14.21	-13.78	-14.07	-14.37	-13.80	-14.21	-13.62	-13.81
19	-14.85	-13.67	-14.43	-13.90	-13.98	-13.85	-13.38	-14.14	-14.08	-14.27	-13.23	-13.79
20	-14.59	-13.71	-14.34	-13.80	-14.03	-14.04	---	---	-13.93	-14.26	-12.93	-13.29
21	-14.26	-13.58	-14.11	-13.82	-14.06	-14.57	-14.10	-14.30	-13.88	-14.04	-13.20	-13.45
22	-14.42	-13.57	-14.38	-13.94	-14.21	-14.40	-13.98	-14.26	-13.89	-14.06	-13.45	-13.66
23	-14.60	-13.78	-14.27	-14.05	-14.44	-14.25	-13.78	-14.08	-13.86	-14.01	-13.62	-13.92
24	-14.56	-13.67	-14.51	-14.21	-14.29	-13.83	-13.53	-13.85	-13.72	-13.92	-13.92	-14.14
25	-14.55	-13.75	-14.51	-14.24	-14.14	-13.82	-13.76	-14.39	-13.92	-14.12	-13.79	-14.14
26	-14.73	-14.01	-14.16	-14.16	-14.12	-14.39	-14.20	-14.44	-14.12	-14.26	-13.72	-14.05
27	-14.29	-14.14	-14.09	-13.99	-14.43	-14.35	-13.59	-14.20	-13.86	-14.24	-14.05	-14.37
28	-14.24	-14.14	-14.09	-14.49	-14.54	-13.99	-13.80	-14.46	-13.57	-13.86	-13.91	-14.37
29	-14.46	-14.07	-14.55	-14.53	-14.55	-13.97	-14.19	-14.46	-13.82	-14.30	-13.84	-14.06
30	-14.94	-14.03	-14.54	-14.42	-14.37	-13.98	-13.94	-14.25	---	---	-13.64	-14.11
31	-15.00	-13.78	---	---	-14.26	-14.14	-13.87	-14.28	---	---	-13.57	-13.76
MONTH	-13.92	-14.14	-13.92	-14.65	-13.92	-14.57	-13.38	-14.58	-13.57	-14.51	-12.93	-14.77

GROUND-WATER LEVELS

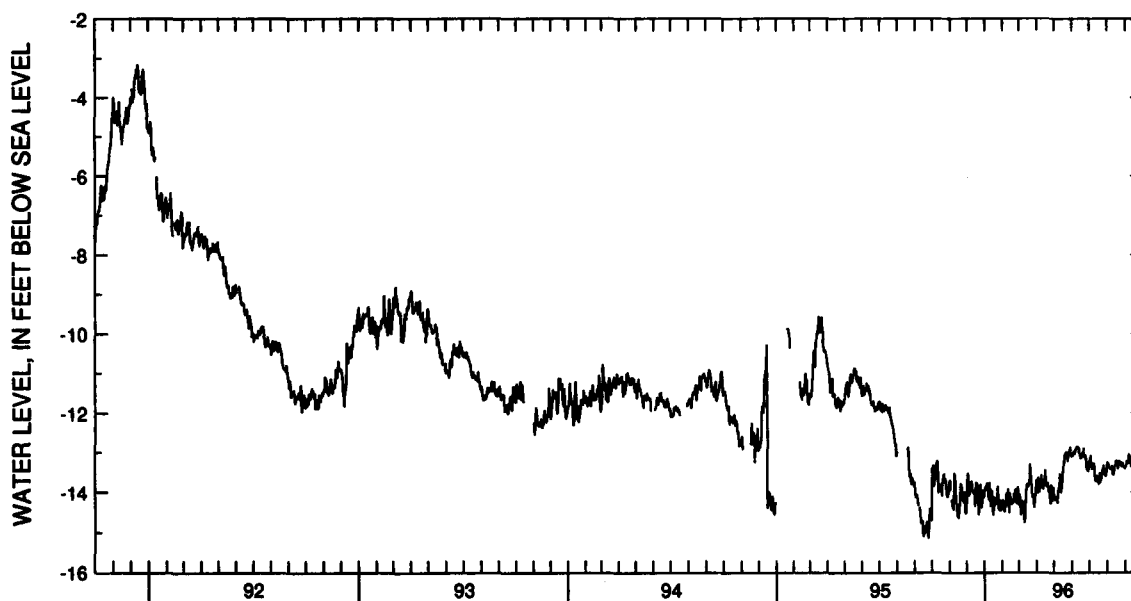
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Cg 23--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-13.39	-13.69	-13.78	-14.15	-12.82	-13.06	-12.82	-13.20	-12.99	-13.23	-13.18	-13.37
2	-13.42	-13.96	-13.89	-14.11	-12.81	-13.10	-12.93	-13.23	-13.14	-13.34	-13.10	-13.31
3	-13.43	-14.03	-13.96	-14.21	-12.76	-13.00	-12.87	-13.07	-13.15	-13.31	-13.01	-13.21
4	-13.42	-13.63	-13.92	-14.11	-12.66	-12.99	-13.03	-13.34	-13.19	-13.39	-13.02	-13.29
5	-13.51	-13.87	-13.96	-14.20	-12.67	-12.96	-13.19	-13.41	-13.21	-13.40	-13.05	-13.22
6	-13.64	-14.00	-13.78	-14.13	-12.86	-13.05	-13.25	-13.40	-13.24	-13.41	-13.04	-13.28
7	-13.51	-13.69	-13.86	-14.28	-12.72	-12.92	-13.16	-13.34	-13.24	-13.41	-12.27	-13.04
8	-13.57	-13.77	-13.82	-14.00	-12.66	-12.85	-13.09	-13.28	-13.19	-13.36	-12.61	-13.07
9	-13.17	-13.57	-13.72	-13.91	-12.71	-12.90	-13.04	-13.29	-13.13	-13.33	-12.95	-13.15
10	-13.40	-13.72	-13.50	-13.89	-12.71	-12.86	-13.19	-13.65	-13.20	-13.57	-12.95	-13.24
11	-13.55	-13.76	-13.29	-13.54	-12.66	-12.87	-13.49	-13.73	-13.40	-13.57	-13.09	-13.35
12	-13.68	-13.93	-13.39	-13.95	-12.63	-12.89	-13.49	-13.73	-13.18	-13.48	-13.17	-13.36
13	-13.56	-13.78	-13.84	-14.02	-12.68	-12.99	-12.96	-13.60	-13.21	-13.34	-13.15	-13.36
14	-13.46	-13.73	-13.72	-13.88	-12.80	-13.02	-13.17	-13.60	-13.02	-13.34	-12.91	-13.35
15	-13.44	-13.78	-13.49	-13.80	-12.86	-13.08	-13.34	-13.61	-13.05	-13.22	-12.91	-13.30
16	-12.98	-13.44	-13.12	-13.54	-12.96	-13.14	-13.34	-13.75	-13.06	-13.23	-13.07	-13.24
17	-13.33	-13.72	-13.19	-13.37	-12.88	-13.13	-13.54	-13.79	-13.05	-13.21	-12.97	-13.29
18	-13.66	-13.87	-13.01	-13.29	-12.78	-13.03	-13.49	-13.77	-13.09	-13.23	-12.82	-12.99
19	-13.59	-13.84	-12.93	-13.16	-12.79	-13.07	-13.23	-13.51	-13.15	-13.42	-12.99	-13.43
20	-13.56	-13.76	-12.82	-13.02	-12.73	-12.89	-13.23	-13.71	-13.10	-13.34	-13.15	-13.32
21	-13.54	-13.90	---	---	-12.85	-13.07	-13.56	-13.68	-13.04	-13.20	-13.03	-13.26
22	-13.85	-14.02	-12.82	-12.98	-12.83	-13.11	-13.33	-13.60	-13.07	-13.24	-12.84	-13.14
23	-13.61	-13.89	-12.91	-13.01	-12.81	-13.11	-13.24	-13.43	-13.11	-13.24	-12.76	-13.12
24	-13.61	-14.19	-12.88	-13.09	-12.83	-13.09	-13.23	-13.41	-13.01	-13.32	-12.90	-13.37
25	-13.82	-14.29	-12.99	-13.22	-12.72	-13.14	-13.15	-13.32	-13.14	-13.36	-12.82	-13.15
26	-13.53	-13.82	-12.93	-13.03	-13.12	-13.40	-13.03	-13.45	-13.04	-13.26	-13.05	-13.29
27	-13.52	-14.07	-12.86	-12.98	-13.10	-13.37	-13.28	-13.57	-13.00	-13.26	-12.93	-13.18
28	-13.98	-14.23	-12.72	-12.87	-13.11	-13.46	-13.35	-13.59	-13.07	-13.36	-12.78	-13.09
29	-13.75	-14.05	-12.68	-12.95	-13.08	-13.47	-13.29	-13.59	-13.11	-13.36	-12.84	-13.32
30	-13.71	-13.88	-12.69	-13.08	-12.85	-13.23	-13.11	-13.47	-13.06	-13.38	-13.23	-13.54
31	---	---	-12.88	-13.09	---	---	-13.05	-13.31	-13.21	-13.40	---	---
MONTH	-12.98	-14.29	-12.68	-14.28	-12.63	-13.47	-12.82	-13.79	-12.99	-13.57	-12.27	-13.54
YEAR	-12.27	-14.77										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

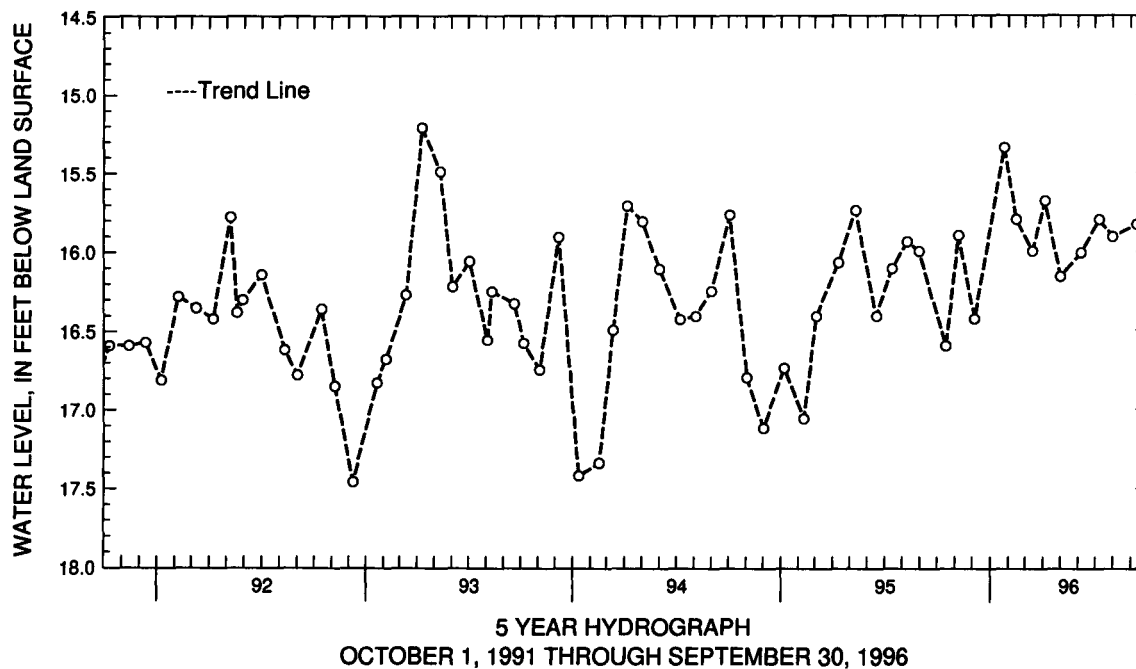
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cg 25. SITE ID.--390127076240301. PERMIT NUMBER.--AA-74-1240.
 LOCATION.--Lat 39°01'27", long 76°24'03", Hydrologic Unit 02060004, at Sandy Point State Park,
 nr maintenance area.
 Owner: Maryland Department of Natural Resources.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 107 ft; casing diameter 3 in., to 100 ft;
 screen diameter 3 in. from 100 to 107 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Altitude of land surface is 17.33 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.43 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--April 1981 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.74 ft below land surface, April 13, 1988;
 lowest measured, 18.25 ft below land surface, Oct. 1, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	16.60	JAN 24, 1996	15.34	APR 04, 1996	15.68	JUL 08, 1996	15.80
NOV 07	15.90	FEB 14	15.80	MAY 01	16.16	AUG 01	15.91
DEC 04	16.43	MAR 14	16.00	JUN 06	16.01	SEP 12	15.83
WATER YEAR 1996		HIGHEST 15.34	JAN 24, 1996		LOWEST 16.60	OCT 16, 1995	



GROUND-WATER LEVELS

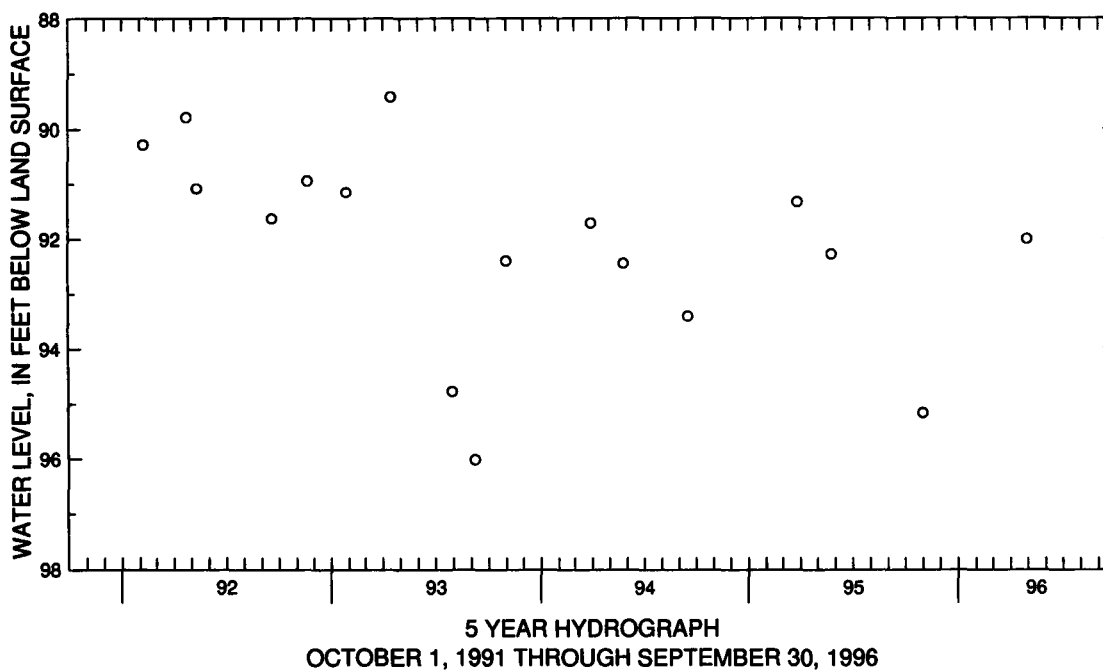
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Dd 42. SITE ID.--385808076373502. PERMIT NUMBER.--AA-71-0231.
 LOCATION.--Lat 38°58'08", long 76°37'35", Hydrologic Unit 02060004, 30 ft south of MD Rt 50,
 0.5 mi from intersection with Howard Grove Rd. and Rutland Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 275 ft; casing diameter 4 in.,
 to 190 ft; casing diameter 2 in., from 200 to 225 ft, and 235 to 265 ft. screen diameter
 2 in. from 190 to 200 ft., 225 to 235 ft, and 265 to 275 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from December 1971 to August 1975 and with a digital
 water-level recorder--30-minute recorder interval from August 1975 to May 10, 1992.
 DATUM.--Altitude of land surface is 105.48 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 1.0 ft above land surface.
 REMARKS.--Anne Arundel Co. observation well network. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--October 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.25 ft below land surface May 4, 1973.
 lowest measured, 96.01 ft below land surface, Sept. 8, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1995	95.18	APR 29, 1996	92.01
WATER YEAR 1996		HIGHEST 92.01 APR 29, 1996	LOWEST 95.18 OCT 31, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA De 1. SITE ID.--385915076340401.

LOCATION.--Lat 38°59'15", long 76°34'03", Hydrologic Unit 02060004, 0.07 mi north of MD Rt 450,
1.1 mi west of Generals Highway.

Owner: City of Annapolis.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 237 ft; casing diameter 10 in., to 207 ft;
screen diameter 6 in. from 207 to 237 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from May 1969 to Dec. 28, 1977 and with a digital water-level
recorder--15-minute recorder interval from December 1977 to current year.

DATUM.--Altitude of land surface is 13.72 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of recorder platform, 2.5 ft above land surface.

REMARKS.--Anne Arundel Co. observation well network. Water levels are affected by nearby pumping.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--May 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.25 ft above sea level, Nov. 14, 1988;
lowest measured, 36.19 ft below sea level, Oct. 25, 1989.WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-14.45	-19.18	---	---	---	---	---	---	-11.71	-25.69	-4.76	-8.99
2	-10.67	-33.02	---	---	---	---	---	---	-11.48	-25.74	-4.02	-8.68
3	---	---	---	---	---	---	---	---	-10.40	-19.29	-4.32	-8.60
4	---	---	---	---	---	---	---	---	-19.10	-25.54	-8.54	-8.66
5	---	---	---	---	---	---	---	---	-25.54	-25.85	-8.39	-8.59
6	---	---	---	---	---	---	---	---	-19.60	-25.88	-4.28	-8.47
7	---	---	---	---	---	---	---	---	-19.47	-25.63	-4.09	-8.16
8	---	---	---	---	---	---	---	---	-24.50	-30.79	-4.02	-8.22
9	---	---	---	---	---	---	---	---	-25.93	-26.71	-4.16	-8.39
10	---	---	---	---	---	---	---	---	-25.84	-26.02	-4.55	-8.53
11	---	---	---	---	---	---	---	---	-25.71	-25.87	-8.33	-8.50
12	---	---	---	---	---	---	---	---	-17.26	-25.92	-4.39	-8.44
13	---	---	---	---	---	---	---	---	-8.50	-18.83	-4.22	-8.49
14	---	---	---	---	---	---	---	---	-6.31	-10.80	-3.34	-7.85
15	---	---	---	---	---	---	---	---	-5.50	-9.69	-3.07	-7.93
16	---	---	---	---	---	---	---	---	-4.49	-8.54	-3.62	-7.95
17	---	---	---	---	---	---	---	---	-4.42	-8.48	-4.74	-7.94
18	---	---	---	---	---	---	---	---	-4.18	-8.33	-1.67	-7.46
19	---	---	---	---	---	---	---	---	-8.22	-8.33	-.98	-9.99
20	---	---	---	---	---	---	---	---	-4.14	-8.30	-2.89	-7.93
21	---	---	---	---	---	---	---	---	-3.81	-8.02	-3.36	-7.94
22	---	---	---	---	---	---	---	---	-3.49	-7.76	-7.48	-7.73
23	---	---	---	---	---	---	---	---	-1.98	-20.65	-3.65	-7.87
24	---	---	---	---	---	---	-11.52	-19.83	-7.93	-23.87	-3.92	-14.49
25	---	---	---	---	---	---	-11.49	-18.89	-4.17	-9.14	-5.45	-14.84
26	---	---	---	---	---	---	-11.32	-19.71	-5.11	-9.49	-4.31	-8.57
27	---	---	---	---	---	---	-11.79	-19.76	-4.27	-8.74	-8.08	-8.25
28	---	---	---	---	---	---	-11.71	-19.83	-3.27	-8.72	-4.10	-8.24
29	---	---	---	---	---	---	-12.19	-25.99	-4.87	-8.95	-3.67	-7.99
30	---	---	---	---	---	---	-25.99	-26.14	---	---	-3.74	-8.00
31	---	---	---	---	---	---	-11.54	-26.13	---	---	-4.68	-8.00
MONTH	-10.67	-33.02	---	---	---	---	-11.32	-26.14	-1.98	-30.79	-.98	-14.84

GROUND-WATER LEVELS

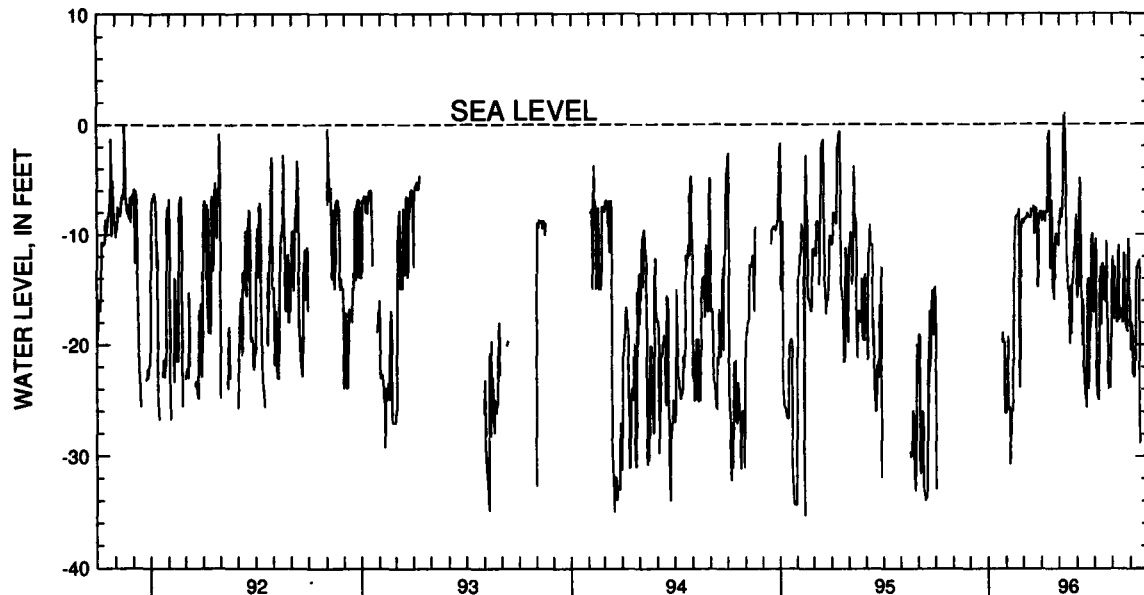
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA De 1--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-4.31	-8.87	-5.40	-9.20	-6.57	-15.78	-5.51	-10.86	-7.87	-12.02	-8.44	-20.55
2	-7.60	-8.11	-5.63	-7.96	-6.98	-14.75	-7.17	-10.99	-6.85	-17.51	-8.66	-17.98
3	-4.03	-8.27	-4.82	-7.68	-2.43	-14.79	-4.76	-10.40	-8.15	-17.60	-11.05	-19.93
4	-3.74	-7.97	-4.60	-8.52	-1.25	-7.93	-4.87	-21.44	-7.58	-12.94	-17.72	-18.30
5	-4.51	-8.69	-6.92	-8.38	-.41	-4.92	-7.98	-23.63	-9.97	-16.45	-8.20	-22.65
6	-4.34	-8.93	-1.65	-7.73	-1.68	-6.61	-10.55	-24.50	-8.28	-14.96	-7.90	-22.29
7	-8.00	-8.08	-.95	-3.93	-1.25	-13.37	-9.73	-24.77	-10.47	-17.03	-6.86	-22.91
8	-3.97	-8.06	.49	-1.05	-2.47	-15.13	-14.94	-25.01	-9.30	-17.99	-8.52	-22.91
9	-4.68	-7.88	1.33	.00	-3.64	-15.93	-8.94	-20.26	-10.59	-17.96	-8.46	-21.95
10	-2.15	-7.95	1.72	1.00	-3.20	-20.09	-12.48	-13.97	-8.99	-12.20	-7.23	-17.94
11	-1.03	-2.15	1.27	.00	-6.25	-15.95	-12.17	-12.95	-10.76	-11.01	-7.74	-12.97
12	-.75	-1.06	.49	-5.53	-14.02	-21.93	-12.19	-18.23	-8.60	-17.78	-7.62	-12.88
13	-.55	-.93	.55	-11.93	-8.86	-22.24	-7.22	-13.97	-7.81	-17.57	-7.44	-12.95
14	-.45	-.64	-2.65	-13.14	-9.47	-23.11	-12.33	-12.62	-7.29	-17.11	-7.42	-12.44
15	-.45	-13.17	-3.76	-13.97	-10.22	-24.46	-8.33	-15.99	-7.19	-16.91	-7.86	-12.99
16	-2.64	-8.18	-4.06	-14.99	-20.23	-24.83	-8.57	-12.96	-7.85	-17.04	-7.33	-12.30
17	-3.05	-6.94	-4.13	-14.85	-13.45	-25.67	-10.12	-15.12	-7.25	-17.18	-6.81	-28.85
18	-6.72	-7.19	-4.96	-15.55	-10.73	-19.33	-7.92	-14.95	-7.89	-18.00	---	---
19	-3.25	-14.55	-5.28	-19.93	-8.34	-14.16	-7.54	-16.00	-7.37	-17.99	---	---
20	-4.94	-15.00	-6.06	-16.09	-12.96	-14.00	-8.73	-16.07	-11.35	-11.71	---	---
21	-5.15	-15.22	-4.23	-14.63	-8.77	-24.00	-8.47	-10.63	-11.02	-12.00	---	---
22	-5.74	-15.95	-5.25	-19.07	-13.14	-17.59	-8.97	-17.58	-6.22	-16.10	---	---
23	-5.54	-10.99	-6.11	-14.64	-10.21	-18.60	-17.47	-17.62	-7.39	-17.91	---	---
24	-5.65	-10.34	-5.83	-14.47	-10.44	-17.85	-17.58	-22.48	-9.16	-18.27	---	---
25	-4.79	-9.93	-6.60	-12.44	-7.81	-10.46	-10.30	-23.91	-8.81	-18.56	---	---
26	-5.30	-10.91	-7.22	-11.68	-9.35	-10.27	-9.13	-23.82	-10.04	-18.87	---	---
27	-5.61	-10.72	-6.52	-11.73	-9.01	-9.94	-9.22	-23.43	-10.40	-11.99	---	---
28	-10.72	-11.02	-5.48	-9.96	-9.31	-16.62	-8.85	-23.93	-9.94	-10.40	---	---
29	-6.20	-11.03	-5.40	-9.07	-9.49	-17.11	-8.73	-19.46	-7.24	-14.99	---	---
30	-6.09	-8.85	-4.20	-8.24	-8.74	-16.03	-9.67	-18.54	-6.31	-15.94	---	---
31	---	---	-5.02	-14.28	---	---	-7.47	-12.69	-8.36	-15.98	---	---
MONTH	-.45	-15.95	1.72	-19.93	-.41	-25.67	-4.76	-25.01	-6.22	-18.87	-6.81	-28.85
YEAR	1.72	-33.02										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

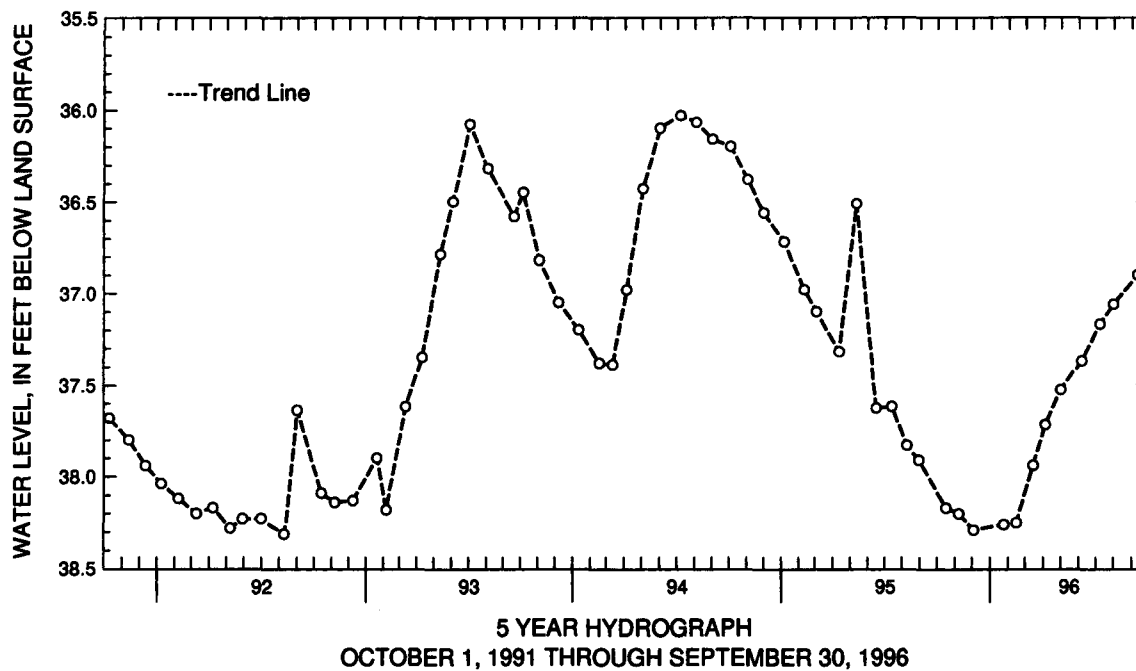
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA De 140. SITE ID.--385920076322401. PERMIT NUMBER.--AA-81-6267.
 LOCATION.--Lat 38°59'19", long 76°32'24", Hydrologic Unit 02040004, at Annapolis Mall.
 Owner: U.S. Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 45 ft; casing diameter 3 in., to 32 ft; screen diameter 3 in. from 32 to 42 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Attitude of land surface is 85.03 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.82 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--November 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.98 ft below land surface, Sept. 5, 1990; lowest measured, 38.31 ft below land surface, Aug. 10, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	38.17	JAN 24, 1996	38.26	APR 04, 1996	37.72	JUL 08, 1996	37.17
NOV 07	38.20	FEB 14	38.25	MAY 01	37.53	AUG 01	37.06
DEC 04	38.29	MAR 14	37.94	JUN 06	37.37	SEP 12	36.90
WATER YEAR 1996		HIGHEST	36.90	SEP 12, 1996	LOWEST	38.29	DEC 04, 1995



GROUND-WATER LEVELS

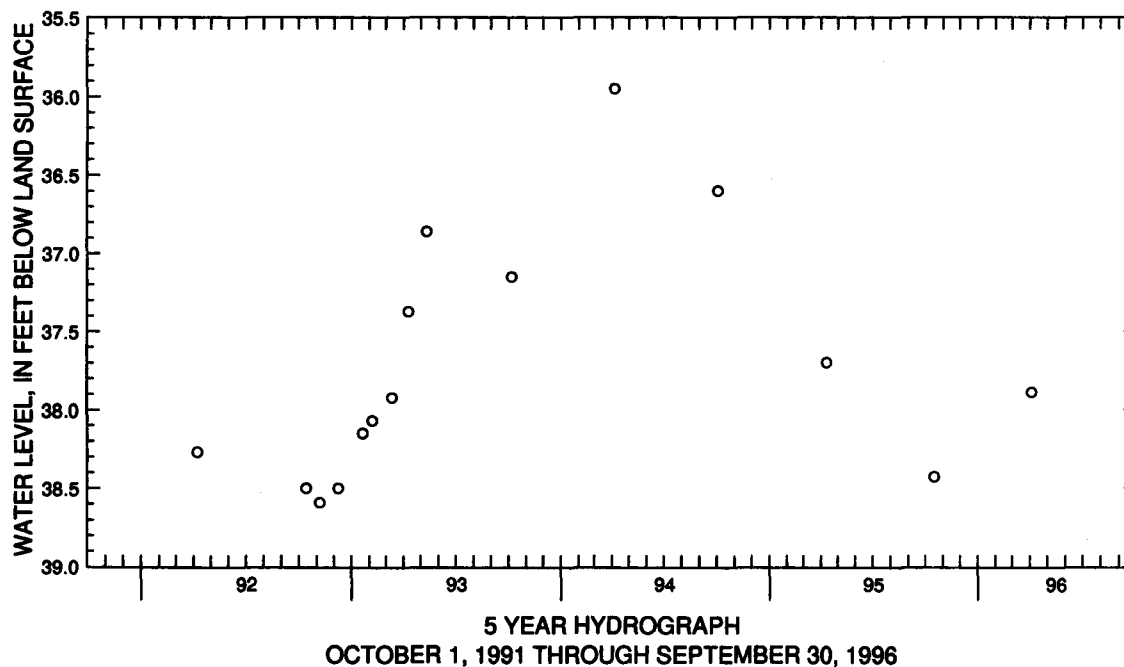
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA De 144. SITE ID.--385920076322402. PERMIT NUMBER.--AA-81-6267.
 LOCATION.--Lat 38°59'19", long 76°32'21", Hydrologic Unit 02040004, at Annapolis Mall.
 Owner: U.S. Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 89 ft; casing diameter 3 in., to 71 ft; screen diameter 3 in. from 71 to 86 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Altitude of land surface is 85.24 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.50 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--November 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.95 ft below land surface, April 5, 1994; lowest measured, 38.59 ft below land surface, Nov. 6, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	38.43	APR 04, 1996	37.89
WATER YEAR 1996 HIGHEST 37.89 APR 04, 1996 LOWEST 38.43 OCT 16, 1995			



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 19. SITE ID.--385921076270701.

LOCATION.--Lat 38°59'22", long 76°27'04", Hydrologic Unit 02060004, 200 ft east of intersection with McLean and Hooper Rd.

Owner: U.S. Navy.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 590 ft; casing diameter 10 in., to 565 ft; screen diameter 10 in. from 565 to 590 ft.

INSTRUMENTATION.--Periodic measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from November 1979 to April 1980.

DATUM.--Altitude of land surface is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of recorder platform, 3.0 ft above land surface.

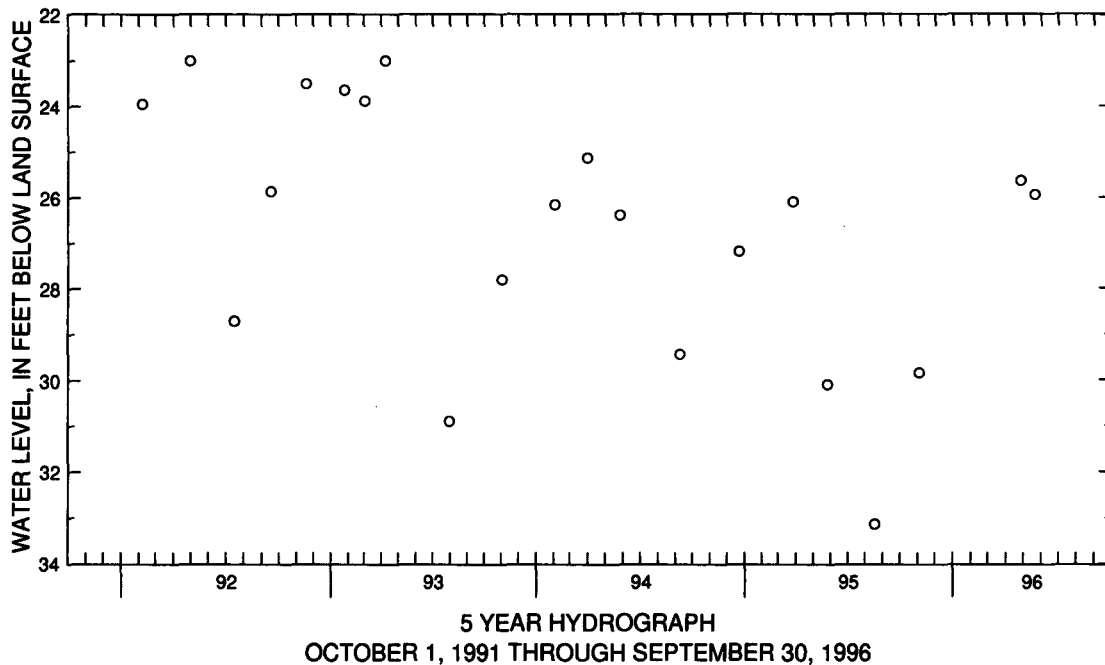
REMARKS.--Southern Maryland Observation Well Network.

PERIOD OF RECORD.--March 1977 to current year

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.34 ft below land surface, March 9, 1977; lowest measured, 31.74 ft below land surface, July 21, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 03, 1995	29.85	APR 26, 1996	25.64	MAY 21, 1996	25.94
WATER YEAR 1996		HIGHEST 25.64	APR 26, 1996	LOWEST 29.85	NOV 03, 1995



MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 20. SITE ID.--385916076270702.

LOCATION.--Lat 38°59'16", long 76°27'07", Hydrologic Unit 02060004, off Hooper Rd., 400 ft from McLean Rd.

Owner: U.S. Navy.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 255 ft; casing diameter 10 in., to 150 ft; casing diameter 8 in. from 135 to 233 ft; screen diameter 8 in. from 233 to 253 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from June 1969 to December 1977. Equipped with digital water-level recorder--30-minute recorder interval from December 1977 to current year.

DATUM.--Altitude of land surface is 21.62 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 3.0 ft above land surface.

REMARKS.--Anne Arundel Co. observation well network. Water levels are affected by nearby pumping.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--June 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.91 ft below sea level, June 20, 1980; lowest measured, 16.42 ft below sea level, Sept. 19 and 21, 1995.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-15.32	-15.46	-13.61	-13.62	-12.04	-12.36	-11.43	-11.49	-11.25	-11.30	-10.50	-10.94
2	-15.30	-15.32	-13.49	-13.62	-11.78	-12.04	-11.22	-11.43	-11.25	-11.28	-10.50	-10.63
3	-15.11	-15.30	-13.36	-13.49	-11.86	-12.08	-10.89	-11.22	-11.25	-11.28	-10.63	-10.75
4	-14.82	-15.11	-13.36	-13.41	-12.08	-12.09	-10.53	-10.89	-11.25	-11.28	-10.55	-10.75
5	-14.62	-14.82	-13.41	-13.44	-12.09	-12.09	-10.51	-10.61	-11.28	-11.41	-10.34	-10.55
6	-14.36	-14.62	-13.42	-13.44	-12.03	-12.09	-10.61	-10.69	-11.41	-11.45	-10.34	-10.75
7	-14.37	-14.37	-12.84	-13.42	-12.03	-12.03	-10.69	-10.89	-11.44	-11.47	-10.75	-10.79
8	-14.37	-14.37	-12.83	-12.90	-12.03	-12.04	-10.89	-11.02	-11.40	-11.44	-10.79	-10.79
9	-14.37	-14.38	-12.90	-13.06	-12.04	-12.07	-11.01	-11.02	-11.35	-11.41	-10.54	-10.79
10	-14.35	-14.37	-13.06	-13.09	-12.05	-12.07	-10.89	-11.01	-11.21	-11.35	-10.53	-10.77
11	-14.32	-14.35	-12.82	-13.08	-12.05	-12.08	-10.58	-10.89	-11.20	-11.21	-10.52	-10.77
12	-14.29	-14.32	-12.56	-12.82	-12.08	-12.22	-10.59	-10.74	-11.19	-11.21	-10.02	-10.52
13	-14.27	-14.29	-12.66	-12.81	-12.22	-12.28	-10.71	-10.75	-11.16	-11.19	-9.97	-10.02
14	-13.99	-14.27	-12.81	-12.83	-12.22	-12.28	-10.51	-10.71	-11.16	-11.21	-9.88	-9.97
15	-13.94	-13.99	-12.42	-12.83	-11.87	-12.22	-10.52	-10.55	-11.21	-11.32	-9.85	-9.88
16	-13.96	-14.00	-12.42	-12.48	-11.85	-11.87	-10.55	-10.61	-10.99	-11.32	-9.85	-9.86
17	-14.00	-14.12	-12.48	-12.59	-11.84	-11.85	-10.61	-10.87	-10.99	-11.04	-9.84	-9.86
18	-14.12	-14.14	-12.59	-12.62	-11.83	-11.84	-10.87	-10.92	-10.99	-11.03	-9.84	-9.85
19	-14.13	-14.14	-12.59	-12.61	-11.78	-11.83	-10.91	-10.95	-11.02	-11.14	-9.17	-9.84
20	-13.99	-14.13	-12.60	-12.62	-11.71	-11.78	-10.86	-10.96	-11.01	-11.13	-9.17	-9.23
21	-13.56	-13.99	-12.41	-12.60	-11.68	-11.71	-10.47	-10.86	-11.01	-11.04	-9.23	-9.41
22	-13.56	-13.58	-12.36	-12.41	-11.65	-11.70	-10.72	-10.92	-11.03	-11.06	-9.41	-9.59
23	-13.58	-13.62	-12.38	-12.40	-11.65	-11.79	-10.92	-11.00	-10.96	-11.03	-9.59	-9.83
24	-13.62	-13.64	-12.36	-12.40	-11.79	-11.86	-11.00	-11.01	-10.93	-10.96	-9.83	-9.93
25	-13.63	-13.66	-12.40	-12.47	-11.77	-11.85	-10.92	-11.00	-10.90	-10.93	-9.87	-9.93
26	-13.66	-13.67	-12.46	-12.48	-11.55	-11.77	-10.84	-10.92	-10.81	-10.90	-9.87	-9.96
27	-13.40	-13.66	-12.17	-12.46	-11.53	-11.55	-10.88	-11.14	-10.81	-10.83	-9.96	-10.03
28	-13.31	-13.40	-12.11	-12.17	-11.54	-11.58	-11.14	-11.20	-10.83	-10.95	-9.92	-10.02
29	-13.31	-13.41	-12.11	-12.23	-11.58	-11.63	-10.85	-11.20	-10.94	-10.97	-9.90	-9.92
30	-13.41	-13.55	-12.23	-12.35	-11.60	-11.63	-10.92	-11.23	---	---	-9.59	-9.90
31	-13.55	-13.61	---	---	-11.49	-11.60	-11.23	-11.29	---	---	-9.56	-9.59
MONTH	-13.31	-15.46	-12.11	-13.62	-11.49	-12.36	-10.47	-11.49	-10.81	-11.47	-9.17	-10.94

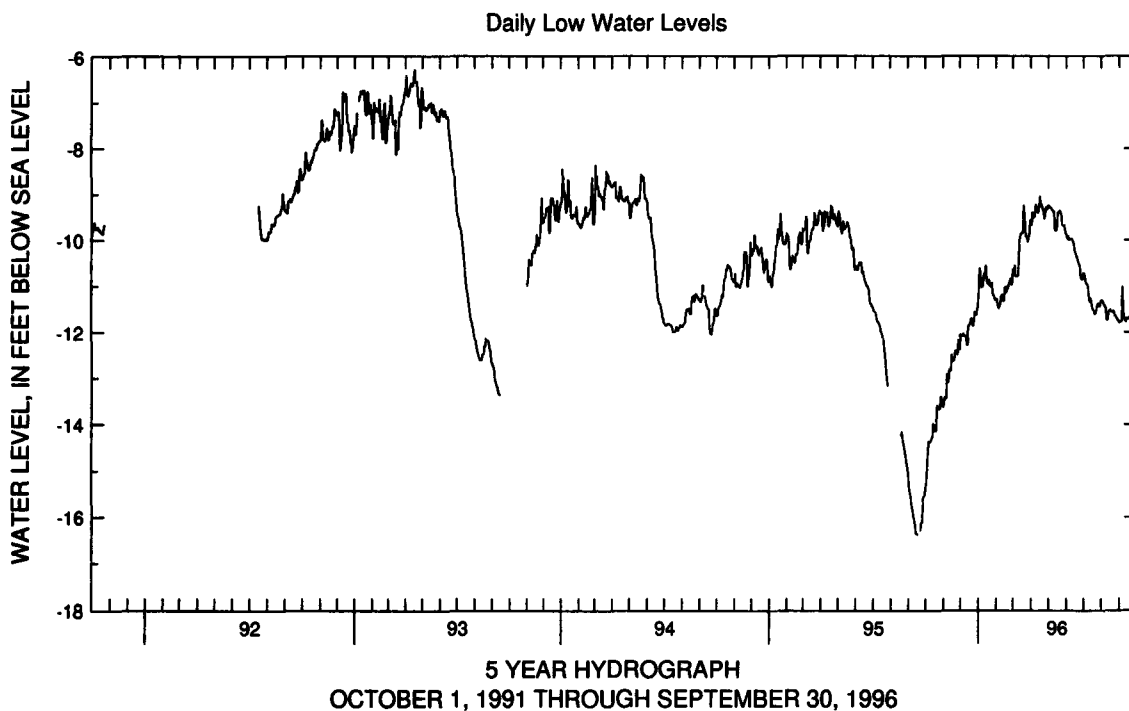
GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Df 20--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-9.51	-9.56	-9.22	-9.25	-9.84	-9.88	-10.66	-10.71	-11.29	-11.32	-11.76	-11.78
2	-9.51	-9.67	-9.23	-9.25	-9.88	-9.92	---	---	-11.29	-11.30	-11.78	-11.79
3	-9.39	-9.66	-9.25	-9.27	-9.92	-9.96	-10.71	-10.72	-11.30	-11.31	-11.75	-11.78
4	-9.38	-9.39	-9.26	-9.27	-9.93	-9.98	-10.72	-10.83	-11.30	-11.33	-11.75	-11.77
5	-9.38	-9.52	-9.26	-9.30	-9.92	-9.94	-10.83	-10.90	-11.33	-11.35	-11.76	-11.77
6	-9.50	-9.52	-9.26	-9.30	-9.94	-9.99	-10.90	-10.94	-11.35	-11.39	-10.89	-11.76
7	-9.47	-9.50	-9.28	-9.34	-9.98	-9.99	-10.94	-10.95	-11.39	-11.41	-10.73	-11.01
8	-9.31	-9.47	-9.33	-9.35	-9.96	-9.98	-10.95	-10.96	-11.41	-11.44	-11.01	-11.39
9	-9.03	-9.31	-9.35	-9.36	-9.96	-9.97	-10.96	-10.99	-11.44	-11.47	-11.39	-11.50
10	-9.07	-9.22	-9.36	-9.39	-9.97	-9.98	-10.99	-11.15	-11.47	-11.61	-11.50	-11.64
11	-9.22	-9.34	-9.37	-9.39	-9.97	-9.98	-11.15	-11.27	-11.61	-11.72	-11.64	-11.71
12	---	---	-9.37	-9.60	-9.97	-9.99	-11.27	-11.33	-11.71	-11.73	-11.71	-11.76
13	-9.40	-9.42	-9.60	-9.79	-9.99	-10.03	-11.09	-11.34	-11.53	-11.71	-11.70	-11.77
14	-9.33	-9.40	-9.79	-9.80	-10.03	-10.07	-11.10	-11.27	-11.53	-11.55	-11.69	-11.70
15	-9.27	-9.33	-9.71	-9.80	-10.07	-10.13	-11.27	-11.29	-11.52	-11.53	-11.69	-11.69
16	-8.80	-9.27	-9.39	-9.71	-10.13	-10.23	-11.29	-11.41	-11.52	-11.53	-11.69	-11.70
17	-8.82	-9.04	-9.39	-9.41	-10.23	-10.27	-11.41	-11.47	-11.52	-11.53	-11.58	-11.69
18	-9.04	-9.21	-9.39	-9.42	-10.27	-10.32	-11.47	-11.51	-11.52	-11.52	-11.58	-11.68
19	-9.21	-9.23	-9.39	-9.40	-10.32	-10.37	-11.46	-11.51	-11.52	-11.56	-11.68	-11.70
20	-9.22	-9.24	-9.37	-9.39	-10.35	-10.36	-11.46	-11.53	-11.56	-11.57	-11.67	-11.70
21	-9.22	-9.27	-9.36	-9.37	-10.36	-10.43	-11.53	-11.60	-11.54	-11.56	-11.59	-11.67
22	-9.27	-9.35	-9.36	-9.39	-10.43	-10.48	-11.58	-11.60	-11.52	-11.54	-11.40	-11.59
23	-9.30	-9.35	-9.39	-9.44	-10.47	-10.51	-11.46	-11.58	-11.52	-11.54	-11.40	-11.47
24	-9.30	-9.53	-9.44	-9.50	-10.51	-10.54	-11.45	-11.46	-11.53	-11.58	-11.41	-11.49
25	-9.42	-9.53	-9.50	-9.66	-10.52	-10.56	-11.39	-11.45	-11.58	-11.65	-11.36	-11.41
26	-9.18	-9.42	-9.66	-9.68	-10.56	-10.74	-11.31	-11.39	-11.65	-11.65	-11.38	-11.40
27	-9.18	-9.31	-9.67	-9.69	-10.74	-10.81	-11.33	-11.38	-11.64	-11.65	-11.36	-11.41
28	-9.31	-9.34	-9.67	-9.69	-10.80	-10.86	-11.38	-11.42	-11.65	-11.68	-11.25	-11.36
29	-9.27	-9.33	-9.67	-9.68	-10.85	-10.86	-11.42	-11.43	-11.68	-11.70	-11.25	-11.32
30	-9.22	-9.27	-9.67	-9.77	-10.71	-10.85	-11.36	-11.43	-11.69	-11.73	-11.32	-11.43
31	---	---	-9.77	-9.84	---	---	-11.32	-11.37	-11.73	-11.76	---	---
MONTH	-8.80	-9.67	-9.22	-9.84	-9.84	-10.86	-10.66	-11.60	-11.29	-11.76	-10.73	-11.79
YEAR	-8.80	-15.46										



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 79. SITE ID.--385905076293601. PERMIT NUMBER.--AA-03-7867.

LOCATION.--Lat 38°59'05", long 76°29'36", Hydrologic Unit 02060004, off Dorsy Creek Rd., 500 ft north of MD Rt. 450.

Owner: U.S. Navy.

AQUIFER.--Magothy Formation of Upper Cretaceous age and Upper Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 211MGTY and 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 705 ft; casing diameter 6 in., to 300 ft; 320 to 572 ft and 592 to 675 ft; screen diameter 6 in. from 300 to 320 ft, 572 to 592 ft and 675 to 695 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from May 20, 1969 to Dec. 19, 1977. Equipped with digital water-level recorder--60-- minute recorder interval from Dec. 19, 1977 to current year.

DATUM.--Altitude of land surface is 5.17 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder platform, 2.8 ft above land surface.

REMARKS.--Anne Arundel Co. observation well network. Water levels are affected by nearby pumping.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--May 1969 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.12 ft below sea level, Jan. 4, 1982; lowest measured, 17.16 ft below sea level, Sept. 15, 1995.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-14.09	-14.41	-13.02	-13.25	-11.02	-11.40	-10.00	-10.36	-10.74	-11.07	-9.04	-9.33
2	-13.92	-14.16	-12.69	-13.02	-11.30	-11.87	-9.67	-10.15	-10.71	-11.00	-8.85	-9.04
3	-13.94	-14.13	-12.57	-12.82	-11.27	-11.68	-9.39	-9.90	-10.89	-11.15	-8.51	-9.30
4	-13.84	-14.09	-12.75	-13.03	-11.20	-11.56	-9.72	-10.24	-10.69	-11.09	-9.07	-9.35
5	-13.67	-14.02	-12.60	-12.93	-11.07	-11.64	-9.91	-10.21	-10.62	-10.95	-8.85	-9.08
6	-13.47	-13.79	-12.43	-12.68	-11.17	-11.47	-10.21	-10.59	-10.60	-10.96	-8.70	-9.08
7	---	---	-11.85	-12.52	-11.22	-11.43	-9.88	-10.26	-10.46	-10.95	-8.35	-8.94
8	-13.58	-13.85	-12.16	-12.44	-11.28	-11.71	-9.87	-10.19	-10.38	-10.61	-8.38	-8.84
9	-13.45	-13.73	-12.41	-12.62	-11.22	-11.40	-9.63	-10.13	-10.45	-10.67	-8.64	-8.92
10	-13.36	-13.64	-12.09	-12.50	-11.25	-11.47	-9.80	-10.15	-10.26	-10.73	-8.60	-9.00
11	-13.39	-13.61	-11.49	-12.22	-11.35	-11.62	-10.15	-10.46	-10.24	-10.63	-8.48	-8.88
12	-13.39	-13.60	-11.51	-12.27	-11.42	-11.76	-9.95	-10.31	-10.35	-10.82	-8.31	-8.53
13	-13.41	-13.65	-11.92	-12.23	-11.29	-11.54	-10.03	-10.45	-10.41	-10.85	-8.00	-8.48
14	-13.09	-13.54	-11.61	-12.03	-11.06	-11.45	-10.33	-10.50	-10.11	-10.42	-8.06	-8.31
15	-13.09	-13.54	-11.46	-11.73	-11.11	-11.41	-10.43	-10.94	-10.23	-10.57	-7.81	-8.42
16	-13.36	-13.67	-11.73	-12.06	-11.19	-11.41	-10.86	-11.13	-10.15	-10.51	-7.93	-8.37
17	-13.63	-13.89	-11.90	-12.13	-11.23	-11.51	-10.72	-11.01	-10.05	-10.51	-7.92	-8.29
18	-13.62	-13.79	-11.76	-12.00	-11.06	-11.37	-10.91	-11.19	-9.86	-10.24	-7.84	-8.21
19	-13.52	-13.70	-11.74	-12.04	-10.93	-11.27	-10.31	-11.07	-9.84	-10.08	-7.60	-8.07
20	---	---	-11.57	-12.04	-10.92	-11.22	-11.05	-11.58	-9.63	-10.11	-7.32	-7.73
21	-13.14	-13.45	-11.63	-11.87	-10.69	-11.30	-11.06	-11.29	-9.43	-9.74	-7.58	-7.98
22	-13.35	-13.61	-11.81	-12.11	-11.03	-11.47	-11.01	-11.28	-9.33	-9.62	-7.78	-8.08
23	-13.48	-13.71	-11.77	-12.14	-10.78	-11.35	-10.92	-11.28	-9.27	-9.50	-7.93	-8.19
24	---	---	-11.86	-12.34	-10.53	-10.98	-10.81	-11.12	-9.10	-9.35	-7.97	-8.38
25	-13.44	-13.76	-11.74	-12.03	-10.35	-10.89	-11.12	-11.49	-9.21	-9.34	-7.80	-8.16
26	---	---	-11.35	-11.96	-10.46	-10.95	-11.29	-11.52	-9.29	-9.43	-7.83	-8.34
27	-12.92	-13.48	-11.33	-11.52	-10.53	-10.86	-10.67	-11.32	-8.87	-9.34	-8.11	-8.40
28	-12.91	-13.16	-11.33	-11.71	-10.48	-10.82	-10.93	-11.41	-8.74	-9.05	-7.91	-8.13
29	-13.06	-13.38	-11.71	-11.93	-10.48	-10.73	-11.11	-11.54	-8.91	-9.31	-7.91	-8.08
30	-13.25	-13.46	-11.40	-11.96	-10.33	-10.57	-10.82	-11.29	---	---	-7.61	-7.97
31	-13.16	-13.30	---	---	-10.23	-10.52	-10.78	-11.09	---	---	-7.48	-7.73
MONTH	-12.91	-14.41	-11.33	-13.25	-10.23	-11.87	-9.39	-11.58	-8.74	-11.15	-7.32	-9.35

GROUND-WATER LEVELS

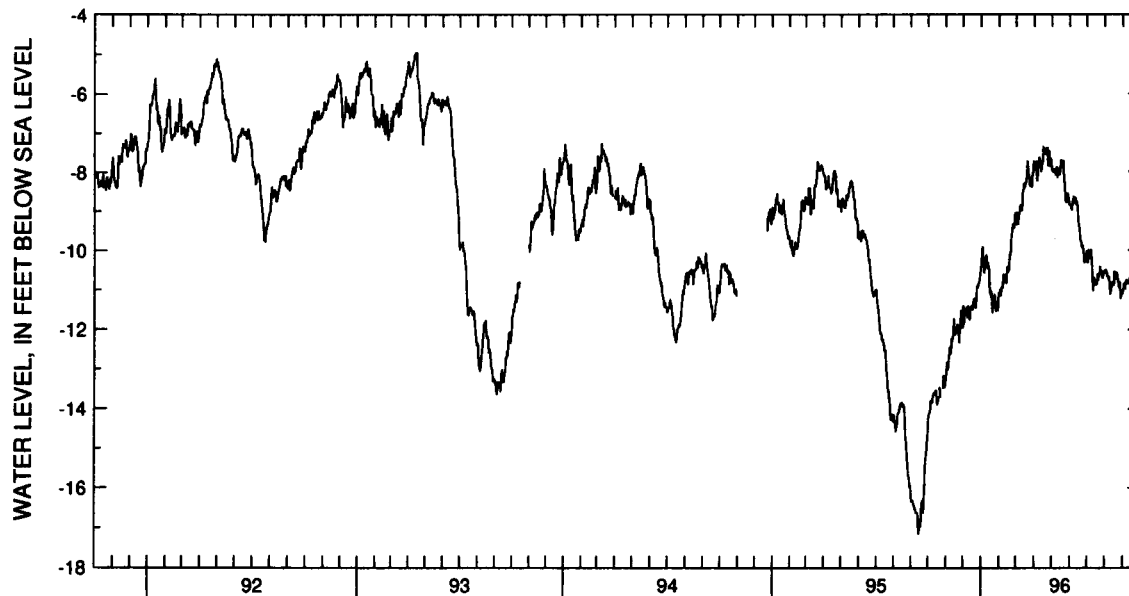
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Df 79--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-7.44	-7.81	-7.75	-7.99	-8.36	-8.85	-9.56	-10.31	-10.19	-10.59	-10.76	-11.01
2	-7.58	-7.97	-7.65	-8.01	-8.34	-8.85	-9.63	-10.31	-10.16	-10.59	-10.59	-10.92
3	-7.31	-7.91	-7.73	-8.01	-8.38	-8.94	-9.61	-9.99	-10.14	-10.52	-10.60	-10.85
4	-7.40	-7.74	-7.70	-7.94	-8.35	-8.98	-9.79	-10.13	-10.30	-10.55	-10.67	-10.93
5	-7.56	-8.23	-7.74	-8.00	-8.43	-8.80	-9.80	-10.19	-10.35	-10.67	-10.71	-10.96
6	-7.62	-8.23	-7.61	-8.01	-8.48	-8.83	-9.80	-10.20	-10.39	-10.66	-10.03	-10.81
7	-7.58	-7.78	-7.70	-8.09	-8.37	-8.64	-9.77	-9.99	-10.46	-10.73	-10.06	-10.78
8	-7.47	-7.76	-7.68	-7.92	-8.34	-8.67	-9.80	-10.03	-10.51	-10.71	-10.53	-10.83
9	-7.13	-7.63	-7.49	-7.88	-8.32	-8.81	-9.85	-10.29	-10.52	-10.91	-10.50	-10.79
10	-7.52	-7.77	-7.63	-8.16	-8.31	-8.67	-10.12	-10.71	-10.75	-11.12	-10.62	-10.87
11	-7.60	-7.84	-7.44	-7.93	-8.38	-8.68	-10.52	-11.04	-10.78	-11.03	-10.62	-10.81
12	-7.73	-8.01	-7.63	-8.04	-8.36	-8.85	-10.49	-10.80	-10.56	-10.91	-10.59	-10.78
13	-7.41	-7.91	-7.83	-8.08	-8.45	-8.81	-10.03	-10.70	-10.40	-10.84	-10.29	-10.70
14	-7.38	-7.72	-7.68	-8.07	-8.58	-8.87	-10.41	-10.79	-10.41	-10.88	-10.35	-10.71
15	-7.23	-7.75	-7.47	-7.95	-8.67	-9.14	-10.35	-10.79	-10.35	-10.89	-10.42	-10.70
16	-6.91	-7.36	-7.37	-7.70	-8.87	-9.37	-10.53	-10.88	-10.36	-10.89	-10.22	-10.61
17	-7.20	-7.55	-7.45	-7.77	-9.03	-9.37	-10.61	-10.86	-10.33	-10.55	-10.05	-10.41
18	-7.32	-7.55	-7.37	-7.91	-9.12	-9.56	-10.55	-10.85	-10.29	-10.71	-10.41	-10.67
19	-7.21	-7.51	-7.48	-7.74	-9.30	-9.75	-10.33	-10.62	-10.31	-10.72	-10.40	-10.66
20	-7.13	-7.40	-7.46	-7.73	-9.34	-9.77	-10.52	-10.77	-10.37	-10.56	-10.40	-10.59
21	-7.23	-7.50	-7.63	-8.01	-9.50	-9.89	-10.46	-10.66	-10.30	-10.74	-10.34	-10.64
22	-7.27	-7.57	-7.88	-8.23	-9.37	-9.95	-10.20	-10.66	-10.36	-10.59	-10.26	-10.54
23	-7.15	-7.38	-8.04	-8.34	-9.37	-9.88	-10.17	-10.42	-10.40	-10.72	-10.41	-11.10
24	-7.35	-7.86	-8.22	-8.74	-9.62	-10.04	-10.19	-10.59	-10.42	-10.81	-10.44	-10.89
25	-7.31	-7.62	-8.48	-8.78	-9.49	-10.02	-10.19	-10.51	-10.50	-10.96	-10.52	-11.08
26	-7.22	-7.47	-8.39	-8.77	-9.96	-10.33	-10.32	-10.57	-10.47	-10.81	-10.81	-11.24
27	-7.46	-7.87	-8.35	-8.63	-9.90	-10.22	-10.32	-10.71	-10.56	-10.99	-10.71	-11.13
28	-7.54	-7.78	-8.29	-8.56	-9.88	-10.30	-10.41	-10.71	-10.75	-11.23	-10.87	-11.28
29	-7.39	-7.66	-8.33	-8.66	-9.75	-10.22	-10.32	-10.60	-10.80	-11.13	-11.16	-11.40
30	-7.57	-7.86	-8.36	-8.80	-9.72	-10.02	-10.19	-10.53	-10.81	-11.11	-11.28	-11.64
31	---	---	-8.48	-8.85	---	---	-10.14	-10.52	-10.81	-11.11	---	---
MONTH	-6.91	-8.23	-7.37	-8.85	-8.31	-10.33	-9.56	-11.04	-10.14	-11.23	-10.03	-11.64
YEAR	-6.91	-14.41										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

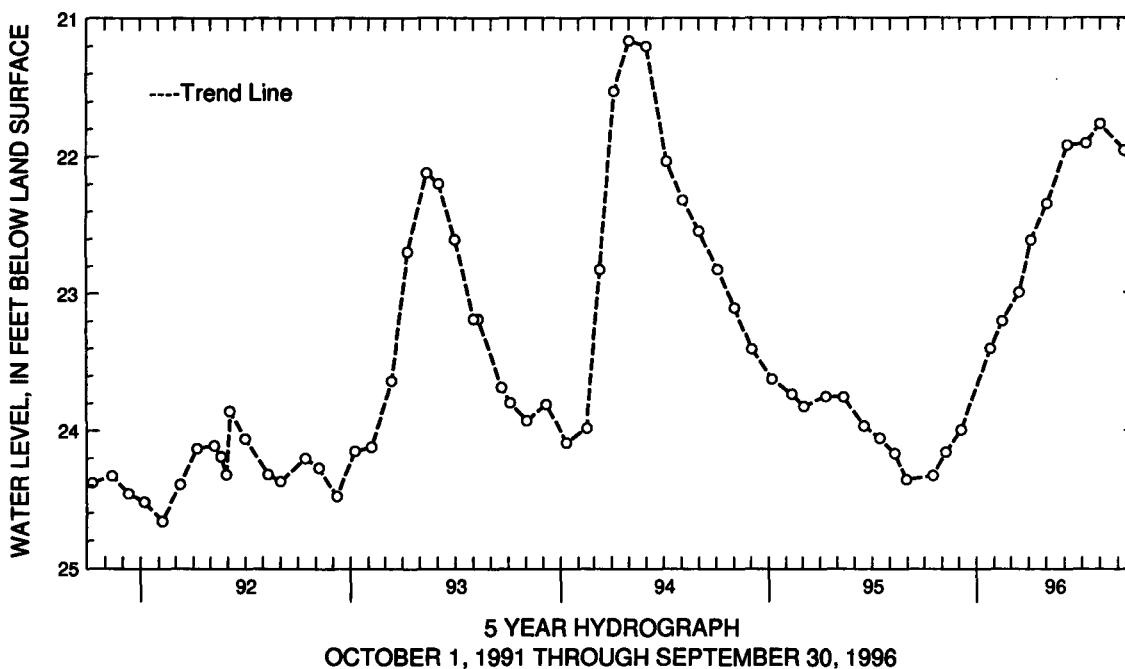
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Df 103. SITE ID.--385623076274401. PERMIT NUMBER.--AA-73-3315.
 LOCATION.--Lat 38°56'23", long 76°27'44", Hydrologic Unit 02060004, off West Lake Dr, 900 ft north of intersection with Farragut Rd.
 Owner: Mildred Hudson.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 46 ft; casing diameter 4 in., to 39 ft; screen diameter 2 in. from 39 to 46 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Altitude of land surface is 26.51 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.57 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--May 1987, January 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.16 ft below land surface, May 2, 1994; lowest measured, 25.39 ft below land surface, April 9, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	24.33	JAN 24, 1996	23.41	APR 04, 1996	22.62	JUL 08, 1996	21.91
NOV 07	24.16	FEB 14	23.21	MAY 01	22.35	AUG 01	21.77
DEC 04	24.00	MAR 14	23.00	JUN 06	21.93	SEP 12	21.96
WATER YEAR 1996		HIGHEST	21.77	AUG 01, 1996	LOWEST	24.33	OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Ed 45. SITE ID.--385406076383901. PERMIT NUMBER.--AA-74-1005.

LOCATION.--Lat 38°54'06", long 76°38'39", Hydrologic Unit 02060006, at Anne Arundel County Police Academy, near Davidsonville.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 157 ft; casing diameter 4 in., to 147 ft; screen diameter 2 in. from 147 to 157 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of coupling, 0.87 ft above land surface.

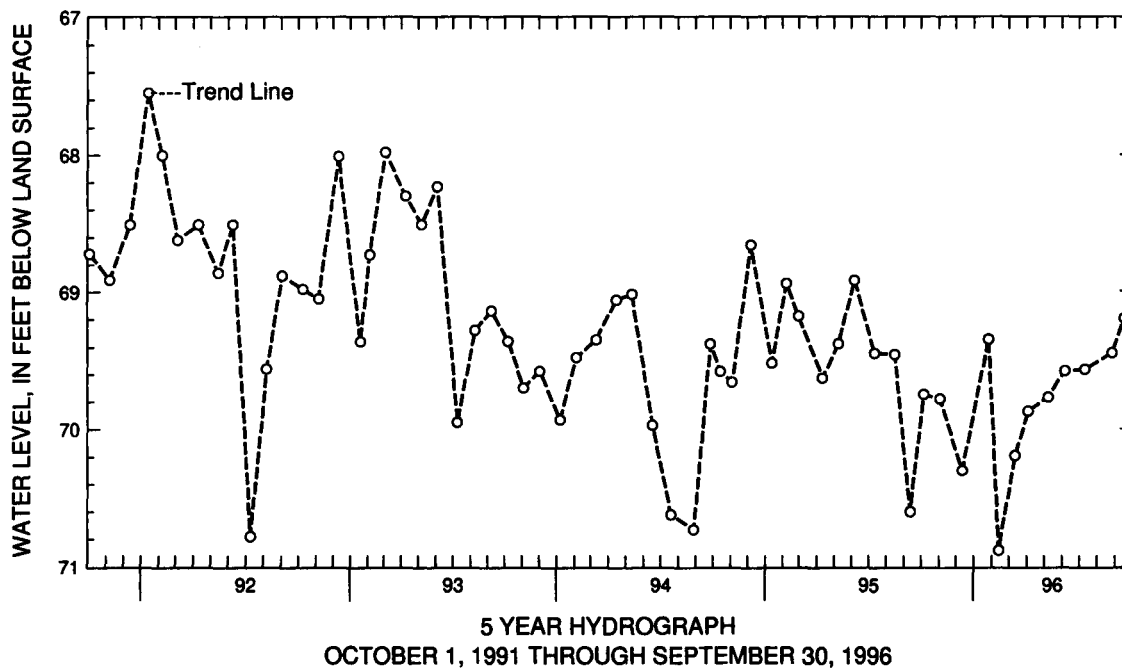
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.51 ft below land surface, May 6, 1980; lowest measured, 70.88 ft below land surface, Feb. 13, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1995	69.75	JAN 26, 1996	69.35	APR 03, 1996	69.87	JUL 10, 1996	69.57
NOV 03	69.78	FEB 13	70.88	MAY 08	69.77	AUG 27	69.45
DEC 12	70.30	MAR 12	70.19	JUN 05	69.58	SEP 18	69.20
WATER YEAR 1996		HIGHEST	69.20	SEP 18, 1996	LOWEST	70.88	FEB 13, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Pd 43. SITE ID.--384646076352401. PERMIT NUMBER.--AA-74-1004.

LOCATION.--Lat 38°46'46", long. 76°35'24", Hydrologic Unit 02060004 at Tracys Landing Regional Park, 0.2 mi east of Tracys Landing.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 280 ft, casing diameter 4 in., to 231 ft; casing diameter 2 in. from 231 to 270 ft; screen diameter 2 in. from 270 to 280 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of coupling, 0.94 ft above land surface.

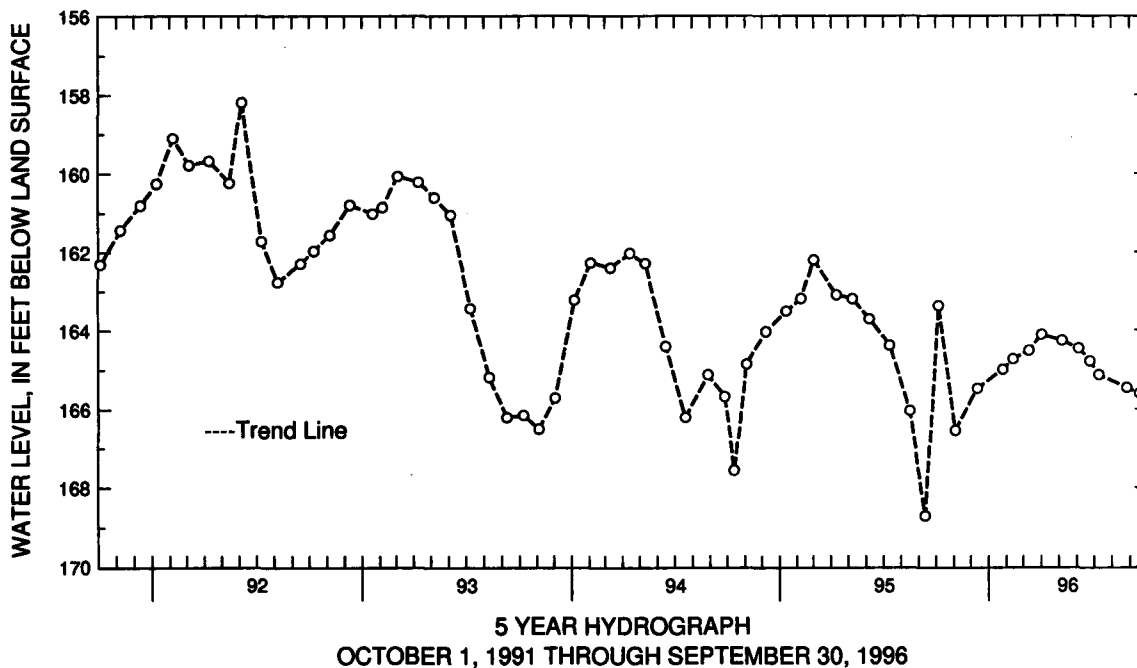
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 143.90 ft below land surface, May 6, 1980; lowest measured, 168.71 ft below land surface, Sept. 12, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1995	163.37	FEB 13, 1996	164.73	JUN 05, 1996	164.47	SEP 18, 1996	165.61
NOV 03	166.54	MAR 12	164.52	25	164.79		
DEC 12	165.48	APR 03	164.12	JUL 10	165.14		
JAN 26, 1996	165.00	MAY 08	164.27	AUG 27	165.46		
WATER YEAR 1996		HIGHEST 163.37 OCT 06, 1995		LOWEST 166.54 NOV 03, 1995			



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE CITY

WELL NUMBER.--285E- 1. SITE ID.--391617076322001.

LOCATION.--Lat 39°16'17", long 76°32'20", Hydrologic Unit 02060003, near Holabird Ave. and Pumphrey St. at Holabird Industrial Park.

Owner: City of Baltimore.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 290 ft; casing diameter 14(?) in. to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing extension, 2.35 ft above land surface.

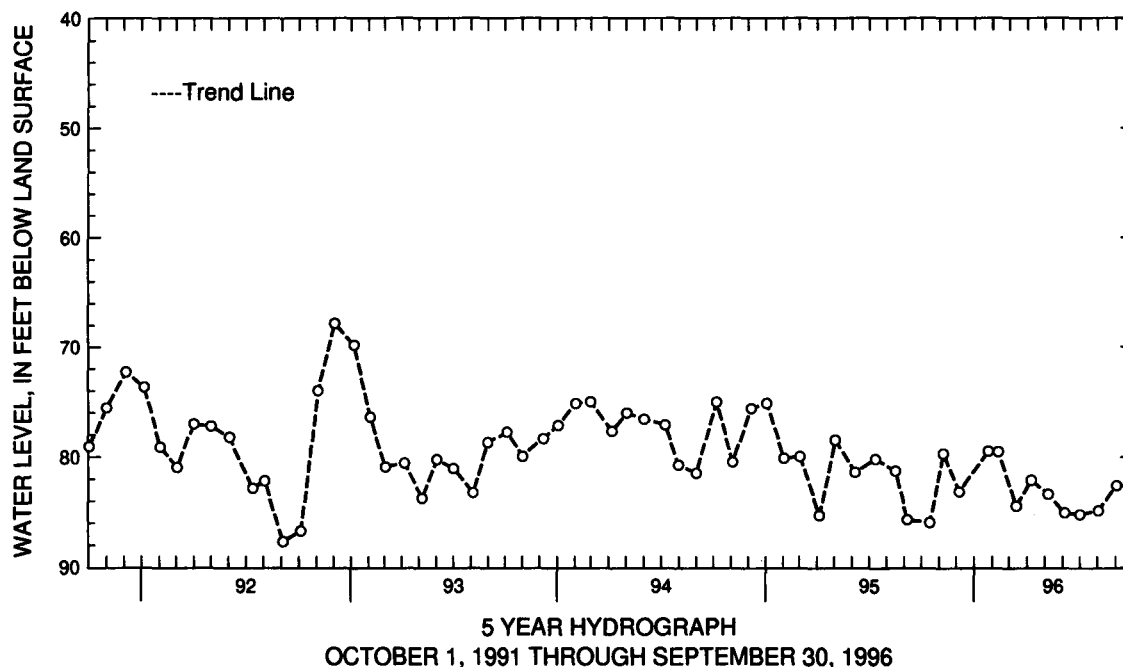
REMARKS.--Maryland Water-Level Network observation well. Water level reported 58 ft below land surface in 1934.

PERIOD OF RECORD.--April 1943 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.15 ft below land surface, Sept. 27, 1976; lowest measured, 103.70 ft below land surface, Oct. 15, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	85.93	JAN 26, 1996	79.48	APR 08, 1996	82.11	JUL 01, 1996	85.21
NOV 09	79.70	FEB 12	79.53	MAY 07	83.37	AUG 02	84.87
DEC 06	83.14	MAR 13	84.42	JUN 04	85.01	SEP 03	82.61
WATER YEAR 1996		HIGHEST	79.48	JAN 26, 1996		LOWEST	85.93
							OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE CITY--Continued

WELL NUMBER.--3S2E- 5. SITE ID.--391600076353301. PERMIT NUMBER.--BC-81-0087.

LOCATION.--Lat 39°16'00", long 76°35'33", Hydrologic Unit 02060003, at Latrobe Park.

Owner: U.S. Geological Survey.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 136 ft; casing diameter 4 in., to 126 ft; screen diameter 3 in. from 126 to 136 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 15 ft. above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 0.6 ft above land surface.

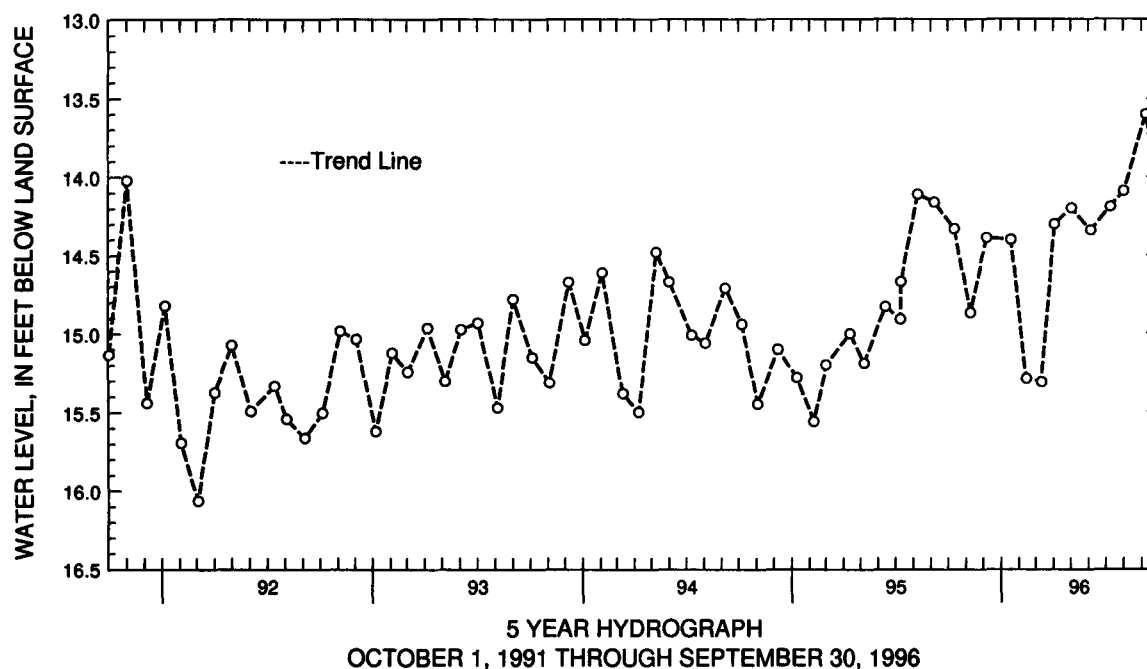
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.60 ft below land surface, Sept. 9, 1996; lowest measured, 17.71 ft below land surface, Dec. 30, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	14.33	JAN 18, 1996	14.40	APR 03, 1996	14.30	JUL 09, 1996	14.19
NOV 09	14.87	FEB 13	15.29	MAY 02	14.20	AUG 01	14.09
DEC 07	14.39	MAR 11	15.31	JUN 05	14.34	SEP 09	13.60
WATER YEAR 1996		HIGHEST	13.60	SEP 09, 1996	LOWEST	15.31	MAR 11, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE CITY--Continued

WELL NUMBER.--385E- 46. SITE ID.--391556076315301. PERMIT NUMBER.--BC-81-0088.

LOCATION.--Lat 39°15'56", long 76°31'53", Hydrologic Unit 02060003, at Holabird Industrial Park, near Colgate Creek.

Owner: U.S. Geological Survey.

AQUIFER.-- Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 73 ft; casing diameter 4 in., to 63 ft; screen diameter 3 in. from 63 to 73 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.07 ft above land surface.

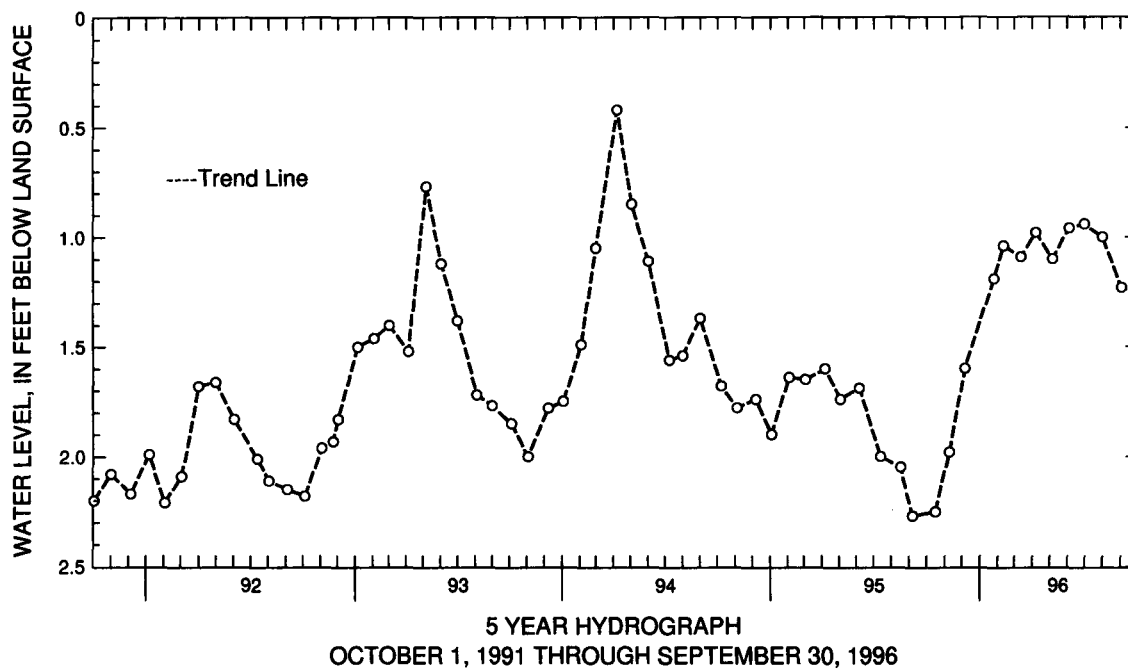
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.22 ft above land surface, May 5, 1983; lowest measured, 3.07 ft below land surface, July 8, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	2.25	JAN 26, 1996	1.19	APR 08, 1996	.98	JUL 01, 1996	.94
NOV 09	1.98	FEB 12	1.04	MAY 07	1.10	AUG 02	1.00
DEC 06	1.60	MAR 13	1.09	JUN 04	.96	SEP 03	1.23
WATER YEAR 1996		HIGHEST	.94	JUL 01, 1996		LOWEST	2.25
							OCT 16, 1995



MARYLAND--Continued

BALTIMORE CITY--Continued

WELL NUMBER.--5S2E- 24. SITE ID.--391349076354501. PERMIT NUMBER.--BC-81-0089.

LOCATION.--Lat 39°13'49", long 76°35'45", Hydrologic Unit 02060003, at Farrington Park.

Owner: U.S. Geological Survey.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 272 ft; casing diameter 4 in., to 262 ft; screen diameter 3 in. from 262 ft to 272 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.35 ft above land surface.

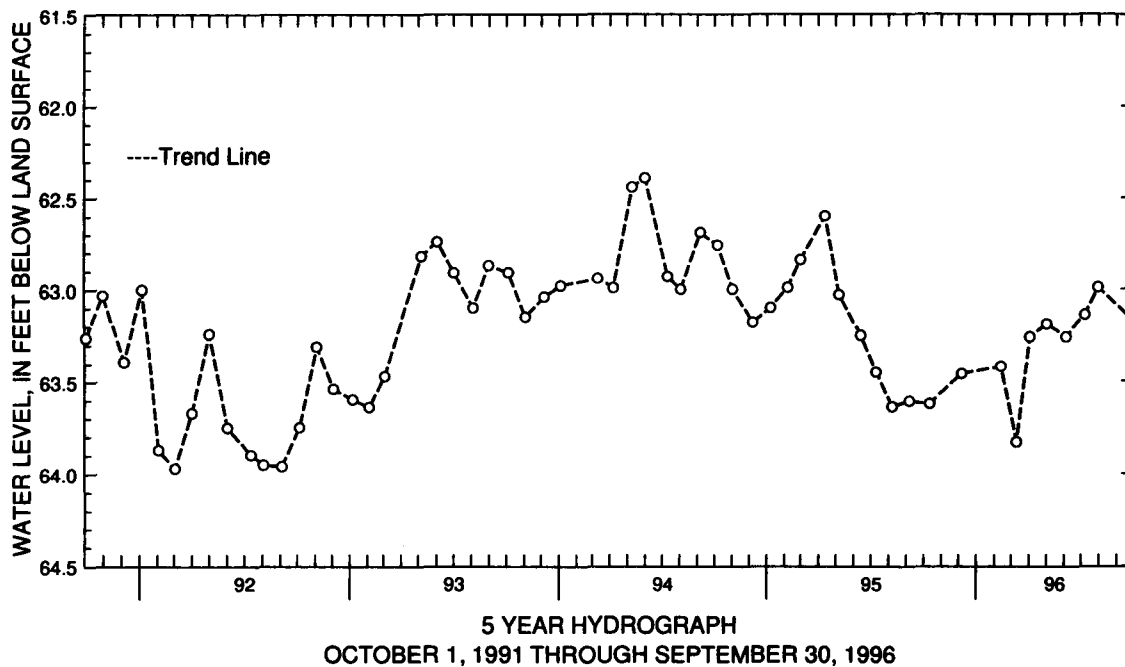
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.39 ft below land surface, June 1, 1994; lowest measured, 66.36 ft below land surface, May 5, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	63.62	MAR 11	63.83	JUN 05	63.26		
DEC 07	63.46	APR 03	63.26	JUL 09	63.14		
FEB 13, 1996	63.42	MAY 02, 1996	63.19	AUG 01, 1996	62.99		
WATER YEAR 1996		HIGHEST	62.99	AUG 01, 1996		LOWEST	63.83
							MAR 11, 1996



GROUND-WATER LEVELS

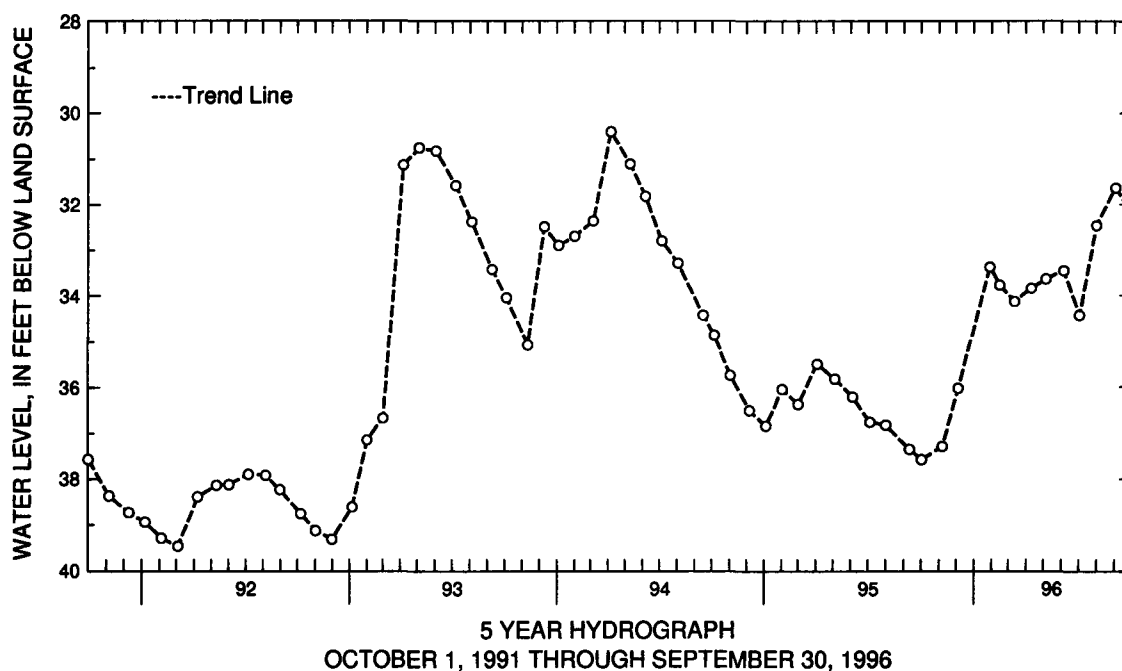
MARYLAND--Continued

BALTIMORE COUNTY

WELL NUMBER.--BA Cd 26. SITE ID.--393129076384201. PERMIT NUMBER.--BA-02-8527.
 LOCATION.--Lat 39°31'29", long 76°38'42", Hydrologic Unit, 02060003, 1.4 mi south of Sparks, nr York Rd.
 Owner: Diecraft Division, Leica Inc.
 AQUIFER.--Baltimore Gneiss of Precambrian age. Aquifer code: 400BLMR.
 WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 250 ft; casing diameter 6 in., to 19 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Altitude of land surface is 480 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 0.30 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--January 1959 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.42 ft below land surface, Sept. 9, 1975; lowest measured, 80.20 ft below land surface, Dec. 23, 1969.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	37.58	JAN 29, 1996	33.37	APR 10, 1996	33.84	JUL 02, 1996	34.43
NOV 07	37.30	FEB 15	33.77	MAY 06	33.64	AUG 01	32.46
DEC 05	36.03	MAR 12	34.13	JUN 05	33.45	SEP 03	31.63
WATER YEAR 1996		HIGHEST	31.63	SEP 03, 1996	LOWEST	37.58	OCT 02, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ce 21. SITE ID.--393102076341801. PERMIT NUMBER.--BA-02-1266.

LOCATION.--Lat 39°31'02", long 76°34'18", Hydrologic Unit 02060003, on Paper Mill Rd., 0.6 mi west of Jacksonville.

Owner: Baltimore County.

AQUIFER.--Loch Raven Schist of Paleozoic Age. Aquifer code: 300LCRV.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 350 ft; casing diameter 10 in., to 12.4 ft; casing diameter 6 in., to 33.1 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 536 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.0 ft above land surface.

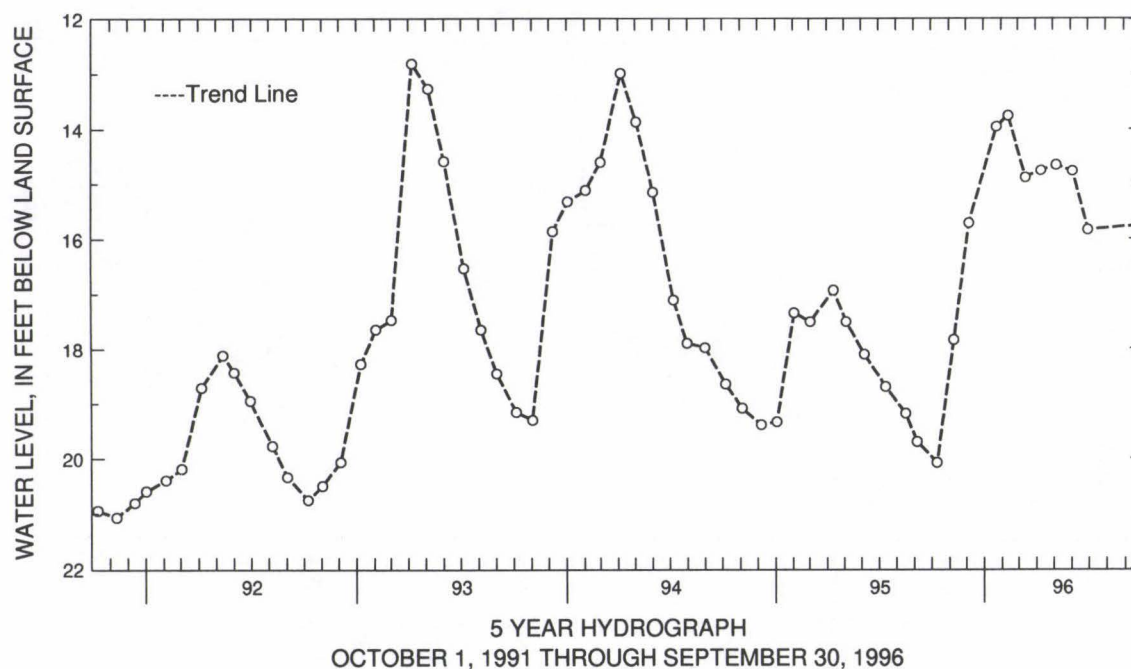
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--November and December 1955, November 1956 through September 1975, July 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.60 ft below land surface, June 23, 1972; lowest measured, 21.54 ft below land surface, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	20.08	JAN 24, 1996	13.96	APR 10, 1996	14.76	JUL 01, 1996	15.84
NOV 09	17.84	FEB 13	13.76	MAY 07	14.66		
DEC 06	15.72	MAR 14	14.89	JUN 04	14.77		
WATER YEAR 1996		HIGHEST 13.76	FEB 13, 1996	LOWEST 20.08	OCT 10, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

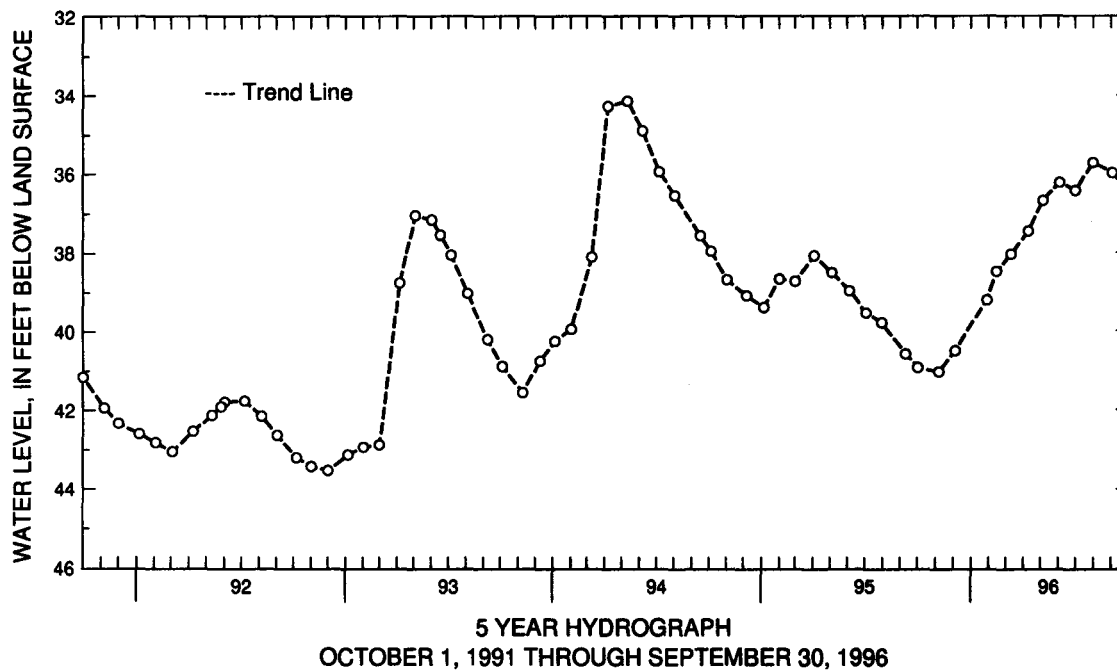
BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Dc 444. SITE ID.--392931076410301. PERMIT NUMBER.--BA-81-4198.
 LOCATION.--Lat 39°29'31", long 76°41'03", Hydrologic Unit 02060003, at Oregon Ridge Park.
 Owner: Baltimore County Parks and Recreation.
 AQUIFER.--Cockeysville Marble of Paleozoic age. Aquifer code: 300CCKV.
 WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 300 ft; casing diameter 6 in., to 88 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Altitude of land surface is 390 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 1.11 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--September 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.14 ft below land surface, May 11, 1994; lowest measured, 45.07 ft below land surface, Jan. 17, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	40.93	JAN 29, 1996	39.21	APR 10, 1996	37.46	JUL 02, 1996	36.43
NOV 07	41.03	FEB 15	38.49	MAY 06	36.68	AUG 01	35.72
DEC 05	40.50	MAR 12	38.04	JUN 05	36.21	SEP 03	35.98

WATER YEAR 1996 HIGHEST 35.72 AUG 01, 1996 LOWEST 41.03 NOV 07, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ea 18. SITE ID.--392045076512501. PERMIT NUMBER.--BA-01-8151.

LOCATION.--Lat 39°20'45", long 76°51'25", Hydrologic Unit 02060003, at Granite.

Owner: Maryland National Guard (U.S. Army).

AQUIFER.--Woodstock Granite of Paleozoic age. Aquifer code: 300WDCK.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 250 ft; casing diameter 10 in., to 50.7 ft; casing diameter 6 in. with depth to 71.3 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 491 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.5 ft above land surface.

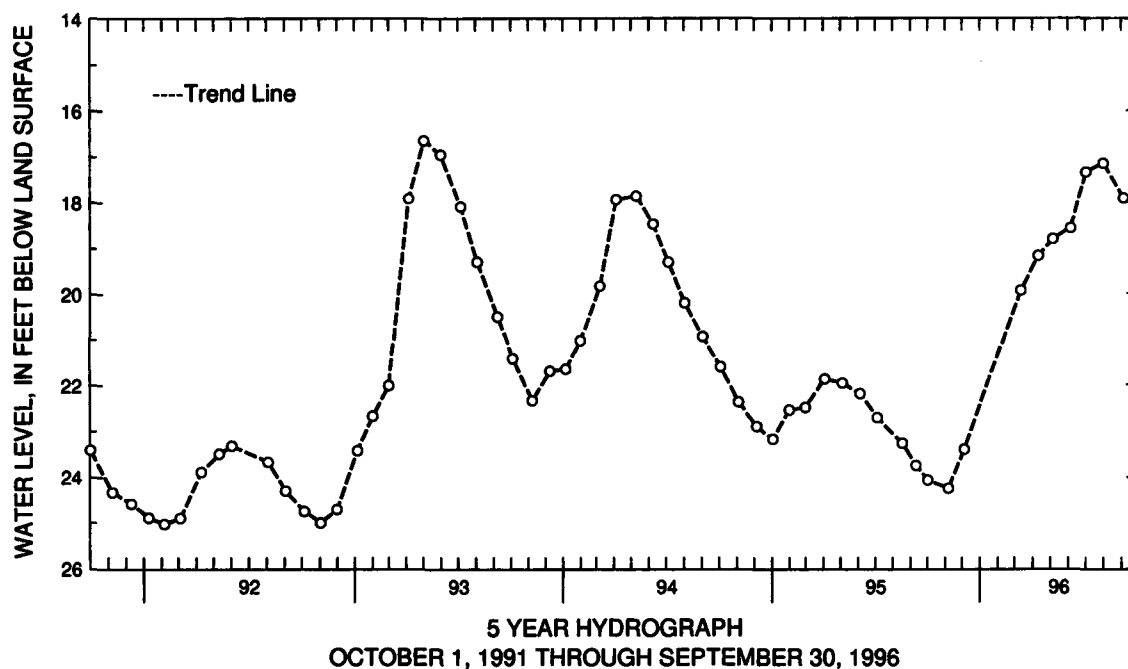
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.-- November 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.94 ft below land surface, June 24, 1972; lowest measured, 27.57 ft below land surface, Sept. 13, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	24.07	MAR 12, 1996	19.94	JUN 05, 1996	18.57	SEP 05, 1996	17.91
NOV 07	24.25	APR 11	19.18	JUL 02	17.34		
DEC 05	23.40	MAY 06	18.81	AUG 01	17.15		
WATER YEAR 1996		HIGHEST	17.15	AUG 01, 1996		LOWEST	24.25
							NOV 07, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ec 43. SITE ID.--392305076432001.

LOCATION.--Lat 39°23'05", long 76°43'20", Hydrologic Unit 02060003, nr Pikesville, at Druid Ridge Cemetery.
Owner: Druid Ridge Cemetery.

AQUIFER.--Baltimore Gneiss of Precambrian age. Aquifer code: 400BLMR.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 111 ft; casing diameter 6 in., to 40 ft; open hole.

DATUM.--Altitude of land surface is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.0 ft above land surface.

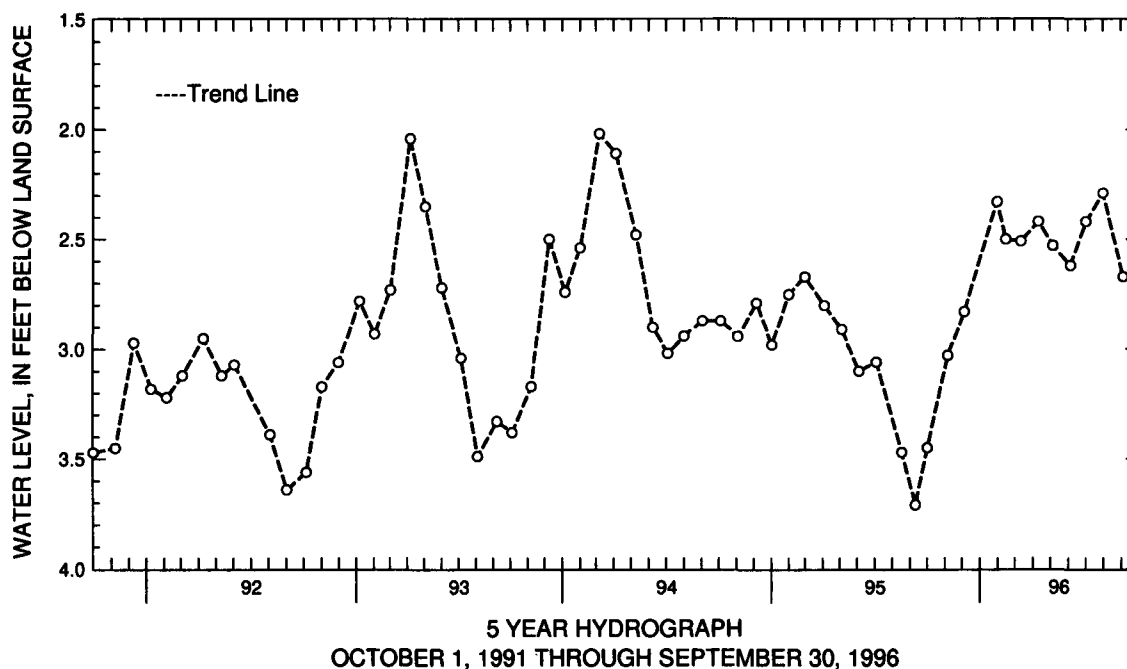
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--March 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.27 ft below land surface, June 24, 1972; lowest measured, 4.69 ft below land surface, Nov. 11, 1964.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	3.45	JAN 31, 1996	2.33	APR 11, 1996	2.42	JUL 02, 1996	2.42
NOV 07	3.03	FEB 15	2.50	MAY 06	2.53	AUG 01	2.29
DEC 05	2.83	MAR 12	2.51	JUN 05	2.62	SEP 05	2.67
WATER YEAR 1996		HIGHEST	2.29	AUG 01, 1996		LOWEST	3.45
							OCT 02, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Fe 19. SITE ID.--391607076312901.

LOCATION.--Lat 39°16'07", long 76°31'29", Hydrologic Unit 02060003, 0.2 mi east of Willow Spring Rd., at Seagrams warehouse facility, Dundalk.

Owner: Seagrams Distillery.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTKN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 402 ft; casing diameter 8 in., to unknown depth; screen length 35 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.5 ft above land surface.

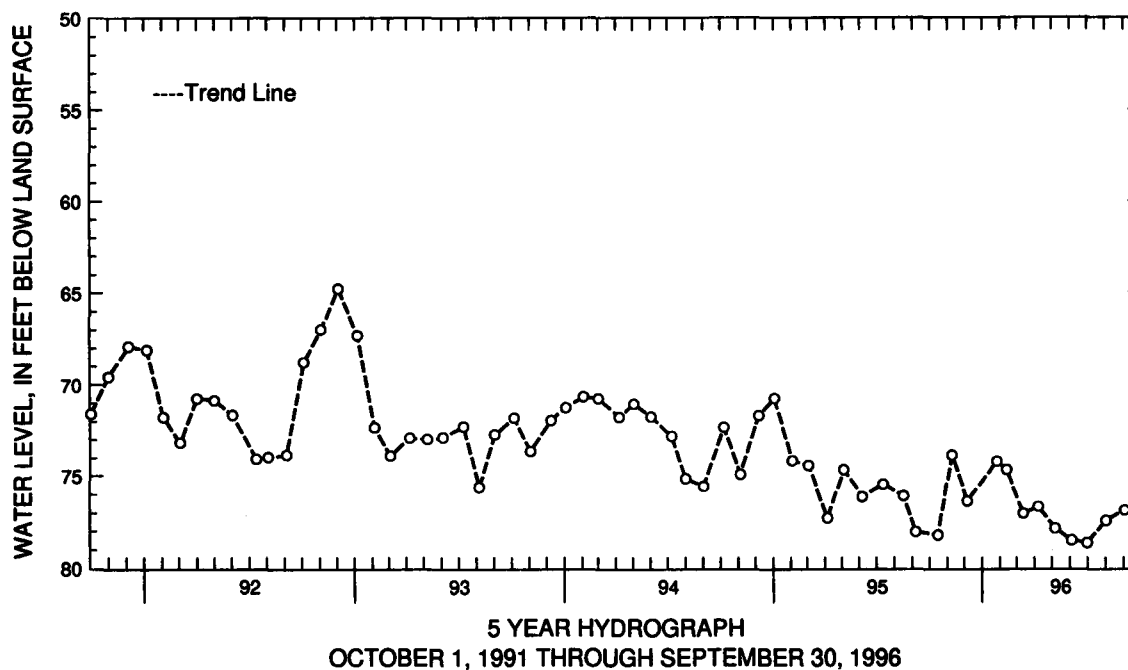
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1952 to March 1954, January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.34 ft below land surface, Jan. 3, 1983; lowest measured, 95.88 ft below land surface, Oct. 6, 1952.

WATER LEVEL, IN FEET BELOW LAND SURFACE WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	78.21	JAN 26, 1996	74.22	APR 08, 1996	76.68	JUL 01, 1996	78.65
NOV 09	73.87	FEB 12	74.67	MAY 07	77.85	AUG 02	77.44
DEC 06	76.36	MAR 13	77.05	JUN 04	78.50	SEP 03	76.86
WATER YEAR 1996		HIGHEST	73.87	NOV 09, 1995	LOWEST	78.65	JUL 01, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Gf 11. SITE ID.--391356076293501.

LOCATION.--Lat 39°13'56", long 76°29'35", Hydrologic Unit 02060003, nr Tin Mill Rd., Sparrows Point.

Owner: Bethlehem Steel Co.

AQUIFER.-- Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 645 ft; casing diameter 14 in., to 422.7 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 13.6 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing 2.58 ft above land surface.

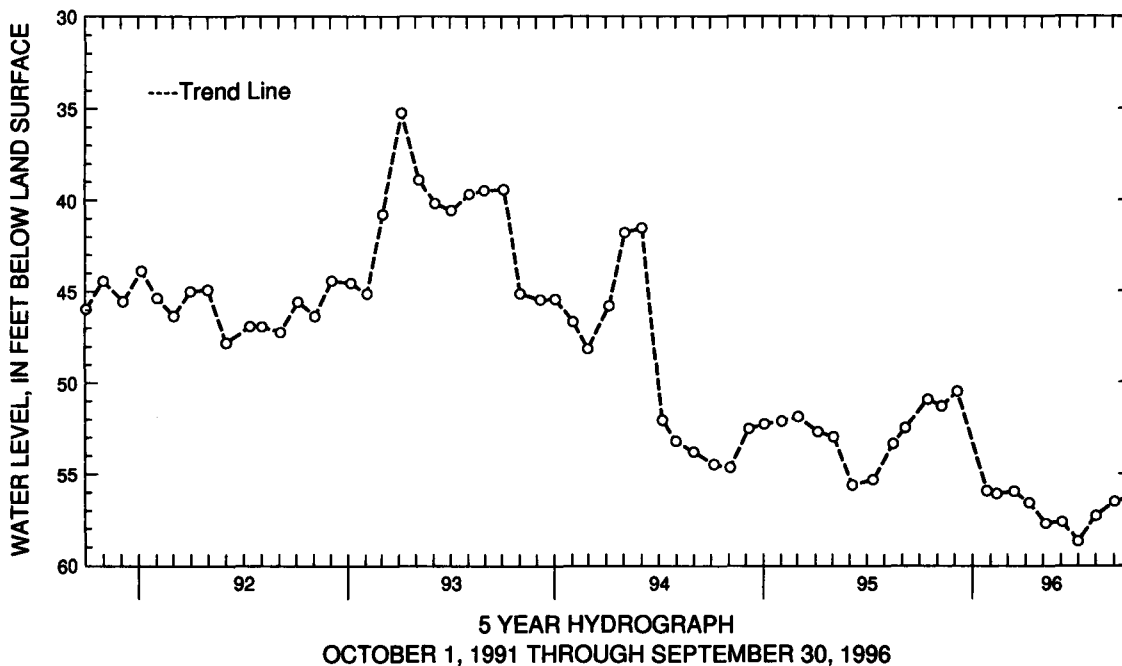
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--September 1981, March 1982, September 1982, January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.25 ft below land surface, June 3, 1983;
lowest measured, 58.69 ft below land surface, July 1, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	50.96	JAN 26, 1996	55.92	APR 08, 1996	56.59	JUL 01, 1996	58.69
NOV 09	51.34	FEB 12	56.09	MAY 07	57.72	AUG 02	57.30
DEC 06	50.53	MAR 13	55.96	JUN 04	57.59	SEP 03	56.52
WATER YEAR 1996		HIGHEST	50.53 DEC 06, 1996	LOWEST	58.69 JUL 01, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Gf 168. SITE ID.--391257076282501.

LOCATION.--Lat 39°12'57", long 76°28'25", Hydrologic Unit 02060003, at Sparrows Point.

Owner: Bethlehem Steel Co.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 304 ft; casing diameter 10 to 6 in., to 283 ft; screened from 283 to 304 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.57 ft above land surface.

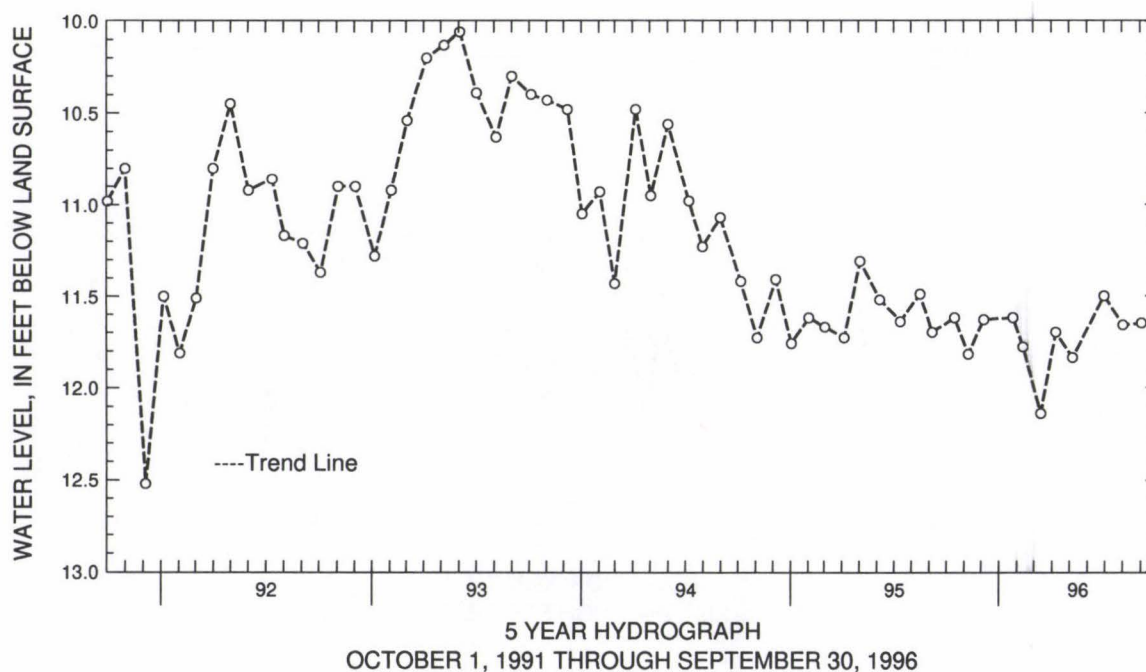
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--September 1943 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.01 ft below land surface, July 6, 1983; lowest measured, 109.54 ft below land surface, July 18, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	11.62	JAN 26, 1996	11.62	APR 08, 1996	11.70	AUG 02, 1996	11.66
NOV 09	11.82	FEB 12	11.78	MAY 07	11.84	SEP 03	11.65
DEC 06	11.63	MAR 13	12.14	JUL 01	11.50		
WATER YEAR 1996		HIGHEST	11.50	JUL 01, 1996	LOWEST	12.14	MAR 13, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Gf 178. SITE ID.--391226076253401.

LOCATION.--Lat 39°12'26", long 76°25'34", Hydrologic Unit 02060003, at North Point State Park.

Owner: Maryland Department of Natural Resources.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 339.5 ft; casing diameter 8 in. to unknown depth; screen at unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Altitude of land surface is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.00 ft above land surface.

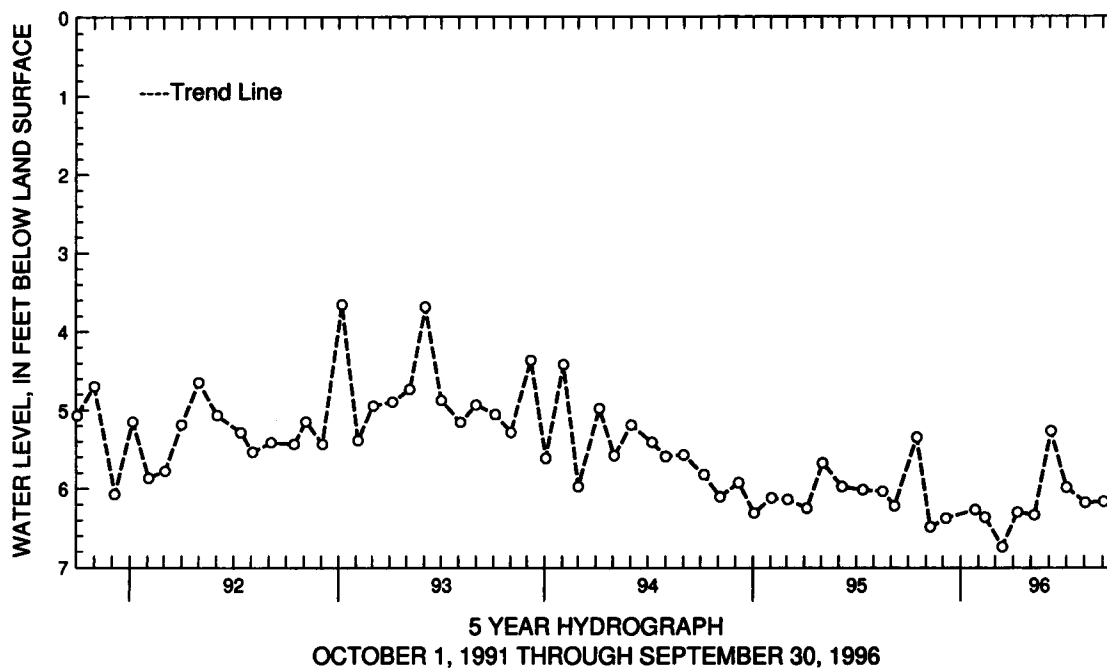
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1945 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.32 ft below land surface, April 6, 1984; lowest measured, 61.97 ft below land surface, Dec. 2, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	5.36	JAN 26, 1996	6.27	APR 08, 1996	6.30	JUL 01, 1996	5.99
NOV 09	6.49	FEB 12	6.37	MAY 07	6.34	AUG 02	6.18
DEC 06	6.38	MAR 13	6.74	JUN 04	5.28	SEP 03	6.17
WATER YEAR 1996		HIGHEST 5.28	JUN 04, 1996	LOWEST 6.74	MAR 13, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY

WELL NUMBER.--CA Bb 27. SITE ID.--384333076394701. PERMIT NUMBER.--CA-73-3303.

LOCATION.--Lat 38°43'33", long 76°39'47", Hydrologic Unit 02060006, at Dunkirk Regional Park, Dunkirk.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 320 ft; casing diameter 4 in., to 250 ft; casing diameter 2 in. from 250 to 310 ft; screen diameter 2 in. from 310 to 320 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 137.87 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.80 ft above land surface.

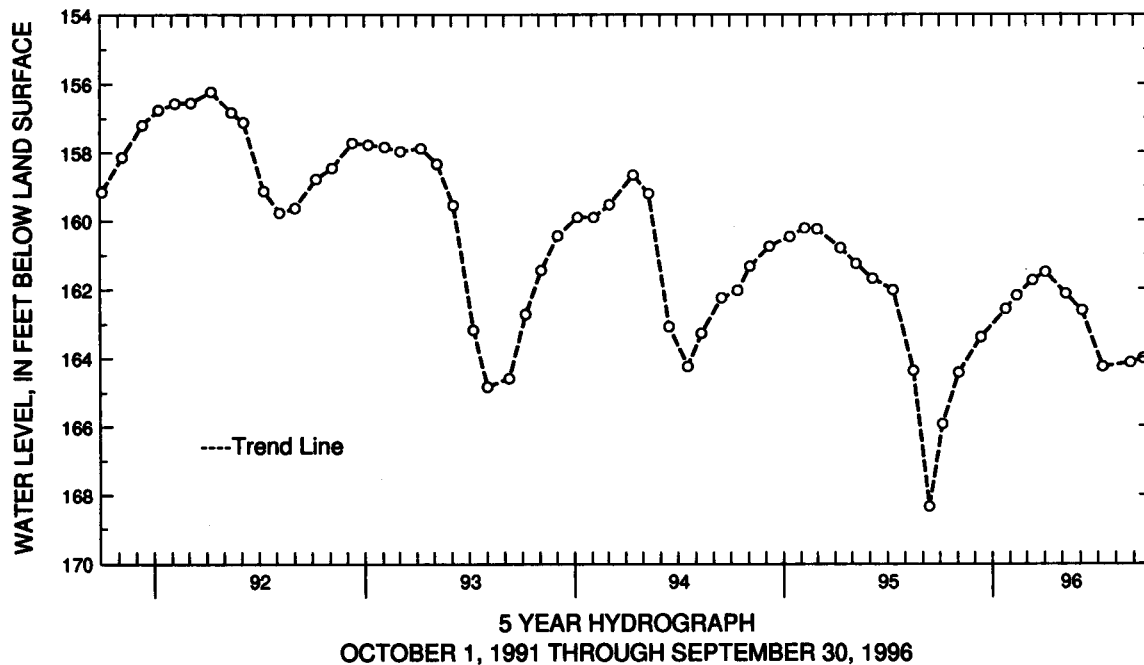
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 133.82 ft below land surface, May 6, 1980; lowest measured, 168.35 ft below land surface, Sept. 12, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1995	165.94	JAN 25, 1996	162.59	APR 03, 1996	161.52	JUL 10, 1996	164.27
NOV 03	164.44	FEB 13	162.20	MAY 08	162.15	AUG 27	164.15
DEC 12	163.41	MAR 12	161.75	JUN 05	162.63	SEP 18	164.03
WATER YEAR 1996		HIGHEST	161.52	APR 03, 1996	LOWEST	165.94	OCT 06, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Bb 28. SITE ID.--384333076394702. PERMIT NUMBER.--CA-73-3721.

LOCATION.--Lat 38°43'33", long 76°39'47", Hydrologic Unit 02060006, at Dunkirk Regional Park, Dunkirk.

Owner: U.S. Geological Survey.

AQUIFER.--Nanjemoy Formation of Lower Eocene age. Aquifer code: 124NNJM.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 170 ft; casing diameter 4 in., to 147 ft; casing diameter 2 in. from 147 to 160 ft; screen diameter 2 in. from 160 to 170 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 138.67 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.60 ft above land surface.

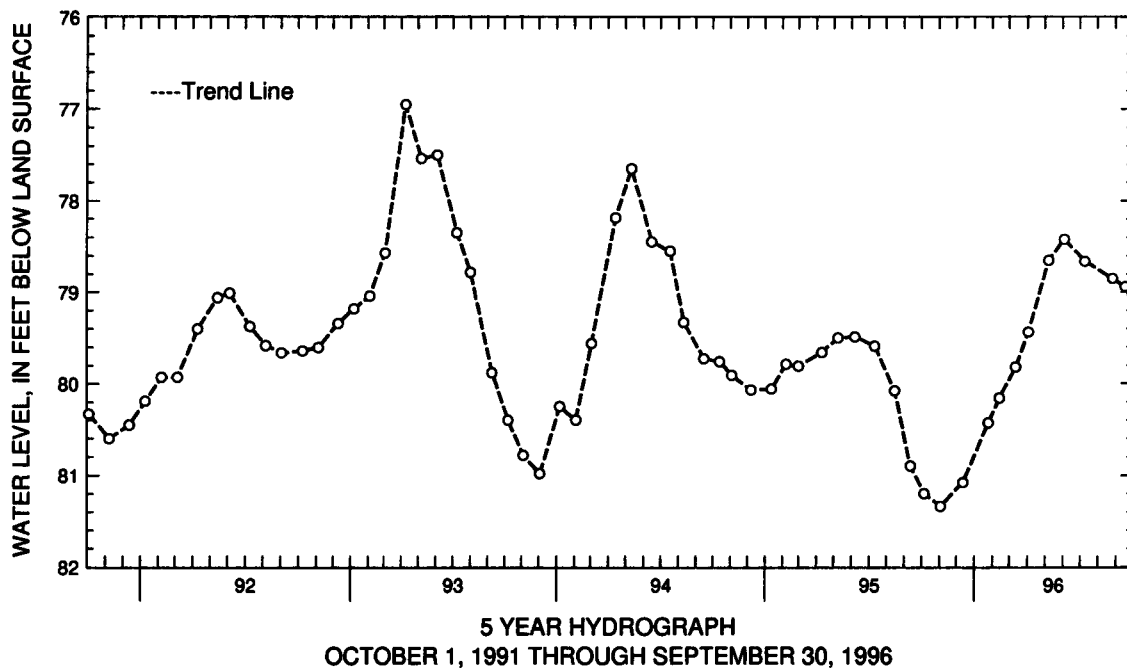
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--July 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 76.95 ft below land surface, April 9, 1993;
lowest measured, 81.34 ft below land surface, Nov. 3, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1995	81.20	JAN 25, 1996	80.43	APR 03, 1996	79.44	JUL 10, 1996	78.66
NOV 03	81.34	FEB 13	80.16	MAY 08	78.65	AUG 27	78.85
DEC 12	81.08	MAR 12	79.82	JUN 04	78.42	SEP 18	78.94
WATER YEAR 1996		HIGHEST 78.42	JUN 04, 1996	LOWEST 81.34	NOV 03, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Cc 18. SITE ID.--383940076314801.

LOCATION.--Lat 38°39'40", long 76°31'48", Hydrologic Unit 02060006, at Naval Research Laboratory, Randle Cliff.
Owner: U.S. Navy.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 476 ft; casing diameter 6 in., to 462 ft; screened from 462 to 476 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with water-level recorder Sept. 15, 1958 to Dec. 7, 1962.

DATUM.--Elevation of land surface is 111.31 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.3 ft above land surface.

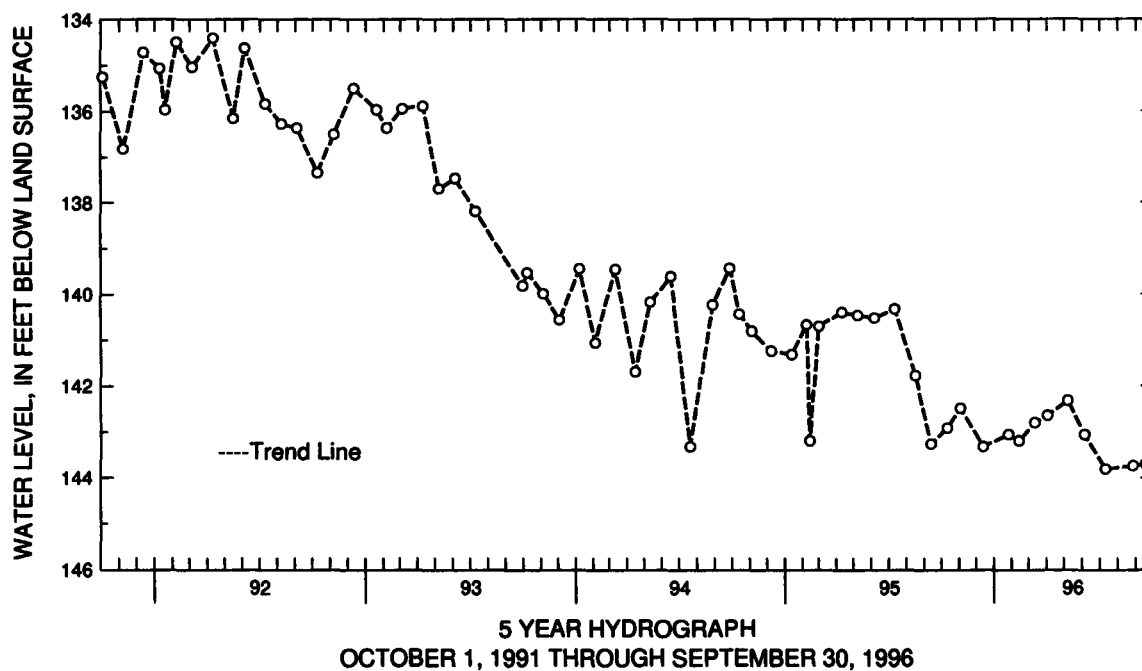
REMARKS.--Maryland Water-Level Network observation well. Water level measured 76.68 ft below land surface, Sept. 10, 1952. Water levels affected by nearby pumping.

PERIOD OF RECORD.--September 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 103.63 ft below land surface, May 14, 1961; lowest measured, 143.81 ft below land surface, July 10, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	142.92	JAN 26, 1996	143.06	APR 03, 1996	142.65	JUL 10, 1996	143.81
NOV 03	142.50	FEB 13	143.20	MAY 08	142.33	AUG 27	143.74
DEC 12	143.32	MAR 12	142.81	JUN 05	143.06	SEP 18	143.69
WATER YEAR 1996		HIGHEST 142.33	MAY 08, 1996	LOWEST 143.81	JUL 10, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Cc 57. SITE ID.--383605076344601. PERMIT NUMBER.--CA-73-2893.

LOCATION.--Lat 38°36'05", long 76°34'46", Hydrologic Unit 02060006, Cox Rd. nr MD Rt. 263, Huntingtown.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 579 ft; casing diameter 4 in., to 211 ft; casing diameter 2 in. from 211 to 511 ft, and 521 to 579 ft; screen diameter 3 in. from 511 to 521 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 138.6 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.66 ft above land surface.

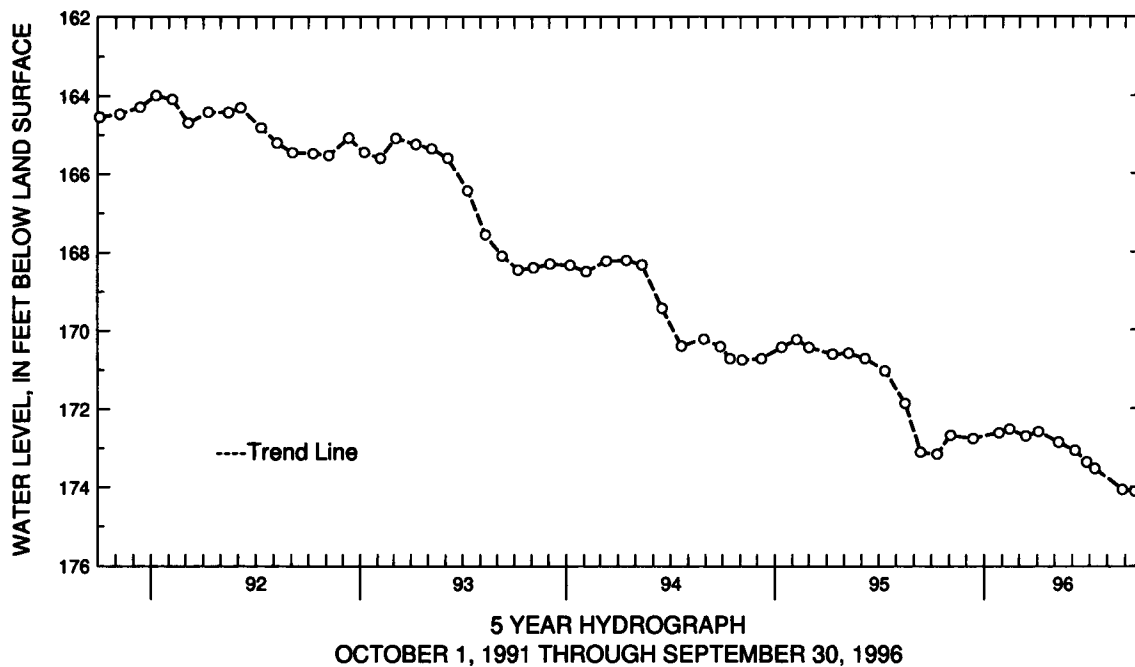
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 140.00 ft below land surface, March 7, 1979; lowest measured, 174.11 ft below land surface, Sept. 18, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	173.17	FEB 13, 1996	172.54	JUN 05, 1996	173.07	SEP 18, 1996	174.11
NOV 03	172.70	MAR 12	172.72	26	173.37		
DEC 12	172.78	APR 03	172.60	JUL 10	173.53		
JAN 26, 1996	172.63	MAY 08	172.87	AUG 27	174.07		
WATER YEAR 1996		HIGHEST 172.54 FEB 13, 1996		LOWEST 174.11 SEP 18, 1996			



GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Db 47. SITE ID.--383239076354201. PERMIT NUMBER.--CA-73-3304.

LOCATION.--Lat 38°32'39", long 76°35'42", Hydrologic Unit 02060006, near Prince Frederick.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 570 ft; casing diameter 4 in., to 483 ft; casing diameter 2 in. from 483 to 560 ft; screen diameter 2 in. from 560 to 570 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.20 ft above land surface.

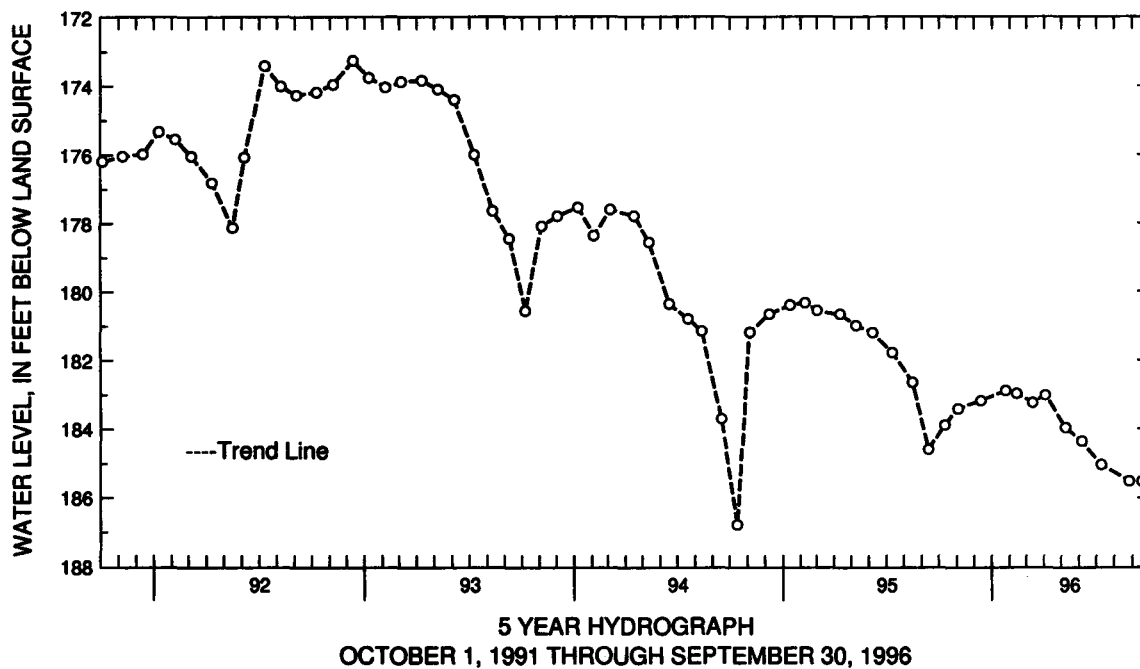
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--July 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 148.54 ft below land surface, July 31, 1979; lowest measured, 186.78 ft below land surface, Oct. 14, 1994

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	183.88	JAN 25, 1996	182.89	APR 03, 1996	183.02	JUL 10, 1996	185.04
NOV 03	183.42	FEB 13	182.98	MAY 08	183.97	AUG 27	185.52
DEC 12	183.19	MAR 12	183.25	JUN 05	184.36	SEP 18	185.53
WATER YEAR 1996		HIGHEST 182.89 JAN 25, 1996	LOWEST 185.53 SEP 18, 1996				



GROUND-WATER LEVELS

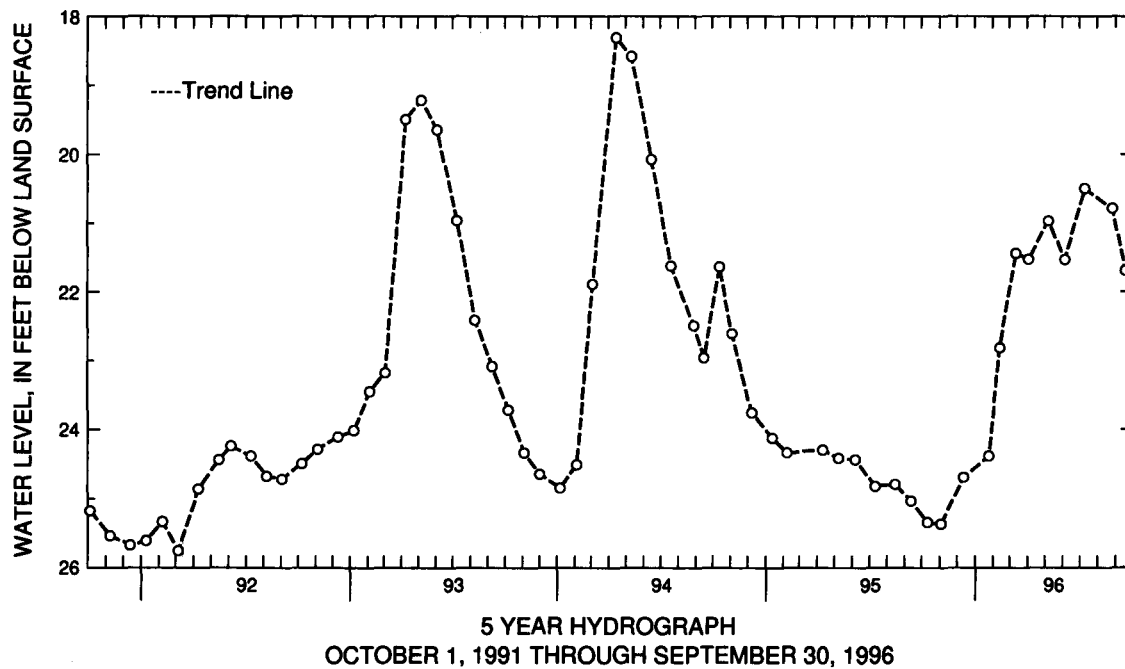
MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Db 65. SITE ID.--383216076351401. PERMIT NUMBER.--CA-81-2415.
 LOCATION.--Lat 38°32'16", long 76°35'14", Hydrologic Unit 02060006, at St. Pauls Episcopal Church parking lot, Prince Frederick.
 Owner: U.S. Geological Survey.
 AQUIFER.--Upland Deposit of Pleistocene age. Aquifer code: 112UPLD.
 WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 49 ft; casing diameter 3 in., to 22 ft, and 32 to 49 ft; screen diameter 3 in. from 22 to 32 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 159.33 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of protective casing, 2.56 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--August 1986, October 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.64 ft below land surface, May 9, 1990;
 lowest measured, 27.09 ft below land surface, Feb. 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	25.35	JAN 25, 1996	24.39	APR 03, 1996	21.52	JUL 10, 1996	20.50
NOV 03	25.37	FEB 13	22.82	MAY 08	20.97	AUG 27	20.79
DEC 12	24.70	MAR 12	21.44	JUN 05	21.53	SEP 18	21.69
WATER YEAR 1996		HIGHEST	20.50 JUL 10, 1996	LOWEST		25.37 NOV 03, 1995	



GROUND-WATER LEVELS

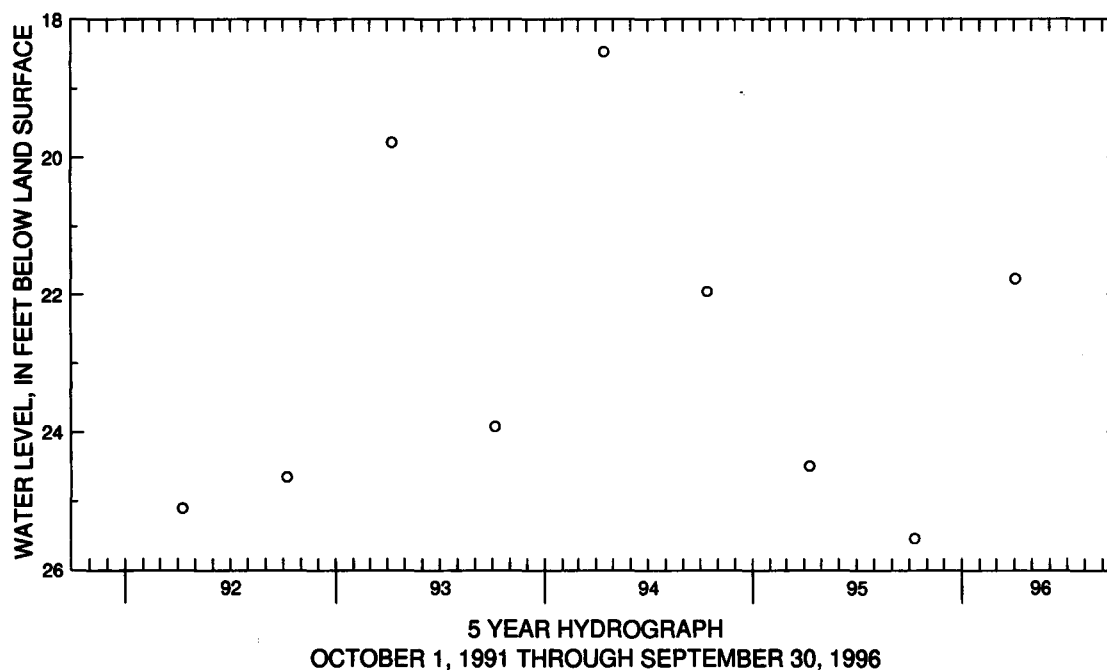
MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Db 66. SITE ID.--383216076351402. PERMIT NUMBER.--CA-81-2415.
 LOCATION.--Lat 38°32'16", long 76°35'14", Hydrologic Unit 02060006, at St. Pauls Episcopal Church parking lot,
 Prince Frederick.
 Owner: U.S. Geological Survey.
 AQUIFER.--Upland Deposit of Pleistocene age. Aquifer code: 112UPLD.
 WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 34 ft; casing diameter 3 in., to 21 ft,
 and 31 to 34 ft; screen diameter 3 in. from 21 to 31 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 159.59 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of protective casing, 2.64 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--July 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.01 ft below land surface, April 9, 1990;
 lowest measured, 26.89 ft below land surface, Feb. 14, 1989 and March 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	25.54	APR 03, 1996	21.77
WATER YEAR 1996		HIGHEST 21.77 APR 03, 1996	LOWEST 25.54 OCT 11, 1995



GROUND-WATER LEVELS

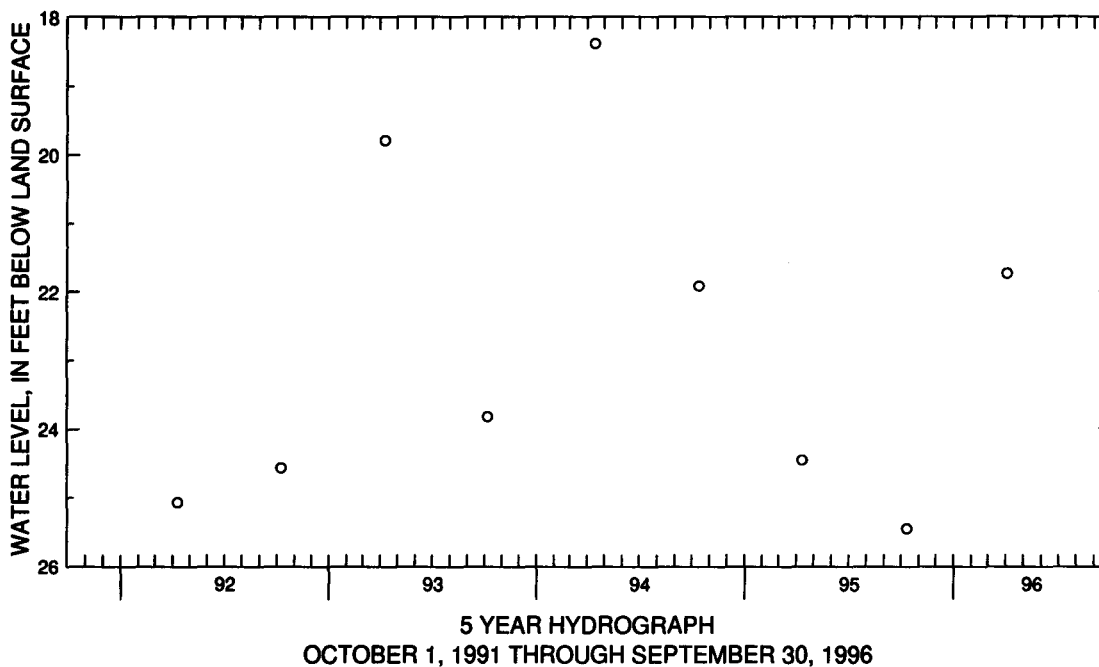
MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Db 67. SITE ID.--383216076351403. PERMIT NUMBER.--CA-81-2415.
 LOCATION.--Lat 38°32'16", long 76°35'14", Hydrologic Unit 02060006, at St. Pauls Episcopal Church parking lot, Prince Frederick.
 Owner: U.S. Geological Survey.
 AQUIFER.--Upland Deposit of Pleistocene age. Aquifer code: 112UPLD.
 WELL CHARACTERISTICS.--Drilled, water-table, observation well, depth 31 ft; casing diameter 3 in., to 18 ft, and 28 to 31 ft; screen diameter 3 in. from 18 to 28 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 159.59 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of protective casing, 2.70 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--July 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.37 ft below land surface, April 9, 1990; lowest measured, 26.79 ft below land surface, Feb. 14, 1989 and March 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	25.46	APR 03, 1996	21.74
WATER YEAR 1996		HIGHEST 21.74 APR 03, 1996	LOWEST 25.46 OCT 11, 1995



GROUND-WATER LEVELS

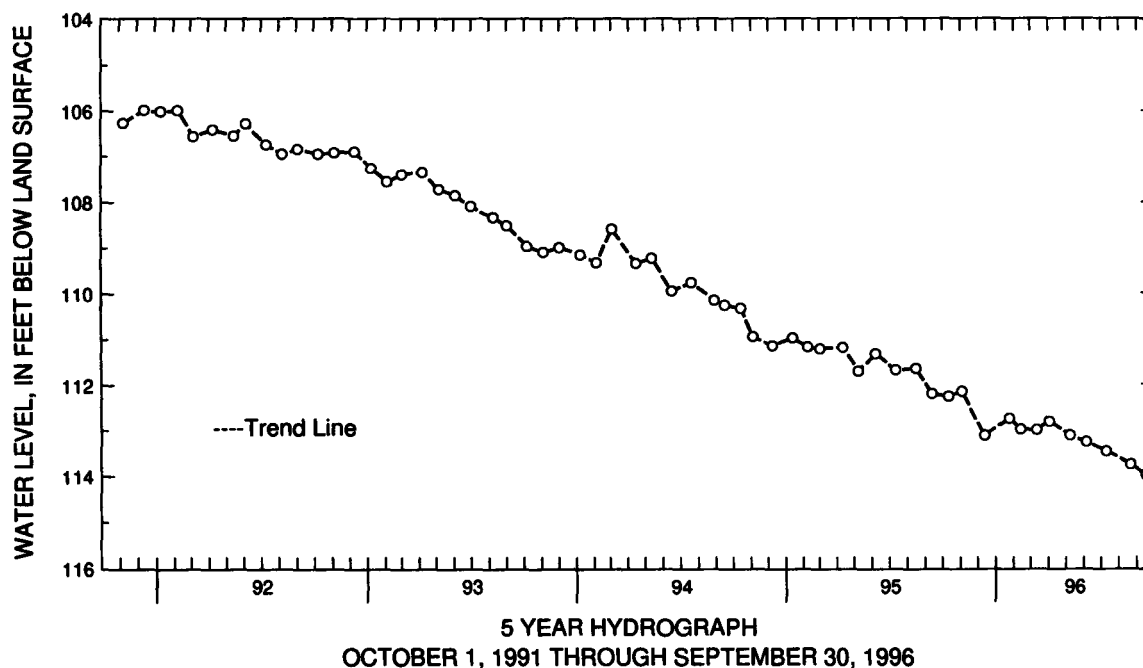
MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Dc 35. SITE ID.--383050076305501. PERMIT NUMBER.--CA-73-0718.
 LOCATION.--Lat 38°30'50", long 76°30'55", Hydrologic Unit 02060004, 5.1 mi. southeast of Prince Frederick.
 at Scientist Cliff community.
 Owner: U.S. Geological Survey.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 760 ft; casing diameter 4 in., to 750 ft;
 screen diameter 2 in. from 750 to 760 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel from
 November 1991 to current year. Equipped with water-level recorder from February 1976 to January 1980.
 DATUM.--Elevation of land surface is 91.60 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 1.9 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--October 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.30 ft below land surface, Sept. 12, 1975.
 lowest measured, 113.97 ft below land surface, Sept. 18, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	112.27	JAN 25, 1996	112.74	APR 03, 1996	112.81	JUL 10, 1996	113.46
NOV 03	112.17	FEB 13	112.98	MAY 08	113.11	AUG 22	113.74
DEC 12	113.11	MAR 12	112.99	JUN 05	113.24	SEP 18	113.97
WATER YEAR 1996		HIGHEST 112.17 NOV 03, 1995		LOWEST 113.97		SEP 18, 1996	



GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Ed 52. SITE ID.--382549076260101. PERMIT NUMBER.--CA-92-0081.
 LOCATION.--Lat 38°25'49", long 76°26'01", Hydrologic Unit 020600004, at Calvert Cliffs Nuclear Power
 Plant, 4.3 mi. southeast of St. Leonard.
 Owner: Baltimore Gas and Electric Co.
 AQUIFER.--Aquia Formation of Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 590 ft; casing diameter 4.5 in., to 460 ft;
 casing diameter 2 in. from 455 to 565 ft, and 580 to 590 ft; screen diameter 2 in. from 565 to 580 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--30-minute recorder interval from April 27, 1995 to current year.
 DATUM.--Altitude of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 1.4 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--April 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.66 ft below sea level, May 21, 1995;
 lowest measured, 96.38 ft below sea level, Aug. 14, 1996.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-85.51	-87.00	-83.30	-83.75	-74.75	-75.34	-84.40	-86.79	-87.78	-89.66	---	---
2	-86.04	-87.00	-83.36	-85.22	-75.07	-75.69	-83.42	-85.49	-87.32	-89.89	---	---
3	-85.34	-86.94	-84.30	-86.08	-74.45	-75.07	-84.36	-85.50	-86.00	-87.32	---	---
4	-85.28	-87.10	-83.86	-85.12	-74.45	-76.19	-85.40	-87.89	-87.24	-89.60	---	---
5	-84.65	-86.06	-80.83	-83.86	-75.43	-76.15	-85.96	-87.89	-85.15	-87.57	---	---
6	-83.95	-84.99	-79.64	-80.83	-75.55	-77.49	-84.61	-85.96	-83.11	-86.19	---	---
7	-82.02	-84.00	-78.34	-79.64	-75.52	-77.26	-83.80	-85.99	-82.19	-84.29	---	---
8	-81.43	-82.02	-78.16	-78.57	-75.91	-77.89	-84.49	-87.11	-83.12	-85.86	---	---
9	-80.97	-82.19	-78.04	-79.18	-77.29	-78.18	-83.35	-87.11	-84.24	-85.86	---	---
10	-81.37	-85.13	-79.18	-82.70	-78.04	-78.52	-83.34	-85.73	-83.75	-86.08	---	---
11	-84.86	-87.38	-80.03	-82.71	-78.52	-81.03	-84.19	-86.33	-84.39	-86.92	---	---
12	-86.16	-87.44	-78.90	-80.35	-80.01	-80.76	-85.17	-86.97	-85.14	-86.53	---	---
13	-85.58	-86.26	-78.05	-79.12	-79.78	-80.24	-84.07	-85.31	-85.28	-87.26	---	---
14	-85.06	-86.99	-76.97	-78.05	-80.09	-82.38	-83.85	-85.31	-84.52	-86.48	---	---
15	-86.40	-88.48	-76.57	-77.32	-81.74	-83.09	-83.84	-86.60	-84.67	-86.00	---	---
16	-86.21	-87.08	-76.70	-77.32	-80.98	-82.47	-85.56	-87.09	-84.98	-88.77	---	---
17	-86.21	-88.14	-76.70	-78.87	-80.70	-81.51	-86.00	-87.30	-85.79	-88.42	---	---
18	-84.58	-88.14	-78.87	-79.45	-80.52	-81.08	-84.72	-86.73	-84.78	-86.06	---	---
19	---	---	-79.21	-80.35	-80.27	-82.21	-85.22	-86.65	-83.73	-84.99	---	---
20	---	---	-80.07	-82.32	-81.12	-84.16	-84.82	-86.49	-83.75	-84.97	---	---
21	---	---	-79.95	-82.10	-83.24	-85.48	-85.77	-87.08	-83.86	-85.70	---	---
22	---	---	-78.39	-80.22	-83.74	-85.63	-84.80	-87.31	-85.70	-88.48	---	---
23	---	---	-76.90	-78.39	-83.78	-85.38	-85.98	-88.29	-87.98	-89.09	---	---
24	---	---	-76.91	-78.52	-83.82	-85.40	-86.41	-87.84	-87.09	-89.08	---	---
25	---	---	-76.90	-78.45	-82.23	-83.87	-86.07	-88.40	-85.88	-88.34	---	---
26	-82.21	-83.74	-75.82	-76.90	-83.69	-85.48	-87.07	-88.48	-86.14	-86.79	---	---
27	-82.36	-83.37	-75.44	-76.14	-84.41	-86.36	-85.26	-88.64	-82.56	-86.79	---	---
28	-83.37	-84.12	-75.39	-76.30	-85.36	-86.67	-85.45	-87.14	-82.56	-86.25	---	---
29	-83.27	-83.87	-75.79	-76.52	-84.72	-87.98	-86.48	-87.87	-86.25	-89.62	---	---
30	-83.33	-85.42	-75.30	-76.07	-84.41	-88.00	-85.46	-87.87	---	---	---	---
31	-83.53	-85.42	---	---	-83.93	-86.52	-86.39	-88.48	---	---	---	---
MONTH	-80.97	-88.48	-75.30	-86.08	-74.45	-88.00	-83.34	-88.64	-82.19	-89.89	---	---

GROUND-WATER LEVELS

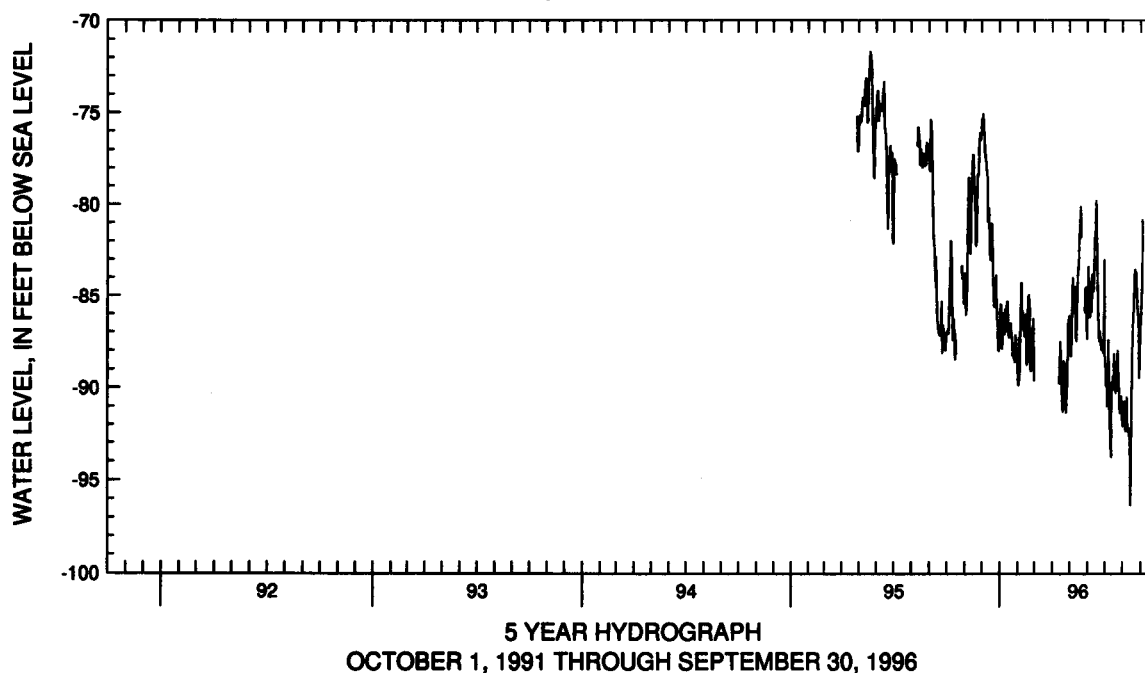
MARYLAND--Continued

CALVERT COUNTY--Continued

CA Ed 52--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	-85.06	-87.04	-83.42	-85.90	-81.89	-88.84	-89.77	-92.10	-83.61	-86.12
2	---	---	-85.79	-88.29	-82.67	-83.42	-84.22	-88.70	-89.00	-91.91	-83.84	-85.00
3	---	---	-85.01	-87.83	-82.32	-84.75	-86.22	-89.91	-89.03	-91.11	-80.90	-84.39
4	---	---	-85.60	-88.29	-83.31	-85.55	-85.62	-89.38	-88.26	-90.69	-78.58	-80.90
5	---	---	-83.74	-85.60	-83.95	-86.17	-86.11	-90.95	-89.67	-91.97	---	---
6	---	---	-82.60	-84.04	-82.75	-84.24	-86.22	-90.91	-90.59	-92.37	---	---
7	---	---	-83.32	-84.85	-82.81	-85.34	-84.89	-87.39	-88.67	-91.39	---	---
8	---	---	-82.70	-84.57	-82.25	-85.90	-85.29	-89.56	-88.36	-90.49	---	---
9	---	---	-84.46	-85.97	-81.59	-83.82	-85.36	-90.83	-89.57	-92.05	---	---
10	---	---	-79.58	-84.51	-82.61	-84.22	-88.85	-92.57	-90.76	-92.12	---	---
11	---	---	-84.46	-86.18	-83.79	-84.77	-89.53	-93.40	-90.51	-92.35	---	---
12	-88.33	-89.78	-84.96	-87.32	-81.81	-84.21	-89.23	-93.77	-90.38	-92.67	---	---
13	-86.42	-88.98	-84.73	-87.49	-81.04	-81.81	-86.50	-89.70	-90.78	-92.21	---	---
14	-86.63	-88.13	-79.42	-84.73	-80.93	-82.03	-86.22	-89.99	-91.10	-96.38	-86.69	-87.23
15	-85.78	-87.51	-79.20	-83.51	-79.78	-80.93	-85.73	-89.35	-90.41	-95.25	-86.97	-88.43
16	-85.15	-88.37	-80.67	-83.54	-79.17	-79.84	-87.48	-90.12	-88.19	-90.41	-88.43	-90.54
17	-87.29	-90.13	-79.92	-81.64	-78.98	-81.96	-86.85	-88.15	-87.18	-88.46	-90.07	-92.09
18	-87.68	-90.88	-81.00	-82.12	-81.72	-84.13	-86.57	-89.38	-86.01	-87.18	-91.25	-92.84
19	-89.78	-91.30	-80.01	-81.00	-83.37	-86.01	-87.45	-89.41	-85.27	-86.13	-90.94	-93.02
20	-88.53	-91.05	-79.42	-80.16	-85.19	-86.75	-88.08	-90.30	-84.00	-85.27	-91.38	-92.73
21	-87.49	-88.61	-78.72	-81.81	-85.68	-87.51	-87.01	-88.80	-83.13	-84.04	-91.96	-93.02
22	-84.07	-88.66	-80.95	-81.81	-85.79	-86.93	-87.28	-89.28	-82.65	-83.58	-92.16	-93.20
23	-84.07	-89.92	---	---	-85.69	-87.33	-86.58	-87.98	-82.29	-84.00	-92.23	-94.29
24	-89.92	-91.01	---	---	-86.35	-87.76	-86.81	-89.13	-82.82	-83.72	-91.99	-93.12
25	-89.45	-91.36	---	---	-86.50	-87.97	-87.33	-89.88	-83.72	-84.89	-91.41	-93.50
26	-89.06	-90.25	---	---	-87.18	-87.87	-88.80	-90.87	-84.45	-85.81	-92.73	-94.16
27	-86.37	-89.16	-83.60	-85.92	-85.27	-87.98	-89.64	-91.31	-84.99	-86.06	-92.05	-93.69
28	-85.24	-86.45	-83.01	-84.55	-84.40	-88.12	-89.59	-91.24	-85.23	-86.45	-92.53	-93.72
29	-85.32	-86.35	-83.20	-84.63	-82.95	-87.51	-87.66	-90.42	-85.62	-89.49	-93.03	-94.29
30	-85.32	-86.08	-83.95	-85.93	-82.26	-83.04	-88.68	-90.76	-86.80	-88.06	-94.12	-94.91
31	---	---	-85.90	-87.36	---	---	-90.15	-91.75	-86.07	-86.95	---	---
MONTH	-84.07	-91.36	-78.72	-88.29	-78.98	-88.12	-81.89	-93.77	-82.29	-96.38	-78.58	-94.91
YEAR	-74.45	-96.38										

Daily Low Water Levels



GROUND-WATER LEVELS

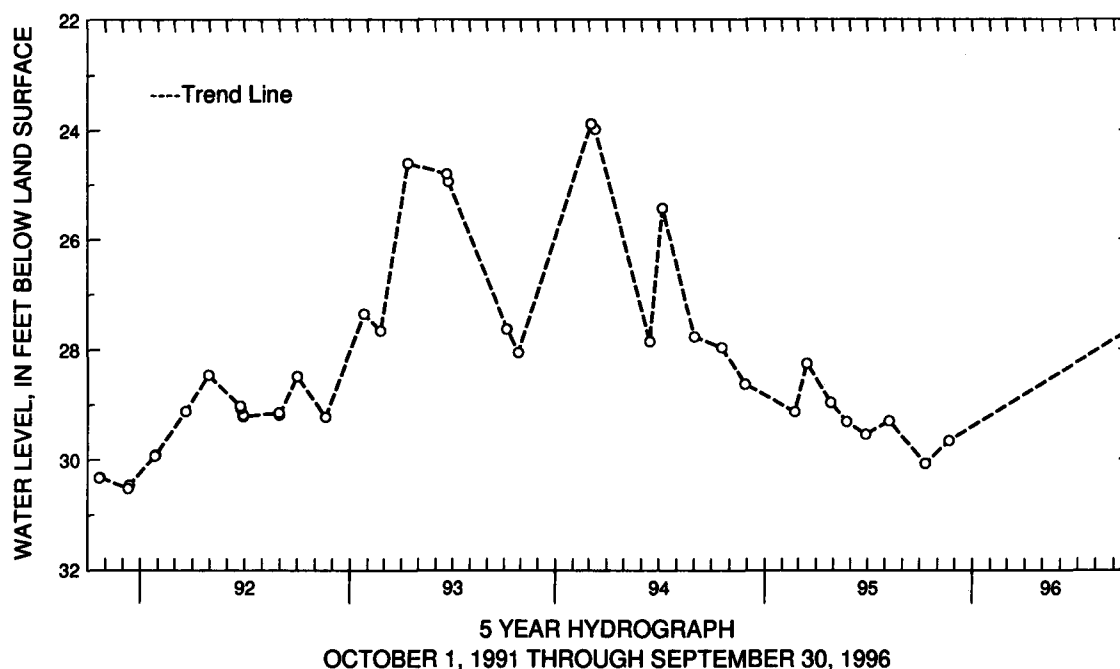
MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fc 13. SITE ID.--382343076302901. PERMIT NUMBER.--CA-81-2391.
 LOCATION.--Lat 38°23'41", long 76°30'29", Hydrologic Unit 02060006, Jefferson Patterson State Park and Museum.
 Owner: U.S. Geological Survey.
 AQUIFER.--Chesapeake Group of Miocene age. Aquifer code: 122CSPK.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 34 ft; casing diameter 3.5 in., to 29 ft; screen diameter 3.5 in. from 29 to 34 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from Oct. 2, 1986 to current year.
 DATUM.--Elevation of land surface is 47.44 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 2.10 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well, Maryland Water Quality Network observation well and Best Management Practices Project observation well.
 PERIOD OF RECORD.--October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.59 ft below land surface, April 3, 1994; lowest measured, 30.69 ft below land surface, Feb. 27, and 28, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	30.08	NOV 21, 1995	29.67	SEP 26, 1996	27.68
WATER YEAR 1996		HIGHEST	27.68	SEP 26, 1996	LOWEST
					30.08
				OCT 11, 1995	



GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fd 51. SITE ID.--382408076260401. PERMIT NUMBER.--CA-73-1449.

LOCATION.--Lat 38°24'08", long 76°26'04", Hydrologic Unit 02060004, at Calvert Cliffs State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 352 ft; casing diameter 6 in., to 140 ft; casing diameter 2 in. from 140 to 342 ft; screen diameter 2 in. from 342 to 352 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 129.4 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of protective casing, 3.63 ft above land surface.

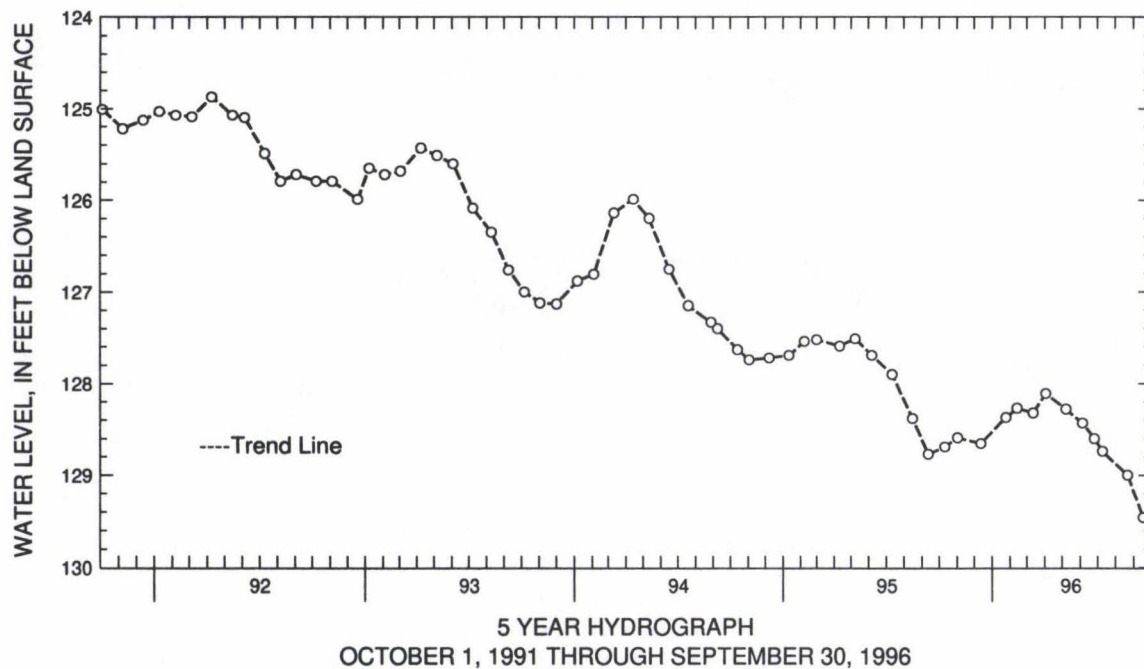
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--February 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 116.36 ft below land surface, Jan. 8, 1980; lowest measured, 129.46 ft below land surface, Sept. 18, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	128.69	FEB 13, 1996	128.27	JUN 05, 1996	128.43	SEP 18, 1996	129.46
NOV 02	128.59	MAR 12	128.32	26	128.60		
DEC 12	128.65	APR 03	128.11	JUL 10	128.74		
JAN 25, 1996	128.37	MAY 08	128.28	AUG 22	129.00		
WATER YEAR 1996		HIGHEST 128.11	APR 03, 1996	LOWEST 129.46	SEP 18, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fd 54. SITE ID.--382407076260301. PERMIT NUMBER.--CA-73-2892.

LOCATION.--Lat 38°24'07", long 76°26'03", Hydrologic Unit 02060004, at Calvert Cliffs State Park.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 698 ft; casing diameter 4 in., to 234 ft; casing diameter 2 in. from 234 to 641 ft, and 651 to 698 ft; screen diameter 2 in. from 641 to 651 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 129.4 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.92 ft above land surface.

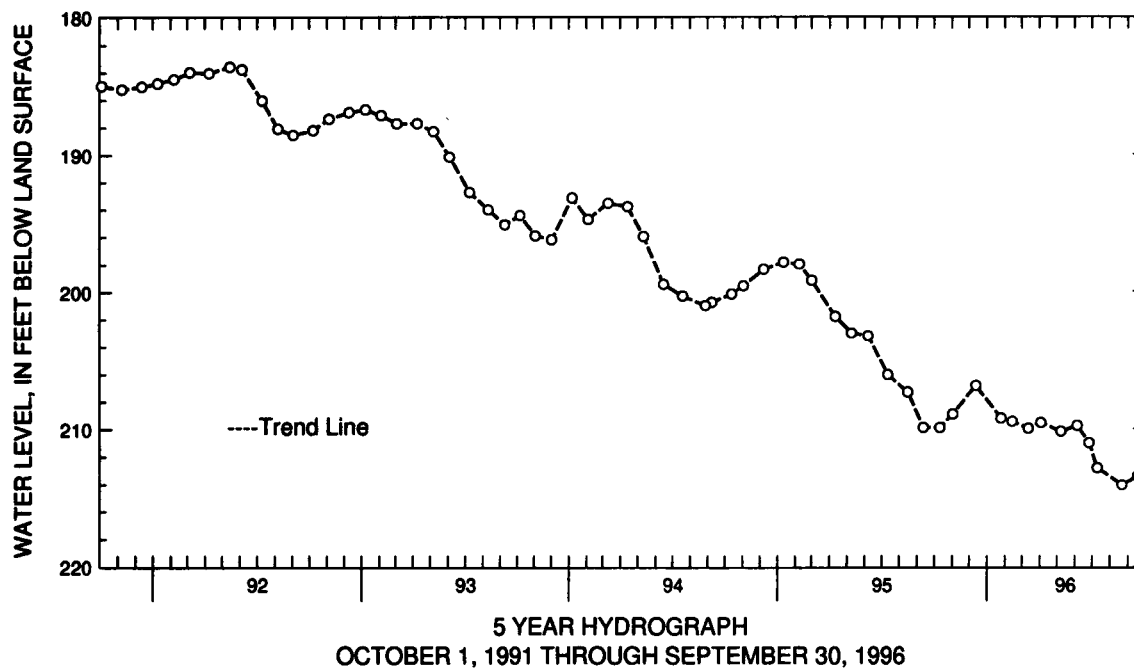
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 142.69 ft below land surface, April 21, 1980; lowest measured, 214.09 ft below land surface, Aug. 22, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	209.92	FEB 13, 1996	209.47	JUN 05, 1996	209.79	SEP 18, 1996	213.45
NOV 02	208.94	MAR 12	210.00	26	211.03		
DEC 12	206.88	APR 03	209.57	JUL 10	212.84		
JAN 25, 1996	209.25	MAY 08	210.21	AUG 22	214.09		
WATER YEAR 1996		HIGHEST 206.88	DEC 12, 1995	LOWEST 214.09	AUG 22, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Fe 22. SITE ID.--382318076242401. PERMIT NUMBER.--CA-73-1386.

LOCATION.--Lat 38°23'18", long 76°24'24", Hydrologic Unit 02060004, at Columbia LNG Plant, Cove Point.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 350 ft; casing diameter 6 in., to 10 ft; casing diameter 2 in. from 10 to 340 ft; screen diameter 2 in. from 340 to 350 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 113.9 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.82 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

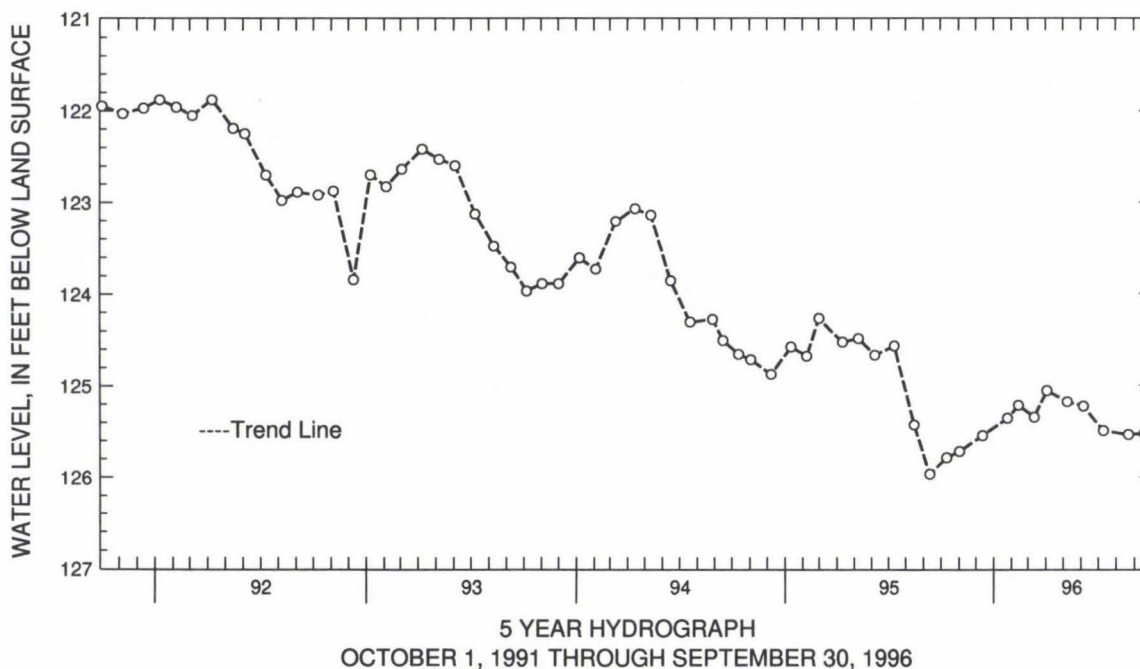
PERIOD OF RECORD.--June 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.50 ft below land surface, Oct. 5, 1976; lowest measured, 125.97 ft below land surface, Sept. 12, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	125.79	JAN 25, 1996	125.36	APR 03, 1996	125.06	JUL 10, 1996	125.50
NOV 02	125.72	FEB 13	125.22	MAY 08	125.18	AUG 22	125.54
DEC 12	125.55	MAR 12	125.35	JUN 05	125.23	SEP 18	125.53

WATER YEAR 1996 HIGHEST 125.06 APR 03, 1996 LOWEST 125.79 OCT 11, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CALVERT COUNTY--Continued

WELL NUMBER.--CA Gd 6. SITE ID.--381952076270901.

LOCATION.--Lat 38°19'52", long 76°27'09", Hydrologic Unit 02060006, at the Lord Calvert Yacht Club, 0.5 mi northeast of Solomons.

Owner: Calvert Marina.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 493 ft; casing diameter 8 in., to 272 ft; casing diameter 6 in. from 272 to 472 ft; screened from 469 to 493 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with a graphic water-level recorder from Oct. 19, 1949 to Feb. 25, 1960.

DATUM.--Elevation of land surface is 12.73 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of sanitary seal, 1.59 ft above land surface.

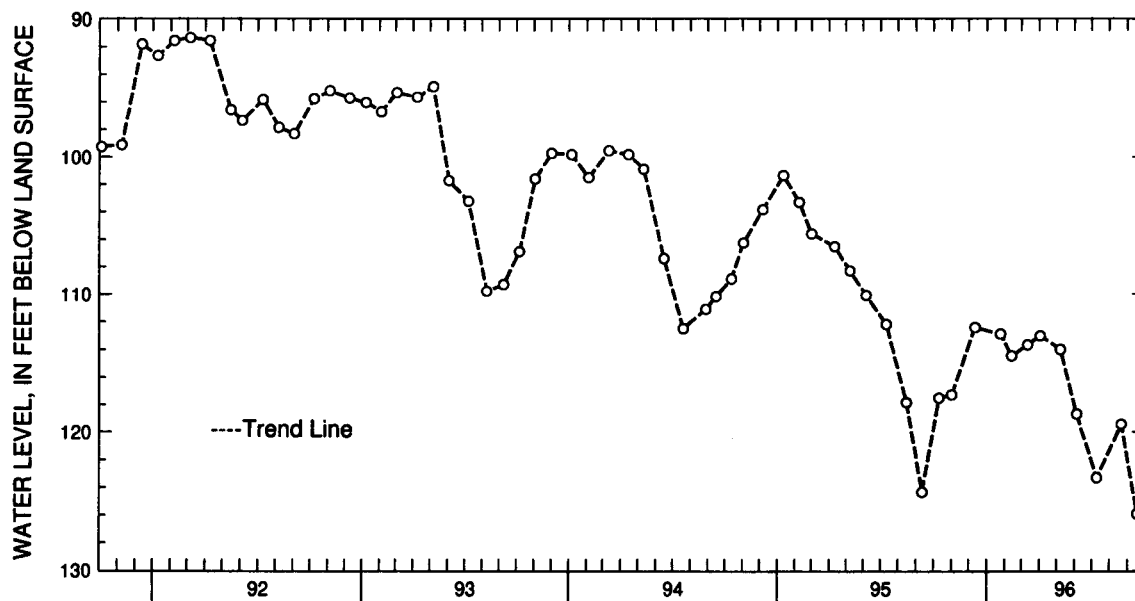
REMARKS.--Maryland Water-Level Network observation well. Water level reported at land surface 1942; water-level measured 58.9 ft below land surface, Jan. 13, 1944. Well not measured from April through July 1988 during building construction at well site. On July 18, 1991 the water-level measured, 119.93 ft below land surface during an extended pumping period. Water levels are affected by pumping.

PERIOD OF RECORD.-- October 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.15 ft below land surface, May 18, 1950; lowest measured, 125.91 ft below land surface, Sept. 18, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	117.54	JAN 25, 1996	112.90	APR 03, 1996	113.04	JUL 10, 1996	123.32
NOV 02	117.31	FEB 13	114.48	MAY 08	114.01	AUG 22	119.44
DEC 12	112.44	MAR 12	113.69	JUN 05	118.70	SEP 18	125.91
WATER YEAR 1996		HIGHEST 112.44	DEC 12, 1995	LOWEST 125.91	SEP 18, 1996		



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

MARYLAND--Continued

CAROLINE COUNTY

WELL NUMBER.--CO Bc 1. SITE ID.--390333075504501.

LOCATION.--Lat 39°03'33", long 75°50'45", Hydrologic Unit 02060005, at Baltimore Corner.

Owner: Maryland State Highway Administration.

AQUIFER.--Pleistocene Series of Pleistocene age. Aquifer code: 112PLSC.

WELL CHARACTERISTICS.--Driven, observation, water-table well, depth 20.5 ft; well point diameter 1.25 in., to 20.5 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.1 ft above land surface.

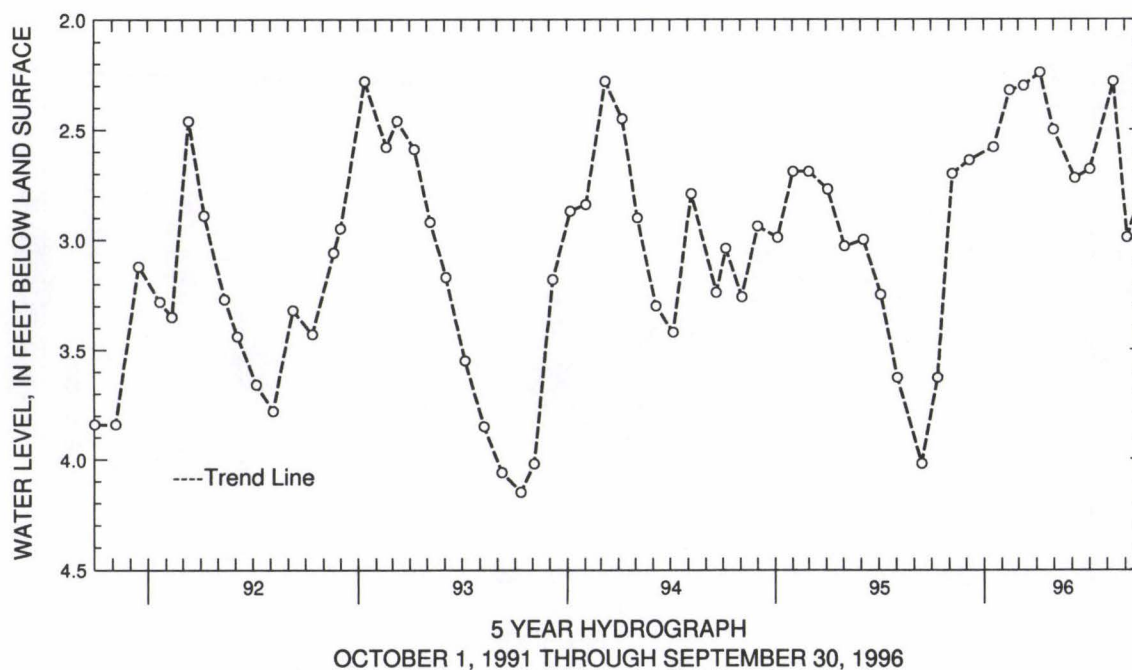
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.25 ft above land surface, Nov. 27, 1951; lowest measured, 4.37 ft below land surface, Oct. 11, 1957.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	3.63	JAN 18, 1996	2.58	APR 08, 1996	2.24	JUL 03, 1996	2.68
NOV 07	2.70	FEB 15	2.32	MAY 01	2.50	AUG 13	2.28
DEC 07	2.64	MAR 11	2.30	JUN 07	2.72	SEP 06	2.99
WATER YEAR 1996		HIGHEST	2.24	APR 08, 1996	LOWEST	3.63	OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CAROLINE COUNTY--Continued

WELL NUMBER.--CO Bd 53. SITE ID.--390227075470201. PERMIT NUMBER.--CO-73-0541.

LOCATION.--Lat 39°02'27", long 75°47'02", Hydrologic Unit 02060005, near MD Rt. 311, Goldsboro.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 312 ft; casing diameter 6 in., to 70 ft; casing diameter 2 in. from 70 to 300 ft; screen diameter 2 in. from 300 to 312 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.45 ft above land surface.

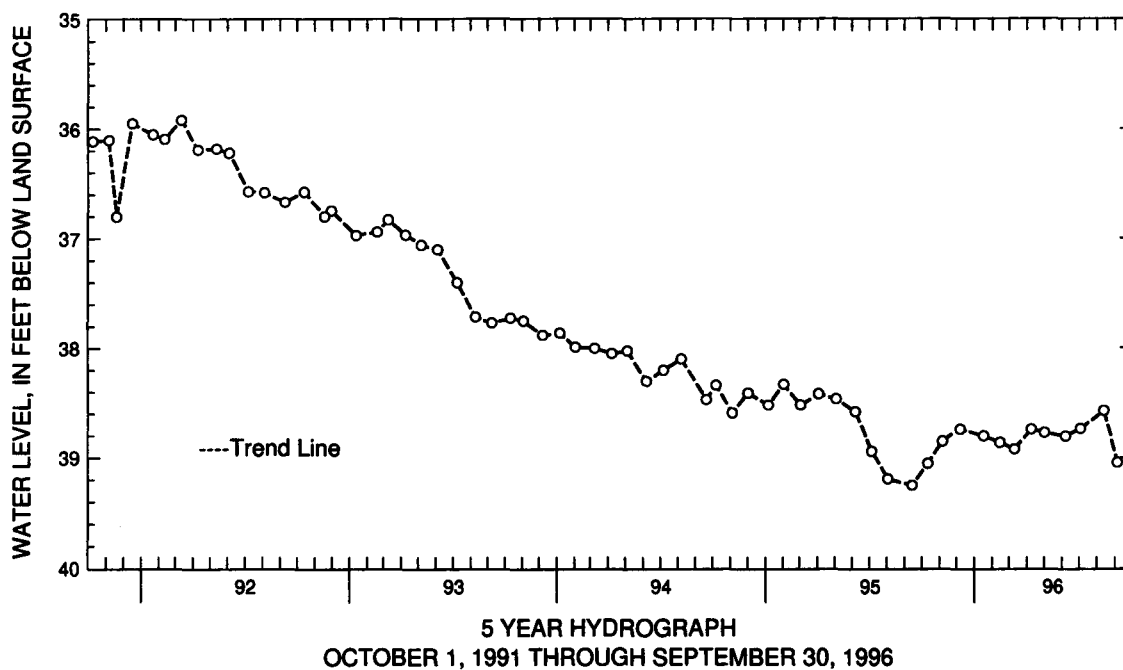
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--February 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.64 ft below land surface, Dec. 10, 1976; lowest measured, 39.25 ft below land surface, Sept. 14, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	39.05	JAN 18, 1996	38.80	APR 08, 1996	38.74	JUL 03, 1996	38.74
NOV 07	38.85	FEB 15	38.86	MAY 01	38.77	AUG 13	38.57
DEC 07	38.74	MAR 11	38.92	JUN 07	38.81	SEP 06	39.04
WATER YEAR 1996		HIGHEST 38.57	AUG 13, 1996	LOWEST 39.05	OCT 12, 1995		



MARYLAND--Continued

CAROLINE COUNTY--Continued

WELL NUMBER.--CO Dc 129. SITE ID.--385310075503601. PERMIT NUMBER.--CO-02-3881.

LOCATION.--Lat 38°53'10", long 75°50'36", Hydrologic Unit 02060005, at West Denton.

Owner: Wilson Laurel Farms, Inc.

AQUIFER.--Choptank Formation of Middle Miocene age. Aquifer code: 122CPNK.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 229 ft; casing diameter 4 in., to 137.5 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water level recorder from Aug. 1, 1956 to June 8, 1957.

DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.4 ft below land surface.

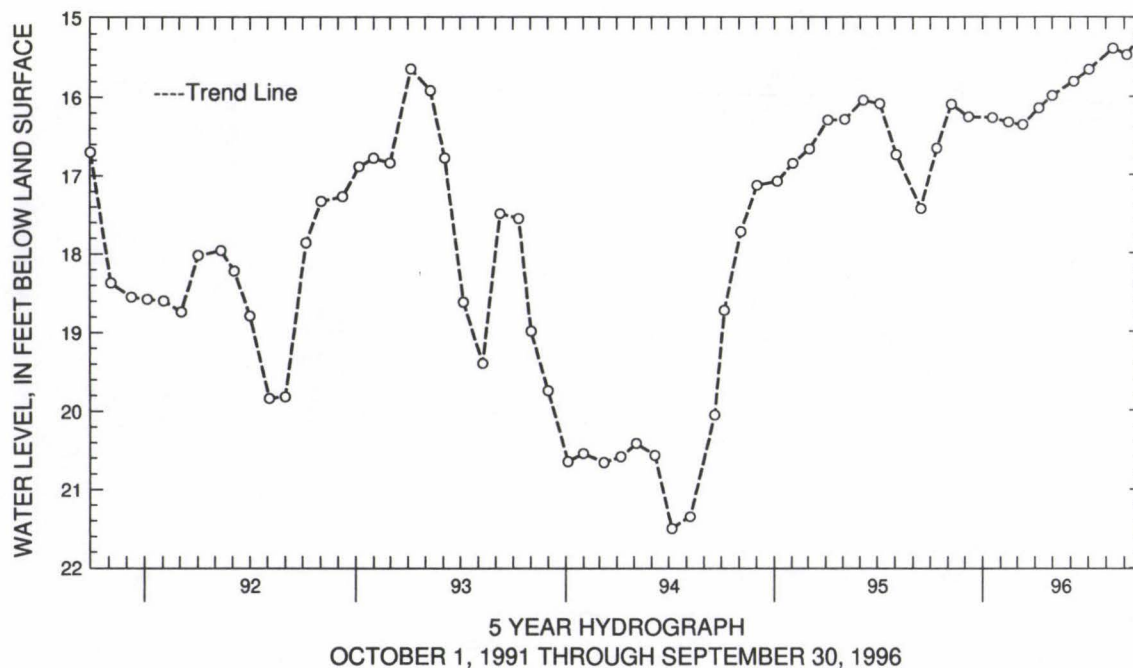
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.63 ft below land surface, April 5, 1973;
lowest measured, 56.09 ft below land surface, Nov. 5, 1965.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	16.66	JAN 18, 1996	16.27	APR 08, 1996	16.15	JUL 03, 1996	15.66
NOV 07	16.10	FEB 15	16.33	MAY 01	15.99	AUG 13	15.39
DEC 07	16.26	MAR 11	16.36	JUN 07	15.81	SEP 06	15.47
WATER YEAR 1996		HIGHEST	15.39	AUG 13, 1996	LOWEST	16.66	OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CAROLINE COUNTY--Continued

WELL NUMBER.--CO Dd 47. SITE ID.--385217075490601. PERMIT NUMBER.--CO-73-0486.

LOCATION.--Lat 38°52'17", long 75°49'06", Hydrologic Unit 02060005, at Denton Sewage Lagoon.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 380 ft; casing diameter 4 in., to 100 ft; casing diameter 2 in. from 100 to 370 ft; screen diameter 2 in. from 370 to 380 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 46 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.4 ft above land surface.

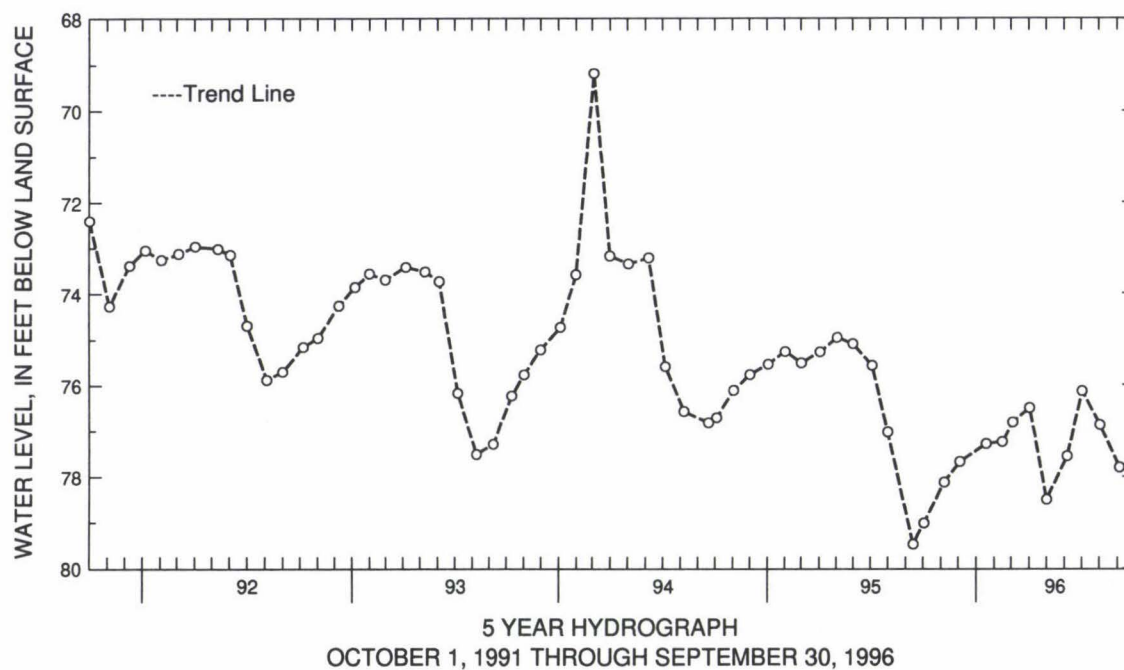
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--April 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.78 ft below land surface, May 27, 1976; lowest measured, 79.47 ft below land surface, Sept. 14, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	79.01	JAN 18, 1996	77.29	APR 02, 1996	76.51	JUL 02, 1996	76.14
NOV 07	78.12	FEB 15	77.25	MAY 01	78.50	AUG 02	76.88
DEC 04	77.68	MAR 04	76.82	JUN 06	77.56	SEP 05	77.80
WATER YEAR 1996		HIGHEST	76.14	JUL 02, 1996		LOWEST	79.01 OCT 03, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CARROLL COUNTY

WELL NUMBER.--CL Ad 47. SITE ID.--394008077005601. PERMIT NUMBER.--CL-73-3178.

LOCATION.--Lat 39°40'08", long 77°00'56", Hydrologic Unit 02070009, at Union Mills Homestead Park.

Owner: U.S. Geological Survey.

AQUIFER.--Marburg Formation of Paleozoic age. Aquifer code: 300MRBG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 310 ft; casing diameter 6 in., to 35 ft.; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing 2.97 ft above land surface.

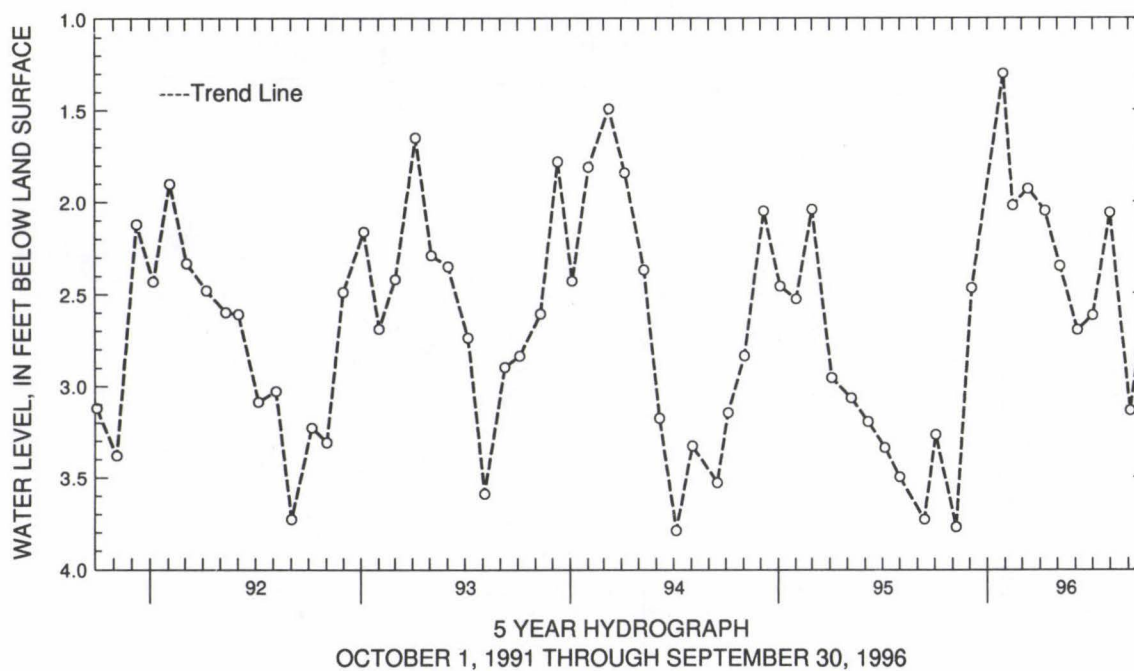
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.30 ft below land surface, Jan. 29, 1996;
lowest measured, 4.17 ft below land surface, July 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	3.27	JAN 29, 1996	1.30	APR 10, 1996	2.05	JUL 02, 1996	2.62
NOV 07	3.77	FEB 15	2.02	MAY 06	2.35	AUG 01	2.06
DEC 05	2.47	MAR 12	1.93	JUN 05	2.70	SEP 05	3.14
WATER YEAR 1996		HIGHEST	1.30	JAN 29, 1996	LOWEST	3.77	NOV 07, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CARROLL COUNTY

WELL NUMBER.--CL Bf 1. SITE ID.--393638076510001.

LOCATION.--Lat 39°36'38", long 76°51'00", Hydrologic Unit 02060003, on Hillcrest St., Hampstead.

Owner: Town of Hampstead.

AQUIFER.-- Prettyboy Schist of Paleozoic age. Aquifer code: 300PRTB.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 407 ft; casing diameter 8 in., to approximately 65 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water-level recorder from July 1, 1952, to Nov. 7, 1962.

DATUM.--Elevation of land surface is 933 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 2 in. casing extension, 2.35 ft above land surface.

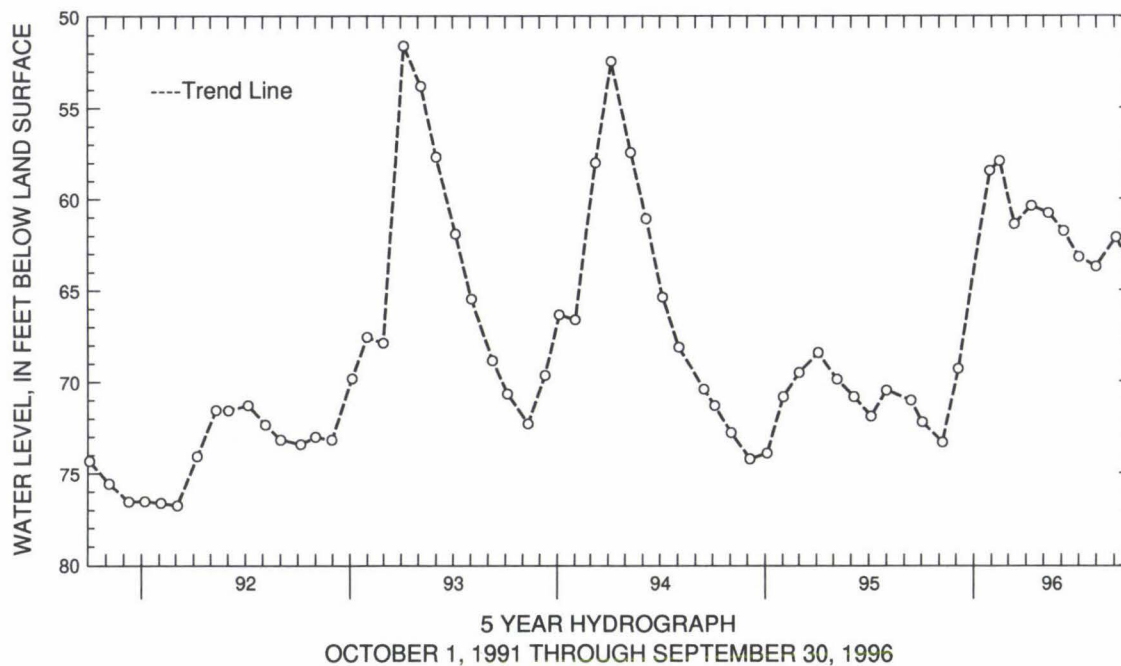
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--September and December 1946, April and September 1947, February 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.10 ft below land surface, June 13, 1989; lowest measured, 76.76 ft below land surface, March 4, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	72.23	JAN 29, 1996	58.47	APR 10, 1996	60.39	JUL 02, 1996	63.20
NOV 07	73.32	FEB 15	57.92	MAY 10	60.79	AUG 01	63.71
DEC 05	69.33	MAR 12	61.40	JUN 05	61.77	SEP 05	62.12
WATER YEAR 1996		HIGHEST	57.92	FEB 15, 1996	LOWEST	73.32	NOV 07, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CARROLL COUNTY--Continued

WELL NUMBER.--CL Bf 184. SITE ID.--393754076512401. PERMIT NUMBER.--CL-73-6466.

LOCATION.--Lat 39°37'54", long 76°51'24", Hydrologic Unit 02060003, near Utz Rd., Greenmount.

Owner: U.S. Geological Survey.

AQUIFER.--Prettyboy Schist of Paleozoic age. Aquifer code: 300PRTB.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 340 ft; casing diameter 6 in., to 50 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 785 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.81 ft above land surface.

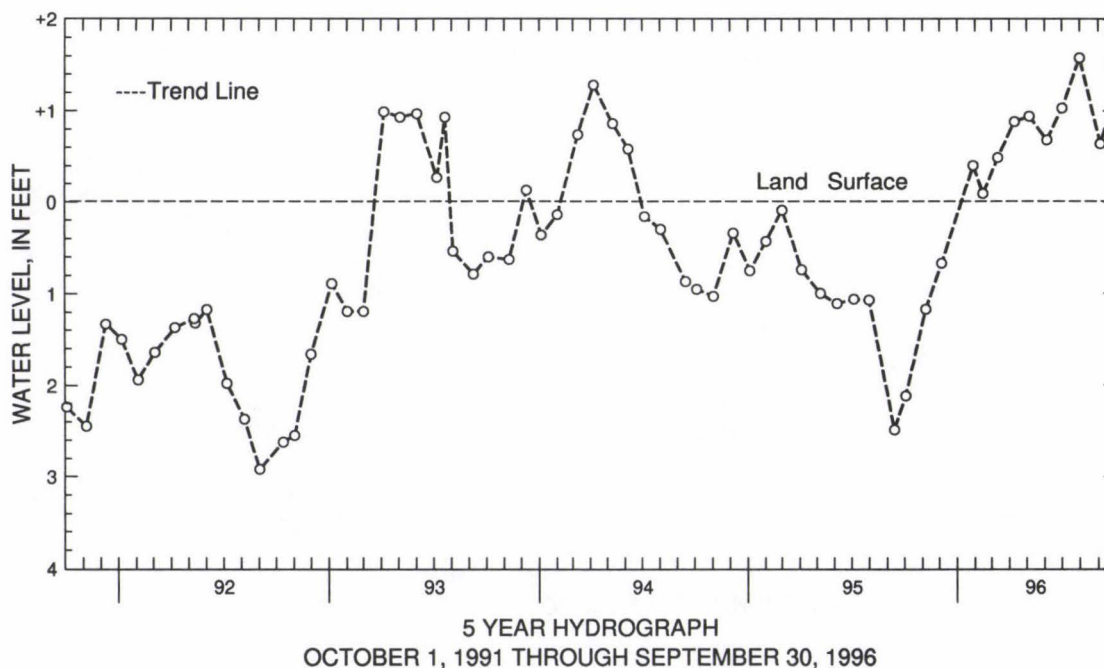
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.58 ft above land surface, Aug. 1, 1996; lowest measured, 3.24 ft below land surface, Oct. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
(READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	2.12	JAN 29, 1996	+0.40	APR 10, 1996	+0.88	JUL 02, 1996	+1.03
NOV 07	1.17	FEB 15	+0.09	MAY 06	+0.94	AUG 01	+1.58
DEC 05	.67	MAR 12	+0.49	JUN 05	+0.68	SEP 05	+0.64
WATER YEAR 1996		HIGHEST	+1.58	AUG 01, 1996		LOWEST	2.12
							OCT 03, 1995



GROUND-WATER LEVELS

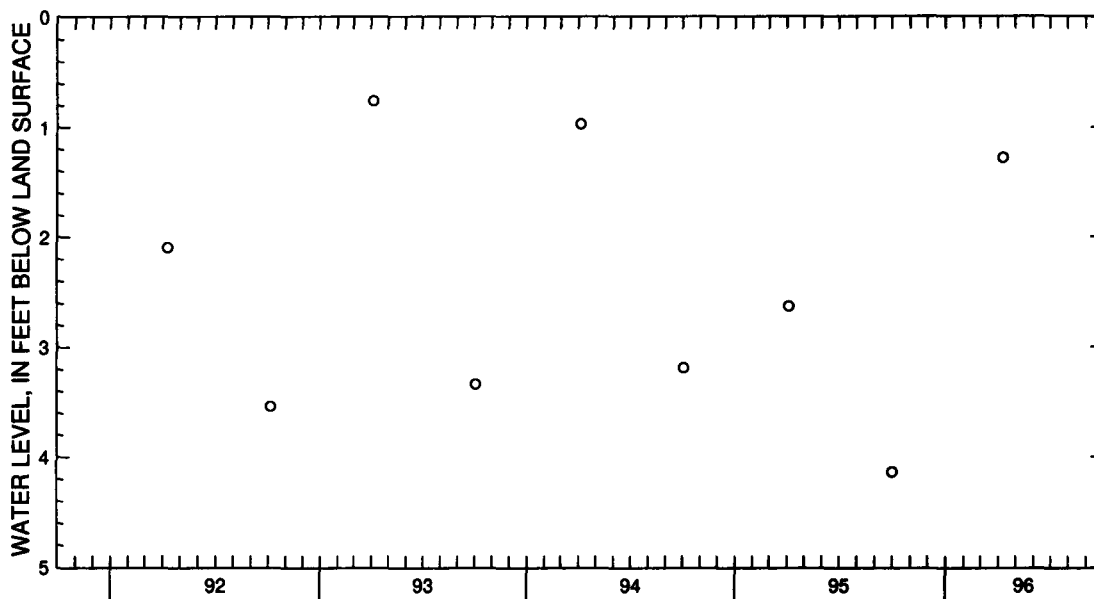
MARYLAND--Continued

CARROLL COUNTY--Continued

WELL NUMBER.--CL Ec 75. SITE ID.--392259077052401. PERMIT NUMBER.--CL-73-2722.
 LOCATION.--Lat 39°22'59", long 77°05'24", Hydrologic Unit 02060003, 2.3 mi northwest of Woodbine.
 Owner: U.S. Geological Survey.
 AQUIFER.--Prettyboy Schist of Paleozoic age. Aquifer code: 300PRTB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 248 ft; casing diameter 6 in., to 21 ft; open hole.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with graphic recorder December 26, 1974 to July 19, 1980.
 DATUM.--Elevation of land surface is 550 ft above National Geodetic Vertical Datum of 1929.
 from topographic map.
 Measuring point: Top of casing, 2.31 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--March 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.76 ft below land surface, April 5, 1993; lowest measured, 5.23 ft below land surface, Aug. 7, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	4.14	APR 11, 1996	1.28
WATER YEAR 1996		HIGHEST 1.28 APR 11, 1996	LOWEST 4.14 OCT 02, 1995



5 YEAR HYDROGRAPH
 OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

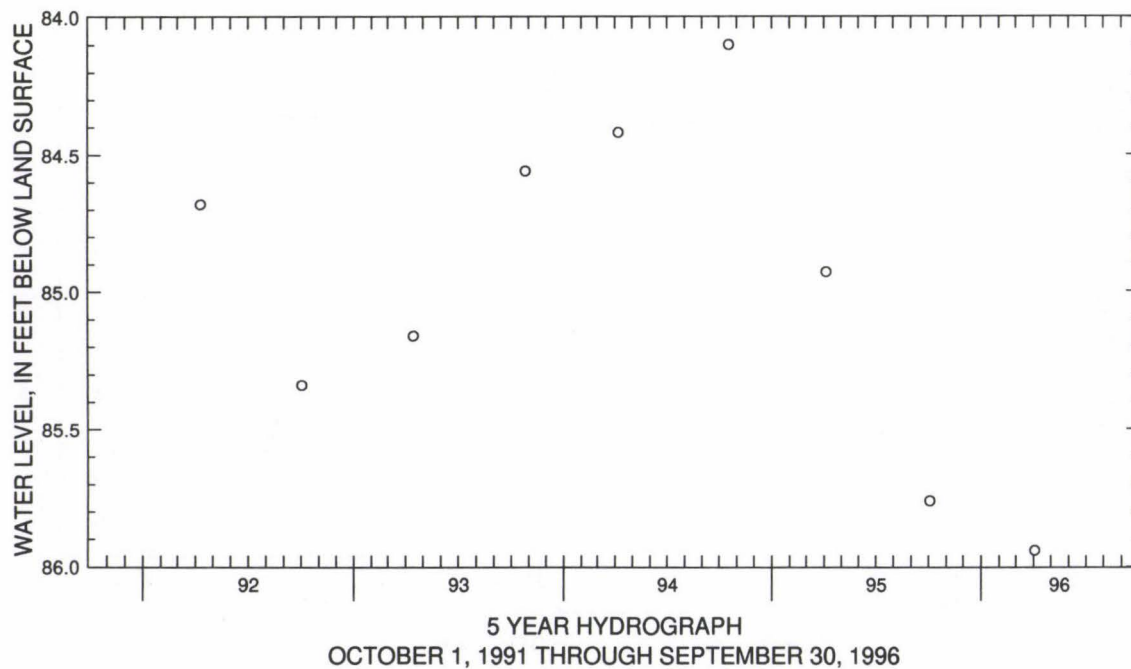
MARYLAND--Continued

CECIL COUNTY

WELL NUMBER.--CE Be 73. SITE ID.--393637075535001. PERMIT NUMBER.--CE-81-0464.
 LOCATION.--Lat 39°36'37", long 75°53'50", Hydrologic Unit 02060002, 2 mi west of Elkton nr US Rt. 40.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 152 ft; casing diameter 2 in., to 147 ft;
 screen diameter 2 in. from 147 to 152 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 162 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 1.95 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since April 1988.
 PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.06 ft below land surface, July 31, 1984;
 lowest measured, 86.06 ft below land surface, April 29, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR, OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	85.76	APR 03, 1996	85.94
WATER YEAR 1996 HIGHEST 85.76 OCT 04, 1995 LOWEST 85.94 APR 03, 1996			



GROUND-WATER LEVELS

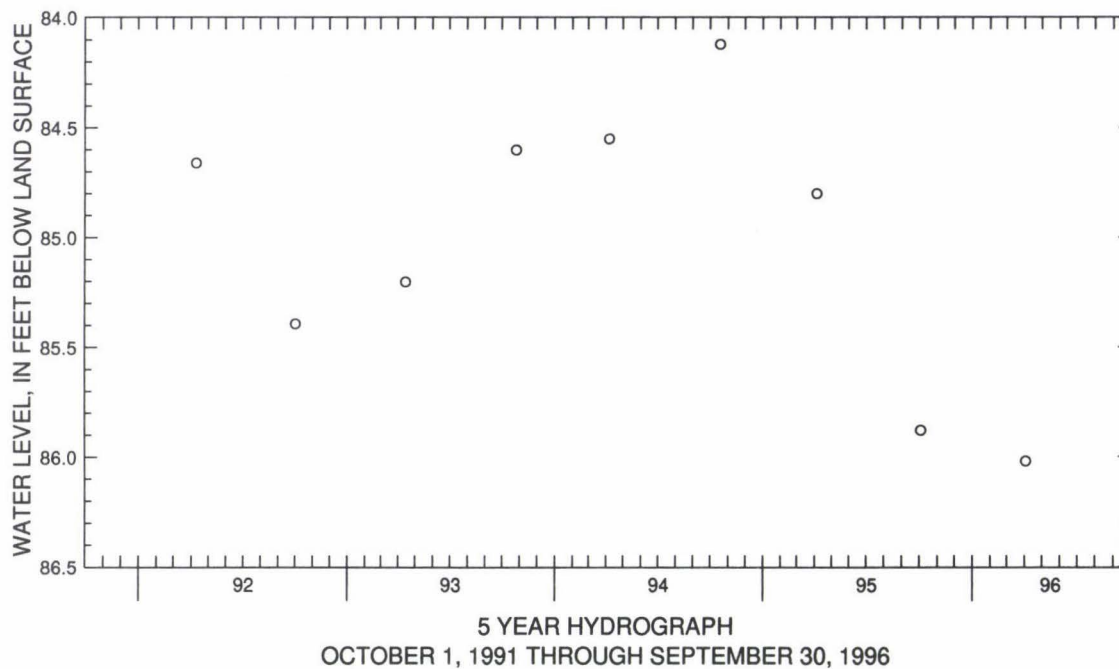
MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Be 74. SITE ID.--393637075535002. PERMIT NUMBER.--CE-81-0464.
 LOCATION.--Lat 39°36'37", long 75°53'50", Hydrologic Unit 02060002, 2 mi west of Elkton nr US Rt. 40.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 115 ft; casing diameter 2 in., to 110 ft; screen diameter 2 in. from 110 to 115 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 162 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 2.00 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since April 1988.
 PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.12 ft below land surface, July 31, 1984; lowest measured, 86.10 ft below land surface, April 29, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	85.88	APR 03, 1996	86.02
WATER YEAR 1996		HIGHEST 85.88 OCT 04, 1995	LOWEST 86.02 APR 03, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Bf 81. SITE ID.--393615075475901. PERMIT NUMBER.--CE-81-0537.

LOCATION.--Lat 39°36'15", long 75°47'59", Hydrologic Unit 02060002, at Thompson Estates Elementary School, Elkton.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 55.5 ft; casing diameter 4 in., to 50 ft; screen diameter 2 in. from 50 to 55 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 90 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.0 ft above land surface.

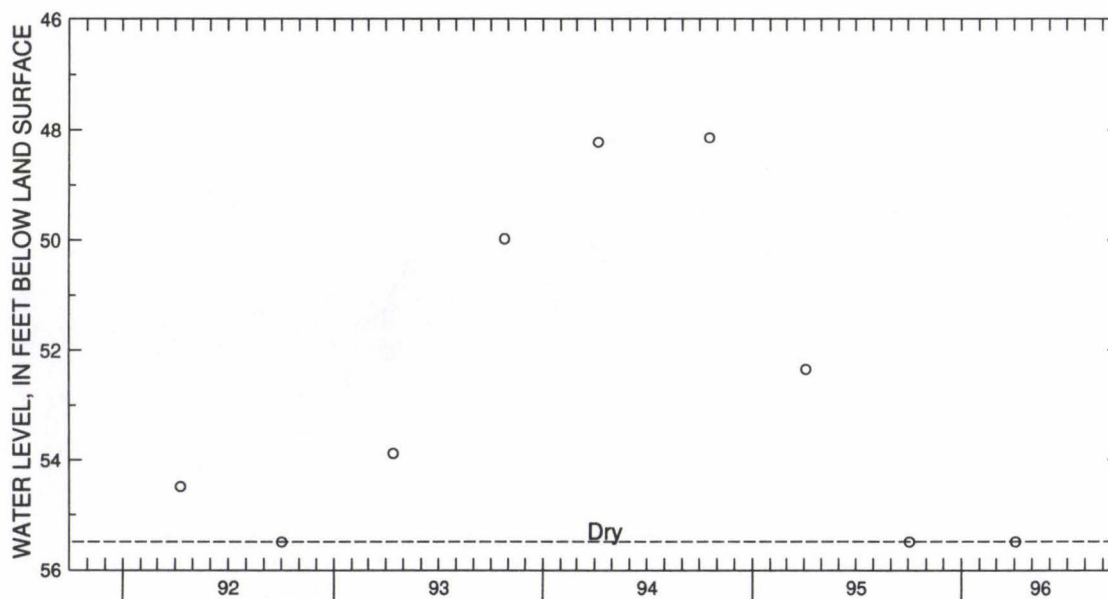
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly starting October 1988.

PERIOD OF RECORD.--March 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.26 ft below land surface, July 9, 1983; lowest measured, dry, Nov. 6, 1985, April 8, 1986, May 12, 1986, May 10, 1988, June 21, 1988, Oct. 6, 1988, Oct. 2, 1992, Oct. 4, 1995, and April 3, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	DRY	APR 03, 1996	DRY



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Bf 82. SITE ID.--393537075492001. PERMIT NUMBER.--CE-81-0470.

LOCATION.--Lat 39°35'37", long 75°49'20", Hydrologic Unit 02060002, at Holly Hall Elementary School, Elkton.
Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 125 ft; casing diameter 4 in., to 120 ft; screen diameter 2 in. from 120 to 125 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water-level recorder July 1, 1983 to Nov. 6, 1984.

DATUM.--Elevation of land surface is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.6 ft above land surface.

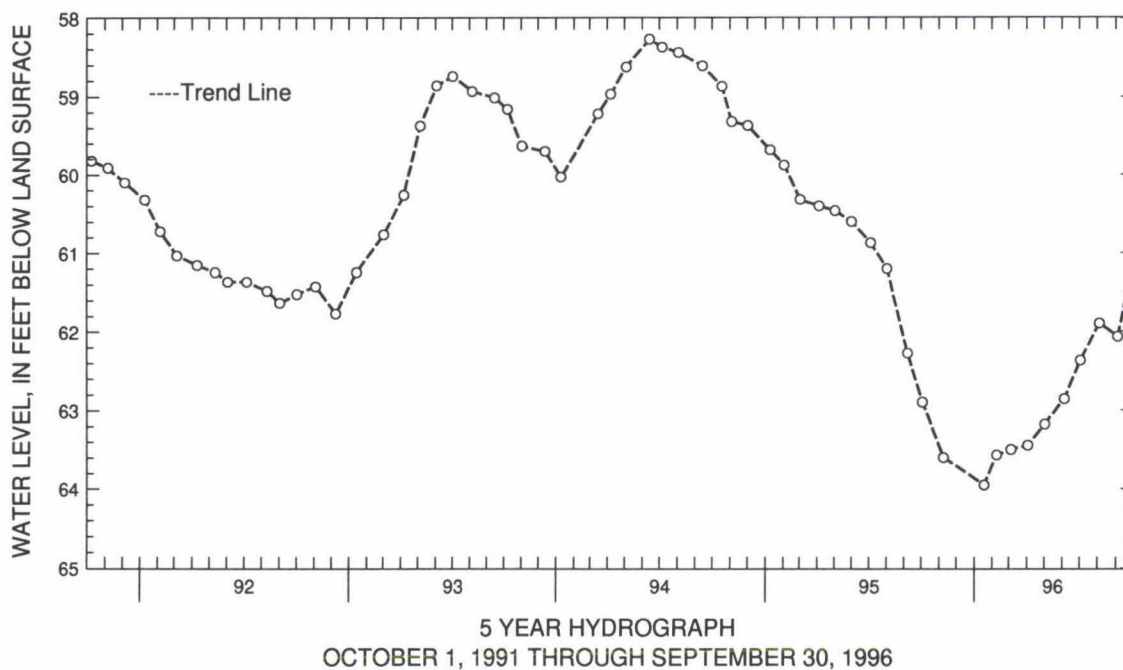
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--February 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.13 ft below land surface, July 1, 1983; lowest measured, 63.95 ft below land surface, Jan. 18, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	62.90	FEB 09, 1996	63.57	MAY 02, 1996	63.18	AUG 05, 1996	61.90
NOV 09	63.60	MAR 05	63.50	JUN 05	62.86	SEP 05	62.07
JAN 18, 1996	63.95	APR 03	63.45	JUL 03	62.37		
WATER YEAR 1996		HIGHEST	61.90	AUG 05, 1996	LOWEST	63.95	JAN 18, 1996



MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Cd 51. SITE ID.--393432075593601. PERMIT NUMBER.--CE-81-0440.

LOCATION.--Lat 39°34'32", long 75°59'36", Hydrologic Unit 02060002, nr intersection of MD Rts. 7 and 267, 1 mi west of Charlestown.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 125 ft; casing diameter 4 in., to 120 ft; screen diameter 2 in. from 120 to 125 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 3.12 ft above land surface.

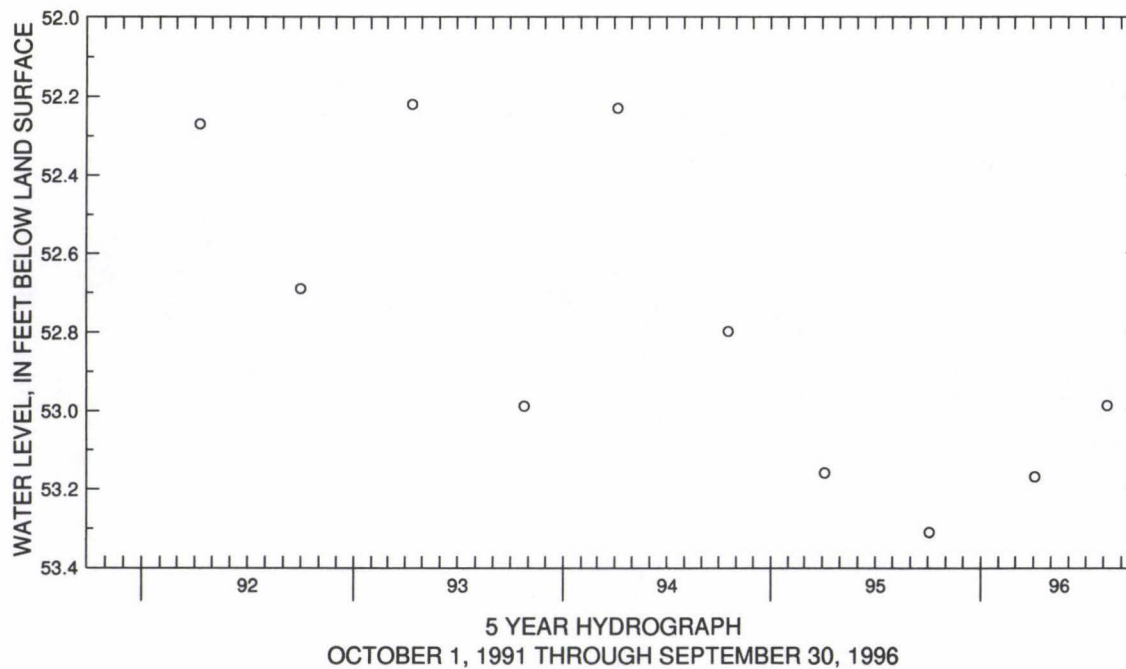
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since April 1988.

PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.80 ft below land surface, April 6, 1984; lowest measured, 53.31 ft below land surface, Oct. 4, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
OCT 04, 1995	53.31	APR 03, 1996	53.17	AUG 07, 1996	52.99	
WATER YEAR 1996		HIGHEST	52.99	AUG 07, 1996	LOWEST	53.31
						OCT 04, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Cd 52. SITE ID.--393432075593602. PERMIT NUMBER.--CE-81-0440.

LOCATION.--Lat 39°34'32", long 75°59'36", Hydrologic Unit 02060002, nr intersection of MD Rts. 7 and 267, 1 mi west of Charlestown.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 48 ft; casing diameter 4 in., to 43 ft; screen diameter 2 in. from 43 to 48 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 70 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 3.18 ft above land surface.

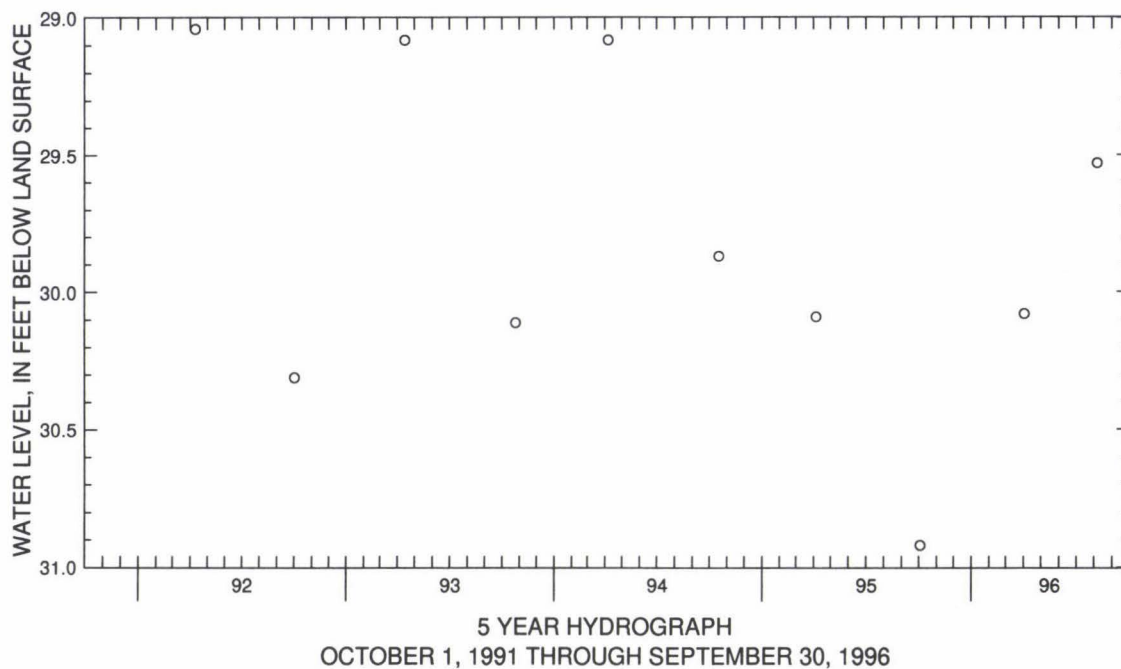
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly starting April 1988.

PERIOD OF RECORD.--November 1982 to November 1984, April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.75 ft below land surface, July 5, 1983; lowest measured, 30.92 ft below land surface, Oct. 4, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	30.92	APR 03, 1996	30.08	AUG 07, 1996	29.53
WATER YEAR 1996		HIGHEST	29.53	AUG 07, 1996	LOWEST
					30.92
		OCT 04, 1995			



GROUND-WATER LEVELS

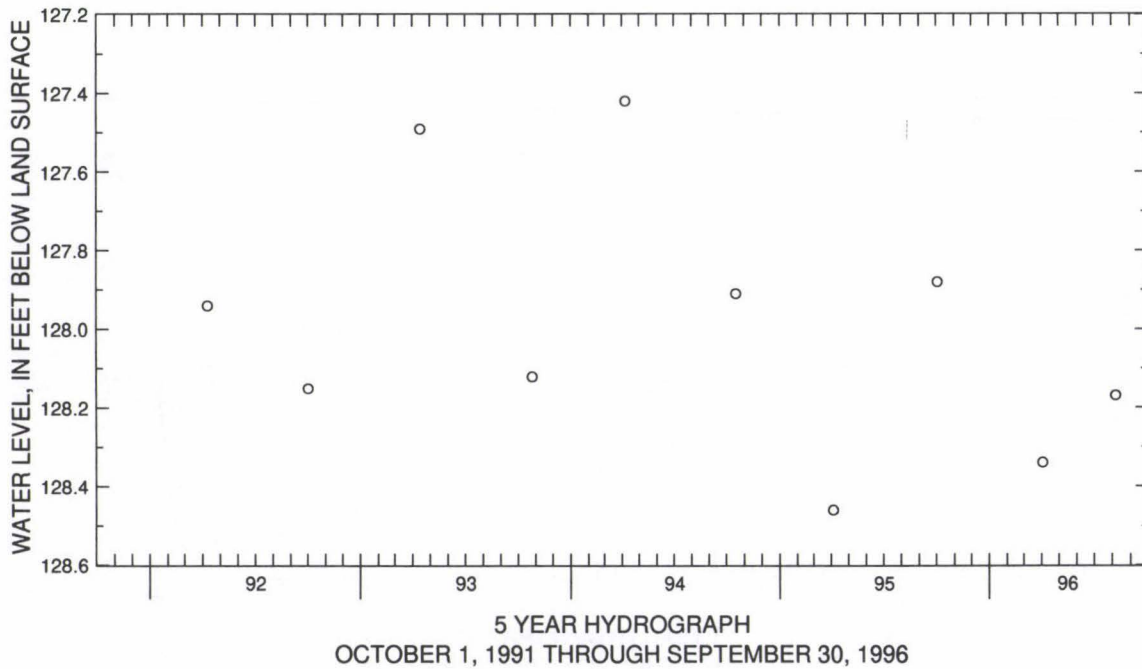
MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Cd 53. SITE ID.--393216075564201. PERMIT NUMBER.--CE-81-0463.
 LOCATION.--Lat 39°32'16", long 75°56'42", Hydrologic Unit 02060002, Elk Neck State Forest, 0.5 mi north of
 Black Hill Lookout Tower.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 350 ft; casing diameter 4 in., to 345 ft;
 screen diameter 2 in. from 345 to 350 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from July 22, 1983 to Oct. 24, 1984.
 DATUM.--Elevation of land surface is 135 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 2.0 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since October 1988.
 PERIOD OF RECORD.--March 1983 to October 1984, October 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 126.65 ft below land surface, April 6, 1984;
 lowest measured, 128.46 ft below land surface, April 5, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	127.88	APR 03, 1996	128.34	AUG 07, 1996	128.17
WATER YEAR 1996		HIGHEST 127.88	OCT 04, 1995	LOWEST 128.34	APR 03, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 54. SITE ID.--393433075544901. PERMIT NUMBER.--CE-81-0461.

LOCATION.--Lat 39°34'33", long 75°54'49", Hydrologic Unit 02060002, Elk Neck State Forest near Irishtown Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 250 ft; casing diameter 4 in., to 245 ft.; screen diameter 2 in. from 245 to 250 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder July 21, 1983 to Nov. 6, 1984.

DATUM.--Elevation of land surface is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.0 ft above land surface.

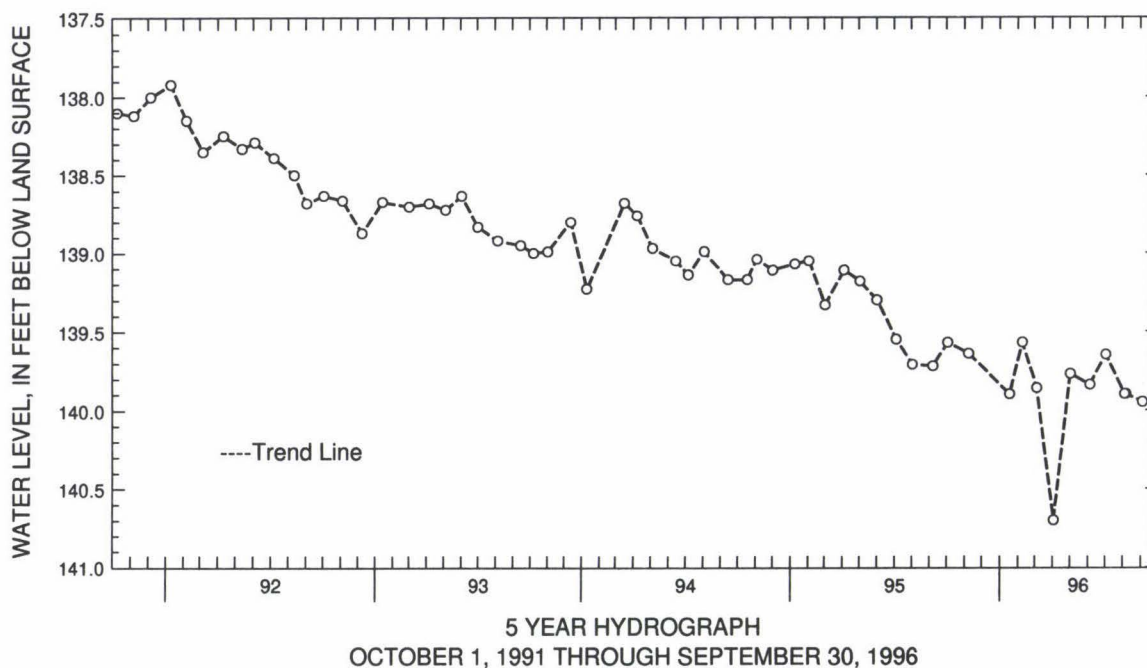
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--March 1983 to November 1984, July 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.10 ft below land surface, March 29, 1984, April 6, 1984 and Nov. 6, 1984; lowest measured, 140.70 ft below land surface, April 3, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	139.57	FEB 09, 1996	139.57	MAY 02, 1996	139.77	AUG 05, 1996	139.90
NOV 09	139.64	MAR 05	139.86	JUN 05	139.84	07	139.90
JAN 18, 1996	139.90	APR 03	140.70	JUL 03	139.65	SEP 05	139.95
WATER YEAR 1996		HIGHEST	139.57	OCT 04, 1995	FEB 09, 1996	LOWEST	140.70
							APR 03, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 55. SITE ID.--393241075500201. PERMIT NUMBER.--CE-81-0465.

LOCATION.--Lat 39°32'41", long 75°50'02", Hydrologic Unit 02060002, Canal National Wildlife Refuge near Elk Forest Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 375 ft; casing diameter 4 in., to 370 ft; screen diameter 2 in. from 370 to 375 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from July 21, 1983 to Nov. 6, 1984.

DATUM.--Elevation of land surface is 55 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing 2.40 ft above land surface.

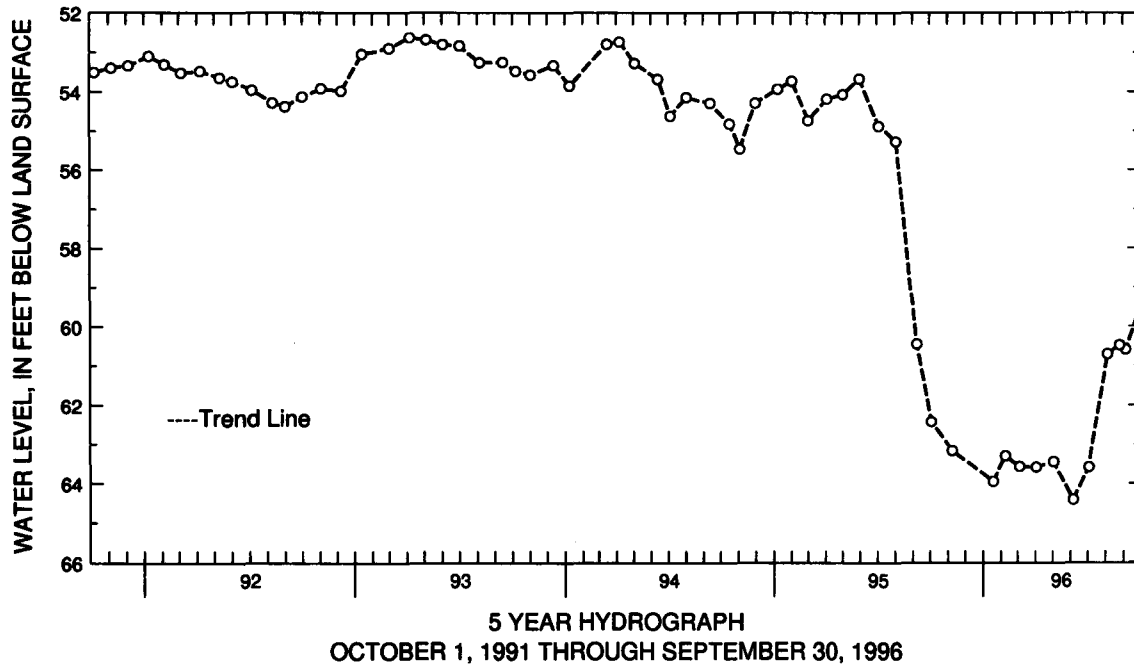
REMARKS.--Maryland Water-Level Network observation well. During August 1995, a new well field located 3 miles northwest of this site began pumping groundwater at approximately 2.4 million gallons per day.

PERIOD OF RECORD.--March 1983 to November 1984, July 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.56 ft below land surface, April 17, 1984; lowest measured, 64.42 ft below land surface, June 6, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	62.43	FEB 09, 1996	63.30	MAY 02, 1996	63.45	AUG 05, 1996	60.72
NOV 09	63.17	MAR 05	63.57	JUN 06	64.42	26	60.49
JAN 18, 1996	63.96	APR 03	63.58	JUL 03	63.58	SEP 05	60.60
WATER YEAR 1996		HIGHEST	60.49	AUG 26, 1996	LOWEST	64.42	JUN 06, 1996



GROUND-WATER LEVELS

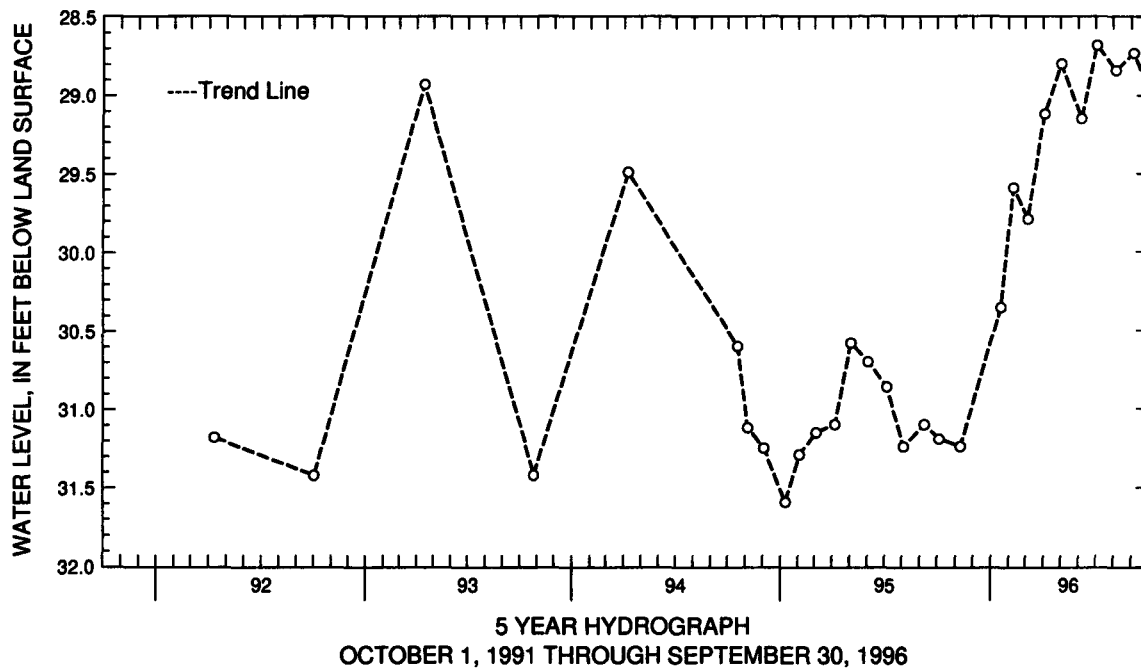
MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 56. SITE ID.--393026075523101. PERMIT NUMBER.--CE-81-0466.
 LOCATION.--Lat 39°30'26", long 75°52'31", Hydrologic Unit 02060002, 1.2 mi east of Courthouse Point.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 121 ft; casing diameter 4 in., to 116 ft; screen diameter 2 in. from 116 to 121 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured twice yearly from April 1988 to April 1994.
 DATUM.--Elevation of land surface is 38 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of casing, 2.0 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--April 1983 to September 1984, April 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.16 ft below land surface, Nov. 2, 1989;
 lowest measured, 34.48 ft below land surface, Nov. 19, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	31.19	FEB 09, 1996	29.59	MAY 02, 1996	28.80	AUG 05, 1996	28.84
NOV 09	31.24	MAR 05	29.79	JUN 06	29.15	SEP 05	28.73
JAN 18, 1996	30.35	APR 03	29.12	JUL 03	28.68		
WATER YEAR 1996		HIGHEST	28.68	JUL 03, 1996	LOWEST	31.24	NOV 09, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Dd 81. SITE ID.--392536075593201. PERMIT NUMBER.--CE-81-0469.

LOCATION.--Lat 39°25'36", long 75°59'32", Hydrologic Unit 02060002, at dredge spoil site, off Pond Neck Road, near West View Shores.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 115 ft; casing diameter 4 in., to 110 ft; screen diameter 2 in. from 110 to 115 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Measured twice yearly from April 1988 to April 1994.

DATUM.--Elevation of land surface is 24 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 1.8 ft above land surface.

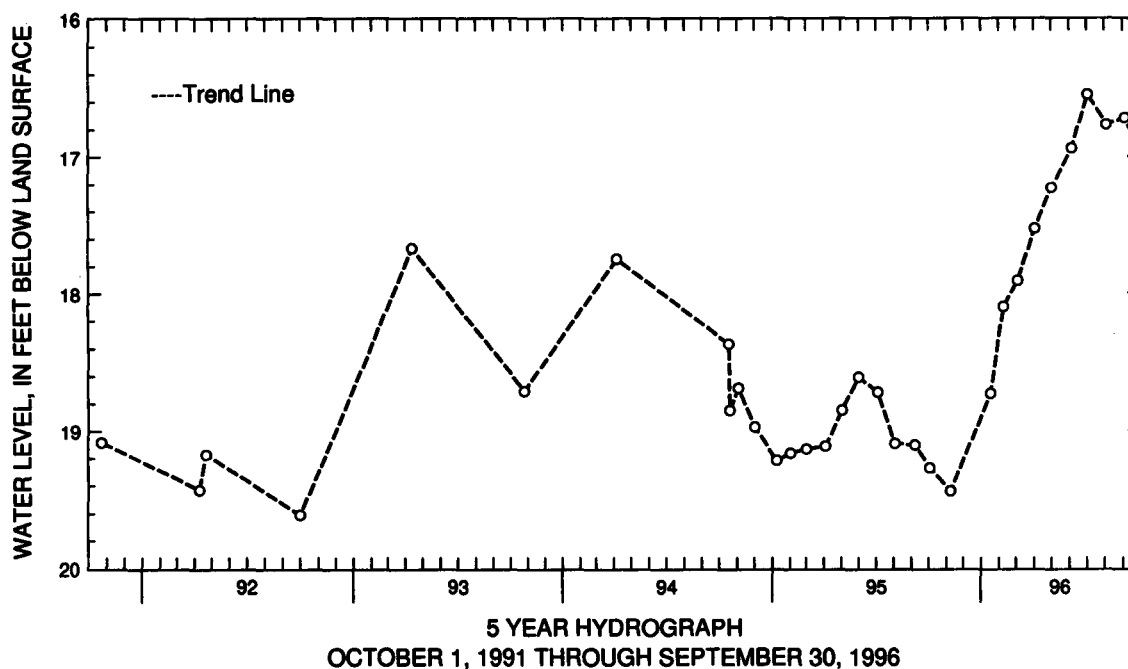
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--March 1983 to October 1983, April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.25 ft below land surface, July 1, 1983; lowest measured, 19.61 ft below land surface, Oct. 2, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	19.27	FEB 09, 1996	18.10	MAY 02, 1996	17.23	AUG 05, 1996	16.77
NOV 09	19.44	MAR 05	17.91	JUN 06	16.94	SEP 05	16.72
JAN 18, 1996	18.73	APR 03	17.53	JUL 03	16.55		
WATER YEAR 1996		HIGHEST	16.55	JUL 03, 1996		LOWEST	19.44
							NOV 09, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Ee 29. SITE ID.--392403075521801. PERMIT NUMBER.--CE-73-2266.

LOCATION.--Lat 39°24'03", long 75°52'18", Hydrologic Unit 02060002, 0.3 mi southwest of MD Rts. 213 and 282, Cecilton.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 547 ft; casing diameter 10 in., to 158 ft; casing diameter 4 in., to 515 ft and 525 to 547 ft; screen diameter 4 in. from 515 to 525 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with a digital water-level recorder from Aug. 22, 1979 to Dec. 4, 1979.

DATUM.--Elevation of land surface is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.35 ft above land surface.

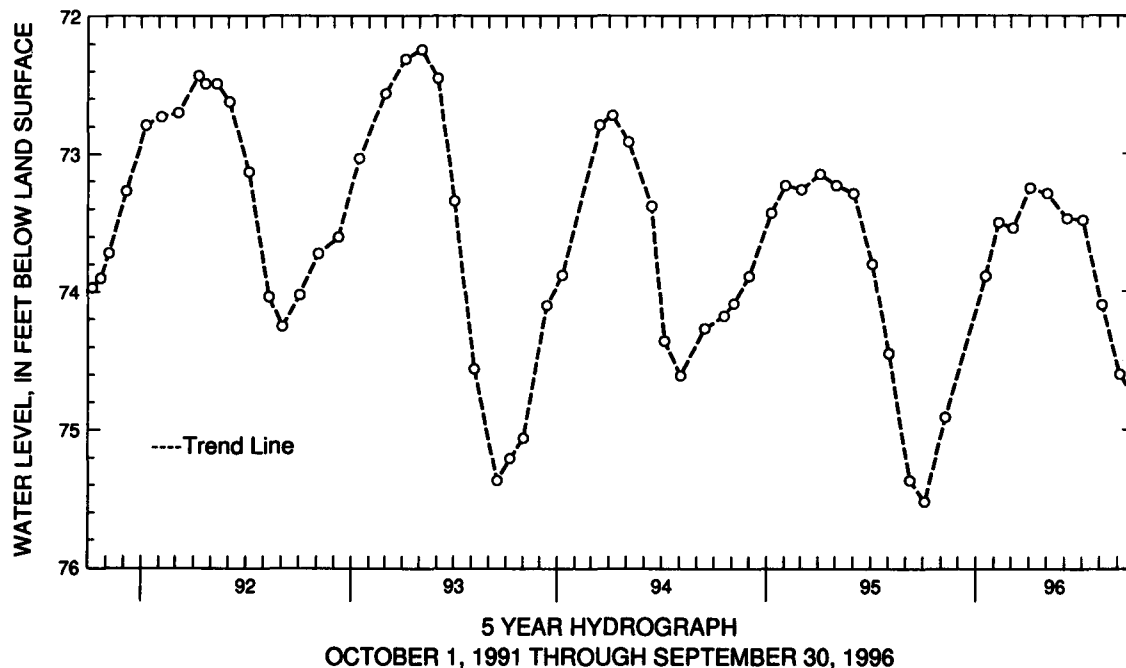
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.99 ft below land surface, March 25, 1979; lowest measured, 75.52 ft below land surface, Oct. 4, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 04, 1995	75.52	FEB 09, 1996	73.50	MAY 02, 1996	73.29	AUG 05, 1996	74.10
NOV 09	74.91	MAR 05	73.54	JUN 06	73.47	SEP 05	74.60
JAN 18, 1996	73.89	APR 03	73.25	JUL 03	73.48		
WATER YEAR 1996		HIGHEST	73.25	APR 03, 1996	LOWEST	75.52	OCT 04, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY

WELL NUMBER.--CH Bb 17. SITE ID.--38352407711802.

LOCATION.--Lat 38°35'24", long 77°11'18", Hydrologic Unit 02070011, at Farnum Rd.;
U.S. Naval Ordnance Station, Indian Head.

Owner: U.S. Navy.

AQUIFER.--Lower Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 294 ft; casing diameter 16 in., to 230 ft;
casing diameter 10 in. to 240 ft; screen diameter 10 in. from 240 to 294 ft.

INSTRUMENTATION.--Periodic measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval, May 29, 1988 to current year.

DATUM.--Altitude of land surface is 52 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder shelf, 3.0 ft above land surface.

REMARKS.--Indian Head Project observation well. Water levels are affected by nearby pumping.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 109.55 ft below land surface, April 29, 1992;
lowest measured, 121.22 ft below land surface, Dec. 22, 1989.

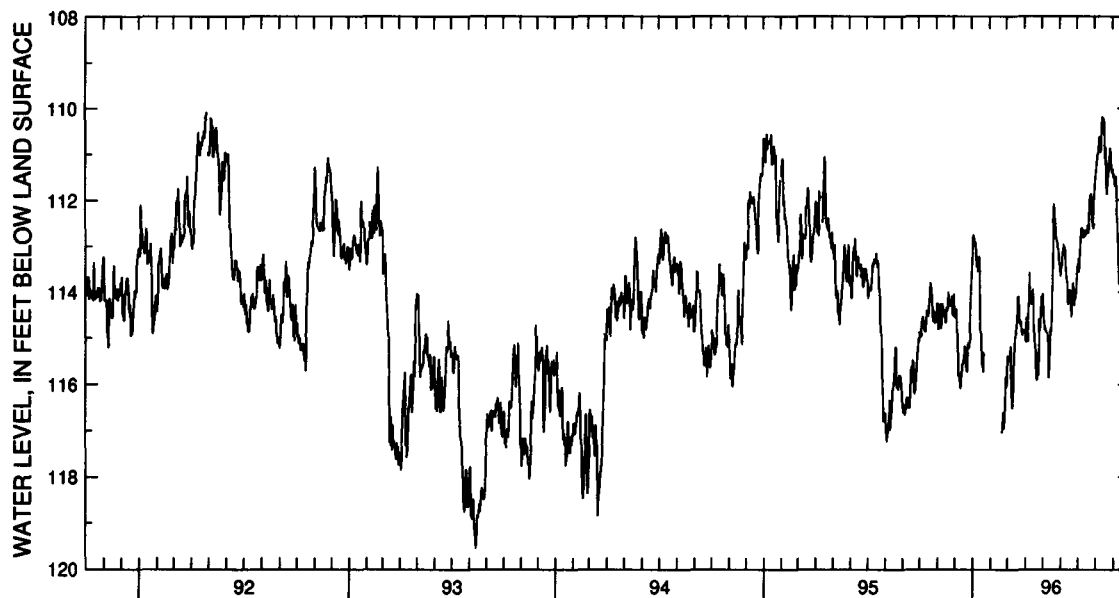
WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	115.08	114.44	114.52	113.99	114.04	113.57	113.48	112.91	---	---	116.01	115.25
2	114.87	114.40	114.24	113.58	114.55	113.90	113.17	112.47	---	---	115.38	114.66
3	114.89	114.38	114.27	113.71	114.50	113.95	112.76	112.26	---	---	115.44	114.62
4	114.96	114.28	114.82	114.12	114.40	113.97	112.81	112.52	---	---	115.49	115.20
5	114.96	114.08	114.73	113.99	114.37	113.75	112.89	112.35	---	---	115.48	115.05
6	114.67	114.03	114.41	113.88	114.82	113.99	112.93	112.63	---	---	115.41	114.88
7	114.69	114.12	114.26	113.34	115.25	114.82	112.93	112.08	---	---	115.18	114.41
8	114.53	114.01	114.41	113.66	115.82	115.25	113.24	112.31	---	---	115.79	114.60
9	114.63	114.05	114.79	114.20	115.74	115.16	113.46	112.63	---	---	116.15	115.74
10	114.78	114.19	114.47	113.90	115.85	115.37	113.24	112.70	---	---	116.49	115.97
11	114.83	114.28	114.25	113.29	116.02	115.46	113.56	113.22	---	---	116.52	115.97
12	114.83	114.37	114.49	113.37	116.09	115.55	113.37	112.86	---	---	116.17	115.54
13	114.87	114.38	114.53	114.10	115.84	115.35	113.23	112.87	---	---	115.58	114.90
14	114.62	113.79	114.42	114.04	115.74	115.14	113.51	112.95	---	---	115.15	114.58
15	114.40	113.79	114.38	113.98	115.56	115.12	114.54	113.35	---	---	114.97	114.42
16	114.45	113.96	114.66	114.02	115.56	115.14	115.00	114.35	---	---	114.93	114.43
17	114.53	114.11	114.66	114.19	115.52	115.14	115.23	114.65	---	---	114.88	114.26
18	114.47	114.04	114.33	113.88	115.39	114.89	115.56	115.02	---	---	114.75	114.07
19	114.18	113.82	114.40	113.98	115.18	114.67	115.56	114.93	---	---	114.63	113.67
20	114.09	113.41	114.39	113.57	115.48	114.76	115.73	115.29	---	---	114.10	113.60
21	113.80	113.11	114.00	113.37	115.50	114.84	115.31	114.31	---	---	114.10	113.59
22	113.87	113.22	114.29	113.91	115.68	115.26	---	---	117.05	116.44	114.30	113.81
23	113.94	113.37	114.24	113.55	115.73	114.88	---	---	116.98	116.30	114.61	114.07
24	114.13	113.59	114.28	113.83	115.19	114.62	---	---	116.61	116.14	114.69	114.23
25	114.41	113.87	114.26	113.78	115.10	114.26	---	---	116.96	116.31	114.67	114.16
26	114.64	113.98	114.24	113.48	115.22	114.31	---	---	116.93	116.43	114.66	114.12
27	114.42	113.49	114.09	113.50	115.11	114.63	---	---	116.48	115.69	114.94	114.58
28	114.44	113.53	114.31	113.74	115.04	114.19	---	---	115.82	115.24	114.83	114.82
29	114.66	114.06	114.51	113.98	114.38	113.88	---	---	116.05	115.79	114.83	114.83
30	114.65	114.17	114.47	113.98	113.91	113.31	---	---	---	---	114.83	114.83
31	114.65	114.07	---	---	113.74	113.22	---	---	---	---	114.83	114.83
MONTH	115.08	113.11	114.82	113.29	116.09	113.22	115.73	112.08	117.05	115.24	116.52	113.59

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued
CH Bb 17--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	114.83	114.83	114.12	113.62	113.49	112.99	113.46	112.82	111.68	110.96	111.33	110.82
2	115.08	114.83	114.04	113.44	113.66	113.07	113.47	112.81	111.50	110.91	111.52	110.87
3	115.08	114.13	114.28	113.76	113.49	113.01	113.28	112.79	111.37	110.66	111.44	110.81
4	114.55	114.00	114.60	113.95	113.46	112.67	113.57	112.96	111.23	110.60	111.62	111.05
5	114.91	114.18	114.65	113.99	113.13	112.65	113.30	112.74	111.03	110.54	111.71	111.02
6	115.08	114.12	114.82	114.04	113.20	112.64	113.04	112.46	111.01	110.57	111.58	109.80
7	114.41	113.86	114.78	114.22	112.97	112.53	112.78	112.40	110.95	110.45	111.48	110.45
8	114.22	113.23	114.86	114.22	113.02	112.61	112.62	112.21	110.65	110.30	111.95	111.25
9	113.58	113.03	114.87	114.36	113.04	112.62	112.62	112.22	110.62	110.23	112.66	111.75
10	114.25	113.27	114.94	114.40	113.10	112.44	112.77	111.98	110.96	110.30	113.05	112.42
11	114.20	113.73	115.10	114.27	113.46	112.81	112.82	112.35	110.96	110.34	113.49	112.98
12	114.26	113.84	115.86	114.90	113.61	113.12	112.81	112.32	110.67	109.89	113.83	113.23
13	114.07	113.41	115.73	114.98	113.78	112.99	112.65	111.77	110.19	109.62	113.84	113.02
14	113.97	113.21	115.20	114.42	113.79	113.16	112.81	112.19	110.35	109.70	113.26	112.86
15	113.96	113.28	114.85	114.34	114.22	113.52	112.69	112.14	110.21	109.74	113.32	112.89
16	114.22	113.27	114.81	114.35	114.27	113.76	112.71	112.32	110.24	109.71	113.25	112.58
17	114.95	114.22	114.86	114.28	114.03	113.40	112.75	112.34	110.29	109.74	112.88	112.55
18	115.16	114.61	114.47	113.40	113.95	113.39	112.66	112.24	110.81	110.14	113.20	112.67
19	115.23	114.72	113.68	112.79	114.08	113.56	112.54	111.86	111.23	110.51	112.86	112.52
20	115.67	115.03	113.00	112.26	114.18	113.68	112.73	111.97	110.88	110.41	112.64	112.10
21	115.87	115.37	112.50	111.84	114.54	113.92	112.61	112.21	111.68	110.50	112.65	111.90
22	115.91	115.16	112.09	111.67	114.35	113.73	112.41	111.70	111.88	111.30	112.69	112.15
23	115.31	114.80	112.20	111.66	113.84	113.36	112.00	111.60	111.60	111.11	113.01	112.40
24	115.80	114.97	112.61	111.87	113.81	113.10	111.91	111.51	111.44	111.00	113.00	111.89
25	115.24	114.43	112.82	112.46	113.94	112.95	111.89	111.48	111.36	110.87	112.40	111.78
26	114.58	114.24	112.89	112.56	114.29	113.74	112.05	111.33	111.18	110.38	112.68	112.23
27	114.85	114.31	112.90	112.61	114.17	113.73	112.40	111.55	110.88	110.29	112.79	112.31
28	114.73	114.15	113.06	112.51	114.14	113.40	112.60	111.81	110.94	110.33	112.80	112.39
29	114.29	113.79	113.07	112.68	114.09	113.36	112.63	111.65	111.22	110.62	112.88	112.42
30	114.09	113.56	113.31	112.70	113.84	113.14	112.01	111.27	111.36	110.73	113.25	112.59
31	---	---	113.40	112.86	---	---	111.88	111.19	111.42	110.81	---	---
MONTH	115.91	113.03	115.86	111.66	114.54	112.44	113.57	111.19	111.88	109.62	113.84	109.80
YEAR	117.05	109.62										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 5. SITE ID.--383524077094401.

LOCATION.--Lat 38°35'24", long 77°09'44", Hydrologic Unit 02070011, at Benson Rd.; U.S. Naval Ordnance Station, Indian Head.

Owner: U.S. Navy.

AQUIFER.--Lower Patapsco of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 430 ft; casing diameter 8 in. to unknown depth; screen diameter 8 in, depth unknown.

INSTRUMENTATION.--Periodic measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval, April 28, 1988 to current year.

DATUM.--Altitude of land surface is 38.2 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of recorder shelf, 2.5 ft above land surface.

REMARKS.--Indian Head Project observation well. Water levels are affected by nearby pumping.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--April 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 105.80 ft below land surface, Jan. 4, 1994; lowest measured, 126.78 ft below land surface, Jan. 11, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	117.05	116.57	116.66	116.20	116.61	116.24	116.01	115.27	116.56	115.82
2	---	---	116.83	116.36	116.91	116.50	116.45	116.12	115.66	115.09	116.11	115.73
3	---	---	116.76	116.26	116.92	116.42	116.31	115.93	115.53	115.21	116.15	115.58
4	---	---	116.88	116.53	116.84	116.46	116.21	115.73	115.70	115.43	116.15	115.60
5	---	---	116.86	116.38	116.86	116.16	116.28	115.61	115.79	115.42	115.74	115.21
6	---	---	116.77	116.30	116.30	115.20	116.37	115.92	115.83	115.53	115.48	115.05
7	---	---	116.69	116.09	115.54	115.18	116.35	115.88	115.91	114.93	115.38	114.46
8	---	---	116.80	116.36	115.52	114.61	116.34	115.80	115.24	114.86	114.63	114.06
9	---	---	116.92	116.61	114.75	114.35	115.90	115.38	115.51	115.05	114.06	113.35
10	---	---	116.90	116.45	115.41	114.57	115.83	115.29	115.46	114.95	113.43	112.81
11	---	---	116.80	116.05	115.75	115.27	115.89	115.18	115.50	115.02	112.89	112.44
12	---	---	116.89	116.07	116.04	115.72	115.86	115.52	115.92	115.41	113.54	112.60
13	---	---	116.91	116.57	116.21	115.90	115.71	115.25	116.00	115.54	114.32	113.41
14	117.69	117.07	116.83	116.49	116.36	115.90	115.72	115.38	115.76	115.18	114.88	114.10
15	117.65	117.07	116.84	116.38	116.38	115.94	115.75	115.29	115.81	115.40	115.27	114.60
16	117.75	117.33	117.03	116.58	116.47	116.11	115.92	115.50	116.14	115.47	115.65	114.97
17	117.85	117.56	117.06	116.69	116.61	116.13	115.93	115.56	116.30	115.86	115.84	115.21
18	117.75	117.44	116.96	116.57	116.72	116.36	115.88	115.42	116.41	115.77	115.94	115.46
19	117.69	117.34	117.00	116.61	116.71	116.19	115.92	115.34	116.59	116.12	116.02	115.12
20	117.64	117.12	117.01	116.36	116.55	116.05	116.10	115.19	116.67	116.11	115.83	115.32
21	117.52	116.97	116.79	116.34	116.71	116.10	116.17	115.69	116.69	116.17	116.06	115.52
22	117.77	117.17	116.94	116.58	116.72	116.25	116.30	115.69	116.74	116.26	116.11	115.67
23	117.71	117.25	116.88	116.39	116.76	116.54	116.26	115.67	116.81	116.35	116.30	115.86
24	117.64	116.98	116.98	116.57	116.79	116.33	116.08	115.49	116.76	116.26	116.35	116.06
25	117.48	117.06	116.95	116.44	116.72	116.32	116.28	115.78	116.95	116.55	116.30	115.91
26	117.41	116.80	116.86	116.15	116.77	116.35	116.16	115.70	116.95	116.70	116.50	115.95
27	117.24	116.47	116.65	116.14	116.83	116.22	115.84	115.25	116.87	116.43	116.68	116.33
28	117.08	116.50	116.87	116.25	116.83	116.47	116.12	115.70	116.66	116.07	116.42	115.89
29	117.22	116.82	116.93	116.56	116.78	116.50	115.98	115.59	116.70	116.53	116.48	116.08
30	117.23	116.91	116.86	116.43	116.71	116.38	115.85	115.46	---	---	116.40	115.98
31	117.20	116.82	---	---	116.68	116.24	116.01	115.47	---	---	116.46	116.03
MONTH	117.85	116.47	117.06	116.05	116.92	114.35	116.61	115.18	116.95	114.86	116.68	112.44

GROUND-WATER LEVELS

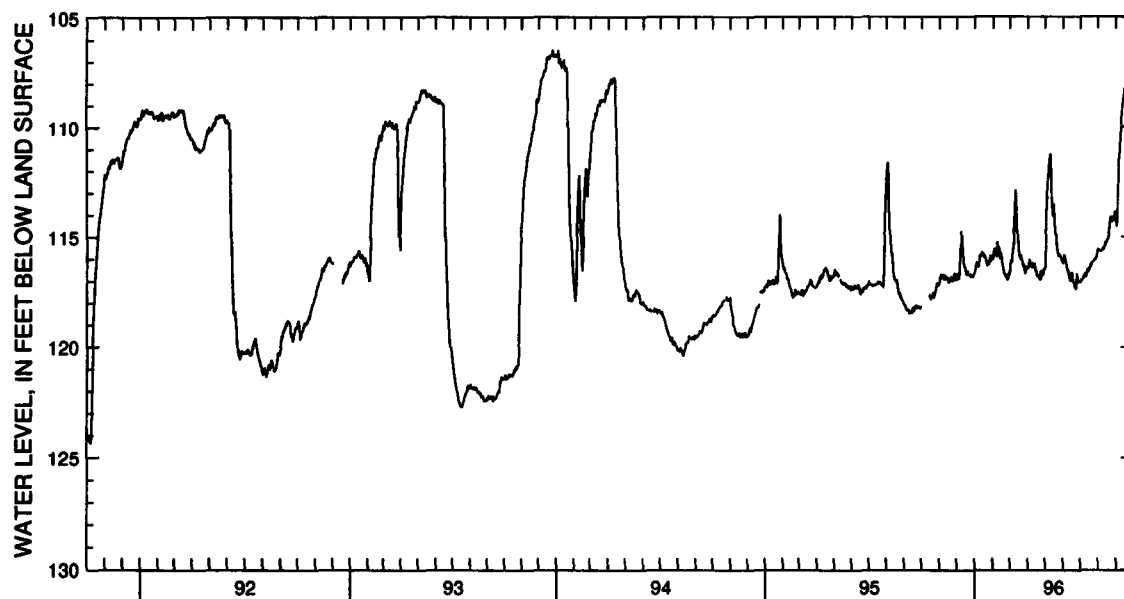
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Bc 5--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	116.43	115.88	116.47	115.35	116.19	115.63	117.06	116.40	115.57	115.02	113.93	113.25
2	116.41	116.11	115.35	114.34	116.12	115.46	117.03	116.42	115.60	115.07	114.22	113.58
3	116.20	115.52	114.78	113.72	115.84	115.32	116.90	116.39	115.59	115.11	114.51	113.75
4	116.03	115.55	113.91	112.82	115.86	115.36	116.98	116.55	115.65	115.16	114.55	113.34
5	116.34	115.71	113.17	112.26	116.09	115.53	116.93	116.46	115.66	115.17	113.37	112.46
6	116.33	115.75	112.47	111.98	116.16	115.74	116.90	116.40	115.67	115.22	112.46	110.74
7	116.28	115.77	112.20	111.45	116.25	115.75	116.81	116.37	115.63	115.25	111.40	111.13
8	116.35	115.74	111.78	111.29	116.43	115.82	116.73	116.32	115.59	115.18	111.21	110.30
9	116.19	115.61	111.52	110.93	116.56	116.06	116.69	116.26	115.53	115.14	110.43	109.91
10	116.42	115.92	111.25	110.75	116.52	116.13	116.80	116.26	115.59	115.19	110.22	109.57
11	116.29	115.93	111.39	110.65	116.67	116.13	116.79	116.36	115.55	115.16	109.88	109.16
12	116.32	115.93	112.55	111.28	116.84	116.27	116.67	116.25	115.47	114.95	109.47	108.92
13	116.27	115.82	113.27	112.47	116.95	116.41	116.54	115.67	115.29	114.68	109.14	108.39
14	116.54	115.85	113.87	113.01	117.01	116.52	116.58	116.08	115.35	114.74	108.82	108.30
15	116.52	115.90	114.06	113.36	116.96	116.08	116.43	115.98	115.26	114.78	108.64	108.17
16	116.60	115.87	113.52	112.77	116.61	116.13	116.53	116.13	115.23	114.74	108.52	107.80
17	116.79	116.36	113.96	113.24	116.72	116.28	116.48	116.06	115.14	114.73	108.21	107.80
18	116.80	116.32	114.34	113.71	116.99	116.39	116.43	115.96	115.11	114.67	108.33	107.78
19	116.75	116.27	114.71	114.16	117.08	116.62	116.26	115.78	115.07	114.58	108.08	107.60
20	116.74	116.27	115.06	114.55	117.12	116.63	116.32	115.99	114.87	114.28	107.93	107.48
21	116.90	116.47	115.35	114.89	117.27	116.78	116.23	115.89	114.79	114.27	107.76	107.36
22	116.93	116.47	115.57	115.15	117.24	116.89	116.14	115.62	114.53	114.11	107.56	107.13
23	116.56	116.17	115.70	115.29	117.37	116.89	116.13	115.60	114.20	113.85	107.66	107.18
24	116.92	116.52	115.84	115.44	117.36	116.56	116.10	115.70	114.08	113.67	107.61	106.86
25	116.63	116.15	115.82	115.48	116.66	116.11	116.04	115.60	114.33	113.71	107.47	106.88
26	116.51	116.09	115.87	115.49	116.83	116.35	116.07	115.46	114.31	113.69	107.49	106.90
27	116.76	116.34	115.85	115.50	116.96	116.41	116.02	115.56	114.20	113.59	107.40	106.75
28	116.68	116.31	115.94	115.44	117.07	116.52	115.99	115.47	114.14	113.49	107.21	106.67
29	116.46	115.98	115.93	115.51	117.03	116.50	115.93	115.36	114.30	113.70	107.21	106.71
30	116.47	115.87	116.11	115.55	117.01	116.41	115.80	115.12	114.22	113.48	107.19	106.76
31	---	---	116.12	115.63	---	---	115.63	115.05	113.86	113.14	---	---
MONTH	116.93	115.52	116.47	110.65	117.37	115.32	117.06	115.05	115.67	113.14	114.55	106.67
YEAR	117.85	106.67										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

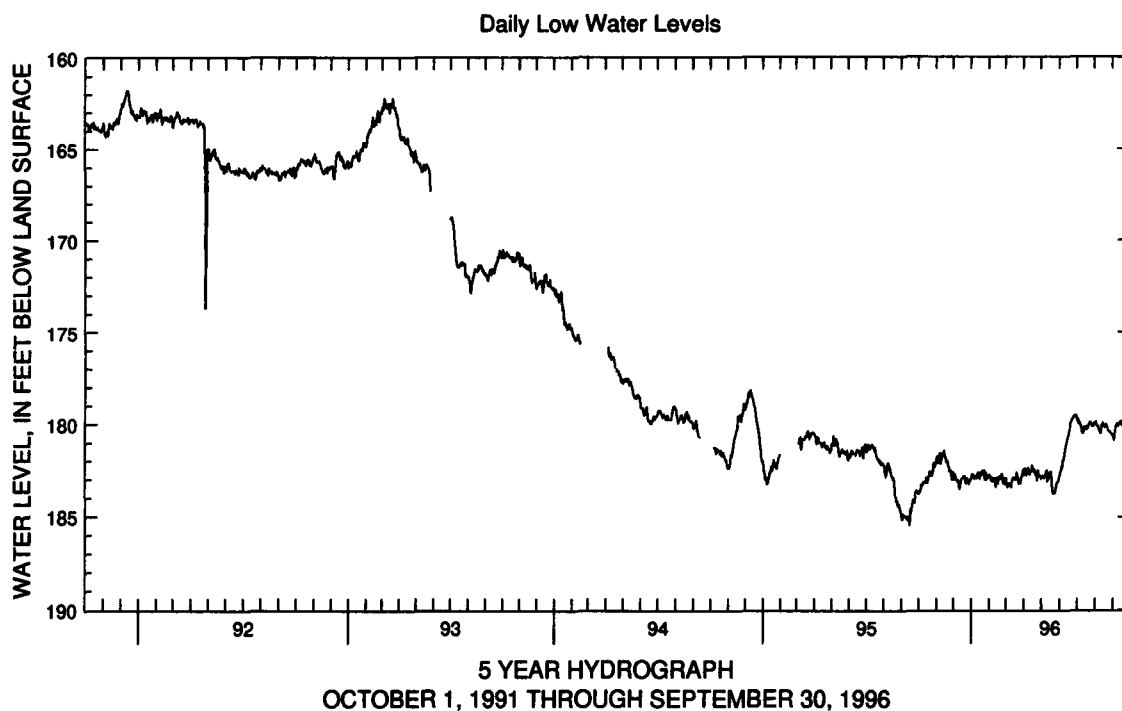
WELL NUMBER.--CH Bc 24. SITE ID.--383633077083001. PERMIT NUMBER.--CH-02-0874.
 LOCATION.--Lat 38°36'33", long 77°08'30", Hydrologic Unit 0207001, at Cedar Lane, Potomac Heights.
 Owner: Potomac Heights Mutual Home Owners Association.
 AQUIFER.--Lower Patapsco of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 435 ft; casing diameter 10 in., to 383.5 ft; and 398.5 to 415 ft; screen diameter 10 in. from 383.5 to 398.5 ft and 415 to 435 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval, April 30, 1988 to current year.
 DATUM.--Altitude of land surface is 72 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 1.6 ft above land surface.
 REMARKS.--Indian Head Project observation well. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--May 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 142.26 ft below land surface, April 30, 1988; lowest measured, 185.48 ft below land surface, September 15, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	183.72	183.18	182.09	181.58	182.60	182.16	182.98	182.54	182.89	182.32	183.26	182.67
2	183.67	183.01	181.84	181.37	183.01	182.45	182.89	182.33	182.72	182.40	182.88	182.33
3	183.73	183.30	181.73	181.13	183.00	182.34	182.68	182.08	182.84	182.57	183.23	182.32
4	183.67	183.21	182.07	181.35	182.77	182.12	182.82	182.45	182.89	182.66	183.40	183.10
5	183.63	182.90	182.09	181.29	182.84	182.45	182.77	182.36	183.01	182.54	183.39	183.03
6	183.31	182.80	181.79	181.26	183.00	182.61	182.92	182.59	182.94	182.60	183.32	182.87
7	183.37	182.88	181.55	181.19	183.02	182.71	182.95	182.19	183.06	182.67	183.17	182.50
8	183.32	182.86	181.97	181.52	183.13	182.72	182.88	182.28	182.96	182.57	183.29	182.61
9	183.28	182.51	182.17	181.59	183.01	182.61	182.90	182.14	183.07	182.64	183.33	182.96
10	183.13	182.70	181.94	181.59	183.16	182.78	182.76	182.19	183.07	182.58	183.37	183.04
11	183.14	182.74	181.86	180.78	183.43	182.89	182.95	182.54	182.89	182.49	183.40	182.93
12	183.15	182.76	181.60	180.84	183.54	183.15	182.69	182.21	183.19	182.73	183.13	182.75
13	183.19	182.79	181.60	181.25	183.42	182.94	182.66	182.27	183.43	182.93	182.96	182.50
14	183.10	182.29	181.49	181.06	183.21	182.67	182.63	182.24	182.93	182.46	182.93	182.49
15	182.87	182.29	181.45	181.03	183.01	182.64	182.90	182.39	183.06	182.54	182.89	182.42
16	183.04	182.57	181.70	181.21	182.94	182.51	182.95	182.55	182.84	182.39	183.00	182.56
17	183.23	182.73	181.79	181.39	182.92	182.58	182.82	182.27	183.24	182.59	183.00	182.48
18	182.93	182.60	181.85	181.45	182.90	182.41	182.79	182.31	182.84	182.37	182.99	182.55
19	182.84	182.45	182.07	181.56	182.84	182.23	182.63	181.89	182.99	182.52	183.00	182.12
20	182.79	182.24	182.07	181.36	182.81	182.32	182.71	182.25	182.98	182.39	182.60	182.17
21	182.54	182.06	182.03	181.43	182.82	182.40	182.53	182.01	182.80	182.35	182.76	182.30
22	182.71	182.08	182.27	181.93	183.15	182.82	182.56	182.16	182.80	182.34	182.89	182.49
23	182.76	182.25	182.30	181.85	183.21	182.58	182.61	182.15	182.74	182.31	183.11	182.68
24	182.81	182.21	182.53	182.08	182.93	182.50	182.55	182.04	182.71	182.25	183.20	182.86
25	182.74	182.27	182.59	182.12	182.92	182.34	182.97	182.22	183.01	182.53	183.11	182.67
26	182.70	181.86	182.58	181.96	183.08	182.36	182.90	182.51	183.18	182.82	183.04	182.63
27	182.34	181.33	182.49	181.97	183.18	182.74	182.60	181.97	183.13	182.65	183.25	182.94
28	182.08	181.33	182.83	182.19	183.23	182.85	182.98	182.37	182.90	182.37	182.99	182.44
29	182.32	181.87	183.04	182.53	183.10	182.75	182.91	182.50	183.26	182.90	182.83	182.52
30	182.27	181.68	182.94	182.48	183.02	182.62	182.82	182.35	---	---	182.82	182.17
31	182.10	181.51	---	---	183.05	182.63	182.88	182.33	---	---	182.55	182.13
MONTH	183.73	181.33	183.04	180.78	183.54	182.12	182.98	181.89	183.43	182.25	183.40	182.12

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	182.48	181.99	182.94	182.51	182.84	182.36	179.68	179.08	179.91	179.38	180.56	180.05
2	182.74	182.23	182.86	182.45	182.76	182.25	179.77	179.25	179.91	179.39	180.67	180.19
3	182.73	181.92	182.88	182.42	182.59	182.12	179.67	179.16	179.87	179.42	180.82	180.21
4	182.35	181.91	182.82	182.35	182.53	181.91	179.94	179.36	180.05	179.46	180.88	180.33
5	182.69	182.11	182.88	182.41	182.31	181.86	179.89	179.47	180.12	179.65	180.53	180.15
6	182.76	182.14	182.91	182.37	182.34	181.76	179.90	179.45	180.12	179.73	180.35	178.93
7	182.58	182.15	182.90	182.35	182.09	181.61	180.06	179.52	180.11	179.75	180.07	179.50
8	182.68	182.04	182.81	182.35	181.92	181.52	180.11	179.69	180.28	179.75	180.07	179.66
9	182.32	181.88	182.71	182.17	181.89	181.48	180.26	179.80	180.35	179.96	179.92	179.57
10	182.71	182.10	182.58	182.14	181.66	181.23	180.50	179.90	180.47	180.05	180.10	179.73
11	182.62	182.17	182.49	182.01	181.42	181.02	180.50	180.09	180.48	180.02	180.11	179.66
12	182.75	182.34	183.08	182.27	181.25	180.81	180.45	179.94	180.32	179.83	180.01	179.58
13	182.53	182.06	183.03	182.69	181.10	180.61	180.19	179.35	180.01	179.54	179.97	179.39
14	182.52	182.01	182.95	182.50	180.91	180.46	180.18	179.70	180.11	179.53	179.87	179.49
15	182.52	181.86	182.83	182.27	180.77	180.33	180.10	179.70	179.95	179.57	179.91	179.55
16	182.21	181.73	182.63	182.12	180.66	180.23	180.28	179.86	180.03	179.66	179.93	179.41
17	182.55	182.13	182.60	182.18	180.56	180.09	180.28	179.85	180.10	179.70	179.78	179.41
18	182.56	182.11	182.59	182.12	180.40	179.93	180.26	179.82	180.11	179.75	180.11	179.61
19	182.46	182.01	183.01	182.50	180.28	179.68	180.08	179.61	180.16	179.74	179.97	179.60
20	182.45	182.01	183.47	182.91	179.91	179.53	180.22	179.71	180.09	179.71	179.85	179.49
21	182.63	182.15	183.63	183.25	179.90	179.53	180.11	179.80	180.01	179.61	179.71	179.36
22	182.75	182.33	183.73	183.37	179.79	179.37	179.99	179.59	180.07	179.63	179.63	179.23
23	182.61	182.20	183.66	183.29	179.70	179.33	179.90	179.39	180.18	179.73	180.00	179.37
24	183.08	182.44	183.65	183.31	179.70	179.29	179.93	179.56	180.31	179.80	179.99	179.26
25	182.71	182.26	183.76	183.36	179.59	179.14	179.90	179.54	180.37	179.94	179.78	179.26
26	182.49	182.11	183.57	183.20	179.59	179.25	180.05	179.39	180.35	179.91	179.85	179.34
27	182.83	182.35	183.40	183.03	179.52	179.13	180.07	179.62	180.38	179.91	179.78	179.20
28	182.76	182.37	183.21	182.86	179.57	179.11	180.11	179.66	180.43	179.96	179.64	179.20
29	182.77	182.29	183.16	182.77	179.57	179.07	180.13	179.60	180.44	179.90	179.84	179.30
30	182.85	182.40	183.09	182.69	179.48	179.02	180.00	179.44	180.53	179.99	179.96	179.55
31	---	---	183.09	182.51	---	---	179.93	179.42	180.58	180.05	---	---
MONTH	183.08	181.73	183.76	182.01	182.84	179.02	180.50	179.08	180.58	179.38	180.88	178.93
YEAR	183.76	178.93										



GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Be 43. SITE ID.--383819076555501. PERMIT NUMBER.--CH-71-0066.
 LOCATION.--Lat 38°38'19", long 76°55'55", Hydrologic Unit 02070011, at northeast end of Joy Lane,
 0.2 mi east of Sun Valley Drive, Waldorf.
 Owner: Lennart Larson.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 459 ft; casing diameter 6 in., to 428 ft;
 screen diameter 5 in. from 433 to 459 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from Feb. 10, 1977 to Jan. 27, 1978. Equipped with digital
 water-level recorder--60-minute recorder interval from Feb. 27, 1978 to current year.
 DATUM.--Altitude of land surface is 216.79 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.0 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--February 1977 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.05 ft above sea level, Feb. 22, 1977;
 lowest measured, 56.75 ft below sea level, Sept. 5 and 6, 1996.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-52.09	-52.93	-46.88	-47.11	-47.26	-48.55	-44.79	-44.91	-46.74	-47.75	-46.43	-46.59
2	-52.93	-53.53	-46.57	-46.88	-46.90	-47.26	-44.60	-45.10	-46.05	-46.74	-46.24	-46.43
3	-53.43	-53.81	-46.38	-46.57	-46.41	-46.90	-45.10	-46.79	-45.66	-46.05	-46.18	-46.24
4	-51.98	-53.43	-46.38	-46.49	-46.31	-46.81	-46.79	-47.90	-45.50	-45.66	-45.98	-46.18
5	-50.79	-51.98	-46.38	-46.49	-46.30	-46.81	-47.90	-48.50	-45.32	-45.50	-45.70	-45.98
6	-50.24	-50.79	-46.35	-46.38	-46.04	-46.30	-48.50	-48.88	-45.24	-45.32	-45.41	-45.70
7	-49.93	-50.24	-46.11	-46.35	-45.83	-46.04	-48.84	-48.89	-45.02	-45.24	-45.20	-45.41
8	-49.79	-49.93	-46.09	-46.11	-45.81	-45.83	-48.89	-49.27	-44.85	-45.41	-45.19	-45.26
9	-49.69	-49.79	-46.09	-46.10	-45.65	-46.42	-49.27	-49.35	-45.41	-47.10	-45.26	-45.30
10	-49.61	-49.69	-46.05	-46.79	-46.42	-47.34	-48.71	-49.45	-47.10	-47.98	-45.23	-45.31
11	-49.61	-50.62	-46.79	-47.59	-47.11	-48.32	-47.33	-48.71	-47.98	-48.70	-44.88	-45.23
12	-50.62	-52.09	-47.16	-48.37	-48.32	-49.49	-46.50	-47.33	-48.70	-49.16	-44.54	-44.88
13	-52.09	-52.76	-48.37	-49.41	-49.49	-50.03	-46.14	-46.55	-49.16	-49.36	-44.42	-44.54
14	-51.86	-52.87	-48.86	-49.65	-49.54	-50.16	-46.55	-47.94	-49.35	-49.64	-44.37	-44.42
15	-50.69	-51.86	-48.03	-48.86	-48.24	-49.54	-47.94	-49.12	-49.64	-50.01	-44.19	-44.37
16	-50.30	-50.86	-47.69	-48.08	-47.62	-48.24	-48.93	-49.51	-50.01	-50.09	-44.20	-44.25
17	-50.86	-52.05	-48.08	-49.47	-47.11	-47.62	-47.90	-48.93	-50.09	-50.28	-44.16	-44.24
18	-52.05	-52.48	-49.47	-50.12	-46.77	-47.11	-47.04	-47.90	-50.28	-50.67	-44.12	-44.16
19	-50.93	-52.17	-50.12	-50.65	-46.40	-46.89	-46.61	-47.04	-50.67	-50.89	-43.74	-44.12
20	-50.12	-50.93	-50.31	-50.83	-46.89	-48.38	-46.61	-46.72	-50.89	-50.97	-43.60	-43.74
21	-49.67	-50.12	-48.90	-50.31	-48.38	-49.34	-46.39	-46.61	-50.13	-51.08	-43.55	-43.60
22	-49.39	-49.67	-48.13	-48.90	-49.30	-49.78	-45.97	-46.39	-48.66	-50.13	-43.59	-43.61
23	-49.11	-49.39	-47.56	-48.13	-48.23	-49.30	-45.60	-45.97	-47.74	-48.66	-43.59	-43.62
24	-48.74	-49.11	-47.09	-47.56	-47.50	-48.23	-45.29	-45.60	-47.14	-47.74	-43.62	-43.69
25	-48.40	-48.74	-46.69	-47.09	-46.96	-47.50	-45.27	-45.31	-46.73	-47.14	-43.57	-43.69
26	-48.18	-48.40	-46.17	-46.69	-46.53	-46.96	-45.03	-45.27	-46.40	-46.73	-43.54	-43.57
27	-47.73	-48.18	-45.86	-46.38	-46.14	-46.53	-44.74	-45.03	-46.40	-47.57	-43.54	-43.68
28	-47.43	-47.73	-46.38	-47.82	-45.84	-46.14	-44.78	-44.82	-46.86	-47.52	-43.65	-43.72
29	-47.39	-47.43	-47.82	-48.57	-45.59	-45.84	-44.78	-45.78	-46.59	-46.86	-43.65	-43.85
30	-47.21	-47.39	-48.55	-49.01	-45.24	-45.59	-45.78	-47.41	---	---	-43.85	-43.94
31	-47.11	-47.21	---	---	-44.91	-45.24	-47.41	-48.07	---	---	-43.93	-43.94
MONTH	-47.11	-53.81	-45.86	-50.83	-44.91	-50.16	-44.60	-49.51	-44.85	-51.08	-43.54	-46.59

GROUND-WATER LEVELS

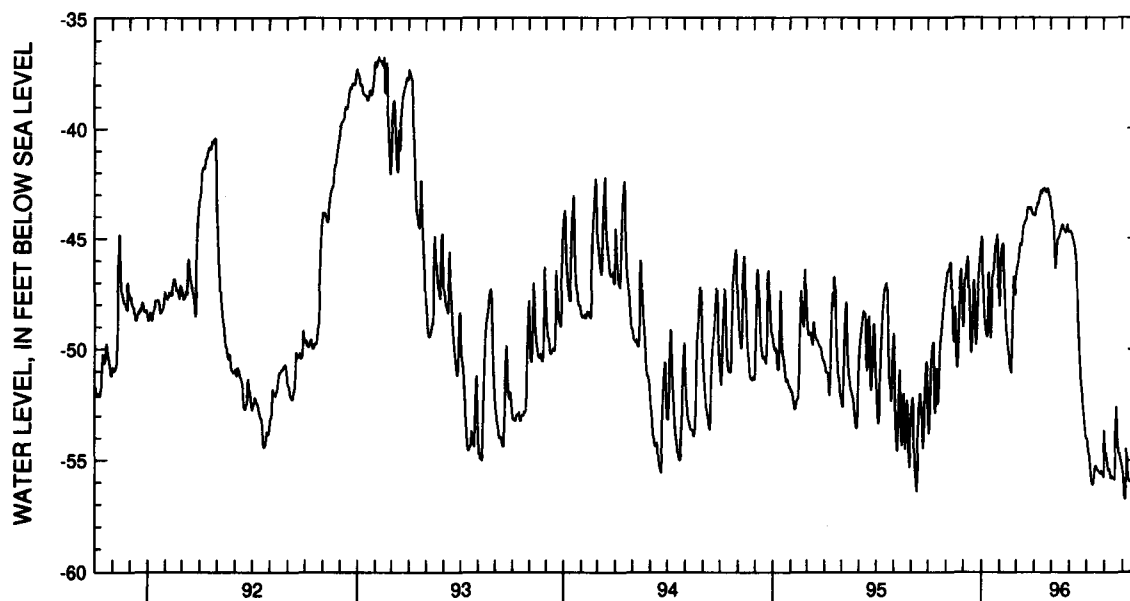
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Be 43--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-43.84	-43.93	-43.53	-43.61	-44.67	-44.72	-53.88	-54.01	-53.23	-53.65	-55.34	-55.56
2	-43.86	-43.96	-43.61	-43.75	-44.67	-44.71	-53.93	-54.01	-53.63	-54.37	-55.56	-55.85
3	-43.83	-43.97	-43.75	-44.14	-44.66	-44.67	-53.92	-54.06	-54.37	-54.68	-55.85	-56.24
4	-43.63	-43.83	-44.14	-44.19	-44.66	-44.71	-54.06	-54.40	-54.68	-54.84	-56.24	-56.63
5	-43.59	-43.63	-44.14	-44.24	-44.71	-44.75	-54.40	-54.74	-54.84	-55.04	-56.63	-56.75
6	-43.43	-43.59	-44.23	-44.79	-44.75	-44.80	-54.74	-54.99	-55.04	-55.26	-55.82	-56.75
7	-43.40	-43.43	-44.79	-45.38	-44.80	-44.95	-54.99	-55.31	-55.26	-55.46	-54.48	-55.82
8	-43.42	-43.46	-45.38	-46.37	-44.95	-45.02	-55.31	-55.70	-55.39	-55.46	-53.88	-54.48
9	-43.20	-43.43	-45.78	-46.24	-45.02	-45.12	-55.70	-55.95	-55.35	-55.39	-54.19	-55.20
10	-43.10	-43.20	-45.39	-45.78	-45.12	-45.28	-55.95	-56.08	-55.36	-55.58	-55.20	-55.70
11	-42.97	-43.10	-45.06	-45.39	-45.28	-45.38	-56.08	-56.10	-55.58	-55.79	-55.70	-55.82
12	-42.81	-42.97	-45.01	-45.06	-45.38	-45.67	-55.94	-56.10	-55.71	-55.81	-55.82	-55.96
13	-42.79	-42.82	-44.96	-45.01	-45.67	-45.83	-55.66	-55.94	-55.64	-55.72	-55.93	-55.96
14	-42.80	-42.94	-44.91	-44.96	-45.79	-46.23	-55.37	-55.66	-55.72	-55.78	-55.91	-55.93
15	-42.80	-42.96	-44.77	-44.91	-46.23	-47.72	-55.26	-55.37	-55.78	-55.78	-55.91	-55.98
16	-42.73	-42.80	-44.66	-44.77	-47.72	-48.71	-55.25	-55.26	-55.78	-55.80	-55.98	-56.02
17	-42.75	-42.77	-44.60	-44.66	-48.71	-49.32	-55.25	-55.25	-55.80	-55.83	-55.90	-55.99
18	-42.75	-42.79	-44.45	-44.60	-49.32	-49.89	-55.25	-55.35	-55.10	-55.86	-55.49	-55.91
19	-42.73	-42.75	-44.39	-44.45	-49.89	-50.36	-55.32	-55.41	-53.89	-55.10	-54.53	-55.49
20	-42.75	-42.79	-44.38	-44.39	-50.36	-50.83	-55.27	-55.44	-53.11	-53.89	-54.61	-54.90
21	-42.79	-42.90	-44.38	-44.39	-50.83	-51.31	-55.44	-55.50	-52.41	-53.11	-54.85	-55.05
22	-42.89	-42.90	-44.39	-44.53	-51.31	-51.59	-55.48	-55.50	-52.13	-52.57	-55.05	-55.18
23	-42.74	-42.89	-44.53	-44.60	-51.59	-51.88	-55.48	-55.57	-52.57	-53.59	-55.12	-55.36
24	-42.74	-42.76	-44.60	-44.63	-51.88	-52.11	-55.57	-55.59	-53.59	-54.23	-54.24	-55.12
25	-42.70	-42.75	-44.63	-44.70	-52.11	-52.53	-55.48	-55.59	-54.23	-54.50	-54.35	-54.80
26	-42.70	-42.79	-44.70	-44.74	-52.53	-52.76	-55.44	-55.48	-54.50	-54.69	-54.80	-54.99
27	-42.79	-43.05	-44.50	-44.71	-52.76	-53.01	-55.47	-55.59	-54.69	-54.82	-54.99	-55.05
28	-43.05	-43.13	-44.38	-44.50	-53.01	-53.36	-55.59	-55.64	-54.81	-54.97	-55.00	-55.01
29	-43.11	-43.13	-44.38	-44.43	-53.36	-53.59	-55.64	-55.70	-54.97	-55.09	-55.00	-55.16
30	-43.12	-43.53	-44.43	-44.57	-53.59	-53.88	-54.96	-55.74	-55.09	-55.22	-55.16	-55.30
31	---	---	-44.57	-44.67	---	---	-53.65	-54.96	-55.22	-55.34	---	---
MONTH	-42.70	-43.97	-43.53	-46.37	-44.66	-53.88	-53.65	-56.10	-52.13	-55.86	-53.88	-56.75
YEAR	-42.70	-56.75										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

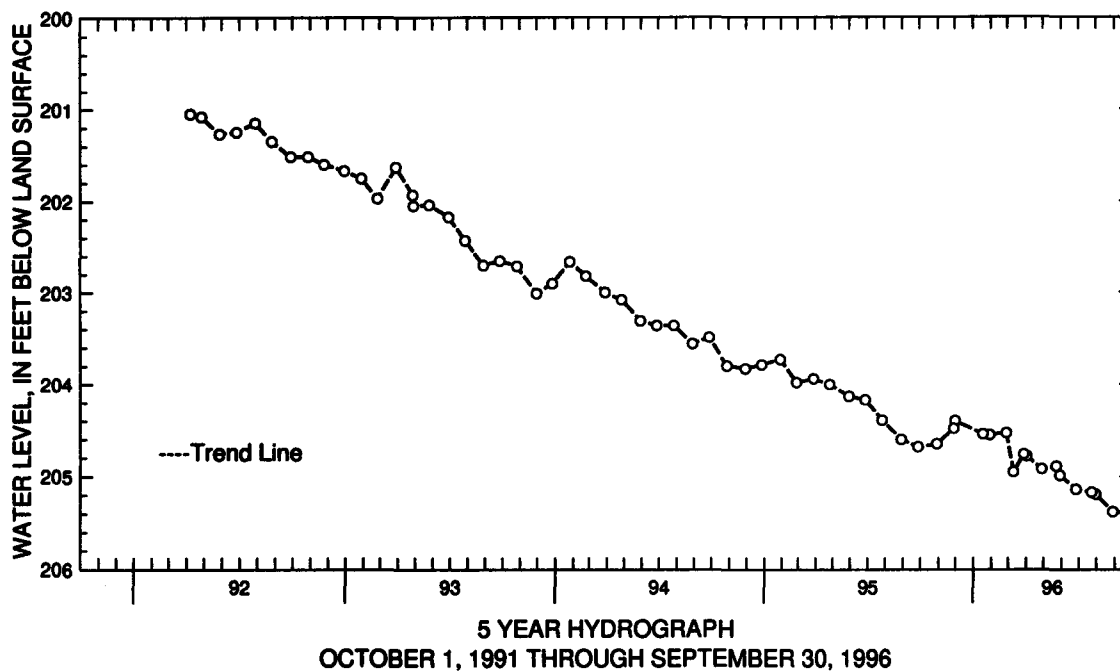
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Be 57. SITE ID.--383706076575601. PERMIT NUMBER.--CH-81-1194.
 LOCATION.--Lat 38°37'06", long 76°57'56", Hydrologic Unit 02070011, St. John's pumping station, St. Charles.
 Owner: Charles County Department of Public Works.
 AQUIFER.--Patuxant Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,696 ft; casing diameter 6 in., to 400 ft; casing diameter 4 in. from 400 to 1,660 ft, screen diameter 4 in. from 1,660 to 1,696 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel from April 1992 to current year.
 DATUM.--Elevation of land surface is 213.0 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 2.0 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--April 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 196.10 ft below land surface, April 3, 1986; lowest measured, 205.48 ft below land surface, Sept. 30, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	204.65	FEB 28, 1996	204.53	MAY 24, 1996	204.89		
AUG 29, 1996	205.38						
NOV 29	204.48	MAR 11	204.95	30	204.99	SEP 25	205.39
DEC 01	204.40	29	204.76	JUN 27	205.14	30	205.48
JAN 18, 1996	204.54	APR 03	204.78	JUL 24	205.17		
30	204.55	29	204.92	31	205.19		
WATER YEAR 1996		HIGHEST 204.40 DEC 01, 1995		LOWEST 205.48 SEP 30, 1996			



GROUND-WATER LEVELS

MARYLAND--Continued

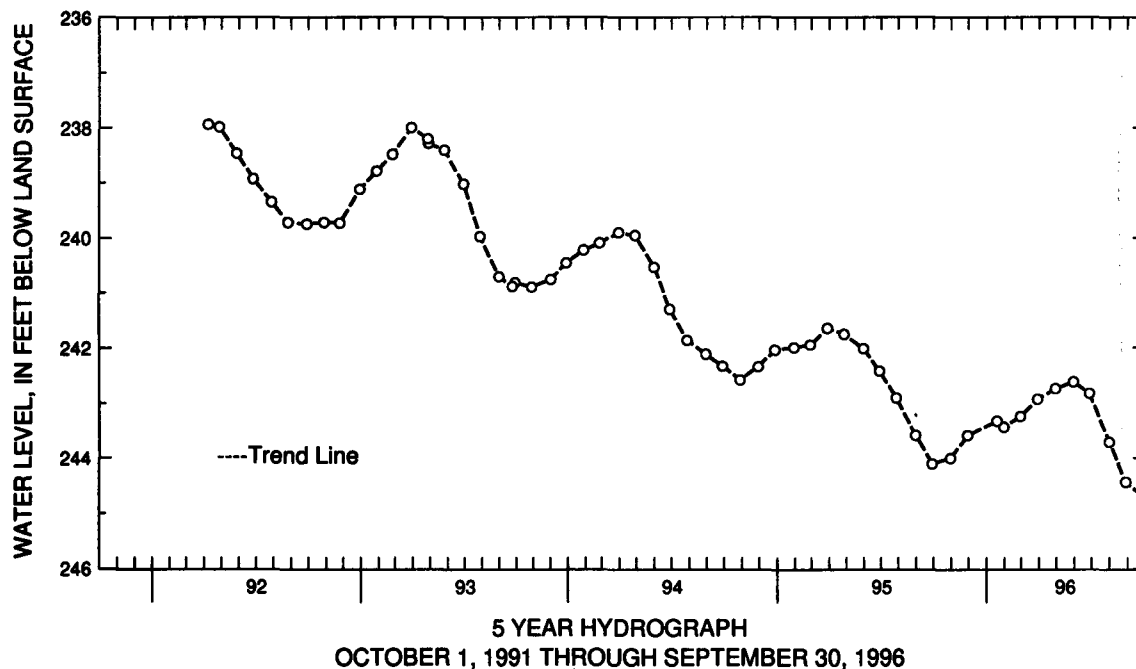
CHARLES COUNTY--Continued

WELL NUMBER.--CH Be 60. SITE ID.--383706076575604. PERMIT NUMBER.--CH-81-1468.
 LOCATION.--Lat 38°37'06", long 76°57'56", Hydrologic Unit 02070011, St. John's pumping station, St. Charles.
 Owner: U.S. Geological Survey.
 AQUIFER.--White Plains aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 625 ft; casing diameter 6 in., to 401 ft;
 casing diameter 4 in. from 401 ft to 610 ft, and 625 to 635 ft; screen diameter 4 in. from 610 to 625 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel
 from April 1992 to current year.
 DATUM.--Elevation of land surface is 212.8 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 2.2 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--November 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 227.10 ft below land surface, April 10, 1987;
 lowest measured, 244.70 ft below land surface, Sept. 30, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	244.01	JAN 30, 1996	243.44	APR 29, 1996	242.75	JUL 31, 1996	243.71
NOV 29	243.59	FEB 28	243.25	MAY 30	242.63	AUG 29	244.44
JAN 18, 1996	243.33	MAR 29	242.94	JUN 27	242.84	SEP 30	244.70

WATER YEAR 1996	HIGHEST	242.63	MAY 30, 1996	LOWEST	244.70	SEP 30, 1996
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MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 101. SITE ID.--383853076532601. PERMIT NUMBER.--CH-01-1882.
 LOCATION.--Lat 38°38'53", long 76°53'26", Hydrologic Unit 02070011, at Sam's Club,
 1.7 mi. northwest of Waldorf.
 Owner: Sam's Club.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, artesian well, depth 475 ft; casing diameter 6 in., to 423 ft, and
 438 to 449 ft; screen diameter 6 in. from 423 to 438 ft, and 449 to 475 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from Nov. 20, 1976 to Feb. 6, 1978. Equipped with digital
 water-level recorder--60-minute recorder interval from Feb. 26, 1978 to current year. Recorder removed
 from May 14, 1991 to November 19, 1991 during construction at the site.
 DATUM.--Altitude of land surface is 216.45 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 1.18 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
 Recorder removed May 14, 1991 to Nov. 19, 1991 during building construction.
 PERIOD OF RECORD.--November 1976 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.60 ft above sea level, Jan. 16, 1977;
 lowest measured, 54.47 ft below sea level, Sept. 10, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "--")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-44.14	-44.27	-44.19	-45.20	-37.78	-38.06	-40.11	-40.16	-44.21	-45.76	-45.24	-45.95
2	-44.14	-44.16	-43.42	-44.19	-37.78	-37.92	-40.12	-40.16	-43.22	-44.21	-43.77	-45.24
3	-44.16	-44.18	-43.04	-43.42	-37.63	-37.92	-40.06	-40.15	-42.46	-43.22	-43.14	-43.77
4	-44.16	-44.20	-42.98	-43.04	-37.59	-37.69	-40.15	-40.20	-42.21	-42.46	-42.47	-43.14
5	-43.74	-44.16	-43.01	-43.88	-37.50	-37.70	-39.66	-40.19	-42.02	-42.21	-41.88	-42.47
6	-43.36	-43.74	-43.88	-45.02	-37.44	-37.71	-39.17	-39.66	-41.68	-42.02	-41.53	-41.88
7	-43.13	-43.36	-43.98	-44.80	-37.61	-38.26	-38.36	-39.17	-40.77	-41.68	-41.11	-41.53
8	-42.97	-43.13	-44.11	-44.44	-38.26	-40.10	-38.09	-38.36	-39.89	-40.77	-40.59	-41.11
9	-42.78	-43.41	-43.66	-44.11	-40.10	-41.08	-37.57	-38.09	-39.30	-39.89	-40.11	-40.59
10	-43.41	-45.05	-43.28	-43.66	-40.83	-41.40	-37.42	-37.57	-38.93	-39.30	-39.78	-40.11
11	-45.05	-45.91	-42.79	-43.28	-39.78	-40.83	-37.42	-37.78	-38.58	-38.93	-39.78	-39.87
12	-45.83	-46.24	-42.46	-42.79	-39.35	-39.78	-37.78	-38.06	-38.58	-38.58	-39.87	-40.01
13	-44.81	-45.83	-42.00	-42.46	-39.03	-39.35	-38.06	-38.31	-38.23	-38.58	-40.01	-40.09
14	-44.77	-45.53	-41.21	-42.00	-38.61	-39.03	-38.31	-38.60	-37.99	-38.23	-40.09	-40.11
15	-43.59	-44.77	-41.00	-41.42	-38.45	-38.61	-38.60	-38.99	-37.88	-38.01	-40.08	-40.16
16	-43.05	-43.59	-41.42	-42.46	-38.46	-38.85	-38.99	-39.25	-37.56	-37.88	-40.16	-40.33
17	-42.47	-43.05	-41.22	-42.27	-38.85	-39.22	-39.25	-39.48	-37.33	-37.56	-40.31	-40.40
18	-42.10	-42.47	-40.59	-41.22	-39.22	-39.60	-39.37	-39.48	-37.24	-37.33	-40.40	-40.54
19	-42.10	-42.40	-40.19	-40.59	-39.54	-39.60	-39.24	-39.63	-37.20	-37.28	-40.35	-40.55
20	-42.40	-42.73	-39.99	-40.19	-39.55	-39.67	-39.63	-39.70	-37.18	-37.20	-40.29	-40.38
21	-42.72	-43.07	-39.64	-39.99	-39.67	-39.88	-39.19	-39.68	-37.18	-37.20	-40.27	-41.41
22	-43.07	-43.40	-39.47	-39.64	-39.88	-40.04	-38.94	-39.40	-37.11	-38.04	-41.41	-43.19
23	-43.40	-43.66	-39.19	-39.47	-40.04	-40.08	-39.40	-41.23	-38.04	-40.09	-43.19	-44.36
24	-43.66	-43.71	-39.08	-39.19	-40.08	-40.27	-41.23	-42.42	-40.09	-41.67	-44.36	-45.26
25	-43.66	-43.76	-38.86	-39.08	-40.27	-40.36	-42.42	-43.46	-41.67	-42.94	-45.09	-45.48
26	-43.60	-43.87	-38.76	-38.86	-40.35	-40.38	-43.46	-44.17	-42.94	-44.00	-45.18	-46.17
27	-43.39	-43.80	-38.62	-38.76	-40.34	-40.37	-44.17	-44.62	-44.00	-44.59	-46.17	-46.60
28	-43.26	-43.39	-38.57	-38.62	-40.34	-40.37	-44.62	-45.37	-44.59	-45.26	-46.60	-46.98
29	-43.27	-43.30	-38.29	-38.57	-40.26	-40.34	-45.37	-45.88	-45.26	-45.75	-46.98	-47.50
30	-43.27	-43.80	-38.06	-38.29	-40.21	-40.26	-45.88	-46.03	---	---	-47.17	-47.80
31	-43.80	-45.29	---	---	-40.11	-40.21	-45.76	-46.19	---	---	-45.52	-47.17
MONTH	-42.10	-46.24	-38.06	-45.20	-37.44	-41.40	-37.42	-46.19	-37.11	-45.76	-39.78	-47.80

GROUND-WATER LEVELS

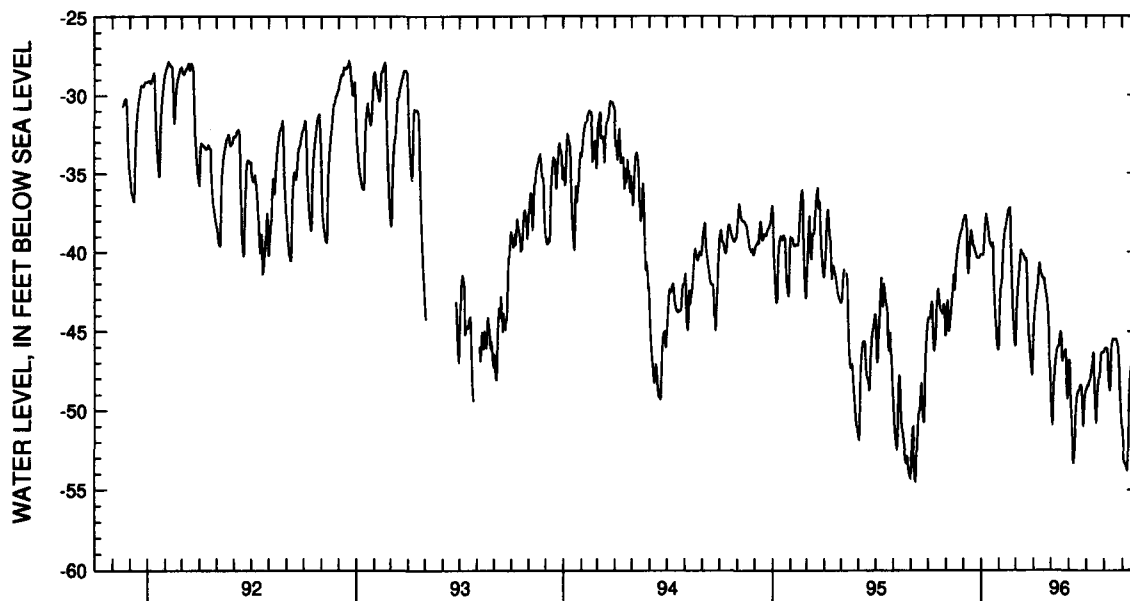
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Bf 101--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-44.45	-45.52	-47.36	-48.81	-46.81	-47.36	-48.62	-48.70	-46.17	-46.27	-50.59	-51.14
2	-44.06	-44.45	-48.81	-49.81	-46.68	-46.81	-48.43	-48.62	-46.00	-46.17	-50.81	-51.78
3	-43.61	-44.06	-49.81	-50.46	-46.69	-46.81	-48.39	-48.43	-45.98	-46.07	-51.78	-52.55
4	-43.19	-43.61	-50.15	-50.93	-46.81	-48.00	-48.43	-48.47	-46.07	-46.11	-52.55	-53.11
5	-43.00	-43.19	-48.85	-50.15	-48.00	-49.62	-48.21	-48.44	-46.07	-46.09	-53.11	-53.30
6	-42.50	-43.00	-48.11	-48.85	-49.62	-50.71	-48.09	-48.21	-45.60	-46.07	-53.00	-53.33
7	-42.38	-42.50	-47.54	-48.11	-50.71	-51.47	-48.07	-48.10	-45.35	-46.11	-53.02	-53.41
8	-42.12	-42.38	-46.98	-47.54	-51.47	-52.27	-47.72	-48.07	-46.11	-47.28	-53.41	-53.51
9	-41.49	-42.12	-46.71	-46.98	-52.27	-53.05	-47.45	-47.72	-47.28	-48.04	-53.51	-53.62
10	-41.06	-41.49	-46.45	-46.71	-52.98	-53.33	-47.25	-47.45	-48.04	-48.50	-53.06	-53.81
11	-40.65	-41.06	-46.14	-46.45	-51.10	-52.98	-47.01	-47.25	-48.26	-48.77	-50.87	-53.06
12	-40.55	-40.67	-46.01	-46.14	-50.19	-51.10	-46.45	-47.01	-46.37	-48.26	-49.14	-50.87
13	-40.67	-40.95	-45.92	-46.02	-49.63	-50.19	-46.02	-46.45	-45.88	-46.37	-48.19	-49.14
14	-40.95	-41.33	-45.94	-46.00	-49.21	-49.63	-45.80	-46.39	-45.66	-45.88	-47.68	-48.19
15	-41.33	-41.40	-45.69	-45.95	-48.97	-49.21	-46.39	-47.74	-45.46	-45.66	-47.41	-47.68
16	-41.37	-41.45	-45.27	-45.69	-48.85	-48.97	-47.74	-49.12	-45.41	-45.46	-47.07	-47.41
17	-41.45	-41.59	-45.11	-45.27	-48.70	-48.85	-49.12	-50.12	-45.41	-45.47	-46.69	-47.07
18	-41.59	-41.68	-45.01	-45.11	-48.69	-48.72	-50.12	-50.82	-45.46	-45.49	-46.67	-46.69
19	-41.59	-41.65	-44.99	-45.01	-48.67	-48.72	-49.17	-50.42	-45.46	-45.49	-46.17	-46.68
20	-41.61	-41.66	-44.99	-45.40	-48.41	-48.67	-48.61	-49.17	-45.49	-45.54	-46.06	-46.17
21	-41.66	-42.02	-45.40	-46.71	-48.38	-48.41	-48.20	-48.61	-45.42	-45.54	-46.06	-46.09
22	-42.02	-42.30	-46.46	-46.88	-48.36	-48.39	-47.72	-48.20	-45.42	-45.51	-45.80	-46.06
23	-42.30	-42.51	-46.32	-46.53	-48.36	-48.44	-47.60	-47.91	-45.51	-45.62	-45.77	-46.00
24	-42.51	-42.84	-46.36	-46.53	-48.44	-49.10	-47.43	-47.91	-45.62	-45.79	-45.78	-46.01
25	-42.84	-42.92	-46.22	-46.36	-49.07	-50.03	-46.68	-47.43	-45.79	-45.95	-45.82	-46.04
26	-42.92	-43.36	-46.11	-46.22	-50.03	-51.03	-46.37	-46.68	-45.95	-46.56	-45.98	-46.04
27	-43.36	-43.89	-45.93	-46.11	-49.44	-50.64	-46.36	-46.38	-46.55	-47.30	-45.95	-45.99
28	-43.89	-45.00	-45.78	-46.67	-49.08	-49.44	-46.28	-46.37	-47.30	-48.63	-45.65	-45.96
29	-45.00	-47.09	-46.67	-48.49	-48.79	-49.08	-46.28	-46.33	-48.63	-49.50	-45.22	-45.65
30	-46.73	-47.36	-48.49	-49.28	-48.63	-48.79	-46.30	-46.34	-49.50	-50.33	-44.86	-45.22
31	---	---	-47.36	-48.84	---	---	-46.25	-46.34	-50.33	-51.01	---	---
MONTH	-40.55	-47.36	-44.99	-50.93	-46.68	-53.33	-45.80	-50.82	-45.35	-51.01	-44.86	-53.81
YEAR	-37.11	-53.81										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER...CH Bf 133. SITE ID...383640076545901. PERMIT NUMBER...CH-70-0069.

LOCATION...Lat 38°36'40", long 76°54'59", Hydrologic Unit 02070011, at St. Charles, Copely Rd. pumping station.

Owner: Charles County Department of Public Works.

AQUIFER...Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS...Drilled, observation, artesian well, depth 510 ft; casing diameter 10 in., to 77 ft; casing diameter 6 in. from -2 to 420 ft, casing diameter 4 in. from 420 to 436 ft and 506 to 510 ft; screen diameter 4 in. from 436 to 506 ft.

INSTRUMENTATION...Monthly measurements with chalked steel tape by U.S. Geological Survey personnel from April 1992 to current year. Twice yearly measurements from April 1974 to April 1992.

DATUM...Elevation of land surface is 223.50 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 0.82 ft above land surface.

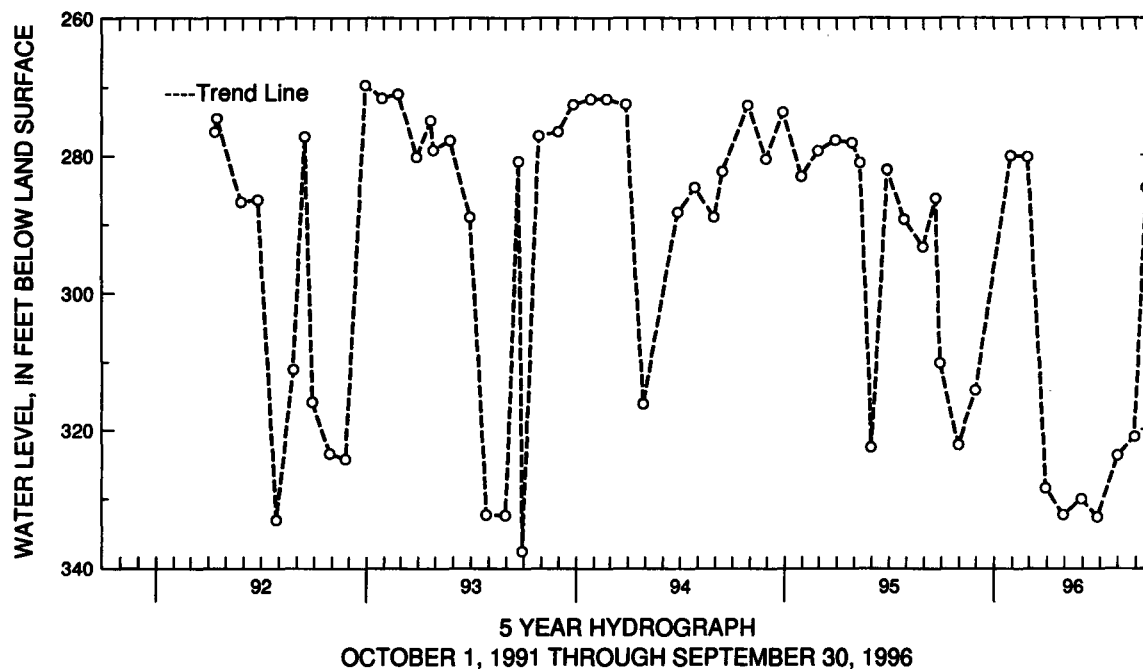
REMARKS...Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.

PERIOD OF RECORD...April 1974 to current year.

EXTREMES FOR PERIOD OF RECORD...Highest water level measured, 211.68 ft below land surface, April 26, 1974; lowest measured, 337.54 ft below land surface, Sept. 28, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	322.22	FEB 28, 1996	280.22	MAY 30, 1996	329.99	AUG 29, 1996	321.04
NOV 29	314.21	MAR 29	328.49	JUN 27	332.57	SEP 20	284.82
JAN 30, 1996	280.13	APR 29	332.26	JUL 31	323.74	30	327.39
WATER YEAR 1996		HIGHEST 280.13	JAN 30, 1996	LOWEST 332.57	JUN 27, 1996		



GROUND-WATER LEVELS

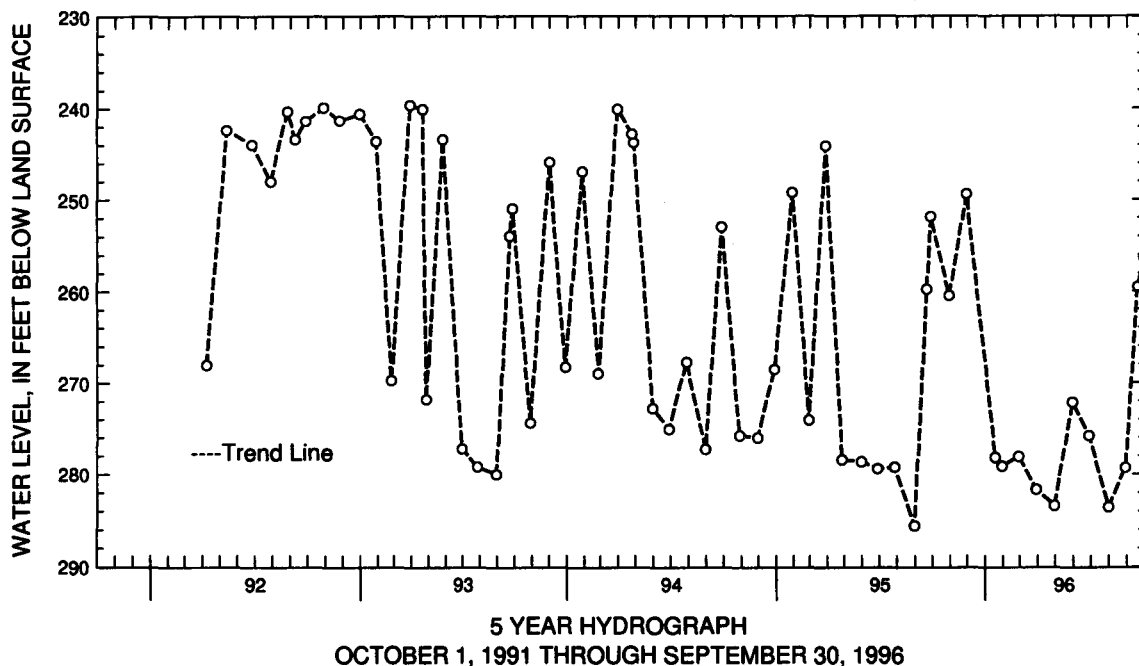
MARYLAND--Continued

CHARLES COUNTY--Continued CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 134. SITE ID.--383728076531701. PERMIT NUMBER.--CH-70-0067.
 LOCATION.--Lat 38°37'28", long 76°53'17", Hydrologic Unit 02070011, at John Hansen Middle School parking lot, at Waldorf.
 Owner: Charles County Department of Public Works.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 546 ft; casing diameter 6 in., to 402 ft; casing diameter 4 in. from 422 to 485 ft; screen diameter 4 in. from 402 to 422 ft and 485 to 546 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 202.09 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 1.51 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--April 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 188.87 ft below land surface, April 26, 1974; lowest measured, 285.59 ft below land surface, Aug. 30, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	260.49	FEB 28, 1996	278.08	JUN 27, 1996	275.83	SEP 30, 1996	256.33
NOV 29	249.39	MAR 29	281.67	JUL 31	283.57		
JAN 18, 1996	278.19	APR 29	283.43	AUG 29	279.29		
30	279.12	MAY 30	272.16	SEP 19	259.56		
WATER YEAR 1996		HIGHEST 249.39 NOV 29, 1995		LOWEST 283.57 JUL 31, 1996			



GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 146. SITE ID.--383508076540701. PERMIT NUMBER.--CH-81-0593.

LOCATION.--Lat 38°35'08", long 76°54'07", Hydrologic Unit 02070011, 0.3 mi south of the intersection of St. Pauls Dr. and Piney Church Rd., St. Charles.

Owner: U.S. Geological Survey.

AQUIFER.--La Plata aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217LPLT.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,427 ft; casing diameter 6 in., to 1,059 ft, 1,069 to 1,073 ft, 1,083 to 1,161 ft, 1,166 to 1,170 ft, 1,180 to 1,184 ft, 1,189 to 1,195 ft, 1,205 to 1,244 ft, 1,249 to 1,252 ft, 1,262 to 1,298 ft, 1,328 to 1,342 ft, and 1,417 to 1,427 ft; screen diameter 10 in. from 1,059 to 1,069 ft, 1,073 to 1,083 ft, 1,161 to 1,166 ft, 1,170 to 1,180 ft, 1,184 to 1,189 ft, 1,195 to 1,205 ft, 1,244 to 1,249 ft, 1,252 to 1,262 ft, 1,298 to 1,328 ft, and 1,342 to 1,417 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 192.8 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.10 ft above land surface.

REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.

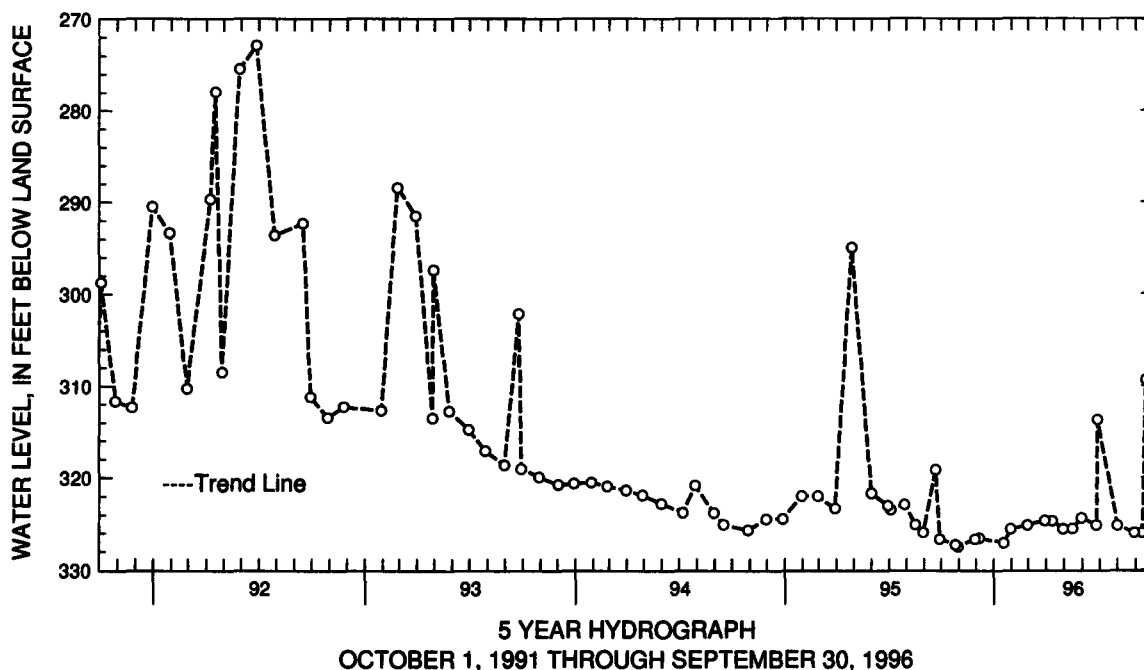
PERIOD OF RECORD.--April 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 195.70 ft below land surface, April 4, 1985; lowest measured, 327.48 ft below land surface, Oct. 30, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1995	327.26	JAN 30, 1996	325.56	MAY 15, 1996	325.49	AUG 29, 1996	325.98
30	327.48	FEB 28	325.11	30	324.34	SEP 12	325.95
NOV 29	326.63	MAR 29	324.63	JUN 25	325.14	18	309.35
DEC 06	326.56	APR 10	324.67	27	313.70	30	325.35
JAN 18, 1996	327.12	29	325.53	JUL 31	325.15		

WATER YEAR 1996 HIGHEST 309.35 SEP 18, 1996 LOWEST 327.48 OCT 30, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 151 . SITE ID.--383508076540703 . PERMIT NUMBER.--CH-81-1265.
 LOCATION.--Lat 38°35'08", long 76°54'07", Hydrologic Unit 02070011, 0.3 mi south of the intersection of
 St. Pauls Dr. and Piney Church Rd., St. Charles.
 Owner: U.S. Geological Survey.
 AQUIFER.--St. Charles aquifer of the Upper Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 660 ft; casing diameter 6 in., to 399 ft;
 casing diameter 4 in. from 399 to 645 ft; screen diameter 4 in. from 645 to 660 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from August 18, 1987 to current year.
 DATUM.--Altitude of land surface is 192.8 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.20 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--August 1987 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 32.39 ft below sea level, March 27, 1988;
 lowest measured, 57.79 ft below sea level, Sept. 11, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-55.47	-55.57	-51.72	-51.99	-49.14	-49.39	-47.77	-47.85	-47.34	-47.37	-46.55	-46.58
2	-55.47	-55.49	-51.41	-51.72	-49.16	-49.25	-47.54	-47.77	-47.27	-47.35	-46.52	-46.58
3	-55.49	-55.53	-51.22	-51.41	-49.23	-49.29	-47.45	-47.54	-47.18	-47.27	-46.55	-46.77
4	-55.52	-55.57	-51.19	-51.23	-49.29	-49.47	-47.52	-47.57	-47.18	-47.23	-46.74	-46.79
5	-55.38	-55.57	-51.04	-51.22	-49.32	-49.47	-47.51	-47.57	-47.15	-47.24	-46.59	-46.74
6	-55.29	-55.38	-50.90	-51.04	-49.28	-49.42	-47.55	-47.60	-47.17	-47.21	-46.55	-46.74
7	-55.06	-55.29	-50.62	-50.90	-49.31	-49.40	-47.10	-47.55	-47.06	-47.19	-46.50	-46.74
8	-54.84	-55.06	-50.63	-50.65	-49.32	-49.37	-47.06	-47.14	-46.89	-47.06	-46.51	-46.84
9	-54.61	-54.84	-50.61	-50.66	-49.13	-49.32	-47.04	-47.15	-46.89	-47.01	-46.84	-47.13
10	-54.54	-54.62	-50.43	-50.62	-49.12	-49.28	-47.04	-47.09	-46.97	-47.05	-47.13	-47.38
11	-54.54	-54.59	-50.02	-50.43	-49.28	-49.41	-46.98	-47.09	-46.91	-47.00	-47.38	-47.56
12	-54.59	-54.79	-50.03	-50.15	-49.34	-49.50	-46.75	-46.98	-47.00	-47.32	-47.41	-47.44
13	-54.79	-54.93	-50.07	-50.15	-49.31	-49.37	-46.76	-46.78	-47.32	-47.41	-47.33	-47.41
14	-54.51	-54.93	-49.76	-50.07	-49.06	-49.31	-46.73	-46.79	-47.18	-47.35	-47.19	-47.33
15	-54.34	-54.51	-49.76	-49.89	-48.94	-49.06	-46.72	-46.96	-47.22	-47.27	-47.12	-47.21
16	-54.33	-54.37	-49.89	-49.90	-48.84	-48.94	-46.96	-47.17	-47.04	-47.27	-47.21	-47.35
17	-54.30	-54.41	-49.90	-49.94	-48.81	-48.87	-47.17	-47.46	-46.91	-47.04	-47.20	-47.35
18	-54.05	-54.30	-49.75	-49.93	-48.59	-48.81	-47.46	-47.60	-46.90	-47.00	-47.11	-47.20
19	-53.81	-54.05	-49.69	-49.75	-48.31	-48.59	-47.34	-47.59	-46.97	-47.01	-46.83	-47.11
20	-53.59	-53.81	-49.54	-49.69	-48.27	-48.31	-47.59	-47.73	-46.86	-46.98	-46.81	-46.86
21	-53.36	-53.59	-49.47	-49.58	-48.17	-48.30	-47.73	-47.96	-46.83	-46.86	-46.78	-46.81
22	-53.39	-53.46	-49.58	-49.73	-48.16	-48.20	-47.96	-48.20	-46.76	-46.83	-46.81	-46.88
23	-53.15	-53.39	-49.72	-49.74	-48.15	-48.20	-48.19	-48.23	-46.68	-46.76	-46.88	-46.90
24	-52.85	-53.15	-49.72	-49.74	-48.11	-48.16	-47.99	-48.19	-46.61	-46.68	-46.87	-46.92
25	-52.82	-52.88	-49.63	-49.73	-48.02	-48.13	-48.07	-48.15	-46.61	-46.67	-46.85	-46.89
26	-52.72	-52.83	-49.64	-49.66	-47.96	-48.02	-47.90	-48.14	-46.55	-46.61	-46.89	-47.12
27	-52.48	-52.75	-49.66	-49.73	-47.89	-47.96	-47.59	-47.90	-46.43	-46.55	-47.12	-47.29
28	-52.39	-52.48	-49.73	-49.86	-47.85	-47.90	-47.65	-47.69	-46.36	-46.47	-47.07	-47.29
29	-52.34	-52.43	-49.60	-49.82	-47.90	-48.04	-47.46	-47.66	-46.47	-46.56	-47.02	-47.07
30	-52.17	-52.34	-49.39	-49.60	-48.04	-48.07	-47.33	-47.46	---	---	-47.06	-47.08
31	-51.99	-52.17	---	---	-47.85	-48.04	-47.28	-47.40	---	---	-46.95	-47.06
MONTH	-51.99	-55.57	-49.39	-51.99	-47.85	-49.50	-46.72	-48.23	-46.36	-47.41	-46.50	-47.56

GROUND-WATER LEVELS

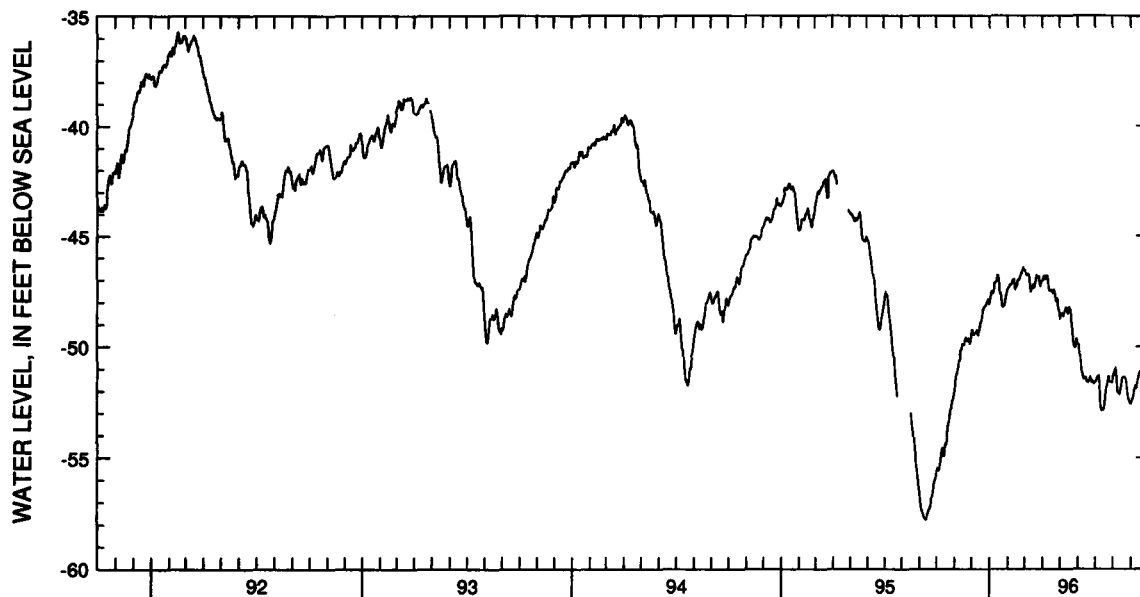
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Bf 151--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-46.79	-46.95	-48.49	-48.72	-49.78	-49.90	-51.50	-51.59	-51.22	-51.34	-52.53	-52.60
2	-46.79	-46.85	-48.55	-48.67	-49.83	-49.90	-51.53	-51.61	-51.15	-51.22	-52.43	-52.53
3	-46.75	-46.85	-48.49	-48.55	-49.83	-49.92	-51.42	-51.53	-51.09	-51.15	-52.39	-52.43
4	-46.76	-46.83	-48.46	-48.53	-49.92	-50.33	-51.38	-51.42	-51.00	-51.09	-52.31	-52.39
5	-46.81	-46.97	-48.45	-48.50	-50.33	-50.60	-51.36	-51.39	-50.93	-51.00	-52.21	-52.31
6	-46.87	-46.97	-48.44	-48.58	-50.60	-50.80	-51.34	-51.37	-50.93	-51.10	-51.92	-52.21
7	-46.81	-46.87	-48.53	-48.62	-50.80	-51.07	-51.29	-51.34	-51.10	-51.49	-51.84	-51.92
8	-46.81	-46.82	-48.41	-48.53	-51.07	-51.15	-51.31	-51.57	-51.49	-51.84	-51.71	-51.84
9	-46.81	-46.90	-48.37	-48.41	-51.15	-51.26	-51.57	-52.16	-51.84	-52.05	-51.69	-51.78
10	-46.90	-47.16	-48.24	-48.39	-51.26	-51.41	-52.16	-52.58	-52.03	-52.06	-51.78	-51.89
11	-47.16	-47.42	-48.06	-48.24	-51.41	-51.49	-52.58	-52.85	-52.03	-52.11	-51.66	-51.86
12	-47.42	-47.48	-48.07	-48.25	-51.40	-51.49	-52.81	-52.89	-52.06	-52.16	-51.52	-51.66
13	-47.42	-47.48	-48.25	-48.36	-51.41	-51.44	-52.63	-52.82	-51.92	-52.06	-51.36	-51.52
14	-47.40	-47.45	-48.36	-48.49	-51.31	-51.41	-52.78	-52.86	-51.76	-51.92	-51.26	-51.36
15	-47.42	-47.49	-48.41	-48.51	-51.31	-51.44	-52.86	-52.88	-51.56	-51.76	-51.17	-51.26
16	-47.37	-47.47	-48.24	-48.41	-51.44	-51.59	-52.73	-52.87	-51.43	-51.56	-51.01	-51.17
17	-47.47	-47.53	-48.22	-48.25	-51.59	-51.62	-52.45	-52.73	-51.42	-51.43	-50.91	-51.12
18	-47.52	-47.58	-48.25	-48.31	-51.60	-51.63	-52.16	-52.45	-51.39	-51.42	-51.02	-51.17
19	-47.42	-47.52	-48.29	-48.34	-51.54	-51.61	-51.84	-52.16	-51.38	-51.39	-51.03	-51.30
20	-47.35	-47.42	-48.34	-48.55	-51.53	-51.55	-51.82	-51.85	-51.38	-51.38	-51.30	-51.40
21	-47.36	-47.52	-48.55	-48.85	-51.42	-51.53	-51.67	-51.82	-51.38	-51.38	-51.28	-51.39
22	-47.52	-47.66	-48.85	-49.13	-51.35	-51.42	-51.47	-51.67	-51.38	-51.45	-51.09	-51.28
23	-47.66	-47.81	-49.13	-49.29	-51.35	-51.49	-51.36	-51.47	-51.45	-51.48	-51.08	-51.40
24	-47.81	-47.96	-49.29	-49.71	-51.49	-51.57	-51.28	-51.36	-51.47	-51.63	-51.21	-51.41
25	-47.81	-47.96	-49.71	-49.86	-51.42	-51.50	-51.31	-51.55	-51.63	-51.86	-51.22	-51.25
26	-47.71	-47.81	-49.78	-49.96	-51.44	-51.61	-51.55	-51.62	-51.86	-52.09	-51.18	-51.25
27	-47.77	-48.11	-49.96	-50.05	-51.42	-51.63	-51.58	-51.61	-52.09	-52.26	-51.19	-51.22
28	-48.11	-48.31	-49.78	-50.03	-51.45	-51.61	-51.58	-51.60	-52.26	-52.41	-51.01	-51.21
29	-48.27	-48.34	-49.63	-49.78	-51.61	-51.67	-51.60	-51.63	-52.39	-52.42	-51.01	-51.07
30	-48.32	-48.49	-49.58	-49.63	-51.49	-51.62	-51.60	-51.64	-52.40	-52.51	-51.07	-51.09
31	---	---	-49.60	-49.78	---	---	-51.34	-51.60	-52.51	-52.60	---	---
MONTH	-46.75	-48.49	-48.06	-50.05	-49.78	-51.67	-51.28	-52.89	-50.93	-52.60	-50.91	-52.60
YEAR	-46.36	-55.57										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 157. SITE ID.--383637076545803. PERMIT NUMBER.--CH-81-1846.

LOCATION.--Lat 38°36'40", long 76°54'59", Hydrologic Unit 02070011, at St. Charles, Copely Rd. pumping station.

Owner: U.S. Geological Survey.

AQUIFER.--St. Charles aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 623 ft; casing diameter 6 in., to 396 ft; casing diameter 4 in. from 396 to 608 ft; screen diameter 4 in. from 608 to 623 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 225.0 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.7 ft above land surface.

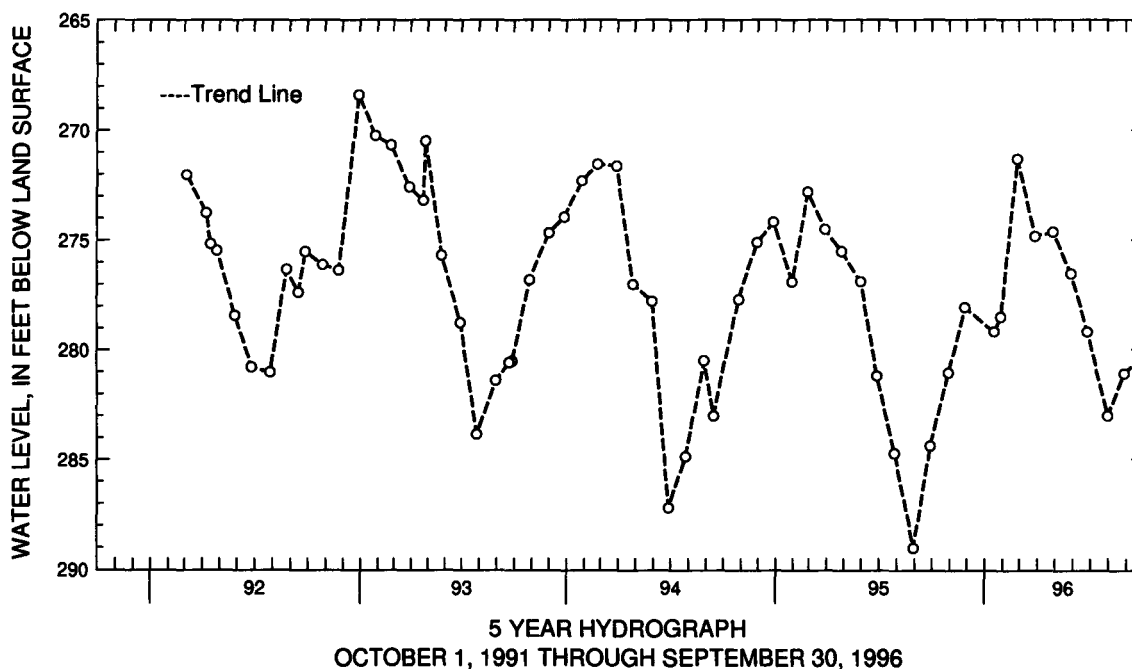
REMARKS.--Maryland Water-Level Network observation well,

PERIOD OF RECORD.--November 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 262.27 ft below land surface, April 5, 1988; lowest measured, 289.02 ft below land surface, Aug. 30, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	281.08	JAN 30, 1996	278.55	APR 29, 1996	274.64	JUL 31, 1996	283.06
NOV 29	278.10	FEB 28	271.34	MAY 30	276.55	AUG 29	281.13
JAN 18, 1996	279.21	MAR 29	274.85	JUN 27	279.21	SEP 30	280.38
WATER YEAR 1996		HIGHEST 271.34 FEB 28, 1996	LOWEST 283.06 JUL 31, 1996				



GROUND-WATER LEVELS

MARYLAND--Continued

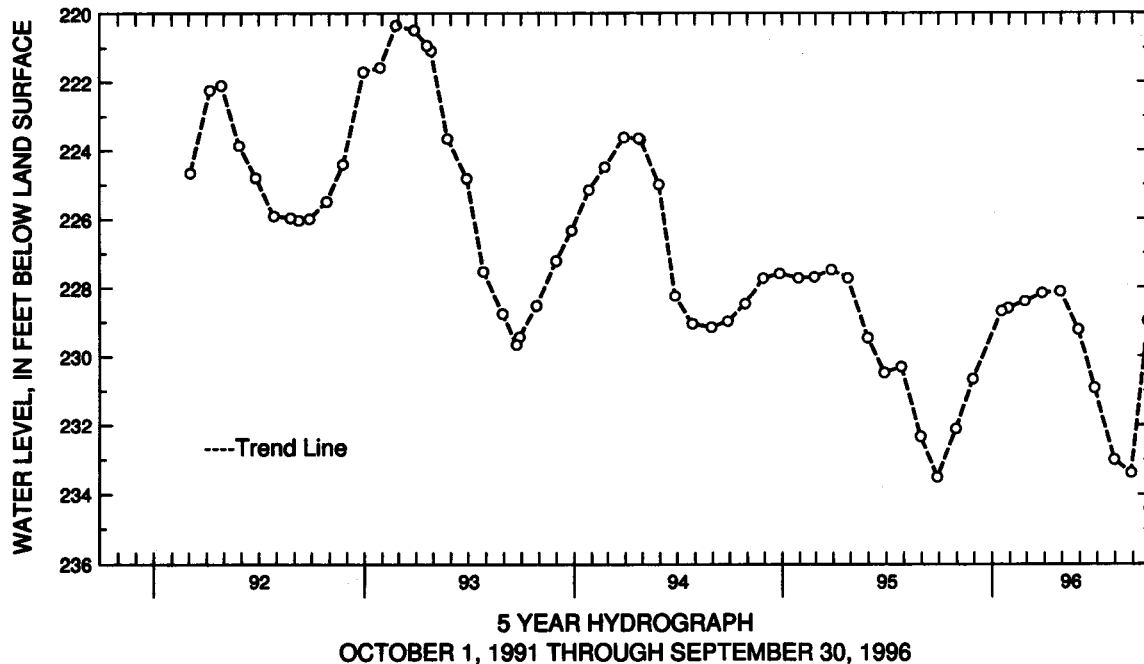
CHARLES COUNTY--Continued

WELL NUMBER.--CH Bf 158. SITE ID.--383732076531902. PERMIT NUMBER.--CH-81-1847.
 LOCATION.--Lat 38°37'32", long 76°53'19", Hydrologic Unit 02070011, at John Hansen Middle School
 pumping station, Waldorf.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 645 ft; casing diameter 6 in., to 398 ft;
 casing diameter 4 in. from 398 to 630 ft; screen diameter 4 in. from 630 to 645 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 193 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.0 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--April 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 216.70 ft below land surface, April 10, 1987;
 lowest measured, 234.41 ft below land surface, Sept. 30, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	232.11	FEB 28, 1996	228.40	JUN 27, 1996	230.92	SEP 30, 1996	234.41
NOV 29	230.66	MAR 29	228.16	JUL 31	233.01		
JAN 18, 1996	228.68	APR 29	228.11	AUG 29	233.38		
30	228.60	MAY 30	229.23	SEP 28	228.98		

WATER YEAR 1996 HIGHEST 228.11 APR 29, 1996 LOWEST 234.41 SEP 30, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bg 12. SITE ID.--383746076482901. PERMIT NUMBER.--CH-81-0600.

LOCATION.--Lat 38°37'46", long 76°48'29", Hydrologic Unit 02070011, Cedarville State Forest, near Forest Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Calvert Formation of Miocene age. Aquifer code: 122CLVR.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 24.5 ft; casing diameter 4 in., to 13.5 ft; perforated casing diameter 2 in. from 13.5 to 18.5 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 149.69 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.00 ft above land surface.

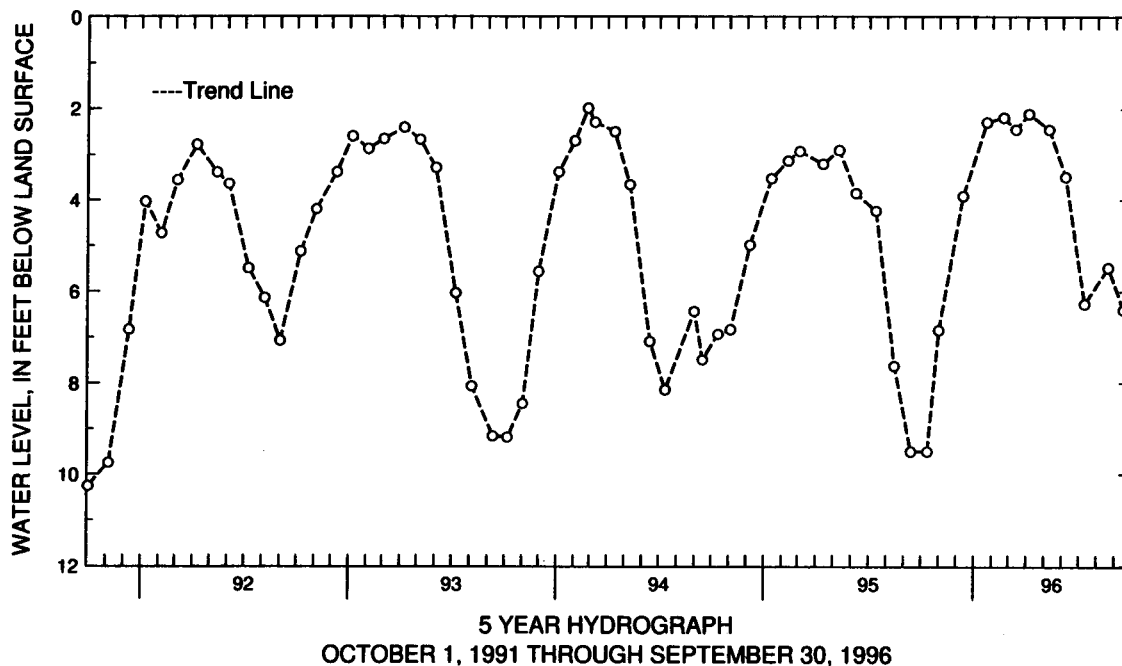
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.99 ft below land surface, May 10, 1989 and Feb. 25, 1994; lowest measured, 10.26 ft below land surface, Oct. 2, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	9.50	JAN 23, 1996	2.29	APR 04, 1996	2.11	JUL 11, 1996	6.27
NOV 01	6.84	FEB 21	2.19	MAY 09	2.45	AUG 21	5.47
DEC 13	3.91	MAR 13	2.45	JUN 07	3.48	SEP 16	6.40
WATER YEAR 1996		HIGHEST	2.11	APR 04, 1996		LOWEST	9.50
							OCT 12, 1995



GROUND-WATER LEVELS

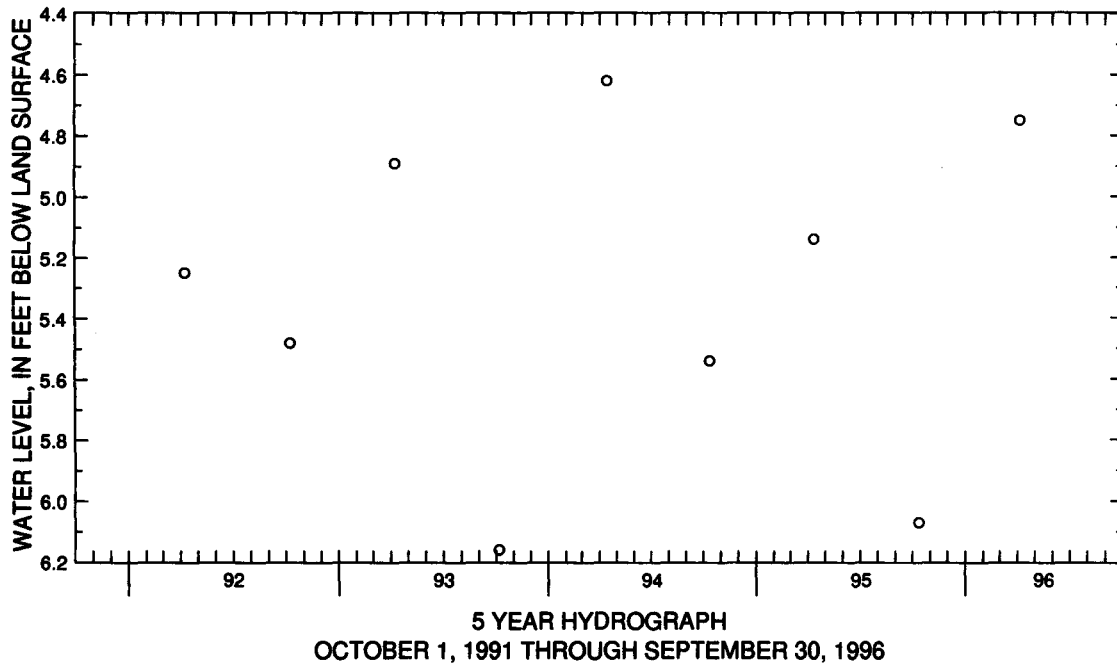
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bg 13. SITE ID.--383652076495701. PERMIT NUMBER.--CH-81-0601.
 LOCATION.--Lat 38°36'52", long 76°49'57", Hydrologic Unit 02070011, southside of MD Rt. 382,
 4.1 mi east of Waldorf at Zekiah Swamp.
 Owner: U.S. Geological Survey.
 AQUIFER.--Calvert Formation of Miocene age. Aquifer code: 122CLVR.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 22.6 ft; casing diameter 4 in.,
 to 12.6 ft; casing diameter 2 in. from 17.6 to 22.6 ft; screen diameter 2 in. from 12.6 to 17.6.
 INSTRUMENTATION.--Measured twice yearly with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 126.27 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.07 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--August 1983 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.64 ft below land surface, Dec. 13, 1984;
 lowest measured, 7.53 ft below land surface, April 23, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	6.07	APR 04, 1996	4.75
WATER YEAR 1996 HIGHEST 4.75 APR 04, 1996 LOWEST 6.07 OCT 12, 1995			



GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Cb 7. SITE ID.--383422077114601. PERMIT NUMBER.--CH-01-1908.
 LOCATION.--Lat 38°34'22", long 77°11'46", Hydrologic Unit 02070011, at Caffee and Greenslade Rds.,
 U.S. Naval Ordnance Station, about 2.5 mi southwest of Indian Head.
 Owner: U.S. Navy.
 AQUIFER.--La Plata aquifer of the Lower Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 167 ft; casing diameter 8 in., to 154 ft;
 screen diameter 6 in. from 154 to 167 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder Sept. 21, 1953 to July 8, 1965 and digital water-level
 recorder--60-minute recorder interval, April 28, 1988 to current year.
 DATUM.--Altitude of land surface is 36.0 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of recorder shelf, 1.1 ft above land surface.
 REMARKS.--Maryland Water-Level Network and Indian Head Project observation well.
 Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--March and April 1952, August 1953 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.35 ft below land surface, April 18, 1952;
 lowest measured, 89.33 ft below land surface, Aug. 12 and 14, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	81.35	81.27	81.14	81.03	81.55	81.30	81.19	80.97	80.57	80.41	80.98	80.75
2	81.30	81.20	81.10	80.92	81.70	81.38	80.99	80.62	80.52	80.41	80.75	80.39
3	81.30	81.15	81.13	80.95	81.70	81.52	80.65	80.33	80.61	80.50	80.67	80.31
4	81.22	81.08	81.59	81.13	81.62	81.53	80.53	80.39	80.69	80.61	80.80	80.67
5	81.17	80.79	81.67	81.53	81.63	81.41	80.52	80.35	80.71	80.56	80.80	80.71
6	80.92	80.78	81.63	81.54	81.53	81.43	80.51	80.39	80.60	80.50	80.81	80.69
7	81.00	80.87	81.61	81.29	81.60	81.49	80.48	80.07	80.62	80.52	80.74	80.45
8	81.02	80.91	81.72	81.30	81.74	81.60	80.35	80.07	80.55	80.39	80.83	80.46
9	81.00	80.83	81.94	81.72	81.65	81.51	80.40	80.04	80.60	80.40	80.94	80.83
10	80.94	80.84	81.88	81.67	81.75	81.55	80.28	80.04	80.65	80.49	81.04	80.93
11	80.92	80.79	81.71	81.33	81.97	81.72	80.41	80.28	80.57	80.46	81.06	80.88
12	80.90	80.79	81.78	81.34	82.07	81.97	80.31	79.98	80.74	80.51	80.90	80.75
13	80.99	80.81	81.84	81.74	82.00	81.81	80.11	79.98	80.88	80.73	80.76	80.57
14	80.92	80.53	81.77	81.62	81.86	81.66	80.13	79.97	80.73	80.47	80.58	80.44
15	80.81	80.53	81.72	81.60	81.73	81.64	80.30	80.02	80.69	80.58	80.49	80.34
16	80.98	80.74	81.85	81.66	81.71	81.57	80.33	80.20	80.61	80.38	80.52	80.42
17	81.10	80.94	81.87	81.77	81.76	81.66	80.26	80.06	80.75	80.47	80.51	80.37
18	81.09	80.97	81.79	81.61	81.75	81.60	80.18	80.07	80.66	80.48	80.46	80.29
19	81.00	80.89	81.73	81.58	81.67	81.47	80.12	79.81	80.67	80.57	80.40	80.01
20	80.95	80.70	81.73	81.47	81.81	81.50	80.10	79.91	80.69	80.54	80.06	79.89
21	80.70	80.45	81.50	81.30	81.84	81.69	79.98	79.73	80.61	80.49	80.01	79.92
22	80.76	80.62	81.60	81.42	82.03	81.78	79.84	79.74	80.64	80.52	80.13	79.98
23	80.80	80.65	81.57	81.39	82.12	81.93	79.83	79.73	80.66	80.55	80.28	80.13
24	80.86	80.75	81.62	81.44	81.96	81.77	79.80	79.70	80.71	80.58	80.34	80.23
25	80.95	80.78	81.64	81.48	81.85	81.59	80.27	79.79	80.92	80.70	80.38	80.25
26	81.01	80.89	81.57	81.31	81.82	81.58	80.32	80.22	81.01	80.90	80.45	80.25
27	80.97	80.67	81.40	81.30	81.87	81.75	80.22	79.98	81.00	80.73	80.65	80.45
28	80.78	80.62	81.57	81.33	81.90	81.73	80.54	80.09	80.73	80.54	80.62	80.30
29	81.05	80.77	81.69	81.48	81.73	81.52	80.54	80.43	80.98	80.69	80.56	80.30
30	81.13	81.01	81.71	81.54	81.52	81.29	80.52	80.37	---	---	80.56	80.29
31	81.14	81.03	---	---	81.33	81.16	80.53	80.33	---	---	80.32	80.19
MONTH	81.35	80.45	81.94	80.92	82.12	81.16	81.19	79.70	81.01	80.38	81.06	79.89

GROUND-WATER LEVELS

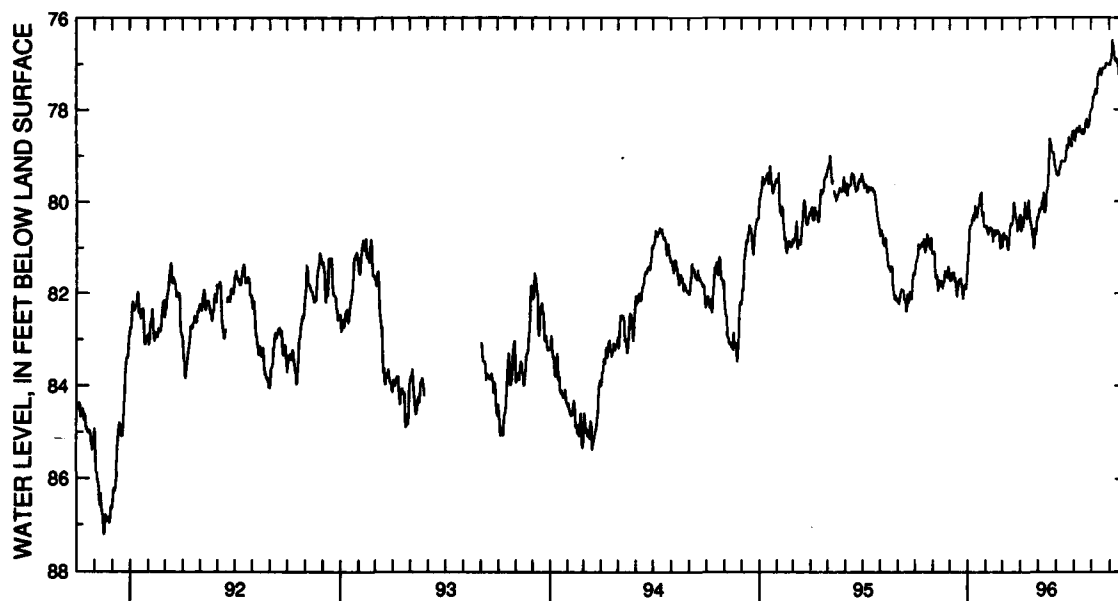
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Cb 7--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	80.28	80.13	80.38	80.24	79.32	79.16	78.47	78.32	78.04	77.98	77.03	76.99
2	80.63	80.22	80.34	80.18	79.41	79.26	78.53	78.37	78.00	77.97	77.03	76.98
3	80.64	80.29	80.27	80.10	79.41	79.28	78.46	78.32	77.99	77.94	76.98	76.82
4	80.34	80.18	80.19	80.07	79.45	79.21	78.66	78.42	77.94	77.71	77.00	76.85
5	80.48	80.20	80.22	80.07	79.35	79.21	78.68	78.57	77.73	77.65	76.91	76.81
6	80.56	80.32	80.15	80.03	79.44	79.30	78.61	78.45	77.74	77.64	76.89	76.09
7	80.35	80.22	80.19	79.98	79.37	79.21	78.49	78.41	77.69	77.59	76.47	76.13
8	80.32	80.01	80.05	79.95	79.27	79.18	78.43	78.34	77.64	77.49	76.57	76.45
9	80.01	79.82	79.99	79.87	79.27	79.16	78.39	78.29	77.55	77.42	76.60	76.44
10	80.26	79.87	79.98	79.81	79.17	79.04	78.47	78.27	77.66	77.44	76.76	76.58
11	80.32	80.17	79.81	79.69	79.12	79.02	78.49	78.37	77.66	77.50	76.86	76.76
12	80.36	80.25	80.24	79.75	79.12	79.01	78.49	78.33	77.55	77.22	76.94	76.85
13	80.31	80.06	80.25	80.17	79.14	79.00	78.35	78.07	77.22	77.08	76.95	76.79
14	80.10	79.96	80.25	80.02	79.14	79.03	78.44	78.23	77.26	77.08	76.88	76.81
15	80.10	79.82	80.09	79.84	79.13	79.04	78.46	78.31	77.15	77.08	76.93	76.83
16	79.96	79.75	79.86	79.65	79.14	79.06	78.49	78.37	77.19	77.08	77.00	76.88
17	80.32	79.96	79.76	79.65	79.13	78.99	78.53	78.44	77.13	77.04	76.95	76.84
18	80.40	80.30	79.73	79.44	79.07	78.92	78.52	78.38	77.16	77.04	77.24	76.94
19	80.47	80.35	79.48	79.19	78.98	78.77	78.43	78.22	77.27	77.10	77.21	77.08
20	80.53	80.43	79.21	78.93	78.78	78.61	78.53	78.23	77.21	77.05	77.08	77.00
21	80.62	80.51	78.96	78.69	78.85	78.61	78.51	78.44	77.09	77.02	77.00	76.75
22	80.79	80.62	78.74	78.58	78.84	78.70	78.45	78.29	77.12	77.01	76.83	76.66
23	80.73	80.58	78.63	78.54	78.72	78.61	78.30	78.19	77.09	77.03	77.02	76.73
24	81.04	80.60	78.75	78.55	78.75	78.52	78.24	78.16	77.10	77.02	77.03	76.77
25	80.96	80.59	78.91	78.75	78.59	78.41	78.22	78.12	77.10	77.03	76.83	76.69
26	80.59	80.45	78.93	78.82	78.77	78.56	78.31	78.05	77.08	76.98	76.88	76.80
27	80.73	80.52	78.95	78.85	78.77	78.67	78.39	78.19	77.00	76.96	76.88	76.76
28	80.72	80.48	78.94	78.79	78.80	78.62	78.39	78.24	76.99	76.96	76.85	76.75
29	80.50	80.28	78.99	78.89	78.80	78.54	78.35	78.17	77.00	76.97	76.98	76.75
30	80.36	80.18	79.22	78.93	78.60	78.41	78.22	78.02	77.02	76.97	77.13	76.96
31	---	---	79.24	79.12	---	---	78.09	78.00	77.02	76.98	---	---
MONTH	81.04	79.75	80.38	78.54	79.45	78.41	78.68	78.00	78.04	76.96	77.24	76.09
YEAR	82.12	76.09										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

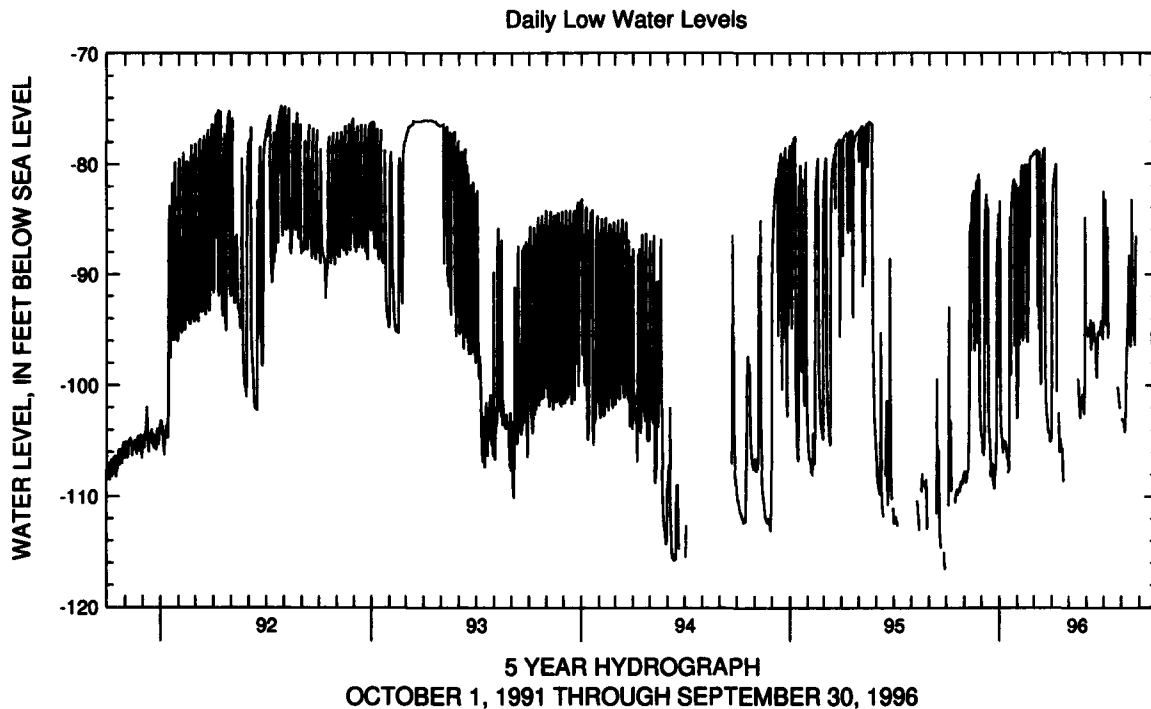
WELL NUMBER.--CH Ce 37. SITE ID.--383236076563901. PERMIT NUMBER.--CH-73-0219.
 LOCATION.--Lat 38°32'36", long 76°56'39", Hydrologic Unit 02070011, at LaPlata Water Treatment Plant,
 2.0 mi. northeast of La Plata.
 Owner: U.S. Geological Survey.
 AQUIFER.--La Plata aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1340 ft; casing diameter 6 in., to 300 ft;
 casing diameter 4 in. from 300 to 1,174 ft, 1,184 to 1,250 ft, and 1,260 to 1,330 ft; screen diameter 4 in.
 from 1,174 to 1,184 ft, 1,250 to 1,260 ft, and 1,330 to 1,340 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from Nov. 23, 1973 to Dec. 10, 1975. Equipped with digital
 water-level recorder--15-minute recorder interval from July 12, 1976 to current year.
 DATUM.--Altitude of land surface is 184.95 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.62 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--November 1973 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.44 ft below sea level, Sept. 8, 1976;
 lowest measured, 116.45 ft below sea level, Sept. 29, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	-90.48	-107.95	-86.46	-104.62	-82.55	-83.39	-84.07	-101.70	-78.95	-79.06
2	---	---	-90.11	-107.75	-86.80	-106.05	-82.30	-102.09	-82.18	-84.07	-78.87	-78.95
3	---	---	-89.96	-107.84	-87.13	-105.13	-84.79	-103.88	-81.42	-82.18	-78.86	-79.06
4	-92.96	-110.83	-89.92	-108.67	-87.52	-106.28	-86.23	-104.62	-81.17	-96.42	-78.93	-79.06
5	-90.33	-92.96	-90.07	-108.60	-86.00	-104.32	-87.06	-104.70	-80.97	-82.77	-78.77	-78.93
6	-89.67	-107.53	-90.27	-108.15	-84.28	-86.00	-87.13	-106.03	-80.99	-95.74	-78.72	-78.77
7	-89.63	-105.52	-89.57	-107.50	-83.37	-84.28	-86.88	-104.96	-80.52	-80.99	-78.72	-92.90
8	-88.75	-103.15	-87.88	-105.83	-82.77	-83.37	-86.77	-105.52	-80.13	-80.52	-78.89	-78.94
9	-88.30	-109.54	-87.19	-101.95	-82.20	-82.77	-87.19	-105.17	-80.02	-80.13	-78.91	-95.00
10	---	---	-85.54	-87.38	-81.90	-96.30	-87.39	-105.07	-79.99	-96.01	-78.72	-78.91
11	---	---	-84.33	-85.54	-81.91	-83.97	-87.00	-105.28	-80.15	-95.63	-78.64	-95.97
12	---	---	-84.16	-96.87	-81.79	-102.14	-87.18	-105.74	-80.32	-81.29	-81.80	-99.93
13	---	---	-83.50	-84.16	-84.70	-103.88	-87.42	-106.49	-80.09	-80.32	-80.94	-99.81
14	-92.87	-110.83	-82.82	-83.50	-85.65	-104.63	-87.69	-106.52	-79.78	-80.09	-79.92	-80.94
15	---	---	-82.71	-82.82	-86.34	-105.32	-87.70	-107.11	-79.71	-86.17	-79.45	-79.92
16	-92.47	-110.11	-82.45	-82.71	-87.30	-107.20	-88.68	-107.29	-79.61	-80.03	-79.05	-79.45
17	-92.47	-110.57	-82.23	-82.45	-89.53	-108.22	-86.98	-107.82	-79.57	-95.63	-78.71	-79.05
18	-92.26	-109.55	-82.05	-96.87	-89.53	-107.59	-84.81	-86.98	-79.95	-96.16	-78.64	-78.71
19	-91.91	-109.91	-81.95	-82.57	-88.62	-106.99	-83.90	-84.81	-80.04	-95.58	-78.63	-78.64
20	-92.05	-109.33	-81.76	-95.88	-88.35	-107.36	-83.68	-99.10	-80.00	-81.43	-78.61	-98.72
21	-91.26	-109.90	-81.56	-82.12	-89.33	-108.68	-83.04	-83.99	-79.75	-80.00	-81.60	-101.03
22	-91.67	-109.62	-81.38	-81.56	-90.21	-108.69	-82.45	-83.04	-79.66	-86.67	-83.40	-102.42
23	-91.50	-109.54	-81.25	-96.20	-90.28	-109.33	-81.92	-82.45	-79.40	-79.66	-84.70	-102.81
24	-91.68	-109.25	-81.33	-81.85	-90.00	-108.34	-81.50	-81.92	-79.32	-79.40	-85.12	-103.61
25	-91.65	-109.56	-80.96	-81.33	-89.40	-106.90	-81.46	-81.50	-79.32	-79.32	-86.03	-104.20
26	-91.87	-108.97	-80.66	-80.96	-86.78	-103.70	-81.14	-81.46	-79.29	-79.32	-86.61	-104.20
27	-91.42	-108.61	-80.59	-101.39	-84.99	-86.78	-80.86	-96.40	-79.25	-79.29	-86.21	-104.22
28	-90.46	-108.80	-83.65	-102.70	-84.42	-97.63	-81.25	-96.36	-78.85	-79.25	-86.30	-105.00
29	-90.36	-108.85	-85.00	-103.90	-83.62	-84.56	-80.99	-81.86	-79.00	-79.06	-86.61	-105.03
30	-90.66	-108.41	-85.94	-104.59	-83.31	-99.29	-80.81	-100.88	---	---	-86.96	-105.00
31	-90.86	-108.00	---	---	-83.18	-98.51	-83.61	-102.97	---	---	-85.82	-104.60
MONTH	-88.30	-110.83	-80.59	-108.67	-81.79	-109.33	-80.81	-107.82	-78.85	-101.70	-78.61	-105.03

GROUND-WATER LEVELS
MARYLAND--Continued
CHARLES COUNTY--Continued
CH Ce 37--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-83.28	-85.82	---	---	-82.18	-94.88	-81.23	-94.53	-89.75	-103.05	---	---
2	-82.12	-83.28	---	---	-82.24	-95.62	-81.26	-93.94	-88.12	-103.03	---	---
3	-81.53	-82.12	---	---	-81.85	-94.83	-81.12	-83.24	-88.13	-103.25	---	---
4	-81.02	-81.53	---	---	-81.56	-95.00	-80.93	-94.32	-88.09	-103.27	---	---
5	-80.58	-81.02	---	---	-81.78	-94.96	-81.27	-94.61	-88.61	-104.01	---	---
6	-80.34	-80.58	---	---	-81.63	-95.56	-81.65	-85.81	-89.07	-104.19	---	---
7	-80.01	-80.34	---	---	-81.98	-94.08	-81.71	-87.25	-87.79	-103.56	---	---
8	-79.80	-80.01	---	---	-81.58	-96.80	-82.69	-95.78	-86.22	-99.39	---	---
9	-79.80	-100.56	---	---	-81.97	-96.19	---	---	-84.61	-96.89	---	---
10	---	---	---	---	-81.59	-94.61	---	---	-83.89	-96.04	---	---
11	---	---	---	---	-81.76	-94.42	---	---	-83.00	-93.70	---	---
12	-84.15	-102.46	---	---	-81.44	-94.36	---	---	-82.42	-92.23	---	---
13	-85.18	-103.98	---	---	-81.46	-95.05	---	---	-81.90	-88.33	---	---
14	-85.72	-105.93	---	---	-82.00	-96.07	---	---	-81.72	-96.31	---	---
15	-88.40	-105.98	---	---	-81.82	-95.89	---	---	-82.12	-94.33	---	---
16	-86.99	-104.80	-83.38	-99.40	-81.77	-95.82	---	---	-81.85	-96.52	---	---
17	-87.15	-105.98	-84.63	-99.99	-82.02	-98.67	---	---	-82.00	-94.14	---	---
18	-87.60	-105.83	-85.57	-101.32	-84.20	-99.33	---	---	-81.60	-83.25	---	---
19	-87.94	-105.77	-86.33	-102.08	-82.64	-95.81	---	---	-81.42	-94.88	---	---
20	-88.22	-107.64	-88.67	-102.94	-82.17	-95.37	---	---	-82.06	-95.47	---	---
21	-89.78	-108.57	-86.17	-101.36	-82.25	-95.23	---	---	-82.35	-95.24	-82.27	-95.50
22	-90.79	-108.45	-84.85	-101.53	-81.85	-95.48	---	---	-82.44	-95.46	-81.74	-95.23
23	---	---	-86.00	-101.24	-81.78	-95.41	---	---	-82.43	-96.37	-81.73	-96.70
24	---	---	-84.63	-100.74	-81.82	-95.02	-86.17	-100.16	-84.83	-89.21	-82.09	-96.64
25	---	---	-86.50	-102.07	-81.59	-94.39	-86.82	-100.38	-83.91	-86.60	-82.14	-99.42
26	---	---	-86.87	-102.05	-81.27	-94.16	-87.28	-100.83	---	---	-84.94	-100.10
27	-89.23	-109.14	-87.20	-102.59	-81.56	-95.01	-87.51	-101.58	---	---	-84.04	-98.53
28	---	---	-84.86	-99.27	-81.90	-95.62	-89.17	-102.08	---	---	-82.85	-95.32
29	---	---	-83.24	-84.86	-81.92	-95.89	---	---	---	---	-82.34	-95.33
30	---	---	-82.45	-94.67	-81.47	-82.51	---	---	---	---	-82.24	-96.96
31	---	---	-82.27	-95.14	---	---	-88.10	-103.07	---	---	---	---
MONTH	-79.80	-109.14	-82.27	-102.94	-81.27	-99.33	-80.93	-103.07	-81.42	-104.19	-81.73	-100.10
YEAR	-78.61	-110.83										



GROUND-WATER LEVELS

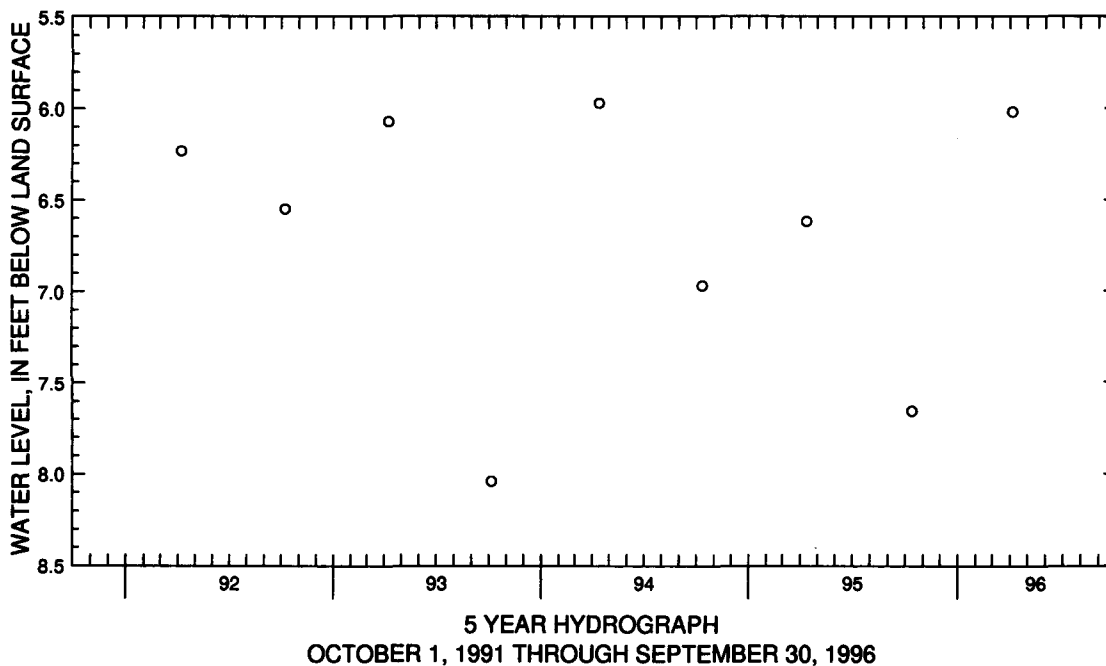
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Cf 33. SITE ID.--383340076511601. PERMIT NUMBER.--CH-81-0602.
 LOCATION.--Lat 38°33'40", long 76°51'16", Hydrologic Unit 02070011, north side of MD Rt. 5,
 5.5 mi southeast of Waldorf at Zekiah Swamp.
 Owner: U.S. Geological Survey.
 AQUIFER.--Alluvium of Quaternary age. Aquifer code: 110ALVM.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 22.2 ft; casing diameter 4 in.,
 to 14.7 ft; casing diameter 2 in. from 19.7 to 22.2 ft; screen diameter 2 in. from 14.7 to 19.7 ft.
 INSTRUMENTATION.--Measured twice yearly with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 89.88 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.51 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--August 1983 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.00 ft below land surface, Dec. 29, 1983;
 lowest measured, 8.13 ft below land surface, April 23, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	7.66	APR 04, 1996	6.02
WATER YEAR 1996	HIGHEST	6.02	APR 04, 1996
	LOWEST	7.66	OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Dd 33. SITE ID.--382607077002601. PERMIT NUMBER.--CH-02-6769.

LOCATION.--Lat 38°26'07", long 77°00'26", Hydrologic Unit 02070011, 1.8 mi southwest of Faulkner off Popes Creek Rd.

Owner: Jesuit Order (Loyola Retreat House).

AQUIFER.--White Plains aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 694 ft; casing diameter 6 in., to 564 ft; casing diameter 4 in. from 532 to 688 ft; screen diameter 4 in. from 687 to 694 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 99.8 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.0 ft above land surface.

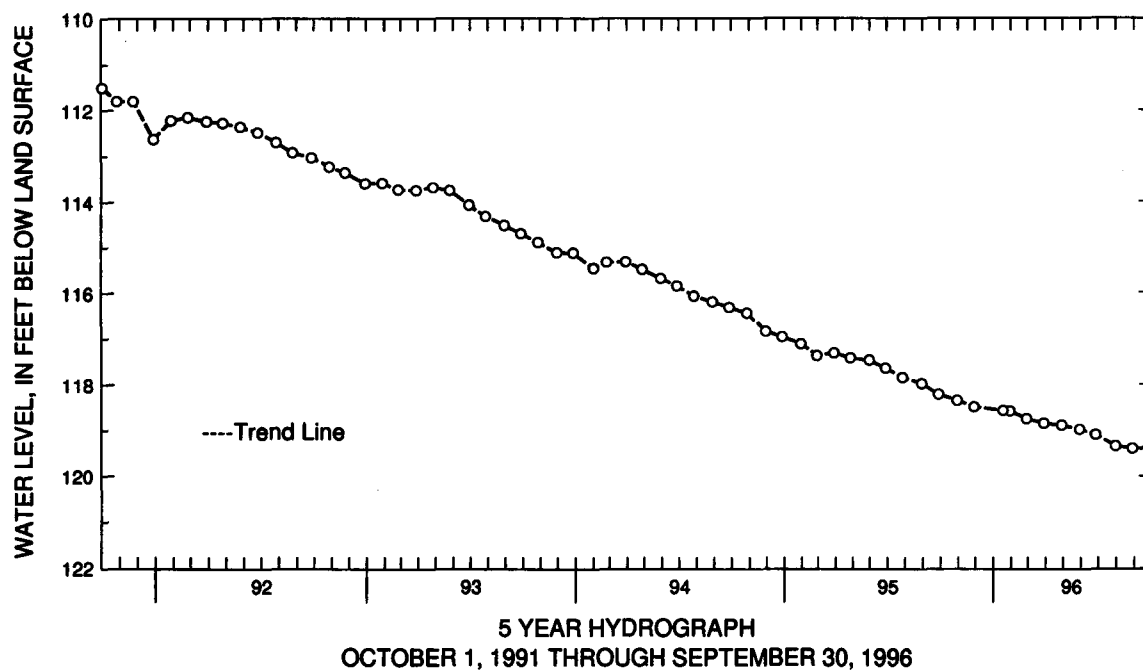
REMARKS.--Maryland Water-Level Network observation well. Water level reported 104 ft below land surface, June 27, 1957. Water levels maybe affected by nearby pumping.

PERIOD OF RECORD.--March 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.28 ft below land surface, March 14, 1962; lowest measured, 119.40 ft below land surface, Aug. 29, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	118.35	JAN 30, 1996	118.58	APR 29, 1996	118.89	JUL 31, 1996	119.34
NOV 29	118.49	FEB 28	118.75	MAY 30	118.98	AUG 29	119.40
JAN 18, 1996	118.57	MAR 29	118.85	JUN 27	119.10	SEP 30	119.38
WATER YEAR 1996		HIGHEST	118.35	OCT 30, 1995	LOWEST	119.40	AUG 29, 1996



GROUND-WATER LEVELS

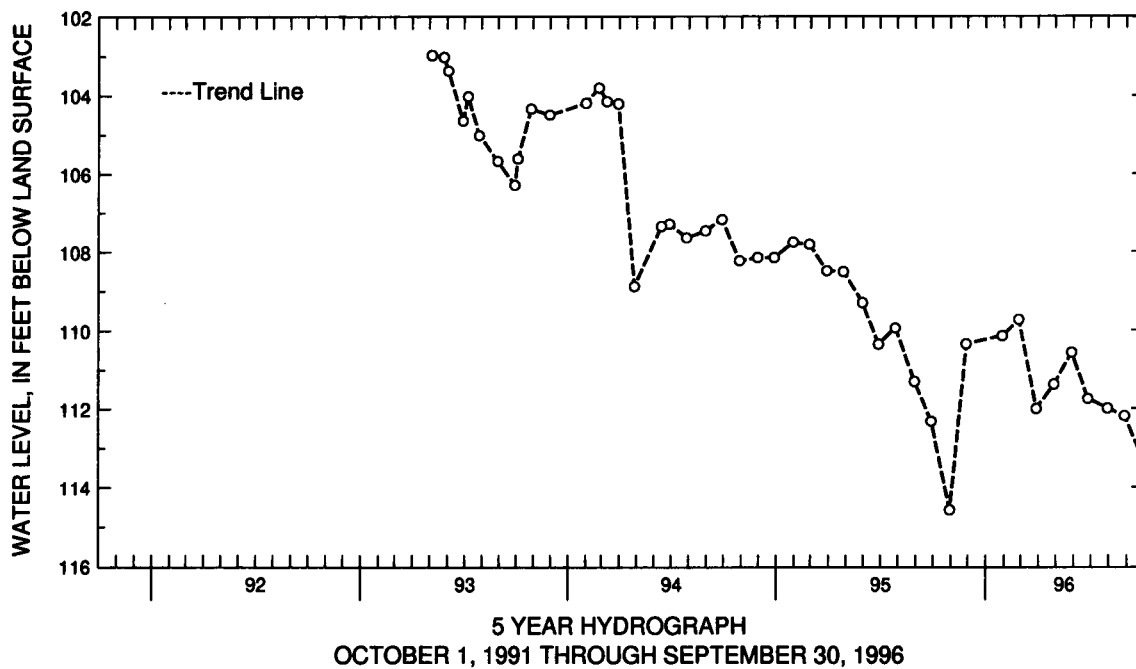
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Dd 38. SITE ID.--382925077010101. PERMIT NUMBER.--CH-81-0358.
 LOCATION.--Lat 38°29'25", long 77°01'01", Hydrologic Unit 02070011, 0.8 mi south of Port Tobacco.
 Owner: A. Bridgett.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, domestic, artesian well, depth 597 ft; casing diameter 4 in., to 297 ft;
 casing diameter 2 in. from 297 to 429 ft, 434 to 575 ft, 580 to 585 ft, and 590 to 597 ft;
 screen diameter 2 in. from 429 to 434 ft, 575 to 580 ft, and 585 to 590 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 60 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 1.0 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--April 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.97 ft below land surface, May 5, 1993;
 lowest measured, 114.57 ft below land surface, Oct. 30, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	114.57	FEB 28, 1996	109.73	MAY 30, 1996	110.57	AUG 29, 1996	111.19
NOV 29	110.35	MAR 29	112.00	JUN 27	111.75	SEP 30	113.31
JAN 30, 1996	110.15	APR 29	111.38	JUL 31	111.99		
WATER YEAR 1996		HIGHEST	109.73 FEB 28, 1996	LOWEST		114.57 OCT 30, 1995	



GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH De 45. SITE ID.--382927076552301. PERMIT NUMBER.--CH-81-0604.

LOCATION.--Lat 38°29'27", long 76°55'23", Hydrologic Unit 02070011, north side of MD Rt. 6, 4.1 mi southeast of La Plata.

Owner: U.S. Geological Survey.

AQUIFER.--Alluvium of Pleistocene age and Nanjemoy Formation of Lower Eocene age.

Aquifer codes: 112ALVM, 124NNJM.

WELL CHARACTERISTICS.--Drilled, observation, water-table well; depth 25.5 ft; casing diameter 4 in., to 15.5 ft, casing diameter 2 in. from 20.5 to 25.5 ft; screen diameter 2 in. from 15.5 to 20.5 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 44.77 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.35 ft above land surface.

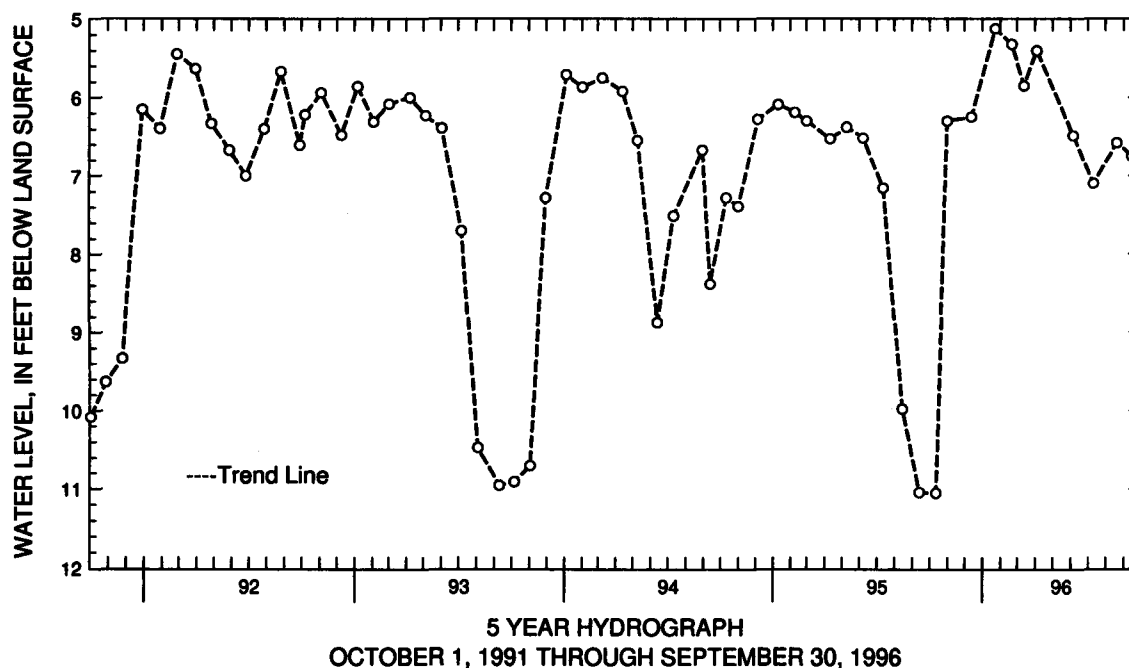
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.83 ft below land surface, May 30, 1990; lowest measured, 11.05 ft below land surface, Oct. 12, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	11.05	JAN 23, 1996	5.12	APR 04, 1996	5.40	AUG 21, 1996	6.58
NOV 01	6.30	FEB 21	5.32	JUN 06	6.49	SEP 16	6.75
DEC 13	6.25	MAR 13	5.85	JUL 11	7.10		
WATER YEAR 1996		HIGHEST	5.12 JAN 23, 1996	LOWEST	11.05 OCT 12, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Ee 16. SITE ID.--382103076560201.

LOCATION.--Lat 38°21'03", long 76°56'02", Hydrologic Unit 02070010, near Wayside.

Owner: Harry Ferris.

AQUIFER.--Park Hall Formation of Upper Pliocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Dug, unused, water-table well, measured depth 20.7 ft; casing diameter 42 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water-level recorder from March 29, 1966 to Oct. 11, 1967.

DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.80 ft above land surface.

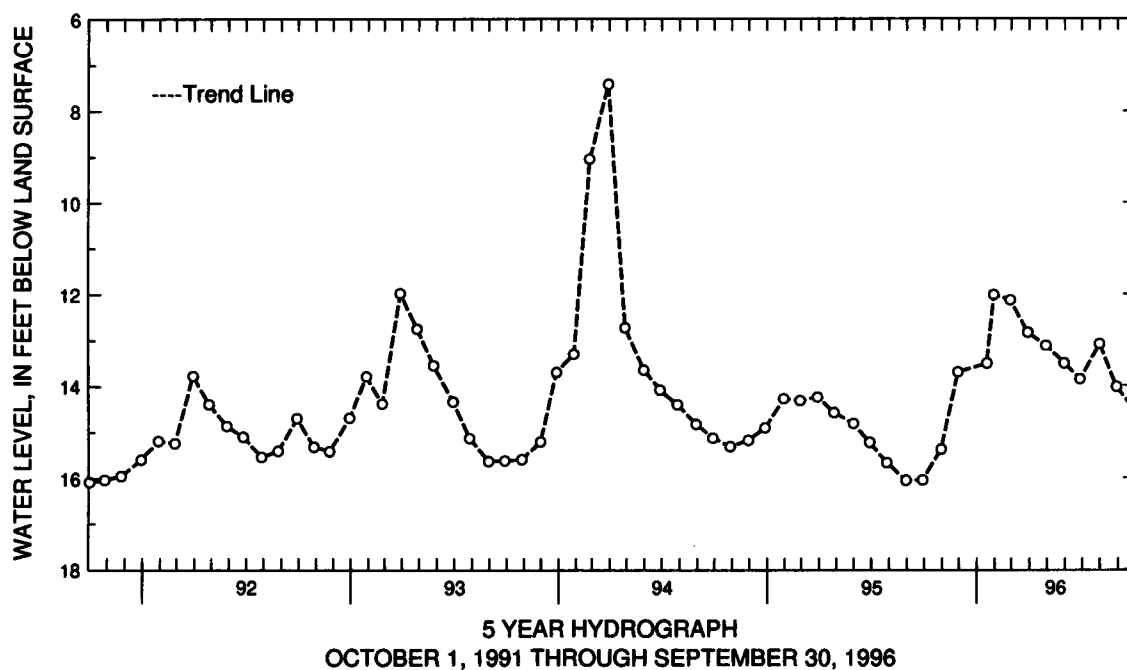
REMARKS.--Maryland Water-Level Network observation well and Maryland Water Quality Network observation well.

PERIOD OF RECORD.--May 1946, January 1947 to November 1947, March 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.41 ft below land surface, March 30, 1994;
lowest measured, 20.65 ft below land surface, Dec. 20, 1949.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	15.39	JAN 30, 1996	12.02	APR 29, 1996	13.13	JUL 31, 1996	13.10
NOV 29	13.71	FEB 28	12.14	MAY 30	13.52	AUG 29	14.04
JAN 18, 1996	13.52	MAR 29	12.85	JUN 27	13.87	SEP 30	14.54
WATER YEAR 1996		HIGHEST	12.02	JAN 30, 1996		LOWEST	15.39
							OCT 30, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

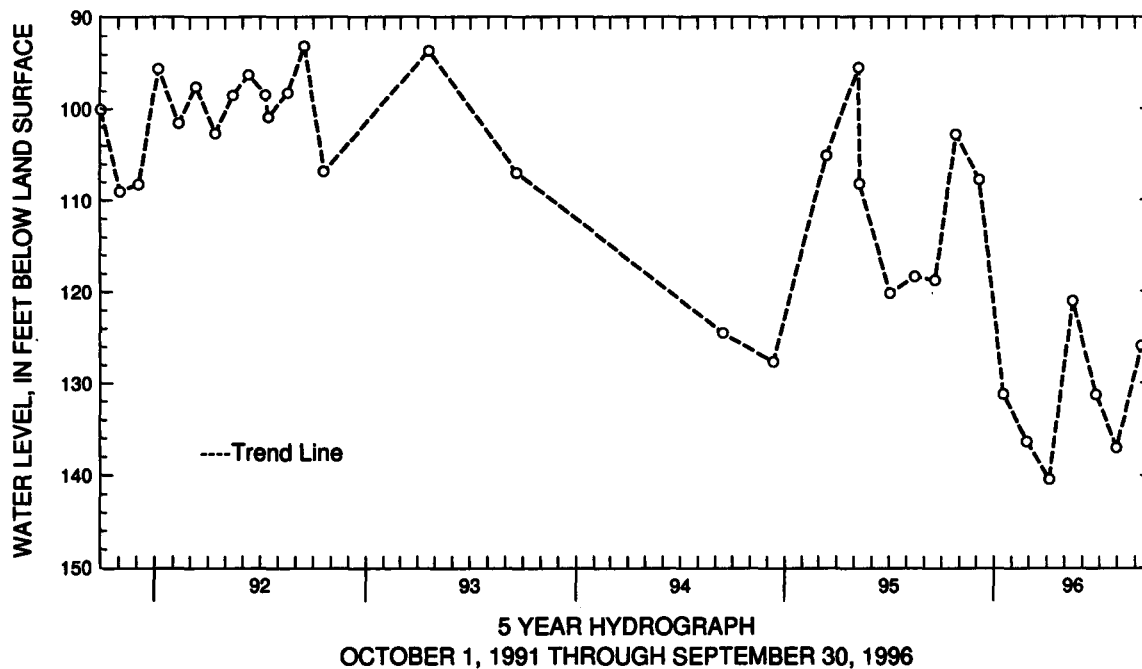
CHARLES COUNTY--Continued

WELL NUMBER.--CH Ee 70. SITE ID.--382154076574801. PERMIT NUMBER.--CH-67-0081.
 LOCATION.--Lat 38°21'54", long 76°57'48", Hydrologic Unit 02070011, at the Morgantown Power Plant,
 1.5 mi. north of Morgantown.
 Owner: Potomac Edison Power Co.
 AQUIFER.--Lower Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,132 ft; casing diameter 2 in.,
 to 1,090 ft, 1,100 to 1,105 ft, and 1,115 to 1,132 ft; screen diameter 2 in. from 1,090 to 1,100 ft,
 and 1,105 to 1,115 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from May 12, 1982 to Jan. 6, 1983. Equipped with digital
 water-level recorder--15 and 30-minute recorder intervals from June 1, 1978 to October 1986.
 Equipped with electronic water level recorder (transducer)--15-minute recorder interval from
 October 1986 to October 1992.
 DATUM.--Elevation of land surface is 22.83 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 3.43 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--October 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 72.57 ft below land surface, April 14, 1981;
 lowest measured, 140.44 ft below sea level, April 5, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 26, 1995	102.83	FEB 27, 1996	136.36	MAY 15	121.09	JUL 31	137.02
DEC 06	107.76	APR 05	140.44	JUN 25, 1996	131.28	SEP 12	125.92
JAN 17, 1996	131.17						

WATER YEAR 1996 HIGHEST 102.83 OCT 26, 1995 LOWEST 140.44 APR 05, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Ee 78. SITE ID.--382240076582801. PERMIT NUMBER.--CH-73-1965.
 LOCATION.--Lat 38°22'40", long 76°58'28", Hydrologic Unit 02070011, located at Clifton on the Potomac,
 on the east side of Ingleside Road, 0.3 mi north of Clifton Drive.
 Owner: Clifton on the Potomac Development.
 AQUIFER.--Lower Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PFSC.
 WELL CHARACTERISTICS.--Drilled, used, artesian well, depth 1,220 ft; casing diameter 6.6 in., to 1,220 ft, and
 1,168 to 1,189 ft, and 1,199 to 1,220 ft; screen diameter 7 in. from 1,148 to 1,168 ft, and 1,189 to 1,199 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--30-minute recorder interval from August 5, 1993 to current year.
 DATUM.--Altitude of land surface is 75 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder platform, 2.3 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--August 5, 1993 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.87 ft below sea level, April 3, 1986;
 lowest measured, 84.48 ft below sea level, April 6, 1996.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-73.04	-73.71	-69.77	-70.12	-72.90	-73.08	---	---	-76.26	-76.81	---	---
2	-73.71	-74.12	-69.67	-69.88	-72.97	-73.17	---	---	-76.68	-76.93	---	---
3	-73.12	-73.93	-69.63	-70.07	-73.17	-73.61	---	---	-76.26	-76.83	---	---
4	-72.86	-73.36	-70.07	-70.70	-72.84	-73.43	---	---	-76.55	-77.11	---	---
5	-72.06	-72.90	-69.94	-70.63	-72.92	-73.73	---	---	-76.67	-77.11	---	---
6	-71.52	-72.06	-69.86	-70.26	-72.53	-73.15	---	---	-76.26	-76.94	---	---
7	-71.52	-71.98	-70.26	-70.98	-72.38	-72.55	---	---	-76.17	-77.01	---	---
8	-71.54	-71.99	-70.53	-71.02	-71.97	-72.43	---	---	-76.33	-77.02	---	---
9	-71.04	-71.73	-70.79	-71.12	-71.77	-72.99	---	---	-76.40	-77.11	---	---
10	-70.95	-71.43	-70.73	-70.94	-72.99	-74.11	---	---	-76.95	-77.21	---	---
11	-70.53	-71.02	-70.16	-70.84	-73.57	-74.06	---	---	-76.55	-77.14	---	---
12	-70.42	-70.81	-70.30	-70.69	-73.68	-74.24	---	---	-76.76	-77.67	---	---
13	-70.81	-71.17	-70.52	-70.82	-73.46	-73.93	---	---	-77.67	-78.31	---	---
14	-70.26	-71.12	-70.60	-71.06	-73.58	-74.05	---	---	-77.47	-78.31	---	---
15	-70.00	-70.26	-71.06	-71.79	-73.63	-73.85	---	---	-77.50	-78.13	---	---
16	-70.26	-70.76	-71.19	-71.79	-73.65	-74.33	---	---	-77.71	-78.07	---	---
17	-70.61	-70.83	-71.40	-71.66	-74.03	-74.25	---	---	-77.76	-78.29	---	---
18	-70.83	-71.28	-71.47	-71.80	-74.25	-74.65	-76.26	-76.60	-78.19	-78.41	---	---
19	-70.69	-71.31	-71.54	-71.76	-74.28	-74.61	-75.81	-76.58	-78.03	-78.39	---	---
20	-70.69	-71.14	-71.58	-71.97	-74.25	-74.44	-76.01	-76.60	-78.10	-78.42	---	---
21	-70.54	-71.14	-71.55	-72.33	-74.42	-74.99	-75.24	-76.01	-78.42	-78.95	---	---
22	-70.89	-71.26	-72.33	-73.44	-74.92	-75.70	-75.63	-76.18	-78.93	-79.04	---	---
23	-71.01	-71.26	-73.00	-73.38	-75.34	-75.88	-75.97	-76.73	-78.61	-78.94	---	---
24	-70.67	-71.21	-72.97	-73.27	-75.34	-76.39	-76.15	-76.74	-78.84	-79.32	---	---
25	-70.21	-70.67	-72.71	-72.97	-75.86	-76.39	-76.42	-77.70	-79.32	-79.74	---	---
26	-70.21	-70.55	-71.94	-72.83	-76.02	-76.39	-76.99	-77.84	-79.08	-79.75	---	---
27	-70.55	-70.98	-72.00	-72.65	-76.17	-76.64	-76.78	-77.02	---	---	---	---
28	-70.25	-70.97	-72.36	-72.70	-76.26	-76.77	-76.78	-76.93	---	---	---	---
29	-70.11	-70.46	-72.68	-73.06	-76.29	-76.62	-76.88	-77.14	---	---	---	---
30	-70.11	-70.50	-72.99	-73.25	-75.14	-76.29	-76.59	-77.14	---	---	---	---
31	-70.02	-70.20	---	---	-74.41	-75.14	-76.11	-76.59	---	---	---	---
MONTH	-70.00	-74.12	-69.63	-73.44	-71.77	-76.77	-75.24	-77.84	-76.17	-79.75	---	---

GROUND-WATER LEVELS

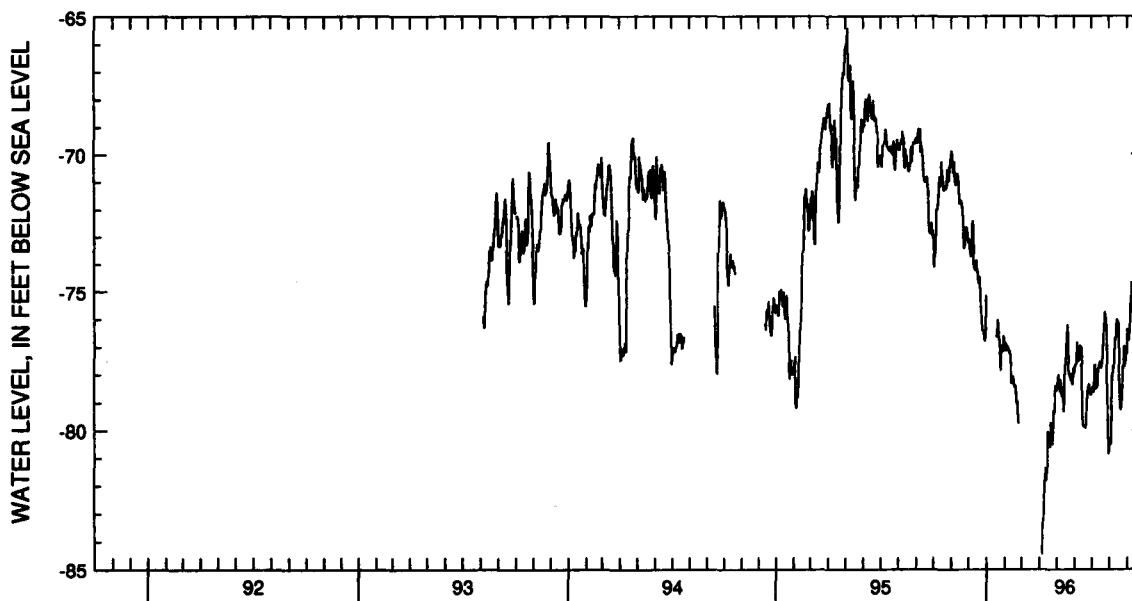
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Ee 78--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	-78.34	-78.60	-77.52	-77.98	-78.45	-78.73	-80.01	-80.37	-75.95	-76.34
2	---	---	-77.89	-78.45	-77.33	-77.70	-77.97	-78.56	-79.88	-80.27	-75.88	-76.39
3	---	---	-78.08	-78.30	-77.15	-77.69	-77.99	-78.42	-79.96	-80.53	-76.02	-76.70
4	---	---	-77.91	-78.28	-76.61	-77.26	-78.13	-78.48	-78.82	-80.46	-76.25	-76.77
5	---	---	-77.60	-78.00	-76.60	-76.80	-78.19	-78.64	-77.64	-78.82	-76.03	-76.39
6	-83.48	-84.48	-77.77	-78.44	-76.80	-77.39	-77.46	-78.20	-77.67	-78.07	-75.22	-76.07
7	-82.69	-83.48	-77.89	-78.61	-77.15	-77.52	-77.28	-77.63	-77.64	-77.97	-74.94	-75.37
8	-83.10	-83.28	-77.78	-78.18	-77.19	-77.43	-77.34	-78.40	-77.36	-77.87	-74.30	-75.25
9	-82.12	-83.14	-77.88	-78.31	-76.65	-77.45	-77.78	-78.52	-76.58	-77.36	-74.12	-74.65
10	-81.97	-82.33	-78.31	-78.79	-76.65	-76.92	-77.50	-77.81	-76.29	-76.68	-74.56	-75.08
11	-81.26	-82.01	-77.97	-78.44	-76.75	-77.03	-77.81	-78.46	-76.48	-76.78	-75.08	-75.82
12	-80.92	-81.33	-77.78	-78.44	-76.81	-76.99	-77.49	-78.33	-75.80	-76.58	---	---
13	-81.12	-81.79	-77.77	-79.32	-76.86	-77.02	-77.44	-77.87	-75.80	-76.10	---	---
14	-81.30	-81.79	-78.20	-79.32	-77.02	-77.86	-77.24	-77.72	-75.59	-75.99	---	---
15	-79.96	-81.34	-77.64	-78.20	-77.86	-79.44	-76.81	-77.54	-75.84	-76.26	---	---
16	-79.76	-80.03	-76.87	-77.64	-79.44	-79.83	-76.98	-77.57	-75.37	-76.08	---	---
17	-79.99	-80.35	-76.54	-77.19	-79.59	-79.86	-77.23	-77.64	-75.46	-76.15	---	---
18	-79.85	-80.35	-76.30	-76.63	-79.51	-79.84	-77.45	-77.78	-76.15	-77.83	---	---
19	-79.78	-80.61	-75.81	-76.48	-79.57	-79.84	-76.79	-77.52	-77.83	-78.52	---	---
20	-79.60	-80.61	-75.95	-76.19	-79.60	-79.92	-76.79	-77.13	-78.52	-79.20	---	---
21	-79.50	-79.71	-75.87	-77.19	-79.33	-79.84	-76.37	-76.81	-78.97	-79.27	---	---
22	-79.71	-80.13	-77.19	-77.81	-78.98	-79.36	-75.58	-76.37	-78.87	-79.08	---	---
23	-79.44	-79.86	-77.56	-77.93	-78.00	-78.98	-75.66	-76.03	-78.28	-78.87	---	---
24	-79.86	-80.51	-77.87	-78.04	-78.03	-78.56	-75.59	-75.73	-77.62	-78.36	---	---
25	-79.28	-80.13	-77.84	-78.04	-78.33	-78.60	-75.58	-75.94	-76.81	-77.62	---	---
26	-79.03	-79.28	-77.91	-78.22	-78.33	-78.42	-75.38	-76.02	-76.28	-76.95	---	---
27	-79.16	-79.40	-77.60	-77.97	-77.87	-78.33	-75.98	-76.54	-76.72	-77.44	---	---
28	-78.34	-79.33	-77.95	-78.16	-77.87	-78.59	-76.54	-78.48	-77.27	-77.71	---	---
29	-78.13	-78.41	-78.04	-78.36	-78.56	-78.69	-78.48	-79.72	-76.82	-77.32	---	---
30	-78.19	-78.43	-77.59	-78.04	-78.35	-78.64	-79.72	-80.83	-76.78	-77.22	---	---
31	---	---	-77.46	-77.75	---	---	-79.82	-80.83	-76.03	-77.23	---	---
MONTH	-78.13	-84.48	-75.81	-79.32	-76.60	-79.92	-75.38	-80.83	-75.37	-80.53	-74.12	-76.77
YEAR	-69.63	-84.48										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

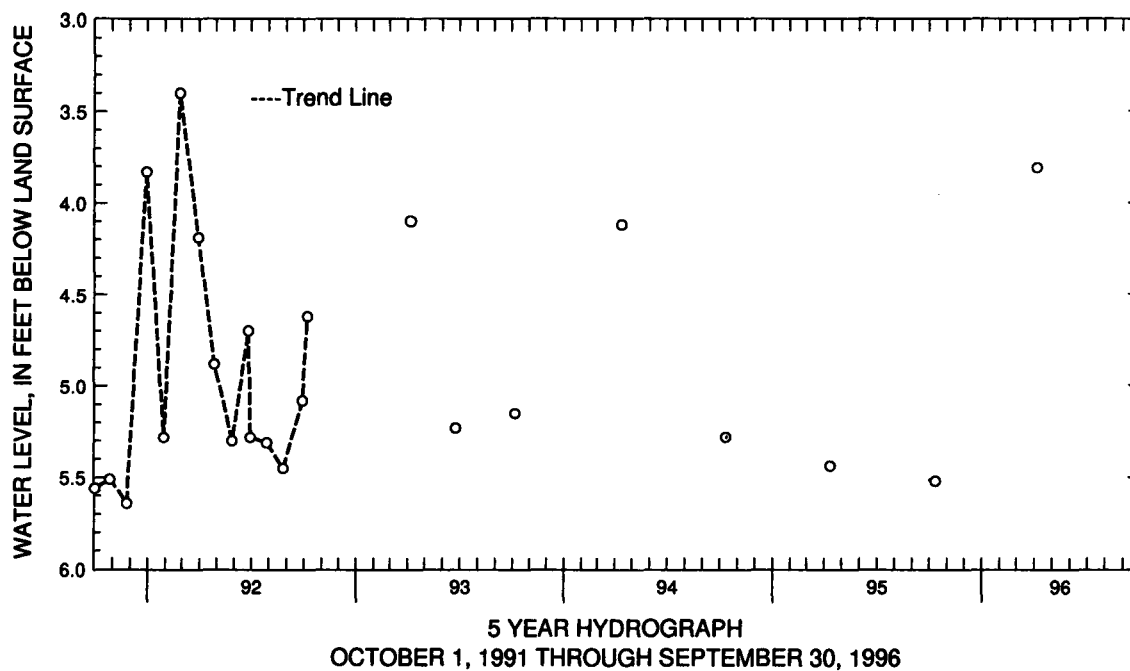
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Ee 90. SITE ID.--382456076562201. PERMIT NUMBER.--CH-81-0606.
 LOCATION.--Lat 38°24'56", long 76°56'22", Hydrologic Unit 02070011, at Allens Fresh.
 Owner: U.S. Geological Survey.
 AQUIFER.--Alluvium deposit of Quaternary age. Aquifer code: 110ALVM.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 21 ft; casing diameter 4 in., to 11 ft; casing diameter 2 in from 16 to 21 ft; screen diameter 2 in. from 11 to 16 ft.
 INSTRUMENTATION.--Twice yearly measurements starting October 1993 with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 6.81 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.44 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--August 1983 to January 1985, April 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.29 ft below land surface, May 30, 1990; lowest measured, 7.58 ft below land surface, April 23, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	5.52	APR 04, 1996	3.81
WATER YEAR 1996 HIGHEST 3.81 APR 04, 1996 LOWEST 5.52 OCT 12, 1995			



GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY

WELL NUMBER.--DO Bg 59. SITE ID.--383708075503801. PERMIT NUMBER.--DO-73-0612.

LOCATION.--Lat 38°37'08" long 75°50'38", Hydrologic Unit 02060008, at Hurlock Sewage Treatment Plant.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 537 ft; casing diameter 6 in., to 65 ft; casing diameter 2 in. from 65 to 527 ft; screen diameter 2 in. from 527 to 537 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.60 ft above land surface.

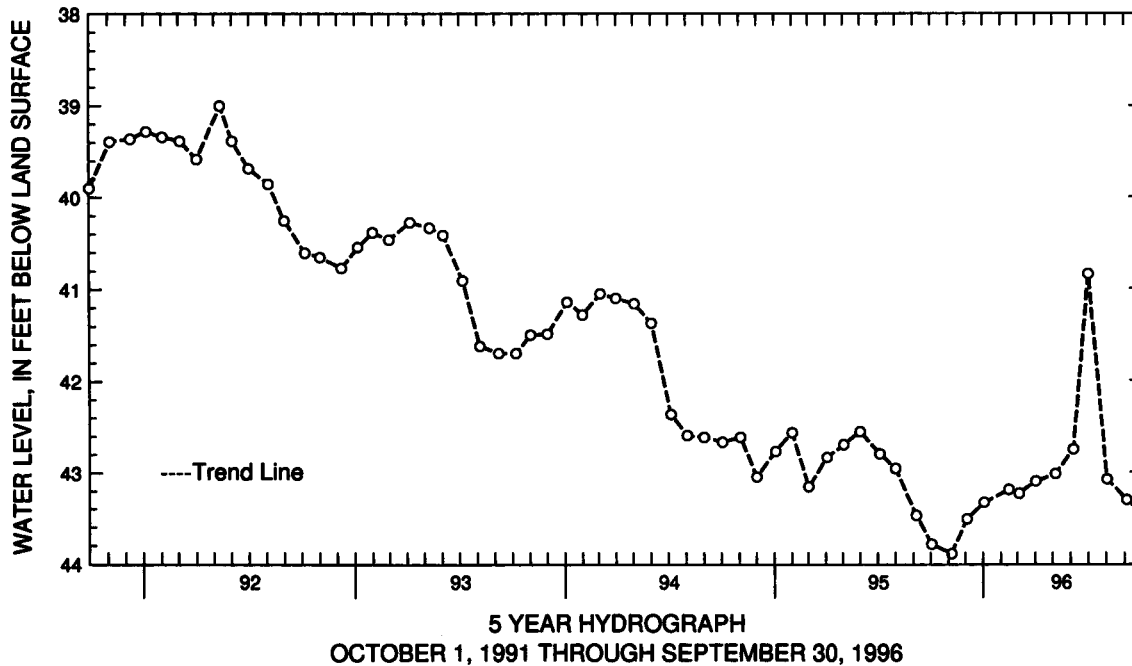
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.79 ft below land surface, Aug. 2, 1978; lowest measured, 43.89 ft below land surface, Nov. 7, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	43.79	JAN 03, 1996	43.33	APR 02, 1996	43.10	JUL 02, 1996	40.84
NOV 07	43.89	FEB 15	43.19	MAY 06	43.02	AUG 02	43.08
DEC 04	43.51	MAR 04	43.23	JUN 06	42.75	SEP 05	43.30
WATER YEAR 1996		HIGHEST	40.84 JUL 02, 1996	LOWEST	43.89 NOV 07, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Cd 1. SITE ID.--383151076080801.

LOCATION.--Lat 38°31'51", long 76°08'08", Hydrologic Unit 02060005, near Christs Rock.

Owner: Harold E. Fee.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 390 ft; casing diameter 2 in., to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.50 ft above land surface.

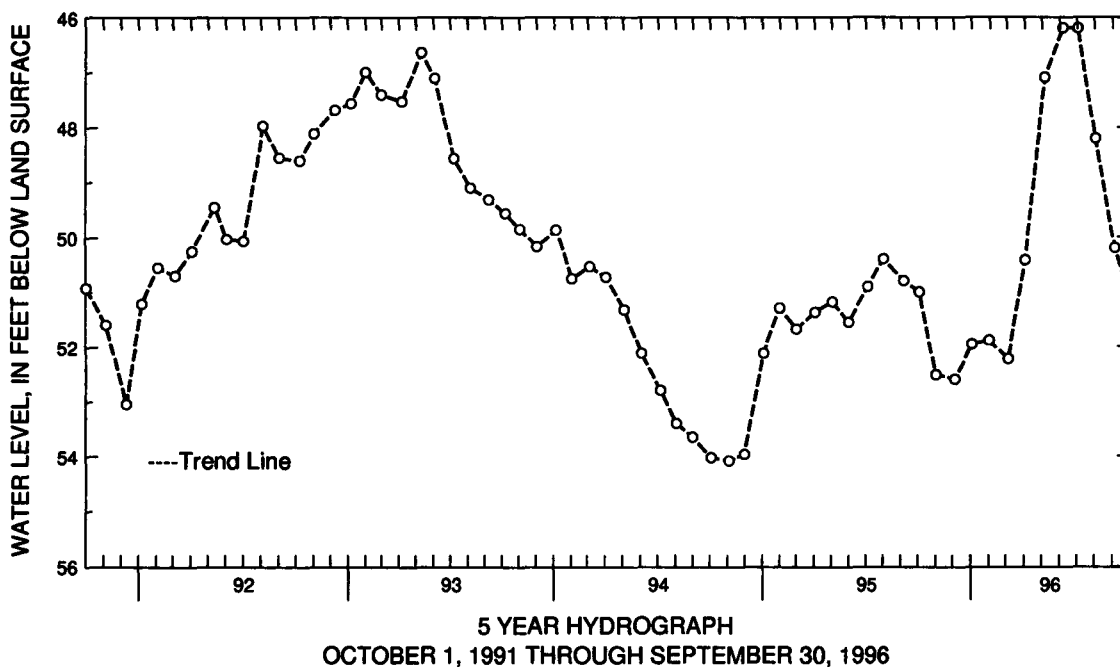
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.07 ft below land surface, Oct. 2, 1990; lowest measured, 80.32 ft below land surface, Oct. 16, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	51.00	JAN 03, 1996	51.96	APR 02, 1996	50.42	JUL 02, 1996	46.19
NOV 01	52.52	FEB 01	51.89	MAY 06	47.09	AUG 02	48.20
DEC 04	52.60	MAR 04	52.23	JUN 06	46.18	SEP 05	50.20
WATER YEAR 1996		HIGHEST 46.18	JUN 06, 1996	LOWEST 52.60	DEC 04, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 5. SITE ID.--383340076041601.

LOCATION.--Lat 38°33'40", long 76°04'16", Hydrologic Unit 02060005, at Cambridge Pumping Station.

Owner: Municipal Utilities Commission.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 405 ft; casing diameter 12 in., to 385 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 18 ft above National Geodetic Vertical Datum of 1929, from topographic map.

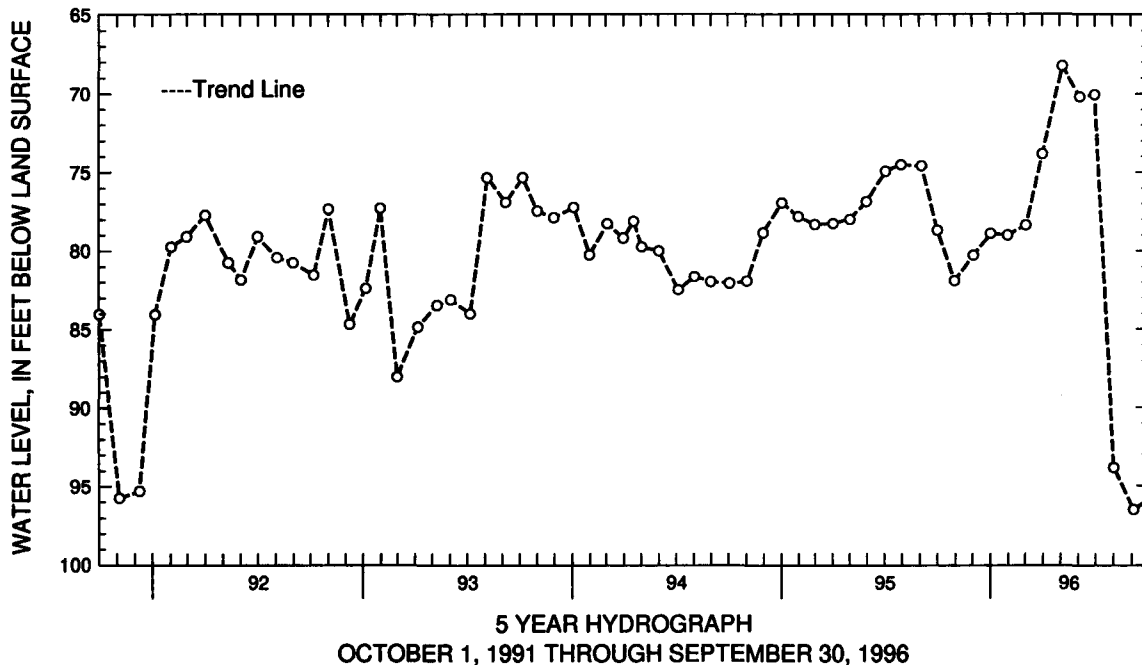
Measuring point: Top of casing, 4.00 ft above land surface.

PERIOD OF RECORD.--October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 66.23 ft below land surface, May 1, 1990;
lowest measured, 115.06 ft below land surface, Aug. 29, 1978.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	78.70	JAN 03, 1996	78.90	APR 02, 1996	73.85	JUL 02, 1996	70.07
NOV 01	81.90	FEB 01	79.01	MAY 06	68.25	AUG 02	93.87
DEC 04	80.28	MAR 04	78.38	JUN 06	70.20	SEP 05	96.50
WATER YEAR 1996		HIGHEST	68.25	MAY 06, 1996	LOWEST	96.50	SEP 05, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL LOCATION.--DO Ce 15. SITE ID.--383408076042402. PERMIT NUMBER.--DO-00-1220.

LOCATION.--Lat 38°34'08", long 76°04'23", Hydrologic Unit 02060005, near Cambridge Creek, near Trenton St., Cambridge.

Owner: Carroll W. Thomas & Sons., Inc.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 970.5 ft; casing diameter 10 in., to 25 ft.; casing diameter 8 in. from 25 to 236.5 ft; casing diameter 6 in. from 230 to 513.5 ft; casing diameter 4 in. from 468 to 911.5 ft; casing diameter 3 in. from 902.5 to 950.5 ft; screen diameter 3 in. (?) from 950.5 to 970.5 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.50 ft above land surface.

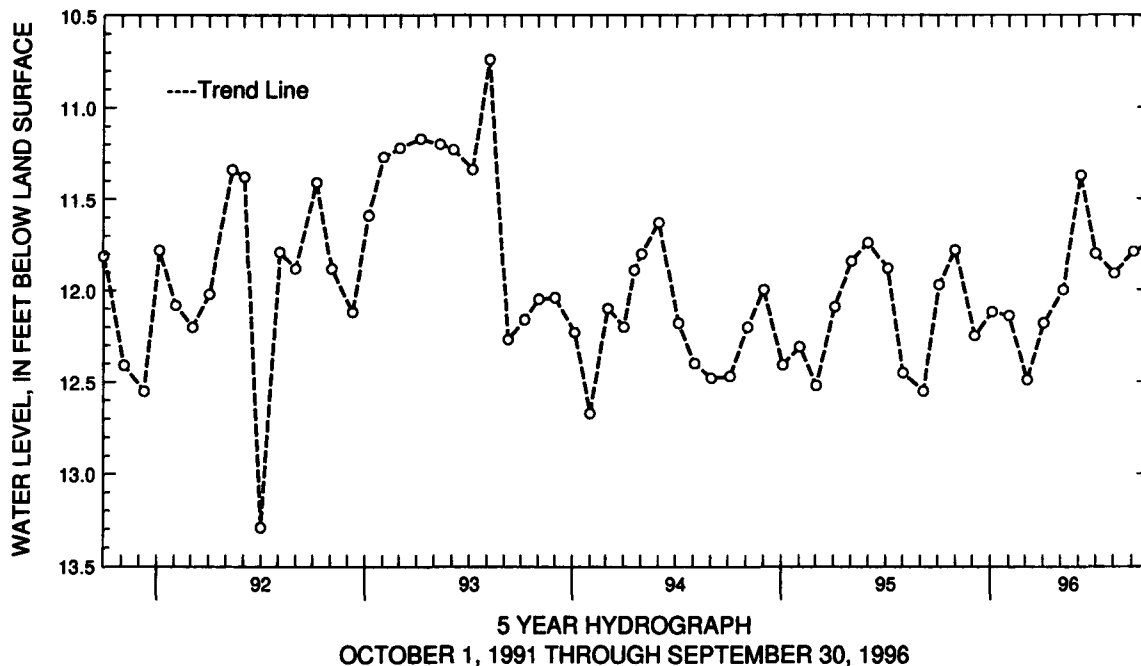
REMARKS.--Maryland Water-Level Network observation well. Water level reported 68 ft below land surface Aug. 30, 1947.

PERIOD OF RECORD.--June 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.41 ft below land surface, March 1, 1960; lowest measured, 41.12 ft below land surface, Aug. 7, 1959.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	11.97	JAN 03, 1996	12.12	APR 02, 1996	12.18	JUL 02, 1996	11.80
NOV 01	11.78	FEB 01	12.14	MAY 06	12.00	AUG 02	11.91
DEC 04	12.25	MAR 04	12.49	JUN 06	11.37	SEP 05	11.79
WATER YEAR 1996		HIGHEST	11.37	JUN 06, 1996	LOWEST	12.49	MAR 04, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 21. SITE ID.--383346076030301.

LOCATION.--Lat 38°33'46", long 76°03'03", Hydrologic Unit 02060005, on Shoal Creek about 1.5 mi southeast of Cambridge.

Owner: Eastern Shore State Hospital.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, reported depth 370 ft; casing diameter 8 in., to 239 ft; casing diameter 4.5 in., 239 to 368.5 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder Aug. 23, 1956 to Nov. 6, 1958, and Sept. 11, 1965 to Oct. 13, 1966.

DATUM.--Elevation of land surface is 11.7 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing at land surface.

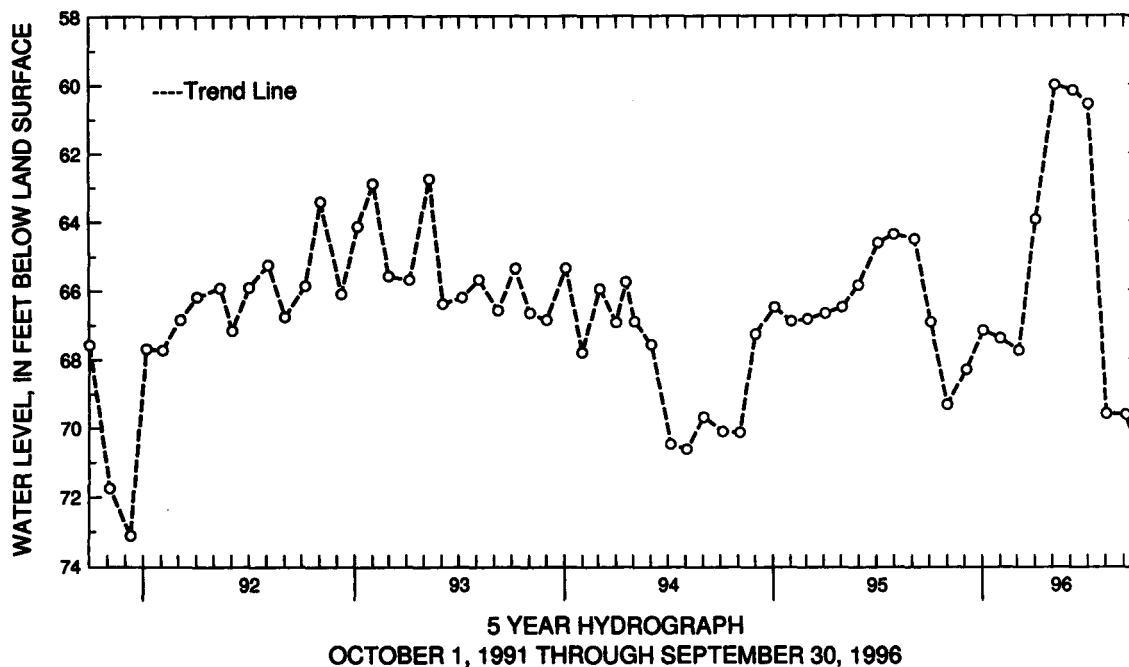
REMARKS.--Maryland Water-Level Network observation well. Water level measured 73.77 ft below land surface, Feb. 14, 1952. Water levels may be affected by nearby pumping. Access to well blocked by construction equipment, from January 1988 through September 1988.

PERIOD OF RECORD.--August 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level reported, 14.00 ft below land surface, August 1914; highest water level measured, 55.88 ft below land surface, May 1, 1990; lowest measured, 132.95 ft, below land surface, Sept. 6, 1956.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	66.93	JAN 03, 1996	67.18	APR 02, 1996	63.95	JUL 02, 1996	60.57
NOV 01	69.32	FEB 01	67.40	MAY 06	60.02	AUG 02	69.59
DEC 04	68.30	MAR 04	67.78	JUN 06	60.19	SEP 05	69.62
WATER YEAR 1996		HIGHEST	60.02	MAY 06, 1996	LOWEST	69.62	SEP 05, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 78. SITE ID.--383243076042301. PERMIT NUMBER.--DO-66-0026.

LOCATION.--Lat 38°32'43", long 76°04'23", Hydrologic Unit 02060005, at Woods Rd. water tower, Cambridge.

Owner: City of Cambridge.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 503 ft; casing diameter 28 in., to 363 ft; casing diameter 22 in. from 323 to 503 ft; casing diameter 12 in. from 363.7 to 368 ft, 400 to 405 ft, 420 to 425 ft, 440 to 445 ft, 460 to 465 ft, and 480 to 485 ft; screen diameter 12 in. from 360.3 to 363.7 ft, 368 to 380 ft, 385 to 400 ft, 405 to 420 ft, 425 to 440 ft, 445 to 460 ft, 465 to 480 ft, and 485 to 500 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.10 ft above land surface.

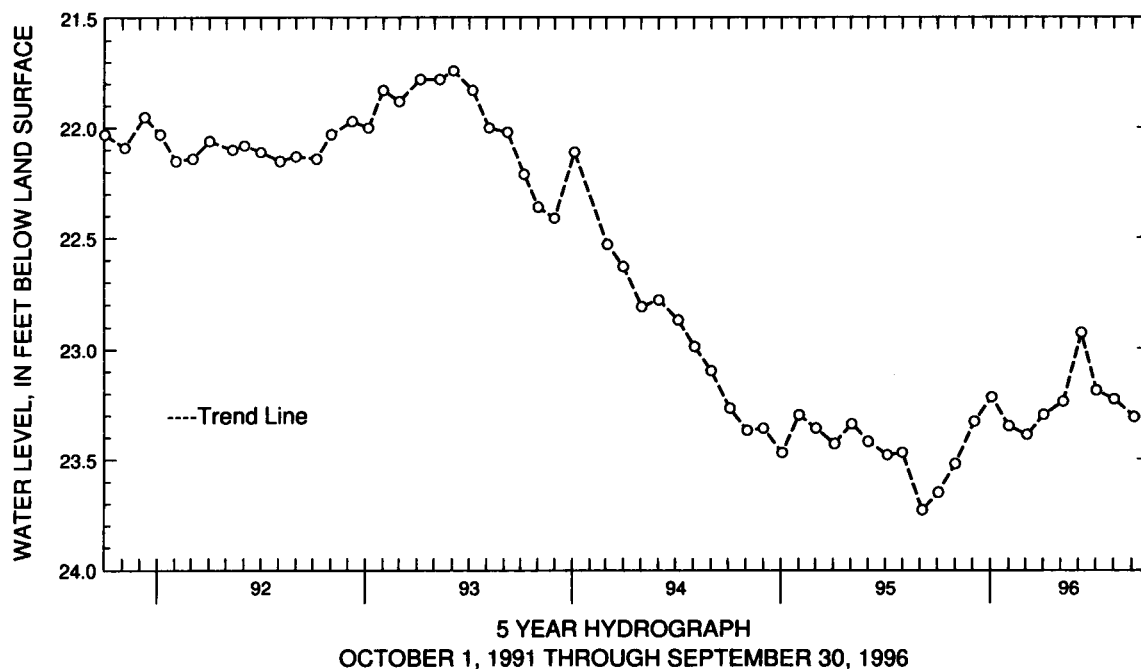
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.74 ft below land surface, June 3, 1993;
lowest measured, 26.39 ft below land surface, Oct. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	23.65	JAN 03, 1996	23.22	APR 02, 1996	23.30	JUL 02, 1996	23.19
NOV 01	23.52	FEB 01	23.35	MAY 06	23.24	AUG 02	23.23
DEC 04	23.33	MAR 04	23.39	JUN 06	22.93	SEP 05	23.31
WATER YEAR 1996		HIGHEST	22.93	JUN 06, 1996		LOWEST	23.65
							OCT 03, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 88. SITE ID.--383401076032001. PERMIT NUMBER.--DO-73-1369.

LOCATION.--Lat 38°34'01", long 76°03'20", Hydrologic Unit 02060005, at Eastern Shore State Hospital, Cambridge.

Owner: U.S. Geological Survey.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1427.4 ft; casing diameter 12 in., to 103 ft; casing diameter 4 in., to 1427.4 ft; perforated casing diameter 4 in. from 1417.4 to 1427.4 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 4.4 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.18 ft above land surface.

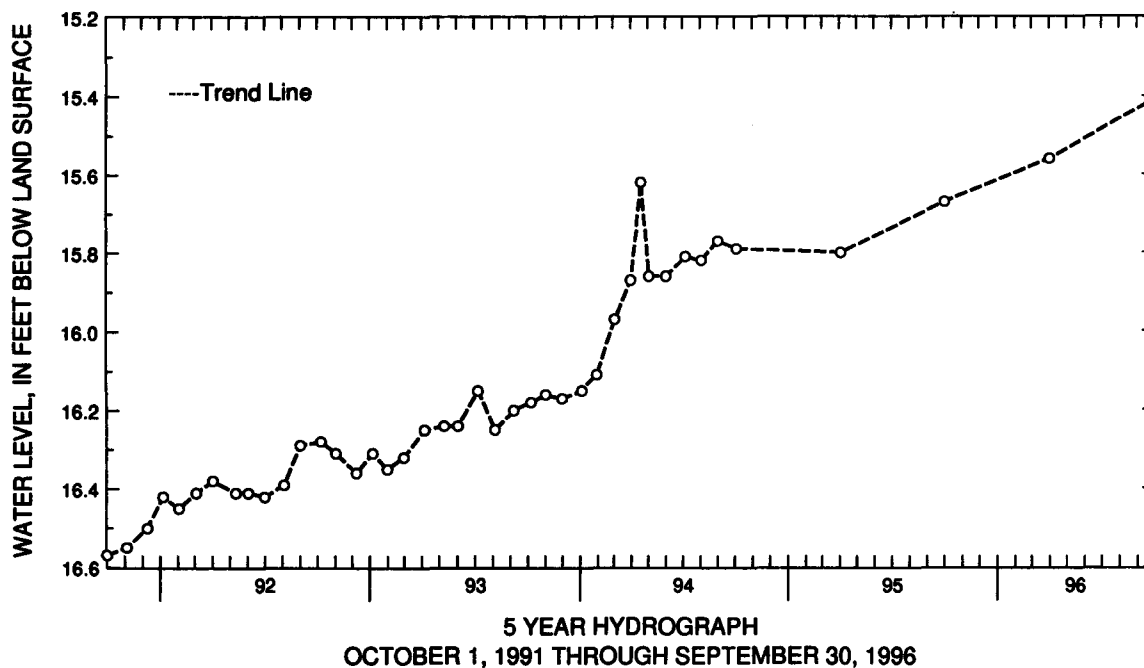
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1981 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.51 ft below land surface, July 20, 1983; lowest measured, 22.22 ft below land surface, Nov. 13, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	15.67	APR 02, 1996	15.56
WATER YEAR 1996 HIGHEST 15.56 APR 02, 1996 LOWEST 15.67 OCT 03, 1995			



GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Db 17. SITE ID.--382800076180701. PERMIT NUMBER.--DO-73-0557.

LOCATION.--Lat 38°28'00", long 76°18'07", Hydrologic Unit 02060005, near MD Rt. 16, Taylors Island.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 320 ft; casing diameter 6 in., to 55 ft; casing diameter 2 in. from 55 to 270 ft; screen diameter 2 in. from 270 to 280 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.65 ft above land surface.

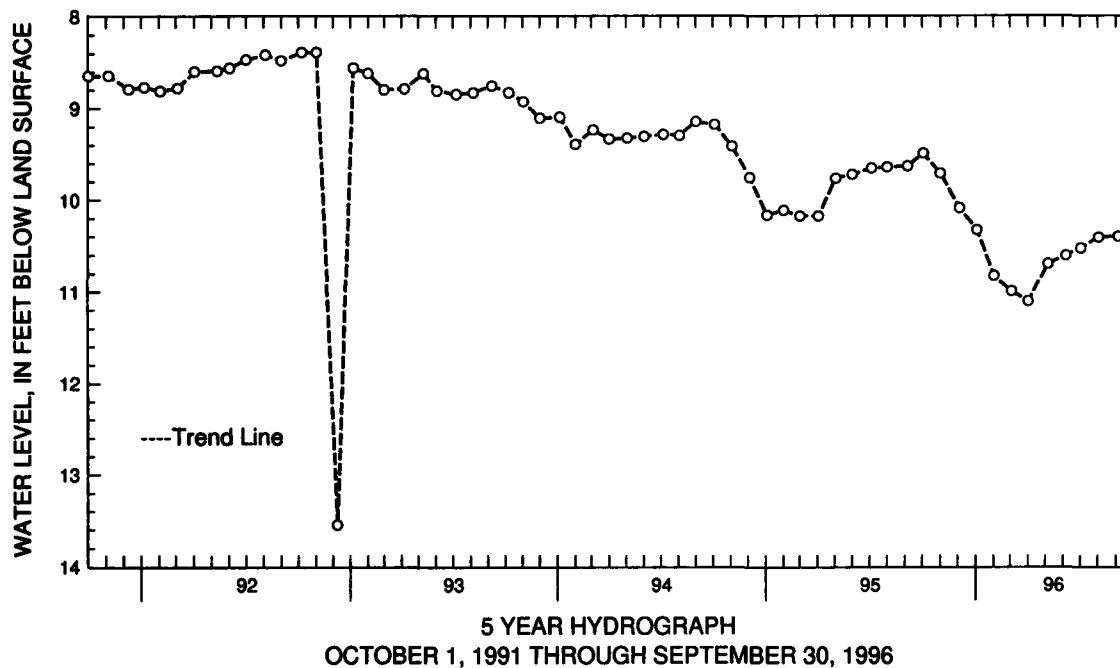
REMARKS.--Maryland Water-Level Network observation well. On Dec. 5, 1990 a northeaster storm caused the rise in water-levels when low lying areas were flooded. The Dec. 9, 1992 water level measurement is affected by recent pumping in the area or by use of the observation well?

PERIOD OF RECORD.--April 1977 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.18 ft below land surface, Dec. 5, 1990; lowest measured, 13.55 ft below land surface, Dec. 9, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	9.50	JAN 03, 1996	10.34	APR 02, 1996	11.12	JUL 02, 1996	10.54
NOV 01	9.72	FEB 01	10.84	MAY 06	10.71	AUG 02	10.42
DEC 04	10.10	MAR 04	11.01	JUN 06	10.62	SEP 05	10.41
WATER YEAR 1996		HIGHEST	9.50	OCT 03, 1995	LOWEST	11.12	APR 02, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Db 18. SITE ID.--382807076175801. PERMIT NUMBER.--DO-81-1314.

LOCATION.-- Lat 38°28'07", long 76°17'58", Hydrologic Unit 02060005, Taylors Island.

Owner: Eleanor Polley.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, depth 540 ft; casing diameter 4 in., to 140 ft; casing diameter 2 in. from 140 to 520 ft; screen diameter 2 in. from 520 to 540 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 2 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.50 ft above land surface.

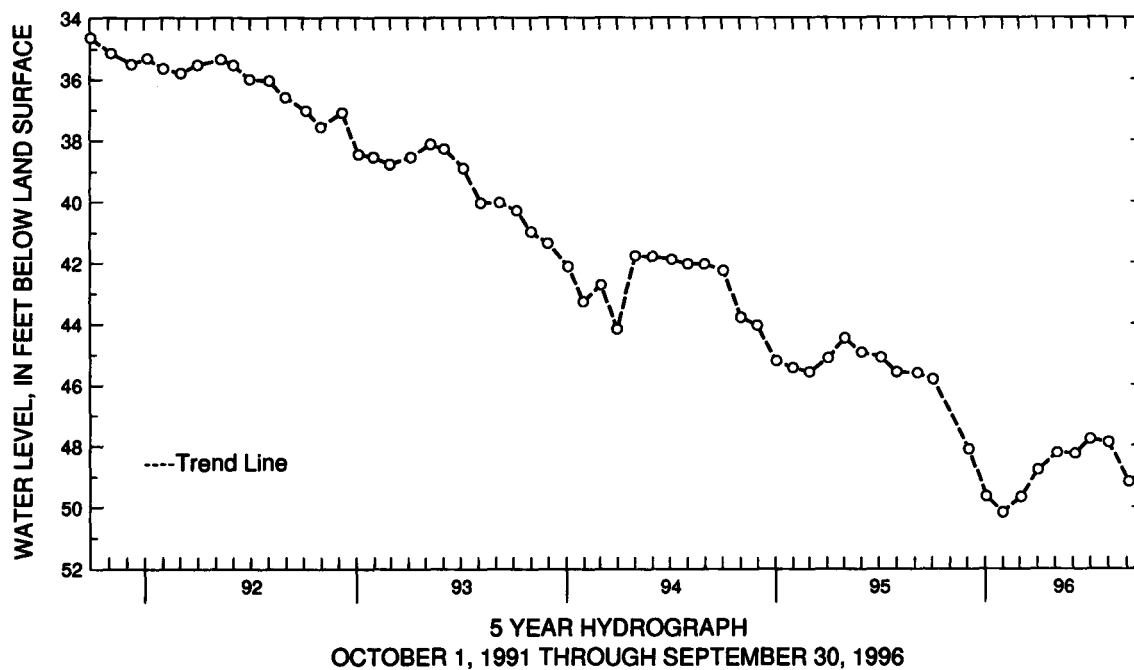
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--November 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.44 ft below land surface, Feb. 2, 1989; lowest measured, 50.17 ft below land surface, Feb. 1, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	45.82	FEB 01, 1996	50.17	MAY 06, 1996	48.23	AUG 02, 1996	47.90
DEC 04	48.12	MAR 04	49.67	JUN 06	48.29	SEP 05	49.19
JAN 03, 1996	49.65	APR 02	48.80	JUL 02	47.80		
WATER YEAR 1996		HIGHEST	45.82 OCT 03, 1995	LOWEST	50.17 FEB 01, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Db 19. SITE ID.--382847076190901. PERMIT NUMBER.--DO-81-1164.

LOCATION.--Lat 38°28'47", long 76°19'09", Hydrologic Unit 02060005, Taylors Island.

Owner: Elmer Wiley.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, domestic, artesian well, depth 540 ft; casing diameter 4 in. to 140 ft; casing diameter 2 in. from 140 to 520 ft; screen diameter 2 in. from 520 to 540 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.50 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

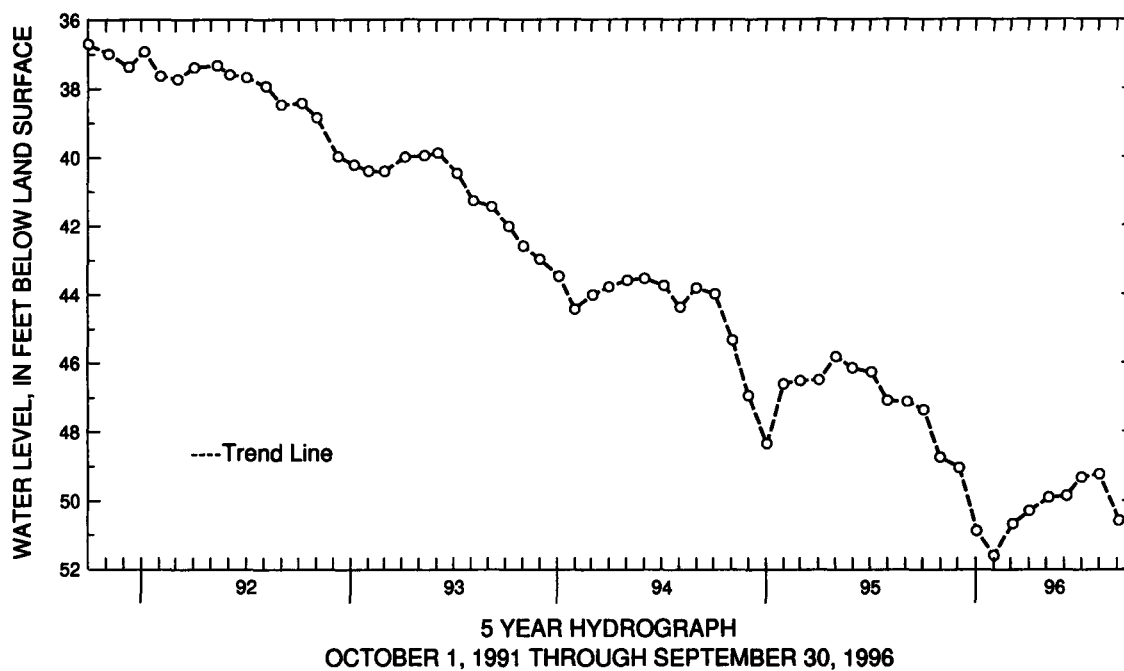
PERIOD OF RECORD.--March 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.50 ft below land surface, Aug. 2, 1989; lowest measured, 51.60 ft below land surface, Feb. 1, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	47.37	JAN 03, 1996	50.89	APR 02, 1996	50.31	JUL 02, 1996	49.33
NOV 01	48.75	FEB 01	51.60	MAY 06	49.92	AUG 02	49.24
DEC 04	49.05	MAR 04	50.68	JUN 06	49.87	SEP 05	50.59

WATER YEAR 1996 HIGHEST 47.37 OCT 03, 1995 LOWEST 51.60 FEB 01, 1996



MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Dh 27. SITE ID.--382916075491702. PERMIT NUMBER.--DO-71-0001.
 LOCATION.--Lat 38°29'16", long 75°49'17", Hydrologic Unit 02060008, Vienna power plant.
 Owner: Delmarva Power and Light Co.
 AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 63 ft; casing diameter 12 in., to 20 ft and 8 in., to 33 ft; screen diameter 6 in. from 33 to 63 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--30-minute recorder interval from May 1990 to current year.
 DATUM.--Altitude of land surface is 9.10 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 2.69 ft above land surface.
 REMARKS.--Southern Maryland observation well network. Water levels are affected by nearby pumping at powerplant.
 PERIOD OF RECORD.--April 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.72 ft above sea level, March 3, 1994; lowest measured, 9.11 ft below sea level, Dec. 27, 1990.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.37	1.90	1.82	-3.25	1.92	-5.11	2.34	1.93	2.16	-4.17	---	---
2	2.38	-4.96	2.11	1.56	1.83	-6.17	2.65	-1.99	2.02	-5.12	2.76	1.95
3	2.11	1.61	2.22	1.73	1.75	.41	2.39	-4.73	1.94	-5.01	3.11	2.25
4	2.30	-4.46	2.04	1.36	1.92	-6.00	2.54	-4.56	1.70	-5.26	2.32	-5.64
5	2.45	1.90	1.86	1.26	1.36	-5.73	2.37	-4.72	1.47	-5.90	2.03	-5.37
6	2.72	-4.95	1.92	1.36	1.81	-5.70	2.08	-5.08	1.29	-5.84	2.24	1.44
7	2.34	1.74	2.42	1.44	1.70	-6.10	2.03	-5.51	2.09	-5.68	2.34	-5.35
8	2.39	1.89	2.16	-2.49	1.44	-6.15	2.19	-5.21	2.00	-5.60	2.44	-5.22
9	2.25	-5.72	1.72	-6.33	2.03	1.01	2.04	-5.02	2.27	-5.49	1.96	-5.85
10	1.70	-6.00	1.84	.66	1.82	-6.26	2.43	-4.61	2.27	-5.90	1.91	1.22
11	1.81	-6.12	2.48	1.49	1.48	-6.40	2.53	-5.06	1.52	-5.61	1.90	-5.67
12	1.76	-5.71	2.48	1.65	.80	-6.56	2.69	1.79	1.51	-5.71	1.98	-5.48
13	1.54	-5.81	1.86	1.36	1.35	-6.23	2.62	-5.52	2.21	-4.78	2.63	-3.65
14	2.31	1.26	2.47	1.46	1.53	-5.70	2.03	-4.79	1.99	-5.44	2.89	2.33
15	2.30	1.60	2.81	2.39	1.52	-5.45	2.21	-5.48	2.08	-5.05	3.06	2.51
16	2.04	-6.02	2.53	1.73	1.93	.89	---	---	2.31	1.23	3.05	2.49
17	1.26	-4.39	2.05	-5.68	2.16	1.62	---	---	2.30	-5.06	3.04	2.51
18	1.64	.97	2.08	1.39	2.17	-5.62	---	---	2.09	-5.47	3.05	-4.25
19	1.84	1.40	2.20	1.70	1.54	-5.67	2.65	-3.81	2.60	1.73	2.82	-4.55
20	1.88	-4.31	2.13	-3.26	2.10	-4.83	2.55	-4.78	2.61	-4.46	3.49	-3.28
21	2.50	1.75	2.42	-4.77	1.89	-5.14	2.47	-5.05	2.49	-3.26	3.37	-4.15
22	2.34	1.82	2.18	-5.54	1.92	-5.33	2.17	-5.08	2.63	-3.08	2.93	-2.51
23	2.18	-4.80	2.36	1.21	1.51	-5.74	2.61	-5.00	2.77	2.23	2.84	2.36
24	2.22	1.42	2.20	1.60	2.13	.44	2.75	-3.87	2.66	2.03	2.60	2.07
25	2.18	1.55	2.18	1.54	2.43	1.87	2.65	-4.79	2.20	1.72	2.54	-5.08
26	2.19	1.56	2.50	1.75	2.60	-5.54	2.04	-4.88	2.40	-4.32	2.39	-4.40
27	2.28	-3.45	2.52	-5.22	1.68	-5.68	3.03	1.20	2.49	-4.31	1.97	-5.46
28	2.54	2.09	2.33	1.82	1.58	-5.14	3.04	2.24	2.18	-5.26	2.00	-4.99
29	2.27	1.55	2.06	-4.30	1.72	-5.36	2.27	-5.20	---	---	2.14	-4.94
30	1.93	1.23	1.80	-5.26	2.13	-4.32	1.99	-4.80	---	---	2.79	1.92
31	1.76	1.30	---	---	2.23	1.81	2.34	-4.60	---	---	3.03	2.61
MONTH	2.72	-6.12	2.81	-6.33	2.60	-6.56	3.04	-5.52	2.77	-5.90	3.49	-5.85

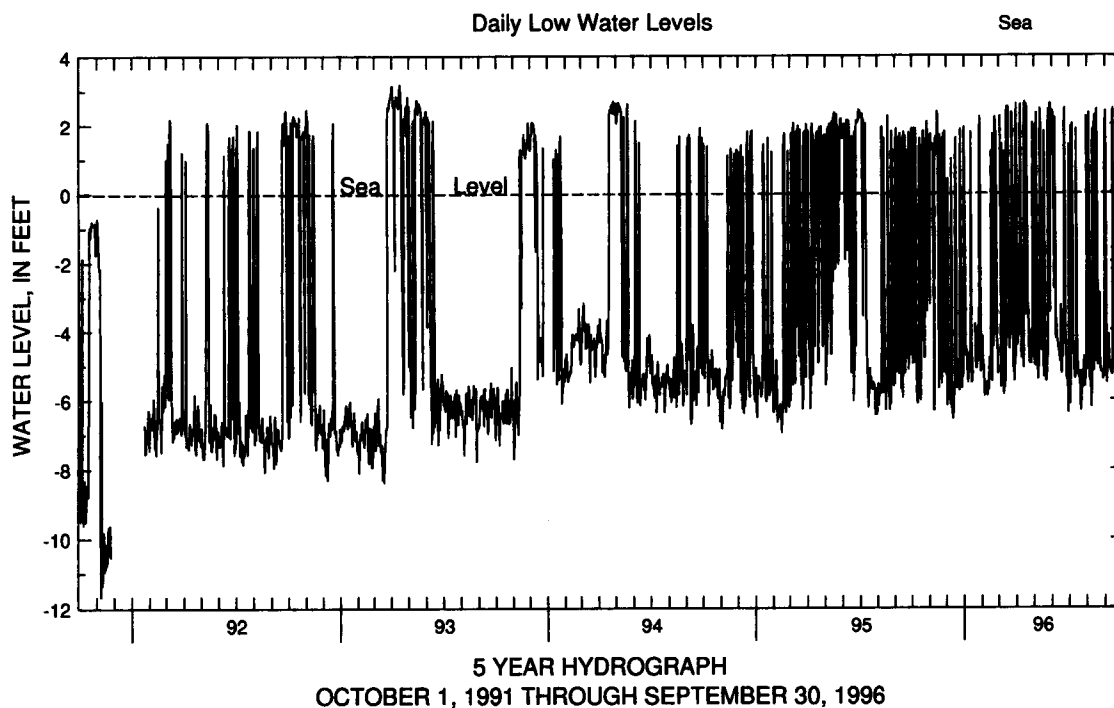
GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

DO Dh 27--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.04	-4.43	2.60	-5.01	3.08	2.39	3.01	-5.69	3.25	-2.83	2.78	2.16
2	2.90	-4.33	2.71	1.98	3.00	2.39	2.50	-6.14	2.92	-5.14	3.05	2.40
3	2.76	-4.03	2.84	-5.04	2.94	2.28	2.35	-5.25	2.85	2.11	3.03	-5.07
4	3.16	-1.84	2.79	1.91	2.86	-2.80	2.61	1.94	2.93	2.34	2.27	-5.53
5	3.13	-4.06	2.93	2.34	2.89	-2.77	2.60	-4.34	2.90	-5.40	2.23	-4.94
6	2.95	1.72	2.95	-4.92	2.83	2.21	2.69	2.03	2.04	-5.45	2.55	-4.96
7	3.13	2.60	2.29	-5.42	2.78	-4.25	2.72	-4.15	2.15	-5.51	3.09	-4.11
8	2.87	-4.79	2.23	-5.20	2.86	-3.68	2.46	-4.70	2.17	-6.21	2.61	-5.11
9	3.17	-4.29	2.60	-3.69	2.64	-4.15	2.45	-5.08	1.76	-5.56	2.46	-5.06
10	2.65	-4.84	2.60	-4.38	2.28	-4.29	2.29	-5.41	2.21	1.57	2.50	-5.12
11	2.47	-4.75	3.05	2.47	2.63	-4.46	2.09	-5.32	2.39	1.87	2.35	-5.26
12	2.18	-5.08	3.16	2.19	2.69	-4.55	2.18	-5.22	2.64	-5.19	2.33	-4.88
13	2.75	2.03	2.60	-4.59	2.65	-4.68	3.25	1.88	2.90	1.93	2.34	-5.30
14	3.09	2.63	2.49	.08	2.56	-4.87	2.95	-4.06	3.01	2.28	2.79	2.21
15	3.15	2.64	2.79	-2.98	2.51	-4.84	2.89	-4.86	3.07	-3.72	2.93	2.47
16	3.61	-3.55	2.88	-4.79	2.45	-3.27	2.75	-5.26	2.86	-4.92	2.79	-4.44
17	3.32	2.59	2.72	-5.35	2.28	-5.25	2.53	-5.36	2.89	2.20	3.12	-4.79
18	3.08	2.50	2.86	1.81	2.44	-5.04	2.49	-5.39	2.95	2.46	2.34	-5.15
19	3.12	-3.67	3.04	-4.79	2.34	-4.31	2.36	-5.19	2.76	-4.99	2.36	-5.02
20	3.22	-3.39	2.35	-5.26	2.60	-4.31	2.36	-6.00	2.37	-5.00	2.61	-4.84
21	2.46	-4.47	2.50	-5.46	2.61	-4.39	1.62	-6.33	2.52	-4.65	2.87	2.41
22	2.50	-4.93	1.96	-5.45	2.94	2.06	1.93	-6.02	2.70	-2.92	3.11	2.69
23	2.45	-4.94	2.14	-4.91	2.96	2.48	2.25	-5.17	2.74	-4.78	3.06	-5.36
24	2.34	-4.04	2.27	-4.70	2.88	-4.75	2.30	-5.52	2.66	-5.16	2.48	-5.40
25	2.43	-4.96	2.63	1.89	2.22	-4.52	2.21	-5.27	2.32	-5.21	2.91	-2.69
26	2.61	-4.00	2.82	2.43	2.32	-5.44	2.49	-4.75	2.22	-5.20	2.90	2.38
27	2.64	-4.71	2.86	2.42	2.20	-5.26	2.62	-5.62	2.43	-5.19	2.89	-4.39
28	2.62	2.05	2.99	-3.48	2.33	-5.57	2.26	-5.61	2.45	-5.43	3.19	2.42
29	2.82	-4.77	3.04	2.63	1.42	-6.39	2.65	-5.19	2.49	-5.33	3.13	2.48
30	2.60	-4.71	3.15	2.37	2.76	1.42	2.66	-3.13	2.60	-5.34	2.77	-5.23
31	---	---	2.99	1.10	---	---	3.06	2.24	2.61	1.62	---	---
MONTH	3.61	-5.08	3.16	-5.46	3.08	-6.39	3.25	-6.33	3.25	-6.21	3.19	-5.53
YEAR	3.61	-6.56										



GROUND-WATER LEVELS

MARYLAND--Continued

FREDERICK COUNTY

WELL NUMBER.--FR Af 27. SITE ID.--394200077190701. PERMIT NUMBER.--FR-73-7155.

LOCATION.--Lat 39°42'00", long 77°19'07", Hydrologic Unit 02070009, 0.3 mi southwest of U.S. Rt. 15 and MD Rt. 140, Emmitsburg.

Owner: City of Emmitsburg.

AQUIFER.--Gettysburg Shale of Upper Triassic age. Aquifer code: 231GBRG.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 365 ft; casing diameter 6 in., to 41 ft; open hole.

DATUM.--Elevation of land surface is 385 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.81 ft above land surface.

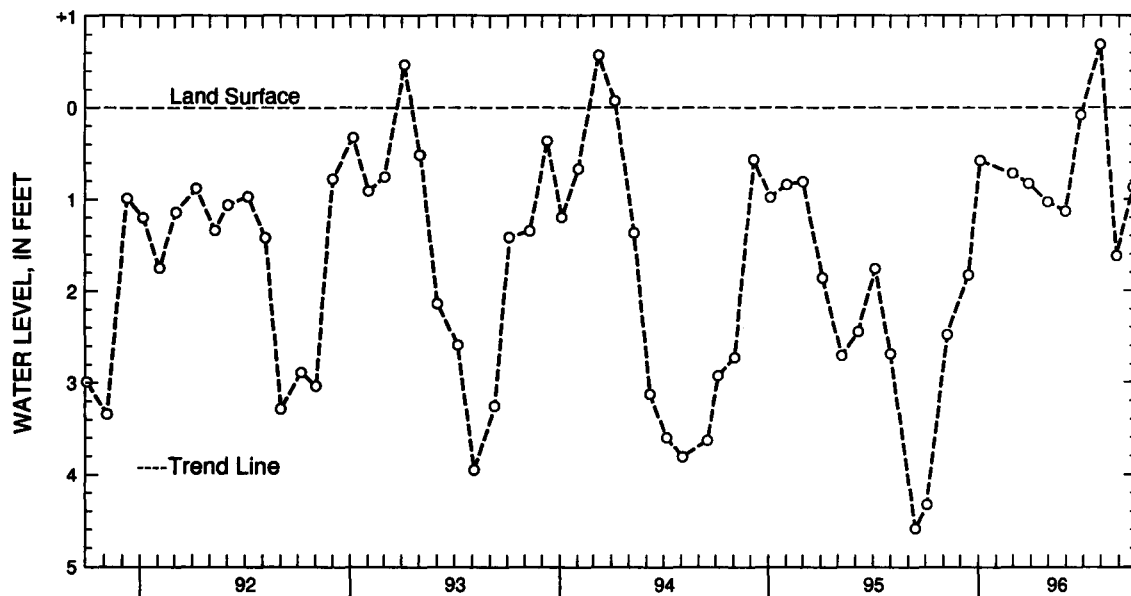
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--April 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.62 ft above land surface, May 23, 1983; lowest measured, 5.43 ft below land surface, June 2, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	4.33	JAN 04, 1996	.58	APR 30, 1996	1.03	JUL 31, 1996	+.69
NOV 08	2.48	FEB 29	.72	MAY 31	1.13	AUG 28	1.62
DEC 15	1.83	MAR 28	.83	JUN 27	.08	SEP 26	.87
WATER YEAR 1996		HIGHEST	+.69	JUL 31, 1996	LOWEST	4.33	OCT 03, 1995



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

FREDERICK COUNTY--Continued

WELL NUMBER.--FR Bd 96. SITE ID.--393733077274801.

LOCATION.--Lat 39°37'33", long 77°27'48", Hydrologic Unit 02070009, 0.4 mi west of Hunting Creek Lake, Cunningham Falls State Park.

Owner: Cunningham Falls State Park.

AQUIFER.--Catoctin Metabasalt of Precambrian age. Aquifer code: 400CTCN.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 189 ft; casing diameter 6 in., to 22 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water-level recorder April 5, 1982 to Feb. 21, 1984, and a digital water-level

recorder--15-minute recorder interval from June 23, 1991 to May 4, 1993.

DATUM.--Elevation of land surface is 1,150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land surface.

REMARKS.--Maryland Water-Level Network observation well.

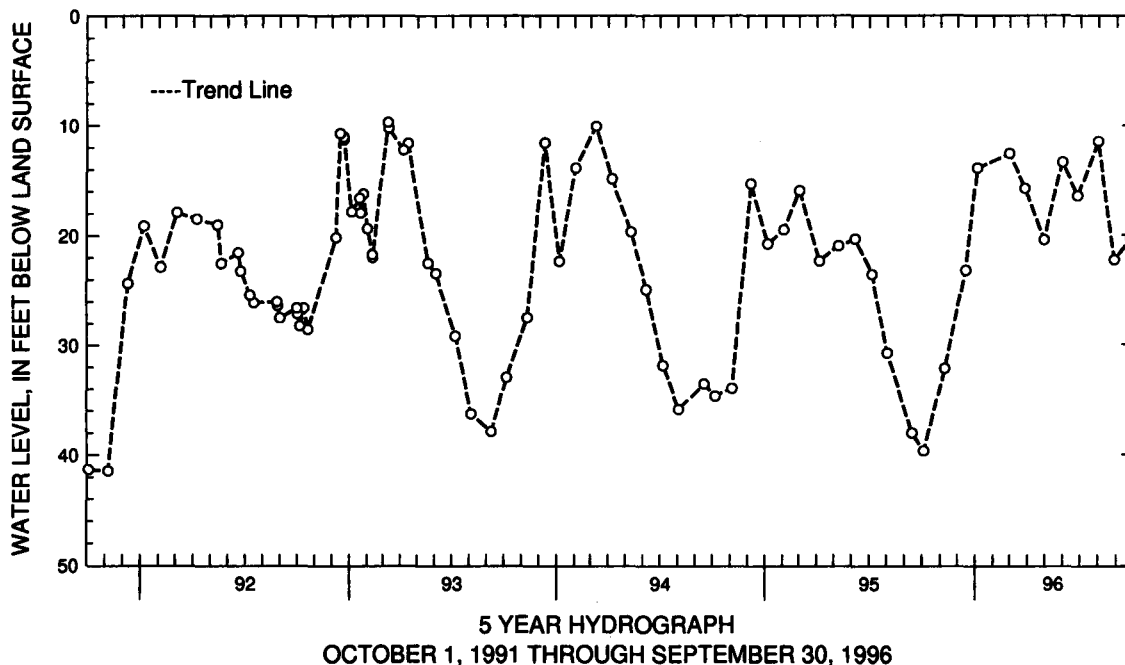
PERIOD OF RECORD.--April 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.54 ft below land surface, May 11, 1989; lowest measured, 46.46 ft below land surface, Nov. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	39.66	JAN 04, 1996	13.93	APR 30, 1996	20.43	JUL 31, 1996	11.49
NOV 08	32.20	FEB 29	12.63	MAY 31	13.41	AUG 28	22.26
DEC 15	23.18	MAR 28	15.78	JUN 27	16.44	SEP 26	20.36

WATER YEAR 1996	HIGHEST	11.49	JUL 31, 1996	LOWEST	39.66	OCT 03, 1995
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GROUND-WATER LEVELS

MARYLAND--Continued

FREDERICK COUNTY--Continued

WELL NUMBER.--FR Cg 1. SITE ID.--393156077135701.

LOCATION.--Lat 39°31'56", long 77°13'57", Hydrologic Unit 02070009, at Johnsville.

Owner: Evan B. Evans, Jr.

AQUIFER.--Ijamsville Formation of Paleozoic age. Aquifer code: 300IJMV.

WELL CHARACTERISTICS.--Dug, stone-lined, domestic, water-table well, depth 43 ft; diameter 36 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of wooden well cover, 0.60 ft above land surface.

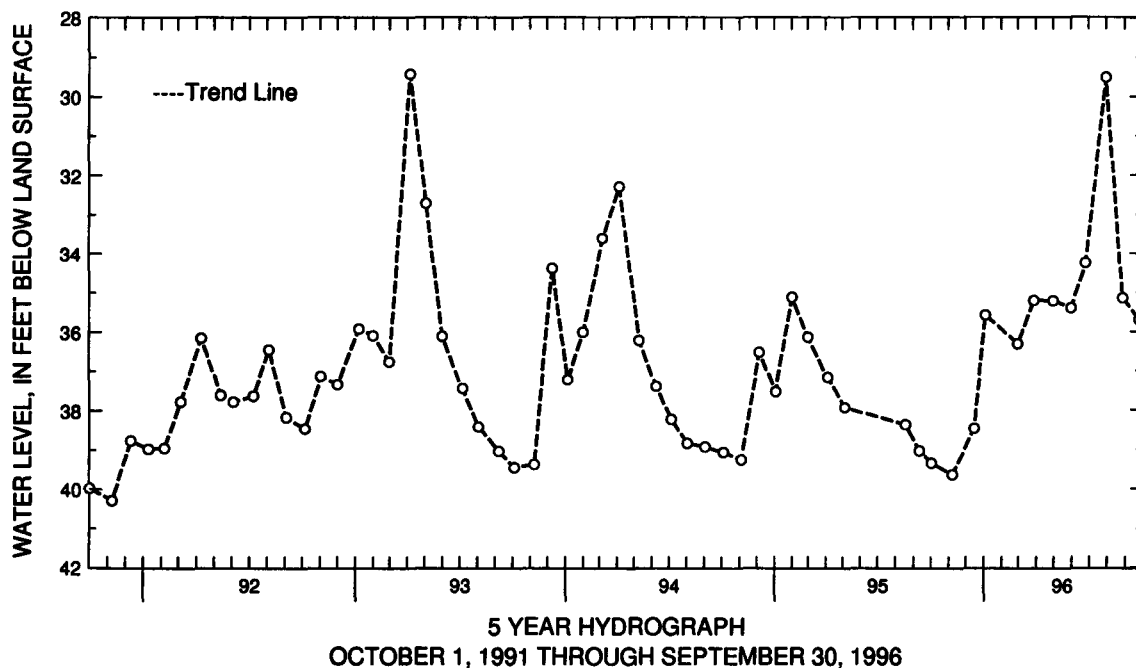
REMARKS.--Maryland Water-Level Network observation well. Residents use well as their primary water source.

PERIOD OF RECORD.--July 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.63 ft below land surface, Sept. 29, 1975;
lowest measured, 42.02 ft below land surface, Oct. 5, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	39.34	JAN 04, 1996	35.57	APR 30, 1996	35.21	JUL 31, 1996	29.51
NOV 08	39.64	FEB 29	36.31	MAY 31	35.38	AUG 28	35.14
DEC 15	38.47	MAR 28	35.20	JUN 26	34.25	SEP 26	35.69
WATER YEAR 1996		HIGHEST	29.51	JUL 31, 1996	LOWEST	39.64	NOV 08, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

FREDERICK COUNTY--Continued

WELL NUMBER.--FR Df 35. SITE ID.--392517077190401. PERMIT NUMBER.--FR-73-0852.

LOCATION.--Lat 39°25'17", long 77°19'04", Hydrologic Unit 02070009, north of Eaglehead Drive, near Lake Linganore.

Owner: Lake Linganore Association.

AQUIFER.--Sams Creek Metabasalt of Paleozoic age. Aquifer code: 300SMCK.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 302 ft, casing diameter 6 in., to 26 ft, open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.00 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

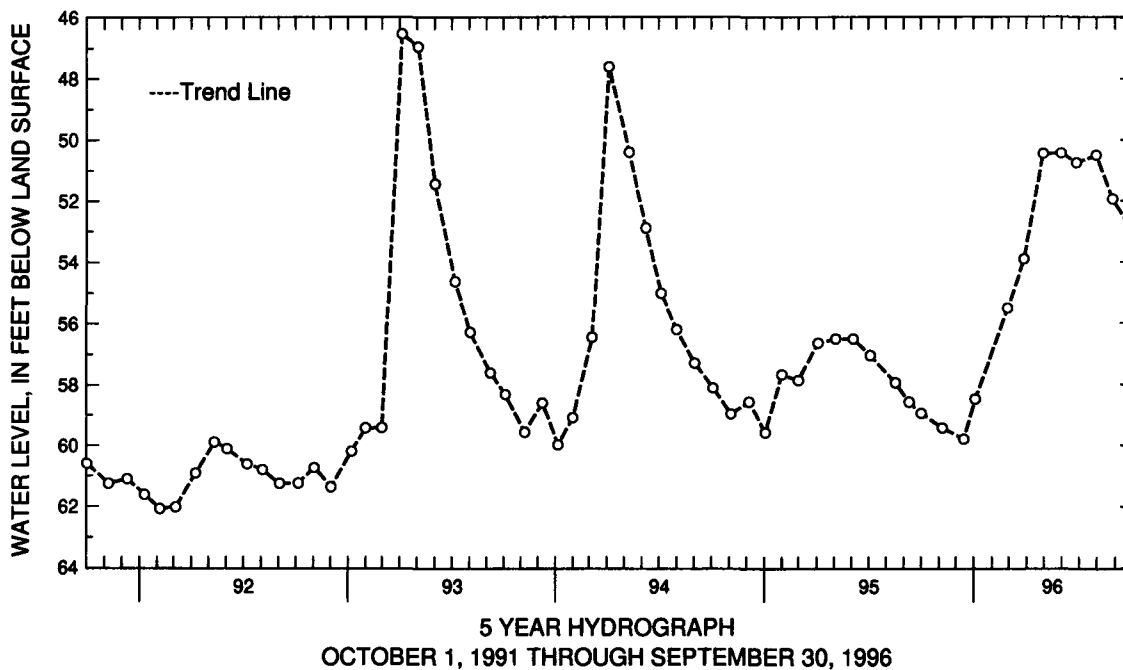
PERIOD OF RECORD.--May 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.20 ft below land surface, April 2, 1984; lowest measured, 62.27 ft below land surface, Feb. 9, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	58.96	JAN 04, 1996	58.50	APR 30, 1996	50.46	JUL 31, 1996	50.51
NOV 08	59.44	FEB 29	55.52	MAY 31	50.44	AUG 28	51.95
DEC 15	59.80	MAR 28	53.92	JUN 27	50.78	SEP 26	52.84

WATER YEAR 1996 HIGHEST 50.44 MAY 31, 1996 LOWEST 59.80 DEC 15, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

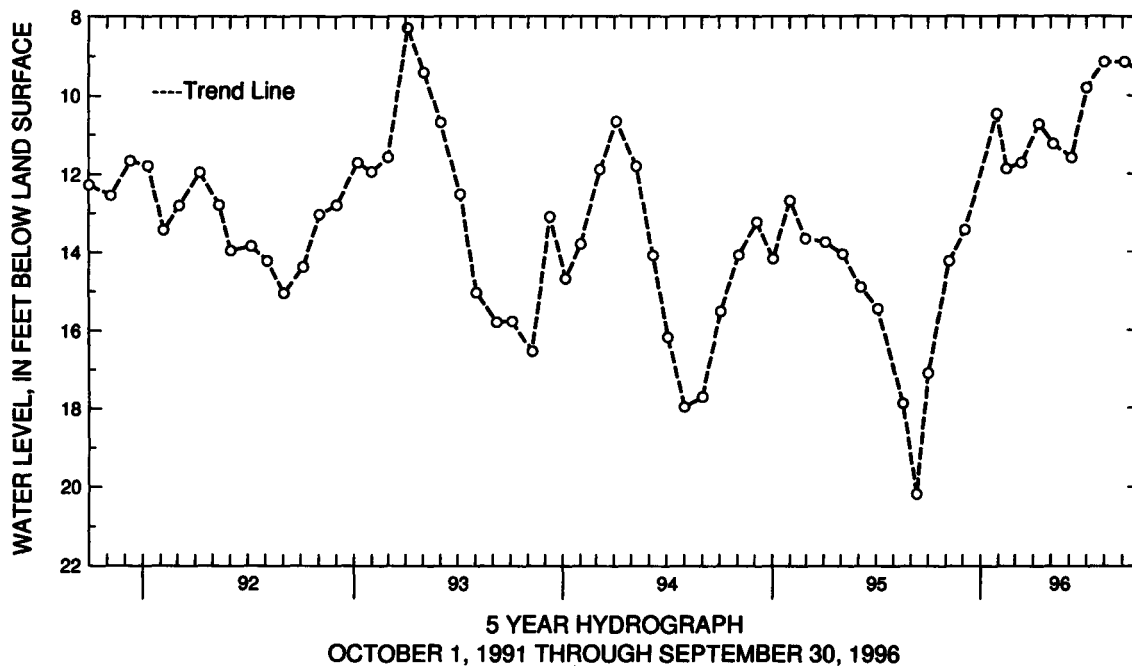
FREDERICK COUNTY--Continued

WELL NUMBER.--FR Eh 11. SITE ID.--392257077095601. PERMIT NUMBER.--FR-81-0088.
 LOCATION.--Lat 39°22'57", long 77°09'56", Hydrologic Unit 02070009. 0.5 mi west of Mount Airy.
 Owner: Town of Mount Airy.
 AQUIFER.--Marburg Formation of Paleozoic age. Aquifer code: 300MRBG.
 WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 103 ft; casing diameter 6 in., to 22 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.-- Elevation of land surface is 650 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 1.85 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.-- November 1981 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.28 ft below land surface, April 5, 1993; lowest measured, 20.19 ft below land surface, Sept. 11, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	17.11	JAN 29, 1996	10.50	APR 11, 1996	10.76	JUL 02, 1996	9.80
NOV 07	14.25	FEB 15	11.88	MAY 06	11.25	AUG 01	9.15
DEC 05	13.44	MAR 12	11.73	JUN 05	11.60	SEP 05	9.15

WATER YEAR 1996 HIGHEST 9.15 AUG 01 and SEP 05, 1996 LOWEST 17.11 OCT 02, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY

WELL NUMBER.--GA Ag 1. SITE ID.--394017078581701.

LOCATION.--Lat 39°40'17", long 78°58'17", Hydrologic Unit 02070002, in the Savage River Valley, 2.5 mi northwest of Frostburg.

Owner: Town of Frostburg.

AQUIFER.--Pocono Formation of Lower Mississippian age. Aquifer code: 337POCN.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, Reported depth 30 ft, measured depth 14 ft; casing diameter 8 in., to unknown depth; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land surface.

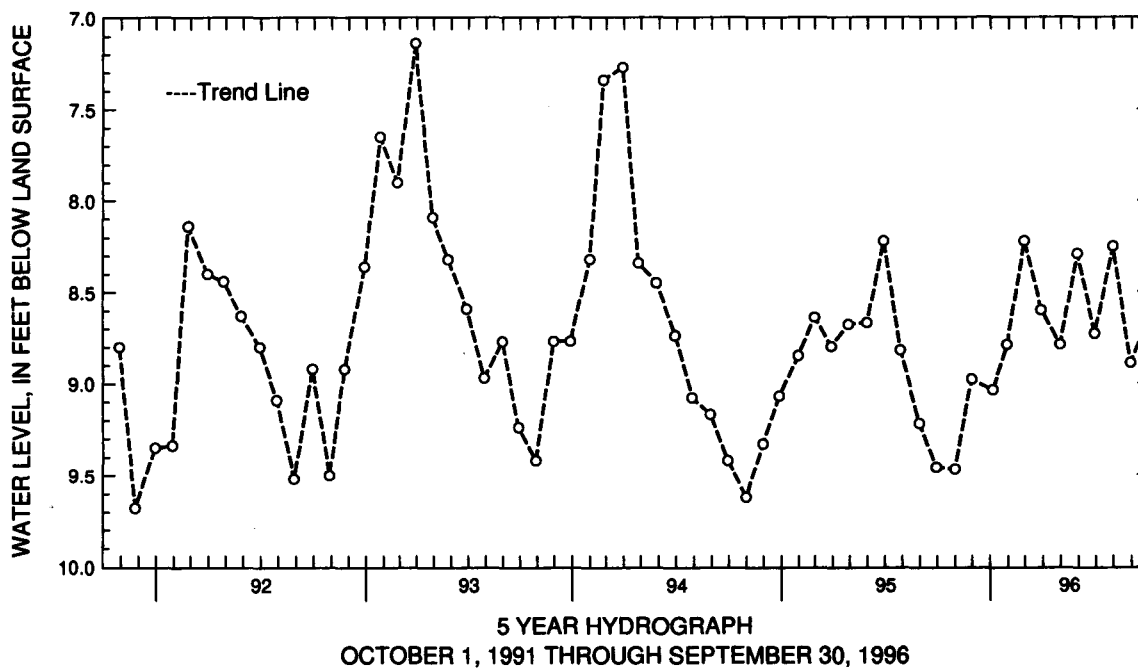
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.71 ft below land surface, Jan. 14, 1950; lowest measured, 14.59 ft below land surface, Jan. 28, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	9.47	JAN 29, 1996	8.79	APR 29, 1996	8.79	JUL 30, 1996	8.25
NOV 29	8.98	FEB 28	8.22	MAY 29	8.29	AUG 29	8.89
JAN 04, 1996	9.04	MAR 28	8.60	JUN 28	8.73	SEP 30	8.65
WATER YEAR 1996		HIGHEST	8.22	FEB 28, 1996	LOWEST	9.47	OCT 30, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Bc 1. SITE ID.--393749079190301.

LOCATION.--Lat 39°37'49", long 79°19'03", Hydrologic Unit 05020006, at Accident.

Owner: Mabel A. Georg.

AQUIFER.--Hampshire Formation of Upper Devonian age. Aquifer code: 341HMPR.

WELL CHARACTERISTICS.--Dug, stone-lined, domestic, water-table well, depth 20 ft; diameter 36 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 2,415 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 1 in. board cover, 2.30 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

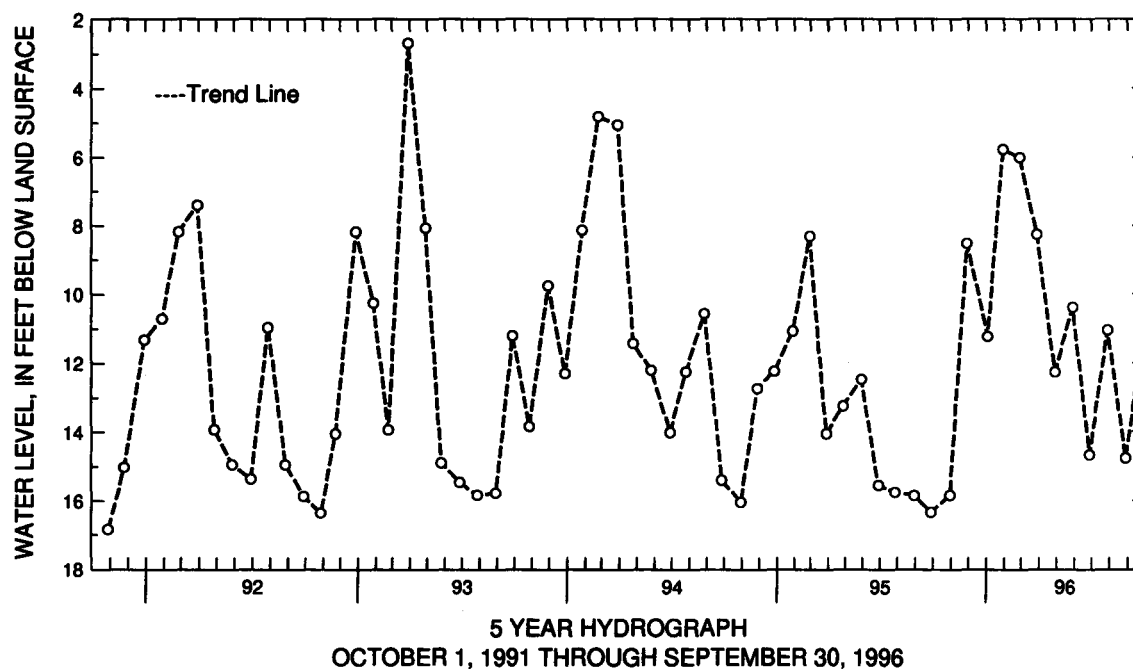
PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.25 ft below land surface, March 6, 1979; lowest measured, 19.65 ft below land surface, Dec. 9, 1953.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	15.85	JAN 30, 1996	5.79	APR 29, 1996	12.27	JUL 30, 1996	11.06
NOV 29	8.53	FEB 28	6.02	MAY 30	10.39	AUG 29	14.78
JAN 04, 1996	11.24	MAR 29	8.27	JUN 28	14.68	SEP 30	11.19

WATER YEAR 1996 HIGHEST 5.79 JAN 30, 1996 LOWEST 15.85 OCT 30, 1995



GROUND-WATER LEVELS

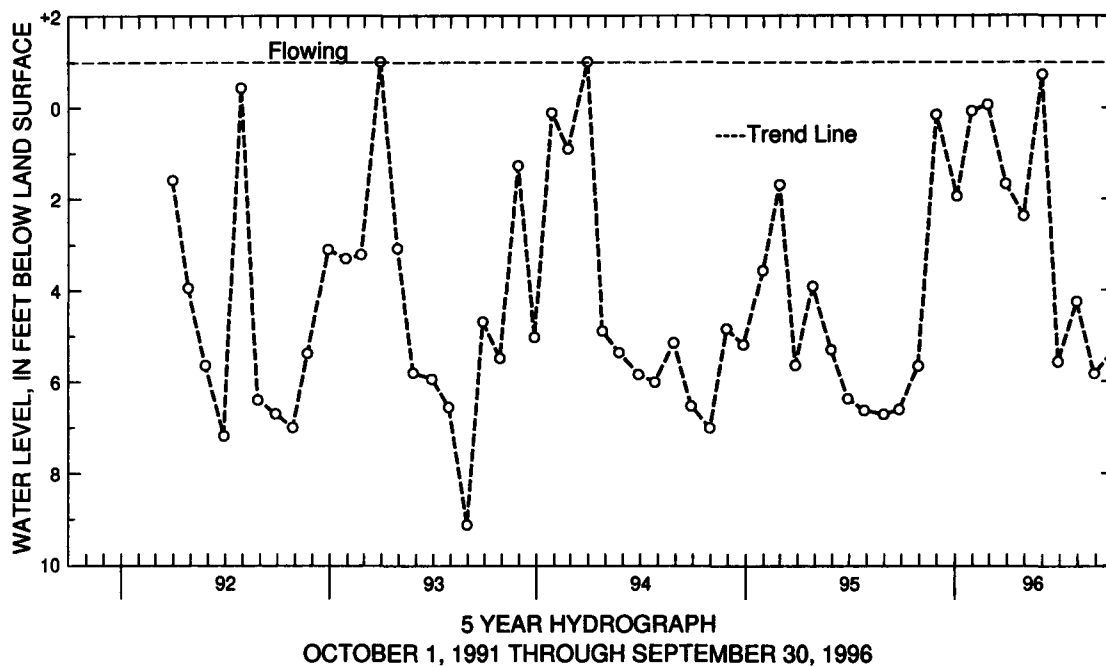
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Eb 78. SITE ID.--392439079231801. PERMIT NUMBER.--GA-88-0611.
 LOCATION.--Lat 39°24'39", long 79°23'18", Hydrologic Unit 05020006, at Southern Pines, nr Broadford Rd.
 and Southern Pines Drive, Mountain Lake Park.
 Owner: Jonathan Kessler.
 AQUIFER.--Jennings Formation of Upper Devonian age. Aquifer code: 341JNGS.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 307 ft; casing diameter 6 in., to 40 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 2,500 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring point: Top of casing 1.0 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--March 1992 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, flowing on March 29, 1993 and March 30, 1994.;
 lowest measured, 9.12 ft below land surface, Aug. 30, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	5.67	JAN 30, 1996	.08	APR 29, 1996	2.38	JUL 30, 1996	4.26
NOV 29	.16	FEB 27	+0.06	MAY 31	+0.72	AUG 29	5.84
JAN 04, 1996	1.95	MAR 29	1.68	JUN 28	5.58	SEP 30	5.36
WATER YEAR 1996		HIGHEST	+0.72	MAY 31, 1996	LOWEST	5.84	AUG 29, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

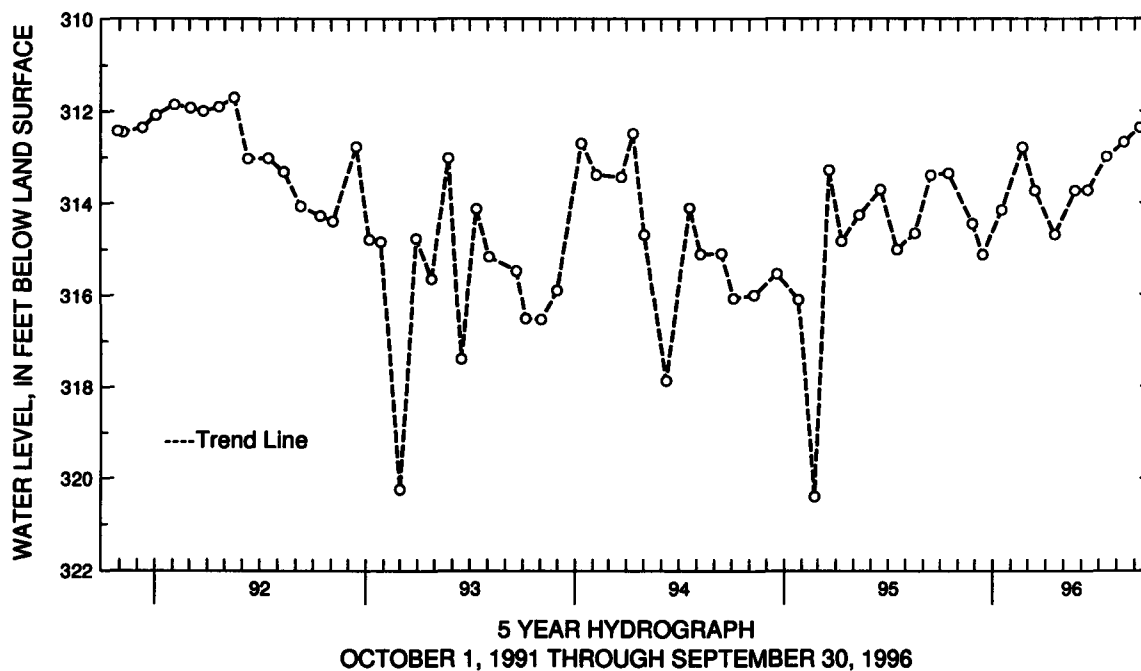
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 28. SITE ID.--391512079270901. PERMIT NUMBER.--GA-73-1697.
 LOCATION.--Lat 39°15'12", long 79°27'09", Hydrologic Unit 02070002, on south side of Red Oak Rd.,
 0.6 mi west from the intersection with Kempton Rd., 2.6 mi west of Wilson.
 Owner: Mettiki Coal Co.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 341 ft; casing diameter 6 in.,
 to 317 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 2,890 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring Point: Top of casing, 1.5 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal
 mining operations.
 PERIOD OF RECORD.--June 1978 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 100.60 ft below land surface, Dec. 14, 1978;
 lowest measured, 332.43 ft below land surface, May 16, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	313.36	JAN 17, 1996	314.16	APR 17, 1996	314.70	JUL 15, 1996	313.00
NOV 27	314.46	FEB 22	312.79	MAY 22	313.74	AUG 14	312.68
DEC 15	315.14	MAR 14	313.74	JUN 13	313.73	SEP 11	312.36

WATER YEAR 1996 HIGHEST 312.36 SEP 11, 1996 LOWEST 315.14 DEC 15, 1995



GROUND-WATER LEVELS

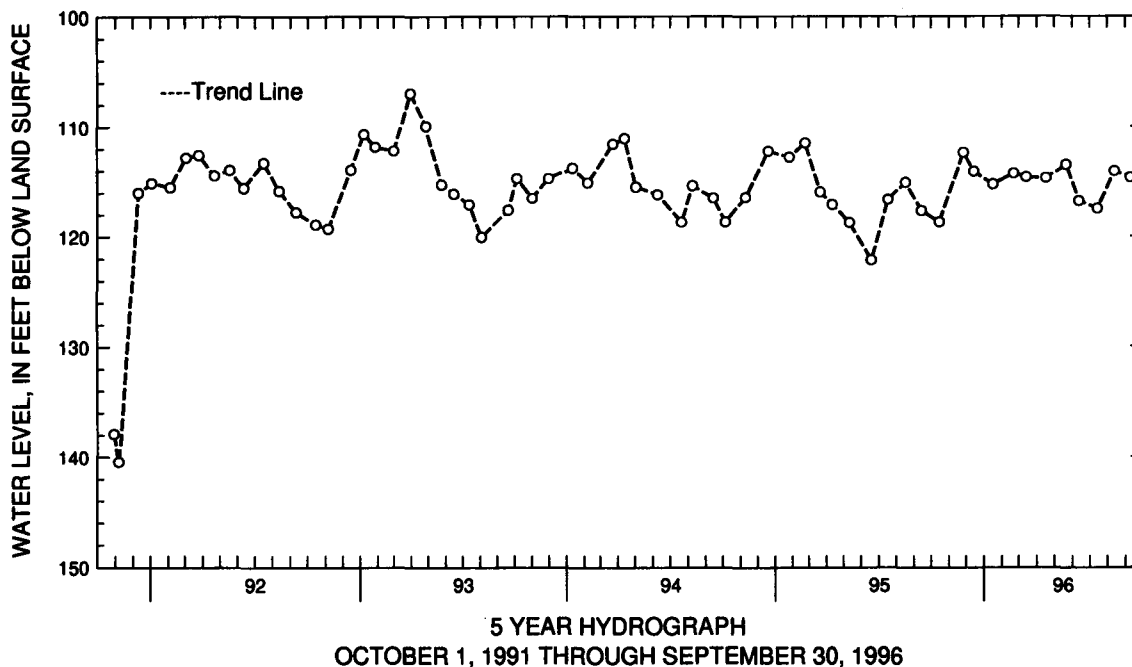
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 29. SITE ID.--391512079270902. PERMIT NUMBER.--GA-73-1698.
 LOCATION.--Lat 39°15'12", long 79°27'09", Hydrologic Unit 02070002, on south side of Red Oak Rd.,
 0.9 mi west from intersection with Kempton Rd., 2.6 mi west of Wilson.
 Owner: Mettiki Coal Co.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 226 ft; casing diameter 6 in.,
 to 203 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 2,890 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring point: Top of casing, 2.0 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by
 coal mining operations.
 PERIOD OF RECORD.--June 1978 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 106.95 ft below land surface, March 30, 1993;
 lowest water level measured, dry on Nov. 17, and 18, 1982, Dec. 28, 1982 and Feb. 18, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	118.69	JAN 17, 1996	115.26	APR 17, 1996	114.71	JUL 15, 1996	117.49
NOV 27	112.39	FEB 22	114.27	MAY 22	113.49	AUG 14	114.05
DEC 15	114.11	MAR 14	114.62	JUN 13	116.80	SEP 11	114.65
WATER YEAR 1996		HIGHEST	112.39	NOV 27, 1995	LOWEST	118.69	OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

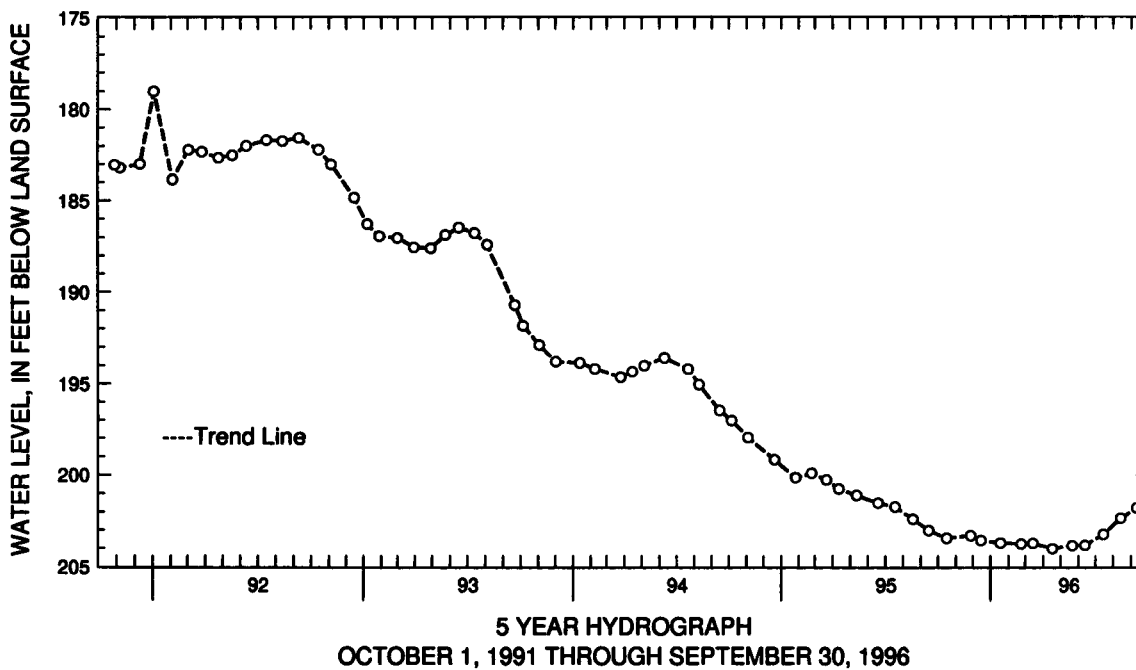
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 31. SITE ID.--391539079254601. PERMIT NUMBER.--GA-73-2142.
 LOCATION.--Lat 39°15'37", long 79°25'45", Hydrologic Unit 02070002, on north side of coal conveyor belt,
 450 ft west of Table Rock Rd., 1.7 mi west of Wilson.
 Owner: U.S. Geological Survey.
 AQUIFER.--Allegheny Formation of Middle Pennsylvanian age. Aquifer code: 324ALGN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 606 ft; casing diameter 8 in., to 25.5 ft;
 casing diameter 4 in., to 470 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval.
 DATUM.--Elevation of land surface is 2,618 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring point: Top of casing, 2.6 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal
 mining operations.
 PERIOD OF RECORD.--April 1980 to to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.31 ft below land surface, April 8, 1980;
 lowest measured, 204.02 ft below land surface, April 17, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	203.44	JAN 18, 1996	203.70	APR 17, 1996	204.02	JUL 15, 1996	203.24
NOV 27	203.30	FEB 23	203.75	MAY 22	203.84	AUG 14	202.35
DEC 15	203.57	MAR 14	203.72	JUN 13	203.82	SEP 11	201.80

WATER YEAR 1996 HIGHEST 201.80 SEP 11, 1996 LOWEST 204.02 APR 17, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 32. SITE ID.--391539079254602. PERMIT NUMBER.--GA-73-2143.

LOCATION.--Lat 39°15'39", long 79°25'46", Hydrologic Unit 02070002, on north side of coal conveyor belt, 450 ft west of Table Rock Rd., 1.7 mi west of Wilson.

Owner: U.S. Geological Survey.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 473 ft; casing diameter 8 in., to 23 ft; casing diameter 4 in., to 430 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from July 21, 1980 to April 8, 1981.

DATUM.--Elevation of land surface is 2,618 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.15 ft above land surface.

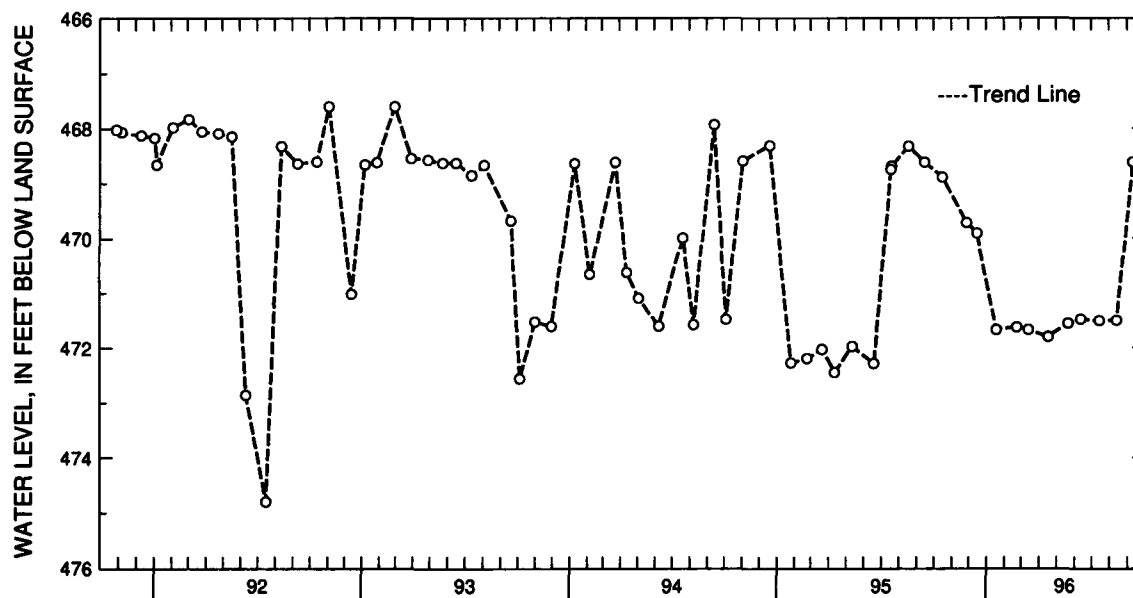
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.

PERIOD OF RECORD.--February 1980 to to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.55 ft below land surface, Feb. 27, 1980; lowest measured, 474.80 ft below land surface, July 16, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	468.89	JAN 18, 1996	471.68	APR 17, 1996	471.81	JUL 15, 1996	471.52
NOV 27	469.72	FEB 23	471.63	MAY 22	471.56	AUG 14	471.51
DEC 15	469.91	MAR 14	471.68	JUN 13	471.49	SEP 11	468.62
WATER YEAR 1996		HIGHEST 468.62	SEP 11, 1996	LOWEST 471.81	APR 17, 1996		



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 33. SITE ID.--391539079254603. PERMIT NUMBER.--GA-73-2144.

LOCATION.--Lat 39°15'39", long 79°25'46", Hydrologic Unit 02070002, on north side of coal conveyor belt, 450 ft west of Table Rock Rd., 1.7 mi west of Wilson.

Owner: U.S. Geological Survey.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 391 ft; measured depth of 324 ft on Dec. 15, 1995, (see REMARKS); casing diameter 8 in., to 23 ft; casing diameter 4 in., to 318 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital recorder--60-minute recorder interval from July 21, 1980 to Oct. 14, 1982.

DATUM.--Elevation of land surface is 2,618 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of recorder shelf, 3.9 ft above land surface.

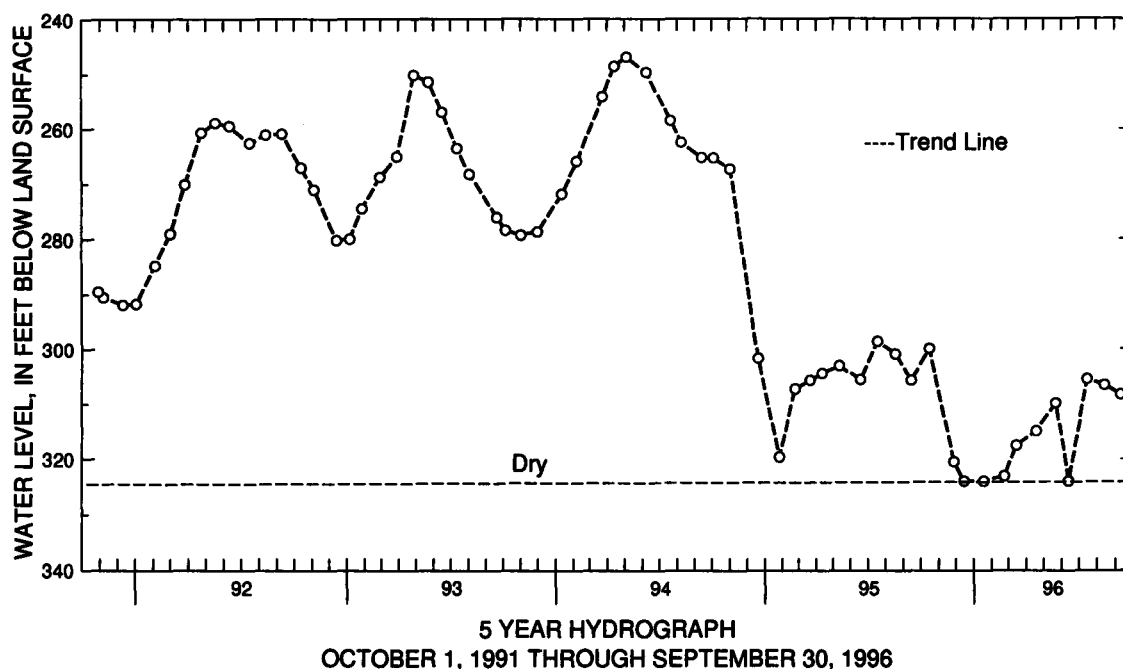
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations. Prior to Dec. 15, 1995 the well was undermined and collapsed the depth of the well is now 324 ft.

PERIOD OF RECORD.--February 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.31 ft below land surface, Feb. 27, 1978; lowest measured, dry at 324 ft below land surface on Dec. 15, 1995, Jan 18, 1996, and June 13, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	300.03	JAN 18, 1996	DRY	APR 17, 1996	314.95	JUL 15, 1996	305.56
NOV 27	320.57	FEB 23	323.07	MAY 22	309.94	AUG 14	306.65
DEC 15	DRY	MAR 14	317.57	JUN 13	DRY	SEP 11	308.28
WATER YEAR 1996		HIGHEST 300.03	OCT 16, 1995	LOWEST 323.07	FEB 23, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

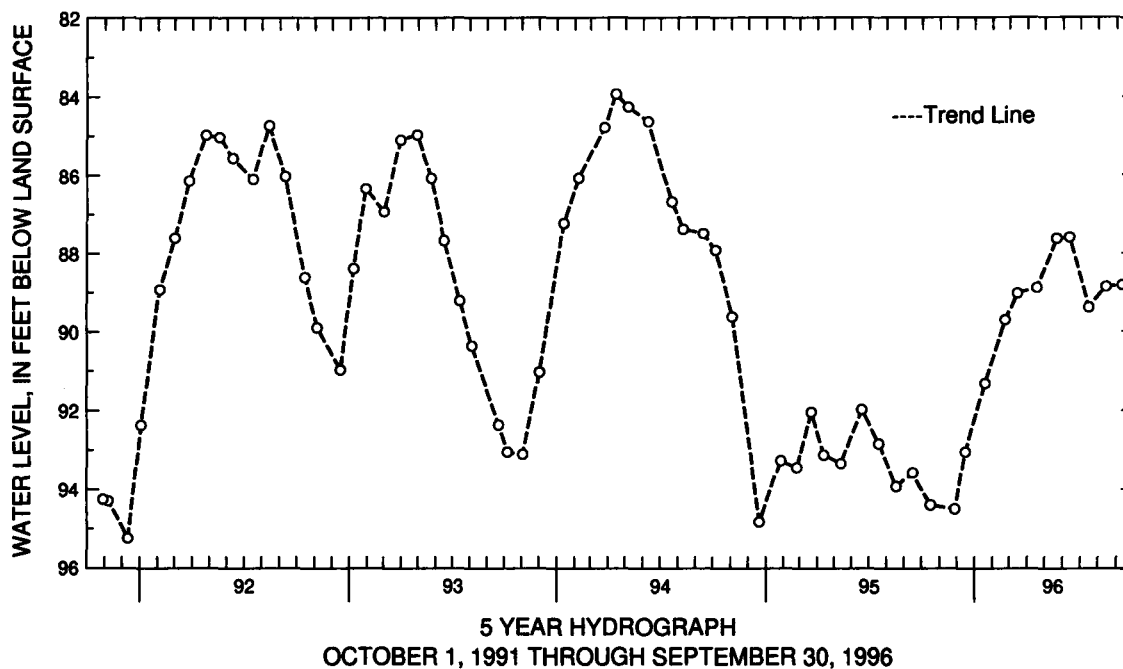
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 34. SITE ID.--391539079254604. PERMIT NUMBER.--GA-73-2145.
 LOCATION.--Lat 39°15'39", long 79°25'46", Hydrologic Unit 02070002, on north side of coal conveyor belt, 450 ft west of Table Rock Rd., 1.7 mi west of Wilson.
 Owner: U.S. Geological Survey.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 115 ft; casing diameter 8 in., to 23.5 ft; casing diameter 4 in., to 96 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval, from July 21, 1980 to Oct 19, 1990.
 DATUM.--Elevation of land surface is 2,618 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of recorder shelf, 3.3 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well.
 PERIOD OF RECORD.--February 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.05 ft below land surface, Feb. 26, 1980; lowest measured, 95.25 ft below land surface, Dec. 11, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	94.41	JAN 18, 1996	91.33	APR 17, 1996	88.90	JUL 15, 1996	89.39
NOV 27	94.51	FEB 23	89.72	MAY 22	87.63	AUG 14	88.86
DEC 15	93.06	MAR 14	89.03	JUN 13	87.60	SEP 11	88.83

WATER YEAR 1996 HIGHEST 87.60 JUN 13, 1996 LOWEST 94.51 NOV 27, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

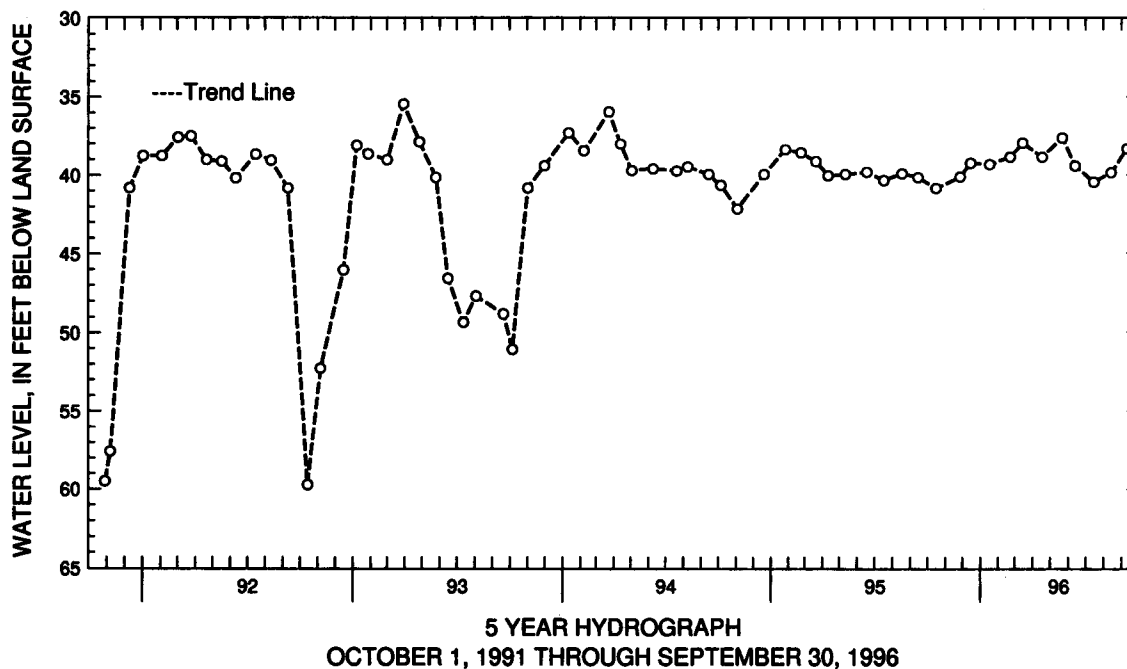
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fa 38. SITE ID.--391501079260001. PERMIT NUMBER.--GA-73-2125.
 LOCATION.--Lat 39°15'01", long 79°26'00", Hydrologic Unit 02070002, at intersection of Kempton Rd.,
 and Dobin Rd., 3.6 mi south of Table Rock.
 Owner: Curtis Glotfelty.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, domestic, water-table well, depth 118 ft, casing diameter 6 in., to 39 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 2,680 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring point: Top of casing, 1.0 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by nearby
 mining operations.
 PERIOD OF RECORD.--February 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.46 ft below land surface, March 30, 1993;
 lowest measured, 59.72 ft below land surface, Oct. 14, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	40.87	JAN 17, 1996	39.35	APR 17, 1996	38.87	JUL 15, 1996	40.48
NOV 27	40.14	FEB 22	38.87	MAY 22	37.63	AUG 14	39.87
DEC 15	39.26	MAR 14	37.96	JUN 13	39.45	SEP 11	38.33

WATER YEAR 1996 HIGHEST 37.63 MAY 22, 1996 LOWEST 40.87 OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

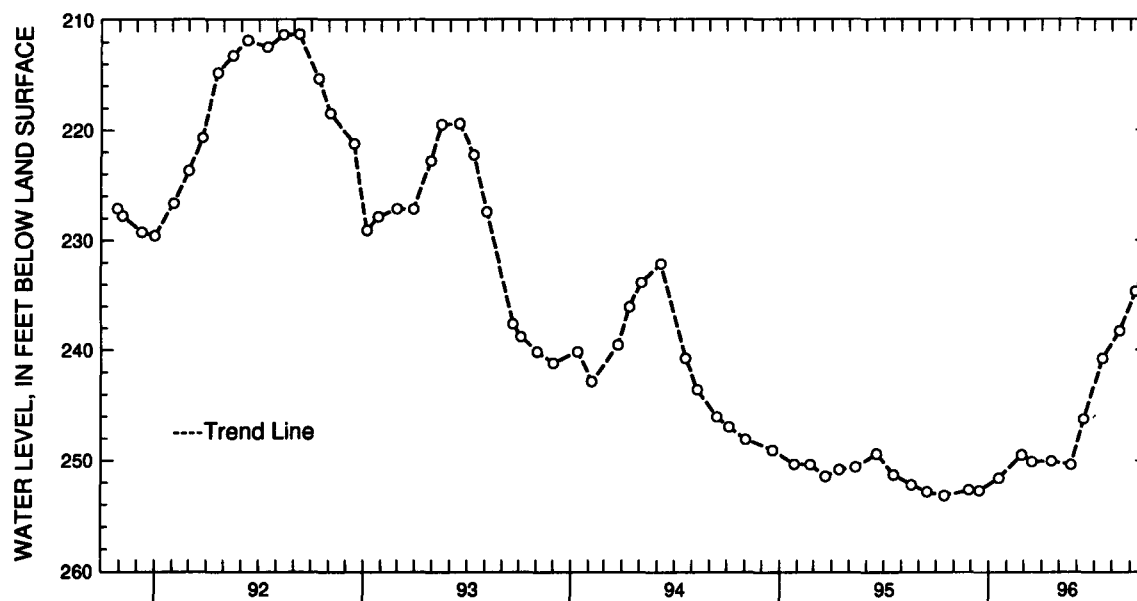
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 22. SITE ID.--391530079244401. PERMIT NUMBER.--GA-73-2146.
 LOCATION.--Lat 39°15'30", long 79°24'44", Hydrologic Unit 02070002, south side of Wilson Rd., 500 ft west of the intersection with Wilson-Coronna Rd., 0.4 mi northwest of Wilson.
 Owner: U.S. Geological Survey.
 AQUIFER.--Allegheny Formation of Middle Pennsylvanian age. Aquifer code: 324ALGN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 640 ft; casing diameter 4 in., to 517 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, from May 15, 1980 to Oct 1990.
 DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 3.0 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.
 PERIOD OF RECORD.--April 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.59 ft below land surface, April 8, 1980; lowest measured, 253.17 ft below land surface, Oct. 16, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	253.17	JAN 18, 1996	251.58	APR 18, 1996	250.04	JUL 15, 1996	240.79
NOV 27	252.59	FEB 26	249.47	MAY 22	250.36	AUG 14	238.30
DEC 15	252.70	MAR 15	250.09	JUN 13	246.23	SEP 11	234.72

WATER YEAR 1996 HIGHEST 234.72 SEP 11, 1996 LOWEST 253.17 OCT 16, 1995



5 YEAR HYDROGRAPH
 OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

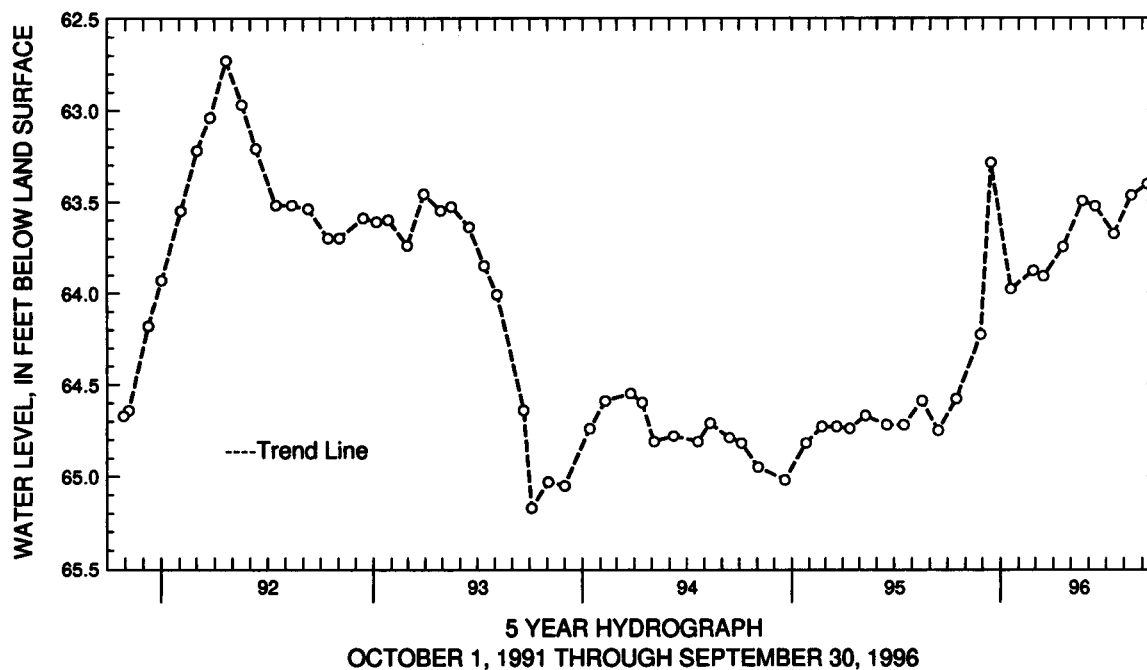
GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 24. SITE ID.--391530079244403. PERMIT NUMBER.--GA-73-2177.
 LOCATION.--Lat 39°15'30", long 79°24'44", Hydrologic Unit 02070002, south side of Wilson Rd., 500 ft west of the intersection with Wilson-Coronna Rd., 0.4 mi northwest of Wilson.
 Owner: U.S. Geological Survey.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 400 ft; casing diameter 4 in., to 340 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval, from May 15, 1980, to Oct. 19, 1990.
 DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 3.0 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.
 PERIOD OF RECORD.--April 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.08 ft below land surface, Jan. 12, 1981; lowest measured, 92.29 ft below land surface, April 28, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	64.58	JAN 18, 1996	63.98	APR 18, 1996	63.75	JUL 15, 1996	63.68
NOV 27	64.23	FEB 26	63.88	MAY 22	63.50	AUG 14	63.47
DEC 15	63.29	MAR 15	63.91	JUN 13	63.53	SEP 11	63.41

WATER YEAR 1996 HIGHEST 63.29 DEC 15, 1995 LOWEST 64.58 OCT 16, 1995



GROUND-WATER LEVELS

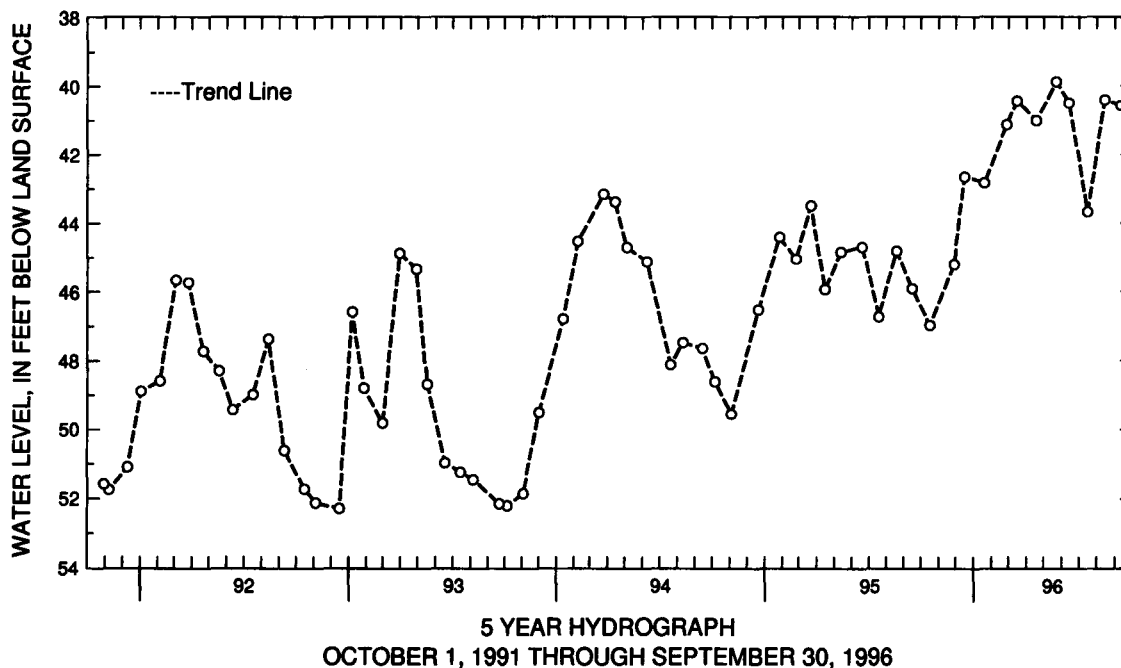
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 25. SITE ID.--391530079244404. PERMIT NUMBER.--GA-73-2178.
 LOCATION.--Lat 39°15'30", long 79°24'44", Hydrologic Unit 02070002, south side of Wilson Rd., 500 ft west of the intersection with Wilson-Coronna Rd., 0.4 mi northwest of Wilson.
 Owner: U.S. Geological Survey.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 180 ft; casing diameter 4 in., to 120 ft; open hole
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from June 4, 1980 to Oct. 1990.
 DATUM.--Elevation of land surface is 2,530 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 3.0 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.
 PERIOD OF RECORD.--April 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.89 ft below land surface, May 11, 1981; lowest measured, 54.18 ft below land surface, May 14, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	46.97	JAN 18, 1996	42.83	APR 18, 1996	41.01	JUL 15, 1996	43.68
NOV 27	45.21	FEB 26	41.13	MAY 22	39.87	AUG 14	40.41
DEC 15	42.65	MAR 15	40.43	JUN 13	40.49	SEP 11	40.56
WATER YEAR 1996		HIGHEST	39.87	MAY 22, 1996	LOWEST	46.97	OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 27. SITE ID.--391513079243602. PERMIT NUMBER.--GA-73-2182.

LOCATION.--Lat 39°15'13", long 79°24'36", Hydrologic Unit 02070002, 0.6 mi west of Wilson.
Owner: U.S. Geological Survey.

AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 656 ft; casing diameter 4 in., to 590 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval from June 11, 1980, to July 26, 1990.

DATUM.--Elevation of land surface is 2,755 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.0 ft above land surface.

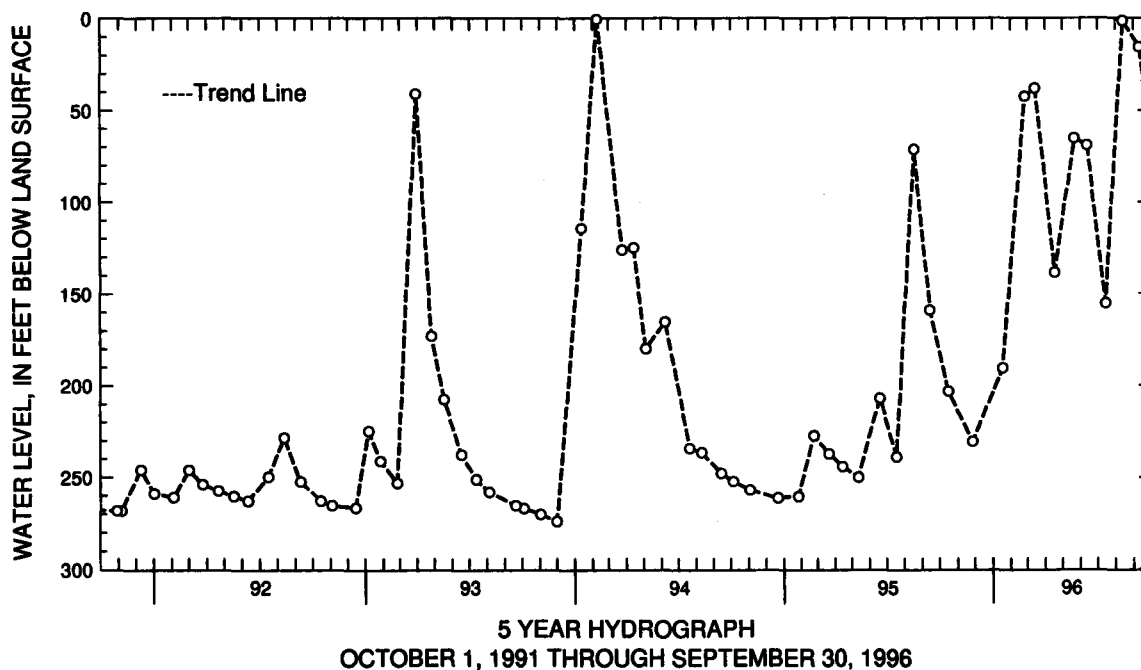
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well.

PERIOD OF RECORD.--June 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.27 ft below land surface, Feb. 9, 1994;
lowest measured, 274.12 ft below land surface, Dec. 1, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	203.35	FEB 26, 1996	42.45	MAY 22, 1996	65.31	AUG 14, 1996	1.29
NOV 27	230.73	MAR 15	38.19	JUN 13	69.03	SEP 11	15.54
JAN 18, 1996	190.69	APR 18	138.63	JUL 15	155.51		
WATER YEAR 1996		HIGHEST	1.29	AUG 14, 1996	LOWEST	230.73	NOV 27, 1995



GROUND-WATER LEVELS

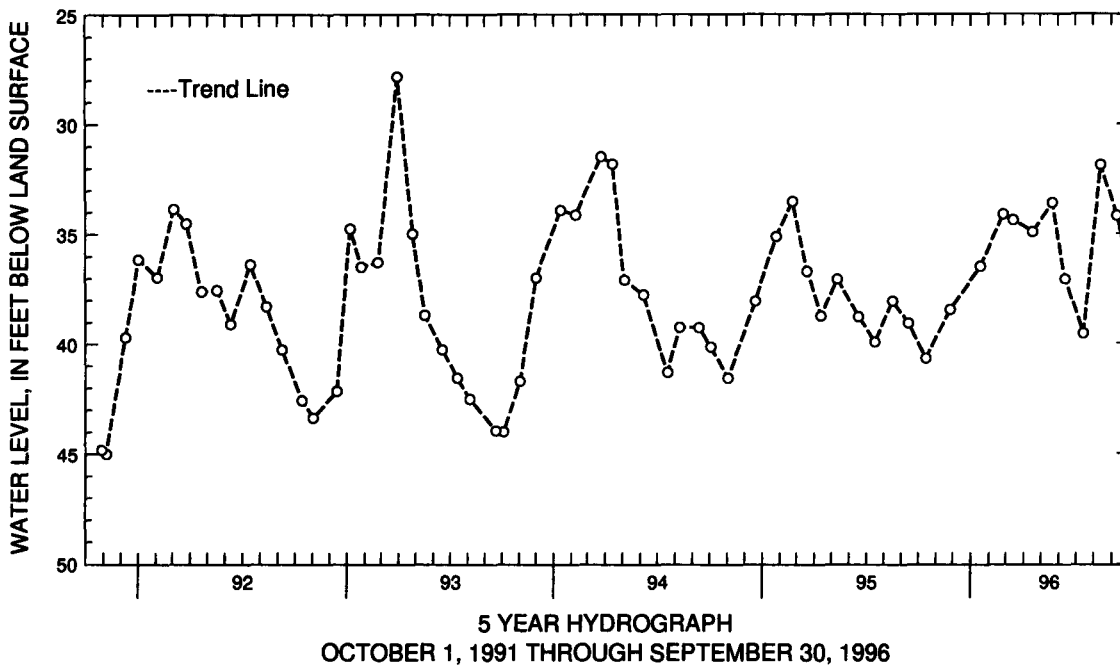
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 30. SITE ID.--391513079243605. PERMIT NUMBER.--GA-73-2185.
 LOCATION.--Lat 39°15'13", long 79°24'36", Hydrologic Unit 02070002, 0.6 mi west of Wilson.
 Owner: U.S. Geological Survey.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 85 ft; casing diameter 4 in., to 82 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval.
 DATUM.--Elevation of land surface is 2,755 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of shelter floor, 2.0 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.
 PERIOD OF RECORD.--June 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.58 ft below land surface, April 16, 1981; lowest measured, 45.00 ft below land surface, Nov. 6, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	40.68	FEB 26, 1996	34.12	MAY 22, 1996	33.59	AUG 14, 1996	31.87
NOV 27	38.46	MAR 15	34.37	JUN 13	37.08	SEP 11	34.18
JAN 18, 1996	36.49	APR 18	34.91	JUL 15	39.55		
WATER YEAR 1996		HIGHEST	31.87	AUG 14, 1996	LOWEST	40.68	OCT 16, 1995



GROUND-WATER LEVELS

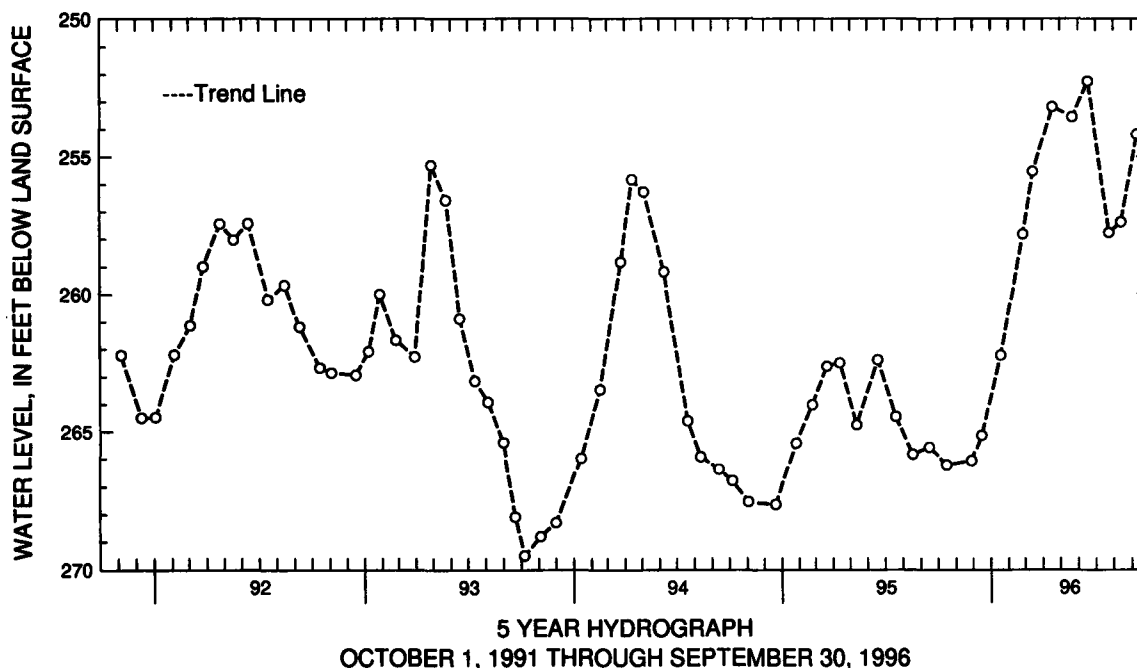
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Pb 31. SITE ID.--391602079240301. PERMIT NUMBER.--GA-81-1332.
 LOCATION.--Lat 39°16'02", long 79°24'03", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd., 500 ft northeast of intersection with Fairview Rd., 1.0 mile north of Wilson.
 Owner: Mettiki Coal Corp.
 AQUIFER.-- Allegheny Formation of Middle Pennsylvanian age. Aquifer code: 324ALGN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth to 795 ft; casing diameter 6 in., to 760 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--60-minute recorder interval.
 DATUM.--Elevation of land surface is 2,676.51 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.2 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.
 PERIOD OF RECORD.--March 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 215.43 ft below land surface, Feb. 7, 1991; lowest measured, 269.50 ft below land surface, Oct. 7, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	266.22	JAN 18, 1996	262.25	APR 18, 1996	253.20	JUL 24, 1996	257.79
NOV 28	266.07	FEB 26	257.84	MAY 22	253.57	AUG 14	257.40
DEC 15	265.16	MAR 15	255.56	JUN 18	252.26	SEP 11	254.19
WATER YEAR 1996		HIGHEST	252.26 JUN 18, 1996	LOWEST		266.22 OCT 16, 1995	



GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 32. SITE ID.--391602079240302. PERMIT NUMBER.--GA-81-1333.

LOCATION.--Lat 39°16'02", long 79°24'03", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd., 500 ft northeast of intersection with Fairview Road, 1.0 mile north of Wilson.

Owner: Mettiki Coal Corp.

AQUIFER.-- Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 736 ft; casing diameter 6 in., to 736 ft; perforated casing from 720 to 736 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval.

DATUM.--Elevation of land surface is 2,677.21 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.2 ft above land surface.

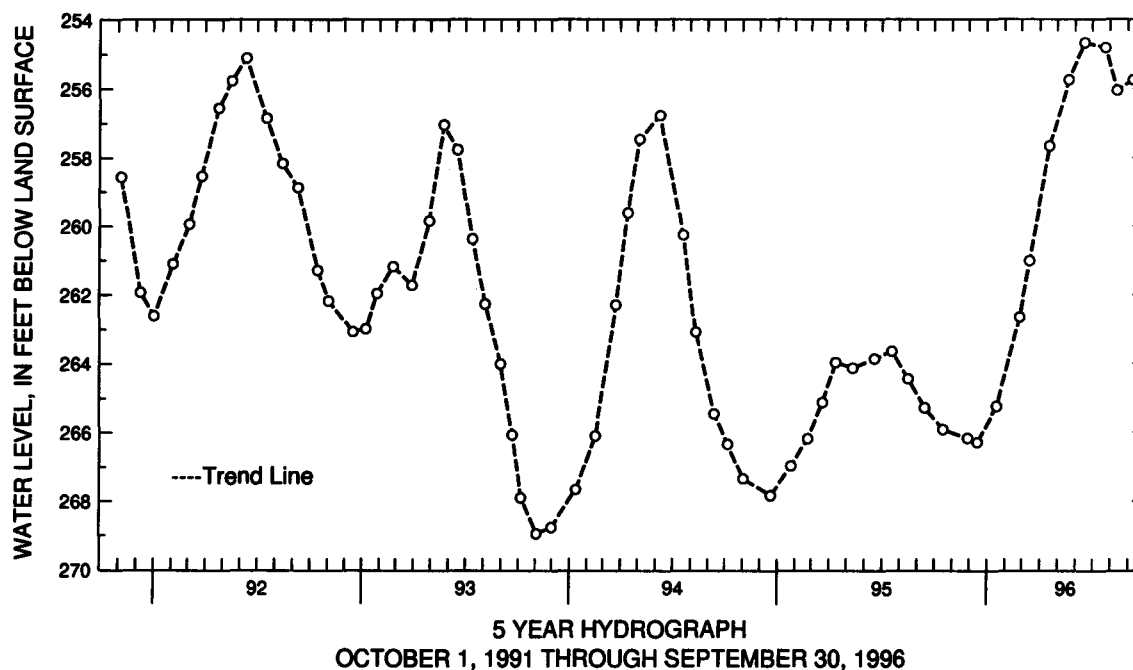
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.

PERIOD OF RECORD.--March 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 206.71 ft below land surface, March 25, 1988; lowest measured, 268.94 ft below land surface, Nov. 4, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	265.92	JAN 18, 1996	265.25	APR 18, 1996	257.67	JUL 24, 1996	254.80
NOV 28	266.17	FEB 26	262.66	MAY 22	255.74	AUG 14	256.05
DEC 15	266.29	MAR 15	261.02	JUN 18	254.67	SEP 11	255.75
WATER YEAR 1996		HIGHEST 254.67	JUN 18, 1996	LOWEST 266.29	DEC 15, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 34. SITE ID.--391602079240304. PERMIT NUMBER.--GA-81-1331.

LOCATION.--Lat 39°16'02", long 79°24'03", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd., 500 ft northeast of intersection with Fairview Road, 1.0 mile north of Wilson.

Owner: Mettiki Coal Corp.

AQUIFER.-- Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 390 ft; casing diameter 6 in., to 370 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval.

DATUM.--Elevation of land surface is 2,677 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.2 ft above land surface.

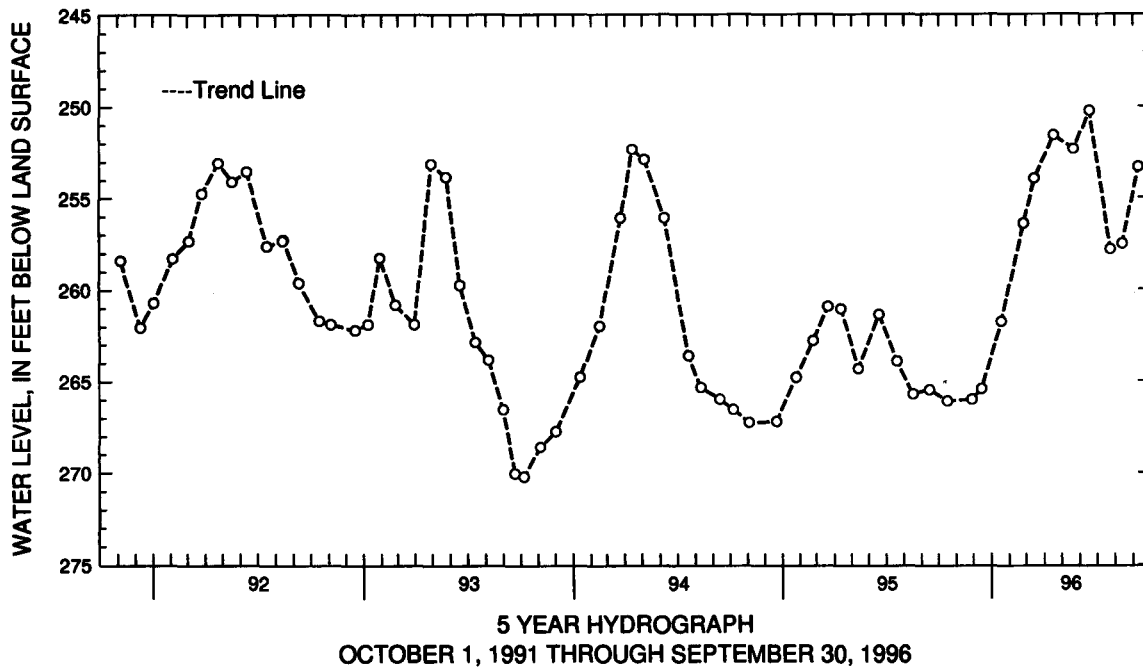
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal mining operations.

PERIOD OF RECORD.--March 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 202.64 ft below land surface, March 25, 1989; lowest measured, 270.20 ft below land surface, Oct. 7, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	266.10	JAN 18, 1996	261.77	APR 18, 1996	251.58	JUL 24, 1996	257.81
NOV 28	266.01	FEB 26	256.41	MAY 22	252.35	AUG 14	257.52
DEC 15	265.44	MAR 15	253.94	JUN 18	250.24	SEP 11	253.32
WATER YEAR 1996		HIGHEST	250.24	JUN 18, 1996	LOWEST	266.10	OCT 16, 1995



GROUND-WATER LEVELS

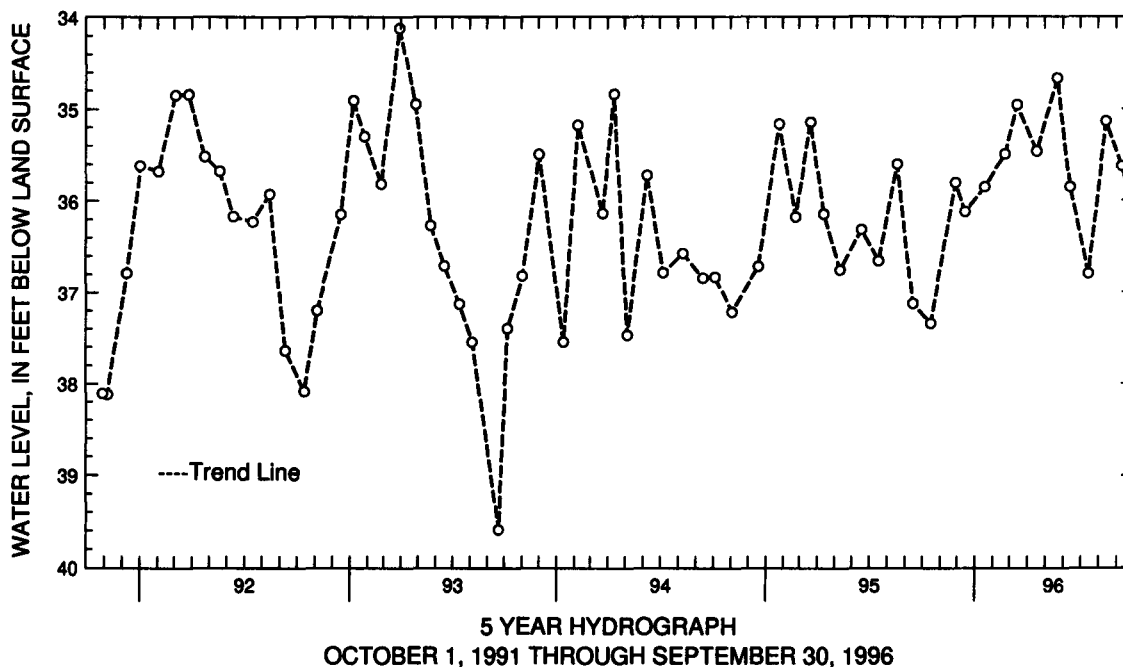
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 39. SITE ID.--391715079223105. PERMIT NUMBER.--GA-81-1344.
 LOCATION.--Lat 39°17'15", long 79°22'31", Hydrologic Unit 02070002, east side of Wilson-Coronna Rd.,
 0.6 mi. southwest of intersection with U.S. Route 50, 0.6 mi. southwest of Ft. Pendleton.
 Owner: Mettiki Coal Corp.
 AQUIFER.--Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 97 ft; casing diameter 6 in., to 42 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 2,570 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring point: Top of casing, 3.2 ft above land surface.
 REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal
 mining operations.
 PERIOD OF RECORD.--June 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.12 ft below land surface, March 30, 1993;
 lowest measured, 39.59 ft below land surface, Sept. 21, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	37.35	JAN 18, 1996	35.86	APR 17, 1996	35.47	JUL 15, 1996	36.80
NOV 28	35.81	FEB 23	35.50	MAY 22	34.67	AUG 14	35.14
DEC 15	36.13	MAR 14	34.96	JUN 13	35.86	SEP 11	35.63
WATER YEAR 1996		HIGHEST	34.67	MAY 22, 1996	LOWEST	37.35	OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

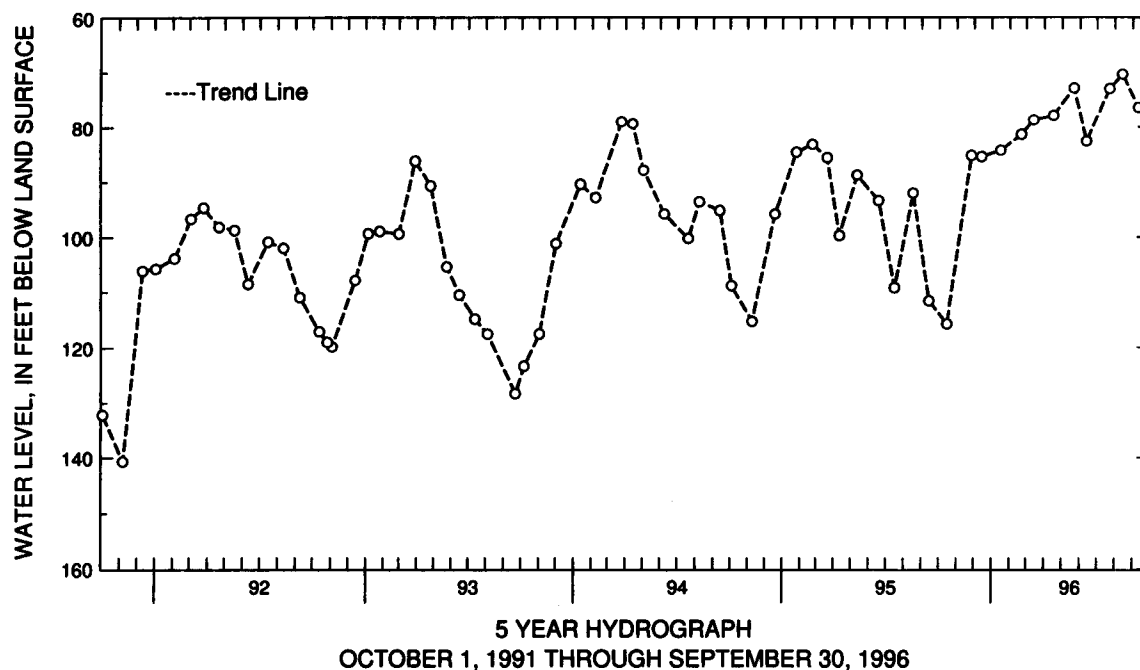
GARRETT COUNTY--Continued

WELL NUMBER---GA Ga 16. SITE ID---391420079264901. PERMIT NUMBER---GA-81-0953.
 LOCATION---Lat 39°14'20", long 79°26'49", Hydrologic Unit 02070002, east of Kempton Rd.,
 100 ft north of Laurel Run, 2.8 mi southwest of Wilson.
 Owner: Mettiki Coal Co.
 AQUIFER---Conemaugh Formation of Upper Pennsylvanian age. Aquifer code: 321CNMG.
 WELL CHARACTERISTICS---Drilled, observation, water-table well, depth 147 ft; casing diameter 6 in., to 110 ft,
 open hole.
 INSTRUMENTATION---Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval.
 DATUM---Elevation of land surface is 2,690 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring point: Top of shelter floor, 3.2 ft above land surface.
 REMARKS---Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by
 coal mining operations.
 PERIOD OF RECORD---November 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD---Highest water level measured, 70.28 ft below land surface, Aug. 14, 1996;
 lowest measured, 145.05 ft below land surface, Sept. 22, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	115.75	JAN 17, 1996	84.23	APR 17, 1996	77.83	JUL 23, 1996	72.94
NOV 27	85.18	FEB 22	81.32	MAY 22	72.79	AUG 14	70.28
DEC 15	85.40	MAR 14	78.69	JUN 13	82.55	SEP 11	76.39

WATER YEAR 1996 HIGHEST 70.28 AUG 14, 1996 LOWEST 115.75 OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY

WELL NUMBER.--HA Bd 31. SITE ID.--393902076160001.

LOCATION.--Lat 39°39'02", long 76°16'00", Hydrologic Unit 02050306, at Dublin.

Owner: Walter Lee Moody, Sr.

AQUIFER.--Baltimore Gabbro Complex of Paleozoic age. Aquifer code: 300BLMR.

WELL CHARACTERISTICS.--Dug, stone-lined, water-table well, measured depth 25.9 ft; approximate diameter 36 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water-level recorder from July 9, 1954 to Aug. 5, 1958.

DATUM.--Elevation of land surface is 460 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of wood floor, 0.10 ft above land surface.

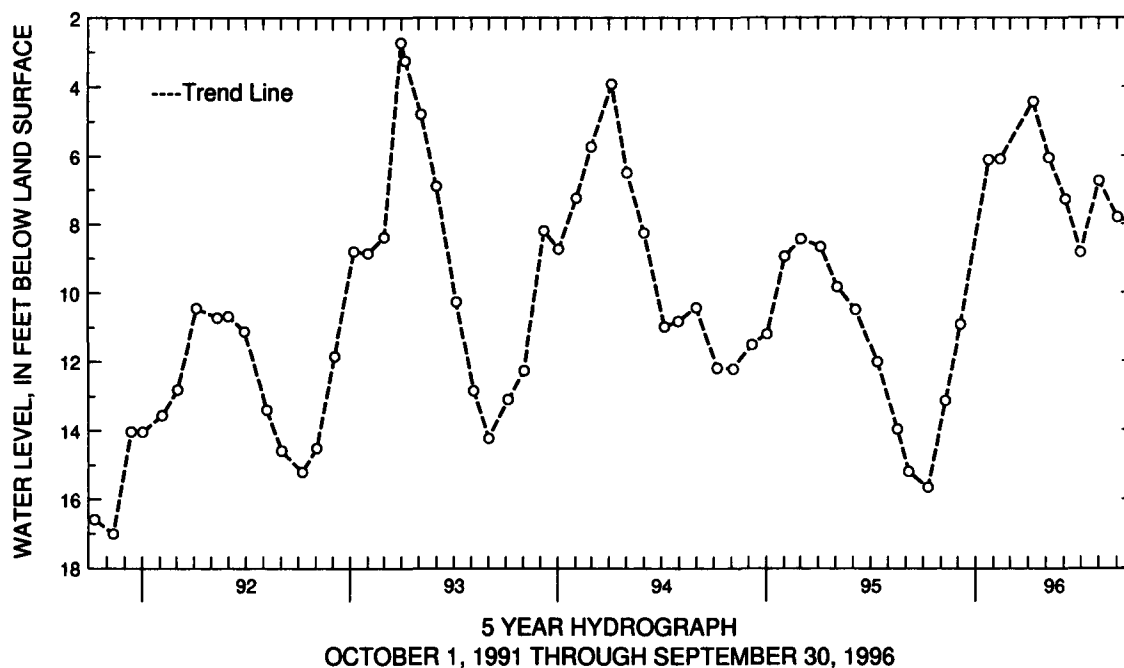
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1954 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.00 ft below land surface, March 8, 1979;
lowest measured, 19.59 ft below land surface, Feb. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	15.67	JAN 24, 1996	6.12	MAY 07, 1996	6.07	AUG 02, 1996	6.73
NOV 09	13.15	FEB 13	6.10	JUN 04	7.27	SEP 03	7.81
DEC 06	10.92	APR 10	4.43	JUL 01	8.83		
WATER YEAR 1996		HIGHEST	4.43	APR 10, 1996	LOWEST	15.67	OCT 10, 1995



GROUND-WATER LEVELS

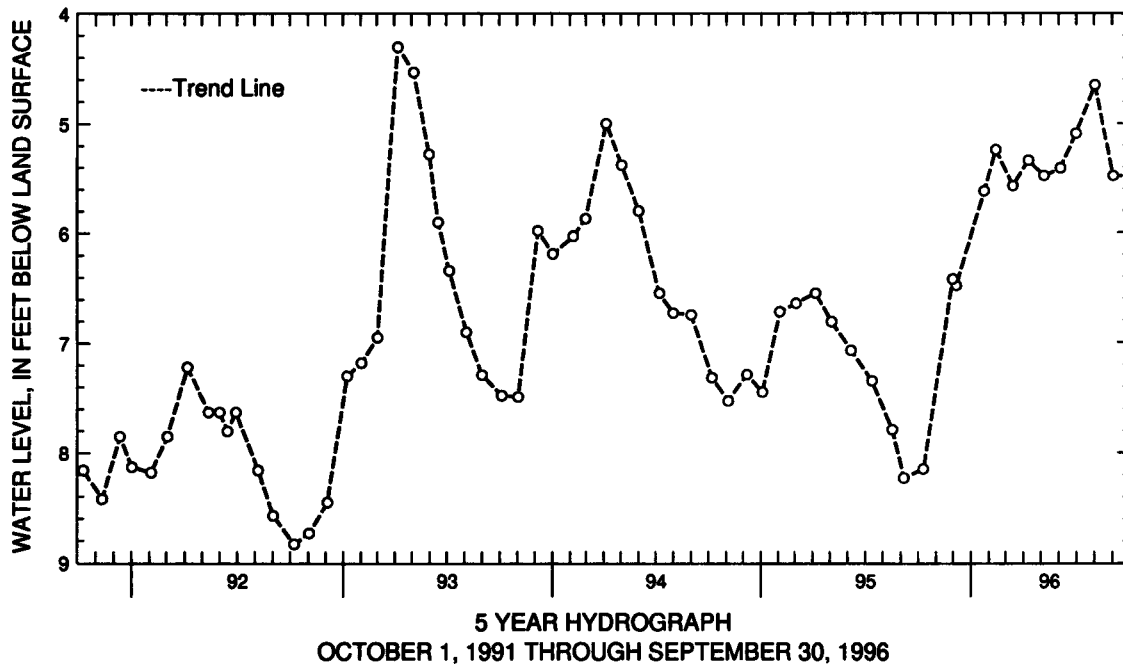
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ca 23. SITE ID.--393158076302601. PERMIT NUMBER.--HA-73-1630.
 LOCATION.--Lat 39°31'58", long 76°30'26", Hydrologic Unit 02060003, at Gunpowder State Park, Hess.
 Owner: U.S. Geological Survey.
 AQUIFER.--Loch Raven Schist of Paleozoic age. Aquifer code: 300LCRV.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 200 ft; casing diameter 6 in., to 24 ft; open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Equipped with graphic water-level recorder from July 10, 1974 to Sept. 13, 1976.
 DATUM.--Elevation of land surface is 470 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 1.60 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--July 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.59 ft below land surface, Sept. 27, 1975; lowest measured, 9.03 ft below land surface, Dec. 15, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	8.15	JAN 24, 1996	5.62	APR 10, 1996	5.34	JUL 01, 1996	5.09
NOV 30	6.42	FEB 13	5.24	MAY 07	5.48	AUG 02	4.65
DEC 06	6.48	MAR 14	5.57	JUN 04	5.41	SEP 03	5.48
WATER YEAR 1996		HIGHEST	4.65	AUG 02, 1996		LOWEST	8.15
							OCT 10, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Dd 89. SITE ID.--392529076180901. PERMIT NUMBER.--HA-81-4130.

LOCATION.--Lat 39°25'29", long 76°18'09", Hydrologic Unit 02060003, at Edgewood Elementary School on Cedar Drive, Edgewood.

Owner: Maryland Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 271PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 150 ft; casing diameter 4 in., to 96 ft, 106 to 120 ft, and 130 to 150 ft; screen diameter 4 in. from 96 to 106 ft, and 120 to 130 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological personnel. Twice yearly measurements with chalked steel tape from October 1990 to January 1996 by U.S. Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval from Jan. 1, 1988 to July 11, 1989.

DATUM.--Elevation of land surface is 99.05 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder platform, 1.80 ft above land surface.

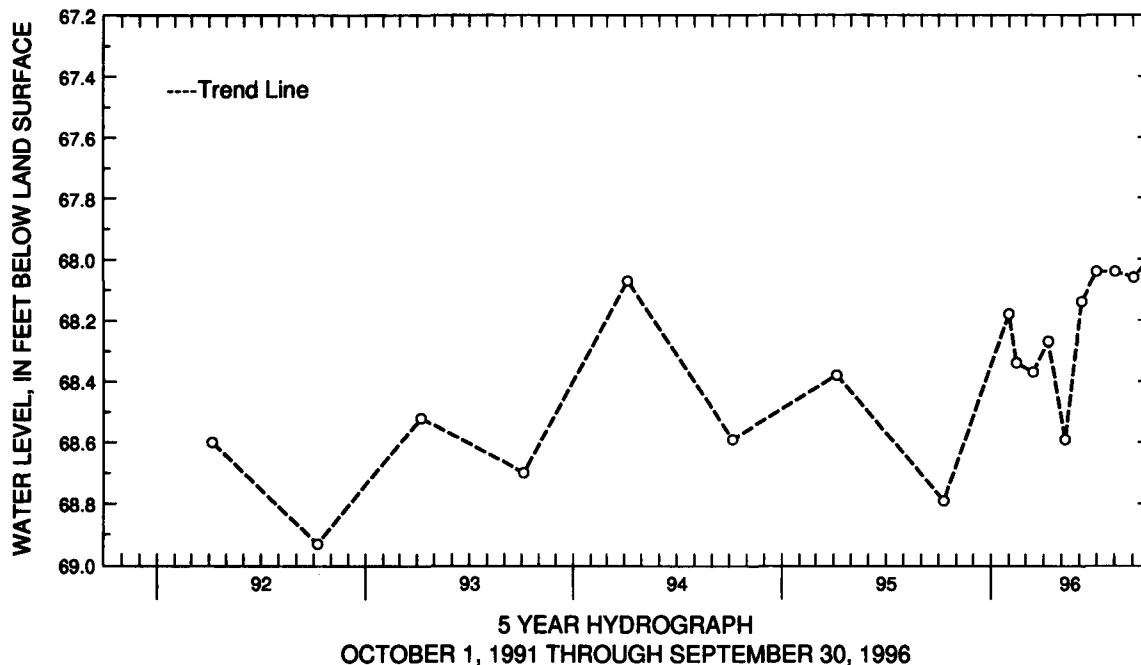
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.07 ft below land surface, April 6, 1994; lowest measured, 69.58 ft below land surface, Feb. 3, 1988

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	68.79	MAR 13, 1996	68.37	JUN 04, 1996	68.14	SEP 03, 1996	68.06
JAN 31, 1996	68.18	APR 08	68.27	JUL 01	68.04		
FEB 13	68.34	MAY 07	68.59	AUG 02	68.04		
WATER YEAR 1996		HIGHEST	68.04	JUL 01, 1996		AUG 02, 1996	
				LOWEST	68.79	OCT 10, 1995	



GROUND-WATER LEVELS

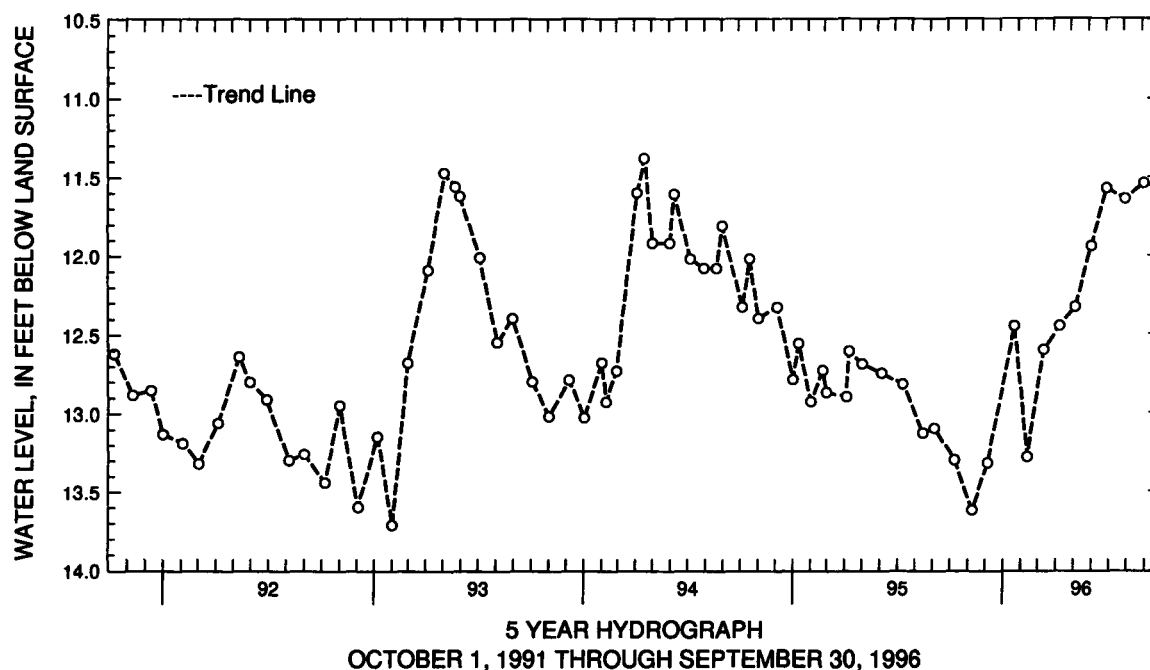
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Dd 91. SITE ID.--392721076150301. PERMIT NUMBER.--HA-81-4136.
 LOCATION.--Lat 39°27'21", long 76°15'03", Hydrologic Unit 02060003, at William Longley Park,
 near intersection of Long Bar Harbor and Longley Rds., Long Bar Harbor.
 Owner: Maryland Geological Survey.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 78 ft; casing diameter 4 in., to 58 ft,
 and 68 to 78 ft; screen diameter 4 in. from 58 to 68 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 19.73 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 1.90 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--May 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.15 ft below land surface, Sept. 10, 1990;
 lowest measured, 13.71 ft below land surface, Feb. 2, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	13.30	JAN 24, 1996	12.45	APR 10, 1996	12.45	JUL 01, 1996	11.57
NOV 09	13.62	FEB 13	13.28	MAY 07	12.33	AUG 02	11.64
DEC 06	13.32	MAR 13	12.60	JUN 04	11.94	SEP 03	11.54
WATER YEAR 1996		HIGHEST	11.54	SEP 03, 1996	LOWEST	13.62	NOV 09, 1995



GROUND-WATER LEVELS

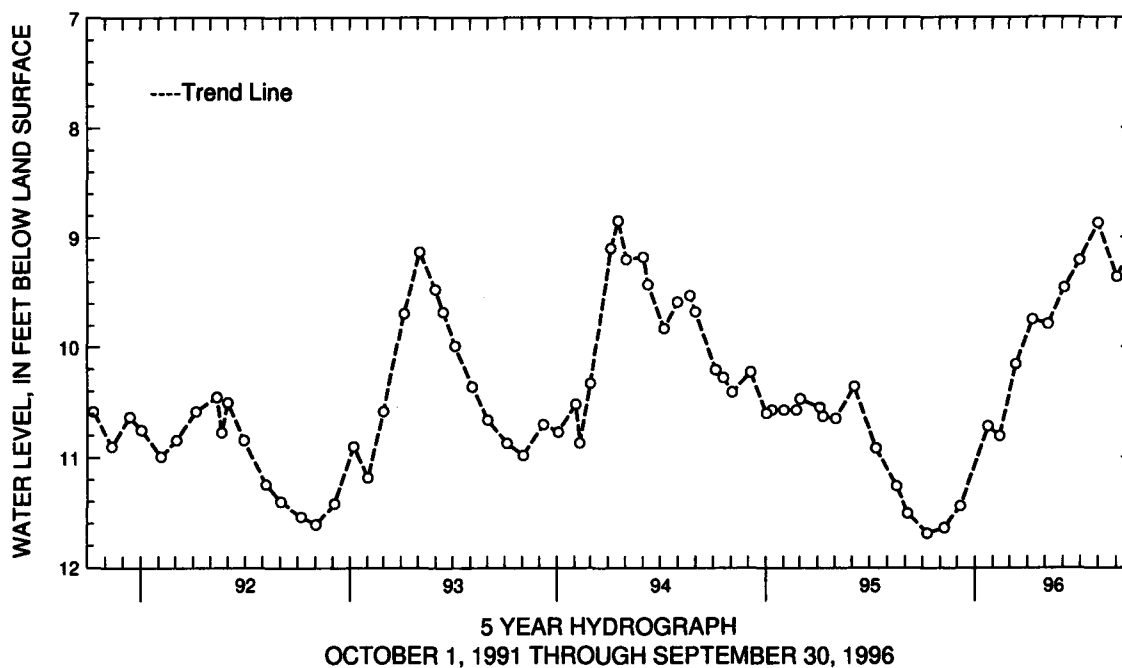
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Dd 92. SITE ID.--392721076150302. PERMIT NUMBER.--HA-81-4137.
 LOCATION.--Lat 39°27'21", long 76°15'03", Hydrologic Unit 02060003, at William Longley Park,
 near intersection of Long Bar Harbor and Longley Rds., Long Bar Harbor.
 Owner: Maryland Geological Survey.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 28 ft; casing diameter 4 in.,
 to 18 ft; screen diameter 4 in. from 18 to 28 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 20.06 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.12 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--May 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.55 ft below land surface, April 1, 1991.
 lowest measured, 12.31 ft below land surface, Jan. 17, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	11.69	JAN 24, 1996	10.72	APR 10, 1996	9.75	JUL 01, 1996	9.21
NOV 09	11.64	FEB 13	10.81	MAY 07	9.79	AUG 02	8.87
DEC 06	11.44	MAR 13	10.16	JUN 04	9.46	SEP 03	9.36
WATER YEAR 1996		HIGHEST	8.87	AUG 02, 1996	LOWEST	11.69	OCT 10, 1995



GROUND-WATER LEVELS

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MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 66. SITE ID.--392921076100401. PERMIT NUMBER.--HA-69-0394.

LOCATION.--Lat 39°29'21", long 76°10'04", Hydrologic Unit 02060003, at Short Lane, near Aberdeen.

Owner: Harford County Metropolitan Commission.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 66 ft; casing diameter 4 in., to 45 ft; screen diameter 4 in. from 45 to 66 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from Dec. 12, 1986 to July 11, 1989.

DATUM.--Elevation of land surface is 68.79 ft above National Geodetic Vertical Datum of 1929.

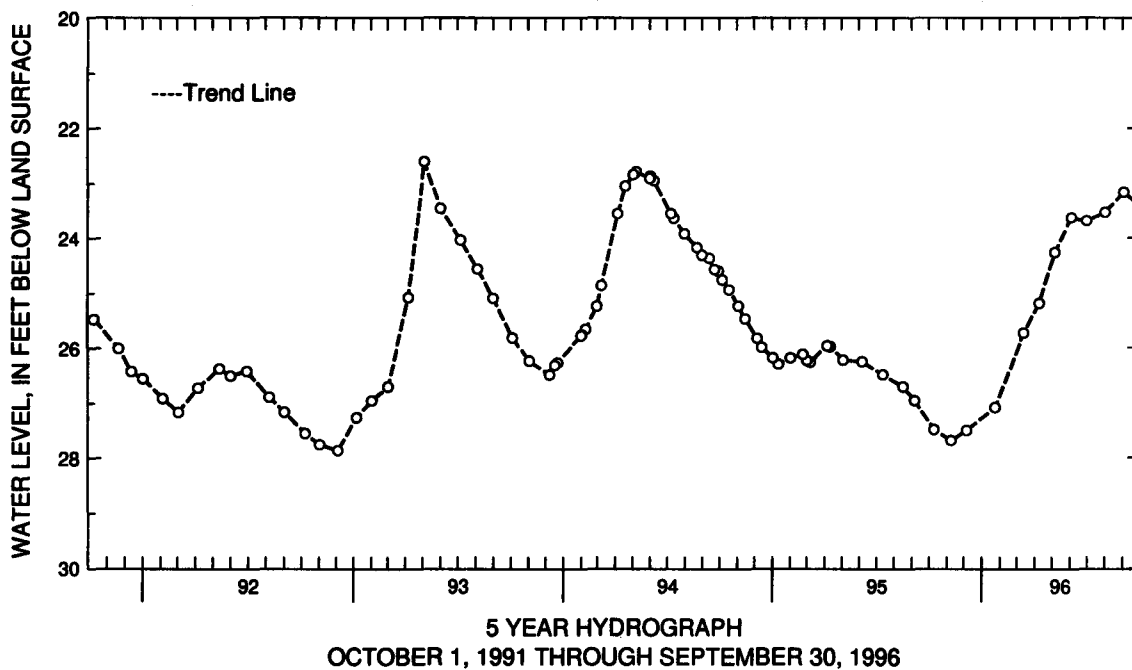
Measuring point: Top of casing, 1.65 ft above land surface.

PERIOD OF RECORD.--October 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.31 ft below land surface, July 28, 1975; lowest measured, 29.04 ft below land surface, Jan. 21, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	27.49	JAN 24, 1996	27.09	MAY 07, 1996	24.26	AUG 02, 1996	23.53
NOV 09	27.69	MAR 14	25.73	JUN 04	23.64	SEP 03	23.17
DEC 06	27.51	APR 10	25.19	JUL 01	23.69		
WATER YEAR 1996		HIGHEST	23.17	SEP 03, 1996		LOWEST	27.69
							NOV 09, 1995



GROUND-WATER LEVELS

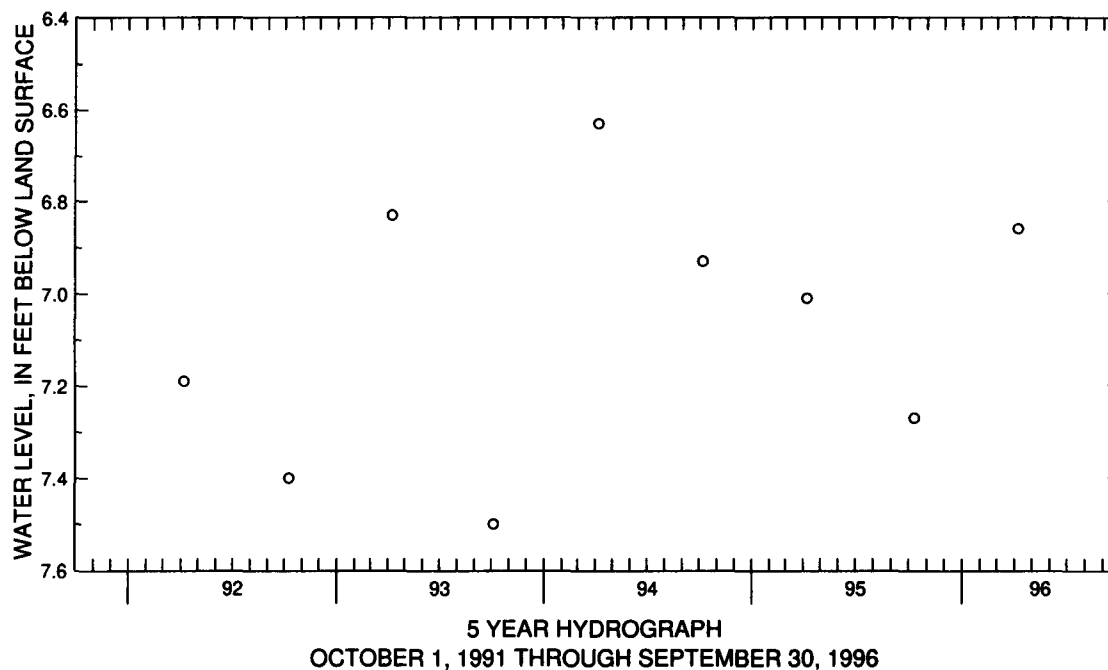
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 181. SITE ID.--392606076145801. PERMIT NUMBER.--HA-81-4134.
 LOCATION.--Lat 39°26'06", long 76°14'58", Hydrologic Unit 02060003, northeast end of Kennard Ave.,
 at Willoughby Beach, Crestwood.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 290 ft; casing diameter 4 in.,
 to 264 ft, 269 to 275 ft, and 280 to 290 ft; screen diameter 4 in. from 264 to 269 ft, and 275 to 280 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from May 24, 1988
 to July 11, 1989.
 DATUM.--Elevation of land surface is 12.22 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.10 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--May 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.43 ft below land surface, Oct. 12 1990;
 lowest measured, 7.93 ft below land surface, Dec. 22, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER LEVEL YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	7.27	APR 08, 1996	6.86
WATER YEAR 1996		HIGHEST 6.86 APR 08, 1996	LOWEST 7.27 OCT 10, 1995



MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 182. SITE ID.--392606076145802. PERMIT NUMBER.--HA-81-4135.

LOCATION.--Lat 39°26'06", long 76°14'58", Hydrologic Unit 02060003, northeast end of Kennard Ave.,

at Willoughby Beach, Crestwood.

Owner: U.S. Geological Survey.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 50 ft; casing diameter 4 in., to 30 ft, and 40 to 50 ft; screen diameter 4 in. from 30 to 40 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--15-minute recorder interval from July 21, 1988 to July 11, 1989.

DATUM.--Elevation of land surface is 12.29 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.52 ft above land surface.

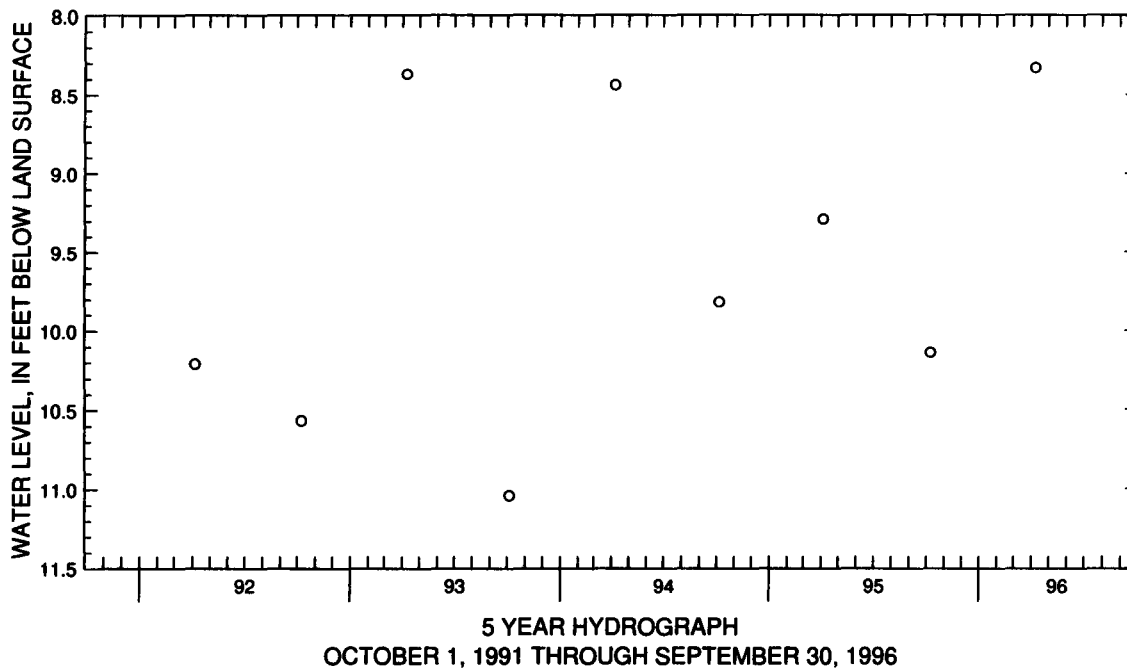
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.12 ft below land surface, June 7, 1989; lowest measured, 11.04 ft below land surface, Oct. 5, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	10.14	APR 08, 1996	8.33
WATER YEAR 1996		HIGHEST 8.33 APR 08, 1996	LOWEST 10.14 OCT 10, 1995



GROUND-WATER LEVELS

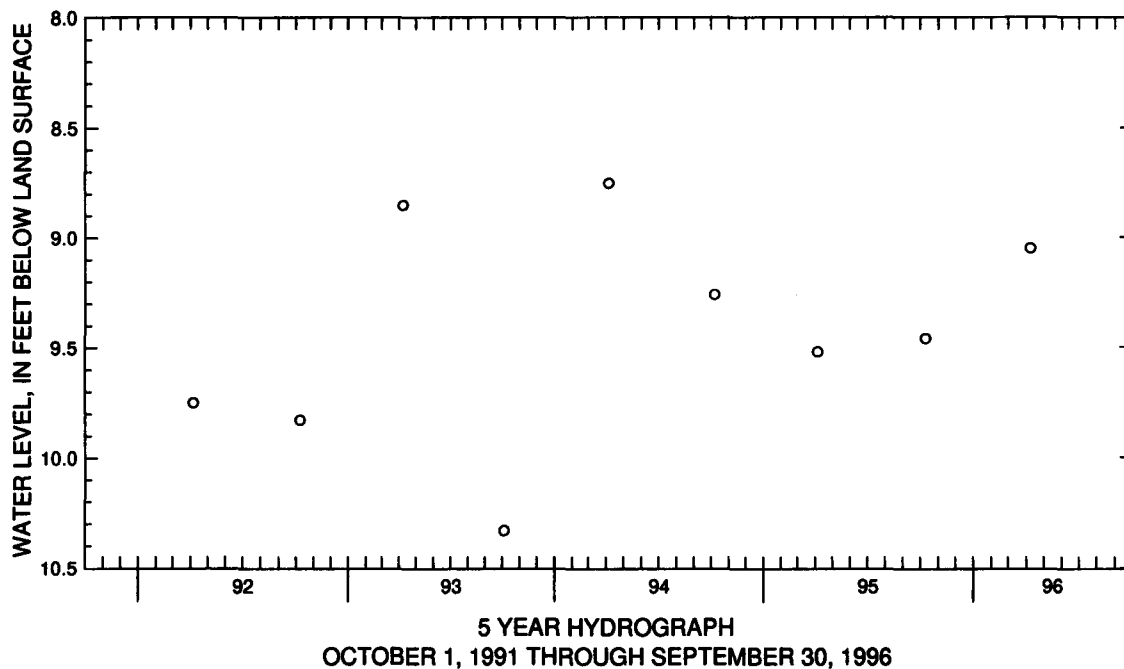
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 183. SITE ID.--392606076145803. PERMIT NUMBER.--HA-81-4577.
 LOCATION.--Lat 39°26'06", long 76°14'58", Hydrologic Unit 02060003, northeast end of Kennard Ave.,
 at Willoughby Beach, Crestwood.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 175 ft; casing diameter 4 in., to 155 ft,
 and 165 to 175 ft; screen diameter 4 in. from 155 to 165 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from May 24, 1988
 to July 11, 1989.
 DATUM.--Elevation of land surface is 12.53 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.54 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--May 1988 to July 1989, April 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.75 ft below land surface, April 6, 1994;
 lowest measured, 10.43 ft below land surface, Nov. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	9.46	APR 08, 1996	9.05
WATER YEAR 1996 HIGHEST 9.05 APR 08, 1996 LOWEST 9.46 OCT 10, 1995			



GROUND WATER LEVELS

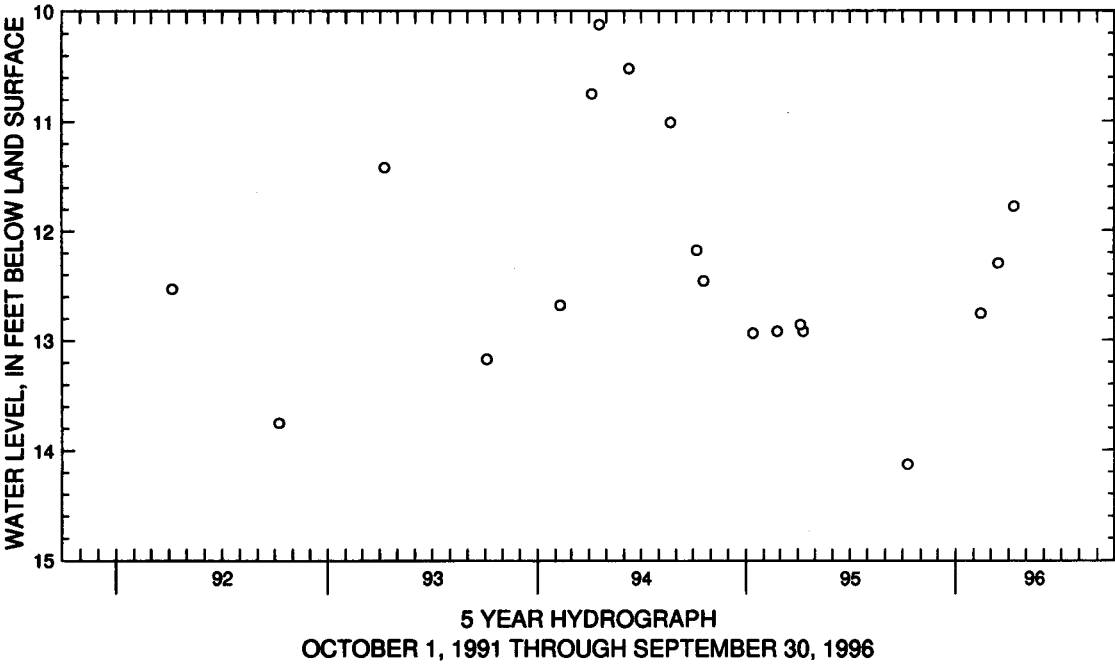
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 195. SITE ID.--392914076110301. PERMIT NUMBER.--HA-81-4142.
LOCATION.--Lat 39°29'14", long 76°11'03", Hydrologic Unit 02060003, 0.2 mi east on Cranberry Run Dr., near Perryman.
Owner: U.S. Geological Survey.
AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TBLT.
WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 55 ft; casing diameter 4 in., to 35 ft; and 45 to 55 ft; screen diameter 4 in. from 35 to 45 ft.
INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel. Measured monthly from May 1988 to July 1989.
DATUM.--Elevation of land surface is 52.70 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.53 ft above land surface.
REMARKS.--Maryland Water-Level Network observation well.
PERIOD OF RECORD.--May 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.11 ft below land surface, April 2, 1991; lowest measured, 14.13 ft below land surface, Oct. 10, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	14.13	FEB 13, 1996	12.76	MAR 14, 1996	12.30	APR 10, 1996	11.78
WATER YEAR 1996		HIGHEST	11.78	APR 10, 1996	LOWEST	14.13	OCT 10, 1995



GROUND WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA De 198. SITE ID.--392819076130902. PERMIT NUMBER.--HA-81-4141.
 LOCATION.--Lat 39°28'19", long 76°13'09", Hydrologic Unit 02060003, northwest end of Fords Lane, Perryman.
 Owner: Kelly and George Hallgren. (formerly Maryland Geological Survey).
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 4 in., to 9 ft; screen diameter 4 in. from 9 to 19 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--30-minute recorder interval from Jan. 3, 1991 to current year.
 Measured monthly from July 1988 to July 1989.
 DATUM.--Altitude of land surface is 18.92 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 1.50 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--May 1988 to August 1989, July 1991 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.24 ft above sea level, Aug. 1, 1996;
 lowest measured, 8.82 ft above sea level, Nov. 2 and 3, 1992.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.02	10.00	10.67	10.63	11.24	11.11	11.12	11.08	---	---	12.71	12.62
2	10.00	9.97	10.81	10.67	11.11	10.99	11.38	11.10	---	---	12.76	12.69
3	9.97	9.95	10.82	10.72	11.07	11.00	11.45	11.38	---	---	12.71	12.38
4	9.95	9.93	10.72	10.63	11.04	10.92	11.42	11.36	---	---	12.55	12.39
5	9.99	9.93	10.63	10.61	10.97	10.90	11.44	11.41	---	---	12.73	12.55
6	10.01	9.99	10.61	10.58	10.97	10.90	11.47	11.39	---	---	12.69	12.53
7	10.00	9.97	10.71	10.59	10.92	10.86	11.67	11.46	---	---	12.99	12.53
8	9.97	9.94	10.77	10.71	10.86	10.82	11.64	11.39	---	---	13.06	12.90
9	9.94	9.93	10.74	10.68	10.92	10.85	11.45	11.38	---	---	12.93	12.84
10	9.93	9.90	10.68	10.67	10.86	10.82	11.44	11.30	---	---	12.94	12.81
11	9.90	9.89	11.27	10.67	10.83	10.77	11.36	11.29	---	---	13.10	12.94
12	9.89	9.88	11.27	10.97	10.77	10.74	11.54	11.36	---	---	13.12	13.04
13	9.88	9.87	11.02	10.99	10.74	10.73	11.44	11.32	---	---	13.04	12.93
14	11.53	9.86	11.48	11.00	10.83	10.74	11.38	11.31	12.73	12.47	12.97	12.90
15	11.18	10.73	11.43	11.13	10.80	10.74	11.38	11.22	12.47	12.33	13.05	12.91
16	10.73	10.54	11.20	11.15	11.06	10.74	11.39	11.24	12.51	12.34	12.91	12.80
17	10.54	10.45	11.15	11.08	11.16	11.02	11.43	11.39	12.47	12.36	12.86	12.80
18	10.45	10.37	11.12	11.07	11.23	11.16	11.63	11.39	12.41	12.17	12.82	12.78
19	10.37	10.29	11.08	11.01	11.47	11.20	12.22	11.63	12.22	12.15	13.44	12.80
20	10.29	10.28	11.04	11.00	11.43	11.28	11.99	11.86	12.83	12.22	13.29	13.24
21	10.89	10.28	11.04	10.97	11.34	11.28	12.06	11.99	13.03	12.80	13.28	13.13
22	10.75	10.71	10.97	10.89	11.28	11.21	12.04	11.97	13.12	13.03	13.16	13.05
23	10.71	10.64	10.92	10.88	11.24	11.22	12.13	12.04	13.29	13.12	13.05	12.90
24	10.64	10.58	10.88	10.85	11.23	11.21	---	---	13.37	13.12	12.92	12.82
25	10.58	10.51	10.96	10.88	11.23	11.20	---	---	13.13	13.06	13.02	12.92
26	10.51	10.46	10.96	10.92	11.22	11.18	---	---	13.06	12.93	12.96	12.71
27	10.49	10.45	10.97	10.93	11.18	11.12	---	---	13.01	12.89	12.71	12.61
28	11.04	10.49	10.93	10.82	11.12	11.07	---	---	13.06	12.69	13.17	12.70
29	10.84	10.75	11.09	10.82	11.07	11.05	---	---	12.69	12.63	13.59	13.17
30	10.75	10.70	11.18	11.09	11.11	11.05	---	---	---	---	13.68	13.57
31	10.70	10.65	---	---	11.14	11.10	---	---	---	---	13.64	13.55
MONTH	11.53	9.86	11.48	10.58	11.47	10.73	12.22	11.08	13.37	12.15	13.68	12.38

GROUND-WATER LEVELS

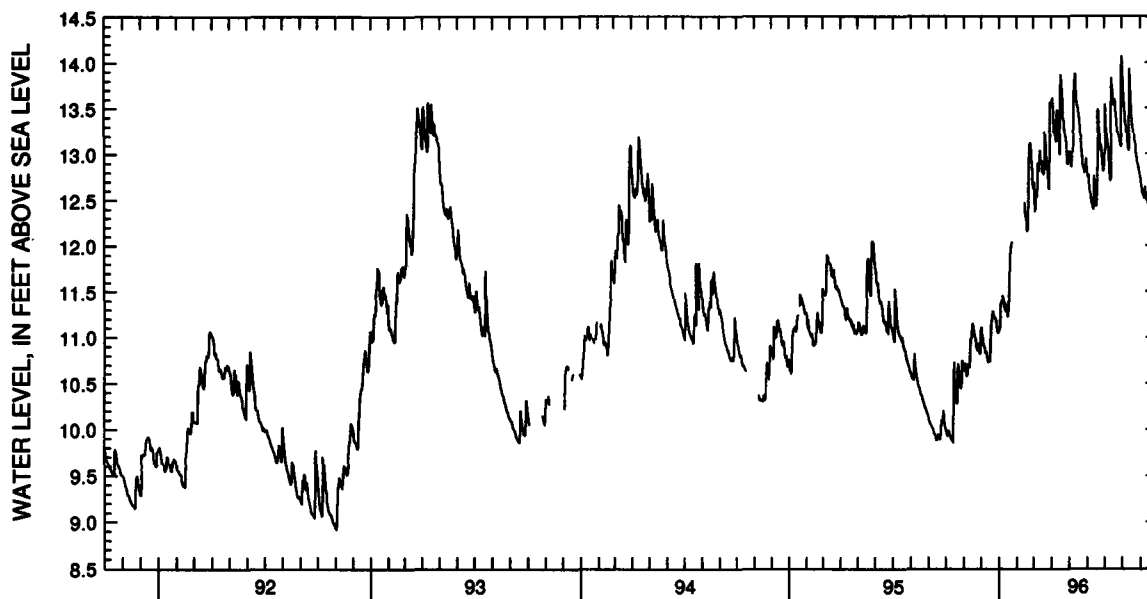
MARYLAND--Continued

HARFORD COUNTY--Continued

HA De 198--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.63	13.52	13.11	13.03	12.83	12.77	13.19	13.00	14.24	14.07	12.77	12.73
2	13.69	13.59	13.05	12.95	12.79	12.75	13.57	13.04	14.07	13.89	12.73	12.67
3	13.75	13.60	12.98	12.93	12.81	12.77	13.67	13.54	13.89	13.72	12.67	12.63
4	13.68	13.51	12.95	12.87	12.77	12.66	13.54	13.32	13.72	13.61	12.64	12.60
5	13.51	13.24	13.05	12.85	12.66	12.59	13.32	13.18	13.61	13.51	12.60	12.56
6	13.32	13.24	13.15	13.02	12.59	12.57	13.19	13.13	13.51	13.43	12.66	12.57
7	13.30	13.18	13.12	13.02	12.61	12.56	13.14	13.10	13.43	13.34	12.61	12.53
8	13.20	13.13	13.33	13.12	12.56	12.48	13.12	13.02	13.35	13.31	12.71	12.51
9	13.44	13.18	14.02	13.32	12.49	12.45	13.04	12.87	13.32	13.23	12.80	12.64
10	13.62	13.44	13.89	13.79	12.47	12.44	12.87	12.74	13.23	13.11	12.64	12.55
11	13.55	13.48	14.04	13.80	12.44	12.41	12.74	12.71	13.11	13.05	12.56	12.52
12	13.50	13.39	14.05	13.88	12.76	12.39	13.35	12.72	13.16	13.03	12.54	12.50
13	13.39	13.22	13.88	13.70	12.90	12.76	14.20	13.35	14.17	13.16	12.54	12.51
14	13.25	13.00	13.70	13.58	12.79	12.62	13.99	13.83	14.11	13.93	12.51	12.46
15	13.53	12.99	13.58	13.52	12.62	12.49	13.83	13.71	13.93	13.76	12.48	12.42
16	14.03	13.53	13.62	13.52	12.49	12.43	13.76	13.70	13.77	13.63	12.61	12.41
17	14.00	13.87	13.57	13.46	12.59	12.43	13.70	13.55	13.63	13.51	13.58	12.61
18	13.87	13.80	13.48	13.42	12.96	12.59	13.56	13.53	13.51	13.39	13.24	13.06
19	13.82	13.69	13.42	13.37	13.58	12.87	13.84	13.56	13.39	13.31	13.06	12.90
20	13.70	13.60	13.37	13.28	13.55	13.48	13.79	13.60	13.31	13.27	12.90	12.81
21	13.60	13.38	13.28	13.14	13.60	13.48	13.60	13.47	13.29	13.23	12.81	12.77
22	13.47	13.37	13.14	13.03	13.48	13.31	13.47	13.42	13.23	13.15	13.32	12.80
23	13.52	13.30	13.04	12.99	13.31	13.06	13.43	13.31	13.15	13.12	13.30	13.06
24	13.30	13.18	13.01	12.89	13.16	13.03	13.31	13.25	13.12	13.02	13.12	13.03
25	13.32	13.18	12.90	12.85	13.26	13.10	13.26	13.21	13.03	12.98	13.03	12.85
26	13.29	13.09	12.87	12.84	13.10	13.02	13.29	13.21	12.98	12.92	12.85	12.81
27	13.09	12.91	12.87	12.80	13.02	12.95	13.24	13.14	12.94	12.89	12.85	12.80
28	12.97	12.88	12.86	12.81	12.96	12.83	13.14	13.11	12.93	12.87	12.95	12.84
29	13.12	12.95	13.05	12.84	12.85	12.81	13.12	13.08	12.87	12.83	13.41	12.95
30	13.06	13.01	13.08	12.95	13.20	12.82	13.88	13.08	12.83	12.79	13.30	13.16
31	---	---	12.95	12.83	---	---	14.21	13.88	12.79	12.76	---	---
MONTH	14.03	12.88	14.05	12.80	13.60	12.39	14.21	12.71	14.24	12.76	13.58	12.41
YEAR	14.24	9.86										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ec 11. SITE ID.--392435076203301. PERMIT NUMBER.--HA-04-7211.

LOCATION.--Lat 39°24'35", long 76°20'33", Hydrologic Unit 02060003, off Trimble Rd., Joppatowne.

Owner: Joppatowne Utilities Corp.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 68 ft; diameter of casing 6 in., to 63 ft; screen diameter 2 in. from 63 to 68 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water-level recorder from May 23, 1962 to Dec. 17, 1983.

DATUM.--Elevation of land surface is 11.7 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 3.50 ft above land surface.

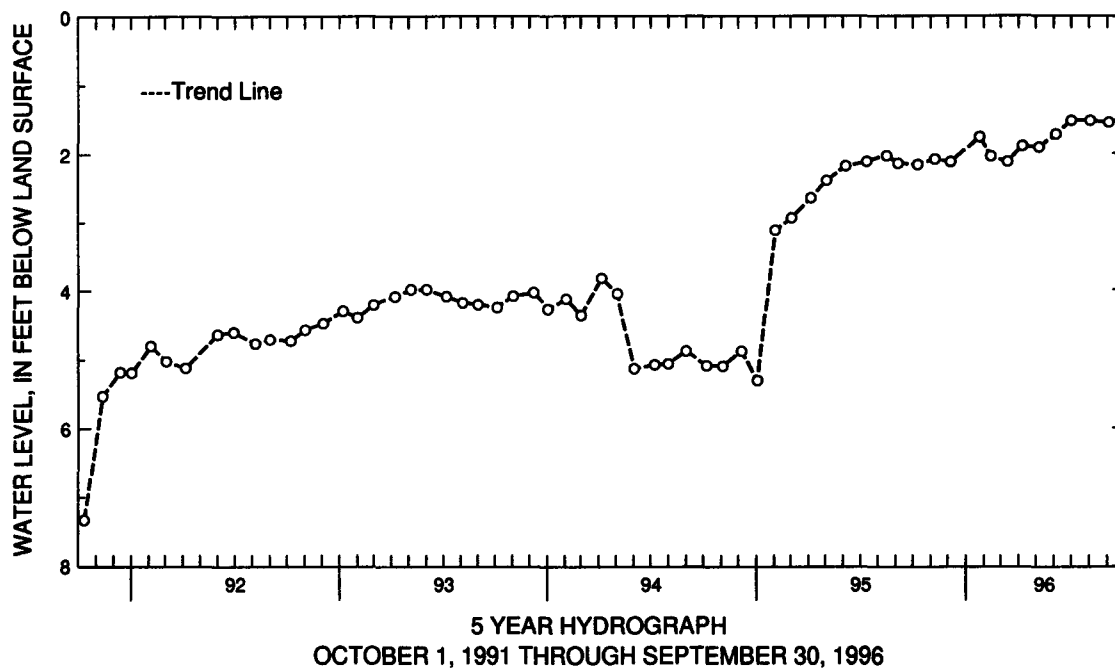
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, at land surface, May 24, 1962; lowest measured, 12.80 ft below land surface, May 26, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	2.16	JAN 24, 1996	1.76	APR 08, 1996	1.89	JUL 01, 1996	1.52
NOV 09	2.08	FEB 13	2.04	MAY 07	1.92	AUG 02	1.52
DEC 06	2.12	MAR 13	2.12	JUN 04	1.72	SEP 03	1.55
WATER YEAR 1996		HIGHEST	1.52	JUL 01 and AUG 02, 1996		LOWEST	2.16
							OCT 10, 1995



GROUND-WATER LEVELS

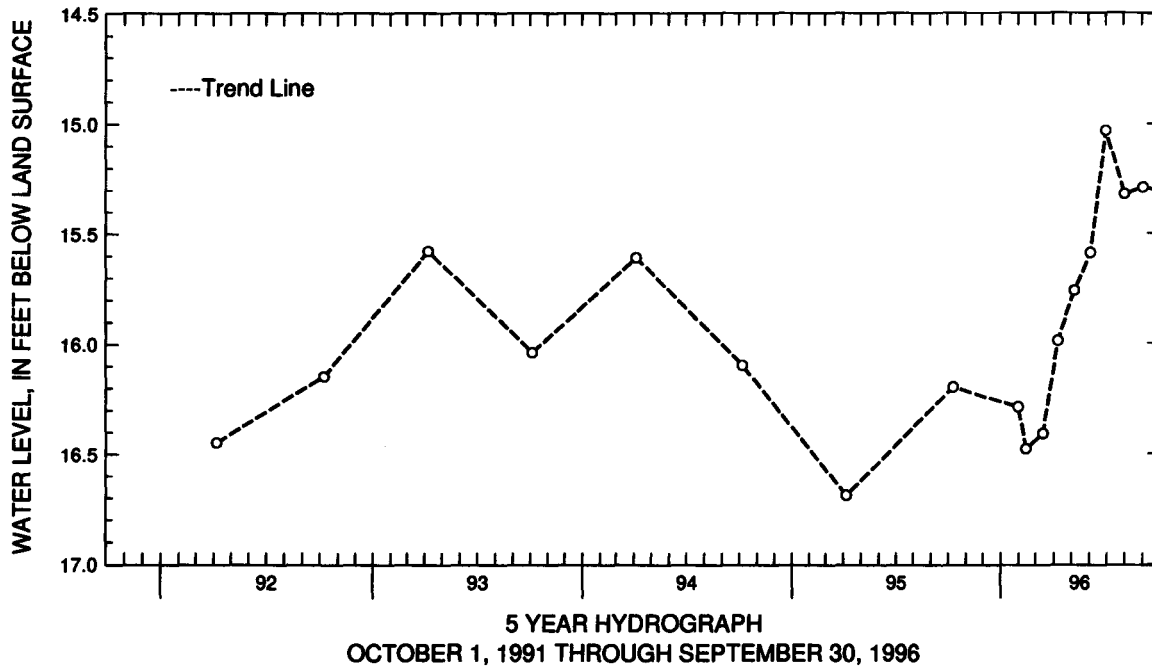
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ec 46. SITE ID.--392408076210101. PERMIT NUMBER.--HA-81-4124.
 LOCATION.--Lat 39°24'08", long 76°21'01", Hydrologic Unit 02060003, at end of Kearney Dr. in boat launch park, near Joppatowne.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 85 ft; diameter of casing 4 in., to 65 ft, and 75 to 85 ft; screen diameter 4 in. from 65 to 75 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel. Measured monthly from May 1988 to July 1989.
 DATUM.--Elevation of land surface is 23.16 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 2.17 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--May 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.03 ft below land surface, July 1, 1996; lowest measured, 16.76 ft below land surface, Feb. 23, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	16.20	MAR 13, 1996	16.41	JUN 04, 1996	15.59	SEP 03, 1996	15.29
JAN 31, 1996	16.29	APR 08	15.99	JUL 01	15.03		
FEB 13	16.48	MAY 07	15.76	AUG 02	15.32		
WATER YEAR 1996		HIGHEST	15.03 JUL 01, 1996	LOWEST	16.48 FEB 13, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 24. SITE ID.--392343076161901.

LOCATION.--Lat 39°23'43", long 76°16'19", Hydrologic Unit 02060003, at Bush River Rd. and 29th St., about 2 mi southeast of Edgewood.

Owner: U.S. Army (well 23M).

AQUIFER.--Canal Creek aquifer of the Potomac Group of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 135 ft; casing diameter 18 in., to 73 ft; casing diameter 10 in. from 65 to 120 ft; screen diameter 10 in. from 120 to 135 ft.

INSTRUMENTATION.--Periodic measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from Jan. 24, 1950, to June 6, 1961.

DATUM.--Elevation of land surface is 12.8 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.15 ft above land surface.

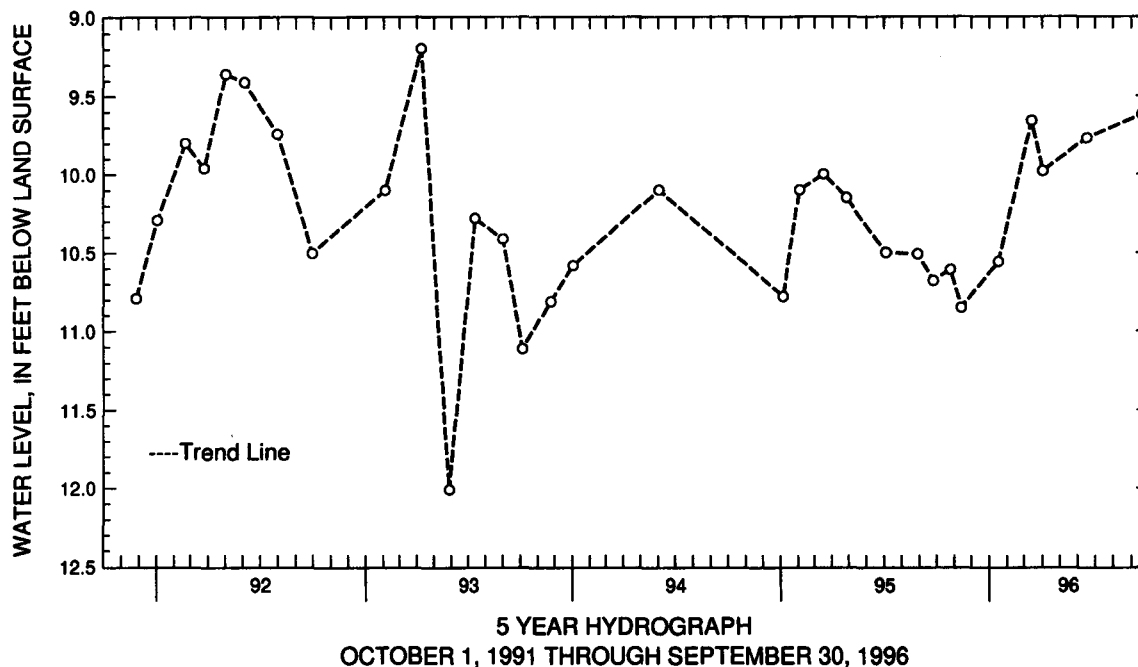
REMARKS.--Maryland Water-Level Network observation well. Water level measured, 8.24 ft below land surface, April 13, 1944.

PERIOD OF RECORD.-- September 1949, January 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.41 ft below land surface, Sept. 17, 1984; lowest measured, 42.55 ft below land surface, June 26, 1955.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1995	10.61	JAN 17, 1996	10.56	APR 02, 1996	9.98	SEP 20, 1996	9.62
NOV 13	10.85	MAR 14	9.66	JUN 17	9.77		
WATER YEAR 1996		HIGHEST	9.62	SEP 20, 1996	LOWEST	10.85	NOV 13, 1995



GROUND-WATER LEVELS

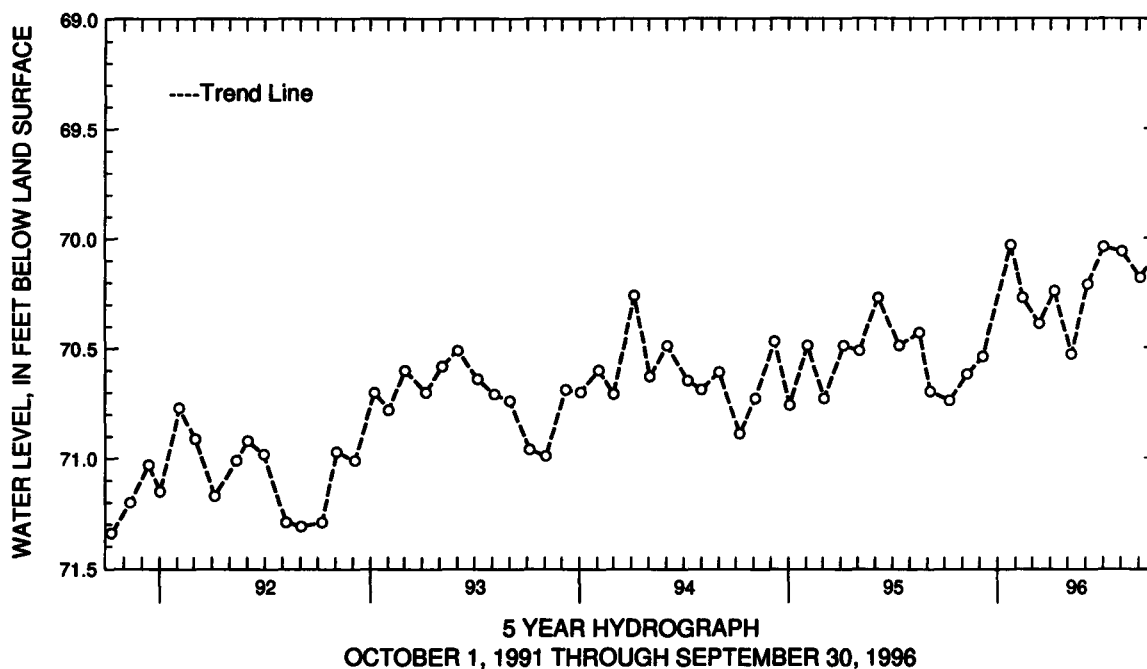
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 47. SITE ID.--392455076192101. PERMIT NUMBER.--HA-81-4128.
 LOCATION.--Lat 39°24'55", long 76°19'21", Hydrologic Unit 02060003, 0.2 mi east of intersection of MD Rt. 152 and Trimble Rd., Edgewood Park.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 210 ft; casing diameter 4 in., to 190 ft, and 200 to 210 ft; screen diameter 4 in. from 190 to 200 ft.
 INSTRUMENTATION.--Monthly measurement with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 90.50 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.36 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--May 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.03 ft below land surface, Jan. 24, 1996; lowest measured, 72.02 ft below land surface, Nov. 9, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	70.74	JAN 24, 1996	70.03	APR 08, 1996	70.24	JUL 01, 1996	70.04
NOV 09	70.62	FEB 13	70.27	MAY 07	70.53	AUG 02	70.06
DEC 06	70.54	MAR 13	70.39	JUN 04	70.21	SEP 03	70.18
WATER YEAR 1996		HIGHEST	70.03 JAN 24, 1996	LOWEST	70.74	OCT 10, 1995	



GROUND-WATER LEVELS

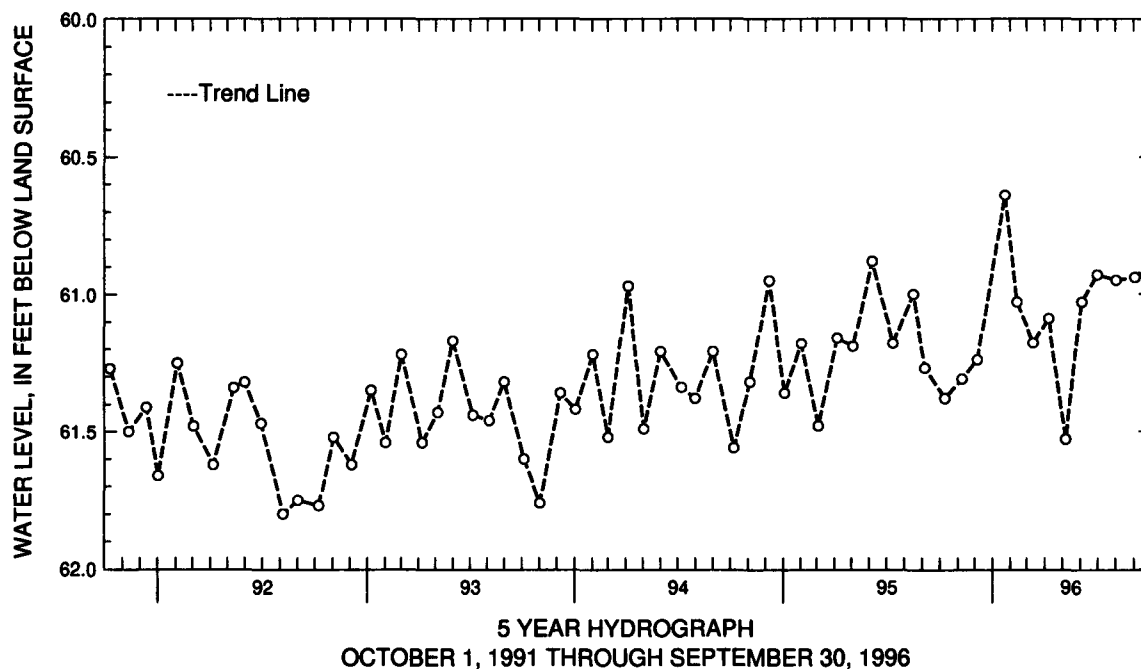
MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 48. SITE ID.--392455076192102. PERMIT NUMBER.--HA-81-4178.
 LOCATION.--Lat 39°24'55", long 76°19'21", Hydrologic Unit 02060003, 0.2 mi east of intersection of MD Rt. 152 and Trimble Rd., Edgewood Park.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 133 ft; casing diameter 4 in., to 118 ft, and 128 to 133 ft; screen diameter 4 in. from 118 to 128 ft.
 INSTRUMENTATION.--Monthly measurement with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 91.20 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of PVC casing, 2.58 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--May 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 60.64 ft below land surface, Jan. 24, 1996; lowest measured, 63.00 ft below land surface, May 12, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 10, 1995	61.38	JAN 24, 1996	60.64	APR 08, 1996	61.09	JUL 01, 1996	60.93
NOV 09	61.31	FEB 13	61.03	MAY 07	61.53	AUG 02	60.95
DEC 06	61.24	MAR 13	61.18	JUN 04	61.03	SEP 03	60.94
WATER YEAR 1996		HIGHEST	60.64 JAN 24, 1996	LOWEST	61.53 MAY 07, 1996		



MARYLAND--Continued

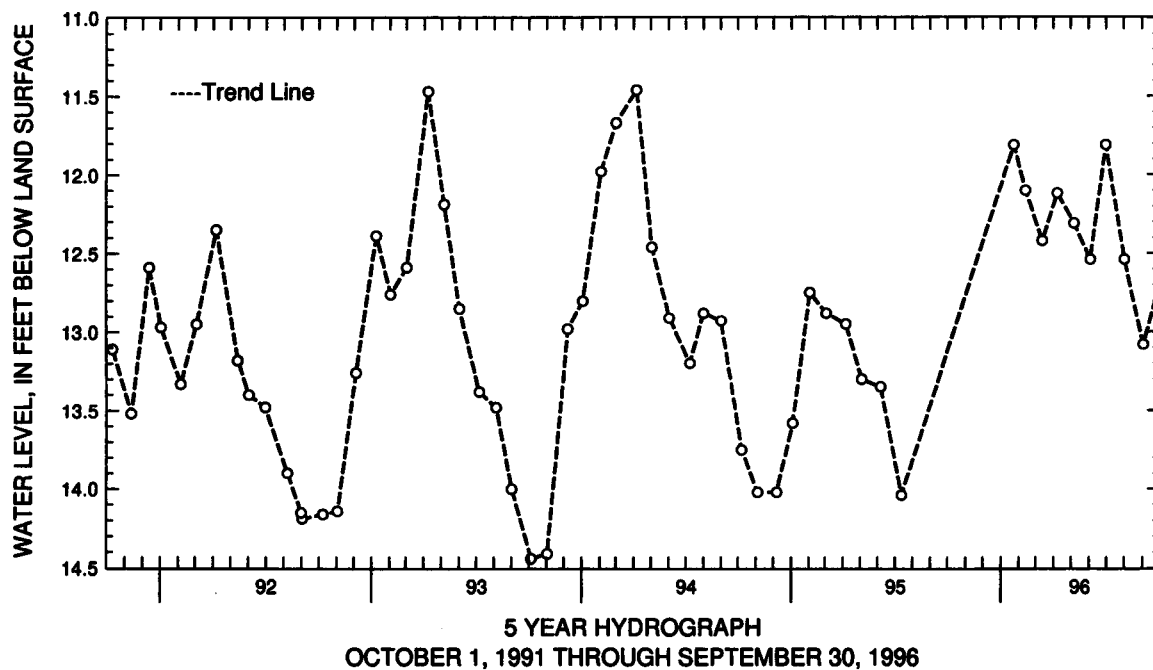
HARFORD COUNTY--Continued

WELL NUMBER.--HA Ed 49. SITE ID.--392455076192103. PERMIT NUMBER.--HA-81-4129.
 LOCATION.--Lat 39°24'55", long 76°19'21", Hydrologic Unit 02060003, 0.2 mi east of the intersection of MD Rt. 152 and Trimble Rd., Edgewood Park.
 Owner: U.S. Geological Survey.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 28 ft; casing diameter 4 in., to 13 ft, and 23 to 28 ft; screen diameter 4 in. from 13 to 23 ft.
 INSTRUMENTATION.--Monthly measurement with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from June 3, 1988 to July 11, 1989.
 DATUM.--Elevation of land surface is 91.89 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of recorder shelf, 2.19 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Well vandalized with debris and plugged.
 PERIOD OF RECORD.--May 1988 to July 1995, January 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.46 ft below land surface, April 6, 1994; lowest measured, 14.44 ft below land surface, Oct. 5, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 24, 1996	11.81	APR 08, 1996	12.12	JUN 04	12.54	AUG 02	12.54
FEB 13	12.10	MAY 07	12.31	JUL 01, 1996	11.81	SEP 03	13.08
MAR 13	12.42						

WATER YEAR 1996 HIGHEST 11.81 JAN 24 and JUL 01, 1996 LOWEST 13.08 SEP 03, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 6. SITE ID.--391817076173701

LOCATION.--Lat 39°18'11", long 76°17'39", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 21 ft; casing diameter 4 in., to 6 ft; screen diameter 4 in. from 6 to 21 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--15-minute recorder interval from Nov. 16, 1987 to current year.

DATUM.--Altitude of land surface is 9.76 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.68 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well TH6. Missing data due to recorder malfunction.

PERIOD OF RECORD.--November 1987 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.03 ft above sea level, Jan. 12, 1991; lowest measured, 2.22 ft below sea level, July 21 to 25, 1992.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
(READINGS BELOW SEA LEVEL INDICATED BY "--")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.22	1.21	2.76	2.73	5.35	5.23	5.61	5.51	---	---	---	---
2	1.21	1.20	2.81	2.76	5.26	5.13	7.20	5.53	---	---	---	---
3	1.20	1.19	2.83	2.81	5.25	5.15	8.20	7.20	---	---	---	---
4	1.19	1.18	2.83	2.82	5.21	5.03	8.05	7.58	---	---	---	---
5	1.19	1.18	2.85	2.83	5.08	4.99	7.58	7.22	---	---	---	---
6	1.20	1.19	2.87	2.85	5.09	4.97	7.22	7.04	---	---	---	---
7	1.21	1.20	2.91	2.87	4.97	4.85	7.39	7.04	---	---	---	---
8	1.21	1.20	2.91	2.90	4.85	4.78	7.28	6.64	---	---	---	---
9	1.20	1.19	2.90	2.89	4.89	4.77	6.64	6.52	---	---	---	---
10	1.19	1.19	2.93	2.90	4.77	4.72	6.52	6.18	---	---	---	---
11	1.19	1.18	3.03	2.93	4.72	4.64	6.18	6.10	---	---	---	---
12	1.18	1.18	3.44	3.03	4.64	4.54	6.43	6.13	---	---	---	---
13	1.18	1.17	3.50	3.43	4.54	4.52	6.34	6.14	---	---	---	---
14	1.34	1.17	4.37	3.50	4.62	4.52	6.21	6.10	---	---	---	---
15	1.55	1.34	4.54	4.37	4.57	4.48	6.20	5.93	---	---	---	---
16	1.57	1.55	4.61	4.54	5.50	4.48	6.27	5.96	---	---	---	---
17	1.58	1.57	4.63	4.60	5.65	5.50	6.33	6.27	---	---	---	---
18	1.60	1.58	4.68	4.63	5.76	5.65	7.78	6.30	---	---	---	---
19	1.61	1.60	4.67	4.62	6.62	5.76	9.36	7.78	---	---	---	---
20	1.64	1.61	4.64	4.60	6.65	6.59	8.96	8.82	---	---	---	---
21	2.12	1.64	4.66	4.57	6.69	6.58	8.82	8.58	---	---	---	---
22	2.13	2.12	4.57	4.52	6.58	6.37	8.58	8.38	---	---	---	---
23	2.14	2.13	4.53	4.48	6.37	6.30	8.43	8.31	---	---	---	---
24	2.16	2.14	4.48	4.40	6.30	6.24	8.77	8.43	---	---	---	---
25	2.18	2.14	4.47	4.41	6.29	6.23	8.73	8.59	---	---	---	---
26	2.19	2.17	4.47	4.42	6.27	6.12	8.61	8.46	---	---	---	---
27	2.22	2.19	4.48	4.43	6.14	5.92	9.19	8.61	---	---	---	---
28	2.69	2.22	4.43	4.30	5.92	5.73	9.00	8.81	---	---	---	---
29	2.69	2.66	5.01	4.31	5.73	5.61	8.81	8.72	---	---	---	---
30	2.70	2.67	5.23	5.01	5.64	5.59	---	---	---	---	---	---
31	2.73	2.70	---	---	5.65	5.61	---	---	---	---	---	---
MONTH	2.73	1.17	5.23	2.73	6.69	4.48	9.36	5.51	---	---	---	---

GROUND-WATER LEVELS

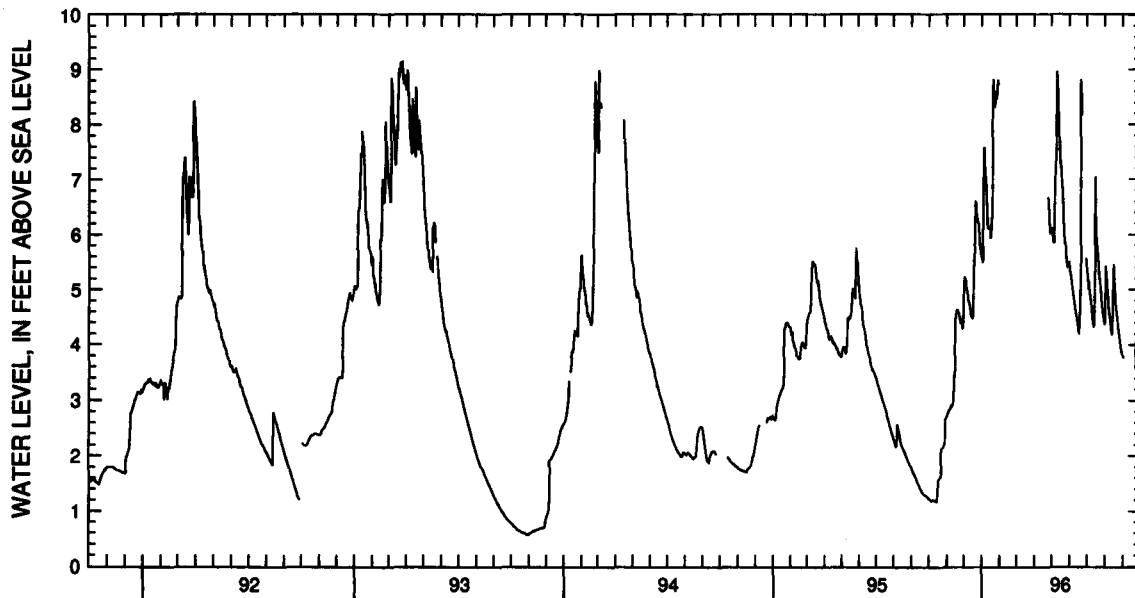
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Pd 6--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	6.19	6.12	5.39	5.30	5.36	5.23	5.54	5.42	---	---
2	---	---	6.14	6.02	5.30	5.25	5.23	5.00	5.42	5.27	---	---
3	---	---	6.03	5.96	5.26	5.21	5.26	5.15	5.27	5.11	---	---
4	---	---	5.97	5.85	5.21	5.08	5.15	5.02	5.11	4.97	---	---
5	---	---	6.99	5.85	5.09	5.00	5.02	4.91	4.97	4.84	---	---
6	---	---	7.62	6.99	5.00	4.94	4.91	4.84	4.84	4.72	---	---
7	---	---	7.39	7.29	4.94	4.88	4.84	4.77	4.72	4.60	---	---
8	---	---	7.91	7.38	4.88	4.79	4.78	4.68	4.60	4.52	---	---
9	---	---	9.24	7.91	4.79	4.72	4.70	4.56	4.52	4.44	---	---
10	---	---	9.16	8.96	4.72	4.66	4.56	4.43	4.44	4.32	---	---
11	---	---	9.05	8.72	4.66	4.59	4.43	4.35	4.32	4.24	---	---
12	---	---	9.06	8.61	4.59	4.53	4.39	4.32	4.24	4.20	---	---
13	---	---	8.61	8.11	4.54	4.47	7.84	4.39	5.92	4.22	---	---
14	---	---	8.11	7.58	4.47	4.40	7.84	7.04	5.73	5.45	---	---
15	---	---	7.58	7.27	4.41	4.32	7.04	6.42	5.45	5.28	---	---
16	---	---	7.31	7.24	4.32	4.25	6.42	6.01	5.28	5.13	---	---
17	---	---	7.24	6.98	4.65	4.20	6.01	5.71	5.13	4.98	---	---
18	---	---	7.02	6.89	5.71	4.65	5.71	5.60	4.98	4.82	---	---
19	---	---	6.89	6.73	9.06	5.50	5.67	5.56	4.82	4.68	---	---
20	---	---	6.73	6.51	9.10	8.81	5.56	5.36	4.68	4.59	---	---
21	---	---	6.51	6.27	9.09	8.69	5.36	5.22	4.59	4.50	3.57	3.57
22	---	---	6.27	5.99	8.69	8.16	5.22	5.14	4.50	4.40	4.15	3.57
23	---	---	6.07	5.91	---	---	5.14	5.01	4.40	4.32	4.16	4.01
24	6.79	6.67	5.92	5.72	---	---	5.01	4.90	4.32	4.22	4.12	4.09
25	6.71	6.61	5.72	5.59	---	---	4.90	4.81	4.22	4.14	4.12	4.01
26	6.65	6.40	5.59	5.49	---	---	4.82	4.69	4.14	4.07	4.08	4.02
27	6.40	6.11	5.50	5.41	---	---	4.69	4.58	4.07	4.00	4.07	4.07
28	6.11	6.01	5.46	5.42	5.85	5.57	4.58	4.51	4.00	3.93	4.09	4.05
29	6.16	6.04	5.58	5.44	5.57	5.42	4.51	4.44	3.93	3.88	4.08	4.05
30	6.12	6.01	5.60	5.51	5.44	5.36	4.44	4.38	3.88	3.81	4.08	4.07
31	---	---	5.51	5.39	---	---	5.53	4.38	3.81	3.76	---	---
MONTH	6.79	6.01	9.24	5.39	9.10	4.20	7.84	4.32	5.92	3.76	4.16	3.57
YEAR	9.36	1.17										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 8. SITE ID.--391816076173801

LOCATION.--Lat 39°18'16", long 76°17'40", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 21 ft; casing diameter 4 in., to 6 ft; screen diameter 4 in. from 6 to 21 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--15-minute recorder interval from Nov. 16, 1987 to June 26, 1996.

DATUM.--Altitude of land surface is 6.17 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.67 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well TH8. Missing data due to recorder malfunction.

PERIOD OF RECORD.--November 1987 to June 1996.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.39 ft above sea level, Jan. 19, 1996; lowest measured, 0.46 ft above sea level, Oct. 10 and 11, 1993.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.78	1.18	1.63	1.24	2.86	2.01	1.91	1.42	2.62	1.96	2.06	1.59
2	1.78	1.08	1.96	1.42	2.01	1.42	2.42	1.70	2.38	2.00	2.35	1.92
3	1.58	1.15	1.87	1.37	1.96	1.41	3.37	2.42	2.00	1.80	2.64	1.69
4	1.90	1.15	1.37	1.04	1.78	1.40	2.90	2.08	1.84	1.71	1.69	1.50
5	1.86	1.15	1.53	1.01	2.01	1.41	2.37	2.08	2.17	1.68	1.69	1.51
6	2.29	1.27	1.53	1.07	1.82	1.41	2.19	1.66	2.17	1.72	1.58	1.46
7	1.63	1.18	2.38	1.29	1.63	1.32	1.80	1.64	2.08	1.68	2.54	1.41
8	1.54	1.05	2.01	1.09	1.65	1.18	1.66	1.50	2.10	1.87	2.50	1.93
9	1.67	1.11	1.36	.91	1.69	1.38	2.63	1.57	2.64	1.98	1.93	1.78
10	1.72	1.15	1.93	1.11	1.65	1.11	2.62	1.70	2.64	2.46	1.78	1.64
11	1.68	1.10	2.78	1.49	1.52	1.00	1.98	1.47	2.62	2.27	1.87	1.73
12	1.61	1.07	2.84	1.62	1.15	.97	2.52	1.85	2.27	1.92	2.05	1.78
13	1.52	.92	1.83	1.55	1.38	1.01	2.52	1.74	2.02	1.85	2.59	1.90
14	2.18	1.16	2.90	1.62	1.72	1.10	2.36	1.86	2.53	1.97	2.43	1.88
15	2.23	1.16	3.34	2.57	1.76	1.27	2.08	1.55	2.21	1.81	2.50	1.89
16	1.65	1.00	2.57	1.83	1.92	1.36	1.89	1.48	2.27	1.74	2.19	1.76
17	1.09	.81	1.96	1.71	1.87	1.66	2.37	1.69	2.09	1.70	2.25	1.79
18	1.25	.92	2.32	1.74	2.21	1.71	2.51	1.71	2.26	1.86	2.17	1.76
19	1.40	1.07	2.04	1.50	2.25	1.79	4.39	2.51	1.98	1.72	2.97	1.73
20	1.63	1.07	2.24	1.47	2.14	1.92	3.50	2.64	2.68	1.72	4.14	2.97
21	2.39	1.46	2.21	1.77	2.36	1.81	2.96	2.57	3.04	2.63	3.01	2.36
22	2.17	1.66	1.81	1.39	2.09	1.57	3.08	2.46	2.87	2.48	2.55	2.10
23	1.84	1.37	2.16	1.46	1.84	1.50	3.05	2.53	2.80	2.50	2.28	1.77
24	2.22	1.49	1.96	1.25	1.93	1.59	3.27	2.60	2.88	2.38	1.87	1.61
25	2.02	1.16	1.69	1.23	2.15	1.62	3.16	2.34	2.41	1.91	2.25	1.69
26	1.91	1.22	2.30	1.38	2.15	1.46	2.57	2.28	1.91	1.75	2.21	1.54
27	2.48	1.45	2.30	1.64	1.48	1.38	4.13	2.40	2.21	1.71	1.54	1.37
28	2.69	2.02	2.22	1.29	1.44	1.31	3.54	2.52	2.59	1.95	2.19	1.43
29	2.21	1.40	1.67	1.35	1.58	1.34	2.66	2.44	1.95	1.61	2.88	2.19
30	1.63	1.22	2.01	1.59	1.77	1.40	2.80	2.33	---	---	3.19	2.57
31	1.65	1.20	---	---	1.68	1.34	2.53	2.02	---	---	2.84	2.44
MONTH	2.69	.81	3.34	.91	2.86	.97	4.39	1.42	3.04	1.61	4.14	1.37

GROUND-WATER LEVELS

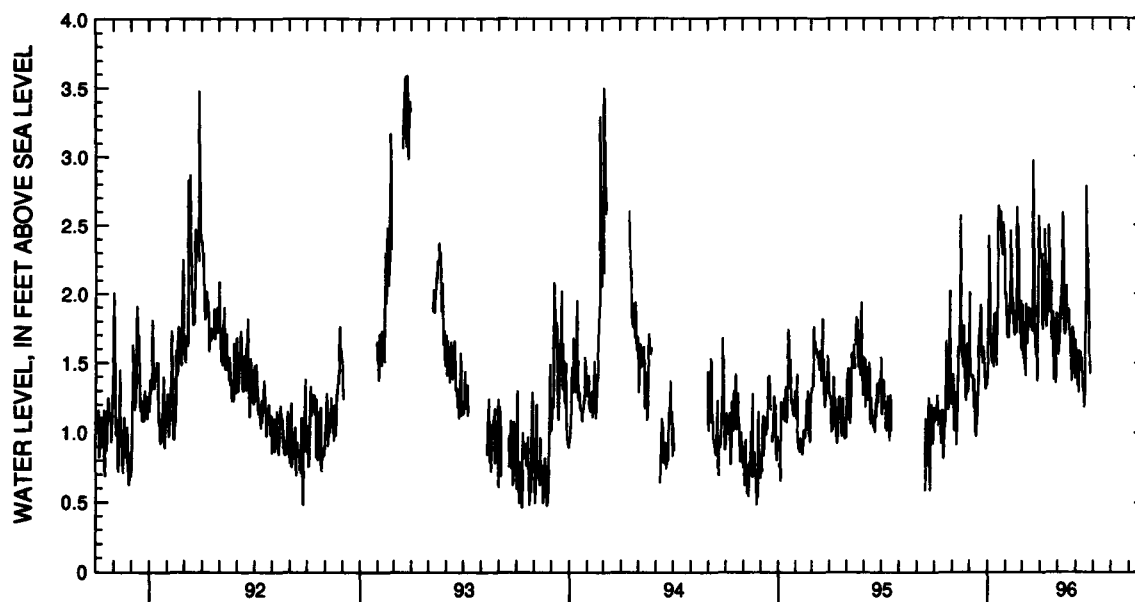
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 8--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.09	2.26	2.07	1.62	2.38	1.67	---	---	---	---	---	---
2	3.08	2.27	2.32	1.67	2.29	1.58	---	---	---	---	---	---
3	3.17	2.27	2.17	1.56	2.10	1.44	---	---	---	---	---	---
4	2.95	2.29	2.20	1.65	2.32	1.34	---	---	---	---	---	---
5	2.52	1.79	2.43	1.64	2.19	1.42	---	---	---	---	---	---
6	2.39	1.74	2.90	1.97	1.84	1.29	---	---	---	---	---	---
7	2.42	1.92	2.58	1.81	2.08	1.59	---	---	---	---	---	---
8	2.68	1.89	2.59	2.06	2.14	1.54	---	---	---	---	---	---
9	3.11	2.47	3.58	2.31	2.03	1.47	---	---	---	---	---	---
10	2.61	2.15	3.14	2.59	2.03	1.58	---	---	---	---	---	---
11	2.55	1.93	2.96	2.54	2.17	1.57	---	---	---	---	---	---
12	2.12	1.76	2.90	1.93	2.17	1.47	---	---	---	---	---	---
13	2.26	1.85	1.96	1.71	2.06	1.33	---	---	---	---	---	---
14	2.36	1.89	2.16	1.71	1.96	1.31	---	---	---	---	---	---
15	2.50	1.86	2.49	1.73	1.83	1.26	---	---	---	---	---	---
16	4.19	2.50	2.70	2.06	1.76	1.18	---	---	---	---	---	---
17	3.03	2.24	2.19	1.79	2.06	1.25	---	---	---	---	---	---
18	2.56	2.04	2.55	1.88	2.30	1.67	---	---	---	---	---	---
19	2.65	2.04	2.42	1.84	3.68	1.86	---	---	---	---	---	---
20	2.72	2.09	2.50	1.89	3.56	2.78	---	---	---	---	---	---
21	2.45	1.67	2.47	1.86	3.21	2.39	---	---	---	---	---	---
22	---	---	2.13	1.70	2.80	2.27	---	---	---	---	---	---
23	2.42	1.87	2.13	1.70	2.88	1.89	---	---	---	---	---	---
24	2.11	1.38	2.18	1.53	2.63	2.03	---	---	---	---	---	---
25	2.19	1.48	1.87	1.37	2.83	1.62	---	---	---	---	---	---
26	2.42	1.82	2.09	1.70	1.79	1.42	---	---	---	---	---	---
27	1.82	1.36	2.04	1.76	---	---	---	---	---	---	---	---
28	2.12	1.36	2.33	1.72	---	---	---	---	---	---	---	---
29	2.29	1.86	2.20	1.72	---	---	---	---	---	---	---	---
30	2.25	1.85	2.22	1.40	---	---	---	---	---	---	---	---
31	---	---	2.11	1.39	---	---	---	---	---	---	---	---
MONTH	4.19	1.36	3.58	1.37	3.68	1.18	---	---	---	---	---	---
YEAR	4.39	.81										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 21. SITE ID.--391814076173801 PERMIT NUMBER.--HA-88-1043.
 LOCATION.--Lat 39°18'14", long 76°17'38", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 81.3 ft; casing diameter 4 in., to 73.8 ft;
 screen diameter 4 in. from 73.8 to 81.3 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from Jan. 12, 1990 to current year.
 DATUM.--Altitude of land surface is 7.67 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.00 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF31.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.59 ft above sea level, Sept. 7, 1996;
 lowest measured, 1.22 ft below sea level, Feb. 2, 1993.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.67	.93	.89	.30	1.84	.78	1.01	.24	1.24	.15	.89	.00
2	1.70	.83	1.31	.76	.78	-.14	1.33	.61	.85	.23	1.28	.66
3	1.49	.91	1.23	.40	1.00	.06	1.85	.96	.23	-.26	1.60	.00
4	1.85	.89	.44	-.14	.85	.23	1.07	.42	.36	-.03	.41	-.36
5	1.83	.96	.84	.04	1.14	.30	1.02	.59	.25	-.07	.54	.09
6	2.28	.98	.90	.17	.90	.37	.60	-.05	.44	.02	.40	-.04
7	1.51	.95	1.91	.56	.78	.28	.23	-.39	.97	.17	.75	-.12
8	1.35	.70	1.17	.30	.81	-.10	.34	-.19	.99	.51	.50	-.26
9	1.50	.81	.57	-.15	.89	.34	1.61	.21	.85	.12	-.05	-.46
10	1.55	.84	1.31	.34	.72	-.03	1.44	.57	.90	.18	-.14	-.60
11	1.44	.80	2.29	.80	.72	-.52	.72	.21	.98	.35	.22	-.36
12	1.35	.79	1.96	.05	-.16	-.58	1.68	.28	.63	-.18	.66	.04
13	1.31	.66	.85	.24	.32	-.24	1.66	.66	.58	-.54	1.28	.57
14	1.79	.91	1.07	.20	1.04	.08	1.46	.79	1.25	.22	1.25	.45
15	1.79	.42	1.76	1.07	1.04	.34	1.11	.10	.96	-.04	1.39	.55
16	1.08	.17	1.07	.27	.78	.32	.82	-.09	1.06	-.36	1.13	.41
17	.43	-.17	.73	.23	.64	.30	1.35	.41	.83	-.43	1.24	.51
18	.72	.31	1.26	.64	1.14	.39	1.03	.17	.89	.23	1.19	.52
19	.92	.50	1.07	.21	.93	.25	2.28	.66	.79	.14	1.65	.48
20	1.24	.60	1.34	.21	.72	.33	1.14	.03	1.13	.14	2.77	1.43
21	1.90	.89	1.40	.66	1.12	.28	1.27	.49	1.11	.41	1.75	.90
22	1.44	.76	.96	.29	.47	-.38	1.58	.58	1.05	.40	1.34	.70
23	1.14	.46	1.41	.43	.62	-.38	1.60	.88	1.05	.42	1.08	.33
24	1.65	.69	.92	-.02	.79	.13	1.91	1.02	1.24	.64	.69	.09
25	1.12	.17	.93	.16	1.10	.22	1.51	.16	.85	.12	1.14	.42
26	1.37	.49	1.62	.42	1.04	-.14	.97	.34	.42	-.18	1.14	.15
27	2.05	.80	1.59	.86	.34	-.16	2.26	.80	1.03	.08	.41	-.25
28	2.04	1.00	1.58	.20	.39	-.32	1.43	.13	1.34	.40	.88	.41
29	1.23	.21	.49	-.31	.51	-.03	.89	.10	.40	-.11	.61	.11
30	.81	.10	1.04	-.19	.80	.18	1.26	.38	---	---	1.36	.19
31	.84	.20	---	---	.74	.05	1.00	.16	---	---	1.26	.73
MONTH	2.28	-.17	2.29	-.31	1.84	-.58	2.28	-.39	1.34	-.54	2.77	-.60

GROUND-WATER LEVELS

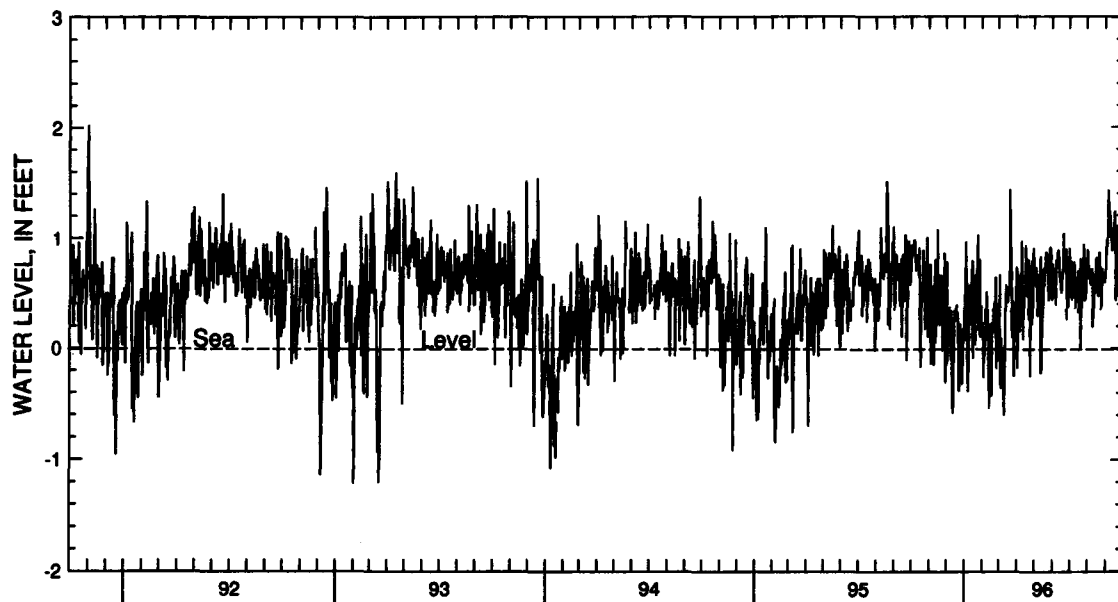
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 21--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.29	.70	1.18	.63	1.60	.76	1.86	.68	1.66	.89	1.36	.72
2	.70	-.18	1.47	.60	1.53	.70	1.70	.66	1.37	.66	1.86	.91
3	1.56	.15	1.38	.56	1.38	.48	1.65	.79	1.35	.75	1.86	.99
4	1.47	.66	1.44	.73	1.63	.47	1.12	.44	1.37	.64	1.82	.92
5	1.20	.19	1.15	.50	1.45	.56	1.19	.54	1.37	.60	1.88	1.04
6	1.15	.15	1.54	.41	1.21	.39	1.35	.62	1.29	.57	3.58	1.43
7	1.21	.53	1.35	.29	1.45	.80	1.41	.66	1.26	.63	3.59	1.31
8	1.59	.55	1.33	.46	1.47	.79	1.44	.78	1.40	.72	1.84	1.23
9	2.02	.97	1.35	.63	1.40	.73	1.52	.73	1.46	.63	2.02	1.20
10	1.10	.45	1.34	.60	1.42	.87	1.32	.36	1.11	.19	1.73	.99
11	1.18	.26	1.44	.83	1.57	.89	1.11	.46	.84	.24	1.55	.98
12	.90	.08	1.13	-.22	1.59	.79	1.15	.55	1.40	.66	1.55	.88
13	1.13	.48	.35	-.22	1.49	.64	1.77	.50	1.45	.53	2.10	.98
14	1.26	.56	.81	.07	1.39	.61	.97	.49	1.55	.50	1.72	.99
15	1.55	.56	1.21	.23	1.25	.55	1.53	.70	1.44	.80	1.76	1.14
16	2.41	.93	1.55	.72	1.17	.50	1.06	.32	1.42	.82	1.93	1.09
17	1.44	.53	1.14	.56	1.42	.60	1.16	.39	1.38	.75	1.98	1.24
18	1.22	.47	1.52	.72	1.39	.69	1.10	.33	1.27	.72	1.41	.43
19	1.44	.63	1.45	.74	1.57	.75	1.53	.81	1.12	.47	1.51	.76
20	1.56	.80	1.59	.86	1.71	1.04	.92	-.01	1.60	.79	1.73	.99
21	1.26	.39	1.61	.87	1.38	.70	.82	.25	1.60	.87	1.83	1.11
22	1.08	.26	1.28	.73	1.64	.78	1.31	.47	1.51	.70	2.14	1.04
23	1.42	.75	1.28	.79	1.64	.72	1.33	.51	1.45	.73	1.64	.47
24	.85	-.25	1.34	.60	1.73	.90	1.43	.81	1.54	.35	2.09	.68
25	1.29	.48	1.19	.43	1.82	.54	1.58	.94	1.12	.49	1.91	.91
26	1.50	.79	1.28	.82	.93	.26	1.74	.49	1.46	.72	1.64	.90
27	.87	.21	1.29	.90	1.29	.49	1.27	.44	1.55	.64	2.08	1.09
28	1.19	.38	1.62	.91	1.28	.37	1.28	.45	1.45	.62	2.27	1.47
29	1.45	.91	1.55	.90	1.36	.56	1.46	.55	1.57	.68	1.95	.72
30	1.43	.72	1.46	.44	2.00	.91	1.69	.69	1.41	.59	1.41	.76
31	---	---	1.31	.44	---	---	1.70	.81	1.44	.63	---	---
MONTH	2.41	-.25	1.62	-.22	2.00	.26	1.86	-.01	1.66	.19	3.59	.43
YEAR	3.59	-.60										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 23. SITE ID.--391814076173803 PERMIT NUMBER.--HA-88-1045.
 LOCATION.--Lat 39°18'14", long 76°17'38", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 20 ft; casing diameter 4 in., to 15 ft;
 screen diameter 4 in. from 15 to 20 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from Jan. 12, 1990 to current year.
 DATUM.--Altitude of land surface is 7.23 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.00 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF33. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.87 ft above sea level, March 24, 1993;
 lowest measured, 1.18 ft above sea level, Oct. 10 and 11, 1993.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.91	1.79	2.98	2.88	4.69	4.39	4.06	3.91	5.56	4.81	4.66	4.58
2	1.92	1.76	3.11	2.94	4.39	3.92	5.58	4.04	4.85	4.72	5.96	4.63
3	1.87	1.78	3.11	2.94	4.08	3.92	6.09	5.58	4.75	4.70	5.90	5.34
4	1.93	1.78	2.94	2.78	4.00	3.83	5.96	5.46	4.87	4.75	5.34	5.03
5	1.98	1.78	2.87	2.75	3.94	3.78	5.46	5.16	5.83	4.86	5.17	5.07
6	2.11	1.91	2.86	2.75	3.92	3.75	5.16	4.86	6.04	5.83	5.29	5.17
7	1.98	1.89	3.12	2.81	3.79	3.67	4.90	4.82	6.08	5.87	5.35	5.21
8	1.96	1.85	3.04	2.76	3.67	3.48	4.89	4.57	5.87	5.45	5.24	5.10
9	1.97	1.86	2.81	2.64	3.65	3.60	4.86	4.56	5.45	5.11	5.31	5.08
10	1.97	1.86	2.92	2.72	3.64	3.45	4.86	4.49	5.40	5.02	5.25	4.95
11	1.97	1.83	3.63	2.85	3.57	3.32	4.49	4.33	5.16	4.99	5.01	4.87
12	1.94	1.81	4.08	3.63	3.32	3.23	4.76	4.36	5.13	4.77	4.96	4.79
13	1.90	1.75	3.64	3.54	3.38	3.26	4.76	4.52	4.95	4.75	5.74	4.75
14	2.52	1.81	5.15	3.48	3.53	3.32	4.67	4.51	4.78	4.59	6.35	5.74
15	2.62	2.45	5.33	4.92	3.54	3.37	4.61	4.28	5.65	4.62	6.20	5.76
16	2.56	2.33	4.92	4.33	4.67	3.40	4.47	4.27	6.30	5.65	5.76	5.43
17	2.35	2.20	4.33	4.07	4.62	4.50	4.66	4.47	6.33	6.13	5.43	5.06
18	2.32	2.24	4.16	4.06	4.58	4.44	5.54	4.56	6.35	6.22	5.06	4.84
19	2.34	2.25	4.07	3.79	5.32	4.46	6.73	5.54	6.29	6.01	4.99	4.84
20	2.37	2.25	3.95	3.78	5.31	5.00	6.57	6.19	6.01	5.63	4.96	4.63
21	3.25	2.35	3.95	3.80	5.00	4.89	6.30	6.10	5.63	5.36	4.63	4.39
22	3.07	2.94	3.80	3.63	4.92	4.49	6.12	5.90	5.45	5.27	5.01	4.39
23	2.94	2.80	3.74	3.60	4.49	4.37	6.09	5.94	5.55	5.30	6.24	5.01
24	2.95	2.82	3.70	3.42	4.50	4.41	6.44	6.05	5.30	4.90	6.41	6.21
25	2.90	2.63	3.58	3.45	4.55	4.40	6.44	5.96	4.95	4.80	6.35	6.11
26	2.77	2.64	3.75	3.51	4.56	4.24	5.96	5.82	5.11	4.92	6.42	5.91
27	2.92	2.69	3.75	3.61	4.25	4.08	6.76	5.91	5.18	4.80	6.48	6.25
28	3.94	2.92	3.72	3.37	4.08	3.95	6.66	6.16	4.80	4.52	6.36	6.21
29	3.58	3.14	4.38	3.38	4.01	3.93	6.19	6.05	4.67	4.58	6.36	5.96
30	3.18	2.96	4.43	4.28	4.05	3.93	6.08	5.94	---	---	5.96	5.48
31	3.06	2.90	---	---	4.02	3.91	6.00	5.45	---	---	5.50	5.39
MONTH	3.94	1.75	5.33	2.64	5.32	3.23	6.76	3.91	6.35	4.52	6.48	4.39

GROUND-WATER LEVELS

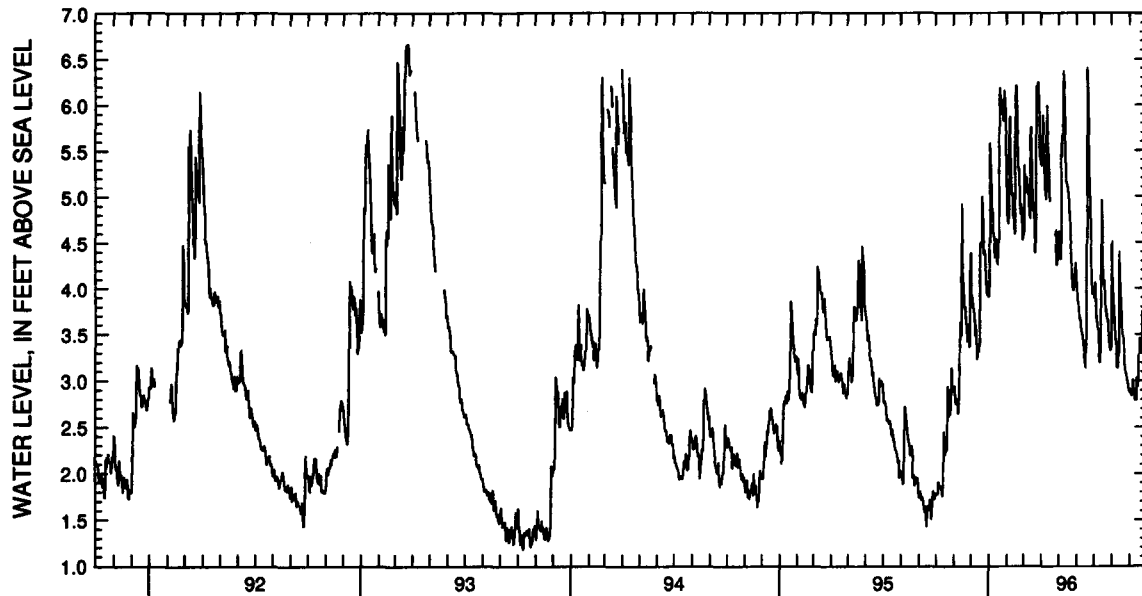
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 23--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.55	5.43	4.72	4.62	4.27	4.04	4.21	3.93	4.84	4.51	3.02	2.87
2	5.45	5.33	4.69	4.43	4.14	3.95	4.13	3.89	4.51	4.15	3.04	2.90
3	5.94	5.38	4.51	4.40	4.03	3.85	4.28	4.07	4.22	3.99	3.05	2.88
4	6.12	5.89	4.44	4.32	4.00	3.81	4.07	3.81	4.04	3.80	2.98	2.85
5	5.91	5.62	5.65	4.32	3.95	3.72	3.87	3.68	3.90	3.67	3.02	2.84
6	5.62	5.39	6.00	5.58	3.75	3.65	3.77	3.63	3.77	3.55	3.43	2.87
7	5.41	5.23	5.67	5.43	3.78	3.68	3.75	3.58	3.66	3.46	3.47	3.02
8	5.27	5.06	5.90	5.67	3.77	3.59	3.72	3.54	3.60	3.41	3.06	2.96
9	5.12	4.96	6.58	5.85	3.69	3.53	3.67	3.44	3.54	3.35	3.07	2.89
10	6.55	5.12	6.54	6.38	3.65	3.52	3.52	3.23	3.41	3.15	2.96	2.80
11	6.47	6.00	6.48	6.25	3.64	3.48	3.36	3.20	3.23	3.14	2.90	2.79
12	6.00	5.68	6.52	5.87	3.60	3.42	3.89	3.20	3.30	3.15	2.90	2.79
13	5.69	5.52	5.87	5.40	3.55	3.35	5.88	3.89	4.93	3.30	3.30	2.79
14	5.53	5.43	5.45	5.15	3.48	3.30	5.58	4.96	4.56	4.40	3.26	3.04
15	5.43	5.03	5.27	5.13	3.39	3.23	5.02	4.77	4.40	4.13	3.12	2.98
16	5.03	4.94	5.39	5.12	3.30	3.16	4.77	4.29	4.14	4.00	3.14	2.94
17	---	---	5.27	5.05	4.44	3.15	4.33	4.11	4.04	3.84	4.16	3.14
18	---	---	5.12	4.99	4.76	4.44	4.12	4.03	3.88	3.68	3.87	3.46
19	---	---	5.00	4.84	6.52	4.68	4.37	4.09	3.73	3.50	3.59	3.38
20	---	---	4.88	4.70	6.60	6.41	4.34	3.89	3.61	3.49	3.48	3.34
21	---	---	4.74	4.54	6.56	6.18	3.91	3.75	3.63	3.46	3.47	3.31
22	---	---	4.56	4.42	6.18	5.70	3.85	3.76	3.56	3.34	4.58	3.36
23	---	---	4.45	4.28	5.72	5.06	3.90	3.68	3.46	3.28	4.23	3.75
24	4.94	4.57	4.34	4.11	5.10	4.98	3.77	3.66	3.42	3.13	4.00	3.75
25	4.80	4.61	4.11	4.00	5.17	4.64	3.79	3.64	3.24	3.10	3.93	3.63
26	4.84	4.62	4.10	3.98	4.64	4.31	3.79	3.48	3.25	3.09	3.68	3.57
27	4.62	4.26	4.05	3.98	4.42	4.14	3.61	3.39	3.22	3.05	3.73	3.57
28	4.41	4.26	4.25	4.03	4.26	3.94	3.53	3.33	3.15	3.01	3.81	3.64
29	4.53	4.35	4.61	4.17	4.10	3.94	3.50	3.33	3.13	2.99	3.81	3.65
30	4.78	4.41	4.66	4.28	4.23	4.00	3.54	3.35	3.08	2.92	3.73	3.54
31	---	---	4.37	4.18	---	---	4.90	3.43	3.02	2.89	---	---
MONTH	6.55	4.26	6.58	3.98	6.60	3.15	5.88	3.20	4.93	2.89	4.58	2.79
YEAR	6.76	1.75										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 26. SITE ID.--391824076172701 PERMIT NUMBER.--HA-88-1061.
 LOCATION.--Lat 39°18'24", long 76°17'27", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, confined aquifer well, depth 79 ft; casing diameter 4 in.,
 to 74 ft; screen diameter 4 in. from 74 to 79 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from Jan. 17, 1990 to current year.
 DATUM.--Altitude of land surface is 10.18 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.80 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF91. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.67 ft above sea level, Sept. 7, 1996;
 lowest measured, 1.12 ft below sea level, Feb. 16, 1990.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.73	1.11	.97	.50	1.91	.96	1.11	.48	---	---	---	---
2	1.75	1.02	1.38	.83	1.03	.12	1.43	.83	---	---	---	---
3	1.55	1.10	1.31	.69	1.08	.25	1.92	1.16	---	---	---	---
4	1.90	1.10	.69	.09	.93	.45	1.44	.64	---	---	---	---
5	1.88	1.10	.91	.26	1.22	.51	1.14	.81	---	---	---	---
6	2.37	1.22	.96	.38	1.00	.58	.93	.21	---	---	---	---
7	1.57	1.13	1.97	.72	.87	.49	.56	-.12	---	---	---	---
8	1.44	.89	1.53	.49	.90	.13	.50	.06	---	---	---	---
9	1.56	1.00	.80	.06	.97	.55	1.70	.45	---	---	---	---
10	1.62	1.04	1.40	.53	.90	.19	1.67	.74	---	---	---	---
11	1.57	.99	2.24	.96	.83	-.27	1.14	.37	---	---	---	---
12	1.52	.97	2.14	.28	.31	-.34	1.77	.94	---	---	---	---
13	1.43	.82	.94	.43	.65	.04	1.77	.90	---	---	---	---
14	1.86	1.08	1.03	.39	1.10	.24	1.56	1.01	---	---	---	---
15	1.86	.62	1.82	1.03	1.12	.55	1.25	.37	---	---	---	---
16	1.18	.39	1.22	.49	.88	.53	.92	.18	---	---	---	---
17	.56	.05	.82	.45	.77	.49	1.43	.62	---	---	---	---
18	.80	.41	1.35	.69	1.22	.61	1.12	.42	---	---	---	---
19	1.00	.68	1.16	.44	1.01	.47	2.34	.87	---	---	---	---
20	1.33	.69	1.42	.43	.86	.52	1.45	.30	---	---	---	---
21	1.83	1.13	1.47	1.00	1.21	.34	1.36	.77	---	---	---	---
22	1.52	.95	1.05	.53	.84	-.14	1.70	.82	---	---	---	---
23	1.22	.66	1.49	.67	.70	-.16	1.70	1.14	---	---	---	---
24	1.70	.88	1.23	.22	.88	.35	2.02	1.26	---	---	---	---
25	1.46	.41	1.00	.38	1.18	.45	1.75	.45	---	---	---	---
26	1.42	.70	1.67	.64	1.18	.09	1.10	.63	---	---	---	---
27	2.13	.96	1.67	1.04	.49	.08	---	---	---	---	---	---
28	2.13	1.17	1.65	.46	.45	-.14	---	---	---	---	---	---
29	1.37	.47	.62	-.06	.62	.21	---	---	---	---	---	---
30	.83	.31	.96	.04	.89	.41	---	---	---	---	---	---
31	.91	.40	---	---	.83	.28	---	---	---	---	---	---
MONTH	2.37	.05	2.24	-.06	1.91	-.34	2.34	-.12	---	---	---	---

GROUND WATER LEVELS

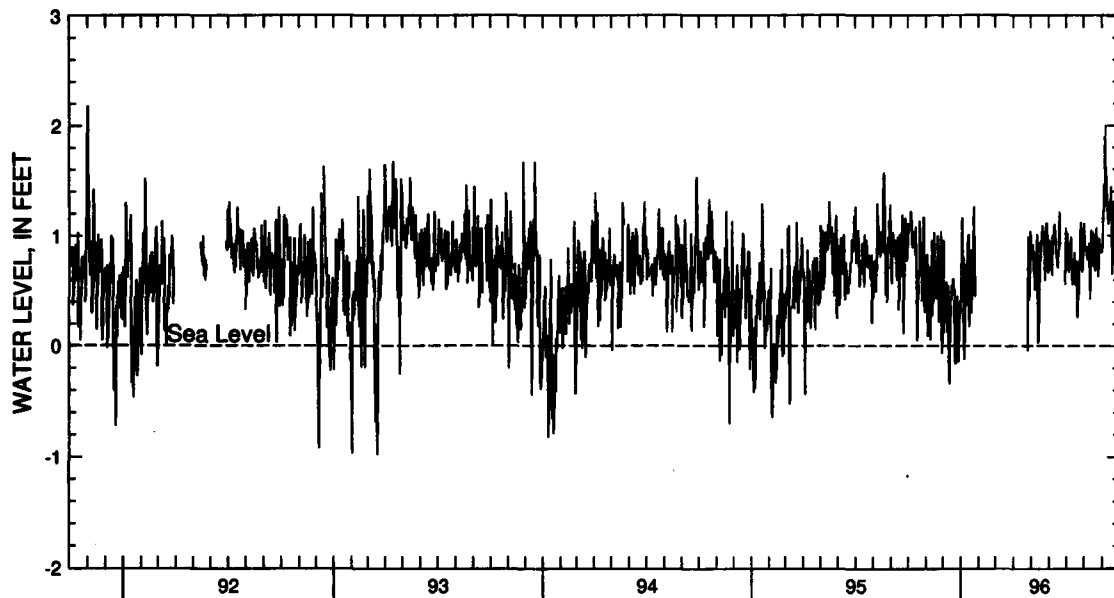
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 26--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	1.29	.82	1.65	.96	1.92	.97	1.73	1.11	1.52	.87
2	---	---	1.55	.87	1.58	.89	1.74	.87	1.55	.87	1.62	.94
3	---	---	1.44	.79	1.44	.73	1.70	1.02	1.46	.87	1.97	1.23
4	---	---	1.50	.92	1.67	.69	1.26	.69	1.41	.90	1.57	1.14
5	---	---	1.25	.70	1.51	.77	1.22	.68	1.45	.84	2.00	1.46
6	---	---	1.60	.66	1.29	.64	1.26	.76	1.38	.80	3.27	1.26
7	---	---	1.43	.51	1.53	1.00	1.42	.86	1.36	.79	3.67	2.00
8	---	---	1.43	.71	1.55	.99	1.50	.87	1.49	.82	2.00	1.48
9	---	---	1.45	.85	1.48	.94	1.59	.99	1.55	.93	2.15	1.61
10	---	---	1.43	.80	1.49	1.08	1.40	.66	1.28	.64	1.84	1.30
11	---	---	1.53	1.01	1.64	1.10	1.19	.56	.94	.43	1.58	1.20
12	---	---	1.21	.03	1.67	1.01	1.24	.70	1.48	.81	1.63	1.10
13	---	---	.46	.04	1.57	.84	1.87	.76	1.53	1.05	2.17	1.19
14	---	---	.88	.24	1.46	.81	1.83	.71	1.42	.73	1.93	1.19
15	---	---	1.29	.46	1.33	.74	1.60	.85	1.65	1.01	1.83	1.31
16	---	---	1.62	.94	1.25	.71	1.48	.56	1.49	1.03	2.01	1.29
17	---	---	1.22	.78	1.51	.85	1.25	.56	1.51	.96	2.08	1.44
18	---	---	1.60	.93	1.59	.89	1.07	.57	1.38	.92	1.53	.65
19	---	---	1.52	.94	1.79	1.21	1.61	.77	1.29	.72	1.54	.98
20	---	---	1.65	1.07	1.44	.90	1.36	.31	1.30	.68	1.71	1.19
21	---	---	1.67	1.09	---	---	.79	.26	1.67	.99	1.91	1.31
22	---	---	1.37	.93	---	---	1.03	.49	1.61	1.07	2.25	1.28
23	---	---	1.38	.97	---	---	1.43	.76	1.53	.92	1.72	.73
24	1.10	-.04	1.44	.78	---	---	1.26	.74	1.64	.96	2.16	.78
25	1.33	.49	1.21	.60	---	---	1.67	1.03	1.23	.63	1.97	1.16
26	1.59	.99	1.38	1.02	---	---	1.82	1.12	1.56	.86	1.71	1.12
27	1.00	.42	1.38	1.10	---	---	1.36	.71	1.64	.97	2.16	1.30
28	1.29	.47	1.70	1.11	1.35	.68	1.36	.67	1.52	.88	2.36	1.65
29	1.53	1.04	1.63	1.11	1.42	.56	1.51	.71	1.61	.92	2.19	.96
30	1.52	.99	1.54	.67	2.05	1.07	1.76	.91	1.65	.85	1.50	.96
31	---	---	1.39	.67	---	---	1.79	1.06	1.43	.85	---	---
MONTH	1.59	-.04	1.70	.03	2.05	.56	1.92	.26	1.73	.43	3.67	.65
YEAR	3.67	-.34										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 28. SITE ID.--391824076172703 PERMIT NUMBER.--HA-88-1063.
 LOCATION.--Lat 39°18'24", long 76°17'27", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25 ft; casing diameter 4 in., to 20 ft;
 screen diameter 4 in. from 20 to 25 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from Jan. 17, 1990 to current year.
 DATUM.--Altitude of land surface is 10.28 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.98 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF93. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.29 ft above sea level, May 11, 1996;
 lowest measured, 0.52 ft below sea level, Oct. 11, 1993.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	.17	.13	1.01	.97	3.04	2.72	4.31	4.19	5.62	5.43	5.22	5.14
2	.18	.15	1.17	1.01	3.01	2.66	4.74	4.31	5.45	5.39	5.37	5.19
3	.15	.14	1.19	1.17	2.77	2.65	5.15	4.74	5.39	5.21	5.45	5.22
4	.18	.15	1.19	1.03	2.77	2.69	5.15	4.95	5.21	5.08	5.22	4.95
5	.26	.16	1.04	1.01	2.75	2.64	4.95	4.89	5.08	5.01	5.21	4.97
6	.33	.26	1.05	1.04	2.77	2.72	4.89	4.75	5.10	5.02	5.30	5.21
7	.28	.23	1.28	1.05	2.72	2.70	5.05	4.75	5.12	5.02	5.52	5.30
8	.23	.18	1.28	1.16	2.70	2.55	5.11	4.88	5.38	5.12	5.61	5.52
9	.18	.17	1.16	1.06	2.73	2.57	4.97	4.82	5.49	5.38	5.52	5.32
10	.19	.18	1.19	1.06	2.74	2.68	4.99	4.78	5.66	5.49	5.32	5.18
11	.18	.16	1.42	1.19	2.72	2.61	4.78	4.65	5.80	5.66	5.44	5.20
12	.17	.15	1.60	1.42	2.61	2.51	5.10	4.68	5.75	5.45	5.64	5.44
13	.15	.10	1.60	1.55	2.57	2.51	5.13	5.02	5.45	5.27	5.69	5.64
14	.36	.10	2.00	1.60	2.78	2.57	5.08	5.00	5.53	5.28	5.69	5.63
15	.41	.36	2.27	2.00	2.82	2.78	5.09	4.88	5.51	5.32	5.75	5.66
16	.37	.33	2.22	2.09	3.26	2.78	5.00	4.83	5.36	5.32	5.75	5.55
17	.33	.24	2.09	2.03	3.56	3.26	5.20	5.00	5.34	5.21	5.55	5.50
18	.31	.24	2.11	2.03	3.82	3.56	5.41	5.20	5.30	5.17	5.50	5.45
19	.34	.31	2.11	2.03	4.28	3.82	5.86	5.41	5.17	5.01	5.67	5.45
20	.41	.34	2.09	2.00	4.33	4.28	5.80	5.47	5.30	5.01	5.98	5.67
21	.75	.41	2.14	2.09	4.34	4.27	5.56	5.48	5.66	5.30	5.98	5.82
22	.77	.75	2.13	1.98	4.34	4.17	5.56	5.53	5.76	5.66	5.82	5.66
23	.77	.73	2.03	1.98	4.17	4.13	5.69	5.55	5.85	5.76	5.66	5.43
24	.80	.74	2.03	1.92	4.26	4.16	5.95	5.69	5.93	5.85	5.43	5.24
25	.81	.70	2.02	1.92	4.37	4.26	5.92	5.51	5.87	5.67	5.36	5.24
26	.72	.70	2.15	2.02	4.40	4.28	5.51	5.46	5.67	5.52	5.36	5.16
27	.86	.72	2.21	2.15	4.28	4.14	6.01	5.51	5.56	5.46	5.16	4.89
28	1.18	.86	2.22	2.05	4.14	3.97	6.00	5.64	5.70	5.56	5.17	4.88
29	1.16	1.03	2.49	2.05	3.97	3.92	5.71	5.61	5.63	5.22	5.63	5.17
30	1.03	.96	2.72	2.49	4.04	3.93	5.79	5.71	---	---	5.88	5.63
31	.98	.96	---	---	4.19	4.04	5.82	5.62	---	---	5.93	5.88
MONTH	1.18	.10	2.72	.97	4.40	2.51	6.01	4.19	5.93	5.01	5.98	4.88

GROUND-WATER LEVELS

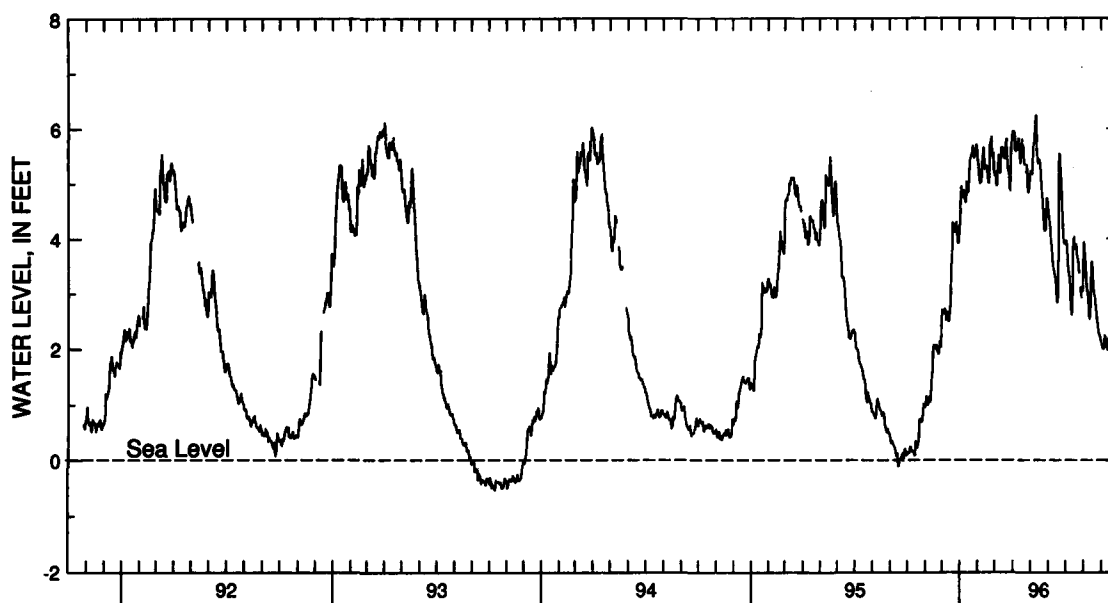
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 28--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.00	5.93	5.23	5.14	4.72	4.55	4.05	3.97	3.98	3.46	2.15	2.11
2	6.01	5.90	5.28	5.23	4.55	4.42	3.97	3.92	4.00	3.94	2.11	2.07
3	6.03	5.88	5.24	5.20	4.42	4.37	4.05	3.93	3.94	3.82	2.08	2.06
4	6.04	5.94	5.20	5.18	4.37	4.29	4.02	3.79	3.82	3.62	2.07	2.01
5	5.94	5.65	5.43	5.17	4.29	4.07	3.79	3.56	3.62	3.47	2.05	2.01
6	5.65	5.58	5.75	5.43	4.07	3.91	3.56	3.44	3.47	3.30	2.24	2.02
7	5.66	5.61	5.73	5.66	3.91	3.88	3.44	3.38	3.30	3.14	2.53	2.24
8	5.66	5.61	5.99	5.73	3.88	3.72	3.38	3.31	3.14	3.03	2.39	2.22
9	5.79	5.63	6.19	5.99	3.72	3.56	3.31	3.13	3.03	2.97	2.22	2.18
10	5.86	5.79	6.25	6.19	3.56	3.50	3.13	2.79	2.97	2.78	2.18	2.07
11	5.86	5.83	6.29	6.25	3.50	3.43	2.79	2.64	2.78	2.59	2.08	2.03
12	5.83	5.71	6.28	5.97	3.43	3.36	2.71	2.63	2.60	2.56	2.11	2.08
13	5.73	5.62	5.97	5.65	3.37	3.32	2.76	2.71	3.21	2.60	2.28	2.11
14	5.62	5.45	5.65	5.45	3.32	3.23	3.99	3.76	3.55	3.21	2.29	2.21
15	5.45	5.36	5.45	5.37	3.23	3.05	4.19	3.99	3.62	3.55	2.21	2.15
16	5.92	5.44	5.52	5.37	3.05	2.88	4.19	4.01	3.61	3.58	2.19	2.11
17	5.92	5.81	5.52	5.44	2.95	2.84	4.01	3.86	3.58	3.49	2.47	2.19
18	5.81	5.70	5.44	5.41	3.81	2.95	3.86	3.80	3.49	3.32	2.47	2.39
19	5.71	5.69	5.41	5.29	5.00	3.81	4.11	3.83	3.32	3.07	2.42	2.39
20	5.69	5.66	5.29	5.12	5.53	5.00	4.12	3.90	3.07	2.98	2.40	2.38
21	5.67	5.43	5.12	4.93	5.69	5.53	3.90	3.70	2.98	2.96	2.40	2.38
22	5.43	5.34	4.93	4.78	5.64	5.52	3.70	3.64	2.96	2.84	2.72	2.40
23	---	---	4.78	4.61	5.52	5.15	3.68	3.59	2.84	2.75	2.79	2.72
24	5.45	5.19	4.61	4.41	5.15	4.97	3.59	3.45	2.75	2.65	2.88	2.72
25	5.34	5.19	4.41	4.21	5.00	4.78	3.45	3.37	2.65	2.50	2.88	2.77
26	5.40	5.34	4.21	4.14	4.78	4.39	---	---	2.50	2.45	---	---
27	5.34	4.92	4.18	4.14	4.72	4.21	3.34	3.12	2.45	2.37	2.77	2.70
28	4.92	4.83	4.48	4.18	4.21	3.98	3.12	2.97	2.37	2.29	2.88	2.77
29	5.06	4.86	4.74	4.48	3.98	3.92	2.97	2.93	2.29	2.25	2.90	2.88
30	5.14	5.06	4.85	4.74	4.05	3.91	---	---	2.29	2.22	2.90	2.86
31	---	---	4.81	4.72	---	---	3.46	3.04	2.22	2.15	---	---
MONTH	6.04	4.83	6.29	4.14	5.69	2.84	4.19	2.63	4.00	2.15	2.90	2.01
YEAR	6.29	.10										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 29. SITE ID.--391812076173101 PERMIT NUMBER.--HA-88-1046.
 LOCATION.--Lat 39°18'12", long 76°17'31", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, confined aquifer well, depth 90 ft; casing diameter 4 in.,
 to 85 ft; screen diameter 4 in. from 85 to 90 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from Jan. 12, 1990 to current year.
 DATUM.--Altitude of land surface is 10.22 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.83 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF41. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.79 ft above sea level, Sept. 7, 1996;
 lowest measured, 1.03 ft below sea level, Feb. 26, 1990.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.79	1.03	1.00	.40	1.97	.90	1.13	.37	1.39	.23	1.02	.10
2	1.81	.93	1.44	.87	.90	-.03	1.47	.74	.94	.28	1.42	.78
3	1.62	1.01	1.37	.52	1.12	.17	1.98	1.09	.33	-.38	1.73	.13
4	1.97	.99	.57	-.05	.97	.34	1.21	.54	.55	-.07	.54	-.25
5	1.94	1.05	.95	.14	1.27	.40	1.15	.71	1.07	.05	.67	.20
6	2.44	1.07	1.01	.27	1.02	.47	.71	.07	.97	.13	.54	.06
7	1.63	1.03	2.03	.65	.90	.38	.36	-.27	1.11	.25	.87	-.02
8	1.48	.79	1.33	.42	.93	.01	.49	-.07	1.13	.64	.64	-.15
9	1.62	.92	.68	-.06	1.00	.47	1.74	.35	.98	.23	.08	-.35
10	1.67	.95	1.46	.45	.84	.08	1.59	.63	1.03	.31	.00	-.48
11	1.57	.90	2.43	.90	.84	-.40	1.18	.24	1.12	.48	.36	-.32
12	1.48	.89	2.08	.16	.33	-.47	1.81	.85	.76	-.06	.78	.16
13	1.45	.74	.97	.32	.68	-.08	1.78	.78	.70	-.41	1.46	.70
14	1.91	1.02	1.17	.30	1.16	.13	1.60	.91	1.40	.33	1.41	.59
15	1.91	.53	1.87	1.17	1.16	.45	1.24	.22	1.09	.06	1.58	.68
16	1.20	.28	1.18	.38	.90	.44	.94	.03	1.19	-.23	1.27	.54
17	.55	-.08	.83	.34	.77	.41	1.49	.55	.97	-.30	1.39	.64
18	.83	.42	1.39	.74	1.27	.51	1.16	.27	1.25	.36	1.34	.66
19	1.03	.61	1.18	.31	1.05	.36	2.43	.77	.92	.24	1.78	.62
20	1.39	.71	1.47	.31	.89	.32	1.30	.15	1.26	.24	2.92	1.58
21	1.98	1.00	1.53	.78	1.25	.23	1.41	.62	1.25	.54	1.88	1.04
22	1.57	.87	1.08	.43	.60	-.26	1.71	.69	1.18	.52	1.49	.83
23	1.27	.56	1.55	.56	.74	-.31	1.72	1.00	1.18	.55	1.22	.45
24	1.76	.80	1.02	.09	.91	.22	2.04	1.13	1.38	.76	.82	.22
25	1.27	.29	1.05	.27	1.23	.33	1.65	.28	.99	.23	1.28	.55
26	1.50	.60	1.74	.54	1.16	-.05	1.09	.41	.56	-.07	1.29	.28
27	2.19	.89	1.72	.97	.48	-.06	2.41	.93	1.15	.20	.53	-.14
28	2.17	1.08	1.70	.32	.52	-.29	1.56	.25	1.51	.54	1.01	.53
29	1.36	.34	.60	-.20	.63	.09	1.02	.22	.55	-.01	.73	.22
30	.91	.20	1.15	-.09	.92	.29	1.41	.50	---	---	1.52	.33
31	.95	.30	---	---	.86	.15	1.13	.24	---	---	1.41	.85
MONTH	2.44	-.08	2.43	-.20	1.97	-.47	2.43	-.27	1.51	-.41	2.92	-.48

GROUND-WATER LEVELS

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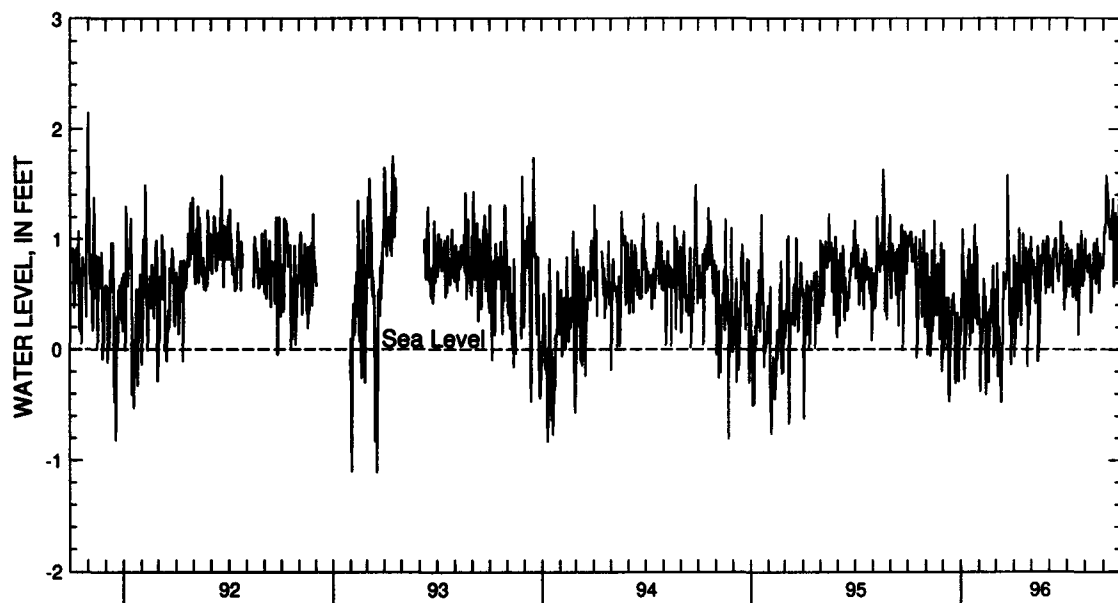
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 29--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.43	.82	1.31	.73	1.73	.85	2.00	.84	1.81	1.01	1.53	.86
2	.84	-.07	1.60	.70	1.66	.78	1.83	.77	1.54	.77	2.02	1.06
3	1.70	.29	1.50	.67	1.52	.61	1.78	.92	1.52	.85	2.02	1.12
4	1.61	.78	1.56	.81	1.76	.59	1.25	.56	1.53	.74	1.98	1.05
5	1.35	.33	1.31	.58	1.58	.65	1.33	.65	1.53	.70	2.05	1.19
6	1.30	.28	1.67	.53	1.35	.51	1.48	.73	1.45	.70	3.77	1.58
7	1.36	.63	1.48	.41	1.58	.91	1.50	.77	1.42	.75	3.79	1.50
8	1.72	.66	1.45	.58	1.61	.89	1.58	.90	1.56	.87	1.99	1.42
9	2.16	1.10	1.50	.74	1.54	.83	1.65	.81	1.62	.76	2.20	1.38
10	1.23	.58	1.49	.71	1.55	.99	1.46	.46	1.27	.33	1.88	1.12
11	1.32	.40	1.59	.94	1.70	1.01	1.23	.54	.98	.35	1.71	1.12
12	1.01	.21	1.26	-.11	1.73	.91	1.28	.65	1.55	.76	1.68	1.01
13	1.27	.61	.47	-.11	1.63	.75	1.90	.65	1.61	.69	2.23	1.11
14	1.40	.67	.93	.18	1.53	.73	1.10	.60	1.71	.64	1.84	1.10
15	1.68	.67	1.35	.36	1.41	.66	1.67	.81	1.60	.94	1.88	1.22
16	2.57	1.05	1.68	.85	1.32	.61	1.20	.44	1.58	.97	2.06	1.20
17	1.58	.66	1.27	.67	1.56	.71	1.31	.52	1.53	.88	2.12	1.37
18	1.36	.60	1.66	.84	1.54	.78	1.26	.46	1.44	.82	1.55	.56
19	1.58	.75	1.58	.84	1.70	.87	1.69	.96	1.29	.59	1.64	.88
20	1.69	.92	1.71	.98	1.85	1.16	1.17	.13	1.75	.92	1.85	1.12
21	1.40	.51	1.73	.99	1.53	.78	.97	.40	1.75	1.01	1.96	1.24
22	1.21	.40	1.42	.83	1.77	.90	1.42	.61	1.67	.84	2.29	1.16
23	1.54	.88	1.42	.88	1.78	.80	1.49	.65	1.60	.88	1.77	.62
24	.98	-.16	1.48	.67	1.87	1.03	1.50	.96	1.70	.51	2.23	.79
25	1.42	.59	1.32	.50	1.96	.63	1.73	1.08	1.30	.62	2.04	1.02
26	1.63	.91	1.42	.94	1.03	.35	1.89	.61	1.64	.87	1.77	1.02
27	.98	.31	1.43	1.01	1.41	.57	1.43	.57	1.72	.79	2.23	1.22
28	1.32	.49	1.74	1.02	1.43	.46	1.45	.62	1.61	.77	2.44	1.59
29	1.58	1.02	1.68	1.01	1.51	.52	1.62	.62	1.72	.83	2.09	.84
30	1.55	.83	1.60	.56	2.15	.96	1.84	.82	1.59	.73	1.56	.85
31	---	---	1.46	.56	---	---	1.85	.96	1.61	.76	---	---
MONTH	2.57	-.16	1.74	-.11	2.15	.35	2.00	.13	1.81	.33	3.79	.56
YEAR	3.79	-.48										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 31. SITE ID.--391812076173103 PERMIT NUMBER.--HA-88-1048.
 LOCATION.--Lat 39°18'12", long 76°17'31", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 35 ft; casing diameter 4 in., to 30 ft;
 screen diameter 4 in. from 30 to 35 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from Jan. 12, 1990 to current year.
 DATUM.--Altitude of land surface is 12.72 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.90 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF43. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.55 ft above sea level, March 29 and 30, 1994.
 lowest measured, 0.17 ft above sea level, Sept. 17, 1993.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "--")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.16	1.16	2.89	2.86	5.05	4.87	5.50	4.95	5.93	5.72	5.40	5.26
2	1.17	1.16	3.01	2.89	5.06	4.88	5.62	5.50	5.72	5.63	5.28	5.25
3	1.17	1.16	3.10	3.01	4.88	4.80	5.61	5.52	5.63	5.54	5.32	5.25
4	1.17	1.16	3.10	3.05	4.80	4.71	5.52	5.38	5.54	5.39	5.25	5.09
5	1.23	1.17	3.05	3.00	4.71	4.61	5.38	5.34	5.39	5.31	5.11	5.08
6	1.31	1.23	3.00	2.99	4.61	4.58	5.48	5.37	5.31	5.25	5.20	5.11
7	1.34	1.31	3.09	2.99	4.58	4.52	5.45	5.28	5.25	5.22	5.37	5.20
8	1.34	1.34	3.17	3.09	4.52	4.36	5.28	5.22	5.36	5.23	5.64	5.37
9	1.34	1.32	3.17	3.10	4.40	4.35	5.22	5.06	5.61	5.36	5.64	5.57
10	1.32	1.31	3.10	3.07	4.41	4.40	5.15	5.05	5.83	5.61	5.57	5.45
11	1.31	1.30	3.19	3.07	4.41	4.25	5.24	5.15	5.95	5.83	5.48	5.45
12	1.31	1.30	3.57	3.19	4.25	4.16	5.24	5.22	5.95	5.78	5.57	5.48
13	1.31	1.29	3.74	3.57	4.25	4.16	5.23	5.21	5.78	5.59	5.58	5.55
14	1.40	1.29	4.07	3.74	4.29	4.25	5.21	5.14	5.61	5.58	5.55	5.50
15	1.74	1.40	4.54	4.07	4.79	4.29	5.25	5.15	5.60	5.49	5.52	5.49
16	1.81	1.74	4.59	4.54	5.00	4.79	5.35	5.25	5.49	5.46	5.52	5.43
17	1.81	1.80	4.59	4.52	5.14	5.00	5.86	5.35	5.46	5.40	5.43	5.34
18	1.80	1.80	4.52	4.50	5.43	5.14	6.06	5.86	5.40	5.29	5.34	5.26
19	1.83	1.80	4.51	4.47	5.45	5.43	6.07	6.06	5.29	5.17	5.32	5.24
20	1.87	1.83	4.47	4.42	5.44	5.39	6.06	5.98	5.30	5.17	5.72	5.32
21	2.15	1.87	4.43	4.42	5.39	5.27	5.98	5.95	5.78	5.30	5.78	5.72
22	2.32	2.15	4.45	4.38	5.27	5.24	6.03	5.94	5.97	5.78	5.76	5.62
23	2.35	2.32	4.38	4.29	5.24	5.24	6.06	6.00	6.06	5.97	5.62	5.44
24	2.39	2.35	4.29	4.28	5.24	5.23	6.00	5.89	6.10	6.06	5.44	5.24
25	2.39	2.39	4.31	4.28	5.23	5.12	6.04	5.88	6.07	5.91	5.24	5.20
26	2.39	2.38	4.33	4.31	5.12	4.97	6.15	6.04	5.91	5.73	5.20	5.11
27	2.42	2.38	4.35	4.33	4.97	4.83	6.14	6.06	5.73	5.64	5.11	4.94
28	2.76	2.42	4.35	4.25	4.83	4.78	---	---	5.66	5.64	4.97	4.90
29	2.86	2.76	4.60	4.24	4.81	4.78	---	---	5.64	5.40	5.60	4.97
30	2.87	2.86	4.87	4.60	4.85	4.81	---	---	---	---	5.86	5.60
31	2.86	2.86	---	---	4.95	4.85	6.03	5.93	---	---	5.91	5.86
MONTH	2.87	1.16	4.87	2.86	5.45	4.16	6.15	4.95	6.10	5.17	5.91	4.90

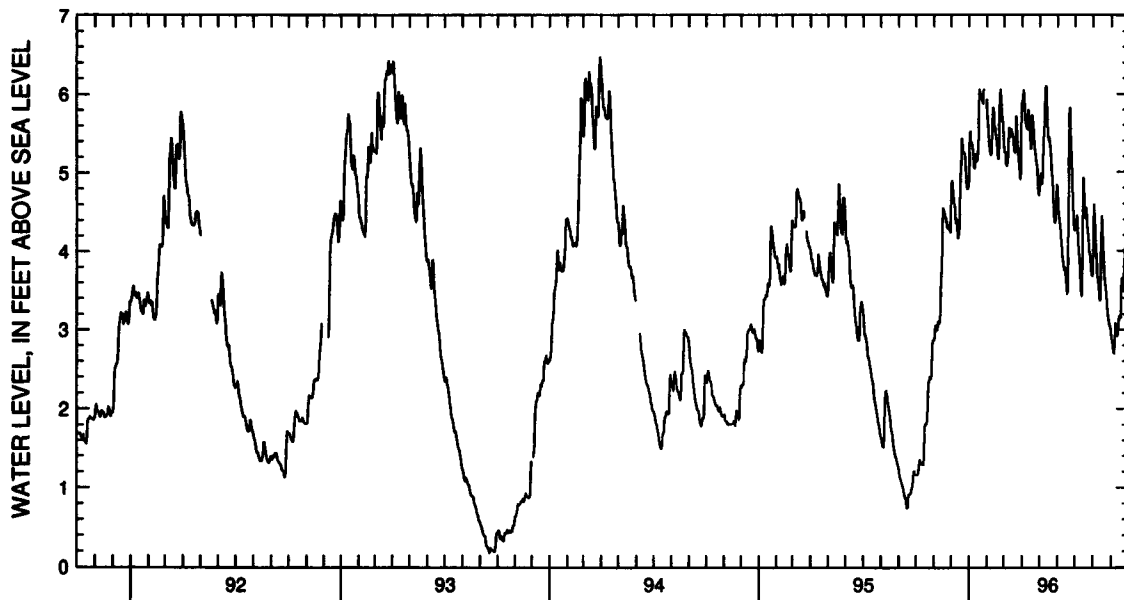
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 31--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.93	5.90	5.00	4.85	4.82	4.63	4.39	4.34	4.59	4.10	2.97	2.91
2	6.07	5.93	5.01	4.98	4.63	4.49	4.38	4.32	4.63	4.59	2.91	2.85
3	6.07	6.05	4.98	4.90	4.49	4.42	4.50	4.32	4.60	4.43	2.85	2.80
4	6.06	5.98	4.90	4.85	4.42	4.35	4.52	4.45	4.43	4.24	2.80	2.76
5	5.98	5.78	5.05	4.85	4.35	4.29	4.45	4.27	4.24	4.08	2.76	2.71
6	5.78	5.63	5.42	5.05	4.29	4.18	4.27	4.10	4.08	3.95	2.80	2.70
7	5.63	5.61	5.46	5.42	4.18	4.12	4.10	3.99	3.95	3.80	3.10	2.80
8	5.61	5.56	5.63	5.46	4.12	4.04	3.99	3.92	3.80	3.68	3.10	3.08
9	5.61	5.55	5.95	5.63	4.04	3.92	3.92	3.81	3.68	3.62	3.08	3.03
10	5.81	5.61	6.10	5.95	3.92	3.86	3.81	3.61	3.62	3.55	3.03	2.94
11	5.82	5.80	6.13	6.10	3.86	3.80	3.61	3.47	3.55	3.42	2.94	2.91
12	5.80	5.71	6.15	6.10	3.80	3.75	3.47	3.43	3.42	3.37	3.01	2.94
13	5.71	5.58	6.10	5.86	3.84	3.75	4.42	3.44	4.06	3.37	3.14	3.01
14	5.58	5.43	5.86	5.60	3.84	3.79	4.93	4.42	4.44	4.06	3.22	3.14
15	5.43	5.29	5.60	5.43	3.79	3.67	4.97	4.93	4.47	4.44	3.22	3.18
16	5.71	5.29	5.45	5.41	3.67	3.52	4.96	4.78	4.45	4.34	3.18	3.13
17	5.83	5.71	5.47	5.45	3.52	3.46	4.78	4.57	4.34	4.18	3.56	3.15
18	5.83	5.73	5.45	5.37	4.25	3.47	4.57	4.43	4.18	4.01	3.70	3.56
19	5.73	5.64	5.37	5.28	5.18	4.25	4.55	4.42	4.01	3.83	3.70	3.66
20	5.64	5.55	5.28	5.17	5.75	5.18	4.61	4.55	3.83	3.69	3.66	3.55
21	5.55	5.41	5.17	5.01	5.94	5.75	4.58	4.40	3.69	3.61	3.55	3.49
22	5.41	5.29	5.01	4.95	5.94	5.83	4.40	4.25	3.61	3.54	3.80	3.48
23	5.29	5.25	4.95	4.82	5.83	5.52	4.25	4.20	3.54	3.46	4.04	3.80
24	5.25	5.16	4.82	4.64	5.52	5.24	4.20	4.09	3.46	3.36	4.04	4.04
25	5.16	5.10	4.64	4.46	5.24	5.14	4.09	3.97	3.36	3.25	4.04	3.96
26	5.10	5.08	4.46	4.37	5.14	4.86	3.98	3.96	3.25	3.18	3.96	3.81
27	5.08	4.88	4.40	4.35	4.86	4.62	3.98	3.90	3.18	3.13	3.81	3.74
28	4.88	4.72	4.65	4.40	4.62	4.43	3.90	3.76	3.13	3.08	3.76	3.74
29	4.76	4.71	4.83	4.65	4.43	4.27	3.76	3.69	3.08	3.04	3.94	3.76
30	4.85	4.76	4.95	4.83	4.34	4.26	3.70	3.68	3.04	3.04	3.98	3.94
31	---	---	4.95	4.82	---	---	4.10	3.70	3.04	2.97	---	---
MONTH	6.07	4.71	6.15	4.35	5.94	3.46	4.97	3.43	4.63	2.97	4.04	2.70
YEAR	6.15	1.16										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 32. SITE ID.--391809076174301 PERMIT NUMBER.--HA-88-1037.
 LOCATION.--Lat 39°18'09", long 76°17'43", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, confined aquifer well, depth 90 ft; casing diameter 4 in.,
 to 85 ft; screen diameter 4 in. from 85 to 90 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from Dec. 21, 1989 to current year.
 DATUM.--Altitude of land surface is 7.42 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.75 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF11. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--December 1989 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.78 ft above sea level, Sept. 7, 1996;
 lowest measured, 1.18 ft below sea level, Feb. 2, 1993.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.81	1.01	1.02	.37	1.98	.87	1.16	.34	1.40	.21	1.05	.09
2	1.83	.90	1.46	.78	.87	-.05	1.49	.70	.94	.23	1.45	.77
3	1.64	.99	1.39	.58	1.14	.18	1.99	1.07	.34	-.41	1.75	.08
4	1.99	.97	.58	-.06	.98	.31	1.16	.51	.55	-.09	.57	-.27
5	1.95	.97	.97	.13	1.30	.37	1.16	.67	1.09	.03	.68	.19
6	2.45	1.12	1.04	.25	1.04	.46	.68	.06	.94	.11	.56	.04
7	1.66	1.01	2.04	.63	.92	.36	.36	-.30	1.13	.23	.89	-.05
8	1.50	.76	1.49	.40	.94	-.01	.49	-.10	1.14	.61	.61	-.17
9	---	---	.77	-.07	1.02	.44	1.75	.33	.96	.19	.09	-.37
10	1.70	.94	1.48	.43	.84	.05	1.56	.59	1.04	.28	.02	-.51
11	1.59	.88	2.43	.88	.84	-.42	1.19	.22	1.13	.44	.39	-.34
12	1.55	.87	2.16	.14	.35	-.49	1.83	.83	.75	-.08	.82	.15
13	1.48	.72	.98	.31	.70	-.10	1.78	.74	.73	-.44	1.48	.68
14	1.92	1.00	1.10	.29	1.18	.10	1.61	.87	1.40	.30	1.45	.59
15	1.92	.53	1.88	1.10	1.18	.43	1.25	.19	1.11	.04	1.61	.65
16	1.22	.27	1.19	.36	.90	.40	.95	.00	1.21	-.28	1.31	.51
17	.56	-.09	.84	.32	.77	.39	1.51	.53	.99	-.33	1.42	.61
18	.84	.40	1.42	.61	1.30	.49	1.18	.24	1.27	.33	1.38	.63
19	1.06	.58	1.19	.31	1.07	.33	2.43	.74	.94	.20	1.79	.59
20	1.42	.61	1.49	.29	.90	.28	1.31	.13	1.30	.21	2.92	1.54
21	2.03	1.04	1.55	.89	1.26	.20	1.44	.58	1.28	.50	1.91	1.01
22	1.59	.84	1.10	.40	.55	-.30	1.73	.64	1.21	.49	1.51	.80
23	1.30	.53	1.57	.53	.76	-.35	1.74	.96	1.21	.52	1.24	.42
24	1.78	.77	.97	.07	.93	.19	2.05	1.10	1.40	.74	.83	.20
25	1.44	.26	1.07	.25	1.25	.30	1.63	.25	1.00	.22	1.31	.54
26	1.52	.57	1.76	.51	1.16	-.08	1.11	.37	.58	-.08	1.31	.26
27	2.20	.86	1.73	.95	.49	-.09	2.41	.91	1.19	.18	.57	-.15
28	2.20	1.07	1.73	.30	.55	-.32	1.55	.23	1.52	.51	1.04	.53
29	1.44	.30	.61	-.23	.65	.06	1.02	.20	.54	-.03	.74	.21
30	.86	.19	1.19	-.11	.93	.27	---	---	---	---	1.54	.34
31	.97	.28	---	---	.88	.13	1.14	.21	---	---	1.45	.84
MONTH	2.45	-.09	2.43	-.23	1.98	-.49	2.43	-.30	1.52	-.44	2.92	-.51

GROUND-WATER LEVELS

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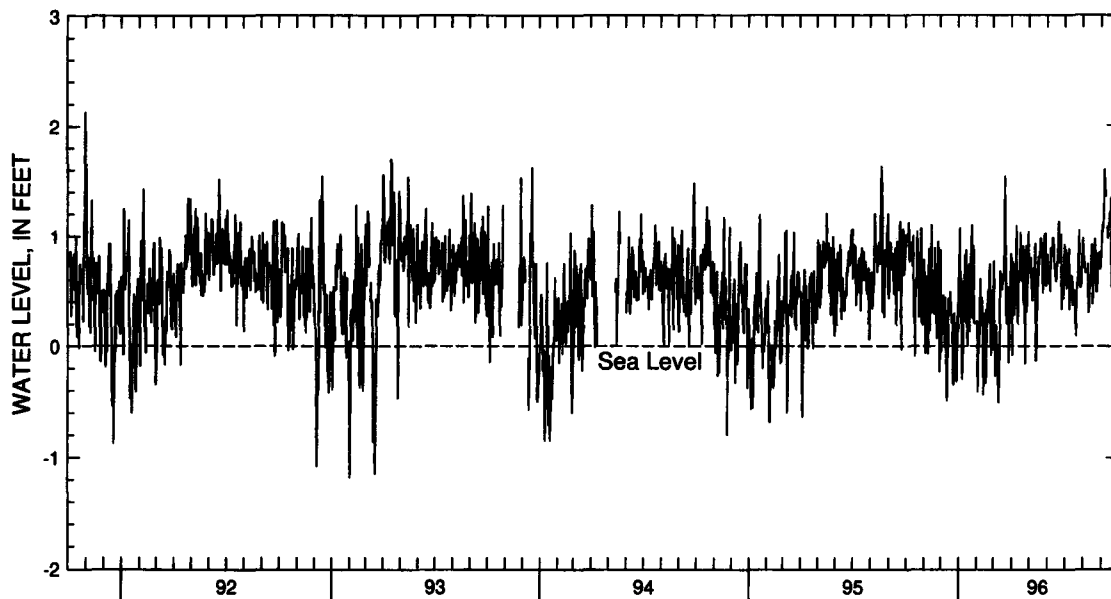
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 32--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.46	.79	1.35	.72	1.75	.83	2.01	.81	1.81	.98	1.56	.83
2	.84	-.08	1.63	.68	1.69	.76	1.84	.73	1.55	.72	2.04	1.03
3	1.74	.30	1.55	.66	1.56	.58	1.79	.87	1.53	.81	2.04	1.10
4	1.66	.76	1.60	.80	1.78	.57	1.26	.52	1.50	.70	2.00	1.03
5	1.39	.31	1.35	.56	1.61	.63	1.35	.62	1.54	.66	2.06	1.17
6	1.35	.28	1.70	.51	1.38	.49	1.42	.69	1.47	.66	3.76	1.60
7	1.40	.61	1.52	.41	1.62	.89	1.50	.72	---	---	3.78	1.47
8	1.76	.65	1.46	.58	1.64	.88	1.60	.88	---	---	1.98	1.38
9	2.20	1.09	1.53	.71	1.57	.81	1.66	.33	1.64	.74	2.21	1.35
10	1.25	.56	1.51	.69	1.59	.98	1.47	.45	1.28	.33	---	---
11	1.36	.39	1.61	.93	1.73	.98	1.26	.52	.98	.30	1.74	1.08
12	1.07	.20	1.28	-.13	1.74	.89	1.30	.64	1.56	.38	1.70	.97
13	1.31	.60	.50	-.13	1.65	.72	1.89	.62	1.62	.58	2.25	1.08
14	1.44	.67	.95	.19	1.55	.70	1.11	.56	1.72	.60	1.86	1.07
15	1.72	.67	1.38	.35	1.43	.63	1.68	.37	1.61	.90	1.90	1.20
16	2.58	1.03	1.71	.81	1.34	.58	1.21	.41	1.60	.92	2.07	1.17
17	1.62	.64	1.30	.64	1.56	.70	1.33	.51	1.55	.84	2.13	1.34
18	1.40	.59	1.68	.81	1.55	.76	1.27	.42	1.45	.38	1.56	.53
19	1.61	.74	1.61	.82	1.71	.83	1.69	.38	1.36	.55	1.66	.86
20	1.74	.91	1.74	.97	1.85	1.13	1.25	.09	1.59	.88	1.88	1.09
21	1.44	.49	1.76	.98	1.52	.75	.96	.36	1.76	.97	1.96	1.21
22	1.24	.38	1.44	.81	---	---	1.35	.57	1.68	.80	2.28	1.15
23	1.59	.87	1.44	.86	---	---	1.50	.61	1.62	.85	1.78	.58
24	.97	-.16	1.50	.66	1.94	1.01	1.36	.93	1.73	.49	2.25	.80
25	1.46	.64	1.36	.48	1.97	.61	1.74	1.05	1.33	.49	2.05	.98
26	1.66	.91	1.44	.92	1.23	.33	1.89	.57	1.66	.74	1.78	.98
27	1.00	.31	1.45	1.01	---	---	1.44	.53	1.74	.84	2.23	1.20
28	1.36	.53	1.76	1.01	1.43	.43	1.46	.53	1.64	.74	2.48	1.58
29	1.61	1.04	1.70	1.02	1.51	.43	1.64	.57	1.75	.85	2.05	.81
30	1.57	.81	1.62	.54	2.15	.92	1.85	.78	1.61	.69	1.57	.82
31	---	---	1.48	.56	---	---	1.87	.92	1.63	.72	---	---
MONTH	2.58	-.16	1.76	-.13	2.15	.33	2.01	.09	1.81	.30	3.78	.53
YEAR	3.78	-.51										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 34. SITE ID.--391809076174303 PERMIT NUMBER.--HA-88-1039.

LOCATION.--Lat 39°18'09", long 76°17'43", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25.5 ft; casing diameter 4 in., to 20.5 ft; screen diameter 4 in. from 20.5 to 25.5 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--15-minute recorder interval from Dec. 21, 1989 to current year.

DATUM.--Altitude of land surface is 7.18 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.95 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well JF13. Missing data due to recorder malfunction.

PERIOD OF RECORD.--December 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.38 ft above sea level, April 1, 1993; lowest measured, 0.40 ft below sea level, Sept. 11 and 12, 1993.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
(READINGS BELOW SEA LEVEL INDICATED BY "--")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	.56	.43	1.04	.86	2.91	2.36	2.68	2.47	3.54	3.30	3.11	2.88
2	.60	.41	1.29	1.02	2.71	2.12	3.13	2.67	3.52	3.27	3.35	3.11
3	.53	.43	1.29	1.14	2.40	2.12	3.56	3.13	3.27	2.89	3.47	2.99
4	.65	.46	1.14	.81	2.37	2.21	3.53	3.11	2.94	2.83	2.99	2.62
5	.76	.48	1.02	.82	2.41	2.17	3.20	3.12	3.09	2.84	2.91	2.78
6	.93	.63	1.08	.92	2.41	2.22	3.15	2.79	3.10	2.89	2.91	2.82
7	.66	.56	1.57	1.06	2.28	2.15	2.89	2.80	3.09	2.87	3.28	2.79
8	.61	.46	1.52	1.05	2.20	1.90	2.88	2.66	3.22	3.08	3.30	3.11
9	.63	.48	1.10	.80	2.24	2.12	3.21	2.68	3.24	3.17	3.11	2.97
10	.66	.52	1.33	.94	2.24	1.97	3.21	2.83	3.53	3.24	2.97	2.83
11	.66	.51	1.77	1.28	2.14	1.76	2.83	2.61	3.63	3.49	3.04	2.89
12	.64	.50	1.77	1.25	1.76	1.66	3.22	2.78	3.49	3.11	3.26	3.04
13	.60	.40	1.49	1.30	1.94	1.75	3.25	2.94	3.11	2.92	3.49	3.22
14	.87	.54	1.75	1.43	2.22	1.91	3.14	2.95	3.51	3.10	3.44	3.28
15	.89	.47	2.27	1.75	2.26	2.09	3.08	2.68	3.28	3.02	3.53	3.31
16	.62	.36	2.15	1.85	2.47	2.10	2.81	2.56	3.28	2.96	3.43	3.18
17	.37	.18	1.90	1.81	2.57	2.47	3.09	2.80	3.05	2.75	3.27	3.15
18	.46	.24	2.15	1.87	2.80	2.56	3.15	2.86	3.17	2.97	3.23	3.12
19	.56	.46	2.11	1.84	2.91	2.69	4.17	3.15	2.97	2.82	3.53	3.10
20	.73	.51	2.14	1.81	2.87	2.78	4.05	3.52	3.32	2.85	4.17	3.53
21	1.02	.73	2.21	2.12	2.92	2.70	3.79	3.68	3.69	3.32	4.00	3.67
22	.99	.84	---	---	2.89	2.44	3.84	3.64	3.73	3.62	3.67	3.48
23	.93	.75	2.16	1.90	2.57	2.36	3.90	3.76	3.78	3.67	3.48	3.16
24	1.08	.82	2.15	1.74	2.69	2.56	4.11	3.87	3.87	3.71	3.16	2.97
25	1.06	.67	1.98	1.80	2.81	2.61	4.05	3.45	3.71	3.39	3.26	2.99
26	.96	.75	2.25	1.94	2.83	2.46	3.57	3.44	3.39	3.17	3.28	2.88
27	1.32	.90	2.29	2.17	2.47	2.34	4.32	3.52	3.44	3.15	2.88	2.62
28	1.36	1.20	2.31	1.87	2.34	2.22	4.25	3.61	3.62	3.38	3.08	2.64
29	1.23	.90	2.01	1.82	2.38	2.28	3.75	3.56	3.38	2.92	3.45	3.08
30	.95	.78	2.36	2.01	2.53	2.36	3.82	3.61	---	---	3.93	3.45
31	.95	.85	---	---	2.54	2.38	3.80	3.39	---	---	3.89	3.81
MONTH	1.36	.18	2.36	.80	2.92	1.66	4.32	2.47	3.87	2.75	4.17	2.62

GROUND-WATER LEVELS

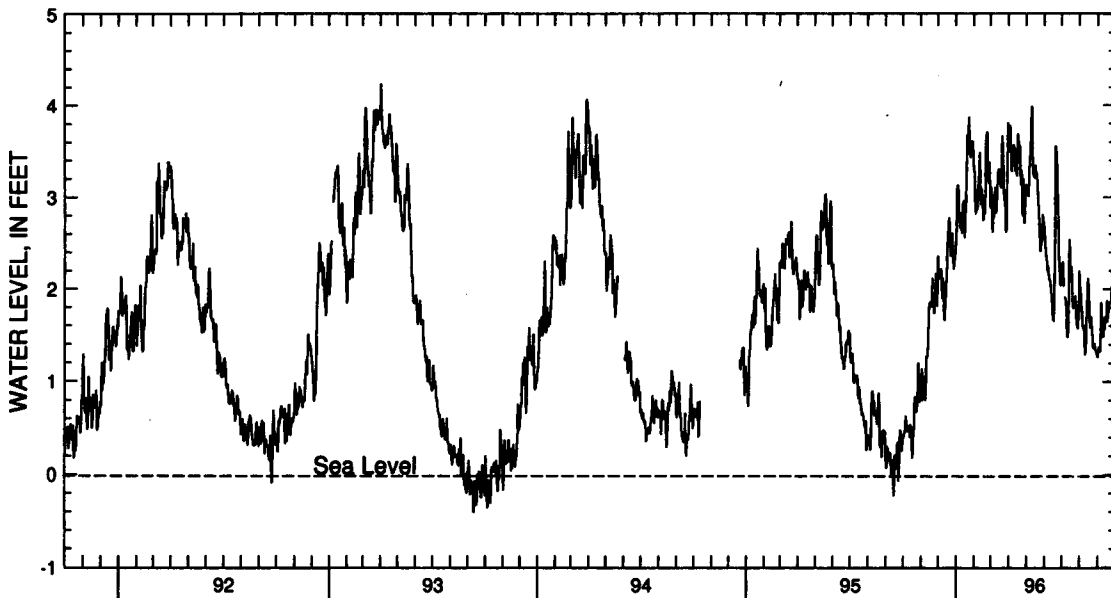
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 34--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.89	3.75	3.26	3.13	2.85	2.62	2.60	2.26	2.37	2.20	1.42	1.26
2	3.89	3.58	3.33	3.12	2.73	2.52	2.41	2.19	2.28	2.03	1.48	1.33
3	4.06	3.58	3.20	3.06	2.60	2.42	2.50	2.30	2.14	1.99	1.56	1.37
4	4.05	3.78	3.18	3.06	2.60	2.35	2.30	2.03	2.06	1.83	1.47	1.32
5	3.78	3.34	3.34	3.01	2.59	2.30	---	---	1.97	1.75	1.58	1.32
6	3.53	3.28	3.70	3.34	2.30	2.19	2.03	1.92	1.87	1.64	2.51	1.33
7	3.55	3.41	3.63	3.34	2.39	2.26	2.06	1.90	1.79	1.59	2.61	1.86
8	3.57	3.35	3.72	3.58	2.40	2.19	2.06	1.90	1.78	1.60	1.87	1.76
9	3.83	3.57	4.03	3.61	2.29	2.11	2.05	1.79	1.78	1.60	1.91	1.66
10	3.70	3.55	4.10	3.94	2.25	2.11	1.87	1.49	1.66	1.31	1.72	1.52
11	3.66	3.45	4.10	3.99	2.26	2.08	1.65	1.48	1.40	1.29	1.64	1.48
12	3.45	3.28	3.99	3.43	2.23	2.02	1.67	1.48	1.62	1.36	1.69	1.57
13	3.45	3.32	3.43	3.25	2.18	1.94	2.70	1.66	2.00	1.62	1.99	1.57
14	3.46	3.26	3.36	3.23	2.08	1.87	2.62	2.53	2.29	1.95	1.99	1.70
15	3.52	3.23	3.40	3.22	1.95	1.76	2.79	2.54	2.29	2.12	1.85	1.68
16	4.09	3.52	3.58	3.35	1.82	1.67	2.73	2.26	2.18	2.08	1.88	1.64
17	3.98	3.69	3.51	3.28	1.98	1.66	2.36	2.18	2.15	1.96	2.16	1.88
18	3.70	3.58	3.42	3.27	2.54	1.98	2.24	2.08	2.01	1.81	2.06	1.65
19	3.71	3.56	3.34	3.22	3.56	2.54	2.48	2.24	1.86	1.58	1.88	1.72
20	3.70	3.56	3.29	3.13	3.81	3.56	2.45	1.88	1.77	1.65	1.88	1.79
21	3.66	3.25	3.19	3.00	3.78	3.51	1.93	1.79	1.86	1.70	1.98	1.83
22	3.30	3.13	3.00	2.88	3.53	3.46	1.99	1.84	1.83	1.58	2.28	1.86
23	3.46	3.29	2.90	2.76	3.54	3.04	2.13	1.91	1.74	1.55	2.26	1.86
24	3.38	2.80	2.81	2.56	3.11	3.03	2.01	1.91	1.73	1.37	2.37	1.86
25	3.29	2.84	2.56	2.41	3.24	2.70	2.09	1.93	1.49	1.36	2.35	2.03
26	3.42	3.20	2.58	2.48	2.70	2.36	2.15	1.74	1.57	1.36	2.07	1.96
27	3.20	2.72	2.60	2.50	2.54	2.23	1.87	1.62	1.58	1.41	2.27	2.01
28	2.98	2.72	2.90	2.59	2.40	2.06	1.78	1.59	1.52	1.36	2.43	2.20
29	3.20	2.95	3.01	2.81	2.33	2.05	1.80	1.57	1.56	1.33	2.43	1.99
30	3.22	3.10	3.09	2.74	2.58	2.27	1.93	1.69	1.56	1.32	2.08	1.90
31	---	---	2.86	2.71	---	---	2.21	1.83	1.43	1.28	---	---
MONTH	4.09	2.72	4.10	2.41	3.81	1.66	2.79	1.48	2.37	1.28	2.61	1.26
YEAR	4.32	.18										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 35. SITE ID.--391809076174601 PERMIT NUMBER.--HA-88-1040.
 LOCATION.--Lat 39°18'09", long 76°17'46", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, confined aquifer well, depth 71 ft; casing diameter 4 in., to 68 ft;
 screen diameter 4 in. from 68 to 71 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from Dec. 21, 1989 to June 6, 1996.
 DATUM.--Altitude of land surface is 2.99 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.92 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF21. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--December 1989 to June 1996.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.89 ft above sea level, March 20, 1996;
 lowest measured, 1.09 ft below sea level, March 18, 1993 and Oct. 17, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	.80	.00	.27	-.64	1.96	.87	1.15	.32	1.38	.20	1.02	.11
2	.82	-.11	.44	-.16	.87	-.06	1.47	.68	.93	.15	1.42	.75
3	.63	-.02	.38	-.54	1.13	.16	1.97	1.04	.32	-.42	1.74	-.02
4	.98	-.03	-.47	-1.07	.98	.29	1.14	.50	.54	-.09	.54	-.28
5	.95	.06	-.03	-.89	1.28	.35	1.15	.65	1.08	.02	.67	.12
6	1.43	.03	.03	-.78	1.03	.43	.68	.04	.90	.09	.54	.02
7	.65	.00	1.02	-.62	.91	.34	.35	-.30	1.11	.21	.88	-.06
8	.49	-.24	-.12	-1.07	.94	-.02	.48	-.11	1.13	.59	.52	-.19
9	.64	-.12	.02	-1.08	1.01	.42	1.74	.31	.89	.18	.07	-.39
10	.69	-.07	1.49	-.15	.83	.04	1.54	.57	1.03	.26	.01	-.53
11	.58	-.13	.17	-.87	.83	-.43	1.18	.20	1.12	.42	.39	-.36
12	.49	-.14	.01	-.73	.34	-.50	1.81	.82	.74	-.09	.86	.12
13	.47	-.29	.85	.01	.69	-.10	1.76	.73	.80	-.45	1.46	.66
14	.91	-.01	.17	-.66	1.16	.09	1.60	.86	1.39	.27	1.42	.55
15	.91	-.49	-.15	-.70	1.16	.41	1.23	.17	1.09	.02	1.59	.62
16	.21	-.76	.40	-.29	.90	.38	.95	-.01	1.19	-.31	1.28	.49
17	-.44	-1.09	.18	-.73	.76	.36	1.49	.52	.98	-.34	1.39	.58
18	.05	-.61	.47	-.44	1.29	.47	1.17	.21	1.25	.29	1.35	.59
19	.07	-.44	.53	-.36	1.06	.31	2.40	.73	.94	.18	1.83	.55
20	.82	-.33	---	---	.89	.26	1.29	.12	1.28	.19	2.89	1.43
21	1.01	-.04	---	---	1.24	.19	1.43	.56	1.26	.48	1.89	.99
22	.59	-.18	---	---	.53	-.31	1.72	.63	1.19	.47	1.49	.77
23	.29	-.48	1.55	.50	.75	-.36	1.73	.94	1.19	.49	1.22	.39
24	.77	-.14	.95	.05	.92	.17	2.04	1.08	1.41	.72	.82	.17
25	.17	-.76	1.06	.22	1.24	.28	1.61	.24	.98	.18	1.28	.51
26	.52	-.44	1.75	.50	1.14	-.09	1.09	.35	.56	-.10	1.28	.23
27	1.18	-.15	1.71	.93	.48	-.10	2.37	.89	1.22	.15	.63	-.17
28	.79	-.06	1.71	.27	.53	-.33	1.52	.21	1.49	.45	1.01	.50
29	.02	-.72	.60	-.23	.64	.05	1.01	.18	.51	-.03	.72	.18
30	-.03	-.84	1.18	-.12	.93	.25	1.40	.46	---	---	1.51	.40
31	-.11	-.74	---	---	.87	.11	1.13	.20	---	---	1.41	.81
MONTH	1.43	-1.09	1.75	-1.08	1.96	-.50	2.40	-.30	1.49	-.45	2.89	-.53

GROUND-WATER LEVELS

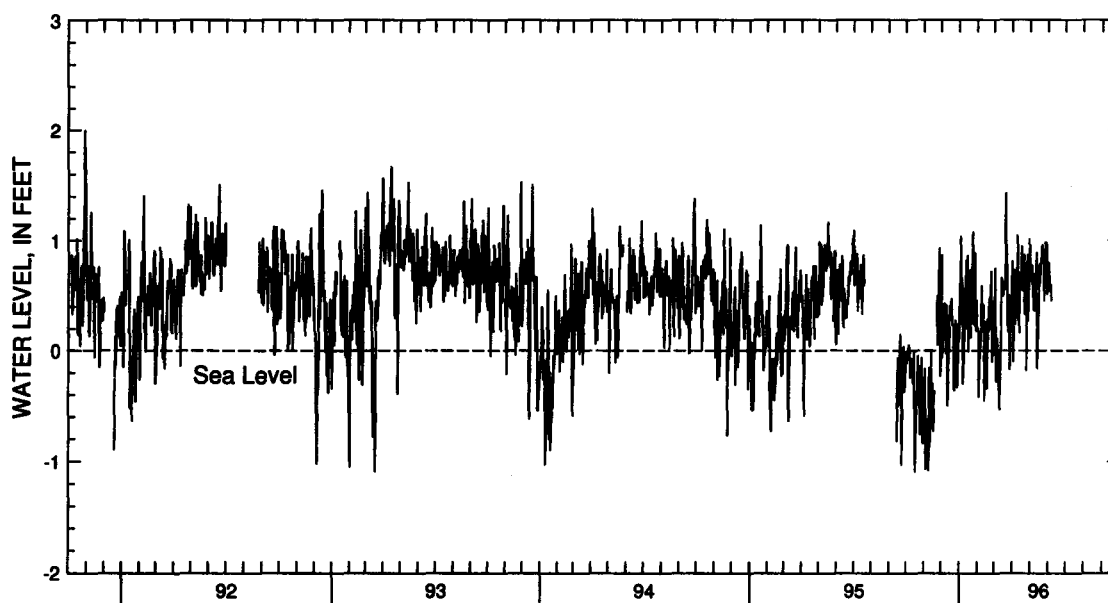
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 35--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.42	.71	1.31	.69	1.73	.80	---	---	---	---	---	---
2	.82	-.10	1.60	.64	1.68	.74	---	---	---	---	---	---
3	1.70	.33	1.52	.62	1.54	.55	---	---	---	---	---	---
4	1.62	.73	1.57	.77	1.77	.54	---	---	---	---	---	---
5	1.35	.27	1.31	.53	1.60	.60	---	---	---	---	---	---
6	1.30	.24	1.67	.47	1.36	.45	---	---	---	---	---	---
7	1.36	.58	1.48	.36	---	---	---	---	---	---	---	---
8	1.73	.61	1.41	.53	---	---	---	---	---	---	---	---
9	2.15	1.05	1.50	.69	---	---	---	---	---	---	---	---
10	1.17	.53	1.49	.67	---	---	---	---	---	---	---	---
11	1.31	.34	1.59	.89	---	---	---	---	---	---	---	---
12	1.03	.16	1.24	-.14	---	---	---	---	---	---	---	---
13	1.28	.56	.47	-.15	---	---	---	---	---	---	---	---
14	1.41	.62	.95	.19	---	---	---	---	---	---	---	---
15	1.72	.70	1.36	.35	---	---	---	---	---	---	---	---
16	2.54	.95	1.69	.78	---	---	---	---	---	---	---	---
17	1.59	.56	1.28	.61	---	---	---	---	---	---	---	---
18	1.37	.54	1.67	.79	---	---	---	---	---	---	---	---
19	1.59	.71	1.60	.80	---	---	---	---	---	---	---	---
20	1.71	.87	1.73	.95	---	---	---	---	---	---	---	---
21	1.40	.44	1.74	.96	---	---	---	---	---	---	---	---
22	1.21	.33	1.42	.79	---	---	---	---	---	---	---	---
23	---	---	1.41	.85	---	---	---	---	---	---	---	---
24	.91	-.18	1.47	.63	---	---	---	---	---	---	---	---
25	1.43	.63	1.35	.45	---	---	---	---	---	---	---	---
26	1.63	.87	1.42	.91	---	---	---	---	---	---	---	---
27	.97	.27	1.43	.98	---	---	---	---	---	---	---	---
28	1.32	.51	1.75	.98	---	---	---	---	---	---	---	---
29	1.58	1.01	1.68	.98	---	---	---	---	---	---	---	---
30	1.54	.77	1.61	.51	---	---	---	---	---	---	---	---
31	---	---	1.46	.55	---	---	---	---	---	---	---	---
MONTH	2.54	-.18	1.75	-.15	1.77	.45	---	---	---	---	---	---
YEAR	2.89	-1.09										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 37. SITE ID.--391809076174603 PERMIT NUMBER.--HA-88-1042.

LOCATION.--Lat 39°18'09", long 76°17'46", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 4 in., to 16 ft; screen diameter 4 in. from 16 to 19 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--15-minute recorder interval from Dec. 21, 1989 to June 6, 1996.

DATUM.--Altitude of land surface is 3.10 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 2.68 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well JF23. Missing data due to recorder malfunction.

PERIOD OF RECORD.--December 1989 to June 1996.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.96 ft above sea level, Jan. 22, 1993; lowest measured, 0.49 ft below sea level, Oct. 5, 1993.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
(READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	.97	.58	1.01	.69	2.67	1.93	2.12	1.68	2.78	2.17	2.33	1.83
2	1.00	.52	1.34	.92	2.13	1.34	2.56	2.01	2.62	2.19	2.66	2.28
3	.86	.59	1.31	.90	1.94	1.36	3.03	2.50	2.19	1.64	2.87	1.97
4	1.08	.61	.90	.40	1.79	1.51	2.81	2.16	2.02	1.73	1.97	1.51
5	1.15	.61	.96	.52	2.01	1.53	2.45	2.26	2.37	1.81	2.04	1.82
6	1.52	.81	1.01	.63	1.91	1.57	2.34	1.77	2.37	1.88	1.96	1.76
7	1.00	.72	1.76	.88	1.73	1.46	2.00	1.61	2.35	1.90	2.43	1.74
8	.92	.54	1.55	.72	1.65	1.13	1.84	1.57	2.42	2.20	2.42	1.94
9	.99	.63	.92	.38	1.77	1.49	2.71	1.78	2.42	2.08	1.95	1.77
10	1.03	.66	1.39	.74	1.74	1.22	2.71	2.01	2.60	2.18	1.90	1.65
11	1.02	.63	2.33	1.15	1.64	.90	2.19	1.72	2.68	2.36	2.04	1.75
12	.98	.61	1.93	.81	1.17	.81	2.73	2.16	2.42	1.89	2.34	2.04
13	.90	.46	1.29	.92	1.47	1.05	2.73	2.13	2.14	1.65	2.80	2.30
14	1.28	.71	1.50	1.02	1.84	1.24	2.58	2.21	2.74	2.14	2.72	2.32
15	1.28	.40	2.19	1.50	1.87	1.48	2.40	1.75	2.43	1.89	2.82	2.36
16	.79	.24	1.85	1.31	1.95	1.54	2.10	1.61	2.54	1.75	2.57	2.22
17	.34	.01	1.52	1.29	1.97	1.81	2.53	1.97	2.25	1.60	2.58	2.24
18	.55	.20	1.93	1.43	2.31	1.90	2.38	1.90	2.48	2.03	2.53	2.22
19	.73	.52	1.82	1.28	2.25	1.87	3.74	2.32	2.18	1.88	2.90	2.17
20	.95	.52	1.93	1.26	2.11	1.91	3.29	2.27	2.61	1.91	3.88	2.90
21	1.35	.89	1.98	1.71	2.32	1.78	2.94	2.59	2.80	2.51	3.19	2.75
22	1.21	.86	1.71	1.28	2.13	1.38	3.10	2.61	2.81	2.52	2.80	2.51
23	1.01	.66	1.92	1.37	1.87	1.33	3.12	2.79	2.84	2.55	2.61	2.15
24	1.33	.82	1.81	1.08	2.02	1.69	3.35	2.88	2.98	2.66	2.20	1.95
25	1.23	.45	1.62	1.21	2.23	1.77	3.22	2.27	2.68	2.21	2.54	2.10
26	1.14	.65	2.09	1.41	2.23	1.47	2.66	2.31	2.23	1.96	2.56	1.90
27	1.65	.90	2.10	1.73	1.63	1.39	3.72	2.52	2.59	2.03	1.90	1.56
28	1.67	1.15	2.08	1.23	1.55	1.22	3.34	2.35	2.87	2.33	2.29	1.78
29	1.27	.63	1.35	1.05	1.70	1.44	2.73	2.31	2.33	1.83	2.40	2.23
30	.86	.50	1.93	1.29	1.93	1.62	2.95	2.45	---	---	3.12	2.29
31	.92	.61	---	---	1.88	1.52	2.81	2.22	---	---	3.02	2.77
MONTH	1.67	.01	2.33	.38	2.67	.81	3.74	1.57	2.98	1.60	3.88	1.51

GROUND-WATER LEVELS

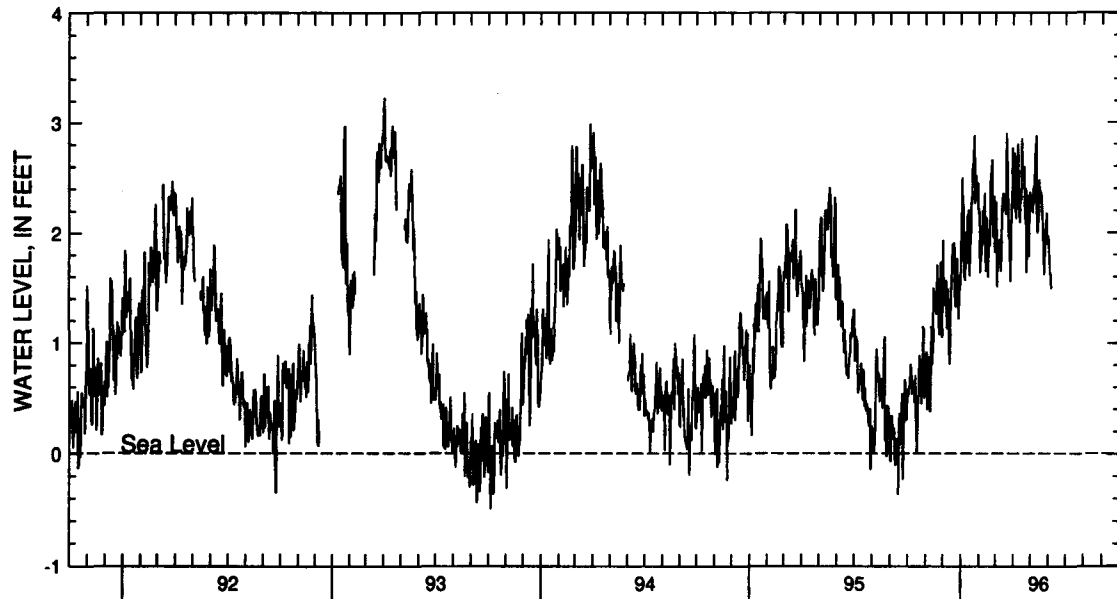
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 37--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.00	2.69	2.59	2.28	2.47	1.97	---	---	---	---	---	---
2	2.85	2.22	2.76	2.28	2.34	1.87	---	---	---	---	---	---
3	3.23	2.30	2.60	2.20	2.17	1.72	---	---	---	---	---	---
4	3.14	2.72	2.62	2.26	2.25	1.63	---	---	---	---	---	---
5	2.84	2.21	2.66	2.18	2.19	1.63	---	---	---	---	---	---
6	2.72	2.13	3.02	2.42	1.84	1.49	---	---	---	---	---	---
7	2.76	2.40	2.92	2.27	---	---	---	---	---	---	---	---
8	2.92	2.37	2.93	2.51	---	---	---	---	---	---	---	---
9	3.26	2.80	3.15	2.70	---	---	---	---	---	---	---	---
10	2.82	2.43	3.17	2.78	---	---	---	---	---	---	---	---
11	2.78	2.28	3.18	2.88	---	---	---	---	---	---	---	---
12	2.49	2.09	2.97	2.05	---	---	---	---	---	---	---	---
13	2.63	2.32	2.25	2.00	---	---	---	---	---	---	---	---
14	2.70	2.31	2.47	2.07	---	---	---	---	---	---	---	---
15	2.85	2.30	2.69	2.17	---	---	---	---	---	---	---	---
16	3.64	2.85	2.93	2.48	---	---	---	---	---	---	---	---
17	3.09	2.59	2.64	2.33	---	---	---	---	---	---	---	---
18	2.84	2.48	2.80	2.38	---	---	---	---	---	---	---	---
19	2.93	2.52	2.70	2.36	---	---	---	---	---	---	---	---
20	2.98	2.60	2.70	2.33	---	---	---	---	---	---	---	---
21	2.85	2.24	2.63	2.21	---	---	---	---	---	---	---	---
22	2.53	2.08	2.38	2.11	---	---	---	---	---	---	---	---
23	2.76	2.40	2.31	2.02	---	---	---	---	---	---	---	---
24	2.54	1.64	2.28	1.81	---	---	---	---	---	---	---	---
25	2.60	1.89	1.94	1.62	---	---	---	---	---	---	---	---
26	2.78	2.34	2.09	1.87	---	---	---	---	---	---	---	---
27	2.34	1.79	2.10	1.93	---	---	---	---	---	---	---	---
28	2.39	1.79	2.45	2.06	---	---	---	---	---	---	---	---
29	2.62	2.26	2.51	2.18	---	---	---	---	---	---	---	---
30	2.64	2.37	2.59	1.91	---	---	---	---	---	---	---	---
31	---	---	2.36	1.90	---	---	---	---	---	---	---	---
MONTH	3.64	1.64	3.18	1.62	2.47	1.49	---	---	---	---	---	---
YEAR	3.88	.01										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 38. SITE ID.--391826076173101. PERMIT NUMBER.--HA-88-1067.

LOCATION.--Lat 39°18'26", long 76°17'31", Hydrologic Unit 02060003, at J-Field, Edgewood Area, Aberdeen Proving Ground.

Owner: U.S. Army.

AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.

WELL CHARACTERISTICS.--Drilled, observation, confined aquifer well, depth 75 ft; casing diameter 4 in., to 72 ft; screen diameter 4 in. from 72 to 75 ft.

INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--15-minute recorder interval from Jan. 17, 1990 to June 6, 1996.

DATUM.--Altitude of land surface is 6.51 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of casing, 3.09 ft above land surface.

REMARKS.--J-Field Remedial Investigation observation well JF111. Missing data due to recorder malfunction.

PERIOD OF RECORD.--January 1990 to June 1996.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.00 ft above sea level, Nov. 1, 1991; lowest measured, 1.12 ft below sea level, Feb. 2, 1993.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
(READINGS BELOW SEA LEVEL INDICATED BY "--")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.77	1.05	.98	.44	1.93	.91	1.12	.41	1.39	.28	1.01	.16
2	1.79	.96	1.40	.90	.91	.01	1.44	.76	.93	.35	1.41	.82
3	1.58	1.05	1.32	.57	1.09	.19	1.97	1.11	.35	-.31	1.72	.21
4	1.95	1.03	.57	.01	.95	.38	1.27	.57	.55	-.01	.54	-.19
5	1.92	1.08	.93	.22	1.23	.43	1.13	.75	1.06	.11	.66	.24
6	2.41	1.10	.99	.31	.99	.50	.79	.12	1.00	.19	.52	.11
7	1.60	1.06	2.01	.69	.87	.40	.43	-.22	1.09	.30	.88	.04
8	1.45	.84	1.36	.45	.90	.05	.48	-.02	1.11	.69	.70	-.09
9	1.59	.95	.72	.01	.97	.48	1.71	.39	.99	.28	.11	-.27
10	1.65	.99	1.43	.48	.84	.10	1.61	.67	1.01	.36	.04	-.40
11	1.55	.94	2.30	.92	.84	-.36	1.16	.28	1.10	.53	.34	-.26
12	1.48	.92	2.11	.22	.32	-.42	1.78	.88	.74	.00	.76	.21
13	1.42	.79	.95	.36	.66	-.03	1.77	.81	.68	-.35	1.45	.74
14	1.89	1.04	1.15	.32	1.12	.16	1.56	.95	1.38	.39	1.40	.62
15	1.89	.55	1.86	1.15	1.13	.47	1.22	.26	1.08	.12	1.56	.74
16	1.19	.33	1.18	.41	.87	.46	.92	.08	1.17	-.15	1.25	.59
17	.55	-.02	.83	.36	.76	.43	1.47	.56	.96	-.25	1.36	.71
18	.82	.45	1.37	.74	1.23	.54	1.12	.32	1.22	.42	1.32	.72
19	1.02	.64	1.16	.35	1.00	.38	2.40	.80	.90	.30	1.78	.70
20	1.36	.71	1.45	.35	.86	.38	1.28	.20	1.22	.29	2.92	1.62
21	2.00	1.02	1.50	.85	1.23	.26	1.37	.69	1.22	.58	1.86	1.08
22	1.53	.90	1.05	.45	.69	-.22	1.70	.74	1.15	.57	1.47	.88
23	1.23	.60	1.50	.60	.71	-.25	1.70	1.04	1.16	.59	1.21	.51
24	1.73	.83	1.07	.13	.89	.27	2.02	1.16	1.40	.79	.82	.29
25	1.31	.34	1.02	.30	1.19	.37	1.65	.33	.97	.29	1.28	.59
26	1.45	.64	1.70	.57	1.16	.01	1.08	.45	.56	.00	1.29	.34
27	2.17	.92	1.70	.98	.48	.00	2.38	.92	1.15	.25	.52	-.07
28	2.17	1.10	1.67	.36	.50	-.23	1.57	.29	1.51	.57	1.03	.52
29	1.34	.39	.59	-.16	.61	.13	1.01	.27	.57	.05	.75	.28
30	.87	.26	1.07	-.04	.89	.33	1.39	.54	---	---	1.52	.36
31	.93	.35	---	---	.84	.19	1.12	.30	---	---	1.40	.90
MONTH	2.41	-.02	2.30	-.16	1.93	-.42	2.40	-.22	1.51	-.35	2.92	-.40

GROUND-WATER LEVELS

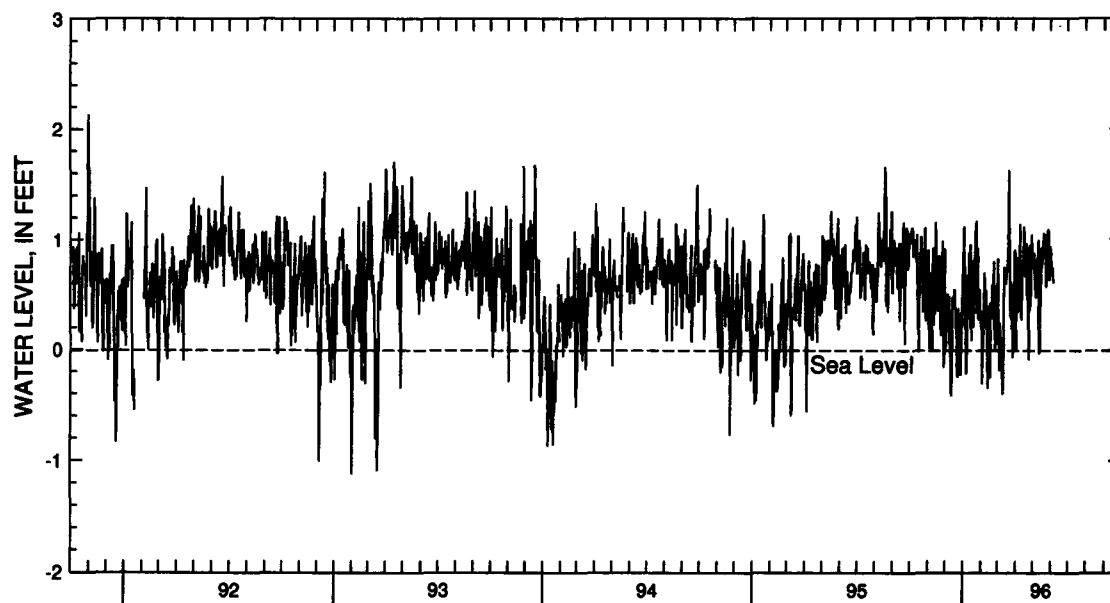
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 38--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.42	.87	1.32	.78	1.74	.93	---	---	---	---	---	---
2	.90	.00	1.59	.78	1.67	.87	---	---	---	---	---	---
3	1.69	.34	1.49	.73	1.51	.70	---	---	---	---	---	---
4	1.59	.83	1.54	.87	1.77	.67	---	---	---	---	---	---
5	1.34	.39	1.29	.64	1.58	.74	---	---	---	---	---	---
6	1.29	.34	1.65	.59	1.35	.60	---	---	---	---	---	---
7	1.35	.71	1.47	.47	---	---	---	---	---	---	---	---
8	1.72	.72	1.46	.67	---	---	---	---	---	---	---	---
9	2.16	1.13	1.50	.79	---	---	---	---	---	---	---	---
10	1.22	.63	1.47	.76	---	---	---	---	---	---	---	---
11	1.33	.46	1.57	.99	---	---	---	---	---	---	---	---
12	1.00	.27	1.23	-.03	---	---	---	---	---	---	---	---
13	1.26	.67	.48	-.02	---	---	---	---	---	---	---	---
14	1.39	.74	.93	.25	---	---	---	---	---	---	---	---
15	1.67	.74	1.34	.43	---	---	---	---	---	---	---	---
16	2.58	1.11	1.68	.92	---	---	---	---	---	---	---	---
17	1.56	.74	1.27	.74	---	---	---	---	---	---	---	---
18	1.35	.66	1.66	.91	---	---	---	---	---	---	---	---
19	1.57	.81	1.58	.90	---	---	---	---	---	---	---	---
20	1.69	.96	1.72	1.05	---	---	---	---	---	---	---	---
21	1.39	.56	1.73	1.04	---	---	---	---	---	---	---	---
22	1.20	.45	1.41	.90	---	---	---	---	---	---	---	---
23	1.53	.92	1.43	.94	---	---	---	---	---	---	---	---
24	1.00	-.09	1.48	.74	---	---	---	---	---	---	---	---
25	1.40	.57	1.31	.56	---	---	---	---	---	---	---	---
26	1.61	.94	1.43	.99	---	---	---	---	---	---	---	---
27	.99	.36	1.42	1.07	---	---	---	---	---	---	---	---
28	1.32	.51	1.76	1.08	---	---	---	---	---	---	---	---
29	1.56	1.04	1.67	1.07	---	---	---	---	---	---	---	---
30	1.55	.89	1.59	.63	---	---	---	---	---	---	---	---
31	---	---	1.46	.63	---	---	---	---	---	---	---	---
MONTH	2.58	-.09	1.76	-.03	1.77	.60	---	---	---	---	---	---
YEAR	2.92	-.42										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 40. SITE ID.--391826076173103 PERMIT NUMBER.--HA-88-1069.
 LOCATION.--Lat 39°18'26", long 76°17'31", Hydrologic Unit 02060003, at J-Field, Edgewood Area,
 Aberdeen Proving Ground.
 Owner: U.S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25 ft; casing diameter 4 in., to 22 ft;
 screen diameter 4 in. from 22 to 25 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from Jan. 17, 1990 to June 6, 1996.
 DATUM.--Altitude of land surface is 6.77 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.52 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well JF113. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1990 to June 1996.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.14 ft above sea level, March 20, 1996;
 lowest measured, 0.67 ft below sea level, Nov. 18, 1993.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.24	.61	1.49	.74	2.67	1.87	---	---	3.00	2.17	2.58	1.93
2	1.06	.50	.78	.41	1.87	1.11	2.72	2.08	2.62	2.17	2.90	2.40
3	1.34	.58	1.10	.46	1.94	1.19	3.29	2.46	2.17	1.73	3.18	2.03
4	1.28	.57	1.55	.54	1.81	1.32	2.78	2.17	2.26	1.84	2.17	1.62
5	1.79	.71	1.95	.74	2.00	1.35	2.61	2.26	2.65	1.89	2.26	1.93
6	1.79	.68	1.07	.42	1.82	1.38	---	---	2.62	1.93	2.21	1.83
7	1.14	.47	1.20	.35	1.68	1.27	---	---	2.63	2.00	2.62	1.85
8	1.13	.57	1.55	1.08	1.65	.96	2.03	1.74	2.66	2.29	2.52	2.00
9	1.17	.59	2.32	.97	1.76	1.29	3.01	1.95	2.64	2.13	2.09	1.89
10	1.07	.54	1.17	.74	1.67	1.08	2.97	2.13	2.78	2.24	2.07	1.73
11	1.04	.51	2.35	.94	1.65	.89	2.49	1.84	2.89	2.40	2.23	1.80
12	.96	.36	1.98	1.08	1.20	.75	3.07	2.26	2.59	1.97	2.57	2.16
13	1.44	.60	---	---	1.48	.93	3.07	2.30	2.34	1.77	3.14	2.55
14	1.44	.42	---	---	1.88	1.07	2.91	2.39	2.97	2.18	3.04	2.43
15	.98	.25	---	---	1.89	1.35	2.65	1.92	2.72	1.97	3.14	2.44
16	.45	-.03	---	---	1.82	1.36	2.41	1.82	2.79	1.88	2.90	2.35
17	.65	.31	---	---	1.89	1.63	2.93	2.13	2.59	1.76	2.93	2.36
18	.83	.48	---	---	2.38	1.79	2.70	2.06	2.82	2.13	2.87	2.34
19	1.07	.49	---	---	2.29	1.71	3.84	2.44	2.50	1.97	3.17	2.28
20	1.55	.89	---	---	2.25	1.89	3.00	2.12	2.85	1.98	4.14	3.17
21	1.46	.89	---	---	2.53	1.77	3.04	2.42	2.93	2.41	3.39	2.73
22	1.19	.63	---	---	2.14	1.54	3.26	2.47	2.94	2.42	3.03	2.55
23	1.58	.82	1.96	1.18	2.08	1.46	3.25	2.69	2.97	2.46	2.80	2.20
24	1.05	.38	1.65	.84	2.26	1.72	3.52	2.79	3.16	2.62	2.43	1.99
25	1.34	.61	1.60	.99	2.51	1.81	3.31	2.24	2.78	2.18	2.77	2.20
26	1.88	.85	2.16	1.22	2.50	1.57	2.77	2.29	2.37	1.95	2.78	1.98
27	1.68	1.19	2.16	1.53	1.84	1.49	3.82	2.58	2.74	2.10	2.02	1.65
28	1.20	.63	2.11	1.00	1.79	1.36	3.25	2.24	3.09	2.37	2.47	1.99
29	1.08	.50	1.18	.72	1.90	1.52	2.77	2.20	2.37	1.92	2.36	2.12
30	1.07	.57	1.91	1.03	2.12	1.66	3.09	2.40	---	---	3.22	2.21
31	1.33	.65	---	---	2.09	1.55	2.87	2.21	---	---	3.10	2.68
MONTH	1.88	-.03	2.35	.35	2.67	.75	3.84	1.74	3.16	1.73	4.14	1.62

GROUND-WATER LEVELS

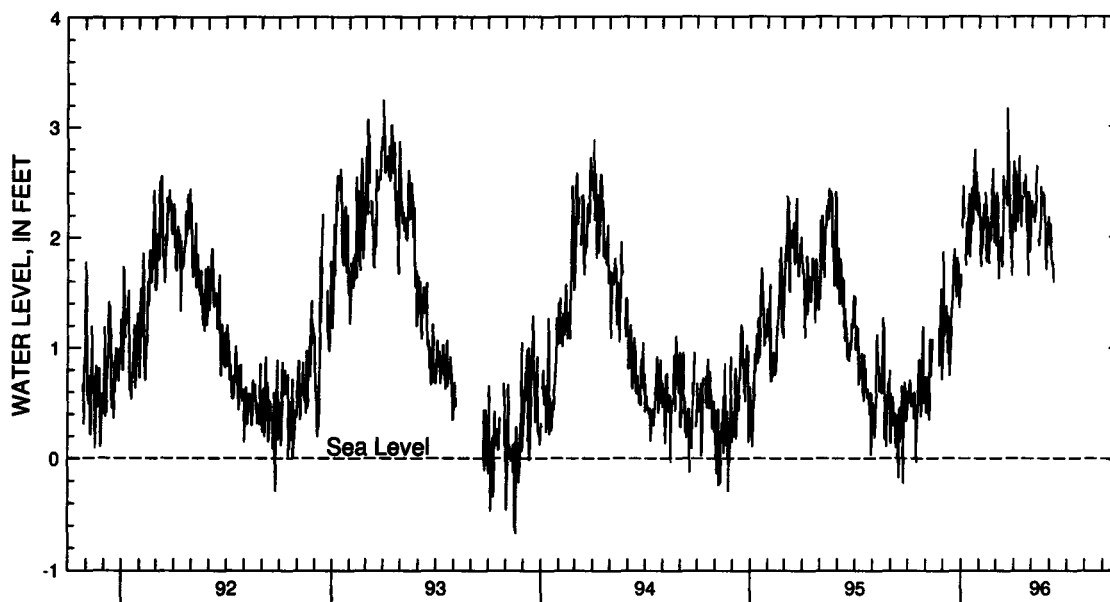
MARYLAND--Continued

HARFORD COUNTY--Continued

HA Fd 40--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.08	2.60	2.72	2.24	2.83	2.12	---	---	---	---	---	---
2	2.72	2.05	2.95	2.28	2.71	1.98	---	---	---	---	---	---
3	3.36	2.26	2.82	2.18	2.50	1.77	---	---	---	---	---	---
4	3.28	2.59	2.84	2.26	2.68	1.74	---	---	---	---	---	---
5	3.01	2.20	2.78	2.13	2.54	1.75	---	---	---	---	---	---
6	2.89	2.13	3.16	2.30	2.19	1.59	---	---	---	---	---	---
7	2.93	2.37	3.06	2.21	---	---	---	---	---	---	---	---
8	3.21	2.40	3.06	2.43	---	---	---	---	---	---	---	---
9	3.54	2.73	3.21	2.64	---	---	---	---	---	---	---	---
10	2.85	2.40	3.21	2.61	---	---	---	---	---	---	---	---
11	2.96	2.24	---	---	---	---	---	---	---	---	---	---
12	2.68	2.09	2.99	1.98	---	---	---	---	---	---	---	---
13	2.85	2.36	2.33	1.92	---	---	---	---	---	---	---	---
14	2.94	2.35	2.64	2.04	---	---	---	---	---	---	---	---
15	2.98	2.34	2.90	2.12	---	---	---	---	---	---	---	---
16	---	---	3.09	2.45	---	---	---	---	---	---	---	---
17	3.15	2.49	2.77	2.29	---	---	---	---	---	---	---	---
18	2.96	2.36	3.05	2.40	---	---	---	---	---	---	---	---
19	3.09	2.45	2.94	2.36	---	---	---	---	---	---	---	---
20	3.16	2.56	2.97	2.40	---	---	---	---	---	---	---	---
21	2.93	2.16	2.91	2.29	---	---	---	---	---	---	---	---
22	2.66	2.05	2.61	2.16	---	---	---	---	---	---	---	---
23	2.92	2.40	2.56	2.12	---	---	---	---	---	---	---	---
24	2.60	1.65	2.54	1.88	---	---	---	---	---	---	---	---
25	2.76	2.09	2.12	1.70	---	---	---	---	---	---	---	---
26	2.96	2.40	2.36	1.96	---	---	---	---	---	---	---	---
27	2.43	1.86	2.32	2.02	---	---	---	---	---	---	---	---
28	2.60	1.90	2.67	2.10	---	---	---	---	---	---	---	---
29	2.77	2.32	2.70	2.18	---	---	---	---	---	---	---	---
30	2.78	2.32	2.77	1.99	---	---	---	---	---	---	---	---
31	---	---	2.66	1.92	---	---	---	---	---	---	---	---
MONTH	3.54	1.65	3.21	1.70	2.83	1.59	---	---	---	---	---	---
YEAR	4.14	-.03										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

WELL NUMBER.--HA Fd 44. SITE ID.--391810076172801. PERMIT NUMBER.--HA-88-1052.
 LOCATION.--Lat 39°18'10", long 76°17'28", Hydrologic Unit 02060003, at J-Field, Edgewood area.
 Owner: U. S. Army.
 AQUIFER.--Talbot Formation of Pleistocene age. Aquifer code: 112TLBT.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 100 ft; casing diameter 4 in., to 95 ft; screen diameter 4 in. from 95 to 100 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from August 8, 1990 to current year.
 DATUM.--Altitude of land surface is 4.29 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform, 6.99 ft above land surface.
 REMARKS.--J-Field Remedial Investigation observation well Jf61.
 PERIOD OF RECORD.--Nov. 16, 1989 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.32 ft above sea level, Sept. 30, 1990; lowest measured, 0.22 ft above sea level, Jan. 21, 1994.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.20	1.12	.79	.76	1.03	.75	.71	.63	1.00	.93	.84	.78
2	1.27	1.20	.90	.77	1.03	.86	.87	.71	.96	.95	.94	.80
3	1.28	1.26	.97	.90	.86	.82	1.05	.87	.95	.76	1.01	.94
4	1.34	1.28	.97	.77	.85	.83	1.05	.97	.76	.65	.97	.77
5	1.41	1.33	.77	.68	.85	.80	.97	.93	.65	.61	.79	.76
6	1.50	1.41	.69	.67	.88	.85	.93	.82	.69	.63	.79	.78
7	1.49	1.43	.98	.69	.88	.87	.82	.81	.78	.69	.79	.75
8	1.43	1.33	1.00	.94	.87	.74	.82	.77	.94	.78	.80	.69
9	1.33	1.27	.94	.76	.81	.74	.84	.76	.97	.94	.69	.53
10	1.27	1.25	.79	.73	.81	.74	.93	.84	.94	.91	.53	.39
11	1.26	1.24	1.06	.79	.76	.69	.92	.86	1.01	.94	.39	.37
12	1.24	1.23	1.10	.98	.69	.49	1.03	.86	.99	.84	.52	.39
13	1.23	1.18	.98	.89	.49	.45	1.09	1.03	.84	.70	.71	.52
14	1.29	1.18	.95	.90	.59	.45	1.13	1.08	.85	.70	.87	.71
15	1.32	1.23	1.10	.95	.67	.59	1.14	1.02	.85	.82	1.02	.87
16	1.23	1.06	1.10	1.02	.73	.67	1.02	.91	.87	.83	1.03	1.02
17	1.06	.81	1.02	.91	.73	.71	.94	.91	.84	.74	1.05	1.02
18	.81	.77	.97	.91	.79	.71	.98	.94	.80	.76	1.09	1.05
19	.80	.77	.99	.96	.91	.79	1.20	.98	.79	.76	1.21	1.09
20	.93	.80	.99	.93	.92	.90	1.20	1.04	.81	.76	1.48	1.21
21	1.11	.93	1.11	.99	.90	.86	1.04	1.02	.90	.81	1.51	1.48
22	1.11	1.10	1.11	1.03	.88	.74	1.06	1.01	.94	.90	1.48	1.39
23	1.11	1.06	1.04	1.01	.74	.61	1.19	1.06	.99	.94	1.39	1.24
24	1.12	1.05	1.04	.92	.63	.61	1.35	1.19	1.05	.99	1.24	1.06
25	1.12	1.06	.92	.87	.69	.63	1.35	1.15	1.05	.99	1.08	1.04
26	1.06	1.03	.96	.87	.73	.69	1.15	1.04	.99	.85	1.09	1.04
27	1.18	1.04	1.11	.96	.71	.63	1.24	1.04	.86	.81	1.04	.83
28	1.30	1.18	1.15	1.08	.63	.50	1.24	1.08	1.00	.86	.89	.83
29	1.30	1.10	1.08	.84	.50	.47	1.08	1.00	.99	.84	.92	.89
30	1.10	.88	.84	.75	.54	.47	1.03	.98	---	---	.97	.88
31	.88	.79	---	---	.63	.54	1.06	1.00	---	---	1.09	.97
MONTH	1.50	.77	1.15	.67	1.03	.45	1.35	.63	1.05	.61	1.51	.37

GROUND-WATER LEVELS

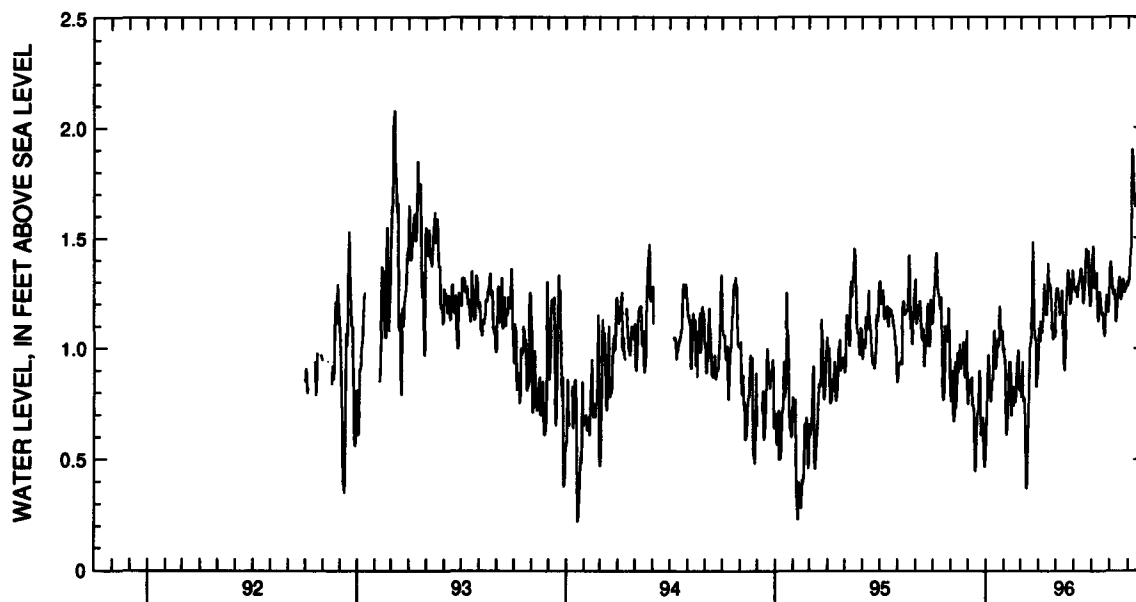
MARYLAND--Continued

HARFORD COUNTY--Continued

HA FD 44--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.19	1.09	1.30	1.26	1.28	1.27	1.43	1.39	1.41	1.36	1.30	1.29
2	1.19	1.05	1.28	1.27	1.27	1.26	1.46	1.42	1.41	1.39	1.34	1.30
3	1.12	1.03	1.27	1.25	1.28	1.26	1.49	1.46	1.39	1.36	1.40	1.34
4	1.19	1.12	1.29	1.27	1.29	1.25	1.48	1.37	1.36	1.31	1.42	1.40
5	1.19	1.12	1.28	1.23	1.30	1.28	1.37	1.28	1.31	1.28	1.46	1.42
6	1.12	1.07	1.27	1.21	1.28	1.23	1.28	1.27	1.28	1.25	1.82	1.46
7	1.14	1.10	1.21	1.15	1.28	1.23	1.29	1.27	1.25	1.24	2.00	1.82
8	1.17	1.12	1.21	1.17	1.31	1.28	1.34	1.29	1.26	1.24	1.98	1.90
9	1.33	1.17	1.22	1.20	1.32	1.30	1.36	1.34	1.30	1.26	1.90	1.85
10	1.34	1.29	1.26	1.22	1.33	1.30	1.34	1.21	1.30	1.21	1.85	1.76
11	1.29	1.25	1.36	1.26	1.36	1.33	1.21	1.13	1.21	1.12	1.76	1.69
12	1.25	1.18	1.35	1.17	1.38	1.36	1.13	1.12	1.17	1.12	1.70	1.64
13	1.18	1.15	1.17	.96	1.38	1.35	1.30	1.13	1.24	1.17	1.69	1.64
14	1.18	1.16	.96	.91	1.35	1.32	1.30	1.25	1.27	1.22	1.69	1.67
15	1.23	1.15	.96	.90	1.32	1.27	1.29	1.25	1.30	1.27	1.67	1.65
16	1.44	1.23	1.13	.96	1.27	1.21	1.29	1.22	1.32	1.30	1.66	1.63
17	1.44	1.38	1.17	1.13	1.24	1.20	1.22	1.18	1.33	1.32	1.73	1.66
18	1.38	1.29	1.24	1.17	1.29	1.24	1.18	1.15	1.33	1.30	1.73	1.57
19	1.29	1.28	1.29	1.24	1.36	1.29	1.27	1.16	1.30	1.23	1.57	1.49
20	1.35	1.29	1.35	1.29	1.46	1.36	1.27	1.16	1.23	1.22	1.49	1.47
21	1.35	1.28	1.39	1.35	1.47	1.45	1.16	1.07	1.29	1.23	1.52	1.47
22	1.28	1.22	1.38	1.34	1.45	1.42	1.07	1.06	1.32	1.29	1.64	1.52
23	1.28	1.22	1.34	1.31	1.45	1.42	1.13	1.07	1.33	1.31	1.65	1.55
24	1.28	1.06	1.31	1.28	1.44	1.41	1.16	1.13	1.34	1.30	1.57	1.52
25	1.11	1.04	1.28	1.20	1.49	1.44	1.24	1.16	1.30	1.25	1.59	1.56
26	1.24	1.11	1.23	1.20	1.45	1.29	1.29	1.24	1.27	1.25	1.56	1.51
27	1.24	1.09	1.26	1.23	1.29	1.24	1.26	1.20	1.28	1.26	1.56	1.50
28	1.09	1.05	1.35	1.26	1.24	1.19	1.20	1.17	1.28	1.27	1.70	1.56
29	1.21	1.07	1.40	1.35	1.22	1.19	1.18	1.16	1.30	1.27	1.71	1.65
30	1.30	1.21	1.40	1.34	1.39	1.22	1.27	1.18	1.31	1.30	1.65	1.53
31	---	---	1.34	1.28	---	---	1.36	1.27	1.30	1.28	---	---
MONTH	1.44	1.03	1.40	.90	1.49	1.19	1.49	1.06	1.41	1.12	2.00	1.29
YEAR	2.00	.37										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

HOWARD COUNTY

WELL NUMBER.--HO Bd 1. SITE ID.--391910076565701.

LOCATION.--Lat 39°19'10", long 76°56'57", Hydrologic Unit 02060006, Slacks Corner near MD Rt. 32 and MD Rt. 99.

Owner: Maryland State Highway Administration.

AQUIFER.--Loch Raven Schist of Paleozoic age. Aquifer code: 300LCRV.

WELL CHARACTERISTICS.--Dug, stone-lined, observation, water-table well, measured depth 48 ft; diameter 60 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 630 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Hole in center of steel plate well cover, 0.40 ft above land surface.

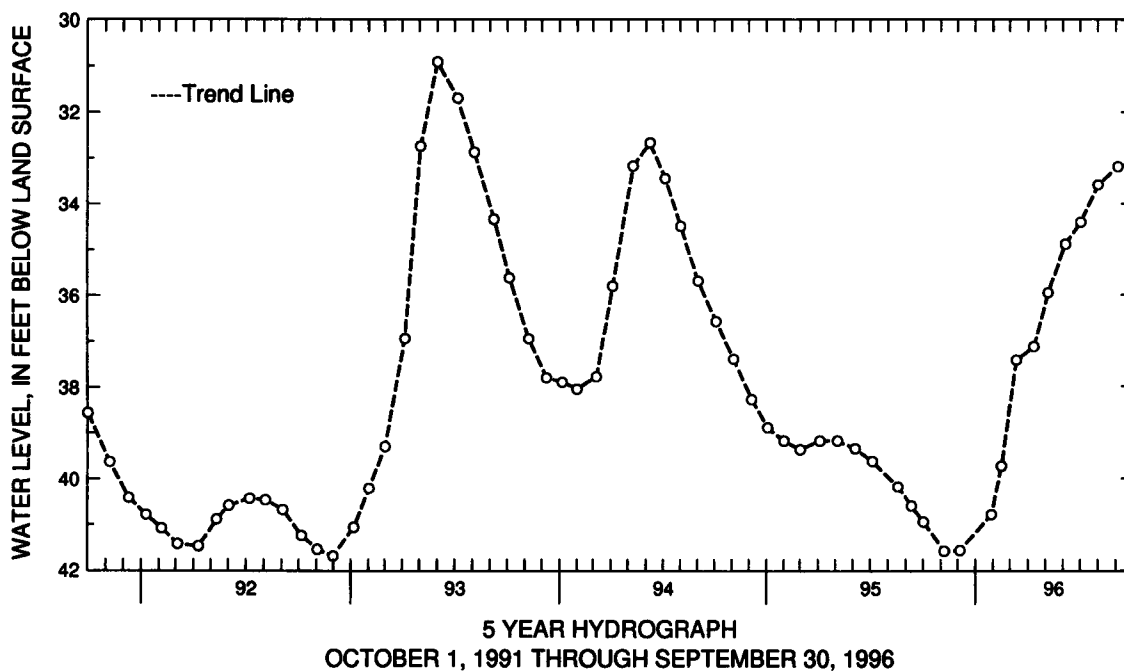
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.76 ft below land surface, July 3, 1972; lowest measured, 46.88 ft below land surface, Sept. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	40.95	JAN 29, 1996	40.79	APR 11, 1996	37.13	JUL 02, 1996	34.41
NOV 07	41.58	FEB 15	39.73	MAY 06	35.95	AUG 01	33.59
DEC 05	41.57	MAR 12	37.43	JUN 05	34.89	SEP 05	33.19
WATER YEAR 1996		HIGHEST	33.19	SEP 05, 1996	LOWEST	41.58	NOV 07, 1995



GROUND-WATER LEVELS

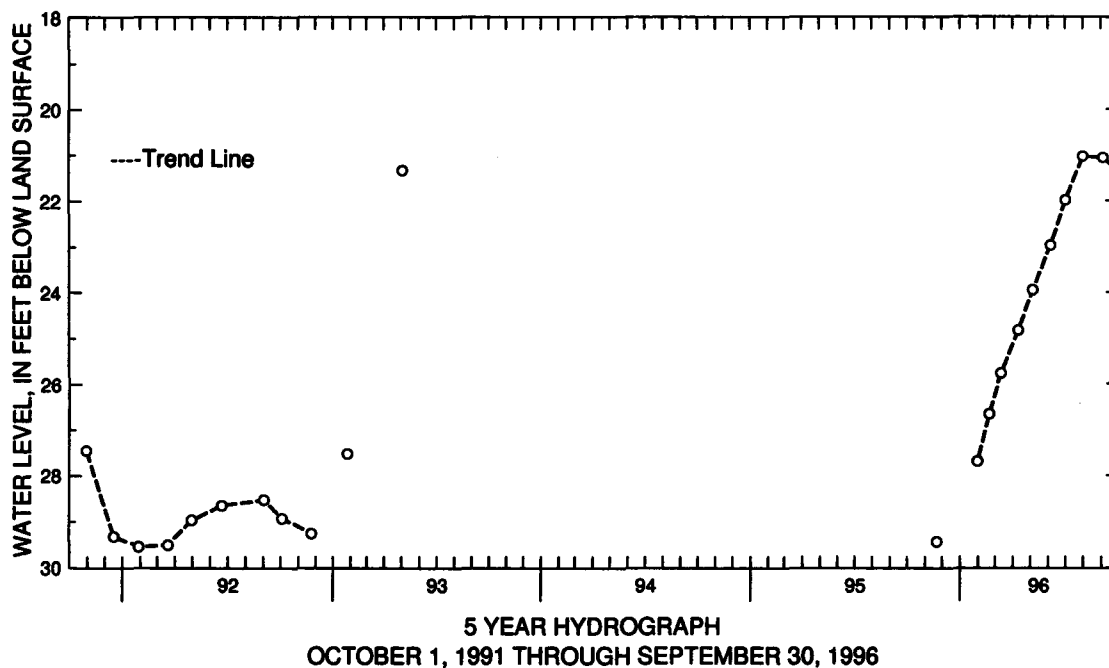
MARYLAND--Continued

HOWARD COUNTY--Continued

WELL NUMBER.--HO Cd 79. SITE ID.--391445076555101. PERMIT NUMBER.--HO-81-2387.
 LOCATION.--Lat 39°14'45", long 76°55'51", Hydrologic Unit 02060006, at University of Maryland
 Central Farm.
 Owner: U.S. Geological Survey.
 AQUIFER.--Loch Raven Schist of Paleozoic age. Aquifer code: 300LCRV.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 55 ft; casing diameter 6 in., to 6 ft;
 and casing diameter 3.5 in. from +1.5 to 43 ft; open hole.
 DATUM.--Elevation of land surface is 452.37 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.05 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--January 1988 to May 1993, November 1995, January 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.03 ft below land surface, Aug. 1, 1996;
 lowest measured, 29.68 ft below land surface, Feb. 15, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 21, 1995	29.44	MAR 12, 1996	25.77	JUN 05, 1996	22.98	SEP 05, 1996	21.06
JAN 31, 1996	27.70	APR 11	24.84	JUL 02	21.99		
FEB 20	26.67	MAY 06	23.95	AUG 01	21.03		
WATER YEAR 1996		HIGHEST	21.03	AUG 01, 1996	LOWEST	29.44	NOV 21, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

HOWARD COUNTY--Continued

WELL NUMBER.--HO Ce 38. SITE ID.--391001076540001. PERMIT NUMBER.--HO-01-1827.

LOCATION.--Lat 39°10'01", long 76°54'00", Hydrologic Unit 02060006, at Johns Hopkins University Applied Physics Lab, Scaggsville.

Owner: Johns Hopkins University.

AQUIFER.--Sykesville Formation of Paleozoic age. Aquifer code: 300SKVL.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 125 ft; casing diameter 6 in., to 51.4 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from Dec. 9, 1987 to April 27, 1990.

DATUM.--Elevation of land surface is 430 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.80 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

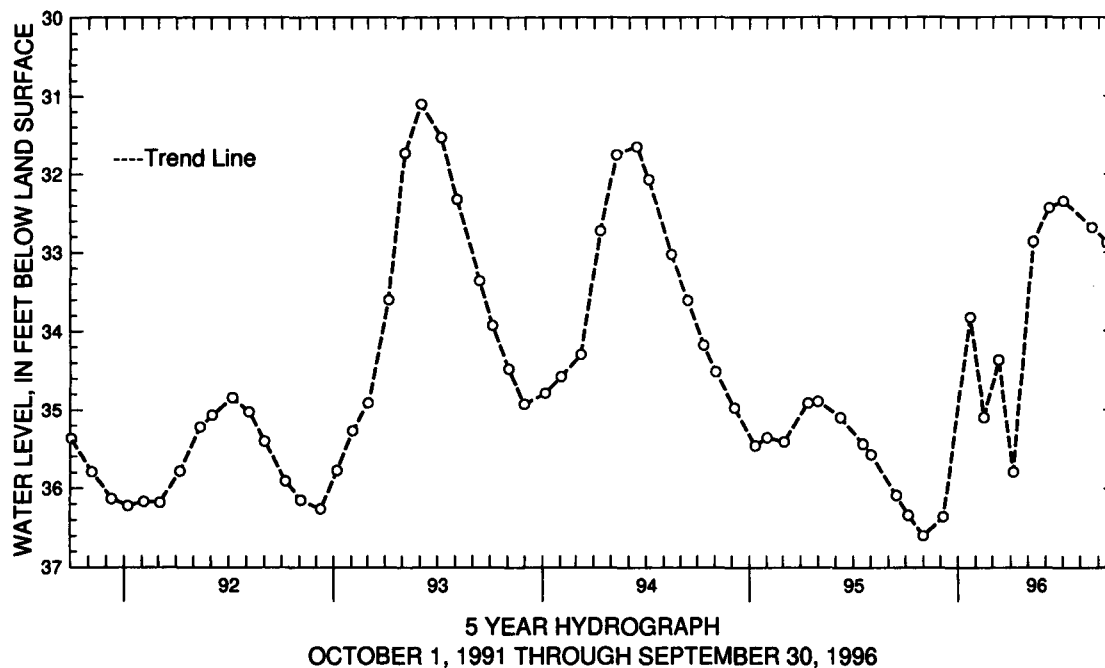
PERIOD OF RECORD.--May 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.84 ft below land surface, May 5, 1972; lowest measured, 36.87 ft below land surface, Dec. 5, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1995	36.34	JAN 22, 1996	33.83	APR 05, 1996	35.79	JUL 02, 1996	32.35
NOV 01	36.60	FEB 15	35.10	MAY 10	32.87	AUG 21	32.69
DEC 06	36.36	MAR 11	34.37	JUN 07	32.43	SEP 16	32.88

WATER YEAR 1996	HIGHEST	32.35	JUL 02, 1996	LOWEST	36.60	NOV 01, 1995
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GROUND-WATER LEVELS

MARYLAND--Continued

KENT COUNTY

WELL NUMBER.--KE Ac 20. SITE ID.--392007076075501. PERMIT NUMBER.--KE-73-0658.

LOCATION.--Lat 39°20'07", long 76°07'55", Hydrologic Unit 02060001, at U.S. Coast Guard Station at end of Still Pond Neck Rd.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 582 ft; casing diameter 10 in., to 73 ft; casing diameter 4 in., to 550 ft and 560 to 582 ft; screen diameter 4 in. from 550 to 560 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Measured twice yearly from October 1986 to April 1991.

DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.30 ft above land surface.

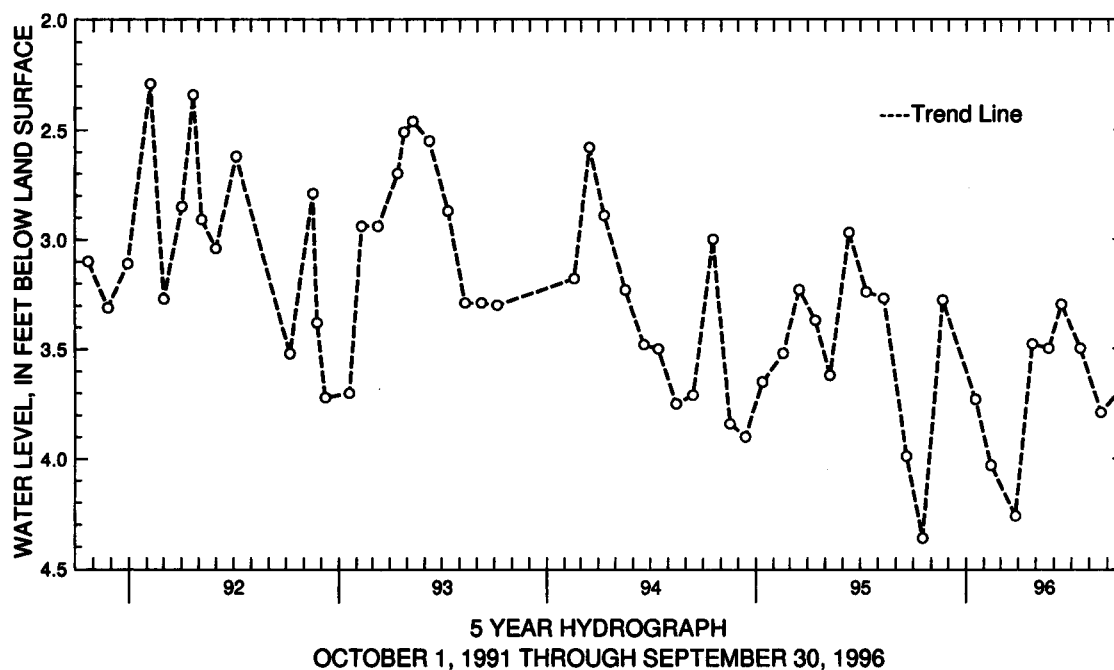
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1977 to December 1978, December 1985, October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.50 ft below land surface, April 13, 1978, May 5, 1978, and Dec. 11, 1985; lowest measured, 4.36 ft below land surface, Oct. 17, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	4.36	FEB 13, 1996	4.03	MAY 23, 1996	3.50	AUG 21, 1996	3.79
NOV 21	3.28	MAR 27	4.26	JUN 14	3.30	SEP 23	3.69
JAN 17, 1996	3.73	APR 25	3.48	JUL 16	3.50		
WATER YEAR 1996		HIGHEST	3.28	NOV 21, 1995	LOWEST	4.36	OCT 17, 1995



GROUND-WATER LEVELS

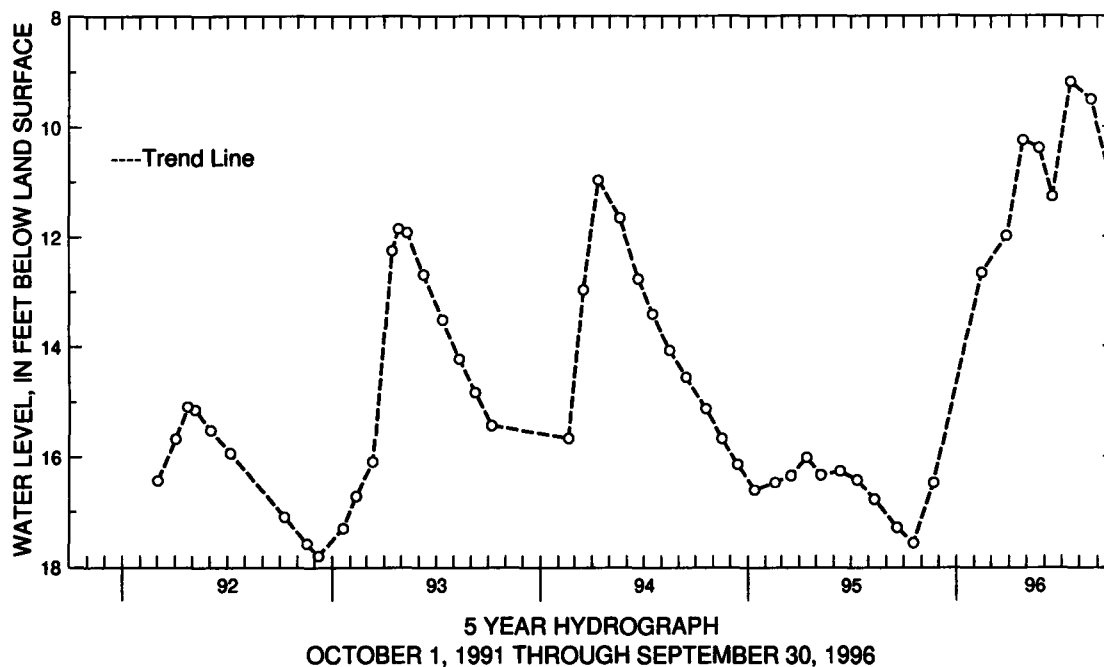
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Bc 185. SITE ID.--391650076050402. PERMIT NUMBER.--KE-88-0255.
 LOCATION.--Lat 39°16'50", long 76°05'04", Hydrologic Unit 02060002, at Worton Regional Park, Worton.
 Owner: Maryland Geological Survey.
 AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation well, artesian well, depth 55 ft; casing diameter 4 in., to 40 ft; screen diameter 4 in. from 40 to 50 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.
 DATUM.--Elevation of land surface is 84.49 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.41 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--October 1991 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.19 ft below land surface, July 16, 1996;
 lowest measured, 20.23 ft below land surface, Dec. 12, 13 and 14, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	17.57	MAR 27, 1996	11.99	JUN 14, 1996	11.27	SEP 23, 1996	10.94
NOV 21	16.48	APR 25	10.25	JUL 16	9.19		
FEB 13, 1996	12.66	MAY 23	10.39	AUG 21	9.51		
WATER YEAR 1996		HIGHEST	9.19 JUL 16, 1996	LOWEST		17.57	OCT 17, 1995



GROUND-WATER LEVELS

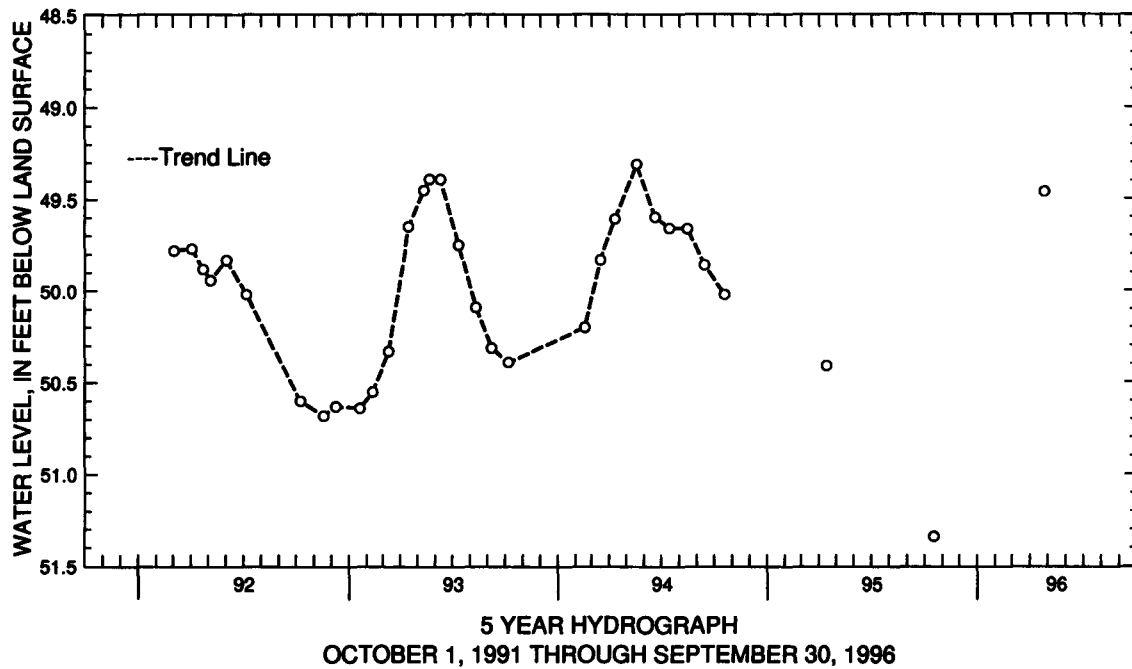
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Bc 186. SITE ID.--391650076050403. PERMIT NUMBER.--KE-88-0286.
 LOCATION.--Lat 39°16'50", long 76°05'04", Hydrologic Unit 02060002, at Worton Regional Park, Worton
 Owner: Maryland Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation well, artesian well, depth 270 ft; casing diameter 4 in., to 255 ft and 265 to 270 ft; screen diameter 4 in. from 255 to 265 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.
 DATUM.--Elevation of land surface is 82.00 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.76 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--February 1992 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.31 below land surface, May 18, 1994;
 lowest measured, 51.34 ft below land surface, Oct. 17, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	51.34	APR 25, 1996	49.46
WATER YEAR 1996		HIGHEST 49.46 APR 25, 1996	LOWEST 51.34 OCT 17, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Be 43. SITE ID.--391823075594701. PERMIT NUMBER.--KE-73-0659.

LOCATION.--Lat 39°18'23", long 75°59'45", Hydrologic Unit 02060002, at Kennedyville.

Owner: U.S. Geological Survey.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 297 ft; casing diameter 10 in., to 171 ft; casing diameter 4 in. to 275 ft, and 285 to 297 ft; screen diameter 4 in. from 275 to 285 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Twice yearly measurements from October 1986 to April 1991.

DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.41 ft above land surface.

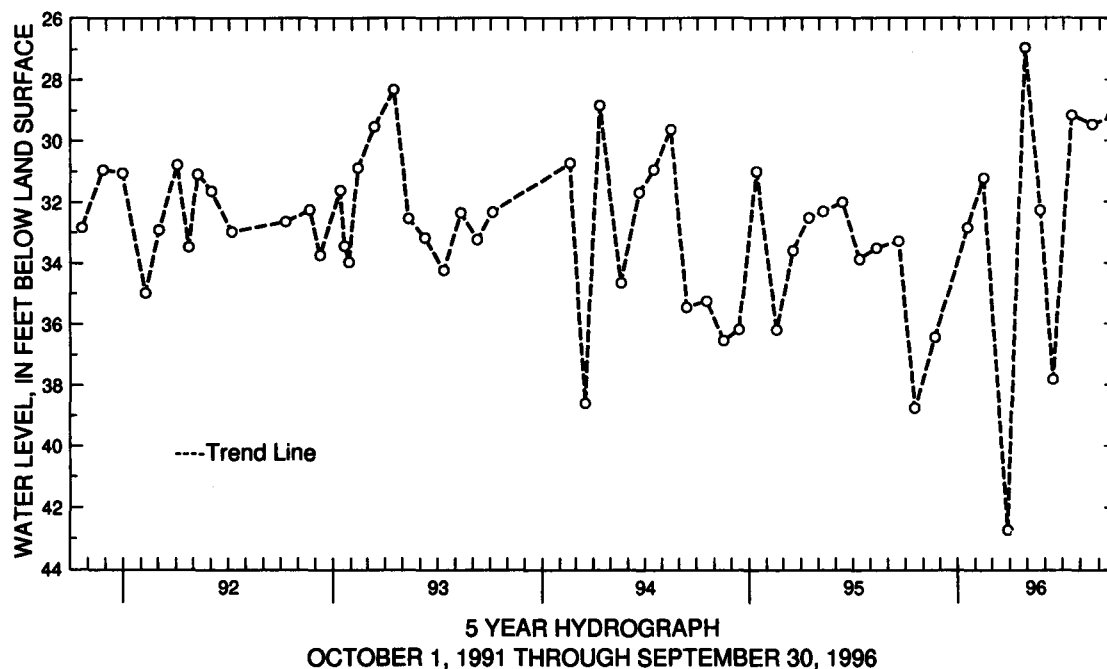
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--February 1979 to July 1979, December 1985, October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.31 ft below land surface, June 5, 1979; lowest measured, 42.72 ft below land surface, March 27, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	38.77	FEB 13, 1996	31.24	MAY 23, 1996	32.29	AUG 21, 1996	29.48
NOV 21	36.45	MAR 27	42.72	JUN 14	37.83	SEP 23	29.23
JAN 17, 1996	32.85	APR 25	26.96	JUL 16	29.16		
WATER YEAR 1996		HIGHEST	26.96	APR 25, 1996	LOWEST	42.72	MAR 27, 1996



GROUND-WATER LEVELS

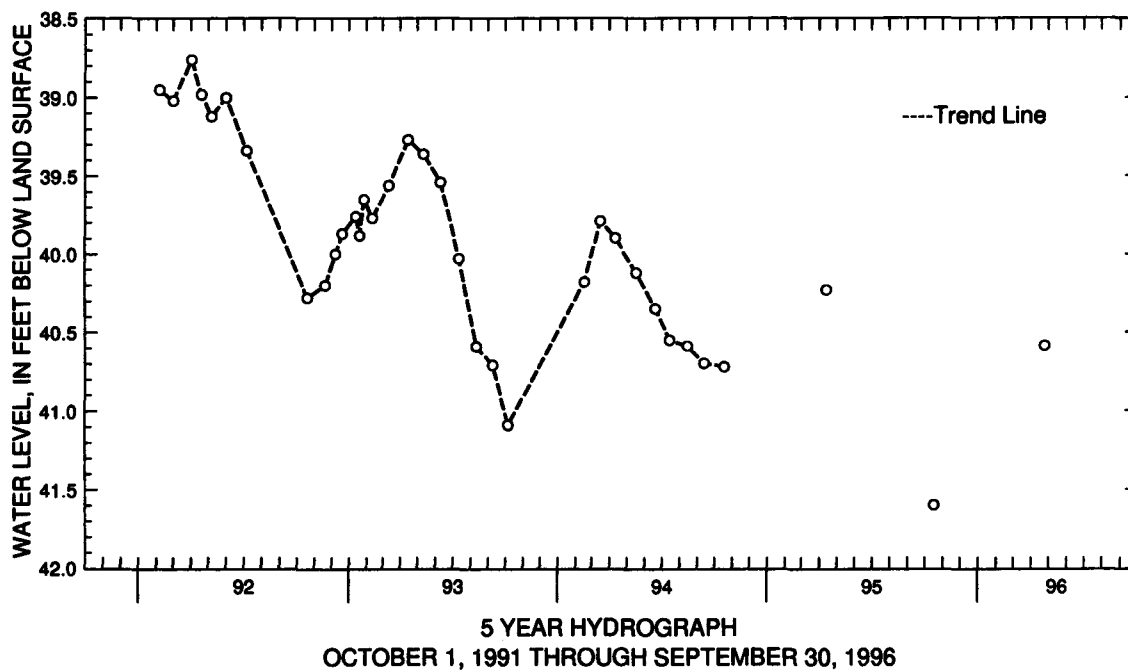
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Be 171. SITE ID.--391643075550901. PERMIT NUMBER.--KE-88-0257.
 LOCATION.--Lat 39°16'43", long 75°55'06", Hydrologic Unit 02060002, 0.9 mi south of Chesterville on Rt. 290,
 at Angelica Nursery.
 Owner: Maryland Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 440 ft; casing diameter 4 in., to 425 ft;
 screen diameter 4 in. from 425 to 435 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from April 1992 to October 1993.
 DATUM.--Elevation of land surface is 41.41 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.3 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--October 1991 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.76 ft below land surface, April 2, 1992;
 lowest measured, 41.60 ft below land surface, Oct. 17, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	41.60	APR 25, 1996	40.59
WATER YEAR 1996 HIGHEST 40.59 APR 25, 1996 LOWEST 41.60 OCT 17, 1995			



GROUND-WATER LEVELS

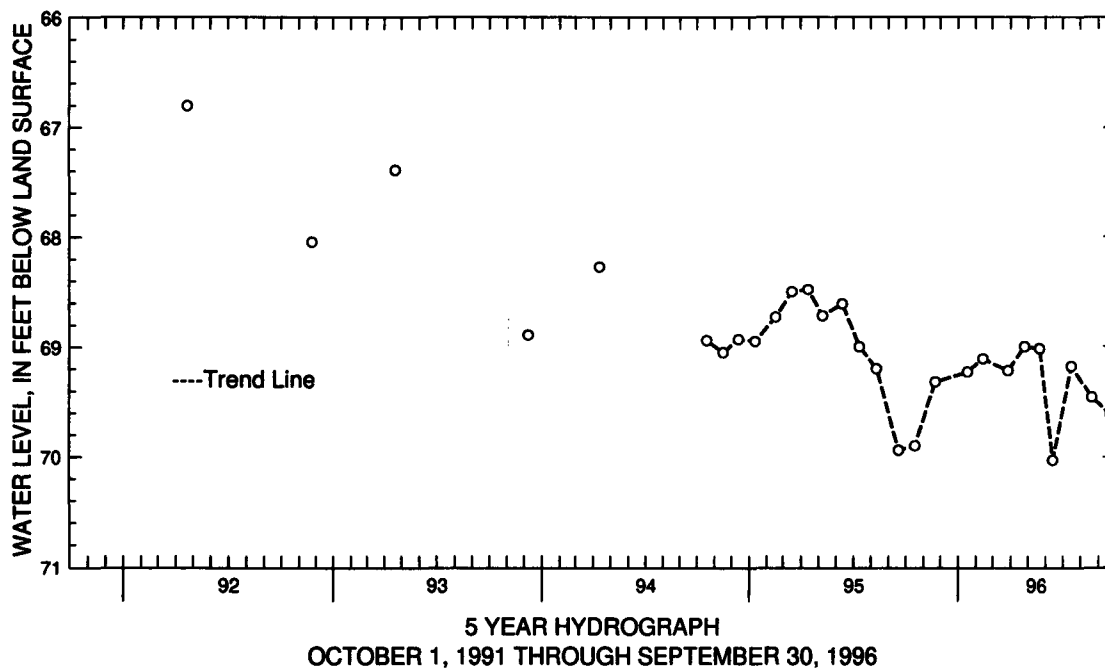
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Bg 33. SITE ID.--391815075472101. PERMIT NUMBER.--KE-73-0670.
 LOCATION.--Lat 39°18'15", long 75°47'21", Hydrologic Unit 02060002, 2 mi west of Massey at
 Millington Wildlife Management Area.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 705 ft; casing diameter 4 in.,
 to 695 ft; screen diameter 4 in. from 695 to 705 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured twice yearly from October 1986 to April 1994.
 DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring point: Top of casing, 3.50 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly beginning October 1986.
 PERIOD OF RECORD.--March 1979 to July 1979, December 1985, October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.62 ft below land surface, June 5, 1979;
 lowest measured, 70.03 ft below land surface, June 14, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	69.90	FEB 13, 1996	69.11	MAY 22, 1996	69.02	AUG 21, 1996	69.46
NOV 21	69.32	MAR 27	69.22	JUN 14	70.03	SEP 23	69.62
JAN 17, 1996	69.23	APR 25	69.00	JUL 16	69.18		
WATER YEAR 1996		HIGHEST	69.00	APR 25, 1996	LOWEST	70.03	JUN 14, 1996



GROUND-WATER LEVELS

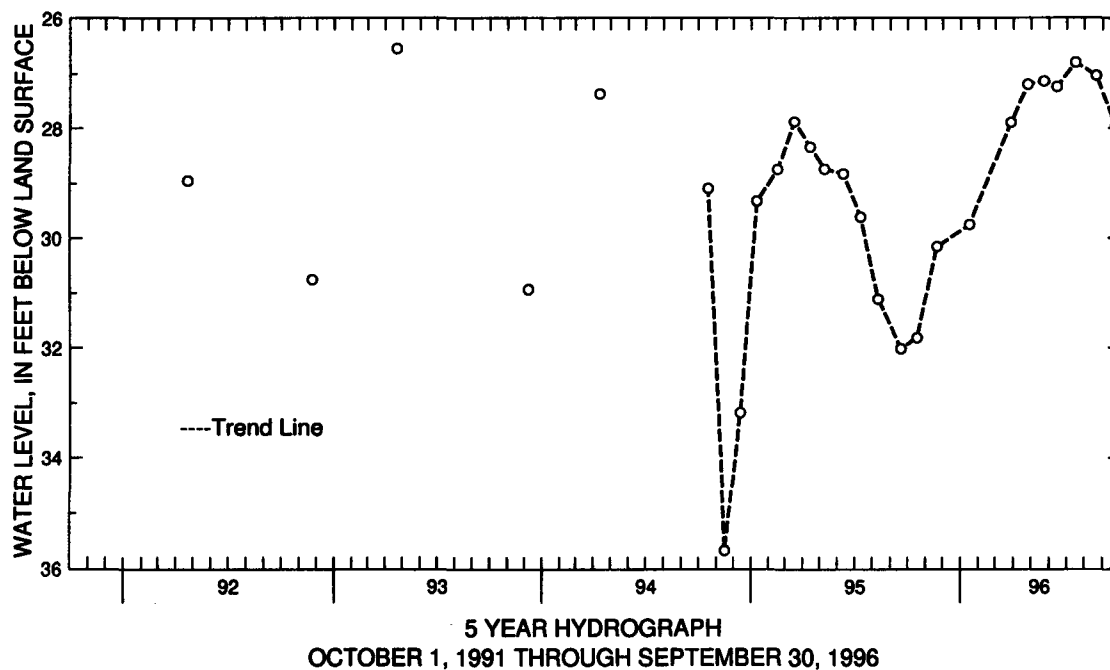
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Bg 34. SITE ID.--391815075472102. PERMIT NUMBER.--KE-73-0686.
 LOCATION.--Lat 39°18'15", long 75°47'22", Hydrologic Unit 02060002, 2 mi west of Massey
 at Millington Wildlife Management Area.
 Owner: U.S. Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 186 ft; casing diameter 6 in.,
 to 124 ft; screen diameter 6 in. from 124 to 186 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured twice yearly from October 1986 to October 1994.
 DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring point: Top of casing, 3.20 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--April 1979 to July 1979, December 1985, October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.37 ft below land surface, April 11, 1979;
 lowest measured, 36.23 ft below land-surface datum, Sept. 2, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	31.82	MAR 27, 1996	27.90	JUN 14, 1996	27.24	SEP 23, 1996	27.97
NOV 21	30.16	APR 25	27.20	JUL 16	26.80		
JAN 17, 1996	29.76	MAY 23	27.14	AUG 21	27.04		
WATER YEAR 1996		HIGHEST 26.80	JUL 16, 1996	LOWEST 31.82	OCT 17, 1995		



GROUND-WATER LEVELS

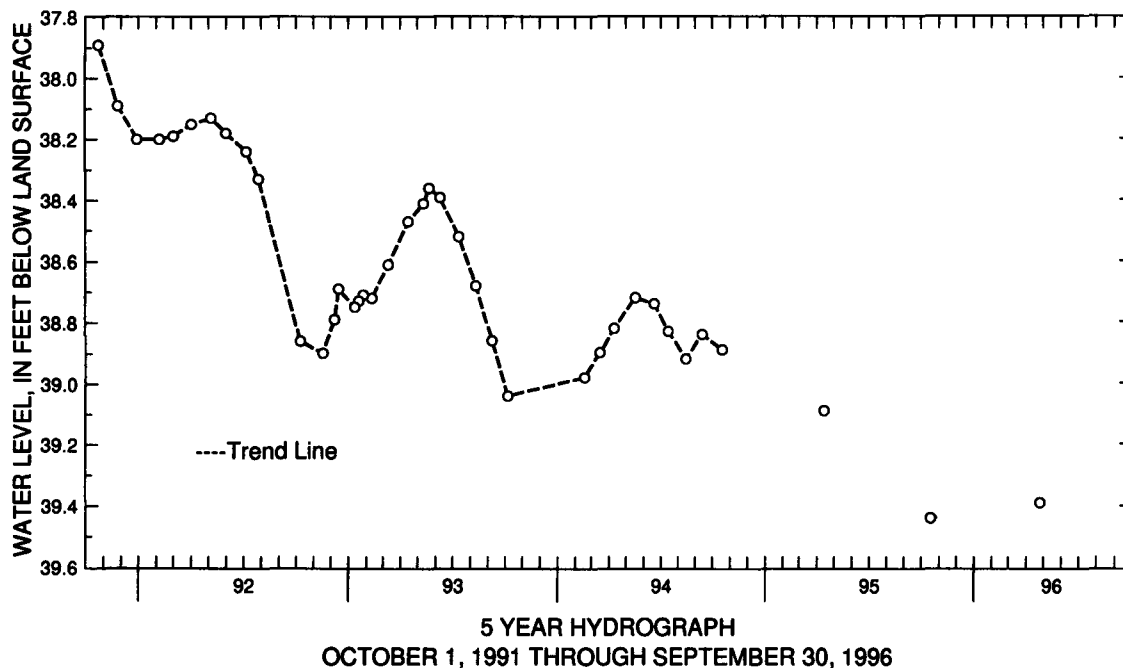
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Cb 36. SITE ID.--391400076101401. PERMIT NUMBER.--KE-73-0660.
 LOCATION.--Lat 39°14'00", long 76°10'14", Hydrologic Unit 02060002, north of Fairlee, at sewage treatment facility.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 650 ft; casing diameter 10 in., to 114 ft; casing diameter 4 in., to 595 ft and 605 to 650 ft; screen diameter 4 in. from 595 to 605 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel. Measured twice yearly from October 1986 to April 1991. Equipped with digital water-level recorder--30-minute recorder interval from July 16, 1991 to October 1993.
 DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 4.63 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--June 1978 to July 1979, December 1985, October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.84 ft below land surface, Sept. 15, 1982; lowest measured, 39.44 ft below land surface, Oct. 17, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	39.44	APR 25, 1996	39.39
WATER YEAR 1996 HIGHEST 39.39 APR 25, 1996 LOWEST 39.44 OCT 17, 1995			



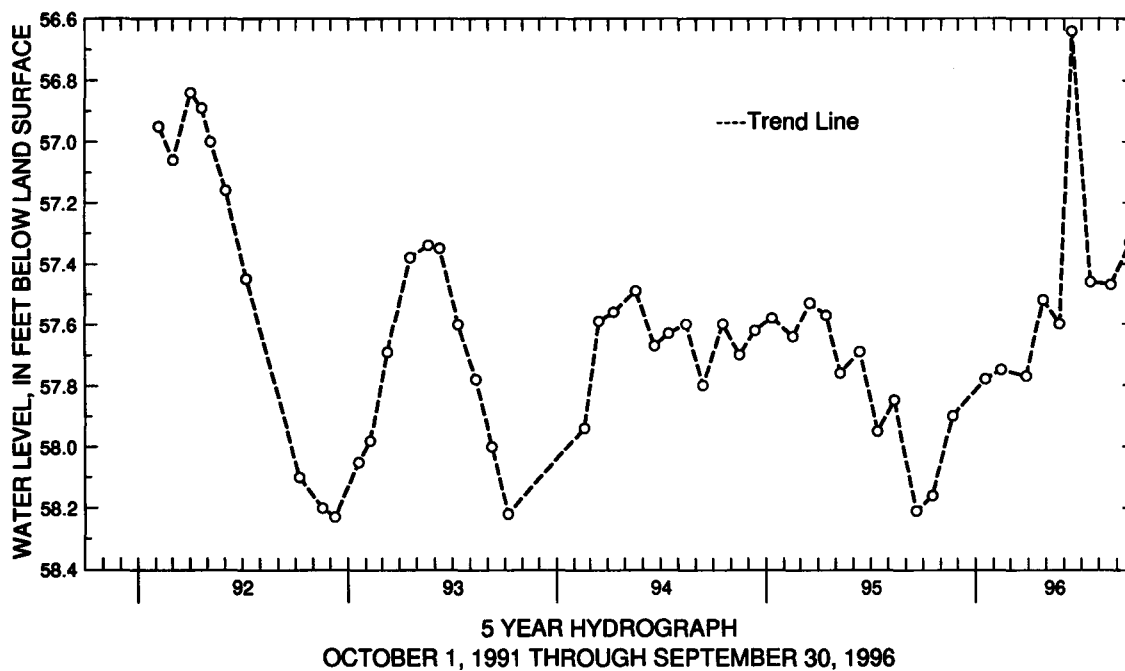
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Cb 97. SITE ID.--391124076101001. PERMIT NUMBER.--KE-88-0251.
 LOCATION.--Lat 39°11'24", long 76°10'10", Hydrologic Unit 02060002, 1.3 mi southeast of McCleans Corner,
 at Remington Farms.
 Owner: Maryland Geological Survey.
 AQUIFER.--Magothy Formation of the Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation well, depth 285 ft; casing diameter 4 in., to 270 ft;
 screen diameter 4 in. from 270 to 280 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.
 DATUM.--Elevation of land surface is 65.84 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.3 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--October 1991 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 56.40 ft below land surface, Oct. 24, 1991;
 lowest measured, 58.23 ft below land surface, Dec. 9, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	58.16	FEB 13, 1996	57.75	MAY 23, 1996	57.60	AUG 21, 1996	57.47
NOV 21	57.90	MAR 27	57.77	JUN 14	56.64	SEP 23	57.33
JAN 17, 1996	57.78	APR 25	57.52	JUL 16	57.46		
WATER YEAR 1996		HIGHEST	56.64 JUN 14, 1996	LOWEST		58.16 OCT 17, 1995	



GROUND-WATER LEVELS

MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Cb 98. SITE ID.--391124076101002. PERMIT NUMBER.--KE-88-0254.

LOCATION.--Lat 39°11'24", long 76°10'10", Hydrologic Unit 02060002, 1.3 mi southeast of McCleans Corner, at Remington Farms.

Owner: Maryland Geological Survey.

AQUIFER.--Monmouth Formation of Upper Cretaceous age. Aquifer code: 211MNMT.

WELL CHARACTERISTICS.--Drilled, observation well, artesian well, depth 225 ft; casing diameter 4 in., to 210 ft and 220 to 225 ft; screen diameter 4 in. from 210 to 220 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.

DATUM.--Elevation of land surface is 68.38 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of metal sleeve, 2.54 ft above land surface.

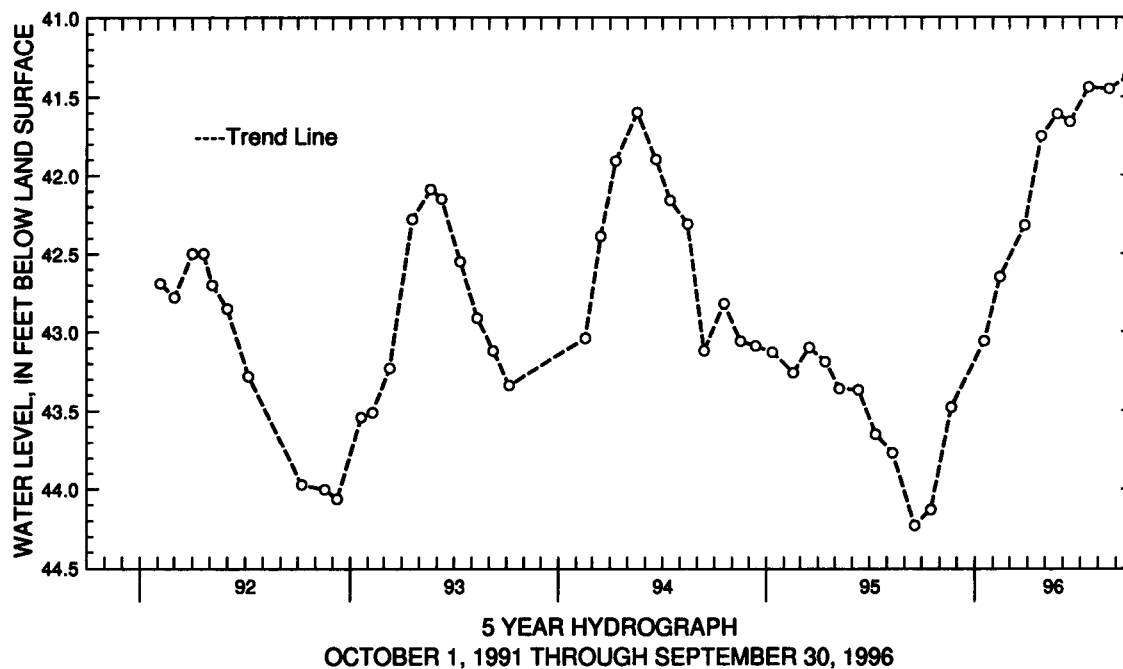
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.37 ft below land surface, Sept. 23, 1996; lowest measured, 44.23 ft below land surface, Sept. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	44.13	MAR 27, 1996	42.32	JUN 14, 1996	41.66	SEP 23, 1996	41.37
JAN 17, 1996	43.06	APR 25	41.75	JUL 16	41.44		
FEB 13	42.65	MAY 23	41.61	AUG 21	41.45		
WATER YEAR 1996		HIGHEST	41.37	SEP 23, 1996	LOWEST	44.13	OCT 17, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Cb 99. SITE ID.--391124076101003. PERMIT NUMBER.--KE-88-0252.

LOCATION.--Lat 39°11'24", long 76°10'10", Hydrologic Unit 02060002, 1.3 mi southeast of McCleans Corner, at Remington Farms.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation well, artesian well, depth 134 ft; casing diameter 4 in., to 118 ft; screen diameter 4 in. from 118 to 128 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.

DATUM.--Elevation of land surface is 68.38 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of metal sleeve, 2.53 ft above land surface.

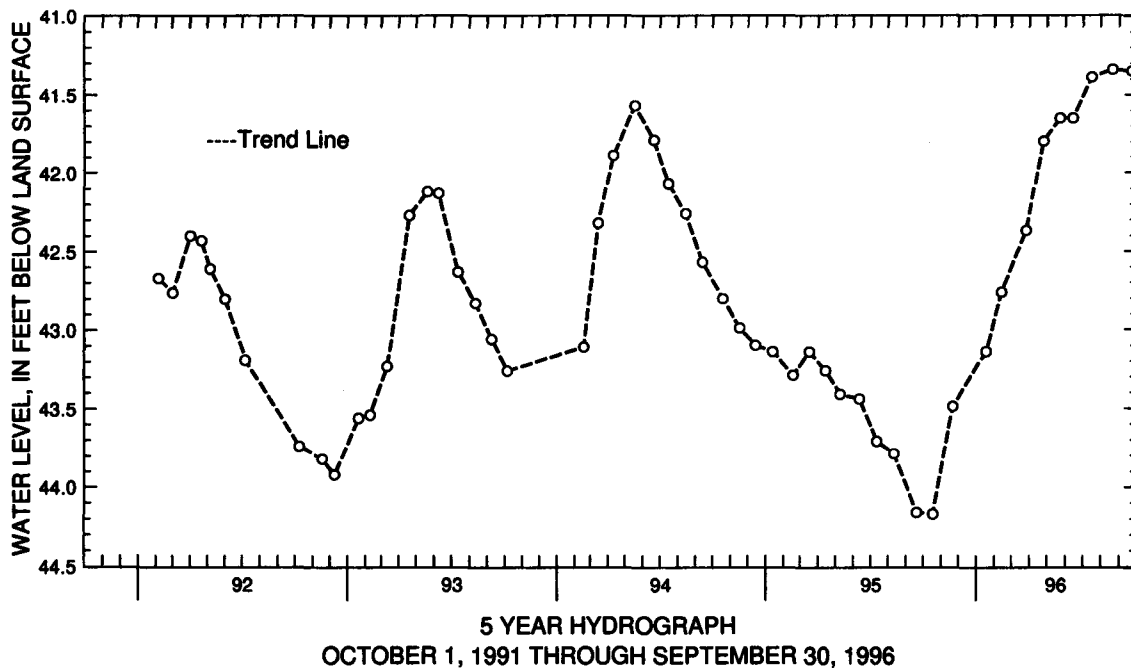
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.34 ft below land surface, Aug. 21, 1996; lowest measured, 44.17 ft below land surface, Oct. 17, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	44.17	FEB 13, 1996	42.76	MAY 13, 1996	41.65	AUG 21, 1996	41.34
NOV 21	43.49	MAR 27	42.37	JUN 14	41.65	SEP 23	41.35
JAN 17, 1996	43.14	APR 25	41.80	JUL 16	41.39		
WATER YEAR 1996		HIGHEST	41.34	AUG 21, 1996		LOWEST	44.17
				OCT 17, 1995			



GROUND-WATER LEVELS

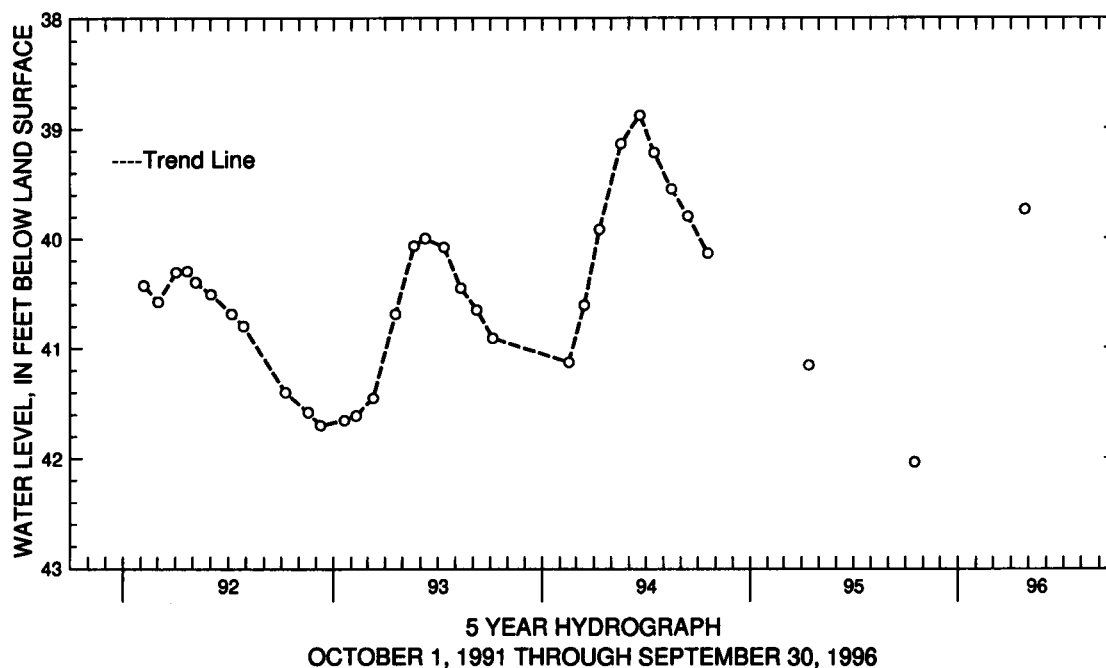
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Cb 100. SITE ID.--391124076101004. PERMIT NUMBER.--KE-88-0253.
 LOCATION.--Lat 39°11'24", long 76°10'10", Hydrologic Unit 02060002, 1.3 mi southeast of McCleans Corners,
 at Remington Farms.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation well, artesian well, depth 67 ft; casing diameter 4 in., to 52 ft
 and 62 to 67 ft; screen diameter 4 in. from 52 to 62 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.
 DATUM.--Elevation of land surface is 68.29 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.56 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--October 1991 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.88 ft below land surface, June 20, 1994;
 lowest measured, 42.04 ft below land surface, Oct. 17, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	42.04	APR 25, 1996	39.74
WATER YEAR 1996 HIGHEST 39.74 APR 25, 1996 LOWEST 42.04 OCT 17, 1995			



GROUND-WATER LEVELS

MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Cb 101. SITE ID.--391251076142201. PERMIT NUMBER.--KE-88-0250.

LOCATION.--Lat 39°12'48", long 76°14'22", Hydrologic Unit 02060002, 0.4 mi east of Tolchester Beach, south of MD Rt. 21.

Owner: Maryland Geological Survey.

AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 73 ft; casing diameter 4 in., to 58 ft, and 68 to 73 ft; screen diameter 4 in. from 58 to 68 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.

DATUM.--Elevation of land surface is 31.12 ft above National Geodetic Vertical Datum of 1929.

Measuring Point: Top of metal sleeve, 2.6 ft above land surface.

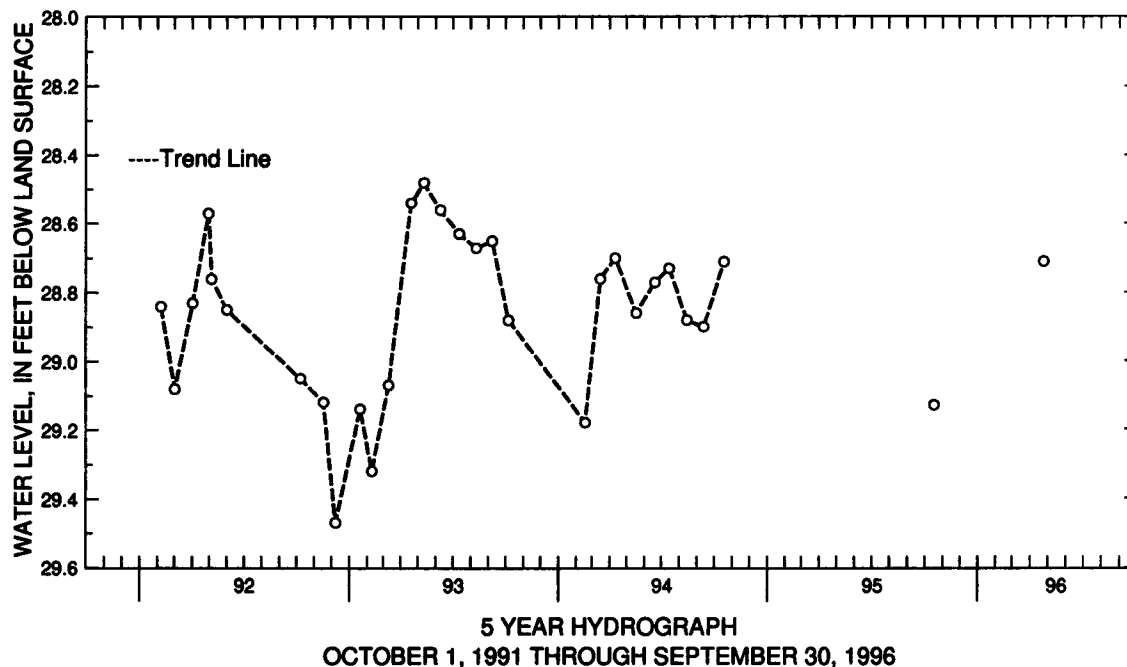
REMARKS.--Maryland Water-Level Network observation well. Gate locked on April 1995 visit.

PERIOD OF RECORD.--October 1991 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.48 ft below land surface, May 11, 1993; lowest measured, 29.47 ft below land surface, Dec. 8, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	29.13	APR 25, 1996	28.71
WATER YEAR 1996 HIGHEST 28.71 APR 25, 1996 LOWEST 29.13 OCT 17, 1995			



GROUND-WATER LEVELS

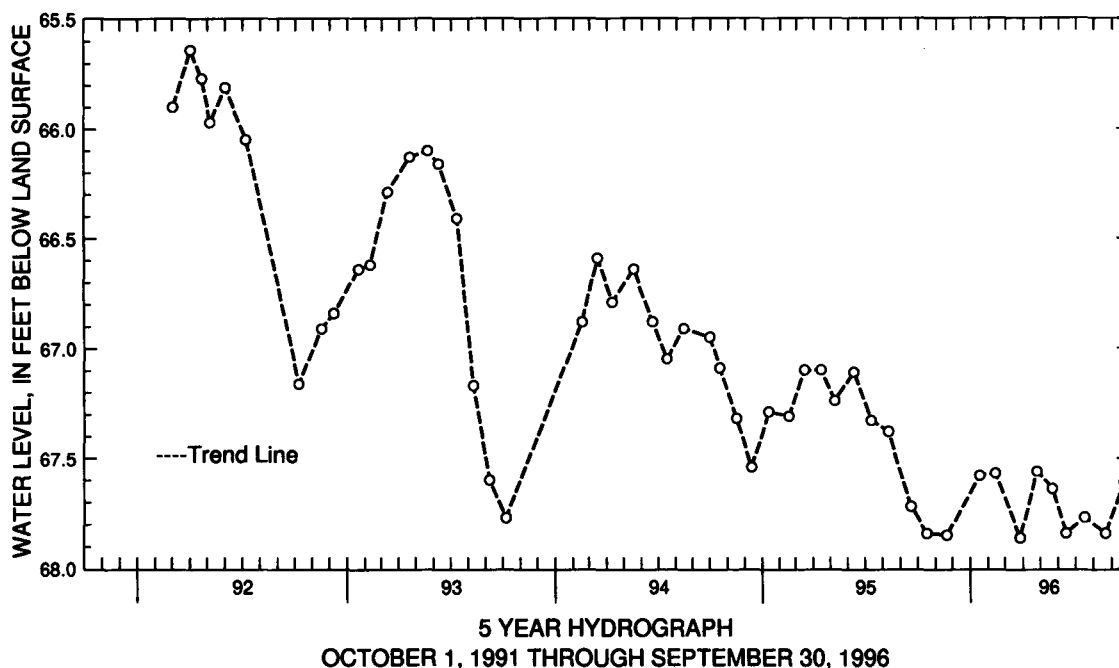
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Cb 103. SITE ID.--391124076101005. PERMIT NUMBER.--KE-88-0288.
 LOCATION.--Lat 39°11'24", long 76°10'10", Hydrologic Unit 02060002, 1.3 mi southeast of McCleans Corner,
 at Remington Farms.
 Owner: Maryland Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 404 ft; casing diameter 4 in., to 389 ft,
 and 399 to 404 ft; screen diameter 4 in. from 389 to 399 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.
 DATUM.--Elevation of land surface is 65.60 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.54 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--February 1992 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.64 ft below land surface, April 2, 1992;
 lowest measured, 67.86 ft below land surface, March 27, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	67.84	FEB 13, 1996	67.57	MAY 22, 1996	67.64	AUG 21, 1996	67.84
NOV 21	67.85	MAR 27	67.86	JUN 14	67.84	SEP 23	67.61
JAN 17, 1996	67.58	APR 25	67.56	JUL 16	67.77		
WATER YEAR 1996		HIGHEST 67.56 APR 25, 1996	LOWEST 67.86 MAR 27, 1996				



GROUND-WATER LEVELS

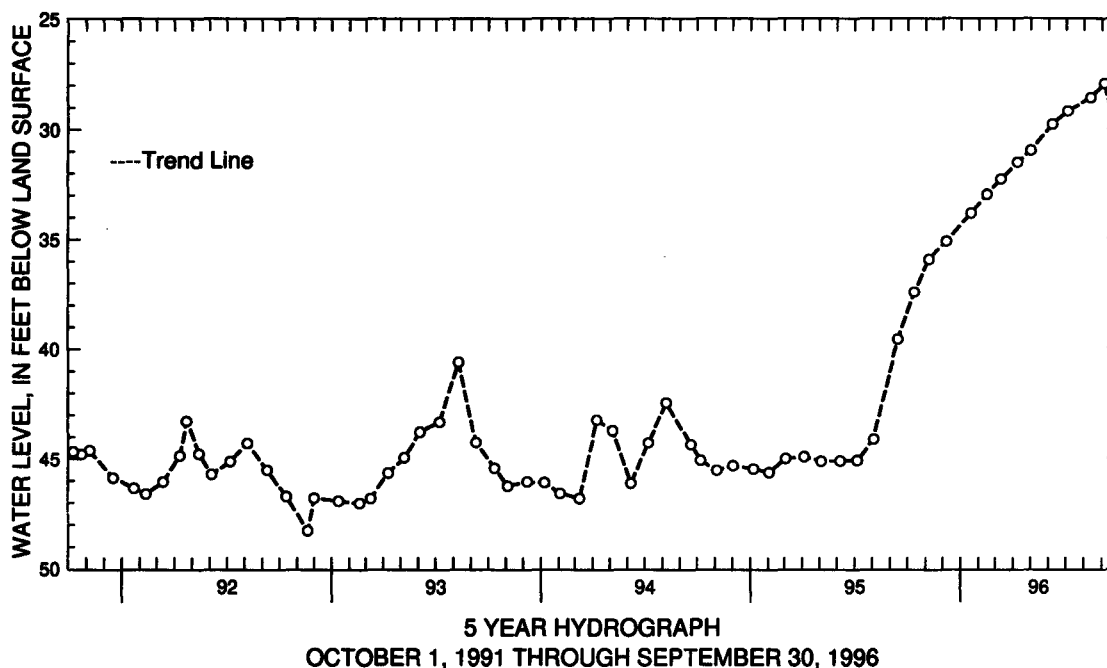
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Cd 44. SITE ID.--391432076015501. PERMIT NUMBER.--KE-03-6139.
 LOCATION.--Lat 39°14'32", long 76°01'55", Hydrologic Unit 02060002, MD Rt. 291, 2.6 mi northeast of Chestertown.
 Owner: Chestertown Foods
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 84 ft; casing diameter 4 in., to 79 ft; screen diameter 5 in. from 79 to 84 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 0.20 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels measured by plant personnel with an electric tape, Sept. 18, 1959 to April 18, 1963. Food processing plant closed from Aug. 31, 1995 to Sept. 30, 1996.
 PERIOD OF RECORD.--September 1959 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.00 ft below land surface, Sept. 18, 1959; lowest measured, 54.46 ft below land surface, Aug. 4, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	37.45	JAN 18, 1996	33.85	APR 08, 1996	31.54	JUL 03, 1996	29.19
NOV 07	35.95	FEB 15	33.00	MAY 01	30.99	AUG 13	28.57
DEC 07	35.12	MAR 11	32.30	JUN 07	29.80	SEP 06	27.92
WATER YEAR 1996		HIGHEST	27.92	SEP 06, 1996	LOWEST	37.45	OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Db 40. SITE ID.--390837076140401. PERMIT NUMBER.--KE-73-0805.

LOCATION.--Lat 39°08'37", long 76°14'04", Hydrologic Unit 02070002, near Rock Hall.

Owner: U.S. Geological Survey.

AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,030 ft; casing diameter 4 in., to 1,019 ft; screen diameter 4 in. from 1,019 to 1,030 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.65 ft above land surface.

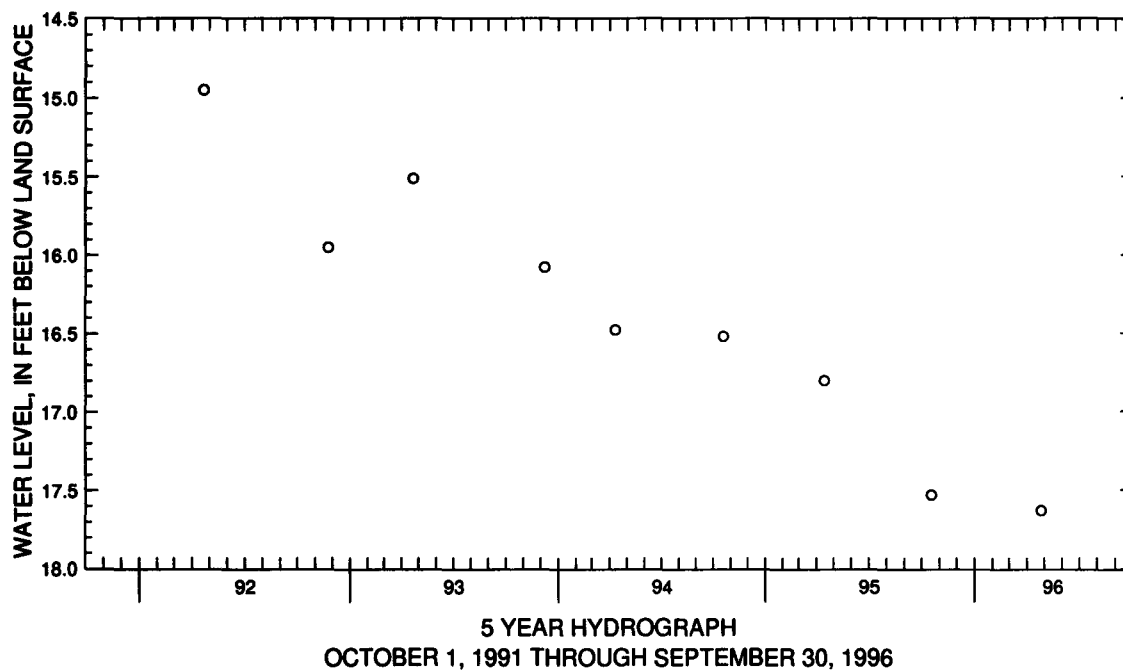
REMARKS.--Maryland Water-Level Network observation well. Measured twice yearly since October 1986.

PERIOD OF RECORD.--December 1978 to July 1979, October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.08 ft below land surface, Oct. 30, 1980; lowest measured, 17.63 ft below land surface, April 25, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	17.53	APR 25, 1996	17.63
WATER YEAR 1996		HIGHEST 17.53 OCT 17, 1995	LOWEST 17.63 APR 25, 1996



GROUND-WATER LEVELS

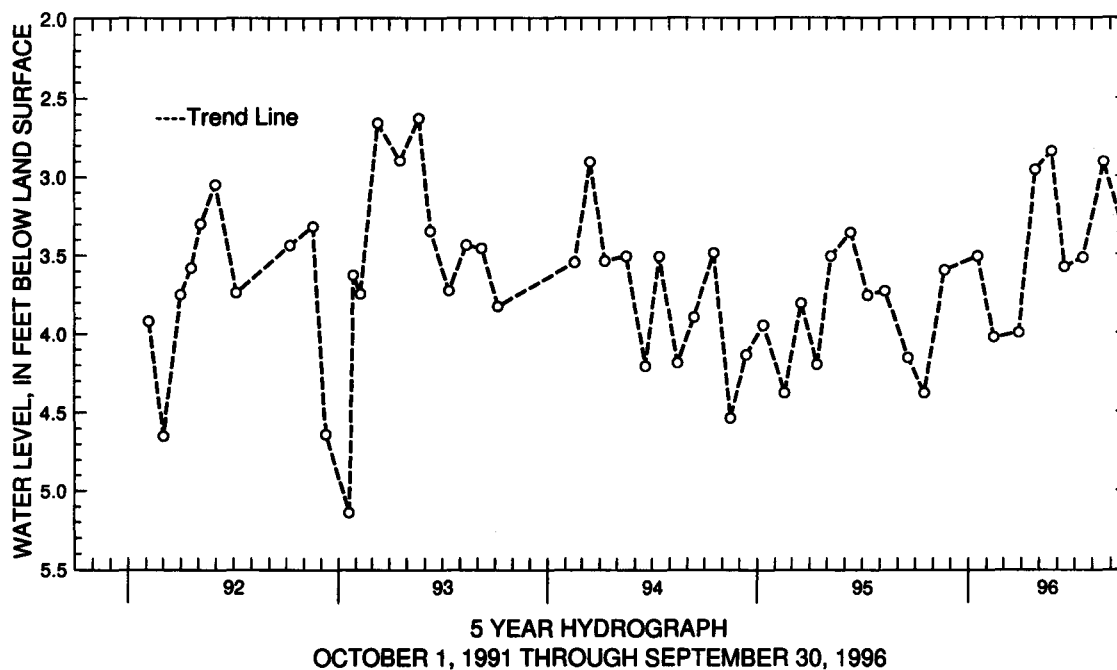
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Dc 89. SITE ID.--390626076083301. PERMIT NUMBER.--KE-88-0246.
 LOCATION.--Lat 39°06'26", long 76°08'33", Hydrologic Unit 02060002, at the end of Cliffs City Rd.
 Owner: Maryland Geological Survey.
 AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 29 ft; casing diameter 4 in.,
 to 14 ft, and 24 to 29 ft; screen diameter 4 in. from 14 to 24 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.
 DATUM.--Elevation of land surface is 4.52 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.44 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--October 1991 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.63 ft below land surface, May 21, 1993;
 lowest measured, 5.14 ft below land surface, Jan. 20, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 19, 1995	4.38	FEB 13, 1996	4.03	MAY 23, 1996	2.84	AUG 21, 1996	2.91
NOV 21	3.60	MAR 27	4.00	JUN 14	3.58	SEP 23	3.36
JAN 17, 1996	3.51	APR 25	2.96	JUL 16	3.52		
WATER YEAR 1996		HIGHEST	2.84	MAY 23, 1996	LOWEST	4.38	OCT 19, 1995



GROUND-WATER LEVELS

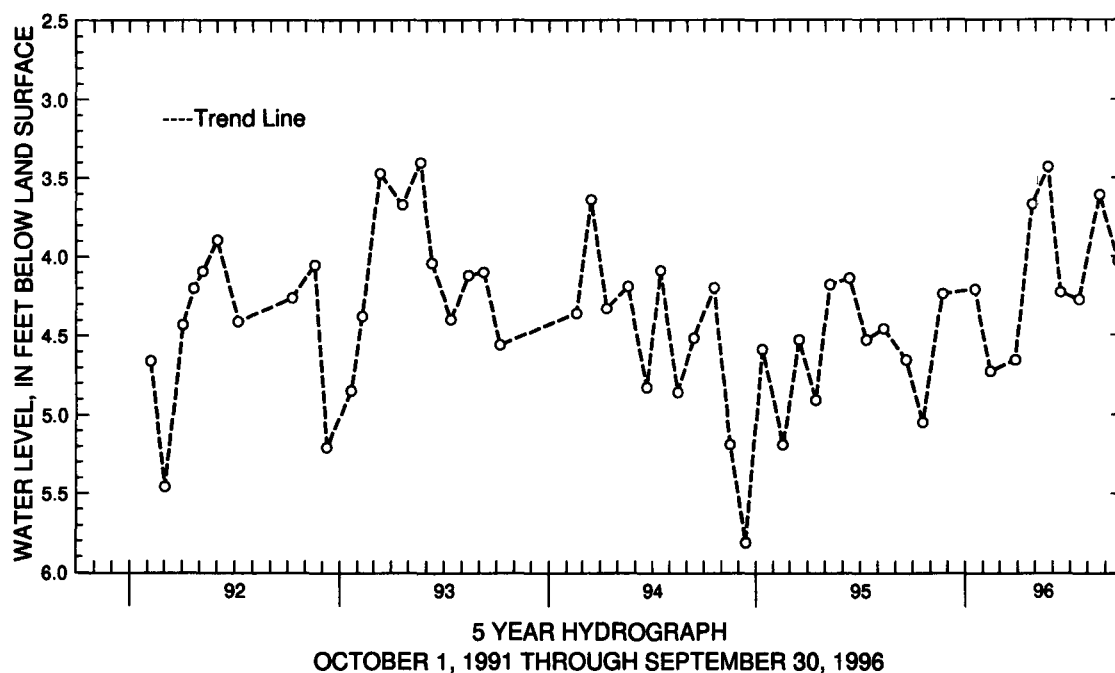
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Dc 91. SITE ID.--390626076083302. PERMIT NUMBER.--KE-88-0247.
 LOCATION.--Lat 39°06'26", long 76°08'33", Hydrologic Unit 02060002, 1.0 mi south of Cliffs City, at Cliffs Wharf.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation well, artesian well, depth 155 ft; casing diameter 4 in., to 140 ft and 150 to 155 ft; screen diameter 4 in. from 140 to 150 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from February 1992 to October 1993.
 DATUM.--Elevation of land surface is 7.14 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of metal sleeve, 2.46 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--October 1991 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.40 ft below land surface, May 21, 1993;
 lowest measured, 5.81 ft below land surface, Dec. 13, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	5.05	FEB 13, 1996	4.73	MAY 23, 1996	3.43	AUG 21, 1996	3.61
NOV 21	4.24	MAR 27	4.66	JUN 14	4.23	SEP 23	4.03
JAN 17, 1996	4.21	APR 25	3.67	JUL 16	4.28		
WATER YEAR 1996		HIGHEST	3.43	MAY 23, 1996	LOWEST	5.05	OCT 17, 1995



GROUND-WATER LEVELS

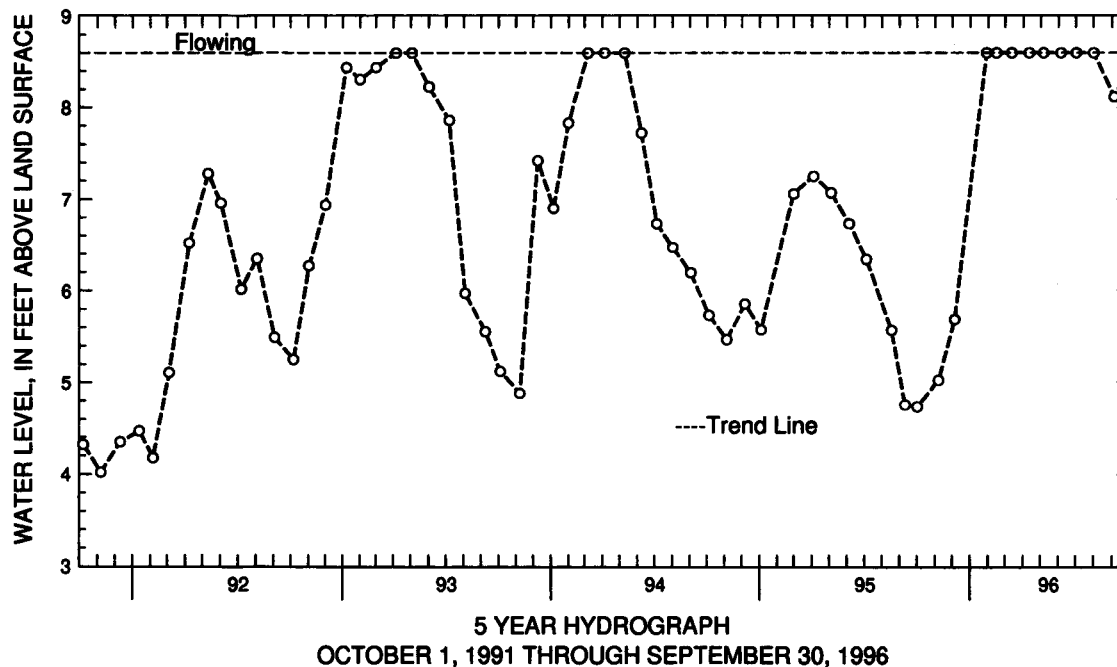
MARYLAND--Continued

MONTGOMERY COUNTY

WELL NUMBER.--MO Cb 26. SITE ID.--391142077280601. PERMIT NUMBER.--MO-72-0191.
 LOCATION.--Lat 39°11'42", long 77°28'06", Hydrologic Unit 02070008, 2 mi southwest of Dickerson,
 at Dickerson Regional Park.
 Owner: U.S. Geological Survey.
 AQUIFER.--New Oxford Formation of Upper Triassic age. Aquifer code: 231NOXF.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 885 ft; casing diameter 6 in., to 40 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 220 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing 8.60 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--February 1991 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level, flowing on Jan. 3, 1991, April 3, 1991, April 5, 1993,
 May 3, 1993, March 7, 1994, April 5, 1994, May 10, 1994, Jan. 29, 1996, Feb. 15, 1996, March 12, 1996,
 April 11, 1996, May 6, 1996, June 5, 1996, July 2, 1996, and Aug. 1, 1996;
 lowest measured, 4.02 ft above land surface, Nov. 7, 1991.

WATER LEVEL, IN FEET ABOVE LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	+4.73	JAN 29, 1996	FLOWING	APR 11, 1996	FLOWING	JUL 02, 1996	FLOWING
NOV 07	+5.02	FEB 15	FLOWING	MAY 06	FLOWING	AUG 01	FLOWING
DEC 05	+5.68	MAR 12	FLOWING	JUN 05	FLOWING	SEP 05	+8.12
WATER YEAR 1996		HIGHEST	+8.12	SEP 05, 1996	LOWEST	+4.73	OCT 02, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

MONTGOMERY COUNTY

WELL NUMBER.--MO Cc 14. SITE ID.--391314077224201.

LOCATION.--Lat 39°13'14", long 77°22'42", Hydrologic Unit 02070008, at Barnesville.

Owner: Shirley Hayes.

AQUIFER.--Ijamsville Formation of Paleozoic age. Aquifer code: 300IJMV.

WELL CHARACTERISTICS.--Dug, stone-lined, unused, water-table well, depth 46 ft; casing diameter 60 to 24 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of wooden well cover, 3.00 ft above land surface.

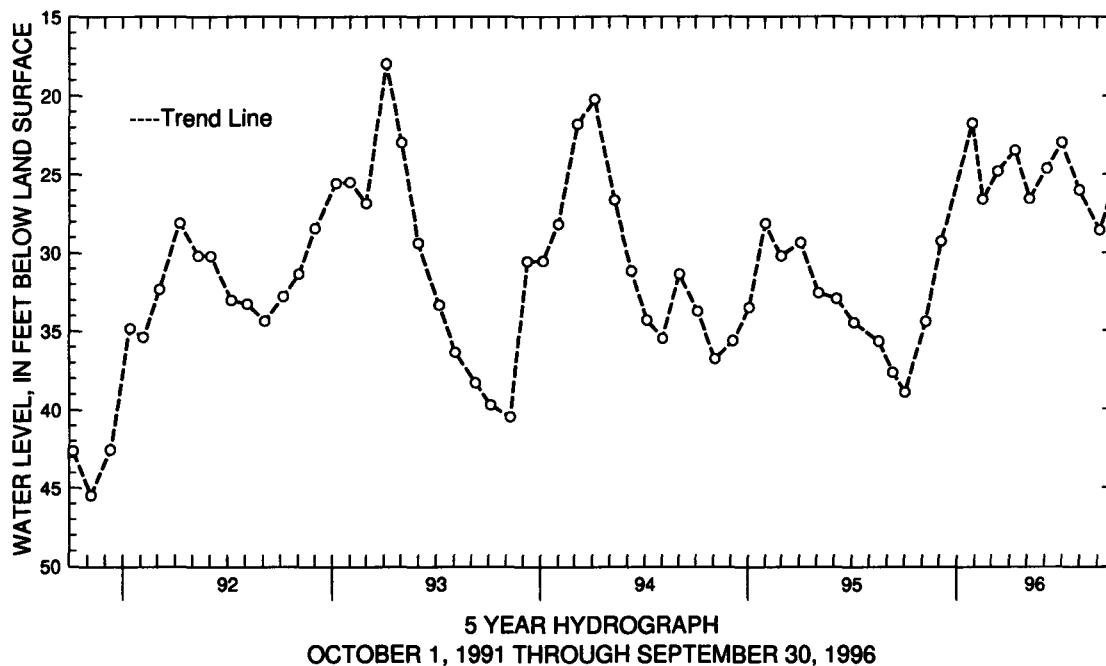
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--November 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.00 ft below land surface, April 5, 1993; lowest measured, dry, on Dec. 2, 1957, Dec. 7, 1964, Dec. 6, 1965, Jan. 3, 1966, Feb. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	38.94	JAN 29, 1996	21.76	APR 11, 1996	23.48	JUL 02, 1996	22.99
NOV 07	34.43	FEB 15	26.60	MAY 06	26.59	AUG 01	26.03
DEC 05	29.29	MAR 12	24.82	JUN 05	24.65	SEP 05	28.59
WATER YEAR 1996		HIGHEST	21.76 JAN 29, 1996	LOWEST		38.94 OCT 02, 1995	



GROUND-WATER LEVELS

MARYLAND--Continued

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Db 68. SITE ID.--390802077283801. PERMIT NUMBER.--MO-73-1869.

LOCATION.--Lat 39°08'02", long 77°28'38", Hydrologic Unit 02070008, south of Club Hollow Rd,
at the National Institutes of Health, Animal Center.

Owner: U.S. Geological Survey.

AQUIFER.--New Oxford Formation of Upper Triassic age. Aquifer code: 231NOXF.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 250 ft; casing diameter 6 in., to 40 ft;
open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.80 ft above land surface.

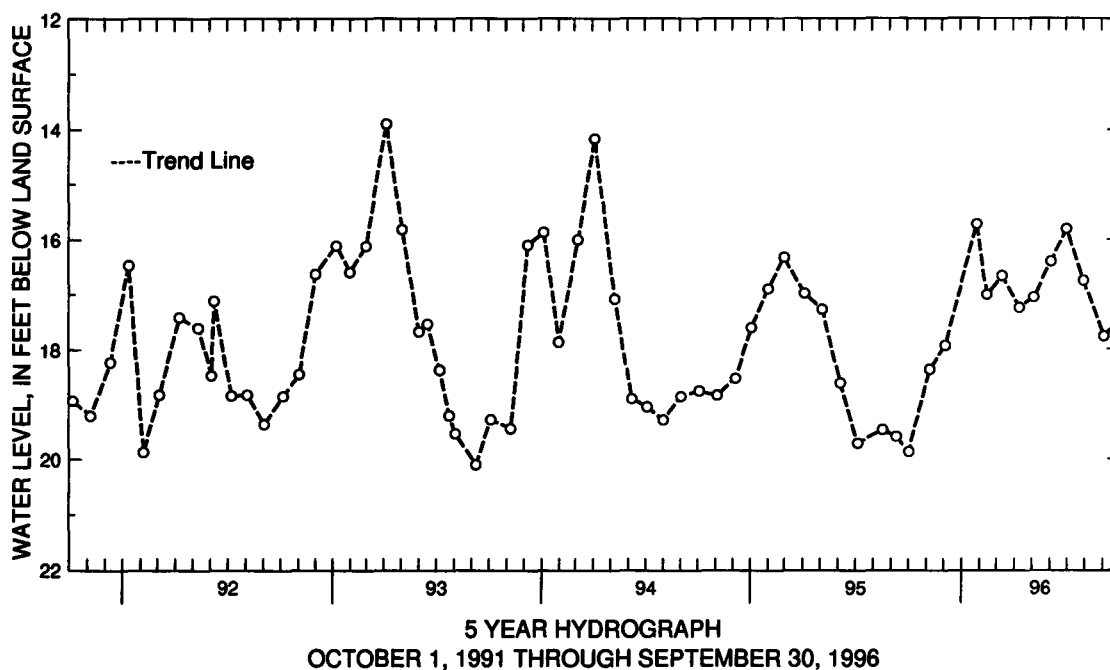
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1978 to August 1980, June 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.12 ft below land surface, May 12, 1989;
lowest measured, 20.15 ft below land surface, Sept. 16, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	19.87	JAN 29, 1996	15.72	APR 11, 1996	17.25	JUL 02, 1996	15.82
NOV 07	18.37	FEB 15	17.01	MAY 06	17.05	AUG 01	16.76
DEC 05	17.93	MAR 12	16.67	JUN 05	16.41	SEP 05	17.77
WATER YEAR 1996		HIGHEST 15.72	JAN 29, 1996	LOWEST 19.87	OCT 02, 1995		



GROUND-WATER LEVELS

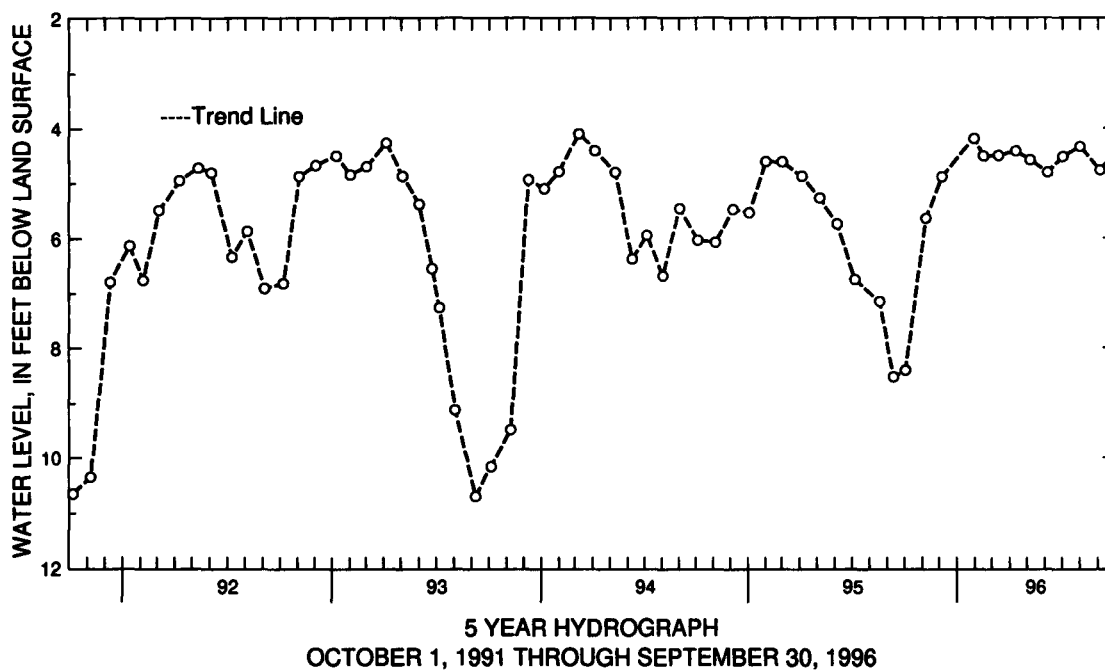
MARYLAND--Continued

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO DC 59. SITE ID.--390917077244401. PERMIT NUMBER.--MO-73-1896.
 LOCATION.--Lat 39°09'17", long 77°24'44", Hydrologic Unit 02070008, 1 mi north of Poolesville,
 near Jerusalem Rd.
 Owner: U.S. Geological Survey.
 AQUIFER.--Ijamsville Formation of Paleozoic age. Aquifer code: 300IJMV.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 262 ft; casing diameter 6 in., to 42 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 370 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of recorder platform, 3.94 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--June 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.10 ft below land surface, March 7, 1994;
 lowest measured, 10.70 ft below land surface, Sept. 8, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	8.41	JAN 29, 1996	4.19	APR 11, 1996	4.42	JUL 02, 1996	4.52
NOV 07	5.64	FEB 15	4.51	MAY 06	4.58	AUG 01	4.34
DEC 05	4.89	MAR 12	4.50	JUN 05	4.81	SEP 05	4.77
WATER YEAR 1996		HIGHEST	4.19	JAN 29, 1996	LOWEST	8.41	OCT 02, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

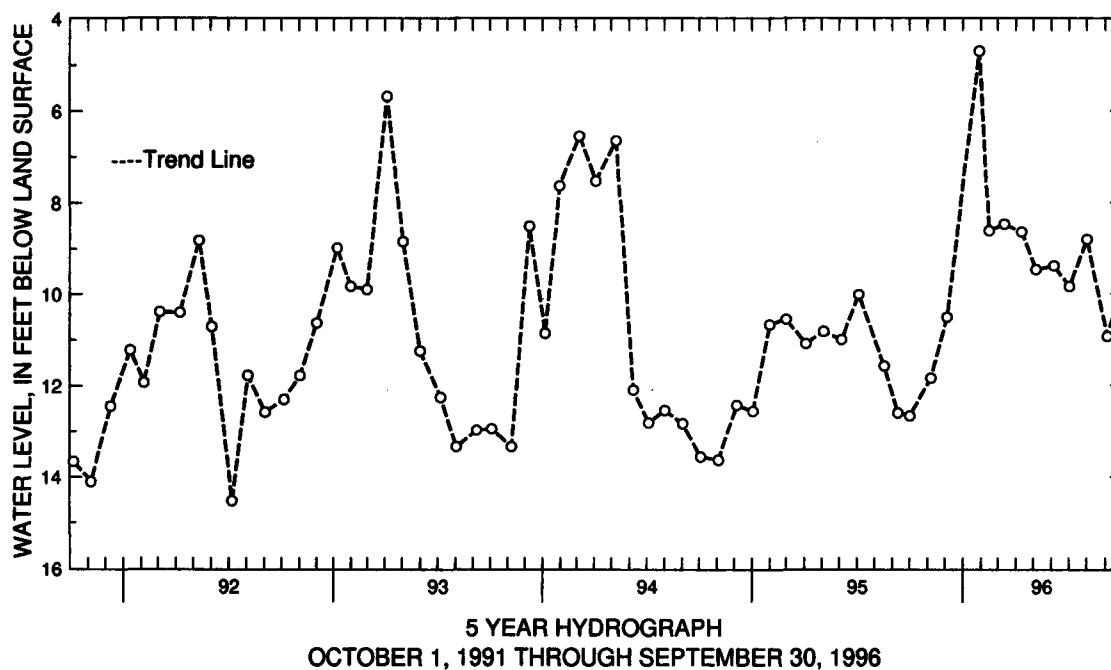
MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Ec 10. SITE ID.--390451077245901. PERMIT NUMBER.--MO-73-2833.
 LOCATION.--Lat 39°04'51", long 77°24'59", Hydrologic Unit 02070008, 3 mi southeast of Poolesville nr Sycamore
 Landing Road at McKee Beshler Wildlife Management Area.
 Owner: U.S. Geological Survey.
 AQUIFER.--New Oxford Formation of Upper Triassic age. Aquifer code: 231NOXF.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 857.5 ft; casing diameter 8 in., to 26 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 200 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 1.70 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well,
 PERIOD OF RECORD.--August 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.70 ft below land surface, Jan. 29, 1996.
 lowest measured, 14.52 ft below land surface, July 8, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	12.67	JAN 29, 1996	4.70	APR 11, 1996	8.65	JUL 02, 1996	9.84
NOV 07	11.85	FEB 15	8.62	MAY 06	9.47	AUG 01	8.81
DEC 05	10.52	MAR 12	8.48	JUN 05	9.39	SEP 05	10.94

WATER YEAR 1996 HIGHEST 4.70 JAN 29, 1996 LOWEST 12.67 OCT 02, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

MONTGOMERY COUNTY--Continued

WELL NUMBER.--MO Eh 20. SITE ID.--390434076573002.

LOCATION.--Lat 39°04'34", long 76°57'30", Hydrologic Unit 02070010, at MD Rt. 196 and Fairland Rd., Fairland.

Owner: Cities Service Oil Co.

AQUIFER.--Wissahickon Formation (lower pelitic schist) of Paleozoic age. Aquifer code: 300WSCK.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 102.9 ft; casing diameter 6 in., to 50 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land-surface datum.

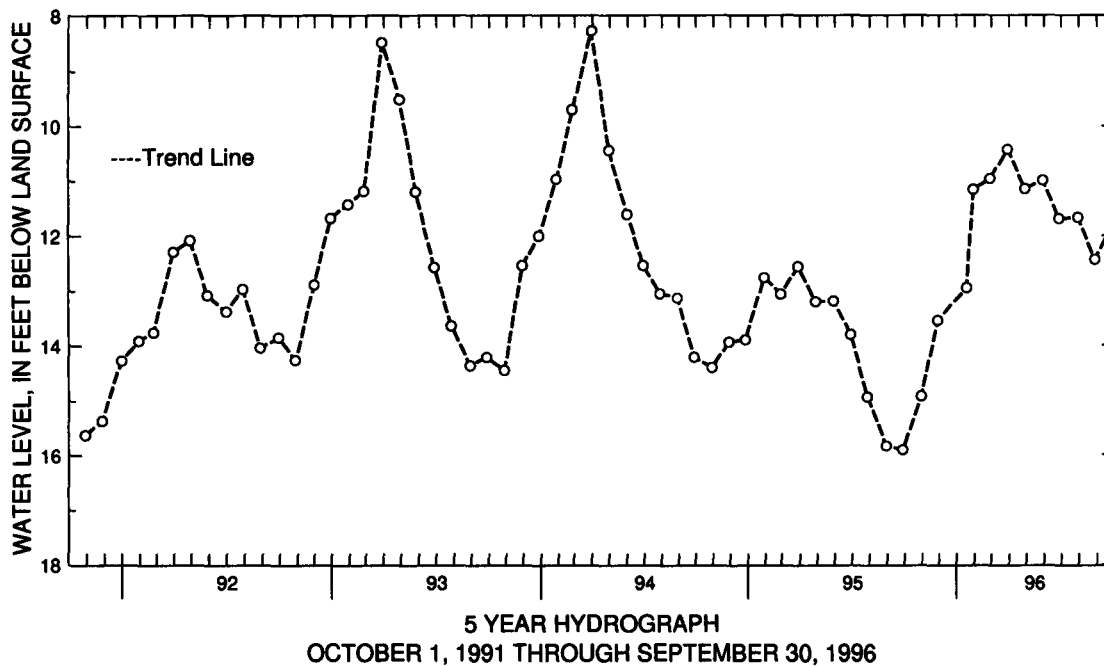
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--March 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.39 ft below land surface, June 25, 1972; lowest measured, 16.36 ft below land surface, Oct. 29, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	14.93	JAN 30, 1996	11.16	APR 29, 1996	11.15	JUL 30, 1996	11.67
NOV 29	13.55	FEB 28	10.97	MAY 30	10.99	AUG 29	12.44
JAN 18, 1996	12.95	MAR 29	10.43	JUN 27	11.69	SEP 30	11.79
WATER YEAR 1996		HIGHEST	10.43	MAR 29, 1996	LOWEST	14.93	OCT 30, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY

WELL NUMBER.--PG Bc 16. SITE ID.--390151076561501.

LOCATION.--Lat 39°01'51", long 76°56'15", Hydrologic Unit 02070010, at National Agricultural Research Center, Beltsville.

Owner: U.S. Department of Agriculture.

AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.

WELL CHARACTERISTICS.--Dug brick-lined, unused, water-table well, measured depth 27.4 ft; casing diameter 40 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water-level recorder from Oct. 31, 1962 to Feb. 9, 1965.

DATUM.--Elevation of land surface is 190 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of steel cover, 0.10 ft above land surface.

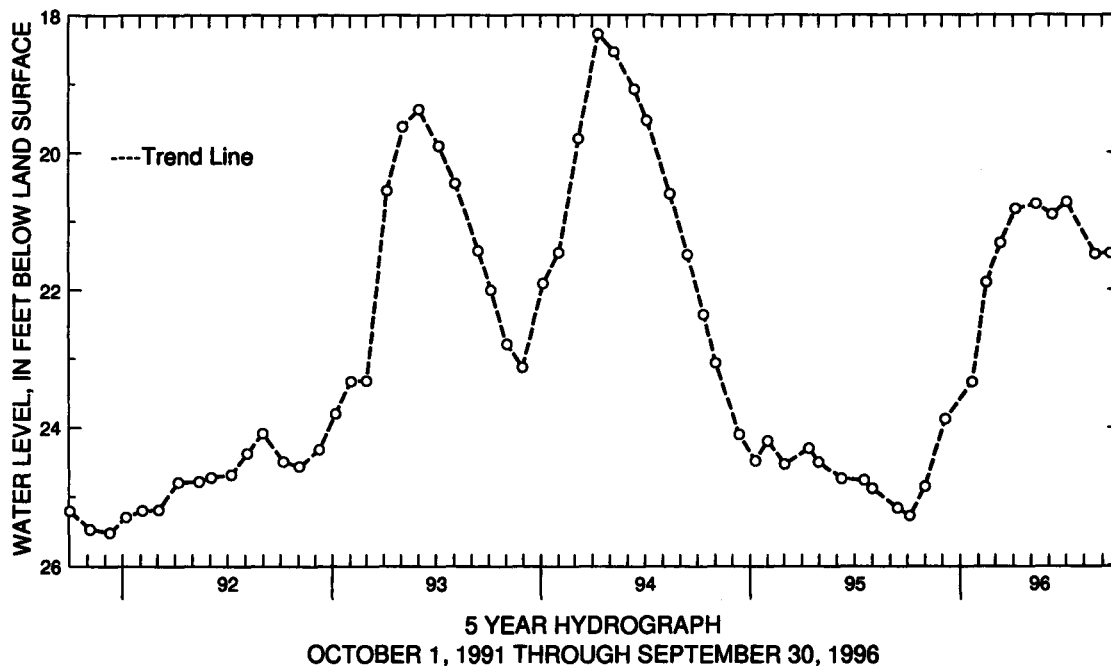
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--September 1962 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.26 ft below land surface, July 6, 1972; lowest measured, 26.46 ft below land surface, July 8, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1995	25.27	JAN 22, 1996	23.35	APR 05, 1996	20.82	JUL 02, 1996	20.72
NOV 01	24.85	FEB 15	21.89	MAY 10	20.75	AUG 21	21.48
DEC 06	23.88	MAR 11	21.32	JUN 07	20.90	SEP 16	21.47
WATER YEAR 1996		HIGHEST	20.72 JUL 02, 199	LOWEST	25.27 OCT 06, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY

WELL NUMBER.--PG De 21. SITE ID.--385130076465501. PERMIT NUMBER.--PG-02-2875.

LOCATION.--Lat 38°51'30", long 76°46'55", Hydrologic Unit 02060006, Agricultural Experiment Station, Southern Maryland Research and Educational Facility, at Oak Grove.

Owner: University of Maryland.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 155 ft; casing diameter 6 in., to 150 ft; screen diameter 6 in. from 150 to 155 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water-level recorder from May 26, 1958 to Jan. 27, 1965.

DATUM.--Elevation of land surface is 95.76 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.90 ft above land surface.

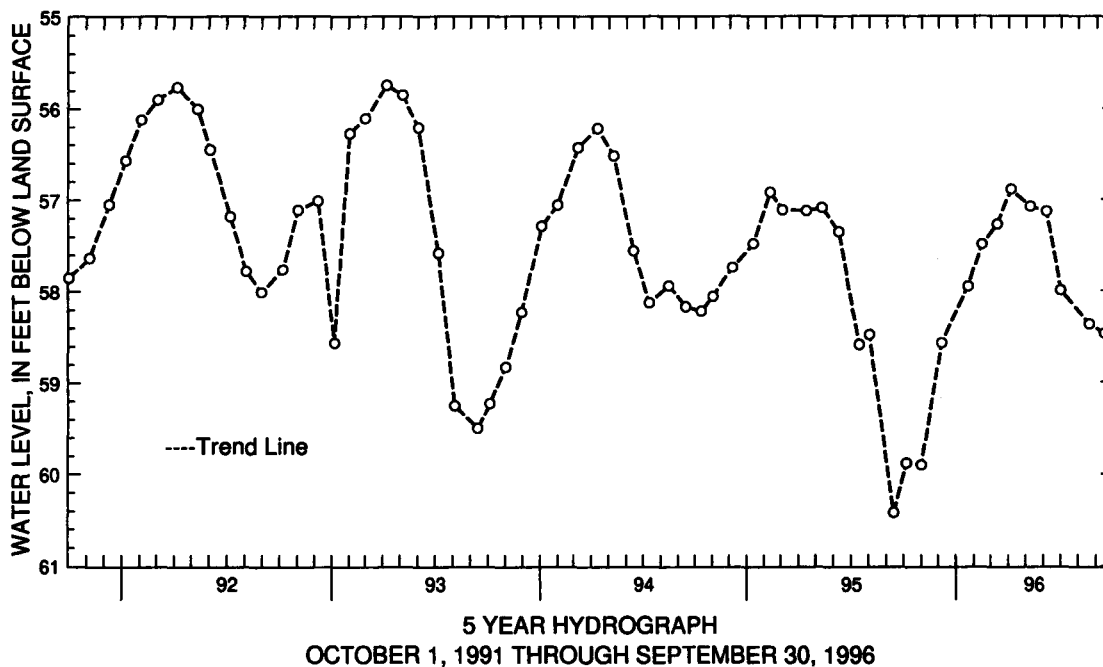
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.39 ft below land surface, May 26, and 29, 1958; lowest measured, 60.42 ft below land surface, Sept. 13, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1995	59.88	JAN 22, 1996	57.95	APR 05, 1996	56.89	JUL 02, 1996	58.00
NOV 01	59.90	FEB 15	57.49	MAY 10	57.08	AUG 21	58.37
DEC 06	58.57	MAR 13	57.27	JUN 07	57.13	SEP 16	58.47
WATER YEAR 1996		HIGHEST	56.89	APR 05, 1996	LOWEST	59.90	NOV 01, 1995



GROUND-WATER LEVELS

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MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER---PG Df 2. SITE ID---385152076431301.

LOCATION---Lat 38°51'52", long 76°43'13", Hydrologic Unit 02060006, near Leeland.

Owner: A. R. Rogers.

AQUIFER---Nanjemoy Formation of Lower Eocene age. Aquifer code: 124NNJM.

WELL CHARACTERISTICS---Dug, unused, artesian well, depth 81.5 ft; diameter of concrete-ring lining 48 in.

INSTRUMENTATION---Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM---Elevation of land surface is 145 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Edge of steel cover, 3.00 ft below land surface.

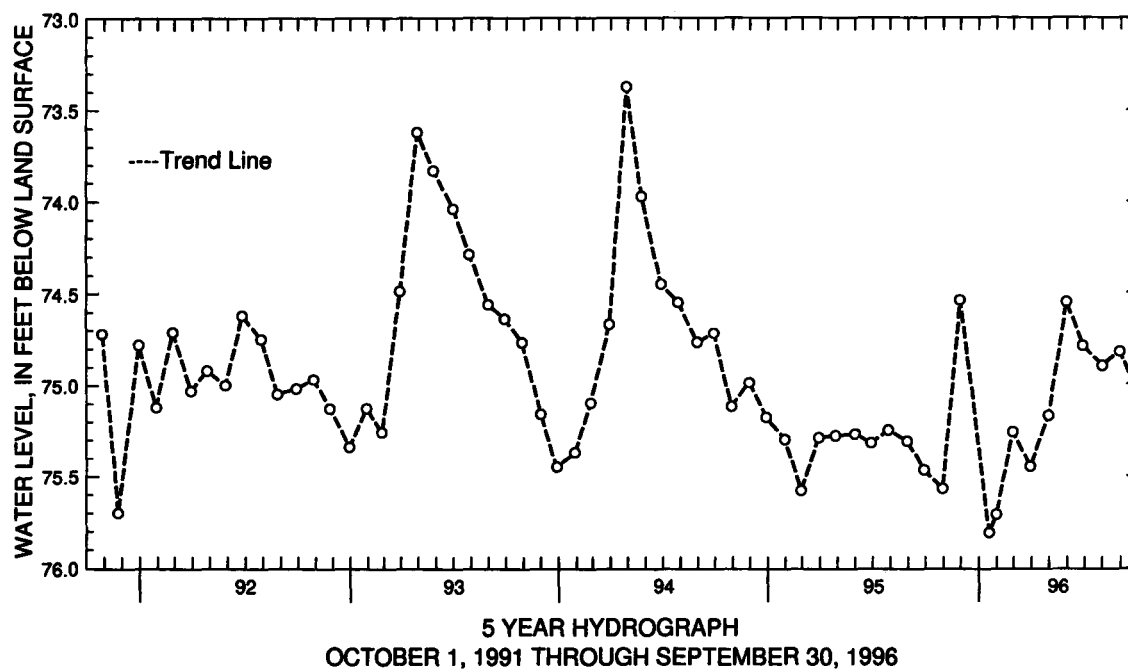
REMARKS---Maryland Water-Level Network observation well. Water level rise in summer of 1990 to 67.78 ft. below land surface was due to leaking water storage tank above well.

PERIOD OF RECORD---November 1948 to current year.

EXTREMES FOR PERIOD OF RECORD---Highest water level measured 67.78 ft below land surface, Sept. 7, 1990, (See Remarks); lowest measured, 75.96 ft below land surface, Nov. 19, 1951.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	75.57	JAN 30, 1996	75.71	APR 29, 1996	75.17	JUL 31, 1996	74.90
NOV 29	74.54	FEB 28	75.26	MAY 30	74.55	AUG 29	74.82
JAN 18, 1996	75.81	MAR 29	75.45	JUN 27	74.79	SEP 30	75.06
WATER YEAR 1996		HIGHEST	74.54	NOV 29, 1995	LOWEST	75.81	JAN 18, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

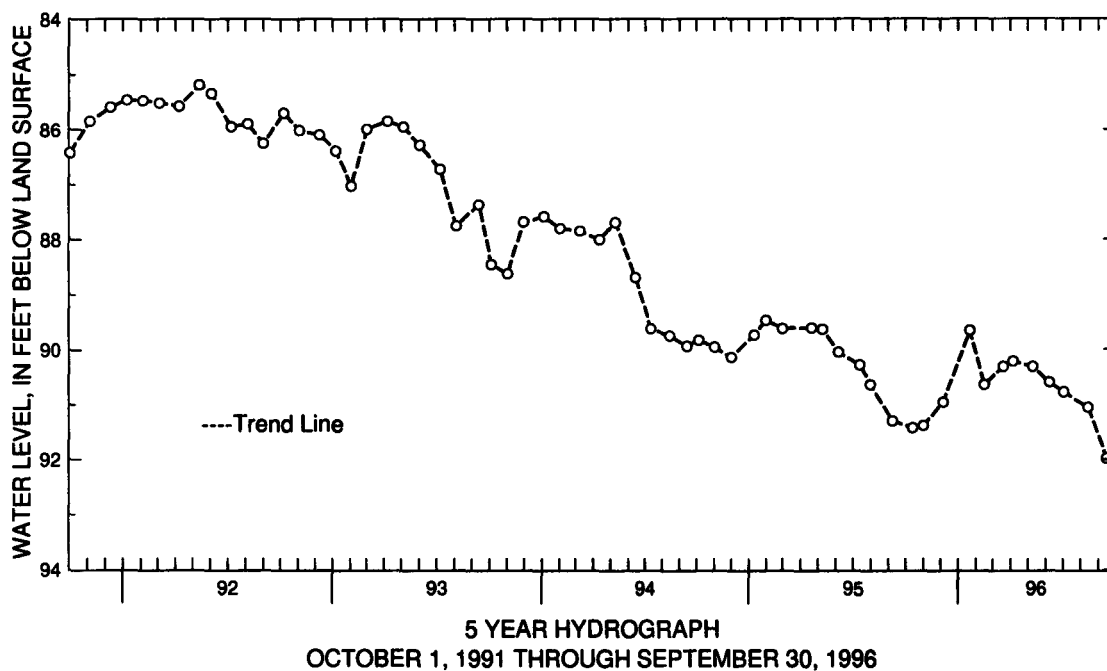
PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Fb 36. SITE ID.--384423077004501. PERMIT NUMBER.--PG-02-4834.
 LOCATION.--Lat 38°44'23", long 77°00'45", Hydrologic Unit 02070010, at Broadwater Estates.
 Owner: Broadwater Citizens Association.
 AQUIFER.--Upper Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 284 ft; casing diameter 8 in., to 271.5 ft; screen diameter 8 in. from 267.5 to 284 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 78 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 3.50 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels may be affected by nearby pumping. Highest water level reported, 62 ft below land surface, May 29, 1957;
 PERIOD OF RECORD.--July 1961, March 1962 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.99 ft below land surface, Oct. 3, 1979; lowest measured, 91.98 ft below land surface, Sept. 16, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13, 1995	91.43	JAN 22, 1996	89.66	APR 05, 1996	90.22	JUL 02, 1996	90.79
NOV 01	91.39	FEB 15	90.65	MAY 09	90.32	AUG 14	91.06
DEC 06	90.96	MAR 19	90.31	JUN 07	90.60	SEP 16	91.98

WATER YEAR 1996 HIGHEST 89.66 JAN 22, 1996 LOWEST 91.98 SEP 16, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Fc 17. SITE ID.--384230076555501.

LOCATION.--Lat 38°42'30", long 76°55'55", Hydrologic Unit 02070010, 75 ft south of Floral Park Rd., 3 mi west of the intersection with MD Rt. 5, Piscataway.

Owner: Potomac Edison Power Company, formerly Washington Gas Light Co.

AQUIFER.--La Plata aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 750 ft;

casing diameter 6 in.; casing perforated from 712 to 716 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water-level recorder from Oct. 27, 1955 to Sept. 4, 1956.

DATUM.--Elevation of land surface is 58.6 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.50 ft above land surface.

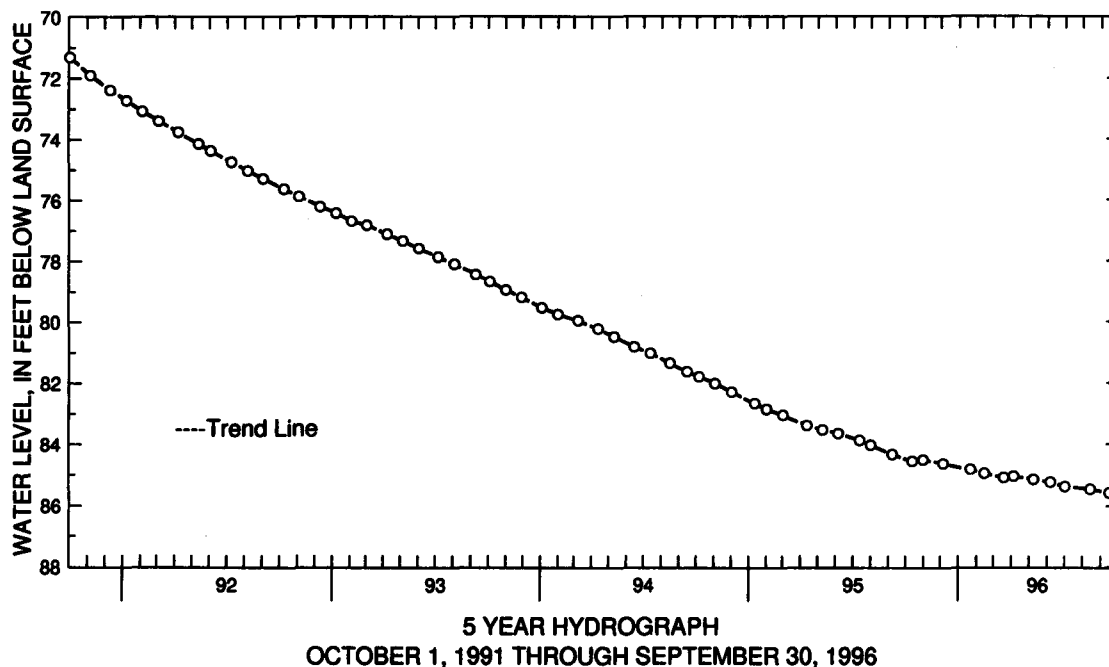
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1955 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.62 ft below land surface, Oct. 27, 1955; lowest measured, 85.58 ft below land surface, Sept. 16, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13, 1995	84.56	JAN 22, 1996	84.83	APR 05, 1996	85.05	JUL 02, 1996	85.38
NOV 01	84.52	FEB 15	84.96	MAY 09	85.15	AUG 14	85.47
DEC 06	84.64	MAR 19	85.09	JUN 07	85.24	SEP 16	85.58
WATER YEAR 1996		HIGHEST	84.52	NOV 01, 1995	LOWEST	85.58	SEP 16, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Fd 41. SITE ID.--384131076533301. PERMIT NUMBER.--PG-01-8058.

LOCATION.--Lat 38°41'31", long. 76°53'33", Hydrologic Unit 02070010, south side of MD Rt. 373, 1.14 mi west of intersection with MD Rt. 5, near T.B.

Owner: Colonial Investment Corp.

AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 362 ft; casing diameter 4 in., to 352 ft; screen diameter 2.5 in. from 352 to 362 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 196.92 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.80 ft above land surface.

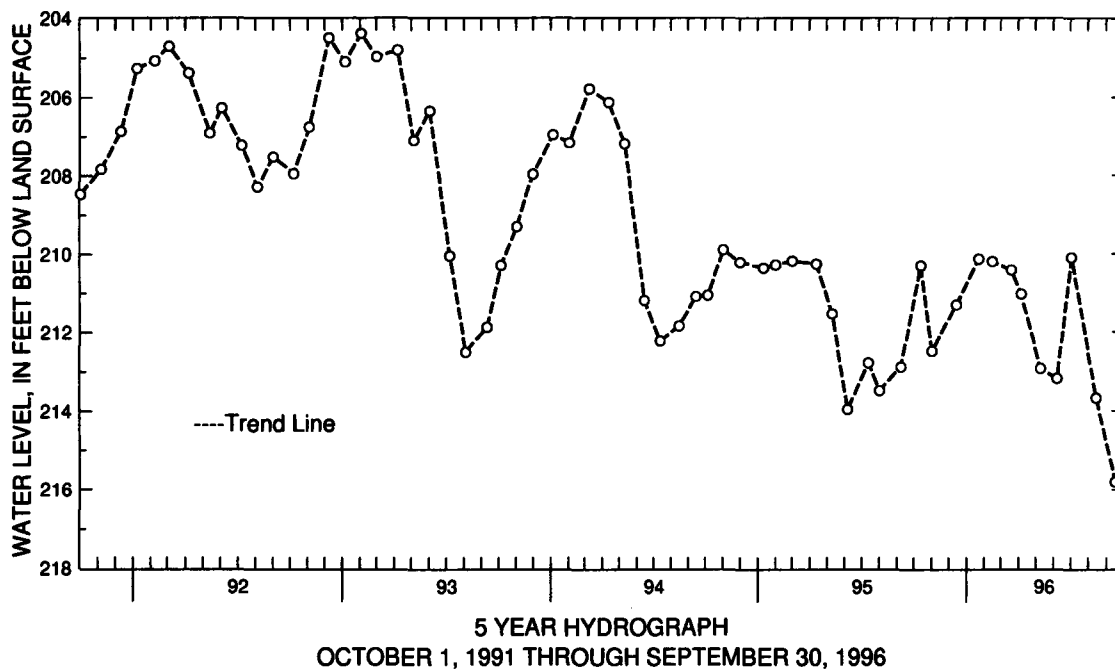
REMARKS.--Maryland Water-Level Network observation well. Water level reported 146 ft below land surface, March 11, 1955. Water levels are affected by nearby pumping.

PERIOD OF RECORD.--May 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 157.24 ft below land surface, March 4, 1968; lowest measured, 215.80 ft below land surface, Sept 16, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13, 1995	210.30	JAN 22, 1996	210.13	APR 05, 1996	211.03	JUL 02, 1996	210.10
NOV 01	212.49	FEB 15	210.20	MAY 09	212.93	AUG 14	213.68
DEC 14	211.30	MAR 19	210.42	JUN 07	213.19	SEP 16	215.80
WATER YEAR 1996		HIGHEST 210.10	JUL 02, 1996	LOWEST 215.80	SEP 16, 1996		



GROUND-WATER LEVELS

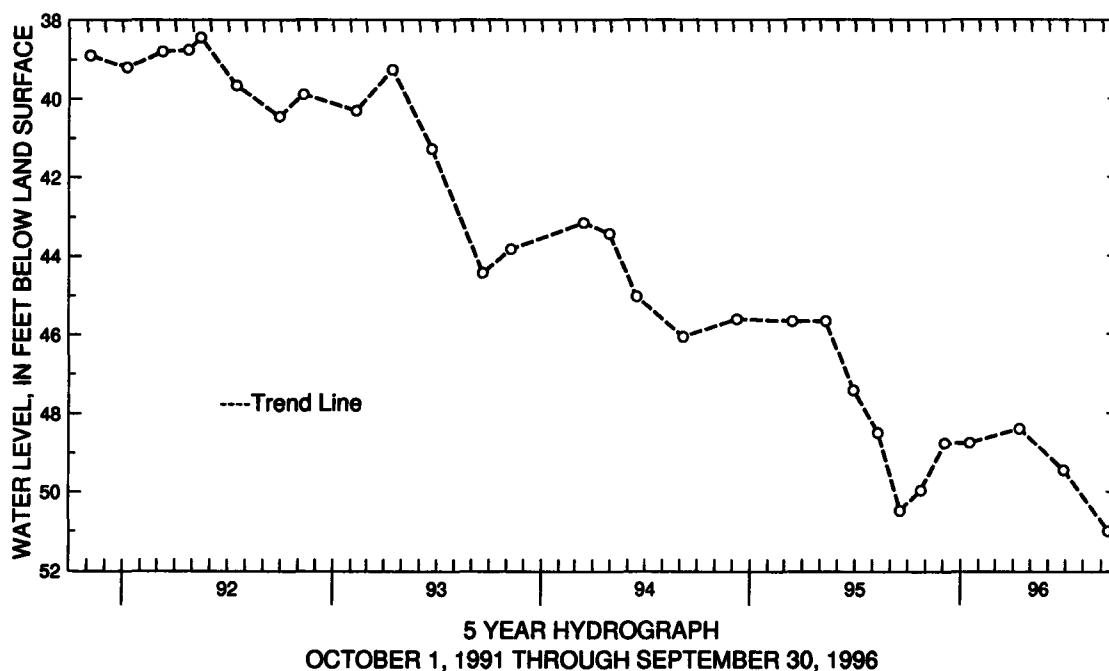
MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 35. SITE ID.--383228076410601. PERMIT NUMBER.--PG-72-0086.
 LOCATION.--Lat 38°32'28", long 76°41'06", Hydrologic Unit 02060006, at Chalk Point Power Plant,
 1.8 mi. south of Eagle Harbor.
 Owner: Potomac Edison Power Co.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 430 ft; casing diameter 6 in., to 401 ft;
 casing diameter 4 in. from 389 to 399 ft; screen diameter 4 in. from 399 to 430 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from May 1, 1974 to July 8, 1976. Equipped with digital
 water-level recorder--60-minute recorder interval from July 8, 1976 to Nov. 8, 1993.
 DATUM.--Elevation of land surface is 11.22 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.22 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--May 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.52 ft below land surface, Sept. 8, 1975;
 lowest measured, 50.99 ft below land surface, Sept 13, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1995	49.97	JAN 17, 1996	48.77	JUN 28, 1996	49.46		
DEC 05	48.78	APR 12	48.41	SEP 13	50.99		
WATER YEAR 1996		HIGHEST 48.41	APR 12, 1996	LOWEST 50.99	SEP 13, 1996		



MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 40. SITE ID.--383348076411301. PERMIT NUMBER.--PG-73-0298.
 LOCATION.--Lat 38°33'48", long 76°41'13", Hydrologic Unit 02060006, at Chalk Point Power Plant,
 0.4 mi. south of Eagle Harbor.
 Owner: Maryland Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 870 ft; casing diameter 6 in., to 150 ft;
 casing diameter 4 in. from 150 to 860 ft; screen diameter 4 in. from 860 to 870 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from Dec. 16, 1974 to July 8, 1976. Equipped with digital
 water-level recorder--30-minute recorder interval from July 8, 1976 to current year.
 DATUM.--Altitude of land surface is 27.98 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.46 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--December 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.64 ft above sea level, Jan. 11, 1975;
 lowest measured, 32.37 ft below sea level, Sept. 16, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-30.49	-30.82	-29.11	-29.51	-28.89	-29.30	-29.33	-29.65	-30.15	-30.44	-30.02	-30.44
2	-30.42	-30.72	-28.92	-29.30	-29.10	-29.63	-29.11	-29.46	-30.12	-30.36	-29.80	-30.10
3	-30.31	-30.67	-28.88	-29.21	-29.18	-29.58	-28.86	-29.25	-30.18	-30.51	-29.73	-30.47
4	-30.27	-30.57	-29.06	-29.46	-29.13	-29.43	-29.15	-29.57	-30.37	-30.87	-30.30	-30.60
5	-30.09	-30.42	-29.14	-29.48	-29.11	-29.42	-29.33	-29.68	-30.61	-30.95	-30.02	-30.35
6	-30.02	-30.76	-29.06	-29.39	-29.03	-29.37	-29.57	-30.02	-30.60	-31.23	-29.80	-30.17
7	-30.56	-31.09	-28.66	-29.29	-29.09	-29.37	-29.46	-30.02	-31.07	-31.40	-29.55	-30.07
8	-30.89	-31.24	-28.91	-29.65	-29.17	-29.54	-29.43	-29.87	-30.85	-31.30	-29.69	-30.26
9	-30.80	-31.18	-29.61	-29.98	-28.96	-29.37	-29.31	-29.88	-30.78	-31.13	-30.05	-30.66
10	-30.70	-31.11	-29.74	-30.06	-29.12	-29.42	-29.42	-30.14	-30.68	-31.13	-30.59	-30.92
11	-30.64	-30.99	-29.44	-30.08	-29.31	-29.64	-30.01	-30.31	-30.53	-30.88	-30.46	-30.91
12	-30.53	-30.88	-29.69	-30.12	-29.53	-29.95	-29.60	-30.10	-30.67	-30.93	-30.13	-30.58
13	-30.48	-30.81	-29.70	-30.11	-29.86	-30.11	-29.72	-30.00	-30.52	-31.07	-29.99	-30.31
14	-30.06	-30.67	-29.36	-29.87	-29.66	-30.16	-29.75	-30.00	-30.22	-30.55	-29.88	-30.26
15	-30.12	-30.40	-29.41	-29.82	-29.68	-29.92	-29.81	-30.22	-30.32	-30.67	-29.73	-30.11
16	-30.23	-30.41	-29.82	-30.14	-29.61	-29.88	-29.92	-30.34	-30.19	-30.61	-29.78	-30.20
17	-30.32	-30.58	-29.96	-30.20	-29.66	-29.91	-29.74	-30.08	-30.29	-30.68	-29.81	-30.17
18	-30.03	-30.42	-29.74	-30.09	-29.53	-29.88	-29.69	-30.13	-30.14	-30.62	-29.80	-30.17
19	-29.92	-30.20	-29.71	-30.03	-29.32	-29.71	-29.23	-29.99	-30.34	-30.69	-29.46	-30.05
20	-29.57	-30.05	-29.64	-30.02	-29.29	-29.82	-29.88	-30.30	-30.17	-30.63	-29.43	-29.80
21	-29.34	-29.71	-29.39	-29.82	-29.67	-30.14	-29.95	-30.43	-30.12	-30.54	-29.52	-30.06
22	-29.58	-29.88	-29.62	-29.93	-30.03	-30.55	-30.30	-30.77	-30.29	-30.68	-29.76	-30.17
23	-29.62	-29.95	-29.43	-29.87	-30.05	-30.54	-30.36	-30.77	-30.36	-30.70	-29.93	-30.36
24	-29.42	-29.86	-29.54	-29.94	-29.87	-30.30	-30.09	-30.61	-30.20	-30.58	-30.15	-30.41
25	-29.45	-29.85	-29.46	-29.92	-29.67	-30.16	-30.49	-30.82	-30.35	-30.61	-29.96	-30.35
26	-29.27	-29.73	-29.22	-29.71	-29.72	-30.08	-30.48	-30.86	-30.31	-30.61	-30.03	-30.39
27	-28.93	-29.55	-29.14	-29.43	-29.80	-30.07	-30.09	-30.59	-29.93	-30.47	-30.32	-30.58
28	-28.82	-29.19	-29.21	-29.56	-29.73	-30.08	-30.30	-30.77	-29.80	-30.15	-29.97	-30.39
29	-29.15	-29.44	-29.44	-29.67	-29.70	-29.98	-30.38	-30.75	-30.15	-30.49	-29.99	-30.24
30	-29.31	-29.59	-29.19	-29.61	-29.62	-29.91	-30.08	-30.53	---	---	-29.80	-30.08
31	-29.29	-29.54	---	---	-29.45	-29.81	-30.07	-30.50	---	---	-29.73	-30.03
MONTH	-28.82	-31.24	-28.66	-30.20	-28.89	-30.55	-28.86	-30.86	-29.80	-31.40	-29.43	-30.92

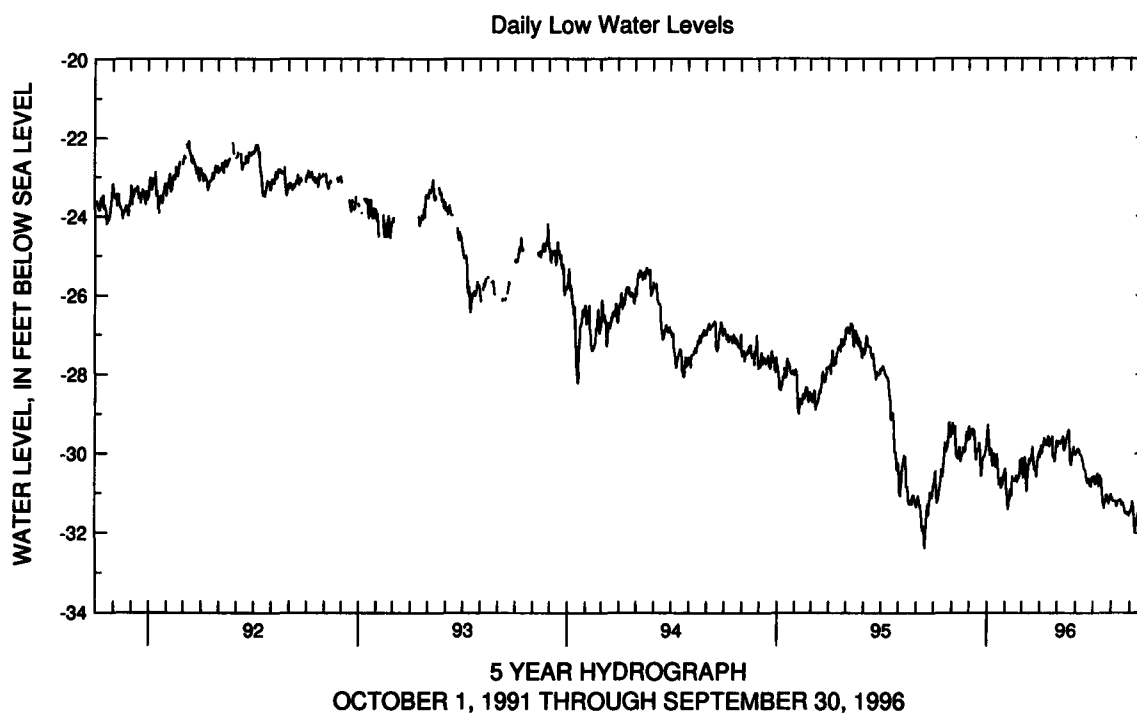
GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

PG Hf 40--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-29.57	-29.93	-29.47	-29.82	-29.62	-30.01	-30.14	-30.63	-30.65	-31.01	-31.15	-31.49
2	-29.65	-30.09	-29.45	-29.79	-29.65	-29.99	-30.23	-30.63	-30.74	-31.13	-31.09	-31.46
3	-29.47	-29.89	-29.42	-29.73	-29.56	-29.97	-30.11	-30.55	-30.77	-31.11	-31.09	-31.43
4	-29.42	-29.77	-29.36	-29.69	-29.44	-29.88	-30.32	-30.69	-30.85	-31.18	-31.08	-31.46
5	-29.45	-29.98	-29.34	-29.72	-29.46	-29.87	-30.42	-30.76	-30.88	-31.19	-31.09	-31.37
6	-29.47	-29.96	-29.24	-29.71	-29.62	-29.94	-30.36	-30.72	-30.91	-31.19	-30.64	-31.18
7	-29.41	-29.78	-29.42	-29.74	-29.55	-29.87	-30.29	-30.62	-30.91	-31.18	-30.64	-31.26
8	-29.41	-29.79	-29.35	-29.69	-29.62	-29.92	-30.21	-30.52	-30.91	-31.20	-31.13	-31.39
9	-29.22	-29.59	-29.35	-29.65	-29.66	-30.01	-30.21	-30.50	-30.94	-31.20	-31.11	-31.63
10	-29.46	-29.72	-29.31	-29.69	-29.71	-30.01	-30.27	-30.72	-30.96	-31.32	-31.49	-31.96
11	-29.45	-29.69	-29.23	-29.54	-29.70	-30.03	-30.49	-30.82	-31.08	-31.30	-31.65	-31.94
12	-29.41	-29.78	-29.23	-29.87	-29.70	-30.06	-30.49	-30.75	-30.93	-31.19	-31.51	-31.83
13	-29.33	-29.64	-29.63	-29.92	-29.76	-30.17	-30.01	-30.54	-30.65	-31.17	-31.20	-31.76
14	-29.31	-29.71	-29.54	-29.85	-29.83	-30.19	-30.34	-30.66	-30.81	-31.16	-31.28	-31.62
15	-29.32	-29.77	-29.47	-29.80	-29.89	-30.33	-30.32	-30.61	-30.82	-31.18	-31.24	-31.56
16	-29.12	-29.54	-29.25	-29.63	-30.03	-30.39	-30.36	-30.83	-30.85	-31.18	-31.09	-31.55
17	-29.36	-29.76	-29.26	-29.59	-30.09	-30.39	-30.54	-31.01	-30.86	-31.16	-30.96	-31.27
18	-29.46	-29.80	-29.18	-29.55	-30.05	-30.41	-30.84	-31.24	-30.90	-31.19	-31.11	-31.48
19	-29.34	-29.73	-29.15	-29.46	-30.11	-30.50	-30.89	-31.25	-30.99	-31.29	-31.00	-31.31
20	-29.29	-29.62	-29.10	-29.41	-30.33	-30.62	-31.02	-31.38	-30.95	-31.27	-30.92	-31.25
21	-29.34	-29.71	-29.10	-29.40	-30.41	-30.70	-30.99	-31.28	-30.95	-31.23	-30.86	-31.17
22	-29.33	-29.76	-29.30	-29.71	-30.32	-30.72	-30.79	-31.21	-31.00	-31.27	-30.72	-31.00
23	-29.20	-29.54	-29.71	-30.12	-30.34	-30.66	-30.76	-31.05	-31.01	-31.34	-30.77	-31.22
24	-29.44	-30.07	-29.93	-30.23	-30.28	-30.65	-30.76	-31.05	-31.06	-31.44	-30.68	-31.06
25	-29.90	-30.04	-29.98	-30.29	-30.28	-30.61	-30.70	-31.04	-31.16	-31.49	-30.61	-31.08
26	-29.77	-30.02	-29.87	-30.13	-30.41	-30.79	-30.69	-31.14	-31.15	-31.47	-30.73	-31.07
27	-29.90	-30.20	-29.76	-30.03	-30.48	-30.77	-30.86	-31.22	-31.09	-31.47	-30.61	-31.02
28	-29.73	-30.11	-29.66	-29.89	-30.44	-30.80	-30.90	-31.25	-31.10	-31.51	-30.46	-30.91
29	-29.60	-29.86	-29.58	-29.81	-30.38	-30.68	-30.86	-31.17	-31.09	-31.49	-30.54	-30.94
30	-29.41	-29.65	-29.54	-29.95	-30.27	-30.56	-30.71	-31.07	-31.12	-31.53	-30.66	-30.99
31	---	---	-29.64	-29.96	---	---	-30.65	-31.05	-31.15	-31.55	---	---
MONTH	-29.12	-30.20	-29.10	-30.29	-29.44	-30.80	-30.01	-31.38	-30.65	-31.55	-30.46	-31.96
YEAR	-28.66	-31.96										



GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 41. SITE ID.--383348076411302. PERMIT NUMBER.--PG-73-0297.
 LOCATION.--Lat 38°33'48", long 76°41'13", Hydrologic Unit 02060006, at Chalk Point Power Plant,
 0.4 mi. south of Eagle Harbor.
 Owner: Maryland Geological Survey.
 AQUIFER.--Magothy Formation of Upper Cretaceous age. Aquifer code: 211MGTY.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 667 ft; casing diameter 6 in., to 150 ft;
 casing diameter 4 in. from 150 to 644 ft, and 654 to 665 ft; screen diameter 4 in. from 644 to 654 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from Dec. 16, 1974 to July 8, 1976. Equipped with digital
 water-level recorder--60-minute recorder interval from July 8, 1976 to current year.
 DATUM.--Altitude of land surface is 28.30 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.60 ft above land surface.
 REMARKS.--Southern Maryland Observation Network. Water levels are affected by nearby pumping.
 PERIOD OF RECORD.--December 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.27 ft below sea level, Dec. 24, 1974;
 lowest measured, 44.38 ft below sea level, Aug. 25, 1996.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-40.81	-41.29	-38.35	-38.74	-38.72	-39.11	-40.56	-41.00	-40.37	-40.51	-39.74	-40.06
2	-40.57	-41.04	-38.22	-38.59	-39.03	-39.75	-40.11	-40.64	-40.37	-40.42	-39.88	-40.61
3	-40.42	-40.85	-38.24	-38.68	-39.24	-39.71	-39.74	-40.14	-40.38	-40.69	-40.38	-41.79
4	-40.25	-40.57	-38.49	-38.98	-39.17	-39.51	-39.97	-40.34	-40.52	-40.94	-41.75	-42.16
5	-40.17	-40.50	-38.56	-38.97	-38.99	-39.42	-39.80	-40.24	-40.65	-41.05	-41.82	-42.40
6	-40.10	-40.69	-38.46	-38.86	-38.96	-39.40	-40.11	-40.53	-40.59	-41.11	-42.19	-43.00
7	-40.28	-40.68	-37.99	-38.77	-39.08	-39.47	-39.76	-40.53	-40.73	-41.12	-42.51	-43.00
8	-40.32	-40.72	-38.26	-38.82	-39.30	-39.73	-39.76	-40.33	-40.66	-41.03	-42.76	-43.51
9	-40.09	-40.66	-38.75	-39.18	-39.03	-39.53	-39.70	-40.35	-40.88	-41.44	-43.29	-43.62
10	-39.95	-40.41	-38.71	-39.13	-39.26	-39.65	-39.78	-40.26	-41.09	-41.54	-43.06	-43.55
11	-39.88	-40.28	-38.31	-38.97	-39.46	-39.86	-40.16	-40.47	-40.86	-41.30	-42.34	-43.21
12	-39.92	-40.26	-38.56	-39.23	-39.57	-39.89	-39.67	-40.31	-40.93	-41.23	-41.74	-42.42
13	-39.92	-40.29	-38.94	-39.26	-39.33	-39.78	-39.83	-40.15	-40.61	-41.37	-41.36	-41.88
14	-39.37	-40.13	-38.84	-39.23	-39.16	-39.62	-39.87	-40.15	-40.40	-40.75	-41.11	-41.66
15	-39.40	-39.81	-38.82	-39.28	-39.25	-39.67	-39.99	-40.55	-40.68	-41.06	-40.74	-41.33
16	-39.56	-39.92	-39.28	-40.05	-39.40	-39.76	-40.13	-40.68	-40.55	-41.06	-40.52	-41.00
17	-39.78	-40.11	-39.90	-40.25	-39.53	-39.94	-39.92	-40.34	-40.73	-41.21	-40.39	-40.69
18	-39.47	-39.95	-39.82	-40.16	-39.64	-40.01	-40.01	-40.42	-40.50	-41.01	-40.37	-40.56
19	-39.28	-39.62	-39.79	-40.25	-39.45	-39.92	-39.61	-40.47	-40.52	-41.00	-39.33	-40.40
20	-38.83	-39.35	-39.75	-40.24	-39.40	-39.98	-40.38	-40.79	-40.38	-40.85	-38.94	-39.41
21	-38.53	-38.94	-39.44	-39.97	-39.54	-39.98	-40.14	-40.68	-40.01	-40.53	-38.94	-39.46
22	-38.64	-39.05	-39.67	-40.07	-39.74	-40.21	-40.08	-40.50	-39.76	-40.32	-39.08	-39.46
23	-38.57	-38.99	-39.34	-39.96	-39.65	-40.21	-40.10	-40.50	-39.67	-40.08	-39.19	-39.80
24	-38.16	-38.88	-39.51	-39.97	-39.51	-39.92	-40.03	-40.50	-39.62	-40.06	-39.68	-40.04
25	-38.20	-38.72	-39.30	-39.89	-39.39	-39.88	-40.45	-41.03	-39.87	-40.18	-39.54	-40.08
26	-38.16	-38.65	-38.93	-39.59	-39.50	-39.95	-40.55	-41.08	-39.80	-40.18	-39.47	-39.79
27	-37.92	-38.53	-38.84	-39.23	-39.59	-39.94	-40.15	-40.69	-39.42	-40.01	-39.58	-40.00
28	-37.86	-38.28	-38.89	-39.30	-39.55	-40.02	-40.31	-41.13	-39.28	-39.63	-39.04	-39.65
29	-38.27	-38.66	-39.13	-39.46	-39.54	-39.86	-40.61	-41.13	-39.63	-39.99	-39.04	-39.37
30	-38.45	-38.80	-38.98	-39.41	-39.74	-40.50	-40.38	-40.73	---	---	-38.74	-39.13
31	-38.42	-38.71	---	---	-40.43	-40.97	-40.38	-40.58	---	---	-38.69	-39.02
MONTH	-37.86	-41.29	-37.99	-40.25	-38.72	-40.97	-39.61	-41.13	-39.28	-41.54	-38.69	-43.62

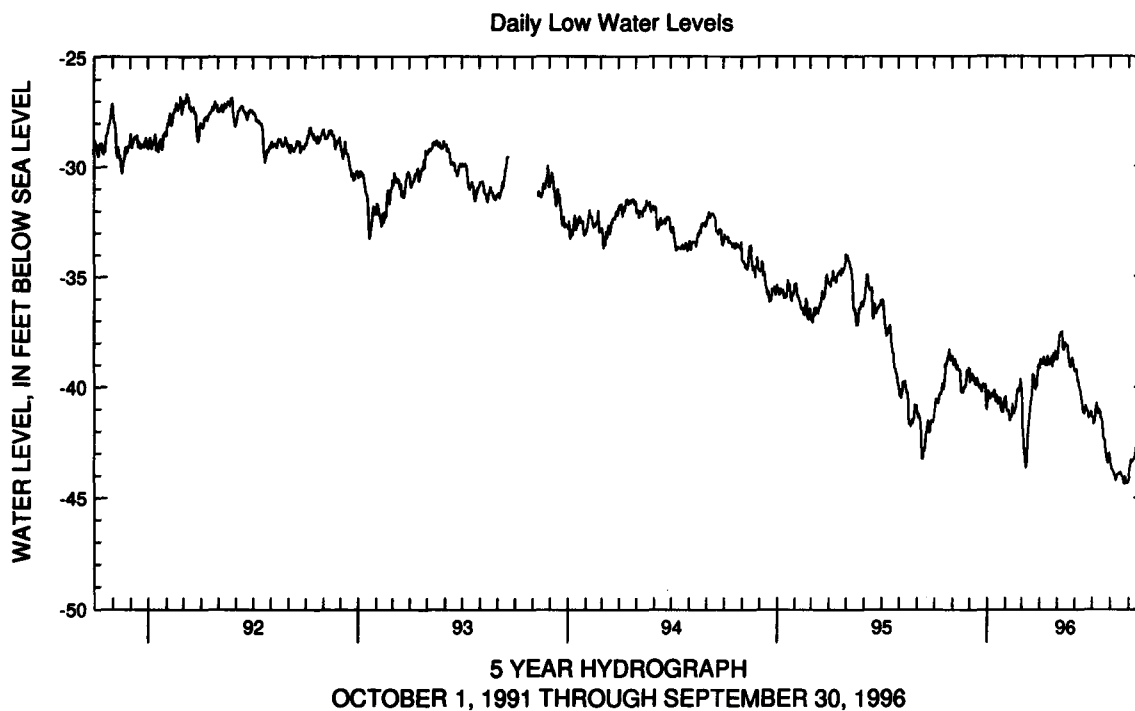
GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

PG Hf 41--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-38.55	-38.98	-38.24	-38.69	-38.73	-39.29	-40.67	-41.36	-42.70	-43.18	-43.78	-44.23
2	-38.61	-39.15	-38.34	-38.76	-38.86	-39.29	-40.88	-41.36	-42.96	-43.46	-43.58	-44.13
3	-38.34	-38.92	-38.13	-38.73	-38.75	-39.24	-40.89	-41.38	-43.05	-43.51	-43.37	-43.78
4	-38.27	-38.72	-37.80	-38.42	-38.72	-39.17	-41.14	-41.64	-43.27	-43.70	-43.23	-43.66
5	-38.32	-38.92	-37.46	-38.09	-38.92	-39.51	-41.16	-41.62	-43.33	-43.73	-43.20	-43.52
6	-38.47	-38.92	-37.14	-37.67	-39.35	-39.74	-40.86	-41.49	-43.39	-43.78	-42.54	-43.27
7	-38.46	-38.88	-37.18	-37.69	-39.24	-39.65	-40.60	-41.10	-43.44	-43.82	-42.55	-43.38
8	-38.39	-38.92	-37.10	-37.54	-39.27	-39.81	-40.45	-40.86	-43.48	-43.89	-43.08	-43.40
9	-38.19	-38.63	-37.13	-37.51	-39.54	-40.02	-40.43	-40.70	-43.60	-44.01	-42.95	-43.30
10	-38.45	-38.80	-37.13	-37.55	-39.67	-40.06	-40.42	-41.00	-43.75	-44.24	-42.97	-43.30
11	-38.38	-38.78	-37.13	-37.52	-39.73	-40.17	-40.69	-41.18	-43.89	-44.18	-42.94	-43.28
12	-38.65	-39.01	-37.21	-38.20	-39.79	-40.34	-40.86	-41.16	-43.70	-44.03	-42.81	-43.20
13	-38.62	-38.94	-37.93	-38.31	-39.99	-40.51	-40.40	-40.97	-43.38	-43.96	-42.46	-43.13
14	-38.55	-39.01	-37.92	-38.30	-40.12	-40.66	-40.77	-41.18	-43.47	-43.96	-42.41	-42.85
15	-38.44	-38.98	-37.78	-38.18	-40.31	-40.91	-40.67	-41.08	-43.48	-43.94	-42.19	-42.69
16	-38.12	-38.59	-37.54	-38.01	-40.60	-41.13	-40.78	-41.38	-43.50	-43.95	-41.90	-42.52
17	-38.39	-38.97	-37.64	-38.06	-40.80	-41.16	-40.99	-41.39	-43.51	-43.89	-41.63	-42.07
18	-38.56	-38.97	-37.66	-38.08	-40.77	-41.19	-41.12	-41.52	-43.40	-43.87	-41.79	-42.20
19	-38.35	-38.88	-37.71	-38.09	-40.60	-41.15	-41.17	-41.55	-43.47	-43.85	-41.70	-42.09
20	-38.36	-38.73	-37.71	-38.09	-40.49	-40.83	-41.52	-42.11	-43.58	-43.92	-41.47	-41.95
21	-38.50	-38.91	-37.81	-38.19	-40.54	-40.94	-41.95	-42.34	-43.67	-43.99	-41.21	-41.72
22	-38.39	-38.98	-38.12	-38.54	-40.62	-41.04	-41.89	-42.36	-43.69	-44.09	-41.00	-41.35
23	-38.19	-38.60	-38.40	-38.76	-40.63	-41.06	-41.91	-42.40	-43.77	-44.22	-41.04	-41.48
24	-38.39	-39.08	-38.53	-38.90	-40.71	-41.08	-42.20	-42.74	-43.86	-44.37	-40.70	-41.18
25	-38.33	-38.83	-38.77	-39.08	-40.71	-41.23	-42.44	-42.92	-43.89	-44.38	-40.58	-41.10
26	-38.16	-38.46	-38.72	-39.04	-40.98	-41.42	-42.55	-43.15	-43.64	-44.03	-40.71	-41.08
27	-38.31	-38.82	-38.68	-38.97	-40.89	-41.19	-42.78	-43.29	-43.59	-44.18	-40.55	-41.06
28	-38.28	-38.71	-38.52	-38.79	-40.80	-41.26	-42.92	-43.46	-43.78	-44.34	-40.50	-40.94
29	-38.09	-38.40	-38.36	-38.67	-40.84	-41.19	-42.81	-43.31	-43.91	-44.35	-40.53	-41.03
30	-38.04	-38.44	-38.30	-38.90	-40.74	-41.09	-42.48	-43.07	-43.88	-44.35	-40.58	-41.02
31	---	---	-38.55	-39.11	---	---	-42.44	-43.03	-43.83	-44.31	---	---
MONTH	-38.04	-39.15	-37.10	-39.11	-38.72	-41.42	-40.40	-43.46	-42.70	-44.38	-40.50	-44.23
YEAR	-37.10	-44.38										



GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 42. SITE ID.--383348076411303. PERMIT NUMBER.--PG-73-0294.
 LOCATION.--Lat 38°33'48", long 76°41'13", Hydrologic Unit 02060006, at Chalk Point Power Plant,
 0.4 mi. south of Eagle Harbor.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 386 ft; casing diameter 6 in., to 150 ft;
 casing diameter 4 in. from 150 to 366 ft and 376 to 386 ft; screen diameter 4 in. from 366 to 376 ft.
 INSTRUMENTATION.--Measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from Jan. 2, 1975 to July 8, 1976. Equipped with digital water-
 level recorder--60-minute recorder interval from July 8, 1976 to current year.
 DATUM.--Altitude of land surface is 27.76 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.65 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.84 ft above sea level, April 22, 1975;
 lowest measured, 37.81 ft below sea level, Sept. 10, and 18, 1996.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	-36.29	-36.56	-36.03	-36.36	-35.35	-35.86	-35.55	-35.92	-35.70	-36.05	-35.27	-35.77
2	-36.25	-36.61	-35.87	-36.13	-35.60	-36.25	-35.31	-35.70	-35.91	-36.06	-35.04	-35.36
3	-36.27	-36.58	-35.77	-36.10	-35.77	-36.16	-35.07	-35.50	-35.91	-36.09	-34.98	-35.94
4	-36.20	-36.52	-35.93	-36.42	-35.71	-36.04	-35.41	-35.98	-35.76	-36.16	-35.84	-36.12
5	-36.09	-36.52	-36.11	-36.43	-35.70	-36.04	-35.71	-36.05	-35.92	-36.15	-35.56	-35.92
6	-35.97	-36.28	-36.06	-36.36	-35.59	-36.02	-35.98	-36.25	-35.52	-36.05	-35.31	-35.71
7	-36.13	-36.46	-35.59	-36.28	-35.76	-36.04	-35.39	-36.20	-35.42	-35.79	-35.04	-35.61
8	-36.20	-36.61	-35.88	-36.27	-35.92	-36.21	-35.37	-35.98	-35.42	-35.89	-35.23	-35.97
9	-36.26	-36.65	-36.20	-36.56	-35.67	-36.05	-35.32	-35.99	-35.25	-35.71	-35.73	-36.07
10	-36.24	-36.63	-36.07	-36.45	-35.91	-36.14	-35.39	-35.96	-35.43	-35.95	-35.91	-36.17
11	-36.25	-36.61	-35.41	-36.21	-36.04	-36.32	-35.96	-36.23	-35.56	-36.07	-35.66	-36.12
12	-36.28	-36.66	-35.51	-36.28	-36.10	-36.39	-35.52	-36.02	-35.25	-35.79	-35.33	-35.80
13	-36.32	-36.71	-36.01	-36.31	-35.94	-36.26	-35.64	-36.00	-35.30	-35.79	-35.16	-35.51
14	-36.13	-36.60	-35.66	-36.17	-35.64	-36.12	-35.74	-35.99	-35.24	-35.76	-35.09	-35.46
15	-36.01	-36.50	-35.54	-35.91	-35.68	-35.97	-35.74	-36.18	-35.28	-35.94	-34.94	-35.35
16	-36.29	-36.70	-35.85	-36.23	-35.61	-35.94	-35.94	-36.27	-35.29	-35.91	-34.97	-35.44
17	-36.58	-36.92	-36.08	-36.27	-35.74	-36.02	-35.71	-36.04	-35.58	-35.97	-35.02	-35.39
18	-36.55	-36.90	-35.93	-36.21	-35.65	-36.00	-35.72	-36.09	-35.40	-35.94	-35.02	-35.40
19	-36.29	-36.65	-35.90	-36.21	-35.38	-35.91	-35.01	-35.86	-35.33	-35.77	-34.61	-35.26
20	-36.10	-36.57	-35.82	-36.21	-35.35	-35.98	-35.71	-36.15	-35.33	-35.73	-34.54	-35.01
21	-35.81	-36.22	-35.51	-35.99	-35.61	-35.98	-35.70	-36.07	-35.32	-35.66	-34.72	-35.32
22	-36.01	-36.39	-35.83	-36.15	-35.83	-36.26	-35.60	-36.03	-35.17	-35.60	-35.01	-35.47
23	-36.17	-36.51	-35.74	-36.17	-35.90	-36.26	-35.45	-35.92	-35.51	-35.80	-35.22	-35.72
24	-35.98	-36.45	-35.94	-36.29	-35.70	-36.05	-35.24	-35.73	-35.60	-35.90	-35.48	-35.77
25	-36.07	-36.45	-35.92	-36.28	-35.55	-36.00	-35.22	-36.11	-35.17	-35.78	-35.13	-35.62
26	-35.97	-36.38	-35.63	-36.14	-35.64	-36.07	-35.93	-36.15	---	---	-35.20	-35.61
27	-35.64	-36.25	-35.57	-35.91	-35.92	-36.12	-35.34	-35.95	---	---	-35.50	-35.79
28	-35.53	-35.96	-35.57	-36.06	-35.94	-36.21	-35.32	-36.13	---	---	-35.14	-35.56
29	-35.96	-36.31	-35.94	-36.26	-35.95	-36.15	-35.43	-35.79	-35.31	-35.77	-35.14	-35.50
30	-36.18	-36.46	-35.79	-36.20	-35.91	-36.11	-35.59	-35.96	---	---	-35.02	-35.32
31	-36.17	-36.40	---	---	-35.74	-36.04	-35.61	-35.94	---	---	-34.97	-35.27
MONTH	-35.53	-36.92	-35.41	-36.56	-35.35	-36.39	-35.01	-36.27	-35.17	-36.16	-34.54	-36.17

GROUND-WATER LEVELS

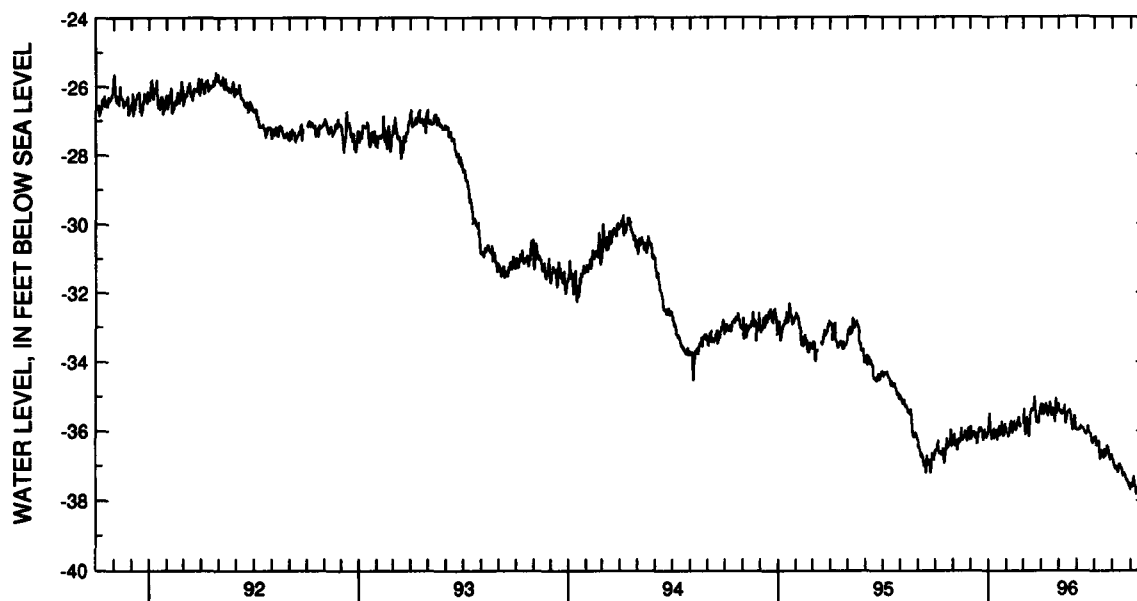
MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

PG Hf 42--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-34.82	-35.20	-35.01	-35.40	-35.51	-35.97	-35.69	-36.25	-36.25	-36.81	-37.22	-37.56
2	-34.94	-35.54	-34.98	-35.46	-35.57	-35.98	-35.90	-36.26	-36.41	-36.82	-37.18	-37.52
3	-34.94	-35.30	-34.98	-35.40	-35.56	-35.98	-35.75	-36.16	-36.46	-36.91	-37.19	-37.56
4	-34.82	-35.22	-34.98	-35.40	-35.42	-35.95	-35.99	-36.41	-36.61	-36.99	-37.22	-37.63
5	-34.90	-35.54	-35.08	-35.53	-35.48	-35.92	-36.09	-36.42	-36.73	-37.04	-37.28	-37.53
6	-34.96	-35.50	-34.97	-35.48	-35.60	-35.97	-36.10	-36.42	-36.79	-37.09	-36.60	-37.31
7	-34.87	-35.35	-35.10	-35.53	-35.50	-35.91	-36.07	-36.41	-36.76	-37.07	-36.61	-37.44
8	-34.96	-35.35	-35.05	-35.44	-35.51	-35.87	-36.07	-36.29	-36.74	-37.04	-37.31	-37.56
9	-34.73	-35.19	-35.04	-35.39	-35.55	-35.92	-36.05	-36.36	-36.76	-37.08	-37.24	-37.59
10	-35.19	-35.47	-35.00	-35.45	-35.57	-35.91	-36.13	-36.69	-36.94	-37.21	-37.33	-37.81
11	-35.17	-35.49	-34.94	-35.24	-35.53	-35.91	-36.36	-36.80	-36.77	-37.15	-37.37	-37.78
12	-35.11	-35.59	-34.97	-35.74	-35.51	-35.92	-36.47	-36.76	-36.36	-36.99	-37.32	-37.69
13	-34.98	-35.31	-35.48	-35.79	-35.55	-35.99	-35.90	-36.59	-36.59	-37.01	-37.04	-37.69
14	-34.91	-35.32	-35.30	-35.64	-35.61	-36.00	-36.25	-36.62	-36.62	-36.95	-37.18	-37.61
15	-34.90	-35.36	-35.21	-35.59	-35.64	-36.07	-36.24	-36.56	-36.75	-37.07	-37.25	-37.61
16	-34.60	-35.15	-34.98	-35.45	-35.72	-36.10	-36.27	-36.75	-36.75	-37.07	-37.19	-37.62
17	-34.97	-35.50	-35.03	-35.46	-35.74	-36.10	-36.38	-36.77	-36.78	-37.08	-37.07	-37.36
18	-35.14	-35.54	-35.02	-35.44	-35.62	-36.04	-36.30	-36.75	-36.84	-37.22	-37.34	-37.81
19	-35.01	-35.49	-35.01	-35.39	-35.57	-36.00	-36.13	-36.53	-37.00	-37.29	-37.27	-37.59
20	-34.93	-35.32	-35.07	-35.41	-35.51	-35.85	-36.27	-36.74	-36.94	-37.25	-37.21	-37.52
21	-35.00	-35.52	-35.15	-35.47	-35.63	-36.00	-36.35	-36.66	-36.94	-37.22	-37.16	-37.45
22	-35.16	-35.58	-35.29	-35.59	-35.63	-36.03	-36.19	-36.61	-37.00	-37.26	-37.06	-37.32
23	-35.03	-35.39	-35.41	-35.75	-35.65	-36.08	-36.16	-36.44	-36.99	-37.30	-37.13	-37.73
24	-35.24	-35.76	-35.50	-35.94	-35.69	-36.08	-36.21	-36.46	-37.09	-37.36	-37.10	-37.49
25	-34.95	-35.45	-35.66	-35.99	-35.69	-36.08	-36.20	-36.47	-37.08	-37.43	-37.01	-37.60
26	-34.81	-35.04	-35.54	-35.82	-35.93	-36.30	-36.13	-36.64	-37.05	-37.41	-37.27	-37.61
27	-35.03	-35.51	-35.45	-35.69	-36.01	-36.31	-36.31	-36.76	-37.10	-37.46	-37.13	-37.61
28	-35.16	-35.43	-35.30	-35.58	-35.99	-36.37	-36.39	-36.82	-37.11	-37.53	-36.97	-37.43
29	-35.01	-35.27	-35.29	-35.60	-35.94	-36.28	-36.33	-36.78	-37.10	-37.49	-37.10	-37.58
30	-34.89	-35.20	-35.34	-35.95	-35.83	-36.21	-36.27	-36.74	-37.15	-37.63	-37.29	-37.63
31	---	---	-35.57	-35.93	---	---	-36.23	-36.67	-37.22	-37.67	---	---
MONTH	-34.60	-35.76	-34.94	-35.99	-35.42	-36.37	-35.69	-36.82	-36.25	-37.67	-36.60	-37.81
YEAR	-34.54	-37.81										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

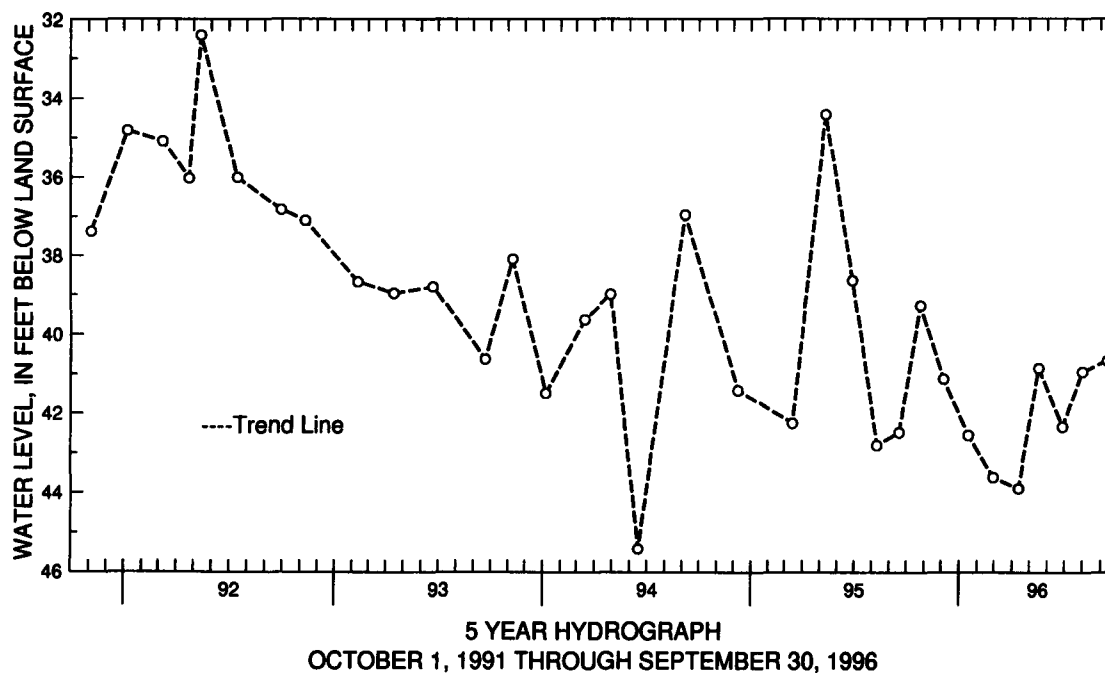
PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Hf 44. SITE ID.--383250076405304. PERMIT NUMBER.--PG-73-0065.
 LOCATION.--Lat 38°32'50", long 76°40'53", Hydrologic Unit 02060006, at Chalk Point Power Plant,
 on east side of canal.
 Owner: Potomac Edison Power Co.
 AQUIFER.--Upper Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,030 ft; casing diameter 3 in., to 1,025 ft;
 screen diameter 3 in. from 1,025 to 1,030 ft.
 INSTRUMENTATION.--Periodic measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with transducer water-level recorder--15-minute recorder interval from June 1995 to current year.
 DATUM.--Elevation of land surface is 10.48 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 5 ft above land surface.
 REMARKS.--Southern Maryland Observation Well Network. Water levels affected by nearby pumping. This well has
 a 1 in. diameter well inside the 3 in. casing separated by a packer screened in the Lower Patapsco Formation
 as well PG Hf 32.
 PERIOD OF RECORD.--June 1973, July 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.37 ft above land surface, June 24, 1973;
 lowest measured, 45.43 ft below land surface, June 16, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 25, 1995	39.30	Feb 28, 1996	43.62	MAY 17, 1996	40.88	AUG 01, 1996	40.97
DEC 05	41.15	APR 12	43.90	JUN 28	42.35	SEP 13	40.69
JAN 17, 1996	42.56						

WATER YEAR 1996 HIGHEST 39.30 OCT 25, 1995 LOWEST 43.90 APR 12, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

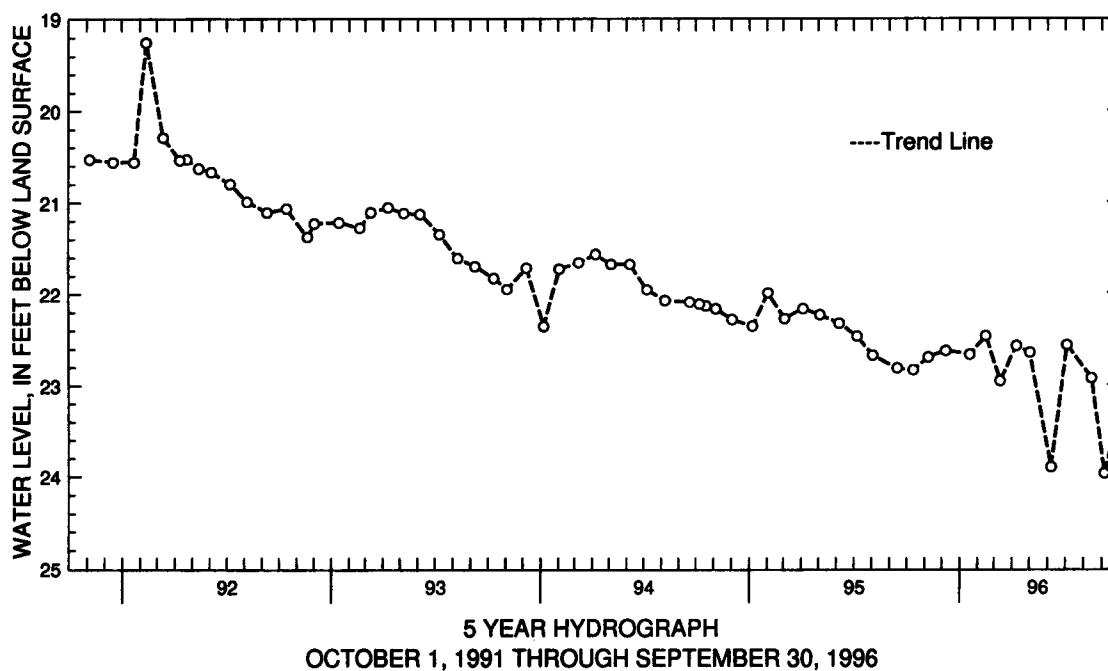
QUEEN ANNES COUNTY

WELL NUMBER.--QA Be 15. SITE ID.--391203076024301. PERMIT NUMBER.--QA-70-0130.
 LOCATION.--Lat 39°12'03", long 76°02'43", Hydrologic Unit 02060002, at Kingstown off MD Rt. 213.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,171 ft; casing diameter 4 in., to 1,161 ft; screen diameter 4 in. from 1,161 to 1,171 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Measured twice yearly from February 1988 to April 1991.
 DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 2.75 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--March 1971 to October 1972, July 1977 to December 1978, October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.52 ft below land surface, Oct. 10, 1971; lowest measured, 23.97 ft below land surface, Sept. 06, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	22.84	JAN 18, 1996	22.67	APR 08, 1996	22.58	JUL 03, 1996	22.57
NOV 07	22.70	FEB 15	22.47	MAY 01	22.65	AUG 14	22.93
DEC 07	22.63	MAR 11	22.96	JUN 07	23.90	SEP 06	23.97

WATER YEAR 1996 HIGHEST 22.47 FEB 15, 1996 LOWEST 23.97 SEP 06, 1996



GROUND-WATER LEVELS

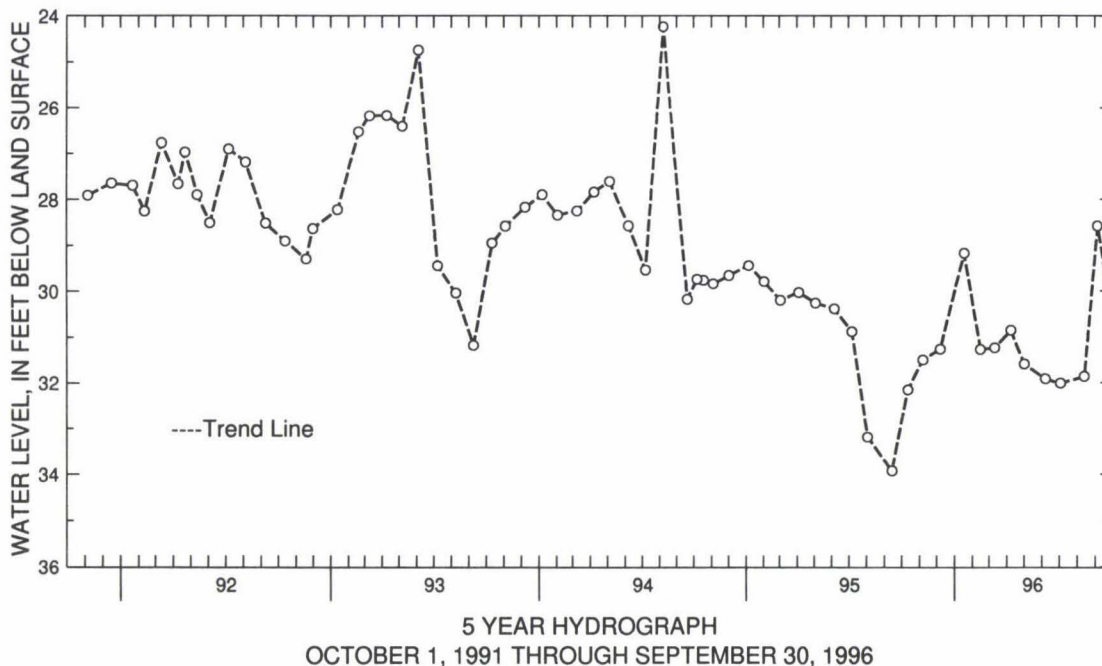
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Be 16. SITE ID.--391203076024302. PERMIT NUMBER.--QA-70-0130.
 LOCATION.--Lat 39°12'03", long 76°02'43", Hydrologic Unit 02060002, at Kingstown off MD Rt. 213.
 Owner: U.S. Geological Survey.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 495 ft; casing diameter 6 in., to 475 ft; screen diameter 6 in. from 475 to 495 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Measured twice yearly from February 1988 to April 1991.
 DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of casing, 2.70 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Water levels may be affected by nearby pumping.
 PERIOD OF RECORD.--March 1971 to September 1972, July 1977 to May 1979, October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.41 ft below land surface, Sept. 11, 1971; lowest measured, 33.93 ft below land surface, Sept. 14, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	32.16	JAN 18, 1996	29.17	APR 08, 1996	30.86	JUL 03, 1996	32.02
NOV 07	31.51	FEB 15	31.28	MAY 01	31.60	AUG 13	31.87
DEC 07	31.27	MAR 11	31.24	JUN 07	31.92	SEP 06	28.58
WATER YEAR 1996		HIGHEST	28.58	SEP 06, 1996	LOWEST	32.16	OCT 12, 1995



MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Be 17. SITE ID.--391203076024303.

LOCATION.--Lat 39°12'03", long 76°02'43", Hydrologic Unit 02060002, at Kingstown off MD Rt. 213.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 120 ft; casing diameter 6 in., to 100 ft; screen diameter 6 in. from 100 to 120 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Measured twice yearly from February 1988 to April 1991.

DATUM.--Elevation of land surface is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.50 ft above land surface.

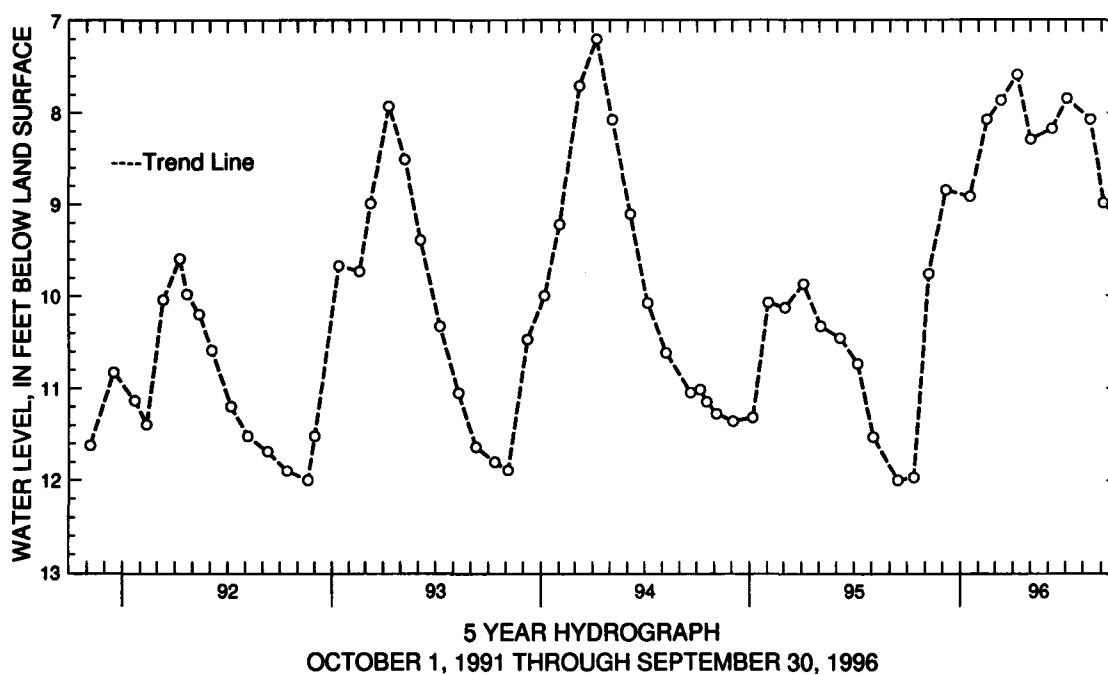
REMARKS.--Maryland Water-Level Network observation well. Water levels may be affected by nearby pumping.

PERIOD OF RECORD.--July 1977 to July 1979, October 1986 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.94 ft below land surface, March 6, 1979; lowest measured, 13.00 ft below land surface, Sept. 30, 1977.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	11.97	JAN 18, 1996	8.92	APR 08, 1996	7.59	JUL 03, 1996	7.85
NOV 07	9.76	FEB 15	8.08	MAY 01	8.30	AUG 13	8.08
DEC 07	8.85	MAR 11	7.87	JUN 07	8.18	SEP 06	8.99
WATER YEAR 1996		HIGHEST	7.59	APR 08, 1996	LOWEST	11.97	OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Cg 1. SITE ID.--390841075515201. PERMIT NUMBER.--QA-00-3949.

LOCATION.--Lat 39°08'41", long 75°51'52", Hydrologic Unit 02060002, at Barclay.

Owner: Town of Barclay.

AQUIFER.--Pensauken Formation of Upper Miocene age. Aquifer code: 122PNSK.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, reported depth 60 ft, measured depth 44 ft; casing diameter 4 in., to 50 ft; screened from 50 to 60 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 69 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Lip of hose connector, 1.90 ft above land surface.

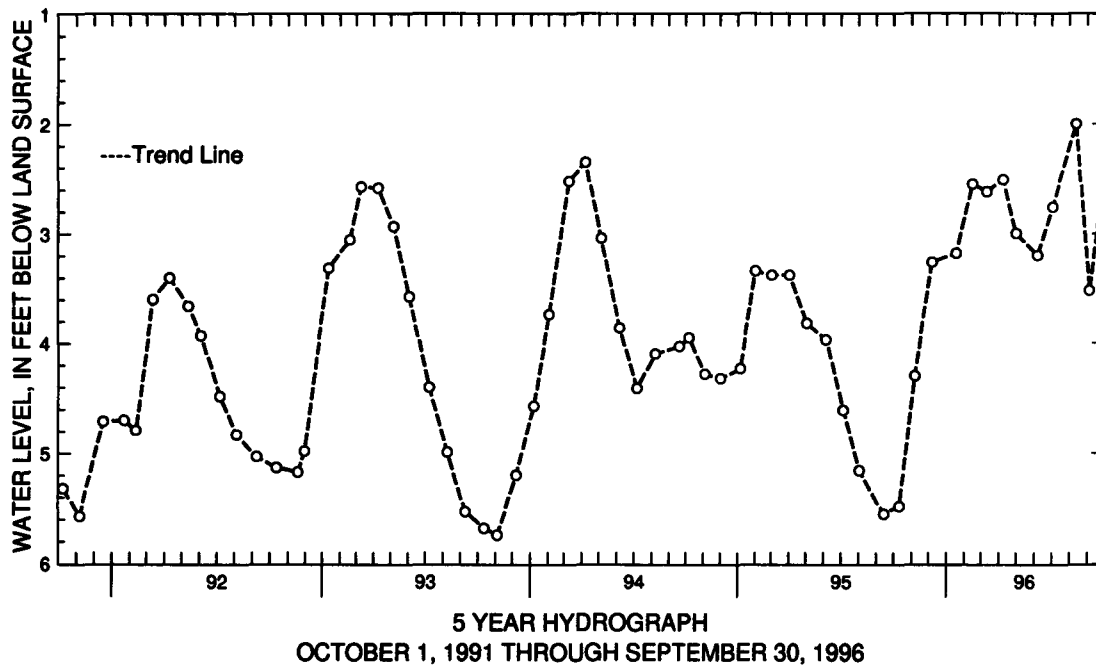
REMARKS.--Maryland Water-Level Network observation well. Reported water level 4.0 ft below land surface, June 10, 1949.

PERIOD OF RECORD.--July 1953, May 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.67 ft below land surface, Feb. 8, 1973; lowest measured, 6.47 ft below land surface, Jan. 3, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	5.48	JAN 18, 1996	3.18	APR 08, 1996	2.51	JUL 03, 1996	2.76
NOV 07	4.30	FEB 15	2.55	MAY 01	3.00	AUG 13	2.00
DEC 07	3.26	MAR 11	2.62	JUN 07	3.20	SEP 06	3.52
WATER YEAR 1996		HIGHEST	2.00	AUG 13, 1996		LOWEST	5.48
							OCT 12, 1995



GROUND-WATER LEVELS

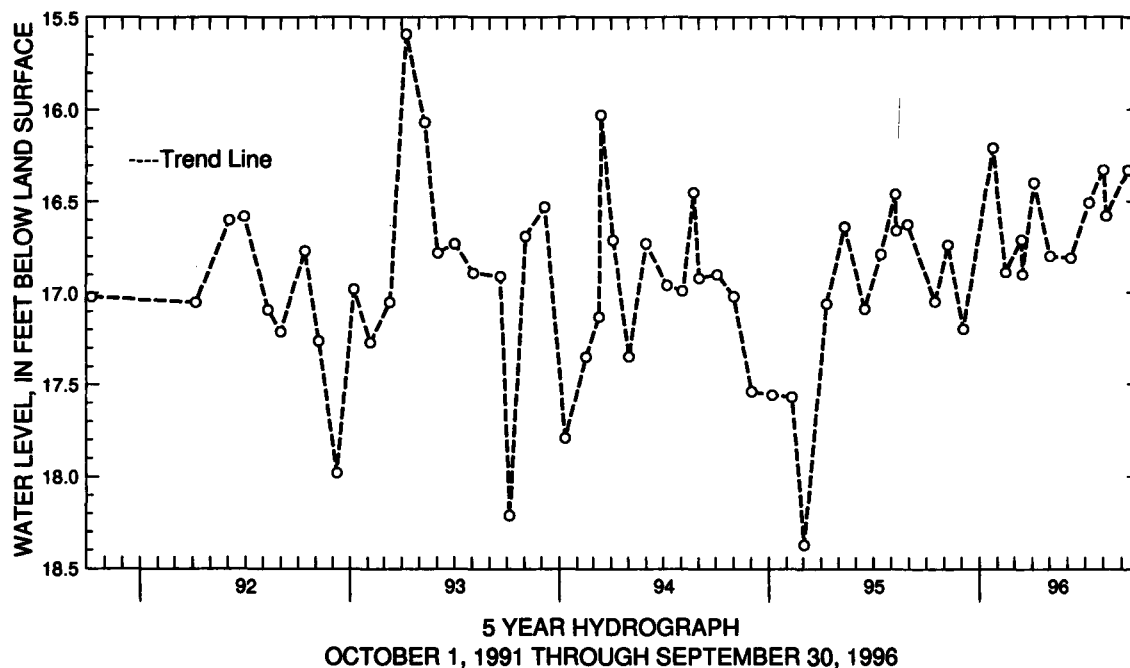
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 30. SITE ID.--390201076182701. PERMIT NUMBER.--QA-81-0473.
 LOCATION.--Lat 39°02'01", long 76°18'27", Hydrologic Unit 02060002, north side of Pier Avenue,
 0.5 mi south of Love Point.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 220 ft; casing diameter 4 in., to 210 ft;
 screen diameter 4 in. from 210 to 220 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 17.80 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.40 ft above land surface.
 REMARKS.--Kent Island ground-water monitoring network well.
 PERIOD OF RECORD.--April 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.59 ft below land surface, April 9, 1993;
 lowest measured, 18.37 ft below land surface, March 3, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	17.05	FEB 14, 1996	16.89	MAY 01, 1996	16.80	AUG 06, 1996	16.58
NOV 07	16.74	MAR 13	16.71	JUN 06	16.81	SEP 12	16.33
DEC 04	17.20	14	16.90	JUL 08	16.51		
JAN 24, 1996	16.21	APR 04	16.40	AUG 01	16.33		
WATER YEAR 1996 HIGHEST 16.21 JAN 24, 1996 LOWEST 17.20 DEC 04, 1995							



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 32. SITE ID.--390201076182703. PERMIT NUMBER.--QA-81-0473.

LOCATION.--Lat 39°02'01", long 76°18'27", Hydrologic Unit 02060002, north side of Pier Avenue, 0.5 mi south of Love Point.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 116 ft; casing diameter 4 in., to 106 ft; screen diameter 4 in. from 106 to 116 ft.

INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 18.00 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.10 ft above land surface.

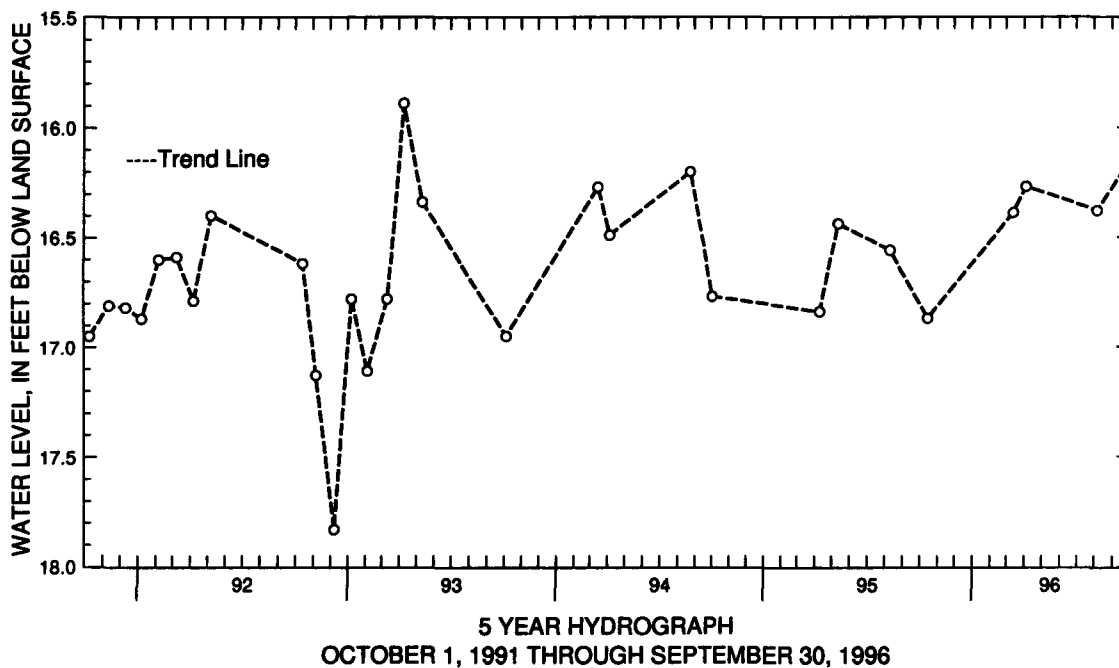
REMARKS.--Kent Island ground-water monitoring network well.

PERIOD OF RECORD.--May 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.80 ft below land surface, Dec. 2, 1985; lowest measured, 17.83 ft below land surface, Dec. 8, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	16.87	MAR 13, 1996	16.39	APR 04, 1996	16.27	AUG 06, 1996	16.38
WATER YEAR 1996		HIGHEST	16.27	APR 04, 1996	LOWEST	16.87	OCT 16, 1995



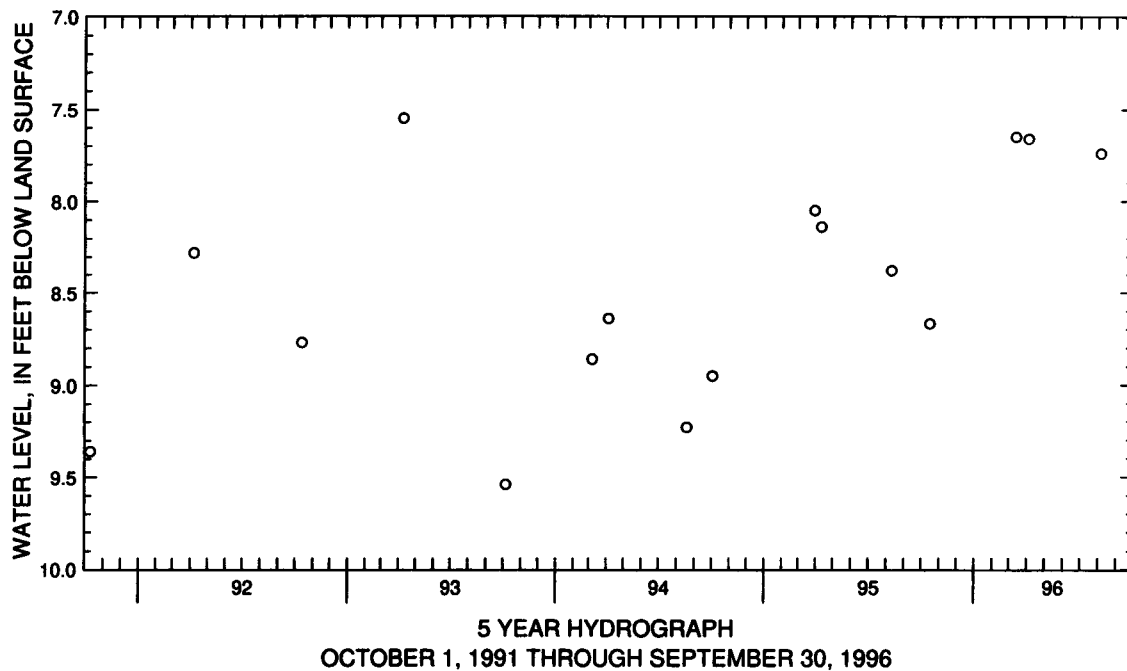
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 34. SITE ID.--390023076174301. PERMIT NUMBER.--QA-81-0471.
 LOCATION.--Lat 39°00'23", long 76°17'43", Hydrologic Unit 02060002, near Cloverfields community park, Kent Island.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 180 ft; casing diameter 4 in., to 170 ft; screen diameter 4 in. from 170 to 180 ft.
 INSTRUMENTATION.--Measured twice yearly with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 7.4 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.50 ft above land surface.
 REMARKS.--Kent Island ground-water monitoring network well. Measured twice yearly from April 1986 to April 1989.
 PERIOD OF RECORD.--April 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.25 ft below land surface, Dec. 2, 1985; lowest measured, 9.72 ft below land surface, Nov. 13, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	8.67	MAR 13, 1996	7.65	APR 04, 1996	7.66	AUG 06, 1996	7.74
WATER YEAR 1996		HIGHEST	7.65	MAR 13, 1996	LOWEST	8.67	OCT 16, 1995



GROUND-WATER LEVELS

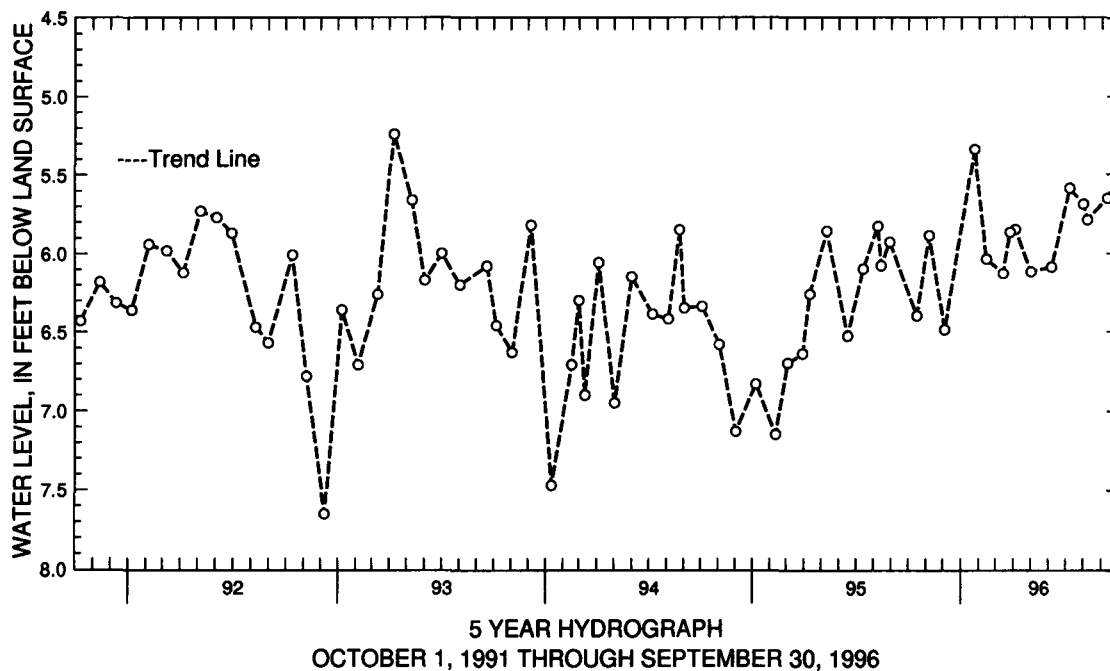
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 35. SITE ID.--390119076191001. PERMIT NUMBER.--QA-81-0472.
 LOCATION.--Lat 39°01'19", long 76°19'10", Hydrologic Unit 02060002, 0.5 mi west of MD Rt. 18, at Mylander Farms, Kent Island.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 200 ft; casing diameter 4 in., to 190 ft; screen diameter 4 in. from 190 to 200 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured twice yearly from April 1987 to April 1989.
 DATUM.--Elevation of land surface is 7.5 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.20 ft above land surface.
 REMARKS.--Kent Island ground-water monitoring network well.
 PERIOD OF RECORD.--August 1984 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.00 ft below land surface, Dec. 2, 1985; lowest measured, 7.65 ft below land surface, Dec. 8, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	6.40	FEB 14, 1996	6.04	MAY 01, 1996	6.12	AUG 08, 1996	5.79
NOV 07	5.89	MAR 14	6.13	JUN 06	6.09	SEP 12	5.65
DEC 04	6.49	26	5.87	JUL 08	5.59		
JAN 24, 1996	5.34	APR 04	5.85	AUG 01	5.69		
WATER YEAR 1996		HIGHEST 5.34	JAN 24, 1996	LOWEST 6.49	DEC 04, 1995		



GROUND-WATER LEVELS

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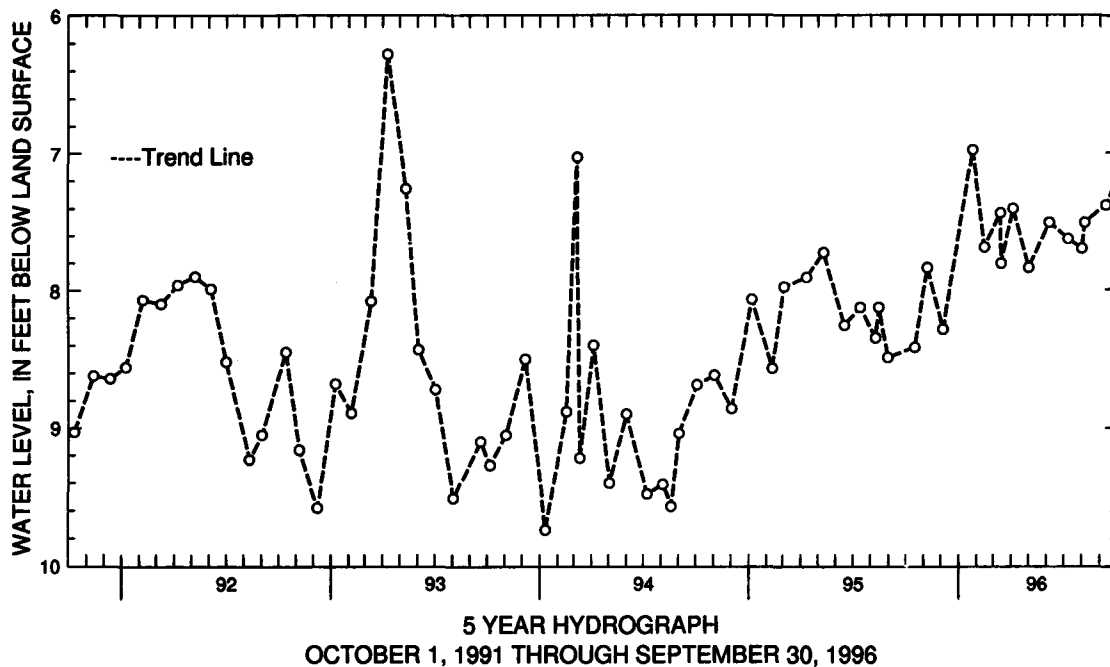
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Db 37. SITE ID.--390023076174302. PERMIT NUMBER.--QA-81-0471.
 LOCATION.--Lat 39°00'23", long 76°17'43", Hydrologic Unit 02060002, near Cloverfield community park,
 Kent Island.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 250 ft; casing diameter 4 in., to 240 ft;
 screen diameter 4 in. from 240 to 250 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 7.1 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.50 ft above land surface.
 REMARKS.--Kent Island ground-water monitoring network well.
 PERIOD OF RECORD.--April 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.28 ft below land surface, April 9, 1993;
 lowest measured, 9.74 ft below land surface, Jan. 11, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	8.42	FEB 14, 1996	7.69	MAY 01, 1996	7.84	AUG 06, 1996	7.51
NOV 07	7.84	MAR 13	7.44	JUN 06	7.51	SEP 12	7.38
DEC 04	8.29	14	7.81	JUL 08	7.63		
JAN 24, 1996	6.98	APR 04	7.41	AUG 01	7.70		
WATER YEAR 1996		HIGHEST	6.98	JAN 24, 1996	LOWEST	8.42	OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 77. SITE ID.--385718076211501. PERMIT NUMBER.--QA-81-0474.

LOCATION.--Lat 38°57'18", long 76°21'15", Hydrologic Unit 02060002, at Matapeake State Park.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 205 ft; casing diameter 4 in., to 195 ft; screen diameter 4 in. from 195 to 205 ft.

INSTRUMENTATION.--Measured twice yearly with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 10.8 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.24 ft above land surface.

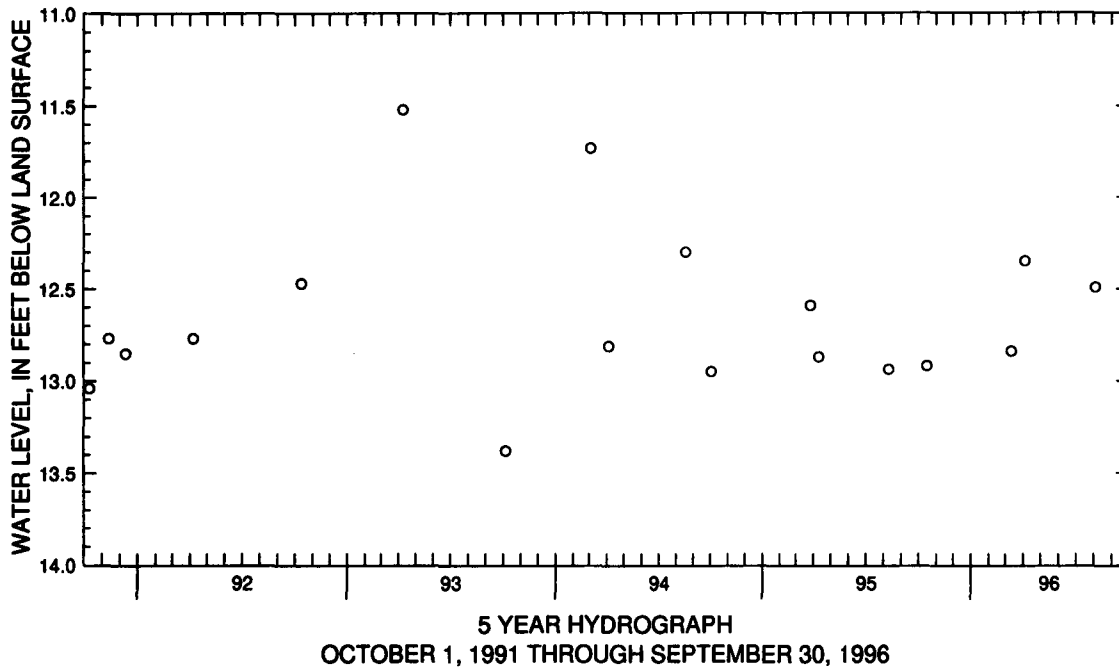
REMARKS.--Kent Island ground-water monitoring network well.

PERIOD OF RECORD.--April 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.07 ft below land surface, Dec. 2, 1985; lowest measured, 13.71 ft below land surface, July 5, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	12.92	MAR 12, 1996	12.84	APR 04, 1996	12.35	AUG 05, 1996	12.49
WATER YEAR 1996		HIGHEST	12.35	APR 04, 1996		LOWEST	12.92
							OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 78. SITE ID.--385718076211502 . PERMIT NUMBER.--QA-81-0474.

LOCATION.--Lat 38°57'18", long 76°21'15", Hydrologic Unit 02060002, at Matapeake State Park.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 135 ft; casing diameter 4 in., to 125 ft; screen diameter 4 in. from 125 to 135 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 11.8 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.91 ft above land surface.

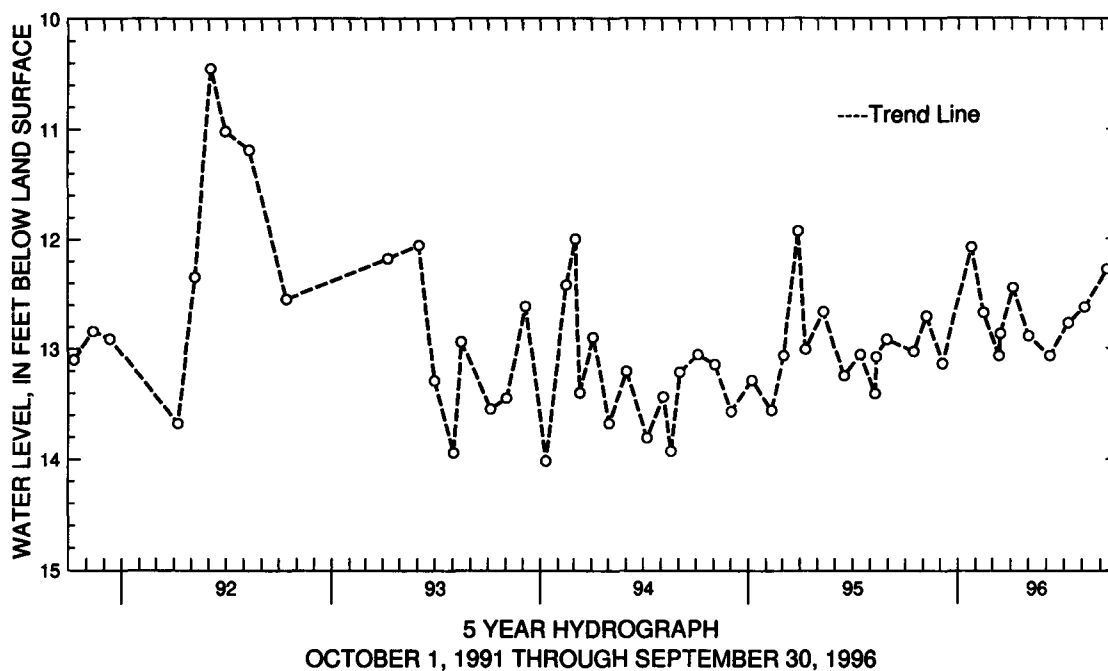
REMARKS.--Kent Island ground-water monitoring network well.

PERIOD OF RECORD.--April 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.45 ft below land surface, June 4, 1992; lowest measured, 14.02 ft below land surface, Jan. 11, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	13.03	FEB 14, 1996	12.68	MAY 01, 1996	12.89	SEP 12, 1996	12.28
NOV 07	12.71	MAR 12	13.07	JUN 06	13.07		
DEC 04	13.14	14	12.87	JUL 08	12.77		
JAN 24, 1996	12.08	APR 04	12.45	AUG 05	12.63		
WATER YEAR 1996		HIGHEST 12.08	JAN 24, 1996		LOWEST 13.14	DEC 04, 1995	



GROUND-WATER LEVELS

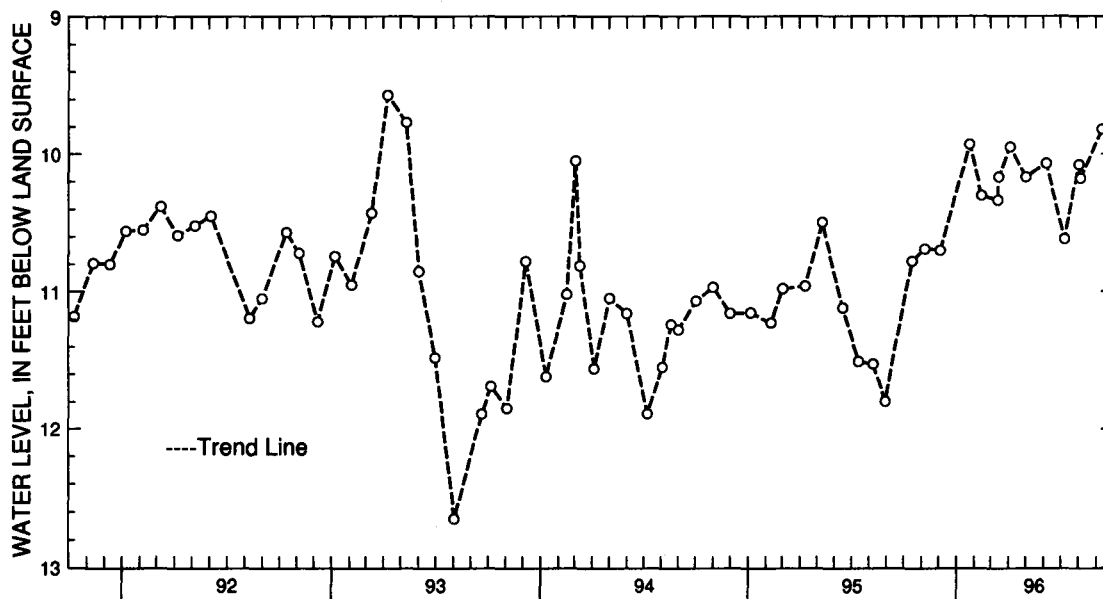
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 79. SITE ID.--385757076200101. PERMIT NUMBER.--QA-81-0469.
 LOCATION.--Lat 38°57'57", long 76°20'01", Hydrologic Unit 02060002, at Mowbray Park, Kent Island.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 298 ft; casing diameter 4 in., to 288 ft; screen diameter 4 in. from 288 to 298 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured twice yearly from October 1986 to April 1989.
 DATUM.--Elevation of land surface is 8.3 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.30 ft above land surface.
 REMARKS.--Kent Island ground-water monitoring network well.
 PERIOD OF RECORD.--April 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.30 ft below land surface, Dec. 2, 1985; lowest measured, 12.65 ft below land surface, Aug. 3, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	10.78	FEB 14, 1996	10.30	MAY 01, 1996	10.17	AUG 05, 1996	10.18
NOV 07	10.69	MAR 14	10.34	JUN 06	10.07	SEP 12	9.82
DEC 04	10.70	15	10.17	JUL 08	10.62		
JAN 24, 1996	9.93	APR 04	9.95	AUG 02	10.08		
WATER YEAR 1996		HIGHEST	9.82	SEP 12, 1996	LOWEST	10.78	OCT 16, 1995



5 YEAR HYDROGRAPH
 OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

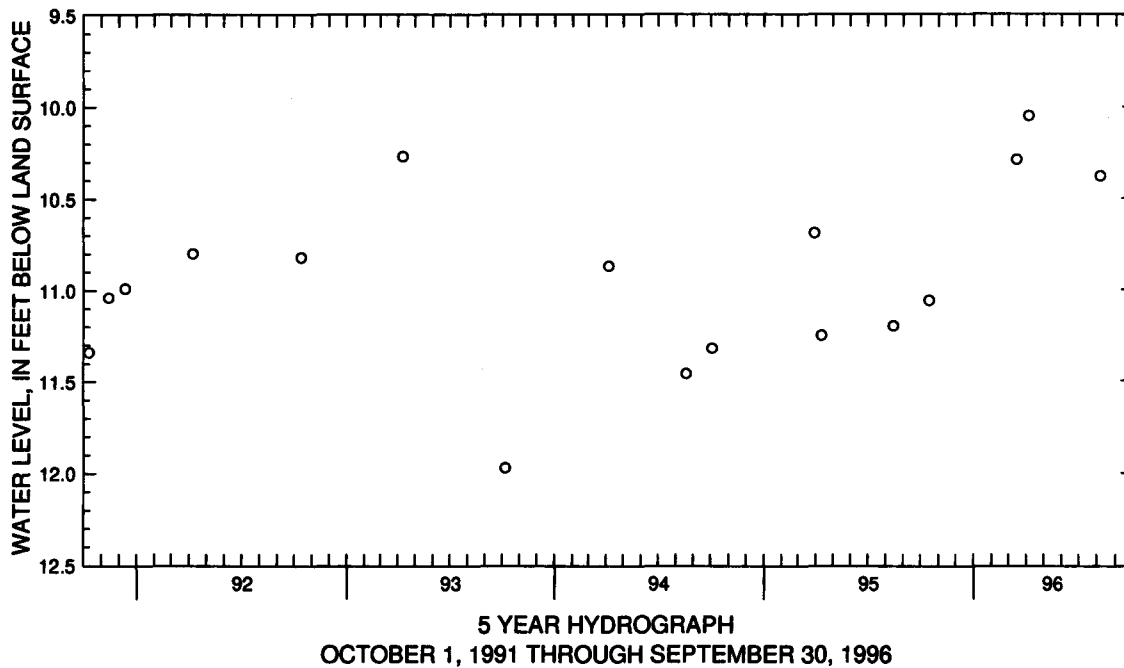
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 80. SITE ID.--385757076200102. PERMIT NUMBER.--QA-81-0469.
 LOCATION.--Lat 38°57'57", long 76°20'01", Hydrologic Unit 02060002, at Mowbray Park, Kent Island.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 130 ft; casing diameter 4 in.,
 to 120 ft; screen diameter 4 in. from 120 to 130 ft.
 INSTRUMENTATION.--Measured twice yearly with chalked steel tape by U.S. Geological Survey personnel.
 Measured twice yearly from October 1986 to April 1989.
 DATUM.--Elevation of land surface is 8.5 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.51 ft above land surface.
 REMARKS.--Kent Island ground-water monitoring network well.
 PERIOD OF RECORD.--April 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.45 ft below land surface, Dec. 2, 1985;
 lowest measured, 11.97 ft below land surface, Oct. 6, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	11.06	MAR 15, 1996	10.29	APR 04, 1996	10.05	AUG 05, 1996	10.38
WATER YEAR 1996		HIGHEST	10.05	APR 04, 1996		LOWEST	11.06
							OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ea 81. SITE ID.--385718076211503. PERMIT NUMBER.--QA-81-0474.

LOCATION.--Lat 38°57'18", long 76°21'15", Hydrologic Unit 02060002, at Matapeake State Park.

Owner: Maryland Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 310 ft; casing diameter 4 in., to 300 ft; screen diameter 4 in. from 300 to 310 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 12.4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.16 ft above land surface.

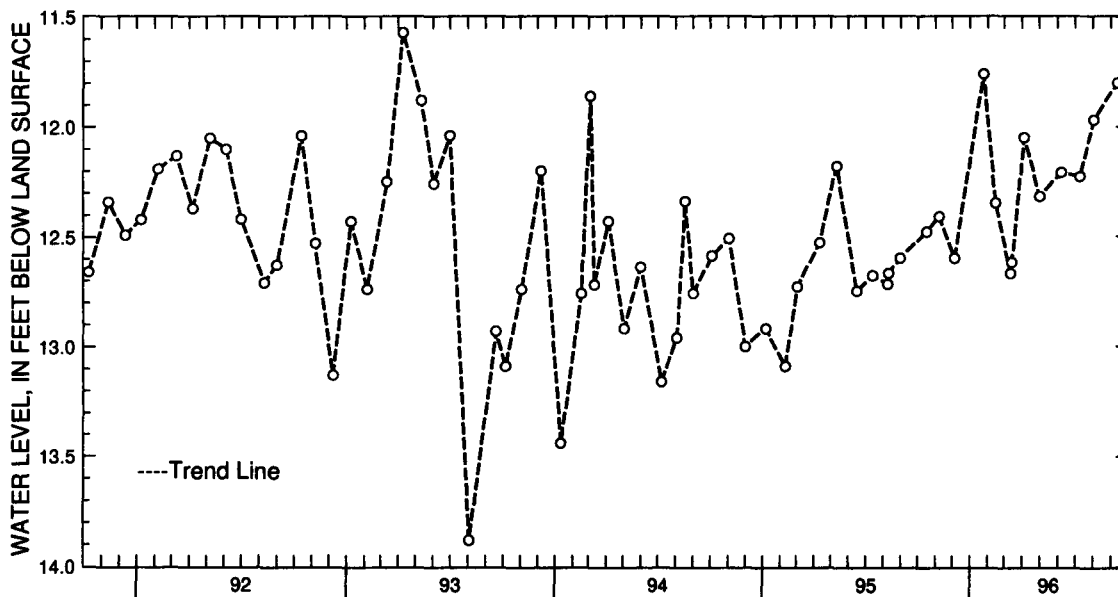
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--April 1985 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.54 ft below land surface, Dec. 2, 1985; lowest measured, 13.88 ft below land surface, Aug. 3, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER LEVEL YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	12.48	FEB 14, 1996	12.35	MAY 01, 1996	12.32	SEP 12, 1996	11.80
NOV 07	12.41	MAR 12	12.67	JUN 06	12.21		
DEC 04	12.60	14	12.62	JUL 08	12.23		
JAN 24, 1996	11.76	APR 04	12.05	AUG 02	11.97		
WATER YEAR 1996		HIGHEST	11.76	JAN 24, 1996		LOWEST	12.67
							MAR 12, 1996



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

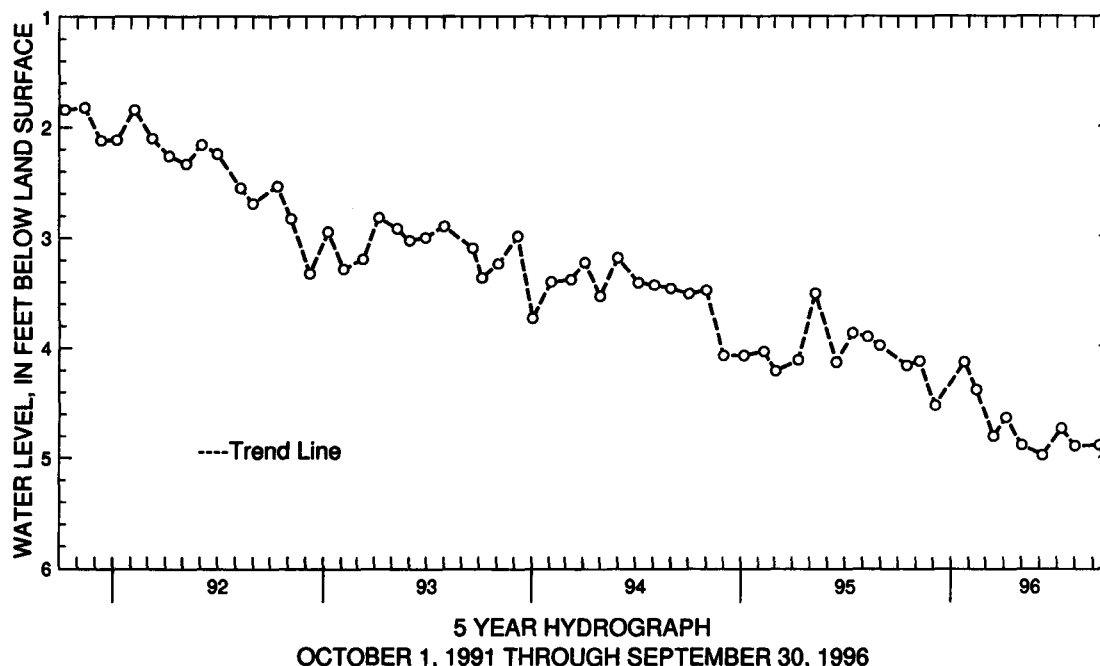
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 110. SITE ID.--385751076171603. PERMIT NUMBER.--QA-73-2979.
 LOCATION.--Lat 38°57'51", long 76°17'16", Hydrologic Unit 02060002, near Chester, Kent Island.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 2,485 ft; casing diameter 4 in.,
 to 2,413 ft, 2,423 to 2,465 ft and 2,475 to 2,485 ft; screen diameter 4 in., from 2,413 to 2,423 ft,
 and 2,465 to 2,475 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured twice yearly from January 1980 to October 1989.
 DATUM.--Elevation of land surface is 14 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring point: Top of casing, 3.36 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--January 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.99 ft above land surface, Jan. 21, 1980;
 lowest measured, 4.98 ft below land surface, June 6, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	4.17	JAN 24, 1996	4.14	APR 04, 1996	4.64	JUL 08, 1996	4.74
NOV 07	4.13	FEB 14	4.39	MAY 01	4.89	AUG 01	4.90
DEC 04	4.53	MAR 14	4.81	JUN 06	4.98	SEP 12	4.89
WATER YEAR 1996		HIGHEST	4.13	NOV 07, 1995	LOWEST	4.98	JUN 06, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 111. SITE ID.--385751076171601. PERMIT NUMBER.--QA-73-3122.

LOCATION.--Lat 38°57'51", long 76°17'16", Hydrologic Unit 02060002, near Chester, Kent Island.

Owner: U.S. Geological Survey.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 985 ft; casing diameter 4 in., to 955 ft, and 965 to 975 ft; screen diameter 4 in., from 955 to 965 ft, and 975 to 985 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Twice yearly measurements from April 1984 to September 1989.

DATUM.--Elevation of land surface is 13.56 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.41 ft above land surface.

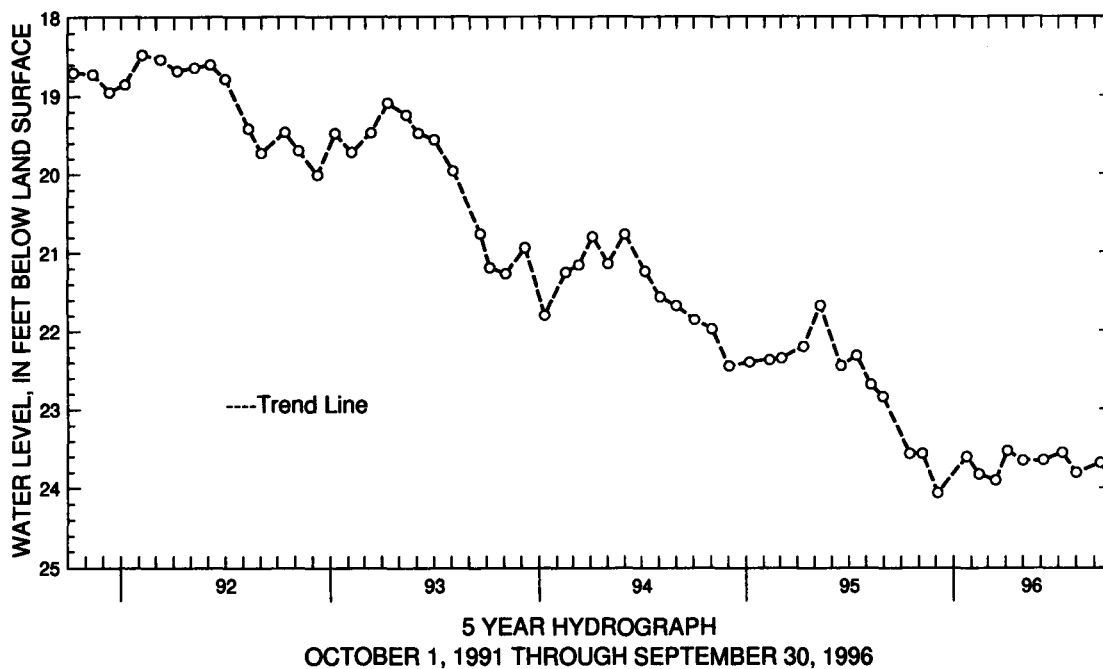
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1979, April 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.02 ft below land surface, Jan. 21, 1980; lowest measured, 24.06 ft below land surface, Dec. 4, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	23.56	JAN 24, 1996	23.60	APR 04, 1996	23.53	JUL 08, 1996	23.55
NOV 07	23.56	FEB 14	23.82	MAY 01	23.65	AUG 01	23.80
DEC 04	24.06	MAR 14	23.90	JUN 06	23.64	SEP 12	23.68
WATER YEAR 1996		HIGHEST	23.53	APR 04, 1996	LOWEST	24.06	DEC 04, 1995



GROUND-WATER LEVELS

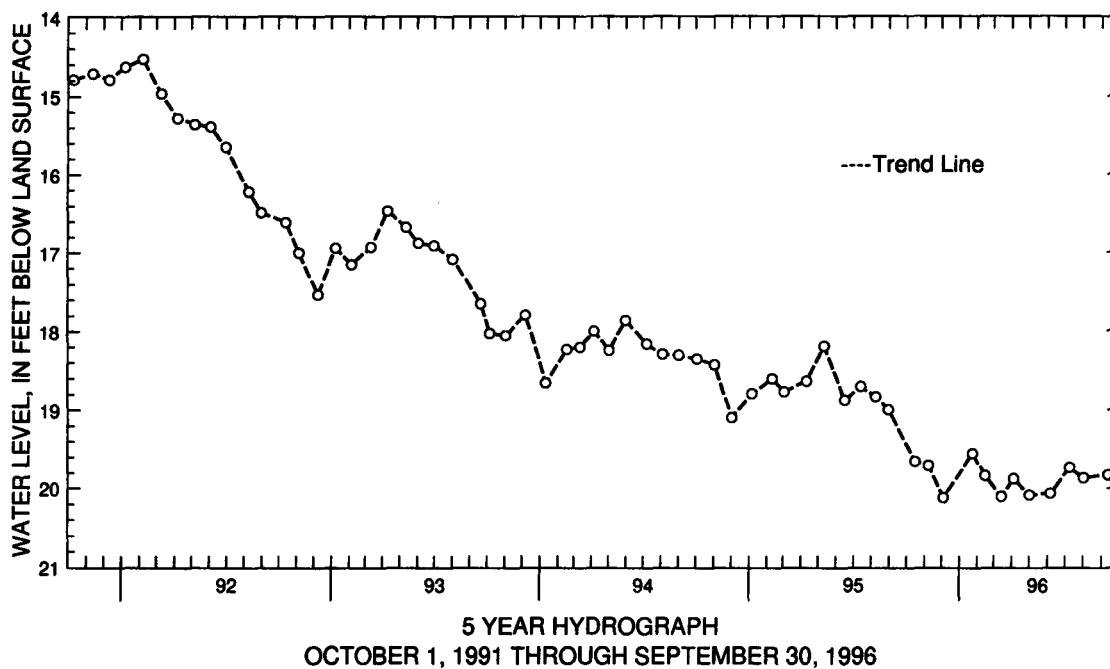
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 112. SITE ID.--385751076171602. PERMIT NUMBER.--QA-73-3123.
 LOCATION.--Lat 38°57'51", long 76°17'16", Hydrologic Unit 02060002, near Chester, Kent Island.
 Owner: U.S. Geological Survey.
 AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,679 ft; casing diameter 4 in.,
 to 1,652 ft, and 1,662 to 1,669 ft; screen diameter 4 in., from 1,652 to 1,662 ft, and 1,669 to 1,679 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Twice yearly measurements from January 1980 to September 1980.
 DATUM.--Elevation of land surface is 13.99 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 1.36 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--January 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.69 ft below land surface, Jan. 21, 1980;
 lowest measured, 20.12 ft below land surface, Dec. 4, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	19.66	JAN 24, 1996	19.56	APR 04, 1996	19.88	JUL 08, 1996	19.74
NOV 07	19.71	FEB 14	19.84	MAY 01	20.09	AUG 01	19.87
DEC 04	20.12	MAR 14	20.11	JUN 06	20.07	SEP 12	19.83
WATER YEAR 1996		HIGHEST	19.56	JAN 24, 1996	LOWEST	20.12	DEC 04, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 113. SITE ID.--385748076172001. PERMIT NUMBER.--QA-73-3172.

LOCATION.--Lat 38°57'48", long 76°17'20", Hydrologic Unit 02060001, nr Chester, Kent Island.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 216 ft; casing diameter 6 in., to 176 ft; screen diameter 6 in. from 176 to 216 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from June 30, 1986 to October 2, 1994.

DATUM.--Elevation of land surface is 14.5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of casing, 2.6 ft above land surface.

REMARKS.--Kent Island ground-water monitoring network well. Missing data due to recorder malfunction.

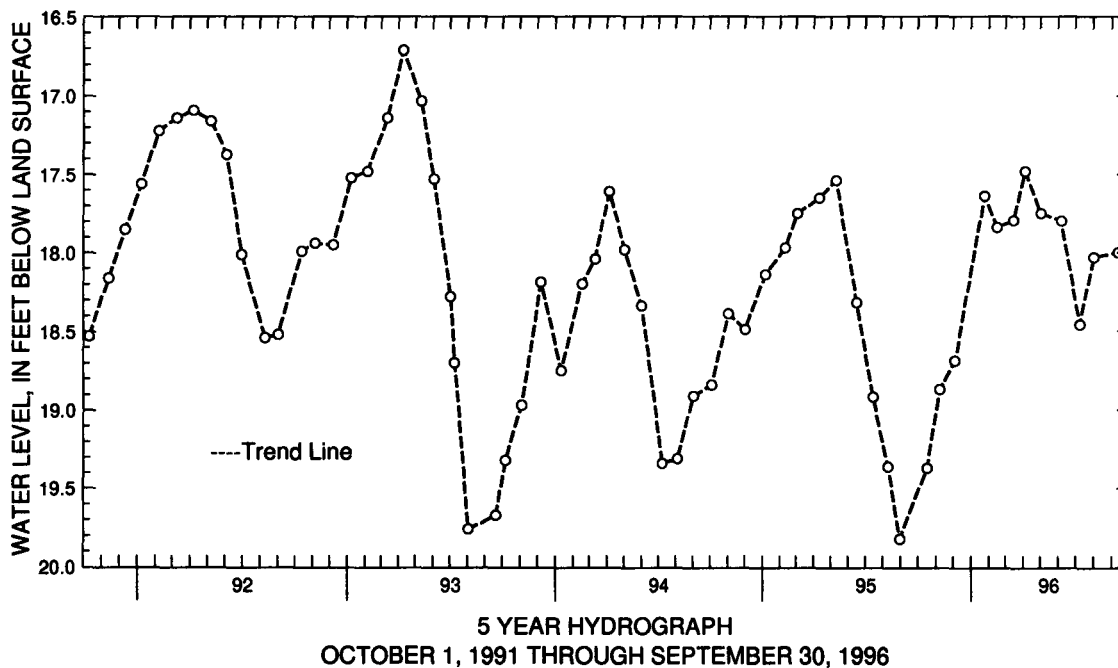
PERIOD OF RECORD.--October 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.05 ft below land surface, April 18, 1989; lowest measured, 19.98 ft below land surface, Aug. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	19.37	JAN 24, 1996	17.64	APR 04, 1996	17.48	JUL 08, 1996	18.46
NOV 07	18.87	FEB 14	17.84	MAY 01	17.75	AUG 01	18.03
DEC 04	18.69	MAR 14	17.80	JUN 06	17.80	SEP 12	18.00

WATER YEAR 1996 HIGHEST 17.48 APR 04, 1996 LOWEST 19.37 OCT 16, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

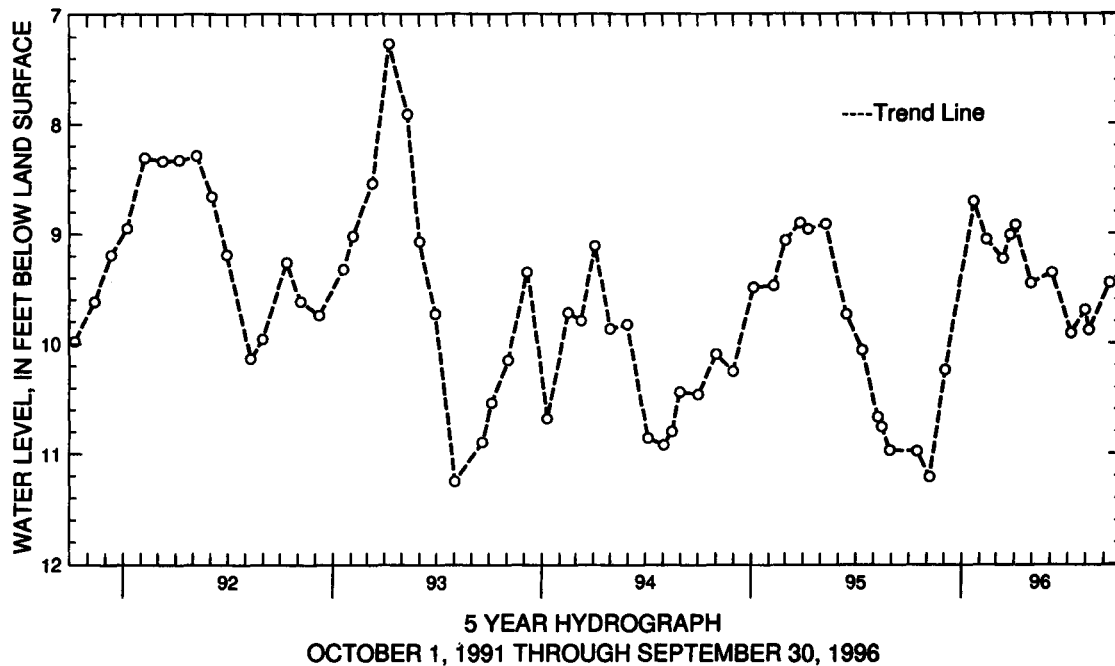
QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 155. SITE ID.--385843076155302. PERMIT NUMBER.--QA-81-0470.
 LOCATION.--Lat 38°58'43", long 76°15'53", Hydrologic Unit 02060002, at north end of Piney Creek Rd.,
 Kent Island.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 245 ft; casing diameter 4 in., to 235 ft;
 screen diameter 4 in. from 235 to 245 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Measured twice yearly from June 1986 to April 1989.
 DATUM.--Elevation of land surface is 3.9 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.50 ft above land surface.
 REMARKS.--Kent Island ground-water monitoring network well.
 PERIOD OF RECORD.--April 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.60 ft below land surface, Dec. 2, 1985;
 lowest measured, 11.25 ft below land surface, Aug. 3, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	10.98	FEB 14, 1996	9.05	MAY 01, 1996	9.45	AUG 08, 1996	9.88
NOV 07	11.21	MAR 14	9.23	JUN 06	9.36	SEP 12	9.45
DEC 04	10.24	26	9.01	JUL 08	9.91		
JAN 24, 1996	8.71	APR 04	8.92	AUG 01	9.70		

WATER YEAR 1996 HIGHEST 8.71 JAN 24, 1996 LOWEST 11.21 NOV 07, 1995



GROUND-WATER LEVELS

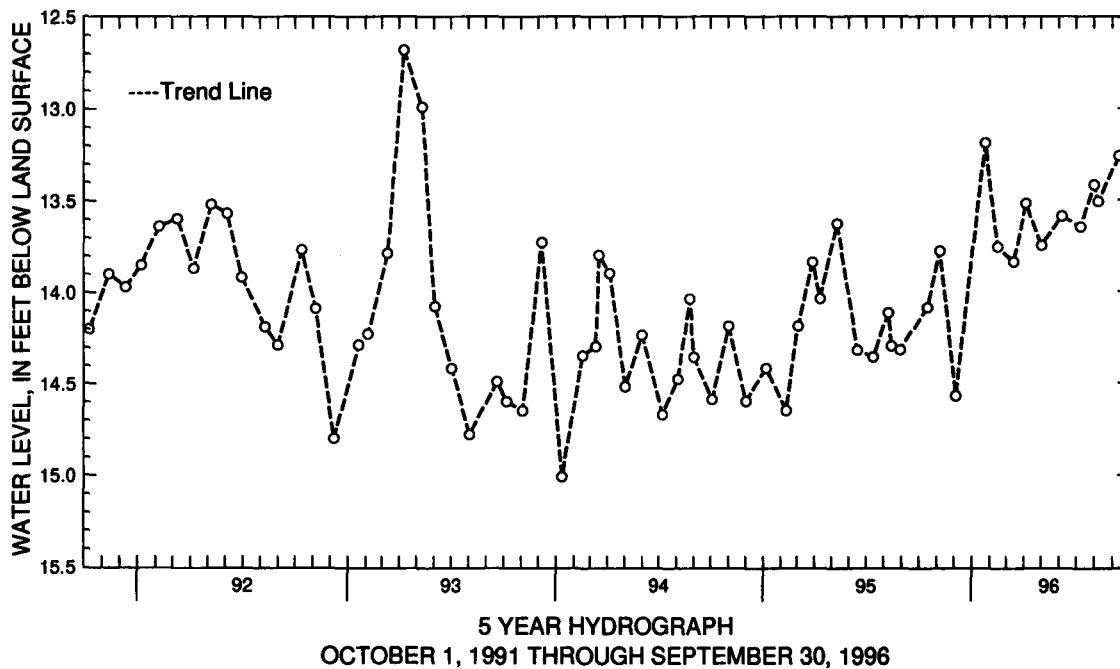
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 156. SITE ID.--385852076195201. PERMIT NUMBER.--QA-81-0475.
 LOCATION.--Lat 38°58'52", long 76°19'52", Hydrologic Unit 02060002, north of US Rt. 50, 0.7 mi west
 of intersection MD Rt. 8, Kent Island.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 220 ft; casing diameter 4 in., to 210 ft;
 screen diameter 4 in. from 210 to 220 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 12.01 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.20 ft above land surface.
 REMARKS.--Kent Island ground-water monitoring network well. Measured twice yearly from September 1987 to
 April 1989.
 PERIOD OF RECORD.--April 1985 to June 1986, September 1987 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.97 ft below land surface, Aug. 1, 1990;
 lowest measured, 15.01 ft below land surface, Jan. 11, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	14.09	FEB 14, 1996	13.76	JUN 06, 1996	13.59	SEP 12, 1996	13.26
NOV 07	13.78	MAR 14	13.84	JUL 08	13.65		
DEC 04	14.57	APR 04	13.52	AUG 01	13.42		
JAN 24, 1996	13.19	MAY 01	13.75	08	13.51		
WATER YEAR 1996		HIGHEST 13.19	JAN 24, 1996	LOWEST 14.57	DEC 04, 1995		



GROUND-WATER LEVELS

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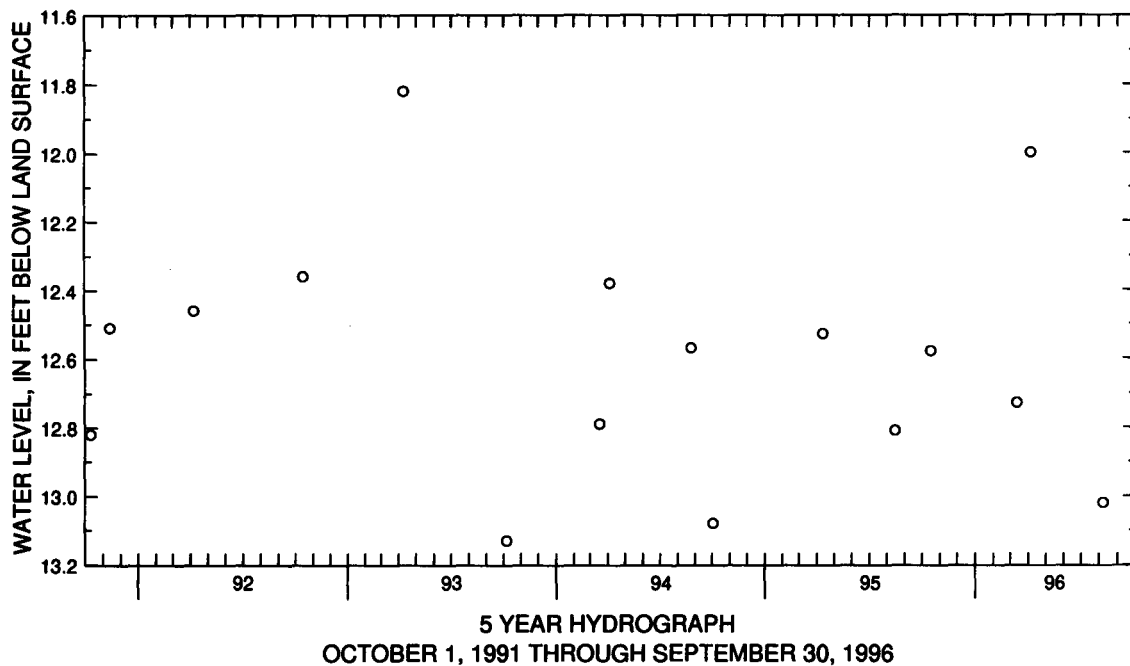
MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Eb 157. SITE ID.--385852076195202. PERMIT NUMBER.--QA-81-0475.
 LOCATION.--Lat 38°58'52", long 76°19'52", Hydrologic Unit 02060002, north of US Rt. 50, 0.7 mi west
 of intersection with MD Rt. 8, Kent Island.
 Owner: Maryland Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 120 ft; casing diameter 4 in., to 110 ft;
 screen diameter 4 in. from 110 to 120 ft.
 INSTRUMENTATION.--Measured twice yearly with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 11.92 ft above National Geodetic Vertical Datum of 1929,
 from topographic map.
 Measuring point: Top of casing, 2.50 ft above land surface.
 REMARKS.--Kent Island ground-water monitoring network well. Measured twice yearly from March 1988
 to April 1989.
 PERIOD OF RECORD.--April 1985 to June 1986, March 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.40 ft below land surface, Dec. 2, 1985;
 lowest measured, 13.63 ft below land surface, Aug. 1, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1995	12.58	MAR 12, 1996	12.73	APR 04, 1996	12.00	AUG 08, 1996	13.02
WATER YEAR 1996		HIGHEST	12.00	APR 04, 1996	LOWEST	13.02	AUG 08, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ec 1. SITE ID.--385756076105301.

LOCATION.--Lat 38°57'56", long 76°10'53", Hydrologic Unit 02060002, near Grasonville, south side of old U.S. Rt. 50.

Owner: Maryland State Highway Administration.

AQUIFER.--Kent Island Formation of Pleistocene age. Aquifer code: 112KILD.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 21 ft; casing diameter 1.25 in., to 21 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 2 in. coupling, 0.27 ft above land surface.

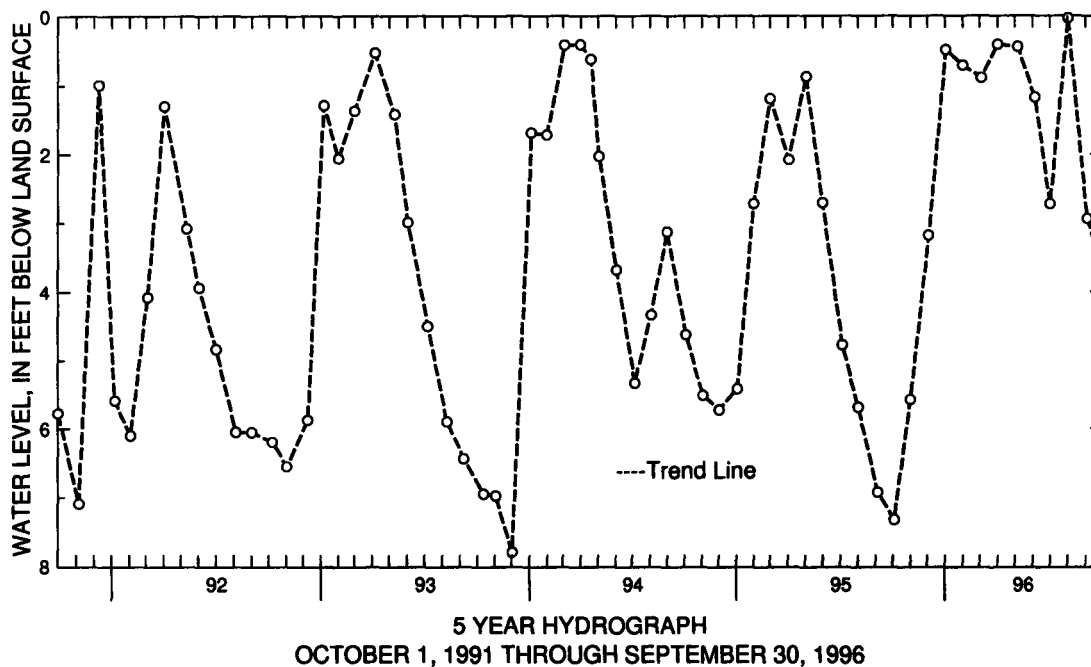
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--September 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.03 ft below land surface, Aug. 2, 1996; lowest measured, 8.46 ft below land surface, Jan. 7, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	7.33	JAN 03, 1996	.48	APR 02, 1996	.41	JUL 02, 1996	2.73
NOV 01	5.58	FEB 01	.71	MAY 06	.44	AUG 02	.03
DEC 04	3.18	MAR 04	.89	JUN 06	1.18	SEP 05	2.94
WATER YEAR 1996		HIGHEST	.03	AUG 02, 1996	LOWEST	7.33	OCT 03, 1995



MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Ef 29. SITE ID.--385534075573601. PERMIT NUMBER.--QA-81-1593.

LOCATION.--Lat 38°55'38", long 75°57'40", Hydrologic Unit 02060005, Tuckahoe State Park.

Owner: Md. Dept. of Natural Resources, Fisheries Division.

AQUIFER.--Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,325 ft; casing diameter 14 in., to 500 ft, and 8 in. from 500 to 1,110 ft, 1,120 to 1,135 ft, 1,180 to 1,195 ft, 1,210 to 1,230 ft, 1,270 to 1,285 ft, and 1,315 to 1,325 ft, screen diameter 8 in., from 1,110 to 1,120 ft, 1,135 to 1,180 ft, 1,195 to 1,210 ft, 1,230 to 1,270 ft, and 1,285 to 1,315 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 61.69 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 1 1/2 in. riser pipe, 3.80 ft above land surface.

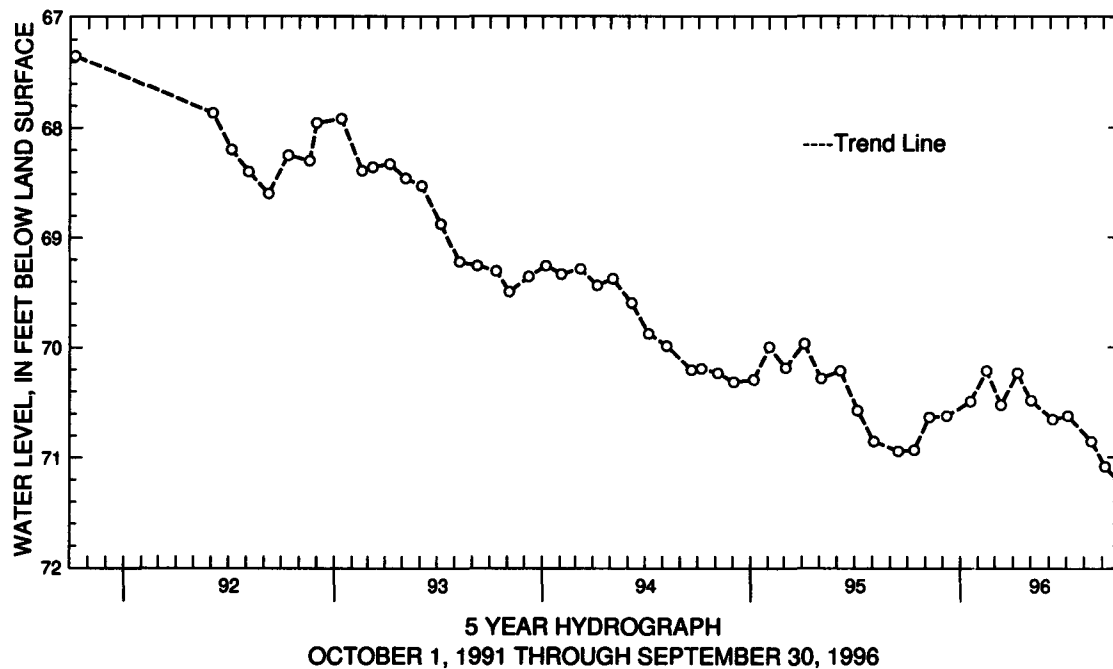
REMARKS.--Southern Maryland observation well network.

PERIOD OF RECORD.-- June 1986 to December 1986, November 1990 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.30 ft below land surface, Aug. 27, 1986; lowest measured, 71.09 ft below land surface, Sept. 6, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	70.94	JAN 18, 1996	70.50	APR 08, 1996	70.24	JUL 03, 1996	70.63
NOV 07	70.64	FEB 15	70.22	MAY 01	70.49	AUG 13	70.86
DEC 07	70.63	MAR 11	70.53	JUN 07	70.66	SEP 06	71.09
WATER YEAR 1996		HIGHEST	70.22	FEB 15, 1996		LOWEST	71.09
						SEP 06, 1996	



GROUND-WATER LEVELS

MARYLAND--Continued

QUEEN ANNES COUNTY--Continued

WELL NUMBER.--QA Fc 7. SITE ID.--385429076120201. PERMIT NUMBER.--QA-73-2191.

LOCATION.--Lat 38°54'29", long 76°12'02", Hydrologic Unit 02060002, at Prospect Plantation.

Owner: Maryland Community Developers Incorporated.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 356 ft; casing diameter 4 in., to 336 ft; screen diameter 2 in. from 336 to 356 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing at land surface.

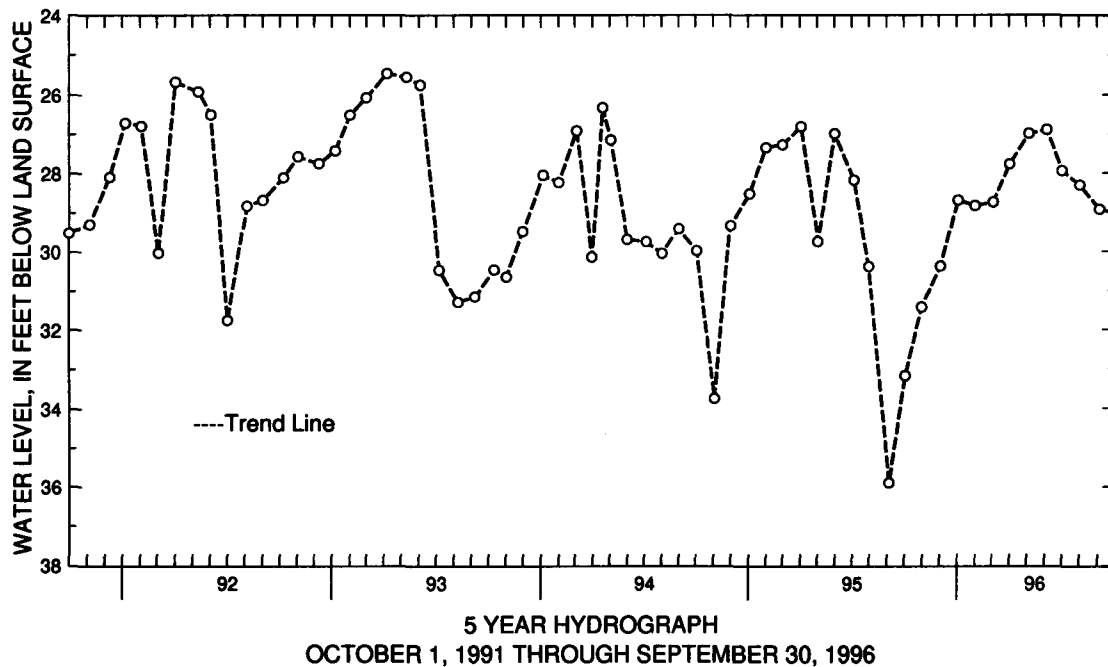
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--February 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.77 ft below land surface, March 3, 1983; lowest measured, 35.90 ft below land surface, Sept. 5, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	33.18	JAN 03, 1996	28.70	APR 02, 1996	27.78	JUL 02, 1996	27.94
NOV 01	31.43	FEB 01	28.84	MAY 06	27.00	AUG 02	28.31
DEC 04	30.38	MAR 04	28.75	JUN 06	26.90	SEP 05	28.93
WATER YEAR 1996		HIGHEST	26.90 JUN 06, 1996	LOWEST		33.18 OCT 03, 1995	



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY

WELL NUMBER.--SM Bb 15. SITE ID.--382838076470101. PERMIT NUMBER.--SM-73-3430.

LOCATION.--Lat 38°28'38", long 76°47'01", Hydrologic Unit 02070011, at Charlotte Hall Veterans Home.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 460 ft; casing diameter 4 in., to 441 ft; casing diameter 2 in. from 441 to 450 ft; screen diameter 2 in. from 450 to 460 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 165.30 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.10 ft above land surface.

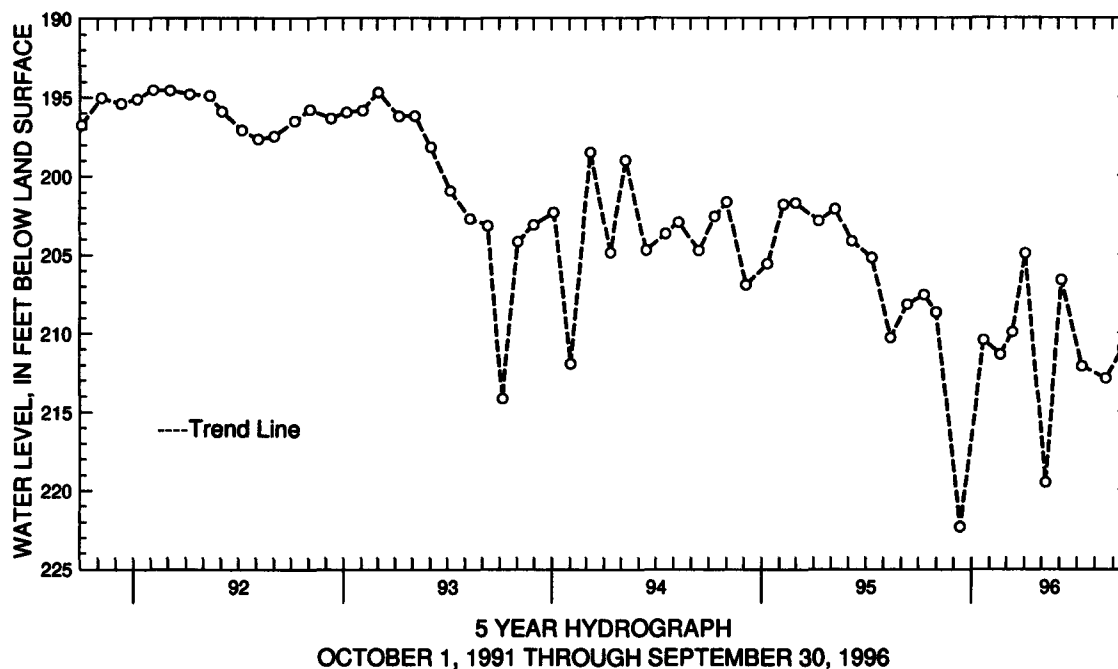
REMARKS.--Maryland Water-Level Network observation well. Water levels may be affected by nearby pumping.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 159.76 ft below land surface, Aug. 10, 1979, and Aug. 31, 1979; lowest measured, 222.35 ft below land surface, Dec. 13, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	207.57	JAN 23, 1996	210.48	APR 04, 1996	204.95	JUL 11, 1996	212.16
NOV 02	208.69	FEB 21	211.40	MAY 09	219.55	AUG 21	212.94
DEC 13	222.35	MAR 13	209.96	JUN 06	206.64	SEP 19	211.01
WATER YEAR 1996		HIGHEST 204.95	APR 04, 1996	LOWEST 222.35	DEC 13, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Bb 22. SITE ID.--382838076470102. PERMIT NUMBER.--SM-73-3787.

LOCATION.--Lat 38°28'38", long 76°47'01", Hydrologic Unit 02070011, at Charlotte Hall Veterans Home.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 218 ft; casing diameter 4 in., to 210 ft; screen diameter 2 in. from 210 to 218 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 165.31 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.55 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Water levels may be affected by nearby pumping.

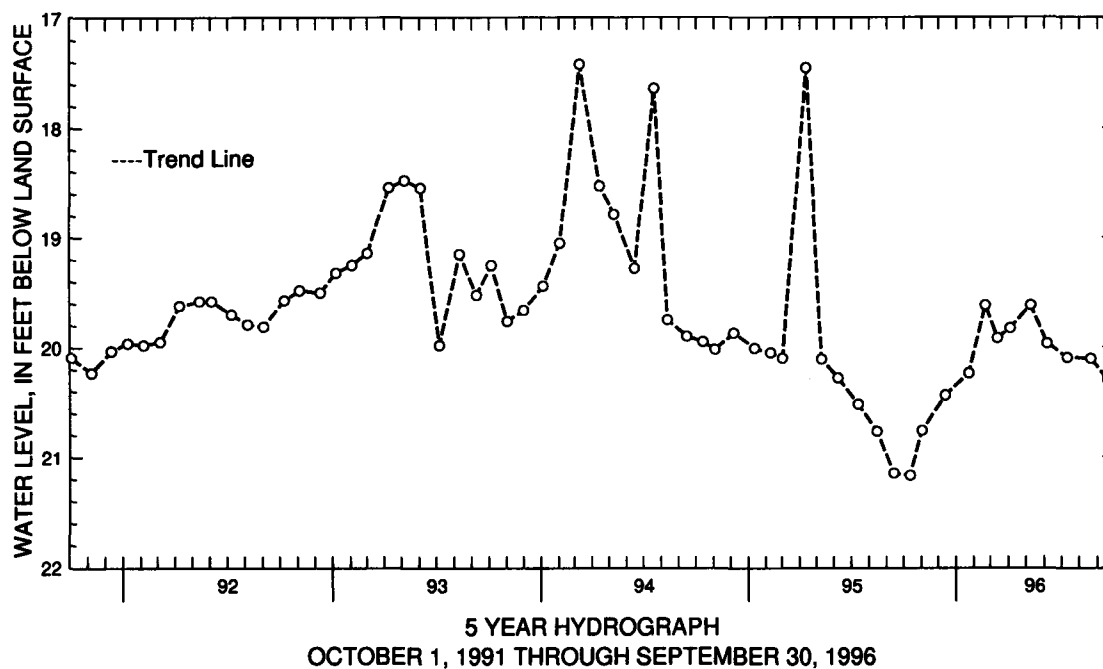
The July 12, 1989 water-level measured 27.95 ft below land surface declined due to nearby pump test.

PERIOD OF RECORD.--July 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.27 ft below land surface, July 9, 1980; lowest measured, 21.17 ft below land surface, Oct. 12, 1995--See Remarks.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	21.17	JAN 23, 1996	20.24	APR 04, 1996	19.83	JUL 11, 1996	20.10
NOV 02	20.76	FEB 21	19.62	MAY 09	19.62	AUG 21	20.11
DEC 13	20.44	MAR 13	19.92	JUN 06	19.97	SEP 19	20.30
WATER YEAR 1996		HIGHEST	19.62 FEB 21 and MAY 09, 1996	LOWEST		21.17	OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

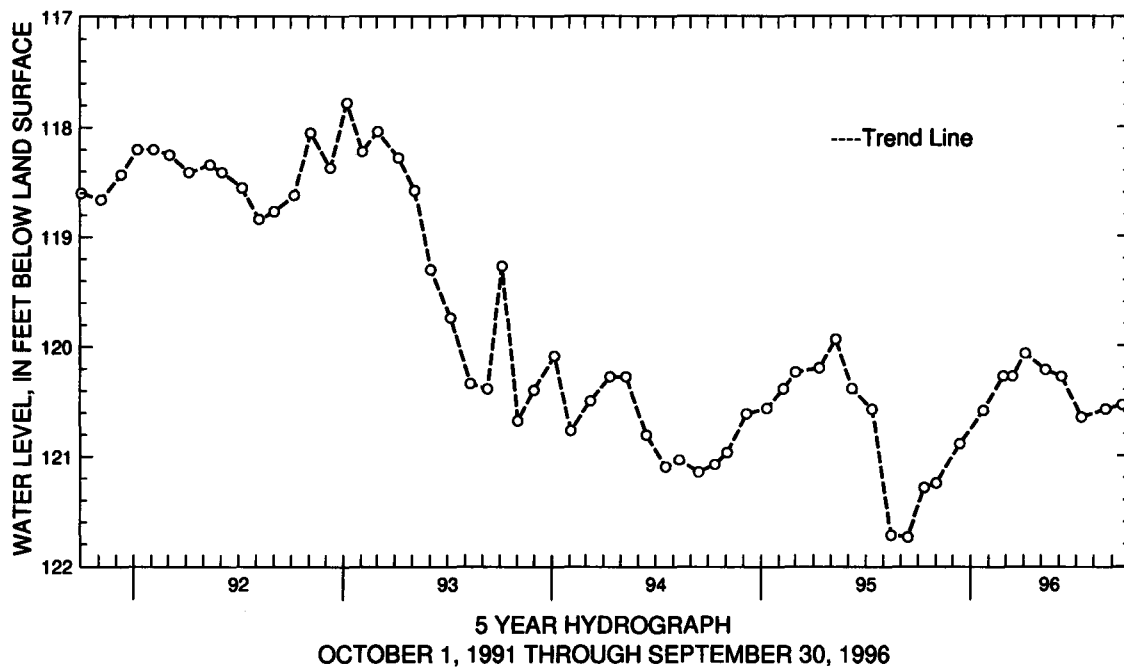
ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 46. SITE ID.--381616076364701. PERMIT NUMBER.--SM-73-1992.
 LOCATION.--Lat 38°16'16", long 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.
 Owner: U.S. Geological Survey.
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 296 ft; casing diameter 6 in., to 150 ft; casing diameter 2 in. from 150 to 286 ft; screen diameter 2 in. from 286 to 296 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 118.84 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 2.90 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--October 1976 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 109.36 ft below land surface, July 9, 1979; lowest measured, 121.74 ft below land surface, Sept. 13, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	121.29	JAN 23, 1996	120.59	APR 04, 1996	120.07	JUL 11, 1996	120.65
NOV 02	121.25	FEB 26	120.28	MAY 09	120.22	AUG 22	120.58
DEC 13	120.89	MAR 13	120.28	JUN 06	120.28	SEP 19	120.54

WATER YEAR 1996 HIGHEST 120.07 APR 04, 1996 LOWEST 121.29 OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 49. SITE ID.--381616076364702. PERMIT NUMBER.--SM-73-3081.

LOCATION.--Lat 38°16'16", long 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 619 ft; casing diameter 6 in., to 46 ft; casing diameter 4 in., to 279 ft; casing diameter 1.5 in. from 279 to 534 ft and 544 to 619 ft; screen diameter 3 in. from 534 to 544 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 118.94 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.40 ft above land surface.

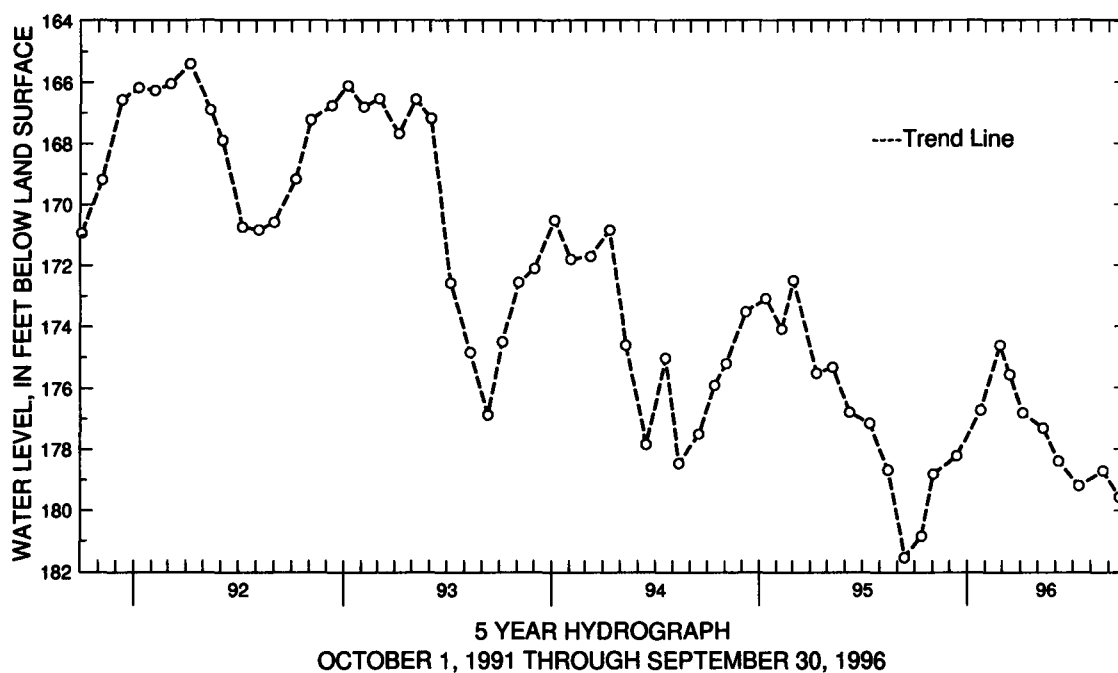
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 138.95 ft below land surface, April 5, 1979; lowest measured, 181.53 ft below land surface, Sept. 13, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	180.84	JAN 23, 1996	176.74	APR 04, 1996	176.83	JUL 11, 1996	179.21
NOV 02	178.82	FEB 26	174.63	MAY 09	177.33	AUG 22	178.72
DEC 13	178.23	MAR 13	175.59	JUN 06	178.40	SEP 19	179.58
WATER YEAR 1996		HIGHEST 174.63	FEB 26, 1996	LOWEST 180.84	OCT 12, 1995		



GROUND-WATER LEVELS

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MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 50. SITE ID.--381807076380001. PERMIT NUMBER.--SM-73-3082.

LOCATION.--Lat 38°18'07", long 76°38'00", Hydrologic Unit 02070011, at Leonard Hall Junior Naval Academy, Leonardtown.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 515 ft; casing diameter 4 in., to 270 ft; casing diameter 2 in. from 270 to 505 ft; screen diameter 3 in. from 505 to 515 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 99.40 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 1.86 ft above land surface.

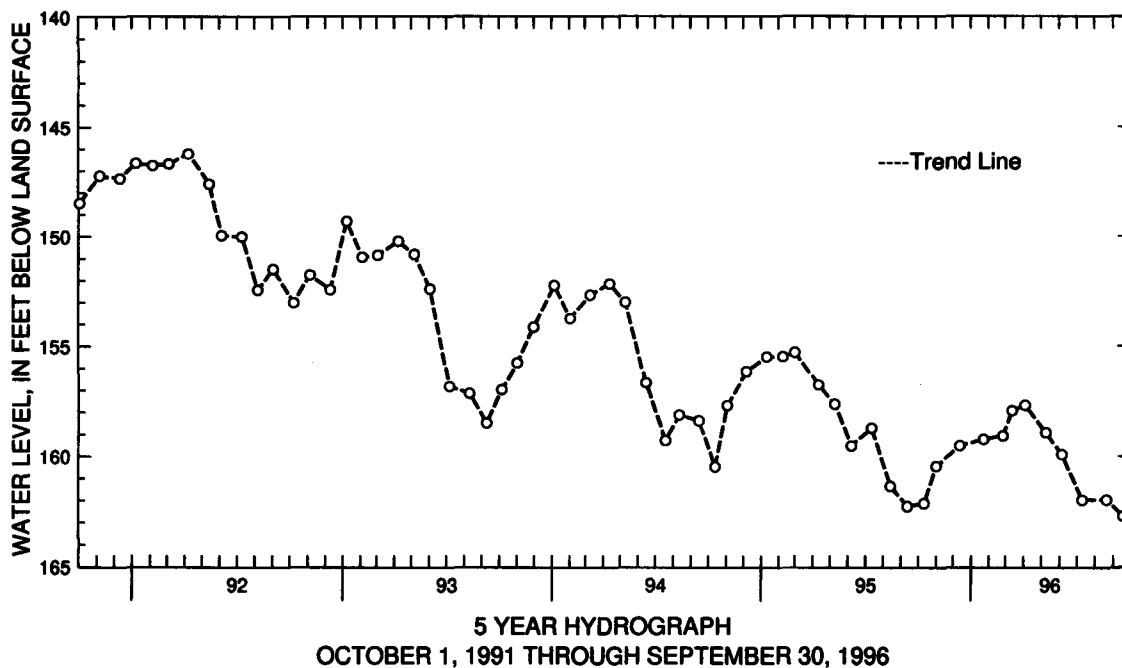
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 119.05 ft below land surface, Feb. 2, 1979; lowest measured, 162.72 ft below land surface, Sept. 19, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	162.13	JAN 23, 1996	159.24	APR 04, 1996	157.70	JUL 11, 1996	161.99
NOV 02	160.46	FEB 26	159.08	MAY 09	158.94	AUG 22	161.98
DEC 13	159.52	MAR 13	157.95	JUN 06	159.92	SEP 19	162.72
WATER YEAR 1996		HIGHEST 157.70	APR 04, 1996	LOWEST 162.72	SEP 19, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 62. SITE ID.--381616076364703. PERMIT NUMBER.--SM-73-3786.

LOCATION.--Lat 38°16'16", 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 358 ft; casing diameter 4 in., to 210 ft; casing diameter 2 in. from 210 to 348 ft; screen diameter 2 in. from 348 to 358 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 119.30 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.70 ft above land surface.

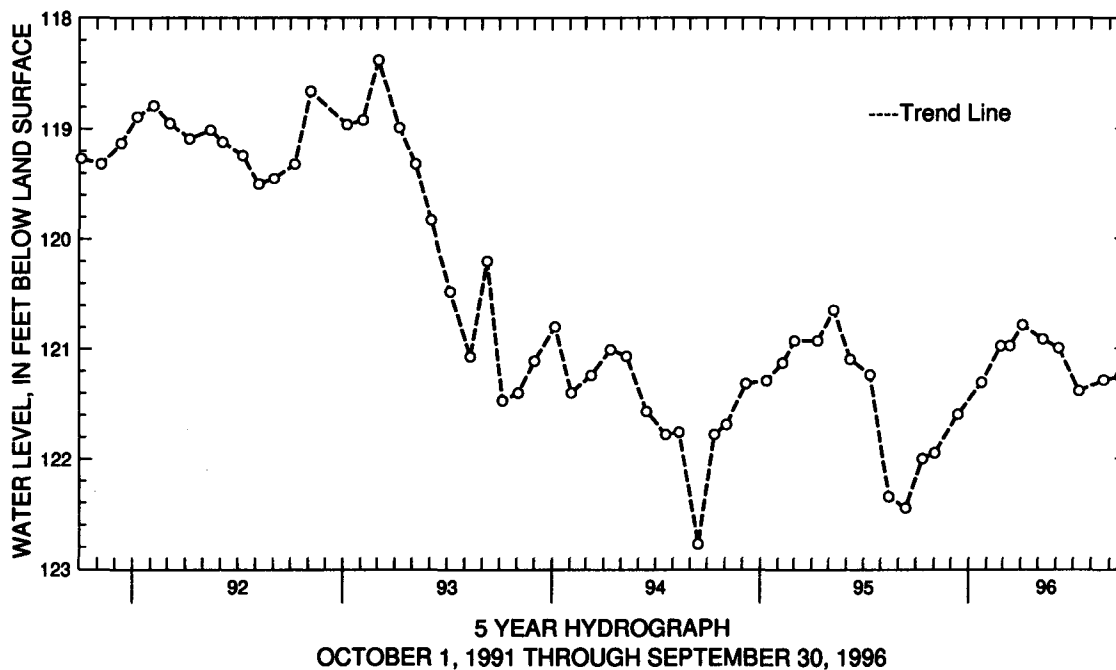
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--July 1980 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.06 ft below land surface, Oct. 30, 1980; lowest measured, 122.77 ft below land surface, Sept. 15, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	122.00	JAN 23, 1996	121.31	APR 04, 1996	120.79	JUL 11, 1996	121.39
NOV 02	121.95	FEB 26	120.98	MAY 09	120.92	AUG 22	121.29
DEC 13	121.60	MAR 13	120.98	JUN 06	121.00	SEP 19	121.26
WATER YEAR 1996		HIGHEST 120.79	APR 04, 1996	LOWEST 122.00	OCT 12, 1995		



GROUND-WATER LEVELS

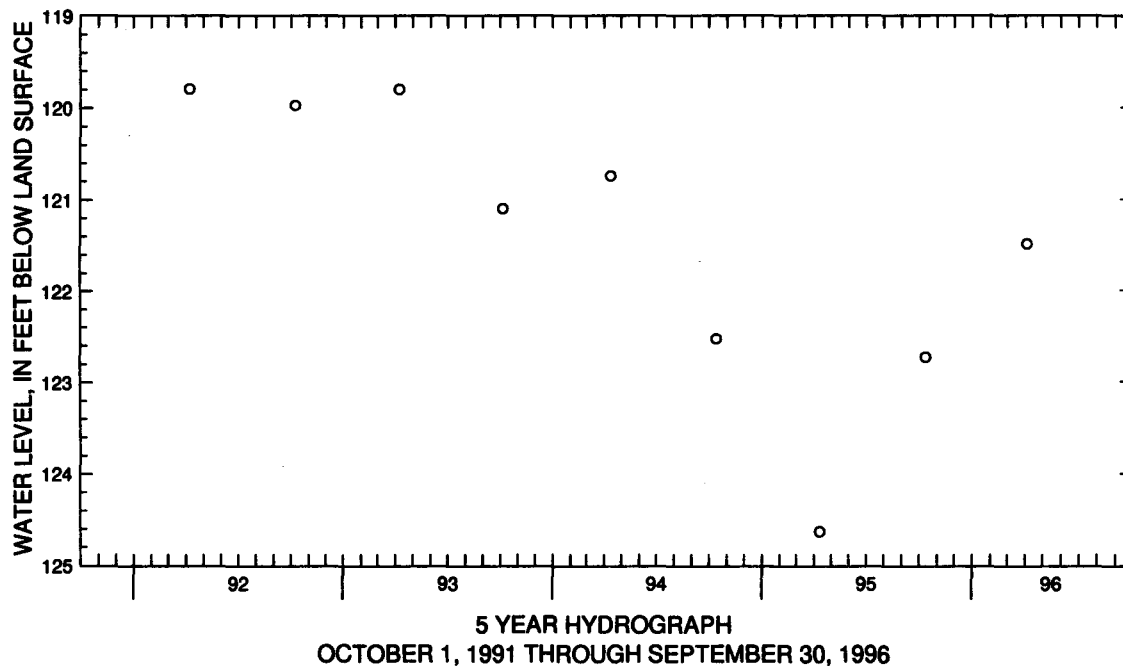
MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Dd 63. SITE ID.--381615076364701. PERMIT NUMBER.--SM-73-3785.
 LOCATION.--Lat 38°16'15", long 76°36'47", Hydrologic Unit 02070011, at Leonardtown Senior High School, Redgate.
 Owner: U.S. Geological Survey.
 AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 356 ft; casing diameter 4 in., to 327 ft; casing diameter 2 in. from 327 to 346 ft; screen diameter 2 in. from 346 to 356 ft.
 INSTRUMENTATION.--Twice yearly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 119.72 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of casing, 1.00 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well. Measured monthly from October 1977 to October 1986.
 Measured twice yearly from April 1987 to current year.
 PERIOD OF RECORD.--July 1980 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 113.15 ft below land surface, March 2, 1981; lowest measured, 124.63 ft below land surface, April 12, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	122.73	APR 04, 1996	121.49
WATER YEAR 1996		HIGHEST 121.49 APR 04, 1996	LOWEST 122.73 OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY

WELL NUMBER.--SM Df 66. SITE ID.--381841076284401. PERMIT NUMBER.--SM-73-1990.

LOCATION.--Lat 38°18'41", long 76°28'44", Hydrologic Unit 02060006, 0.8 mi south of Town Point.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 258 ft; casing diameter 6 in., to 84 ft; casing diameter 2 in. from 84 to 248 ft; screen diameter 2 in. from 248 to 258 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.00 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

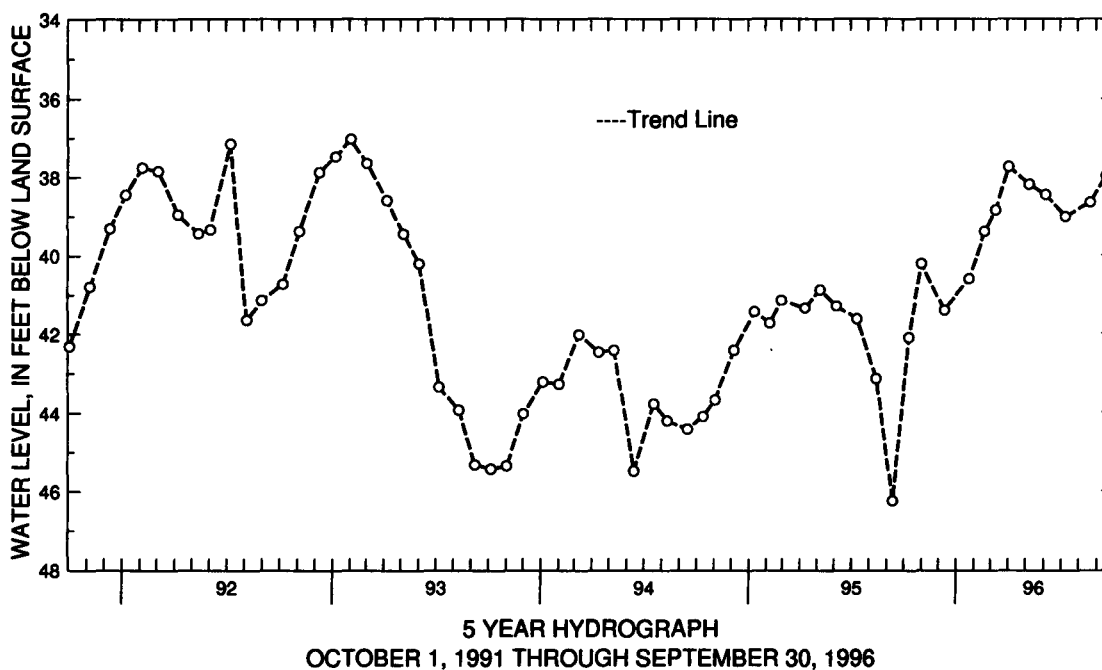
PERIOD OF RECORD.--July 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.79 ft below land surface, April 5, 1979; lowest measured, 49.66 ft below land surface, July 9, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	42.11	JAN 25, 1996	40.60	APR 03, 1996	37.75	JUL 10, 1996	39.02
NOV 02	40.22	FEB 22	39.39	MAY 08	38.20	AUG 22	38.66
DEC 12	41.41	MAR 12	38.85	JUN 05	38.46	SEP 18	37.98

WATER YEAR 1996 HIGHEST 37.75 APR 03, 1996 LOWEST 42.11 OCT 11, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Df 71. SITE ID.--381527076283101. PERMIT NUMBER.--SM-73-3431.

LOCATION.--Lat 38°15'27", long 76°28'31", Hydrologic Unit 02070011, at Cheryl Dr. and Great Mills Rd., Lexington Park.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 560 ft; casing diameter 4 in., to 420 ft; casing diameter 2 in. from 420 to 550 ft; screen diameter 2 in. from 550 to 560 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 69.15 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 0.80 ft above land surface.

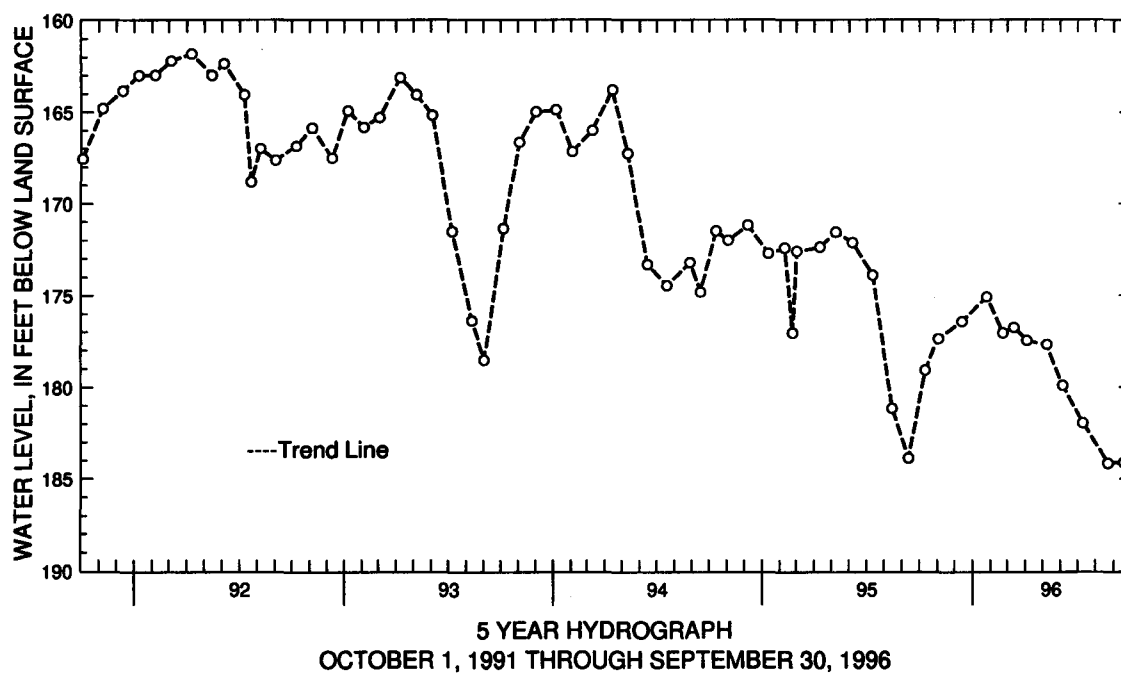
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 119.19 ft below land surface, May 1, 1980; lowest measured, 184.15 ft below land surface, Aug. 22, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	179.09	JAN 25, 1996	175.08	APR 03, 1996	177.48	JUL 10, 1996	181.96
NOV 02	177.38	FEB 22	177.05	MAY 08	177.71	AUG 22	184.15
DEC 13	176.42	MAR 12	176.76	JUN 05	179.93	SEP 18	184.12
WATER YEAR 1996		HIGHEST 175.08	JAN 25, 1996	LOWEST 184.15	AUG 22, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Df 84. SITE ID.--381548076272102. PERMIT NUMBER.--SM-81-0119.

LOCATION.--Lat 38°15'48", long 76°27'21", Hydrologic Unit 0207011, at Lexington Park.

Owner: Maryland Geological Survey.

AQUIFER.--Brightseat Formation of Lower Paleocene age. Aquifer code: 125BRGS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 912 ft; casing diameter 6 in., to 246 ft; casing diameter 4 in. from 246 ft to 831 ft, 856 to 862 ft, and 867 to 897; screen diameter 4 in. from 831 to 856 ft, 862 to 867 ft, and 897 to 912 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 108.39 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.80 ft above land surface.

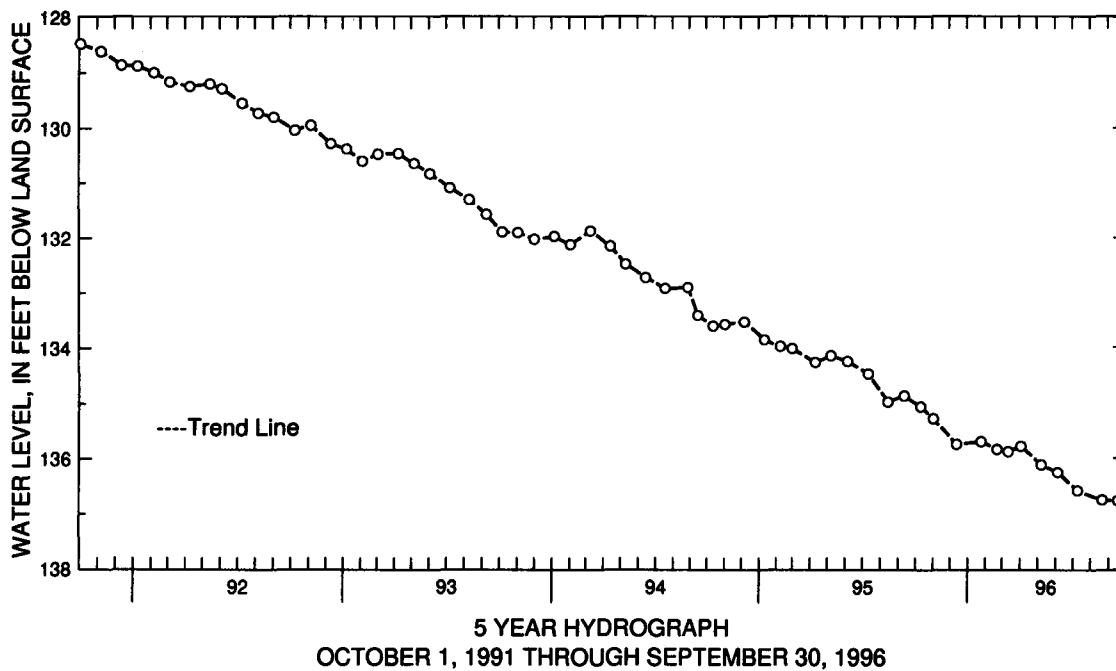
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--January 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 115.68 ft below land surface, Feb. 3, 1983; lowest measured, 136.77 ft below land surface, Sept. 18, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11, 1995	135.07	JAN 25, 1996	135.70	APR 03, 1996	135.78	JUL 10, 1996	136.58
NOV 02	135.28	FEB 22	135.84	MAY 08	136.11	AUG 22	136.76
DEC 13	135.75	MAR 12	135.88	JUN 05	136.25	SEP 18	136.77
WATER YEAR 1996		HIGHEST 135.07	OCT 11, 1995	LOWEST 136.77	SEP 18, 1996		



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM EF 80. SITE ID.--381052076253001.

LOCATION.--Lat 38°10'52", long 76°25'30", Hydrologic Unit 02070011, 0.1 mi south of intersection of MD Rt 5, and Rosecroft Rd., St. Mary's City.

Owner: St. Mary's College of Maryland.

AQUIFER.--Omar Formation of Pleistocene age. Aquifer code: 112OMAR.

WELL CHARACTERISTICS.--Dug, unused, water-table well, depth 20.70 ft; casing diameter 42 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.50 ft above land surface.

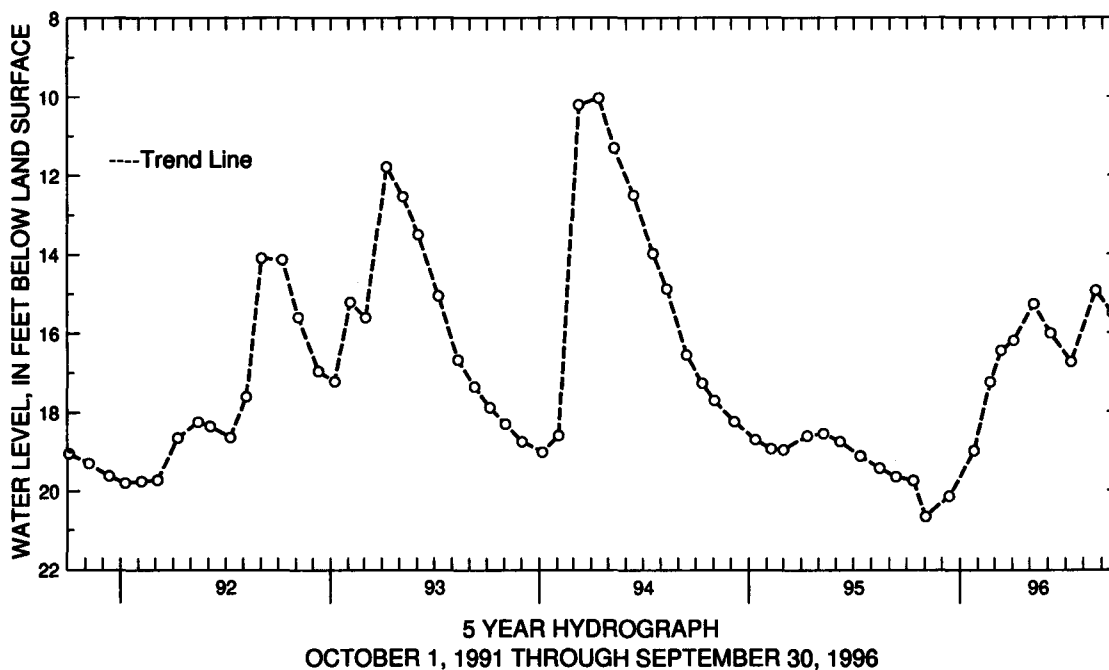
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--February 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.03 ft below land surface, April 14, 1994; lowest measured, 20.67 ft below land surface, Nov 2, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	19.75	JAN 25, 1996	19.00	APR 03, 1996	16.21	JUL 10, 1996	16.75
NOV 02	20.67	FEB 22	17.25	MAY 08	15.27	AUG 22	14.93
DEC 13	20.15	MAR 12	16.46	JUN 05	16.02	SEP 19	15.51
WATER YEAR 1996		HIGHEST 14.93	AUG 22, 1996	LOWEST 20.67	NOV 02, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Eg 27. SITE ID.--381213076222801. PERMIT NUMBER.--SM-73-1993.

LOCATION.--Lat 38°12'13", long 76°22'28", Hydrologic Unit 02060004, 1.6 miles east of St. James, at the St. Marys Co. Environmental Studies Area.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 320 ft; casing diameter 6 in., to 70 ft; casing diameter 2 in. from 70 to 310 ft; screen diameter 2 in. from 310 to 320 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.50 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

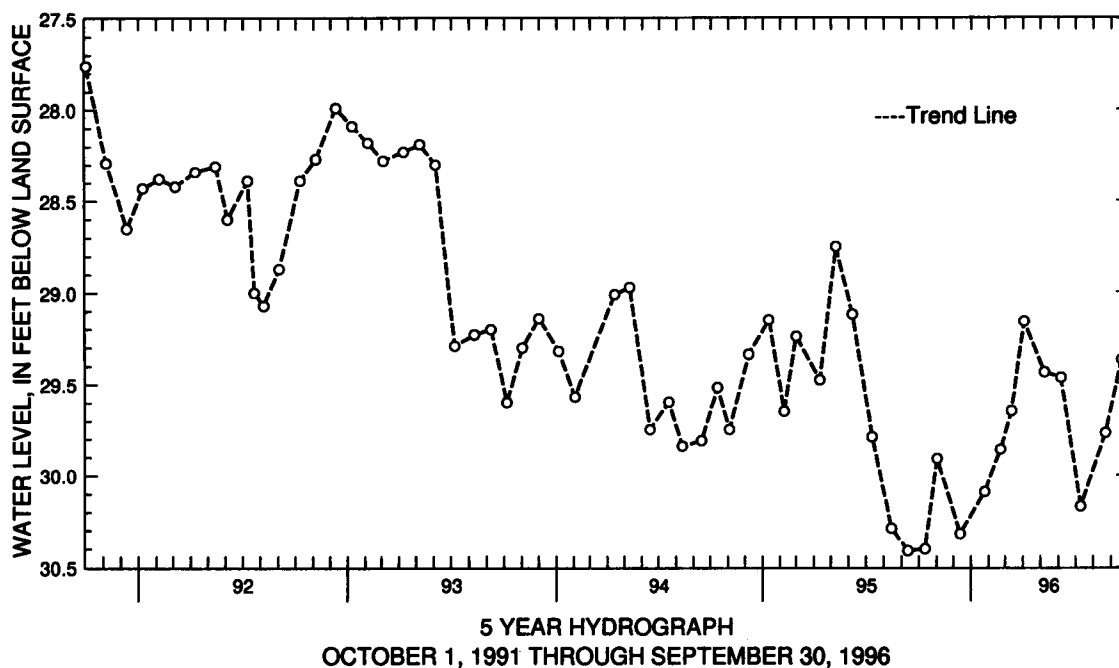
PERIOD OF RECORD.--August 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.84 ft below land surface, May 12, 1978; lowest measured, 30.41 ft below land surface, Sept. 12, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	30.40	JAN 25, 1996	30.09	APR 03, 1996	29.16	JUL 10, 1996	30.17
NOV 02	29.91	FEB 22	29.86	MAY 08	29.44	AUG 22	29.77
DEC 13	30.32	MAR 12	29.65	JUN 05	29.47	SEP 19	29.37

WATER YEAR 1996 HIGHEST 29.16 APR 03, 1996 LOWEST 30.40 OCT 12, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Fe 30. SITE ID.--380834076303401. PERMIT NUMBER.--SM-73-1917.

LOCATION.--Lat 38°08'34", long 76°30'34", Hydrologic Unit 02070011, at water tower, Piney Point.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 270 ft; casing diameter 6 in., to 67 ft; casing diameter 2 in. from 67 to 260 ft; screen diameter 2 in. from 260 to 270 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from Oct. 12, 1988 to October 12, 1994.

DATUM.--Elevation of land surface is 9 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.8 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well. Missing data due to recorder malfunction.

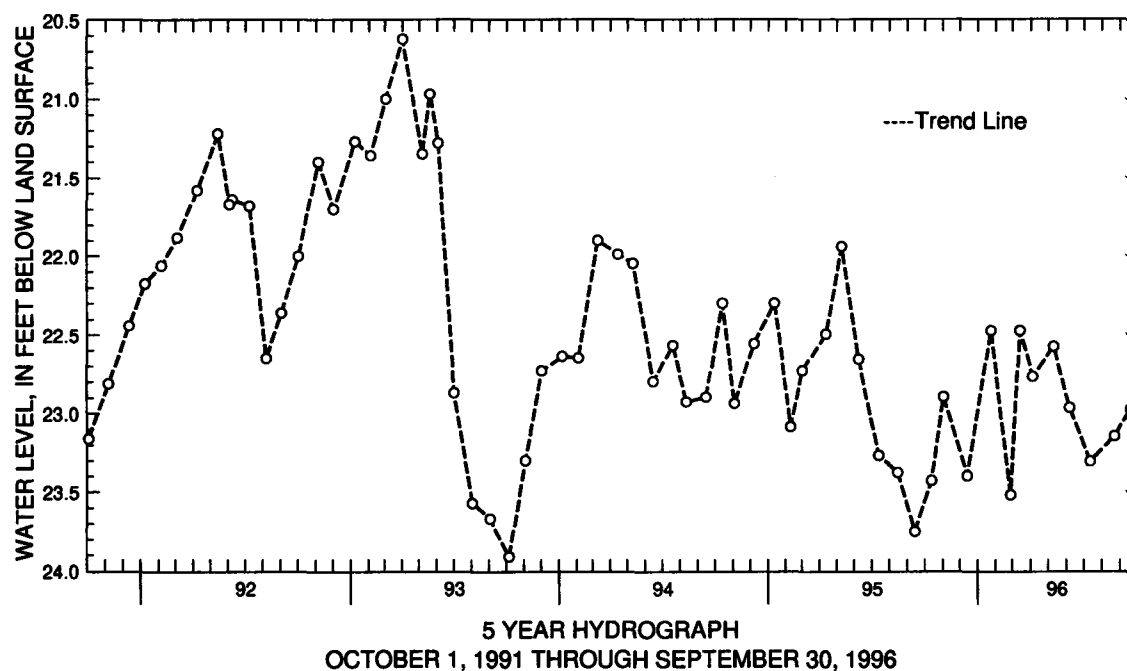
PERIOD OF RECORD.--August 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.24 ft below land surface, Oct. 6, 1976; lowest measured, 24.54 ft below land surface, Sept. 11, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	23.43	JAN 23, 1996	22.48	APR 04, 1996	22.77	JUL 11, 1996	23.31
NOV 02	22.90	FEB 26	23.52	MAY 09	22.58	AUG 22	23.15
DEC 13	23.40	MAR 13	22.48	JUN 06	22.97	SEP 19	22.98

WATER YEAR 1996 HIGHEST 22.48 JAN 23 and MAR 13, 1996 LOWEST 23.52 FEB 26, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Fe 31. SITE ID.--380834076303402. PERMIT NUMBER.--SM-73-3088.

LOCATION.--Lat 38°08'34", long 76°30'34", Hydrologic Unit 02070011, at Piney Point Pumping Station, Piney Point.

Owner: U.S. Geological Survey.

AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 639 ft; casing diameter 4 in., to 171 ft; casing diameter 2 in. from 171 to 451 ft; screen diameter 3 in. from 451 to 461 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.60 ft above land surface.

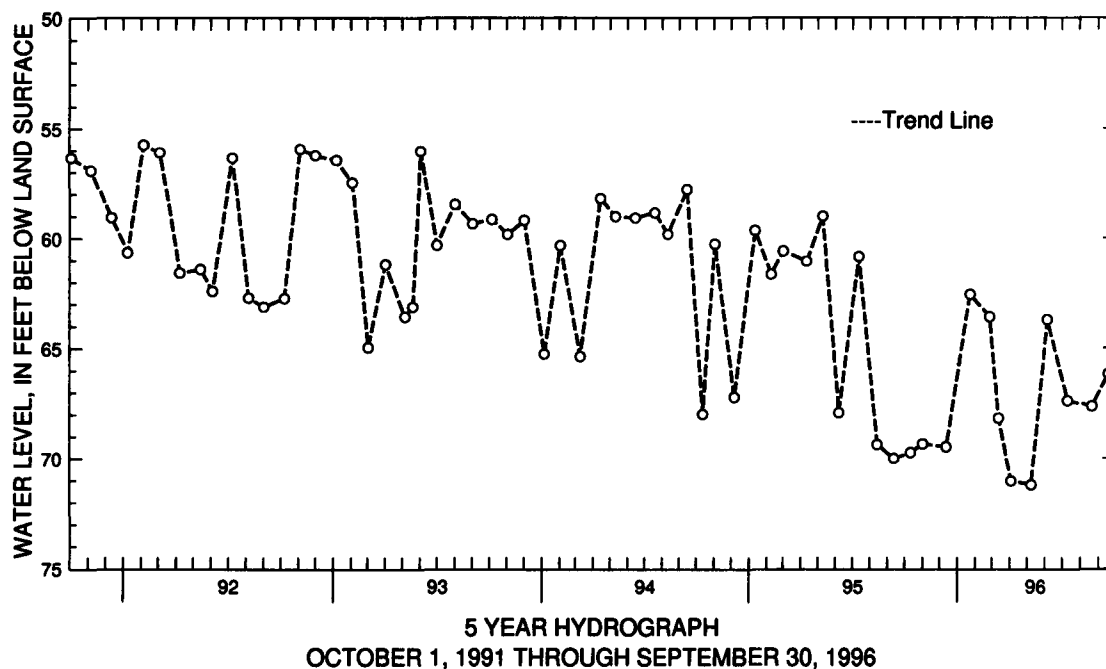
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--October 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.77 ft below land surface, Dec. 5, 1978; lowest measured, 71.21 ft below land surface, May 9, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	69.75	JAN 23, 1996	62.56	APR 04, 1996	71.04	JUL 11, 1996	67.40
NOV 02	69.36	FEB 26	63.59	MAY 09	71.21	AUG 22	67.65
DEC 13	69.49	MAR 13	68.19	JUN 06	63.72	SEP 19	66.19
WATER YEAR 1996		HIGHEST	62.56 JAN 23, 1996	LOWEST		71.21 MAY 09, 1996	



GROUND-WATER LEVELS

MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Fg 45. SITE ID.--380711076222201. PERMIT NUMBER.--SM-04-5190.

LOCATION.--Lat 38°07'11", long 76°22'22", Hydrologic Unit 02070011, in Ridge Volunteer Fire Department pumphouse, at Ridge.

Owner: Ridge Volunteer Fire Department.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 436 ft; casing diameter 6 in., to 386 ft; casing diameter 4 in. from 415 to 436 ft; screen diameter 5 in. from 386 to 415 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 65 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Hole in sanitary seal, 0.55 ft above land surface.

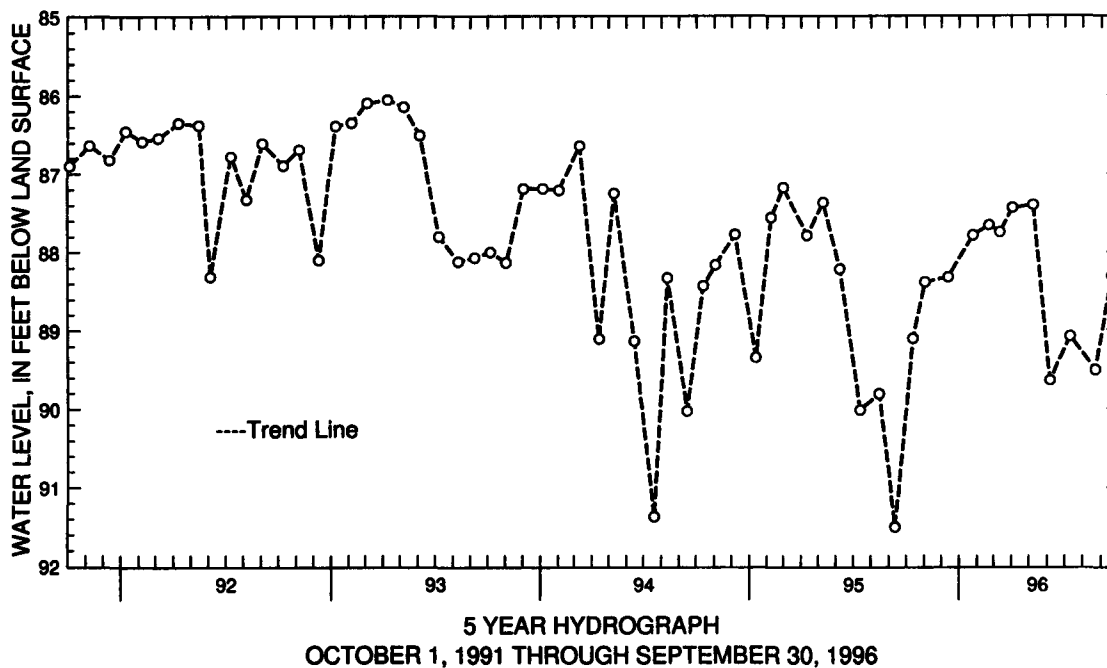
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.83 ft below land surface, May 16, 1967; lowest measured, 91.50 ft below land surface, Sept. 12, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 12, 1995	89.11	JAN 25, 1996	87.79	APR 03, 1996	87.44	JUL 10, 1996	89.08
NOV 02	88.39	FEB 22	87.66	MAY 08	87.40	AUG 22	89.51
DEC 13	88.32	MAR 12	87.75	JUN 05	89.64	SEP 19	88.31
WATER YEAR 1996		HIGHEST	87.40	MAY 08, 1996	LOWEST	89.64	JUN 05, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

SOMERSET COUNTY

WELL NUMBER.--SO Be 42. SITE ID.--381156075412501.

LOCATION.--Lat 38°11'56", long 75°41'25", Hydrologic Unit 02060009, 0.1 mi northeast of US Rt. 13 and Hampden Ave., Princess Anne.

Owner: E. Mace Smith.

AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, measured depth 184 ft; casing diameter 2 in., to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 17 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 2.28 ft above land surface.

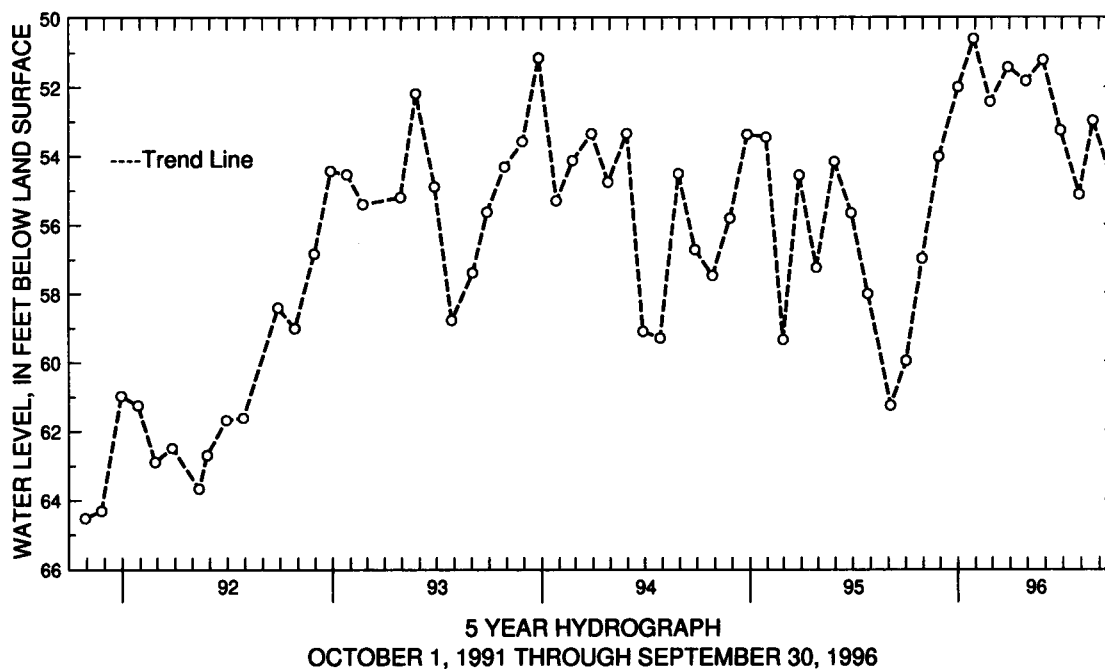
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.15 ft below land surface May 1, 1953; lowest measured 65.72 ft below land surface, July 26, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	59.98	JAN 29, 1996	50.60	MAY 29, 1996	51.21	SEP 26, 1996	54.87
30	56.99	FEB 27	52.42	JUN 28	53.26		
NOV 29	54.02	MAR 29	51.42	JUL 29	55.13		
JAN 02, 1996	52.00	APR 29	51.82	AUG 22	52.98		
WATER YEAR 1996		HIGHEST 50.60 JAN 29, 1996		LOWEST 59.98 OCT 02, 1995			



GROUND-WATER LEVELS

MARYLAND--Continued

SOMERSET COUNTY--Continued

WELL NUMBER.--SO Ce 42. SITE ID.--380927075423701. PERMIT NUMBER.--SO-81-0394.
 LOCATION.--Lat 38°09'30", long 75°41'56", Hydrologic Unit 02060009, at Eastern Shore Correctional Institution.
 Owner: Maryland Department of Correction.
 AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 215 ft; casing diameter 4 in., to 185 ft; screen diameter 4 in. from 185 to 215 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recording interval, from Jan. 2, 1986 to current year.
 DATUM.--Altitude of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder shelf, 1.6 ft above land surface.
 REMARKS.--Water levels affected by nearby pumping. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.97 ft below land surface, Feb. 21, 1986; lowest measured, 51.90 ft below land surface, Aug. 7, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	40.75	40.52	40.07	39.88	37.90	37.66	37.06	36.91	36.21	36.08	36.27	36.17
2	---	---	39.90	39.69	37.95	37.80	36.97	36.80	36.13	36.02	36.17	36.05
3	---	---	39.78	39.65	37.94	37.78	36.84	36.64	36.10	35.95	36.26	35.97
4	---	---	39.78	39.65	37.83	37.73	36.97	36.76	36.04	35.93	36.33	36.25
5	---	---	39.75	39.60	37.82	37.68	36.96	36.82	36.08	35.93	36.30	36.15
6	---	---	39.62	39.48	37.75	37.64	37.00	36.91	36.10	35.99	36.19	36.08
7	---	---	39.52	39.17	37.72	37.58	36.95	36.58	36.08	35.97	36.15	35.93
8	---	---	39.33	39.18	37.71	37.60	36.64	36.40	---	---	36.13	35.92
9	---	---	39.37	39.29	37.66	37.42	36.65	36.46	---	---	36.25	36.13
10	---	---	39.35	39.18	37.59	37.49	36.61	36.48	---	---	36.30	36.21
11	---	---	39.23	38.93	37.57	37.50	36.67	36.59	---	---	36.26	36.13
12	---	---	39.10	38.90	37.59	37.53	36.62	36.26	---	---	36.15	36.03
13	---	---	39.10	38.97	37.57	37.49	36.54	36.38	---	---	36.09	35.96
14	---	---	38.98	38.54	37.55	37.39	36.56	36.48	---	---	36.14	36.00
15	---	---	38.78	38.51	37.50	37.45	36.65	36.51	---	---	36.14	35.97
16	---	---	38.85	38.78	37.49	37.39	36.66	36.53	---	---	36.18	36.00
17	---	---	38.85	38.76	37.49	37.42	36.58	36.44	---	---	36.19	36.02
18	---	---	38.78	38.63	37.49	37.34	36.60	36.47	---	---	36.15	35.97
19	---	---	38.70	38.61	37.36	37.17	36.51	36.18	---	---	36.07	35.82
20	---	---	38.68	38.48	37.30	37.09	36.62	36.46	---	---	35.95	35.64
21	---	---	38.52	38.33	37.33	37.14	36.59	36.40	---	---	36.10	35.78
22	---	---	38.54	38.37	37.38	37.26	36.56	36.35	---	---	36.18	35.97
23	---	---	38.53	38.33	37.40	37.28	36.48	36.29	---	---	36.20	36.08
24	---	---	38.52	38.41	37.35	37.17	36.41	36.16	---	---	36.22	36.13
25	---	---	38.50	38.30	37.31	37.12	36.49	36.32	---	---	36.15	36.00
26	---	---	38.38	38.15	37.23	37.13	36.51	36.41	---	---	36.05	35.93
27	---	---	38.25	38.02	37.21	37.12	36.42	36.16	---	---	36.09	36.03
28	---	---	38.14	38.06	37.19	37.12	36.39	36.22	36.11	35.99	36.05	35.87
29	---	---	38.14	38.02	37.19	37.12	36.38	36.23	36.24	36.07	35.92	35.84
30	---	---	38.04	37.88	37.18	37.07	36.24	36.10	---	---	35.88	35.78
31	40.19	40.04	---	---	37.11	37.00	36.20	36.08	---	---	35.86	35.74
MONTH	40.75	40.04	40.07	37.88	37.95	37.00	37.06	36.08	36.24	35.93	36.33	35.64

GROUND-WATER LEVELS

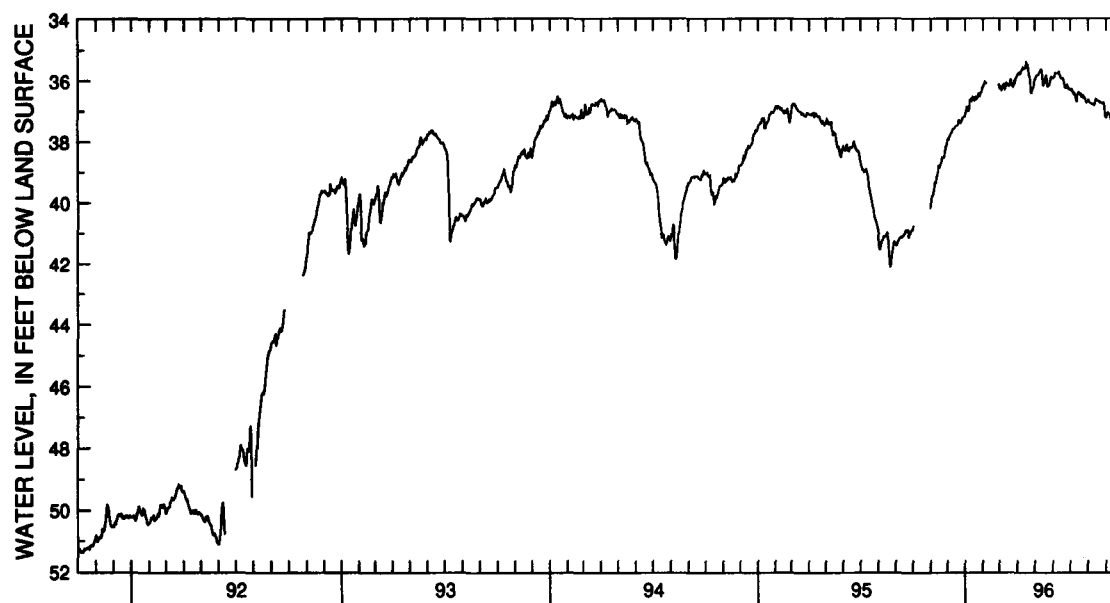
MARYLAND--Continued

SOMERSET COUNTY--Continued

SO Ce 42--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	35.81	35.59	35.96	35.81	35.93	35.75	36.32	36.10	36.62	36.60	37.20	36.99
2	35.77	35.54	35.92	35.78	35.92	35.75	36.27	36.11	36.71	36.55	37.12	36.89
3	35.75	35.56	35.87	35.74	35.89	35.68	36.28	36.07	36.73	36.59	37.07	36.92
4	35.74	35.51	35.84	35.68	35.76	35.56	36.33	36.14	36.75	36.60	37.10	36.95
5	35.80	35.56	35.82	35.65	35.75	35.58	36.39	36.26	36.75	36.62	37.10	37.00
6	35.79	35.63	35.82	35.60	35.76	35.64	36.42	36.30	36.76	36.66	37.09	36.74
7	35.69	35.53	35.82	35.68	35.77	35.62	36.46	36.31	36.78	36.68	37.11	36.74
8	35.69	35.53	35.74	35.60	35.78	35.65	36.42	36.28	36.79	36.68	37.26	37.06
9	35.62	35.40	35.72	35.58	35.77	35.64	36.46	36.28	36.77	36.67	37.24	37.05
10	35.58	35.44	35.67	35.55	35.76	35.58	36.63	36.37	36.80	36.66	37.28	37.08
11	35.61	35.50	35.64	35.42	35.72	35.56	36.70	36.54	36.82	36.72	37.33	37.16
12	35.62	35.48	35.64	35.42	35.81	35.59	36.69	36.46	36.76	36.63	37.29	37.05
13	35.59	35.41	35.79	35.60	35.85	35.66	36.46	36.01	36.65	36.37	37.24	37.01
14	35.60	35.40	36.09	35.76	35.91	35.74	36.45	36.31	36.62	36.47	37.30	37.11
15	35.60	35.35	36.19	36.01	35.93	35.77	36.38	36.25	36.67	36.47	37.31	37.14
16	35.38	35.21	36.11	35.92	35.95	35.80	36.40	36.21	36.68	36.53	37.30	37.09
17	35.54	35.23	36.03	35.91	35.93	35.79	36.45	36.28	36.67	36.52	37.19	36.90
18	35.56	35.42	35.96	35.82	35.95	35.72	36.47	36.35	36.67	36.53	37.17	37.01
19	35.52	35.38	35.88	35.73	36.00	35.85	36.44	36.26	36.67	36.57	37.16	37.03
20	35.71	35.41	35.82	35.64	36.11	35.92	36.55	36.41	36.72	36.60	37.18	37.01
21	35.87	35.65	36.02	35.66	36.23	36.02	36.56	36.46	36.74	36.61	37.16	37.00
22	35.87	35.76	36.17	35.98	36.26	36.09	36.55	36.38	36.72	36.65	37.13	36.89
23	36.15	35.79	36.21	36.11	36.24	36.10	36.49	36.38	36.74	36.60	37.11	36.89
24	36.42	36.15	36.18	36.04	36.25	36.01	36.55	36.43	36.76	36.61	37.06	36.85
25	36.42	36.30	36.17	36.04	36.12	35.97	36.60	36.45	36.77	36.59	37.07	36.80
26	36.30	36.14	36.10	35.99	36.17	36.03	36.58	36.45	36.74	36.59	37.13	36.93
27	36.26	36.20	36.03	35.84	36.22	36.08	36.68	36.46	36.73	36.53	37.27	37.02
28	36.24	36.05	35.93	35.77	36.30	36.12	36.73	36.55	36.76	36.54	37.26	37.04
29	36.10	35.91	35.89	35.76	36.30	36.19	36.71	36.55	37.07	36.67	37.25	37.07
30	35.98	35.85	35.93	35.73	36.32	36.13	36.69	36.69	37.22	36.94	37.24	37.08
31	---	---	35.95	35.78	---	---	36.69	36.51	37.24	37.08	---	---
MONTH	36.42	35.21	36.21	35.42	36.32	35.56	36.73	36.01	37.24	36.37	37.33	36.74
YEAR	40.75	35.21										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

SOMERSET COUNTY--Continued

WELL NUMBER.--SO Cf 2. SITE ID.--380616075380701.

LOCATION.--Lat 38°06'16", long 75°38'07", Hydrologic Unit 02060009, on U.S. Rt. 13, 4.5 mi west of intersection of U.S. Rt. 13 and MD Rt. 364, near Costen.

Owner: Maryland State Highway Administration.

AQUIFER.--Kent Island Formation of Pleistocene age. Aquifer code: 112KILD.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 15 ft; casing diameter 1.25 in., to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 20 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.00 ft above land surface.

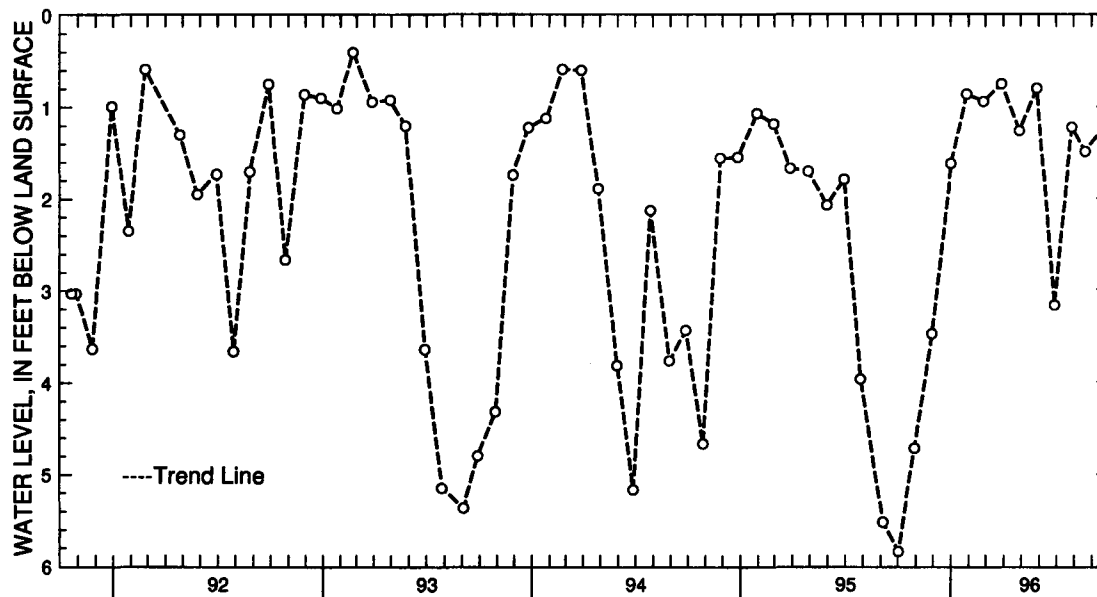
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.28 ft below land surface, May 9, 1958; lowest measured, 6.34 ft below land surface, Oct. 27, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	5.84	JAN 29, 1996	.86	MAY 29, 1996	.80	SEP 26, 1996	1.19
30	4.72	FEB 27	.94	JUN 28	3.17		
NOV 29	3.48	MAR 29	.75	JUL 29	1.22		
JAN 02, 1996	1.62	APR 29	1.26	AUG 22	1.49		
WATER YEAR 1996		HIGHEST	.75 MAR 29, 1996	LOWEST	5.84 OCT 02, 1995		



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

TALBOT COUNTY

WELL NUMBER.--TA Bf 73. SITE ID.--385242075593101. PERMIT NUMBER.--TA-02-1641.

LOCATION.--Lat 38°52'42", long 75°59'31", Hydrologic Unit 02060005, at Cordova.

Owner: Allen Foods.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 288 ft; casing diameter 4 in., to 276 ft; casing diameter 2 in. from 276 to 283 ft; screen diameter 3 in. from 283 to 288 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 42 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.50 ft above land surface.

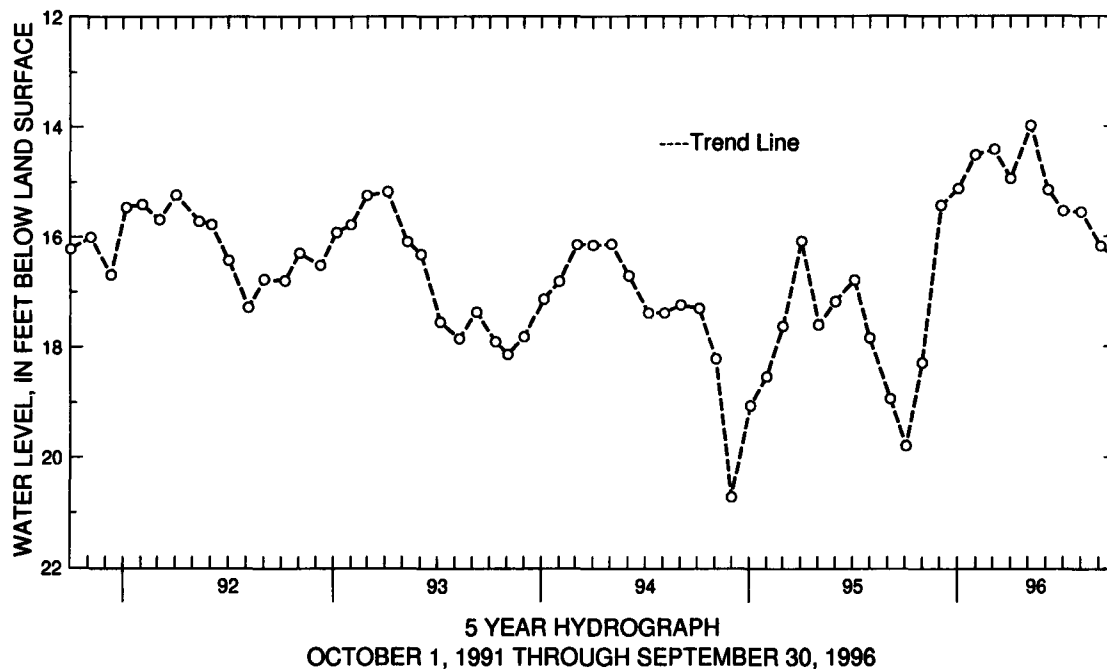
REMARKS.--Maryland Water-Level Network observation well. Water level reported by driller, 26 ft below land surface Dec. 16, 1955; water level measured 26.64 ft below land surface March 10, 1956. Measurements may be affected by nearby pumping.

PERIOD OF RECORD.--March 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.29 ft below land surface, May 4, 1961; lowest measured, 76.57 ft below land surface, Dec. 6, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	19.80	JAN 03, 1996	15.13	APR 02, 1996	14.95	JUL 02, 1996	15.54
NOV 01	18.30	FEB 01	14.52	MAY 06	13.99	AUG 02	15.56
DEC 04	15.44	MAR 04	14.42	JUN 06	15.16	SEP 05	16.18
WATER YEAR 1996		HIGHEST	13.99	MAY 06, 1996	LOWEST	19.80	OCT 03, 1995



GROUND-WATER LEVELS

437

MARYLAND--Continued

TALBOT COUNTY--Continued

WELL NUMBER.--TA Bf 74. SITE ID.--385242075593102. PERMIT NUMBER.--TA-02-1805.

LOCATION.--Lat 38°52'42", long 75°59'31", Hydrologic Unit 02060005, at Cordova.

Owner: Allen Foods.

AQUIFER.--Pensauken Formation of Upper Miocene age. Aquifer code: 122PNSK.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 48.4 ft; casing diameter 4 in., to 42.5 ft; screen diameter 3 in. from 43.2 to 48.4 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 42 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.70 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

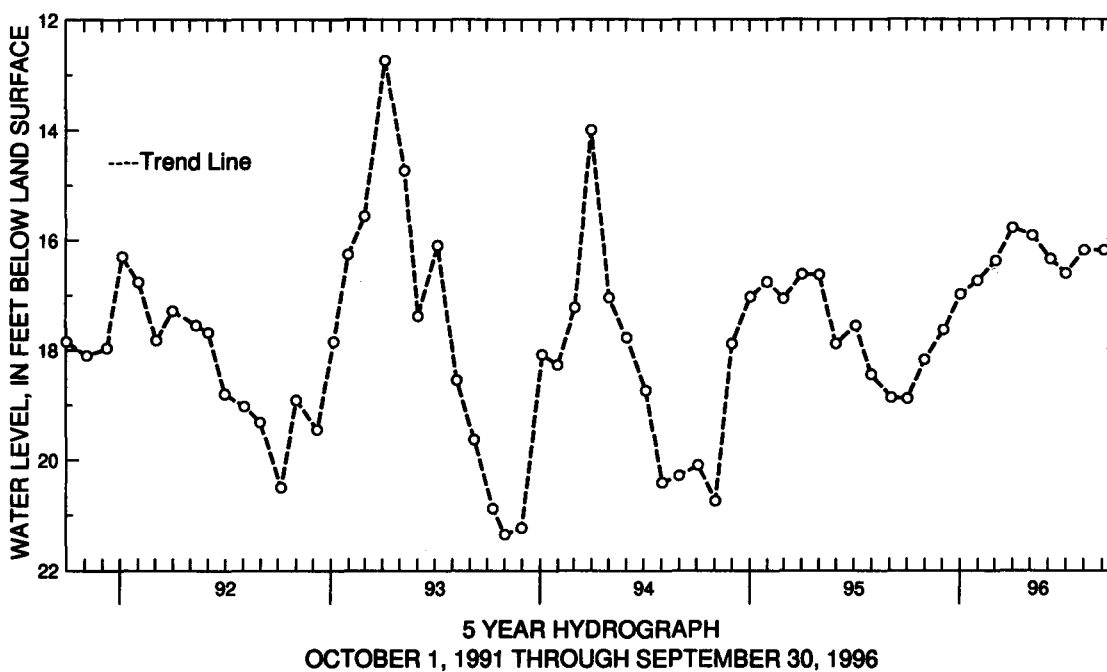
PERIOD OF RECORD.--April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.48 ft below land surface, Dec. 14, 1971; lowest measured, 21.36 ft below land surface, Nov. 2, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	18.90	JAN 03, 1996	17.00	APR 02, 1996	15.79	JUL 02, 1996	16.62
NOV 01	18.19	FEB 01	16.75	MAY 06	15.93	AUG 02	16.20
DEC 04	17.65	MAR 04	16.39	JUN 06	16.36	SEP 05	16.20

WATER YEAR 1996 HIGHEST 15.79 APR 02, 1996 LOWEST 18.90 OCT 03, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

TALBOT COUNTY--Continued

WELL NUMBER.--TA Cc 35. SITE ID.--384923076100601. PERMIT NUMBER.--TA-73-0767.

LOCATION.--Lat 38°49'23", long 76°10'06", Hydrologic Unit 02060002, at Tunis Mills.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 180 ft; casing diameter 6 to 2 in.; screened from 170 to 180 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.28 ft above land surface.

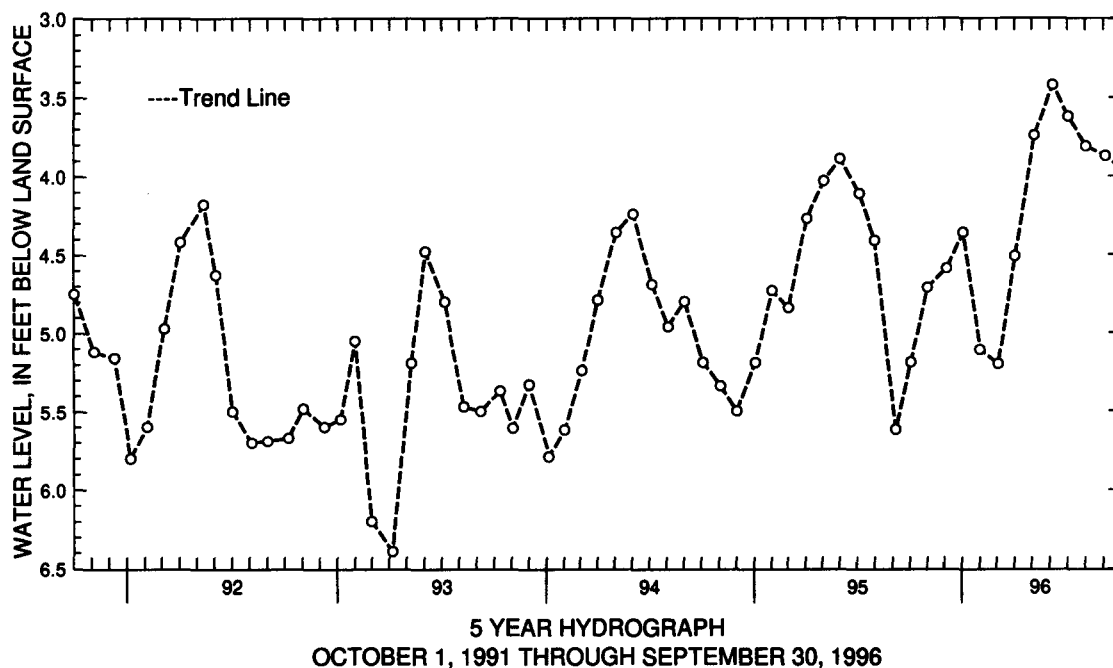
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.97 ft below land surface, April 2, 1980; lowest measured, 6.39 ft below land surface, April 6, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	5.19	JAN 03, 1996	4.36	APR 02, 1996	4.51	JUL 02, 1996	3.62
NOV 01	4.71	FEB 01	5.11	MAY 06	3.74	AUG 02	3.81
DEC 05	4.59	MAR 04	5.20	JUN 06	3.42	SEP 05	3.87
WATER YEAR 1996		HIGHEST	3.42	JUN 06, 1996	LOWEST	5.20	MAR 04, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

TALBOT COUNTY--Continued

WELL NUMBER.--TA Cc 36. SITE ID.--384514076103701. PERMIT NUMBER.--TA-73-0751.

LOCATION.--Lat 38°45'14", long 76°10'37", Hydrologic Unit 02060002, at Newcomb.

Owner: U.S. Geological Survey.

AQUIFER.--Piney Point Formation of Middle Eocene age. Aquifer code: 124PNPN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 241 ft; casing diameter 6 in., to 57 ft; casing diameter 2 in. from 51 to 231 ft; screen diameter 2 in. from 231 to 241 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical of 1929, from topographic map.

Measuring point: Top of casing, 0.85 ft above land surface.

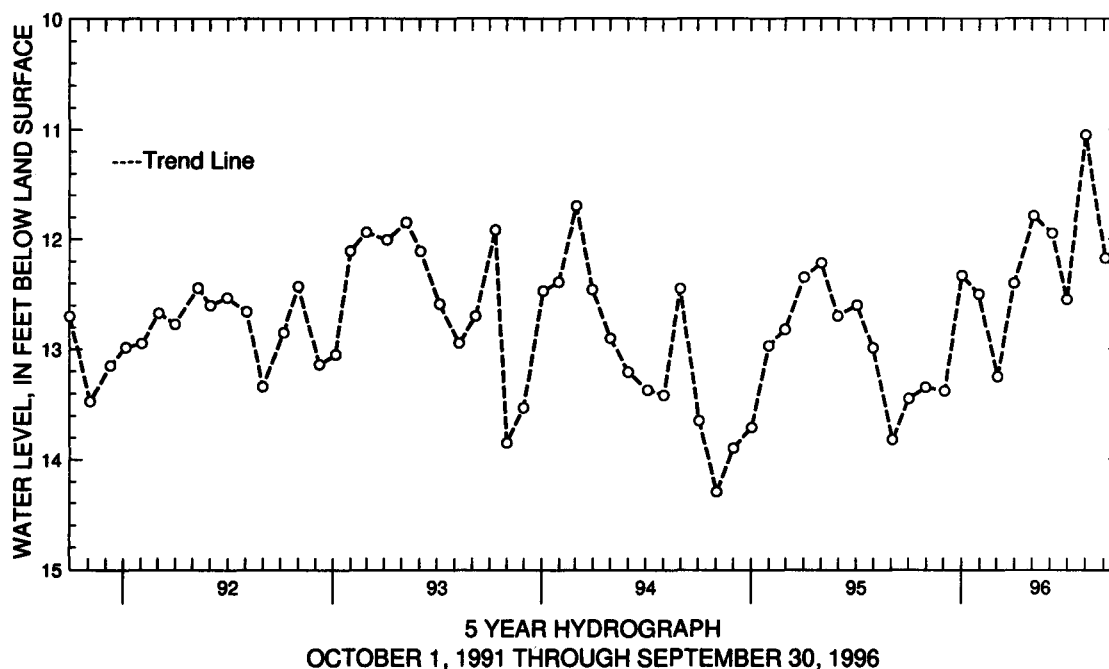
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1976 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.89 ft below land surface, April 2, 1980; lowest measured, 14.30 ft below land surface, Nov. 3, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	13.45	JAN 03, 1996	12.33	APR 02, 1996	12.40	JUL 02, 1996	12.55
NOV 01	13.35	FEB 01	12.50	MAY 06	11.79	AUG 02	11.05
DEC 04	13.38	MAR 04	13.25	JUN 06	11.95	SEP 05	12.17
WATER YEAR 1996		HIGHEST	11.05	AUG 02, 1996	LOWEST	13.45	OCT 03, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

TALBOT COUNTY--Continued

WELL NUMBER.--TA Cd 57. SITE ID.--384709076050301. PERMIT NUMBER.--TA-88-1328.

LOCATION.--Lat 38°47'09", long 076°05'03", Hydrologic Unit 02060005, in Easton.

Owner: Easton Utilities Commission.

AQUIFER.--Upper Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 1,198 ft; casing diameter 4 in., to 295 ft; casing diameter 2 in. from 260 to 1,137 ft, and 1,158 to 1,198 ft; screen diameter 2 in. from 1,137 to 1,158 ft.

DATUM.--Elevation of land surface is 12 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 3.78 ft above land surface.

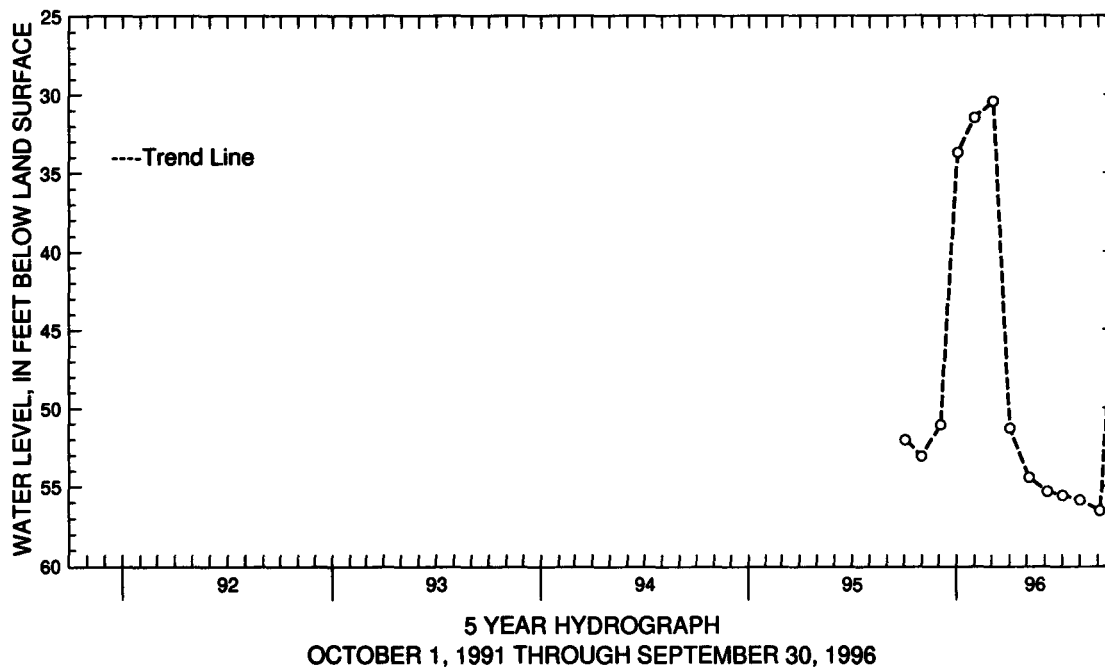
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.42 ft below land surface, March 4, 1996; lowest measured, 56.52 ft below land surface, Sept. 6, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	46.25	JAN 03, 1996	33.72	MAY 06, 1996	54.44	SEP 06, 1996	56.52
04	52.06	FEB 01	31.46	JUN 06	55.32		
NOV 01	53.06	MAR 04	30.42	JUL 02	55.61		
DEC 04	51.09	APR 02	51.32	AUG 02	55.85		
WATER YEAR 1996		HIGHEST 30.42 MAR 04, 1996		LOWEST 56.52 SEP 06, 1996			



GROUND-WATER LEVELS

MARYLAND-Continued

TALBOT COUNTY--Continued

WELL NUMBER---TA Ce 7. SITE ID---384643076043801.

LOCATION---Lat 38°46'43", long 76°04'38", Hydrologic Unit 02060005, in Easton.

Owner: Easton Utilities Commission.

AQUIFER---Calvert Formation of Miocene age. Aquifer code: 122CLVR.

WELL CHARACTERISTICS---Drilled, unused, artesian well, measured depth 104 ft; casing diameter 4 in., to unknown depth.

INSTRUMENTATION---Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM---Elevation of land surface is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.4 ft above land surface.

REMARKS---Maryland Water-Level Network observation well. Water level reported 43.43 ft below land surface,

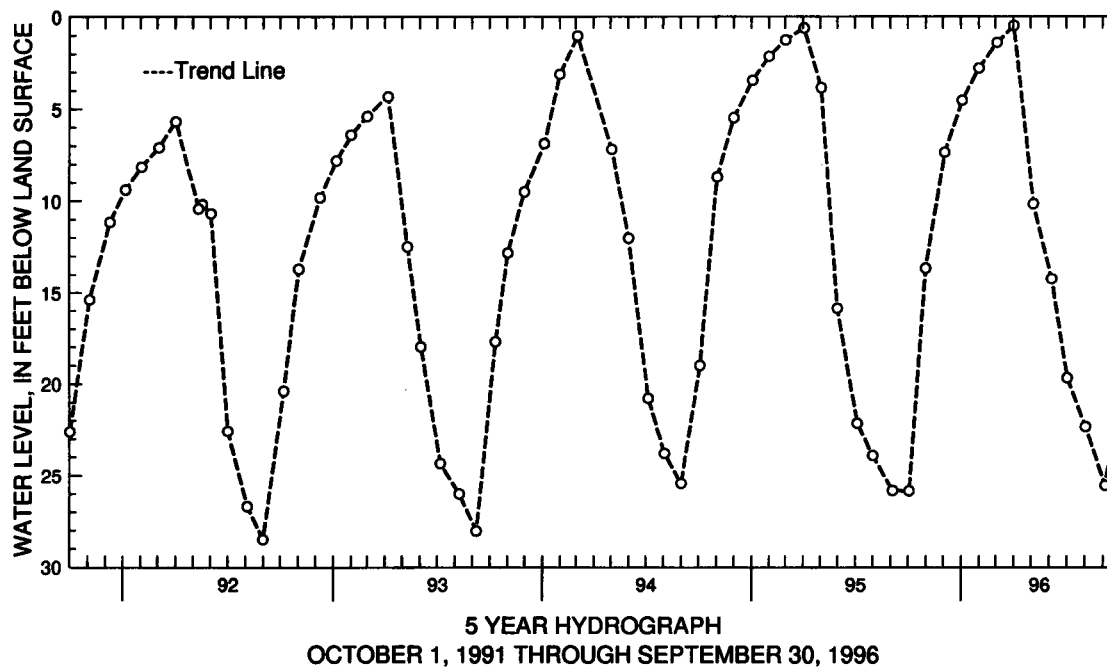
Oct. 7, 1948; water levels may be affected by nearby pumping.

PERIOD OF RECORDS---April 1956 to current year.

EXTREMES FOR PERIOD OF RECORD---Highest water level measured, 0.47 ft below land surface, April 2, 1996;
lowest measured 75.36 ft below land surface, Aug. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	25.89	JAN 03, 1996	4.54	APR 02, 1996	.47	JUL 02, 1996	19.74
NOV 01	13.70	FEB 01	2.79	MAY 06	10.20	AUG 02	22.40
DEC 04	7.38	MAR 04	1.40	JUN 06	14.31	SEP 05	25.59
WATER YEAR 1996		HIGHEST	.47	APR 02, 1996	LOWEST	25.89	OCT 03, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

WASHINGTON COUNTY

WELL NUMBER.--WA Ac 1. SITE ID.--394154078103501.

LOCATION.--Lat 39°41'54", long 78°10'35", Hydrologic Unit 02070004, at Hancock.

Owner: Susan Creager.

AQUIFER.--Romney Formation of Middle Devonian age. Aquifer code: 344RMNY.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 83 ft; casing diameter 4 in., to unknown depth; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land-surface is 440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of tile pipe, 0.20 ft above land surface.

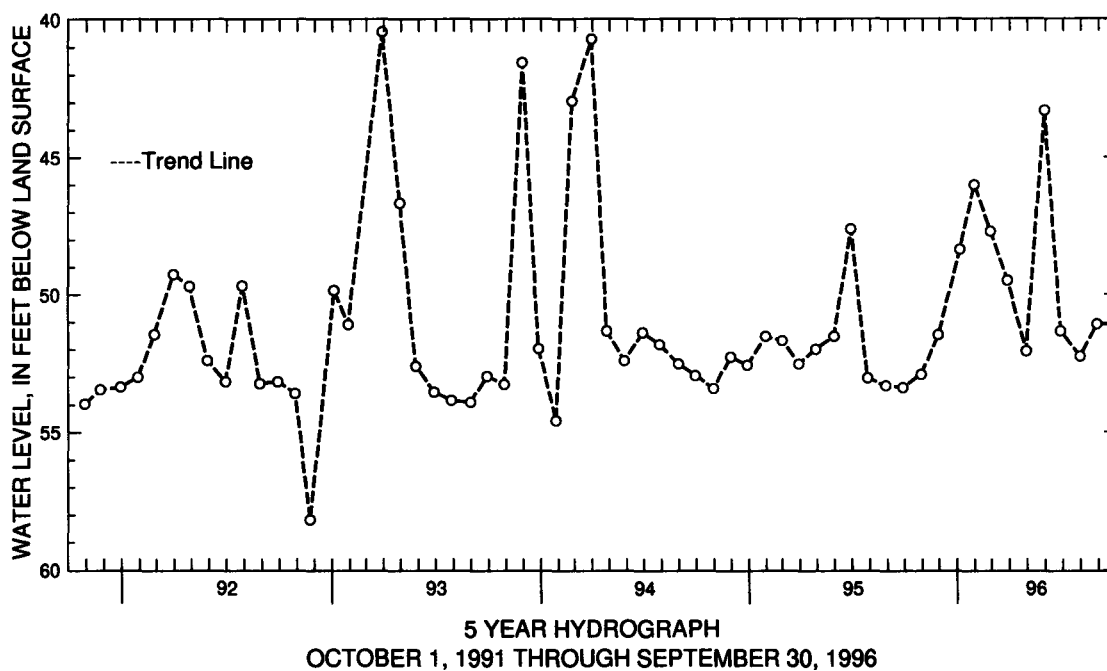
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--October 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.65 ft below land surface, Jan. 2, 1976; lowest measured, 58.18 ft below land surface, Nov. 23, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	52.92	JAN 30, 1996	46.01	APR 29, 1996	52.07	JUL 30, 1996	52.26
NOV 29	51.47	FEB 28	47.71	MAY 30	43.29	AUG 29	51.09
JAN 05, 1996	48.37	MAR 28	49.49	JUN 27	51.33	SEP 30	51.09
WATER YEAR 1996		HIGHEST	43.29	MAY 30, 1996	LOWEST	52.92	OCT 30, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Be 2. SITE ID.--393638078001301.

LOCATION.--Lat 39°36'38", long 78°00'13", Hydrologic Unit 02070004, about 1.2 mi southeast of Big Pool.

Owner: Fort Frederick State Park.

AQUIFER.--Romney Formation of Middle Devonian age. Aquifer code: 344RMNY.

WELL CHARACTERISTICS.--Dug, stone-lined, unused, water-table well, depth 41 ft; casing diameter 42 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of stone sill, 0.80 ft above land surface.

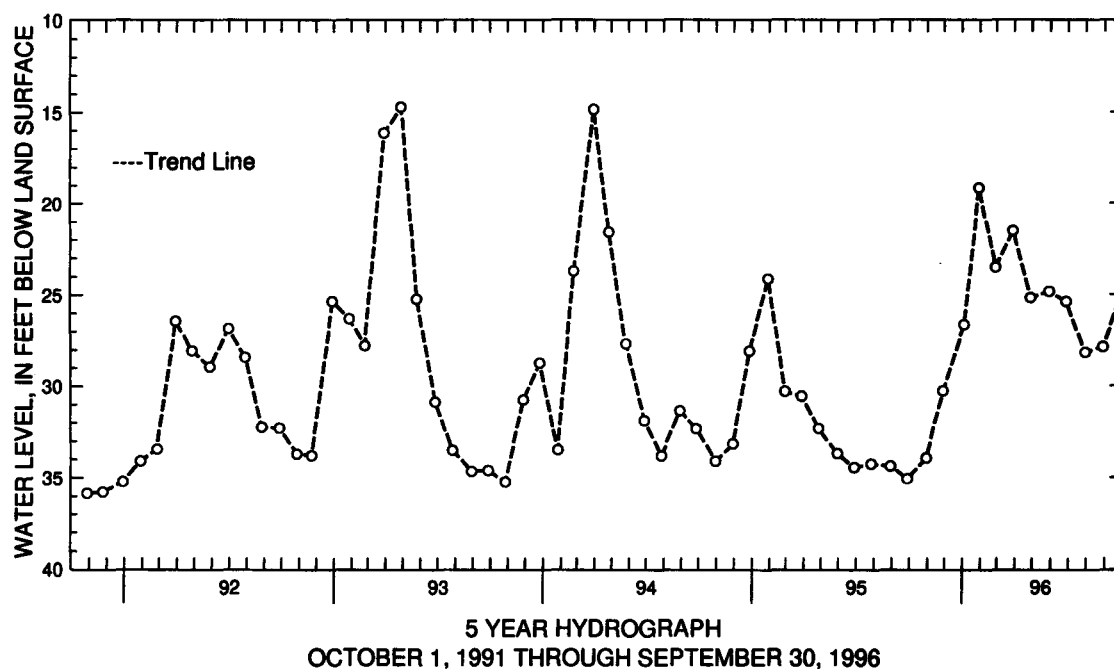
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.72 ft below land surface, April 28, 1993;
lowest measured, 37.34 ft below land surface, April 28, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	33.95	JAN 30, 1996	19.17	APR 29, 1996	25.18	JUL 30, 1996	28.18
NOV 29	30.29	FEB 28	23.52	MAY 30	24.84	AUG 29	27.89
JAN 05, 1996	26.64	MAR 29	21.51	JUN 28	25.40	SEP 30	25.02
WATER YEAR 1996		HIGHEST	19.17	JAN 30, 1996	LOWEST	33.95	OCT 30, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Bk 25. SITE ID.--393851077343001. PERMIT NUMBER.--WA-70-0235.

LOCATION.--Lat 39°38'51", long 77°34'30", Hydrologic Unit 02070004, 0.5 mi south of Smithsburg at Hagerstown Water Supply Plant.

Owner: U.S. Geological Survey.

AQUIFER.--Tomstown Dolomite of Lower Cambrian age. Aquifer code: 377TMSN.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 200 ft; casing diameter 6 in., to 128 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from April 27, 1970 to current year.

DATUM.--Elevation of land surface is 790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of shelter shelf, 3.5 ft above land surface.

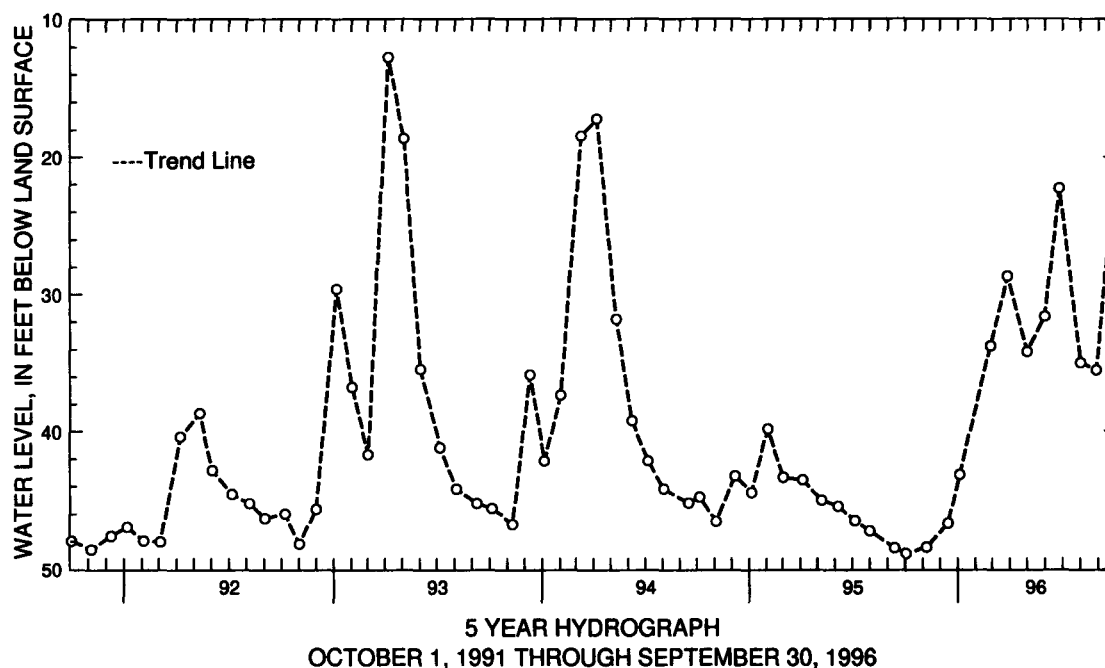
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--April 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.43 ft below land surface, April 23, 1993; lowest measured, 51.37 ft below land surface Jan. 31, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	48.86	JAN 04, 1996	43.17	APR 30, 1996	34.25	JUL 31, 1996	35.06
NOV 08	48.39	FEB 26	33.82	MAY 31	31.67	AUG 28	35.60
DEC 15	46.69	MAR 28	28.71	JUN 26	22.32	SEP 26	22.83
WATER YEAR 1996		HIGHEST	22.32 JUN 26, 1996	LOWEST		48.86 OCT 03, 1995	



GROUND-WATER LEVELS

MARYLAND--Continued

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Ch 106. SITE ID.--393414077461801. PERMIT NUMBER.--WA-73-2095.

LOCATION.--Lat 39°34'14", long 77°46'18", Hydrologic Unit 02070004, at Fountain Rock School.

Owner: U.S. Geological Survey.

AQUIFER.--Conococheague Limestone of Upper Cambrian age. Aquifer code: 371CCCCG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 69 ft; casing diameter 6 in., to 41 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from March 29, 1978 to June 19, 1981, Nov. 6, 1985 to May 3, 1987, and July 1, 1987 to June 1994.

DATUM.--Elevation of land surface is 520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.45 ft above land surface.

REMARKS.--Maryland Water-Level Network observation well.

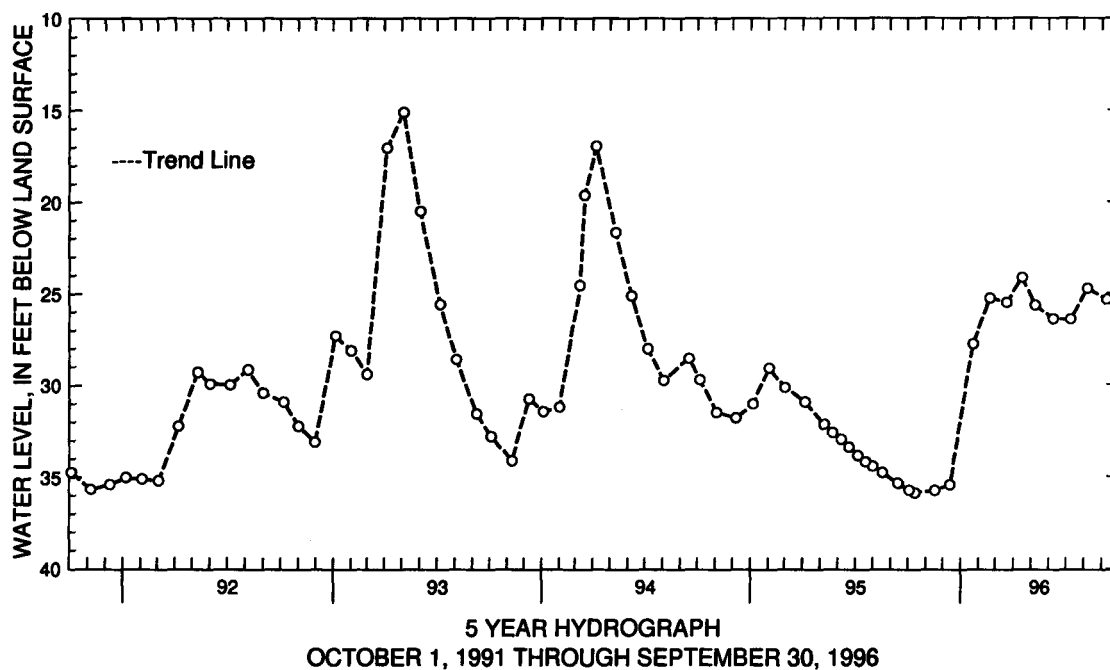
PERIOD OF RECORD.--February 1978 to June 1981, April 1984 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.19 ft below land surface, April 29, 1993; lowest measured, 36.59 ft below land surface, Jan. 11, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	35.73	JAN 23, 1996	27.79	MAY 09, 1996	25.66	SEP 10, 1996	25.34
13	35.86	FEB 21	25.27	JUN 10	26.46		
NOV 17	35.74	MAR 21	25.50	JUL 10	26.44		
DEC 13	35.43	APR 17	24.16	AUG 07	24.74		

WATER YEAR 1996	HIGHEST	24.16	APR 17, 1996	LOWEST	35.86	OCT 13, 1995
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GROUND-WATER LEVELS

MARYLAND--Continued

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA C1 82. SITE ID.--393402077434201. PERMIT NUMBER.--WA-73-2101.

LOCATION.--Lat 39°34'02", long 77°43'42", Hydrologic Unit 02070004, at Maryland Correction Institution, Hagerstown.

Owner: U.S. Geological Survey.

AQUIFER.--Conococheague Limestone of Upper Cambrian age. Aquifer code: 371CCCG.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 84 ft; casing diameter 6 in., to 32 ft; open hole.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval from April 25, 1978 to June 19, 1981.

DATUM.--Elevation of land surface is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing 2.30 ft above land surface.

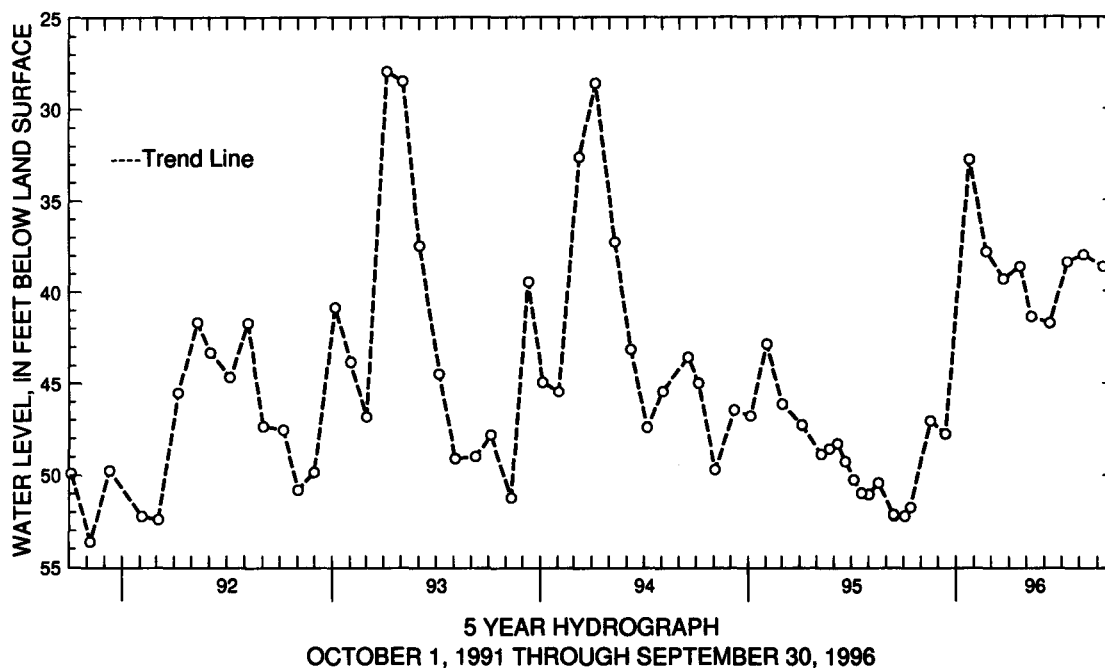
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--February 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.95 ft below land surface, April 6, 1993; lowest measured, 59.28 ft below land surface, Feb. 1, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	52.18	JAN 23, 1996	32.79	MAY 09, 1996	41.41	SEP 10, 1996	38.67
13	51.73	FEB 21	37.83	JUN 10	41.76		
NOV 17	47.06	MAR 21	39.35	JUL 10	38.42		
DEC 13	47.77	APR 19	38.68	AUG 07	38.03		
WATER YEAR 1996		HIGHEST 32.79	JAN 23, 1996	LOWEST 52.18	OCT 03, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Dj 2. SITE ID.--392904077371501.

LOCATION.--Lat 39°29'04", long 77°37'15", Hydrologic Unit 02070004, at Turner's Gap on Alt. U.S. 40.

Owner: Russell Schwartz.

AQUIFER.--Weverton Formation of Lower Cambrian age. Aquifer code: 377WVRN.

WELL CHARACTERISTICS.--Dug, stone-lined, observation, water-table well, depth 61.3 ft; casing diameter 48 in.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 1,070 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of concrete cover, 0.25 ft above land surface.

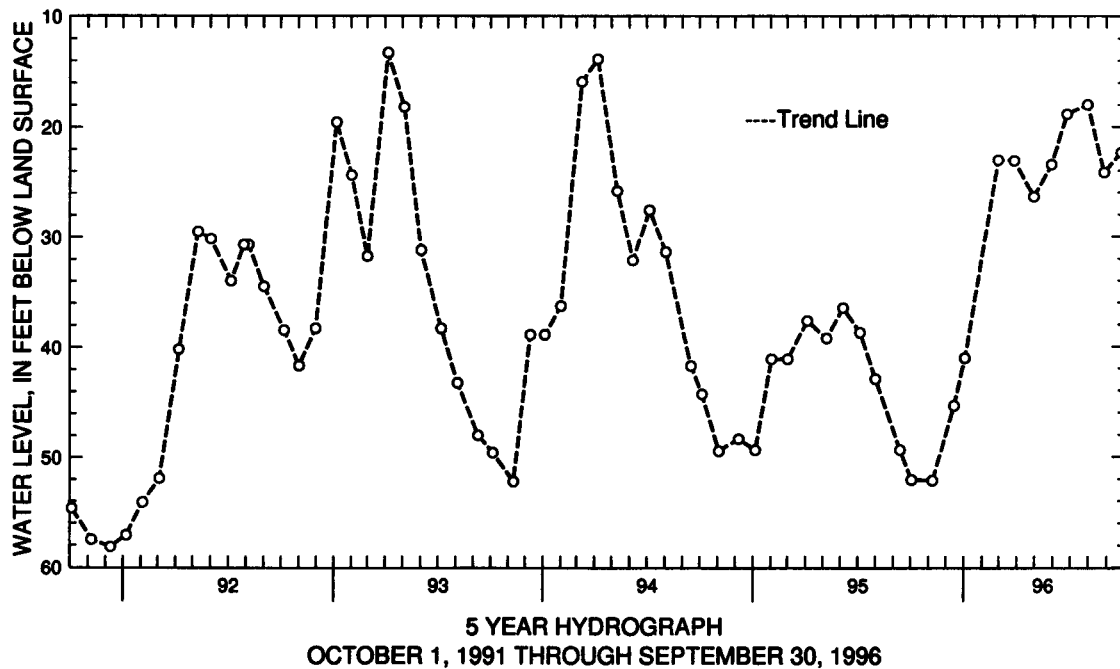
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1956 to current year.

EXTREMES FOR PERIOD FOR RECORD.--Highest water level measured, 13.27 ft below land surface, April 6, 1993; lowest measured, 58.88 ft below land surface, Oct. 5, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1995	52.05	JAN 03, 1996	41.05	APR 30, 1996	26.39	JUL 31, 1996	17.98
NOV 08	52.12	FEB 29	23.02	MAY 30	23.43	AUG 28	24.16
DEC 15	45.37	MAR 28	23.07	JUN 26	18.83	SEP 26	22.31
WATER YEAR 1996		HIGHEST	17.98 JUL 31, 1996	LOWEST		52.12 NOV 08, 1995	



GROUND-WATER LEVELS

MARYLAND--Continued

WICOMICO COUNTY

WELL NUMBER.--WI Ce 13. SITE ID.--382150075352101.

LOCATION.--Lat 38°21'50", long 75°35'21", Hydrologic Unit 02060007, at Municipal Zoo Park, Salisbury.

Owner: City of Salisbury.

AQUIFER.--Pensauken Formation of the Salisbury aquifer of Miocene age. Aquifer code: 112SLBR.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, reported depth 65 ft, measured depth 51.7 ft; casing diameter 16 to 10 in., to unknown depth; screen diameter and interval unknown; screen length 20 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with water-level recorder from July 16, 1947 to Jan. 3, 1955; Aug. 23, 1962 to Aug. 20, 1968.

DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 1.04 ft above land surface.

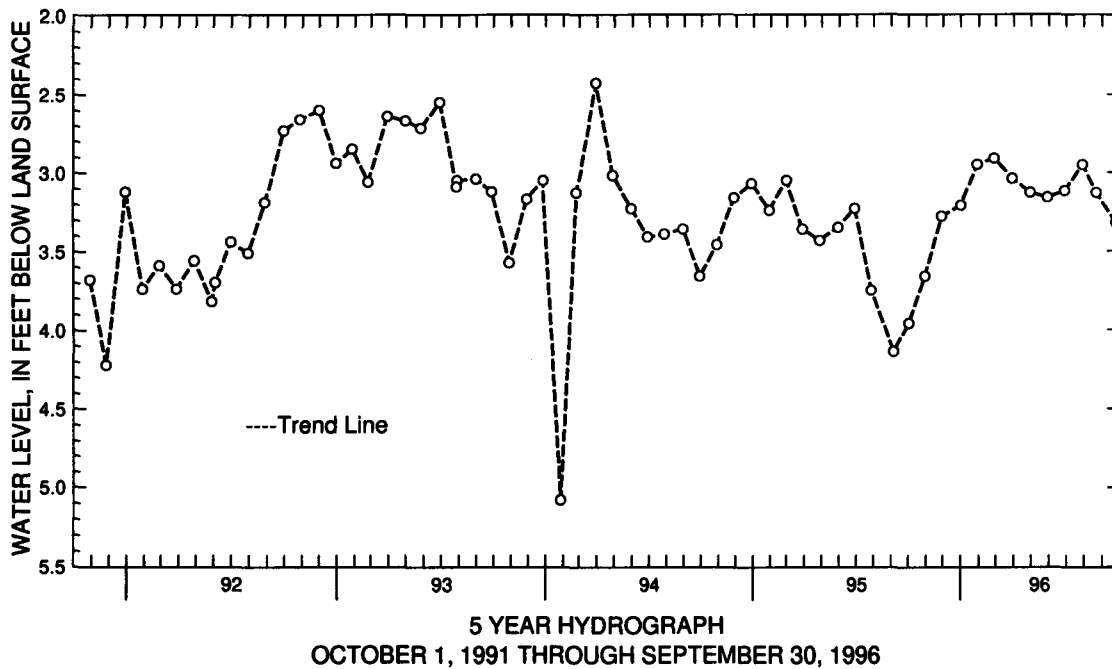
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--July 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.25 ft below land surface, Aug. 30, 1979; lowest measured, 10.72 ft below land surface, Aug. 30, 1947.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	3.96	JAN 29, 1996	2.95	MAY 29, 1996	3.16	SEP 26, 1996	3.32
30	3.66	FEB 27	2.91	JUN 28	3.12		
NOV 29	3.28	MAR 29	3.04	JUL 29	2.95		
JAN 02, 1996	3.21	APR 29	3.13	AUG 22	3.13		
WATER YEAR 1996		HIGHEST	2.91 FEB 27, 1996	LOWEST	3.96 OCT 02, 1995		



GROUND-WATER LEVELS

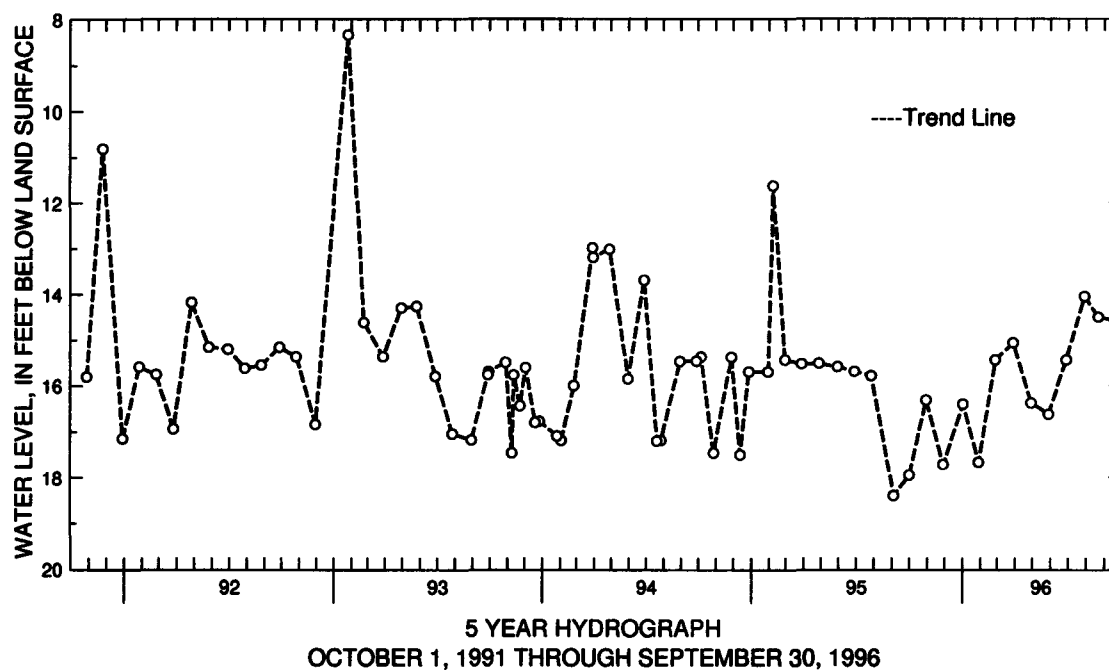
MARYLAND--Continued

WICOMICO COUNTY--Continued

WELL NUMBER.--WI Ce 204. SITE ID.--382404075355401 PERMIT NUMBER.--WI-67-0191.
 LOCATION.--Lat 38°24'04", long 75°35'54", Hydrologic Unit 02060007, north side of Naylor Mill Rd., Salisbury.
 Owner: City of Salisbury.
 AQUIFER.--Pensauken Formation of the Salisbury aquifer of Miocene age. Aquifer code: 112SLBR.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 113 ft; casing diameter 8 in., to 109 ft; screen diameter 3 in. from 109 to 113 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 28 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of shelter floor on cross-brace, 3.14 ft above land surface.
 REMARKS.--Maryland Water-Level Network and Salisbury project observation well.
 PERIOD OF RECORD.--April 1967 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.35 ft below land surface, April 27, 1967; lowest measured, 17.96 ft below land surface, Oct. 2, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	17.96	JAN 29, 1996	16.42	MAY 29, 1996	16.63	SEP 26, 1996	14.62
30	16.33	FEB 27	15.45	JUN 28	15.45		
NOV 29	17.73	MAR 29	15.08	JUL 29	14.06		
JAN 02, 1996	16.42	APR 29	16.39	AUG 22	14.51		
WATER YEAR 1996		HIGHEST	14.06 JUL 29, 1996	LOWEST	17.96 OCT 02, 1995		



GROUND-WATER LEVELS

MARYLAND--Continued

WICOMICO COUNTY--Continued

WELL NUMBER.--WI Cf 147. SITE ID.--382429075344501.

LOCATION.--Lat 38°24'29", long 75°34'45", Hydrologic Unit 02060007, south side of Naylor Mill Rd., Salisbury.
Owner: A. S. Abell Co.

AQUIFER.--Pensauken Formation of the Salisbury aquifer of Miocene age. Aquifer code: 112SLBR.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 80 ft; casing diameter 2 in., to 80 ft; perforated casing from 60 to 80 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 41.83 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing at land surface.

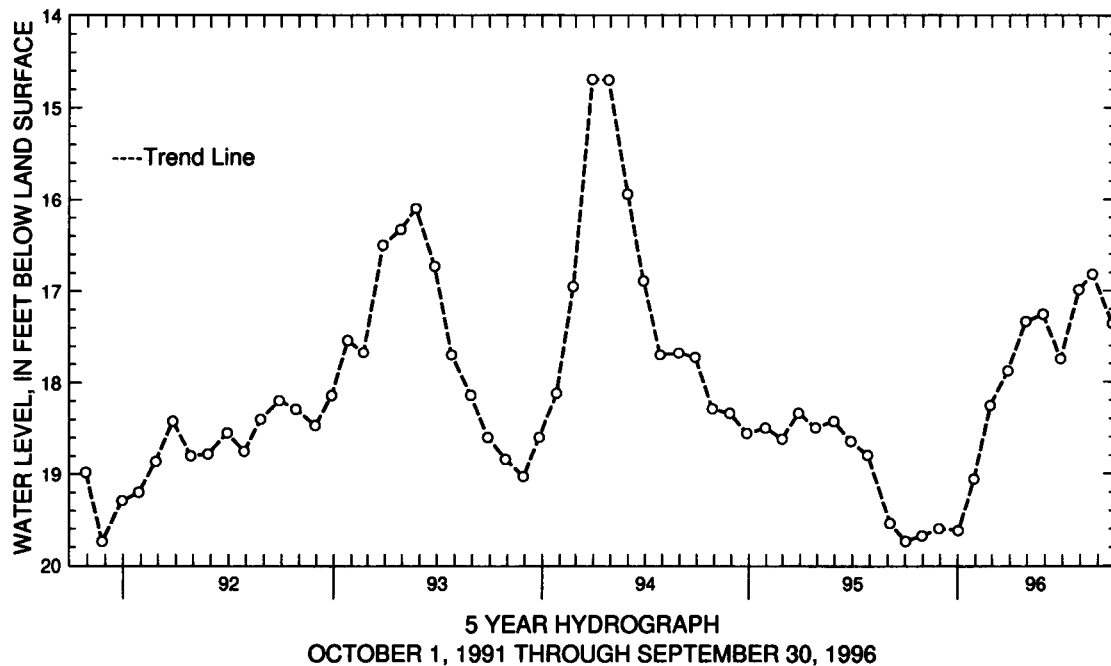
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--November 1964; March 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.78 ft below land surface, June 18, 1979; lowest measured, 19.74 ft below land surface, Nov. 26, 1991 and Oct. 2, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	19.74	JAN 29, 1996	19.06	MAY 29, 1996	17.26	SEP 26, 1996	17.36
30	19.68	FEB 27	18.26	JUN 28	17.75		
NOV 29	19.60	MAR 29	17.88	JUL 29	16.99		
JAN 02, 1996	19.62	APR 29	17.34	AUG 22	16.82		
WATER YEAR 1996		HIGHEST	16.82 AUG 22, 1996	LOWEST		19.74 OCT 02, 1995	



GROUND-WATER LEVELS

MARYLAND--Continued

WICOMICO COUNTY--Continued

WELL NUMBER.--WI Cf 3. SITE ID.--382037075310801.

LOCATION.--Lat 38°20'37", long 75°31'08", Hydrologic Unit 02060007, on Airport Rd., at Salisbury-Wicomico Airport, Mt. Hermon.

Owner: Salisbury-Wicomico Airport.

AQUIFER.--Pensauken Formation of the Salisbury aquifer of Miocene age. Aquifer code: 112SLBR.

WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 110 ft; casing diameter 16 in., to 90 ft; screened from 90 to 110 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with graphic water-level recorder from March 24, 1948 to July 9, 1948, Aug. 2, 1949 to April 11, 1960, and Aug. 29, 1963 to Aug. 20, 1968.

DATUM.--Elevation of land surface is 44.79 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of casing, 2.00 ft above land surface.

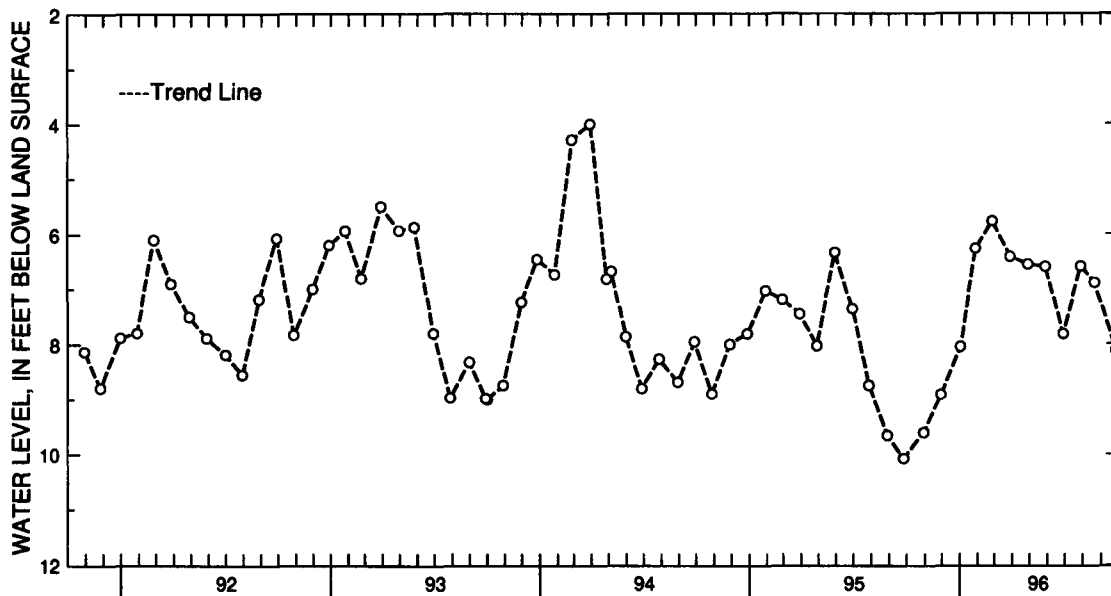
REMARKS.--Maryland Water-Level Network and Salisbury project observation well. Water level reported 7.2 ft below land surface, Oct. 26, 1942.

PERIOD OF RECORD.--September 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.18 ft below land surface, May 8, 1958; lowest measured, 13.44 ft below land surface, Sept. 18, 1947.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1995	9.61	JAN 29, 1996	6.27	APR 29, 1996	6.56	JUL 29, 1996	6.59
NOV 29	8.92	FEB 27	5.77	MAY 29	6.60	AUG 22	6.89
JAN 02, 1996	8.05	MAR 29	6.42	JUN 28	7.82	SEP 26	8.12
WATER YEAR 1996		HIGHEST	5.77	FEB 27, 1996	LOWEST	9.61	OCT 30, 1995



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

WICOMICO COUNTY--Continued

WELL NUMBER.--WI Cg 20. SITE ID.--382329075263701.

LOCATION.--Lat 38°23'29", long 75°26'37", Hydrologic Unit 02060009, 1.45 mi east of Parsonsburg, south of MD Rt. 346.

Owner: Maryland State Highway Administration.

AQUIFER.--Parsonsburg Sand of Pleistocene age. Aquifer code: 112PRBG.

WELL CHARACTERISTICS.--Driven, unused, water-table well, depth 25 ft, casing diameter 1.25 in., to unknown depth.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 68 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 2 in. sleeve, 0.17 ft above land surface.

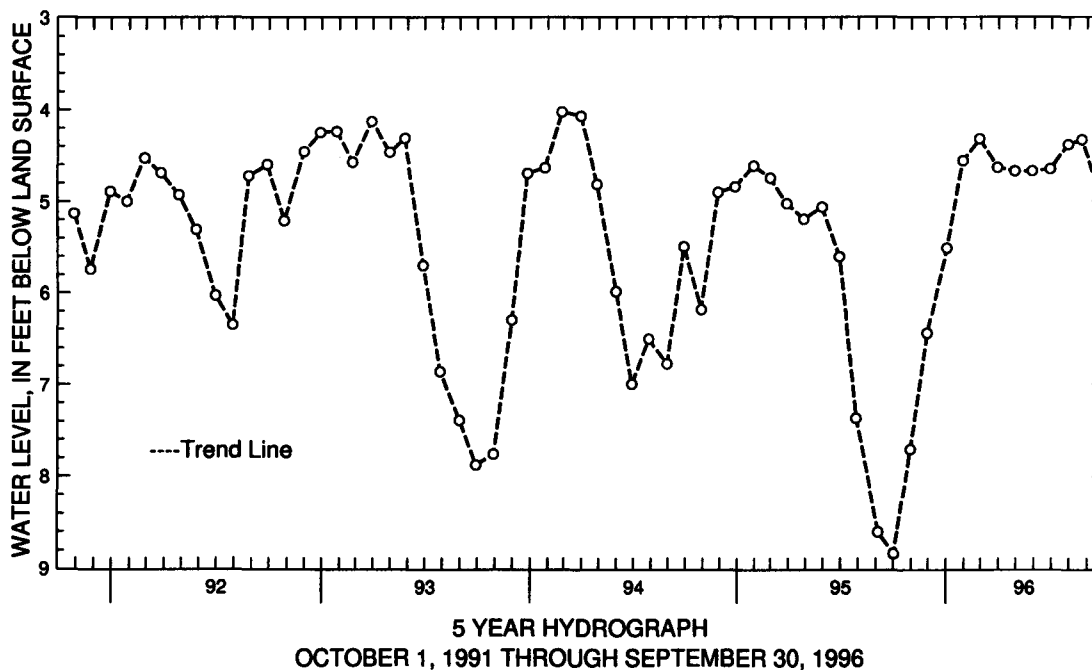
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.84 ft below land surface, Jan. 31, 1950; lowest measured, 8.83 ft below land surface, Oct. 2, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	8.83	JAN 29, 1996	4.57	MAY 29, 1996	4.68	SEP 26, 1996	4.97
30	7.71	FEB 27	4.33	JUN 28	4.66		
NOV 29	6.45	MAR 29	4.64	JUL 29	4.39		
JAN 02, 1996	5.52	APR 29	4.68	AUG 22	4.34		
WATER YEAR 1996		HIGHEST	4.33 FEB 27, 1996	LOWEST		8.83 OCT 02, 1995	



MARYLAND--Continued

WORCESTER COUNTY

WELL NUMBER.--WO Ae 23. SITE ID.--382621075174201. PERMIT NUMBER.--WO-73-0513.

LOCATION.--Lat 38°26'21", long 75°17'42", Hydrologic Unit 02060009, 2.75 mi north of Whaleyville.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 280 ft; casing diameter 4 in., to 270 ft; screen diameter 4 in. from 270 to 280 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 4 in. coupling, 3.52 ft above land surface.

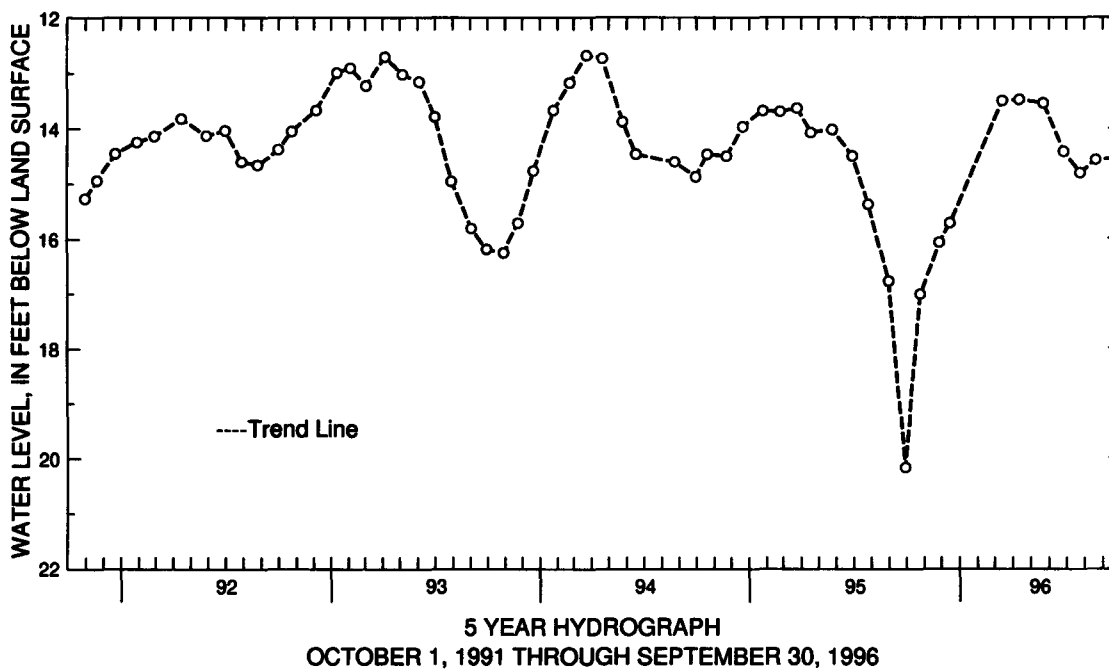
REMARKS.--Ocean City ground-water monitoring network well.

PERIOD OF RECORD.--October 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.85 ft below land surface, Dec. 16, 1975; lowest measured, 20.18 ft below land surface, Sept. 28, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	17.02	MAR 13, 1996	13.50	JUN 26, 1996	14.42		
NOV 27	16.08	APR 11	13.48	JUL 24	14.81		
DEC 15	15.73	MAY 22	13.54	AUG 20	14.57		
WATER YEAR 1996		HIGHEST	13.48	APR 11, 1996		LOWEST	17.02
							OCT 24, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ae 24. SITE ID.--382621075174202. PERMIT NUMBER.--WO-73-0512.

LOCATION.--Lat 38°26'21", long 75°17'42", Hydrologic Unit 02060009, 2.75 mi north of Whaleyville.

Owner: U.S. Geological Survey.

AQUIFER.--Ocean City aquifer of Miocene age. Aquifer code: 1220CNC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 200 ft; casing diameter 4 in., to 190 ft; screen diameter 2 in. from 190 to 200 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 4 in. coupling, 4.4 ft above land surface.

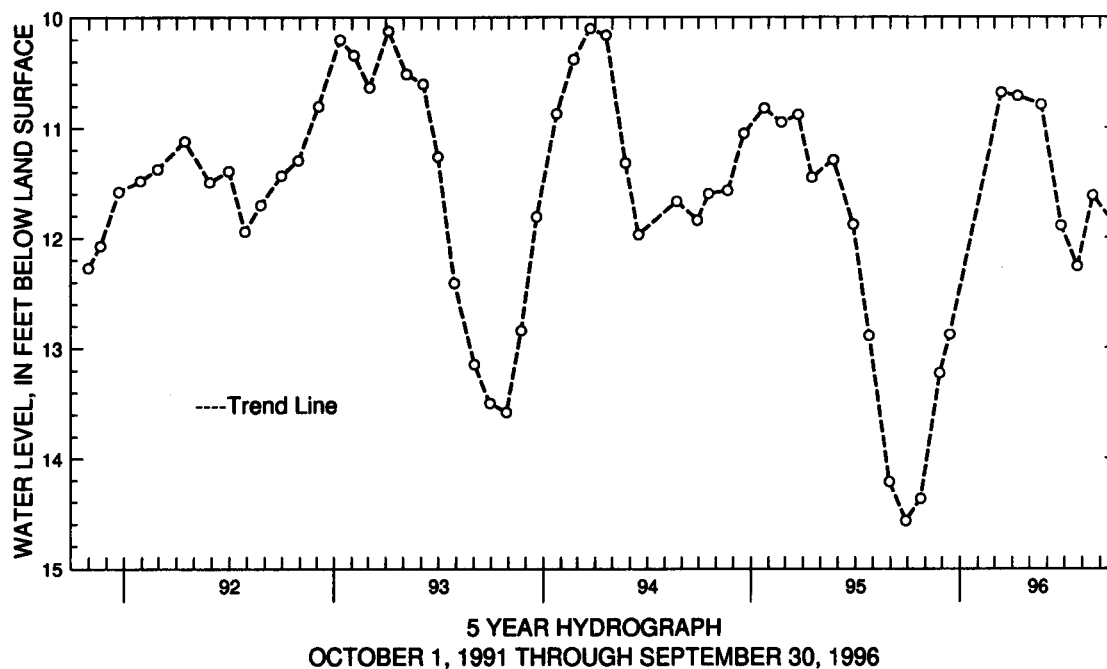
REMARKS.--Ocean City ground-water monitoring network well.

PERIOD OF RECORD.--October 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.49 ft below land surface, May 31, 1978; lowest measured, 15.06 ft below land surface, Nov. 24, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	14.37	MAR 13, 1996	10.68	JUN 26, 1996	11.89		
NOV 27	13.23	APR 11	10.71	JUL 24	12.26		
DEC 15	12.88	MAY 22	10.79	AUG 20	11.62		
WATER YEAR 1996		HIGHEST 10.68 MAR 13, 1996		LOWEST 14.37 OCT 24, 1995			



GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ae 25. SITE ID.--382621075174203. PERMIT NUMBER.--WO-73-0514.

LOCATION.--Lat 38°26'21", long 75°17'42", Hydrologic Unit 02060009, 2.75 mi north of Whaleyville.

Owner: U.S. Geological Survey.

AQUIFER.--Pocomoke aquifer of Upper Miocene-Pliocene age. Aquifer code: 122PCMK.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 118 ft; casing diameter 4 in., to 108 ft; screened diameter 2 in. from 108 to 118 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 40 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 4 in. coupling, 3.6 ft above land surface.

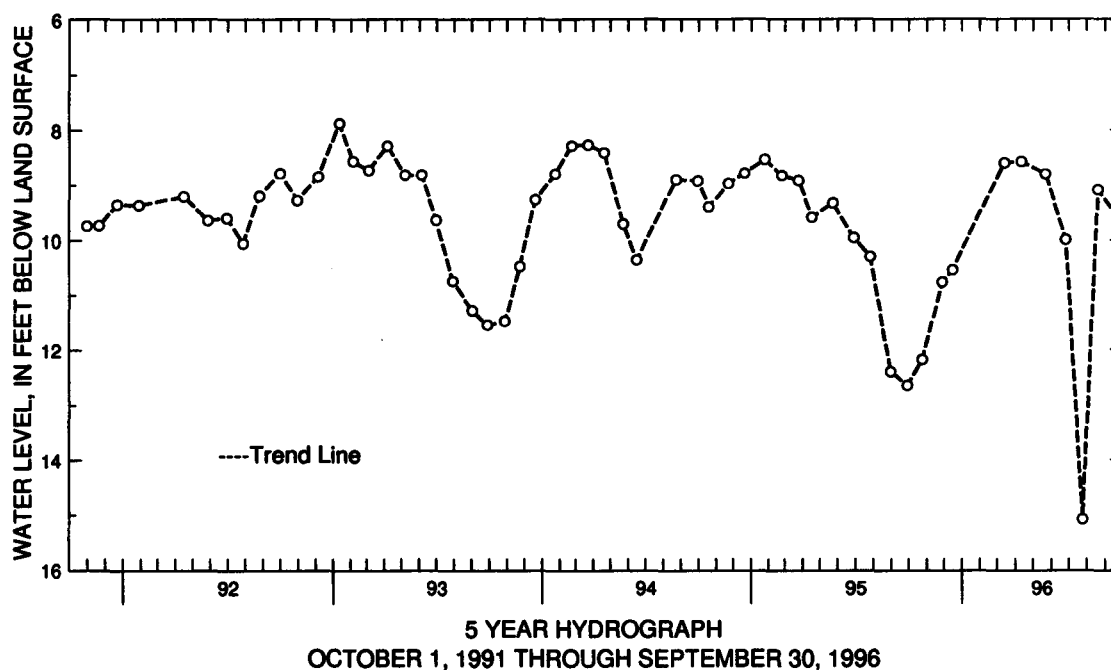
REMARKS.--Ocean City ground-water monitoring network well.

PERIOD OF RECORD.--October 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.79 ft below land surface, Nov. 20, 1975; lowest measured, 15.08 ft below land surface, July 24, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	12.18	MAR 13, 1996	8.59	JUN 26, 1996	9.99		
NOV 27	10.77	APR 11	8.57	JUL 24	15.08		
DEC 15	10.54	MAY 22	8.80	AUG 20	9.09		
WATER YEAR 1996		HIGHEST	8.57	APR 11, 1996		LOWEST	15.08 JUL 24, 1996



GROUND-WATER LEVELS

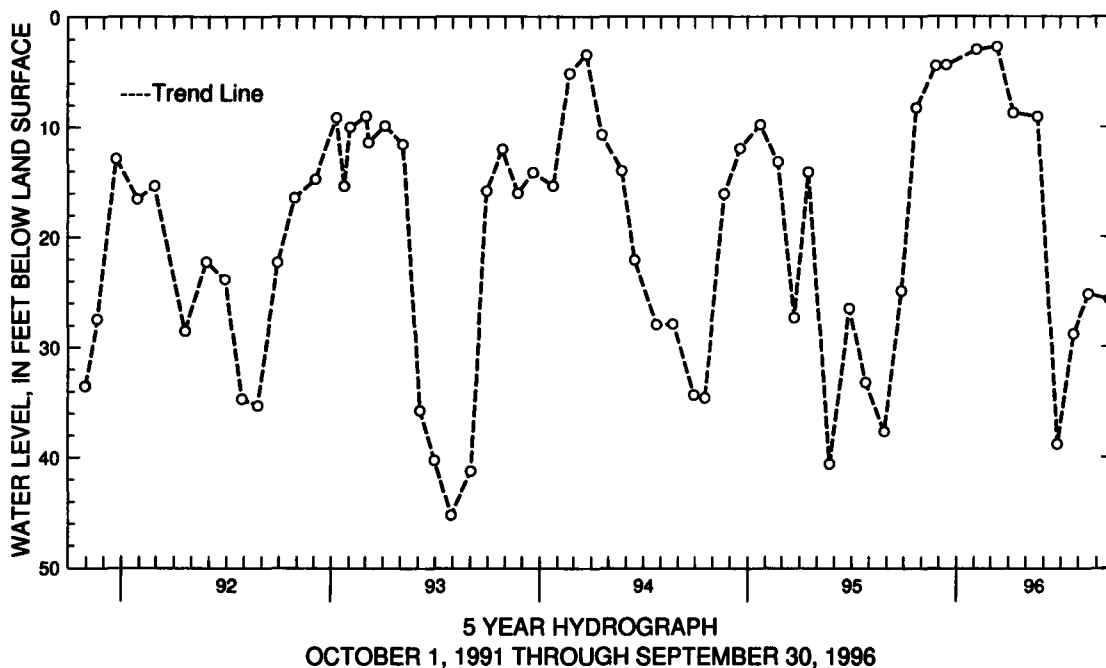
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 6. SITE ID.--382632075031801. PERMIT NUMBER.--WO-70-0009.
 LOCATION.--Lat 38°26'32", long 75°03'18", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.
 Owner: U.S. Geological Survey.
 AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 357 ft; casing diameter 4 in., to 347 ft; screen diameter 4 in. from 347 to 357 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recording interval, March 1985 to February 1994.
 DATUM.--Elevation of land surface is 6.35 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of shelter floor, 3.27 ft above land surface, when shelter removed, measuring point top of metal sleeve, 3.27 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.
 Recorder removed on February 1, 1994, due to poor water level response.
 PERIOD OF RECORD.--September 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.48 ft above land surface, March 27, 1973; lowest measured, 52.46 ft below land surface, July 24, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	8.25	FEB 06, 1996	2.94	MAY 23, 1996	9.06	AUG 20, 1996	25.22
NOV 27	4.41	MAR 13	2.70	JUN 26	38.81	SEP 25	25.70
DEC 15	4.37	APR 11	8.70	JUL 24	28.85		
WATER YEAR 1996		HIGHEST 2.70 MAR 13, 1996	LOWEST 38.81 JUN 26, 1996				



GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 35. SITE ID.--382635075030601. PERMIT NUMBER.--WO-73-0516.

LOCATION.--Lat 38°26'35", long 75°03'06", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.

Owner: U.S. Geological Survey.

AQUIFER.--St. Marys Formation of Middle Miocene age. Aquifer code: 122SMRS.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 726 ft; casing diameter 4 in., to 716 ft; screen diameter 2 in. from 716 to 726 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 13.99 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 4 in. coupling, 3.7 ft above land surface.

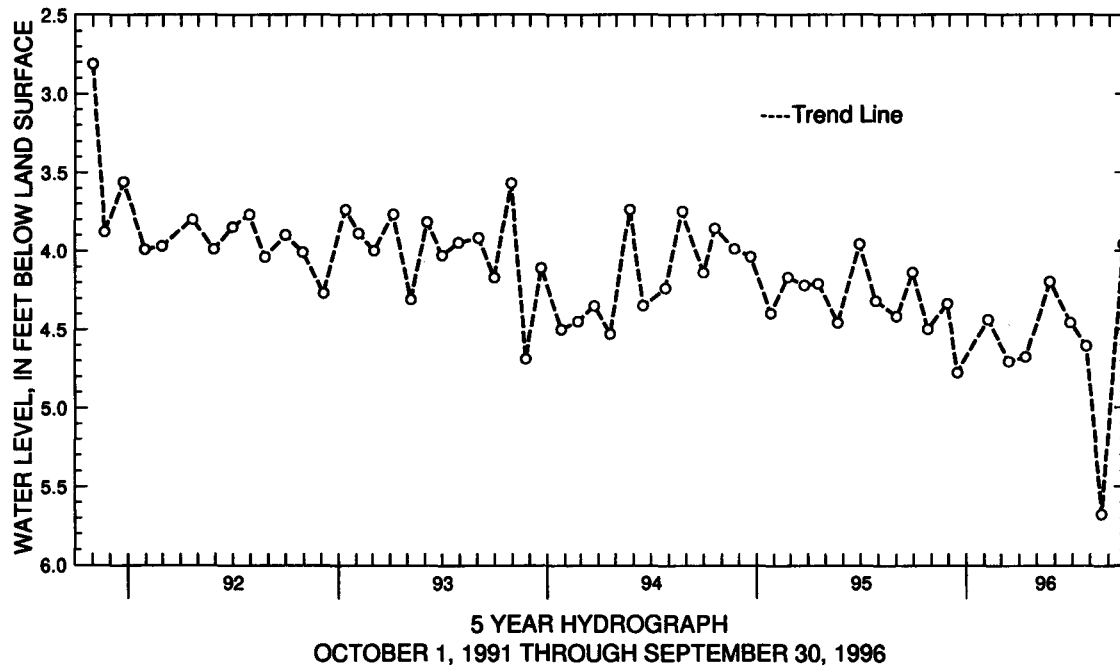
REMARKS.--Ocean City ground-water monitoring network well. Water levels may be affected by nearby pumping.

PERIOD OF RECORD.--October 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.90 ft below land surface, March 10, 1976; lowest measured, 10.26 ft below land surface, Oct. 28, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	4.50	FEB 06, 1996	4.44	MAY 22, 1996	4.20	AUG 20, 1996	5.68
NOV 27	4.34	MAR 13	4.71	JUN 26	4.46	SEP 25	3.96
DEC 15	4.78	APR 11	4.68	JUL 24	4.61		
WATER YEAR 1996		HIGHEST	3.96	SEP 25, 1996	LOWEST	5.68	AUG 20, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 36. SITE ID.--382635075030602. PERMIT NUMBER.--WO-73-0518.

LOCATION.--Lat 38°26'35", long 75°03'06", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 430 ft; casing diameter 4 in., to 420 ft; screen diameter 2 in. from 420 to 430 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recording interval from May 1994 to current.

DATUM.--Elevation of land surface is 14.32 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of 4 in. coupling, 1.08 ft above land surface. Recorder measuring point,

top of shelter floor, 4.29 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.

Missing data due to recorder malfunction.

PERIOD OF RECORD.--October 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.61 ft below land surface, April 18, 1984; lowest measured, 38.75 ft below land surface, Aug. 30, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	32.56	30.32	15.05	13.68	13.06	11.28	11.82	10.57	11.27	9.99	10.89	9.78
2	30.58	28.02	14.68	13.30	13.15	11.85	11.69	10.32	11.27	9.88	10.73	9.26
3	30.10	26.58	14.49	13.08	13.01	11.54	11.40	9.74	10.96	9.34	11.52	9.14
4	26.58	24.35	14.74	13.00	12.70	11.20	11.76	10.13	10.77	9.28	11.94	10.51
5	24.83	21.82	14.74	13.20	12.70	11.12	12.24	10.52	11.24	9.80	11.99	10.43
6	23.57	20.81	14.72	13.05	12.56	11.07	12.60	11.09	11.79	10.24	11.60	9.37
7	23.20	20.48	14.47	12.68	12.75	11.24	12.39	9.29	11.68	10.11	10.66	8.75
8	23.03	21.68	14.10	12.34	12.66	11.15	10.81	9.33	11.49	10.01	10.73	8.94
9	23.29	20.62	14.42	12.85	12.45	10.74	11.54	10.25	11.24	9.91	11.41	9.73
10	22.87	20.69	14.36	12.89	12.43	11.05	11.74	10.31	11.30	9.92	11.48	9.92
11	22.89	19.73	14.12	12.57	13.11	11.77	11.82	10.48	11.01	9.72	11.17	9.43
12	23.71	20.03	14.03	12.52	12.66	11.62	11.47	9.87	11.31	9.68	10.58	9.32
13	24.05	20.63	14.10	12.61	12.45	11.45	11.72	10.40	11.34	9.95	10.51	9.09
14	24.07	22.61	13.07	11.25	---	---	12.00	10.70	11.27	10.17	10.49	9.09
15	24.35	22.57	13.57	11.64	---	---	12.21	10.91	10.96	9.28	10.39	8.93
16	23.59	21.64	13.73	12.67	11.74	10.64	12.02	10.60	10.81	8.88	10.75	8.87
17	23.68	19.61	13.62	12.59	12.07	10.64	12.37	10.43	11.24	8.68	10.84	8.99
18	21.39	19.44	13.47	12.38	12.38	10.75	12.24	10.47	11.42	9.37	10.85	8.97
19	21.25	17.99	13.29	12.02	12.14	10.12	12.36	9.87	11.71	9.62	10.72	8.01
20	19.66	17.45	13.24	11.66	12.07	9.47	12.39	10.15	11.39	9.32	10.23	8.35
21	21.20	16.65	13.15	11.26	12.95	10.13	12.48	10.07	11.19	9.34	10.29	8.62
22	19.47	16.88	13.17	11.19	13.14	11.02	12.00	9.82	11.11	9.47	10.59	9.05
23	17.79	15.99	13.40	11.24	12.77	10.24	12.01	9.99	10.97	9.38	10.94	9.39
24	17.27	15.41	13.51	11.28	12.37	10.22	11.69	9.96	10.95	9.38	10.98	9.64
25	16.85	14.82	13.21	11.13	12.31	10.38	12.10	10.36	11.44	9.87	10.73	9.59
26	16.39	14.33	12.78	11.05	12.36	10.69	12.00	10.52	11.21	10.08	10.75	9.59
27	15.94	13.95	12.88	11.15	12.52	11.00	11.57	10.37	10.61	9.73	10.87	9.84
28	15.47	13.76	13.23	11.80	12.15	10.78	12.19	10.73	10.54	9.45	10.81	9.71
29	15.76	14.06	12.74	11.35	12.36	10.91	11.77	10.86	11.02	9.64	10.06	8.98
30	15.74	14.30	12.55	11.18	12.45	11.22	11.33	10.34	---	---	10.30	9.22
31	15.58	14.07	---	---	12.18	11.11	11.20	10.06	---	---	10.43	9.25
MONTH	32.56	13.76	15.05	11.05	13.15	9.47	12.60	9.29	11.79	8.68	11.99	8.01

GROUND-WATER LEVELS

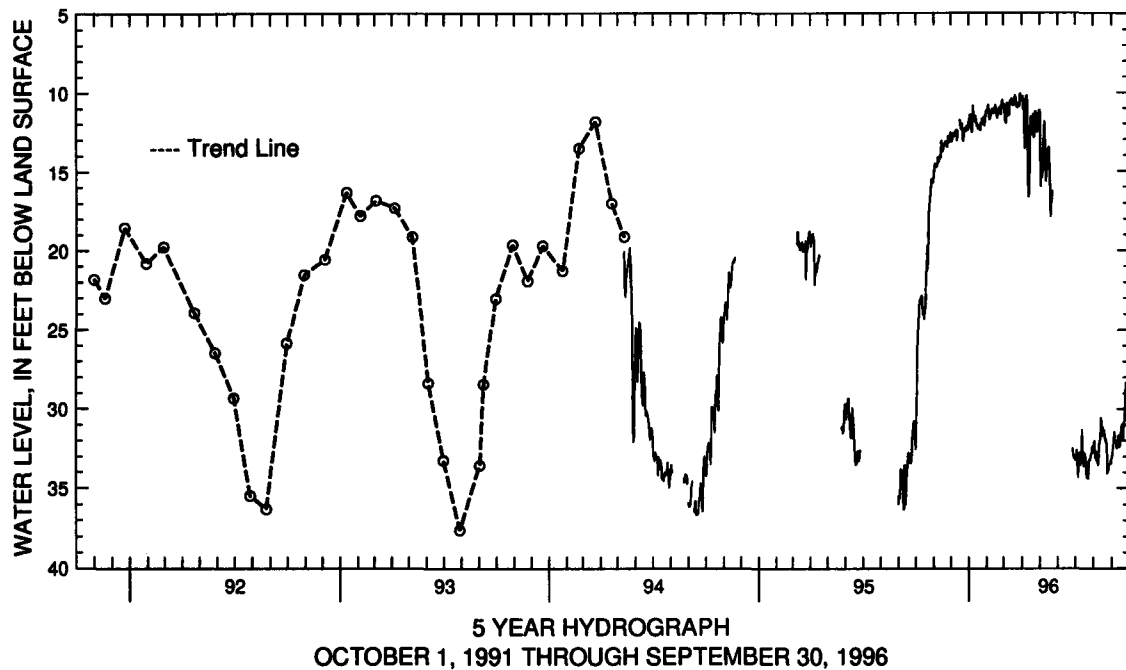
MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Ah 36--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.43	8.78	11.23	9.69	---	---	33.17	29.36	32.49	29.37	33.03	31.17
2	10.24	8.83	16.02	9.86	---	---	33.25	29.33	32.19	29.56	33.04	31.24
3	11.09	9.09	14.34	10.63	---	---	32.98	29.33	32.01	30.37	32.70	31.53
4	10.76	9.00	15.44	10.51	---	---	32.59	28.87	33.09	30.26	32.37	30.90
5	13.58	9.16	15.33	10.95	---	---	33.44	28.90	32.76	30.12	31.98	30.77
6	10.93	8.95	14.38	10.79	---	---	34.35	31.27	32.67	30.49	31.42	30.55
7	10.41	8.54	13.26	10.63	---	---	33.71	31.12	33.31	30.54	32.13	30.24
8	10.27	8.70	12.65	10.38	---	---	33.07	30.01	32.85	30.68	31.96	30.55
9	10.19	8.50	11.84	10.38	---	---	32.71	29.79	33.56	30.48	32.14	30.69
10	13.36	8.50	13.41	10.48	---	---	33.52	29.71	33.03	30.48	32.47	30.91
11	16.66	12.93	15.68	10.93	---	---	33.33	29.88	32.31	29.95	32.47	30.37
12	16.39	12.59	14.98	12.31	---	---	33.01	30.04	32.03	29.90	31.85	30.31
13	15.12	9.99	14.00	12.11	---	---	31.30	28.46	31.87	28.89	31.64	29.97
14	12.26	10.61	13.73	11.35	---	---	33.03	29.03	30.56	28.26	32.09	30.11
15	12.12	10.47	13.60	11.19	---	---	33.03	29.88	30.84	28.37	32.41	30.69
16	11.54	9.50	13.55	11.00	---	---	33.65	29.83	31.72	28.67	32.17	30.32
17	12.47	9.92	14.49	10.80	---	---	32.77	29.61	31.11	28.97	31.51	30.17
18	12.72	10.04	15.69	12.46	---	---	32.93	30.12	31.25	29.81	31.11	29.72
19	11.60	9.75	17.91	14.92	---	---	33.11	29.99	31.48	29.49	31.04	29.75
20	11.39	9.88	16.47	13.59	---	---	33.72	31.02	31.33	29.56	30.98	29.84
21	12.92	10.30	17.02	13.54	---	---	34.36	31.30	31.98	29.39	32.03	30.23
22	11.55	10.71	16.25	13.16	---	---	33.47	31.49	31.86	29.61	31.26	29.75
23	11.20	11.01	---	---	---	---	34.41	31.49	32.02	29.53	30.96	28.27
24	11.35	11.01	---	---	---	---	33.33	31.66	32.32	29.45	30.13	26.70
25	12.10	10.97	---	---	---	---	33.24	30.55	34.04	28.84	28.34	25.97
26	12.60	10.76	---	---	---	---	33.23	30.48	33.97	31.73	28.34	25.21
27	12.06	10.40	---	---	32.48	28.85	33.15	29.99	33.89	31.31	29.79	25.27
28	11.51	10.49	---	---	32.83	29.99	32.82	29.33	33.47	30.63	30.62	27.94
29	11.31	10.03	---	---	33.08	28.05	32.81	28.75	---	---	30.98	29.02
30	11.11	9.69	---	---	33.08	29.21	32.34	28.79	33.26	30.24	30.90	29.17
31	---	---	---	---	---	---	32.62	28.98	33.48	31.02	---	---
MONTH	16.66	8.50	17.91	9.69	33.08	28.05	34.41	28.46	34.04	28.26	33.04	25.21
YEAR	34.41	8.01										

Daily Low Water Levels



GROUND-WATER LEVELS

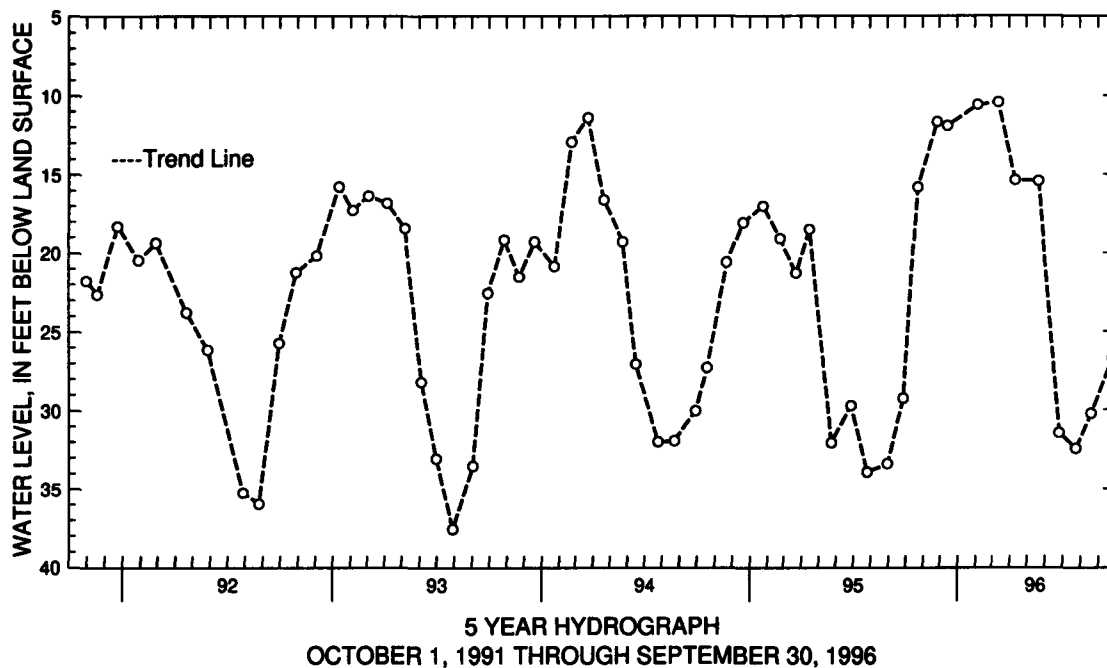
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Ah 37. SITE ID.--382635075030603. PERMIT NUMBER.--WO-73-0517.
 LOCATION.--Lat 38°26'35", long 75°03'06", Hydrologic Unit 02060010, at east end of 137th St., Ocean City.
 Owner: U.S. Geological Survey.
 AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 478 ft; casing diameter 4 in., to 468 ft; screen diameter 2 in. from 468 to 478 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 13.89 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of 4 in. casing, 2.75 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--December 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.58 ft below land surface, Feb. 10, 1977; lowest measured, 41.42 ft below land surface, Aug. 30, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	15.85	FEB 06, 1996	10.61	MAY 22, 1996	15.43	AUG 20, 1996	30.27
NOV 27	11.69	MAR 13	10.44	JUN 26	31.47	SEP 26	26.75
DEC 15	11.95	APR 11	15.37	JUL 24	32.48		
WATER YEAR 1996		HIGHEST 10.44	MAR 13, 1996	LOWEST 32.48	JUL 24, 1996		



MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 1. SITE ID.--382022075072401.

LOCATION.--Lat 38°20'22", long 75°07'24", Hydrologic Unit 02060010, 0.4 mi east of Herring Creek on U.S. Rt. 50.

Owner: MD State Highway Administration.

AQUIFER.--Sinepuxent Formation of Pleistocene age. Aquifer code: 112SNPX.

WELL CHARACTERISTICS.--Driven, water-table well, depth 14 ft; casing diameter 1.25 in., to 14 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing, 0.25 ft above land surface.

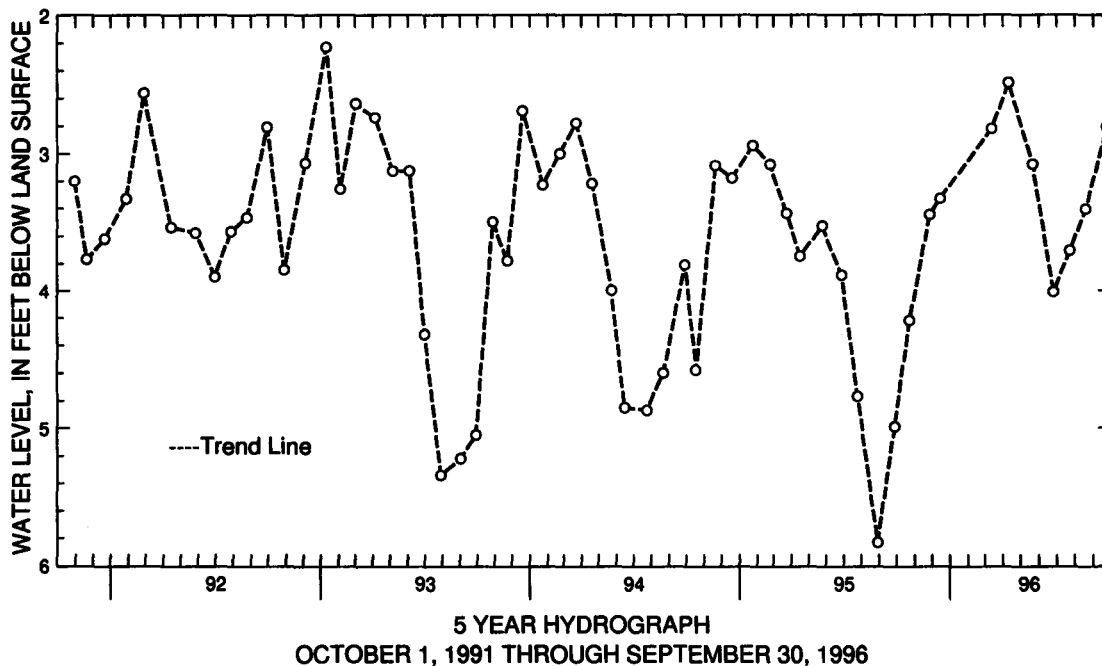
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--August 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.41 ft below land surface, March 8, 1962;
lowest measured, 8.61 ft below land surface, May 14, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	4.22	MAR 13, 1996	2.82	JUN 26, 1996	4.01	SEP 25, 1996	2.81
NOV 27	3.45	APR 11	2.49	JUL 24	3.71		
DEC 15	3.33	MAY 22	3.08	AUG 20	3.41		
WATER YEAR 1996		HIGHEST	2.49	APR 11, 1996	LOWEST	4.22	OCT 24, 1995



GROUND-WATER LEVELS

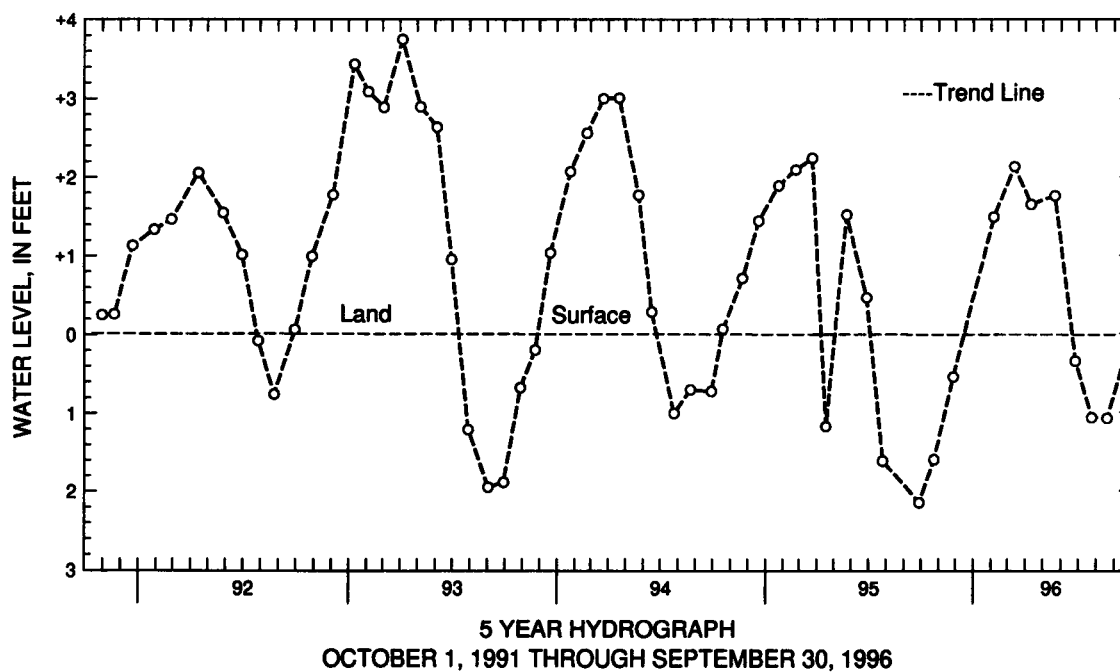
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 15. SITE ID.--382359075094501. PERMIT NUMBER.--WO-68-0066.
 LOCATION.--Lat 38°23'59", long 75°09'45", Hydrologic Unit 02060010, south side of Beauchamp Rd. at Ocean Pines.
 Owner: Ocean Pines.
 AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 318 ft; casing diameter 6 in., to 288 ft; screen diameter 6 in. from 288 to 318 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 7 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of 6 in. casing, 5.94 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels may be affected by nearby pumping.
 PERIOD OF RECORD.--September 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.13 ft above land surface, Feb. 29, 1972; lowest measured, 3.00 ft below land surface, Sept. 5, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	1.60	MAR 13, 1996	+2.13	JUN 26, 1996	.35	SEP 25, 1996	.15
NOV 27	.55	APR 11	+1.65	JUL 24	1.07		
FEB 06, 1996	+1.49	MAY 22	+1.76	AUG 20	1.08		
WATER YEAR 1996		HIGHEST	+2.13 MAR 13, 1996	LOWEST	1.60 OCT 24, 1995		



GROUND-WATER LEVELS

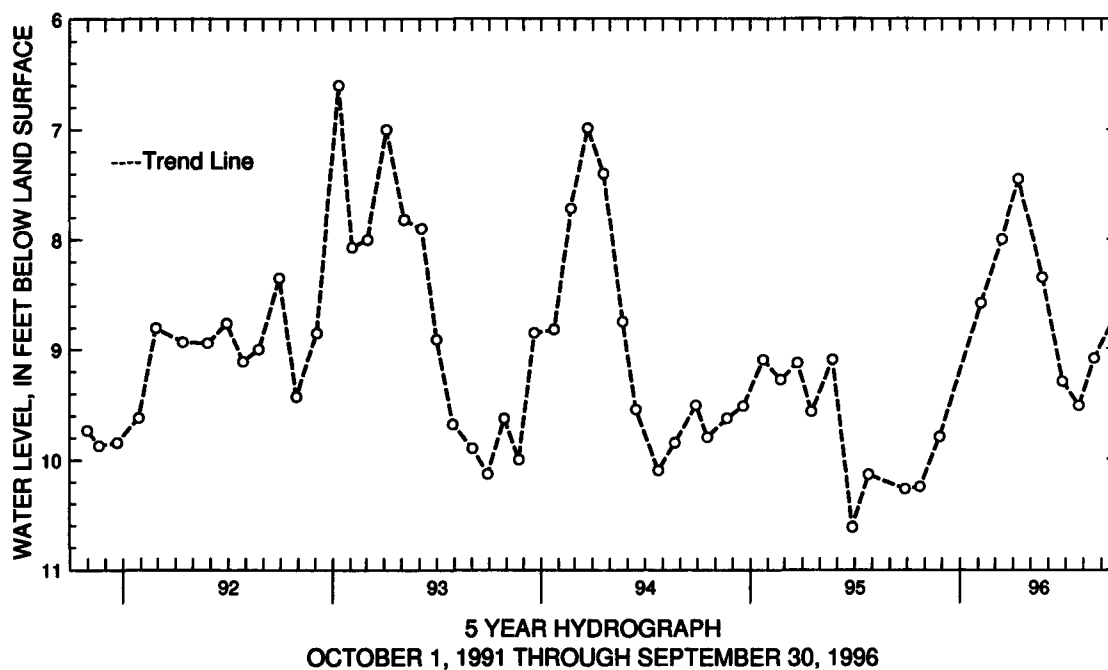
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 45. SITE ID.--382358075094501. PERMIT NUMBER.--WO-68-0066.
 LOCATION.--Lat 38°23'58", long 75°09'45", Hydrologic Unit 02060010, south side of Beauchamp Rd. at Ocean Pines.
 Owner: Ocean Pines.
 AQUIFER.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.
 WELL CHARACTERISTICS.--Drilled, observation well, depth 77 ft; casing diameter 2 in., to 56 ft;
 screen diameter 3 in. from 56 to 77 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of 2 in. casing, 1.6 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well.
 PERIOD OF RECORD.--October 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.22 ft below land surface, Jan. 8, 1971;
 lowest measured, 10.62 ft below land surface, June 28, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	10.25	MAR 13, 1996	8.00	JUN 26, 1996	9.30	SEP 25, 1996	8.69
NOV 27	9.80	APR 11	7.45	JUL 24	9.52		
FEB 06, 1996	8.58	MAY 22	8.35	AUG 20	9.09		
WATER YEAR 1996		HIGHEST	7.45	APR 11, 1996	LOWEST	10.25	OCT 24, 1995



GROUND-WATER LEVELS

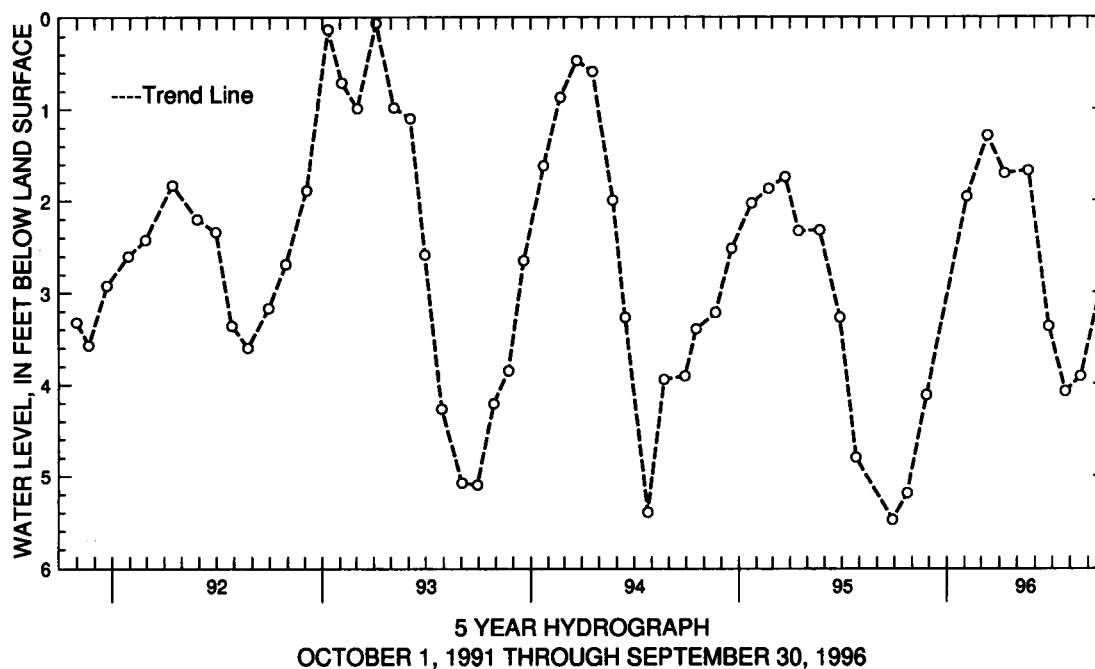
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 46. SITE ID.--382358075094502 PERMIT NUMBER.--WO-68-0066
 LOCATION.--Lat 38°23'58", long 75°09'45", Hydrologic Unit 02060010, south side of Beauchamp Rd. at Ocean Pines.
 Owner: Ocean Pines
 AQUIFER.--Pocomoke aquifer of Upper Miocene-Pliocene age. Aquifer code: 122PCMK.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 199.5 ft; casing diameter 6 in., to 53.6 ft; casing diameter 4 in. from 53.6 to 164.2 ft and from 194.5 to 199.5 ft; screen diameter 6 in. from 164.2 to 194.55 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of 2 in. coupling, 2.5 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels maybe affected by nearby pumping.
 PERIOD OF RECORD.--October 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.22 ft above land surface, April 27, 1983; lowest measured, 5.74 ft below land surface, Aug. 26, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	5.19	MAR 13, 1996	1.29	JUN 26, 1996	3.37	SEP 25, 1996	2.92
NOV 27	4.12	APR 11	1.70	JUL 24	4.08		
FEB 06, 1996	1.96	MAY 22	1.67	AUG 20	3.92		
WATER YEAR 1996		HIGHEST	1.29	MAR 13, 1996	LOWEST	5.19	OCT 24, 1995



GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 47. SITE ID.--382325075063301. PERMIT NUMBER.--WO-73-0521.

LOCATION.--Lat 38°23'25", long 75°06'33", Hydrologic Unit 02060010, at intersection of MD Rt. 90 and Isle of Wight Rd., Isle of Wight.

Owner: U.S. Geological Survey.

AQUIFER.--Ocean City aquifer of Upper Miocene age. Aquifer code: 122OCNC.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 268 ft; casing diameter 4 in., to 258 ft; screen diameter 4 in. from 258 to 268 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recording interval from July 1985 to current year.

DATUM.--Altitude of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring Point: Top of recorder shelf, 4.07 ft above land surface.

REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--September 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.67 ft below land surface, March 13 and 14, 1992; lowest measured, 12.72 ft below land surface, Aug. 26, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.67	7.90	8.80	8.01	7.51	6.51	7.35	6.59	5.44	4.88	5.65	4.90
2	8.63	7.85	8.48	7.75	7.68	7.17	7.15	6.39	5.51	4.79	5.26	4.45
3	8.52	7.76	8.26	7.61	7.68	6.78	6.80	5.91	5.28	4.48	5.58	4.39
4	8.39	7.76	8.26	7.65	7.17	6.50	7.05	6.35	5.05	4.34	6.16	5.58
5	8.43	7.70	8.52	7.93	7.15	6.44	7.48	6.66	5.35	4.77	6.19	5.47
6	8.56	7.83	8.64	7.94	7.04	6.39	7.81	7.23	5.80	5.25	5.79	4.73
7	8.56	7.82	8.46	7.60	7.26	6.63	7.68	5.30	5.83	5.12	5.12	4.08
8	8.71	7.93	8.10	7.32	7.28	6.60	6.13	5.27	5.61	5.10	5.11	4.06
9	8.91	8.24	8.39	7.72	7.13	6.21	6.84	5.97	5.60	5.05	5.74	4.80
10	9.03	8.38	8.30	7.62	7.08	6.45	7.03	6.27	5.72	5.11	5.92	5.37
11	9.03	8.39	8.11	7.13	7.69	6.96	7.13	6.37	5.54	5.10	5.68	5.20
12	9.11	8.56	8.14	7.13	7.73	7.06	6.38	5.58	5.89	4.97	5.23	4.75
13	9.20	8.58	8.21	7.48	7.37	6.87	6.58	5.91	5.90	5.29	5.07	4.39
14	8.97	8.25	7.48	5.99	7.19	6.70	6.66	6.10	5.89	5.20	5.06	4.42
15	8.87	8.29	7.66	6.04	7.29	6.82	6.74	6.20	5.72	4.71	5.04	4.31
16	9.40	8.77	7.77	7.30	7.13	6.49	6.68	5.86	5.40	4.40	4.96	4.32
17	9.57	8.99	7.77	7.14	7.32	6.50	6.45	5.62	5.04	4.25	5.11	4.44
18	9.31	8.51	7.61	6.94	7.63	6.81	6.49	5.71	5.56	4.84	5.13	4.50
19	8.93	8.38	7.40	6.75	7.63	6.15	6.19	5.02	5.78	5.07	5.05	3.71
20	8.72	7.80	7.29	6.52	6.98	5.75	6.22	5.47	5.60	4.75	4.57	3.78
21	8.16	7.48	7.06	6.25	7.68	6.41	6.31	5.36	5.38	4.75	4.79	3.95
22	8.51	7.80	7.01	6.25	8.01	7.35	5.94	5.07	5.41	4.81	5.13	4.17
23	8.76	8.15	7.20	6.36	7.79	6.65	5.92	5.15	5.37	4.85	5.52	4.58
24	8.76	8.11	7.28	6.42	7.32	6.49	5.75	5.04	5.58	4.69	5.59	4.97
25	8.76	8.02	7.06	6.14	7.34	6.60	6.22	5.33	5.97	5.14	5.36	4.94
26	8.68	7.85	6.80	6.05	7.48	6.83	6.13	5.61	5.89	5.38	5.52	4.76
27	8.51	7.64	7.13	6.34	7.62	7.04	5.66	4.97	5.55	4.88	5.56	5.05
28	8.26	7.54	7.52	6.89	7.30	6.71	6.42	5.53	5.19	4.55	5.53	4.90
29	8.92	8.00	7.39	6.57	7.57	6.82	6.38	5.58	5.58	4.95	4.99	4.27
30	9.09	8.53	7.05	6.36	7.63	7.09	5.77	5.13	---	---	4.93	4.39
31	9.07	8.40	---	---	7.62	7.00	5.62	4.95	---	---	5.02	4.49
MONTH	9.57	7.48	8.80	5.99	8.01	5.75	7.81	4.95	5.97	4.25	6.19	3.71

GROUND-WATER LEVELS

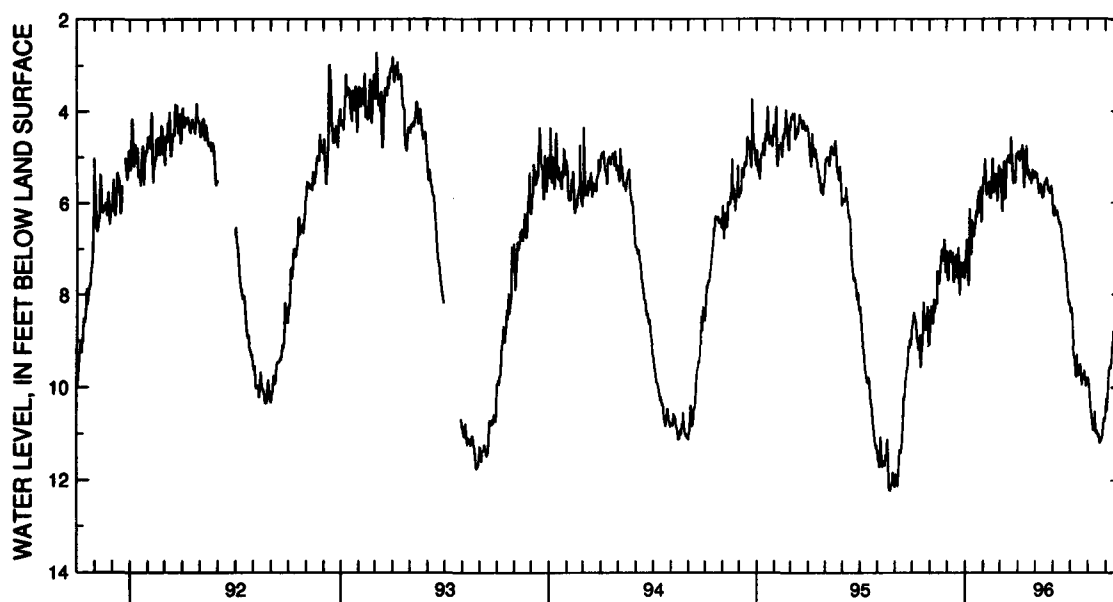
MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Bg 47--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.03	4.10	5.41	4.79	6.25	5.50	8.39	7.58	9.79	9.05	10.53	9.83
2	4.88	4.27	5.47	4.75	6.30	5.46	8.38	7.56	9.83	9.10	10.25	9.45
3	4.94	4.28	5.40	4.61	6.08	5.21	8.29	7.56	9.95	9.20	10.52	9.80
4	5.10	4.39	5.35	4.54	6.14	5.21	8.47	7.53	10.13	9.40	10.39	9.71
5	5.07	4.31	5.52	4.54	6.28	5.37	8.88	7.87	10.32	9.70	10.15	9.48
6	5.02	4.26	5.63	4.78	6.25	5.58	9.10	8.35	10.49	9.92	9.83	8.99
7	4.83	4.11	5.79	4.83	6.21	5.60	9.26	8.69	10.55	9.95	9.67	9.00
8	4.86	3.99	5.77	5.04	6.19	5.60	9.36	8.79	10.68	10.07	9.56	8.86
9	4.74	4.14	5.67	4.97	6.26	5.71	9.41	8.84	10.79	10.15	9.55	8.90
10	5.16	3.99	5.59	4.99	6.35	5.80	9.58	9.00	10.91	10.25	9.59	8.96
11	5.68	4.84	5.63	5.04	6.43	5.82	9.79	9.15	10.90	10.21	9.49	8.82
12	5.62	4.77	5.83	5.23	6.48	5.79	9.74	8.96	10.92	10.18	9.24	8.26
13	5.17	4.36	5.91	5.26	6.42	5.76	9.29	8.64	10.51	9.84	8.79	8.17
14	4.86	4.19	5.82	5.16	6.53	5.84	9.75	9.10	10.81	9.93	9.01	8.35
15	5.08	4.34	5.88	5.17	6.58	5.90	9.74	9.17	10.98	10.28	9.10	8.53
16	4.76	3.96	5.69	4.93	6.77	5.96	9.71	9.06	10.97	10.38	9.17	8.59
17	5.22	4.27	5.56	4.85	6.88	6.09	9.72	9.06	10.95	10.38	8.86	8.17
18	5.42	4.71	5.59	4.82	7.02	6.21	9.58	8.94	10.99	10.39	8.65	7.95
19	5.27	4.62	5.52	4.78	6.99	6.35	9.50	8.92	11.06	10.52	8.75	7.98
20	5.33	4.62	5.51	4.78	7.13	6.39	9.69	8.97	11.00	10.47	8.50	7.80
21	5.51	4.73	5.46	4.84	7.26	6.57	9.95	9.26	11.14	10.58	8.52	7.78
22	5.42	4.90	5.58	4.80	7.26	6.74	9.90	9.31	11.21	10.56	8.29	7.54
23	5.36	4.75	5.68	5.00	7.49	6.70	9.73	9.19	11.12	10.41	8.23	7.35
24	5.60	4.91	5.76	5.12	7.65	7.09	9.74	9.12	11.15	10.38	7.92	7.04
25	5.48	5.02	5.68	5.18	7.77	7.12	9.75	9.07	11.10	10.30	7.90	7.23
26	5.28	4.86	5.81	5.29	7.92	7.37	9.64	8.91	11.08	10.27	7.95	7.23
27	5.34	4.81	5.74	5.20	8.09	7.45	9.79	9.09	10.92	10.10	7.88	7.19
28	5.42	4.94	5.66	5.05	8.22	7.41	9.97	9.18	10.77	9.89	7.81	7.07
29	5.48	4.88	5.65	5.03	8.15	7.36	9.97	9.13	10.69	9.96	7.77	7.09
30	5.32	4.62	5.80	5.05	8.27	7.50	9.86	9.04	10.72	10.04	7.91	7.25
31	---	---	6.01	5.33	---	---	9.79	9.05	10.68	10.02	---	---
MONTH	5.68	3.96	6.01	4.54	8.27	5.21	9.97	7.53	11.21	9.05	10.53	7.04
YEAR	11.21	3.71										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 48. SITE ID.--382325075063302. PERMIT NUMBER.--WO-73-0522.

LOCATION.--Lat 38°23'25", long 75°06'33", Hydrologic Unit 02060010, at intersection of MD Rt. 90 and Isle of Wight Rd., Isle of Wight.

Owner: U.S. Geological Survey.

AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 420 ft; casing diameter 4 in., to 410 ft; screen diameter 4 in. from 410 to 420 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recording interval from July 1985 to current year.

DATUM.--Altitude of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of recorder shelf, 3.87 ft above land surface.

REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--September 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.59 ft below land surface, March 13 and 14, 1993; lowest measured, 13.68 ft below land surface, Sept. 6, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.77	9.10	9.60	8.92	7.71	6.82	7.54	6.86	5.24	4.83	5.47	4.80
2	9.69	9.02	9.28	8.62	7.90	7.46	7.33	6.66	5.31	4.76	5.10	4.36
3	9.57	8.91	9.05	8.47	7.92	7.09	6.97	6.17	5.04	4.73	5.42	4.30
4	9.42	8.85	9.04	8.51	7.42	6.84	7.29	6.67	4.86	4.43	5.94	5.42
5	9.37	8.74	9.25	8.77	7.38	6.78	7.65	6.98	5.12	4.64	5.96	5.30
6	9.46	8.83	9.35	8.77	7.24	6.71	8.02	7.55	5.72	4.99	5.55	4.61
7	9.47	8.85	9.20	8.42	7.41	6.87	7.90	5.66	5.75	5.10	4.93	3.95
8	9.63	8.97	8.87	8.21	7.37	6.87	6.39	5.61	5.50	5.04	4.88	3.95
9	9.89	9.31	9.15	8.59	7.30	6.48	7.06	6.22	5.46	4.99	5.50	4.74
10	10.02	9.48	9.08	8.46	7.21	6.70	7.26	6.60	5.57	5.05	5.69	5.21
11	10.07	9.51	8.83	7.91	7.78	7.12	7.38	6.81	5.40	5.02	5.45	5.01
12	10.15	9.66	8.83	7.91	7.81	7.23	6.81	5.94	5.76	4.93	5.01	4.59
13	10.24	9.70	8.90	8.24	7.44	7.00	6.78	6.25	5.80	5.26	4.86	4.28
14	10.02	9.38	8.24	6.83	7.25	6.80	6.82	6.37	5.76	5.18	4.86	4.29
15	9.87	9.37	8.30	6.84	7.38	6.93	6.89	6.44	5.61	4.74	4.82	4.18
16	10.38	9.78	8.45	8.07	7.32	6.70	6.89	6.07	5.33	4.50	4.74	4.21
17	10.54	10.08	8.45	7.93	7.46	6.72	6.46	5.81	4.93	4.59	4.89	4.32
18	10.33	9.62	8.28	7.70	7.73	7.04	6.55	5.86	5.44	4.82	4.91	4.36
19	9.97	9.45	8.07	7.50	7.77	6.46	6.23	5.15	5.65	5.04	4.84	3.62
20	9.75	8.91	7.93	7.26	7.06	6.46	6.20	5.56	5.48	4.74	4.35	3.64
21	9.20	8.58	7.69	7.00	7.79	6.75	6.27	5.44	5.27	4.74	4.58	3.83
22	9.45	8.87	7.65	7.00	8.17	7.65	5.91	5.15	5.30	4.79	4.94	4.07
23	9.70	9.20	7.82	7.10	8.03	7.02	5.82	5.17	5.28	4.82	5.31	4.48
24	9.70	9.10	7.89	7.16	7.56	6.81	5.64	5.03	5.43	4.66	5.39	4.86
25	9.61	9.00	7.69	6.89	7.56	6.90	6.10	5.29	5.80	5.07	5.17	4.80
26	9.52	8.83	7.41	6.75	7.70	7.10	6.03	5.58	5.70	5.28	5.31	4.62
27	9.35	8.59	7.46	6.84	7.82	7.33	5.63	4.91	5.38	4.78	5.36	4.92
28	9.08	8.45	7.80	7.24	7.61	7.02	6.22	5.39	5.02	4.46	5.34	4.75
29	9.67	8.86	7.67	6.98	7.76	7.10	6.21	5.46	5.43	4.82	4.81	4.18
30	9.84	9.37	7.29	6.76	7.81	7.35	5.63	5.04	---	---	4.75	4.28
31	9.85	9.24	---	---	7.81	7.25	5.42	4.83	---	---	4.82	4.38
MONTH	10.54	8.45	9.60	6.75	8.17	6.46	8.02	4.83	5.80	4.43	5.96	3.62

GROUND-WATER LEVELS

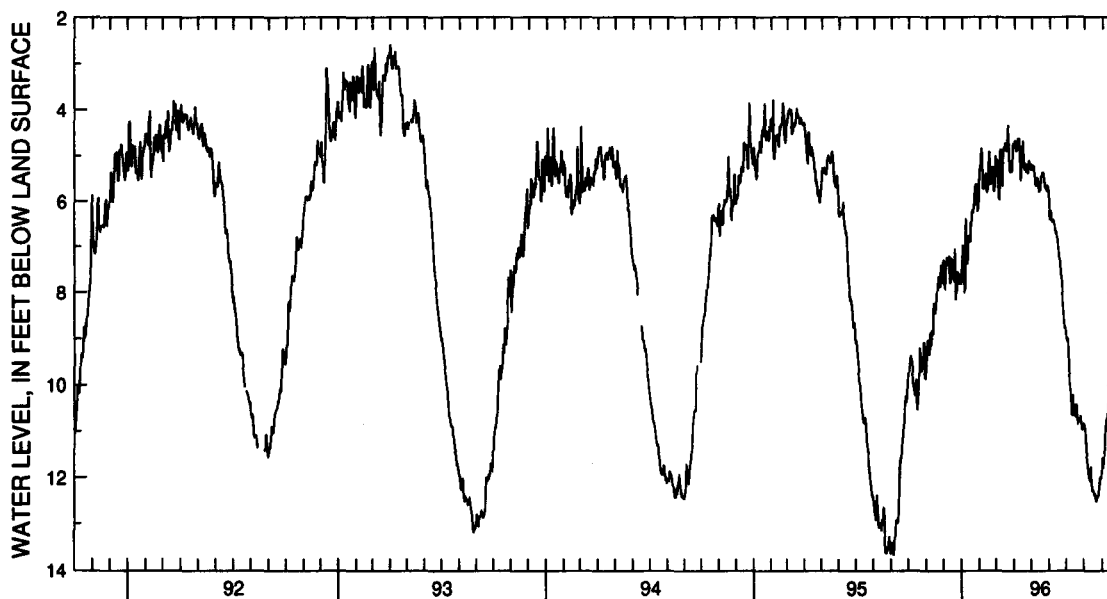
MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Bg 48--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.84	4.00	5.29	4.76	6.39	5.76	8.99	8.30	10.84	10.22	11.84	11.12
2	4.69	4.17	5.34	4.73	6.42	5.71	9.03	8.31	10.88	10.26	11.57	10.87
3	4.77	4.20	5.29	4.60	6.22	5.47	8.97	8.31	10.98	10.35	11.80	11.16
4	4.92	4.30	5.23	4.51	6.28	5.47	9.13	8.31	11.19	10.52	11.74	11.13
5	4.91	4.28	5.36	4.51	6.45	5.65	9.50	8.63	11.40	10.83	11.52	10.91
6	4.84	4.18	5.49	4.73	6.46	5.86	9.75	9.08	11.57	11.10	11.08	10.39
7	4.64	4.03	5.67	4.82	6.42	5.89	9.94	9.37	11.65	11.16	10.92	10.34
8	4.71	3.93	5.67	5.04	6.42	5.89	10.06	9.55	11.79	11.29	10.78	10.16
9	4.63	4.13	5.59	5.00	6.47	5.99	10.18	9.70	11.90	11.39	10.72	10.16
10	5.02	3.98	5.50	5.00	6.54	6.06	10.42	9.94	12.02	11.49	10.71	10.18
11	5.56	4.76	5.51	5.02	6.64	6.12	10.67	10.15	12.06	11.49	10.61	10.03
12	5.49	4.77	5.72	5.19	6.71	6.13	10.63	9.96	12.09	11.48	10.39	9.54
13	5.11	4.40	5.82	5.28	6.69	6.12	10.20	9.56	11.76	11.20	9.95	9.42
14	4.82	4.26	5.73	5.19	6.80	6.21	10.65	10.13	12.08	11.29	10.14	9.58
15	5.00	4.36	5.78	5.18	6.84	6.27	10.65	10.18	12.29	11.69	10.24	9.74
16	4.70	3.99	5.59	4.91	7.00	6.33	10.65	10.11	12.29	11.80	10.30	9.71
17	5.13	4.31	5.47	4.85	7.11	6.44	10.67	10.11	12.28	11.81	10.00	9.41
18	5.33	4.72	5.47	4.80	7.27	6.57	10.53	9.98	12.33	11.84	9.82	9.20
19	5.19	4.63	5.40	4.76	7.28	6.72	10.41	9.96	12.40	11.95	9.90	9.23
20	5.23	4.63	5.42	4.76	7.46	6.78	10.58	9.98	12.34	11.91	9.66	9.04
21	5.38	4.70	5.38	4.84	7.64	6.99	10.83	10.23	12.47	11.98	9.62	8.96
22	5.30	4.83	5.51	4.82	7.67	7.19	10.81	10.34	12.53	11.98	9.35	8.66
23	5.20	4.70	5.63	5.02	7.91	7.19	10.71	10.28	12.44	11.83	9.23	8.46
24	5.42	4.83	5.73	5.16	8.07	7.60	10.76	10.25	12.44	11.79	8.94	8.13
25	5.30	4.93	5.67	5.25	8.27	7.66	10.78	10.18	12.39	11.72	8.84	8.28
26	5.12	4.75	5.80	5.36	8.44	7.99	10.66	10.03	12.39	11.73	8.86	8.25
27	5.23	4.72	5.74	5.30	8.63	8.10	10.81	10.20	12.25	11.57	8.75	8.18
28	5.30	4.87	5.69	5.17	8.78	8.10	10.97	10.29	12.12	11.37	8.66	8.01
29	5.34	4.81	5.72	5.20	8.73	8.05	10.97	10.25	11.99	11.41	8.55	7.99
30	5.20	4.58	5.91	5.28	8.82	8.17	10.88	10.16	12.02	11.45	8.68	8.15
31	---	---	6.15	5.56	---	---	10.85	10.21	11.98	11.39	---	---
MONTH	5.56	3.93	6.15	4.51	8.82	5.47	10.97	8.30	12.53	10.22	11.84	7.99
YEAR	12.53	3.62										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

MARYLAND--Continued

WORCESTER COUNTY--Continued

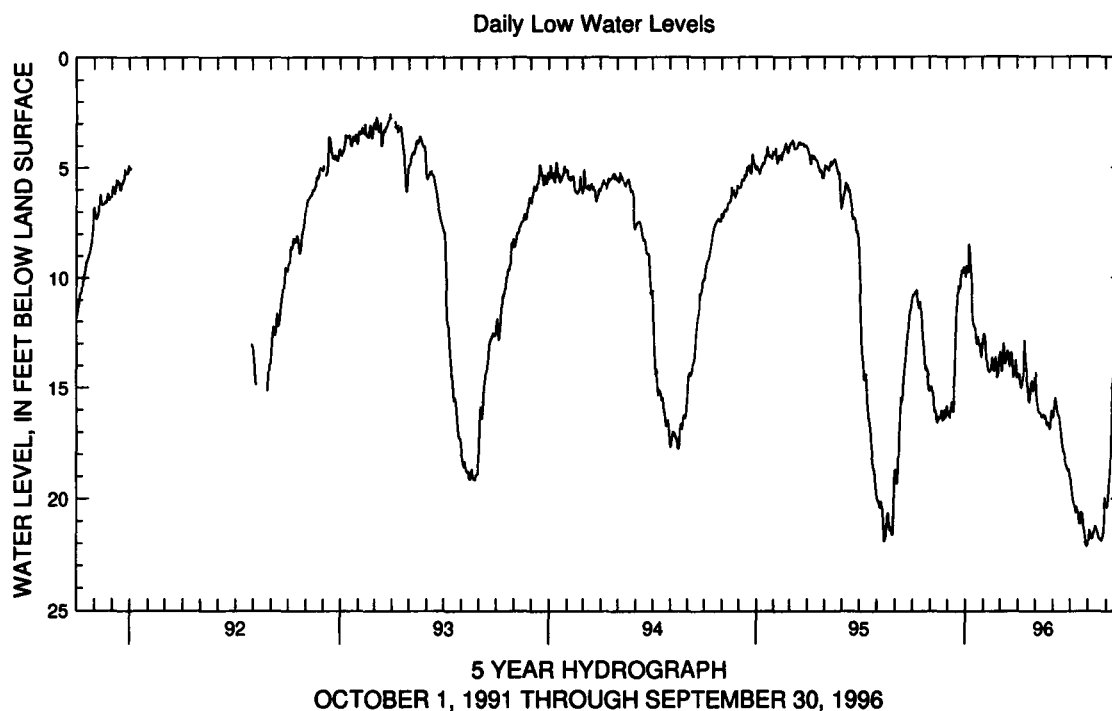
WELL NUMBER.--WO Bg 49. SITE ID.--382038075065901. PERMIT NUMBER.--WO-73-0520.
 LOCATION.--Lat 38°20'38", long 75°06'59", Hydrologic Unit 020060010, near Keyser Point Rd., West Ocean City.
 Owner: U.S. Geological Survey.
 AQUIFER.--Ocean City aquifer of Upper Miocene age. Aquifer code: 1220CNC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 243 ft; casing diameter 4 in., to 233 ft; screen diameter 4 in. from 233 to 243 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recording interval, May 1985 to current year.
 Periodic measurements with chalked steel tape October 1975 to May 1985.
 DATUM.--Altitude of land surface is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring Point: Top of recorder shelf, 2.12 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network. Water levels affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.42 ft below land surface, March 12, 1993; lowest measured, 24.84 ft below land surface, Aug. 16, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.96	10.78	15.14	14.99	15.99	15.76	9.90	9.48	12.86	12.75	13.63	13.37
2	10.86	10.68	15.05	14.86	16.21	15.98	9.95	9.79	12.79	12.55	13.37	13.12
3	10.80	10.72	14.92	14.80	16.22	16.14	9.79	9.41	12.55	12.30	13.78	13.20
4	10.81	10.64	15.02	14.82	16.27	16.09	9.47	9.35	12.59	12.32	14.28	13.78
5	10.70	10.63	15.15	15.02	16.31	16.05	9.61	9.37	12.77	12.59	14.22	13.91
6	10.72	10.57	15.23	15.15	16.06	15.90	9.77	9.61	13.27	12.77	13.91	13.36
7	10.64	10.45	15.39	15.23	15.97	15.74	9.77	8.49	13.72	13.27	13.36	12.76
8	10.60	10.43	15.87	15.39	15.74	15.57	8.50	8.37	13.77	13.65	12.98	12.72
9	10.70	10.53	16.11	15.87	15.63	15.32	8.72	8.50	14.03	13.73	13.39	12.98
10	10.87	10.69	16.03	15.95	15.80	15.49	8.97	8.63	14.23	14.03	13.89	13.39
11	11.07	10.84	16.06	15.93	16.11	15.80	9.70	8.97	14.22	14.15	13.90	13.80
12	11.29	11.05	16.44	15.93	16.02	14.88	9.98	9.65	14.29	14.13	13.80	13.44
13	11.39	11.24	16.58	16.44	14.88	13.84	10.82	9.98	14.24	14.14	13.47	13.29
14	11.33	11.08	16.49	15.78	13.84	12.97	11.72	10.82	14.21	14.01	13.44	13.28
15	11.08	10.96	16.29	15.73	12.97	12.35	12.12	11.72	14.17	13.91	13.30	13.14
16	11.42	11.03	16.40	16.29	12.35	11.68	12.11	11.95	13.91	13.41	13.48	13.17
17	11.56	11.42	16.34	16.26	11.68	11.36	12.22	11.93	13.63	13.44	13.77	13.47
18	12.04	11.54	16.36	16.32	11.36	11.16	12.30	12.15	14.05	13.63	14.00	13.77
19	12.66	12.04	16.32	16.09	11.16	10.41	12.31	12.08	14.22	14.05	13.95	13.44
20	12.99	12.66	16.16	16.00	10.41	10.08	12.61	12.31	14.24	14.05	13.44	13.25
21	13.12	12.97	16.00	15.74	10.40	10.11	12.96	12.61	14.05	13.70	13.42	13.25
22	13.59	13.12	16.46	15.94	10.54	10.40	13.04	12.79	13.73	13.65	13.49	13.32
23	14.09	13.59	16.44	16.16	10.46	10.00	12.80	12.65	13.67	13.55	13.97	13.42
24	14.17	13.77	16.28	16.15	10.03	9.81	12.75	12.64	13.86	13.43	14.46	13.97
25	14.09	13.86	16.44	15.97	9.86	9.67	13.05	12.71	14.47	13.86	14.54	14.37
26	14.17	14.04	15.99	15.87	9.73	9.63	13.09	12.95	14.54	14.38	14.37	14.25
27	14.23	14.15	16.21	15.98	9.80	9.68	12.99	12.77	14.38	13.99	14.32	14.15
28	14.31	14.14	16.30	16.20	9.72	9.50	13.54	12.99	13.99	13.58	14.15	13.75
29	14.83	14.31	16.23	15.77	9.57	9.47	13.58	13.41	13.63	13.55	13.75	13.43
30	15.07	14.82	15.79	15.65	9.59	9.50	13.41	13.08	---	---	14.09	13.52
31	15.16	15.06	---	---	9.53	9.38	13.08	12.83	---	---	14.53	14.09
MONTH	15.16	10.43	16.58	14.80	16.31	9.38	13.58	8.37	14.54	12.30	14.54	12.72

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued
WO Bg 49--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.55	14.41	14.79	14.66	16.25	16.03	18.82	18.56	22.10	21.96	20.22	20.14
2	14.45	14.39	14.66	14.31	16.34	16.16	19.06	18.82	21.96	21.65	20.29	20.13
3	14.47	14.23	14.31	14.21	16.31	15.96	19.11	18.95	21.65	21.44	20.43	20.20
4	14.39	14.24	14.85	14.26	15.96	15.66	19.38	19.04	21.44	21.27	20.31	20.03
5	14.44	14.32	15.49	14.85	15.73	15.48	19.66	19.33	21.50	21.26	20.09	19.74
6	14.83	14.42	15.66	15.42	15.51	15.32	19.89	19.56	21.66	21.47	19.74	19.34
7	14.87	14.74	15.88	15.56	15.46	15.30	20.07	19.80	21.75	21.54	19.34	19.06
8	15.03	14.82	16.10	15.81	15.66	15.38	20.21	20.01	21.66	21.48	19.06	18.75
9	14.91	14.60	16.10	15.95	15.94	15.66	20.27	20.16	21.74	21.61	18.75	17.87
10	14.72	14.50	16.15	16.00	16.10	15.93	20.41	20.23	21.62	21.48	17.87	16.95
11	14.50	13.79	16.14	16.06	16.24	16.08	20.58	20.41	21.48	21.33	16.95	16.15
12	13.79	12.78	16.21	16.04	16.26	16.12	20.64	20.38	21.43	21.33	16.15	15.05
13	12.85	12.71	16.35	16.19	16.32	16.19	20.38	20.07	21.33	21.07	15.05	14.54
14	13.36	12.82	16.34	16.18	16.52	16.26	20.43	20.17	21.22	21.07	14.54	14.20
15	13.85	13.36	16.29	16.18	16.84	16.52	20.59	20.40	21.35	21.16	14.25	14.00
16	13.89	13.79	16.24	16.12	17.04	16.80	20.61	20.49	21.37	21.31	14.01	13.48
17	14.38	13.88	16.30	16.16	17.39	16.99	21.03	20.58	21.44	21.31	13.48	13.15
18	14.73	14.38	16.37	16.21	17.53	17.30	21.12	21.01	21.57	21.36	13.38	13.08
19	14.83	14.59	16.29	16.14	17.75	17.42	21.12	20.68	21.71	21.51	13.52	13.24
20	15.18	14.77	16.34	16.12	17.91	17.64	20.68	20.41	21.76	21.61	13.83	13.40
21	15.60	15.13	16.49	16.24	17.90	17.76	20.57	20.46	21.82	21.67	14.40	13.83
22	15.64	15.52	16.61	16.41	18.06	17.83	20.71	20.54	21.85	21.70	14.78	14.37
23	15.53	15.25	16.70	16.47	18.27	17.99	20.70	20.46	21.83	21.67	14.75	14.31
24	15.25	14.97	16.58	16.42	18.38	18.22	21.12	20.70	21.87	21.71	---	---
25	14.97	14.73	16.60	16.37	18.47	18.30	21.35	21.12	21.78	21.59	---	---
26	14.75	14.67	16.75	16.55	18.53	18.37	21.45	21.26	21.70	21.54	14.00	13.81
27	14.72	14.57	16.84	16.73	18.64	18.47	21.70	21.39	21.60	21.35	13.82	13.58
28	15.08	14.72	16.82	16.50	18.72	18.55	21.92	21.70	21.43	20.98	13.58	13.03
29	15.17	15.04	16.50	16.13	18.74	18.56	22.05	21.89	20.98	19.95	13.03	12.60
30	15.04	14.78	16.15	15.85	18.65	18.52	22.13	21.99	19.95	19.83	12.60	12.23
31	---	---	16.03	15.87	---	---	22.14	21.99	20.15	19.89	---	---
MONTH	15.64	12.71	16.84	14.21	18.74	15.30	22.14	18.56	22.10	19.83	20.43	12.23
YEAR	22.14	8.37										



GROUND-WATER LEVELS

471

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 31. SITE ID.--382215075041801. PERMIT NUMBER.--WO-04-9586.
 LOCATION.--Lat 38°22'15", long 75°04'18", Hydrologic Unit 020060010, at 44th St, Ocean City.
 Owner: Town of Ocean City.
 AQUIFER.--Ocean City aquifer of Upper Miocene age. Aquifer code: 1220CNC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 278 ft; casing diameter 4 in., to 263 ft; screen diameter 3 in. from 263 to 278 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel. Periodic measurements with chalked steel tape September 1970 to May 1985. Equipped with digital water-level recorder--60-minute recording interval, May 1985 to current year.
 DATUM.--Altitude of land surface is 5.59 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 3.44 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--September 1970 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.55 ft below land surface, March 13, 1993; lowest measured, 51.03 ft below land surface, July 27, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.88	9.69	25.17	15.99	12.46	10.70	32.12	30.29	7.37	6.42	7.37	6.35
2	10.68	9.49	24.08	15.30	11.27	10.16	32.12	22.78	7.39	6.30	7.02	5.81
3	23.59	9.31	24.97	14.65	10.82	9.34	30.85	21.26	7.09	5.77	7.70	5.76
4	27.02	16.65	26.13	24.00	10.04	8.90	29.07	21.15	6.81	5.73	8.21	7.23
5	30.67	23.69	26.52	25.08	9.84	8.68	29.03	21.13	7.27	6.21	8.32	7.16
6	32.16	22.63	26.56	15.40	19.86	8.50	31.58	21.55	7.81	6.81	7.88	6.11
7	33.09	31.46	19.32	13.13	14.96	9.92	29.08	20.05	7.80	6.65	6.94	5.30
8	33.55	25.47	13.68	12.09	10.51	9.23	22.98	18.86	11.80	6.77	6.78	5.45
9	33.76	25.03	19.22	11.84	9.95	8.57	24.64	22.98	13.00	11.39	14.16	6.15
10	25.67	22.78	21.57	13.12	9.64	8.64	24.61	14.24	13.76	12.37	12.14	7.75
11	30.31	22.14	18.92	12.02	25.03	9.41	14.24	11.17	13.63	9.28	8.31	6.80
12	24.42	22.31	21.27	12.35	27.17	17.75	18.06	10.17	9.43	8.48	7.29	6.41
13	27.53	21.79	12.69	10.93	28.01	19.19	17.15	10.43	8.77	7.98	7.04	6.02
14	31.09	22.92	10.97	9.24	29.37	19.92	10.44	9.55	10.00	7.57	6.95	5.99
15	32.00	23.77	10.93	9.25	29.38	19.92	9.81	9.01	8.09	6.78	6.80	5.78
16	31.90	23.71	17.67	10.41	29.27	20.32	9.33	8.22	7.78	5.98	7.00	5.67
17	32.06	18.72	10.97	10.04	30.10	21.40	9.15	7.79	7.51	5.83	7.00	5.80
18	25.73	17.02	20.69	9.80	30.96	22.37	9.15	7.77	12.37	7.51	7.06	5.83
19	25.79	17.80	20.69	11.29	25.01	19.23	8.84	7.07	11.44	7.40	6.95	4.83
20	25.77	14.49	12.44	9.92	28.19	20.21	8.76	7.28	8.35	6.68	6.31	5.06
21	25.59	23.43	14.95	9.05	28.58	21.05	8.86	7.12	7.79	6.57	6.40	5.29
22	26.64	24.67	17.35	9.49	29.49	20.93	8.31	6.82	7.60	6.54	6.70	5.50
23	26.70	19.89	15.76	9.50	28.86	20.16	8.25	6.88	7.45	6.32	7.14	5.75
24	26.37	18.17	10.46	8.81	29.52	20.35	8.00	6.80	9.84	6.31	7.23	6.17
25	26.38	17.03	19.28	8.76	29.88	20.31	8.42	7.08	8.18	7.01	6.96	6.04
26	25.13	15.84	14.56	9.62	28.03	20.30	8.33	7.31	7.88	7.10	6.83	5.97
27	25.95	24.64	10.34	9.05	30.48	20.77	7.72	6.89	7.17	6.59	6.79	6.05
28	29.27	25.14	16.79	9.34	29.96	21.21	8.55	7.28	6.87	6.15	6.70	5.85
29	32.58	21.86	18.83	8.99	31.16	23.95	8.28	7.31	7.39	6.35	5.95	5.17
30	27.44	19.37	20.60	12.46	26.98	20.95	7.58	6.79	---	---	6.21	5.32
31	25.82	17.35	---	---	31.46	26.98	7.52	6.51	---	---	6.38	5.49
MONTH	33.76	9.31	26.56	8.76	31.46	8.50	32.12	6.51	13.76	5.73	14.16	4.83

GROUND-WATER LEVELS

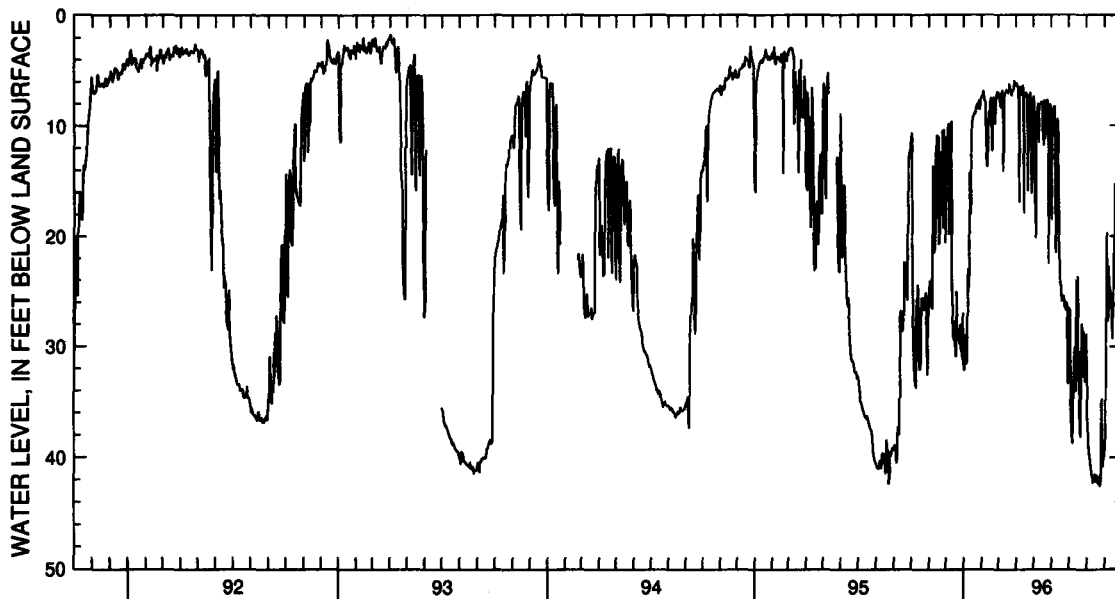
MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Bh 31--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.39	5.07	7.40	6.28	18.55	7.52	26.54	15.51	33.29	20.26	39.36	28.20
2	6.10	5.11	7.38	6.11	12.62	7.76	26.76	15.77	36.40	23.16	39.15	25.97
3	6.34	5.20	14.48	6.37	8.85	7.09	26.89	16.24	38.06	32.33	30.92	21.38
4	6.53	5.39	18.45	7.13	8.55	7.13	34.55	26.30	39.25	33.62	26.54	19.13
5	6.52	5.29	20.18	9.39	8.46	7.19	36.45	28.00	39.83	34.35	19.71	17.38
6	16.98	5.57	9.80	7.56	8.33	7.19	37.98	35.89	40.14	27.82	27.26	16.79
7	7.13	5.42	8.74	7.34	8.22	7.13	38.79	34.46	40.72	34.98	27.74	17.80
8	6.60	5.42	8.36	7.10	20.81	7.14	36.95	32.60	41.08	35.31	22.72	16.82
9	6.44	5.15	8.03	7.00	21.56	10.29	32.79	22.67	41.66	34.65	24.40	22.72
10	6.74	5.07	11.55	6.83	12.20	9.28	30.65	21.50	41.77	33.39	24.83	23.91
11	7.27	6.10	8.33	7.27	9.85	8.50	30.09	19.90	42.05	34.14	24.98	18.40
12	6.82	5.83	8.10	7.14	9.37	8.15	34.02	20.79	42.33	41.18	26.18	18.44
13	6.34	5.35	8.10	7.01	10.97	7.90	32.54	18.61	42.08	32.29	27.02	18.45
14	17.93	5.96	7.97	6.84	19.27	8.26	24.04	18.64	41.51	31.77	27.95	23.53
15	8.10	6.21	8.05	6.84	22.17	9.49	25.15	22.71	42.09	34.02	29.36	25.25
16	7.00	5.50	7.85	6.52	24.38	16.65	23.64	18.51	42.15	33.72	25.74	18.51
17	7.12	5.84	10.73	6.72	24.17	12.76	32.43	17.69	41.56	30.03	22.78	17.49
18	7.34	6.05	11.86	7.43	25.94	17.51	33.17	19.38	41.94	36.66	20.17	15.06
19	7.10	5.94	8.12	6.68	25.34	15.39	35.06	19.91	41.82	36.32	15.30	13.46
20	7.21	6.16	7.68	6.59	25.72	15.21	37.68	35.06	42.21	33.64	16.78	12.61
21	15.94	6.25	11.22	6.64	25.88	14.99	38.22	29.07	42.31	31.78	17.72	13.49
22	7.72	6.46	10.39	7.00	25.43	14.45	31.38	23.89	41.72	28.17	16.70	13.67
23	7.32	6.40	7.90	7.10	26.53	16.95	27.96	18.79	42.00	32.38	---	---
24	7.39	6.38	7.80	7.03	26.31	15.66	28.56	18.21	42.56	34.64	---	---
25	7.16	6.47	7.70	6.96	26.72	15.55	31.94	18.72	42.50	31.24	---	---
26	7.00	6.31	7.90	7.11	26.03	15.58	28.63	18.73	39.05	27.77	11.54	10.17
27	16.18	6.12	22.51	7.11	26.11	14.98	32.55	18.63	34.73	26.20	14.97	10.07
28	15.05	6.89	9.54	7.63	26.27	14.95	33.26	28.99	38.82	24.04	16.11	12.90
29	8.14	6.89	8.29	7.11	33.39	16.36	31.19	27.19	40.85	36.16	16.54	12.37
30	7.62	6.31	8.08	6.81	32.96	17.64	30.43	17.71	39.57	26.93	14.70	11.16
31	---	---	8.31	7.05	---	---	28.89	19.28	39.98	27.20	---	---
MONTH	17.93	5.07	22.51	6.11	33.39	7.09	38.79	15.51	42.56	20.26	39.36	10.07
YEAR	42.56	4.83										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 34. SITE ID.382443075033501. PERMIT NUMBER.--WO-04-9588.

LOCATION.--Lat 38°24'43", long 75°03'35", Hydrologic Unit 02060010, north side of 100th St., 0.2 mi west of MD Rt. 528, Ocean City.

Owner: Town of Ocean City.

AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 353 ft; casing diameter 4 in., to 316.2 ft, casing diameter 2.5 in. from 316.2 to 337 ft; screen diameter 2.5 in.(?) from 337 to 353 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recording interval April 1985 to current year.

Prior to April 1985, periodic measurements with chalked steel tape.

DATUM.--Altitude of land surface is 4 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of recorder shelf, 2.86 ft above land surface.

REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.

Missing record due to recorder malfunction.

PERIOD OF RECORD.--December 1972 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.54 ft above land surface, March 27, 1973; lowest measured, 19.04 ft below land surface, Sept. 5, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.33	15.36	8.62	7.70	6.23	4.88	5.65	4.66	4.21	3.38	4.06	3.18
2	16.41	15.16	8.30	7.31	6.37	5.53	5.40	4.36	4.23	3.27	3.76	2.66
3	15.84	14.73	8.10	7.10	6.36	5.21	4.87	3.75	3.97	2.79	4.34	2.60
4	15.46	13.93	8.16	7.02	5.88	4.90	5.23	4.21	3.67	2.70	4.85	3.94
5	14.73	12.88	8.18	7.25	5.84	4.84	5.75	4.61	4.07	3.17	4.91	3.79
6	13.69	12.45	8.21	7.15	5.68	4.74	6.18	5.26	4.58	3.70	4.47	2.96
7	13.42	12.08	7.97	6.78	5.90	4.91	6.07	3.32	4.57	3.56	3.64	2.17
8	13.36	12.22	7.56	6.43	5.84	4.87	4.37	3.28	4.36	3.41	3.56	2.27
9	13.59	12.45	7.91	6.94	5.66	4.49	5.16	4.04	4.16	3.35	4.27	2.94
10	13.37	12.22	7.88	6.90	5.60	4.72	5.37	4.35	4.22	3.38	4.40	3.45
11	13.23	12.13	7.63	6.33	6.29	5.43	5.51	4.64	3.96	3.21	4.14	3.05
12	12.97	12.15	7.53	6.47	6.30	5.33	4.95	3.90	4.26	3.08	3.54	2.84
13	12.77	11.90	7.63	6.50	5.77	5.04	5.27	4.34	4.35	3.40	3.45	2.49
14	12.45	11.60	6.60	5.11	5.43	4.75	5.48	4.61	4.22	3.38	3.42	2.53
15	12.37	11.58	6.95	5.21	5.41	4.78	5.67	4.81	4.00	2.86	3.31	2.38
16	12.89	12.15	7.11	6.44	5.07	4.35	5.52	4.55	3.92	2.41	3.60	2.32
17	12.95	12.27	6.97	6.33	5.39	4.35	5.59	4.27	3.89	2.22	3.60	2.47
18	12.47	11.44	6.90	6.09	5.75	4.60	5.60	4.35	4.22	2.93	3.65	2.52
19	11.88	11.03	6.75	5.79	5.72	3.93	5.31	3.70	4.51	3.22	3.55	1.55
20	11.46	10.12	6.56	5.44	5.31	3.44	5.41	4.02	4.25	2.95	3.04	1.81
21	10.70	9.68	6.34	5.09	6.13	4.15	5.49	3.91	4.03	2.92	3.15	2.07
22	10.87	9.91	6.28	5.07	6.46	5.18	5.02	3.61	4.00	2.99	3.45	2.25
23	10.94	9.70	6.53	5.12	6.17	4.50	4.99	3.69	3.91	2.91	3.85	2.58
24	10.51	9.27	6.65	5.22	5.75	4.38	4.70	3.56	3.97	2.91	3.95	3.00
25	10.13	8.83	6.32	4.95	5.73	4.51	5.13	3.90	4.49	3.33	3.70	2.99
26	9.72	8.38	5.96	4.79	5.86	4.80	5.06	4.08	4.27	3.62	3.78	2.92
27	9.32	7.97	5.98	4.90	6.00	5.11	4.53	3.69	3.68	3.18	3.87	3.18
28	8.80	7.70	6.39	5.47	5.67	4.80	5.26	4.12	3.55	2.82	3.78	3.07
29	9.18	8.07	6.02	5.05	5.92	4.92	5.01	4.21	4.07	3.09	3.07	2.41
30	9.23	8.33	5.70	4.81	6.01	5.21	4.43	3.75	---	---	3.23	2.49
31	9.10	8.10	---	---	5.89	5.15	4.33	3.49	---	---	3.34	2.59
MONTH	16.41	7.70	8.62	4.79	6.46	3.44	6.18	3.28	4.58	2.22	4.91	1.55

GROUND-WATER LEVELS

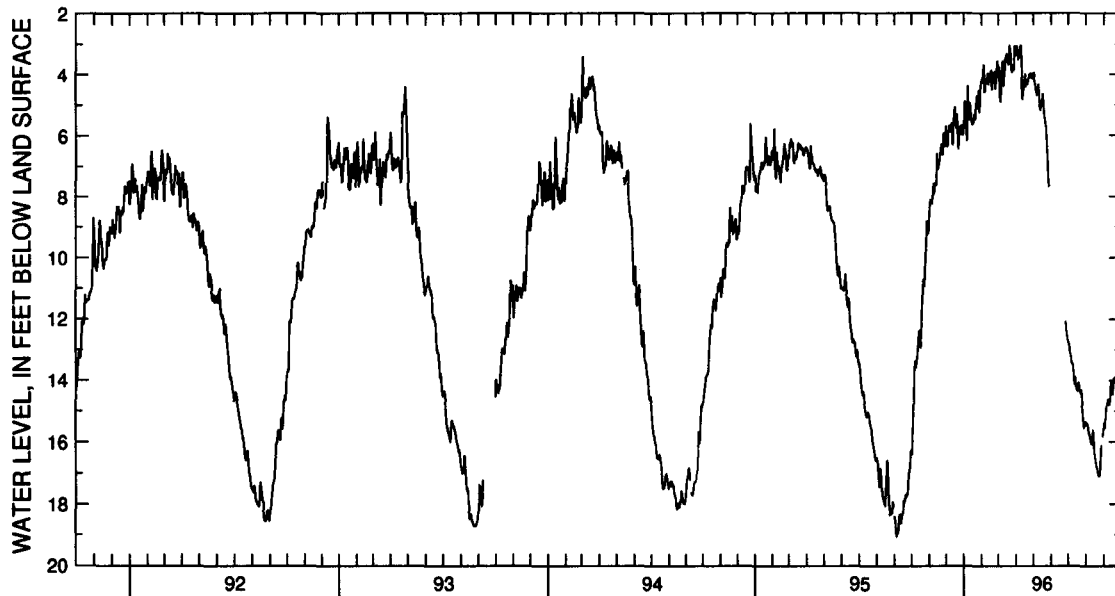
MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Bh 34--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.34	2.11	3.96	3.00	---	---	12.74	11.39	15.44	14.21	15.51	14.41
2	3.06	2.19	4.05	3.04	---	---	12.85	11.53	15.43	14.28	15.36	14.14
3	3.26	2.31	4.24	3.07	---	---	12.80	11.62	15.40	14.28	15.57	14.55
4	3.49	2.43	4.28	3.11	---	---	13.11	11.71	15.47	14.42	15.36	14.46
5	3.45	2.34	4.53	3.34	---	---	13.15	11.98	15.62	14.69	15.22	14.36
6	3.45	2.26	4.55	3.32	---	---	13.28	12.23	15.73	14.90	14.85	13.92
7	3.20	1.87	4.70	3.32	---	---	13.44	12.52	15.75	14.94	14.72	13.90
8	3.09	1.87	4.54	3.53	---	---	13.44	12.58	15.88	15.07	14.61	13.72
9	3.03	1.92	4.41	3.44	---	---	13.46	12.61	15.99	15.13	14.73	13.87
10	3.52	1.82	4.33	3.40	---	---	13.79	12.87	16.08	15.17	14.82	13.90
11	4.75	3.13	4.62	3.47	---	---	14.09	13.23	16.03	15.11	14.69	13.71
12	4.84	3.92	5.11	3.99	---	---	14.15	13.15	16.06	15.04	14.48	13.23
13	4.60	3.72	5.20	4.21	---	---	13.88	12.78	15.62	14.58	14.05	13.12
14	4.49	3.46	5.09	3.99	---	---	14.11	13.23	15.91	14.96	14.25	13.26
15	4.45	3.25	5.00	3.97	---	---	14.30	13.46	16.32	15.47	14.36	13.48
16	3.97	2.73	4.87	3.69	---	---	14.26	13.36	16.47	15.65	14.47	13.45
17	4.29	3.11	4.64	3.61	---	---	14.37	13.47	16.56	15.77	14.15	13.16
18	4.42	3.28	4.81	3.85	---	---	14.26	13.30	16.69	15.83	13.92	12.95
19	4.25	3.11	5.23	4.13	---	---	14.07	13.32	16.80	16.03	14.07	13.06
20	4.18	3.23	5.44	4.45	---	---	14.15	13.34	16.82	16.04	13.90	13.01
21	4.35	3.30	5.48	4.60	---	---	14.40	13.56	16.99	16.18	14.06	13.11
22	4.22	3.22	5.67	4.70	---	---	14.42	13.68	17.08	16.21	14.08	12.99
23	3.99	3.22	5.76	4.86	---	---	14.31	13.59	17.06	16.08	13.98	12.65
24	4.15	3.31	6.28	5.22	---	---	14.49	13.70	17.12	16.01	13.59	12.14
25	4.00	3.38	6.79	5.77	---	---	14.81	13.92	17.01	15.63	13.33	12.13
26	3.97	3.27	7.37	6.41	---	---	14.94	13.89	16.59	15.23	13.31	11.94
27	3.99	3.33	7.68	6.88	12.08	11.11	15.26	14.13	16.38	14.94	13.05	11.86
28	4.15	3.43	7.64	6.72	12.34	11.23	15.52	14.21	16.11	14.60	12.93	11.72
29	4.15	3.27	---	---	12.51	11.27	15.48	14.06	---	---	13.14	11.94
30	3.97	2.95	---	---	12.67	11.39	15.39	13.92	15.84	14.56	13.23	12.22
31	---	---	---	---	---	---	15.37	13.99	15.70	14.54	---	---
MONTH	4.84	1.82	7.68	3.00	12.67	11.11	15.52	11.39	17.12	14.21	15.57	11.72
YEAR	17.12	1.55										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

475

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 84. SITE ID.--382215075041901. PERMIT NUMBER.--WO-73-0095.

LOCATION.--Lat 38°22'15", long 75°04'19", Hydrologic Unit 02060010, west end of 44th St., Ocean City.

Owner: U.S. Geological Survey.

AQUIFER.--Columbia aquifer of Pleistocene age. Aquifer code: 122CLMB.

WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 89 ft; casing diameter 4 in., to 84 ft; screen diameter 4 in. from 84 to 89 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 4 in. coupling, 2.55 ft above land surface.

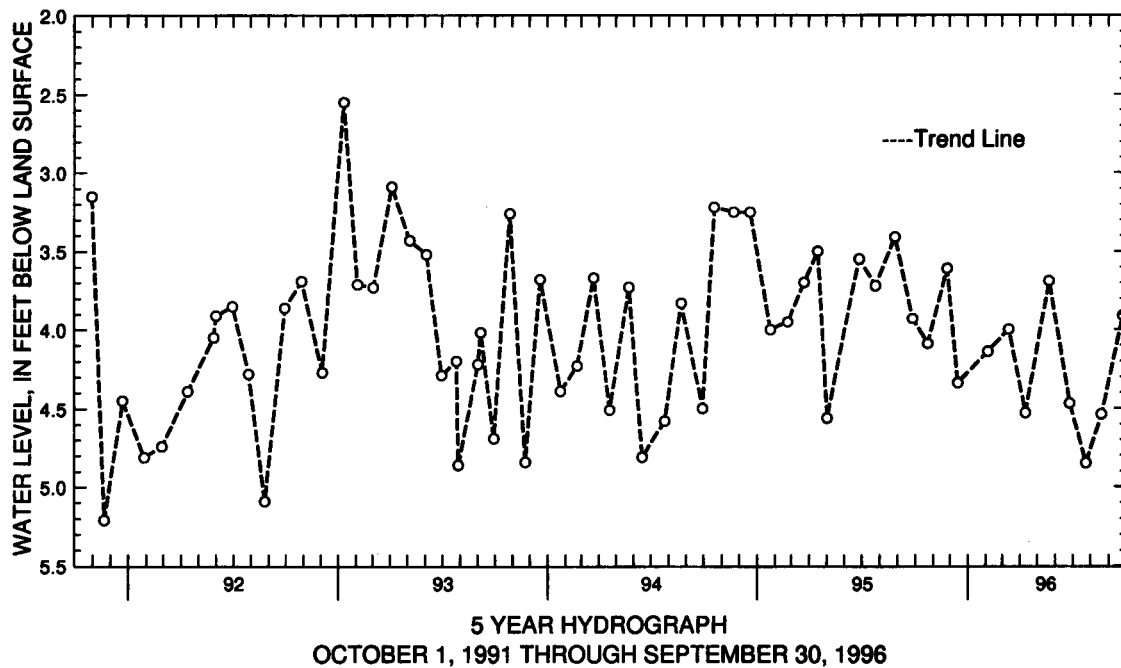
REMARKS.--Ocean City ground-water monitoring network well.

PERIOD OF RECORD.--April 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.55 ft below land surface, Jan. 11, 1993; lowest measured, 6.34 ft below land surface, Sept. 17, 1991.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	4.09	FEB 06, 1996	4.14	MAY 22, 1996	3.69	AUG 20, 1996	4.54
NOV 27	3.61	MAR 13	4.00	JUN 26	4.47	SEP 25	3.91
DEC 15	4.34	APR 11	4.53	JUL 24	4.85		
WATER YEAR 1996		HIGHEST	3.61	NOV 27, 1995	LOWEST	4.85	JUL 24, 1996



GROUND-WATER LEVELS

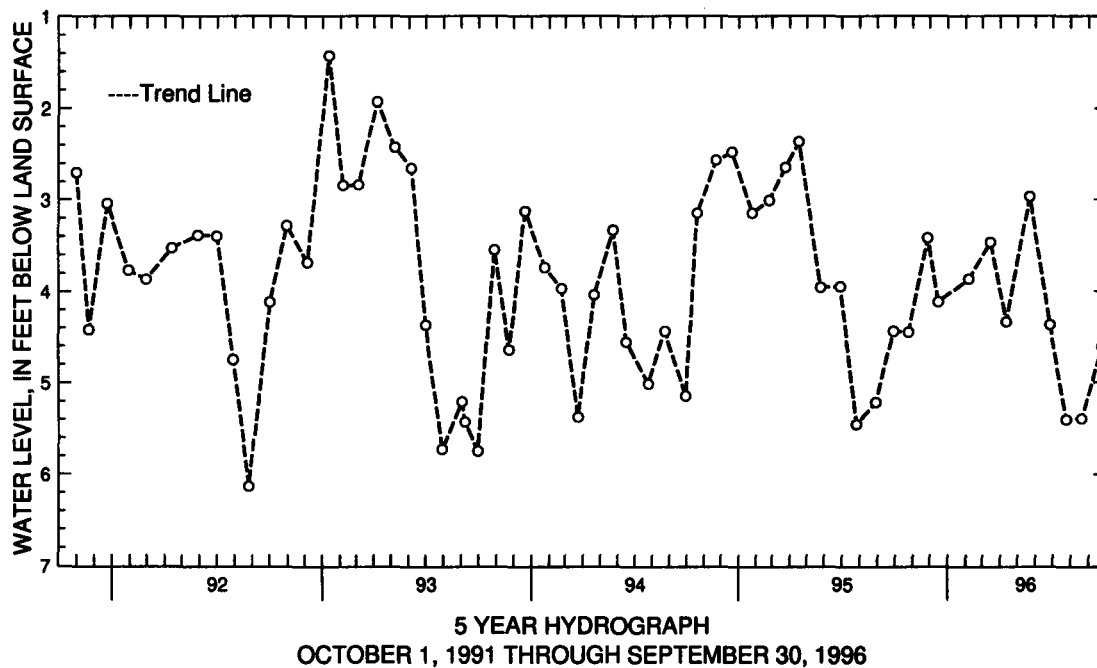
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 85. SITE ID.--382215075041902. PERMIT NUMBER.--WO-73-0094.
 LOCATION.--Lat 38°22'15", long 75°04'19", Hydrologic Unit 02060010, west end of 44th St., Ocean City.
 Owner: U.S. Geological Survey.
 AQUIFER.--Pocomoke aquifer of Upper Miocene-Pliocene age. Aquifer code: 122PCMK.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 195 ft; casing diameter 4 in., to 190 ft.
 screen diameter 4 in. from 190 to 195 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of 4 in. coupling, 1.78 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels maybe affected by seasonal pumping.
 PERIOD OF RECORD.--April 1973 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.43 ft below land surface, Jan. 11, 1993;
 lowest measured, 7.48 ft below land surface, Sept. 15, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	4.45	FEB 06, 1996	3.87	MAY 22, 1996	2.97	AUG 20, 1996	5.40
NOV 27	3.42	MAR 15	3.47	JUN 26	4.37	SEP 25	4.61
DEC 15	4.12	APR 11	4.34	JUL 24	5.41		
WATER YEAR 1996		HIGHEST	2.97	MAY 22, 1996	LOWEST	5.41	JUL 24, 1996



GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 89. SITE ID.--382215075041903 PERMIT NUMBER.--WO-81-1497.
 LOCATION.--Lat 38°22'15", long 75°04'19", Hydrologic Unit 020060010, at 44th St, Ocean City.
 Owner: Town of Ocean City.
 AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 500 ft; casing diameter 4 in., to 388 ft; screen diameter 4 in. from 388 to 500 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recording interval, October 1986 to current year.
 DATUM.--Altitude of land surface is 5.59 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 2.84 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.42 ft below land surface, Oct. 8, 1993; lowest recorded, 39.83 ft below land surface, Aug. 6, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.20	10.11	19.55	15.86	12.48	10.74	24.22	22.80	7.32	6.48	7.37	6.40
2	10.99	9.92	18.51	15.15	11.29	10.25	24.37	20.39	7.37	6.37	7.00	5.87
3	16.11	9.63	19.05	14.49	10.85	9.45	23.04	19.08	7.06	5.86	7.56	5.82
4	19.39	14.59	20.13	18.38	10.05	9.02	21.58	18.95	6.77	5.80	8.13	7.26
5	22.97	18.00	20.56	19.36	9.87	8.81	21.48	18.94	7.19	6.28	8.23	7.20
6	24.42	20.34	20.69	15.34	14.23	8.55	23.78	19.23	7.72	6.98	7.83	6.20
7	25.26	23.08	15.55	13.17	14.18	10.01	21.36	17.89	7.75	6.71	6.91	5.37
8	25.71	22.90	13.63	12.14	10.53	9.36	18.78	16.72	9.69	6.76	6.76	5.46
9	26.00	22.68	13.29	11.86	9.98	8.68	20.51	18.78	10.89	9.29	11.62	6.15
10	23.46	20.67	15.95	12.96	9.69	8.75	20.53	14.35	11.62	10.30	11.56	7.82
11	22.78	20.01	15.48	11.90	17.08	9.48	14.35	11.39	11.55	9.32	8.26	6.94
12	22.20	20.17	15.85	12.39	19.16	15.52	14.72	10.29	9.33	8.56	7.26	6.54
13	20.69	19.67	12.66	11.04	20.39	16.92	14.66	10.60	8.69	7.99	6.99	6.08
14	23.64	20.05	11.04	9.33	21.60	17.74	10.60	9.69	8.60	7.59	6.90	6.03
15	24.61	21.43	10.92	9.36	21.64	17.61	9.98	9.16	8.14	6.82	6.83	5.83
16	24.36	21.52	12.27	10.48	21.61	17.96	9.52	8.35	7.76	6.04	6.91	5.72
17	24.72	18.82	11.03	10.12	22.52	19.00	9.16	7.93	7.35	5.89	6.95	5.85
18	19.96	16.90	14.78	9.89	23.40	20.02	9.16	7.88	10.28	7.35	6.99	5.87
19	20.02	17.15	14.91	11.30	20.15	17.11	8.84	6.79	10.37	7.43	6.86	4.89
20	20.02	14.49	12.39	10.01	20.65	17.71	8.76	7.41	8.28	6.73	6.27	5.15
21	19.71	17.74	10.69	9.16	20.95	18.80	8.81	7.23	7.74	6.62	6.34	5.32
22	20.68	19.05	12.20	9.56	21.88	18.78	8.30	6.92	7.55	6.59	6.64	5.44
23	20.84	19.11	10.62	9.59	21.27	17.92	8.23	6.97	7.41	6.40	7.06	5.74
24	20.45	17.76	10.44	8.94	21.94	18.13	7.96	6.64	7.94	6.37	7.16	6.18
25	20.50	16.92	13.51	8.73	22.19	18.16	8.41	7.15	8.11	7.03	6.91	6.15
26	19.24	15.59	13.49	9.68	20.12	18.15	8.30	7.45	7.83	7.21	6.84	6.02
27	20.02	18.86	10.32	9.11	22.75	18.46	7.68	6.95	7.21	6.65	6.80	6.13
28	21.41	19.29	11.31	9.41	22.20	18.49	8.51	7.34	6.93	6.21	6.68	5.95
29	24.90	20.07	13.37	9.01	23.80	18.89	8.34	7.38	7.37	6.42	5.95	5.22
30	21.68	19.00	14.91	12.48	21.84	18.82	7.64	6.87	---	---	6.17	5.37
31	21.31	17.33	---	---	23.62	19.38	7.53	6.59	---	---	6.31	5.53
MONTH	26.00	9.63	20.69	8.73	23.80	8.55	24.37	6.59	11.62	5.80	11.62	4.89

GROUND-WATER LEVELS

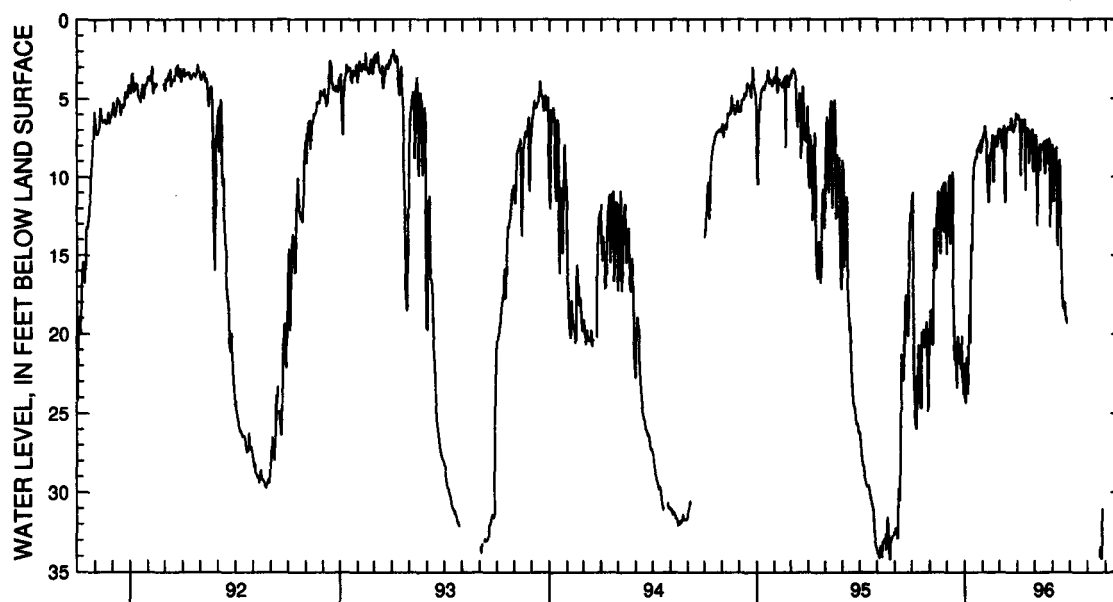
MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Bh 89--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.34	5.11	7.39	6.38	11.55	7.48	---	---	---	---	---	---
2	6.05	5.16	7.37	6.21	11.55	7.68	---	---	---	---	---	---
3	6.29	5.26	8.92	6.45	8.68	7.05	---	---	---	---	---	---
4	6.45	5.42	11.36	7.12	8.41	7.14	---	---	---	---	---	---
5	6.43	5.32	13.14	9.18	8.34	7.15	---	---	---	---	---	---
6	9.94	5.48	9.61	7.53	8.22	7.17	---	---	---	---	---	---
7	6.97	5.37	8.61	7.33	8.11	7.12	---	---	---	---	---	---
8	6.48	5.37	8.24	7.13	13.55	7.10	---	---	---	---	---	---
9	6.34	5.20	7.94	6.99	14.41	10.03	---	---	---	---	---	---
10	6.62	5.06	9.60	6.86	12.01	9.13	---	---	---	---	---	---
11	7.16	6.06	8.29	7.06	9.68	8.39	---	---	---	---	---	---
12	6.75	5.86	8.03	7.14	9.17	8.05	---	---	---	---	---	---
13	6.33	5.36	8.04	7.04	8.92	7.82	---	---	---	---	---	---
14	10.88	5.76	7.92	6.88	12.21	8.15	---	---	---	---	---	---
15	7.97	6.20	7.98	6.87	14.63	9.18	---	---	---	---	---	---
16	6.89	5.55	7.77	6.56	16.81	14.63	---	---	---	---	---	---
17	7.01	5.86	8.78	6.74	16.58	12.32	---	---	---	---	---	---
18	7.22	6.06	9.84	7.41	18.37	16.58	---	---	---	---	---	---
19	7.02	5.96	8.05	6.72	17.86	14.75	---	---	---	---	---	---
20	7.11	6.16	7.64	6.64	18.24	14.61	---	---	---	---	---	---
21	9.16	6.23	9.21	6.64	18.59	14.69	---	---	34.04	30.98	---	---
22	7.58	6.45	8.53	7.00	17.99	13.95	---	---	33.41	27.90	---	---
23	7.25	6.43	7.82	7.12	19.12	16.17	---	---	33.58	29.88	---	---
24	7.34	6.42	7.75	7.04	18.94	15.11	---	---	34.20	31.94	---	---
25	7.15	6.52	7.65	6.98	19.35	14.99	---	---	34.20	29.75	---	---
26	6.98	6.36	7.82	7.10	---	---	---	---	31.02	27.38	11.85	10.57
27	9.40	6.18	13.25	7.10	---	---	---	---	---	---	13.20	10.48
28	9.68	6.90	9.40	7.56	---	---	---	---	---	---	14.38	12.73
29	8.10	6.93	8.17	7.08	---	---	---	---	---	---	14.83	12.70
30	7.60	6.42	7.98	6.83	---	---	---	---	---	---	13.15	11.53
31	---	---	8.18	7.05	---	---	---	---	---	---	---	---
MONTH	10.88	5.06	13.25	6.21	19.35	7.05	---	---	34.20	27.38	14.83	10.48
YEAR	34.20	4.89										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 98. SITE ID.--382127075043802. PERMIT NUMBER.--WO-81-1822.
 LOCATION.--Lat 38°21'27", long 75°04'38", Hydrologic Unit 02060010, at 28th Street Park, Ocean City.
 Owner: Town of Ocean City.
 AQUIFER.--Ocean City aquifer of Upper Miocene age. Aquifer code: 122OCNC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 275 ft; casing diameter 4 in., to 255 ft; screen diameter 4 in. from 255 to 275 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel, Equipped with digital water-level recorder--60-minute recorder interval from November 1990 to current year.
 DATUM.--Altitude of land surface is 5 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 2.52 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--January 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.89 ft above land surface, April 2, 1993; lowest measured, 35.70 ft below land surface, Aug. 1, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.50	8.86	23.85	22.88	19.84	18.33	14.61	13.64	16.65	16.17	16.12	15.40
2	10.12	8.95	23.35	22.43	19.45	17.86	14.67	14.19	16.71	16.11	16.12	15.65
3	10.50	9.70	22.92	22.13	19.45	19.02	14.34	13.66	16.46	15.68	17.21	15.82
4	12.96	10.49	23.51	22.39	19.42	18.88	13.89	13.43	16.23	15.62	17.52	16.96
5	14.25	12.58	23.88	23.14	19.46	17.36	14.10	13.37	16.68	16.11	17.76	17.15
6	15.06	14.00	23.97	23.01	18.29	16.85	14.59	13.82	17.05	16.62	17.50	16.30
7	15.42	14.65	23.13	21.60	18.75	17.57	14.44	12.09	17.23	16.77	16.63	15.46
8	15.68	15.11	21.89	20.99	18.72	18.05	12.14	11.65	17.41	16.80	16.30	15.46
9	16.53	15.21	21.71	19.84	18.93	18.18	12.91	11.91	18.23	17.25	17.16	16.02
10	16.65	15.67	21.03	19.90	18.90	18.42	14.54	12.63	18.92	18.01	18.03	17.09
11	16.65	15.45	21.44	20.46	18.90	16.87	14.95	13.46	18.94	18.52	17.15	16.70
12	16.49	15.75	21.54	20.49	16.92	15.29	13.95	12.89	18.77	18.36	16.84	16.51
13	16.04	14.87	21.54	20.65	15.35	14.74	14.40	13.95	18.47	18.04	16.76	16.16
14	15.17	14.74	20.65	17.93	14.93	14.41	14.20	12.78	18.34	17.75	16.70	16.19
15	15.39	14.74	19.31	17.91	14.47	14.19	14.12	12.25	18.01	17.04	16.69	16.02
16	17.22	15.29	19.05	17.77	14.20	13.81	16.09	14.12	17.47	16.03	16.73	15.93
17	17.73	16.32	19.67	18.71	14.43	13.71	17.03	15.75	16.66	15.59	16.76	16.16
18	19.84	17.73	19.67	18.33	14.73	14.01	17.12	16.40	17.77	16.38	16.92	15.90
19	21.18	19.84	19.83	18.04	14.73	12.71	17.15	16.12	18.19	16.03	16.20	14.19
20	21.33	20.51	19.83	17.43	13.28	12.22	17.26	16.49	17.06	16.08	14.83	13.94
21	20.85	18.98	18.19	16.73	14.05	12.88	17.45	16.54	17.28	16.65	15.45	14.09
22	22.08	19.56	18.36	17.02	14.34	13.70	17.31	15.52	17.19	15.08	14.85	13.83
23	22.85	21.92	17.56	16.31	13.92	12.94	16.59	15.58	16.38	15.08	16.43	14.75
24	23.04	21.95	18.79	17.56	13.50	12.94	16.84	16.20	17.11	16.00	15.93	15.23
25	22.87	22.10	19.13	17.00	13.57	12.95	17.22	16.54	17.87	16.88	15.64	11.95
26	22.74	21.69	19.36	17.93	13.28	12.72	17.09	16.63	17.79	17.47	12.67	11.64
27	22.81	22.14	19.49	18.60	13.66	12.90	16.92	16.46	17.47	15.90	13.50	11.77
28	23.21	22.49	18.60	17.11	13.51	12.97	16.92	15.96	15.90	14.08	14.62	13.50
29	24.90	23.05	17.17	16.01	14.21	13.00	16.37	16.02	15.45	13.75	14.60	13.54
30	24.87	24.06	19.84	17.17	14.18	13.41	16.64	16.11	---	---	15.12	14.38
31	24.46	23.69	---	---	14.00	13.12	16.64	16.23	---	---	15.70	15.01
MONTH	24.90	8.86	23.97	16.01	19.84	12.22	17.45	11.65	18.94	13.75	18.03	11.64

GROUND-WATER LEVELS

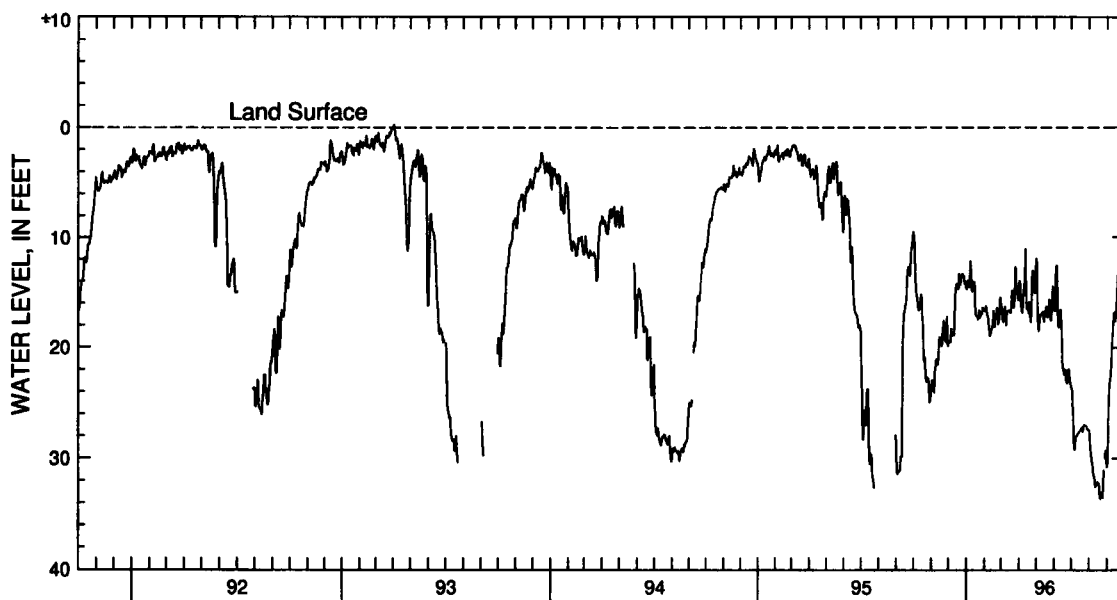
MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Bh 98--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	15.70	13.76	11.93	11.04	16.01	14.66	23.37	22.77	27.44	27.41	30.74	29.86
2	13.89	12.99	12.34	10.84	16.61	15.45	23.69	22.99	27.48	27.44	30.73	29.81
3	14.14	13.00	14.60	12.20	16.76	13.39	23.73	22.65	28.60	27.48	30.32	26.95
4	15.71	14.14	17.53	14.60	13.41	12.59	25.01	22.88	29.30	28.60	26.95	24.60
5	16.26	15.51	18.34	17.29	12.60	12.17	26.30	24.97	29.60	29.24	24.60	23.19
6	16.77	15.68	18.55	17.84	12.59	11.95	28.32	26.27	30.20	29.60	23.19	22.40
7	16.90	16.03	17.85	16.87	14.01	12.28	29.20	28.29	30.53	30.20	22.79	21.90
8	16.03	14.18	17.20	16.47	16.66	14.01	29.19	28.16	30.78	30.53	22.47	21.32
9	14.74	14.05	17.03	16.21	18.17	16.23	28.18	28.04	31.54	30.78	21.35	19.72
10	15.12	13.74	17.06	15.90	18.17	16.99	28.04	27.96	31.63	31.54	19.78	18.88
11	13.74	11.04	17.04	15.90	17.73	15.74	27.96	27.88	31.89	31.63	18.92	17.75
12	11.04	10.13	16.85	15.98	16.93	15.60	27.88	27.80	32.60	31.89	17.75	16.45
13	14.00	10.16	16.72	15.85	16.55	15.35	27.80	27.71	32.48	32.31	16.80	16.02
14	16.36	13.74	17.45	16.54	17.58	15.96	27.71	27.63	32.36	32.32	17.02	16.46
15	16.52	15.80	17.70	16.09	19.12	17.33	27.63	27.55	32.38	32.11	17.62	16.81
16	16.51	13.88	16.94	15.63	21.36	19.12	27.55	27.47	32.16	32.12	17.63	16.43
17	16.58	14.65	16.99	15.93	21.89	20.65	27.47	27.40	32.19	32.16	16.43	15.23
18	16.95	14.11	16.41	15.51	21.95	21.13	27.40	27.32	32.23	32.19	15.37	14.07
19	15.87	14.43	16.33	15.10	22.39	21.64	27.32	27.24	32.27	32.23	14.07	13.22
20	16.70	15.79	16.48	15.57	22.30	21.44	27.24	27.16	33.55	32.27	13.22	12.56
21	17.61	16.43	17.35	16.24	21.94	20.57	27.54	27.15	33.62	32.74	14.85	12.60
22	17.69	15.75	16.86	16.49	22.85	21.93	27.49	27.06	33.21	32.25	15.45	14.85
23	15.75	13.39	17.16	15.54	23.11	21.87	27.06	26.98	33.02	32.44	15.37	14.60
24	13.39	11.62	15.64	14.84	23.24	22.20	26.98	26.94	33.42	32.87	15.01	14.24
25	13.04	11.39	16.96	15.64	23.24	21.68	26.99	26.96	33.50	32.22	15.11	14.21
26	13.29	12.98	17.43	16.95	21.98	21.56	27.03	26.99	32.32	30.35	14.93	13.94
27	14.48	13.22	17.57	17.30	21.95	21.14	27.07	27.03	31.04	30.12	14.73	13.19
28	15.05	14.04	17.46	15.66	22.03	21.02	27.10	27.07	---	---	13.47	12.28
29	15.03	13.18	15.66	13.58	22.86	21.42	27.34	27.10	30.01	26.81	12.70	11.91
30	13.19	11.59	14.41	13.06	23.24	22.22	27.37	27.34	29.24	27.45	11.97	11.23
31	---	---	15.34	13.80	---	---	27.41	27.37	30.27	29.24	---	---
MONTH	17.69	10.13	18.55	10.84	23.24	11.95	29.20	22.65	33.62	26.81	30.74	11.23
YEAR	33.62	8.86										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1991 THROUGH SEPTEMBER 30, 1996

GROUND-WATER LEVELS

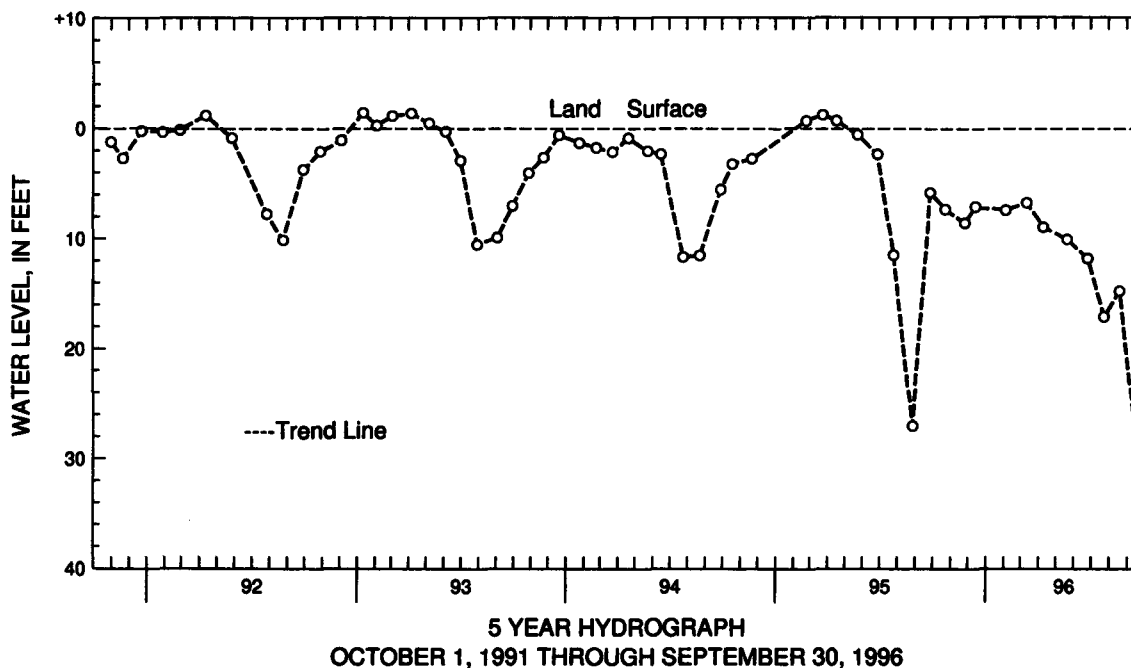
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Cg 72. SITE ID.--381939075052101. PERMIT NUMBER.--WO-73-1304.
 LOCATION.--Lat 38°19'39", long 75°05'21", Hydrologic Unit 02060010, at South Division St., Ocean City.
 Owner: Town of Ocean City.
 AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 450 ft; casing diameter 4 in., to 384 ft, 394 to 404 ft, and 424 to 445 ft; screen diameter 4 in. from 384 to 394 ft, 404 to 424 ft, and 445 to 450 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 5 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of 6 in. flange, 3.0 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--January 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.58 ft above land surface, March 30, 1990, lowest measured, 32.49 ft below land surface, Sept. 25, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	7.45	FEB 06, 1996	7.53	MAY 22, 1996	10.20	AUG 20, 1996	14.87
NOV 27	8.72	MAR 13	6.87	JUN 26	11.92	SEP 25	32.49
DEC 15	7.23	APR 11	9.07	JUL 24	17.22		
WATER YEAR 1996		HIGHEST 6.87 MAR 13, 1996		LOWEST 32.49 SEP 25, 1996			



GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Dd 7. SITE ID.--381037075234301.

LOCATION.--Lat 38°10'37", long 75°23'43", Hydrologic Unit 02060009, near intersection of Green and Commerce Sts., Snow Hill.

Owner: City of Snow Hill.

AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 290 ft; casing diameter 6 in.; casing length unknown.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 13 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of casing extension, 0.40 ft below land surface.

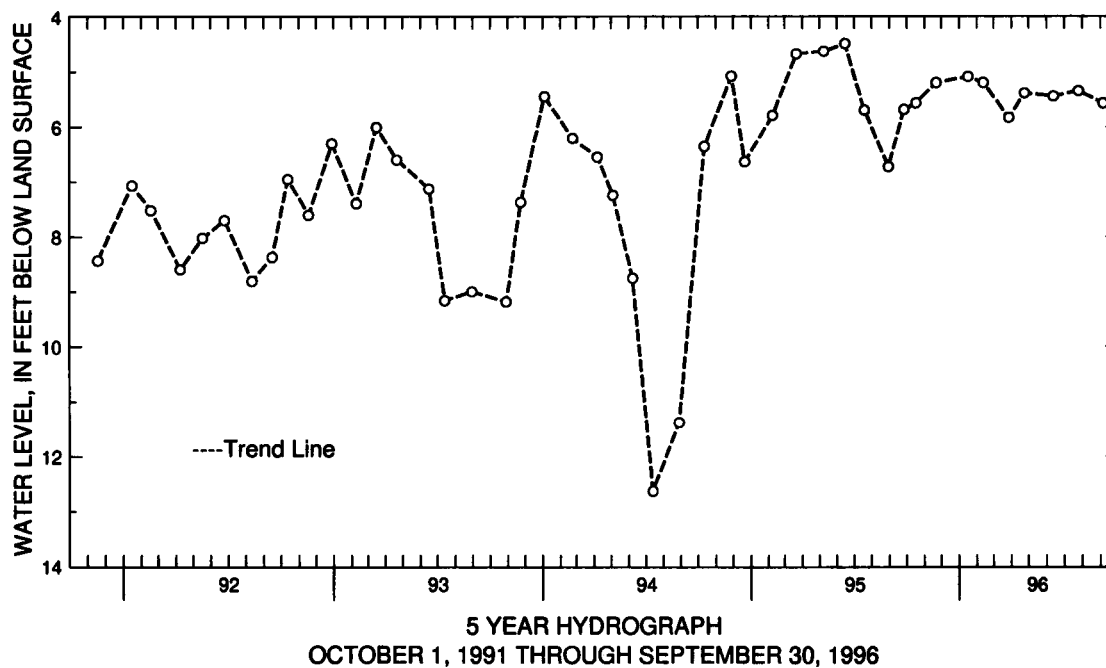
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.

PERIOD OF RECORD.--July 1958 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.63 ft below land surface, March 8, 1962; lowest measured, 38.02 ft below land surface, Sept. 17, 1970.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1995	5.56	JAN 16, 1996	5.08	APR 24, 1996	5.38	JUL 25, 1996	5.34
NOV 22	5.19	MAR 27	5.83	JUN 13	5.44	SEP 06	5.57
WATER YEAR 1996		HIGHEST	5.08	JAN 16, 1996	LOWEST	5.83	MAR 27, 1996



GROUND-WATER LEVELS

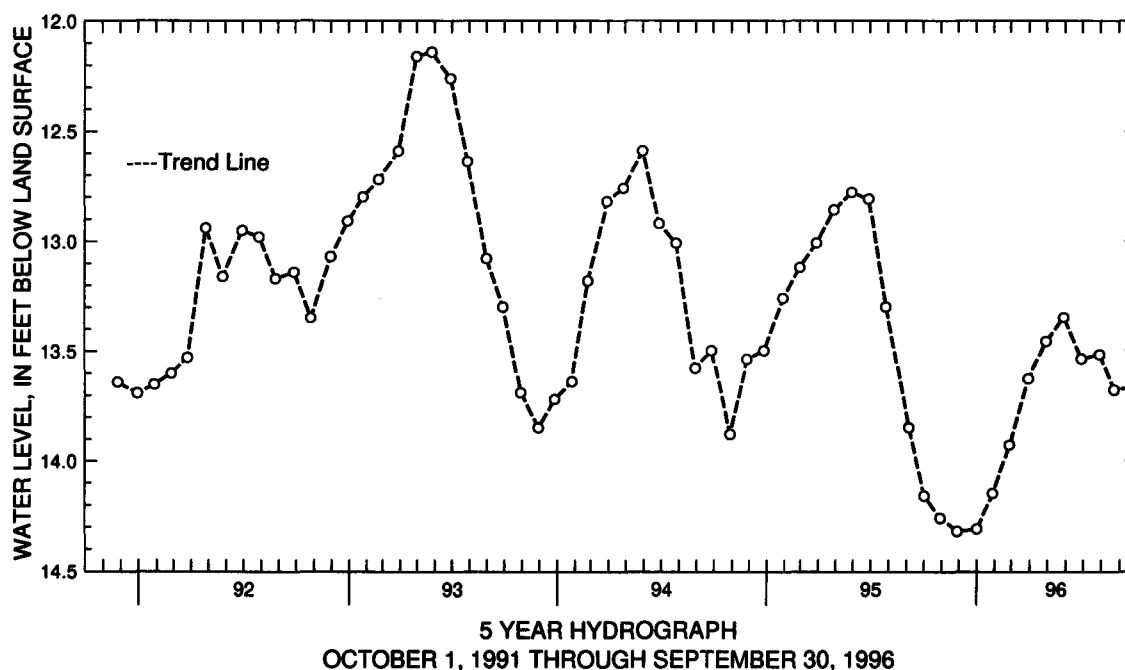
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO De 36. SITE ID.--381457075174101. PERMIT NUMBER.--WO-73-0515.
 LOCATION.--Lat 38°14'57", long 75°17'41", Hydrologic Unit 02060010, at Newark.
 Owner: U.S. Geological Survey.
 AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 330 ft; casing diameter 4 in., to 320 ft; screen diameter 2 in. from 320 to 330 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 30 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of 4 in. coupling, 1.84 ft above land surface.
 REMARKS.--Maryland Water-Level Network observation well.
 PERIOD OF RECORD.--September 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.62 ft below land surface, May 20, 1976, lowest measured, 14.75 ft below land surface, Oct. 22, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	14.16	JAN 29, 1996	14.15	MAY 29, 1996	13.35	SEP 26, 1996	13.67
30	14.26	FEB 27	13.93	JUN 28	13.54		
NOV 29	14.32	MAR 29	13.63	JUL 29	13.52		
JAN 02, 1996	14.31	APR 29	13.46	AUG 22	13.68		
WATER YEAR 1996		HIGHEST	13.35	MAY 29, 1996	LOWEST	14.32	NOV 29, 1995



GROUND-WATER LEVELS

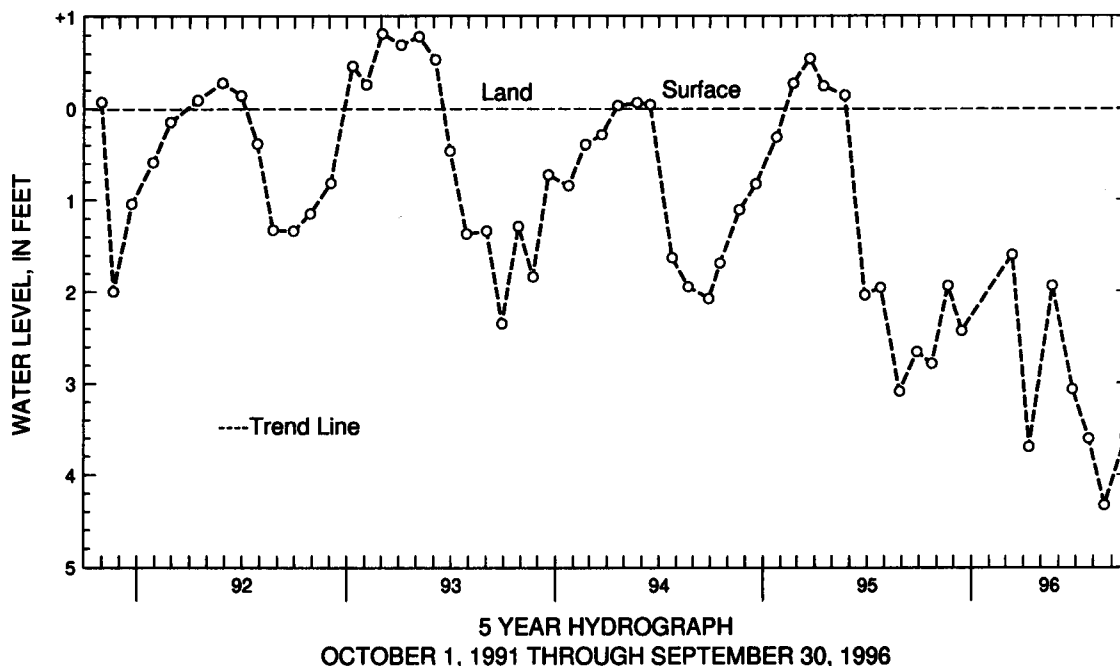
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Dg 21. SITE ID.--381427075081102. PERMIT NUMBER.--WO-73-0519.
 LOCATION.--Lat 38°14'27", long 75°08'11", Hydrologic Unit 020060010, at Assateague Island State Park.
 Owner: U.S. Geological Survey.
 AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 310 ft; casing diameter 4 in., to 300 ft; screen diameter 2 in. from 300 to 310 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel, November 1990 to current year. Periodic measurements with chalked steel tape October 1975, to April 1985. Equipped with digital water-level recorder--60-minute recording interval, April 1985 to October 1990.
 DATUM.--Elevation of land surface is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.
 Measuring point: Top of metal sleeve, 4.06 ft above land surface.
 REMARKS.--Ocean City ground-water monitoring network well. Water levels affected by nearby pumping.
 PERIOD OF RECORD.--October 1975 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 1.37 ft above land surface, April 22, 1991; lowest recorded, 5.25 ft below land surface, Aug. 25, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1995	2.79	MAR 13, 1996	1.60	JUN 26, 1996	3.07	SEP 25, 1996	3.59
NOV 21	1.94	APR 11	3.70	JUL 24	3.61		
DEC 15	2.43	MAY 22	1.94	AUG 20	4.33		
WATER YEAR 1996		HIGHEST	1.60 MAR 13, 1996	LOWEST	4.33 AUG 20, 1996		



MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Fb 2. SITE ID.--380408075335701.

LOCATION.--Lat 38°04'08", long 75°33'57", Hydrologic Unit 02060009, near 7th and Young Sts., Pocomoke City.
Owner: Pocomoke City.

AQUIFER.--Pocomoke aquifer of Upper Miocene-Pliocene age. Aquifer code: 122PCMK.

WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 130 ft; casing diameter 16 in., to 100 ft; casing diameter 10 in., to 100 ft; screen diameter 9.5 in. from 100 to 130 ft.

INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.

DATUM.--Elevation of land surface is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

Measuring point: Top of 1.5 in. casing extension, 3.40 ft above land surface.

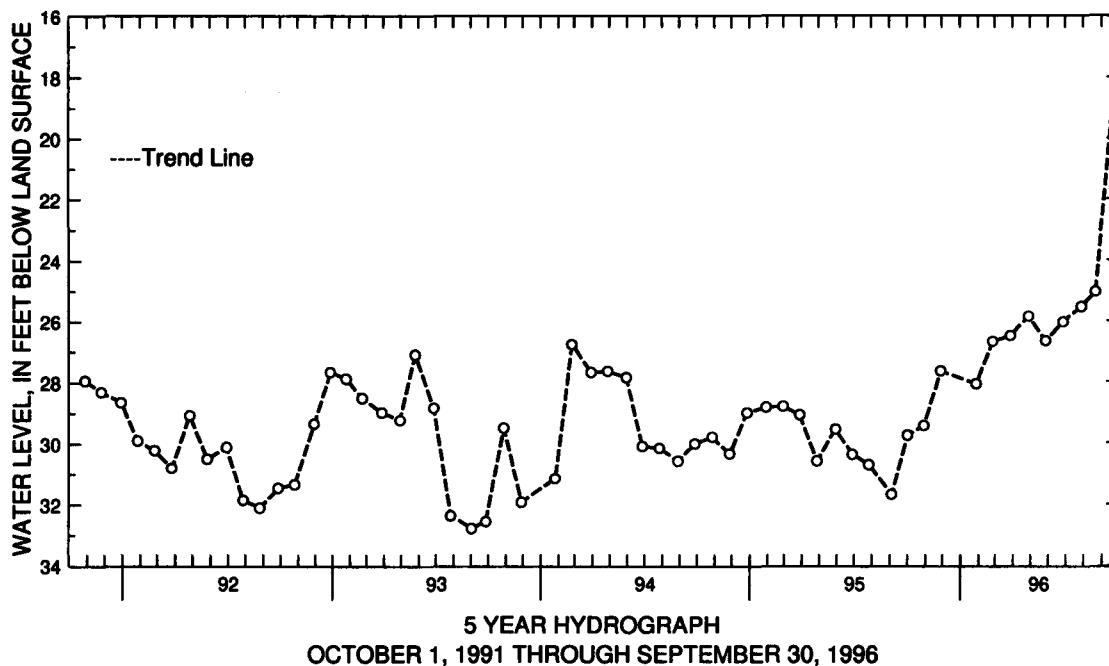
REMARKS.--Maryland Water-Level Network observation well. Water level reported 30 ft below land surface, Oct. 3, 1947; water levels may be affected by nearby pumpage.

PERIOD OF RECORD.--January 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.64 ft below land surface, Sept. 26, 1996;
lowest measured, 49.70 ft below land surface, July 1, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 02, 1995	29.75	JAN 29, 1996	28.08	APR 29, 1996	25.85	JUL 29, 1996	25.54
30	29.43	FEB 27	26.69	MAY 29	26.67	AUG 22	25.02
NOV 29	27.66	MAR 29	26.49	JUN 28	26.04	SEP 26	17.64
WATER YEAR 1996		HIGHEST	17.64	SEP 26, 1996	LOWEST	29.75	OCT 02, 1995



GROUND-WATER QUALITY RECORDS

REMARK CODES

The following remark codes may appear with the water-quality data in this section:

PRINTED OUTPUT	REMARK
E	Estimated value.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptance range (non-ideal colony count).
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted).
D	Biological organism count equal to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

Dissolved Trace-Element Concentrations

NOTE--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (ug/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the ug/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols in water year 1994. Full implementation of the protocols will take place during the 1995 water year.

Change in National Trends Network procedures

NOTE--Sample handling procedures at all national Trends Network stations were changed substantially on January 11, 1994, in order to reduce contamination from the sample shipping container. The data for samples before and after that date are different and not directly comparable. A tabular summary of the differences based on a special intercomparison study, is available from the NADP/NTN Coordination Office, Colorado State University, Fort Collins, CO 80523 (Telephone: 303-491-5643).

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

SUSSEX COUNTY, DELAWARE

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)
Of12-03	09-12-96	1315	384418075231102	112PCPC	GW		4040	--	35.00
Of12-05	09-12-96	1345	384418075231101	112PCPC	GW		4040	--	13.00
Of12-12	09-13-96	1030	384438075234802	112PCPC	GW		4040	--	59.00
Of12-13	09-13-96	1110	384438075234801	112PCPC	GW		4040	46.36	17.00
Of12-14	09-13-96	0930	384438075234803	112PCPC	GW		4040	--	80.00
Of13-01	09-16-96	1300	384401075224903	112PCPC	GW		4040	--	103.00
Of13-02	09-16-96	1345	384402075225002	112PCPC	GW		4040	--	52.00
Of13-03	09-16-96	1430	384401075224901	112PCPC	GW		4040	--	20.00
Of13-08	09-16-96	1115	384406075224601	112PCPC	GW		4040	--	16.00
Of13-09	09-16-96	0920	384406075224603	112PCPC	GW		4040	--	80.00
Of13-10	09-16-96	1010	384406075224602	112PCPC	GW		4040	--	48.00
Of22-02	09-18-96	1040	384343075230402	112PCPC	GW		4040	--	56.00
Of22-03	09-18-96	0940	384343075230403	112PCPC	GW		4040	--	118.00
Of22-04	09-18-96	1130	384343075230401	112PCPC	GW		4040	--	15.00
Of22-09	09-10-96	1100	384344075230102	112PCPC	GW		4040	--	55.00
Of22-10	09-10-96	1000	384341075230003	112PCPC	GW		4040	5.50	118.00
Of22-11	09-10-96	1140	384341075230001	112PCPC	GW		4040	--	16.00
Of23-01	09-12-96	0910	384338075222303	112PCPC	GW		4040	--	99.00
Of23-02	09-12-96	0955	384333075222902	112PCPC	GW		4040	--	50.00
	09-12-96	1000		112PCPC	GW		4040	--	50.00
Of23-03	09-12-96	1040	384333075222901	112PCPC	GW		4040	--	20.00
Of23-04	09-10-96	1330	384341075223803	112PCPC	GW		4040	--	104.00
Of23-05	09-17-96	0940	384341075223801	112PCPC	GW		4040	--	18.00
Of23-06	09-10-96	1410	384341075223802	112PCPC	GW		4040	--	55.00

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)
Of12-03	32	35	49.1	25	1.0	42	5.0	14.0	--
Of12-05	10	13	49.1	15	1.0	50	4.8	16.5	21.5
Of12-12	56	59	45.9	35	1.0	70	6.1	14.0	22.5
Of12-13	14	17	46.4	15	1.0	162	5.4	15.5	24.5
Of12-14	77	80	45.9	45	1.0	101	6.4	14.0	21.0
Of13-01	100	103	45.0	--	1.0	44	5.5	14.0	--
Of13-02	49	52	48.3	30	1.0	79	5.1	14.0	--
Of13-03	17	20	45.0	20	1.0	102	5.7	15.0	--
Of13-08	13	16	48.9	50	0.2	112	6.0	15.5	--
Of13-09	77	80	48.8	45	1.0	31	5.3	13.0	--
Of13-10	45	48	48.9	30	1.0	34	5.2	13.0	--
Of22-02	53	56	47.4	35	1.0	48	5.6	13.5	--
Of22-03	96	99	47.4	60	1.0	72	6.1	13.5	--
Of22-04	12	15	47.6	25	0.2	83	4.1	16.5	--
Of22-09	52	55	47.8	35	1.0	44	6.1	14.0	30.0
Of22-10	115	118	45.0	60	1.0	69	5.9	14.0	27.5
Of22-11	13	16	45.0	15	1.0	84	4.6	16.5	--
Of23-01	96	99	45.0	--	1.0	139	5.3	15.0	--
Of23-02	47	50	51.3	30	1.0	195	5.6	15.0	22.0
	47	50	51.3	--	--	195	5.6	15.0	22.0
Of23-03	17	20	51.4	20	1.0	141	5.1	17.0	24.0
Of23-04	101	104	50.0	65	1.0	46	5.9	15.5	--
Of23-05	15	18	50.1	35	1.0	170	5.2	19.0	--
Of23-06	52	55	50.1	22	1.0	200	1.9	17.5	--

Geologic Unit (aquifer): 112PCPC - Pleistocene-Pliocene Series

Site Type: GW - Groundwater

Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

SUSSEX COUNTY, DELAWARE -- Continued

WELL NUMBER	OXYGEN, DIS- SOLVED (MG/L) (00300)	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)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	FLUO- RIDE, DIS- SOLVED (MG/L) AS F (00950)
Of12-03	3.1	0.83	1.1	0.80	2.7	8.1	2.3	<0.10
Of12-05	7.7	1.4	1.3	0.70	2.9	10	4.1	<0.10
Of12-12	0	1.3	0.31	0.80	6.3	<0.10	5.3	<0.10
Of12-13	0	5.2	4.6	1.1	11	28	15	<0.10
Of12-14	0	3.5	0.77	0.80	6.4	0.50	5.0	<0.10
Of13-01	0.5	1.1	0.29	1.2	4.8	0.50	4.6	<0.10
Of13-02	5.0	2.6	2.0	2.2	5.0	0.90	12	<0.10
Of13-03	0	1.4	1.6	1.5	10	5.3	15	<0.10
Of13-08	6.4	0.15	0.03	0.60	23	19	8.2	<0.10
Of13-09	3.0	0.61	0.30	1.0	4.4	0.90	3.6	<0.10
Of13-10	0.1	0.53	0.21	0.90	4.8	2.4	4.6	<0.10
Of22-02	0	1.7	0.38	1.3	4.8	0.90	4.4	<0.10
Of22-03	0	1.3	0.32	1.0	4.6	0.30	3.2	<0.10
Of22-04	1.7	0.07	0.22	0.20	5.0	16	6.7	<0.10
Of22-09	1.3	1.0	0.26	1.0	5.5	0.20	4.4	<0.10
Of22-10	0.2	--	--	--	--	--	--	--
Of22-11	3.2	0.92	1.8	2.1	5.3	11	9.8	<0.10
Of23-01	4.3	2.5	0.45	6.3	17	0.30	13	<0.10
Of23-02	6.3	15	6.1	3.1	4.6	1.9	18	<0.10
	7.9	15	6.0	2.9	4.6	1.7	19	<0.10
Of23-03	8.4	8.9	4.5	7.3	1.9	26	7.0	<0.10
Of23-04	1.1	1.1	0.25	1.1	6.4	0.20	6.0	<0.10
Of23-05	3.0	9.3	4.2	14	2.6	26	8.2	<0.10
Of23-06	1.9	13	7.2	5.0	4.9	9.8	24	<0.10

WELL NUMBER	BROMIDE DIS- SOLVED (MG/L) AS BR (71870)	SILICA, DIS- SOLVED (MG/L) AS SIO2 (00955)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS- SOLVED (MG/L) AS N (00623)	NITRO- GEN DIS- SOLVED (MG/L) AS N (00602)
Of12-03	0.020	8.6	2	23	27	<0.015	<0.20	--
Of12-05	0.020	7.0	1	42	29	<0.020	<0.20	--
Of12-12	0.040	31	17	72	--	0.090	<0.20	--
Of12-13	0.030	21	10	96	95	0.080	<0.20	--
Of12-14	0.030	30	29	60	70	0.200	0.20	--
Of13-01	0.020	17	11	34	38	<0.015	<0.20	--
Of13-02	0.010	12	5	46	48	<0.015	<0.20	--
Of13-03	0.010	9.9	15	56	54	0.040	<0.20	--
Of13-08	0.090	7.5	15	179	70	0.100	1.1	1.2
Of13-09	0.020	12	3	24	28	<0.015	<0.20	--
Of13-10	0.010	9.5	4	24	27	<0.015	<0.20	--
Of22-02	0.030	17	14	42	39	0.140	0.20	0.28
Of22-03	0.050	23	29	48	52	0.140	<0.20	--
Of22-04	<0.010	16	--	69	--	<0.015	0.20	0.39
Of22-09	0.020	25	9	44	46	0.020	<0.20	--
Of22-10	--	--	22	--	--	0.020	<0.20	--
Of22-11	0.010	11	1	41	47	<0.015	<0.20	--
Of23-01	0.040	22	2	104	108	<0.015	<0.20	--
Of23-02	0.060	12	2	139	120	<0.015	<0.20	--
	0.060	12	2	135	88	<0.015	<0.20	--
Of23-03	0.030	8.3	1	85	86	<0.015	<0.20	--
Of23-04	0.020	22	9	35	45	<0.015	<0.20	--
Of23-05	<0.010	6.8	2	104	105	<0.015	<0.20	--
Of23-06	0.030	14	1	122	123	<0.015	<0.20	--

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

SUSSEX COUNTY, DELAWARE -- Continued

WELL NUMBER	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	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)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
Of12-03	--	0.280	--	<0.010	<0.010	<0.010	4.0	4.0
Of12-05	--	0.100	--	<0.010	<0.010	<0.010	4.0	8.0
Of12-12	--	0.070	--	<0.010	0.110	0.130	7100	34
Of12-13	--	<0.050	--	<0.010	0.040	0.030	5500	77
Of12-14	--	<0.050	0.0	<0.010	0.030	<0.010	11000	150
Of13-01	0.080	0.100	--	0.020	<0.010	<0.010	1100	120
Of13-02	1.72	1.80	--	0.080	<0.010	<0.010	5.0	12
Of13-03	0.080	0.100	--	0.020	<0.010	0.020	5200	39
Of13-08	0.080	0.100	1.0	0.020	0.030	0.050	40	7.0
Of13-09	0.050	0.070	--	0.020	<0.010	0.010	14	3.0
Of13-10	0.100	0.120	--	0.020	<0.010	<0.010	15	6.0
Of22-02	--	0.080	0.06	<0.010	<0.010	0.020	2200	17
Of22-03	--	0.070	--	<0.010	<0.010	0.020	10000	63
Of22-04	--	0.190	--	<0.010	<0.010	<0.010	210	2.0
Of22-09	--	0.060	--	<0.010	<0.010	<0.010	750	110
Of22-10	--	<0.050	--	<0.010	<0.010	<0.010	--	--
Of22-11	--	0.970	--	<0.010	<0.010	<0.010	19	5.0
Of23-01	--	9.90	--	<0.010	<0.010	<0.010	<3.0	15
Of23-02	--	13.0	--	<0.010	<0.010	<0.010	<3.0	3.0
	--	5.60	--	<0.010	<0.010	<0.010	<3.0	3.0
Of23-03	--	4.60	--	<0.010	<0.010	<0.010	4.0	14
Of23-04	--	0.080	--	<0.010	<0.010	<0.010	1100	14
Of23-05	7.08	7.10	--	0.020	<0.010	0.030	6.0	30
Of23-06	--	9.80	--	<0.010	<0.010	<0.010	7.0	70

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
BA Ab 51	02-07-96	1500	394206076470201	300PRTB		GW	8030	--	150.00	55
BA Ad 145	08-26-96	1200	394130076360101	300PRTB		GW	8030	--	240.00	40
BA Ad 146	02-09-96	1000	394019076374501	300PRTB		GW	8030	--	100.00	48
	08-22-96	1000		300PRTB		GW	8030	--	100.00	48
BA Ad 147	02-08-96	1400	394243076383201	300PRTB		GW	8030	--	200.00	64
BA Bb 139	02-08-96	1200	393843076462401	300PRTB		GW	8030	--	200.00	25
BA Bb 141	02-09-96	1500	393723076471401	300PRTB		GW	8030	--	125.00	39
BA Bb 145	11-28-95	1500	393540076455801	300LCRV		GW	8030	--	225.00	72
BA Bb 147	02-09-96	1300	393641076493501	300PRTB		GW	8030	--	200.00	55
BA Bb 152	10-30-95	1330	393529076454601	300PRTB		GW	8030	--	150.00	36
	11-27-95	1330		300LCRV		GW	8030	--	150.00	36
	12-28-95	1400		300PRTB		GW	8030	--	150.00	36
	01-30-96	1500		300PRTB		GW	8030	--	150.00	36
	02-26-96	1600		300PRTB		GW	8030	--	150.00	36
	03-27-96	1350		300PRTB		GW	8030	--	150.00	36
	04-23-96	0930		300PRTB		GW	8030	--	150.00	36
	05-28-96	1430		300PRTB		GW	8030	--	150.00	36
	06-26-96	1400		300PRTB		GW	8030	--	150.00	36
	07-29-96	1515		300PRTB		GW	8030	--	150.00	36
	08-28-96	1600		300LCRV		GW	8030	--	150.00	36
BA Bc 267	09-24-96	1230		300PRTB		GW	8030	--	150.00	36
	10-11-95	1100	393633076443801	300PRTB		GW	8030	--	150.00	39
	11-15-95	1430		300PRTB		GW	8030	--	150.00	39
	12-12-95	1400		300PRTB		GW	8030	--	150.00	39
	01-17-96	1600		300PRTB		GW	8030	--	150.00	39
	02-14-96	1500		300PRTB		GW	8030	--	150.00	39
	03-12-96	1400		300PRTB		GW	8030	--	150.00	39
	04-15-96	1457		300PRTB		GW	8030	--	150.00	39
BA Bc 274	08-08-96	1000	393639076435501	300PRTB		GW	8030	--	325.00	69
BA Bd 224	08-06-96	1600	393520076372201	300LCRV		GW	8030	--	105.00	32
BA Cb 133	08-07-96	1000	393028076465301	400BLMR		GW	8030	--	300.00	60
BA Cb 134	08-05-96	1600	393243076450901	300PNRN		GW	8030	--	300.00	55
BA Cb 136	10-10-95	1400	393119076454501	400BLMR		GW	8030	--	100.00	60
	11-14-95	1430		400BLMR		GW	8030	--	100.00	60
	12-11-95	1500		400BLMR		GW	8030	--	100.00	60
	01-16-96	1530		400BLMR		GW	8030	--	100.00	60
	02-13-96	1430		400BLMR		GW	8030	--	100.00	60
	03-12-96	1200		400BLMR		GW	8030	--	100.00	60
	04-17-96	1050		400BLMR		GW	8030	--	100.00	60
BA Cb 137	10-11-95	1300	393403076454201	300PLGV		GW	8030	--	160.00	78
	11-15-95	1630		300PLGV		GW	8030	--	160.00	78
	12-12-95	1530		300PLGV		GW	8030	--	160.00	78
	01-18-96	1000		300PLGV		GW	8030	--	160.00	78
	02-15-96	1030		300PLGV		GW	8030	--	160.00	78
	03-12-96	1300		300PLGV		GW	8030	--	160.00	78
BA Cb 138	04-15-96	1340		300PLGV		GW	8030	--	160.00	78
	10-11-95	1600	393237076495601	300PRTB		GW	8030	--	205.00	70
	11-16-95	1300		300PRTB		GW	8030	--	205.00	70
	12-13-95	1200		300PRTB		GW	8030	--	205.00	70
	01-18-96	1400		300PRTB		GW	8030	--	205.00	70
	02-15-96	1400		300PRTB		GW	8030	--	205.00	70
	03-12-96	1000		300PRTB		GW	8030	--	205.00	70
	04-15-96	1215		300PRTB		GW	8030	--	205.00	70
BA Cb 140	02-07-96	1330	393454076495101	300PRTB		GW	8030	63.89	250.00	60
BA Cb 142	10-11-95	1500	393221076483401	300PLGV		GW	8030	--	180.00	35

Geologic Unit (aquifer): 400BLMR - Baltimore Gneiss
300LCRV - Loch Raven Schist
300PLGV - Pleasant Grove Schist
300PNRN - Piney Run Formation
300PRTB - Prettyboy Schist

Site Type: GW - Groundwater

Sampling Method: 8030 - Grab sample at water-supply tap

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)
BA Ab 51	150	860	20	1.8	125	5.2	11.5	0.5	--	<10
BA Ad 145	240	690	24	2.0	156	5.9	13.0	--	--	<10
BA Ad 146	100	720	15	3.2	27	--	11.0	4.0	--	--
	100	720	13	2.4	25	5.6	11.5	--	9.2	--
BA Ad 147	200	780	20	3.3	104	--	12.0	3.0	--	<10
BA Bb 139	200	620	20	2.9	64	6.1	11.0	4.0	--	--
BA Bb 141	125	640	25	3.2	69	6.2	11.5	5.0	--	--
BA Bb 145	225	690	20	2.7	90	6.0	12.5	--	8.4	--
BA Bb 147	200	800	20	2.1	--	--	11.0	5.0	--	--
BA Bb 152	150	650	20	2.1	121	5.8	13.0	--	--	--
	150	650	25	1.9	123	5.9	12.0	13.5	7.3	--
	150	650	20	2.5	122	6.0	12.0	0.0	--	--
	150	650	30	2.7	120	5.8	11.5	9.0	--	--
	150	650	29	4.0	118	5.9	11.5	9.5	--	--
	150	650	25	--	116	6.0	12.0	7.0	7.2	--
	150	650	--	--	113	5.8	13.0	23.5	7.4	--
	150	650	--	--	122	5.8	13.0	12.0	7.5	--
	150	650	20	2.0	124	5.8	14.5	--	7.2	--
	150	650	25	2.0	126	5.8	15.0	22.0	7.3	--
	150	650	22	1.5	124	5.6	15.5	--	--	--
BA Bc 267	150	650	25	--	123	6.0	13.5	18.0	--	--
	150	630	20	1.9	439	5.7	13.5	22.5	--	--
	150	630	20	1.6	449	5.7	12.0	4.0	--	--
	150	630	20	1.5	452	5.6	11.5	-2.5	--	<10
	150	630	15	1.5	467	5.6	12.0	6.5	--	--
	150	630	15	1.3	458	5.6	11.0	5.5	--	--
	150	630	18	2.0	451	5.6	11.5	10.0	8.2	--
	150	630	30	2.0	450	5.6	12.0	7.5	8.0	--
BA Bc 274	325	610	23	2.0	183	6.8	13.5	--	--	--
BA Bd 224	105	530	16	2.0	--	--	17.0	--	--	--
BA Cb 133	300	500	23	1.7	243	6.3	21.0	--	--	<10
BA Cb 134	300	630	20	2.0	208	--	14.0	--	--	<10
BA Cb 136	100	440	35	3.3	299	5.9	14.0	21.0	--	--
	100	440	23	1.5	310	5.9	15.5	2.0	--	--
	100	440	30	2.8	307	5.7	12.5	-4.5	--	<10
	100	440	25	2.2	308	5.9	10.5	-0.5	--	--
	100	440	35	1.8	308	5.9	10.0	0.5	--	--
	100	440	18	3.0	305	5.9	10.5	9.5	9.2	--
	100	440	25	2.0	301	5.8	11.5	11.5	9.0	--
BA Cb 137	160	630	35	2.9	132	5.7	13.5	24.5	--	--
	160	630	25	1.8	134	5.6	12.0	3.0	--	--
	160	630	38	3.3	131	5.6	11.5	-4.5	--	<10
	160	630	25	2.1	132	5.7	11.0	4.0	--	--
	160	630	25	3.7	132	5.9	11.5	1.5	--	--
	160	630	20	2.0	133	5.7	11.5	8.0	9.2	--
BA Cb 138	160	630	25	2.0	135	5.6	12.0	7.5	9.8	--
	205	690	20	3.5	286	5.9	12.5	23.0	--	--
	205	690	25	2.3	285	6.0	12.0	2.5	--	--
	205	690	25	1.3	289	5.9	11.5	--	--	--
	205	690	30	2.9	280	6.0	12.5	8.0	--	--
	205	690	20	2.3	276	6.2	12.0	1.5	--	--
	205	690	20	3.0	265	6.0	12.0	6.5	7.3	--
	205	690	35	2.0	259	5.9	12.0	8.5	7.6	--
BA Cb 140	250	810	15	1.8	88	5.6	11.0	0.5	--	<10
BA Cb 142	180	625	20	1.9	214	6.1	14.0	24.5	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	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)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	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)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
BA Ab 51	--	--	--	--	--	--	--	--	--	--
BA Ad 145	--	--	--	--	--	--	--	--	--	--
BA Ad 146	--	--	--	--	--	--	--	--	--	--
BA Ad 147	1.4	0.89	0.30	1.4	<0.10	2.1	<0.10	6.7	7	16
BA Bb 139	--	--	--	--	--	--	--	--	--	--
BA Bb 141	--	--	--	--	--	--	--	--	--	--
BA Bb 145	--	--	--	--	--	--	--	--	25	--
BA Bb 147	--	--	--	--	--	--	--	--	--	--
BA Bb 152	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	17	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Bc 267	--	--	--	--	--	84	--	--	--	--
	--	--	--	--	--	87	--	--	--	--
	--	--	--	--	--	91	--	--	--	--
	--	--	--	--	--	92	--	--	--	--
	--	--	--	--	--	92	--	--	--	--
	--	--	--	--	--	87	--	--	--	--
	--	--	--	--	--	86	--	--	--	--
BA Bc 274	--	--	--	--	--	--	--	--	--	--
BA Bd 224	--	--	--	--	--	--	--	--	--	--
BA Cb 133	--	--	--	--	--	--	--	--	--	--
BA Cb 134	--	--	--	--	--	--	--	--	--	--
BA Cb 136	--	--	--	--	--	51	--	--	--	--
	--	--	--	--	--	53	--	--	--	--
	--	--	--	--	--	50	--	--	--	--
	--	--	--	--	--	51	--	--	--	--
	--	--	--	--	--	51	--	--	--	--
	--	--	--	--	--	50	--	--	--	--
	--	--	--	--	--	50	--	--	--	--
BA Cb 137	--	--	--	--	--	10	--	--	--	--
	--	--	--	--	--	10	--	--	--	--
	--	--	--	--	--	11	--	--	--	--
	--	--	--	--	--	10	--	--	--	--
	--	--	--	--	--	11	--	--	--	--
	--	--	--	--	--	10	--	--	--	--
BA Cb 138	--	--	--	--	--	11	--	--	--	--
	--	--	--	--	--	34	--	--	--	--
	--	--	--	--	--	33	--	--	--	--
	--	--	--	--	--	33	--	--	--	--
	--	--	--	--	--	32	--	--	--	--
	--	--	--	--	--	32	--	--	--	--
	--	--	--	--	--	31	--	--	--	--
	--	--	--	--	--	30	--	--	--	--
BA Cb 140	--	--	--	--	--	--	--	--	--	--
BA Cb 142	--	--	--	--	--	12	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	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)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
BA Ab 51	--	8.50	--	--	--	--	--	<4	--	--
BA Ad 145	--	7.50	--	--	--	--	--	5	--	--
BA Ad 146	--	--	--	--	--	--	--	--	--	--
	<0.015	0.200	<0.010	<0.010	0.030	9.0	<10	--	<1.0	<10
BA Ad 147	--	8.30	--	--	--	--	--	<4	--	--
BA Bb 139	--	--	--	--	--	--	--	--	--	--
BA Bb 141	--	--	--	--	--	--	--	--	--	--
BA Bb 145	<0.015	2.30	<0.010	0.020	0.020	--	--	--	--	--
BA Bb 147	--	--	--	--	--	--	--	--	--	--
BA Bb 152	--	4.20	--	--	--	--	--	--	--	--
	<0.015	4.40	<0.010	0.040	0.040	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	4.40	--	--	--	--	--	--	--	--
	--	4.20	--	--	--	--	--	--	--	--
	--	4.70	--	--	--	--	--	--	--	--
	--	4.30	--	--	--	--	--	--	--	--
	--	4.40	--	--	--	--	--	--	--	--
	--	4.30	--	--	--	--	--	--	--	--
	--	4.30	--	--	--	--	--	--	--	--
	--	4.40	--	--	--	--	--	--	--	--
	--	4.40	--	--	--	--	--	--	--	--
BA Bc 267	--	4.40	--	--	--	--	--	--	--	--
	--	10.0	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	11.0	--	--	--	--	--	<4	--	--
	--	10.0	--	--	--	--	--	--	--	--
	--	11.0	--	--	--	--	--	--	--	--
	--	9.90	--	--	--	--	--	--	--	--
	--	10.0	--	--	--	--	--	--	--	--
BA Bc 274	--	--	--	--	--	--	--	--	--	--
BA Bd 224	--	--	--	--	--	--	--	--	--	--
BA Cb 133	--	6.70	--	--	--	--	--	5	--	--
BA Cb 134	--	13.0	--	--	--	--	--	4	--	--
BA Cb 136	--	7.60	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	7.60	--	--	--	--	--	<4	--	--
	--	7.70	--	--	--	--	--	--	--	--
	--	8.40	--	--	--	--	--	--	--	--
	--	7.40	--	--	--	--	--	--	--	--
	--	7.60	--	--	--	--	--	--	--	--
BA Cb 137	--	8.20	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	7.80	--	--	--	--	--	<4	--	--
	--	7.80	--	--	--	--	--	--	--	--
	--	7.80	--	--	--	--	--	--	--	--
	--	7.90	--	--	--	--	--	--	--	--
	--	8.80	--	--	--	--	--	--	--	--
BA Cb 138	--	12.0	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	11.0	--	--	--	--	--	--	--	--
	--	11.0	--	--	--	--	--	--	--	--
	--	10.0	--	--	--	--	--	--	--	--
	--	9.90	--	--	--	--	--	--	--	--
	--	10.0	--	--	--	--	--	--	--	--
BA Cb 140	--	6.00	--	--	--	--	--	<4	--	--
BA Cb 142	--	6.40	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

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BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
BA Cb 142	11-16-95	1030	393221076483401	300PLGV	GW		8030	--	180.00	35
	12-13-95	1000						--	180.00	35
	01-18-96	1200						--	180.00	35
	02-15-96	1230						--	180.00	35
	03-13-96	1400						--	180.00	35
BA Cb 143	04-17-96	0915	393114076462701	300PLGV	GW		8030	--	180.00	35
	11-08-95	1300						32.88	165.00	39
	10-31-95	1000						--	220.00	21
	10-11-95	1000						--	300.00	53
	11-15-95	1230						--	300.00	53
BA Cc 253	12-13-95	1500		300LCRV	GW		8030	--	300.00	53
	01-17-96	1400						--	300.00	53
	02-14-96	1330						--	300.00	53
	03-13-96	0900						--	300.00	53
	04-15-96	1639						--	300.00	53
BA Cc 259	10-30-95	1500	393158076431301	300CCKV	GW		8030	--	253.00	110
	08-07-96	1300						--	200.00	36
	08-06-96	1430						--	200.00	20
	11-02-95	1400						--	80.00	20
	11-28-95	0930						--	80.00	20
BA Cd 229	12-28-95	1000		300LCRV	GW		8030	--	80.00	20
	01-30-96	1200						--	80.00	20
	02-26-96	1400						--	80.00	20
	03-27-96	1133						--	80.00	20
	04-23-96	1130						--	80.00	20
BA Cd 235	05-28-96	1630		300PRTB	GW		8030	--	80.00	20
	06-25-96	1745						--	80.00	20
	07-31-96	1100						--	80.00	20
	08-27-96	1200						--	80.00	20
	09-25-96	1230						--	80.00	20
BA Ce 314	11-28-95	1230	393122076340101	300LCRV	GW		8030	--	325.00	35
	08-05-96	1300						--	160.00	40
	11-06-95	1430						--	250.00	79
	10-04-95	1400					4040	40.93	300.00	88
	09-20-96	1000						36.37	300.00	88
BA Dc 444	10-10-95	1530	392841076400201	300CCKV	GW		8030	--	300.00	90
	11-14-95	1700						--	300.00	90
	12-12-95	0900						--	300.00	90
	01-17-96	1000						--	300.00	90
	02-14-96	0930						--	300.00	90
BA Dc 445	03-12-96	1600		300CCKV	GW		8030	--	300.00	90
	04-17-96	1500						--	300.00	90
	08-05-96	1700						--	300.00	90
	12-06-95	1000					8030	3.99	125.00	20
	07-01-96	1500						--	250.00	40
BA Dc 448	07-01-96	1000	392745076421101	300LCRV	GW		8030	--	300.00	60
	02-08-96	1000						--	150.00	20
	10-10-95	1700						--	110.00	48
	11-15-95	1000						--	110.00	48
	12-12-95	1100						--	110.00	48
BA Dc 451	01-17-96	1200		300LCRV	GW		8030	--	110.00	48
	02-14-96	1130						--	110.00	48
	03-13-96	1600						--	110.00	48
	04-17-96	1330						--	110.00	48
	02-08-96	1630						--	305.00	39
BA Dc 452	02-08-96	1630	392959076310401	300LCRV	GW		8030	--	305.00	39
								--	305.00	39
								--	305.00	39
								--	305.00	39
								--	305.00	39

Geologic Unit (aquifer): 400BLMR - Baltimore Gneiss 300PLGV - Pleasant Grove Schist
300CCKV - Cockeysville Marble 300PNRN - Piney Run Formation
300LCRV - Loch Raven Schist 300PRTB - Prettyboy Schist

Site Type: GW - Groundwater

Sampling Method: 4040 - Submersible pump
8030 - Grab sample at water-supply tap

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)
BA Cb 142	180	625	30	1.3	202	6.0	13.0	3.5	--	--
	180	625	25	2.6	199	6.0	13.0	--	--	--
	180	625	25	1.7	203	6.0	13.0	5.0	--	--
	180	625	15	1.7	185	6.0	12.5	0.0	--	--
	180	625	25	2.0	189	5.9	13.0	15.5	9.4	--
	180	625	20	2.0	181	5.7	13.0	11.0	9.1	--
BA Cb 143	165	440	25	2.7	222	7.8	12.0	8.0	7.1	--
BA Cb 144	220	430	35	2.3	541	7.3	13.5	13.0	6.2	--
BA Cc 253	300	630	20	3.3	626	6.0	12.5	16.5	--	--
	300	630	20	2.6	632	6.0	12.0	8.0	--	--
	300	630	30	2.5	645	5.9	12.0	-3.5	--	--
	300	630	20	3.4	611	6.0	12.0	6.0	--	--
	300	630	15	2.9	605	5.9	12.5	6.5	--	--
	300	630	23	2.0	583	5.8	11.0	11.0	--	--
	300	630	40	2.0	--	5.9	11.5	7.5	9.0	--
BA Cc 259	254	360	27	2.0	207	8.0	13.0	15.0	5.0	--
BA Cd 229	200	320	--	--	206	5.7	15.0	--	--	<10
BA Cd 235	200	410	15	2.0	179	5.9	13.0	--	--	<10
BA Ce 314	80	560	20	2.5	94	6.1	13.0	22.0	--	--
	80	570	25	2.2	94	6.1	13.0	15.5	8.0	--
	80	560	30	3.3	92	6.1	12.5	1.0	--	--
	80	560	26	2.7	95	6.1	12.5	9.0	--	--
	80	560	29	3.0	93	6.2	12.5	13.0	--	--
	80	560	25	--	89	6.2	12.5	--	8.0	--
	80	560	--	--	94	6.1	12.5	25.5	8.0	--
	80	560	--	--	94	6.0	13.0	12.0	7.7	--
	80	560	25	2.0	96	6.1	13.5	--	8.4	--
	80	560	20	2.0	99	5.9	13.5	20.5	8.3	--
	80	560	14	2.0	95	6.1	13.0	--	--	--
	80	560	20	--	96	5.9	13.0	19.0	--	--
BA Ce 315	325	610	20	1.1	114	6.2	12.5	--	1.5	--
BA Da 122	160	680	34	2.5	--	5.7	13.0	--	--	<10
BA Db 261	250	510	30	3.6	177	8.0	12.0	8.0	9.4	--
BA Dc 444	300	390	30	15	267	7.7	12.5	20.0	5.9	--
	300	390	30	6.0	281	7.8	12.0	--	2.2	--
BA Dc 445	300	320	20	3.6	525	7.5	15.0	21.5	--	--
	300	320	30	1.8	533	7.5	11.0	2.5	--	--
	300	320	35	2.2	529	7.5	11.5	-2.5	--	--
	300	320	40	1.9	533	7.5	10.5	6.0	--	--
	300	320	28	2.0	535	7.5	10.5	4.5	--	--
	300	320	27	2.0	536	7.4	10.0	10.5	7.4	--
	300	320	25	2.0	535	7.3	12.0	10.0	7.4	--
BA Dc 448	325	530	17	2.0	--	--	--	--	--	--
BA Dc 451	125	460	25	2.0	227	7.7	12.0	2.0	6.2	--
BA Dc 452	250	560	25	2.0	467	6.0	14.5	--	0.1	--
BA Dc 453	300	600	17	2.0	573	5.9	14.5	--	0.1	--
BA Dd 300	150	490	15	1.5	168	5.4	11.0	2.0	--	<10
BA De 633	110	450	20	2.8	152	5.7	14.5	19.0	--	--
	110	450	25	2.9	133	5.7	12.0	1.0	--	--
	110	450	30	2.7	127	5.5	11.5	-5.0	--	<10
	110	450	40	2.2	129	5.7	12.0	7.0	--	--
	110	450	30	3.0	127	5.6	12.0	6.5	5.6	--
	110	450	25	3.0	134	5.6	11.0	17.5	8.2	--
	110	450	35	2.0	143	5.5	12.5	12.0	7.7	--
BA De 636	305	590	15	1.3	153	5.4	12.0	2.0	--	11

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BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N) (00608)	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)	ALUM- INUM, DIS- SOLVED (UG/L) AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L) AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L) AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L) AS BA) (01005)
BA Cb 142	--	--	--	--	--	--	--	--	--	--
	--	--	6.20	--	--	--	--	--	--	--
	--	--	5.90	--	--	--	--	--	--	--
	--	--	5.70	--	--	--	--	--	--	--
	--	--	6.20	--	--	--	--	--	--	--
	--	--	5.40	--	--	--	--	--	--	--
BA Cb 143	124	<0.015	1.30	<0.010	<0.010	<0.010	--	<1.0	<1	<100
BA Cb 144	294	<0.015	2.90	<0.010	<0.010	<0.010	--	<1.0	<1	<100
BA Cc 253	--	--	0.220	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	0.230	--	--	--	--	--	--	--
	--	--	0.270	--	--	--	--	--	--	--
	--	--	0.260	--	--	--	--	--	--	--
	--	--	0.260	--	--	--	--	--	--	--
	--	--	0.190	--	--	--	--	--	--	--
BA Cc 259	129	<0.015	2.70	<0.010	<0.010	0.010	--	<1.0	<1	<100
BA Cd 229	--	--	4.80	--	--	--	--	--	--	--
BA Cd 235	--	--	2.70	--	--	--	--	--	--	--
BA Ce 314	--	--	1.80	--	--	--	--	--	--	--
	--	<0.015	2.00	<0.010	0.050	0.040	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	2.30	--	--	--	--	--	--	--
	--	--	6.20	--	--	--	--	--	--	--
	--	--	2.30	--	--	--	--	--	--	--
	--	--	2.10	--	--	--	--	--	--	--
	--	--	2.20	--	--	--	--	--	--	--
	--	--	2.10	--	--	--	--	--	--	--
	--	--	2.20	--	--	--	--	--	--	--
	--	--	2.30	--	--	--	--	--	--	--
	--	--	2.50	--	--	--	--	--	--	--
BA Ce 315	--	<0.015	0.530	<0.010	<0.010	<0.010	--	--	--	--
BA Da 122	--	--	5.90	--	--	--	--	--	--	--
BA Db 261	98	<0.015	0.320	<0.010	<0.010	<0.010	--	<1.0	<1	<100
BA Dc 444	150	--	--	--	--	--	--	--	--	--
	152	<0.020	0.200	<0.010	<0.010	<0.010	--	--	--	--
BA Dc 445	--	--	9.10	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	8.80	--	--	--	--	--	--	--
	--	--	8.90	--	--	--	--	--	--	--
	--	--	9.90	--	--	--	--	--	--	--
	--	--	8.90	--	--	--	--	--	--	--
	--	--	8.60	--	--	--	--	--	--	--
BA Dc 448	--	--	--	--	--	--	--	--	--	--
BA Dc 451	110	<0.015	0.690	<0.010	0.010	<0.010	--	<1.0	<1	<100
BA Dc 452	249	0.020	<0.050	0.010	<0.010	<0.010	<5.0	--	--	--
BA Dc 453	296	0.020	0.050	<0.010	<0.010	<0.010	<5.0	--	--	--
BA Dd 300	--	--	3.00	--	--	--	--	--	--	--
BA De 633	--	--	5.80	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	4.90	--	--	--	--	--	--	--
	--	--	4.70	--	--	--	--	--	--	--
	--	--	4.40	--	--	--	--	--	--	--
	--	--	5.40	--	--	--	--	--	--	--
	--	--	4.90	--	--	--	--	--	--	--
BA De 636	--	--	3.80	--	--	--	--	--	--	--

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BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	THAL- LIUM, DIS- SOLVED (UG/L AS TL) (01057)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	TRITIUM 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (75985)
BA Cb 142	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Cb 143	<10	<0.1	<1.0	<1	--	<0.50	20	110	16	--
BA Cb 144	<10	<0.1	<1.0	<1	--	<0.50	80	1100	33	--
BA Cc 253	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	3.0
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Cc 259	10	<0.1	<1.0	<1	--	<0.50	<10	480	24	--
BA Cd 229	--	--	--	--	180	--	--	--	--	--
BA Cd 235	--	--	--	--	130	--	--	--	--	--
BA Ce 314	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Ce 315	--	--	--	--	--	--	--	--	--	--
BA Da 122	--	--	--	--	130	--	--	--	--	--
BA Db 261	10	<0.1	<1.0	<1	--	<0.50	<10	360	27	--
BA Dc 444	30	--	--	--	--	--	--	--	--	--
	20	--	--	--	--	--	--	--	--	4.0
BA Dc 445	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	3.0
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Dc 448	--	--	--	--	--	--	--	--	--	2.0
BA Dc 451	20	<0.1	<1.0	<1	--	<0.50	<10	550	24	--
BA Dc 452	210	--	--	--	--	--	--	--	--	--
BA Dc 453	160	--	--	--	--	--	--	--	--	--
BA Dd 300	--	--	--	--	77	--	--	--	--	3.0
BA De 633	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	83	--	--	--	--	3.0
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA De 636	--	--	--	--	73	--	--	--	--	3.0

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BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	TRITIUM TOTAL (PCI/L) (07000)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	1-NAPH- THOL WATER WHOLE REC (UG/L) (77441)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALDI- CARB WATER WHOLE TOT.REC (UG/L) (82619)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)
BA Cb 142	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Cb 143	--	0.20	<0.500	<0.002	<0.500	<0.002	0.020	<0.001	<0.002	<0.002
BA Cb 144	--	0.30	<0.500	<0.002	<0.500	<0.002	0.031	<0.001	<0.002	<0.002
BA Cc 253	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	46	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Cc 259	--	2.5	<0.500	<0.002	<0.500	<0.002	<0.001	<0.001	<0.002	<0.002
BA Cd 229	--	--	--	--	--	--	--	--	--	--
BA Cd 235	--	--	--	--	--	--	--	--	--	--
BA Ce 314	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Ce 315	--	--	--	--	--	--	--	--	--	--
BA Da 122	--	--	--	--	--	--	--	--	--	--
BA Db 261	--	0.30	<0.500	<0.002	<0.500	<0.002	0.008	<0.001	<0.002	<0.002
BA Dc 444	--	--	--	<0.002	--	<0.002	<0.001	<0.001	<0.002	<0.002
	59	--	--	<0.002	--	<0.002	<0.001	<0.001	<0.002	<0.002
BA Dc 445	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	53	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Dc 448	24	--	--	<0.002	--	<0.002	0.310	<0.001	<0.002	<0.002
BA Dc 451	--	1.0	<0.500	<0.002	<0.500	<0.002	0.095	<0.001	<0.002	<0.002
BA Dc 452	--	--	--	--	--	--	--	--	--	--
BA Dc 453	--	--	--	--	--	--	--	--	--	--
BA Dd 300	35	--	--	--	--	--	--	--	--	--
BA De 633	--	--	--	--	--	--	--	--	--	--
	36	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA De 636	40	--	--	<0.002	--	<0.002	<0.001	<0.001	<0.002	<0.002

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

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BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)	METHIO- CARB WATER WHOLE RECOV. (UG/L) (30282)
BA Cb 142	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Cb 143	<0.003	<0.017	0.004	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005	<0.500
BA Cb 144	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005	<0.500
BA Cc 253	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Cc 259	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005	<0.500
BA Cd 229	--	--	--	--	--	--	--	--	--	--
BA Cd 235	--	--	--	--	--	--	--	--	--	--
BA Ce 314	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Ce 315	--	--	--	--	--	--	--	--	--	--
BA Da 122	--	--	--	--	--	--	--	--	--	--
BA Db 261	<0.003	<0.017	<0.005	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005	<0.500
BA Dc 444	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005	--
	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005	--
BA Dc 445	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Dc 448	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005	--
BA Dc 451	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005	<0.500
BA Dc 452	--	--	--	--	--	--	--	--	--	--
BA Dc 453	--	--	--	--	--	--	--	--	--	--
BA Dd 300	--	--	--	--	--	--	--	--	--	--
BA De 633	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA De 636	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	METHO-	METHYL PARA- THION	METO- LACHLOR	METRI- BUZIN	MOL- INATE	NAPROP- AMIDE	PARA- THION,	PEB- ULATE	PENDI- METH- ALIN	PER- METHRIN
	MYL TOTAL (UG/L) (39051)	WAT FLT 0.7 U GF, REC (UG/L) (82667)	WATER DISSOLV (UG/L) (39415)	SENSOR WATER DISSOLV (UG/L) (82630)	FLTRD 0.7 U GF, REC (UG/L) (82671)	WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	DIS- SOLVED (UG/L) (39542)	WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	WAT FLT 0.7 U GF, REC (UG/L) (82683)	CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)
BA Cb 142	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Cb 143	<0.500	<0.006	0.010	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005
BA Cb 144	<0.500	<0.006	0.013	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005
BA Cc 253	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Cc 259	<0.500	<0.006	0.005	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005
BA Cd 229	--	--	--	--	--	--	--	--	--	--
BA Cd 235	--	--	--	--	--	--	--	--	--	--
BA Ce 314	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Ce 315	--	--	--	--	--	--	--	--	--	--
BA Da 122	--	--	--	--	--	--	--	--	--	--
BA Db 261	<0.500	<0.006	0.003	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005
BA Dc 444	--	<0.006	0.004	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005
	--	<0.006	<0.002	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005
BA Dc 445	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
BA Dc 448	--	<0.006	0.029	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005
BA Dc 451	<0.500	<0.006	0.004	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005
BA Dc 452	--	<0.006	<0.002	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.0

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BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

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BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

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BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
BA De 639	10-31-95	1500	392713076300101	300CCKV	GW		8030	52.90	225.00	80
BA De 640	12-07-95	1005	392635076312501	300CCKV	GW		8030	--	1050	42
	12-07-95	1000		300CCKV	GW		8030	--	1050	42
BA De 641	12-07-95	1305	392636076312501	300LCRV	GW		8030	37.06	400.00	37
	12-07-95	1300		300LCRV	GW		8030	37.06	400.00	37
BA Df 354	11-02-95	1000	392806076275401	300CCKV	GW		8030	50.34	150.00	124
BA Df 355	11-08-95	1000	392904076291201	300LCRV	GW		8030	--	100.00	60
BA Ea 92	08-21-96	1200	392341076521801	300UMFC	GW		8030	--	420.00	41
BA Ea 93	10-10-95	1230	392358076500901	300LCRV	GW		8030	--	120.00	51
	11-14-95	1230		300LCRV	GW		8030	--	120.00	51
	12-11-95	1230		300LCRV	GW		8030	--	120.00	51
	01-16-96	1330		300LCRV	GW		8030	--	120.00	51
	02-13-96	1230		300LCRV	GW		8030	--	120.00	51
	03-11-96	1600		300LCRV	GW		8030	--	120.00	51
	04-16-96	1420		300LCRV	GW		8030	--	120.00	51
BA Ea 95	02-07-96	1030	392159076520101	400BLMR	GW		8030	--	200.00	60
BA Ec 205	11-07-95	1605	392446076434101	300CCKV	GW		8030	--	305.00	20
	11-07-95	1600		300CCKV	GW		8030	--	305.00	20
BA Fb 81	10-10-95	1030	391857076474301	370HLFD	GW		8030	--	125.00	28
	11-14-95	1030		370HLFD	GW		8030	--	125.00	28
	12-11-95	1030		370HLFD	GW		8030	--	125.00	28
	01-16-96	1130		370HLFD	GW		8030	--	125.00	28
	02-13-96	1030		300CCKV	GW		8030	--	125.00	28
	03-11-96	1400		370HLFD	GW		8030	--	125.00	28
	04-16-96	1300		370HLFD	GW		8030	--	125.00	28
WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)
BA De 639	225	310	25	2.2	386	7.5	14.5	13.5	4.4	--
BA De 640	1050	360	41	2.8	551	6.4	13.5	5.0	6.7	--
	1050	360	41	2.8	551	6.4	13.5	5.0	6.7	--
BA De 641	400	360	76	2.0	111	5.8	13.0	5.0	8.8	--
	400	360	76	2.0	111	5.8	13.0	5.0	8.8	--
BA Df 354	150	280	25	2.8	453	7.6	13.5	19.0	6.8	--
BA Df 355	100	330	29	2.4	413	7.6	13.0	7.0	4.9	--
BA Ea 92	420	540	32	1.7	145	6.9	15.5	--	6.2	--
BA Ea 93	120	580	25	4.0	491	6.2	13.0	19.0	--	--
	120	580	20	2.1	489	6.2	12.0	2.0	--	--
	120	580	30	2.9	488	6.2	11.5	-3.5	--	--
	120	580	25	2.7	485	6.2	12.0	1.5	--	--
	120	580	35	1.5	481	6.2	12.0	-4.0	--	--
	120	580	20	3.0	--	6.1	12.0	9.0	3.1	--
	120	580	25	2.0	484	6.2	12.0	11.5	2.3	--
BA Ea 95	200	440	20	1.5	210	6.3	9.5	-0.5	--	<10
BA Ec 205	305	410	30	2.7	519	7.3	13.0	7.5	5.1	--
	305	410	30	2.7	519	7.3	13.0	7.5	5.1	--
BA Fb 81	125	230	22	1.5	1510	6.0	14.0	20.0	--	--
	125	230	25	1.7	1640	6.3	12.5	2.5	--	--
	125	230	30	1.7	1660	6.4	12.5	-4.5	--	--
	125	230	25	1.4	1660	6.4	12.0	0.5	--	--
	125	230	40	1.2	1450	6.4	12.0	-1.5	--	--
	125	230	30	2.0	--	6.3	11.5	5.5	8.5	--
	125	230	30	2.0	1570	6.3	12.5	13.5	8.2	--

Geologic Unit (aquifer): 400BLMR - Baltimore Gneiss 370HLFD - Holofield Layered Ultramafite
 300CCKV - Cockeysville Marble 300UMFC - Ultramafic Rocks
 300LCRV - Loch Raven Schist

Site Type: GW - Groundwater

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

WELL NUMBER	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	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)
BA De 639	50	--	16	3.1	--	3.7	4.6	7.9	0.20	17
BA De 640	--	--	--	--	--	--	--	--	--	--
BA De 641	37	--	11	3.8	--	44	21	110	0.20	29
	--	--	--	--	--	--	--	--	--	--
	8.8	--	3.0	1.7	--	7.1	6.1	8.0	<0.10	23
BA Df 354	46	--	24	1.7	--	3.2	14	14	<0.10	11
BA Df 355	45	--	18	2.1	--	3.2	7.8	16	<0.10	16
BA Ea 92	11	12	6.7	2.4	2.1	2.3	2.0	4.5	<0.10	20
BA Ea 93	--	--	--	--	--	--	--	72	--	--
	--	--	--	--	--	--	--	72	--	--
	--	--	--	--	--	--	--	72	--	--
	--	--	--	--	--	--	--	72	--	--
	--	--	--	--	--	--	--	70	--	--
	--	--	--	--	--	--	--	71	--	--
	--	--	--	--	--	--	--	72	--	--
BA Ea 95	--	--	--	--	--	--	--	--	--	--
BA Ec 205	--	--	--	--	--	--	--	--	--	--
	68	--	15	2.5	--	7.6	20	23	<0.10	14
BA Fb 81	--	--	--	--	--	--	--	400	--	--
	--	--	--	--	--	--	--	430	--	--
	--	--	--	--	--	--	--	450	--	--
	--	--	--	--	--	--	--	430	--	--
	--	--	--	--	--	--	--	310	--	--
	--	--	--	--	--	--	--	400	--	--

WELL NUMBER	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	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)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL) (01105)
BA De 639	185	220	220	<0.015	2.90	<0.010	<0.010	<0.010	--	--
BA De 640	68	--	--	--	--	--	--	--	--	--
BA De 641	68	300	299	<0.015	0.060	<0.010	<0.010	0.010	--	--
	29	--	--	--	--	--	--	--	--	--
	29	70	80	<0.015	0.870	<0.010	<0.010	<0.010	--	--
BA Df 354	169	246	247	<0.015	6.70	<0.010	0.030	<0.010	--	--
BA Df 355	145	240	231	<0.015	9.10	<0.010	<0.010	<0.010	--	--
BA Ea 92	48	94	83	0.050	0.540	<0.010	0.020	0.030	<5.0	<10
BA Ea 93	--	--	--	--	0.880	--	--	--	--	--
	--	--	--	--	0.940	--	--	--	--	--
	--	--	--	--	0.810	--	--	--	--	--
	--	--	--	--	0.830	--	--	--	--	--
	--	--	--	--	0.760	--	--	--	--	--
	--	--	--	--	0.490	--	--	--	--	--
BA Ea 95	--	--	--	--	8.90	--	--	--	--	--
BA Ec 205	210	--	--	--	--	--	--	--	--	--
	210	274	274	<0.015	4.80	<0.010	<0.010	<0.010	--	--
BA Fb 81	--	--	--	--	0.450	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	0.570	--	--	--	--	--
	--	--	--	--	0.530	--	--	--	--	--
	--	--	--	--	0.550	--	--	--	--	--
	--	--	--	--	0.430	--	--	--	--	--
	--	--	--	--	0.440	--	--	--	--	--

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible][illegible]

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible][illegible]

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible][illegible]

BALTIMORE COUNTY, MARYLAND -- Continued

[illegible]

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

CAROLINE COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)
CL Cd 181	05-07-96	1100	393444077021201	300SMCK	GW		8030	165.00	50	165
CL Cd 182	05-06-96	1500	393437077020101	300SMCK	GW		8030	264.00	21	264
CL Dd 192	07-02-96	1400	392504077002401	300LCRV	GW		8030	405.00	70	405
CL Dd 193	07-02-96	1000	392506077001801	300LCRV	GW		8030	205.00	78	205
CL De 5	11-06-95	1230	392845076551801	300PRTB	GW		8030	100.00	25	205
	11-27-95	1030		300LCRV	GW		8030	100.00	25	100
	12-28-95	1200		300PRTB	GW		8030	100.00	25	100
	01-31-96	1500		300PRTB	GW		8030	100.00	25	100
	02-28-96	1000		300PRTB	GW		8030	100.00	25	100
	03-27-96	0900		300PRTB	GW		8030	100.00	25	100
	04-29-96	0915		300PRTB	GW		8030	100.00	25	100
	06-05-96	0915		300PRTB	GW		8030	100.00	25	100
	06-25-96	1500		300PRTB	GW		8030	100.00	25	100
	07-29-96	1630		300PRTB	GW		8030	100.00	25	100
	08-28-96	1400		300LCRV	GW		8030	100.00	25	100
	09-25-96	1615		300PRTB	GW		8030	100.00	25	100
CL De 280	12-27-95	1330	392852076551801	300PRTB	GW		8030	202.00	53	202
CL De 282	11-30-95	1300	392841076551401	300PRTB	GW		8030	215.00	--	--
CL Ec 106	09-10-96	1000	392345077082701	300MRBG	GW		8030	260.00	28	360
CL Ec 107	09-09-96	1200	392354077083301	300MRBG	GW		8030	200.00	--	--

WELL NUMBER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)
CL Cd 181	650	27	1.5	648	6.7	13.5	11.5	6.1	82	11
CL Cd 182	690	23	1.5	871	7.2	13.5	16.0	5.8	98	29
CL Dd 192	660	47	2.0	72	6.8	14.5	--	4.1	7.5	1.4
CL Dd 193	600	25	2.0	128	6.7	14.5	--	7.7	13	2.4
CL De 5	620	25	2.2	74	6.2	12.5	--	--	--	--
	620	30	4.8	75	6.2	12.0	24.0	8.0	--	--
	620	25	4.6	75	6.2	12.5	--	--	--	--
	620	20	3.6	74	6.1	11.5	-3.0	--	--	--
	625	18	4.0	74	6.3	12.0	16.0	--	--	--
	625	25	--	76	6.2	11.5	0.5	8.4	--	--
	625	--	--	75	6.2	12.5	16.0	8.5	--	--
	625	--	--	75	6.2	12.5	18.0	8.8	--	--
	625	25	2.0	73	6.0	13.5	--	8.7	--	--
	625	25	2.0	--	--	13.5	23.0	8.6	--	--
	625	19	2.2	77	6.3	13.5	--	--	--	--
	625	15	--	74	6.0	13.0	18.5	--	--	--
CL De 280	660	25	3.4	64	5.9	12.0	-3.0	9.3	--	--
CL De 282	630	20	2.8	102	6.3	12.5	3.0	7.1	--	--
CL Ec 106	760	24	1.7	147	5.3	14.0	--	8.2	--	--
CL Ec 107	670	20	1.3	227	6.0	15.0	--	7.3	--	--

Geologic Unit (aquifer): 300LCRV - Loch Raven Schist
 300MRBG - Metagabbro and Amphibolite
 300PRTB - Prettyboy Schist
 300SMCK - Sams Creek Metabasalt

Site Type: GW - Groundwater

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

CAROLINE COUNTY, MARYLAND -- Continued

WELL NUMBER	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	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)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CAC03 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
CL Cd 181	1.4	14	27	87	<0.10	19	129	424	342	0.050
CL Cd 182	0.50	13	60	130	<0.10	18	135	536	462	0.020
CL Dd 192	0.30	4.3	2.2	1.9	<0.10	14	27	56	52	0.020
CL Dd 193	0.60	5.8	0.70	5.3	<0.10	18	--	106	93	0.030
CL De 5	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	11	--	--	0.020
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CL De 280	--	--	--	--	--	--	--	--	--	--
CL De 282	--	--	--	--	--	--	12	--	--	--
CL Ec 106	--	--	--	--	--	--	17	--	--	<0.015
CL Ec 107	--	--	--	--	--	--	6	--	--	0.040
	--	--	--	--	--	--	16	--	--	<0.015

WELL NUMBER	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)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
CL Cd 181	5.00	<0.010	0.030	0.030	30	<3.0	20	<1.0	<10
CL Cd 182	5.50	<0.010	<0.010	0.010	20	4.0	10	<1.0	<10
CL Dd 192	0.660	<0.010	0.010	0.020	<5.0	16	880	23	30
CL Dd 193	6.80	<0.010	0.020	0.040	<5.0	<3.0	40	<1.0	<10
CL De 5	3.20	--	--	--	--	--	--	--	--
	3.30	<0.010	0.040	0.040	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	3.40	--	--	--	--	--	--	--	--
	3.40	--	--	--	--	--	--	--	--
	3.70	--	--	--	--	--	--	--	--
	3.40	--	--	--	--	--	--	--	--
	3.40	--	--	--	--	--	--	--	--
	3.40	--	--	--	--	--	--	--	--
	3.40	--	--	--	--	--	--	--	--
	3.60	--	--	--	--	--	--	--	--
	3.70	--	--	--	--	--	--	--	--
CL De 280	--	--	--	--	--	--	--	--	--
CL De 282	4.30	<0.010	0.040	0.040	--	--	--	--	--
CL Ec 106	6.60	<0.010	0.030	0.020	--	--	--	--	--
CL Ec 107	10.0	<0.010	0.020	0.020	--	--	--	--	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

CECIL COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)
CE Ad 68	07-09-96	1400	394140075570301	300MGAB		GW	8030	140.00
CE Ad 69	07-09-96	1000	394130075570501	300MGAB		GW	8030	240.00

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)
CE Ad 68	42	140	400	25	2.0	173	5.9	15.0
CE Ad 69	84	240	420	20	2.0	98	6.1	14.0

WELL NUMBER	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	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)
CE Ad 68	--	5.8	25	0.030	7.00	<0.010	0.020	0.050
CE Ad 69	34.0	6.5	27	0.030	3.30	<0.010	<0.010	0.020

Geologic Unit (aquifer):300MGAB -Metagabbro and Amphibolite

Site Type: GW - Groundwater

Sampling Method: 8030 - Grab sample at water supply tap

QUALITY OF GROUND WATER

529

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

CHARLES COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH BELOW SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)
CH Bc 80	08-29-96	1800	383645077062402	217PTXN		GW	--	--	1120
CH Cc 34	07-19-96	1610	383441077063901	217PTXN		GW	4040	49.00	975.00

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
CH Bc 80	--	--	125	--	--	593	7.8	--	0.48
CH Cc 34	874	965	40.0	560	50	373	7.8	21.5	0.29

WELL NUMBER	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)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)
CH Bc 80	0.23	3.3	150	7.8	43	0.90	0.16	16
CH Cc 34	0.11	2.5	85	9.0	21	1.3	0.090	38

WELL NUMBER	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MANGA- NESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
CH Bc 80	378	373	--	--	48	580	8.0	20
CH Cc 34	244	248	0.090	1.30	100	--	13	--

Geologic Unit (aquifer): 217PTXN - Patuxent Formation

Site Type: GW - Groundwater

Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

FREDERICK COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
FR Dc 67	07-10-96	1000	392648077340401	400GBGG	GW	8030	100.00	41	
FR Dc 68	07-10-96	1300	392650077343001	400GBGG	GW	8030	175.00	98	
FR De 58	07-24-96	1200	392826077244801	377FDCK	GW	4040	70.00	41	
FR Df 40	07-10-96	1500	392750077150101	300IJMV	GW	8030	120.00	21	
FR Eg 34	07-24-96	1000	392325077112501	300MRBG	GW	8030	150.00	20	
FR Eg 35	08-06-96	1000	392403077111801	300MRBG	GW	8030	160.00	43	
FR Fd 90	07-24-96	1400	391910077260002	377FDCK	GW	8030	75.00	34	

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)
FR Dc 67	100	500	20	2.0	353	6.8	14.5	20.5
FR Dc 68	175	580	35	2.0	194	6.7	14.0	21.5
FR De 58	70	310	25	2.0	420	7.1	14.0	28.5
FR Df 40	120	420	15	2.0	325	6.6	13.5	23.5
FR Eg 34	150	710	30	2.0	210	5.3	14.5	24.0
FR Eg 35	160	650	15	2.0	116	5.5	13.5	--
FR Fd 90	75	300	20	2.0	587	7.0	13.0	31.5

WELL NUMBER	ALKA- LINITY WAT WH OXYGEN, DIS- SOLVED (MG/L) (00300)	TOT IT FIELD MG/L AS CACO3 (00419)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	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)
FR Dc 67	0.1	83	0.040	--	0.050	<0.010	<0.010	<0.010
FR Dc 68	7.1	59	0.030	--	<0.050	--	<0.010	<0.010
FR De 58	--	--	--	--	11.0	--	--	--
FR Df 40	8.2	75	0.030	--	3.40	<0.010	<0.010	0.020
FR Eg 34	7.8	15	0.040	4.79	4.80	0.010	<0.010	0.010
FR Eg 35	8.8	9	0.030	--	4.10	<0.010	<0.010	0.010
FR Fd 90	--	--	--	--	15.0	--	--	--

Geologic Unit (aquifer): 377FDCK - Frederick Limestone
 400GBGG - Granodiorite and Biotite Granite Gneiss
 300IJMV - Ijamsville Formation
 300MRBG - Metagabbro and Amphibolite

Site Type: GW - Groundwater

Sampling Method: 4040 - Submersible pump
 8030 - Grab sample at water-supply tap

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

HARFORD COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES, (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)
HA Aa 27	05-08-96	1000	394126076312601	300LCRV	GW		8030	200.00	44	200
HA Aa 28	06-26-96	1000	394108076312201	300PRTB	GW		8030	250.00	113	250
HA Aa 30	06-26-96	1200	394130076312501	300PRTB	GW		8030	200.00	59	200
HA Ac 55	09-10-96	1400	394107076225801	300MGCK	GW		8030	205.00	84	205
HA Ac 56	09-10-96	1200	394103076230301	300MGCK	GW		8030	250.00	49	250
HA Bc 32	11-01-95	1300	393628076222601	300LCRV	GW		8030	205.00	38	250
	11-27-95	1630		300LCRV	GW		8030	205.00	38	250
	12-28-95	1600		300LCRV	GW		8030	205.00	38	205
	01-30-96	1000		300LCRV	GW		8030	205.00	38	205
	02-27-96	1600		300LCRV	GW		8030	205.00	38	205
	03-28-96	1550		300LCRV	GW		8030	205.00	38	205
	04-24-96	1530		300PRTB	GW		8030	205.00	38	205
	05-30-96	1700		300LCRV	GW		8030	205.00	38	205
	06-26-96	1500		300LCRV	GW		8030	205.00	38	205
	07-30-96	1645		300LCRV	GW		8030	205.00	38	205
	08-27-96	1500		300LCRV	GW		8030	205.00	38	205
	09-24-96	1615		300LCRV	GW		8030	205.00	38	205
HA Bc 33	02-27-96	1400	393627076221301	300LCRV	GW		8030	350.00	60	350
HA Cb 284	09-11-96	1400	393153076252301	300LCRV	GW		8030	150.00	46	150
HA Cb 285	09-11-96	1600	393143076252801	300LCRV	GW		8030	200.00	79	200

WELL NUMBER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
HA Aa 27	690	25	2.0	102	5.2	12.0	11.5	8.0	--	--
HA Aa 28	610	26	2.0	148	6.1	13.0	--	7.4	--	--
HA Aa 30	680	25	2.0	75	5.1	14.0	--	9.2	--	--
HA Ac 55	380	23	1.9	93	6.0	14.0	--	8.1	--	--
HA Ac 56	400	14	2.3	125	6.1	13.5	--	8.3	--	--
HA Bc 32	380	25	2.5	276	6.1	13.0	14.0	--	--	--
	380	65	2.0	278	5.7	12.5	9.5	7.7	--	--
	380	30	2.0	270	6.0	12.0	-1.0	--	--	--
	380	30	2.1	--	--	12.0	4.5	--	--	--
	380	30	2.0	267	5.4	11.0	12.5	7.7	21	6.6
	380	25	--	219	5.7	12.0	--	8.1	--	--
	380	--	--	236	5.7	13.0	16.5	8.0	--	--
	380	--	--	237	5.7	13.0	20.0	8.0	--	--
	380	35	2.0	--	--	14.0	--	7.8	--	--
	380	25	2.0	236	5.6	13.5	23.0	8.0	--	--
	380	17	2.0	236	5.7	13.5	--	--	--	--
	380	24	--	232	5.8	13.5	18.0	--	--	--
HA Bc 33	440	30	3.0	268	5.8	11.5	12.0	8.8	21	7.0
HA Cb 284	430	15	1.8	129	6.0	14.5	--	7.1	--	--
HA Cb 285	470	8	1.4	101	5.8	17.0	--	8.0	--	--

Geologic Unit (aquifer): 300LCRV - Loch Raven Schist
 300MGCK - Metagraywacke of Wissahickon Formation
 300PRTB - Prettyboy Schist

Site Type: GW - Groundwater

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

HARFORD COUNTY, MARYLAND -- Continued

			POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	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)	ALKA- LITY WAT WH TOT IT FIELD CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00608)
WELL NUMBER												
HA Aa	27		--	--	--	--	--	--	13	--	--	<0.015
HA Aa	28		--	--	--	--	--	--	28	--	--	0.030
HA Aa	30		--	--	--	--	--	--	6	--	--	0.030
HA Ac	55		--	--	--	--	--	--	13	--	--	<0.015
HA Ac	56		--	--	--	--	--	--	12	--	--	<0.020
HA Bc	32		--	--	--	--	--	--	--	--	--	--
			--	--	--	--	--	--	41	--	--	--
			--	--	--	--	--	--	--	--	--	--
			2.5	11	28	12	<0.10	25	28	162	157	<0.015
			--	--	--	--	--	--	--	--	--	--
			--	--	--	--	--	--	--	--	--	--
			--	--	--	--	--	--	--	--	--	--
			--	--	--	--	--	--	--	--	--	--
			--	--	--	--	--	--	--	--	--	--
HA Bc	33		2.8	11	8.3	16	<0.10	25	32	168	160	<0.015
HA Cb	284		--	--	--	--	--	--	20	--	--	<0.015
HA Cb	285		--	--	--	--	--	--	16	--	--	<0.015
			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)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	
HA Aa	27		6.40	<0.010	0.020	0.020	--	--	--	--	--	
HA Aa	28		5.70	<0.010	<0.010	0.020	--	--	--	--	--	
HA Aa	30		5.10	<0.010	0.010	0.020	--	--	--	--	--	
HA Ac	55		5.80	<0.010	0.010	0.010	--	--	--	--	--	
HA Ac	56		9.30	<0.010	0.040	0.020	--	--	--	--	--	
HA Bc	32		8.30	--	--	--	--	--	--	--	--	
			8.50	--	--	--	--	--	--	--	--	
			--	--	--	--	--	--	--	--	--	
			7.80	--	--	--	--	--	--	--	--	
			8.10	<0.010	0.050	0.050	<10	15	<10	1.0	<10	
			7.50	--	--	--	--	--	--	--	--	
			8.70	--	--	--	--	--	--	--	--	
			7.30	--	--	--	--	--	--	--	--	
			8.30	--	--	--	--	--	--	--	--	
			8.00	--	--	--	--	--	--	--	--	
			8.50	--	--	--	--	--	--	--	--	
			5.40	--	--	--	--	--	--	--	--	
HA Bc	33		11.0	<0.010	0.050	0.040	<10	5.0	10	1.0	<10	
HA Cb	284		4.30	<0.010	0.020	0.030	--	--	--	--	--	
HA Cb	285		5.40	<0.010	<0.010	0.030	--	--	--	--	--	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

HOWARD COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)
HO Ab 139	05-15-96	1400	392043077051901	300PRTB	GW		8030	365.00	18	365
HO Ab 140	05-15-96	1000	392039077052701	300PRTB	GW		8030	285.00	50	285
HO Ac 112	09-09-96	1400	392116077040701	300PRTB	GW		8030	205.00	18	205
HO Ac 126	09-09-96	1000	392113077042001	300PRTB	GW		8030	350.00	--	350
HO Bc 305	05-13-96	1400	391723077034601	360MRGR	GW		8030	115.00	19	115
HO Bc 306	05-07-96	1400	391723077040001	360MRGR	GW		8030	160.00	19	160
HO Bd 411	10-30-95	1100	391600076595401	360MRGR	GW		8030	260.00	100	260
	11-29-95	1530		360MRGR	GW		8030	260.00	100	260
	12-27-95	1100		360MRGR	GW		8030	260.00	100	260
	01-31-96	1130		360MRGR	GW		8030	260.00	100	260
	02-26-96	1000		360MRGR	GW		8030	260.00	100	260
	03-26-96	1446		360MRGR	GW		8030	260.00	100	260
	04-23-96	1430		300PRTB	GW		8030	260.00	100	260
	05-30-96	1015		360MRGR	GW		8030	260.00	100	260
	06-27-96	1230		300PRTB	GW		8030	260.00	100	260
	07-30-96	1430		360MRGR	GW		8030	260.00	100	260
	08-28-96	1000		300LCRV	GW		8030	260.00	100	260
	09-24-96	1000		360MRGR	GW		8030	260.00	100	260
HO Bd 412	02-29-96	1100	391613076594601	300MRBG	GW		8030	160.00	43	160

WELL NUMBER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)
HO Ab 139	730	20	2.0	209	5.9	13.0	17.0	7.7	--	--
HO Ab 140	760	20	1.5	377	5.1	13.0	14.5	8.0	--	--
HO Ac 112	620	15	2.0	90	5.8	15.0	--	6.7	--	--
HO Ac 126	700	15	2.0	91	5.6	14.0	--	9.6	--	--
HO Bc 305	500	25	1.5	85	5.2	14.0	13.0	9.0	3.4	4.0
HO Bc 306	560	20	1.5	100	5.2	13.5	11.0	8.3	4.7	3.3
HO Bd 411	580	20	3.2	85	5.8	13.0	11.0	--	--	--
	580	30	2.7	86	5.7	12.5	1.0	8.2	--	--
	580	16	2.3	87	5.8	11.5	-3.0	--	--	--
	580	20	2.9	86	5.7	11.5	-2.0	--	--	--
	580	23	4.3	87	6.0	12.5	12.0	8.3	5.7	2.6
	580	26	--	84	5.6	12.0	10.0	8.5	--	--
	580	--	--	86	5.7	13.5	26.5	8.2	--	--
	580	--	--	85	5.7	13.5	15.0	8.0	--	--
	580	--	--	88	5.5	15.0	--	8.8	--	--
	580	20	2.0	88	5.6	16.0	27.5	8.1	--	--
	580	14	2.0	90	5.9	15.0	--	--	--	--
	580	20	--	88	5.9	15.0	17.0	--	--	--
HO Bd 412	630	20	1.5	149	5.9	11.5	-3.0	9.0	10	5.1

Geologic Unit (aquifer): 300LCRV - Loch Raven Schist
 300MRBG - Metagabbro and Amphibolit
 300PRTB - Prettyboy Schist
 360MRGR - Morgan Run Formation

Site Type: GW - Groundwater

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

HOWARD COUNTY, MARYLAND -- Continued

WELL NUMBER	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	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)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
HO Ab 139	--	--	--	--	--	--	23	--	--	0.100
HO Ab 140	--	--	--	--	--	--	9	--	--	0.120
HO Ac 112	--	--	--	--	--	--	11	--	--	<0.015
HO Ac 126	--	--	--	--	--	--	5	--	--	<0.015
HO Bc 305	1.2	3.2	<0.10	7.9	<0.10	8.6	5	78	--	<0.015
HO Bc 306	1.1	5.0	<0.10	4.8	<0.10	8.7	5	72	--	0.020
HO Bd 411	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	11	--	--	--
	--	--	--	--	--	--	--	--	--	--
	1.0	4.5	0.10	5.1	<0.10	15	10	68	64	<0.015
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
HO Bd 412	1.7	5.9	<0.10	14	<0.10	19	19	112	--	<0.015

WELL NUMBER	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)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)
HO Ab 139	13.0	<0.010	<0.010	<0.010	--	--	--	--	--
HO Ab 140	25.0	<0.010	<0.010	<0.010	--	--	--	--	--
HO Ac 112	4.20	<0.010	0.030	0.040	--	--	--	--	--
HO Ac 126	6.20	<0.010	0.060	0.020	--	--	--	--	--
HO Bc 305	5.30	<0.010	0.010	0.020	10	5.0	10	7.0	10
HO Bc 306	5.50	<0.010	<0.010	<0.010	10	4.0	70	9.0	10
HO Bd 411	5.00	--	--	--	--	--	--	--	--
	5.10	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	4.90	--	--	--	--	--	--	--	--
	5.20	<0.010	0.020	<0.010	<10	<3.0	190	4.0	<10
	6.20	--	--	--	--	--	--	--	--
	5.20	--	--	--	--	--	--	--	--
	4.10	--	--	--	--	--	--	--	--
	6.00	--	--	--	--	--	--	--	--
	5.00	--	--	--	--	--	--	--	--
	5.30	--	--	--	--	--	--	--	--
	5.70	--	--	--	--	--	--	--	--
HO Bd 412	7.60	<0.010	0.040	0.040	<10	<3.0	70	6.0	<10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

MONTGOMERY COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)
MO Ce 18	11-06-95	0930	391403077114001		300PRTB	GW	8030	200.00
	11-29-95	1030			300PRTB	GW	8030	200.00
	12-27-95	0900			300PRTB	GW	8030	200.00
	01-31-96	0900			300PRTB	GW	8030	200.00
	02-29-96	0900			300PRTB	GW	8030	200.00
	04-03-96	0900			300PRTB	GW	8030	200.00
	04-24-96	0845			300PRTB	GW	8030	200.00
	05-30-96	0830			300PRTB	GW	8030	200.00
	06-27-96	1030			300PRTB	GW	8030	200.00
	07-31-96	0830			300PRTB	GW	8030	200.00
MO Ce 19	08-28-96	0830	391410077114001		300LCRV	GW	8030	200.00
	09-25-96	1000			300PRTB	GW	8030	200.00
	11-29-95	1230			300PRTB	GW	8030	200.00
MO Ce 20	12-06-95	1430	391411077114701		300PRTB	GW	8030	200.00

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)
MO Ce 18	28	200	540	24	2.9	176	5.5	13.0
	28	200	540	37	2.6	177	5.5	12.5
	28	200	540	17	--	174	5.6	11.5
	28	200	540	15	4.0	173	5.6	11.0
	28	200	540	12	3.0	158	5.1	12.0
	28	200	540	30	2.0	163	5.7	12.0
	28	200	540	--	--	160	5.5	12.5
	28	200	540	--	--	160	5.5	13.0
	28	200	540	40	--	--	--	14.0
	28	200	340	15	2.0	168	5.2	14.0
MO Ce 19	28	200	540	15	2.0	162	5.5	13.5
	28	200	540	20	20	162	5.5	13.5
	47	200	560	30	1.6	124	5.3	13.5
MO Ce 20	40	200	590	40	2.9	126	6.2	13.0

WELL NUMBER	TEMPER- ATURE AIR (DEG C) (00020)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)	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)
MO Ce 18	6.0	--	--	--	5.80	--	--	--
	0.0	3.6	22	<0.015	5.20	<0.010	0.020	0.020
	-6.0	--	--	--	--	--	--	--
	-2.0	--	--	--	4.80	--	--	--
	-3.5	--	--	--	4.80	--	--	--
	--	--	--	--	5.30	--	--	--
	7.0	6.1	--	--	5.10	--	--	--
	13.0	6.0	--	--	5.00	--	--	--
	--	6.0	--	--	5.20	--	--	--
	19.0	6.2	--	--	5.00	--	--	--
MO Ce 19	--	--	--	--	5.30	--	--	--
	17.5	--	--	--	5.30	--	--	--
	1.0	7.7	13	<0.015	8.80	<0.010	0.050	0.040
MO Ce 20	1.5	8.6	35	<0.015	3.90	<0.010	<0.010	0.010

Geologic Unit (aquifer): 300LCRV - Loch Raven Schist
300PRTB - Prettyboy Schist

Site Type: GW - Groundwater

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
QUEEN ANNES COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH BELOW SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
QA Db 14	03-27-96	1000	390055076184501	125AQUI	GW		8030	--	165.00	145
QA Db 17	03-27-96	0930	390059076191801	125AQUI	GW		8030	--	--	--
QA Db 23	03-27-96	1105	390033076184501	125AQUI	GW		8030	--	185.00	165
QA Db 27	03-26-96	1230	390117076191301	125AQUI	GW		8030	--	145.00	110
QA Db 30	03-13-96	1430	390201076182701	125AQUI	GW		4040	16.71	220.00	210
	08-06-96	1135		125AQUI	GW		4040	16.58	220.00	210
QA Db 32	03-13-96	1600	390201076182703	125AQUI	GW		4040	16.39	116.00	106
	08-06-96	1210		125AQUI	GW		4040	16.38	116.00	106
QA Db 34	03-13-96	1130	390023076174301	125AQUI	GW		4030	7.65	180.00	170
	08-06-96	1320		125AQUI	GW		4030	7.74	180.00	170
QA Db 35	03-26-96	1400	390119076191001	125AQUI	GW		4030	5.87	200.00	190
	08-08-96	1250		125AQUI	GW		4030	5.79	200.00	190
QA Db 37	03-13-96	1040	390023076174302	125AQUI	GW		4040	7.44	250.00	240
	08-06-96	1400		125AQUI	GW		4040	7.51	250.00	240
QA Ea 39	08-28-96	1300	385825076202901	125AQUI	GW		8030	--	95.00	80
QA Ea 42	03-29-96	0930	385820076202501	125AQUI	GW		8030	--	120.00	100
QA Ea 45	03-05-96	1440	385554076213801	125AQUI	GW		8030	--	210.00	200
	08-28-96	1130		125AQUI	GW		8030	--	210.00	200
QA Ea 48	03-27-96	1315	385825076201201	125AQUI	GW		8030	--	160.00	129
	09-05-96	1635		125AQUI	GW		4040	--	160.00	129
QA Ea 59	03-05-96	1200	385505076215001	125AQUI	GW		8030	--	215.00	195
	08-20-96	1200		125AQUI	GW		8030	--	215.00	195
QA Ea 60	03-28-96	1010	385701076212501	125AQUI	GW		8030	--	185.00	165
QA Ea 61	03-29-96	1100	385812076202801	125AQUI	GW		8030	--	170.00	150
	08-28-96	1220		125AQUI	GW		8030	--	170.00	150
QA Ea 71	08-28-96	1330	385742076205801	125AQUI	GW		8030	--	135.00	115
QA Ea 77	03-12-96	1230	385718076211501	125AQUI	GW		4030	12.84	205.00	195
	08-05-96	1035		125AQUI	GW		4040	12.49	205.00	195
QA Ea 78	03-12-96	1330	385718076211502	125AQUI	GW		4030	13.07	135.00	125
	08-05-96	1130		125AQUI	GW		4030	--	135.00	125
QA Ea 79	03-15-96	1130	385757076200101	125AQUI	GW		4040	10.17	298.00	288
	08-05-96	1435		125AQUI	GW		4040	10.18	298.00	288
QA Ea 80	03-15-96	1200	385757076200102	125AQUI	GW		4030	10.29	130.00	120
	08-05-96	1300		125AQUI	GW		4030	10.38	130.00	120
QA Ea 81	03-12-96	1353	385718076211503	125AQUI	GW		4040	12.67	310.00	300
	08-02-96	1300		125AQUI	GW		4040	11.97	310.00	300
QA Ea 82	03-05-96	1525	385705076212002	125AQUI	GW		8030	--	170.00	155
	08-20-96	0945		125AQUI	GW		8030	--	170.00	155
QA Ea 83	03-28-96	0900	385705076212001	125AQUI	GW		8030	--	170.00	160
	08-28-96	0900		125AQUI	GW		8030	--	170.00	160
QA Eb 155	03-26-96	1000	385843076155302	125AQUI	GW		4030	9.01	245.00	235
	08-08-96	1020		125AQUI	GW		4030	9.88	245.00	235
QA Eb 156	03-12-96	1630	385852076195201	125AQUI	GW		4030	--	220.00	210
	08-08-96	1530		125AQUI	GW		4030	13.51	220.00	210
QA Eb 157	03-12-96	1700	385852076195202	125AQUI	GW		4030	12.73	120.00	110
	08-08-96	1430		125AQUI	GW		4030	13.02	120.00	110
QA Fa 49	08-20-96	1320	385354076212701	125AQUI	GW		8030	--	210.00	185
QA Fa 54	03-28-96	1230	385024076222501	125AQUI	GW		8030	--	260.00	240
	09-05-96	1510		125AQUI	GW		4040	--	260.00	240
QA Fa 60	03-05-96	1120	385254076201901	125AQUI	GW		8030	--	240.00	230
	08-28-96	1030		125AQUI	GW		8030	--	240.00	230
QA Fa 63	08-28-96	1100	385434076215601	125AQUI	GW		8030	--	235.00	200
QA Fa 64	03-29-96	1200	385454076214901	125AQUI	GW		8030	--	231.00	191
	08-20-96	1230		125AQUI	GW		8030	--	231.00	191
QA Fa 66	03-27-96	1415	385236076215201	125AQUI	GW		8030	--	270.00	250
	09-05-96	1200		125AQUI	GW		4040	--	270.00	250
QA Fa 67	03-28-96	1200	385023076222201	125AQUI	GW		8030	--	270.00	250
	09-05-96	1335		125AQUI	GW		4040	--	270.00	250
QA Fa 72	03-05-96	1310	385254076201301	125AQUI	GW		8030	--	220.00	200
	08-20-96	1420		125AQUI	GW		8030	--	220.00	200
QA Fa 74	03-05-96	1030	385227076215401	125AQUI	GW		8030	--	280.00	--
	08-20-96	1045		125AQUI	GW		8030	--	280.00	--
QA Fa 75	03-05-96	1400	385155076200401	125AQUI	GW		8030	--	200.00	180
	08-20-96	1445		125AQUI	GW		8030	--	200.00	180

Geologic Unit (aquifer): 125AQUI - Aquia Formation

Site Type: GW - Groundwater

Sampling Method: 4030 - Suction pump
4040 - Submersible pump
8030 - Grab sample at water-supply tap

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

QUEEN ANNES COUNTY, MARYLAND -- Continued

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)
QA Db 14	165	15.0	--	--	454	7.3	14.0	3.5	14	0.070
QA Db 17	--	20.0	--	--	658	7.3	13.0	4.0	77	0.29
QA Db 23	185	18.0	--	--	442	7.2	14.5	8.5	3.5	0.070
QA Db 27	145	15.0	--	--	1330	7.1	14.5	15.5	280	1.0
QA Db 30	220	17.8	130	8.6	16400	6.2	16.0	13.0	6000	20
QA Db 32	220	17.8	95	7.5	16900	6.2	16.0	31.0	5900	61
	116	18.0	55	23	8000	7.0	14.5	13.0	2700	9.4
	116	18.0	50	8.6	8400	6.5	15.0	34.0	2700	8.8
QA Db 34	180	7.4	35	22	518	7.3	15.5	19.5	9.6	0.030
	180	7.4	20	60	515	7.3	15.5	31.5	9.4	0.020
QA Db 35	200	7.5	95	4.0	17000	6.9	16.5	16.5	6300	23
	200	7.5	90	5.0	16800	6.7	17.5	32.0	6200	61
QA Db 37	250	7.1	66	20	582	7.6	15.5	17.5	12	0.040
	250	7.1	60	8.6	570	7.5	16.5	31.0	13	0.030
QA Ea 39	95	15.0	--	--	435	7.5	15.5	26.0	39	0.12
QA Ea 42	120	18.0	70	--	759	7.0	14.0	5.0	120	0.41
QA Ea 45	210	15.0	--	--	363	7.7	15.0	14.5	4.5	<0.010
	210	15.0	--	--	359	7.6	16.0	28.5	4.7	<0.010
QA Ea 48	160	5.0	--	--	1220	7.5	14.0	8.0	280	1.0
	160	5.0	--	--	1170	--	15.5	--	300	0.91
QA Ea 59	215	10.0	--	--	655	7.9	15.0	10.5	110	0.32
	215	10.0	--	--	655	7.7	16.5	30.5	100	0.37
QA Ea 60	185	7.0	--	--	1420	7.5	15.0	2.5	350	1.3
QA Ea 61	170	18.0	35	--	3220	7.3	14.0	4.0	970	4.2
	170	18.0	--	--	3260	7.3	15.5	27.5	980	3.5
QA Ea 71	135	20.0	--	--	293	8.4	24.0	28.5	21	<0.010
QA Ea 77	205	10.8	120	8.6	16000	7.1	16.0	16.5	5800	21
	205	10.8	130	10	16100	--	16.0	31.5	5900	20
QA Ea 78	135	11.8	60	11	319	7.6	15.5	17.5	7.8	0.040
	135	11.8	75	8.6	319	7.6	16.0	31.0	4.7	0.020
QA Ea 79	298	8.3	126	9.0	361	9.2	15.5	17.5	1.4	0.020
	298	8.3	125	8.6	362	9.1	16.5	28.5	1.5	0.020
QA Ea 80	130	8.5	27	17	349	7.9	15.0	18.5	2.2	0.010
	130	8.5	20	20	350	7.8	15.0	33.0	2.2	<0.010
QA Ea 81	310	12.4	127	5.5	593	7.7	16.5	17.5	80	0.31
	310	12.4	140	6.3	607	7.7	16.5	30.0	88	0.32
QA Ea 82	170	10.0	--	--	1080	7.6	15.0	12.0	240	0.88
	170	10.0	--	--	1060	7.4	15.5	25.0	240	0.89
QA Ea 83	170	10.0	--	--	415	7.7	15.0	2.5	25	0.090
	170	10.0	--	--	418	7.7	15.5	24.5	29	0.11
QA Eb 155	245	3.9	85	13	329	7.9	16.0	18.0	1.7	0.020
	245	3.9	73	15	332	7.2	16.5	27.0	1.9	0.010
QA Eb 156	220	12.0	65	7.5	18100	6.9	15.5	10.5	7000	24
	220	12.0	45	11	17500	6.9	15.5	33.0	7000	61
QA Eb 157	120	11.9	25	11	334	7.5	15.0	10.5	8.9	0.050
	120	11.9	50	40	332	7.4	15.0	32.0	4.8	0.020
QA Fa 49	210	8.0	--	--	960	7.5	16.5	31.0	170	0.84
QA Fa 54	260	10.0	--	--	355	7.8	15.0	2.5	11	0.050
	260	10.0	20	6.0	346	--	16.5	--	13	0.040
QA Fa 60	240	10.1	--	--	422	8.3	15.5	11.5	10	0.050
	240	10.1	--	--	416	8.1	22.0	27.5	9.6	0.040
QA Fa 63	235	15.0	--	--	460	7.2	16.0	28.5	8.1	0.020
QA Fa 64	231	5.0	--	--	971	7.8	15.0	8.0	210	0.76
	231	5.0	--	--	1010	7.7	16.0	29.0	210	0.77
QA Fa 66	270	13.0	--	--	514	7.8	15.5	7.0	20	0.090
	270	13.0	20	4.0	489	--	18.0	--	20	0.070
QA Fa 67	270	7.4	--	--	349	7.8	15.0	2.5	12	0.050
	270	7.4	25	7.0	336	--	16.0	--	11	0.040
QA Fa 72	220	12.0	--	--	492	8.0	15.0	17.0	7.8	0.040
	220	12.0	--	--	486	7.8	16.0	29.0	14	0.050
QA Fa 74	--	10.0	--	--	464	7.8	15.0	11.0	12	0.040
	--	10.0	--	--	460	7.5	16.5	30.5	12	0.040
QA Fa 75	200	10.0	--	--	526	8.0	14.0	15.5	21	0.080
	200	10.0	--	--	522	7.8	18.0	29.5	21	0.090

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

WASHINGTON COUNTY, MARYLAND

	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
WA Aj 75	07-25-96	1100	394253077390501	371CCCG	GW		8030	75.00	21
WA Ak 99	07-25-96	1300	394219077335301	377TMSN	GW		4040	32.00	20
WA Bh 73	07-25-96	1500	393512077451701	371CCCG	GW		8030	85.00	35
WA Bj 141	07-25-96	0900	393625077375501	371ELBK	GW		4040	100.00	75

	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
WA Aj 75	75	615	19	2.0	675	6.7	15.0	28.0	11.0
WA Ak 99	32	670	16	2.0	865	7.0	13.0	31.0	17.0
WA Bh 73	85	520	20	2.0	674	6.9	12.5	26.0	5.20
WA Bj 141	100	610	15	1.6	720	7.1	15.5	--	7.40

Geologic Unit (aquifer): 371CCCG - Conococheague Limestone
 371ELBK - Elbrook Formation
 377TMSN - Tomstown Dolomite

Site Type: GW - Groundwater

Sampling Method: 4040 - Submersible pump
 8030 - Grab sample at water-supply tap

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

WORCESTER COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)
WO Ah 34	08-26-96	1330	382632075031901	122MNKN	GW		4045	450.00
WO Ah 36	08-29-96	1440	382635075030602	122MNKN	GW		4040	430.00
WO Bh 28	08-27-96	0940	382214075041901	122OCNC	GW		4045	294.00
WO Bh 34	08-29-96	1110	382443075033501	122MNKN	GW		4040	353.00
WO Bh 84	08-27-96	1310	382215075041901	112CLMB	GW		4030	89.00
WO Bh 85	08-27-96	1110	382215075041902	122PCMK	GW		4030	195.00
WO Bh 89	08-27-96	1230	382215075041903	122MNKN	GW		4040	500.00
WO Bh 97	08-28-96	1340	382127075043803	122MNKN	GW		4040	445.00
WO Bh 98	08-28-96	1110	382127075043802	122OCNC	GW		4040	310.00
WO Cg 32	08-26-96	1150	381941075052201	122OCNC	GW		4045	280.00
WO Cg 75	08-26-96	1030	381939075052102	122MNKN	GW		4045	450.00

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)
WO Ah 34	350	450	5.0	100	--	549	6.7	18.0
WO Ah 36	420	440	15.4	--	8.0	792	6.7	18.0
WO Bh 28	248	294	5.0	--	--	895	6.7	18.0
WO Bh 34	337	353	4.0	--	8.0	240	6.8	17.5
WO Bh 84	84	89	5.0	--	--	376	6.8	17.0
WO Bh 85	190	195	5.0	--	--	418	6.8	17.5
WO Bh 89	388	500	5.0	--	12	2040	7.0	17.5
WO Bh 97	370	440	6.0	--	12	457	6.8	18.0
WO Bh 98	255	310	5.0	--	12	450	7.4	18.0
WO Cg 32	245	280	4.0	100	--	460	7.4	17.5
WO Cg 75	350	450	5.0	--	--	473	6.9	18.5

WELL NUMBER	TEMPER- ATURE AIR (DEG C) (00020)	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)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
WO Ah 34	27.0	23	5.7	4.6	64	<0.10	97	<0.10
WO Ah 36	29.0	24	6.4	5.6	110	<0.10	150	0.10
WO Bh 28	26.5	18	16	11	120	0.90	200	0.20
WO Bh 34	26.0	14	5.8	5.1	11	<0.10	13	0.10
WO Bh 84	21.0	17	10	14	34	<0.10	42	0.10
WO Bh 85	--	15	14	14	40	<0.10	47	0.20
WO Bh 89	--	28	44	19	270	8.2	530	0.20
WO Bh 97	28.5	16	9.6	12	43	0.10	67	0.20
WO Bh 98	27.0	40	16	11	21	<0.10	27	0.20
WO Cg 32	28.0	--	--	--	--	--	44	--
WO Cg 75	27.0	--	--	--	--	--	72	--

Geologic Unit (aquifer): 112CLMB - Columbia Formation
 122MNKN - Manokin Aquifer
 122OCNC - Ocean City Aquifer
 122PCMK - Pocomoke Aquifer

Site Type: GW - Groundwater

Sampling Method: 4030 - Suction pump
 4040 - Submersible pump
 4045 - Turbine pump

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

WORCESTER COUNTY, MARYLAND -- Continued

WELL NUMBER	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	ALKA- LINITY WAT WH TOT IT FIELD MG/L AS CACO3 (00419)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
WO Ah 34	2.1	34	128	324	--	13000	150
WO Ah 36	0.75	33	136	426	--	13000	130
WO Bh 28	0.88	33	138	474	484	6100	120
WO Bh 34	0.46	35	101	144	--	14000	110
WO Bh 84	0.49	36	120	218	--	5800	77
WO Bh 85	0.30	33	137	232	--	5000	95
WO Bh 89	2.3	30	215	1050	1060	6300	120
WO Bh 97	0.73	31	115	248	248	14000	180
WO Bh 98	0.11	29	184	258	--	1200	27
WO Cg 32	--	--	168	--	--	--	--
WO Cg 75	--	--	116	--	--	--	--

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**Attention: Robert W. James, JR
Chief, Hydrologic Surveillance & Analysis Section**



United States Department of the Interior

GEOLOGICAL SURVEY

Water Resources Division
8987 Yellow Brick Road
Baltimore, Maryland 21237
410-238-4205



August 11, 1997

Dear U.S. Geological Survey Data User:

We want to make sure that you are aware of alternative ways the U.S. Geological Survey (USGS) can provide you with water resources data for Maryland, in addition to this annual printed copy of hydrologic data. These alternatives include the following:

1. The USGS Water data Storage and Retrieval (WATSTORE) system is open to the public direct (computer) access after signing a Memorandum of Agreement. See the introductory information on WATSTORE in this publication for details on how to gain this access.
2. Real-time and historical data from the District's surface-water network, as well as information about individual sites, is available through the World Wide Web at:

<http://water.usgs.gov/public/district/md/>

A wide variety of additional information, such as ordering USGS maps and publications, is available at the USGS Home Page at:

<http://www.usgs.gov/>

3. For water years 1990-1995, all water-data reports are available on Compact Disc - Read Only Memory (CD-ROM). A limited number of CD-ROM discs are available for sale by the Books and Open-File Reports Section, USGS, Federal Center, Box 25286, Denver, Colorado 80225.
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Information about the availability of specific types of data or products, modes of data transfer, and user charges (if applicable) can be obtained locally from each of the Water Resources Division's District offices. (See address on the back of the title page.)

Sincerely,

James M. Gerhart
District Chief, MD-DE-DC

CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<i>Length</i>		
inch (in.)	2.54×10^1	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^0	kilometer
<i>Area</i>		
acre	4.047×10^3	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi ²)	2.590×10^0	square kilometer
<i>Volume</i>		
gallon (gal)	3.785×10^0	liter
	3.785×10^0	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^3	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft ³)	2.832×10^1	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft ³ /s) d]	2.447×10^3	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^3	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
<i>Flow</i>		
cubic foot per second (ft ³ /s)	2.832×10^1	liter per second
	2.832×10^1	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^1	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
<i>Mass</i>		
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report “sea level” refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

U.S. DEPARTMENT OF THE INTERIOR
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