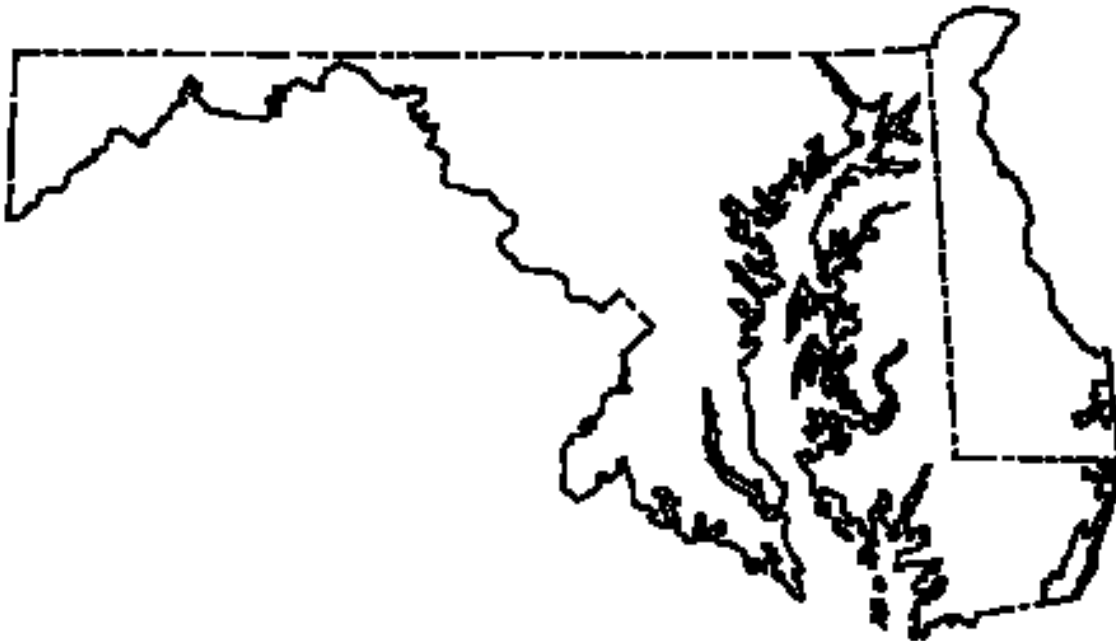


Water Resources Data Maryland and Delaware Water Year 1998

Volume 2. Ground-Water Data

Water-Data Report MD-DE-98-2



U.S. Department of the Interior
U.S. Geological Survey



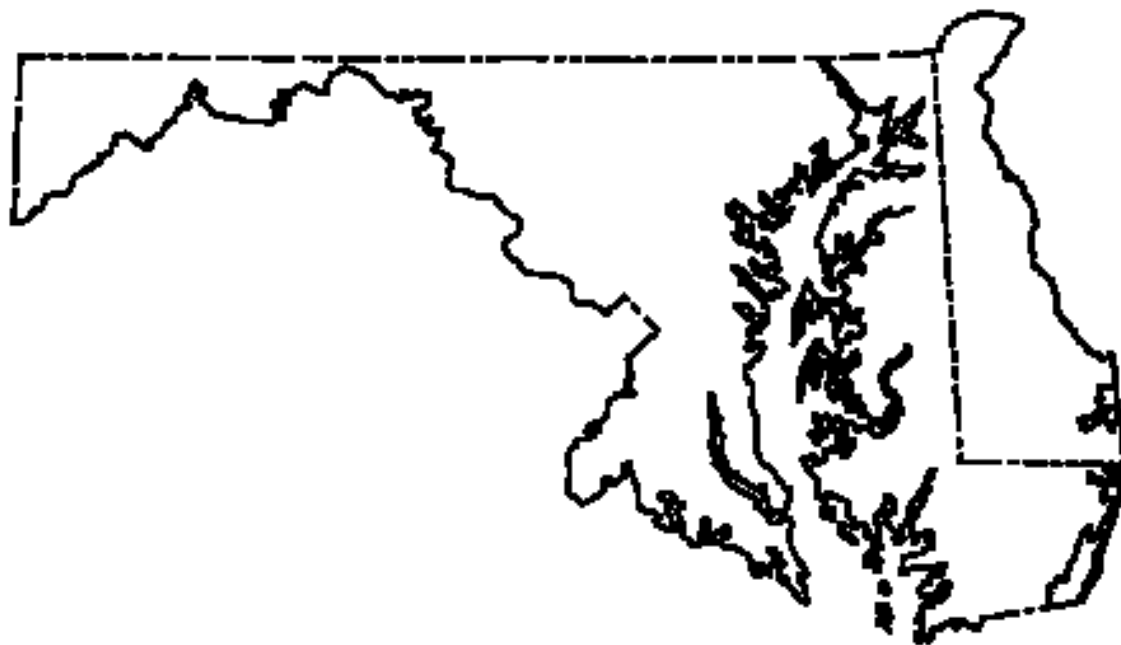
Prepared in cooperation with the
States of Maryland and Delaware
and with other agencies

Water Resources Data Maryland and Delaware Water Year 1998

Volume 2. Ground-Water Data

By Michael J. Smigaj, Roger J. Starsonneck, Richard W. Saffer, and Elizabeth H. Marchand

Water-Data Report MD-DE-98-2



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

Charles G. Groat, Director

Robert M. Hirsch, Chief Hydrologist



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District Chief, Water Resources Division
U.S. Geological Survey
8987 Yellow Brick Road
Baltimore, Maryland 21237

PREFACE

This volume of the annual hydrologic data report for 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 individuals contributed to the collection, and data processing on the GWSI, ADAPS, and QWDATA data bases are listed below by office, district section, and project.

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Andrew E. LaMotte produced figures 5 through 7, using a Geographic Information System mapping program. Robert W. James, Hydrologic Surveillance and Analysis Supervisor, provided invaluable assistance and editing support for this volume, along with W. Chris Lewis and Brian Craley.

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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GROUND-WATER SPRING DISCHARGE

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Well 384444075234102 Local number Of12-19..... 118

Well 384401075224903 Local number Of13-01..... 119

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Well 384401075224901 Local number Of13-03..... 121-122

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Well 384406075224401	Local number	Of13-11	131
Well 384343075230402	Local number	Of22-02	132
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Well 391600076353301	Local number 3S2E-	5.....	219
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CAROLINE COUNTY

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CARROLL COUNTY

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CECIL COUNTY

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DORCHESTER COUNTY

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Well 383151076080801	Local number DO Cd	1.....	316
Well 383340076041601	Local number DO Ce	5.....	317
Well 383408076042402	Local number DO Ce	15.....	318
Well 383346076030301	Local number DO Ce	21.....	319
Well 383256076035301	Local number DO Ce	85.....	320
Well 383401076032001	Local number DO Ce	88.....	321
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Well 382847076190901	Local number DO Db	19.....	324
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FREDERICK COUNTY

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Well 393733077274801	Local number FR Bd	96.....	328
Well 393156077135701	Local number FR Cg	1.....	329
Well 392517077190401	Local number FR Df	35.....	330
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GARRETT COUNTY

Well 394017078581701	Local number GA Ag	1.....	332
Well 393749079190301	Local number GA Bc	1.....	333
Well 392439079231801	Local number GA Eb	78.....	334
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Well 391501079260001	Local number GA Fa	38.....	341
Well 391530079244401	Local number GA Fb	22.....	342
Well 391530079244403	Local number GA Fb	24.....	343
Well 391530079244404	Local number GA Fb	25.....	344
Well 391513079243602	Local number GA Fb	27.....	345
Well 391513079243605	Local number GA Fb	30.....	346
Well 391602079240301	Local number GA Fb	31.....	347
Well 391602079240302	Local number GA Fb	32.....	348
Well 391602079240304	Local number GA Fb	34.....	349
Well 391715079223105	Local number GA Fb	39.....	350
Well 391420079264901	Local number GA Ga	16.....	351

HARFORD COUNTY

Well 393902076160001	Local number HA Bd	31.....	352
Well 393158076302601	Local number HA Ca	23.....	353
Well 392529076180901	Local number HA Dd	89.....	354
Well 392721076150301	Local number HA Dd	91.....	355
Well 392721076150302	Local number HA Dd	92.....	356
Well 392921076100401	Local number HA De	66.....	357
Well 392606076145801	Local number HA De	181.....	358
Well 392606076145802	Local number HA De	182.....	359
Well 392606076145803	Local number HA De	183.....	360
Well 392914076110301	Local number HA De	195.....	361
Well 392819076130902	Local number HA De	198.....	362-363
Well 392435076203301	Local number HA Ec	11.....	364
Well 392408076210101	Local number HA Ec	46.....	365
Well 392343076161901	Local number HA Ed	24.....	366
Well 392455076192101	Local number HA Ed	47.....	367
Well 392455076192102	Local number HA Ed	48.....	368
Well 392455076192103	Local number HA Ed	49.....	369

HOWARD COUNTY

Well 391910076565701	Local number HO Bd	1.....	370
Well 391445076555101	Local number HO Cd	79.....	371
Well 391001076540001	Local number HO Ce	38.....	372

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MARYLAND-Continued:KENT COUNTY

Well 392007076075501	Local number KE Ac	20	373
Well 391650076050402	Local number KE Bc	185	374
Well 391650076050403	Local number KE Bc	186	375
Well 391823075594701	Local number KE Be	43	376
Well 391851075561801	Local number KE Be	50	377
Well 391720075554601	Local number KE Be	159	378
Well 391720075554603	Local number KE Be	161	379
Well 391643075550901	Local number KE Be	171	380
Well 391941075570103	Local number KE Be	200	381
Well 391851075561702	Local number KE Be	206	382
Well 391851075561701	Local number KE Be	210	383
Well 391715075554201	Local number KE Be	211	384
Well 391815075472101	Local number KE Bg	33	385
Well 391815075472102	Local number KE Bg	34	386
Well 391400076101401	Local number KE Cb	36	387
Well 391124076101001	Local number KE Cb	97	388
Well 391124076101002	Local number KE Cb	98	389
Well 391124076101003	Local number KE Cb	99	390
Well 391124076101004	Local number KE Cb	100	391
Well 391251076142201	Local number KE Cb	101	392
Well 391124076101005	Local number KE Cb	103	393
Well 391432076015501	Local number KE Cd	44	394
Well 390837076140401	Local number KE Db	40	395
Well 390626076083301	Local number KE Dc	89	396
Well 390626076083302	Local number KE Dc	91	397

MONTGOMERY COUNTY

Well 391142077280601	Local number MO Cb	26	398
Well 391314077224201	Local number MO Cc	14	399
Well 390802077283801	Local number MO Db	68	400
Well 390917077244401	Local number MO Dc	59	401
Well 390451077245901	Local number MO Ec	10	402
Well 390434076573002	Local number MO Eh	20	403

PRINCE GEORGES COUNTY

Well 390151076561501	Local number PG Bc	16	404
Well 385130076465501	Local number PG De	21	405
Well 385152076431301	Local number PG Df	2	406
Well 384423077004501	Local number PG Fb	36	407
Well 384230076555501	Local number PG Fc	17	408
Well 384131076533301	Local number PG Fd	41	409
Well 383228076410601	Local number PG Hf	35	410
Well 383348076411301	Local number PG Hf	40	411-412
Well 383348076411302	Local number PG Hf	41	413-414
Well 383348076411303	Local number PG Hf	42	415-416
Well 383250076405304	Local number PG Hf	44	417
Well 383957076520601	Local number PG Gd	5	418-419

QUEEN ANNES COUNTY

Well 391203076024301	Local number QA Be	15	420
Well 391203076024302	Local number QA Be	16	421
Well 391203076024303	Local number QA Be	17	422
Well 390841075515201	Local number QA Cg	1	423
Well 390201076182701	Local number QA Db	30	424
Well 390201076182703	Local number QA Db	32	425
Well 390023076174301	Local number QA Db	34	426
Well 390119076191001	Local number QA Db	35	427
Well 390023076174302	Local number QA Db	37	428
Well 385718076211501	Local number QA Ea	77	429
Well 385718076211502	Local number QA Ea	78	430
Well 385757076200101	Local number QA Ea	79	431
Well 385757076200102	Local number QA Ea	80	432
Well 385718076211503	Local number QA Ea	81	433
Well 385751076171603	Local number QA Eb	110	434
Well 385751076171601	Local number QA Eb	111	435
Well 385751076171602	Local number QA Eb	112	436
Well 385748076172001	Local number QA Eb	113	437
Well 385843076155302	Local number QA Eb	155	438
Well 385852076195201	Local number QA Eb	156	439
Well 385852076195202	Local number QA Eb	157	440
Well 385756076105301	Local number QA Ec	1	441
Well 385534075573601	Local number QA Ef	29	442
Well 385429076120201	Local number QA Fc	7	443

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ST. MARYS COUNTY

Well 382838076470101	Local number SM Bb	15.....	444
Well 382838076470102	Local number SM Bb	22.....	445
Well 381616076364701	Local number SM Dd	46.....	446
Well 381616076364702	Local number SM Dd	49.....	447
Well 381807076380001	Local number SM Dd	50.....	448
Well 381616076364703	Local number SM Dd	62.....	449
Well 381615076364701	Local number SM Dd	63.....	450
Well 381841076284401	Local number SM Df	66.....	451
Well 381527076283101	Local number SM Df	71.....	452
Well 381548076272102	Local number SM Df	84.....	453
Well 381213076222801	Local number SM Eg	27.....	454
Well 380834076303401	Local number SM Fe	30.....	455
Well 380834076303402	Local number SM Fe	31.....	456
Well 380724076251901	Local number SM Ff	36.....	457
Well 380711076222201	Local number SM Fg	45.....	458

SOMERSET COUNTY

Well 381156075412501	Local number SO Be	42.....	459
Well 380927075423701	Local number SO Ce	42.....	460-461
Well 380616075380701	Local number SO Cf	2.....	462

TALBOT COUNTY

Well 385242075593101	Local number TA Bf	73.....	463
Well 385242075593102	Local number TA Bf	74.....	464
Well 384923076100601	Local number TA Cc	35.....	465
Well 384514076103701	Local number TA Cc	36.....	466
Well 384709076050301	Local number TA Cd	57.....	467
Well 384643076043801	Local number TA Ce	7.....	468

WASHINGTON COUNTY

Well 394154078103501	Local number WA Ac	1.....	469
Well 393638078001301	Local number WA Be	2.....	470
Well 393851077343001	Local number WA Bk	25.....	471
Well 393414077461801	Local number WA Ch	106.....	472
Well 393402077434201	Local number WA Ci	82.....	473
Well 392904077371501	Local number WA Dj	2.....	474

WICOMICO COUNTY

Well 382150075352101	Local number WI Ce	13.....	475
Well 382404075355401	Local number WI Ce	204.....	476
Well 382037075310801	Local number WI Cf	3.....	477
Well 382429075344501	Local number WI Cf	147.....	478
Well 382329075263701	Local number WI Cg	20.....	479

WORCESTER COUNTY

Well 382621075174201	Local number WO Ae	23.....	480
Well 382621075174202	Local number WO Ae	24.....	481
Well 382621075174203	Local number WO Ae	25.....	482
Well 382632075031801	Local number WO Ah	6.....	483
Well 382635075030601	Local number WO Ah	35.....	484
Well 382635075030602	Local number WO Ah	36.....	485
Well 382635075030603	Local number WO Ah	37.....	486
Well 382022075072401	Local number WO Bg	1.....	487
Well 382359075094501	Local number WO Bg	15.....	488
Well 382358075094501	Local number WO Bg	45.....	489
Well 382358075094502	Local number WO Bg	46.....	490
Well 382325075063301	Local number WO Bg	47.....	491-492
Well 382325075063302	Local number WO Bg	48.....	493-494
Well 382038075065901	Local number WO Bg	49.....	495-496
Well 382215075041801	Local number WO Bh	31.....	497-498
Well 382443075033501	Local number WO Bh	34.....	499-500
Well 382215075041901	Local number WO Bh	84.....	501
Well 382215075041902	Local number WO Bh	85.....	502
Well 382215075041903	Local number WO Bh	89.....	503-504
Well 382127075043802	Local number WO Bh	98.....	505-506
Well 381939075052101	Local number WO Cg	72.....	507
Well 381037075234301	Local number WO Dd	7.....	508
Well 381457075174101	Local number WO De	36.....	509
Well 381427075081102	Local number WO Dg	21.....	510
Well 380408075335701	Local number WO Fb	2.....	511

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WATER-QUALITY DATA, WATER YEAR 1998

MARYLAND:ANNE ARUNDEL COUNTY

Well 391302076404301	Local well number	AA Ac	75	513-518
Well 391006076423001	Local well number	AA Ac	76	513-518
Well 390815076441501	Local well number	AA Ac	77	513-518
Well 390606076494001	Local well number	AA Bb	22	513-518
Well 390525076462701	Local well number	AA Bb	88	513-518
Well 390736076421401	Local well number	AA Bc	175	513-518
Well 390718076425001	Local well number	AA Bc	243	513-518
Well 390923076411201	Local well number	AA Bc	244	513-518
Well 390923076411401	Local well number	AA Bc	245	513-518
Well 390529076404401	Local well number	AA Bc	246	513-518
Well 390801076372302	Local well number	AA Bd	107	513-518
Well 390802076392802	Local well number	AA Bd	122	513-518
Well 390830076394501	Local well number	AA Bd	165	513-518
Well 390656076381301	Local well number	AA Bd	166	513-519
Well 390654076353401	Local well number	AA Bd	167	513-518
Well 390517076391001	Local well number	AA Bd	168	513-518
Well 390555076360501	Local well number	AA Bd	169	513-518
Well 390653076380801	Local well number	AA Bd	170	513-518
Well 390820076395701	Local well number	AA Bd	171	513-518
Well 390640076300501	Local well number	AA Be	115	513-518
Well 390542076314001	Local well number	AA Be	116	513-518
Well 390521076301801	Local well number	AA Be	117	513-518
Well 390913076330701	Local well number	AA Be	118	513-518
Well 390514076340701	Local well number	AA Be	119	513-518
Well 390634076302901	Local well number	AA Be	120	513-518
Well 390543076312201	Local well number	AA Be	121	513-518
Well 390630076312301	Local well number	AA Be	122	513-518
Well 390740076342301	Local well number	AA Be	124	513-518
Well 390813076262901	Local well number	AA Bf	66	513-518
Well 390921076283301	Local well number	AA Bf	67	513-518
Well 390605076284001	Local well number	AA Bf	68	513-518
Well 390601076274301	Local well number	AA Bf	70	513-518
Well 390758076273701	Local well number	AA Bf	71	513-518
Well 390839076293401	Local well number	AA Bf	72	513-518
Well 390842076283201	Local well number	AA Bf	73	513-518
Well 390530076253401	Local well number	AA Bf	74	513-518
Well 390643076275801	Local well number	AA Bf	75	513-518
Well 390128076412401	Local well number	AA Cc	134	513-518
Well 390136076424501	Local well number	AA Cc	141	513-518
Well 390118076415001	Local well number	AA Cc	142	513-518
Well 390214076361201	Local well number	AA Cd	101	513-518
Well 390416076353301	Local well number	AA Cd	104	513-518
Well 390033076361601	Local well number	AA Cd	105	513-519
Well 390113076355601	Local well number	AA Cd	109	513-518
Well 390205076361001	Local well number	AA Cd	110	513-518
Well 390448076393701	Local well number	AA Cd	111	513-518
Well 390343076390801	Local well number	AA Cd	112	513-518
Well 390335076385301	Local well number	AA Cd	113	513-518
Well 390400076350501	Local well number	AA Cd	115	513-518
Well 390336076374001	Local well number	AA Cd	116	513-518
Well 390450076343505	Local well number	AA Ce	96	513-518
Well 390454076344501	Local well number	AA Ce	122	513-518
Well 390105076333101	Local well number	AA Ce	141	513-518
Well 390006076314801	Local well number	AA Ce	142	513-518
Well 390308076343301	Local well number	AA Ce	143	513-518
Well 390454076254403	Local well number	AA Cf	22	513-518
Well 390203076292801	Local well number	AA Cf	119	513-518
Well 390205076292703	Local well number	AA Cf	142	513-518
Well 390012076263401	Local well number	AA Cf	146	513-518
Well 390056076255401	Local well number	AA Cf	147	513-518
Well 390202076253401	Local well number	AA Cf	148	513-519
Well 390043076295801	Local well number	AA Cf	149	513-518
Well 390220076274301	Local well number	AA Cf	151	513-518
Well 390027076244001	Local well number	AA Cg	19	520-522
Well 390202076243001	Local well number	AA Cg	26	520-522
Well 390204076243001	Local well number	AA Cg	27	520-522
Well 385930076401301	Local well number	AA Dc	18	520-522
Well 385936076384501	Local well number	AA Dd	58	520-522
Well 385731076380201	Local well number	AA Dd	59	520-522
Well 385913076340801	Local well number	AA De	2	520-522
Well 385912076340901	Local well number	AA De	139	520-522
Well 385950076304001	Local well number	AA De	210	520-522
Well 385649076315001	Local well number	AA De	211	520-522
Well 385657076333401	Local well number	AA De	212	520-522
Well 385742076315801	Local well number	AA De	213	520-522

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Well 385815076344501	Local well number	AA De 214	520-522
Well 385623076274401	Local well number	AA Df 103	520-522
Well 385529076283201	Local well number	AA Df 158	520-522
Well 385500076402701	Local well number	AA Ec 11	520-522
Well 385350076380701	Local well number	AA Ed 54	520-522
Well 385150076380501	Local well number	AA Ed 56	520-522
Well 385212076362101	Local well number	AA Ed 57	520-522
Well 385018076310401	Local well number	AA Ee 85	520-522
Well 385432076305301	Local well number	AA Ee 86	520-522
Well 385454076275101	Local well number	AA Ef 39	520-522
Well 384757076380901	Local well number	AA Fd 54	520-522
Well 384622076351701	Local well number	AA Fd 55	520-522
Well 384330076340501	Local well number	AA Ge 14	520-522

BALTIMORE COUNTY

Well 393442076375301	Local well number	BA Cd 232	523
Well 392023076260801	Local well number	BA Ef 59	523
Well 392019076235901	Local well number	BA Eg 246	523
Well 392223076222601	Local well number	BA Eg 247	523
Well 392232076232701	Local well number	BA Eg 248	523
Well 391953076282001	Local well number	BA Ff 86	523
Well 391754076250801	Local well number	BA Ff 87	523
Well 391741076260401	Local well number	BA Ff 88	523
Well 391520076255901	Local well number	BA Ff 89	523
Well 391603076234501	Local well number	BA Fg 173	523
Well 391953076220001	Local well number	BA Fg 174	523
Well 391848076230401	Local well number	BA Fg 175	523

CAROLINE COUNTY

Well 385302075540101	Local well number	CO Dc 146	524
Well 385231075535201	Local well number	CO Dc 149	524
Well 385022075450201	Local well number	CO Dd 75	524

CECIL COUNTY

Well 393654075545801	Local well number	CE Be 122	525-526
Well 393910075475501	Local well number	CE Bf 87	525-526
Well 393332076001201	Local well number	CE Cc 69	525-526
Well 393425076022901	Local well number	CE Cc 70	525-526
Well 393241075563501	Local well number	CE Cd 86	525-526
Well 393451075590201	Local well number	CE Cd 87	525-526
Well 393033075571201	Local well number	CE Cd 88	525-526
Well 393330075531201	Local well number	CE Ce 57	525-526
Well 393259075531802	Local well number	CE Ce 83	525-526
Well 393251075530601	Local well number	CE Ce 84	525-526
Well 393006075543501	Local well number	CE Ce 85	525-526
Well 393141075490201	Local well number	CE Cf 89	525-526
Well 392723075581301	Local well number	CE Dd 85	525-526
Well 392625075582701	Local well number	CE Dd 103	525-526
Well 392818075585401	Local well number	CE Dd 104	525-526
Well 392558075592301	Local well number	CE Dd 105	525-526
Well 392541075593801	Local well number	CE Dd 106	525-526
Well 392739075533501	Local well number	CE De 56	525-526
Well 392500075473001	Local well number	CE Df 41	525-526
Well 392726075495001	Local well number	CE Df 42	525-526
Well 392342076012301	Local well number	CE Ec 23	525-526
Well 392431075555901	Local well number	CE Ed 27	525-526
Well 392411075520102	Local well number	CE Ee 45	525-526
Well 392341075503701	Local well number	CE Ee 54	525-526

CHARLES COUNTY

Well 383422077114601	Local well number	CH Cb 7	527
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DORCHESTER COUNTY

Well 383218075522802	Local well number	DO Cg 46	528
Well 383338075472301	Local well number	DO Ch 41	528

FREDERICK COUNTY

Well 392826077244801	Local well number	FR De 58	529
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HARFORD COUNTY

Well 393158076302601	Local well number	HA Ca 23	530-531
Well 393058076221001	Local well number	HA Cc 144	530-531
Well 393109076063801	Local well number	HA Cf 176	530-531
Well 393002076073801	Local well number	HA Cf 177	530-531
Well 392538076214701	Local well number	HA Dc 120	530-531
Well 392527076170801	Local well number	HA Dd 73	530-531
Well 392701076152901	Local well number	HA Dd 107	530-531
Well 392814076122701	Local well number	HA De 75	530-531
Well 392738076132801	Local well number	HA De 164	530-531
Well 392657076135401	Local well number	HA De 166	530-531
Well 392446076204401	Local well number	Ha Ec 48	530-531

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MARYLAND--Continued**KENT COUNTY**

Well 392007076075501	Local well number	KE Ac	20	532-536
Well 392208076055701	Local well number	KE Ac	23	532-536
Well 392158076034302	Local well number	KE Ad	43	532-536
Well 392002076043701	Local well number	KE Ad	60	532-536
Well 392042076011401	Local well number	KE Ad	70	532-536
Well 392149075580801	Local well number	KE Ae	70	532-536
Well 392027075524301	Local well number	KE Af	29	532-536
Well 392147075522301	Local well number	KE Af	79	532-536
Well 391606076120401	Local well number	KE Bb	14	532-536
Well 391634076095201	Local well number	KE Bc	188	532-536
Well 391803076085801	Local well number	KE Bc	189	532-536
Well 391803076085802	Local well number	KE Bc	190	532-536
Well 391910076024801	Local well number	KE Bd	64	532-536
Well 391737976034201	Local well number	KE Bd	87	532-536
Well 391832075560802	Local well number	KE Be	47	532-536
Well 391819075554201	Local well number	KE Be	79	532-536
Well 391819075571501	Local well number	KE Be	103	532-536
Well 391820075580201	Local well number	KE Be	189	532-536
Well 391813075575202	Local well number	KE Be	192	532-536
Well 391717075571001	Local well number	KE Be	194	532-536
Well 391717075571002	Local well number	KE Be	195	532-536
Well 391941075570102	Local well number	KE Be	199	532-536
Well 391941075570103	Local well number	KE Be	200	532-536
Well 391851075561702	Local well number	KE Be	206	532-536
Well 391849075561601	Local well number	KE Be	207	532-536
Well 391849075561602	Local well number	KE Be	208	532-536
Well 391851075561701	Local well number	KE Be	210	532-536
Well 391659075552401	Local well number	KE Be	212	532-536
Well 391320076101501	Local well number	KE Cb	35	532-536
Well 391434076121501	Local well number	KE Cb	89	532-536
Well 391301076143501	Local well number	KE Cb	104	532-536
Well 391246076034702	Local well number	KE Cd	104	532-536
Well 390812076141401	Local well number	KE Db	57	532-536
Well 390218076140901	Local well number	KE Eb	14	532-536

PRINCE GEORGES COUNTY

Well 385920076571701	Local well number	PG Bc	37	537-538
Well 390102076445701	Local well number	PG Be	33	537-538
Well 390112076470201	Local well number	PG Be	34	537-538
Well 390250076494001	Local well number	PG Be	35	537-538
Well 385738076461601	Local well number	PG Ce	39	537-538
Well 385501076454801	Local well number	PG Ce	40	537-538
Well 385524076455301	Local well number	PG Ce	41	537-538
Well 385528076481801	Local well number	PG Ce	42	537-538
Well 385754076425201	Local well number	PG Cf	82	537-538
Well 385841076430301	Local well number	PG Cf	83	537-538
Well 385811076430201	Local well number	PG Cf	84	537-538
Well 385558076424801	Local well number	PG Cf	85	537-538
Well 385520076420901	Local well number	PG Cf	86	537-538
Well 385502076423601	Local well number	PG Cf	87	537-538
Well 385803076435401	Local well number	PG Cf	88	537-538
Well 385833076434801	Local well number	PG Cf	89	537-538
Well 385427076424701	Local well number	PG Df	38	537-538
Well 385405076415401	Local well number	PG Df	39	537-538

QUEEN ANNES COUNTY

Well 391135075534601	Local well number	QA Bg	59	539-543
Well 391328075545301	Local well number	QA Bg	62	539-543
Well 390634076013001	Local well number	QA Ce	37	539-543
Well 390518075510001	Local well number	QA Cg	62	539-543
Well 390055076184501	Local well number	QA Db	14	539-543
Well 390059076191801	Local well number	QA Db	17	539-543
Well 390033076184501	Local well number	QA Db	23	539-543
Well 390117076191301	Local well number	QA Db	27	539-543
Well 390201076182701	Local well number	QA Db	30	539-543
Well 390201076182703	Local well number	QA Db	32	539-543
Well 390023076174301	Local well number	QA Db	34	539-543
Well 390119076191001	Local well number	QA Db	35	539-543
Well 390023076174302	Local well number	QA Db	37	539-543
Well 390040076185601	Local well number	QA Db	44	539-543
Well 390434076082201	Local well number	QA Dd	32	539-543
Well 390443075551401	Local well number	QA Df	58	539-543
Well 390330075545801	Local well number	QA Dg	42	539-543
Well 385825076202901	Local well number	QA Ea	39	539-543
Well 385820076202501	Local well number	QA Ea	42	539-543
Well 385554076213801	Local well number	QA Ea	45	539-543
Well 385825076201201	Local well number	QA Ea	48	544-548
Well 385505076215001	Local well number	QA Ea	59	544-548

QUALITY OF GROUND WATER--Continued Page

MARYLAND--Continued:

QUEEN ANNES COUNTY--Continued

Well 385701076212501	Local well number	QA Ea 60	544-548
Well 385812076202801	Local well number	QA Ea 61	544-548
Well 385718076211501	Local well number	QA Ea 77	544-548
Well 385718076211502	Local well number	QA Ea 78	544-548
Well 385757076200101	Local well number	QA Ea 79	544-548
Well 385757076200102	Local well number	QA Ea 80	544-548
Well 385718076211503	Local well number	QA Ea 81	544-548
Well 385705076212002	Local well number	QA Ea 82	544-548
Well 385705076212001	Local well number	QA Ea 83	544-548
Well 385738076210401	Local well number	QA Ea 84	544-548
Well 385616076205802	Local well number	QA Ea 86	544-548
Well 385502076205701	Local well number	QA Ea 87	544-548
Well 385843076155302	Local well number	QA Eb 155	544-548
Well 385852076195201	Local well number	QA Eb 156	544-548
Well 385852076195202	Local well number	QA Eb 157	544-548
Well 385912076182601	Local well number	QA Eb 159	544-548
Well 385906076171601	Local well number	QA Eb 162	544-548
Well 385825076151501	Local well number	QA Eb 164	544-548
Well 385850076183601	Local well number	QA Eb 167	544-548
Well 385710076173701	Local well number	QA Eb 168	544-548
Well 385817076171501	Local well number	QA Eb 169	544-548
Well 385817076185001	Local well number	QA Eb 173	544-548
Well 385838076172701	Local well number	QA Eb 175	544-548
Well 385828076183201	Local well number	QA Eb 176	544-548
Well 385545076190501	Local well number	QA Eb 177	544-548
Well 385854076190801	Local well number	QA Eb 178	544-548
Well 385848076194701	Local well number	QA Eb 179	544-548
Well 385912076192602	Local well number	QA Eb 181	549-553
Well 385748076112401	Local well number	QA Ec 91	549-553
Well 385922076100801	Local well number	QA Ec 102	549-553
Well 385825075580401	Local well number	QA Ef 32	549-553
Well 385354076212701	Local well number	QA Fa 49	549-553
Well 385024076222501	Local well number	QA Fa 54	549-553
Well 385133076201201	Local well number	QA Fa 58	549-553
Well 385254076201901	Local well number	QA Fa 60	549-553
Well 385434076215601	Local well number	QA Fa 63	549-553
Well 385454076214901	Local well number	QA Fa 64	549-553
Well 385236076215201	Local well number	QA Fa 66	549-553
Well 385023076222201	Local well number	QA Fa 67	549-553
Well 385254076201301	Local well number	QA Fa 72	549-553
Well 385227076215401	Local well number	QA Fa 74	549-553
Well 385155076200401	Local well number	QA Fa 75	549-553
Well 385440076211801	Local well number	QA Fa 77	549-553
Well 385448076212401	Local well number	QA Fa 78	549-553
Well 385123076204201	Local well number	QA Fa 79	549-553
Well 385300076210801	Local well number	QA Fa 81	549-553
Well 385117076222301	Local well number	QA Fa 82	549-553
Well 385501076180301	Local well number	QA Fb 3	549-553

TALBOT COUNTY

Well 385410076030001	Local well number	TA Be 80	554-555
Well 385156076040401	Local well number	TA Be 86	554-555
Well 384859076113601	Local well number	TA Cc 42	554-555
Well 384643076043801	Local well number	TA Ce 7	554-555
Well 384852076014401	Local well number	TA Ce 78	554-555

WICOMICO COUNTY

Well 382609075210501	Local well number	WI Bh 8	556-557
Well 382609075210502	Local well number	WI Bh 9	556-557
Well 382609075201601	Streambed piezometer number	WI Bh pla	556-557
Well 382609075201602	Streambed piezometer number	WI Bh plb	556-557
Well 382609075201603	Streambed piezometer number	WI Bh plc	556-557
Well 382609075201604	Streambed piezometer number	WI Bh pld	556-557
Well 382609075201605	Streambed piezometer number	WI Bh ple	556-557
Well 382609075201606	Streambed piezometer number	WI Bh plf	556-557
Well 382609075201607	Streambed piezometer number	WI Bh plg	556-557
Well 382609075201608	Streambed piezometer number	WI Bh plh	556-557
Well 382609075201609	Streambed piezometer number	WI Bh pli	556-557
Well 382609075201610	Streambed piezometer number	WI Bh plj	556-557
Well 382704075224001	Streambed piezometer number	WI Bx pla	556-557
Well 382704075224002	Streambed piezometer number	WI Bx plb	556-557
Well 382704075224003	Streambed piezometer number	WI Bx plc	556-557
Well 382704075224004	Streambed piezometer number	WI Bx pld	556-557
Well 382704075224005	Streambed piezometer number	WI Bx ple	556-557
Well 382704075224006	Streambed piezometer number	WI Bx plf	556-557
Well 382704075224007	Streambed piezometer number	WI Bx plg	556-557
Well 382704075224008	Streambed piezometer number	WI Bx plh	556-557

QUALITY OF GROUND WATER--Continued

Page

MARYLAND--Continued:WICOMICO COUNTY--Continued

Well 382704075224009	Streambed piezometer number WI Bx pli	556-557
Well 382704075224010	Streambed piezometer number WI Bx plj	556-557
Well 382329075412002	Local well number WI Cd 71	556-557
Well 382328075411301	Local well number WI Cd 72	556-557
Well 382150075352101	Local well number WI Ce 13	556-557
Well 382452075202901	Local well number WI Ch 56	556-557
Well 382452075202902	Local well number WI Ch 57	556-557

WORCESTER COUNTY

Well 382635075030602	Local well number WO Ah 36	558-559
Well 382638075033001	Local well number WO Ah 38	558-559
Well 382442075183901	Streambed piezometer number WO Be pla	558-559
Well 382442075183902	Streambed piezometer number WO Be plb	558-559
Well 382442075183903	Streambed piezometer number WO Be plc	558-559
Well 382332075141802	Local well number WO Bf 87	558-559
Well 382305075150001	Local well number WO Bf 88	558-559
Well 382214075041901	Local well number WO Bh 28	558-559
Well 382216075041201	Local well number WO Bh 29	558-559
Well 382443075033501	Local well number WO Bh 34	558-559
Well 382215075041901	Local well number WO Bh 84	558-559
Well 382215075041902	Local well number WO Bh 85	558-559
Well 382215075041903	Local well number WO Bh 89	558-559
Well 382127075043803	Local well number WO Bh 97	558-559
Well 382127075043802	Local well number WO Bh 98	558-559
Well 381543075273802	Local well number WO Cc 3	558-559
Well 381541075271401	Local well number WO Cc 4	558-559
Well 381940075051901	Local well number WO Cg 34	558-559

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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 U.S. 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 through Patuxent River Basins) 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 1998 series and includes records of water levels and water quality of ground-water wells and springs. It contains records for 6 springs discharge data, water levels at 393 observation wells, and water quality analysis for 290 wells and 23 streambed piezometers. Location for ground-water level wells are shown on figures 5 and 6. The location for the ground-water-quality sites are shown on figure 7. 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 the Branch of Information Services, Federal Center, Bldg. 41, Box 25286, Denver, CO 80225-0286.

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-98-2."** 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.

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, Christopher Tulou,
Secretary of Natural Resources and Environmental Control.

Maryland Department of the Environment, Drinking Water Program, John Grace.

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

Anne Arundel County Health Department, Division of Community and Environmental Health,
Sanitary Engineering section, J. Thomas Gruver.

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. Environmental Protection Agency, Office of Research and Development, Tom Pheiffer.

U.S. Navy, Naval Surface Warfare Center, Indian Head Division, Robin Morey,
Utilities Division Chief.

Dover Air Force Base, 436th Support Group, Civil Engineering Squadron, Environmental
Flight, Jo Anne Deramo, 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 fluctuated in response to precipitation and ground-water withdrawal. In the western and central regions of Maryland water-table levels (fig. 1) at the start of the water year (October 1997) were below normal, while in the eastern Coastal Plain Physiographic Province, water-table levels were above normal. Heavy rain showers in November with 6 to 8 inches of precipitation across Maryland and Delaware caused levels to rise above normal. With steady precipitation events throughout the winter, especially in January, the water table remained above normal levels into the spring. There was a drought for the second year in a row during the summer months. With the lack of rainfall during the growing season, farm crops were substantially affected; however because of the above normal amounts of precipitation during the fall and winter, ground-water levels receded slowly. Water-table levels declined at a consistent rate to below normal by July, and continued to steadily decline into the next water year (October 1998) with no record-low water levels recorded in any long-term (20 years or more) observation wells.

In the bi-State areas where Coastal Plain artesian aquifers are the main source for municipal water supplies, water levels continued to decline for most of the area. Water-level conditions are summarized below by physiographic provinces:

Appalachian Plateau.-- Water-table levels were below normal at the beginning of the water year (October 1997) due to less than normal rainfall during the summer of 1997. In November 1997, heavy rains accounted for more than 6 inches of precipitation that brought water-table levels above normal. Throughout the winter and spring months, water-table levels fluctuated between normal to above-normal levels. By July, dry conditions caused levels to decline below normal. No record-high or low water levels were recorded in this most western physiographic province in Maryland.

Valley and Ridge.-- Ground-water levels in water-table wells were below normal at the start of the 1998 water year. Water levels rose above normal by November, reaching monthly high levels in January and February. These water levels steadily declined to normal levels by July, and continued to decline to below normal levels into the 1999 water year. Despite record high levels for the months of January and February, these levels did not exceed historical high ground-water levels. No record-low water levels were recorded.

Blue Ridge.-- Water-table levels were below normal at the start of the water year. Ground-water levels rose to above normal in November and continued to rise through May, reaching a record-high water level in observation well WA Dj 2. Water levels began declining after reaching a seasonal high in May and June. Water levels continued to decline throughout the remainder of the water year. No record-low water levels were recorded during the water year.

Piedmont.-- Ground-water levels in water-table wells were below normal at the beginning of the water year. In November, water-table levels began to rise steadily, reaching normal to above-normal levels by January. Water levels remained above normal until late spring, when they began declining to below-normal levels into the next water year. No record-high or low water-table levels were recorded.

The Triassic-Jurassic basin aquifers of Maryland are artesian in most areas. In the northwestern part of Montgomery County, a record-low water level occurred in observation well MO Db 68, due to local ground-water withdrawal.

Coastal Plain.-- Water-table levels on the western shore of the Chesapeake Bay were above normal at the start of the 1998 water year. Water levels rose throughout the first half of the water year, peaking by early spring, and then declined into the next water year. On the Eastern Shore (Delmarva Peninsula), water-table levels were also above normal at the beginning of the water year, reaching peak high levels in January and March for the 1998 water year. Well WI Ce 13 in Salisbury reached a record-high level on January 30, 1998. In the northern part of the Delmarva Peninsula, water-table levels dropped to normal levels by March, and continued declining to the extent that some record-low levels were recorded in September.

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 in this outcrop belt that 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 areas. 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) declined in the following towns or areas of Maryland and Delaware due to the general regional increase in ground-water withdrawals: Annapolis and vicinity (Patapsco), Cecilton (Potomac), Charlotte Hall (Aquia), Indian Head and vicinity (Patapsco, Patuxent), La Plata (Patapsco), Leonardtown (Aquia, Piney Point), Lexington Park (Aquia, Piney Point), Newark area, Delaware (Potomac), Prince Frederick (Aquia), St. Charles (Patuxent, Lower Patapsco, Magothy), Solomons Island (Aquia), southern Anne Arundel County (Aquia), and Waldorf (Patuxent, Patapsco, Magothy).

In the Glen Burnie area, the Patapsco aquifer water levels continued to rise because water management began using the Patuxent aquifer several years ago to make better use of the area's available ground-water resources. Some Baltimore industrial area observation well water levels rose in the Patapsco and Patuxent aquifers due to a decrease in ground-water withdrawal by a major industrial user.

Observation wells in the Ocean City area in the Manokin (WO Bg 48 and WO Bh 89) and Ocean City (WO Bh 31) aquifers recorded record-low water levels in August. This area also experienced record-high water levels in February in the Pocomoke (WO Bg 46) and Ocean City aquifers (WO Bg 47). A record-high water level occurred in well WO Fb 2 in the Pocomoke aquifer at Pocomoke City on February 25, 1998. Hydrographs showing artesian observation well long-term trends in the Coastal Plain Physiographic Province are shown on figure 3.

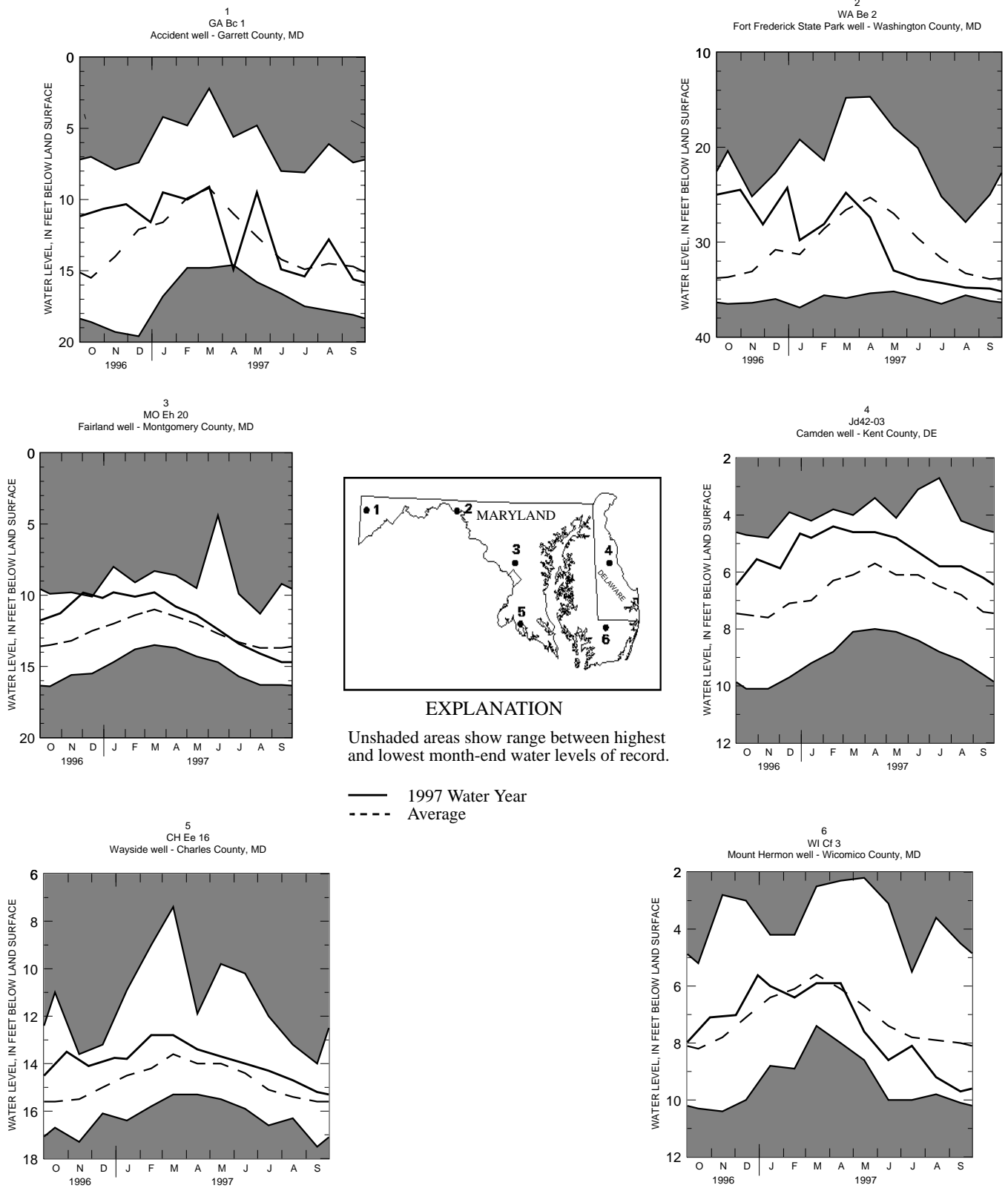
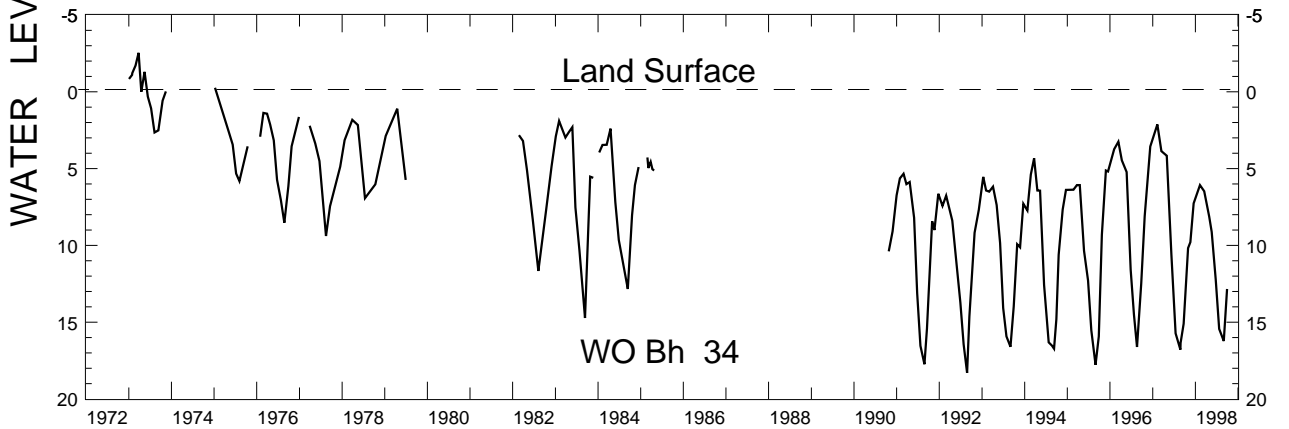
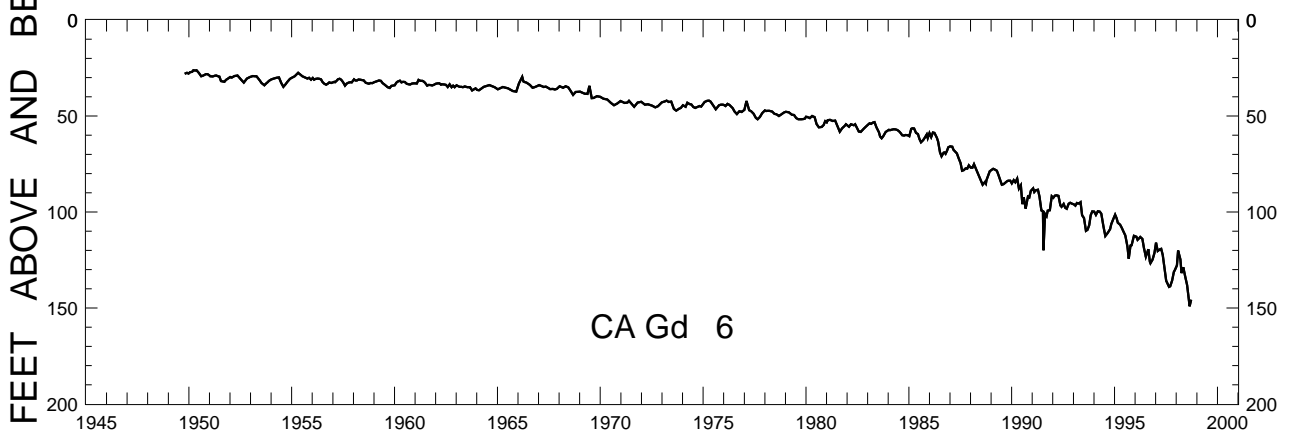
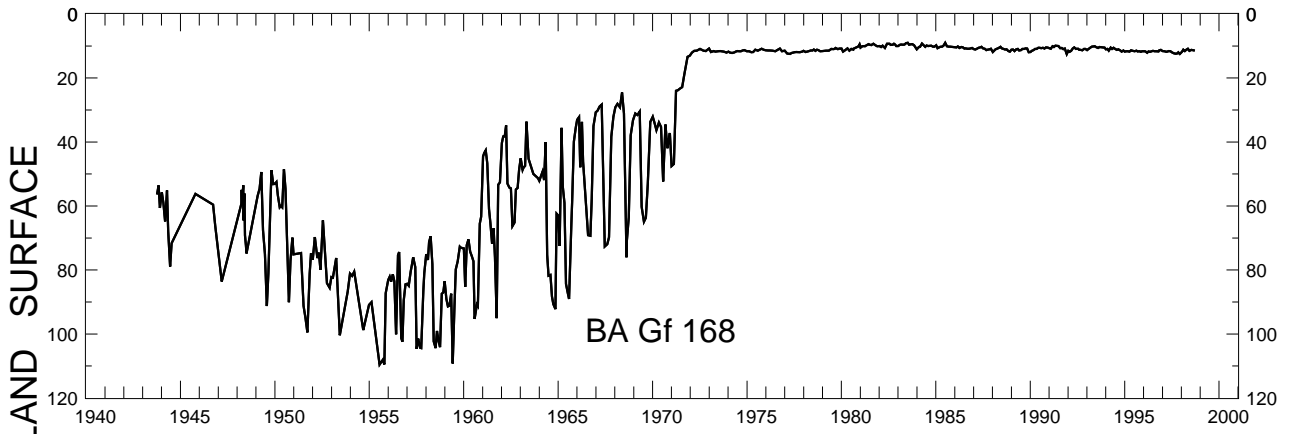


Figure 1.--Monthly ground-water levels at key observation wells.

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1998



SPECIAL NETWORKS AND PROGRAMS

The ground-water **Collection of Basic Records (CBR)** national network provides a framework for collecting and disseminating ground-water level data characterizing climatic variability. The network fills a unique national need and can be used for local, regional, and national investigations of ground-water response to droughts and other climatic effects. The Maryland and Delaware CBR network water-table observation wells period of record hydrographs are shown on figure 3.

National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground-water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among agencies.

Additional information about the NAWQA Program is available through the world wide web at:

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

NAWQA Study Programs in the MD-DE-DC WRD, District

The Delmarva Peninsula Study Unit (Delmarva NAWQA)

The Delmarva Peninsula NAWQA study, one of 7 pilot studies, was active during the period 1986-1991 and is scheduled to restart in 1998. The Delmarva study has given resource managers information about the extent of ground-water contamination caused by agricultural and residential land use. For example, the study has shown that high concentrations (greater than 10 milligrams per liter) of nitrate, which is a known hazard to human health, are commonly found in water samples from most parts of the surficial aquifer, including the lower parts of the aquifer that are used for water supply. Pesticides generally are not found in deep parts of the surficial aquifer, but they could migrate to these zones during the next few decades.

Potomac River Basin Study Unit (Potomac NAWQA)

The Potomac River Basin NAWQA study began in 1991 with a wide variety of sampling approaches to evaluate water quality in streams and ground water. Streams are being evaluated through repetitive water sampling or through synoptic sampling of many streams. Biological assessments of aquatic insects, fish, and algae, and tissues from clams and fish as well as streambed sediment. Ground water is being evaluated by large-scale samplings of private wells in agricultural, urban, and suburban areas. A small-scale ground-water research basin is being studied as a representative setting in the Potomac River Basin. The first phase of the water-quality assessment for the Potomac River Basin study unit focuses on nitrogen, phosphorous, and pesticides, which are the three most common contaminants in water. Analysis of these contaminants have begun to show which streams and ground-water reservoirs contain concentrations of these chemicals at levels harmful to humans and aquatic life; how concentrations of the chemicals vary seasonally; and the likely sources of these chemicals in streams and ground water.

EXPLANATION OF THE RECORDS

The ground-water-levels and quality-of-ground-water records published in this report are for the 1998 water year that began October 1, 1997, and ended September 30, 1998. 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 ground-water sites where the data were collected are shown in figures 5, 6, and 7. 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.

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 or spring and to no other. The number usually is assigned when a well is first established and is retained for that well or spring indefinitely. The system used by the U.S. Geological Survey to assign identification numbers for ground-water well sites is based on geographic location. The "latitude-longitude" system is used for wells.

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1998

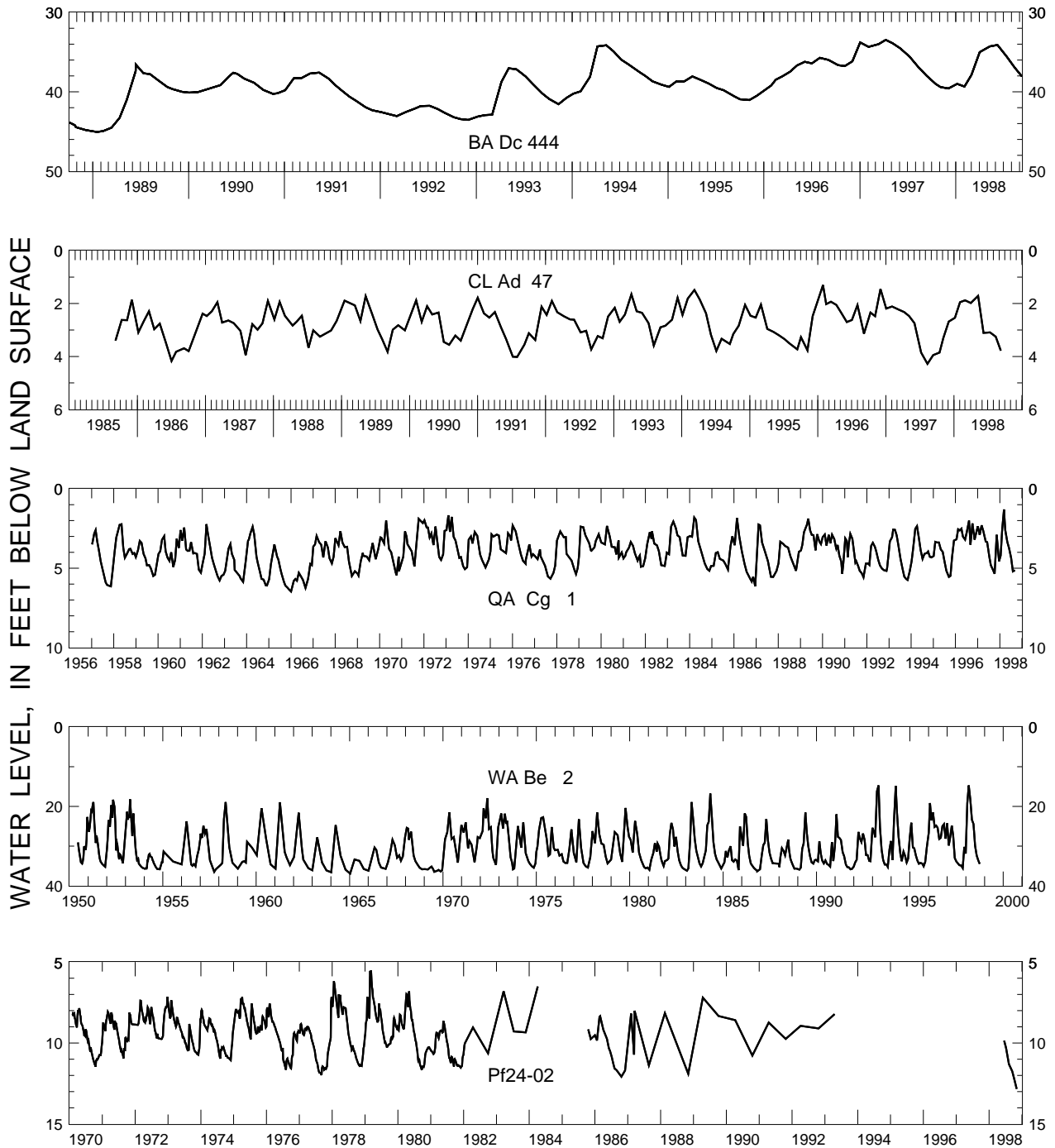


Figure 3.- - Ground-water levels for Collection of Basic Records (CBR) network wells in Maryland and Delaware.

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, Branch of Information Services, Box 25286, Federal Center, 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."

Book 1. Collection of Water Data by Direct Measurement

Section D. Water Quality

- 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.

Book 2. Collection of Environmental Data

Section D. Surface Geophysical Methods

- 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.

Section E. Subsurface Geophysical Methods

- 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.

Section F. Drilling and Sample Methods

- 2-F1. **Application of drilling, coring, and sampling techniques to test holes and wells** by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.

Book 3. Application of Hydraulics

Section A. Surface Water Techniques

- 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 Dividian: 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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued**Book 3. Application of Hydraulics--Continued***Section A. Surface Water Techniques--Continued*

- 3-A12. **Fluorometric procedures for dye tracing**, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A12. 1986. 34 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.
- 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, Nobuhiro 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. 31 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.

Section B. Ground-Water Techniques

- 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 R. L. Cooley and Richard L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.
- 3-B4. **Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems** by R. L. Cooley: USGS--TWRI Book 3, Chapter B4. 1993. 8 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. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 pages.

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- 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.

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- 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.

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- 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.

Section D. Interrelated Phases of the Hydrologic Cycle

- 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.

Book 5. Laboratory Analysis*Section A. Water Analysis*

- 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. Greeson, 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.
- 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.

Section C. Sediment Analysis

- 5-C1. **Laboratory theory and methods for sediment analysis** by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

Book 6. Modeling Techniques*Section A. Ground Water*

- 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.

Book 7. Automated Data Processing and Computations*Section C. Computer Programs*

- 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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued**Book 8. Instrumentation***Section A. Instruments for Measurement of Water Level*

- 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.

Section B. Instruments for Measurement of Discharge

- 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.

Book 9. Handbooks for Water-Resources Investigations*Section A. National Field Manual for the Collection of Water-Quality Data*

- 9-A6. **National Field Manual for the Collection of Water-Quality Data: Field Measurements**, edited by F.D. Wilde and D.B. Radtke: USGS--TWRI Book 9, Chapter A6. 1998. 48 pages.
- 9-A7. **National Field Manual for the Collection of Water-Quality Data: Biological Indicators** edited by D.N. Myers and F.D. Wilde: USGS--TWRI Book 9, Chapter A7. 1997. 49 pages.
- 9-A8. **National Field Manual for the Collection of Water-Quality Data: Bottom-material samples** edited by D.B. Radtke: USGS--TWRI Book 9, Chapter A8. 1998. 48 pages.
- 9-A9. **National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities** edited by S.L. Lane and R.G. Fay: USGS--TWRI Book 9, Chapter A9. 1998. 60 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, Branch of Information Services, Federal Center, Building 41, Box 25286, Denver, Colorado 80225.

Professional Papers

Water Resources of the Delaware River Basin, by G.G. Parker, A.G. Hely, W.B. Keighton, F.H. Olmsted, and others: U.S. Geological Survey Professional Paper 381. 1965. 200 pages.

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.

Geohydrologic appraisal of the Northern Atlantic Coastal Plain in parts of North Carolina, Virginia, Maryland, Delaware, New Jersey, and New York, by Henry Trapp, Jr., and Harold Meisler: U.S. Geological Survey Professional Paper 1404-A. 1991. 163 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

Delaware in Underground waters of the Eastern United States: Geological Survey Research, by N.H. Darton, and M.L. Fuller: U.S. Geological Survey Water-Supply Paper 114-A. 1905. pages 111-113.

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. 54 pages.

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

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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.

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.

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

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Water-table, surface-drainage and engineering soils map of the Burrsville area, Delaware,
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Water-table, surface-drainage and engineering soils map of the Mispillion River, Delaware,
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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.
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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.

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. 1985. 85 pages, 1 plate.

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.

Nitrate and Selected Pesticides in Ground Water of the Mid-Atlantic Region, by S.W. Ator and M.J. Ferrari: U.S. Geological Survey Water-Resources Investigation Report 97-4139. 1997. 8 pages.

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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.

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.

Ground-Water studies in Delaware, G.N. Paulachok: U.S. Geological Survey Open-File Report 88-148. 1989. (fact sheet).

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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.

Selected Hydrogeologic and Chloride-Concentration Data for the Northern and Central Coastal area of New Castle County, Delaware, by M.A. Hayes, S.W. Phillips, and J.C. Wheeler: U.S. Geological Survey Open-File Report 95-766. 1998. 37 pages.

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.

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

Circulars

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 or through e-mail at DGS@MVS.UDEL.EDU.

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.

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.

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Circulars

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.

Water Quality in the Potomac River Basin Maryland, Pennsylvania, Virginia, West Virginia and the District of Columbia, 1992-1996, by S.W. Ator, J.D. Blomquist, J.W. Brakebill, J.M. Demis, M.F. Ferrari, C.V. Miller, and Humbert Zappia: U.S. Geological Survey Circular 1166. 1998. 38 pages.

Unpublished Report

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.

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.

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

Bulletins--Continued

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.

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, Gruffon 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.

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

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.

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. Hjordahl: 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.

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

Report of Investigations--Continued

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.

Network description and initial water-quality data from a statewide ground-water-quality network in Maryland, by D.W. Bolton: Maryland Geological Survey Report of Investigation No. 60. 1996, 167 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. 1996. 136 pages

Hydrogeology and estimation of Ground-Water contributing areas of the Perryman Well Field, Harford County, Maryland, by D.D. Drummond and R.B. Johnston: Maryland Geological Survey Report of Investigation No. 63. 1997. 143 pages.

Hydrogeology, Model simulation, and Water-Supply potential of the Aquia and Piney Point-Nanjemoy aquifers in Calvert and St. Mary's Counties Maryland, by Grufron Achmad and H.J. Hansen: Maryland Geological Survey Report of Investigation No. 64. 1997. 197 pages.

Hydrogeology and simulation of ground-water flow in the Upper Wicomico River Basin and estimation of contributing areas of the City of Salisbury well field, Wicomico County, Maryland, by D.C. Andreasen, and B.S. Smith: Maryland Geological Survey Report of Investigation No. 65. 1997. 87 pages.

Ground-Water quality in the Piedmont Region of Baltimore County, Maryland, by D.W. Bolton: Maryland Geological Survey Report of Investigation No. 66. 1998. 191 pages.

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.

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

Open-File Reports--Continued

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.

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.

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

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.

Professional Paper

Hydrogeologic framework of the Coastal Plain of Maryland, Delaware, and the District of Columbia, as developed for the Northern Atlantic Regional Aquifer System Analysis (RASA) U.S. Geological Survey, by D.A. Vroblesky, and W.B. Fleck: U.S. Geological Survey Professional Paper 1404-E, 1991, 45 pages.

Water-Supply Papers

District of Columbia in Underground water of the Eastern United States, Geological Survey Research, by N.H. Darton, and M.L. Fuller: U.S. Geological Survey Water-Supply Paper 114-A. 1905. pages 124-126.

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 in National Water Summary 1984, Hydrologic events--Selected water-quality trends, and ground-water resources, by L.J. McGreevy, and J.C. Wheeler: U.S. Geological Survey Water-Supply Paper 2275, 1989. pages 243-248.

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.

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

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. Papadopulos, R.R. Bennett, F.K. Mack, and P.C. Trescott: U.S. Geological Survey Circular 697. 1974. 11 pages.

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1998

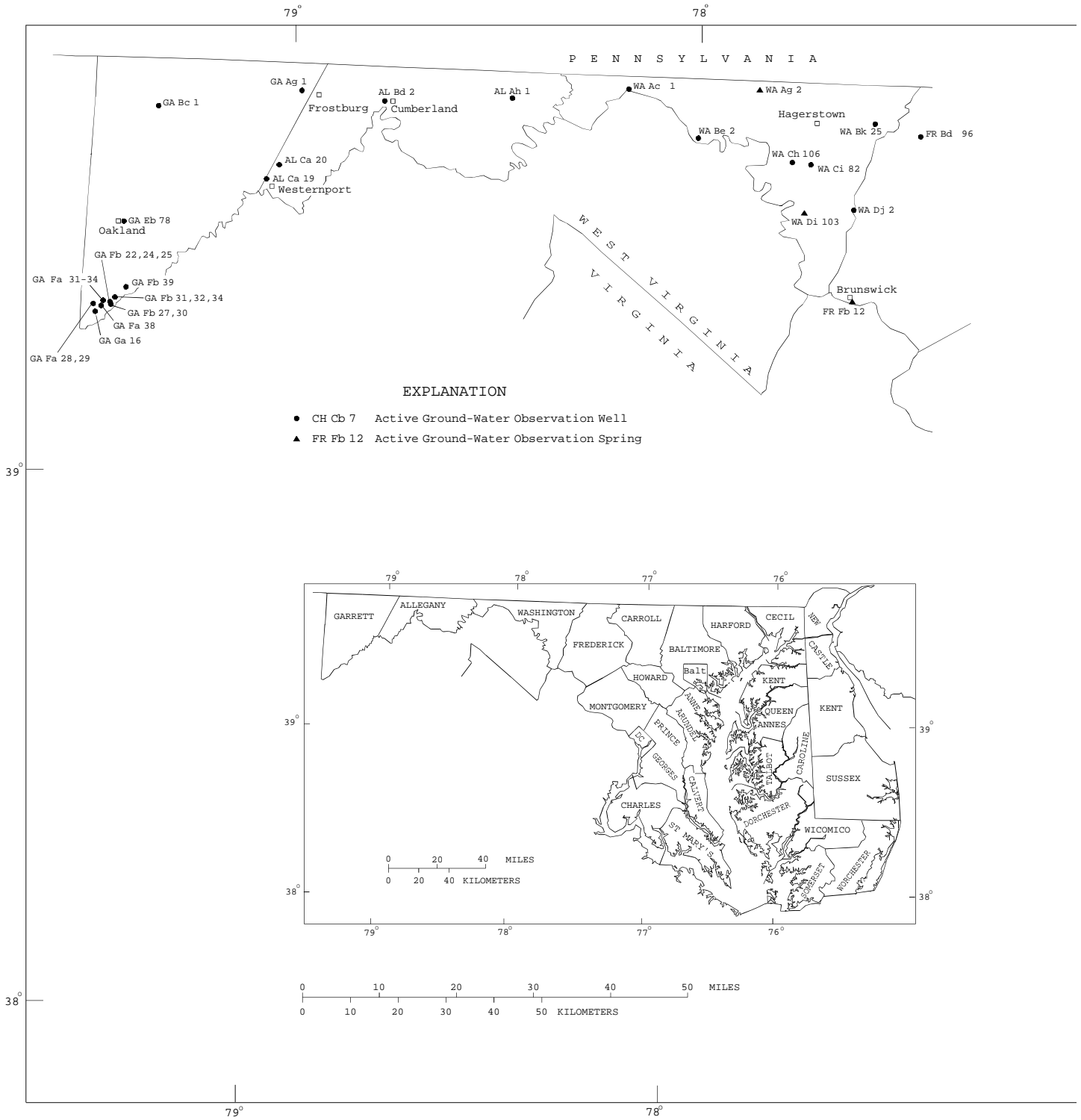
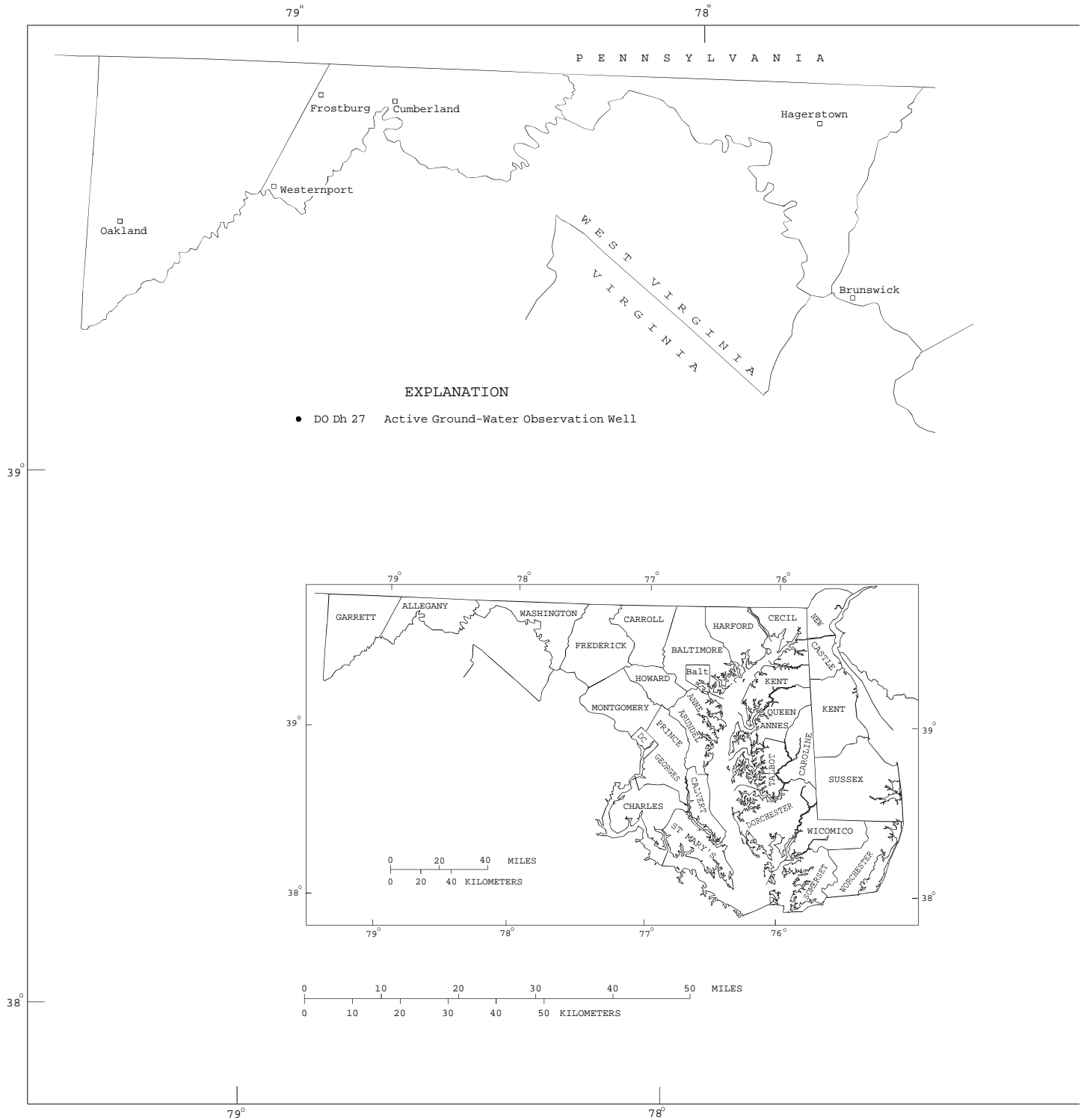


Figure 5. Location of Maryland and Delaware ground-water network observation wells and springs.

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1998



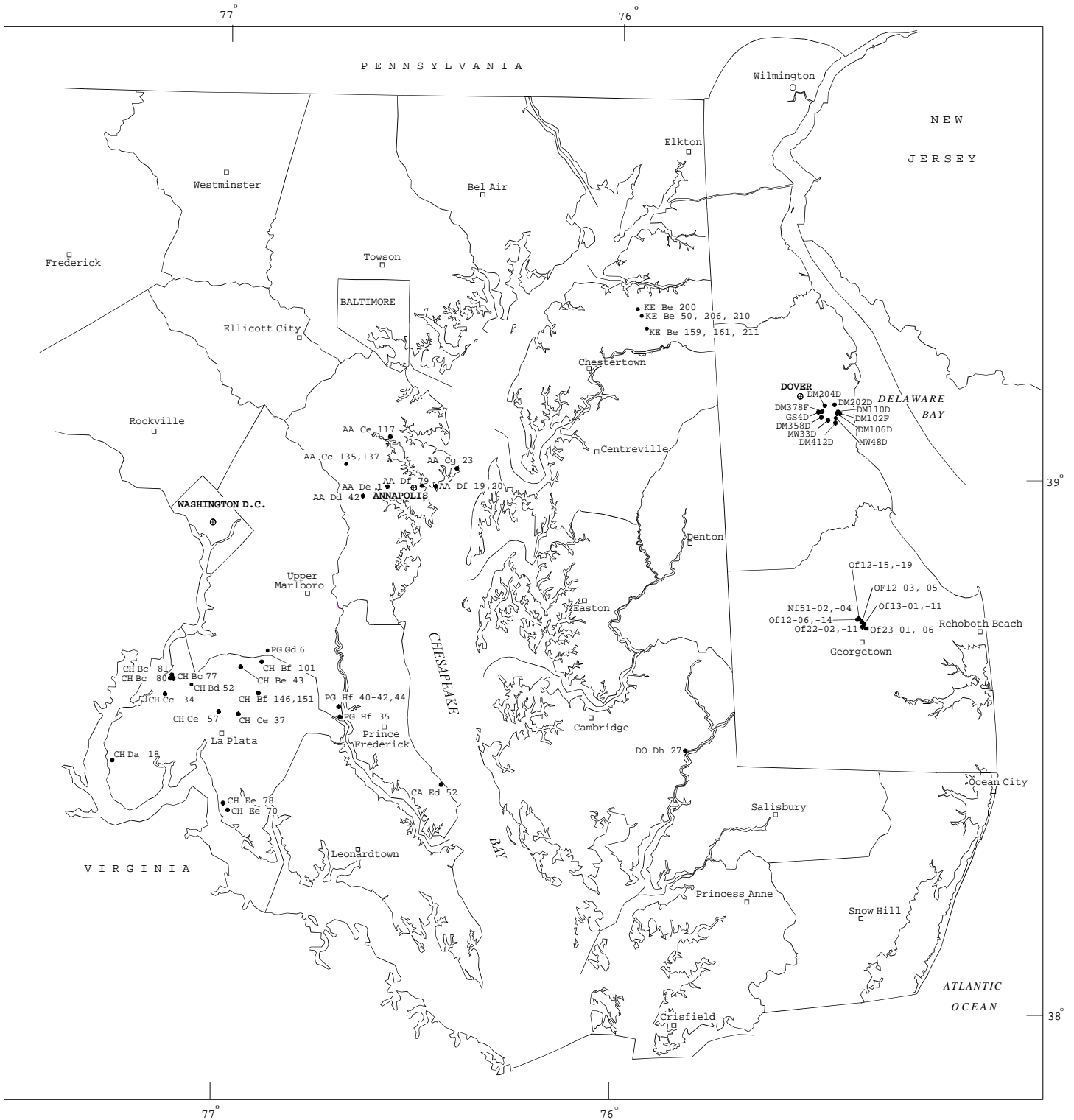
WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1998



Base map modified from US geological Survey 1:100 000 DLG

Figure 6. Location of Maryland and Delaware ground-water project observation wells.

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1998



WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1998

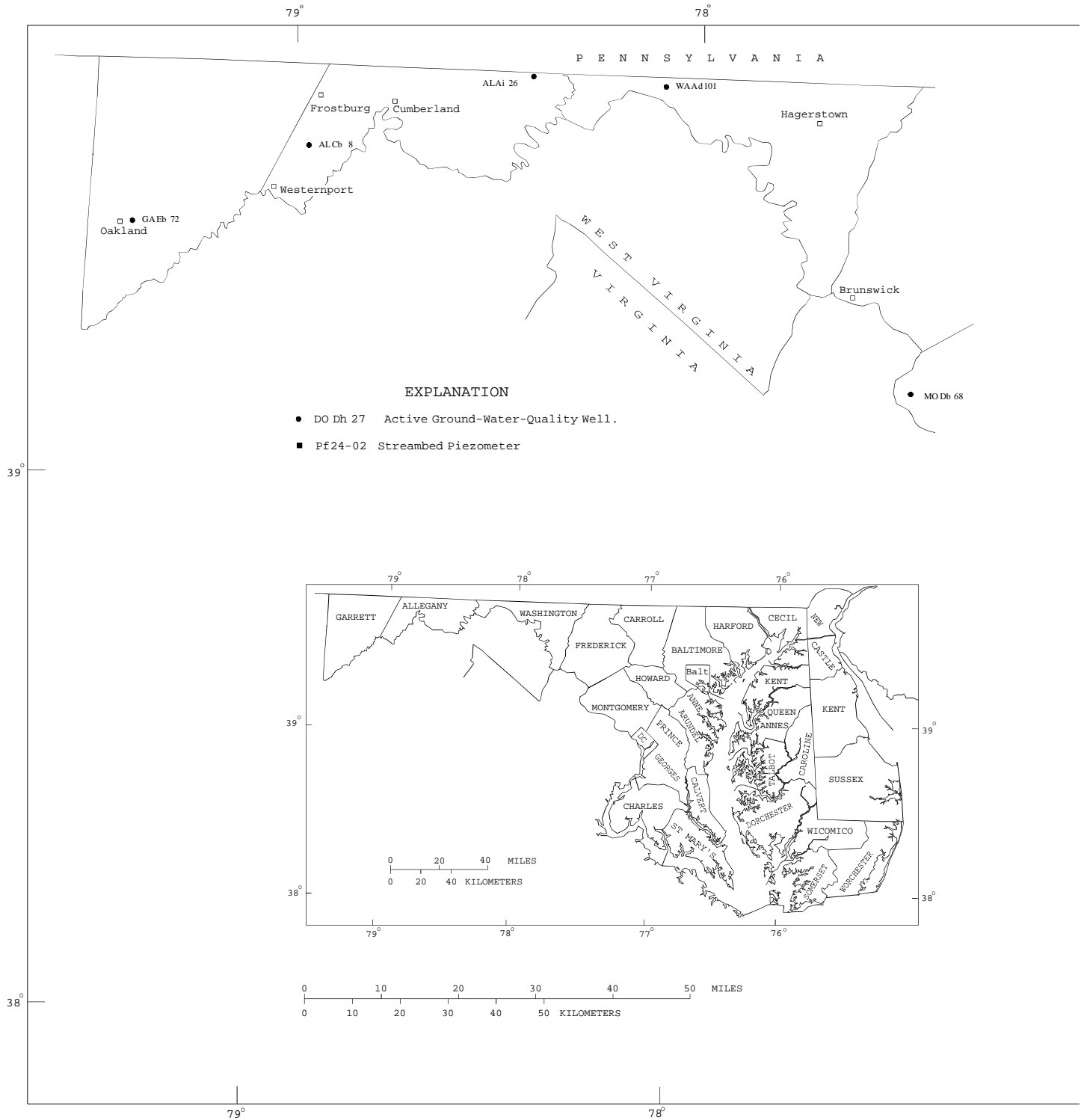


Figure 7. Location of Maryland and Delaware ground-water-quality wells.



GROUND-WATER HYDROLOGIC DATA SITE RECORDS

GROUND-WATER SPRING DISCHARGE

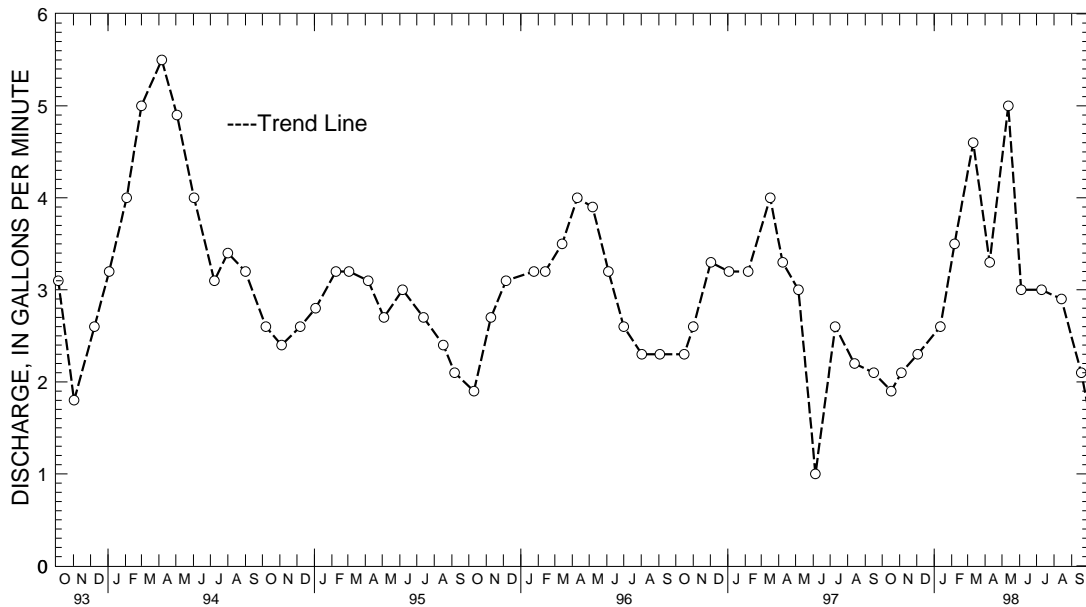
MARYLAND

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 U.S. Geological Survey 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. Temperature readings are available.
 PERIOD OF RECORD.--April 1981, August 1989 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 5.91 gal/min, June 7, 1990;
 minimum discharge measured, 1.0 gal/min, June 5, 1997.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 17, 1997	1.9	JAN 12, 1998	2.6	APR 9, 1998	3.3	JUL 10, 1998	3.0
NOV 4	2.1	FEB 6	3.5	MAY 12	5.0	AUG 14	2.9
DEC 3	2.3	MAR 11	4.6	JUN 4	3.0	SEP 18	2.1
WATER YEAR 1998	MAXIMUM	5.0	MAY 12, 1998	MINIMUM	1.9	OCT 17, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER SPRING DISCHARGE

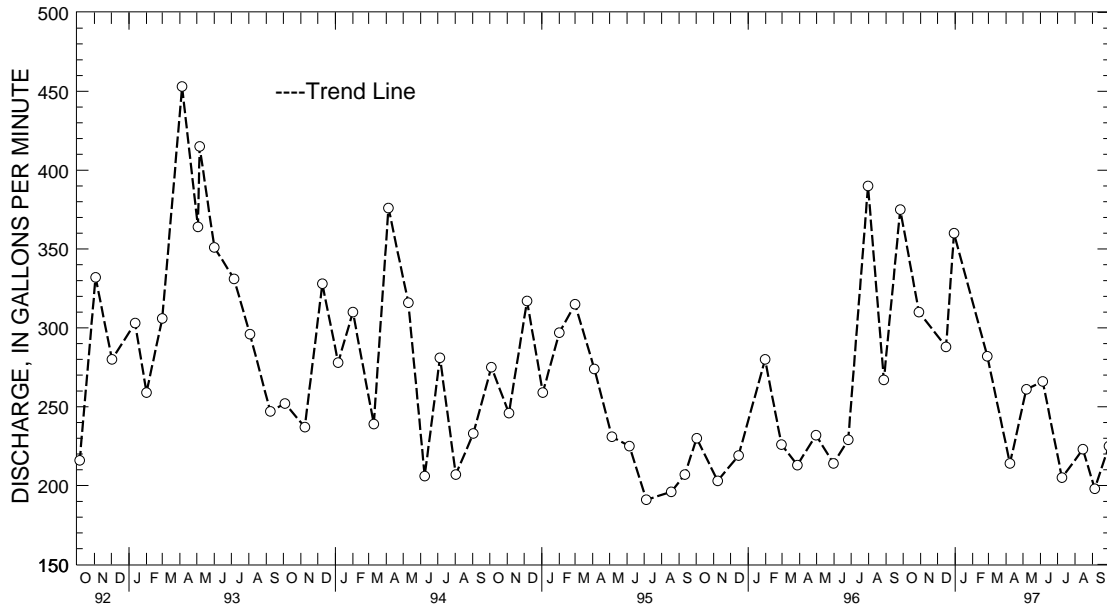
MARYLAND--Continued

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. Temperature readings 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 1997 TO SEPTEMBER 1998

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 22, 1997	191.0	JAN 29, 1998	349.0	MAR 31, 1998	284.0	JUL 7, 1998	263.0
NOV 28	246.0	FEB 25	339.0	MAY 14	363.0	AUG 17	285.0
DEC 23	324.0	MAR 13	289.0	JUN 7	271.0	SEP 3	236.0
WATER YEAR 1997 MAXIMUM		363.0	MAY 14, 1998 MINIMUM		191.0	OCT 22, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1992 THROUGH SEPTEMBER 30, 1997

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,

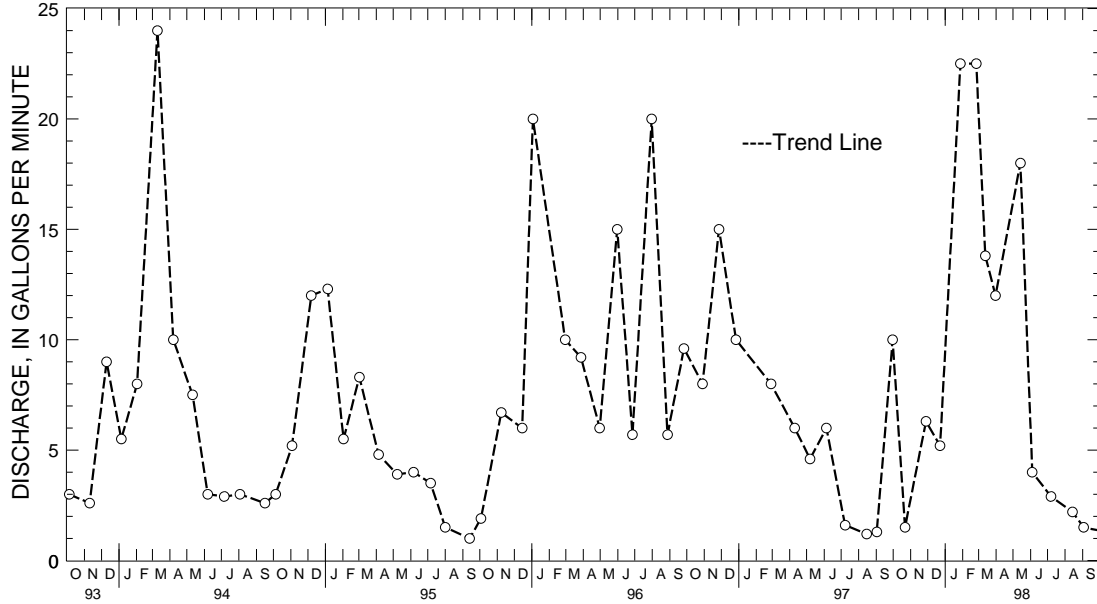
April 1974 to current year.

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 1997 TO SEPTEMBER 1998

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 22, 1997	1.5	JAN 28, 1998	22.5	MAR 31, 1998	12.0	JUL 07, 1998	2.9
NOV 28	6.3	FEB 25	22.5	MAY 14	18.0	AUG 14	2.2
DEC 23	5.2	MAR 13	13.8	JUN 04	4.0	SEP 03	1.5
WATER YEAR 1998	MAXIMUM	22.5	JAN 28, and FEB 25, 1998	MINIMUM	1.5	OCT 22, 1997, and SEP 03, 1998	



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER SPRING DISCHARGE

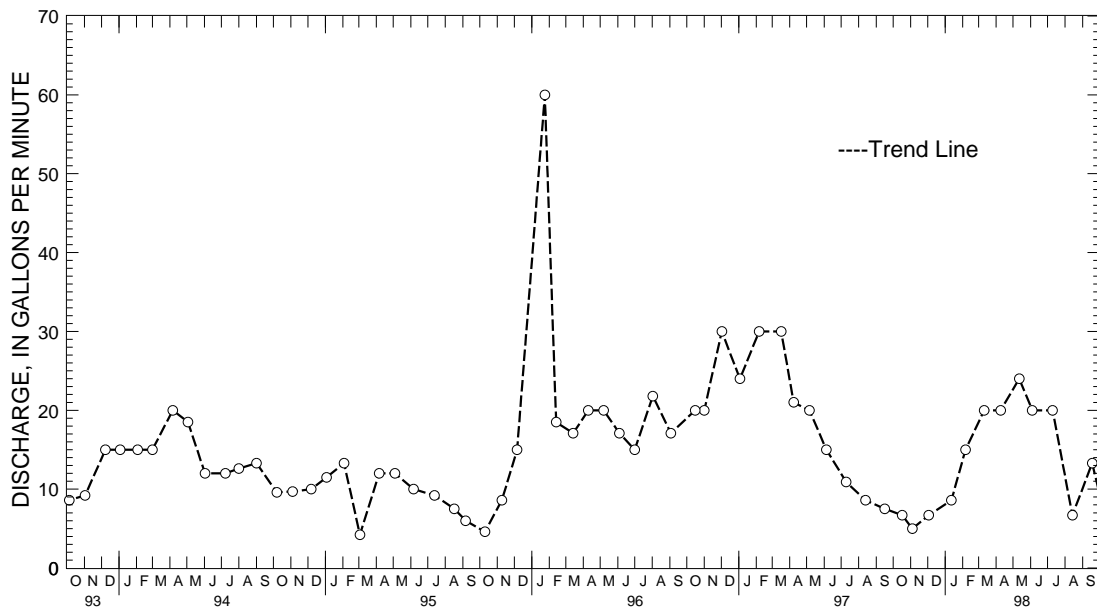
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 17, 1997	6.7	JAN 12, 1998	8.6	APR 9, 1998	20.0	JUL 10, 1998	20.0
NOV 4	5.0	FEB 6	15.0	MAY 12	24.0	AUG 14	6.7
DEC 3	6.7	MAR 11	20.0	JUN 4	20.0	SEP 18	13.3
WATER YEAR 1998	MAXIMUM 24.0	MAY 12, 1998,	MINIMUM 5.0	NOV 4, 1998			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER SPRING DISCHARGE

MARYLAND--Continued

WASHINGTON COUNTY

SPRING NUMBER.--WA Ag 2. SITE ID.--394227077515401.

LOCATION.--Lat 39°42'27", long 77°51'54", Hydrologic Unit 02070004, at Cushwa Spring.

Owner: R. Leon Cushwa.

AQUIFER.--Stonehenge Limestone of Lower Ordovician age. Aquifer code: 367SNNG.

SPRING IMPROVEMENTS.--Discharges from a rock crevice into a concrete and stone walled flume.

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

DATUM.--Elevation of land surface is 500 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

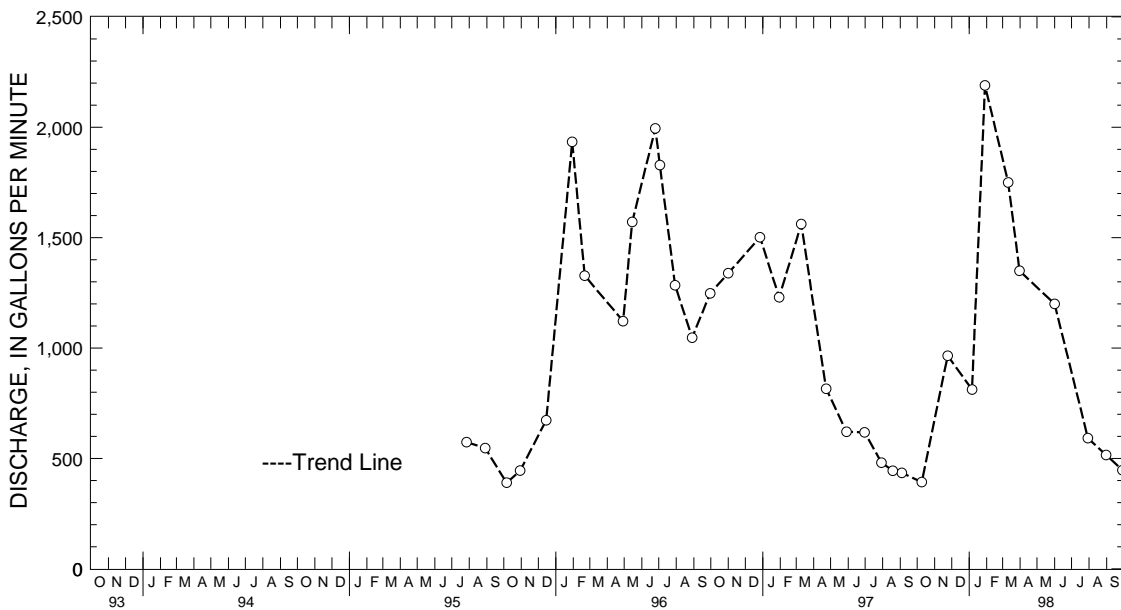
PERIOD OF RECORD.--May 1958 to January 1960, June 1995 to current year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge measured, 2,190 gal/min, Jan. 28, 1998;

minimum discharge measured, 330 gal/min, Jan. 5, 1959.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 9, 1997	393	JAN 29, 1998	2,190	JUN 1, 1998	1,200	SEP 29, 1998	447
NOV 24	965	MAR 11	1,750	JUL 30	592		
JAN 6, 1998	812	MAR 31	1,350	AUG 31	516		
WATER YEAR 1997	MAXIMUM	2,190	JAN 28, 1998	MINIMUM	393	OCT 9, 1997	



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER SPRING DISCHARGE

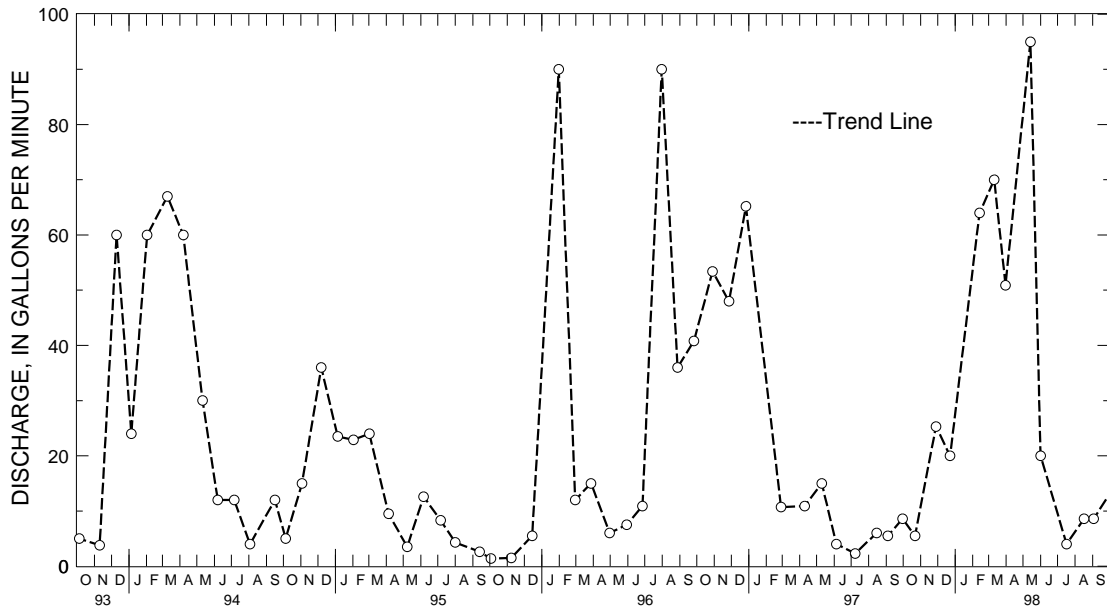
MARYLAND--Continued

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: 371CCCCG.
 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, 95.0 gal/min, May 14, 1998;
 minimum discharge measured, 0.3 gal/min, Oct. 4, 1991 and Nov. 7, 1991.

DISCHARGE, IN GALLONS PER MINUTE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 22, 1997	5.5	FEB 13, 1998	64.0	MAY 14, 1998	95.0	AUG 17, 1998	8.6
NOV 28	25.3	MAR 11	70.0	JUN 1	20.0	SEP 3	8.6
DEC 23	20.0	MAR 31	50.9	JUL 17	4.0		
WATER YEAR 1997	MAXIMUM	95.0	MAY 14, 1998	MINIMUM	4.0	JUL 17, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

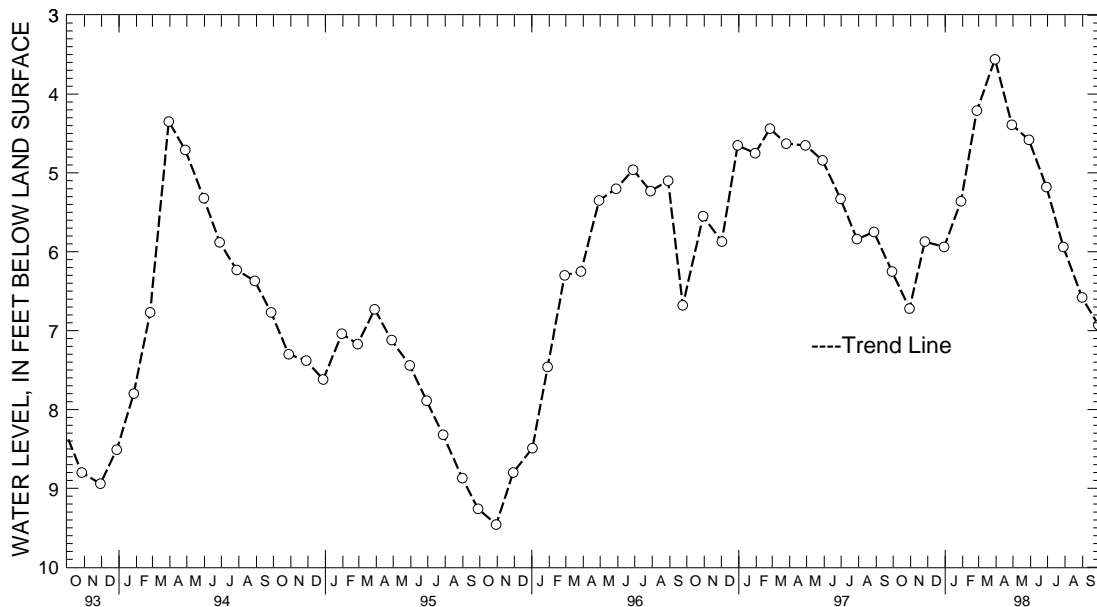
DELAWARE--Continued

KENT COUNTY

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 electric or chalked steel tape 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	6.72	JAN 29, 1998	5.36	APR 29, 1998	4.39	JUL 29, 1998	5.94
NOV 26	5.87	FEB 26	4.21	MAY 29	4.58	AUG 31	6.58
DEC 30	5.94	MAR 30	3.56	JUN 29	5.18	SEP 29	6.93
WATER YEAR 1998		HIGHEST	3.56	MAR 30, 1998	LOWEST	6.93	SEP 29, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

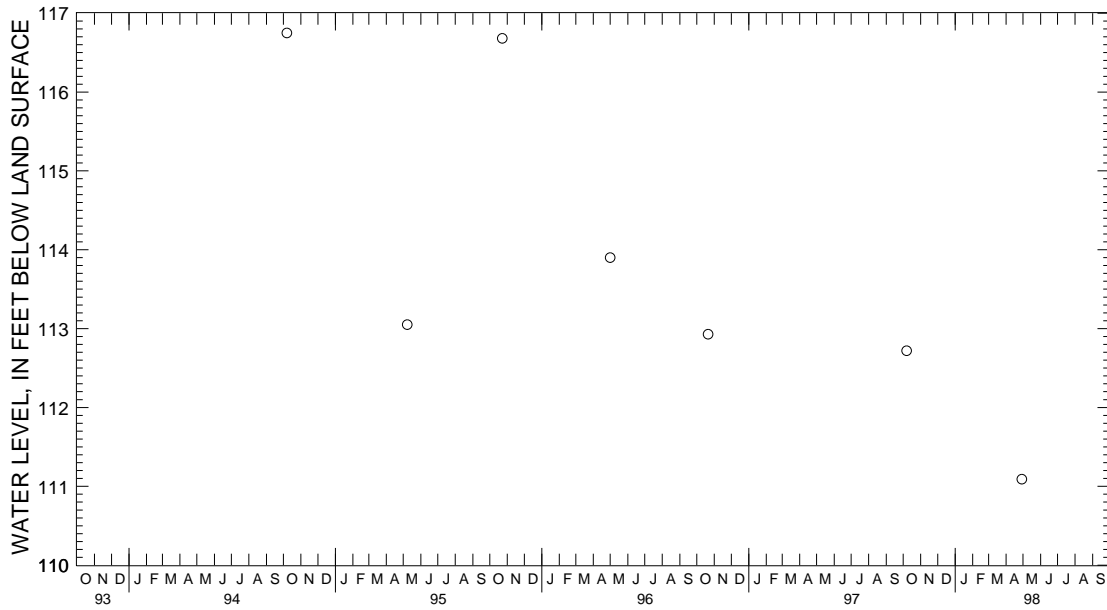
DELAWARE

KENT COUNTY--Continued

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.
 REMARKS.--No Spring 1997, water-level measurement.
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 07, 1997	112.72	APR 29, 1998	111.09
WATER YEAR 1998		HIGHEST 111.09 APR 29, 1998	LOWEST 112.72 OCT 07, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

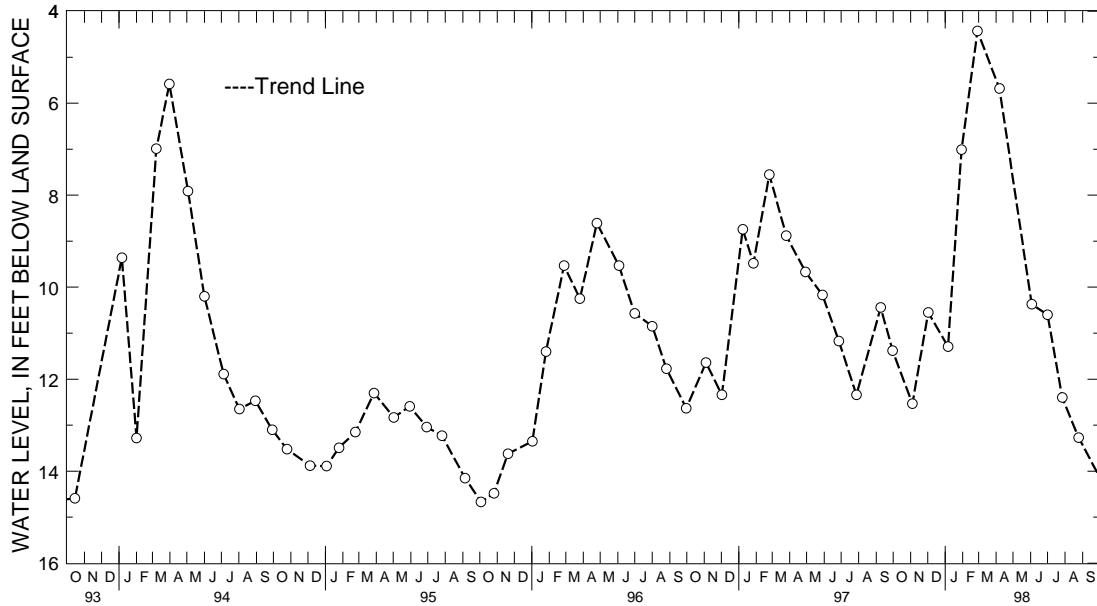
DELAWARE--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04, 1997	12.53	JAN 30, 1998	7.01	JUN 03, 1998	10.37	AUG 25, 1998	13.27
DEC 02	10.55	FEB 27	4.43	JUL 01	10.60		
JAN 06, 1998	11.29	APR 07	5.68	27	12.40		
WATER YEAR 1998		HIGHEST	4.43 FEB 27, 1998	LOWEST	13.27 AUG 25, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

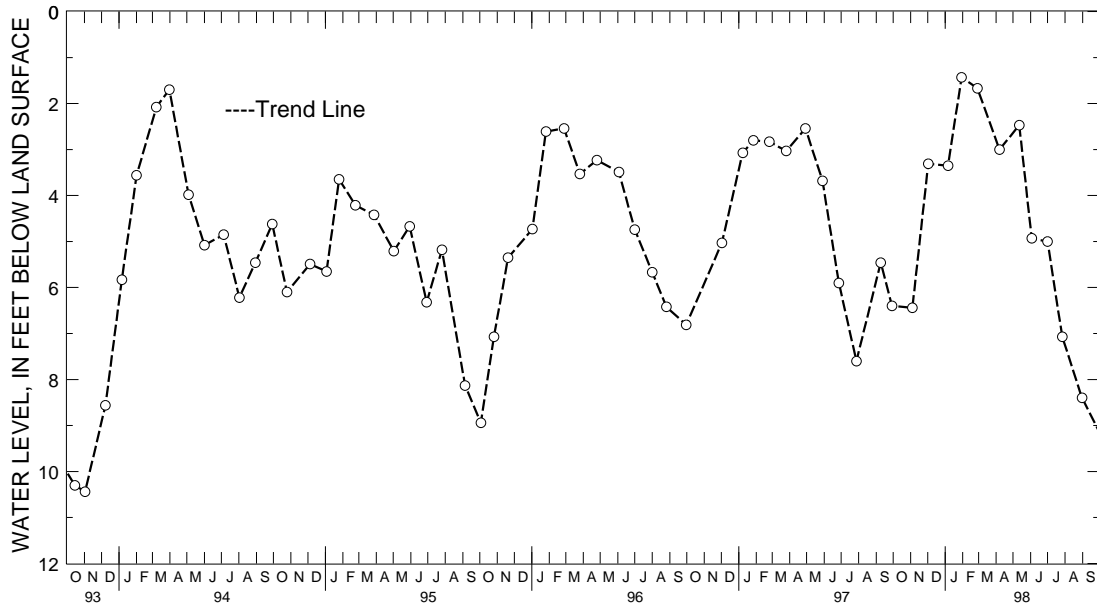
DELAWARE--Continued

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.--Monthly measurements with electric or 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04, 1997	6.44	JAN 30, 1998	1.43	MAY 12, 1998	2.47	JUL 27, 1998	7.07
DEC 02	3.31	FEB 27	1.67	JUN 03	4.93	AUG 31	8.40
JAN 06, 1998	3.35	APR 07	3.00	JUL 01	5.00		
WATER YEAR 1998		HIGHEST	1.43	JAN 30, 1998	LOWEST	8.40	AUG 31, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--DM102F. SITE ID.--390733075264801. PERMIT NUMBER.--96950.
 LOCATION.--Lat 39°07'33", long 75°26'48", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Frederica aquifer of Miocene age. Aquifer code: 122FRDC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 112.5 ft; casing diameter 3 in., to 102.5 ft; screen diameter 2 in. from 102.5 to 112.5 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. 1, 1995, to current year.
 DATUM.--Altitude of land surface is 18.54 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform 2.32 ft above land surface.
 REMARKS.--Dover Air Force Base Project observation well. Water levels may be affected by agricultural irrigation. Missing data on Dec. 18, due to recorder being removed for sampling.
 PERIOD OF RECORD.--October 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.00 ft above sea level, March 22, 26-30, 1998; lowest measured, 4.34 ft below sea level, Aug. 15, and 16, 1997.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (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	1.91	1.85	3.25	3.11	4.52	4.51	4.76	4.74	5.72	5.66	6.67	6.64
2	2.00	1.91	3.27	3.25	4.53	4.51	4.76	4.75	5.78	5.72	6.71	6.66
3	2.09	2.00	3.27	3.27	4.53	4.52	4.79	4.76	5.84	5.78	6.74	6.71
4	2.16	2.09	3.27	3.26	4.57	4.53	4.80	4.79	6.03	5.84	6.74	6.74
5	2.24	2.16	3.26	3.26	4.60	4.57	4.82	4.80	6.06	6.03	6.74	6.73
6	2.29	2.24	3.28	3.26	4.60	4.59	4.85	4.82	6.06	6.05	6.73	6.73
7	2.32	2.29	3.34	3.28	4.59	4.59	4.90	4.85	6.13	6.06	6.76	6.73
8	2.36	2.32	3.51	3.34	4.59	4.59	4.96	4.90	6.18	6.13	6.85	6.76
9	2.41	2.36	3.56	3.51	4.59	4.59	4.96	4.95	6.20	6.18	6.91	6.85
10	2.46	2.41	3.56	3.56	4.62	4.59	4.95	4.93	6.22	6.20	6.91	6.90
11	2.48	2.46	3.56	3.56	4.62	4.62	4.93	4.93	6.36	6.22	6.90	6.89
12	2.52	2.48	3.59	3.56	4.62	4.62	4.93	4.93	6.37	6.36	6.89	6.88
13	2.57	2.52	3.69	3.59	4.62	4.62	4.96	4.93	6.37	6.36	6.88	6.88
14	2.62	2.57	3.81	3.69	4.62	4.61	4.96	4.93	6.37	6.37	6.91	6.88
15	2.66	2.62	3.83	3.81	4.61	4.61	5.06	4.93	6.37	6.36	6.90	6.90
16	2.70	2.66	3.85	3.83	4.61	4.61	5.06	5.06	6.36	6.36	6.90	6.87
17	2.73	2.70	3.87	3.85	4.61	4.61	5.06	5.06	6.46	6.36	6.87	6.85
18	2.78	2.73	3.94	3.87	---	---	5.07	5.06	6.46	6.46	6.86	6.85
19	2.85	2.78	4.00	3.94	4.61	4.61	5.07	5.07	6.46	6.45	6.92	6.86
20	2.87	2.85	4.04	4.00	4.61	4.61	5.07	5.07	6.46	6.45	6.92	6.91
21	2.88	2.87	4.12	4.04	4.61	4.60	5.07	5.07	6.46	6.44	6.97	6.92
22	2.90	2.88	4.21	4.12	4.61	4.60	5.07	5.07	6.45	6.43	7.00	6.97
23	2.90	2.90	4.23	4.21	4.62	4.61	5.24	5.07	6.57	6.43	6.99	6.99
24	2.93	2.90	4.24	4.23	4.62	4.62	5.26	5.24	6.57	6.57	6.99	6.99
25	3.00	2.93	4.29	4.24	4.70	4.62	5.26	5.26	6.57	6.56	6.99	6.99
26	3.10	2.99	4.37	4.29	4.69	4.68	5.26	5.26	6.57	6.56	7.00	6.99
27	3.13	3.10	4.37	4.37	4.72	4.68	5.37	5.26	6.60	6.57	7.00	7.00
28	3.12	3.10	4.41	4.37	4.72	4.71	5.55	5.37	6.64	6.59	7.00	7.00
29	3.11	3.11	4.43	4.41	4.83	4.71	5.58	5.55	---	---	7.00	7.00
30	3.11	3.11	4.51	4.43	4.83	4.82	5.63	5.58	---	---	7.00	6.99
31	3.11	3.11	---	---	4.82	4.76	5.66	5.63	---	---	6.99	6.98
MONTH	3.13	1.85	4.51	3.11	4.83	4.51	5.66	4.74	6.64	5.66	7.00	6.64

GROUND-WATER LEVELS

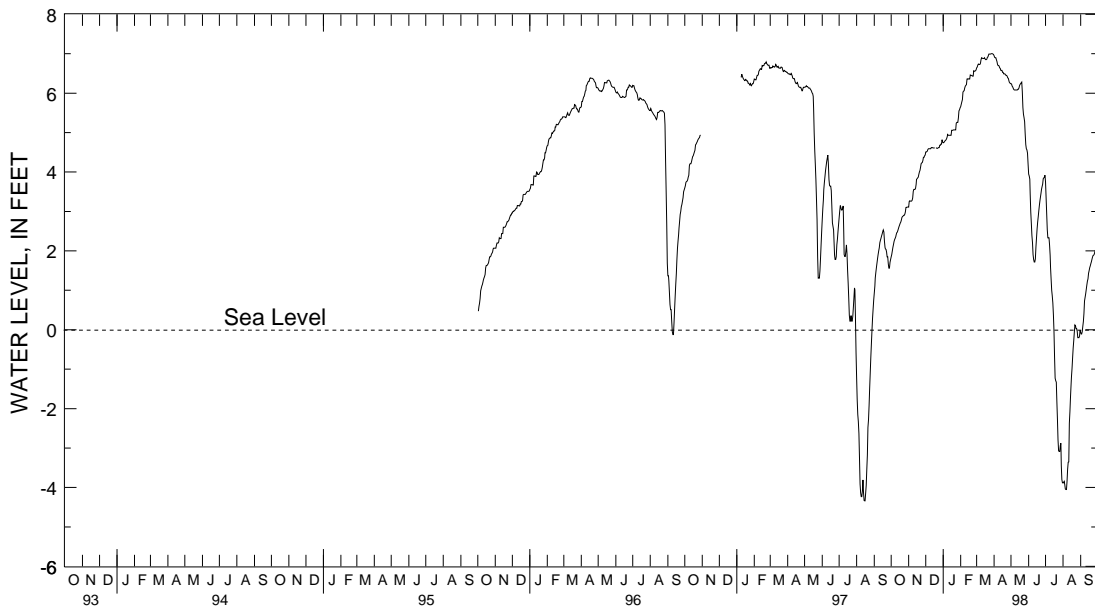
DELAWARE-Continued

KENT COUNTY--Continued

DM102F--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.98	6.95	6.24	6.24	4.21	3.95	3.97	3.75	-3.88	-3.88	.04	-.07
2	6.95	6.91	6.24	6.23	3.95	3.90	3.75	3.34	-3.85	-3.88	-.07	-.11
3	6.91	6.90	6.23	6.18	3.90	3.82	3.34	2.93	-3.81	-3.85	-.05	-.11
4	6.90	6.90	6.18	6.16	3.82	3.45	2.93	2.54	-3.81	-3.92	.08	-.05
5	6.90	6.85	6.17	6.12	3.45	2.99	2.54	2.33	-3.92	-4.04	.21	.08
6	6.85	6.80	6.12	6.09	2.99	2.69	2.33	2.33	-4.04	-4.05	.41	.21
7	6.80	6.73	6.09	6.08	2.69	2.39	2.34	2.33	-3.84	-4.05	.73	.41
8	6.73	6.70	6.08	6.08	2.39	2.21	2.34	2.14	-3.54	-3.84	.82	.73
9	6.77	6.70	6.08	6.08	2.21	1.91	2.14	1.89	-3.36	-3.54	.91	.82
10	6.77	6.69	6.08	6.08	1.91	1.78	1.89	1.58	-3.35	-3.36	1.02	.91
11	6.69	6.64	6.08	6.08	1.78	1.72	1.58	1.29	-2.37	-3.35	1.13	1.02
12	6.64	6.63	6.14	6.08	1.80	1.72	1.29	1.00	-2.07	-2.37	1.23	1.13
13	6.63	6.58	6.14	6.10	2.10	1.80	1.00	.86	-1.71	-2.07	1.29	1.23
14	6.58	6.58	6.14	6.10	2.33	2.10	.86	.68	-1.39	-1.71	1.43	1.29
15	6.58	6.58	6.20	6.14	2.56	2.33	.68	.37	-1.20	-1.39	1.50	1.43
16	6.58	6.53	6.22	6.20	2.73	2.56	.37	-.04	-.98	-1.20	1.57	1.50
17	6.54	6.53	6.24	6.22	2.87	2.73	-.04	-.70	-.70	-.98	1.62	1.57
18	6.54	6.49	6.26	6.24	3.02	2.87	-.70	-1.23	-.46	-.70	1.68	1.62
19	6.50	6.49	6.29	6.26	3.16	3.02	-1.23	-1.29	-.27	-.46	1.73	1.68
20	6.50	6.49	6.29	6.28	3.28	3.16	-1.29	-1.33	-.06	-.27	1.77	1.73
21	6.49	6.47	6.28	6.04	3.35	3.28	-1.33	-1.82	.12	-.06	1.83	1.77
22	6.47	6.45	6.04	5.64	3.45	3.35	-1.82	-2.28	.16	.12	1.88	1.83
23	6.45	6.45	5.64	5.47	3.56	3.45	-2.28	-2.79	.16	.10	1.89	1.88
24	6.45	6.43	5.47	5.38	3.63	3.56	-2.79	-3.07	.10	.03	1.91	1.89
25	6.43	6.39	5.38	5.28	3.69	3.63	-3.07	-3.09	.03	.03	1.96	1.91
26	6.39	6.38	5.28	4.97	3.83	3.69	-2.93	-3.09	.03	-.04	2.01	1.96
27	6.38	6.32	4.97	4.70	3.85	3.83	-2.68	-2.93	-.04	-.20	2.05	2.01
28	6.32	6.28	4.70	4.59	3.87	3.85	-2.68	-2.88	-.20	-.20	2.06	2.05
29	6.28	6.26	4.59	4.56	3.92	3.87	-2.88	-3.44	-.16	-.20	2.06	2.06
30	6.26	6.24	4.56	4.48	3.97	3.92	-3.44	-3.80	-.01	-.16	2.11	2.06
31	---	---	4.48	4.21	---	---	-3.80	-3.88	.04	-.01	---	---
MONTH	6.98	6.24	6.29	4.21	4.21	1.72	3.97	-3.88	.16	-4.05	2.11	-.11
YEAR	7.00	-4.05										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--DM106D. SITE ID.--390734075271402. PERMIT NUMBER.--96636.
 LOCATION.--Lat 39°07'34", long 75°27'14", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Columbia aquifer of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 82 ft; casing diameter 2 in., to 72 ft;
 screen diameter 2 in. from 72 to 82 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. 25, 1996, to current year.
 DATUM.--Altitude of land surface is 23.51 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform 3.60 ft above land surface.
 REMARKS.--Dover Air Force Base Project observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--December 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.42 ft above sea level, March 22, 1998;
 lowest measured, 9.03 ft above sea level, Dec. 8, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.20	10.12	9.95	9.75	11.95	11.62	11.83	11.55	14.15	14.07	15.46	15.31
2	10.14	10.11	9.88	9.76	11.62	11.53	11.84	11.83	14.07	14.07	15.31	15.29
3	10.16	10.14	9.76	9.75	11.67	11.53	11.91	11.84	14.07	14.07	15.49	15.29
4	10.16	10.13	9.75	9.67	11.75	11.67	11.91	11.90	14.45	14.07	15.57	15.49
5	10.13	10.12	9.67	9.67	11.76	11.66	11.94	11.90	14.65	14.45	15.57	15.51
6	10.12	10.08	9.76	9.67	11.66	11.62	12.00	11.94	14.66	14.65	15.51	15.42
7	10.08	10.02	9.84	9.76	11.62	11.51	12.02	12.00	14.76	14.66	15.42	15.39
8	10.02	10.01	10.05	9.84	11.51	11.47	12.13	12.02	14.77	14.69	15.71	15.39
9	10.01	10.01	10.20	10.05	11.48	11.47	12.08	11.87	14.69	14.59	---	---
10	10.01	10.00	10.26	10.20	11.67	11.48	11.87	11.80	14.59	14.53	---	---
11	10.00	9.94	10.35	10.26	11.65	11.45	11.85	11.81	14.76	14.53	---	---
12	9.95	9.93	10.43	10.35	11.45	11.45	11.85	11.80	14.89	14.74	---	---
13	9.95	9.94	10.62	10.43	11.49	11.45	11.97	11.81	14.74	14.66	15.74	15.65
14	9.95	9.93	10.80	10.62	11.49	11.39	11.84	11.72	14.66	14.48	15.81	15.54
15	9.93	9.90	10.94	10.80	11.39	11.35	12.17	11.77	14.48	14.35	15.54	15.28
16	9.90	9.89	10.98	10.94	11.43	11.36	12.17	12.13	14.36	14.35	15.28	15.13
17	9.89	9.88	11.05	10.98	11.45	11.41	12.13	12.09	14.72	14.36	15.13	15.05
18	9.88	9.86	11.18	11.05	---	---	12.09	12.09	14.74	14.67	15.21	15.06
19	9.89	9.86	11.27	11.18	11.34	11.31	12.16	12.09	14.67	14.49	15.83	15.21
20	9.89	9.84	11.27	11.25	11.37	11.29	12.16	12.16	14.53	14.49	16.01	15.83
21	9.84	9.83	11.36	11.25	11.29	11.19	12.16	12.15	14.53	14.29	16.40	16.01
22	9.83	9.83	11.44	11.36	11.40	11.19	12.15	12.14	14.29	14.20	16.42	16.39
23	9.83	9.81	11.60	11.44	11.43	11.30	12.52	12.14	15.04	14.20	16.39	16.29
24	9.82	9.81	11.61	11.58	11.31	11.20	12.96	12.52	15.53	15.04	16.29	16.03
25	9.88	9.79	11.77	11.58	11.46	11.31	12.98	12.96	15.57	15.53	16.03	15.85
26	9.93	9.79	11.94	11.77	11.35	11.34	13.03	12.98	15.53	15.48	15.94	15.85
27	9.97	9.83	11.91	11.62	11.53	11.34	13.31	13.03	15.51	15.50	15.93	15.77
28	9.83	9.74	11.77	11.62	11.52	11.41	13.93	13.31	15.51	15.46	15.77	15.67
29	9.75	9.74	11.77	11.69	11.97	11.41	14.20	13.93	---	---	15.67	15.46
30	9.75	9.74	11.95	11.71	11.97	11.72	14.24	14.20	---	---	15.46	15.34
31	9.75	9.74	---	---	11.72	11.57	14.24	14.15	---	---	15.34	15.21
MONTH	10.20	9.74	11.95	9.67	11.97	11.19	14.24	11.55	15.57	14.07	16.42	15.05

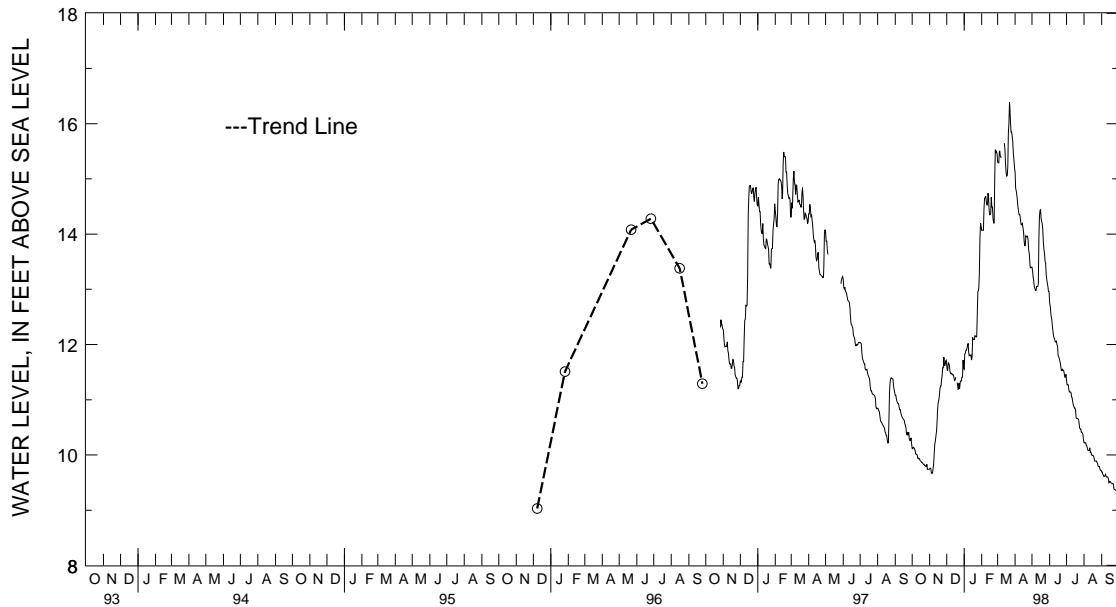
GROUND-WATER LEVELS

DELAWARE-Continued

KENT COUNTY--Continued

DM106D--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.21	15.12	13.43	13.40	12.97	12.75	11.52	11.35	10.28	10.22	9.72	9.69
2	15.12	14.83	13.43	13.34	12.75	12.71	11.35	11.27	10.22	10.22	9.70	9.69
3	14.83	14.78	13.34	13.22	12.75	12.57	11.27	11.27	10.22	10.22	9.69	9.66
4	14.79	14.71	13.22	13.15	12.57	12.51	11.27	11.27	10.22	10.22	9.66	9.64
5	14.71	14.61	13.16	13.05	12.52	12.46	11.27	11.18	10.22	10.17	9.64	9.61
6	14.61	14.49	13.05	13.02	12.46	12.34	11.18	11.14	10.17	10.16	9.62	9.61
7	14.49	14.41	13.02	12.98	12.34	12.25	11.14	11.14	10.16	10.11	9.67	9.62
8	14.41	14.35	13.06	12.98	12.25	12.16	11.15	11.14	10.11	10.08	9.67	9.65
9	14.55	14.35	13.06	13.05	12.16	12.12	11.15	11.12	10.08	10.08	9.65	9.61
10	14.51	14.33	13.05	13.05	12.12	12.10	11.12	11.05	10.14	10.08	9.61	9.60
11	14.33	14.23	13.10	13.05	12.10	12.05	11.05	11.04	10.15	10.13	9.60	9.60
12	14.23	14.17	13.93	13.10	12.07	12.05	11.04	10.96	10.13	10.05	9.60	9.60
13	14.19	14.17	14.33	13.93	12.07	12.06	10.96	10.91	10.05	10.05	9.60	9.57
14	14.26	14.19	14.43	14.33	12.07	12.00	10.91	10.88	10.05	10.00	9.57	9.50
15	14.26	14.12	14.48	14.43	12.00	11.98	10.88	10.85	10.00	10.00	9.52	9.52
16	14.12	14.04	14.48	14.44	11.98	11.80	10.85	10.85	10.00	9.99	9.52	9.52
17	14.04	13.88	14.44	14.30	11.80	11.78	10.85	10.81	9.99	9.99	9.52	9.50
18	13.88	13.79	14.30	14.24	11.78	11.75	10.81	10.68	9.99	9.98	9.50	9.49
19	14.06	13.79	14.24	14.19	11.75	11.70	10.68	10.66	9.98	9.93	9.49	9.49
20	14.06	13.97	14.19	14.09	11.73	11.66	10.66	10.66	9.93	9.89	9.49	9.48
21	13.97	13.95	14.09	13.87	11.66	11.58	10.66	10.65	9.89	9.89	9.48	9.48
22	13.96	13.95	13.87	13.73	11.58	11.53	10.65	10.65	9.89	9.89	9.48	9.47
23	13.98	13.96	13.73	13.66	11.57	11.53	10.65	10.59	9.89	9.89	9.47	9.38
24	13.98	13.88	13.66	13.51	11.57	11.55	10.59	10.49	9.89	9.86	9.38	9.37
25	13.88	13.70	13.51	13.48	11.55	11.53	10.49	10.47	9.86	9.84	9.37	9.37
26	13.71	13.65	13.48	13.27	11.55	11.53	10.47	10.47	9.84	9.79	9.37	9.36
27	13.65	13.47	13.27	13.18	11.55	11.48	10.47	10.41	9.80	9.79	9.37	9.36
28	13.47	13.39	13.18	13.11	11.48	11.41	10.41	10.41	9.80	9.79	9.36	9.31
29	13.40	13.39	13.11	13.05	11.46	11.41	10.41	10.40	9.80	9.74	9.31	9.31
30	13.40	13.40	13.05	12.96	11.54	11.46	10.40	10.38	9.74	9.72	9.31	9.31
31	---	---	12.97	12.96	---	---	10.38	10.28	9.72	9.72	---	---
MONTH	15.21	13.39	14.48	12.96	12.97	11.41	11.52	10.28	10.28	9.72	9.72	9.31
YEAR	16.42	9.31										



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--DM110D. SITE ID.--390744075270402. PERMIT NUMBER.--95553.
 LOCATION.--Lat 39°07'44", long 75°27'04", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Columbia aquifer of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 74 ft; casing diameter 2 in., to 64 ft;
 screen diameter 2 in. from 64 to 74 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. 25, 1995, to current year.
 DATUM.--Altitude of land surface is 25.37 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform 4.94 ft above land surface.
 REMARKS.--Dover Air Force Base Project observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.12 ft above sea level, March 9, 1998;
 lowest measured, 8.18 ft above sea level, Nov. 9, and 10, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.91	9.83	9.65	9.47	11.64	11.38	11.64	11.45	13.90	13.85	14.96	14.84
2	9.83	9.82	9.61	9.52	11.38	11.32	11.66	11.64	13.85	13.83	14.84	14.82
3	9.84	9.83	9.52	9.51	11.44	11.34	11.72	11.66	13.83	13.80	15.12	14.82
4	9.84	9.81	9.51	9.41	11.52	11.44	11.72	11.72	14.20	13.80	15.18	15.12
5	9.81	9.80	9.42	9.41	11.52	11.44	11.76	11.72	14.45	14.20	15.17	15.03
6	9.80	9.78	9.51	9.42	11.44	11.41	11.81	11.76	14.45	14.45	15.03	14.94
7	9.78	9.74	9.59	9.51	11.41	11.29	11.84	11.81	14.47	14.45	14.94	14.91
8	---	---	9.86	9.58	11.29	11.25	11.93	11.84	14.48	14.42	15.48	14.91
9	9.72	9.71	10.03	9.86	11.26	11.25	11.91	11.74	14.42	14.33	16.12	15.48
10	---	---	10.10	10.03	11.40	11.26	11.74	11.67	14.33	14.22	16.06	15.57
11	9.73	9.71	10.19	10.10	11.39	11.21	11.69	11.67	14.40	14.22	15.57	15.38
12	9.71	9.71	10.26	10.19	11.22	11.21	11.69	11.65	14.54	14.40	15.38	15.20
13	9.71	9.70	10.40	10.25	11.25	11.22	11.77	11.65	14.45	14.35	15.20	15.12
14	9.70	9.69	10.61	10.40	11.25	11.18	11.69	11.59	14.35	14.17	15.22	15.02
15	9.69	9.66	10.73	10.60	11.18	11.14	11.94	11.59	14.17	14.05	15.02	14.75
16	9.66	9.66	10.77	10.73	11.18	11.14	11.96	11.94	14.05	14.04	14.75	14.60
17	9.66	9.65	10.83	10.77	11.20	11.17	11.95	11.91	14.36	14.04	14.60	14.53
18	9.65	9.65	10.94	10.83	11.17	11.10	11.92	11.91	14.39	14.36	14.72	14.53
19	9.65	9.64	11.02	10.94	11.10	11.10	11.99	11.92	14.36	14.17	15.39	14.72
20	9.64	9.59	11.02	11.01	11.11	11.04	11.99	11.97	14.19	14.17	15.51	15.39
21	9.59	9.57	11.08	11.01	11.04	10.95	11.97	11.92	14.19	13.97	15.95	15.51
22	9.57	9.54	11.20	11.08	11.11	10.95	11.92	11.91	13.97	13.90	15.98	15.90
23	9.54	9.54	11.36	11.20	11.14	11.05	12.41	11.91	14.75	13.90	15.90	15.70
24	9.54	9.53	11.37	11.36	11.05	10.98	12.87	12.41	15.22	14.75	15.70	15.45
25	9.57	9.49	11.50	11.36	11.19	11.05	12.89	12.87	15.26	15.19	15.45	15.29
26	9.59	9.48	11.65	11.50	11.15	11.14	12.91	12.88	15.19	15.09	15.33	15.29
27	9.64	9.56	11.65	11.40	11.31	11.14	13.14	12.91	15.09	15.08	15.33	15.20
28	9.56	9.47	11.50	11.40	11.31	11.28	13.88	13.14	15.08	14.96	15.20	15.10
29	9.48	9.47	11.49	11.45	11.72	11.28	14.07	13.88	---	---	15.10	14.90
30	9.48	9.47	11.64	11.45	11.72	11.62	14.11	14.06	---	---	14.90	14.77
31	9.48	9.47	---	---	11.62	11.47	14.06	13.90	---	---	14.77	14.65
MONTH	9.91	9.47	11.65	9.41	11.72	10.95	14.11	11.45	15.26	13.80	16.12	14.53

GROUND-WATER LEVELS

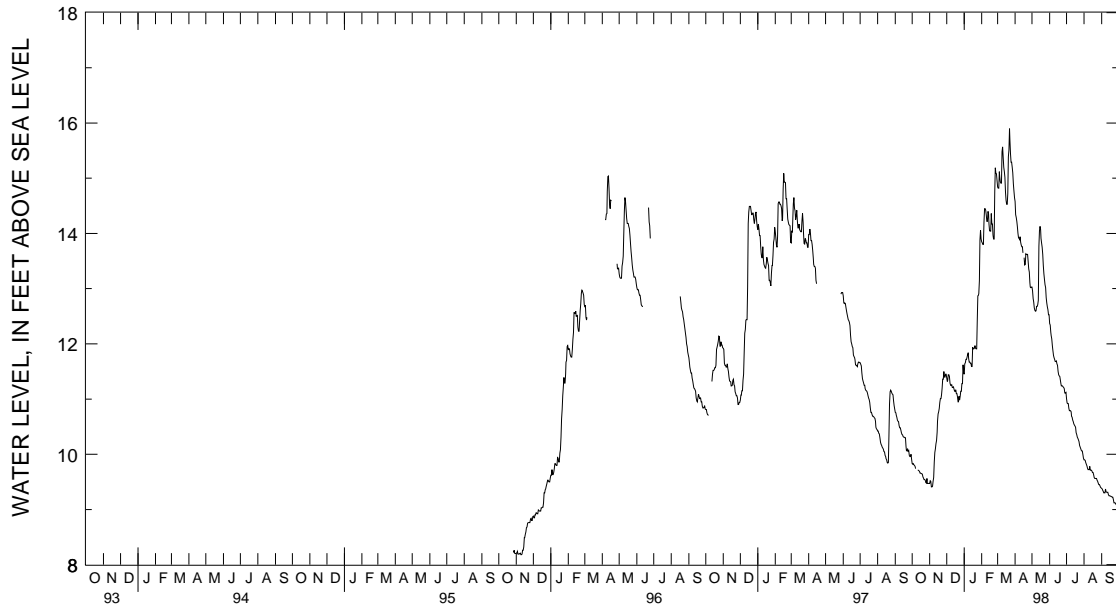
DELAWARE-Continued

KENT COUNTY--Continued

DM110D--Continued

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER						
1	14.65	14.58	13.07	13.03	12.54	12.37	11.19	11.01	9.93	9.90	9.39	9.38
2	14.58	14.34	13.07	12.96	12.37	12.34	11.01	10.93	9.90	9.90	9.38	9.37
3	14.34	14.29	12.96	12.82	12.35	12.21	10.93	10.92	9.90	9.89	9.37	9.35
4	14.29	14.22	12.82	12.76	12.21	12.15	10.92	10.92	9.89	9.85	9.35	9.33
5	14.22	14.12	12.76	12.65	12.15	12.09	10.92	10.83	9.85	9.82	9.33	9.30
6	14.12	14.00	12.65	12.61	12.09	11.97	10.83	10.79	9.82	9.79	9.30	9.30
7	14.00	13.92	12.61	12.59	11.97	11.88	10.79	10.79	9.79	9.75	9.38	9.30
8	13.93	13.91	12.68	12.60	11.88	11.79	10.81	10.79	9.75	9.72	9.38	9.37
9	14.07	13.89	12.68	12.68	11.79	11.75	10.80	10.77	9.72	9.72	9.37	9.32
10	14.07	13.94	12.71	12.68	11.75	11.72	10.77	10.69	9.79	9.72	9.32	9.31
11	13.94	13.84	12.79	12.71	11.72	11.68	10.69	10.67	9.79	9.78	9.31	9.31
12	13.84	13.79	13.77	12.79	11.69	11.68	10.67	10.62	9.78	9.71	9.31	9.31
13	13.79	13.76	14.05	13.77	11.70	11.69	10.62	10.59	9.71	9.71	9.31	9.27
14	13.82	13.76	14.13	14.05	11.69	11.64	10.59	10.55	9.71	9.71	9.27	9.25
15	13.82	13.65	14.14	14.13	11.64	11.61	10.55	10.53	9.71	9.69	9.25	9.25
16	---	---	14.14	14.07	11.61	11.50	10.53	10.51	9.69	9.67	9.25	9.24
17	13.63	13.56	14.07	13.91	11.50	11.44	10.51	10.49	9.67	9.67	9.24	9.24
18	13.56	13.43	13.91	13.83	11.44	11.42	10.49	10.39	9.67	9.63	9.24	9.23
19	13.66	13.44	13.83	13.75	11.42	11.41	10.39	10.36	9.63	9.58	9.23	9.23
20	13.66	13.63	13.75	13.62	11.41	11.34	10.36	10.31	9.58	9.56	9.23	9.22
21	13.63	13.62	13.62	13.42	11.34	11.27	10.31	10.29	9.56	9.56	9.22	9.22
22	13.62	13.62	13.42	13.27	11.27	11.24	10.29	10.26	9.56	9.56	9.22	9.18
23	13.62	13.62	13.27	13.17	11.25	11.24	10.26	10.23	9.56	9.56	9.18	9.12
24	13.62	13.50	13.17	13.07	11.25	11.24	10.23	10.16	9.56	9.53	9.12	9.12
25	13.50	13.36	13.07	13.02	11.24	11.22	10.16	10.13	9.53	9.51	9.12	9.12
26	13.36	13.30	13.02	12.84	11.24	11.21	10.13	10.10	9.51	9.48	9.12	9.10
27	13.30	13.11	12.84	12.74	11.24	11.19	10.10	10.07	9.48	9.45	9.11	9.10
28	13.11	13.03	12.74	12.67	11.19	11.11	10.07	10.06	9.45	9.45	9.10	9.03
29	13.03	13.02	12.67	12.62	11.12	11.11	10.06	10.06	9.45	9.43	9.03	9.03
30	13.03	13.03	12.62	12.53	11.20	11.12	10.06	10.00	9.43	9.40	9.03	9.03
31	---	---	12.54	12.53	---	---	10.00	9.93	9.40	9.39	---	---
MONTH	14.65	13.02	14.14	12.53	12.54	11.11	11.19	9.93	9.93	9.39	9.39	9.03
YEAR	16.12	9.03										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--DM202D. SITE ID.--390833075273601. PERMIT NUMBER.--95544.
 LOCATION.--Lat 39°08'33", long 75°27'36", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Columbia aquifer of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 28 ft; casing diameter 2 in., to 18 ft;
 screen diameter 2 in. from 18 to 28 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. 25, 1995, to current year.
 DATUM.--Altitude of land surface is 13.74 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform 4.19 ft above land surface.
 REMARKS.--Dover Air Force Base Project observation well. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.00 ft above sea level, March 9, 1998;
 lowest measured, 4.90 ft above sea level, Oct. 26, and 27, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.72	5.72	---	---	6.90	6.85	---	---	8.76	8.63	9.21	9.06
2	5.72	5.72	---	---	6.85	6.80	---	---	8.63	8.52	9.06	8.99
3	5.72	5.67	---	---	6.83	6.82	---	---	8.52	8.47	9.65	8.99
4	5.67	5.66	---	---	6.83	6.82	---	---	8.90	8.46	9.68	9.52
5	5.66	5.64	---	---	6.83	6.82	---	---	9.39	8.90	9.52	9.28
6	5.64	5.64	---	---	6.82	6.82	---	---	9.39	9.31	9.28	9.11
7	5.64	5.61	---	---	6.82	6.77	---	---	9.31	9.18	9.11	9.03
8	5.61	5.58	---	---	6.77	6.76	---	---	9.18	9.02	10.44	9.03
9	5.58	5.56	---	---	6.76	6.72	---	---	9.02	8.82	11.00	10.44
10	5.56	5.56	---	---	6.72	6.72	---	---	8.82	8.73	10.66	9.92
11	5.56	5.54	---	---	6.72	6.72	---	---	8.84	8.71	9.92	9.60
12	5.54	5.54	---	---	6.72	6.72	---	---	9.01	8.84	9.60	9.36
13	5.54	5.53	---	---	6.72	6.72	---	---	8.93	8.81	9.36	9.24
14	5.53	5.53	---	---	6.72	6.69	---	---	8.81	8.66	9.25	9.08
15	5.53	5.52	---	---	6.69	6.67	---	---	8.66	8.52	9.08	8.88
16	5.52	5.52	---	---	6.67	6.65	---	---	8.52	8.48	8.88	8.75
17	5.52	5.52	---	---	6.65	6.64	---	---	8.62	8.47	8.75	8.66
18	5.52	5.52	---	---	6.64	6.62	---	---	8.67	8.62	8.76	8.66
19	5.52	5.52	---	---	6.62	6.59	---	---	8.66	8.53	9.77	8.76
20	5.52	5.52	6.83	6.79	6.59	6.58	---	---	8.53	8.50	9.78	9.72
21	5.52	5.51	6.79	6.78	6.58	6.56	7.12	7.11	8.50	8.37	10.54	9.72
22	5.51	5.51	6.88	6.78	6.56	6.54	7.11	7.08	8.37	8.33	10.56	10.27
23	5.51	5.46	6.95	6.88	6.55	6.54	7.70	7.08	9.71	8.33	10.27	9.89
24	5.46	5.45	6.96	6.94	6.55	6.55	7.95	7.70	10.12	9.71	9.89	9.56
25	5.45	5.45	6.96	6.95	6.63	6.55	8.00	7.95	10.10	9.78	9.56	9.37
26	---	---	6.96	6.96	6.67	6.63	8.00	8.00	9.78	9.54	9.37	9.30
27	---	---	6.97	6.92	6.73	6.67	8.03	8.00	9.54	9.37	9.30	9.15
28	---	---	6.92	6.91	6.79	6.73	9.13	8.03	9.37	9.21	9.15	9.05
29	---	---	6.91	6.90	6.98	6.79	9.19	9.13	---	---	9.05	8.88
30	---	---	6.90	6.90	---	---	9.17	8.97	---	---	8.88	8.77
31	---	---	---	---	---	---	8.97	8.76	---	---	8.77	8.65
MONTH	5.72	5.45	6.97	6.78	6.98	6.54	9.19	7.08	10.12	8.33	11.00	8.65

GROUND-WATER LEVELS

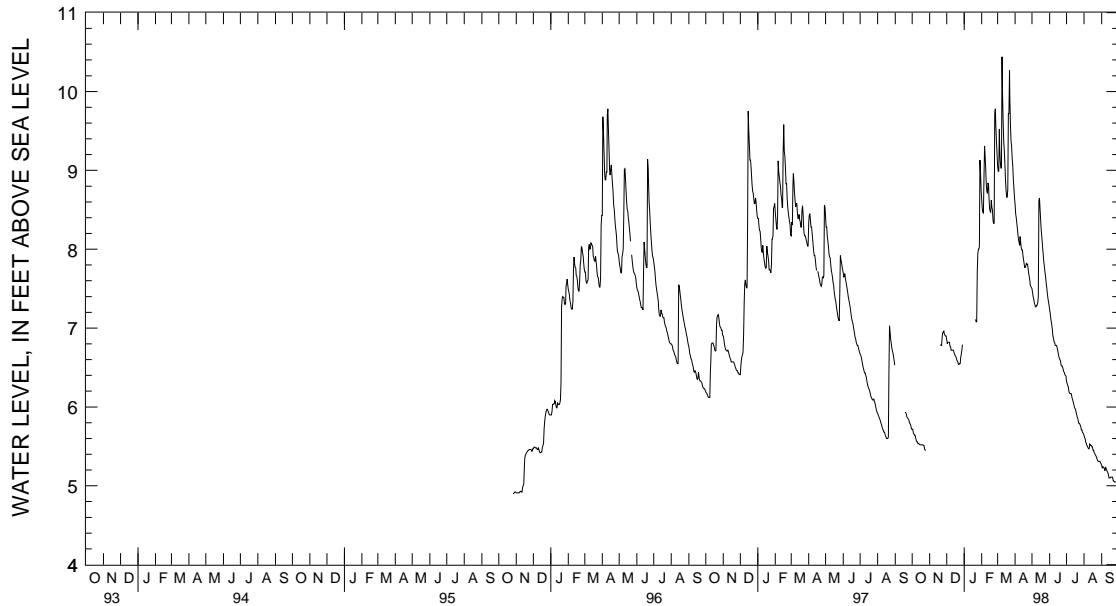
DELAWARE-Continued

KENT COUNTY--Continued

DM202D--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.65	8.57	7.51	7.50	7.29	7.23	6.39	6.32	5.66	5.64	5.28	5.26
2	8.57	8.45	7.50	7.45	7.23	7.19	6.32	6.30	5.64	5.61	5.26	5.23
3	8.45	8.40	7.45	7.40	7.19	7.12	6.30	6.27	5.61	5.60	5.24	5.24
4	8.40	8.33	7.40	7.37	7.12	7.09	6.27	6.26	5.60	5.55	5.24	5.24
5	8.33	8.26	7.37	7.32	7.09	7.04	6.26	6.20	5.55	5.54	5.24	5.23
6	8.26	8.18	7.32	7.30	7.04	6.98	6.20	6.18	5.54	5.51	5.24	5.22
7	8.18	8.12	7.30	7.27	6.98	6.90	6.18	6.17	5.51	5.50	5.24	5.19
8	8.12	8.08	7.29	7.27	6.90	6.87	6.17	6.17	5.50	5.48	5.25	5.24
9	8.17	8.05	7.29	7.29	6.87	6.83	6.17	6.17	5.48	5.47	5.25	5.22
10	8.17	8.16	7.32	7.29	6.83	6.82	6.17	6.15	5.53	5.47	5.22	5.20
11	8.16	8.09	7.40	7.32	6.82	6.78	6.15	6.11	5.55	5.53	5.20	5.18
12	8.09	8.02	8.62	7.40	6.78	6.78	6.11	6.09	5.55	5.52	5.18	5.17
13	8.02	7.99	8.67	8.62	6.79	6.78	6.09	6.06	5.52	5.51	5.17	5.14
14	7.99	7.99	8.67	8.65	6.79	6.76	6.06	6.03	5.51	5.51	5.14	5.10
15	7.99	7.92	8.65	8.51	6.76	6.73	6.03	6.00	5.51	5.49	5.10	5.10
16	7.92	7.87	8.51	8.38	6.73	6.69	6.00	5.98	5.49	5.49	5.11	5.10
17	7.87	7.82	8.38	8.28	6.69	6.65	5.98	5.97	5.49	5.45	5.11	5.11
18	7.82	7.77	8.28	8.19	6.65	6.62	5.97	5.93	5.45	5.45	5.11	5.11
19	7.79	7.77	8.19	8.10	6.62	6.60	5.93	5.90	5.45	5.42	5.12	5.11
20	7.83	7.79	8.10	8.00	6.60	6.59	5.90	5.87	5.42	5.41	5.12	5.11
21	7.83	7.82	8.00	7.92	6.59	6.54	5.87	5.85	5.41	5.39	5.11	5.09
22	7.82	7.81	7.92	7.83	6.54	6.52	5.85	5.81	5.39	5.38	5.09	5.06
23	7.81	7.81	7.83	7.77	6.52	6.52	5.81	5.79	5.38	5.36	5.07	5.06
24	7.81	7.75	7.77	7.70	6.52	6.51	5.79	5.79	5.36	5.34	5.06	5.05
25	7.75	7.69	7.70	7.65	6.51	6.48	5.79	5.77	5.34	5.32	5.05	5.05
26	7.69	7.65	7.65	7.57	6.48	6.45	5.77	5.75	5.32	5.31	5.05	5.05
27	7.65	7.60	7.57	7.51	6.46	6.44	5.75	5.71	5.31	5.31	5.06	5.05
28	7.60	7.54	7.51	7.44	6.44	6.41	5.71	5.71	5.31	5.31	5.05	5.03
29	7.54	7.53	7.44	7.38	6.41	6.40	5.71	5.69	5.31	5.31	5.03	5.01
30	7.53	7.51	7.38	7.33	6.40	6.39	5.69	5.67	5.31	5.29	5.01	4.97
31	---	---	7.33	7.29	---	---	5.67	5.66	5.29	5.28	---	---
MONTH	8.65	7.51	8.67	7.27	7.29	6.39	6.39	5.66	5.66	5.28	5.28	4.97
YEAR	11.00	4.97										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--DM204D. SITE ID.--390827075290401. PERMIT NUMBER.--95546.
 LOCATION.--Lat 39°08'27", long 75°29'04", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Columbia aquifer of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 34 ft; casing diameter 2 in., to 24 ft;
 screen diameter 2 in. from 24 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. 25, 1995, to current year.
 DATUM.--Altitude of land surface is 22.28 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform 3.52 ft above land surface.
 REMARKS.--Dover Air Force Base Project observation well.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.82 ft above sea level, March 9, 1998;
 lowest measured, 11.74 ft above sea level, Oct. 29, and 30, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.97	13.86	13.58	13.37	15.51	15.19	---	---	---	---	17.94	17.88
2	13.89	13.85	13.55	13.37	---	---	---	---	---	---	17.90	17.88
3	13.90	13.88	13.42	13.36	---	---	---	---	---	---	18.00	17.90
4	13.88	13.84	13.40	13.26	---	---	---	---	---	---	18.02	17.99
5	13.84	13.81	13.33	13.26	---	---	---	---	---	---	18.01	17.92
6	13.81	13.77	13.52	13.33	---	---	---	---	---	---	17.92	17.84
7	13.77	13.69	13.69	13.52	---	---	---	---	---	---	17.85	17.84
8	13.69	13.66	14.16	13.69	---	---	---	---	---	---	18.30	17.85
9	13.69	13.66	14.18	14.15	---	---	---	---	---	---	18.82	18.30
10	13.68	13.64	14.32	14.18	---	---	---	---	---	---	18.73	18.20
11	13.64	13.59	14.41	14.32	---	---	---	---	---	---	18.20	18.09
12	13.60	13.57	14.46	14.41	---	---	---	---	---	---	18.09	17.99
13	13.58	13.57	14.86	14.41	---	---	---	---	---	---	18.00	17.92
14	13.58	13.55	14.97	14.86	---	---	---	---	---	---	18.22	17.94
15	13.55	13.49	15.03	14.87	---	---	---	---	---	---	17.94	17.73
16	13.49	13.48	15.02	14.95	---	---	---	---	---	---	17.73	17.64
17	13.48	13.46	15.00	14.94	---	---	---	---	---	---	17.66	17.63
18	13.47	13.44	15.12	15.00	---	---	---	---	---	---	17.93	17.66
19	13.49	13.44	15.19	15.12	---	---	---	---	---	---	18.36	17.93
20	13.48	13.37	15.17	15.07	---	---	---	---	---	---	18.52	18.36
21	13.40	13.35	15.33	15.07	---	---	---	---	---	---	18.74	18.52
22	13.40	13.31	15.33	15.30	---	---	---	---	---	---	18.74	18.53
23	13.35	13.31	15.43	15.31	---	---	---	---	---	---	18.53	18.40
24	13.42	13.33	15.42	15.30	---	---	---	---	---	---	18.40	18.18
25	13.42	13.32	15.54	15.30	---	---	---	---	---	---	18.18	18.07
26	13.61	13.32	15.71	15.42	---	---	---	---	---	---	18.28	18.08
27	13.60	13.36	15.42	15.25	---	---	---	---	17.98	17.95	18.28	18.20
28	13.36	13.31	15.45	15.26	---	---	---	---	17.98	17.92	18.20	18.16
29	13.34	13.32	15.45	15.31	---	---	---	---	---	---	18.17	18.04
30	13.32	13.28	15.65	15.45	---	---	---	---	---	---	18.04	17.95
31	13.37	13.28	---	---	---	---	---	---	---	---	17.98	17.90
MONTH	13.97	13.28	15.71	13.26	15.51	15.19	---	---	17.98	17.92	18.82	17.63

GROUND-WATER LEVELS

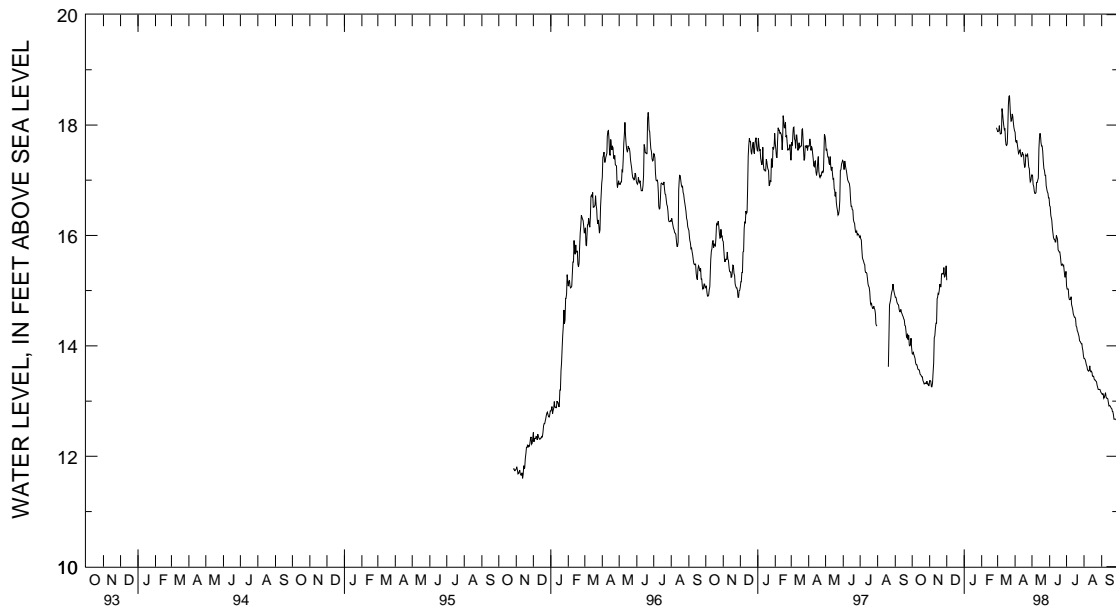
DELAWARE-Continued

KENT COUNTY--Continued

DM204D--Continued

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER						
1	17.94	17.87	17.18	17.10	16.78	16.54	15.35	15.09	13.82	13.77	13.15	13.14
2	17.92	17.71	17.18	17.08	16.62	16.52	15.09	15.03	13.79	13.77	13.19	13.12
3	17.74	17.69	17.08	16.92	16.62	16.37	15.03	15.03	13.78	13.75	13.17	13.13
4	17.82	17.72	16.92	16.89	16.37	16.33	15.07	15.03	13.75	13.71	13.16	13.13
5	17.72	17.64	16.89	16.80	16.35	16.28	15.05	14.88	13.71	13.66	13.13	13.05
6	17.67	17.56	16.80	16.76	16.28	16.14	14.88	14.84	13.66	13.63	13.12	13.07
7	17.56	17.48	16.78	16.76	16.14	16.05	14.85	14.84	13.63	13.57	13.16	13.11
8	17.58	17.50	16.98	16.78	16.05	15.96	14.94	14.85	13.57	13.55	13.18	13.15
9	17.85	17.54	16.98	16.96	15.96	15.93	14.94	14.89	13.57	13.54	13.15	13.07
10	17.78	17.55	17.00	16.96	15.93	15.93	14.89	14.75	13.64	13.55	13.07	13.05
11	17.55	17.47	17.04	17.00	15.93	15.88	14.75	14.71	13.67	13.64	13.07	13.05
12	17.47	17.43	17.57	17.04	16.00	15.88	14.71	14.66	13.65	13.55	13.07	13.04
13	17.51	17.44	17.77	17.57	16.08	16.00	14.66	14.58	13.55	13.53	13.04	12.97
14	17.65	17.51	17.85	17.77	16.08	15.97	14.58	14.55	13.55	13.54	12.97	12.91
15	17.64	17.47	17.88	17.85	15.98	15.93	14.55	14.52	13.54	13.51	12.92	12.92
16	17.47	17.46	17.87	17.78	15.93	15.74	14.53	14.52	13.51	13.45	12.92	12.91
17	17.46	17.31	17.78	17.68	15.74	15.72	14.53	14.49	13.48	13.45	12.91	12.89
18	17.31	17.23	17.68	17.62	15.72	15.70	14.49	14.36	13.47	13.45	12.89	12.87
19	17.57	17.26	17.63	17.62	15.72	15.70	14.36	14.34	13.45	13.40	12.87	12.86
20	17.57	17.46	17.62	17.52	15.71	15.62	14.35	14.27	13.40	13.38	12.86	12.81
21	17.46	17.44	17.52	17.34	15.62	15.51	14.27	14.25	13.39	13.38	12.81	12.81
22	17.48	17.44	17.34	17.21	15.51	15.46	14.25	14.21	13.38	13.36	12.81	12.76
23	17.51	17.48	17.21	17.18	15.55	15.47	14.21	14.17	13.36	13.35	12.76	12.67
24	17.51	17.38	17.18	17.09	15.54	15.48	14.17	14.09	13.35	13.29	12.68	12.67
25	17.38	17.24	17.10	17.09	15.48	15.45	14.09	14.08	13.30	13.25	12.68	12.67
26	17.31	17.21	17.09	16.90	15.51	15.46	14.08	14.06	13.25	13.21	12.67	12.67
27	17.21	17.04	16.90	16.84	15.49	15.35	14.06	14.04	13.21	13.21	12.68	12.67
28	17.04	16.97	16.84	16.79	15.35	15.25	14.05	14.04	13.27	13.21	12.67	12.58
29	17.07	16.99	16.82	16.77	15.35	15.25	14.04	13.97	13.27	13.21	12.58	12.58
30	17.10	17.07	16.77	16.68	15.44	15.35	13.97	13.92	13.21	13.18	12.58	12.58
31	---	---	16.78	16.68	---	---	13.92	13.82	13.18	13.15	---	---
MONTH	17.94	16.97	17.88	16.68	16.78	15.25	15.35	13.82	13.82	13.15	13.19	12.58
YEAR	18.82	12.58										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--DM358D. SITE ID.--390707075293401. PERMIT NUMBER.--96066.
 LOCATION.--Lat 39°07'07", long 75°29'34", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Columbia aquifer of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 22 ft; casing diameter 2 in., to 7 ft;
 screen diameter 2 in. from 7 to 22 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with pressure transducer water-level recorder--60-minute recorder interval from Oct. 30, 1995,
 to current year.
 DATUM.--Altitude of land surface is 12.32 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing 2.85 ft above land surface.
 REMARKS.--Dover Air Force Base Project observation well.
 PERIOD OF RECORD.--October 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.34 ft above sea level, February 5, 1998;
 lowest measured, 1.92 ft above sea level, Dec. 12, and 13, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	2.33	2.19	2.73	2.23	2.66	2.38	2.34	2.25	3.30	2.99	3.46	3.11
2	2.42	2.22	2.83	2.52	2.40	2.25	2.26	2.20	3.22	2.89	3.40	3.04
3	2.37	2.19	2.62	2.36	2.32	2.21	2.27	2.18	3.11	2.82	3.42	3.01
4	2.38	2.18	2.52	2.28	2.45	2.21	2.28	2.17	3.97	2.80	3.30	2.94
5	2.38	2.19	2.36	2.20	2.48	2.29	2.38	2.18	5.34	3.97	3.16	2.84
6	2.33	2.17	2.49	2.17	2.33	2.22	2.41	2.24	4.79	4.16	3.05	2.82
7	2.32	2.14	3.34	2.35	2.22	2.14	2.43	2.23	4.16	3.71	3.03	2.79
8	2.34	2.13	3.86	3.31	2.20	2.11	2.61	2.29	3.85	3.57	3.46	2.76
9	2.40	2.14	3.72	3.26	2.38	2.11	2.65	2.37	3.70	3.35	3.75	3.35
10	2.37	2.16	3.26	2.94	2.53	2.22	2.59	2.33	3.45	3.06	3.67	3.13
11	2.43	2.14	3.00	2.77	2.68	2.34	2.63	2.34	3.22	2.96	3.13	2.93
12	2.47	2.22	2.91	2.67	2.72	2.44	2.59	2.32	3.27	2.91	2.98	2.79
13	2.51	2.24	2.93	2.62	2.63	2.38	2.60	2.34	2.99	2.77	2.83	2.71
14	2.59	2.32	3.44	2.90	2.47	2.26	2.42	2.24	2.96	2.72	2.86	2.67
15	2.63	2.37	3.46	3.08	2.41	2.20	2.49	2.22	2.88	2.67	2.70	2.57
16	2.73	2.44	3.26	2.79	2.34	2.18	2.76	2.42	2.85	2.65	2.70	2.55
17	2.83	2.53	2.79	2.62	2.43	2.17	2.98	2.71	3.27	2.66	2.73	2.55
18	2.87	2.55	2.77	2.56	2.45	2.20	3.00	2.70	3.41	2.99	2.77	2.57
19	3.01	2.64	2.76	2.53	2.33	2.18	2.91	2.64	3.22	2.82	2.89	2.59
20	3.01	2.70	2.62	2.47	2.25	2.13	2.83	2.49	3.05	2.74	3.11	2.72
21	2.85	2.56	2.60	2.44	2.25	2.12	2.62	2.43	2.87	2.60	4.01	3.00
22	2.63	2.36	2.67	2.45	2.31	2.12	2.75	2.43	2.74	2.57	3.98	3.48
23	2.41	2.28	2.80	2.47	2.38	2.21	3.18	2.49	3.57	2.55	3.55	3.20
24	2.30	2.21	2.73	2.45	2.43	2.21	3.28	3.03	4.05	3.56	3.25	3.02
25	2.40	2.20	2.50	2.40	2.69	2.31	3.15	2.76	3.69	3.22	3.15	2.92
26	2.65	2.20	2.45	2.37	2.54	2.31	2.86	2.67	3.41	3.12	3.07	2.85
27	2.76	2.49	2.37	2.28	2.50	2.26	2.97	2.63	3.46	3.11	2.97	2.75
28	2.57	2.21	2.46	2.26	2.60	2.32	4.06	2.97	3.50	3.17	2.88	2.69
29	2.26	2.14	2.56	2.31	2.83	2.39	4.15	3.72	---	---	2.91	2.66
30	2.25	2.11	2.67	2.37	2.90	2.45	3.89	3.40	---	---	2.91	2.66
31	2.36	2.12	---	---	2.45	2.29	3.50	3.11	---	---	2.93	2.63
MONTH	3.01	2.11	3.86	2.17	2.90	2.11	4.15	2.17	5.34	2.55	4.01	2.55

GROUND-WATER LEVELS

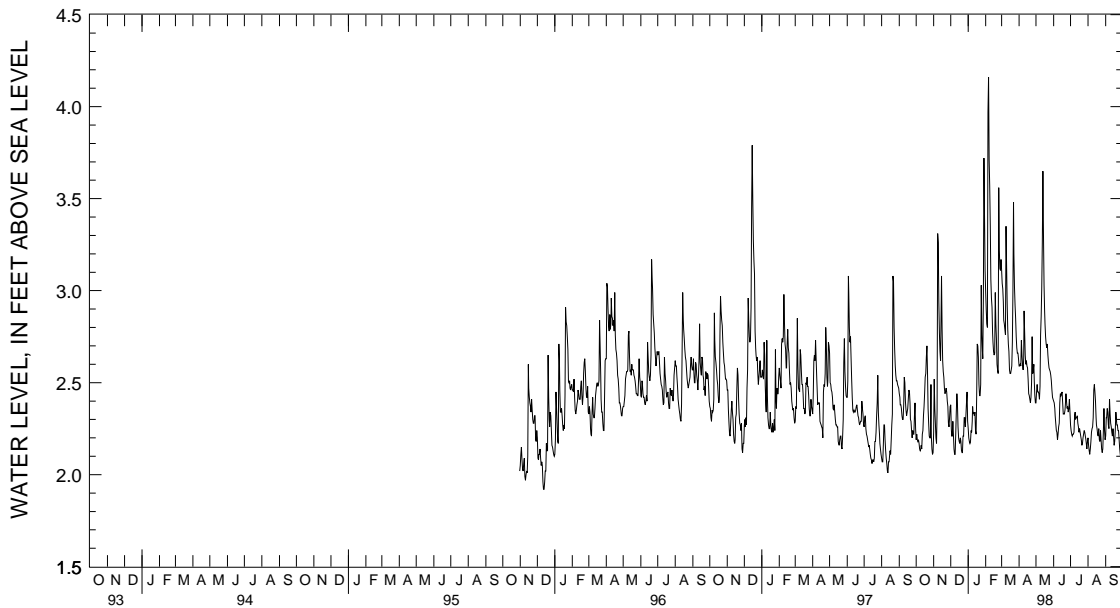
DELAWARE-Continued

KENT COUNTY--Continued

DM358D--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.86	2.59	2.63	2.39	2.62	2.40	2.45	2.27	2.46	2.20	2.53	2.21
2	2.85	2.59	2.75	2.45	2.63	2.39	2.43	2.24	2.40	2.16	2.63	2.31
3	2.85	2.60	2.74	2.49	2.58	2.36	2.41	2.22	2.38	2.13	2.64	2.31
4	3.04	2.59	2.71	2.45	2.48	2.32	2.48	2.21	2.40	2.11	2.70	2.36
5	3.03	2.73	2.69	2.45	2.41	2.28	2.49	2.22	2.45	2.14	2.72	2.34
6	2.92	2.65	2.68	2.44	2.42	2.24	2.50	2.22	2.46	2.18	2.58	2.27
7	2.83	2.60	2.68	2.41	2.42	2.23	2.50	2.23	2.49	2.23	2.48	2.25
8	2.85	2.57	2.90	2.48	2.41	2.19	2.58	2.32	2.55	2.25	2.66	2.41
9	3.17	2.63	3.06	2.76	2.43	2.22	2.62	2.34	2.56	2.26	2.64	2.33
10	3.21	2.89	3.11	2.86	2.48	2.26	2.63	2.30	2.54	2.31	2.53	2.28
11	3.19	2.77	3.28	3.01	2.53	2.28	2.61	2.31	2.73	2.46	2.48	2.26
12	3.00	2.65	3.97	3.26	2.59	2.39	2.59	2.31	2.75	2.49	2.46	2.23
13	2.89	2.60	4.23	3.65	2.68	2.44	2.61	2.32	2.76	2.45	2.51	2.21
14	2.89	2.62	3.87	3.31	2.72	2.43	2.56	2.28	2.69	2.40	2.53	2.25
15	2.91	2.59	3.51	3.03	2.73	2.44	2.48	2.26	2.55	2.31	2.45	2.21
16	2.88	2.58	3.28	2.89	2.75	2.45	2.45	2.23	2.53	2.27	2.40	2.16
17	2.86	2.52	3.18	2.82	2.65	2.39	2.50	2.25	2.51	2.25	2.46	2.18
18	2.62	2.44	3.10	2.75	2.55	2.33	2.50	2.23	2.48	2.22	2.52	2.24
19	2.63	2.43	2.96	2.71	2.59	2.33	2.49	2.21	2.55	2.21	2.57	2.34
20	2.69	2.41	2.96	2.69	2.62	2.33	2.48	2.19	2.56	2.25	2.60	2.30
21	2.62	2.39	2.98	2.71	2.66	2.35	2.45	2.16	2.52	2.19	2.53	2.27
22	2.68	2.42	2.91	2.65	2.68	2.38	2.46	2.17	2.41	2.18	2.48	2.27
23	2.96	2.50	2.90	2.61	2.71	2.44	2.46	2.20	2.48	2.24	2.48	2.24
24	3.05	2.75	2.90	2.58	2.75	2.40	2.52	2.22	2.48	2.19	2.46	2.24
25	2.92	2.55	2.87	2.57	2.69	2.36	2.50	2.24	2.36	2.14	2.36	2.19
26	2.82	2.57	2.88	2.56	2.62	2.37	2.51	2.23	2.28	2.12	2.31	2.14
27	2.93	2.60	2.85	2.54	2.64	2.34	2.45	2.21	2.39	2.14	2.29	2.11
28	2.89	2.51	2.85	2.51	2.73	2.36	2.41	2.19	2.59	2.24	2.26	2.08
29	2.72	2.43	2.76	2.46	2.74	2.41	2.36	2.17	2.62	2.36	2.29	2.06
30	2.64	2.39	2.68	2.42	2.61	2.34	2.32	2.14	2.47	2.24	2.34	2.10
31	---	---	2.65	2.41	---	---	2.48	2.18	2.44	2.19	---	---
MONTH	3.21	2.39	4.23	2.39	2.75	2.19	2.63	2.14	2.76	2.11	2.72	2.06
YEAR	5.34	2.06										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--DM378F. SITE ID.--390747075292601. PERMIT NUMBER.--96947.
 LOCATION.--Lat 39°07'47", long 75°29'26", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Frederica aquifer of Miocene age. Aquifer code: 122FRDC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 80 ft; casing diameter 8 in. to 50 ft, and casing diameter 3 in., to 70 ft; screen diameter 3 in. from 70 to 80 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with pressure transducer water-level recorder--60-minute recorder interval from Oct. 30, 1995, to current year.
 DATUM.--Altitude of land surface is 32.40 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of PVC casing 1.49 ft above land surface.
 REMARKS.--Dover Air Force Base Project observation well.
 PERIOD OF RECORD.--October 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.59 ft above sea level, March 22, 1998;
 lowest measured, 3.80 ft above sea level, Oct. 31, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.19	5.09	5.16	4.96	5.65	5.56	5.53	5.42	6.21	6.14	7.04	6.96
2	5.14	5.09	5.18	5.09	5.58	5.49	5.52	5.43	6.22	6.15	7.09	6.97
3	5.16	5.05	5.16	5.08	5.54	5.45	5.50	5.41	6.23	6.14	7.12	7.04
4	5.12	5.04	5.11	5.01	5.58	5.46	5.50	5.41	6.42	6.18	7.09	7.02
5	5.15	5.04	5.04	4.96	5.61	5.52	5.51	5.43	6.72	6.42	7.07	6.97
6	5.10	5.01	5.06	4.95	5.59	5.50	5.58	5.47	6.76	6.68	7.02	6.93
7	5.03	4.98	5.23	5.02	5.54	5.45	5.61	5.50	6.77	6.67	7.01	6.93
8	5.07	4.97	5.44	5.21	5.50	5.41	5.67	5.56	6.72	6.62	7.17	6.97
9	5.08	4.96	5.53	5.42	5.52	5.40	5.69	5.59	6.75	6.63	7.31	7.14
10	5.03	4.97	5.49	5.33	5.56	5.45	5.62	5.54	6.67	6.56	7.30	7.16
11	5.04	4.95	5.39	5.29	5.62	5.50	5.65	5.55	6.66	6.52	7.18	7.05
12	5.05	4.94	5.36	5.27	5.62	5.54	5.62	5.54	6.69	6.60	7.12	7.01
13	5.07	4.97	5.42	5.25	5.62	5.52	5.66	5.55	6.64	6.55	7.06	6.98
14	5.07	4.97	5.52	5.36	5.58	5.48	5.60	5.48	6.60	6.50	7.14	7.03
15	5.11	5.01	5.61	5.50	5.56	5.44	5.68	5.48	6.55	6.47	7.09	6.99
16	5.13	5.03	5.58	5.46	5.54	5.43	5.68	5.62	6.53	6.48	7.07	6.98
17	5.15	5.07	5.48	5.41	5.51	5.43	5.74	5.62	6.73	6.49	7.05	6.97
18	5.19	5.08	5.44	5.38	5.49	5.41	5.72	5.68	6.75	6.68	7.14	7.00
19	5.18	5.10	5.51	5.40	5.51	5.41	5.76	5.67	6.78	6.69	7.26	7.09
20	5.24	5.15	5.48	5.42	5.46	5.38	5.72	5.62	6.75	6.66	7.31	7.17
21	5.18	5.11	5.51	5.40	5.41	5.34	5.65	5.58	6.71	6.60	7.52	7.24
22	5.16	5.03	5.56	5.44	5.42	5.32	5.70	5.56	6.65	6.55	7.59	7.51
23	5.06	4.98	5.61	5.49	5.46	5.39	5.87	5.61	6.82	6.55	7.54	7.43
24	5.03	4.95	5.58	5.49	5.46	5.38	5.87	5.77	6.99	6.82	7.46	7.38
25	5.03	4.96	5.57	5.47	5.57	5.43	5.87	5.75	6.98	6.84	7.41	7.34
26	5.14	4.95	5.55	5.46	5.53	5.44	5.79	5.72	6.92	6.83	7.44	7.31
27	5.18	5.08	5.52	5.43	5.51	5.41	5.86	5.71	6.93	6.87	7.40	7.32
28	5.11	4.98	5.48	5.41	5.54	5.46	6.09	5.80	7.01	6.91	7.42	7.31
29	5.04	4.93	5.56	5.44	5.62	5.48	6.25	6.09	---	---	7.41	7.32
30	5.02	4.92	5.60	5.49	5.80	5.61	6.28	6.18	---	---	7.49	7.34
31	5.01	4.91	---	---	5.67	5.47	6.25	6.15	---	---	7.42	7.34
MONTH	5.24	4.91	5.61	4.95	5.80	5.32	6.28	5.41	7.01	6.14	7.59	6.93

GROUND-WATER LEVELS

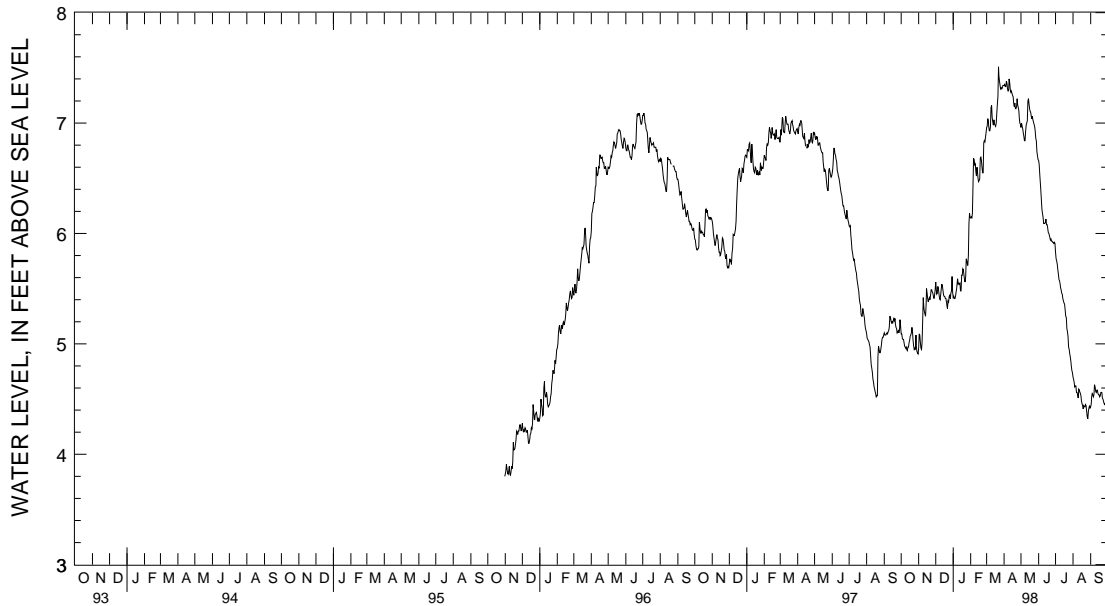
DELAWARE-Continued

KENT COUNTY--Continued

DM378F--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.39	7.34	7.04	6.96	6.73	6.66	5.93	5.83	4.82	4.70	4.53	4.43
2	7.45	7.35	7.10	7.00	6.71	6.62	5.90	5.77	4.80	4.68	4.61	4.46
3	7.43	7.33	7.07	6.97	6.68	6.53	5.84	5.75	4.77	4.65	4.66	4.52
4	7.44	7.33	7.05	6.95	6.60	6.48	5.82	5.72	4.74	4.61	4.64	4.55
5	7.43	7.38	7.00	6.91	6.52	6.40	5.77	5.67	4.72	4.62	4.65	4.54
6	7.46	7.36	6.97	6.88	6.45	6.31	5.73	5.63	4.75	4.62	4.65	4.52
7	7.38	7.31	6.96	6.84	6.36	6.22	5.68	5.58	4.69	4.56	4.70	4.54
8	7.39	7.29	6.99	6.84	6.29	6.18	5.67	5.57	4.66	4.56	4.73	4.63
9	7.45	7.30	7.03	6.92	6.25	6.15	5.65	5.54	4.68	4.54	4.71	4.61
10	7.49	7.40	7.05	6.98	6.20	6.09	5.65	5.51	4.70	4.51	4.70	4.57
11	7.48	7.37	7.10	7.00	6.18	6.09	5.60	5.49	4.70	4.59	4.69	4.56
12	7.41	7.31	7.25	7.02	6.20	6.09	5.58	5.46	4.68	4.58	4.70	4.58
13	7.34	7.28	7.31	7.20	6.22	6.10	5.55	5.45	4.67	4.56	4.67	4.58
14	7.38	7.29	7.33	7.22	6.22	6.13	5.51	5.41	4.65	4.55	4.67	4.55
15	7.34	7.27	7.28	7.17	6.20	6.08	5.50	5.39	4.63	4.52	4.67	4.54
16	7.37	7.25	7.24	7.13	6.18	6.08	5.49	5.37	4.57	4.48	4.63	4.54
17	7.34	7.24	7.22	7.11	6.13	6.05	5.47	5.36	4.56	4.46	4.62	4.52
18	7.26	7.18	7.20	7.10	6.10	6.01	5.42	5.31	4.56	4.44	4.63	4.53
19	7.24	7.15	7.17	7.07	6.09	6.00	5.40	5.25	4.52	4.41	4.67	4.56
20	7.26	7.18	7.17	7.04	6.09	5.98	5.35	5.24	4.52	4.44	4.68	4.56
21	7.20	7.13	7.17	7.06	6.06	5.96	5.28	5.14	4.53	4.43	4.66	4.56
22	7.22	7.13	7.15	7.03	6.03	5.94	5.23	5.11	4.54	4.43	4.64	4.51
23	7.31	7.15	7.14	7.01	6.04	5.95	5.18	5.07	4.57	4.45	4.62	4.50
24	7.34	7.22	7.09	6.99	6.04	5.93	5.13	4.97	4.54	4.44	4.68	4.48
25	7.28	7.16	7.12	6.97	6.03	5.93	5.07	4.95	4.51	4.39	4.58	4.46
26	7.25	7.14	7.04	6.93	6.02	5.92	5.01	4.91	4.44	4.34	4.58	4.45
27	7.19	7.11	6.97	6.86	6.04	5.92	4.97	4.88	4.46	4.32	4.59	4.46
28	7.19	7.05	6.94	6.84	6.01	5.91	4.93	4.84	4.53	4.39	4.52	4.44
29	7.11	7.00	6.90	6.74	6.03	5.92	4.91	4.80	4.56	4.42	4.51	4.42
30	7.11	6.99	6.81	6.70	6.01	5.91	4.89	4.76	4.55	4.44	4.52	4.40
31	---	---	6.78	6.67	---	---	4.86	4.74	4.55	4.42	---	---
MONTH	7.49	6.99	7.33	6.67	6.73	5.91	5.93	4.74	4.82	4.32	4.73	4.40
YEAR	7.59	4.32										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--DM412D. SITE ID.--390629075272701. PERMIT NUMBER.--95941.
 LOCATION.--Lat 39°06'29", long 75°27'27", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Columbia aquifer of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 70 ft; casing diameter 2 in., to 60 ft;
 screen diameter 2 in. from 60 to 70 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. 25, 1995, to current year.
 DATUM.--Altitude of land surface is 21.19 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing 2.86 ft above land surface.
 REMARKS.--Dover Air Force Base Project observation well. Missing record due to recorder malfunction.
 PERIOD OF RECORD.--October 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.77 ft above sea level, Feb. 21, 1997;
 lowest measured, 2.14 ft above sea level, Sept. 7-9, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.42	7.39	7.04	7.00	7.51	7.46	6.27	6.25	---	---	---	---
2	7.39	7.37	7.04	7.04	7.49	7.43	6.25	6.19	---	---	---	---
3	7.37	7.35	7.04	7.02	7.48	7.48	6.19	6.17	---	---	8.32	8.27
4	7.35	7.32	7.02	6.99	7.48	7.47	6.17	6.17	---	---	---	---
5	7.32	7.29	6.99	6.97	7.47	7.40	6.17	6.17	---	---	---	---
6	7.29	7.27	6.97	6.95	7.40	7.33	6.17	6.17	---	---	---	---
7	7.27	7.24	6.96	6.95	7.33	7.25	6.17	6.16	---	---	---	---
8	7.24	7.22	7.16	6.96	7.25	7.17	6.16	6.12	---	---	---	---
9	7.22	7.20	7.24	7.16	7.17	7.10	6.12	6.11	---	---	---	---
10	7.20	7.17	7.27	7.23	7.10	7.06	6.11	6.07	---	---	---	---
11	7.17	7.15	7.33	7.27	7.06	7.03	6.07	6.04	---	---	---	---
12	7.15	7.13	7.35	7.33	7.03	6.97	6.04	5.99	---	---	---	---
13	7.13	7.11	7.41	7.35	6.97	6.91	5.99	5.94	---	---	---	---
14	7.11	7.10	7.53	7.41	6.91	6.83	---	---	---	---	---	---
15	7.12	7.10	7.53	7.52	6.83	6.78	---	---	---	---	---	---
16	7.12	7.11	7.53	7.53	6.78	6.73	---	---	---	---	---	---
17	7.11	7.08	7.54	7.53	6.73	6.69	---	---	---	---	---	---
18	7.08	7.08	7.55	7.53	6.69	6.62	---	---	---	---	---	---
19	7.09	7.08	7.57	7.55	6.62	6.58	---	---	---	---	---	---
20	7.09	7.06	7.57	7.57	6.58	6.54	---	---	---	---	---	---
21	7.06	7.03	7.57	7.57	6.54	6.48	---	---	---	---	---	---
22	7.03	6.99	7.61	7.57	6.48	6.44	---	---	---	---	---	---
23	6.99	6.94	7.61	7.60	6.44	6.40	---	---	---	---	---	---
24	6.94	6.92	7.60	7.59	6.40	6.37	---	---	---	---	---	---
25	6.98	6.92	7.59	7.58	6.37	6.37	---	---	---	---	---	---
26	7.06	6.97	7.58	7.58	6.37	6.31	---	---	---	---	---	---
27	7.08	7.06	7.58	7.52	6.31	6.28	---	---	---	---	---	---
28	7.07	7.06	7.52	7.52	6.28	6.27	---	---	---	---	---	---
29	7.06	7.06	7.52	7.51	6.28	6.27	---	---	---	---	---	---
30	7.06	7.05	7.51	7.51	6.28	6.28	---	---	---	---	---	---
31	7.05	7.00	---	---	6.28	6.27	---	---	---	---	---	---
MONTH	7.42	6.92	7.61	6.95	7.51	6.27	6.27	5.94	---	---	8.32	8.27

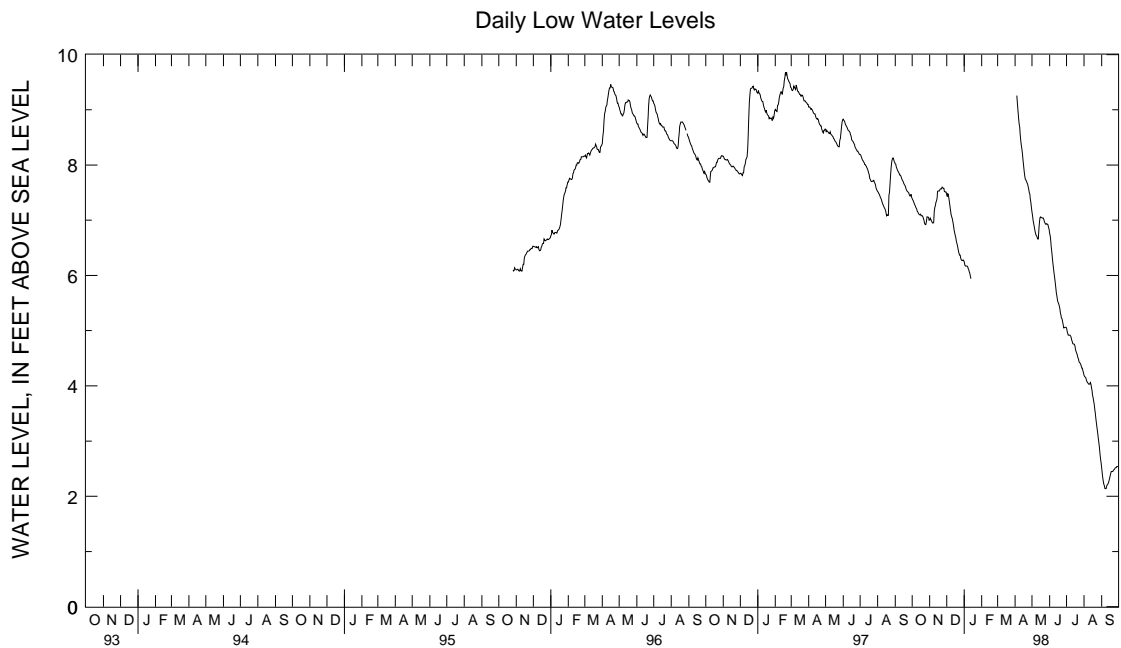
GROUND-WATER LEVELS

DELAWARE-Continued

KENT COUNTY--Continued

DM412D--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	7.23	7.15	6.84	6.76	5.06	5.05	4.24	4.19	2.61	2.51
2	---	---	7.15	7.08	6.77	6.72	5.05	4.99	4.19	4.17	2.51	2.41
3	---	---	7.08	6.99	6.72	6.62	4.99	4.95	4.17	4.16	2.41	2.35
4	9.37	9.26	6.99	6.94	6.62	6.53	4.95	4.92	4.16	4.15	2.35	2.28
5	9.26	9.12	6.94	6.88	6.53	6.43	4.92	4.92	4.15	4.11	2.28	2.22
6	9.12	8.99	6.88	6.82	6.43	6.32	4.92	4.92	4.11	4.08	2.22	2.19
7	8.99	8.86	6.82	6.77	6.32	6.22	4.92	4.92	4.08	4.06	2.19	2.14
8	8.86	8.75	6.77	6.73	6.22	6.13	4.92	4.90	4.06	4.05	2.14	2.14
9	8.75	8.69	6.73	6.72	6.13	6.04	4.90	4.88	4.05	4.03	2.18	2.14
10	8.70	8.58	6.73	6.69	6.04	5.96	4.88	4.84	4.03	4.03	2.21	2.18
11	8.58	8.46	6.69	6.66	5.96	5.87	4.84	4.81	4.07	4.03	2.22	2.21
12	8.46	8.37	6.84	6.66	5.87	5.78	4.81	4.77	4.07	4.06	2.24	2.22
13	8.37	8.30	6.97	6.84	5.78	5.68	4.77	4.76	4.06	4.03	2.28	2.24
14	8.30	8.22	7.05	6.97	5.68	5.62	4.76	4.76	4.03	3.97	2.32	2.28
15	8.22	8.10	7.07	7.05	5.62	5.55	4.76	4.75	3.97	3.91	2.37	2.32
16	8.10	8.00	7.06	7.06	5.55	5.51	4.75	4.72	3.91	3.84	2.41	2.37
17	8.00	7.90	7.06	7.05	5.51	5.49	4.72	4.65	3.84	3.79	2.45	2.41
18	7.90	7.81	7.05	7.05	5.49	5.45	4.65	4.62	3.79	3.73	2.45	2.45
19	7.81	7.75	7.05	7.04	5.45	5.40	4.62	4.59	3.73	3.67	2.45	2.45
20	7.75	7.73	7.05	7.04	5.40	5.32	4.59	4.56	3.67	3.58	2.45	2.45
21	7.73	7.71	7.05	7.04	5.32	5.28	4.56	4.51	3.59	3.50	2.47	2.45
22	7.71	7.68	7.05	7.01	5.28	5.23	4.51	4.49	3.50	3.40	2.48	2.47
23	7.68	7.66	7.01	6.97	5.23	5.22	4.49	4.44	3.40	3.31	2.49	2.48
24	7.66	7.61	6.97	6.95	5.22	5.17	4.44	4.42	3.31	3.23	2.51	2.49
25	7.61	7.56	6.95	6.93	5.17	5.12	4.42	4.41	3.23	3.15	2.52	2.51
26	7.57	7.50	6.94	6.93	5.12	5.05	4.41	4.39	3.15	3.06	2.52	2.52
27	7.50	7.47	6.94	6.94	5.06	5.05	4.39	4.35	3.06	2.98	2.54	2.52
28	7.47	7.39	6.94	6.93	5.06	5.06	4.35	4.32	2.98	2.89	2.54	2.54
29	7.39	7.33	6.93	6.92	5.06	5.06	4.32	4.32	2.89	2.78	2.54	2.54
30	7.33	7.23	6.92	6.87	5.06	5.06	4.32	4.28	2.78	2.68	2.54	2.54
31	---	---	6.87	6.84	---	---	4.28	4.24	2.68	2.61	---	---
MONTH	9.37	7.23	7.23	6.66	6.84	5.05	5.06	4.24	4.24	2.61	2.61	2.14
YEAR	9.37	2.14										



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--GS4D. SITE ID.--390742075300102. PERMIT NUMBER.--104544.
 LOCATION.--Lat 39°07'42", long 75°30'01", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Columbia aquifer of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 25 ft; casing diameter 2 in., to 22 ft;
 screen diameter 2 in. from 22 to 25 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. 1, 1995, to current year.
 DATUM.--Altitude of land surface is 4.20 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder platform 7.55 ft above land surface.
 REMARKS.--Dover Air Force Base Project observation well.
 Missing data on Dec. 19, due to recorder being removed for sampling.
 PERIOD OF RECORD.--September 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.96 ft above sea level, March 8, 9, and 21, 1998;
 lowest measured, 4.60 ft above sea level, Oct. 2, and 3, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.94	4.92	5.88	5.36	6.37	6.27	6.49	6.35	7.46	7.33	7.96	7.76
2	5.02	4.88	5.68	5.46	6.27	6.22	6.52	6.37	7.40	7.29	7.90	7.74
3	5.02	4.97	5.55	5.43	6.24	6.22	6.38	6.37	7.38	7.29	8.19	7.83
4	5.00	4.98	5.51	5.40	6.39	6.24	6.38	6.37	8.11	7.29	8.03	7.89
5	5.00	4.98	5.42	5.39	6.35	6.29	6.43	6.37	8.31	7.80	7.90	7.83
6	5.11	4.95	5.52	5.39	6.29	6.28	6.44	6.40	8.02	7.66	7.83	7.78
7	5.21	5.11	5.80	5.47	6.28	6.23	6.45	6.42	7.84	7.65	7.83	7.76
8	5.23	5.18	6.55	5.59	6.23	6.22	6.62	6.44	7.84	7.63	8.96	7.82
9	5.28	5.20	6.63	5.85	6.26	6.21	6.61	6.41	7.72	7.55	8.96	8.42
10	5.26	5.21	5.85	5.80	6.44	6.24	6.50	6.40	7.58	7.51	8.42	8.12
11	5.29	5.21	5.85	5.80	6.43	6.25	6.54	6.41	7.99	7.50	8.12	8.07
12	5.31	5.21	5.89	5.80	6.39	6.25	6.49	6.39	7.99	7.56	8.09	8.07
13	5.35	5.25	6.18	5.80	6.36	6.24	6.57	6.40	7.56	7.54	8.10	7.94
14	5.39	5.27	6.45	6.15	6.26	6.23	6.41	6.38	7.54	7.47	7.94	7.75
15	5.40	5.28	6.22	6.06	6.28	6.22	6.74	6.39	7.47	7.39	7.75	7.67
16	5.45	5.34	6.14	6.05	6.23	6.22	6.74	6.55	7.39	7.37	7.67	7.63
17	5.49	5.32	6.05	6.05	6.32	6.21	6.70	6.50	7.79	7.37	7.63	7.59
18	5.50	5.33	6.14	6.04	6.26	6.20	6.65	6.49	7.70	7.50	7.75	7.59
19	5.59	5.37	---	---	6.20	6.19	6.60	6.49	7.52	7.43	8.63	7.68
20	5.50	5.36	6.11	6.08	6.19	6.15	6.55	6.49	7.44	7.42	8.04	7.96
21	5.46	5.33	6.17	6.08	6.15	6.11	6.49	6.47	7.42	7.32	8.96	7.96
22	5.34	5.27	6.62	6.17	6.24	6.11	6.56	6.46	7.32	7.31	8.55	8.25
23	5.28	5.26	6.28	6.25	6.29	6.18	7.67	6.46	8.78	7.31	8.25	8.13
24	5.28	5.27	6.26	6.24	6.21	6.15	7.40	6.93	8.67	8.01	8.13	7.97
25	5.56	5.27	6.24	6.24	6.58	6.21	6.93	6.89	8.11	7.92	7.97	7.90
26	5.69	5.33	6.25	6.24	6.28	6.25	6.89	6.89	7.99	7.92	7.91	7.89
27	5.63	5.41	6.25	6.24	6.36	6.24	7.12	6.89	8.08	7.88	7.89	7.81
28	5.41	5.36	6.32	6.24	6.40	6.36	8.24	7.05	8.05	7.83	7.82	7.78
29	5.36	5.35	6.38	6.29	6.65	6.36	7.86	7.47	---	---	7.82	7.70
30	5.35	5.35	6.46	6.30	6.65	6.41	7.64	7.41	---	---	7.78	7.63
31	5.42	5.35	---	---	6.41	6.35	7.51	7.35	---	---	7.76	7.61
MONTH	5.69	4.88	6.63	5.36	6.65	6.11	8.24	6.35	8.78	7.29	8.96	7.59

GROUND-WATER LEVELS

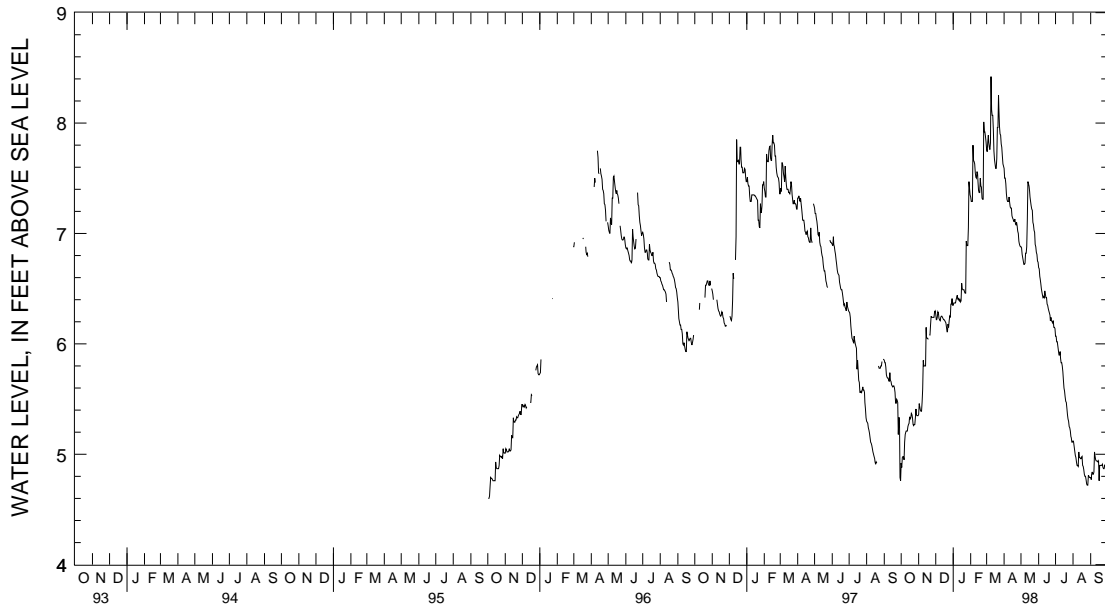
DELAWARE-Continued

KENT COUNTY--Continued

GS4D--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.67	7.59	6.95	6.88	6.87	6.69	6.14	6.07	5.17	5.12	4.87	4.79
2	7.62	7.50	7.00	6.87	6.75	6.68	6.07	6.07	5.14	5.11	5.13	4.77
3	7.52	7.50	6.90	6.81	6.68	6.61	6.07	6.02	5.12	5.07	4.97	4.82
4	7.56	7.45	6.84	6.78	6.61	6.59	6.09	6.02	5.09	5.03	5.03	4.84
5	7.45	7.36	6.80	6.75	6.59	6.55	6.05	5.98	5.09	4.99	5.03	4.82
6	7.37	7.31	6.75	6.72	6.55	6.50	6.02	5.94	5.09	4.97	4.95	4.82
7	7.32	7.29	6.79	6.72	6.50	6.47	6.01	5.90	5.09	4.93	5.71	4.84
8	7.36	7.29	7.15	6.73	6.50	6.44	6.15	5.90	5.09	4.90	5.71	5.02
9	7.89	7.29	6.98	6.82	6.51	6.42	6.10	5.93	5.05	4.90	5.11	4.98
10	7.56	7.33	7.02	6.82	6.53	6.43	6.06	5.87	5.65	4.89	5.05	4.95
11	7.41	7.28	7.12	6.88	6.53	6.42	6.02	5.83	5.59	5.02	5.05	4.94
12	7.31	7.24	8.53	7.12	6.61	6.48	5.98	5.83	5.10	4.97	5.05	4.94
13	7.29	7.23	7.76	7.47	6.62	6.45	5.96	5.80	5.11	4.97	5.07	4.94
14	7.30	7.23	7.67	7.45	6.67	6.42	5.90	5.75	5.06	4.96	5.08	4.93
15	7.31	7.16	7.59	7.43	6.57	6.42	5.78	5.67	5.04	4.96	5.02	4.94
16	7.24	7.14	7.52	7.38	6.53	6.36	5.71	5.60	5.06	4.97	4.97	4.76
17	7.31	7.13	7.49	7.33	6.45	6.35	5.65	5.57	5.08	4.98	5.02	4.90
18	7.17	7.11	7.42	7.29	6.36	6.32	5.61	5.52	5.04	4.90	5.05	4.90
19	7.46	7.11	7.34	7.25	6.38	6.30	5.58	5.48	5.00	4.89	5.04	4.90
20	7.46	7.13	7.35	7.22	6.38	6.28	5.53	5.47	4.96	4.86	5.04	4.90
21	7.13	7.09	7.30	7.21	6.38	6.26	5.55	5.42	4.94	4.82	5.01	4.90
22	7.14	7.08	7.21	7.10	6.41	6.21	5.54	5.36	4.92	4.80	5.01	4.91
23	7.32	7.10	7.20	7.08	6.42	6.24	5.54	5.32	4.92	4.80	4.99	4.88
24	7.25	7.07	7.17	7.03	6.42	6.21	5.54	5.30	4.88	4.77	4.96	4.87
25	7.14	7.02	7.17	7.01	6.38	6.20	5.40	5.25	4.77	4.73	4.92	4.87
26	7.19	7.00	7.17	6.90	6.61	6.19	5.38	5.24	4.74	4.72	4.93	4.90
27	7.19	6.93	7.09	6.88	6.46	6.21	5.32	5.21	4.88	4.72	4.94	4.89
28	7.09	6.91	7.06	6.83	6.35	6.15	5.23	5.16	4.91	4.81	4.90	4.88
29	6.99	6.89	6.97	6.81	6.27	6.15	5.16	5.15	4.87	4.80	4.92	4.88
30	6.96	6.88	6.89	6.75	6.20	6.14	5.15	5.11	4.84	4.79	4.96	4.88
31	---	---	6.84	6.74	---	---	5.23	5.11	4.84	4.79	---	---
MONTH	7.89	6.88	8.53	6.72	6.87	6.14	6.15	5.11	5.65	4.72	5.71	4.76
YEAR	8.96	4.72										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--MW33D. SITE ID.--390647075283301. PERMIT NUMBER.--73713.
 LOCATION.--Lat 39°06'47", long 75°28'33", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Columbia aquifer of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 55 ft; casing diameter 2 in., to 50 ft;
 screen diameter 2 in. from 50 to 55 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel.
 Equipped with pressure transducer water-level recorder--60-minute recorder interval from June 19, 1996,
 to current year.
 DATUM.--Altitude of land surface is 8.92 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of PVC casing 1.77 ft above land surface.
 REMARKS.--Dover Air Force Base Project observation well.
 Missing data on Dec. 19, due to recorder being removed for sampling.
 PERIOD OF RECORD.--June 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.96 ft above sea level, March 8, 9, and 21, 1998;
 lowest measured, 1.60 ft above sea level, May 25, 1997.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.94	4.92	5.88	5.36	6.37	6.27	6.49	6.35	7.46	7.33	7.96	7.76
2	5.02	4.88	5.68	5.46	6.27	6.22	6.52	6.37	7.40	7.29	7.90	7.74
3	5.02	4.97	5.55	5.43	6.24	6.22	6.38	6.37	7.38	7.29	8.19	7.83
4	5.00	4.98	5.51	5.40	6.39	6.24	6.38	6.37	8.11	7.29	8.03	7.89
5	5.00	4.98	5.42	5.39	6.35	6.29	6.43	6.37	8.31	7.80	7.90	7.83
6	5.11	4.95	5.52	5.39	6.29	6.28	6.44	6.40	8.02	7.66	7.83	7.78
7	5.21	5.11	5.80	5.47	6.28	6.23	6.45	6.42	7.84	7.65	7.83	7.76
8	5.23	5.18	6.55	5.59	6.23	6.22	6.62	6.44	7.84	7.63	8.96	7.82
9	5.28	5.20	6.63	5.85	6.26	6.21	6.61	6.41	7.72	7.55	8.96	8.42
10	5.26	5.21	5.85	5.80	6.44	6.24	6.50	6.40	7.58	7.51	8.42	8.12
11	5.29	5.21	5.85	5.80	6.43	6.25	6.54	6.41	7.99	7.50	8.12	8.07
12	5.31	5.21	5.89	5.80	6.39	6.25	6.49	6.39	7.99	7.56	8.09	8.07
13	5.35	5.25	6.18	5.80	6.36	6.24	6.57	6.40	7.56	7.54	8.10	7.94
14	5.39	5.27	6.45	6.15	6.26	6.23	6.41	6.38	7.54	7.47	7.94	7.75
15	5.40	5.28	6.22	6.06	6.28	6.22	6.74	6.39	7.47	7.39	7.75	7.67
16	5.45	5.34	6.14	6.05	6.23	6.22	6.74	6.55	7.39	7.37	7.67	7.63
17	5.49	5.32	6.05	6.05	6.32	6.21	6.70	6.50	7.79	7.37	7.63	7.59
18	5.50	5.33	6.14	6.04	6.26	6.20	6.65	6.49	7.70	7.50	7.75	7.59
19	5.59	5.37	---	---	6.20	6.19	6.60	6.49	7.52	7.43	8.63	7.68
20	5.50	5.36	6.11	6.08	6.19	6.15	6.55	6.49	7.44	7.42	8.04	7.96
21	5.46	5.33	6.17	6.08	6.15	6.11	6.49	6.47	7.42	7.32	8.96	7.96
22	5.34	5.27	6.62	6.17	6.24	6.11	6.56	6.46	7.32	7.31	8.55	8.25
23	5.28	5.26	6.28	6.25	6.29	6.18	7.67	6.46	8.78	7.31	8.25	8.13
24	5.28	5.27	6.26	6.24	6.21	6.15	7.40	6.93	8.67	8.01	8.13	7.97
25	5.56	5.27	6.24	6.24	6.58	6.21	6.93	6.89	8.11	7.92	7.97	7.90
26	5.69	5.33	6.25	6.24	6.28	6.25	6.89	6.89	7.99	7.92	7.91	7.89
27	5.63	5.41	6.25	6.24	6.36	6.24	7.12	6.89	8.08	7.88	7.89	7.81
28	5.41	5.36	6.32	6.24	6.40	6.36	8.24	7.05	8.05	7.83	7.82	7.78
29	5.36	5.35	6.38	6.29	6.65	6.36	7.86	7.47	---	---	7.82	7.70
30	5.35	5.35	6.46	6.30	6.65	6.41	7.64	7.41	---	---	7.78	7.63
31	5.42	5.35	---	---	6.41	6.35	7.51	7.35	---	---	7.76	7.61
MONTH	5.69	4.88	6.63	5.36	6.65	6.11	8.24	6.35	8.78	7.29	8.96	7.59

GROUND-WATER LEVELS

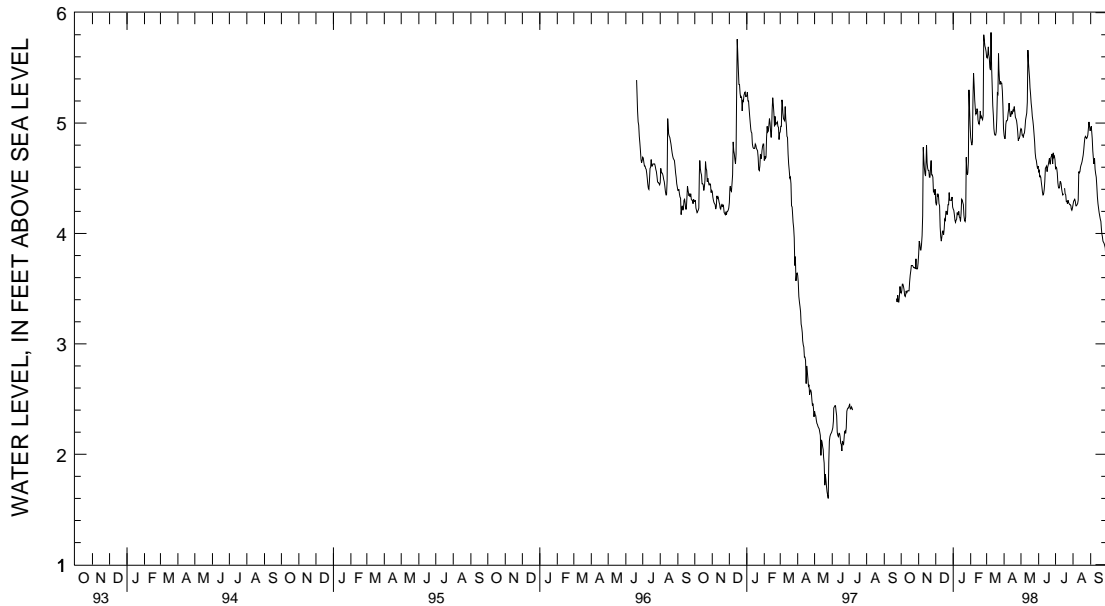
DELAWARE-Continued

KENT COUNTY--Continued

MW33D--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.67	7.59	6.95	6.88	6.87	6.69	6.14	6.07	5.17	5.12	4.87	4.79
2	7.62	7.50	7.00	6.87	6.75	6.68	6.07	6.07	5.14	5.11	5.13	4.77
3	7.52	7.50	6.90	6.81	6.68	6.61	6.07	6.02	5.12	5.07	4.97	4.82
4	7.56	7.45	6.84	6.78	6.61	6.59	6.09	6.02	5.09	5.03	5.03	4.84
5	7.45	7.36	6.80	6.75	6.59	6.55	6.05	5.98	5.09	4.99	5.03	4.82
6	7.37	7.31	6.75	6.72	6.55	6.50	6.02	5.94	5.09	4.97	4.95	4.82
7	7.32	7.29	6.79	6.72	6.50	6.47	6.01	5.90	5.09	4.93	5.71	4.84
8	7.36	7.29	7.15	6.73	6.50	6.44	6.15	5.90	5.09	4.90	5.71	5.02
9	7.89	7.29	6.98	6.82	6.51	6.42	6.10	5.93	5.05	4.90	5.11	4.98
10	7.56	7.33	7.02	6.82	6.53	6.43	6.06	5.87	5.65	4.89	5.05	4.95
11	7.41	7.28	7.12	6.88	6.53	6.42	6.02	5.83	5.59	5.02	5.05	4.94
12	7.31	7.24	8.53	7.12	6.61	6.48	5.98	5.83	5.10	4.97	5.05	4.94
13	7.29	7.23	7.76	7.47	6.62	6.45	5.96	5.80	5.11	4.97	5.07	4.94
14	7.30	7.23	7.67	7.45	6.67	6.42	5.90	5.75	5.06	4.96	5.08	4.93
15	7.31	7.16	7.59	7.43	6.57	6.42	5.78	5.67	5.04	4.96	5.02	4.94
16	7.24	7.14	7.52	7.38	6.53	6.36	5.71	5.60	5.06	4.97	4.97	4.76
17	7.31	7.13	7.49	7.33	6.45	6.35	5.65	5.57	5.08	4.98	5.02	4.90
18	7.17	7.11	7.42	7.29	6.36	6.32	5.61	5.52	5.04	4.90	5.05	4.90
19	7.46	7.11	7.34	7.25	6.38	6.30	5.58	5.48	5.00	4.89	5.04	4.90
20	7.46	7.13	7.35	7.22	6.38	6.28	5.53	5.47	4.96	4.86	5.04	4.90
21	7.13	7.09	7.30	7.21	6.38	6.26	5.55	5.42	4.94	4.82	5.01	4.90
22	7.14	7.08	7.21	7.10	6.41	6.21	5.54	5.36	4.92	4.80	5.01	4.91
23	7.32	7.10	7.20	7.08	6.42	6.24	5.54	5.32	4.92	4.80	4.99	4.88
24	7.25	7.07	7.17	7.03	6.42	6.21	5.54	5.30	4.88	4.77	4.96	4.87
25	7.14	7.02	7.17	7.01	6.38	6.20	5.40	5.25	4.77	4.73	4.92	4.87
26	7.19	7.00	7.17	6.90	6.61	6.19	5.38	5.24	4.74	4.72	4.93	4.90
27	7.19	6.93	7.09	6.88	6.46	6.21	5.32	5.21	4.88	4.72	4.94	4.89
28	7.09	6.91	7.06	6.83	6.35	6.15	5.23	5.16	4.91	4.81	4.90	4.88
29	6.99	6.89	6.97	6.81	6.27	6.15	5.16	5.15	4.87	4.80	4.92	4.88
30	6.96	6.88	6.89	6.75	6.20	6.14	5.15	5.11	4.84	4.79	4.96	4.88
31	---	---	6.84	6.74	---	---	5.23	5.11	4.84	4.79	---	---
MONTH	7.89	6.88	8.53	6.72	6.87	6.14	6.15	5.11	5.65	4.72	5.71	4.76
YEAR	8.96	4.72										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

WELL NUMBER.--MW48D. SITE ID.--390703075272601. PERMIT NUMBER.--73749.
 LOCATION.--Lat 39°07'03", long 75°27'26", Hydrologic Unit 02040207, at Dover Air Force Base, Dover.
 Owner: U.S. Air Force.
 AQUIFER.--Columbia aquifer of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 78.4 ft; casing diameter 2 in., to 73.4 ft;
 screen diameter 2 in. from 73.4 to 78.4 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 September 1995 to current year.
 DATUM.--Altitude of land surface is 27.54 ft above National Geodetic Vertical Datum.
 Measuring Point: Top of PVC casing, 1.57 ft above land surface.
 REMARKS.--Dover Air Force Base Project.
 PERIOD OF RECORD.--September 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.61 ft above sea level, March 23, 1998;
 lowest measured, 8.05 ft above sea level, Oct. 16, and 17, 1995.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.47	10.39	9.99	9.85	11.33	11.13	11.08	10.85	12.75	12.65	15.73	15.66
2	10.44	10.39	9.89	9.79	11.13	11.10	11.08	11.07	12.89	12.75	15.70	15.66
3	10.43	10.41	9.79	9.79	11.27	11.11	11.13	11.07	13.04	12.89	15.70	15.67
4	10.41	10.39	9.79	9.72	11.31	11.27	11.13	11.12	13.36	13.04	15.83	15.67
5	10.39	10.37	9.73	9.71	11.30	11.25	11.18	11.13	13.41	13.36	15.89	15.83
6	10.37	10.34	9.79	9.73	11.25	11.24	11.22	11.18	13.57	13.41	15.87	15.81
7	10.34	10.30	9.85	9.79	11.24	11.16	11.27	11.22	13.87	13.57	15.88	15.85
8	10.30	10.27	9.92	9.85	11.16	11.15	11.35	11.27	13.92	13.87	16.23	15.88
9	10.28	10.26	10.02	9.92	11.20	11.15	11.29	11.15	13.92	13.91	17.05	16.23
10	10.28	10.25	10.02	9.98	11.33	11.20	11.15	11.12	13.97	13.92	17.04	16.76
11	10.25	10.21	10.07	10.02	11.27	11.13	11.18	11.13	14.38	13.97	16.82	16.73
12	10.22	10.20	10.14	10.07	11.14	11.13	11.17	11.12	14.42	14.20	16.80	16.67
13	10.21	10.19	10.31	10.13	11.19	11.14	11.27	11.16	14.21	14.15	16.70	16.60
14	10.20	10.17	10.39	10.30	11.18	11.09	11.16	11.08	14.21	14.10	16.92	16.55
15	10.17	10.14	10.41	10.31	11.09	11.05	11.41	11.13	14.10	14.00	16.55	16.23
16	10.14	10.13	10.42	10.40	11.11	11.08	11.41	11.28	14.23	14.06	16.23	16.06
17	10.13	10.11	10.48	10.41	11.13	11.09	11.28	11.25	14.62	14.23	16.07	15.98
18	10.12	10.09	10.58	10.48	11.09	11.03	11.26	11.24	14.63	14.47	16.14	16.00
19	10.13	10.09	10.67	10.58	11.05	11.03	11.31	11.25	14.47	14.29	16.56	16.14
20	10.10	10.03	10.67	10.66	11.07	10.98	11.31	11.28	14.41	14.29	16.95	16.56
21	10.06	10.02	10.80	10.67	10.98	10.92	11.28	11.26	14.40	14.14	17.38	16.95
22	10.05	9.99	10.84	10.78	11.10	10.92	11.27	11.25	14.14	14.06	17.50	17.38
23	10.00	9.97	10.86	10.78	11.13	10.96	11.48	11.27	14.85	14.12	17.61	17.49
24	10.00	9.96	10.88	10.86	11.03	10.90	11.60	11.48	15.22	14.85	17.60	17.36
25	10.03	9.91	11.03	10.86	11.12	10.97	11.60	11.55	15.37	15.22	17.36	17.18
26	10.04	9.91	11.17	11.03	10.97	10.94	11.70	11.56	15.56	15.36	17.42	17.23
27	10.06	9.90	11.15	11.00	11.07	10.94	11.99	11.70	15.73	15.56	17.42	17.23
28	9.90	9.84	11.16	11.00	11.04	10.90	12.18	11.99	15.77	15.71	17.23	17.10
29	9.85	9.84	11.16	11.11	11.35	10.90	12.50	12.18	---	---	17.10	16.82
30	9.84	9.83	11.33	11.16	11.30	11.01	12.60	12.50	---	---	16.82	16.67
31	9.85	9.83	---	---	11.01	10.85	12.65	12.60	---	---	16.67	16.50
MONTH	10.47	9.83	11.33	9.71	11.35	10.85	12.65	10.85	15.77	12.65	17.61	15.66

GROUND-WATER LEVELS

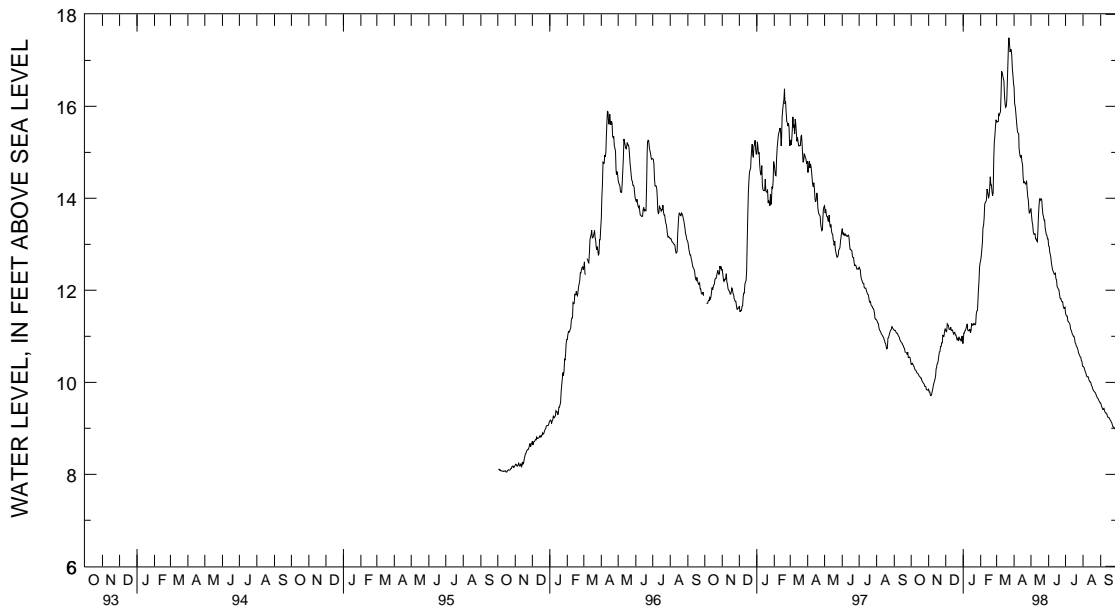
DELAWARE--Continued

KENT COUNTY--Continued

MW48D--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.50	16.40	13.82	13.77	13.19	12.96	11.63	11.50	10.37	10.34	9.55	9.55
2	16.40	16.05	13.81	13.62	13.03	12.95	11.50	11.46	10.34	10.34	9.55	9.50
3	16.06	16.00	13.62	13.49	13.03	12.82	11.46	11.44	10.34	10.31	9.50	9.48
4	16.09	15.86	13.49	13.42	12.82	12.79	11.45	11.44	10.31	10.27	9.49	9.44
5	15.86	15.71	13.42	13.27	12.80	12.73	11.44	11.33	10.27	10.23	9.44	9.41
6	15.71	15.56	13.28	13.22	12.73	12.61	11.33	11.32	10.23	10.20	9.43	9.41
7	15.56	15.44	13.23	13.22	12.61	12.53	11.32	11.30	10.20	10.15	9.44	9.43
8	15.49	15.42	13.31	13.23	12.53	12.45	11.30	11.28	10.15	10.12	9.44	9.38
9	15.71	15.40	13.24	13.12	12.45	12.42	11.28	11.24	10.12	10.12	9.38	9.35
10	15.48	15.09	13.12	13.12	12.42	12.39	11.24	11.16	10.14	10.12	9.35	9.33
11	15.09	14.97	13.12	13.08	12.39	12.35	11.16	11.14	10.13	10.07	9.34	9.33
12	14.97	14.91	13.29	13.06	12.37	12.35	11.14	11.10	10.07	10.03	9.34	9.31
13	14.94	14.89	13.62	13.29	12.39	12.37	11.10	11.05	10.03	10.01	9.31	9.27
14	15.06	14.94	13.85	13.62	12.38	12.25	11.05	11.03	10.01	10.01	9.27	9.24
15	15.05	14.78	13.99	13.85	12.25	12.23	11.03	11.00	10.01	9.97	9.24	9.24
16	14.78	14.74	14.04	13.99	12.23	12.08	11.00	11.00	9.97	9.93	9.24	9.23
17	14.74	14.46	14.03	13.99	12.09	12.06	11.00	10.95	9.93	9.91	9.23	9.20
18	14.46	14.33	13.99	13.96	12.06	12.03	10.95	10.86	9.91	9.87	9.20	9.18
19	14.65	14.36	14.02	13.99	12.04	12.02	10.86	10.84	9.87	9.83	9.18	9.16
20	14.64	14.34	14.02	13.97	12.02	11.93	10.84	10.79	9.83	9.81	9.16	9.13
21	14.34	14.31	13.97	13.79	11.93	11.84	10.79	10.77	9.81	9.80	9.13	9.12
22	14.38	14.32	13.79	13.65	11.84	11.82	10.77	10.74	9.81	9.78	9.12	9.07
23	14.40	14.38	13.65	13.61	11.83	11.82	10.74	10.70	9.78	9.77	9.07	9.03
24	14.38	14.20	13.61	13.53	11.82	11.77	10.70	10.63	9.77	9.73	9.03	9.03
25	14.20	14.04	13.57	13.53	11.77	11.75	10.63	10.61	9.73	9.70	9.03	9.01
26	14.10	13.97	13.53	13.35	11.75	11.75	10.61	10.58	9.70	9.67	9.01	9.00
27	13.97	13.76	13.35	13.28	11.75	11.65	10.58	10.55	9.67	9.65	9.00	8.99
28	13.76	13.68	13.28	13.21	11.65	11.61	10.55	10.54	9.65	9.64	8.99	8.91
29	13.76	13.69	13.24	13.19	11.64	11.61	10.54	10.48	9.64	9.60	8.91	8.91
30	13.77	13.76	13.19	13.12	11.68	11.63	10.48	10.46	9.60	9.58	8.91	8.90
31	---	---	13.19	13.12	---	---	10.46	10.37	9.58	9.55	---	---
MONTH	16.50	13.68	14.04	13.06	13.19	11.61	11.63	10.37	10.37	9.55	9.55	8.90
YEAR	17.61	8.90										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

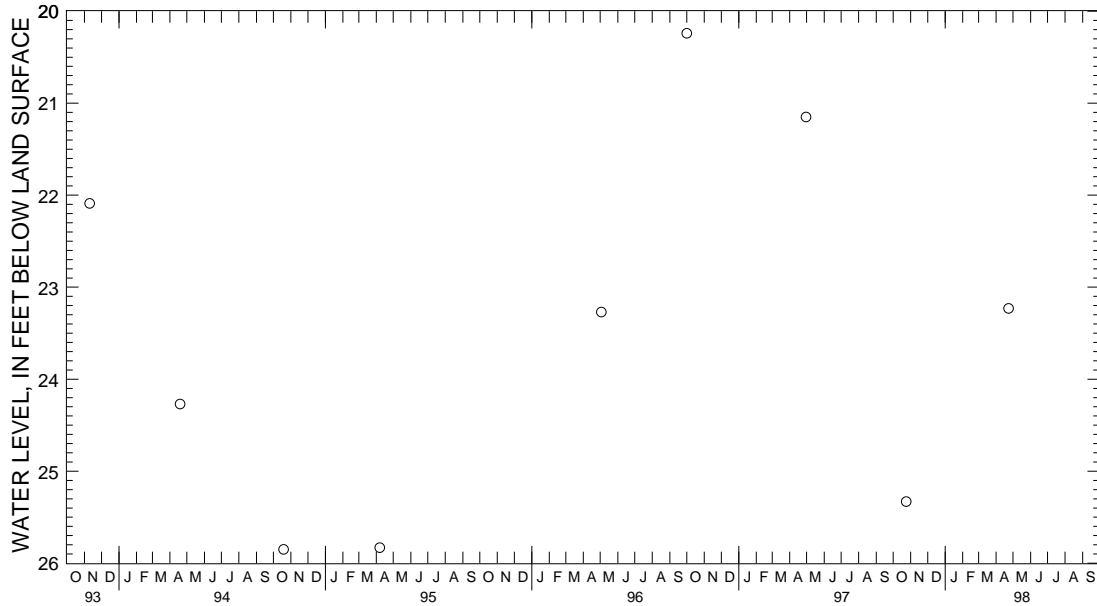
DELAWARE--Continued

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 electric 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, 20.24 ft below land surface, Oct. 1, 1996;
 lowest measured, 39.31 ft below land surface, Sept. 30, 1981.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1997	25.33	APR 23, 1998	23.23
WATER YEAR 1998		HIGHEST 23.23 APR 23, 1998	LOWEST 25.33 OCT 24, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

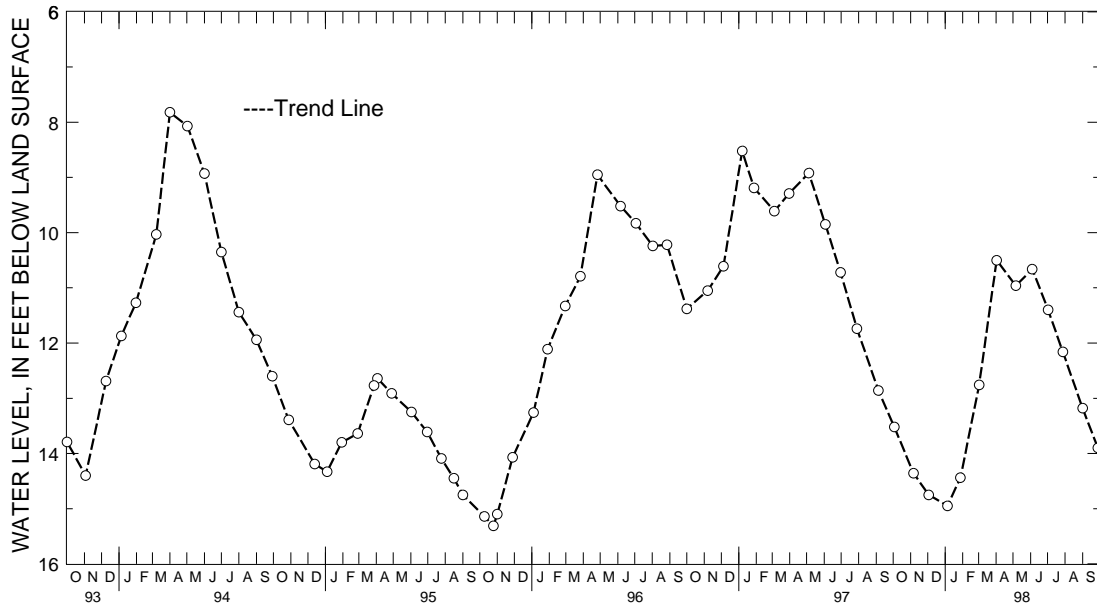
DELAWARE--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	13.52	JAN 28, 1998	14.44	JUN 04, 1998	10.66	SEP 28, 1998	13.90
NOV 06	14.36	MAR 02	12.76	JUL 02	11.40		
DEC 03	14.75	APR 02	10.50	28	12.16		
JAN 05, 1998	14.95	MAY 06	10.96	SEP 01	13.18		
WATER YEAR 1998		HIGHEST	10.50	APR 02, 1998	LOWEST	14.95	JAN 05, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

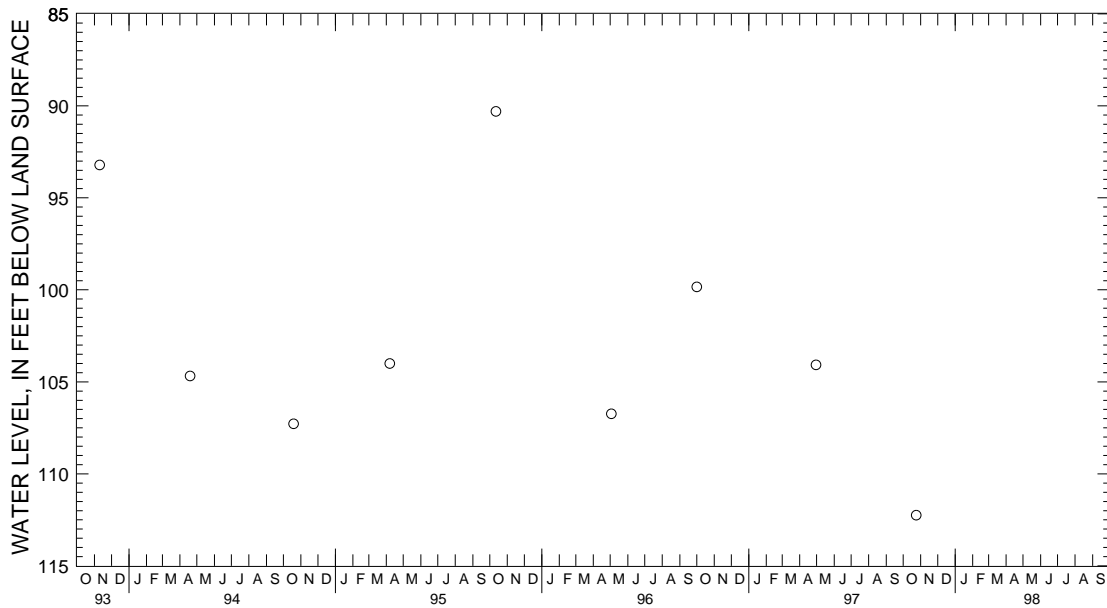
DELAWARE--Continued

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 electric 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, 3.26 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
OCT 24, 1997	112.25



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

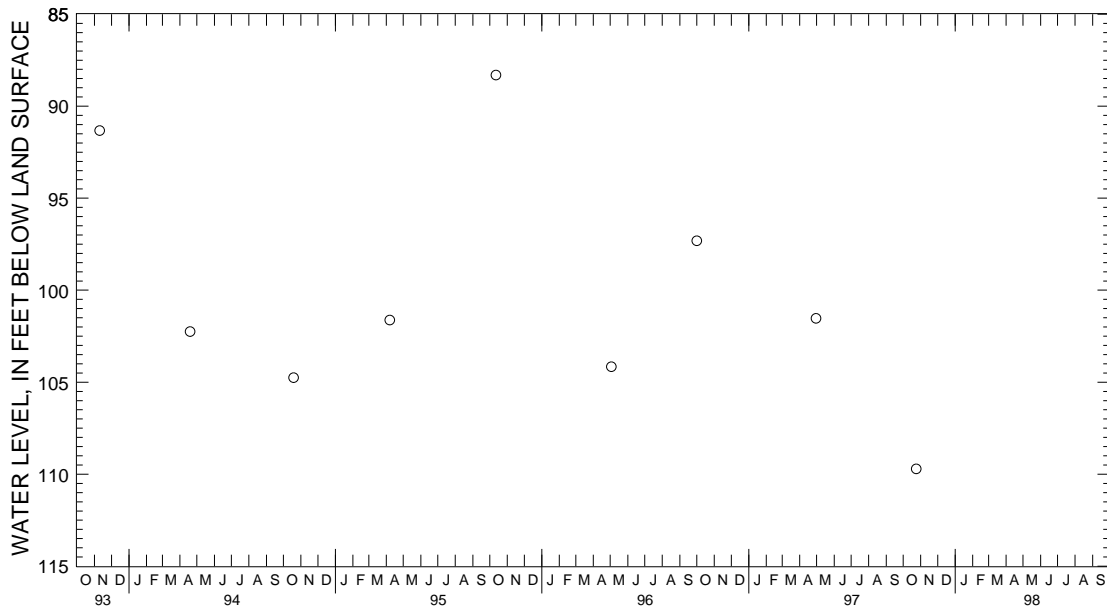
DELAWARE--Continued

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 electric 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, 3.24 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
OCT 24, 1997	109.71



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

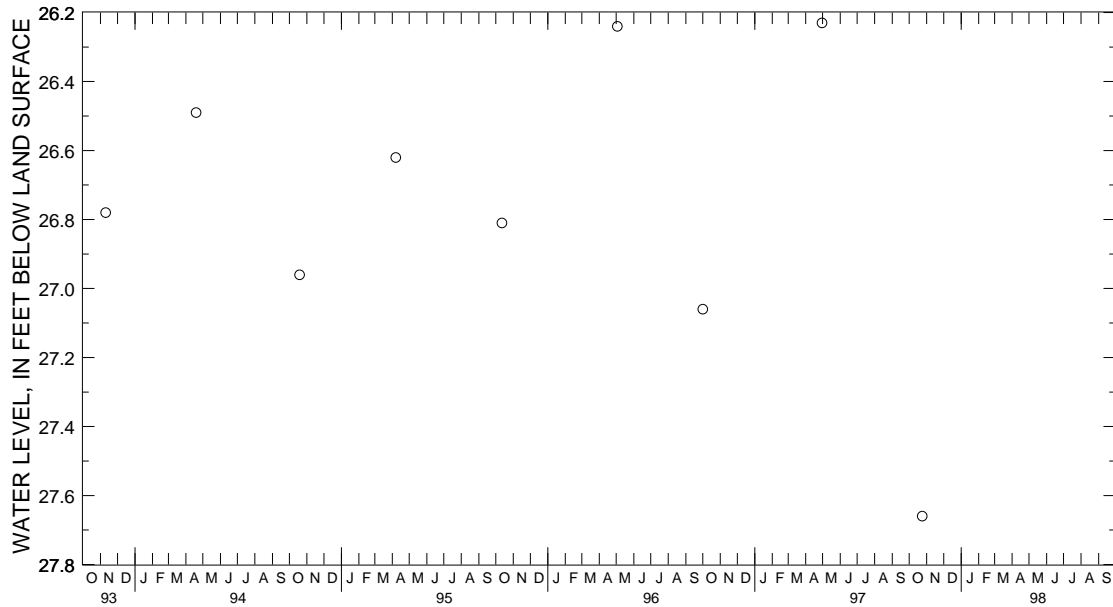
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
OCT 24, 1997	27.66



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

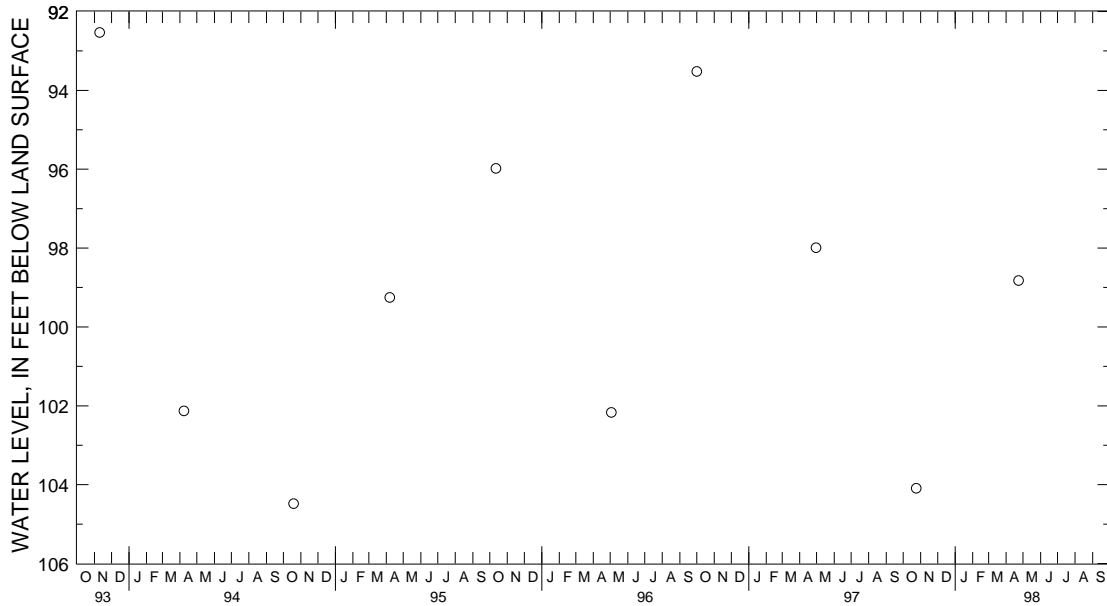
DELAWARE--Continued

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 electric 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 curent 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 24, 1997	104.09	APR 23, 1998	98.82
WATER YEAR 1998	HIGHEST	98.82	APR 23, 1998
	LOWEST	104.09	OCT 24, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

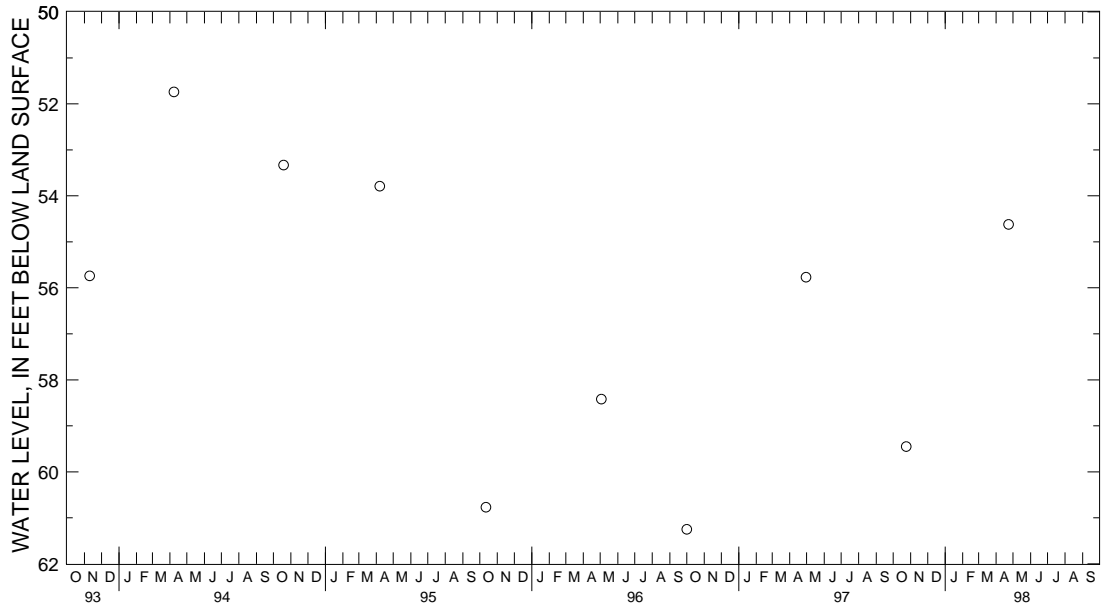
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	
OCT 24, 1997	59.45	APR 23, 1998	54.62	
WATER YEAR 1998	HIGHEST	54.62 APR 23, 1998	LOWEST	59.45 OCT 24, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

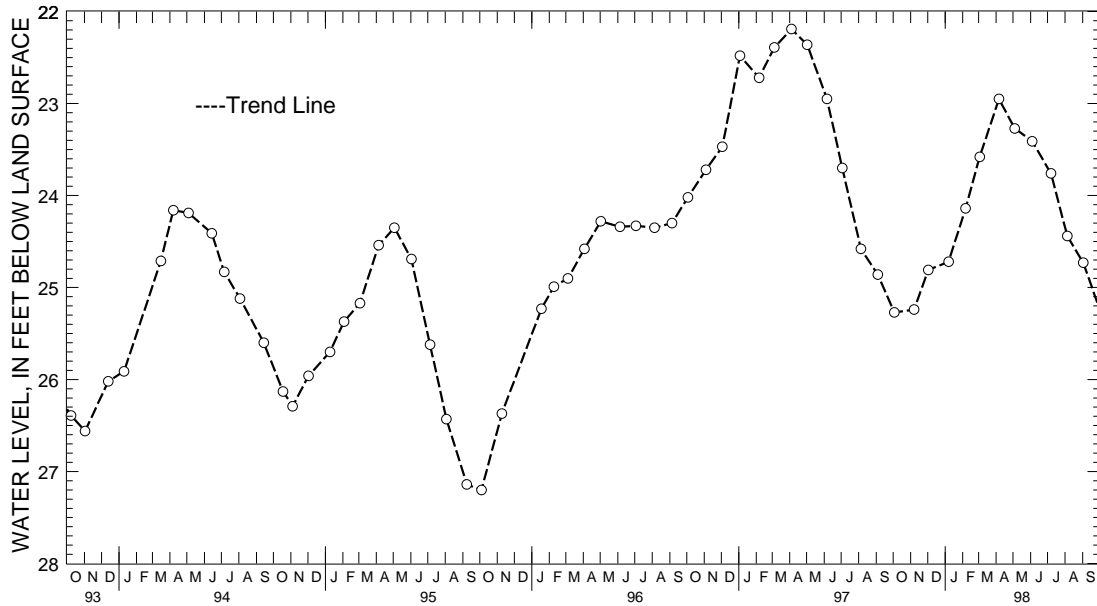
DELAWARE--Continued

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 electric 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, 22.19 ft below land surface, April 4, 1997;
 lowest measured, 27.42 ft below land surface, Oct. 2, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	25.27	JAN 07, 1998	24.72	APR 06, 1998	22.95	JUL 07, 1998	23.76
NOV 07	25.24	FEB 06	24.14	MAY 04	23.27	AUG 05	24.44
DEC 02	24.81	MAR 03	23.58	JUN 04	23.41	SEP 02	24.73
WATER YEAR 1998		HIGHEST	22.95	APR 06, 1998	LOWEST	25.27	OCT 03, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

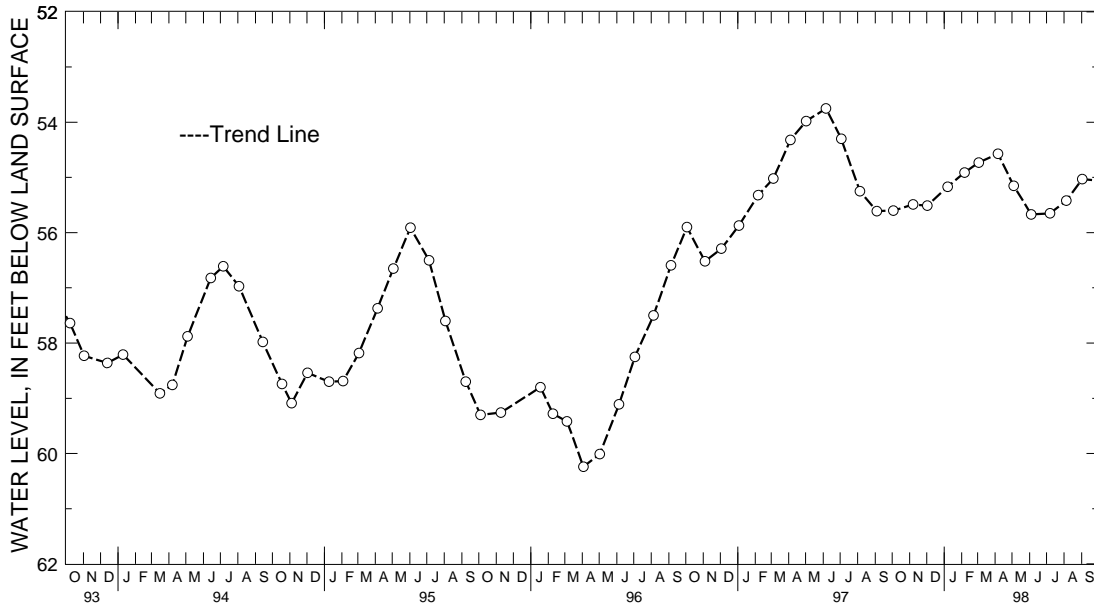
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	55.60	JAN 07, 1998	55.17	APR 06, 1998	54.57	JUL 07, 1998	55.65
NOV 07	55.49	FEB 06	54.91	MAY 04	55.15	AUG 05	55.42
DEC 02	55.51	MAR 03	54.73	JUN 04	55.67	SEP 02	55.03
WATER YEAR 1998		HIGHEST	54.57	APR 06, 1998	LOWEST	55.67	JUN 04, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

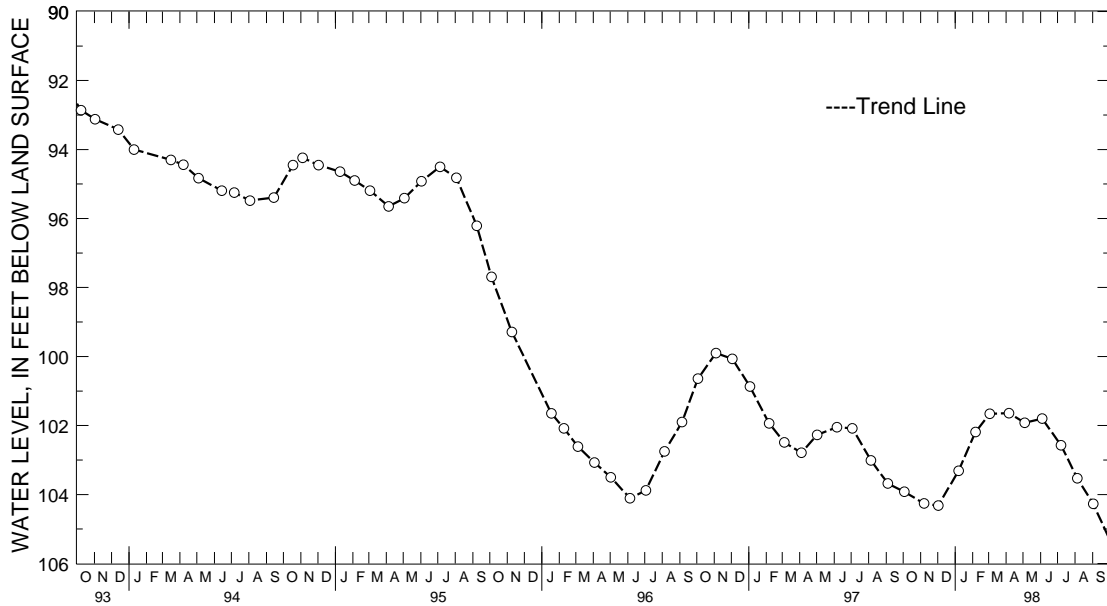
DELAWARE--Continued

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 electric 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, 104.32 ft below land surface, Dec. 2, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	103.92	JAN 07, 1998	103.31	APR 06, 1998	101.64	JUL 07, 1998	102.57
NOV 07	104.26	FEB 06	102.19	MAY 04	101.92	AUG 05	103.53
DEC 02	104.32	MAR 03	101.66	JUN 04	101.80	SEP 02	104.27
WATER YEAR 1998		HIGHEST	101.64	APR 06, 1998	LOWEST	104.32	DEC 02, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

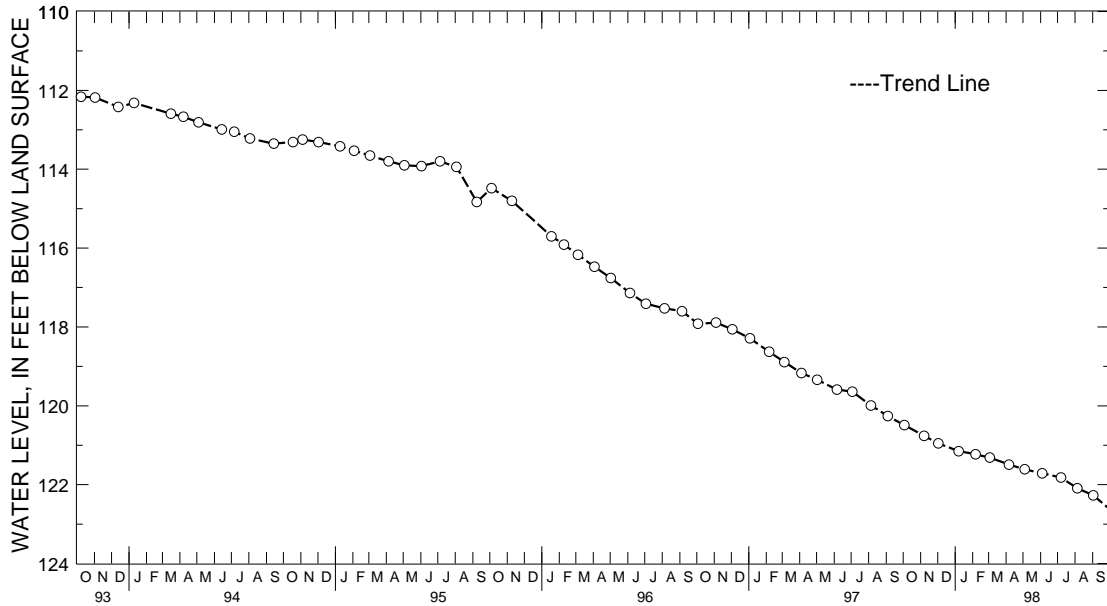
DELAWARE--Continued

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 electric 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, 122.27 ft below land surface, Sept. 2, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	120.49	JAN 07, 1998	121.15	APR 06, 1998	121.49	JUL 07, 1998	121.82
NOV 07	120.76	FEB 06	121.23	MAY 04	121.61	AUG 05	122.09
DEC 02	120.95	MAR 03	121.31	JUN 04	121.71	SEP 02	122.27
WATER YEAR 1998		HIGHEST	120.49	OCT 03, 1997	LOWEST	122.27	SEP 02, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

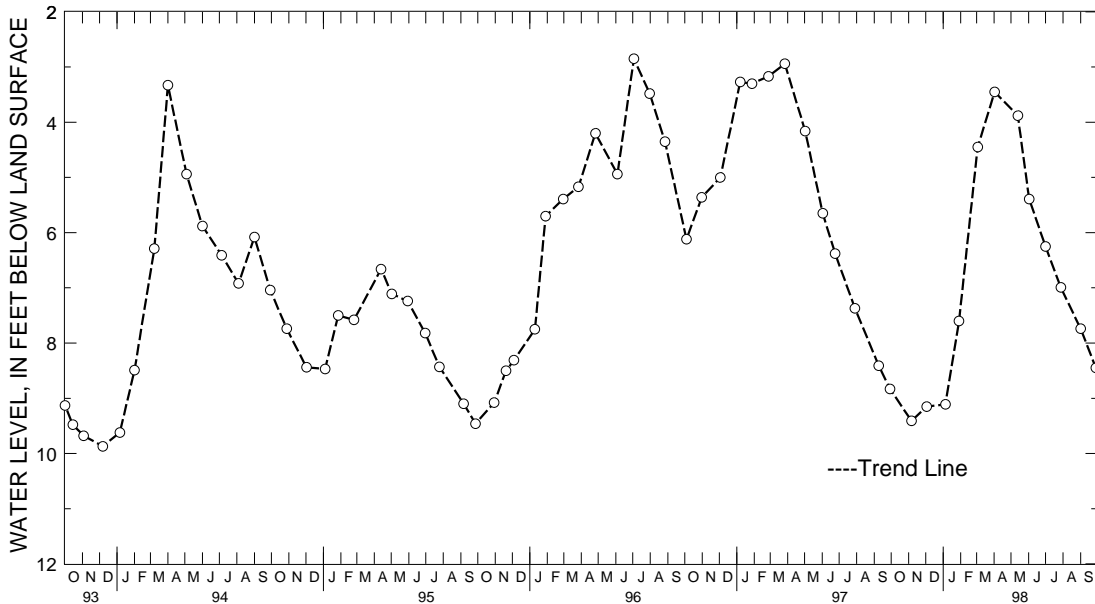
DELAWARE--Continued

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 electric or chalked steel tape 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 06, 1997	9.41	JAN 29, 1998	7.60	MAY 13, 1998	3.88	JUL 28, 1998	6.99
DEC 03	9.15	MAR 03	4.45	JUN 02	5.39	SEP 01	7.74
JAN 05, 1998	9.11	APR 02	3.45	JUL 01	6.25	28	8.45
WATER YEAR 1998		HIGHEST	3.45	APR 02, 1998		LOWEST	9.41
							NOV 06, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

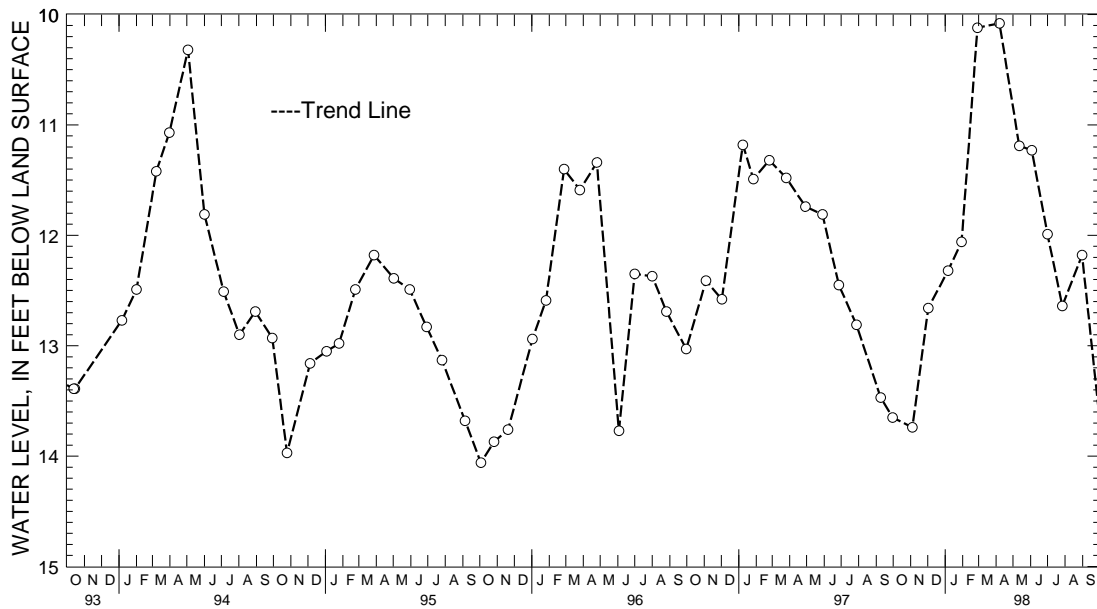
DELAWARE--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04, 1997	13.74	JAN 30, 1998	12.06	MAY 12, 1998	11.19	JUL 27, 1998	12.64
DEC 02	12.66	FEB 27	10.12	JUN 03	11.23	AUG 31	12.18
JAN 06, 1998	12.32	APR 07	10.08	JUL 01	11.99		
WATER YEAR 1998		HIGHEST	10.08	APR 07, 1998	LOWEST	13.74	NOV 04, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

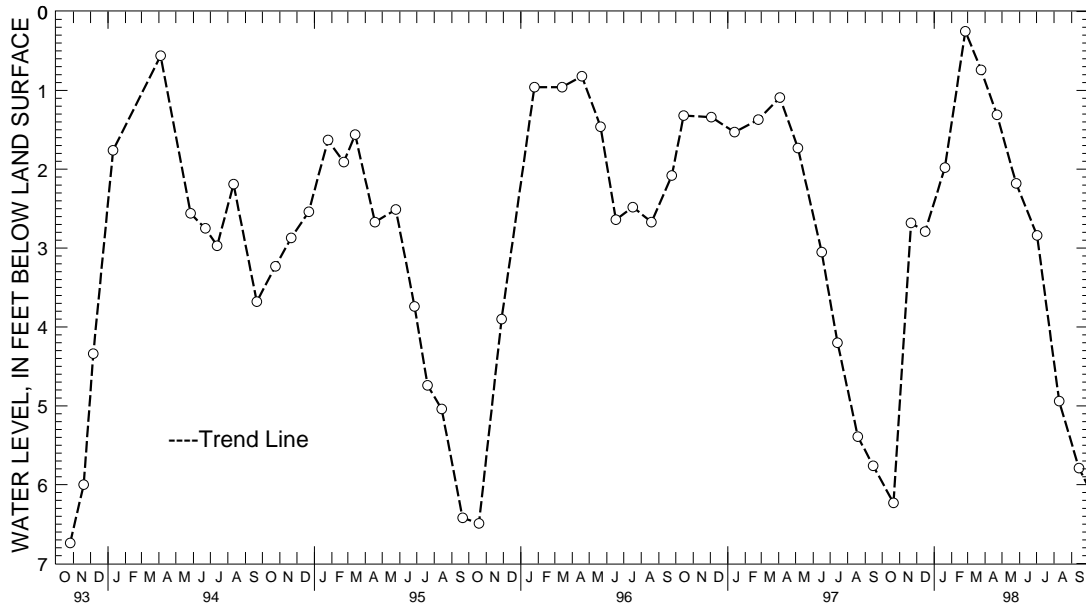
DELAWARE---Continued

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 electric 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, 0.25 ft below land surface, Feb. 25, 1998;
 lowest measured, 7.38 ft below land surface, Sept. 30, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	6.23	JAN 20, 1998	1.98	APR 22, 1998	1.31	AUG 10, 1998	4.94
NOV 21	2.68	FEB 25	.25	MAY 26	2.18	SEP 14	5.79
DEC 16	2.79	MAR 25	.74	JUL 02	2.84		
WATER YEAR 1998	HIGHEST	.25 FEB 25, 1998	LOWEST	6.23 OCT 21, 1997			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

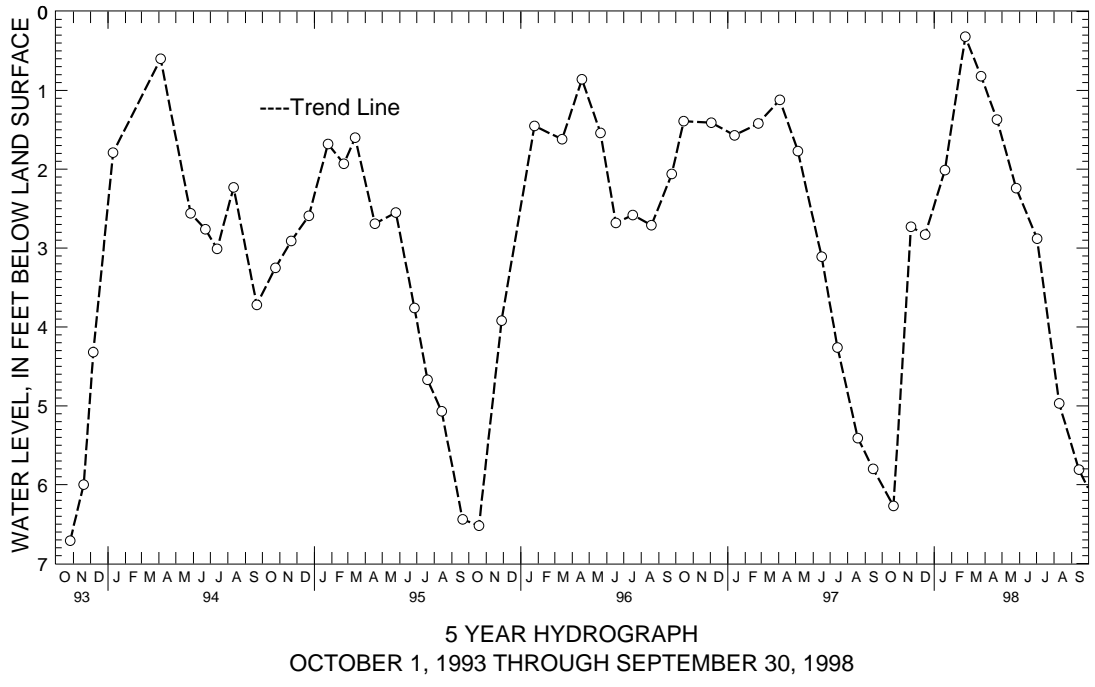
DELAWARE---Continued

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 electric 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, 0.32 ft below land surface, Feb 25, 1998; lowest measured, 6.71 ft below land surface, Oct. 26, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	6.27	JAN 20, 1998	2.01	APR 22, 1998	1.37	AUG 10, 1998	4.97
NOV 21	2.73	FEB 25	.32	MAY 26	2.24	SEP 14	5.81
DEC 16	2.83	MAR 25	.82	JUL 02	2.88		
WATER YEAR 1998		HIGHEST	.32	FEB 25, 1998	LOWEST	6.27	OCT 21, 1997



GROUND-WATER LEVELS

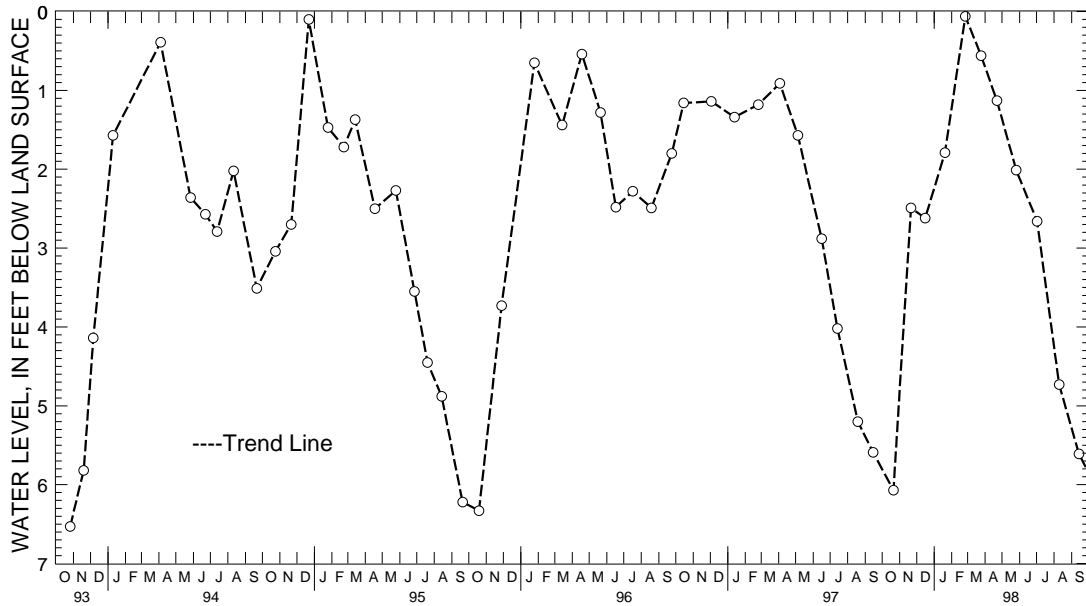
DELAWARE---Continued

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 electric 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, 0.06 ft below land surface, Feb 25, 1998;
 lowest measured, 6.53 ft below land surface, Oct. 26, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	6.07	JAN 20, 1998	1.79	APR 22, 1998	1.13	AUG 10, 1998	4.73
NOV 21	2.49	FEB 25	.06	MAY 26	2.01	SEP 14	5.61
DEC 16	2.62	MAR 25	.56	JUL 02	2.66		
WATER YEAR 1998	HIGHEST	.06 FEB 25, 1998	LOWEST	6.07 OCT 21, 1997			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

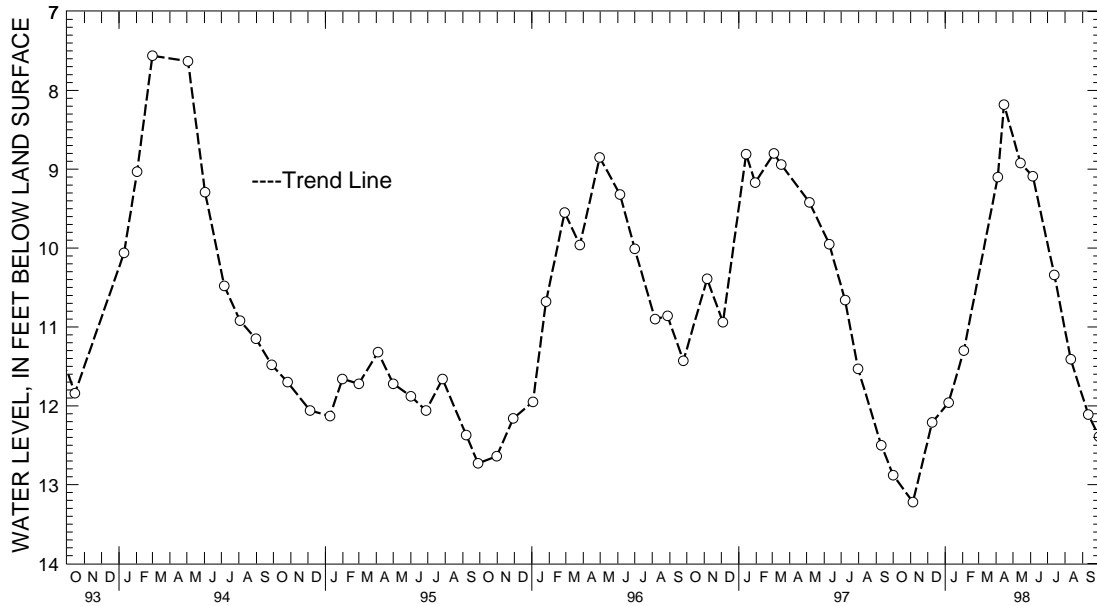
DELAWARE--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	12.88	FEB 03, 1998	11.30	JUN 05, 1998	9.09	SEP 30, 1998	12.39
NOV 05	13.22	APR 04	9.10	JUL 13	10.34		
DEC 09	12.21	15	8.18	AUG 11	11.41		
JAN 07, 1998	11.96	MAY 14	8.92	SEP 11	12.11		
WATER YEAR 1998		HIGHEST	8.18	APR 15, 1998	LOWEST	13.22	NOV 05, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

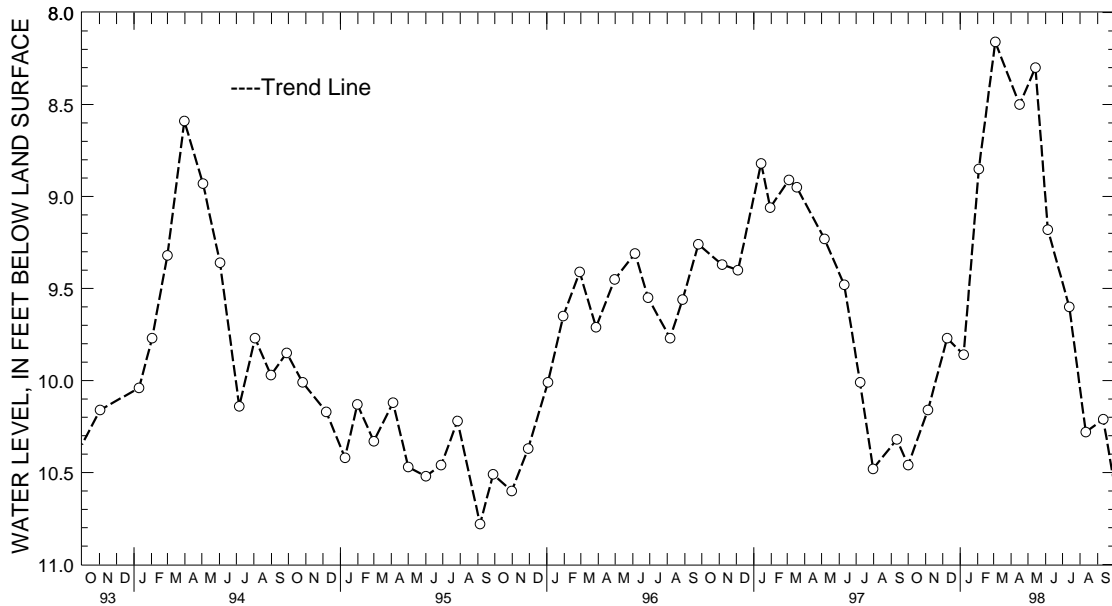
DELAWARE--Continued

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, 8.16 ft below land surface, March 04, 1998; lowest measured, 11.47 ft below land surface, Nov. 10, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	10.46	JAN 07, 1998	9.86	APR 16, 1998	8.50	JUL 13, 1998	9.60
NOV 05	10.16	FEB 03	8.85	MAY 14	8.30	AUG 11	10.28
DEC 09	9.77	MAR 04	8.16	JUN 05	9.18	SEP 11	10.21
WATER YEAR 1998		HIGHEST	8.16	MAR 04, 1998	LOWEST	10.46	OCT 01, 1997



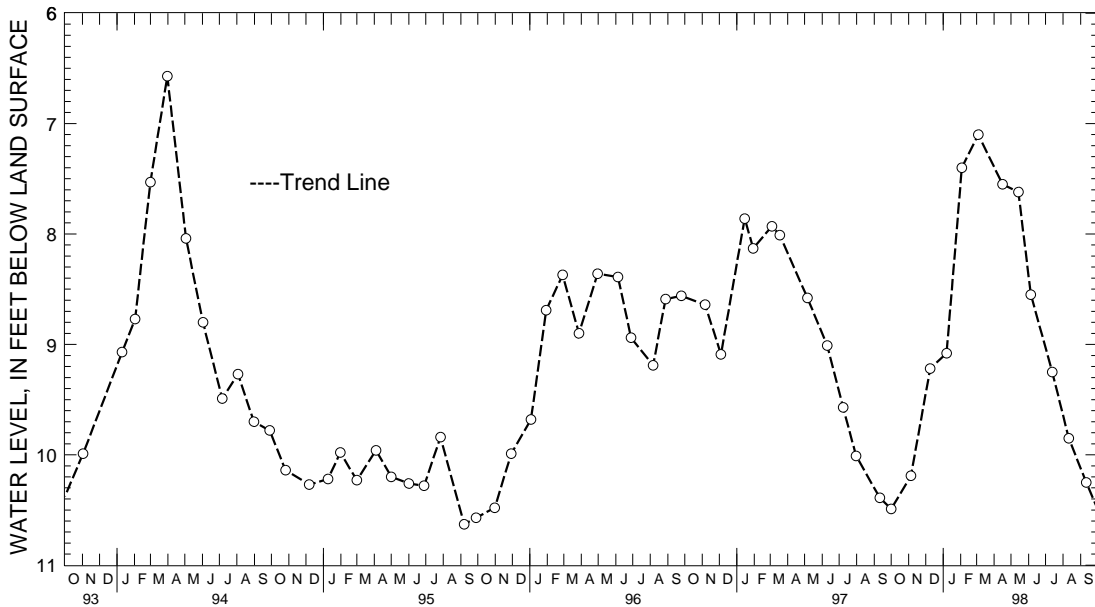
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	10.49	JAN 07, 1998	9.08	APR 16, 1998	7.55	JUL 13, 1998	9.25
NOV 05	10.19	FEB 03	7.40	MAY 14	7.62	AUG 11	9.85
DEC 09	9.22	MAR 04	7.10	JUN 05	8.55	SEP 11	10.25
WATER YEAR 1998		HIGHEST	7.10 MAR 04, 1998	LOWEST	10.49 OCT 01, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

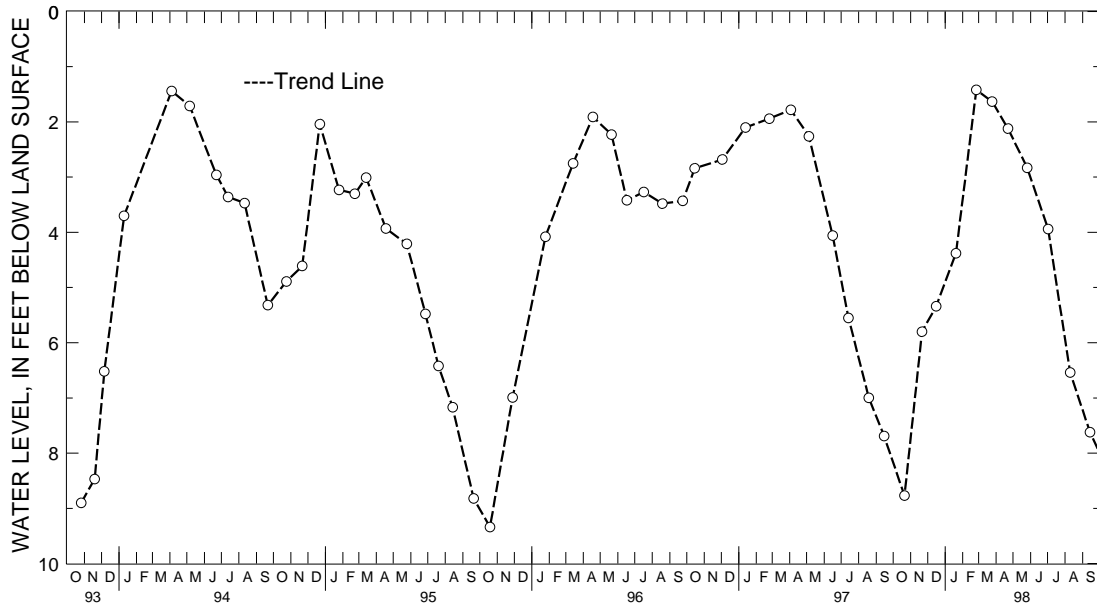
DELAWARE---Continued

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 electric 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, 1.42 ft below land surface, Feb. 25, 1998;
 lowest measured, 9.34 ft below land surface, Oct. 13, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	8.77	JAN 20, 1998	4.38	APR 22, 1998	2.12	AUG 10, 1998	6.54
NOV 21	5.80	FEB 25	1.42	MAY 26	2.83	SEP 14	7.62
DEC 16	5.34	MAR 25	1.63	JUL 02	3.94		
WATER YEAR 1998		HIGHEST	1.42 FEB 25, 1998	LOWEST	8.77 OCT 21, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

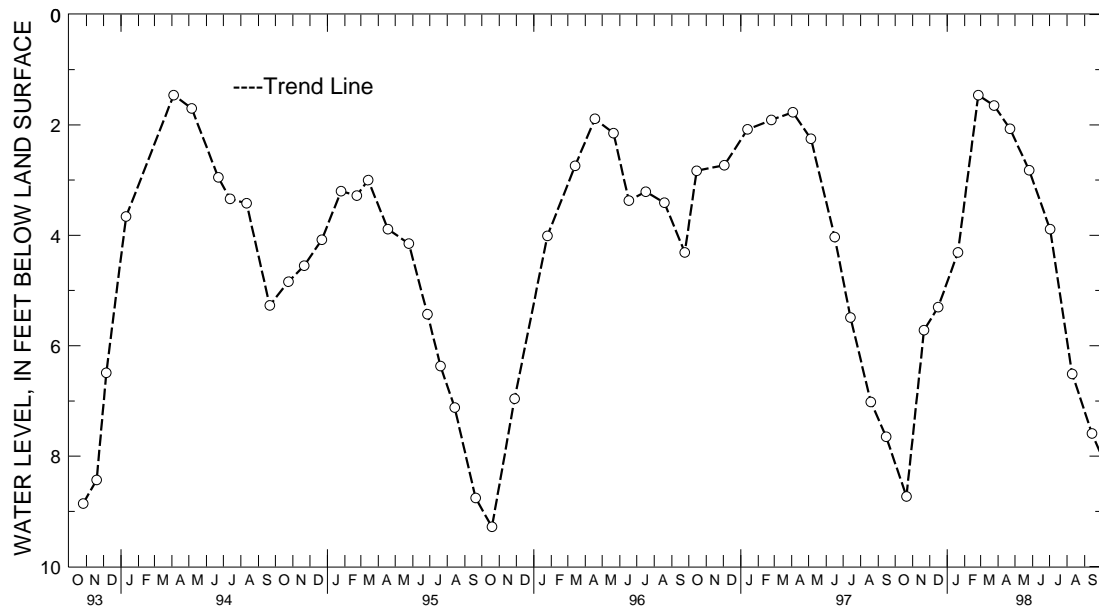
DELAWARE---Continued

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 electric 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, and Feb. 25, 1998; lowest measured, 9.28 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	8.73	JAN 20, 1998	4.31	APR 22, 1998	2.07	AUG 10, 1998	6.51
NOV 21	5.72	FEB 25	1.46	MAY 26	2.82	SEP 14	7.59
DEC 16	5.30	MAR 25	1.65	JUL 02	3.89		
WATER YEAR 1998		HIGHEST	1.46	FEB 25, 1998	LOWEST	8.73	OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

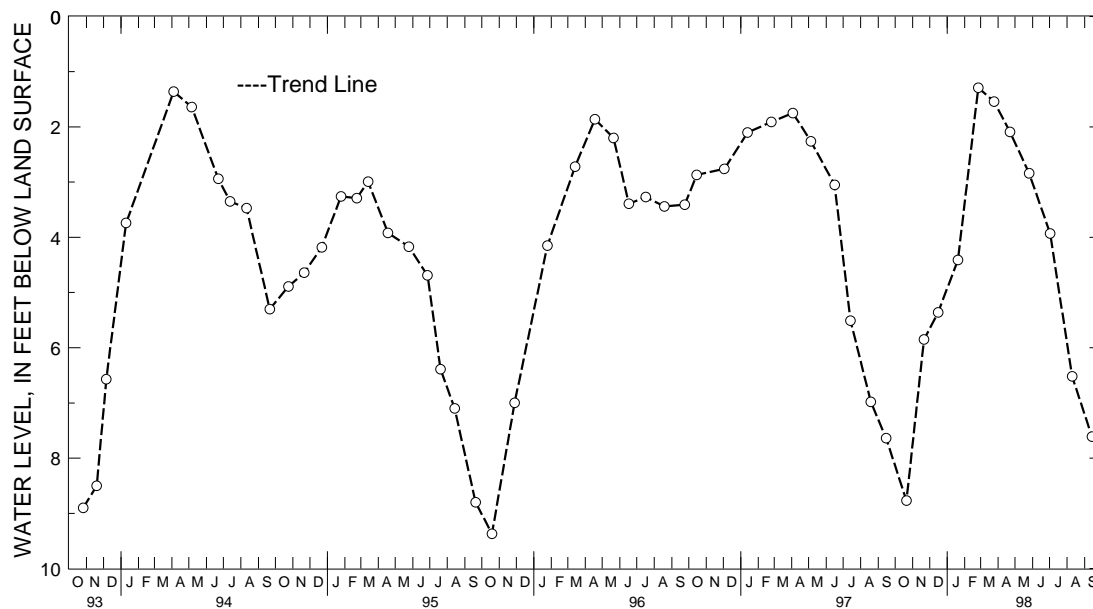
DELAWARE---Continued

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 electric 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, 1.29 ft below land surface, Feb. 25, 1998; lowest measured, 9.37 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	8.77	JAN 20, 1998	4.41	APR 22, 1998	2.09	AUG 10, 1998	6.52
NOV 21	5.85	FEB 25	1.29	MAY 26	2.84	SEP 14	7.61
DEC 16	5.36	MAR 25	1.54	JUL 02	3.93		
WATER YEAR 1998		HIGHEST	1.29	FEB 25, 1998	LOWEST	8.77	OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

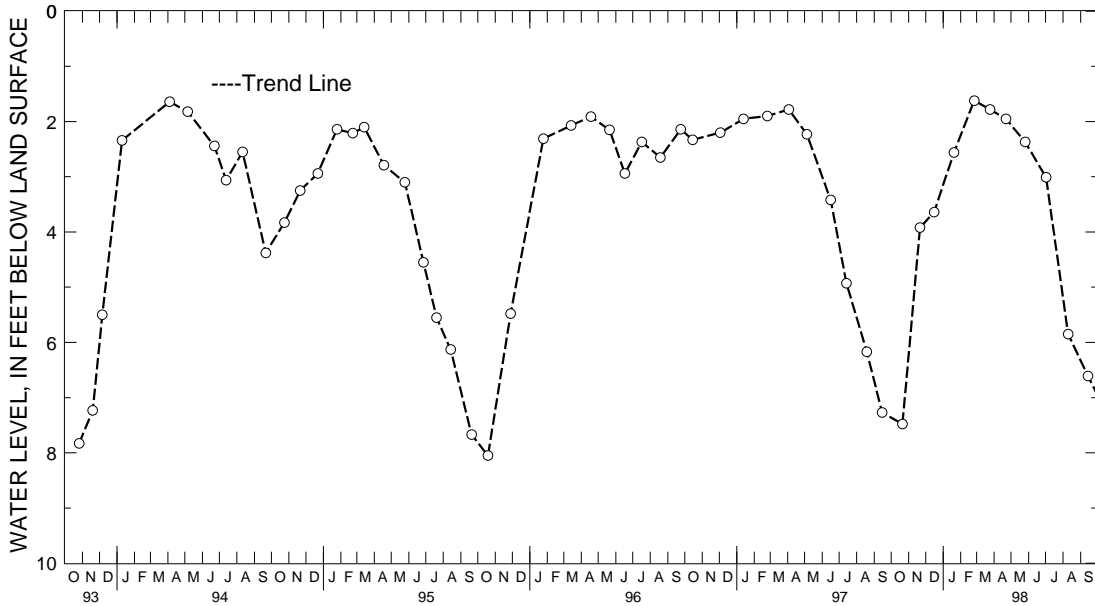
DELAWARE---Continued

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 electric 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, 1.62 ft below land surface, Feb. 25, 1998; lowest measured, 8.05 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.48	JAN 20, 1998	2.56	APR 22, 1998	1.95	AUG 10, 1998	5.85
NOV 21	3.92	FEB 25	1.62	MAY 26	2.37	SEP 14	6.61
DEC 16	3.64	MAR 25	1.78	JUL 02	3.01		
WATER YEAR 1998		HIGHEST	1.62 FEB 25, 1998	LOWEST	7.48 OCT 21, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

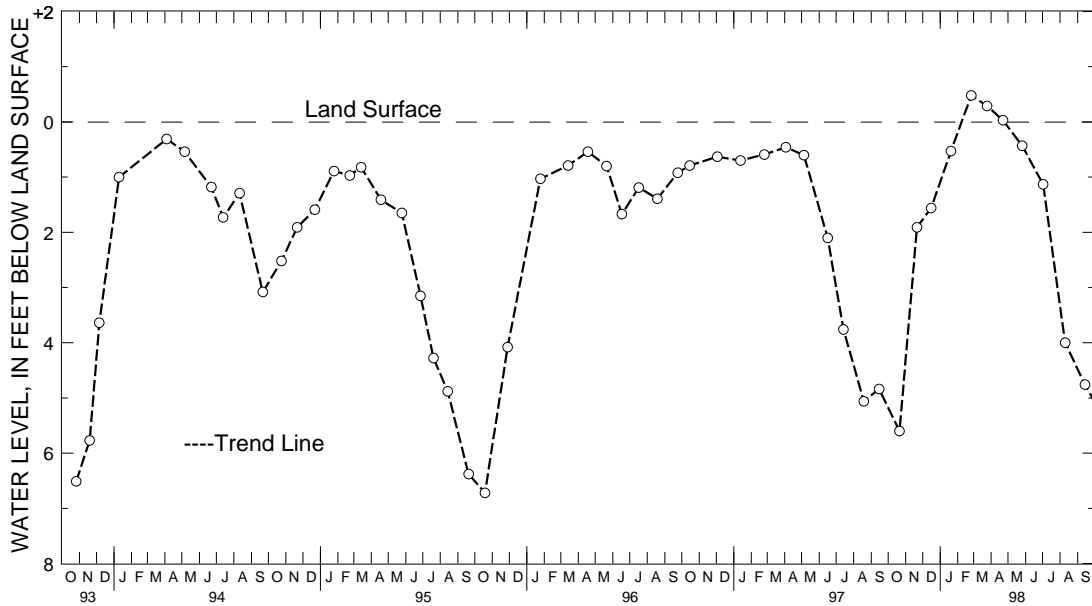
DELAWARE---Continued

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 electric 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, 0.48 ft above land surface, Feb. 25, 1998; lowest measured, 6.72 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	5.60	JAN 20, 1998	.53	APR 22, 1998	+0.03	AUG 10, 1998	4.00
NOV 21	1.91	FEB 25	+0.48	MAY 26	.43	SEP 14	4.76
DEC 16	1.56	MAR 25	+0.29	JUL 02	1.13		
WATER YEAR 1998		HIGHEST	+0.48	FEB 25, 1998		LOWEST	5.60
							OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

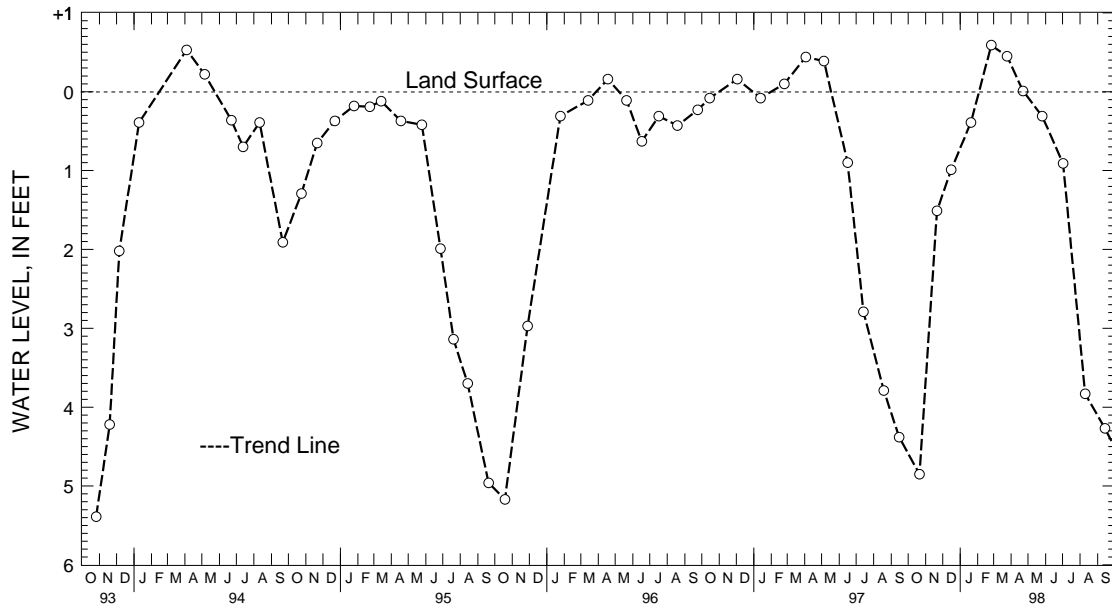
DELAWARE---Continued

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 electric 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, 0.59 ft above land surface, Feb. 25, 1998; lowest measured, 5.39 ft below land surface, Oct. 26, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	4.85	JAN 20, 1998	.39	APR 22, 1998	+0.01	AUG 10, 1998	3.83
NOV 21	1.51	FEB 25	+0.59	MAY 26	.31	SEP 14	4.27
DEC 16	.99	MAR 25	+0.45	JUL 02	.91		
WATER YEAR 1998		HIGHEST	+0.59 FEB 25, 1998	LOWEST	4.85 OCT 21, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

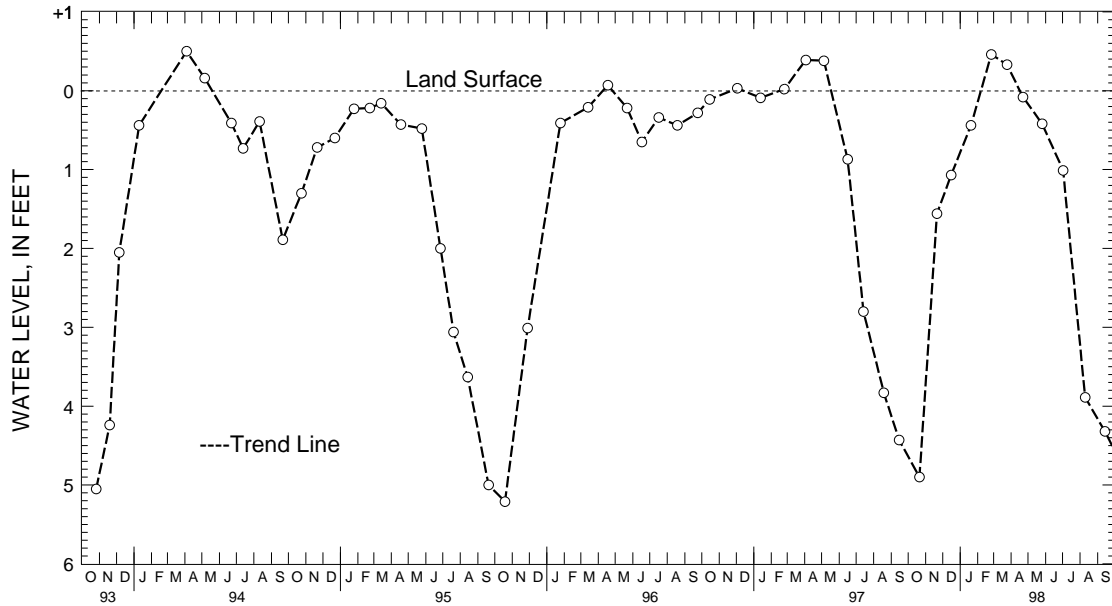
DELAWARE---Continued

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 electric 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	4.90	JAN 20, 1998	.44	APR 22, 1998	.08	AUG 10, 1998	3.89
NOV 21	1.56	FEB 25	+ .46	MAY 26	.42	SEP 14	4.32
DEC 16	1.07	MAR 25	+ .33	JUL 02	1.01		
WATER YEAR 1998		HIGHEST	+ .46 FEB 25, 1998	LOWEST	4.90	OCT 21, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

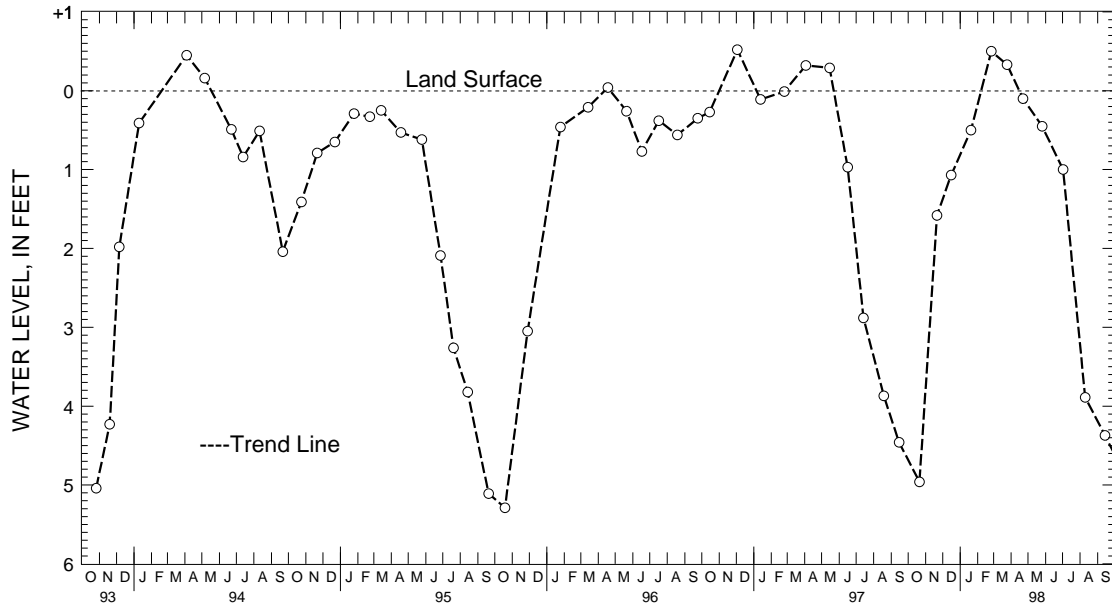
DELAWARE---Continued

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 electric 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, 0.52 ft above land surface, Dec. 3, 1996; lowest measured, 5.29 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	4.96	JAN 20, 1998	.50	APR 22, 1998	.10	AUG 10, 1998	3.89
NOV 21	1.58	FEB 25	+ .50	MAY 26	.45	SEP 14	4.37
DEC 16	1.07	MAR 25	+ .33	JUL 02	1.00		
WATER YEAR 1998		HIGHEST	+ .50 FEB 25, 1998	LOWEST	4.96	OCT 21, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

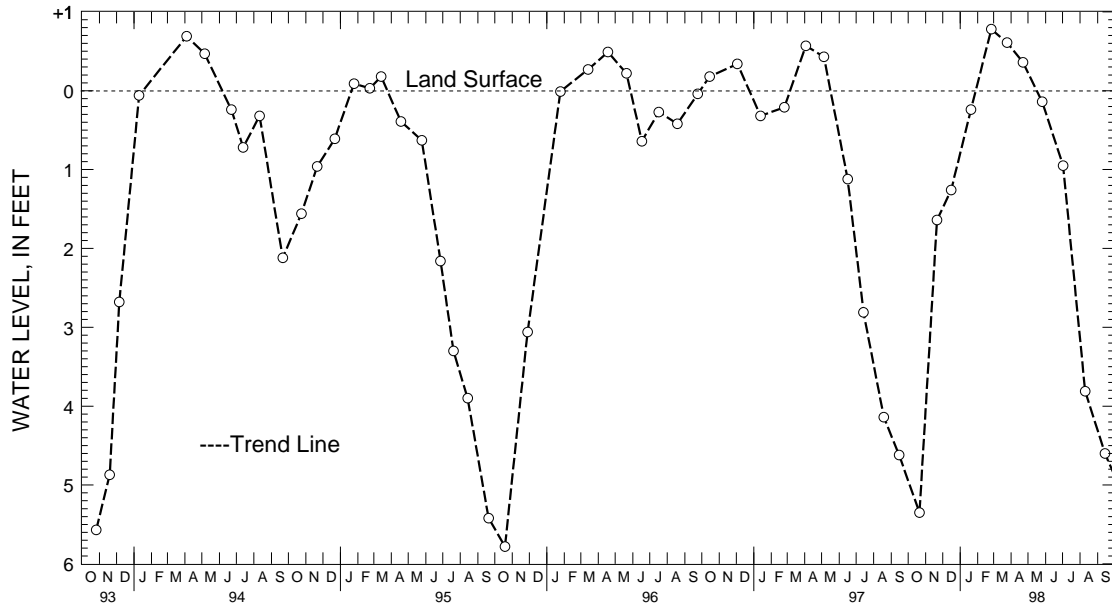
DELAWARE---Continued

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 electric 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, 0.78 ft above land surface, Feb. 25, 1998; lowest measured, 5.78 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	5.35	JAN 20, 1998	.24	APR 22, 1998	+0.36	AUG 10, 1998	3.81
NOV 21	1.64	FEB 25	+0.78	MAY 26	.14	SEP 14	4.60
DEC 16	1.26	MAR 25	+0.61	JUL 02	.95		
WATER YEAR 1998		HIGHEST	+0.78 FEB 25, 1998	LOWEST	5.35 OCT 21, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

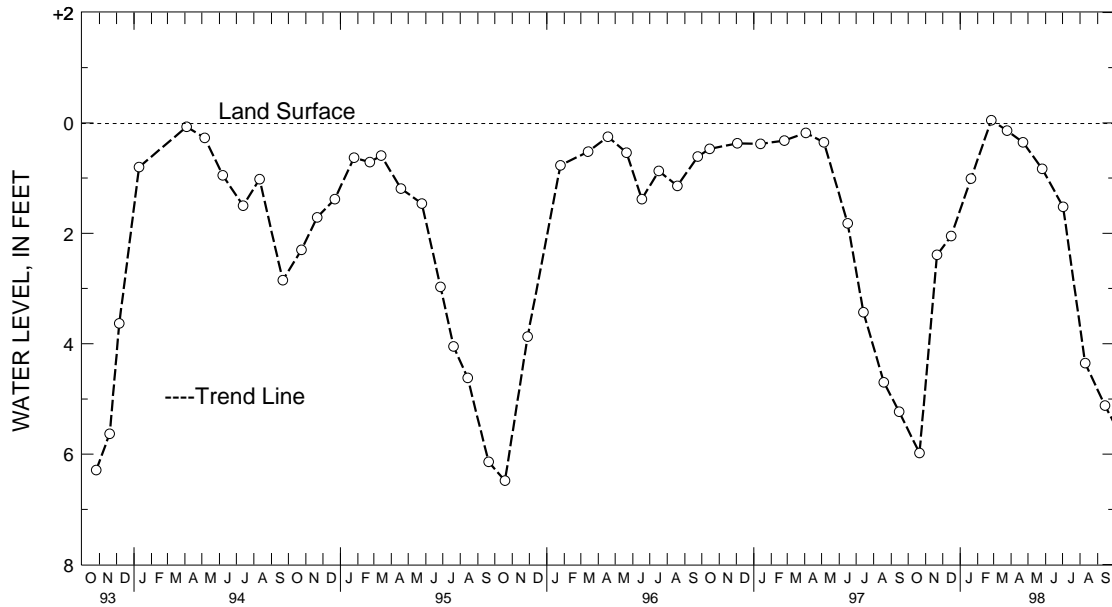
DELAWARE---Continued

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 electric 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, 0.05 ft above land surface, Feb. 25, 1998; lowest measured, 6.48 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	5.98	JAN 20, 1998	1.01	APR 22, 1998	.35	AUG 10, 1998	4.35
NOV 21	2.39	FEB 25	+0.05	MAY 26	.83	SEP 14	5.12
DEC 16	2.05	MAR 25	.14	JUL 02	1.52		
WATER YEAR 1998		HIGHEST	+0.05 FEB 25, 1998	LOWEST	5.98	OCT 21, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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DELAWARE--Continued

SUSSEX COUNTY--Continued

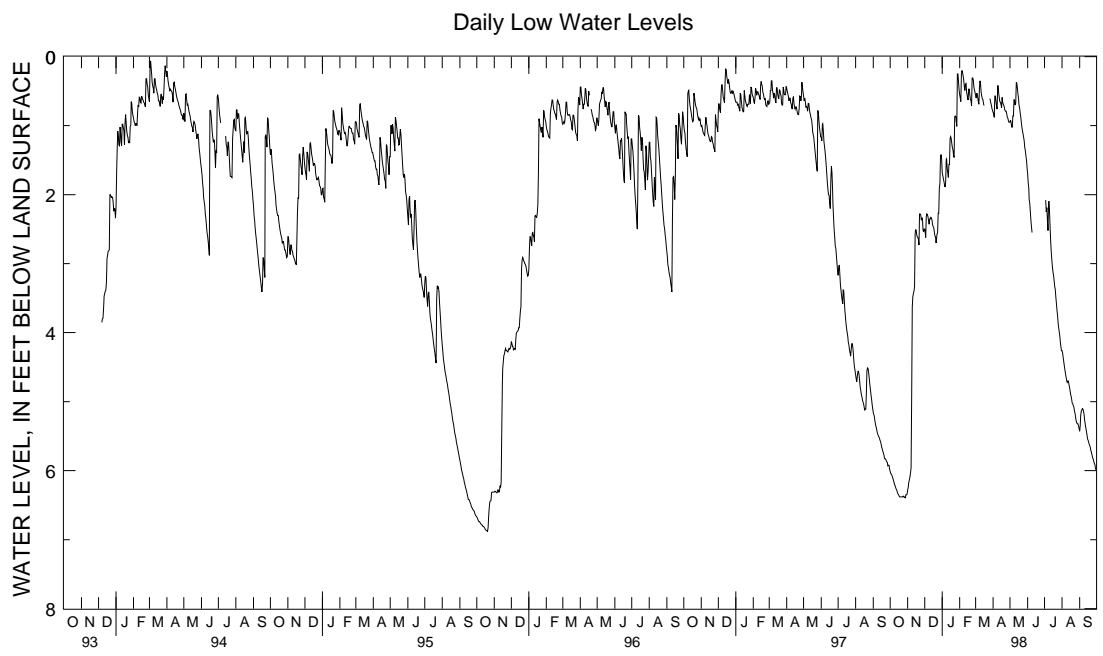
WELL NUMBER.--Of12-13. SITE ID.--384438075234801. PERMIT NUMBER.--07473.
 LOCATION.--Lat 38°44'38", long 75°23'48", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, 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 electric tape by U.S. Geological Survey personnel.
 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 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.04	6.01	6.34	6.28	2.56	2.50	1.72	1.68	.60	.55	.60	.56
2	6.05	6.04	6.28	6.24	2.62	2.56	1.77	1.72	.65	.60	.62	.60
3	6.07	6.05	6.24	6.17	2.64	2.62	1.81	1.77	.68	.65	.61	.53
4	6.09	6.07	6.17	6.13	2.62	2.32	1.86	1.81	.68	.25	.59	.55
5	6.12	6.09	6.13	6.09	2.32	2.28	1.90	1.86	.25	.20	.65	.59
6	6.15	6.12	6.09	6.03	2.32	2.29	1.91	1.89	.28	.23	.69	.65
7	6.18	6.15	6.03	5.96	2.38	2.32	1.91	1.82	.34	.28	.70	.69
8	6.21	6.18	5.96	4.91	2.43	2.38	1.82	1.49	.43	.34	.69	.45
9	6.22	6.21	4.91	3.63	2.45	2.43	1.62	1.48	.49	.43	.45	.35
10	6.25	6.22	3.63	3.48	2.45	2.35	1.69	1.62	.53	.49	.52	.41
11	6.27	6.25	3.48	3.43	2.35	2.35	1.75	1.69	.55	.40	.57	.52
12	6.29	6.27	3.43	3.40	2.35	2.33	1.80	1.75	.51	.39	.61	.57
13	6.32	6.29	3.41	3.33	2.37	2.34	1.80	1.56	.54	.51	.62	.61
14	6.34	6.32	3.33	2.57	2.44	2.37	1.63	1.56	.60	.54	.68	.62
15	6.35	6.34	2.57	2.51	2.47	2.44	1.63	1.19	.63	.60	.71	.68
16	6.37	6.35	2.58	2.51	2.48	2.46	1.19	1.16	.65	.63	.75	.71
17	6.38	6.37	2.61	2.58	2.54	2.48	1.26	1.19	.65	.47	---	---
18	6.38	6.38	2.63	2.61	2.60	2.54	1.32	1.26	.56	.47	---	---
19	6.38	6.38	2.65	2.62	2.63	2.60	1.35	1.32	.62	.56	---	---
20	6.38	6.38	2.73	2.65	2.70	2.61	1.43	1.35	.64	.62	---	---
21	6.38	6.38	2.77	2.73	2.75	2.70	1.46	1.43	.72	.64	---	---
22	6.38	6.38	2.73	2.28	2.75	2.66	1.56	1.46	.73	.71	---	---
23	6.38	6.38	2.29	2.28	2.66	2.57	1.56	.87	.73	.31	---	---
24	6.39	6.37	2.38	2.29	2.63	2.55	.90	.86	.36	.31	---	---
25	6.41	6.38	2.39	2.36	2.55	2.27	.96	.87	.44	.34	---	---
26	6.41	6.39	2.37	2.34	2.33	2.27	1.01	.96	.48	.44	.62	.61
27	6.39	6.38	2.57	2.34	2.33	1.91	1.01	1.01	.52	.48	.67	.62
28	6.39	6.39	2.57	2.51	1.91	1.84	1.01	.25	.56	.52	.70	.67
29	6.39	6.35	2.57	2.54	1.84	1.46	.37	.25	---	---	.75	.70
30	6.35	6.35	2.57	2.50	1.48	1.42	.48	.37	---	---	.78	.75
31	6.35	6.34	---	---	1.68	1.48	.55	.48	---	---	.81	.78
MONTH	6.41	6.01	6.34	2.28	2.75	1.42	1.91	.25	.73	.20	.81	.35

GROUND-WATER LEVELS
 DELAWARE-Continued
 SUSSEX COUNTY--Continued
 Of12-13--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	.82	.81	.98	.95	1.83	1.70	---	---	4.29	4.26	5.45	5.43
2	.88	.82	.96	.92	1.91	1.83	---	---	4.36	4.29	5.46	5.34
3	.88	.88	1.03	.96	2.07	1.91	2.25	2.08	4.42	4.36	5.34	5.21
4	.88	.57	1.03	1.02	2.13	2.07	2.36	2.25	4.48	4.42	5.21	5.14
5	.65	.57	1.06	1.02	2.25	2.13	2.37	2.19	4.54	4.48	5.14	5.12
6	.72	.65	1.06	.86	2.37	2.25	2.52	2.37	4.59	4.54	5.12	5.10
7	.76	.72	.89	.86	2.47	2.37	2.64	2.52	4.64	4.59	5.14	5.11
8	.80	.76	.89	.62	2.55	2.47	2.64	2.10	4.69	4.64	5.19	5.14
9	.80	.42	.70	.64	2.63	2.55	2.25	2.10	4.72	4.69	5.27	5.19
10	.53	.42	.70	.70	---	---	2.48	2.25	4.78	4.72	5.33	5.27
11	.59	.53	.70	.67	---	---	2.68	2.48	4.77	4.70	5.38	5.33
12	.65	.59	.67	.37	---	---	2.83	2.68	4.75	4.70	5.43	5.38
13	.66	.65	.47	.39	---	---	2.96	2.83	4.79	4.75	5.48	5.43
14	.69	.66	.55	.47	---	---	3.05	2.95	4.84	4.79	5.54	5.48
15	.74	.69	.62	.55	---	---	3.12	3.05	4.88	4.84	5.56	5.54
16	.77	.74	.70	.62	---	---	3.17	3.12	4.92	4.88	5.59	5.56
17	.79	.59	.74	.70	---	---	3.25	3.17	4.96	4.92	5.62	5.59
18	.71	.66	.81	.74	---	---	3.34	3.25	5.03	4.96	5.64	5.62
19	.71	.69	.87	.81	---	---	3.38	3.33	5.03	5.02	5.67	5.64
20	.74	.71	.95	.87	---	---	3.49	3.38	5.06	5.03	5.71	5.67
21	.78	.74	1.02	.95	---	---	3.58	3.49	5.08	5.06	5.73	5.71
22	.81	.78	1.07	1.02	---	---	3.68	3.58	5.14	5.08	5.77	5.73
23	.81	.79	1.12	1.07	---	---	3.76	3.68	5.17	5.14	5.81	5.77
24	.83	.79	1.18	1.12	---	---	3.87	3.76	5.23	5.17	5.83	5.81
25	.88	.83	1.22	1.17	---	---	3.94	3.87	5.28	5.23	5.86	5.83
26	.94	.88	1.32	1.22	---	---	4.00	3.94	5.31	5.28	5.89	5.86
27	.94	.89	1.36	1.32	---	---	4.06	4.00	5.32	5.31	5.91	5.89
28	.95	.92	1.44	1.36	---	---	4.13	4.06	5.32	5.32	5.96	5.91
29	.96	.95	1.50	1.44	---	---	4.20	4.13	5.35	5.32	5.99	5.96
30	.98	.95	1.61	1.50	---	---	4.27	4.20	5.39	5.35	6.01	5.99
31	---	---	1.70	1.61	---	---	4.27	4.26	5.43	5.39	---	---
MONTH	.98	.42	1.70	.37	2.63	1.70	4.27	2.08	5.43	4.26	6.01	5.10
YEAR	6.41	.20										

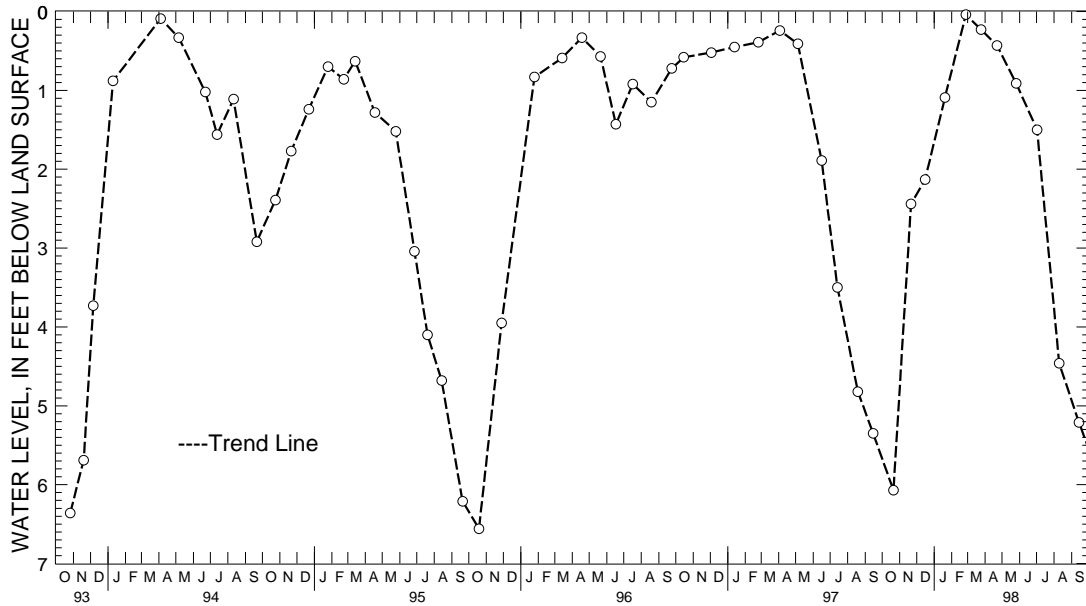


5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 0.04 ft below land surface, Feb. 26, 1998; lowest measured, 6.56 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	6.07	JAN 20, 1998	1.09	APR 22, 1998	.43	AUG 10, 1998	4.46
NOV 21	2.44	FEB 26	.04	MAY 26	.91	SEP 14	5.21
DEC 16	2.13	MAR 25	.23	JUL 02	1.50		
WATER YEAR 1998	HIGHEST	.04	FEB 26, 1998	LOWEST	6.07	OCT 21, 1997	



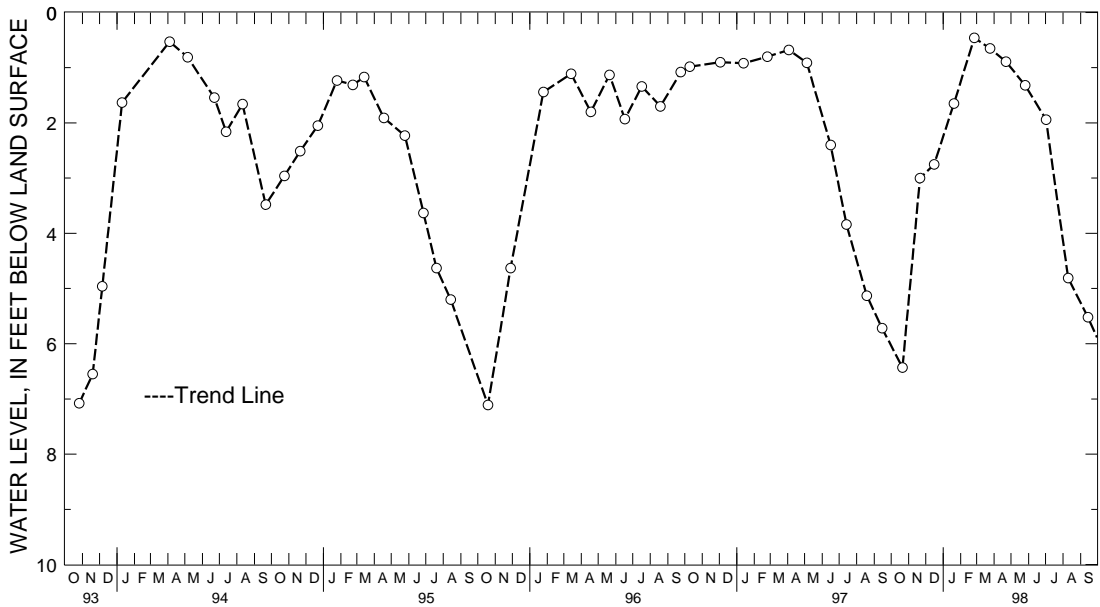
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 0.46 ft below land surface, Feb. 25, 1998; lowest measured, 7.11 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	6.43	JAN 20, 1998	1.65	APR 22, 1998	.89	AUG 10, 1998	4.81
NOV 21	3.00	FEB 25	.46	MAY 26	1.32	SEP 14	5.52
DEC 16	2.75	MAR 25	.65	JUL 02	1.94		
WATER YEAR 1998		HIGHEST	.46	FEB 25, 1998	LOWEST	6.43	OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

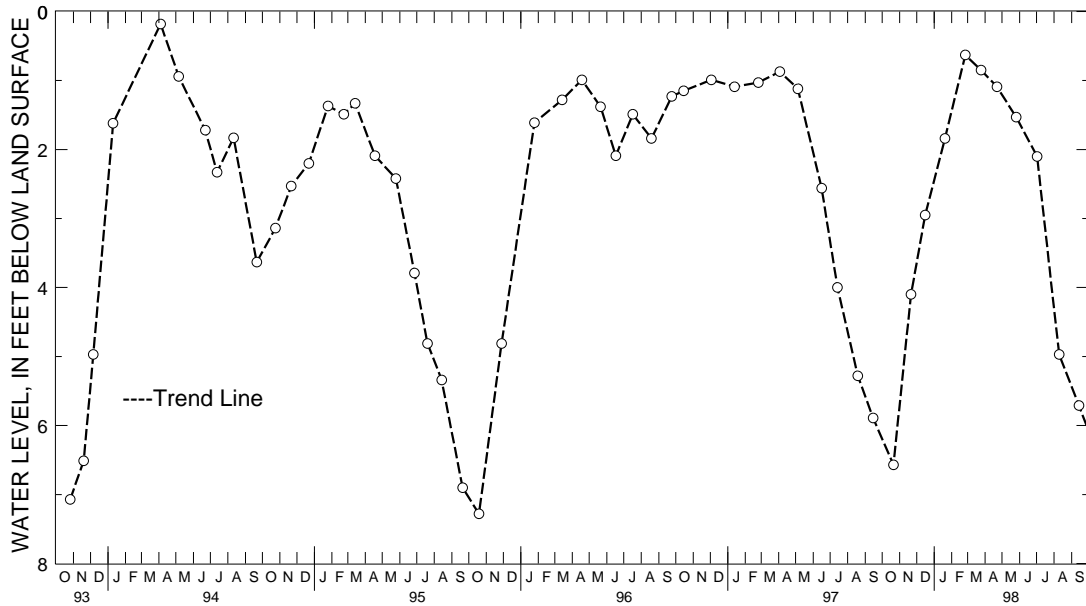
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	6.57	JAN 20, 1998	1.84	APR 22, 1998	1.09	AUG 10, 1998	4.97
NOV 21	4.10	FEB 25	.63	MAY 26	1.53	SEP 14	5.71
DEC 16	2.95	MAR 25	.85	JUL 02	2.10		
WATER YEAR 1998		HIGHEST	.63	FEB 25, 1998		LOWEST	6.57
				OCT 21, 1997			



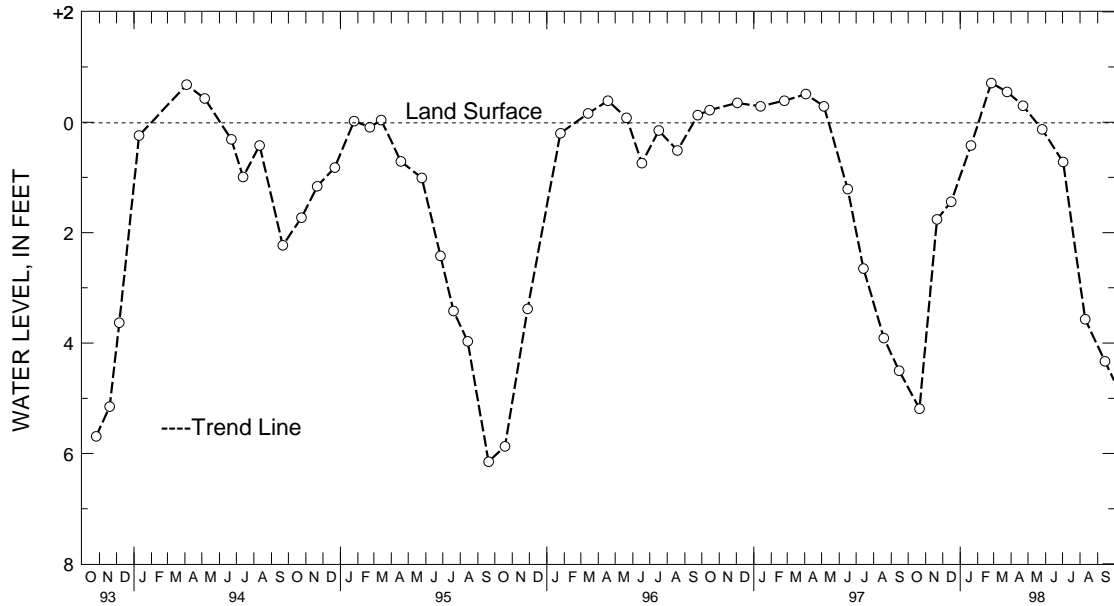
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS
 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 electric 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, 0.71 ft above land surface, Feb. 25, 1998; lowest measured, 6.15 ft below land surface, Sept. 20, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	5.19	JAN 20, 1998	.42	APR 22, 1998	+0.30	AUG 10, 1998	3.57
NOV 21	1.76	FEB 25	+0.71	MAY 26	.13	SEP 14	4.33
DEC 16	1.44	MAR 25	+0.55	JUL 02	.72		
WATER YEAR 1998		HIGHEST	+0.71 FEB 25, 1998	LOWEST	5.19 OCT 21, 1997		

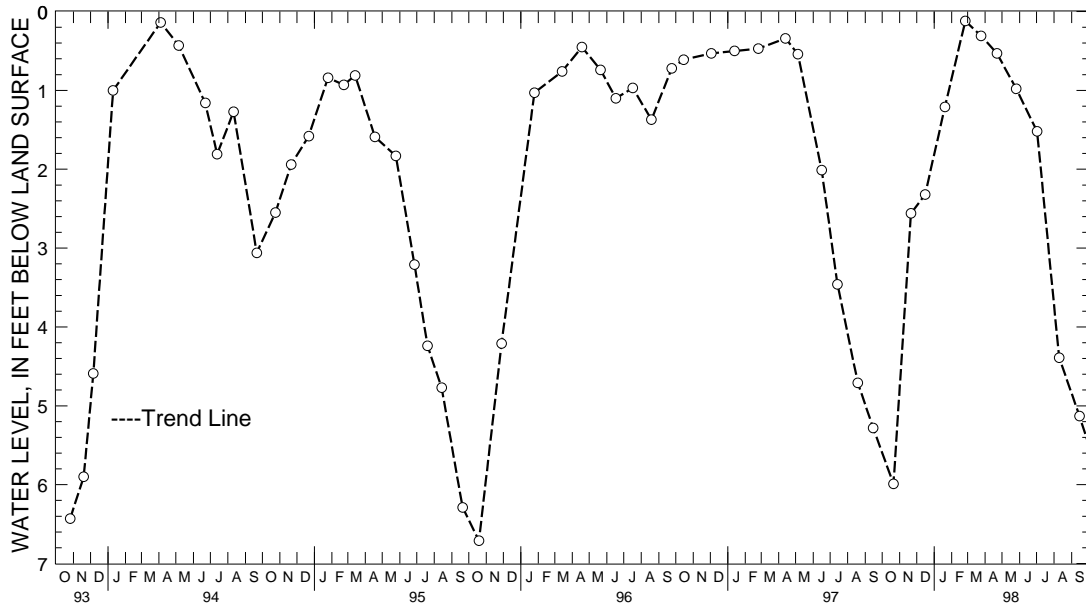


5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 0.12 ft below land surface, Feb. 25, 1998; lowest measured, 6.71 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	5.99	JAN 20, 1998	1.21	APR 22, 1998	.53	AUG 10, 1998	4.39
NOV 21	2.56	FEB 25	.12	MAY 26	.98	SEP 15	5.13
DEC 16	2.32	MAR 25	.31	JUL 02	1.52		
WATER YEAR 1998		HIGHEST	.12	FEB 25, 1998		LOWEST	5.99
							OCT 21, 1997



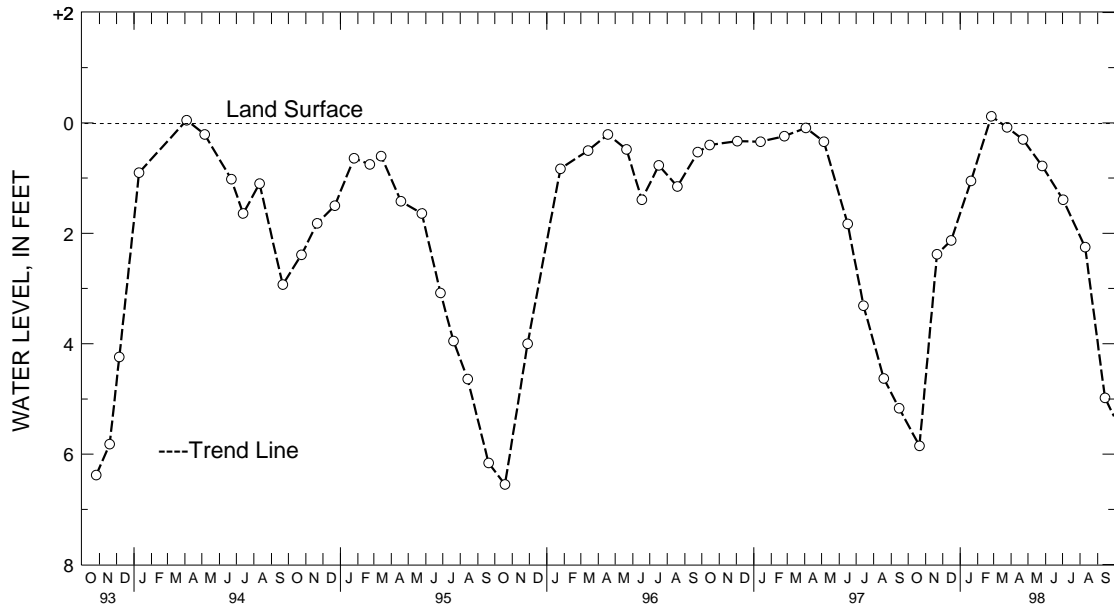
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 0.12 ft above land surface, Feb. 25, 1998; lowest measured, 6.55 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	5.85	JAN 20, 1998	1.05	APR 22, 1998	.30	AUG 10, 1998	2.25
NOV 21	2.38	FEB 25	+1.12	MAY 26	.78	SEP 14	4.98
DEC 16	2.13	MAR 25	.08	JUL 02	1.39		
WATER YEAR 1998		HIGHEST	+1.12 FEB 25, 1998	LOWEST	5.85	OCT 21, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

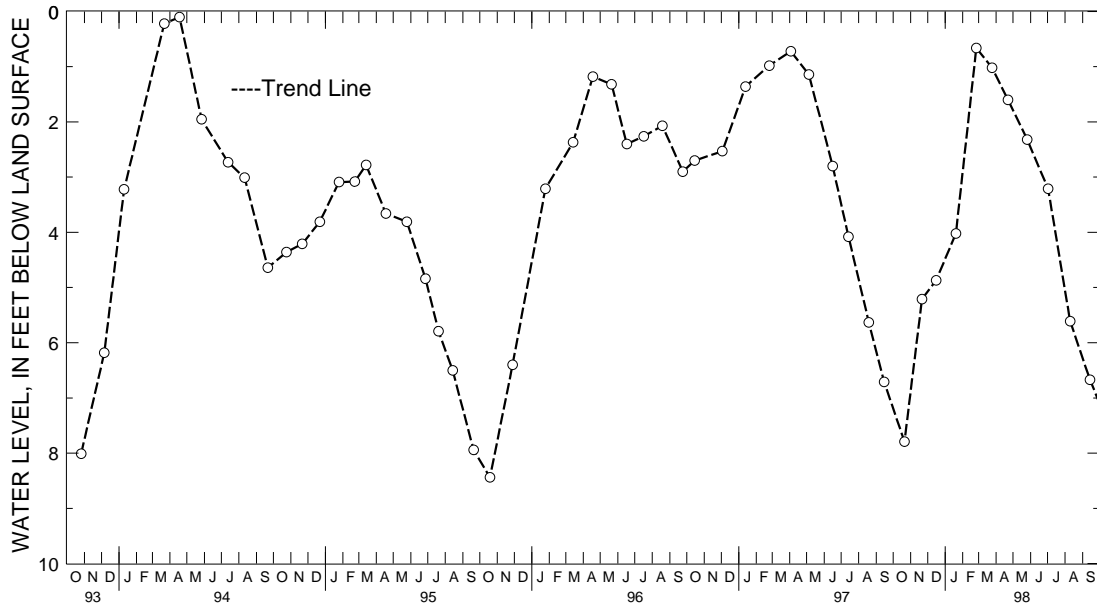
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.79	JAN 20, 1998	4.02	APR 22, 1998	1.60	AUG 10, 1998	5.61
NOV 21	5.21	FEB 25	.66	MAY 26	2.32	SEP 14	6.67
DEC 16	4.87	MAR 25	1.02	JUL 02	3.21		
WATER YEAR 1998		HIGHEST	.66 FEB 25, 1998	LOWEST	7.79 OCT 21, 1997		



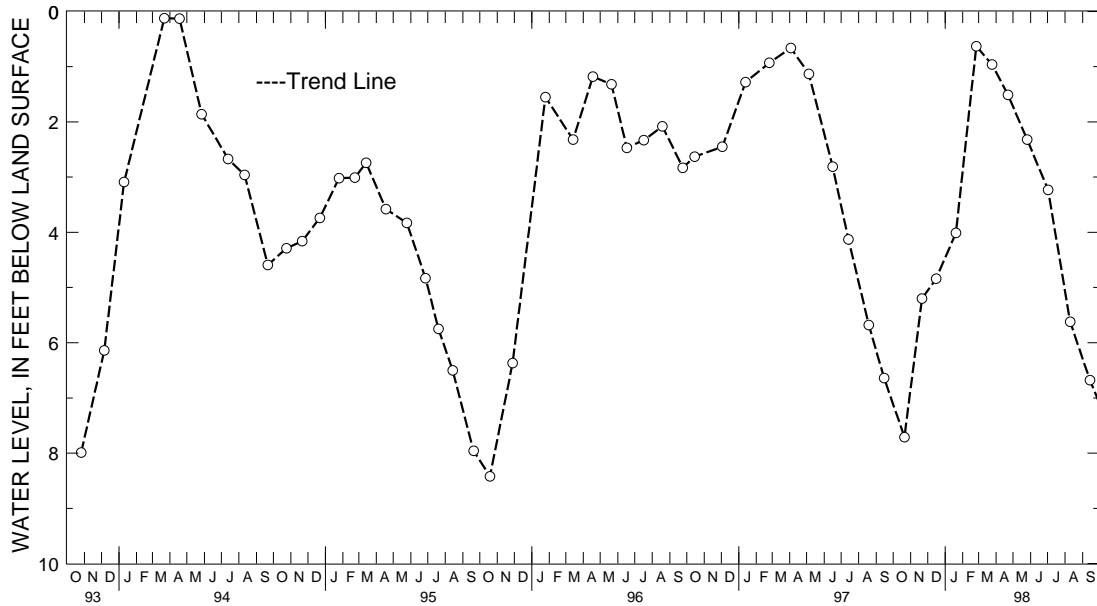
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 0.12 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.71	JAN 20, 1998	4.01	APR 22, 1998	1.51	AUG 10, 1998	5.62
NOV 21	5.20	FEB 25	.63	MAY 26	2.32	SEP 14	6.68
DEC 16	4.84	MAR 25	.96	JUL 02	3.23		
WATER YEAR 1998		HIGHEST	.63 FEB 25, 1998	LOWEST	7.71 OCT 21, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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DELAWARE--Continued

SUSSEX COUNTY--Continued

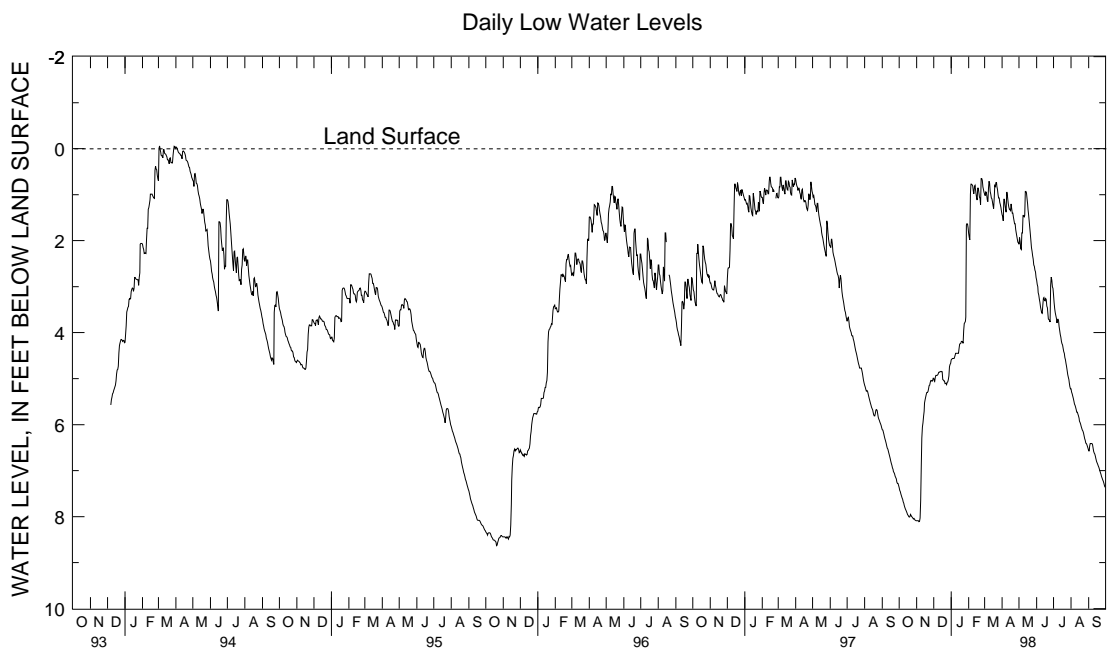
WELL NUMBER.--Of13-03. SITE ID.--384401075224901. PERMIT NUMBER.--95801.
 LOCATION.--Lat 38°44'01", long 75°22'49", Hydrologic Unit 02060008, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code:112PCPC.
 WELL CHARACTERISTICS.--Drilled, 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 electric 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. 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 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.43	7.37	8.11	8.09	5.04	4.99	4.67	4.59	1.93	1.85	1.02	.99
2	7.46	7.43	8.10	8.09	5.08	5.04	4.59	4.58	1.98	1.93	1.04	1.02
3	7.51	7.46	8.10	8.09	5.08	5.06	4.58	4.56	2.01	1.98	1.03	.94
4	7.55	7.51	8.11	8.09	5.06	4.98	4.56	4.56	2.01	.99	1.01	.95
5	7.59	7.55	8.11	8.11	4.98	4.93	4.56	4.56	.99	.77	1.12	1.01
6	7.62	7.59	8.11	8.10	4.94	4.93	4.56	4.56	.81	.77	1.15	1.12
7	7.68	7.62	8.10	8.03	4.93	4.93	4.56	4.53	.81	.79	1.19	1.15
8	7.71	7.68	8.03	7.65	4.93	4.92	4.53	4.48	.92	.81	1.19	.87
9	7.75	7.71	7.65	6.91	4.92	4.90	4.48	4.45	.98	.92	.87	.71
10	7.79	7.75	6.91	6.29	4.90	4.86	4.45	4.45	1.04	.98	.93	.75
11	7.83	7.79	6.29	6.05	4.87	4.86	4.45	4.45	1.05	.83	.99	.93
12	7.86	7.83	6.05	5.96	4.86	4.85	4.45	4.45	.90	.80	1.07	.99
13	7.89	7.86	5.96	5.82	4.85	4.85	4.45	4.45	.97	.90	1.09	1.07
14	7.92	7.89	5.82	5.71	4.85	4.84	4.45	4.45	1.06	.97	1.16	1.09
15	7.96	7.92	5.71	5.53	4.85	4.85	4.45	4.34	1.12	1.06	1.24	1.16
16	7.97	7.96	5.53	5.46	5.02	4.85	4.34	4.25	1.14	1.12	1.30	1.24
17	8.00	7.97	5.46	5.40	5.03	5.02	4.25	4.24	1.13	.86	1.33	1.30
18	8.01	8.00	5.40	5.34	5.06	5.03	4.24	4.23	.95	.86	1.33	1.07
19	8.01	8.01	5.34	5.30	5.06	5.05	4.23	4.19	1.05	.95	1.07	.80
20	8.01	8.00	5.30	5.30	5.11	5.05	4.20	4.19	1.08	1.05	.89	.82
21	8.00	7.95	5.30	5.28	5.15	5.11	4.23	4.20	1.22	1.08	.89	.74
22	8.00	7.97	5.28	5.22	5.17	5.11	4.23	4.23	1.26	1.22	.82	.74
23	8.01	8.00	5.22	5.15	5.14	5.10	4.23	3.95	1.26	.65	.89	.82
24	8.03	8.01	5.15	5.14	5.14	5.13	3.95	3.80	.69	.65	1.00	.89
25	8.07	8.03	5.14	5.08	5.13	5.08	3.80	3.78	.83	.69	1.07	1.00
26	8.08	8.05	5.08	5.04	5.09	5.07	3.78	3.75	.89	.83	1.07	1.07
27	8.05	8.04	5.06	5.05	5.07	5.02	3.75	3.66	.95	.89	1.17	1.07
28	8.07	8.05	5.05	5.04	5.02	4.94	3.66	1.66	.99	.95	1.22	1.17
29	8.08	8.07	5.05	5.05	4.94	4.74	1.66	1.63	---	---	1.28	1.22
30	8.10	8.08	5.05	4.99	4.74	4.69	1.72	1.64	---	---	1.37	1.28
31	8.11	8.09	---	---	4.69	4.67	1.85	1.72	---	---	1.44	1.37
MONTH	8.11	7.37	8.11	4.99	5.17	4.67	4.67	1.63	2.01	.65	1.44	.71

GROUND-WATER LEVELS
 DELAWARE--Continued
 SUSSEX COUNTY--Continued
 Of13-03--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	1.47	1.44	2.09	2.08	2.95	2.86	3.35	3.18	5.29	5.22	6.61	6.57
2	1.57	1.47	2.08	1.93	3.00	2.95	3.48	3.35	5.33	5.29	6.62	6.57
3	1.60	1.57	2.17	2.02	3.13	3.00	3.57	3.48	5.38	5.33	6.57	6.47
4	1.60	1.10	2.19	2.17	3.18	3.13	3.64	3.57	5.43	5.38	6.47	6.41
5	1.22	1.10	2.26	2.19	3.27	3.18	3.69	3.63	5.49	5.43	6.41	6.41
6	1.31	1.22	2.26	1.83	3.34	3.27	3.79	3.69	5.55	5.49	6.41	6.41
7	1.38	1.31	1.87	1.83	3.44	3.34	3.84	3.79	5.58	5.55	6.43	6.41
8	1.45	1.38	1.87	1.45	3.50	3.44	3.85	3.71	5.62	5.58	6.51	6.43
9	1.45	.95	1.49	1.45	3.57	3.50	3.74	3.71	5.67	5.62	6.58	6.51
10	1.07	.95	1.49	1.48	3.58	3.57	3.87	3.74	5.80	5.67	6.62	6.58
11	1.19	1.07	1.48	1.45	3.60	3.58	3.95	3.87	5.78	5.73	6.64	6.62
12	1.27	1.19	1.45	.93	3.60	3.41	4.04	3.95	5.77	5.73	6.69	6.64
13	1.33	1.27	.96	.93	3.42	3.26	4.10	4.04	5.81	5.77	6.75	6.69
14	1.33	1.32	1.09	.96	3.30	3.24	4.19	4.10	5.86	5.81	6.80	6.75
15	1.36	1.32	1.20	1.09	3.37	3.30	4.24	4.19	5.92	5.86	6.83	6.80
16	1.43	1.36	1.32	1.20	3.47	3.31	4.27	4.24	5.95	5.92	6.86	6.83
17	1.46	1.20	1.43	1.32	3.31	3.26	4.34	4.27	5.99	5.95	6.90	6.86
18	1.41	1.30	1.57	1.43	3.42	3.28	4.41	4.34	6.04	5.99	6.93	6.90
19	1.41	1.40	1.71	1.57	3.46	3.42	4.45	4.41	6.08	6.04	6.97	6.93
20	1.49	1.40	1.85	1.71	3.61	3.46	4.54	4.45	6.12	6.08	7.00	6.97
21	1.56	1.49	2.00	1.85	3.70	3.61	4.60	4.54	6.14	6.12	7.04	7.00
22	1.63	1.56	2.15	2.00	3.72	3.70	4.67	4.59	6.18	6.14	7.08	7.04
23	1.63	1.63	2.23	2.15	3.73	3.72	4.74	4.67	6.24	6.18	7.13	7.08
24	1.76	1.63	2.34	2.23	3.77	3.73	4.83	4.74	6.30	6.24	7.16	7.13
25	1.84	1.76	2.40	2.33	3.84	3.77	4.91	4.83	6.34	6.30	7.20	7.16
26	1.91	1.84	2.53	2.40	3.91	2.97	4.97	4.91	6.40	6.34	7.23	7.20
27	1.96	1.91	2.56	2.53	2.97	2.79	5.02	4.97	6.42	6.40	7.27	7.23
28	2.03	1.96	2.64	2.56	3.00	2.86	5.09	5.02	6.44	6.41	7.32	7.27
29	2.05	2.03	2.68	2.64	3.04	3.00	5.17	5.09	6.48	6.44	7.36	7.32
30	2.09	2.05	2.80	2.68	3.18	3.04	5.22	5.17	6.52	6.48	7.39	7.36
31	---	---	2.86	2.80	---	---	5.22	5.22	6.57	6.52	---	---
MONTH	2.09	.95	2.86	.93	3.91	2.79	5.22	3.18	6.57	5.22	7.39	6.41
YEAR	8.11	.65										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

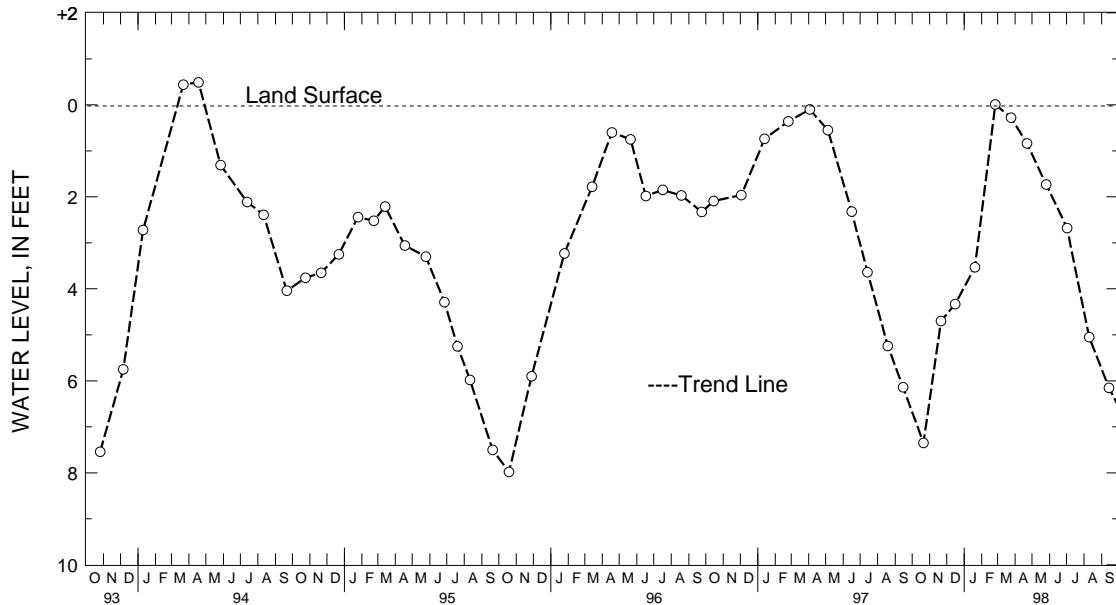
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.35	JAN 20, 1998	3.53	APR 22, 1998	.84	AUG 10, 1998	5.05
NOV 21	4.70	FEB 25	+0.1	MAY 26	1.73	SEP 14	6.15
DEC 16	4.33	MAR 25	.28	JUL 02	2.68		
WATER YEAR 1998		HIGHEST	+0.1 FEB 25, 1998	LOWEST	7.35	OCT 21, 1997	



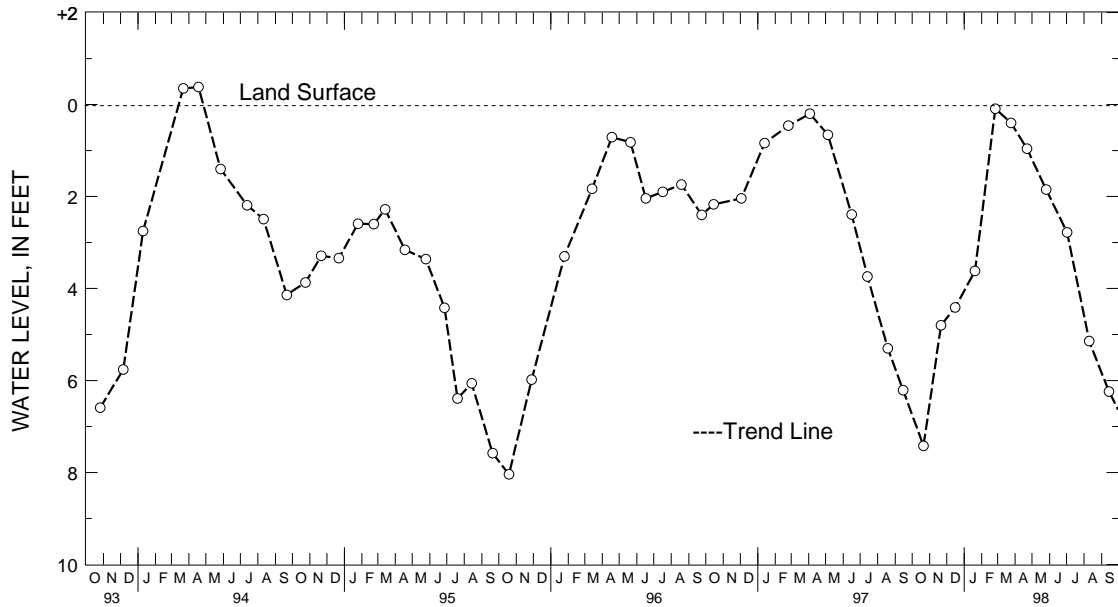
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.42	JAN 20, 1998	3.62	APR 22, 1998	.96	AUG 10, 1998	5.14
NOV 21	4.80	FEB 25	.09	MAY 26	1.85	SEP 14	6.24
DEC 16	4.41	MAR 25	.40	JUL 02	2.78		
WATER YEAR 1998		HIGHEST	.09	FEB 25, 1998	LOWEST	7.42	OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

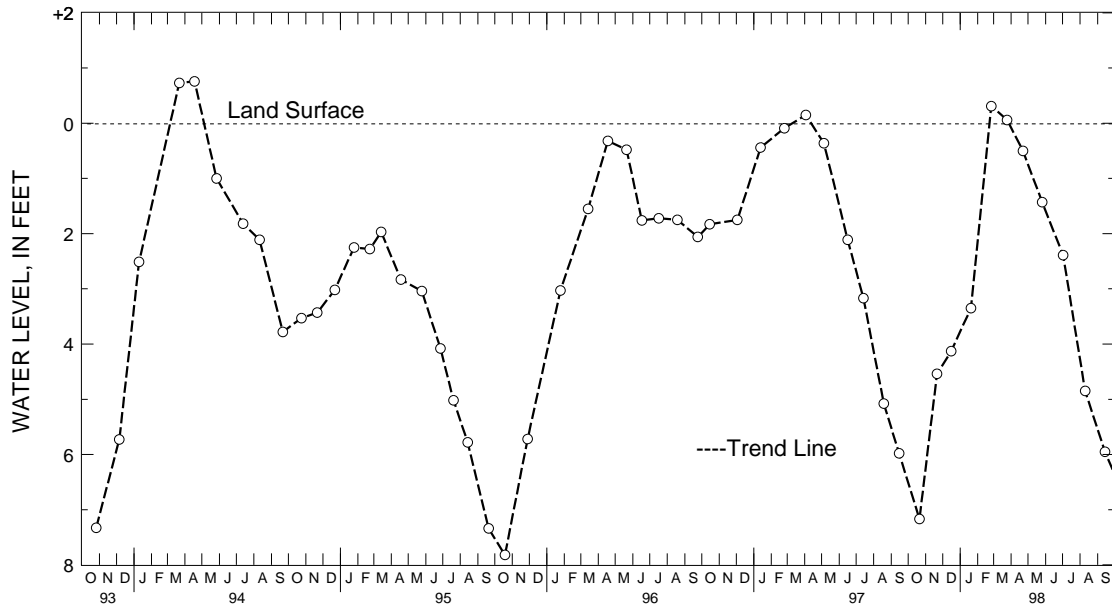
DELAWARE--Continued

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 electric 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 1996 TO SEPTEMBER 1997
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.17	JAN 20, 1998	3.35	APR 22, 1998	.50	AUG 10, 1998	4.85
NOV 21	4.54	FEB 25	+ .31	MAY 26	1.43	SEP 14	5.95
DEC 16	4.13	MAR 25	+ .06	JUL 02	2.39		
WATER YEAR 1998		HIGHEST	+ .31 FEB 25, 1998	LOWEST	7.17	OCT 21, 1997	



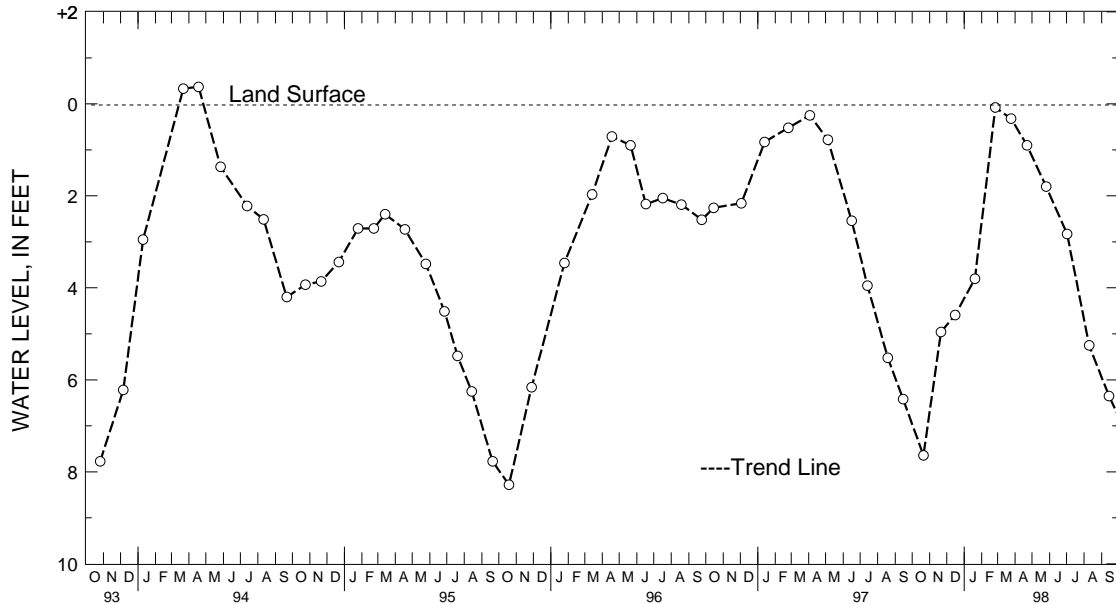
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS
 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 electric 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.64	JAN 20, 1998	3.80	APR 22, 1998	.90	AUG 10, 1998	5.25
NOV 21	4.96	FEB 25	.08	MAY 26	1.80	SEP 14	6.35
DEC 16	4.59	MAR 25	.32	JUL 02	2.83		
WATER YEAR 1998		HIGHEST	.08	FEB 25, 1998	LOWEST	7.64	OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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DELAWARE---Continued

SUSSEX COUNTY---Continued

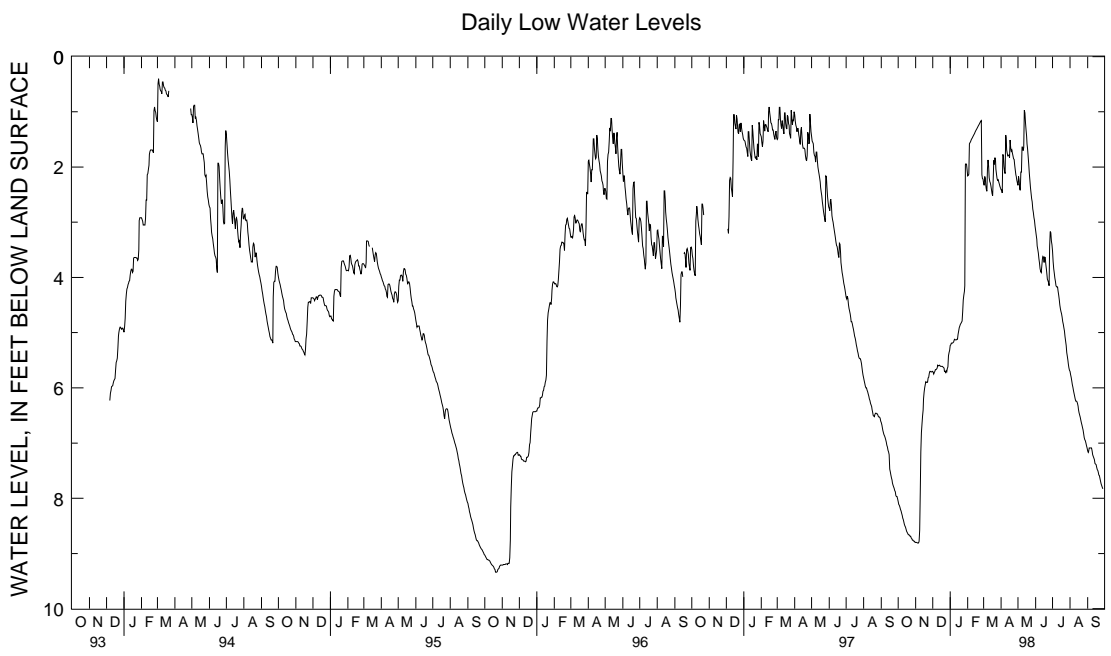
WELL NUMBER.--Of13-08. SITE ID.--384406075224601. PERMIT NUMBER.--97463.
 LOCATION.--Lat 38°44'06", long 75°22'46", Hydrologic Unit 02040207, near Redden State Forest.
 Owner: Delaware Department of Transportation.
 AQUIFER.--Pleistocene-Pliocene Series. Aquifer code: 112PCPC.
 WELL CHARACTERISTICS.--Drilled, 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 electric 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.
 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 1997 TO SEPTEMBER 1998

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.11	8.06	8.82	8.80	5.73	5.70	5.32	5.23	2.18	2.16	2.33	2.30
2	8.13	8.11	8.81	8.80	5.75	5.73	5.23	5.22	2.17	2.15	2.34	2.33
3	8.16	8.13	8.81	8.80	5.76	5.75	5.22	5.19	2.15	2.13	2.33	2.17
4	8.20	8.16	8.82	8.81	5.75	5.72	5.19	5.19	2.13	1.58	2.32	2.21
5	8.23	8.20	8.82	8.81	5.72	5.70	5.19	5.19	1.58	1.56	2.40	2.32
6	8.27	8.23	8.82	8.81	5.70	5.67	5.19	5.18	1.56	1.54	2.44	2.40
7	8.31	8.27	8.81	8.78	5.68	5.67	5.18	5.17	1.54	1.51	2.49	2.44
8	8.36	8.31	8.78	8.58	5.67	5.66	5.17	5.13	1.51	1.49	2.49	2.03
9	8.38	8.36	8.58	7.90	5.66	5.64	5.13	5.12	1.49	1.47	2.03	1.87
10	8.42	8.38	7.90	7.16	5.64	5.59	5.13	5.13	1.47	1.45	2.19	1.98
11	8.47	8.42	7.16	6.81	5.61	5.60	5.13	5.13	1.45	1.43	2.26	2.19
12	8.50	8.47	6.81	6.66	5.61	5.60	5.13	5.13	1.43	1.41	2.29	2.26
13	8.52	8.50	6.66	6.51	5.60	5.59	5.13	5.12	1.41	1.39	2.34	2.29
14	8.56	8.52	6.51	6.40	5.61	5.60	5.13	5.12	1.39	1.37	2.41	2.34
15	8.60	8.56	6.40	6.20	5.61	5.61	5.12	5.03	1.37	1.35	2.48	2.41
16	8.62	8.60	6.20	6.08	5.61	5.61	5.03	4.97	1.35	1.33	2.52	2.48
17	8.64	8.62	6.08	6.00	5.61	5.61	4.97	4.91	1.33	1.31	2.56	2.52
18	8.66	8.64	6.00	5.94	5.62	5.61	4.91	4.88	1.31	1.29	2.56	2.21
19	8.66	8.66	5.94	5.89	5.63	5.62	4.88	4.85	1.29	1.27	2.21	1.88
20	8.67	8.66	5.90	5.90	5.64	5.63	4.85	4.83	1.27	1.25	2.11	1.95
21	8.70	8.67	5.91	5.90	5.73	5.64	4.83	4.81	1.25	1.23	2.11	1.83
22	8.70	8.69	5.90	5.90	5.73	5.70	4.81	4.79	1.23	1.21	2.04	1.88
23	8.72	8.69	5.90	5.82	5.72	5.70	4.79	4.62	1.21	1.19	2.13	2.04
24	8.73	8.72	5.82	5.81	5.76	5.72	4.62	4.41	1.19	1.17	2.21	2.13
25	8.77	8.73	5.81	5.74	5.73	5.69	4.41	4.32	2.14	1.16	2.27	2.21
26	8.77	8.76	5.74	5.70	5.71	5.71	4.32	4.25	2.21	2.14	2.26	2.24
27	8.77	8.76	5.72	5.70	5.71	5.65	4.25	4.15	2.22	2.21	2.29	2.23
28	8.78	8.77	5.72	5.71	5.65	5.62	4.15	1.96	2.30	2.22	2.32	2.27
29	8.79	8.78	5.73	5.71	5.62	5.42	1.96	1.94	---	---	2.36	2.31
30	8.80	8.78	5.73	5.70	5.42	5.36	2.05	1.95	---	---	2.39	2.35
31	8.82	8.80	---	---	5.36	5.32	2.17	2.05	---	---	2.42	2.38
MONTH	8.82	8.06	8.82	5.70	5.76	5.32	5.32	1.94	2.30	1.16	2.56	1.83

GROUND-WATER LEVELS
 DELAWARE--Continued
 SUSSEX COUNTY--Continued
 Of13-08--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	2.43	2.41	2.34	2.33	3.23	3.15	3.71	3.52	5.76	5.70	7.17	7.14
2	2.48	2.41	2.33	2.17	3.31	3.23	3.84	3.71	5.81	5.76	7.20	7.17
3	2.48	2.47	2.40	2.24	3.43	3.31	3.92	3.84	5.87	5.81	7.20	7.15
4	2.47	1.77	2.42	2.40	3.49	3.43	4.01	3.92	5.94	5.87	7.15	7.09
5	1.99	1.79	2.49	2.42	3.56	3.49	4.07	4.01	5.99	5.94	7.09	7.09
6	2.09	1.99	2.49	2.09	3.66	3.56	4.15	4.07	6.05	5.99	7.09	7.09
7	2.14	2.08	2.11	2.09	3.74	3.66	4.23	4.15	6.10	6.05	7.09	7.09
8	2.17	2.12	2.11	1.64	3.84	3.74	4.24	4.17	6.15	6.10	7.14	7.09
9	2.17	1.42	1.71	1.64	3.89	3.84	4.17	4.17	6.20	6.15	7.21	7.14
10	1.69	1.46	1.71	1.70	3.91	3.89	4.25	4.17	6.24	6.20	7.24	7.21
11	1.76	1.69	1.71	1.65	3.97	3.91	4.32	4.25	6.24	6.24	7.27	7.24
12	1.81	1.75	1.65	.97	3.97	3.80	4.40	4.32	6.25	6.24	7.30	7.27
13	1.83	1.80	1.19	1.02	3.80	3.67	4.50	4.40	6.28	6.25	7.37	7.30
14	1.82	1.79	1.33	1.19	3.67	3.62	4.57	4.50	6.33	6.28	7.38	7.37
15	1.85	1.78	1.44	1.33	3.73	3.64	4.62	4.57	6.39	6.33	7.39	7.38
16	1.88	1.83	1.58	1.44	3.85	3.73	4.66	4.62	6.45	6.39	7.44	7.39
17	1.88	1.51	1.67	1.58	3.75	3.63	4.72	4.66	6.49	6.45	7.48	7.44
18	1.75	1.65	1.81	1.67	3.76	3.64	4.80	4.72	6.53	6.49	7.50	7.48
19	1.75	1.71	1.95	1.81	3.85	3.76	4.85	4.80	6.58	6.53	7.54	7.50
20	1.77	1.69	2.11	1.95	3.96	3.85	4.91	4.85	6.63	6.58	7.58	7.54
21	1.82	1.75	2.24	2.11	4.03	3.96	4.97	4.91	6.67	6.63	7.59	7.58
22	1.85	1.80	2.37	2.24	4.06	4.03	5.07	4.97	6.72	6.67	7.64	7.59
23	1.86	1.85	2.47	2.37	4.09	4.06	5.15	5.07	6.76	6.72	7.69	7.64
24	1.97	1.86	2.57	2.47	4.15	4.09	5.23	5.15	6.83	6.76	7.74	7.69
25	2.06	1.97	2.63	2.57	4.21	4.15	5.36	5.23	6.90	6.83	7.77	7.74
26	2.14	2.06	2.76	2.63	4.28	3.43	5.43	5.36	6.94	6.90	7.80	7.77
27	2.17	2.14	2.82	2.76	3.43	3.17	5.50	5.43	6.96	6.94	7.83	7.80
28	2.24	2.17	2.91	2.82	3.34	3.19	5.56	5.50	7.00	6.96	7.90	7.83
29	2.29	2.24	2.97	2.91	3.41	3.34	5.63	5.56	7.05	7.00	---	---
30	2.34	2.29	3.07	2.97	3.52	3.41	5.68	5.63	7.09	7.05	7.96	7.94
31	---	---	3.15	3.07	---	---	5.70	5.68	7.14	7.09	---	---
MONTH	2.48	1.42	3.15	.97	4.28	3.15	5.70	3.52	7.14	5.70	7.96	7.09
YEAR	8.82	.97										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

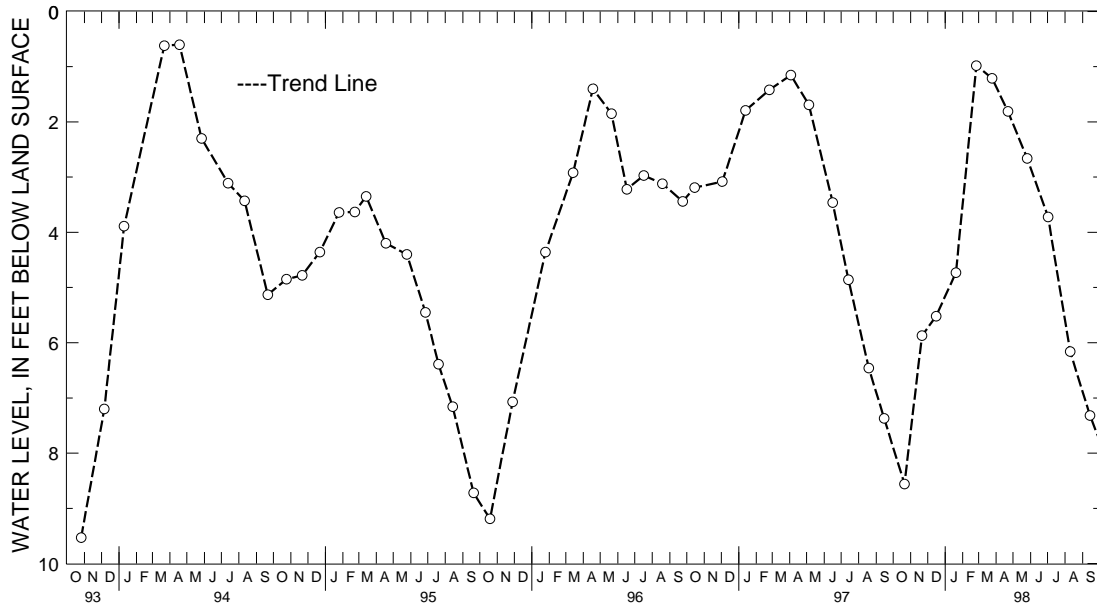
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	8.56	JAN 20, 1998	4.73	APR 22, 1998	1.81	AUG 10, 1998	6.16
NOV 21	5.87	FEB 25	.98	MAY 26	2.66	SEP 14	7.32
DEC 16	5.52	MAR 25	1.21	JUL 02	3.72		
WATER YEAR 1998		HIGHEST	.98	FEB 25, 1998	LOWEST	8.56	OCT 21, 1997



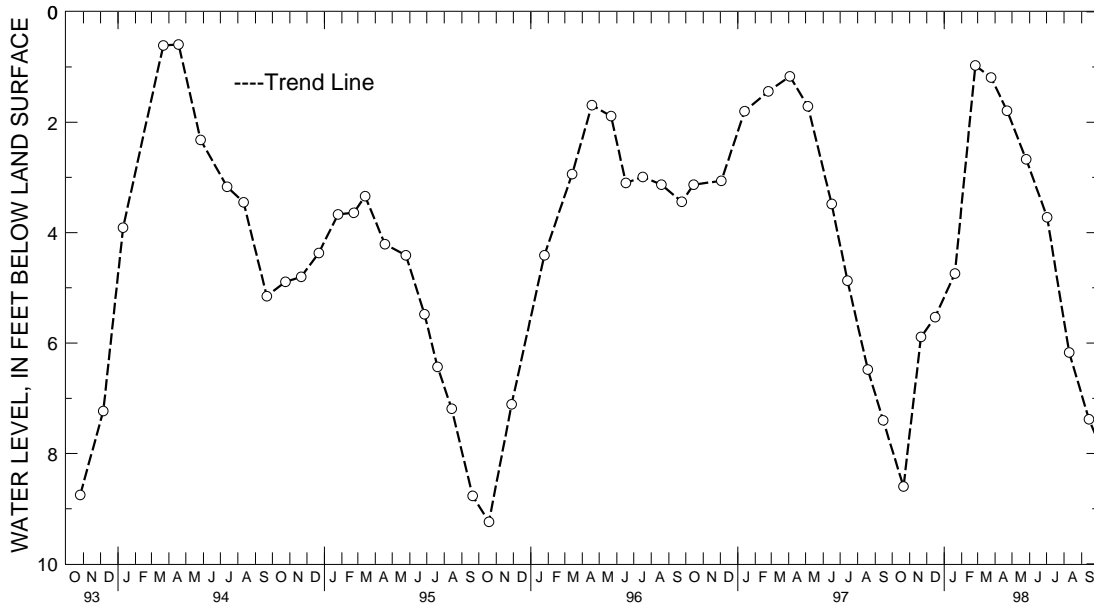
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	8.60	JAN 20, 1998	4.74	APR 22, 1998	1.79	AUG 10, 1998	6.17
NOV 21	5.89	FEB 25	.97	MAY 26	2.67	SEP 14	7.38
DEC 16	5.53	MAR 25	1.19	JUL 02	3.72		
WATER YEAR 1998		HIGHEST	.97 FEB 25, 1998	LOWEST	8.60 OCT 21, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

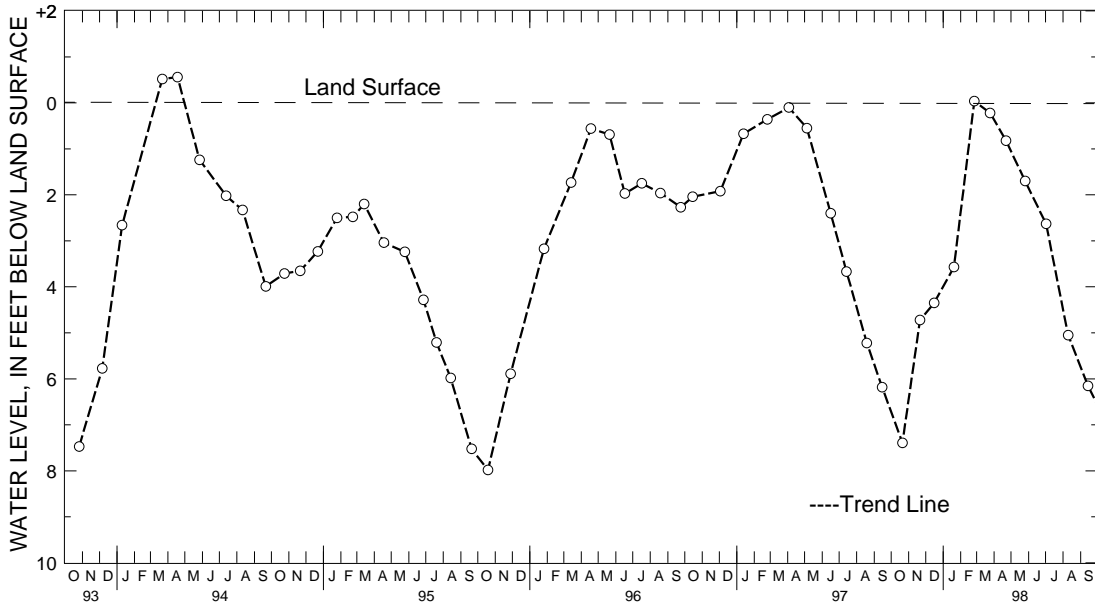
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.39	JAN 20, 1998	3.57	APR 22, 1998	.82	AUG 10, 1998	5.05
NOV 21	4.72	FEB 25	+0.04	MAY 26	1.70	SEP 14	6.15
DEC 16	4.35	MAR 25	.22	JUL 02	2.63		
WATER YEAR 1998		HIGHEST	+0.04 FEB 25, 1998	LOWEST	7.39 OCT 21, 1997		



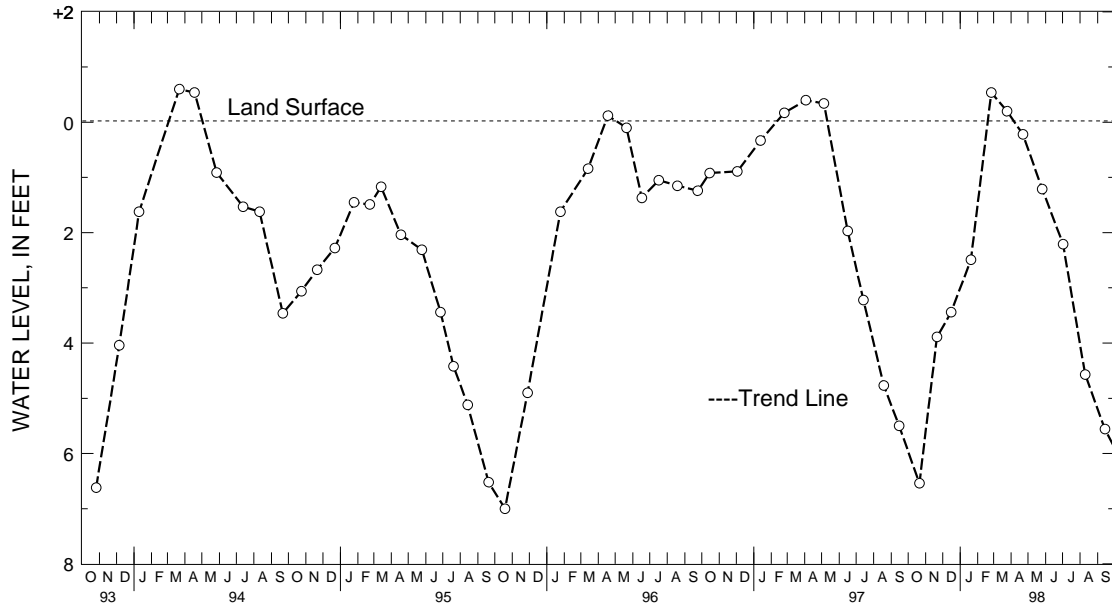
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	6.54	JAN 20, 1998	2.49	APR 22, 1998	.22	AUG 10, 1998	4.57
NOV 21	3.89	FEB 25	+5.54	MAY 26	1.21	SEP 14	5.56
DEC 16	3.44	MAR 25	+2.20	JUL 02	2.21		
WATER YEAR 1998		HIGHEST	+5.54 FEB 25, 1998	LOWEST	6.54 OCT 21, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

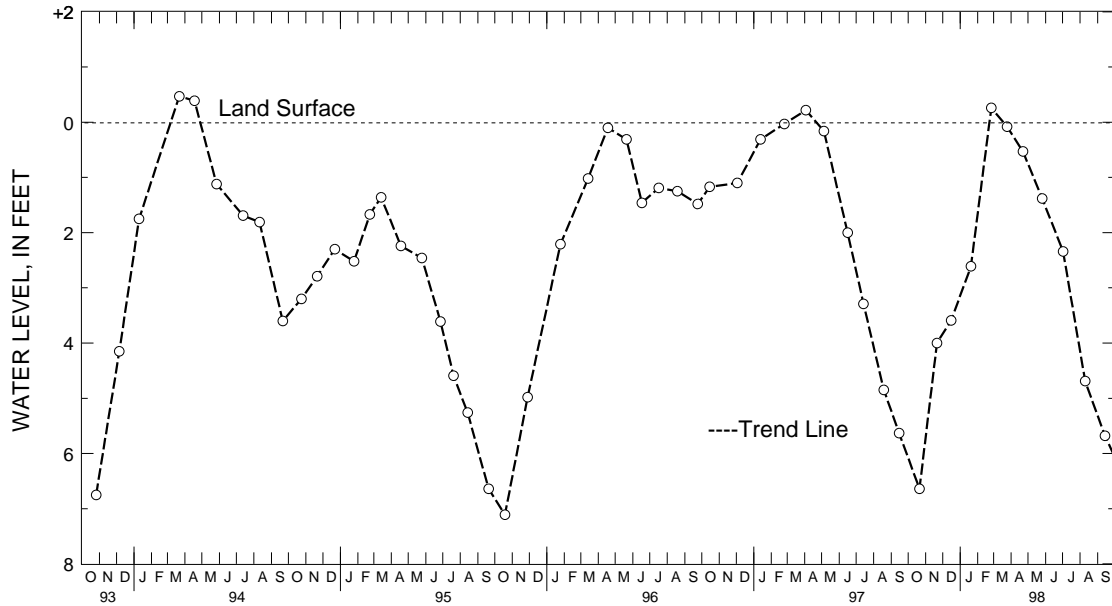
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	6.64	JAN 20, 1998	2.61	APR 22, 1998	.53	AUG 10, 1998	4.69
NOV 21	4.00	FEB 25	+2.26	MAY 26	1.38	SEP 14	5.68
DEC 16	3.59	MAR 25	.08	JUL 02	2.34		
WATER YEAR 1998		HIGHEST	+2.26 FEB 25, 1998	LOWEST	6.64	OCT 21, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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: 112PCCP.
 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 electric 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.
 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 1997 TO SEPTEMBER 1998
 (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	6.16	6.13	6.46	6.43	3.81	3.79	3.09	3.08	.14	.10	-.32	-.34
2	6.19	6.16	6.43	6.39	3.84	3.81	3.09	3.08	.18	.14	-.30	-.32
3	6.23	6.19	6.39	6.37	3.84	3.84	3.09	3.09	.21	.18	-.30	-.31
4	6.27	6.23	6.37	6.33	3.84	3.71	3.10	3.09	.21	-.28	-.30	-.31
5	6.30	6.27	6.33	6.29	3.71	3.66	3.11	3.10	-.28	-.41	-.26	-.30
6	6.32	6.30	6.29	6.25	3.66	3.64	3.11	3.11	-.41	-.42	-.23	-.26
7	6.36	6.32	6.25	6.21	3.64	3.64	3.11	3.10	-.41	-.41	-.22	-.23
8	6.41	6.36	6.21	5.76	3.64	3.64	3.10	2.99	-.39	-.41	-.22	-.30
9	6.43	6.41	5.76	4.54	3.64	3.64	2.99	2.96	-.34	-.39	-.30	-.42
10	6.48	6.43	4.54	4.14	3.64	3.60	2.99	2.97	-.31	-.34	-.37	-.42
11	6.51	6.48	4.14	3.97	3.61	3.60	3.00	2.99	-.30	-.36	-.32	-.37
12	6.54	6.51	3.97	3.89	3.61	3.59	3.03	3.00	-.36	-.38	-.29	-.32
13	6.57	6.54	3.89	3.77	3.59	3.58	3.03	2.98	-.35	-.38	-.26	-.29
14	6.60	6.57	3.77	3.54	3.59	3.58	2.98	2.97	-.30	-.35	-.23	-.26
15	6.64	6.60	3.54	3.31	3.60	3.59	2.97	2.77	-.29	-.30	-.19	-.23
16	6.66	6.64	3.31	3.22	3.65	3.60	2.77	2.66	-.26	-.29	-.14	-.19
17	6.69	6.66	3.22	3.15	3.65	3.65	2.66	2.66	-.26	-.34	-.12	-.14
18	6.70	6.69	3.15	3.09	3.68	3.65	2.66	2.66	-.34	-.34	-.12	-.19
19	6.71	6.70	4.06	3.05	3.69	3.68	2.66	2.66	-.31	-.34	-.19	-.35
20	6.73	6.71	4.06	4.06	3.73	3.69	2.69	2.66	-.29	-.32	-.34	-.35
21	6.76	6.73	4.06	4.05	3.78	3.73	2.70	2.69	-.25	-.29	-.33	-.40
22	6.74	6.72	4.05	3.95	3.79	3.76	2.73	2.69	-.23	-.26	-.39	-.40
23	6.72	6.70	3.95	3.87	3.76	3.76	2.73	2.17	-.23	-.49	-.35	-.39
24	6.70	6.68	3.87	3.86	3.77	3.75	2.17	2.06	-.49	-.50	-.31	-.35
25	6.68	6.65	3.86	3.82	3.75	3.68	2.06	2.02	-.45	-.50	-.28	-.31
26	6.66	6.62	3.82	3.79	3.68	3.65	2.04	2.02	-.41	-.45	-.28	-.28
27	6.62	6.59	3.82	3.79	3.65	3.52	2.04	2.03	-.38	-.41	-.27	-.28
28	6.59	6.55	3.82	3.82	3.52	3.40	2.03	.05	-.34	-.38	-.26	-.27
29	6.56	6.52	3.83	3.82	3.40	3.18	.05	.05	---	---	-.21	-.26
30	6.52	6.49	3.83	3.79	3.18	3.07	.05	.04	---	---	-.18	-.21
31	6.49	6.46	---	---	3.08	3.07	.10	.05	---	---	-.14	-.18
MONTH	6.76	6.13	6.46	3.05	3.84	3.07	3.11	.04	.21	-.50	-.12	-.42

GROUND-WATER LEVELS

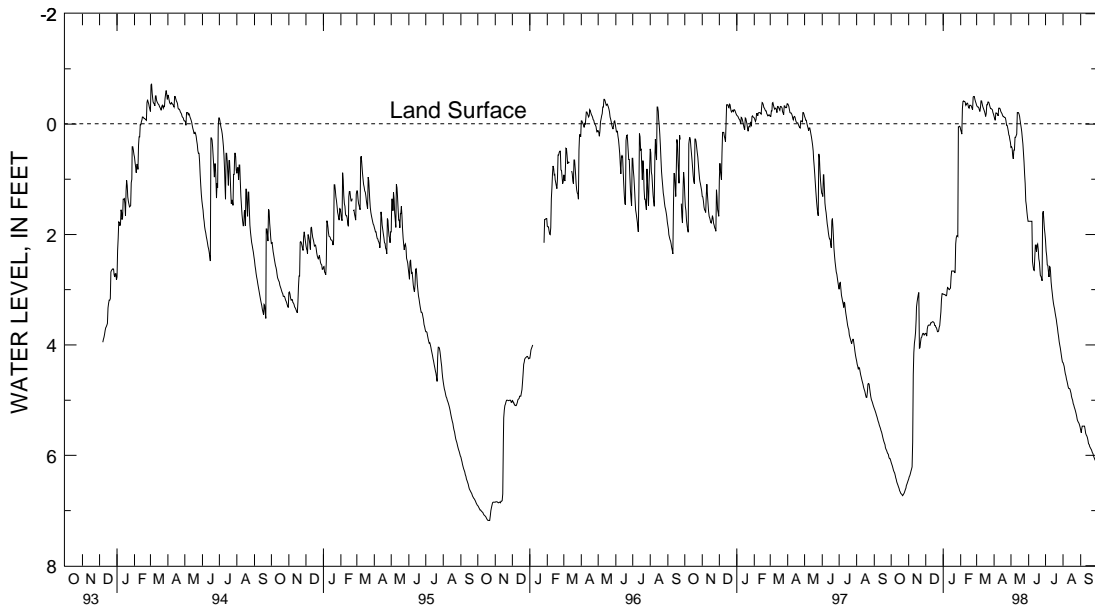
DELAWARE--Continued

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	-.10	-.14	.44	.42	1.76	1.76	2.30	2.11	4.35	4.32	5.59	5.54
2	-.07	-.10	.44	.41	1.76	1.76	2.39	2.30	4.39	4.35	5.61	5.59
3	-.06	-.07	.57	.44	1.76	1.76	2.55	2.39	4.46	4.39	5.61	5.53
4	-.06	-.20	.63	.57	1.76	1.76	2.63	2.55	4.52	4.46	5.53	5.47
5	-.19	-.20	.77	.63	1.76	1.76	2.67	2.56	4.56	4.52	5.47	5.47
6	-.18	-.19	.84	.47	1.76	1.76	2.77	2.67	4.62	4.56	5.47	5.47
7	-.15	-.18	.51	.47	2.49	1.76	2.86	2.77	4.66	4.62	5.47	5.47
8	-.11	-.15	.51	.24	2.57	2.49	2.86	2.58	4.71	4.66	5.53	5.47
9	-.11	-.29	.24	.24	2.64	2.57	2.68	2.59	4.76	4.71	5.60	5.53
10	-.29	-.29	.24	.21	2.65	2.64	2.86	2.68	4.84	4.76	5.63	5.60
11	-.27	-.29	.21	.18	2.69	2.65	2.97	2.86	4.84	4.79	5.65	5.63
12	-.23	-.27	.18	-.21	2.69	2.41	3.06	2.97	4.80	4.79	5.68	5.65
13	-.21	-.23	-.21	-.21	2.45	2.19	3.16	3.06	4.84	4.80	5.73	5.68
14	-.19	-.21	-.18	-.21	2.31	2.19	3.24	3.16	4.88	4.84	5.79	5.73
15	-.16	-.19	-.14	-.18	2.40	2.31	3.30	3.24	4.93	4.88	5.80	5.79
16	-.11	-.16	-.08	-.14	2.50	2.19	3.35	3.30	4.97	4.93	5.84	5.80
17	-.11	-.14	-.01	-.08	2.27	2.17	3.42	3.35	5.00	4.97	5.86	5.84
18	-.12	-.14	.06	-.01	2.44	2.27	3.48	3.42	5.06	5.00	5.88	5.86
19	-.12	-.12	.14	.06	2.50	2.44	3.54	3.48	5.09	5.06	5.90	5.88
20	-.11	-.12	.25	.14	2.65	2.50	3.62	3.54	5.13	5.09	5.93	5.90
21	-.06	-.11	.36	.25	2.74	2.65	3.69	3.62	5.16	5.13	5.95	5.92
22	-.02	-.06	.52	.36	2.76	2.74	3.78	3.69	5.20	5.16	5.97	5.95
23	.02	.02	.69	.52	2.79	2.76	3.85	3.78	5.24	5.20	6.01	5.97
24	.07	.02	.91	.69	2.84	2.79	3.94	3.85	5.29	5.24	6.04	6.01
25	.13	.07	1.08	.91	2.93	2.84	4.00	3.94	5.35	5.29	6.07	6.04
26	.20	.13	1.39	1.08	3.02	1.62	4.06	4.00	5.38	5.35	6.09	6.07
27	.21	.20	1.47	1.39	1.73	1.58	4.13	4.06	5.40	5.38	6.12	6.09
28	.28	.21	1.59	1.47	1.89	1.73	4.18	4.13	5.42	5.40	6.17	6.12
29	.33	.28	1.69	1.59	1.99	1.89	4.25	4.18	5.45	5.42	6.19	6.17
30	.42	.33	1.76	1.69	2.11	1.99	4.31	4.25	5.49	5.45	6.21	6.19
31	---	---	1.76	1.76	---	---	4.32	4.31	5.54	5.49	---	---
MONTH	.42	-.29	1.76	-.21	3.02	1.58	4.32	2.11	5.54	4.32	6.21	5.47
YEAR	6.76	-.50										

Daily Low Water Levels



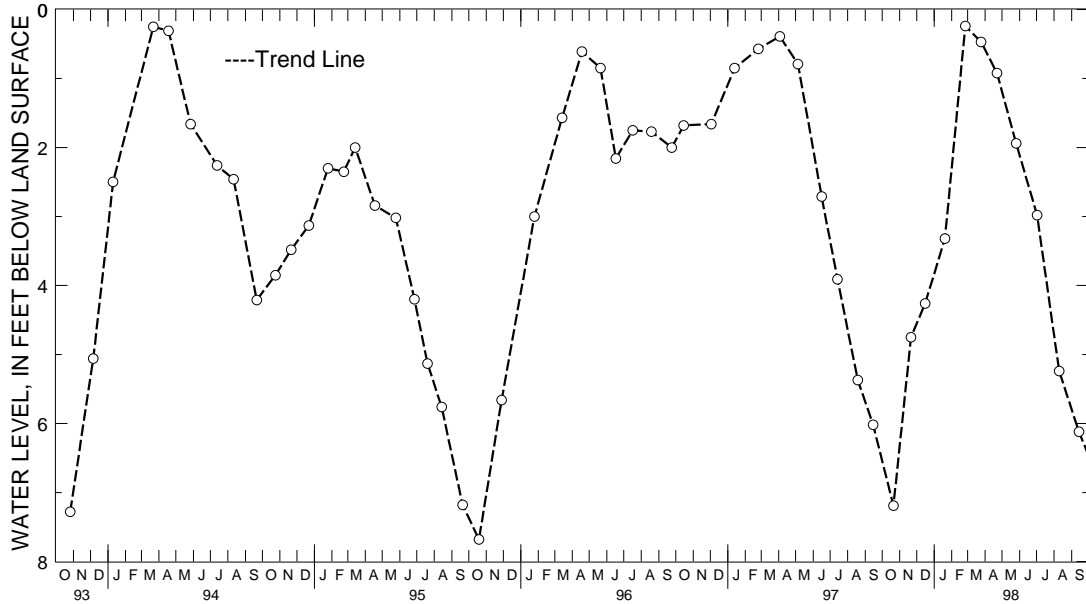
5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 0.24 ft below land surface, Feb. 25, 1998; lowest measured, 7.68 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.19	JAN 20, 1998	3.32	APR 22, 1998	.92	AUG 10, 1998	5.24
NOV 21	4.75	FEB 25	.24	MAY 26	1.94	SEP 14	6.12
DEC 16	4.26	MAR 25	.47	JUL 02	2.98		
WATER YEAR 1998	HIGHEST	.24	FEB 25, 1998	LOWEST	7.19	OCT 21, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

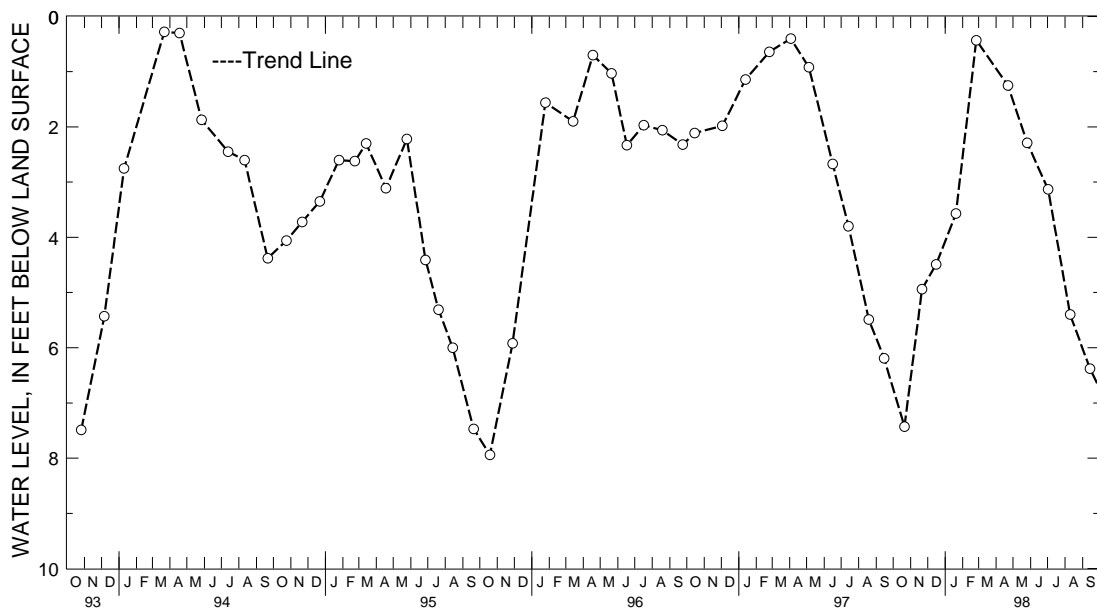
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.43	JAN 20, 1998	3.57	MAY 26, 1998	2.29	SEP 14, 1998	6.38
NOV 21	4.94	FEB 25	.43	JUL 02	3.13		
DEC 16	4.49	APR 22	1.25	AUG 10	5.40		
WATER YEAR 1998		HIGHEST .43	FEB 25, 1998	LOWEST 7.43	OCT 21, 1997		



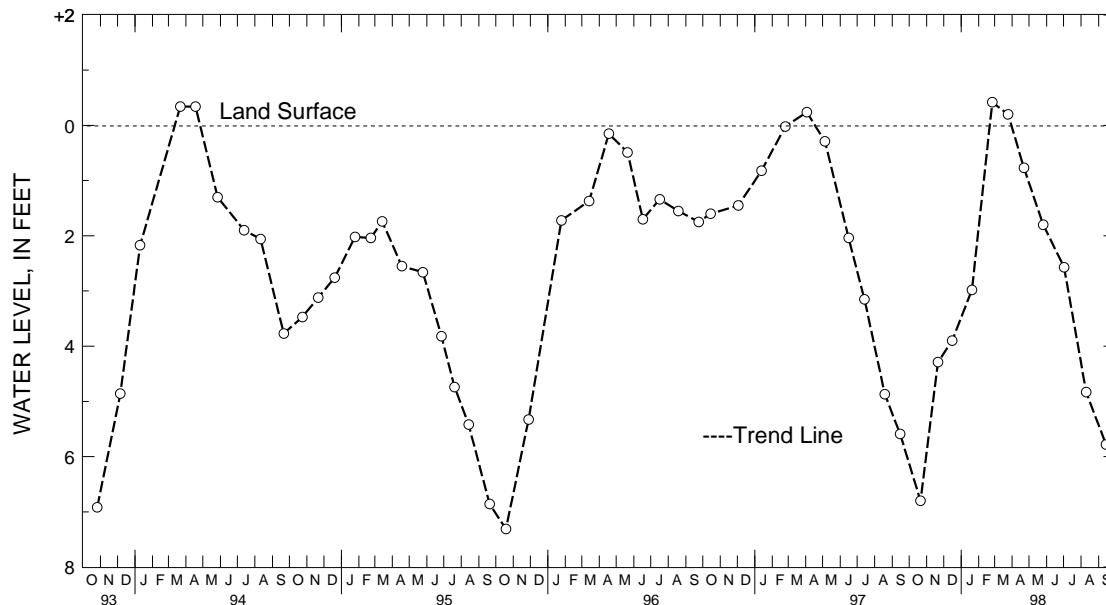
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS
 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 electric 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, 0.42 ft above land surface, Feb. 25, 1998; lowest measured, 7.31 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	6.80	JAN 20, 1998	2.98	APR 22, 1998	.77	AUG 10, 1998	4.83
NOV 21	4.29	FEB 25	+.42	MAY 26	1.80	SEP 14	5.78
DEC 16	3.90	MAR 25	+.20	JUL 02	2.57		
WATER YEAR 1998		HIGHEST	+.42 FEB 25, 1998	LOWEST	6.80 OCT 21, 1997		



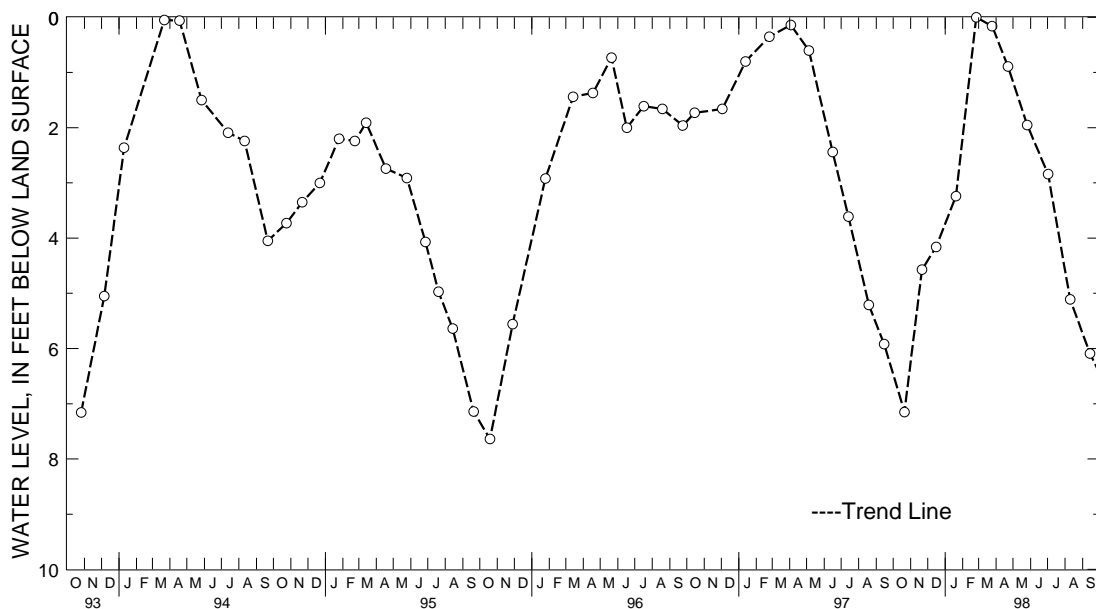
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 0.00 ft at land surface, Feb. 25, 1998;
lowest measured, 7.64 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.15	JAN 20, 1998	3.24	APR 22, 1998	.89	AUG 10, 1998	5.11
NOV 21	4.57	FEB 25	.00	MAY 26	1.95	SEP 14	6.09
DEC 16	4.16	MAR 25	.16	JUL 02	2.84		
WATER YEAR 1998		HIGHEST	.00 FEB 25, 1998	LOWEST	7.15 OCT 21, 1997		



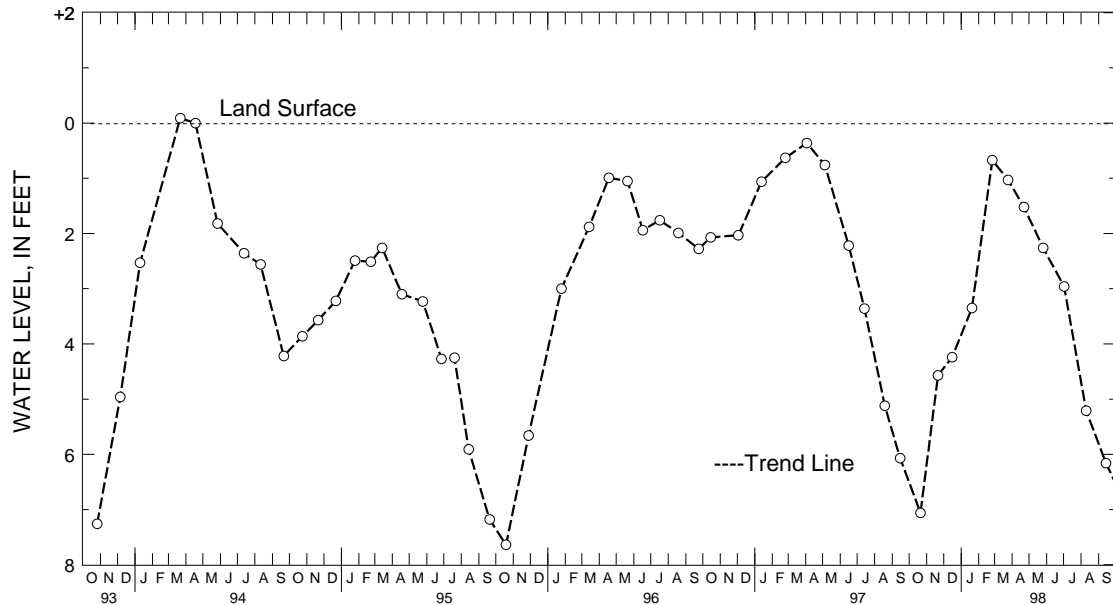
5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS
 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 electric 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.06	JAN 20, 1998	3.35	APR 22, 1998	1.52	AUG 10, 1998	5.21
NOV 21	4.57	FEB 25	.67	MAY 26	2.26	SEP 14	6.16
DEC 16	4.24	MAR 25	1.03	JUL 02	2.96		
WATER YEAR 1998		HIGHEST	.67 FEB 25, 1998	LOWEST	7.06 OCT 21, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

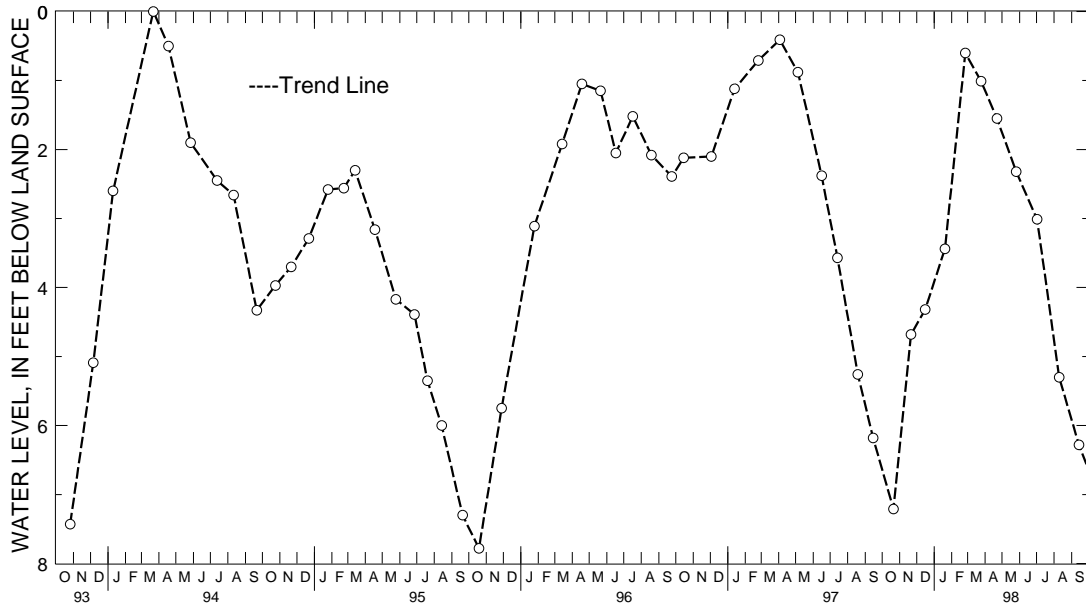
DELAWARE--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	7.21	JAN 20, 1998	3.44	APR 22, 1998	1.55	AUG 10, 1998	5.30
NOV 21	4.68	FEB 25	.60	MAY 26	2.32	SEP 14	6.28
DEC 16	4.32	MAR 25	1.01	JUL 02	3.01		
WATER YEAR 1998		HIGHEST	.60	FEB 25, 1998		LOWEST	7.21
							OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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 electric 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "--")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.25	6.20	6.95	6.95	4.03	4.01	3.50	3.43	.78	.67	.76	.72
2	6.28	6.25	6.95	6.94	4.05	4.02	3.43	3.40	.95	.78	.78	.75
3	6.31	6.28	6.94	6.94	4.04	4.02	3.40	3.37	.96	.95	.76	.66
4	6.35	6.31	6.94	6.93	4.02	3.96	3.38	3.33	---	---	.69	.65
5	6.39	6.35	6.94	6.93	3.96	3.90	3.38	3.32	---	---	.78	.69
6	6.43	6.39	6.94	6.93	3.90	3.89	3.37	3.35	---	---	.87	.77
7	6.48	6.43	6.93	6.91	3.89	3.88	3.37	3.36	---	---	.94	.87
8	6.51	6.48	6.91	6.23	3.89	3.87	3.36	3.31	---	---	.91	.54
9	6.54	6.51	6.23	5.37	3.88	3.86	3.31	3.24	---	---	.54	.24
10	6.58	6.54	5.37	5.08	3.87	3.84	3.30	3.24	---	---	.27	.23
11	6.62	6.58	5.08	4.97	3.86	3.84	3.30	3.24	---	---	.29	.26
12	6.66	6.62	4.99	4.89	3.84	3.82	3.31	3.28	---	---	.34	.29
13	6.69	6.66	4.90	4.87	3.82	3.81	3.30	3.29	---	---	.37	.34
14	6.72	6.69	4.87	4.71	3.83	3.80	3.29	3.24	---	---	.44	.35
15	6.76	6.72	4.71	4.57	3.82	3.79	---	---	---	---	.57	.43
16	6.79	6.76	4.57	4.47	3.81	3.78	3.23	3.23	---	---	.72	.57
17	6.82	6.79	4.47	4.40	3.82	3.77	3.23	3.18	---	---	.78	.72
18	6.84	6.82	4.41	4.36	3.87	3.82	3.18	3.18	---	---	.78	.33
19	6.85	6.84	4.38	4.32	3.89	3.83	3.18	3.18	---	---	.33	-.02
20	6.85	6.82	4.33	4.32	3.90	3.85	3.18	3.03	---	---	-.02	-.07
21	6.82	6.81	4.33	4.31	3.99	3.90	3.06	3.03	---	---	-.07	-.23
22	6.85	6.81	4.31	4.27	3.99	3.96	3.07	3.06	---	---	-.21	-.24
23	6.86	6.85	4.27	4.19	3.97	3.94	3.07	2.68	---	---	-.19	-.22
24	6.88	6.86	4.19	4.14	3.99	3.96	2.68	2.48	---	---	-.17	-.20
25	6.92	6.88	4.14	4.08	3.96	3.92	2.48	2.42	---	---	-.04	-.18
26	6.93	6.92	4.09	4.05	3.93	3.87	2.46	2.42	.71	.69	-.04	-.08
27	6.93	6.92	4.08	4.05	3.90	3.86	2.46	2.43	.72	.70	.04	-.04
28	6.92	6.92	4.08	4.03	3.86	3.75	2.43	1.17	.73	.71	.13	.04
29	6.93	6.92	4.06	4.04	3.75	3.68	1.17	.35	---	---	.29	.13
30	6.95	6.93	4.05	4.02	3.68	3.59	.35	.31	---	---	.46	.29
31	6.95	6.94	---	---	3.59	3.50	.67	.35	---	---	.59	.46
MONTH	6.95	6.20	6.95	4.02	4.05	3.50	3.50	.31	.96	.67	.94	-.24

GROUND-WATER LEVELS

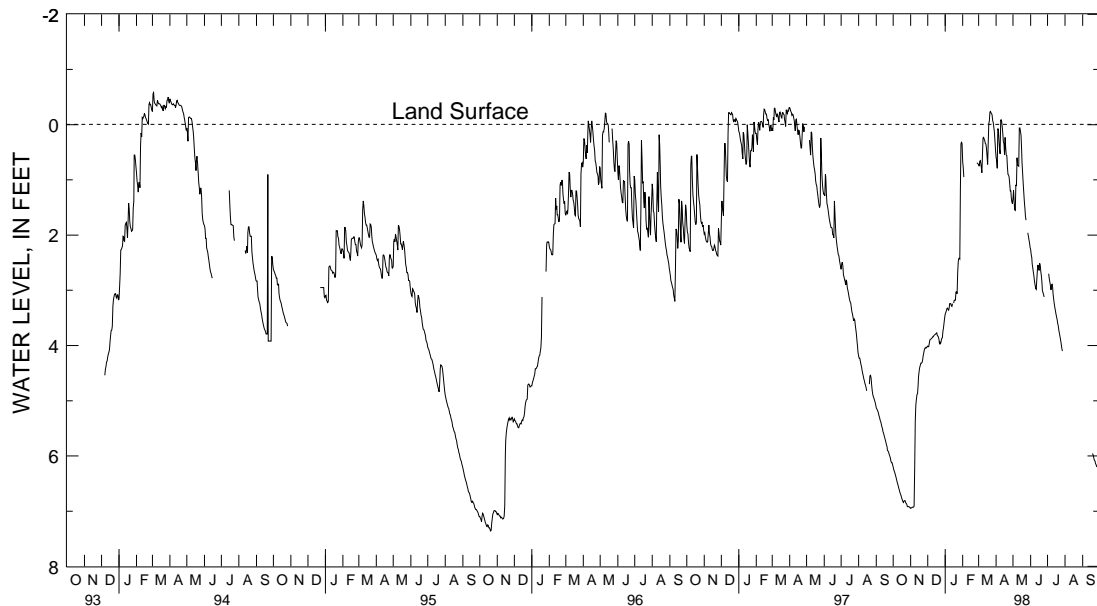
DELAWARE--Continued

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	.66	.59	1.45	1.34	2.35	2.26	---	---	---	---	---	---
2	.79	.65	1.40	1.19	2.41	2.35	---	---	---	---	---	---
3	.86	.79	1.54	1.40	2.52	2.41	2.79	2.70	---	---	---	---
4	.87	.07	1.56	1.54	2.59	2.52	2.86	2.79	---	---	---	---
5	.28	.09	1.65	1.55	2.67	2.59	2.91	2.85	---	---	---	---
6	.44	.28	1.64	1.09	2.74	2.67	2.99	2.91	---	---	---	---
7	.55	.44	1.26	1.11	2.84	2.74	3.06	2.99	---	---	---	---
8	.62	.53	1.26	.60	2.90	2.84	3.07	2.90	---	---	---	---
9	.60	-.08	.84	.73	2.96	2.90	2.93	2.89	---	---	---	---
10	-.06	-.09	.81	.74	2.98	2.96	3.07	2.93	---	---	---	---
11	.04	-.06	.82	.75	2.99	2.98	3.16	3.07	---	---	---	---
12	.16	.04	.75	.06	2.99	2.81	3.24	3.16	---	---	---	---
13	.31	.16	.12	.06	2.81	2.64	3.31	3.24	---	---	---	---
14	.39	.31	.20	.12	2.64	2.54	3.37	3.31	---	---	---	---
15	.54	.34	.45	.20	2.69	2.60	3.43	3.37	---	---	---	---
16	.66	.54	.68	.45	2.75	2.64	3.48	3.43	---	---	---	---
17	.67	.23	.86	.68	2.64	2.51	3.53	3.48	---	---	---	---
18	.65	.42	1.05	.86	2.66	2.55	3.60	3.53	---	---	5.97	5.96
19	.65	.55	1.22	1.05	2.74	2.66	3.65	3.60	---	---	6.00	5.97
20	.77	.56	1.38	1.22	2.87	2.74	3.73	3.65	---	---	6.04	6.00
21	.90	.77	1.51	1.38	3.00	2.87	3.78	3.73	---	---	6.08	6.04
22	.95	.90	1.67	1.51	3.04	3.00	3.84	3.78	---	---	6.09	6.08
23	.95	.91	1.73	1.66	3.07	3.04	3.90	3.84	---	---	6.14	6.09
24	1.08	.95	1.81	1.73	3.12	3.07	3.97	3.90	---	---	6.16	6.14
25	1.20	1.08	---	---	3.17	3.12	4.04	3.97	---	---	6.19	6.16
26	1.28	1.20	---	---	---	---	4.10	4.04	---	---	6.19	6.19
27	1.32	1.20	2.01	1.96	---	---	4.15	4.10	---	---	6.25	6.19
28	1.40	1.32	2.09	2.01	---	---	---	---	---	---	6.30	6.25
29	1.43	1.40	2.14	2.08	---	---	---	---	---	---	6.32	6.30
30	1.45	1.43	2.22	2.14	---	---	---	---	---	---	6.37	6.32
31	---	---	2.27	2.22	---	---	---	---	---	---	---	---
MONTH	1.45	-.09	2.27	.06	3.17	2.26	4.15	2.70	---	---	6.37	5.96
YEAR	6.95	-.24										

Daily Low Water Levels



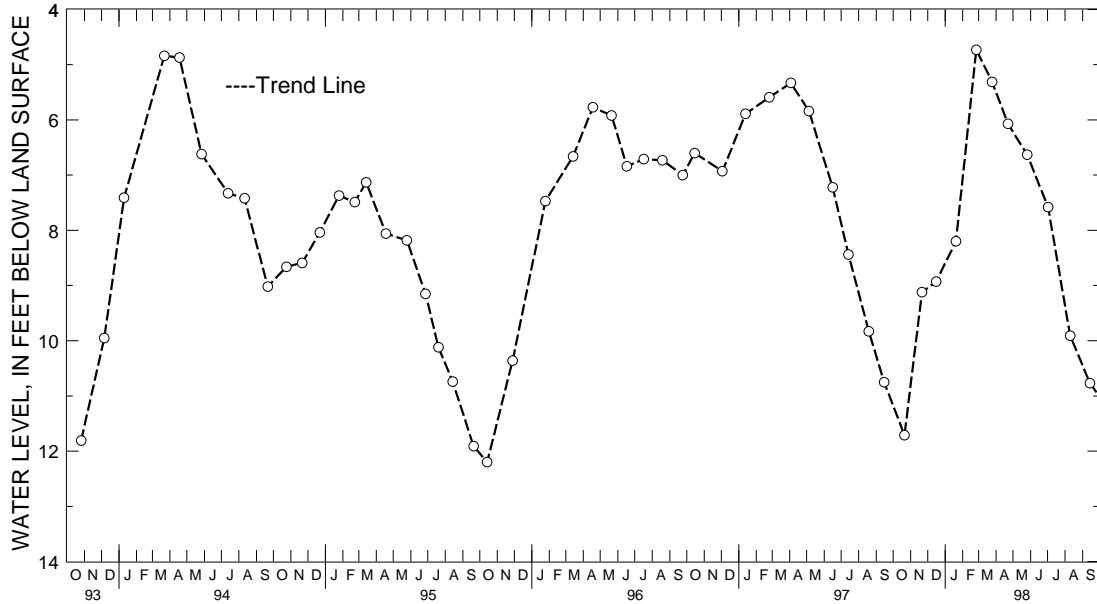
5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 4.73 ft below land surface, Feb. 25, 1998;
 lowest measured, 12.20 ft below land surface, Oct. 14, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	11.71	JAN 20, 1998	8.20	APR 22, 1998	6.07	AUG 10, 1998	9.91
NOV 21	9.12	FEB 25	4.73	MAY 26	6.63	SEP 14	10.77
DEC 16	8.93	MAR 25	5.31	JUL 02	7.58		
WATER YEAR 1998		HIGHEST	4.73 FEB 25, 1998	LOWEST	11.71 OCT 21, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

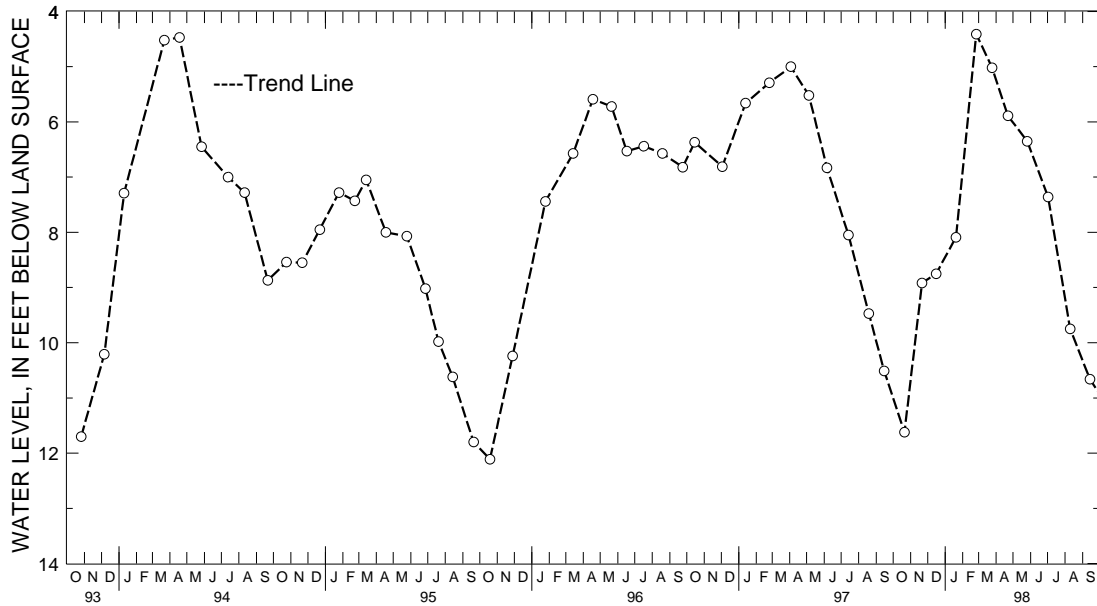
DELAWARE--Continued

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 electric 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, 4.41 ft below land surface, Feb. 25, 1998; lowest measured, 12.11 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	11.62	JAN 20, 1998	8.09	APR 22, 1998	5.89	AUG 10, 1998	9.75
NOV 21	8.92	FEB 25	4.41	MAY 26	6.35	SEP 14	10.66
DEC 16	8.75	MAR 25	5.02	JUL 02	7.36		
WATER YEAR 1998		HIGHEST	4.41	FEB 25, 1998		LOWEST	11.62
							OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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 electric 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 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.15	11.09	11.66	11.63	8.81	8.72	8.55	8.45	5.84	5.77	4.63	4.56
2	11.19	11.15	11.63	11.60	8.84	8.81	8.45	8.40	5.91	5.84	4.67	4.63
3	11.23	11.19	11.60	11.60	8.84	8.83	8.40	8.35	5.95	5.91	4.67	4.63
4	11.27	11.23	11.60	11.59	8.83	8.75	8.35	8.34	5.95	5.39	4.85	4.66
5	11.31	11.27	11.60	11.59	8.75	8.73	8.34	8.32	5.39	4.78	4.90	4.84
6	11.34	11.31	11.59	11.58	8.73	8.73	8.32	8.31	4.78	4.77	4.95	4.90
7	11.37	11.34	11.58	11.50	8.76	8.73	8.31	8.29	4.77	4.76	4.99	4.94
8	11.40	11.37	11.50	11.00	8.77	8.76	8.29	8.25	4.87	4.77	5.01	4.85
9	11.43	11.40	11.00	10.36	8.77	8.75	8.31	8.25	5.00	4.87	4.85	4.41
10	11.46	11.43	10.36	9.83	8.75	8.70	8.33	8.31	5.09	5.00	4.70	4.41
11	11.50	11.46	9.83	9.63	8.74	8.70	8.33	8.33	5.11	5.05	4.82	4.70
12	11.54	11.50	9.63	9.53	8.74	8.74	8.36	8.33	5.05	5.00	4.92	4.82
13	11.56	11.54	9.53	9.41	8.74	8.72	8.36	8.31	5.09	5.03	4.97	4.92
14	11.59	11.56	9.41	9.27	8.76	8.72	8.36	8.33	5.18	5.09	5.07	4.96
15	11.61	11.59	9.27	9.17	8.80	8.76	8.36	8.21	5.26	5.18	5.16	5.07
16	11.63	11.61	9.17	9.11	8.79	8.76	8.21	8.18	5.28	5.26	5.23	5.15
17	11.65	11.63	9.11	9.03	8.78	8.76	8.21	8.20	5.27	5.14	5.24	5.23
18	11.66	11.65	9.03	8.96	8.80	8.78	8.20	8.18	5.15	5.14	5.23	5.20
19	11.66	11.63	---	---	8.82	8.80	8.18	8.14	5.19	5.15	5.20	5.17
20	11.65	11.63	8.86	8.86	8.86	8.82	8.14	8.13	5.19	5.18	5.17	5.16
21	---	---	8.87	8.84	8.92	8.86	8.13	8.13	5.23	5.19	5.16	5.12
22	11.69	11.68	8.84	8.80	8.93	8.85	8.13	8.13	5.25	5.23	5.12	5.11
23	11.69	11.68	8.80	8.78	8.88	8.84	8.13	7.97	5.23	4.63	5.11	5.09
24	11.70	11.69	8.79	8.78	8.92	8.87	7.97	7.86	4.63	4.42	5.09	5.08
25	11.71	11.70	8.79	8.76	8.87	8.83	7.86	7.78	4.44	4.41	5.08	5.04
26	11.70	11.69	8.76	8.72	8.88	8.85	7.78	7.68	4.44	4.43	5.06	5.04
27	11.69	11.68	8.79	8.72	8.88	8.80	7.68	7.54	4.48	4.43	5.07	5.05
28	11.68	11.67	8.79	8.76	8.80	8.79	7.54	5.84	4.57	4.48	5.10	5.07
29	11.68	11.67	8.79	8.76	8.79	8.58	5.84	5.65	---	---	5.17	5.10
30	11.67	11.67	8.79	8.72	8.58	8.58	5.69	5.65	---	---	5.22	5.17
31	11.67	11.66	---	---	8.58	8.55	5.77	5.69	---	---	5.26	5.22
MONTH	11.71	11.09	11.66	8.72	8.93	8.55	8.55	5.65	5.95	4.41	5.26	4.41

GROUND-WATER LEVELS

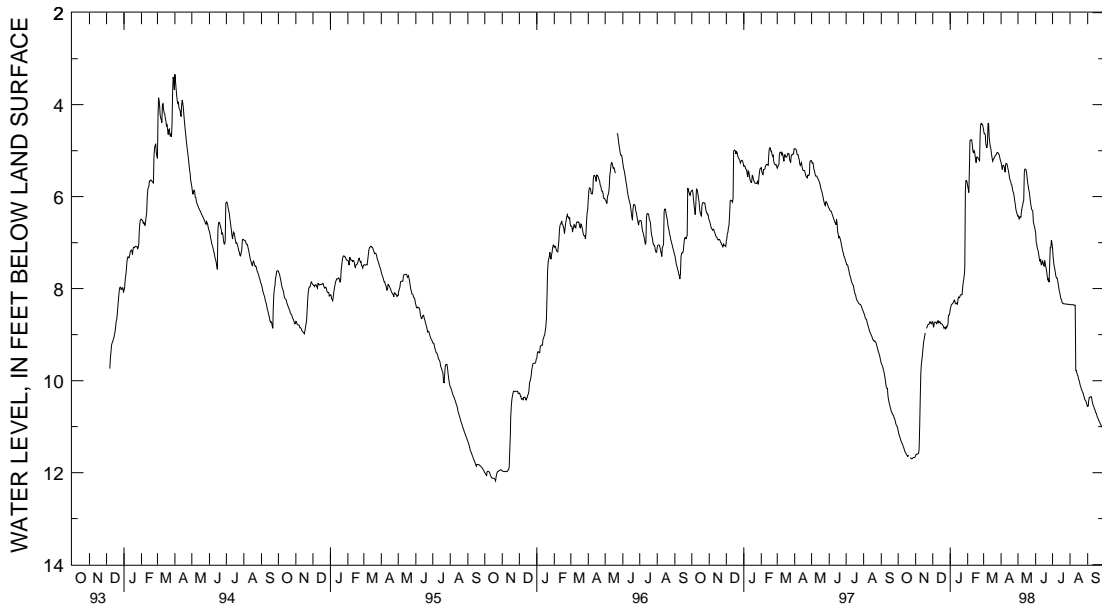
DELAWARE--Continued

SUSSEX COUNTY--Continued

Of23-03--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.32	5.26	6.45	6.43	6.99	6.78	7.30	7.12	8.35	8.35	10.59	10.56
2	5.41	5.32	6.48	6.42	7.04	6.99	7.44	7.30	8.35	8.35	10.61	10.55
3	5.45	5.41	6.55	6.48	7.11	7.04	7.52	7.44	8.35	8.35	10.55	10.44
4	5.46	5.33	6.57	6.44	7.15	7.11	7.58	7.52	8.35	8.35	10.44	10.37
5	5.33	5.32	6.52	6.44	7.20	7.15	7.66	7.58	8.35	8.35	10.37	10.37
6	5.38	5.33	6.52	6.45	7.29	7.20	7.74	7.66	8.35	8.35	10.37	10.35
7	5.47	5.38	6.45	6.33	7.38	7.28	7.79	7.74	8.36	8.35	10.35	10.35
8	5.66	5.47	6.36	6.24	7.42	7.37	7.82	7.77	8.36	8.36	10.44	10.35
9	5.66	5.29	6.24	6.19	7.48	7.40	7.81	7.77	8.36	8.36	10.51	10.44
10	5.29	5.28	6.19	6.12	7.48	7.36	7.89	7.81	9.82	8.36	10.54	10.50
11	5.31	5.28	6.12	6.08	7.56	7.48	7.97	7.89	9.82	9.78	10.56	10.54
12	5.38	5.31	6.08	5.47	7.56	7.47	8.04	7.97	9.84	9.78	10.61	10.56
13	5.43	5.38	5.47	5.40	7.50	7.40	8.10	8.04	9.88	9.84	10.63	10.61
14	5.50	5.43	5.42	5.40	7.49	7.42	8.17	8.10	9.91	9.88	10.69	10.63
15	5.60	5.50	5.48	5.42	7.53	7.49	8.22	8.17	9.96	9.90	10.70	10.69
16	5.65	5.60	5.57	5.48	7.60	7.51	8.25	8.22	9.99	9.96	10.74	10.70
17	5.68	5.64	5.68	5.57	7.51	7.39	8.30	8.25	10.04	9.99	10.79	10.74
18	5.73	5.67	5.76	5.68	7.52	7.45	8.32	8.30	10.10	10.04	10.81	10.79
19	5.75	5.73	5.85	5.76	7.59	7.52	8.32	8.32	10.13	10.10	10.84	10.81
20	5.83	5.75	5.93	5.85	7.68	7.59	8.33	8.32	10.18	10.13	10.87	10.84
21	5.89	5.83	6.01	5.90	7.76	7.68	8.33	8.33	10.21	10.18	10.89	10.87
22	5.93	5.89	6.12	6.01	7.81	7.76	8.33	8.33	10.25	10.21	10.92	10.89
23	5.99	5.92	6.20	6.12	7.85	7.81	8.33	8.33	10.27	10.25	10.95	10.92
24	6.09	5.99	6.28	6.20	7.86	7.79	8.33	8.33	10.32	10.27	10.97	10.95
25	6.17	6.09	6.34	6.28	7.91	7.86	8.34	8.33	10.36	10.32	10.99	10.97
26	6.27	6.17	6.37	6.29	7.95	7.49	8.34	8.34	10.41	10.36	11.01	10.99
27	6.31	6.27	6.54	6.31	7.49	7.11	8.34	8.34	10.43	10.41	11.05	11.01
28	6.36	6.31	6.61	6.54	7.11	7.11	8.34	8.34	10.45	10.43	11.10	11.05
29	6.40	6.36	6.66	6.61	7.11	6.94	8.34	8.34	10.49	10.45	11.13	11.10
30	6.43	6.40	6.72	6.66	7.12	7.01	8.34	8.34	10.54	10.49	11.16	11.13
31	---	---	6.78	6.72	---	---	8.35	8.34	10.57	10.54	---	---
MONTH	6.43	5.26	6.78	5.40	7.95	6.78	8.35	7.12	10.57	8.35	11.16	10.35
YEAR	11.71	4.41										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

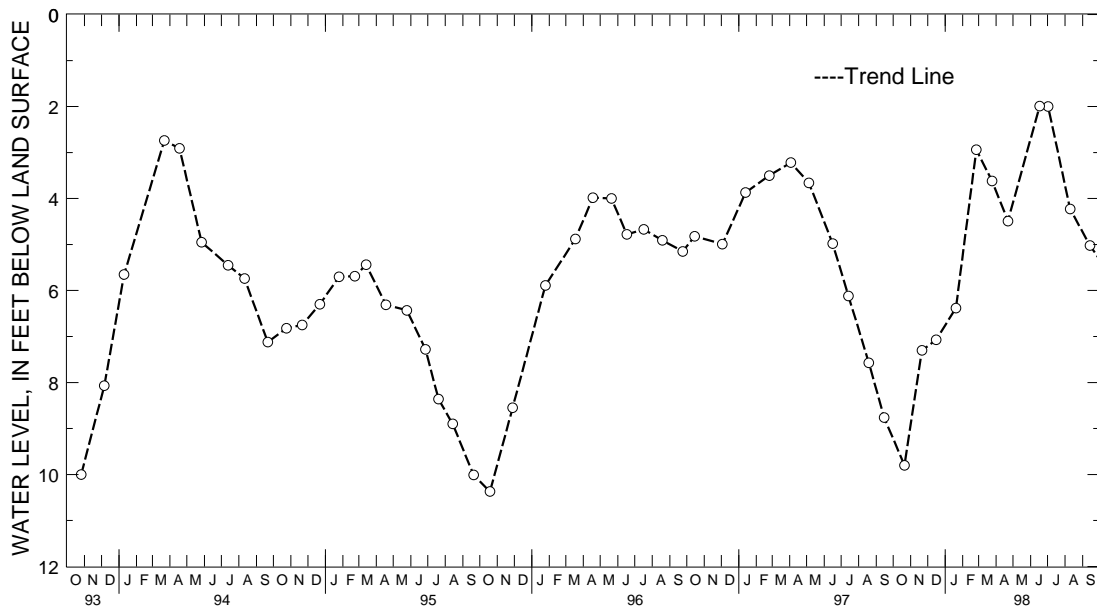
DELAWARE--Continued

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 electric 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, 2.90 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, 1.99 ft below land surface, June 17, 1998; lowest measured, 10.37 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	9.80	JAN 20, 1998	6.38	APR 22, 1998	4.49	AUG 10, 1998	4.23
NOV 21	7.30	FEB 25	2.94	JUN 17	1.99	SEP 14	5.02
DEC 16	7.07	MAR 25	3.62	JUL 02	2.00		
WATER YEAR 1998		HIGHEST	1.99	JUN 17, 1998	LOWEST	9.80	OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

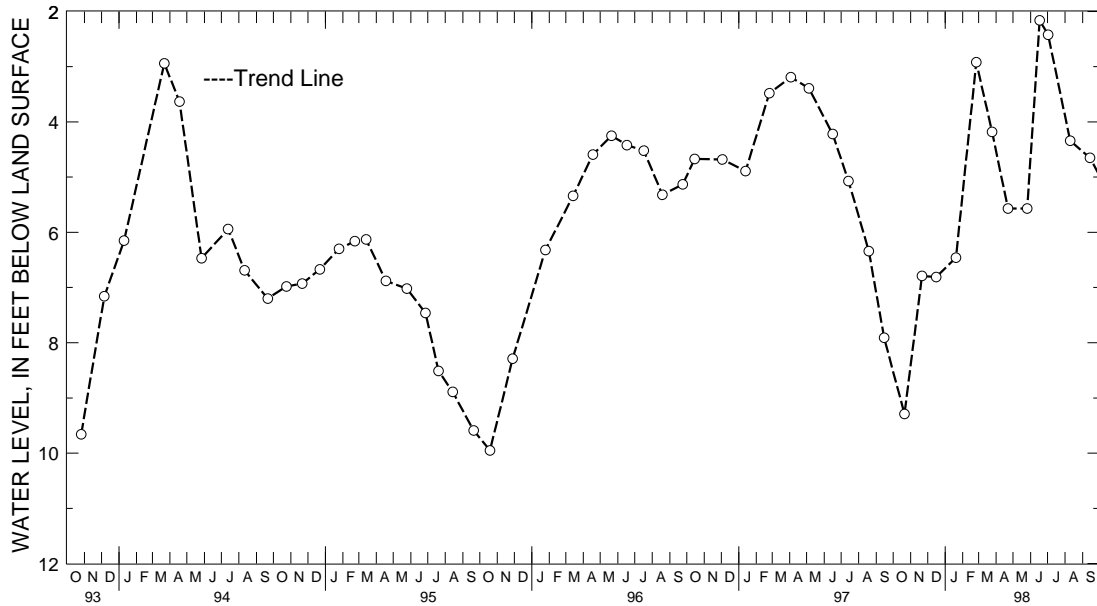
DELAWARE--Continued

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 electric 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, 2.16 ft below land surface, June 17, 1998; lowest measured, 9.95 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	9.29	JAN 20, 1998	6.46	APR 22, 1998	5.57	JUL 02, 1998	2.42
NOV 21	6.79	FEB 25	2.92	MAY 26	5.57	AUG 10	4.34
DEC 16	6.81	MAR 25	4.18	JUN 17	2.16	SEP 14	4.65
WATER YEAR 1998		HIGHEST	2.16	JUN 17, 1998	LOWEST	9.29	OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

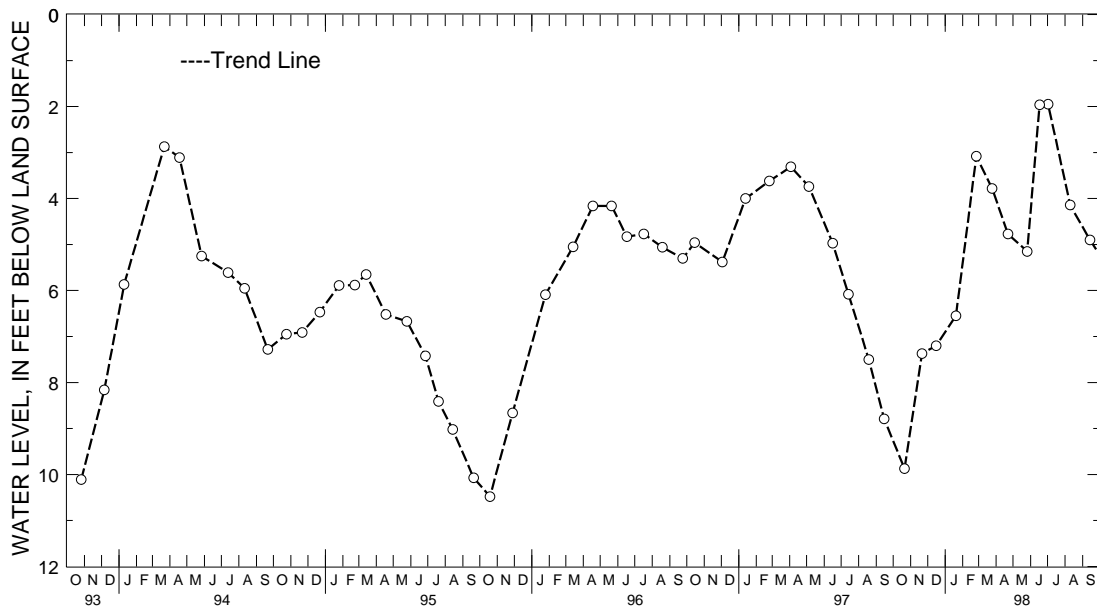
DELAWARE--Continued

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 electric 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, 2.34 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, 1.95 ft below land surface, July 2, 1998;
 lowest measured, 10.48 ft below land surface, Oct. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	9.87	JAN 20, 1998	6.55	APR 22, 1998	4.77	JUL 02, 1998	1.95
NOV 21	7.37	FEB 25	3.08	MAY 26	5.15	AUG 10	4.14
DEC 16	7.20	MAR 25	3.78	JUN 17	1.96	SEP 14	4.90
WATER YEAR 1998		HIGHEST	1.95	JUL 02, 1998	LOWEST	9.87	OCT 21, 1997

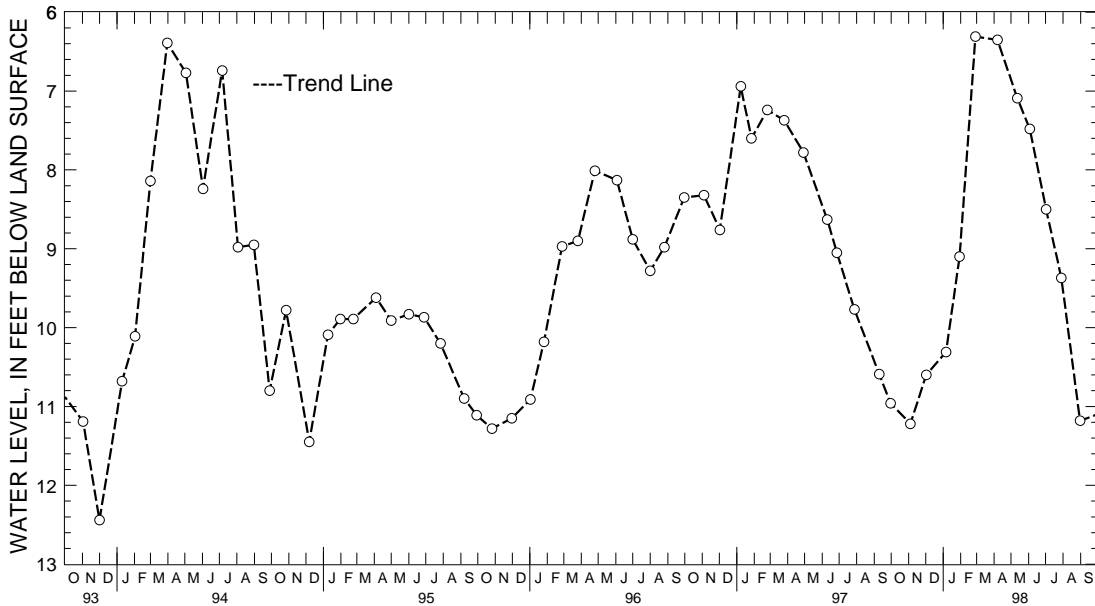


5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04, 1997	11.22	JAN 30, 1998	9.10	MAY 12, 1998	7.09	JUL 29, 1998	9.37
DEC 02	10.60	FEB 27	6.31	JUN 03	7.48	AUG 31	11.18
JAN 06, 1998	10.31	APR 07	6.35	JUL 02	8.50		
WATER YEAR 1998		HIGHEST	6.31 FEB 27, 1998	LOWEST	11.22 NOV 04, 1997		



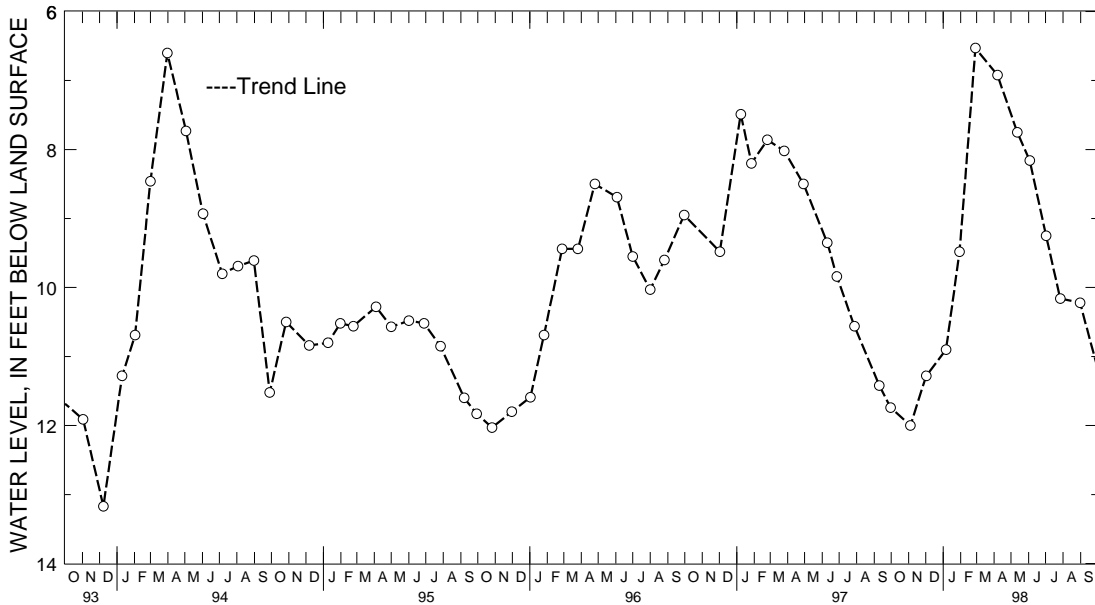
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04, 1997	12.00	JAN 30, 1998	9.48	MAY 12, 1998	7.75	JUL 27, 1998	10.16
DEC 02	11.28	FEB 27	6.53	JUN 03	8.16	AUG 31	10.22
JAN 06, 1998	10.90	APR 07	6.92	JUL 02	9.25		
WATER YEAR 1998		HIGHEST	6.53 FEB 27, 1998	LOWEST	12.00 NOV 04, 1997		



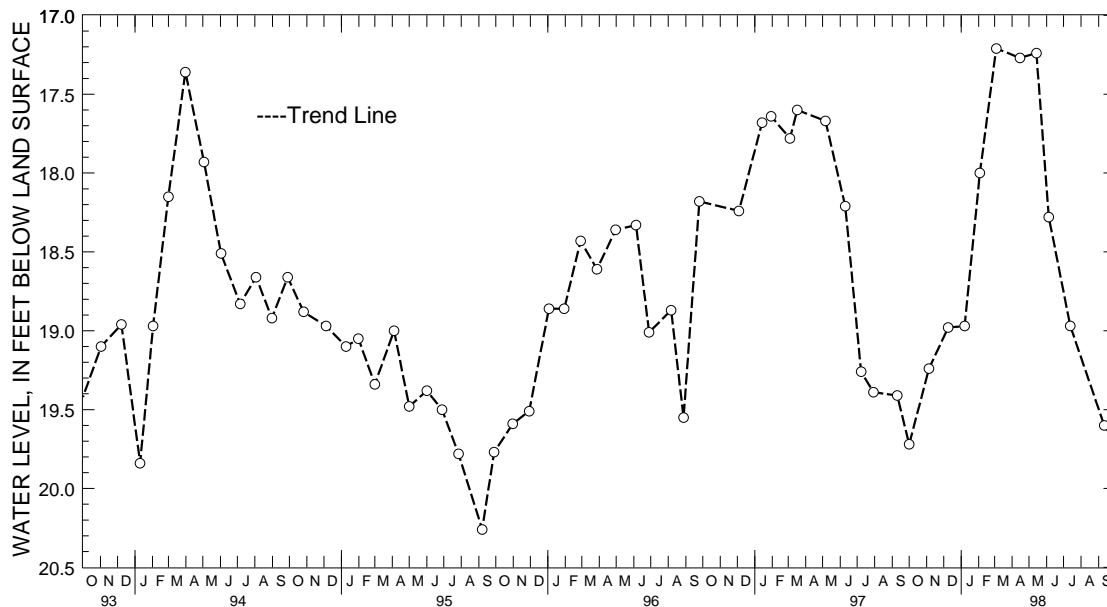
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS
DELAWARE--Continued
SUSSEX COUNTY--Continued

WELL NUMBER.--Oi24-06. SITE ID.--384258075063101. PERMIT NUMBER.--03489.
 LOCATION.--Lat 38°42'58", long 75°06'31", Hydrologic Unit 02060010, nr DE Rt. 1, at Rehobeth Water Pumping Station.
 Owner: City of Rehobeth.
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	19.72	JAN 07, 1998	18.97	APR 15, 1998	17.27	JUL 13, 1998	18.97
NOV 05	19.24	FEB 03	18.00	MAY 14	17.24	SEP 11	19.60
DEC 09	18.98	MAR 04	17.21	JUN 05	18.28	30	19.70
WATER YEAR 1998		HIGHEST	17.21 MAR 04, 1998	LOWEST	19.72 OCT 01, 1997		



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

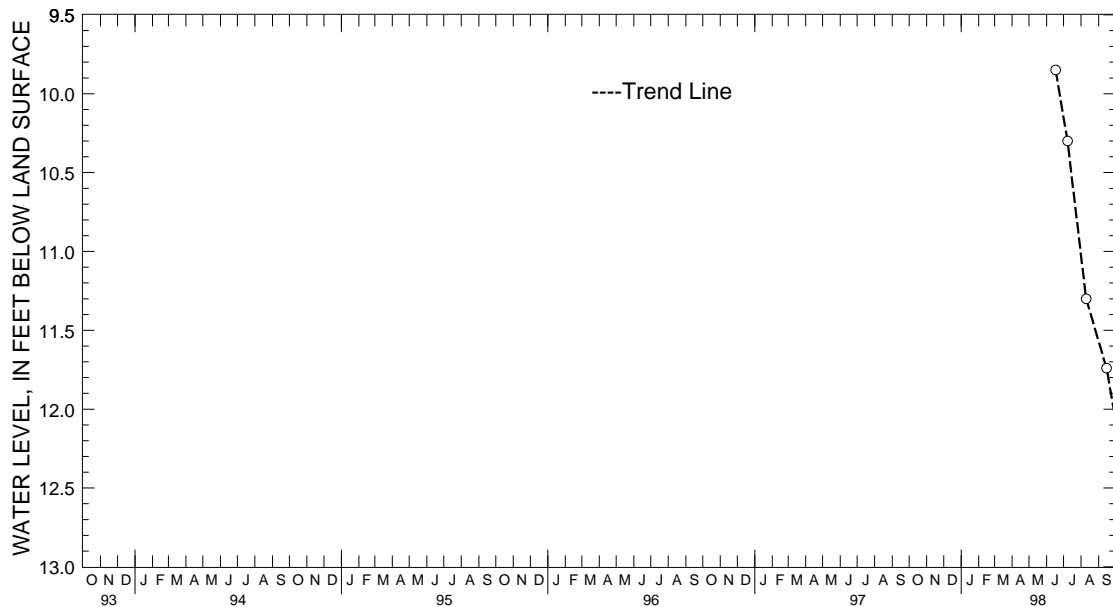
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Pf24-02. SITE ID.--383730075213501.
 LOCATION.--Lat 38°37'30", long 75°21'35", Hydrologic Unit 02060010, nr DE Rt. 113, nr Stockley Hospital.
 Owner: U.S. Geological Survey.
 AQUIFER.--Columbia Group of Pleistocene age. Aquifer code: 112CLMB.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 49 ft; casing diameter 4 in., to 46 ft; screen diameter 4 in. from 46 to 49 ft.
 INSTRUMENTATION.--Monthly measurements with chalked steel tape by U.S. Geological Survey personnel from June 1998 to current year. Equipped with graphic water-level recorder from January 1970 to January 1982. Intermittent measurements from April 1982 to August 1987. Twice yearly measurements from February 1988 to April 1993.
 DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.0 ft above land surface.
 REMARKS.--Delaware Water-Level Network and Collection of Basic Records (CBR) national network observation well (see figure 3).
 PERIOD OF RECORD.--January 1970 to April 1993, June 1998 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.53 ft below land surface, March 10, 1979.
 lowest measured, 12.08 ft below land surface, Oct. 22, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 17, 1998	9.85	JUL 08, 1998	10.30	AUG 10, 1998	11.30	SEP 15, 1998	11.74
WATER YEAR 1998	HIGHEST	9.85	JUN 17, 1998	LOWEST	11.74	SEP 15, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

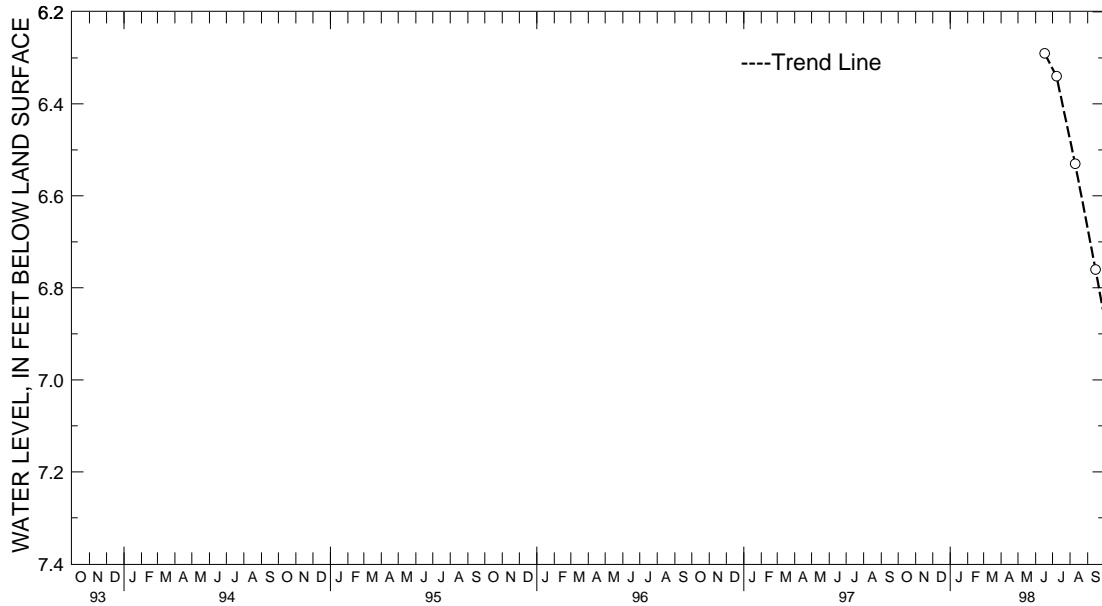
DELAWARE--Continued

SUSSEX COUNTY--Continued

WELL NUMBER.--Pf24-03. SITE ID.--383730075213502.
 LOCATION.--Lat 38°37'30", long 75°21'35", Hydrologic Unit 02060010, nr DE Rt. 113, nr Stockley Hospital.
 Owner: U.S. Geological Survey.
 AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 178 ft; casing diameter 4 in., to 58 ft; casing diameter 2 in. to 168 ft; screen diameter 2 in. from 168 to 178 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel from June 1998 to current year. Weekly measurements from November 1976 to May 1977. Monthly measurements from June 1977 to December 1986. Intermittent measurements from February 1987 to November 1988. Twice yearly measurements from April 1989 to April 1993
 DATUM.--Elevation of land surface is 50 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 3.0 ft above land surface.
 REMARKS.--Delaware Water-Level Network observation well.
 PERIOD OF RECORD.--November 1976 to April 1993, June 1998 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.67 ft below land surface, April 2, 1979.
 lowest measured, 12.72 ft below land surface, Aug. 28, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JUN 17, 1998	6.29	JUL 08, 1998	6.34	AUG 10, 1998	6.53	SEP 15, 1998	6.76
WATER YEAR 1998		HIGHEST	6.29 JUN 17, 1998	LOWEST	6.76 SEP 15, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

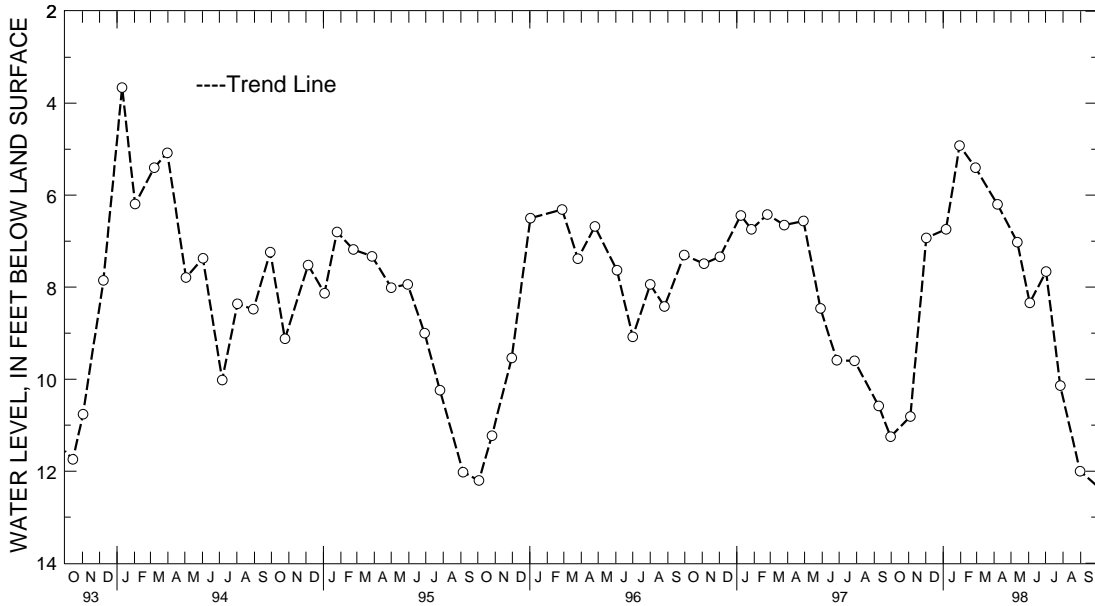
DELAWARE-- Continued

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.--Monthly measurements with chalked steel tape by 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 04, 1997	10.81	JAN 30, 1998	4.92	MAY 12, 1998	7.02	JUL 27, 1998	10.14
DEC 02	6.93	FEB 27	5.40	JUN 03	8.34	AUG 31	12.00
JAN 06, 1998	6.74	APR 07	6.20	JUL 02	7.66		
WATER YEAR 1998		HIGHEST	4.92 JAN 30, 1998	LOWEST	12.00 AUG 31, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

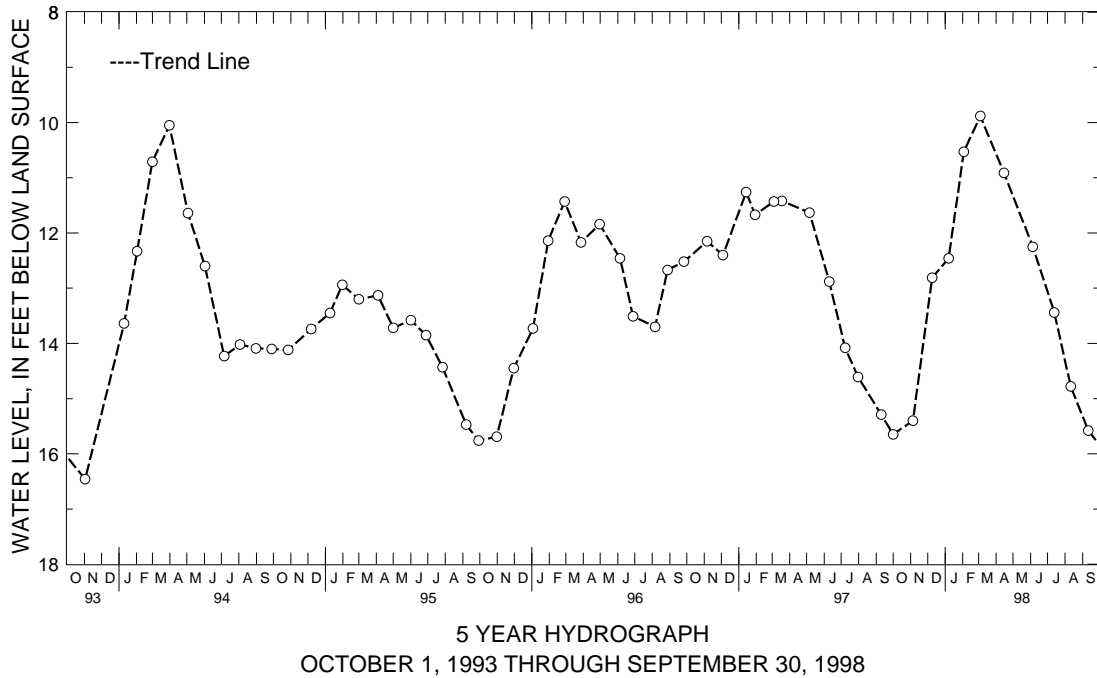
DELAWARE--Continued

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.--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, 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	15.65	JAN 07, 1998	12.46	APR 15, 1998	10.91	AUG 11, 1998	14.78
NOV 05	15.40	FEB 03	10.53	JUN 05	12.25	SEP 11	15.58
DEC 09	12.81	MAR 04	9.88	JUL 13	13.44		
WATER YEAR 1998		HIGHEST 9.88	MAR 04, 1998	LOWEST 15.65	OCT 01, 1997		



GROUND-WATER LEVELS

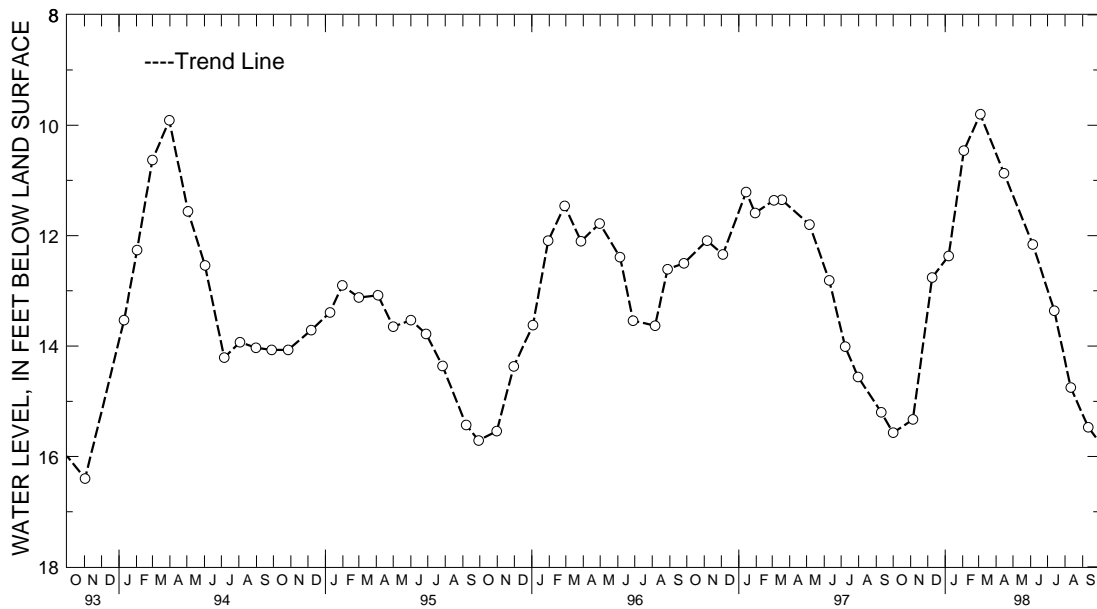
DELAWARE--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	15.57	JAN 07, 1998	12.37	APR 15, 1998	10.87	AUG 11, 1998	14.75
NOV 05	15.33	FEB 03	10.46	JUN 05	12.16	SEP 11	15.47
DEC 09	12.76	MAR 04	9.80	JUL 13	13.36		
WATER YEAR 1998		HIGHEST	9.80 MAR 04, 1998	LOWEST	15.57 OCT 01, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

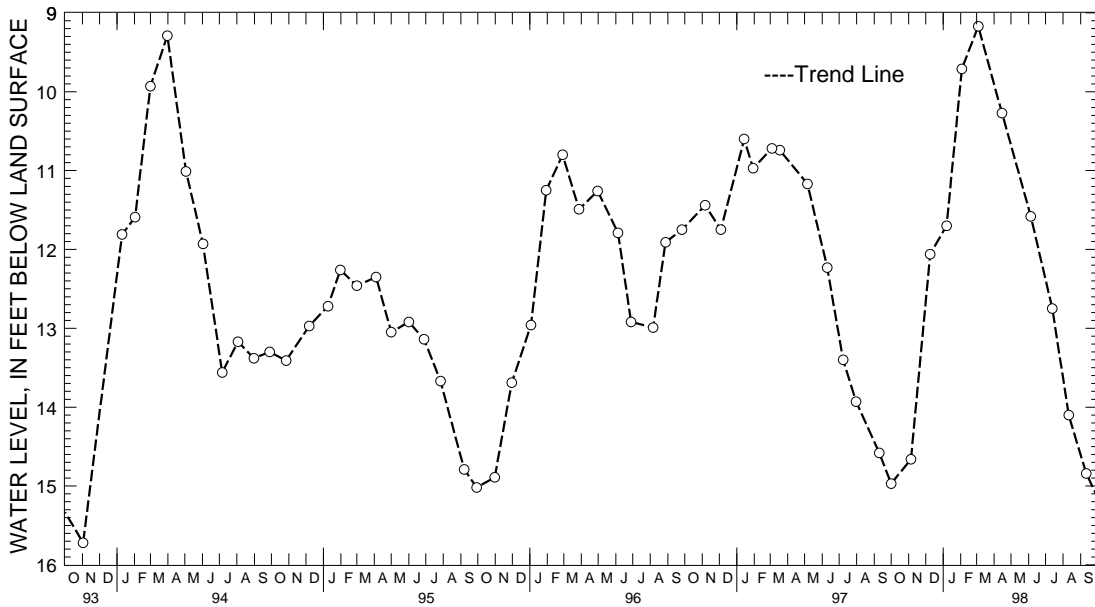
DELAWARE--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	14.97	JAN 07, 1998	11.70	APR 15, 1998	10.27	AUG 11, 1998	14.10
NOV 05	14.66	FEB 03	9.71	JUN 05	11.58	SEP 11	14.84
DEC 09	12.06	MAR 04	9.17	JUL 13	12.75		
WATER YEAR 1998		HIGHEST	9.17 MAR 04, 1998	LOWEST	14.97 OCT 01, 1997		



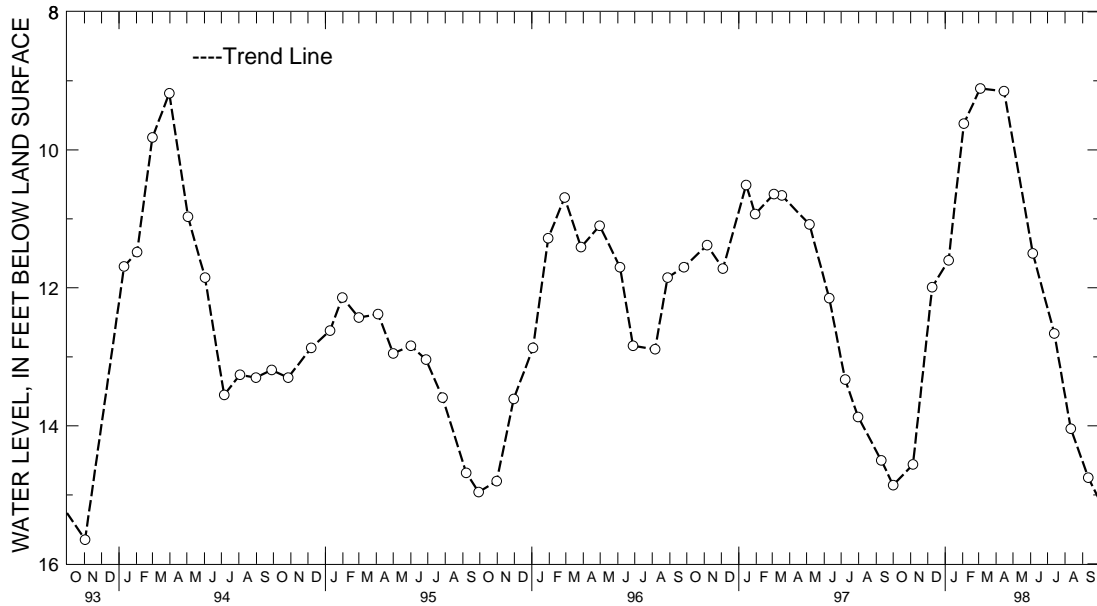
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	14.86	JAN 07, 1998	11.60	APR 15, 1998	9.15	AUG 11, 1998	14.04
NOV 05	14.56	FEB 03	9.62	JUN 05	11.50	SEP 11	14.75
DEC 09	11.99	MAR 04	9.11	JUL 13	12.66		
WATER YEAR 1998		HIGHEST	9.11 MAR 04, 1998	LOWEST	14.86 OCT 01, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

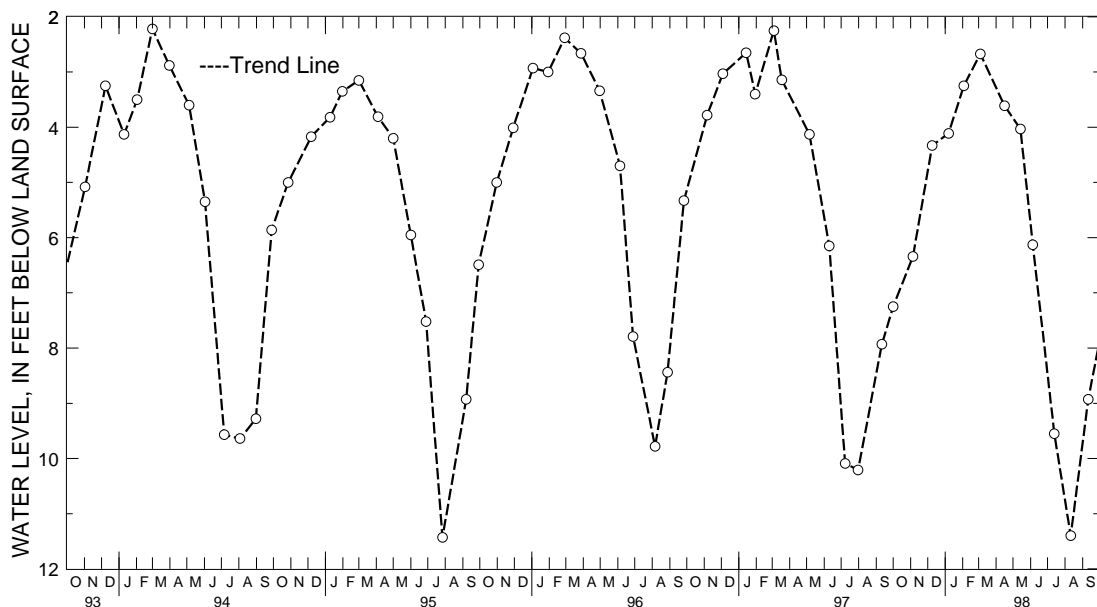
DELAWARE--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	7.25	JAN 07, 1998	4.11	APR 16, 1998	3.61	JUL 13, 1998	9.55
NOV 05	6.34	FEB 03	3.25	MAY 14	4.03	AUG 11	11.40
DEC 09	4.33	MAR 04	2.67	JUN 05	6.13	SEP 11	8.93
WATER YEAR 1998		HIGHEST	2.67 MAR 04, 1998	LOWEST	11.40 AUG 11, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

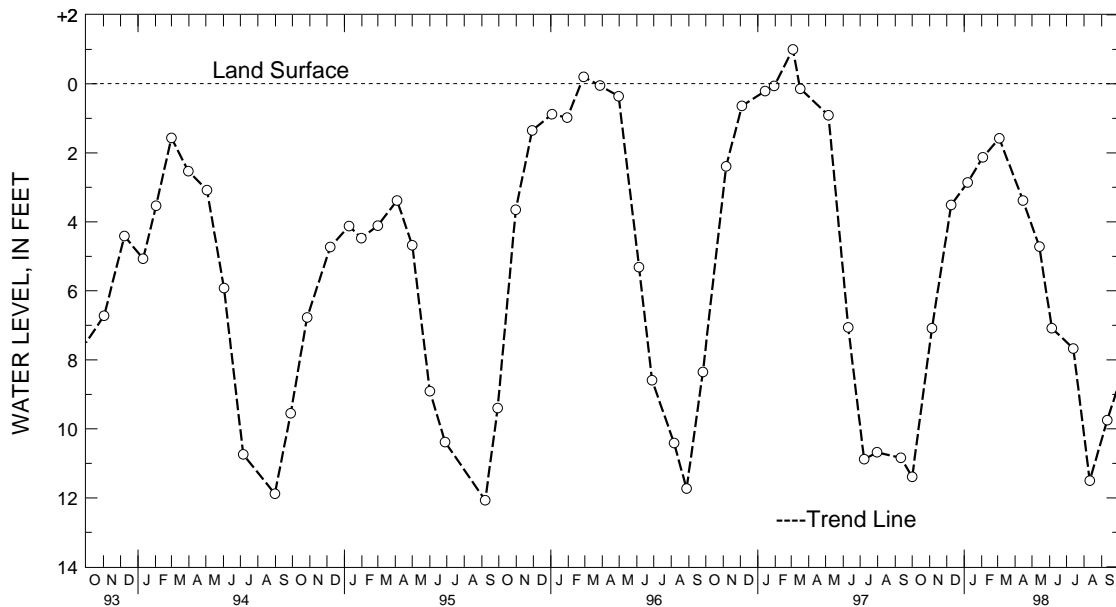
DELAWARE--Continued

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, 1.00 ft above land surface, March 4, 1997; lowest measured, 13.81 ft below land surface, July 30, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	11.39	JAN 07, 1998	2.86	APR 15, 1998	3.38	JUL 13, 1998	7.67
NOV 05	7.08	FEB 03	2.13	MAY 14	4.72	AUG 11	11.50
DEC 09	3.51	MAR 04	1.58	JUN 05	7.08	SEP 11	9.75
WATER YEAR 1998		HIGHEST	1.58	MAR 04, 1998	LOWEST	11.50	AUG 11, 1998



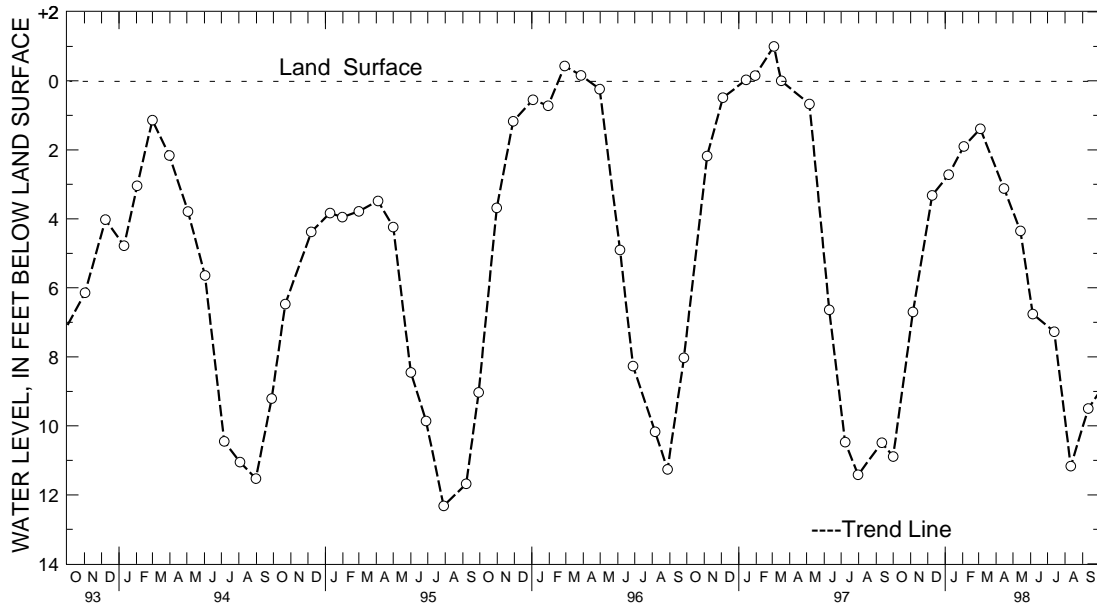
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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, April 4, 1984, and March 4, 1997; lowest measured, 12.86 ft below land surface, July 30, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	10.89	JAN 07, 1998	2.72	APR 15, 1998	3.12	JUL 13, 1998	7.27
NOV 05	6.70	FEB 03	1.90	MAY 14	4.35	AUG 11	11.17
DEC 09	3.32	MAR 04	1.39	JUN 05	6.76	SEP 11	9.50
WATER YEAR 1998		HIGHEST	1.39	MAR 04, 1998	LOWEST	11.17	AUG 11, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

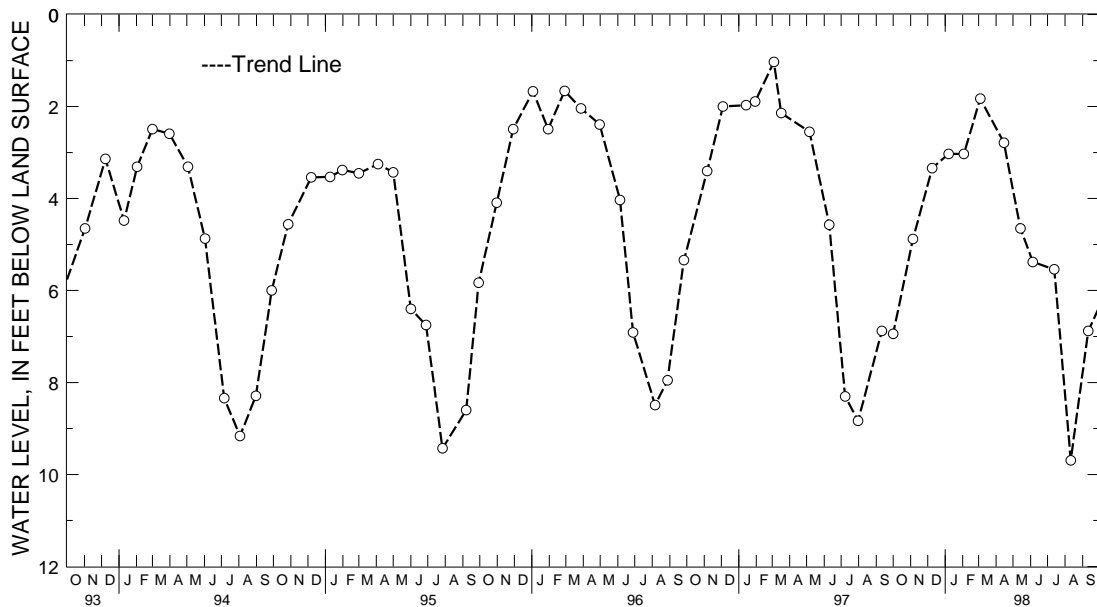
DELAWARE--Continued

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, 0.33 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	6.94	JAN 07, 1998	3.03	APR 15, 1998	2.79	JUL 13, 1998	5.54
NOV 05	4.88	FEB 03	3.03	MAY 14	4.65	AUG 11	9.69
DEC 09	3.34	MAR 04	1.83	JUN 05	5.38	SEP 11	6.88
WATER YEAR 1998		HIGHEST	1.83	MAR 04, 1998	LOWEST	9.69	AUG 11, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

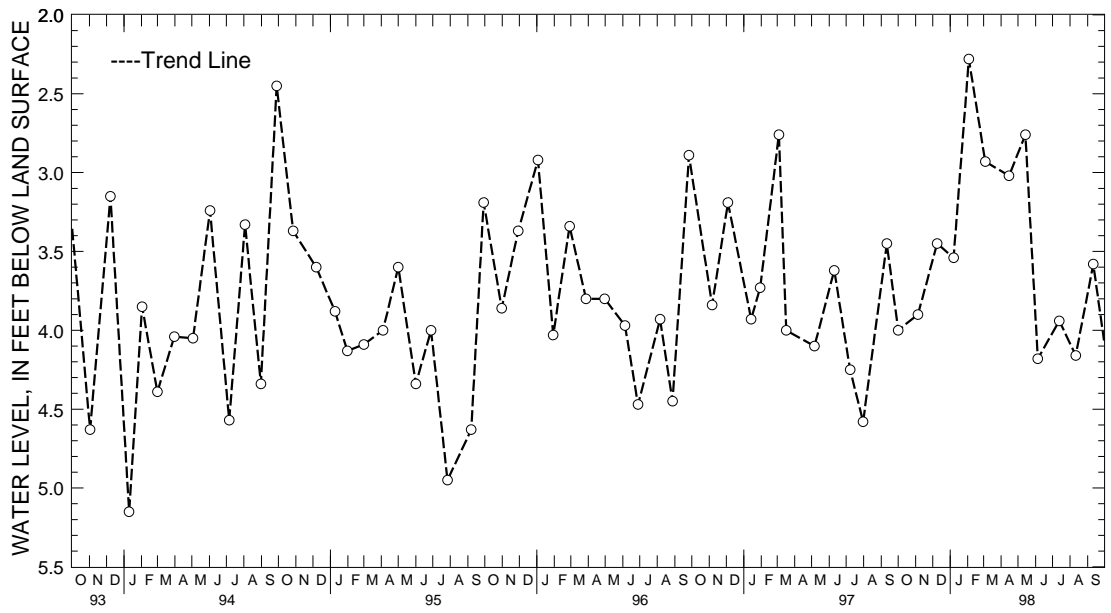
DELAWARE--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	4.00	JAN 07, 1998	3.54	APR 15, 1998	3.02	JUL 13, 1998	3.94
NOV 05	3.90	FEB 03	2.28	MAY 14	2.76	AUG 11	4.16
DEC 09	3.45	MAR 04	2.93	JUN 05	4.18	SEP 11	3.58
WATER YEAR 1998		HIGHEST	2.28 FEB 03, 1998	LOWEST	4.18 JUN 05, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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.

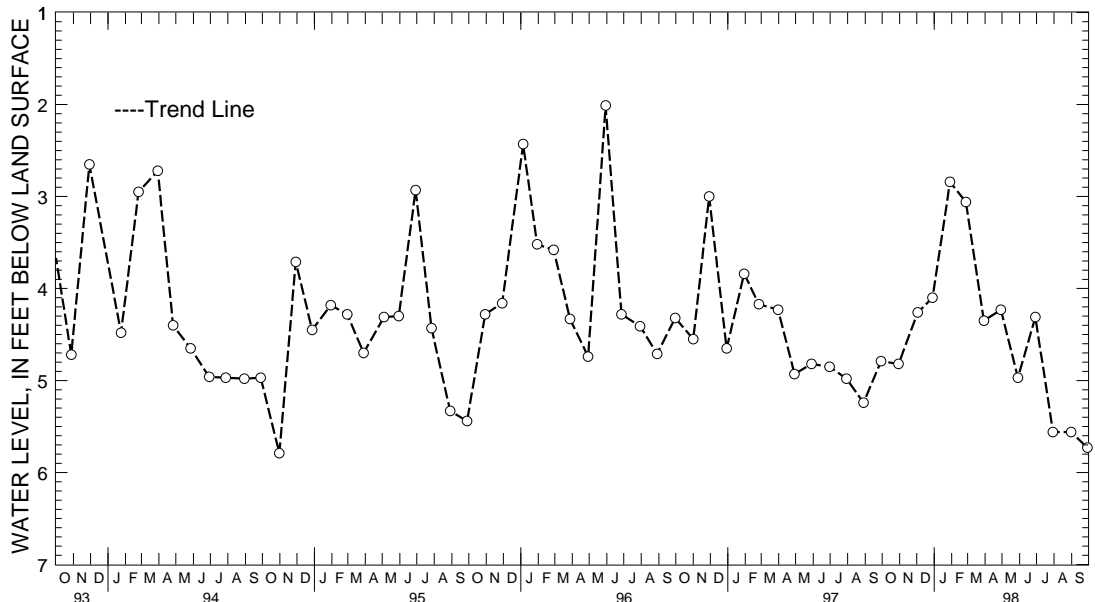
REMARKS.--Maryland Water-Level Network observation well. Water level was more than 40 ft below land surface on Nov. 19, 1969, and Feb. 12, 1970, when well was being pumped. Water levels may be affected by nearby pumping.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	4.82	JAN 29, 1998	2.84	APR 29, 1998	4.23	JUL 30, 1998	5.56
DEC 03	4.26	FEB 26	3.06	MAY 29	4.97	AUG 31	5.56
29	4.10	MAR 30	4.35	JUN 29	4.31	SEP 29	5.73
WATER YEAR 1998		HIGHEST	2.84	JAN 29, 1998	LOWEST	5.73	SEP 29, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

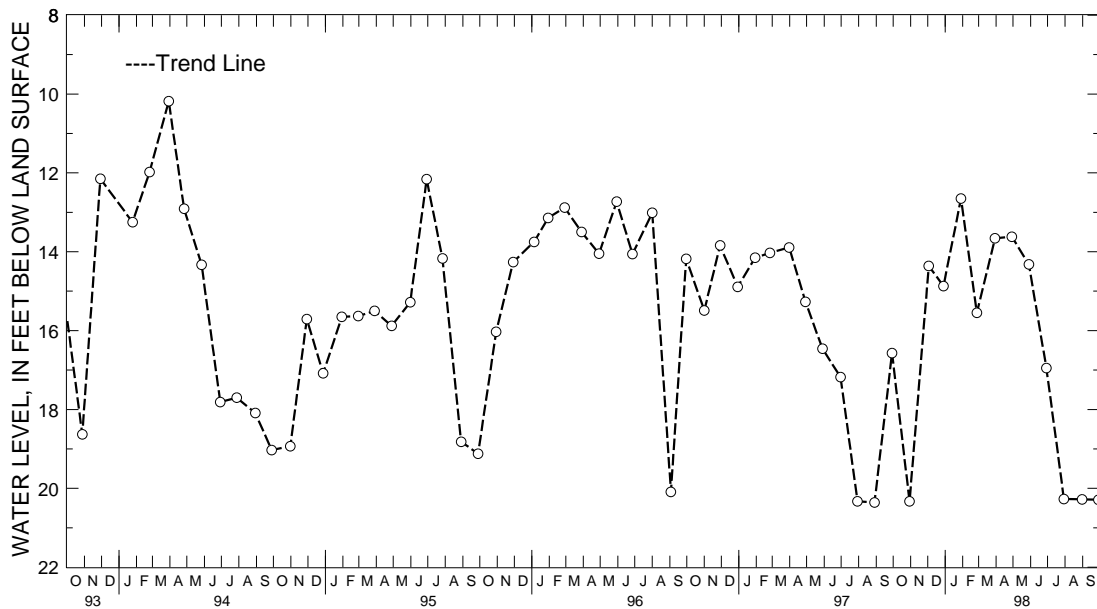
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	20.33	JAN 29, 1998	12.65	APR 29, 1998	13.62	JUL 30, 1998	20.27
DEC 03	14.36	FEB 26	15.55	MAY 29	14.32	AUG 31	20.28
29	14.87	MAR 30	13.66	JUN 29	16.95	SEP 29	20.29
WATER YEAR 1998		HIGHEST	12.65	JAN 29, 1998	LOWEST	20.33	OCT 30, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

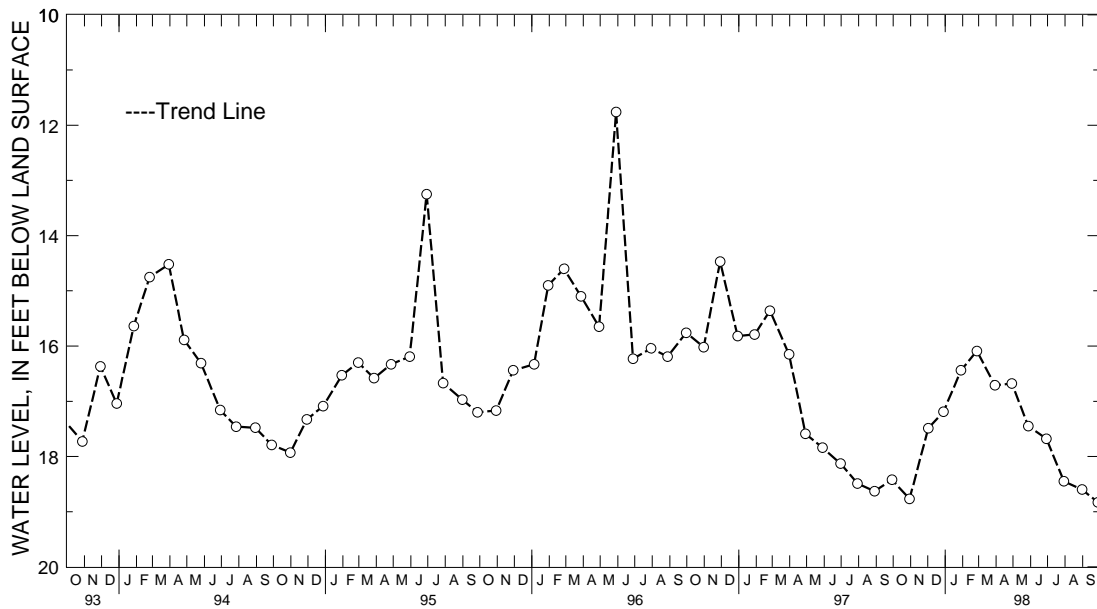
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	18.77	JAN 29, 1998	16.44	APR 29, 1998	16.68	JUL 30, 1998	18.45
DEC 02	17.49	FEB 26	16.09	MAY 28	17.45	AUG 31	18.60
29	17.19	MAR 30	16.71	JUN 29	17.68	SEP 28	18.83
WATER YEAR 1998		HIGHEST	16.09 FEB 26, 1998	LOWEST	18.83 SEP 28, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

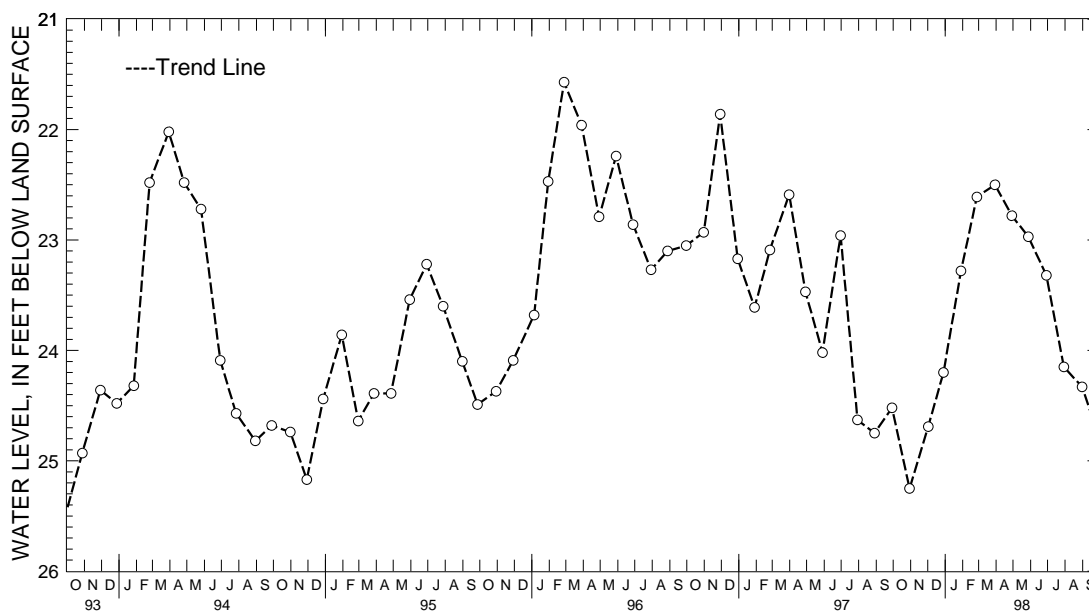
MARYLAND--Continued

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.
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	25.25	JAN 29, 1998	23.28	APR 29, 1998	22.78	JUL 30, 1998	24.15
DEC 02	24.69	FEB 26	22.61	MAY 28	22.97	AUG 31	24.33
29	24.20	MAR 30	22.50	JUN 29	23.32	SEP 28	24.75
WATER YEAR 1998		HIGHEST 22.50	MAR 30, 1998	LOWEST 25.25	OCT 30, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

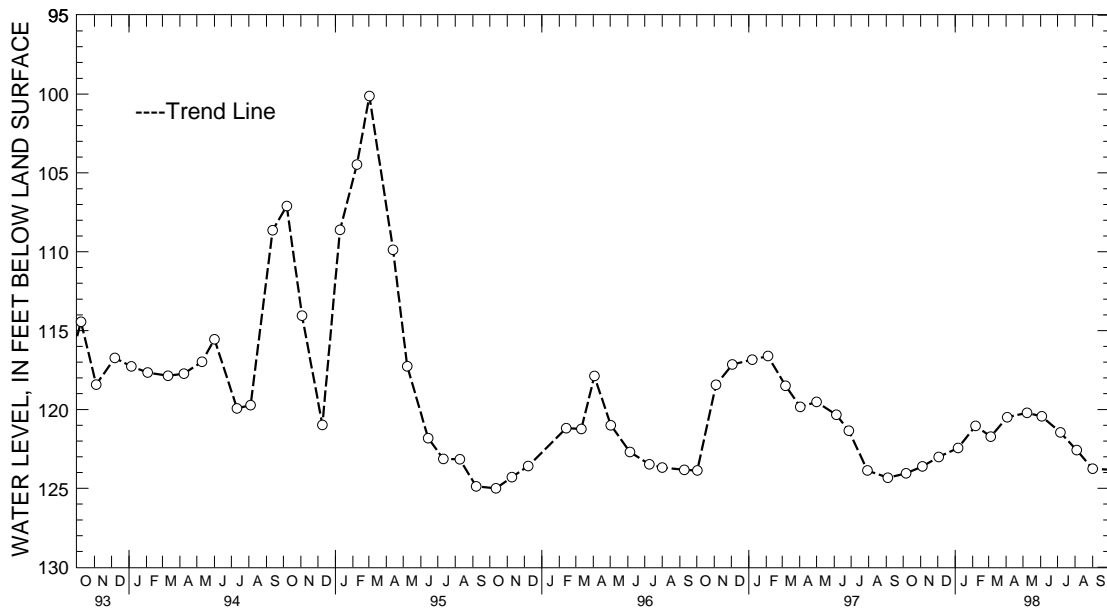
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	124.05	JAN 06, 1998	122.44	APR 03, 1998	120.49	JUL 06, 1998	121.46
NOV 04	123.61	FEB 06	121.04	MAY 08	120.21	AUG 04	122.58
DEC 03	123.01	MAR 05	121.72	JUN 03	120.43	SEP 01	123.76
WATER YEAR 1998		HIGHEST 120.21	MAY 08, 1998	LOWEST 124.05	OCT 06, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

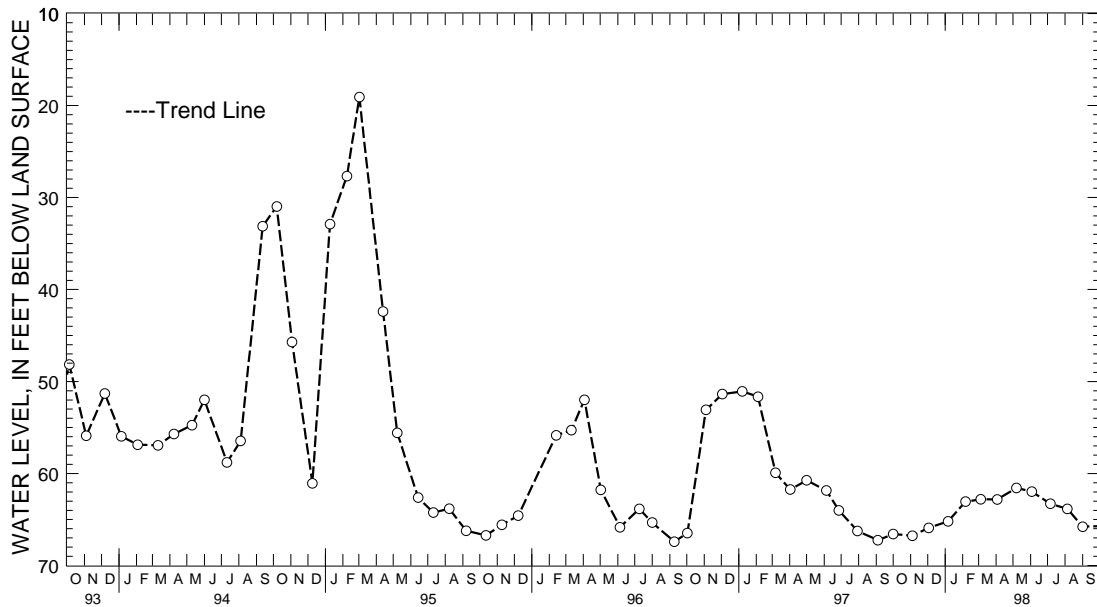
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	66.58	JAN 06, 1998	65.19	APR 03, 1998	62.82	JUL 06, 1998	63.29
NOV 04	66.76	FEB 06	63.06	MAY 07	61.57	AUG 05	63.84
DEC 03	65.91	MAR 05	62.79	JUN 03	61.96	SEP 01	65.78
WATER YEAR 1998		HIGHEST	61.57	MAY 07, 1998	LOWEST	66.76	NOV 04, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

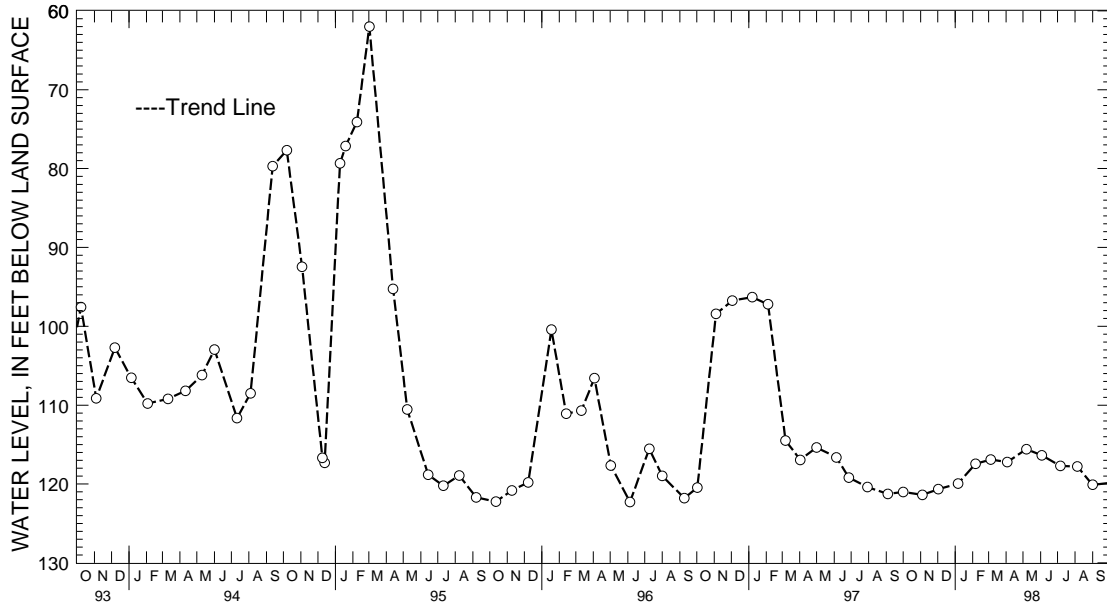
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	121.01	JAN 06, 1998	119.95	APR 03, 1998	117.21	JUL 06, 1998	117.70
NOV 04	121.37	FEB 06	117.43	MAY 07	115.58	AUG 05	117.78
DEC 02	120.66	MAR 05	116.90	JUN 03	116.36	SEP 01	120.10
WATER YEAR 1998		HIGHEST	115.58	MAY 07, 1998	LOWEST	121.37	NOV 04, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

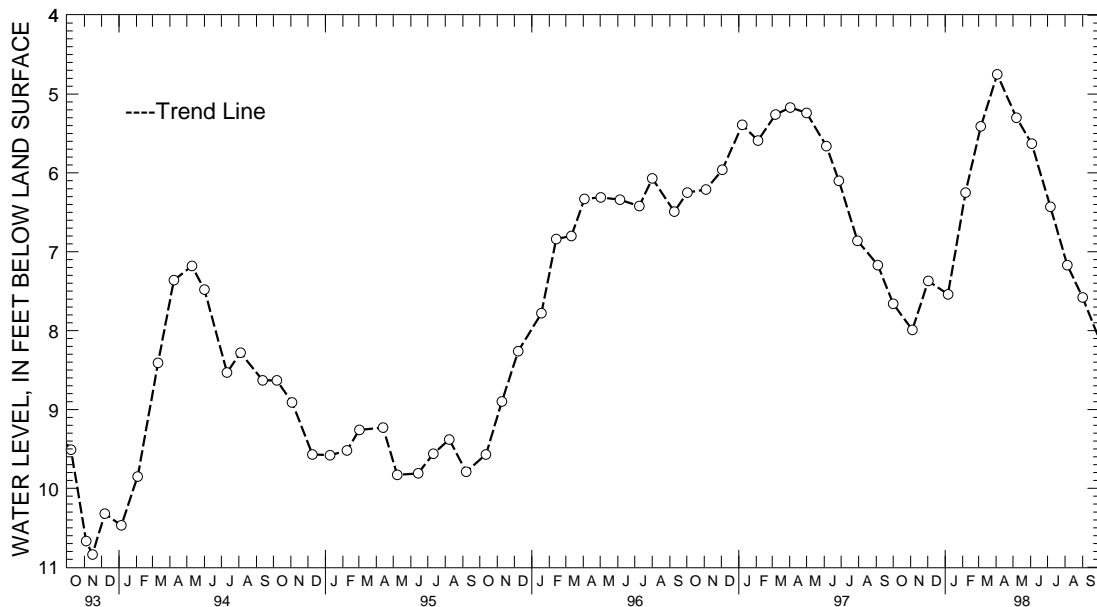
MARYLAND--Continued

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 in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 108; casing diameter 6 in., to 80 ft;
 screen diameter 6 in. from 80 to 90 ft.
 INSTRUMENTATION.--Monthly measurements with electric 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 76.72 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, 4.75 ft below land surface, April 3, 1998;
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	7.66	JAN 06, 1998	7.54	APR 03, 1998	4.75	JUL 06, 1998	6.43
NOV 04	7.99	FEB 06	6.25	MAY 07	5.30	AUG 05	7.17
DEC 02	7.37	MAR 05	5.41	JUN 03	5.63	SEP 01	7.58
WATER YEAR 1998		HIGHEST	4.75	APR 03, 1998	LOWEST	7.99	NOV 04, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

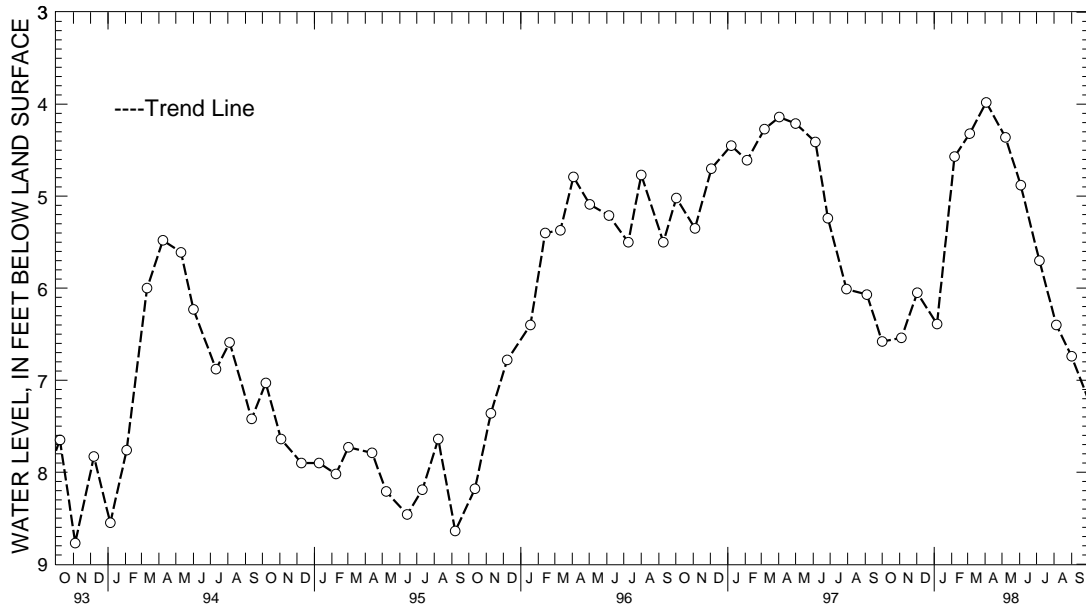
MARYLAND--Continued

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 Aviation Blvd.,
 0.5 mi north of Dorsey Rd. intersection.
 Owner: U.S. Geological Survey.
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.
 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 electric 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, 3.98 ft below land surface, April 3, 1998;
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	6.58	JAN 06, 1998	6.39	APR 03, 1998	3.98	JUL 06, 1998	5.70
NOV 04	6.54	FEB 06	4.57	MAY 07	4.36	AUG 05	6.40
DEC 02	6.05	MAR 05	4.32	JUN 03	4.88	SEP 01	6.74
WATER YEAR 1998		HIGHEST	3.98	APR 03, 1998		LOWEST	6.74
						SEP 01, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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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, nr Robert Pascal Senior Center.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 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), flowing on numerous days (see hydrograph); with added casing highest level measured, 39.99 ft
 above sea level(flowing), January 8-15, 1997; lowest measured, 20.20 ft above sea level, Oct. 15, 1987.

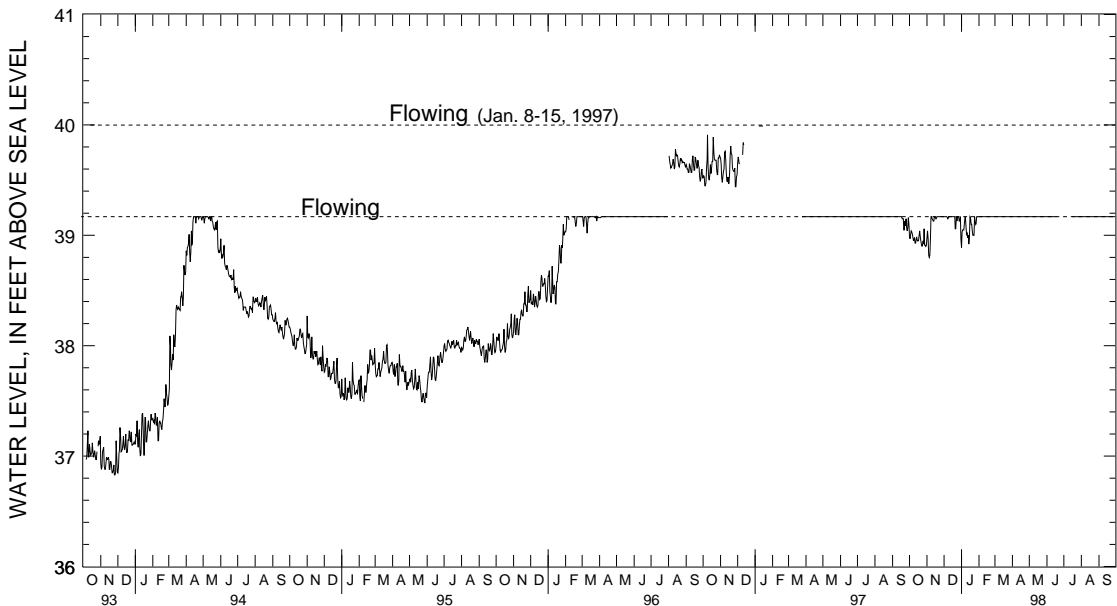
WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	39.10	38.99	39.17	38.98	39.17	39.17	39.03	38.89	39.17	39.17	39.17	39.17
2	39.01	38.97	39.17	39.04	39.17	39.17	39.05	39.03	39.17	39.17	39.17	39.17
3	39.07	39.01	39.04	38.97	39.17	39.17	39.10	39.05	39.17	39.17	39.17	39.17
4	39.06	39.04	38.97	38.82	39.17	39.17	39.10	39.05	39.17	39.17	39.17	39.17
5	39.04	39.03	38.82	38.80	39.17	39.17	39.11	39.05	39.17	39.17	39.17	39.17
6	39.04	39.01	38.96	38.82	39.17	39.17	39.16	39.11	39.17	39.17	39.17	39.17
7	39.02	38.98	39.17	38.96	39.17	39.16	39.17	39.16	39.17	39.17	39.17	39.17
8	38.98	38.95	39.17	39.17	39.16	39.15	39.17	39.17	39.17	39.17	39.17	39.17
9	38.99	38.96	39.17	39.17	39.17	39.16	39.17	39.09	39.17	39.17	39.17	39.17
10	39.00	38.98	39.17	39.15	39.17	39.17	39.09	39.01	39.17	39.17	39.17	39.17
11	38.98	38.93	39.15	39.14	39.17	39.17	39.04	39.02	39.17	39.17	39.17	39.17
12	38.97	38.93	39.16	39.13	39.17	39.17	39.03	38.98	39.17	39.17	39.17	39.17
13	39.00	38.97	39.17	39.13	39.17	39.17	39.13	39.00	39.17	39.17	39.17	39.17
14	39.02	38.98	39.17	39.17	39.17	39.17	39.01	38.92	39.17	39.17	39.17	39.17
15	38.98	38.95	39.17	39.17	39.17	39.17	39.17	38.97	39.17	39.17	39.17	39.17
16	38.96	38.95	39.17	39.16	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17
17	39.00	38.95	39.16	39.15	39.17	39.17	39.17	39.16	39.17	39.17	39.17	39.17
18	39.06	39.00	39.17	39.16	39.17	39.17	39.16	39.10	39.17	39.17	39.17	39.17
19	39.10	39.04	39.17	39.17	39.17	39.17	39.14	39.10	39.17	39.17	39.17	39.17
20	39.09	38.99	39.17	39.17	39.17	39.17	39.14	39.04	39.17	39.17	39.17	39.17
21	38.99	38.95	39.17	39.17	39.17	39.06	39.04	39.00	39.17	39.17	39.17	39.17
22	39.00	38.92	39.17	39.17	39.17	39.06	39.01	39.00	39.17	39.17	39.17	39.17
23	38.92	38.90	39.17	39.17	39.17	39.17	39.17	39.00	39.17	39.17	39.17	39.17
24	38.99	38.92	39.17	39.17	39.17	39.13	39.17	39.17	39.17	39.17	39.17	39.17
25	39.10	38.95	39.17	39.17	39.17	39.17	39.17	39.12	39.17	39.17	39.17	39.17
26	39.15	38.92	39.17	39.17	39.17	39.17	39.12	39.10	39.17	39.17	39.17	39.17
27	39.17	39.06	39.17	39.17	39.17	39.17	39.17	39.11	39.17	39.17	39.17	39.17
28	39.06	38.91	39.17	39.17	39.17	39.13	39.17	39.17	39.17	39.17	39.17	39.17
29	38.94	38.91	39.17	39.17	39.17	39.13	39.17	39.17	---	---	39.17	39.17
30	38.93	38.90	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17
31	38.98	38.91	---	---	39.17	38.96	39.17	39.17	---	---	39.17	39.17
MONTH	39.17	38.90	39.17	38.80	39.17	38.96	39.17	38.89	39.17	39.17	39.17	39.17

GROUND-WATER LEVELS
 MARYLAND--Continued
 ANNE ARUNDEL COUNTY--Continued
 AA Ad 109--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
2	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
3	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
4	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
5	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
6	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
7	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
8	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
9	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
10	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
11	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
12	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
13	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
14	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
15	39.17	39.17	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17
16	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17
17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17
18	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17
19	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
20	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
21	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
22	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
23	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
24	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
25	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
26	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
27	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
28	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
29	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
30	39.17	39.17	39.17	39.17	---	---	39.17	39.17	39.17	39.17	39.17	39.17
31	---	---	39.17	39.17	---	---	39.17	39.17	39.17	39.17	---	---
MONTH	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17	39.17
Year	39.17	38.80										

Daily Low Water Levels



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 Aviation Blvd.
 0.5 mi of Dorsey Rd. interestion.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 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 electric tape by U.S. Geological Survey personnel.
 DATUM.--Altitude of land surface is 77.42 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, 3.29 ft below land surface, April 3, 1998;
 lowest measured, 9.89 ft below land surface, December 3, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	6.17	JAN 06, 1998	5.95	APR 03, 1998	3.29	JUL 06, 1998	5.07
NOV 04	6.37	FEB 06	4.32	MAY 07	3.78	AUG 05	5.79
DEC 02	5.66	MAR 05	3.78	JUN 03	4.20	SEP 01	6.19
WATER YEAR 1998		HIGHEST	3.29	APR 03, 1998	LOWEST	6.37	NOV 04, 1997

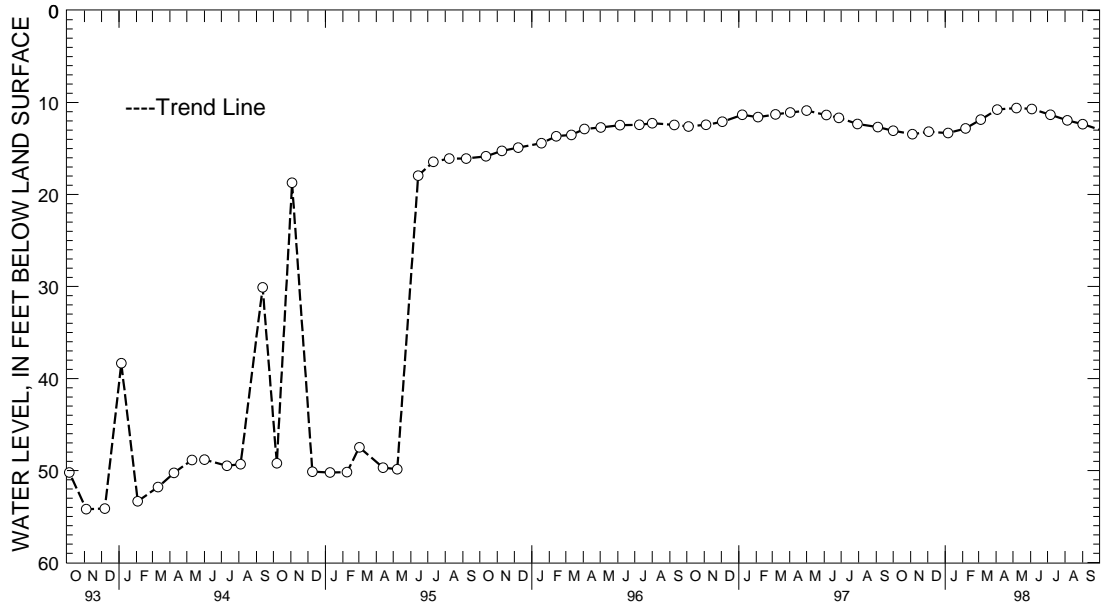


5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 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 electric 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, 10.60 ft below land surface, May 7, 1998; lowest measured, 75.20 ft below land surface, Sept. 1, 1982.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	13.06	JAN 06, 1998	13.32	APR 03, 1998	10.76	JUL 06, 1998	11.33
NOV 04	13.45	FEB 06	12.82	MAY 07	10.60	AUG 05	11.94
DEC 03	13.17	MAR 05	11.86	JUN 03	10.70	SEP 01	12.35
WATER YEAR 1998		HIGHEST	10.60	MAY 07, 1998	LOWEST	13.45	NOV 04, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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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 southeast of the intersection of Oakwood Rd. and Funke Rd., at Woodside Elementary School.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 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 electric 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. Missing data due to recorder malfunction.
 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 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.50	22.23	22.48	22.20	24.82	24.54	22.09	21.97	---	---	---	---
2	22.23	22.17	22.67	22.39	24.54	24.40	22.13	22.09	---	---	---	---
3	22.26	22.19	23.20	22.67	24.41	23.81	22.16	22.12	---	---	---	---
4	22.23	22.19	22.86	22.18	23.81	23.21	22.16	22.08	---	---	---	---
5	22.20	22.17	22.18	22.07	23.21	22.86	22.15	22.09	---	---	---	---
6	22.23	22.16	22.26	22.09	22.86	22.67	---	---	---	---	22.80	22.59
7	22.17	22.11	22.59	22.25	22.67	22.50	---	---	---	---	22.59	22.47
8	22.19	22.12	22.59	22.43	23.19	22.46	---	---	---	---	22.67	22.45
9	22.22	22.14	22.57	22.41	23.90	23.19	---	---	---	---	23.00	22.67
10	22.19	22.14	22.71	22.31	24.27	23.90	---	---	---	---	22.87	22.42
11	22.14	22.07	22.83	22.55	24.27	24.17	---	---	---	---	22.42	22.33
12	22.18	22.07	23.06	22.60	24.28	24.19	---	---	---	---	22.37	22.31
13	22.22	22.14	23.83	23.06	24.41	24.28	---	---	---	---	22.41	22.29
14	22.20	22.13	24.22	23.83	24.42	24.35	---	---	---	---	22.57	22.41
15	22.27	22.13	24.19	24.11	24.37	24.35	---	---	---	---	22.48	22.35
16	22.19	22.13	24.18	24.06	24.49	24.37	---	---	---	---	22.38	22.34
17	22.16	22.12	24.07	23.46	24.54	23.81	---	---	---	---	22.38	22.33
18	22.28	22.16	23.46	22.87	23.81	22.97	---	---	---	---	22.61	22.38
19	22.29	22.23	23.32	22.73	22.97	22.80	---	---	---	---	22.83	22.61
20	22.27	22.15	23.92	23.32	22.84	22.73	---	---	---	---	22.89	22.77
21	22.18	22.13	24.32	23.92	22.73	22.55	---	---	---	---	23.06	22.89
22	22.19	22.12	24.45	24.32	22.66	22.56	---	---	---	---	22.97	22.85
23	22.14	22.09	24.40	24.34	22.69	22.53	---	---	---	---	23.21	22.94
24	22.19	22.10	24.41	24.25	22.53	22.44	---	---	---	---	23.47	23.21
25	22.31	22.19	24.44	24.25	22.65	22.51	---	---	---	---	23.40	23.26
26	22.39	22.14	24.65	24.44	22.54	22.45	---	---	---	---	23.59	23.27
27	22.48	22.35	24.64	24.39	22.53	22.45	---	---	---	---	23.69	23.39
28	22.35	22.20	24.53	24.39	22.53	22.29	---	---	---	---	23.55	23.37
29	22.33	22.14	24.53	24.48	22.67	22.29	---	---	---	---	23.53	23.35
30	22.15	22.07	24.81	24.52	22.75	22.45	---	---	---	---	23.53	23.32
31	22.20	22.07	---	---	22.45	22.06	---	---	---	---	23.37	23.24
MONTH	22.50	22.07	24.81	22.07	24.82	22.06	22.16	21.97	---	---	23.69	22.29

GROUND-WATER LEVELS

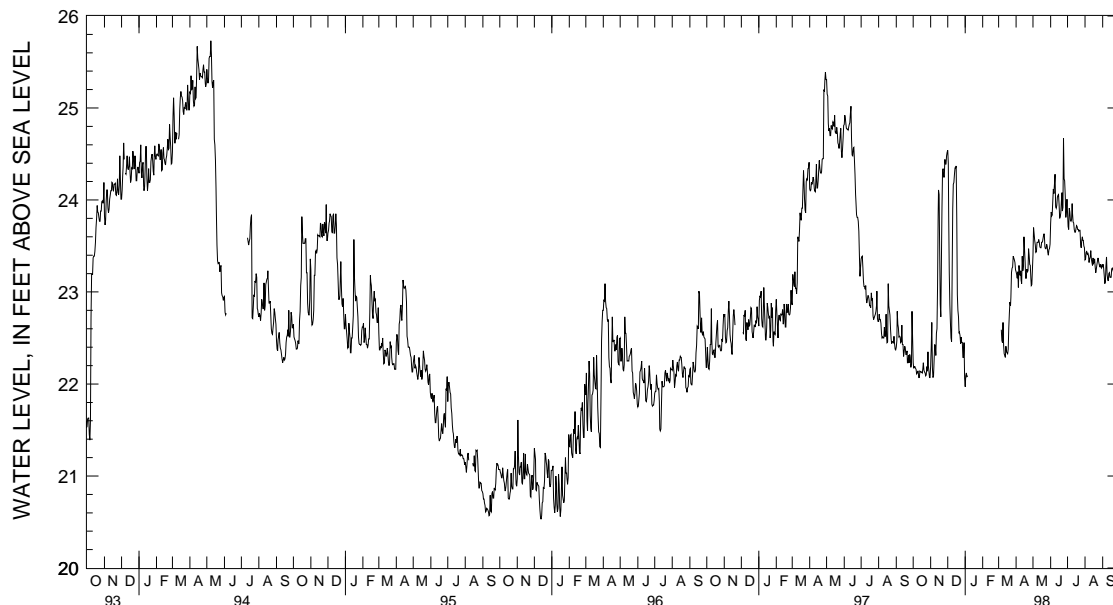
MARYLAND--Continued

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	23.41	23.22	23.71	23.40	24.02	23.75	24.08	23.86	23.48	23.35	23.30	23.27
2	23.47	23.19	23.83	23.70	23.92	23.87	23.86	23.71	23.43	23.36	23.38	23.30
3	23.35	23.15	23.79	23.63	23.98	23.83	23.91	23.68	23.49	23.43	23.33	23.26
4	23.44	23.22	23.63	23.56	24.01	23.84	24.02	23.91	23.48	23.44	23.28	23.18
5	23.55	23.05	23.56	23.51	24.24	23.98	23.95	23.87	23.46	23.41	23.18	23.09
6	23.70	23.29	23.52	23.43	24.23	24.12	23.89	23.78	23.53	23.42	23.28	23.11
7	23.39	23.22	23.54	23.44	24.37	24.07	23.87	23.77	23.50	23.40	23.50	23.28
8	23.30	23.18	23.72	23.54	24.43	24.18	24.12	23.79	23.40	23.32	23.53	23.38
9	23.44	23.23	23.67	23.54	24.41	24.28	24.13	23.96	23.43	23.36	23.38	23.19
10	23.35	23.13	23.58	23.54	24.31	23.93	23.99	23.85	23.53	23.38	23.19	23.14
11	23.39	23.09	23.60	23.57	23.97	23.91	23.85	23.76	23.53	23.45	23.20	23.12
12	23.66	23.39	23.60	23.54	24.08	23.94	23.82	23.75	23.46	23.36	23.34	23.20
13	23.46	23.23	23.54	23.49	24.18	24.03	23.79	23.68	23.37	23.32	23.40	23.21
14	23.84	23.28	23.51	23.48	24.25	24.05	23.69	23.65	23.38	23.29	23.21	23.16
15	23.88	23.60	23.55	23.48	24.17	24.06	23.72	23.65	23.41	23.37	23.21	23.16
16	23.68	23.46	23.59	23.54	24.13	23.95	23.72	23.69	23.39	23.31	23.28	23.16
17	23.60	23.33	23.62	23.54	23.95	23.80	23.83	23.72	23.40	23.32	23.55	23.25
18	23.33	23.15	23.63	23.55	23.90	23.82	23.76	23.71	23.43	23.36	23.53	23.26
19	23.41	23.15	23.65	23.59	24.02	23.86	23.79	23.68	23.38	23.27	23.35	23.24
20	23.50	23.25	23.67	23.63	24.25	23.99	23.91	23.68	23.30	23.21	23.30	23.22
21	23.34	23.22	23.69	23.63	24.25	24.08	23.75	23.66	23.31	23.25	23.29	23.25
22	23.47	23.23	23.63	23.49	24.15	23.88	23.76	23.67	23.37	23.30	23.58	23.26
23	23.75	23.47	23.52	23.47	25.05	23.92	23.86	23.67	23.40	23.34	23.41	23.18
24	23.66	23.40	23.53	23.47	25.23	24.67	23.67	23.52	23.40	23.37	23.19	23.16
25	23.47	23.30	23.59	23.52	24.67	24.23	23.56	23.48	23.42	23.33	23.22	23.17
26	23.44	23.29	23.60	23.50	24.32	24.21	23.73	23.56	23.34	23.30	23.24	23.18
27	23.37	23.15	23.50	23.43	24.21	24.05	23.66	23.60	23.31	23.27	23.33	23.24
28	23.15	23.07	23.46	23.40	24.05	23.81	23.60	23.56	23.32	23.30	23.30	23.20
29	23.24	23.08	23.53	23.46	24.02	23.88	23.70	23.56	23.31	23.27	23.20	23.15
30	23.40	23.24	23.53	23.47	24.15	24.01	23.56	23.50	23.31	23.26	23.24	23.18
31	---	---	23.75	23.52	---	---	23.60	23.48	23.40	23.30	---	---
MONTH	23.88	23.05	23.83	23.40	25.23	23.75	24.13	23.48	23.53	23.21	23.58	23.09
YEAR	25.23	21.97										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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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, off Stewart Avenue nr bike trail.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 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 electric 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, 49.73 ft above sea level, April 9, 1998;
 lowest measured, 34.54 ft above sea level, Oct. 10, 1986.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	47.75	47.62	47.87	47.60	47.98	47.69	47.56	47.34	47.82	47.77	48.69	48.65
2	47.71	47.61	47.77	47.59	47.69	47.65	47.56	47.52	47.87	47.81	48.77	48.67
3	47.76	47.69	47.59	47.54	47.83	47.65	47.57	47.52	47.93	47.86	48.79	48.70
4	47.71	47.67	47.56	47.38	47.89	47.83	47.55	47.50	48.21	47.93	48.71	48.68
5	47.71	47.67	47.43	47.37	47.84	47.74	47.55	47.50	48.24	48.13	48.68	48.65
6	47.67	47.64	47.57	47.43	47.76	47.72	47.59	47.55	---	---	48.71	48.63
7	47.65	47.60	47.84	47.57	47.73	47.63	47.66	47.58	---	---	48.76	48.71
8	47.62	47.58	47.86	47.83	47.65	47.60	47.74	47.65	48.14	48.00	48.96	48.75
9	47.66	47.59	47.90	47.82	47.70	47.65	47.67	47.45	48.11	48.06	49.18	48.96
10	47.64	47.59	47.82	47.55	47.85	47.69	47.48	47.41	48.13	48.08	49.03	48.75
11	47.60	47.55	47.75	47.72	47.79	47.61	47.51	47.46	48.39	48.11	48.85	48.75
12	47.63	47.56	47.76	47.69	47.69	47.62	47.46	47.40	48.42	48.16	48.89	48.81
13	47.66	47.59	47.86	47.69	47.75	47.66	47.58	47.42	48.18	48.12	48.98	48.83
14	47.68	47.61	47.96	47.85	47.70	47.60	47.44	47.35	48.17	48.10	49.11	48.92
15	47.63	47.59	47.85	47.75	47.65	47.59	47.77	47.44	48.14	48.06	48.93	48.87
16	47.61	47.58	47.79	47.66	47.72	47.63	47.77	47.61	48.25	48.12	48.92	48.85
17	47.62	47.57	47.71	47.66	47.74	47.64	47.61	47.56	48.58	48.25	48.97	48.89
18	47.69	47.62	47.77	47.68	47.64	47.59	47.59	47.52	48.58	48.43	49.13	48.97
19	47.74	47.67	47.82	47.76	47.64	47.60	47.59	47.54	48.43	48.24	49.26	49.13
20	47.69	47.58	47.80	47.73	47.68	47.56	47.57	47.46	48.47	48.35	49.30	49.20
21	47.64	47.56	47.88	47.73	47.56	47.50	47.48	47.43	48.43	48.31	49.40	49.30
22	47.63	47.53	47.92	47.80	47.73	47.51	47.47	47.44	48.39	48.29	49.35	49.20
23	47.58	47.52	47.82	47.78	47.75	47.61	47.81	47.46	48.75	48.39	49.24	49.19
24	47.64	47.55	47.81	47.67	47.70	47.54	47.81	47.75	48.77	48.62	49.20	49.14
25	47.71	47.55	47.85	47.67	47.80	47.67	47.75	47.57	48.62	48.50	49.22	49.10
26	47.80	47.54	47.97	47.85	47.67	47.60	47.61	47.56	48.59	48.50	49.41	49.22
27	47.86	47.64	47.90	47.68	47.77	47.62	47.79	47.58	48.69	48.57	49.42	49.35
28	47.64	47.53	47.85	47.68	47.72	47.56	47.98	47.79	48.70	48.63	49.49	49.39
29	47.60	47.53	47.81	47.74	47.92	47.56	47.95	47.89	---	---	49.43	49.38
30	47.56	47.51	47.99	47.80	47.92	47.59	47.94	47.84	---	---	49.46	49.38
31	47.61	47.52	---	---	47.59	47.36	47.84	47.79	---	---	49.47	49.39
MONTH	47.86	47.51	47.99	47.37	47.98	47.36	47.98	47.34	48.75	47.77	49.49	48.63

GROUND-WATER LEVELS

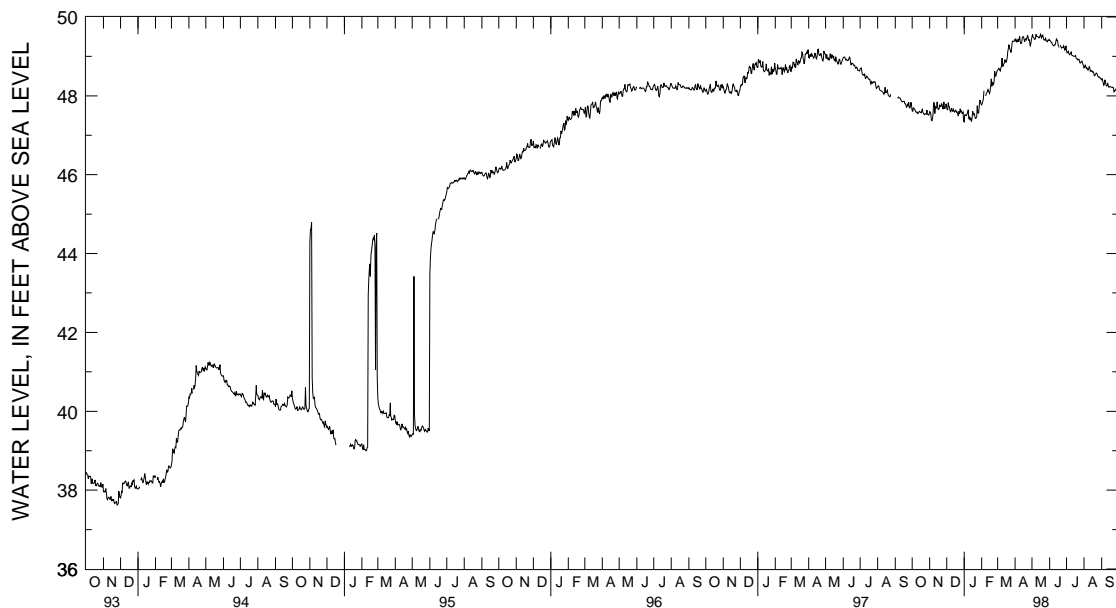
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Bd 155--Continued

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER						
1	49.51	49.44	49.65	49.50	49.54	49.40	49.29	49.14	48.77	48.71	48.45	48.41
2	49.48	49.40	49.64	49.56	49.52	49.40	49.14	49.09	48.80	48.73	48.50	48.43
3	49.51	49.37	49.56	49.49	49.51	49.38	49.13	49.10	48.80	48.78	48.43	48.38
4	49.55	49.42	49.51	49.48	49.41	49.35	49.19	49.13	48.79	48.75	48.43	48.33
5	49.47	49.38	49.50	49.44	49.41	49.35	49.17	49.08	48.76	48.70	48.33	48.26
6	49.47	49.42	49.47	49.43	49.37	49.31	49.08	49.04	48.75	48.71	48.44	48.31
7	49.46	49.37	49.56	49.45	49.32	49.29	49.09	49.05	48.72	48.68	48.49	48.41
8	49.54	49.45	49.69	49.56	49.31	49.27	49.20	49.08	48.70	48.65	48.49	48.35
9	49.73	49.51	49.61	49.51	49.31	49.27	49.15	49.11	48.75	48.68	48.35	48.27
10	49.60	49.39	49.55	49.51	49.35	49.30	49.14	49.05	48.81	48.74	48.30	48.25
11	49.39	49.33	49.55	49.50	49.37	49.30	49.06	49.02	48.80	48.71	48.34	48.27
12	49.40	49.33	49.53	49.49	49.46	49.37	49.04	49.02	48.71	48.62	48.35	48.31
13	49.49	49.37	49.53	49.47	49.52	49.44	49.03	49.01	48.66	48.62	48.31	48.24
14	49.60	49.49	49.55	49.48	49.50	49.41	49.01	49.00	48.68	48.64	48.26	48.22
15	49.58	49.50	49.58	49.53	49.44	49.41	49.01	49.00	48.67	48.63	48.27	48.23
16	49.54	49.50	49.59	49.56	49.41	49.29	49.05	49.01	48.63	48.60	48.27	48.23
17	49.56	49.43	49.57	49.51	49.29	-.02	49.06	49.02	48.69	48.61	48.26	48.23
18	49.43	49.37	49.54	49.47	49.28	49.23	49.02	48.96	48.67	48.60	48.25	48.22
19	49.63	49.43	49.58	49.53	---	---	48.97	48.94	48.60	48.52	48.26	48.22
20	49.63	49.45	49.58	49.54	49.34	49.29	49.00	48.94	48.56	48.51	48.25	48.21
21	49.48	49.42	49.58	49.47	49.29	49.24	48.96	48.91	48.59	48.54	48.26	48.22
22	49.54	49.47	49.49	49.42	49.25	49.21	48.96	48.92	48.60	48.57	48.28	48.21
23	49.60	49.54	49.50	49.42	49.29	49.23	48.97	48.93	48.61	48.58	48.21	48.10
24	49.57	49.49	49.48	49.41	49.28	49.23	48.93	48.86	48.59	48.56	48.17	48.11
25	49.49	49.41	49.53	49.46	49.27	49.22	48.87	48.83	48.57	48.51	48.18	48.15
26	49.55	49.42	49.49	49.40	49.32	49.27	48.88	48.85	48.52	48.49	48.19	48.15
27	49.42	49.31	49.42	49.38	49.32	49.22	48.90	48.86	48.49	48.47	48.26	48.19
28	49.35	49.27	49.43	49.37	49.22	49.16	48.90	48.88	48.51	48.48	48.23	48.10
29	49.44	49.32	49.48	49.41	49.27	49.17	48.89	48.85	48.50	48.46	48.13	48.07
30	49.50	49.42	49.44	49.40	49.34	49.27	48.86	48.80	48.46	48.43	48.17	48.13
31	---	---	49.55	49.43	---	---	48.84	48.77	48.45	48.43	---	---
MONTH	49.73	49.27	49.69	49.37	49.54	49.16	49.29	48.77	48.81	48.43	48.50	48.07
Year	49.73	47.34										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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, next to the Baltimore and Annapolis bike trail.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 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 electric 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 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	22.40	22.16	22.35	22.15	26.66	26.27	21.95	21.79	21.65	21.60	22.09	22.07
2	22.22	22.12	23.95	22.19	26.28	26.21	21.98	21.95	21.74	21.61	22.57	22.08
3	22.31	22.21	24.70	22.78	26.26	23.91	22.00	21.96	21.83	21.68	22.39	22.09
4	22.27	22.22	22.78	21.88	23.91	23.21	22.00	21.93	22.15	21.78	22.09	22.00
5	22.24	22.20	21.99	21.78	23.21	22.92	21.98	21.93	22.38	21.97	22.00	21.94
6	22.31	22.20	22.37	21.99	22.92	22.77	22.05	21.98	22.11	21.77	22.00	21.91
7	22.22	22.15	22.21	22.09	22.77	22.77	22.12	22.01	22.23	21.77	22.05	22.00
8	22.43	22.15	22.22	22.17	24.91	22.45	22.32	22.12	21.89	21.72	22.29	22.05
9	22.23	22.19	22.23	22.06	25.78	24.91	22.19	21.88	21.90	21.71	22.63	22.29
10	22.21	22.15	23.66	21.94	26.19	25.78	21.88	21.79	21.91	21.54	22.48	21.92
11	22.15	22.06	23.86	22.34	26.19	26.12	21.82	21.80	22.12	21.65	21.92	21.32
12	22.22	22.09	24.47	22.34	26.18	26.12	21.80	21.74	22.56	21.45	21.92	21.72
13	22.24	22.14	25.44	24.47	26.37	26.18	21.92	21.76	21.86	21.72	22.11	21.89
14	22.20	22.13	25.82	25.44	26.38	26.31	21.76	21.65	21.76	21.58	22.38	22.11
15	22.33	22.13	25.74	25.64	26.31	26.30	22.13	21.69	21.62	21.55	22.15	22.00
16	22.15	22.09	25.75	25.62	26.42	26.30	22.15	21.97	21.80	21.59	22.00	21.95
17	22.11	22.07	25.65	23.71	26.49	23.94	21.97	21.85	22.30	21.80	22.11	21.99
18	22.14	22.10	23.71	22.73	23.94	23.03	21.85	21.77	22.51	22.17	22.34	21.97
19	22.22	22.12	24.88	22.56	23.03	22.87	21.80	21.77	22.17	21.82	22.52	22.34
20	22.19	22.06	25.60	24.88	22.87	22.64	21.80	21.67	22.05	21.83	22.59	22.47
21	22.10	22.02	26.00	25.60	22.64	22.45	21.67	21.63	22.01	21.84	22.66	22.59
22	22.10	21.99	26.08	25.98	22.59	22.45	21.65	21.63	21.84	21.77	23.10	22.51
23	22.02	21.95	26.05	25.98	22.64	22.49	21.96	21.63	22.54	21.83	23.48	23.10
24	22.07	21.97	26.06	25.88	22.49	22.41	21.96	21.91	22.62	22.19	23.64	23.48
25	22.21	22.00	26.16	25.90	22.62	22.47	21.91	21.60	22.20	21.89	23.48	23.24
26	22.23	21.96	26.42	26.16	22.49	22.40	21.62	21.56	21.99	21.88	23.84	23.40
27	22.38	22.09	26.37	26.07	22.48	22.40	21.82	21.56	22.12	21.95	23.78	23.27
28	22.09	21.31	26.29	26.07	22.46	22.19	22.03	21.82	22.11	22.06	23.75	23.33
29	21.93	21.87	26.28	26.21	22.70	22.19	21.90	21.82	---	---	23.66	23.22
30	21.90	21.84	26.66	26.28	22.72	22.27	21.91	21.75	---	---	23.55	23.11
31	22.27	21.85	---	---	22.27	21.85	21.96	21.63	---	---	23.51	23.12
MONTH	22.43	21.31	26.66	21.78	26.66	21.85	22.32	21.56	22.62	21.45	23.84	21.32

GROUND-WATER LEVELS

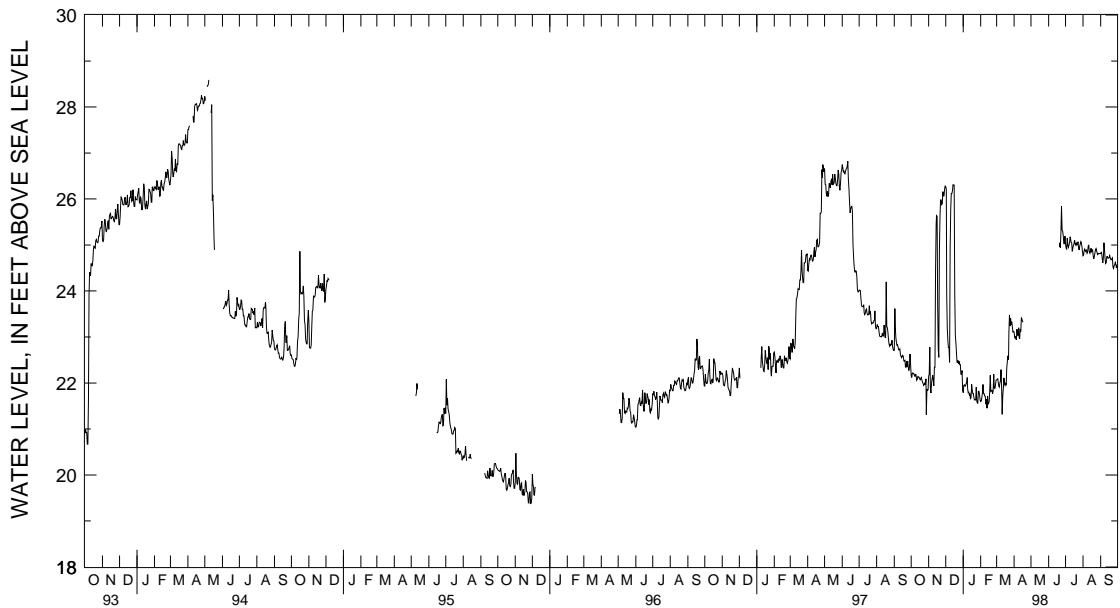
MARYLAND--Continued

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	23.41	23.11	---	---	---	---	25.26	25.02	24.86	24.77	24.86	24.81
2	23.41	22.99	---	---	---	---	25.02	24.93	24.88	24.79	25.00	24.84
3	23.25	22.97	---	---	---	---	25.39	24.91	24.92	24.88	24.88	24.83
4	23.47	23.02	---	---	---	---	25.35	25.15	24.94	24.91	24.83	24.71
5	23.88	22.94	---	---	---	---	25.15	24.99	24.92	24.86	24.73	24.61
6	23.97	23.17	---	---	---	---	25.00	24.95	25.37	24.88	25.24	24.72
7	23.48	23.04	---	---	---	---	25.06	25.00	25.02	24.89	25.31	25.05
8	23.44	23.04	---	---	---	---	25.62	25.06	24.89	24.82	25.37	24.90
9	23.43	23.20	---	---	---	---	25.28	25.18	24.99	24.85	24.90	24.69
10	23.47	23.00	---	---	---	---	25.21	25.14	25.10	24.98	24.70	24.60
11	23.84	22.96	---	---	---	---	25.15	25.06	25.10	24.99	24.79	24.62
12	23.84	23.17	---	---	---	---	25.11	25.05	24.99	24.85	25.55	24.75
13	23.52	23.12	---	---	---	---	25.05	24.86	24.87	24.82	25.50	24.75
14	24.10	23.42	---	---	---	---	24.99	24.93	24.93	24.87	24.85	24.71
15	24.08	23.39	---	---	---	---	25.02	24.99	24.98	24.93	24.79	24.71
16	23.59	23.34	---	---	---	---	25.11	25.02	24.93	24.85	24.87	24.73
17	23.60	23.32	---	---	---	---	25.17	25.11	24.93	24.86	25.99	24.77
18	---	---	---	---	---	---	25.17	25.03	25.08	24.90	25.14	24.72
19	---	---	---	---	---	---	25.07	25.00	24.94	24.76	24.73	24.68
20	---	---	---	---	26.10	24.96	25.15	25.04	24.76	24.70	24.73	24.68
21	---	---	---	---	25.48	25.05	25.05	25.00	24.84	24.75	24.75	24.70
22	---	---	---	---	25.28	24.94	25.07	25.03	24.90	24.83	24.91	24.72
23	---	---	---	---	28.11	25.28	25.14	25.07	24.98	24.89	24.74	24.52
24	---	---	---	---	28.28	25.84	25.09	24.93	24.95	24.92	24.55	24.49
25	---	---	---	---	25.84	25.33	24.98	24.89	24.94	24.87	24.58	24.55
26	---	---	---	---	25.41	25.30	25.12	24.98	24.90	24.82	24.62	24.57
27	---	---	---	---	25.42	25.21	25.09	25.03	24.84	24.79	24.77	24.62
28	---	---	---	---	25.21	25.03	25.10	25.07	24.86	24.81	24.75	24.58
29	---	---	---	---	25.19	25.03	25.08	25.04	24.85	24.82	24.58	24.50
30	---	---	---	---	25.34	25.19	25.04	24.98	24.86	24.81	24.66	24.57
31	---	---	---	---	---	---	25.02	24.86	25.28	24.81	---	---
MONTH	24.10	22.94	---	---	28.28	24.94	25.62	24.86	25.37	24.70	25.99	24.49
YEAR	28.28	21.31										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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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., at Rippling Woods Elementary School.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 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 electric 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.
 PERIOD OF RECORD.--March 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.10 ft above sea level, April 29, 1997;
 lowest measured, 32.95 ft above sea level, Oct. 2, 1992.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	35.80	35.58	35.77	35.50	36.20	35.99	35.47	35.40	35.58	35.56	36.08	36.06
2	35.58	35.52	35.72	35.60	35.99	35.95	35.48	35.47	35.60	35.56	36.35	36.08
3	35.55	35.53	35.64	35.60	36.01	35.94	35.50	35.47	35.65	35.59	36.30	36.14
4	35.53	35.51	35.62	35.42	36.04	35.96	35.50	35.45	35.95	35.65	36.14	36.07
5	35.51	35.47	35.42	35.38	35.96	35.82	35.48	35.45	36.08	35.91	36.38	36.05
6	35.52	35.45	35.50	35.38	35.82	35.75	35.52	35.48	35.97	35.80	36.46	36.20
7	35.45	35.39	35.79	35.50	35.77	35.64	35.59	35.52	35.89	35.80	36.22	36.13
8	35.39	35.36	35.79	35.73	35.65	35.63	35.73	35.59	35.82	35.74	36.30	36.13
9	35.53	35.36	35.82	35.73	35.76	35.64	35.88	35.54	35.78	35.72	36.50	36.30
10	35.44	35.32	35.73	35.63	35.93	35.76	35.54	35.44	35.77	35.72	36.38	36.10
11	35.32	35.28	35.65	35.63	35.92	35.81	35.46	35.42	35.99	35.73	36.11	36.06
12	35.41	35.29	35.66	35.61	35.87	35.81	35.42	35.38	36.10	35.86	36.26	36.06
13	35.47	35.37	35.85	35.61	35.94	35.85	35.49	35.38	35.86	35.78	36.24	36.08
14	35.42	35.39	36.02	35.85	35.92	35.85	35.38	35.32	35.78	35.68	36.32	36.18
15	35.61	35.39	35.96	35.89	35.88	35.85	35.69	35.35	35.68	35.66	36.25	36.14
16	35.45	35.41	35.91	35.82	35.95	35.88	35.69	35.58	35.73	35.66	36.30	36.14
17	35.45	35.40	35.82	35.78	36.05	35.93	35.58	35.53	36.09	35.73	36.16	36.12
18	35.53	35.45	35.78	35.74	35.93	35.76	35.53	35.48	36.12	36.03	36.33	36.16
19	35.56	35.51	35.75	35.72	35.92	35.72	35.49	35.47	36.03	35.92	36.53	36.33
20	35.55	35.47	35.79	35.75	36.08	35.92	35.48	35.38	36.37	35.92	36.54	36.44
21	35.49	35.45	36.01	35.79	36.04	36.01	35.38	35.35	36.42	36.02	36.64	36.54
22	35.49	35.44	36.06	35.98	36.05	35.95	35.36	35.33	36.02	35.92	36.59	36.45
23	35.48	35.42	36.00	35.97	35.95	35.75	35.68	35.34	36.28	35.92	36.46	36.44
24	35.51	35.44	35.99	35.88	35.75	35.66	35.66	35.63	36.32	36.16	36.72	36.44
25	35.60	35.49	36.00	35.88	35.85	35.72	35.63	35.44	36.16	36.02	36.64	36.52
26	35.72	35.48	36.14	36.00	35.72	35.65	35.46	35.42	36.05	36.02	36.78	36.52
27	35.79	35.66	36.10	35.93	35.77	35.65	35.60	35.42	36.10	36.02	36.90	36.71
28	35.74	35.57	36.04	35.93	35.74	35.59	35.82	35.60	36.09	36.06	37.02	36.74
29	35.73	35.53	36.03	35.98	35.89	35.59	35.74	35.69	---	---	37.05	36.81
30	35.53	35.47	36.20	36.01	35.91	35.67	35.72	35.64	---	---	37.10	36.84
31	35.50	35.46	---	---	35.67	35.43	35.70	35.58	---	---	36.96	36.83
MONTH	35.80	35.28	36.20	35.38	36.20	35.43	35.88	35.32	36.42	35.56	37.10	36.05

GROUND-WATER LEVELS

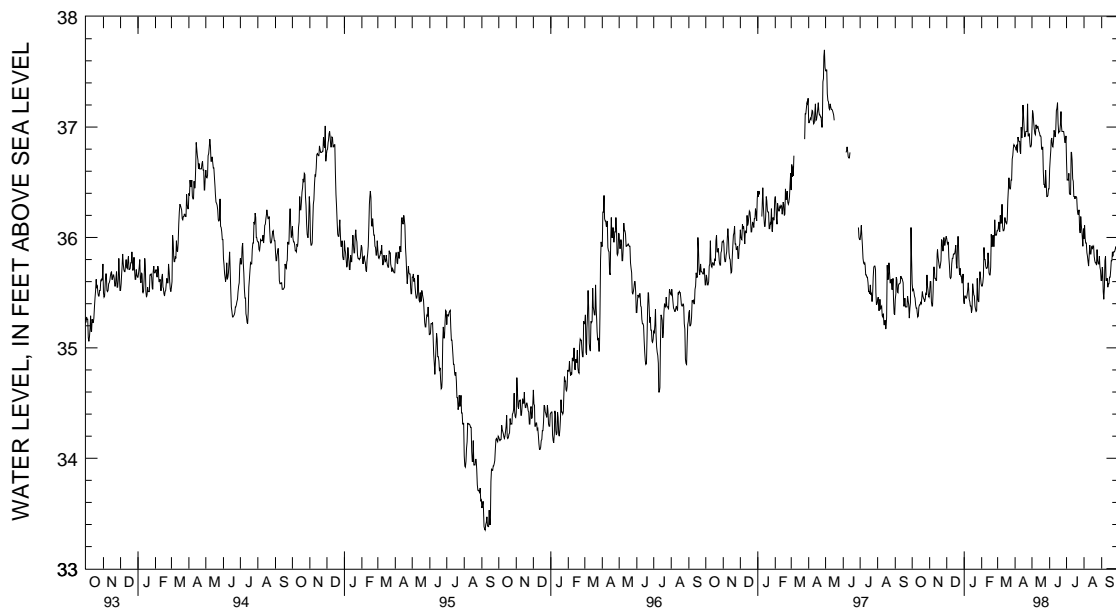
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Bd 157--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	37.08	36.82	37.23	36.98	36.72	36.62	37.12	36.69	36.11	35.99	35.73	35.61
2	37.11	36.81	37.38	37.15	36.99	36.71	36.69	36.52	36.21	36.11	35.87	35.73
3	37.04	36.79	37.39	37.12	36.97	36.79	36.70	36.52	36.12	35.99	35.85	35.71
4	37.12	36.84	37.12	37.04	37.09	36.88	36.70	36.52	36.03	35.95	35.71	35.51
5	37.22	36.77	37.09	36.98	37.16	36.90	36.84	36.58	36.05	35.95	35.54	35.44
6	37.28	36.91	36.98	36.94	37.01	36.83	36.66	36.40	35.98	35.86	35.83	35.54
7	37.14	36.88	37.02	36.93	37.19	36.82	36.60	36.39	35.92	35.83	35.85	35.79
8	36.96	36.87	37.14	37.02	37.07	36.87	36.79	36.39	35.83	35.78	35.97	35.83
9	37.07	36.87	37.09	36.99	37.24	36.97	37.15	36.77	35.84	35.74	35.87	35.61
10	37.00	36.78	37.02	36.99	37.08	36.95	36.98	36.77	36.09	35.84	35.67	35.61
11	37.13	36.76	37.03	37.01	37.19	36.91	36.77	36.70	36.10	35.93	35.72	35.63
12	37.27	37.00	37.03	36.99	37.25	36.98	36.84	36.53	35.95	35.85	35.67	35.55
13	37.02	36.90	37.07	36.96	37.42	37.15	36.68	36.51	35.97	35.85	35.68	35.58
14	37.46	36.98	36.98	36.95	37.45	37.17	36.51	36.37	35.98	35.91	35.66	35.58
15	37.50	37.20	36.98	36.92	37.38	37.22	36.55	36.37	35.97	35.92	35.75	35.64
16	37.40	37.10	36.95	36.92	37.34	37.03	36.41	36.35	35.92	35.90	35.79	35.64
17	37.32	36.99	36.92	36.91	37.12	36.95	36.56	36.37	35.95	35.91	35.81	35.70
18	37.06	36.91	36.92	36.80	37.17	36.96	36.56	36.37	36.01	35.92	35.82	35.79
19	37.09	36.92	36.86	36.80	37.14	36.96	36.53	36.36	35.95	35.83	35.93	35.79
20	37.26	36.96	36.90	36.82	37.26	37.02	36.66	36.25	35.84	35.79	35.90	35.87
21	37.14	36.96	36.83	36.60	37.33	37.14	36.43	36.21	35.84	35.77	35.90	35.83
22	37.38	36.96	36.60	36.48	37.22	37.02	36.47	36.21	35.87	35.77	36.19	35.87
23	37.59	37.21	36.62	36.48	37.08	36.96	36.54	36.25	35.89	35.75	36.00	35.87
24	37.21	36.92	36.61	36.45	37.15	36.96	36.26	36.08	35.95	35.89	35.89	35.87
25	37.16	36.92	36.72	36.61	37.18	36.96	36.23	36.04	35.92	35.79	35.92	35.89
26	37.17	36.94	36.75	36.49	37.23	36.96	36.41	36.19	35.82	35.76	35.92	35.91
27	37.17	36.86	36.49	36.37	37.12	36.92	36.26	36.11	35.89	35.76	36.01	35.92
28	36.96	36.82	36.47	36.37	37.02	36.86	36.12	36.05	35.92	35.83	35.99	35.81
29	37.04	36.82	36.46	36.38	37.08	36.86	36.27	36.00	35.85	35.73	35.85	35.81
30	37.04	36.84	36.56	36.44	37.18	36.92	36.18	35.92	35.82	35.70	35.89	35.85
31	---	---	36.63	36.44	---	---	36.39	36.08	35.70	35.61	---	---
MONTH	37.59	36.76	37.39	36.37	37.45	36.62	37.15	35.92	36.21	35.61	36.19	35.44
YEAR	37.59	35.28										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

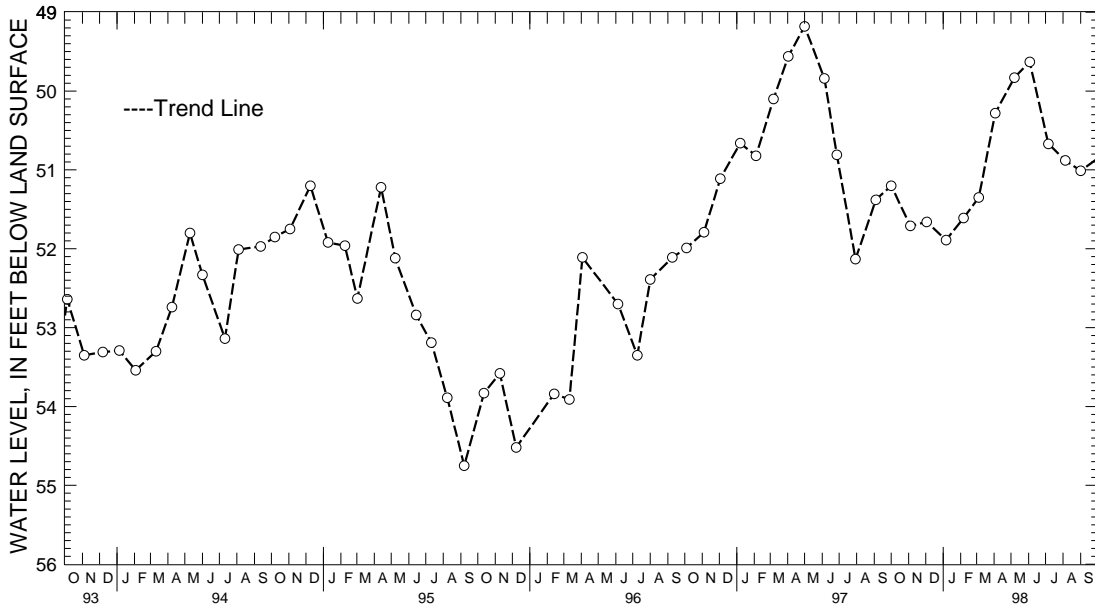
MARYLAND--Continued

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., at Center for Applied Technology-North.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 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 electric 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, 49.18 ft below land surface, May 1, 1997;
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	51.20	JAN 06, 1998	51.89	APR 03, 1998	50.28	JUL 06, 1998	50.67
NOV 04	51.71	FEB 06	51.61	MAY 07	49.83	AUG 05	50.88
DEC 03	51.66	MAR 05	51.35	JUN 03	49.63	SEP 01	51.01
WATER YEAR 1998		HIGHEST	49.63	JUN 03, 1998	LOWEST	51.89	JAN 06, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

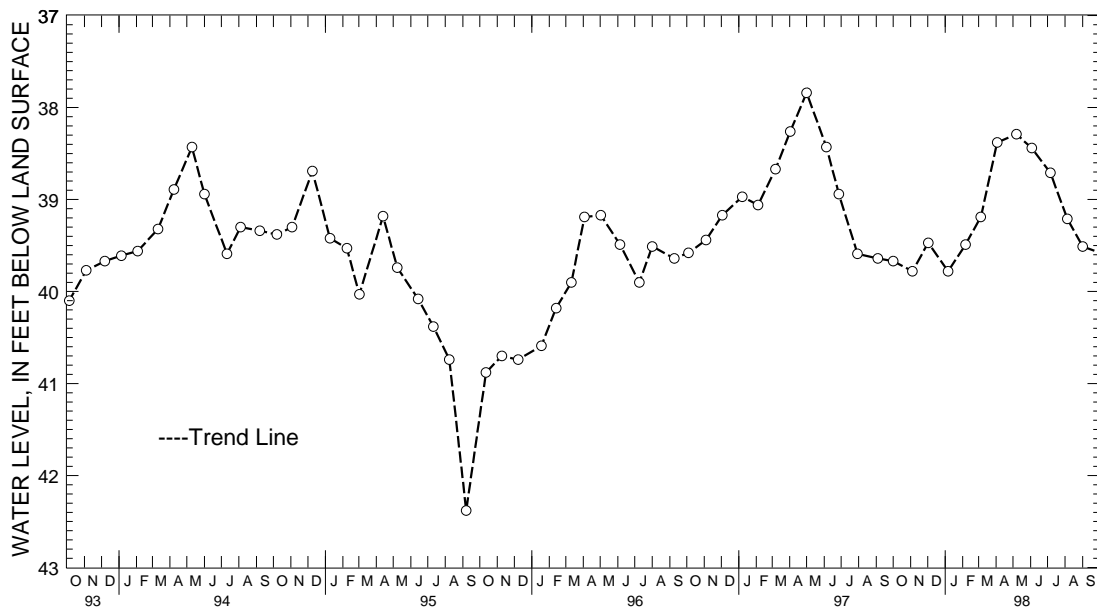
MARYLAND--Continued

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., at Rippling Woods Elementary School.
 Owner: U.S. Geological Survey.
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.
 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	39.67	JAN 06, 1998	39.78	APR 03, 1998	38.38	JUL 06, 1998	38.71
NOV 04	39.78	FEB 06	39.49	MAY 07	38.29	AUG 05	39.21
DEC 02	39.47	MAR 05	39.19	JUN 03	38.44	SEP 01	39.51
WATER YEAR 1998	HIGHEST 38.29	MAY 07, 1998	LOWEST 39.78	NOV 04, 1997	JAN 06, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

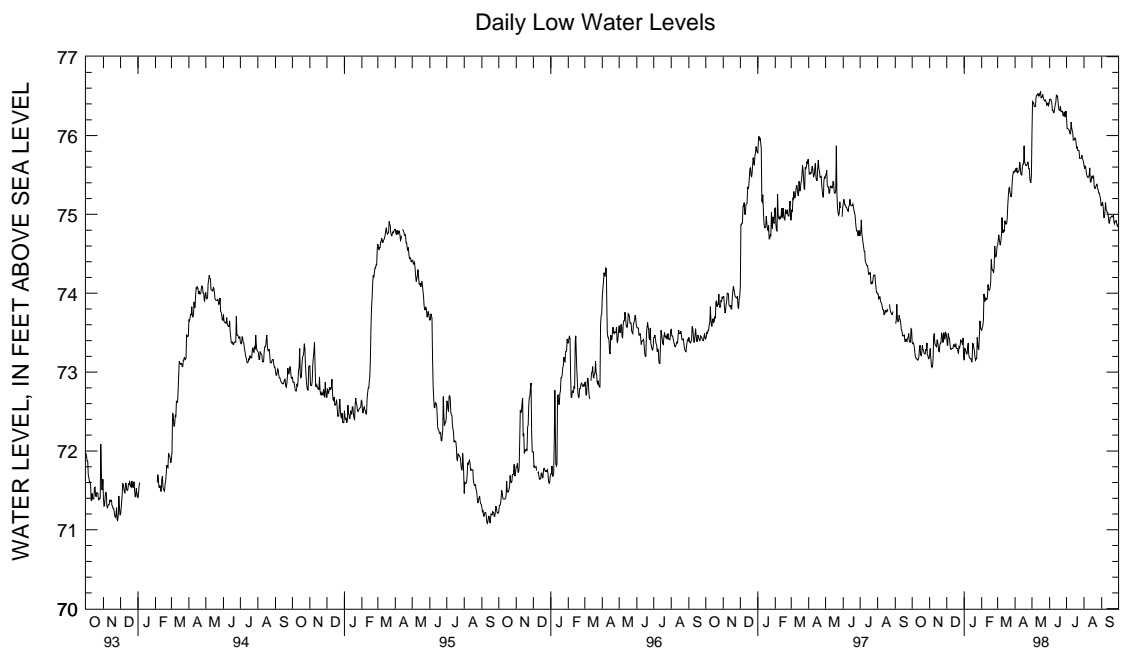
WELL NUMBER.--AA Bd 160. SITE ID.--390908076394402. PERMIT NUMBER.--AA-81-3461.
 LOCATION.--Lat 39°09'08", long 76°39'44", Hydrologic Unit 02060003, 0.08 mi north of Queenstown Rd.,
 0.41 mi. east of WB & A Rd., at Queenstown Park.
 Owner: U.S. Geological Survey.
 AQUIFER.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 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 electric 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.
 PERIOD OF RECORD.--April 1985 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 76.63 ft above sea level, May 8, 1998;
 lowest measured, 68.57 ft above sea level, Oct. 7, 1986.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	73.87	73.37	73.74	73.22	73.80	73.43	73.56	73.15	73.84	73.53	74.96	74.61
2	73.66	73.36	73.73	73.30	73.58	73.34	73.61	73.30	73.81	73.56	74.94	74.67
3	73.75	73.37	73.46	73.19	73.63	73.34	73.59	73.29	73.80	73.59	75.00	74.74
4	73.66	73.35	73.40	73.08	73.78	73.49	73.52	73.26	74.11	73.66	74.99	74.68
5	73.62	73.30	73.29	73.06	73.61	73.44	73.34	73.23	74.31	73.99	74.96	74.64
6	73.44	73.22	73.32	73.08	73.67	73.43	73.47	73.23	74.15	73.90	74.92	74.61
7	73.43	73.19	73.51	73.17	73.57	73.35	73.52	73.32	74.20	73.90	74.98	74.66
8	73.41	73.17	73.78	73.45	73.35	73.29	73.66	73.37	74.29	73.94	75.12	74.74
9	73.44	73.17	73.87	73.49	73.30	73.29	73.63	73.24	74.18	73.92	75.32	74.96
10	73.21	73.16	73.63	73.37	73.71	73.30	73.48	73.19	74.19	73.92	75.07	74.77
11	73.41	73.15	73.58	73.34	73.55	73.30	73.49	73.18	74.27	73.95	74.98	74.77
12	73.49	73.16	73.58	73.33	73.58	73.30	73.37	73.17	74.51	74.11	74.97	74.80
13	73.71	73.20	73.54	73.32	73.61	73.34	73.55	73.17	74.24	74.05	74.97	74.79
14	73.88	73.30	73.70	73.41	73.65	73.35	73.40	73.13	74.30	74.04	75.21	74.92
15	73.94	73.34	73.62	73.39	73.54	73.32	73.47	73.13	74.36	74.04	75.11	74.88
16	73.53	73.22	73.58	73.35	73.61	73.32	73.68	73.37	74.38	74.07	74.98	74.88
17	73.44	73.21	73.42	73.27	73.63	73.36	73.68	73.35	74.50	74.14	75.06	74.88
18	73.71	73.25	73.47	73.26	73.49	73.30	73.61	73.31	74.75	74.43	75.25	74.95
19	73.76	73.34	73.57	73.34	73.49	73.30	73.63	73.27	74.61	74.32	75.42	75.12
20	73.69	73.29	73.53	73.37	73.60	73.30	73.52	73.19	74.58	74.29	75.43	75.24
21	73.61	73.27	73.62	73.37	73.53	73.25	73.39	73.15	74.62	74.29	75.75	75.33
22	73.63	73.24	73.81	73.49	73.46	73.24	73.44	73.17	74.60	74.26	75.70	75.35
23	73.56	73.23	73.78	73.48	73.59	73.32	73.63	73.17	74.66	74.33	75.52	75.29
24	73.63	73.23	73.71	73.38	73.50	73.31	73.82	73.44	74.93	74.60	75.54	75.25
25	73.75	73.29	73.62	73.38	73.79	73.34	73.76	73.34	74.79	74.47	75.39	75.22
26	73.68	73.27	73.77	73.50	73.77	73.41	73.58	73.29	74.70	74.46	75.46	75.25
27	73.80	73.37	73.73	73.42	73.81	73.39	73.63	73.29	74.82	74.49	75.69	75.41
28	73.52	73.22	73.77	73.42	73.76	73.38	73.98	73.46	74.89	74.59	75.81	75.49
29	73.52	73.21	73.74	73.50	73.72	73.35	73.86	73.65	---	---	75.81	75.54
30	73.43	73.17	73.86	73.49	73.87	73.43	73.79	73.57	---	---	75.65	75.53
31	73.41	73.17	---	---	73.58	73.20	73.85	73.54	---	---	75.68	75.55
MONTH	73.94	73.15	73.87	73.06	73.87	73.20	73.98	73.13	74.93	73.53	75.81	74.61

GROUND-WATER LEVELS
 MARYLAND--Continued
 ANNE ARUNDEL COUNTY--Continued
 AA Bd 160--Continued

DAY	MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER						
1	75.64	75.55	76.45	76.03	76.53	76.46	76.35	76.22	75.67	75.62	75.15	75.11
2	75.92	75.58	76.47	76.44	76.55	76.46	76.22	76.09	75.63	75.58	75.24	75.15
3	75.77	75.54	76.44	76.41	76.55	76.46	76.11	76.09	75.65	75.61	75.18	75.15
4	75.79	75.59	76.42	76.41	76.46	76.44	76.13	76.08	75.64	75.60	75.18	75.09
5	75.82	75.53	76.41	76.37	76.45	76.42	76.15	76.07	75.60	75.53	75.09	74.96
6	75.70	75.54	76.38	76.37	76.43	76.32	76.07	76.06	75.55	75.49	75.03	74.96
7	75.61	75.54	76.48	76.37	76.35	76.32	76.07	76.02	75.51	75.47	75.18	75.03
8	75.92	75.56	76.63	76.48	76.35	76.29	76.21	76.02	75.51	75.47	75.21	75.15
9	76.11	75.66	76.61	76.51	76.34	76.29	76.19	76.17	75.52	75.47	75.15	75.07
10	76.08	75.64	76.53	76.51	76.41	76.34	76.18	76.11	75.62	75.50	75.07	75.05
11	75.81	75.53	76.56	76.53	76.42	76.39	76.11	76.07	75.64	75.59	75.05	75.02
12	75.69	75.50	76.55	76.53	76.51	76.42	76.07	76.04	75.59	75.41	75.03	75.02
13	75.78	75.50	76.55	76.50	76.60	76.51	76.04	75.94	75.45	75.41	75.03	74.96
14	75.70	75.60	76.55	76.52	76.59	76.50	75.97	75.94	75.50	75.45	74.96	74.89
15	75.87	75.64	76.56	76.54	76.53	76.50	75.97	75.95	75.50	75.49	74.97	74.89
16	75.90	75.64	76.58	76.56	76.52	76.42	76.01	75.97	75.49	75.46	74.98	74.96
17	76.35	75.87	76.56	76.48	76.42	76.34	76.02	75.96	75.52	75.46	74.97	74.96
18	76.31	75.66	76.49	76.48	76.35	76.32	75.97	75.90	75.52	75.49	74.98	74.97
19	75.96	75.64	76.53	76.49	76.39	76.32	75.90	75.84	75.49	75.36	74.98	74.98
20	75.93	75.62	76.56	76.52	76.43	76.37	75.90	75.85	75.36	75.33	74.98	74.97
21	75.87	75.62	76.57	76.48	76.37	76.30	75.86	75.81	75.36	75.33	74.99	74.97
22	75.90	75.63	76.50	76.46	76.31	76.30	75.87	75.81	75.39	75.36	75.04	74.99
23	75.88	75.66	76.47	76.44	76.33	76.31	75.86	75.81	75.42	75.37	75.00	74.90
24	75.93	75.66	76.45	76.44	76.33	76.30	75.81	75.71	75.42	75.38	74.91	74.88
25	75.81	75.58	76.50	76.45	76.30	76.25	75.75	75.71	75.39	75.32	74.92	74.91
26	75.91	75.58	76.50	76.42	76.33	76.25	75.77	75.71	75.32	75.31	74.92	74.92
27	75.66	75.45	76.44	76.38	76.37	76.30	75.77	75.72	75.32	75.27	74.97	74.92
28	75.50	75.42	76.42	76.40	76.30	76.24	75.79	75.75	75.31	75.27	74.97	74.88
29	75.54	75.40	76.47	76.41	76.31	76.24	75.79	75.72	75.31	75.23	74.88	74.85
30	76.03	75.49	76.43	76.38	76.38	76.31	75.72	75.69	75.23	75.20	74.91	74.87
31	---	---	76.49	76.40	---	---	75.74	75.67	75.20	75.11	---	---
MONTH	76.35	75.40	76.63	76.03	76.60	76.24	76.35	75.67	75.67	75.11	75.24	74.85
YEAR	76.63	73.06										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.

WELL CHARACTERISTICS.--Dug, brick-lined, unused, water-table well, diameter 48 in., depth 22.8 ft.

INSTRUMENTATION.--Monthly measurements with electric 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.

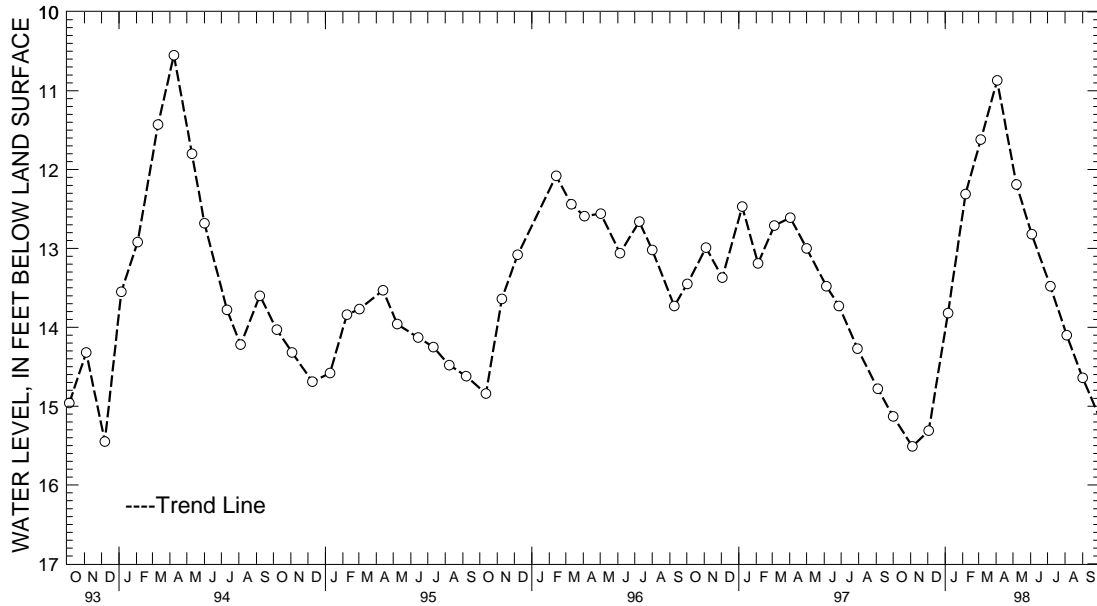
REMARKS.--Maryland Water-Level Network observation well. Water level measured 14.10 ft below land surface, Jan. 27, 1944.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	15.13	JAN 06, 1998	13.82	APR 03, 1998	10.87	JUL 06, 1998	13.48
NOV 04	15.51	FEB 06	12.31	MAY 07	12.19	AUG 04	14.10
DEC 03	15.31	MAR 05	11.62	JUN 03	12.82	SEP 01	14.64
WATER YEAR 1998		HIGHEST	10.87	APR 03, 1998	LOWEST	15.51	NOV 04, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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: 217PTXN.

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 electric tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from July 2, 1984 to current year.

DATUM.--Elevation 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 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	45.23	44.90	46.91	46.82	49.36	49.26	50.06	50.03	50.00	49.96
2	---	---	45.24	45.06	46.87	46.82	49.39	49.36	50.10	50.04	50.13	49.99
3	---	---	45.06	44.87	47.13	46.86	49.48	49.39	50.22	50.09	50.17	50.11
4	---	---	44.87	44.61	47.32	47.13	49.50	49.47	50.57	50.22	50.11	50.00
5	---	---	44.61	44.57	47.41	47.32	49.62	49.50	50.63	50.44	50.00	49.83
6	---	---	44.80	44.59	47.46	47.38	49.75	49.62	50.44	50.18	49.83	49.79
7	---	---	45.15	44.80	47.50	47.46	49.91	49.75	50.19	50.03	49.88	49.81
8	---	---	45.19	45.15	47.61	47.46	50.08	49.91	50.04	49.84	50.13	49.88
9	---	---	45.21	45.09	47.80	47.61	50.11	49.91	49.84	49.76	50.47	50.13
10	---	---	45.09	44.91	48.08	47.80	49.92	49.81	49.80	49.75	50.36	49.98
11	---	---	44.91	44.80	48.06	48.02	49.86	49.79	50.05	49.75	49.98	49.83
12	---	---	44.84	44.78	48.19	48.03	49.80	49.77	50.12	49.95	49.83	49.73
13	---	---	45.11	44.78	48.38	48.18	49.94	49.80	49.95	49.86	49.81	49.71
14	---	---	45.48	45.11	48.43	48.34	49.83	49.77	49.86	49.77	49.97	49.81
15	---	---	45.52	45.45	48.49	48.37	50.15	49.82	49.77	49.72	49.87	49.84
16	---	---	45.53	45.41	48.66	48.48	50.19	50.09	49.93	49.77	49.89	49.84
17	---	---	45.42	45.39	48.78	48.66	50.09	49.98	50.41	49.93	50.02	49.89
18	---	---	45.44	45.38	48.79	48.74	49.98	49.85	50.44	50.39	50.30	50.02
19	---	---	45.58	45.44	48.90	48.79	49.87	49.84	50.39	50.22	50.46	50.30
20	---	---	45.62	45.58	49.01	48.90	49.91	49.84	50.25	50.20	50.44	50.36
21	---	---	45.91	45.62	48.95	48.92	49.87	49.85	50.20	50.04	50.48	50.38
22	---	---	46.00	45.91	49.20	48.95	49.87	49.85	50.07	50.03	50.38	50.13
23	---	---	46.00	45.96	49.26	49.20	50.20	49.86	50.46	50.07	50.13	49.89
24	44.85	44.66	45.97	45.83	49.34	49.19	50.25	50.19	50.52	50.39	49.89	49.66
25	44.96	44.85	46.04	45.83	49.45	49.34	50.19	49.91	50.39	50.16	49.66	49.57
26	45.18	44.90	46.28	46.04	49.40	49.30	49.92	49.84	50.16	50.04	49.80	49.60
27	45.24	45.12	46.25	46.15	49.47	49.32	50.06	49.84	50.05	49.99	49.89	49.78
28	45.12	44.95	46.40	46.15	49.42	49.31	50.45	50.06	50.01	49.96	50.03	49.87
29	44.99	44.91	46.51	46.38	49.73	49.31	50.41	50.35	---	---	50.07	50.00
30	44.92	44.83	46.89	46.51	49.78	49.56	50.35	50.19	---	---	50.17	50.06
31	44.91	44.83	---	---	49.56	49.32	50.19	50.06	---	---	50.27	50.17
MONTH	45.24	44.66	46.89	44.57	49.78	46.82	50.45	49.26	50.63	49.72	50.48	49.57

GROUND-WATER LEVELS

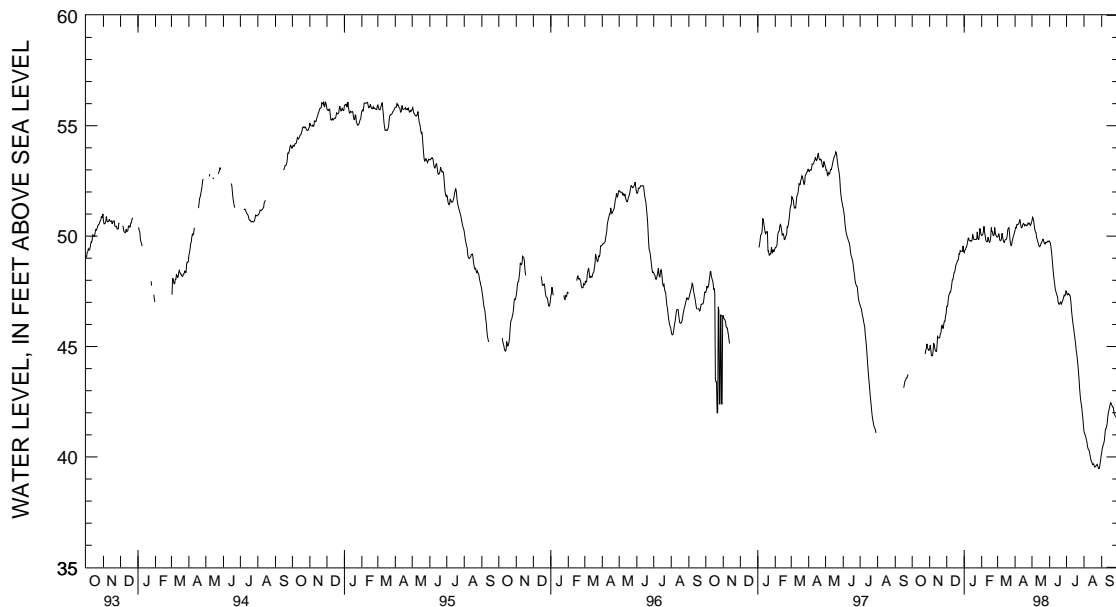
MARYLAND--Continued

ANNE ARRUNDEL COUNTY--Continued

AA Cb 1--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	50.40	50.27	50.85	50.70	49.88	49.74	47.60	47.47	41.42	41.15	40.38	40.19
2	50.43	50.39	50.87	50.85	49.75	49.70	47.47	47.36	41.15	41.05	40.53	40.38
3	50.52	50.37	50.86	50.80	49.74	49.57	47.40	47.34	41.05	40.99	40.56	40.44
4	50.59	50.52	50.81	50.68	49.57	49.42	47.49	47.40	40.99	40.91	40.68	40.56
5	50.55	50.51	50.68	50.47	49.42	49.19	47.48	47.38	40.92	40.80	40.75	40.62
6	50.58	50.54	50.48	50.29	49.19	48.88	47.38	47.33	40.80	40.68	41.03	40.75
7	50.62	50.55	50.29	50.18	48.88	48.57	47.37	47.32	40.68	40.49	41.27	41.03
8	50.75	50.62	50.24	50.16	48.57	48.25	47.32	47.16	40.49	40.37	41.29	41.26
9	51.03	50.74	50.16	49.94	48.25	48.04	47.16	46.90	40.37	40.32	41.38	41.28
10	50.94	50.74	49.94	49.86	48.04	47.83	46.90	46.63	40.33	40.29	41.54	41.38
11	50.74	50.52	49.86	49.76	47.83	47.62	46.63	46.38	40.29	40.14	41.83	41.54
12	50.52	50.39	49.76	49.67	47.62	47.50	46.38	46.14	40.14	40.01	42.03	41.83
13	50.45	50.37	49.67	49.57	47.50	47.41	46.14	45.95	40.01	39.85	42.14	42.03
14	50.59	50.45	49.57	49.52	47.46	47.32	45.95	45.76	39.85	39.81	42.24	42.14
15	50.59	50.54	49.60	49.54	47.33	47.26	45.76	45.53	39.81	39.72	42.37	42.24
16	50.63	50.57	49.67	49.60	47.26	47.03	45.53	45.35	39.72	39.66	42.46	42.37
17	50.66	50.54	49.70	49.67	47.03	46.93	45.35	45.13	39.72	39.67	42.50	42.45
18	50.54	50.47	49.77	49.70	46.95	46.91	45.13	44.84	39.73	39.69	42.50	42.42
19	50.66	50.51	49.86	49.77	47.03	46.94	44.84	44.68	39.69	39.59	42.43	42.35
20	50.65	50.51	49.88	49.85	47.07	47.02	44.68	44.43	39.59	39.54	42.36	42.27
21	50.52	50.47	49.93	49.85	47.05	46.98	44.43	44.18	39.62	39.56	42.37	42.27
22	50.53	50.47	49.85	49.74	47.00	46.92	44.18	43.87	39.63	39.60	42.38	42.23
23	50.64	50.53	49.74	49.68	47.09	46.98	43.87	43.54	39.68	39.61	42.23	42.00
24	50.66	50.60	49.72	49.64	47.14	47.06	43.54	43.11	39.69	39.66	42.00	41.92
25	50.62	50.55	49.78	49.72	47.24	47.13	43.11	42.79	39.68	39.60	41.92	41.87
26	50.72	50.58	49.78	49.72	47.35	47.24	42.79	42.54	39.60	39.51	41.87	41.83
27	50.63	50.55	49.78	49.70	47.36	47.33	42.54	42.37	39.51	39.47	41.84	41.80
28	50.55	50.49	49.78	49.74	47.35	47.30	42.37	42.19	39.66	39.49	41.80	41.60
29	50.61	50.52	49.81	49.77	47.51	47.35	42.19	41.98	39.83	39.66	41.60	41.52
30	50.70	50.61	49.80	49.76	47.62	47.51	41.98	41.76	40.04	39.83	41.55	41.49
31	---	---	49.88	49.78	---	---	41.76	41.42	40.19	40.04	---	---
MONTH	51.03	50.27	50.87	49.52	49.88	46.91	47.60	41.42	41.42	39.47	42.50	40.19
YEAR	51.03	39.47										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.--Lower Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

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 electric 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.

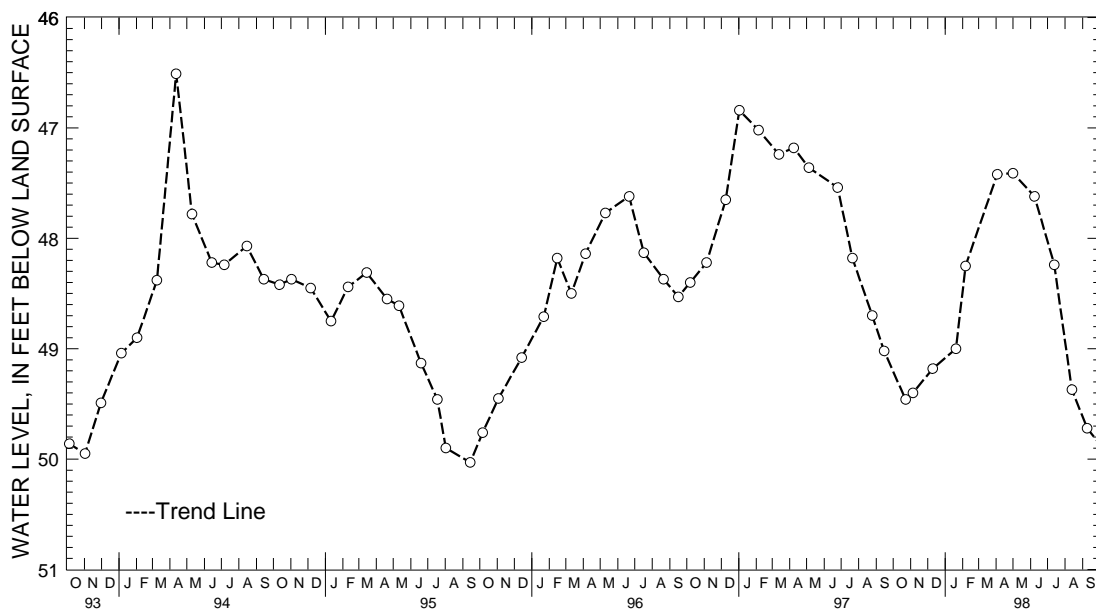
REMARKS.--Maryland Water-Level Network observation well. Water levels are affected by nearby pumping.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	49.46	JAN 20, 1998	49.00	MAY 01, 1998	47.41	AUG 13, 1998	49.37
NOV 05	49.40	FEB 06	48.25	JUN 08	47.62	SEP 09	49.72
DEC 10	49.18	APR 03	47.42	JUL 13	48.24		
WATER YEAR 1998		HIGHEST	47.41	MAY 01, 1998		LOWEST	49.72
						SEP 09, 1998	



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cc 135. SITE ID.--390126076403001. PERMIT NUMBER.--AA-93-0998.
 LOCATION.--Lat 39°01'26", long 76°40'30", Hydrologic Unit 02060006, nr Reidel Rd and Johns Hopkins Rd,
 at Crofton Meadows.
 Owner: Anne Arundel County.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,100 ft; casing diameter 4 in. to 299 ft,
 and casing diameter 2 in. from 299 to 985 ft, and 1,035 to 1,070 ft; screen diameter 2 in. from 985
 to 1,035 ft, and 1,070 to 1,100 ft.
 INSTRUMENTATION.--Monthly measurements with steel tape by Maryland Geological Survey personnel.
 Equipped with digital water-level recorder--15-minute recorder interval from May 4, 1998 to current year.
 DATUM.--Elevation of land surface is 114.81 ft above National Geodetic Vertical Datum of 1929.
 Measuring point: Top of recorder platform, 3.48 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.--December 1997 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.20 ft above sea level, May 6, 1998;
 lowest measured, 12.80 ft below sea level, July 6, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	6.48	4.24	7.93	7.32	8.61	7.71
2	---	---	---	---	---	---	6.79	3.76	7.39	2.77	8.83	7.01
3	---	---	---	---	---	---	7.35	6.00	7.20	.77	9.23	8.46
4	---	---	---	---	---	---	7.54	6.62	---	---	9.63	5.50
5	---	---	---	---	---	---	7.04	5.39	---	---	9.27	7.67
6	---	---	---	---	---	---	7.56	6.23	---	---	8.44	4.92
7	---	---	---	---	---	---	8.35	7.21	---	---	8.87	6.86
8	---	---	---	---	---	---	8.72	4.77	---	---	8.72	7.87
9	---	---	---	---	---	---	9.15	6.88	---	---	8.64	5.36
10	---	---	---	---	---	---	9.42	7.80	---	---	9.12	4.35
11	---	---	---	---	---	---	8.53	7.46	8.43	6.74	8.43	7.03
12	---	---	---	---	---	---	7.70	5.36	8.93	5.08	9.11	7.73
13	---	---	---	---	---	---	8.31	3.98	11.46	7.69	10.70	7.79
14	---	---	---	---	---	---	7.49	4.06	11.16	9.20	10.84	8.73
15	---	---	---	---	---	---	7.52	3.60	10.00	8.81	9.51	8.28
16	---	---	---	---	---	---	7.37	4.33	9.20	8.48	---	---
17	---	---	---	---	---	---	8.24	6.54	9.34	8.49	---	---
18	---	---	---	---	---	---	7.97	7.05	9.93	9.12	---	---
19	---	---	---	---	---	---	7.99	7.02	10.24	5.77	---	---
20	---	---	---	---	---	---	7.47	2.74	9.48	6.69	---	---
21	---	---	---	---	---	---	6.98	3.67	9.89	8.40	---	---
22	---	---	---	---	---	---	7.33	3.81	9.62	8.53	---	---
23	---	---	---	---	---	---	7.78	4.11	8.96	5.42	---	---
24	---	---	---	---	---	---	8.63	6.54	9.18	3.18	---	---
25	---	---	---	---	7.54	6.35	8.56	7.22	6.68	2.34	---	---
26	---	---	---	---	7.78	6.87	8.07	7.20	7.83	5.52	---	---
27	---	---	---	---	8.08	6.87	8.40	3.37	8.09	5.98	---	---
28	---	---	---	---	8.09	7.04	7.27	5.21	8.70	7.46	---	---
29	---	---	---	---	8.05	5.52	8.33	5.40	---	---	---	---
30	---	---	---	---	8.00	3.97	8.91	6.59	---	---	---	---
31	---	---	---	---	7.12	.98	8.52	7.40	---	---	---	---
MONTH	---	---	---	---	8.09	.98	9.42	2.74	11.46	.77	10.84	4.35

GROUND-WATER LEVELS

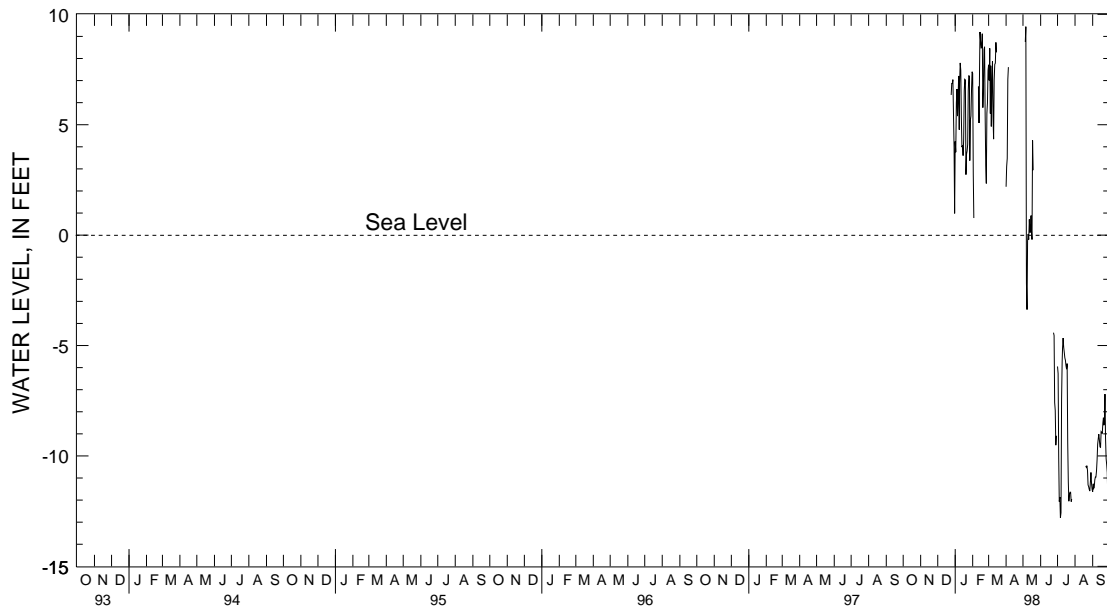
MARYLAND--Continued

ANNE ARRUNDEL COUNTY--Continued

AA Cc 135--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.12	2.19	---	---	---	---	- .67	-5.95	---	---	-11.03	-11.63
2	6.87	3.10	---	---	-5.35	-7.67	-4.56	-6.27	---	---	-9.11	-11.26
3	7.20	3.48	---	---	---	---	-6.27	-10.07	---	---	-10.11	-11.47
4	8.77	7.05	---	---	---	---	-8.37	-12.07	---	---	-10.47	-11.43
5	8.54	7.61	11.44	8.75	---	---	-9.05	-11.86	---	---	-10.29	-11.09
6	---	---	12.20	9.44	---	---	-9.16	-12.80	---	---	-10.85	-10.96
7	---	---	9.44	-2.18	---	---	-7.43	-12.57	---	---	-10.38	-10.96
8	---	---	.33	-3.37	---	---	-5.75	-7.43	---	---	-9.30	-10.67
9	---	---	3.77	-.26	---	---	-4.77	-5.75	---	---	-9.17	-10.16
10	---	---	4.33	.05	---	---	-3.37	-5.11	---	---	-7.63	-9.47
11	---	---	3.20	-.20	---	---	-4.23	-4.66	---	---	-7.30	-9.22
12	---	---	4.98	.71	---	---	-4.65	-5.08	---	---	-7.27	-9.02
13	---	---	4.84	.13	---	---	-5.08	-5.30	---	---	-8.59	-9.29
14	---	---	4.74	.13	---	---	-5.18	-5.56	---	---	-9.29	-9.59
15	---	---	4.63	.89	---	---	-5.15	-5.67	---	---	-8.27	-9.61
16	---	---	3.82	.07	---	---	-5.51	-5.91	---	---	-7.49	-8.90
17	---	---	4.28	-.20	---	---	-3.67	-6.07	---	---	-8.18	-8.95
18	---	---	4.91	4.28	---	---	-4.15	-5.82	---	---	-7.87	-8.97
19	---	---	5.02	2.94	---	---	-1.76	-9.41	---	---	-6.70	-8.51
20	---	---	---	---	---	---	-9.41	-11.18	-8.54	-10.45	-6.63	-8.27
21	---	---	---	---	---	---	-9.28	-12.05	-9.02	-10.51	-7.99	-8.61
22	---	---	---	---	---	---	-9.07	-11.73	-8.87	-10.44	-6.41	-8.51
23	---	---	-.95	-1.70	---	---	-11.64	-11.64	-9.51	-10.66	-5.53	-7.20
24	---	---	---	---	-1.10	-4.42	-11.64	-11.64	-10.57	-11.31	-5.26	-9.18
25	---	---	---	---	-1.44	-4.55	-11.64	-12.07	-9.79	-11.39	-6.05	-10.12
26	---	---	---	---	-3.93	-7.58	-10.35	-11.96	-10.42	-11.51	-5.80	-10.40
27	---	---	---	---	-1.13	-7.94	---	---	-10.78	-11.59	-6.99	-10.75
28	---	---	---	---	-6.94	-9.51	---	---	-8.75	-11.18	-10.75	-12.12
29	---	---	---	---	-5.31	-9.09	---	---	-9.95	-10.75	-8.20	-12.13
30	---	---	---	---	---	---	---	---	-10.75	-11.25	-7.86	-11.33
31	---	---	-1.80	-8.67	---	---	---	---	-11.25	-11.51	---	---
MONTH	8.77	2.19	12.20	-8.67	-1.10	-9.51	-.67	-12.80	-8.54	-11.59	-5.26	-12.13
YEAR	12.20	-12.80										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

197

MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cc 137. SITE ID.--390126076402901. PERMIT NUMBER.--AA-93-0993.

LOCATION.--Lat 39°01'26", long 76°40'29", Hydrologic Unit 02060006, nr Reidel Rd and Johns Hopkins Rd, at Crofton Meadows.

Owner: Anne Arundel County.

AQUIFER.--Lower Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 690 ft; casing diameter 4 in. to 300 ft, and casing diameter 2 in. from 300 to 476 ft, and 506 to 536 ft, and 576 to 606 ft; screen diameter 2 in. from 476 to 506 ft, and 536 to 576 ft, and 606 to 686 ft.

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

Equipped with digital water-level recorder--15-minute recorder interval from May 4, 1998 to current year.

DATUM.--Elevation of land surface is 117.00 ft above National Geodetic Vertical Datum of 1929.

Measuring point: Top of recorder platform, 3.66 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.--December 1997 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.72 ft above sea level, April 4, 1998; lowest measured, 12.47 ft above sea level, Sept. 18, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	---	---	22.98	20.98	---	---	23.38	21.71
2	---	---	---	---	---	---	23.91	21.31	---	---	23.70	21.96
3	---	---	---	---	---	---	23.49	21.60	---	---	24.17	22.48
4	---	---	---	---	---	---	23.08	21.38	---	---	24.34	22.79
5	---	---	---	---	---	---	21.86	21.11	23.65	21.95	24.83	22.68
6	---	---	---	---	---	---	22.85	21.11	21.98	21.29	24.83	24.80
7	---	---	---	---	---	---	23.52	21.57	22.26	21.05	24.88	24.79
8	---	---	---	---	---	---	23.57	21.89	22.68	21.10	---	---
9	---	---	---	---	---	---	24.75	22.12	21.72	21.09	---	---
10	---	---	---	---	---	---	---	---	22.86	21.30	---	---
11	---	---	---	---	---	---	---	---	23.18	21.58	---	---
12	---	---	---	---	---	---	---	---	23.90	21.92	---	---
13	---	---	---	---	---	---	---	---	21.92	19.87	---	---
14	---	---	---	---	---	---	---	---	23.36	21.08	---	---
15	---	---	---	---	---	---	---	---	23.11	21.40	---	---
16	---	---	---	---	---	---	---	---	22.29	21.13	---	---
17	---	---	---	---	---	---	---	---	22.29	21.14	---	---
18	---	---	---	---	---	---	---	---	23.07	21.77	---	---
19	---	---	---	---	---	---	---	---	23.81	22.01	---	---
20	---	---	---	---	---	---	---	---	24.09	21.97	---	---
21	---	---	---	---	---	---	---	---	24.48	22.32	---	---
22	---	---	---	---	---	---	---	---	23.61	21.80	---	---
23	---	---	---	---	---	---	---	---	22.61	21.67	---	---
24	---	---	---	---	22.45	21.01	---	---	23.72	22.05	---	---
25	---	---	---	---	22.78	21.01	---	---	22.73	21.73	---	---
26	---	---	---	---	22.61	21.13	---	---	23.31	21.99	---	---
27	---	---	---	---	22.98	21.13	---	---	23.50	22.20	---	---
28	---	---	---	---	23.02	21.22	---	---	24.09	22.13	---	---
29	---	---	---	---	22.91	21.19	---	---	---	---	---	---
30	---	---	---	---	23.28	21.56	---	---	---	---	---	---
31	---	---	---	---	22.86	21.00	---	---	---	---	---	---
MONTH	---	---	---	---	23.28	21.00	24.75	20.98	24.48	19.87	24.88	21.71

GROUND-WATER LEVELS

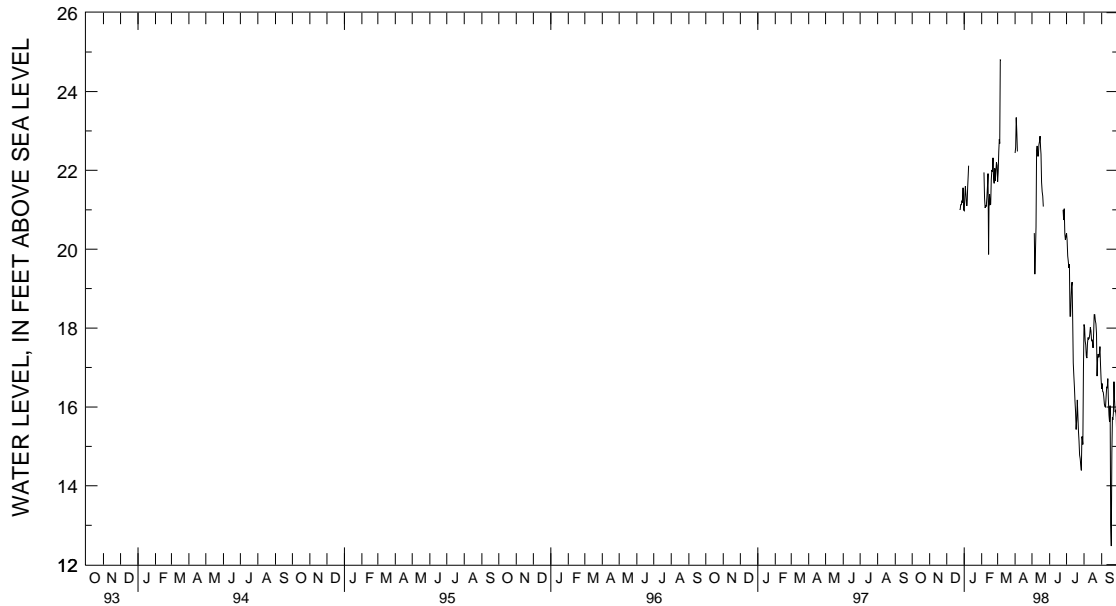
MARYLAND--Continued

ANNE ARRUNDEL COUNTY--Continued

AA Cc 137--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	24.65	22.44	---	---	---	---	23.11	20.41	18.63	18.09	16.70	16.46
2	24.92	22.58	---	---	---	---	21.10	20.23	18.23	18.02	17.40	16.59
3	25.54	23.34	---	---	---	---	20.23	19.83	18.13	17.68	17.20	16.39
4	25.72	22.96	---	---	---	---	19.83	19.70	17.77	17.57	16.61	16.38
5	24.12	22.48	23.12	20.41	---	---	22.10	19.53	17.68	17.29	16.38	16.26
6	---	---	20.41	19.37	---	---	20.59	19.62	17.61	17.24	16.28	16.07
7	---	---	20.56	19.93	---	---	19.62	18.30	18.08	17.61	16.13	16.01
8	---	---	24.54	20.56	---	---	19.04	18.30	18.08	17.76	16.38	16.00
9	---	---	25.17	22.50	---	---	19.85	18.82	18.06	17.72	16.62	16.26
10	---	---	24.94	22.62	---	---	20.75	19.06	18.06	17.74	17.15	16.50
11	---	---	24.21	22.36	---	---	19.85	19.17	18.48	17.85	17.15	16.49
12	---	---	24.87	22.36	---	---	19.43	18.22	18.46	18.02	17.26	16.72
13	---	---	25.06	22.65	---	---	18.48	17.12	18.37	17.93	16.80	16.17
14	---	---	25.27	22.73	---	---	17.33	16.79	18.06	17.71	16.17	15.79
15	---	---	25.28	22.87	---	---	16.94	16.50	18.95	17.67	16.10	15.62
16	---	---	24.54	22.56	---	---	16.56	16.15	18.66	17.70	16.38	16.03
17	---	---	24.56	22.41	---	---	16.15	15.87	17.86	17.50	16.18	13.03
18	---	---	22.50	21.70	---	---	15.87	15.43	18.63	17.86	14.84	12.47
19	---	---	22.96	21.46	---	---	20.12	15.67	18.88	18.34	15.88	14.84
20	---	---	21.80	21.35	---	---	17.74	16.18	18.95	18.34	16.29	15.74
21	---	---	21.35	21.08	---	---	16.18	15.79	18.65	18.19	16.01	15.67
22	---	---	---	---	---	---	16.66	15.39	18.56	18.11	16.69	15.84
23	---	---	---	---	---	---	15.76	15.14	18.25	17.86	17.16	16.64
24	---	---	---	---	---	---	15.14	14.78	17.86	16.78	17.42	16.18
25	---	---	---	---	22.59	21.00	15.54	14.69	17.82	17.24	17.13	15.87
26	---	---	---	---	21.14	20.74	14.90	14.53	17.58	17.34	17.32	15.90
27	---	---	---	---	23.44	21.03	17.53	14.39	17.47	17.26	16.90	15.74
28	---	---	---	---	21.17	20.39	18.02	15.25	18.29	17.35	15.76	15.06
29	---	---	---	---	20.98	20.24	17.67	15.21	18.11	17.53	16.29	15.04
30	---	---	---	---	21.80	20.33	17.01	15.05	17.53	17.06	16.60	15.52
31	---	---	---	---	---	---	18.09	16.95	17.06	16.70	---	---
MONTH	25.72	22.44	25.28	19.37	23.44	20.24	23.11	14.39	18.95	16.70	17.42	12.47
YEAR	25.72	12.47										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.
 Missing data due to recorder malfunction.
 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, 0.66 ft above sea level, September 10, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	3.38	2.69	4.38	4.09	5.44	5.04	6.94	6.59	7.65	7.50
2	---	---	3.47	2.99	4.09	3.79	5.61	5.20	6.95	6.59	7.72	7.32
3	---	---	3.28	2.89	4.22	3.84	5.62	5.38	7.01	6.63	7.76	7.43
4	---	---	3.20	2.87	4.36	3.92	5.71	5.31	7.30	6.74	7.62	7.27
5	---	---	2.99	2.80	4.41	4.04	5.81	5.36	7.46	7.06	7.56	7.21
6	---	---	3.11	2.62	4.37	4.03	5.99	5.55	7.43	7.10	7.44	7.07
7	---	---	3.51	2.85	4.33	3.98	6.14	5.71	7.37	7.05	7.52	7.16
8	---	---	3.61	3.20	4.25	3.83	6.38	5.96	7.33	6.98	7.62	7.18
9	---	---	3.71	3.34	4.36	3.97	6.43	6.11	7.26	6.96	8.08	7.58
10	---	---	3.58	3.17	4.63	4.18	6.21	5.91	7.18	7.04	8.03	7.44
11	---	---	3.50	3.18	4.59	4.30	6.24	5.91	7.34	6.85	7.55	7.09
12	---	---	3.50	3.07	4.61	4.31	6.19	5.90	7.44	7.17	7.36	7.14
13	---	---	3.51	3.05	4.78	4.34	6.35	5.99	7.28	6.93	7.44	6.98
14	---	---	3.79	3.42	4.73	4.23	6.21	5.85	7.14	6.81	7.63	7.32
15	---	---	3.70	3.41	4.60	4.29	6.53	5.91	7.01	6.66	7.48	7.30
16	---	---	3.70	3.37	4.73	4.33	6.59	6.26	7.08	6.68	7.32	7.01
17	---	---	3.47	3.11	4.84	4.46	6.62	6.21	7.56	6.82	7.41	7.03
18	---	---	3.57	3.09	4.87	4.50	6.62	6.31	7.62	7.28	7.67	7.26
19	---	---	3.69	3.22	4.97	4.56	6.66	6.27	7.53	7.21	7.78	7.41
20	---	---	3.69	3.33	5.02	4.62	6.66	6.32	7.52	7.13	7.98	7.51
21	---	---	3.80	3.34	4.95	4.54	6.51	6.15	7.51	7.13	8.13	7.75
22	---	---	3.89	3.49	5.17	4.61	6.57	6.22	7.30	6.92	8.07	7.71
23	---	---	3.87	3.48	5.24	4.93	6.91	6.32	7.66	7.05	7.92	7.62
24	---	---	3.87	3.55	5.34	5.01	6.97	6.62	7.71	7.44	7.84	7.42
25	---	---	3.81	3.33	5.56	5.22	6.87	6.51	7.52	7.19	7.62	7.28
26	---	---	4.08	3.60	5.51	5.21	6.63	6.33	7.50	7.11	7.83	7.34
27	---	---	4.00	3.58	5.63	5.19	6.78	6.32	7.62	7.21	7.76	7.43
28	---	---	3.96	3.47	5.55	5.23	7.02	6.60	7.66	7.33	7.82	7.40
29	2.95	2.51	4.02	3.67	5.99	5.20	7.17	6.65	---	---	7.80	7.50
30	2.93	2.57	4.38	3.85	6.09	5.73	7.23	6.85	---	---	7.81	7.43
31	3.00	2.57	---	---	5.82	5.41	7.10	6.73	---	---	7.83	7.50
MONTH	3.00	2.51	4.38	2.62	6.09	3.79	7.23	5.04	7.71	6.59	8.13	6.98

GROUND-WATER LEVELS

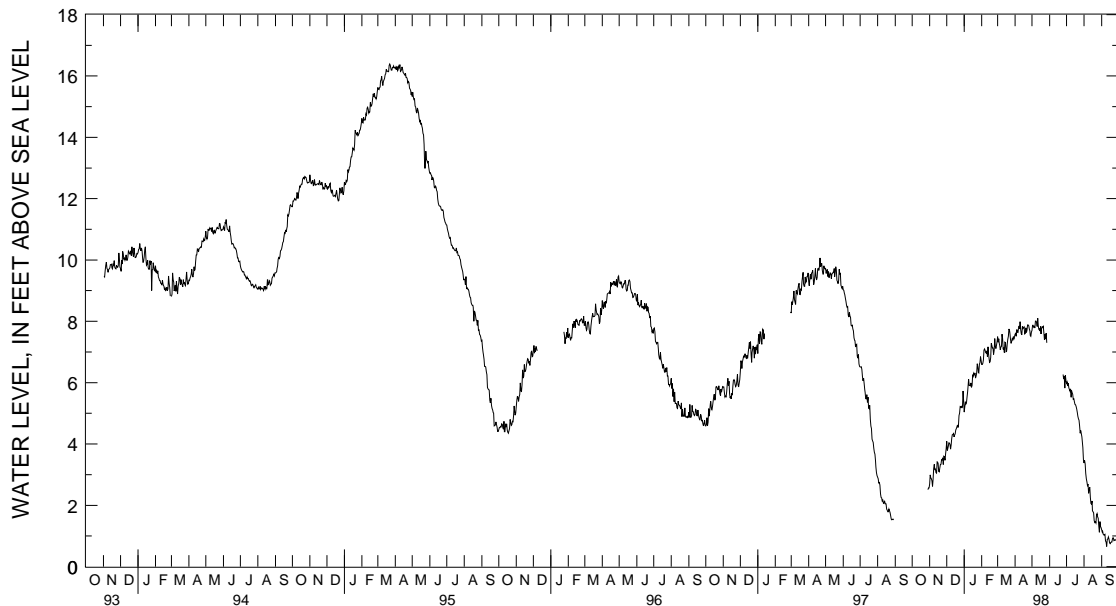
MARYLAND--Continued

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	7.95	7.58	8.21	7.70	---	---	6.34	5.98	3.75	3.38	1.29	1.20
2	7.95	7.61	8.29	7.87	---	---	6.13	6.02	3.60	3.46	1.47	1.13
3	7.99	7.51	8.26	7.87	---	---	6.02	5.89	3.46	3.35	1.32	1.15
4	8.10	7.73	8.21	7.81	---	---	6.06	5.98	3.43	3.04	1.28	1.06
5	7.95	7.65	8.23	7.83	---	---	6.05	5.83	3.23	2.87	1.15	1.03
6	7.97	7.64	8.20	7.78	---	---	5.88	5.78	3.16	2.77	1.16	1.03
7	7.92	7.78	8.21	8.01	---	---	5.90	5.72	3.04	2.65	1.21	1.05
8	8.00	7.85	8.41	8.01	---	---	5.99	5.80	2.90	2.69	1.20	.84
9	8.26	7.75	8.32	7.97	---	---	5.94	5.52	2.84	2.39	1.04	.80
10	8.16	7.99	8.26	7.83	---	---	5.88	5.74	2.81	2.53	.98	.66
11	8.03	7.73	8.26	8.10	---	---	5.81	5.68	2.85	2.59	.98	.89
12	7.96	7.60	8.23	7.84	---	---	5.69	5.62	2.74	2.26	1.00	.90
13	8.02	7.56	8.12	7.74	---	---	5.62	5.46	2.48	2.06	.99	.97
14	8.17	7.83	8.11	7.75	---	---	5.58	5.47	2.43	2.04	.99	.90
15	8.20	7.77	8.08	7.68	---	---	5.52	5.37	2.40	2.14	1.01	.78
16	8.23	7.80	8.04	7.83	---	---	5.45	5.29	2.26	1.82	1.03	.75
17	8.26	7.82	7.97	7.59	---	---	5.44	5.28	2.18	1.79	1.01	.78
18	8.11	7.59	7.89	7.76	---	---	5.36	5.22	2.16	1.75	1.03	.80
19	8.16	7.61	7.89	7.82	---	---	5.23	5.14	2.04	1.50	1.10	.80
20	8.16	7.79	7.88	7.80	---	---	5.19	5.03	1.86	1.44	1.25	.90
21	8.07	7.64	7.93	7.83	---	---	5.03	4.90	1.82	1.46	1.28	.94
22	8.18	7.71	7.83	7.62	---	---	4.94	4.82	1.83	1.42	1.35	.94
23	8.26	7.88	7.78	7.40	---	---	4.86	4.78	1.78	1.68	1.33	.85
24	8.33	7.88	7.74	7.58	---	---	4.78	4.59	1.77	1.73	1.16	.87
25	8.20	7.86	7.79	7.42	6.31	6.27	4.61	4.35	1.73	1.62	1.19	.87
26	8.20	7.75	7.76	7.62	6.38	6.12	4.51	4.44	1.62	1.58	1.16	.87
27	8.06	7.69	7.66	7.30	6.38	6.22	4.44	4.33	1.58	1.32	1.21	.86
28	7.92	7.54	---	---	6.28	5.82	4.35	4.23	1.58	1.12	1.21	1.07
29	7.98	7.51	---	---	6.32	6.24	4.26	4.09	1.54	1.47	1.08	.78
30	8.04	7.65	---	---	6.38	6.06	4.09	3.89	1.51	1.31	1.20	1.06
31	---	---	---	---	---	---	3.96	3.48	1.33	1.27	---	---
MONTH	8.33	7.51	8.41	7.30	6.38	5.82	6.34	3.48	3.75	1.12	1.47	.66
YEAR	8.41	.66										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

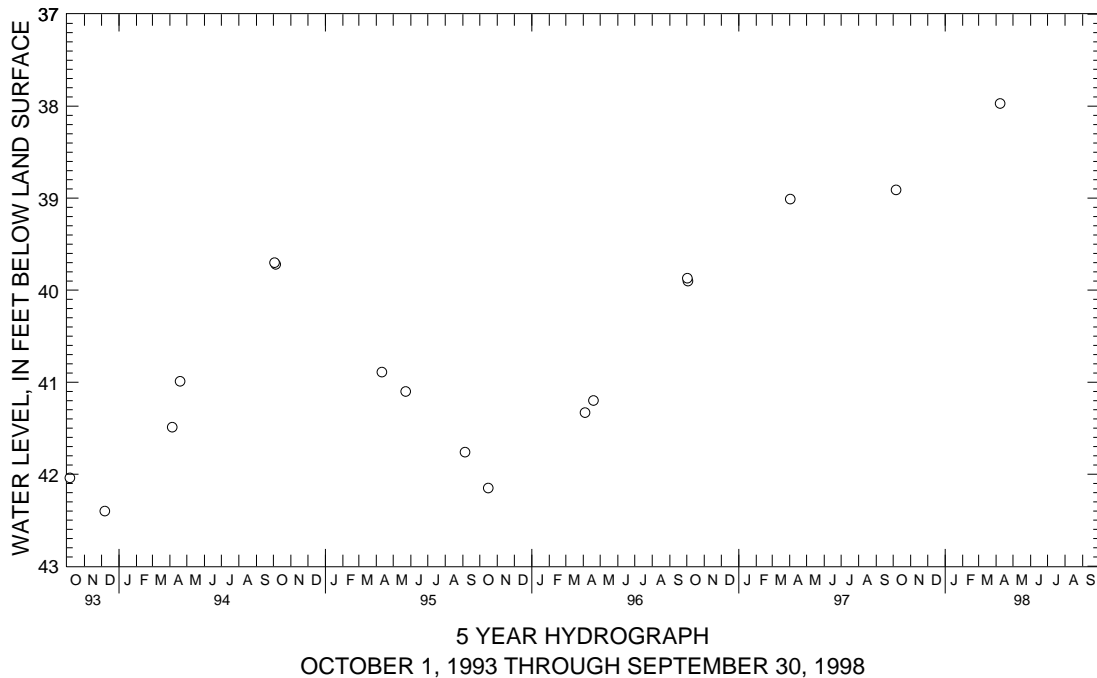
MARYLAND--Continued

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,
 near Anne Arundel Co. Traffic Engineering Building, 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	38.91	APR 08, 1998	37.97
WATER YEAR 1998		HIGHEST 37.97 APR 08, 1998	LOWEST 38.91 OCT 06, 1997



GROUND-WATER LEVELS

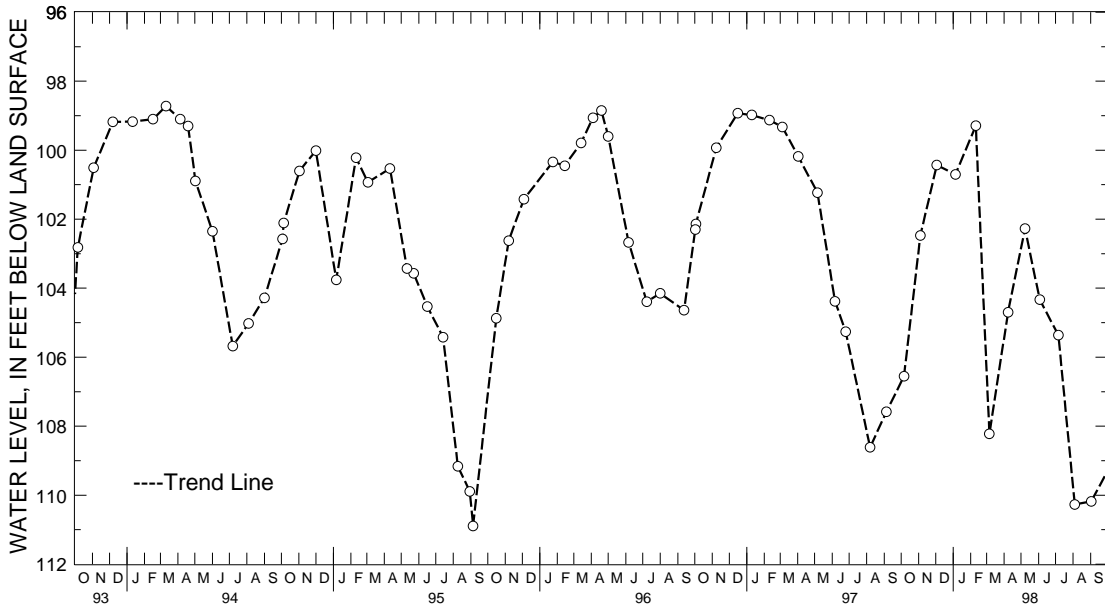
MARYLAND--Continued

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,
 near Anne Arundel Co. Traffic Engineering Building, 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	106.55	JAN 05, 1998	100.70	APR 08, 1998	104.70	JUL 06, 1998	105.36
NOV 04	102.47	FEB 10	99.29	MAY 08	102.27	AUG 04	110.27
DEC 03	100.43	MAR 06	108.22	JUN 03	104.33	SEP 02	110.18
WATER YEAR 1998		HIGHEST	99.29 FEB 10, 1998	LOWEST	110.27 AUG 04, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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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 in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 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, 17.29 ft below sea level, September 10, 1998.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-15.14	-15.33	-14.63	-15.23	-15.12	-15.68	-16.20	-16.62	-15.68	-15.83	---	---
2	-15.08	-15.41	-14.59	-14.85	-15.68	-15.83	-16.06	-16.28	-15.64	-15.80	---	---
3	-14.97	-15.18	-14.85	-15.01	-15.60	-15.88	-16.18	-16.38	-15.64	-15.78	---	---
4	-14.99	-15.14	-15.01	-15.45	-15.51	-15.69	-16.14	-16.31	-15.42	-15.75	---	---
5	-14.96	-15.08	-15.45	-15.68	-15.42	-15.60	-15.93	-16.25	-14.99	-15.42	---	---
6	-14.98	-15.17	-15.38	-15.59	-15.43	-15.69	-15.70	-15.97	-14.98	-15.20	---	---
7	-15.04	-15.29	-14.84	-15.41	-15.60	-15.98	-15.61	-15.84	-15.04	-15.32	---	---
8	-15.09	-15.26	-14.62	-14.91	-15.92	-16.10	-15.23	-15.61	-15.22	-15.42	---	---
9	-15.08	-15.21	-14.59	-14.91	-15.70	-15.99	-15.21	-15.60	---	---	---	---
10	-15.01	-15.25	-14.84	-15.12	-15.31	-15.70	-15.56	-15.81	---	---	---	---
11	-15.15	-15.46	-15.01	-15.25	-15.40	-15.62	-15.53	-15.76	---	---	---	---
12	-15.15	-15.38	-15.13	-15.40	-15.42	-15.63	-15.69	-15.86	---	---	---	---
13	-15.11	-15.31	-15.18	-15.46	-15.34	-15.84	-15.53	-15.98	---	---	---	---
14	-15.01	-15.28	-14.83	-15.25	-15.57	-15.87	-15.83	-16.16	---	---	---	---
15	-15.16	-15.60	-14.86	-15.09	-15.71	-16.00	-15.58	-16.01	---	---	---	---
16	-15.33	-15.61	-14.95	-15.43	-15.69	-15.95	-15.48	-15.74	---	---	---	---
17	-15.10	-15.47	-15.43	-15.64	-15.59	-15.82	-15.32	-15.80	---	---	-10.52	-10.89
18	-15.02	-15.25	-15.36	-15.62	-15.62	-15.81	-15.34	-15.58	---	---	-10.20	-10.55
19	-14.98	-15.15	-15.23	-15.47	-15.57	-15.69	-15.33	-15.61	---	---	-10.01	-10.26
20	-14.91	-15.03	-15.23	-15.37	-15.63	-15.84	-15.33	-15.79	---	---	-9.58	-10.07
21	-14.83	-15.09	-15.16	-15.42	-15.80	-16.00	-15.76	-15.95	---	---	-9.22	-9.58
22	-14.80	-15.20	-15.16	-15.31	-15.51	-15.85	-15.60	-15.78	---	---	-9.36	-9.60
23	-15.17	-15.37	-15.20	-15.42	-15.49	-15.74	-15.20	-15.66	---	---	-9.31	-9.60
24	-15.02	-15.20	-15.15	-15.74	-15.36	-15.88	-15.20	-15.53	---	---	-9.53	-9.94
25	-14.89	-15.25	-15.48	-15.88	-15.09	-15.36	-15.53	-16.02	---	---	-9.73	-10.02
26	-14.71	-15.26	-15.29	-15.48	-15.27	-15.52	-15.89	-16.07	---	---	-9.40	-9.73
27	-14.46	-14.86	-15.45	-16.05	-15.42	-15.69	-15.82	-16.09	---	---	-9.41	-9.66
28	-14.86	-15.30	-15.58	-16.05	-15.68	-15.90	-15.71	-15.90	---	---	-9.33	-9.63
29	-15.12	-15.30	-15.50	-15.80	-15.06	-15.71	-15.12	-15.80	---	---	-9.28	-9.50
30	-15.25	-15.47	-15.07	-15.57	-14.92	-15.50	-15.09	-15.48	---	---	-9.16	-9.50
31	-15.12	-15.46	---	---	-15.50	-16.32	-15.48	-15.75	---	---	-9.04	-9.25
MONTH	-14.46	-15.61	-14.59	-16.05	-14.92	-16.32	-15.09	-16.62	-14.98	-15.83	-9.04	-10.89

GROUND-WATER LEVELS

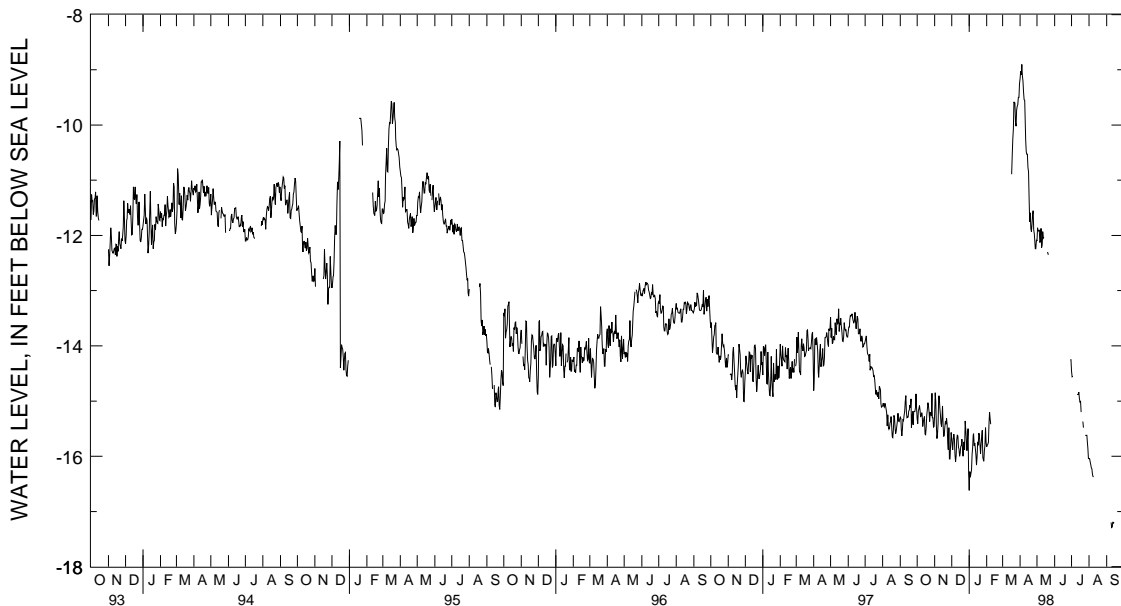
MARYLAND--Continued

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	-8.89	-9.16	-11.81	-12.10	---	---	-14.25	-14.46	-16.03	-16.04	---	---
2	-8.89	-9.03	-11.62	-11.86	---	---	-14.38	-14.56	-16.03	-16.04	---	---
3	-8.76	-9.09	-11.71	-11.91	---	---	-14.44	-14.55	-16.03	-16.10	-16.78	-16.78
4	-8.69	-8.90	-11.78	-11.92	---	---	---	---	-16.10	-16.15	---	---
5	-8.87	-9.11	-11.71	-11.91	---	---	---	---	-16.09	-16.21	---	---
6	-8.97	-9.20	-11.85	-12.13	---	---	-14.76	-14.77	-16.20	-16.23	-16.98	-16.99
7	-9.13	-9.40	-11.87	-12.10	---	---	---	---	-16.19	-16.33	---	---
8	-9.26	-9.54	-11.63	-11.87	---	---	---	---	-16.33	-16.37	---	---
9	-9.27	-9.55	-11.74	-12.22	---	---	---	---	-16.36	-16.37	-17.09	-17.20
10	-9.54	-9.83	-11.82	-12.17	---	---	---	---	---	---	-17.17	-17.29
11	-9.73	-10.26	-11.76	-11.93	---	---	-14.77	-14.88	---	---	-17.20	-17.28
12	-10.12	-10.48	-11.79	-12.05	---	---	-14.85	-14.88	---	---	-17.07	-17.20
13	-10.33	-10.53	-11.80	-12.03	---	---	-14.81	-14.88	-16.41	-16.49	-17.15	-17.21
14	-10.29	-10.53	---	---	---	---	-14.80	-14.84	---	---	-17.05	-17.19
15	-10.43	-10.77	-11.78	-11.96	---	---	-14.80	-14.96	---	---	---	---
16	-10.64	-10.85	---	---	---	---	-14.94	-15.02	---	---	---	---
17	-10.75	-11.33	---	---	---	---	-14.85	-15.01	---	---	---	---
18	-11.33	-11.75	---	---	---	---	-14.92	-15.20	---	---	---	---
19	-11.37	-11.59	-12.14	-12.31	---	---	---	---	---	---	---	---
20	-11.46	-11.88	-12.16	-12.31	---	---	---	---	---	---	---	---
21	-11.73	-11.93	-12.12	-12.35	---	---	-15.31	-15.37	---	---	---	---
22	-11.56	-11.80	---	---	---	---	-15.32	-15.48	---	---	---	---
23	-11.30	-11.62	---	---	---	---	---	---	---	---	---	---
24	-11.23	-11.55	---	---	---	---	---	---	---	---	---	---
25	-11.40	-11.90	---	---	-14.27	-14.32	-15.59	-15.62	---	---	---	---
26	-11.65	-11.97	---	---	---	---	-15.61	-15.62	---	---	---	---
27	-11.85	-12.12	---	---	---	---	-15.61	-15.62	---	---	---	---
28	-11.96	-12.24	---	---	---	---	-15.61	-15.62	---	---	---	---
29	-11.99	-12.24	---	---	-14.25	-14.25	-15.61	-15.73	---	---	---	---
30	-11.86	-12.08	---	---	-14.25	-14.25	-15.70	-15.85	---	---	---	---
31	---	---	---	---	---	---	-15.84	-16.04	---	---	---	---
MONTH	-8.69	-12.24	-11.62	-12.35	-14.25	-14.32	-14.25	-16.04	-16.03	-16.49	-16.78	-17.29
YEAR	-8.69	-17.29										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

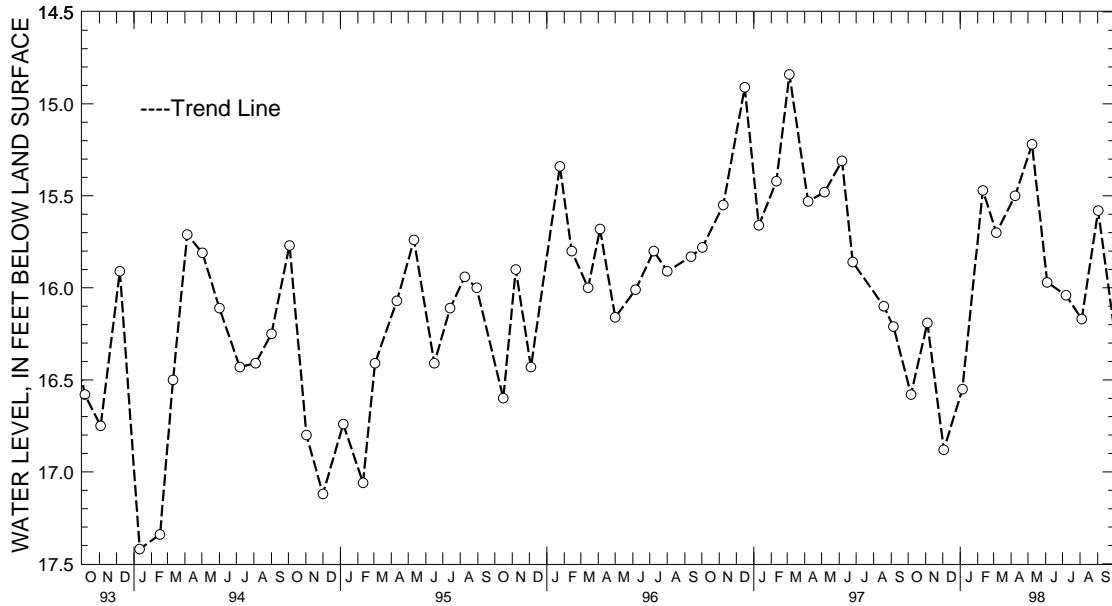
MARYLAND--Continued

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,
 near 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	16.58	JAN 05, 1998	16.55	APR 08, 1998	15.50	JUL 07, 1998	16.04
NOV 04	16.19	FEB 10	15.47	MAY 08	15.22	AUG 04	16.17
DEC 03	16.88	MAR 06	15.70	JUN 04	15.97	SEP 02	15.58
WATER YEAR 1998		HIGHEST	15.22	MAY 08, 1998	LOWEST	16.88	DEC 03, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

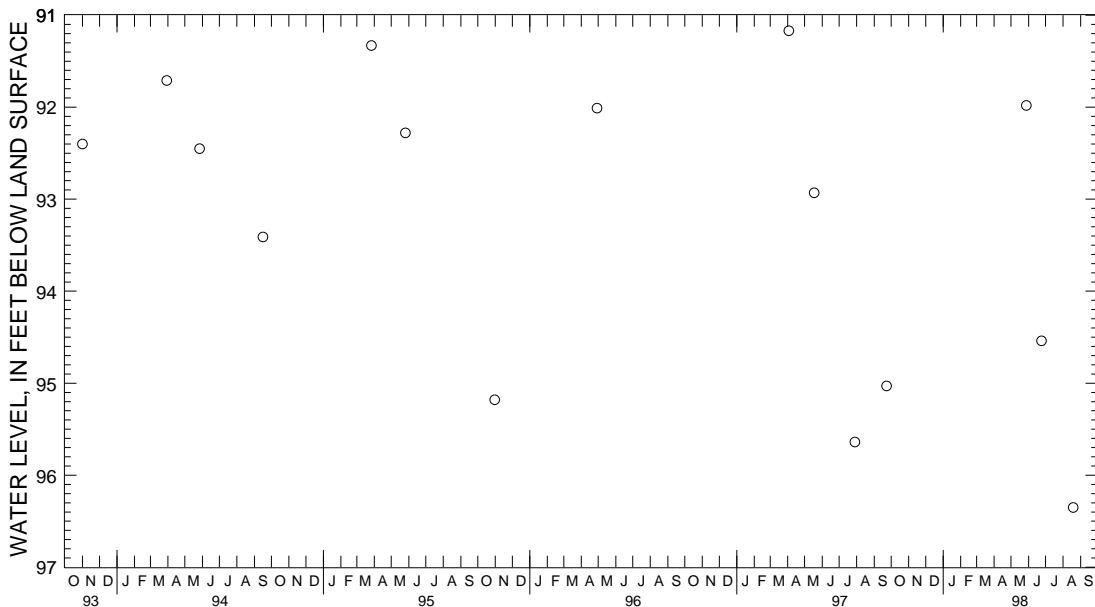
MARYLAND--Continued

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 electric 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, 96.35 ft below land surface, August 19, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
MAY 28, 1998	91.98	JUN 24, 1998	94.54	AUG 19, 1998	96.35	
WATER YEAR 1998		HIGHEST	91.98	MAY 28, 1998	LOWEST	96.35
						AUG 19, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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 September 1996.

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.

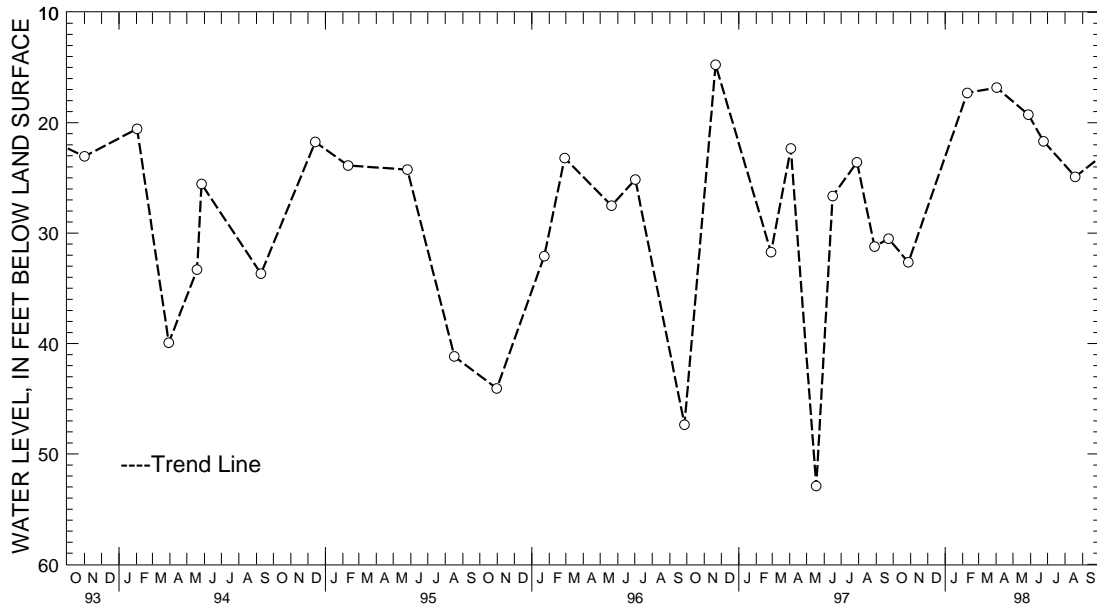
REMARKS.--Anne Arundel Co. observation well network. Water levels are affected by nearby pumping.

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, 52.90 ft below sea level, May 18, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	32.65	FEB 09, 1998	17.30	MAY 28, 1998	19.27	AUG 19, 1998	24.90
28	32.65	APR 02	16.82	JUN 24	21.68		
WATER YEAR 1998		HIGHEST	16.82	APR 02, 1998		LOWEST	32.65
							OCT 28, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

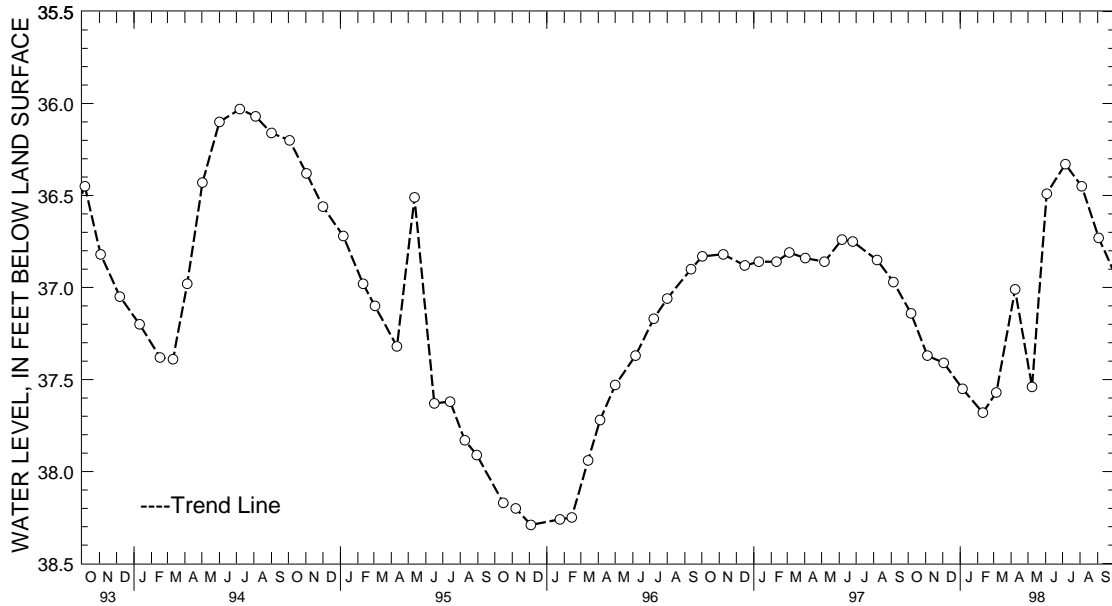
MARYLAND--Continued

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 Plaza.
 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	37.14	JAN 05, 1998	37.55	APR 08, 1998	37.01	JUL 06, 1998	36.33
NOV 04	37.37	FEB 10	37.68	MAY 08	37.54	AUG 04	36.45
DEC 03	37.41	MAR 06	37.57	JUN 03	36.49	SEP 03	36.73
WATER YEAR 1998		HIGHEST	36.33	JUL 06, 1998	LOWEST	37.68	FEB 10, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

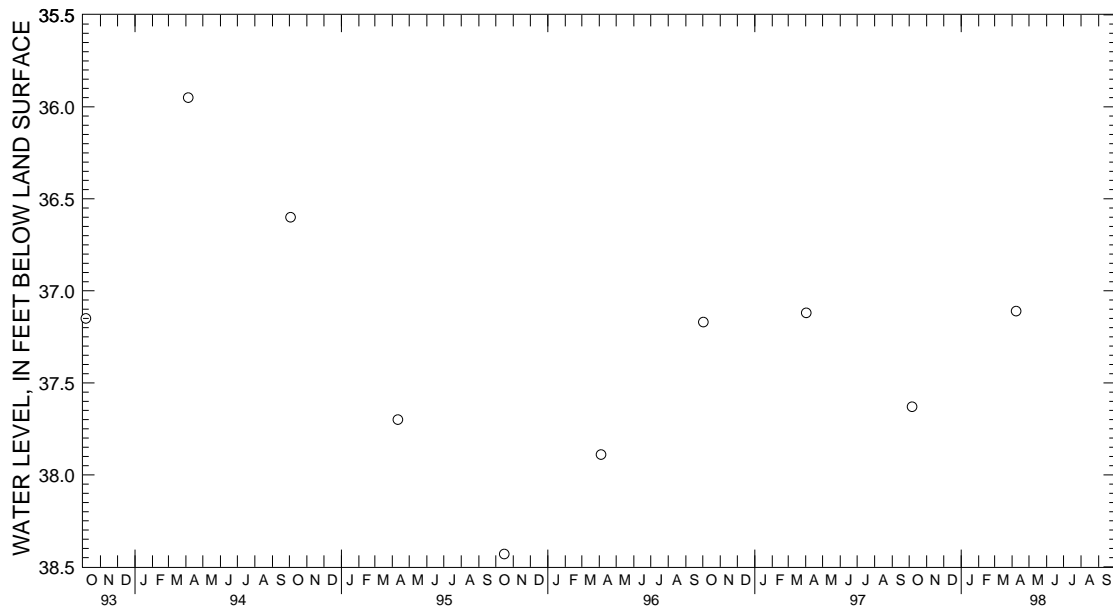
MARYLAND--Continued

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 Plaza.
 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	37.63	APR 08, 1998	37.11
WATER YEAR 1998	HIGHEST	37.11 APR 08, 1998	LOWEST 37.63 OCT 06, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

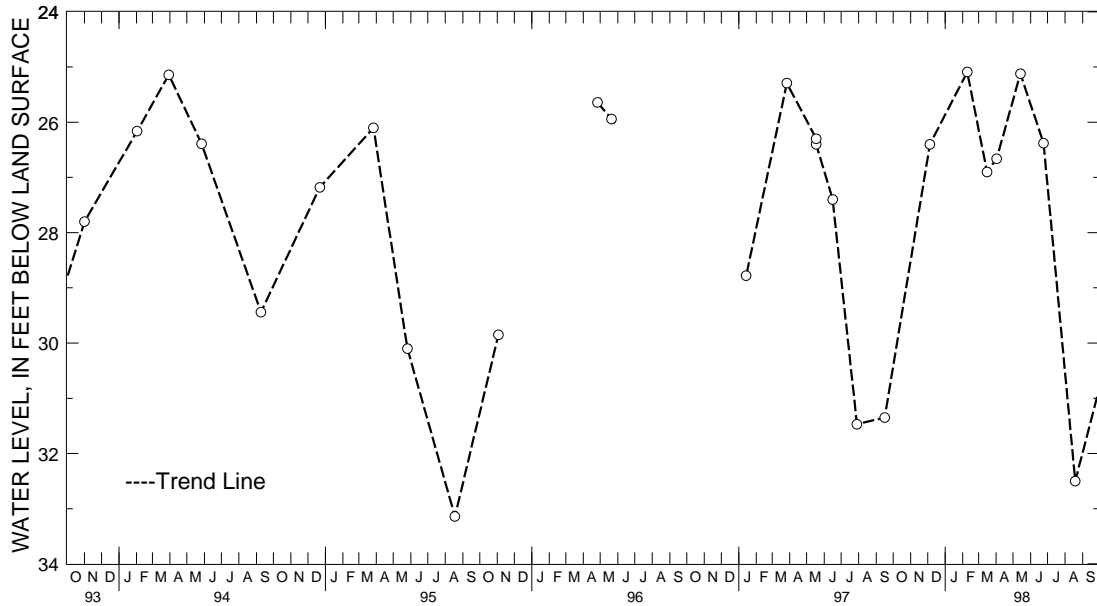
MARYLAND--Continued

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.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.
 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 electric 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, 33.14 ft below land surface, August 18, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
DEC 05, 1997	26.40	MAR 16, 1998	26.90	MAY 14, 1998	25.12	AUG 19, 1998	32.50
FEB 09, 1998	25.09	APR 02,	26.66	JUN 24,	26.38		
WATER YEAR 1998		HIGHEST	25.09	FEB 09, 1998		LOWEST	32.50
							AUG 19, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-12.35	-12.56	-10.48	-11.10	-8.41	-8.90	-9.63	-10.05	-8.14	-8.41	-8.08	-8.37
2	-12.23	-12.57	-10.27	-10.61	-8.78	-8.98	-9.48	-9.75	-8.06	-8.31	-8.07	-8.31
3	-12.11	-12.36	-10.33	-10.52	-8.76	-9.03	-9.59	-9.81	-8.05	-8.25	-8.15	-8.42
4	-12.11	-12.35	-10.48	-10.67	-8.76	-8.95	-9.52	-9.74	-7.89	-8.26	-8.29	-8.55
5	-12.04	-12.24	-10.53	-10.76	-8.74	-8.90	-9.43	-9.66	-7.49	-7.89	-8.40	-8.70
6	-12.11	-12.27	-10.43	-10.65	-8.83	-9.08	-9.23	-9.47	-7.43	-7.67	-8.60	-8.90
7	-12.15	-12.36	-9.93	-10.47	-8.94	-9.25	-9.27	-9.48	-7.51	-7.74	-8.54	-8.77
8	-12.18	-12.33	-9.64	-10.01	-9.17	-9.39	-9.02	-9.34	-7.62	-7.81	-8.40	-8.78
9	-12.14	-12.39	-9.64	-9.89	-9.08	-9.31	-9.06	-9.39	-7.55	-7.77	-7.79	-8.40
10	-12.26	-12.55	-9.77	-9.96	-8.93	-9.24	-9.34	-9.59	-7.71	-7.94	-8.11	-9.04
11	-12.42	-12.70	-9.82	-10.01	-9.07	-9.35	-9.35	-9.59	-7.69	-8.04	-9.01	-9.20
12	-12.36	-12.56	-9.77	-10.03	-9.21	-9.42	-9.42	-9.61	-7.43	-7.87	-9.04	-9.22
13	-12.36	-12.55	-9.76	-10.05	-9.24	-9.52	-9.33	-9.71	-7.86	-8.06	-8.84	-9.18
14	-12.27	-12.52	-9.44	-9.83	-9.38	-9.67	-9.62	-9.92	-7.93	-8.13	-8.63	-9.00
15	-12.41	-12.71	-9.44	-9.71	-9.36	-9.69	-9.34	-9.71	-7.85	-8.06	-8.96	-9.12
16	-12.44	-12.71	-9.53	-10.00	-9.37	-9.58	-9.26	-9.42	-7.76	-8.01	-8.96	-9.13
17	-12.14	-12.61	-9.87	-10.11	-9.23	-9.55	-8.88	-9.43	-7.25	-7.89	-8.90	-9.09
18	-12.03	-12.29	-9.74	-10.04	-9.25	-9.48	-8.89	-9.06	-7.22	-7.51	-8.80	-9.03
19	-11.90	-12.19	-9.63	-9.87	-9.24	-9.45	-8.67	-9.08	-7.51	-7.68	-8.72	-8.95
20	-11.72	-11.96	-9.65	-9.78	-9.43	-9.59	-8.75	-9.03	-7.65	-7.83	-8.52	-8.94
21	-11.61	-11.90	-9.55	-9.83	-9.42	-9.72	-8.79	-9.13	-7.73	-8.10	-8.28	-8.53
22	-11.61	-11.97	-9.52	-9.67	-9.28	-9.57	-8.68	-8.86	-8.09	-8.28	-8.51	-8.65
23	-11.82	-12.03	-9.32	-9.65	-9.28	-9.60	-8.31	-8.77	-7.75	-8.14	-8.48	-8.73
24	-11.66	-11.83	-9.31	-9.71	-9.19	-9.54	-8.31	-8.59	-7.80	-8.36	-8.73	-9.14
25	-11.60	-11.80	-9.37	-9.83	-9.07	-9.26	-8.52	-8.77	-8.29	-8.55	-9.04	-9.30
26	-11.18	-11.78	-9.25	-9.45	-9.21	-9.40	-8.54	-8.79	-8.16	-8.45	-8.90	-9.15
27	-11.02	-11.30	-9.37	-9.76	-9.25	-9.48	-8.45	-8.76	-8.07	-8.39	-9.00	-9.33
28	-11.30	-11.53	-9.09	-9.62	-9.25	-9.63	-8.35	-8.57	-8.07	-8.35	-9.06	-9.33
29	-11.22	-11.47	-8.89	-9.26	-8.89	-9.25	-7.80	-8.37	---	---	-9.04	-9.31
30	-11.25	-11.47	-8.46	-8.95	-8.77	-9.32	-7.81	-8.22	---	---	-9.03	-9.30
31	-10.96	-11.39	---	---	-9.32	-9.88	-8.19	-8.41	---	---	-8.96	-9.20
MONTH	-10.96	-12.71	-8.46	-11.10	-8.41	-9.88	-7.80	-10.05	-7.22	-8.55	-7.79	-9.33

GROUND-WATER LEVELS

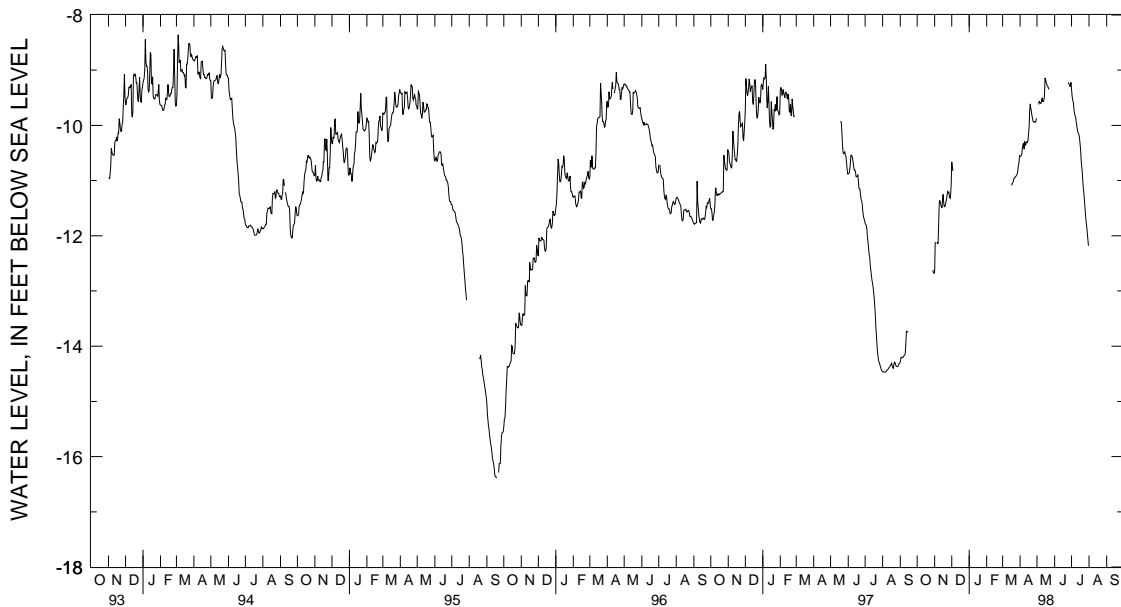
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Df 20--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-8.96	-9.19	-7.81	-8.16	---	---	-9.02	-9.36	-12.80	-13.02	-14.03	-14.47
2	-9.04	-9.23	-7.61	-7.93	---	---	-9.21	-9.49	-12.91	-13.14	-14.03	-14.29
3	-9.03	-9.32	-7.61	-7.77	---	---	-9.34	-9.56	-12.90	-13.18	-14.21	-14.78
4	-8.90	-9.11	-7.57	-7.73	---	---	-9.38	-9.63	-12.97	-13.35	-14.54	-14.95
5	-8.85	-9.02	-7.46	-7.65	---	---	-9.42	-9.92	-13.12	-13.61	-14.72	-15.12
6	-8.67	-8.87	-7.54	-7.76	---	---	-9.70	-9.97	-13.15	-13.74	-14.68	-15.01
7	-8.61	-8.82	-7.49	-7.71	---	---	-9.74	-10.07	-13.48	-14.02	-14.62	-14.91
8	-8.49	-8.69	-7.14	-7.50	---	---	-9.85	-10.20	-13.79	-14.23	-14.70	-15.07
9	-8.22	-8.61	-7.22	-7.50	---	---	-10.10	-10.35	-13.85	-14.32	-14.67	-15.19
10	-8.22	-8.49	-7.02	-7.50	---	---	-10.04	-10.47	-13.88	-14.29	-14.78	-15.03
11	-8.10	-8.42	-6.82	-7.08	---	---	-10.30	-10.53	-14.03	-14.42	-14.61	-15.12
12	-8.17	-8.42	-6.76	-6.95	---	---	-10.35	-10.65	-14.19	-14.63	-14.57	-14.80
13	-8.08	-8.34	-6.62	-6.89	---	---	-10.35	-10.63	-14.24	-14.58	-14.44	-14.76
14	-7.95	-8.23	-6.52	-6.72	---	---	-10.32	-10.56	-14.15	-14.49	-14.36	-14.69
15	-7.96	-8.12	-6.51	-6.78	---	---	-10.44	-10.74	-14.15	-14.56	-14.37	-14.67
16	-7.90	-8.15	-6.67	-6.86	---	---	-10.59	-10.85	-14.27	-14.69	-14.50	-15.00
17	-7.81	-8.12	-6.63	-6.82	---	---	-10.61	-10.87	-14.21	-14.53	-14.80	-15.16
18	-8.12	-8.45	-6.72	-6.87	---	---	-10.67	-11.11	-14.31	-14.62	-14.81	-15.22
19	-7.95	-8.26	-6.78	-7.02	---	---	-10.83	-11.00	-14.30	-14.66	-14.70	-15.22
20	-7.95	-8.23	-6.90	-7.06	---	---	-10.71	-11.19	-14.01	-14.39	-14.65	-14.96
21	-7.99	-8.24	-6.90	-7.20	---	---	-11.02	-11.30	-13.93	-14.20	-14.62	-14.87
22	-7.83	-8.05	-7.10	-7.42	---	---	-11.07	-11.52	-13.85	-14.12	-14.59	-14.81
23	-7.70	-7.92	-7.16	-7.39	---	---	-11.26	-11.69	-13.56	-13.98	-14.81	-15.11
24	-7.61	-7.84	---	---	---	---	-11.53	-11.95	-13.44	-13.86	-14.61	-14.89
25	-7.65	-8.15	---	---	-8.95	-9.24	-11.76	-12.03	-13.64	-13.87	-14.63	-14.89
26	-7.80	-8.14	---	---	-9.01	-9.26	-11.82	-12.07	-13.65	-13.96	-14.67	-15.00
27	-7.94	-8.23	---	---	-9.02	-9.32	-11.77	-12.07	-13.78	-13.95	-14.40	-14.84
28	-8.04	-8.30	---	---	-8.99	-9.35	-11.81	-12.08	-13.61	-14.05	-14.41	-14.80
29	-8.03	-8.34	---	---	-8.83	-9.05	-12.06	-12.36	-13.71	-13.92	-14.43	-14.75
30	-7.92	-8.18	---	---	-8.92	-9.14	-12.29	-12.57	-13.72	-14.18	-14.35	-14.58
31	---	---	---	---	---	---	-12.48	-13.04	-13.95	-14.17	---	---
MONTH	-7.61	-9.32	-6.51	-8.16	-8.83	-9.35	-9.02	-13.04	-12.80	-14.69	-14.03	-15.22
YEAR	-14.03	-15.22										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

213

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 electric 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 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-12.35	-12.56	-10.48	-11.10	-8.41	-8.90	-9.63	-10.05	-8.14	-8.41	-8.08	-8.37
2	-12.23	-12.57	-10.27	-10.61	-8.78	-8.98	-9.48	-9.75	-8.06	-8.31	-8.07	-8.31
3	-12.11	-12.36	-10.33	-10.52	-8.76	-9.03	-9.59	-9.81	-8.05	-8.25	-8.15	-8.42
4	-12.11	-12.35	-10.48	-10.67	-8.76	-8.95	-9.52	-9.74	-7.89	-8.26	-8.29	-8.55
5	-12.04	-12.24	-10.53	-10.76	-8.74	-8.90	-9.43	-9.66	-7.49	-7.89	-8.40	-8.70
6	-12.11	-12.27	-10.43	-10.65	-8.83	-9.08	-9.23	-9.47	-7.43	-7.67	-8.60	-8.90
7	-12.15	-12.36	-9.93	-10.47	-8.94	-9.25	-9.27	-9.48	-7.51	-7.74	-8.54	-8.77
8	-12.18	-12.33	-9.64	-10.01	-9.17	-9.39	-9.02	-9.34	-7.62	-7.81	-8.40	-8.78
9	-12.14	-12.39	-9.64	-9.89	-9.08	-9.31	-9.06	-9.39	-7.55	-7.77	-7.79	-8.40
10	-12.26	-12.55	-9.77	-9.96	-8.93	-9.24	-9.34	-9.59	-7.71	-7.94	-8.11	-9.04
11	-12.42	-12.70	-9.82	-10.01	-9.07	-9.35	-9.35	-9.59	-7.69	-8.04	-9.01	-9.20
12	-12.36	-12.56	-9.77	-10.03	-9.21	-9.42	-9.42	-9.61	-7.43	-7.87	-9.04	-9.22
13	-12.36	-12.55	-9.76	-10.05	-9.24	-9.52	-9.33	-9.71	-7.86	-8.06	-8.84	-9.18
14	-12.27	-12.52	-9.44	-9.83	-9.38	-9.67	-9.62	-9.92	-7.93	-8.13	-8.63	-9.00
15	-12.41	-12.71	-9.44	-9.71	-9.36	-9.69	-9.34	-9.71	-7.85	-8.06	-8.96	-9.12
16	-12.44	-12.71	-9.53	-10.00	-9.37	-9.58	-9.26	-9.42	-7.76	-8.01	-8.96	-9.13
17	-12.14	-12.61	-9.87	-10.11	-9.23	-9.55	-8.88	-9.43	-7.25	-7.89	-8.90	-9.09
18	-12.03	-12.29	-9.74	-10.04	-9.25	-9.48	-8.89	-9.06	-7.22	-7.51	-8.80	-9.03
19	-11.90	-12.19	-9.63	-9.87	-9.24	-9.45	-8.67	-9.08	-7.51	-7.68	-8.72	-8.95
20	-11.72	-11.96	-9.65	-9.78	-9.43	-9.59	-8.75	-9.03	-7.65	-7.83	-8.52	-8.94
21	-11.61	-11.90	-9.55	-9.83	-9.42	-9.72	-8.79	-9.13	-7.73	-8.10	-8.28	-8.53
22	-11.61	-11.97	-9.52	-9.67	-9.28	-9.57	-8.68	-8.86	-8.09	-8.28	-8.51	-8.65
23	-11.82	-12.03	-9.32	-9.65	-9.28	-9.60	-8.31	-8.77	-7.75	-8.14	-8.48	-8.73
24	-11.66	-11.83	-9.31	-9.71	-9.19	-9.54	-8.31	-8.59	-7.80	-8.36	-8.73	-9.14
25	-11.60	-11.80	-9.37	-9.83	-9.07	-9.26	-8.52	-8.77	-8.29	-8.55	-9.04	-9.30
26	-11.18	-11.78	-9.25	-9.45	-9.21	-9.40	-8.54	-8.79	-8.16	-8.45	-8.90	-9.15
27	-11.02	-11.30	-9.37	-9.76	-9.25	-9.48	-8.45	-8.76	-8.07	-8.39	-9.00	-9.33
28	-11.30	-11.53	-9.09	-9.62	-9.25	-9.63	-8.35	-8.57	-8.07	-8.35	-9.06	-9.33
29	-11.22	-11.47	-8.89	-9.26	-8.89	-9.25	-7.80	-8.37	---	---	-9.04	-9.31
30	-11.25	-11.47	-8.46	-8.95	-8.77	-9.32	-7.81	-8.22	---	---	-9.03	-9.30
31	-10.96	-11.39	---	---	-9.32	-9.88	-8.19	-8.41	---	---	-8.96	-9.20
MONTH	-10.96	-12.71	-8.46	-11.10	-8.41	-9.88	-7.80	-10.05	-7.22	-8.55	-7.79	-9.33

GROUND-WATER LEVELS

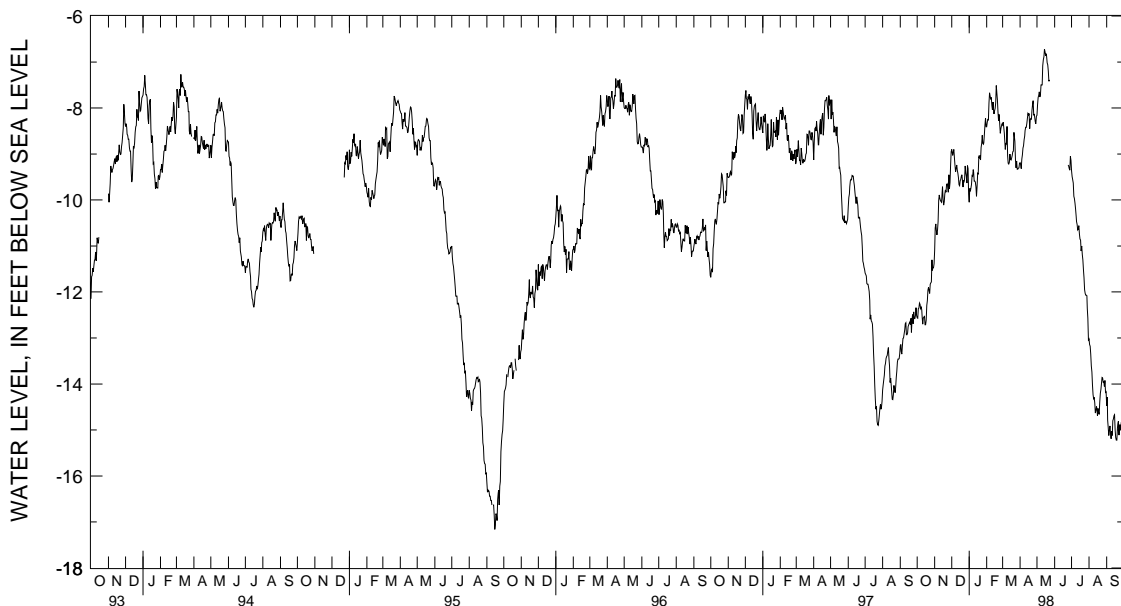
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

AA Df 79--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-8.96	-9.19	-7.81	-8.16	---	---	-9.02	-9.36	-12.80	-13.02	-14.03	-14.47
2	-9.04	-9.23	-7.61	-7.93	---	---	-9.21	-9.49	-12.91	-13.14	-14.03	-14.29
3	-9.03	-9.32	-7.61	-7.77	---	---	-9.34	-9.56	-12.90	-13.18	-14.21	-14.78
4	-8.90	-9.11	-7.57	-7.73	---	---	-9.38	-9.63	-12.97	-13.35	-14.54	-14.95
5	-8.85	-9.02	-7.46	-7.65	---	---	-9.42	-9.92	-13.12	-13.61	-14.72	-15.12
6	-8.67	-8.87	-7.54	-7.76	---	---	-9.70	-9.97	-13.15	-13.74	-14.68	-15.01
7	-8.61	-8.82	-7.49	-7.71	---	---	-9.74	-10.07	-13.48	-14.02	-14.62	-14.91
8	-8.49	-8.69	-7.14	-7.50	---	---	-9.85	-10.20	-13.79	-14.23	-14.70	-15.07
9	-8.22	-8.61	-7.22	-7.50	---	---	-10.10	-10.35	-13.85	-14.32	-14.67	-15.19
10	-8.22	-8.49	-7.02	-7.50	---	---	-10.04	-10.47	-13.88	-14.29	-14.78	-15.03
11	-8.10	-8.42	-6.82	-7.08	---	---	-10.30	-10.53	-14.03	-14.42	-14.61	-15.12
12	-8.17	-8.42	-6.76	-6.95	---	---	-10.35	-10.65	-14.19	-14.63	-14.57	-14.80
13	-8.08	-8.34	-6.62	-6.89	---	---	-10.35	-10.63	-14.24	-14.58	-14.44	-14.76
14	-7.95	-8.23	-6.52	-6.72	---	---	-10.32	-10.56	-14.15	-14.49	-14.36	-14.69
15	-7.96	-8.12	-6.51	-6.78	---	---	-10.44	-10.74	-14.15	-14.56	-14.37	-14.67
16	-7.90	-8.15	-6.67	-6.86	---	---	-10.59	-10.85	-14.27	-14.69	-14.50	-15.00
17	-7.81	-8.12	-6.63	-6.82	---	---	-10.61	-10.87	-14.21	-14.53	-14.80	-15.16
18	-8.12	-8.45	-6.72	-6.87	---	---	-10.67	-11.11	-14.31	-14.62	-14.81	-15.22
19	-7.95	-8.26	-6.78	-7.02	---	---	-10.83	-11.00	-14.30	-14.66	-14.70	-15.22
20	-7.95	-8.23	-6.90	-7.06	---	---	-10.71	-11.19	-14.01	-14.39	-14.65	-14.96
21	-7.99	-8.24	-6.90	-7.20	---	---	-11.02	-11.30	-13.93	-14.20	-14.62	-14.87
22	-7.83	-8.05	-7.10	-7.42	---	---	-11.07	-11.52	-13.85	-14.12	-14.59	-14.81
23	-7.70	-7.92	-7.16	-7.39	---	---	-11.26	-11.69	-13.56	-13.98	-14.81	-15.11
24	-7.61	-7.84	---	---	---	---	-11.53	-11.95	-13.44	-13.86	-14.61	-14.89
25	-7.65	-8.15	---	---	-8.95	-9.24	-11.76	-12.03	-13.64	-13.87	-14.63	-14.89
26	-7.80	-8.14	---	---	-9.01	-9.26	-11.82	-12.07	-13.65	-13.96	-14.67	-15.00
27	-7.94	-8.23	---	---	-9.02	-9.32	-11.77	-12.07	-13.78	-13.95	-14.40	-14.84
28	-8.04	-8.30	---	---	-8.99	-9.35	-11.81	-12.08	-13.61	-14.05	-14.41	-14.80
29	-8.03	-8.34	---	---	-8.83	-9.05	-12.06	-12.36	-13.71	-13.92	-14.43	-14.75
30	-7.92	-8.18	---	---	-8.92	-9.14	-12.29	-12.57	-13.72	-14.18	-14.35	-14.58
31	---	---	---	---	---	---	-12.48	-13.04	-13.95	-14.17	---	---
MONTH	-7.61	-9.32	-6.51	-8.16	-8.83	-9.35	-9.02	-13.04	-12.80	-14.69	-14.03	-15.22
YEAR	-6.51	-15.22										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

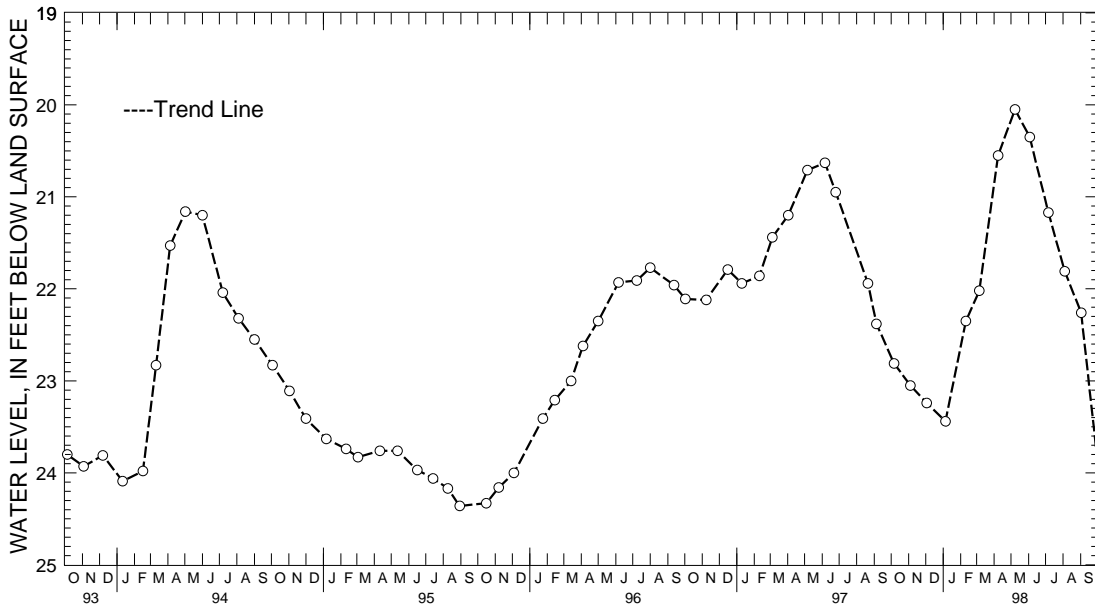
MARYLAND--Continued

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 electric 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, 20.05 ft below land surface, May 8, 1998;
 lowest measured, 25.39 ft below land surface, April 9, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	22.81	JAN 05, 1998	23.44	APR 08, 1998	20.55	JUL 06, 1998	21.17
NOV 04	23.05	FEB 10	22.35	MAY 08	20.05	AUG 04	21.81
DEC 03	23.24	MAR 06	22.02	JUN 03	20.35	SEP 02	22.26
WATER YEAR 1998		HIGHEST	20.05	MAY 08, 1998	LOWEST	23.44	JAN 05, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

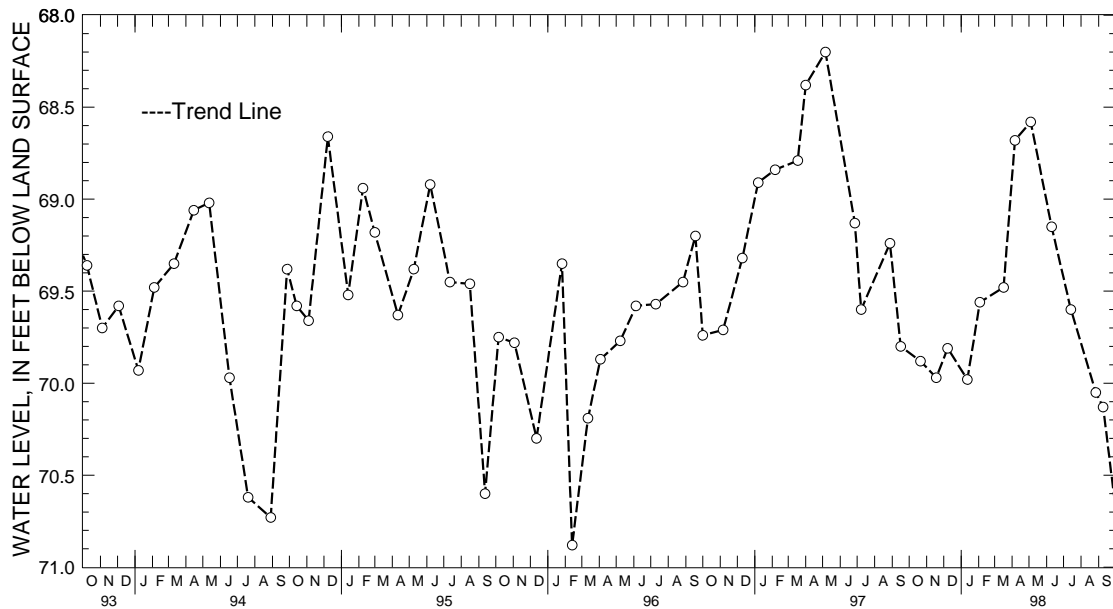
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	69.88	JAN 12, 1998	69.98	APR 06, 1998	68.68	JUL 14, 1998	69.60
NOV 18	69.97	FEB 03	69.56	MAY 04	68.58	AUG 27	70.05
DEC 08	69.81	MAR 17	69.48	JUN 10	69.15	SEP 09	70.13
WATER YEAR 1998		HIGHEST	68.58	MAY 04, 1998	LOWEST	70.13	SEP 09, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

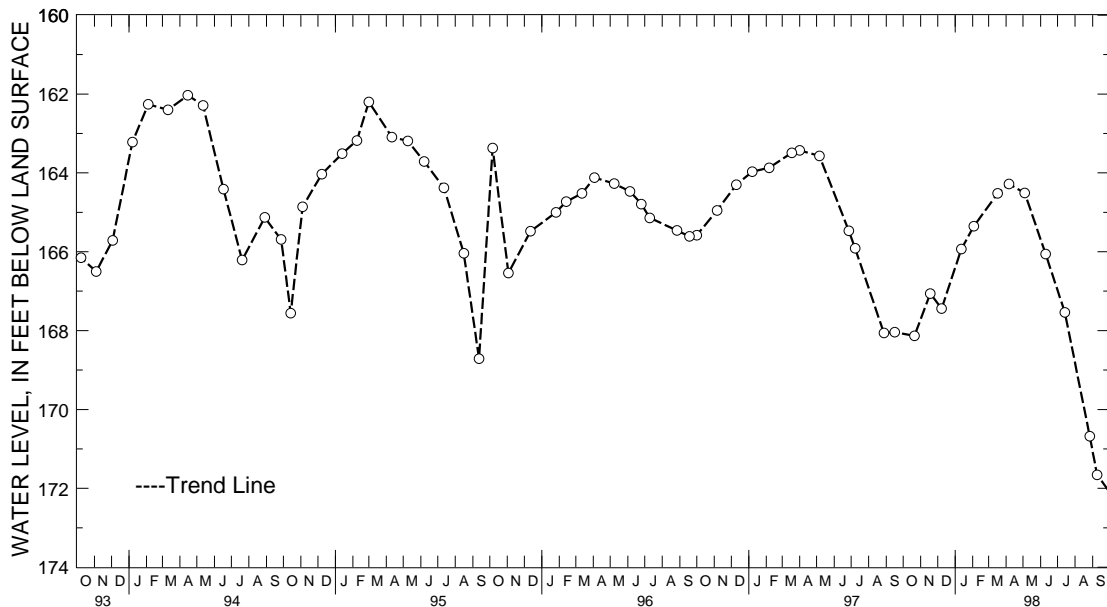
MARYLAND--Continued

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 electric 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, 171.66 ft below land surface, Sept. 9, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	168.13	JAN 12, 1998	165.93	APR 06, 1998	164.28	JUL 14, 1998	167.54
NOV 18	167.06	FEB 03	165.35	MAY 04	164.51	AUG 27	170.68
DEC 08	167.44	MAR 17	164.52	JUN 10	166.06	SEP 09	171.66
WATER YEAR 1998		HIGHEST	164.28	APR 06, 1998	LOWEST	171.66	SEP 09, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE CITY

WELL NUMBER.--2S5E- 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 electric 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.

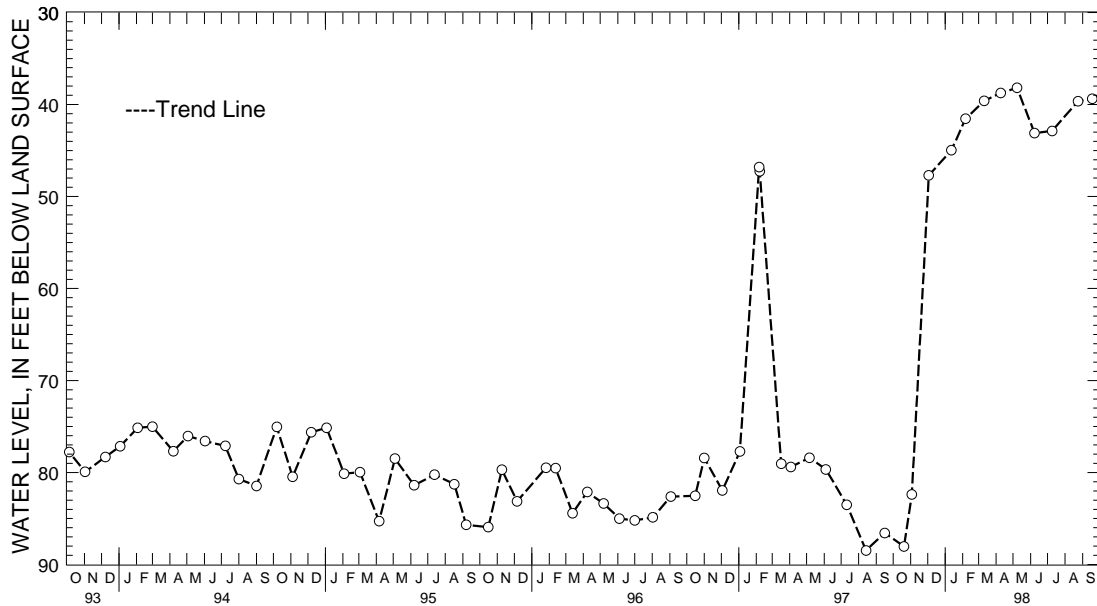
REMARKS.--Maryland Water-Level Network observation well. Water level reported 58 ft below land surface in 1934.

PERIOD OF RECORD.--April 1943 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.19 ft below land surface, May 8, 1998; lowest measured, 103.70 ft below land surface, Oct. 15, 1948.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1997	88.04	JAN 12, 1998	44.97	APR 09, 1998	38.75	JUL 09, 1998	42.87
NOV 03	82.38	FEB 06	41.55	MAY 08	38.19	AUG 24	39.65
DEC 03	47.70	MAR 11	39.59	JUN 08	43.10	SEP 18	39.37
WATER YEAR 1998		HIGHEST	38.19	MAY 08, 1998	LOWEST	88.04	OCT 20, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

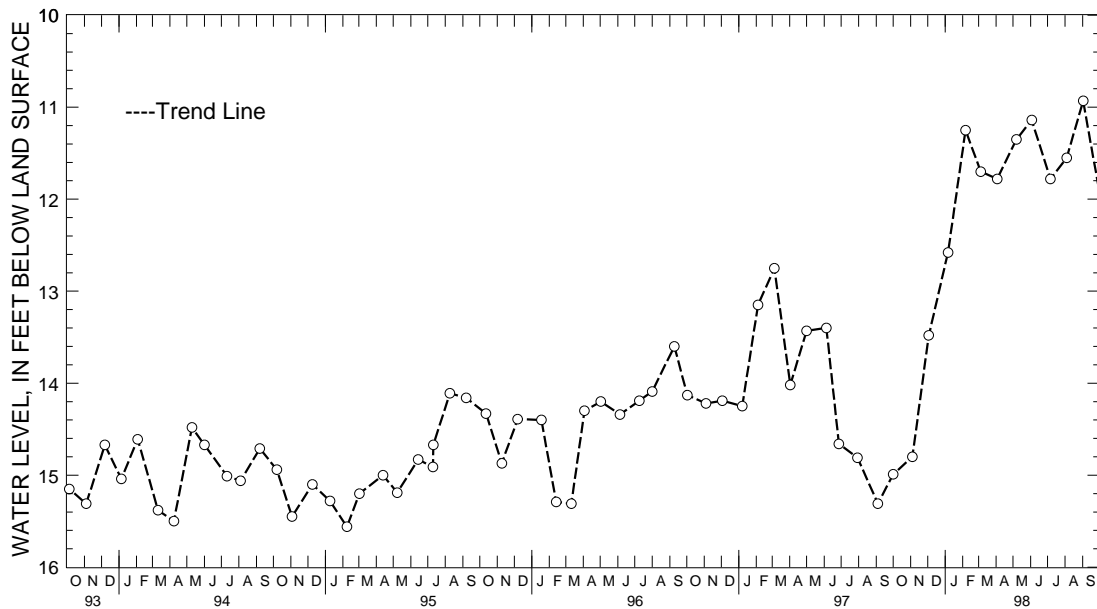
MARYLAND--Continued

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 electric 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, 10.93 ft below land surface, Sept. 2, 1998; lowest measured, 17.71 ft below land surface, Dec. 30, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	14.99	JAN 06, 1998	12.58	APR 03, 1998	11.78	JUL 06, 1998	11.78
NOV 04	14.80	FEB 06	11.25	MAY 07	11.35	AUG 04	11.55
DEC 03	13.48	MAR 05	11.70	JUN 03	11.14	SEP 02	10.93
WATER YEAR 1998		HIGHEST	10.93	SEP 02, 1998	LOWEST	14.99	OCT 01, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

BALTIMORE CITY--Continued

WELL NUMBER.--3S5E- 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 electric 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.

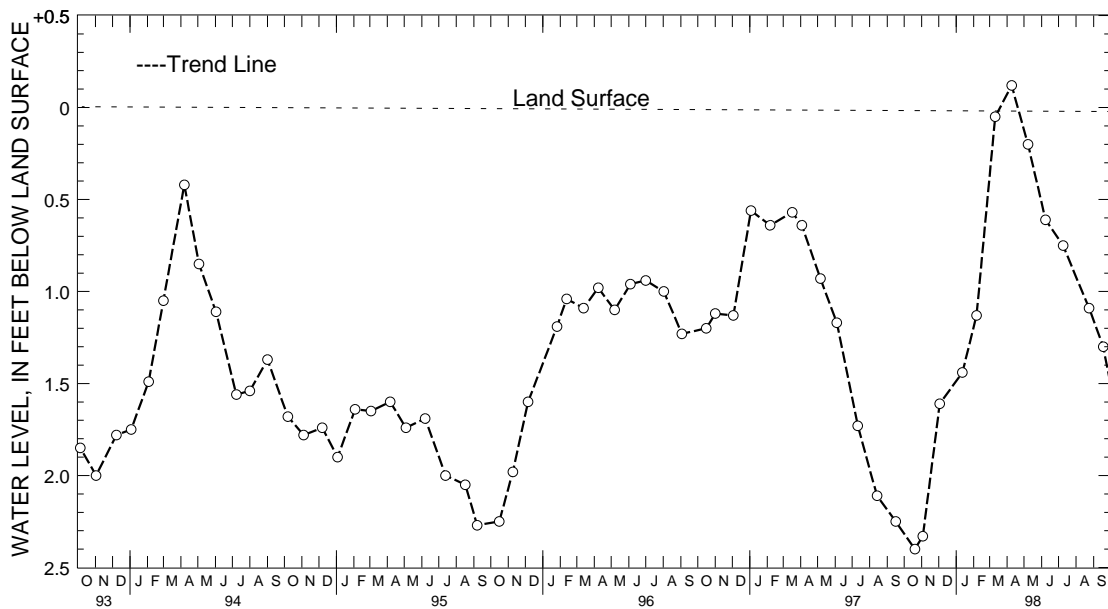
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1997	2.40	JAN 12, 1998	1.44	APR 09, 1998	+ .12	JUL 09, 1998	.75
NOV 03	2.33	FEB 06	1.13	MAY 08	.20	AUG 24	1.09
DEC 03	1.61	MAR 11	.05	JUN 08	.61	SEP 18	1.30
WATER YEAR 1998		HIGHEST	+ .12	APR 09, 1998	LOWEST	2.40	OCT 20, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

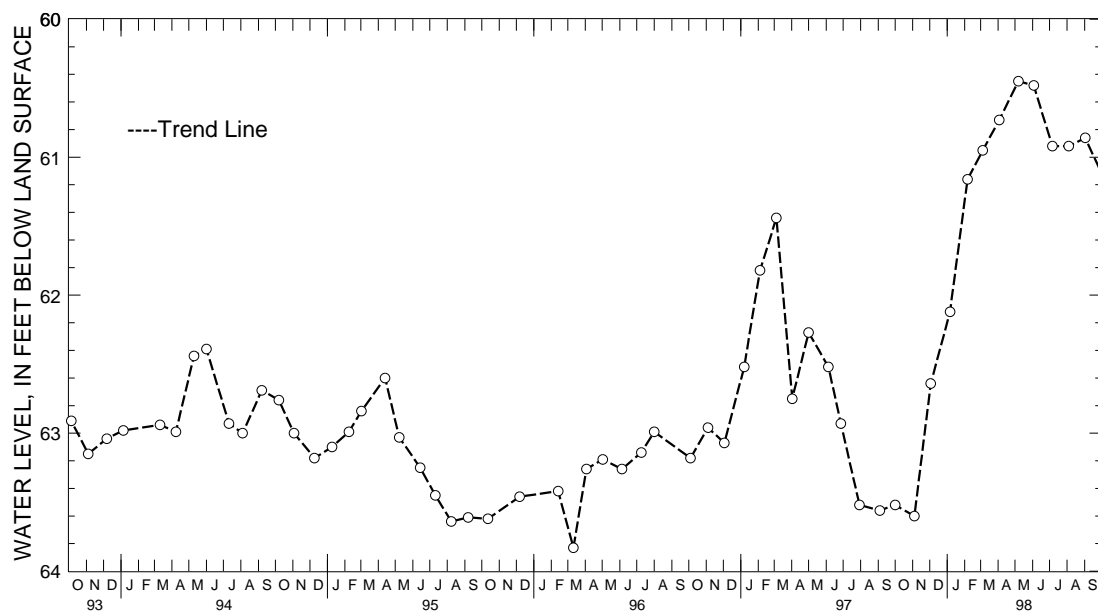
MARYLAND--Continued

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 electric 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, 60.45 ft below land surface, May 7, 1998;
 lowest measured, 66.36 ft below land surface, May 5, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 01, 1997	63.52	JAN 06, 1998	62.12	APR 03, 1998	60.73	JUL 06, 1998	60.92
NOV 04	63.60	FEB 06	61.16	MAY 07	60.45	AUG 04	60.92
DEC 03	62.64	MAR 05	60.95	JUN 03	60.48	SEP 02	60.86
WATER YEAR 1998		HIGHEST	60.45	MAY 07, 1998	LOWEST	63.60	NOV 04, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

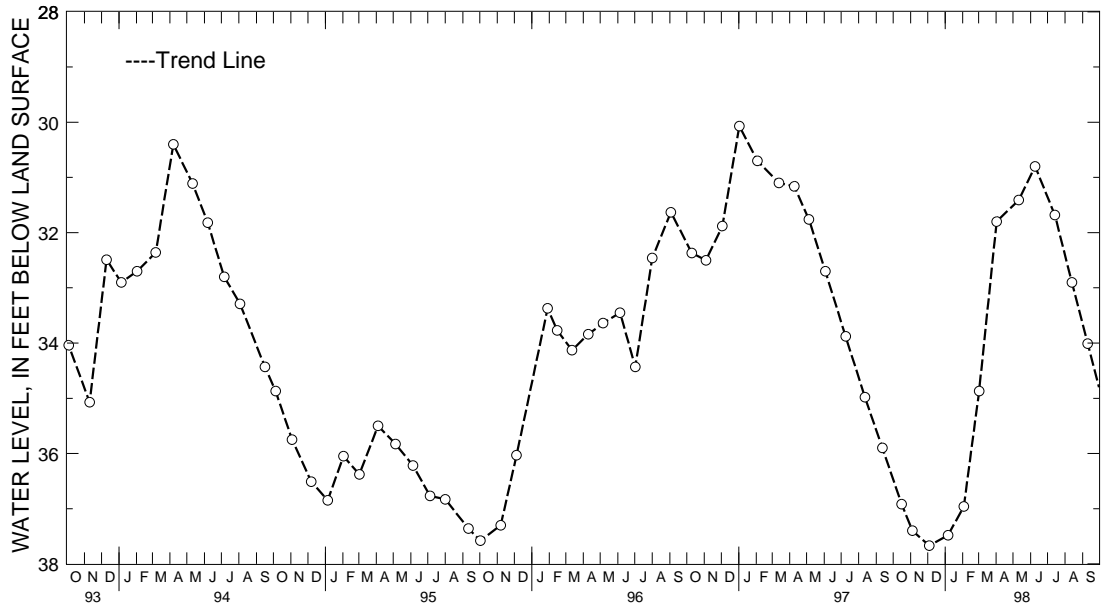
MARYLAND--Continued

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, near 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	36.92	JAN 06, 1998	37.48	APR 02, 1998	31.80	JUL 14, 1998	31.68
NOV 04	37.40	FEB 03	36.96	MAY 11	31.41	AUG 13	32.90
DEC 04	37.67	MAR 02	34.87	JUN 09	30.80	SEP 10	34.01
WATER YEAR 1998		HIGHEST	30.80	JUN 09, 1998	LOWEST	37.67	DEC 04, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

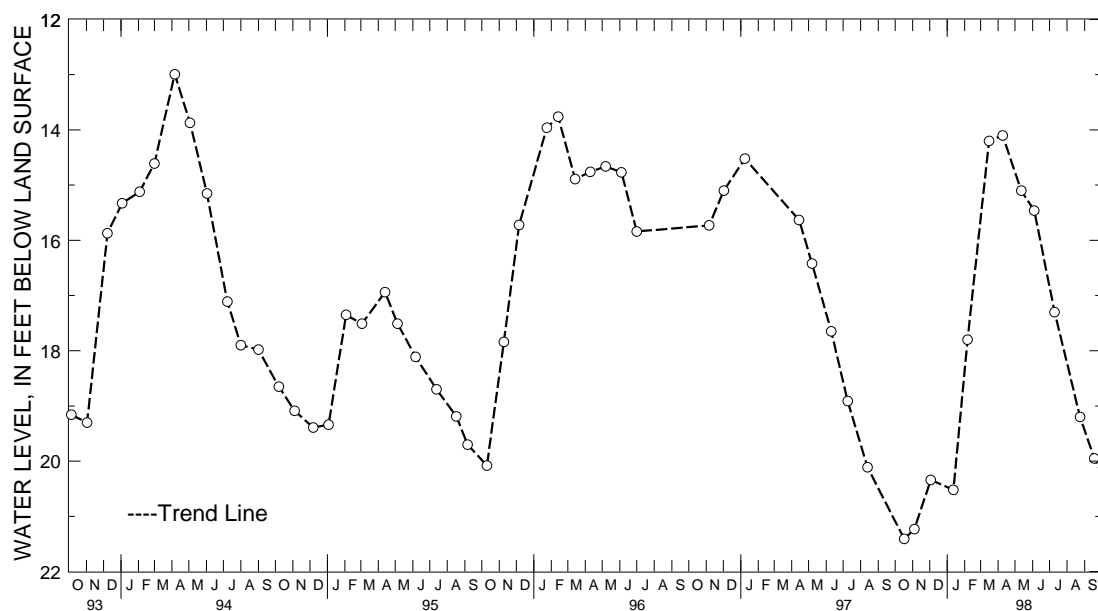
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--November and December 1955, November 1956 through September 1975, July 1977 through July 1996, November 1996 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	21.41	JAN 12, 1998	20.52	APR 09, 1998	14.10	JUL 10, 1998	17.30
NOV 04	21.23	FEB 06	17.80	MAY 12	15.10	AUG 24	19.20
DEC 03	20.34	MAR 16	14.20	JUN 04	15.46	SEP 18	19.95
WATER YEAR 1998		HIGHEST	14.10	APR 09, 1998	LOWEST	21.41	OCT 17, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

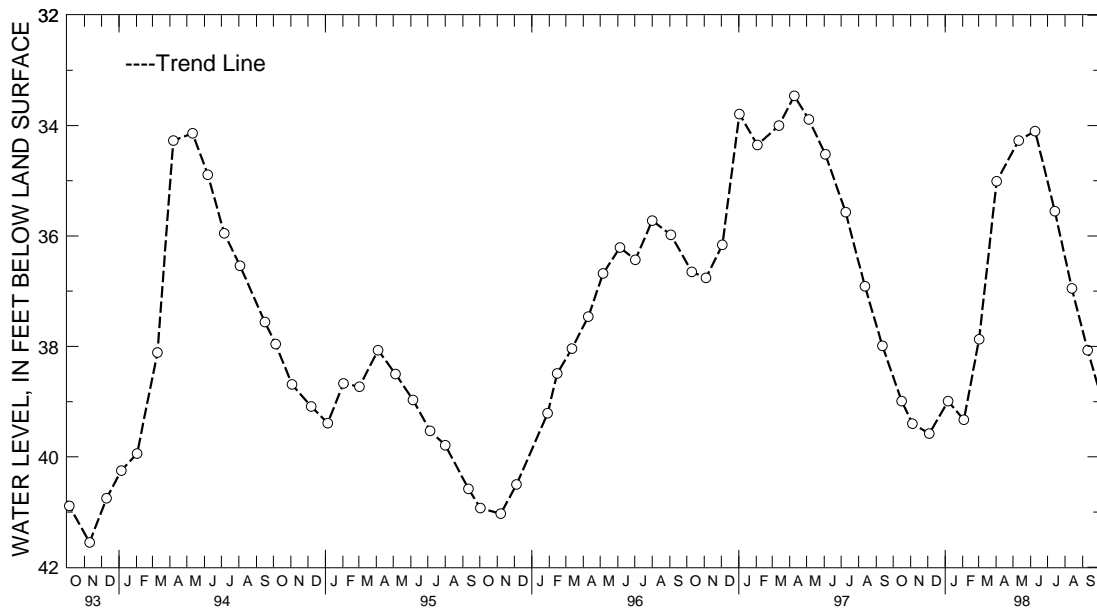
MARYLAND--Continued

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 electric 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 and Collection of Basic Records (CBR) national network observation well (see figure 3).
 PERIOD OF RECORD.--September 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 33.46 ft below land surface, April 9, 1997; lowest measured, 45.07 ft below land surface, Jan. 17, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	38.99	JAN 06, 1998	38.99	APR 02, 1998	35.01	JUL 14, 1998	35.55
NOV 04	39.40	FEB 03	39.33	MAY 11	34.27	AUG 13	36.95
DEC 04	39.58	MAR 02	37.87	JUN 09	34.10	SEP 10	38.07
WATER YEAR 1998		HIGHEST 34.10	JUN 09, 1998		LOWEST 39.58	DEC 04, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

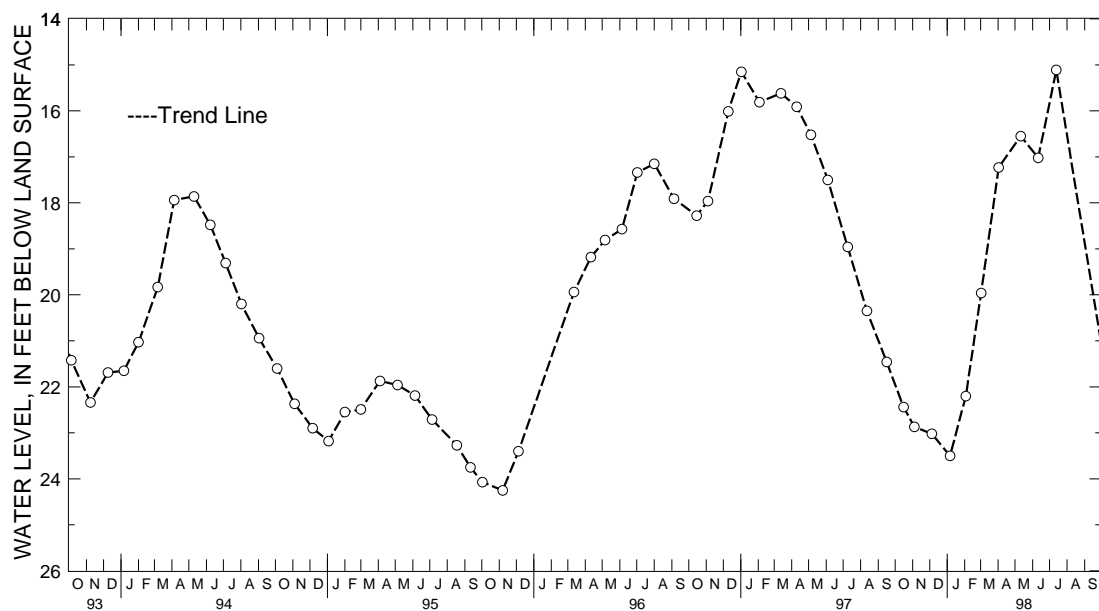
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	22.44	JAN 06, 1998	23.50	APR 02, 1998	17.23	JUL 13, 1998	15.11
NOV 04	22.87	FEB 03	22.20	MAY 11	16.55		
DEC 05	23.02	MAR 02	19.96	JUN 11	17.02		
WATER YEAR 1998		HIGHEST	15.11 JUL 13, 1998	LOWEST	23.50 JAN 06, 1998		



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

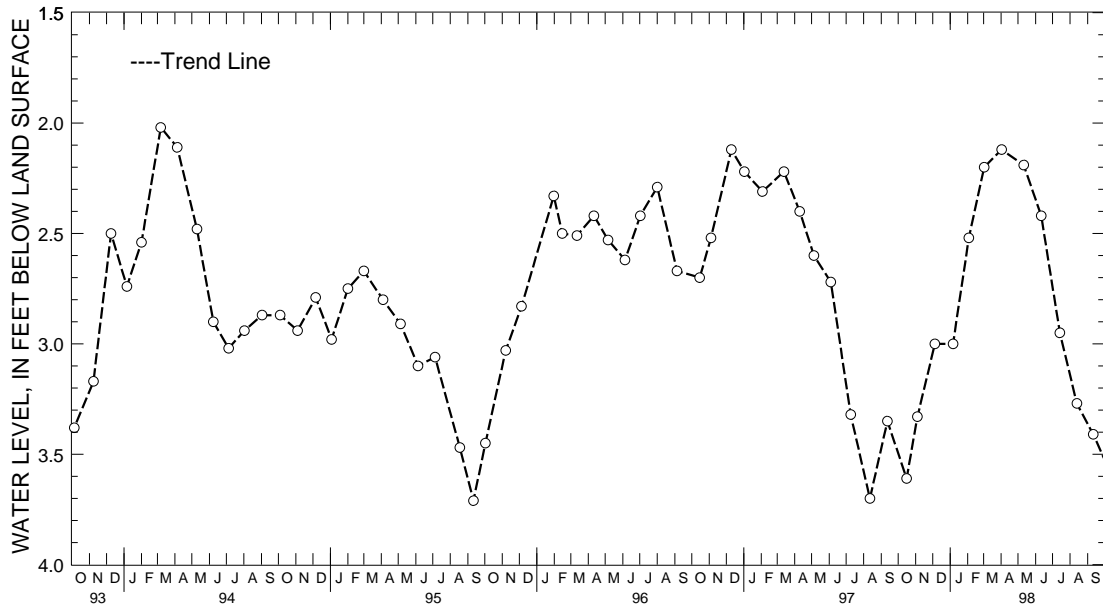
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	3.61	JAN 06, 1998	3.00	APR 02, 1998	2.12	JUL 14, 1998	2.95
NOV 04	3.33	FEB 03	2.52	MAY 11	2.19	AUG 13	3.27
DEC 05	3.00	MAR 02	2.20	JUN 11	2.42	SEP 11	3.41
WATER YEAR 1998		HIGHEST	2.12	APR 02, 1998		LOWEST	3.61
							OCT 16, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

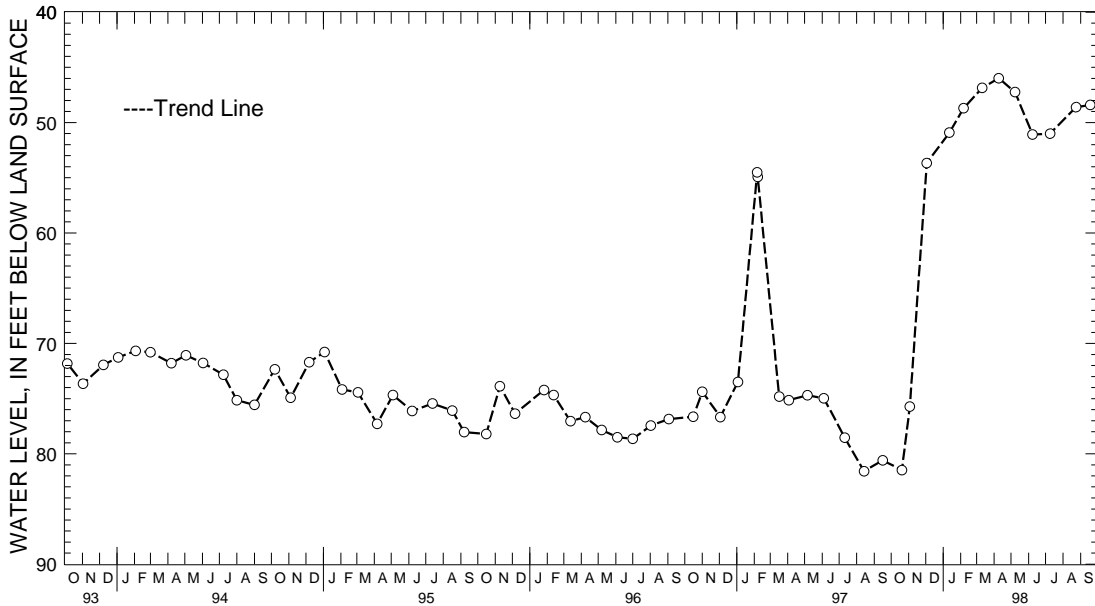
MARYLAND--Continued

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: Montebello Brands.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, depth 402 ft; casing diameter 8 in., to unknown depth;
 screen length 35 ft.
 INSTRUMENTATION.--Monthly measurements with electric 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, 45.98 ft below land surface, April 9, 1998;
 lowest measured, 95.88 ft below land surface, Oct. 6, 1952.

WATER LEVEL, IN FEET BELOW LAND SURFACE WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1997	81.47	JAN 12, 1998	50.91	APR 09, 1998	45.98	JUL 09, 1998	51.00
NOV 03	75.73	FEB 06	48.70	MAY 08	47.23	AUG 24	48.60
DEC 03	53.67	MAR 11	46.85	JUN 08	51.08	SEP 18	48.40
WATER YEAR 1998		HIGHEST	45.98	APR 09, 1998	LOWEST	81.47	OCT 20, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

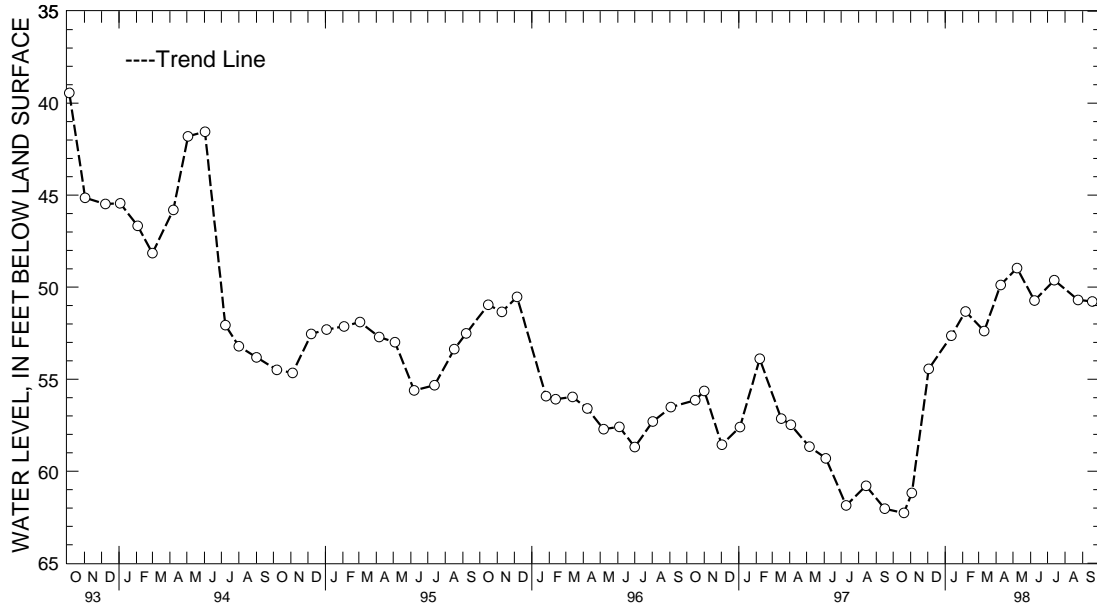
REMARKS.--Maryland Water-Level Network observation well.

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, 62.27 ft below land surface, October 20, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1997	62.27	JAN 12, 1998	52.64	APR 09, 1998	49.88	JUL 13, 1998	49.62
NOV 03	61.18	FEB 06	51.32	MAY 08	48.96	AUG 24	50.69
DEC 03	54.44	MAR 11	52.38	JUN 08	50.73	SEP 18	50.78
WATER YEAR 1998		HIGHEST	48.96	MAY 08, 1998	LOWEST	62.27	OCT 20, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

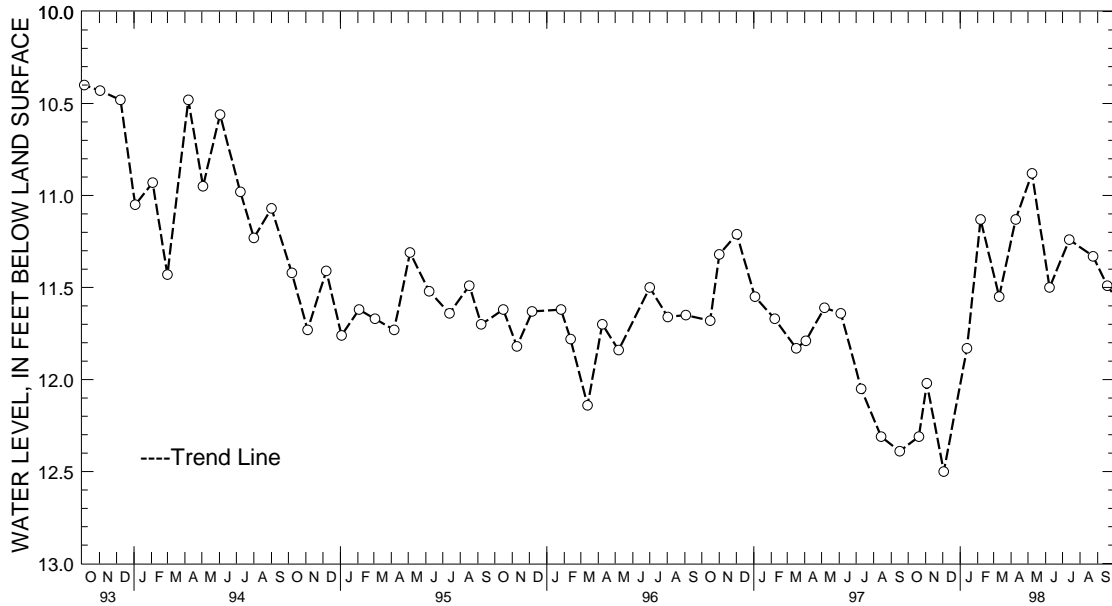
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1997	12.31	JAN 13, 1998	11.83	APR 09, 1998	11.13	JUL 13, 1998	11.24
NOV 03	12.02	FEB 06	11.13	MAY 08	10.88	AUG 24	11.33
DEC 03	12.50	MAR 11	11.55	JUN 08	11.50	SEP 18	11.49
WATER YEAR 1998		HIGHEST	10.88	MAY 08, 1998	LOWEST	12.50	DEC 03, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

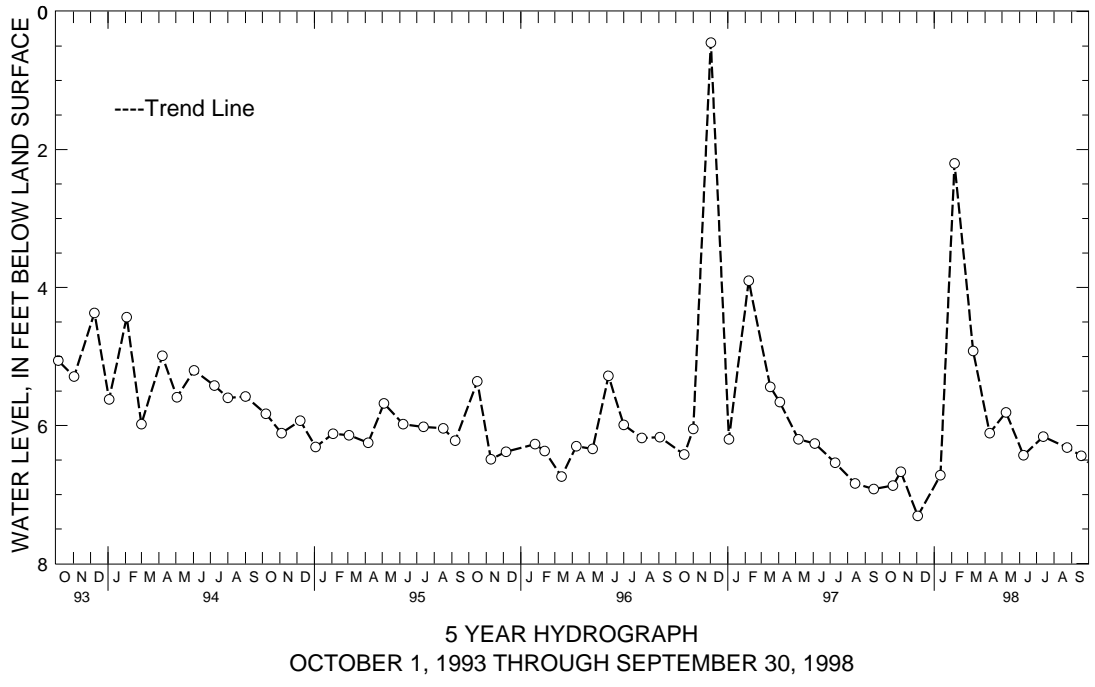
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20, 1997	6.87	JAN 12, 1998	6.72	APR 09, 1998	6.11	JUL 13, 1998	6.16
NOV 03	6.67	FEB 06	2.20	MAY 08	5.81	AUG 24	6.32
DEC 03	7.31	MAR 11	4.92	JUN 08	6.43	SEP 18	6.44
WATER YEAR 1998		HIGHEST	2.20 FEB 06, 1998	LOWEST	7.31 DEC 03, 1997		



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 electric 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.

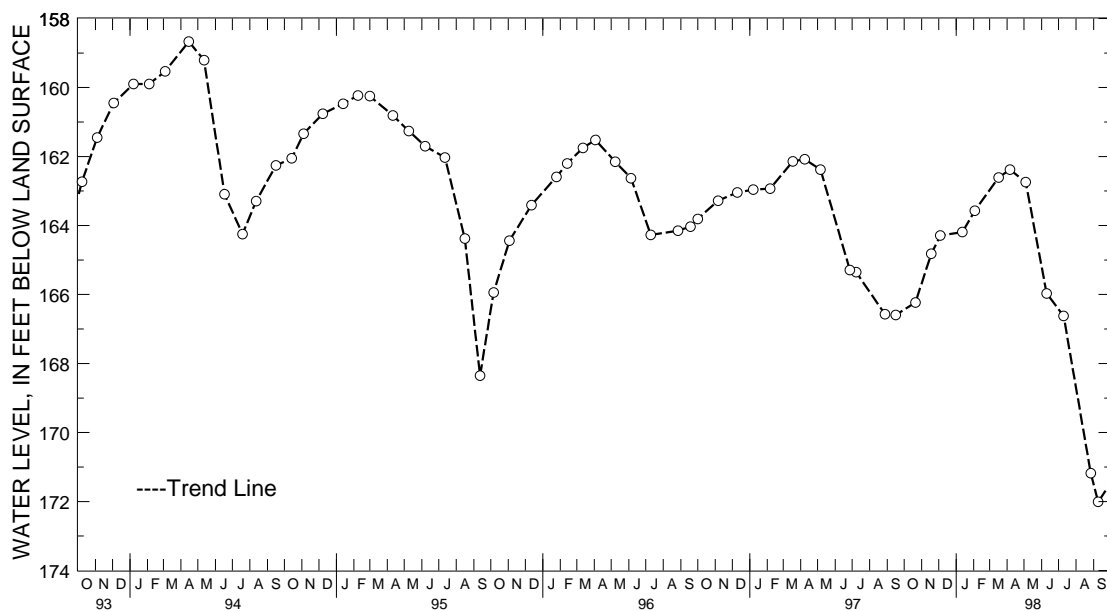
REMARKS.--Maryland Water-Level Network observation well.

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, 172.01 ft below land surface, Sept. 9, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	166.23	JAN 12, 1998	164.19	APR 06, 1998	162.38	JUL 10, 1998	166.62
NOV 18	164.82	FEB 03	163.57	MAY 04	162.74	AUG 27	171.18
DEC 04	164.29	MAR 17	162.61	JUN 10	165.97	SEP 09	172.01
WATER YEAR 1998		HIGHEST	162.38	APR 06, 1998	LOWEST	172.01	SEP 09, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

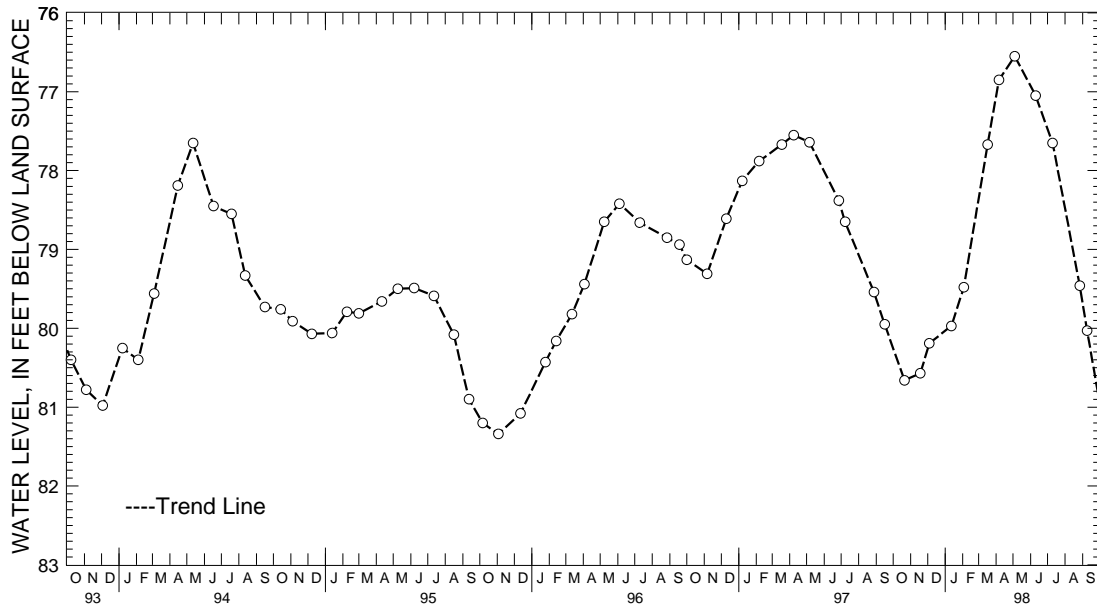
MARYLAND--Continued

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 electric 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, 76.55 ft below land surface, May 4, 1998; lowest measured, 81.34 ft below land surface, Nov. 3, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	80.66	JAN 12, 1998	79.97	APR 06, 1998	76.85	JUL 10, 1998	77.65
NOV 18	80.57	FEB 03	79.48	MAY 04	76.55	AUG 27	79.46
DEC 04	80.19	MAR 17	77.67	JUN 10	77.05	SEP 09	80.03
WATER YEAR 1998		HIGHEST	76.55	MAY 04, 1998	LOWEST	80.66	OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

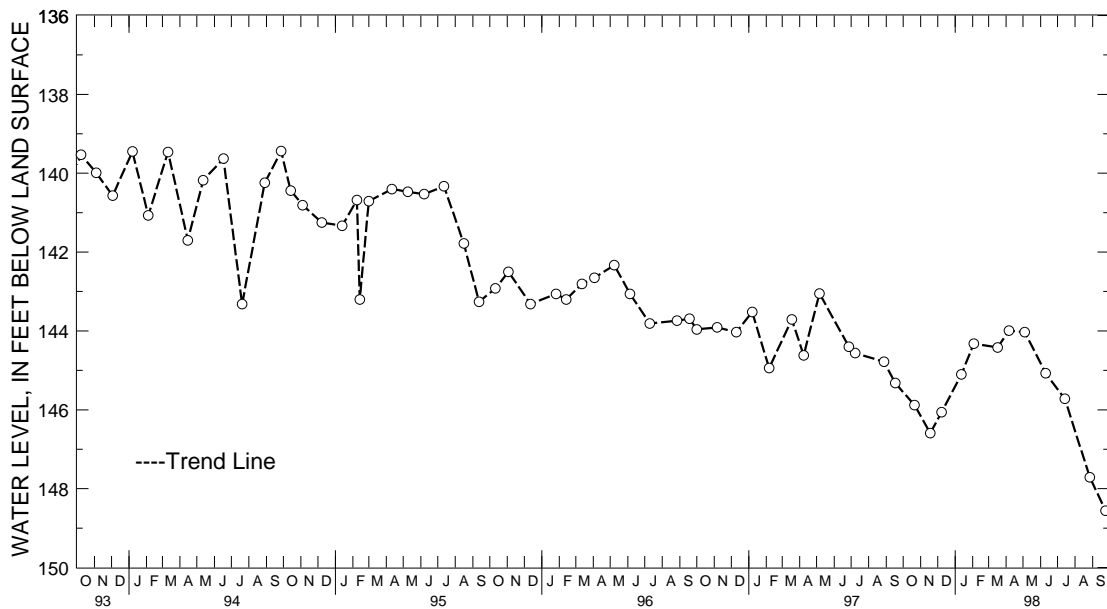
MARYLAND--Continued

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 electric 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, 148.56 ft below land surface, Sept. 24, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	145.88	JAN 12, 1998	145.10	APR 06, 1998	143.99	JUL 14, 1998	145.72
NOV 18	146.59	FEB 03	144.32	MAY 04	144.03	AUG 27	147.71
DEC 08	146.06	MAR 17	144.42	JUN 10	145.07	SEP 24	148.56
WATER YEAR 1998		HIGHEST	143.99	APR 06, 1998	LOWEST	148.56	SEP 24, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

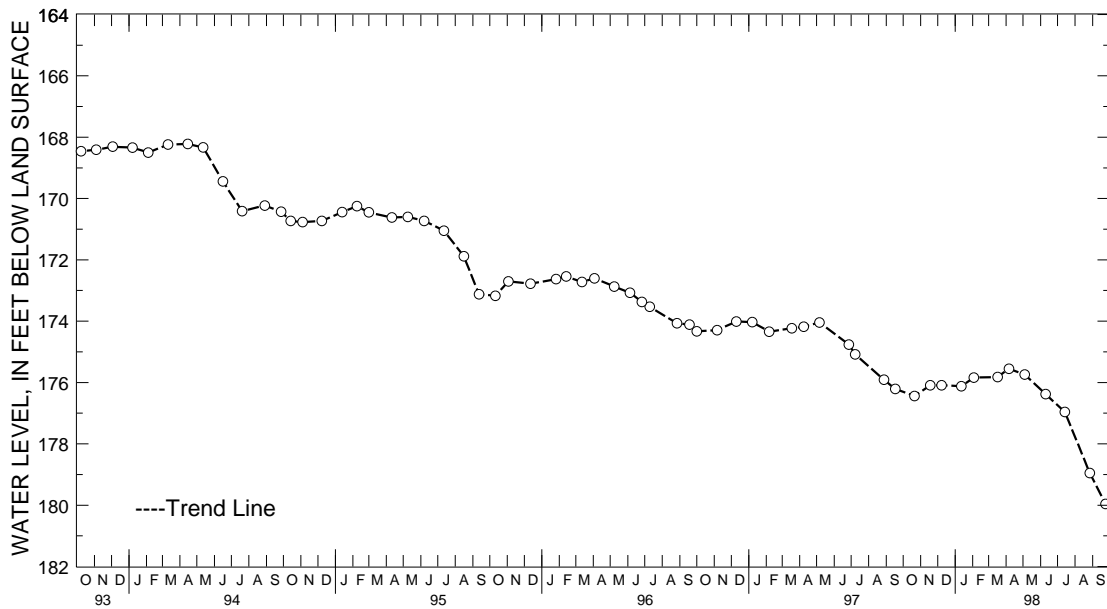
MARYLAND--Continued

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. near 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 electric 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, 179.96 ft below land surface, Sept. 24, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	176.44	JAN 12, 1998	176.12	APR 06, 1998	175.55	JUL 14, 1998	176.96
NOV 18	176.09	FEB 03	175.84	MAY 04	175.74	AUG 27	178.95
DEC 08	176.09	MAR 17	175.82	JUN 10	176.38	SEP 24	179.96
WATER YEAR 1998		HIGHEST	175.55	APR 06, 1998	LOWEST	179.96	SEP 24, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

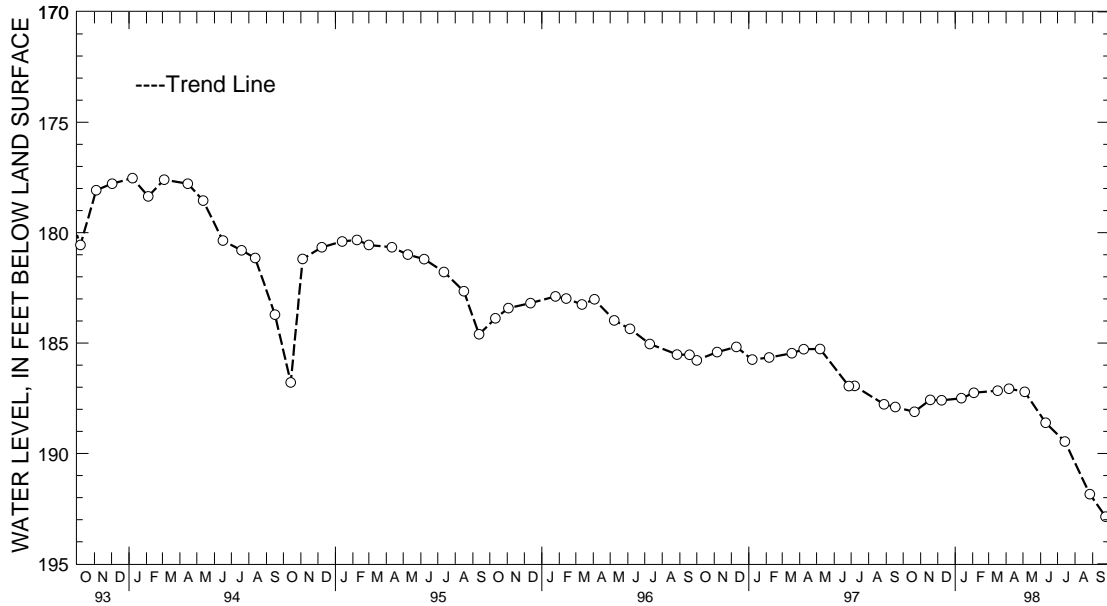
MARYLAND--Continued

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 electric 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, 192.86 ft below land surface, Sept 24, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	188.11	JAN 12, 1998	187.50	APR 06, 1998	187.07	JUL 14, 1998	189.46
NOV 18	187.57	FEB 03	187.25	MAY 04	187.21	AUG 27	191.84
DEC 08	187.59	MAR 17	187.16	JUN 10	188.61	SEP 24	192.86
WATER YEAR 1998		HIGHEST	187.07	APR 06, 1998	LOWEST	192.86	SEP 24, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

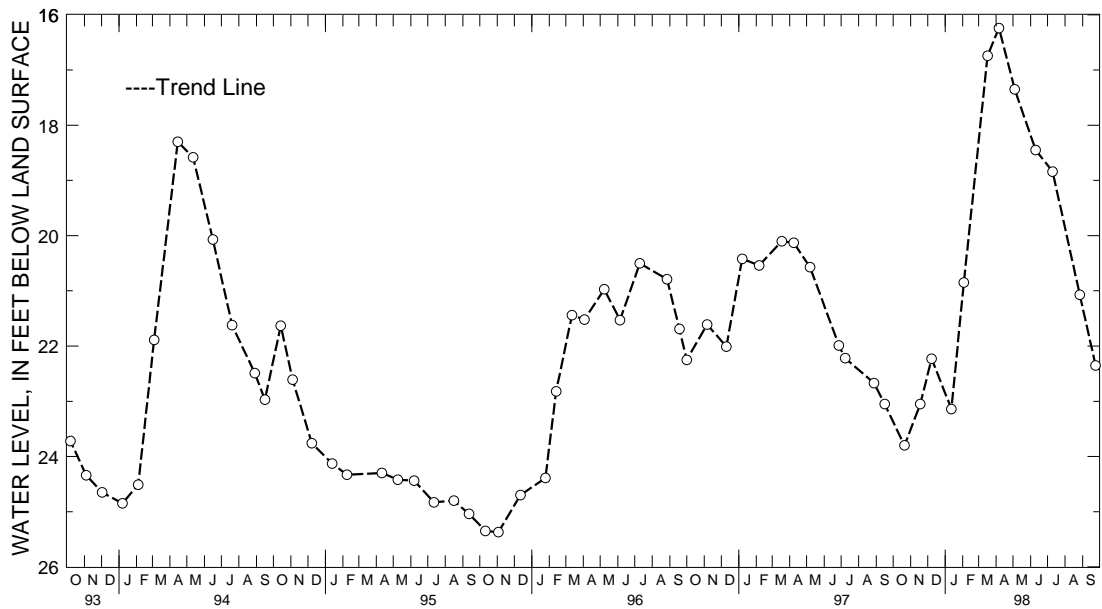
MARYLAND--Continued

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 Epicopal 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	23.80	JAN 12, 1998	23.14	APR 06, 1998	16.24	JUL 10, 1998	18.84
NOV 18	23.05	FEB 03	20.85	MAY 04	17.35	AUG 27	21.07
DEC 08	22.23	MAR 17	16.74	JUN 10	18.45	SEP 24	22.35
WATER YEAR 1998		HIGHEST	16.24	APR 06, 1998	LOWEST	23.80	OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

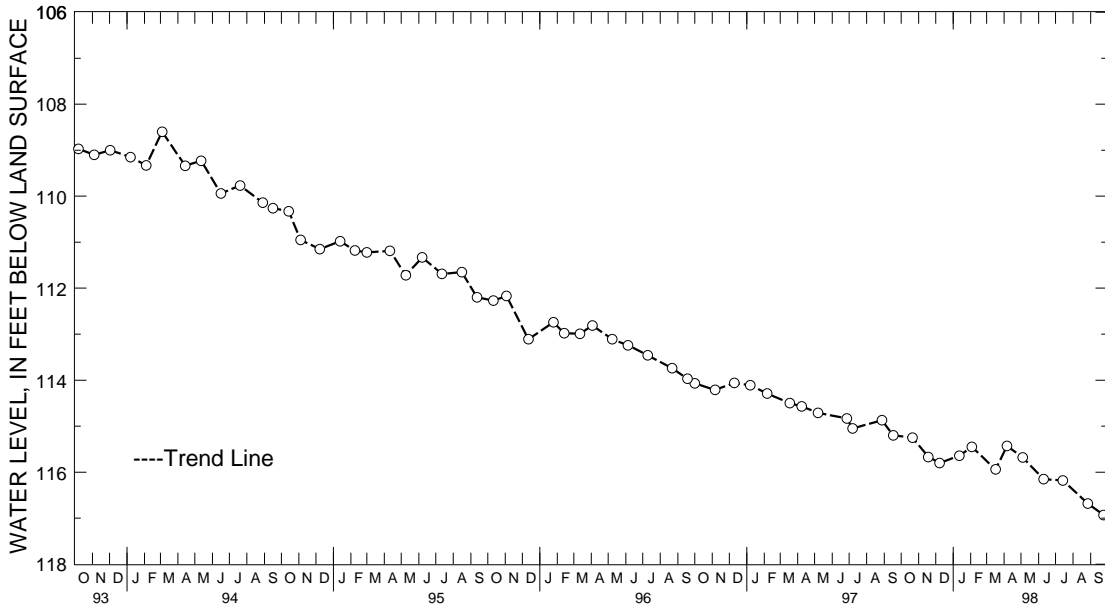
MARYLAND--Continued

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 electric 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, 116.93 ft below land surface, Sept. 24, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	115.25	JAN 12, 1998	115.64	APR 06, 1998	115.43	JUL 14, 1998	116.18
NOV 18	115.67	FEB 03	115.45	MAY 04	115.68	AUG 27	116.68
DEC 08	115.80	MAR 17	115.94	JUN 10	116.15	SEP 24	116.93
WATER YEAR 1998		HIGHEST	115.25	OCT 21, 1997	LOWEST	116.93	SEP 24, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--30-minute recorder interval from April 27, 1995 to curent 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, 97.04 ft below sea level, October 1, 1997.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-94.97	-97.04	-87.86	-91.76	-87.33	-89.54	-92.60	-93.84	-86.19	-87.10	---	---
2	-94.66	-96.41	-88.05	-91.72	-88.82	-89.54	-92.75	-94.31	-86.13	-87.56	-88.16	-89.84
3	-93.46	-95.31	-89.37	-93.15	-88.05	-89.08	-92.81	-94.16	-86.51	-87.49	-89.27	-90.94
4	-93.83	-95.31	-90.36	-94.20	-87.08	-88.15	-91.77	-93.38	-86.33	-87.18	-89.43	-90.81
5	-93.71	-95.23	-90.62	-92.99	-86.73	-88.03	-91.36	-93.41	-85.35	-86.78	-89.62	-91.15
6	-94.21	-96.39	-91.83	-94.09	-88.03	-90.03	-91.83	-93.08	-86.78	-89.17	-89.93	-91.81
7	-94.94	-97.03	-92.84	-94.22	-89.60	-91.60	-92.23	-93.41	-87.68	-88.63	-89.69	-90.82
8	-95.07	-95.99	-92.66	-93.89	-90.94	-92.74	-91.87	-93.39	-87.17	-87.81	-89.51	-90.66
9	-94.33	-96.38	-92.66	-93.71	-91.63	-92.96	-91.64	-93.06	-87.11	-88.48	-89.14	-90.74
10	-94.54	-95.96	-92.30	-94.07	-91.51	-92.74	-91.89	-92.84	-87.51	-88.46	-87.98	-89.34
11	-94.98	-96.16	-89.54	-93.80	-91.64	-93.34	-91.57	-92.84	-87.77	-88.73	-89.10	-91.36
12	-94.01	-95.49	-88.40	-90.13	-91.94	-93.51	-91.65	-93.02	-87.08	-88.15	-90.42	-91.87
13	-89.79	-94.01	-89.02	-89.84	-91.86	-93.34	-91.58	-92.83	-87.01	-88.25	-90.77	-92.07
14	-92.81	-94.60	-89.54	-92.43	-93.04	-94.02	-91.95	-94.08	-88.02	-88.63	-90.01	-91.70
15	-93.45	-94.84	-91.68	-93.30	-93.62	-95.21	-92.80	-94.23	-87.52	-88.52	-90.15	-91.70
16	-93.74	-95.46	-92.76	-94.35	-93.80	-95.56	-92.80	-94.21	-87.45	-88.17	-89.86	-90.57
17	-93.94	-95.27	-93.20	-94.94	-93.61	-94.95	-91.67	-93.74	---	---	-88.64	-90.26
18	-90.57	-95.09	-91.34	-93.20	-92.98	-94.40	-91.54	-92.61	---	---	-88.28	-90.99
19	-91.85	-93.22	-90.84	-91.58	-92.64	-93.69	-91.54	-93.03	---	---	-89.73	-91.56
20	-92.39	-94.63	-90.58	-92.34	-92.62	-93.60	-92.66	-94.35	---	---	-89.46	-91.57
21	-92.94	-94.56	-90.72	-91.81	-92.33	-93.88	-93.42	-94.42	---	---	-88.94	-90.16
22	-93.32	-94.22	-90.31	-94.22	-92.31	-93.62	-92.54	-94.19	---	---	-89.41	-90.37
23	-87.03	-94.42	-90.14	-91.69	-92.56	-93.84	-91.19	-92.81	---	---	-89.41	-90.49
24	-85.06	-90.28	-90.14	-92.70	-92.68	-94.03	-90.57	-91.53	---	---	-89.53	-91.37
25	-90.28	-91.92	-90.72	-92.12	-92.67	-94.10	-91.00	-92.53	---	---	-90.38	-91.36
26	-90.60	-92.61	-90.72	-93.01	-93.06	-94.10	-91.54	-93.19	---	---	-90.18	-90.98
27	-90.50	-91.21	-91.55	-92.65	-92.96	-94.34	-92.67	-93.94	---	---	-90.12	-92.05
28	-88.74	-91.55	-89.41	-91.64	-93.38	-94.30	-90.24	-93.75	---	---	-89.98	-90.97
29	-87.04	-88.74	-88.40	-89.52	-92.83	-94.01	-87.99	-90.24	---	---	-90.21	-91.01
30	-86.57	-88.54	-87.45	-88.40	-92.34	-93.84	-87.43	-88.32	---	---	-89.93	-91.24
31	-88.46	-92.61	---	---	-92.35	-93.18	-86.64	-87.69	---	---	-90.43	-91.24
MONTH	-85.06	-97.04	-87.45	-94.94	-86.73	-95.56	-86.64	-94.42	-85.35	-89.17	-87.98	-92.07

GROUND-WATER LEVELS

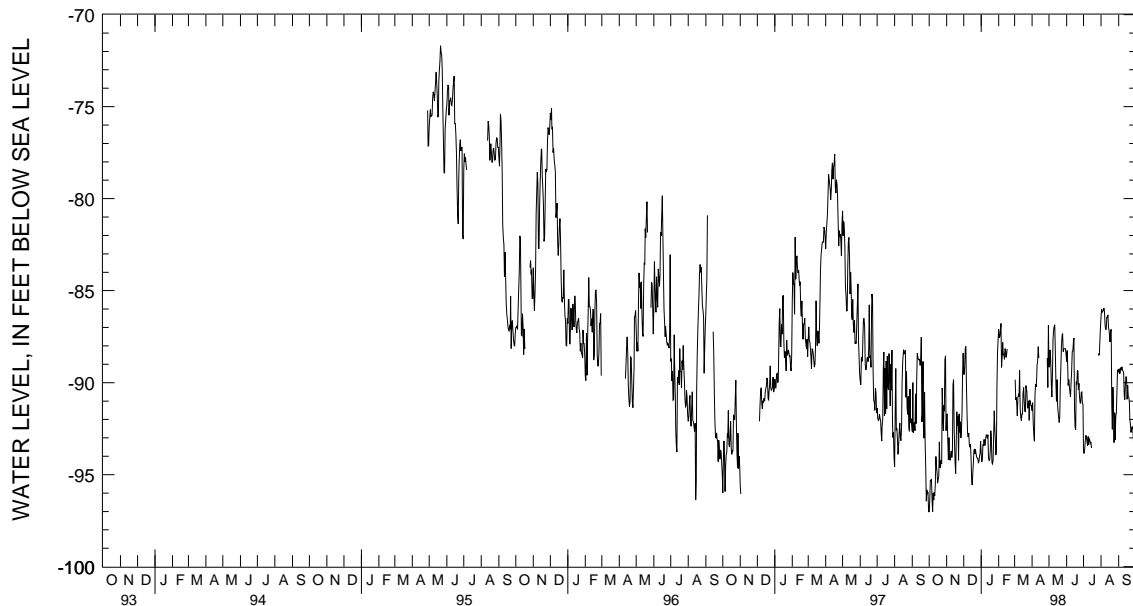
MARYLAND--Continued

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	-89.90	-91.53	-85.98	-89.16	-87.96	-88.86	-88.48	-93.80	-85.41	-86.43	-88.62	-89.40
2	-90.03	-91.09	-88.02	-89.09	-87.18	-88.25	-92.83	-93.83	-85.14	-86.00	-88.41	-89.24
3	-90.69	-92.22	-87.69	-88.22	-87.26	-89.30	-92.52	-93.61	-85.14	-86.17	-88.62	-89.52
4	-91.60	-92.82	-87.92	-88.78	-89.00	-90.15	-91.94	-93.16	-85.18	-86.13	-88.34	-89.45
5	-90.72	-93.19	-88.10	-90.04	-89.12	-89.83	-91.94	-92.86	-85.09	-86.06	-88.59	-89.18
6	-88.76	-90.72	-89.12	-90.78	-89.38	-90.20	-91.84	-92.96	-84.94	-85.94	-88.40	-89.27
7	-89.25	-90.08	-87.47	-89.60	-89.15	-90.50	-92.64	-93.22	-85.01	-86.12	-88.46	-89.14
8	-89.35	-90.23	-86.76	-87.66	-89.87	-90.78	-92.52	-93.42	-85.74	-86.84	-88.33	-89.32
9	-88.95	-89.73	-86.55	-87.17	-89.33	-90.01	-92.15	-92.92	-86.06	-87.10	-89.14	-89.38
10	-88.16	-89.03	-86.40	-86.95	-88.32	-89.38	-91.61	-93.38	-86.01	-87.10	-88.88	-89.47
11	-87.76	-88.81	-85.96	-86.85	-87.38	-88.32	-92.08	-93.04	-85.26	-86.44	-88.83	-90.72
12	-87.26	-88.04	-86.00	-88.22	-87.25	-88.29	-92.26	-93.10	-85.16	-86.46	-89.22	-90.92
13	-87.11	-88.66	-88.22	-89.98	-85.45	-87.82	-91.81	-93.29	-85.21	-86.32	-89.25	-90.10
14	---	---	-88.88	-91.02	-83.22	-87.57	-92.11	-93.22	-85.85	-86.99	-88.75	-89.67
15	---	---	-87.99	-89.84	-87.57	-91.46	-92.16	-93.52	-86.22	-87.17	-88.76	-89.74
16	---	---	-88.89	-91.22	-91.05	-92.43	-92.52	-93.52	-86.45	-87.38	-88.75	-90.90
17	---	---	-89.99	-91.55	-89.90	-92.55	---	---	-86.62	-87.79	-89.38	-90.14
18	---	---	-90.15	-91.84	-89.16	-89.95	---	---	-86.31	-87.20	-89.38	-90.77
19	---	---	-90.54	-92.16	-88.72	-90.10	---	---	-85.98	-87.10	-89.25	-90.81
20	---	---	-90.13	-91.86	-88.67	-89.32	---	---	-86.21	-91.23	-89.37	-91.11
21	---	---	-87.48	-90.13	-88.52	-89.39	---	---	-88.36	-92.54	-90.49	-92.00
22	---	---	-87.40	-89.11	-88.34	-90.38	---	---	-88.36	-90.24	-90.82	-92.24
23	---	---	-86.72	-88.01	-88.99	-90.03	---	---	-88.62	-91.55	-90.83	-92.71
24	---	---	-86.42	-87.46	-88.94	-90.74	-89.16	-93.43	-90.23	-93.26	-90.52	-92.52
25	---	---	-86.49	-87.33	-89.42	-91.11	---	---	-89.64	-91.63	-90.48	-92.40
26	---	---	-87.03	-88.31	-89.61	-91.11	---	---	-89.15	-93.10	-91.04	-92.50
27	---	---	-87.41	-88.18	-88.73	-90.54	-87.57	-88.52	-89.63	-91.82	-91.29	-92.90
28	-87.80	-88.67	-87.25	-88.16	-89.59	-90.50	-87.39	-88.45	-89.38	-91.61	-91.41	-93.66
29	-86.88	-90.26	-87.32	-88.16	-89.61	-91.10	-87.41	-88.50	-89.15	-90.47	-91.54	-93.28
30	-82.83	-86.88	-87.25	-88.16	-89.35	-91.18	-86.68	-87.79	-88.95	-89.32	-91.76	-93.01
31	---	---	-87.42	-88.48	---	---	-86.09	-87.00	-88.45	-89.30	---	---
MONTH	-82.83	-93.19	-85.96	-92.16	-83.22	-92.55	-86.09	-93.83	-84.94	-93.26	-88.33	-93.66
YEAR	-82.83	-97.04										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

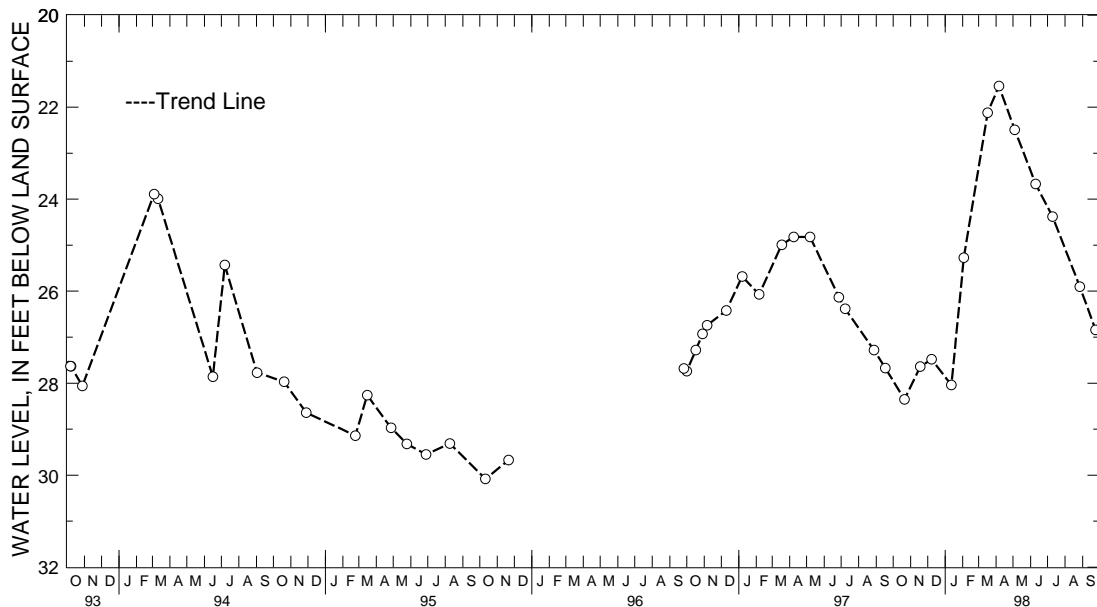
MARYLAND--Continued

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 electric tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval from Oct. 2, 1986 to April 16, 1996.
 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 November 1995, September 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.54 ft below land surface, April 6, 1998; lowest measured, 30.69 ft below land surface, Feb. 27, and 28, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	28.35	JAN 12, 1998	28.04	APR 06, 1998	21.54	JUL 10, 1998	24.38
NOV 18	27.64	FEB 03	25.27	MAY 04	22.49	AUG 27	25.90
DEC 08	27.48	MAR 17	22.12	JUN 10	23.67	SEP 24	26.84
WATER YEAR 1998		HIGHEST	21.54	APR 06, 1998	LOWEST	28.35	OCT 21, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

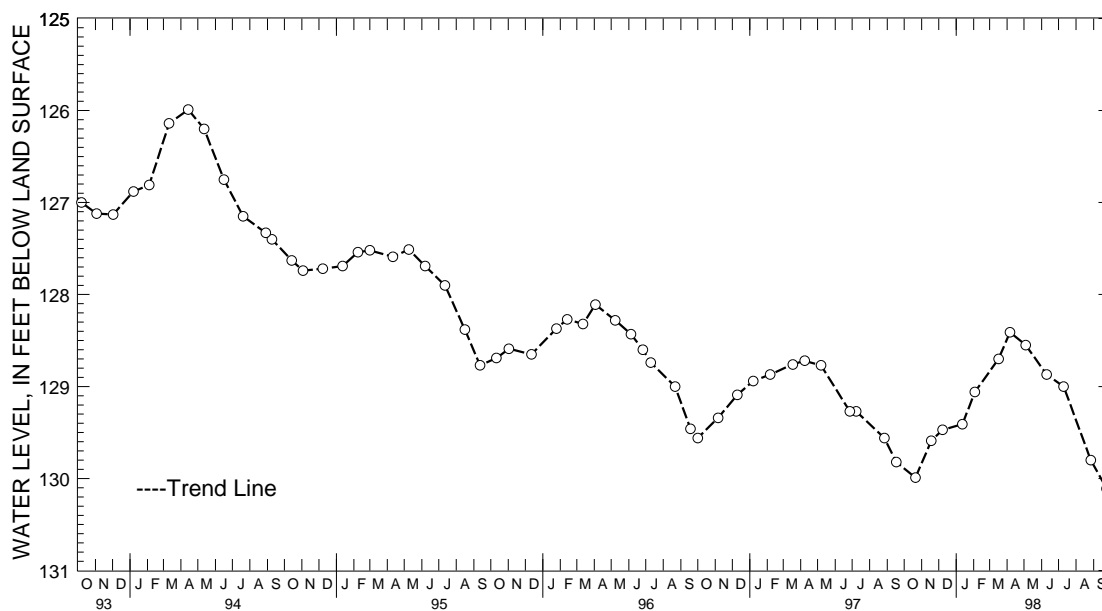
REMARKS.--Maryland Water-Level Network observation well.

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, 130.11 ft below land surface, Sept. 24, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	129.99	JAN 12, 1998	129.41	APR 06, 1998	128.41	JUL 10, 1998	129.00
NOV 18	129.59	FEB 03	129.06	MAY 04	128.55	AUG 27	129.80
DEC 08	129.47	MAR 17	128.70	JUN 10	128.87	SEP 24	130.11
WATER YEAR 1998		HIGHEST	128.41	APR 06, 1998	LOWEST	130.11	SEP 24, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

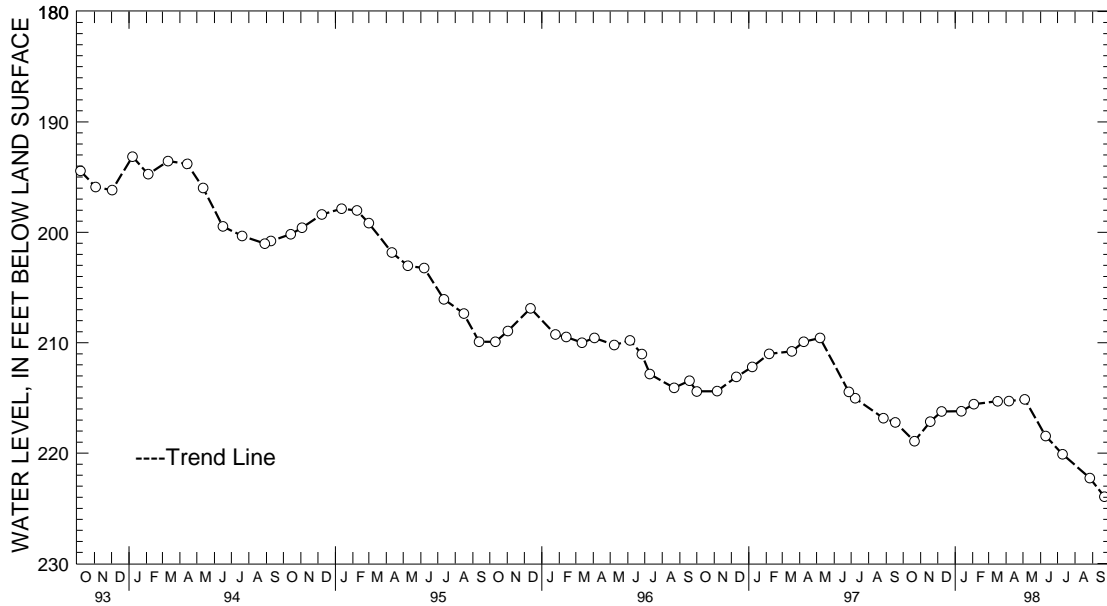
MARYLAND--Continued

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 electric 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, 223.94 ft below land surface, Sept. 22, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	218.92	JAN 12, 1998	216.21	APR 06, 1998	215.29	JUL 10, 1998	220.10
NOV 18	217.14	FEB 03	215.56	MAY 04	215.13	AUG 27	222.26
DEC 08	216.22	MAR 17	215.30	JUN 10	218.46	SEP 22	223.94
WATER YEAR 1998		HIGHEST	215.13	MAY 04, 1998	LOWEST	223.94	SEP 22, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

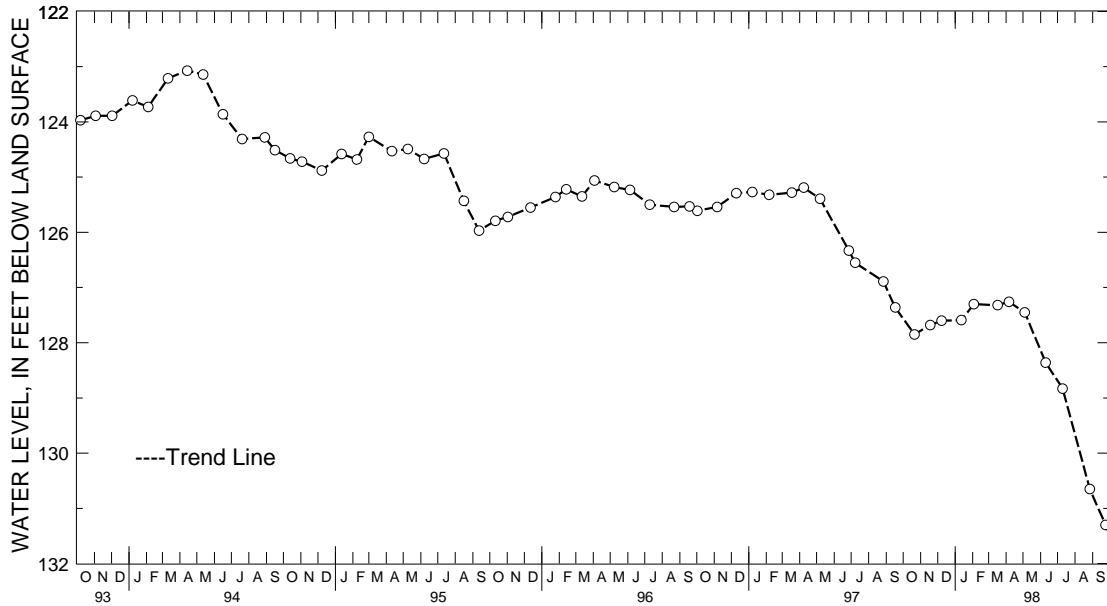
MARYLAND--Continued

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 electric 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, 131.30 ft below land surface, Sept. 24, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	127.85	JAN 12, 1998	127.59	APR 06, 1998	127.26	JUL 10, 1998	128.83
NOV 18	127.68	FEB 03	127.30	MAY 04	127.45	AUG 27	130.65
DEC 08	127.60	MAR 17	127.32	JUN 10	128.36	SEP 24	131.30
WATER YEAR 1998		HIGHEST	127.26	APR 06, 1998	LOWEST	131.30	SEP 24, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

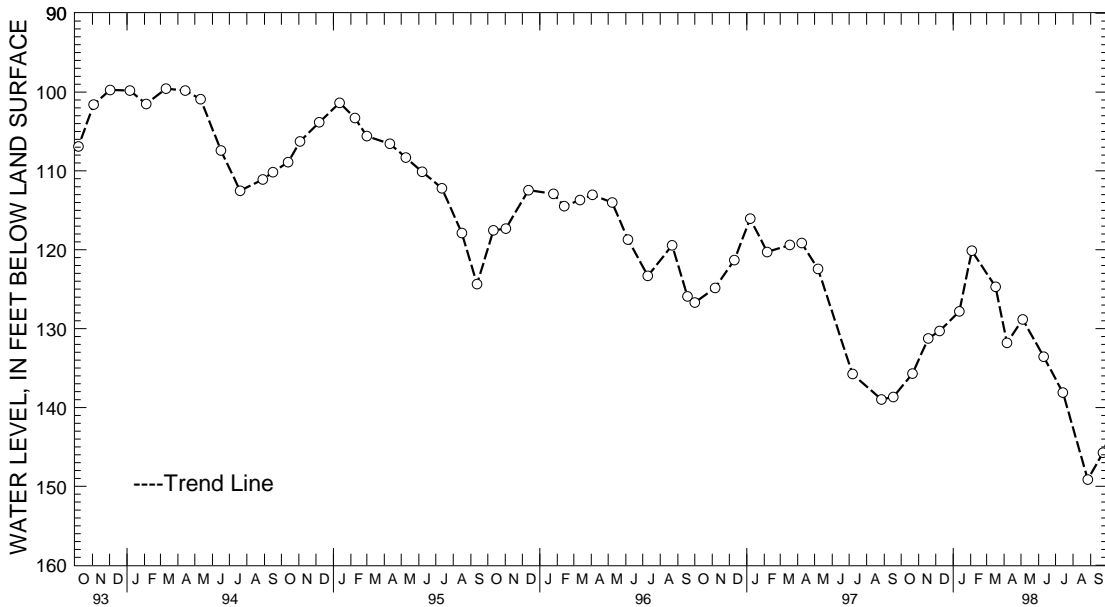
REMARKS.--Maryland Water-Level Network observation well. Water level reported at land surface 1942; water-level measured 58.9 ft below land surface, Jan. 13, 1944. Well not measured from April through July 1988 during building construction at well site. On July 18, 1991 the water-level measured, 119.93 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, 138.98 ft below land surface, August 27, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	127.85	JAN 12, 1998	127.59	APR 06, 1998	127.26	JUL 10, 1998	128.83
NOV 18	127.68	FEB 03	127.30	MAY 04	127.45	AUG 27	130.65
DEC 08	127.60	MAR 17	127.32	JUN 10	128.36	SEP 24	131.30
WATER YEAR 1998		HIGHEST	127.26	APR 06, 1998	LOWEST	131.30	SEP 24, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

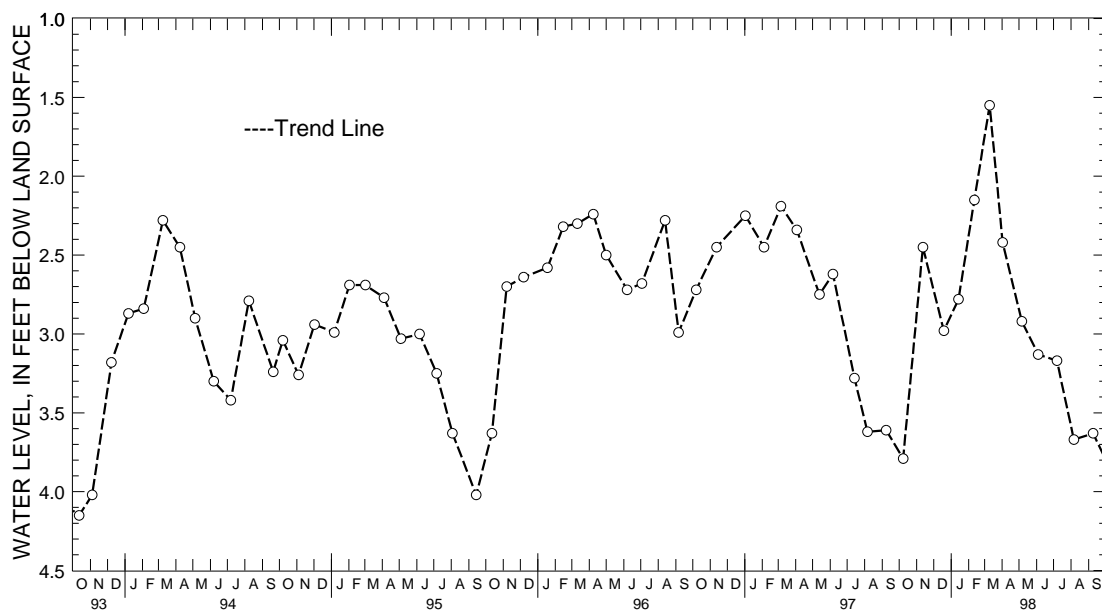
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	3.79	JAN 14, 1998	2.78	APR 02, 1998	2.42	JUL 07, 1998	3.17
NOV 12	2.45	FEB 11	2.15	MAY 06	2.92	AUG 06	3.67
DEC 19	2.98	MAR 10	1.55	JUN 04	3.13	SEP 09	3.63
WATER YEAR 1998		HIGHEST	1.55	MAR 10, 1998	LOWEST	3.79	OCT 08, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

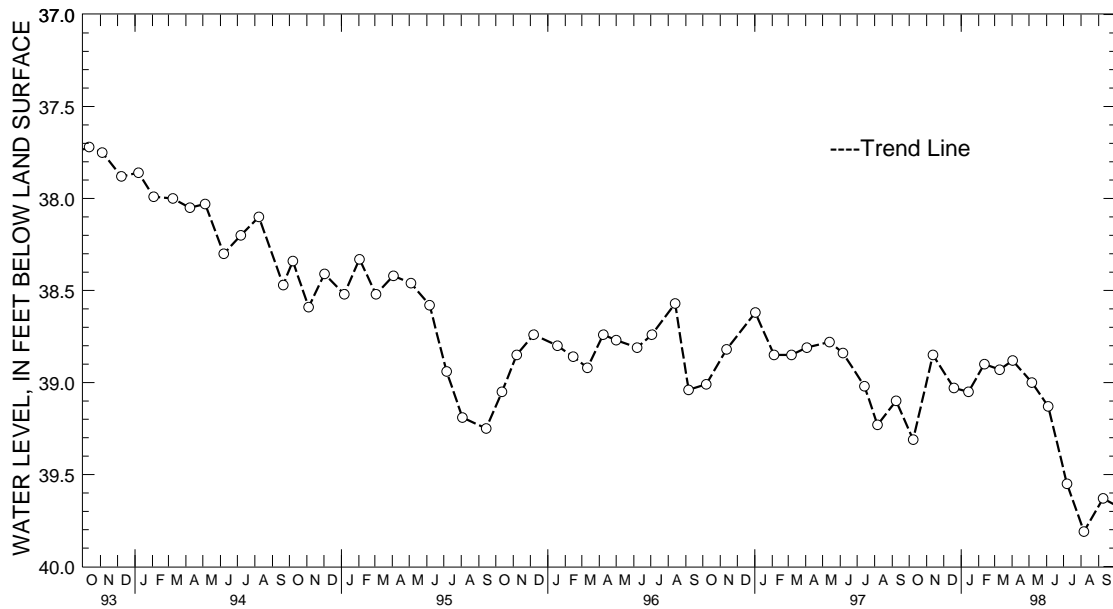
MARYLAND--Continued

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 electric 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, 39.81 ft below land surface, August 6, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	39.31	JAN 14, 1998	39.05	APR 02, 1998	38.88	JUL 07, 1998	39.55
NOV 12	38.85	FEB 11	38.90	MAY 06	39.00	AUG 06	39.81
DEC 19	39.03	MAR 10	38.93	JUN 04	39.13	SEP 09	39.63
WATER YEAR 1998		HIGHEST	38.85	NOV 12, 1997	LOWEST	39.81	AUG 06, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

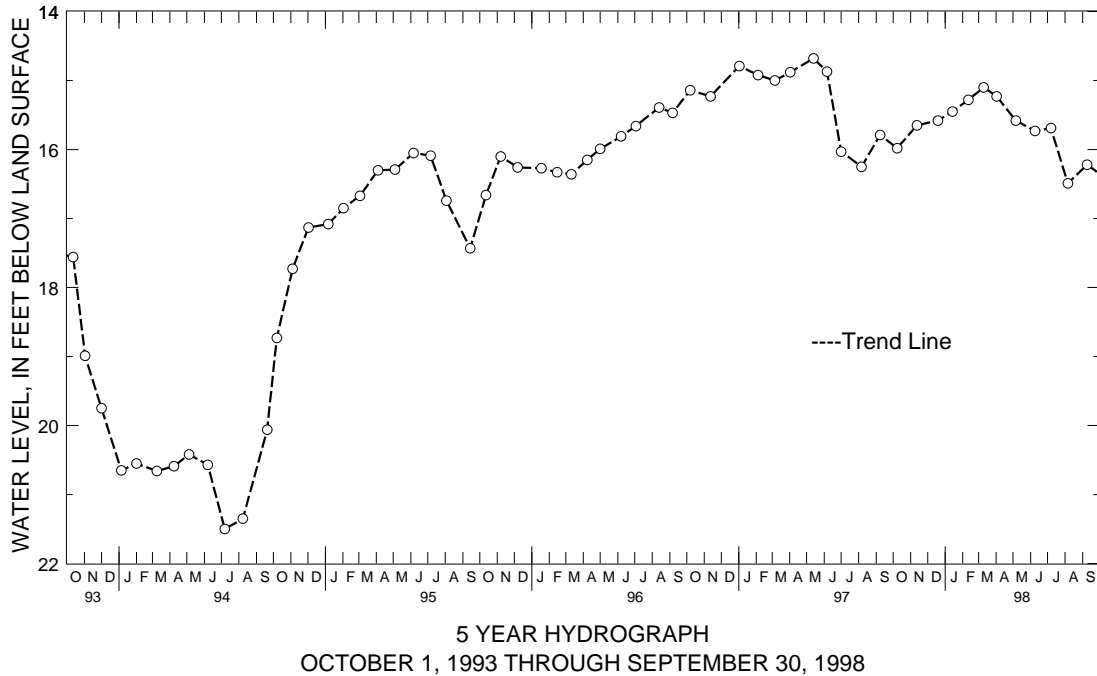
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	15.98	JAN 14, 1998	15.45	APR 02, 1998	15.23	JUL 07, 1998	15.69
NOV 12	15.65	FEB 11	15.28	MAY 06	15.58	AUG 06	16.49
DEC 19	15.58	MAR 10	15.10	JUN 09	15.73	SEP 09	16.22
WATER YEAR 1998		HIGHEST	15.10	MAR 10, 1998	LOWEST	16.49	AUG 06, 1998

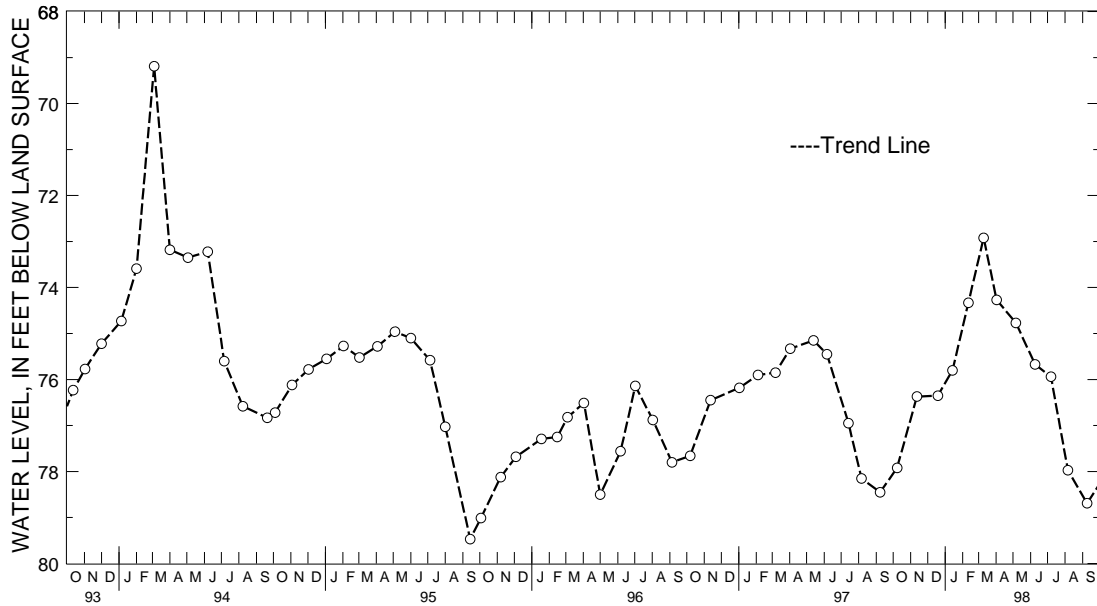


GROUND-WATER LEVELS
 MARYLAND--Continued
 CAROLINE COUNTY--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	77.92	JAN 14, 1998	75.80	APR 02, 1998	74.27	JUL 07, 1998	75.94
NOV 12	76.37	FEB 11	74.33	MAY 06	74.77	AUG 06	77.97
DEC 19	76.35	MAR 10	72.92	JUN 09	75.67	SEP 09	78.69
WATER YEAR 1998		HIGHEST	72.92	MAR 10, 1998	LOWEST	78.69	SEP 09, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

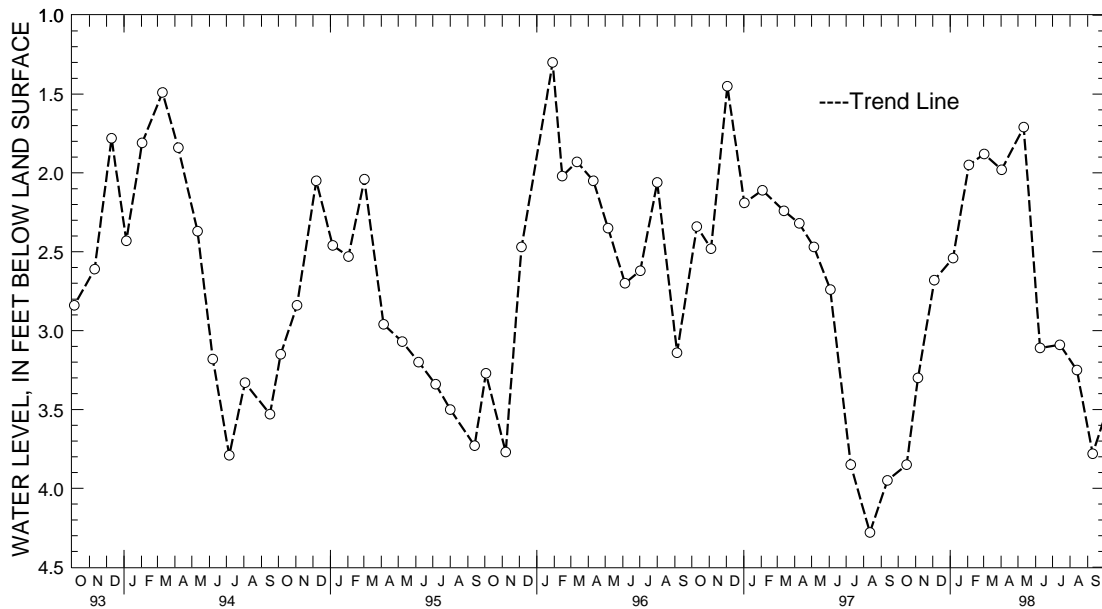
MARYLAND--Continued

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 electric 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 and Collection of Basic Records (CBR) national network observation well (see figure 3).
 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, 4.28 ft below land surface, August 12, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	3.85	JAN 06, 1998	2.54	APR 02, 1998	1.98	JUL 14, 1998	3.09
NOV 05	3.30	FEB 03	1.95	MAY 11	1.71	AUG 13	3.25
DEC 04	2.68	MAR 02	1.88	JUN 09	3.11	SEP 10	3.78
WATER YEAR 1998		HIGHEST	1.71	MAY 11, 1998		LOWEST	3.85
							OCT 16, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

CARROLL COUNTY--Continued

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 electric 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.

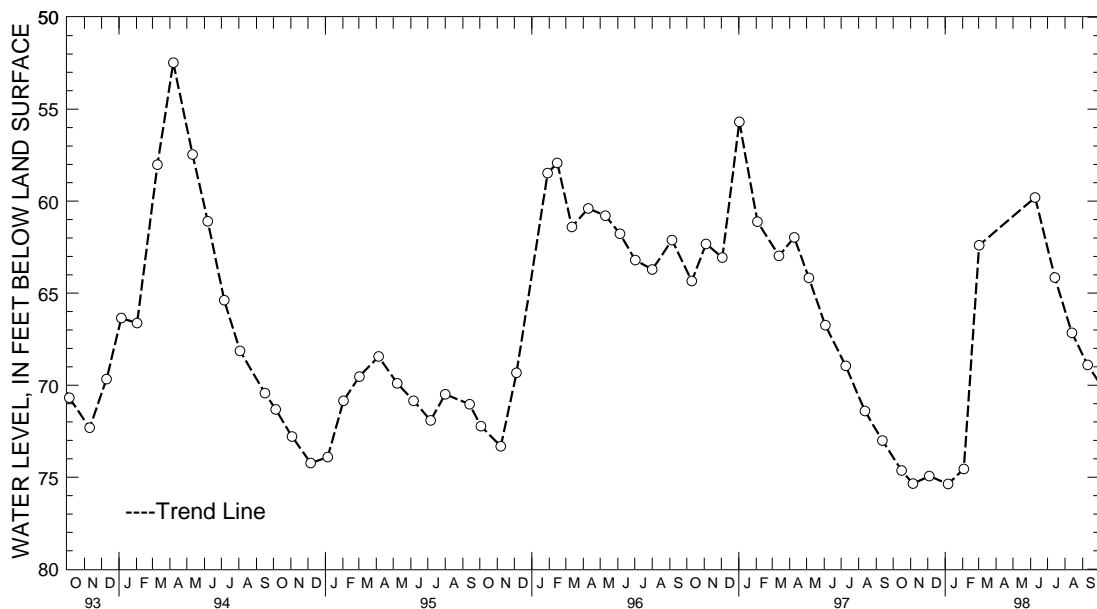
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	74.64	JAN 06, 1998	75.37	JUN 09, 1998	59.80	SEP 10, 1998	68.90
NOV 05	75.35	FEB 03	74.55	JUL 14	64.15		
DEC 04	74.94	MAR 02	62.40	AUG 13	67.16		
WATER YEAR 1998		HIGHEST	59.80 JUN 09, 1998	LOWEST	75.37 JAN 06, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

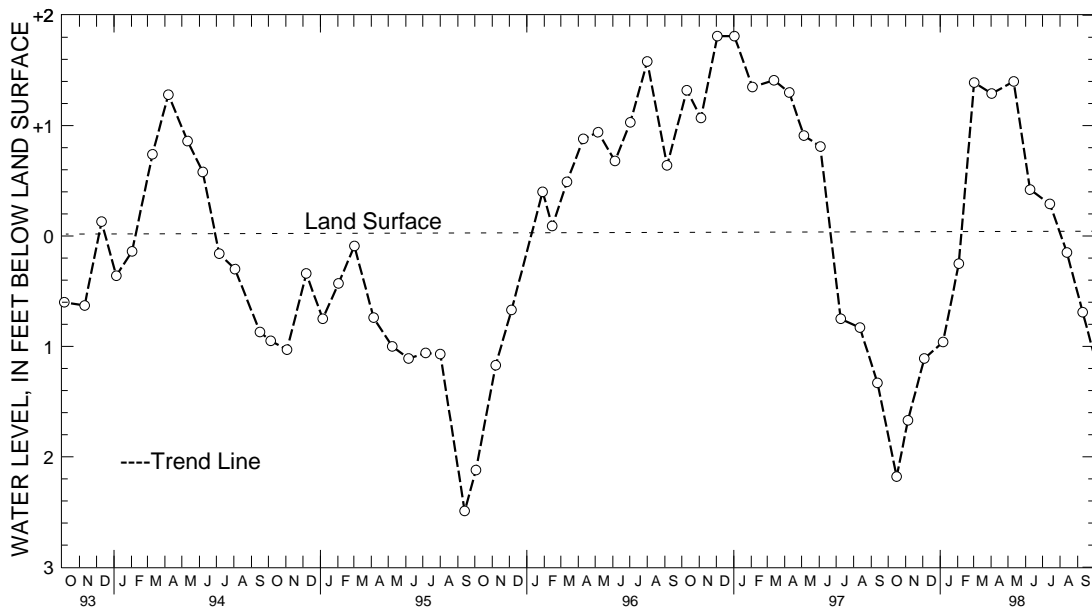
MARYLAND--Continued

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 electric 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, 1.81 ft above land surface, Dec. 3, 1996, and Jan. 2, 1997; lowest measured, 3.24 ft below land surface, Oct. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	2.18	JAN 06, 1998	.96	APR 02, 1998	+1.29	JUL 14, 1998	+2.29
NOV 05	1.67	FEB 03	.25	MAY 11	+1.40	AUG 13	.15
DEC 04	1.11	MAR 02	+1.39	JUN 09	+4.42	SEP 10	.69
WATER YEAR 1998		HIGHEST	+1.40	MAY 11, 1998	LOWEST	2.18	OCT 16, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

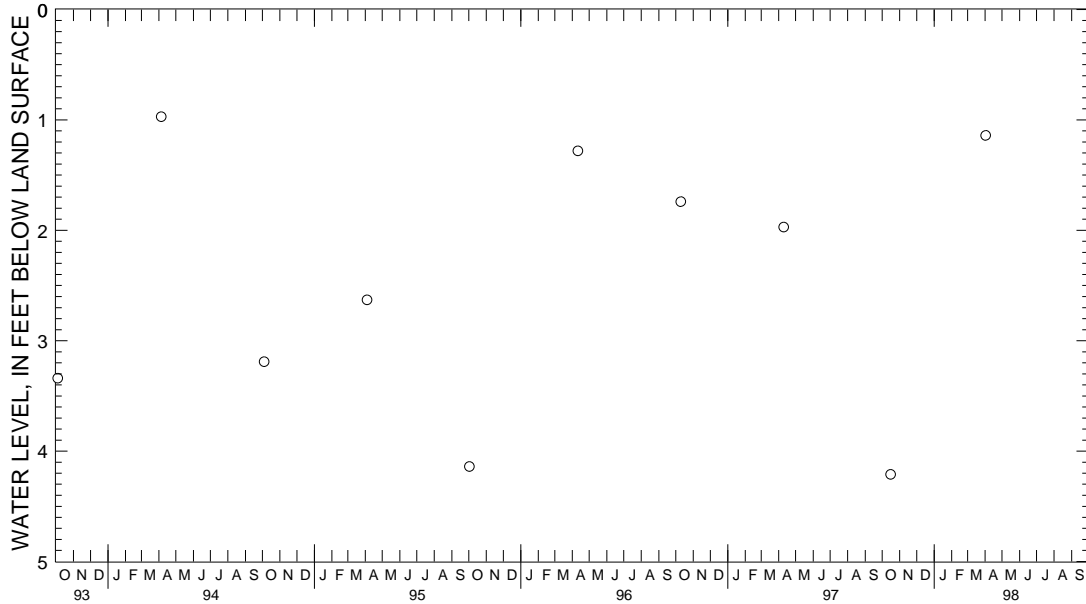
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	4.21	APR 02, 1998	1.14
WATER YEAR 1998	HIGHEST	1.14	APR 02, 1998
	LOWEST	4.21	OCT 16, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

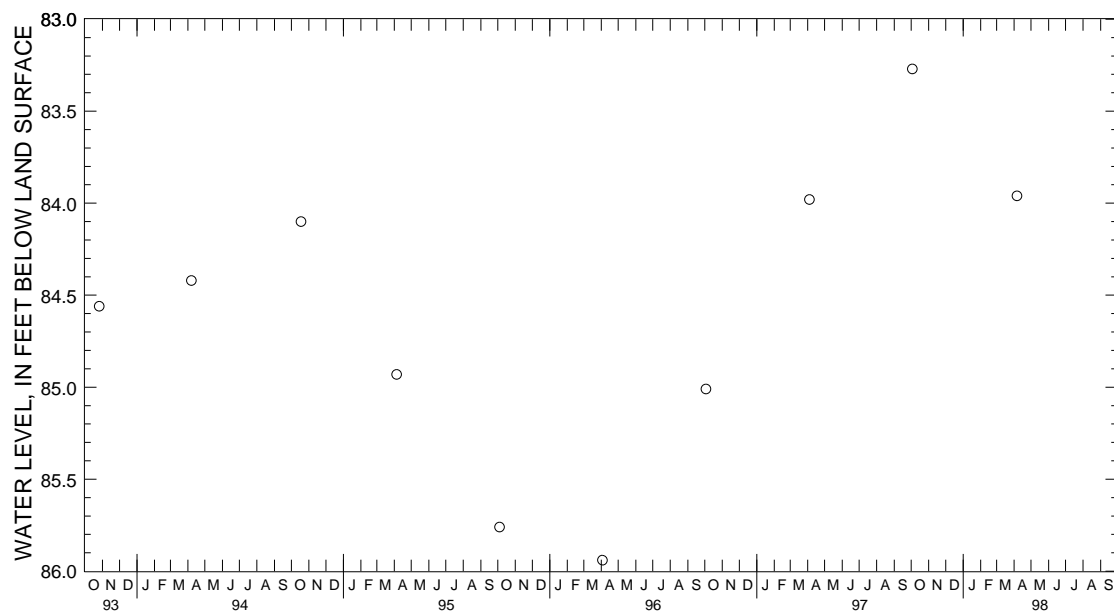
MARYLAND--Continued

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 near 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	83.27	APR 06, 1998	83.96
WATER YEAR 1998	HIGHEST	83.27	OCT 03, 1997
	LOWEST	83.96	APR 06, 1998



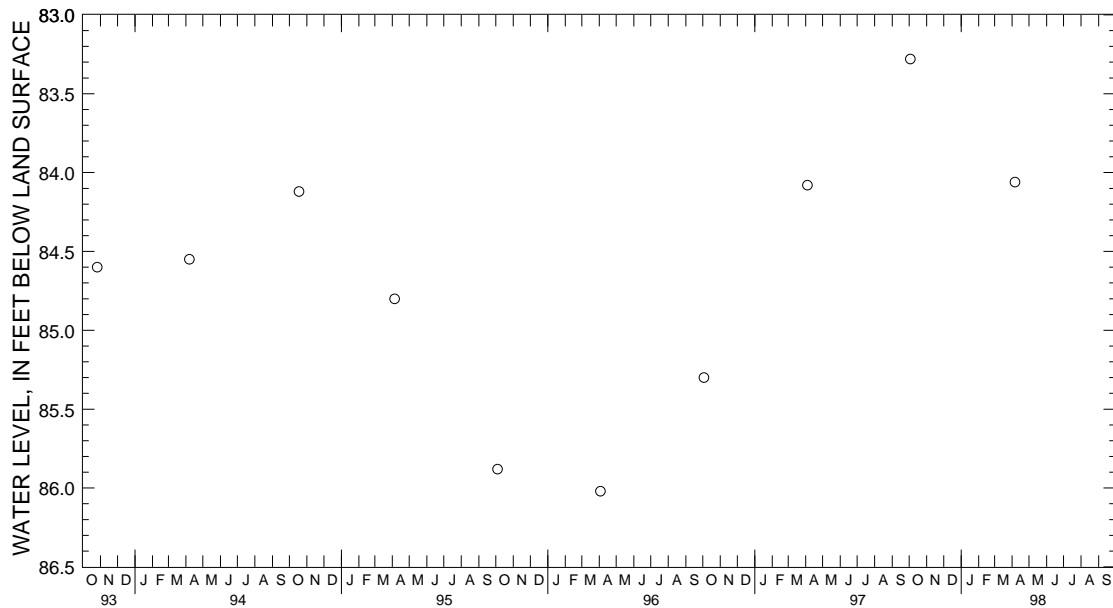
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 near 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	83.28	APR 06, 1998	84.06
WATER YEAR 1998	HIGHEST	83.28	OCT 03, 1997
	LOWEST	84.06	APR 06, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

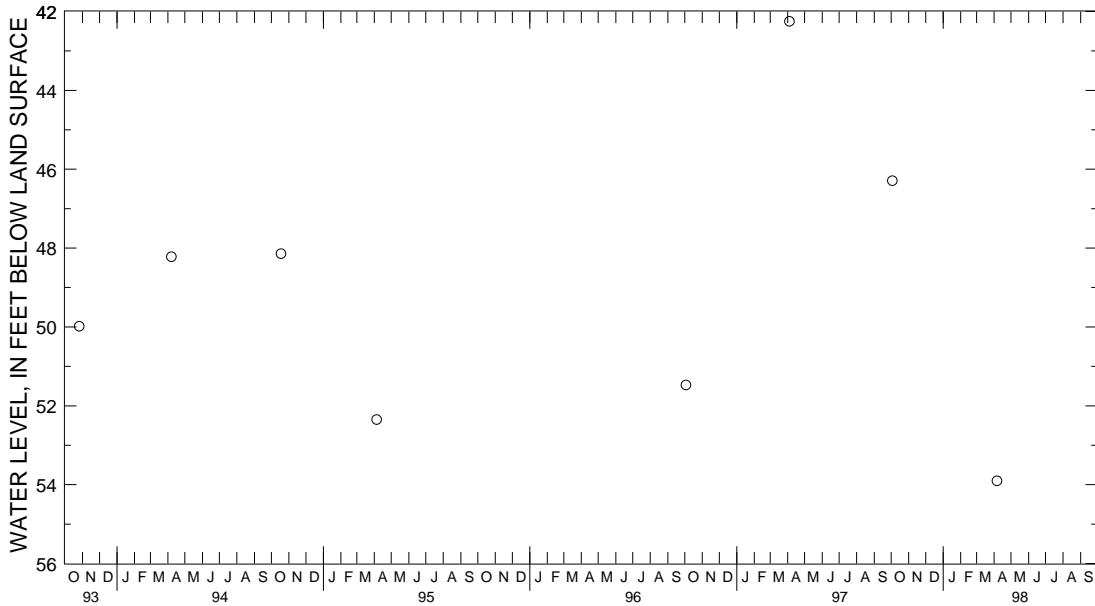
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	46.29	APR 06, 1998	53.90
WATER YEAR 1998	HIGHEST 46.29	LOWEST 53.90	APR 06, 1998



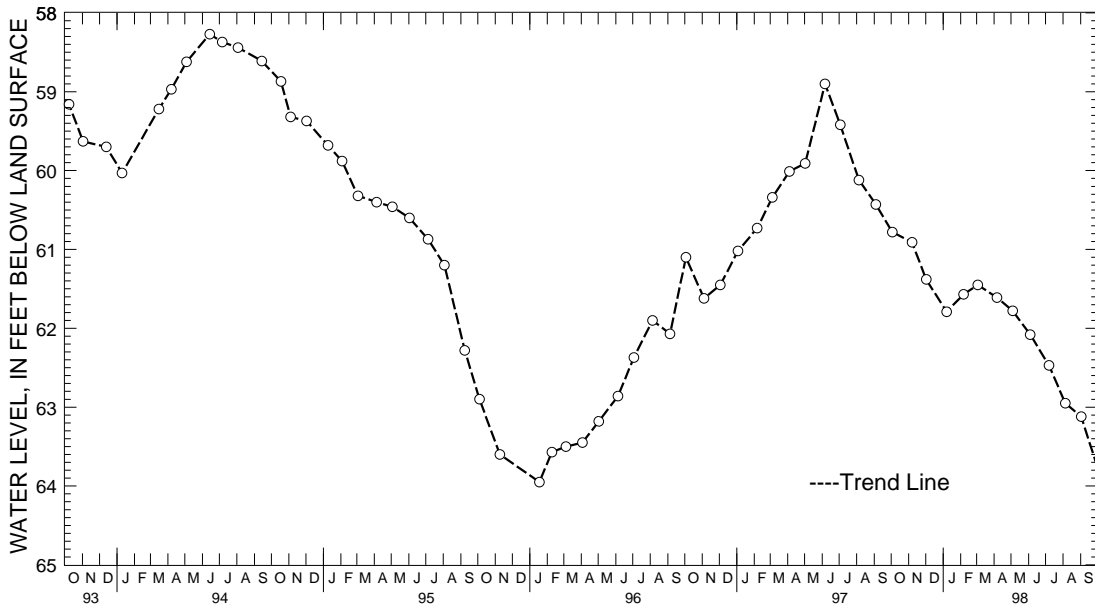
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	60.78	JAN 07, 1998	61.79	APR 06, 1998	61.61	JUL 07, 1998	62.47
NOV 07	60.91	FEB 06	61.57	MAY 04	61.78	AUG 05	62.95
DEC 02	61.38	MAR 03	61.45	JUN 04	62.08	SEP 02	63.12
WATER YEAR 1998		HIGHEST	60.78	OCT 03, 1997	LOWEST	63.12	SEP 02, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

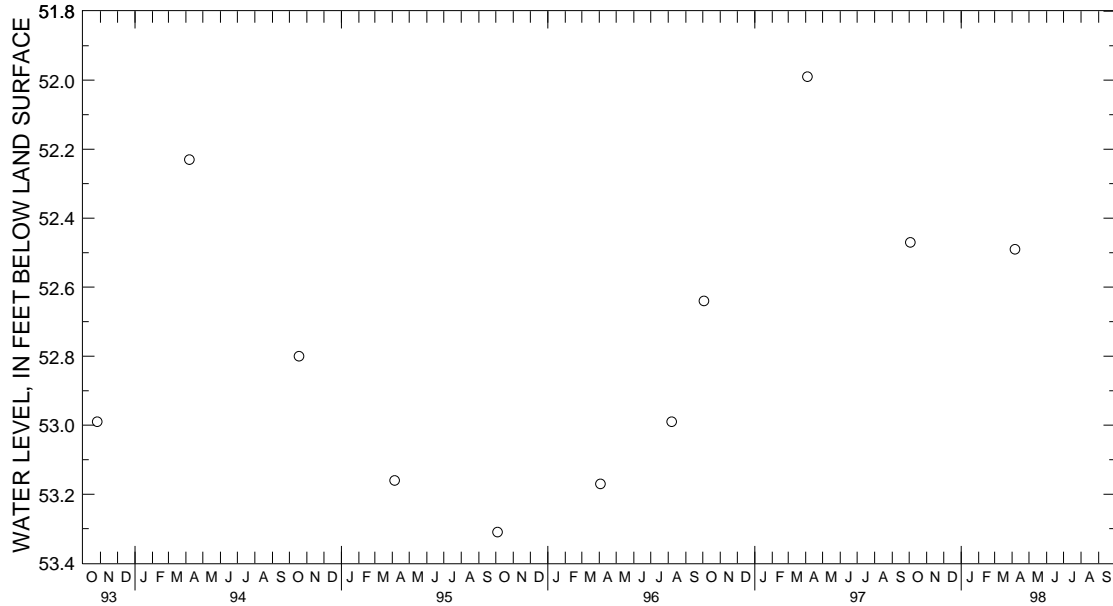
MARYLAND--Continued

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, near 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	52.47	APR 06, 1998	52.49
WATER YEAR 1998		HIGHEST 52.47	LOWEST 52.49



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

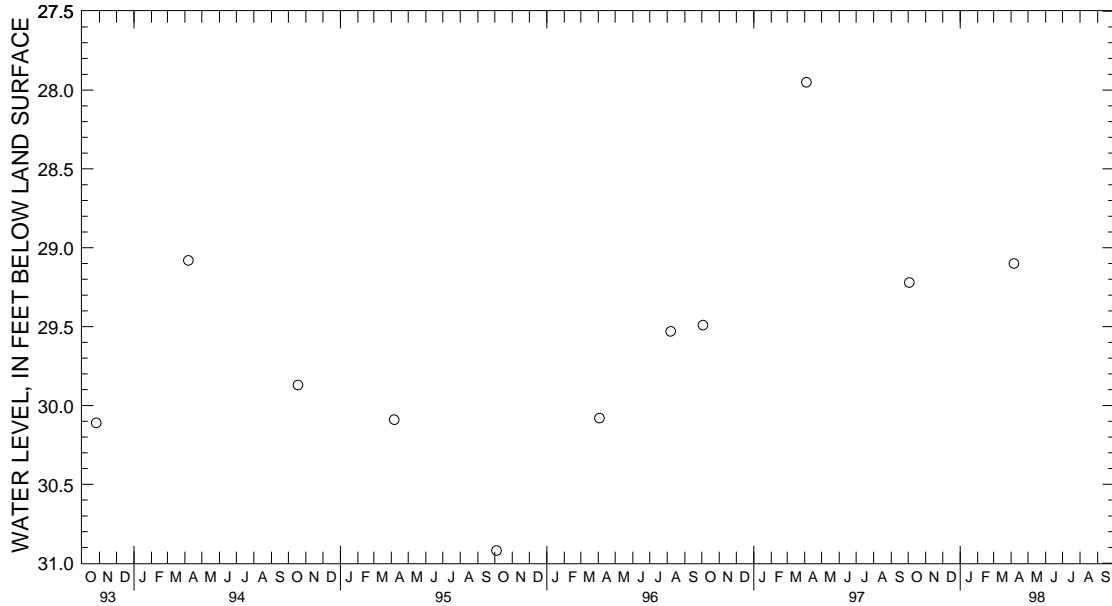
MARYLAND--Continued

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, near 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	29.22	APR 06, 1998	29.10
WATER YEAR 1998		HIGHEST 29.10 APR 06, 1998	LOWEST 29.22 OCT 03, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

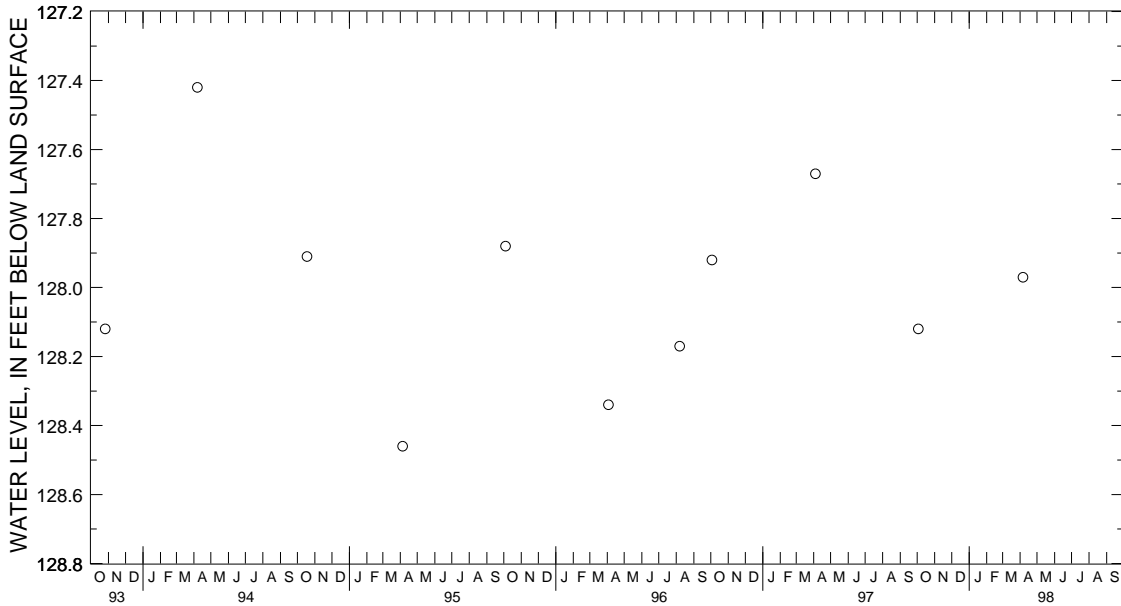
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	128.12	APR 06, 1998	127.97
WATER YEAR 1998		HIGHEST 127.97	APR 06, 1998
		LOWEST 128.12	OCT 03, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

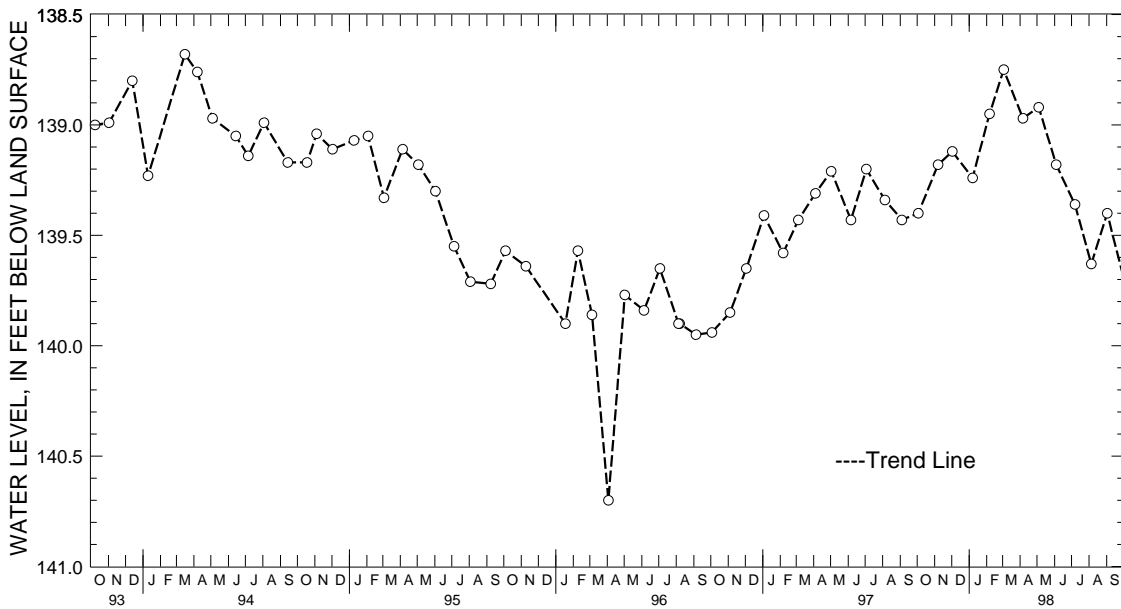
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	139.40	JAN 07, 1998	139.24	APR 06, 1998	138.97	JUL 07, 1998	139.36
NOV 07	139.18	FEB 06	138.95	MAY 04	138.92	AUG 05	139.63
DEC 02	139.12	MAR 03	138.75	JUN 04	139.18	SEP 02	139.40
WATER YEAR 1998		HIGHEST 138.75	MAR 03, 1998	LOWEST 139.63	AUG 05, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

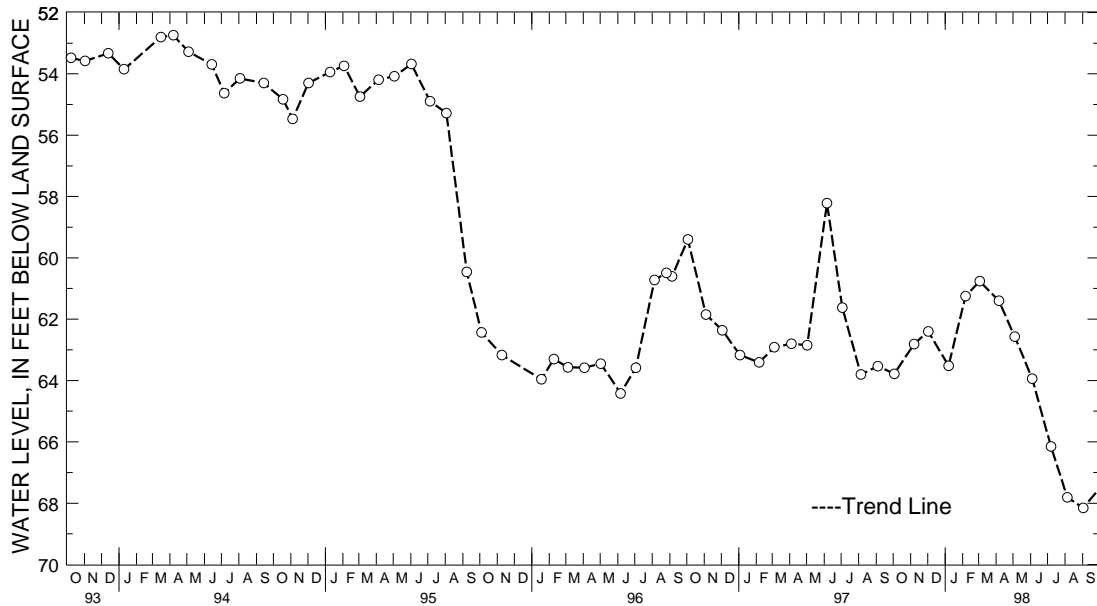
MARYLAND--Continued

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 electric 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, 68.15 ft below land surface, Sept. 2, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	63.78	JAN 07, 1998	63.52	APR 06, 1998	61.40	JUL 07, 1998	66.15
NOV 07	62.81	FEB 06	61.25	MAY 04	62.57	AUG 05	67.81
DEC 02	62.40	MAR 03	60.76	JUN 04	63.94	SEP 02	68.15
WATYER YEAR 1998		HIGHEST	60.76	MAR 03, 1998	LOWEST	68.15	SEP 02, 1998



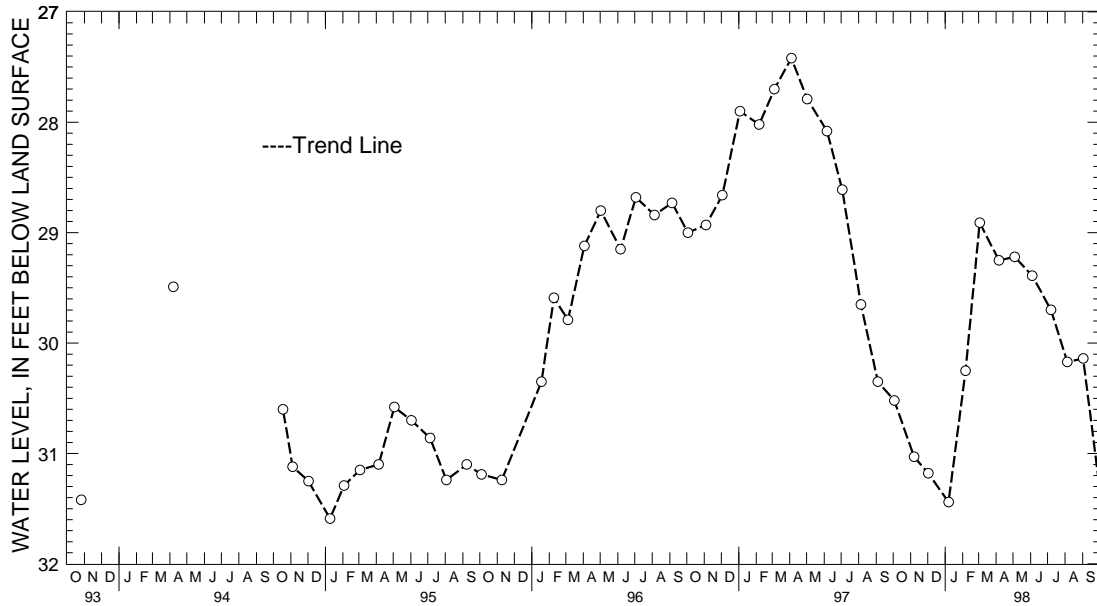
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 27.42 ft below land surface, April 4, 1997;
 lowest measured, 34.48 ft below land surface, Nov. 19, 1983.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	30.52	JAN 07, 1998	31.44	APR 06, 1998	29.25	JUL 07, 1998	29.70
NOV 07	31.03	FEB 06	30.25	MAY 04	29.22	AUG 05	30.17
DEC 02	31.18	MAR 03	28.91	JUN 04	29.39	SEP 02	30.14
WATER YEAR 1998		HIGHEST	28.91	MAR 03, 1998	LOWEST	31.44	JAN 07, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

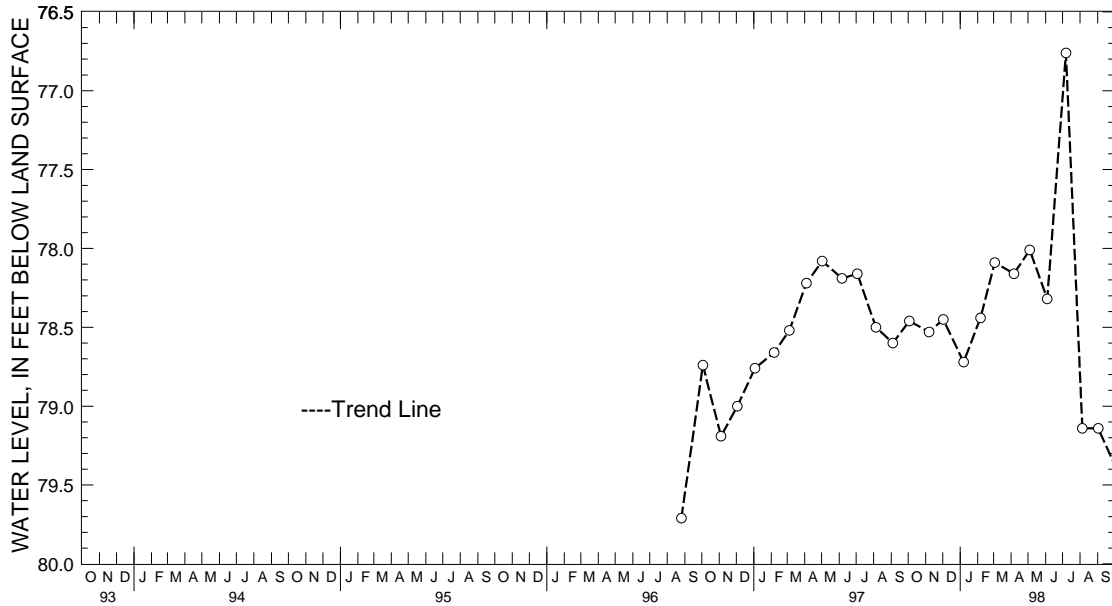
MARYLAND--Continued

CECIL COUNTY--Continued

WELL NUMBER.--CE Ce 82. SITE ID.--393209075541301. PERMIT NUMBER.--CE-94-1417.
 LOCATION.--Lat 39°32'09", long 75°54'31.13", Hydrologic Unit 02060002, 4.0 mi southeast of North East,
 at Village of Elk Neck, 0.1 mi north of Racine-School Rd.
 Owner: Stuart Associates.
 AQUIFER.--Potomac Group of Lower Cretaceous age. Aquifer code: 217PTMC.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 210 ft; casing diameter 4 in., to 205 ft;
 screen diameter 4 in. from 205 to 210 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 120 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.--August 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 76.76 ft below land surface, July 7, 1998;
 lowest measured, 79.71 ft below land surface, Aug. 26, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	78.46	JAN 07, 1998	78.72	APR 06, 1998	78.16	JUL 07, 1998	76.76
NOV 07	78.53	FEB 06	78.44	MAY 04	78.01	AUG 05	79.14
DEC 02	78.45	MAR 03	78.09	JUN 04	78.32	SEP 02	79.14
WATER YEAR 1998		HIGHEST	76.76	JUL 07, 1998	LOWEST	79.14	AUG 05, 1998
							SEP 02, 1998



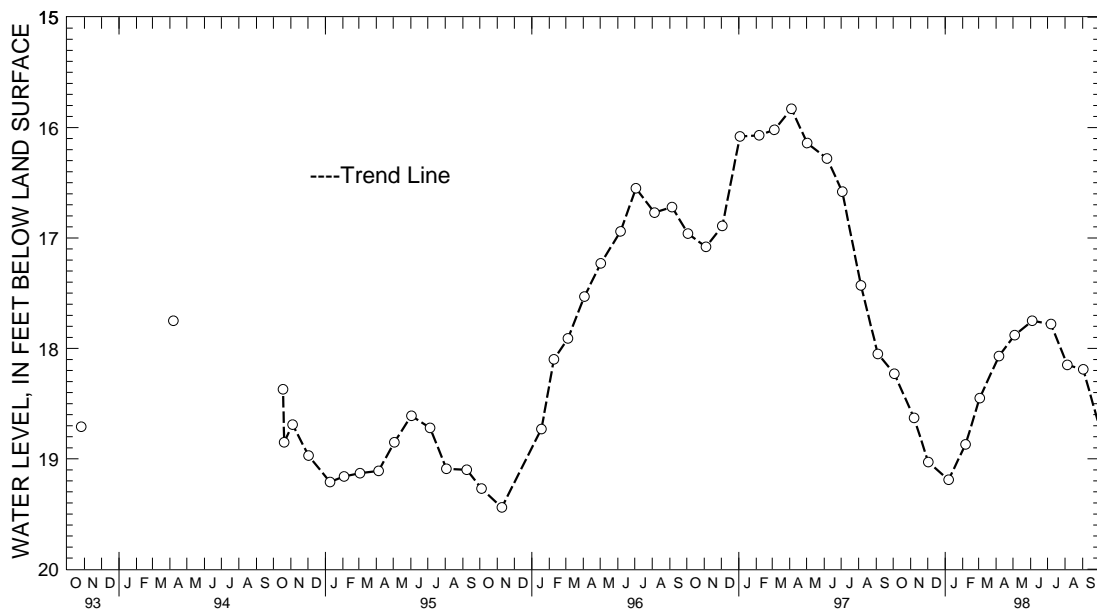
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	18.23	JAN 07, 1998	19.19	APR 06, 1998	18.07	JUL 07, 1998	17.78
NOV 07	18.63	FEB 06	18.87	MAY 04	17.88	AUG 05	18.15
DEC 02	19.03	MAR 03	18.45	JUN 04	17.75	SEP 02	18.19
WATER YEAR 1998		HIGHEST 17.75	JUN 04, 1998	LOWEST 19.19	JAN 07, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

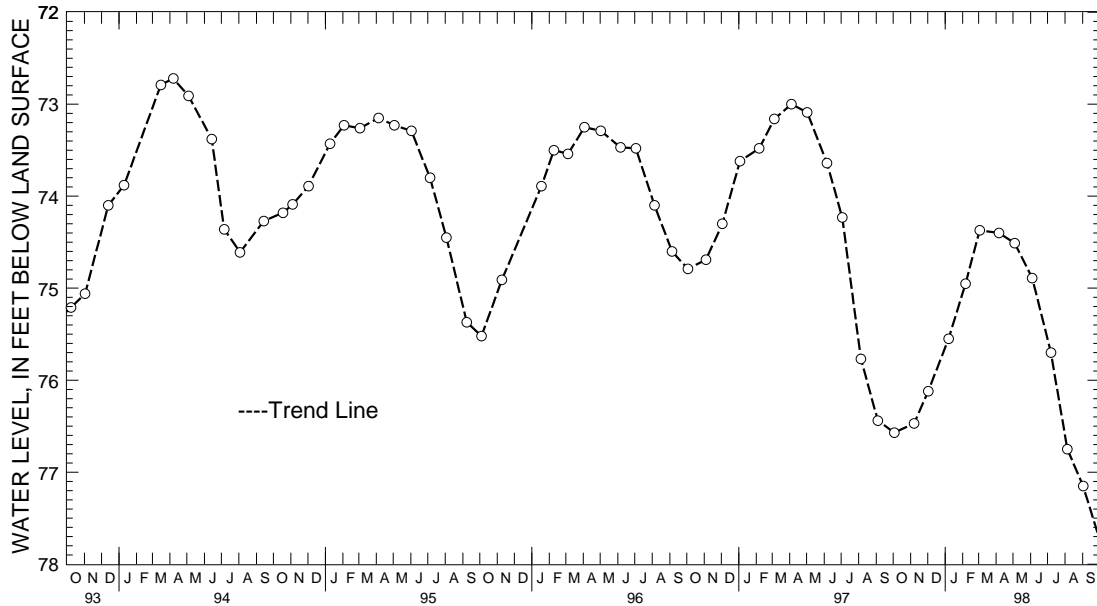
REMARKS.--Maryland Water-Level Network observation well.

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, 77.15 ft below land surface, Sept. 2, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	76.57	JAN 07, 1998	75.55	APR 06, 1998	74.40	JUL 07, 1998	75.70
NOV 07	76.47	FEB 06	74.95	MAY 04	74.51	AUG 05	76.75
DEC 02	76.12	MAR 03	74.37	JUN 04	74.89	SEP 02	77.15
WATER YEAR 1998		HIGHEST 74.37	MAR 03, 1998	LOWEST 77.15	SEP 02, 1998		



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 aquifer of the 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.--Monthly measurements with electric tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval, May 29, 1988 to Nov. 20, 1997.
 Equipped with digital water-level recorder--30-minute recorder interval, Nov. 20, 1997 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, 53.58 ft below sea level, March 9, 1998;
 lowest measured, 69.22 ft below sea level, Dec. 22, 1989.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	-57.90	-58.70	-55.52	-56.18	-56.86	-57.62	-56.83	-57.73	-54.07	-54.67
2	-60.37	-61.09	-57.80	-58.33	-55.91	-56.51	-56.58	-57.14	-56.32	-57.15	-53.99	-54.56
3	-59.95	-60.63	-57.80	-58.20	-56.01	-56.41	-56.36	-57.08	-56.05	-56.63	-54.08	-54.83
4	-59.70	-60.44	-57.91	-58.49	-56.15	-56.71	-56.05	-56.70	-55.02	-56.17	-54.45	-54.97
5	-59.59	-60.08	-58.04	-58.57	-55.95	-56.63	-55.95	-56.45	-54.53	-55.21	-54.61	-55.28
6	-59.60	-59.99	-57.93	-58.44	-55.95	-56.68	-55.68	-56.27	-54.67	-55.19	-54.83	-55.39
7	-59.58	-59.96	-57.33	-58.10	-56.38	-56.85	-55.87	-56.35	-54.90	-55.56	-54.50	-55.01
8	-59.40	-59.98	-56.99	-57.59	-56.54	-56.94	-55.67	-56.24	-55.21	-55.69	-54.31	-55.06
9	-59.35	-59.80	-56.92	-57.66	-55.98	-56.67	-55.78	-56.46	-55.21	-55.67	-53.58	-54.61
10	-59.30	-59.71	-57.12	-57.64	-55.41	-56.16	-55.88	-56.46	-55.42	-56.01	-54.11	-55.48
11	-59.31	-59.80	-57.25	-57.78	-55.48	-56.09	-55.69	-56.32	-55.76	-56.34	-55.44	-55.85
12	-59.00	-59.53	-57.24	-57.79	-55.60	-56.24	-55.86	-56.31	-55.75	-56.18	-55.68	-56.52
13	-58.78	-59.30	-57.10	-57.77	-55.72	-56.30	-55.92	-56.39	-55.81	-56.32	-55.98	-56.65
14	-58.61	-59.25	-56.40	-57.41	-55.98	-56.53	-56.26	-56.70	-55.80	-56.26	-55.58	-56.23
15	-58.81	-59.32	-56.42	-57.04	-55.94	-56.52	-56.28	-56.71	-55.59	-56.22	-55.99	-56.51
16	-58.59	-59.23	-56.84	-57.61	-55.84	-56.46	-56.32	-56.71	-55.47	-55.99	-55.94	-56.39
17	-58.24	-59.06	-57.39	-57.87	-55.92	-56.37	-55.85	-56.90	-54.55	-55.74	-55.75	-56.34
18	-58.08	-58.67	-57.12	-57.79	-55.98	-56.51	-55.85	-56.34	-54.57	-55.09	-55.53	-56.04
19	-58.04	-58.54	-56.80	-57.50	-56.15	-56.70	-55.78	-56.31	-54.83	-55.25	-55.36	-55.86
20	-58.00	-58.50	-56.82	-57.25	-56.52	-57.26	-55.78	-56.73	-54.93	-55.38	-54.83	-55.58
21	-58.00	-58.52	-56.82	-57.21	-56.88	-57.45	-56.63	-57.13	-55.06	-55.68	-54.25	-54.83
22	-58.06	-59.03	-56.85	-57.23	-56.79	-57.21	-56.45	-56.94	-55.26	-55.70	-54.50	-54.93
23	-58.70	-59.11	-56.75	-57.16	-56.66	-57.11	-55.97	-56.70	-54.56	-55.55	-54.48	-55.00
24	-58.59	-59.00	-56.51	-57.43	-56.32	-56.95	-56.25	-56.96	-54.73	-55.82	-54.70	-55.39
25	-58.49	-59.80	-56.84	-57.42	-55.78	-56.40	-56.81	-57.28	-55.40	-56.07	-54.89	-55.47
26	-58.86	-59.73	-56.61	-57.14	-55.82	-56.35	-56.72	-57.31	-55.10	-55.73	-54.84	-55.37
27	-58.34	-58.86	-57.14	-57.61	-56.03	-56.49	-57.08	-57.54	-54.38	-55.50	-55.02	-55.49
28	-58.84	-59.36	-56.79	-57.61	-56.05	-56.76	-56.91	-57.52	-54.15	-54.83	-54.88	-55.53
29	-58.58	-59.09	-56.15	-57.09	-55.39	-56.29	-56.54	-57.51	---	---	-54.79	-55.33
30	-58.60	-59.06	-55.45	-56.45	-55.50	-56.08	-56.64	-57.30	---	---	-54.73	-55.37
31	-58.31	-59.02	---	---	-56.00	-57.17	-57.18	-57.79	---	---	-54.60	-55.22
MONTH	-58.00	-61.09	-55.45	-58.70	-55.39	-57.45	-55.67	-57.79	-54.15	-57.73	-53.58	-56.65

GROUND-WATER LEVELS

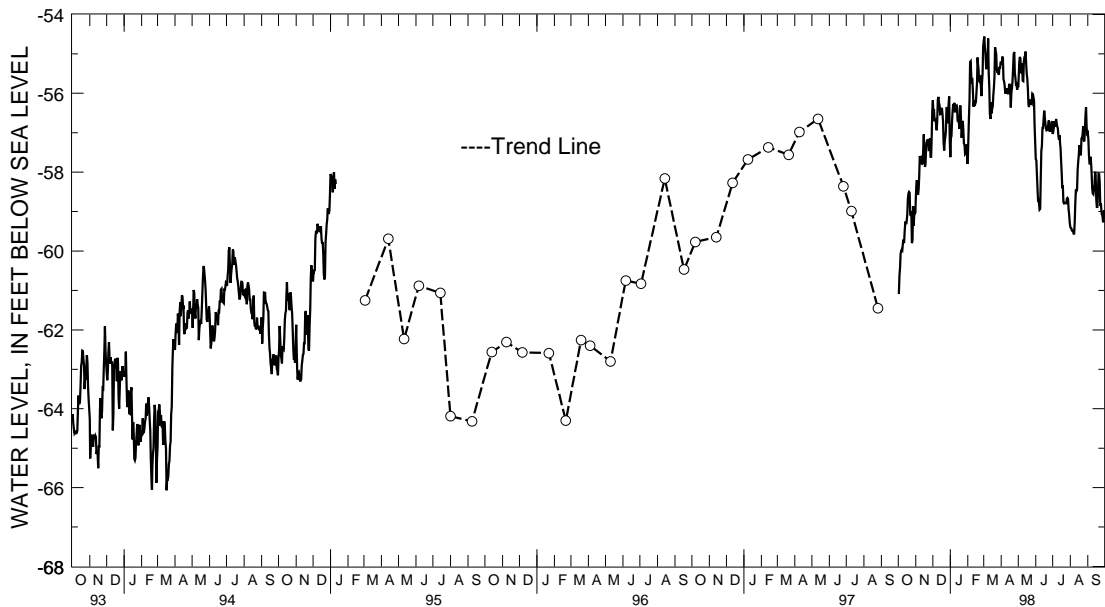
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Bb 17--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-54.63	-55.22	-55.22	-55.84	-56.91	-57.67	-56.41	-57.03	-58.78	-59.39	-56.65	-57.00
2	-54.71	-55.27	-54.83	-55.48	-57.31	-57.70	-56.55	-56.98	-58.99	-59.41	-56.37	-57.17
3	-54.54	-55.07	-54.82	-55.23	-57.29	-58.05	-56.49	-56.87	-58.92	-59.42	-56.92	-57.56
4	-54.58	-55.12	-54.73	-55.08	-57.66	-58.41	-56.34	-56.71	-59.00	-59.48	-57.03	-57.78
5	-55.04	-55.65	-54.56	-55.11	-58.07	-58.71	-56.07	-56.84	-58.99	-59.49	-57.15	-57.78
6	-55.21	-55.69	-54.84	-55.49	-58.29	-58.70	-56.22	-56.78	-58.97	-59.49	-57.04	-57.61
7	-55.28	-55.81	-54.87	-55.46	-58.16	-58.85	-56.01	-56.65	-58.98	-59.56	-57.30	-57.85
8	-55.40	-55.99	-54.63	-55.25	-58.46	-58.95	-56.28	-56.76	-58.87	-59.56	-57.58	-58.03
9	-55.34	-55.99	-54.93	-55.68	-57.98	-58.93	-56.29	-56.84	-58.37	-59.25	-57.78	-58.41
10	-55.45	-55.94	-54.92	-55.69	-57.10	-58.17	-56.29	-56.89	-58.00	-58.78	-57.99	-58.54
11	-55.37	-55.87	-54.63	-55.19	-56.92	-57.46	-56.53	-57.09	-57.90	-58.44	-57.92	-58.56
12	-55.45	-55.98	-54.53	-55.09	-56.56	-57.34	-56.62	-57.18	-57.99	-58.48	-57.92	-58.43
13	-55.51	-56.02	-54.53	-55.10	-56.31	-56.88	-56.43	-57.06	-57.60	-58.45	-57.74	-58.35
14	-55.38	-55.93	-54.41	-54.94	-56.36	-56.88	-56.51	-57.29	-57.27	-57.95	-57.55	-57.99
15	-55.37	-55.80	-54.67	-55.25	-55.82	-56.65	-56.79	-57.38	-57.22	-57.74	-57.53	-58.08
16	-55.28	-55.76	-55.07	-55.51	-55.82	-56.44	-56.98	-57.71	-57.15	-57.57	-57.73	-58.68
17	-55.44	-55.94	-55.18	-55.63	-56.00	-56.59	-57.23	-58.02	-56.87	-57.32	-58.34	-58.88
18	-55.81	-56.36	-55.30	-55.90	-56.22	-56.76	-57.58	-58.41	-56.86	-57.41	-58.20	-58.88
19	-55.35	-55.98	-55.66	-56.28	-56.23	-56.89	-57.88	-58.34	-56.91	-57.55	-57.64	-58.52
20	-55.38	-55.87	-55.85	-56.35	-56.39	-56.94	-57.84	-58.76	-56.68	-57.55	-57.47	-58.04
21	-55.11	-55.68	-55.58	-56.16	-56.32	-56.93	-58.30	-58.79	-56.63	-57.14	-57.56	-58.05
22	-54.68	-55.37	-55.69	-56.29	-56.35	-56.93	-58.20	-58.78	-56.56	-57.13	-57.70	-58.25
23	-54.47	-55.01	-55.53	-56.22	-56.13	-56.79	-58.16	-58.79	-56.50	-57.04	-58.20	-58.85
24	-54.32	-54.95	-55.45	-56.24	-56.17	-56.69	-58.28	-58.79	-56.32	-56.83	-58.32	-58.79
25	-54.55	-55.49	-55.47	-56.26	-56.23	-56.87	-58.25	-58.79	-56.63	-57.19	-58.48	-58.98
26	-55.08	-55.61	-55.42	-56.01	-56.39	-56.97	-58.09	-58.67	-56.66	-57.22	-58.67	-59.07
27	-55.13	-55.78	-55.43	-56.02	-56.34	-56.91	-58.16	-58.65	-56.28	-56.94	-58.59	-59.09
28	-55.16	-55.78	-55.50	-56.10	-56.40	-56.96	-58.16	-58.67	-56.01	-56.55	-58.59	-59.24
29	-55.34	-55.91	-55.55	-56.19	-56.29	-56.74	-58.32	-58.94	-55.85	-56.36	-58.81	-59.27
30	-55.28	-55.81	-55.98	-56.84	-56.38	-56.71	-58.58	-59.08	-55.82	-56.87	-58.56	-58.96
31	---	---	-56.52	-57.23	---	---	-58.66	-59.28	-56.42	-57.02	---	---
MONTH	-54.32	-56.36	-54.41	-57.23	-55.82	-58.95	-56.01	-59.28	-55.82	-59.56	-56.37	-59.27
YEAR	-53.58	-61.09										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 aquifer of the Patapsco Formation 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.--Monthly measurements with electric tape by U.S. Geological Survey personnel.

Equipped with digital water-level recorder--60-minute recorder interval, April 28, 1988 to Nov. 20, 1997.

Equipped with digital water-level recorder--30-minute recorder interval, Nov. 20, 1997 to Aug. 18, 1998.

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. Discontinued as an observation well on Aug. 18, 1998.

PERIOD OF RECORD.--April 1988 to Aug. 18, 1998.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 105.47 ft below land surface, Oct. 20, 1996; lowest measured, 126.78 ft below land surface, Jan. 11, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	113.59	113.31	112.28	111.57	111.14	110.65	110.63	110.19	109.57	109.11	109.16	108.60
2	113.65	113.18	112.09	111.60	111.22	110.82	110.38	110.16	109.53	109.05	109.12	108.55
3	113.57	113.16	112.25	111.87	111.12	110.59	110.39	110.11	109.49	109.09	109.13	108.63
4	113.57	113.16	112.41	112.03	110.94	110.48	110.33	110.02	109.35	108.60	109.12	108.62
5	113.56	113.16	112.49	112.03	110.84	110.38	110.30	109.91	109.02	108.47	109.21	108.70
6	113.62	113.21	112.38	111.84	110.91	110.47	110.16	109.68	109.22	108.75	109.22	108.79
7	113.57	113.19	112.03	111.54	111.01	110.61	110.11	109.62	109.30	108.81	109.10	108.63
8	113.53	113.06	111.80	111.39	111.03	110.76	109.82	109.36	109.30	108.77	109.11	108.53
9	113.51	112.55	111.95	111.33	111.01	110.55	109.95	109.37	109.28	108.79	108.87	108.15
10	113.04	112.51	111.99	111.54	110.90	110.26	109.95	109.43	109.38	108.94	109.42	108.64
11	113.15	112.70	112.01	111.61	110.92	110.39	109.93	109.39	109.41	108.75	109.42	109.12
12	113.14	112.67	112.00	111.55	110.92	110.37	109.93	109.43	109.13	108.68	109.32	109.16
13	113.19	112.69	112.00	111.42	110.91	110.35	109.83	109.35	109.33	108.99	109.32	108.94
14	113.30	112.70	111.77	111.16	111.05	110.64	109.94	109.53	109.32	108.99	109.20	108.75
15	113.30	112.83	111.67	111.02	111.16	110.68	109.76	109.16	109.33	108.97	109.43	109.10
16	113.29	112.73	111.69	111.35	111.09	110.66	109.45	109.05	109.35	108.97	109.44	109.16
17	113.19	112.49	111.70	111.29	111.04	110.64	109.43	108.80	109.20	108.35	109.44	109.13
18	112.96	112.42	111.64	111.17	111.04	110.66	109.39	108.85	109.01	108.42	109.36	108.98
19	112.88	112.31	111.54	111.03	111.02	110.66	109.31	108.86	109.19	108.76	109.30	108.87
20	112.81	112.29	111.41	111.03	111.08	110.75	109.30	108.88	109.21	108.78	109.23	108.63
21	112.77	112.14	111.39	110.90	111.09	110.74	109.35	108.98	109.40	108.93	108.93	108.40
22	112.79	112.16	111.18	110.88	111.00	110.62	109.17	108.74	109.39	109.00	109.13	108.75
23	112.40	111.79	111.21	110.89	111.01	110.59	109.04	108.45	109.22	108.45	109.26	108.76
24	112.00	111.71	111.42	110.78	110.98	110.50	109.29	108.79	109.33	108.76	109.44	109.00
25	112.25	111.63	111.41	111.02	110.74	110.31	109.41	109.06	109.33	108.94	109.45	108.99
26	112.19	111.72	111.25	110.85	110.77	110.35	109.42	108.95	109.21	108.64	109.33	108.83
27	112.27	111.56	111.38	111.19	110.77	110.24	109.43	108.94	109.18	108.54	109.33	108.88
28	112.54	112.22	111.31	110.78	110.67	110.21	109.21	108.56	109.13	108.57	109.28	108.79
29	112.40	111.99	111.13	110.67	110.48	109.76	109.22	108.39	---	---	109.21	108.76
30	112.46	112.06	111.05	110.41	110.29	109.83	109.29	108.63	---	---	109.22	108.75
31	112.40	111.85	---	---	110.56	110.27	109.55	109.14	---	---	109.17	108.66
MONTH	113.65	111.56	112.49	110.41	111.22	109.76	110.63	108.39	109.57	108.35	109.45	108.15

GROUND-WATER LEVELS

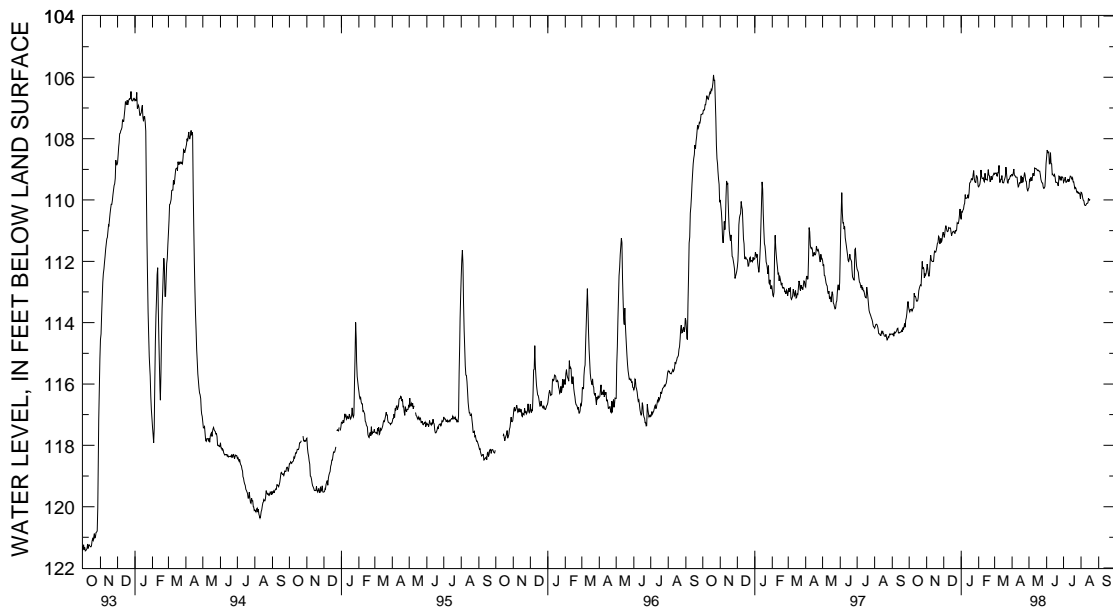
MARYLAND--Continued

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	109.17	108.67	109.60	109.05	108.59	108.09	109.42	109.18	109.75	109.35	---	---
2	109.20	108.70	109.34	108.85	108.37	108.01	109.38	109.18	109.76	109.37	---	---
3	109.12	108.66	109.37	108.99	108.47	107.85	109.33	109.14	109.82	109.42	---	---
4	108.99	108.45	109.27	108.98	108.43	108.14	109.25	109.13	109.94	109.53	---	---
5	109.19	108.81	109.27	108.80	108.43	108.13	109.42	109.01	110.01	109.56	---	---
6	109.20	108.76	109.37	108.95	108.82	108.16	109.42	109.15	110.03	109.57	---	---
7	109.25	108.82	109.25	108.83	108.82	108.18	109.38	109.06	110.15	109.65	---	---
8	109.25	108.83	109.13	108.57	108.46	107.99	109.34	109.04	110.18	109.72	---	---
9	109.25	108.64	109.20	108.64	108.80	108.20	109.40	109.08	110.18	109.74	---	---
10	109.26	108.83	109.20	108.56	108.82	108.39	109.33	109.01	110.15	109.63	---	---
11	109.46	108.87	108.96	108.42	109.17	108.68	109.40	109.09	110.11	109.66	---	---
12	109.57	109.13	108.98	108.53	109.16	108.81	109.31	109.05	110.11	109.73	---	---
13	109.54	109.15	108.97	108.53	109.20	108.83	109.22	108.99	110.09	109.56	---	---
14	109.44	109.01	108.99	108.46	109.22	108.95	109.23	108.97	109.94	109.53	---	---
15	109.46	109.04	109.02	108.57	109.17	108.82	109.27	109.01	110.00	109.53	---	---
16	109.43	108.88	109.04	108.61	109.25	108.83	109.32	109.00	110.01	109.62	---	---
17	109.21	108.67	109.02	108.57	109.42	109.00	109.28	108.98	109.98	109.60	---	---
18	109.45	109.10	109.05	108.62	109.43	109.17	109.41	109.02	---	---	---	---
19	109.26	108.82	109.06	108.63	109.42	109.14	109.41	109.14	---	---	---	---
20	109.42	108.97	109.06	108.63	109.44	109.02	109.53	109.06	---	---	---	---
21	109.32	108.88	109.17	108.59	109.53	109.14	109.62	109.24	---	---	---	---
22	109.23	108.75	109.32	108.83	109.53	108.93	109.59	109.18	---	---	---	---
23	109.11	108.62	109.40	108.83	109.22	108.82	109.62	109.24	---	---	---	---
24	109.19	108.59	109.44	108.94	109.24	108.84	109.73	109.34	---	---	---	---
25	109.38	108.75	109.45	108.94	109.33	108.95	109.76	109.35	---	---	---	---
26	109.39	108.87	109.58	109.00	109.27	109.00	109.73	109.37	---	---	---	---
27	109.59	109.01	109.62	109.15	109.36	109.06	109.78	109.43	---	---	---	---
28	109.66	109.16	109.61	109.15	109.24	108.96	109.76	109.38	---	---	---	---
29	109.70	109.23	109.56	109.13	109.25	108.96	109.78	109.44	---	---	---	---
30	109.63	109.16	109.24	108.80	109.28	109.09	109.81	109.48	---	---	---	---
31	---	---	108.81	108.33	---	---	109.96	109.44	---	---	---	---
MONTH	109.70	108.45	109.62	108.33	109.53	107.85	109.96	108.97	110.18	109.35	---	---
YEAR	113.65	107.85										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 aquifer of the Patapsco Formation 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 electric tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval, April 30, 1988 to Nov. 20, 1997.
 Equipped with digital water-level recorder--30-minute recorder interval, Nov. 20, 1997 to current year.
 DATUM.--Elevation 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.
 PERIOD OF RECORD.--May 1988 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.26 ft below sea level, April 30, 1988;
 lowest measured, 114.86 ft below sea level, November 20, 1997.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-110.03	-110.39	-108.87	-109.65	-111.17	-111.68	-111.87	-112.51	-111.13	-111.62	-110.19	-110.67
2	-109.76	-110.35	-108.88	-109.33	-111.32	-111.83	-111.88	-112.18	-111.09	-111.56	-110.19	-110.69
3	-109.67	-110.11	-109.09	-109.53	-111.15	-111.68	-111.91	-112.35	-111.09	-111.54	-110.25	-110.83
4	-109.64	-110.06	-109.32	-109.82	-111.02	-111.52	-111.87	-112.29	-110.57	-111.36	-110.00	-110.71
5	-109.69	-110.03	-109.54	-109.93	-110.88	-111.36	-111.84	-112.27	-110.22	-110.77	-110.04	-110.92
6	-109.75	-110.24	-109.54	-110.00	-110.92	-111.35	-111.62	-112.11	-110.18	-110.62	-110.62	-111.04
7	-109.91	-110.33	-109.24	-109.77	-111.08	-111.61	-111.71	-112.52	-110.23	-110.71	-110.44	-110.85
8	-109.90	-110.28	-108.96	-109.39	-111.29	-111.70	-112.11	-112.57	-110.35	-110.78	-110.35	-110.90
9	-109.88	-110.30	-108.84	-109.45	-110.98	-111.50	-112.02	-112.50	-110.49	-110.90	-109.91	-110.70
10	-109.88	-110.32	-109.13	-109.60	-110.63	-111.23	-112.00	-112.50	-110.71	-111.14	-110.36	-111.32
11	-109.99	-110.42	-109.24	-109.77	-110.67	-111.16	-111.92	-112.43	-110.77	-111.28	-111.03	-111.45
12	-109.81	-110.27	-109.40	-110.52	-110.66	-111.12	-111.98	-112.42	-110.71	-111.11	-111.07	-111.32
13	-109.74	-110.22	-110.28	-110.76	-110.63	-111.15	-111.91	-112.39	-111.04	-111.43	-110.63	-111.26
14	-109.72	-110.20	-110.15	-110.82	-110.91	-111.33	-112.19	-113.13	-111.07	-111.43	-110.37	-110.88
15	-109.83	-110.26	-110.02	-110.61	-111.03	-111.48	-112.94	-113.45	-110.95	-111.41	-110.62	-110.97
16	-109.66	-110.29	-110.43	-111.28	-111.03	-111.48	-112.70	-113.26	-110.90	-111.31	-110.45	-110.91
17	-109.32	-110.07	-111.07	-111.43	-110.95	-111.46	-112.26	-113.04	-110.22	-111.14	-110.17	-110.73
18	-109.19	-109.72	-111.43	-113.78	-110.96	-111.34	-112.26	-112.68	-110.23	-110.68	-109.99	-110.41
19	-109.17	-109.65	-113.78	-114.71	-110.96	-111.34	-112.10	-112.61	-110.46	-110.83	-109.85	-110.30
20	-109.22	-109.69	-114.32	-114.86	-111.07	-111.56	-112.09	-112.64	-110.41	-110.82	-109.60	-110.18
21	-109.26	-109.77	-113.73	-114.53	-111.33	-111.69	-112.25	-112.69	-110.49	-111.01	-109.15	-109.60
22	-109.24	-109.92	-113.29	-113.77	-111.22	-111.60	-111.81	-112.29	-110.66	-111.06	-109.43	-109.83
23	-109.63	-109.96	-112.84	-113.33	-111.24	-111.69	-111.32	-112.01	-110.18	-110.98	-109.55	-110.07
24	-109.43	-109.81	-112.66	-113.31	-111.10	-111.60	-111.48	-112.06	-110.41	-111.12	-109.86	-110.42
25	-109.29	-109.86	-112.67	-113.30	-110.95	-111.39	-111.93	-112.34	-110.68	-111.21	-110.04	-110.51
26	-109.21	-109.81	-112.14	-112.80	-111.11	-111.57	-111.75	-112.28	-110.30	-110.94	-110.02	-110.43
27	-108.98	-109.58	-112.44	-112.70	-111.23	-111.65	-111.65	-112.22	-110.11	-110.75	-110.18	-110.68
28	-109.58	-110.05	-111.83	-112.65	-111.40	-111.95	-111.24	-111.92	-110.13	-110.61	-110.19	-110.72
29	-109.44	-109.87	-111.42	-112.12	-110.98	-111.70	-110.78	-111.69	---	---	-110.15	-110.62
30	-109.52	-109.91	-111.01	-111.77	-111.08	-111.59	-110.86	-111.36	---	---	-110.10	-110.62
31	-109.27	-109.91	---	---	-111.56	-112.13	-111.14	-111.60	---	---	-110.00	-110.52
MONTH	-108.98	-110.42	-108.84	-114.86	-110.63	-112.13	-110.78	-113.45	-110.11	-111.62	-109.15	-111.45

GROUND-WATER LEVELS

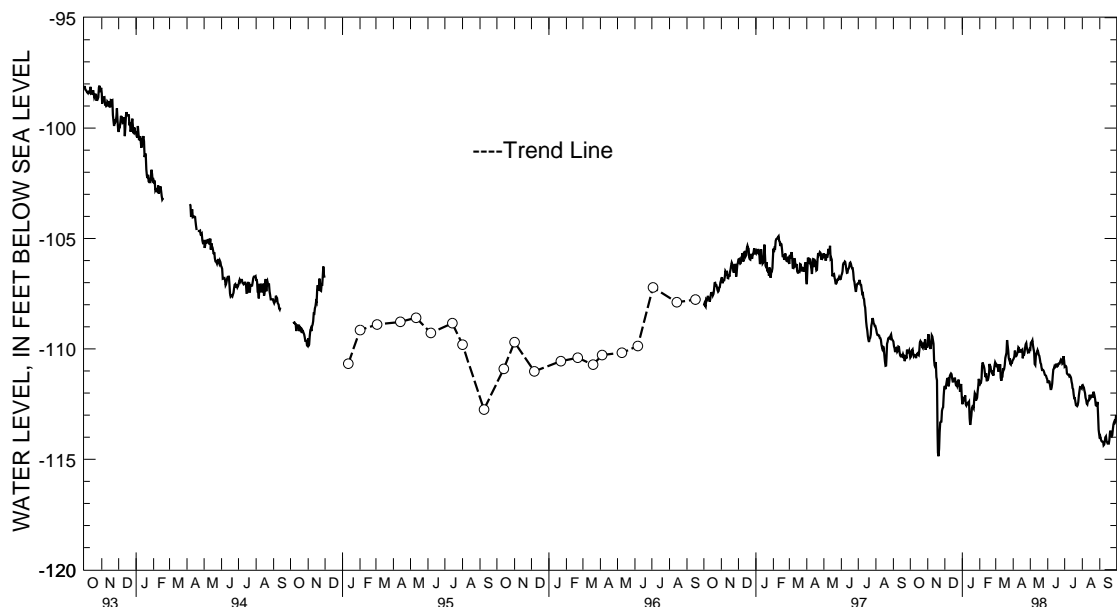
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Bc 24--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-109.99	-110.49	-109.48	-110.03	-110.98	-111.55	-110.26	-110.80	-111.18	-111.65	-113.63	-114.06
2	-109.95	-110.43	-109.22	-109.73	-111.03	-111.46	-110.42	-110.78	-111.27	-111.64	-113.65	-113.99
3	-109.90	-110.34	-109.32	-109.70	-110.90	-111.46	-110.38	-110.78	-111.32	-111.71	-113.66	-114.11
4	-109.57	-110.08	-109.38	-109.68	-111.13	-111.48	-110.44	-110.83	-111.36	-111.75	-113.64	-114.18
5	-109.95	-110.38	-109.23	-109.62	-111.09	-111.66	-110.45	-111.12	-111.39	-111.89	-113.73	-114.20
6	-109.95	-110.28	-109.30	-109.85	-111.30	-111.82	-110.75	-111.15	-111.51	-112.00	-113.69	-114.20
7	-109.86	-110.29	-109.52	-110.00	-111.48	-111.82	-110.77	-111.17	-111.71	-112.22	-113.80	-114.24
8	-109.76	-110.21	-109.62	-110.14	-111.32	-111.76	-110.78	-111.17	-111.86	-112.31	-113.92	-114.37
9	-109.45	-110.11	-109.91	-110.69	-111.01	-111.58	-110.76	-111.24	-112.03	-112.48	-113.77	-114.33
10	-109.54	-109.93	-110.07	-110.73	-110.43	-111.23	-110.71	-111.20	-111.91	-112.52	-113.61	-114.19
11	-109.46	-109.97	-109.84	-110.33	-110.43	-110.93	-110.78	-111.25	-111.89	-112.36	-113.47	-114.01
12	-109.69	-110.13	-109.79	-110.21	-110.39	-110.90	-110.86	-111.31	-111.91	-112.36	-113.46	-113.97
13	-109.73	-110.13	-109.72	-110.16	-110.32	-110.79	-111.01	-111.49	-111.71	-112.33	-113.59	-114.17
14	-109.66	-110.09	-109.60	-110.06	-110.44	-110.84	-111.10	-111.60	-111.66	-112.08	-113.78	-114.23
15	-109.69	-110.10	-109.71	-110.14	-110.29	-110.81	-111.20	-111.78	-111.60	-112.14	-113.87	-114.29
16	-109.66	-110.06	-109.85	-110.27	-110.25	-110.67	-111.38	-111.82	-111.74	-112.20	-113.89	-114.29
17	-109.61	-110.04	-109.91	-110.32	-110.28	-110.75	-111.44	-112.06	-111.76	-112.15	-113.81	-114.29
18	-109.92	-110.43	-110.04	-110.46	-110.36	-110.79	-111.66	-112.24	-111.74	-112.12	-113.48	-114.12
19	-109.69	-110.19	-110.18	-110.64	-110.35	-110.77	-111.83	-112.24	-111.71	-112.17	-113.19	-113.79
20	-109.80	-110.30	-110.27	-110.69	-110.21	-110.67	-111.79	-112.40	-111.51	-112.17	-113.27	-113.71
21	-109.71	-110.17	-110.29	-110.81	-110.19	-110.66	-112.03	-112.55	-111.49	-111.94	-113.49	-113.94
22	-109.46	-109.96	-110.48	-110.95	-110.14	-110.66	-112.11	-112.57	-111.56	-112.02	-113.51	-113.97
23	-109.34	-109.79	-110.44	-110.94	-110.04	-110.57	-112.14	-112.59	-111.70	-112.14	-113.42	-113.92
24	-109.27	-109.74	-110.45	-110.96	-109.98	-110.50	-112.04	-112.55	-111.85	-112.29	-113.09	-113.65
25	-109.36	-109.95	-110.44	-111.00	-110.04	-110.54	-111.80	-112.40	-112.11	-112.55	-113.01	-113.44
26	-109.55	-110.05	-110.52	-111.08	-110.06	-110.52	-111.50	-112.12	-112.19	-112.58	-113.00	-113.36
27	-109.62	-110.16	-110.71	-111.18	-110.19	-110.67	-111.41	-111.92	-112.10	-112.58	-112.86	-113.29
28	-109.64	-110.14	-110.71	-111.19	-110.01	-110.65	-111.31	-111.73	-111.91	-112.40	-112.85	-113.34
29	-109.64	-110.15	-110.78	-111.22	-109.92	-110.33	-111.34	-111.74	-112.24	-112.98	-112.81	-113.29
30	-109.54	-110.01	-110.84	-111.32	-110.06	-110.52	-111.37	-111.76	-112.77	-113.66	-112.65	-112.99
31	---	---	-110.98	-111.37	---	---	-111.35	-111.79	-113.38	-113.88	---	---
MONTH	-109.27	-110.49	-109.22	-111.37	-109.92	-111.82	-110.26	-112.59	-111.18	-113.88	-112.65	-114.37
YEAR	-108.84	-114.86										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 77. SITE ID.--383644077055501. PERMIT NUMBER.--CH-88-1028.
 LOCATION.--Lat 38°36'44", long 77°05'55", Hydrologic Unit 02070011, 2.75 mi southwest of intersection with
 MD Rts 210 and 227, 0.25 mi south of MD 210.
 Owner: The Arden Group.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 955 ft; casing diameter 16 in., to 60 ft;
 casing diameter 8 in. from 0 to 845 ft; and casing diameter 6 in., from 845 to 925 ft; screen diameter 6 in.
 from 925 to 955 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval, August 28, 1995 to current year.
 DATUM.--Elevation of land surface is 96.64 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 3.38 ft above land surface.
 REMARKS.--Bryans Road Project observation well. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction. A 48-hour pump test occurred in a nearby well on
 Nov. 22, and 23, 1996. The lowest water measured during this period was 15.54 ft below sea level
 PERIOD OF RECORD.--August 1995 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.76 ft above sea level, August 29, 1995;
 lowest measured, 15.54 ft below sea level, Nov. 23, and 24, 1996.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-7.91	-8.07	-8.53	-8.78	-6.31	-6.46	-7.86	-7.93	-7.46	-7.55	-7.62	-7.69
2	-8.07	-8.12	-8.48	-8.54	-6.46	-6.60	-7.87	-7.89	-7.55	-7.61	-7.57	-7.62
3	-8.08	-8.11	-8.50	-8.54	-6.60	-6.84	-7.85	-7.87	-7.48	-7.58	-7.54	-7.66
4	-8.10	-8.16	-8.54	-8.59	-6.84	-7.32	-7.87	-7.91	-7.28	-7.48	-7.66	-7.71
5	-8.16	-8.21	-8.56	-8.61	-7.32	-7.65	-7.83	-7.91	-7.27	-7.32	-7.71	-7.73
6	-8.21	-8.25	-8.41	-8.56	-7.65	-7.73	-7.81	-7.83	-7.31	-7.33	-7.73	-7.75
7	-8.25	-8.35	-8.03	-8.41	-7.73	-7.84	-7.68	-7.82	-7.29	-7.33	-7.65	-7.73
8	-8.35	-8.39	-7.85	-8.03	-7.83	-7.86	-7.60	-7.68	-7.33	-7.40	-7.59	-7.65
9	-8.39	-8.42	-7.78	-7.85	-7.71	-7.83	-7.62	-7.76	-7.39	-7.41	-7.32	-7.59
10	-8.40	-8.50	-7.76	-7.80	-7.48	-7.71	-7.76	-7.83	---	---	-7.38	-7.67
11	-8.49	-8.56	-7.73	-7.78	-7.50	-7.65	-7.77	-7.84	-7.32	-7.49	-7.67	-7.86
12	-8.56	-8.58	-7.62	-7.74	-7.59	-7.65	-7.84	-7.86	-7.29	-7.37	-7.86	-7.90
13	-8.56	-8.58	-7.44	-7.67	-7.48	-7.62	-7.71	-7.84	-7.37	-7.51	-7.84	-7.91
14	-8.56	-8.58	-7.26	-7.44	-7.49	-7.62	-7.79	-7.88	-7.51	-7.67	-7.80	-7.87
15	-8.58	-8.62	-7.27	-7.30	-7.62	-7.67	-7.63	-7.88	-7.67	-7.72	-7.87	-7.93
16	-8.62	-8.64	-7.27	-7.32	-7.53	-7.65	-7.53	-7.63	-7.67	-7.70	-7.93	-7.95
17	-8.58	-8.65	-7.30	-7.32	-7.50	-7.54	-7.56	-7.63	-7.32	-7.67	-7.95	-8.02
18	-8.55	-8.58	-7.24	-7.31	-7.54	-7.62	-7.63	-7.70	-7.30	-7.32	-7.84	-8.00
19	-8.51	-8.55	-7.15	-7.24	-7.53	-7.62	-7.60	-7.69	-7.31	-7.45	-7.67	-7.84
20	-8.51	-8.56	-7.09	-7.15	-7.49	-7.56	-7.60	-7.72	-7.40	-7.45	-7.51	-7.67
21	-8.47	-8.59	-6.95	-7.09	-7.56	-7.72	-7.72	-7.78	-7.42	-7.52	-7.40	-7.51
22	-8.47	-8.53	-6.89	-6.95	-7.60	-7.72	-7.72	-7.78	-7.52	-7.64	-7.39	-7.51
23	-8.53	-8.59	-6.86	-6.91	-7.53	-7.69	-7.42	-7.72	-7.34	-7.64	-7.51	-7.66
24	-8.56	-8.61	-6.83	-6.93	-7.62	-7.74	-7.43	-7.51	-7.32	-7.41	-7.66	-7.75
25	-8.53	-8.61	-6.80	-6.93	-7.52	-7.67	-7.51	-7.71	-7.41	-7.66	-7.75	-7.84
26	-8.53	-8.64	-6.61	-6.80	-7.67	-7.72	-7.68	-7.72	-7.66	-7.70	-7.78	-7.84
27	-8.47	-8.54	-6.64	-6.77	-7.53	-7.72	-7.59	-7.72	-7.66	-7.70	-7.78	-7.84
28	-8.54	-8.68	-6.64	-6.77	-7.54	-7.72	-7.42	-7.59	-7.68	-7.71	-7.83	-7.86
29	-8.67	-8.73	-6.59	-6.65	-7.44	-7.73	-7.40	-7.49	---	---	-7.83	-7.85
30	-8.73	-8.82	-6.32	-6.59	-7.40	-7.51	-7.35	-7.40	---	---	-7.83	-7.87
31	-8.78	-8.83	---	---	-7.51	-7.86	-7.36	-7.46	---	---	-7.87	-7.90
MONTH	-7.91	-8.83	-6.32	-8.78	-6.31	-7.86	-7.35	-7.93	-7.27	-7.71	-7.32	-8.02

GROUND-WATER LEVELS

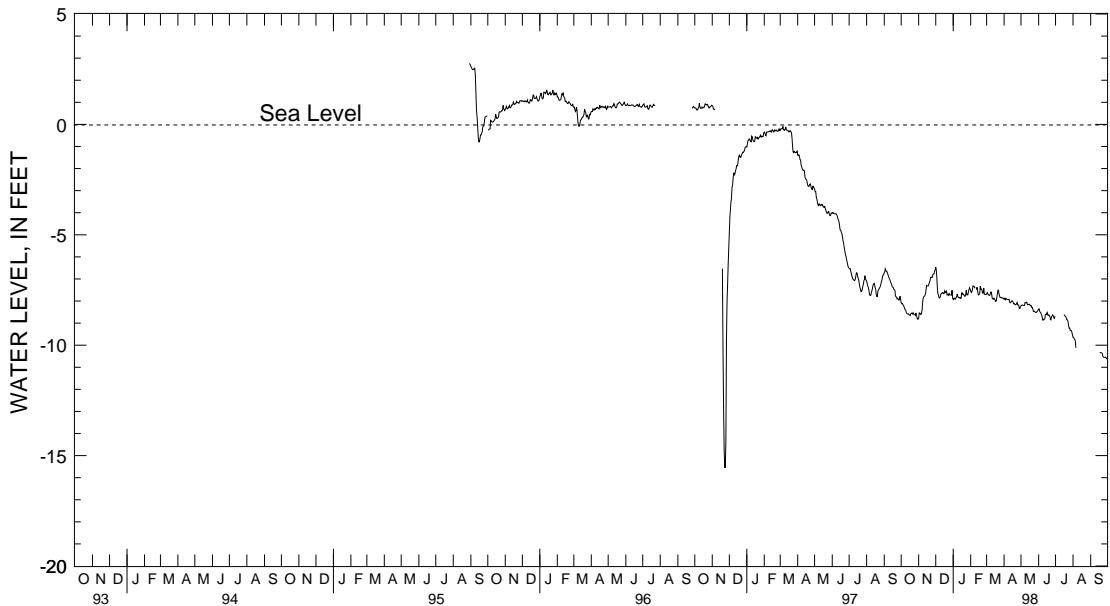
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Bc 77--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-7.83	-7.87	-8.19	-8.22	-8.29	-8.36	---	---	-9.51	-9.64	---	---
2	-7.83	-7.91	-8.15	-8.19	-8.34	-8.36	---	---	-9.64	-9.65	---	---
3	-7.88	-7.95	-8.14	-8.17	-8.35	-8.48	---	---	-9.65	-9.70	---	---
4	-7.78	-7.88	-8.17	-8.19	-8.47	-8.50	---	---	-9.70	-9.74	---	---
5	-7.80	-7.90	-8.19	-8.20	-8.47	-8.53	---	---	-9.74	-9.81	---	---
6	-7.90	-7.93	-8.19	-8.20	-8.53	-8.60	---	---	-9.81	-10.12	---	---
7	-7.89	-7.93	-8.07	-8.20	-8.60	-8.67	---	---	---	---	---	---
8	-7.90	-7.94	-7.92	-8.07	-8.67	-8.83	---	---	---	---	---	---
9	-7.77	-7.93	-7.95	-8.07	-8.82	-8.87	---	---	---	---	---	---
10	-7.81	-7.92	-8.05	-8.08	-8.80	-8.82	---	---	---	---	---	---
11	-7.92	-8.04	-8.01	-8.05	-8.81	-8.83	---	---	---	---	---	---
12	-8.04	-8.08	-8.02	-8.14	-8.60	-8.81	---	---	---	---	---	---
13	-8.02	-8.06	-8.14	-8.17	-8.60	-8.61	---	---	---	---	---	---
14	-7.99	-8.02	-8.10	-8.16	-8.60	-8.61	---	---	---	---	---	---
15	-7.95	-7.99	-8.10	-8.15	-8.51	-8.61	---	---	---	---	---	---
16	-7.95	-8.00	-8.12	-8.15	-8.51	-8.52	-8.54	-8.62	---	---	---	---
17	-7.97	-8.05	-8.11	-8.19	-8.52	-8.63	-8.62	-8.64	---	---	-8.82	-8.83
18	-8.05	-8.12	-8.19	-8.22	-8.63	-8.65	-8.64	-8.69	---	---	-8.83	-8.84
19	-8.04	-8.11	-8.20	-8.21	-8.60	-8.63	-8.69	-8.70	---	---	-8.81	-8.84
20	-8.04	-8.16	-8.21	-8.29	-8.62	-8.67	-8.70	-8.77	---	---	-8.81	-8.85
21	-8.14	-8.17	-8.21	-8.29	-8.66	-8.70	-8.77	-8.84	---	---	-8.83	-8.85
22	-8.11	-8.15	-8.23	-8.37	-8.67	-8.83	-8.83	-8.85	---	---	-8.85	-8.89
23	-8.07	-8.14	-8.37	-8.47	-8.67	-8.85	-8.85	-8.93	---	---	-8.89	-9.02
24	-8.02	-8.07	-8.42	-8.46	-8.67	-8.71	-8.93	-9.11	---	---	-9.02	-9.05
25	-8.04	-8.17	-8.40	-8.46	-8.63	-8.68	-9.11	-9.23	---	---	-9.04	---
26	-8.11	-8.17	-8.46	-8.50	-8.61	-8.63	-9.23	-9.23	---	---	---	---
27	-8.17	-8.22	-8.50	-8.52	-8.62	-8.67	-9.23	-9.33	---	---	---	---
28	-8.22	-8.34	-8.49	-8.51	-8.66	-8.76	-9.33	-9.34	---	---	---	-9.05
29	-8.27	-8.34	-8.45	-8.49	-8.69	-8.78	-9.34	-9.34	---	---	-9.05	-9.11
30	-8.21	-8.27	-8.41	-8.45	-8.61	-8.69	-9.34	-9.41	---	---	-9.10	---
31	---	---	-8.33	-8.41	---	---	-9.41	-9.51	---	---	---	---
MONTH	-7.77	-8.34	-7.92	-8.52	-8.29	-8.87	-8.54	-9.51	-9.51	-10.10	-8.81	-9.11
YEAR	-6.31	-10.12										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 80. SITE ID.--383645077062402. PERMIT NUMBER.--CH-94-0898.
 LOCATION.--Lat 38°36'45", long 77°06'24", Hydrologic Unit 02070011, 2.0 southwest of intersection with
 MD Rts. 210 and 227, 100 ft south of MD Rt. 210.
 Owner: Maryland Geological Survey.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,120 ft; casing diameter 4 in., to 1,085 ft,
 and 1,095 to 1,105 ft; screen diameter 4 in. from 1,085 to 1,095 ft and 1,105 to 1,115 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey and Maryland
 Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval, Oct. 22, 1996 to current year.
 DATUM.--Elevation of land surface is 123.06 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 3.50 ft above land surface.
 REMARKS.--Bryans Road Project observation well. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.93 ft above sea level, Oct. 30, 1996;
 lowest measured, 9.11 ft below sea level, September 29, and 30, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-3.71	-3.85	-4.23	-4.41	-4.19	-4.32	-4.52	-4.57	-4.23	-4.32	---	---
2	-3.85	-3.91	-4.23	-4.31	-4.32	-4.39	---	---	-4.32	-4.38	---	---
3	---	---	-4.31	-4.39	-4.31	-4.40	---	---	-4.25	-4.35	-4.31	-4.35
4	---	---	-4.39	-4.52	-4.23	-4.31	---	---	-4.05	-4.25	-4.35	-4.43
5	---	---	-4.52	-4.56	-4.22	-4.23	---	---	-4.04	-4.09	-4.43	-4.51
6	-3.93	-3.95	-4.51	-4.56	-4.22	-4.24	---	---	-4.08	-4.10	-4.51	-4.55
7	-3.95	-4.09	-4.29	-4.51	-4.21	-4.33	-4.45	-4.59	-4.06	-4.10	---	---
8	-4.09	-4.13	-4.26	-4.29	-4.33	-4.38	-4.37	-4.45	-4.10	-4.17	---	---
9	-4.13	-4.18	-4.23	-4.26	-4.36	-4.38	-4.39	-4.53	-4.16	-4.18	-4.23	-4.42
10	---	---	-4.26	-4.32	-4.25	-4.36	-4.53	-4.60	-4.16	-4.36	-4.29	-4.53
11	---	---	-4.32	-4.38	-4.28	-4.38	-4.54	-4.61	-4.23	-4.36	-4.53	-4.60
12	-4.23	-4.25	-4.38	-4.42	---	---	-4.61	-4.63	-4.19	-4.30	-4.60	-4.70
13	---	---	-4.34	-4.42	---	---	-4.48	-4.61	-4.30	-4.35	-4.69	-4.73
14	---	---	-4.23	-4.34	-4.32	-4.39	-4.56	-4.65	-4.35	-4.48	-4.57	-4.69
15	---	---	-4.28	-4.32	-4.39	-4.39	-4.40	-4.65	-4.48	-4.54	-4.64	-4.75
16	---	---	-4.32	-4.45	-4.39	-4.40	-4.30	-4.40	-4.51	-4.54	-4.75	-4.81
17	-4.25	-4.30	-4.45	-4.48	-4.39	-4.40	-4.33	-4.40	-4.24	-4.51	-4.81	-4.83
18	-4.21	-4.25	-4.47	-4.49	---	---	-4.40	-4.47	-4.24	-4.25	-4.61	-4.83
19	-4.14	-4.21	-4.43	-4.47	---	---	-4.37	-4.46	-4.25	-4.32	-4.52	-4.61
20	-4.14	-4.18	---	---	---	---	-4.37	-4.49	-4.29	-4.32	-4.41	-4.52
21	-4.18	-4.22	---	---	---	---	-4.49	-4.55	-4.29	-4.42	-4.38	-4.41
22	-4.22	-4.24	-4.30	-4.34	-4.42	-4.50	-4.49	-4.55	-4.42	-4.44	-4.38	-4.49
23	-4.24	-4.28	-4.34	-4.35	-4.40	-4.42	-4.19	-4.49	-4.24	-4.44	-4.49	-4.55
24	-4.27	-4.30	-4.35	-4.46	-4.39	-4.43	-4.20	-4.28	-4.21	-4.30	-4.55	-4.69
25	-4.23	-4.31	-4.41	-4.46	-4.29	-4.39	-4.28	-4.48	-4.30	-4.44	-4.69	-4.79
26	-4.22	-4.33	-4.26	-4.41	-4.31	-4.34	-4.45	-4.49	-4.44	-4.46	-4.61	-4.74
27	-4.14	-4.25	-4.29	-4.44	-4.26	-4.34	-4.36	-4.49	-4.41	-4.45	-4.63	-4.68
28	-4.25	-4.35	-4.38	-4.44	-4.27	-4.38	-4.19	-4.36	-4.41	-4.41	-4.59	-4.63
29	-4.35	-4.39	-4.38	-4.39	-4.20	-4.38	-4.17	-4.26	---	---	-4.59	-4.61
30	-4.39	-4.44	-4.19	-4.39	-4.18	-4.27	-4.12	-4.17	---	---	-4.61	-4.64
31	-4.41	-4.44	---	---	-4.27	-4.52	-4.13	-4.23	---	---	-4.64	-4.64
MONTH	-3.71	-4.44	-4.19	-4.56	-4.18	-4.52	-4.12	-4.65	-4.04	-4.54	-4.23	-4.83

GROUND-WATER LEVELS

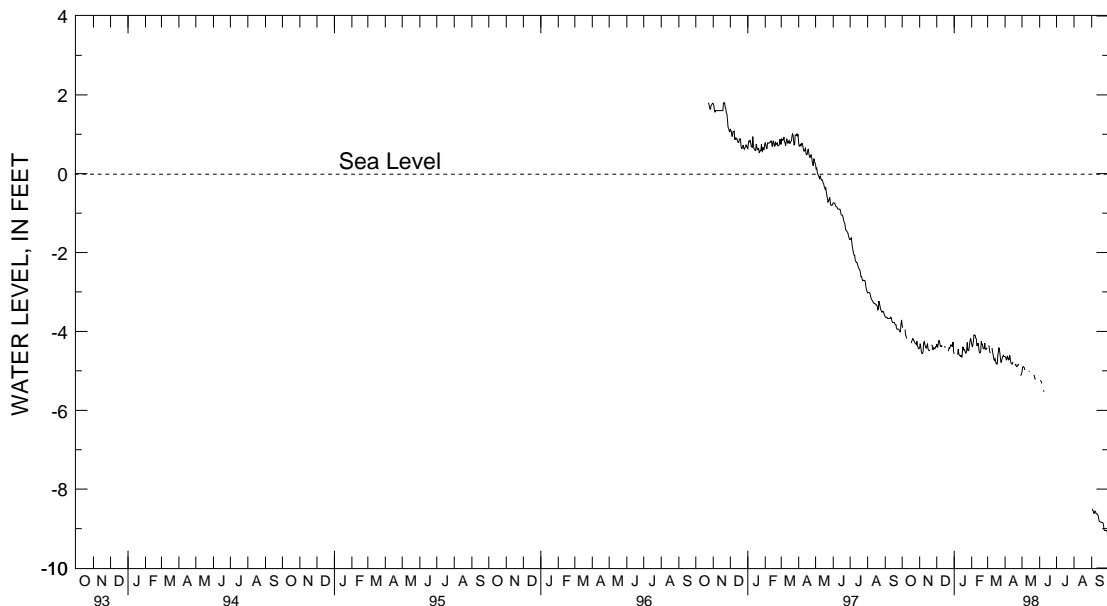
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Bc 80--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-4.63	-4.64	-4.91	-5.03	---	---	---	---	---	---	---	---
2	-4.63	-4.65	-4.89	-4.91	-5.22	-5.24	---	---	---	---	-8.48	-8.50
3	-4.65	-4.72	-4.89	-4.89	-5.22	-5.25	---	---	---	---	-8.50	-8.54
4	-4.55	-4.71	-4.89	-4.90	-5.24	-5.27	---	---	---	---	-8.52	-8.55
5	-4.58	-4.62	-4.90	-4.92	-5.27	-5.32	---	---	---	---	-8.54	-8.61
6	-4.62	-4.67	-4.92	-4.98	---	---	---	---	---	---	-8.55	-8.61
7	-4.67	-4.72	---	---	---	---	---	---	---	---	-8.53	-8.56
8	-4.61	-4.71	---	---	-5.42	-5.49	---	---	---	---	-8.52	-8.57
9	-4.46	-4.61	-4.85	-4.87	-5.49	-5.53	---	---	---	---	-8.57	-8.62
10	-4.50	-4.65	---	---	---	---	---	---	---	---	-8.60	-8.63
11	-4.65	-4.77	---	---	---	---	---	---	---	---	-8.60	-8.63
12	-4.77	-4.81	---	---	---	---	---	---	---	---	-8.63	-8.65
13	-4.81	-4.83	-4.91	-5.00	-5.50	-5.52	---	---	---	---	-8.65	-8.70
14	-4.77	-4.83	-5.00	-5.02	---	---	---	---	---	---	-8.70	-8.79
15	-4.73	-4.77	---	---	---	---	---	---	---	---	-8.79	-8.82
16	---	---	---	---	---	---	---	---	---	---	-8.82	-8.83
17	---	---	---	---	---	---	---	---	---	---	-8.82	-8.83
18	-4.77	-4.85	---	---	---	---	---	---	---	---	-8.83	-8.84
19	-4.80	-4.85	---	---	---	---	---	---	---	---	-8.81	-8.84
20	-4.80	-4.84	---	---	---	---	---	---	---	---	-8.81	-8.85
21	-4.84	-4.89	---	---	---	---	---	---	---	---	-8.83	-8.85
22	-4.87	-4.89	-5.07	-5.10	---	---	---	---	---	---	-8.85	-8.89
23	-4.82	-4.87	-5.10	-5.14	---	---	---	---	---	---	-8.89	-9.02
24	-4.82	-4.84	-5.14	-5.21	---	---	---	---	---	---	-9.02	-9.05
25	-4.84	-4.86	-5.20	-5.21	---	---	---	---	---	---	-9.04	-9.05
26	---	---	---	---	---	---	---	---	---	---	-9.05	-9.05
27	---	---	---	---	---	---	---	---	---	---	-9.05	-9.05
28	-5.00	-5.11	---	---	---	---	---	---	---	---	-9.05	-9.05
29	-5.09	-5.11	---	---	---	---	---	---	---	---	-9.05	-9.11
30	-5.03	-5.09	---	---	---	---	---	---	---	---	-9.10	-9.11
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	-4.46	-5.11	-4.85	-5.21	-5.22	-5.53	---	---	---	---	-8.48	-9.11
YEAR	-3.71	-9.11										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bc 81. SITE ID.--383709077061002. PERMIT NUMBER.--CH-88-0482.
 LOCATION.--Lat 38°37'09", long 77°06'10", Hydrologic Unit 02070010, 1.7 mi southwest of intersection
 with MD Rts. 210 and 227, on northwest side of Chapmans Landing Rd.
 Owner: Montrose Farms.
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 656 ft; casing diameter 6 in., to 541 ft,
 casing diameter 4 in. from 531 to 556 ft, 588 to 642 ft, 646 to 656 ft ; screen diameter 4 in. from 556
 to 588 ft, 642 to 646 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey and Maryland
 Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval, Aug. 28, 1996 to current year.
 DATUM.--Elevation of land surface is 150 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 2.07 ft above land surface.
 REMARKS.--Bryans Road Project observation well. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--August 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 97.97 ft below sea level, July 3, and 4, 1997;
 lowest measured, 110.55 ft below sea level, Sept. 29, 1998.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-104.85	-104.94	-103.75	-104.05	-107.33	-107.65	-106.35	-106.49	---	---	-104.82	-105.00
2	-104.93	-105.01	-103.75	-104.11	-107.65	-107.79	-106.49	-106.72	---	---	-104.79	-105.00
3	-105.01	-105.07	-104.11	-104.14	-107.77	-107.88	-106.60	-106.72	---	---	-104.70	-104.88
4	-104.99	-105.07	-104.14	-104.71	-107.67	-107.79	-106.45	-106.61	---	---	-104.88	-105.11
5	-104.99	-105.01	-104.71	-104.84	-107.60	-107.79	-106.61	-106.78	---	---	-105.11	-105.12
6	-105.01	-105.04	-104.84	-105.06	-107.60	-107.86	-106.39	-106.75	---	---	-105.11	-105.41
7	-105.04	-105.05	-104.92	-105.06	-107.85	-108.11	-106.18	-106.39	---	---	-105.23	-105.41
8	-105.05	-105.08	-104.87	-104.95	-108.07	-108.13	-105.94	-106.18	---	---	-104.91	-105.23
9	-105.08	-105.09	-104.87	-105.07	-108.07	-108.25	---	---	---	---	-104.71	-104.91
10	-105.09	-105.14	-105.07	-105.34	-107.77	-108.25	---	---	---	---	-104.89	-105.07
11	-105.12	-105.14	-105.34	-105.47	-107.45	-107.77	---	---	---	---	-105.07	-105.12
12	-104.99	-105.12	-105.47	-105.76	-107.15	-107.45	---	---	---	---	-105.12	-105.55
13	-104.98	-104.99	-105.65	-105.76	-107.17	-107.30	---	---	---	---	-105.40	-105.60
14	-104.93	-104.98	-105.71	-105.72	-107.17	-107.30	---	---	-105.36	-105.51	-105.12	-105.40
15	-104.89	-104.93	-105.72	-106.04	-107.03	-107.17	---	---	-105.51	-105.78	-105.12	-105.54
16	-104.90	-104.94	-106.04	-106.31	-107.15	-107.27	---	---	-105.43	-105.78	-105.53	-105.59
17	-104.67	-104.94	-106.31	-106.60	-107.00	-107.26	---	---	-105.05	-105.43	-105.20	-105.53
18	-104.41	-104.67	-106.60	-106.73	-106.81	-107.00	---	---	-105.08	-105.36	-105.11	-105.27
19	-104.26	-104.41	-106.58	-106.73	-106.84	-106.96	---	---	-105.26	-105.36	-105.11	-105.27
20	-104.26	-104.31	-106.58	-106.88	-106.81	-106.96	---	---	-105.09	-105.28	-104.99	-105.13
21	-104.26	-104.31	-106.79	-106.88	-106.72	-106.81	---	---	-105.28	-105.54	-104.91	-105.03
22	-104.23	-104.26	-106.79	-106.90	-106.59	-106.74	---	---	-105.42	-105.54	-105.01	-105.03
23	-104.23	-104.25	-106.86	-107.00	-106.43	-106.59	---	---	-105.09	-105.42	-104.83	-105.01
24	-104.20	-104.25	-107.00	-107.30	-106.31	-106.47	---	---	-105.15	-105.42	-104.83	-105.28
25	-104.07	-104.20	-107.30	-107.42	-106.05	-106.31	---	---	-105.42	-105.48	-105.28	-105.34
26	-103.98	-104.09	-107.22	-107.32	-105.90	-106.05	---	---	-105.20	-105.48	-105.19	-105.29
27	-103.92	-103.98	-107.32	-107.59	-106.00	-106.24	---	---	-104.86	-105.20	-105.03	-105.19
28	-103.96	-104.18	-107.59	-107.68	-106.24	-106.30	---	---	-104.65	-104.86	-104.90	-105.06
29	-104.15	-104.18	-107.47	-107.61	-105.92	-106.30	---	---	---	---	-105.06	-105.25
30	-104.14	-104.15	-107.33	-107.56	-105.96	-106.21	---	---	---	---	-105.07	-105.25
31	-104.05	-104.14	---	---	-106.21	-106.35	---	---	---	---	-105.00	-105.12
MONTH	-103.92	-105.14	-103.75	-107.68	-105.90	-108.25	-106.18	-106.78	-104.6	-105.78	-104.70	-105.60

GROUND-WATER LEVELS

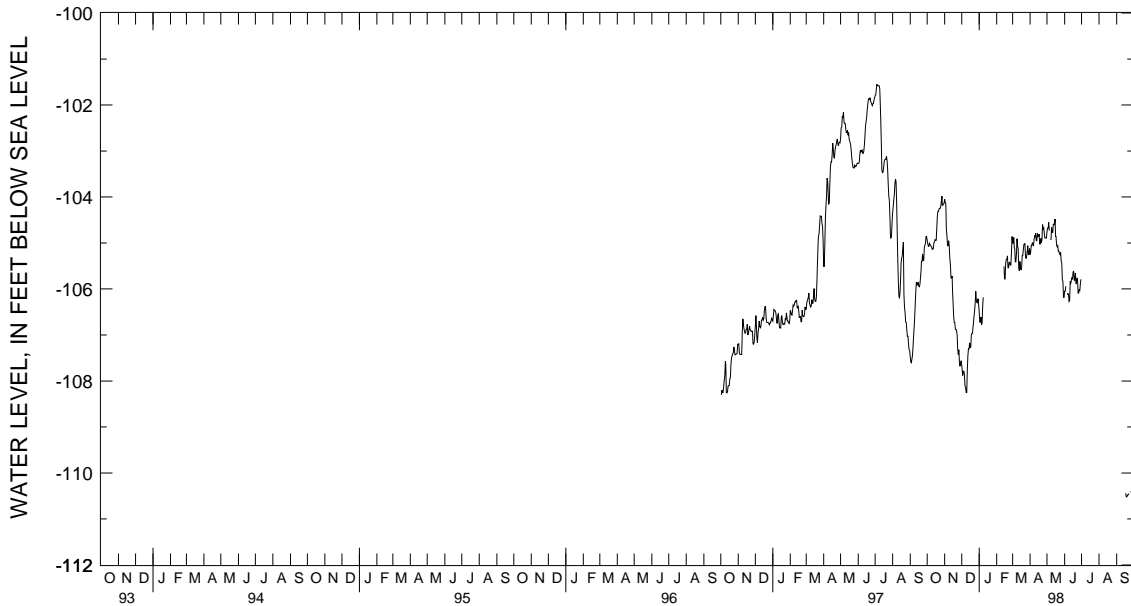
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Bc 81--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-105.12	-105.25	-104.43	-104.76	-105.83	-106.05	---	---	---	---	---	---
2	-105.04	-105.20	-104.43	-104.68	-105.80	-106.05	---	---	---	---	---	---
3	-104.92	-105.05	-104.55	-104.68	-105.69	-105.94	---	---	---	---	---	---
4	-104.99	-105.06	-104.40	-104.55	---	---	---	---	---	---	---	---
5	-104.85	-104.99	-104.51	-104.73	---	---	---	---	---	---	---	---
6	-104.82	-105.04	---	---	-105.77	-106.09	---	---	---	---	---	---
7	-104.92	-105.05	-104.76	-104.92	-106.09	-106.12	---	---	---	---	---	---
8	-104.69	-104.92	-104.66	-104.92	-105.98	-106.11	---	---	---	---	---	---
9	-104.69	-104.85	-104.45	-104.66	-106.06	-106.27	---	---	---	---	---	---
10	-104.79	-104.86	-104.45	-104.77	-105.83	-106.25	---	---	---	---	---	---
11	-104.58	-104.79	-104.59	-104.77	-105.68	-105.83	---	---	---	---	---	---
12	-104.58	-104.94	-104.33	-104.59	-105.81	-105.87	---	---	---	---	---	---
13	-104.79	-104.95	-104.33	-104.59	-105.45	-105.81	---	---	---	---	---	---
14	-104.56	-104.79	-104.48	-104.60	-105.43	-105.76	---	---	---	---	---	---
15	-104.62	-104.86	-104.40	-104.48	-105.62	-105.79	---	---	---	---	---	---
16	-104.65	-104.86	-104.40	-104.86	-105.62	-105.63	---	---	---	---	---	---
17	-104.47	-104.81	-104.85	-104.86	-105.43	-105.62	---	---	---	---	-110.43	-110.44
18	-104.81	-105.02	-104.83	-105.04	-105.43	-105.81	---	---	---	---	-110.44	-110.52
19	-104.65	-105.02	-105.04	-105.08	-105.65	-105.81	---	---	---	---	-110.42	-110.52
20	-104.60	-104.90	-104.91	-105.06	-105.41	-105.65	---	---	---	---	-110.40	-110.48
21	-104.90	-104.99	-104.99	-105.18	-105.62	-105.88	---	---	---	---	-110.44	-110.48
22	-104.60	-104.93	-105.09	-105.18	-105.66	-105.88	---	---	---	---	-110.44	-110.46
23	-104.41	-104.60	-105.03	-105.23	-105.58	-105.77	---	---	---	---	-110.46	-110.47
24	-104.59	-104.69	-105.20	-105.25	-105.76	-105.77	---	---	---	---	---	---
25	-104.55	-104.67	-104.98	-105.20	-105.77	-106.09	---	---	---	---	---	---
26	-104.48	-104.79	-104.98	-105.39	-105.80	-106.09	---	---	---	---	-110.37	-110.40
27	-104.79	-104.89	-105.39	-105.44	-105.74	-106.02	---	---	---	---	-110.35	-110.41
28	-104.70	-104.89	-105.44	-105.79	-105.88	-106.03	---	---	---	---	-110.35	-110.54
29	-104.69	-104.89	-105.79	-105.84	-105.63	-105.88	---	---	---	---	-110.52	-110.55
30	-104.76	-104.89	-105.80	-106.18	-105.73	-105.79	---	---	---	---	-110.50	-110.52
31	---	---	-105.93	-106.18	---	---	---	---	---	---	---	---
MONTH	-104.41	-105.25	-104.33	-106.18	-105.41	-106.27	---	---	---	---	-110.35	-110.55
YEAR	-105.90	-110.55										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bd 52. SITE ID.--383553077032401. PERMIT NUMBER.--CH-94-0899.
 LOCATION.--Lat 38°35'53", long 77°03'24", Hydrologic Unit 02070011, 2.5 mi southeast of Pomonkey, on east side of MD Rt. 227.
 Owner: Maryland Geological Survey.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,105 ft; casing diameter 4 in., to 1,040 ft, and 1,050 to 1,085 ft, and 1,095 to 1,105 ft; screen diameter 4 in. from 1,040 to 1,050 ft, and 1,085 to 1,095 ft.
 INSTRUMENTATION.--Monthly measurements with steel tape by Maryland Geological Survey personnel. Equipped with digital water-level recorder--15-minute recorder interval, to current year.
 DATUM.--Elevation of land surface is 47.5 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 3.0 ft above land surface.
 REMARKS.--Bryans Road Project observation well. Water levels are affected by nearby pumping. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.03 ft above sea level, Nov. 9, 1996; lowest measured, 6.70 ft below sea level, Sept. 28, 1998.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	-5.43	-5.50	---	---	---	---	---	---
2	---	---	---	---	-5.50	-5.56	---	---	---	---	---	---
3	---	---	-6.00	-6.07	-5.54	-5.56	---	---	---	---	-5.87	-5.91
4	---	---	-6.07	-6.22	---	---	---	---	---	---	-5.87	-5.95
5	---	---	-6.22	-6.25	---	---	---	---	-5.48	-5.57	-5.95	-6.02
6	---	---	---	---	-5.45	-5.47	---	---	-5.50	-5.82	-6.02	-6.10
7	---	---	---	---	-5.47	-5.61	-5.91	-5.98	-5.82	-5.85	---	---
8	---	---	-5.82	-5.94	-5.61	-5.66	-5.81	-5.91	-5.85	-5.94	---	---
9	---	---	-5.80	-5.86	-5.66	-5.68	-5.81	-5.88	-5.94	-5.97	-5.43	-5.98
10	---	---	-5.86	-5.97	-5.62	-5.67	-5.88	-5.93	-5.97	-6.03	-5.43	-6.04
11	---	---	---	---	-5.62	-5.72	-5.93	-5.96	-5.86	-6.03	-6.04	-6.13
12	---	---	---	---	-5.72	-5.73	-5.96	-5.99	-5.81	-5.86	-6.13	-6.15
13	---	---	---	---	-5.73	-5.73	-5.99	-6.00	-5.81	-5.91	-6.15	-6.17
14	---	---	---	---	---	---	-6.00	-6.07	-5.91	-6.02	-6.14	-6.17
15	---	---	---	---	---	---	-5.89	-6.07	---	---	---	---
16	---	---	---	---	---	---	-5.84	-5.89	---	---	---	---
17	---	---	---	---	---	---	-5.84	-5.85	---	---	-6.18	-6.20
18	-5.89	-5.98	---	---	---	---	-5.85	-5.91	---	---	-6.17	-6.20
19	-5.85	-5.89	---	---	---	---	-5.91	-5.91	---	---	-6.01	-6.17
20	-5.86	-5.95	---	---	---	---	-5.91	-5.96	---	---	-5.92	-6.01
21	-5.94	-5.99	---	---	-5.79	-5.89	-5.93	-6.00	---	---	-5.73	-5.92
22	-5.95	-6.03	---	---	-5.83	-5.89	-6.00	-6.02	-5.94	-5.97	-5.73	-5.98
23	-6.03	-6.06	---	---	-5.81	-5.83	-5.74	-6.02	-5.75	-5.97	-5.98	-6.12
24	---	---	---	---	-5.80	-5.84	-5.61	-5.74	-5.69	-5.75	-6.12	-6.19
25	-5.96	-6.07	---	---	-5.71	-5.80	-5.64	-5.98	-5.69	-5.92	---	---
26	-5.94	-6.09	---	---	---	---	-5.98	-6.05	-5.92	-6.02	---	---
27	-5.86	-5.99	-5.56	-5.68	---	---	-5.95	-6.05	---	---	---	---
28	-5.99	-6.11	---	---	-5.70	-5.81	-5.63	-5.95	---	---	---	---
29	-6.11	-6.13	---	---	-5.60	-5.82	-5.59	-5.69	---	---	---	---
30	-6.11	-6.18	---	---	-5.58	-5.70	-5.69	-5.90	---	---	---	---
31	---	---	---	---	-5.70	-5.95	-5.90	-5.96	---	---	---	---
MONTH	-5.85	-6.18	-5.56	-6.25	-5.43	-5.95	-5.59	-6.07	-5.48	-6.03	-5.43	-6.20

GROUND-WATER LEVELS

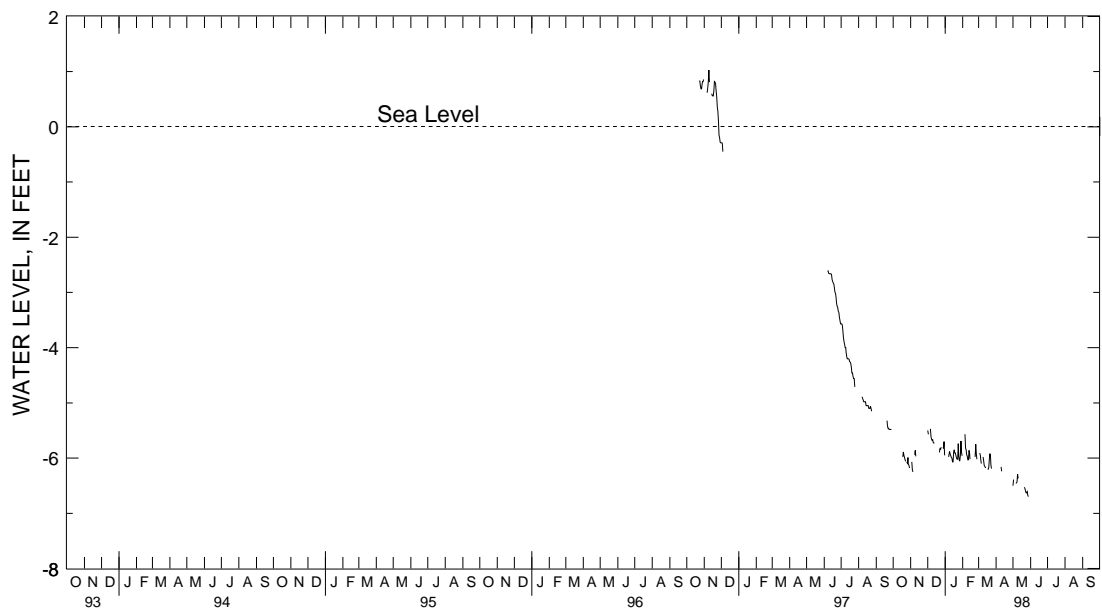
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Bd 52--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	-6.39	-6.50	---	---	---	---	---	---	---	---
2	---	---	-6.37	-6.39	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	-6.37	-6.46	---	---	---	---	---	---	---	---
7	---	---	-6.43	-6.45	---	---	---	---	---	---	---	---
8	---	---	-6.29	-6.43	---	---	---	---	---	---	---	---
9	---	---	-6.17	-6.29	---	---	---	---	---	---	---	---
10	-6.03	-6.16	-6.21	-6.37	---	---	---	---	---	---	---	---
11	-6.16	-6.24	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	-6.50	-6.53	---	---	---	---	---	---	---	---
22	---	---	-6.50	-6.55	---	---	---	---	---	---	---	---
23	---	---	-6.55	-6.59	---	---	---	---	---	---	---	---
24	---	---	-6.59	-6.63	---	---	---	---	---	---	---	---
25	---	---	-6.58	-6.63	---	---	---	---	---	---	---	---
26	---	---	-6.57	-6.61	---	---	---	---	---	---	---	---
27	---	---	-6.61	-6.67	---	---	---	---	---	---	---	---
28	---	---	-6.67	-6.70	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	-6.03	-6.24	-6.17	-6.70	---	---	---	---	---	---	---	---
YEAR	-5.43	-6.70										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Be 43. SITE ID.--38381907655501. 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 electric 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.
 Missing data due to recorder malfunction.
 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, 62.72 ft below sea level, Sept. 5, 1998.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-59.66	-59.75	-58.73	-59.02	-56.76	-56.94	-56.42	-56.52	-55.89	-56.12	-55.05	-55.07
2	-59.75	-59.76	-58.66	-58.73	-56.94	-57.00	-56.52	-56.54	-56.12	-56.21	-55.02	-55.07
3	-59.76	-59.76	-58.71	-58.75	-56.88	-57.01	-56.53	-56.54	-56.17	-56.21	-55.00	-55.03
4	-59.76	-59.82	-58.75	-58.81	-56.73	-56.88	-56.53	-56.65	-55.77	-56.17	-55.03	-55.07
5	-59.82	-59.86	-58.81	-58.83	-56.65	-56.73	-56.65	-56.72	-54.87	-55.77	-55.07	-55.11
6	-59.86	-59.91	-58.64	-58.81	-56.66	-56.68	-56.64	-56.67	-54.98	-55.14	-55.11	-55.13
7	-59.91	-60.01	-58.29	-58.64	-56.68	-56.74	-56.56	-56.64	-55.12	-55.25	-55.09	-55.13
8	-60.01	-60.05	-58.19	-58.29	-56.73	-56.75	-56.42	-56.56	-55.25	-55.37	-54.96	-55.09
9	-59.93	-60.05	-58.08	-58.19	-56.62	-56.73	-56.42	-56.54	-55.37	-55.44	-54.75	-54.96
10	-59.80	-59.93	-58.08	-58.10	-56.46	-56.62	-56.54	-56.59	-55.44	-55.46	-54.15	-54.82
11	-59.78	-59.80	-57.98	-58.08	-56.48	-56.62	-56.58	-56.62	-55.31	-55.46	-54.25	-54.40
12	-59.66	-59.78	-57.92	-57.98	-56.62	-56.64	-56.62	-56.67	-55.28	-55.40	-54.39	-54.61
13	-59.67	-59.73	-57.79	-57.94	-56.60	-56.64	-56.65	-56.75	-55.40	-55.44	-54.61	-54.67
14	-59.73	-59.80	-57.61	-57.79	-56.62	-56.67	-56.75	-56.79	-55.44	-55.51	-54.61	-54.71
15	-59.80	-59.81	-57.62	-57.65	-56.67	-56.73	-56.43	-56.77	-55.51	-55.55	-54.71	-54.83
16	-59.80	-59.82	-57.65	-57.71	-56.70	-56.74	-56.31	-56.43	-55.47	-55.55	-54.83	-54.91
17	-59.64	-59.80	-57.71	-57.72	-56.65	-56.70	-56.28	-56.33	-55.15	-55.47	-54.91	-54.94
18	-59.50	-59.64	-57.69	-57.74	-56.65	-56.66	-56.26	-56.28	-55.09	-55.15	-54.79	-54.94
19	-59.44	-59.50	-57.58	-57.69	-56.61	-56.66	-56.12	-56.26	-55.09	-55.13	-54.69	-54.79
20	-59.44	-59.44	-57.55	-57.58	-56.54	-56.61	-56.12	-56.23	-55.06	-55.13	-54.60	-54.69
21	-59.44	-59.47	-57.37	-57.55	-56.59	-56.65	-56.23	-56.30	-55.06	-55.13	-54.55	-54.60
22	-59.43	-59.44	-57.31	-57.37	-56.58	-56.66	-56.14	-56.29	-55.13	-55.14	-54.58	-54.73
23	-59.43	-59.48	-57.34	-57.39	-56.56	-56.60	-55.76	-56.14	-54.88	-55.14	-54.73	-54.81
24	-59.42	-59.48	-57.39	-57.53	-56.16	-56.64	-55.57	-55.76	-54.85	-54.92	-54.81	-54.93
25	-59.36	-59.43	-57.35	-57.53	-56.11	-56.21	-55.55	-55.60	-54.92	-55.02	-54.88	-54.99
26	-59.25	-59.43	-57.06	-57.35	-56.21	-56.22	-55.60	-55.74	-55.02	-55.05	-54.81	-54.88
27	-59.17	-59.25	-57.06	-57.12	-56.13	-56.22	-55.74	-55.77	-55.02	-55.06	-54.78	-54.81
28	-59.22	-59.29	-56.99	-57.12	-56.16	-56.29	-55.54	-55.77	-55.03	-55.05	-54.71	-54.78
29	-59.22	-59.29	-56.97	-56.99	-56.03	-56.29	-55.61	-55.68	---	---	-54.71	-54.72
30	-59.15	-59.22	-56.76	-56.97	-56.01	-56.12	-55.62	-55.67	---	---	-54.68	-54.71
31	-59.02	-59.15	---	---	-56.12	-56.42	-55.67	-55.89	---	---	-54.64	-54.68
MONTH	-59.02	-60.05	-56.76	-59.02	-56.01	-57.01	-55.54	-56.79	-54.85	-56.21	-54.15	-55.13

GROUND-WATER LEVELS

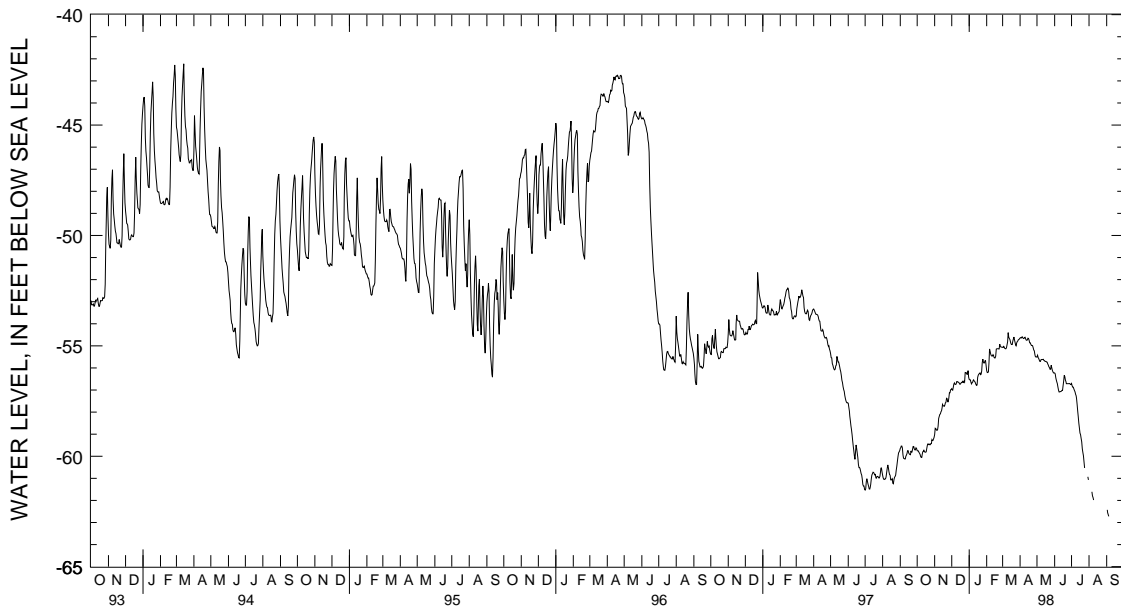
MARYLAND--Continued

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	-54.58	-54.64	-55.43	-55.50	-56.15	-56.23	-56.69	-56.70	---	---	---	---
2	-54.58	-54.63	-55.42	-55.43	-56.21	-56.27	-56.70	-56.81	---	---	-62.29	-62.43
3	-54.60	-54.64	-55.43	-55.53	-56.27	-56.44	-56.81	-56.87	---	---	-62.43	-62.56
4	-54.48	-54.60	-55.53	-55.57	-56.44	-56.52	-56.87	-56.87	---	---	-62.56	-62.64
5	-54.54	-54.59	-55.57	-55.64	-56.52	-56.63	-56.87	-56.95	---	---	-62.64	-62.72
6	-54.59	-54.64	-55.64	-55.70	-56.63	-56.71	-56.95	-57.02	-61.50	-61.61	---	---
7	-54.64	-54.67	-55.63	-55.70	-56.71	-56.86	-57.02	-57.08	-61.61	-61.79	---	---
8	-54.61	-54.66	-55.48	-55.63	-56.86	-57.00	-57.08	-57.19	-61.79	-61.87	---	---
9	-54.42	-54.62	-55.52	-55.62	-57.00	-57.09	-57.19	-57.26	-61.87	-61.98	---	---
10	-54.48	-54.61	-55.62	-55.62	-57.06	-57.09	-57.26	-57.38	---	---	---	---
11	-54.61	-54.69	-55.60	-55.62	-57.06	-57.07	-57.38	-57.64	---	---	---	---
12	-54.69	-54.74	-55.59	-55.61	-57.05	-57.07	-57.64	-57.95	---	---	---	---
13	-54.73	-54.75	-55.61	-55.66	-57.02	-57.05	-57.95	-58.21	---	---	---	---
14	-54.64	-54.73	-55.66	-55.67	-57.02	-57.02	-58.21	-58.50	---	---	---	---
15	-54.64	-54.65	-55.67	-55.70	-56.80	-57.02	-58.50	-58.73	---	---	---	---
16	-54.65	-54.67	-55.69	-55.70	-56.60	-56.80	-58.73	-58.95	---	---	---	---
17	-54.65	-54.75	-55.66	-55.70	-55.89	-56.60	-58.95	-59.03	---	---	---	---
18	-54.75	-54.86	-55.66	-55.73	-55.96	-56.33	-59.03	-59.19	---	---	---	---
19	-54.79	-54.86	-55.73	-55.74	-56.33	-56.39	-59.19	-59.35	---	---	---	---
20	-54.79	-54.93	-55.74	-55.82	-56.39	-56.55	-59.35	-59.66	---	---	---	---
21	-54.93	-54.98	-55.82	-55.87	-56.55	-56.63	-59.66	-59.83	---	---	---	---
22	-54.98	-54.98	-55.87	-55.95	-56.63	-56.71	-59.83	-59.98	---	---	---	---
23	-54.98	-54.99	-55.95	-55.98	-56.70	-56.71	-59.98	-60.25	---	---	---	---
24	-54.99	-55.08	-55.98	-56.06	-56.70	-56.71	-60.25	-60.53	---	---	---	---
25	-55.08	-55.18	-55.59	-56.06	-56.71	-56.71	---	---	---	---	---	---
26	-55.16	-55.23	-55.60	-55.88	-56.70	-56.71	---	---	---	---	---	---
27	-55.23	-55.38	-55.88	-55.99	-56.70	-56.70	---	---	---	---	---	---
28	-55.38	-55.47	-55.99	-56.10	-56.70	-56.71	---	---	---	---	---	---
29	-55.47	-55.50	-56.10	-56.17	-56.71	-56.75	---	---	---	---	---	---
30	-55.50	-55.50	-56.17	-56.23	-56.69	-56.75	-60.77	-60.93	---	---	---	---
31	---	---	-56.23	-56.23	---	---	-60.93	-61.07	---	---	---	---
MONTH	-54.42	-55.50	-55.42	-56.23	-55.89	-57.09	-56.69	-61.07	-61.50	-61.98	-62.29	62.72
YEAR	-54.15	-62.72										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

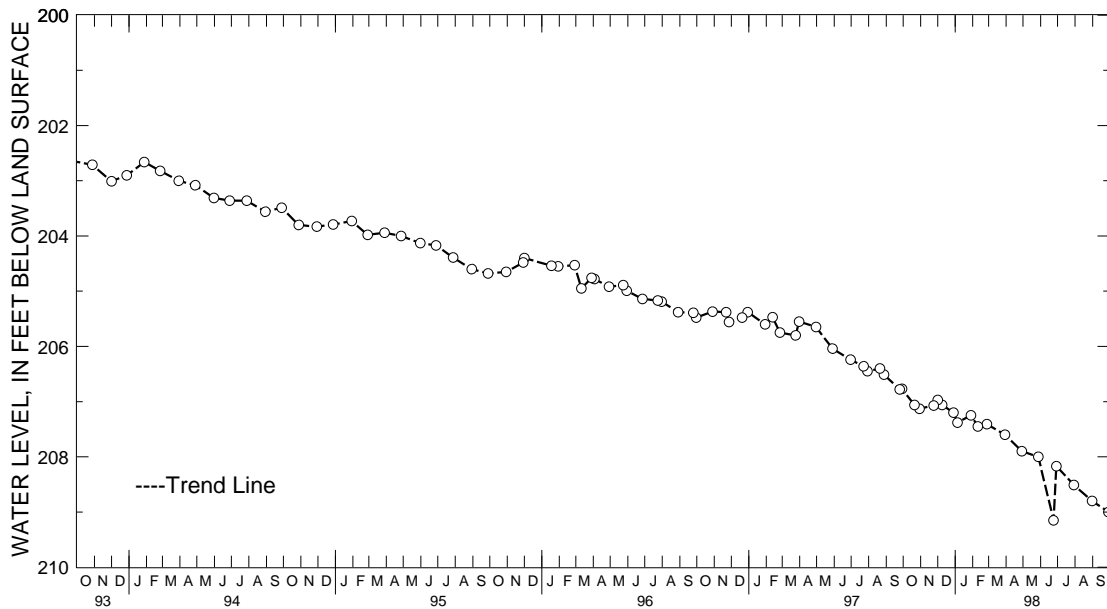
MARYLAND--Continued

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 electric 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, 209.15 ft below land surface, June 24, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	207.06	DEC 29, 1997	207.20	MAR 30, 1998	207.60	JUL 30, 1998	208.51
30	207.13	JAN 05, 1998	207.38	APR 29	207.90	AUG 31	208.80
NOV 24	207.07	29	207.25	MAY 28	208.00	SEP 29	209.00
DEC 01	206.97	FEB 10	207.45	JUN 24	209.15		
09	207.06	26	207.41	29	208.17		
WATER YEAR 1998		HIGHEST 206.97	DEC 01, 1997	LOWEST 209.15	JUN 24, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

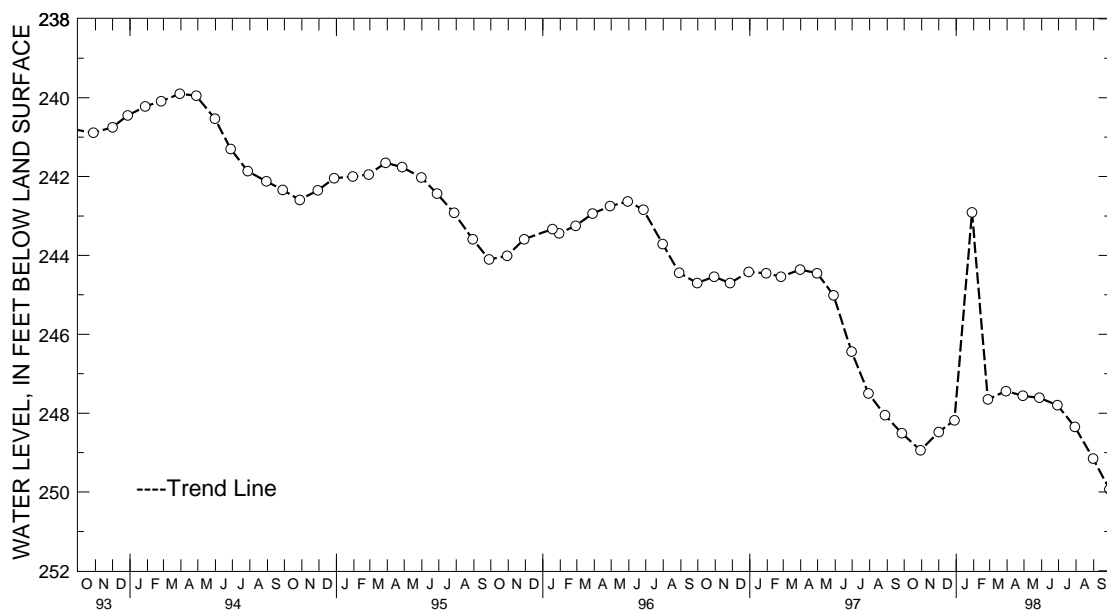
MARYLAND--Continued

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 electric 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. Water levels are affected by nearby pumping
 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, 249.93 ft below land surface, Sept. 29, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	248.94	JAN 29, 1998	242.91	APR 29, 1998	247.56	JUL 30, 1998	248.35
DEC 01	248.48	FEB 26	247.65	MAY 28	247.61	AUG 31	249.15
29	248.18	MAR 30	247.44	JUN 29	247.80	SEP 29	249.93
WATER YEAR 1998		HIGHEST	242.91	JAN 29, 1998	LOWEST	249.93	SEP 29, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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 electric 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. Missing data due to recorder
 malfunction.
 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, 57.47 ft below sea level, Sept. 17, 1998.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-50.24	-50.55	-49.12	-49.29	-45.04	-45.94	-45.93	-45.99	-48.73	-49.53	-46.93	-47.82
2	-50.06	-50.24	-49.10	-49.17	-45.84	-45.99	-45.83	-45.95	-49.53	-50.16	-46.45	-46.93
3	-49.77	-50.06	-49.13	-49.20	-45.64	-45.84	-45.79	-45.83	-49.75	-50.34	-46.34	-46.45
4	-49.54	-49.77	-49.20	-49.20	-45.56	-46.33	-45.82	-45.97	-47.85	-49.75	-46.26	-46.34
5	-49.52	-49.54	-49.18	-49.20	-45.90	-46.33	-45.97	-46.12	-47.02	-47.85	-46.09	-46.26
6	-49.54	-49.65	-48.85	-49.18	-45.81	-45.90	-46.12	-46.18	-46.58	-47.02	-46.04	-46.09
7	-49.65	-49.80	-48.45	-48.85	-45.65	-45.81	-46.17	-46.93	-46.18	-46.58	-46.03	-46.04
8	-49.80	-50.00	-48.11	-48.45	-45.69	-45.74	-46.93	-48.65	-46.08	-46.18	-45.85	-46.03
9	-49.64	-50.00	-47.99	-48.11	-45.73	-45.90	-48.65	-49.40	-46.11	-46.98	-45.63	-45.85
10	-49.56	-49.64	-48.01	-48.05	-45.77	-45.90	-48.17	-49.23	-46.98	-47.45	-45.77	-46.11
11	-49.44	-49.57	-48.05	-48.07	-45.77	-45.80	-47.85	-48.17	-46.31	-47.04	-46.11	-46.15
12	-49.32	-49.44	-47.98	-48.05	-45.69	-45.79	-47.66	-47.85	-46.04	-46.31	-46.13	-46.16
13	-49.30	-49.33	-47.89	-48.56	-45.49	-45.69	-47.51	-47.66	-45.93	-46.04	-45.91	-46.16
14	-49.32	-49.46	-48.26	-48.78	-45.51	-45.65	-47.31	-47.57	-45.90	-45.93	-45.74	-45.91
15	-49.45	-49.49	-47.68	-48.26	-45.63	-45.66	-46.78	-47.31	-45.69	-45.91	-45.80	-45.90
16	-49.19	-49.45	-47.55	-47.68	-45.66	-45.71	-46.44	-46.78	-45.53	-45.69	-45.88	-46.64
17	-48.75	-49.19	-47.48	-47.57	-45.66	-45.74	-46.12	-46.44	-45.05	-45.53	-46.50	-47.06
18	-48.53	-48.75	-47.39	-47.48	-45.70	-45.76	-46.05	-46.12	-45.05	-45.10	-46.02	-46.50
19	-48.52	-48.54	-47.11	-47.39	-45.65	-45.76	-45.75	-46.05	-45.06	-45.10	-45.77	-46.53
20	-48.54	-48.67	-46.97	-47.11	-45.61	-45.65	-45.67	-45.75	-45.04	-45.06	-46.53	-47.40
21	-48.67	-48.78	-46.57	-46.97	-45.65	-45.74	-45.32	-45.73	-45.05	-45.07	-46.26	-46.96
22	-48.78	-48.95	-46.50	-47.42	-45.73	-45.78	-44.67	-45.32	-45.06	-45.13	-46.15	-46.96
23	-48.95	-49.07	-47.42	-47.91	-45.72	-45.77	-43.89	-44.67	-44.99	-45.13	-46.96	-48.00
24	-49.07	-49.15	-47.15	-48.11	-45.71	-45.77	-43.36	-43.89	-44.96	-45.91	-47.04	-47.79
25	-49.09	-49.26	-46.02	-47.15	-45.67	-45.85	-43.36	-43.75	-45.91	-47.80	-46.26	-47.04
26	-49.26	-49.33	-45.09	-46.02	-45.18	-45.84	-43.75	-44.30	-47.33	-47.91	-45.69	-46.26
27	-49.24	-49.55	-44.84	-45.09	-44.97	-45.96	-44.30	-44.59	-47.70	-48.74	-45.28	-45.69
28	-49.55	-49.91	-44.79	-44.88	-45.96	-46.30	-44.54	-44.68	-47.82	-48.87	-45.09	-45.28
29	-49.44	-49.86	-44.88	-44.97	-45.47	-46.03	-44.68	-45.55	---	---	-44.89	-45.09
30	-49.35	-49.44	-44.97	-45.04	-45.45	-45.64	-45.55	-47.52	---	---	-44.85	-44.89
31	-49.28	-49.36	---	---	-45.64	-45.93	-47.52	-48.73	---	---	-44.83	-44.88
MONTH	-48.52	-50.55	-44.79	-49.29	-44.97	-46.33	-43.36	-49.40	-44.96	-50.34	-44.83	-48.00

GROUND-WATER LEVELS

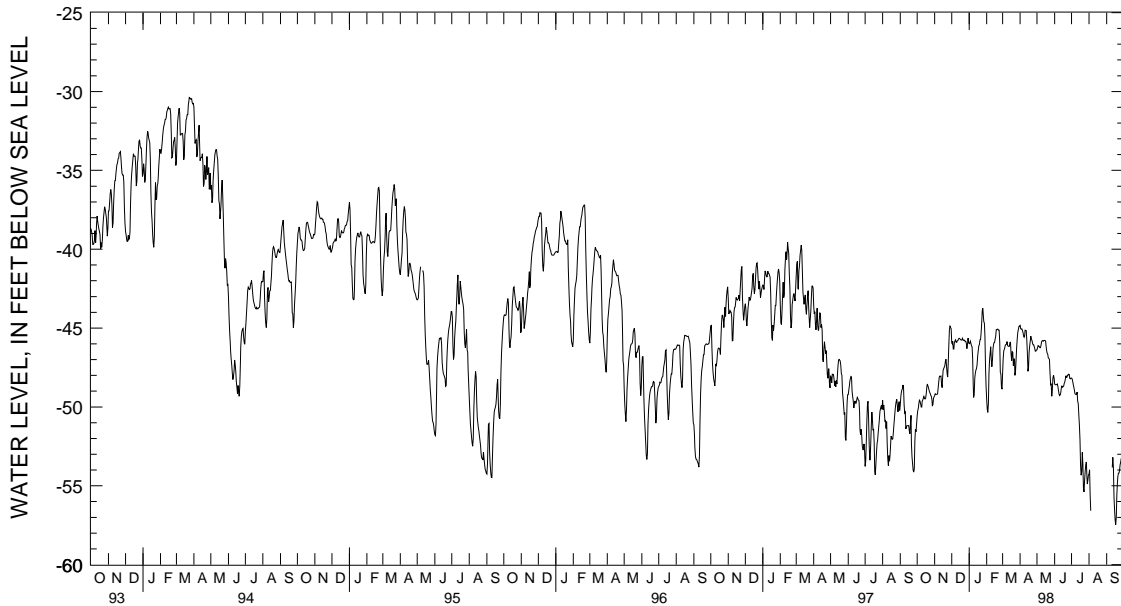
MARYLAND--Continued

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	-44.77	-44.83	-46.24	-46.38	-48.15	-48.54	-48.14	-48.17	-53.49	-54.25	---	---
2	-44.77	-45.04	-46.11	-46.24	-48.54	-48.59	-48.11	-48.21	-53.48	-53.99	---	---
3	-44.95	-45.06	-46.03	-46.11	-48.58	-48.59	-48.21	-48.39	-53.99	-55.66	---	---
4	-44.90	-45.05	-46.01	-46.13	-48.58	-48.59	-48.39	-48.58	-55.66	-56.58	---	---
5	-45.05	-45.13	-46.13	-46.17	-48.51	-48.58	-48.58	-48.75	---	---	---	---
6	-45.13	-45.27	-46.14	-46.24	-48.50	-48.54	-48.75	-48.95	---	---	---	---
7	-45.27	-45.46	-46.08	-46.24	-48.54	-48.71	-48.95	-49.17	---	---	---	---
8	-45.46	-45.57	-45.85	-46.08	-48.71	-48.96	-49.17	-49.20	---	---	---	---
9	-45.13	-45.46	-45.81	-45.86	-48.96	-49.19	-49.20	-49.21	---	---	---	---
10	-45.05	-45.13	-45.68	-45.80	-49.19	-49.27	-48.97	-49.20	---	---	---	---
11	-45.06	-45.15	-45.67	-45.79	-49.08	-49.24	-48.97	-49.06	---	---	-53.20	-53.84
12	-45.12	-45.16	-45.79	-45.83	-48.78	-49.08	-49.06	-49.65	---	---	-53.05	-53.20
13	-45.13	-45.78	-45.69	-45.79	-48.58	-48.78	-49.65	-49.79	---	---	-53.05	-53.80
14	-45.64	-46.56	-45.69	-45.78	-48.58	-48.68	-49.79	-50.53	---	---	-53.80	-55.67
15	-46.56	-47.74	-45.71	-45.79	-48.68	-48.75	-50.53	-51.19	---	---	-55.67	-56.50
16	-46.53	-47.50	-45.71	-45.82	-48.68	-48.71	-51.18	-52.08	---	---	-56.50	-57.18
17	-46.12	-46.53	-45.82	-46.10	-48.49	-48.68	-52.08	-53.72	---	---	-57.00	-57.47
18	-45.83	-46.12	-46.10	-46.40	-48.41	-48.49	-53.72	-54.33	---	---	-55.55	-57.00
19	-45.49	-45.83	-46.40	-46.60	-48.21	-48.41	-52.88	-54.09	---	---	-54.80	-55.55
20	-45.48	-45.51	-46.60	-46.66	-48.01	-48.21	-52.55	-52.88	---	---	-54.44	-54.80
21	-45.51	-45.72	-46.66	-46.89	-48.00	-48.02	-52.54	-53.60	---	---	-54.20	-54.44
22	-45.72	-45.78	-46.89	-46.93	-48.02	-48.12	-53.60	-55.15	---	---	-54.18	-54.20
23	-45.77	-45.97	-46.92	-46.99	-47.99	-48.12	-54.66	-55.39	---	---	-54.04	-54.19
24	-45.97	-46.06	-46.99	-47.87	-47.94	-47.99	-54.08	-54.66	---	---	-53.66	-54.04
25	-45.99	-46.06	-47.87	-48.59	-47.92	-47.98	-53.68	-54.08	---	---	-53.49	-53.66
26	-46.03	-46.20	-47.95	-48.56	-47.83	-47.92	-53.49	-53.68	---	---	-53.26	-53.49
27	-46.20	-46.33	-48.56	-49.32	-47.79	-47.93	-53.49	-53.49	---	---	-52.99	-53.26
28	-46.33	-46.46	-48.17	-48.92	-47.93	-48.20	-53.49	-54.36	---	---	-52.99	-53.19
29	-46.36	-46.46	-47.94	-48.17	-48.18	-48.22	-54.36	-54.89	---	---	-53.19	-53.28
30	-46.34	-46.39	-47.94	-47.99	-48.11	-48.18	-54.32	-54.65	---	---	-53.28	-53.38
31	---	---	-47.99	-48.15	---	---	-54.25	-54.32	---	---	---	---
MONTH	-44.77	-47.74	-45.67	-49.32	-47.79	-49.27	-48.11	-55.39	-53.48	-56.58	-52.99	-57.47
YEAR	-43.36	-57.47										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

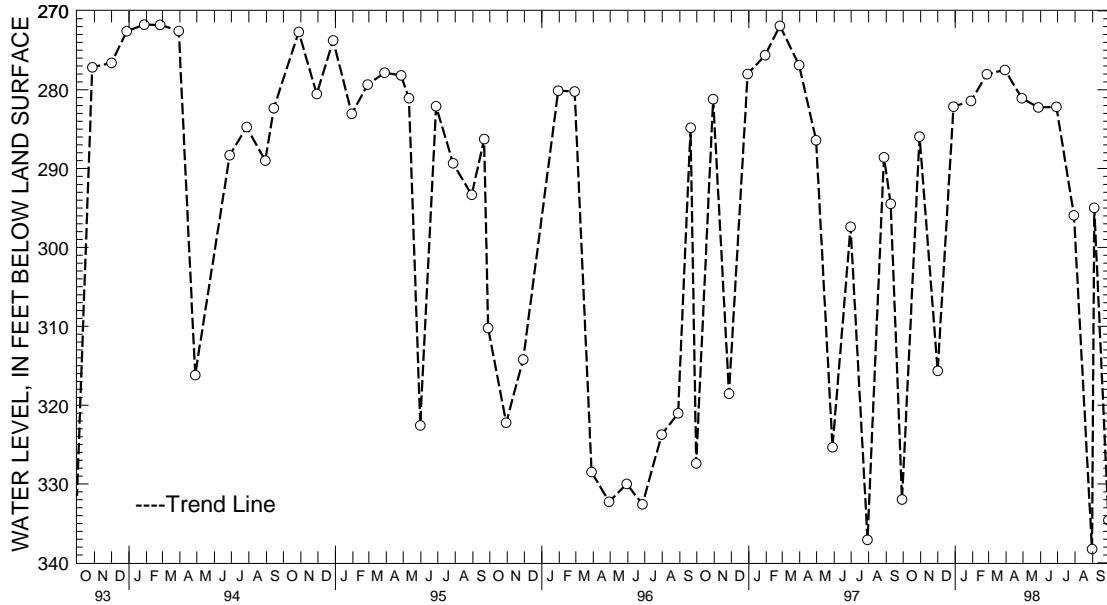
MARYLAND--Continued

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 electric 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, 338.25 ft below land surface, August 31, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	285.95	FEB 26, 1998	278.03	JUN 29, 1998	282.17	SEP 29, 1998	334.59
DEC 01	315.65	MAR 30	277.50	JUL 30	295.92		
29	282.14	APR 29	281.09	AUG 31	338.25		
JAN 29, 1998	281.42	MAY 28	282.24	SEP 04	294.98		
WATER YEAR 1998		HIGHEST	277.50	MAR 30, 1998	LOWEST	338.25	AUG 31, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

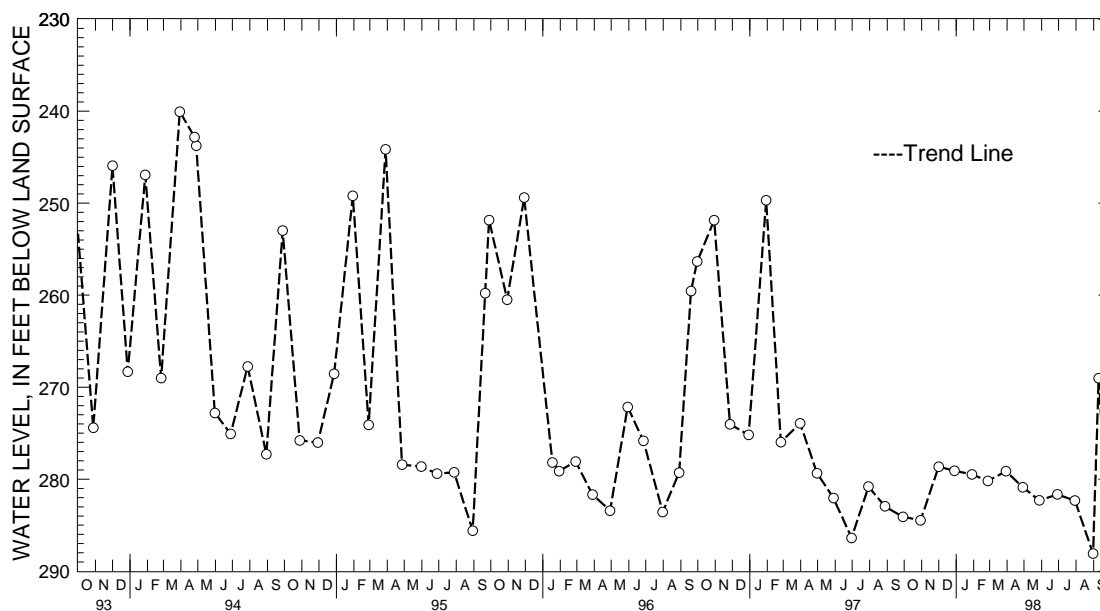
MARYLAND--Continued

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 electric 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, 288.55 ft below land surface, Sept. 29, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	284.47	FEB 26, 1998	280.20	JUN 29, 1998	281.66	SEP 29, 1998	288.55
DEC 01	278.64	MAR 30	279.13	JUL 30	282.32		
29	279.08	APR 29	280.88	AUG 31	288.09		
JAN 29, 1998	279.48	MAY 28	282.30	SEP 10	269.03		
WATER YEAR 1998		HIGHEST 269.03	SEP 10, 1998	LOWEST 288.55	SEP 29, 1998		



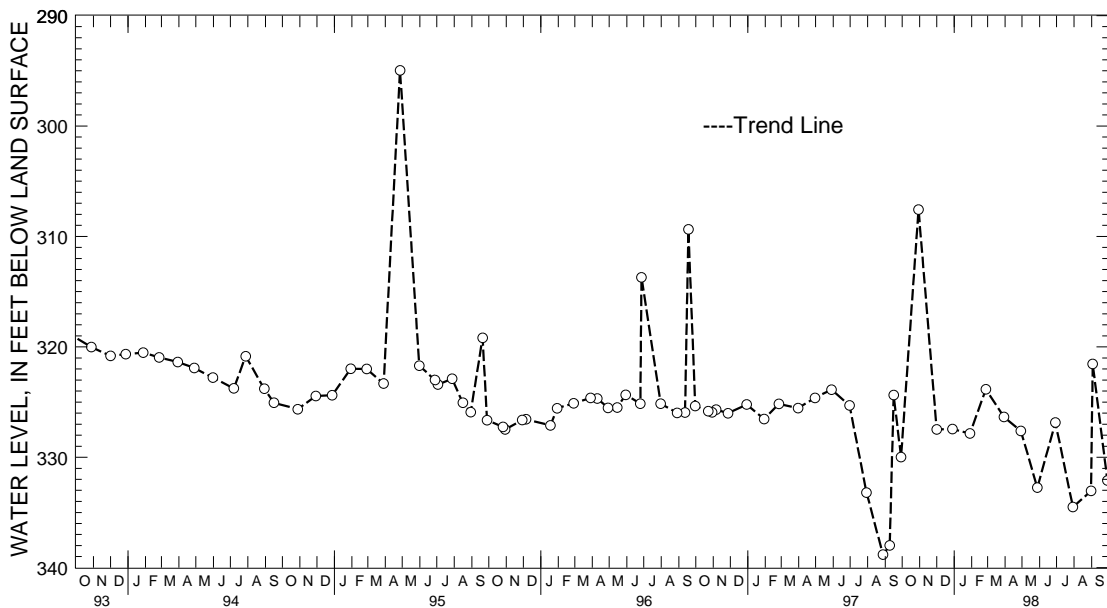
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 338.82 ft below land surface, August 28, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	307.57	FEB 26, 1998	323.85	JUN 29, 1998	326.85	SEP 29, 1998	332.11
DEC 01	327.47	MAR 30	326.34	JUL 30	334.50		
29	327.45	APR 29	327.62	AUG 31	333.05		
JAN 29, 1998	327.85	MAY 28	332.75	SEP 03	321.55		
WATER YEAR 1998		HIGHEST	307.57	OCT 30, 1997	LOWEST	334.50	JUL 30, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

MARYLAND--Continued

CHARLES COUNTY--Continued

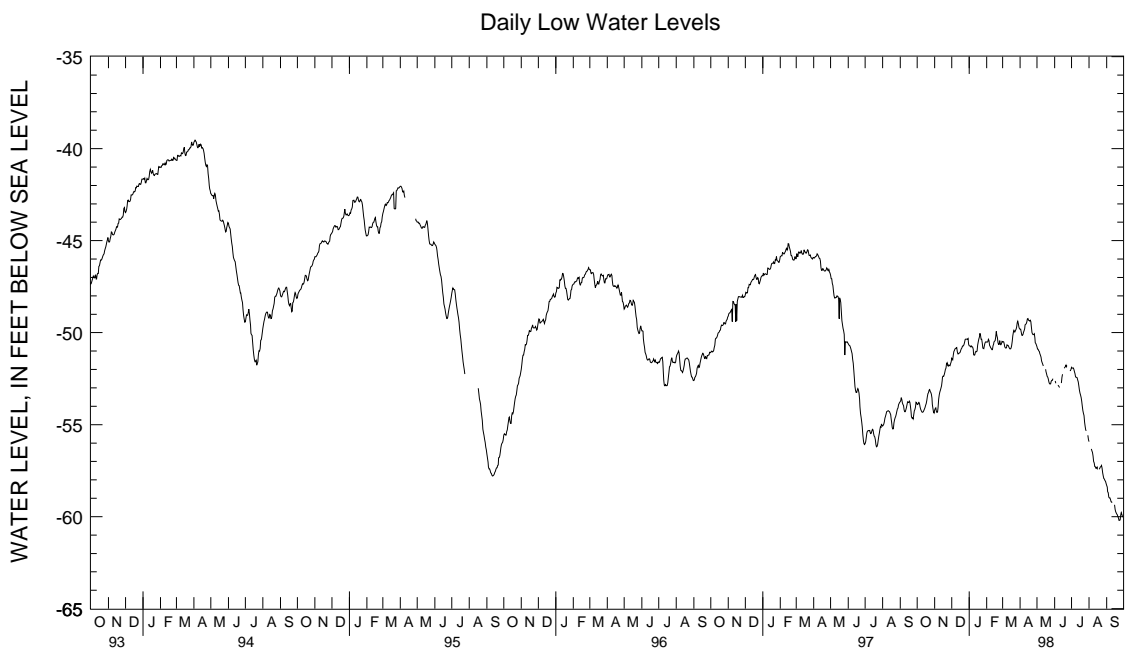
WELL NUMBER.--CH Bf 151 . SITE ID.--383508076540703 . PERMIT NUMBER.--CH-81-1265.
 LOCATION.--Lat 38°35'08", long 76°54'07", Hydrologic Unit 02070011, 0.3 mi south of the intersection of St. Pauls Dr. and Piney Church Rd., St. Charles.
 Owner: U.S. Geological Survey.
 AQUIFER.--St. Charles aquifer of the Upper Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.
 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.--Monthly measurements with electric 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.
 Missing data due to recorder malfunction.
 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, 60.20 ft below sea level, Sept. 23, and 24, 1998.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-53.81	-53.90	-54.07	-54.21	-51.28	-51.39	-50.63	-50.71	-50.50	-50.52	-50.47	-50.51
2	-53.83	-53.91	-54.02	-54.13	-51.39	-51.45	-50.68	-50.72	-50.48	-50.52	-50.39	-50.48
3	-53.74	-53.83	-54.06	-54.09	-51.23	-51.48	-50.71	-50.73	-50.36	-50.48	-50.39	-50.51
4	-53.75	-53.79	-54.09	-54.28	-51.03	-51.23	-50.72	-50.78	-50.16	-50.36	-50.51	-50.64
5	-53.79	-53.86	-54.28	-54.34	-50.95	-51.03	-50.71	-50.73	-50.15	-50.42	-50.64	-50.77
6	-53.86	-54.03	-54.05	-54.31	-50.88	-50.96	-50.73	-50.77	-50.42	-50.68	-50.77	-50.82
7	-54.03	-54.16	-53.60	-54.05	-50.84	-50.88	-50.77	-50.79	-50.68	-50.75	-50.82	-50.84
8	-54.16	-54.23	-53.38	-53.60	-50.83	-50.86	-50.78	-50.90	-50.75	-50.82	-50.66	-50.82
9	-54.23	-54.29	-53.23	-53.38	-50.81	-50.83	-50.90	-51.19	-50.82	-50.86	-50.33	-50.66
10	-54.28	-54.33	-53.12	-53.23	-50.68	-50.81	-51.19	-51.23	-50.86	-50.92	-50.41	-50.69
11	-54.28	-54.33	-53.01	-53.13	-50.74	-51.03	-51.07	-51.20	-50.71	-50.92	-50.64	-50.69
12	-54.21	-54.29	-52.87	-53.01	-51.03	-51.15	-51.02	-51.07	-50.60	-50.71	-50.67	-50.77
13	-54.14	-54.22	-52.62	-52.89	-51.08	-51.15	-50.91	-51.02	-50.51	-50.63	-50.77	-50.84
14	-54.03	-54.15	-52.38	-52.62	-51.08	-51.11	-51.00	-51.04	-50.45	-50.51	-50.80	-50.88
15	-53.95	-54.06	-52.36	-52.40	-51.06	-51.10	-50.67	-51.00	-50.43	-50.46	-50.84	-50.88
16	-53.85	-53.95	-52.32	-52.36	-50.95	-51.06	-50.51	-50.67	-50.24	-50.43	-50.70	-50.84
17	-53.69	-53.86	-52.28	-52.37	-50.85	-50.95	-50.35	-50.51	-49.81	-50.24	-50.47	-50.70
18	-53.48	-53.69	-52.15	-52.28	-50.83	-50.87	-50.25	-50.35	-49.81	-49.93	-50.17	-50.47
19	-53.30	-53.48	-52.00	-52.15	-50.73	-50.83	-50.04	-50.25	-49.93	-50.15	-49.98	-50.17
20	-53.25	-53.31	-51.92	-52.00	-50.64	-50.73	-50.01	-50.04	-50.15	-50.28	-49.81	-49.98
21	-53.13	-53.26	-51.69	-51.92	-50.68	-50.72	-50.03	-50.15	-50.28	-50.55	-49.75	-49.88
22	-53.09	-53.13	-51.61	-51.69	-50.50	-50.71	-50.15	-50.36	-50.55	-50.64	-49.88	-49.96
23	-53.04	-53.09	-51.60	-51.63	-50.49	-50.64	-50.22	-50.36	-50.43	-50.64	-49.87	-49.96
24	-53.03	-53.20	-51.62	-51.79	-50.37	-50.52	-50.31	-50.56	-50.37	-50.43	-49.79	-49.88
25	-53.12	-53.25	-51.75	-51.82	-50.27	-50.37	-50.56	-50.84	-50.40	-50.60	-49.70	-49.82
26	-53.25	-53.34	-51.58	-51.75	-50.32	-50.35	-50.84	-50.86	-50.60	-50.65	-49.46	-49.70
27	-53.27	-53.55	-51.61	-51.79	-50.19	-50.35	-50.70	-50.87	-50.43	-50.60	-49.36	-49.46
28	-53.55	-53.90	-51.67	-51.80	-50.23	-50.36	-50.52	-50.70	-50.44	-50.47	-49.28	-49.38
29	-53.90	-54.12	-51.59	-51.68	-50.13	-50.36	-50.51	-50.57	---	---	-49.32	-49.51
30	-54.12	-54.31	-51.28	-51.59	-50.13	-50.32	-50.45	-50.51	---	---	-49.51	-49.70
31	-54.19	-54.37	---	---	-50.32	-50.63	-50.46	-50.50	---	---	-49.70	-49.80
MONTH	-53.03	-54.37	-51.28	-54.34	-50.13	-51.48	-50.01	-51.23	-49.81	-50.92	-49.28	-50.88

GROUND-WATER LEVELS
 MARYLAND--Continued
 CHARLES COUNTY--Continued
 CH Bf 151--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-49.78	-49.81	-50.67	-50.77	---	---	-51.86	-51.88	-55.81	-55.92	-58.20	-58.30
2	-49.76	-49.81	-50.77	-50.89	-52.52	-52.62	-51.88	-51.92	---	---	-58.30	-58.39
3	-49.81	-49.97	-50.89	-50.90	-52.62	-52.75	-51.91	-51.92	---	---	-58.39	-58.64
4	-49.97	-50.14	-50.90	-50.99	---	---	-51.79	-51.91	---	---	-58.56	-58.70
5	-50.10	-50.15	-50.99	-51.02	---	---	-51.79	-51.99	-56.12	-56.32	-58.70	-58.94
6	-49.97	-50.10	-51.00	-51.14	---	---	-51.99	-52.11	-56.32	-56.42	-58.94	-58.98
7	-49.89	-49.97	-51.14	-51.23	-52.78	-52.85	-52.11	-52.23	-56.42	-56.51	-58.96	-58.98
8	-49.78	-49.89	-51.23	-51.33	-52.85	-52.89	-52.23	-52.41	-56.51	-56.70	-58.97	-59.07
9	-49.53	-49.78	-51.33	-51.54	-52.89	-52.94	-52.41	-52.43	-56.70	-57.00	-59.07	-59.19
10	-49.54	-49.58	-51.54	-51.63	-52.94	-52.98	-52.39	-52.43	-57.00	-57.08	-59.19	-59.22
11	-49.49	-49.55	-51.63	-51.72	---	---	-52.42	-52.45	-57.08	-57.28	-59.06	-59.20
12	-49.42	-49.51	-51.72	-51.81	---	---	-52.45	-52.57	-57.28	-57.29	---	---
13	-49.25	-49.42	---	---	-52.44	-52.74	-52.57	-52.68	-57.29	-57.37	---	---
14	-49.10	-49.25	---	---	-52.26	-52.44	-52.68	-52.90	-57.30	-57.36	---	---
15	-49.10	-49.23	---	---	-52.01	-52.26	-52.90	-53.13	-57.30	-57.31	-59.18	-59.35
16	-49.23	-49.33	-51.88	-51.99	---	---	-53.13	-53.28	-57.31	-57.43	-59.35	-59.61
17	-49.27	-49.34	-51.99	-52.12	---	---	-53.28	-53.40	---	---	-59.61	-59.73
18	-49.32	-49.37	-52.12	-52.24	-51.88	-51.94	-53.40	-53.52	---	---	-59.73	-59.80
19	-49.21	-49.33	-52.24	-52.37	-51.84	-51.88	-53.52	-53.73	-57.37	-57.42	-59.80	-59.87
20	-49.21	-49.40	-52.37	-52.42	-51.76	-51.84	-53.73	-54.00	-57.30	-57.37	-59.87	-59.91
21	-49.40	-49.71	-52.42	-52.52	-51.76	-51.77	-54.00	-54.23	-57.28	-57.30	-59.91	-60.00
22	-49.71	-49.99	-52.52	-52.68	-51.77	-51.85	-54.23	-54.39	-57.08	-57.28	-60.00	-60.05
23	-49.99	-50.08	-52.68	-52.77	-51.71	-51.79	-54.39	-54.50	-57.08	-57.22	-60.05	-60.20
24	-50.07	-50.11	-52.77	-52.79	---	---	-54.50	-54.87	-57.22	-57.36	-60.18	-60.20
25	-50.06	-50.10	-52.64	-52.78	---	---	-54.87	-55.11	-57.36	-57.61	-59.92	-60.18
26	-49.92	-50.06	-52.57	-52.64	---	---	-55.11	-55.30	-57.61	-57.78	-59.78	-59.92
27	-50.01	-50.28	-52.57	-52.59	---	---	-55.30	-55.33	-57.78	-57.92	-59.71	-59.78
28	-50.28	-50.55	-52.50	-52.59	-51.90	-52.06	---	---	-57.92	-57.96	-59.71	-59.88
29	-50.55	-50.59	-52.28	-52.50	-52.00	-52.06	---	---	-57.96	-58.04	-59.88	-59.98
30	-50.56	-50.67	---	---	-51.86	-52.00	-55.40	-55.58	-58.04	-58.08	-59.98	-60.02
31	---	---	---	---	---	---	-55.58	-55.81	-58.08	-58.20	---	---
MONTH	-49.10	-50.67	-50.67	-52.79	-51.71	-52.98	-51.79	-55.81	-55.81	-58.20	-58.20	-60.20
YEAR	-58.20	-60.20										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

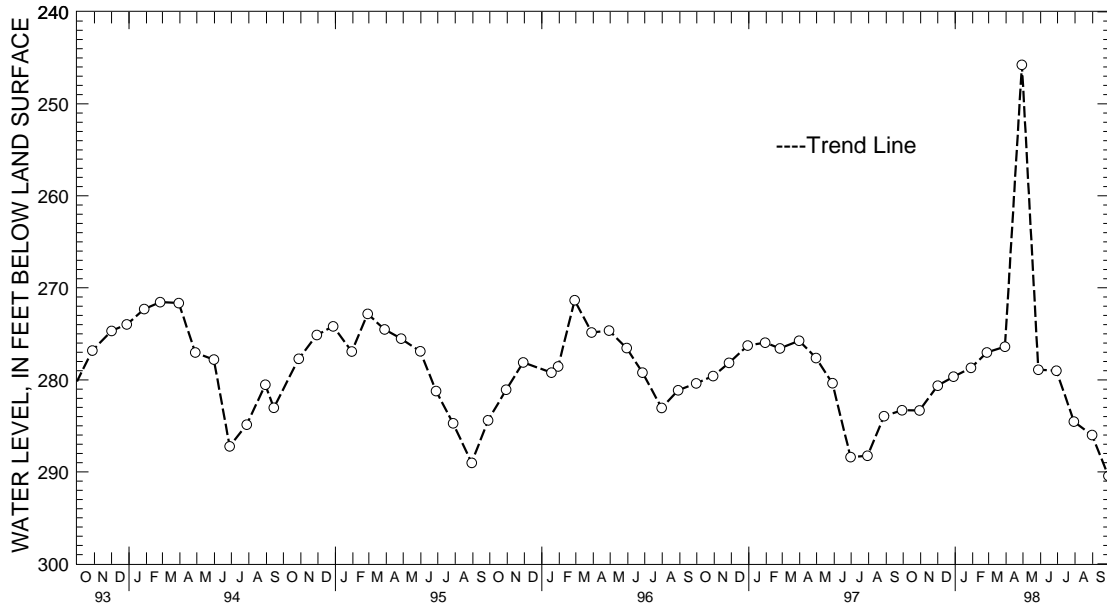
MARYLAND--Continued

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 electric 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. Water levels affected by nearby pumping. April 29, 1998 reading made during pump repair at nearby production well.
 PERIOD OF RECORD.--November 1986 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 245.75 ft below land surface, April 29, 1998, (see remarks); lowest measured, 290.44 ft below land surface, Sept. 29, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	283.32	JAN 29, 1998	278.69	APR 29, 1998	245.75	JUL 30, 1998	284.53
DEC 01	280.63	FEB 26	277.02	MAY 28	278.90	AUG 31	286.00
29	279.66	MAR 30	276.40	JUN 29	279.00	SEP 29	290.44
WATER YEAR 1998		HIGHEST	245.75	APR 29, 1998	LOWEST	290.44	SEP 29, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

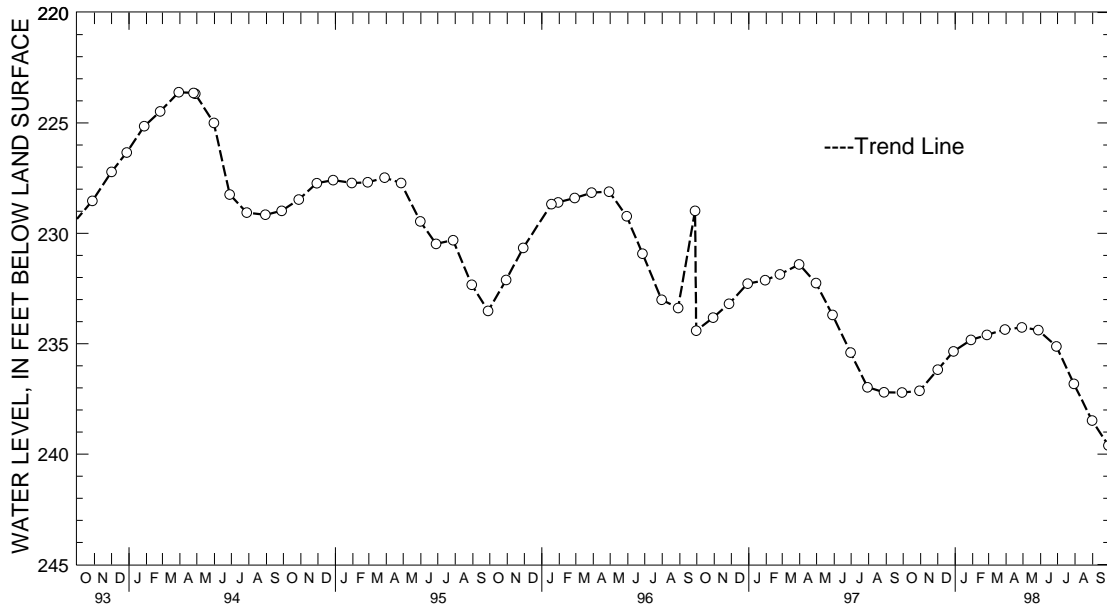
MARYLAND--Continued

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.--St. Charles aquifer of the 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 electric 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, 239.61 ft below land surface, Sept. 29, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	237.13	JAN 29, 1998	234.83	APR 29, 1998	234.26	JUL 30, 1998	236.82
DEC 01	236.17	FEB 26	234.60	MAY 28	234.38	AUG 31	238.48
29	235.35	MAR 30	234.36	JUN 29	235.12	SEP 29	239.61
WATER YEAR 1998		HIGHEST	234.26	APR 29, 1998	LOWEST	239.61	SEP 29, 1998

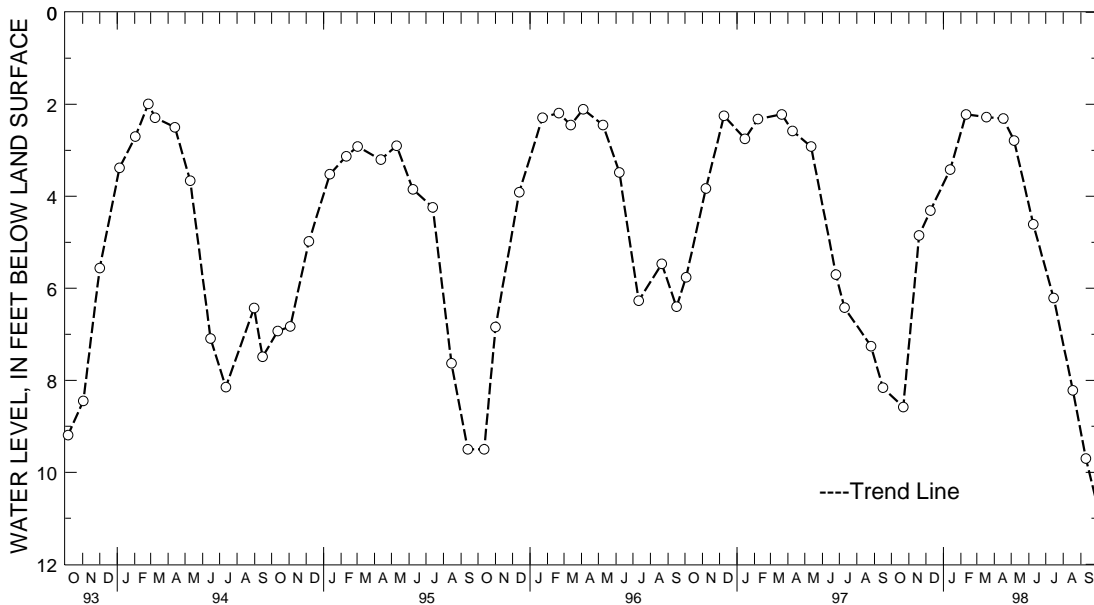


5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 Lower middle 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	8.58	JAN 13, 1998	3.42	APR 17, 1998	2.31	JUL 15, 1998	6.21
NOV 19	4.85	FEB 10	2.22	MAY 06	2.79	AUG 18	8.22
DEC 09	4.31	MAR 18	2.28	JUN 09	4.61	SEP 10	9.70
WATER YEAR 1998		HIGHEST	2.22 FEB 10, 1998	LOWEST	9.70 SEP 10, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

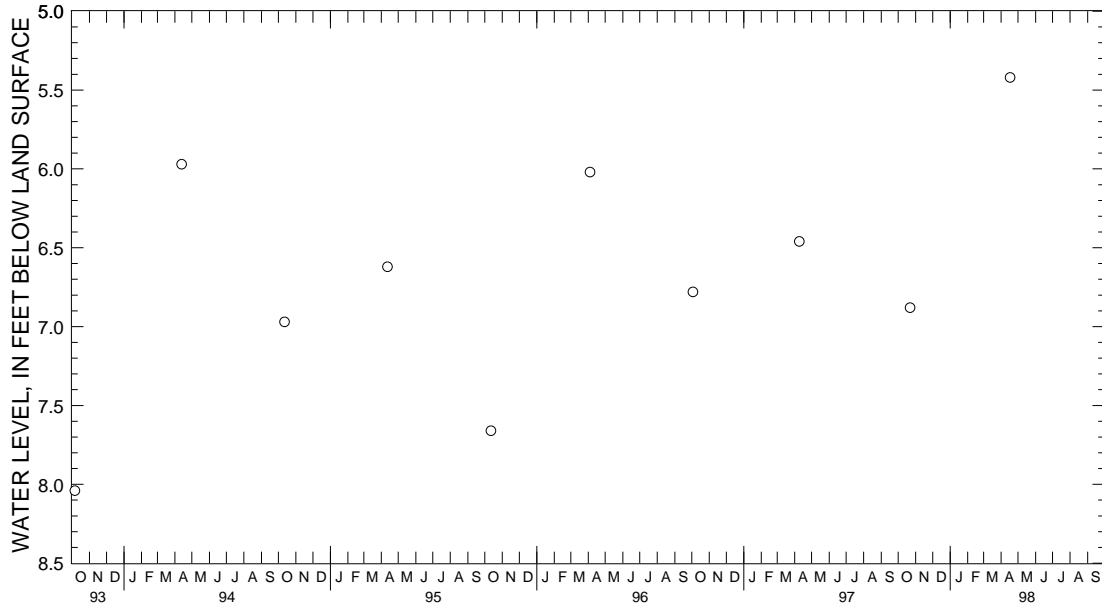
MARYLAND--Continued

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 Lower middle 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	5.86	APR 17, 1998	4.14
WATER YEAR 1998		HIGHEST 4.14 APR 17, 1998	LOWEST 5.86 OCT 22, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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: 217LPLT.
 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 electric 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, 21.35 ft below sea level, April 18, 1952;
 lowest measured, 53.33 ft below sea level, Aug. 12 and 14, 1989.

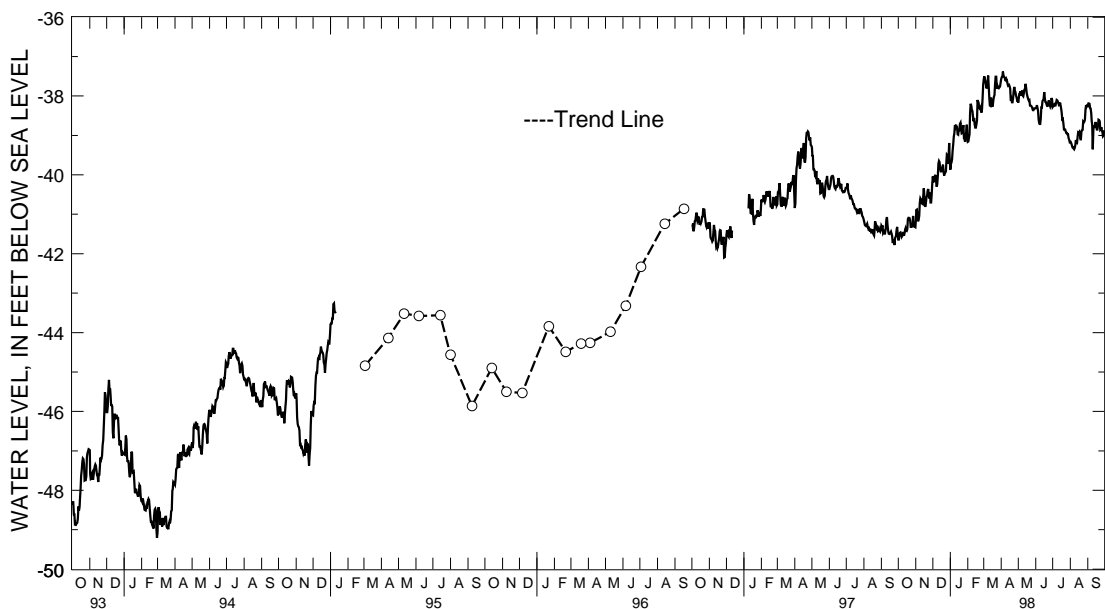
WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-41.51	-41.64	-40.84	-41.19	-39.86	-40.04	-39.62	-39.87	-39.03	-39.16	-37.45	-37.58
2	-41.47	-41.64	-40.76	-40.89	-40.04	-40.19	-39.62	-39.72	-39.02	-39.15	-37.36	-37.50
3	-41.38	-41.52	-40.79	-40.88	-39.95	-40.12	-39.60	-39.69	-38.93	-39.06	-37.36	-37.57
4	-41.36	-41.47	-40.85	-41.05	-39.95	-40.04	-39.37	-39.61	-38.42	-38.97	-37.51	-37.63
5	-41.38	-41.46	-41.05	-41.18	-39.87	-40.02	-39.23	-39.39	-38.16	-38.42	-37.54	-37.72
6	-41.40	-41.50	-41.04	-41.14	-39.86	-40.03	-38.98	-39.23	-38.05	-38.20	-37.70	-37.81
7	-41.48	-41.57	-40.71	-41.04	-40.01	-40.22	-38.93	-39.03	-38.07	-38.24	-37.55	-37.72
8	-41.40	-41.55	-40.45	-40.71	-40.21	-40.30	-38.69	-38.95	-38.24	-38.35	-37.46	-37.61
9	-41.37	-41.50	-40.36	-40.60	-40.02	-40.24	-38.62	-38.74	-38.31	-38.38	-37.05	-37.48
10	-41.35	-41.45	-40.52	-40.63	-39.64	-40.02	-38.66	-38.78	-38.38	-38.52	-37.14	-37.75
11	-41.39	-41.54	-40.57	-40.70	-39.60	-39.71	-38.63	-38.73	-38.52	-38.64	-37.75	-38.05
12	-41.34	-41.47	-40.61	-40.73	-39.55	-39.65	-38.68	-38.80	-38.48	-38.56	-38.05	-38.24
13	-41.28	-41.39	-40.52	-40.74	-39.58	-39.68	-38.70	-38.80	-38.56	-38.73	-38.03	-38.25
14	-41.24	-41.36	-40.26	-40.54	-39.64	-39.83	-38.76	-38.97	-38.69	-38.80	-37.86	-38.04
15	-41.29	-41.41	-40.17	-40.34	-39.83	-39.91	-38.78	-38.98	-38.67	-38.80	-37.97	-38.19
16	-41.31	-41.42	-40.19	-40.55	-39.77	-39.91	-38.78	-38.84	-38.60	-38.72	-38.18	-38.25
17	-41.11	-41.38	-40.55	-40.79	-39.72	-39.83	-38.65	-38.89	-38.03	-38.61	-38.09	-38.25
18	-41.07	-41.12	-40.63	-40.79	-39.67	-39.80	-38.62	-38.71	-38.02	-38.10	-38.00	-38.11
19	-41.05	-41.09	-40.50	-40.70	-39.65	-39.74	-38.53	-38.68	-38.06	-38.15	-37.92	-38.02
20	-41.06	-41.09	-40.47	-40.57	-39.68	-39.93	-38.53	-38.82	-38.07	-38.16	-37.70	-37.98
21	-41.06	-41.10	-40.38	-40.53	-39.90	-40.02	-38.82	-38.95	-38.08	-38.29	-37.35	-37.70
22	-41.03	-41.17	-40.32	-40.40	-39.80	-39.95	-38.82	-38.94	-38.26	-38.32	-37.37	-37.51
23	-41.15	-41.34	-40.28	-40.36	-39.76	-39.94	-38.50	-38.82	-37.87	-38.30	-37.40	-37.51
24	-41.16	-41.30	-40.19	-40.52	-39.63	-39.91	-38.52	-38.74	-37.85	-38.27	-37.48	-37.74
25	-41.09	-41.31	-40.44	-40.60	-39.43	-39.63	-38.74	-39.07	-38.27	-38.42	-37.70	-37.82
26	-41.04	-41.31	-40.27	-40.45	-39.42	-39.49	-39.02	-39.10	-38.02	-38.34	-37.60	-37.76
27	-40.86	-41.04	-40.36	-40.70	-39.44	-39.51	-39.01	-39.16	-37.69	-38.06	-37.66	-37.78
28	-40.96	-41.28	-40.45	-40.70	-39.50	-39.71	-38.80	-39.03	-37.50	-37.73	-37.71	-37.80
29	-41.19	-41.28	-40.20	-40.49	-39.08	-39.55	-38.64	-38.89	---	---	-37.68	-37.78
30	-41.24	-41.32	-39.86	-40.22	-39.06	-39.19	-38.60	-38.73	---	---	-37.58	-37.76
31	-41.16	-41.33	---	---	-39.19	-39.62	-38.73	-39.08	---	---	-37.50	-37.66
MONTH	-40.86	-41.64	-39.86	-41.19	-39.06	-40.30	-38.50	-39.87	-37.50	-39.16	-37.05	-38.25

GROUND-WATER LEVELS
 MARYLAND--Continued
 CHARLES COUNTY--Continued
 CH Cb 7--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-37.44	-37.57	-38.01	-38.17	-38.17	-38.31	-38.05	-38.28	-39.04	-39.16	-38.16	-38.25
2	-37.43	-37.52	-37.87	-38.04	-38.15	-38.30	-38.20	-38.26	-39.06	-39.16	-37.98	-38.19
3	-37.38	-37.51	-37.86	-37.95	-38.07	-38.23	-38.15	-38.23	-39.08	-39.20	-38.01	-38.19
4	-37.16	-37.38	-37.88	-37.94	-38.17	-38.30	-38.09	-38.21	-39.12	-39.25	-38.04	-38.20
5	-37.24	-37.48	-37.73	-37.88	-38.23	-38.38	-38.02	-38.24	-39.15	-39.30	-38.16	-38.31
6	-37.42	-37.51	-37.77	-37.97	-38.34	-38.60	-38.13	-38.24	-39.16	-39.30	-38.22	-38.32
7	-37.44	-37.53	-37.84	-37.97	-38.53	-38.69	-38.03	-38.17	-39.21	-39.33	-38.30	-38.44
8	-37.47	-37.60	-37.66	-37.86	-38.62	-38.71	-37.99	-38.10	-39.25	-39.35	-38.40	-38.61
9	-37.43	-37.61	-37.70	-37.99	-38.54	-38.71	-38.01	-38.11	-39.17	-39.32	-38.57	-38.74
10	-37.48	-37.57	-37.88	-38.01	-38.25	-38.58	-38.03	-38.14	-39.03	-39.25	-38.69	-39.35
11	-37.46	-37.61	-37.76	-37.93	-38.19	-38.29	-38.09	-38.19	-39.02	-39.12	-38.71	-38.85
12	-37.59	-37.69	-37.72	-37.84	-38.09	-38.29	-38.12	-38.23	-39.05	-39.18	-38.69	-38.78
13	-37.65	-37.74	-37.67	-37.84	-38.02	-38.13	-38.07	-38.22	-39.03	-39.19	-38.69	-38.78
14	-37.61	-37.73	-37.58	-37.69	-38.02	-38.11	-38.06	-38.17	-38.83	-39.03	-38.58	-38.72
15	-37.63	-37.72	-37.68	-37.80	-37.80	-38.07	-38.09	-38.23	-38.80	-38.92	-38.55	-38.66
16	-37.64	-37.76	-37.78	-37.93	-37.78	-37.90	-38.15	-38.31	-38.83	-38.93	-38.58	-38.78
17	-37.63	-37.82	-37.90	-38.00	-37.83	-38.04	-38.23	-38.42	-38.82	-38.91	-38.73	-38.85
18	-37.82	-38.12	-37.96	-38.05	-37.97	-38.15	-38.34	-38.59	-38.83	-38.99	-38.70	-38.85
19	-37.90	-38.08	-37.97	-38.10	-38.04	-38.16	-38.49	-38.58	-38.90	-39.10	-38.57	-38.76
20	-37.89	-38.16	-38.03	-38.12	-38.04	-38.21	-38.47	-38.70	-38.85	-39.10	-38.50	-38.60
21	-38.02	-38.16	-37.97	-38.11	-38.10	-38.25	-38.67	-38.85	-38.80	-38.90	-38.52	-38.61
22	-37.85	-38.05	-38.03	-38.24	-38.10	-38.25	-38.73	-38.85	-38.79	-38.87	-38.56	-38.64
23	-37.72	-37.88	-38.12	-38.24	-38.04	-38.18	-38.78	-38.85	-38.65	-38.86	-38.62	-38.85
24	-37.64	-37.77	-38.09	-38.25	-38.02	-38.11	-38.80	-38.90	-38.59	-38.65	-38.70	-38.83
25	-37.64	-37.86	-38.16	-38.27	-38.07	-38.19	-38.85	-38.94	-38.60	-38.67	-38.70	-38.79
26	-37.80	-37.90	-38.21	-38.31	-38.12	-38.22	-38.83	-38.94	-38.53	-38.65	-38.71	-38.88
27	-37.85	-37.99	-38.26	-38.36	-38.15	-38.27	-38.83	-38.97	-38.35	-38.60	-38.81	-38.91
28	-37.93	-38.03	-38.26	-38.36	-38.04	-38.23	-38.86	-38.97	-38.17	-38.35	-38.80	-39.02
29	-38.02	-38.12	-38.19	-38.32	-37.94	-38.05	-38.91	-39.07	-38.06	-38.23	-38.87	-39.00
30	-38.02	-38.12	-38.23	-38.32	-37.94	-38.09	-39.00	-39.11	-38.04	-38.27	-38.72	-38.87
31	---	---	-38.22	-38.31	---	---	-39.02	-39.17	-38.16	-38.24	---	---
MONTH	-37.16	-38.16	-37.58	-38.36	-37.78	-38.71	-37.99	-39.17	-38.04	-39.35	-37.98	-39.35
YEAR	-37.05	-41.64										

Daily Low Water Levels



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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MARYLAND--Continued

CHARLES COUNTY--Continued

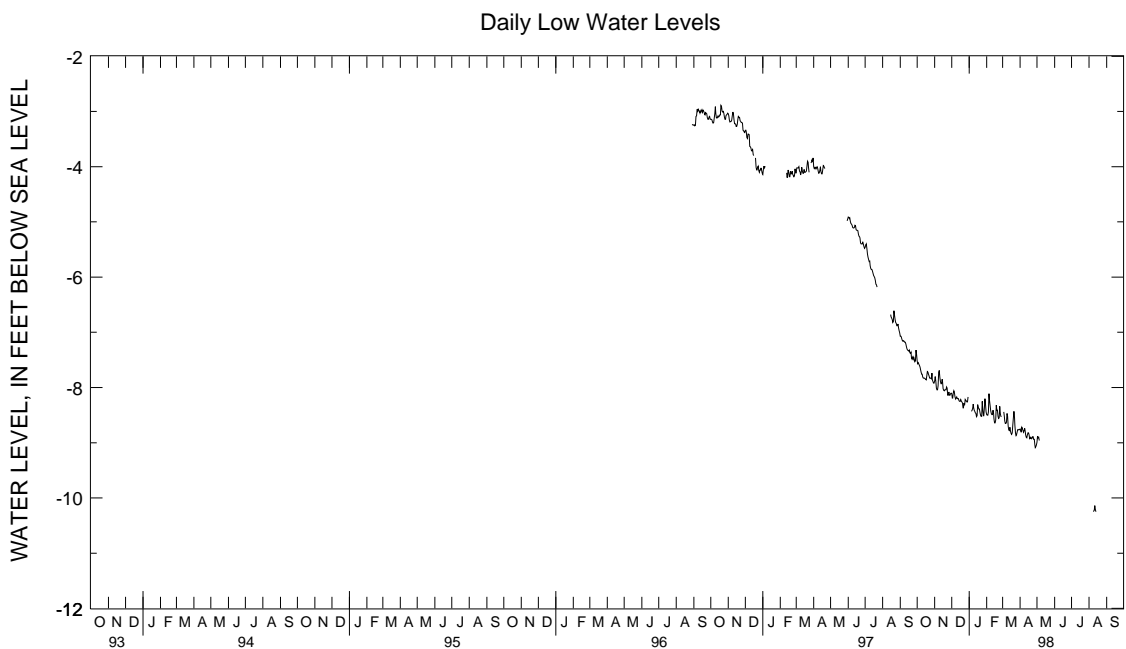
WELL NUMBER.--CH Cc 34. SITE ID.--383441077063901. PERMIT NUMBER.--CH-94-0897.
 LOCATION.--Lat 38°34'41", long 77°06'39", Hydrologic Unit 02070011, at Mattawoman Water Treatment Plant.
 Owner: Maryland Geological Survey.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 975 ft; casing diameter 4 in., to 874 ft,
 884 to 945 ft, and 965 to 975 ft; screen diameter 4 in. from 874 to 884 ft, and 945 to 955 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey and Maryland
 Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval, Aug. 28, 1996 to current year.
 DATUM.--Elevation of land surface is 41.82 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 3.0 ft above land surface.
 REMARKS.--Bryans Road Project observation well. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--August 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.80 ft below sea level, Oct. 8, 1996;
 lowest measured, 10.25 ft below sea level, August 13, 1998

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-7.40	-7.52	-7.68	-7.88	-7.94	-8.11	---	---	-8.44	-8.49	---	---
2	-7.52	-7.57	-7.69	-7.80	-8.11	-8.19	---	---	-8.49	-8.50	---	---
3	-7.53	-7.55	-7.80	-7.88	-8.10	-8.19	---	---	-8.44	-8.50	-8.36	-8.44
4	-7.54	-7.58	-7.88	-8.01	-8.02	-8.10	---	---	-8.11	-8.44	-8.44	-8.52
5	-7.58	-7.60	-8.01	-8.04	-8.02	-8.06	-8.41	-8.43	-8.05	-8.11	-8.52	-8.60
6	-7.60	-7.63	-7.97	-8.04	-8.06	-8.09	-8.38	-8.41	-8.10	-8.24	-8.60	-8.65
7	-7.63	-7.68	-7.73	-7.97	-8.09	-8.17	-8.30	-8.38	-8.24	-8.33	-8.63	-8.65
8	-7.68	-7.73	-7.69	-7.73	-8.17	-8.21	-8.20	-8.30	-8.33	-8.42	-8.47	-8.63
9	-7.73	-7.76	-7.65	-7.69	-8.16	-8.19	-8.22	-8.36	-8.42	-8.47	-8.14	-8.47
10	-7.74	-7.76	-7.69	-7.81	-8.05	-8.17	-8.36	-8.41	-8.47	-8.49	-8.21	-8.52
11	-7.76	-7.81	-7.81	-7.89	-8.09	-8.20	-8.40	-8.43	-8.33	-8.49	-8.52	-8.70
12	-7.80	-7.83	-7.87	-7.93	-8.18	-8.20	-8.43	-8.46	-8.30	-8.41	-8.70	-8.77
13	-7.79	-7.83	-7.85	-7.93	-8.14	-8.20	-8.38	-8.47	-8.41	-8.47	-8.72	-8.78
14	-7.79	-7.83	-7.74	-7.85	-8.18	-8.24	-8.47	-8.53	-8.47	-8.57	-8.63	-8.72
15	-7.82	-7.84	-7.82	-7.89	-8.24	-8.25	-8.29	-8.51	-8.57	-8.64	-8.71	-8.79
16	-7.84	-7.85	-7.89	-8.02	-8.21	-8.25	-8.24	-8.31	-8.59	-8.64	-8.79	-8.83
17	-7.79	-7.86	-8.02	-8.05	-8.20	-8.22	-8.31	-8.35	-8.30	-8.59	-8.82	-8.85
18	-7.71	-7.79	-8.04	-8.06	-8.22	-8.25	-8.33	-8.39	-8.30	-8.32	-8.68	-8.82
19	-7.65	-7.71	-8.02	-8.04	-8.25	-8.26	-8.37	-8.39	-8.32	-8.41	-8.54	-8.68
20	-7.66	-7.72	-8.02	-8.04	-8.22	-8.28	-8.37	-8.45	-8.38	-8.41	-8.43	-8.55
21	-7.72	-7.76	-7.96	-8.04	-8.28	-8.37	-8.45	-8.50	-8.40	-8.52	-8.32	-8.43
22	-7.73	-7.79	-7.93	-7.99	-8.24	-8.37	-8.50	-8.52	-8.52	-8.56	-8.36	-8.54
23	-7.79	-7.83	-7.99	-8.01	-8.23	-8.28	-8.25	-8.52	-8.30	-8.55	-8.54	-8.69
24	-7.78	-7.83	-8.01	-8.14	-8.22	-8.32	-8.21	-8.25	-8.26	-8.34	-8.69	-8.82
25	-7.73	-7.83	-8.08	-8.14	-8.14	-8.22	-8.21	-8.41	-8.34	-8.47	-8.82	-8.87
26	-7.71	-7.84	-7.96	-8.08	-8.20	-8.24	-8.41	-8.51	-8.47	-8.52	-8.77	-8.85
27	-7.64	-7.74	-8.01	-8.14	-8.13	-8.24	-8.36	-8.51	-8.48	-8.53	-8.74	-8.80
28	-7.74	-7.86	-8.07	-8.14	-8.16	-8.26	-8.18	-8.36	---	---	-8.71	-8.76
29	-7.86	-7.89	-8.09	-8.11	-8.04	-8.26	-8.14	-8.20	---	---	-8.73	-8.76
30	-7.89	-7.92	-7.94	-8.10	-8.03	-8.17	-8.14	-8.31	---	---	-8.74	-8.77
31	-7.88	-7.92	---	---	---	---	-8.31	-8.44	---	---	-8.75	-8.76
MONTH	-7.40	-7.92	-7.65	-8.14	-7.94	-8.37	-8.14	-8.53	-8.05	-8.64	-8.14	-8.87

GROUND-WATER LEVELS
 MARYLAND--Continued
 CHARLES COUNTY--Continued
 CH Cc 34--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-8.72	-8.75	-8.88	-8.99	---	---	---	---	---	---	---	---
2	-8.72	-8.78	-8.86	-8.88	---	---	---	---	---	---	---	---
3	-8.72	-8.81	-8.87	-8.91	---	---	---	---	---	---	---	---
4	-8.63	-8.72	-8.89	-8.90	---	---	---	---	---	---	---	---
5	-8.68	-8.74	-8.90	-8.96	---	---	---	---	---	---	---	---
6	-8.73	-8.78	---	---	---	---	---	---	---	---	---	---
7	-8.77	-8.81	---	---	---	---	---	---	---	---	---	---
8	-8.72	-8.78	---	---	---	---	---	---	-10.23	-10.24	---	---
9	-8.55	-8.74	---	---	---	---	---	---	-10.23	-10.24	---	---
10	-8.63	-8.78	---	---	---	---	---	---	-10.12	-10.23	---	---
11	-8.78	-8.86	---	---	---	---	---	---	-10.12	-10.14	---	---
12	-8.86	-8.90	---	---	---	---	---	---	-10.14	-10.21	---	---
13	-8.86	-8.91	---	---	---	---	---	---	-10.21	-10.25	---	---
14	-8.78	-8.86	---	---	---	---	---	---	---	---	---	---
15	-8.78	-8.82	---	---	---	---	---	---	---	---	---	---
16	-8.81	-8.82	---	---	---	---	---	---	---	---	---	---
17	-8.77	-8.86	---	---	---	---	---	---	---	---	---	---
18	-8.86	-8.93	---	---	---	---	---	---	---	---	---	---
19	-8.80	-8.92	---	---	---	---	---	---	---	---	---	---
20	-8.80	-8.90	---	---	---	---	---	---	---	---	---	---
21	-8.90	-8.93	---	---	---	---	---	---	---	---	---	---
22	-8.89	-8.92	---	---	---	---	---	---	---	---	---	---
23	-8.84	-8.89	---	---	---	---	---	---	---	---	---	---
24	-8.85	-8.89	---	---	---	---	---	---	---	---	---	---
25	-8.89	-8.94	---	---	---	---	---	---	---	---	---	---
26	-8.88	-8.94	---	---	---	---	---	---	---	---	---	---
27	-8.94	-9.04	---	---	---	---	---	---	---	---	---	---
28	-9.04	-9.09	---	---	---	---	---	---	---	---	---	---
29	-9.04	-9.07	---	---	---	---	---	---	---	---	---	---
30	-8.99	-9.04	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	-8.55	-9.09	-8.86	-8.99	---	---	---	---	-10.12	-10.25	---	---
YEAR	-7.40	-10.25										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

299

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 electric 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, 132.45 ft below sea level, Sept. 21, 1997.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-99.82	-118.33	-99.96	-114.22	-89.35	-108.01	-86.48	-99.82	---	---	---	---
2	-99.44	-115.37	-99.96	-120.20	-89.27	-107.75	-84.52	-106.95	---	---	---	---
3	-99.16	-116.29	-97.95	-113.07	-89.90	-113.42	-85.07	-105.02	---	---	---	---
4	-99.27	-113.99	-96.66	-114.57	-89.33	-102.61	-85.10	-101.54	---	---	---	---
5	-99.19	-119.89	-95.71	-114.19	-88.98	-98.47	-84.24	-101.83	---	---	---	---
6	-100.28	-121.61	-95.36	-109.62	-88.58	-107.04	-83.98	-97.86	---	---	---	---
7	---	---	-94.47	-107.47	-88.89	-107.49	-84.47	-97.92	---	---	---	---
8	-103.33	-125.84	-93.67	-107.52	-88.84	-109.10	-83.69	-100.48	---	---	---	---
9	-109.42	-127.39	-93.18	-107.18	-89.41	-103.33	-84.12	-100.60	---	---	---	---
10	-108.41	-128.48	-94.01	-111.72	-90.50	-109.74	-84.24	-103.33	---	---	---	---
11	-105.34	-128.31	-92.86	-106.63	-88.55	-112.35	-83.37	-97.98	---	---	---	---
12	-106.03	-126.01	-92.80	-107.04	-89.27	-106.66	-83.12	-99.56	---	---	---	---
13	-104.45	-126.67	-93.06	-106.35	-87.69	-108.13	-82.74	-99.85	---	---	---	---
14	-104.68	-122.96	-92.40	-113.96	-88.66	-108.10	-83.57	-113.45	---	---	---	---
15	-107.52	-123.60	-91.68	-113.96	-88.00	-108.10	-84.47	-101.89	---	---	---	---
16	-105.83	-119.83	-91.68	-110.97	-87.28	-105.60	-82.89	-110.57	---	---	---	---
17	-103.47	-119.83	-91.62	-106.55	---	---	-83.35	-101.46	---	---	---	---
18	-104.45	-118.33	-90.99	-106.55	---	---	-83.46	-99.93	---	---	---	---
19	-101.08	-115.89	-91.45	-111.64	-87.66	-104.02	-86.57	-99.16	---	---	---	---
20	-99.47	-113.91	-91.51	-112.07	-87.51	-110.89	-84.06	-113.27	---	---	---	---
21	-99.21	-112.18	-91.65	-111.06	-87.26	-113.45	-84.75	-111.89	---	---	---	---
22	-98.50	-118.19	-90.47	-110.37	-90.45	-105.25	-83.80	-108.87	---	---	---	---
23	-97.81	-111.66	-90.68	-112.99	-88.32	-108.96	-83.37	-105.40	---	---	---	---
24	-97.46	-111.03	-91.11	-110.40	-86.71	-111.15	-82.37	-97.14	---	---	---	---
25	-97.20	-111.55	-90.13	-102.98	-86.08	-94.18	-81.94	-101.40	---	---	---	---
26	-96.97	-113.48	-91.14	-111.72	-85.27	-108.90	-81.79	-103.18	---	---	---	---
27	-97.98	-115.43	-90.79	-108.85	-85.56	-99.42	-81.39	-96.43	---	---	---	---
28	-96.74	-120.32	-89.81	-103.12	-86.13	-114.68	-81.82	-97.92	---	---	---	---
29	-98.70	-118.25	-89.70	-103.38	-86.22	-109.82	---	---	---	---	---	---
30	-99.16	-114.71	-89.50	-103.73	-85.67	-101.80	---	---	---	---	---	---
31	-100.08	-116.52	---	---	-85.85	-112.35	---	---	---	---	---	---
MONTH	-96.74	-128.48	-89.50	-120.20	-85.27	-114.68	-81.39	-113.45	---	---	---	---

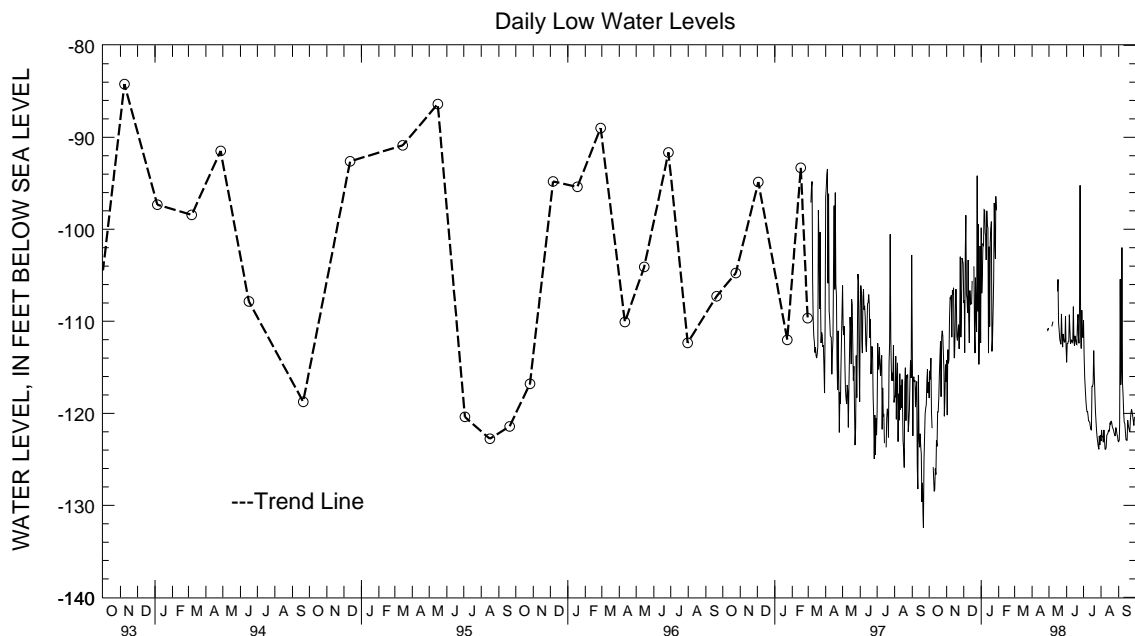
GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

CH Ce 37--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	-94.42	-110.80	-98.12	-114.45	-95.13	-109.91	-105.02	-123.01	-107.75	-123.07
2	---	---	---	---	-96.45	-112.41	-95.04	-113.76	-104.04	-121.81	-107.09	-122.90
3	---	---	---	---	-95.82	-112.41	-113.76	-116.09	-106.46	-122.53	-105.42	-121.26
4	---	---	---	---	-95.79	-112.23	-116.09	-117.32	-105.10	-122.53	-102.83	-105.42
5	---	---	---	---	-95.62	-112.15	-117.32	-118.50	-107.12	-123.13	-102.32	-116.89
6	---	---	-93.96	-110.55	-94.98	-109.27	-118.39	-119.36	-105.68	-121.81	-101.74	-115.14
7	---	---	-94.04	-110.23	-94.47	-110.91	-119.19	-119.82	-104.99	-122.79	-100.65	-101.97
8	---	---	-93.96	-110.03	-94.72	-112.46	-108.81	-119.82	-109.79	-123.88	-100.36	-116.75
9	---	---	---	---	-95.93	-112.18	-119.71	-120.34	-107.95	-123.91	-101.42	-118.07
10	---	---	---	---	-95.53	-112.06	-120.23	-120.80	-108.15	-123.68	-102.06	-119.97
11	---	---	---	---	-95.56	-112.29	-109.91	-120.89	-106.77	-122.41	-105.22	-120.97
12	---	---	---	---	-95.50	-112.12	-106.94	-120.94	-105.56	-122.27	-104.47	-121.12
13	---	---	---	---	-94.67	-108.41	-120.57	-121.38	-105.74	-122.15	-105.85	-121.98
14	---	---	---	---	-94.09	-112.18	-121.17	-121.75	-105.56	-121.86	-108.99	-122.87
15	---	---	---	---	-98.12	-112.69	-103.52	-121.81	-105.13	-121.95	-107.37	-122.93
16	---	---	-93.00	-106.74	-96.39	-111.57	-101.74	-117.06	-105.74	-121.78	-105.28	-122.93
17	---	---	-92.34	-105.45	-96.85	-111.98	-100.73	-117.06	-105.16	-121.00	-103.93	-120.74
18	---	---	-92.02	-110.16	-95.96	-112.44	-100.25	-116.72	-104.44	-121.15	-104.82	-121.29
19	---	---	-93.78	-111.00	-96.05	-112.52	-99.04	-113.18	-105.02	-120.83	-104.70	-121.61
20	---	---	-94.50	-111.92	-95.85	-110.34	-98.49	-115.77	-104.15	-121.06	-105.56	-121.89
21	---	---	-95.24	-112.23	-95.24	-109.24	-99.15	-117.81	-104.82	-121.46	-106.43	-122.01
22	---	---	-95.59	-112.49	-94.78	-111.46	-117.78	-119.77	-104.93	-121.64	-105.16	-120.74
23	---	---	-94.50	-109.19	-95.42	-112.38	-119.68	-120.89	-105.68	-121.81	-104.07	-119.94
24	---	---	-93.57	-111.49	-95.21	-108.78	-120.86	-121.95	-106.43	-122.12	-103.41	-119.56
25	-94.19	-108.10	-95.21	-112.81	-94.12	-95.21	-121.86	-122.67	-106.51	-122.35	-103.21	-119.85
26	---	---	-94.21	-111.37	-93.80	-111.49	-122.55	-123.16	-106.63	-122.47	-103.15	-120.31
27	---	---	-95.13	-111.98	-95.82	-112.95	-123.04	-123.65	-106.14	-121.55	-104.15	-120.77
28	-94.22	-110.80	-95.10	-112.26	-94.93	-108.81	-107.40	-123.91	-104.70	-121.75	-105.33	-121.32
29	-94.53	-110.98	-95.36	-112.23	-94.52	-111.63	-105.56	-122.44	-106.08	-122.27	-105.10	-120.46
30	-94.56	-110.78	-94.67	-109.47	-95.24	-111.77	-107.06	-123.42	-106.69	-122.50	-105.25	-120.40
31	---	---	-94.03	-112.75	---	---	-105.51	-122.41	-107.69	-123.01	---	---
MONTH	-94.19	-110.98	-92.02	-112.81	-93.80	-114.45	-95.04	-123.91	-104.04	-123.91	-100.36	-123.07
YEAR	-81.39	-128.48										



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

301

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Ce 57. SITE ID.--383250076584001. PERMIT NUMBER.--CH-94-1112.
 LOCATION.--Lat 38°32'50", long 76°58'40", Hydrologic Unit 02070011, La Plata.
 Owner: Town of La Plata.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 1,703 ft; casing diameter 6 in., to 400 ft;
 casing diameter 4 in. from 400 to 1,406 ft, 1,421 to 1,500 ft, 1,515 to 1,668 ft and 1,698 to 1,703 ft;
 screen diameter 4 in. from 1,406 to 1,421 ft, 1,500 to 1,515 ft, and 1,668 to 1,698 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey and Maryland
 Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval, March 18, 1997 to current year.
 DATUM.--Elevation of land surface is 193.47 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 5.0 ft above land surface.
 REMARKS.--Southern Maryland Water-Level Monitoring Network. Water levels are affected by nearby pumping.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--March 1997 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.13 ft above sea level, May 1, 1997;
 lowest measured, 0.70 ft below sea level, August 2, and 4, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	.41	.26	.49	.27	.57	.34	.13	.03	.27	.22	.38	.36
2	.27	.22	.48	.40	.34	.26	.15	.12	.22	.21	.43	.37
3	.31	.25	.40	.34	.37	.22	.16	.12	.31	.22	.43	.37
4	.30	.25	.34	.16	.44	.37	.16	.11	.61	.31	.37	.31
5	.26	.24	.16	.06	.44	.40	.16	.10	.63	.43	.31	.21
6	.24	.20	.25	.06	.40	.38	.23	.16	.43	.36	.21	.17
7	.21	.16	.45	.25	.38	.31	.34	.22	.38	.36	.21	.18
8	.18	.09	.49	.45	.31	.27	.42	.34	.38	.30	.37	.21
9	.10	.06	.59	.47	.35	.28	.41	.26	.31	.23	.63	.37
10	.13	.07	.47	.41	.43	.31	.26	.18	.25	.22	.45	.21
11	.10	.04	.42	.38	.39	.27	.23	.16	.42	.22	.21	.11
12	.07	.03	.41	.35	.31	.27	.16	.10	.47	.36	.12	.06
13	.12	.05	.43	.34	.37	.27	.25	.11	.36	.31	.15	.03
14	.18	.08	.62	.43	.32	.23	.11	.03	.31	.17	.30	.15
15	.09	.07	.49	.42	.24	.21	.38	.05	.17	.07	.20	.06
16	.11	.06	.43	.31	.30	.21	.40	.36	.18	.07	.06	.01
17	.18	.07	.31	.26	.34	.30	.36	.32	.46	.18	.03	.00
18	.27	.17	.28	.24	.30	.24	.34	.24	.46	.42	.24	.03
19	.37	.27	.34	.28	.27	.24	.30	.24	.42	.36	.36	.24
20	.36	.29	.34	.30	.33	.23	.28	.17	.40	.36	.42	.36
21	.31	.23	.39	.30	.23	.09	.17	.11	.38	.27	.47	.42
22	.31	.24	.42	.37	.31	.09	.11	.07	.28	.23	.44	.31
23	.24	.19	.38	.36	.33	.26	.38	.07	.48	.26	.31	.20
24	.28	.20	.37	.20	.35	.20	.40	.35	.61	.42	.21	.03
25	.37	.23	.31	.20	.40	.35	.37	.16	.42	.30	.03	-.03
26	.39	.20	.43	.31	.37	.31	.18	.10	.35	.29	.14	.00
27	.44	.36	.40	.24	.42	.31	.35	.09	.38	.30	.20	.10
28	.36	.23	.37	.24	.39	.28	.44	.35	.38	.36	.26	.15
29	.26	.22	.36	.32	.61	.28	.41	.37	---	---	.23	.19
30	.23	.18	.58	.34	.63	.39	.40	.36	---	---	.22	.18
31	.27	.18	---	---	.39	.13	.36	.27	---	---	.23	.19
MONTH	.44	.03	.62	.06	.63	.09	.44	.03	.63	.07	.63	-.03

GROUND-WATER LEVELS
 MARYLAND--Continued
 CHARLES COUNTY--Continued
 CH Ce 57--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	.28	.22	.18	.02	---	---	-.07	-.18	-.62	-.69	---	---
2	.27	.19	.21	.18	---	---	-.18	-.26	-.66	-.70	---	---
3	.25	.15	.19	.10	---	---	-.26	-.28	-.65	-.68	---	---
4	.36	.25	.15	.10	---	---	-.21	-.27	-.66	-.70	---	---
5	.27	.21	.10	.04	---	---	-.22	-.29	---	---	---	---
6	.22	.18	.05	.02	---	---	-.29	-.35	---	---	---	---
7	.20	.14	.15	.02	---	---	-.30	-.35	---	---	---	---
8	.28	.18	.31	.15	---	---	-.21	-.31	---	---	---	---
9	.42	.23	.24	.15	---	---	-.24	-.28	---	---	---	---
10	.37	.19	.19	.14	---	---	-.24	-.28	---	---	---	---
11	.19	.06	.19	.12	---	---	-.28	-.33	---	---	---	---
12	.06	.01	.14	.02	---	---	-.30	-.36	---	---	---	---
13	.04	.01	.02	-.04	---	---	-.34	-.37	---	---	---	---
14	.22	.04	-.04	-.06	---	---	-.37	-.40	---	---	---	---
15	.22	.16	---	---	---	---	-.40	-.40	---	---	---	---
16	.19	.17	---	---	---	---	-.35	-.40	---	---	---	---
17	.23	.09	---	---	---	---	-.30	-.35	---	---	---	---
18	.09	.01	---	---	---	---	-.33	-.41	---	---	---	---
19	.22	.02	---	---	---	---	-.41	-.46	---	---	---	---
20	.22	.04	---	---	---	---	-.40	-.45	---	---	---	---
21	.04	.02	---	---	---	---	-.45	-.50	---	---	---	---
22	.10	.03	---	---	---	---	-.45	-.49	---	---	---	---
23	.21	.10	---	---	---	---	-.43	-.47	---	---	---	---
24	.19	.11	---	---	---	---	-.45	-.51	---	---	---	---
25	.11	.03	---	---	---	---	-.51	-.56	---	---	---	---
26	.18	.04	---	---	---	---	-.53	-.56	---	---	---	---
27	.05	-.06	---	---	---	---	-.51	-.56	---	---	---	---
28	-.06	-.12	---	---	---	---	-.50	-.52	---	---	---	---
29	-.05	-.10	---	---	---	---	-.50	-.51	---	---	---	---
30	.02	-.05	---	---	-.05	-.12	-.51	-.54	---	---	---	---
31	---	---	---	---	---	---	-.51	-.62	---	---	---	---
MONTH	.42	-.12	.31	-.06	-.05	-.12	-.07	-.62	-.62	-.70	---	---
YEAR	.63	-.70										

Daily Low Water Levels



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

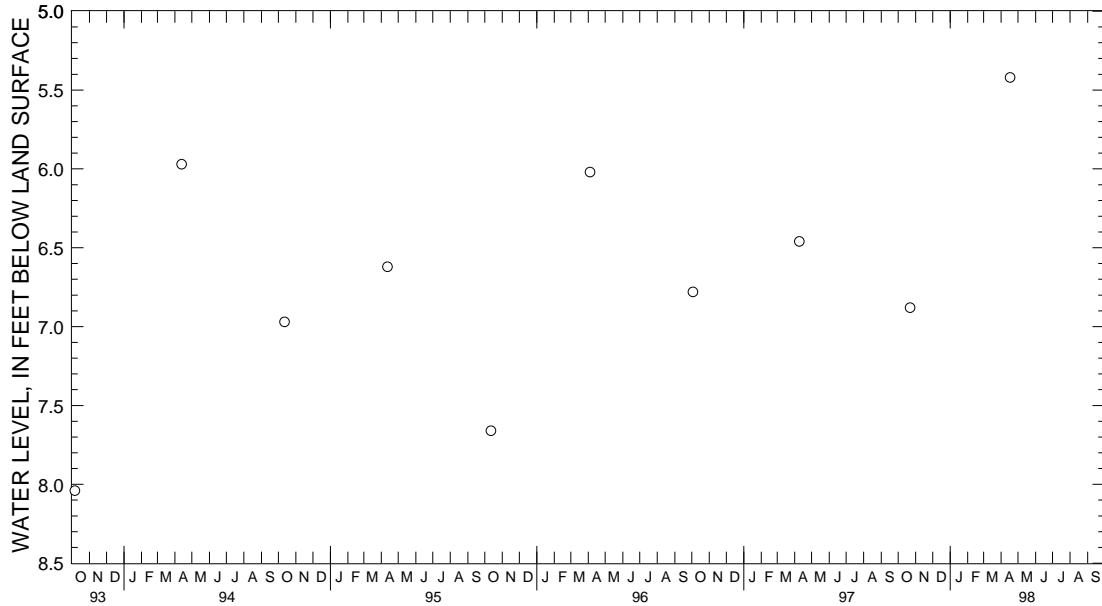
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	6.88	APR 17, 1998	5.42
WATER YEAR 1998		HIGHEST 5.42 APR 17, 1998	LOWEST 6.88 OCT 22, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Da 18. SITE ID.--382654077152501. PERMIT NUMBER.--CH-73-0586.
 LOCATION.--Lat 38°26'54", long 77°15'25", Hydrologic Unit 02070011, nr Douglas Point.
 Owner: Potomac Edison Power Company.
 AQUIFER.--Patuxent Formation of Lower Cretaceous age. Aquifer code: 217PTXN.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 740 ft; casing diameter 8 in., to 684 ft, and 694 to 730 ft; screen diameter 8 in. from 684 to 694 ft, and 730 to 740 ft.
 INSTRUMENTATION.--Twice yearly measurements from September 1976 to April 1996. Monthly measurements with electric tape by U.S. Geological Survey and Maryland Geological Survey personnel.
 Equipped with digital water-level recorder--60-minute recorder interval, April 3, 1996 to current year.
 DATUM.--Elevation of land surface is 90 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of recorder shelf, 3.10 ft above land surface.
 REMARKS.--Bryans Road Project observation well. Water levels are affected by nearby pumping. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--September 1976 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.89 ft above sea level, Sept. 21, 1976; lowest measured, 1.89 ft below sea level, January 1, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-1.45	-1.65	-1.21	-1.55	-1.20	-1.45	-1.72	-1.89	-1.26	-1.33	-1.09	-1.12
2	-1.61	-1.68	-1.15	-1.22	-1.45	-1.61	-1.84	-1.86	-1.31	-1.34	-1.01	-1.10
3	-1.54	-1.62	-1.20	-1.30	-1.52	-1.62	-1.84	-1.84	-1.25	-1.31	-1.01	-1.14
4	-1.54	-1.55	-1.30	-1.52	-1.43	-1.52	-1.82	-1.85	-.89	-1.25	-1.14	-1.21
5	-1.54	-1.55	-1.52	-1.62	-1.40	-1.43	-1.72	-1.82	-.83	-.89	-1.21	-1.31
6	-1.54	-1.59	-1.50	-1.62	-1.41	-1.47	-1.58	-1.72	-.84	-.88	-1.31	-1.38
7	-1.59	-1.65	-1.16	-1.50	-1.47	-1.66	-1.43	-1.58	-.85	-.88	-1.28	-1.37
8	-1.65	-1.69	-1.00	-1.16	-1.66	-1.73	-1.27	-1.43	-.88	-.97	-1.13	-1.28
9	-1.62	-1.66	-.97	-1.06	-1.61	-1.71	-1.23	-1.37	-.97	-1.05	-.86	-1.13
10	-1.59	-1.62	-1.06	-1.18	-1.35	-1.61	-1.37	-1.43	-1.05	-1.14	-.92	-1.34
11	-1.61	-1.68	-1.18	-1.28	-1.36	-1.44	-1.38	-1.43	-1.04	-1.16	-1.34	-1.66
12	-1.61	-1.68	-1.25	-1.34	-1.36	-1.44	-1.42	-1.45	-1.01	-1.15	-1.66	-1.76
13	-1.55	-1.62	-1.24	-1.35	-1.32	-1.40	-1.36	-1.45	-1.15	-1.31	-1.65	-1.76
14	-1.51	-1.56	-1.08	-1.24	-1.36	-1.51	-1.45	-1.57	-1.31	-1.45	-1.49	-1.65
15	-1.55	-1.62	-1.15	-1.21	-1.51	-1.56	-1.33	-1.57	-1.45	-1.50	-1.54	-1.68
16	-1.62	-1.65	-1.18	-1.43	-1.52	-1.57	-1.29	-1.33	-1.35	-1.48	-1.68	-1.71
17	-1.49	-1.63	-1.43	-1.56	-1.51	-1.52	-1.28	-1.35	-.90	-1.35	-1.59	-1.70
18	-1.35	-1.49	-1.52	-1.58	-1.51	-1.53	-1.28	-1.29	-.88	-.90	-1.38	-1.59
19	-1.27	-1.35	-1.43	-1.52	-1.47	-1.52	-1.23	-1.29	-.90	-1.04	-1.28	-1.38
20	-1.27	-1.33	-1.43	-1.43	-1.47	-1.55	-1.23	-1.37	-1.02	-1.04	-1.11	-1.28
21	-1.33	-1.37	-1.32	-1.43	-1.55	-1.65	-1.37	-1.48	-1.04	-1.24	-.97	-1.11
22	-1.32	-1.42	-1.29	-1.34	-1.42	-1.64	-1.38	-1.48	-1.24	-1.34	-.96	-1.11
23	-1.42	-1.54	-1.33	-1.36	-1.40	-1.48	-1.10	-1.38	-1.01	-1.33	-1.11	-1.18
24	-1.46	-1.55	-1.33	-1.54	-1.33	-1.51	-1.07	-1.17	-.98	-1.23	-1.18	-1.41
25	-1.40	-1.52	-1.54	-1.61	-1.21	-1.33	-1.17	-1.48	-1.23	-1.48	-1.41	-1.52
26	-1.33	-1.55	-1.36	-1.55	-1.24	-1.32	-1.48	-1.51	-1.35	-1.49	-1.38	-1.51
27	-1.21	-1.33	-1.41	-1.71	-1.22	-1.32	-1.31	-1.52	-1.19	-1.36	-1.39	-1.45
28	-1.29	-1.59	-1.60	-1.71	-1.30	-1.49	-1.11	-1.31	-1.11	-1.20	-1.42	-1.47
29	-1.57	-1.60	-1.52	-1.60	-1.11	-1.49	-1.07	-1.18	---	---	-1.46	-1.49
30	-1.59	-1.64	-1.20	-1.52	-1.07	-1.28	-1.01	-1.07	---	---	-1.45	-1.49
31	-1.55	-1.65	---	---	-1.28	-1.72	-1.07	-1.26	---	---	-1.41	-1.46
MONTH	-1.21	-1.69	-.97	-1.71	-1.07	-1.73	-1.01	-1.89	-.83	-1.50	-.86	-1.76

GROUND-WATER LEVELS

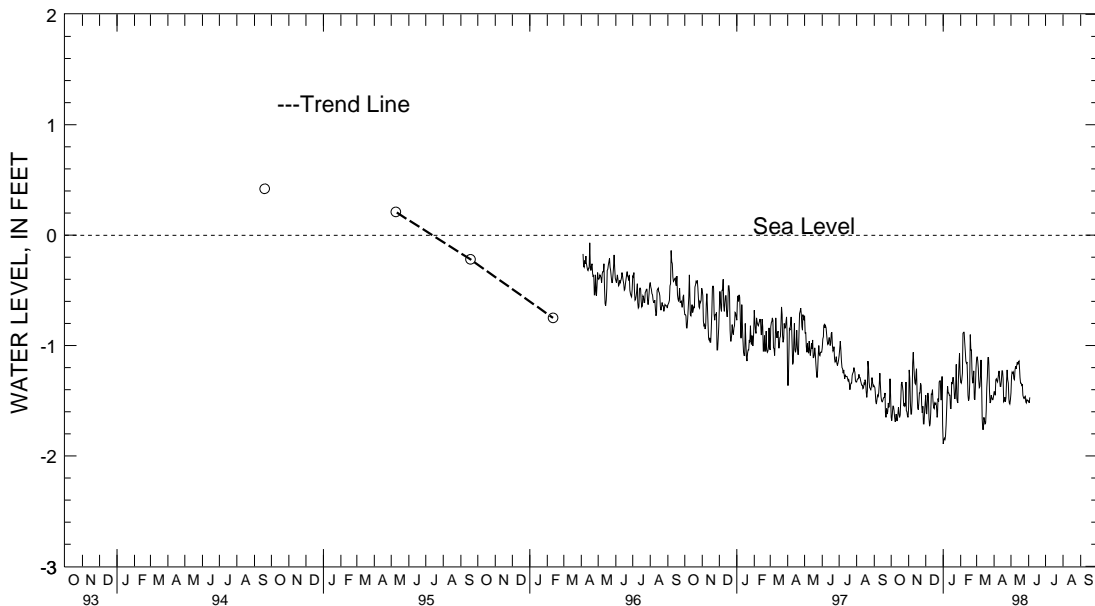
MARYLAND--Continued

CHARLES COUNTY--Continued

CH Da 18--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-1.36	-1.42	-1.28	-1.43	-1.41	-1.50	---	---	---	---	---	---
2	-1.36	-1.42	-1.21	-1.28	-1.42	-1.52	---	---	---	---	---	---
3	-1.31	-1.45	-1.20	-1.24	-1.40	-1.47	---	---	---	---	---	---
4	-1.17	-1.31	-1.23	-1.25	---	---	---	---	---	---	---	---
5	-1.20	-1.30	-1.21	-1.24	---	---	---	---	---	---	---	---
6	-1.29	-1.32	-1.22	-1.30	---	---	---	---	---	---	---	---
7	-1.28	-1.33	-1.22	-1.31	---	---	---	---	---	---	---	---
8	-1.21	-1.29	-1.04	-1.22	---	---	---	---	---	---	---	---
9	-1.03	-1.25	-1.06	-1.19	---	---	---	---	---	---	---	---
10	-1.11	-1.23	-1.18	-1.21	---	---	---	---	---	---	---	---
11	-1.23	-1.31	-1.10	-1.18	---	---	---	---	---	---	---	---
12	-1.31	-1.37	-1.10	-1.15	---	---	---	---	---	---	---	---
13	-1.32	-1.37	-1.15	-1.17	---	---	---	---	---	---	---	---
14	-1.20	-1.32	-1.11	-1.15	---	---	---	---	---	---	---	---
15	-1.20	-1.23	-1.11	-1.14	---	---	---	---	---	---	---	---
16	-1.21	-1.23	-1.14	-1.22	---	---	---	---	---	---	---	---
17	-1.18	-1.30	-1.22	-1.29	---	---	---	---	---	---	---	---
18	-1.30	-1.51	-1.29	-1.34	---	---	---	---	---	---	---	---
19	-1.30	-1.50	-1.33	-1.34	---	---	---	---	---	---	---	---
20	-1.30	-1.47	-1.34	-1.36	---	---	---	---	---	---	---	---
21	-1.47	-1.51	-1.29	-1.35	---	---	---	---	---	---	---	---
22	-1.32	-1.47	-1.34	-1.45	---	---	---	---	---	---	---	---
23	-1.22	-1.32	-1.41	-1.47	---	---	---	---	---	---	---	---
24	-1.18	-1.22	-1.43	-1.48	---	---	---	---	---	---	---	---
25	-1.20	-1.31	-1.39	-1.47	---	---	---	---	---	---	---	---
26	-1.26	-1.34	-1.40	-1.46	---	---	---	---	---	---	---	---
27	-1.34	-1.48	-1.46	-1.51	---	---	---	---	---	---	---	---
28	-1.48	-1.52	-1.48	-1.52	---	---	---	---	---	---	---	---
29	-1.49	-1.53	-1.47	-1.49	---	---	---	---	---	---	---	---
30	-1.43	-1.49	-1.47	-1.50	---	---	---	---	---	---	---	---
31	---	---	-1.42	-1.50	---	---	---	---	---	---	---	---
MONTH	-1.03	-1.53	-1.04	-1.52	---	---	---	---	---	---	---	---
YEAR	-1.21	-1.89										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

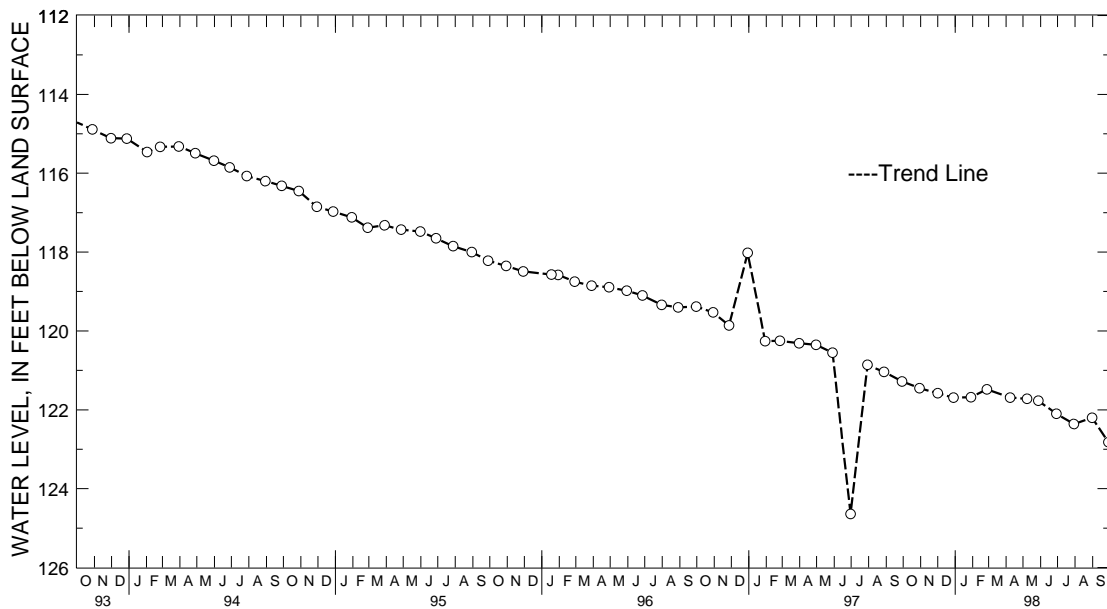
MARYLAND--Continued

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. The June 30, 1997 water-level resulted
 from an extended period of 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, 124.64 ft below land surface, June 30, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	121.45	JAN 29, 1998	121.68	MAY 08, 1998	121.72	JUL 30, 1998	122.36
DEC 01	121.58	FEB 26	121.48	28	121.77	AUG 31	122.20
29	121.69	APR 08	121.69	JUN 29	122.10	SEP 29	122.82
WATER YEAR 1998		HIGHEST	121.45	OCT 30, 1997	LOWEST	122.82	SEP 29, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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, 118.48 ft below land surface, August 31, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	114.67	JAN 29, 1998	114.37	APR 29, 1998	114.90	JUL 30, 1998	114.45
DEC 01	115.72	FEB 26	113.98	MAY 28	114.58	AUG 31	118.48
29	114.39	MAR 30	114.32	JUN 29	114.09	SEP 29	118.46
WATER YEAR 1998		HIGHEST	113.98 FEB 26, 1998	LOWEST	118.48 AUG 31, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

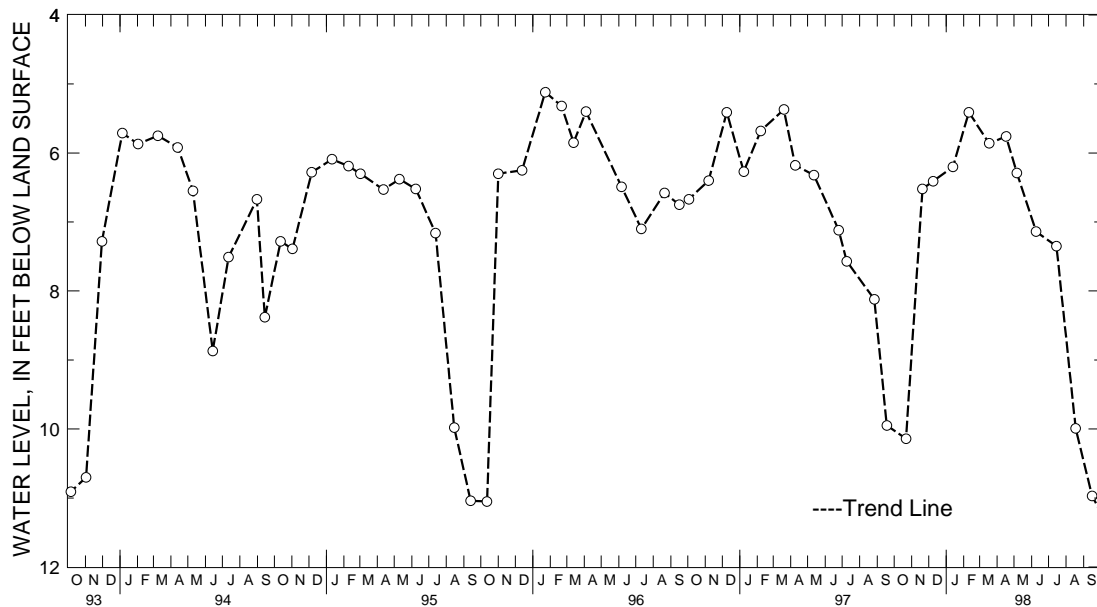
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	10.14	JAN 13, 1998	6.20	APR 17, 1998	5.76	JUL 15, 1998	7.35
NOV 20	6.52	FEB 10	5.41	MAY 06	6.29	AUG 18	9.99
DEC 09	6.41	MAR 18	5.86	JUN 09	7.14	SEP 16	10.97
WATER YEAR 1998		HIGHEST	5.41 FEB 10, 1998	LOWEST	10.97 SEP 16, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

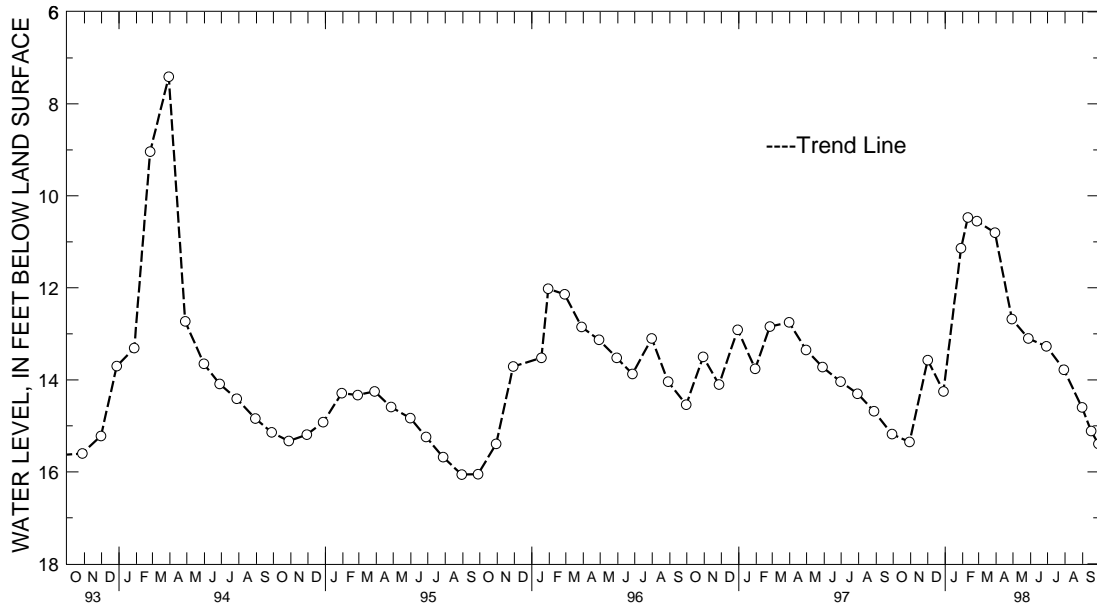
REMARKS.--Maryland Water-Level Network observation well and Maryland Water Quality Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	15.35	FEB 10, 1998	10.47	MAY 28, 1998	13.10	SEP 16, 1998	15.11
DEC 01	13.57	26	10.55	JUN 29	13.27	29	15.39
29	14.25	MAR 30	10.80	JUL 30	13.78		
JAN 29, 1998	11.14	APR 29	12.68	AUG 31	14.60		
WATER YEAR 1998		HIGHEST	10.47 FEB 10, 1998	LOWEST	15.39	SEP 29, 1998	



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 Electric 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 electric 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.
 Missing data due to recorder malfunction.
 PERIOD OF RECORD.--October 1974 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 49.74 ft below sea level, April 14, 1981;
 lowest measured, 122.18 ft below sea level, March 14, 1998.

WATER LEVEL IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-93.85	-111.03	-89.84	-106.67	-91.80	-112.28	-90.30	-108.75	---	---	-91.83	-107.63
2	-93.65	-113.34	-93.42	-108.67	-101.27	-112.80	-101.13	-112.28	---	---	-92.24	-105.78
3	-95.04	-110.05	-90.76	-108.95	-104.08	-115.34	-95.73	-111.50	-92.78	-106.73	-93.39	-107.45
4	-98.01	-113.69	-95.07	-108.61	-101.22	-113.55	-98.65	-112.85	-97.81	-109.99	-97.15	-111.84
5	-96.02	-111.47	-98.04	-108.52	-96.11	-110.95	-95.59	-109.85	-95.01	-110.46	-102.26	-111.21
6	-92.61	-108.72	-93.42	-109.04	-92.67	-112.51	-97.38	-111.99	-91.11	-107.63	-93.28	-111.96
7	---	---	-98.56	-110.37	-91.25	-112.82	-95.70	-110.02	-93.07	-108.67	-96.60	-113.66
8	-95.85	-110.14	-90.39	-106.70	-92.44	-110.54	-95.73	-111.47	-94.81	-109.68	-93.80	-114.76
9	-89.41	-109.65	-104.59	-109.33	-103.24	-114.67	-93.30	-109.85	-91.20	-107.97	-106.13	-115.28
10	-109.65	-115.34	-92.64	-109.73	-96.83	-115.05	-94.00	-111.61	-95.53	-107.92	-115.28	-118.14
11	-99.43	-115.54	-90.50	-106.07	-97.38	-111.61	-91.20	-106.56	-94.84	-108.98	-118.14	-120.16
12	-91.28	-109.42	-92.18	-109.82	-98.21	-111.44	-96.57	-111.44	-96.97	-109.50	-120.16	-121.40
13	-100.84	-111.73	-92.44	-110.60	-91.17	-109.68	-92.38	-110.05	-90.88	-107.71	-121.40	-122.09
14	-92.21	-108.98	-94.40	-110.43	-90.88	-109.42	-89.81	-108.23	-93.10	-109.04	-102.92	-122.18
15	-100.75	-113.20	-87.79	-104.62	-99.11	-112.62	-86.43	-89.81	-89.58	-106.53	-99.92	-118.69
16	-103.27	-113.63	-98.65	-110.72	-99.46	-113.17	-85.68	-86.43	-96.83	-111.55	---	---
17	-96.42	-110.14	-93.54	-108.09	---	---	-85.13	-96.68	-96.94	-110.49	---	---
18	-94.78	-113.14	-93.22	-108.61	---	---	-86.52	-103.04	-95.64	-110.40	---	---
19	-91.83	-110.02	-97.69	-109.62	-106.67	-112.10	-86.78	-103.30	-92.38	-107.40	-116.50	-121.16
20	-101.68	-112.71	-96.42	-109.73	-101.71	-114.85	-86.87	-101.10	-99.51	-110.08	-100.39	-121.39
21	-96.51	-113.29	-102.11	-113.32	-89.98	-110.89	-84.93	-104.25	-93.28	-110.54	-96.61	-116.53
22	-94.58	-105.81	-95.93	-114.24	-93.59	-111.55	-88.83	-103.67	-93.22	-107.83	-96.47	-111.62
23	-92.84	-109.88	-107.19	-110.72	-91.11	-109.39	-87.65	-102.00	-94.11	-107.97	-89.89	-102.64
24	-91.69	-112.62	-108.18	-110.95	-93.02	-107.92	-92.87	-107.22	-91.46	-108.29	-86.29	-102.03
25	-92.09	-108.52	-109.10	-112.65	-88.45	-104.28	-87.73	-100.38	-94.49	-110.14	-88.34	-103.58
26	-92.29	-107.16	-97.15	-114.41	-95.30	-108.20	-95.24	-110.89	-95.21	-109.88	-86.46	-104.54
27	-93.91	-109.04	-96.60	-113.14	-87.79	-101.16	-98.47	-111.50	-92.73	-107.11	-87.58	-105.27
28	-92.93	-107.74	-92.09	-110.92	-91.66	-108.41	-94.03	-111.41	-94.37	-109.24	-86.06	-102.08
29	-90.45	-110.31	-98.30	-113.98	-93.62	-110.75	---	---	---	---	-87.34	-103.34
30	-92.84	-107.77	-92.99	-112.33	-89.81	-110.11	---	---	---	---	-86.26	-103.11
31	-94.32	-109.91	---	---	-91.69	-108.18	---	---	---	---	-88.10	-102.52
MONTH	-89.41	-115.54	-87.79	-114.41	-87.79	-115.34	-84.93	-112.85	-89.58	-111.55	-86.06	-122.18

GROUND-WATER LEVELS

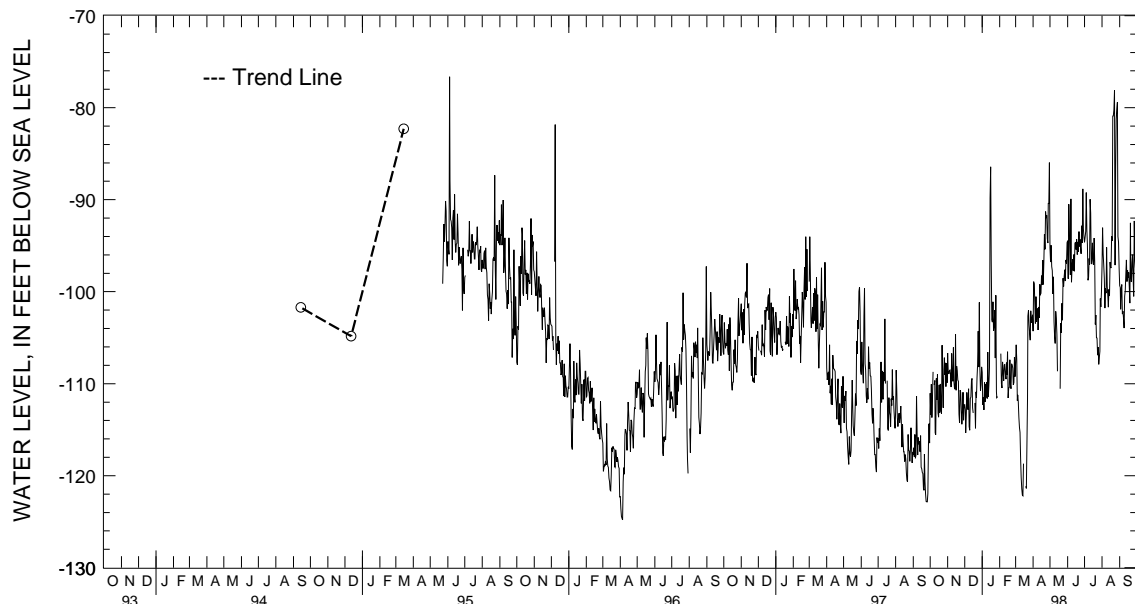
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

CH Ee 70--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-86.11	-104.28	-74.51	-95.21	-79.16	-94.46	-78.41	-94.63	-83.95	-97.26	-86.81	-99.34
2	-84.15	-98.90	-79.01	-96.77	-83.78	-98.59	-80.02	-94.06	-80.25	-93.04	-86.72	-99.54
3	-85.82	-99.13	-80.74	-94.95	-79.04	-90.50	-79.33	-93.45	-80.66	-95.90	-85.39	-101.91
4	-83.42	-101.18	-80.92	-97.26	-76.99	-92.52	-77.94	-89.23	-81.29	-97.09	-87.56	-99.77
5	-88.48	-103.46	-81.12	-97.72	-78.46	-95.41	-77.25	-93.22	-85.13	-98.56	-87.21	-99.22
6	-85.47	-100.53	-85.51	-100.23	-80.95	-98.18	-79.18	-94.89	-83.66	-101.79	-90.47	-102.43
7	-88.42	-103.28	-85.13	-98.39	-78.41	-89.90	-86.66	-98.76	-87.07	-99.66	-87.24	-102.11
8	-85.91	-101.97	-84.35	-103.24	-79.65	-98.96	-83.08	-98.42	-85.57	-100.15	-88.16	-102.89
9	-88.07	-101.82	-90.85	-104.83	-78.69	-97.38	-83.89	-96.37	-82.82	-95.18	-89.96	-103.96
10	-90.18	-104.16	-89.20	-105.63	-75.81	-96.48	-81.52	-97.06	-82.10	-99.40	-85.65	-100.49
11	-86.11	-101.65	-87.30	-102.14	-80.25	-97.72	-78.81	-89.96	-88.74	-100.35	-85.83	-99.89
12	-86.55	-102.82	-89.61	-102.95	-79.53	-95.96	-77.74	-91.46	-86.14	-101.68	-85.22	-98.16
13	-84.42	-99.19	-90.91	-104.65	-79.76	-97.78	-79.47	-96.94	-83.86	-99.74	-81.75	-96.54
14	-85.44	-100.30	-104.65	-108.64	-78.32	-94.75	-84.76	-96.97	-85.77	-100.47	-80.77	-98.91
15	-84.01	-100.18	---	---	-77.57	-94.60	-80.77	-94.69	-83.66	-96.77	-85.02	-97.66
16	-81.14	-98.25	---	---	-77.89	-95.41	-83.23	-96.45	-81.49	-97.29	-82.94	-98.50
17	-83.16	-99.25	---	---	-76.79	-94.29	-82.97	-97.06	-81.15	-97.43	-80.77	-97.90
18	-80.12	-96.56	---	---	-81.73	-95.96	-81.84	-94.17	-81.99	-93.97	-82.85	-99.46
19	-81.99	-99.22	-96.16	-110.54	-78.46	-94.58	-84.67	-96.80	-80.92	-94.49	-82.36	-101.25
20	-81.55	-96.82	-91.02	-103.41	-79.96	-95.67	-85.28	-103.56	-80.57	-80.92	-79.70	-92.52
21	-79.06	-93.78	-99.37	-104.45	-77.65	-93.45	-90.82	-102.54	-78.20	-80.89	-84.38	-98.27
22	-79.06	-95.39	-86.46	-101.27	-79.18	-95.09	-91.95	-105.00	-77.57	-80.20	-84.50	-98.94
23	-77.49	-91.29	-85.22	-103.09	-78.03	-94.29	-91.72	-105.03	-76.59	-78.12	-81.87	-96.83
24	-76.23	-91.99	-83.40	-98.53	-79.99	-95.09	-93.94	-106.90	-77.08	-97.12	-83.43	-95.99
25	-78.98	-91.70	-82.51	-99.43	-81.52	-95.87	-91.14	-106.04	-81.21	-86.46	-83.28	-98.44
26	-75.09	-94.22	-79.88	-98.33	-79.85	-92.84	-93.65	-107.89	-79.36	-81.23	-84.18	-100.52
27	-75.23	-94.71	-82.74	-97.61	-80.11	-94.69	-91.72	-107.14	-78.52	-80.22	-80.51	-92.32
28	-74.18	-90.41	-86.46	-98.85	-76.99	-88.83	-90.10	-106.47	-78.23	-79.42	-82.10	-96.45
29	-76.02	-90.41	-80.60	-96.54	-78.17	-93.16	-86.17	-100.75	-79.07	-94.00	-85.34	-97.38
30	-74.28	-85.97	-81.23	-96.97	-80.02	-94.08	-90.39	-101.65	-82.91	-94.63	-82.97	-97.49
31	---	---	-78.72	-94.66	---	---	-85.88	-100.03	-83.49	-97.32	---	---
MONTH	-74.18	-104.28	-74.51	-110.54	-75.81	-98.96	-77.25	-107.89	-76.59	-101.79	-79.70	-103.96
YEAR	-74.18	-122.18										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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: 217PPSC.
 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 electric 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, 84.75 ft below sea level, Sept. 26, 1997.

WATER LEVEL, IN FEET BELOW SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-80.87	-82.00	-77.15	-78.43	-78.95	-79.24	-78.35	-78.96	-76.96	-77.75	-77.16	-77.91
2	-80.90	-81.38	-77.34	-77.97	-79.20	-79.97	-78.28	-79.20	-76.83	-77.57	-77.14	-77.53
3	-80.19	-80.90	-77.41	-77.97	-79.90	-80.37	-78.90	-79.31	-77.18	-77.61	-77.13	-77.36
4	-80.10	-80.59	-77.80	-78.35	-80.05	-80.37	-78.93	-79.54	-77.21	-77.39	-77.19	-78.11
5	-80.07	-80.44	-78.04	-78.42	-79.31	-80.05	-78.83	-79.54	-77.39	-77.70	-77.88	-78.71
6	-79.30	-80.20	-77.28	-78.09	-79.41	-79.85	-78.85	-79.11	-76.74	-77.48	-78.42	-78.80
7	-79.17	-79.57	-77.28	-77.75	-79.16	-79.91	-78.50	-78.94	-77.01	-77.35	-78.78	-79.30
8	-79.24	-79.59	-76.18	-77.31	-79.53	-80.06	-78.47	-78.81	-77.28	-77.96	-78.99	-79.72
9	-78.64	-79.45	-76.16	-76.76	-79.59	-80.25	-78.11	-78.73	-77.22	-77.81	-78.83	-79.72
10	-78.83	-80.37	-76.76	-77.26	-79.34	-80.43	-78.59	-78.97	-77.54	-77.78	-79.72	-81.37
11	-80.37	-80.74	-76.84	-77.19	-79.11	-79.60	-77.88	-78.78	-77.73	-77.93	-81.37	-82.48
12	-79.04	-80.42	-76.95	-77.49	-78.91	-79.11	-77.92	-78.73	-77.67	-78.10	-82.48	-83.24
13	-78.92	-79.65	-77.44	-77.87	-77.95	-78.91	-77.97	-78.71	-77.31	-78.10	-83.24	-83.63
14	-79.11	-79.65	-77.46	-77.92	-77.51	-77.95	-78.37	-78.71	-77.61	-78.00	-83.57	-83.78
15	-79.24	-79.92	-76.98	-77.87	-77.87	-78.82	-77.33	-78.37	-77.31	-77.88	-82.91	-83.58
16	-79.92	-80.20	-77.05	-78.36	-78.73	-79.20	-76.92	-77.33	-77.49	-78.26	-83.22	-83.91
17	-79.31	-80.01	-78.05	-78.52	-78.62	-79.06	-76.58	-76.95	-77.60	-78.27	-83.91	-84.28
18	-79.22	-79.80	-77.84	-78.19	-78.72	-79.57	-76.36	-76.65	-77.66	-78.07	-83.79	-84.37
19	-78.50	-79.22	-77.80	-78.11	-78.58	-79.46	-75.89	-76.72	-77.31	-77.94	-83.64	-84.10
20	-78.78	-79.53	-77.85	-78.14	-78.85	-79.86	-75.88	-76.03	-77.39	-78.11	-83.12	-84.18
21	-79.19	-79.78	-78.04	-78.88	-78.73	-79.70	-75.54	-75.97	-78.01	-78.38	-81.94	-83.12
22	-78.84	-79.38	-78.81	-79.24	-78.71	-79.17	-75.86	-76.13	-77.76	-78.17	-81.25	-81.94
23	-78.43	-78.84	-78.50	-78.94	-78.60	-78.99	-75.10	-75.87	-77.49	-77.76	-79.66	-81.25
24	-78.43	-79.22	-78.11	-78.50	-78.32	-78.93	-75.11	-76.22	-77.34	-77.91	-78.62	-79.66
25	-78.32	-78.83	-78.37	-78.68	-77.30	-78.32	-76.13	-76.22	-77.91	-78.43	-78.27	-78.82
26	-77.78	-78.73	-78.60	-79.17	-77.30	-77.98	-76.07	-77.41	-78.05	-78.45	-77.51	-78.27
27	-77.43	-77.96	-79.12	-79.69	-76.93	-77.95	-77.41	-77.79	-77.57	-78.43	-77.50	-78.03
28	-77.92	-78.50	-78.77	-79.54	-76.88	-77.60	-77.49	-77.78	-77.68	-77.97	-77.02	-77.50
29	-78.26	-78.77	-78.82	-79.57	-77.60	-77.86	-77.48	-78.25	---	---	-76.92	-77.31
30	-78.25	-78.77	-78.85	-79.54	-77.68	-78.28	-77.48	-78.25	---	---	-76.42	-77.27
31	-78.28	-78.55	---	---	-78.28	-78.84	-77.58	-77.86	---	---	-76.32	-76.78
MONTH	-77.43	-82.00	-76.16	-79.69	-76.88	-80.43	-75.10	-79.54	-76.74	-78.45	-76.32	-84.37

GROUND-WATER LEVELS

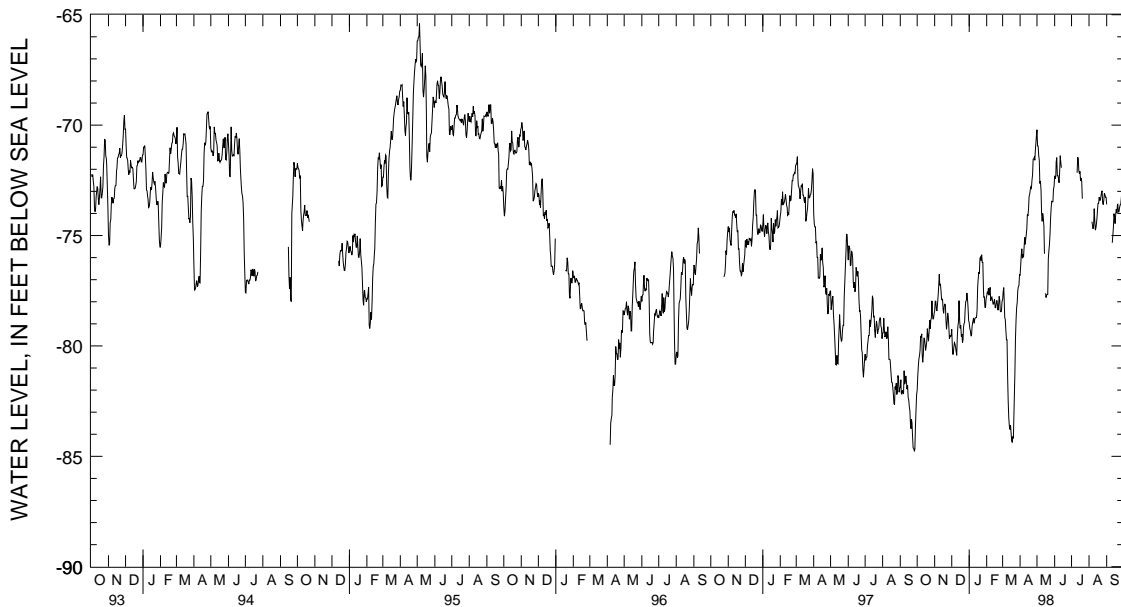
MARYLAND--Continued

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	-76.39	-76.80	-69.56	-70.21	-71.82	-72.30	---	---	---	---	-73.23	-73.59
2	-75.66	-76.39	-70.21	-70.94	-71.86	-72.43	---	---	---	---	---	---
3	-75.60	-75.90	-70.69	-70.95	-71.67	-72.32	---	---	---	---	---	---
4	-75.02	-75.60	-70.94	-71.37	-71.15	-71.67	---	---	---	---	---	---
5	-75.47	-76.03	-71.00	-71.59	-70.98	-71.47	---	---	---	---	---	---
6	-75.28	-75.86	-71.59	-72.64	-71.47	-72.29	---	---	-73.74	-74.37	---	---
7	-75.51	-75.98	-72.35	-72.53	-71.61	-72.29	---	---	-74.37	-74.52	---	---
8	-74.95	-75.51	-72.13	-72.94	-71.39	-72.43	---	---	-74.46	-74.70	---	---
9	-74.52	-75.09	-72.94	-74.00	-72.13	-72.61	---	---	-73.69	-74.55	---	---
10	-74.73	-75.40	-74.00	-74.36	-71.28	-72.13	---	---	-73.31	-73.78	---	---
11	-74.65	-75.19	-73.48	-74.00	-71.38	-71.38	-71.45	-72.16	-73.78	-74.34	-74.78	-75.33
12	-74.70	-74.97	-73.71	-74.20	-71.38	-71.68	-70.98	-71.45	-74.34	-74.76	-74.63	-75.02
13	-74.00	-74.70	-74.19	-74.57	-71.68	-71.93	-71.04	-71.51	-74.13	-74.65	-74.01	-74.63
14	-73.67	-74.05	-74.59	-75.83	---	---	-71.51	-72.07	-74.16	-74.44	-73.64	-74.01
15	-73.77	-74.11	-75.83	---	---	---	-71.89	-72.20	-73.69	-74.16	-73.96	-74.19
16	-73.06	-73.77	-76.79	-77.62	---	---	-71.89	-72.10	-73.55	-73.87	-74.04	-74.46
17	-73.06	-73.23	-77.62	-77.81	---	---	-72.10	-72.53	-73.22	-73.55	-73.53	-74.04
18	-72.74	-73.14	-76.90	-77.70	---	---	-72.17	-72.39	-73.04	-73.55	-73.27	-73.80
19	-72.77	-72.94	-76.90	-77.67	---	---	-72.17	-72.54	-73.02	-73.26	-73.46	-73.98
20	-72.52	-72.80	-76.06	-77.67	---	---	-72.54	-73.33	-73.11	-73.40	-72.73	-73.62
21	-72.50	-72.85	-75.68	-76.06	---	---	---	---	-72.88	-73.40	-72.73	-73.59
22	-72.17	-72.50	-75.14	-75.69	---	---	---	---	-72.97	-73.23	-73.59	-73.93
23	-71.55	-72.25	-74.92	-75.41	---	---	---	---	-72.34	-73.05	-73.57	-73.93
24	-71.02	-71.55	-74.14	-74.92	---	---	---	---	-72.40	-72.97	-73.43	-73.74
25	-71.25	-71.53	-73.73	-74.18	---	---	---	---	-72.97	-73.51	-73.34	-73.62
26	-71.06	-71.46	-73.01	-73.73	---	---	---	---	-73.41	-73.60	-73.34	-73.60
27	-71.21	-71.59	-73.09	-73.45	---	---	---	---	-73.09	-73.41	-72.55	-73.34
28	-70.59	-71.21	-73.29	-73.47	---	---	---	---	-72.92	-73.09	-72.56	-72.98
29	-70.46	-70.84	-72.62	-73.47	---	---	---	---	-72.92	-73.16	-72.98	-73.28
30	-69.80	-70.50	-72.68	-72.90	---	---	---	---	-73.16	-73.27	-73.17	-73.55
31	---	---	-72.21	-72.77	---	---	---	---	-73.15	-73.27	---	---
MONTH	-69.80	-76.80	-69.56	-77.81	-70.98	-72.43	-70.98	-72.54	-73.34	-74.76	-72.55	-75.33
YEAR	-77.43	-84.37										

Daily Low Water Levels



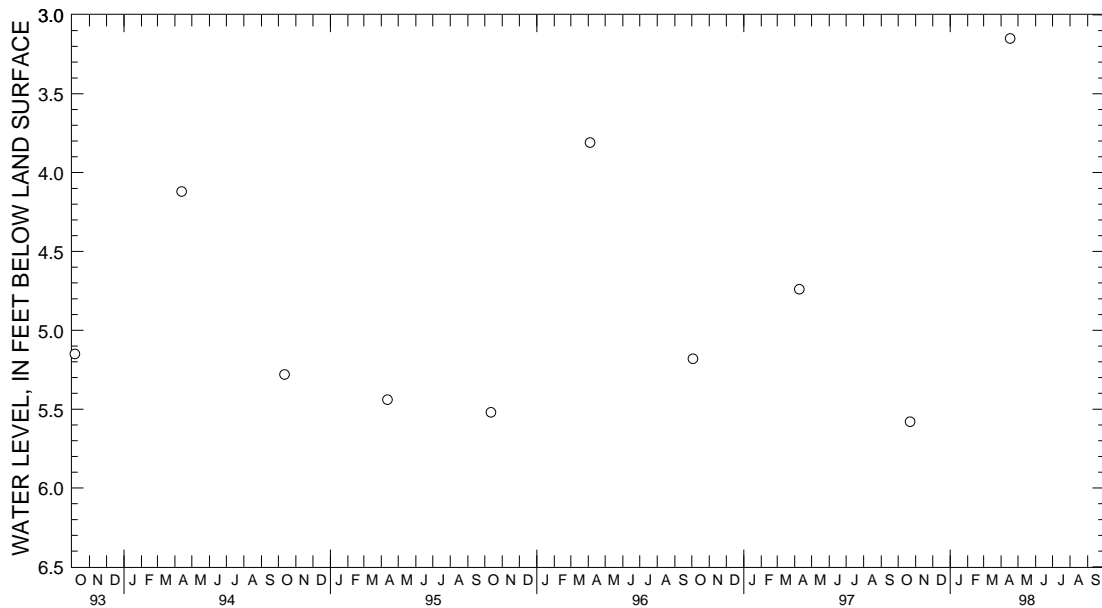
5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.--Measure twice yearly with electric 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, 3.15 ft below land surface, April 17, 1998; lowest measured, 7.58 ft below land surface, April 23, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	5.58	APR 17, 1998	3.15
WATER YEAR 1998		HIGHEST	3.15 APR 17, 1998
		LOWEST	5.58 OCT 22, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

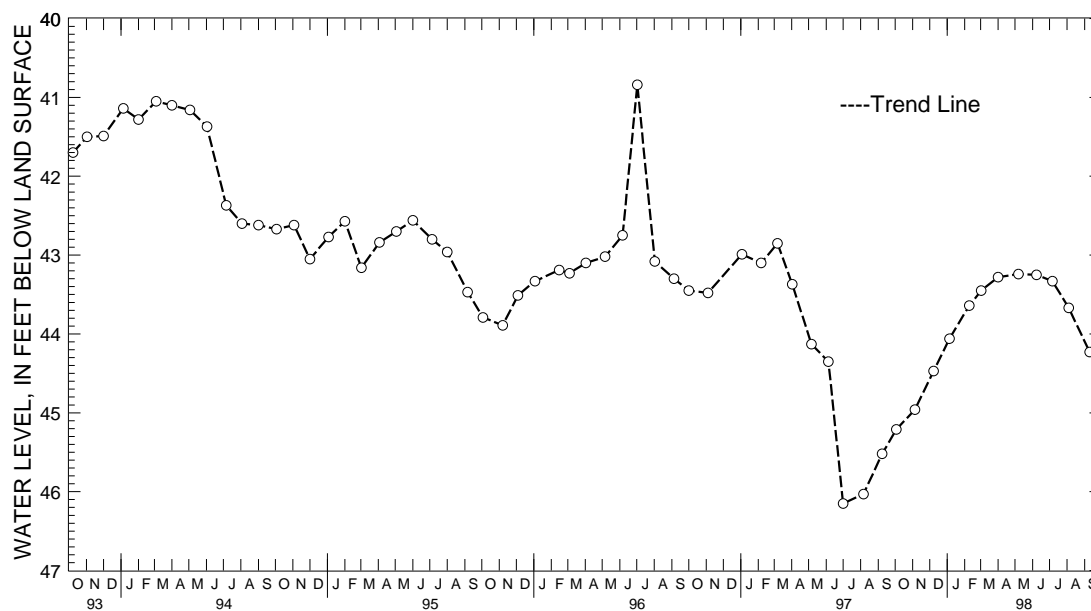
REMARKS.--Maryland Water-Level Network observation well.

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, 46.15 ft below land surface, July 1, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	45.21	JAN 05, 1998	44.06	APR 01, 1998	43.28	JUL 06, 1998	43.33
NOV 05	44.96	FEB 09	43.64	MAY 07	43.24	AUG 04	43.67
DEC 08	44.47	MAR 02	43.45	JUN 08	43.25	SEP 10	44.23
WATER YEAR 1998		HIGHEST	43.24	MAY 07, 1998	LOWEST	45.21	OCT 03, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

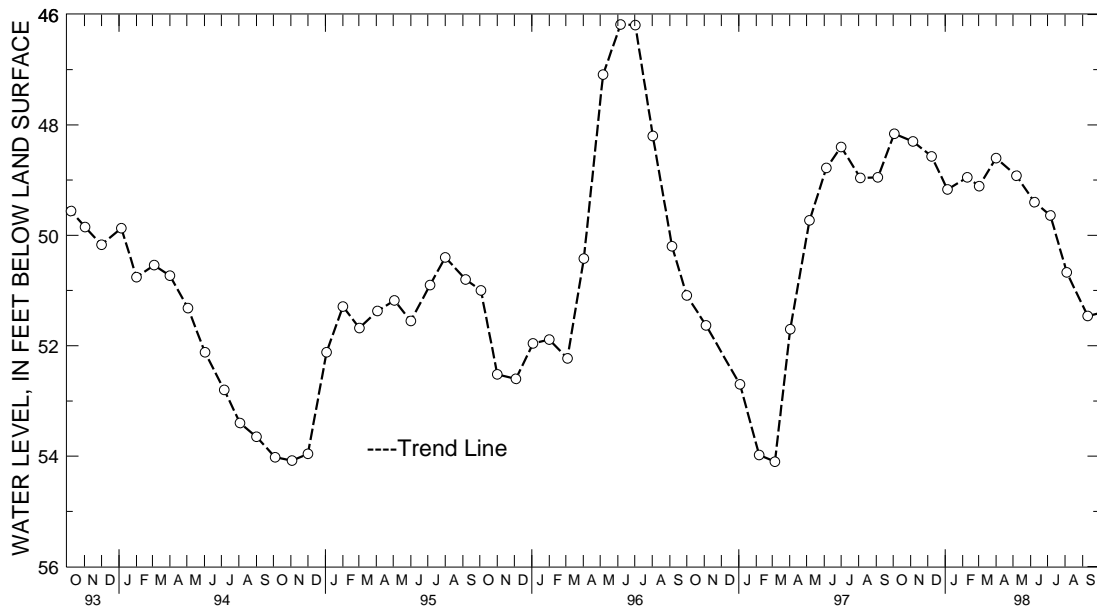
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	45.21	JAN 05, 1998	44.06	APR 01, 1998	43.28	JUL 06, 1998	43.33
NOV 05	44.96	FEB 09	43.64	MAY 07	43.24	AUG 04	43.67
DEC 08	44.47	MAR 02	43.45	JUN 08	43.25	SEP 10	44.23
WATER YEAR 1998		HIGHEST	43.24	MAY 07, 1998	LOWEST	45.21	OCT 03, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

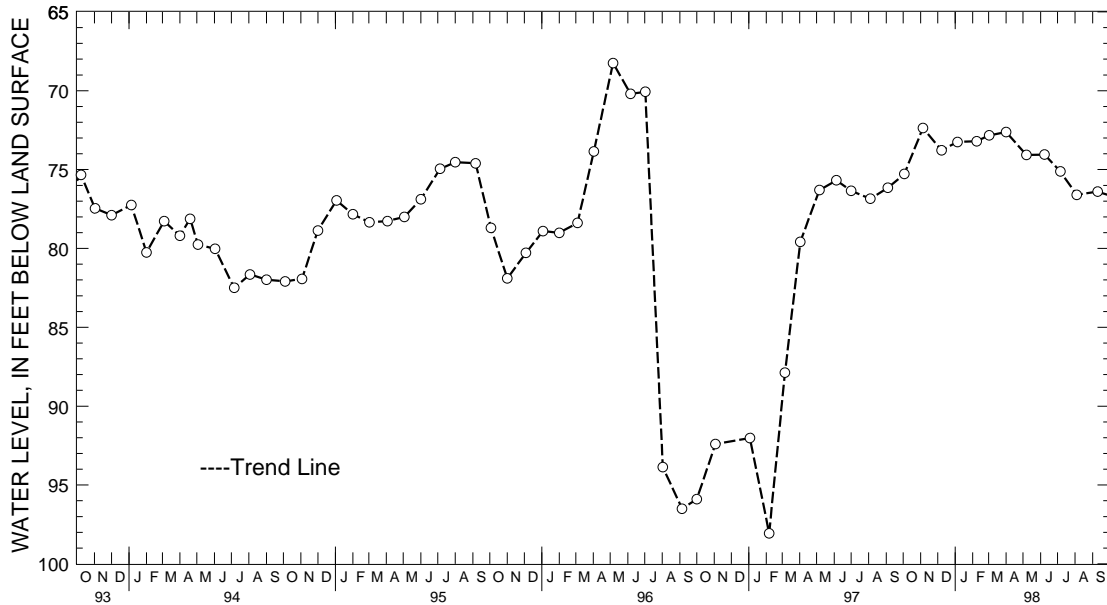
Measuring point: Top of casing, 4.00 ft above land surface.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	75.28	JAN 05, 1998	73.25	APR 01, 1998	72.62	JUL 06, 1998	75.12
NOV 05	72.36	FEB 08	73.20	MAY 07	74.07	AUG 04	76.60
DEC 08	73.78	MAR 02	72.83	JUN 08	74.05	SEP 10	76.40
WATER YEAR 1998		HIGHEST	72.36	NOV 05, 1997	LOWEST	76.60	AUG 04, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

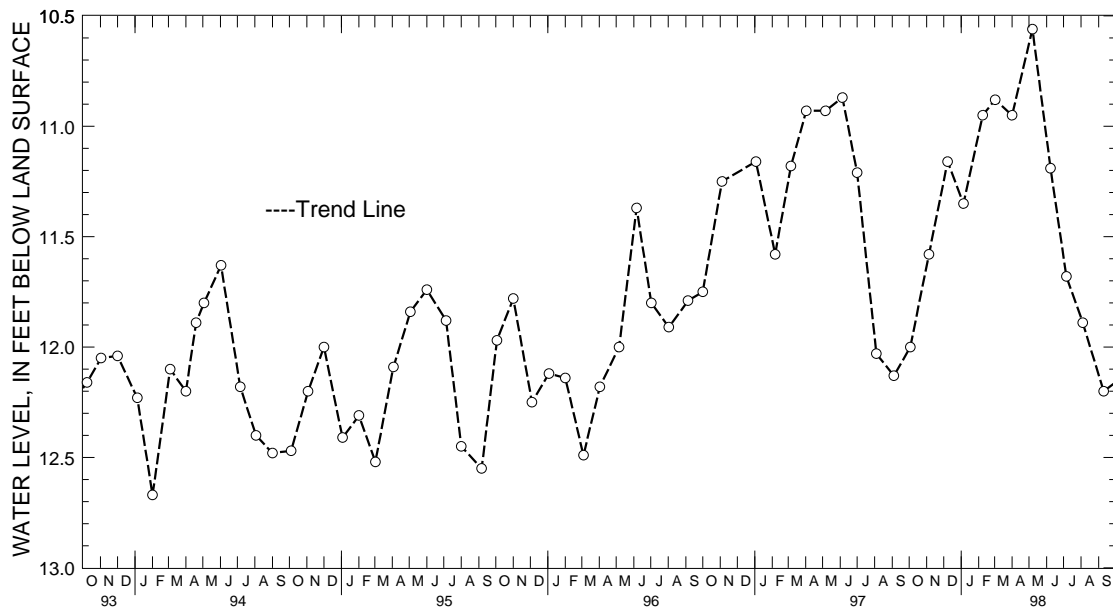
REMARKS.--Maryland Water-Level Network observation well. Water level reported 68 ft below land surface Aug. 30, 1947.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	12.00	JAN 05, 1998	11.35	APR 01, 1998	10.95	JUL 06, 1998	11.68
NOV 05	11.58	FEB 08	10.95	MAY 07	10.56	AUG 04	11.89
DEC 08	11.16	MAR 02	10.88	JUN 08	11.19	SEP 10	12.20
WATER YEAR 1998		HIGHEST	10.56	MAY 07, 1998	LOWEST	12.20	SEP 10, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

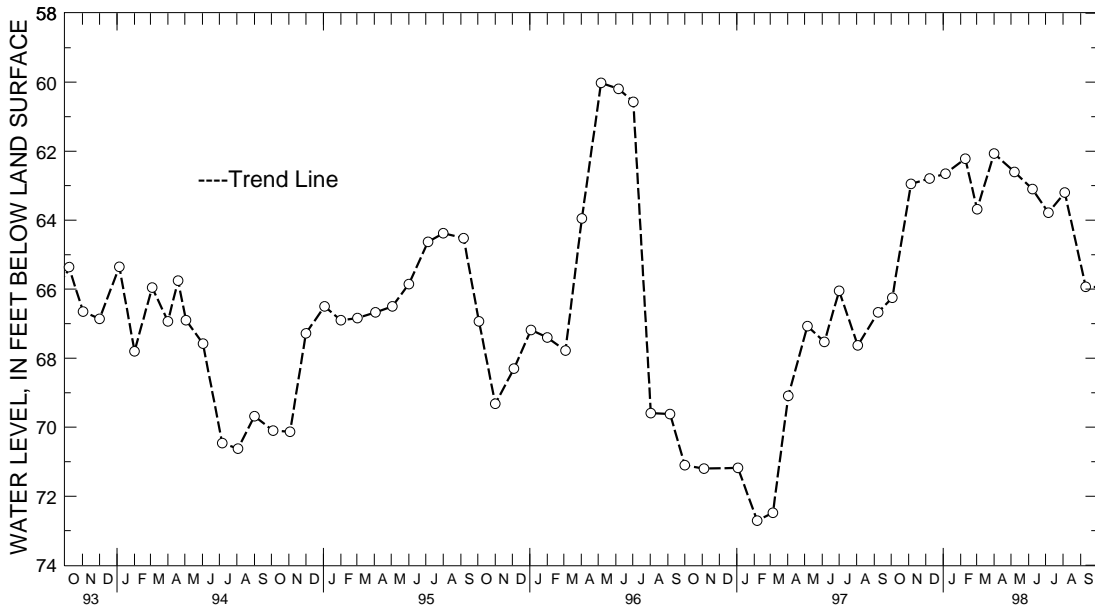
REMARKS.--Maryland Water-Level Network observation well. Water level measured 73.77 ft below land surface, Feb. 14, 1952. Water levels may be affected by nearby pumping. Access to well blocked by construction equipment, from January 1988 through September 1988.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	66.25	JAN 05, 1998	62.65	APR 01, 1998	62.07	JUL 06, 1998	63.78
NOV 05	62.95	FEB 09	62.22	MAY 07	62.60	AUG 04	63.20
DEC 08	62.79	MAR 02	63.68	JUN 08	63.10	SEP 10	65.93
WATER YEAR 1998		HIGHEST	62.07	APR 01, 1998	LOWEST	66.25	OCT 03, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

DORCHESTER COUNTY--Continued

WELL NUMBER.--DO Ce 85. SITE ID.--383256076035301. PERMIT NUMBER.--DO-73-0281.

LOCATION.--Lat 38°32'56", long 76°03'53", Hydrologic Unit 02060005, at Woods Rd. water tower, Cambridge.

Owner: U.S. Geological Survey.

AQUIFER.--Cheswold aquifer of the Calvert Formation of Miocene age. Aquifer code: 122CSLD.

WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 230 ft; casing diameter 4 in., to 220 ft; screen diameter 4 in. from 220 to 230 ft.

INSTRUMENTATION.--Monthly measurements with electric 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.

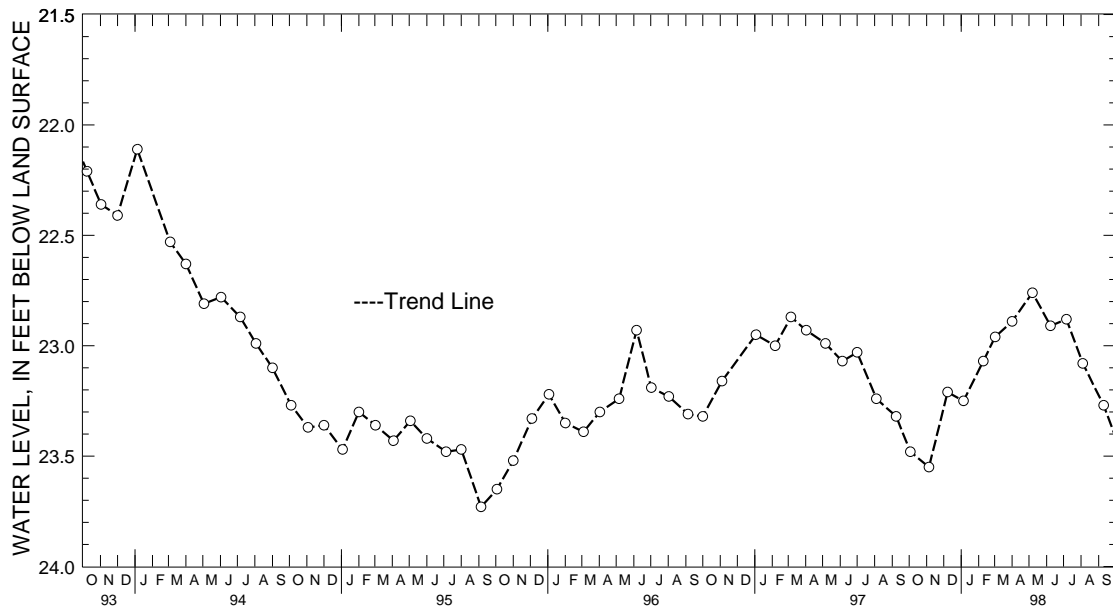
REMARKS.--Maryland Water-Level Network observation well. Reported as DO Ce 78 in previous reports.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	23.48	JAN 05, 1998	23.25	APR 01, 1998	22.89	JUL 06, 1998	22.88
NOV 05	23.55	FEB 09	23.07	MAY 07	22.76	AUG 04	23.08
DEC 08	23.21	MAR 02	22.96	JUN 08	22.91	SEP 10	23.27
WATER YEAR 1998		HIGHEST	22.76	MAY 07, 1998	LOWEST	23.55	NOV 05, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

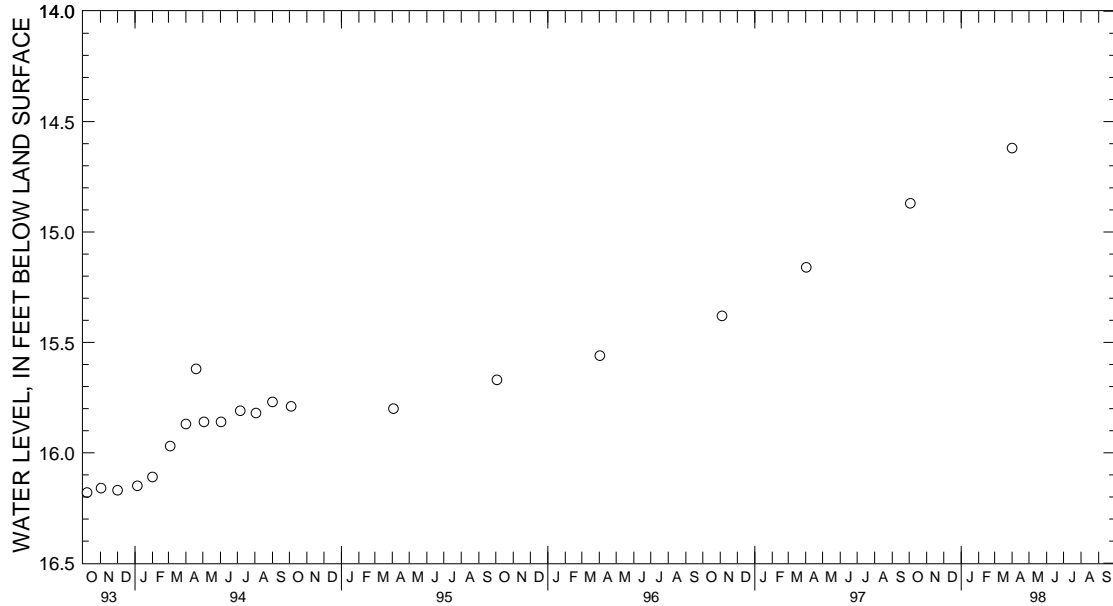
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	14.87	APR 01, 1998	14.62
WATER YEAR 1998		HIGHEST 14.62	APR 01, 1998
		LOWEST 14.87	OCT 03, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

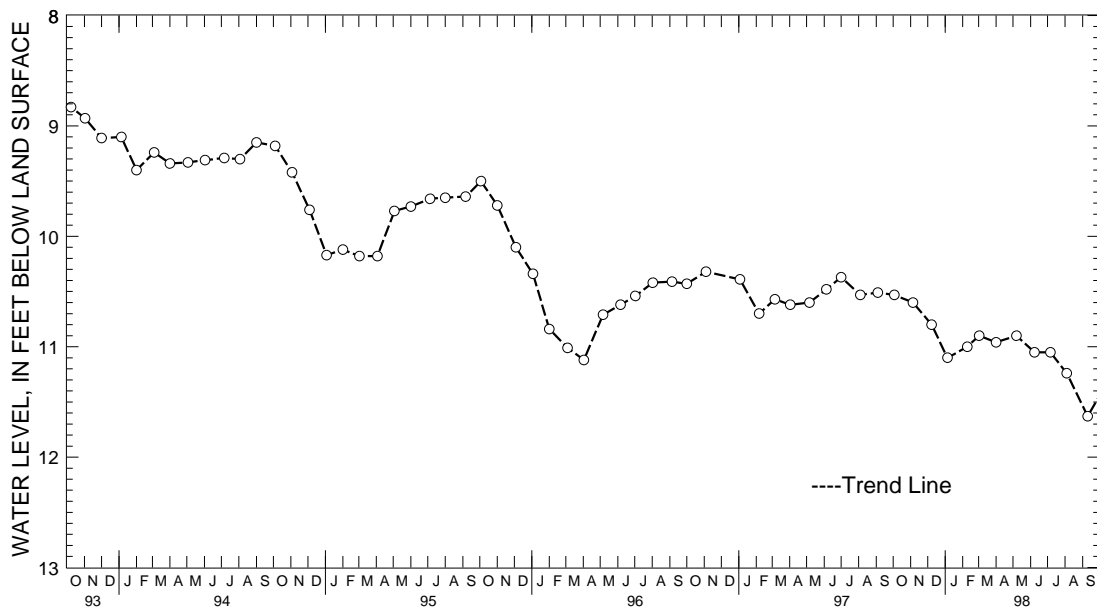
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	10.53	JAN 05, 1998	11.10	APR 01, 1998	10.96	JUL 06, 1998	11.05
NOV 05	10.60	FEB 09	11.00	MAY 07	10.90	AUG 04	11.24
DEC 08	10.80	MAR 02	10.90	JUN 08	11.05	SEP 10	11.63
WATER YEAR 1998	HIGHEST	10.53	OCT 03, 1997	LOWEST	11.63	SEP 10, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

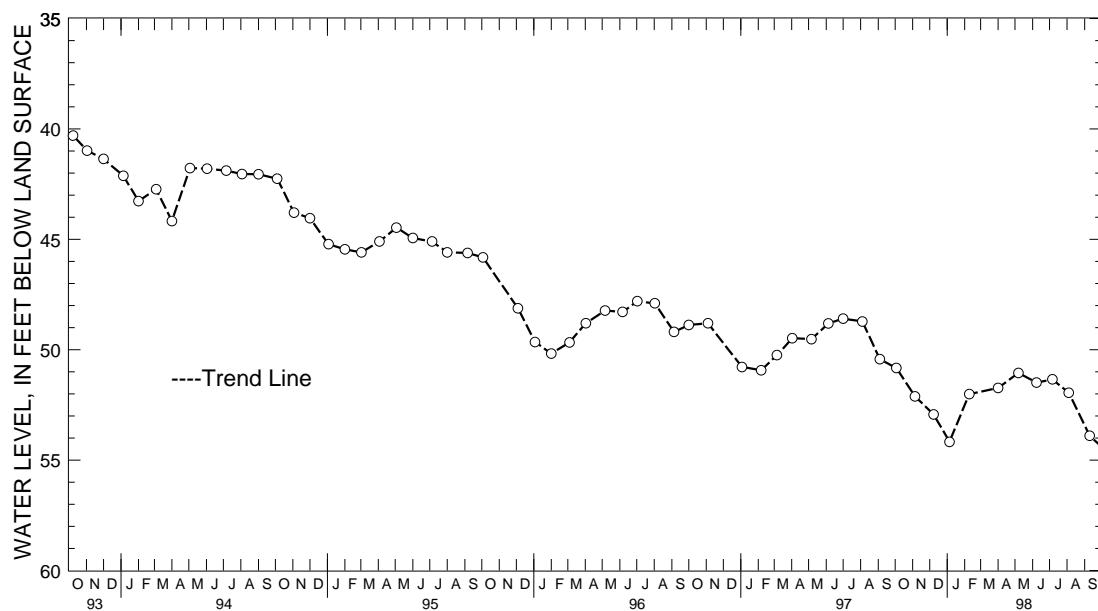
REMARKS.--Maryland Water-Level Network observation well.

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, 54.17 ft below land surface, Jan. 5, 1998

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	50.83	JAN 05, 1998	54.17	MAY 07, 1998	51.05	AUG 04, 1998	51.95
NOV 05	52.11	FEB 09	52.01	JUN 08	51.49	SEP 10	53.90
DEC 08	52.93	APR 01	51.73	JUL 06	51.34		
WATER YEAR 1998		HIGHEST	50.83	OCT 03, 1997	LOWEST	54.17	JAN 05, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

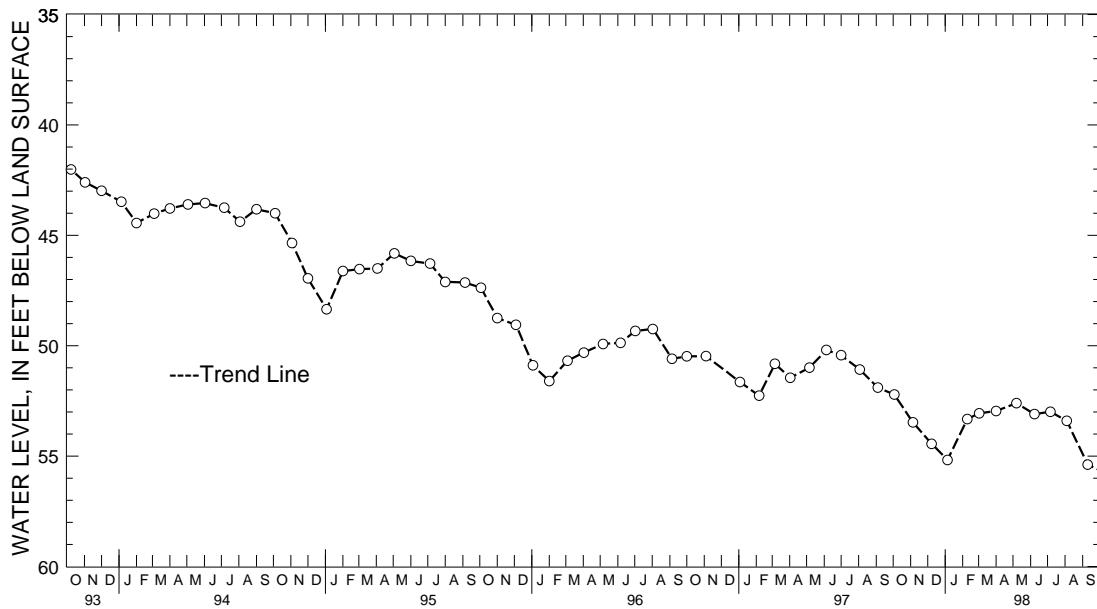
MARYLAND--Continued

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 electric 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, 55.38 ft below land surface, Sept. 10, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	52.21	JAN 05, 1998	55.17	APR 01, 1998	52.96	JUL 06, 1998	52.99
NOV 05	53.47	FEB 09	53.32	MAY 07	52.60	AUG 04	53.40
DEC 08	54.44	MAR 02	53.06	JUN 08	53.10	SEP 10	55.38
WATER YEAR 1998		HIGHEST	52.21	OCT 03, 1997	LOWEST	55.38	SEP 10, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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 electric 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. Missing data due to recorder malfunction. The April 1, 1997 record low water level is due to an extended period of pumping to fill the storage tank, which was drained for maintenance.
 PERIOD OF RECORD.--April 1990 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.34 ft above sea level, February 7, 1998; lowest measured, 11.11 ft below sea level, April 1, 1997.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	1.78	-5.89	2.38	1.29	2.87	-4.95	1.89	1.17	3.51	3.03	3.88	3.51
2	1.30	-5.97	2.69	2.21	2.18	-5.74	2.25	-4.55	3.50	-.28	3.90	3.47
3	1.62	-4.80	2.47	-5.34	1.93	-5.03	1.99	1.38	3.51	3.07	3.85	3.44
4	1.80	-5.12	2.09	-5.90	2.25	1.56	2.13	1.58	3.38	-2.55	3.69	3.32
5	1.80	-6.39	1.49	-6.19	2.39	-4.78	2.16	-4.24	3.85	-3.46	3.60	3.23
6	1.31	-6.73	1.42	-5.34	2.49	2.01	2.59	1.92	4.24	-2.15	3.38	2.93
7	1.24	-6.31	2.23	-3.29	2.44	-5.18	2.60	-3.65	4.34	3.93	3.52	3.10
8	1.39	-6.42	2.82	2.10	1.36	-6.00	3.05	2.49	4.18	3.78	3.47	3.07
9	1.76	-5.11	2.91	2.49	1.44	-6.21	3.24	2.80	4.20	-3.20	3.99	3.45
10	1.82	-5.62	2.75	-4.45	2.11	-5.18	2.99	2.47	3.86	1.18	4.15	3.37
11	1.74	1.26	2.37	-5.61	2.39	-3.76	3.02	2.50	3.54	3.06	3.37	2.47
12	2.07	1.59	1.73	-5.43	2.63	-3.66	2.94	-3.54	3.85	3.21	2.87	1.97
13	2.16	-5.32	2.09	1.33	2.82	2.28	3.08	2.38	3.59	2.93	2.30	1.35
14	2.18	1.31	2.41	-4.44	2.69	2.04	2.70	-3.20	3.10	2.39	3.10	1.53
15	2.28	1.46	2.80	2.21	2.32	-3.94	2.74	-2.13	3.10	2.42	2.91	2.55
16	2.00	1.38	2.84	2.30	2.19	-5.02	2.92	-.83	3.04	2.29	2.83	2.22
17	2.00	-3.17	2.30	-5.51	2.04	-5.59	3.22	2.36	3.47	2.53	3.10	2.32
18	1.99	-5.46	1.91	-4.82	2.48	1.69	3.37	2.99	3.72	3.31	3.30	-3.69
19	1.75	-6.26	2.40	1.67	2.49	-3.17	3.32	-1.51	3.78	3.32	3.11	-3.41
20	1.45	-6.54	2.50	-4.46	2.36	1.95	3.28	2.82	3.46	2.85	3.55	-1.46
21	1.50	-6.18	2.18	-3.69	2.44	1.83	2.97	-3.95	3.45	3.07	4.03	-3.08
22	1.59	-5.25	2.17	-5.92	2.43	-5.05	2.81	-3.58	3.23	2.88	3.90	-3.65
23	1.41	-5.68	2.00	-5.13	2.19	-4.93	3.44	-1.44	3.23	2.71	3.31	-3.46
24	1.40	-5.48	2.15	-4.93	2.64	1.93	3.49	3.05	3.61	3.04	3.43	-3.55
25	1.81	1.31	1.69	-5.59	3.08	2.64	3.29	2.59	3.38	2.83	3.00	-3.21
26	2.09	1.32	1.96	-5.08	2.95	-4.11	2.94	-4.15	3.52	2.28	3.61	2.99
27	2.38	-4.10	2.06	1.40	2.60	2.09	2.64	-5.23	3.65	3.21	3.61	-1.49
28	2.10	-5.78	2.21	1.49	2.56	2.01	2.26	-5.05	3.87	3.36	3.40	2.83
29	1.46	-6.13	2.47	1.87	3.01	2.34	3.11	-4.55	---	---	3.45	2.79
30	1.13	-5.02	2.84	2.13	3.42	-2.62	3.78	-3.05	---	---	3.36	-3.44
31	1.49	-5.69	---	---	2.76	-5.04	3.53	3.08	---	---	---	---
MONTH	2.38	-6.73	2.91	-6.19	3.42	-6.21	3.78	-5.23	4.34	-3.46	4.15	-3.69

GROUND-WATER LEVELS

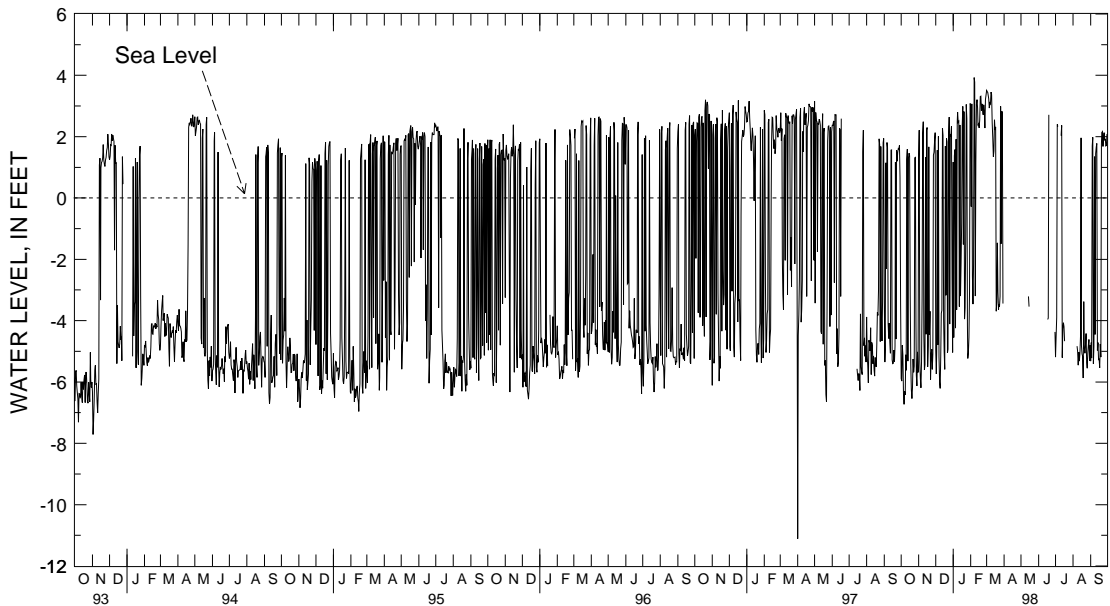
MARYLAND--Continued

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	---	---	---	---	---	---	2.61	-5.19	---	---	2.10	-5.32
2	---	---	---	---	---	---	2.32	-4.51	---	---	2.14	-4.71
3	---	---	---	---	---	---	2.47	-3.89	---	---	2.41	-5.22
4	---	---	---	---	---	---	2.78	2.40	---	---	2.31	1.70
5	---	---	---	---	---	---	3.08	2.33	---	---	2.47	1.98
6	---	---	---	---	---	---	---	---	---	---	2.50	-5.41
7	---	---	---	---	---	---	---	---	---	---	2.10	-4.83
8	---	---	---	---	---	---	---	---	2.25	-4.83	2.09	1.35
9	---	---	---	---	---	---	---	---	2.27	-5.00	2.11	-4.45
10	---	---	---	---	---	---	---	---	2.23	-5.45	2.08	1.45
11	---	---	---	---	---	---	2.73	2.03	2.47	-5.03	2.22	1.66
12	---	---	---	---	---	---	2.87	2.37	2.02	-5.32	2.30	1.78
13	---	---	---	---	---	---	2.88	-5.21	2.04	-5.07	2.30	-4.97
14	---	---	3.75	-3.21	---	---	2.50	-4.27	2.25	-4.52	2.14	-4.71
15	---	---	3.55	-3.54	---	---	2.50	-4.07	2.37	1.96	2.32	-5.27
16	---	---	---	---	---	---	2.48	-4.19	2.43	-4.81	2.06	-5.26
17	---	---	---	---	2.88	-3.96	2.51	-4.67	2.10	-5.09	1.91	-5.54
18	---	---	---	---	2.91	-3.92	---	---	2.11	-5.16	2.02	-4.76
19	---	---	---	---	2.88	2.71	---	---	1.96	-5.87	2.18	-5.19
20	---	---	---	---	---	---	---	---	2.08	-3.38	2.42	1.76
21	---	---	---	---	---	---	---	---	2.33	-4.88	2.53	2.13
22	---	---	---	---	---	---	---	---	2.21	-5.06	2.55	2.16
23	---	---	---	---	---	---	---	---	2.17	-4.79	2.26	1.68
24	---	---	---	---	---	---	---	---	2.32	-4.42	2.48	2.01
25	---	---	---	---	---	---	---	---	2.15	-5.36	2.47	2.13
26	---	---	---	---	---	---	---	---	1.93	-5.55	2.39	1.88
27	---	---	---	---	---	---	---	---	1.90	-5.05	2.38	1.93
28	---	---	---	---	---	---	---	---	2.07	-4.79	2.38	1.70
29	---	---	---	---	---	---	---	---	2.31	-4.61	2.28	1.72
30	---	---	---	---	2.94	-4.37	---	---	2.32	-5.31	2.44	2.09
31	---	---	---	---	---	---	---	---	1.99	-4.81	---	---
MONTH	---	---	3.75	-3.54	2.94	-4.37	3.08	-5.21	2.47	-5.87	2.55	-5.54
YEAR	4.34	-6.73										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

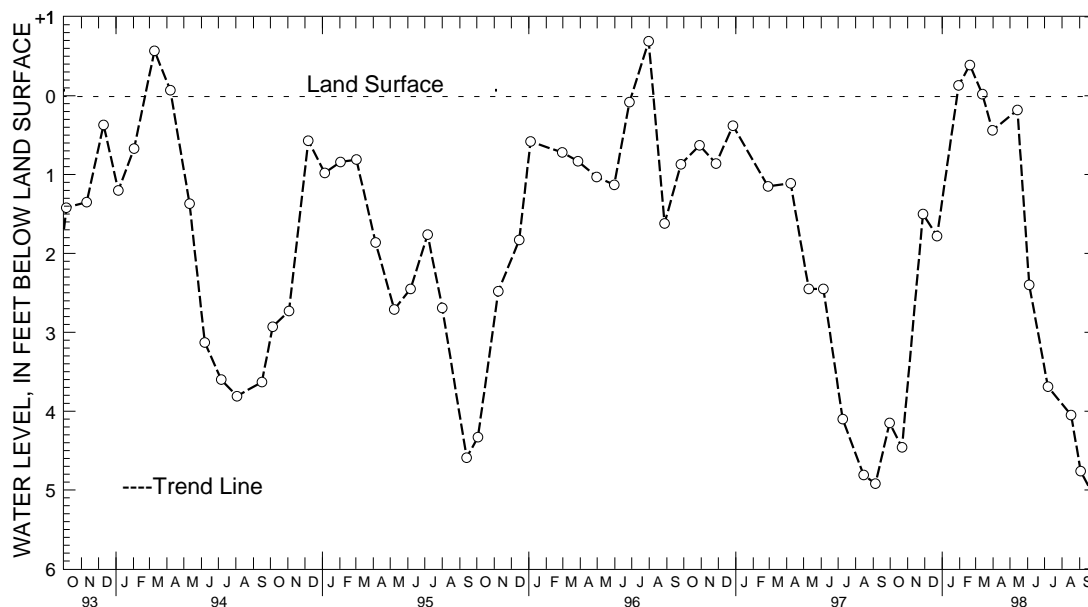
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--April 1982 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.69 ft above land surface, July 31, 1996; lowest measured, 5.43 ft below land surface, June 2, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	4.46	JAN 30, 1998	+0.13	MAR 31, 1998	.44	JUL 07, 1998	3.69
NOV 28	1.50	FEB 19	+0.39	MAY 14	.18	AUG 17	4.05
DEC 23	1.78	MAR 13	+0.02	JUN 04	2.40	SEP 03	4.76
WATER YEAR 1998		HIGHEST	+0.39 FEB 19, 1998	LOWEST	4.76 SEP 03, 1998		



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

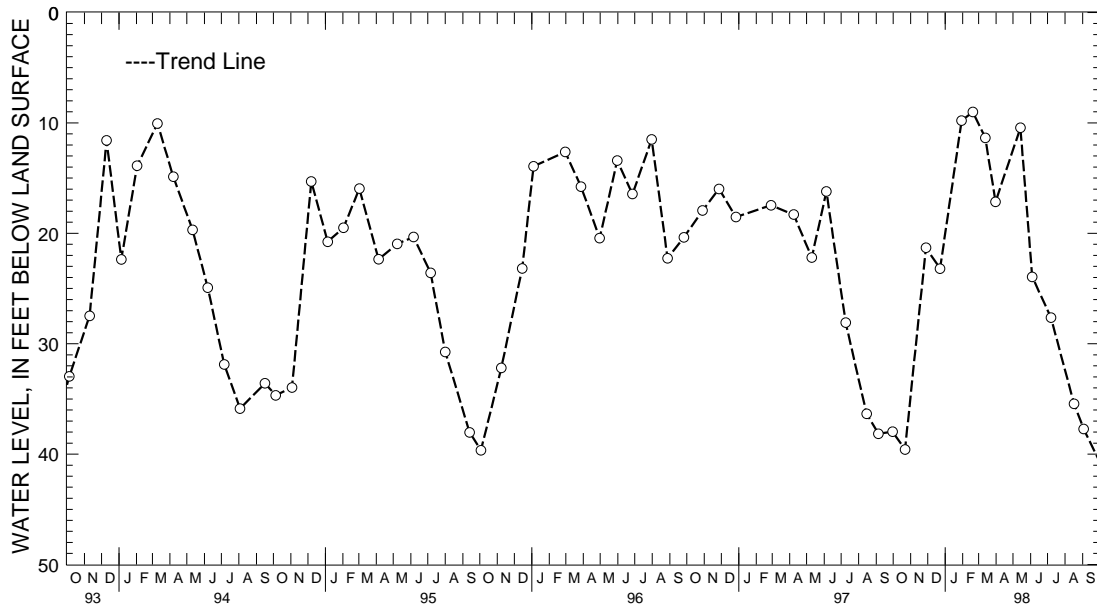
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	39.59	JAN 30, 1998	9.79	MAR 31, 1998	17.14	JUL 07, 1998	27.64
NOV 28	21.30	FEB 19	9.01	MAY 14	10.44	AUG 17	35.45
DEC 23	23.20	MAR 13	11.36	JUN 04	23.94	SEP 03	37.73
WATER YEAR 1998		HIGHEST	9.01	FEB 19, 1998	LOWEST	39.59	OCT 22, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

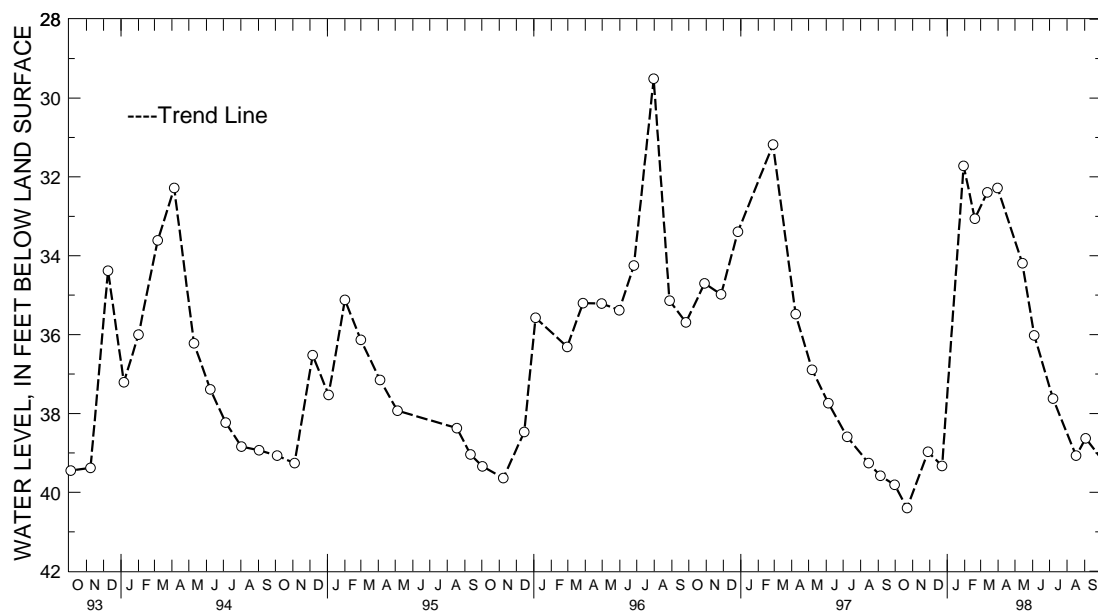
REMARKS.--Maryland Water-Level Network observation well. Residents use well as their primary water source.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	40.40	JAN 30, 1998	31.72	MAR 31, 1998	32.28	JUL 07, 1998	37.62
NOV 28	38.97	FEB 19	33.06	MAY 14	34.19	AUG 17	39.07
DEC 23	39.33	MAR 13	32.39	JUN 04	36.02	SEP 03	38.63
WATER YEAR 1998		HIGHEST	31.72	JAN 30, 1998	LOWEST	40.40	OCT 22, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

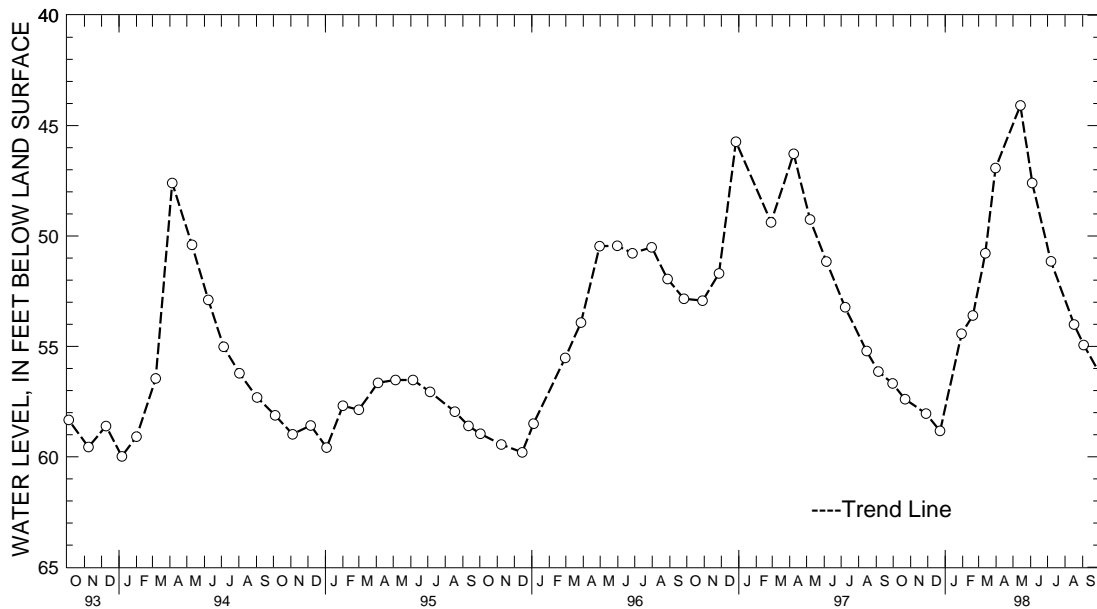
MARYLAND--Continued

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, 44.09 ft below land surface, May 14, 1998;
 lowest measured, 62.27 ft below land surface, Feb. 9, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	57.39	JAN 30, 1998	54.43	MAR 31, 1998	46.92	JUL 07, 1998	51.15
NOV 28	58.04	FEB 19	53.60	MAY 14	44.09	AUG 17	54.01
DEC 23	58.83	MAR 13	50.78	JUN 04	47.60	SEP 03	54.94
WATER YEAR 1998		HIGHEST	44.09	MAY 14, 1998	LOWEST	58.83	DEC 23, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

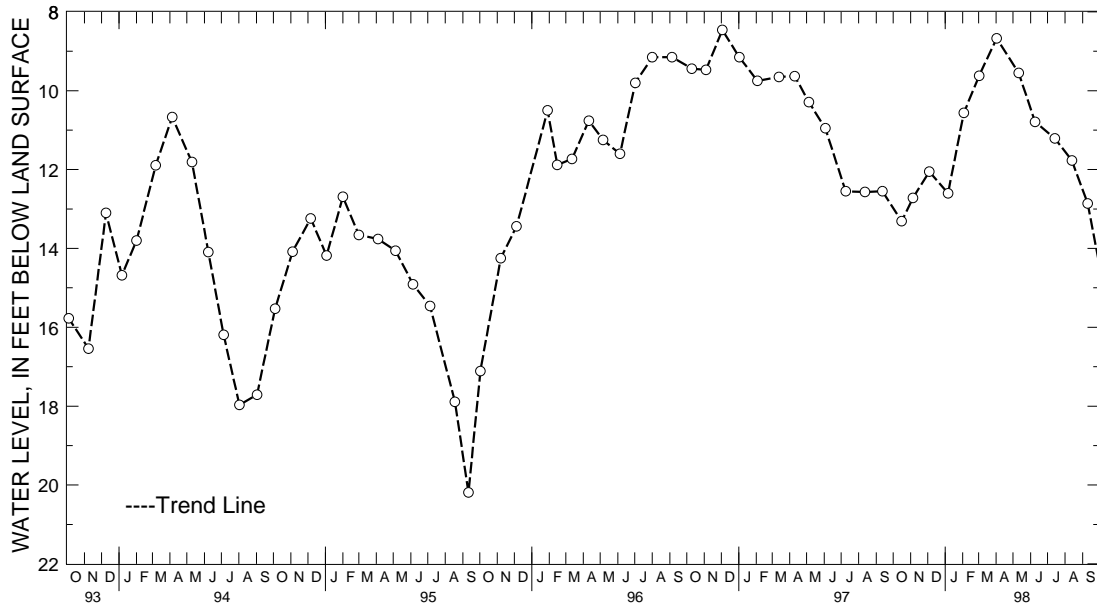
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	13.31	JAN 06, 1998	12.60	APR 02, 1998	8.67	JUL 14, 1998	11.21
NOV 05	12.72	FEB 03	10.56	MAY 11	9.55	AUG 13	11.77
DEC 04	12.05	MAR 02	9.62	JUN 09	10.79	SEP 10	12.86
WATER YEAR 1998		HIGHEST	8.67	APR 02, 1998	LOWEST	13.31	OCT 16, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

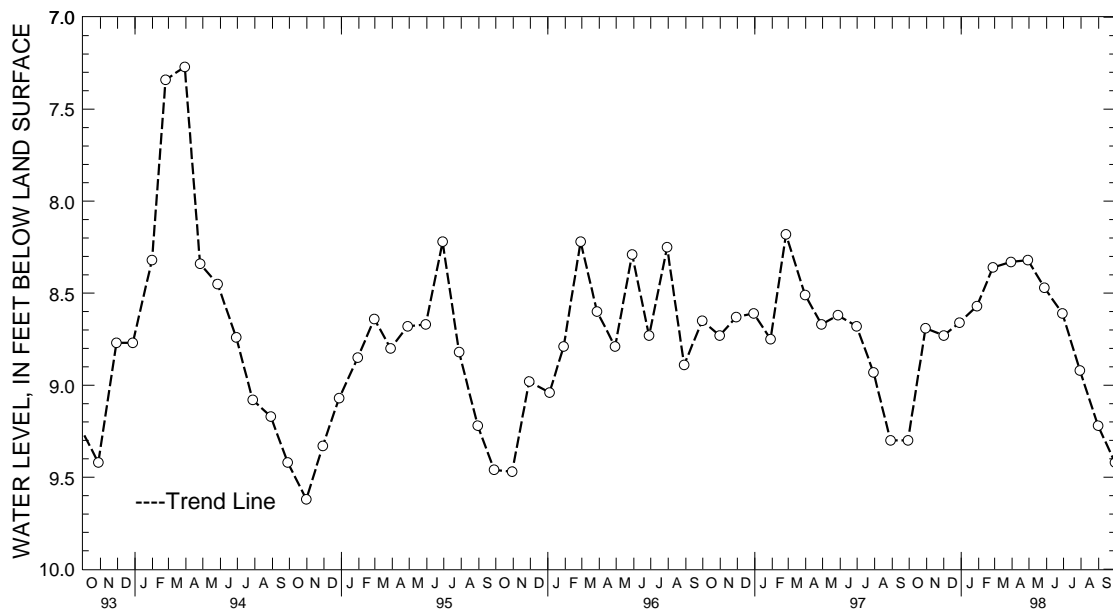
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	8.69	JAN 29, 1998	8.57	APR 29, 1998	8.32	JUL 30, 1998	8.92
DEC 01	8.73	FEB 26	8.36	MAY 28	8.47	AUG 31	9.22
29	8.66	MAR 30	8.33	JUN 29	8.61	SEP 30	9.42
WATER YEAR 1998		HIGHEST	8.32	APR 29, 1998	LOWEST	9.42	SEP 30, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

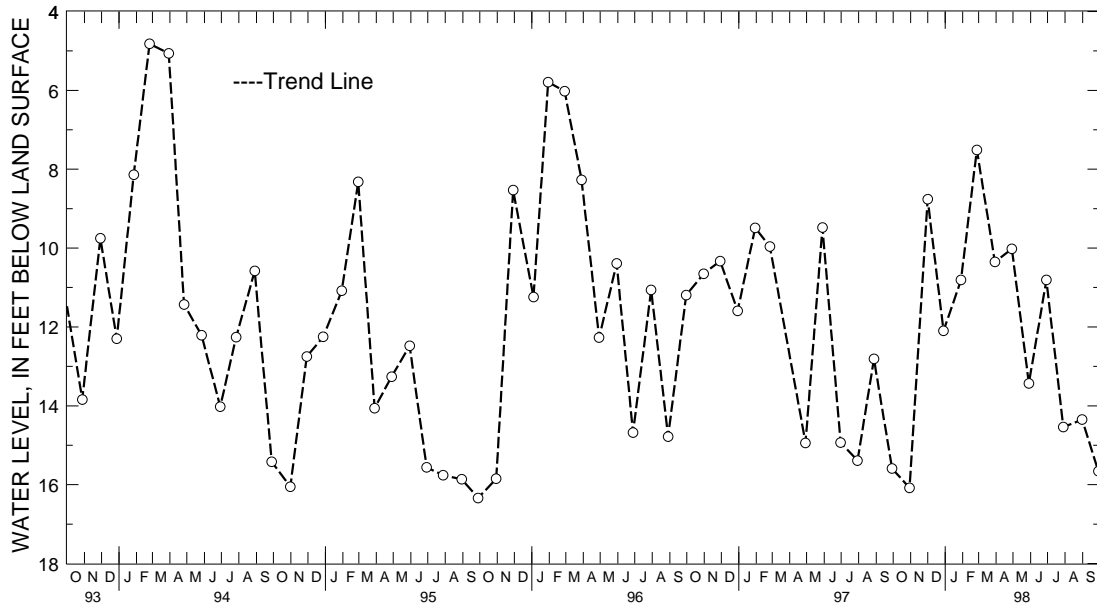
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	16.08	JAN 29, 1998	10.81	APR 29, 1998	10.02	JUL 29, 1998	14.54
DEC 01	8.76	FEB 26	7.51	MAY 29	13.43	AUG 31	14.35
29	12.10	MAR 30	10.35	JUN 29	10.81	SEP 29	15.66
WATER YEAR 1998		HIGHEST	7.51 FEB 26, 1998	LOWEST	16.08	OCT 30, 1997	



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

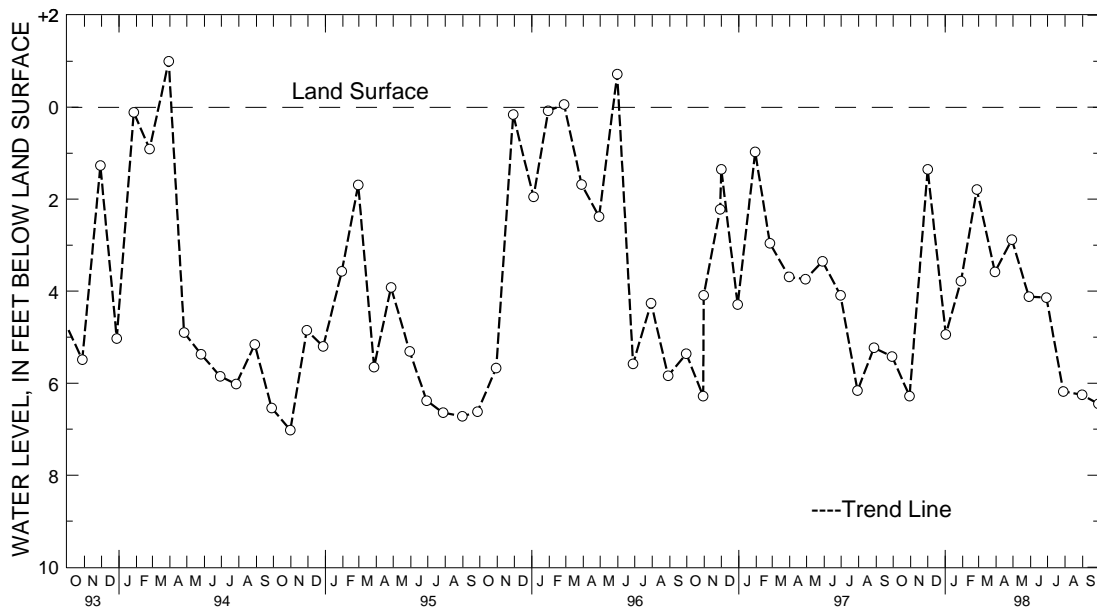
MARYLAND--Continued

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, near 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, artesian 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	6.28	JAN 29, 1998	3.78	APR 29, 1998	2.88	JUL 29, 1998	6.18
DEC 01	1.35	FEB 26	1.79	MAY 29	4.12	AUG 31	6.25
JAN 02, 1998	4.94	MAR 30	3.58	JUN 29	4.14	SEP 29	6.45
WATER YEAR 1998		HIGHEST	1.35	DEC 01, 1997	LOWEST	6.45	SEP 29, 1998

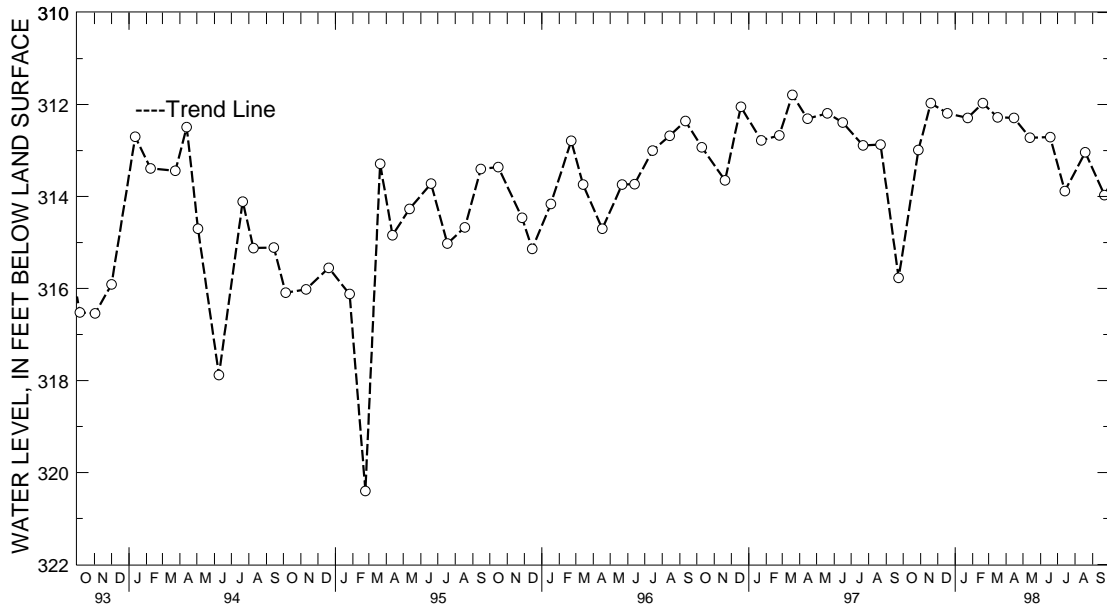


5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	312.99	JAN 23, 1998	312.29	APR 15, 1998	312.29	JUL 14, 1998	313.88
NOV 19	311.97	FEB 19	311.97	MAY 13	312.72	AUG 19	313.04
DEC 18	312.19	MAR 17	312.28	JUN 18	312.71	SEP 22	313.97
WATER YEAR 1998		HIGHEST	311.97	NOV 19, 1997	FEB 19, 1998	LOWEST	313.97
							SEP 22, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

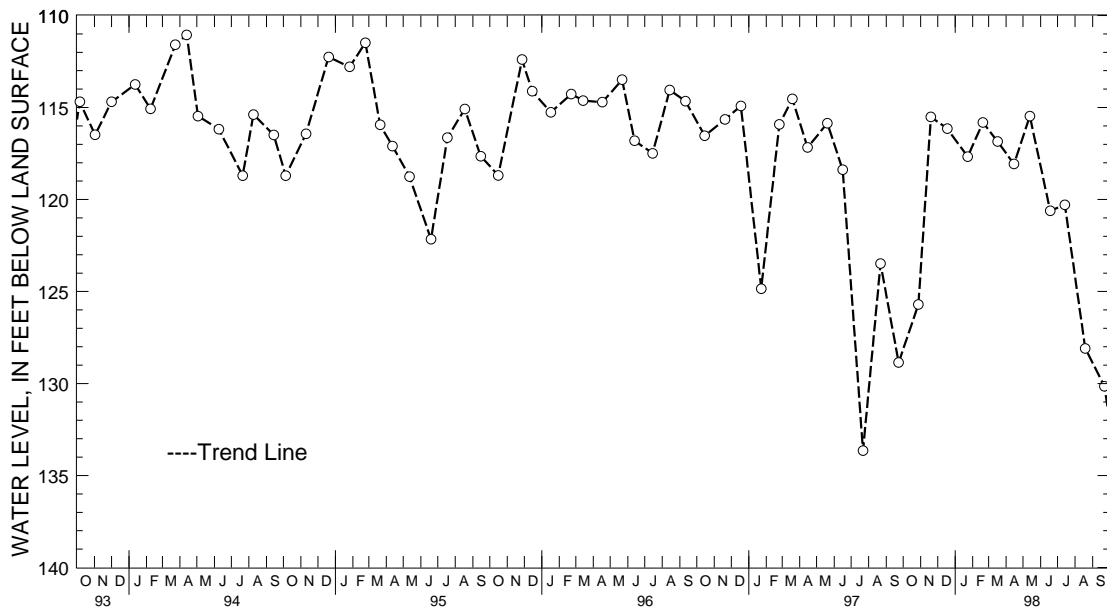
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	125.70	JAN 23, 1998	117.67	APR 15, 1998	118.07	JUL 14, 1998	120.29
NOV 19	115.51	FEB 19	115.81	MAY 13	115.47	AUG 19	128.09
DEC 18	116.15	MAR 17	116.85	JUN 18	120.61	SEP 22	130.15
WATER YEAR 1998		HIGHEST 115.47	MAY 13, 1998		LOWEST 130.15	SEP 22, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

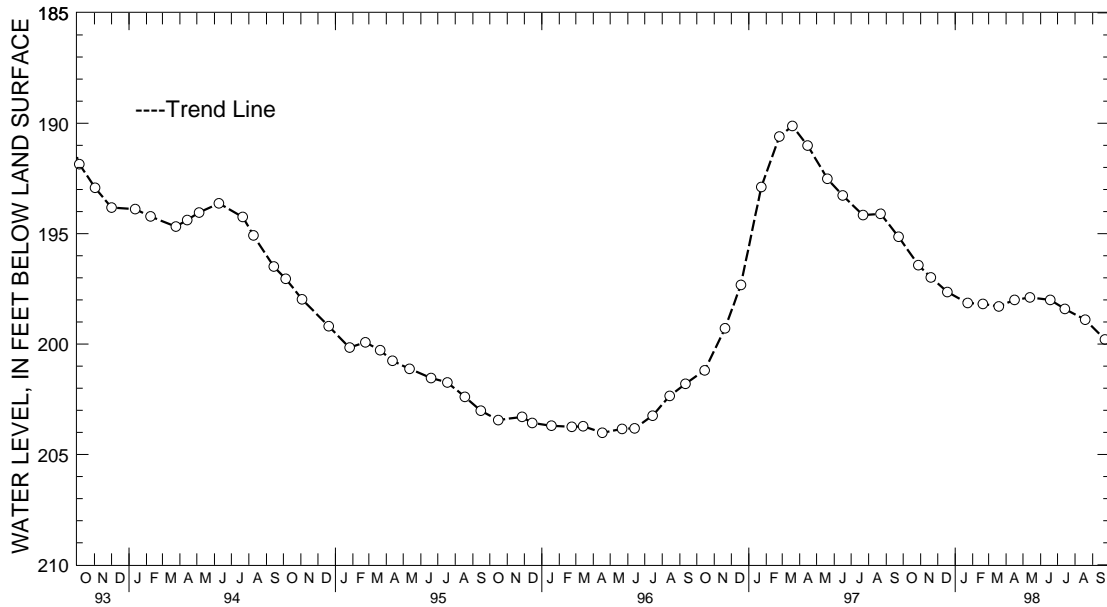
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	196.43	JAN 23, 1998	198.14	APR 16, 1998	198.00	JUL 14, 1998	198.41
NOV 19	196.98	FEB 19	198.18	MAY 13	197.89	AUG 19	198.90
DEC 18	197.64	MAR 19	198.30	JUN 18	198.00	SEP 23	199.79
WATER YEAR 1998		HIGHEST	196.43	OCT 28, 1997	LOWEST	199.79	SEP 23, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

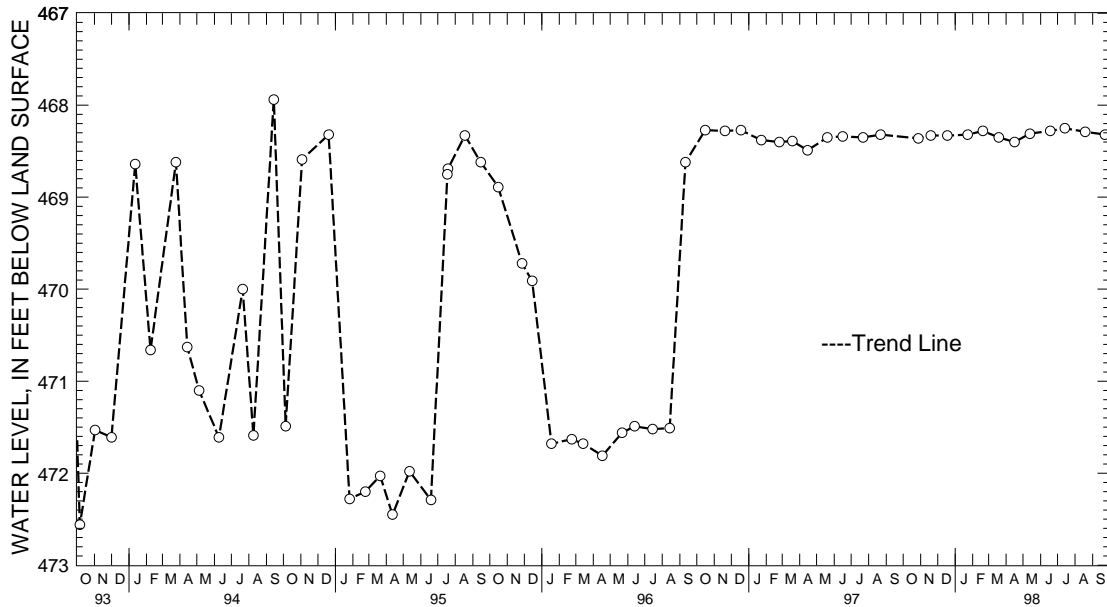
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	468.36	JAN 23, 1998	468.32	APR 16, 1998	468.40	JUL 14, 1998	468.25
NOV 19	468.33	FEB 19	468.28	MAY 13	468.31	AUG 19	468.29
DEC 18	468.33	MAR 19	468.35	JUN 18	468.28	SEP 23	468.32
WATER YEAR 1998		HIGHEST	468.25	JUL 14, 1998	LOWEST	468.40	APR 16, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

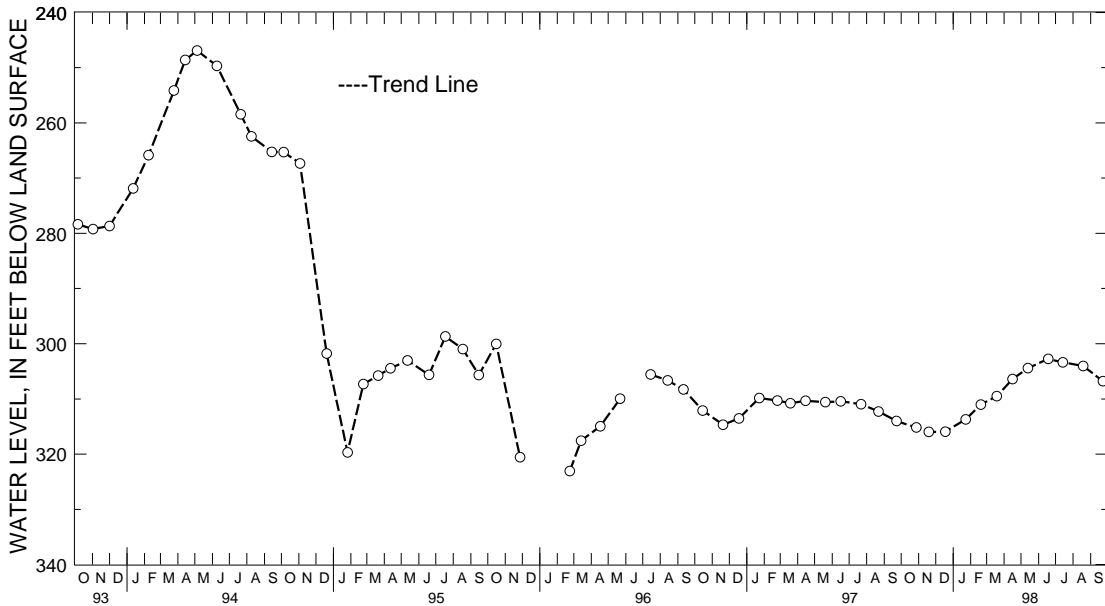
REMARKS.--Hydrologic Effects of Mining, Phase III Project observation well. Water levels affected by coal
 mining operations. Prior to Dec. 15, 1995 the well was undermined and collapsed, the depth of the well
 is now 324 ft.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	315.18	JAN 23, 1998	313.70	APR 16, 1998	306.40	JUL 14, 1998	303.37
NOV 19	315.97	FEB 19	311.02	MAY 13	304.42	AUG 19	304.05
DEC 18	315.92	MAR 19	309.50	JUN 18	302.75	SEP 23	306.80
WATER YEAR 1998		HIGHEST	302.75	JUN 18, 1998	LOWEST	315.97	NOV 19, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

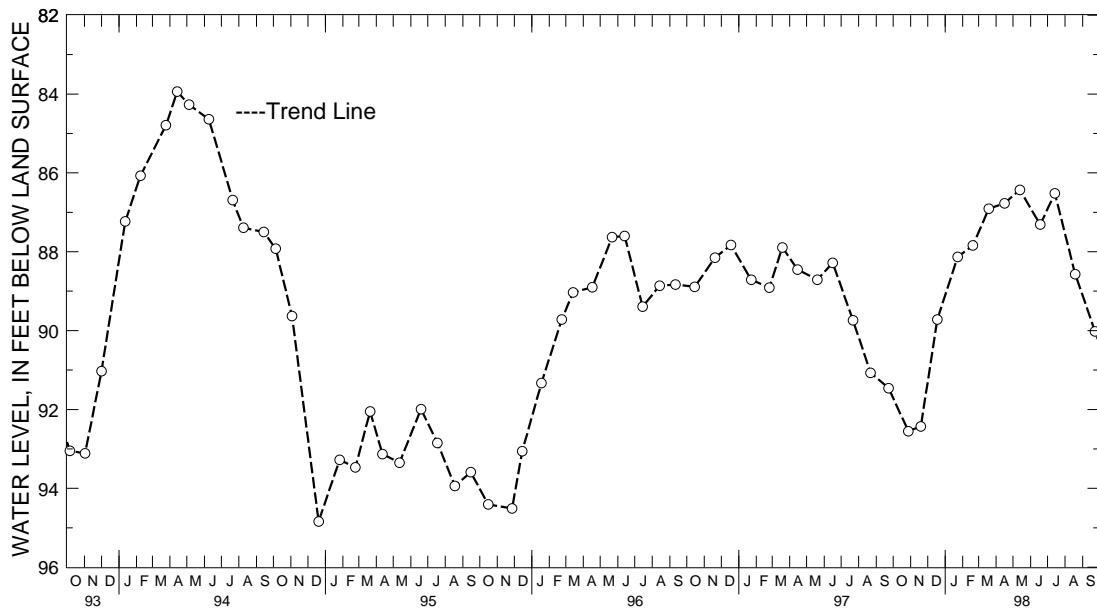
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	92.55	JAN 23, 1998	88.13	APR 16, 1998	86.77	JUL 14, 1998	86.52
NOV 19	92.43	FEB 19	87.84	MAY 13	86.43	AUG 19	88.57
DEC 18	89.72	MAR 19	86.91	JUN 18	87.31	SEP 23	90.02
WATER YEAR 1998		HIGHEST	86.43	MAY 13, 1998	LOWEST	92.55	OCT 28, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

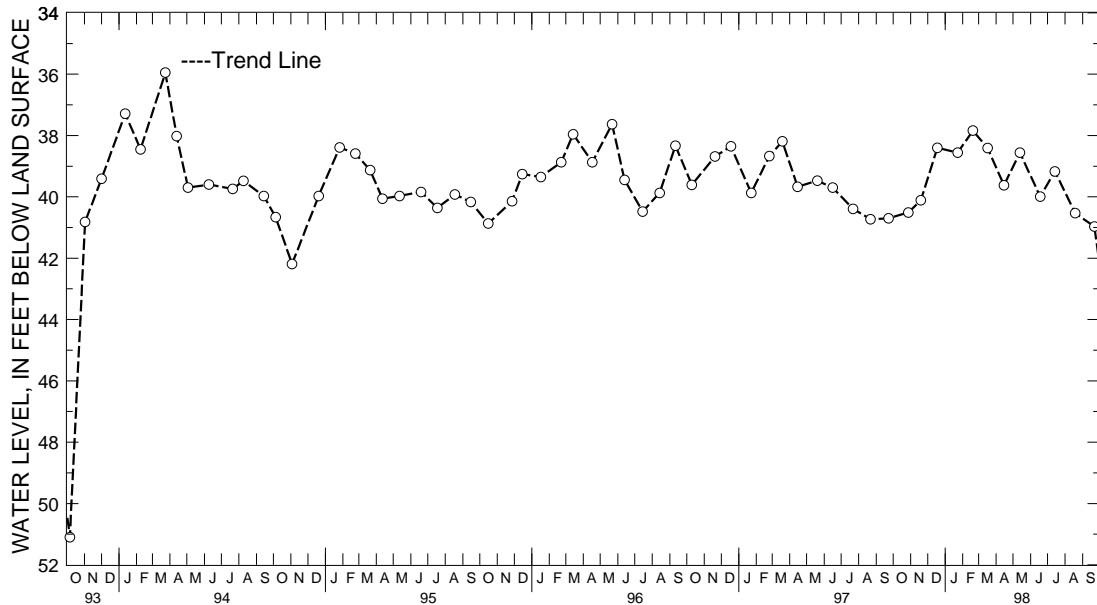
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	40.51	JAN 23, 1998	38.56	APR 15, 1998	39.62	JUL 14, 1998	39.17
NOV 19	40.11	FEB 19	37.84	MAY 13	38.56	AUG 19	40.53
DEC 18	38.40	MAR 17	38.41	JUN 18	39.99	SEP 22	40.97
WATER YEAR 1998		HIGHEST	37.84 FEB 19, 1998	LOWEST	40.97 SEP 22, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

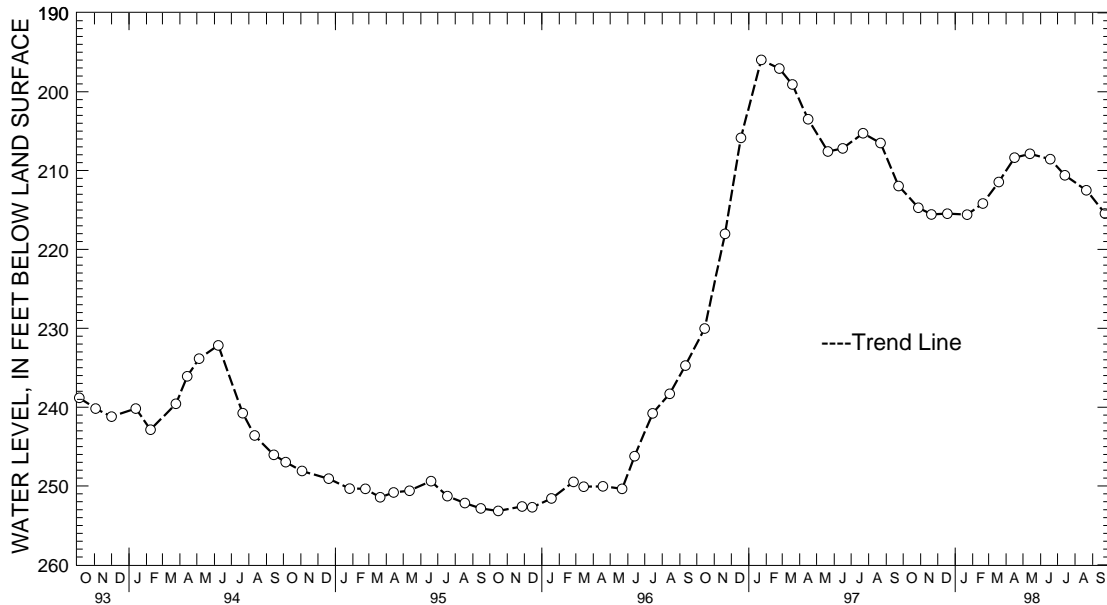
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	214.71	JAN 22, 1998	215.59	APR 16, 1998	208.37	JUL 14, 1998	210.60
NOV 20	215.56	FEB 19	214.17	MAY 13	207.87	AUG 21	212.49
DEC 18	215.46	MAR 19	211.45	JUN 18	208.55	SEP 23	215.44
WATER YEAR 1998		HIGHEST	207.87	MAY 13, 1998	LOWEST	215.59	JAN 22, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

343

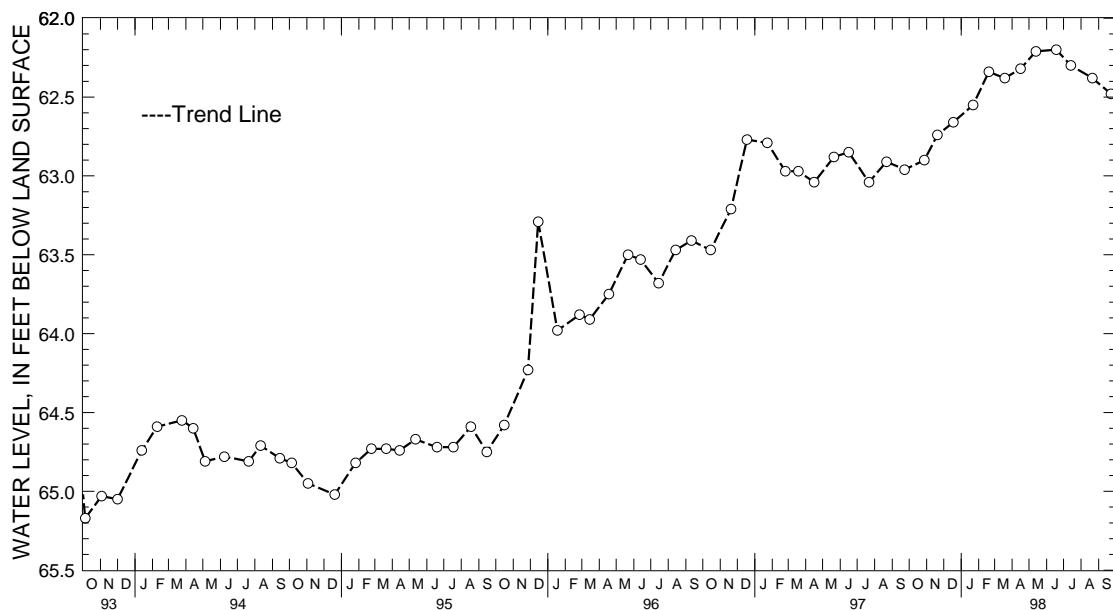
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	62.90	JAN 22, 1998	62.55	APR 16, 1998	62.32	JUL 14, 1998	62.30
NOV 20	62.74	FEB 19	62.34	MAY 13	62.21	AUG 21	62.38
DEC 18	62.66	MAR 19	62.38	JUN 18	62.20	SEP 23	62.48
WATER YEAR 1998		HIGHEST	62.20	JUN 18, 1998	LOWEST	62.90	OCT 28, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

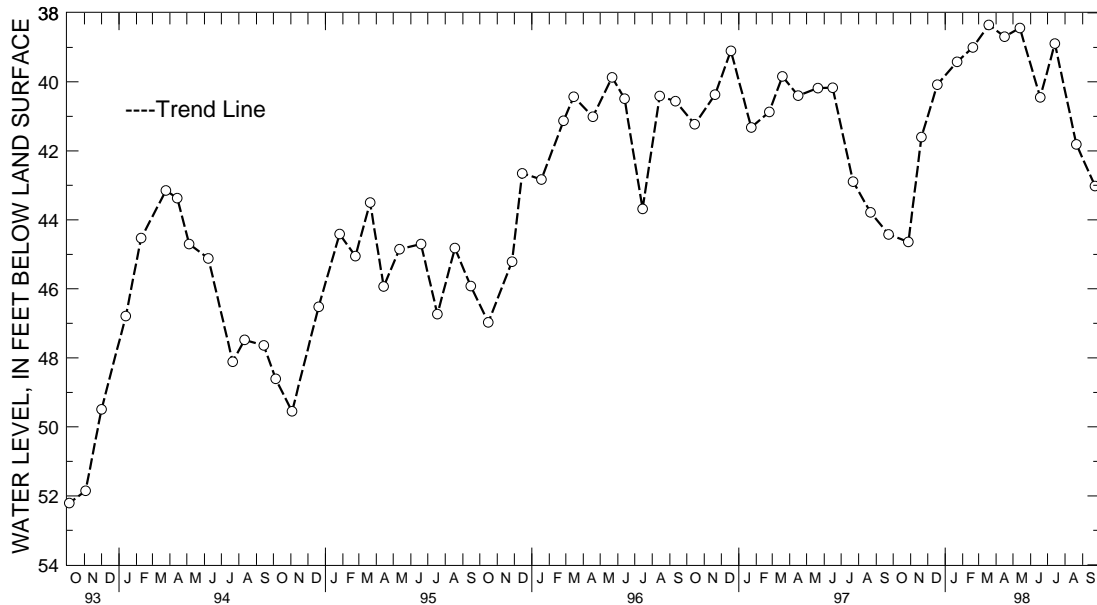
MARYLAND--Continued

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. 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, 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	44.64	JAN 22, 1998	39.42	APR 16, 1998	38.69	JUL 14, 1998	38.89
NOV 20	41.60	FEB 19	39.00	MAY 13	38.44	AUG 21	41.81
DEC 18	40.08	MAR 19	38.35	JUN 18	40.45	SEP 23	43.02
WATER YEAR 1998		HIGHEST	38.35	MAR 19, 1998	LOWEST	44.64	OCT 28, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

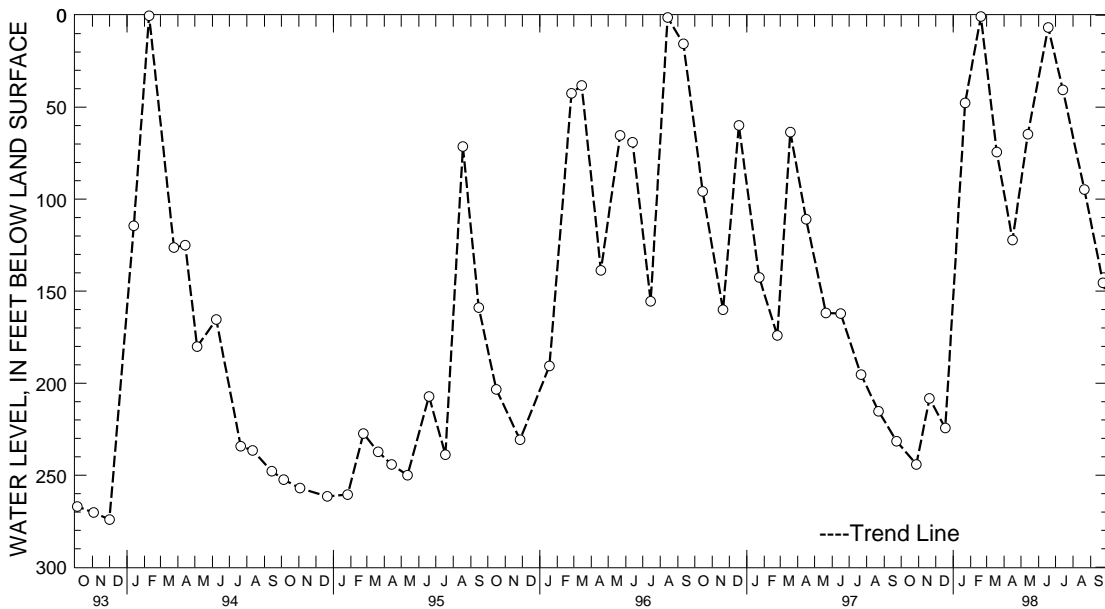
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	244.16	JAN 22, 1998	47.70	APR 16, 1998	122.16	JUL 14, 1998	40.61
NOV 20	208.28	FEB 19	.68	MAY 13	64.70	AUG 21	94.72
DEC 18	224.32	MAR 19	74.43	JUN 18	6.71	SEP 23	145.47
WATER YEAR 1998		HIGHEST	.68 FEB 19, 1998	LOWEST	244.16 OCT 28, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

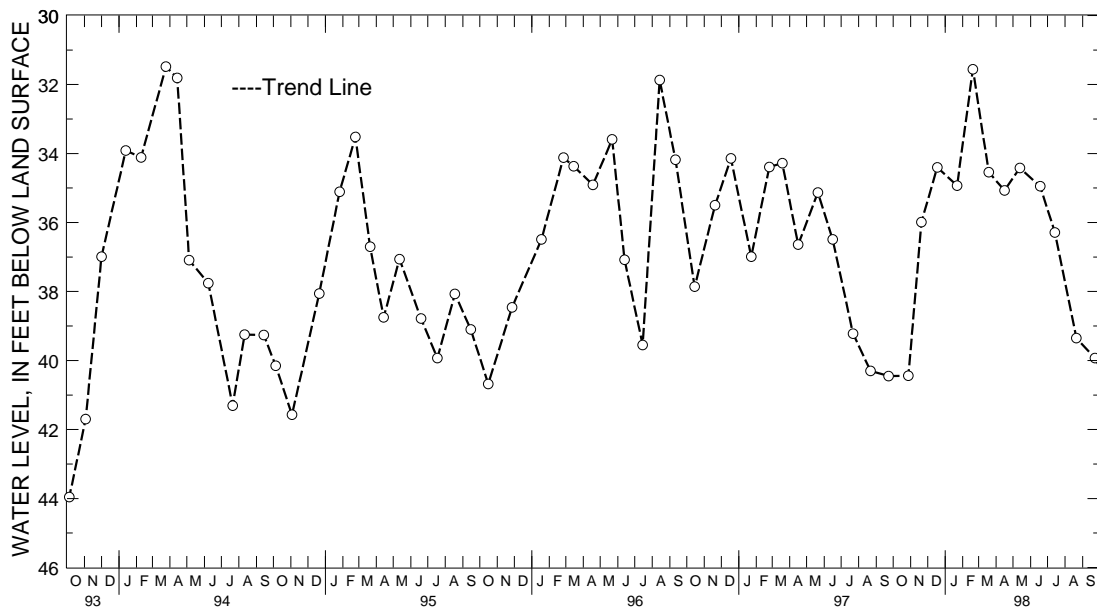
MARYLAND--Continued

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 from June 4, 1980 to Oct. 19, 1980.
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	40.44	JAN 22, 1998	34.93	APR 16, 1998	35.07	JUL 14, 1998	36.29
NOV 20	35.99	FEB 19	31.56	MAY 13	34.42	AUG 21	39.35
DEC 18	34.40	MAR 19	34.54	JUN 18	34.95	SEP 23	39.93
WATER YEAR 1998		HIGHEST	31.56	FEB 19, 1998	LOWEST	40.44	OCT 28, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

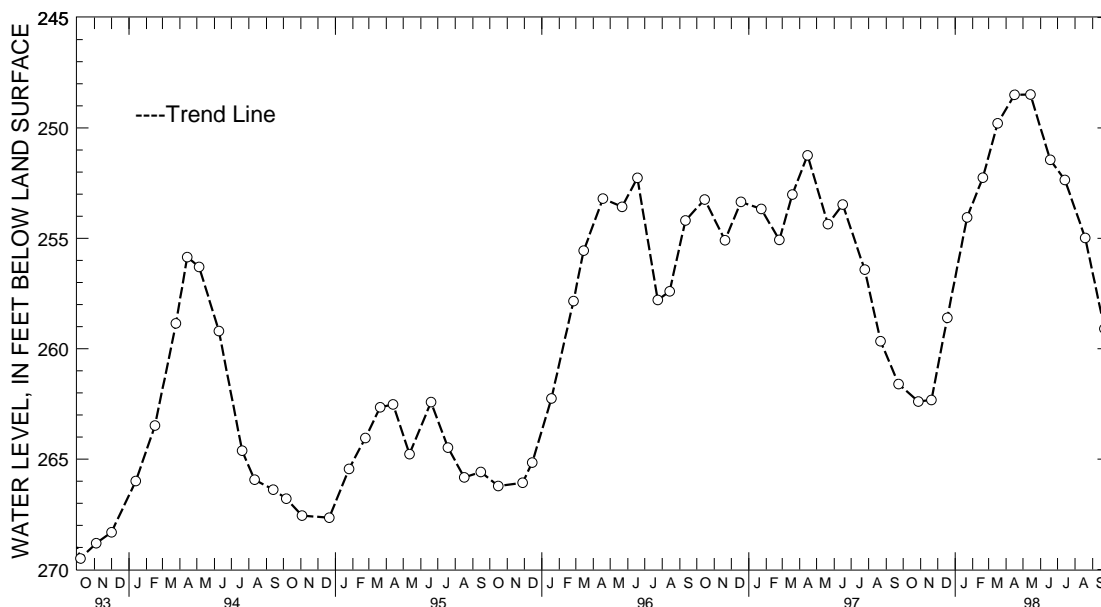
MARYLAND--Continued

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	262.39	JAN 22, 1998	254.05	APR 16, 1998	248.50	JUL 14, 1998	252.36
NOV 20	262.32	FEB 19	252.25	MAY 14	248.49	AUG 19	254.98
DEC 18	258.60	MAR 17	249.79	JUN 18	251.44	SEP 22	259.10
WATER YEAR 1998		HIGHEST 248.49	MAY 14, 1998	LOWEST 262.39		OCT 28, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

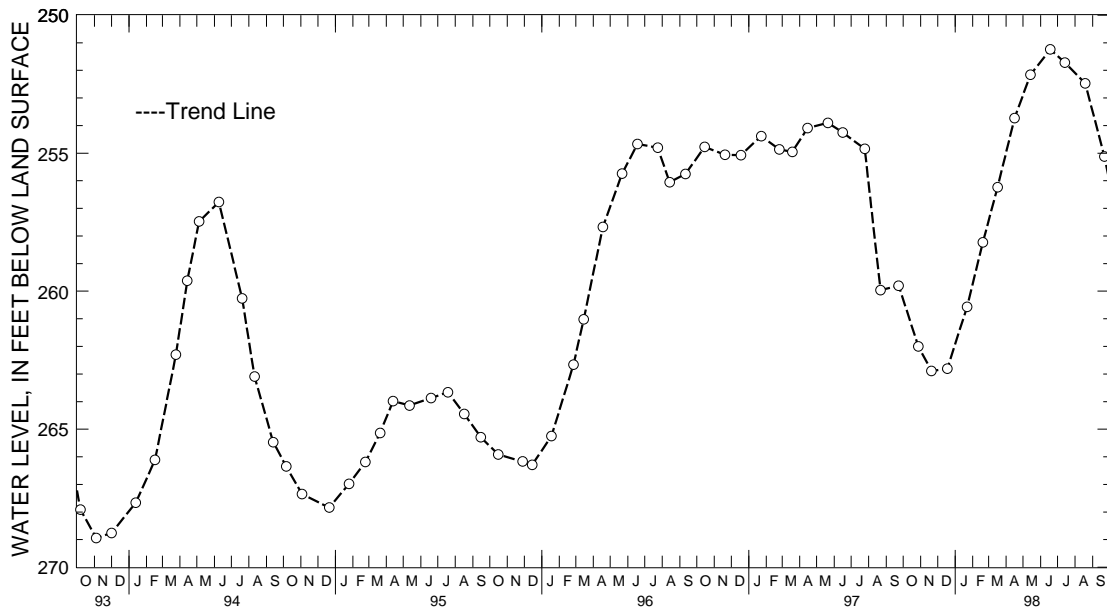
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	262.00	JAN 22, 1998	260.57	APR 16, 1998	253.73	JUL 14, 1998	251.72
NOV 20	262.89	FEB 19	258.23	MAY 14	252.16	AUG 19	252.47
DEC 18	262.81	MAR 17	256.23	JUN 18	251.24	SEP 22	255.12
WATER YEAR 1998		HIGHEST 251.24	JUN 18, 1998	LOWEST 262.89	NOV 20, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

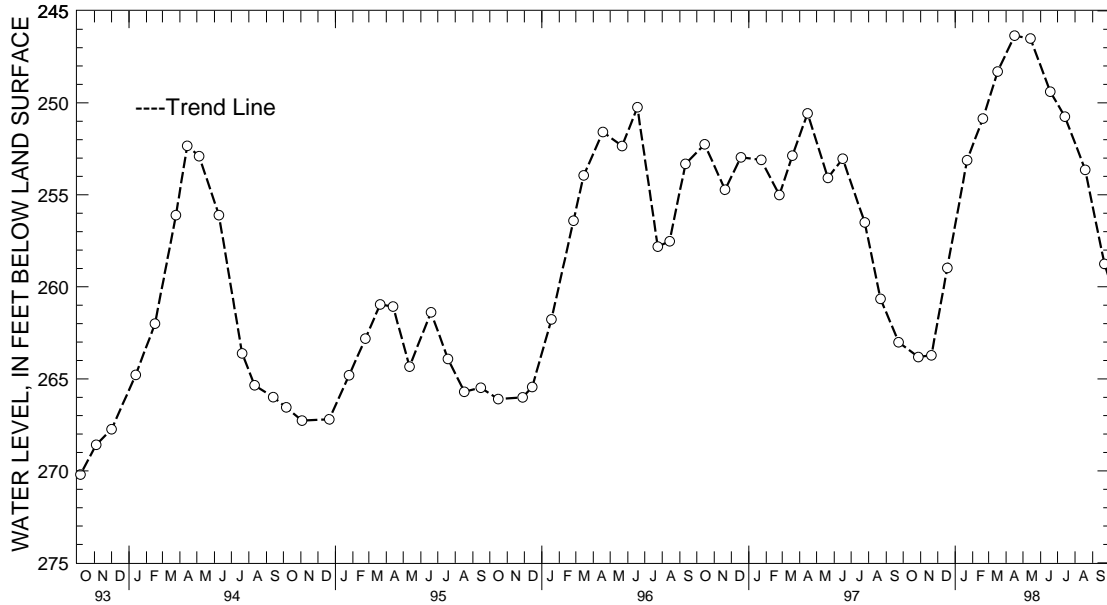
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	263.81	JAN 22, 1998	253.12	APR 16, 1998	246.35	JUL 14, 1998	250.75
NOV 20	263.72	FEB 19	250.85	MAY 14	246.50	AUG 19	253.64
DEC 18	258.97	MAR 17	248.30	JUN 18	249.39	SEP 22	258.75
WATER YEAR 1998		HIGHEST	246.35	APR 16, 1998	LOWEST	263.81	OCT 28, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

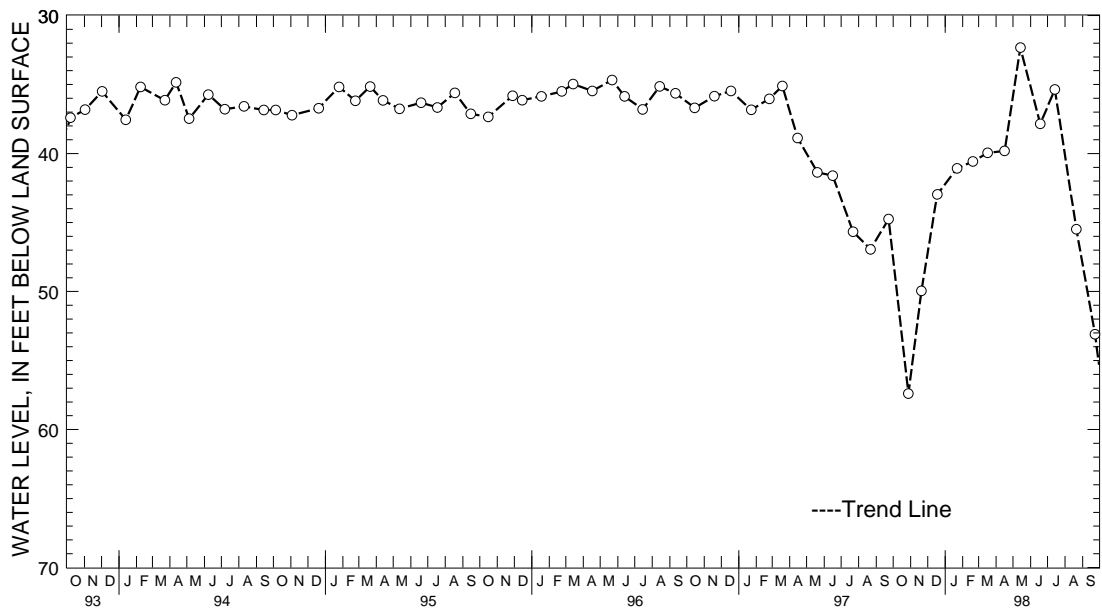
MARYLAND--Continued

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, 32.33 ft below land surface, May 14, 1998;
 lowest measured, 57.40 ft below land surface, October 28, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	57.40	JAN 22, 1998	41.08	APR 16, 1998	39.81	JUL 14, 1998	35.36
NOV 20	49.95	FEB 19	40.57	MAY 14	32.33	AUG 21	45.49
DEC 18	42.96	MAR 17	39.95	JUN 18	37.85	SEP 23	53.09
WATER YEAR 1998		HIGHEST	32.33	MAY 14, 1998	LOWEST	57.40	OCT 28, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

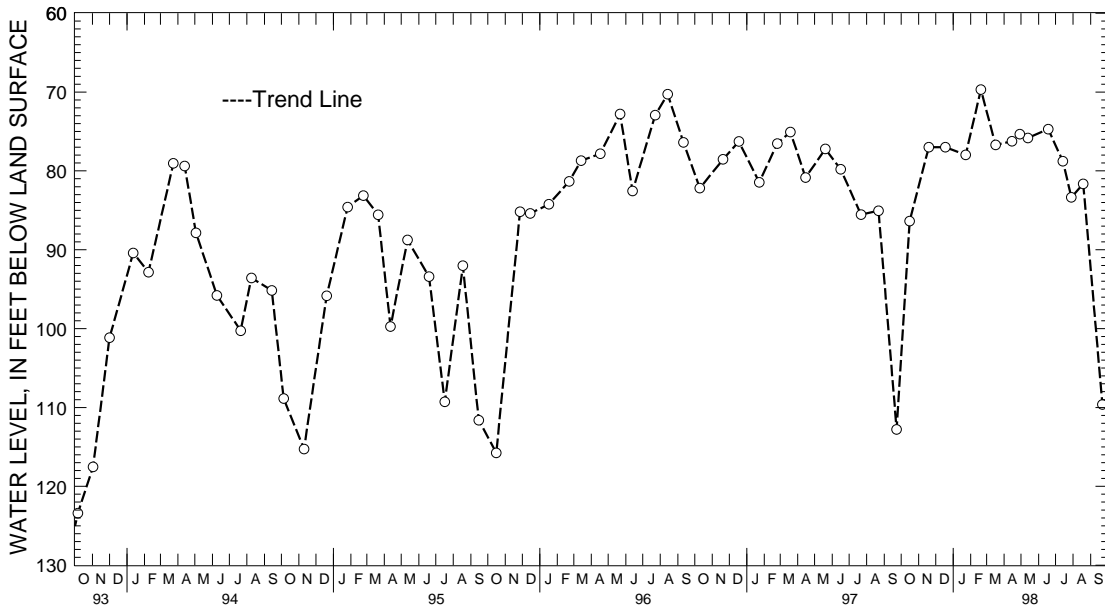
MARYLAND--Continued

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, 69.69 ft below land surface, Feb. 19, 1998;
 lowest measured, 145.05 ft below land surface, Sept. 22, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	86.36	FEB 19, 1998	69.69	MAY 13, 1998	75.83	AUG 19, 1998	81.64
NOV 19	76.99	MAR 17	76.71	JUN 18	74.70	SEP 22	109.63
DEC 18	76.99	APR 15	76.25	JUL 14	78.77		
JAN 23, 1998	77.96	29	75.33	29	83.35		
WATER YEAR 1998		HIGHEST	69.69 FEB 19, 1998	LOWEST	109.63 SEP 22, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

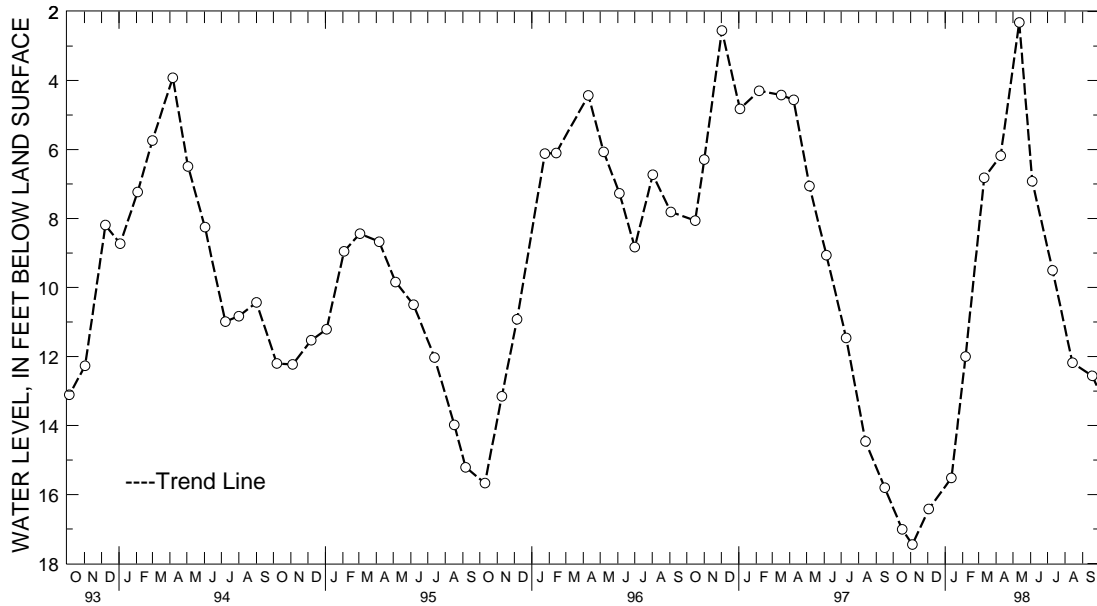
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	17.01	JAN 12, 1998	15.52	APR 09, 1998	6.18	JUL 10, 1998	9.50
NOV 04	17.45	FEB 06	12.00	MAY 12	2.32	AUG 14	12.18
DEC 03	16.42	MAR 11	6.82	JUN 04	6.92	SEP 18	12.56
WATER YEAR 1998		HIGHEST	2.32	MAY 12, 1998	LOWEST	17.45	NOV 04, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

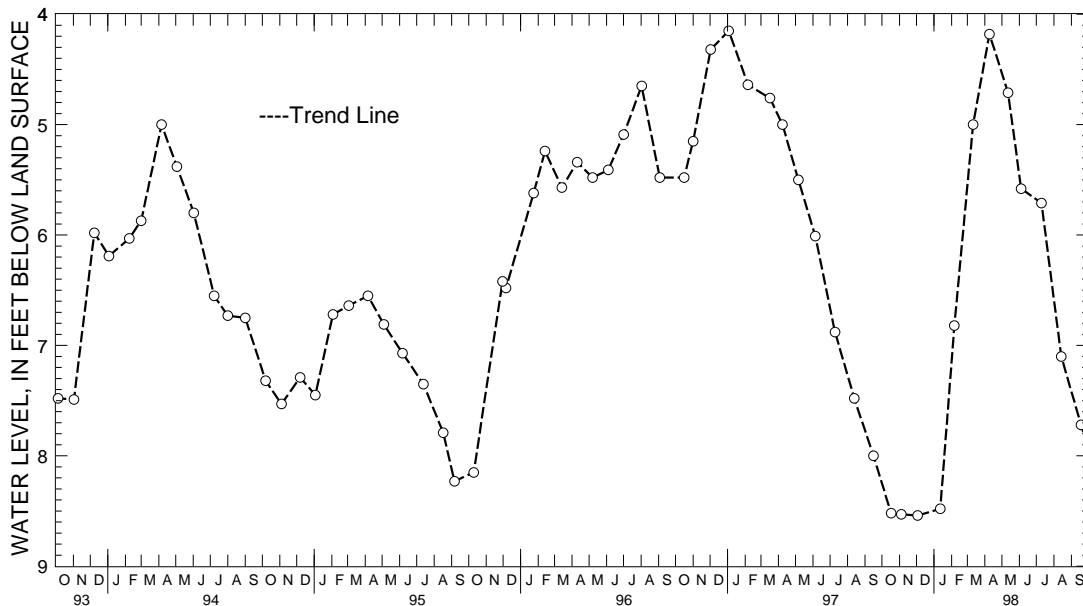
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	8.52	JAN 12, 1998	8.48	APR 09, 1998	4.18	JUL 10, 1998	5.71
NOV 04	8.53	FEB 06	6.82	MAY 12	4.71	AUG 14	7.10
DEC 03	8.54	MAR 11	5.00	JUN 04	5.58	SEP 18	7.72
WATER YEAR 1998		HIGHEST	4.18	APR 09, 1998	LOWEST	8.54	DEC 03, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

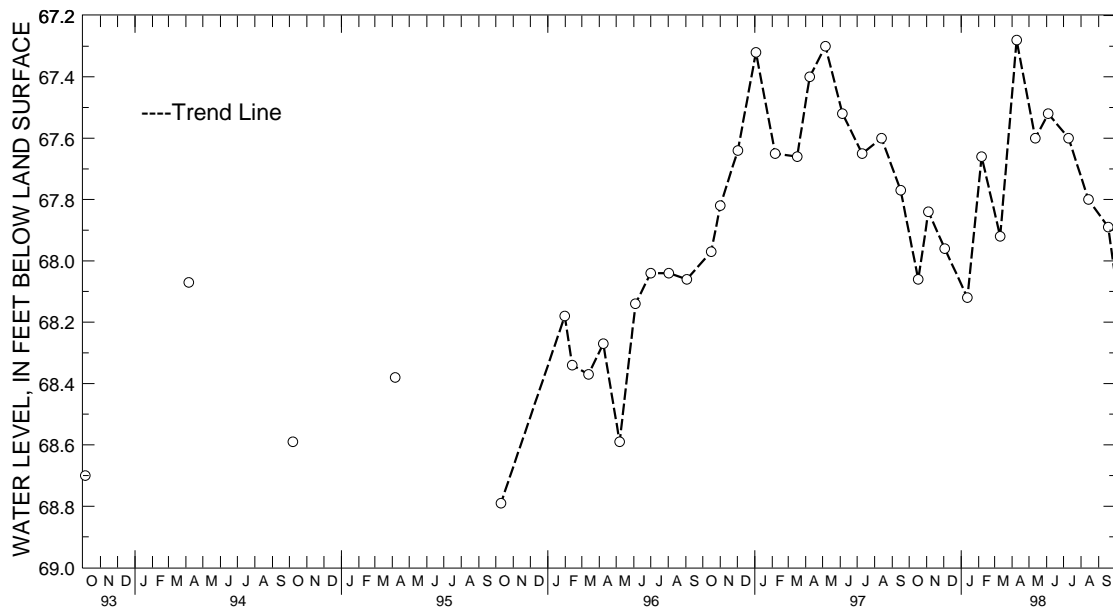
MARYLAND--Continued

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 electric 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, 67.28 ft below land surface, April 9, 1998; lowest measured, 69.58 ft below land surface, Feb. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	68.06	JAN 12, 1998	68.12	APR 09, 1998	67.28	JUL 10, 1998	67.60
NOV 04	67.84	FEB 06	67.66	MAY 12	67.60	AUG 14	67.80
DEC 03	67.96	MAR 11	67.92	JUN 04	67.52	SEP 18	67.89
WATER YEAR 1998		HIGHEST	67.28	APR 09, 1998	LOWEST	68.12	JAN 12, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

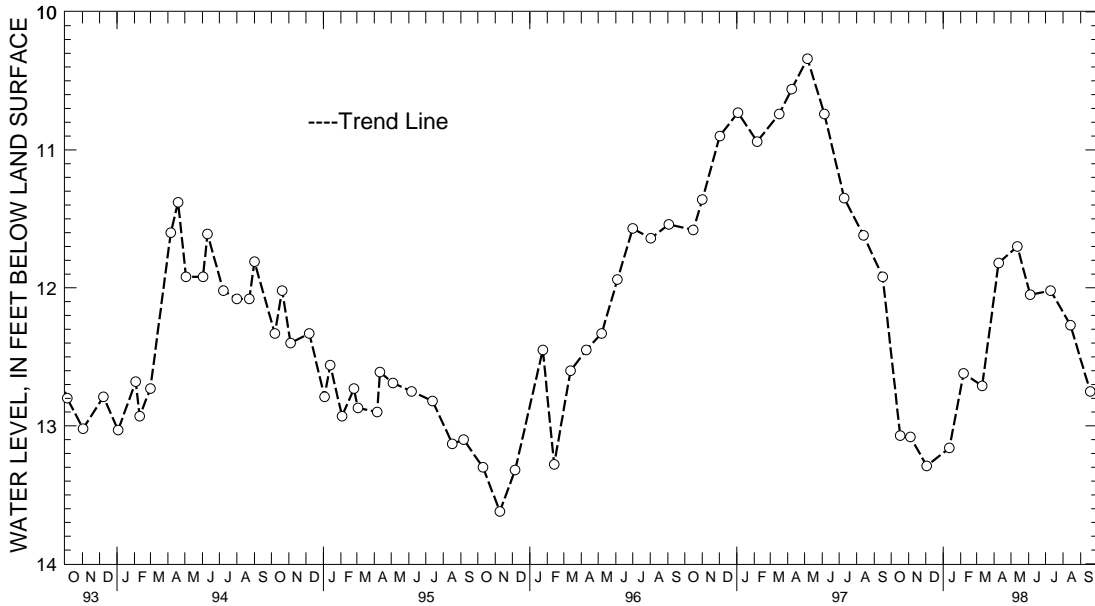
MARYLAND--Continued

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 electric 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, 10.34 ft below land surface, May 6, 1997;
 lowest measured, 13.71 ft below land surface, Feb. 2, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	13.07	JAN 12, 1998	13.16	APR 09, 1998	11.82	JUL 10, 1998	12.02
NOV 04	13.08	FEB 06	12.62	MAY 12	11.70	AUG 14	12.27
DEC 03	13.29	MAR 11	12.71	JUN 04	12.05	SEP 18	12.75
WATER YEAR 1998		HIGHEST	11.70	MAY 12, 1998	LOWEST	13.29	DEC 03, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

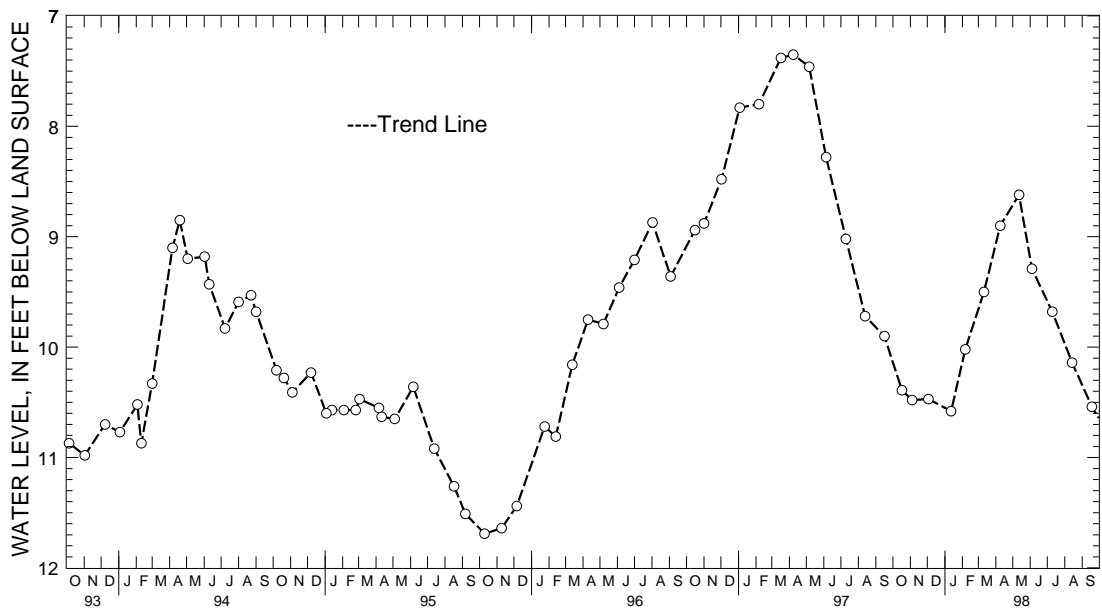
MARYLAND--Continued

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 electric 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, 7.35 ft below land surface, April 8, 1997.
 lowest measured, 12.31 ft below land surface, Jan. 17, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	10.39	JAN 12, 1998	10.58	APR 09, 1998	8.90	JUL 10, 1998	9.68
NOV 04	10.48	FEB 06	10.02	MAY 12	8.62	AUG 14	10.14
DEC 03	10.47	MAR 11	9.50	JUN 04	9.29	SEP 18	10.54
WATER YEAR 1998		HIGHEST	8.62	MAY 12, 1998	LOWEST	10.58	JAN 12, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

357

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 electric 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.

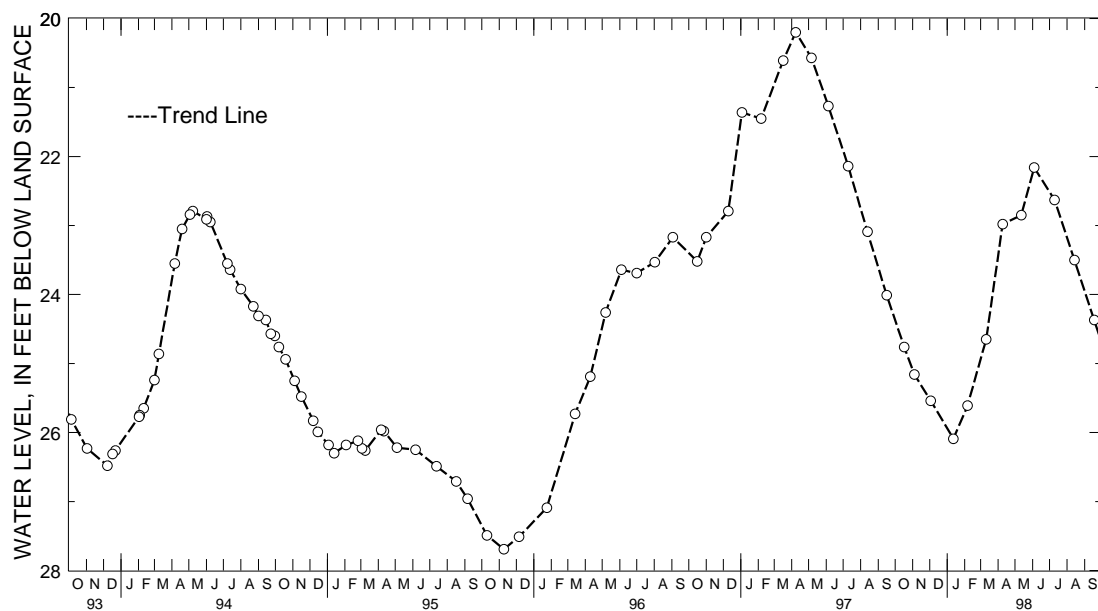
Measuring point: Top of casing, 1.65 ft above land surface.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	24.76	JAN 12, 1998	26.09	APR 09, 1998	22.98	JUL 10, 1998	22.63
NOV 04	25.16	FEB 06	25.61	MAY 12	22.85	AUG 14	23.50
DEC 03	25.54	MAR 11	24.65	JUN 04	22.16	SEP 18	24.37
WATER YEAR 1998		HIGHEST	22.16	JUN 04, 1998	LOWEST	26.09	JAN 12, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

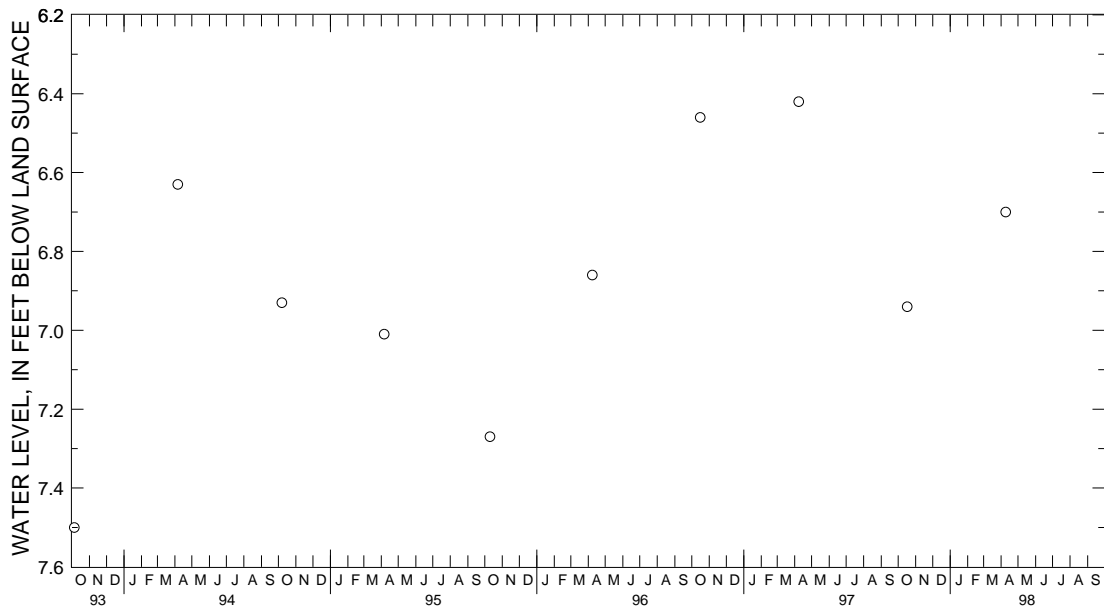
MARYLAND--Continued

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 electric 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, 6.42 ft below land surface, April 8, 1997;
 lowest measured, 7.93 ft below land surface, Dec. 22, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER LEVEL YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	6.94	APR 09, 1998	6.70
WATER YEAR 1998	HIGHEST	6.70 APR 09, 1998	LOWEST
			6.94 OCT 17, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND WATER LEVELS

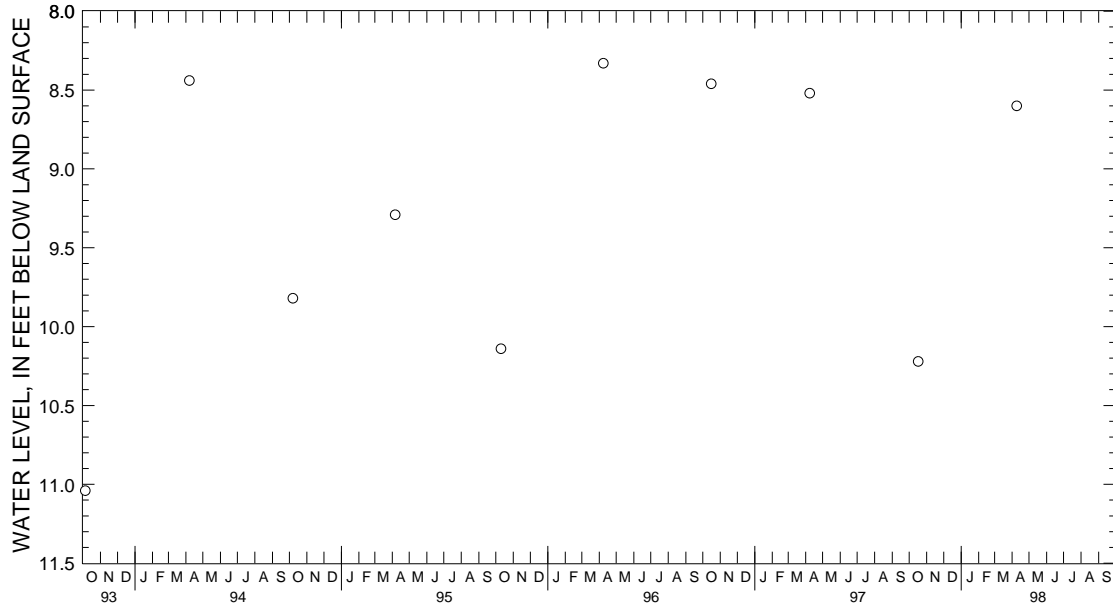
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	10.22	APR 09, 1998	8.60
WATER YEAR 1998		HIGHEST 8.60 APR 09, 1998	LOWEST 10.22 OCT 17, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

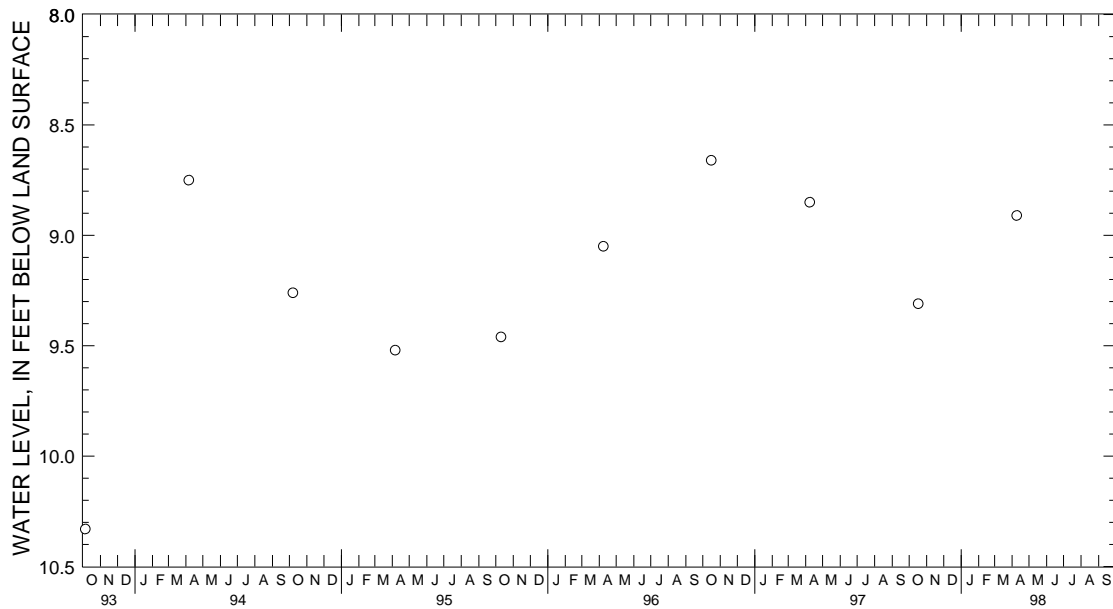
MARYLAND--Continued

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 electric 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, 8.66 ft below land surface, Oct. 16, 1996;
 lowest measured, 10.43 ft below land surface, Nov. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	9.31	APR 09, 1998	8.91
WATER YEAR 1998		HIGHEST 8.91	APR 09, 1998
		LOWEST 9.31	OCT 17, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND WATER LEVELS

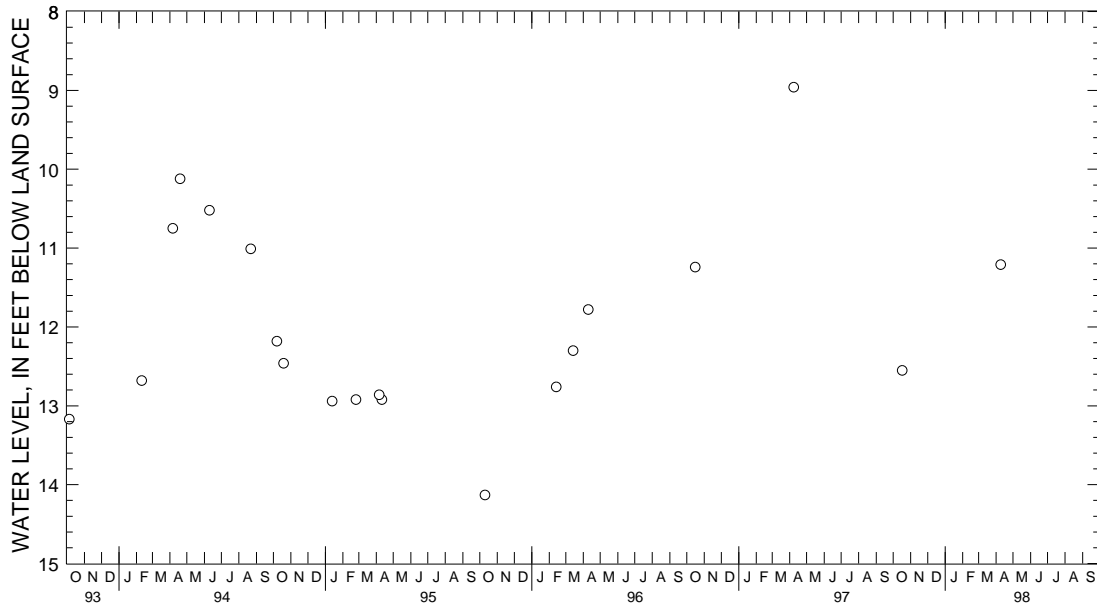
MARYLAND--Continued

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 electric 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, 8.96 ft below land surface, April 8, 1997; lowest measured, 14.13 ft below land surface, Oct. 10, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	12.55	APR 09, 1998	11.21
WATER YEAR 1998	HIGHEST	11.21	APR 09, 1998
	LOWEST	12.55	OCT 17, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND WATER LEVELS

MARYLAND--Continued

HARFORD COUNTY--Continued

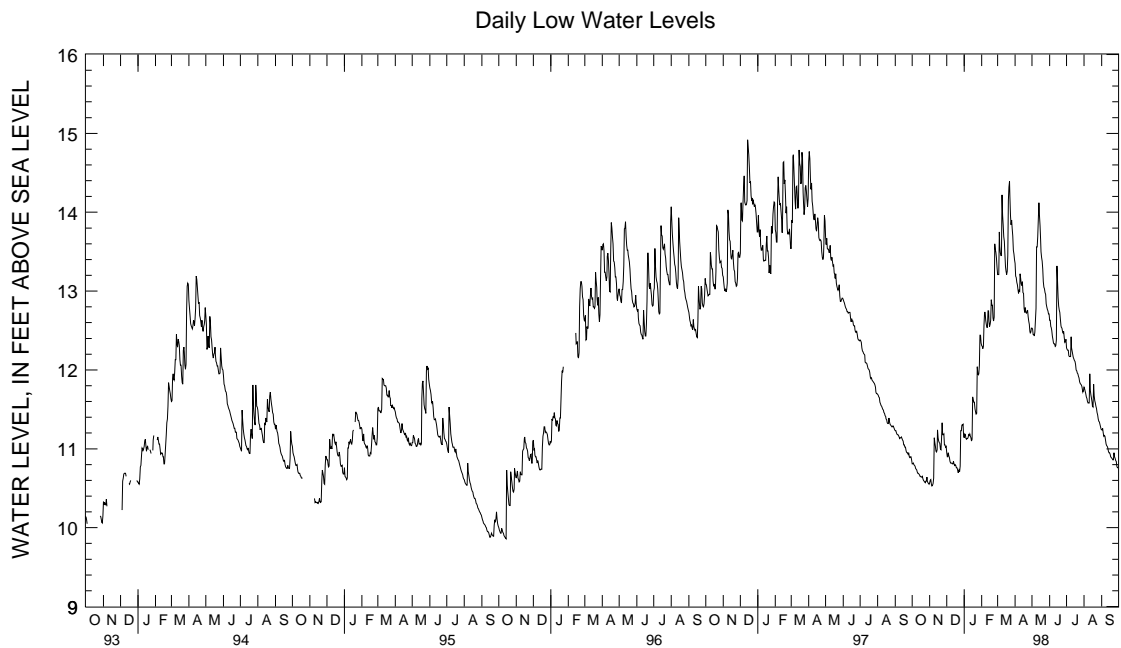
WELL NUMBER.--HA De 198. SITE ID.--392819076130902. PERMIT NUMBER.--HA-81-4141.
 LOCATION.--Lat 39°28'19", long 76°13'09", Hydrologic Unit 02060003, northwest end of Fords Lane, Perryman.
 Owner: Kelly and George Hallgren. (formerly Maryland Geological Survey).
 AQUIFER.--Talbot Formation of Pleistocene 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 electric 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.
 PERIOD OF RECORD.--May 1988 to August 1989, July 1991 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.09 ft above sea level, Mar. 6, 1997;
 lowest measured, 8.82 ft above sea level, Nov. 2, and 3, 1992.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.86	10.81	10.65	10.57	11.10	10.95	11.25	11.14	12.34	12.31	13.30	13.21
2	10.84	10.81	10.63	10.60	10.95	10.90	11.25	11.19	12.32	12.30	13.24	13.21
3	10.83	10.82	10.63	10.61	10.95	10.90	11.19	11.18	12.32	12.27	13.80	13.21
4	10.82	10.80	10.61	10.55	10.96	10.95	11.18	11.13	12.56	12.30	13.81	13.75
5	10.80	10.79	10.55	10.53	10.95	10.91	11.13	11.12	12.80	12.56	13.75	13.57
6	10.79	10.78	10.56	10.54	10.91	10.89	11.14	11.13	12.77	12.73	13.57	13.49
7	10.78	10.75	10.63	10.56	10.89	10.84	11.15	11.13	12.76	12.73	13.52	13.45
8	10.75	10.74	11.24	10.63	10.84	10.82	11.21	11.15	12.74	12.63	14.22	13.45
9	10.74	10.73	11.18	11.14	10.83	10.82	11.27	11.18	12.63	12.58	14.60	14.22
10	10.74	10.71	11.15	11.08	10.89	10.82	11.20	11.17	12.58	12.54	14.39	13.96
11	10.71	10.69	11.08	11.03	10.86	10.81	11.21	11.19	12.75	12.54	13.96	13.84
12	10.70	10.69	11.03	10.97	10.85	10.81	11.19	11.16	12.96	12.75	13.84	13.69
13	10.70	10.68	10.99	10.96	10.88	10.84	11.22	11.14	12.79	12.75	13.71	13.63
14	10.69	10.67	11.42	10.99	10.86	10.81	11.14	11.10	12.75	12.62	13.81	13.47
15	10.67	10.65	11.39	11.24	10.81	10.79	11.98	11.12	12.62	12.55	13.47	13.31
16	10.65	10.65	11.24	11.14	10.82	10.80	11.98	11.66	12.63	12.58	13.31	13.25
17	10.65	10.64	11.14	11.10	10.82	10.79	11.66	11.62	13.02	12.63	13.26	13.21
18	10.66	10.64	11.10	11.08	10.79	10.76	11.62	11.59	13.02	12.89	13.45	13.25
19	10.66	10.65	11.09	11.07	10.77	10.76	11.62	11.59	12.89	12.82	14.22	13.45
20	10.65	10.62	11.07	11.00	10.78	10.74	11.60	11.51	12.91	12.82	14.32	14.15
21	10.63	10.60	11.13	10.99	10.74	10.70	11.51	11.47	12.84	12.66	14.64	14.32
22	10.62	10.59	11.46	11.13	10.78	10.70	11.47	11.44	12.67	12.62	14.58	14.39
23	10.59	10.58	11.38	11.33	10.78	10.73	12.38	11.45	13.72	12.67	14.39	14.20
24	10.59	10.57	11.33	11.18	10.78	10.71	12.16	12.04	13.78	13.60	14.20	13.96
25	10.63	10.59	11.23	11.18	11.33	10.78	12.04	11.95	13.64	13.53	13.96	13.84
26	10.70	10.59	11.25	11.19	11.29	11.23	11.97	11.94	13.53	13.49	14.02	13.90
27	10.72	10.64	11.19	11.05	11.33	11.23	12.06	11.95	13.49	13.42	13.95	13.79
28	10.64	10.59	11.09	11.05	11.34	11.30	12.66	12.06	13.42	13.30	13.79	13.70
29	10.59	10.57	11.06	11.02	11.48	11.30	12.53	12.44	---	---	13.70	13.52
30	10.57	10.56	11.10	11.03	11.46	11.31	12.51	12.44	---	---	13.52	13.47
31	10.57	10.55	---	---	11.31	11.16	12.44	12.34	---	---	13.47	13.40
MONTH	10.86	10.55	11.46	10.53	11.48	10.70	12.66	11.10	13.78	12.27	14.64	13.21

GROUND-WATER LEVELS
 MARYLAND--Continued
 HARFORD COUNTY--Continued
 HA De 198--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.41	13.35	12.57	12.53	12.74	12.63	12.39	12.28	11.86	11.78	11.25	11.24
2	13.35	13.19	12.59	12.52	12.71	12.63	12.28	12.26	11.78	11.76	11.33	11.24
3	13.26	13.17	12.52	12.45	12.69	12.55	12.27	12.25	11.76	11.73	11.30	11.26
4	13.29	13.11	12.47	12.45	12.56	12.54	12.28	12.25	11.73	11.70	11.26	11.20
5	13.15	13.08	12.48	12.43	12.55	12.50	12.25	12.18	11.70	11.66	11.20	11.16
6	13.08	13.02	12.63	12.48	12.50	12.43	12.18	12.17	11.66	11.64	11.19	11.17
7	13.04	12.97	12.78	12.63	12.43	12.39	12.18	12.17	11.64	11.60	11.18	11.16
8	13.06	13.01	13.90	12.78	12.39	12.34	12.61	12.17	11.60	11.58	11.16	11.11
9	13.29	13.00	13.66	13.56	12.35	12.33	12.57	12.42	11.59	11.58	11.11	11.06
10	13.31	13.22	13.69	13.56	12.34	12.33	12.42	12.28	12.17	11.58	11.06	11.04
11	13.22	13.16	13.91	13.69	12.33	12.30	12.28	12.24	12.23	11.95	11.04	11.03
12	13.16	13.09	14.64	13.91	12.38	12.31	12.24	12.20	11.95	11.74	11.03	11.01
13	13.13	13.07	14.36	14.12	14.16	12.38	12.20	12.16	11.74	11.68	11.01	10.97
14	13.18	13.12	14.12	13.96	13.79	13.32	12.16	12.14	11.68	11.64	10.97	10.95
15	13.13	12.98	13.96	13.83	13.32	13.13	12.14	12.12	11.64	11.59	10.95	10.95
16	13.00	12.97	13.83	13.65	13.13	12.92	12.12	12.11	11.59	11.54	10.95	10.93
17	12.97	12.78	13.65	13.50	12.92	12.81	12.11	12.07	11.97	11.53	10.93	10.90
18	12.79	12.73	13.50	13.43	12.81	12.76	12.07	12.00	12.01	11.82	10.90	10.89
19	12.93	12.79	13.45	13.38	12.76	12.73	12.00	11.99	11.82	11.67	10.89	10.88
20	12.92	12.73	13.38	13.28	12.73	12.64	12.00	11.96	11.67	11.61	10.88	10.87
21	12.77	12.72	13.28	13.12	12.64	12.56	11.96	11.95	11.61	11.58	10.87	10.86
22	12.78	12.74	13.12	13.05	12.56	12.54	11.95	11.92	11.58	11.54	11.08	10.86
23	12.80	12.76	13.08	13.03	12.57	12.53	11.93	11.90	11.54	11.51	11.06	10.95
24	12.76	12.68	13.03	12.98	12.53	12.49	11.90	11.85	11.51	11.46	10.95	10.90
25	12.68	12.62	13.00	12.96	12.49	12.47	11.85	11.83	11.46	11.43	10.90	10.88
26	12.69	12.58	12.96	12.84	12.51	12.49	11.83	11.82	11.43	11.38	10.88	10.85
27	12.58	12.49	12.84	12.80	12.51	12.41	11.82	11.81	11.38	11.35	10.85	10.84
28	12.50	12.47	12.80	12.77	12.41	12.35	11.81	11.79	11.35	11.34	10.84	10.78
29	12.55	12.48	12.80	12.75	12.43	12.36	11.79	11.76	11.34	11.31	10.78	10.76
30	12.55	12.53	12.75	12.71	12.46	12.39	11.76	11.72	11.31	11.28	10.77	10.76
31	---	---	12.77	12.71	---	---	11.91	11.74	11.28	11.25	---	---
MONTH	13.41	12.47	14.64	12.43	14.16	12.30	12.61	11.72	12.23	11.25	11.33	10.76
YEAR	14.64	10.5										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

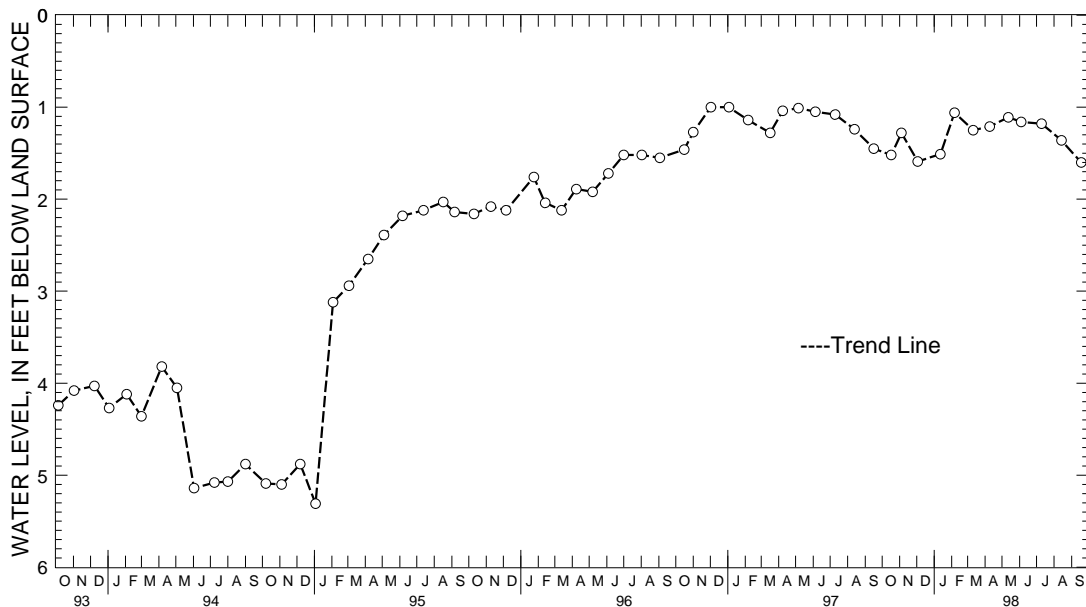
MARYLAND--Continued

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 electric 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, 00.0 ft 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	1.52	JAN 12, 1998	1.51	APR 09, 1998	1.21	JUL 10, 1998	1.18
NOV 04	1.28	FEB 06	1.06	MAY 12	1.11	AUG 14	1.36
DEC 03	1.59	MAR 11	1.25	JUN 04	1.16	SEP 18	1.60
WATER YEAR 1998		HIGHEST	1.06 FEB 06, 1998	LOWEST	1.60 SEP 18, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Twice yearly measurements from October 1989 to October 1995.

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.

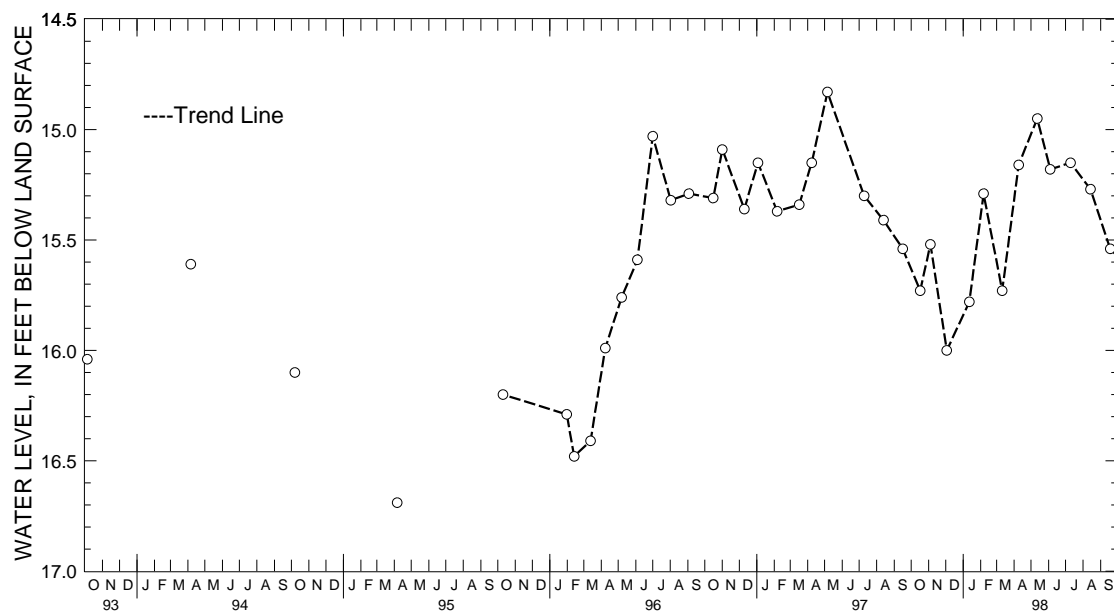
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--May 1988 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.83 ft below land surface, May 6, 1997; lowest measured, 16.76 ft below land surface, Feb. 23, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	15.73	JAN 12, 1998	15.78	APR 09, 1998	15.16	JUL 10, 1998	15.15
NOV 04	15.52	FEB 06	15.29	MAY 12	14.95	AUG 14	15.27
DEC 03	16.00	MAR 11	15.73	JUN 04	15.18	SEP 18	15.54
WATER YEAR 1998		HIGHEST	14.95	MAY 12, 1998	LOWEST	16.00	DEC 03, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217CLCK.

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 electric 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, 1.44 ft above land surface.

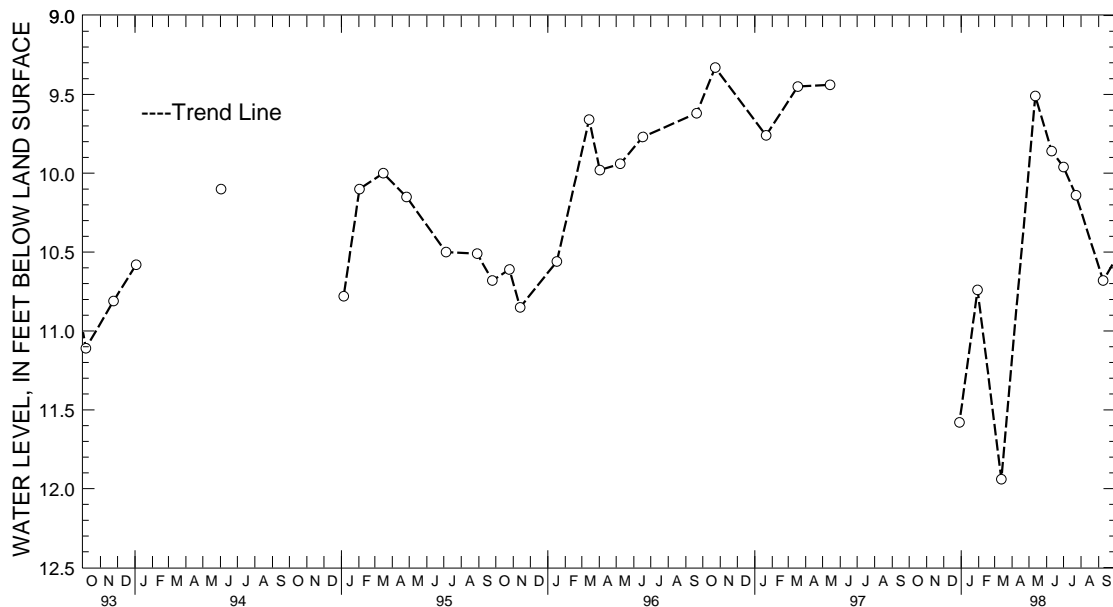
REMARKS.--Maryland Water-Level Network observation well. Water level measured, 8.24 ft below land surface, April 13, 1944.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	15.73	JAN 12, 1998	15.78	APR 09, 1998	15.16	JUL 10, 1998	15.15
NOV 04	15.52	FEB 06	15.29	MAY 12	14.95	AUG 14	15.27
DEC 03	16.00	MAR 11	15.73	JUN 04	15.18	SEP 18	15.54
WATER YEAR 1998		HIGHEST	14.95	MAY 12, 1998	LOWEST	16.00	DEC 03, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

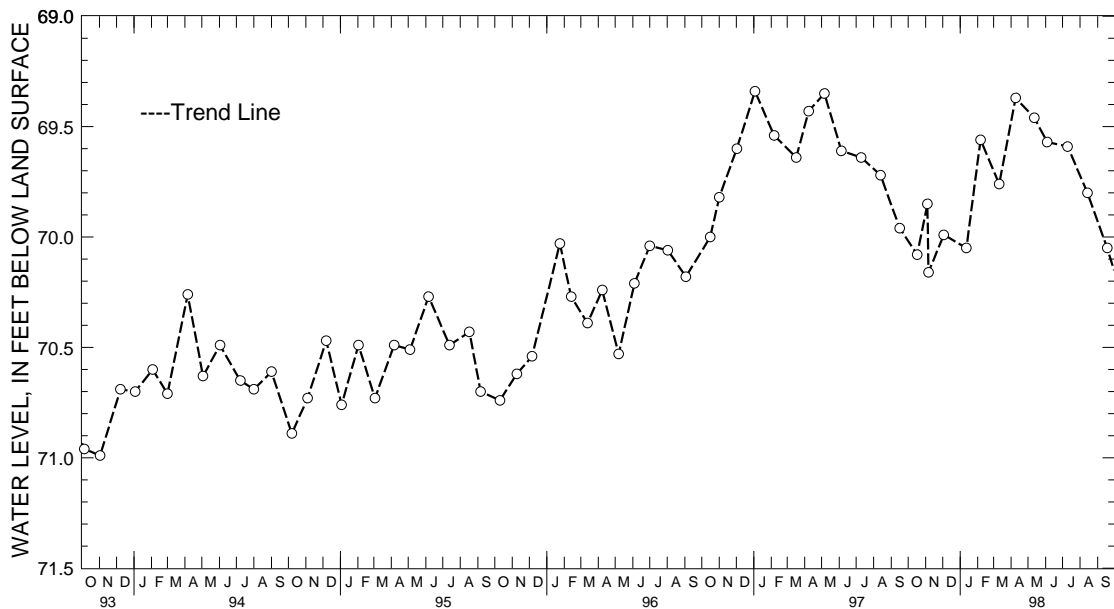
MARYLAND--Continued

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 electric 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, 69.34 ft below land surface, Jan. 3, 1997; lowest measured, 72.02 ft below land surface, Nov. 9, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	70.08	JAN 12, 1998	70.05	MAY 12, 1998	69.46	SEP 18, 1998	70.05
NOV 04	69.85	FEB 06	69.56	JUN 04	69.57		
06	70.16	MAR 11	69.76	JUL 10	69.59		
DEC 03	69.99	APR 09	69.37	AUG 14	69.80		
WATER YEAR 1998		HIGHEST	69.37	APR 09, 1998	LOWEST	70.16	NOV 06, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

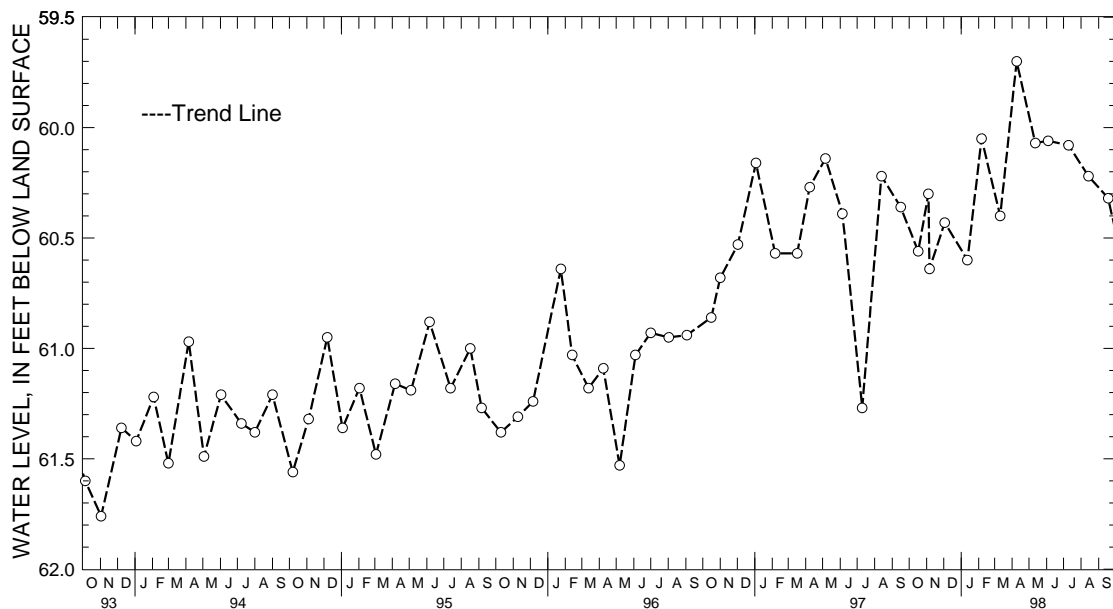
MARYLAND--Continued

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 electric 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, 59.70 ft below land surface, April 9, 1998; lowest measured, 63.00 ft below land surface, May 12, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	60.56	JAN 12, 1998	60.60	MAY 12, 1998	60.07	SEP 18, 1998	60.32
NOV 04	60.30	FEB 06	60.05	JUN 04	60.06		
06	60.64	MAR 11	60.40	JUL 10	60.08		
DEC 03	60.43	APR 09	59.70	AUG 14	60.22		
WATER YEAR 1998		HIGHEST	59.70 APR 09, 1998	LOWEST	60.64 NOV 06, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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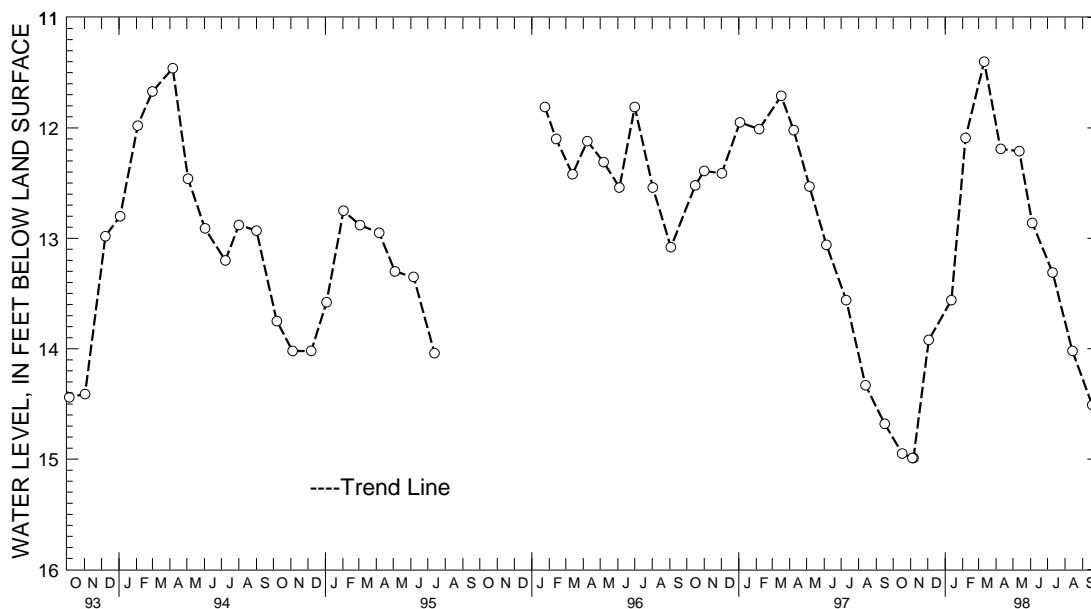
MARYLAND--Continued

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 electric 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.
 PERIOD OF RECORD.--May 1988 to July 1995, January 1996 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.40 ft below land surface, March 11, 1998; lowest measured, 14.99 ft below land surface, November 4, 1997 and November 6, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 17, 1997	14.95	JAN 12, 1998	13.56	MAY 12, 1998	12.21	SEP 18, 1998	14.51
NOV 04	14.99	FEB 06	12.09	JUN 04	12.86		
06	14.99	MAR 11	11.40	JUL 10	13.31		
DEC 03	13.92	APR 09	12.19	AUG 14	14.02		
WATER YEAR 1998		HIGHEST	11.40	MAR 11, 1998	LOWEST	14.99	NOV 04, 1997
							NOV 06, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.--Morgan Run Formation of Ordovician age. Aquifer code: 300MRGR.

WELL CHARACTERISTICS.--Dug, stone-lined, observation, water-table well, measured depth 48 ft; diameter 60 in.

INSTRUMENTATION.--Monthly measurements with electric 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.

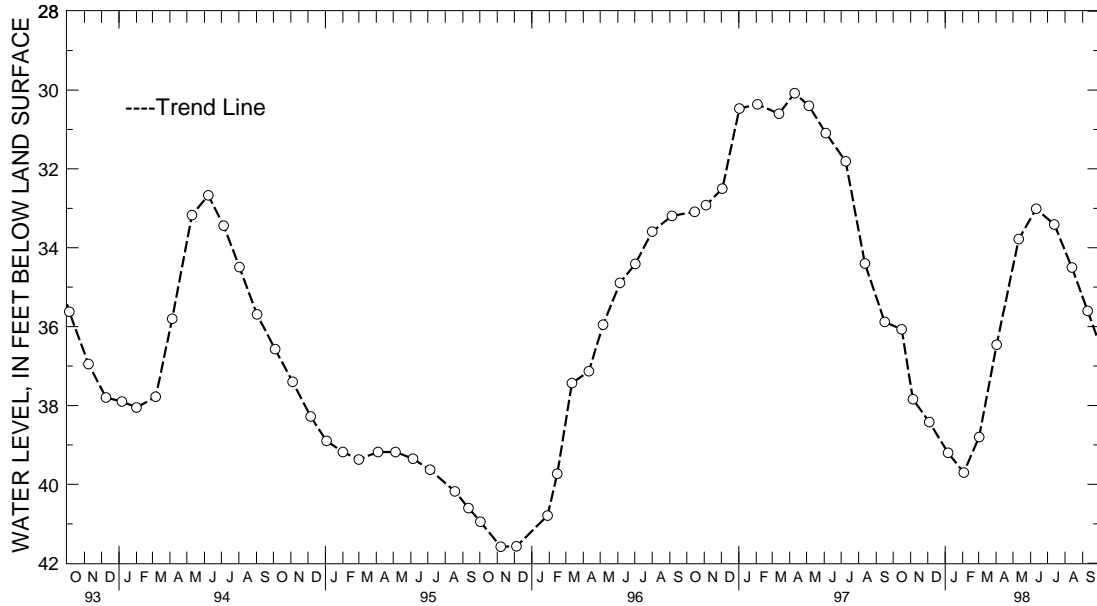
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	36.07	JAN 06, 1998	39.20	APR 02, 1998	36.46	JUL 13, 1998	33.41
NOV 05	37.84	FEB 03	39.70	MAY 11	33.78	AUG 13	34.50
DEC 04	38.42	MAR 02	38.80	JUN 11	33.01	SEP 10	35.60
WATER YEAR 1998		HIGHEST	33.01 JUN 11, 1998	LOWEST	39.70 FEB 03, 1998		



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

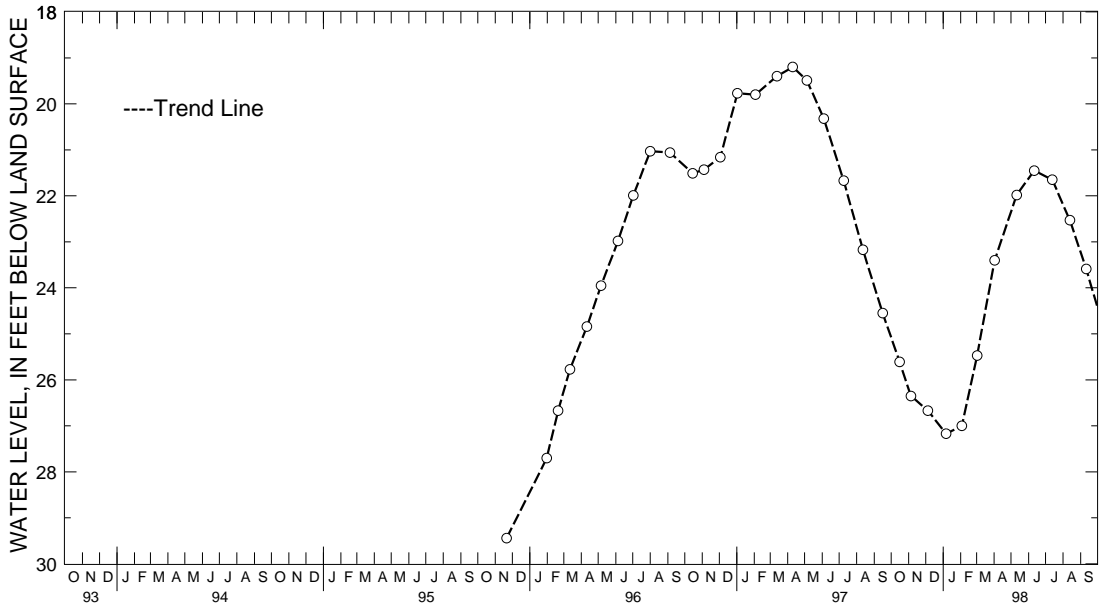
MARYLAND--Continued

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 Formation of Cambian age. Aquifer code: 300LCRV.
 INSTRUMENTATION.--Monthly measurements with electric 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, 19.20 ft below land surface, April 10, 1997;
 lowest measured, 29.68 ft below land surface, Feb. 15, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	25.61	JAN 06, 1998	27.17	APR 02, 1998	23.40	JUL 13, 1998	21.65
NOV 05	26.35	FEB 03	27.00	MAY 11	21.98	AUG 13	22.53
DEC 05	26.67	MAR 02	25.47	JUN 11	21.45	SEP 11	23.59
WATER YEAR 1998		HIGHEST	21.45 JUN 11, 1998	LOWEST	27.17 JAN 06, 1998		



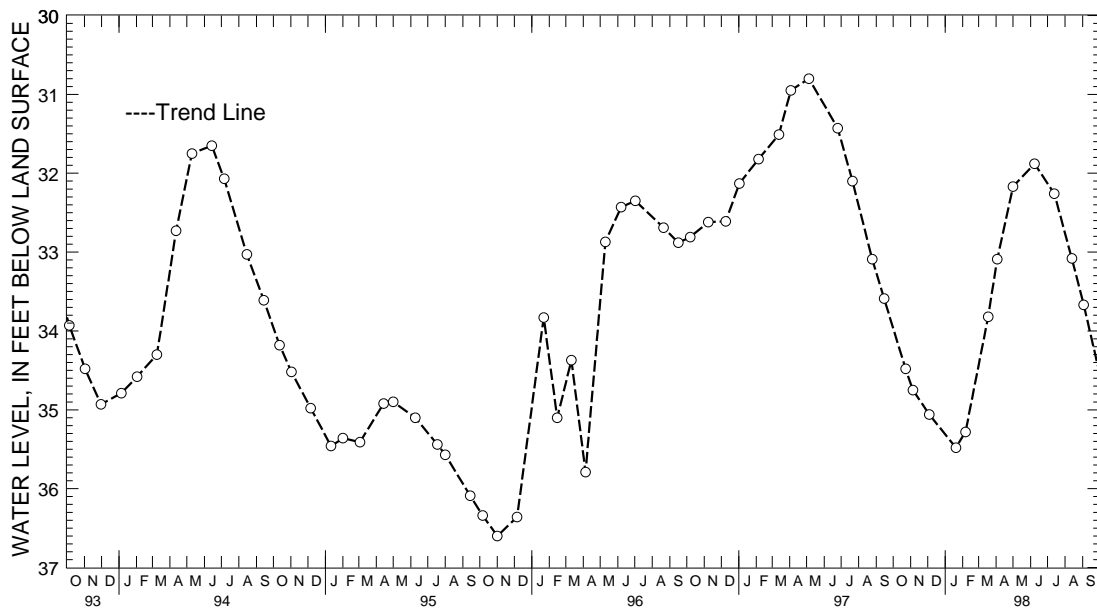
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 Ordovician 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 electric 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, 1.45 ft below 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	34.48	JAN 20, 1998	35.48	APR 03, 1998	33.09	JUL 13, 1998	32.26
NOV 05	34.75	FEB 06	35.28	MAY 01	32.17	AUG 13	33.08
DEC 04	35.06	MAR 18	33.82	JUN 08	31.88	SEP 03	33.67
WATER YEAR 1998		HIGHEST	31.88	JUN 08, 1998	LOWEST	35.48	JAN 20, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

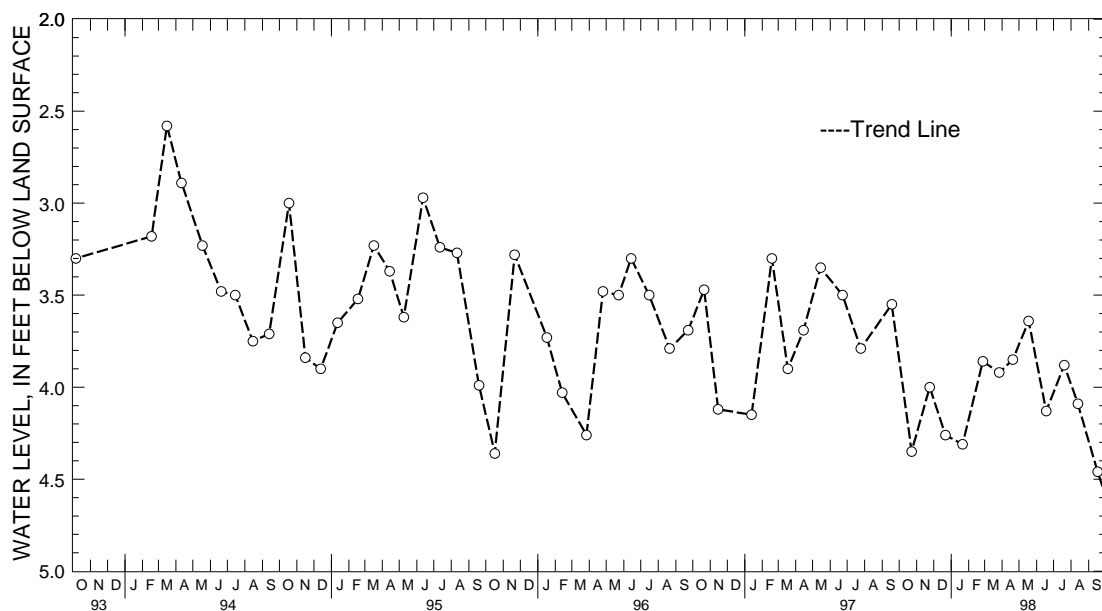
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby withdrawal.

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, 4.46 ft below land surface, Sept. 17, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	4.35	JAN 21, 1998	4.31	APR 20, 1998	3.85	JUL 20, 1998	3.88
NOV 24	4.00	FEB 26	3.86	MAY 18	3.64	AUG 13	4.09
DEC 22	4.26	MAR 27	3.92	JUN 18	4.13	SEP 17	4.46
WATER YEAR 1998		HIGHEST	3.64	MAY 18, 1998		LOWEST	4.46
				SEP 17, 1998			



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

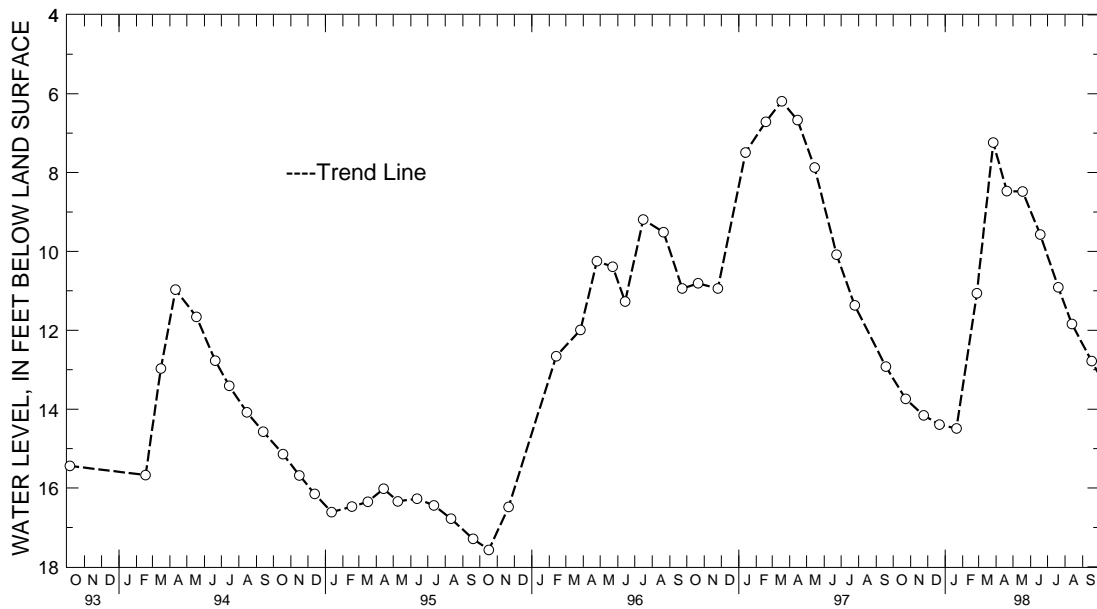
MARYLAND--Continued

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 electric 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, 6.19 ft below land surface, March 18, 1997; lowest measured, 20.23 ft below land surface, Dec. 12, 13 and 14, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	13.74	JAN 21, 1998	14.49	APR 20, 1998	8.47	JUL 20, 1998	10.91
NOV 24	14.16	FEB 26	11.06	MAY 18	8.48	AUG 13	11.84
DEC 22	14.39	MAR 27	7.24	JUN 18	9.57	SEP 17	12.78
WATER YEAR 1998		HIGHEST	7.24 MAR 27, 1998	LOWEST	14.49 JAN 21, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

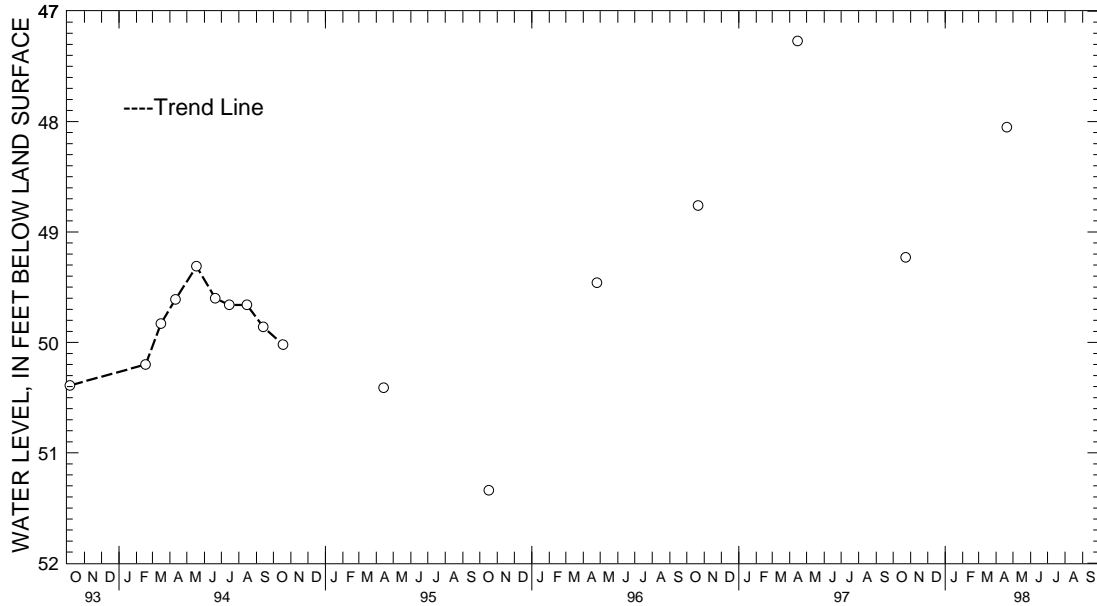
MARYLAND--Continued

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 electric 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, 47.27 below land surface, April 15, 1997;
 lowest measured, 51.34 ft below land surface, Oct. 17, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	49.23	APR 20, 1998	48.05
WATER YEAR 1998		HIGHEST 48.05 APR 20, 1998	LOWEST 49.23 OCT 23, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

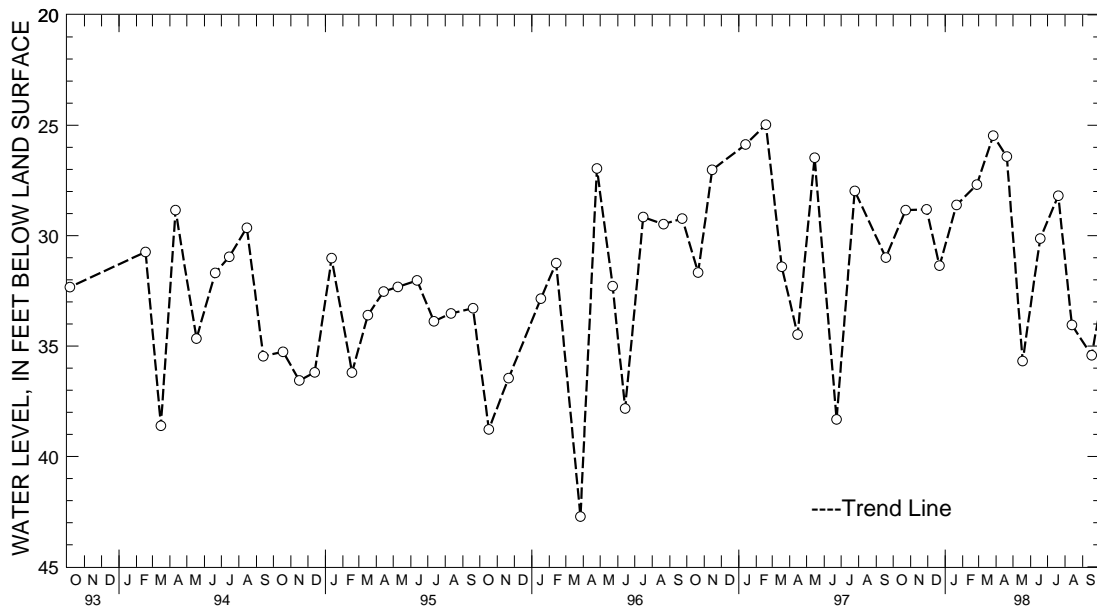
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	28.84	JAN 21, 1998	28.61	APR 20, 1998	26.42	JUL 20, 1998	28.19
NOV 29	28.81	FEB 26	27.69	MAY 18	35.68	AUG 13	34.04
DEC 22	31.36	MAR 27	25.47	JUN 18	30.13	SEP 17	35.42
WATER YEAR 1998		HIGHEST	25.47	MAR 27, 1998	LOWEST	35.68	MAY 18, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

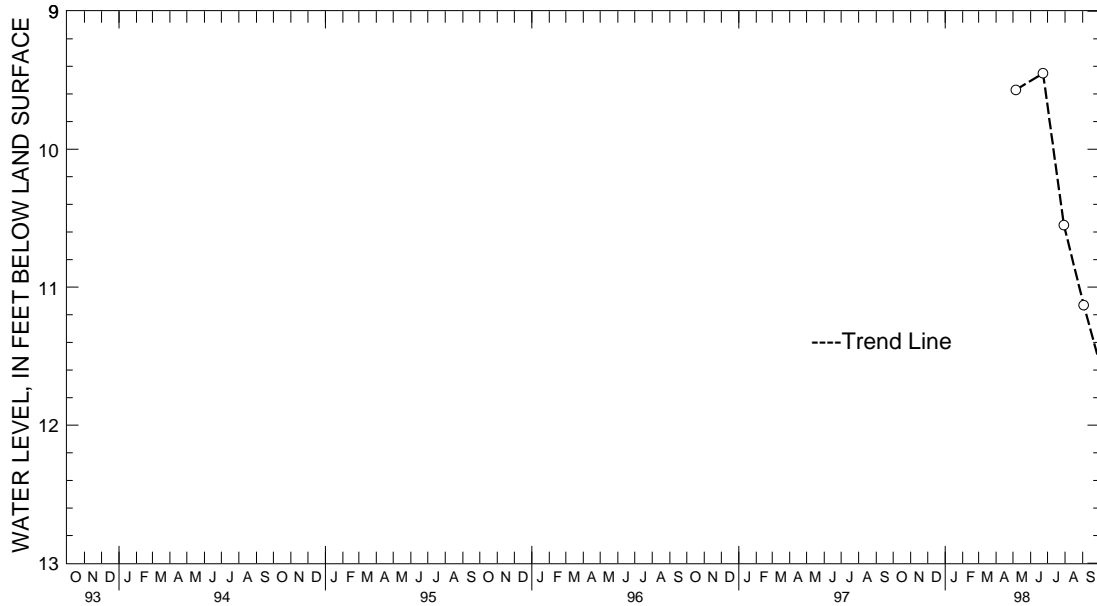
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Be 50. SITE ID.--391851075561801. PERMIT NUMBER.--KE-.81-0939.
 LOCATION.--Lat 39°18'51", long 75°56'18", Hydrologic Unit 02060002, east side of Chesterville Locust Grove Rd.
 (MD Rt 444), 200ft north of Vansants Corner Rd, 1 mile south of US Rt 301, 3 mi northwest of Chesterville.
 Owner: U.S. Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 22 ft; casing diameter 2 in., to 20 ft;
 screen diameter 2 in. from 20 to 22 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 70.17 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 0.05 ft below land surface.
 REMARKS.--Chester Basin Project observation well.
 PERIOD OF RECORD.--October 1988 to March 1992, May 1998 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.53 ft below land surface, June 23, 1989;
 lowest measured, 14.55 ft below land surface, Nov. 24, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 06, 1998	9.57	JUN 23, 1998	9.45	JUL 30, 1998	10.55	SEP 03, 1998	11.13
WATER YEAR 1998		HIGHEST	9.45 JUN 23, 1998	LOWEST	11.13 SEP 03, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

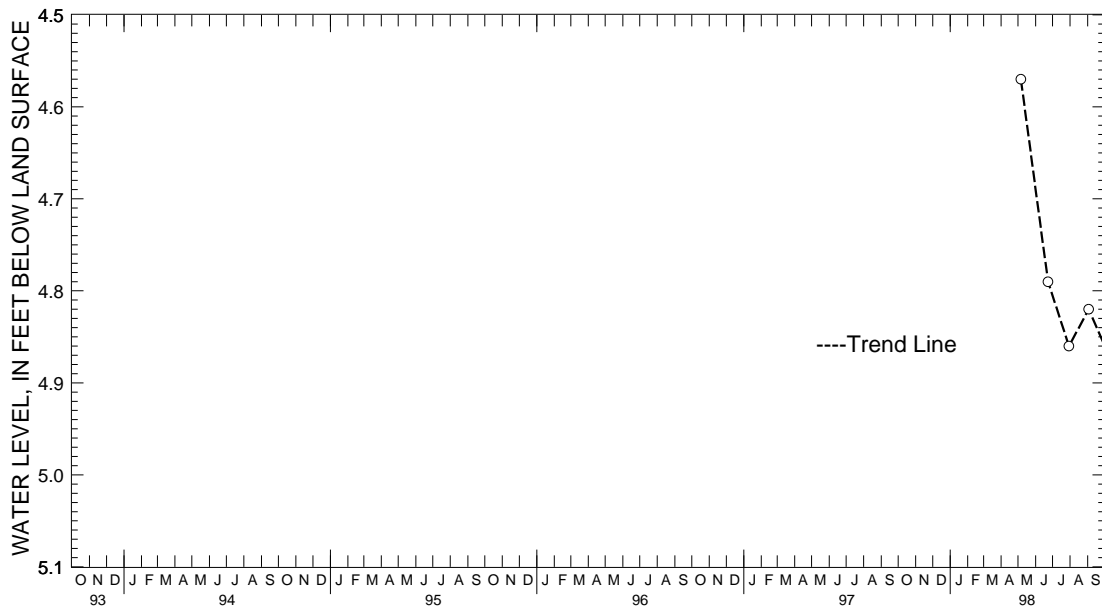
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Be 159. SITE ID.--391720075554601. PERMIT NUMBER.--KE-88-0045.
 LOCATION.--Lat 39°17'20", long 75°55'46", Hydrologic Unit 02060002, on west side of Chesterville Locust Grove Rd (MD Rt 444), at Chester Branch, 1 mi northwest of Chesterville
 Owner: U.S. Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 68.5 ft; casing diameter 2 in., to 65.5 ft; screen diameter 2 in. from 65.5 to 68.5 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 45.27 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 0.30 ft below land surface.
 REMARKS.--Chester Basin Project observation well.
 PERIOD OF RECORD.--November 1990 to March 1992, May 1998 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.26 ft below land surface, March 18, 1991; lowest measured, 5.05 ft below land surface, March 2, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 06, 1998	4.57	JUN 23, 1998	4.79	JUL 30, 1998	4.86	SEP 03, 1998	4.82
WATER YEAR 1998	HIGHEST	4.57	MAY 06, 1998	LOWEST	4.86	JUL 30, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

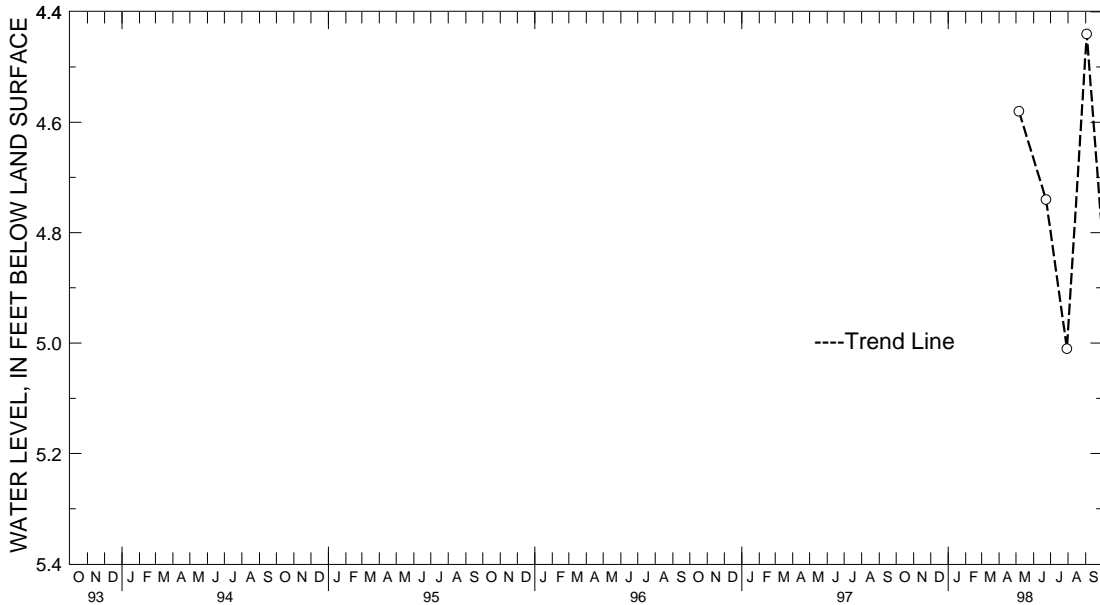
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Be 161. SITE ID.--391720075554603. PERMIT NUMBER.--KE-88-0046.
 LOCATION.--Lat 39°17'20", long 75°55'46", Hydrologic Unit 02060002, on west side of Chesterville Locust Grove Rd,
 (MD Rt 444), at Chesterville Branch, 1 mile northwest of Chesterville..
 Owner: U.S. Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 19 ft; casing diameter 2 in., to 16 ft;
 screen diameter 2 in. from 16 to 19 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 45.18 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 0.40 ft below land surface.
 REMARKS.--Chester Basin Project observation well.
 PERIOD OF RECORD.--November 1990 to April 1992, May 1998 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.37 ft below land surface, March 18, 1991;
 lowest measured, 5.28 ft below land surface, March 2, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 06, 1998	4.58	JUN 23, 1998	4.74	JUL 30, 1998	5.01	SEP 03, 1998	4.44
WATER YEAR 1998		HIGHEST	4.44	SEP 03, 1998	LOWEST	5.01	JUL 30, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

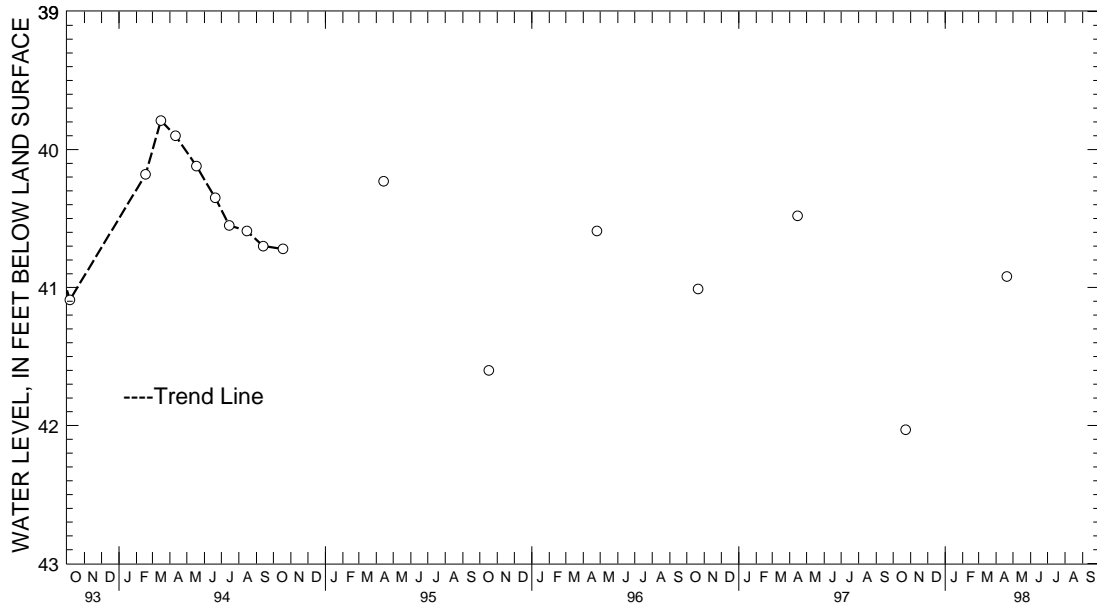
MARYLAND--Continued

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 electric 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, 42.03 ft below land surface, Oct. 23, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	42.03	APR 20, 1998	40.92
WATER YEAR 1998		HIGHEST 40.92	APR 20, 1998
		LOWEST 42.03	OCT 23, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

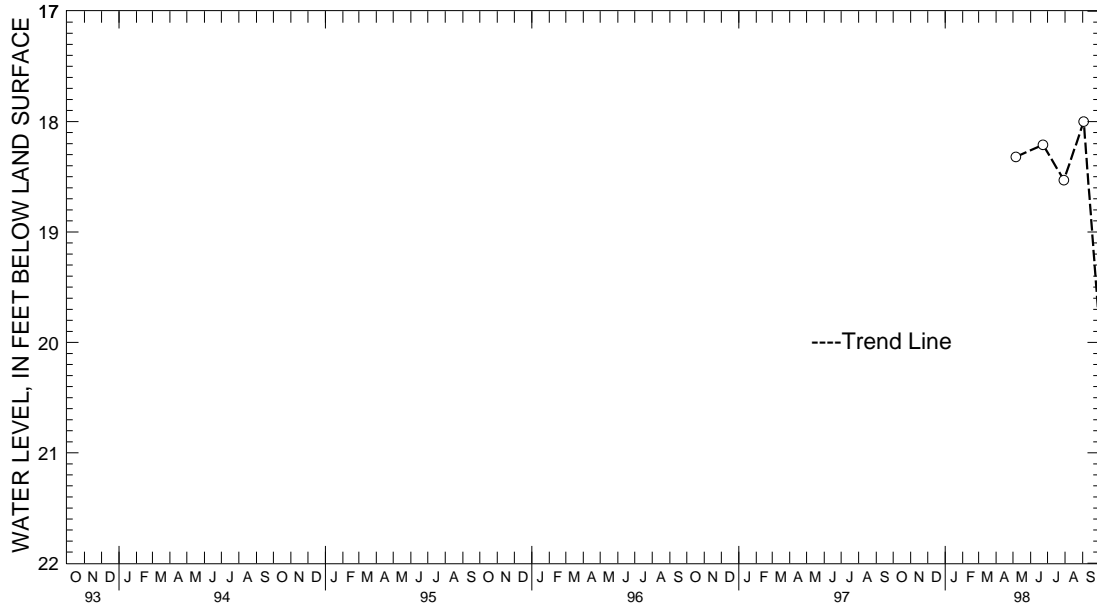
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Be 200. SITE ID.--391941075570103. PERMIT NUMBER.--KE-94-0178.
 LOCATION.--Lat 39°19'41", long 75°57'01", Hydrologic Unit 02060002, at northwest corner of Augustine Herman Highway (MD Rt 213) and Chesterville Locust Grove Rd (MD Rt 444), 3.75 mi west of Galena.
 Owner: U.S. Geological Survey.
 AQUIFER.--Hornerstown Formation of Lower Paleocene age. Aquifer code: 125HRRS.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 63 ft; casing diameter 2 in., to 60 ft; screen diameter 2 in. from 60 to 62.5 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 76.25 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 0.54 ft below land surface.
 REMARKS.--Chester Basin Project observation well.
 PERIOD OF RECORD.--May 1998 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.00 ft below land surface, Sept. 3, 1998; lowest measured, 18.53 ft below land surface, July 30, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 06, 1998	18.32	JUN 23, 1998	18.21	JUL 30, 1998	18.53	SEP 03, 1998	18.00
WATER YEAR 1998		HIGHEST	18.00	SEP 03, 1998	LOWEST	18.53	JUL 30, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

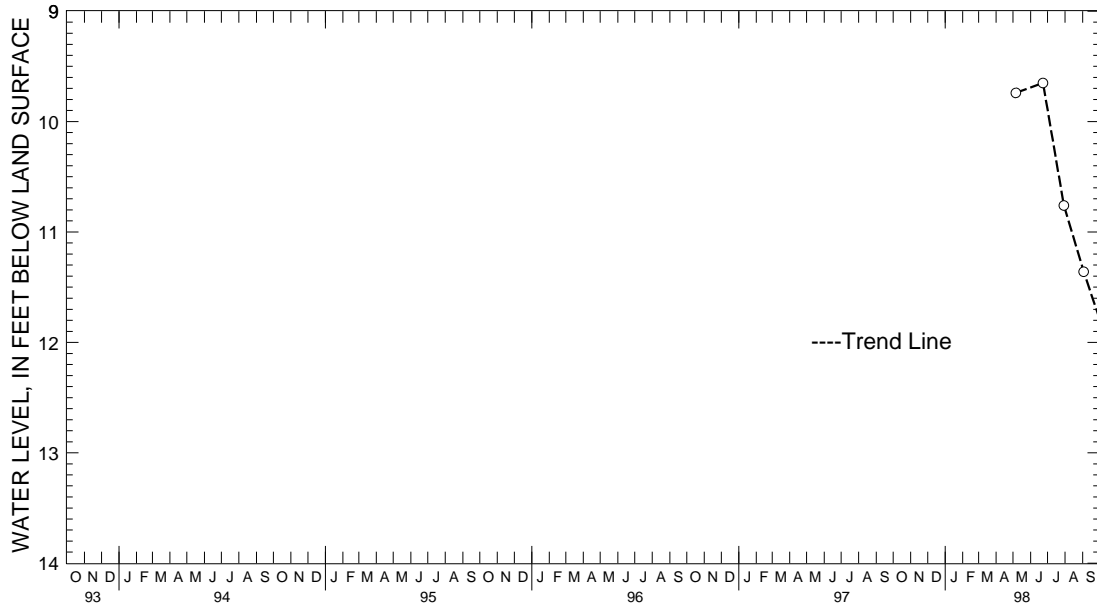
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Be 206. SITE ID.--391851075561702. PERMIT NUMBER.--KE-94-0268.
 LOCATION.--Lat 39°18'51", long 75°56'17", Hydrologic Unit 02060002, on east side of Chesterville Locust Grove Rd (MD Rt 444), 3 mi northwest of Chesterville, 200 nft north of Vansants Corner Rd, 1 mi south of MD Rt 213.
 Owner: U.S. Geological Survey.
 AQUIFER.--Aquia Formation of Upper Paleocene age. Aquifer code: 125AQUI.
 WELL CHARACTERISTICS.--Drilled, observation, water-table well, depth 36 ft; casing diameter 2 in., to 34.3 ft; screen diameter 2 in. from 34.3 to 36 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 70.68 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 0.36 ft below land surface.
 REMARKS.--Chester Basin Project observation well.
 PERIOD OF RECORD.--May 1998 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.65 ft below land surface, June 23, 1998; lowest measured, 11.36 ft below land surface, Sept. 3, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 06, 1998	9.74	JUN 23, 1998	9.65	JUL 30, 1998	10.76	SEP 03, 1998	11.36
WATER YEAR 1998		HIGHEST	9.65 JUN 23, 1998	LOWEST	11.36 SEP 03, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

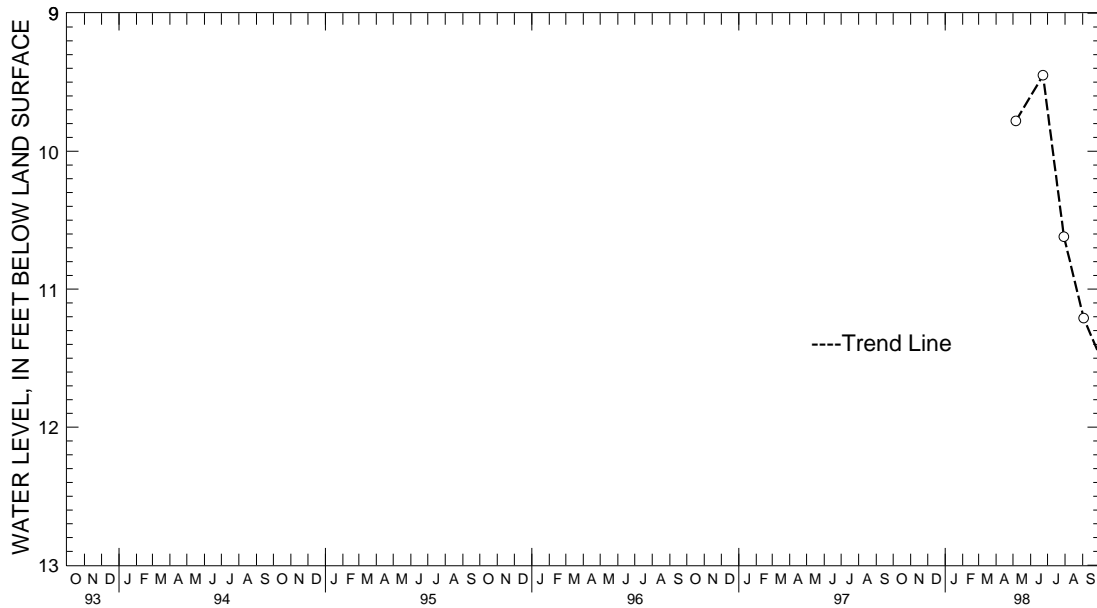
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Be 210. SITE ID.--391851075561701. PERMIT NUMBER.--KE-94-0264.
 LOCATION.--Lat 39°18'51", long 75°56'17", Hydrologic Unit 02060002, on east side of Chesterville Locust Grove Rd (MD Rt 444), 3 mi northwest of Chesterville, 200ft north of Vansants Corner Rd, 1 mi south of MD Rt 213.
 Owner: U.S. Geological Survey.
 AQUIFER.--Hornerstown Formation of Lower Paleocene age. Aquifer code: 125HRRS.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 87 ft; casing diameter 2 in., to 84 ft; screen diameter 2 in. from 84 to 87 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 70.47 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 0.24 ft below land surface.
 REMARKS.--Chester Basin Project observation well.
 PERIOD OF RECORD.--May 1998 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.45 ft below land surface, June 23, 1998; lowest measured, 11.21 ft below land surface, Sept. 3, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 06, 1998	9.78	JUN 23, 1998	9.45	JUL 30, 1998	10.62	SEP 03, 1998	11.21
WATER YEAR 1998		HIGHEST	9.45 JUN 23, 1998	LOWEST	11.21	SEP 03, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

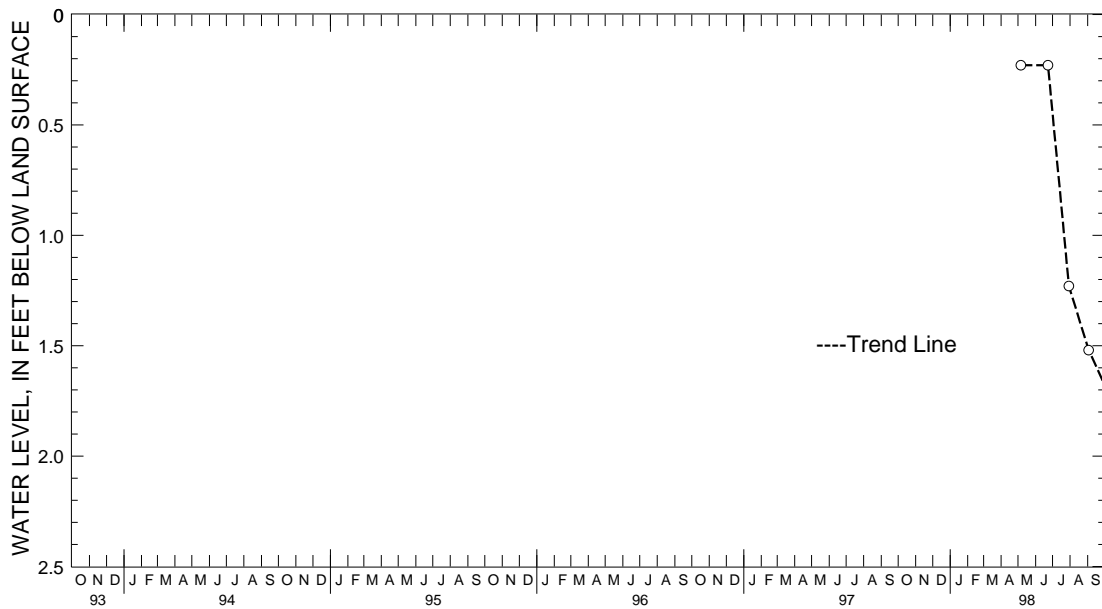
MARYLAND--Continued

KENT COUNTY--Continued

WELL NUMBER.--KE Be 211. SITE ID.--391715075554201. PERMIT NUMBER.--KE-94-0279.
 LOCATION.--Lat 39°17'15", long 75°55'42", Hydrologic Unit 02060002, East side of Chesterville Locust Grove Rd (MD Rt 444), at Chesterville Branch, left bank of Chesterville Branch, 1 mi northwest of Chesterville.
 Owner: U.S. Geological Survey.
 AQUIFER.--Hornerstown Formation of Lower Paleocene age. Aquifer code: 125HRRS.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 107 ft; casing diameter 2 in., to 104.0 ft; screen diameter 2 in. from 104.0 to 106.5 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel.
 DATUM.--Elevation of land surface is 44.34 ft above National Geodetic Vertical Datum of 1929.
 Measuring Point: Top of casing, 0.23 ft below land surface.
 REMARKS.--Chester Basin Project observation well.
 PERIOD OF RECORD.--May 1998 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.23 ft below land surface, May 6, 1998, and June 23, 1998; lowest measured, 1.52 ft below land surface, Sept. 3, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
MAY 06, 1998	.23	JUN 23, 1998	.23	JUL 30, 1998	1.23	SEP 03, 1998	1.52
WATER YEAR 1998	HIGHEST	.23	MAY 06, 1998	JUN 23, 1998	LOWEST	1.52	SEP 03, 1998

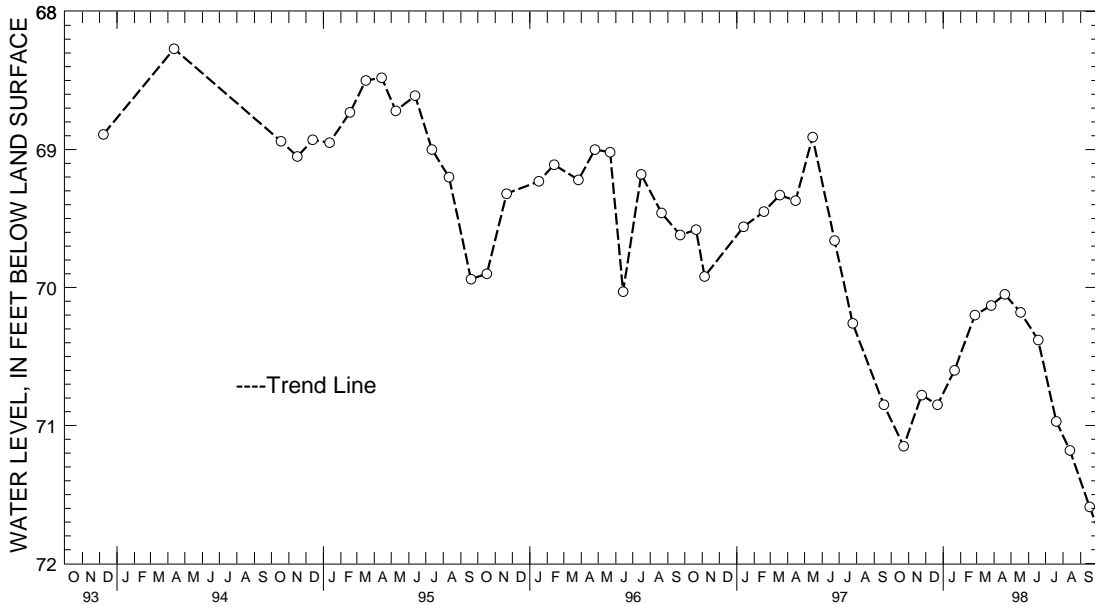


5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.
 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, 71.59 ft below land surface, Sept. 17, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	71.15	JAN 21, 1998	70.60	APR 20, 1998	70.05	JUL 20, 1998	70.97
NOV 24	70.78	FEB 26	70.20	MAY 18	70.18	AUG 13	71.18
DEC 22	70.85	MAR 27	70.13	JUN 18	70.38	SEP 17	71.59
WATER YEAR 1998		HIGHEST	70.05	APR 20, 1998	LOWEST	71.59	SEP 17, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

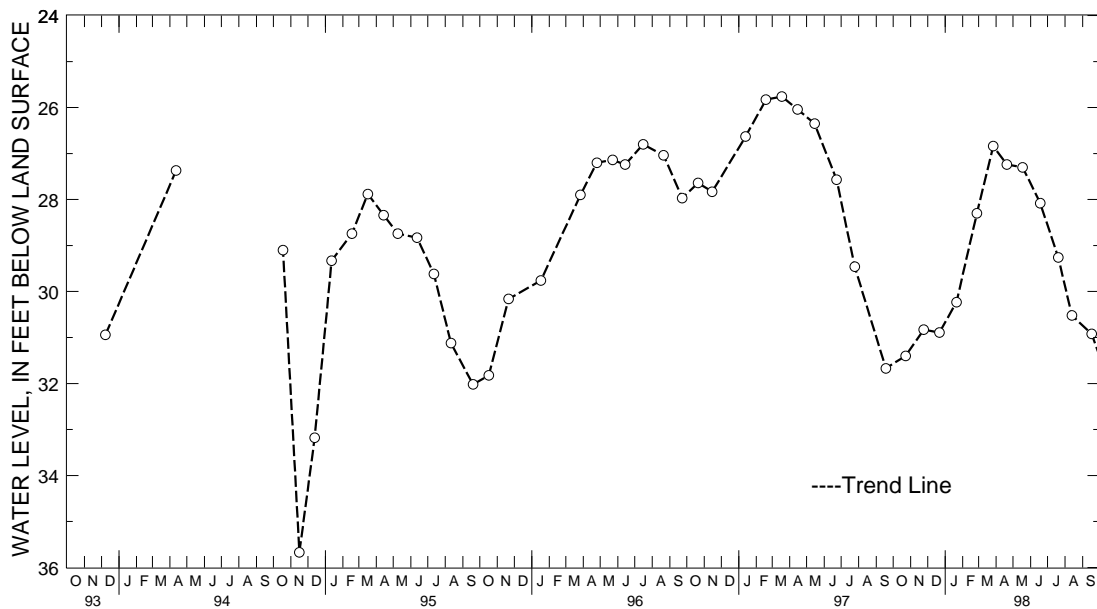
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	31.40	JAN 21, 1998	30.23	APR 20, 1998	27.24	JUL 20, 1998	29.26
NOV 24	30.83	FEB 26	28.30	MAY 18	27.30	AUG 13	30.52
DEC 22	30.89	MAR 27	26.84	JUN 18	28.08	SEP 17	30.92
WATER YEAR 1998		HIGHEST	26.84	MAR 27, 1998	LOWEST	31.40	OCT 23, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

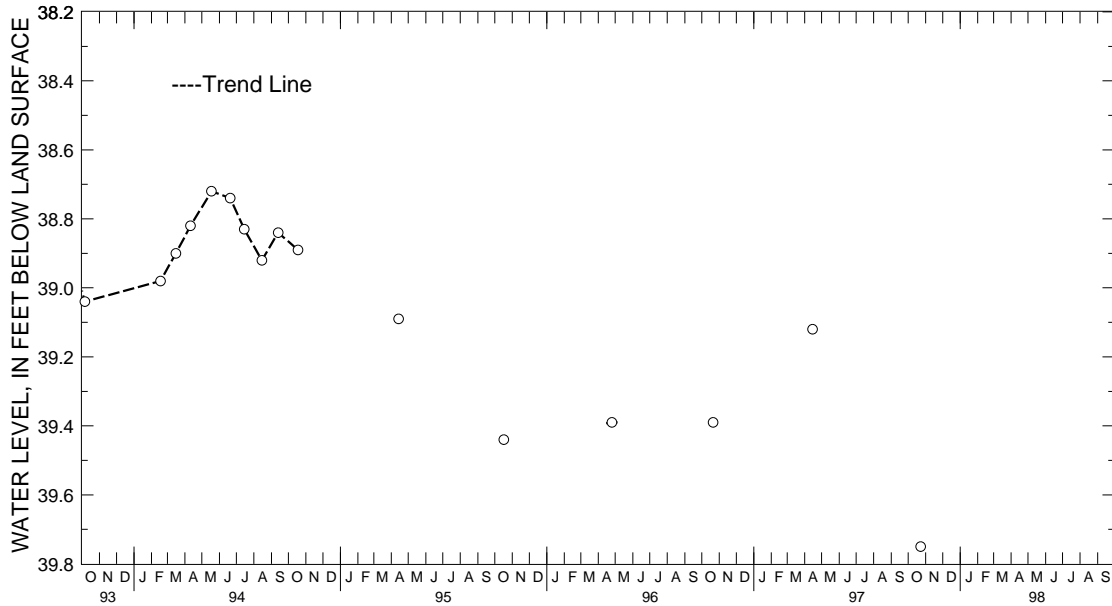
MARYLAND--Continued

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 electric 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, 39.75 ft below land surface, Oct. 23, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
OCT 23, 1997	39.75



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

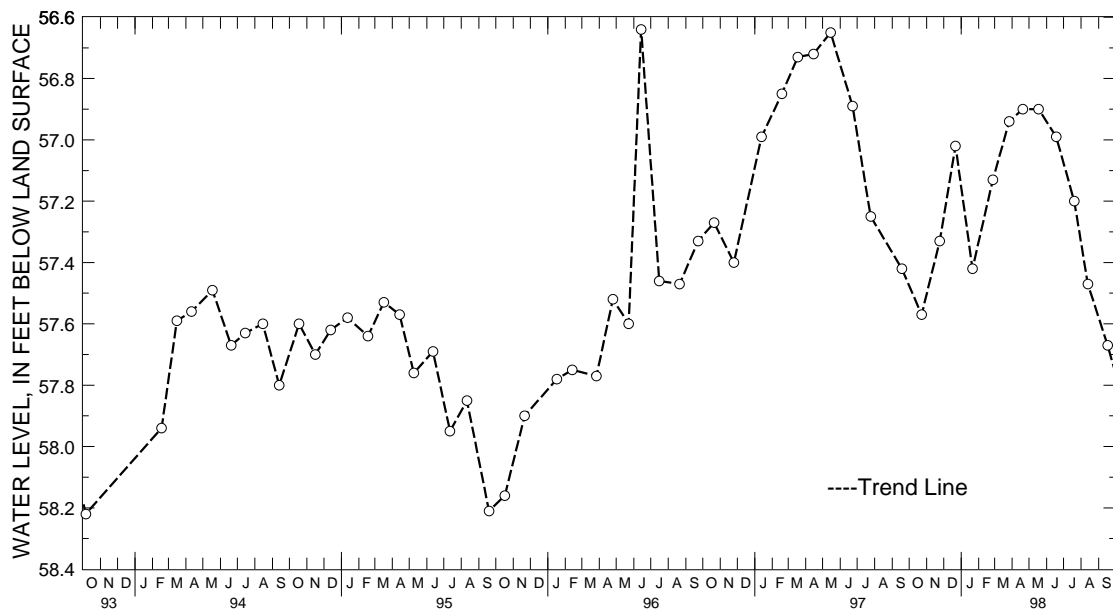
MARYLAND--Continued

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, artesian well, depth 285 ft; casing diameter 4 in., to 270 ft;
 screen diameter 4 in. from 270 to 280 ft.
 INSTRUMENTATION.--Monthly measurements with electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	
OCT 23, 1997	57.57	JAN 21, 1998	57.42	APR 20, 1998	56.90	JUL 20, 1998	57.20	
NOV 24	57.33	FEB 26	57.13	MAY 18	56.90	AUG 13	57.47	
DEC 22	57.02	MAR 27	56.94	JUN 18	56.99	SEP 17	57.67	
WATER YEAR 1998		HIGHEST	56.90	APR 20, 1998	MAY 18, 1998	LOWEST	57.67	SEP 17, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

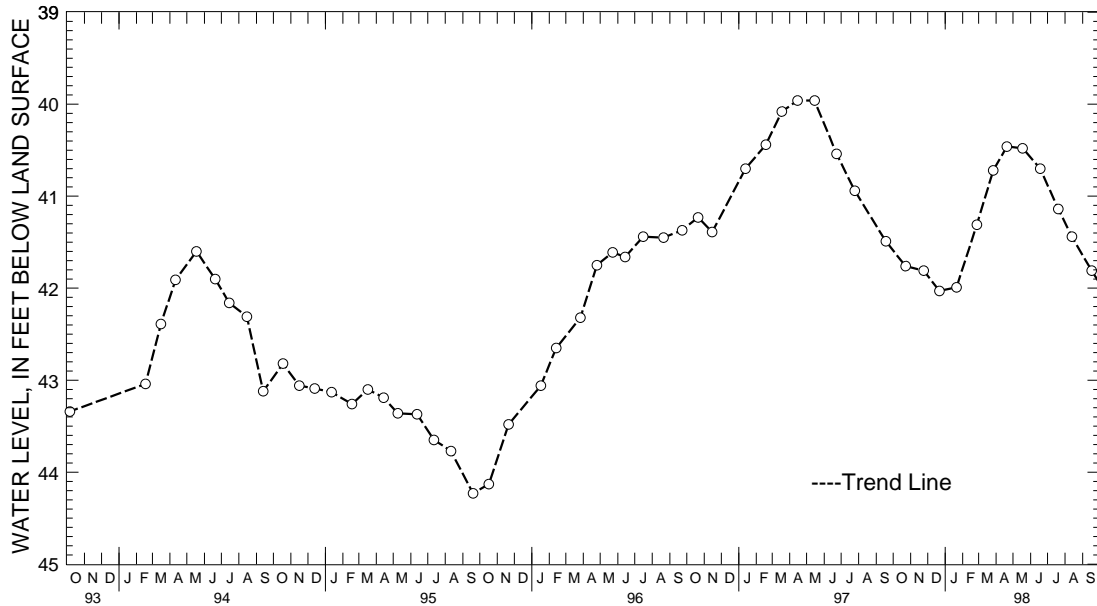
MARYLAND--Continued

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, 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 electric 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, 39.96 ft below land surface, April 15, 1997 and
 May 15, 1997; lowest measured, 44.23 ft below land surface, Sept. 19, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	41.76	JAN 21, 1998	41.99	APR 20, 1998	40.46	JUL 20, 1998	41.14
NOV 24	41.81	FEB 26	41.31	MAY 18	40.48	AUG 13	41.44
DEC 22	42.03	MAR 27	40.72	JUN 18	40.70	SEP 17	41.81
WATER YEAR 1998		HIGHEST	40.46	APR 20, 1998	LOWEST	42.03	DEC 22, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

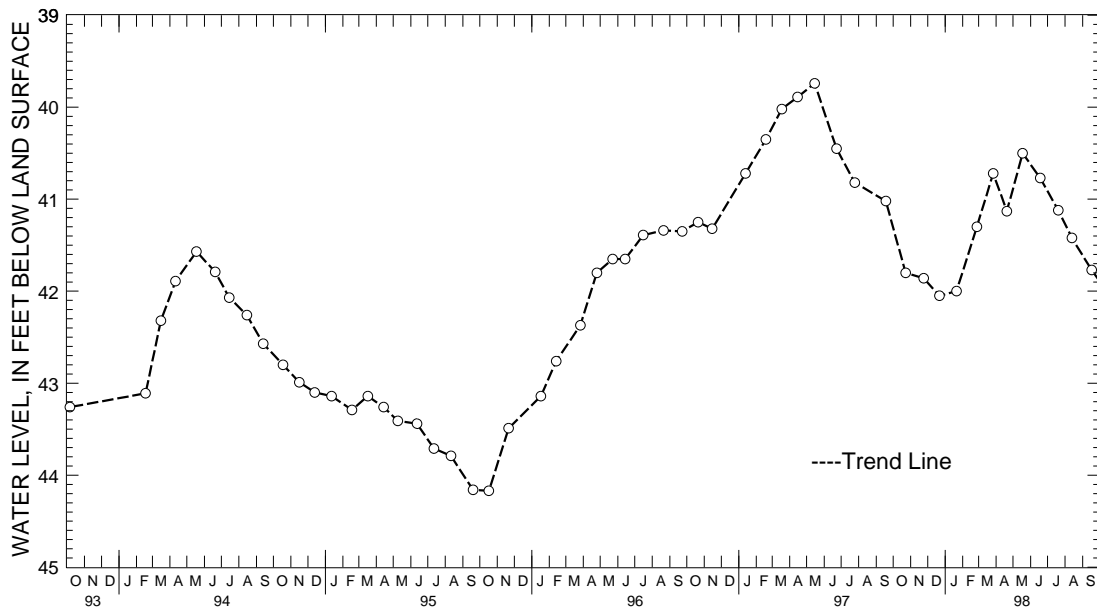
MARYLAND--Continued

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, 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 electric 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, 39.74 ft below land surface, May 15, 1997;
 lowest measured, 44.17 ft below land surface, Oct. 17, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	41.80	JAN 21, 1998	42.00	APR 20, 1998	41.13	JUL 20, 1998	41.12
NOV 24	41.86	FEB 26	41.30	MAY 18	40.50	AUG 13	41.42
DEC 22	42.05	MAR 27	40.72	JUN 18	40.77	SEP 17	41.77
WATER YEAR 1998		HIGHEST 40.50	MAY 18, 1998	LOWEST 42.05	DEC 22, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

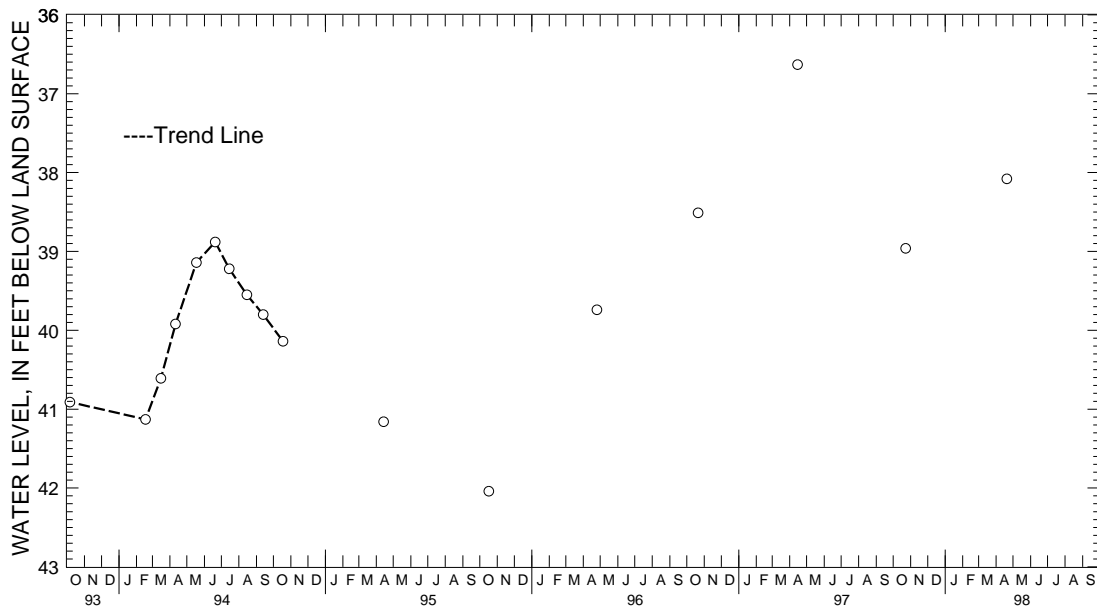
MARYLAND--Continued

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, 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 electric 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, 36.63 ft below land surface, April 15, 1997; lowest measured, 42.04 ft below land surface, Oct. 17, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	38.96	APR 20, 1998	38.08
WATER YEAR 1998		HIGHEST 38.08	APR 20, 1998
		LOWEST 38.96	OCT 23, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

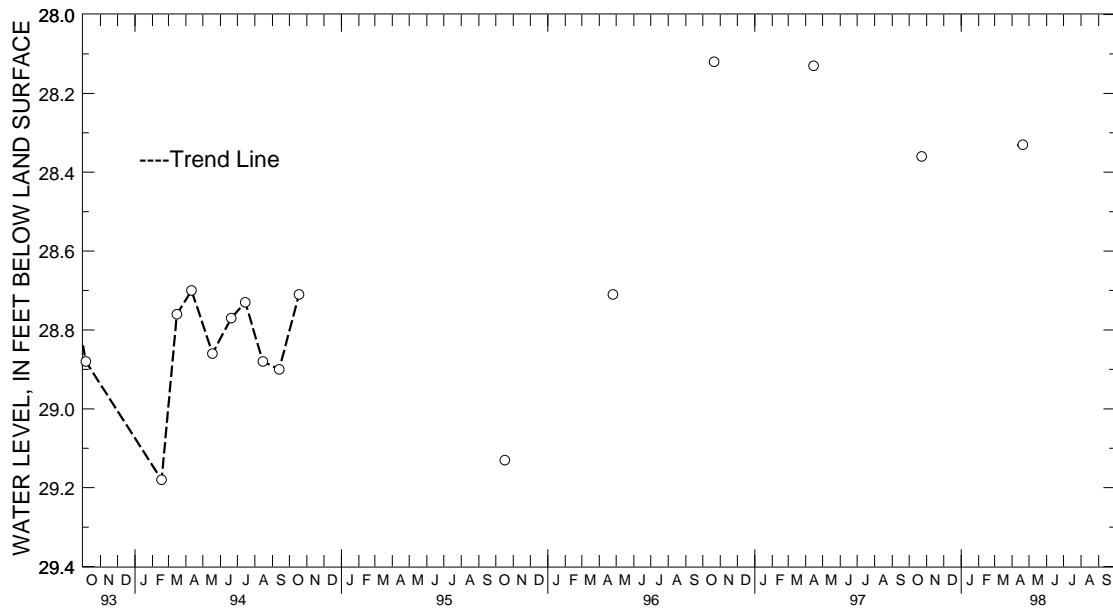
MARYLAND--Continued

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 electric 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, 28.12 ft below land surface, Oct. 21, 1996;
 lowest measured, 29.47 ft below land surface, Dec. 8, 1992.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	28.36	APR 20, 1998	28.33
WATER YEAR 1998		HIGHEST	28.33 APR 20, 1998
		LOWEST	28.36 OCT 23, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

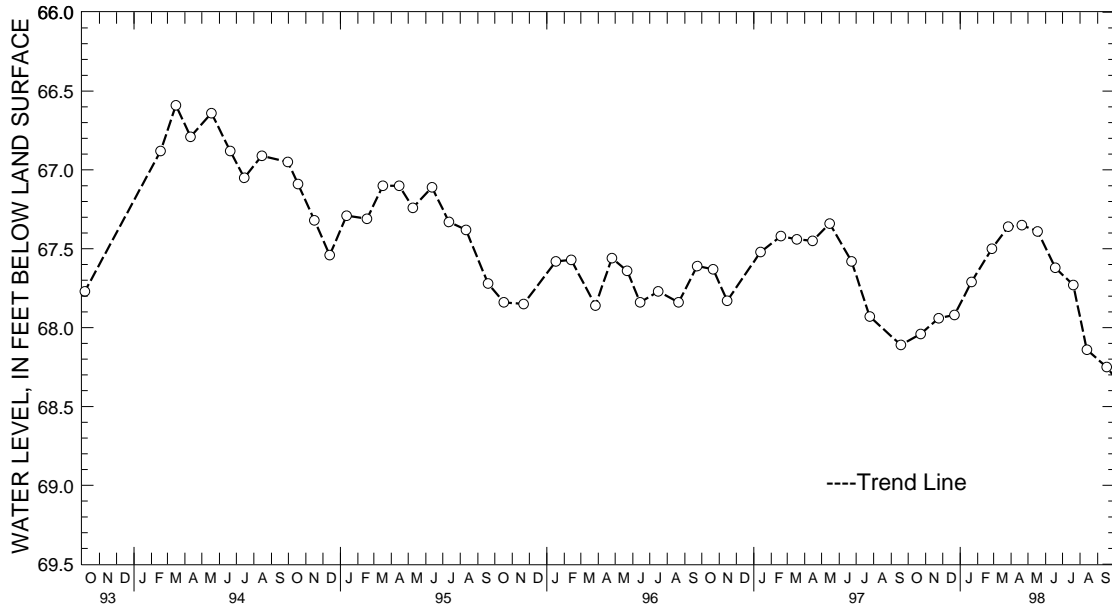
MARYLAND--Continued

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 electric 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, 68.25 ft below land surface, Sept. 17, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	68.04	JAN 21, 1998	67.71	APR 20, 1998	67.35	JUL 20, 1998	67.73
NOV 24	67.94	FEB 26	67.50	MAY 18	67.39	AUG 13	68.14
DEC 22	67.92	MAR 27	67.36	JUN 18	67.62	SEP 17	68.25
WATER YEAR 1998		HIGHEST	67.35	APR 20, 1998	LOWEST	68.25	SEP 17, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

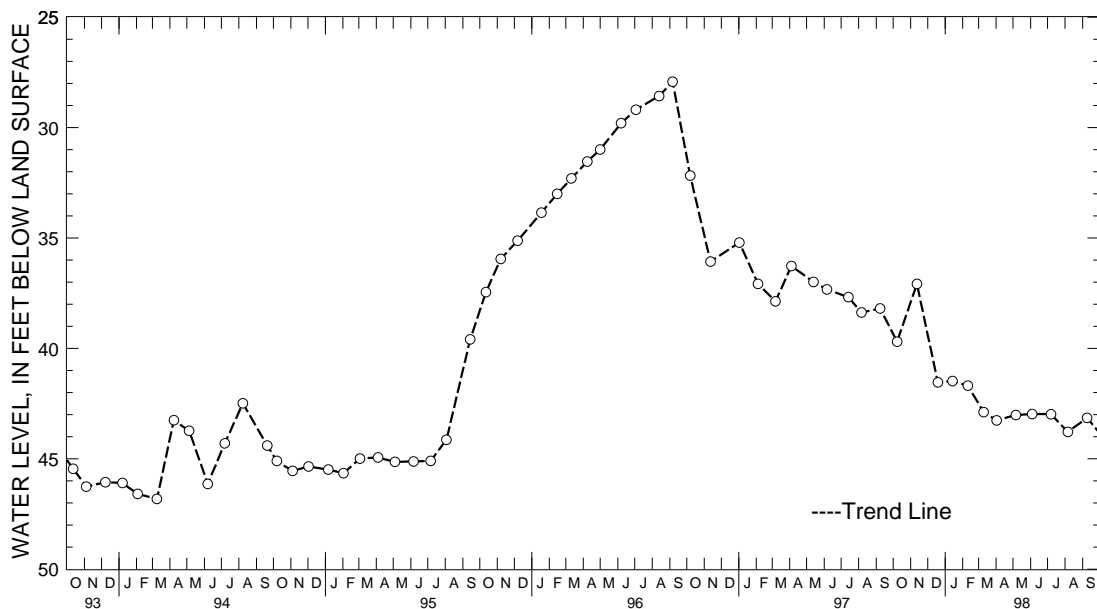
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	39.70	JAN 14, 1998	41.48	APR 02, 1998	43.26	JUL 07, 1998	42.98
NOV 12	37.08	FEB 10	41.69	MAY 06	43.02	AUG 06	43.78
DEC 19	41.54	MAR 10	42.89	JUN 04	42.97	SEP 09	43.15
WATER YEAR 1998		HIGHEST	37.08	NOV 12, 1997	LOWEST	43.78	AUG 06, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

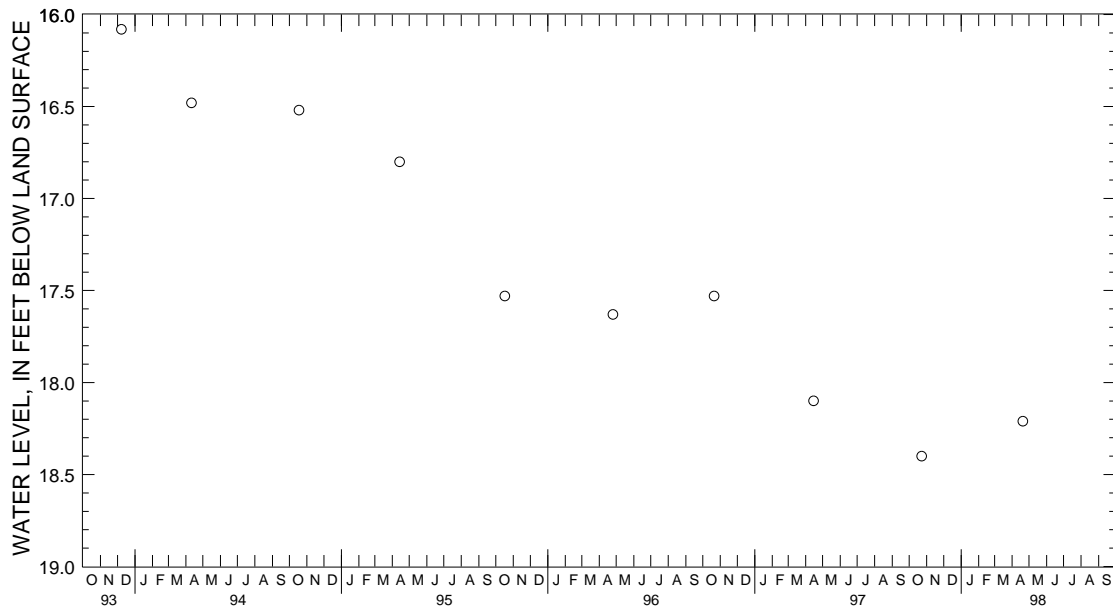
MARYLAND--Continued

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 electric 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, 18.40 ft below land surface, October 23, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	18.40	APR 20, 1998	18.21
WATER YEAR 1998	HIGHEST	18.21	APR 20, 1998
	LOWEST	18.40	OCT 23, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

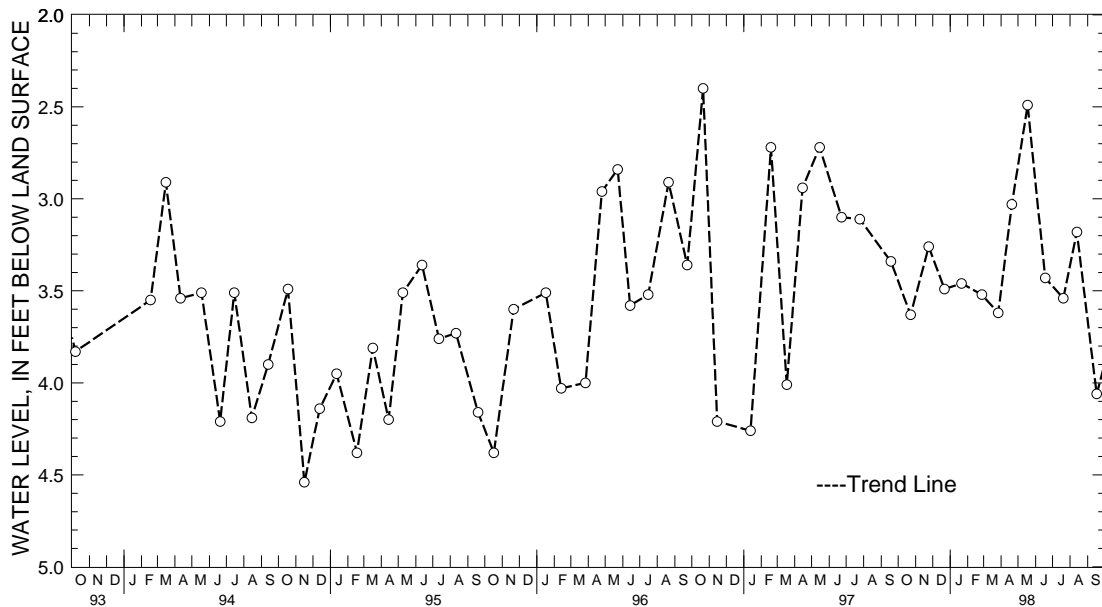
MARYLAND--Continued

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 electric 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, 2.40 ft below land surface, Oct. 21, 1996;
 lowest measured, 5.14 ft below land surface, Jan. 20, 1993.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	3.63	JAN 21, 1998	3.46	APR 20, 1998	3.03	JUL 20, 1998	3.54
NOV 24	3.26	FEB 26	3.52	MAY 18	2.49	AUG 13	3.18
DEC 22	3.49	MAR 27	3.62	JUN 18	3.43	SEP 17	4.06
WATER YEAR 1998		HIGHEST	2.49	MAY 18, 1998	LOWEST	4.06	SEP 17, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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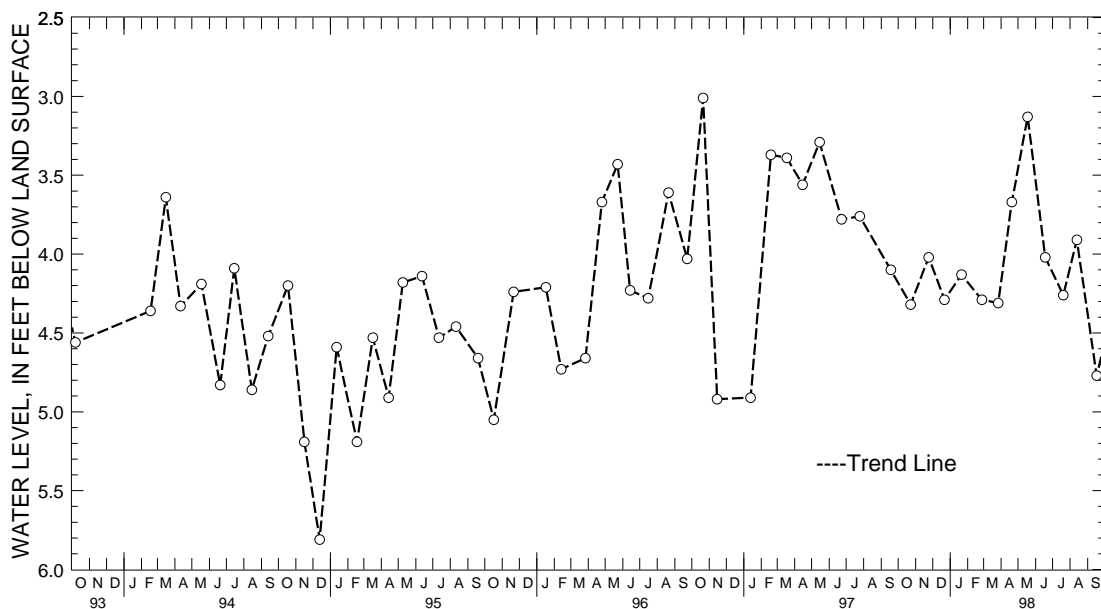
MARYLAND--Continued

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, water-table 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 electric 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, 3.01 ft below land surface, Oct. 21, 1996;
 lowest measured, 5.81 ft below land surface, Dec. 13, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	4.32	JAN 21, 1998	4.13	APR 20, 1998	3.67	JUL 20, 1998	4.26
NOV 24	4.02	FEB 26	4.29	MAY 18	3.13	AUG 13	3.91
DEC 22	4.29	MAR 27	4.31	JUN 18	4.02	SEP 17	4.77
WATER YEAR 1998		HIGHEST	3.13	MAY 18, 1998	LOWEST	4.77	SEP 17, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

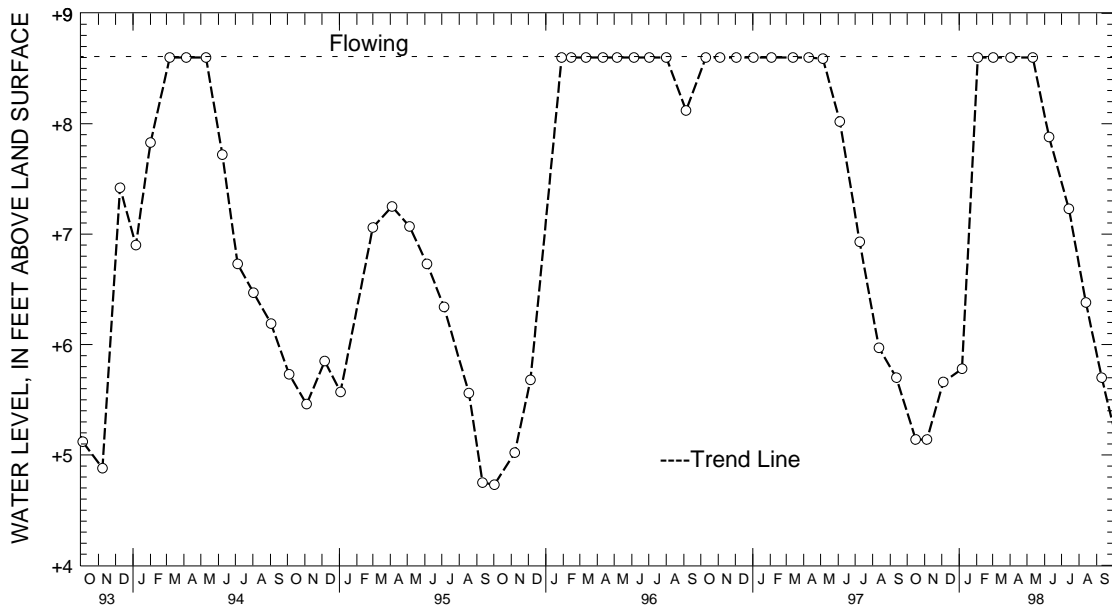
MARYLAND--Continued

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, Aug. 1, 1996, Oct. 10, 1996, Nov. 4, 1996,
 Dec. 3, 1996, Jan. 2, 1997, Feb. 3, 1997, March 13, 1997, April 10, 1997, Feb. 3, 1998, March 2, 1998,
 April 2, 1998, and May 11, 1998;.
 lowest measured, 4.02 ft above land surface, Nov. 7, 1991.

WATER LEVEL, IN FEET ABOVE LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	+5.14	JAN 06, 1998	+5.78	APR 02, 1998	FLOWING	JUL 14, 1998	+7.23
NOV 05	+5.14	FEB 03	FLOWING	MAY 11	FLOWING	AUG 13	+6.38
DEC 04	+5.66	MAR 02	FLOWING	JUN 09	+7.88	SEP 10	+5.70
WATER YEAR 1998		HIGHEST	+7.88 JUN 09, 1998	LOWEST		+5.14 OCT 16, 1997	NOV 05, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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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 electric 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.

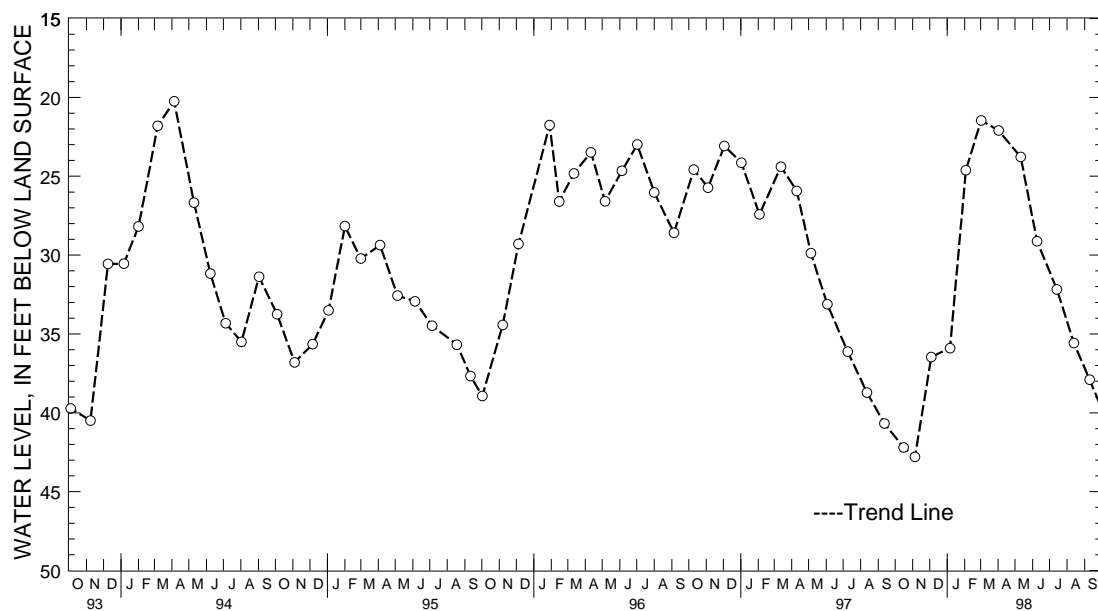
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	42.20	JAN 06, 1998	35.90	APR 02, 1998	22.10	JUL 14, 1998	32.18
NOV 05	42.79	FEB 03	24.62	MAY 11	23.78	AUG 13	35.57
DEC 04	36.46	MAR 02	21.46	JUN 09	29.12	SEP 10	37.90
WATER YEAR 1998		HIGHEST	21.46	MAR 02, 1998	LOWEST	42.79	NOV 05, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

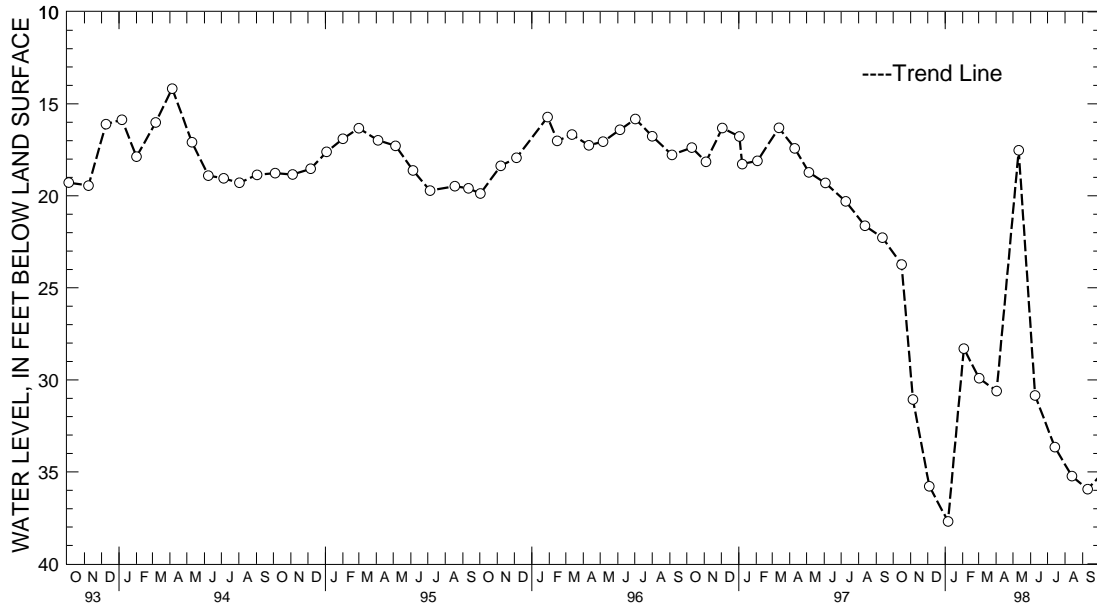
MARYLAND--Continued

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, artesian well, depth 250 ft; casing diameter 6 in., to 40 ft;
 open hole.
 INSTRUMENTATION.--Monthly measurements with electric 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. Water levels affected by nearby pumping.
 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, 37.69 ft below land surface, Jan 6, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	23.73	JAN 06, 1998	37.69	APR 02, 1998	30.61	JUL 14, 1998	33.66
NOV 05	31.07	FEB 03	28.30	MAY 11	17.52	AUG 13	35.23
DEC 04	35.78	MAR 02	29.91	JUN 09	30.85	SEP 10	35.94
WATER YEAR 1998		HIGHEST	17.52	MAY 11, 1998	LOWEST	37.69	JAN 06, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

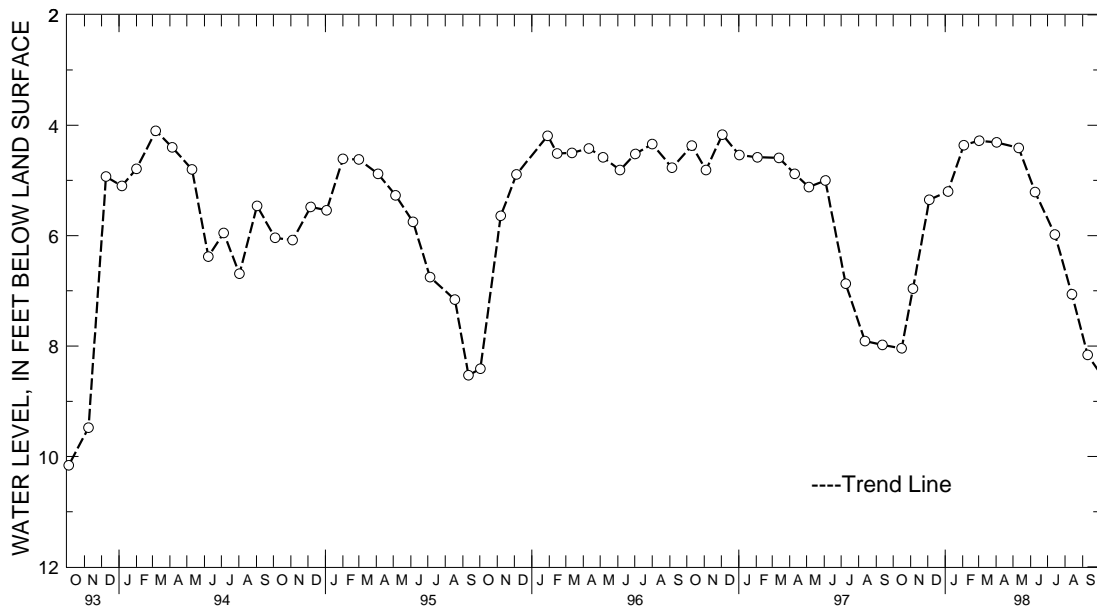
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	8.04	JAN 06, 1998	5.20	APR 02, 1998	4.31	JUL 14, 1998	5.98
NOV 05	6.96	FEB 03	4.36	MAY 11	4.41	AUG 13	7.06
DEC 04	5.35	MAR 02	4.28	JUN 09	5.21	SEP 10	8.16
WATER YEAR 1998		HIGHEST	4.28	MAR 02, 1998	LOWEST	8.16	SEP 10, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

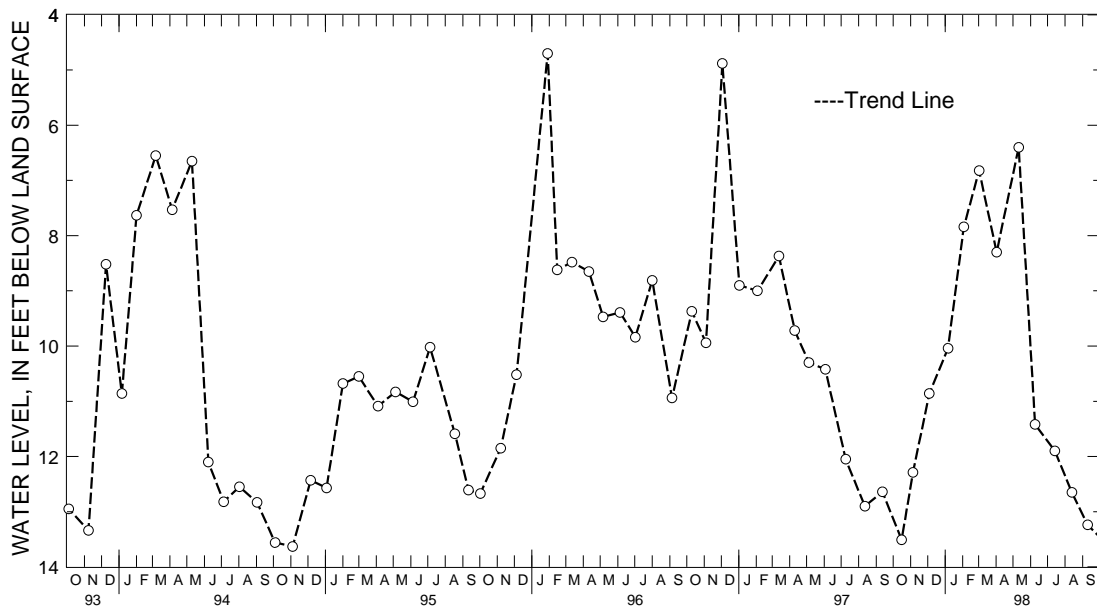
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16, 1997	13.51	JAN 06, 1998	10.04	APR 02, 1998	8.30	JUL 14, 1998	11.90
NOV 05	12.29	FEB 03	7.84	MAY 11	6.40	AUG 13	12.65
DEC 04	10.86	MAR 02	6.82	JUN 09	11.42	SEP 10	13.24
WATER YEAR 1998		HIGHEST	6.40	MAY 11, 1998	LOWEST	13.51	OCT 16, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

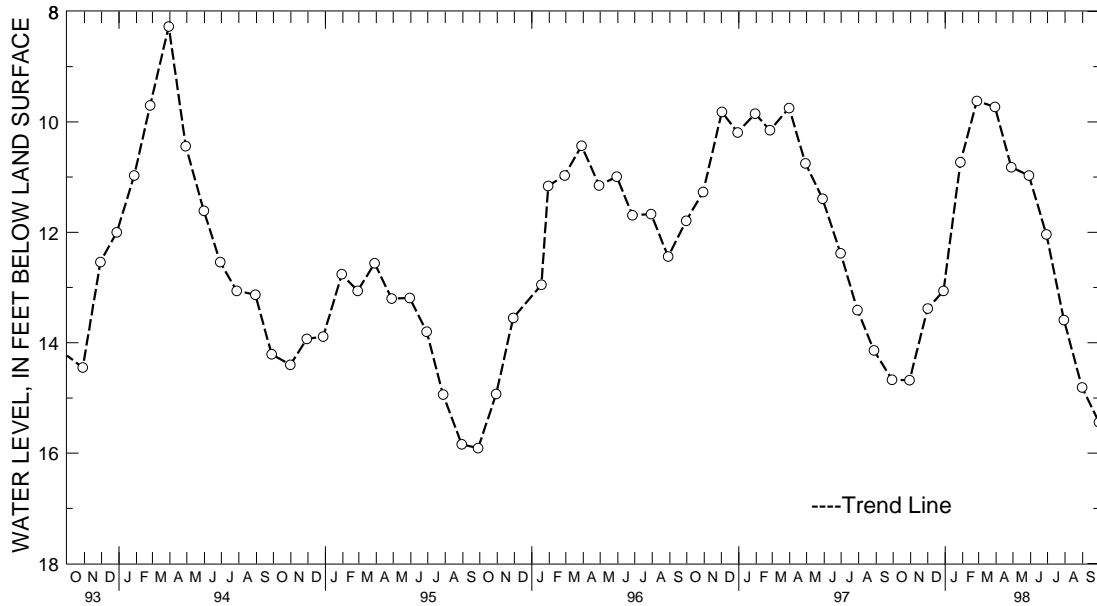
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	14.68	JAN 28, 1998	10.73	APR 28, 1998	10.82	JUL 30, 1998	13.59
DEC 01	13.38	FEB 26	9.62	MAY 29	10.97	AUG 31	14.81
29	13.06	MAR 30	9.73	JUN 29	12.04	SEP 30	15.44
WATER YEAR 1998		HIGHEST	9.62 FEB 26, 1998	LOWEST	15.44 SEP 30, 1998		



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

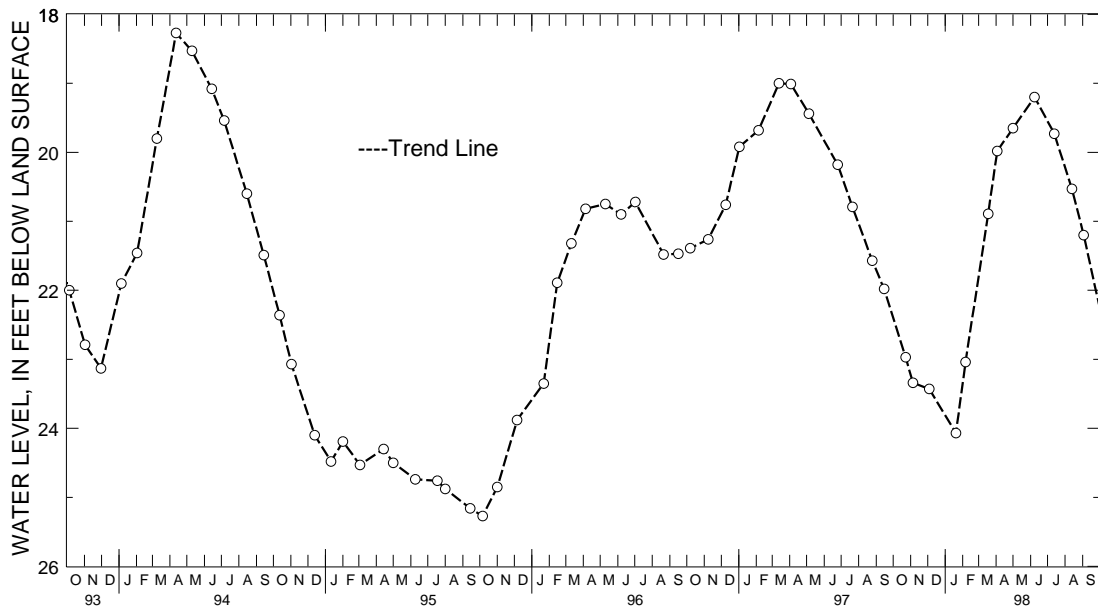
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	22.97	JAN 20, 1998	24.07	APR 03, 1998	19.98	JUL 13, 1998	19.73
NOV 05	23.34	FEB 06	23.04	MAY 01	19.65	AUG 13	20.53
DEC 04	23.43	MAR 18	20.89	JUN 08	19.20	SEP 03	21.20
WATER YEAR 1998		HIGHEST	19.20 JUN 08, 1998	LOWEST	24.07 JAN 20, 1998		



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

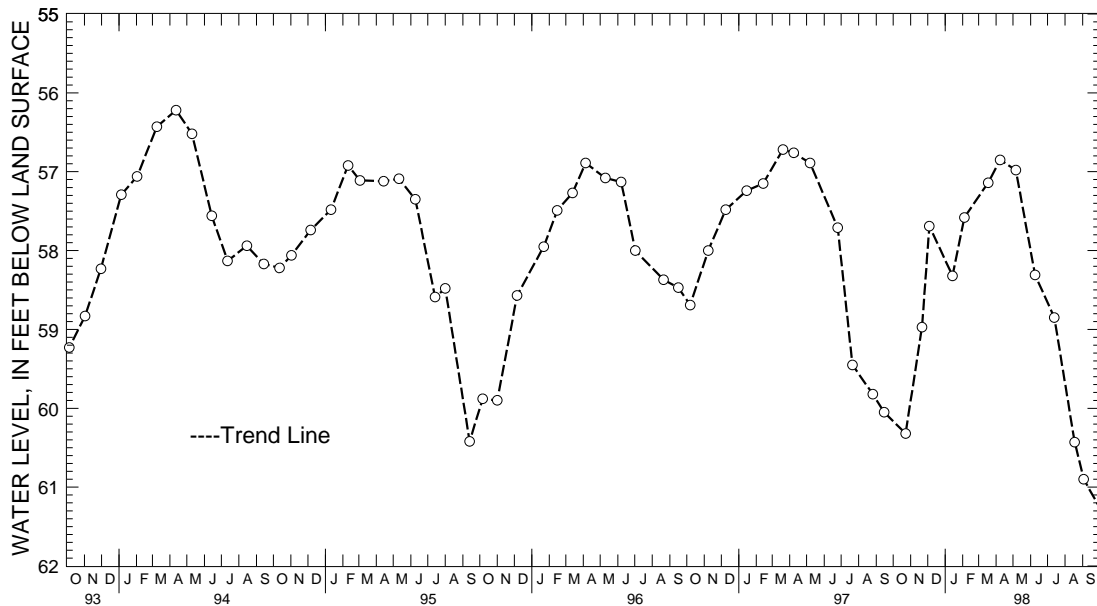
MARYLAND--Continued

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 electric tape by U.S. Geological Survey personnel.
 Equipped with graphic 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, 60.90 ft below land surface, Sept. 3, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 23, 1997	60.32	JAN 14, 1998	58.32	APR 08, 1998	56.85	JUL 13, 1998	58.85
NOV 21	58.97	FEB 04	57.58	MAY 06	56.98	AUG 18	60.43
DEC 04	57.69	MAR 18	57.14	JUN 09	58.31	SEP 03	60.90
WATER YEAR 1998		HIGHEST	56.85	APR 08, 1998	LOWEST	60.90	SEP 03, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

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 electric 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.

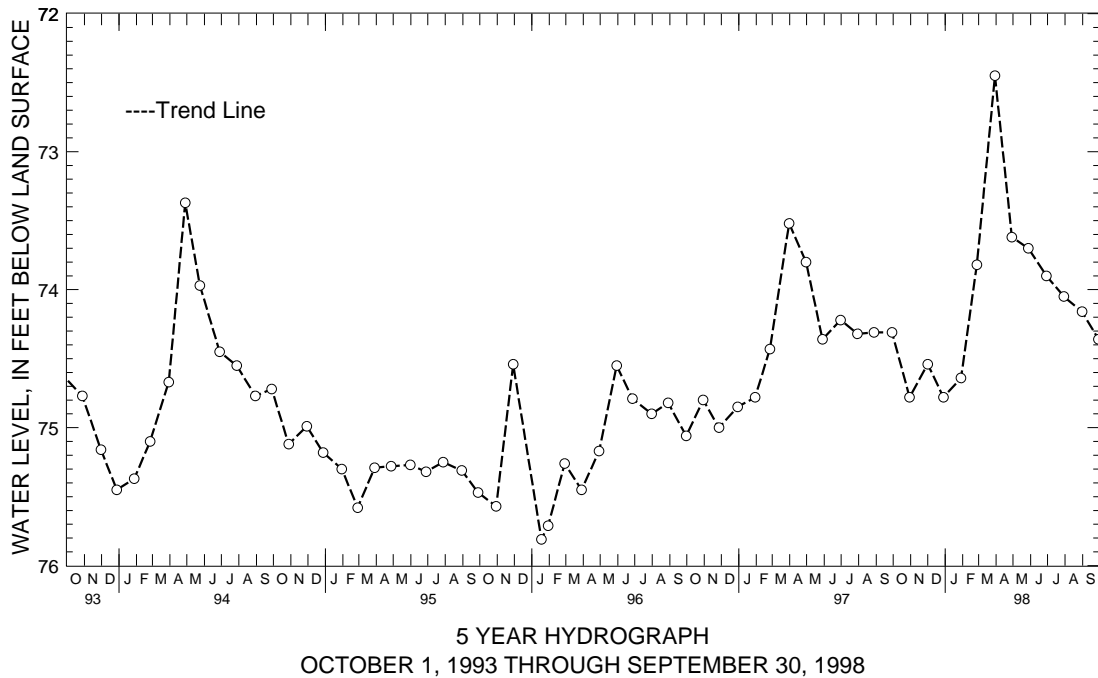
REMARKS.--Maryland Water-Level Network observation well. Water level rise in summer of 1990 to 67.78 ft. below land surface was due to leaking water storage tank above well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	74.78	JAN 29, 1998	74.64	APR 29, 1998	73.62	JUL 30, 1998	74.05
DEC 01	74.54	FEB 26	73.82	MAY 28	73.70	AUG 31	74.16
29	74.78	MAR 30	72.45	JUN 29	73.90	SEP 29	74.36
WATER YEAR 1998		HIGHEST	72.45	MAR 30, 1998	LOWEST	74.78	OCT 30, 1997
							DEC 29, 1997



GROUND-WATER LEVELS

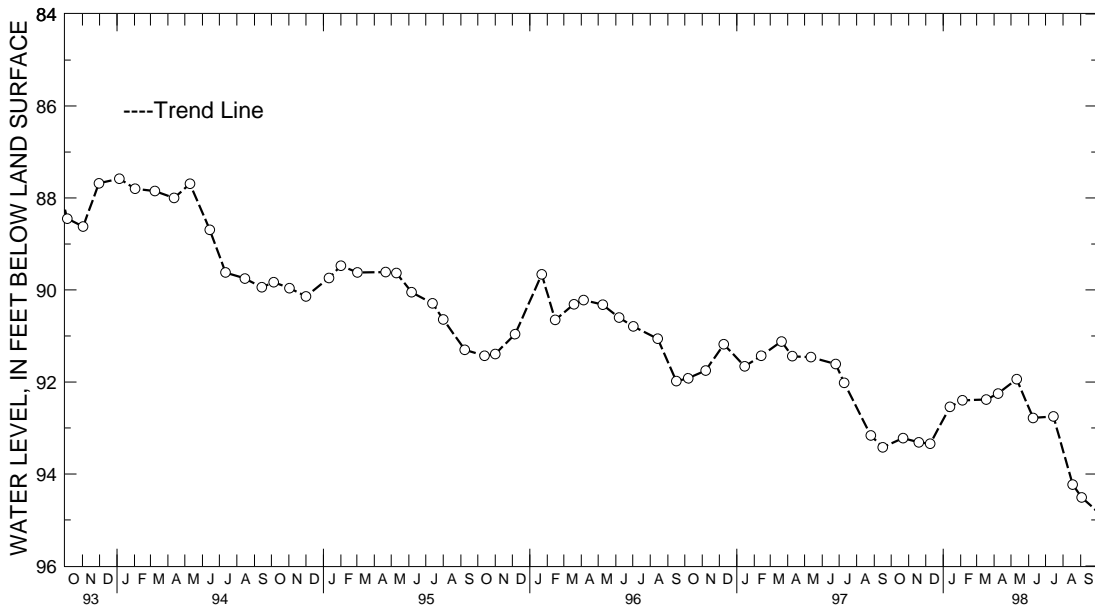
MARYLAND--Continued

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 aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.
 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 electric 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, 94.51 ft below land surface, Sept. 3, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	93.22	JAN 13, 1998	92.54	APR 08, 1998	92.25	JUL 15, 1998	92.75
NOV 19	93.31	FEB 04	92.40	MAY 11	91.94	AUG 18	94.23
DEC 09	93.34	MAR 18	92.38	JUN 09	92.78	SEP 03	94.51
WATER YEAR 1998		HIGHEST	91.94	MAY 11, 1998	LOWEST	94.51	SEP 03, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

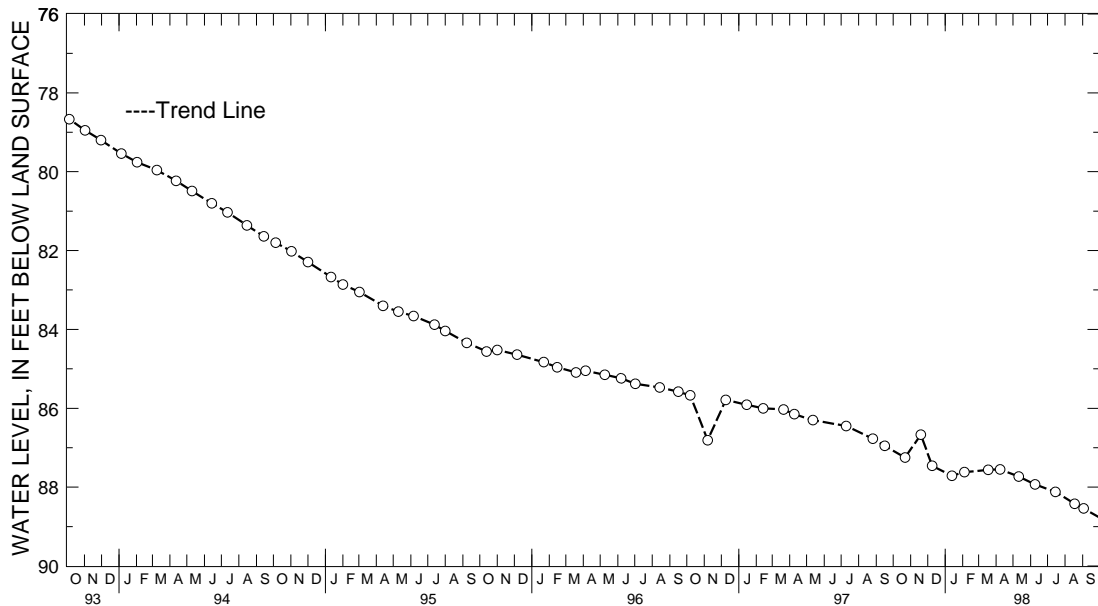
MARYLAND--Continued

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: 217LPLT.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 750 ft; casing diameter 6 in.; casing perforated from 712 to 716 ft.
 INSTRUMENTATION.--Monthly measurements with electric 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, 88.54 ft below land surface, Sept. 3, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	87.25	JAN 13, 1998	87.71	APR 08, 1998	87.55	JUL 15, 1998	88.12
NOV 19	86.67	FEB 04	87.62	MAY 11	87.73	AUG 18	88.42
DEC 09	87.46	MAR 18	87.56	JUN 09	87.93	SEP 03	88.54
WATER LEVEL 1998		HIGHEST	86.67	NOV 19, 1997	LOWEST	88.54	SEP 03, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

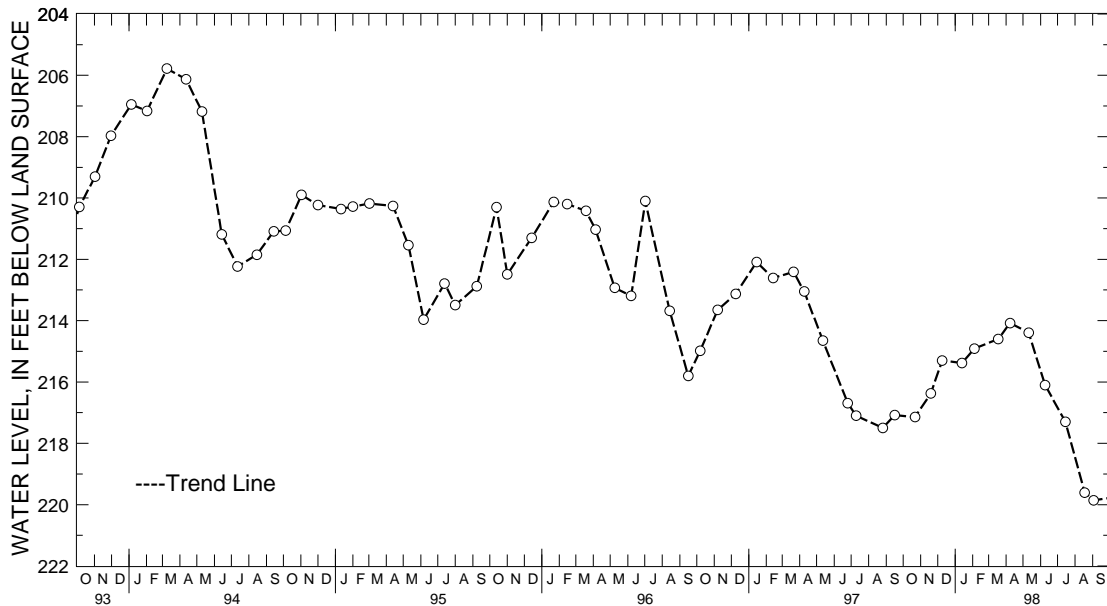
MARYLAND--Continued

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 electric 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, 219.86 ft below land surface, Sept. 3, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	217.14	JAN 13, 1998	215.38	APR 08, 1998	214.08	JUL 15, 1998	217.30
NOV 19	216.37	FEB 04	214.91	MAY 11	214.39	AUG 18	219.61
DEC 09	215.30	MAR 18	214.60	JUN 09	216.10	SEP 03	219.86
WATER YEAR 1998		HIGHEST	214.08	APR 08, 1998	LOWEST	219.86	SEP 03, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

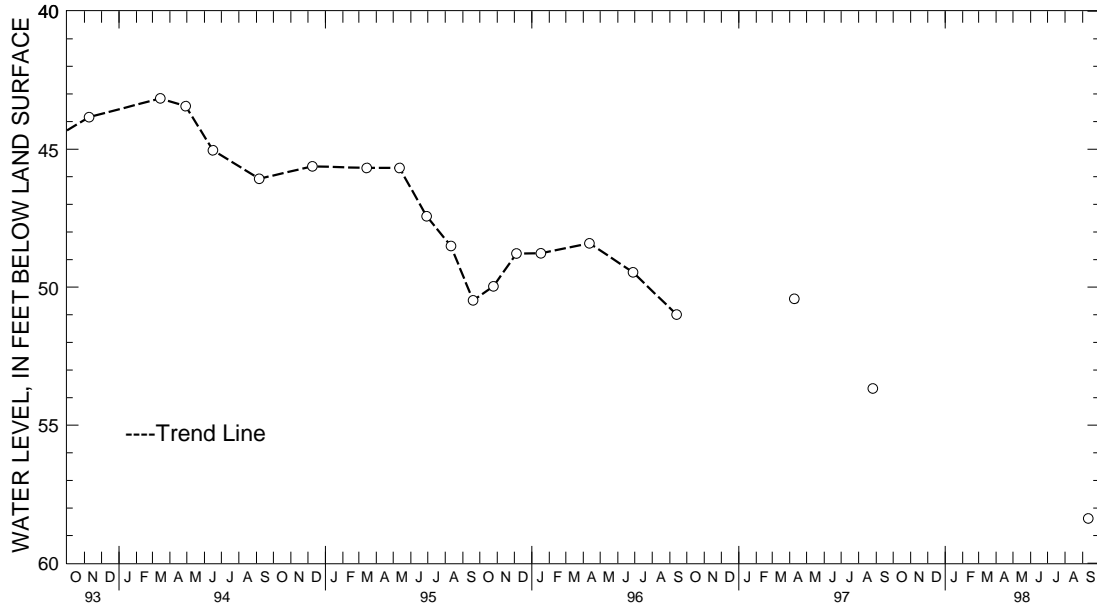
MARYLAND--Continued

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 Electric 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 electric 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, 58.38 ft below land surface, Sept 11, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
SEP 11, 1998	58.38



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

411

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.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.
 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.--Periodic measurements with electric 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, 35.54 ft below sea level, September 1, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS BELOW SEA LEVEL INDICATED BY "--")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-31.31	-31.57	-31.43	-32.04	-31.52	-32.12	-32.00	-32.36	-31.87	-32.18	-31.25	-31.63
2	-31.23	-31.60	-31.41	-31.73	-31.90	-32.19	-31.83	-32.13	-31.80	-32.13	-31.19	-31.60
3	-31.11	-31.46	-31.62	-31.87	-31.86	-32.18	-31.88	-32.17	-31.77	-32.09	-31.19	-31.60
4	-31.11	-31.40	-31.74	-32.07	-31.71	-32.05	-31.84	-32.09	-31.31	-31.98	-31.33	-31.66
5	-31.09	-31.37	-31.93	-32.19	-31.66	-31.95	-31.69	-32.06	-31.12	-31.38	-31.42	-31.78
6	-31.15	-31.43	-31.89	-32.14	-31.76	-32.01	-31.54	-31.88	-31.22	-31.49	-31.55	-31.89
7	-31.23	-31.53	-31.56	-32.02	-31.90	-32.17	-31.37	-31.79	-31.29	-31.68	-31.45	-31.76
8	-31.29	-31.55	-31.37	-31.67	-31.96	-32.28	-31.22	-31.57	-31.43	-31.72	-31.28	-31.78
9	-31.25	-31.55	-31.37	-31.72	-31.77	-32.13	-31.24	-31.75	-31.49	-31.89	-30.92	-31.28
10	-31.25	-31.55	-31.55	-31.86	-31.56	-31.97	-31.65	-31.99	-31.63	-32.03	-31.12	-32.01
11	-31.33	-31.70	-31.65	-31.92	-31.55	-31.95	-31.59	-31.95	-31.63	-32.06	-31.93	-32.16
12	-31.37	-31.74	-31.66	-31.99	-31.65	-31.98	-31.68	-32.00	-31.41	-31.96	-31.98	-32.41
13	-31.57	-32.01	-31.71	-32.01	-31.62	-32.00	-31.56	-31.99	-31.81	-32.10	-32.24	-32.56
14	-31.68	-31.98	-31.37	-31.81	-31.75	-32.16	-31.90	-32.18	-31.85	-32.13	-32.03	-32.43
15	-31.74	-32.07	-31.53	-31.84	-31.90	-32.24	-31.62	-32.07	-31.91	-32.17	-32.24	-32.53
16	-31.75	-32.07	-31.61	-32.10	-31.83	-32.15	-31.73	-32.27	-31.88	-32.18	-32.20	-32.49
17	-31.58	-31.95	-31.92	-32.22	-31.75	-32.09	-31.97	-32.33	-31.28	-32.03	-32.07	-32.43
18	-31.45	-31.84	-31.86	-32.16	-31.77	-32.05	-31.99	-32.30	-31.23	-31.53	-31.96	-32.29
19	-31.30	-31.72	-31.73	-32.06	-31.71	-31.98	-31.95	-32.32	-31.46	-31.75	-31.80	-32.15
20	-31.24	-31.56	-31.74	-32.08	-31.78	-32.00	-32.03	-32.33	-31.53	-31.83	-31.57	-32.02
21	-31.22	-31.57	-32.03	-32.29	-31.80	-32.05	-32.14	-32.46	-31.55	-31.99	-31.28	-31.60
22	-31.26	-31.69	-31.98	-32.20	-31.54	-31.96	-32.06	-32.31	-31.76	-32.08	-31.51	-31.87
23	-31.47	-31.74	-31.95	-32.27	-31.55	-31.84	-31.75	-32.20	-31.22	-31.89	-31.71	-32.00
24	-31.33	-31.67	-31.95	-32.43	-31.39	-31.85	-31.76	-32.09	-31.21	-31.78	-31.86	-32.27
25	-31.32	-31.68	-32.05	-32.51	-31.27	-31.57	-31.97	-32.41	-31.55	-31.93	-32.07	-32.41
26	-31.12	-31.71	-31.93	-32.17	-31.37	-31.72	-32.10	-32.43	-31.42	-31.84	-31.97	-32.31
27	-31.03	-31.41	-32.02	-32.47	-31.38	-31.76	-32.02	-32.41	-31.27	-31.72	-31.98	-32.34
28	-31.38	-31.74	-31.96	-32.34	-31.51	-31.85	-31.63	-32.08	-31.23	-31.62	-31.96	-32.33
29	-31.43	-31.73	-31.89	-32.19	-31.13	-31.61	-31.44	-32.00	---	---	-31.95	-32.32
30	-31.53	-31.91	-31.54	-32.00	-31.02	-31.70	-31.42	-32.05	---	---	-31.88	-32.31
31	-31.76	-32.04	---	---	-31.58	-32.23	-31.85	-32.17	---	---	-31.84	-32.17
MONTH	-31.03	-32.07	-31.37	-32.51	-31.02	-32.28	-31.22	-32.46	-31.12	-32.18	-30.92	-32.56

GROUND-WATER LEVELS

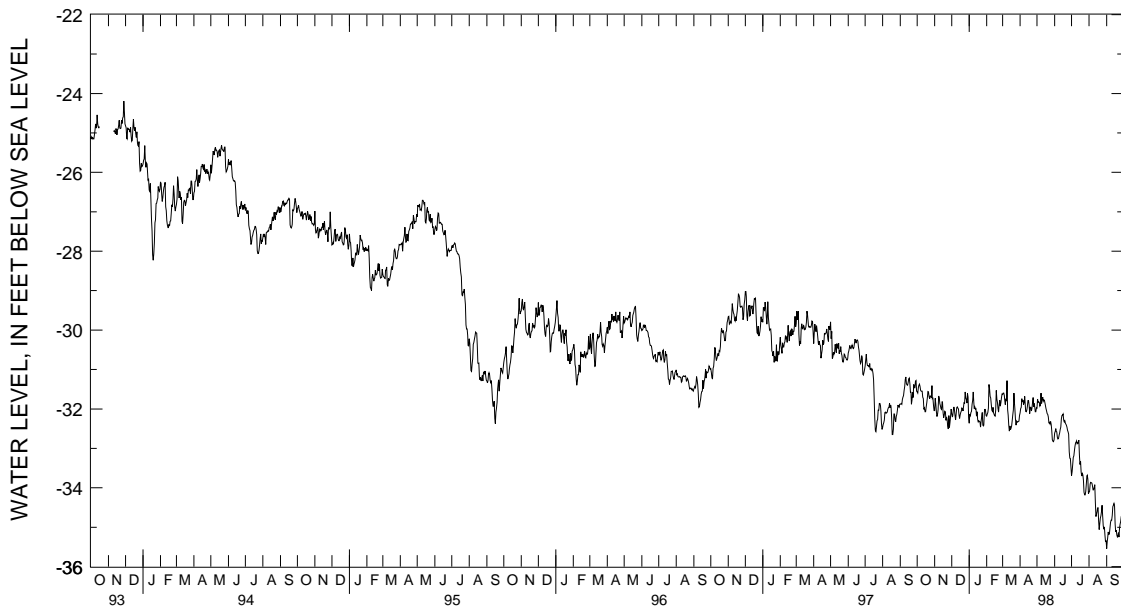
MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

PG Hf 40--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-31.70	-32.10	-31.53	-31.98	-32.32	-32.61	-33.36	-33.69	-33.85	-34.11	-35.20	-35.54
2	-31.67	-31.99	-31.38	-31.75	-32.10	-32.57	-33.28	-33.59	-33.78	-34.09	-35.07	-35.35
3	-31.55	-31.96	-31.55	-31.83	-32.10	-32.50	-33.13	-33.41	-33.72	-33.90	-35.02	-35.28
4	-31.33	-31.74	-31.55	-31.82	-32.33	-32.56	-32.90	-33.23	-33.72	-33.86	-34.79	-35.12
5	-31.50	-31.82	-31.55	-31.83	-32.29	-32.58	-32.85	-33.19	-33.66	-33.87	-34.85	-35.18
6	-31.53	-31.78	-31.60	-31.93	-32.39	-32.72	-32.88	-33.06	-33.66	-33.88	-34.74	-35.17
7	-31.57	-31.89	-31.54	-31.90	-32.52	-32.76	-32.71	-32.94	-33.66	-33.95	-34.57	-35.03
8	-31.53	-31.84	-31.30	-31.60	-32.52	-32.75	-32.54	-32.86	-33.70	-34.05	-34.51	-34.88
9	-31.25	-31.68	-31.34	-31.86	-32.44	-32.67	-32.56	-32.84	-33.71	-34.05	-34.49	-34.82
10	-31.37	-31.82	-31.43	-31.76	-32.19	-32.61	-32.45	-32.81	-33.58	-33.99	-34.46	-34.82
11	-31.53	-32.06	-31.35	-31.70	-32.16	-32.52	-32.56	-32.88	-33.59	-33.92	-34.32	-34.70
12	-31.78	-32.07	-31.39	-31.80	-32.03	-32.46	-32.54	-32.85	-33.80	-34.36	-34.17	-34.48
13	-31.71	-32.03	-31.47	-31.77	-31.92	-32.25	-32.54	-32.86	-34.36	-34.73	-34.18	-34.44
14	-31.47	-31.94	-31.40	-31.79	-31.92	-32.17	-32.52	-32.79	-34.38	-34.67	-34.17	-34.40
15	-31.44	-31.79	-31.56	-31.86	-31.85	-32.16	-32.68	-33.18	-34.38	-34.60	-34.17	-34.46
16	-31.46	-31.79	-31.70	-31.94	-31.84	-32.13	-33.10	-33.41	-34.29	-34.53	-34.28	-34.92
17	-31.41	-31.90	-31.73	-31.99	-31.96	-32.28	-33.08	-33.33	-34.28	-34.50	-34.77	-35.12
18	-31.88	-32.12	-31.83	-32.05	-32.03	-32.33	-33.08	-33.60	-34.38	-34.84	-34.84	-35.08
19	-31.54	-31.96	-31.85	-32.12	-32.02	-32.30	-33.37	-33.70	-34.56	-35.06	-34.82	-35.20
20	-31.61	-31.96	-31.89	-32.14	-32.01	-32.36	-33.30	-33.64	-34.59	-34.91	-34.96	-35.25
21	-31.73	-32.05	-31.92	-32.20	-32.06	-32.39	-33.33	-33.67	-34.47	-34.77	-34.88	-35.24
22	-31.60	-31.98	-32.02	-32.35	-32.10	-32.41	-33.30	-33.82	-34.40	-34.71	-34.79	-35.14
23	-31.38	-31.83	-32.08	-32.34	-32.09	-32.46	-33.56	-34.11	-34.20	-34.60	-34.92	-35.25
24	-31.34	-31.71	-32.06	-32.38	-32.09	-32.54	-33.81	-34.18	-34.19	-34.44	-34.69	-35.02
25	-31.39	-31.95	-32.05	-32.32	-32.24	-32.58	-33.81	-34.18	-34.31	-34.71	-34.58	-34.92
26	-31.43	-31.86	-31.97	-32.39	-32.28	-32.64	-33.67	-34.09	-34.66	-34.96	-34.58	-34.85
27	-31.55	-31.98	-32.10	-32.55	-32.48	-33.09	-33.54	-33.90	-34.77	-35.05	-34.39	-34.73
28	-31.64	-32.07	-32.37	-32.78	-33.02	-33.25	-33.43	-33.70	-34.68	-34.99	-34.40	-34.68
29	-31.68	-32.07	-32.54	-32.82	-32.98	-33.26	-33.44	-33.68	-34.96	-35.20	-34.41	-34.66
30	-31.61	-31.97	-32.54	-32.83	-33.23	-33.48	-33.50	-33.78	-35.02	-35.37	-34.41	-34.66
31	---	---	-32.36	-32.78	---	---	-33.62	-34.15	-35.07	-35.34	---	---
MONTH	-31.25	-32.12	-31.30	-32.83	-31.84	-33.48	-32.45	-34.18	-33.58	-35.37	-34.17	-35.54
YEAR	-30.92	-35.54										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

413

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.--Periodic measurements with electric 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. Missing data
 due to recorder malfunction.
 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, 50.04 ft below sea level, Aug. 13, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS BELOW SEA LEVEL INDICATED BY "--")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-40.76	-41.10	-38.86	-39.66	-38.36	-39.02	-41.53	-41.96	-40.14	-40.68	-39.41	-39.88
2	-40.60	-41.03	-38.79	-39.19	-38.68	-39.07	-41.31	-41.76	-40.00	-40.45	-39.50	-39.92
3	-40.45	-40.86	-39.16	-39.48	-38.56	-38.98	-41.50	-41.87	-40.02	-40.39	-39.70	-40.21
4	-40.42	-40.72	-39.36	-39.78	-38.48	-38.83	-41.34	-41.76	-39.67	-40.32	-39.91	-40.30
5	-40.40	-40.62	-39.75	-40.06	-38.33	-38.74	-40.96	-41.59	-39.42	-39.78	-39.95	-40.34
6	-40.43	-40.74	-39.60	-40.00	-38.39	-38.69	-40.64	-41.14	-39.57	-39.94	-40.12	-40.49
7	-40.48	-40.79	-39.01	-39.73	-38.42	-38.75	-40.40	-40.90	-39.69	-40.10	-40.03	-40.37
8	-40.40	-40.71	-38.88	-39.18	-38.31	-38.83	-40.00	-40.51	-39.81	-40.13	-39.98	-40.42
9	-40.38	-40.54	-38.88	-39.36	-38.13	-38.53	-39.88	-40.30	-39.78	-40.15	-39.57	-40.07
10	-40.38	-40.46	-39.10	-39.41	-38.16	-38.83	-40.08	-40.49	-39.87	-40.34	-40.00	-41.39
11	-40.38	-40.52	-39.13	-39.53	-38.72	-39.67	-39.92	-40.33	-39.92	-40.40	-41.30	-41.62
12	-39.99	-40.38	-39.17	-39.59	-39.45	-40.31	-40.00	-40.36	-39.72	-40.25	-41.27	-41.59
13	-39.94	-40.29	-39.25	-39.65	-40.19	-41.46	-39.88	-40.40	-39.98	-40.39	-41.10	-41.56
14	-39.93	-40.46	-38.95	-39.47	-41.40	-42.65	-40.33	-40.73	-39.92	-40.28	-40.82	-41.33
15	-40.15	-40.72	-39.06	-39.46	-42.59	-43.45	-40.22	-40.66	-39.65	-40.12	-41.07	-41.43
16	-40.23	-40.72	-39.19	-39.87	-43.21	-43.60	-40.18	-40.59	-39.42	-39.92	-41.11	-41.43
17	-39.92	-40.51	-39.70	-40.08	-43.23	-43.59	-40.29	-40.69	-38.77	-39.63	-40.96	-41.37
18	-39.76	-40.22	-39.60	-40.00	-43.36	-43.76	-40.38	-40.78	-38.72	-39.08	-40.79	-41.19
19	-39.58	-40.05	-39.44	-39.87	-43.31	-43.75	-40.48	-40.84	-39.08	-39.47	-40.71	-41.07
20	-39.36	-39.80	-39.46	-39.77	-43.23	-43.59	-40.58	-41.12	-39.31	-39.60	-40.50	-41.02
21	-39.27	-39.71	-39.49	-39.87	-42.76	-43.45	-41.05	-41.39	-39.35	-39.88	-40.13	-40.52
22	-39.28	-39.75	-39.41	-39.67	-42.06	-42.86	-40.98	-41.25	-39.59	-40.02	-40.27	-40.59
23	-39.54	-39.86	-39.16	-39.68	-41.86	-42.20	-40.80	-41.28	-39.10	-39.70	-40.39	-40.79
24	-39.42	-39.74	-39.15	-39.68	-41.36	-42.00	-40.86	-41.36	-39.07	-39.80	-40.65	-41.25
25	-39.39	-39.81	-39.15	-39.76	-41.12	-41.43	-41.15	-41.65	-39.50	-39.93	-41.06	-41.47
26	-39.17	-39.87	-38.96	-39.26	-41.14	-41.49	-41.23	-41.63	-39.27	-39.72	-40.98	-41.40
27	-39.03	-39.50	-39.15	-39.72	-41.03	-41.48	-41.10	-41.57	-39.25	-39.70	-41.12	-41.83
28	-39.46	-39.91	-39.03	-39.60	-41.04	-41.45	-40.52	-41.22	-39.29	-39.79	-41.51	-41.96
29	-39.56	-39.90	-38.84	-39.28	-40.59	-41.14	-40.03	-40.90	---	---	-41.56	-42.04
30	-39.67	-40.01	-38.38	-39.00	-40.53	-41.19	-39.93	-40.59	---	---	-41.36	-42.04
31	-39.38	-39.97	---	---	-41.09	-41.79	-40.36	-40.72	---	---	-41.14	-41.69
MONTH	-39.03	-41.10	-38.38	-40.08	-38.13	-43.76	-39.88	-41.96	-38.72	-40.68	-39.41	-42.04

GROUND-WATER LEVELS

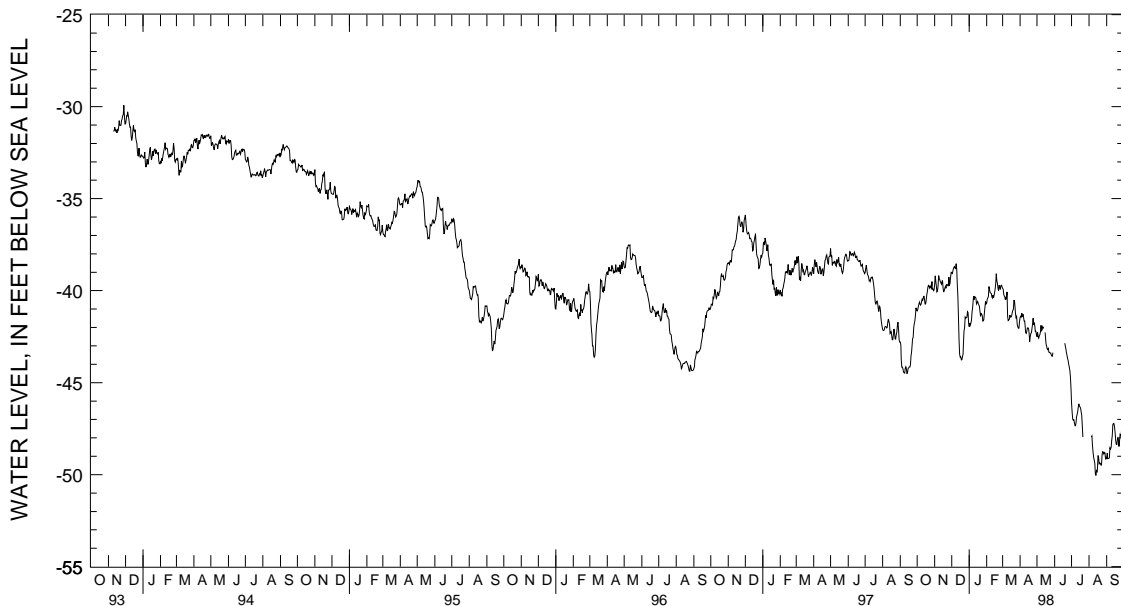
MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

PG Hf 41--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-41.01	-41.47	-41.99	-42.50	---	---	-45.26	-46.10	---	---	-48.82	-49.11
2	-41.04	-41.39	-41.88	-42.25	---	---	-46.08	-46.60	---	---	-48.55	-48.82
3	-40.97	-41.43	-42.07	-42.51	---	---	-46.52	-46.98	---	---	-48.58	-49.13
4	-40.86	-41.23	-42.24	-42.58	---	---	-46.72	-47.04	---	---	-48.77	-49.12
5	-41.06	-41.41	-42.11	-42.46	---	---	-46.55	-47.02	-47.54	-47.95	-48.82	-49.11
6	-41.00	-41.28	-42.09	-42.39	---	---	-46.87	-47.17	-47.42	-47.89	-48.26	-49.08
7	-41.02	-41.43	-41.88	-42.25	---	---	-47.05	-47.34	-47.71	-48.42	-48.12	-48.54
8	-41.12	-41.65	-41.53	-41.88	---	---	-46.98	-47.34	-48.18	-48.78	-48.22	-48.60
9	-41.27	-41.65	-41.57	-42.17	---	---	-46.71	-47.11	-48.56	-49.04	-47.81	-48.53
10	-41.45	-41.88	-41.68	-42.11	---	---	-46.52	-46.85	-48.85	-49.21	-47.70	-48.17
11	-41.53	-42.28	-41.54	-41.96	---	---	-46.51	-46.74	-48.94	-49.37	-47.16	-47.88
12	-41.97	-42.32	-41.53	-42.03	---	---	-46.23	-46.58	-49.37	-49.94	-46.94	-47.29
13	-41.72	-42.21	-41.62	-42.03	---	---	-45.93	-46.34	-49.54	-50.04	-46.89	-47.22
14	-41.55	-42.03	-41.54	---	---	---	-45.94	-46.15	-49.44	-49.78	-46.89	-47.23
15	-41.58	-42.02	-41.80	-42.27	---	---	-45.99	-46.28	-49.44	-49.84	-47.04	-47.41
16	-41.73	-42.05	-42.23	-42.60	---	---	-46.05	-46.32	-48.96	-49.67	-47.22	-47.74
17	-41.81	-42.32	-42.57	-42.89	---	---	-46.10	-46.38	-48.60	-48.96	-47.57	-48.14
18	-42.32	-42.77	-42.75	-43.01	---	---	-46.11	-46.58	-48.56	-49.06	-47.91	-48.35
19	-42.01	-42.50	-42.77	-43.16	-42.57	-42.85	-46.30	-46.77	-48.78	-49.41	-47.88	-48.35
20	-42.04	-42.32	-42.91	-43.21	-42.51	-43.04	-46.54	-47.35	-48.99	-49.35	-47.74	-48.09
21	-41.77	-42.28	-42.85	-43.15	-42.73	-43.19	-47.28	-47.96	-49.03	-49.39	-47.72	-48.02
22	-41.64	-42.05	-42.91	-43.34	-42.84	-43.35	---	---	-49.12	-49.48	-47.73	-48.08
23	-41.25	-41.81	-43.00	-43.35	-42.99	-43.50	---	---	-48.80	-49.48	-48.08	-48.47
24	-41.13	-41.50	-42.94	-43.39	-43.15	-43.67	---	---	-48.54	-48.93	-47.57	-48.17
25	-41.15	-41.86	-42.93	-43.39	-43.31	-43.79	---	---	-48.47	-48.75	-47.51	-47.82
26	-41.30	-41.74	-42.94	-43.48	-43.50	-43.99	---	---	-48.54	-48.77	-47.54	-47.88
27	-41.39	-41.95	-43.15	-43.55	-43.76	-44.14	---	---	-48.62	-48.87	-47.13	-47.81
28	-41.60	-42.21	-43.13	-43.56	-44.09	-44.34	---	---	-48.53	-48.79	-47.09	-47.28
29	-41.80	-42.21	-42.90	-43.36	-44.21	-44.66	---	---	-48.53	-48.81	-47.09	-47.33
30	-41.92	-42.38	---	---	-44.66	-45.27	---	---	-48.54	-49.13	-47.09	-47.31
31	---	---	---	---	---	---	---	---	-48.84	-49.06	---	---
MONTH	-40.86	-42.77	-41.53	-43.56	-42.51	-44.66	-46.05	-47.96	-47.42	-50.04	-46.89	-49.13
YEAR	-46.89	-50.04										

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

415

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.--Periodic measurements with electric 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.
 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, 44.73 ft below sea level, Sept. 23, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	-39.98	-40.25	-39.32	-40.03	-39.01	-39.74	-40.05	-40.41	-39.07	-39.42	-38.33	-38.68
2	-39.93	-40.30	-39.29	-39.62	-39.56	-39.86	-39.77	-40.13	-39.00	-39.36	-38.26	-38.66
3	-39.84	-40.16	-39.56	-39.81	-39.50	-39.85	-39.81	-40.18	-38.98	-39.31	-38.32	-38.69
4	-39.86	-40.18	-39.70	-40.06	-39.33	-39.69	-39.71	-40.04	-38.53	-39.19	-38.48	-38.76
5	-39.86	-40.16	-39.98	-40.25	-39.20	-39.53	-39.57	-39.93	-38.28	-38.59	-38.57	-38.90
6	-40.00	-40.26	-39.83	-40.19	-39.30	-39.62	-39.36	-39.70	-38.35	-38.62	-38.65	-39.02
7	-40.08	-40.32	-39.25	-39.90	-39.45	-39.83	-39.19	-39.59	-38.42	-38.83	-38.60	-38.85
8	-40.01	-40.29	-39.06	-39.36	-39.57	-39.94	-38.95	-39.34	-38.62	-38.88	-38.44	-38.89
9	-39.99	-40.25	-39.06	-39.53	-39.35	-39.75	-38.93	-39.34	-38.63	-39.04	-37.84	-38.44
10	-39.99	-40.26	-39.36	-39.69	-39.06	-39.50	-39.22	-39.53	-38.78	-39.22	-38.06	-39.12
11	-40.04	-40.41	-39.47	-39.80	-39.07	-39.46	-39.17	-39.49	-38.78	-39.25	-39.03	-39.32
12	-40.03	-40.28	-39.49	-39.87	-39.18	-39.50	-39.25	-39.56	-38.55	-39.07	-39.05	-39.33
13	-39.94	-40.26	-39.53	-39.90	-39.16	-39.53	-39.11	-39.54	-38.95	-39.36	-38.81	-39.28
14	-39.82	-40.22	-39.14	-39.69	-39.28	-39.76	-39.48	-39.81	-39.14	-39.50	-38.58	-39.27
15	-39.92	-40.39	-39.25	-39.62	-39.47	-39.82	-39.16	-39.69	-39.22	-39.54	-39.00	-39.29
16	-39.99	-40.38	-39.36	-39.96	-39.40	-39.73	-39.03	-39.30	-39.03	-39.42	-38.94	-39.26
17	-39.77	-40.26	-39.80	-40.15	-39.28	-39.66	-38.89	-39.36	-38.34	-39.18	-38.78	-40.00
18	-39.70	-40.09	-39.68	-40.08	-39.32	-39.59	-38.91	-39.27	-38.27	-38.52	-38.61	-38.98
19	-39.67	-39.98	-39.57	-39.90	-39.28	-39.53	-38.94	-39.32	-38.52	-38.78	-38.48	-38.84
20	-39.68	-39.97	-39.55	-39.79	-39.44	-39.65	-39.00	-39.42	-38.57	-38.85	-38.23	-38.69
21	-39.70	-40.06	-39.47	-39.82	-39.46	-39.75	-39.26	-39.60	-38.57	-39.07	-37.89	-38.24
22	-39.71	-40.19	-39.40	-39.64	-39.23	-39.60	-39.14	-39.39	-38.90	-39.18	-38.11	-38.51
23	-40.08	-40.33	-39.36	-39.69	-39.23	-39.56	-38.78	-39.27	-38.34	-38.97	-38.33	-38.63
24	-39.92	-40.22	-39.34	-39.92	-39.13	-39.55	-38.78	-39.19	-38.28	-38.99	-38.49	-39.01
25	-39.87	-40.23	-39.64	-40.10	-38.97	-39.30	-39.04	-39.57	-38.78	-39.20	-38.82	-39.17
26	-39.64	-40.26	-39.44	-39.71	-39.11	-39.48	-39.27	-39.59	-38.60	-39.03	-38.58	-38.97
27	-39.46	-39.92	-39.60	-40.13	-39.22	-39.56	-39.26	-39.61	-38.38	-38.86	-38.60	-38.99
28	-39.89	-40.31	-39.52	-40.05	-39.44	-39.75	-38.78	-39.45	-38.32	-38.69	-38.57	-38.96
29	-39.96	-40.28	-39.40	-39.76	-38.93	-39.53	-38.78	-39.18	---	---	-38.56	-38.97
30	-40.04	-40.35	-39.00	-39.59	-38.80	-39.52	-38.66	-39.18	---	---	-38.48	-38.95
31	-39.79	-40.32	---	---	-39.49	-40.22	-38.98	-39.36	---	---	-38.43	-38.79
MONTH	-39.46	-40.41	-39.00	-40.25	-38.80	-40.22	-38.66	-40.41	-38.27	-39.54	-37.84	-40.00

GROUND-WATER LEVELS

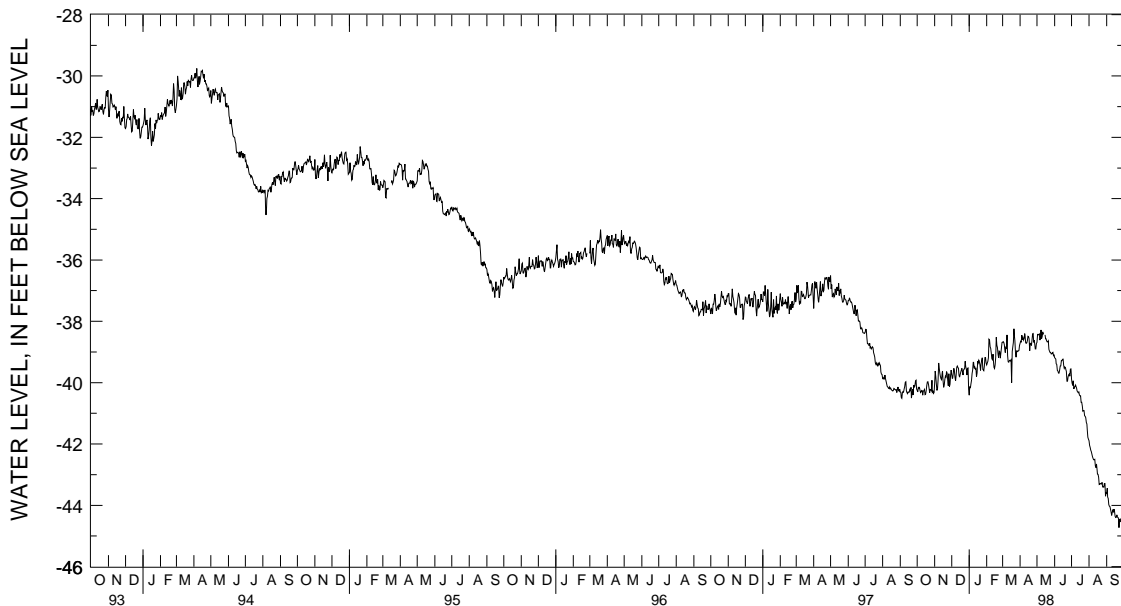
MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

PG Hf 42--Continued

DAY	MAX		MIN		MAX		MIN		MAX		MIN		MAX		MIN	
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER					
1	-38.37	-38.72	-38.24	-38.69	-38.81	-39.19	-39.47	-39.88	-41.66	-41.89	-43.43	-43.61				
2	-38.40	-38.65	-38.05	-38.43	-38.77	-39.21	-39.74	-40.02	-41.78	-42.04	-43.25	-43.44				
3	-38.29	-38.67	-38.16	-38.44	-38.72	-39.23	-39.86	-40.09	-41.82	-42.11	-43.30	-43.73				
4	-38.08	-38.45	-38.15	-38.43	-39.12	-39.38	-39.75	-39.94	-41.96	-42.20	-43.43	-43.78				
5	-38.25	-38.60	-38.12	-38.41	-39.09	-39.41	-39.66	-40.20	-42.08	-42.25	-43.64	-43.98				
6	-38.31	-38.54	-38.24	-38.61	-39.18	-39.60	-39.95	-40.15	-42.10	-42.33	-43.69	-44.03				
7	-38.33	-38.61	-38.27	-38.56	-39.40	-39.62	-39.89	-40.12	-42.11	-42.41	-43.74	-44.04				
8	-38.28	-38.56	-37.95	-38.28	-39.40	-39.69	-39.81	-40.08	-42.17	-42.47	-43.92	-44.13				
9	-37.98	-38.40	-37.97	-38.56	-39.39	-39.69	-39.83	-40.14	-42.28	-42.51	-44.06	-44.22				
10	-38.09	-38.47	-38.10	-38.50	-39.17	-39.59	-39.80	-40.17	-42.28	-42.51	-44.04	-44.33				
11	-38.09	-38.70	-37.96	-38.34	-39.11	-39.46	-39.95	-40.27	-42.23	-42.50	-43.98	-44.23				
12	-38.39	-38.72	-38.02	-38.41	-39.06	-39.45	-40.05	-40.30	-42.40	-42.71	-43.95	-44.14				
13	-38.39	-38.70	-38.06	-38.41	-39.01	-39.28	-40.02	-40.33	-42.50	-42.77	-43.95	-44.23				
14	-38.19	-38.63	-38.00	---	-39.01	-39.28	-40.05	-40.30	-42.47	-42.65	-43.92	-44.12				
15	-38.19	-38.49	-38.20	-38.44	-38.94	-39.24	-40.13	-40.40	-42.47	-42.84	-43.92	-44.20				
16	-38.22	-38.50	-38.29	-38.57	-38.95	-39.23	-40.15	-40.43	-42.61	-42.98	-44.05	-44.36				
17	-38.17	-38.57	-38.33	-38.57	-39.06	-39.43	-40.15	-40.43	-42.75	-42.99	-44.18	-44.40				
18	-38.57	-38.96	-38.41	-38.63	-39.23	-39.53	-40.24	-40.64	-42.84	-43.08	-44.11	-44.39				
19	-38.30	-38.72	-38.42	-38.67	-39.24	-39.49	-40.39	-40.64	-42.81	-43.32	-44.17	-44.31				
20	-38.33	-38.72	-38.41	-38.67	-39.18	-39.51	-40.32	-40.76	-42.96	-43.31	-44.03	-44.38				
21	-38.41	-38.79	-38.36	-38.64	-39.26	-39.59	-40.53	-40.93	-42.95	-43.29	-44.20	-44.40				
22	-38.26	-38.62	-38.44	-38.91	-39.32	-39.63	-40.57	-40.91	-43.04	-43.30	-44.22	-44.41				
23	-38.06	-38.41	-38.60	-38.97	-39.30	-39.95	-40.63	-40.91	-42.99	-43.30	-44.40	-44.73				
24	-37.94	-38.40	-38.60	-39.01	-39.50	-39.95	-40.63	-41.08	-42.91	-43.25	-44.32	-44.47				
25	-38.09	-38.69	-38.63	-39.01	-39.48	-39.81	-40.86	-41.10	-43.21	-43.40	-44.29	-44.45				
26	-38.25	-38.62	-38.59	-39.06	-39.45	-39.75	-40.90	-41.14	-43.26	-43.40	-44.35	-44.53				
27	-38.36	-38.78	-38.71	-39.06	-39.45	-39.72	-41.09	-41.30	-43.28	-43.41	-44.35	-44.52				
28	-38.44	-38.90	-38.69	-39.03	-39.46	-39.79	-41.10	-41.35	-43.14	-43.29	-44.37	-44.60				
29	-38.49	-38.90	-38.74	-39.01	-39.33	-39.56	-41.28	-41.55	-43.07	-43.29	-44.39	-44.61				
30	-38.38	-38.72	-38.80	-39.12	-39.35	-39.55	-41.45	-41.78	-43.07	-43.70	-44.39	-44.40				
31	---	---	-38.80	-39.10	---	---	-41.55	-41.84	-43.47	-43.60	---	---				
MONTH	-37.94	-38.96	-37.95	-39.12	-38.72	-39.95	-39.47	-41.84	-41.66	-43.70	-43.25	-44.73				
YEAR	-37.84	-44.73														

Daily Low Water Levels



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

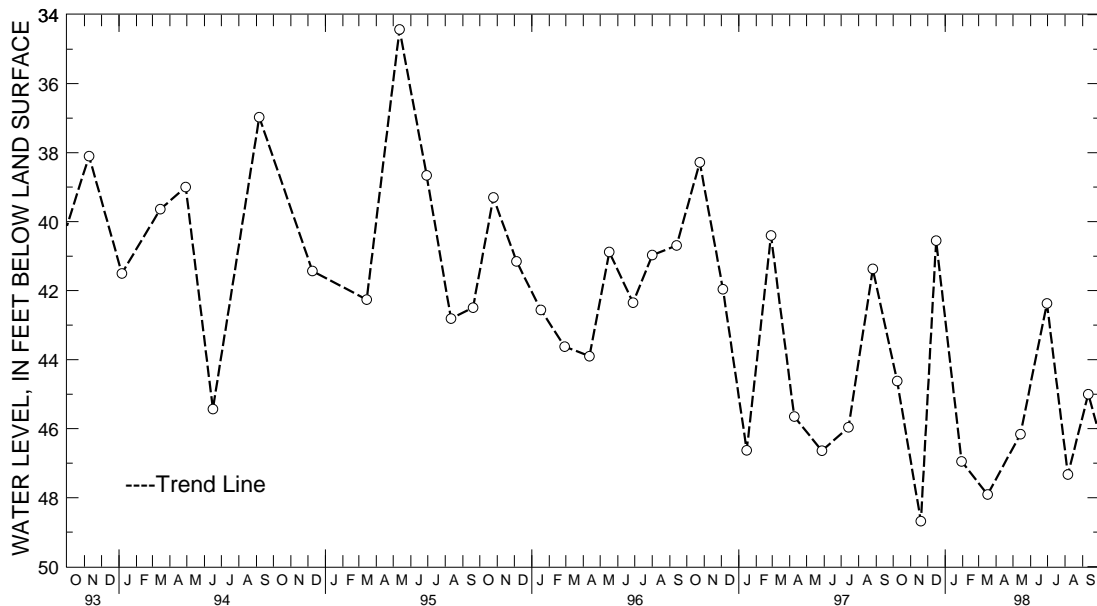
MARYLAND--Continued

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 aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.
 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 electric 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, 48.68 ft below land surface, November 19, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	44.62	JAN 30, 1998	46.95	JUN 30, 1998	42.37
NOV 19	48.68	MAR 17	47.91	AUG 06	47.33
DEC 16	40.55	MAY 14	46.16	SEP 11	45.00
WATER YEAR 1998	HIGHEST 40.55	DEC 16, 1997	LOWEST 48.68	NOV 19, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

WELL NUMBER.--PG Gd 5. SITE ID.--383957076520601. PERMIT NUMBER.--PG-88-2866.
 LOCATION.--Lat 38°39'57", long 76°52'06", Hydrologic Unit 02070011, nr northeast corner of intersection with US Rt. 301 and Cedarville Rd., 4 mi northeast of Waldorf.
 Owner: PANDA Brandywine Power Station.
 AQUIFER.--Lower Patapsco aquifer of the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCL.
 WELL CHARACTERISTICS.--Drilled, production, artesian well, depth 1,350 ft; casing diameter 10 in., to 800 ft; casing diameter 8 in. from 800 to 948 ft, 1,028 to 1,155 ft, 1,170 to 1,188 ft, 1,208 to 1,240 ft, and 1,290 to 1,305 ft; screen diameter 8 in. from 948 to 1,028 ft, 1,155 to 1,170 ft, 1,188 to 1,208 ft, 1,240 to 1,290 ft and 1,305 to 1,350 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Equipped with digital water-level recorder--30-minute recorder interval from Dec. 10, 1994 to April 24, 1995, Nov. 7, 1996 to Feb. 27, 1997, and Oct. 8, 1997 to current year.
 DATUM.--Altitude of land surface is 216.43 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 pumping. Missing data due to recorder malfunction.
 PERIOD OF RECORD.--September 1994 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.05 ft below sea level, March 10, 1995; lowest measured, 161.20 ft below sea level, Jan. 28, 1998.

WATER LEVEL, IN FEET ABOVE SEA LEVEL, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS BELOW SEA LEVEL INDICATED BY "-")

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	-75.30	-78.40	-79.00	-96.00	-77.80	-88.10	-71.90	-84.90	-78.10	-91.40
2	---	---	-75.30	-153.50	-79.90	-84.30	-77.50	-81.10	-72.20	-90.30	-76.20	-78.70
3	---	---	-76.70	-79.50	-75.50	-89.90	-78.30	-90.80	-73.70	-76.00	-76.30	-88.70
4	---	---	-76.50	-154.60	-77.00	-80.00	-78.40	-80.50	-73.70	-87.70	-76.50	-81.00
5	---	---	-74.90	-79.10	-76.30	-87.50	-75.90	-87.50	-73.70	-86.90	-76.50	-90.80
6	---	---	-73.90	-153.50	-74.70	-90.30	-76.50	-91.10	-73.80	-76.00	-75.10	-78.80
7	---	---	-76.90	-78.50	-77.70	-80.00	-74.90	-87.20	-73.40	-89.10	-75.00	-77.70
8	-75.10	-88.40	-76.50	-153.40	-77.30	-92.70	-74.10	-86.40	-72.00	-77.80	-76.30	-76.70
9	-73.70	-88.40	-75.40	-78.70	-75.00	-88.80	-72.80	-75.80	-74.60	-88.70	-75.00	-88.40
10	-74.10	-88.80	-75.70	-152.80	-75.80	-88.30	-70.90	-85.20	-77.60	-90.30	-73.40	-87.00
11	-70.40	-80.60	-75.70	-78.10	-76.60	-79.30	-70.70	-75.90	-77.20	-91.10	-72.70	-88.20
12	-75.90	-80.40	-75.90	-154.60	-76.80	-79.00	-70.50	-85.20	-78.10	-90.30	-75.10	-88.90
13	-77.20	-91.30	-76.30	-153.20	-73.80	-87.00	-69.60	-82.70	-76.70	-90.20	-71.70	-88.20
14	-76.10	-89.80	-75.40	-77.20	-72.40	-77.80	-68.50	-83.00	-74.90	-78.30	-74.20	-78.30
15	-75.10	-89.70	-75.20	-156.40	-74.20	-88.30	-71.90	-85.30	-77.00	-79.60	-74.40	-89.80
16	-74.70	-78.80	-75.00	-78.70	-73.80	-80.00	-71.90	-85.70	-76.70	-90.40	-74.10	-77.50
17	-75.20	-77.40	-71.50	-153.50	-73.10	-88.30	-72.30	-74.90	-76.30	-78.20	-73.90	-88.40
18	-74.10	-87.80	-75.30	-81.00	-73.10	-90.60	-72.00	-82.20	-77.20	-90.00	-74.30	-80.40
19	-74.50	-77.80	-75.50	-155.10	-73.00	-79.60	-73.20	-86.80	-76.30	-79.00	-73.90	-90.20
20	-75.10	-157.20	-74.90	-154.10	-73.90	-79.90	-73.20	-87.30	-76.90	-90.20	-75.30	-79.20
21	-74.60	-154.00	-74.60	-78.20	-74.70	-89.60	-73.20	-87.70	-77.40	-78.70	-75.00	-76.70
22	-74.60	-154.30	-75.00	-152.90	-76.90	-78.40	-72.30	-86.60	-77.40	-91.30	-74.40	-76.30
23	-74.60	-80.60	-72.40	-77.00	-75.40	-90.70	-73.90	-89.10	-77.20	-77.80	-72.60	-88.40
24	-78.40	-92.10	-71.90	-87.80	-75.30	-91.00	-74.10	-89.60	-77.20	-90.70	-72.30	-89.80
25	-76.70	-79.50	-71.30	-89.10	-77.40	-90.60	-72.00	-85.70	-78.40	-146.20	-72.80	-77.80
26	-77.00	-154.10	-75.70	-89.10	-76.60	-90.70	-70.50	-77.70	-77.20	-89.90	-73.70	-84.90
27	-76.30	-79.20	-77.30	-80.40	-75.40	-78.30	-73.20	-86.50	-76.60	-80.40	-75.40	-90.50
28	-76.90	-156.60	-77.70	-90.40	-73.60	-87.70	-75.90	-161.20	-77.20	-79.10	-75.50	-76.70
29	-77.60	-154.90	-78.70	-80.70	-73.60	-77.60	-76.20	-88.70	---	---	-74.60	-76.20
30	-77.40	-154.70	-79.50	-91.80	-74.50	-88.70	-74.90	-77.60	---	---	-73.60	-85.10
31	-76.90	-154.30	---	---	-74.40	-86.50	-71.70	-86.60	---	---	-78.70	-92.10
MONTH	-70.40	-157.20	-71.30	-156.40	-72.40	-96.00	-68.50	-161.20	-71.90	-146.20	-71.70	-92.10

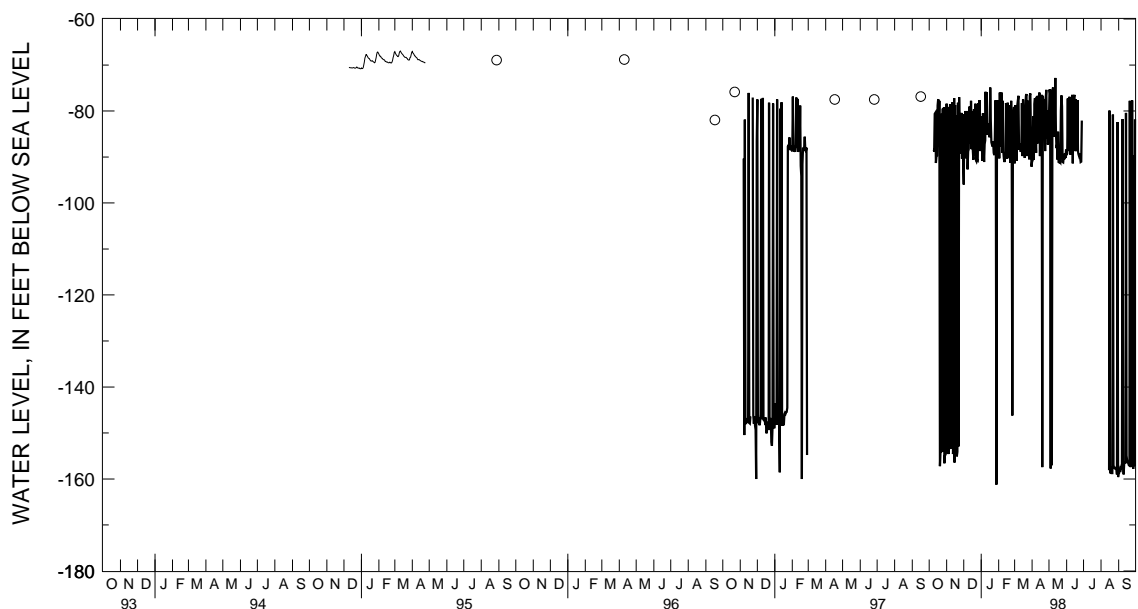
GROUND-WATER LEVELS

MARYLAND--Continued

PRINCE GEORGES COUNTY--Continued

PG Gd 5--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	-78.40	-91.00	-72.20	-81.50	-75.10	-89.60	---	---	---	---	-81.80	-158.60
2	-78.10	-90.70	-70.40	-75.30	-73.00	-89.20	---	---	---	---	-81.80	-158.60
3	-77.40	-81.10	-69.90	-76.20	-73.00	-77.30	---	---	---	---	-82.20	-158.30
4	-76.70	-90.60	-71.40	-157.70	-73.00	-86.60	---	---	---	---	-81.80	-157.70
5	-76.70	-78.50	-71.70	-75.40	-72.10	-88.70	---	---	---	---	-80.80	-157.90
6	-72.10	-77.20	-71.60	-157.00	-72.60	-76.90	---	---	---	---	-80.10	-157.20
7	-69.90	-85.90	-72.10	-75.70	-73.00	-78.10	---	---	---	---	-79.20	-156.70
8	-73.50	-89.10	-70.90	-74.90	-76.70	-89.50	---	---	---	---	-78.20	-81.80
9	-73.60	-76.90	-72.00	-85.60	-75.70	-79.10	---	---	---	---	-79.30	-156.90
10	-73.70	-87.00	-70.10	-85.20	-75.90	-89.10	---	---	---	---	-79.30	-159.00
11	-69.20	-76.70	-68.40	-83.10	-73.90	-76.50	---	---	---	---	-78.50	-156.40
12	-70.30	-87.00	-69.80	-72.80	-75.30	-91.40	---	---	---	---	-77.40	-156.40
13	-72.30	-81.80	-70.90	-84.10	-75.00	-79.80	---	---	---	---	-77.40	-156.40
14	-71.90	-76.00	-72.20	-88.10	-74.60	-76.90	---	---	---	---	-74.20	-80.40
15	-71.20	-89.80	-74.20	-87.30	-73.70	-76.50	---	---	-79.60	-158.10	-71.60	-154.90
16	-72.20	-76.70	-78.10	-90.60	-75.10	-88.70	---	---	-78.90	-79.90	-76.00	-156.00
17	-75.30	-88.90	-77.70	-84.50	-74.30	-77.40	---	---	-78.20	-157.80	-76.90	-156.40
18	-72.30	-76.50	-76.50	-91.10	-75.00	-88.50	---	---	-78.10	-158.80	-76.70	-156.60
19	-74.90	-157.40	-77.20	-91.20	-75.90	-88.50	---	---	-78.50	-157.20	-72.80	-157.00
20	-73.50	-76.70	-77.20	-91.00	-75.20	-77.60	---	---	-77.20	-158.70	-72.80	-157.00
21	-72.60	-78.70	-77.20	-91.20	-75.10	-88.70	---	---	-78.30	-158.70	-75.10	-77.80
22	-72.20	-85.80	-74.90	-79.90	-76.60	-89.30	---	---	-79.00	-80.80	-75.80	-157.40
23	-71.40	-77.50	-71.90	-76.60	-77.20	-89.70	---	---	-77.80	-157.00	-73.90	-156.50
24	-74.40	-88.70	-73.20	-79.00	-76.30	-89.30	---	---	-78.80	-157.50	-68.90	-156.40
25	-72.00	-77.20	-77.60	-91.10	-75.80	-90.00	---	---	-81.10	-157.70	-74.30	-77.70
26	-71.40	-75.40	-77.50	-91.20	-77.00	-91.10	---	---	-80.80	-157.70	-75.90	-156.50
27	-68.90	-86.00	-78.10	-89.90	-78.30	-91.00	---	---	-81.20	-157.70	-78.40	-157.80
28	-70.50	-79.90	-74.60	-90.50	-76.70	-82.10	---	---	-80.80	-157.50	-79.20	-89.60
29	-70.90	-87.30	-74.60	-89.20	---	---	---	---	-79.50	-159.00	-79.50	-157.20
30	-73.10	-86.70	-74.60	-90.20	---	---	---	---	-79.20	-82.40	-78.10	-81.80
31	---	---	-77.30	-88.40	---	---	---	---	-80.70	-159.60	---	---
MONTH	-68.90	-157.40	-68.40	-157.70	-72.10	-91.40	---	---	-77.20	-159.60	-68.90	-159.00
YEAR	-68.40	-161.20										



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

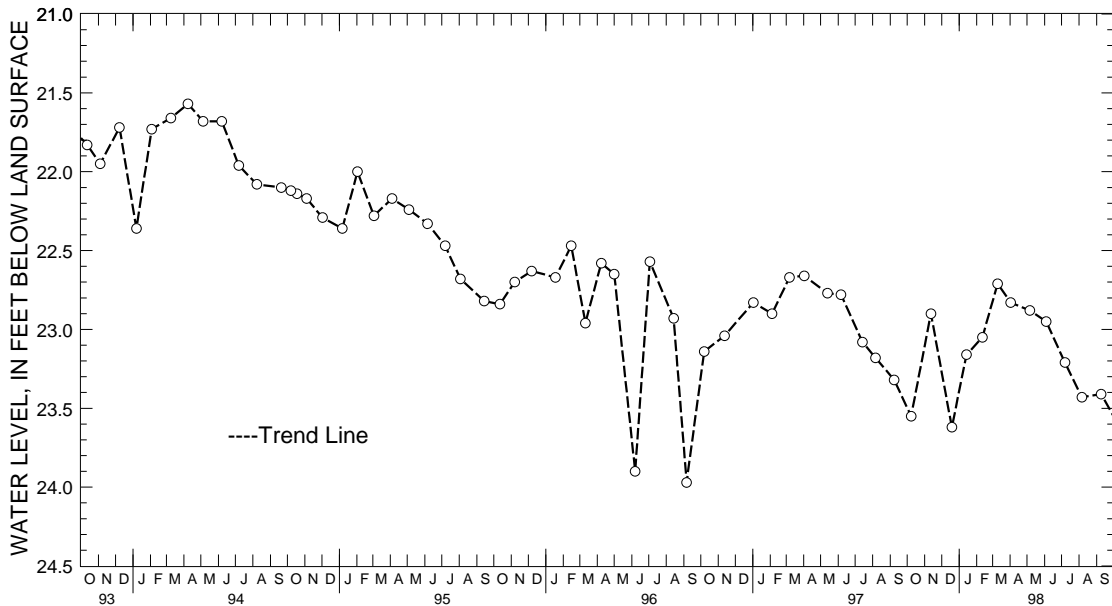
MARYLAND--Continued

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 electric 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. 6, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	23.55	JAN 14, 1998	23.16	APR 02, 1998	22.83	JUL 07, 1998	23.21
NOV 12	22.90	FEB 11	23.05	MAY 06	22.88	AUG 06	23.43
DEC 19	23.62	MAR 10	22.71	JUN 04	22.95	SEP 09	23.41
WATER YEAR 1998		HIGHEST	22.71	MAR 10, 1998	LOWEST	23.62	DEC 19, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

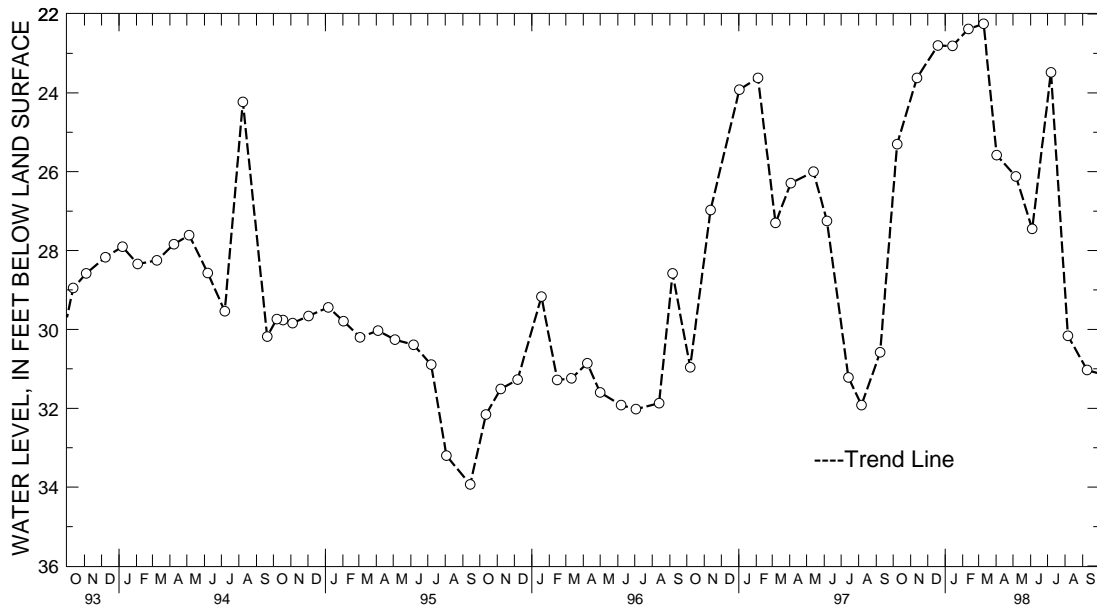
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	25.30	JAN 14, 1998	22.81	APR 02, 1998	25.58	JUL 07, 1998	23.48
NOV 12	23.62	FEB 11	22.38	MAY 06	26.12	AUG 06	30.16
DEC 19	22.80	MAR 10	22.25	JUN 04	27.45	SEP 09	31.03
WATER YEAR 1998		HIGHEST	22.25 MAR 10, 1998	LOWEST	31.03 SEP 09, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

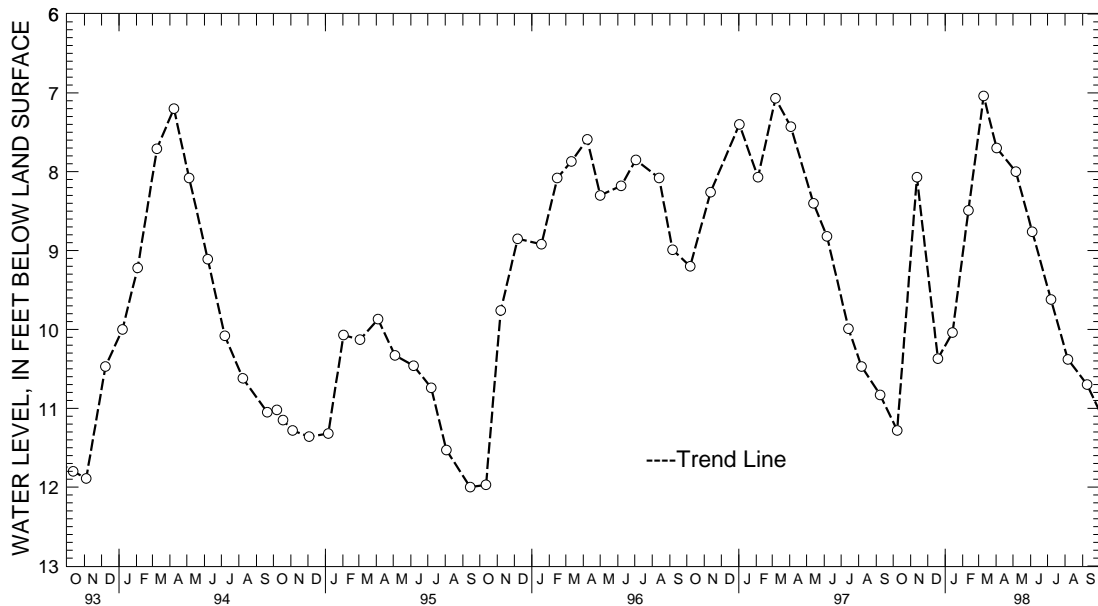
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	11.28	JAN 14, 1998	10.04	APR 02, 1998	7.70	JUL 07, 1998	9.62
NOV 12	8.07	FEB 11	8.49	MAY 06	8.00	AUG 06	10.38
DEC 19	10.37	MAR 10	7.04	JUN 04	8.76	SEP 09	10.70
WATER YEAR 1998		HIGHEST	7.04	MAR 10, 1998	LOWEST	11.28	OCT 08, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

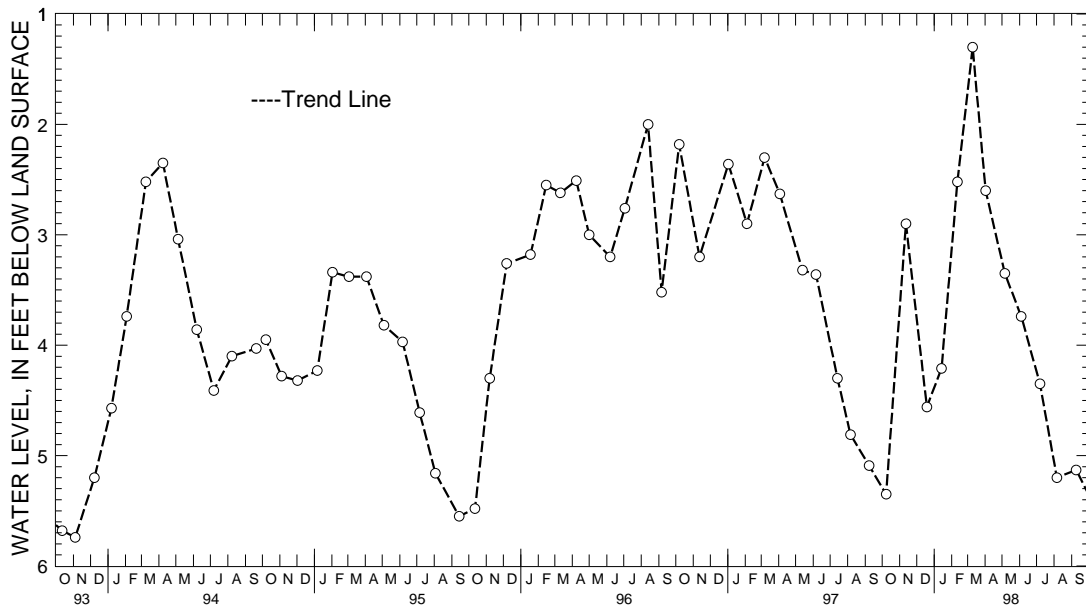
REMARKS.--Maryland Water-Level Network and Collection of Basic Records (CBR) national network observation well (see figure 3). Reported water level 4.0 ft below land surface, June 10, 1949.

PERIOD OF RECORD.--July 1953, May 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.30 ft below land surface, March 10, 1998; lowest measured, 6.47 ft below land surface, Jan. 3, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	5.35	JAN 14, 1998	4.21	APR 02, 1998	2.60	JUL 07, 1998	4.35
NOV 12	2.90	FEB 11	2.52	MAY 06	3.35	AUG 06	5.20
DEC 19	4.56	MAR 10	1.30	JUN 04	3.74	SEP 09	5.13
WATER YEAR 1998		HIGHEST	1.30	MAR 10, 1998		LOWEST	5.35
							OCT 08, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

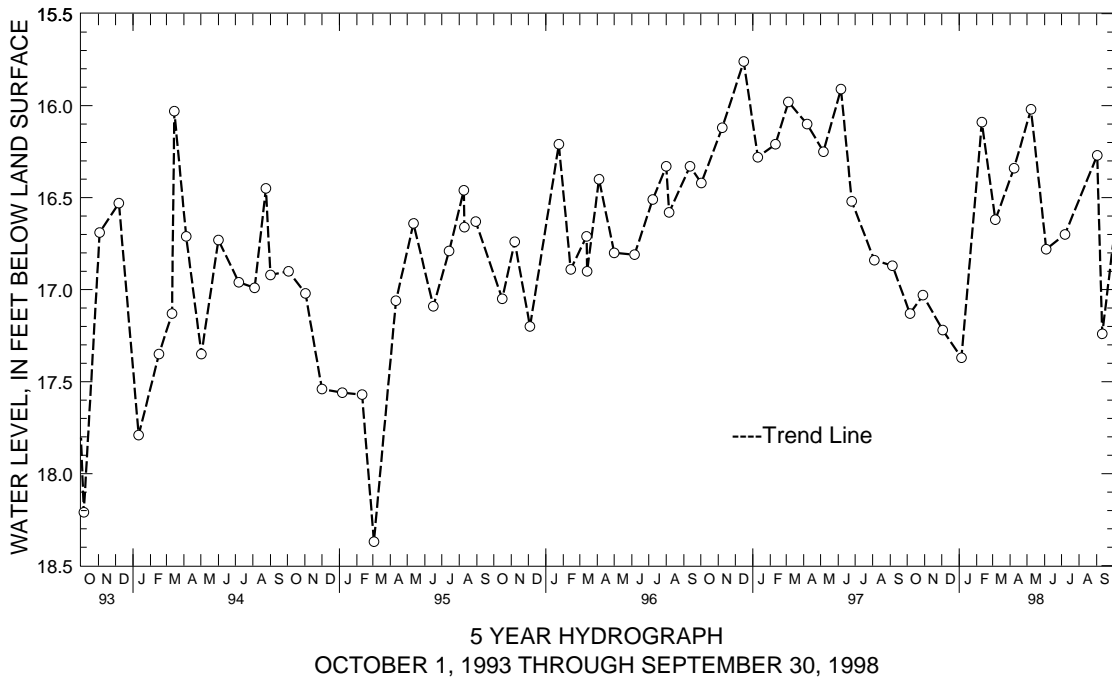
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	17.13	JAN 05, 1998	17.37	APR 08, 1998	16.34	JUL 07, 1998	16.70
29	17.03	FEB 10	16.09	MAY 08	16.02	SEP 02	16.27
DEC 03	17.22	MAR 06	16.62	JUN 04	16.78	11	17.24
WATER YEAR 1998	HIGHEST	16.02	MAY 08, 1998	LOWEST	17.37	JAN 05, 1998	



GROUND-WATER LEVELS

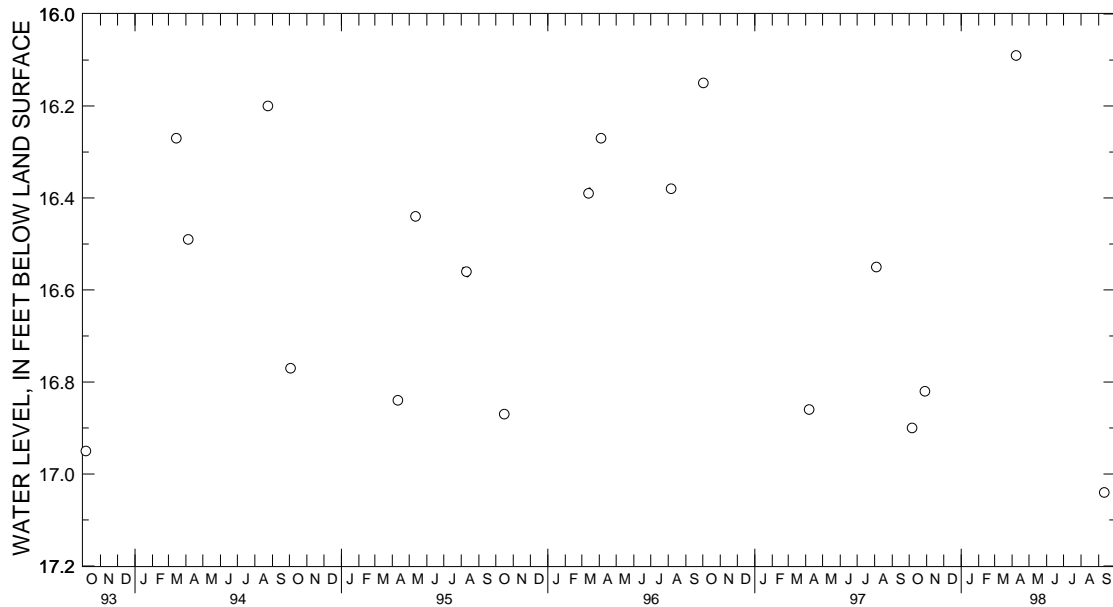
MARYLAND--Continued

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.--Periodic measurements with electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	16.90	OCT 29, 1997	16.82	APR 08, 1998	16.09	SEP 11, 1998	17.04
WATER YEAR 1998		HIGHEST	16.09	APR 08, 1998		LOWEST	17.04



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

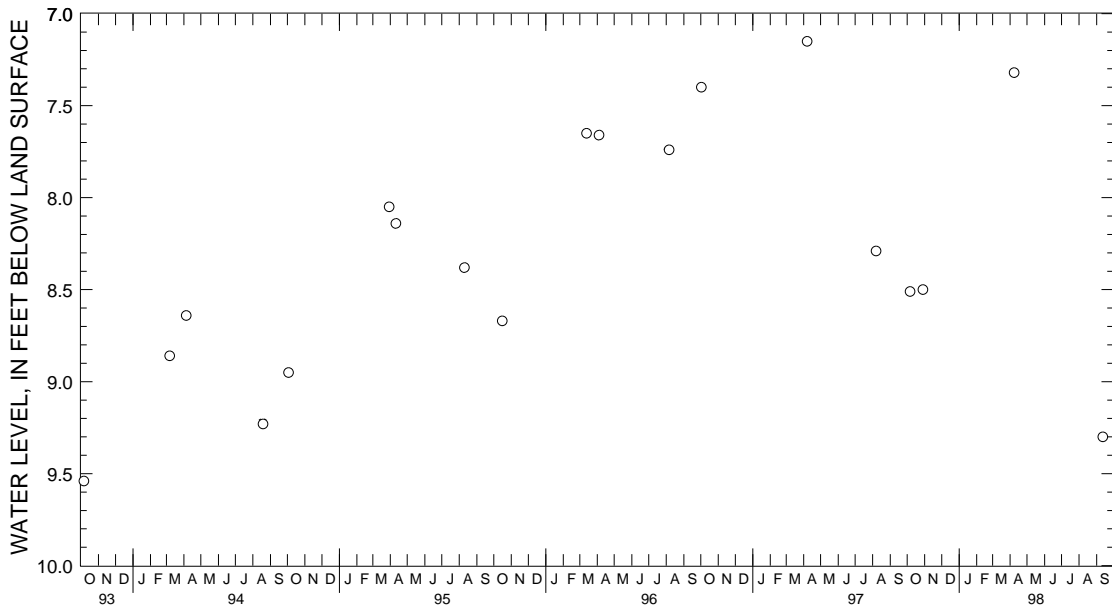
MARYLAND--Continued

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 electric 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, 7.15 ft below land surface, April 7, 1997;
 lowest measured, 9.72 ft below land surface, Nov. 13, 1990.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	8.51	OCT 29, 1997	8.50	APR 08, 1998	7.32	SEP 12, 1998	9.30
WATER YEAR 1998	HIGHEST	7.32	APR 08, 1998	LOWEST	9.30	SEP 12, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

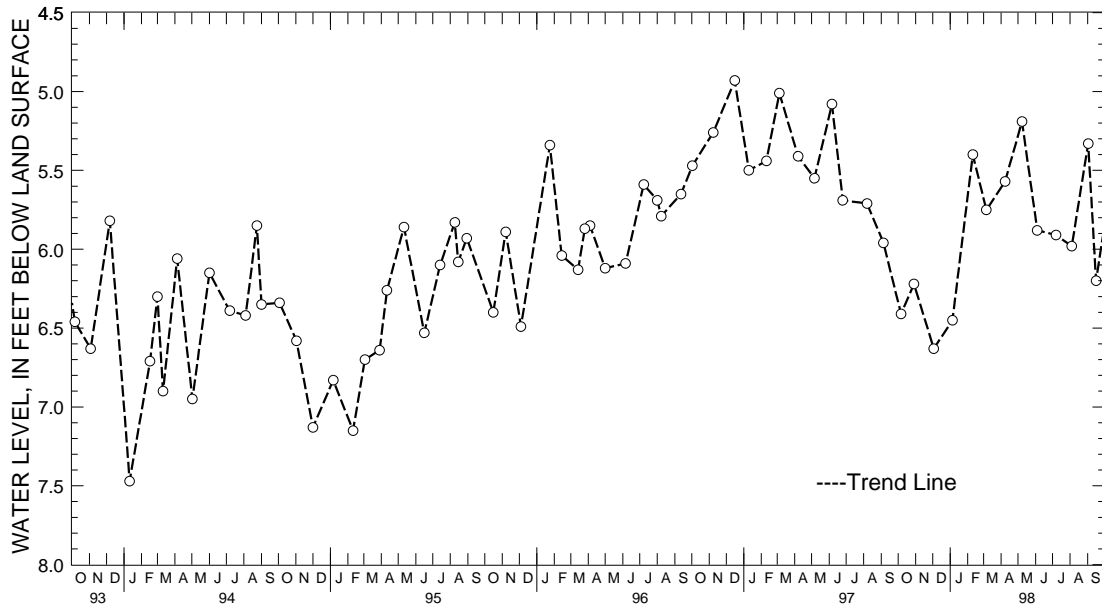
MARYLAND--Continued

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 electric 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, 4.93 ft below land surface, Dec. 16, 1996; lowest measured, 9.17 ft below land surface, August 4, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	6.41	FEB 10, 1998	5.40	JUN 04, 1998	5.88	SEP 16, 1998	6.20
29	6.22	MAR 06	5.75	JUL 07	5.91		
DEC 03	6.63	APR 08	5.57	AUG 04	5.98		
JAN 05, 1998	6.45	MAY 08	5.19	SEP 02	5.33		
WATER YEAR 1998	HIGHEST	5.19	MAY 08, 1998	LOWEST	6.63	DEC 03, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

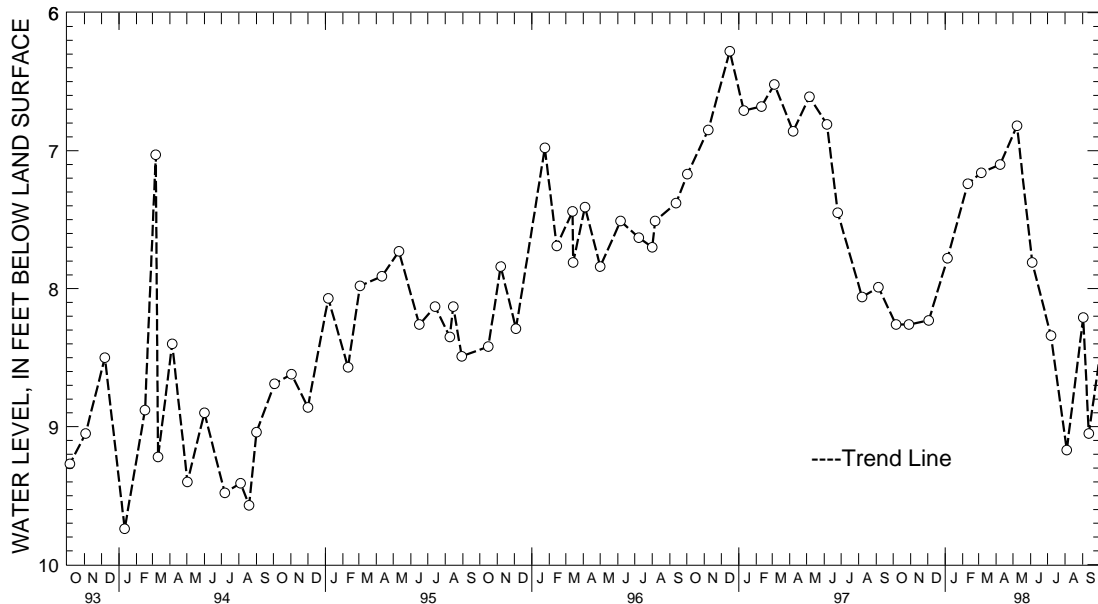
MARYLAND--Continued

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 electric 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,
 and Dec. 16, 1996; lowest measured, 9.74 ft below land surface, Jan. 11, 1994.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	8.26	FEB 10, 1998	7.24	JUN 04, 1998	7.81	SEP 12, 1998	9.05
29	8.26	MAR 06	7.16	JUL 07	8.34		
DEC 03	8.23	APR 08	7.10	AUG 04	9.17		
JAN 05, 1998	7.78	MAY 08	6.82	SEP 02	8.21		
WATER YEAR 1998		HIGHEST	6.82	MAY 08, 1998		LOWEST	9.17
							AUG 04, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

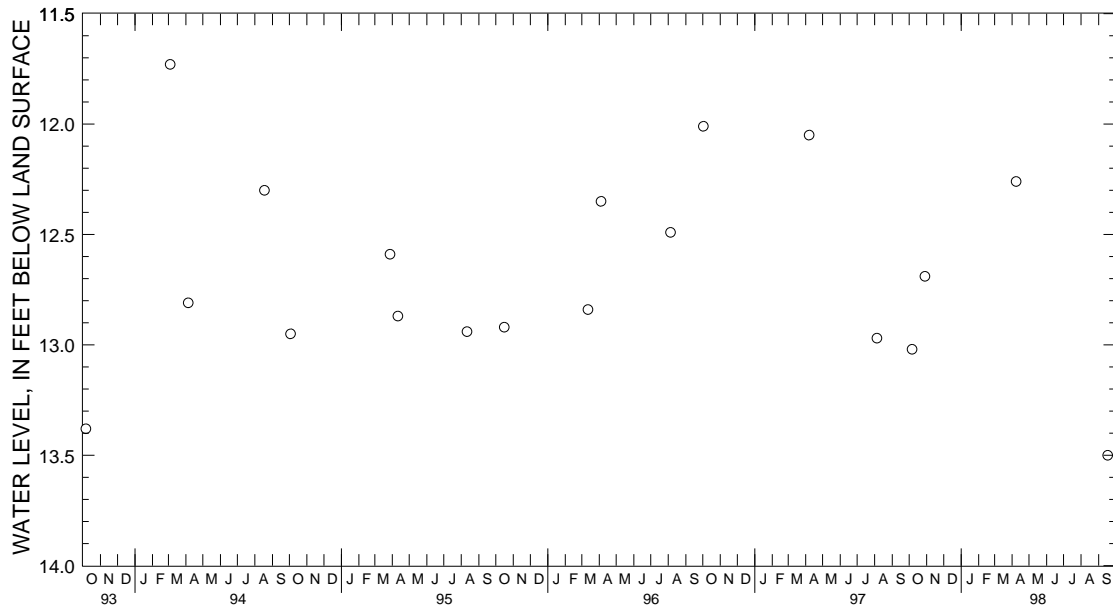
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	13.02	OCT 29, 1997	12.69	APR 08, 1998	12.26	SEP 17, 1998	13.50
WATER YEAR 1998	HIGHEST	12.26	APR 08, 1998	LOWEST	13.50	SEP 17, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

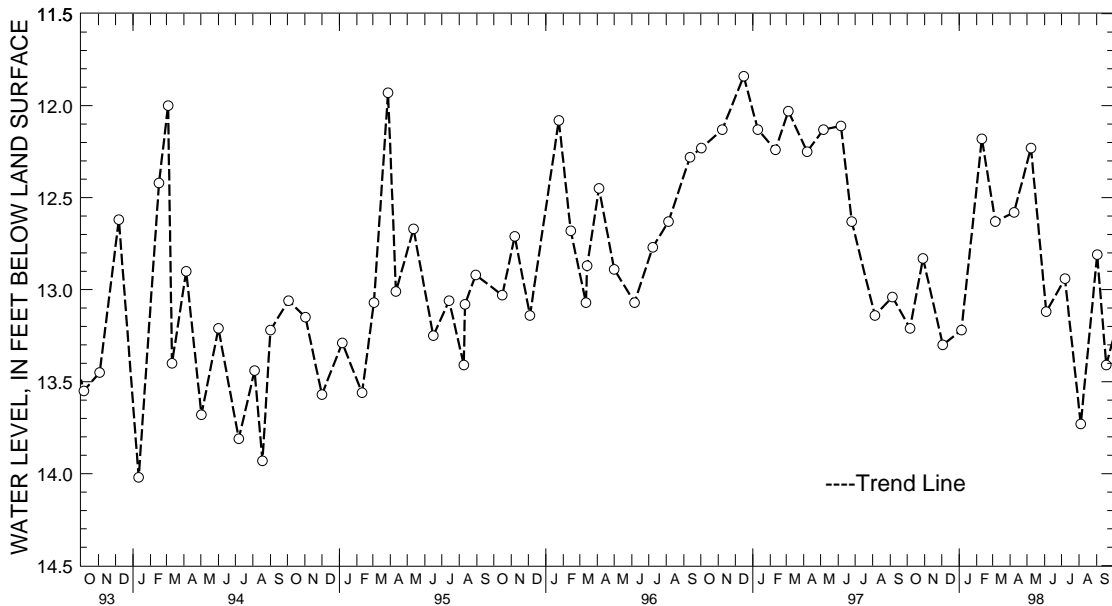
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	13.21	FEB 10, 1998	12.18	JUN 04, 1998	13.12	SEP 18, 1998	13.41
29	12.83	MAR 06	12.63	JUL 07	12.94		
DEC 03	13.30	APR 08	12.58	AUG 04	13.73		
JAN 05, 1998	13.22	MAY 08	12.23	SEP 02	12.81		
WATER YEAR 1998		HIGHEST	12.18	FEB 10, 1998	LOWEST	13.73	AUG 04, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

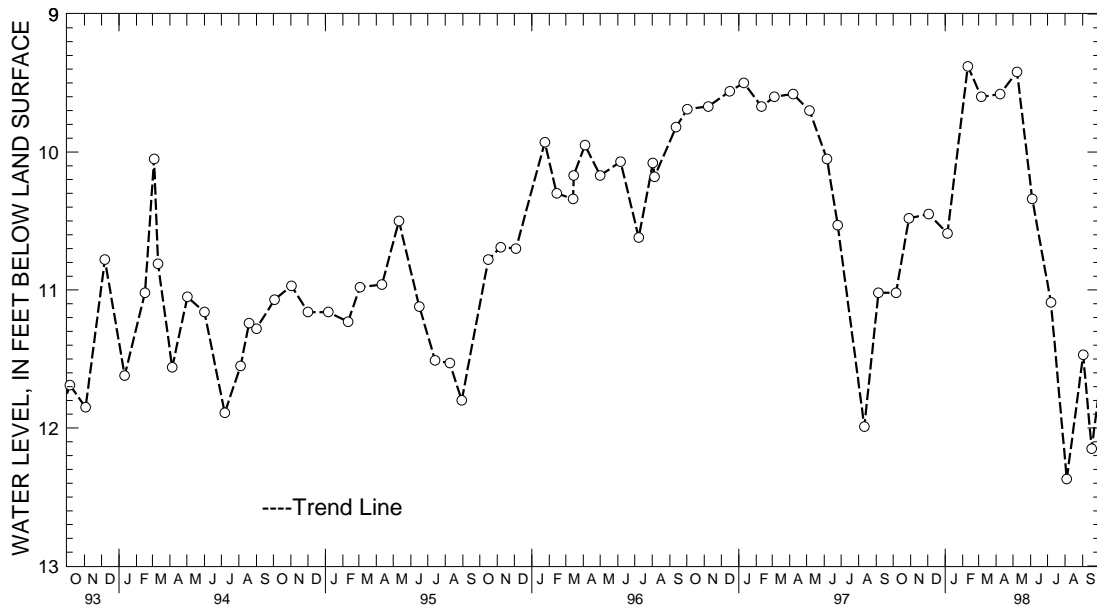
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	11.02	FEB 10, 1998	9.38	JUN 04, 1998	10.34	SEP 17, 1998	12.15
29	10.48	MAR 06	9.60	JUL 07	11.09		
DEC 03	10.45	APR 08	9.58	AUG 04	12.37		
JAN 05, 1998	10.59	MAY 08	9.42	SEP 02	11.47		
WATER YEAR 1998		HIGHEST	9.38	FEB 10, 1998		LOWEST	12.37
							AUG 04, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

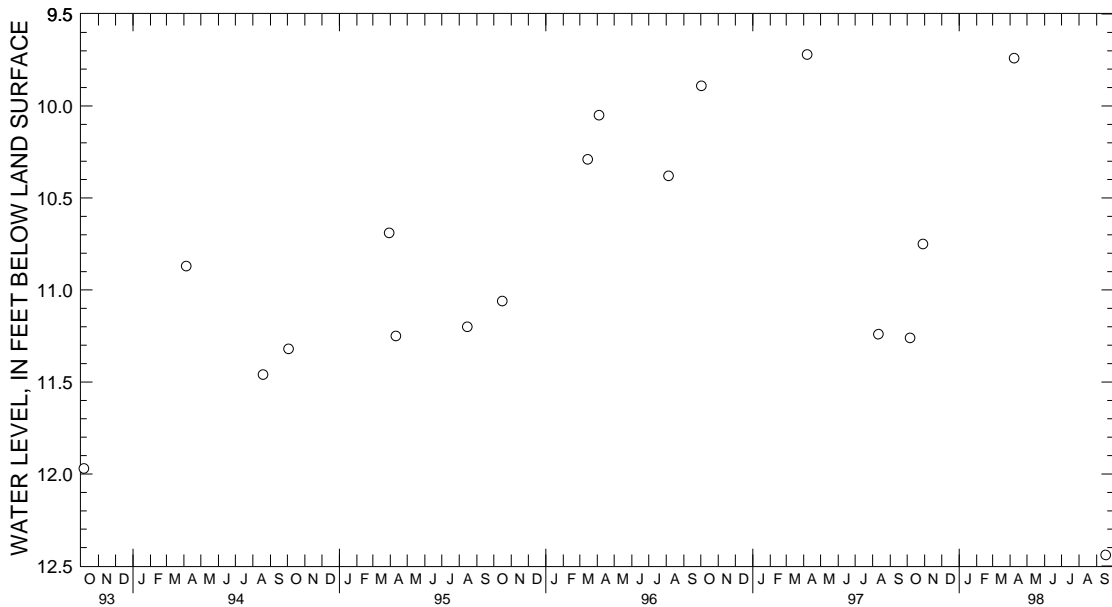
MARYLAND--Continued

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 electric 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, 13.12 ft below land surface, August 4, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	11.26	OCT 29, 1997	10.75	APR 08, 1998	9.74	SEP 17, 1998	12.44
WATER YEAR 1998		HIGHEST	9.74	APR 08, 1998	LOWEST	12.44	SEP 17, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

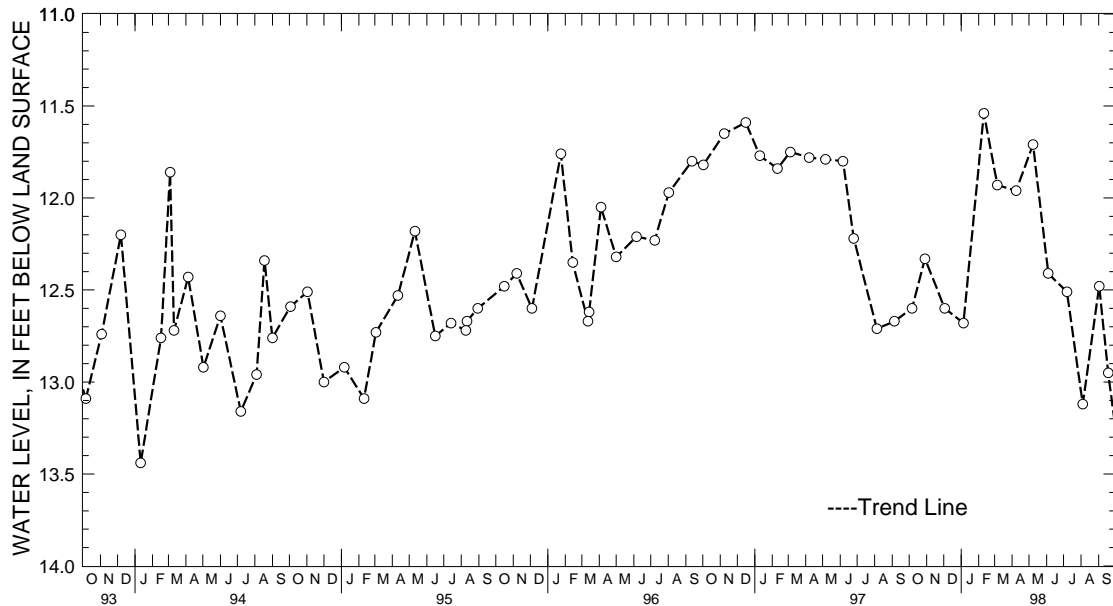
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	12.60	FEB 10, 1998	11.54	JUN 04, 1998	12.41	SEP 18, 1998	12.95
29	12.33	MAR 06	11.93	JUL 07	12.51		
DEC 03	12.60	APR 08	11.96	AUG 04	13.12		
JAN 05, 1998	12.68	MAY 08	11.71	SEP 02	12.48		
WATER YEAR 1998		HIGHEST	11.54 FEB 10, 1998	LOWEST	13.12 AUG 04, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

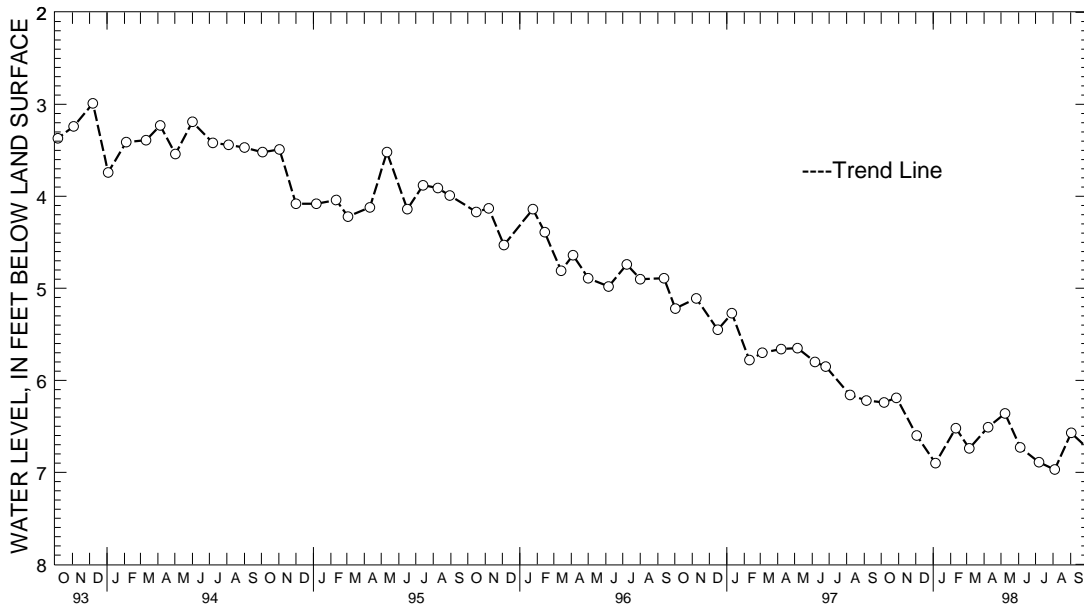
MARYLAND--Continued

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 electric 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, 6.97 ft below land surface, August 4, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	6.24	JAN 05, 1998	6.90	APR 08, 1998	6.51	JUL 07, 1998	6.89
28	6.19	FEB 10	6.52	MAY 08	6.36	AUG 04	6.97
DEC 03	6.60	MAR 06	6.74	JUN 04	6.73	SEP 02	6.57
WATER YEAR 1998		HIGHEST	6.19	OCT 28, 1997	LOWEST	6.97	AUG 04, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

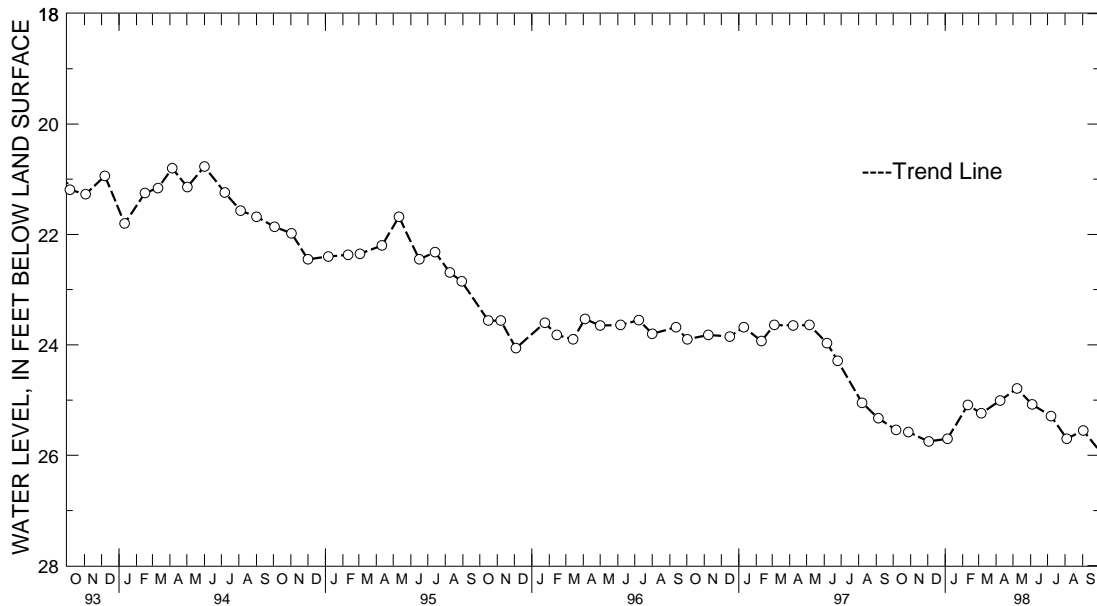
MARYLAND--Continued

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 electric 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, 25.75 ft below land surface, Dec. 3, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	25.54	JAN 05, 1998	25.70	APR 08, 1998	25.01	JUL 07, 1998	25.29
28	25.58	FEB 10	25.09	MAY 08	24.79	AUG 04	25.70
DEC 03	25.75	MAR 06	25.24	JUN 04	25.08	SEP 02	25.55
WATER YEAR 1998	HIGHEST	24.79	MAY 08, 1998	LOWEST	25.75	DEC 03, 1997	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

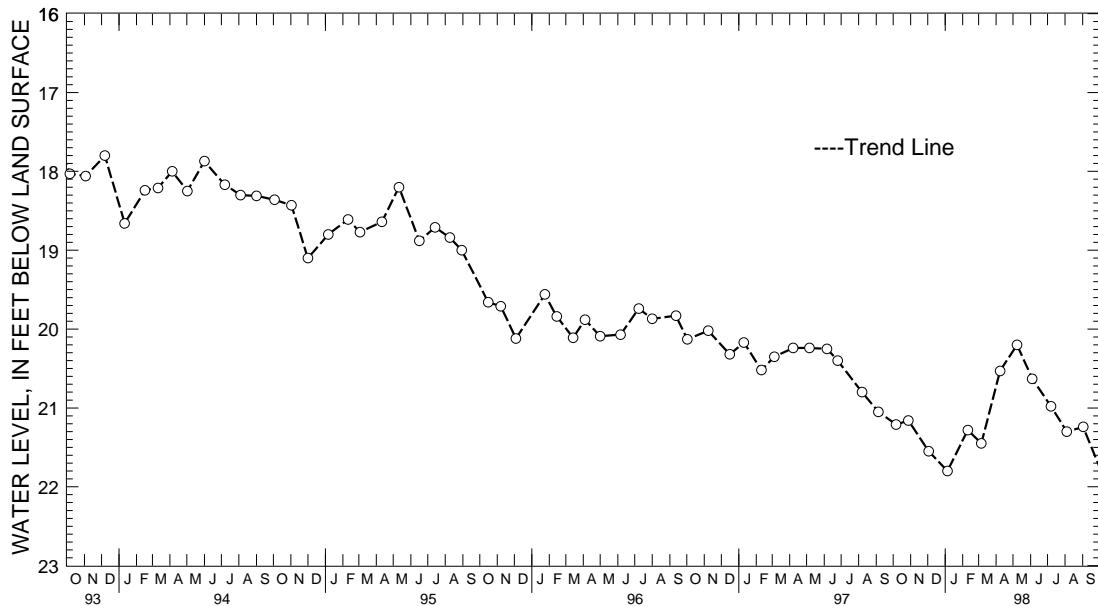
MARYLAND--Continued

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 electric 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, 21.80 ft below land surface, Jan. 5, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	21.21	JAN 05, 1998	21.80	APR 08, 1998	20.53	JUL 07, 1998	20.98
28	21.16	FEB 10	21.28	MAY 08	20.20	AUG 04	21.30
DEC 03	21.55	MAR 06	21.45	JUN 04	20.63	SEP 02	21.24
WATER YEAR 1998	HIGHEST	20.20	MAY 08, 1998	LOWEST	21.80	JAN 05, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

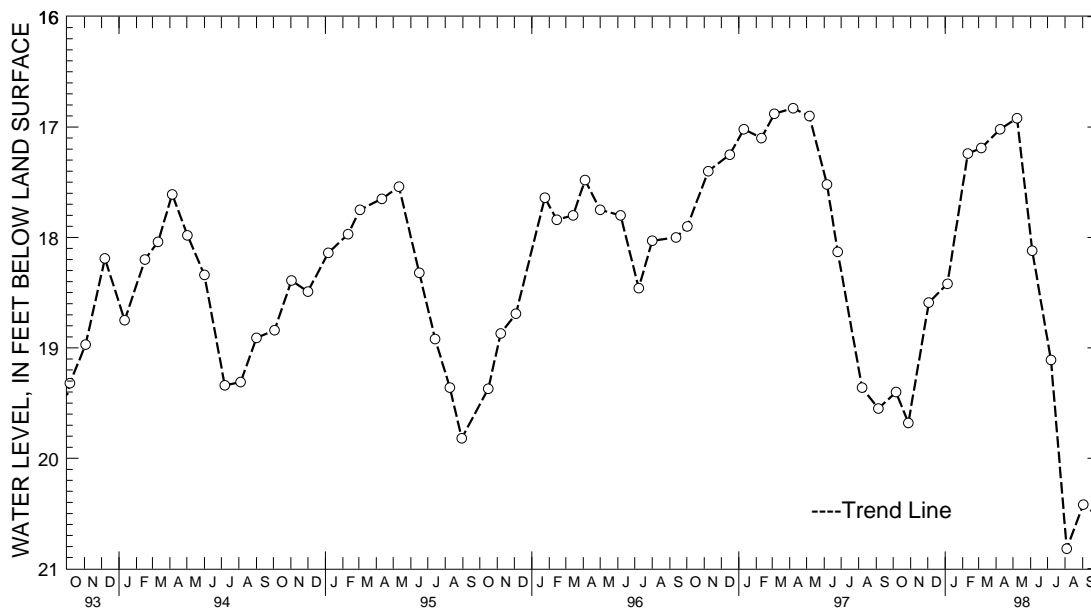
MARYLAND--Continued

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, near 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 electric 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, 20.82 ft below land surface, August 4, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	19.40	JAN 05, 1998	18.42	APR 08, 1998	17.02	JUL 07, 1998	19.11
28	19.68	FEB 10	17.24	MAY 08	16.92	AUG 04	20.82
DEC 03	18.59	MAR 06	17.19	JUN 04	18.12	SEP 02	20.42
WATER YEAR 1998		HIGHEST	16.92	MAY 08, 1998		LOWEST	20.82
							AUG 04, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

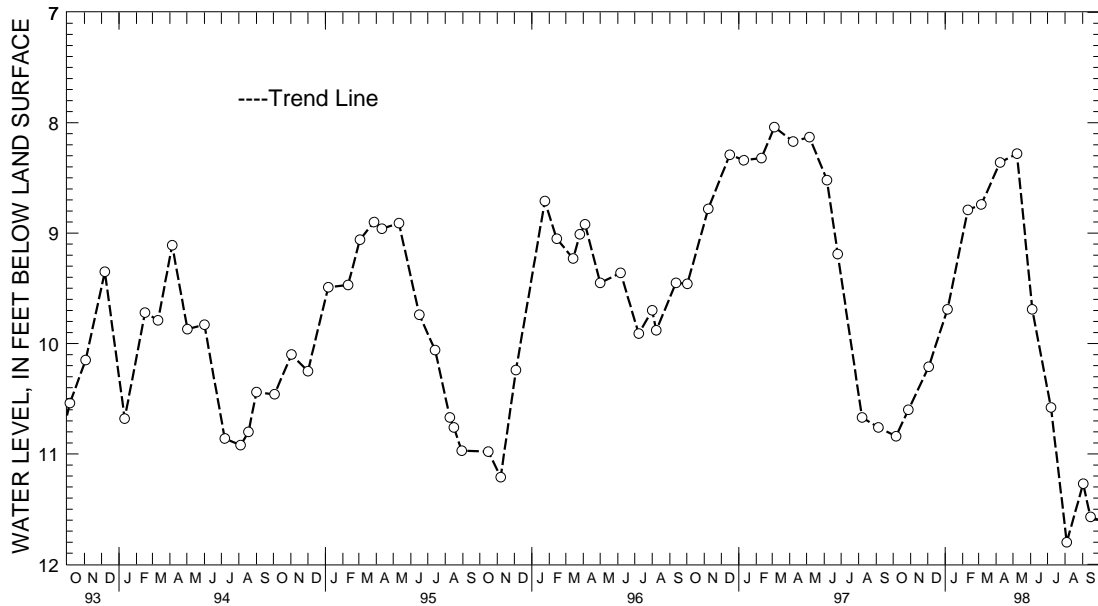
MARYLAND--Continued

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 electric 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, 11.80 ft below land surface, August. 4, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	10.84	FEB 10, 1998	8.79	JUN 04, 1998	9.69	SEP 15, 1998	11.57
28	10.60	MAR 06	8.74	JUL 07	10.58		
DEC 03	10.21	APR 08	8.36	AUG 04	11.80		
JAN 05, 1998	9.69	MAY 08	8.28	SEP 02	11.27		
WATER YEAR 1998		HIGHEST	8.28	MAY 08, 1998	LOWEST	11.80	AUG 04, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

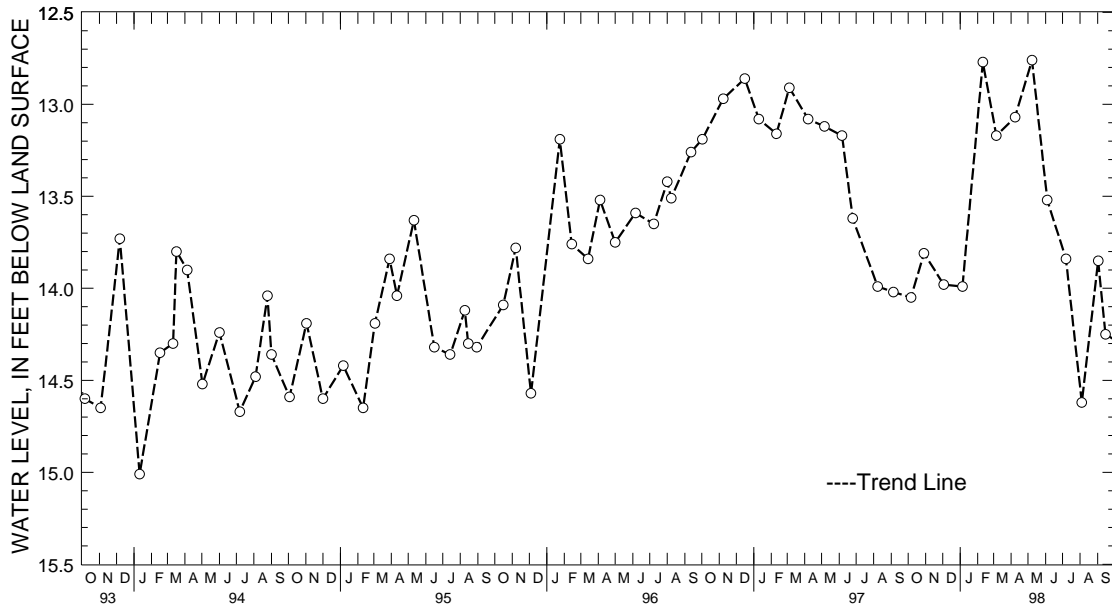
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 06, 1997	14.05	FEB 10, 1998	12.77	JUN 04, 1998	13.52	SEP 15, 1998	14.25
29	13.81	MAR 06	13.17	JUL 07	13.84		
DEC 03	13.98	APR 08	13.07	AUG 04	14.62		
JAN 05, 1998	13.99	MAY 08	12.76	SEP 02	13.85		
WATER YEAR 1998		HIGHEST	12.76	MAY 08, 1998	LOWEST	14.62	AUG 04, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

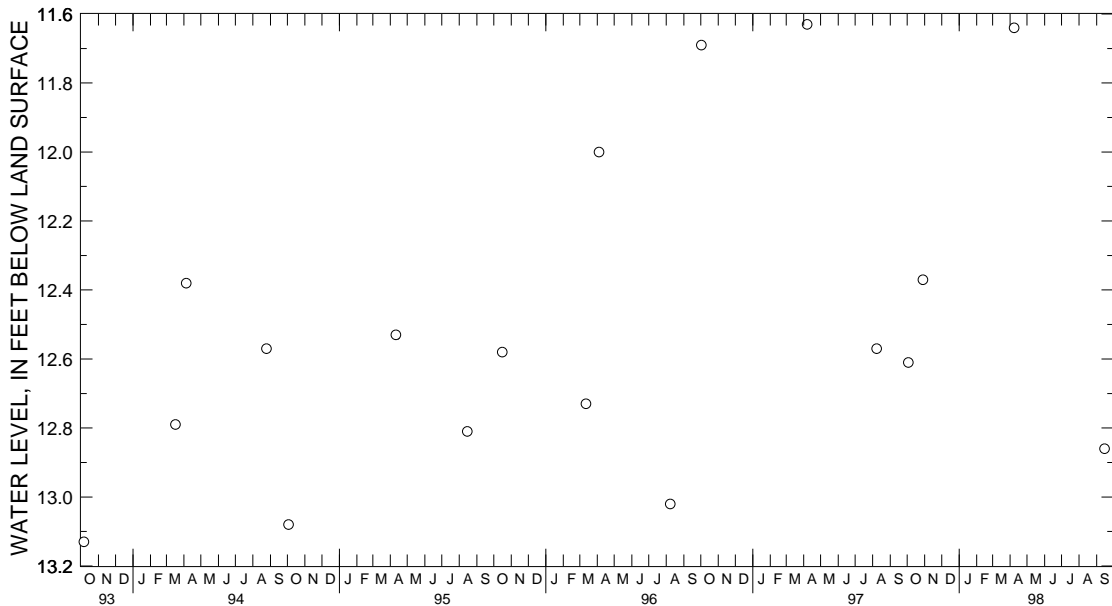
MARYLAND--Continued

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 electric tape by U.S. Geological Survey personnel from April 1992 to current year. Measured monthly from May 1989 to November 1991. Measured twice yearly from March 1988 to April 1989.
 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.
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	12.61	OCT 29, 1997	12.37	APR 08, 1998	11.64	SEP 15, 1998	12.86
WATER YEAR 1998		HIGHEST	11.64	APR 08, 1998		LOWEST	12.86



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

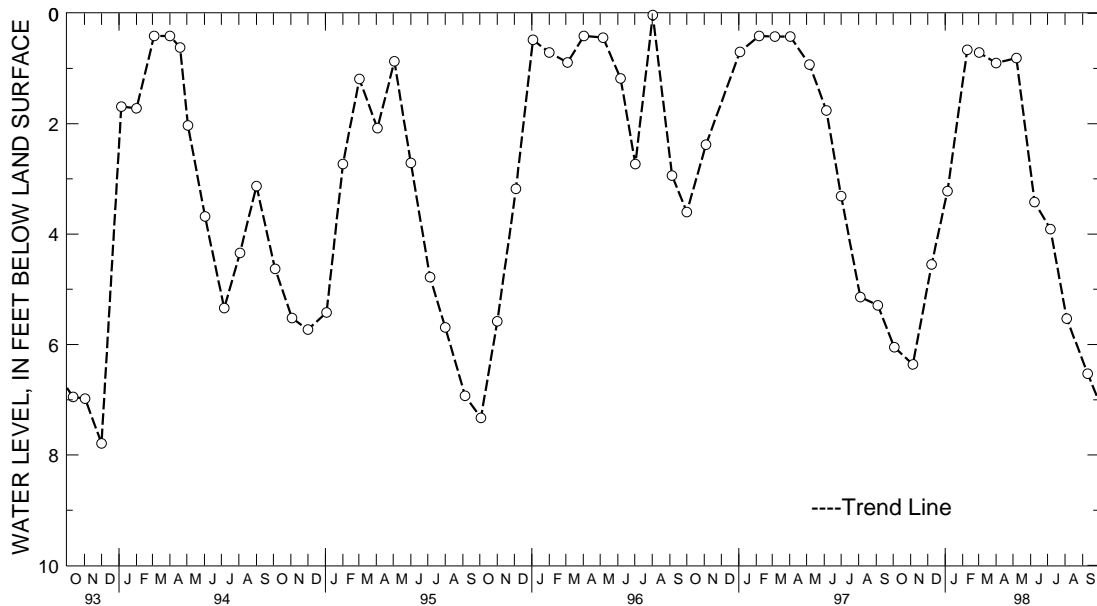
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	6.05	JAN 05, 1998	3.22	APR 01, 1998	.90	JUL 06, 1998	3.91
NOV 05	6.36	FEB 09	.66	MAY 07	.81	AUG 04	5.53
DEC 08	4.55	MAR 02	.71	JUN 08	3.42	SEP 10	6.53
WATER YEAR 1998		HIGHEST	.66 FEB 09, 1998	LOWEST	6.53 SEP 10, 1998		



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

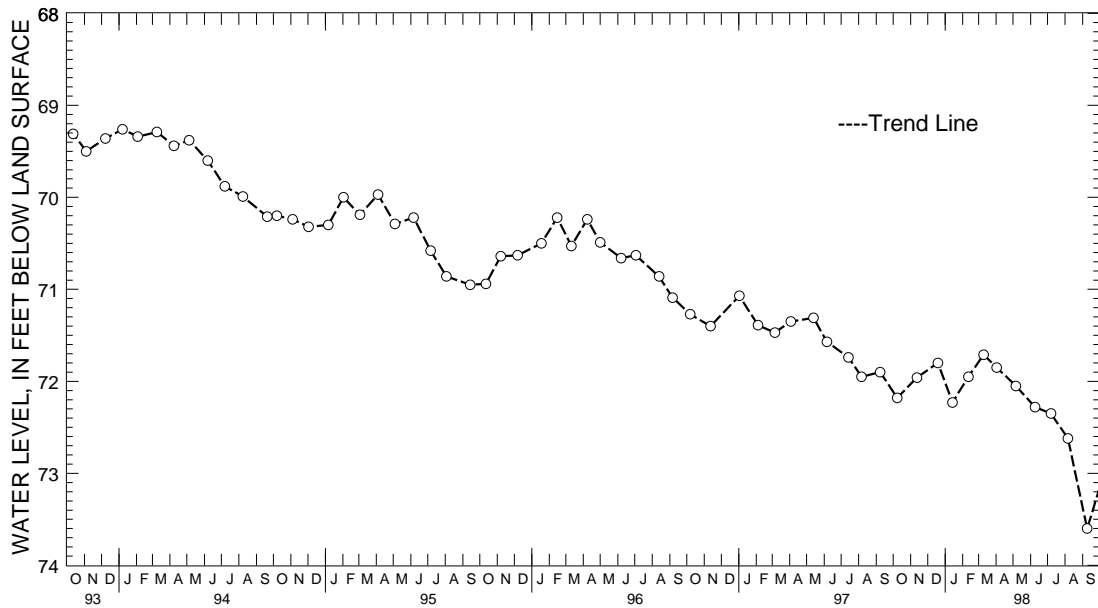
MARYLAND--Continued

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 electric 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, 73.60 ft below land surface, Sept. 9, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 08, 1997	72.18	JAN 14, 1998	72.23	APR 02, 1998	71.85	JUL 07, 1998	72.35
NOV 12	71.96	FEB 11	71.95	MAY 06	72.05	AUG 06	72.62
DEC 19	71.80	MAR 10	71.71	JUN 09	72.28	SEP 09	73.60
WATER YEAR 1998		HIGHEST	71.71 MAR 10, 1998	LOWEST	73.60 SEP 09, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

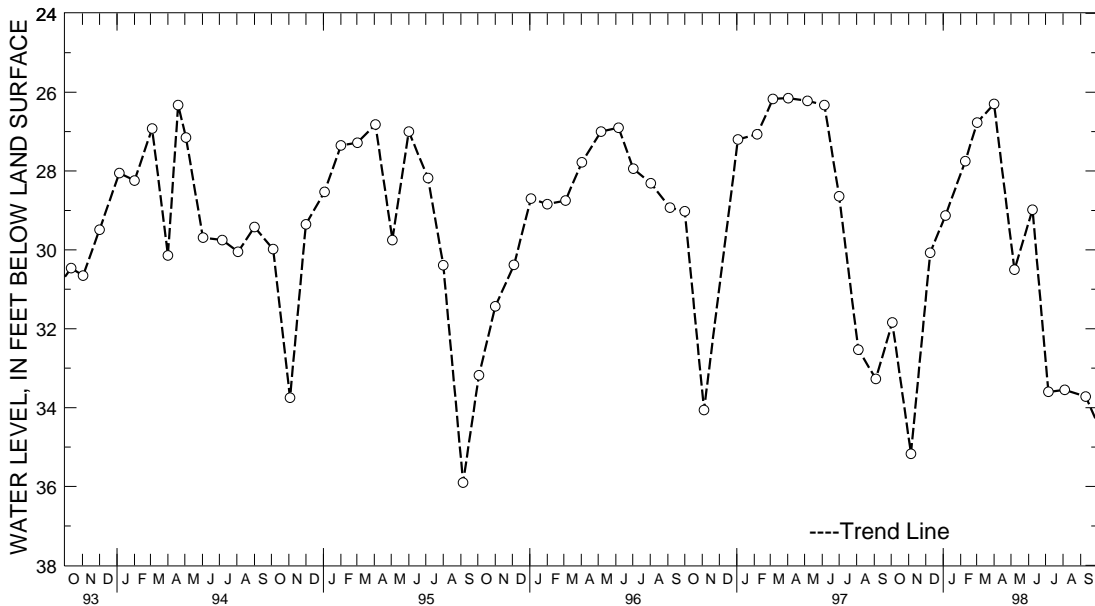
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	31.84	JAN 05, 1998	29.13	APR 01, 1998	26.30	JUL 06, 1998	33.60
NOV 05	35.17	FEB 09	27.75	MAY 07	30.50	AUG 04	33.55
DEC 09	30.07	MAR 02	26.77	JUN 08	28.98	SEP 10	33.72
WATER YEAR 1998		HIGHEST	26.30	APR 01, 1998	LOWEST	35.17	NOV 05, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

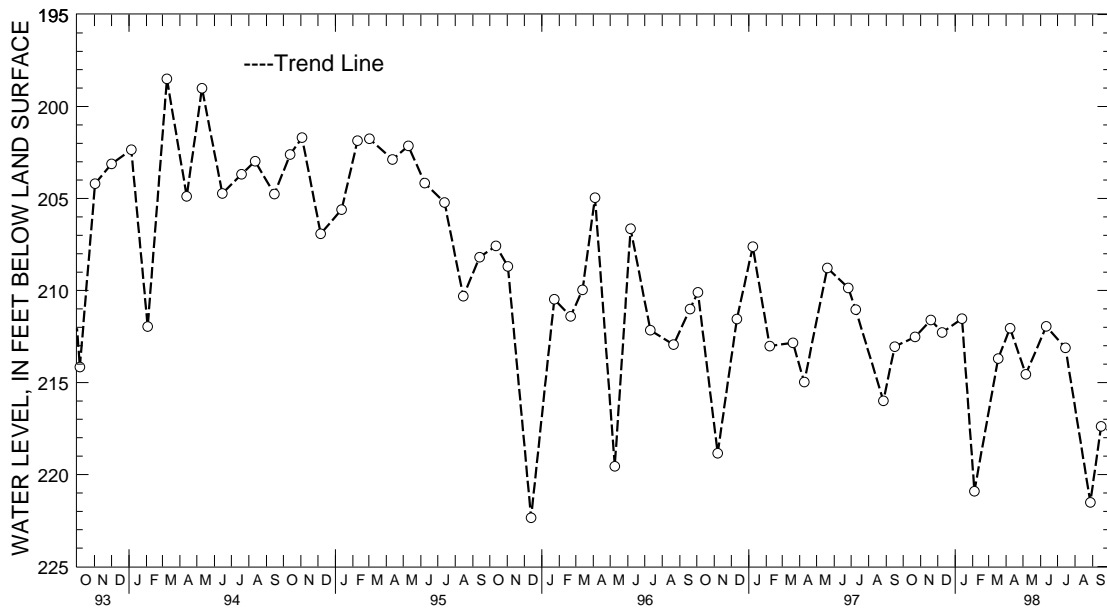
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	212.52	JAN 13, 1998	211.53	APR 08, 1998	212.05	JUL 15, 1998	213.11
NOV 19	211.60	FEB 04	220.91	MAY 06	214.55	AUG 28	221.51
DEC 09	212.28	MAR 18	213.70	JUN 11	211.95	SEP 16	217.38
WATER YEAR 1998		HIGHEST	211.53	JAN 13, 1998	LOWEST	221.51	AUG 28, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

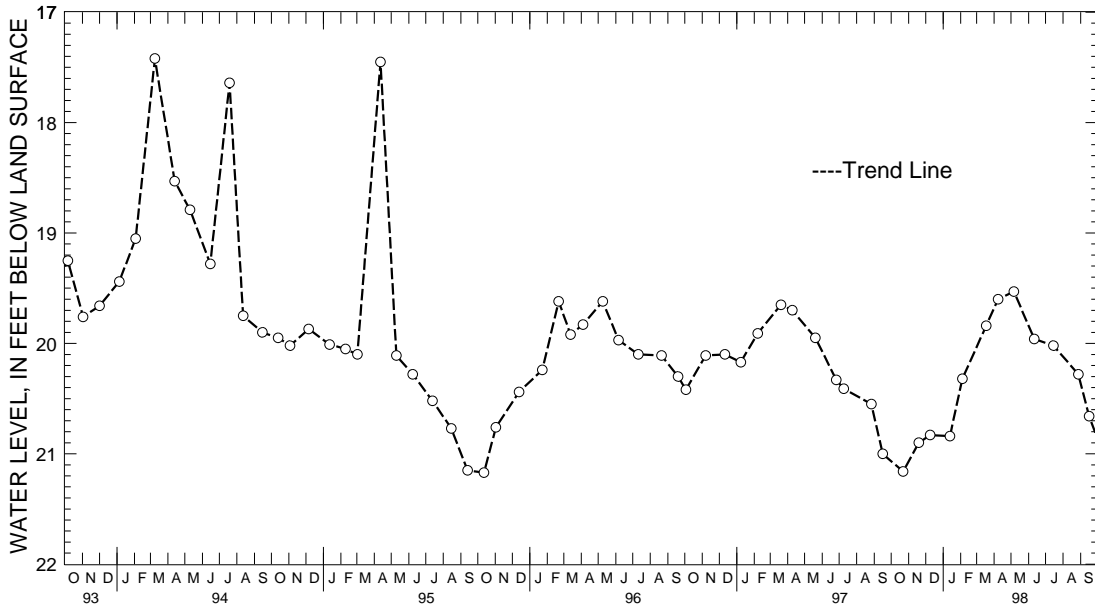
MARYLAND--Continued

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 electric 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.
 On July 12, 1989, the water-level measured 27.95 ft below land surface; this decline was due to a nearby production well 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	21.16	JAN 13, 1998	20.84	APR 08, 1998	19.60	JUL 15, 1998	20.02
NOV 19	20.90	FEB 04	20.32	MAY 06	19.53	AUG 28	20.28
DEC 09	20.83	MAR 18	19.84	JUN 11	19.96	SEP 16	20.66
WATER YEAR 1998		HIGHEST	19.53	MAY 06, 1998	LOWEST	21.16	OCT 22, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

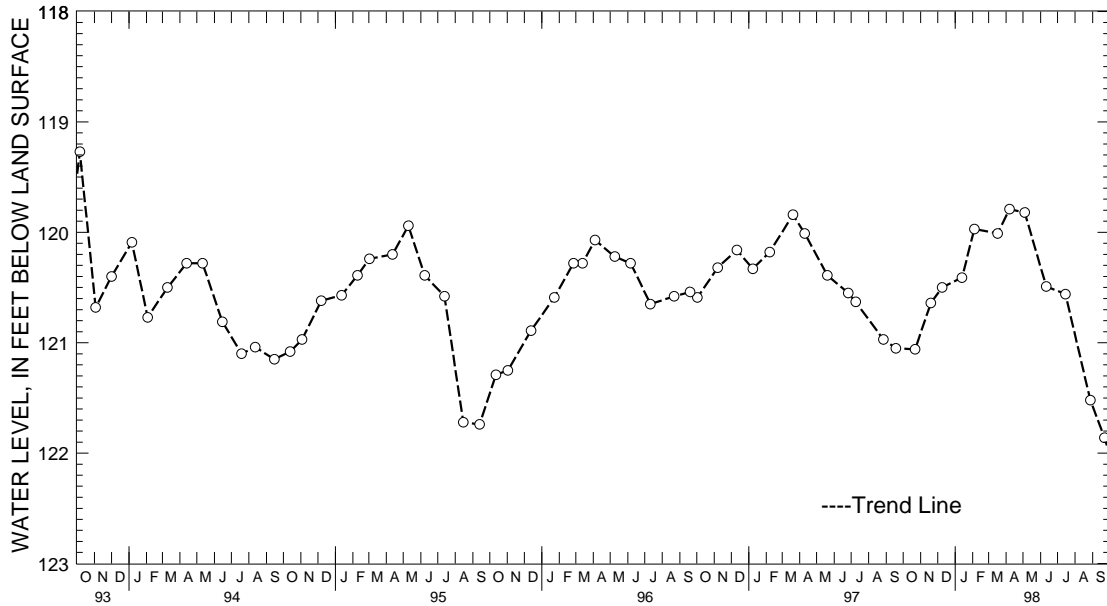
MARYLAND--Continued

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 electric 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, 121.86 ft below land surface, Sept. 22, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	121.06	JAN 13, 1998	120.41	APR 07, 1998	119.79	JUL 15, 1998	120.56
NOV 19	120.64	FEB 04	119.97	MAY 04	119.82	AUG 28	121.52
DEC 09	120.50	MAR 17	120.01	JUN 11	120.49	SEP 22	121.86
WATER YEAR 1998		HIGHEST	119.79	APR 07, 1998	LOWEST	121.86	SEP 22, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

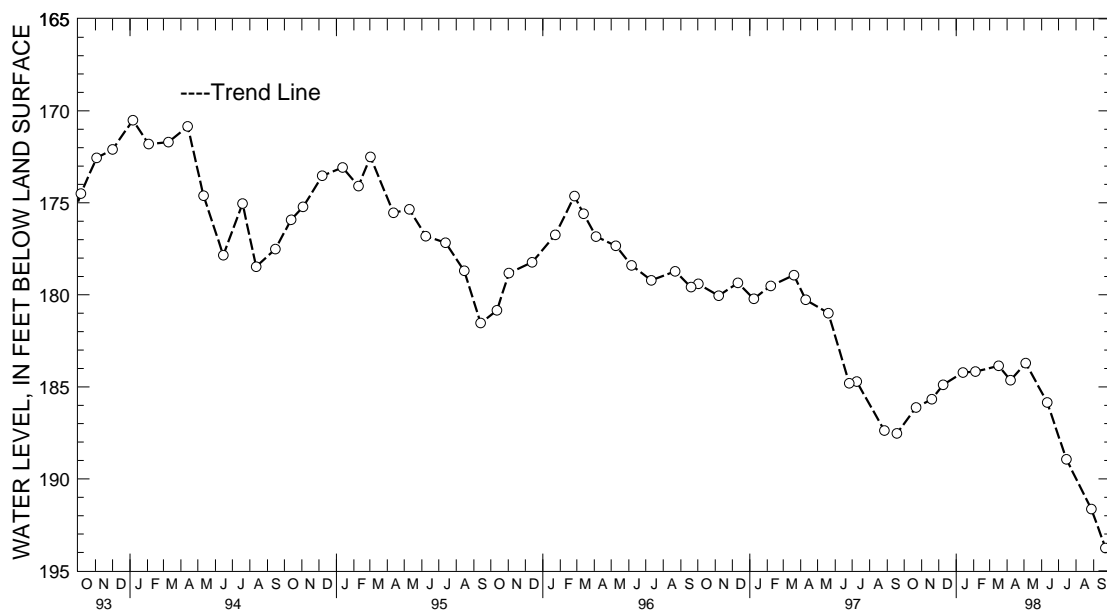
MARYLAND--Continued

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 electric 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, 193.76 ft below land surface, Sept. 22, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	186.12	JAN 13, 1998	184.22	APR 07, 1998	184.64	JUL 15, 1998	188.94
NOV 19	185.67	FEB 04	184.17	MAY 04	183.71	AUG 28	191.64
DEC 09	184.89	MAR 17	183.86	JUN 11	185.85	SEP 22	193.76
WATER YEAR 1998		HIGHEST	183.71	MAY 04, 1998	LOWEST	193.76	SEP 22, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

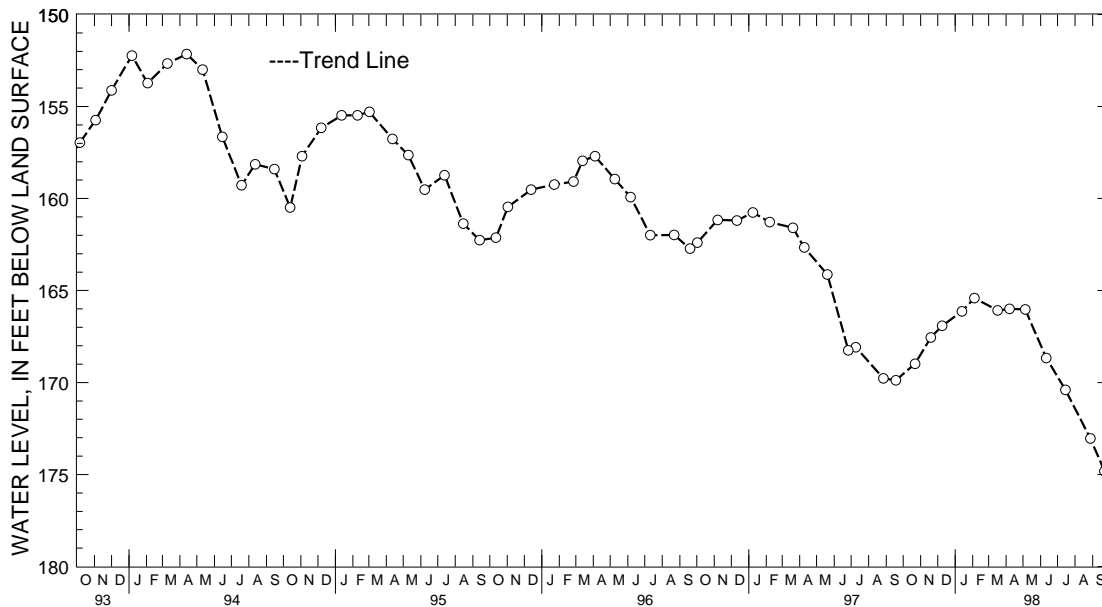
MARYLAND--Continued

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 electric 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, 174.82 ft below land surface, Sept. 22, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	168.98	JAN 13, 1998	166.13	APR 07, 1998	166.00	JUL 15, 1998	170.40
NOV 19	167.55	FEB 04	165.41	MAY 05	166.03	AUG 28	173.04
DEC 09	166.92	MAR 17	166.08	JUN 11	168.67	SEP 22	174.82
WATER YEAR 1998		HIGHEST 165.41	FEB 04, 1998	LOWEST 174.82	SEP 22, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

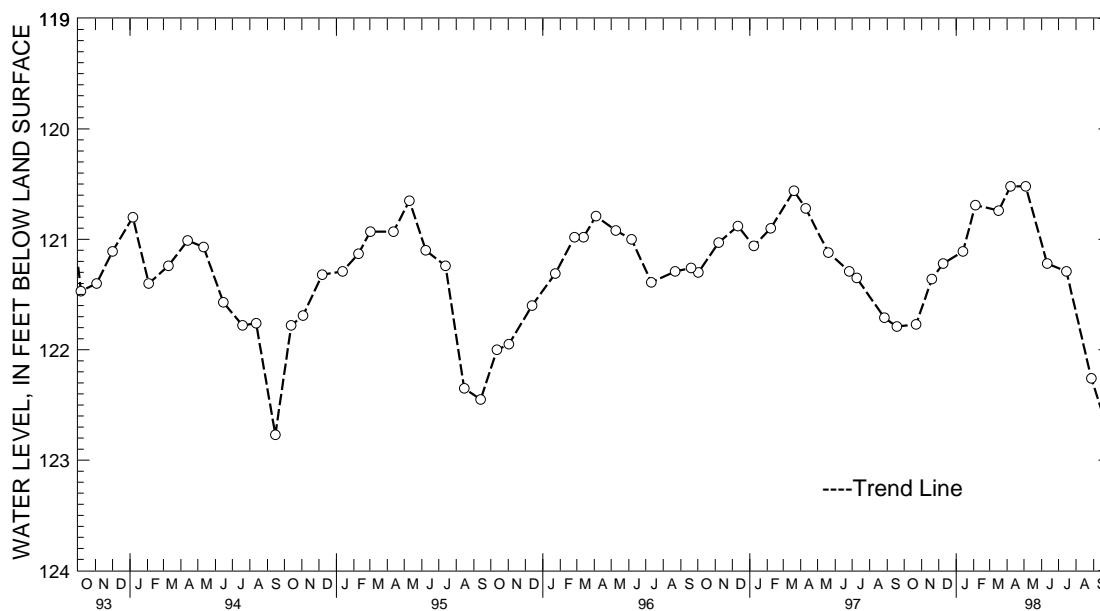
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	121.77	JAN 13, 1998	121.11	APR 07, 1998	120.52	JUL 15, 1998	121.29
NOV 19	121.36	FEB 04	120.69	MAY 04	120.52	AUG 28	122.26
DEC 09	121.22	MAR 17	120.74	JUN 11	121.22	SEP 22	122.66
WATER YEAR 1998		HIGHEST	120.52	APR 07, 1998	MAY 04, 1998	LOWEST	122.66
							SEP 22, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

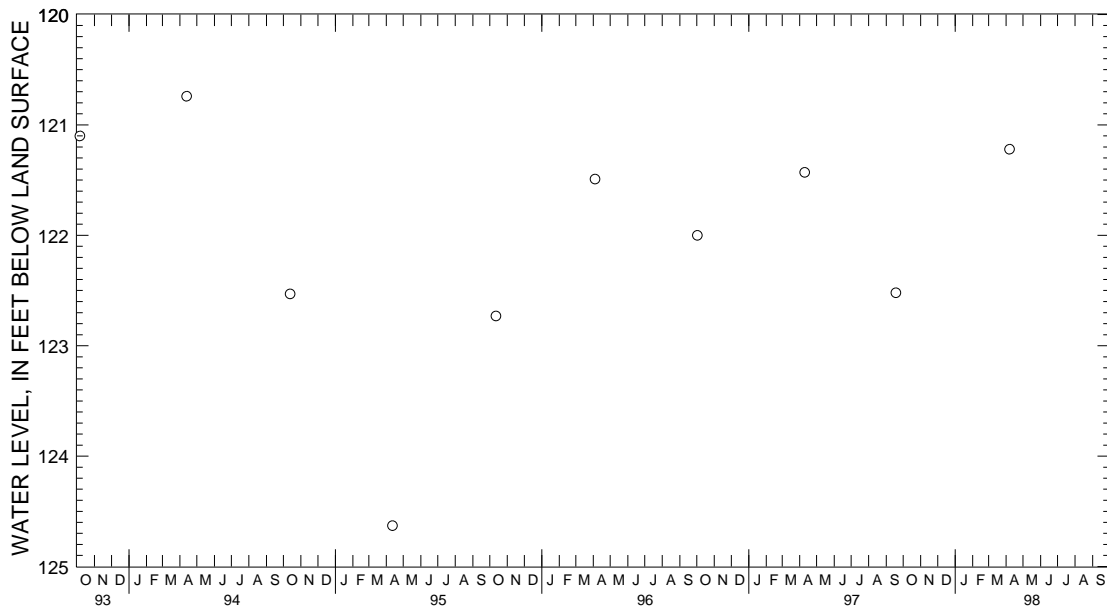
MARYLAND--Continued

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 electric tape by U.S. Geological Survey personnel from April 1987 to current year. Measured monthly from October 1977 to October 1986.
 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.
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL
APR 07, 1998	121.22



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

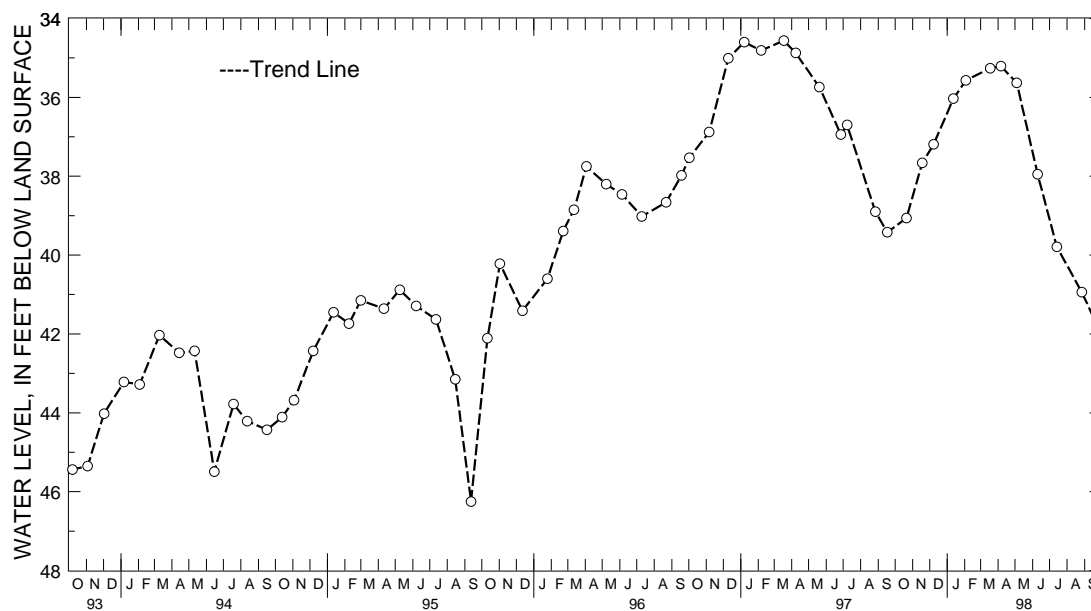
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	39.06	JAN 12, 1998	36.03	APR 06, 1998	35.21	JUL 14, 1998	39.79
NOV 18	37.66	FEB 03	35.57	MAY 04	35.63	AUG 27	40.94
DEC 08	37.19	MAR 18	35.26	JUN 10	37.95	SEP 23	41.78
WATER YEAR 1998		HIGHEST	35.21	APR 06, 1998	LOWEST	41.78	SEP 23, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

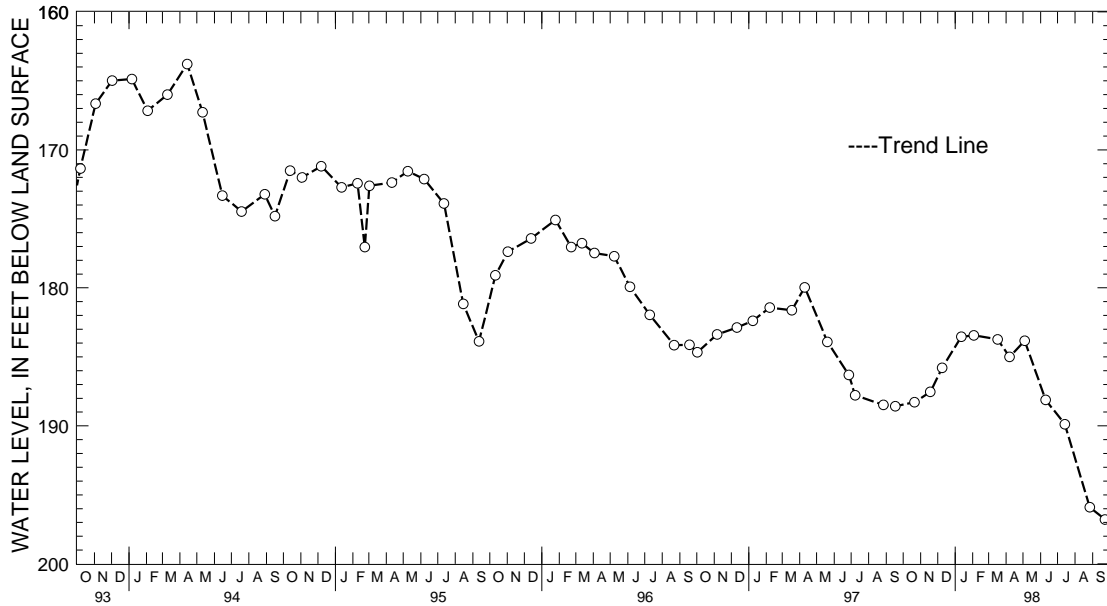
MARYLAND--Continued

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 electric 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, 196.78 ft below land surface, Sept. 23, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	188.29	JAN 12, 1998	183.54	APR 07, 1998	185.00	JUL 14, 1998	189.89
NOV 18	187.54	FEB 03	183.44	MAY 04	183.84	AUG 27	195.90
DEC 09	185.79	MAR 17	183.73	JUN 10	188.12	SEP 23	196.78
WATER YEAR 1998		HIGHEST 183.44	FEB 03, 1998	LOWEST 196.78		SEP 23, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

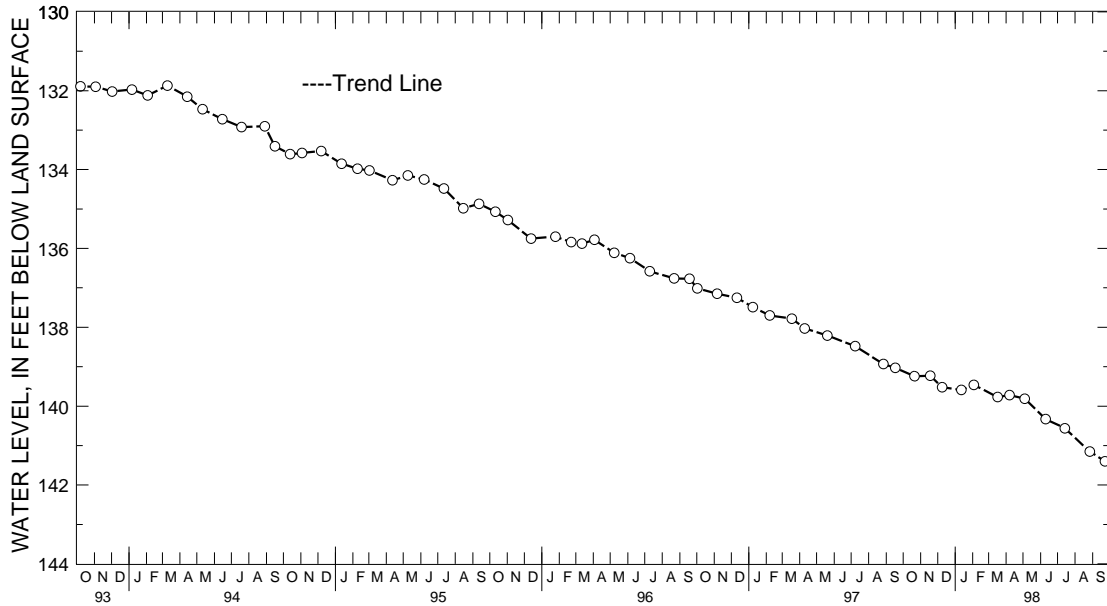
MARYLAND--Continued

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.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.
 WELL CHARACTERISTICS.--Drilled, observation, artesian well, depth 923 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 electric 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, 141.40 ft below land surface, Sept. 23, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	139.24	JAN 12, 1998	139.59	APR 07, 1998	139.72	JUL 14, 1998	140.56
NOV 18	139.23	FEB 03	139.46	MAY 04	139.81	AUG 27	141.15
DEC 09	139.52	MAR 17	139.77	JUN 10	140.33	SEP 23	141.40
WATER YEAR 1998		HIGHEST	139.23	NOV 18, 1997	LOWEST	141.40	SEP 23, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

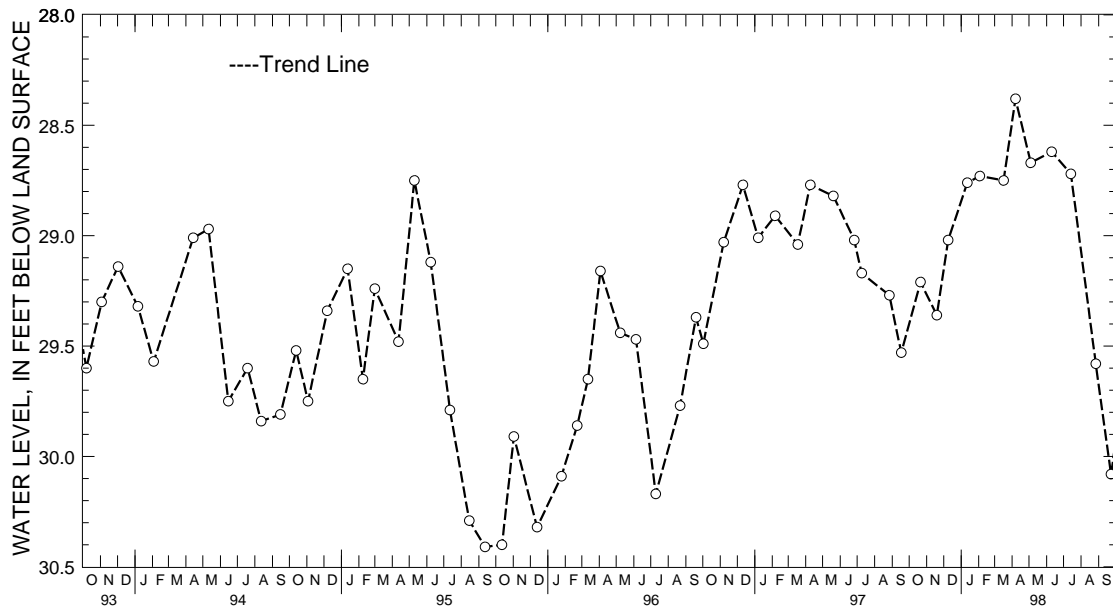
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	29.21	JAN 12, 1998	28.76	APR 07, 1998	28.38	JUL 14, 1998	28.72
NOV 19	29.36	FEB 03	28.73	MAY 04	28.67	AUG 27	29.58
DEC 09	29.02	MAR 17	28.75	JUN 10	28.62	SEP 23	30.08
WATER YEAR 1998		HIGHEST	28.38	APR 07, 1998	LOWEST	30.08	SEP 23, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

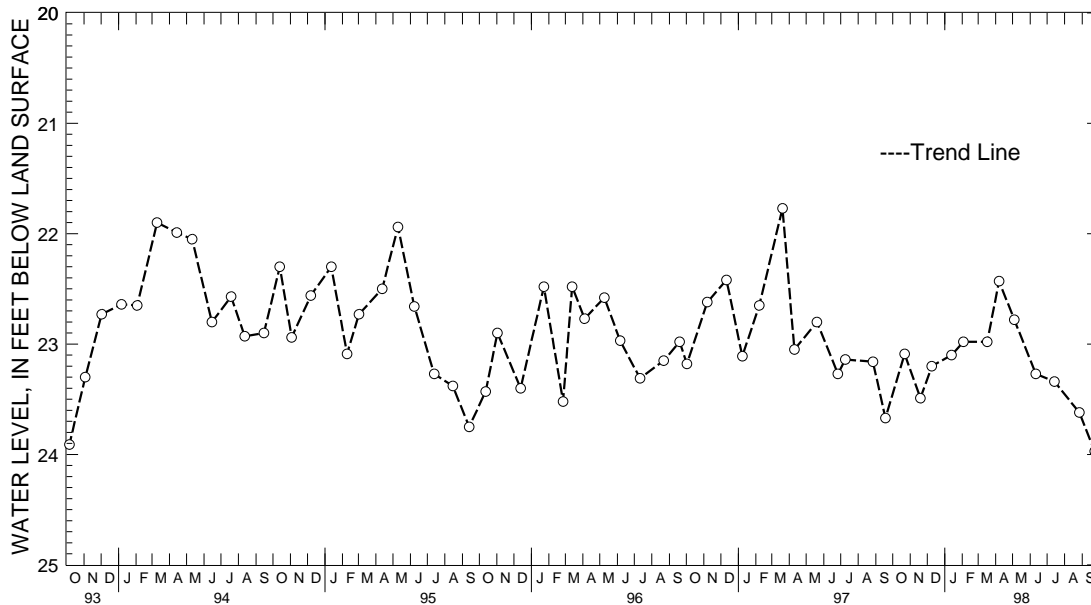
MARYLAND--Continued

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 electric tape by U.S. Geological Survey personnel.
 Equipped with graphic water-level recorder from Oct. 12, 1988 to Oct. 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	23.09	JAN 13, 1998	23.10	APR 07, 1998	22.43	JUL 14, 1998	23.34
NOV 19	23.49	FEB 03	22.98	MAY 04	22.78	AUG 27	23.62
DEC 09	23.20	MAR 17	22.98	JUN 11	23.27	SEP 23	23.97
WATER YEAR 1998		HIGHEST	22.43	APR 07, 1998	LOWEST	23.97	SEP 23, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

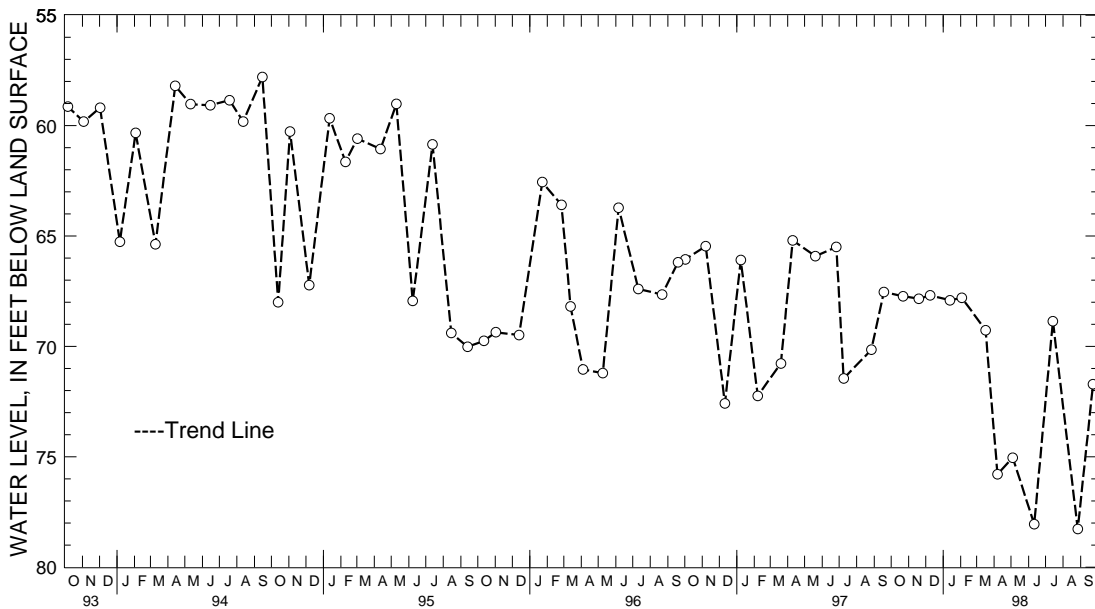
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.

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, 78.27 ft below land surface, August 27, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	67.73	JAN 13, 1998	67.91	APR 07, 1998	75.79	JUL 14, 1998	68.86
NOV 19	67.84	FEB 03	67.80	MAY 04	75.04	AUG 27	78.27
DEC 09	67.69	MAR 17	69.27	JUN 11	78.05	SEP 23	71.71
WATER YEAR 1998		HIGHEST 67.69 DEC 09, 1997	LOWEST 78.27 AUG 27, 1998				



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

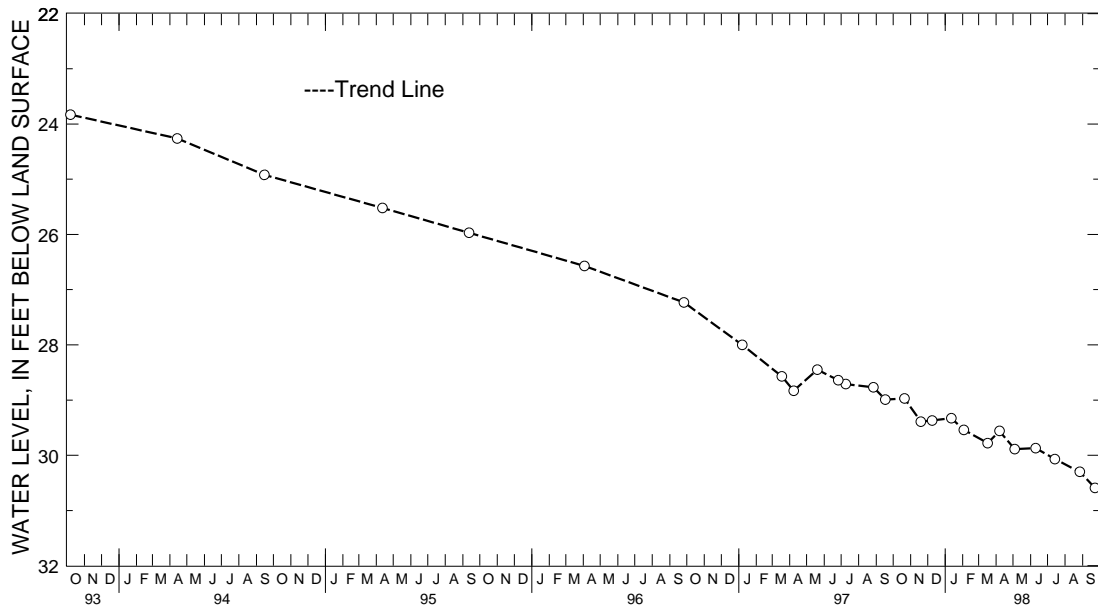
MARYLAND--Continued

ST. MARYS COUNTY--Continued

WELL NUMBER.--SM Ff 36. SITE ID.--380724076251901. PERMIT NUMBER.--SM-73-1478.
 LOCATION.--Lat 38°07'23", long 76°25'20", Hydrologic Unit 02070011, nr Kitts Point.
 Owner: Kitts Point Utility Company.
 AQUIFER.--Upper Patapsco aquifer in the Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSCU.
 WELL CHARACTERISTICS.--Drilled, irrigation, artesian well, depth 618 ft; casing diameter 8 in., to 545 ft, and casing diameter 6 in. from 545 to 594 ft; screen diameter 6 in. from 594 to 618 ft.
 INSTRUMENTATION.--Monthly measurements with electric tape by U.S. Geological Survey personnel. Twice yearly measurements from September 1982 to September 1996.
 DATUM.--Elevation of land surface is 5.50 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 1978, September 1982 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.20 ft below land surface, Nov. 14, 1978; lowest measured, 30.59 ft below land surface, Sept. 23, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	28.97	JAN 12, 1998	29.33	APR 07, 1998	29.56	JUL 14, 1998	30.07
NOV 19	29.39	FEB 03	29.54	MAY 04	29.89	AUG 27	30.30
DEC 09	29.37	MAR 17	29.78	JUN 10	29.87	SEP 23	30.59
WATER YEAR 1998	HIGHEST 28.97	OCT 21, 1997	LOWEST 30.59	SEP 23, 1998			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 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.

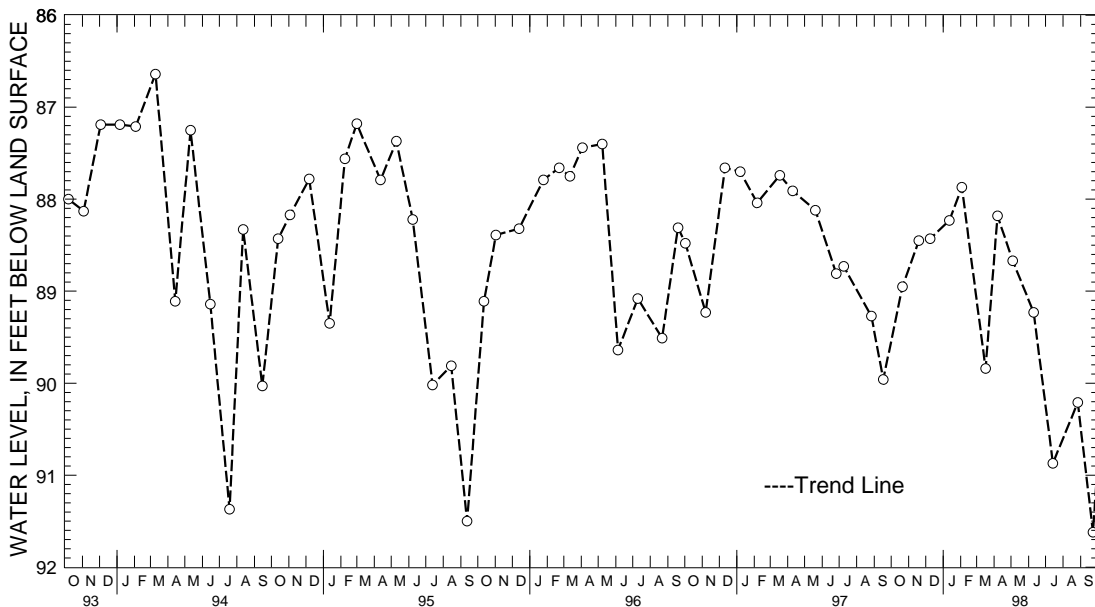
REMARKS.--Maryland Water-Level Network observation well.

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, 91.62 ft below land surface, Sept. 23, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 21, 1997	88.95	JAN 12, 1998	88.23	APR 07, 1998	88.18	JUL 14, 1998	90.87
NOV 19	88.45	FEB 03	87.87	MAY 04	88.67	AUG 27	90.21
DEC 09	88.43	MAR 17	89.84	JUN 10	89.23	SEP 23	91.62
WATER YEAR 1998		HIGHEST	87.87 FEB 03, 1998	LOWEST	91.62 SEP 23, 1998		



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

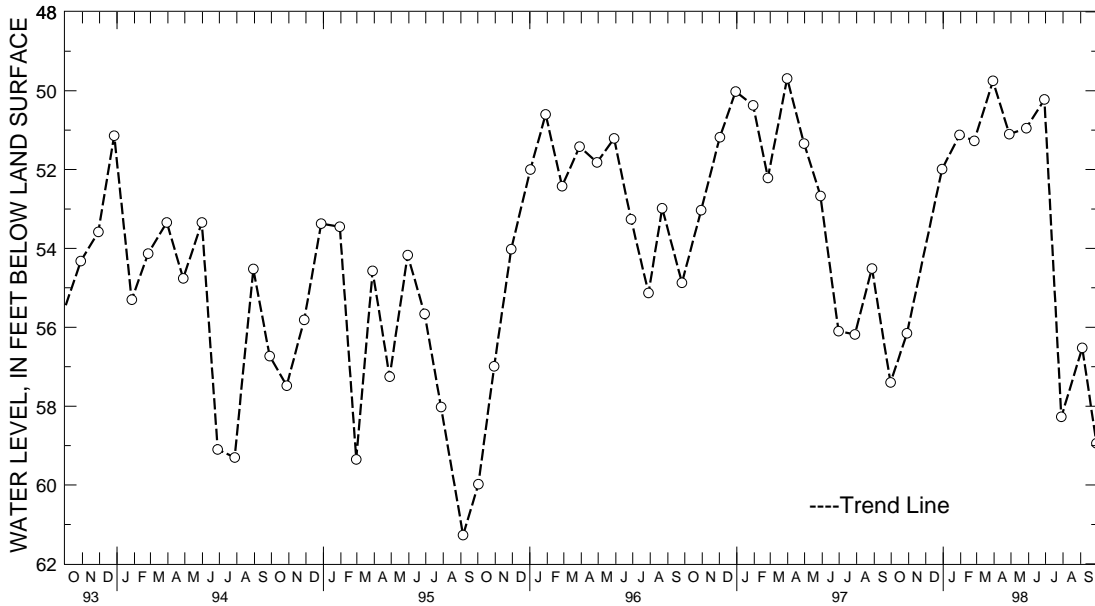
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1997	56.15	FEB 25, 1998	51.27	MAY 28, 1998	50.95	SEP 04, 1998	56.52
DEC 30	51.99	MAR 30	49.75	JUN 29	50.22	29	58.94
JAN 30, 1998	51.12	APR 28	51.10	JUL 29	58.27		
WATER YEAR 1998		HIGHEST	49.75 MAR 30, 1998	LOWEST	58.94	SEP 29, 1998	



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

MARYLAND--Continued

SOMERSET COUNTY--Continued

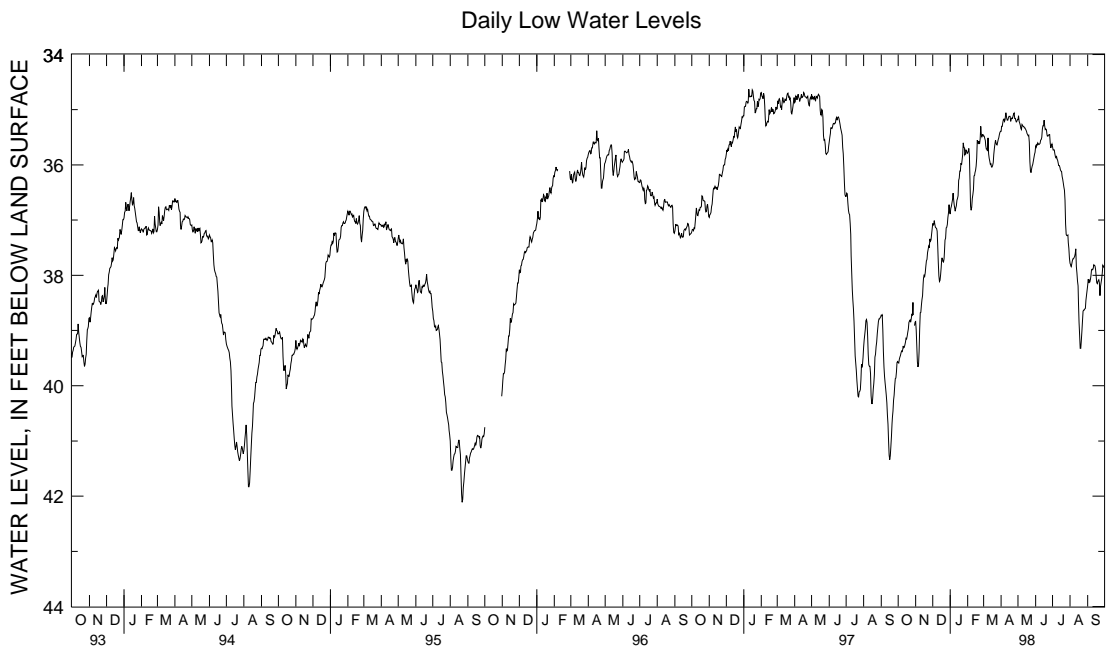
WELL NUMBER.--SO Ce 42. SITE ID.--380927075423701. PERMIT NUMBER.--SO-81-0394.
 LOCATION.--Lat 38°09'30", long 75°41'56", Hydrologic Unit 02060009, at Eastern Shore Correctional Institution.
 Owner: Maryland Department of Correction.
 AQUIFER.--Manokin aquifer of Miocene age. Aquifer code: 122MNKN.
 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 electric 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.
 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 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	39.58	39.47	38.84	38.61	37.06	36.86	36.89	36.79	35.78	35.63	35.48	35.30
2	39.59	39.42	38.99	38.73	37.09	36.96	36.79	36.71	35.75	35.58	35.48	35.29
3	39.52	39.35	39.28	38.95	37.08	36.94	36.75	36.66	35.70	35.59	35.52	35.30
4	39.48	39.34	39.57	39.24	37.01	36.91	36.69	36.60	35.83	35.63	35.56	35.41
5	39.45	39.30	39.66	39.57	37.08	36.99	36.63	36.49	36.27	35.83	35.65	35.53
6	39.40	39.27	39.62	39.37	37.13	37.04	36.51	36.39	36.75	36.27	35.71	35.64
7	39.37	39.29	39.38	38.90	37.14	37.09	36.63	36.48	36.82	36.61	35.71	35.61
8	39.38	39.25	38.97	38.58	37.15	37.08	36.73	36.59	36.77	36.56	35.75	35.49
9	39.34	39.19	38.68	38.53	37.20	37.07	36.77	36.56	36.61	36.39	35.51	35.30
10	39.28	39.19	38.67	38.46	37.47	37.19	36.84	36.68	36.54	36.33	35.80	35.37
11	39.31	39.19	38.54	38.37	37.77	37.40	36.78	36.60	36.45	36.20	35.88	35.77
12	39.30	39.13	38.44	38.27	38.01	37.69	36.74	36.57	36.20	35.95	35.93	35.82
13	39.26	39.11	38.37	38.15	38.11	37.94	36.64	36.37	36.19	36.06	35.99	35.91
14	39.21	39.02	38.15	37.81	38.09	37.94	36.61	36.50	36.14	36.01	35.98	35.82
15	39.14	38.94	38.05	37.84	37.99	37.81	36.56	36.25	36.10	35.93	36.04	35.95
16	39.15	38.97	38.00	37.81	37.86	37.65	36.28	36.13	36.02	35.85	36.04	35.95
17	39.10	38.87	38.02	37.88	37.69	37.50	36.24	36.00	35.88	35.49	36.01	35.92
18	39.03	38.82	37.95	37.79	37.69	37.53	36.11	35.96	35.55	35.37	35.96	35.74
19	38.97	38.70	37.84	37.66	37.75	37.64	36.11	35.85	35.60	35.49	35.81	35.65
20	38.85	38.64	37.74	37.64	37.76	37.66	35.97	35.87	35.61	35.45	35.70	35.60
21	38.83	38.63	37.71	37.57	37.70	37.56	36.00	35.86	35.57	35.46	35.62	35.32
22	38.81	38.69	37.59	37.47	37.58	37.33	35.91	35.76	35.62	35.49	35.55	35.34
23	38.85	38.73	37.53	37.34	37.36	37.28	35.81	35.47	35.53	35.10	35.59	35.45
24	38.79	38.67	37.47	37.30	37.33	37.12	35.60	35.47	35.30	35.05	35.63	35.51
25	38.71	38.62	37.50	37.30	37.14	36.96	35.68	35.50	35.45	35.18	35.64	35.55
26	38.72	38.35	37.34	37.25	37.13	36.99	35.69	35.59	35.49	35.29	35.59	35.42
27	38.49	38.29	37.38	37.25	37.08	36.88	35.82	35.62	35.45	35.25	35.54	35.39
28	38.72	38.42	37.36	37.21	36.95	36.83	35.80	35.57	35.45	35.25	35.51	35.37
29	---	---	37.26	37.12	36.87	36.58	35.73	35.48	---	---	35.45	35.31
30	38.91	38.81	37.16	36.91	36.72	36.34	35.75	35.46	---	---	35.41	35.27
31	38.85	38.71	---	---	36.86	36.72	35.79	35.64	---	---	35.39	35.22
MONTH	39.59	38.35	39.66	36.91	38.11	36.34	36.89	35.46	36.82	35.05	36.04	35.22

GROUND-WATER LEVELS
 MARYLAND--Continued
 SOMERSET COUNTY--Continued
 SO Ce 42--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	35.39	35.21	35.18	35.03	35.66	35.57	35.67	35.56	37.78	37.65	38.18	37.98
2	35.30	35.19	35.11	34.98	35.68	35.46	35.73	35.64	37.81	37.69	38.07	37.90
3	35.30	35.16	35.21	35.06	35.63	35.46	35.73	35.63	37.84	37.70	38.14	37.88
4	35.23	35.03	35.24	35.12	35.64	35.51	35.73	35.56	37.80	37.67	38.09	37.94
5	35.18	35.03	35.28	35.12	35.60	35.50	35.80	35.53	37.74	37.61	38.12	37.97
6	35.17	35.04	35.34	35.18	35.62	35.50	35.85	35.70	37.70	37.55	38.08	37.92
7	35.21	35.06	35.36	35.24	35.63	35.53	35.87	35.73	37.70	37.55	38.01	37.85
8	35.18	34.99	35.27	35.08	35.62	35.52	35.85	35.73	37.68	37.54	37.90	37.73
9	35.06	34.87	35.29	35.06	35.61	35.52	35.90	35.70	37.66	37.49	37.89	37.74
10	35.06	34.84	35.30	35.17	35.55	35.43	35.91	35.73	37.61	37.27	37.90	37.75
11	35.15	34.87	35.30	35.12	35.54	35.37	35.96	35.81	37.52	37.20	37.87	37.70
12	35.19	35.04	35.33	35.14	35.50	35.25	36.01	35.81	37.84	37.50	37.81	37.65
13	35.19	35.05	35.33	35.15	35.35	35.18	36.01	35.84	37.96	37.80	37.82	37.71
14	35.15	34.94	35.35	35.10	35.29	35.15	36.04	35.85	38.10	37.92	37.83	37.70
15	35.12	34.92	35.37	35.18	35.29	35.07	36.09	35.94	38.19	38.04	37.89	37.70
16	35.12	34.97	35.40	35.26	35.19	35.05	36.11	35.96	38.48	38.16	38.01	37.77
17	35.12	34.95	35.43	35.30	35.29	35.14	36.12	35.99	38.85	38.47	38.13	37.92
18	35.21	35.12	35.45	35.34	35.36	35.23	36.21	36.01	39.08	38.78	38.15	38.04
19	35.17	34.97	35.47	35.35	35.35	35.18	36.26	36.10	39.32	39.00	38.11	37.97
20	35.15	34.99	35.46	35.33	35.36	35.17	36.33	36.11	39.32	39.18	38.09	37.94
21	35.16	35.04	35.59	35.33	35.45	35.23	36.40	36.22	39.18	39.01	38.08	37.93
22	35.12	34.99	35.94	35.54	35.48	35.30	36.46	36.27	39.01	38.80	38.14	37.93
23	35.08	34.86	36.11	35.87	35.48	35.30	36.64	36.32	38.82	38.56	38.37	38.10
24	35.06	34.80	36.14	35.96	35.46	35.28	37.07	36.58	38.65	38.47	38.20	38.01
25	35.16	34.90	36.07	35.92	35.45	35.29	37.26	37.03	38.63	38.46	38.13	37.97
26	35.16	34.99	36.02	35.87	35.45	35.27	37.28	37.15	38.63	38.52	38.06	37.92
27	35.20	35.01	35.99	35.84	35.61	35.36	37.28	37.15	38.61	38.50	37.96	37.71
28	35.22	35.05	35.93	35.76	35.69	35.53	37.27	37.15	38.60	38.45	37.82	37.73
29	35.21	35.09	35.87	35.73	35.65	35.48	37.41	37.25	38.45	38.21	37.84	37.76
30	35.18	35.05	35.81	35.70	35.62	35.52	37.51	37.41	38.36	38.23	37.86	37.77
31	---	---	35.77	35.59	---	---	37.69	37.50	38.27	38.08	---	---
MONTH	35.39	34.80	36.14	34.98	35.69	35.05	37.69	35.53	39.32	37.20	38.37	37.65
YEAR	39.32	37.65										



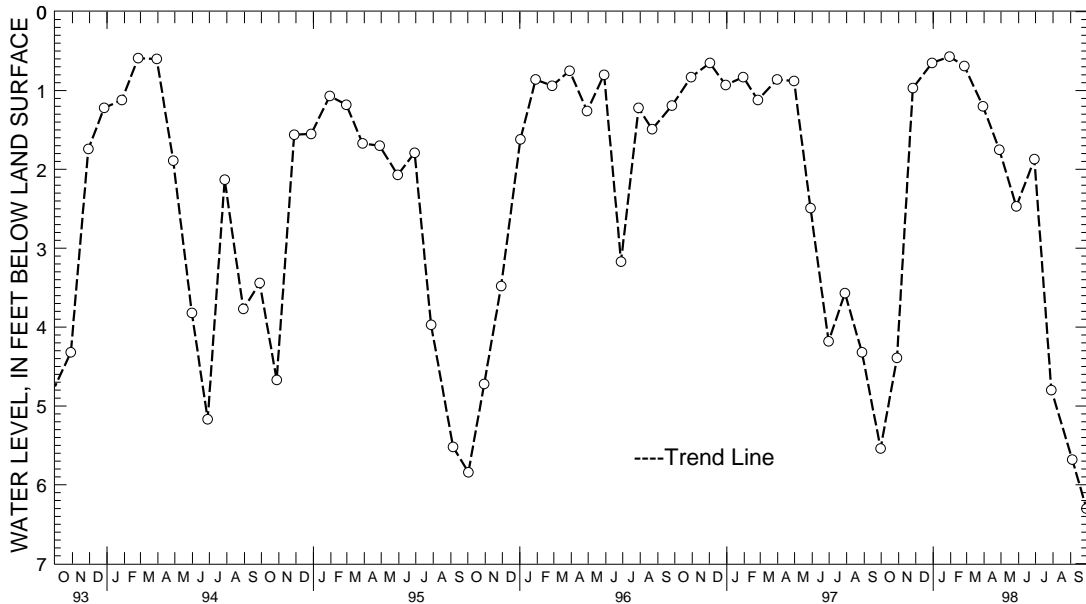
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1997	4.39	JAN 30, 1998	.57	APR 28, 1998	1.75	JUL 29, 1998	4.80
NOV 26	.97	FEB 25	.69	MAY 28	2.47	SEP 04	5.68
DEC 30	.65	MAR 30	1.20	JUN 29	1.87	29	6.30
WATER YEAR 1998		HIGHEST	.57	JAN 30, 1998		LOWEST	6.30
				SEP 29, 1998			



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

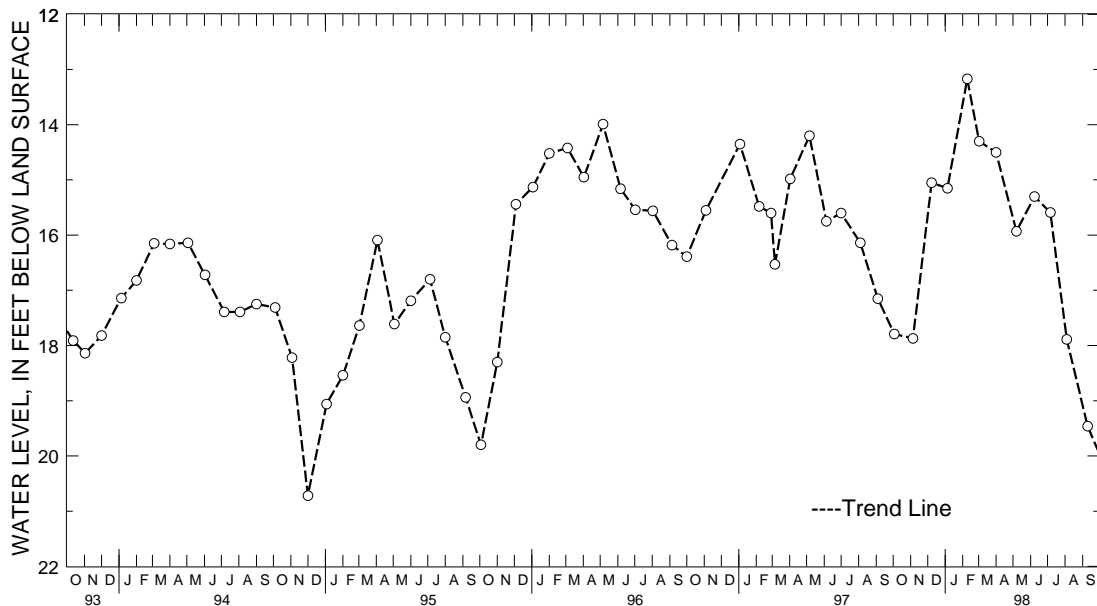
REMARKS.--Maryland Water-Level Network observation well. Water level reported by driller, 26 ft below land surface Dec. 16, 1955; water level measured 26.64 ft below land surface March 10, 1956. Measurements may be affected by nearby pumping.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	17.79	JAN 05, 1998	15.15	APR 01, 1998	14.50	JUL 06, 1998	15.59
NOV 05	17.87	FEB 09	13.17	MAY 07	15.93	AUG 04	17.89
DEC 08	15.05	MAR 02	14.30	JUN 08	15.30	SEP 10	19.46
WATER YEAR 1998		HIGHEST	13.17 FEB 09, 1998	LOWEST		19.46 SEP 10, 1998	



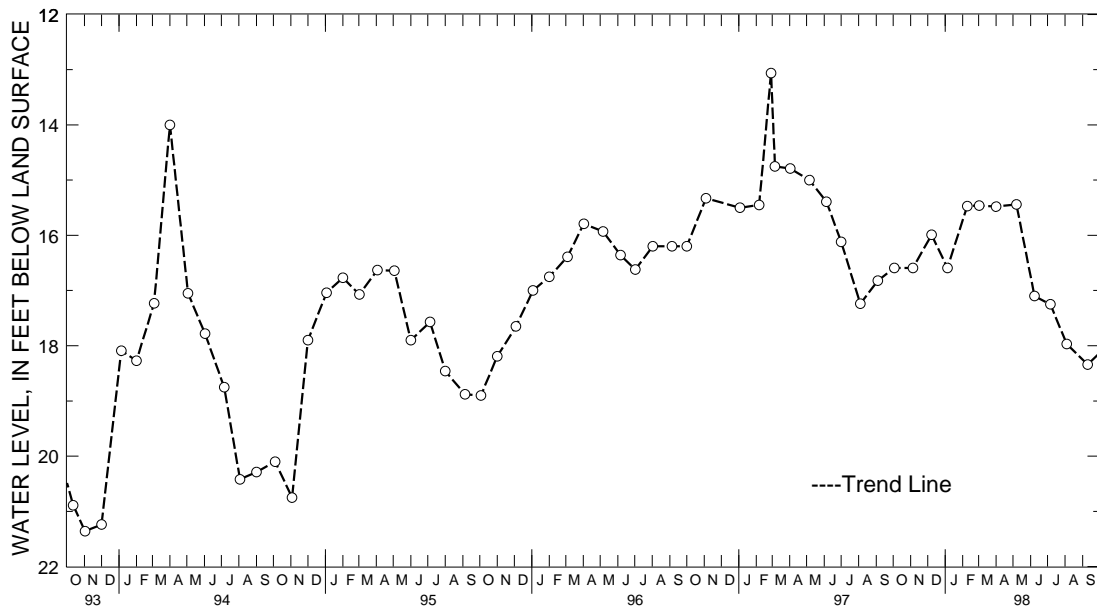
5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS
 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	16.59	JAN 05, 1998	16.59	APR 01, 1998	15.48	JUL 06, 1998	17.25
NOV 05	16.59	FEB 09	15.47	MAY 07	15.44	AUG 04	17.97
DEC 08	15.99	MAR 02	15.46	JUN 08	17.10	SEP 10	18.34
WATER YEAR 1998		HIGHEST	15.44	MAY 07, 1998	LOWEST	18.34	SEP 10, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

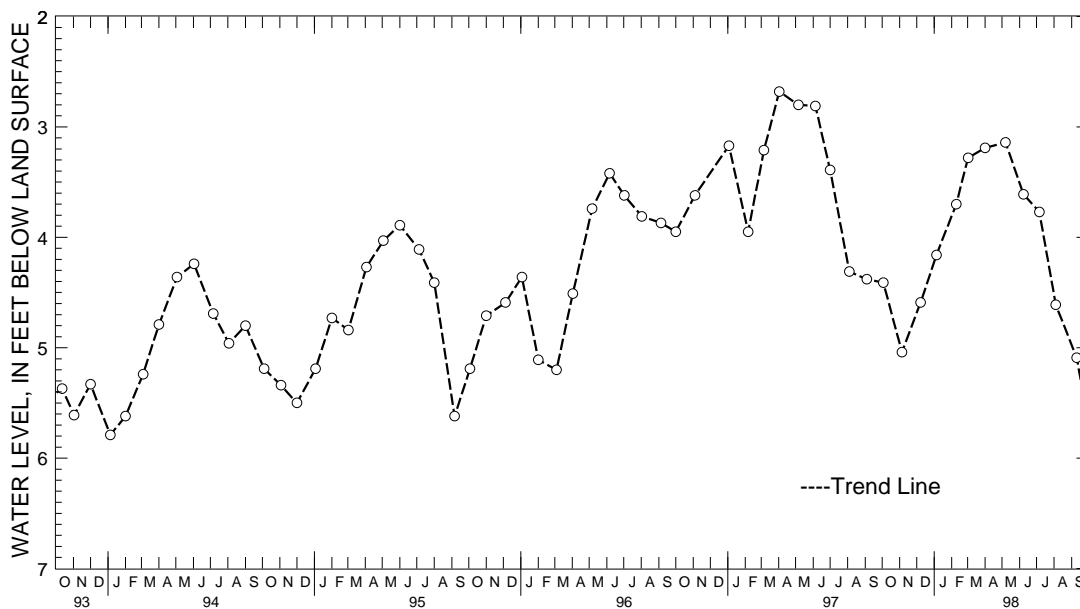
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	4.41	JAN 05, 1998	4.16	APR 01, 1998	3.19	JUL 06, 1998	3.77
NOV 05	5.04	FEB 09	3.70	MAY 07	3.14	AUG 04	4.61
DEC 08	4.59	MAR 02	3.28	JUN 08	3.61	SEP 10	5.09
WATER YEAR 1998	HIGHEST	3.14	MAY 07, 1998	LOWEST	5.09	SEP 10, 1998	



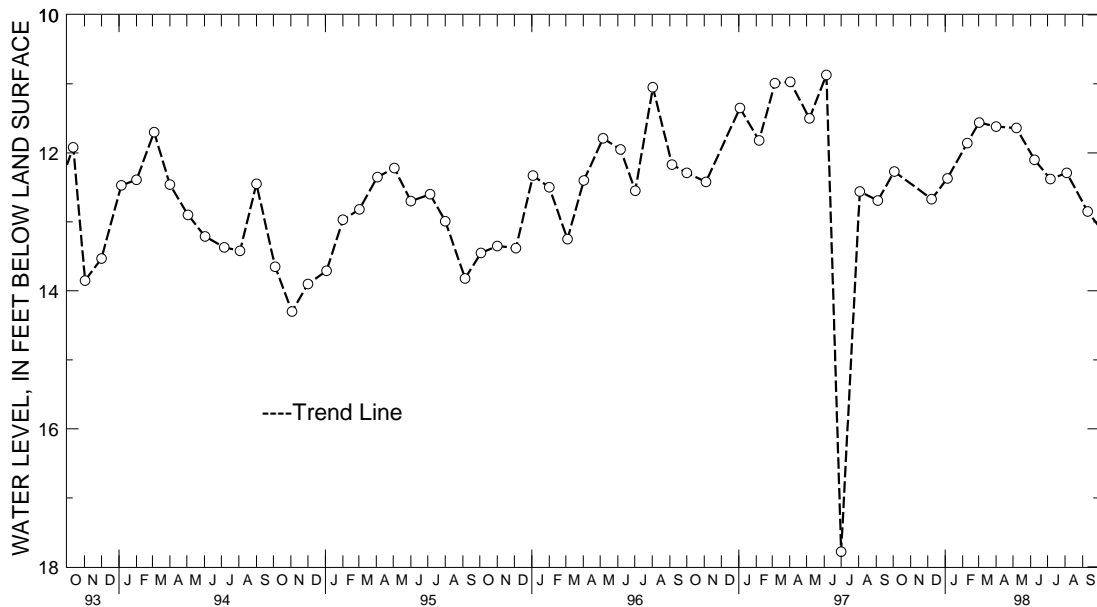
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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. On or around July 1, 1997 a pump test or an extended period of withdrawal occurred in a well nearby?
 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, 17.78 ft below land surface, July 1, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	12.27	FEB 09, 1998	11.86	MAY 07, 1998	11.64	AUG 04, 1998	12.29
DEC 08	12.67	MAR 02	11.56	JUN 08	12.10	SEP 10	12.85
JAN 05, 1998	12.37	APR 01	11.62	JUL 06	12.38		
WATER YEAR 1998		HIGHEST	11.56 MAR 02, 1998	LOWEST	12.85 SEP 10, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

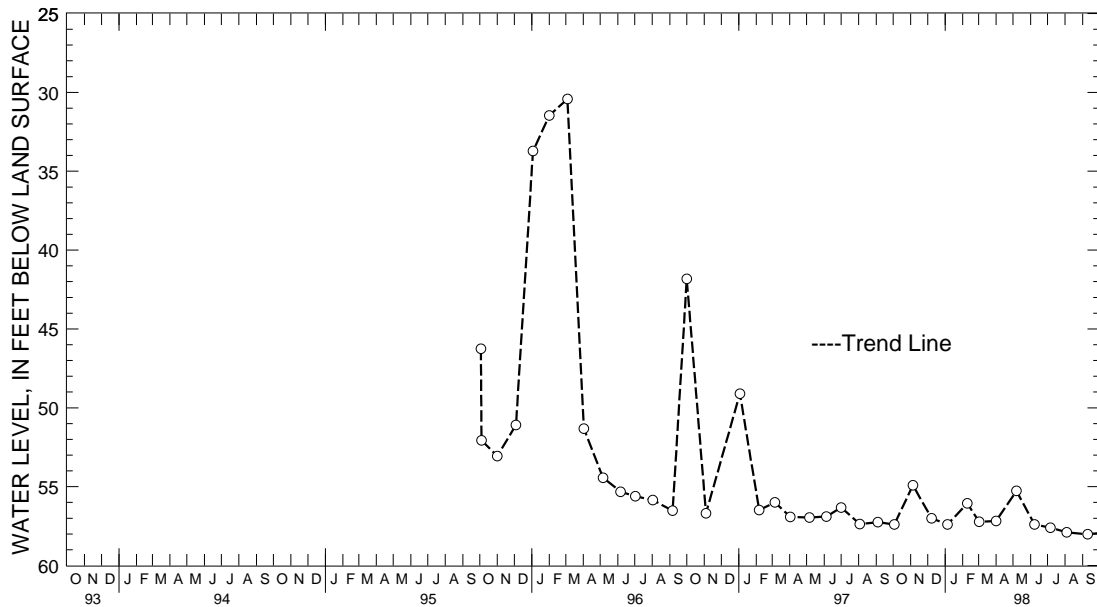
MARYLAND--Continued

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, 0.3 mi southwest of the intersection of Glebe Rd and Commerce Drive..
 Owner: Easton Utilities Commission.
 AQUIFER.--Upper Patapsco Formation of Lower Cretaceous age. Aquifer code: 217PPSC.
 INSTRUMENTATION.--Monthly measurements with electric 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, 58.02 ft below land surface, Sept. 10, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	57.40	JAN 05, 1998	57.40	APR 01, 1998	57.18	JUL 06, 1998	57.60
NOV 05	54.91	FEB 09	56.06	MAY 07	55.27	AUG 04	57.90
DEC 08	57.01	MAR 02	57.23	JUN 08	57.40	SEP 10	58.02
WATER YEAR 1998		HIGHEST 54.91	NOV 05, 1997	LOWEST 58.02	SEP 10, 1998		



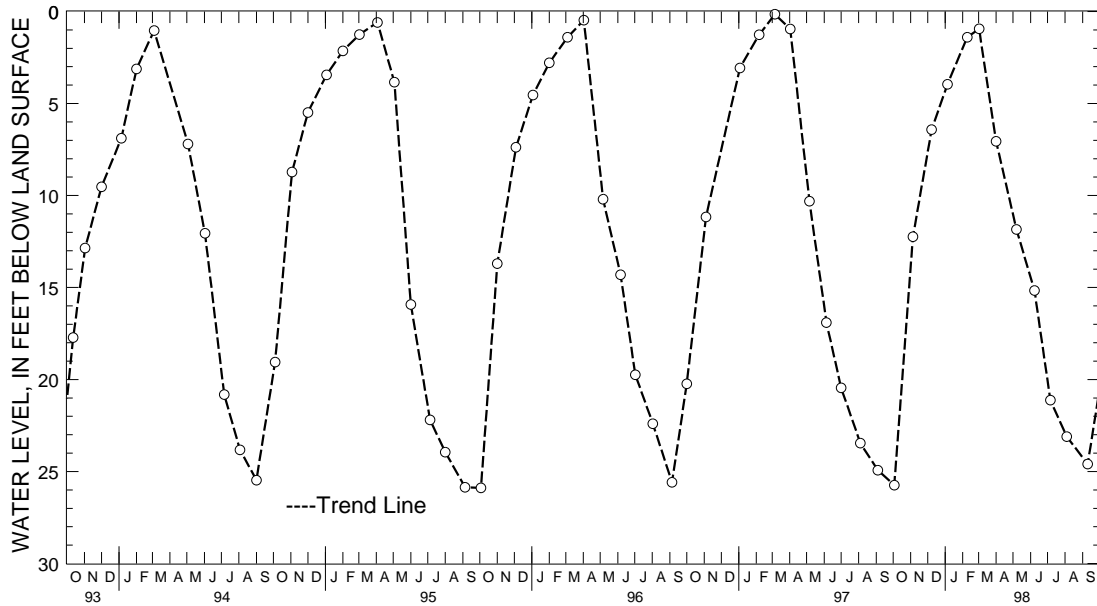
5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.--Cheswold aquifer of the Calvert Formation of Miocene age. Aquifer code: 122CSLD.
 WELL CHARACTERISTICS.--Drilled, unused, artesian well, measured depth 104 ft; casing diameter 4 in., to unknown depth.
 INSTRUMENTATION.--Monthly measurements with electric 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, 0.15 ft below land surface, March 6, 1997; lowest measured 75.36 ft below land surface, Aug. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 03, 1997	25.74	JAN 05, 1998	3.95	APR 01, 1998	7.05	JUL 06, 1998	21.12
NOV 05	12.24	FEB 09	1.40	MAY 07	11.84	AUG 04	23.10
DEC 08	6.42	MAR 02	.94	JUN 08	15.16	SEP 10	24.60
WATER YEAR 1998		HIGHEST	.94	MAR 02, 1998	LOWEST	25.74	OCT 03, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

469

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.

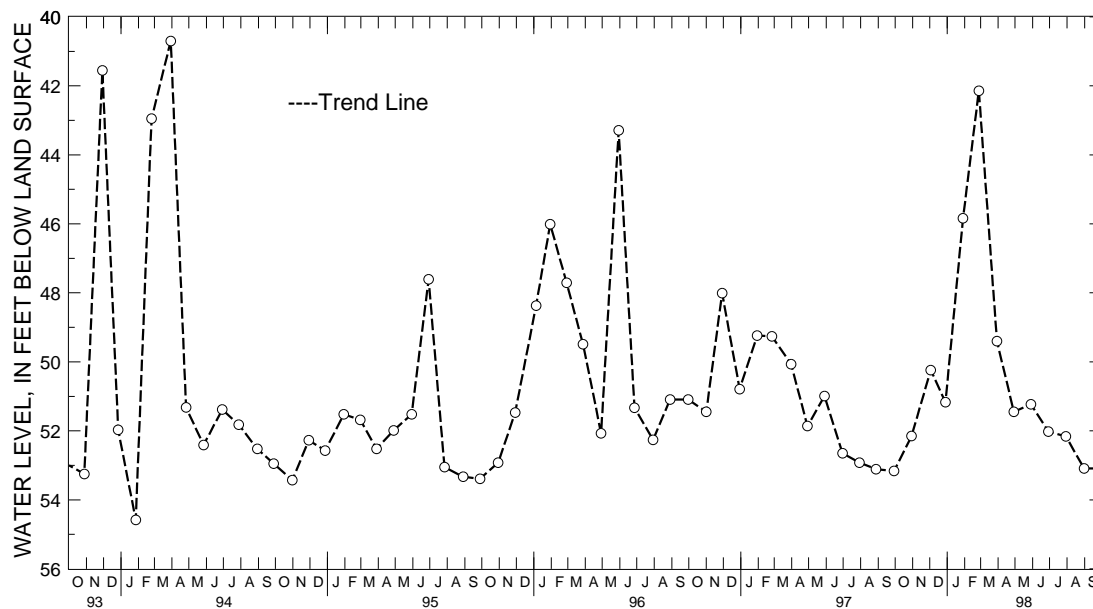
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	52.15	JAN 29, 1998	45.84	APR 29, 1998	51.45	JUL 30, 1998	52.16
DEC 03	50.24	FEB 26	42.14	MAY 29	51.23	AUG 31	53.09
29	51.17	MAR 30	49.40	JUN 29	52.02	SEP 29	53.09
WATER YEAR 1998		HIGHEST	42.14	FEB 26, 1998	LOWEST	53.09	AUG 31, 1998
							SEP 29, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

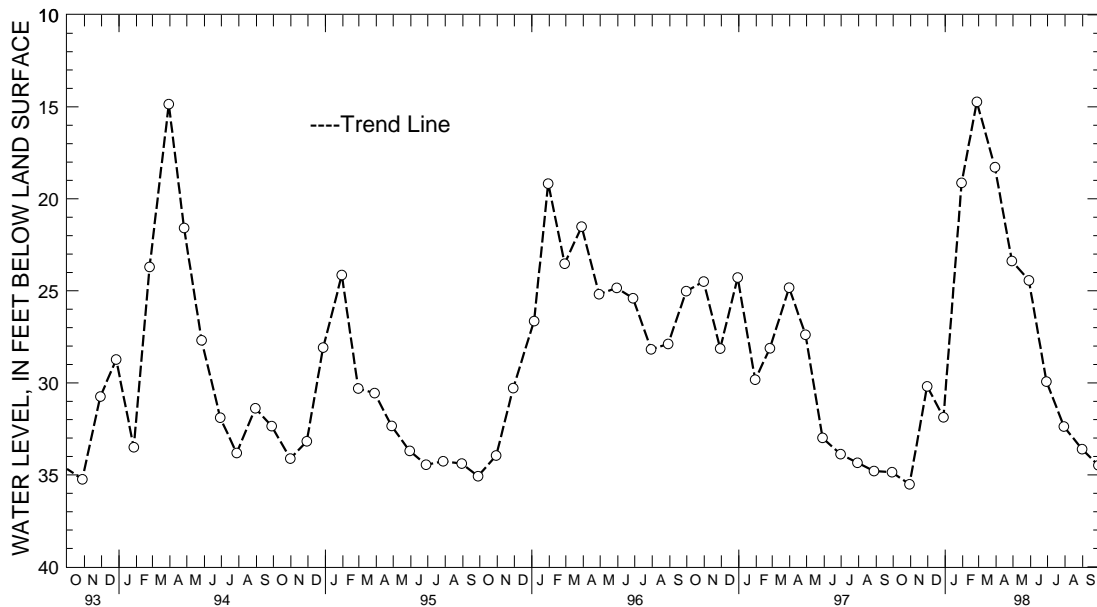
REMARKS.--Maryland Water-Level Network and Collection of Basic Records national network observation well (see figure 3).

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 30, 1997	35.51	JAN 30, 1998	19.13	APR 29, 1998	23.38	JUL 30, 1998	32.37
NOV 30	30.19	FEB 26	14.73	MAY 29	24.43	AUG 31	33.60
DEC 29	31.87	MAR 30	18.28	JUN 29	29.93	SEP 29	34.48
WATER YEAR 1998		HIGHEST	14.73 FEB 26, 1998	LOWEST	35.51 OCT 30, 1997		



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

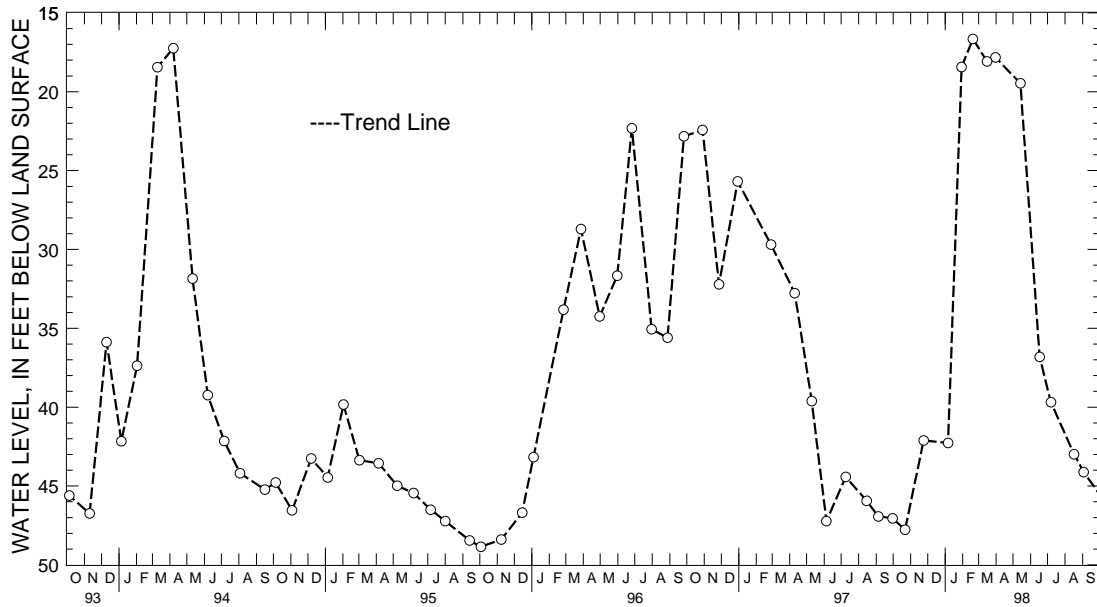
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	47.77	JAN 30, 1998	18.43	MAR 31, 1998	17.83	JUL 07, 1998	39.69
NOV 24	42.11	FEB 19	16.65	MAY 14	19.47	AUG 17	42.99
JAN 06, 1998	42.27	MAR 16	18.08	JUN 17	36.81	SEP 03	44.12
WATER YEAR 1998		HIGHEST	16.65 FEB 19, 1998	LOWEST	47.77 OCT 22, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

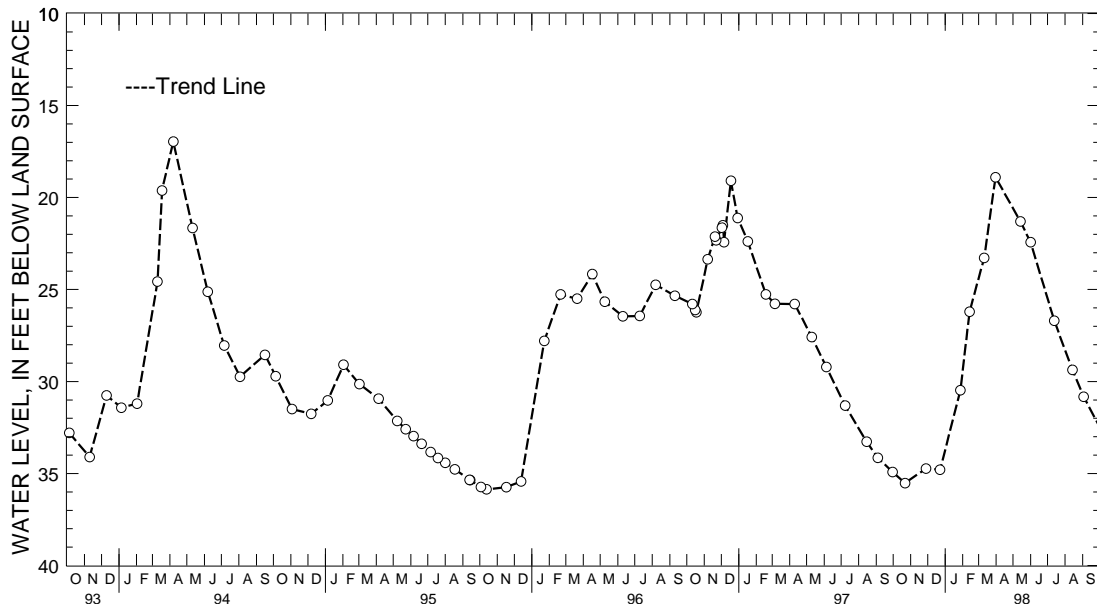
MARYLAND--Continued

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: 371CCCG.
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	35.52	JAN 28, 1998	30.47	MAR 31, 1998	18.90	JUL 13, 1998	26.70
NOV 28	34.73	FEB 13	26.21	MAY 14	21.30	AUG 14	29.37
DEC 23	34.79	MAR 11	23.28	JUN 01	22.43	SEP 03	30.83
WATER YEAR 1998		HIGHEST	18.90	MAR 31, 1998	LOWEST	35.52	OCT 22, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

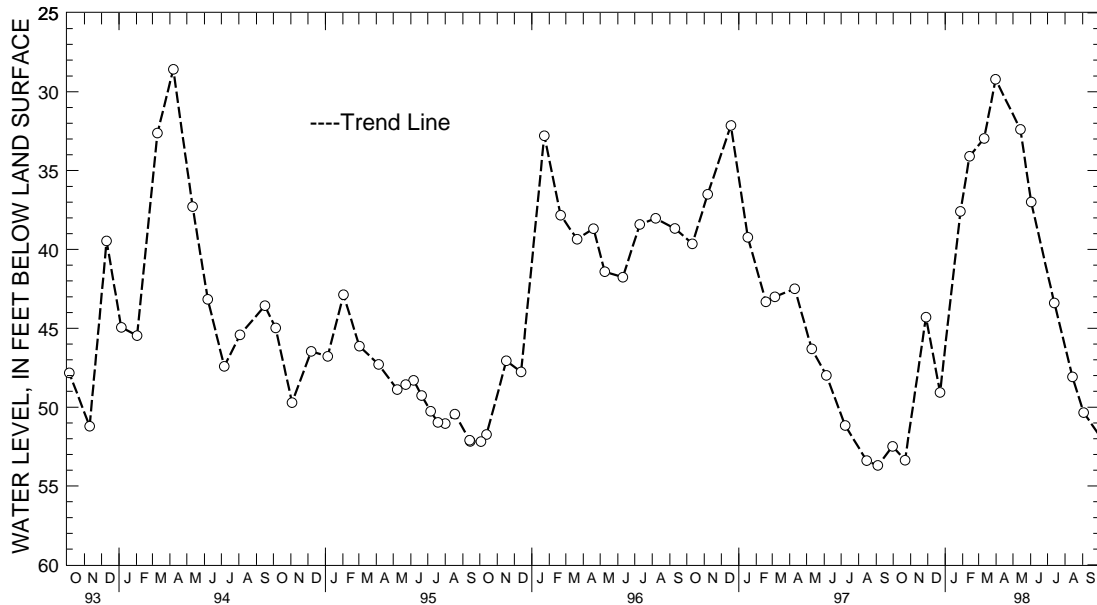
MARYLAND--Continued

WASHINGTON COUNTY--Continued

WELL NUMBER.--WA Ci 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	53.37	JAN 28, 1998	37.59	MAR 31, 1998	29.21	JUL 13, 1998	43.39
NOV 28	44.29	FEB 13	34.09	MAY 14	32.39	AUG 14	48.08
DEC 23	49.07	MAR 11	32.96	JUN 02	36.99	SEP 03	50.35
WATER YEAR 1998		HIGHEST	29.21	MAR 31, 1998	LOWEST	53.37	OCT 22, 1997



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

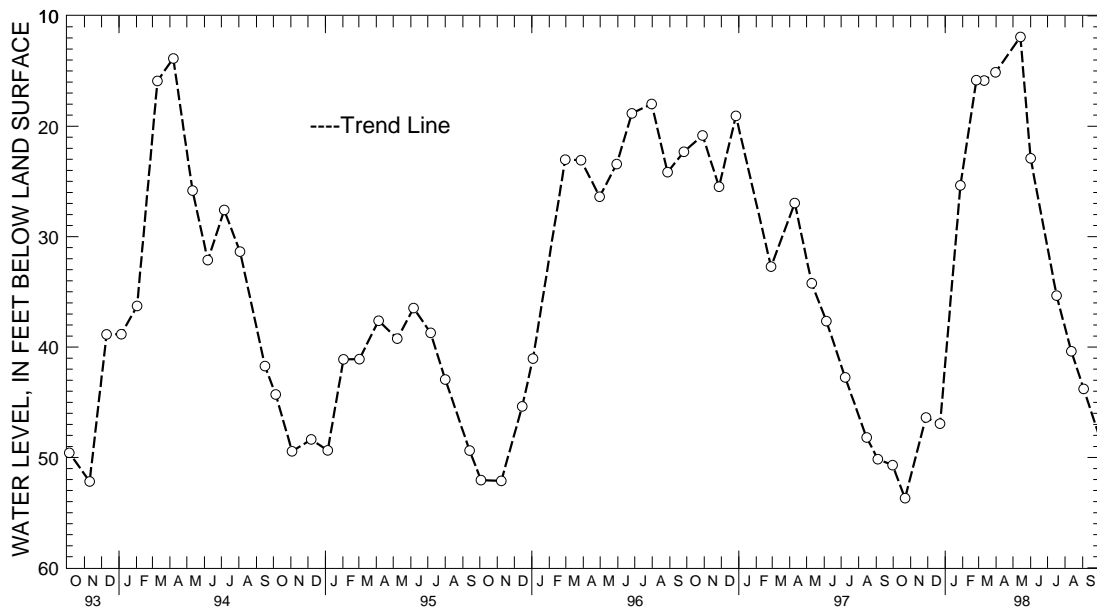
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--December 1956 to current year.

EXTREMES FOR PERIOD FOR RECORD.--Highest water level measured, 11.92 ft below land surface, May 14, 1998; lowest measured, 58.88 ft below land surface, Oct. 5, 1961.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 22, 1997	53.69	JAN 28, 1998	25.35	MAR 31, 1998	15.11	JUL 17, 1998	35.34
NOV 28	46.39	FEB 25	15.82	MAY 14	11.92	AUG 12	40.38
DEC 23	46.94	MAR 11	15.86	JUN 01	22.90	SEP 03	43.79
WATER YEAR 1998		HIGHEST	11.92	MAY 14, 1998	LOWEST	53.69	OCT 22, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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, 0.22 ft above land surface.

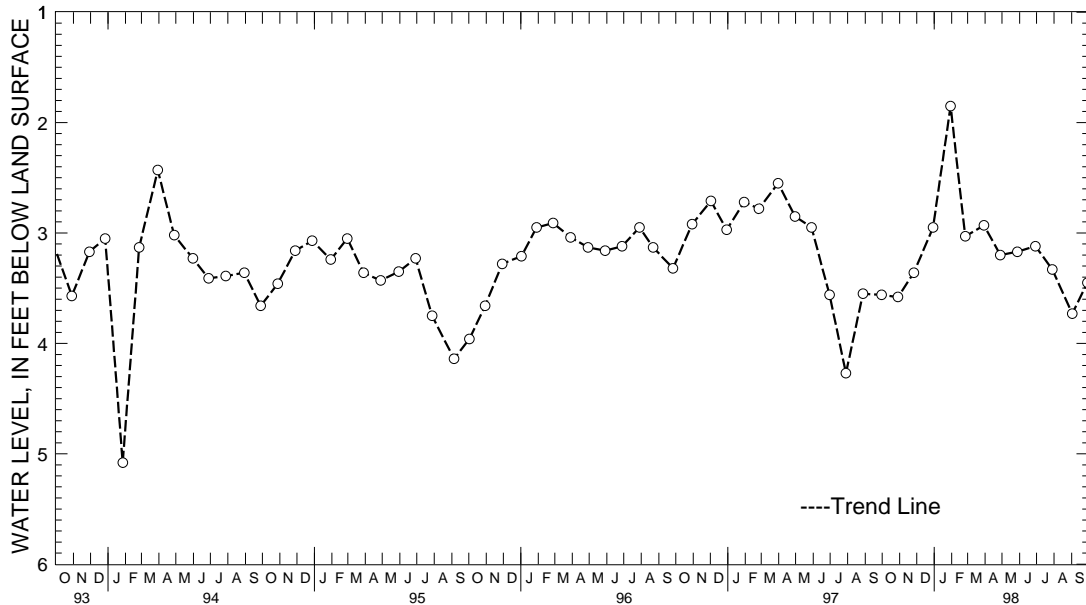
REMARKS.--Maryland Water-Level Network observation well.

PERIOD OF RECORD.--July 1947 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.85 ft below land surface, Jan. 30, 1998; lowest measured, 10.72 ft below land surface, Aug. 30, 1947.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1997	3.58	JAN 30, 1998	1.85	APR 28, 1998	3.20	JUL 29, 1998	3.33
NOV 26	3.36	FEB 25	3.03	MAY 28	3.17	SEP 02	3.73
DEC 30	2.95	MAR 30	2.93	JUN 29	3.12	29	3.45
WATER YEAR 1998		HIGHEST	1.85	JAN 30, 1998	LOWEST	3.73	SEP 02, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

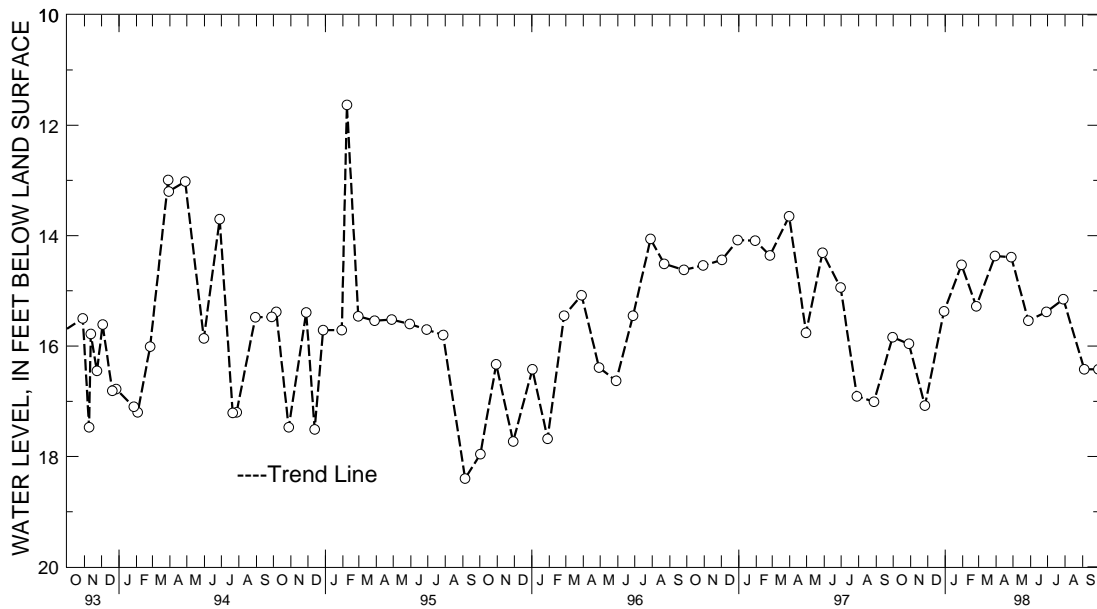
MARYLAND--Continued

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, water-table well, depth 113 ft; casing diameter 8 in., to 109 ft; screen diameter 3 in. from 109 to 113 ft.
 INSTRUMENTATION.--Monthly measurements with electric 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 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, 18.40 ft below land surface, Sept. 5, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1997	15.96	JAN 30, 1998	14.53	APR 28, 1998	14.39	JUL 29, 1998	15.15
NOV 26	17.08	FEB 25	15.28	MAY 28	15.54	SEP 04	16.42
DEC 30	15.37	MAR 30	14.37	JUN 29	15.38	29	16.42
WATER YEAR 1998		HIGHEST	14.37 MAR 30, 1998	LOWEST	17.08 NOV 26, 1997		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

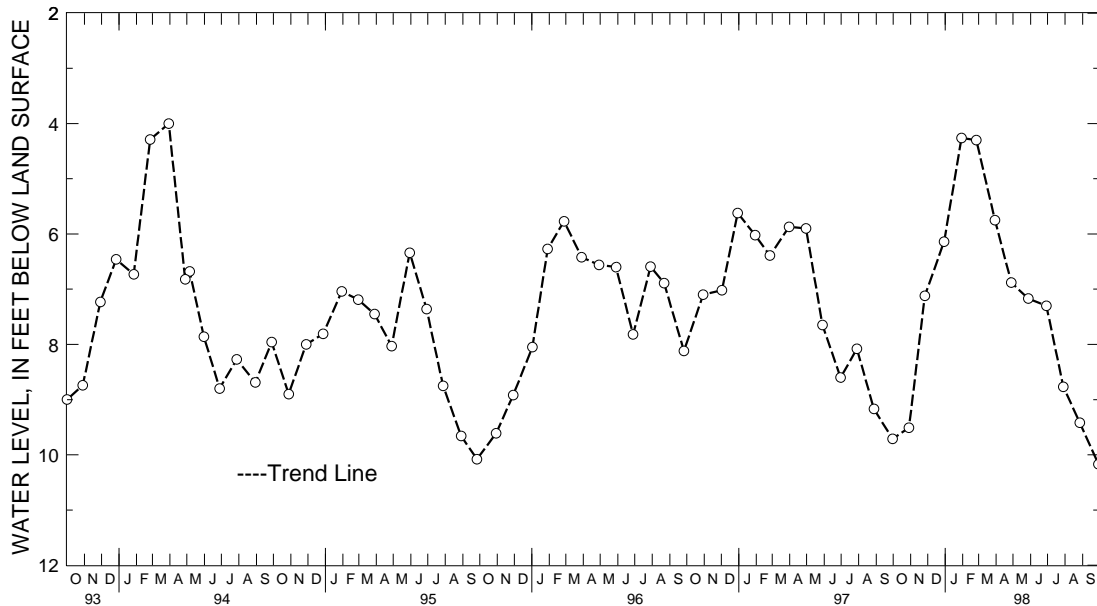
REMARKS.--Maryland Water-Level Network observation well. Water level reported 7.2 ft below land surface, Oct. 26, 1942.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1997	9.51	JAN 30, 1998	4.26	APR 28, 1998	6.88	JUL 29, 1998	8.77
NOV 26	7.12	FEB 25	4.30	MAY 28	7.17	AUG 27	9.42
DEC 30	6.14	MAR 30	5.75	JUN 29	7.30	SEP 29	10.17
WATER YEAR 1998		HIGHEST	4.26	JAN 30, 1998	LOWEST	10.17	SEP 29, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

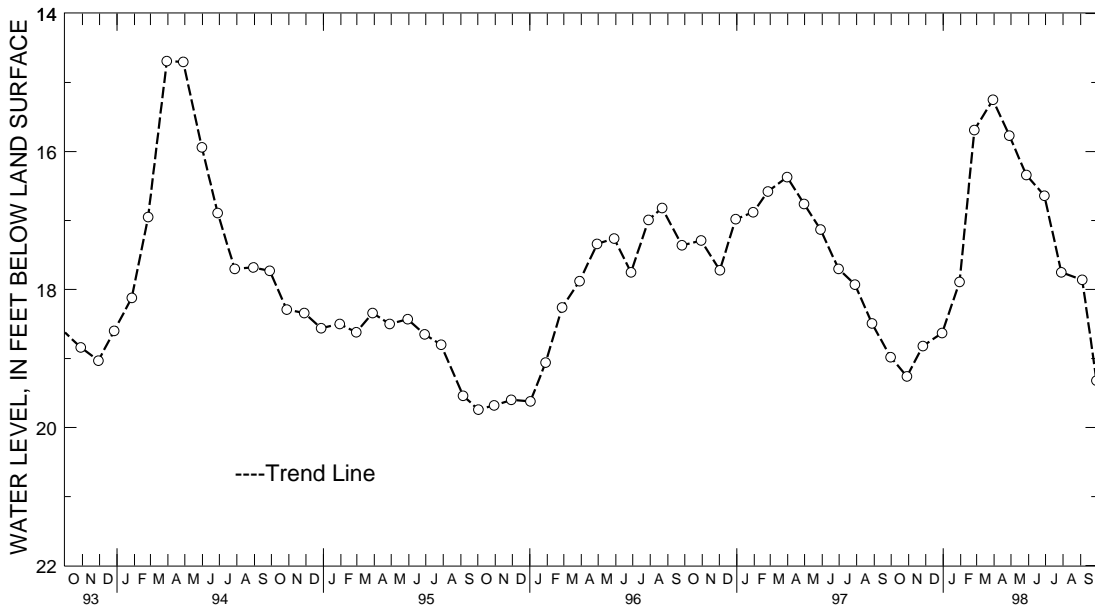
MARYLAND--Continued

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 Salibury aquifer of Miocene age. Aquifer code: 112SLBR.
 WELL CHARACTERISTICS.--Drilled, unused, water-table well, depth 80 ft; casing diameter 2 in., to 80 ft; perforated casing from 60 to 80 ft.
 INSTRUMENTATION.--Monthly measurements with electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1997	19.26	JAN 30, 1998	17.89	APR 28, 1998	15.77	JUL 29, 1998	17.75
NOV 26	18.82	FEB 25	15.69	MAY 28	16.34	SEP 04	17.86
DEC 30	18.63	MAR 30	15.25	JUN 29	16.64	29	19.32
WATER YEAR 1998		HIGHEST	15.25 MAR 30, 1998	LOWEST		19.32 SEP 29, 1998	



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

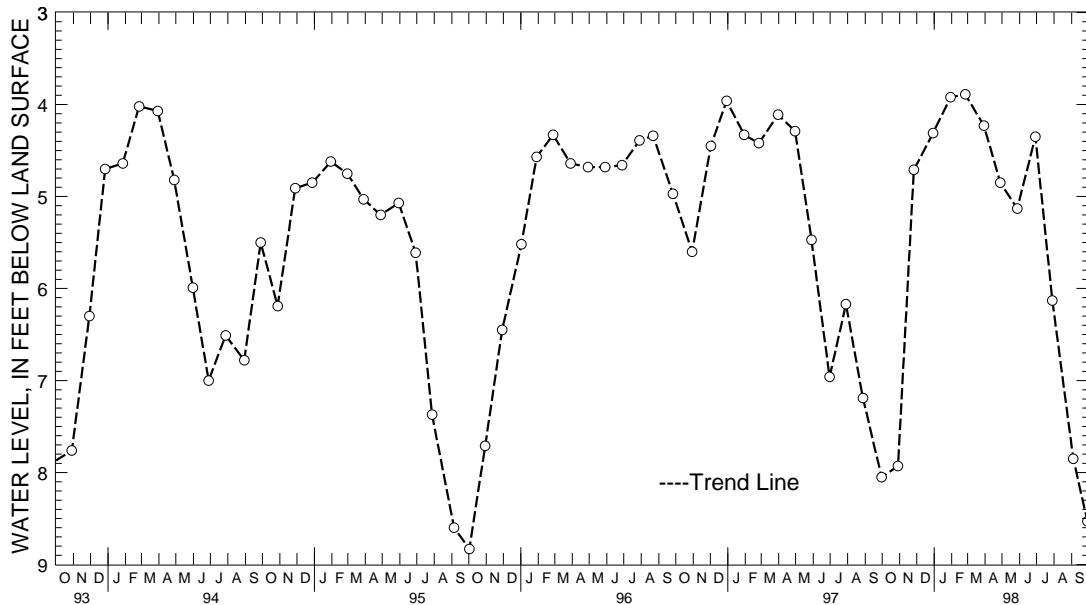
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1997	7.93	JAN 30, 1998	3.92	APR 28, 1998	4.85	JUL 29, 1998	6.13
NOV 26	4.71	FEB 25	3.89	MAY 28	5.13	SEP 04	7.85
DEC 30	4.31	MAR 30	4.23	JUN 29	4.35	29	8.53
WATER YEAR 1998		HIGHEST 3.89 FEB 25, 1998		LOWEST 8.53 SEP 29, 1998			



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

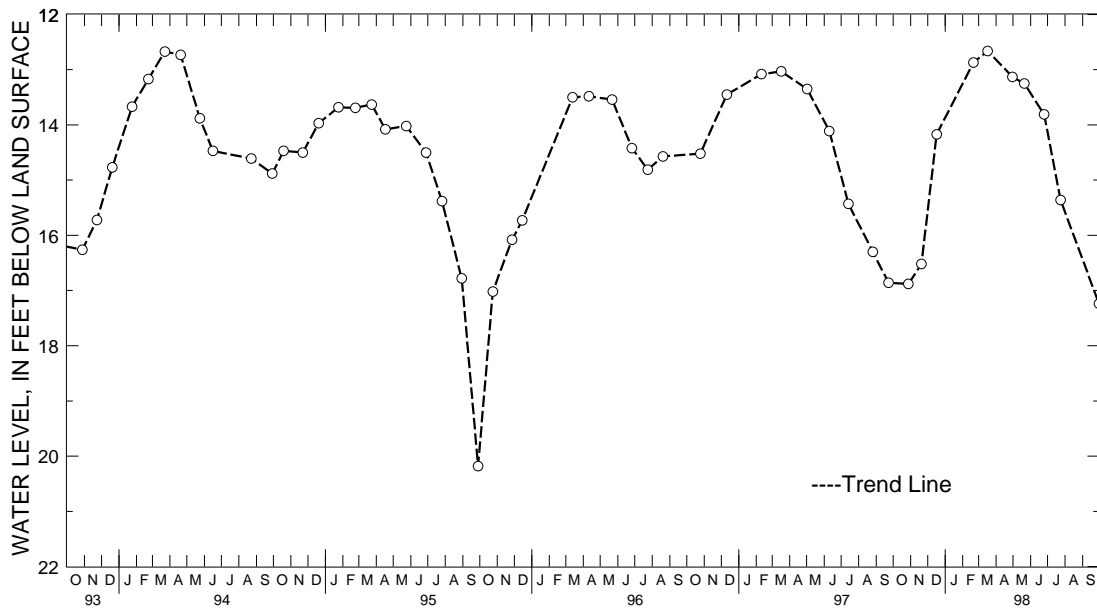
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	16.88	FEB 20, 1998	12.87	MAY 21, 1998	13.25	SEP 30, 1998	17.24
NOV 20	16.52	MAR 17	12.66	JUN 25	13.81		
DEC 17	14.17	APR 30	13.13	JUL 24	15.36		
WATER YEAR 1998		HIGHEST 12.66	MAR 17, 1998	LOWEST 17.24	SEP 30, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

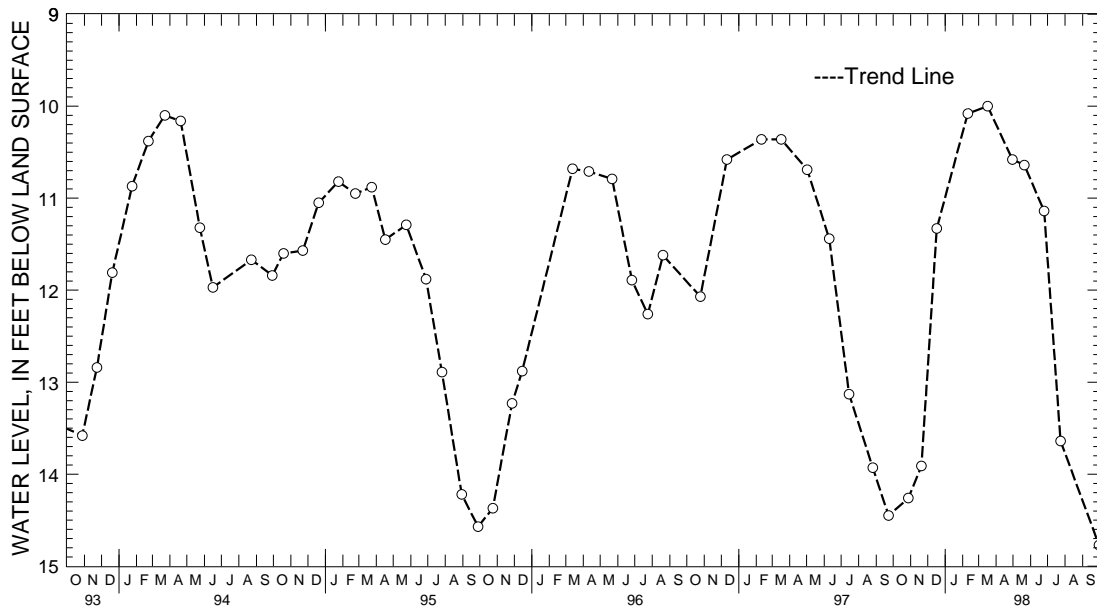
MARYLAND--Continued

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 Upper 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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	14.26	FEB 10, 1998	10.08	MAY 21, 1998	10.64	SEP 30, 1998	14.77
NOV 20	13.91	MAR 17	10.00	JUN 25	11.14		
DEC 17	11.33	APR 30	10.58	JUL 24	13.64		
WATER YEAR 1998		HIGHEST	10.00 MAR 17, 1998	LOWEST	14.77 SEP 30, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

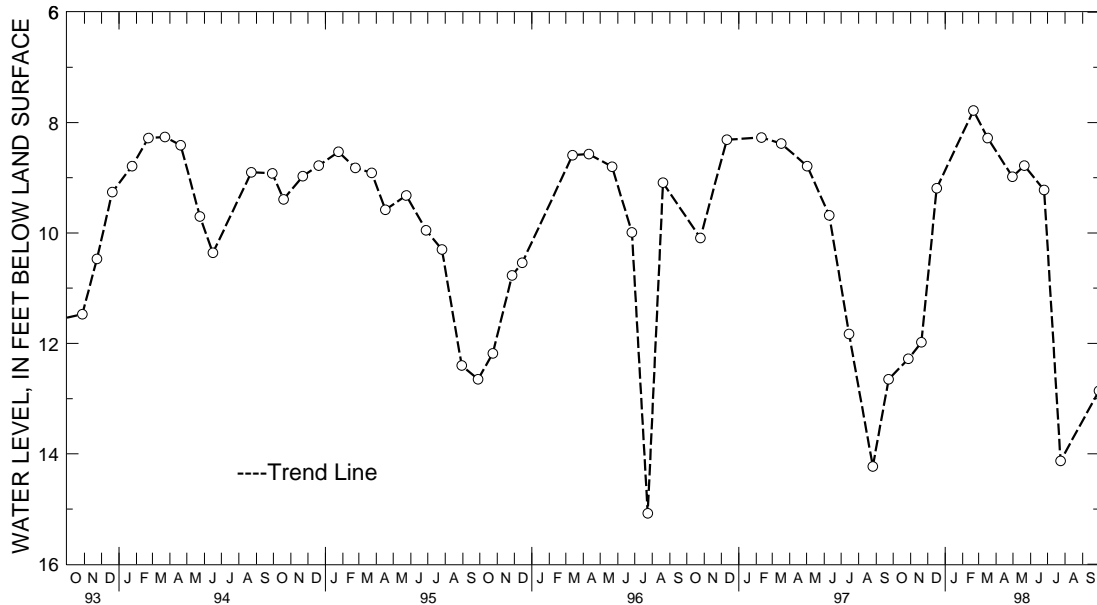
MARYLAND--Continued

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.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.
 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 electric 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, 7.78 ft below land surface, Feb. 20, 1998;
 lowest measured, 15.08 ft below land surface, July 24, 1996.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	12.28	FEB 20, 1998	7.78	MAY 21, 1998	8.78	SEP 30, 1998	12.86
NOV 20	11.98	MAR 17	8.28	JUN 25	9.22		
DEC 17	9.19	APR 30	8.98	JUL 24	14.13		
WATER YEAR 1998		HIGHEST	7.78 FEB 20, 1998	LOWEST	14.13 JUL 24, 1998		

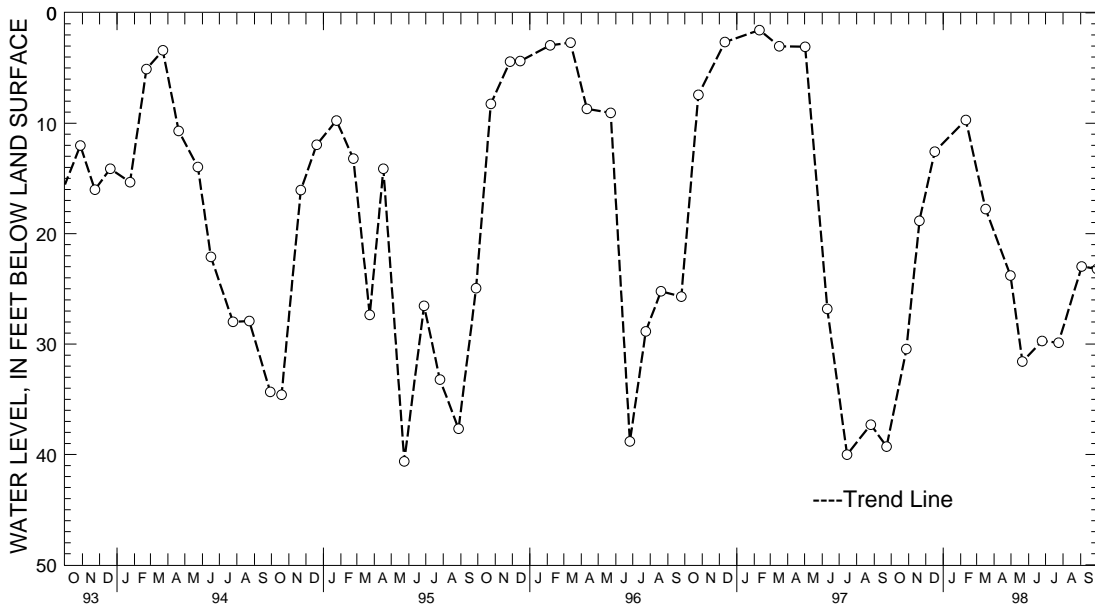


5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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, 1.56 ft above land surface, Feb. 10, 1997; lowest measured, 52.46 ft below land surface, July 24, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	30.46	FEB 10, 1998	9.71	MAY 21, 1998	31.59	SEP 03, 1998	22.97
NOV 20	18.83	MAR 17	17.78	JUN 25	29.72	30	23.20
DEC 17	12.58	APR 30	23.79	JUL 24	29.87		
WATER LEVEL 1998		HIGHEST	9.71 FEB 10, 1998	LOWEST	31.59 MAY 21, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

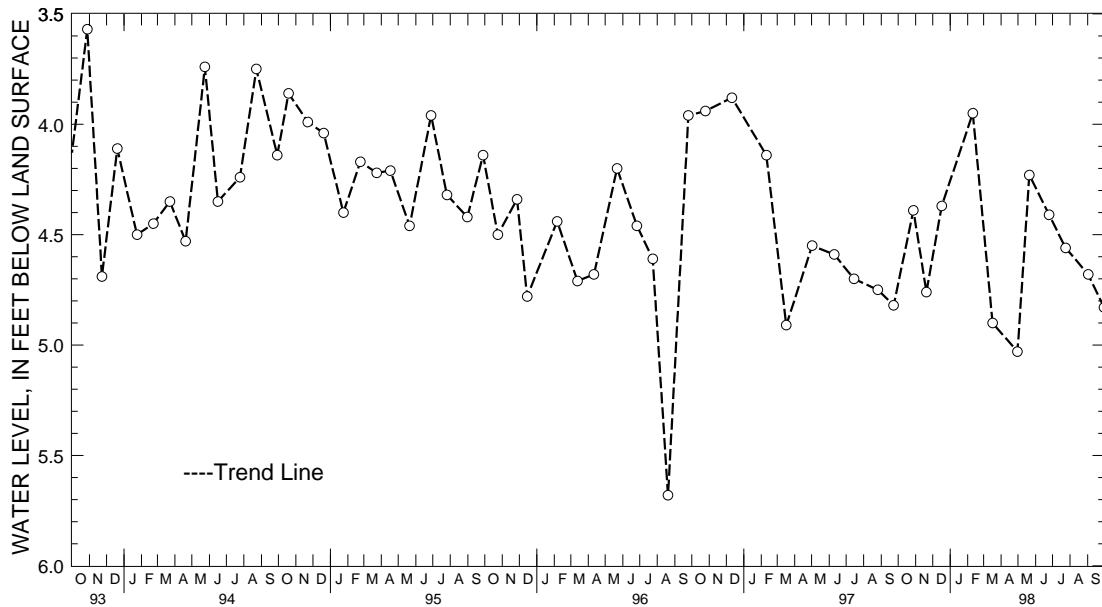
MARYLAND--Continued

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-Upper 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	4.39	FEB 10, 1998	3.95	MAY 21, 1998	4.23	SEP 02, 1998	4.68
NOV 20	4.76	MAR 17	4.90	JUN 25	4.41	30	4.83
DEC 17	4.37	APR 30	5.03	JUL 24	4.56		
WATER YEAR 1998		HIGHEST	3.95 FEB 10, 1998	LOWEST	5.03 APR 30, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

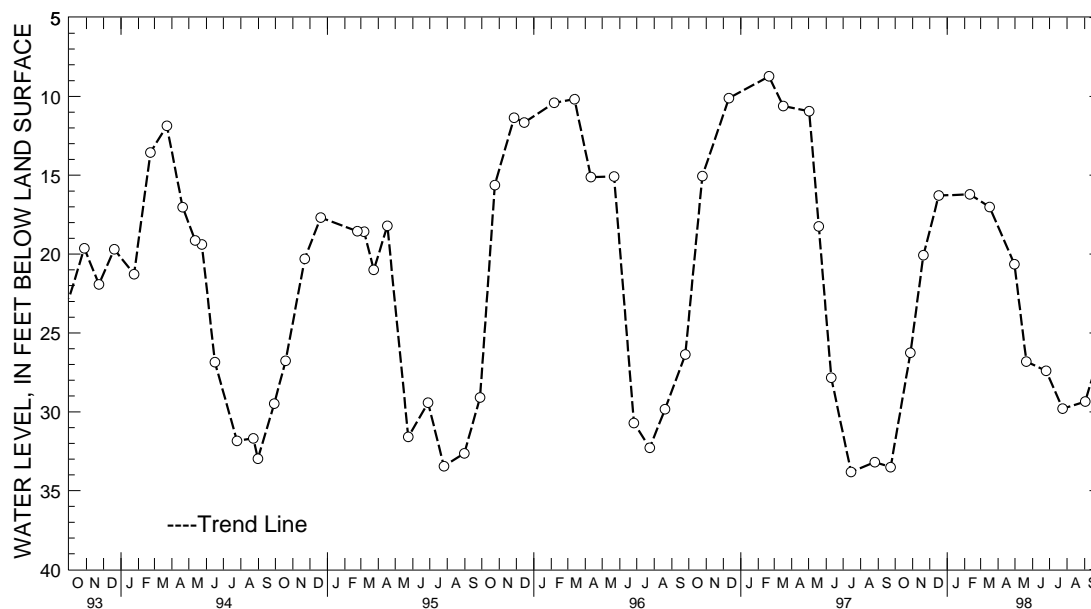
MARYLAND--Continued

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 Upper 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 May 1997.
 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, 8.23 ft below land surface, Feb. 9, 1997; lowest measured, 38.75 ft below land surface, Aug. 30, 1989.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	26.26	FEB 10, 1998	16.21	MAY 21, 1998	26.81	SEP 02, 1998	29.35
NOV 20	20.07	MAR 17	17.01	JUN 25	27.40	30	26.04
DEC 17	16.29	APR 30	20.64	JUL 24	29.80		
WATER YEAR 1998		HIGHEST	16.21	FEB 10, 1998		LOWEST	29.80
							JUL 24, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

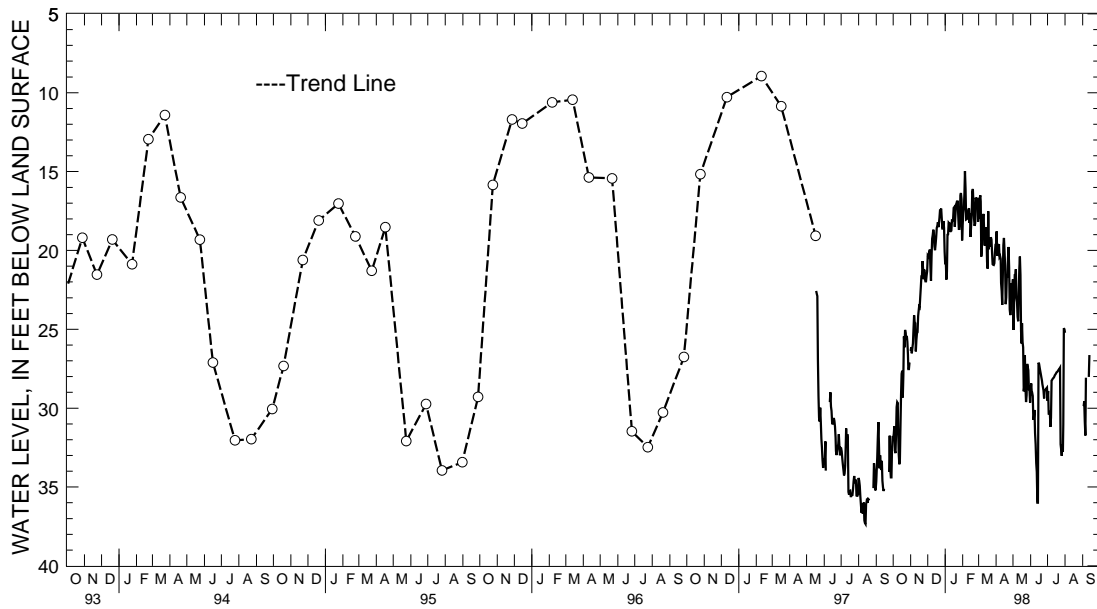
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 31, 1997	25.20	FEB 10, 1998	16.17	MAY 21, 1998	27.17	SEP 02, 1998	29.70
NOV 20	20.46	MAR 17	17.44	JUN 25	27.99	30	26.41
DEC 17	16.59	APR 30	21.35	JUL 24	30.05		
WATER YEAR 1998		HIGHEST	16.17 FEB 10, 1998	LOWEST	30.05 JUL 24, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

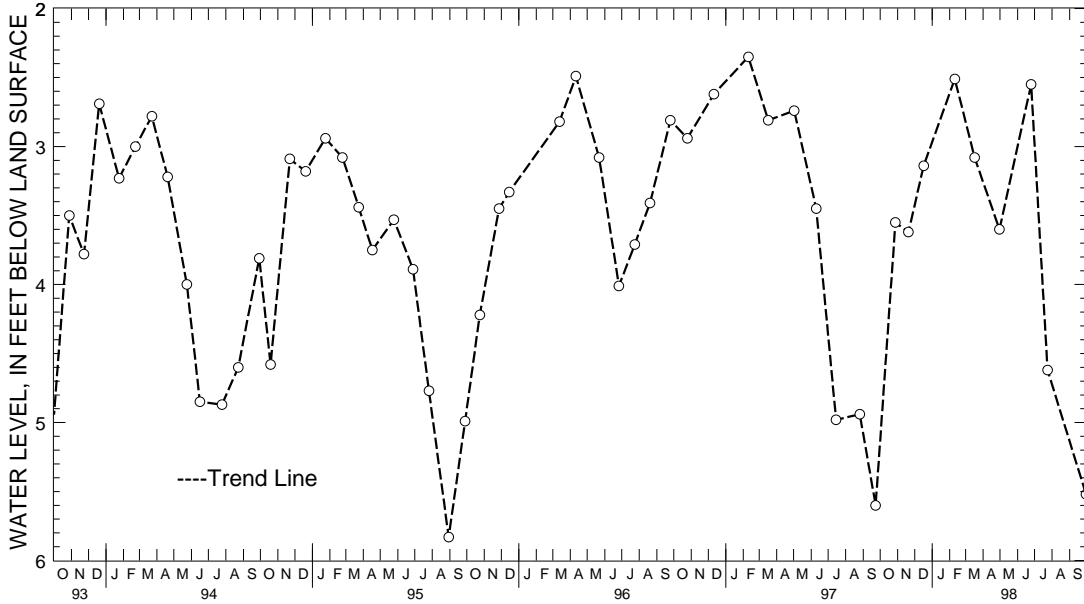
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	3.55	FEB 10, 1998	2.51	JUN 25, 1998	2.55
NOV 20	3.62	MAR 17	3.08	JUL 24	4.62
DEC 17	3.14	APR 30	3.60	SEP 30	5.52
WATER YEAR 1998		HIGHEST	2.51 FEB 10, 1998	LOWEST	5.52 SEP 30, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

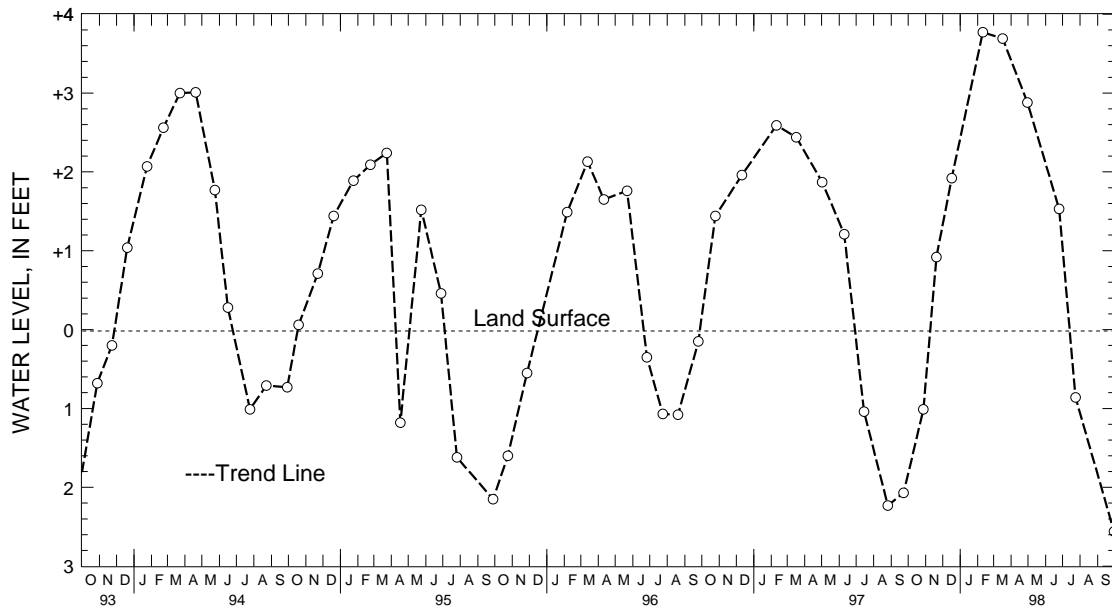
MARYLAND--Continued

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 electric 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	1.01	FEB 10, 1998	+3.77	JUN 25, 1998	+1.53
NOV 20	+.92	MAR 17	+3.69	JUL 24	.86
DEC 17	+1.92	APR 30	+2.88	SEP 30	2.56
WATER YEAR 1998		HIGHEST	+3.77 FEB 10, 1998	LOWEST	2.56 SEP 30, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

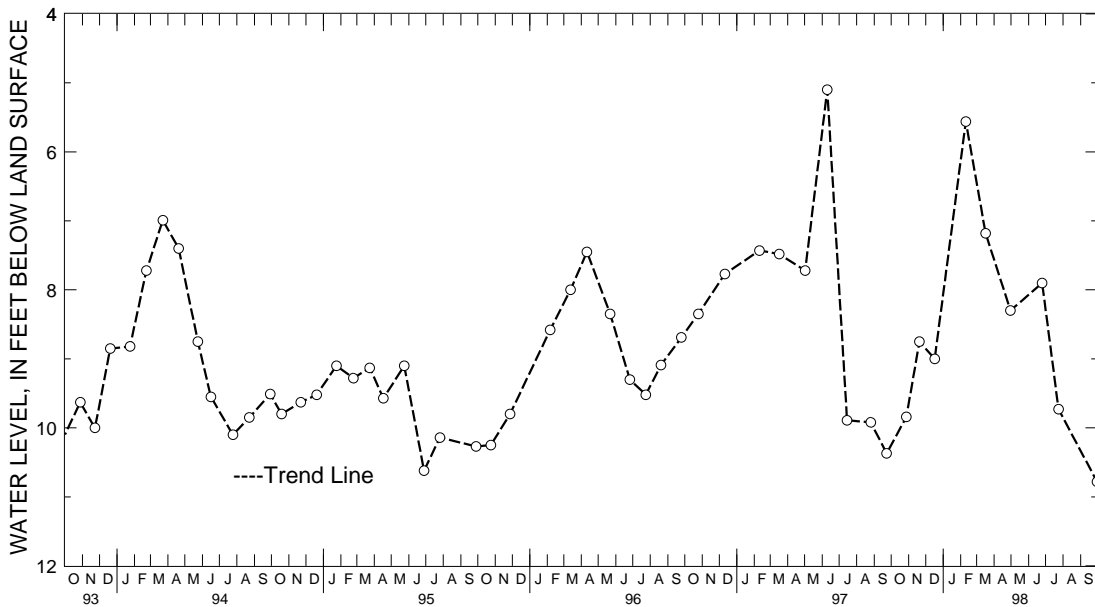
MARYLAND--Continued

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, water-table 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, 10.78 ft below land surface, Sept. 30, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	9.84	FEB 10, 1998	5.56	JUN 25, 1998	7.90
NOV 20	8.75	MAR 17	7.18	JUL 24	9.73
DEC 17	9.00	APR 30	8.30	SEP 30	10.78
WATER YEAR 1998	HIGHEST	5.56	FEB 10, 1998	LOWEST	10.78
					SEP 30, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

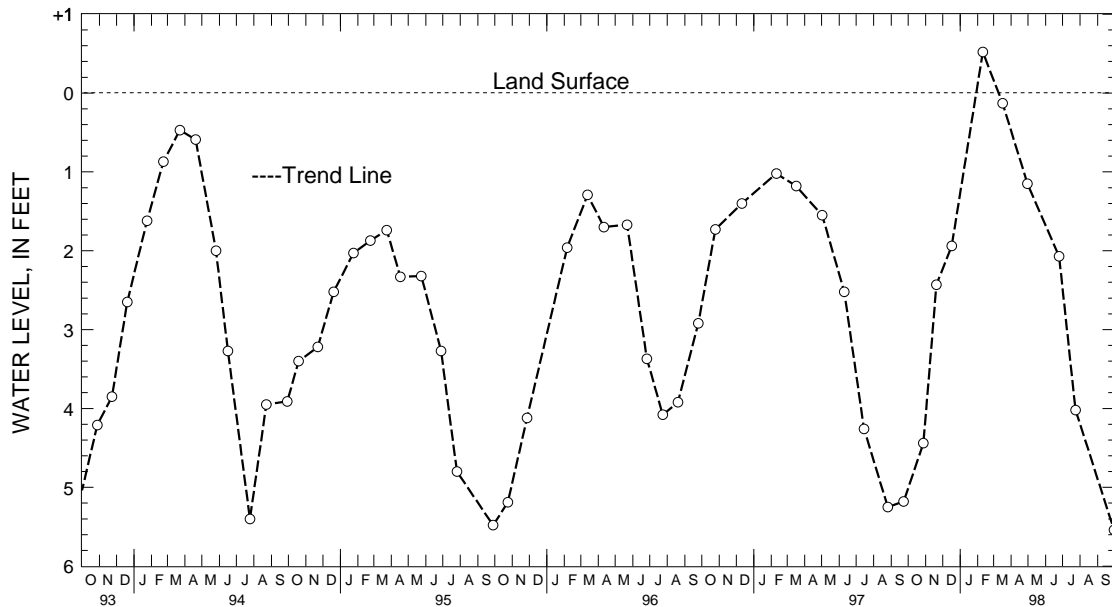
MARYLAND--Continued

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, 0.52 ft above land surface, Feb. 10, 1998; lowest measured, 5.74 ft below land surface, Aug. 26, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	4.44	FEB 10, 1998	+ .52	JUN 25, 1998	2.07
NOV 20	2.43	MAR 17	.13	JUL 24	4.02
DEC 17	1.94	APR 30	1.15	SEP 30	5.54
WATER YEAR 1998		HIGHEST	+ .52 FEB 10, 1998	LOWEST	5.54 SEP 30, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

MARYLAND--Continued

WORCESTER COUNTY--Continued

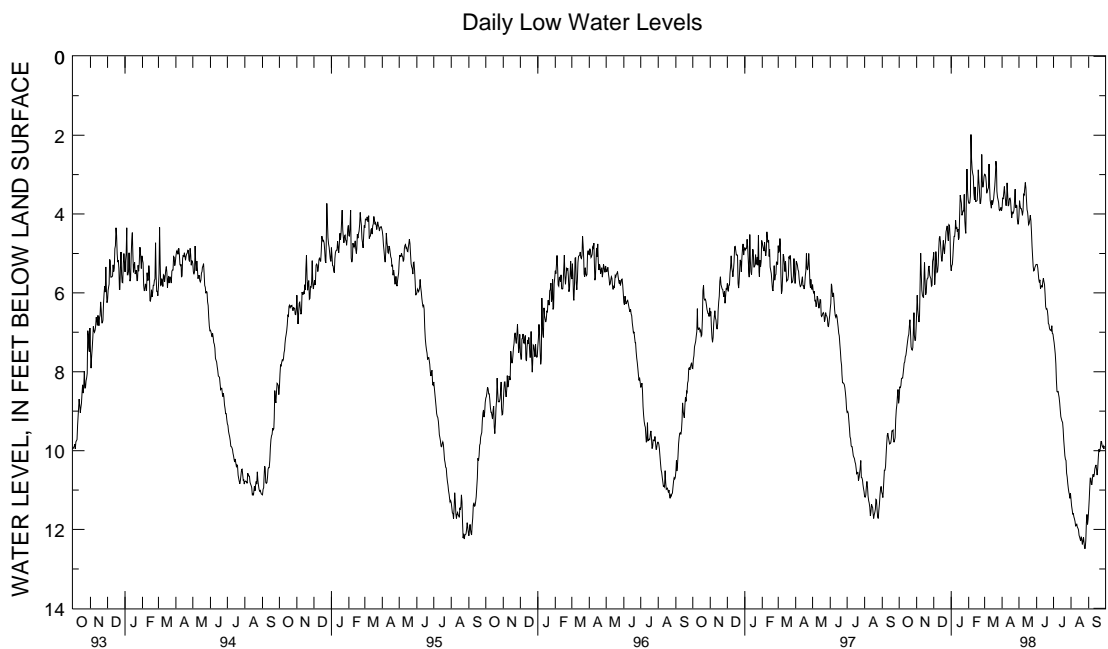
WELL NUMBER.--WO Bg 47. SITE ID.--382325075063301. PERMIT NUMBER.--WO-73-0521.
 LOCATION.--Lat 38°23'25", long 75°06'33", Hydrologic Unit 02060010, at intersection of MD Rt. 90 and
 Isle of Wight Rd., Isle of Wight.
 Owner: U.S. Geological Survey.
 AQUIFER.--Ocean City aquifer of Upper Miocene age. Aquifer 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, 0.71 ft below land surface, February 5, 1998;
 lowest measured, 12.72 ft below land surface, Aug. 26, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.69	7.96	6.50	5.45	4.97	4.21	5.44	4.66	3.72	3.07	2.99	2.32
2	8.39	7.79	6.06	5.24	5.42	4.66	5.31	4.75	3.73	3.10	3.00	2.32
3	8.40	7.84	6.43	5.74	5.79	5.16	5.28	4.63	3.71	3.14	3.06	2.21
4	8.35	7.71	6.59	5.84	5.56	4.68	5.05	4.45	3.55	1.77	3.23	2.41
5	8.17	7.57	6.74	6.07	4.95	4.23	4.77	4.09	1.98	.71	3.47	2.63
6	8.16	7.55	6.58	5.69	5.19	4.54	4.57	3.93	2.61	1.39	3.42	2.82
7	8.16	7.50	5.81	4.65	5.48	4.91	4.57	3.91	2.87	2.12	3.37	2.75
8	8.03	7.37	4.99	4.32	5.46	4.87	4.39	3.51	2.97	2.17	3.33	2.33
9	7.89	7.14	5.51	4.50	5.30	4.37	4.16	3.43	3.04	2.37	2.73	1.87
10	7.78	7.10	5.93	5.20	4.89	4.03	4.37	3.63	3.47	2.82	3.31	2.45
11	7.75	6.96	6.06	5.48	4.61	3.78	4.33	3.54	3.64	2.80	3.65	3.14
12	7.62	6.91	6.10	5.46	4.57	3.79	4.45	3.67	3.31	2.68	3.75	3.23
13	7.58	6.89	6.11	5.11	4.72	3.98	4.38	3.62	3.69	3.05	3.85	3.25
14	7.47	6.73	5.50	4.28	4.96	4.25	4.65	3.95	3.67	3.06	3.65	3.06
15	7.34	6.61	5.23	4.39	5.19	4.40	4.60	3.56	3.67	3.07	3.76	3.17
16	7.22	6.43	5.72	4.83	5.19	4.50	4.01	3.14	3.65	3.16	3.69	3.21
17	7.11	6.28	6.05	5.37	4.89	4.03	3.52	2.89	3.42	2.48	3.61	3.16
18	7.05	6.22	5.99	5.17	4.67	3.94	3.63	2.97	2.88	2.22	3.44	2.99
19	6.84	5.76	5.69	4.92	4.91	4.27	3.72	3.18	3.18	2.43	3.28	2.87
20	6.68	5.86	5.63	5.07	5.01	4.41	4.03	3.26	3.37	2.64	3.04	2.62
21	6.98	6.22	5.62	5.02	4.77	4.25	3.98	3.45	3.73	2.88	2.66	1.77
22	7.37	6.77	5.35	4.83	4.72	4.19	3.92	3.23	3.73	3.12	2.81	1.67
23	7.43	6.83	5.32	4.48	4.45	3.93	3.92	3.05	3.56	2.08	3.42	2.42
24	7.45	6.99	5.55	4.51	4.38	3.83	3.50	2.84	2.49	1.54	3.57	3.01
25	7.39	6.64	5.60	5.10	4.30	3.43	4.18	3.22	3.16	2.36	3.64	3.01
26	6.95	6.10	5.64	5.18	4.54	3.79	4.41	3.80	3.32	2.62	3.71	3.13
27	6.50	5.86	5.83	5.37	4.68	3.85	4.49	3.28	3.23	2.41	3.89	3.33
28	7.07	6.48	5.81	4.77	4.27	3.45	3.53	1.74	3.05	2.29	3.91	3.15
29	7.20	6.74	5.20	4.42	4.29	3.23	2.86	1.98	---	---	3.88	3.17
30	7.20	6.53	5.13	4.31	4.57	3.30	3.39	2.46	---	---	3.83	3.16
31	6.90	6.14	---	---	5.29	4.57	3.63	2.89	---	---	3.92	3.11
MONTH	8.69	5.76	6.74	4.28	5.79	3.23	5.44	1.74	3.73	.71	3.92	1.67

GROUND-WATER LEVELS
 MARYLAND--Continued
 WORCESTER COUNTY--Continued
 WO Bg 47--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.84	3.18	4.02	3.44	5.28	4.71	7.16	6.59	11.24	10.66	11.50	10.73
2	3.60	3.05	3.66	3.04	5.28	4.78	7.26	6.76	11.40	10.82	11.22	10.40
3	3.61	2.94	3.79	3.12	5.37	4.74	7.40	6.93	11.50	10.89	11.00	10.17
4	3.45	2.63	3.86	3.22	5.48	4.99	7.55	6.98	11.61	10.90	10.70	9.82
5	3.30	2.50	3.86	3.32	5.65	5.15	7.80	7.24	11.60	10.87	10.70	9.99
6	3.52	2.80	3.93	3.41	5.73	5.10	8.22	7.62	11.68	10.92	10.86	10.16
7	3.65	3.08	4.03	3.49	5.67	5.10	8.50	7.85	11.73	10.94	10.86	10.09
8	3.79	3.12	3.92	3.04	5.89	5.20	8.51	7.76	11.80	11.01	10.68	9.92
9	3.60	2.63	3.50	2.74	5.84	5.13	8.50	7.78	11.91	11.07	10.60	9.92
10	3.21	2.54	3.52	2.78	5.82	5.11	8.57	7.82	11.90	11.18	10.67	9.95
11	3.49	2.78	3.35	2.60	5.86	5.12	8.65	7.84	11.87	11.18	10.61	9.84
12	3.80	3.10	3.20	2.37	5.71	5.01	8.79	7.99	11.94	11.29	10.47	9.72
13	3.77	3.10	3.34	2.37	5.63	4.97	8.97	8.12	11.97	11.25	10.40	9.62
14	3.62	2.92	3.64	2.70	5.71	4.91	9.14	8.33	12.01	11.39	10.36	9.70
15	3.60	2.90	3.89	3.03	5.79	5.07	9.20	8.57	12.15	11.46	10.48	9.78
16	3.65	2.96	3.96	3.26	6.04	5.10	9.25	8.67	12.18	11.49	10.62	9.93
17	3.88	3.02	4.07	3.29	6.35	5.55	9.28	8.67	12.23	11.52	10.46	9.64
18	4.10	3.42	4.27	3.45	6.41	5.83	9.45	8.83	12.29	11.55	10.19	9.44
19	3.96	3.53	4.24	3.70	6.40	5.73	9.73	9.05	12.20	11.36	9.97	9.31
20	3.99	3.17	4.15	3.52	6.45	5.75	9.93	9.29	12.23	11.51	10.02	9.41
21	3.97	3.37	4.03	3.43	6.60	5.90	10.13	9.39	12.38	11.66	10.01	9.44
22	3.89	3.25	4.17	3.57	6.78	6.01	10.22	9.49	12.30	11.56	9.93	9.30
23	3.65	2.67	4.44	3.81	6.80	6.03	10.25	9.54	12.20	11.56	9.77	9.10
24	3.37	2.58	4.81	4.13	6.90	6.11	10.57	9.58	12.34	11.57	9.77	9.22
25	3.84	3.14	5.09	4.33	6.94	6.15	10.67	9.86	12.48	11.85	9.88	9.31
26	3.78	2.91	5.33	4.44	6.94	6.17	10.83	10.02	12.48	11.92	9.91	9.30
27	3.79	3.00	5.44	4.60	6.96	6.24	10.96	10.28	12.28	11.70	9.88	9.25
28	4.10	3.10	5.42	4.62	6.83	6.20	11.06	10.44	11.83	11.20	9.96	9.28
29	4.25	3.44	5.35	4.68	7.03	6.27	11.10	10.58	11.62	11.05	9.88	9.23
30	4.25	3.53	5.32	4.68	7.04	6.47	11.21	10.72	11.87	11.20	---	---
31	---	---	5.28	4.69	---	---	11.08	10.50	11.74	11.08	---	---
MONTH	4.25	2.50	5.44	2.37	7.04	4.71	11.21	6.59	12.48	10.66	11.50	9.10
YEAR	12.48	.71										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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.

Missing data due to recorder malfunction.

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

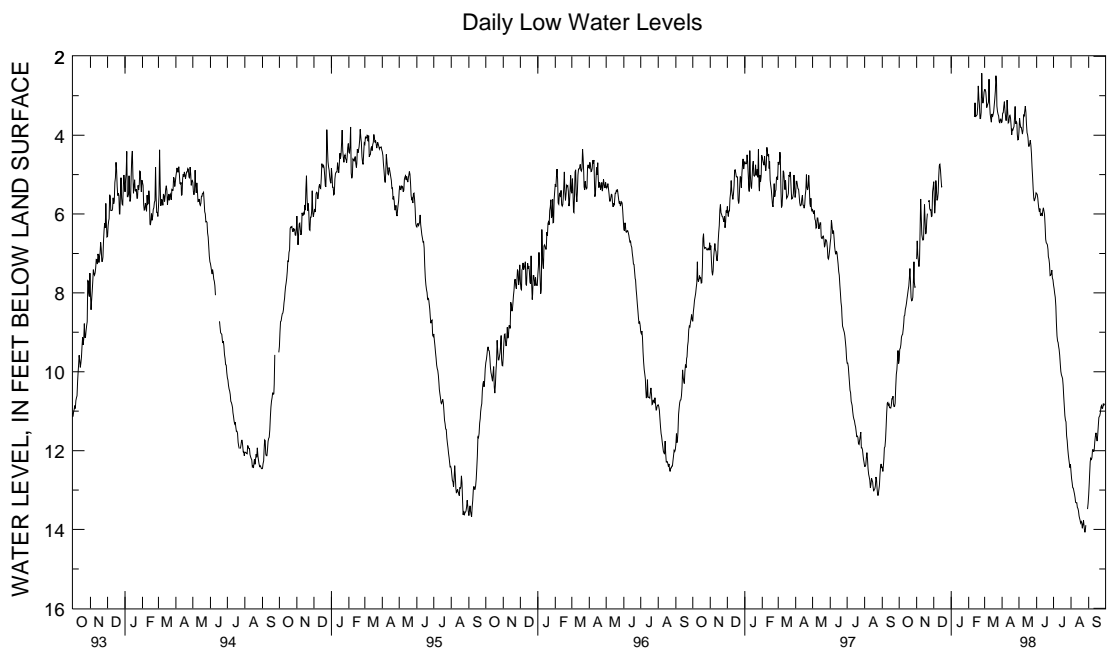
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.54 ft below land surface, Feb. 24, 1998; lowest measured, 14.06 ft below land surface, Aug. 25, and 26, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.71	9.09	7.14	6.19	5.18	4.51	---	---	---	---	2.84	2.26
2	9.43	8.90	6.68	5.96	5.64	4.97	---	---	---	---	2.84	2.26
3	9.40	8.90	7.03	6.43	5.98	5.47	---	---	---	---	2.90	2.15
4	9.31	8.73	7.18	6.55	5.76	4.97	---	---	---	---	3.08	2.35
5	9.12	8.58	7.33	6.76	5.15	4.55	---	---	---	---	3.30	2.57
6	9.07	8.53	7.17	6.38	5.37	4.82	---	---	---	---	3.24	2.76
7	9.05	8.47	6.42	5.36	5.65	5.15	---	---	---	---	3.21	2.68
8	8.92	8.34	5.62	5.02	5.62	5.13	---	---	---	---	3.16	2.26
9	8.76	8.09	6.09	5.16	5.47	4.64	---	---	---	---	2.58	1.82
10	8.59	8.02	6.52	5.83	5.05	4.28	---	---	---	---	3.19	2.36
11	8.57	7.89	6.62	6.12	4.77	4.07	---	---	3.54	2.78	3.46	3.06
12	8.42	7.81	6.66	6.11	4.74	4.08	---	---	3.18	2.65	3.58	3.13
13	8.35	7.76	6.64	5.75	4.88	4.25	---	---	3.54	2.99	3.67	3.14
14	8.26	7.61	6.05	4.94	5.10	4.51	---	---	3.51	3.01	3.46	2.95
15	8.14	7.49	5.76	5.03	5.31	4.66	---	---	3.50	3.02	3.54	3.04
16	8.04	7.33	6.20	5.41	5.30	4.72	---	---	3.48	3.08	3.48	3.08
17	7.92	7.18	6.51	5.95	---	---	---	---	3.28	2.39	3.41	3.01
18	7.83	7.10	6.46	5.76	---	---	---	---	2.75	2.17	3.24	2.87
19	7.63	6.64	6.15	5.48	---	---	---	---	3.07	2.38	3.08	2.74
20	7.38	6.69	5.99	5.52	---	---	---	---	3.23	2.61	2.87	2.49
21	7.71	7.03	---	---	---	---	---	---	3.58	2.82	2.49	1.69
22	8.12	7.53	5.69	5.25	---	---	---	---	3.58	3.07	2.66	1.60
23	8.20	7.67	5.65	4.91	---	---	---	---	3.42	2.05	3.26	2.33
24	8.19	7.79	5.86	4.93	---	---	---	---	2.43	1.54	3.40	2.92
25	8.11	7.42	5.90	5.47	---	---	---	---	3.02	2.30	3.47	2.94
26	7.71	6.89	5.89	5.52	---	---	---	---	3.19	2.59	3.51	3.03
27	7.21	6.62	6.06	5.69	---	---	---	---	3.10	2.36	3.66	3.19
28	7.73	7.20	6.05	5.11	---	---	---	---	2.91	2.26	3.68	3.02
29	7.86	7.46	5.44	4.78	---	---	---	---	---	---	3.59	3.01
30	7.85	7.24	5.32	4.61	---	---	---	---	---	---	3.59	3.00
31	---	---	---	---	---	---	---	---	---	---	3.69	2.99
MONTH	9.71	6.62	7.33	4.61	5.98	4.07	---	---	3.58	1.54	3.69	1.60

GROUND-WATER LEVELS
 MARYLAND--Continued
 WORCESTER COUNTY--Continued
 WO Bg 48--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.65	3.09	3.91	3.36	5.48	4.94	7.80	7.32	12.54	12.03	13.12	12.45
2	3.44	2.97	3.57	3.05	5.50	5.08	7.89	7.47	12.71	12.25	12.82	12.12
3	3.43	2.89	3.71	3.12	5.60	5.02	8.02	7.62	12.82	12.31	12.59	11.87
4	3.26	2.55	3.80	3.23	5.71	5.30	8.11	7.63	12.94	12.36	12.28	11.49
5	3.15	2.44	3.80	3.33	5.85	5.45	8.34	7.88	12.95	12.35	12.19	11.58
6	3.38	2.72	3.88	3.44	5.94	5.41	8.77	8.23	13.03	12.41	12.22	11.65
7	3.52	3.01	3.97	3.52	5.86	5.39	9.09	8.56	13.10	12.46	12.18	11.50
8	3.63	3.07	3.87	3.09	6.04	5.48	9.22	8.59	13.19	12.52	11.98	11.36
9	3.47	2.60	3.48	2.83	6.01	5.42	9.26	8.67	13.31	12.60	11.98	11.36
10	3.11	2.54	3.51	2.89	5.99	5.40	9.35	8.71	13.32	12.72	12.03	11.43
11	3.39	2.79	3.39	2.74	6.05	5.43	9.43	8.75	13.32	12.73	11.97	11.30
12	3.69	3.10	3.26	2.55	5.91	5.30	9.58	8.89	13.44	12.86	11.77	11.12
13	3.67	3.09	3.42	2.55	5.84	5.28	9.79	9.03	13.47	12.88	11.63	10.95
14	3.53	2.90	3.72	2.86	5.92	5.25	9.99	9.28	13.53	13.00	11.55	10.99
15	3.50	2.90	3.94	3.19	6.01	5.37	10.08	9.54	13.66	13.09	11.67	11.08
16	3.57	2.96	3.99	3.41	6.29	5.43	10.12	9.65	13.70	13.13	11.76	11.18
17	3.76	3.03	4.07	3.42	6.64	5.89	10.17	9.66	13.76	13.17	11.61	10.93
18	3.99	3.39	4.28	3.54	6.73	6.22	10.34	9.82	13.84	13.22	11.38	10.74
19	3.85	3.47	4.28	3.80	6.75	6.18	10.63	10.09	13.80	13.10	11.16	10.56
20	3.87	3.15	4.21	3.70	6.78	6.18	10.87	10.33	13.84	13.25	11.13	10.64
21	3.82	3.35	4.13	3.62	6.90	6.32	11.11	10.50	13.97	13.40	11.11	10.64
22	3.78	3.21	4.26	3.76	7.08	6.45	11.23	10.62	13.87	13.25	11.04	10.50
23	3.55	2.67	4.47	3.94	7.14	6.49	11.27	10.70	13.77	13.26	10.89	10.32
24	3.27	2.57	4.81	4.25	7.27	6.59	11.62	10.75	13.91	13.26	10.86	10.40
25	3.71	3.12	5.08	4.45	7.56	6.67	11.75	11.05	14.06	13.53	10.93	10.45
26	3.66	2.92	5.37	4.58	7.55	6.90	11.95	11.24	14.06	13.60	10.92	10.39
27	3.69	3.02	5.60	4.82	7.52	6.94	12.11	11.52	13.89	13.42	10.81	10.27
28	3.97	3.11	5.67	4.92	7.42	6.88	12.23	11.70	---	---	10.85	10.31
29	4.12	3.42	5.62	5.05	7.62	6.95	12.31	11.86	---	---	10.81	10.26
30	4.11	3.51	5.57	5.04	7.67	7.17	12.43	12.02	13.48	12.92	---	---
31	---	---	5.46	5.00	---	---	12.35	11.88	13.34	12.79	---	---
MONTH	4.12	2.44	5.67	2.55	7.67	4.94	12.43	7.32	14.06	12.03	13.12	10.26
YEAR	14.06	1.54										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

MARYLAND--Continued

WORCESTER COUNTY--Continued

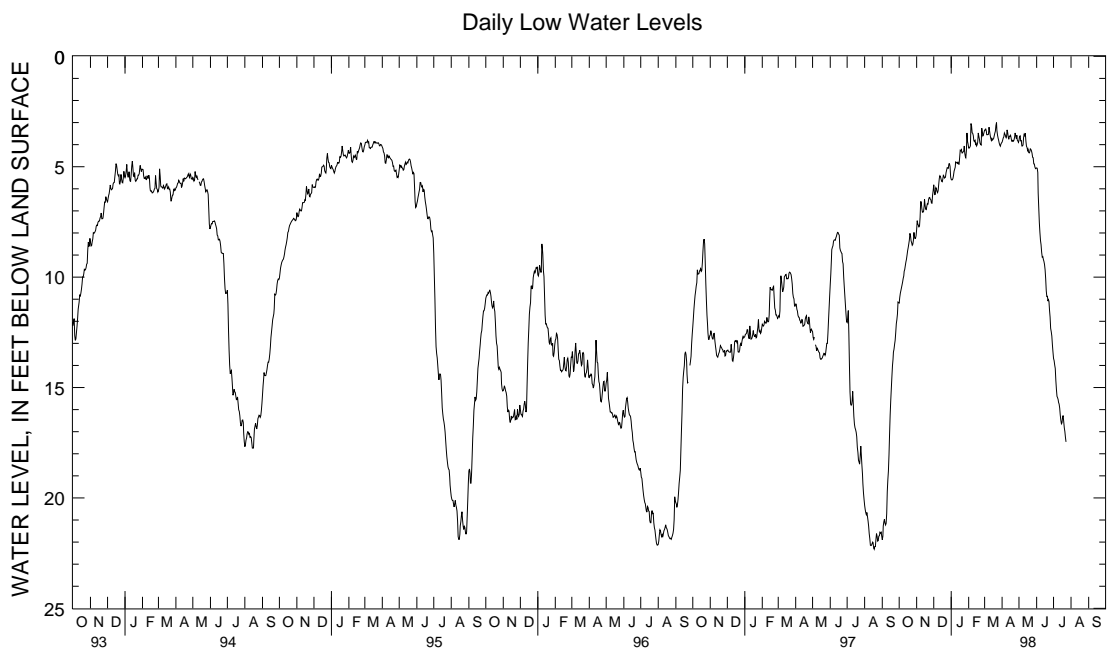
WELL NUMBER.--WO Bg 49. SITE ID.--382038075065901. PERMIT NUMBER.--WO-73-0520.
 LOCATION.--Lat 38°20'38", long 75°06'59", Hydrologic Unit 020060010, near Keyser Point Rd., West Ocean City.
 Owner: U.S. Geological Survey.
 AQUIFER.--Ocean City aquifer of Upper Miocene age. Aquifer code: 1220CNC.
 WELL 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 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.17	10.92	7.84	7.41	5.82	5.70	5.57	5.46	4.16	3.96	3.34	3.27
2	10.92	10.72	7.44	7.25	6.11	5.82	5.60	5.51	4.16	4.03	3.34	3.21
3	10.73	10.59	7.59	7.36	6.26	6.11	5.59	5.49	4.11	4.04	3.30	3.15
4	10.61	10.43	7.65	7.50	6.25	5.95	5.53	5.39	4.05	3.04	3.39	3.22
5	10.48	10.26	7.72	7.61	5.95	5.75	5.39	5.20	3.04	2.49	3.55	3.33
6	10.35	10.16	7.67	7.30	5.99	5.80	5.20	5.06	3.15	2.75	3.55	3.48
7	10.22	10.05	7.30	6.58	6.12	5.95	5.11	4.96	3.46	3.14	3.55	3.44
8	10.05	9.92	6.58	6.37	6.17	6.07	5.02	4.68	3.49	3.27	3.53	3.16
9	9.95	9.71	6.59	6.29	6.08	5.78	4.78	4.63	3.59	3.39	3.21	2.93
10	9.74	9.57	6.89	6.59	5.79	5.51	4.80	4.71	3.83	3.59	3.39	3.01
11	9.65	9.42	7.06	6.87	5.53	5.36	4.83	4.69	3.86	3.66	3.57	3.39
12	9.48	9.28	7.06	6.95	5.41	5.27	4.85	4.71	3.81	3.60	3.71	3.57
13	9.31	9.19	7.03	6.77	5.44	5.31	4.80	4.65	3.97	3.81	3.81	3.70
14	9.19	8.98	6.77	6.28	5.56	5.44	4.88	4.77	3.94	3.86	3.72	3.61
15	9.00	8.78	6.47	6.27	5.65	5.56	4.89	4.57	4.06	3.89	3.79	3.66
16	8.81	8.60	6.76	6.44	5.68	5.57	4.57	4.25	4.01	3.90	3.76	3.71
17	8.66	8.48	6.92	6.75	5.57	5.35	4.25	4.13	3.90	3.47	3.72	3.60
18	8.50	8.32	6.94	6.79	5.39	5.30	4.28	4.11	3.47	3.33	3.60	3.49
19	8.32	7.94	6.79	6.64	5.43	5.32	4.23	4.15	3.63	3.38	3.49	3.36
20	8.02	7.86	6.67	6.58	5.51	5.43	4.37	4.17	3.76	3.57	3.39	3.13
21	8.11	7.97	6.69	6.50	5.49	5.35	4.37	4.29	3.94	3.70	3.13	2.70
22	8.36	8.11	6.50	6.37	5.48	5.27	4.32	4.21	3.99	3.88	3.00	2.61
23	8.44	8.35	6.40	6.18	5.28	5.08	4.30	4.06	4.02	3.25	3.36	3.00
24	8.56	8.43	6.39	6.11	5.16	5.03	4.06	3.90	3.25	3.00	3.56	3.36
25	8.51	8.34	6.47	6.38	5.04	4.79	4.41	3.98	3.43	3.12	3.70	3.53
26	8.35	7.97	6.50	6.39	5.05	4.88	4.56	4.41	3.60	3.43	3.80	3.67
27	7.97	7.79	6.64	6.50	5.07	4.85	4.59	4.29	3.55	3.41	3.93	3.80
28	8.14	7.87	6.65	6.29	4.87	4.73	4.29	3.28	3.44	3.28	4.02	3.93
29	8.25	8.14	6.29	6.08	4.86	4.49	3.47	3.28	---	---	4.07	3.91
30	8.24	8.13	6.09	5.80	4.99	4.49	3.85	3.46	---	---	3.97	3.84
31	8.13	7.84	---	---	5.46	4.99	3.97	3.83	---	---	3.92	3.82
MONTH	11.17	7.79	7.84	5.80	6.26	4.49	5.60	3.28	4.16	2.49	4.07	2.61

GROUND-WATER LEVELS
 MARYLAND--Continued
 WORCESTER COUNTY--Continued
 WO Bg 49--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.89	3.80	3.82	3.58	5.05	4.92	13.68	13.39	---	---	---	---
2	3.80	3.68	3.63	3.47	5.07	4.97	13.78	13.62	---	---	---	---
3	3.70	3.60	3.60	3.50	5.26	4.89	13.98	13.69	---	---	---	---
4	3.64	3.27	3.83	3.50	6.19	5.26	14.14	13.94	---	---	---	---
5	3.47	3.23	3.82	3.73	6.87	6.19	14.69	14.14	---	---	---	---
6	3.53	3.38	4.06	3.77	7.54	6.87	15.08	14.69	---	---	---	---
7	3.60	3.51	4.06	3.98	7.97	7.54	15.40	15.08	---	---	---	---
8	3.68	3.56	4.02	3.68	8.34	7.96	15.46	15.30	---	---	---	---
9	3.57	3.25	3.68	3.47	8.53	8.34	15.55	15.31	---	---	---	---
10	3.33	3.19	3.53	3.39	8.87	8.51	15.67	15.44	---	---	---	---
11	3.44	3.25	3.59	3.36	9.09	8.75	15.75	15.57	---	---	---	---
12	3.65	3.44	3.49	3.26	9.07	8.98	15.93	15.68	---	---	---	---
13	3.76	3.59	3.84	3.26	9.20	8.96	16.24	15.87	---	---	---	---
14	3.62	3.44	4.07	3.78	9.29	9.08	16.49	16.18	---	---	---	---
15	3.62	3.43	4.13	3.97	9.43	9.23	16.64	16.47	---	---	---	---
16	3.57	3.47	4.26	4.01	9.67	9.27	16.60	16.34	---	---	---	---
17	3.70	3.48	4.21	4.11	10.06	9.66	16.34	16.05	---	---	---	---
18	3.84	3.66	4.34	4.08	10.62	10.06	16.27	15.97	---	---	---	---
19	3.85	3.76	4.37	4.20	10.88	10.61	16.55	16.27	---	---	---	---
20	3.81	3.63	4.33	4.17	10.87	10.80	16.83	16.55	---	---	---	---
21	3.84	3.72	4.19	4.08	11.09	10.84	16.99	16.82	---	---	---	---
22	3.79	3.67	4.22	4.09	11.03	10.96	17.26	16.99	---	---	---	---
23	3.67	3.34	4.28	4.15	11.09	10.90	17.46	17.17	---	---	---	---
24	3.47	3.22	4.39	4.28	11.49	10.98	---	---	---	---	---	---
25	3.59	3.47	4.57	4.33	11.81	11.45	---	---	---	---	---	---
26	3.72	3.54	4.59	4.47	12.32	11.80	---	---	---	---	---	---
27	3.57	3.49	4.87	4.55	12.47	12.18	---	---	---	---	---	---
28	3.79	3.50	4.88	4.69	12.67	12.44	---	---	---	---	---	---
29	3.83	3.72	5.02	4.80	13.05	12.65	---	---	---	---	---	---
30	3.90	3.72	5.09	4.88	13.39	13.05	---	---	---	---	---	---
31	---	---	5.07	4.96	---	---	---	---	---	---	---	---
MONTH	3.90	3.19	5.09	3.26	13.39	4.89	17.46	13.39	---	---	---	---
YEAR	17.46	2.49										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

497

MARYLAND--Continued

WORCESTER COUNTY--Continued

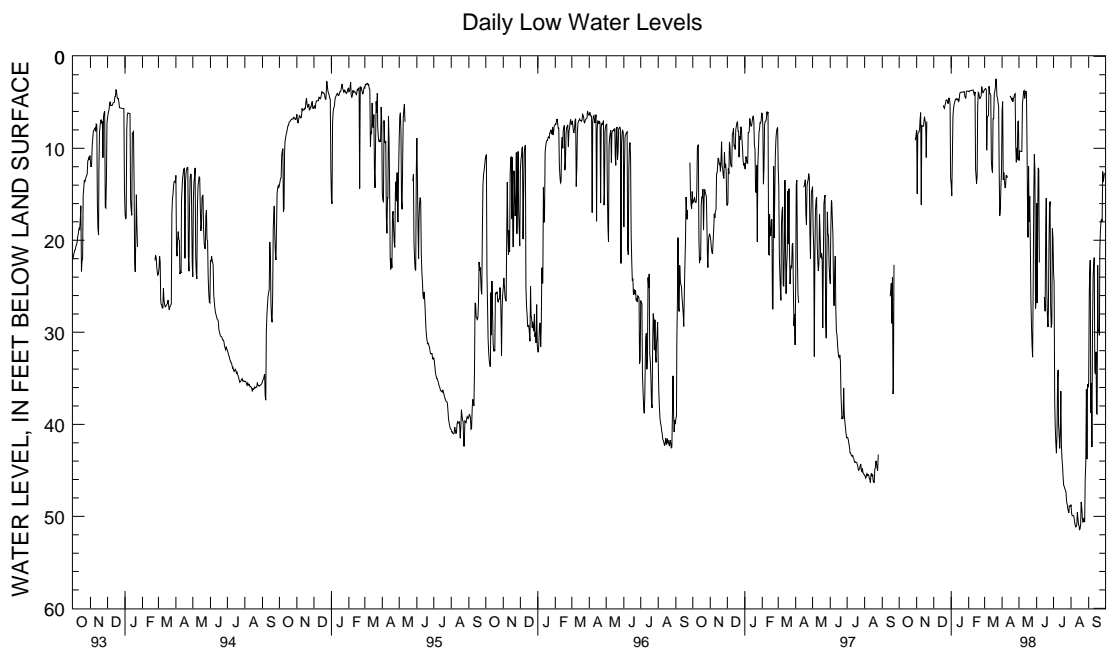
WELL NUMBER.--WO Bh 31. SITE ID.--382215075041801. PERMIT NUMBER.--WO-04-9586.
 LOCATION.--Lat 38°22'15", long 75°04'18", Hydrologic Unit 020060010, at 44th St, Ocean City.
 Owner: Town of Ocean City.
 AQUIFER.--Ocean City aquifer of Upper Miocene age. Aquifer code: 1220CNC.
 WELL CHARACTERISTICS.--Drilled, 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, 51.44 ft below land surface, August 16, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	8.04	6.56	---	---	13.88	5.50	3.81	3.75	3.59	2.36
2	---	---	14.94	6.98	---	---	15.16	6.76	3.83	3.73	3.55	2.24
3	---	---	8.48	7.28	---	---	11.11	5.85	3.76	3.72	3.51	2.24
4	---	---	8.24	7.02	---	---	6.53	5.24	3.72	3.71	3.69	2.43
5	---	---	8.22	7.18	---	---	5.72	4.60	3.71	3.70	10.20	2.72
6	---	---	7.98	6.58	---	---	5.25	4.34	3.70	3.69	6.59	6.50
7	---	---	6.87	5.51	---	---	4.96	4.15	3.69	3.68	6.50	6.45
8	---	---	6.11	5.13	---	---	4.78	4.01	3.68	3.67	6.45	2.43
9	---	---	16.14	5.75	---	---	4.65	4.00	3.67	3.66	3.26	2.03
10	---	---	7.54	6.46	---	---	4.67	3.99	4.03	3.34	3.96	2.43
11	---	---	7.59	6.47	---	---	4.62	3.98	4.24	3.03	4.07	3.12
12	---	---	7.59	6.40	---	---	4.72	3.97	3.87	2.77	4.23	3.24
13	---	---	7.58	6.04	---	---	4.64	3.96	12.31	3.36	11.33	3.49
14	---	---	6.82	4.99	---	---	4.91	3.95	12.87	4.47	12.31	3.69
15	---	---	6.58	5.17	---	---	4.82	3.93	13.85	5.66	12.64	6.78
16	---	---	7.03	5.65	---	---	4.11	3.92	13.02	5.27	6.78	6.78
17	---	---	7.42	6.23	---	---	3.92	3.91	5.46	3.49	6.78	3.47
18	---	---	11.00	6.11	5.32	4.27	3.91	3.90	3.93	3.32	4.15	3.16
19	---	---	7.08	5.89	5.58	4.62	3.90	3.88	4.00	3.14	3.81	2.90
20	---	---	---	---	5.65	4.76	3.92	3.88	4.52	3.20	3.38	2.45
21	---	---	---	---	5.29	4.56	3.88	3.87	4.59	3.52	2.45	1.78
22	---	---	---	---	5.16	4.49	3.89	3.86	4.45	3.60	3.09	1.58
23	---	---	---	---	4.79	4.19	3.86	3.84	4.33	2.38	4.32	2.41
24	---	---	---	---	4.71	4.19	3.84	3.83	3.30	1.63	4.51	3.38
25	---	---	---	---	4.76	4.16	4.38	3.82	3.67	2.34	5.05	3.38
26	---	---	---	---	5.11	4.16	4.47	3.82	3.94	2.65	5.42	4.18
27	---	---	---	---	5.11	4.15	4.57	3.80	3.91	2.48	12.71	4.09
28	---	---	---	---	4.50	4.12	3.80	3.79	3.73	2.35	17.32	12.71
29	9.13	8.24	---	---	4.70	4.11	3.79	3.78	---	---	16.47	9.09
30	9.02	7.86	---	---	5.17	4.11	3.78	3.76	---	---	14.05	6.19
31	8.53	7.36	---	---	13.25	4.71	3.76	3.75	---	---	12.58	5.08
MONTH	9.13	7.36	16.14	4.99	13.25	4.11	15.16	3.75	13.85	1.63	17.32	1.58

GROUND-WATER LEVELS
 MARYLAND--Continued
 WORCESTER COUNTY--Continued
 WO Bh 31--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.93	4.19	11.33	3.38	15.94	10.42	23.43	16.55	48.74	35.88	35.45	24.03
2	4.93	3.69	10.29	10.28	26.79	13.78	24.62	21.45	49.64	46.51	25.85	22.76
3	13.41	3.54	10.31	10.29	16.23	11.21	37.57	21.39	49.95	46.51	23.89	21.21
4	12.63	4.06	10.33	10.31	12.12	11.32	40.35	30.08	49.93	47.11	22.14	20.54
5	13.43	4.71	10.33	10.32	12.30	11.48	42.10	33.15	49.91	40.97	38.74	20.81
6	14.27	6.60	10.33	3.85	22.42	11.68	43.13	35.41	50.01	46.65	35.55	24.87
7	14.27	12.97	5.13	3.88	---	---	41.13	29.99	50.50	49.00	42.47	29.48
8	12.97	12.97	4.56	3.13	---	---	35.04	25.78	50.88	49.53	29.48	23.20
9	12.97	12.84	3.87	2.56	---	---	34.08	23.88	51.15	49.76	23.90	21.76
10	13.15	12.84	3.74	2.62	---	---	40.01	24.21	51.11	49.81	22.68	21.05
11	13.10	12.86	4.57	2.72	---	---	41.08	26.83	50.93	48.34	21.88	20.50
12	---	---	4.04	2.68	---	---	42.62	31.50	49.57	47.16	34.22	20.47
13	---	---	3.76	2.75	---	---	40.95	28.61	50.22	46.86	34.53	25.79
14	---	---	4.02	2.90	26.17	17.97	36.40	27.55	50.85	48.33	32.11	22.32
15	4.43	3.41	10.02	3.13	26.24	15.14	42.37	35.30	51.03	47.72	38.84	22.31
16	4.37	3.38	17.75	10.02	27.71	19.56	43.75	36.81	51.44	49.50	38.89	22.70
17	4.51	3.37	19.68	11.95	19.56	15.20	44.56	35.82	51.39	45.98	22.70	19.46
18	4.69	3.67	11.95	10.10	15.41	14.19	45.80	41.35	50.94	43.34	29.81	18.97
19	4.51	3.65	17.98	10.10	25.46	13.91	46.64	42.72	48.44	39.63	29.77	18.57
20	4.95	3.31	15.20	10.10	28.23	18.96	46.77	40.38	49.02	38.45	30.33	19.81
21	4.61	3.80	19.84	7.44	29.42	24.47	47.02	42.08	50.13	46.32	21.08	18.57
22	4.41	3.37	26.37	7.02	27.83	18.01	47.14	44.19	50.62	47.95	19.05	17.37
23	4.15	2.57	29.19	12.20	20.69	15.54	47.38	44.15	50.57	46.78	17.98	16.80
24	4.06	2.48	31.40	28.87	16.44	14.71	48.38	45.73	50.16	43.71	17.67	16.76
25	9.67	2.97	32.70	24.97	15.78	14.37	48.69	47.58	50.63	41.20	18.02	3.98
26	11.51	3.03	24.97	15.09	27.15	14.63	49.13	47.92	45.98	35.91	12.52	1.41
27	9.95	3.28	15.09	9.96	29.46	21.54	49.45	48.24	44.14	33.53	13.61	6.00
28	11.20	3.63	10.67	8.37	29.06	18.72	49.60	48.48	36.16	34.84	13.18	3.18
29	7.12	7.05	12.42	8.38	18.72	16.38	48.87	47.13	43.78	34.76	12.68	10.12
30	7.05	3.39	27.45	11.32	19.79	15.97	48.94	42.80	35.65	34.59	---	---
31	---	---	26.72	15.94	---	---	48.91	40.01	35.97	29.62	---	---
MONTH	14.27	2.48	32.70	2.56	29.42	10.42	49.60	16.55	51.44	29.62	42.47	1.41
YEAR	51.44	1.41										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

499

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.

PERIOD OF RECORD.--December 1972 to current year.

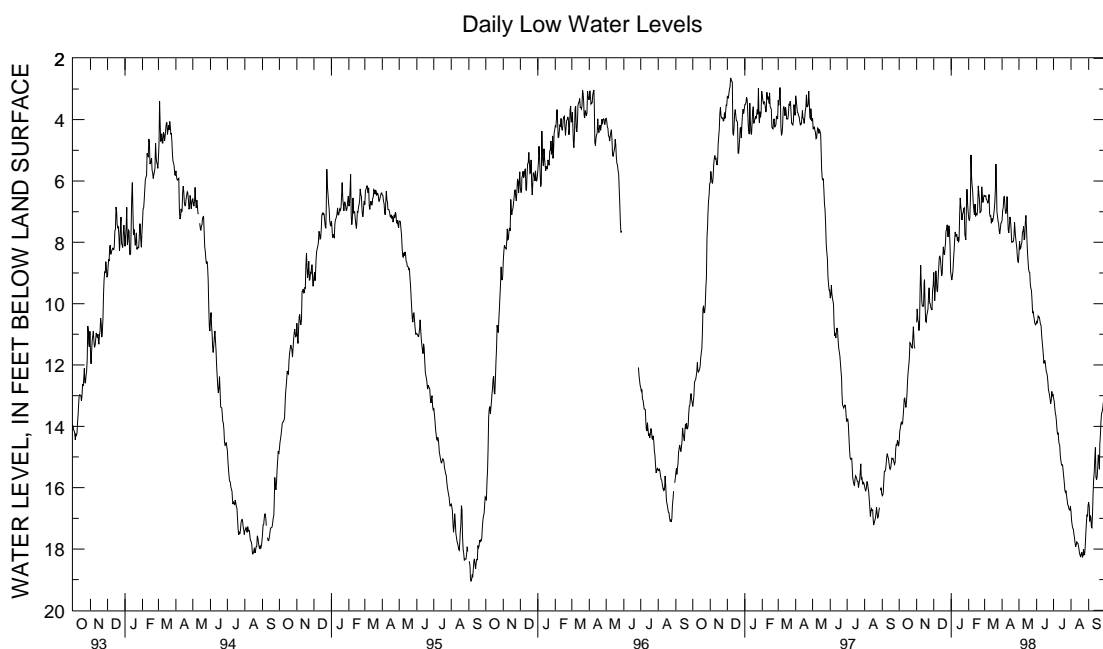
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.54 ft above land surface, March 27, 1973; lowest measured, 19.04 ft below land surface, Sept. 5, 1995.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.49	13.44	10.61	9.26	8.98	7.86	9.10	7.90	7.21	6.04	6.49	5.29
2	14.17	13.31	10.17	8.98	9.51	8.33	9.23	8.25	7.29	6.21	6.50	5.22
3	14.06	13.20	10.51	9.47	9.90	8.82	9.11	8.01	7.22	6.32	6.48	5.22
4	13.93	13.02	10.60	9.55	9.57	8.21	8.94	7.94	6.59	4.68	6.60	5.42
5	13.85	13.04	10.88	10.03	8.93	7.83	8.57	7.58	5.15	3.88	6.61	5.69
6	13.93	13.12	10.68	9.35	9.22	8.16	8.28	7.39	5.87	4.17	6.66	5.66
7	13.88	13.00	9.57	8.20	9.59	8.67	7.91	7.00	6.16	4.96	6.71	5.81
8	13.64	12.77	8.75	7.81	9.60	8.72	7.66	6.58	6.36	5.06	6.65	5.55
9	13.37	12.38	9.38	8.02	9.16	8.06	7.79	6.52	6.76	5.41	6.44	5.14
10	13.11	12.22	9.94	8.69	8.83	7.56	7.79	6.59	6.95	5.97	7.06	5.65
11	13.07	12.12	10.08	8.99	8.50	7.24	7.74	6.55	7.11	5.95	7.15	6.26
12	13.25	12.25	10.08	8.94	8.46	7.16	7.94	6.76	6.75	5.73	7.14	6.23
13	13.38	12.32	10.08	8.60	8.55	7.31	7.82	6.58	7.15	6.25	7.38	6.51
14	13.22	12.03	9.30	7.53	8.82	7.58	8.00	6.84	7.06	6.11	7.22	6.31
15	12.90	11.65	9.22	7.66	9.09	7.75	7.92	6.36	7.10	6.24	7.32	6.49
16	12.48	11.28	10.09	8.69	9.04	7.87	7.09	5.79	7.10	6.35	7.25	6.45
17	12.20	10.99	10.57	9.49	8.51	7.24	6.55	5.72	6.82	5.44	7.13	6.31
18	12.01	10.86	10.60	9.45	8.15	7.15	6.83	5.88	6.16	5.35	6.94	6.10
19	11.78	10.42	10.37	9.30	8.35	7.44	7.00	6.22	6.41	5.49	6.70	5.87
20	11.27	10.10	10.29	9.48	8.41	7.62	7.27	6.34	6.59	5.71	6.29	5.43
21	11.30	10.03	10.17	9.36	8.18	7.53	7.08	6.57	7.03	5.90	5.45	4.85
22	11.36	10.54	9.73	9.08	8.04	7.48	7.04	6.12	7.01	6.21	6.16	4.71
23	11.42	10.67	9.48	8.62	7.62	7.01	6.91	6.08	6.97	5.29	6.99	5.55
24	11.44	10.67	9.98	8.66	7.59	6.89	6.88	5.78	6.19	4.51	7.15	6.23
25	11.10	10.21	10.00	9.25	7.43	6.34	7.74	6.11	6.45	5.19	7.31	6.17
26	10.75	9.71	10.14	9.35	7.81	6.61	7.85	6.81	6.70	5.35	7.39	6.28
27	11.15	10.01	10.17	9.42	7.81	6.76	7.92	6.37	6.57	5.17	7.63	6.50
28	11.40	10.58	10.21	8.86	7.46	6.27	6.91	4.62	6.47	5.11	7.72	6.29
29	11.46	10.59	9.55	8.41	7.64	6.09	6.27	4.78	---	---	7.54	6.15
30	---	---	9.41	8.15	8.15	6.41	6.71	5.37	---	---	7.37	6.07
31	---	---	---	---	8.95	7.76	6.98	5.68	---	---	7.36	6.16
MONTH	14.49	9.71	10.88	7.53	9.90	6.09	9.23	4.62	7.29	3.88	7.72	4.71

GROUND-WATER LEVELS
MARYLAND--Continued
WORCESTER COUNTY--Continued
WO Bh 34--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.28	6.13	8.35	7.09	10.59	9.84	13.08	12.40	16.79	16.12	16.48	15.59
2	6.96	6.07	7.96	7.04	10.64	9.88	13.16	12.56	17.07	16.36	16.62	15.71
3	6.87	5.95	8.22	7.26	10.51	9.66	13.37	12.74	17.22	16.41	17.10	15.99
4	6.52	5.64	8.19	7.49	10.40	9.68	13.55	12.80	17.32	16.40	16.91	15.53
5	6.51	5.46	8.07	7.36	10.44	9.62	13.65	12.88	17.35	16.36	16.96	15.88
6	6.82	5.77	8.00	7.06	10.44	9.53	13.83	13.04	17.51	16.41	17.27	16.12
7	7.05	6.08	7.66	6.86	10.56	9.77	14.11	13.20	17.63	16.45	17.30	15.91
8	7.05	6.14	7.64	6.65	10.68	9.73	14.26	13.19	17.80	16.64	16.85	15.23
9	6.86	5.56	7.48	6.52	10.70	9.77	14.21	13.18	17.93	16.77	16.19	14.80
10	6.51	5.57	7.92	6.97	11.03	10.09	14.41	13.35	17.87	16.73	15.72	14.72
11	7.10	6.16	7.86	6.48	11.25	10.24	14.57	13.51	17.77	16.75	15.49	14.29
12	7.60	6.73	7.36	6.00	11.45	10.42	14.61	13.57	17.80	16.75	15.03	13.92
13	7.69	6.70	7.12	6.12	11.70	10.50	14.93	13.61	17.82	16.77	14.69	13.57
14	7.45	6.21	7.51	6.26	11.95	10.73	15.11	14.01	17.90	16.96	15.66	14.25
15	7.17	6.27	8.01	6.70	11.86	10.95	15.24	14.26	18.02	17.08	15.74	14.73
16	7.30	6.27	8.39	7.20	11.87	10.93	15.27	14.38	18.13	17.17	15.65	14.62
17	7.58	6.46	8.59	7.56	12.04	11.08	15.26	14.32	18.20	17.22	15.37	14.09
18	7.99	6.96	8.87	7.74	12.21	11.27	15.44	14.46	18.24	17.21	14.93	13.84
19	7.97	7.26	8.97	8.08	12.26	11.22	15.64	14.63	18.16	16.96	15.01	13.76
20	7.99	7.06	8.98	8.01	12.37	11.28	15.84	14.86	18.11	17.09	15.40	14.47
21	7.96	7.17	9.36	8.17	12.59	11.45	16.09	14.96	18.27	17.30	14.57	13.57
22	7.80	6.77	9.50	8.38	12.79	11.54	16.15	15.00	18.22	17.08	14.30	13.23
23	7.35	5.83	9.57	8.32	12.88	11.58	16.10	15.02	18.00	17.12	13.83	12.82
24	7.65	5.88	9.90	8.67	12.99	11.79	16.27	15.20	18.19	17.31	13.59	12.77
25	7.87	6.70	10.31	8.91	13.11	11.95	16.41	15.45	18.17	17.23	13.52	12.72
26	8.04	6.70	10.27	8.93	13.26	12.16	16.56	15.57	17.93	16.94	13.42	12.60
27	8.21	6.95	10.41	9.06	13.16	12.04	16.59	15.76	17.50	16.77	13.24	12.40
28	8.43	7.24	10.52	9.24	12.86	12.04	16.69	15.87	17.16	16.16	13.14	12.53
29	8.63	7.41	10.65	9.42	13.02	12.05	16.71	16.01	16.88	16.10	13.11	12.30
30	8.65	7.51	10.69	9.66	12.95	12.31	16.73	16.07	16.93	16.01	---	---
31	---	---	10.66	9.82	---	---	16.61	15.84	16.57	15.86	---	---
MONTH	8.65	5.46	10.69	6.00	13.26	9.53	16.73	12.40	18.27	15.86	17.30	12.30
YEAR	18.27	3.88										



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

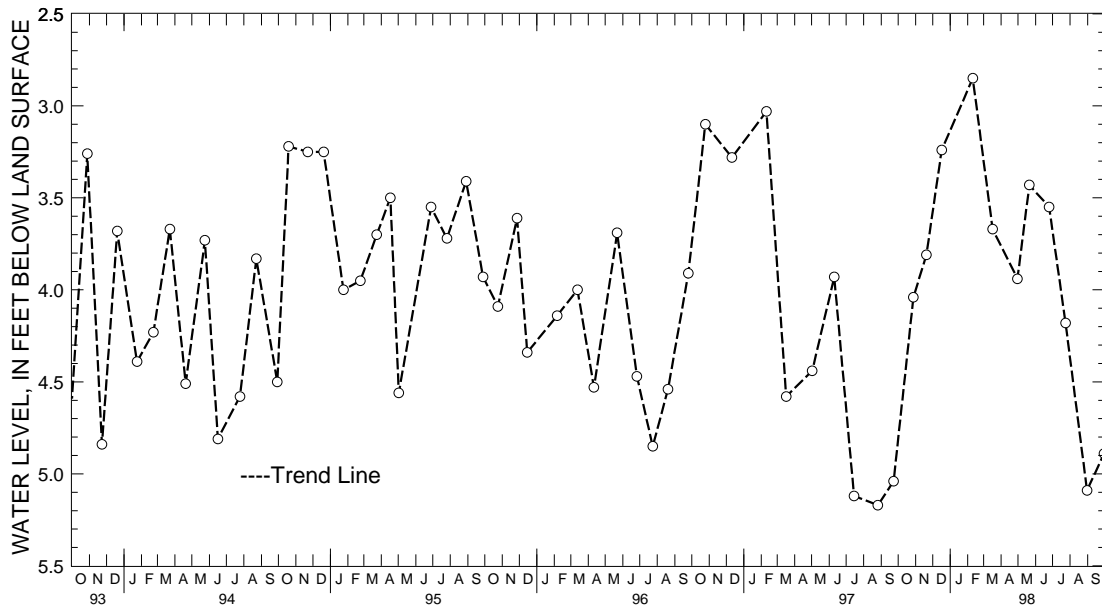
MARYLAND--Continued

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.--Beaverdam Sand of Pliocene age. Aquifer code: 121BVDM.
 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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	4.04	FEB 10, 1998	2.85	MAY 21, 1998	3.43	AUG 31, 1998	5.09
NOV 20	3.81	MAR 17	3.67	JUN 25	3.55	SEP 30	4.89
DEC 17	3.24	APR 30	3.94	JUL 24	4.18		
WATER YEAR 1998		HIGHEST	2.85 FEB 10, 1998	LOWEST	5.09 AUG 31, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

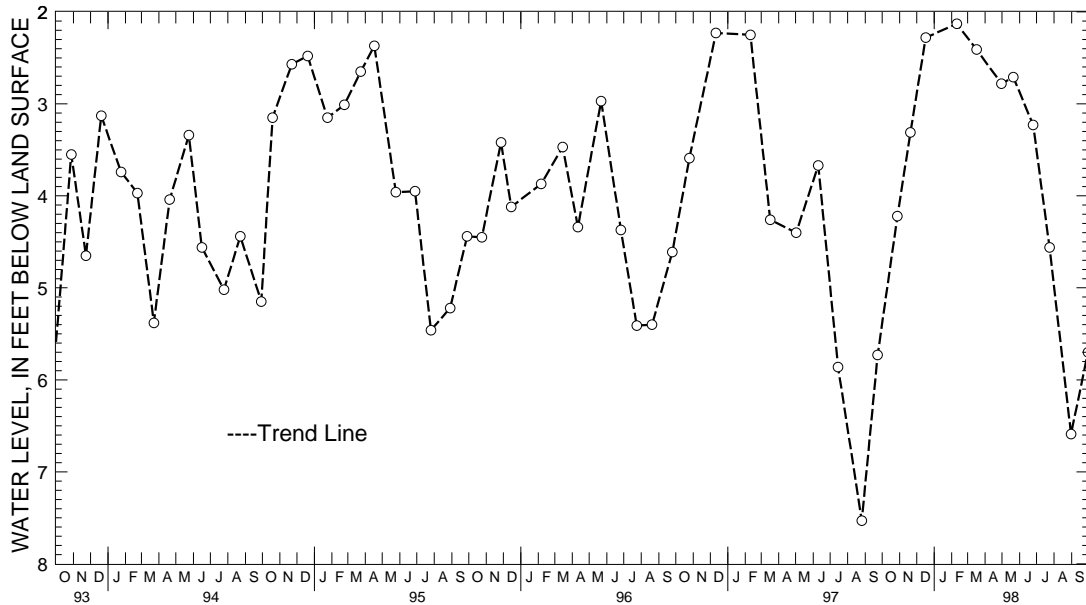
MARYLAND--Continued

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, 7.53 ft below land surface, August 26, 1997.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	4.22	FEB 10, 1998	2.13	MAY 21, 1998	2.71	AUG 31, 1998	6.59
NOV 20	3.31	MAR 17	2.41	JUN 25	3.23	SEP 30	5.70
DEC 17	2.28	APR 30	2.78	JUL 24	4.56		
WATER YEAR 1998		HIGHEST	2.13 FEB 10, 1998	LOWEST	6.59 AUG 31, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

503

MARYLAND--Continued

WORCESTER COUNTY--Continued

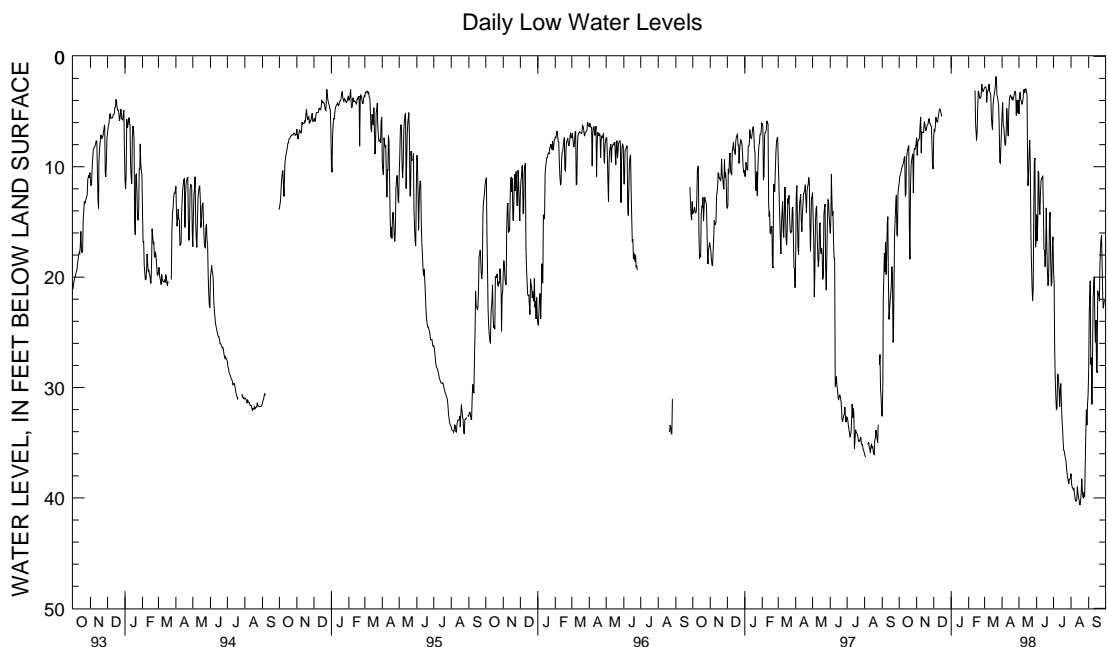
WELL NUMBER.--WO Bh 89. SITE ID.--382215075041903 PERMIT NUMBER.--WO-81-1497.
 LOCATION.--Lat 38°22'15", long 75°04'19", Hydrologic Unit 020060010, at 44th St, Ocean City.
 Owner: Town of Ocean City.
 AQUIFER.--Manokin aquifer of Upper Miocene age. Aquifer code: 122MNKN.
 WELL CHARACTERISTICS.--Drilled, 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, 40.65 ft below land surface, August 17, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.51	10.30	7.37	5.99	7.22	5.67	---	---	---	---	2.83	1.68
2	10.89	10.01	8.98	6.32	6.57	5.56	---	---	---	---	2.80	1.57
3	10.74	9.87	7.79	6.71	6.85	5.82	---	---	---	---	2.76	1.55
4	10.54	9.59	7.55	6.46	6.40	4.98	---	---	---	---	2.94	1.76
5	10.22	9.32	7.54	6.62	5.51	4.51	---	---	---	---	4.18	2.04
6	10.04	9.17	7.30	6.06	5.71	4.69	---	---	---	---	3.28	2.56
7	9.91	9.01	6.22	4.97	5.95	5.15	---	---	---	---	3.10	2.32
8	9.69	8.81	5.49	4.60	5.97	5.08	---	---	---	---	3.06	1.78
9	9.46	8.48	8.76	5.03	5.57	4.42	---	---	---	---	2.52	1.39
10	9.22	8.31	6.86	5.89	5.22	3.94	---	---	---	---	3.17	1.79
11	9.08	8.04	6.88	5.91	4.85	3.65	---	---	---	---	3.33	2.46
12	12.67	7.81	6.89	5.83	4.76	3.59	---	---	3.07	2.05	3.49	2.59
13	12.46	8.42	6.90	5.47	4.91	3.75	---	---	6.09	2.53	5.37	2.84
14	9.25	7.84	6.14	4.45	5.15	3.97	---	---	6.73	3.64	6.22	2.91
15	8.80	7.49	5.91	4.62	5.41	4.15	---	---	7.61	4.77	6.63	3.79
16	8.47	7.19	6.34	5.09	5.40	4.30	---	---	6.93	4.45	4.46	3.20
17	8.26	6.98	6.71	5.65	---	---	---	---	4.66	2.82	3.84	2.82
18	8.09	6.86	6.68	5.54	---	---	---	---	3.18	2.62	3.43	2.52
19	15.28	6.21	6.39	5.33	---	---	---	---	3.25	2.44	3.10	2.29
20	18.38	11.82	6.20	5.42	---	---	---	---	3.62	2.50	2.66	1.83
21	11.82	9.72	6.16	5.38	---	---	---	---	3.81	2.81	1.83	1.10
22	9.96	8.96	5.81	5.15	---	---	---	---	3.72	2.91	2.35	.90
23	9.37	8.51	5.63	4.73	---	---	---	---	3.60	1.66	3.50	1.73
24	9.08	8.42	6.04	4.73	---	---	---	---	2.51	.95	3.67	2.66
25	8.83	7.77	6.12	5.39	---	---	---	---	2.87	1.67	4.06	2.66
26	12.39	8.05	6.29	5.50	---	---	---	---	3.18	1.98	4.47	3.28
27	8.65	7.38	6.33	5.67	---	---	---	---	3.14	1.81	6.35	3.38
28	8.38	7.62	8.18	5.26	---	---	---	---	2.96	1.68	9.59	6.35
29	8.44	7.65	9.86	5.72	---	---	---	---	---	---	9.67	8.03
30	8.32	7.28	10.21	6.96	---	---	---	---	---	---	8.03	5.39
31	7.86	6.82	---	---	---	---	---	---	---	---	6.70	4.40
MONTH	18.38	6.21	10.21	4.45	7.22	3.59	---	---	7.61	.95	9.67	.90

GROUND-WATER LEVELS
 MARYLAND--Continued
 WORCESTER COUNTY--Continued
 WO Bh 89--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.16	3.57	5.21	2.75	14.33	9.31	19.36	14.92	37.81	32.50	28.47	23.03
2	4.19	3.09	3.37	2.66	16.69	10.40	20.45	16.45	38.69	37.21	23.13	21.76
3	6.14	2.89	3.28	2.47	14.80	9.73	26.63	17.56	39.03	37.26	22.14	19.54
4	6.48	3.37	3.92	2.47	10.39	9.65	29.35	25.21	39.12	37.80	20.33	18.80
5	7.18	3.95	4.05	2.96	10.55	9.78	30.91	28.76	39.26	36.07	27.91	19.07
6	8.03	5.65	4.33	3.17	13.94	9.95	32.04	29.72	39.15	37.37	27.31	22.75
7	8.04	6.10	4.30	3.18	14.33	10.38	31.89	28.76	39.64	38.59	31.53	26.59
8	7.05	4.16	3.82	2.47	12.32	10.48	28.80	28.78	39.99	38.87	27.50	21.36
9	4.69	2.86	3.13	1.88	11.26	10.08	28.82	28.80	40.27	39.12	21.97	19.96
10	5.11	2.56	2.98	1.92	11.05	9.92	29.33	28.82	40.29	39.21	20.78	19.28
11	6.53	3.07	3.30	2.00	11.00	9.85	30.35	28.84	40.13	38.98	19.98	18.74
12	7.23	4.18	2.95	1.89	10.81	9.67	31.74	28.85	38.98	37.54	23.86	18.71
13	4.96	3.33	2.94	2.00	13.69	9.73	30.11	28.87	39.48	37.48	25.89	23.80
14	4.04	2.77	3.21	2.10	17.47	13.69	29.63	28.89	40.06	38.85	23.89	20.32
15	3.59	2.63	3.50	2.35	17.57	13.32	31.49	28.91	40.14	38.74	28.42	20.34
16	3.53	2.61	9.80	2.78	19.06	16.32	32.88	29.11	40.50	39.45	28.66	21.24
17	3.66	2.60	11.73	9.42	17.79	13.63	33.68	28.95	40.65	39.58	21.24	18.10
18	3.83	2.89	10.71	6.37	13.73	12.59	34.88	33.00	40.26	37.69	21.53	17.56
19	3.67	2.92	8.76	5.75	17.12	12.32	35.71	34.02	39.52	35.36	21.65	17.17
20	3.99	2.55	7.60	4.89	19.46	13.42	35.77	35.04	38.26	34.21	22.17	18.20
21	3.75	2.99	9.90	4.51	20.77	18.17	36.13	35.06	39.36	37.21	19.31	17.21
22	3.59	2.60	15.99	5.88	20.59	16.24	36.38	36.08	39.89	38.72	17.58	16.05
23	3.32	1.80	18.64	10.63	18.63	13.96	36.66	36.10	40.03	37.38	16.58	15.51
24	3.14	1.71	20.87	18.64	14.80	13.13	37.42	36.14	39.47	37.55	16.23	15.42
25	3.38	2.20	22.13	20.68	14.13	12.78	37.84	36.84	39.88	37.02	18.87	15.51
26	5.36	2.26	21.06	13.83	18.44	12.97	38.21	37.14	37.02	33.66	21.69	17.28
27	3.94	2.51	13.83	8.92	20.78	18.44	38.52	37.52	34.28	31.53	22.82	20.11
28	5.12	2.77	9.56	7.42	20.52	17.05	38.72	37.85	32.02	30.77	22.46	19.04
29	4.12	2.87	9.22	7.42	17.11	14.82	38.30	37.68	33.41	30.68	22.07	21.09
30	3.94	2.78	17.28	8.48	16.34	14.38	38.29	36.70	31.52	30.47	---	---
31	---	---	16.83	14.33	---	---	38.21	35.85	30.66	27.76	---	---
MONTH	8.04	1.71	22.13	1.88	20.78	9.31	38.72	14.92	40.65	27.76	31.53	15.42
YEAR	40.65	.90										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

505

MARYLAND--Continued

WORCESTER COUNTY--Continued

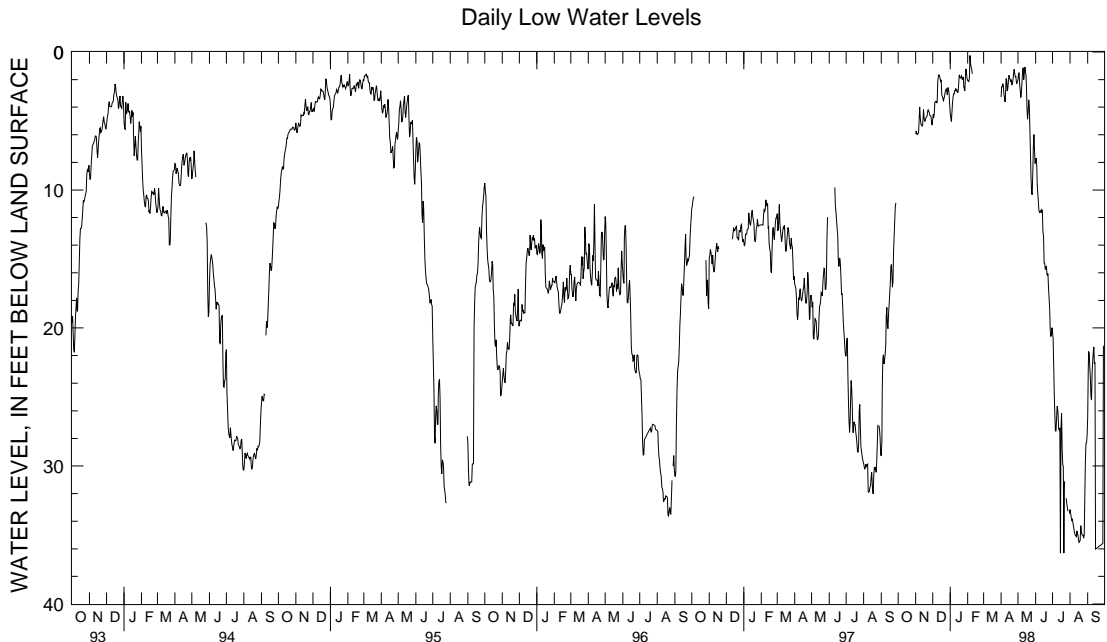
WELL NUMBER.--WO Bh 98. SITE ID.--382127075043802. PERMIT NUMBER.--WO-81-1822.
 LOCATION.--Lat 38°21'27", long 75°04'38", Hydrologic Unit 02060010, at 28th Street Park, Ocean City.
 Owner: Town of Ocean City.
 AQUIFER.--Ocean City aquifer of Upper Miocene age. Aquifer code: 1220CNC.
 WELL CHARACTERISTICS.--Drilled, 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, 36.31 ft below land surface, July 15, and 21, 1998.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "--")

	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH					
1	---	5.93	5.02	4.83	3.94	4.44	3.72	2.08	1.52	---	---
2	---	5.72	4.94	4.49	3.94	4.74	4.04	2.09	1.62	---	---
3	---	5.95	5.44	4.74	4.24	5.04	4.13	2.13	1.70	---	---
4	---	5.98	5.35	4.47	3.44	4.36	3.70	1.85	.23	---	---
5	---	5.91	5.49	3.64	3.07	3.70	3.17	.25	-.45	---	---
6	---	5.85	5.03	3.60	3.15	3.25	2.93	.83	-.13	---	---
7	---	5.03	3.92	3.57	3.51	3.04	2.75	1.10	.58	---	---
8	---	3.98	3.61	3.67	3.42	3.04	2.27	1.25	.61	---	---
9	---	4.74	3.72	3.67	1.77	2.81	2.15	1.58	.86	---	---
10	---	5.17	4.60	2.19	1.35	2.81	2.23	---	---	---	---
11	---	5.31	4.79	1.79	1.07	2.65	2.12	---	---	---	---
12	---	5.34	4.76	1.65	.98	2.81	2.22	---	---	---	---
13	---	5.36	4.45	1.70	1.08	2.77	2.16	---	---	---	---
14	---	4.72	3.60	1.92	1.27	2.93	2.46	---	---	---	---
15	---	4.18	3.64	2.12	1.43	2.92	2.12	---	---	---	---
16	---	4.82	4.05	2.02	1.52	2.35	1.48	---	---	---	---
17	---	5.01	4.63	3.10	1.05	1.66	1.39	---	---	---	---
18	---	5.01	4.55	3.21	2.70	1.81	1.42	---	---	---	---
19	---	4.76	4.32	3.37	2.96	1.88	1.58	---	---	---	---
20	---	4.72	4.33	3.57	3.20	1.81	1.64	---	---	---	---
21	---	4.68	4.26	3.31	2.97	1.72	1.71	---	---	---	---
22	---	4.35	3.99	3.25	2.91	1.97	1.66	---	---	---	---
23	---	4.20	3.60	2.97	2.59	1.97	1.59	---	---	---	---
24	---	4.28	3.56	2.80	2.48	1.81	1.33	---	---	---	---
25	---	4.41	4.10	2.68	2.11	2.55	1.56	---	---	---	---
26	---	4.59	4.17	2.82	2.38	2.67	2.21	---	---	---	---
27	---	4.60	4.32	3.12	2.36	2.83	1.81	---	---	---	---
28	---	4.67	3.99	2.57	1.98	1.88	.31	---	---	---	---
29	---	5.11	3.86	2.69	1.75	1.23	.40	---	---	---	---
30	---	5.30	4.42	2.98	1.81	1.59	.94	---	---	---	---
31	---	---	---	3.76	2.98	1.92	1.30	---	---	---	---
MONTH	---	5.98	3.56	4.83	.98	5.04	.31	2.13	-.45	---	---

GROUND-WATER LEVELS
 MARYLAND--Continued
 WORCESTER COUNTY--Continued
 WO Bh 98--Continued

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.27	2.34	2.03	1.44	7.89	6.38	20.30	19.68	33.16	32.41	26.55	22.99
2	2.52	1.87	1.53	1.28	7.70	6.24	20.78	19.79	33.42	32.84	22.99	20.76
3	2.52	1.73	1.52	1.11	8.32	7.24	22.78	20.74	33.69	33.39	21.70	16.92
4	2.29	1.57	2.40	1.10	9.51	8.32	24.78	22.78	33.94	33.65	21.84	21.09
5	2.47	1.79	2.83	1.68	10.22	9.51	26.33	24.78	33.86	33.81	22.84	21.30
6	3.11	2.40	3.30	1.89	10.83	10.16	27.46	26.33	34.11	33.62	23.59	22.84
7	3.29	2.97	2.86	1.87	11.48	10.67	27.47	26.26	34.37	33.76	24.98	23.46
8	3.62	2.54	2.12	1.18	11.62	11.14	26.51	25.27	34.61	33.97	25.23	22.93
9	2.76	1.58	1.39	.57	11.56	11.04	25.67	24.73	34.87	34.10	23.27	22.01
10	1.92	1.33	1.14	.55	11.51	11.03	25.77	24.72	35.01	34.31	22.43	21.48
11	2.03	1.54	2.01	.63	11.66	11.04	26.30	25.36	35.05	34.42	21.83	21.04
12	2.82	1.97	1.56	.70	11.42	10.93	27.32	26.24	35.12	34.48	21.37	20.96
13	2.65	1.95	1.08	.70	11.49	10.93	27.40	26.73	34.70	34.18	22.55	21.09
14	2.16	1.53	1.42	.75	13.07	11.12	27.24	26.49	34.98	34.52	22.52	21.61
15	1.68	1.41	1.71	1.03	13.30	12.88	36.31	26.47	35.01	34.54	36.02	21.04
16	1.88	1.41	2.91	1.19	15.27	13.21	27.23	25.65	35.33	34.86	35.99	20.92
17	1.98	1.39	4.14	2.76	15.29	14.69	26.17	25.20	35.53	35.04	35.96	35.93
18	2.18	1.62	4.87	3.84	15.73	14.94	28.67	26.17	35.48	34.84	35.93	35.90
19	2.00	1.62	4.32	3.46	15.73	15.04	29.88	28.67	35.38	33.73	35.90	35.87
20	2.36	1.34	3.46	2.82	15.50	14.74	30.03	29.40	34.33	33.40	35.87	35.84
21	2.32	1.75	3.87	2.44	16.12	15.34	36.31	29.99	34.70	33.90	35.84	35.80
22	2.00	1.38	5.59	3.33	16.17	15.44	31.18	30.60	34.97	34.46	35.80	35.77
23	1.59	.70	7.42	5.59	16.05	15.44	31.25	30.49	35.01	34.44	35.77	35.74
24	1.25	.57	9.15	7.42	17.08	15.99	---	---	35.01	34.44	35.74	35.71
25	1.56	1.01	10.22	9.15	17.84	16.76	32.34	31.58	35.23	34.70	35.71	35.67
26	1.79	.98	10.34	8.57	18.58	17.41	32.71	31.82	35.00	32.29	35.67	35.64
27	1.78	1.04	8.83	6.66	20.18	18.43	33.02	32.28	32.29	29.71	35.64	35.61
28	2.12	1.23	6.91	5.60	20.62	19.92	33.28	32.66	29.71	28.31	35.61	21.29
29	2.30	1.55	5.98	5.24	20.48	19.78	---	---	28.37	28.05	21.29	18.03
30	2.13	1.57	7.08	5.24	19.98	19.62	---	---	28.32	27.71	---	---
31	---	---	8.09	7.02	---	---	33.45	33.01	27.81	26.49	---	---
MONTH	3.62	.57	10.34	.55	20.62	6.24	36.31	19.68	35.53	26.49	36.02	16.92
YEAR	36.31	-.45										



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

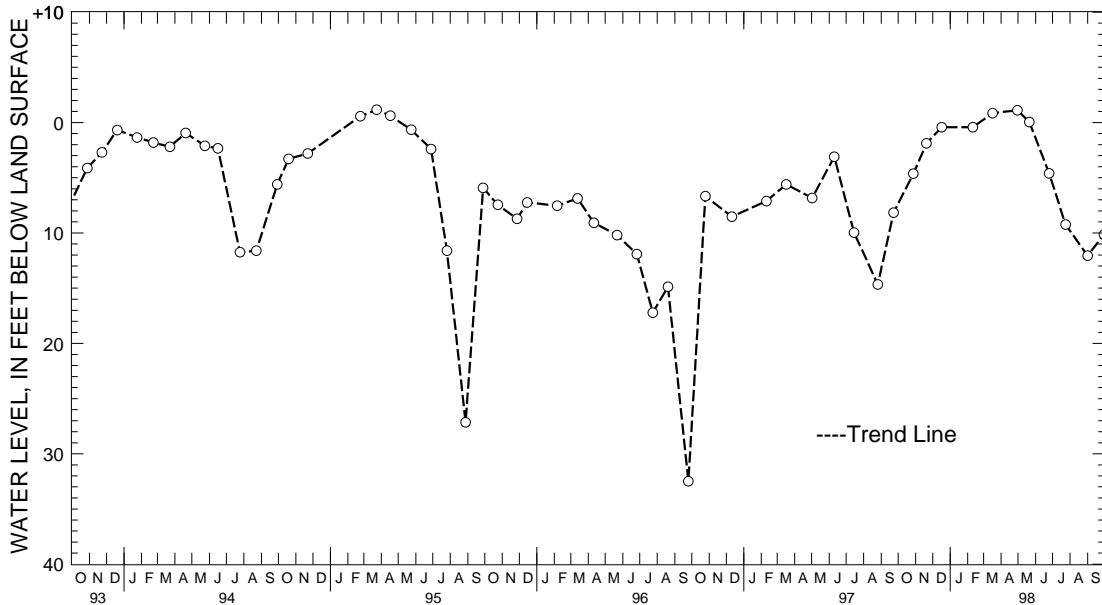
MARYLAND--Continued

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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	4.63	FEB 10, 1998	.42	MAY 21, 1998	+0.06	SEP 01, 1998	12.06
NOV 20	1.88	MAR 17	+0.86	JUN 25	4.60	30	10.14
DEC 17	.42	APR 30	+1.12	JUL 24	9.23		
WATER YEAR 1998		HIGHEST	+1.12	APR 30, 1998	LOWEST	12.06	SEP 01, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

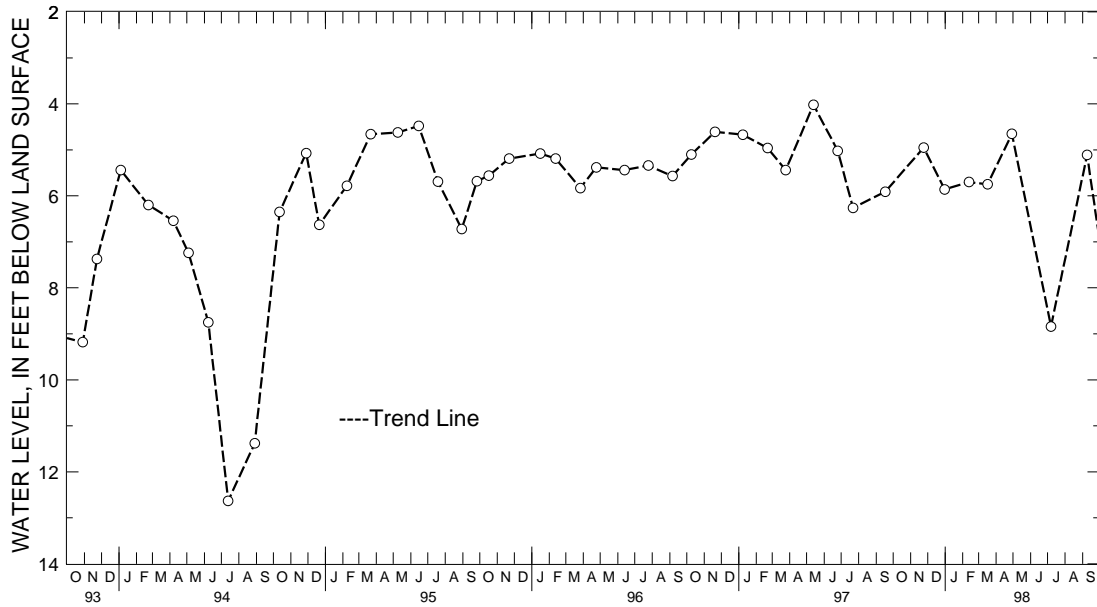
REMARKS.--Maryland Water-Level Network observation well. Water levels affected by nearby pumping.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 24, 1997	4.95	FEB 12, 1998	5.70	APR 29, 1998	4.65	SEP 09, 1998	5.11
DEC 31	5.86	MAR 17	5.75	JUL 07	8.84		
WATER YEAR 1998		HIGHEST	4.65	APR 29, 1998	LOWEST	8.84	JUL 07, 1998



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

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 electric 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.

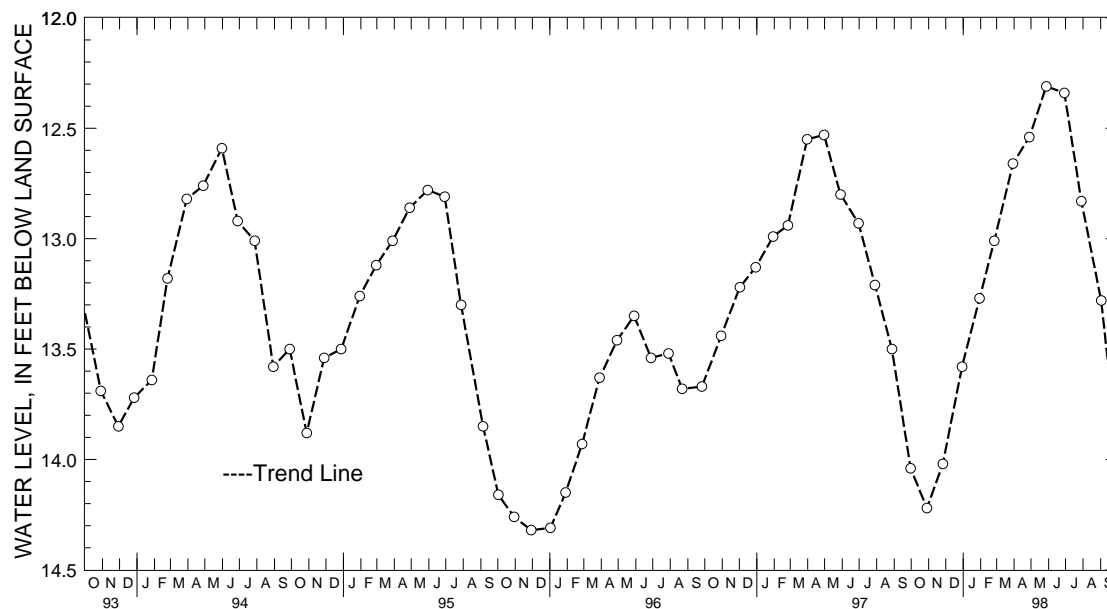
REMARKS.--Maryland Water-Level Network observation well.

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 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1997	14.22	JAN 30, 1998	13.27	APR 28, 1998	12.54	JUL 29, 1998	12.83
NOV 26	14.02	FEB 25	13.01	MAY 28	12.31	SEP 02	13.28
DEC 30	13.58	MAR 30	12.66	JUN 29	12.34	29	13.91
WATER YEAR 1998		HIGHEST	12.31	MAY 28, 1998	LOWEST	14.22	OCT 29, 1997



5 YEAR HYDROGRAPH
OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER LEVELS

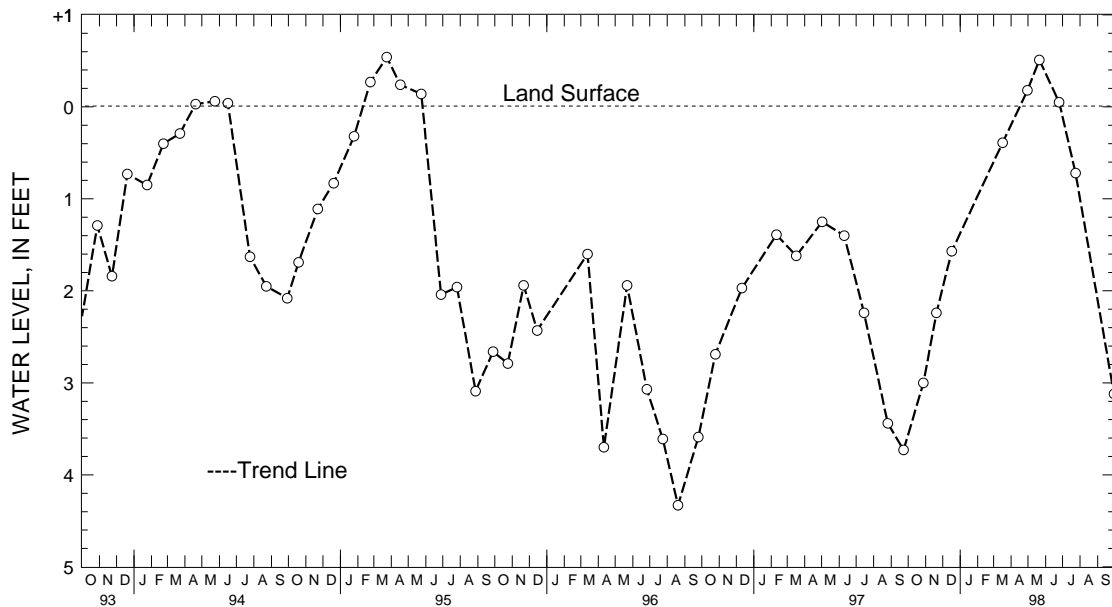
MARYLAND--Continued

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 Upper 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 1997 TO SEPTEMBER 1998
 (READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28, 1997	3.00	MAR 17, 1998	.39	JUN 25, 1998	+0.05		
NOV 20	2.24	APR 30	+1.18	JUL 24	.72		
DEC 17	1.57	MAY 21	+5.1	SEP 30	3.12		
WATER YEAR 1998		HIGHEST	+5.1	MAY 21, 1998	LOWEST	3.12	SEP 30, 1998



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

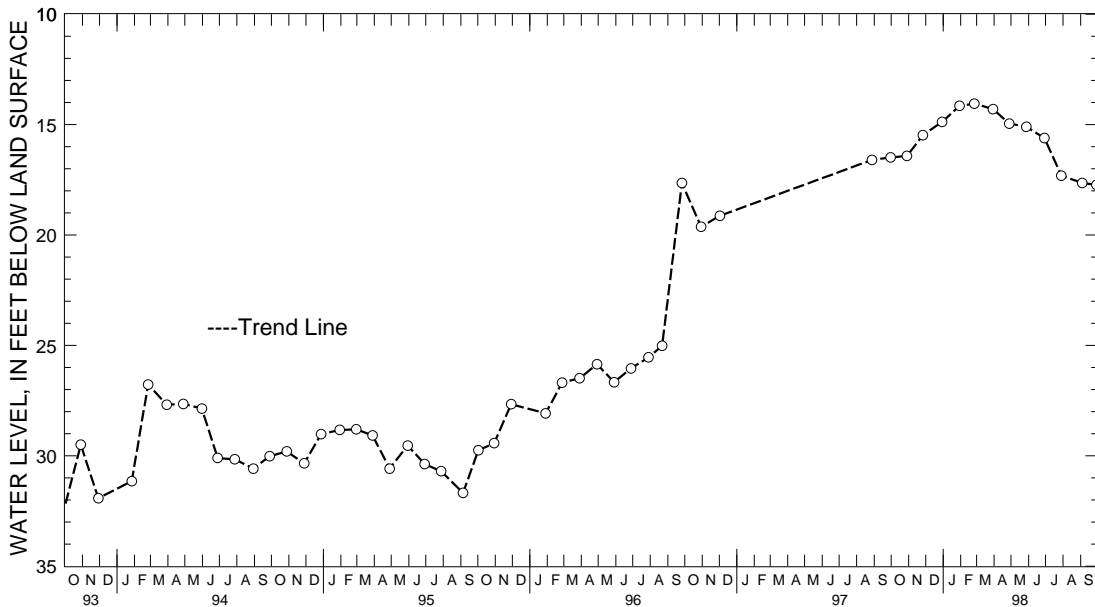
MARYLAND--Continued

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 electric 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. Well inaccessible between January 1997 and July 1997 due to construction equipment.
 PERIOD OF RECORD.--January 1953 to current year.
 EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.05 ft below land surface, Feb. 25, 1998; lowest measured, 49.70 ft below land surface, July 1, 1954.

WATER LEVEL, IN FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 29, 1997	16.42	JAN 30, 1998	14.15	APR 28, 1998	14.96	JUL 29, 1998	17.31
NOV 26	15.48	FEB 25	14.05	MAY 28	15.10	SEP 04	17.64
DEC 30	14.88	MAR 30	14.30	JUN 29	15.61	29	17.73
WATER YEAR 1998		HIGHEST	14.05 FEB 25, 1998	LOWEST	17.73 SEP 29, 1998		



5 YEAR HYDROGRAPH
 OCTOBER 1, 1993 THROUGH SEPTEMBER 30, 1998

GROUND-WATER QUALITY RECORDS

REMARK CODES

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

<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.
V	Analyte was detected in both the environmental sample and the associated blank.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

ANNE ARUNDEL 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 BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH OF SAMPLE INTER-VAL (FT) (72015)
AA Ac 75	06-09-98	1400	391302076404301	217PTXN	GW	8030	105.00	105	95
AA Ac 76	06-23-98	1430	391006076423001	217PPSCL	GW	8030	117.00	117	110
AA Ac 77	06-23-98	1600	390815076441501	217PPSCL	GW	8030	107.00	107	100
AA Bb 22	06-08-98	1200	390606076494001	217PTXN	GW	4040	60.00	61	50
AA Bb 88	06-08-98	1500	390525076462701	217PTXN	GW	4040	218.00	218	198
AA Bc 175	06-08-98	1100	390736076421401	217PPSC	GW	4040	243.00	243	223
AA Bc 243	11-12-97	1300	390718076425001	217PPSC	GW	8030	87.00	87	80
AA Bc 244	12-17-97	1300	390923076411201	217PPSC	GW	8030	57.00	57	52
AA Bc 245	06-09-98	1300	390923076411401	217PPSC	GW	8030	145.00	145	138
AA Bc 246	06-24-98	0945	390529076404401	217PPSC	GW	8030	186.00	186	181
AA Bd 107	06-15-98	1200	390801076372302	217PPSC	GW	8030	240.00	240	185
AA Bd 122	06-08-98	0900	390802076392802	217PPSC	GW	4040	349.00	349	329
AA Bd 165	10-01-97	1000	390830076394501	217PPSC	GW	8030	76.00	76	71
AA Bd 166	11-12-97	1000	390656076381301	217PPSC	GW	8030	70.00	70	63
AA Bd 167	11-20-97	1300	390654076353401	217PPSC	GW	8030	93.00	93	86
AA Bd 168	12-16-97	1300	390517076391001	217PPSC	GW	8030	125.00	125	120
AA Bd 169	06-10-98	1300	390555076360501	217PPSC	GW	8030	200.00	200	190
AA Bd 170	06-10-98	1400	390653076380801	217PPSCL	GW	8030	260.00	260	253
AA Bd 171	06-18-98	1200	390820076395701	217PPSC	GW	8030	162.00	162	155
AA Be 115	10-08-97	0900	390640076300501	211MGTY	GW	8030	81.00	81	74
AA Be 116	10-08-97	1200	390542076314001	211MGTY	GW	8030	65.00	65	60
AA Be 117	06-09-98	1030	390521076301801	211MGTY	GW	8030	87.00	87	80
AA Be 118	06-09-98	1200	390913076330701	217PPSCL	GW	8030	147.00	147	140
AA Be 119	06-24-98	1500	390514076340701	217PPSC	GW	8030	68.00	68	61
AA Be 120	06-18-98	1545	390634076302901	217PPSC	GW	8030	170.00	170	163
AA Be 121	06-30-98	1500	390543076312201	217PPSC	GW	8030	210.00	210	203
AA Be 122	07-22-98	1100	390630076312301	217PPSCU	GW	8030	120.00	120	115
AA Be 124	06-24-98	1300	390740076342301	217PPSC	GW	8030	103.00	103	98
AA Bf 66	10-08-97	1500	390813076262901	217PPSC	GW	8030	66.00	66	59
	03-25-98	1330		217PPSC	GW	8030	66.00	66	59
AA Bf 67	11-19-97	1000	390921076283301	217PPSC	GW	8030	92.00	92	85
AA Bf 68	12-17-97	1000	390605076284001	217PPSC	GW	8030	60.00	60	52
	03-09-98	1230		217PPSC	GW	8030	60.00	60	52
AA Bf 70	06-25-98	1000	390601076274301	217PPSC	GW	8030	187.00	187	180
AA Bf 71	06-18-98	1340	390758076273701	217PPSC	GW	8030	170.00	170	163
AA Bf 72	06-23-98	0900	390839076293401	217PPSCU	GW	8030	95.00	95	88
AA Bf 73	06-30-98	1600	390842076283201	217PPSCL	GW	8030	221.00	221	214
AA Bf 74	06-25-98	1145	390530076253401	211MGTY	GW	8030	100.00	100	93
AA Bf 75	07-06-98	1115	390643076275801	217PPSCU	GW	8030	215.00	215	208
AA Cc 134	10-23-97	1300	390128076412401	211MGTY	GW	8030	104.00	104	99
AA Cc 141	06-16-98	1615	390136076424501	217PPSCU	GW	8030	187.00	187	180
AA Cc 142	07-06-98	1400	390118076415001	217PPSCL	GW	8030	231.00	231	224
AA Cd 101	12-02-97	1000	390214076361201	125AQUI	GW	8030	30.00	30	0
AA Cd 104	12-03-97	1000	390416076353301	217PPSC	GW	8030	90.00	90	70
AA Cd 105	12-15-97	1300	390033076361601	125AQUI	GW	8030	30.00	30	0
AA Cd 109	06-10-98	1200	390113076355601	211MGTY	GW	8030	215.00	215	208
AA Cd 110	06-09-98	0900	390205076361001	211MGTY	GW	8030	218.00	218	213
AA Cd 111	06-16-98	1450	390448076393701	217PPSCL	GW	8030	360.00	360	345
AA Cd 112	09-21-98	1645	390343076390801	217PPSC	GW	8030	99.00	99	92
AA Cd 113	06-23-98	1100	390335076385301	217PPSC	GW	8030	260.00	260	240
AA Cd 115	07-08-98	1300	390400076350501	217PPSC	GW	8030	280.00	273	273
AA Cd 116	06-08-98	1400	390336076374001	217PPSC	GW	8030	94.00	94	89
AA Ce 96	06-15-98	1500	390450076343505	217PPSC	GW	8030	198.00	198	183
AA Ce 122	06-15-98	1630	390454076344501	217PPSC	GW	8030	530.00	530	390
AA Ce 141	11-04-97	1500	390105076333101	211MGTY	GW	8030	205.00	205	198
AA Ce 142	12-16-97	1000	390006076314801	125AQUI	GW	8030	105.00	105	95
AA Ce 143	06-18-98	1000	390308076343301	211MGTY	GW	8030	110.00	110	103
AA Cf 22	06-15-98	1030	390454076254403	217PPSC	GW	8030	319.00	--	304
AA Cf 119	06-16-98	1130	390203076292801	217PPSCU	GW	8030	554.00	554	429
AA Cf 142	06-16-98	0940	390205076292703	217PPSCL	GW	8030	976.00	965	786
AA Cf 146	10-01-97	1300	390012076263401	125AQUI	GW	8030	87.00	45	35
AA Cf 147	10-21-97	1000	390056076255401	125AQUI	GW	8030	67.00	67	60
AA Cf 148	11-19-97	1300	390202076253401	217PPSC	GW	8030	30.00	30	0
AA Cf 149	12-03-97	1300	390043076295801	125AQUI	GW	8030	105.00	105	98
AA Cf 151	06-30-98	1330	390220076274301	211MGTY	GW	8030	268.00	268	261

Geologic Unit (aquifer): 125AQUI - Aquia Formation Site Type: GW - Ground Water
 211MGTY - Magothy Formation
 217PPSCL - Patapsco Formation Sampling Method: 4040 - Submersible Pump
 217PPSCL - Lower Patapsco Formation 8030 - Grab sample at water-supply tap
 217PPSCU - Upper Patapsco Formation
 217PTXN - Patuxent Formation

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

ANNE ARUNDEL COUNTY, MARYLAND -- Continued

WELL NUMBER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
AA Ac 75	100	23	--	177	4.5	--	14.7	6.8	--	--
AA Ac 76	160	26	1.0	61	4.9	--	14.9	8.1	--	--
AA Ac 77	240	65	1.0	137	4.8	--	14.0	6.0	--	--
AA Bb 22	150	35	--	1130	5.3	--	14.3	1.5	--	--
AA Bb 88	110	48	--	34	4.3	--	14.9	6.5	--	--
AA Bc 175	196	--	--	87	4.5	--	13.5	8.5	--	--
AA Bc 243	160	17	3.1	97	4.9	8.5	13.1	8.1	3.0	2.8
AA Bc 244	160	26	2.7	393	5.4	13.5	14.7	8.0	19	2.9
AA Bc 245	160	22	--	178	4.2	--	15.2	7.4	--	--
AA Bc 246	225	60	2.0	41	--	--	14.1	8.4	.44	.22
AA Bd 107	20.0	--	455	76	4.2	--	14.3	7.2	1.9	.77
AA Bd 122	110	23	--	44	4.0	--	14.0	4.5	--	--
AA Bd 165	120	22	4.0	222	4.6	17.0	14.2	7.9	11	2.9
AA Bd 166	90.0	17	4.0	352	4.1	9.5	14.5	9.3	22	6.7
AA Bd 167	120	27	5.2	130	4.5	12.0	13.7	8.3	5.5	3.0
AA Bd 168	120	22	4.4	26	4.8	15.5	13.1	8.1	.96	.39
AA Bd 169	140	18	--	86	3.6	--	14.4	1.0	--	--
AA Bd 170	85.0	13	--	35	4.1	--	13.9	8.3	.62	.24
AA Bd 171	120	25	--	133	4.1	--	14.6	4.1	--	--
AA Be 115	60.0	105	2.0	139	4.2	23.0	14.2	5.6	3.0	4.0
AA Be 116	20.0	17	4.8	209	4.0	27.0	15.3	4.3	6.5	3.4
AA Be 117	40.0	18	--	155	3.4	--	14.0	1.1	--	--
AA Be 118	35.0	18	--	71	3.7	--	16.2	1.1	--	--
AA Be 119	70.0	33	2.0	100	3.4	--	14.4	8.7	1.2	1.8
AA Be 120	35.0	45	--	36	4.9	--	14.0	5.6	.49	.23
AA Be 121	20.0	35	--	50	4.1	--	15.0	1.1	--	--
AA Be 122	75.0	25	1.5	40	4.3	--	14.8	8.3	--	--
AA Be 124	152	40	1.0	268	4.2	--	14.5	9.6	8.7	4.9
AA Bf 66	10.0	18	3.2	162	4.3	26.0	15.4	2.8	2.9	3.4
	10.0	17	4.0	171	--	--	14.5	--	--	--
AA Bf 67	5.0	26	2.3	150	4.7	4.5	14.2	7.5	6.5	3.5
AA Bf 68	40.0	20	2.1	1290	3.8	10.5	13.8	1.4	9.4	6.9
	40.0	20	3.0	1300	--	--	14.1	--	--	--
AA Bf 70	30.0	45	1.0	143	3.8	--	14.3	1.0	.45	.69
AA Bf 71	10.0	35	--	64	4.4	--	14.6	4.5	--	--
AA Bf 72	70.0	16	--	88	5.0	--	14.6	6.9	--	--
AA Bf 73	80.0	20	2.0	18	4.5	--	15.0	8.4	--	--
AA Bf 74	20.0	40	2.0	83	5.6	95.0	16.5	1.0	2.1	1.1
AA Bf 75	50.0	20	1.5	154	6.1	--	14.5	.7	--	--
AA Cc 134	110	18	4.0	686	3.7	10.5	13.6	.4	3.5	3.4
AA Cc 141	70.0	35	--	65	4.5	--	14.3	1.2	--	--
AA Cc 142	80.0	40	2.0	34	4.5	--	14.7	.5	--	--
AA Cd 101	160	36	3.2	180	4.9	8.5	13.2	5.3	8.6	3.5
AA Cd 104	70.0	25	3.6	362	4.1	7.5	13.8	8.1	5.8	4.5
AA Cd 105	130	17	2.8	349	5.0	8.0	13.6	8.6	24	9.6
AA Cd 109	140	15	--	73	3.9	--	14.7	.9	--	--
AA Cd 110	150	20	--	211	3.2	--	13.6	1.1	--	--
AA Cd 111	200	28	--	45	5.4	--	15.0	9.0	--	--
AA Cd 112	100	20	3.0	207	3.8	--	14.0	7.0	--	--
AA Cd 113	160	30	--	33	5.3	--	14.1	--	.76	.26
AA Cd 115	62.0	30	1.0	95	3.8	--	14.7	.3	--	--
AA Cd 116	100	25	--	191	4.3	--	15.2	9.1	--	--
AA Ce 96	89.0	1080	309	74	3.0	--	13.8	7.5	1.3	.88
AA Ce 122	62.0	1200	1640	53	--	--	14.9	1.3	.44	.24
AA Ce 141	120	24	3.6	100	5.9	10.0	13.9	.3	5.9	2.1
AA Ce 142	100	26	2.9	65	4.8	9.0	13.4	3.0	2.0	1.1
AA Ce 143	60.0	25	--	227	3.7	--	13.5	2.4	--	--
AA Cf 22	25.0	25	340	77	5.2	--	15.7	1.0	1.3	.81
AA Cf 119	131	15	1000	115	4.7	--	16.4	1.2	2.2	1.2
AA Cf 142	120	--	--	79	5.4	--	19.3	1.7	3.8	2.1
AA Cf 146	20.0	15	4.0	263	5.9	17.0	15.0	.5	12	4.5
AA Cf 147	10.0	39	1.9	145	5.7	11.0	14.9	.6	4.2	2.2
AA Cf 148	25.0	21	3.9	138	5.6	9.5	15.3	5.4	12	2.8
AA Cf 149	50.0	25	4.6	63	4.7	8.0	14.7	6.6	1.7	1.5
AA Cf 151	110	20	4.0	133	5.4	--	15.2	1.2	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

ANNE ARUNDEL COUNTY, MARYLAND -- Continued

WELL NUMBER	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED AS (PCI/L) CS-137) (03515)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	RA-228 2 SIGMA WATER, DISS, (PCI/L) (76000)	RADIUM 228 DIS- SOLVED (PCI/L) AS RA-228) (81366)
AA Ac 75	--	3.7	15	4.2	13	1.8	.470	.7	2.3
AA Ac 76	--	2.2	4.2	3.8	6.0	.3	.120	.5	<1.0
AA Ac 77	--	3.5	13	4.0	11	1.7	.400	.8	2.6
AA Bb 22	--	11	70	5.6	39	11	2.24	2.9	12
AA Bb 88	--	2.5	6.3	3.9	7.8	.6	.240	.6	1.8
AA Bc 175	--	3.3	12	4.0	10	1.8	.493	.8	2.8
AA Bc 243	17	2.0	3.8	3.8	4.8	1.6	.460	.7	2.4
AA Bc 244	25	2.9	7.3	4.6	22	2.3	.654	1.6	6.6
AA Bc 245	--	4.4	22	4.3	16	2.3	.579	1.3	5.1
AA Bc 246	<4.0	3.2	11	4.0	11	.6	.179	.9	3.1
AA Bd 107	24	3.4	14	4.1	12	1.6	.435	.8	2.7
AA Bd 122	--	2.0	3.5	3.7	5.1	.9	.304	.5	1.1
AA Bd 165	64	3.4	12	4.6	24	4.9	1.08	2.3	9.9
AA Bd 166	263	4.4	20	5.2	39	6.7	1.50	3.9	17
AA Bd 167	19	2.7	7.6	4.2	15	3.2	.848	1.2	4.7
AA Bd 168	4.2	1.4	<3.0	3.5	<4.0	<.1	.031	.4	<1.0
AA Bd 169	--	4.5	25	4.3	17	2.9	.691	1.1	4.1
AA Bd 170	9.5	2.0	3.5	3.8	5.4	.7	.237	.6	1.8
AA Bd 171	--	3.7	15	4.1	13	3.8	.885	.9	3.3
AA Be 115	36	3.5	12	4.4	18	4.8	1.09	1.8	7.5
AA Be 116	15	5.2	29	5.1	36	14	2.84	4.3	20
AA Be 117	--	6.0	44	4.7	28	3.5	.802	2.0	8.2
AA Be 118	--	2.7	7.7	3.8	7.2	.7	.229	.6	1.8
AA Be 119	17	5.6	39	4.7	29	1.3	.314	1.9	8.0
AA Be 120	<4.0	2.0	<3.0	3.7	4.5	.4	.195	.4	<1.0
AA Be 121	--	2.4	5.8	3.8	7.3	.8	.224	.7	2.2
AA Be 122	--	2.9	8.5	3.9	9.8	1.4	.370	.7	2.5
AA Be 124	90	6.4	45	5.0	34	3.8	.795	2.2	9.2
AA Bf 66	80	2.9	7.4	4.0	9.0	3.1	.756	1.3	5.0
	--	4.8	27	4.4	19	--	--	--	--
AA Bf 67	73	2.9	9.0	4.2	13	4.8	1.14	1.6	6.3
AA Bf 68	105	14	110	7.1	88	33	6.33	7.2	33
	--	20	270	8.6	150	--	--	--	--
AA Bf 70	28	4.3	21	4.1	12	2.5	.555	.8	3.0
AA Bf 71	--	3.7	16	4.3	17	1.6	.437	1.3	5.1
AA Bf 72	--	3.6	14	4.1	14	1.3	.327	1.0	3.8
AA Bf 73	--	1.7	<3.0	3.5	<4.0	.2	.092	.5	<1.0
AA Bf 74	152	1.8	<3.0	3.6	<4.0	.2	.078	.3	<1.0
AA Bf 75	--	6.1	42	4.7	26	2.0	.488	1.7	7.0
AA Cc 134	25	5.6	42	3.3	36	9.7	2.11	2.6	11
AA Cc 141	--	2.3	5.5	3.7	4.3	.5	.214	.6	1.5
AA Cc 142	--	2.2	4.1	3.6	<4.0	.2	.102	.4	1.0
AA Cd 101	28	1.6	<3.0	3.7	<4.0	.2	.156	.5	1.1
AA Cd 104	26	3.2	9.1	4.6	22	4.7	1.14	3.0	13
AA Cd 105	75	1.9	<3.0	3.8	<4.0	.6	.261	.3	<1.0
AA Cd 109	--	1.4	<3.0	3.8	5.2	.3	.145	.4	<1.0
AA Cd 110	--	4.8	27	4.4	19	2.3	.569	1.2	4.6
AA Cd 111	--	1.8	<3.0	3.5	<4.0	.2	.133	.4	<1.0
AA Cd 112	--	4.7	23	4.6	23	3.7	.850	1.9	7.7
AA Cd 113	<4.0	1.9	<3.0	3.7	5.4	.1	.075	.5	1.1
AA Cd 115	--	4.3	22	4.0	10	1.9	.440	1.0	3.9
AA Cd 116	--	5.5	35	4.7	27	5.1	1.15	2.0	8.6
AA Ce 96	9.5	4.4	23	4.3	19	1.8	.471	1.3	5.3
AA Ce 122	22	3.2	12	3.8	5.7	.7	.234	.5	1.4
AA Ce 141	161	1.5	<3.0	3.8	4.3	.3	.190	.3	<1.0
AA Ce 142	73	1.2	<3.0	3.8	5.0	<.1	.091	.3	<1.0
AA Ce 143	--	6.5	51	4.8	29	2.3	.589	1.1	4.4
AA Cf 22	79	2.4	5.4	3.9	8.3	.5	.205	.4	1.1
AA Cf 119	226	3.1	11	3.9	7.6	1.2	.366	.5	1.3
AA Cf 142	224	2.2	4.2	3.7	4.2	.5	.221	.4	<1.0
AA Cf 146	488	1.4	<3.0	3.7	<4.0	<.1	.086	.3	<1.0
AA Cf 147	173	1.5	<3.0	4.0	5.9	<.1	.108	.3	<1.0
AA Cf 148	34	1.2	<3.0	3.8	4.0	<.1	.119	.2	<1.0
AA Cf 149	36	1.3	<3.0	3.7	<4.0	.1	.116	.3	<1.0
AA Cf 151	--	2.4	4.4	3.8	6.9	.4	.146	.5	1.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

ANNE ARUNDEL COUNTY, MARYLAND -- Continued

WELL NUMBER	CARBOX- IN WATER WHOLE RECOV- ERABLE (UG/L) (30245)	CYAN- AZINE TOTAL (UG/L) (81757)	CYCLO- ATE WATER WHOLE RECOV- ERABLE (UG/L) (30254)	DEETHYL ATE WATER, WHOLE, TOTAL (UG/L) (75981)	DE-ISO PROPYL WATER, WHOLE, TOTAL (UG/L) (75980)	DIPHEN- AMID WATER WHOLE RECOV- ERABLE (UG/L) (30255)	HEXAZI- NONE WATER WHOLE RECOV- ERABLE (UG/L) (30264)	METOLA- CHLOR WATER WHOLE TOT.REC (UG/L) (82612)	METRI- BUZIN WATER WHOLE TOT.REC (UG/L) (82611)
	AA Bd 166	<.200	<.200	<.100	<.200	<.200	<.100	<.200	<.200
AA Cd 105	<.200	<.200	<.100	<.200	<.200	<.100	<.200	<.200	<.100
AA Cf 148	<.200	<.200	<.100	<.200	<.200	<.100	<.200	<.200	<.100

WELL NUMBER	PROME- TONE TOTAL (UG/L) (39056)	PROME- TRYNE TOTAL (UG/L) (39057)	PROPA- CHLOR WATER WHOLE RECOV. (UG/L) (30295)	PRO- PAZINE TOTAL (UG/L) (39024)	SIMA- ZINE TOTAL (UG/L) (39055)	SIME- TRYNE TOTAL (UG/L) (39054)	TER- BACIL WATER WHOLE RECOV. (UG/L) (30311)	TRI- FLURA- LIN TOTAL (UG/L) (39030)	VER- NOLATE WATER WHOLE RECOV. (UG/L) (30324)
	AA Bd 166	<.200	<.100	<.100	<.100	<.100	<.100	<.200	<.100
AA Cd 105	<.200	<.100	<.100	<.100	<.100	<.100	<.200	<.100	<.100
AA Cf 148	<.200	<.100	<.100	<.100	<.100	<.100	<.200	<.100	<.100

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

ANNE ARUNDEL COUNTY, MARYLAND -- Continued

WELL NUMBER	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED AS CS-137 (PCI/L) (03515)
	AA Cg 19	30000	26400	--	330	362	3.1	8.8	3.8
AA Cg 26	17000	15700	<1	350	378	1.5	<3.0	3.7	<4.0
AA Cg 27	43000	28400	--	260	292	2.6	5.3	3.9	6.9
AA Dc 18	60	12	12	96	95	2.5	3.8	4.1	8.7
AA Dd 58	--	--	--	--	--	1.5	<3.0	3.8	5.0
AA Dd 59	--	--	--	--	--	1.7	<3.0	3.7	<4.0
AA De 2	17000	6700	--	92	100	2.1	3.2	3.7	4.0
AA De 139	13000	12700	--	460	514	2.3	4.7	3.8	5.7
AA De 210	1200	1100	2	93	152	1.4	<3.0	3.9	7.4
AA De 211	60	55	4	53	53	1.9	<3.0	3.9	5.3
AA De 212	3600	3200	<1	34	30	1.4	<3.0	3.7	<4.0
AA De 213	14000	14200	--	240	257	1.8	<3.0	3.8	5.8
AA De 214	--	--	--	--	--	1.8	<3.0	3.7	<4.0
AA Df 103	1100	35	--	12	8.9	--	--	--	--
AA Df 158	29000	25200	--	310	332	2.6	4.9	4.0	8.5
AA Ec 11	80	74	<1	<10	2.3	1.9	<3.0	3.9	<4.0
AA Ed 54	550	380	<1	34	37	2.6	4.9	4.1	9.5
AA Ed 56	10	8.3	<1	<10	<1.0	1.5	<3.0	3.8	<4.0
AA Ed 57	4400	4500	<1	39	38	1.6	<3.0	4.0	6.9
AA Ee 85	20	8.3	<1	<10	<1.0	1.5	<3.0	3.6	<4.0
AA Ee 86	60	56	<1	10	8.9	1.9	<3.0	4.0	6.2
AA Ef 39	<10	<3.0	<1	<10	<1.0	1.8	<3.0	3.8	<4.0
AA Fd 54	130	120	<1	14	15	3.3	5.4	4.1	4.2
AA Fd 55	220	210	<1	<10	8.0	1.2	<3.0	3.8	<4.0
AA Ge 14	300	270	<1	28	30	1.4	<3.0	3.9	5.7
AA Ge 14	280	260	<1	<10	5.8	1.5	<3.0	4.1	10

WELL NUMBER	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	RA-228 2 SIGMA WATER, DISS, (PCI/L) (76000)	RADIUM 228 DIS- SOLVED AS RA-228 (PCI/L) (81366)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS- SOLVED AS U (UG/L) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS, (UG/L) (75990)
	AA Cg 19	.7	.216	.6	1.9	--	--	--
AA Cg 26	<.1	.100	.3	<1.0	292	21	<1.0	.1
AA Cg 27	.4	.129	.5	1.1	--	--	--	--
AA Dc 18	1.1	.351	.4	<1.0	989	31	<1.0	.2
AA Dd 58	.3	.150	.3	<1.0	--	--	--	--
AA Dd 59	<.1	.069	.3	<1.0	--	--	--	--
AA De 2	.2	.117	.4	<1.0	--	--	--	--
AA De 139	.4	.173	.3	<1.0	--	--	--	--
AA De 210	1.0	.314	.3	<1.0	--	--	--	--
AA De 211	.1	.128	.3	<1.0	463	24	<1.0	.1
AA De 212	.3	.167	.3	<1.0	651	26	<1.0	.1
AA De 213	<.1	.085	.4	<1.0	281	20	<1.0	.1
AA De 214	.3	.162	.3	<1.0	--	--	--	--
AA Df 103	.4	.141	.4	<1.0	--	--	--	--
AA Df 158	--	--	--	--	--	--	--	--
AA Ec 11	.4	.150	.5	1.5	--	--	--	--
AA Ed 54	<.1	.060	.2	<1.0	194	20	<1.0	.1
AA Ed 56	.3	.139	.4	<1.0	--	--	--	--
AA Ed 57	<.1	.094	.3	<1.0	486	38	<1.0	.1
AA Ee 85	<.1	.046	.2	<1.0	277	20	<1.0	.1
AA Ee 86	<.1	.092	.2	<1.0	228	20	<1.0	.1
AA Ef 39	<.1	.083	.3	<1.0	333	21	<1.0	.1
AA Fd 54	<.1	.069	.3	<1.0	308	21	<1.0	.4
AA Fd 55	<.1	.057	.2	<1.0	303	21	<1.0	.2
AA Ge 14	<.1	.110	.2	<1.0	312	21	<1.0	.2
AA Ge 14	<.1	.076	.3	<1.0	293	21	<1.0	.1
AA Ge 14	<.1	.043	.3	<1.0	299	21	<1.0	.1
AA Ge 14	<.1	.082	.2	<1.0	246	20	<1.0	.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

BALTIMORE 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 BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH OF SAMPLE INTER- VAL (FT) (72015)
BA Cd 232	12-09-97	1000	393442076375301	400BLMR	GW	8030	400.00	400	28
BA Ef 59	07-07-98	1240	392023076260801	217PPSC	GW	8030	92.00	92	85
BA Eg 246	07-07-98	1445	392019076235901	217PPSC	GW	8030	116.00	116	109
BA Eg 247	07-07-98	1600	392223076222601	217PPSC	GW	8030	88.00	88	81
BA Eg 248	09-28-98	1415	392232076232701	217PPSC	GW	8030	57.00	57	50
BA Ff 86	07-07-98	0955	391953076282001	217PPSC	GW	8030	70.00	70	63
BA Ff 87	09-30-98	1005	391754076250801	217PPSC	GW	8030	60.00	60	53
BA Ff 88	07-08-98	1830	391741076260401	217PPSC	GW	8030	110.00	110	103
BA Ff 89	07-14-98	1345	391520076255901	217PPSC	GW	8030	180.00	180	175
BA Fg 173	07-07-98	1100	391603076234501	217PPSC	GW	8030	105.00	105	98
BA Fg 174	07-08-98	1710	391953076220001	217PPSC	GW	8030	40.00	40	33
BA Fg 175	07-14-98	1110	391848076230401	217PPSC	GW	8030	250.00	250	237

	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALPHA COUNT, WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. DISS AS TH-230 (PCI/L) (04126)
BA Cd 232	470	32	3.4	193	6.3	4.0	12.5	1.2	2.6	6.1
BA Ef 59	45.0	30	2.0	34	4.6	--	14.3	4.5	1.9	<3.0
BA Eg 246	30.0	30	2.0	17	4.7	--	14.4	4.7	1.9	<3.0
BA Eg 247	5.0	30	2.0	18	4.4	--	14.2	4.7	1.8	<3.0
BA Eg 248	5.0	25	3.0	57	--	--	15.1	--	2.0	<3.0
BA Ff 86	20.0	25	2.0	123	4.4	--	15.4	9.5	3.4	12
BA Ff 87	10.0	25	4.0	132	5.8	--	14.6	.2	2.6	5.0
BA Ff 88	25.0	20	2.0	318	4.9	--	15.6	1.0	4.0	15
BA Ff 89	15.0	35	1.5	89	4.6	--	16.1	.9	3.9	17
BA Fg 173	20.0	45	2.0	359	6.5	--	15.5	.5	3.3	7.4
BA Fg 174	5.0	20	2.0	54	4.8	--	15.3	5.8	2.5	5.5
BA Fg 175	10.0	60	1.5	18	4.7	--	15.4	5.9	2.1	3.4

	BETA, 2 SIGMA DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED PLAN- CHET AS CS-137 (03515)	RA-226, DIS- SOLVED, RA-226 COUNT (PCI/L) (09510)	RA-226 2 SIGMA DISS, (PCI/L) (76001)	RA-228 2 SIGMA DISS, (PCI/L) (76000)	RADIUM 228 DIS- SOLVED AS RA-228 (81366)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS- SOLVED AS U) (22703)	URANIUM NATURAL 2 SIGMA DISS, (UG/L) (75990)
BA Cd 232	4.2	13	1.3	.418	.9	3.1	7284	75	<1.0	.1
BA Ef 59	3.5	<4.0	--	--	--	--	--	--	--	--
BA Eg 246	3.6	<4.0	--	--	--	--	--	--	--	--
BA Eg 247	3.6	<4.0	--	--	--	--	--	--	--	--
BA Eg 248	3.8	6.0	--	--	--	--	--	--	--	--
BA Ff 86	3.7	4.4	--	--	--	--	--	--	--	--
BA Ff 87	3.8	5.5	--	--	--	--	--	--	--	--
BA Ff 88	4.2	13	--	--	--	--	--	--	--	--
BA Ff 89	4.1	13	--	--	--	--	--	--	--	--
BA Fg 173	4.0	7.5	--	--	--	--	--	--	--	--
BA Fg 174	3.8	7.1	--	--	--	--	--	--	--	--
BA Fg 175	3.6	<4.0	--	--	--	--	--	--	--	--

Geologic Unit (aquifer): 217PPSC - Patapsco Formation
400BLMR - Baltimore Gneiss

Site Type: GW - Ground Water

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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 BELOW SURFACE (FEET) (72019)	DEPTH TO BOT-TOM OF SAMPLE VAL (FT) (72016)
CO Dc 146	09-16-98	1030	385302075540101	112PCPC	GW	4040	20.00	10.18	20
CO Dc 149	09-16-98	1200	385231075535201	112CLMB	GW	8030	45.00	--	45
CO Dd 75	09-16-98	1400	385022075450201	112CLMB	GW	8030	40.00	--	40

	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
CO Dc 146	17	45.0	26	.9	192	4.8	--	17.4	10.2
CO Dc 149	40	45.0	23	3.0	180	4.6	--	14.5	9.1
CO Dd 75	35	55.0	14	2.0	121	5.0	35.0	15.6	2.6

	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
CO Dc 146	8.0	12	2.1	3.1	17	16	<.10	13	105
CO Dc 149	6.2	10	3.0	3.8	<.10	18	<.10	12	130
CO Dd 75	5.6	2.7	9.1	3.3	.90	12	<.10	17	94

	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
CO Dc 146	.011	10.6	.036	<.010	<.010	30	<10	16	15
CO Dc 149	.011	13.1	.035	<.010	<.010	20	<10	110	125
CO Dd 75	.011	7.35	.038	<.010	<.010	<10	<10	13	14

Geologic Unit (aquifer): 112CLMB - Columbia Group
 112PCPC - Pleistocene-Pliocene Series

Site Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump
 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

CECIL COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES (82398)
CE Be 122	08-25-98	1030	393654075545801	217PTMC	GW	8030
CE Bf 87	08-20-98	1125	393910075475501	217PTMC	GW	8030
CE Cc 69	08-31-98	1115	393332076001201	217PTMC	GW	8030
CE Cc 70	08-31-98	1025	393425076022901	217PTMC	GW	8030
CE Cd 86	08-19-98	1535	3932410755563501	217PTMC	GW	8030
CE Cd 87	08-31-98	1220	393451075590201	217PTMC	GW	8030
CE Cd 88	08-31-98	1445	393033075571201	217PTMC	GW	8030
CE Ce 57	08-18-98	1445	393330075531201	217PTMC	GW	8030
CE Ce 83	08-20-98	1320	393259075531802	217PTMC	GW	8030
CE Ce 84	08-20-98	1505	393251075530601	217PTMC	GW	8030
CE Ce 85	09-28-98	1130	393006075543501	211MGTY	GW	8030
CE Cf 89	08-18-98	1215	393141075490201	217PTMC	GW	8030
CE Dd 85	08-25-98	1200	392723075581301	217PTMC	GW	8030
CE Dd 103	08-19-98	1115	392625075582701	217PTMC	GW	8030
CE Dd 104	08-27-98	1005	392818075585401	217PTMC	GW	8030
CE Dd 105	09-01-98	1245	392558075592301	217PTMC	GW	8030
CE Dd 106	09-01-98	1420	392541075593801	217PTMC	GW	8030
CE De 56	08-25-98	1445	392739075533501	217PTMC	GW	8030
CE Df 41	09-08-98	1015	392500075473001	217PTMC	GW	8030
CE Df 42	09-28-98	1230	392726075495001	211MGTY	GW	8030
CE Ec 23	09-03-98	1120	392342076012301	217PTMC	GW	8030
CE Ed 27	09-02-98	1445	392431075555901	217PTMC	GW	8030
CE Ee 45	08-18-98	1020	392411075520102	211MGTY	GW	8030
CE Ee 54	09-01-98	1100	392341075503701	211MGTY	GW	8030

WELL, TOTAL DEPTH (FEET) (72008)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH OF SAMPLE VAL (FT) (72015)	ELEV. OF SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	
CE Be 122	50.00	50	40	110	30	3.0	27
CE Bf 87	68.00	68	38	140	20	3.0	149
CE Cc 69	90.00	90	80	20.0	15	2.0	22
CE Cc 70	90.00	90	80	120	20	1.0	182
CE Cd 86	241.00	241	231	175	20	3.0	20
CE Cd 87	53.00	53	50	20.0	20	2.0	156
CE Cd 88	270.00	270	255	140	15	3.0	25
CE Ce 57	265.00	265	240	120	20	126	23
CE Ce 83	88.00	88	83	80.0	15	3.0	22
CE Ce 84	85.00	85	70	80.0	20	1.0	46
CE Ce 85	80.00	80	75	10.0	20	2.0	85
CE Cf 89	250.00	--	--	40.0	30	--	151
CE Dd 85	120.00	120	90	10.0	15	2.0	152
CE Dd 103	215.00	215	190	70.0	25	2.0	53
CE Dd 104	323.00	320	280	60.0	20	5.0	257
CE Dd 105	110.00	110	106	5.0	20	3.0	196
CE Dd 106	87.00	87	82	30.0	25	3.0	2410
CE De 56	240.00	240	225	70.0	15	3.0	230
CE Df 41	360.00	345	325	70.0	26	4.0	219
CE Df 42	168.00	168	158	65.0	20	3.0	269
CE Ec 23	123.00	123	118	60.0	20	3.0	63
CE Ed 27	140.00	140	125	80.0	15	3.0	122
CE Ee 45	297.00	297	287	80.0	25	90.0	305
CE Ee 54	325.00	325	315	80.0	20	3.0	306

Geologic Unit (aquifer): 211MGTY - Magothy Formation
217PTMC - Potomac Group

Site Type: GW - Ground Water

Sampling Method: 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

CECIL COUNTY, MARYLAND -- Continued

WELL NUMBER	PH WATER FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED AS CS-137) (03515)
CE Be 122	4.8	11.8	9.2	1.9	<3.0	3.5	<4.0
CE Bf 87	4.8	13.8	9.3	3.3	10	4.0	11
CE Cc 69	4.6	13.8	9.0	1.7	<3.0	3.6	<4.0
CE Cc 70	4.3	18.0	8.3	2.9	7.7	3.8	6.6
CE Cd 86	4.8	14.4	8.0	2.0	<3.0	3.6	<4.0
CE Cd 87	4.3	13.6	4.3	3.0	8.3	3.7	4.9
CE Cd 88	4.4	15.4	5.9	1.9	<3.0	3.5	<4.0
CE Ce 57	4.6	14.0	4.8	2.2	3.6	3.6	<4.0
CE Ce 83	4.8	14.1	6.7	1.8	<3.0	3.6	<4.0
CE Ce 84	4.8	15.7	6.9	1.9	<3.0	3.6	<4.0
CE Ce 85	--	15.5	--	2.6	6.2	3.8	4.8
CE Cf 89	6.0	14.0	.5	2.2	<3.0	3.7	<4.0
CE Dd 85	4.6	15.0	4.1	3.3	10	3.9	8.5
CE Dd 103	5.3	14.1	5.3	2.8	7.6	3.9	8.0
CE Dd 104	6.4	18.3	.3	2.3	3.0	3.8	4.2
CE Dd 105	6.5	16.4	.2	1.8	<3.0	3.7	<4.0
CE Dd 106	4.3	14.9	2.5	26	140	16	70
CE De 56	7.1	19.4	.3	2.6	3.9	3.8	5.2
CE Df 41	7.3	15.3	.6	2.2	<3.0	3.9	7.4
CE Df 42	--	14.2	--	2.2	<3.0	3.7	<4.0
CE Ec 23	5.5	16.0	.3	1.4	<3.0	3.5	<4.0
CE Ed 27	5.9	15.6	.2	1.8	<3.0	3.5	<4.0
CE Ee 45	7.5	16.1	.1	2.2	<3.0	3.9	5.6
CE Ee 54	7.4	15.4	.3	2.8	4.7	4.0	8.6

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

CHARLES COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	
CH Cb 7	09-10-98	1330	383422077114601	217PPSC	GW	4040	167.00	74.75	
	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD TO SAM-PLING (MIN) (72004)	FLOW RATE (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)	OXYGEN, DIS-SOLVED (MG/L) (00300)
	167	154	36.0	95	6.7	321	7.7	15.5	.5
	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
	3.0	1.7	67	3.0	5.8	16	.87	35	209
	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
	<.010	<.050	.807	1.63	1.67	740	680	42	44

Geologic Unit (aquifer): 217PPSC - Patapsco Formation

Site Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DORCHESTER COUNTY, MARYLAND

Table with columns: WELL NUMBER, DATE, TIME, STATION NUMBER, GEO-LOGIC UNIT, SITE, SAM-PLING METHOD, CODES, DEPTH OF WELL, TOTAL (FEET), DEPTH BELOW SURFACE (FEET), DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)

Table with columns: DO Cg, DO Ch, DEPTH TO TOP OF SAMPLE INTER-VAL (FT), ELEV. OF SURFACE ABOVE NGVD (72000), PUMP OR FLOW PERIOD TO SAM-PLING (MIN) (72004), FLOW RATE (G/M) (00059), SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095), PH WATER FIELD (STAND-ARD UNITS) (00400), TEMPER-ATURE AIR (DEG C) (00020), TEMPER-ATURE WATER (DEG C) (00010), OXYGEN, DIS-SOLVED (MG/L) (00300)

Table with columns: DO Cg, DO Ch, CALCIUM DIS-SOLVED (MG/L) AS CA (00915), MAGNE-SIUM DIS-SOLVED (MG/L) AS MG (00925), SODIUM DIS-SOLVED (MG/L) AS NA (00930), POTAS-SIUM DIS-SOLVED (MG/L) AS K (00935), 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), SOLIDS, RESIDUE AT 180 DEGS C DIS-SOLVED (MG/L) AS (70300)

Table with columns: DO Cg, DO Ch, NITRO-GEN, NITRITE DIS-SOLVED (MG/L) AS N (00613), NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631), NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608), PHOS-PHORUS DIS-SOLVED (MG/L) AS P (00666), PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L) AS P (00671), IRON, TOTAL RECOV-ERABLE (UG/L) AS FE (01045), IRON, DIS-SOLVED (UG/L) AS FE (01046), MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) AS MN (01055), MANGA-NESE, DIS-SOLVED (UG/L) AS MN (01056)

Geologic Unit (aquifer): 112BVDM - Beaverdam Sand
112CLMB - Columbia Group

Site Type: GW - Ground Water

Sampling Method: 4070 - Air lift
8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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	DEPTH	
								TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	TO TOP OF SAMPLE INTER- VAL (FT) (72015)	
FR De 58	12-09-97	1300	392826077244801	377FDCK	GW	4040	70.00	70	41	
	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)
	310	20	2.0	408	7.1	4.5	12.2	6.2	2.0	<3.0
	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED (PCI/L) AS CS-137 (03515)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	RA-226 2 SIGMA WATER, DISS, (PCI/L) (76001)	RA-228 2 SIGMA WATER, DISS, (PCI/L) (76000)	RADIUM 228 DIS- SOLVED (PCI/L) AS RA-228 (81366)	RADON 222 AS TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	URANIUM NATURAL DIS- SOLVED (UG/L) AS U) (22703)	URANIUM NATURAL WATER, DISS, (UG/L) (75990)
	3.7	<4.0	<.1	.069	.3	<1.0	93	17	<1.0	.1

Geologic Unit (aquifer): 377FDCK - Frederick Limestone

Site Type: GW - Ground Water

Sampling Method: 4040 - Submersible Pump

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

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 BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
HA Ca 23	12-04-97	1000	393158076302601	300LCRV	GW	4040	200.00	8.52
HA Cc 144	08-18-98	1520	393058076221001	300PRDP	GW	4045	540.00	--
	08-20-98	1600		300PRDP	GW	4045	540.00	--
HA Cf 176	08-05-98	1035	393109076063801	217PTMC	GW	8030	70.00	--
HA Cf 177	08-12-98	1140	393002076073801	217PTMC	GW	8030	65.00	--
HA Dc 120	08-04-98	1740	392538076214701	217PTMC	GW	8030	107.00	--
HA Dd 73	08-04-98	1245	392527076170801	217PTMC	GW	8030	125.00	--
HA Dd 107	08-03-98	1430	392701076152901	217PTMC	GW	8030	80.00	--
HA De 75	08-12-98	1005	392814076122701	217PTMC	GW	8030	133.00	--
HA De 164	08-04-98	1530	392738076132801	217PTMC	GW	8030	120.00	--
HA De 166	08-05-98	1210	392657076135401	217PTMC	GW	8030	140.00	--
HA Ec 48	08-03-98	1220	392446076204401	217PTMC	GW	8030	110.00	--

	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)
HA Ca 23	200	24	470	110	7.5	120	5.9	8.5	12.3
HA Cc 144	540	26	195	1445	124	483	6.6	--	16.4
	540	26	195	4245	124	473	6.3	--	17.5
HA Cf 176	70	60	40.0	20	2.0	149	5.8	--	14.5
HA Cf 177	65	58	20.0	20	2.0	143	6.1	--	14.5
HA Dc 120	107	87	130	25	1.5	49	4.7	--	15.6
HA Dd 73	125	117	49.0	20	2.0	64	4.8	--	15.7
HA Dd 107	80	70	20.0	25	1.5	37	4.5	--	15.0
HA De 75	133	113	40.0	20	2.0	272	6.6	30.5	15.1
HA De 164	120	115	57.0	25	1.5	129	5.0	--	15.0
HA De 166	140	131	17.0	20	2.0	20	5.3	--	16.7
HA Ec 48	110	100	45.0	19	2.0	83	4.8	--	14.1

Geologic Unit (aquifer): 217PTMC - Patuxent Formation
300LCRV - Loch Raven Schist
300PRDP - Port Deposit Gneiss

Site Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump
4045 - Submersible multiple impeller (turbine) pump
8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

HARFORD COUNTY, MARYLAND -- Continued

WELL NUMBER	OXYGEN, DIS-SOLVED (MG/L) (00300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)
HA Ca 23	7.1	--	--	--	--	--	--	--
HA Cc 144	--	62	13	21	2.6	53	44	<.10
	4.5	55	13	23	3.3	44	54	<.10
HA Cf 176	2.4	--	--	--	--	--	--	--
HA Cf 177	1.2	--	--	--	--	--	--	--
HA Dc 120	8.6	--	--	--	--	--	--	--
HA Dd 73	.4	--	--	--	--	--	--	--
HA Dd 107	5.1	--	--	--	--	--	--	--
HA De 75	7.0	--	--	--	--	--	--	--
HA De 164	9.1	--	--	--	--	--	--	--
HA De 166	6.7	--	--	--	--	--	--	--
HA Ec 48	3.2	--	--	--	--	--	--	--
SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	
HA Ca 23	--	--	--	1.3	<3.0	3.6	<4.0	
HA Cc 144	25	308	<10	97	3.8	7.6	7.6	
	24	315	<10	65	3.8	7.5	<4.0	
HA Cf 176	--	--	--	2.3	4.0	3.8	6.4	
HA Cf 177	--	--	--	1.8	<3.0	3.6	<4.0	
HA Dc 120	--	--	--	2.4	5.5	3.6	4.1	
HA Dd 73	--	--	--	2.6	6.9	3.6	4.6	
HA Dd 107	--	--	--	2.2	4.3	3.5	<4.0	
HA De 75	--	--	--	4.1	16	4.4	19	
HA De 164	--	--	--	3.4	12	3.8	8.3	
HA De 166	--	--	--	1.5	<3.0	3.5	<4.0	
HA Ec 48	--	--	--	2.3	4.7	3.7	5.1	
RA-226, DIS-SOLVED, PLAN-CHEM COUNT (PCI/L) (09510)	RA-226 2 SIGMA WATER, DISS (PCI/L) (76001)	RA-228 2 SIGMA WATER, DISS (PCI/L) (76000)	RADIUM 228 DIS-SOLVED (PCI/L AS RA-228) (81366)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL (PCI/L) (76002)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM NATURAL 2 SIGMA WATER, DISS (UG/L) (75990)	
HA Ca 23	<.1	.112	.4	<1.0	2648	47	<1.0	
HA Cc 144	--	--	--	--	--	--	--	
HA Cf 176	--	--	--	--	--	--	--	
HA Cf 177	--	--	--	--	--	--	--	
HA Dc 120	--	--	--	--	--	--	--	
HA Dd 73	--	--	--	--	--	--	--	
HA Dd 107	--	--	--	--	--	--	--	
HA De 75	--	--	--	--	--	--	--	
HA De 164	--	--	--	--	--	--	--	
HA De 166	--	--	--	--	--	--	--	
HA Ec 48	--	--	--	--	--	--	--	

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

KENT COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
KE Ac 20	09-08-98	1400	392007076075501	217PTMC	GW	4040	600.00	--	
KE Ac 23	09-21-98	1110	392208076055701	217PTMC	GW	8030	212.00	--	
KE Ad 43	08-27-98	1205	392158076034302	211MGTY	GW	8030	160.00	--	
KE Ad 60	08-06-98	1220	392002076043701	211MGTY	GW	8030	140.00	--	
KE Ad 70	09-29-98	1045	392042076011401	217PTMC	GW	8030	195.00	--	
KE Ae 70	08-06-98	1525	392149075580801	217PTMC	GW	8030	240.00	--	
KE Af 29	09-22-98	1000	392027075524301	217PTMC	GW	8030	474.00	--	
KE Af 79	09-14-98	1245	392147075522301	211MGTY	GW	8030	300.00	--	
KE Bb 14	09-14-98	1530	391606076120401	211MGTY	GW	8030	72.00	--	
KE Bc 188	09-21-98	1215	391634076095201	211MGTY	GW	8030	105.00	--	
KE Bc 189	09-29-98	1240	391803076085801	211MGTY	GW	8030	160.00	--	
KE Bc 190	09-29-98	1345	391803076085802	211MGTY	GW	8030	260.00	--	
KE Bd 64	08-06-98	1420	391910076024801	211MGTY	GW	8030	235.00	--	
KE Bd 87	09-21-98	1355	391737076034201	211MGTY	GW	8030	257.00	--	
KE Be 47	09-24-98	1300	391832075560802	112CLMB	GW	4040	24.00	11.27	
KE Be 79	09-24-98	1230	391819075554201	125AQUI	GW	8030	170.00	--	
KE Be 103	09-14-98	1100	391819075571501	211MGTY	GW	8030	373.00	--	
KE Be 189	07-21-98	1100	391820075580201	125HRRS	GW	4040	53.50	.80	
KE Be 192	07-21-98	1330	391813075575202	125AQUI	GW	4040	38.50	22.65	
KE Be 194	07-20-98	1150	391717075571001	112CLMB	GW	4060	31.00	24.20	
KE Be 195	07-20-98	1530	391717075571002	125AQUI	GW	4060	59.80	24.00	
KE Be 199	07-22-98	1100	391941075570102	125AQUI	GW	4040	30.50	18.11	
KE Be 200	07-22-98	0920	391941075570103	125HRRS	GW	4040	63.00	17.85	
KE Be 206	07-22-98	1500	391851075561702	125AQUI	GW	4040	36.00	10.17	
KE Be 207	07-23-98	1030	391849075561601	125AQUI	GW	4040	43.50	9.65	
KE Be 208	07-23-98	0900	391849075561602	125AQUI	GW	4040	48.00	9.43	
KE Be 210	07-22-98	1400	391851075561701	125HRRS	GW	4040	87.00	10.20	
KE Be 212	07-23-98	1300	391659075552401	125AQUI	GW	4040	30.00	19.40	
KE Cb 35	09-02-98	1145	391320076101501	217PTMC	GW	8030	300.00	--	
KE Cb 89	09-23-98	1150	391434076121501	211MGTY	GW	8030	130.00	--	
KE Cb 104	09-23-98	1300	391301076143501	211MGTY	GW	8030	114.00	--	
KE Cd 104	08-27-98	1400	391246076034702	217PTMC	GW	8030	428.00	--	
KE Db 57	08-26-98	1250	390812076141401	211MGTY	GW	8030	368.00	--	
KE Eb 14	09-24-98	1100	390218076140901	211MGTY	GW	4030	635.00	--	

Geologic Unit (aquifer): 112CLMB - Columbia Group
125AQUI - Aquia Formation
125HRRS - Hornerstown Formation
211MGTY - Magothy Formation
217PTMC - Potomac Group

Site Type: GW - Groundwater

Sampling Method: 4030 - Suction pump
4040 - Submersible pump
4060 - Gas reciprocating pump
8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

KENT COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)
KE Ac 20	560	550	7.0	95	8.0	1980	6.7	--	16.8
KE Ac 23	212	192	65.0	20	3.0	175	5.9	--	15.7
KE Ad 43	139	118	82.0	--	--	53	4.9	--	14.0
KE Ad 60	140	120	80.0	25	2.0	122	6.3	--	14.7
KE Ad 70	195	184	75.0	25	5.0	130	5.6	--	15.2
KE Ae 70	238	228	65.0	25	2.0	192	7.3	--	15.8
KE Af 29	474	454	70.0	20	4.0	260	8.0	--	16.1
KE Af 79	300	290	25.0	20	4.0	239	8.0	--	15.7
KE Bb 14	72	62	25.0	30	4.0	81	5.3	--	14.1
KE Bc 188	105	100	40.0	15	2.0	539	5.8	--	15.0
KE Bc 189	160	150	40.0	30	5.0	131	5.8	--	15.9
KE Bc 190	260	240	75.0	45	4.0	126	6.0	--	14.9
KE Bd 64	230	210	80.0	15	2.0	108	6.3	--	15.0
KE Bd 87	257	247	70.0	50	--	118	6.1	--	20.5
KE Be 47	24	21	64.0	25	.4	297	5.8	--	15.3
KE Be 79	95	85	75.0	15	4.0	54	5.3	--	14.9
KE Be 103	373	368	75.0	35	6.7	185	7.2	--	15.6
KE Be 189	53	51	38.8	40	.6	172	7.0	31.0	14.5
KE Be 192	39	37	66.8	10	.5	167	5.0	35.0	14.6
KE Be 194	31	29	81.0	35	.1	346	4.5	36.0	20.5
KE Be 195	60	57	81.0	70	.1	200	6.6	36.0	19.2
KE Be 199	31	30	76.3	60	.1	155	5.3	33.0	17.6
KE Be 200	63	60	76.3	30	.8	151	6.3	35.0	15.1
KE Be 206	36	34	70.7	10	1.0	153	5.4	--	14.4
KE Be 207	43	42	70.0	20	.9	152	5.6	--	14.3
KE Be 208	48	47	69.9	30	1.0	88	5.9	--	13.9
KE Be 210	87	84	70.5	60	.8	273	7.1	--	14.8
KE Be 212	30	29	61.0	20	.3	426	5.0	--	16.1
KE Cb 35	300	280	85.0	15	--	177	6.3	--	16.2
KE Cb 89	130	110	20.0	30	2.0	132	5.8	--	14.1
KE Cb 104	114	104	30.0	15	3.0	155	5.8	--	14.8
KE Cd 104	428	392	20.0	20	5.0	165	6.5	--	16.0
KE Db 57	322	280	15.0	90	3.0	205	6.3	--	15.5
KE Eb 14	630	590	15.0	53	160	144	6.5	--	17.3

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

KENT COUNTY, MARYLAND--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)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ANC	ANC	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	BROMIDE DIS- SOLVED (MG/L AS BR) (71870)
						WATER UNFLTRD IT FIELD MG/L AS CACO3 (00419)	BICAR- IT FIELD MG/L AS HCO3 (00450)		
KE Ac 20	.7	55	31	219	9.7	--	--	.65	2.8
KE Ac 23	.2	--	--	--	--	--	--	--	--
KE Ad 43	7.4	--	--	--	--	--	--	--	--
KE Ad 60	.1	--	--	--	--	--	--	--	--
KE Ad 70	--	--	--	--	--	--	--	--	--
KE Ae 70	.1	--	--	--	--	--	--	--	--
KE Af 29	.2	--	--	--	--	--	--	--	--
KE Af 79	.2	--	--	--	--	--	--	--	--
KE Bb 14	.2	--	--	--	--	--	--	--	--
KE Bc 188	.2	--	--	--	--	--	--	--	--
KE Bc 189	--	--	--	--	--	--	--	--	--
KE Bc 190	--	--	--	--	--	--	--	--	--
KE Bd 64	.2	--	--	--	--	--	--	--	--
KE Bd 87	3.8	--	--	--	--	--	--	--	--
KE Be 47	8.6	20	12	12	2.6	--	--	21	--
KE Be 79	6.0	3.7	.64	3.5	1.7	--	--	1.1	--
KE Be 103	.2	--	--	--	--	--	--	--	--
KE Be 189	.0	25	2.1	3.0	2.4	69	84	3.2	--
KE Be 192	8.5	9.6	6.9	2.8	4.3	2	2	.49	--
KE Be 194	6.8	20	17	7.4	2.7	10	12	.12	--
KE Be 195	7.3	15	4.0	19	1.9	41	50	2.9	--
KE Be 199	6.9	8.6	4.1	9.1	2.3	3	3	.12	--
KE Be 200	.0	8.1	2.7	3.7	3.4	34	41	18	--
KE Be 206	7.5	11	3.4	8.2	1.9	8	9	<.10	--
KE Be 207	9.0	--	--	--	--	8	10	--	--
KE Be 208	9.5	--	--	--	--	6	7	--	--
KE Be 210	.1	43	2.6	3.5	4.4	156	190	18	--
KE Be 212	8.3	--	--	--	--	2	2	--	--
KE Cb 35	.4	--	--	--	--	--	--	--	--
KE Cb 89	.6	--	--	--	--	--	--	--	--
KE Cb 104	.8	--	--	--	--	--	--	--	--
KE Cd 104	.1	--	--	--	--	--	--	--	--
KE Db 57	.2	--	--	--	--	--	--	--	--
KE Eb 14	--	10	3.6	2.0	3.3	--	--	22	.067

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

KENT COUNTY, MARYLAND--Continued

WELL NUMBER	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)
KE Ac 20	560	<.10	5.0	1010	.020	<.050	--	.259	<.010
KE Ac 23	--	--	--	--	--	--	--	--	--
KE Ad 43	--	--	--	--	--	--	--	--	--
KE Ad 60	--	--	--	--	--	--	--	--	--
KE Ad 70	--	--	--	--	--	--	--	--	--
KE Ae 70	--	--	--	--	--	--	--	--	--
KE Af 29	--	--	--	--	--	--	--	--	--
KE Af 79	--	--	--	--	--	--	--	--	--
KE Bb 14	--	--	--	--	--	--	--	--	--
KE Bc 188	--	--	--	--	--	--	--	--	--
KE Bc 189	--	--	--	--	--	--	--	--	--
KE Bc 190	--	--	--	--	--	--	--	--	--
KE Bd 64	--	--	--	--	--	--	--	--	--
KE Bd 87	--	--	--	--	--	--	--	--	--
KE Be 47	21	<.10	10	186	<.010	17.5	--	<.020	.018
KE Be 79	3.2	<.10	14	46	<.010	3.34	--	<.020	.013
KE Be 103	--	--	--	--	--	--	--	--	--
KE Be 189	3.7	.47	24	--	<.010	.055	<.10	.029	<.010
KE Be 192	15	<.10	7.7	--	<.010	11.8	<.10	.037	<.010
KE Be 194	84	<.10	13	--	<.010	3.58	<.10	.030	<.010
KE Be 195	11	<.10	11	--	<.010	8.86	<.10	.046	<.010
KE Be 199	17	<.10	20	--	<.010	9.80	<.10	.043	.038
KE Be 200	7.3	.28	28	--	<.010	<.050	<.10	.037	.446
KE Be 206	12	<.10	17	--	<.010	11.9	<.10	.045	.037
KE Be 207	--	--	--	--	<.010	9.04	<.10	.040	--
KE Be 208	--	--	--	--	<.010	5.18	<.10	.038	--
KE Be 210	2.1	.61	38	--	<.010	.073	<.10	.055	.251
KE Be 212	--	--	--	--	<.010	43.0	<.10	.036	--
KE Cb 35	--	--	--	--	--	--	--	--	--
KE Cb 89	--	--	--	--	--	--	--	--	--
KE Cb 104	--	--	--	--	--	--	--	--	--
KE Cd 104	--	--	--	--	--	--	--	--	--
KE Db 57	--	--	--	--	--	--	--	--	--
KE Eb 14	1.1	.24	7.6	83	.013	.066	--	.066	.029

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

KENT COUNTY, MARYLAND--Continued

WELL NUMBER	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED AS CS-137) (03515)
KE Ac 20	.020	44000	42900	1600	1510	11	36	5.5	28
KE Ac 23	--	--	--	--	--	1.9	<3.0	3.7	<4.0
KE Ad 43	--	--	--	--	--	2.3	4.3	3.7	<4.0
KE Ad 60	--	--	--	--	--	2.3	4.0	3.7	5.6
KE Ad 70	--	--	--	--	--	1.9	<3.0	3.6	<4.0
KE Ae 70	--	--	--	--	--	2.3	3.3	3.7	5.2
KE Af 29	--	--	--	--	--	2.7	5.2	4.0	6.9
KE Af 79	--	--	--	--	--	1.9	<3.0	3.9	5.6
KE Bb 14	--	--	--	--	--	1.5	<3.0	3.6	<4.0
KE Bc 188	--	--	--	--	--	2.8	3.1	3.9	4.2
KE Bc 189	--	--	--	--	--	1.6	<3.0	3.6	<4.0
KE Bc 190	--	--	--	--	--	3.1	8.5	4.0	7.9
KE Bd 64	--	--	--	--	--	1.7	<3.0	3.6	<4.0
KE Bd 87	--	--	--	--	--	2.0	<3.0	3.8	4.4
KE Be 47	.030	60	39	450	464	--	--	--	--
KE Be 79	.030	10	<10	<10	<4.0	--	--	--	--
KE Be 103	--	--	--	--	--	2.5	4.2	4.0	9.2
KE Be 189	<.010	--	4100	--	14	--	--	--	--
KE Be 192	<.010	--	<10	--	181	--	--	--	--
KE Be 194	.011	--	130	--	77	--	--	--	--
KE Be 195	.012	--	<10	--	<4.0	--	--	--	--
KE Be 199	.023	--	36	--	11	--	--	--	--
KE Be 200	.340	--	16000	--	91	--	--	--	--
KE Be 206	.025	--	<10	--	39	--	--	--	--
KE Be 207	.202	--	--	--	--	--	--	--	--
KE Be 208	1.04	--	--	--	--	--	--	--	--
KE Be 210	.216	--	1900	--	151	--	--	--	--
KE Be 212	.010	--	--	--	--	--	--	--	--
KE Cb 35	--	--	--	--	--	3.0	7.9	4.0	9.2
KE Cb 89	--	--	--	--	--	2.5	4.5	3.9	6.5
KE Cb 104	--	--	--	--	--	2.8	6.4	3.9	5.5
KE Cd 104	--	--	--	--	--	3.1	8.4	4.1	12
KE Db 57	--	--	--	--	--	2.1	<3.0	3.8	<4.0
KE Eb 14	.081	11000	11500	180	178	2.8	6.5	3.9	7.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

PRINCE GEORGES COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH BELOW SURFACE (FEET) (72019)	DEPTH TO BOTTOM OF SAMPLE INTER-VAL (FT) (72016)
PG Bc 37	07-29-98	1500	385920076571701	217PTXN	GW	4070	25.00	12.00	25
PG Be 33	07-16-98	1100	390102076445701	217PPSC	GW	8030	248.00	--	248
PG Be 34	07-22-98	1535	390112076470201	217PPSC	GW	8030	180.00	--	180
PG Be 35	07-29-98	1700	390250076494001	217PPSCL	GW	8030	126.00	--	126
PG Ce 39	07-16-98	1430	385738076461601	211MGTY	GW	8030	132.00	--	132
PG Ce 40	07-20-98	1235	385501076454801	211MGTY	GW	8030	195.00	--	195
PG Ce 41	07-20-98	1440	385524076455301	211MGTY	GW	8030	207.00	--	207
PG Ce 42	09-15-98	1045	385528076481801	211MGTY	GW	8030	172.00	--	172
PG Cf 82	07-15-98	1120	385754076425201	211MGTY	GW	8030	160.00	--	160
PG Cf 83	07-15-98	1330	385841076430301	217PPSC	GW	8030	235.00	--	235
PG Cf 84	07-15-98	1600	385811076430201	217PPSC	GW	8030	260.00	--	260
PG Cf 85	07-16-98	1540	385558076424801	211MGTY	GW	8030	240.00	--	240
PG Cf 86	07-20-98	1035	385520076420901	211MGTY	GW	8030	225.00	--	225
PG Cf 87	07-20-98	1625	385502076423601	217PPSC	GW	8030	355.00	--	355
PG Cf 88	07-29-98	1235	385803076435401	217PPSC	GW	8030	703.00	--	698
PG Cf 89	07-29-98	1115	385833076434801	217PTXN	GW	8030	1158.00	--	1150
PG Df 38	07-16-98	1235	385427076424701	211MGTY	GW	8030	272.00	--	272
PG Df 39	07-22-98	1300	385405076415401	211MGTY	GW	8030	292.00	--	292

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF SURFACE DATUM ABOVE NGVD (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	FLOW RATE (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)	OXYGEN, DIS-SOLVED (MG/L) (00300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
PG Bc 37	15	165	--	--	2140	5.6	15.0	--	30	22
PG Be 33	241	80.0	29	1.5	69	3.5	15.0	.8	--	--
PG Be 34	172	180	25	--	39	4.4	15.8	.9	--	--
PG Be 35	121	200	25	1.5	51	5.0	15.5	7.8	--	--
PG Ce 39	122	180	34	1.5	200	4.6	16.5	.9	--	--
PG Ce 40	190	145	30	1.5	93	5.6	15.3	.9	--	--
PG Ce 41	200	130	32	2.0	116	5.8	15.0	--	--	--
PG Ce 42	165	200	40	5.0	196	6.2	14.9	.5	--	--
PG Cf 82	150	110	25	--	57	4.6	14.8	.9	--	--
PG Cf 83	228	145	22	1.5	77	3.9	15.1	.8	--	--
PG Cf 84	250	140	25	--	132	6.1	15.5	.9	--	--
PG Cf 85	230	100	34	--	149	6.0	16.9	.8	--	--
PG Cf 86	215	120	30	1.5	255	6.7	14.8	.9	--	--
PG Cf 87	345	140	26	1.0	136	5.8	15.5	.9	--	--
PG Cf 88	443	125	25	1.5	69	5.7	15.7	.3	--	--
PG Cf 89	1140	115	30	1.5	56	5.6	19.2	.1	--	--
PG Df 38	262	150	65	1.5	373	7.0	16.2	.8	--	--
PG Df 39	282	145	30	1.5	234	6.8	17.6	.9	--	--

Geologic Unit (aquifer): 211MGTY - Magothy Formation
 217PPSC - Patapsco Formation
 217PPSCL - Lower Patapsco Formation
 217PTXN - Patuxent Formation

Site Type: GW - Ground Water

Sampling Method: 4070 - Gas lift
 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

PRINCE GEORGES COUNTY, MARYLAND -- Continued

WELL NUMBER	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
	PG Bc 37	338	5.5	33	610	.20	8.6	1280	<.010	.112
PG Be 33	--	--	--	--	--	--	--	--	--	--
PG Be 34	--	--	--	--	--	--	--	--	--	--
PG Be 35	--	--	--	--	--	--	--	--	--	--
PG Ce 39	--	--	--	--	--	--	--	--	--	--
PG Ce 40	--	--	--	--	--	--	--	--	--	--
PG Ce 41	--	--	--	--	--	--	--	--	--	--
PG Ce 42	--	--	--	--	--	--	--	--	--	--
PG Cf 82	--	--	--	--	--	--	--	--	--	--
PG Cf 83	--	--	--	--	--	--	--	--	--	--
PG Cf 84	--	--	--	--	--	--	--	--	--	--
PG Cf 85	--	--	--	--	--	--	--	--	--	--
PG Cf 86	--	--	--	--	--	--	--	--	--	--
PG Cf 87	--	--	--	--	--	--	--	--	--	--
PG Cf 88	--	--	--	--	--	--	--	--	--	--
PG Cf 89	--	--	--	--	--	--	--	--	--	--
PG Df 38	--	--	--	--	--	--	--	--	--	--
PG Df 39	--	--	--	--	--	--	--	--	--	--

WELL NUMBER	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO, WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED AS CS-137 (03515)
	PG Bc 37	<.010	<.010	31000	32000	1400	1470	13	48	5.0
PG Be 33	--	--	--	--	--	--	2.9	8.7	3.6	<4.0
PG Be 34	--	--	--	--	--	--	2.1	3.4	3.7	4.4
PG Be 35	--	--	--	--	--	--	2.3	4.4	3.6	4.3
PG Ce 39	--	--	--	--	--	--	2.7	5.9	3.9	8.1
PG Ce 40	--	--	--	--	--	--	2.0	<3.0	3.8	5.0
PG Ce 41	--	--	--	--	--	--	2.5	5.0	3.9	7.6
PG Ce 42	--	--	--	--	--	--	2.8	6.3	4.0	8.8
PG Cf 82	--	--	--	--	--	--	2.8	7.6	4.0	12
PG Cf 83	--	--	--	--	--	--	4.1	20	4.1	14
PG Cf 84	--	--	--	--	--	--	2.2	3.1	3.8	4.6
PG Cf 85	--	--	--	--	--	--	2.6	5.6	3.8	6.8
PG Cf 86	--	--	--	--	--	--	2.4	<3.0	3.9	7.0
PG Cf 87	--	--	--	--	--	--	2.5	4.5	3.7	<4.0
PG Cf 88	--	--	--	--	--	--	1.9	<3.0	3.5	<4.0
PG Cf 89	--	--	--	--	--	--	2.3	4.3	3.8	6.8
PG Df 38	--	--	--	--	--	--	2.9	4.7	4.0	7.1
PG Df 39	--	--	--	--	--	--	2.5	<3.0	3.9	5.4

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

QUEEN ANNE'S COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION	NUMBER	GEO- LOGIC UNIT	SITE	SAM- PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
QA Bg 59	03-26-98	1345	391135075534601	125AQUI		GW	8030	160.00	--
QA Bg 62	02-26-98	1400	391328075545301	125AQUI		GW	8030	100.00	--
	05-29-98	1205		125AQUI		GW	8030	100.00	--
QA Ce 37	04-15-98	1130	390634076013001	125AQUI		GW	8030	220.00	--
QA Cg 62	04-15-98	0930	390518075510001	124PNPN		GW	8030	230.00	--
QA Db 14	03-11-98	1030	390055076184501	125AQUI		GW	8030	165.00	--
	09-09-98	0950		125AQUI		GW	8030	165.00	--
QA Db 17	03-11-98	1130	390059076191801	125AQUI		GW	8030	--	--
	09-09-98	0900		125AQUI		GW	8030	--	--
QA Db 23	03-11-98	1230	390033076184501	125AQUI		GW	8030	185.00	--
	09-09-98	1030		125AQUI		GW	8030	185.00	--
QA Db 27	03-25-98	1430	390117076191301	125AQUI		GW	8030	145.00	--
	09-16-98	1105		125AQUI		GW	8030	145.00	--
	09-16-98	1100		125AQUI		GW	8030	145.00	--
QA Db 30	09-11-98	1100	390201076182701	125AQUI		GW	4040	220.00	17.24
QA Db 32	09-11-98	0850	390201076182703	125AQUI		GW	4040	116.00	17.04
QA Db 34	09-17-98	1030	390023076174301	125AQUI		GW	4030	180.00	9.30
QA Db 35	09-16-98	1010	390119076191001	125AQUI		GW	4030	200.00	6.20
QA Db 37	09-17-98	1110	390023076174302	125AQUI		GW	4040	250.00	9.05
QA Db 44	07-27-98	1000	390040076185601	211MGTY		GW	8030	400.00	--
QA Dd 32	02-26-98	1020	390434076082201	125AQUI		GW	8030	140.00	--
	05-29-98	0950		125AQUI		GW	8030	140.00	--
QA Df 58	04-14-98	1445	390443075551401	125AQUI		GW	8030	340.00	--
QA Dg 42	03-26-98	1030	390330075545801	124PNPN		GW	8030	203.00	--
QA Ea 39	04-08-98	1140	385825076202901	125AQUI		GW	8030	95.00	--
	09-09-98	1130		125AQUI		GW	8030	95.00	--
QA Ea 42	03-11-98	1400	385820076202501	125AQUI		GW	8030	120.00	--
	09-09-98	1215		125AQUI		GW	8030	120.00	--
QA Ea 45	03-18-98	1200	385554076213801	125AQUI		GW	8030	210.00	--
	09-09-98	1415		125AQUI		GW	8030	210.00	--

Geologic Unit (aquifer): 124PNPN - Piney Point Formation
125AQUI - Aquia Formation
211MGTY - Magothy Formation

Site Type: GW - Ground Water

Sampling Method: 4030 - Suction pump
4040 - Submersible pump
8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

QUEEN ANNE'S COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)
QA Bg 59	160	140	50.0	--	--	284	7.8	21.0	14.0
QA Bg 62	100	80	60.0	--	--	86	5.1	22.0	14.7
	100	80	60.0	--	--	87	5.0	33.0	14.7
QA Ce 37	220	100	40.0	--	--	307	7.9	21.0	15.1
QA Cg 62	230	185	58.0	--	--	503	8.2	19.0	15.2
QA Db 14	165	145	15.0	--	--	--	7.2	.5	14.0
	165	145	15.0	30	--	488	7.3	24.3	15.2
QA Db 17	--	--	20.0	--	--	--	7.2	6.0	13.5
	--	--	20.0	25	--	633	7.3	19.5	14.6
QA Db 23	185	165	18.0	--	--	--	7.3	2.0	14.1
	185	165	18.0	25	--	441	7.4	19.5	14.9
QA Db 27	145	110	15.0	--	--	1290	7.0	9.5	14.3
	145	110	15.0	30	--	1310	6.9	29.8	15.1
	145	110	15.0	30	--	1310	6.9	29.8	15.1
QA Db 30	220	210	17.8	90	10.0	18000	6.2	29.5	15.8
QA Db 32	116	106	18.0	60	10.0	8730	6.5	27.3	14.8
QA Db 34	180	170	7.4	30	120	416	7.0	28.0	15.7
QA Db 35	200	190	7.5	60	4.0	14300	6.7	28.5	16.8
QA Db 37	250	240	7.1	70	10.0	565	7.3	27.8	16.2
QA Db 44	400	393	10.0	25	1.5	236	6.3	--	17.1
QA Dd 32	140	130	7.0	--	--	376	7.2	17.0	14.1
	140	130	7.0	--	--	365	6.9	24.0	14.9
QA Df 58	340	320	70.0	--	--	281	7.9	19.4	15.1
QA Dg 42	203	183	74.0	--	--	342	7.8	16.5	14.3
QA Ea 39	95	80	15.0	--	--	430	7.2	18.3	14.8
	95	80	15.0	25	--	421	7.6	20.5	15.3
QA Ea 42	120	100	18.0	--	--	--	7.6	.8	14.2
	120	100	18.0	25	--	711	7.6	23.0	15.8
QA Ea 45	210	200	15.0	--	--	361	7.7	6.3	15.2
	210	200	15.0	20	--	356	7.7	29.3	15.7

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

QUEEN ANNE'S COUNTY, MARYLAND--Continued

WELL NUMBER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
QA Ea 48	03-25-98	1340	385825076201201	125AQUI	GW	8030	160.00	--
	09-09-98	0745		125AQUI	GW	8030	160.00	--
QA Ea 59	03-18-98	1230	385505076215001	125AQUI	GW	8030	215.00	--
	09-09-98	1500		125AQUI	GW	8030	215.00	--
QA Ea 60	03-12-98	1030	385701076212501	125AQUI	GW	8030	185.00	--
	09-14-98	1330		125AQUI	GW	8030	185.00	--
QA Ea 61	03-25-98	1300	385812076202801	125AQUI	GW	8030	170.00	--
	09-09-98	1300		125AQUI	GW	8030	170.00	--
QA Ea 77	09-17-98	1420	385718076211501	125AQUI	GW	4040	205.00	13.50
QA Ea 78	09-18-98	0850	385718076211502	125AQUI	GW	4030	135.00	13.41
QA Ea 79	09-17-98	0850	385757076200101	125AQUI	GW	4040	298.00	12.15
QA Ea 80	09-17-98	0815	385757076200102	125AQUI	GW	4030	130.00	12.44
QA Ea 81	09-18-98	0945	385718076211503	125AQUI	GW	4040	310.00	12.95
QA Ea 82	03-12-98	0930	385705076212002	125AQUI	GW	8030	170.00	--
	09-18-98	1100		125AQUI	GW	8030	170.00	--
QA Ea 83	03-18-98	1050	385705076212001	125AQUI	GW	8030	170.00	--
	09-14-98	1130		125AQUI	GW	8030	170.00	--
QA Ea 84	05-26-98	1500	385738076210401	217PPSC	GW	8030	626.00	--
QA Ea 86	05-26-98	1020	385616076205802	217PPSC	GW	8030	--	--
QA Ea 87	07-27-98	1500	385502076205701	211MGTY	GW	8030	615.00	--
QA Eb 155	09-15-98	1200	385843076155302	125AQUI	GW	4030	245.00	11.57
QA Eb 156	09-15-98	0935	385852076195201	125AQUI	GW	4030	220.00	14.25
QA Eb 157	09-15-98	1045	385852076195202	125AQUI	GW	4030	120.00	12.86
QA Eb 159	05-21-98	0920	385912076182601	211MTWN	GW	8030	485.00	--
QA Eb 162	06-03-98	1020	385906076171601	217PPSC	GW	8030	684.00	--
QA Eb 164	06-03-98	1340	385825076151501	217PPSC	GW	8030	780.00	--
QA Eb 167	05-20-98	1000	385850076183601	217PPSC	GW	8030	760.00	--
QA Eb 168	05-26-98	1230	385710076173701	217PPSC	GW	8030	740.00	--
QA Eb 169	06-03-98	0920	385817076171501	217PPSC	GW	8030	718.00	--
QA Eb 173	05-20-98	1230	385817076185001	217PPSC	GW	8030	693.00	--
QA Eb 175	06-03-98	1120	385838076172701	217PPSC	GW	8030	710.00	--
QA Eb 176	05-21-98	1245	385828076183201	217PPSC	GW	8030	702.00	--
QA Eb 177	05-21-98	1130	385545076190501	211MTWN	GW	8030	576.00	--
QA Eb 178	05-21-98	1405	385854076190801	217PPSC	GW	8030	645.00	--
QA Eb 179	05-01-98	1400	385848076194701	211MGTY	GW	8030	640.00	--

Geologic Unit (aquifer): 125AQUI - Aquia Formation
211MGTY - Magothy Formation
211MTWN - Matawan Formation
217PPSC - Patapsco Formation

Site Type: GW - Ground Water

Sampling Method: 4030 - Suction pump
4040 - Submersible pump
8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

QUEEN ANNE'S COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO BOTTOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)
QA Ea 48	160	129	5.0	--	--	1240	7.4	13.0	14.7
	160	129	5.0	45	--	1410	8.4	15.5	15.3
QA Ea 59	215	195	10.0	--	--	621	7.9	6.0	15.0
	215	195	10.0	25	--	608	7.9	29.8	16.1
QA Ea 60	185	165	7.0	--	--	1480	7.6	-1.5	14.8
	185	165	7.0	25	--	1570	7.5	30.8	15.8
QA Ea 61	170	150	18.0	--	--	3560	7.3	11.3	14.5
	170	150	18.0	30	--	3370	7.3	20.8	15.0
QA Ea 77	205	195	10.8	85	10.0	12900	6.9	28.5	15.9
QA Ea 78	135	125	11.8	60	4.0	319	7.3	23.5	15.7
QA Ea 79	298	288	8.3	95	7.5	295	8.5	28.3	16.1
QA Ea 80	130	120	8.5	35	20.0	279	7.3	26.3	15.0
QA Ea 81	310	300	12.4	115	4.0	559	7.5	23.8	16.2
QA Ea 82	170	155	10.0	--	--	1110	7.6	.5	14.6
	170	155	10.0	40	--	1060	7.2	28.5	15.7
QA Ea 83	170	160	10.0	--	--	403	7.7	5.8	14.7
	170	160	10.0	20	--	394	7.5	30.3	15.9
QA Ea 84	626	610	17.0	--	--	8470	7.0	25.0	16.0
QA Ea 86	--	--	15.0	--	--	241	6.4	25.0	17.3
QA Ea 87	615	595	5.0	20	3.0	238	6.3	--	18.8
QA Eb 155	245	235	3.9	40	6.0	326	7.7	29.5	16.2
QA Eb 156	220	210	12.0	35	12.0	14300	6.6	29.8	15.8
QA Eb 157	120	110	11.9	35	20.0	331	7.3	30.0	14.8
QA Eb 159	485	465	12.0	--	--	368	7.8	31.0	17.0
QA Eb 162	684	652	15.0	--	--	200	6.1	22.5	18.6
QA Eb 164	740	720	5.0	--	--	308	8.2	25.5	17.8
QA Eb 167	688	606	15.0	--	--	205	6.3	35.0	19.0
QA Eb 168	740	720	15.0	--	--	224	6.7	29.0	18.5
QA Eb 169	718	688	15.0	--	--	191	6.3	25.5	19.5
QA Eb 173	693	658	5.0	--	--	205	6.2	31.5	19.7
QA Eb 175	710	670	10.0	--	--	224	6.8	25.0	19.5
QA Eb 176	702	680	10.0	--	--	224	6.2	29.5	17.5
QA Eb 177	576	546	10.0	--	--	268	6.4	30.5	18.2
QA Eb 178	645	625	8.0	--	--	220	6.1	28.5	16.3
QA Eb 179	640	610	20.0	--	--	323	6.0	17.5	17.7

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

QUEEN ANNE'S COUNTY, MARYLAND--Continued

WELL NUMBER	OXYGEN, DIS- SOLVED (MG/L) (00300)	CALCIUM SOLVED (MG/L) AS CA) (00915)	MAGNE- SIUM, SOLVED (MG/L) AS MG) (00925)	SODIUM, SOLVED (MG/L) AS NA) (00930)	POTAS- SIUM, SOLVED (MG/L) AS K) (00935)	ANC WATER UNFLTRD FIELD MG/L AS CACO3 (00419)	SULFATE SOLVED (MG/L) AS SO4) (00945)	CHLO- RIDE, SOLVED (MG/L) AS CL) (00940)	FLUO- RIDE, SOLVED (MG/L) AS F) (00950)
QA Ea 48	--	--	--	--	--	--	--	280	--
	--	--	--	--	--	--	--	350	--
QA Ea 59	--	--	--	--	--	--	--	97	--
	--	--	--	--	--	--	--	97	--
QA Ea 60	--	--	--	--	--	--	--	380	--
	--	--	--	--	--	--	--	410	--
QA Ea 61	--	--	--	--	--	--	--	1100	--
	--	--	--	--	--	--	--	1200	--
QA Ea 77	--	--	--	--	--	--	--	5800	--
QA Ea 78	--	--	--	--	--	--	--	4.1	--
	--	--	--	--	--	--	--	1.4	--
QA Ea 79	--	--	--	--	--	--	--	2.1	--
QA Ea 80	--	--	--	--	--	--	--	65	--
QA Ea 81	--	--	--	--	--	--	--	250	--
QA Ea 82	--	--	--	--	--	--	--	250	--
	--	--	--	--	--	--	--	21	--
QA Ea 83	--	--	--	--	--	--	--	20	--
	--	--	--	--	--	--	--	--	--
QA Ea 84	--	--	--	--	--	--	--	--	--
QA Ea 86	.0	--	--	--	--	59	--	--	--
QA Ea 87	.2	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	1.9	--
QA Eb 155	--	--	--	--	--	--	--	6700	--
QA Eb 156	--	--	--	--	--	--	--	4.6	--
QA Eb 157	--	--	--	--	--	--	--	1.8	.21
QA Eb 159	.0	28	3.3	44	4.3	152	34	--	--
QA Eb 162	.0	--	--	--	--	--	--	--	--
	.0	--	--	--	--	--	--	--	--
QA Eb 164	.0	--	--	--	--	--	--	--	--
QA Eb 167	.0	--	--	--	--	--	--	--	--
QA Eb 168	.0	--	--	--	--	--	--	--	--
QA Eb 169	.0	--	--	--	--	--	--	--	--
QA Eb 173	.0	--	--	--	--	--	--	--	--
	.0	--	--	--	--	--	--	--	--
QA Eb 175	.0	--	--	--	--	--	--	--	--
QA Eb 176	.0	--	--	--	--	--	--	--	--
QA Eb 177	.0	--	--	--	--	--	--	--	--
QA Eb 178	.0	--	--	--	--	--	--	--	--
QA Eb 179	.0	17	5.1	20	3.0	51	52	30	.28

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

QUEEN ANNE'S COUNTY, MARYLAND--Continued

WELL NUMBER	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)
QA Ea 48	--	--	--	--	--	--	--	--	--
QA Ea 59	--	--	--	--	--	--	--	--	--
QA Ea 60	--	--	--	--	--	--	--	--	--
QA Ea 61	--	--	--	--	--	--	--	--	--
QA Ea 77	--	--	--	--	--	--	--	--	--
QA Ea 78	--	--	--	--	--	--	--	--	--
QA Ea 79	--	--	--	--	--	--	--	--	--
QA Ea 80	--	--	--	--	--	--	--	--	--
QA Ea 81	--	--	--	--	--	--	--	--	--
QA Ea 82	--	--	--	--	--	--	--	--	--
QA Ea 83	--	--	--	--	--	--	--	--	--
QA Ea 84	--	--	--	--	--	--	--	--	--
QA Ea 86	--	--	--	--	--	--	--	--	--
QA Ea 87	--	--	--	--	--	--	--	--	--
QA Eb 155	--	--	--	--	--	--	--	--	--
QA Eb 156	--	--	--	--	--	--	--	--	--
QA Eb 157	--	--	--	--	--	--	--	--	--
QA Eb 159	16	228	<.010	<.050	.095	<.10	<.010	<.010	.020
QA Eb 162	--	--	--	--	--	--	--	--	--
QA Eb 164	--	--	--	--	--	--	--	--	--
QA Eb 167	--	--	--	--	--	--	--	--	--
QA Eb 168	--	--	--	--	--	--	--	--	--
QA Eb 169	--	--	--	--	--	--	--	--	--
QA Eb 173	--	--	--	--	--	--	--	--	--
QA Eb 175	--	--	--	--	--	--	--	--	--
QA Eb 176	--	--	--	--	--	--	--	--	--
QA Eb 177	--	--	--	--	--	--	--	--	--
QA Eb 178	--	--	--	--	--	--	--	--	--
QA Eb 179	7.6	160	<.010	<.050	.105	<.10	.271	.064	.062

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

QUEEN ANNE'S COUNTY, MARYLAND--Continued

WELL NUMBER	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
QA Ea 48	--	--	--	--	--	--	--	--	--
QA Ea 59	--	--	--	--	--	--	--	--	--
QA Ea 60	--	--	--	--	--	--	--	--	--
QA Ea 61	--	--	--	--	--	--	--	--	--
QA Ea 77	--	--	--	--	--	--	--	--	--
QA Ea 78	--	--	--	--	--	--	--	--	--
QA Ea 79	--	--	--	--	--	--	--	--	--
QA Ea 80	--	--	--	--	--	--	--	--	--
QA Ea 81	--	--	--	--	--	--	--	--	--
QA Ea 82	--	--	--	--	--	--	--	--	--
QA Ea 83	--	--	--	--	--	--	--	--	--
QA Ea 84	8300	602	--	--	--	--	--	--	--
QA Ea 86	20100	298	1.9	<3.0	4.0	<4.0	--	--	--
QA Ea 87	--	--	2.6	4.5	3.9	8.0	--	--	--
QA Eb 155	--	--	--	--	--	--	--	--	--
QA Eb 156	--	--	--	--	--	--	--	--	--
QA Eb 157	--	--	--	--	--	--	--	--	--
QA Eb 159	220	7.3	--	--	--	--	--	--	.50
QA Eb 162	21800	298	--	--	--	--	--	--	--
QA Eb 164	120	34	--	--	--	--	--	--	--
QA Eb 167	25700	368	2.6	5.4	4.1	6.0	--	--	--
QA Eb 168	15200	206	2.3	3.5	4.2	7.3	--	--	--
QA Eb 169	19800	281	--	--	--	--	--	--	--
QA Eb 173	23500	340	2.9	7.3	4.2	7.7	--	--	--
QA Eb 175	28200	332	--	--	--	--	--	--	--
QA Eb 176	26400	357	--	--	--	--	--	--	--
QA Eb 177	11900	137	--	--	--	--	--	--	--
QA Eb 178	24000	361	--	--	--	--	--	--	--
QA Eb 179	21200	306	--	--	--	--	--	--	.30

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

QUEEN ANNE'S COUNTY, MARYLAND--Continued

WELL NUMBER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOTTOM OF SAMPLE INTER-VAL (FT) (72016)
QA Eb 181	05-20-98	1115	385912076192602	211MGTY	GW	8030	485.00	485
QA Ec 91	04-02-98	1030	385748076112401	211MGTY	GW	8030	955.00	900
QA Ec 102	04-02-98	1245	385922076100801	211MGTY	GW	8030	644.00	644
QA Ef 32	05-01-98	1000	385825075580401	125AQUI	GW	8030	500.00	500
QA Fa 49	09-14-98	1340	385354076212701	125AQUI	GW	8030	210.00	--
QA Fa 54	03-12-98	1330	385024076222501	125AQUI	GW	8030	260.00	260
	09-10-98	1110		125AQUI	GW	8030	260.00	260
QA Fa 58	09-10-98	0850	385133076201201	125AQUI	GW	8030	280.00	280
QA Fa 60	03-25-98	1110	385254076201901	125AQUI	GW	8030	240.00	240
	09-14-98	1430		125AQUI	GW	8030	240.00	240
QA Fa 63	03-18-98	1430	385434076215601	125AQUI	GW	8030	235.00	235
	09-15-98	1330		125AQUI	GW	8030	235.00	235
QA Fa 64	03-18-98	1320	385454076214901	125AQUI	GW	8030	231.00	231
	09-09-98	1530		125AQUI	GW	8030	231.00	231
QA Fa 66	03-12-98	1220	385236076215201	125AQUI	GW	8030	270.00	270
	09-10-98	1025		125AQUI	GW	8030	270.00	270
QA Fa 67	03-12-98	1410	385023076222201	125AQUI	GW	8030	270.00	270
	09-10-98	1150		125AQUI	GW	8030	270.00	270
QA Fa 72	03-25-98	1035	385254076201301	125AQUI	GW	8030	220.00	220
	09-15-98	1410		125AQUI	GW	8030	220.00	220
QA Fa 74	03-12-98	1130	385227076215401	125AQUI	GW	8030	280.00	--
	09-10-98	0940		125AQUI	GW	8030	280.00	--
QA Fa 75	03-25-98	1145	385155076200401	125AQUI	GW	8030	200.00	200
	09-10-98	0810		125AQUI	GW	8030	200.00	200
QA Fa 77	07-27-98	1200	385440076211801	211MGTY	GW	4010	620.00	620
QA Fa 78	04-15-98	1330	385448076212401	211MGTY	GW	8030	--	--
QA Fa 79	07-27-98	1330	385123076204201	211MGTY	GW	8030	645.00	645
QA Fa 81	07-28-98	1640	385300076210801	211MGTY	GW	8030	640.00	640
QA Fa 82	07-28-98	1330	385117076222301	211MGTY	GW	8030	635.00	635
QA Fb 3	07-28-98	1515	385501076180301	217PPSC	GW	8030	790.00	790

Geologic Unit (aquifer): 125AQUI - Aquia Formation
 211MGTY - Magothy Formation
 217PPSC - Patapsco Formation

Site Type: GW - Ground Water

Sampling Method: 4010 - Thief Sample
 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER
WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

QUEEN ANNE'S COUNTY, MARYLAND--Continued

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD TO SAM- PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)
QA Eb 181	455	15.0	--	--	216	6.0	34.0	17.5	.0
QA Ec 91	826	18.0	--	--	147	6.5	25.5	19.0	.0
QA Ec 102	624	18.0	--	--	219	8.0	26.0	17.7	.1
QA Ef 32	480	52.0	--	--	782	8.1	19.3	15.8	.1
QA Fa 49	--	8.0	25	--	970	7.5	30.8	16.5	--
QA Fa 54	240	10.0	--	--	354	7.8	3.8	15.3	--
	240	10.0	20	--	348	7.7	28.0	15.9	--
QA Fa 58	260	7.1	15	--	458	7.8	22.2	16.0	--
QA Fa 60	230	10.1	--	--	417	8.0	12.3	13.8	--
	230	10.1	20	--	423	8.3	31.0	22.2	--
QA Fa 63	200	15.0	--	--	463	7.3	8.5	15.2	--
	200	15.0	11	--	459	7.2	29.3	15.6	--
QA Fa 64	191	5.0	--	--	1040	7.8	6.5	14.1	--
	191	5.0	20	--	1020	7.8	30.0	16.4	--
QA Fa 66	250	13.0	--	--	517	7.8	.0	15.1	--
QA Fa 67	250	13.0	25	--	504	7.7	21.0	16.6	--
	250	7.3	--	--	349	7.8	4.5	15.3	--
	250	7.3	25	--	343	7.7	29.3	16.0	--
QA Fa 72	200	12.0	--	--	491	7.9	10.5	14.0	--
	200	12.0	45	--	483	7.8	29.0	16.1	--
QA Fa 74	--	10.0	--	--	460	7.7	-.5	15.1	--
	--	10.0	25	--	451	7.6	18.3	16.1	--
QA Fa 75	180	10.0	--	--	520	7.9	10.3	14.4	--
	180	10.0	30	--	494	7.8	16.3	20.1	--
QA Fa 77	580	10.0	--	35.0	257	6.3	--	18.3	--
QA Fa 78	--	10.0	--	--	248	6.3	27.8	16.7	.0
QA Fa 79	625	5.0	15	3.0	230	6.8	--	16.7	.4
QA Fa 81	630	10.0	31	31.0	220	6.4	--	17.7	.1
QA Fa 82	615	5.0	20	2.0	210	6.4	--	17.1	.2
QA Fb 3	780	5.0	30	1.5	186	6.5	--	16.9	.1

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

QUEEN ANNE'S COUNTY, MARYLAND--Continued

WELL NUMBE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ALPHA COUNT, 2 SIGMA WAT DIS AS TH-230 (PCI/L) (75987)	ALPHA RADIO. WATER DISS AS TH-230 (PCI/L) (04126)	BETA, 2 SIGMA WATER, DISS, AS CS-137 (PCI/L) (75989)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
QA Eb 181	431	2.6	4.9	4.0	<4.0	--	--	.30
QA Ec 91	130	3.2	10	4.3	15	91	17	.30
QA Ec 102	18	--	--	--	--	149	19	.30
QA Ef 32	<4.0	--	--	--	--	--	--	.90
QA Fa 49	--	--	--	--	--	--	--	--
QA Fa 54	--	--	--	--	--	--	--	--
QA Fa 58	--	--	--	--	--	--	--	--
QA Fa 60	--	--	--	--	--	--	--	--
QA Fa 63	--	--	--	--	--	--	--	--
QA Fa 64	--	--	--	--	--	--	--	--
QA Fa 66	--	--	--	--	--	--	--	--
QA Fa 67	--	--	--	--	--	--	--	--
QA Fa 72	--	--	--	--	--	--	--	--
QA Fa 74	--	--	--	--	--	--	--	--
QA Fa 75	--	--	--	--	--	--	--	--
QA Fa 77	--	3.5	9.9	4.0	9.1	--	--	--
QA Fa 78	297	--	--	--	--	29	18	.40
QA Fa 79	--	2.5	4.1	3.8	6.9	--	--	--
QA Fa 81	--	2.1	<3.0	3.9	7.5	--	--	--
QA Fa 82	--	2.1	<3.0	4.0	11	--	--	--
QA Fb 3	--	2.1	<3.0	3.7	<4.0	--	--	--

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

TALBOT 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 BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)
TA Be 80	03-20-98	1000	385410076030001	124PNPN	GW	8030	350.00	350
TA Be 86	03-20-98	1230	385156076040401	125AQUI	GW	8030	620.00	620
TA Cc 42	04-14-98	1100	384859076113601	125AQUI	GW	8030	442.00	442
TA Ce 7	09-09-98	1100	384643076043801	122CLVR	GW	4040	104.00	--
TA Ce 78	04-23-98	1015	384852076014401	125AQUI	GW	8030	680.00	680

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF SURFACE DATUM ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
TA Be 80	250	55.0	--	--	299	7.8	8.5	15.0	.1
TA Be 86	600	50.0	--	--	795	8.3	10.0	17.0	.1
TA Cc 42	432	7.0	--	--	677	8.2	20.0	15.6	.1
TA Ce 7	--	13.0	46	7.5	364	7.8	--	16.5	.7
TA Ce 78	660	45.0	--	--	831	8.3	15.0	19.0	.1

WELL NUMBER	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)	SODIUM, DIS-SOLVED (MG/L) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L) (00935)	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419)	SULFATE DIS-SOLVED (MG/L) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L) (00950)
TA Be 80	20	10	19	12	140	4.0	1.4	.40
TA Be 86	3.8	2.3	174	9.1	371	14	6.6	3.0
TA Cc 42	8.9	6.1	128	14	249	12	42	.53
TA Ce 7	38	12	15	5.6	--	2.6	2.5	.30
TA Ce 78	2.3	1.1	204	7.1	398	12	2.2	3.0

Geologic Unit (aquifer): 122CLVR - Calvert Formation
 124PNPN - Piney Point Formation
 125AQUI - Aquia Formation

Site Type: GW - Ground Water

Sampling Method: 4040 - Submersible pump
 8030 - Grab sample at water-supply tap

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

TALBOT COUNTY, MARYLAND -- Continued

WELL NUMBER	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
	TA Be 80	32	184	<.010	<.050	.382	.54	.020
TA Be 86	13	471	<.010	<.050	.264	.42	.075	.067
TA Cc 42	13	392	<.010	<.050	.378	.38	.028	.033
TA Ce 7	62	253	<.010	<.050	.186	--	--	<.010
TA Ce 78	19	509	<.010	.060	.359	.38	.095	.087

WELL NUMBER	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	RADON 222 TOTAL (PCI/L) (82303)	RN-222 2 SIGMA WATER, WHOLE, TOTAL, (PCI/L) (76002)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
	TA Be 80	.032	--	46	--	<4.0	--	--
TA Be 86	.101	--	<10	--	<4.0	--	--	.60
TA Cc 42	.043	--	22	--	<4.0	302	21	.60
TA Ce 7	.020	120	84	<10	<4.0	--	--	--
TA Ce 78	.107	--	<10	--	<4.0	--	--	.50

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WICOMICO COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)
WI Bh 8	09-23-98	1400	382609075210501	110ALVM	GW	4043	13.00	--
WI Bh 9	09-23-98	1600	382609075210502	112BVDM	GW	4043	41.00	--
WI Bh pla	08-24-98	0915	382609075201601	110ALVM	PIEZ	4080	--	--
WI Bh plb	08-24-98	1100	382609075201602	110ALVM	PIEZ	4080	--	--
WI Bh plc	08-24-98	1400	382609075201603	110ALVM	PIEZ	4080	--	--
WI Bh pld	08-24-98	1515	382609075201604	110ALVM	PIEZ	4080	--	--
WI Bh ple	08-24-98	1600	382609075201605	110ALVM	PIEZ	4080	--	--
WI Bh plf	08-25-98	0900	382609075201606	110ALVM	PIEZ	4080	--	--
WI Bh plg	08-25-98	1015	382609075201607	110ALVM	PIEZ	4080	--	--
WI Bh plh	08-25-98	1130	382609075201608	110ALVM	PIEZ	4080	--	--
WI Bh pli	08-25-98	1230	382609075201609	110ALVM	PIEZ	4080	--	--
WI Bh plj	08-25-98	1330	382609075201610	110ALVM	PIEZ	4080	--	--
WI Bx pla	09-21-98	0930	382704075224001	110ALVM	PIEZ	4080	--	--
WI Bx plb	09-21-98	1130	382704075224002	110ALVM	PIEZ	4080	--	--
WI Bx plc	09-21-98	1300	382704075224003	110ALVM	PIEZ	4080	--	--
WI Bx pld	09-21-98	1500	382704075224004	110ALVM	PIEZ	4080	--	--
WI Bx ple	09-21-98	1600	382704075224005	110ALVM	PIEZ	4080	--	--
WI Bx plf	09-22-98	0900	382704075224006	110ALVM	PIEZ	4080	--	--
WI Bx plg	09-22-98	1100	382704075224007	110ALVM	PIEZ	4080	--	--
WI Bx plh	09-22-98	1200	382704075224008	110ALVM	PIEZ	4080	--	--
WI Bx pli	09-22-98	1300	382704075224009	110ALVM	PIEZ	4080	--	--
WI Bx plj	09-22-98	1430	382704075224010	110ALVM	PIEZ	4080	--	--
WI Cd 71	04-28-98	1300	382329075412002	112CLMB	GW	4070	18.00	2.35
WI Cd 72	04-28-98	1200	382328075411301	112CLMB	GW	4090	55.00	--
WI Ce 13	09-17-98	0900	382150075352101	112BVDM	GW	4040	65.00	2.74
WI Ch 56	09-24-98	0900	382452075202901	112PRBG	GW	4043	17.00	--
WI Ch 57	09-24-98	1000	382452075202902	112BVDM	GW	4043	50.00	--

WELL NUMBER	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH OF SURFACE SAMPLE INTER-VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM ABOVE NGVD (FT) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	FLOW RATE (G/M) (00059)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)
WI Bh 8	13	11	36.3	5	.5	269	5.8	--	17.9
WI Bh 9	41	38	38.0	17	1.0	159	6.0	--	14.4
WI Bh pla	--	--	25.0	--	--	64	5.2	--	21.0
WI Bh plb	--	--	25.0	--	--	58	5.3	--	24.2
WI Bh plc	--	--	25.0	--	--	58	5.1	--	24.4
WI Bh pld	--	--	25.0	--	--	57	5.2	--	25.9
WI Bh ple	--	--	25.0	--	--	64	5.2	--	24.6
WI Bh plf	--	--	25.0	--	--	152	5.7	--	23.1
WI Bh plg	--	--	25.0	--	--	213	6.1	--	23.6
WI Bh plh	--	--	25.0	--	--	249	6.3	--	24.2
WI Bh pli	--	--	25.0	--	--	249	6.2	--	24.9
WI Bh plj	--	--	25.0	--	--	253	6.3	--	25.3
WI Bx pla	--	--	35.0	--	--	120	5.8	26.5	20.9
WI Bx plb	--	--	35.0	--	--	129	5.8	--	22.0
WI Bx plc	--	--	35.0	--	--	161	6.1	--	22.4
WI Bx pld	--	--	35.0	--	--	157	6.1	--	22.0
WI Bx ple	--	--	35.0	--	--	152	6.0	--	23.4
WI Bx plf	--	--	35.0	--	--	128	6.0	22.0	21.3
WI Bx plg	--	--	35.0	--	--	135	6.1	22.0	21.7
WI Bx plh	--	--	35.0	--	--	137	6.1	24.0	21.9
WI Bx pli	--	--	35.0	--	--	129	6.0	26.0	22.4
WI Bx plj	--	--	35.0	--	--	149	5.9	26.0	22.8
WI Cd 71	18	15	35.0	--	--	57	--	--	12.6
WI Cd 72	55	50	35.0	27	2.0	80	5.1	--	14.3
WI Ce 13	65	45	7.0	--	--	150	5.9	--	18.7
WI Ch 56	15	17	41.2	10	.5	161	5.6	16.5	15.6
WI Ch 57	48	50	41.5	19	1.0	210	5.7	16.5	14.0

Geologic Unit (aquifer): 110ALVM - Quaternary Alluvium Sampling Method: 4040 - Submersible pump
 112BVDM - Beaverdam Sand 4043 - Submersible gas lift ount
 112CLMB - Columbia Group 4070 - Gas lift
 112PRBG - Parsonsburg Formation 4080 - Peristaltic pump
 4090 - Jet pump

Site Type: GW - Ground Water
 PIEZ - Piezometer

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WICOMICO COUNTY, MARYLAND -- Continued

WELL NUMBER	OXYGEN, DIS-SOLVED (MG/L) (00300)	CALCIUM DIS-SOLVED (MG/L) AS CA (00915)	SODIUM, DIS-SOLVED (MG/L) AS NA (00930)	POTAS-SIUM, DIS-SOLVED (MG/L) AS K (00935)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
WI Bh 8	--	--	--	--	--	--	--	--	--
WI Bh 9	1.0	--	--	--	--	--	--	--	--
WI Bh pla	2.9	--	--	--	--	--	--	--	--
WI Bh plb	--	--	--	--	--	--	--	--	--
WI Bh plc	4.1	--	--	--	--	--	--	--	--
WI Bh pld	6.5	--	--	--	--	--	--	--	--
WI Bh ple	2.2	--	--	--	--	--	--	--	--
WI Bh plf	2.3	--	--	--	--	--	--	--	--
WI Bh plg	1.3	--	--	--	--	--	--	--	--
WI Bh plh	2.6	--	--	--	--	--	--	--	--
WI Bh pli	1.4	--	--	--	--	--	--	--	--
WI Bh plj	1.1	--	--	--	--	--	--	--	--
WI Bx pla	1.4	--	--	--	--	--	--	--	--
WI Bx plb	1.0	--	--	--	--	--	--	--	--
WI Bx plc	1.1	--	--	--	--	--	--	--	--
WI Bx pld	1.1	--	--	--	--	--	--	--	--
WI Bx ple	1.1	--	--	--	--	--	--	--	--
WI Bx plf	1.2	--	--	--	--	--	--	--	--
WI Bx plg	.9	--	--	--	--	--	--	--	--
WI Bx plh	.9	--	--	--	--	--	--	--	--
WI Bx pli	1.0	--	--	--	--	--	--	--	--
WI Bx plj	.9	--	--	--	--	--	--	--	--
WI Cd 71	--	1.8	4.0	1.6	9.4	5.4	<.10	10	42
WI Cd 72	4.3	4.1	9.2	1.4	.36	8.1	<.10	23	70
WI Ce 13	4.5	8.4	14	2.1	9.1	13	<.10	27	127
WI Ch 56	1.0	--	--	--	--	--	--	--	--
WI Ch 57	.9	--	--	--	--	--	--	--	--

	NITRO-GEN, NITRITE DIS-SOLVED (MG/L) AS N (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)	PHOS-PHORUS, DIS-SOLVED (MG/L) AS P (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L) AS P (00671)	IRON, TOTAL RECOV-ERABLE (UG/L) AS FE (01045)	IRON, DIS-SOLVED (UG/L) AS FE (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) AS MN (01055)	MANGA-NESE, DIS-SOLVED (UG/L) AS MN (01056)
WI Bh 8	<.010	.060	3.85	.210	.048	--	--	--	--
WI Bh 9	.014	.078	.182	.229	.220	--	--	--	--
WI Bh pla	<.010	<.050	.326	.074	.093	--	--	--	--
WI Bh plb	<.010	<.050	.197	.043	.046	--	--	--	--
WI Bh plc	<.010	<.050	.209	.049	.041	--	--	--	--
WI Bh pld	<.010	<.050	.221	.023	.047	--	--	--	--
WI Bh ple	<.010	<.050	.350	.091	.076	--	--	--	--
WI Bh plf	<.010	<.050	.546	.076	.108	--	--	--	--
WI Bh plg	<.010	<.050	1.56	.225	.297	--	--	--	--
WI Bh plh	<.010	<.050	1.93	.322	.380	--	--	--	--
WI Bh pli	<.010	<.050	2.06	.312	.397	--	--	--	--
WI Bh plj	<.010	<.050	2.00	.348	.402	--	--	--	--
WI Bx pla	<.010	.054	.491	.047	.033	--	--	--	--
WI Bx plb	<.010	.059	.455	.137	.098	--	--	--	--
WI Bx plc	<.010	.065	.989	1.50	1.60	--	--	--	--
WI Bx pld	<.010	.065	.624	.297	.319	--	--	--	--
WI Bx ple	<.010	.066	1.00	.938	.941	--	--	--	--
WI Bx plf	<.010	.097	.579	1.01	.997	--	--	--	--
WI Bx plg	<.010	.060	.645	1.47	1.58	--	--	--	--
WI Bx plh	<.010	.061	.733	1.45	1.61	--	--	--	--
WI Bx pli	<.010	.109	.722	1.02	1.04	--	--	--	--
WI Bx plj	<.010	.056	1.04	1.15	1.26	--	--	--	--
WI Cd 71	<.010	.084	<.020	<.010	<.010	60	<10	<10	<4.0
WI Cd 72	<.010	2.52	.021	<.010	<.010	20	<10	<10	<4.0
WI Ce 13	.029	5.74	.045	<.010	<.010	9300	590	36	37
WI Ch 56	<.010	4.07	<.020	.026	<.010	--	--	--	--
WI Ch 57	<.010	3.64	<.020	.017	<.010	--	--	--	--

QUALITY OF GROUND WATER
 WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WORCESTER COUNTY, MARYLAND

WELL NUMBER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES (82398)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH SURFACE (FEET) (72019)	DEPTH BELOW LAND (FEET) (72016)	DEPTH TO BOT-TOM OF SAMPLE VAL (FT) (72016)
WO Ah 36	09-02-98	1415	382635075030602	122MNKN	GW	4040	440.00	29.35	430	
WO Ah 38	09-01-98	1015	382638075033001	122MNKN	GW	4045	--	--	--	
WO Be pla	09-23-98	1030	382442075183901	110ALVM	PIEZ	4080	--	--	--	
WO Be plb	09-23-98	0830	382442075183902	110ALVM	PIEZ	4080	--	--	--	
WO Be plc	09-23-98	1130	382442075183903	110ALVM	PIEZ	4080	--	--	--	
WO Bf 87	04-29-98	0900	382332075141802	112BVDM	GW	4070	18.00	3.85	18	
WO Bf 88	04-29-98	1100	382305075150001	112CLMB	GW	4090	69.00	--	69	
WO Bh 28	08-31-98	1300	382214075041901	122OCNC	GW	4045	294.00	--	294	
WO Bh 29	09-01-98	1115	382216075041201	112PCPC	GW	4045	294.00	--	294	
WO Bh 34	09-02-98	1600	382443075033501	122MNKN	GW	4030	353.00	16.23	353	
WO Bh 84	08-31-98	1145	382215075041901	121BVDM	GW	4030	89.00	5.09	89	
	08-31-98	1150		121BVDM	GW	4030	89.00	5.09	89	
WO Bh 85	08-31-98	1400	382215075041902	122PCMK	GW	4030	195.00	6.59	195	
WO Bh 89	09-03-98	1130	382215075041903	122MNKN	GW	4030	500.00	20.87	500	
WO Bh 97	09-01-98	1445	382127075043803	122MNKN	GW	4030	445.00	24.98	440	
WO Bh 98	09-03-98	1330	382127075043802	122OCNC	GW	4030	310.00	21.32	310	
WO Cc 3	04-28-98	1500	381543075273802	112CLMB	GW	4070	21.00	3.12	21	
WO Cc 4	09-17-98	1100	381541075271401	112CLMB	GW	8030	70.00	--	70	
WO Cg 34	09-01-98	1300	381940075051901	112RDGV	GW	4045	300.00	--	300	

WELL NUMBER	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF SURFACE DATUM (FT) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	PH WATER WHOLE FIELD (STAND-ARD) (UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)		
WO Ah 36	420	15.4	80	8.0	812	7.0	29.0	16.7	--	24
WO Ah 38	--	4.0	120	700	539	6.5	28.0	17.4	--	22
WO Be pla	--	35.0	--	--	334	4.9	16.5	20.9	.9	--
WO Be plb	--	35.0	--	--	278	4.8	16.0	19.6	1.1	--
WO Be plc	--	35.0	--	--	198	5.6	16.0	20.8	.9	--
WO Bf 87	15	33.0	--	--	277	5.4	--	13.2	7.3	20
WO Bf 88	64	40.0	25	3.2	482	5.2	--	14.8	<1.0	31
WO Bh 28	248	5.0	120	700	878	6.7	29.5	20.8	--	18
WO Bh 29	248	6.0	120	700	550	6.3	28.0	17.5	--	14
WO Bh 34	337	4.0	45	30.0	232	7.2	27.0	16.6	--	14
WO Bh 84	84	5.0	35	42.0	380	6.8	29.5	16.8	--	17
	84	5.0	35	42.0	380	6.8	29.5	16.8	--	--
WO Bh 85	190	5.0	70	21.0	414	6.7	27.0	16.5	--	15
WO Bh 89	388	5.0	55	15.0	1900	6.8	31.0	17.0	--	28
WO Bh 97	370	6.0	60	28.0	395	6.6	33.0	17.1	--	14
WO Bh 98	255	5.0	30	28.0	424	7.2	27.5	16.4	--	36
WO Cc 3	18	30.0	--	--	58	--	--	12.5	--	2.3
WO Cc 4	60	40.0	17	3.0	67	5.6	--	16.1	.4	2.0
WO Cg 34	226	5.0	120	700	450	6.7	31.0	17.5	--	34

Geologic Unit (aquifer): 110ALVM - Quarternary Alluvium
 112BVDM - Beaverdam Sand
 112CLMB - Columbia Group
 112PCPC - Pleistocene-Pliocene Series
 112RDGV - Red Gravelly Facies
 121BVDM - Beaverdam Sand
 122MNKN - Manokin aquifer
 122OCNC - Ocean City aquifer
 122PCMK - Pokomoke aquifer

Site Type: GW - Ground Water
 PIEZ - Piezometer

Sampling Method: 4030 - Suction pump
 4040 - Submersible pump
 4045 - Submersible multiple impeller (turbine) pump
 4070 - Gas lift
 4080 - Peristaltic pump
 4090 - Jet pump
 8030 - Grab sample at water-supply tap

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

WORCESTER COUNTY, MARYLAND -- Continued

WELL NUMBER	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC WATER UNFLTRD IT FIELD (MG/L AS CACO3) (00419)	ANC BICAR-BONATE IT FIELD (MG/L AS HCO3) (00450)	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)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
WO Ah 36	115	5.9	119	145	<.10	170	.10	32	440	--
WO Ah 38	65	4.5	97	118	.23	97	<.10	34	302	--
WO Be pl a	--	--	--	--	--	--	--	--	--	<.010
WO Be pl b	--	--	--	--	--	--	--	--	--	.037
WO Be pl c	--	--	--	--	--	--	--	--	--	.033
WO Bf 87	7.8	2.2	--	--	35	23	<.10	10	159	<.010
WO Bf 88	25	2.0	--	--	180	26	<.10	30	357	<.010
WO Bh 28	122	11	113	138	.58	190	.22	32	474	--
WO Bh 29	66	8.8	108	132	<.10	86	.18	33	290	--
WO Bh 34	10	5.0	85	104	<.10	13	<.10	35	132	--
WO Bh 84	32	10	75	91	<.10	44	.13	35	220	--
	--	--	75	91	--	--	--	--	--	<.010
WO Bh 85	--	12	120	146	<.10	45	.16	--	237	--
WO Bh 89	267	16	163	198	4.2	490	.16	32	1050	--
WO Bh 97	36	11	100	122	<.10	54	.16	33	217	--
WO Bh 98	21	11	155	189	<.10	24	.13	28	248	--
WO Cc 3	4.7	1.4	--	--	5.7	5.2	<.10	16	48	<.010
WO Cc 4	8.2	.97	--	--	3.7	8.7	<.10	22	55	.011
WO Cg 34	36	8.6	150	183	<.10	34	.16	25	254	--

	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
WO Ah 36	--	--	--	--	--	--	13200	--	128
WO Ah 38	--	--	--	--	--	--	12000	--	133
WO Be pl a	25.4	<.020	.60	.037	<.010	--	--	--	--
WO Be pl b	18.7	<.020	--	.114	.066	--	--	--	--
WO Be pl c	3.95	<.020	.45	.463	.404	--	--	--	--
WO Bf 87	11.1	.021	--	.017	.016	230	<10	<10	<4.0
WO Bf 88	<.050	.146	--	.027	.013	21000	20900	400	388
WO Bh 28	--	--	--	--	--	--	5800	--	117
WO Bh 29	--	--	--	--	--	--	4300	--	103
WO Bh 34	--	--	--	--	--	--	12800	--	101
WO Bh 84	--	--	--	--	--	--	5800	--	73
	<.050	.470	--	.255	.251	--	--	--	--
WO Bh 85	--	--	--	--	--	--	5000	--	89
WO Bh 89	--	--	--	--	--	--	7100	--	132
WO Bh 97	--	--	--	--	--	--	9600	--	141
WO Bh 98	--	--	--	--	--	--	1200	--	27
WO Cc 3	.050	.020	--	<.010	.014	950	78	35	33
WO Cc 4	<.050	.045	--	.011	.016	1200	1300	14	18
WO Cg 34	--	--	--	--	--	--	1700	--	65

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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.



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