Bob Pentz

Water Resources Data Maryland and Delaware Water Year 1988

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-88-1
Prepared in cooperation with the States of Maryland and Delaware and with other agencies

October 1, 1978

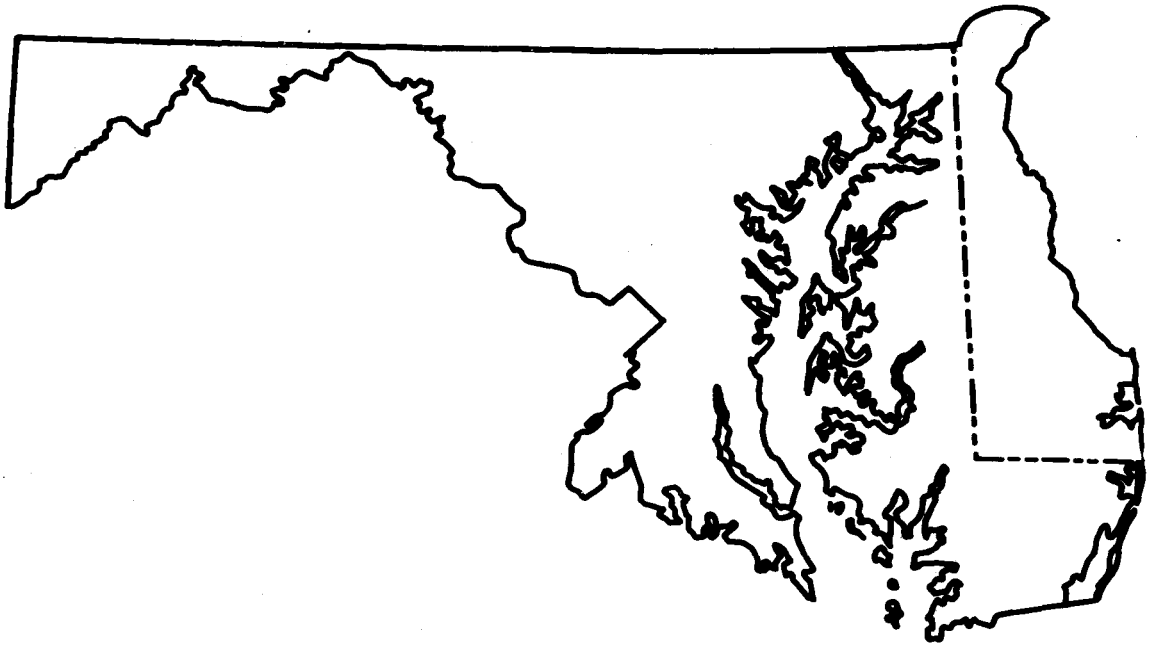
FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI).

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

Water Resources Data Maryland and Delaware Water Year 1988

by R.W. James, Jr., R.H. Simmons, B.F. Strain and M.J. Smigaj



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MD-DE-88-1
Prepared in cooperation with the States of Maryland and Delaware and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
District Chief, Water Resources Division
U.S. Geological Survey
208 Carroll Building
8600 La Salle Road
Towson, Maryland 21204

1988

PREFACE

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

This report is the culmination of a concerted effort by dedicated personnel of the U.S.Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the 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 significantly to the collection, processing, and tabulation of the data:

J. E. Auvil	V. E. DeFries	L. B. Maclin
J. D. Blomquist	D. A. DeHanas	J. J. Manning
D. A. Bringman	J. L. Griffith	M. S. Martin
F. A. Danner	B. M. Helinsky	R. J. Sexton
M. R. Danner	J. F. Hornlein	A. J. Tallman
R. G. Davis	M. N. Lys	

This report was prepared under the general supervision of H. J. Freiberger, District Chief, Mid-Atlantic District, and S. P. Sauer, Regional Hydrologist, Northeastern Region, and in cooperation with the States of Maryland and Delaware and with other agencies.

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16. Abstract (Limit: 200 words)

Water resources data for the 1988 water year for Maryland and Delaware consist of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality and ground-water wells. This volume contains records for water discharge at 100 gaging stations; stage and contents at 1 reservoir; water quality at 23 gaging stations and 229 wells; and water levels at 204 observation wells. Also included are data for 3 crest-stage , 9 low-flow, and 6 tidal crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic cata-collection program and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Maryland and Delaware.

17. Document Analysis a. Descriptors

*Maryland, *Delaware, *District of Columbia, * Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water anlyses.

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[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation and contents]

NORTH ATLANTIC SLOPE BASINS	Station No.	Page
DELAWARE RIVER BASIN		
Delaware River:		
Shellpot Creek at Wilmington, DE (d)	01477800	30
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GROUND-WATER SPRING DISCHARGE

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MARYLAND:
FREDERICK
Spring 391846077370501 Local number FR Fb 12 283

GROUND-WATER LEVELS

DELAWARE:
KENT COUNTY
Well 391026075304901 Local number Id 55-1 284-285
Well 390607075331501 Local number Jd 42-3 286
Well 385041075395601 Local number Mc 51-1 287
Well 385310075331301 Local number Md 22-1 288
NEWCASTLE COUNTY
Well 393855075415402 Local number Db 24-17 289
Well 391949075410701 Local number Hb 14-1 290
SUSSEX COUNTY
Well 384930075370201 Local number Nc 13-3 291-292
Well 384639075353101 Local number Nc 45-1 293
Well 384955075192801 Local number Ng 11-1 294
Well 383138075260201 Local number Qe 44-1 295

MARYLAND:
ALLEGANY COUNTY
Well 394024078273401 Local number AL Ah 1 296
Well 393930078460901 Local number AL Bd 2 297
Well 393009079025201 Local number AL Ca 19 298
ANNE ARUNDEL COUNTY
Well 391101076404001 Local number AA Ac 11 299
Well 391015076373501 Local number AA Ad 29 300
Well 391032076385905 Local number AA Ad 104 301
Well 390945076285601 Local number AA Bf 3 302
Well 390303076463201 Local number AA Cb 1 303
Well 390423076432001 Local number AA Cc 40 304
Well 390127076240301 Local number AA Cg 25 305
Well 385623076274401 Local number AA Df 103 306
Well 385406076383901 Local number AA Ed 45 307
Well 384646076352401 Local number AA Fd 43 308
BALTIMORE CITY
Well 391617076322001 Local number 2S5E- 1 309
Well 391600076353301 Local number 3S2E- 5 310
Well 391556076315301 Local number 3S5E- 46 311
Well 391349076354501 Local number 5S2E- 24 312
Well 391349076354502 Local number 5S2E- 25 313
Well 391213076324401 Local number 7S4E- 1 314
BALTIMORE COUNTY
Well 393129076384201 Local number BA Cd 26 315
Well 393102076341801 Local number BA Ce 21 316
Well 392045076512501 Local number BA Ea 18 317
Well 392305076432001 Local number BA Ec 43 318
Well 391607076312901 Local number BA Fe 19 319
Well 391356076293501 Local number BA Gf 11 320
Well 391257076282501 Local number BA Gf 168 321
Well 391256076282501 Local number BA Gf 169 322
Well 391226076253401 Local number BA Gf 178 323
CALVERT COUNTY
Well 384331076395201 Local number CA Bb 27 324
Well 384334076394501 Local number CA Bb 28 325
Well 383930076314301 Local number CA Cc 18 326
Well 383605076344601 Local number CA Cc 57 327
Well 383239076354201 Local number CA Db 47 328
Well 382408076260401 Local number CA Fd 51 329
Well 382316076284801 Local number CA Fd 52 330
Well 382407076260301 Local number CA Fd 54 331
Well 382318076242401 Local number CA Fe 22 332
Well 381952076270901 Local number CA Gd 6 333
CAROLINE COUNTY
Well 390333075504501 Local number CO Bc 1 334
Well 390227075470201 Local number CO Bd 53 335
Well 385310075503601 Local number CO Dc 129 336
Well 385217075490601 Local number CO Dd 47 337
CARROLL COUNTY
Well 394008077005601 Local number CL Ad 47 338
Well 393638076510001 Local number CL Bf 1 339
Well 393754076512401 Local number CL Bf 184 340
CECIL COUNTY
Well 393537075492001 Local number CE Bf 82 341
Well 393603075471701 Local number CE Bf 142 342-343
Well 393433075544901 Local number CE Ce 54 344
Well 393241075500201 Local number CE Ce 55 345
Well 392403075521801 Local number CE Ee 29 346

GROUND-WATER LEVELS-Continued

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MARYLAND-Continued:

CHARLES COUNTY
Well 383524077111802 Local number CH Bb 17 347-348
Well 383524077094401 Local number CH Bc 5 349
Well 383633077083001 Local number CH Bc 24 350-351
Well 383722076544001 Local number CH Bf 128 352
Well 383746076482901 Local number CH Bg 12 353
Well 383422077114601 Local number CH Cb 7 354-355
Well 382607077002601 Local number CH Dd 33 356
Well 382103076560201 Local number CH Ee 16 357

DORCHESTER COUNTY
Well 383708075503801 Local number DO Bg 59 358
Well 383151076080801 Local number DO Cd 1 359
Well 383340076041601 Local number DO Ce 5 360
Well 383408076042402 Local number DO Ce 15 361
Well 383346076030301 Local number DO Ce 21 362
Well 383243076042301 Local number DO Ce 78 363
Well 383401076032001 Local number DO Ce 88 364
Well 382800076180701 Local number DO Db 17 365

FREDERICK COUNTY
Well 394200077190701 Local number FR Af 27 366
Well 393733077274801 Local number FR Bd 96 367
Well 393156077135701 Local number FR Cg 1 368
Well 392517077190401 Local number FR Df 35 369
Well 392257077095601 Local number FR Eh 11 370

GARRETT COUNTY
Well 394017078581701 Local number GA Ag 1 371
Well 393749079190301 Local number GA Bc 1 372
Well 391559079260901 Local number GA Fa 25 373
Well 391559079260902 Local number GA Fa 26 374
Well 391511079265001 Local number GA Fa 27 375
Well 391512079270901 Local number GA Fa 28 376
Well 391512079270902 Local number GA Fa 29 377
Well 391539079254601 Local number GA Fa 31 378-379
Well 391539079254602 Local number GA Fa 32 380
Well 391539079254603 Local number GA Fa 33 381
Well 391539079254604 Local number GA Fa 34 382-383
Well 391530079244401 Local number GA Fb 22 384-385
Well 391530079244402 Local number GA Fb 23 386
Well 391530079244403 Local number GA Fb 24 387-388
Well 391530079244404 Local number GA Fb 25 389-390
Well 391513079243601 Local number GA Fb 26 391
Well 391513079243602 Local number GA Fb 27 392-393
Well 391513079243603 Local number GA Fb 28 394
Well 391513079243604 Local number GA Fb 29 395-396
Well 391513079243605 Local number GA Fb 30 397-398

HARFORD COUNTY
Well 393902076160001 Local number HA Bd 31 399
Well 393158076302601 Local number HA Ca 23 400
Well 392921076100401 Local number HA De 66 401
Well 392435076203301 Local number HA Ec 11 402
Well 392343076161901 Local number HA Ed 24 403

HOWARD COUNTY
Well 391910076565701 Local number HO Bd 1 404
Well 391444076554701 Local number HO Cd 25 405
Well 391001076540001 Local number HO Ce 38 406-407

KENT COUNTY
Well 392007076075501 Local number KE Ac 20 408
Well 391823075594701 Local number KE Be 43 409
Well 391815075472101 Local number KE Bg 33 410
Well 391815075472102 Local number KE Bg 34 411
Well 391400076101401 Local number KE Cb 36 412
Well 391432076015501 Local number KE Cd 44 413
Well 390837076140401 Local number KE Db 40 414

MONTGOMERY COUNTY
Well 391314077224201 Local number MO Cc 14 415
Well 390802077283801 Local number MO Db 68 416
Well 390752077243101 Local number MO Dc 72 417
Well 390434076573002 Local number MO Eh 20 418

PRINCE GEORGES COUNTY
Well 390151076561501 Local number PG Bc 16 419
Well 385130076465501 Local number PG De 21 420
Well 385152076431301 Local number PG Df 2 421
Well 384423077004501 Local number PG Fb 36 422
Well 384230076555601 Local number PG Fc 17 423
Well 384131076533301 Local number PG Fd 41 424

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QUEEN ANNES COUNTY
Well 390841075515201 Local number QA Cg 1 425
Well 390201076182701 Local number QA Db 30 426
Well 390201076182703 Local number QA Db 32 427
Well 390023076174301 Local number QA Db 34 428
Well 390119076191001 Local number QA Db 35 429
Well 390201076182704 Local number QA Db 36 430
Well 390023076174302 Local number QA Db 37 431
Well 385718076211501 Local number QA Ea 77 432
Well 385718076211502 Local number QA Ea 78 433
Well 385757076200101 Local number QA Ea 79 434
Well 385757076200102 Local number QA Ea 80 435
Well 385718076211503 Local number QA Ea 81 436
Well 385748076172001 Local number QA Eb 113 437-438
Well 385843076155302 Local number QA Eb 155 439
Well 385852076195201 Local number QA Eb 156 440
Well 385852076195202 Local number QA Eb 157 441
Well 385756076105301 Local number QA Ec 1 442
Well 385429076120201 Local number QA Fc 7 443
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 381435076291802 Local number SM Ef 57 454
Well 381052076253001 Local number SM Ef 80 455
Well 381213076222801 Local number SM Eg 27 456
Well 380834076303401 Local number SM Fe 30 457
Well 380834076303402 Local number SM Fe 31 458
Well 380711076222201 Local number SM Fg 45 459
SOMERSET COUNTY
Well 381156075412501 Local number SO Be 42 460
Well 380927075423701 Local number SO Ce 42 461-462
Well 380616075380701 Local number SO Cf 2 463
TALBOT COUNTY
Well 385242075593101 Local number TA Bf 73 464
Well 385242075593102 Local number TA Bf 74 465
Well 384923076100601 Local number TA Cc 35 466
Well 384514076103701 Local number TA Cc 36 467
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 25 471-472
Well 393414077461801 Local number WA Ch 106 473-474
Well 393402077434201 Local number WA Ci 82 475
Well 392904077371501 Local number WA Dj 2 476
WICOMICO COUNTY
Well 382150075352101 Local number WI Ce 13 477
Well 382404075355401 Local number WI Ce 204 478
Well 382037075310801 Local number WI Cf 3 479
Well 382429075344501 Local number WI Cf 147 480
Well 382329075263701 Local number WI Cg 20 481
WORCESTER COUNTY
Well 382621075174201 Local number WO Ae 23 482
Well 382621075174202 Local number WO Ae 24 483
Well 382621075174203 Local number WO Ae 25 484
Well 382632075031801 Local number WO Ah 6 485-486
Well 382635075030601 Local number WO Ah 35 487
Well 382635075030602 Local number WO Ah 36 488
Well 382635075030603 Local number WO Ah 37 489
Well 382022075072401 Local number WO Bg 1 490
Well 382359075094501 Local number WO Bg 15 491
Well 382358075094501 Local number WO Bg 45 492
Well 382358075094502 Local number WO Bg 46 493
Well 382325075063301 Local number WO Bg 47 494-495
Well 382325075063302 Local number WO Bg 48 496-497
Well 382038075065901 Local number WO Bg 49 498-499
Well 382215075041801 local number WO Bh 31 500-501
Well 382443075033501 local number WO Bh 34 502-503
Well 382215075041901 local number WO Bh 84 504
Well 382215075041902 local number WO Bh 85 505
Well 382215075041903 local number WO Bh 89 506-507
Well 381939075052101 Local number WO Cg 72 508
Well 381037075234301 Local number WO Dd 7 509
Well 381457075174101 Local number WO De 36 510
Well 381427075081102 Local number WO Dg 21 511-512
Well 380408075335701 Local number WO Fb 2 513

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KENT COUNTY

Well 394224075340501 Local number Cd 31-19 515
Well 391233075433101 Local number Ib 32-04 515
Well 391233075433102 Local number Ib 32-05 515
Well 390503075354301 Local number Jc 55-02 515
Well 390503075354001 Local number Jc 55-03 515
Well 385713075253701 Local number Le 35-11 515
Well 385713075253702 Local number Le 35-12 515

NEWCASTLE COUNTY

Well 393122075383201 Local number Ec 42-15 517
Well 392104075443501 Local number Gb 41-05 517
Well 392045075443501 Local number Gb 41-06 517
Well 392051075443901 Local number Gb 41-07 517
Well 392123075440801 Local number Gb 41-08 517
Well 392120075441901 Local number Gb 41-09 517
Well 392120075441501 Local number Gb 41-10 517
Well 392119075441301 Local number Gb 41-11 517
Well 392131075440801 Local number Gb 42-03 517
Well 392043075443101 Local number Gb 51-03 517
Well 392045075443401 Local number Gb 51-04 517
Well 392052075443401 Local number Gb 51-05 517
Well 392055075443501 Local number Gb 51-06 517
Well 392057075443601 Local number Gb 51-07 517
Well 392058075443801 Local number Gb 51-08 517
Well 392049075444001 Local number Gb 51-09 517
Well 392046075443401 Local number Gb 51-10 517
Well 392055075443301 Local number Gb 51-11 517
Well 392414075360901 Local number Gc 14-02 517
Well 392414075361001 Local number Gc 14-03 517

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Well 384322075394401 Local number Oc 21-02 521
Well 384323075393201 Local number Oc 21-03 521
Well 384150075265301 Local number Oe 44-01 521
Well 384150075265302 Local number Oe 44-02 521
Well 384032075094001 Local number Oi 51-06 521
Well 383921075151501 Local number Pg 15-02 521
Well 383921075151502 Local number Pg 15-03 521
Well 383906075130301 Local number Ph 12-06 521
Well 383908075133501 Local number Ph 12-08 521
Well 383915075130801 Local number Ph 12-09 521
Well 383907075124103 Local number Ph 13-16 521
Well 383903075123004 Local number Ph 13-23 521
Well 383853075141201 Local number Ph 21-07 521
Well 383834075130501 Local number Ph 22-08 521
Well 383845075132102 Local number Ph 22-10 521
Well 383855075135701 Local number Ph 22-11 521
Well 383855075135702 Local number Ph 22-12 521
Well 383854075124801 Local number Ph 23-08 521
Well 383854075122004 Local number Ph 23-10 521
Well 383854075122003 Local number Ph 23-12 521
Well 383308075382301 Local number Qc 22-04 521
Well 383251075382801 Local number Qc 22-05 521
Well 382927075211701 Local number Rf 14-02 521
Well 382932075215001 Local number Rf 14-03 521
Well 382825075081601 Local number Ri 22-03 521
Well 382824075081501 Local number Ri 22-04 521

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ANNE ARUNDEL COUNTY

Well 391032076385905 Local number AA Ad 104 524
Well 390205076292701 Local number AA Cf 136 524
Well 390205076292702 Local number AA Cf 137 524
Well 390127076240301 Local number AA Cg 25 524
Well 385920076322401 Local number AA De 140 524
Well 385928076321702 Local number AA De 143 524
Well 385927076321704 Local number AA De 155 524
Well 385927076321703 Local number AA De 156 524
Well 385927076321702 Local number AA De 157 524
Well 385928076321703 Local number AA De 159 524
Well 385623076274401 Local number AA Df 103 524
Well 385633076284401 Local number AA Df 131 524
Well 385633076284402 Local number AA Df 132 524

CALVERT COUNTY

Well 383216076351402 Local number CA Db 66 529
Well 383216076351403 Local number CA Db 67 529
Well 383217076351802 Local number CA Db 69 529
Well 383217076351803 Local number CA Db 70 529
Well 383217076351702 Local number CA Db 72 529
Well 383217076351703 Local number CA Db 73 529
Well 383218076351701 Local number CA Db 74 529
Well 383218076351703 Local number CA Db 84 529
Well 382343076302901 Local number CA Fc 13 ..... 529, 533
Well 382343076302902 Local number CA Fc 14 533

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Well 382340076303002 Local number CA Fc 16 533
Well 382343076303801 Local number CA Fc 17 533
Well 382340076303801 Local number CA Fc 18 533
Well 382337076303701 Local number CA Fc 19 538
Well 382337076303702 Local number CA Fc 20 538
Well 382342076303401 Local number CA Fc 21 538
Well 382340076303201 Local number CA Fc 22 538
Well 382340076303401 Local number CA Fc 28 538
Well 382340076303402 Local number CA Fc 29 538
Well 382340076303403 Local number CA Fc 30 ..... 538, 542
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Well 385114075485201 Local number CO Dd 60 543
Well 385114075485202 Local number CO Dd 61 543
Well 385009075445001 Local number CO De 15 543
Well 385009075445002 Local number CO De 16 543
Well 384630075524801 Local number CO Ec 25 543
Well 384630075524803 Local number CO Ec 32 543
CARROLL COUNTY
Well 393754076512401 Local number CL Bf 184 545
Well 393811076521101 Local number CL Bf 194 545
Well 393811076521102 Local number CL Bf 195 545
Well 393817076520801 Local number CL Bf 198 545
Well 393810076521001 Local number CL Bf 199 545
Well 393810076521002 Local number CL Bf 200 545
Well 393811076521103 Local number CL Bf 201 545
CECIL COUNTY
Well 393223075534702 Local number CE Ce 80 549
Well 393223075534701 Local number CE Ce 81 549
CHARLES COUNTY
Well 383505077101006 Local number CH Bb 6 550
Well 383505077101007 Local number CH Bb 7 550
Well 383505077101009 Local number CH Bb 9 550
Well 383552077100401 Local number CH Bb 12 550
Well 383524077111802 Local number CH Bb 17 550
Well 383533077104002 Local number CH Bb 19 550
Well 383507077094903 Local number CH Bc 3 550
Well 383524077094401 Local number CH Bc 5 550
Well 383631077083501 Local number CH Bc 6 550
Well 383545077095501 Local number CH Bc 23 550
Well 383633077083001 Local number CH Bc 24 550
Well 383540077090701 Local number CH Bc 49 550
Well 383606077092101 Local number CH Bc 67 550
Well 383610077081001 Local number CH Bc 68 550
Well 383554077085702 Local number CH Bc 70 550
Well 383548077091101 Local number CH Bc 72 550
Well 383649076555201 Local number CH Be 63 550
Well 383422077114601 Local number CH Cb 7 550
Well 383354077121501 Local number CH Cb 9 550
Well 383313077125401 Local number CH Cb 11 550
Well 383412077112802 Local number CH Cb 18 550
Well 383448077105202 Local number CH Cb 19 550
Well 383315077131401 Local number CH Cb 28 550
Well 383451077102601 Local number CH Cb 29 550
Well 383427077121001 Local number CH Cb 34 550
Well 383407077120501 Local number CH Cb 35 550
Well 393328077114201 Local number CH Cb 38 550
Well 382103076560201 Local number CH Ee 16 550
DORCHESTER COUNTY
Well 383328076153601 Local number DO Cb 7 557
Well 383328076153602 Local number DO Cb 8 557
Well 383225075565001 Local number DO Cf 35 557
Well 383225075565002 Local number DO Cf 36 557
FREDERICK COUNTY
Well 392517077190401 Local number FR Df 35 558
HARFORD COUNTY
Well 393158076302601 Local number HA Ca 23 559
Well 392529076180901 Local number HA Dd 89 559
Well 392721076150301 Local number HA Dd 91 559
Well 392721076150302 Local number HA Dd 92 559
Well 392557076161601 Local number HA Dd 106 559
Well 392606076145801 Local number HA De 181 559
Well 392607076145803 Local number HA De 183 559
Well 392606076145802 Local number HA De 182 559
Well 392914076110301 Local number HA De 195 559
Well 392819076180901 Local number HA De 197 559
Well 392819076130902 Local number HA De 198 559
Well 392408076210101 Local number HA Ec 46 559
Well 392455076192101 Local number HA Ed 47 559
Well 392455076192102 Local number HA Ed 48 559
Well 392455076192103 Local number HA Ed 49 559

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HOWARD COUNTY
Well 391440076555401 Local number HO Cd 20 561
Well 391442076555301 Local number HO Cd 21 561
Well 391444076554701 Local number HO Cd 25 561
Well 391442076554701 Local number HO Cd 26 561
Well 391447076554702 Local number HO Cd 28 561
Well 391442076554702 Local number HO Cd 29 561
Well 391440076555402 Local number HO Cd 78 561
Well 391445076555101 Local number HO Cd 79 561
Well 391439076555601 Local number HO Cd 80 561
Well 391439076555602 Local number HO Cd 81 565
Well 391447076554703 Local number HO Cd 253 565
Well 391447076554704 Local number HO Cd 290 565
Well 391447076554705 Local number HO Cd 291 565
Well 391447076554706 Local number HO Cd 292 565
Well 391447076554707 Local number HO Cd 341 565
Well 391438076555001 Local number HO Cd 342 565

KENT COUNTY
Well 391927076000301 Local number KE Be 44 568
Well 391832075560801 Local number KE Be 46 568
Well 391832075560802 Local number KE Be 47 568

PRINCE GEORGES COUNTY
Well 390151076561501 Local number PG Bc 16 569

QUEEN ANNES COUNTY
Well 391042076011701 Local number QA Be 19 571
Well 391042076011702 Local number QA Be 20 571
Well 390158076183701 Local number QA Db 13 571
Well 390055076184501 Local number QA Db 14 571
Well 390059076191801 Local number QA Db 17 571
Well 390211076183401 Local number QA Db 19 571
Well 390212076181501 Local number QA Db 25 571
Well 390117076191301 Local number QA Db 27 571
Well 390217076181401 Local number QA Db 40 571
Well 390126075575401 Local number QA Df 54 571
Well 390126075575402 Local number QA Df 55 571
Well 385822076202501 Local number QA Ea 37 571
Well 385825076202901 Local number QA Ea 39 571
Well 385820076202501 Local number QA Ea 42 571
Well 385554076213801 Local number QA Ea 45 571
Well 385825076201201 Local number QA Ea 48 571
Well 385807076204401 Local number QA Ea 52 571
Well 385505076215001 Local number QA Ea 59 571
Well 385701076212501 Local number QA Ea 60 571
Well 385812076202801 Local number QA Ea 61 571
Well 385848076195801 Local number QA Eb 123 571
Well 385910076193501 Local number QA Eb 124 571
Well 385354076212701 Local number QA Fa 49 571
Well 385454076214901 Local number QA Fa 64 571

ST. MARYS COUNTY
Well 381052076253001 Local number SM Ef 80 573

SOMERSET COUNTY
Well 381141075415601 Local number SO Be 58 574
Well 381141075415602 Local number SO Be 59 574
Well 380027075410802 Local number SO De 30 574
Well 380027075410803 Local number SO De 31 574

TALBOT COUNTY
Well 385023076012601 Local number TA Be 83 576
Well 385023076012602 Local number TA Be 84 576

WICOMICO COUNTY
Well 382329075412001 Local number WI Cd 70 577
Well 382329075412002 Local number WI Cd 71 577
Well 382403075233201 Local number WI Ch 50 577
Well 382403075233202 Local number WI Ch 51 577

WORCESTER COUNTY
Well 382621075174201 Local number WO Ae 23 579
Well 382621075174202 Local number WO Ae 24 579
Well 382621075174203 Local number WO Ae 25 579
Well 382632075031901 Local number WO Ah 34 579
Well 382359075094501 Local number WO Bg 15 579
Well 382358075094501 Local number WO Bg 45 579
Well 382358075094502 Local number WO Bg 46 579
Well 382325075063301 Local number WO Bg 47 579
Well 382325075063302 Local number WO Bg 48 579
Well 382038075065901 Local number WO Bg 49 579
Well 382215075041802 Local number WO Bh 28 579
Well 382443075033501 Local number WO Bh 34 579
Well 382215075041901 Local number WO Bh 84 579
Well 382215075041902 Local number WO Bh 85 579
Well 381543075273801 Local number WO Cc 2 579
Well 381543075273802 Local number WO Cc 3 579
Well 381941075052201 Local number WO Cg 32 579
Well 381939075052102 Local number WO Cg 75 579
Well 381754075083601 Local number WO Cg 76 579
Well 381754075083602 Local number WO Cg 77 579

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Well 381754075083603 Local number WO Cg 78..... 579
Well 381426075081001 Local number WO Dg 21..... 579
Well 380403075292901 Local number WO Fc 46..... 579
Well 380403075292902 Local number WO Fc 47..... 579

[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation and contents]

NORTH ATLANTIC SLOPE BASINS	Station Number
DELAWARE RIVER BASIN	
Delaware River:	
Christina River:	
White Clay Creek above Newark, DE (d,c)	01478500
Mill Creek at Stanton, DE (d)	01479500
Little Mill Creek at Elsmere, DE (d,c)	01480100
Army Creek at State Road, DE (d)	01482200
Red Lion Creek near Red Lion, DE (d)	01482298
Drawyer Creek tributary near Odessa, MD (d)	01483170
LEIPSIC RIVER BASIN	
Leipsic River near Cheswold, DE (d)	01483500
MURDERKILL RIVER BASIN	
Murderkill River near Felton, DE (d,c)	01484000
BROADKILL RIVER BASIN	
Broadkill River:	
Sowbridge Branch (head of Primehook Creek) near Milton, DE (d)	01484300
WICOMICO RIVER BASIN	
Andrews Branch (head of Wicomico River):	
Beaverdam Creek near Salisbury, MD (d)	01486500
NANTICOKE RIVER BASIN	
Nanticoke River:	
James Branch (head of Broad Creek):	
Trap Pond Outlet (head of Hitch Pond Branch) near Laurel, DE (d)	01487500
Broad Creek:	
Holly Ditch near Laurel, DE (d)	01488000
Rewastico Creek near Hebron, MD (d)	01489500
TRANSQUAKING RIVER BASIN	
Transquaking River:	
Chicamacomico River near Salem, MD (d,c)	01490000
CHOPTANK RIVER BASIN	
Tappahanna Ditch (head of Choptank River):	
Tidy Island Creek (continuation of Tappahanna Ditch):	
Culbreth Marsh Ditch near Chapeltown, DE (d)	01490500
Choptank River:	
Tuckahoe Creek near Ruthsburg, MD (d)	01491500
Kings Creek:	
Beaverdam Branch at Matthews, MD (d,c)	01492000
WYE RIVER BASIN	
Wye River:	
Wye East River:	
Sallie Harris Creek near Carmichael, MD (d)	01492550
CHESTER RIVER BASIN	
Chester River:	
Southeast Creek at Church Hill, MD (d)	01494000
SASSAFRAS RIVER BASIN	
Sassafras River:	
Jacobs Creek near Sassafras, MD (d)	01494500
ELK RIVER BASIN	
Big Elk Creek (head of Elk River):	
Little Elk Creek at Childs, MD (d)	01495500
Long Creek near Chesapeake City, MD (d,c)	01495800
NORTHEAST RIVER BASIN	
Northeast Creek (head of Northeast River) at Leslie, MD (d,c)	01496000
SUSQUEHANNA RIVER BASIN	
Susquehanna River:	
Broad Creek at Mill Creek, MD (d)	01578000
Octoraro Creek near Rising Sun, MD (d,c)	01578500
Basin Run at Liberty Grove, MD (d)	01579000
Octoraro Creek at Rowlandsville, MD (d)	01579500
Deer Creek near Kalmia, MD (d)	01580200
Deer Creek near Churchville, MD (d)	01580500
BUSH RIVER BASIN	
Bynum Run (head of Bush River) near Bel Air, MD (d)	01581000
Bynum Run at Bel Air, MD (d)	01581500
GUNPOWDER RIVER BASIN	
Gunpowder Falls (head of Gunpowder River):	
Western Run:	
Delaware Run:	
Slade Run near Glyndon, MD (d)	01583000
Beaverdam Run:	
Baisman Run:	
Pond Branch at Oregon Ridge, MD (d)	01583570
Baisman Run at Broadmoor, MD (d)	01583580
Gunpowder Falls near Carney, MD (d)	01584000
Little Gunpowder Falls at Laurel Brook, MD (d)	01584500
Little Gunpowder Falls near Bel Air, MD (d)	01585000
BACK RIVER BASIN	
Herring Run (head of Back River):	
West Branch Herring Run at Idlewylde, MD (d)	01585200
Stemmers Run (head of Northeast Creek):	
Brien Run at Stemmers Run, MD (d)	01585400
PATAPSCO RIVER BASIN	
North Branch Patapsco River near Reistertown, MD (d)	01586500
North Branch Patapsco River near Marriottsville, MD (d)	01586990
South Branch Patapsco River at Henryton, MD (d)	01587500
Piney Run near Sykesville, MD (d)	01588000

[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation and contents]

NORTH ATLANTIC SLOPE BASINS--Continued ..... Station Number
PATAPSCO RIVER BASIN--Continued
Patapsco River at Woodstock, MD (d) 01588500
Gwynns Falls near Owings Mills, MD (d) 01589200
Dead Run at Franklintown, MD (d) 01589330
Jones Falls at Maryland Avenue at Baltimore, MD (d) 01589478
Jones Falls near mouth at Baltimore, MD (d,c) 01589480
Curtis Creek:
Furnace Creek:
Sawmill Creek at Crain Highway at Glen Burnie, MD (d,c) 01589512
Marley Creek at Harundale, MD (d,c) 01589522
SOUTH RIVER BASIN
North River (head of South River) near Annapolis, MD (d) 01590500
RHODE RIVER BASIN
Rhode River:
Muddy Creek:
North Fork Muddy Creek at South River, MD (d,t) 01590700
Rhode River near South River, MD (c,t) 01590720
PATUXENT RIVER BASIN
Patuxent River:
Cattail Creek near Cookesville, MD (d) 01591350
Cattail Creek at Roxbury Mills, MD (d) 01591500
Patuxent River near Burtonsville, MD (d) 01592000
Little Patuxent River:
Dorsey Run near Jessup, MD (d) 01594400
Western Branch near Largo, MD (d) 01594500
Cocktown Creek near Huntingtown, MD (d) 01594600
St. Leonard Creek near St. Leonard, MD (d) 01594800
POTOMAC RIVER BASIN
North Branch Potomac River:
South Fork Sand Run near Wilson, MD (d,c,t) 01594934
North Branch Potomac River at Bloomington, MD (d) 01596000
Savage River:
Crabtree Creek near Swanton, MD (d,c) 01597000
Savage River at Bloomington, MD (d) 01598000
Wills Creek below Hyndman, PA (d) 01601000
North Branch Potomac River at Cumberland, MD (d) 01602500
Evitts Creek near Centerville, PA (d) 01603500
Evitts Creek near Cumberland, MD (d) 01604000
Town Creek near Oldtown, MD (d) 01609000
Sawpit Run near Oldtown, MD (d) 01609500
Sideling Hill Creek at Bellegrove, MD (d,c) 01610155
Little Tonoloway Creek near Hancock, MD (d,c) 01612500
Antietam Creek near Waynesboro, MD (d,c) 01619000
Catoctin Creek:
Little Catoctin Creek at Harmony, MD (d) 01637000
Catoctin Creek near Jefferson, MD (d) 01638000
Monocacy River:
Big Pipe Creek (head of Double Pipe Creek):
Little Pipe Creek at Avondale, MD (d) 01640000
Owens Creek near Foxville, MD (d) 01640456
Owens Creek at Lantz, MD (d) 01640500
Hunting Creek near Thurmont, MD (d) 01640975
Fishing Creek near Lewistown, MD (d) 01641500
Monocacy River near Frederick, MD (d,c) 01642000
Linganore Creek near Frederick, MD (d,c) 01642500
Seneca Creek:
Great Seneca Creek near Gaithersburg, MD (d) 01644500
Watts Branch at Rockville, MD (d) 01645200
Potomac River at Great Falls, MD (c,m,t) 01645500
Little Falls Branch near Bethesda, MD (d) 01646550
Rock Creek:
North Branch Rock Creek:
Williamsburg Run near Olney, MD (d,s) 01647685
North Branch Rock Creek near Norbeck, MD (d,s) 01647720
Manor Run near Norbeck, MD (d,s) 01647725
North Branch Rock Creek near Rockville, MD (d,s) 01647740
Rock Creek at Q Street, Washington, DC (d) 01649000
Northeast Branch Anacostia River:
Northwest Branch Anacostia River:
Browns Creek:
Nursery Run at Cloverly, MD (d,s) 01650085
North Creek:
Batchellors Run at Oakdale, MD (d,s) 01650190
Bel Pre Creek at Lay Hill, MD (d,s) 01650450
Lutes Run at Lutes, MD (d,s) 01650470
Northwest Branch Anacostia River near Colesville, MD (d,s) 01650500
Anacostia River:
Beaverdam Branch Anacostia River at Kenilworth Avenue, Washington, DC (d) 01652000
Henson Creek (head of Broad Creek) at Oxon Hill, MD (d) 01653500
Potomac River at Indian Head, MD (c,t) 01655480
Mattawoman Creek near Pomonkey, MD (d) 01658000
Wicomico River:
Chaptico Creek at Chaptico, MD (d) 01661000
Potomac River at Piney Point, MD (c,t) 01661475

[Letter after station name designates type of data: (d) discharge, (c) chemical, (b) biological, (m) microbiological, (t) water temperature, (s) sediment, (e) elevation and contents]

NORTH ATLANTIC SLOPE BASINS--Continued — Station Number

OHIO RIVER BASIN

MONONGAHELA RIVER BASIN

Monongahela River:

Youghiogheny River:

South Branch Casselman River near Bittenger, MD (d,c,s).....03077940

Casselman River:

Big Piney Run near Salisbury, PA (d).....03078500

WATER RESOURCES DATA - MARYLAND AND DELAWARE, 1988

INTRODUCTION

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

This report series includes records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground-water wells. This volume contains records for water discharge at 100 gaging stations; stage and contents at 1 reservoir; water quality at 23 gaging stations and 229 wells; and water levels at 204 observation wells. Also included are data for 3 crest-stage, 9 low-flow, and 6 tidal crest-gage partial-record stations. Locations of these sites are shown on figures 3 and 4. Additional water data were collected at various sites not involved in the systematic data-collection program. 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.

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.

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 stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 6A and 6B." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from Books and Open-File Reports Section, Federal Center, Bldg. 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report MD-DE-88-1." 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 (301) 828-1535.

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 been had between the Survey and agencies of the State of Delaware since 1943. Organizations that assisted in collecting the data in this report through cooperative agreements with the Survey are:

Maryland Geological Survey, K. N. Weaver, director.

Delaware Geological Survey, R. R. Jordan, State geologist.

Maryland State Highway Adminstration, M. S. Caltrider, adminstrator.

Maryland Department of Environment; Toxics, Environmental Science and Health, Dr. Max Eisenberg, assistant secretary.

District of Columbia Department of Public Works, William B. Johnson, director.

Assistance with funds or services was given by the U.S. Army Corps of Engineers for collecting records at 17 gaging stations and 4 water-quality stations throughout Maryland and Delaware.

The following organizations aided in collecting records:

Delaware: State Department of Natural Resources and Environmental Control, and New Castle County.

Maryland: Maryland Water Resources Administration, Washington Suburban Sanitary Commission, Upper Potomac River Commission, Baltimore City, Baltimore County.

Organizations that provided data are acknowledged in station descriptions.

SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow at the start of the 1988 water year had moved into the normal range throughout most of the bi-State area west of the Chesapeake Bay following heavy rainfall during September 1987, averaging 3 to 6 inches above normal. On the Eastern Shore of Maryland and in Delaware, streamflow remained in the deficient range (lower 25 percent of the record) through March, 1988. West of the Chesapeake Bay, flow remained in the normal range until March, when flows dropped into the deficient range because of below-normal precipitation (1 and 2 inches). In April, flows returned to the normal range. During May, above-normal rainfall of up to 4 inches increased flows throughout the bi-State area into the excessive range (upper 25 percent of the record). In June, rainfall averaged 3 inches below normal and streamflow returned to the normal range where it stayed the remainder of the water year. Below-normal rainfall for both June and July in western Maryland resulted in flows dropping from the excessive range into the deficient range. Slightly above-normal rainfall in August brought flows into the normal range. During September, flows were excessive following continuing above-normal rainfall.

During the 1988 water year, two of the four index stations (Potomac River near Washington, D.C. and Seneca Creek at Dawsonville on the Eastern Shore in central Maryland) were in the normal range. North Branch Potomac River at Paw Paw, W. Va., in western Maryland, had deficient runoff for the year (84 percent of normal; reference period 1951-80). The Choptank River at Greensboro on the Eastern Shore of Maryland had deficient runoff for the year (54 percent of normal; reference period 1951-80). The yearly average runoff of 66 ft^3/s was the fifth lowest since records began in 1949. Several new extremes were set during May. At the Potomac River near Washington, D. C., index site, a record monthly mean was set. At the Seneca Creek at Dawsonville, index site, a record monthly mean and a maximum daily discharge were recorded. The new record monthly discharge doubles that set in 1952 and the new record daily discharge is almost three times greater than the previous high set in 1978.

Monthly and annual mean discharges are compared with long-term averages (reference period 1951-80) for two representative streamflow gaging stations in figure 1. Data for the station, Potomac River at Point of Rocks in central Maryland, reflect runoff conditions in the Potomac River basin, excluding the Coastal Plain. Data for the station, Choptank River at Greensboro on the Eastern Shore of Maryland, reflect runoff from a 113 mi^2 area, of which 21.6 mi^2 is in Delaware in the central part of the Delmarva peninsula.

Average freshwater inflow to the Chesapeake Bay was estimated to be 59,200 ft^3/s, on the basis of flows of the James, Potomac, and Susquehanna Rivers. This is 83 percent of the long-term average during the reference period 1951-88. No record monthly means were set during the water year.

The combined storage in the three major water-supply reservoirs in the Baltimore City Municipal System (combined usable capacity of 85,340 million gallons) decreased from 86 percent of capacity in September 1987, to 82 percent of capacity at the end of September 1988.

Ground-Water Levels

Water levels began slightly below normal and continued below normal throughout the 1988 water year. These levels were indicative of the general precipitation deficit in Maryland and Delaware. Ground-water conditions, by physiographic province, for the 1988 water year were as follows:

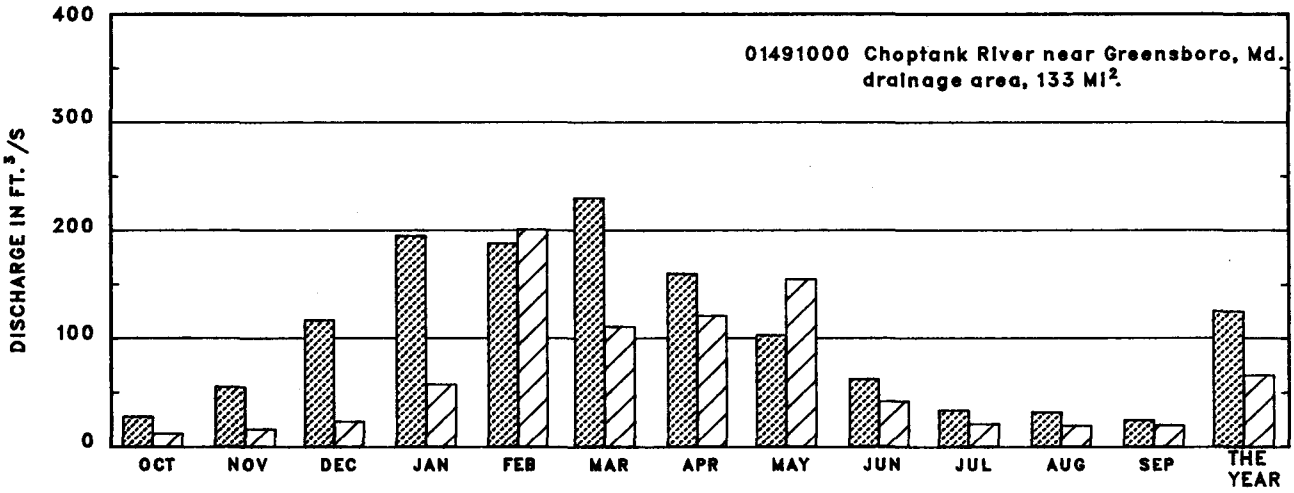
Appalachian Plateau.--The water table was lower than normal throughout the water year, but no record water levels were recorded.

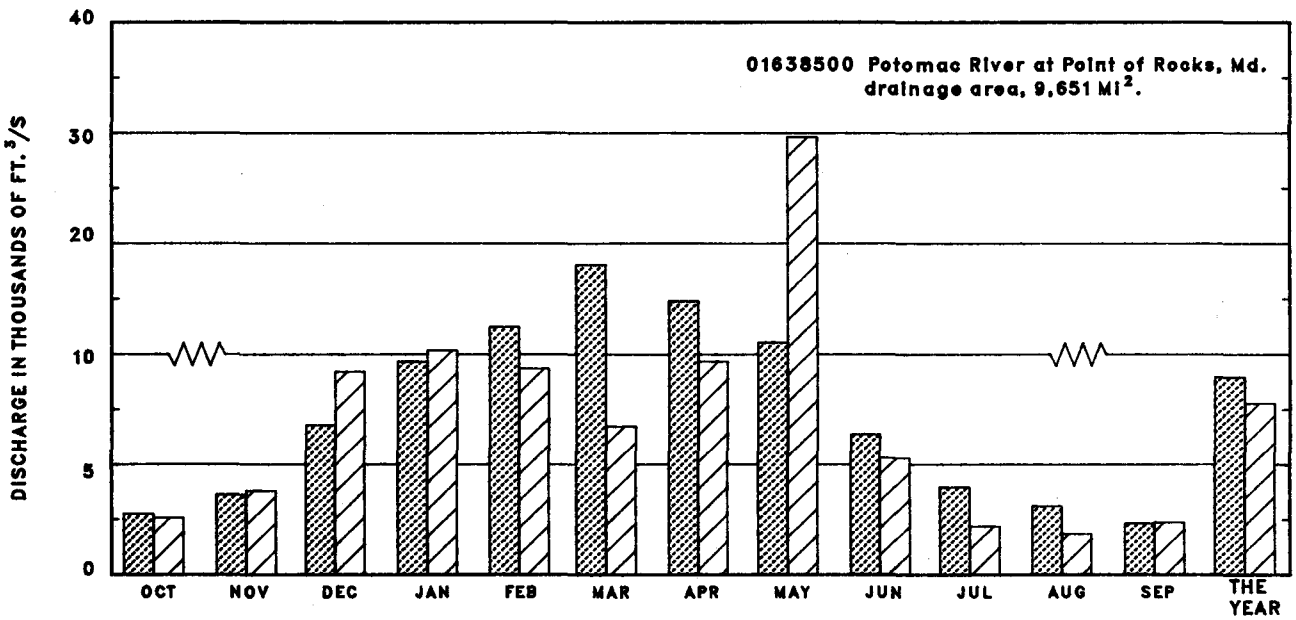
Valley and Ridge.--The water table was slightly below normal levels throughout the water year. No record water levels were recorded.

Blue Ridge.--The water table was slightly below normal levels throughout the water year. No record water levels were recorded.

Piedmont.--The water table was lower than normal throughout the water year. In the Triassic basin, a record low water level was recorded in the Poolesville area of Montgomery County, Maryland. This water-level decline in the artesian New Oxford Formation can be attributed to below-normal precipitation and increased ground-water withdrawal.

Coastal Plain.--The water table on both the eastern and western shores was below normal levels throughout the water year. The following areas (and aquifers) in Maryland experienced record low water levels due to reduced precipitation and continued increases in ground-water withdrawal: Annapolis (Magothy, Potomac), Elkton (Potomac), Glen Burnie (Potomac), Kent Island (Aquia), Leonardtown (Aquia), Lexington Park (Aquia), Prince Frederick (Aquia), St. Charles (Potomac), Solomons Island (Aquia), and Waldorf (Potomac).





Denotes a change of scale.

Median of monthly and yearly mean discharge for 30-year period 1951-80.

Monthly and yearly mean discharge for 1988 water year.

FIGURE 1. COMPARISON OF DISCHARGE AT TWO LONG-TERM REPRESENTATIVE GAGING STATIONS DURING THE 1988 WATER YEAR WITH MEDIAN DISCHARGE FOR INDICATED PERIOD.

SPECIAL NETWORKS AND PROGRAMS

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

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

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1988 water year that began October 1, 1986, and ended September 30, 1988. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figures 3 and 4. 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 data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Maryland and Delaware, for surface-water stations where only miscellaneous measurements are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 01477800, which appears just to the left of the station name, includes the two-digit Part number "01" plus the six-digit downstream-order number "477800." The Part number designates the major river basin; for example, Part "01" is the North Atlantic slope basin.

Latitude-Longitude System

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

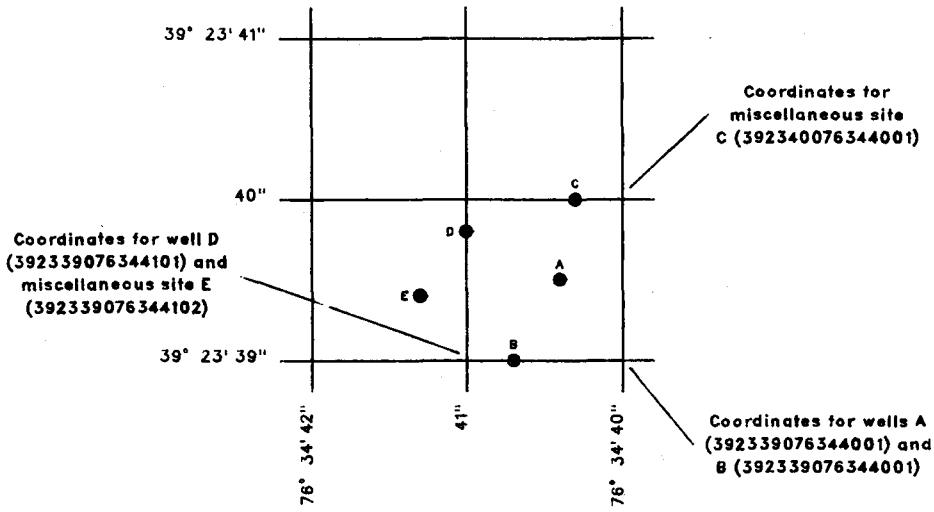


Figure 2. System for numbering wells and miscellaneous sites (latitude and longitude)

Wells in Maryland are also identified on the basis of a second numbering system established by the Maryland Geological Survey. The first two letters of the well number are the county prefix (for example, AL for Allegany). The second part of the well number consists of two letters that designate a 5-minute quadrangle within the county; the first letter (a capital letter) denotes a 5-minute segment of latitude and the second letter (lower case) denotes a 5-minute segment of longitude. The wells are numbered sequentially within each 5-minute quadrangle. For example, well AL Ah 1 is the first well inventoried within the Ah 5-minute quadrangle in Allegany County. Baltimore City well numbers are based on 1-mile grids, with reference to the Washington Monument as the center. Thus, well 7S4E-1 is in grid cell 7 miles south and 4 miles east of the Washington Monument and is the first well inventoried in that grid cell. Wells in Delaware are identified by a numbering system instituted by the Delaware Geological Survey. The State is divided into 5-minute quadrangles of latitude and longitude. The quadrangles are lettered north to south with capital letters. Each 5-minute quadrangle is further subdivided into 25 1-minute blocks which are numbered from north to south from 1 to 5 and are numbered from west to east from 1 to 5. Wells within these 1-minute blocks are assigned numbers in the sequence in which they are inventoried. The identity of a well is established by prefixing the sequence number with an upper and lower case letter followed by two numbers to designate the 5-minute and 1-minute blocks, respectively, in which the well is located. For example, well number Cb41-03 is the third well to be scheduled in the 1-minute block 41 that has coordinate "Cb41".

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and crest-stage partial-record stations for which data are given in this report are shown in figures 3 and 4.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as the lapsed time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN."), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Maryland and Delaware offices of the Mid-Atlantic District. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" , as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 3.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed under "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" which appears at the end of the introductory text. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey Maryland and Delaware offices.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the Geological Survey Maryland office whose address is given on the back of the title page of this report.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the Maryland and Delaware Offices.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratory are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

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

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

Records of Ground-Water Levels

Water-level data from the Maryland Observation-Well Network and selected Delaware wells are reported. These data are intended to provide historical water-level information for ground-water management. The observation wells in the network were established to observe ground-water level fluctuations through time and to identify areas of man-induced stress on the ground-water flow system. The locations of these observation wells in Maryland and Delaware are shown in figure 4.

Data Collection and Computation

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

The water-level data tables and hydrographs are presented in alphabetical order by counties. The primary identification number is the state well number that appears in the upper left hand corner (see Latitude-Longitude System section on page 5). The secondary identification number is the 15-digit number.

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

Data Presentation

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

WELL NUMBER.--(See Latitude -Longitude System section on page 5.)

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

PERMIT NUMBER.--The permit number is the state permit number required for drilling wells in Maryland. Upon completion of the well, the driller must submit a completion report which documents specific data on the construction of the well.

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

AQUIFER.--The aquifer is the geologic formation from which the well receives its water supply.

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

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

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

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

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

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

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water levels listed. Wells equipped with analog recorders have either a daily high or low value reported. Those wells which are equipped with a digital recorder report a daily maximum and minimum value, as well as monthly maximum and minimum values. A 5-year hydrograph follows each water-level table.

Records of Ground-Water Quality

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

Data Collection and Computation

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

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed at the end of the introductory text. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from the offices whose addresses are given on the back of the title page.

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

DEFINITION OF TERMS

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

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

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

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

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

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

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

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

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

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

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

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

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

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

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

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

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

Bottom material: See Bed material.

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

Cubic-foot-per-second day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons, or 2,445 cubic meters.

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

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

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

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile [$(ft^3/s)/mi^2$] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

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

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

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

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

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

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

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

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

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

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

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

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

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

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

The National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Milligrams of carbon per area or volume per unit time [mg C/(m^2.time)] for periphyton and macrophytes and [mg C/(m^3.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2.time)] for periphyton and macrophytes and [mg O_2/(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

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

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

Runoff in inches (IN., in.) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-day 10-year low flow (7 Q_{10}) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

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

Solute is any substance that is dissolved in water.

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

Stage-discharge relation is the relation between gage height (stage) and volume of water, per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

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

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

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 um membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

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

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

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

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

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

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

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

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

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1985, is called the "1985 water year."

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

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. **Water temperature--influential factors, field measurements, and data presentation**, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. **Guidelines for collection and field analysis of ground-water samples for selected unstable constituents**, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. **Application of surface geophysics to ground-water investigations**, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-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.

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.

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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 E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 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.

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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.

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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.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

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-C1. **Fluvial sediment concepts**, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

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3-C3. **Computation of fluvial-sediment discharge**, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. **Some statistical tools in hydrology**, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

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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.

4-D1. **Computation of rate and volume of stream depletion by wells**, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. **Methods for determination of inorganic substances in water and fluvial sediments**, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 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 analysis of organic substances in water**, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. **Methods for collection and analysis of aquatic biological and microbiological samples**, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

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5-A6. **Quality assurance practices for the chemical and biological analyses of water and fluvial sediments**, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

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

6-A1. **A modular three-dimensional finite-difference ground-water flow model**, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.

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. Schaffrannek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. **Methods of measuring water levels in deep wells**, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-A2. **Installation and service manual for U. S. Geological Survey manometers**, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. **Calibration and maintenance of vertical-axis type current meters**, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

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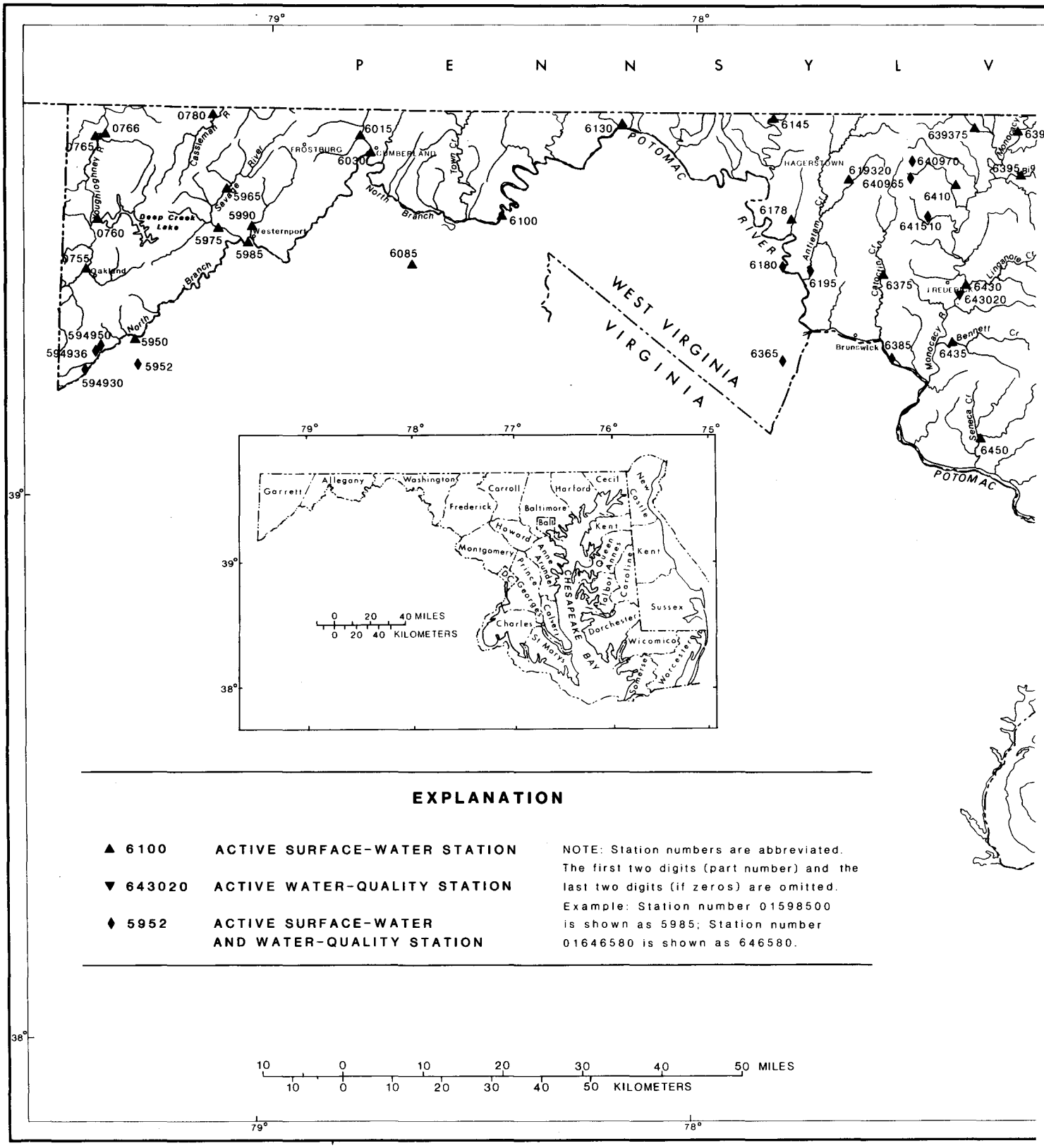
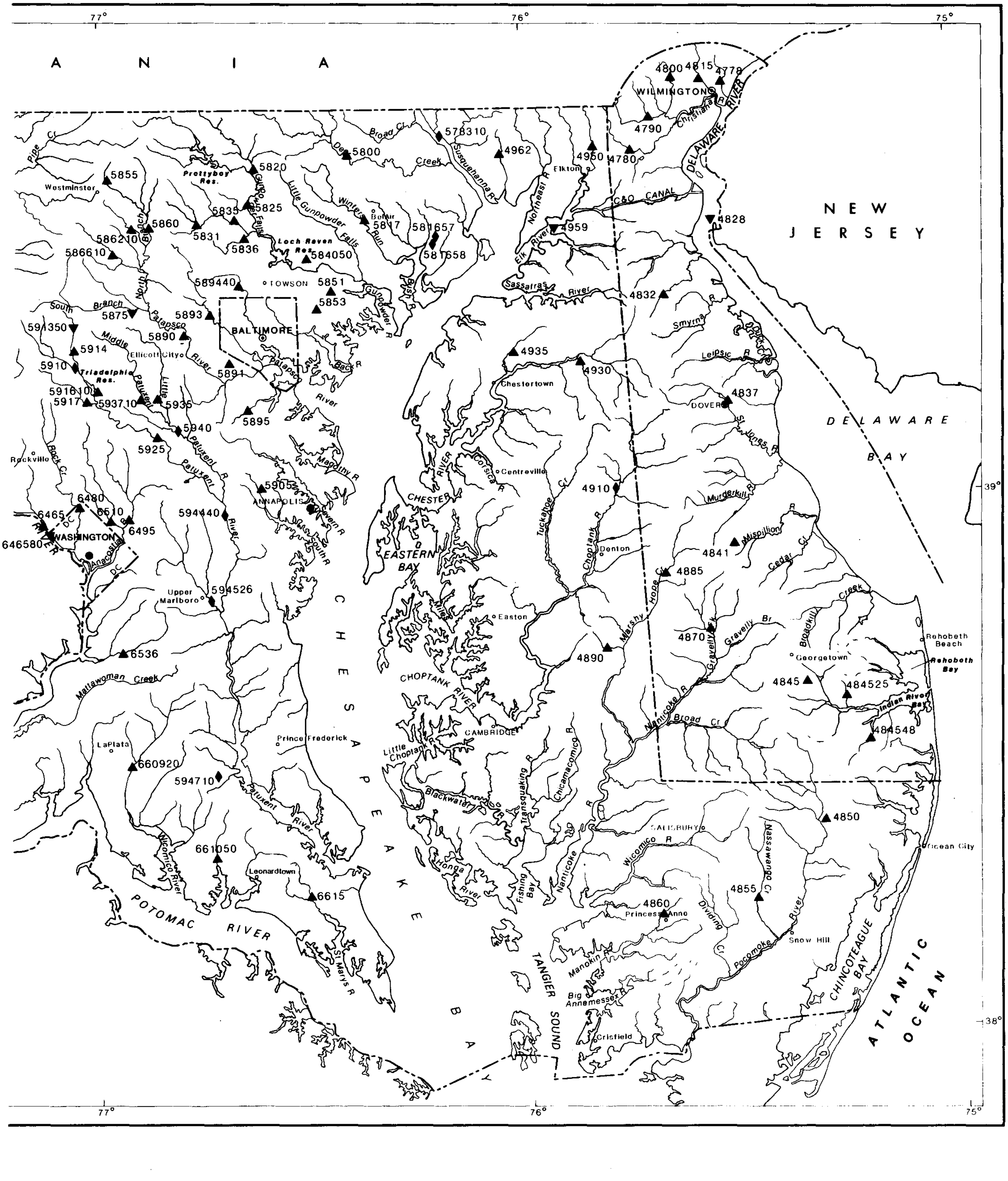
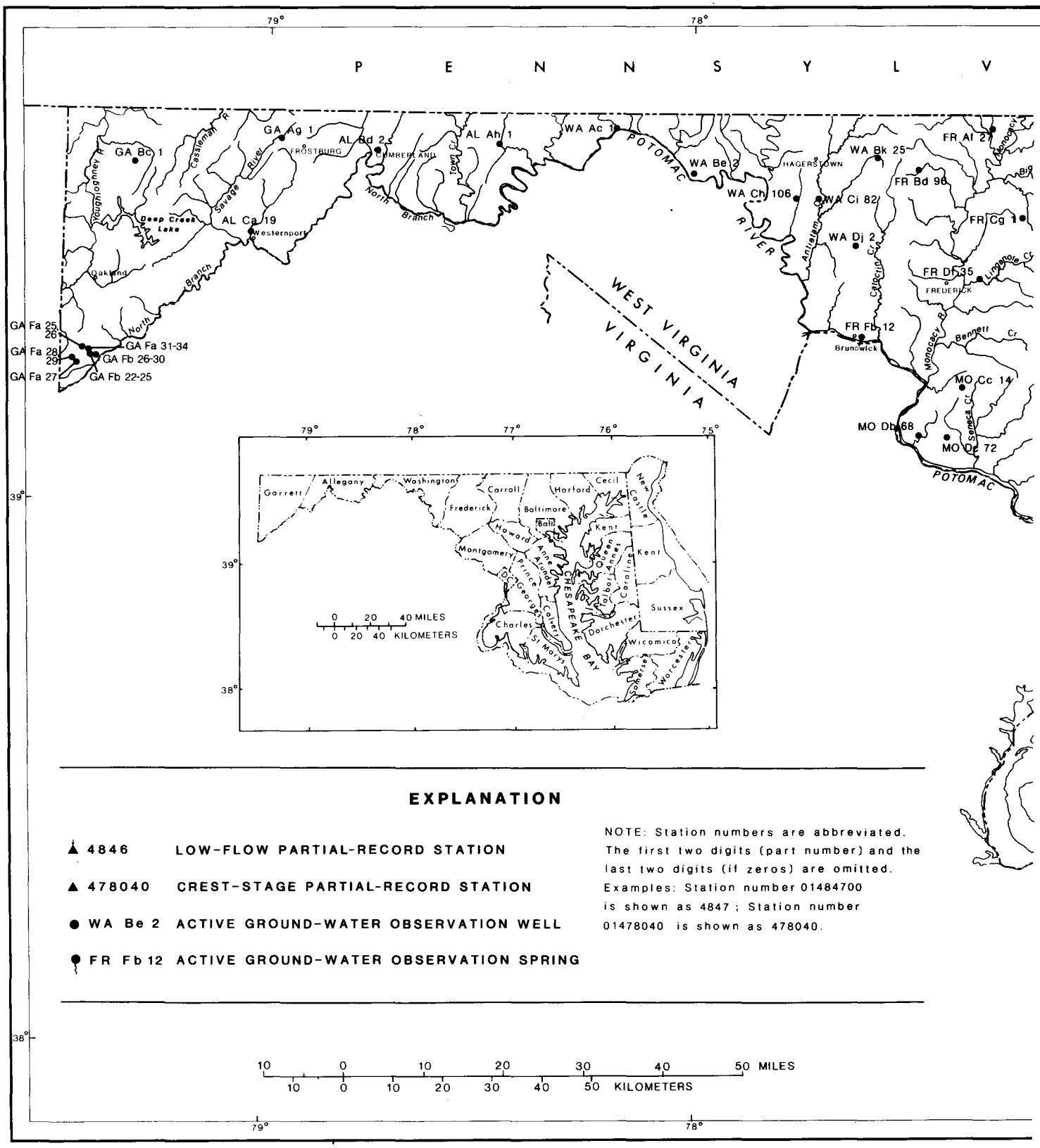


Base map modified from U.S. Geological Survey 1:500,000

Figure 3. Location of surface-water and water-quality stations in Maryland and Delaware.



77°
76°
75°
A N I A
N E W
J E R S E Y
WILMINGTON
DELAWARE RIVER
Christiana R
4800
4815
4778
4790
4780
4950
4962
578310
5800
Broad Cr
Deer
Creek
Susquehanna R
Elkton
Northeast R
C&D CANAL
4828
4959
Elk River
Sassafras River
4832
Smyrna R
Leipsic R
Duck Cr
4837
DOVER
St Jones R
DELAWARE
BAY
Murderkill R
Mispillion R
4841
Cedar Cr
4885
Hope Cr
Marshy
4890
4870
Gravelly Br
Broadkill
Creek
Rehoboth Beach
Rehoboth Bay
Georgetown
4845
484525
Indian River Bay
484548
Nanticoke R
Broad Cr
4850
SALISBURY
Wicomico R
Nassawango Cr
Ocean City
4855
4860
Princess Anne
Dividing Cr
Snow Hill
Pocomoke River
CHINCOTEAGUE BAY
ATLANTIC OCEAN
Manokin R
Big Annemessex R
Crisfield
TANGIER SOUND
Westminster
Pipe Cr
5855
5820
Prettyboy Res.
Gunpowder Falls
5835
5825
5860
586210
586610
5831
5836
Loch Raven Res.
584050
Little Gunpowder Falls
Winters Run
Bel Air
5817
581657
581658
Bush R
589440
TOWSON
5851
5853
Gunpowder R
South Branch
North Branch
5875
5893
Patapsco
5890
591350
Middle
5914
Ellicott City
BALTIMORE
Back R
5910
Triadelphia Res.
5891
Patapsco River
591610
5917
593710
5935
Little Patuxent
5940
5895
Magothy R
5925
Patuxent R
Rockville
Rock Cr
6480
6465
6510
6495
WASHINGTON
DC
646580
Anacostia
594440
5905
ANNAPOLIS
Severn R
South R
594526
Upper Marlboro
6536
Mattawoman Creek
LaPlata
660920
594710
Patuxent River
Wicomico River
661050
Leonardtown
6615
St Marys R
POTOMAC RIVER
CHESAPEAKE BAY
4935
4930
Chestertown
CHESTER RIVER
Corsica R
Centreville
Tuckahoe Cr
4910
Choptank R
Denton
EASTERN BAY
Miles R
Easton
CHOPTANK RIVER
Prince Frederick
CAMBRIDGE
Little Choptank R
Blackwater R
Transquaking R
Chicamacomico R
Honga River
Fishing Bay
Nanticoke R
39°
38°



Base map modified from U.S. Geological Survey 1:500,000

Figure 4. Location of low-flow and crest-gage partial-record stations and ground-water observation wells in Maryland and Delaware.

77°
76°
75°
39°
38°
A N I A
NEW JERSEY
DELAWARE BAY
ATLANTIC OCEAN
CHINCOTEAGUE BAY
TANGIER SOUND
CHESAPEAKE BAY
EASTERN BAY
POTOMAC RIVER
DELAWARE RIVER
WILMINGTON
BALTIMORE
TOWSON
WASHINGTON
ANNAPOLIS
Chestertown
Centreville
Easton
Denton
DOVER
Georgetown
Rehoboth Beach
Rehoboth Bay
Indian River Bay
Ocean City
Snow Hill
Princess Anne
SALISBURY
Cambridge
Prince Frederick
Leonardtown
Upper Marlboro
Westminster
Rockville
Ellicott City
Elkton
Bohair
Sassafras River
Chesapeake Bay
Choptank River
Nanticoke R
Wicomico R
Pocomoke River
Manokin R
Big Annemessex
Crisfield
Prettyboy Res.
Loch Raven Res.
Triadelphia Res.
C&O CANAL
Patuxent River
Magothy R
Severn R
Patapsco R
Gunpowder
Little Gunpowder
Northeast R
Elk River
Susquehanna R
Christiana R
Broad Cr
Deer Creek
Pipe Cr
Back Cr
Little Patuxent
North Branch
South Branch
Middle Branch
Gwynns Falls
Winters Run
Jones Falls
Bush R
Sassafras
Chester R
Tuckahoe Cr
Choptank R
Marshy Creek
Horse Cr
Gravelly Br
Gravelly Fork
Mispillion R
Cedar Cr
Broadkill Creek
Murderkill R
St Jones R
Smyrna R
Leipsic R
Little Choptank
Transquaking
Blackwater R
Chicamacomico
Fishing Bay
Dividing Cr
Nassawango Cr
Pocomoke River
St Marys R
Wicomico River
Mattawoman Creek
Patuxent River
Rhonga River
Broad Cr
CL Ad 47
CL Bf 184
CL Bf 186
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HA Ca 23
BA Cd 26
BA Ce 21
HA De 66
HA Ec 11
HA Ed 24
CE Ce 54
CE Bf 142
CE Bf 82
CE Cd 55
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KE Cd 44
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WI Cg 20
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SO Ce 42
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SURFACE-WATER RECORDS

REMARK CODES.--The following remark codes may appear with the water-quality data in this section.

PRINTED OUTPUT	REMARK
E	Estimated
>	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 egual to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

NORTH ATLANTIC SLOPE BASINS

DELAWARE RIVER BASIN

01477800 SHELLPOT CREEK AT WILMINGTON, DE

LOCATION.--Lat 39°45′39″, long 75°31′10″, New Castle County, Hydrologic Unit 02040205, on right bank 100 ft east of intersection of 44th and Pine Streets in Clifton Park, 700 ft downstream from bridge on North Market Street in Wilmington, 0.2 mi downstream from Matson Run, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--7.46 mi^2.

PERIOD OF RECORD.--December 1945 to current year.

REVISED RECORDS.--WSP 1382: 1948(m).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 15.16 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (backwater from rocks on control), which are fair. Occasional regulation at low flow from unknown source upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--42 years (water years 1947-88), 9.60 ft^3/s, 17.48 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,850 ft^3/s, Sept. 13, 1971, gage height, 11.91 ft, from rating curve extended above 200 ft^3/s on basis of culvert and flow-over-road measurements at gage heights 9.10 ft and 11.91 ft; minimum daily discharge, 0.09 ft^3/s, Oct. 2, 4, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1940, that of Sept. 13, 1971. Flood of Aug. 1, 1945, reached a stage of about 8.5 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 550 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 30	0415	945	4.31	July 23	2345	1,120	4.64
Feb. 12	0415	*1,210	*4.79	Aug. 24	0830	1,020	4.45
Feb. 19	2315	1,000	4.42	Aug. 29	1930	731	3.91
May 19	0215	853	4.13	Sept. 5	0615	1,120	4.63

Minimum daily discharge, 0.51 ft^3/s, July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.4	5.3	3.3	17	3.4	2.9	3.8	3.8	.94	2.6	1.4
2	1.3	1.4	2.9	2.9	32	3.2	2.7	3.3	2.8	1.2	2.9	1.2
3	44	1.4	2.4	e2.7	15	3.6	2.6	3.5	1.7	.94	2.8	1.3
4	6.7	1.5	2.9	3.2	50	46	4.5	7.2	1.8	.92	2.8	60
5	2.1	1.4	2.1	e2.5	e5.2	14	3.0	17	1.7	.89	2.6	81
6	1.7	1.4	1.8	e1.9	e2.5	6.0	2.5	67	1.6	.79	2.0	3.5
7	11	1.5	1.7	2.6	e2.3	5.1	61	15	1.4	.64	4.0	1.9
8	2.0	1.6	1.7	3.1	2.8	4.1	16	5.9	1.3	.68	1.6	1.6
9	1.6	1.6	1.7	2.9	2.6	4.1	5.2	4.6	4.9	.64	1.2	1.5
10	1.5	45	2.0	2.7	2.5	3.9	4.1	5.1	1.6	.68	1.0	1.3
11	1.7	17	6.9	2.8	3.9	3.2	3.3	16	1.2	.65	1.0	1.2
12	1.6	4.9	2.2	2.9	224	3.2	2.8	5.4	1.1	2.6	1.0	1.2
13	1.5	3.0	1.9	3.3	e9.6	3.8	2.6	3.6	1.1	1.0	1.0	12
14	1.4	2.1	1.8	e1.6	e5.9	3.0	2.6	3.1	1.1	.79	.98	1.7
15	1.4	1.7	59	1.8	11	2.8	3.5	2.9	1.1	.62	.91	1.3
16	1.5	1.6	11	2.3	49	2.6	4.0	3.1	1.0	.51	.85	1.2
17	1.5	1.6	3.7	2.1	7.7	2.5	2.4	3.1	1.4	34	7.6	1.3
18	1.5	1.8	2.7	32	6.1	3.0	4.4	16	1.1	3.9	2.7	1.7
19	1.5	1.5	2.4	6.2	96	3.1	3.7	247	1.0	1.2	3.7	1.4
20	1.5	1.4	15	100	82	2.9	2.2	18	1.0	14	4.5	1.3
21	2.0	1.3	4.4	9.7	11	3.1	2.1	8.6	.97	81	3.7	1.3
22	1.8	1.3	2.8	4.5	6.4	3.1	2.0	5.7	.95	28	1.0	1.1
23	1.6	1.4	2.6	3.6	6.1	3.0	2.8	8.8	.95	60	.94	1.1
24	1.6	1.4	2.3	3.3	5.6	2.9	4.8	17	.85	53	100	1.4
25	1.6	1.4	3.3	10	4.4	2.7	3.2	10	.86	2.5	25	4.7
26	1.6	1.4	9.5	14	4.0	29	3.5	4.0	1.0	23	1.9	2.1
27	32	1.3	3.1	e4.2	4.3	15	17	2.9	.99	16	1.3	1.1
28	16	1.6	2.8	e2.5	4.7	4.3	45	2.6	.94	4.7	1.2	1.1
29	1.9	128	4.9	e2.3	3.6	3.5	6.2	2.3	.97	2.2	49	1.0
30	1.6	129	e3.0	3.1	---	3.0	6.1	2.1	.93	1.9	6.7	1.1
31	1.5	---	2.4	18	---	2.8	---	2.1	---	1.7	1.9	---
TOTAL	151.9	362.9	172.2	258.0	677.2	195.9	228.7	516.7	43.11	341.59	240.38	195.0
MEAN	4.90	12.1	5.55	8.32	23.4	6.32	7.62	16.7	1.44	11.0	7.75	6.50
MAX	44	129	59	100	224	46	61	247	4.9	81	100	81
MIN	1.3	1.3	1.7	1.6	2.3	2.5	2.0	2.1	.85	.51	.85	1.0
CFSM	.66	1.62	.74	1.12	3.13	.85	1.02	2.23	.19	1.48	1.04	.87
IN.	.76	1.81	.86	1.29	3.38	.98	1.14	2.58	.21	1.70	1.20	.97

CAL YR 1987 TOTAL 3285.45 MEAN 9.00 MAX 185 MIN .64 CFSM 1.21 IN. 16.38
WTR YR 1988 TOTAL 3383.58 MEAN 9.24 MAX 247 MIN .51 CFSM 1.24 IN. 16.87

e Estimated

01478000 CHRISTINA RIVER AT COOCHS BRIDGE, DE

LOCATION.--Lat 39°38′14″, long 75°43′43″, New Castle County, Hydrologic Unit 02040205, on right bank 60 ft downstream from highway bridge, 0.5 mi southeast of Coochs Bridge, 3.3 mi south of Newark, 3.6 mi upstream from Belltown Run, and 22.6 mi upstream from mouth.

DRAINAGE AREA.--20.5 mi^2.

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

REVISED RECORDS.--WDR MD-DE-79-1: 1943-70(P). WDR MD-DE-87-1: 1980-82(P).

GAGE.--Water-stage recorder. Datum of gage is 25.54 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 14, 1944, nonrecording gage on upstream side of bridge at same datum. Sept. 14, 1944, to May 13, 1969, recording gage at site on left bank at downstream side of highway bridge at same datum. May 26, 1969, to Dec. 5, 1973, recording gage on left bank 82 ft downstream from highway bridge at same datum.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Low and medium flow regulated by mill upstream from station. Gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--45 years, 28.2 ft^3/s, 18.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,330 ft^3/s, May 1, 1947, gage height, 12.41 ft; minimum daily discharge, 0.2 ft^3/s, Aug. 7, 14, 18, 21, 27, 28, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 30	0645	1,960	10.86	Feb. 20	0215	1,290	10.20
Jan. 20	1230	1,050	9.92	May 19	1015	*2,770	*11.62
Feb. 12	0900	1,650	10.56				

Minimum daily discharge, 0.87 ft^3/s, July 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	6.1	36	14	42	15	14	15	17	5.3	13	7.5
2	4.9	6.0	20	14	58	15	13	13	16	7.2	7.9	6.9
3	17	6.3	16	11	52	15	12	12	14	3.6	5.8	6.2
4	11	5.5	16	13	92	83	13	15	14	9.7	5.4	61
5	6.3	6.4	13	11	32	56	12	57	13	4.5	5.2	88
6	5.7	4.8	12	9.3	18	23	11	164	13	.87	5.1	12
7	13	5.3	11	8.8	14	20	71	51	37	3.3	5.0	8.2
8	7.3	5.5	11	9.8	14	17	49	22	20	4.2	4.6	7.4
9	5.7	6.0	11	11	14	18	21	17	19	4.1	4.3	8.1
10	5.3	44	11	10	13	16	16	16	15	4.3	4.2	6.3
11	5.5	51	17	9.4	14	15	14	48	12	4.2	4.2	5.9
12	5.5	25	11	9.5	455	14	13	31	11	11	4.0	6.1
13	4.8	20	10	10	47	16	12	17	10	6.1	4.0	18
14	4.9	13	9.9	9.9	25	14	12	14	10	4.0	3.8	7.5
15	6.4	10	75	8.8	25	13	12	12	9.6	4.5	3.6	5.8
16	6.3	8.5	44	8.8	127	12	15	12	10	2.9	3.3	4.8
17	5.9	7.9	17	9.3	30	12	12	16	9.4	35	3.1	6.2
18	5.6	8.3	13	50	24	12	15	198	9.3	22	3.1	7.5
19	3.4	7.6	12	46	84	13	15	1150	8.6	6.8	4.9	6.5
20	3.2	7.3	24	e329	318	12	12	80	7.7	9.8	11	6.1
21	5.0	6.8	18	66	41	12	11	47	7.5	131	6.0	5.9
22	5.7	6.3	12	32	25	11	11	35	6.3	110	3.8	5.7
23	4.7	6.5	12	20	24	12	11	29	6.6	37	3.9	5.5
24	4.6	7.1	11	17	22	12	20	82	6.1	52	124	4.1
25	4.8	6.6	12	34	19	12	11	81	5.6	9.8	142	16
26	5.5	6.6	29	64	17	57	11	32	5.6	25	8.7	7.3
27	16	6.9	16	22	18	68	22	25	6.1	40	6.1	5.0
28	45	7.7	14	15	18	20	141	22	5.8	17	5.6	4.6
29	9.0	278	23	14	16	16	23	20	4.9	8.6	173	4.1
30	7.1	665	12	14	---	17	19	18	6.1	7.0	30	4.1
31	6.4	---	11	35	---	13	---	17	---	6.2	9.9	---
TOTAL	248.0	1252.0	559.9	935.6	1698	661	644	2368	336.2	596.97	618.5	348.3
MEAN	8.00	41.7	18.1	30.2	58.6	21.3	21.5	76.4	11.2	19.3	20.0	11.6
MAX	45	665	75	329	455	83	141	1150	37	131	173	88
MIN	3.2	4.8	9.9	8.8	13	11	11	12	4.9	.87	3.1	4.1
CFSM	.39	2.04	.88	1.47	2.86	1.04	1.05	3.73	.55	.94	.97	.57
IN.	.45	2.27	1.02	1.70	3.08	1.20	1.17	4.30	.61	1.08	1.12	.63

CAL YR 1987 TOTAL 8282.0 MEAN 22.7 MAX 665 MIN 1.8 CFSM 1.11 IN. 15.03
WTR YR 1988 TOTAL 10266.47 MEAN 28.1 MAX 1150 MIN .87 CFSM 1.37 IN. 18.63

e Estimated

01479000 WHITE CLAY CREEK NEAR NEWARK, DE

LOCATION.--Lat 39°41'47", long 75°40'33", New Castle County, Hydrologic Unit 02040205, on left bank 35 ft downstream from bridge on private road at Delaware Park Race Track, 0.4 mi downstream from the Baltimore and Ohio Railroad bridge, 1.1 mi downstream from Pike Creek, 3.8 mi east of Newark, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--89.1 mi^2.

PERIOD OF RECORD.--October 1931 to September 1936, June 1943 to September 1957, October 1959 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1051: 1933(M). WSP 1382: 1932, 1934. WDR MD-DE-83-1: 1978-82(P).

GAGE.--Water-stage recorder. Datum of gage is 9.00 ft above National Geodetic Vertical Datum of 1929. Nov. 17, 1931, to Sept. 30, 1936, June 4, 1943, to Sept. 30, 1957, and Oct. 1, 1959, to Apr. 7, 1976, at site 0.5 mi upstream at datum 2.6 ft higher.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Slight diurnal fluctuation at low flow caused by mills upstream from station. Records do not include a negligible diversion upstream from station by E. I. du Pont de Nemours & Co. Gage-height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some periods have been collected at this location.

AVERAGE DISCHARGE.--48 years (water years 1932-36, 1944-57, 1960-88), 114 ft^3/s, 17.37 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,080 ft^3/s, June 22, 1972, gage height, 17.74 ft, at previous site and datum, from rating curve extended above 6,700 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 4.7 ft^3/s, Sept. 11, 1966; minimum daily discharge, 5.0 ft^3/s, Sept. 10, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 23 ft, previous site and datum, in July 1937 (probably affected by backwater from railroad bridge which has since been raised and widened), from information by Baltimore & Ohio Railroad.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 30	0615	2,890	13.21	May 19	1100	*3,970	*14.23
Jan. 20	1015	2,370	12.56				

Minimum daily discharge, 28 ft^3/s, Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	49	203	79	307	109	95	90	94	42	51	51
2	46	50	126	77	239	105	93	85	96	42	48	46
3	81	48	102	e72	208	107	91	82	89	42	45	43
4	74	48	97	e80	240	190	92	88	89	40	44	162
5	51	47	85	e70	152	239	94	131	87	40	42	331
6	48	45	78	e60	e115	130	86	289	83	38	42	84
7	74	45	74	e56	e100	119	209	188	93	37	43	59
8	54	47	73	e64	e96	112	188	113	85	37	41	52
9	48	46	72	e68	95	110	116	97	95	36	38	49
10	47	123	72	e65	93	110	102	93	90	39	37	47
11	49	206	81	e61	94	101	96	133	79	36	37	44
12	49	103	70	e61	984	100	92	113	74	50	36	41
13	47	95	67	e62	238	103	89	95	71	41	35	72
14	46	73	64	e61	231	100	86	89	68	37	34	53
15	46	62	175	e56	140	97	88	85	66	33	33	43
16	45	57	161	e56	407	93	92	85	64	30	29	40
17	45	55	88	e60	147	91	85	91	64	90	28	41
18	46	61	75	e130	126	90	91	389	65	97	29	46
19	45	58	72	e150	221	92	95	1970	61	82	31	43
20	46	53	101	e1000	747	90	85	350	59	62	44	41
21	47	50	93	242	194	87	81	214	57	357	44	40
22	48	46	76	143	144	85	78	168	54	221	35	39
23	46	47	73	114	138	86	78	153	55	95	33	38
24	46	49	69	103	133	87	98	266	50	177	291	38
25	46	49	75	121	121	87	82	186	49	68	194	56
26	47	49	108	146	115	182	77	139	49	94	50	44
27	78	48	83	127	117	221	97	122	48	358	41	38
28	198	51	77	e110	121	115	332	115	46	94	39	36
29	67	575	89	e95	113	102	114	110	45	70	393	35
30	54	1360	82	e100	---	99	104	104	43	58	171	35
31	51	---	e74	117	---	96	---	98	---	52	64	---
TOTAL	1766	3695	2835	3806	6176	3535	3206	6331	2068	2595	2122	1787
MEAN	57.0	123	91.5	123	213	114	107	204	68.9	83.7	68.5	59.6
MAX	198	1360	203	1000	984	239	332	1970	96	358	393	331
MIN	45	45	64	56	93	85	77	82	43	30	28	35
CFSM	.64	1.38	1.03	1.38	2.39	1.28	1.20	2.29	.77	.94	.77	.67
IN.	.74	1.54	1.18	1.59	2.58	1.48	1.34	2.64	.86	1.08	.89	.75

CAL YR 1987 TOTAL 37849 MEAN 104 MAX 1360 MIN 20 CFSM 1.16 IN. 15.80
WTR YR 1988 TOTAL 39922 MEAN 109 MAX 1970 MIN 28 CFSM 1.22 IN. 16.67

e Estimated

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE

LOCATION.--Lat 39°30′03″, long 75°34′07″, New Castle County, Hydrologic Unit 22, waterquality recorder located on platform about . mi downstream from Reedy Island near Port Penn.

DRAINAGE AREA.--11,200 mi^2, approximately.

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to currect year.
pH: February 1970 to current year.
WATER TEMPERATURE: February 1970 to current year.
DISSOLVED OXYGEN: February 1970 to current year.

INSTRUMENTATION.--Water-quality monitor sinc February 1970.

REMARKS.--Interruptions in record due to instrument malfunctions and pump failures.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 35,600 microsiemens, Nov. 15, 1978; minimum, 100 microsiemens, on several days during August 1969, April 1970, February 1974, January, February, March 1979.
pH: Maximum, 8.9 units, Mar. 4, 1980; minimum, 5.4 units, Dec. 31, 12.
WATER TEMPERATURE: Maximum, 32.5°C, July 23, 1987; minimum 0.0°C, on many days during winter periods.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L, Dec. 16, 19, 1976; minimum, 0.3 mg/L, Sept. 16, 17, 1971.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	9830	2770	4690	12700	3960	8040	---	---	---	12800	5730	7700
2	11600	3610	6830	12200	5600	7980	---	---	---	12700	5350	7710
3	9080	2990	5080	11700	5370	7850	---	---	---	13600	5770	8430
4	10300	2300	4750	10900	5200	7260	---	---	---	15400	6920	10400
5	11600	2360	4820	12000	5220	7460	---	---	---	11500	4820	7440
6	12400	3000	6400	10900	4560	6550	---	---	---	---	---	---
7	11600	3570	6820	8950	4120	5880	10200	3000	4980	---	---	---
8	---	---	---	10300	4130	5780	---	---	---	---	---	---
9	---	---	---	10500	4110	6340	---	---	---	---	---	---
10	---	---	---	11700	4190	6430	---	---	---	---	---	---
11	---	---	---	17500	7110	11000	---	---	---	---	---	---
12	11600	4040	6640	13900	7360	10100	---	---	---	---	---	---
13	11500	4190	7760	15700	7540	12000	---	---	---	---	---	---
14	13700	5890	9560	15700	6630	11700	---	---	---	---	---	---
15	15000	6400	10600	17800	8020	13100	---	---	---	---	---	---
16	14000	6200	10700	16800	8170	12800	---	---	---	---	---	---
17	15800	7300	12100	17700	9140	13000	---	---	---	---	---	---
18	17800	8150	13000	16800	9440	12400	---	---	---	---	---	---
19	17900	8620	12600	16100	7240	10600	---	---	---	---	---	---
20	17200	8910	12800	17400	8330	11500	---	---	---	---	---	---
21	15600	9220	12400	14900	7820	10400	16600	6790	10100	---	---	---
22	16000	8820	11900	10100	9450	9750	15300	6530	8620	---	---	---
23	---	---	---	9870	8480	9430	14300	6050	8830	---	---	---
24	---	---	---	---	---	---	12700	5910	8150	---	---	---
25	---	---	---	---	---	---	11300	5240	7790	9800	7060	8410
26	16300	7600	10800	---	---	---	10800	5140	7300	---	---	---
27	16100	8960	11500	---	---	---	11500	5700	8070	---	---	---
28	16200	8350	11600	---	---	---	10600	5510	7410	---	---	---
29	16000	8110	10600	---	---	---	14200	6330	9620	---	---	---
30	14400	6950	9180	---	---	---	12600	5240	8680	---	---	---
31	13300	6110	8190	---	---	---	16100	6080	9730	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE.--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	12400	3780	6960	5220	1110	2540	14900	5470	8170
2	12600	4380	7200	11400	3950	6320	5410	1160	2500	13400	5590	8330
3	13300	4580	7180	9560	3360	5330	6780	1110	2490	15200	5720	9380
4	12100	4000	7890	9580	3420	5540	6280	1080	2530	14500	5400	8200
5	8380	3290	4630	8950	2880	5030	5020	1210	2050	11100	4960	6970
6	---	---	---	7890	2530	4260	6080	1320	2690	13100	5390	7610
7	---	---	---	6560	2300	3920	8840	2280	4700	14100	5100	8630
8	---	---	---	5560	2320	3310	10400	2870	5900	13200	5200	8060
9	---	---	---	6940	2230	3530	9690	2590	5110	11200	5450	7640
10	---	---	---	7580	1980	3330	11300	2720	6100	9190	4870	6700
11	---	---	---	8260	1940	4110	14000	3700	8540	9780	4560	6210
12	---	---	---	7000	1910	3350	16100	5530	10500	9830	3980	5590
13	---	---	---	6410	1590	3340	15200	7350	11200	10800	3840	5530
14	---	---	---	9580	1450	4500	14100	6260	10200	10400	3460	5060
15	---	---	---	10700	2110	5100	12300	6660	9240	11200	3580	5650
16	---	---	---	11300	2040	5310	12400	5690	8080	11000	4270	6520
17	---	---	---	10700	2410	4910	12000	5390	7440	11200	4110	6020
18	8560	2100	4070	11800	2550	5750	12200	5350	7280	10800	4270	6040
19	8410	2190	4400	10800	2890	5760	12200	5360	7400	10700	3800	6020
20	8850	2200	4920	11900	2920	5450	12400	3000	7340	8530	2550	4580
21	5360	1620	2950	8780	2110	3850	11500	4580	6580	4580	1660	2610
22	3870	1600	2050	8010	1780	3170	11000	4470	6570	4670	1230	2050
23	1880	1430	1620	7680	1880	3540	11900	4710	7780	4230	960	1700
24	2890	1160	1460	7590	1330	3440	12600	5220	8050	4310	840	1680
25	4740	1110	1960	6110	1390	2810	12100	4920	8230	5230	730	1880
26	6310	940	3000	7900	2050	4400	14400	5580	9920	8760	920	4190
27	8160	1540	4910	---	---	---	14500	7080	10600	10300	2260	6030
28	10600	3620	7190	6280	780	2500	12900	6800	9430	10900	2050	5350
29	11800	3870	7730	7800	710	2840	13100	5880	8740	10600	2260	5120
30	---	---	---	6880	1000	3350	13500	5450	8130	10400	2210	5010
31	---	---	---	6170	1230	2650	---	---	---	11000	2810	5350
MONTH	---	---	---	---	---	---	16100	1080	6930	15200	730	5740

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11500	3010	5670	17500	9330	12800	12100	4140	6850	15900	8030	10900
2	9710	3050	5590	---	---	---	11500	4470	6910	15300	8060	10700
3	12100	3830	6550	---	---	---	10900	4550	6780	15500	8230	10600
4	10700	3480	5930	---	---	---	11300	4580	6530	15700	8460	11300
5	10500	3510	5770	---	---	---	10900	4650	6330	14000	7070	9880
6	8300	3110	4720	15200	8860	11300	11200	4280	6220	14300	6230	9170
7	12300	3230	6570	16000	9130	11500	12000	4350	6600	15100	6410	9490
8	12600	3940	7190	16700	9210	11700	---	---	---	16300	6590	9950
9	13500	4390	7400	16200	9170	11500	---	---	---	16100	7050	10500
10	14200	4620	7600	16600	8550	11100	---	---	---	16100	7300	10800
11	14200	4850	7780	17100	8690	11200	12200	5470	9360	15900	7750	10800
12	14600	5270	8170	16300	8950	11400	13400	4980	8000	15100	8130	11000
13	13900	4900	7830	17000	9170	11600	14000	5060	8050	16300	7910	11500
14	14100	5250	7840	17800	9160	12200	13500	4930	7930	15700	7580	10600
15	14100	5410	8140	17200	9750	11500	13000	4650	7520	15000	8010	10900
16	13300	5600	8140	17300	9590	12400	11600	4310	6980	16800	8100	11500
17	12900	5680	8030	15800	9680	12300	14300	4720	8580	16600	8200	12000
18	12700	5710	8090	14400	8920	11200	14700	5950	9250	15500	8400	10500
19	13100	5660	8440	17200	9520	12100	13100	6600	8890	15400	7160	10700
20	11400	5860	8180	15200	8830	11400	---	---	---	17800	7670	11700
21	11400	5630	7750	14900	8100	10900	---	---	---	16700	7280	10800
22	13100	5900	8820	12300	5960	8390	---	---	---	17900	7080	10700
23	13300	5980	8530	12600	5840	8450	---	---	---	17100	7780	11800
24	15800	5540	9330	13700	5880	8900	20000	8180	14300	16400	8110	11300
25	15900	6960	10600	15100	5370	8330	19700	9240	13000	---	---	---
26	12900	6620	9500	14400	5420	8430	18100	9450	12500	---	---	---
27	16600	5870	9360	13000	4890	7500	19200	9190	12300	17400	9290	12500
28	16600	7080	10800	11200	4230	6510	---	---	---	17000	9610	12600
29	17300	8190	10700	12200	4020	6210	---	---	---	17800	9800	12700
30	17100	8290	11400	12000	4080	6260	---	---	---	16900	10100	12800
31	---	---	---	12000	4170	6570	16400	7900	10900	---	---	---
MONTH	17300	3010	8010	---	---	---	---	---	---	---	---	---

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE.--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	7.4	7.2	7.3	7.6	7.4	7.5	---	---	---	7.7	7.5	7.6
2	7.5	7.3	7.4	7.6	7.4	7.5	---	---	---	7.7	7.5	7.6
3	7.4	7.3	7.4	7.5	7.3	7.4	---	---	---	7.7	7.5	7.6
4	7.6	7.3	7.5	7.5	7.3	7.4	---	---	---	7.7	7.6	7.7
5	7.6	7.3	7.5	7.5	7.3	7.4	---	---	---	7.7	7.6	7.6
6	7.6	7.4	7.5	7.6	7.4	7.5	---	---	---	---	---	---
7	7.6	7.4	7.5	7.6	7.4	7.5	7.6	7.4	7.5	---	---	---
8	---	---	---	7.6	7.4	7.5	---	---	---	---	---	---
9	---	---	---	7.7	7.5	7.6	---	---	---	---	---	---
10	---	---	---	7.7	7.5	7.6	---	---	---	---	---	---
11	---	---	---	7.9	7.7	7.8	---	---	---	---	---	---
12	7.6	7.3	7.5	7.9	7.8	7.8	---	---	---	---	---	---
13	7.6	7.4	7.5	7.9	7.8	7.8	---	---	---	---	---	---
14	7.7	7.5	7.6	7.9	7.7	7.8	---	---	---	---	---	---
15	7.7	7.5	7.6	8.0	7.7	7.8	---	---	---	---	---	---
16	7.7	7.4	7.6	7.9	7.6	7.8	---	---	---	---	---	---
17	7.7	7.5	7.6	7.8	7.6	7.7	---	---	---	---	---	---
18	7.7	7.5	7.6	7.7	7.6	7.6	---	---	---	---	---	---
19	7.7	7.4	7.5	7.7	7.5	7.6	---	---	---	---	---	---
20	7.7	7.4	7.6	7.7	7.5	7.6	---	---	---	---	---	---
21	7.6	7.4	7.5	7.9	7.6	7.7	---	---	---	---	---	---
22	7.7	7.5	7.5	7.9	7.8	7.8	7.7	7.5	7.6	---	---	---
23	---	---	---	7.8	7.7	7.8	7.7	7.5	7.6	---	---	---
24	---	---	---	---	---	---	7.6	7.5	7.5	---	---	---
25	---	---	---	---	---	---	7.6	7.4	7.5	---	---	---
26	7.7	7.5	7.6	---	---	---	7.6	7.4	7.5	---	---	---
27	7.6	7.5	7.5	---	---	---	7.6	7.4	7.5	---	---	---
28	7.7	7.5	7.6	---	---	---	7.6	7.4	7.5	---	---	---
29	7.7	7.5	7.5	---	---	---	7.7	7.5	7.6	---	---	---
30	7.6	7.4	7.5	---	---	---	7.7	7.6	7.6	---	---	---
31	7.6	7.4	7.5	---	---	---	7.8	7.6	7.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	7.8	7.6	7.7	7.6	7.4	7.5	8.0	7.6	7.7
2	7.9	7.7	7.7	7.8	7.6	7.7	7.7	7.3	7.4	7.9	7.6	7.7
3	7.9	7.7	7.8	7.7	7.5	7.6	7.8	7.3	7.4	7.9	7.6	7.7
4	7.9	7.7	7.8	7.7	7.5	7.6	7.7	7.1	7.3	7.9	7.5	7.6
5	7.8	7.7	7.7	7.7	7.5	7.6	7.5	7.2	7.3	7.6	7.4	7.5
6	---	---	---	7.7	7.5	7.6	7.6	7.3	7.4	7.7	7.5	7.5
7	---	---	---	7.6	7.4	7.5	7.9	7.5	7.7	7.8	7.5	7.6
8	---	---	---	7.6	7.4	7.5	8.1	7.6	7.8	7.8	7.5	7.6
9	---	---	---	7.6	7.3	7.4	8.0	7.6	7.7	7.7	7.5	7.6
10	---	---	---	7.6	7.3	7.4	8.1	7.6	7.8	7.6	7.4	7.5
11	---	---	---	7.7	7.4	7.5	8.3	7.6	7.9	7.6	7.4	7.5
12	---	---	---	7.6	7.4	7.4	8.3	7.7	8.0	7.6	7.3	7.4
13	---	---	---	7.6	7.4	7.4	8.2	7.9	8.0	7.7	7.3	7.4
14	---	---	---	7.9	7.4	7.6	8.2	7.8	8.0	7.7	7.3	7.4
15	---	---	---	8.0	7.5	7.7	8.1	7.7	7.9	7.7	7.3	7.4
16	---	---	---	8.0	7.6	7.7	8.0	7.7	7.8	7.7	7.3	7.4
17	---	---	---	8.1	7.6	7.7	8.0	7.6	7.7	7.6	7.3	7.4
18	7.8	7.6	7.7	8.1	7.6	7.8	8.0	7.6	7.7	7.6	7.3	7.4
19	7.8	7.6	7.7	8.0	7.6	7.7	8.0	7.6	7.7	7.6	7.3	7.4
20	7.8	7.6	7.7	8.1	7.6	7.7	8.0	7.6	7.7	7.4	7.1	7.3
21	7.7	7.6	7.6	7.9	7.4	7.7	8.0	7.6	7.7	7.2	7.0	7.1
22	7.7	7.6	7.6	7.9	7.5	7.6	8.0	7.6	7.7	7.2	6.9	7.0
23	7.6	7.6	7.6	7.9	7.6	7.7	8.0	7.6	7.8	7.1	6.9	7.0
24	7.6	7.4	7.6	7.9	7.5	7.6	8.0	7.6	7.8	7.0	6.9	7.0
25	7.7	7.5	7.6	7.8	7.5	7.6	8.0	7.6	7.8	7.1	6.9	7.0
26	7.8	7.5	7.6	7.9	7.5	7.7	8.1	7.7	7.9	7.4	7.0	7.2
27	7.8	7.6	7.7	---	---	---	8.1	7.7	7.9	7.4	7.1	7.2
28	7.9	7.7	7.8	7.9	7.4	7.6	7.9	7.7	7.8	7.3	7.1	7.2
29	7.9	7.6	7.8	8.0	7.4	7.6	7.9	7.6	7.7	7.3	7.1	7.1
30	---	---	---	7.9	7.4	7.6	7.9	7.6	7.7	7.3	7.1	7.1
31	---	---	---	7.8	7.4	7.5	---	---	---	7.3	7.1	7.1
MONTH	---	---	---	---	---	---	8.3	7.1	7.7	8.0	6.9	7.4

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE.--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.3	7.1	7.1	7.6	7.5	7.5	7.2	7.1	7.2	7.4	7.3	7.4
2	7.4	7.2	7.3	---	---	---	7.3	7.1	7.2	7.4	7.3	7.4
3	7.5	7.3	7.4	---	---	---	7.4	7.2	7.2	7.4	7.3	7.4
4	7.4	7.3	7.3	---	---	---	7.4	7.2	7.3	7.5	7.3	7.4
5	7.4	7.3	7.3	---	---	---	7.4	7.3	7.3	7.5	7.3	7.4
6	7.4	7.3	7.3	7.5	7.4	7.5	7.4	7.3	7.3	7.6	7.3	7.5
7	7.5	7.3	7.4	7.5	7.4	7.5	7.5	7.2	7.3	7.6	7.4	7.5
8	7.5	7.3	7.4	7.6	7.4	7.5	---	---	---	7.6	7.4	7.5
9	7.5	7.3	7.4	7.5	7.4	7.5	---	---	---	7.6	7.4	7.5
10	7.5	7.4	7.4	7.5	7.3	7.4	---	---	---	7.6	7.4	7.5
11	7.5	7.4	7.4	7.5	7.3	7.4	7.5	7.3	7.4	7.6	7.4	7.5
12	7.5	7.3	7.4	7.4	7.3	7.4	7.5	7.3	7.3	7.6	7.4	7.5
13	7.5	7.3	7.4	7.5	7.3	7.4	7.5	7.3	7.4	7.6	7.4	7.5
14	7.5	7.3	7.3	7.5	7.3	7.4	7.5	7.3	7.4	7.6	7.4	7.5
15	7.5	7.2	7.3	7.4	7.3	7.3	7.5	7.3	7.4	7.6	7.5	7.5
16	7.4	7.2	7.3	7.6	7.3	7.4	7.6	7.3	7.4	7.7	7.5	7.6
17	7.4	7.2	7.3	7.5	7.4	7.4	7.7	7.4	7.5	7.6	7.6	7.6
18	7.4	7.2	7.3	7.6	7.4	7.4	7.6	7.4	7.5	7.6	7.5	7.5
19	7.4	7.3	7.3	7.4	7.3	7.4	7.6	7.5	7.5	7.6	7.4	7.5
20	7.4	7.3	7.3	7.4	7.2	7.4	---	---	---	7.5	7.3	7.4
21	7.3	7.2	7.3	7.4	7.3	7.3	---	---	---	7.4	7.3	7.3
22	7.4	7.2	7.3	7.3	7.1	7.2	---	---	---	7.5	7.3	7.4
23	7.4	7.2	7.3	7.4	7.1	7.2	---	---	---	7.5	7.3	7.4
24	7.6	7.2	7.4	7.3	7.2	7.3	7.7	7.6	7.6	7.5	7.4	7.4
25	7.6	7.3	7.4	7.4	7.2	7.2	7.7	7.5	7.6	---	---	---
26	7.5	7.2	7.4	7.3	7.2	7.3	7.7	7.5	7.5	---	---	---
27	7.6	7.2	7.4	7.4	7.1	7.3	7.6	7.4	7.5	7.4	7.3	7.4
28	7.6	7.4	7.4	7.3	7.2	7.2	---	---	---	7.4	7.3	7.4
29	7.6	7.3	7.4	7.3	7.1	7.2	---	---	---	7.5	7.3	7.4
30	7.5	7.4	7.5	7.3	7.1	7.2	---	---	---	7.4	7.4	7.4
31	---	---	---	7.3	7.1	7.2	7.4	7.3	7.4	---	---	---
MONTH	7.6	7.1	7.3	---	---	---	---	---	---	---	---	---

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	22.0	20.5	21.5	14.0	12.5	13.0	9.0	8.0	8.5	4.5	4.0	4.0
2	21.0	20.0	21.0	13.5	13.0	13.5	---	---	---	4.0	3.0	3.5
3	21.0	19.0	20.0	14.0	13.0	13.5	---	---	---	3.5	3.0	3.0
4	19.5	18.0	18.5	14.5	13.5	13.5	---	---	---	3.5	3.0	3.0
5	19.5	17.5	18.5	14.0	13.0	13.5	---	---	---	3.0	1.0	2.0
6	18.5	17.5	18.0	13.0	12.0	12.5	---	---	---	---	---	---
7	19.0	17.5	18.0	12.5	11.5	12.0	7.5	6.5	7.0	---	---	---
8	---	---	---	12.5	12.0	12.0	---	---	---	---	---	---
9	---	---	---	12.5	12.0	12.5	---	---	---	---	---	---
10	---	---	---	12.5	10.5	11.5	---	---	---	---	---	---
11	---	---	---	11.0	9.0	10.0	---	---	---	---	---	---
12	16.0	15.0	15.5	---	---	---	---	---	---	---	---	---
13	15.5	15.0	15.5	10.0	9.0	9.5	---	---	---	---	---	---
14	15.5	14.5	15.0	10.5	9.5	10.0	---	---	---	---	---	---
15	15.5	14.5	15.0	10.5	9.5	10.0	---	---	---	---	---	---
16	16.0	14.5	15.0	11.0	9.5	10.0	---	---	---	---	---	---
17	16.5	14.5	15.0	11.0	10.0	10.5	---	---	---	---	---	---
18	16.0	15.0	15.5	12.0	10.5	11.0	---	---	---	---	---	---
19	16.5	15.0	15.5	11.5	10.5	11.0	---	---	---	---	---	---
20	16.0	15.0	15.5	11.0	10.0	10.5	---	---	---	---	---	---
21	16.0	15.0	15.5	10.0	9.0	9.5	6.0	5.5	5.5	---	---	---
22	15.5	14.0	14.5	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	6.0	5.5	5.5	---	---	---
24	---	---	---	---	---	---	6.0	5.5	5.5	---	---	---
25	---	---	---	---	---	---	6.5	5.5	6.0	1.0	1.0	1.0
26	14.0	13.0	13.5	---	---	---	6.5	5.5	6.0	---	---	---
27	14.0	13.0	13.5	---	---	---	6.5	5.5	6.0	---	---	---
28	14.0	13.0	13.5	---	---	---	6.0	5.5	5.5	---	---	---
29	13.5	13.0	13.0	---	---	---	5.5	3.5	5.0	---	---	---
30	13.0	12.5	13.0	---	---	---	4.5	3.5	4.0	---	---	---
31	14.0	12.5	13.0	---	---	---	4.5	3.0	4.0	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE.--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.0	1.5	2.0	4.5	3.5	3.5	11.0	10.0	10.5	13.5	12.0	12.5
2	3.0	2.0	2.5	5.0	3.5	4.0	11.5	10.5	11.0	13.0	12.5	13.0
3	2.5	2.0	2.0	5.0	4.5	4.5	11.5	10.5	11.0	13.5	12.5	13.0
4	2.5	2.0	2.5	4.5	4.5	4.5	12.5	11.5	12.0	13.5	13.0	13.0
5	2.5	1.5	2.0	5.5	4.0	4.5	13.5	11.5	12.5	13.5	13.0	13.5
6	---	---	---	5.5	4.5	5.0	13.0	12.0	12.5	13.5	13.5	13.5
7	---	---	---	6.5	5.0	5.5	12.0	11.5	11.5	15.0	13.5	14.0
8	---	---	---	6.5	5.0	5.5	12.0	11.0	11.5	15.5	14.0	14.5
9	---	---	---	7.0	5.5	6.5	12.0	11.0	11.5	15.0	14.5	14.5
10	---	---	---	7.0	6.5	6.5	12.5	11.0	11.5	16.5	14.5	15.5
11	---	---	---	7.5	6.0	6.5	13.0	11.0	11.5	17.0	15.0	16.0
12	---	---	---	8.0	6.5	7.5	12.0	11.0	11.5	19.0	16.0	17.0
13	---	---	---	9.0	7.0	8.0	12.0	11.0	11.5	18.5	16.5	17.5
14	---	---	---	8.0	7.0	7.5	12.0	11.0	11.5	19.0	17.0	18.0
15	---	---	---	7.5	6.5	7.0	12.5	11.0	11.5	19.0	17.5	18.0
16	---	---	---	7.5	5.5	6.5	12.0	11.0	11.5	18.5	17.5	18.0
17	---	---	---	7.0	5.5	6.0	12.5	11.0	11.5	19.0	17.5	18.0
18	2.5	1.5	2.0	6.0	5.5	5.5	12.0	11.5	11.5	18.5	18.0	18.0
19	2.5	2.0	2.0	6.0	5.5	5.5	11.5	11.0	11.5	18.0	17.5	18.0
20	3.0	2.5	2.5	6.0	5.0	5.5	11.5	10.5	11.0	18.0	17.5	18.0
21	2.5	2.0	2.5	6.0	4.0	5.0	12.0	11.0	11.5	19.5	17.5	18.5
22	3.0	1.5	2.5	6.0	4.5	5.5	12.0	11.0	11.5	21.5	18.0	19.0
23	4.0	2.5	3.0	6.0	5.0	5.5	11.5	11.0	11.0	20.5	19.0	19.5
24	3.5	2.5	3.0	8.5	6.0	7.0	12.0	11.0	11.5	21.0	19.5	20.0
25	3.5	2.5	3.0	10.0	6.5	8.0	12.5	11.0	11.5	20.0	19.0	19.5
26	3.5	2.5	3.0	9.0	8.0	8.5	12.5	11.0	11.5	20.0	18.5	19.0
27	3.5	2.5	3.0	---	---	---	13.0	11.5	12.0	20.5	18.5	19.5
28	3.5	2.5	3.0	9.5	8.0	9.0	13.0	12.0	12.5	21.0	19.0	20.0
29	4.5	3.0	3.5	10.0	8.5	9.0	12.5	12.0	12.0	22.0	19.5	20.5
30	---	---	---	10.5	9.0	9.5	13.5	12.0	12.5	22.5	20.5	21.0
31	---	---	---	11.5	9.5	10.0	---	---	---	22.5	21.0	21.5
MONTH	---	---	---	---	---	---	13.5	10.0	11.5	22.5	12.0	17.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.0	21.5	22.0	24.5	23.5	24.0	29.5	28.5	29.0	26.0	25.0	25.5
2	22.0	21.0	21.5	---	---	---	30.0	29.0	29.5	26.0	24.5	25.0
3	22.0	21.0	21.5	---	---	---	30.0	29.0	29.5	25.5	24.0	25.0
4	21.5	20.5	21.0	---	---	---	30.0	29.0	29.5	24.5	24.0	24.0
5	21.5	20.5	21.0	---	---	---	30.0	29.0	29.5	24.5	23.0	24.0
6	22.0	21.0	21.5	26.0	24.5	25.0	30.0	29.0	29.5	23.5	22.5	23.0
7	22.5	21.0	21.5	26.5	25.0	25.5	31.0	29.0	29.5	23.5	22.0	22.5
8	21.5	21.0	21.0	27.0	25.5	26.0	---	---	---	23.5	22.0	22.5
9	21.0	20.0	20.5	26.5	25.5	26.0	---	---	---	24.0	22.5	23.0
10	21.0	19.5	20.5	27.5	26.0	26.5	---	---	---	24.0	22.5	23.0
11	21.5	20.0	20.5	28.5	26.5	27.0	30.5	29.5	30.0	23.5	22.5	23.0
12	22.0	20.0	21.0	27.0	26.5	27.0	30.5	29.0	29.5	23.5	22.0	22.5
13	23.0	20.5	21.5	28.5	26.5	27.0	30.5	29.5	30.0	23.5	22.0	23.0
14	23.5	21.0	22.0	28.5	26.5	27.5	30.5	29.0	29.5	23.0	22.0	22.5
15	23.5	21.5	22.5	28.0	27.5	28.0	30.0	29.0	29.5	23.0	22.0	22.5
16	24.0	22.5	23.5	29.0	27.5	28.0	29.5	28.5	29.0	22.5	21.0	22.0
17	24.0	23.0	23.5	29.0	28.0	28.5	29.5	28.5	29.0	22.0	21.5	21.5
18	24.5	23.5	24.0	29.5	28.0	29.0	29.0	28.0	28.5	22.0	21.5	22.0
19	25.0	23.5	24.0	29.0	28.5	29.0	28.5	27.0	27.5	22.5	22.0	22.0
20	26.0	24.0	25.0	29.0	28.5	28.5	---	---	---	23.0	22.0	22.5
21	27.0	24.5	25.5	29.0	28.0	28.5	---	---	---	23.0	22.0	22.5
22	27.5	25.5	26.0	29.0	28.0	28.5	---	---	---	23.0	22.0	22.0
23	27.5	25.5	26.5	28.5	27.5	28.0	---	---	---	23.0	21.5	22.0
24	27.0	25.0	25.5	28.5	27.5	28.0	26.5	24.5	25.5	22.5	21.5	22.0
25	26.0	25.0	25.5	29.5	27.5	28.0	26.5	25.0	25.5	---	---	---
26	26.5	25.0	25.5	28.5	28.0	28.0	27.0	25.0	25.5	---	---	---
27	26.0	24.5	25.0	29.0	27.5	28.0	27.0	25.5	26.0	22.0	20.5	21.0
28	26.5	24.5	25.0	28.5	27.5	28.0	---	---	---	22.0	21.0	21.5
29	26.5	24.5	25.5	29.0	28.0	28.5	---	---	---	21.0	20.0	20.5
30	25.0	24.0	24.5	29.5	28.0	29.0	---	---	---	21.0	20.0	20.5
31	---	---	---	29.5	28.5	29.0	26.0	25.5	25.5	---	---	---
MONTH	27.5	19.5	23.0	---	---	---	---	---	---	---	---	---

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE.--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	6.1	5.2	5.6	9.0	8.2	8.5	---	---	---	10.3	10.1	10.2
2	6.2	5.4	5.8	8.8	8.2	8.6	---	---	---	10.5	10.1	10.3
3	7.2	5.5	6.2	8.8	8.3	8.6	---	---	---	10.2	9.9	10.0
4	7.9	6.6	7.2	8.6	7.9	8.3	---	---	---	10.4	10.0	10.2
5	8.8	7.7	7.9	8.5	7.8	8.1	---	---	---	10.8	10.4	10.5
6	7.9	7.5	7.7	8.9	8.1	8.6	---	---	---	---	---	---
7	7.6	7.3	7.5	9.2	8.4	8.8	---	---	---	---	---	---
8	---	---	---	9.3	8.5	8.9	---	---	---	---	---	---
9	---	---	---	9.2	8.6	9.0	---	---	---	---	---	---
10	---	---	---	9.4	8.8	9.0	---	---	---	---	---	---
11	---	---	---	9.4	8.8	9.2	---	---	---	---	---	---
12	9.4	8.9	9.2	---	---	---	---	---	---	---	---	---
13	9.8	8.7	9.2	9.4	9.1	9.3	---	---	---	---	---	---
14	9.8	9.1	9.4	9.1	8.7	9.0	---	---	---	---	---	---
15	9.5	9.1	9.3	9.0	8.7	8.9	---	---	---	---	---	---
16	9.4	8.9	9.2	10.3	8.7	9.4	---	---	---	---	---	---
17	9.2	8.6	9.0	10.1	9.8	10.0	---	---	---	---	---	---
18	8.9	8.2	8.6	10.0	9.6	9.8	---	---	---	---	---	---
19	8.7	8.2	8.4	10.1	9.8	9.9	---	---	---	---	---	---
20	8.3	7.8	8.2	9.9	9.5	9.7	---	---	---	---	---	---
21	8.0	7.6	7.8	10.1	9.6	9.9	10.0	9.5	9.7	---	---	---
22	8.1	7.9	8.0	---	---	---	9.6	9.4	9.5	---	---	---
23	---	---	---	---	---	---	9.6	9.3	9.4	---	---	---
24	---	---	---	---	---	---	9.6	9.4	9.5	---	---	---
25	---	---	---	---	---	---	9.6	9.4	9.5	---	---	---
26	9.2	8.8	9.0	---	---	---	9.6	9.4	9.5	---	---	---
27	9.0	8.7	8.8	---	---	---	9.5	9.3	9.4	---	---	---
28	9.0	8.7	8.8	---	---	---	9.4	9.2	9.3	---	---	---
29	9.0	8.6	8.8	---	---	---	9.6	9.2	9.3	---	---	---
30	8.9	8.6	8.8	---	---	---	10.4	10.0	10.1	---	---	---
31	8.8	8.5	8.6	---	---	---	10.2	9.9	10.1	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	13.1	12.2	12.6	10.2	9.3	9.7	9.8	9.0	9.3
2	13.3	12.9	13.1	13.1	12.4	12.7	10.2	9.6	9.8	10.1	8.9	9.4
3	13.5	13.1	13.3	13.0	12.3	12.7	10.4	9.5	9.8	9.7	9.1	9.4
4	13.6	12.9	13.2	12.9	12.3	12.6	10.3	9.3	9.6	9.8	9.1	9.4
5	13.5	12.8	13.1	13.0	12.4	12.7	9.8	9.1	9.3	9.7	9.1	9.4
6	---	---	---	13.1	12.2	12.5	9.8	9.2	9.4	9.8	9.3	9.5
7	---	---	---	12.7	11.9	12.3	10.6	9.8	10.1	9.7	9.2	9.4
8	---	---	---	12.3	11.4	11.8	10.7	10.0	10.4	9.6	9.0	9.3
9	---	---	---	12.2	11.0	11.5	10.5	9.7	10.2	9.5	8.9	9.2
10	---	---	---	11.7	11.0	11.4	10.6	10.1	10.3	9.3	8.8	9.1
11	---	---	---	12.5	11.2	11.7	10.7	9.4	9.9	9.0	8.5	8.7
12	---	---	---	12.2	11.3	11.6	9.9	9.3	9.7	8.8	8.2	8.4
13	---	---	---	11.8	10.9	11.4	10.0	9.1	9.6	8.8	8.0	8.2
14	---	---	---	11.8	10.9	11.3	9.9	9.3	9.6	8.6	7.8	8.1
15	---	---	---	11.7	10.6	11.1	9.6	9.1	9.3	8.5	7.3	7.9
16	---	---	---	12.0	10.8	11.4	9.7	8.9	9.3	8.5	7.2	8.0
17	---	---	---	12.4	11.1	11.5	10.2	9.6	9.8	8.5	7.7	8.0
18	13.4	12.9	13.1	12.1	10.2	11.2	10.3	9.3	9.9	8.3	7.7	8.0
19	13.5	12.8	13.1	11.6	10.1	10.7	9.7	9.0	9.3	8.4	7.6	8.0
20	13.4	12.6	13.0	11.7	10.3	10.7	10.0	9.2	9.5	7.7	6.6	7.1
21	13.2	12.8	13.0	11.3	10.4	10.8	9.5	8.6	9.1	7.0	6.0	6.4
22	13.0	12.4	12.6	11.4	10.5	10.8	9.5	8.7	9.1	6.4	5.7	6.1
23	13.3	12.5	12.8	11.4	10.2	10.8	9.5	8.5	9.0	6.0	5.3	5.7
24	13.3	12.5	12.8	11.0	9.3	10.0	8.9	8.2	8.5	6.0	5.0	5.4
25	13.3	12.9	13.1	9.5	8.3	8.8	9.8	8.4	9.3	6.4	4.8	5.6
26	13.4	12.8	13.1	9.1	8.3	8.7	10.3	9.4	9.8	6.2	5.3	5.9
27	13.5	12.7	13.2	---	---	---	9.8	9.5	9.7	6.0	5.2	5.7
28	13.5	12.9	13.3	11.3	10.6	10.9	9.9	9.3	9.6	6.2	5.2	5.6
29	13.4	12.8	13.1	11.7	10.6	11.0	9.7	9.0	9.3	5.7	4.9	5.4
30	---	---	---	11.3	10.5	10.9	9.3	8.7	9.0	5.6	4.7	5.2
31	---	---	---	10.5	9.1	9.8	---	---	---	6.1	5.0	5.5
MONTH	---	---	---	---	---	---	10.7	8.2	9.6	10.1	4.7	7.6

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE.--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	6.1	5.2	5.7	6.4	5.7	6.0	5.8	3.7	4.6	7.0	6.1	6.5
2	6.7	5.8	6.3	---	---	---	6.1	4.9	5.3	7.0	6.3	6.6
3	6.7	5.9	6.3	---	---	---	5.5	4.8	5.1	7.2	6.3	6.8
4	6.6	5.9	6.2	---	---	---	5.3	4.7	4.9	7.7	6.7	7.2
5	6.9	6.0	6.4	---	---	---	4.9	4.2	4.5	7.4	6.8	7.0
6	7.1	6.5	6.8	7.1	6.2	6.7	4.8	3.9	4.3	7.6	7.0	7.2
7	7.6	6.7	7.0	7.0	6.2	6.6	5.3	4.0	4.7	7.7	6.7	7.1
8	7.1	6.6	6.8	7.3	6.4	6.8	---	---	---	7.7	6.6	7.1
9	7.4	6.5	6.9	7.3	6.8	7.1	---	---	---	7.8	6.8	7.2
10	7.4	6.6	7.0	8.0	6.8	7.5	---	---	---	7.3	6.8	7.1
11	7.3	6.8	7.0	8.2	7.0	7.8	6.7	5.7	6.0	7.6	6.8	7.2
12	7.2	6.5	6.9	7.0	6.3	6.6	6.6	5.6	6.2	8.1	7.2	7.5
13	7.1	6.3	6.7	7.8	6.3	6.8	6.9	5.8	6.4	7.9	7.2	7.6
14	6.7	6.0	6.3	7.9	6.6	7.1	6.9	6.2	6.6	7.9	7.3	7.5
15	6.7	5.9	6.2	7.4	6.7	6.9	6.9	6.3	6.6	7.7	7.3	7.5
16	7.2	6.3	6.8	7.6	6.4	7.1	7.0	6.4	6.7	8.4	7.5	8.2
17	7.3	6.5	6.9	7.8	6.7	7.2	7.3	6.3	6.8	7.8	7.4	7.6
18	7.3	6.8	7.0	7.3	6.1	6.8	7.0	6.1	6.5	7.5	6.7	7.2
19	7.5	6.8	7.1	6.6	5.8	6.2	6.6	5.8	6.1	7.4	6.7	7.1
20	7.4	6.7	7.0	6.5	5.5	5.8	---	---	---	7.7	6.5	7.2
21	7.4	6.7	7.0	6.1	5.3	5.8	---	---	---	7.2	6.5	6.8
22	7.5	6.6	7.0	6.1	5.5	5.8	---	---	---	6.9	6.4	6.6
23	7.2	6.5	6.9	6.2	5.3	5.7	---	---	---	6.8	6.5	6.6
24	7.1	6.1	6.7	6.2	5.2	5.8	8.0	6.3	7.2	6.7	6.4	6.6
25	7.2	6.1	6.7	6.7	5.5	6.1	7.5	6.3	7.1	---	---	---
26	7.0	6.2	6.6	6.8	5.5	6.2	6.9	6.1	6.5	---	---	---
27	7.4	6.4	6.8	6.7	5.4	6.1	6.5	5.4	6.0	7.6	7.0	7.3
28	7.3	6.0	6.6	5.8	5.2	5.5	---	---	---	7.3	6.8	7.1
29	7.0	5.9	6.3	5.2	4.6	5.0	---	---	---	7.1	6.6	7.0
30	6.6	5.8	6.2	4.9	4.3	4.7	---	---	---	6.9	6.3	6.6
31	---	---	---	4.5	3.9	4.2	6.7	6.2	6.5	---	---	---
MONTH	7.6	5.2	6.7	---	---	---	---	---	---	---	---	---

01483200 BLACKBIRD CREEK AT BLACKBIRD, DE

LOCATION.--Lat 39°21′58″, long 75°40′10″, New Castle County, Hydrologic Unit 02040205, on left bank 15 ft downstream from highway culverts, 0.5 mi upstream from Barlow Branch, 0.6 mi southwest of Blackbird, 5.6 mi northwest of Smyrna, and 13.8 mi upstream from mouth.

DRAINAGE AREA.--3.85 mi^2.

PERIOD OF RECORD.--Annual maximum, water years 1952-56, and occasional low-flow measurements, water years 1952-53, 1955-56. October 1956 to current year.

GAGE.--Water-stage recorder. Concrete control since May 23, 1968. Datum of gage is 17.89 ft above National Geodetic Vertical Datum of 1929. Mar. 5, 1951, to Oct. 16, 1956, nonrecording gage and crest-stage gage at site 15 ft upstream at datum 1.0 ft higher. Oct. 17, 1956, to June 16, 1986, recording gage at same site on right bank at datum 1.0 ft higher.

REMARKS.--No estimated daily discharges. Records good. Occasional regulation at low and medium flow by Blackbird Lake Dam upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--32 years, 4.63 ft^3/s, 16.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 712 ft^3/s, June 22, 1972, gage height, 5.04 ft, from rating curve extended above 200 ft^3/s on basis of Type III culvert measurement of peak flow; no flow at times during 1964, 1965, 1966, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	1600	57	2.58	May 19	0645	*272	*4.09

Minimum discharge, 0.09 ft^3/s, Oct. 24, gage height, 0.58 ft; minimum daily discharge , 0.17 ft^3/s, Oct. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	.68	4.9	2.0	3.5	4.0	3.5	3.8	2.7	.60	.91	.71
2	.45	.73	2.2	1.9	4.1	4.0	3.3	3.4	2.5	.57	.88	.72
3	1.0	.62	1.4	1.7	7.3	3.7	3.5	2.4	2.1	.56	.85	.72
4	2.9	.54	1.3	1.8	5.8	5.9	3.6	2.8	1.9	.55	.74	2.9
5	.93	.49	1.3	1.7	5.0	9.2	4.1	4.8	2.1	.56	.57	7.0
6	.44	.58	1.1	1.3	3.5	5.8	2.7	23	2.0	.57	.49	1.5
7	.68	.67	1.1	1.1	2.4	4.5	8.5	15	1.8	.51	.42	.82
8	.55	.64	1.1	1.5	2.6	4.2	13	5.7	2.4	.48	.38	.74
9	.45	.66	1.1	1.5	2.9	4.2	6.5	4.1	4.8	.47	.37	.72
10	.37	1.7	1.2	1.5	2.9	4.2	4.6	3.0	3.8	.48	.35	.76
11	.41	4.7	3.5	1.4	3.2	3.7	4.1	3.4	2.1	.41	.35	.74
12	.39	4.2	3.1	1.4	40	3.5	4.0	3.8	1.5	.39	.32	.75
13	.35	2.1	1.7	1.6	16	4.2	3.1	3.5	1.5	.60	.34	.69
14	.32	1.4	1.2	1.5	6.3	4.0	3.5	3.0	1.4	.58	.35	.73
15	.30	1.1	2.8	1.3	5.5	3.5	3.5	2.4	1.4	.49	.36	.73
16	.30	1.0	5.0	1.2	7.5	3.2	3.1	2.7	1.3	.43	.38	.65
17	.32	1.1	2.7	1.3	6.2	2.9	3.3	2.3	1.4	2.2	.38	.59
18	.31	.90	1.8	3.1	4.8	3.0	3.8	8.4	1.6	8.9	.36	.53
19	.26	.85	1.5	4.1	5.1	3.3	4.4	94	7.8	1.7	.34	.53
20	.28	.80	1.9	20	9.2	3.1	4.2	24	1.3	.75	.29	.51
21	.33	.70	1.9	15	6.9	2.9	3.1	8.7	1.9	.83	.32	.49
22	.20	.68	1.3	5.9	5.5	2.8	3.3	5.8	1.0	1.9	.33	.50
23	.35	.87	1.5	3.7	5.1	2.7	3.6	4.4	.74	1.8	.29	.49
24	.17	.81	1.2	3.1	5.1	2.8	5.4	8.4	.76	9.0	1.1	.49
25	.18	.80	1.3	4.3	4.8	2.9	3.8	22	.71	2.5	3.4	.61
26	.19	7.9	3.6	7.9	4.5	9.0	3.4	11	.76	1.0	.92	.77
27	1.1	.60	3.3	4.7	4.5	14	3.1	5.5	.77	1.8	.73	.77
28	2.3	.70	2.1	2.9	4.2	6.3	6.6	4.6	.74	1.5	.85	.70
29	2.3	2.6	2.7	2.4	4.0	3.9	4.4	3.8	.71	1.2	.71	.65
30	.70	8.9	2.2	2.6	---	3.3	4.0	3.1	.63	.96	1.6	.59
31	.76	---	1.7	3.1	---	3.9	---	3.2	---	.92	.88	---
TOTAL	22.09	50.02	64.7	108.5	188.4	138.6	131.0	296.0	56.12	45.21	20.56	29.10
MEAN	.71	1.67	2.09	3.50	6.50	4.47	4.37	9.55	1.87	1.46	.66	.97
MAX	2.9	8.9	5.0	20	40	14	13	94	7.8	9.0	3.4	7.0
MIN	.17	.49	1.1	1.1	2.4	2.7	2.7	2.3	.63	.39	.29	.49
CFSM	.19	.43	.54	.91	1.69	1.16	1.13	2.48	.49	.38	.17	.25
IN.	.21	.48	.63	1.05	1.82	1.34	1.27	2.86	.54	.44	.20	.28

CAL YR 1987 TOTAL 1138.91 MEAN 3.12 MAX 34 MIN .08 CFSM .81 IN. 11.00
WTR YR 1988 TOTAL 1150.30 MEAN 3.14 MAX 94 MIN .17 CFSM .82 IN. 11.11

01483700 ST. JONES RIVER AT DOVER, DE

LOCATION.--Lat 39°09′49″, long 75°31′10″, Kent County, Hydrologic Unit 02040207, on left bank 150 ft upstream from Division Street Bridge in Dover, 1,950 ft downstream from Silver Lake, and 12.5 mi upstream from mouth.

DRAINAGE AREA.--31.9 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 0.00 ft above National Geodetic Vertical Datum of 1929. Prior to June 1973, at datum 0.50 ft higher.

REMARKS.--Records good except those estimated daily discharges (periods of backwater from storm tides), which are fair. Flow affected by Silver Lake. Flow occasionally affected by tide and wind effect. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--30 years, 36.0 ft^3/s, 15.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft^3/s, Sept. 13, 1960, gage height, 9.45 ft, from flood-mark; no flow at times in 1959, 1961, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 280 ft^3/s, Feb. 13, gage height, 4.23 ft; minimum daily discharge, 1.4 ft^3/s, Oct. 26, Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	4.2	17	11	19	26	27	22	11	2.2	3.4	5.6
2	3.5	4.0	13	11	23	25	26	18	8.4	1.7	2.9	3.9
3	17	4.5	8.8	9.2	33	25	24	17	e7.5	1.6	2.4	3.1
4	23	4.4	9.9	15	40	34	27	17	e8.3	2.1	2.8	19
5	12	5.7	7.9	12	37	44	28	22	9.2	1.7	4.0	19
6	6.6	3.8	6.0	9.2	30	43	23	70	7.8	1.9	3.0	9.1
7	9.1	1.9	4.8	7.1	19	35	e54	107	10	1.8	2.7	5.2
8	5.3	2.3	5.2	11	17	29	e87	99	14	1.8	2.0	3.2
9	3.3	3.1	5.5	7.7	17	28	92	61	32	1.9	1.9	3.0
10	3.1	21	6.8	8.4	17	29	63	37	27	2.4	1.9	4.4
11	3.4	e35	21	8.0	20	26	42	28	16	1.9	1.7	3.7
12	3.0	27	18	7.4	194	25	e34	24	11	8.4	1.6	2.3
13	2.6	19	14	7.8	251	27	e30	20	8.8	8.2	1.7	2.6
14	2.0	14	9.2	8.3	139	25	e27	18	8.4	5.5	1.5	2.6
15	1.9	9.9	20	7.5	87	23	26	15	6.6	4.2	1.5	2.4
16	2.0	7.9	23	6.7	69	22	25	15	5.4	3.2	2.2	1.7
17	2.5	7.1	16	6.9	64	21	22	15	5.3	5.5	1.4	2.0
18	2.9	8.6	10	14	55	20	24	17	5.6	14	1.7	1.8
19	2.4	5.6	9.1	19	47	21	26	146	5.3	8.4	1.8	1.9
20	2.7	6.3	12	69	56	21	25	226	5.0	5.2	20	2.5
21	3.3	8.2	11	92	61	19	23	128	4.7	5.5	16	2.9
22	2.4	3.3	9.3	73	50	18	19	70	4.4	18	7.0	2.2
23	1.8	2.9	9.8	44	41	18	18	45	3.9	13	4.2	1.6
24	2.1	4.4	8.4	27	37	19	20	35	2.8	29	13	1.8
25	3.0	5.3	9.0	26	34	19	18	39	2.5	17	14	21
26	1.4	5.9	21	39	31	48	18	37	3.2	8.3	7.0	16
27	4.9	e5.0	17	38	29	88	18	27	2.6	12	4.9	8.3
28	14	e5.3	15	27	29	80	29	21	2.1	11	3.7	5.3
29	9.9	e14	18	19	28	50	27	18	2.0	6.9	10	3.8
30	7.5	26	11	17	---	35	26	15	2.2	5.3	15	3.2
31	6.4	---	8.8	18	---	29	---	13	---	4.1	9.6	---
TOTAL	172.4	275.6	375.5	676.2	1574	972	948	1442	243.0	213.7	166.5	165.1
MEAN	5.56	9.19	12.1	21.8	54.3	31.4	31.6	46.5	8.10	6.89	5.37	5.50
MAX	23	35	23	92	251	88	92	226	32	29	20	21
MIN	1.4	1.9	4.8	6.7	17	18	18	13	2.0	1.6	1.4	1.6
CFSM	.17	.29	.38	.68	1.70	.98	.99	1.46	.25	.22	.17	.17
IN.	.20	.32	.44	.79	1.84	1.13	1.11	1.68	.28	.25	.19	.19

CAL YR 1987 TOTAL 10098.2 MEAN 27.7 MAX 310 MIN 1.3 CFSM .87 IN. 11.78
WTR YR 1988 TOTAL 7224.0 MEAN 19.7 MAX 251 MIN 1.4 CFSM .62 IN. 8.42

e Estimated

01484100 BEAVERDAM BRANCH AT HOUSTON, DE

LOCATION.--Lat 38°54′20″, long 75°30′49″, Kent County, Hydrologic Unit 02040207, on left bank 15 ft upstream from culverts on State Highway 384, 0.8 mi south of Houston, and 1.2 mi upstream from Blairs Pond and mouth.

DRAINAGE AREA.--2.83 mi^2.

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

REVISED RECORDS.--WDR MD-DE-84-1: 1981, 1983 (M).

GAGE.--Water-stage recorder and concrete control; timber control prior to Nov. 8, 1979. Datum of gage is 35.67 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversion for irrigation of about 150 acres upstream from station during some years. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--30 years, 3.57 ft^3/s, 17.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft^3/s, Sept. 12, 1960, gage height, 5.55 ft, from rating curve extended above 75 ft^3/s; no flow July 28, 1977 (result of pumpage for irrigation).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 23	1630	*31	*3.26	No other peak greater than base discharge.			

Minimum discharge, 0.28 ft^3/s, Nov. 5, 6, 7, 8, gage height, 2.30 ft; minimum daily discharge, 0.30 ft^3/s, Nov. 6, 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.35	.57	.72	2.1	3.2	3.2	2.9	2.6	1.2	1.9	1.6
2	.36	.35	.49	.72	2.2	3.2	3.1	2.8	2.6	1.2	1.8	1.5
3	.56	.33	.44	.73	3.1	3.2	3.0	2.8	2.6	1.2	1.6	1.4
4	.62	.31	.44	.92	2.9	3.5	3.4	2.8	2.5	1.1	1.5	1.7
5	.46	.31	.43	.86	2.7	3.6	3.1	3.0	2.4	1.0	1.5	1.7
6	.41	.30	.41	.77	2.4	3.3	3.0	6.4	2.4	1.0	1.5	1.4
7	.47	.30	.39	.72	2.3	3.2	6.1	6.6	2.3	1.0	1.4	1.3
8	.42	.30	.39	.82	2.3	3.1	9.2	4.3	2.2	.95	1.3	1.3
9	.40	.31	.40	.74	2.3	3.2	5.3	3.8	2.3	1.0	1.2	1.3
10	.39	.79	.42	.72	2.2	3.5	4.5	3.6	2.3	1.0	1.2	1.4
11	.39	1.2	.82	.72	2.4	3.1	4.2	3.5	2.1	.94	1.3	1.2
12	.40	.71	.61	.72	16	3.0	3.9	3.3	2.1	1.8	1.2	1.2
13	.41	.60	.53	.74	6.4	3.2	3.8	3.1	2.0	1.5	1.2	1.2
14	.39	.52	.49	.70	4.3	3.0	3.7	3.1	1.9	1.2	1.2	1.1
15	.38	.47	.73	.68	4.2	3.0	3.7	3.0	1.8	1.1	1.2	1.1
16	.38	.43	.70	.67	5.3	2.8	3.6	3.0	1.8	1.0	1.4	1.0
17	.38	.43	.59	.67	4.5	2.8	3.4	2.9	1.9	1.0	1.2	1.1
18	.38	.48	.55	.94	4.1	2.8	3.6	2.9	2.0	1.2	1.2	1.0
19	.37	.39	.52	1.1	4.1	2.9	3.6	8.5	1.8	1.0	1.3	.97
20	.37	.38	.59	6.3	5.0	2.8	3.5	5.2	1.6	1.0	2.3	.92
21	.35	.35	.56	3.3	4.3	2.7	3.4	4.1	1.6	.94	1.8	.90
22	.35	.31	.56	2.2	3.9	2.7	3.2	3.7	1.5	1.6	1.5	.90
23	.34	.31	.56	2.1	3.9	2.7	3.2	3.4	1.5	18	1.4	.89
24	.33	.31	.56	1.9	3.9	2.7	3.1	3.3	1.4	7.2	2.0	.86
25	.33	.31	.60	2.1	3.7	2.7	3.0	4.1	1.4	2.9	1.6	1.9
26	.34	.31	.81	2.4	3.6	4.5	3.0	3.5	1.5	2.3	1.4	1.3
27	.42	.31	.70	2.1	3.4	6.6	3.0	3.1	1.4	2.5	1.3	1.1
28	.62	.33	.72	1.9	3.4	3.9	3.5	2.9	1.3	2.2	1.3	1.1
29	.44	.61	.91	1.9	3.2	3.4	3.1	2.9	1.3	2.1	2.1	1.0
30	.41	.84	.76	2.0	---	3.3	3.0	2.7	1.3	2.0	2.9	1.0
31	.38	---	.72	2.1	---	3.2	---	2.6	---	1.9	1.8	---
TOTAL	12.66	13.25	17.97	44.96	114.1	100.8	112.4	113.8	57.4	66.03	47.5	36.34
MEAN	.41	.44	.58	1.45	3.93	3.25	3.75	3.67	1.91	2.13	1.53	1.21
MAX	.62	1.2	.91	6.3	16	6.6	9.2	8.5	2.6	18	2.9	1.9
MIN	.33	.30	.39	.67	2.1	2.7	3.0	2.6	1.3	.94	1.2	.86
CFSM	.14	.16	.20	.51	1.39	1.15	1.32	1.30	.68	.75	.54	.43
IN.	.17	.17	.24	.59	1.50	1.33	1.48	1.50	.75	.87	.62	.48

CAL YR 1987 TOTAL 1022.07 MEAN 2.80 MAX 25 MIN .05 CFSM .99 IN. 13.43
WTR YR 1988 TOTAL 737.21 MEAN 2.01 MAX 18 MIN .30 CFSM .71 IN. 9.69

01484500 STOCKLEY BRANCH AT STOCKLEY, DE

LOCATION.--Lat 38°38′19″ong 75°20′31″, Sussex County, Hydrologic Unit 02060010, on left bank at highway bridge in Stockley, 1.6 mi upstream from mouth, and 4.4 mi southeast of Georgetown.

DRAINAGE AREA.--5.24 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 24.54 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 16, 1950, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--45 years, 6.82 ft^3/s, 17.67 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 217 ft^3/s, Feb. 26, 1979, gage height, 5.01 ft, from rating curve extended above 130 ft^3/s; minimum discharge observed, 0.13 ft^3/s, Sept. 1-11, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 45 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	1000	*54	*3.17	No other peak greater than base discharge.			

Minimum discharge, 0.49 ft^3/s, Sept. 20, 21, 22, 23, 24, gage height, 1.75 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.95	1.1	1.8	1.7	4.7	8.1	9.5	6.7	5.7	1.7	1.1	.82
2	.88	1.0	1.5	1.7	5.0	7.8	9.2	6.7	5.6	1.7	1.0	.75
3	1.0	.96	1.3	1.8	6.7	7.8	9.1	6.4	5.2	1.6	1.0	.75
4	1.2	.92	1.3	2.3	6.7	8.1	9.4	6.4	5.3	1.7	1.0	.78
5	1.0	.92	1.3	2.1	6.3	8.4	9.1	6.7	5.2	1.7	1.0	.86
6	.92	.95	1.2	1.9	5.6	7.8	8.7	10	4.7	1.6	1.0	.75
7	1.0	.98	1.1	1.8	5.3	7.5	18	9.9	4.5	1.5	.99	.73
8	.84	.89	1.1	2.0	5.3	7.1	24	8.5	4.3	1.4	.90	.73
9	.83	.91	1.1	2.0	5.3	7.5	16	8.0	4.2	1.5	.89	.75
10	.80	1.1	1.2	1.9	5.2	8.7	13	7.8	4.5	1.5	.91	.96
11	.82	1.2	1.6	1.9	5.4	7.3	12	7.6	4.0	1.4	.90	.80
12	.86	1.0	1.4	1.8	34	6.9	11	6.9	3.7	1.7	.86	.75
13	.91	1.0	1.3	2.0	16	7.5	10	6.4	3.2	1.8	.82	.72
14	.92	.93	1.3	1.9	11	7.1	10	6.2	3.2	1.5	.81	.66
15	.95	.92	1.6	1.9	10	6.7	9.9	6.0	3.1	1.4	.80	.61
16	.93	.86	1.5	1.8	12	6.4	9.7	6.0	2.9	1.4	.81	.57
17	.92	.83	1.3	1.9	11	6.0	9.4	5.9	2.7	1.3	.78	.57
18	.92	.97	1.3	3.2	10	6.0	9.4	6.1	2.9	1.4	.75	.60
19	.92	.90	1.3	2.9	10	6.2	9.2	11	2.5	1.3	.75	.59
20	.93	.91	1.4	21	11	5.9	9.0	9.1	2.4	1.3	1.0	.51
21	.91	.92	1.4	9.8	10	5.7	8.7	8.4	2.3	1.3	1.0	.50
22	.92	.87	1.3	5.5	9.3	5.4	8.3	7.5	2.2	1.3	.89	.51
23	.92	.85	1.4	4.9	9.3	5.2	8.1	6.8	2.1	2.3	.83	.53
24	.95	.87	1.3	4.7	9.5	5.5	8.0	6.7	2.0	2.1	1.1	.53
25	.93	.87	1.4	5.3	9.0	5.5	7.6	8.8	2.0	1.6	.95	.78
26	.92	.90	1.8	6.3	8.7	12	7.2	7.2	2.0	1.4	.83	.69
27	2.5	.90	1.6	5.0	8.7	23	7.2	6.5	1.9	1.4	.81	.61
28	3.8	.92	1.7	4.7	8.6	12	8.2	7.2	1.8	1.6	.72	.61
29	1.4	2.1	2.3	4.7	8.3	11	7.5	6.8	1.8	1.3	.87	.61
30	1.2	3.8	1.9	4.7	---	10	7.2	6.5	1.8	1.2	1.3	.61
31	1.1	---	1.7	4.7	---	9.7	---	6.1	---	1.2	.94	---
TOTAL	34.05	32.25	44.7	119.8	267.9	249.8	303.6	226.8	99.7	47.1	28.31	20.24
MEAN	1.10	1.07	1.44	3.86	9.24	8.06	10.1	7.32	3.32	1.52	.91	.67
MAX	3.8	3.8	2.3	21	34	23	24	11	5.7	2.3	1.3	.96
MIN	.80	.83	1.1	1.7	4.7	5.2	7.2	5.9	1.8	1.2	.72	.50
CFSM	.21	.21	.28	.74	1.76	1.54	1.93	1.40	.63	.29	.17	.13
IN.	.24	.23	.32	.85	1.90	1.77	2.16	1.61	.71	.33	.20	.14

CAL YR 1987 TOTAL 1975.45 MEAN 5.41 MAX 30 MIN .80 CFSM 1.03 IN. 14.02
WTR YR 1988 TOTAL 1474.25 MEAN 4.03 MAX 34 MIN .50 CFSM .77 IN. 10.47

01484525 MILLSBORO POND OUTLET AT MILLSBORO, DE

LOCATION.--Lat 38°35′40″, long 75°17′29″, Sussex County, Hydrologic Unit 02060010, on right bank just upstream from Millsboro Pond Dam, 10 ft upstream from bridge on State Highway 24, at Millsboro.

DRAINAGE AREA.--66.0 mi^2.

PERIOD OF RECORD.--May 1986 to September 1988 (discontinued).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.98 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Flow affected by Millsboro Pond and mill ponds on tributaries upstream. Several measurements of water temperature were made during the period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 246 ft^3/s, Mar. 2, 1987, gage height, 3.60 ft; minimum daily discharge, 13 ft^3/s, Oct. 7, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 201 ft^3/s, Apr. 9, gage height, 3.46 ft; minimum daily discharge, 16 ft^3/s, Oct. 2, 14, 22, Nov. 6, 7, 22, Aug. 19, Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	24	49	37	64	94	110	85	64	30	27	30
2	16	24	35	36	65	95	108	83	62	29	26	26
3	21	23	29	35	81	89	104	81	66	27	26	23
4	30	24	30	48	84	91	110	82	62	29	26	24
5	21	23	27	43	82	97	114	85	59	30	26	27
6	19	16	24	41	74	90	105	117	56	28	25	23
7	25	16	24	34	67	89	133	125	54	27	26	21
8	20	18	24	41	67	85	179	109	52	32	25	21
9	18	20	24	40	68	87	186	95	55	36	24	21
10	18	29	26	38	68	102	156	90	57	36	24	31
11	19	39	41	37	71	94	136	90	54	32	24	28
12	18	31	38	36	133	88	128	88	51	42	23	24
13	18	26	31	38	172	91	123	84	49	50	20	23
14	16	24	28	37	130	91	118	80	47	38	19	26
15	18	21	38	34	113	85	116	78	45	33	18	21
16	18	21	41	34	119	81	115	78	43	30	18	18
17	18	21	32	34	118	80	107	77	40	28	17	18
18	19	25	28	46	113	89	110	79	41	31	17	20
19	18	23	28	52	109	85	110	104	44	28	16	21
20	18	22	30	96	119	79	111	117	44	28	24	20
21	19	21	30	128	116	73	104	102	41	27	28	19
22	16	16	28	93	111	71	99	92	40	29	22	18
23	17	17	31	70	120	71	95	85	40	42	20	17
24	18	19	30	65	112	73	97	82	36	86	46	16
25	19	20	33	68	109	73	92	105	34	65	38	28
26	18	21	43	81	114	102	89	101	35	51	26	25
27	32	21	39	69	101	163	88	87	33	34	23	22
28	82	21	39	64	99	163	99	79	33	41	21	21
29	49	36	52	63	95	135	93	74	32	35	29	19
30	31	66	42	63	---	122	89	70	31	31	51	18
31	27	---	36	64	---	116	---	66	---	29	37	---
TOTAL	715	728	1030	1665	2894	2944	3424	2770	1400	1114	792	669
MEAN	23.1	24.3	33.2	53.7	99.8	95.0	114	89.4	46.7	35.9	25.5	22.3
MAX	82	66	52	128	172	163	186	125	66	86	51	31
MIN	16	16	24	34	64	71	88	66	31	27	16	16
CFSM	.35	.37	.50	.81	1.51	1.44	1.73	1.35	.71	.54	.39	.34
IN.	.40	.41	.58	.94	1.63	1.66	1.93	1.56	.79	.63	.45	.38

CAL YR 1987 TOTAL 26431 MEAN 72.4 MAX 226 MIN 16 CFSM 1.10 IN. 14.90
WTR YR 1988 TOTAL 20145 MEAN 55.0 MAX 186 MIN 16 CFSM .83 IN. 11.35

01484548 VINES CREEK AT OMAR, DE

LOCATION.--Lat 38°31'44", long 75°12'09", Sussex County, Hydrologic Unit 02060010, on right bank at downstream side of highway bridge, 0.1 mi northwest of Omar, 3.0 mi southeast of Dagsboro, and 6.2 mi upstream from the confluence with Indian River at Indian River Bay.

DRAINAGE AREA.--13.6 mi^2.

PERIOD OF RECORD.--August 1985 to September 1988 (discontinued).

GAGE.--Water-stage recorder and timber control. Elevation of gage is 4.50 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 543 ft^3/s, Aug. 19, 1985, gage height, 6.11 ft; minimum daily discharge, 0.17 ft^3/s, Aug. 6, 11, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 8	0745	123	4.39	July 27	2345	*261	*5.65

Minimum daily discharge, 0.20 ft^3/s, Oct. 14.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	.44	2.1	4.3	9.5	14	22	10	4.0	.51	8.3	2.7
2	.62	.40	1.6	4.0	9.6	13	19	9.4	3.7	.50	6.0	2.3
3	.96	.42	1.3	3.8	19	13	18	8.5	3.6	.45	4.9	2.1
4	1.5	.50	1.3	9.0	21	13	19	8.1	3.2	.40	4.4	2.2
5	.63	.52	1.2	7.3	19	13	20	10	3.1	.40	4.0	3.4
6	.51	.50	.95	5.1	16	12	18	27	2.7	.39	3.5	2.5
7	1.6	.51	.91	4.0	13	12	67	28	2.6	.35	3.3	2.1
8	.66	.49	.91	5.8	12	11	112	21	2.5	.55	3.0	1.7
9	.38	.48	.91	7.5	11	12	79	18	2.5	.83	2.6	1.8
10	.32	.78	1.0	5.2	10	17	61	16	2.6	.98	2.3	4.4
11	.30	1.7	2.6	4.1	10	16	49	14	2.5	.58	2.0	3.7
12	.23	1.8	2.1	3.8	68	14	41	12	2.2	4.5	1.7	3.0
13	.22	1.5	1.7	4.3	49	14	36	11	2.0	2.7	1.4	2.6
14	.20	1.2	1.5	3.9	31	14	30	9.4	1.8	1.2	1.3	2.4
15	.25	1.1	2.9	3.1	27	13	27	11	1.6	.89	1.3	2.0
16	.23	.89	2.8	2.9	40	12	23	8.8	1.3	.73	1.1	1.5
17	.23	.84	2.2	3.1	35	11	20	7.6	1.5	.67	.91	1.6
18	.29	.97	2.2	8.4	28	9.5	19	7.7	2.2	.67	.88	1.7
19	.30	.84	2.1	7.4	24	9.9	19	19	2.2	.76	.90	1.7
20	.41	.75	2.0	33	31	9.1	19	18	2.0	.64	2.0	1.5
21	.81	.69	2.0	28	26	7.8	18	17	1.8	.55	2.3	1.4
22	.91	.62	2.0	18	20	6.8	16	15	1.5	.69	1.4	1.2
23	1.1	.46	2.0	15	19	6.2	15	12	1.4	3.4	1.1	1.1
24	1.3	.51	2.0	13	19	6.2	14	10	1.4	4.2	6.0	1.1
25	1.3	.45	2.1	14	18	5.9	13	10	1.2	2.5	3.1	2.2
26	1.4	.40	3.1	19	17	25	12	8.7	1.1	2.0	2.1	1.7
27	3.5	.40	3.2	15	16	71	11	6.7	.89	43	1.8	1.4
28	4.4	.45	3.5	12	16	47	14	5.5	.79	154	1.6	1.3
29	1.7	1.5	7.1	10	15	38	13	5.0	.70	39	1.9	1.3
30	.85	3.4	5.3	9.7	---	30	12	4.5	.61	17	5.1	1.3
31	.56	---	4.4	9.6	---	26	---	4.2	---	12	3.5	---
TOTAL	28.35	25.51	70.98	293.3	649.1	522.4	856	373.1	61.19	297.04	85.69	60.9
MEAN	.91	.85	2.29	9.46	22.4	16.9	28.5	12.0	2.04	9.58	2.76	2.03
MAX	4.4	3.4	7.1	33	68	71	112	28	4.0	154	8.3	4.4
MIN	.20	.40	.91	2.9	9.5	5.9	11	4.2	.61	.35	.88	1.1
CFSM	.07	.06	.17	.70	1.65	1.24	2.10	.88	.15	.70	.20	.15
IN.	.08	.07	.19	.80	1.78	1.43	2.34	1.02	.17	.81	.23	.17

CAL YR 1987 TOTAL 5543.00 MEAN 15.2 MAX 175 MIN .20 CFSM 1.12 IN. 15.16
WTR YR 1988 TOTAL 3323.56 MEAN 9.08 MAX 154 MIN .20 CFSM .67 IN. 9.09

01485000 POCOMOKE RIVER NEAR WILLARDS, MD

LOCATION.--Lat 38°23′20″, long 75°19′30″, Worcester County, Hydrologic Unit 02060009, on left bank 30 ft downstream from bridge on State Highway 346, 0.6 mi upstream from Burnt Mill Branch, 1.3 mi east of Willards, 1.3 mi west of Whaleysville, and 50.3 mi upstream from mouth.

DRAINAGE AREA.--60.5 mi^2.

PERIOD OF RECORD.--December 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 13.95 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--38 years (water years 1951-88), 70.4 ft^3/s, 15.80 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,870 ft^3/s, Feb. 26, 1979, gage height, 13.88 ft, from rating curve extended above 1,600 ft^3/s; minimum discharge, 2.2 ft^3/s, Aug. 18, 19, 1957, gage height, 1.91 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	1300	509	9.64	Apr. 8	0830	*534	*9.74

Minimum daily discharge, 3.3 ft^3/s, Oct. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	8.3	34	54	66	63	88	47	24	8.2	48	13
2	3.9	7.9	26	49	65	60	80	44	23	7.9	36	12
3	4.1	7.9	22	44	109	58	74	42	22	7.7	28	11
4	5.5	8.0	21	69	125	57	75	40	22	7.5	25	11
5	5.0	8.2	20	82	132	58	104	40	21	7.3	22	12
6	4.3	8.0	18	63	99	56	92	58	20	7.2	19	11
7	5.7	8.0	17	52	81	55	201	75	19	7.0	18	10
8	4.7	8.1	16	54	73	52	490	73	17	7.3	17	9.7
9	4.0	8.3	16	56	68	51	369	64	17	7.4	15	9.8
10	3.9	9.0	16	48	65	73	252	59	17	7.3	14	15
11	3.6	11	22	e42	62	73	182	55	16	7.0	13	17
12	3.3	11	26	e38	372	66	141	51	15	7.7	12	15
13	3.3	11	24	40	350	65	115	46	14	15	12	14
14	4.3	11	22	39	216	66	100	42	14	13	11	13
15	4.1	10	28	e33	159	61	90	39	13	9.5	10	12
16	3.8	9.9	46	e32	189	56	83	37	12	8.3	9.9	11
17	3.6	9.7	37	33	175	52	76	36	12	7.9	9.5	10
18	3.7	9.6	31	47	136	49	72	35	15	8.1	9.1	9.9
19	3.7	9.3	28	64	117	50	72	46	14	8.1	8.8	9.5
20	3.7	9.0	27	202	139	48	73	62	13	7.6	11	9.3
21	4.2	9.2	27	242	125	44	70	61	12	7.3	12	9.1
22	4.1	9.1	26	158	101	41	64	55	11	8.0	10	8.6
23	3.8	9.0	26	118	91	39	60	51	10	15	9.3	8.3
24	3.9	8.9	24	98	88	39	58	46	10	20	13	8.3
25	3.9	8.9	25	91	84	37	55	44	9.8	31	15	8.7
26	4.3	9.2	32	136	77	77	52	43	9.6	22	13	9.4
27	6.5	9.3	40	104	74	330	49	37	9.4	44	11	9.5
28	22	9.1	41	82	71	233	53	33	9.1	388	9.8	8.0
29	14	12	80	74	66	158	53	31	8.8	191	10	7.9
30	10	34	76	69	---	121	51	28	8.5	96	16	8.1
31	9.0	---	59	67	---	101	---	26	---	64	15	---
TOTAL	167.9	301.9	953	2380	3575	2389	3394	1446	438.2	1053.3	482.4	321.1
MEAN	5.42	10.1	30.7	76.8	123	77.1	113	46.6	14.6	34.0	15.6	10.7
MAX	22	34	80	242	372	330	490	75	24	388	48	17
MIN	3.3	7.9	16	32	62	37	49	26	8.5	7.0	8.8	7.9
CFSM	.09	.17	.51	1.27	2.04	1.27	1.87	.77	.24	.56	.26	.18
IN.	.10	.19	.59	1.46	2.20	1.47	2.09	.89	.27	.65	.30	.20

CAL YR 1987 TOTAL 24019.2 MEAN 65.8 MAX 568 MIN 3.3 CFSM 1.09 IN. 14.77
WTR YR 1988 TOTAL 16901.8 MEAN 46.2 MAX 490 MIN 3.3 CFSM .76 IN. 10.39

e Estimated

01485500 NASSAWANGO CREEK NEAR SNOW HILL, MD

LOCATION.--Lat 38°13′44″, long 75°28′19″, Worcester County, Hydrologic Unit 02060009, on right bank 15 ft downstream from bridge on State Highway 12, 0.5 mi upstream from Furnace Branch, 0.6 mi downstream from Millville Creek, 5.5 mi northwest of Snow Hill, and 7.3 mi upstream from mouth.

DRAINAGE AREA.--44.9 mi^2.

PERIOD OF RECORD.--December 1949 to current year.

REVISED RECORDS.--WSP 1332: 1953.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 12.29 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--38 years (water years 1951-88), 53.2 ft^3/s, 16.09 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft^3/s, Feb. 26, 1979, gage height, 7.95 ft, from rating curve extended above 1,300 ft^3/s; minimum discharge, 0.80 ft^3/s, Sept. 8, 9, 10, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 13	2300	329	5.89	Apr. 9	1030	*400	*6.06
Mar. 28	1415	335	5.73				

Minimum daily discharge, 1.8 ft^3/s, July 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	5.4	21	30	42	44	78	34	9.3	2.0	57	20
2	2.2	4.7	17	27	40	40	65	31	8.5	2.0	32	14
3	2.8	4.2	14	25	56	37	55	29	8.1	2.0	25	11
4	4.4	3.9	13	37	65	36	58	30	8.1	2.0	19	9.4
5	3.3	3.6	12	37	77	39	72	33	8.1	2.0	15	19
6	3.4	3.5	11	32	77	38	71	44	7.3	1.9	12	17
7	6.9	3.3	10	28	67	37	87	54	6.2	1.8	10	13
8	4.7	3.5	9.3	24	57	35	241	55	5.6	2.2	13	11
9	3.6	3.6	8.5	24	50	35	367	50	5.0	2.3	13	9.8
10	3.1	4.5	8.8	23	45	56	274	44	5.6	2.2	10	21
11	3.1	7.6	16	21	43	63	173	40	5.3	2.0	9.0	22
12	2.5	9.3	17	19	100	69	116	35	4.7	2.5	7.4	18
13	2.2	9.2	15	18	267	67	85	32	4.1	5.6	6.0	15
14	2.0	8.5	14	19	286	62	70	29	3.8	4.7	5.0	15
15	2.0	7.4	22	17	176	57	62	27	3.3	2.9	4.2	14
16	2.0	6.6	27	15	127	52	56	24	3.1	2.3	3.9	12
17	2.0	5.9	26	15	115	46	50	24	2.9	2.2	4.1	10
18	2.0	5.8	25	23	112	41	45	24	2.9	3.8	3.4	9.5
19	2.1	5.5	22	30	95	39	45	32	2.9	13	3.5	8.7
20	2.2	5.2	19	64	86	37	48	37	2.9	6.8	8.8	7.8
21	2.4	4.9	18	99	83	34	46	36	2.7	4.1	17	7.5
22	2.6	4.7	17	142	82	31	43	34	2.5	11	13	6.8
23	2.5	4.6	17	110	74	29	40	30	2.7	45	8.9	5.9
24	2.7	4.8	16	75	67	28	37	26	2.5	65	11	5.5
25	2.9	4.9	17	62	62	27	33	21	2.5	66	11	6.8
26	2.7	5.1	19	62	57	44	30	20	2.5	41	7.7	8.3
27	9.2	5.0	20	61	54	154	28	17	2.3	28	6.1	7.1
28	28	5.3	22	59	52	315	36	15	2.3	55	5.2	6.1
29	13	11	31	54	47	262	36	14	2.2	151	6.6	5.5
30	9.1	29	33	49	---	159	36	12	2.2	186	31	5.3
31	6.5	---	32	45	---	106	---	11	---	104	29	---
TOTAL	140.6	190.5	569.6	1346	2561	2119	2483	944	132.1	822.3	407.8	342.0
MEAN	4.54	6.35	18.4	43.4	88.3	68.4	82.8	30.5	4.40	26.5	13.2	11.4
MAX	28	29	33	142	286	315	367	55	9.3	186	57	22
MIN	2.0	3.3	8.5	15	40	27	28	11	2.2	1.8	3.4	5.3
CFSM	.10	.14	.41	.97	1.97	1.52	1.84	.68	.10	.59	.29	.25
IN.	.12	.16	.47	1.12	2.12	1.76	2.06	.78	.11	.68	.34	.28

CAL YR 1987 TOTAL 17035.7 MEAN 46.7 MAX 405 MIN 1.6 CFSM 1.04 IN. 14.11
WTR YR 1988 TOTAL 12057.9 MEAN 32.9 MAX 367 MIN 1.8 CFSM .73 IN. 9.99

01486000 MANOKIN BRANCH NEAR PRINCESS ANNE, MD

LOCATION.--Lat 38°12′50″, long 75°40′18″, Somerset County, Hydrologic Unit 02060009, on right bank 45 ft downstream from farm bridge, 1.4 mi northeast of Princess Anne, and 1.6 mi upstream from confluence with Loretto Branch.

DRAINAGE AREA.--4.80 mi^2.

PERIOD OF RECORD.--April 1951 to September 1971, October 1974 to current year.

REVISED RECORDS.--WDR MD-DE-75-1: Drainage area. WDR MD-DE-85-1: 1983-84 (P).

GAGE.--Water-stage recorder. Datum of gage is 7.03 ft above National Geodetic Vertical Datum of 1929. Artificial control since Apr. 30, 1975. Nov. 26, 1968, to Sept. 30, 1971, water-stage recorder above and nonrecording gage below gage height 1.4 ft. Prior to Nov. 26, 1968, recording gage at datum 1.0 ft higher.

REMARKS.--Records good except those for estimated daily discharges (backwater from debris on the control), which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--34 years (water years 1952-71, 1975-88), 4.60 ft^3/s, 13.01 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 547 ft^3/s, Aug. 20, 1969, gage height, 5.44 ft, from rating curve extended above 27 ft^3/s on basis of channel-conveyance study; maximum gage height, 7.08 ft, Aug. 19, 1985; no flow at times in 1954, 1963, 1964, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0730	70	3.34	Apr. 8	0300	69	3.33
Mar. 27	0200	57	3.17	July 23	1545	*84	*3.53

Minimum daily discharge, 0.21 ft^3/s, Oct. 13, 14, 16, 17, 19, 26 and Nov. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.22	.40	1.5	3.9	5.1	8.6	3.5	2.4	.83	3.1	.98
2	.25	.22	.35	1.3	4.0	4.7	7.6	3.4	2.3	.79	3.0	.86
3	.28	.21	.31	1.3	10	4.2	6.8	3.2	2.3	.75	2.9	.82
4	.30	.23	.35	2.2	10	4.2	11	3.2	2.2	.74	2.5	.88
5	.27	.23	.34	2.2	9.2	4.3	13	4.1	2.0	.76	2.4	1.0
6	.26	.29	.30	1.7	7.1	4.0	9.8	7.5	1.8	.75	2.3	.89
7	.30	.46	.29	1.5	5.6	4.0	37	6.6	1.7	.74	2.4	.78
8	.28	.49	.29	1.7	5.2	3.7	56	5.3	1.6	.91	2.1	.72
9	.25	.53	.30	1.8	4.7	4.4	29	4.5	1.6	.79	1.7	.75
10	e.24	.59	.34	1.5	4.4	14	19	4.1	1.5	.74	1.7	1.2
11	e.23	.54	.61	1.4	4.6	9.3	14	4.6	1.4	.68	1.5	1.1
12	e.22	.42	.65	1.4	41	7.7	11	4.1	1.4	.82	1.4	1.1
13	e.21	.35	.54	1.6	21	7.8	9.6	3.7	1.3	.86	1.4	1.3
14	e.21	.34	.48	1.4	13	7.5	8.2	3.5	1.3	.63	1.2	1.0
15	.22	.36	.86	1.3	12	6.3	7.3	3.2	1.2	.59	1.3	.88
16	.21	.42	1.5	1.2	15	5.4	6.4	3.1	1.2	.56	1.2	.78
17	.21	.44	1.1	1.3	12	4.8	5.9	3.3	2.5	.55	1.1	.76
18	.22	.45	.95	2.9	9.7	4.6	5.7	4.0	1.8	.57	1.0	.77
19	.21	.43	.89	2.6	9.1	4.9	5.9	7.6	1.4	.53	1.1	.75
20	.23	.45	.91	13	12	4.5	6.2	7.1	1.3	.48	1.4	.72
21	.28	.55	.90	10	9.8	4.0	5.5	7.0	1.3	.46	1.5	.72
22	.26	.46	.84	7.1	8.1	3.6	4.8	5.9	1.2	1.7	1.3	.66
23	.25	.34	.85	5.9	7.6	3.5	4.6	4.9	1.1	30	1.0	.64
24	.25	.52	.80	5.0	7.5	3.5	4.4	4.3	1.1	23	1.3	.63
25	.24	.32	.90	5.1	6.7	3.5	4.2	3.9	1.1	7.7	1.1	.66
26	.21	.33	1.1	8.3	6.2	17	4.1	3.6	1.1	5.0	1.0	.66
27	.28	.44	1.1	5.9	6.0	41	3.7	3.3	1.1	6.6	.97	.61
28	.41	.24	1.2	4.8	5.7	20	4.1	3.0	.97	8.6	.94	.59
29	.32	.30	1.6	4.1	5.5	14	4.0	2.8	.95	6.3	.91	.57
30	.25	.46	1.5	4.1	---	11	3.7	2.6	.92	4.5	1.2	.57
31	.23	---	1.4	4.0	---	9.8	---	2.4	---	3.7	1.2	---
TOTAL	7.85	11.63	23.95	109.1	276.6	246.3	321.1	133.3	45.04	111.63	49.12	24.35
MEAN	.25	.39	.77	3.52	9.54	7.95	10.7	4.30	1.50	3.60	1.58	.81
MAX	.41	.59	1.6	13	41	41	56	7.6	2.5	30	3.1	1.3
MIN	.21	.21	.29	1.2	3.9	3.5	3.7	2.4	.92	.46	.91	.57
CFSM	.05	.08	.16	.73	1.99	1.66	2.23	.90	.31	.75	.33	.17
IN.	.06	.09	.19	.85	2.14	1.91	2.49	1.03	.35	.87	.38	.19

CAL YR 1987 TOTAL 1804.84 MEAN 4.94 MAX 51 MIN .21 CFSM 1.03 IN. 13.99
WTR YR 1988 TOTAL 1359.97 MEAN 3.72 MAX 56 MIN .21 CFSM .77 IN. 10.54

e Estimated

01487000 NANTICOKE RIVER NEAR BRIDGEVILLE, DE

LOCATION.--Lat 38°43′42″, long 75°33′44″, Sussex County, Hydrologic Unit 02060008, on left bank at downstream side of highway bridge, 800 ft downstream from Gum Branch, 2.5 mi southeast of Bridgeville, and 50.5 mi upstream from mouth.

DRAINAGE AREA.--75.4 mi^2.

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as Gravelly Fork near Bridgeville.

REVISED RECORDS.--WSP 1111: 1947. WSP 1232: 1945-49.

GAGE.--Water-stage recorder. Datum of gage is 13.64 ft above National Geodetic Vertical Datum of 1929 (levels by Soil Conservation Service). Prior to Apr. 19, 1947, nonrecording gage, and Apr. 19, 1947, to Dec. 18, 1969, recording gage at present site and datum. Timber control Sept. 3, 1947, to Dec. 18, 1969. Feb. 18, 1970, to Oct. 1, 1973, recording gage at site 300 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--45 years, 89.8 ft^3/s, 16.17 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,020 ft^3/s, Feb. 26, 1979, gage height, 10.31 ft; minimum discharge observed, 6.3 ft^3/s, Sept. 29, 1943.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 11.0 ft in September 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 360 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	1500	*371	*6.38	No other peak greater than base discharge.			

Minimum daily discharge, 16 ft^3/s, Oct. 16, 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	18	26	27	54	86	95	86	76	27	45	31
2	17	18	24	26	56	83	93	84	74	25	39	28
3	19	19	23	26	68	83	91	83	71	23	38	26
4	23	19	23	29	69	85	95	84	70	23	37	30
5	20	19	22	28	69	88	94	86	66	23	38	38
6	19	19	21	26	64	82	90	109	66	19	35	31
7	20	19	21	26	62	82	111	138	63	22	34	29
8	19	18	21	27	62	79	183	126	60	21	32	27
9	18	18	21	27	61	80	157	113	62	20	32	27
10	17	22	22	26	60	85	132	109	60	18	28	29
11	17	35	31	25	60	80	123	107	57	21	29	27
12	17	28	27	25	245	77	117	102	54	35	30	25
13	17	25	25	26	186	80	112	96	50	80	28	25
14	17	23	24	25	123	78	107	94	47	50	27	24
15	17	21	29	24	110	76	105	92	44	38	27	22
16	16	20	29	24	114	74	103	92	41	33	26	22
17	16	20	27	25	111	72	99	90	40	29	24	22
18	16	22	26	29	104	71	100	90	40	32	21	23
19	17	21	25	33	101	72	101	115	40	29	22	23
20	17	21	25	135	109	71	98	136	37	27	25	22
21	17	20	25	146	105	69	95	118	34	24	30	21
22	18	19	24	74	98	68	92	108	32	27	27	19
23	17	20	24	62	97	67	90	101	33	71	25	19
24	17	20	24	58	98	68	91	96	33	129	28	22
25	17	20	24	58	94	68	88	105	29	69	28	25
26	17	19	27	62	92	86	86	118	29	49	23	27
27	19	19	26	57	92	154	86	102	31	46	21	24
28	25	19	26	55	91	124	96	95	30	107	23	23
29	21	24	30	54	88	106	91	91	27	77	24	23
30	19	31	28	55	---	101	89	86	27	55	42	22
31	19	---	27	54	---	98	---	81	---	48	36	---
TOTAL	563	636	777	1374	2743	2593	3110	3133	1423	1297	924	756
MEAN	18.2	21.2	25.1	44.3	94.6	83.6	104	101	47.4	41.8	29.8	25.2
MAX	25	35	31	146	245	154	183	138	76	129	45	38
MIN	16	18	21	24	54	67	86	81	27	18	21	19
CFSM	.24	.28	.33	.59	1.25	1.11	1.37	1.34	.63	.55	.40	.33
IN.	.28	.31	.38	.68	1.35	1.28	1.53	1.55	.70	.64	.46	.37

CAL YR 1987 TOTAL 28470 MEAN 78.0 MAX 322 MIN 16 CFSM 1.03 IN. 14.05
WTR YR 1988 TOTAL 19329 MEAN 52.8 MAX 245 MIN 16 CFSM .70 IN. 9.54

01488500 MARSHYHOPE CREEK NEAR ADAMSVILLE, DE

LOCATION.--Lat 38°50′59″, long 75°40′24″, Kent County, Hydrologic Unit 02060008, on left bank 45 ft upstream from highway bridge, 1.4 mi upstream from Cattail Branch, 1.6 mi northeast of Adamsville, 4.9 mi northwest of Greenwood, and 33 mi upstream from mouth.

DRAINAGE AREA.--43.9 mi^2.

PERIOD OF RECORD.--April 1943 to March 1969, October 1971 to current year.

REVISED RECORDS.--WSP 1141: 1948(P). WSP 1432: 1946(M), 1948, 1952.

GAGE.--Water-stage recorder. Datum of gage is 26.21 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 24, 1953, nonrecording gage and crest-stage gage, and Nov. 24, 1953, to March 1969, recording gage at site on old channel about 240 ft southeast of present site at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--42 years (water years 1944-68, 1972-88), 53.7 ft^3/s, 16.61 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,700 ft^3/s, July 13, 1975, gage height, 13.19 ft, from rating curve extended above 3,300 ft^3/s; maximum gage height, 13.98 ft, Aug. 5, 1967, present datum; minimum discharge, 1.0 ft^3/s, Sept. 9, 10, 1964, Aug. 20, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 16.5 ft, present datum, in September 1935, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1500	451	4.86	Feb. 12	0900	*1,440	*8.16

Minimum discharge, 5.0 ft^3/s, Oct. 23, gage height, 2.05 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	6.4	7.9	9.4	22	49	53	35	35	11	14	11
2	6.5	6.4	7.4	9.2	22	47	50	34	34	11	13	10
3	7.1	6.3	7.2	9.2	33	46	48	33	32	12	12	9.8
4	7.7	6.3	7.2	10	39	48	50	33	30	11	12	10
5	7.4	6.3	7.0	9.7	42	51	49	34	29	10	12	11
6	7.1	6.2	7.2	9.4	35	48	46	74	28	9.7	12	12
7	7.0	6.2	7.2	8.9	33	48	79	131	26	9.9	12	11
8	6.6	6.2	7.2	9.2	31	45	205	85	25	9.2	12	9.9
9	6.5	6.3	7.1	9.2	30	45	124	67	24	8.9	11	9.6
10	6.3	7.5	7.5	9.2	29	50	95	61	25	9.1	11	10
11	6.1	8.5	8.7	9.2	28	45	82	56	23	9.0	11	9.7
12	6.2	8.4	8.6	9.0	699	43	72	50	21	11	11	9.5
13	6.2	8.0	8.2	8.9	174	44	66	46	20	11	11	9.2
14	6.1	7.7	7.9	9.1	99	43	60	44	19	11	10	9.1
15	6.1	7.3	8.5	8.4	83	41	57	42	19	10	10	8.8
16	6.0	7.0	8.7	7.9	113	39	54	40	18	9.7	11	8.7
17	6.1	6.9	8.5	7.9	98	37	50	39	17	9.3	10	8.5
18	6.1	7.5	8.1	9.7	81	37	50	38	17	9.9	9.8	8.7
19	6.1	7.2	8.2	14	74	37	51	82	17	11	9.5	8.6
20	6.0	7.2	8.5	188	97	36	48	104	17	11	10	8.7
21	6.1	6.9	8.4	94	84	34	46	74	16	9.9	12	8.1
22	6.1	6.9	8.3	42	69	33	43	62	15	10	14	8.0
23	5.8	6.7	8.2	31	66	32	41	54	15	12	12	8.0
24	6.0	6.8	8.0	26	64	32	41	51	15	158	12	8.1
25	6.1	6.8	8.2	24	60	32	39	57	14	56	12	11
26	6.0	6.8	9.0	26	57	43	37	61	13	29	11	11
27	6.1	6.9	8.7	25	56	146	36	50	13	20	10	11
28	6.7	6.9	9.0	23	54	81	40	45	13	18	9.7	9.7
29	6.5	7.5	9.6	22	51	66	38	42	13	16	10	8.8
30	6.2	8.3	9.1	22	---	60	37	40	12	15	11	8.3
31	6.3	---	9.2	22	---	57	---	37	---	14	11	---
TOTAL	197.7	210.3	252.5	722.5	2423	1495	1787	1701	615	562.6	349.0	285.8
MEAN	6.38	7.01	8.15	23.3	83.6	48.2	59.6	54.9	20.5	18.1	11.3	9.53
MAX	7.7	8.5	9.6	188	699	146	205	131	35	158	14	12
MIN	5.8	6.2	7.0	7.9	22	32	36	33	12	8.9	9.5	8.0
CFSM	.15	.16	.19	.53	1.90	1.10	1.36	1.25	.47	.41	.26	.22
IN.	.17	.18	.21	.61	2.05	1.27	1.51	1.44	.52	.48	.30	.24

CAL YR 1987 TOTAL 16235.9 MEAN 44.5 MAX 723 MIN 5.8 CFSM 1.01 IN. 13.76
WTR YR 1988 TOTAL 10601.4 MEAN 29.0 MAX 699 MIN 5.8 CFSM .66 IN. 8.98

01489000 FAULKNER BRANCH AT FEDERALSBURG, MD

LOCATION.--Lat 38°42′44″, long 75°47′34″, Caroline County, Hydrologic Unit 02060008, on right bank 25 ft downstream from bridge on Laurel Grove Road, 0.9 mi upstream from mouth, and 1.0 mi northwest of Federalsburg.

DRAINAGE AREA.--7.10 mi^2.

PERIOD OF RECORD.--July 1950 to current year.

REVISED RECORDS.--WSP 1552: 1952. WSP 2103: 1960(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 16.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversion for irrigation of about 100 acres upstream from station during some years. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--38 years, 8.95 ft^3/s, 17.12 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,680 ft^3/s, July 13, 1975, gage height, 5.98 ft, from rating curve extended above 400 ft^3/s on basis of contracted-opening measurement of peak flow; no flow at times during many years (result of pumpage for irrigation).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1935 is believed to have been higher than that of July 13, 1975, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0945	226	3.51	July 24	0445	61	2.33
Feb. 12	0530	*550	*4.53				

Minimum discharge, 0.24 ft^3/s, July 7, 8, 10, 11; minimum daily discharge, 0.27 ft^3/s, July 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	1.4	1.7	2.4	5.8	10	10	7.0	4.4	.34	2.7	1.8
2	.82	1.4	1.6	2.3	6.3	10	10	6.9	3.6	.34	1.1	1.8
3	1.1	1.4	1.6	2.3	9.3	10	9.9	6.3	2.9	.35	1.3	1.8
4	1.2	1.4	1.7	2.8	9.7	11	11	6.1	3.8	.68	.57	1.9
5	.95	1.4	1.6	2.8	9.1	10	10	6.7	3.9	.30	1.1	2.0
6	.92	1.3	1.6	2.4	8.3	9.7	9.6	7.9	3.2	.29	.56	1.8
7	1.3	1.4	1.6	2.3	7.8	9.7	14	8.1	2.6	.28	1.3	1.8
8	1.2	1.4	1.6	2.5	7.7	9.2	15	7.0	3.1	.27	.91	1.7
9	1.1	1.4	1.6	2.6	7.4	9.6	13	6.7	3.1	.29	.38	1.8
10	1.1	2.3	1.6	2.5	7.2	10	12	6.7	2.9	.28	.75	1.9
11	1.2	3.2	2.3	2.4	7.3	9.0	11	7.1	1.8	.41	.47	1.8
12	1.2	1.9	1.9	2.4	168	8.7	11	6.6	2.6	1.8	.73	1.7
13	1.2	1.8	1.7	2.5	26	9.4	10	5.9	1.9	9.1	.35	1.7
14	1.2	1.7	1.7	2.4	19	8.9	10	5.7	1.2	2.8	.96	1.6
15	1.2	1.6	2.2	2.3	18	8.5	9.6	5.5	1.8	2.0	1.3	1.6
16	1.2	1.5	2.2	2.2	19	8.0	9.1	5.5	.71	1.7	1.3	1.3
17	1.2	1.4	2.0	2.4	17	7.9	8.6	5.4	1.3	1.4	.81	1.2
18	1.2	1.7	1.9	4.0	16	7.9	9.2	5.6	.66	1.7	.31	1.3
19	1.2	1.5	1.9	3.9	16	8.1	9.3	6.0	1.7	1.5	.37	1.5
20	1.2	1.5	2.0	64	19	7.8	8.8	5.5	1.1	1.3	.48	1.3
21	1.2	1.6	1.9	13	16	7.2	8.6	5.2	.44	1.3	1.1	1.2
22	1.2	1.6	1.9	8.7	14	7.0	8.2	4.9	1.2	4.0	1.6	1.2
23	1.2	1.6	1.9	7.7	14	6.9	8.0	4.8	.43	7.2	1.7	1.1
24	1.3	1.6	1.9	7.1	13	7.2	8.0	5.3	.74	28	1.8	1.2
25	1.3	1.6	1.9	7.1	12	7.4	7.7	11	.58	8.8	1.8	1.6
26	1.3	1.6	2.2	7.4	12	16	7.6	7.4	.79	5.4	1.8	1.6
27	1.5	1.5	2.1	6.5	12	23	7.2	6.1	.92	4.7	1.5	1.5
28	1.8	1.5	2.2	6.2	11	13	8.9	5.7	.39	3.3	1.4	1.5
29	1.5	1.8	2.6	6.0	11	12	7.8	5.4	.36	3.3	1.5	1.5
30	1.4	2.0	2.3	6.0	---	12	7.4	5.1	.36	3.8	2.0	1.6
31	1.4	---	2.3	5.9	---	11	---	4.9	---	3.6	2.0	---
TOTAL	37.61	49.0	59.2	195.0	518.9	306.1	290.5	194.0	54.48	100.53	35.95	47.3
MEAN	1.21	1.63	1.91	6.29	17.9	9.87	9.68	6.26	1.82	3.24	1.16	1.58
MAX	1.8	3.2	2.6	64	168	23	15	11	4.4	28	2.7	2.0
MIN	.82	1.3	1.6	2.2	5.8	6.9	7.2	4.8	.36	.27	.31	1.1
CFSM	.17	.23	.27	.89	2.52	1.39	1.36	.88	.26	.46	.16	.22
IN.	.20	.26	.31	1.02	2.72	1.60	1.52	1.02	.29	.53	.19	.25

CAL YR 1987 TOTAL 2667.45 MEAN 7.31 MAX 80 MIN .00 CFSM 1.03 IN. 13.98
WTR YR 1988 TOTAL 1888.57 MEAN 5.16 MAX 168 MIN .27 CFSM .73 IN. 9.90

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD

LOCATION.--Lat 38°59'50", long 75°47'09", Caroline County, Hydrologic Unit 02060005, on left bank at highway bridge, 0.1 mi upstream from Gravelly Branch, 2.0 mi northeast of Greensboro, and 60 mi upstream from mouth.

DRAINAGE AREA.--113 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1948 to current year.

REVISED RECORDS.--WSP 1622: 1948. WDR MD-DE-79-1: 1961(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.51 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for estimated daily discharges (backwater from rocks on the control), which are fair. Diversions for irrigation of about 500 acres upstream from station.

AVERAGE DISCHARGE.--40 years, 129 ft^3/s, 15.50 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,970 ft^3/s, Aug. 4, 1967, gage height, 14.47 ft, from rating curve extended above 3,600 ft^3/s; minimum discharge, 1.2 ft^3/s, Aug. 29, 1966, and Sept. 3, 1987.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1935 is believed to have been higher than that of Aug. 4, 1967, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 13	0830	*1,090	*6.75	No other peak greater than base discharge.			

Minimum discharge, 3.9 ft^3/s, July 17, gage height, 1.65 ft; minimum daily discharge, 5.5 ft^3/s, Aug. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	13	31	26	71	123	122	78	76	14	18	27
2	11	12	22	27	71	117	114	73	69	14	16	24
3	11	11	19	25	90	113	108	70	64	15	12	19
4	21	12	18	26	105	114	107	68	59	14	10	25
5	18	12	18	.27	119	131	110	73	56	11	28	43
6	14	11	16	25	116	138	104	127	52	11	23	37
7	13	10	15	21	94	132	118	272	49	8.3	20	29
8	13	9.8	e15	20	92	124	195	345	48	7.4	16	23
9	12	10	e15	24	86	116	279	250	66	8.6	12	21
10	11	14	e16	24	82	115	236	189	78	8.3	11	22
11	11	33	e25	23	91	113	189	164	64	9.1	12	22
12	10	34	30	22	395	104	165	146	53	10	12	20
13	10	26	24	23	951	100	148	129	47	19	11	18
14	9.6	20	20	24	487	100	135	115	44	24	7.1	17
15	9.7	18	22	21	255	97	124	104	39	16	7.5	17
16	8.8	16	30	20	242	91	118	96	35	7.1	9.1	16
17	10	15	27	20	281	87	110	92	35	5.8	7.6	15
18	9.8	16	23	27	250	83	104	104	36	17	5.5	16
19	10	16	21	40	207	83	107	158	35	37	5.5	13
20	10	15	22	112	208	81	105	320	32	34	19	12
21	9.4	15	25	225	240	78	97	353	27	25	47	12
22	9.4	14	23	191	216	73	91	253	27	25	36	11
23	8.9	14	23	120	183	70	86	196	24	29	24	9.2
24	9.8	13	22	86	172	69	83	169	22	58	27	9.0
25	9.3	14	22	76	161	70	81	153	21	e47	34	20
26	9.0	14	27	95	148	86	76	154	18	e36	27	28
27	9.1	14	31	103	140	160	72	147	23	e33	21	22
28	16	14	28	90	136	210	80	126	21	e29	17	18
29	16	18	31	79	130	177	84	109	19	26	21	16
30	14	33	30	74	---	147	82	96	15	24	46	15
31	13	---	25	71	---	133	---	85	---	21	38	---
TOTAL	361.8	486.8	716	1787	5819	3435	3630	4814	1254	643.6	600.3	596.2
MEAN	11.7	16.2	23.1	57.6	201	111	121	155	41.8	20.8	19.4	19.9
MAX	21	34	31	225	951	210	279	353	78	58	47	43
MIN	8.8	9.8	15	20	71	69	72	68	15	5.8	5.5	9.0
CFSM	.10	.14	.20	.51	1.78	.98	1.07	1.37	.37	.18	.17	.18
IN.	.12	.16	.24	.59	1.92	1.13	1.20	1.58	.41	.21	.20	.20

CAL YR 1987 TOTAL 36766.0 MEAN 101 MAX 1350 MIN 2.5 CFSM .89 IN. 12.10
WTR YR 1988 TOTAL 24143.7 MEAN 66.0 MAX 951 MIN 5.5 CFSM .58 IN. 7.95

e Estimated

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.
PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981, October 1984 to current year.
WATER TEMPERATURE: October 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1980 to current year.
REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling.
EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1975-81, 1988): Maximum daily, 313 microsiemens, Dec. 20, 1987; minimum daily, 40 microsiemens, Jan. 31, 1980.
WATER TEMPERATURE (water years 1975-81, 1985, 1988): Maximum daily, 28.5°C, Aug. 14, 1988; minimum daily, 0.0°C, on many days during winter periods.
SEDIMENT CONCENTRATION: Maximun daily mean, 107 mg/L, Dec. 26, 1986; minimum daily mean, 1 mg/L, on many days during water years 1982-88.
SEDIMENT LOAD: Maximum daily, 448 tons, Dec. 26, 1986; minimum daily, 0.02 ton, Aug. 30, Sept. 7, 1982, July 25, 1986, Oct. 16, 23, 26, 27, 1987, Sept. 23, 1988.
EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 313 microsiemens, Dec. 20; minimum daily, 90 microsiemens, Feb. 13.
WATER TEMPERATURE: Maximum daily, 28.5°C, Aug. 14; minimum daily, 0.0°C, on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 96 mg/L, Feb. 13; minimum daily mean, 1 mg/L, on many days during the year.
SEDIMENT LOAD: Maximum daily, 248 tons, Feb. 13; minimum daily, 0.02 ton, Oct. 16, 23, 26, 27, Sept. 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
14...	1230	8.5	206	6.3	10.0	16.0	772	--	10.1	88	--	--
28...	1230	16	204	6.3	11.5	18.0	760	--	9.1	84	--	--
NOV												
17...	1030	14	237	7.0	9.5	21.0	774	0.40	11.1	95	19	20
DEC												
16...	1030	29	210	6.4	6.0	6.5	753	--	10.5	85	--	--
JAN												
07...	0900	21	236	6.1	1.0	-5.0	781	--	12.6	87	--	--
19...	1045	37	208	6.7	0.0	4.0	774	--	12.2	83	--	--
20...	1300	120	185	7.3	1.0	6.0	760	--	12.0	85	--	--
21...	1015	219	159	5.8	1.5	6.5	760	--	11.0	79	--	--
21...	1400	219	155	5.8	2.0	9.5	758	--	11.3	82	--	--
28...	1315	86	182	6.1	1.0	5.0	777	--	12.7	88	--	--
FEB												
04...	1400	108	162	6.8	6.5	7.5	760	--	--	--	--	--
05...	1015	120	170	6.8	4.0	1.0	772	6.4	--	--	300	K4000
12...	1017	325	113	6.6	4.5	8.0	--	--	11.5	--	--	--
13...	1000	1080	93	6.2	3.0	-3.0	758	--	11.3	84	--	--
13...	1415	997	86	6.2	3.5	-1.0	756	--	--	--	--	--
14...	1230	470	100	5.6	1.0	3.5	769	--	12.3	86	--	--
16...	1145	243	132	6.2	5.5	5.5	758	--	10.7	85	--	--
25...	1230	157	140	6.5	5.0	3.5	766	--	10.9	85	--	--
MAR												
02...	1015	118	134	6.4	5.0	8.5	766	--	11.1	86	--	--
08...	1030	125	150	6.6	8.5	8.0	766	--	11.2	95	--	--
22...	0910	75	153	6.5	6.0	-1.0	766	--	11.7	93	--	--
APR												
06...	0930	105	102	7.1	16.5	16.0	763	--	7.5	77	--	--
20...	0915	108	136	--	9.5	8.5	760	--	10.4	91	--	--
MAY												
06...	1030	118	137	7.0	15.0	13.0	762	2.9	8.0	79	1000	4700
19...	1030	149	143	7.0	18.0	18.0	--	--	6.5	--	--	--
JUN												
12...	1400	11	157	7.0	25.0	25.0	--	--	6.0	--	--	--
15...	0930	39	138	6.8	23.5	24.5	--	--	--	--	--	--
30...	1000	16	153	6.9	20.5	24.5	--	--	6.4	--	--	--
JUL												
21...	1415	24	189	6.9	25.0	34.0	--	--	5.9	--	--	--
22...	1500	25	167	6.1	25.5	20.5	--	--	6.4	--	--	--
25...	1345	45	157	6.7	24.0	27.0	--	--	5.9	--	--	--
28...	0945	29	141	6.8	23.0	23.0	--	--	5.3	--	--	--
AUG												
16...	1230	9.5	165	7.3	30.0	30.0	765	2.1	6.1	80	190	450
21...	1400	48	159	6.9	23.0	25.0	--	--	6.6	--	--	--
30...	1030	48	159	6.9	22.5	23.0	763	--	6.6	76	--	--
SEP												
16...	1015	15	163	6.5	16.5	17.5	--	--	8.4	--	--	--
16...	1020	15	163	6.5	16.5	17.5	--	--	8.4	--	--	--
27...	1130	22	--	6.4	16.5	21.0	--	--	8.0	--	--	--

K: Results based on colony count outside the accepted range (non-ideal colony).

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT												
14...	--	--	--	--	27	--	--	--	--	--	10	--
28...	--	--	--	--	31	--	--	--	--	0.10	12	--
NOV												
17...	18	5.0	15	3.9	29	28	34	30	30	0.10	14	138
DEC												
16...	--	--	--	--	24	--	--	--	--	--	14	--
JAN												
07...	--	--	--	--	23	--	--	--	--	--	17	--
19...	--	--	--	--	20	--	--	--	--	--	17	--
20...	--	--	--	--	20	--	--	--	--	--	13	--
21...	--	--	--	--	10	--	--	--	--	--	12	--
21...	--	--	--	--	10	--	--	--	--	--	13	--
28...	--	--	--	--	--	--	--	--	--	--	23	--
FEB												
04...	--	--	--	--	12	--	--	--	--	--	17	--
05...	13	3.8	8.8	3.2	21	21	26	32	15	0.20	17	103
12...	--	--	--	--	9	--	--	--	--	--	18	--
13...	--	--	--	--	6	--	--	--	--	--	30	--
13...	--	--	--	--	6	--	--	--	--	--	26	--
14...	--	--	--	--	6	--	--	--	--	--	44	--
16...	--	--	--	--	6	--	--	--	--	--	9.2	--
25...	--	--	--	--	8	--	--	--	--	--	20	--
MAR												
02...	--	--	--	--	10	--	--	--	--	--	22	--
08...	--	--	--	--	14	--	--	--	--	--	19	--
22...	--	--	--	--	13	--	--	--	--	--	16	--
APR												
06...	--	--	--	--	16	--	--	--	--	--	9.7	--
20...	--	--	--	--	--	--	--	--	--	--	9.5	--
MAY												
06...	11	3.3	7.6	2.4	--	18	22	22	13	0.10	8.9	96
19...	--	--	--	--	19	--	--	--	--	--	11	--
JUN												
12...	--	--	--	--	26	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	17	--
30...	--	--	--	--	25	--	--	--	--	--	17	--
JUL												
21...	--	--	--	--	24	--	--	--	--	--	14	--
22...	--	--	--	--	--	--	--	--	--	--	13	--
25...	--	--	--	--	18	--	--	--	--	--	15	--
28...	--	--	--	--	24	--	--	--	--	--	14	--
AUG												
16...	13	4.0	11	3.1	32	--	--	17	18	0.10	16	110
21...	--	--	--	--	20	--	--	--	--	--	13	--
30...	--	--	--	--	23	--	--	--	--	--	12	--
SEP												
16...	--	--	--	--	24	--	--	--	--	--	11	--
16...	--	--	--	--	24	--	--	--	--	--	11	--
27...	--	--	--	--	23	--	--	--	--	--	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT											
14...	--	--	<0.001	1.30	--	0.020	0.30	0.30	0.010	--	<0.001
28...	--	--	<0.004	0.950	--	0.020	0.50	0.20	0.020	--	0.001
NOV											
17...	138	0.897	0.003	0.900	0.020	0.020	0.80	0.20	0.010	0.010	0.004
DEC											
16...	--	--	<0.005	1.10	--	0.010	0.20	0.40	0.020	--	0.020
JAN											
07...	--	1.39	0.010	1.40	--	0.070	<0.20	0.30	0.020	--	0.011
19...	--	--	0.016	--	--	--	--	--	--	--	0.001
20...	--	--	<0.010	1.80	--	0.060	0.80	0.40	0.170	--	0.005
21...	--	--	<0.010	1.40	--	0.200	1.0	0.90	0.150	--	0.085
21...	--	--	<0.010	1.20	--	0.190	1.0	0.80	0.180	--	0.095
28...	--	--	<0.010	1.60	--	0.040	0.50	0.30	0.040	--	<0.001
FEB											
04...	--	1.19	0.010	1.20	--	<0.010	--	--	<0.010	--	0.004
05...	112	1.29	0.007	1.30	0.050	0.040	0.80	0.50	0.040	--	0.004
12...	--	1.38	0.020	1.40	--	0.200	1.4	0.60	0.240	0.006	0.008
13...	--	0.820	0.020	0.840	--	0.130	1.3	0.70	0.180	0.009	0.010
13...	--	--	--	0.840	--	0.110	1.1	0.40	0.150	--	0.015
14...	--	1.18	0.020	1.20	--	0.090	0.80	0.40	0.110	0.003	0.012
16...	--	1.69	0.010	1.70	--	0.050	0.70	0.40	0.060	0.003	0.001
25...	--	1.28	0.020	1.30	--	0.040	0.40	<0.20	0.050	0.010	0.002
MAR											
02...	--	--	<0.010	1.50	--	0.010	0.30	--	0.020	0.003	0.005
08...	--	--	<0.010	1.30	--	0.020	0.40	--	0.030	0.002	0.004
22...	--	--	<0.010	1.20	--	0.010	<0.20	0.30	0.020	0.005	0.004
APR											
06...	--	--	<0.010	0.560	--	<0.010	0.50	0.40	0.030	0.008	0.006
20...	--	--	<0.010	0.800	--	0.020	0.30	0.30	0.030	--	0.004
MAY											
06...	84	--	--	0.700	0.080	0.090	0.60	0.50	0.040	<0.010	0.002
19...	--	0.560	0.020	0.580	--	<0.010	0.70	0.60	0.130	0.021	0.014
JUN											
12...	--	--	--	--	--	--	--	--	--	0.058	0.047
15...	--	0.890	0.010	0.900	--	0.060	0.50	0.60	0.080	0.058	0.048
30...	--	--	<0.010	0.980	--	0.020	0.50	0.80	0.070	0.040	0.028
JUL											
21...	--	--	<0.010	0.800	--	0.070	0.70	0.60	0.080	--	0.033
22...	--	0.880	0.010	0.890	--	0.040	0.50	0.40	0.050	0.041	0.023
25...	--	--	<0.010	0.650	--	<0.010	0.60	<0.20	0.030	0.068	0.041
28...	--	0.830	0.010	0.840	--	0.050	0.90	0.60	0.070	0.021	0.014
AUG											
16...	107	--	--	1.20	0.020	0.040	0.20	<0.20	0.060	0.047	0.034
21...	--	1.08	0.020	1.10	--	0.140	0.80	0.60	0.100	0.064	0.048
30...	--	--	<0.010	0.940	--	0.030	0.70	0.60	0.050	0.043	0.032
SEP											
16...	--	--	<0.010	1.10	--	<0.010	0.50	0.50	0.030	0.029	0.022
16...	--	--	<0.010	1.10	--	<0.010	0.70	0.40	0.040	0.025	0.020
27...	--	--	--	--	--	--	--	--	--	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)
OCT											
14...	<10	--	--	--	--	--	--	--	--	--	--
28...	<10	--	--	--	--	--	--	--	--	--	--
NOV											
17...	<10	<1	71	<0.5	<1	1	<3	2	73	<5	5
DEC											
16...	<10	--	--	--	--	--	--	--	--	--	--
JAN											
07...	<10	--	--	--	--	--	--	--	--	--	--
19...	<10	--	--	--	--	--	--	--	--	--	--
20...	40	--	--	--	--	--	--	--	--	--	--
21...	160	--	--	--	--	--	--	--	--	--	--
21...	100	--	--	--	--	--	--	--	--	--	--
28...	60	--	--	--	--	--	--	--	--	--	--
FEB											
04...	40	--	--	--	--	--	--	--	--	--	--
05...	80	<1	61	<0.5	<1	<1	<3	<1	150	<5	<4
12...	220	--	--	--	--	--	--	--	--	--	--
13...	160	--	--	--	--	--	--	--	--	--	--
13...	360	--	--	--	--	--	--	--	--	--	--
14...	290	--	--	--	--	--	--	--	--	--	--
16...	230	--	--	--	--	--	--	--	--	--	--
25...	70	--	--	--	--	--	--	--	--	--	--
MAR											
02...	30	--	--	--	--	--	--	--	--	--	--
08...	30	--	--	--	--	--	--	--	--	--	--
22...	20	--	--	--	--	--	--	--	--	--	--
APR											
06...	30	--	--	--	--	--	--	--	--	--	--
20...	20	--	--	--	--	--	--	--	--	--	--
MAY											
06...	10	<1	56	<0.5	<1	<1	<3	2	300	<5	9
19...	20	--	--	--	--	--	--	--	--	--	--
JUN											
12...	40	--	--	--	--	--	--	--	--	--	--
15...	<10	--	--	--	--	--	--	--	--	--	--
30...	20	--	--	--	--	--	--	--	--	--	--
JUL											
21...	10	--	--	--	--	--	--	--	--	--	--
22...	20	--	--	--	--	--	--	--	--	--	--
25...	10	--	--	--	--	--	--	--	--	--	--
28...	40	--	--	--	--	--	--	--	--	--	--
AUG											
16...	10	3	74	<0.5	<1	1	<3	1	380	<5	<4
21...	20	--	--	--	--	--	--	--	--	--	--
30...	10	--	--	--	--	--	--	--	--	--	--
SEP											
16...	<10	--	--	--	--	--	--	--	--	--	--
16...	<10	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
14...	--	--	--	--	--	--	--	--	--	--	2.8
28...	--	--	--	--	--	--	--	--	--	--	3.9
NOV											
17...	6	0.2	--	<10	3	<1	<1.0	140	<6	7	3.7
DEC											
16...	--	--	--	--	--	--	--	--	--	--	3.0
JAN											
07...	--	--	--	--	--	--	--	--	--	--	3.0
19...	--	--	--	--	--	--	--	--	--	--	3.0
20...	--	--	--	--	--	--	--	--	--	--	7.2
21...	--	--	--	--	--	--	--	--	--	--	8.6
21...	--	--	--	--	--	--	--	--	--	--	8.6
28...	--	--	--	--	--	--	--	--	--	--	3.9
FEB											
04...	--	--	--	--	--	--	--	--	--	--	4.3
05...	58	<0.1	--	<10	4	<1	<1.0	100	<6	29	5.7
12...	--	--	--	--	--	--	--	--	--	--	11
13...	--	--	--	--	--	--	--	--	--	--	12
13...	--	--	--	--	--	--	--	--	--	--	11
14...	--	--	--	--	--	--	--	--	--	--	9.0
16...	--	--	--	--	--	--	--	--	--	--	7.3
25...	--	--	--	--	--	--	--	--	--	--	5.3
MAR											
02...	--	--	--	--	--	--	--	--	--	--	3.5
08...	--	--	--	--	--	--	--	--	--	--	3.9
22...	--	--	--	--	--	--	--	--	--	--	3.5
APR											
06...	--	--	--	--	--	--	--	--	--	--	5.7
20...	--	--	--	--	--	--	--	--	--	--	4.5
MAY											
06...	120	<0.1	--	<10	1	<1	<1.0	100	<6	31	6.2
19...	--	--	--	--	--	--	--	--	--	--	7.6
JUN											
12...	--	--	--	--	--	--	--	--	--	--	5.4
15...	--	--	--	--	--	--	--	--	--	--	6.3
30...	--	--	--	--	--	--	--	--	--	--	6.1
JUL											
21...	--	--	--	--	--	--	--	--	--	--	5.5
22...	--	--	--	--	--	--	--	--	--	--	5.7
25...	--	--	--	--	--	--	--	--	--	--	5.8
28...	--	--	--	--	--	--	--	--	--	--	5.8
AUG											
16...	66	--	<0.10	<10	1	<1	1.0	130	<6	7	5.2
21...	--	--	--	--	--	--	--	--	--	--	6.2
30...	--	--	--	--	--	--	--	--	--	--	5.4
SEP											
16...	--	--	--	--	--	--	--	--	--	--	3.1
16...	--	--	--	--	--	--	--	--	--	--	3.2
27...	--	--	--	--	--	--	--	--	--	--	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
14...	1230	8.5	2	0.05	--
28...	1230	16	1	0.04	--
NOV					
17...	1030	14	3	0.12	93
DEC					
16...	1030	29	9	0.71	--
JAN					
07...	0900	21	3	0.17	--
19...	1045	37	3	0.30	--
20...	1300	120	41	13	--
21...	1015	219	29	17	--
21...	1400	219	41	24	--
28...	1315	86	6	1.4	--
FEB					
04...	1400	108	6	1.7	--
05...	1015	120	8	2.6	95
12...	1017	325	90	79	--
13...	1000	1080	97	283	--
13...	1415	997	89	240	--
14...	1230	470	38	48	--
16...	1145	243	7	4.6	--
25...	1230	157	4	1.7	--
MAR					
02...	1015	118	3	0.96	--
08...	1030	125	4	1.4	100
22...	0910	75	2	0.40	--
APR					
06...	0930	105	5	1.4	--
20...	0915	108	9	2.6	--
MAY					
06...	1030	118	14	4.5	84
19...	1030	149	10	4.0	--
JUN					
12...	1400	11	4	0.11	--
15...	0930	39	16	1.7	--
30...	1000	16	15	0.64	--
JUL					
21...	1415	24	5	0.32	--
22...	1500	25	4	0.27	--
25...	1345	45	7	0.85	--
28...	0945	29	11	0.85	--
AUG					
16...	1230	9.5	5	0.13	96
21...	1400	48	15	2.0	--
30...	1030	48	11	1.4	--
SEP					
16...	1015	15	2	0.08	--
27...	1130	22	2	0.12	--

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	232	222	223	175	141	128	135	129	158	157	171
2	---	---	238	217	164	145	132	136	132	157	154	---
3	---	230	241	215	159	144	132	134	132	157	168	168
4	---	226	234	215	159	144	---	134	---	157	160	168
5	---	227	229	214	---	144	131	133	135	159	157	169
6	---	229	223	---	166	149	142	131	136	163	---	---
7	---	231	233	225	170	145	126	120	138	160	160	---
8	---	233	---	219	---	144	126	---	138	158	---	155
9	221	236	233	---	---	144	121	110	133	158	166	160
10	---	218	228	---	165	144	116	---	136	161	170	160
11	---	220	217	222	164	146	118	119	138	---	170	---
12	---	250	221	223	111	---	121	121	158	165	---	---
13	---	253	222	225	90	149	121	121	---	181	172	174
14	216	253	---	223	98	145	120	124	---	178	173	170
15	223	247	219	225	111	144	126	126	139	191	---	167
16	241	238	215	236	129	144	125	130	---	190	---	164
17	---	235	220	233	133	146	126	130	137	187	169	---
18	242	238	224	219	133	145	135	128	137	---	---	174
19	242	229	227	209	136	147	127	124	143	178	---	---
20	---	230	313	190	139	145	126	120	141	---	149	174
21	---	---	225	155	139	147	126	104	156	191	159	---
22	---	228	222	137	142	144	---	110	144	169	180	176
23	---	233	214	192	142	147	126	113	143	163	174	175
24	---	229	216	159	141	147	129	120	148	164	171	174
25	---	225	211	168	144	146	129	120	145	149	171	165
26	---	221	206	171	142	146	132	---	148	148	175	---
27	228	231	204	178	142	142	133	121	148	---	175	175
28	225	232	217	180	145	131	133	---	150	140	172	---
29	220	224	213	180	143	130	---	---	155	151	---	190
30	---	217	218	179	---	---	134	127	157	151	156	187
31	232	---	217	---	---	135	---	126	---	149	169	---

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	9.0	3.0	8.5	6.5	15.0	15.5	23.0	18.5	27.0	22.0
2	---	---	8.0	3.0	10.0	8.0	14.0	15.0	22.0	18.0	28.0	---
3	---	10.0	5.0	.0	6.5	9.0	16.0	12.5	18.5	18.5	28.0	21.0
4	---	12.0	6.0	.5	6.5	9.0	---	13.5	---	21.0	27.0	22.0
5	---	12.5	6.0	.5	---	8.0	18.5	14.0	16.0	22.0	27.0	21.5
6	---	9.0	5.5	---	2.0	8.0	17.0	14.0	18.5	22.0	---	---
7	---	12.0	4.0	1.0	1.0	9.0	14.0	16.0	20.0	22.0	27.0	---
8	---	10.0	---	.0	---	8.0	16.0	---	21.5	23.5	---	18.5
9	11.5	9.5	7.0	---	1.0	9.5	9.0	15.0	19.5	24.5	25.0	20.0
10	---	8.0	8.0	---	4.0	11.0	12.0	---	17.0	24.0	25.0	20.5
11	---	8.5	8.0	.0	2.5	8.0	13.0	18.0	18.5	---	26.5	---
12	---	8.5	7.0	.0	4.0	---	12.5	17.0	25.0	24.5	---	---
13	---	10.5	7.0	.0	2.0	9.0	10.0	18.0	---	24.0	28.0	19.5
14	10.0	10.0	---	.0	1.0	10.0	12.0	19.0	---	24.0	28.5	21.0
15	---	8.0	6.0	.0	1.5	8.0	15.0	18.0	23.5	27.0	---	20.0
16	---	8.5	6.0	.0	4.5	5.5	12.0	18.0	---	27.0	---	18.0
17	---	11.0	4.5	.5	4.5	6.0	10.0	19.0	23.5	28.0	27.0	---
18	---	13.0	3.5	.5	7.0	6.0	13.0	19.0	23.0	---	---	20.0
19	---	10.5	4.0	.0	6.0	8.5	12.0	18.5	23.0	26.5	---	---
20	---	10.0	6.0	1.0	7.0	7.0	10.0	17.0	23.0	---	22.0	23.0
21	---	---	6.0	2.5	7.0	6.0	12.5	18.5	27.0	25.0	23.0	---
22	---	4.5	5.5	2.5	5.5	5.0	---	20.5	26.0	25.0	21.5	21.0
23	---	4.0	5.5	2.5	5.5	7.0	13.0	20.0	27.0	24.0	22.0	21.0
24	---	6.0	6.0	3.0	7.0	10.5	14.5	23.0	25.5	25.0	23.5	21.0
25	---	7.0	6.0	4.0	5.0	13.0	12.5	19.5	---	24.5	25.0	18.5
26	---	9.0	9.0	3.0	3.5	14.0	15.5	---	21.5	26.0	25.0	---
27	14.5	13.0	6.0	1.0	5.0	13.0	17.0	18.0	22.5	---	25.5	19.0
28	11.5	8.0	5.0	1.0	4.5	12.0	16.0	---	20.0	25.0	25.5	---
29	11.0	9.0	4.0	.0	3.5	13.0	---	---	21.5	26.5	---	18.0
30	---	11.0	1.0	2.5	---	---	14.0	22.0	21.0	25.5	24.0	18.0
31	---	---	.0	---	---	16.0	---	22.0	---	27.5	22.0	---

01491000 CHOPTANK RIVER NEAR GREENSBORO, MD--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11	.45	2	.07	3	.25	1	.07	3	.58	2	.66
2	3	.09	1	.03	3	.18	2	.15	3	.58	4	1.3
3	4	.12	1	.03	4	.21	1	.07	6	1.5	3	.92
4	10	.57	1	.03	2	.10	1	.07	7	2.0	2	.62
5	5	.24	1	.03	2	.10	1	.07	8	2.6	2	.71
6	4	.15	2	.06	1	.04	2	.13	7	2.2	3	1.1
7	3	.11	2	.05	1	.04	2	.11	10	2.5	4	1.4
8	2	.07	4	.11	1	.04	2	.11	10	2.5	2	.67
9	1	.03	3	.08	1	.04	2	.13	8	1.9	1	.31
10	1	.03	1	.06	1	.04	1	.06	6	1.3	2	.62
11	2	.06	2	.18	1	.07	1	.06	7	1.7	1	.31
12	2	.05	1	.09	1	.08	1	.06	91	117	1	.28
13	2	.05	1	.07	1	.06	1	.06	96	248	1	.27
14	2	.05	1	.05	1	.05	1	.06	42	61	5	1.3
15	1	.03	1	.05	3	.18	2	.11	10	7.3	2	.52
16	1	.02	1	.04	7	.57	1	.05	7	4.6	1	.25
17	1	.03	1	.04	4	.29	1	.05	9	6.8	1	.23
18	2	.05	1	.04	1	.06	2	.15	12	8.1	2	.45
19	3	.08	2	.09	1	.06	4	.43	10	5.6	1	.22
20	2	.05	1	.04	1	.06	35	13	8	4.5	2	.44
21	1	.03	1	.04	1	.07	40	24	9	5.8	1	.21
22	1	.03	1	.04	1	.06	42	22	9	5.2	2	.39
23	1	.02	1	.04	1	.06	23	7.5	6	3.0	2	.38
24	1	.03	1	.04	1	.06	15	3.5	2	.93	1	.19
25	1	.03	1	.04	1	.06	9	1.8	4	1.7	1	.19
26	1	.02	1	.04	2	.15	4	1.0	3	1.2	2	.46
27	1	.02	1	.04	1	.08	4	1.1	3	1.1	7	3.0
28	2	.09	2	.08	1	.08	4	.97	1	.37	9	5.1
29	3	.13	3	.14	1	.08	6	1.3	1	.35	7	3.3
30	2	.08	4	.36	2	.16	6	1.2	---	---	6	2.4
31	2	.07	---	---	2	.13	4	.77	---	---	6	2.2
TOTAL	---	2.88	---	2.10	---	3.51	---	80.14	---	501.91	---	30.40
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5	1.6	2	.42	7	1.4	9	.34	2	.10	5	.36
2	3	.92	2	.39	5	.93	4	.15	2	.09	7	.45
3	2	.58	2	.38	6	1.0	4	.16	2	.06	6	.31
4	4	1.2	1	.18	5	.80	6	.23	1	.03	3	.20
5	7	2.1	2	.39	4	.60	7	.21	2	.15	2	.23
6	6	1.7	5	1.7	5	.70	9	.27	3	.19	2	.20
7	5	1.6	16	12	4	.53	11	.25	4	.22	2	.16
8	8	4.2	18	17	3	.39	13	.26	4	.17	2	.12
9	9	6.8	11	7.4	7	1.2	7	.16	5	.16	2	.11
10	9	5.7	7	3.6	11	2.3	4	.09	3	.09	2	.12
11	5	2.6	5	2.2	7	1.2	7	.17	4	.13	2	.12
12	6	2.7	5	2.0	6	.86	7	.19	4	.13	1	.05
13	5	2.0	6	2.1	8	1.0	8	.41	3	.09	1	.05
14	6	2.2	7	2.2	10	1.2	7	.45	4	.08	4	.18
15	6	2.0	4	1.1	11	1.2	6	.26	4	.08	3	.14
16	3	.96	2	.52	7	.66	3	.06	5	.12	2	.09
17	3	.89	4	.99	4	.38	2	.03	4	.08	1	.04
18	2	.56	5	1.4	9	.87	4	.18	4	.06	1	.04
19	3	.87	10	4.3	15	1.4	5	.50	3	.04	1	.04
20	3	.85	19	17	21	1.8	4	.37	6	.56	1	.03
21	5	1.3	14	13	22	1.6	4	.27	11	1.4	1	.03
22	6	1.5	10	6.8	7	.51	4	.27	9	.87	1	.03
23	7	1.6	9	4.8	3	.19	3	.23	5	.32	1	.02
24	4	.90	5	2.3	7	.42	3	.47	6	.44	2	.05
25	2	.44	7	2.9	8	.45	2	.25	5	.46	3	3.0
26	3	.62	10	4.2	17	.83	1	.10	3	.22	2	2.0
27	3	.58	10	4.0	17	1.1	2	.18	3	.17	1	1.0
28	5	1.1	8	2.7	14	.79	4	.31	3	.14	1	1.0
29	7	1.6	7	2.1	17	.87	3	.21	3	.17	1	1.0
30	4	.89	6	1.6	14	.57	4	.26	11	1.3	1	1.0
31	---	---	7	1.6	---	---	2	.11	8	.82	---	---
TOTAL	---	52.56	---	123.27	---	27.75	---	7.40	---	8.94	---	12.17

TOTAL LOAD FOR YEAR: 853.03 TONS.

01493000 UNICORN BRANCH NEAR MILLINGTON, MD

LOCATION.--Lat 39°14′59″, long 75°51′40″, Queen Annes County, Hydrologic Unit 02060002, on right bank 20 ft upstream from bridge on State Highway 313, 0.9 mi upstream from mouth, and 1.4 mi southwest of Millington.

DRAINAGE AREA.--22.3 mi^2.

PERIOD OF RECORD.--January 1948 to current year.

REVISED RECORDS.--WSP 1382: 1952(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (no gage-height record) and months of June and July, which are fair. Occasional regulation at low and medium flow by Unicorn Lake Dam upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--40 years, 24.4 ft^3/s, 14.86 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,060 ft^3/s, Sept. 12, 1960, gage height, 7.17 ft, from rating curve extended above 600 ft^3/s; no flow for part of each day June 13, 14, 1965, caused by regulation at Unicorn Lake Dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 180 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 13	2145	*182	*3.51	No other peak greater than base discharge.			

Minimum discharge, 0.18 ft^3/s, June 17, gage height, 1.61 ft; minimum daily discharge, 0.26 ft^3/s, June 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	7.2	35	16	31	29	24	13	15	5.5	8.3	10
2	8.5	7.5	28	16	36	26	23	14	14	5.2	8.5	7.5
3	8.6	7.2	18	16	25	25	22	17	14	5.1	8.4	7.7
4	10	7.5	17	15	32	30	23	17	14	7.5	8.1	11
5	9.0	7.2	16	14	35	41	22	23	14	8.7	9.3	10
6	7.9	6.7	16	14	25	35	21	48	13	8.7	7.9	8.5
7	9.1	6.8	11	14	25	31	32	56	12	7.2	13	9.2
8	8.2	7.7	8.7	14	36	28	52	40	12	6.4	9.5	7.7
9	7.7	8.6	8.6	14	39	27	47	29	17	6.2	7.3	7.7
10	7.4	12	8.5	13	31	27	36	22	14	7.3	8.7	8.7
11	7.4	17	9.0	12	21	25	29	28	11	6.8	8.8	7.9
12	7.4	13	8.6	12	61	24	26	24	12	8.4	7.6	7.2
13	7.1	12	8.9	12	110	24	24	20	11	6.3	6.8	7.3
14	7.1	10	14	12	57	23	22	17	11	6.3	7.1	8.1
15	7.1	9.2	19	12	47	22	21	17	12	7.8	9.3	6.6
16	7.1	8.7	19	12	51	22	20	15	8.3	7.6	9.3	6.6
17	7.1	9.1	16	12	51	21	20	e15	.26	16	7.6	7.0
18	7.4	7.9	13	12	44	21	21	e31	2.2	27	7.0	7.6
19	6.6	8.1	10	13	41	21	23	66	3.0	6.8	7.5	6.6
20	7.2	7.9	11	35	51	20	21	94	1.9	8.6	17	6.4
21	7.1	7.5	11	70	50	19	19	55	2.9	7.9	14	6.3
22	6.8	7.8	12	40	41	18	19	38	3.2	9.4	9.8	6.5
23	6.7	7.9	12	30	37	18	19	29	5.1	15	7.9	6.3
24	7.0	7.9	12	26	35	19	19	29	8.1	67	12	6.4
25	6.3	8.0	12	34	33	19	19	46	6.8	18	12	10
26	6.5	7.9	11	41	30	30	19	39	6.3	16	7.2	8.2
27	8.6	7.9	11	42	29	51	15	26	8.8	18	5.9	6.9
28	12	8.5	18	35	29	39	16	22	6.0	12	6.6	6.4
29	8.1	13	21	29	30	31	14	20	3.5	11	10	6.5
30	7.1	37	19	18	---	28	13	18	3.9	10	12	7.3
31	6.8	---	16	18	---	25	---	16	---	8.6	9.9	---
TOTAL	240.8	294.7	450.3	673	1163	819	701	944	266.26	362.3	284.3	230.1
MEAN	7.77	9.82	14.5	21.7	40.1	26.4	23.4	30.5	8.88	11.7	9.17	7.67
MAX	12	37	35	70	110	51	52	94	17	67	17	11
MIN	6.3	6.7	8.5	12	21	18	13	13	.26	5.1	5.9	6.3
CFSM	.35	.44	.65	.97	1.80	1.18	1.05	1.37	.40	.52	.41	.34
IN.	.40	.49	.75	1.12	1.94	1.37	1.17	1.57	.44	.60	.47	.38

CAL YR 1987 TOTAL 6697.0 MEAN 18.3 MAX 154 MIN 4.5 CFSM .82 IN. 11.17
WTR YR 1988 TOTAL 6428.76 MEAN 17.6 MAX 110 MIN .26 CFSM .79 IN. 10.72

e Estimated

01493500 MORGAN CREEK NEAR KENNEDYVILLE, MD

LOCATION.--Lat 39°16′48″, long 76°00′54″, Kent County, Hydrologic Unit 02060002, on right bank 200 ft upstream from highway bridge, 2.0 mi southwest of Kennedyville, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--12.7 mi^2.

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1552: 1952, 1953(P), 1954(M), 1955, 1956-57(M). WDR MD-DE-76-1: Drainage area. WDR MD-DE-79-1: 1961(M). WDR MD-DE-80-1: 1976(P).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges (backwater from storm tides), and discharges above 50 ft^3/s, which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--37 years, 10.4 ft^3/s, 11.12 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,500 ft^3/s, June 22, 1972, gage height, 13.07 ft, from rating curve extended above 640 ft^3/s on basis of culvert and flow-over-road measurement of peak flow; minimum discharge, 0.60 ft^3/s, Aug. 28, 29, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1115	*194	*4.09	No peak greater than base discharge.			

Minimum discharge, 2.5 ft^3/s, Aug. 9, gage height 1.25 ft; minimum daily discharge, 2.9 ft^3/s, Aug. 8, 9, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	3.2	18	6.5	9.0	7.1	6.7	6.3	4.7	3.5	3.8	3.9
2	3.2	3.2	10	6.3	11	7.0	6.7	5.7	4.6	3.5	3.7	3.5
3	3.7	3.3	8.7	4.7	17	7.1	6.7	5.9	4.6	3.5	3.5	3.3
4	4.5	3.3	9.1	5.9	13	11	7.0	6.1	4.6	3.5	3.3	5.9
5	3.3	3.3	8.4	5.1	11	16	6.8	8.7	4.6	3.4	3.3	7.6
6	3.1	3.3	7.2	3.9	6.5	9.4	6.3	17	4.5	3.1	3.0	4.5
7	3.7	3.2	6.8	3.5	5.2	8.4	12	13	4.5	3.1	3.0	3.6
8	3.5	3.1	6.7	3.9	5.6	7.5	12	7.2	4.7	3.0	2.9	3.4
9	3.3	3.3	7.0	4.7	7.1	7.6	8.2	5.9	7.1	3.1	2.9	3.5
10	3.1	6.5	8.4	4.6	7.2	7.8	6.7	5.9	6.3	3.4	3.3	3.8
11	3.2	13	17	4.2	7.4	6.8	6.3	7.5	5.1	3.1	3.5	3.6
12	3.3	12	12	3.8	124	6.9	6.3	6.6	4.7	3.2	3.1	3.3
13	3.3	11	8.8	5.1	e37	7.8	6.3	5.9	4.6	3.7	3.1	3.5
14	3.3	8.7	7.4	4.6	12	7.4	e5.9	5.0	4.3	3.3	3.0	3.5
15	3.3	6.6	15	4.2	9.8	6.8	e6.3	5.0	4.2	3.1	3.1	3.3
16	3.3	5.9	20	3.8	17	6.4	6.6	5.0	4.1	3.0	3.4	3.0
17	3.3	5.9	8.7	4.4	12	6.5	6.0	5.9	4.3	3.6	3.0	3.2
18	3.3	5.9	6.4	11	9.3	6.7	6.8	27	4.6	8.8	3.0	3.7
19	3.3	5.5	5.9	16	9.5	6.7	8.1	e71	4.2	4.6	2.9	3.6
20	3.4	5.0	7.0	129	24	6.7	6.5	e56	4.2	3.7	9.2	3.4
21	e3.5	5.1	7.3	54	14	6.2	6.1	12	4.1	5.7	8.9	3.3
22	3.4	4.4	6.0	14	8.8	6.2	5.8	8.2	3.8	15	4.4	3.1
23	3.3	4.6	6.2	9.1	8.7	6.6	5.7	7.2	3.8	8.2	3.6	3.1
24	3.2	5.0	5.9	7.5	9.0	7.1	6.3	15	3.6	12	e10	3.1
25	3.1	5.3	6.0	11	7.5	6.8	5.9	e34	3.7	6.7	8.2	4.2
26	3.1	5.9	11	20	7.1	12	5.6	11	3.8	5.1	4.6	4.1
27	5.0	5.5	8.6	10	7.6	18	7.0	7.5	3.8	9.5	3.8	3.5
28	14	5.8	6.7	6.5	8.1	8.7	22	6.6	3.7	6.9	3.6	3.3
29	8.1	10	7.8	5.7	7.1	7.1	9.2	6.1	3.7	5.3	e8.6	3.1
30	3.6	e39	5.5	6.5	---	6.7	7.5	5.8	3.6	4.2	13	3.1
31	3.3	---	5.0	7.7	---	6.7	---	5.1	---	3.8	5.4	---
TOTAL	122.1	205.8	274.5	387.2	432.5	249.7	225.3	395.1	132.1	155.6	144.1	111.0
MEAN	3.94	6.86	8.85	12.5	14.9	8.05	7.51	12.7	4.40	5.02	4.65	3.70
MAX	14	39	20	129	124	18	22	71	7.1	15	13	7.6
MIN	3.1	3.1	5.0	3.5	5.2	6.2	5.6	5.0	3.6	3.0	2.9	3.0
CFSM	.31	.54	.70	.98	1.17	.63	.59	1.00	.35	.40	.37	.29
IN.	.36	.60	.80	1.13	1.27	.73	.66	1.16	.39	.46	.42	.33

CAL YR 1987 TOTAL 2588.6 MEAN 7.09 MAX 91 MIN 2.5 CFSM .56 IN. 7.58
WTR YR 1988 TOTAL 2835.0 MEAN 7.75 MAX 129 MIN 2.9 CFSM .61 IN. 8.30

e Estimated

01495000 BIG ELK CREEK AT ELK MILLS, MD

LOCATION.--Lat 39°39′26″, long 75°49′20″, Cecil County, Hydrologic Unit 02060002, on right bank 100 ft downstream from highway bridge at Elk Mills, 3.5 mi north of Elkton, and 7 mi upstream from confluence with Little Elk Creek.

DRAINAGE AREA.--52.6 mi^2.

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 1432: 1932-33, 1934(M), 1935, 1936(M), 1938, 1919-40(M), 1942(M), 1943-51, 1952-53(P).

GAGE.--Water-stage recorder. Datum of gage is 68.5 ft above National Geodetic Vertical Datum of 1929. Prior to May 17, 1946, nonrecording gage at bridge 100 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Slight diurnal fluctuation caused by mills upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--56 years, 68.8 ft^3/s, 17.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft^3/s, July 5, 1937, gage height, 14.5 ft, from floodmarks, from rating curve extended above 1,700 ft^3/s on basis of velocity-area and conveyance studies; minimum discharge, 4.5 ft^3/s, Jan. 21, 1955, (result of freezeup); minimum daily discharge, 4.8 ft^3/s, Sept. 8-10, 1966; minimum gage height observed, 2.09 ft, Sept. 19, 22-24, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1884 reached a stage of about 19 ft, from information by local residents; discharge, about 18,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	2245	1,920	5.93	May 19	0845	*4,180	*7.96
Jan. 20	1045	1,800	5.82				

Minimum daily discharge, 18 ft^3/s, Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DA Y	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	28	99	47	209	56	50	52	57	28	32	29
2	26	28	67	46	137	54	49	47	60	28	31	26
3	29	28	56	53	124	55	47	44	55	28	30	25
4	39	29	54	46	123	91	49	47	55	27	31	81
5	28	31	48	52	86	135	51	70	54	27	34	184
6	26	34	44	52	59	71	45	183	51	26	32	48
7	31	34	42	46	61	64	87	111	55	25	31	34
8	30	34	42	44	63	60	102	65	62	25	31	30
9	26	36	42	50	52	58	63	55	58	25	29	29
10	26	54	42	46	49	57	54	54	58	26	28	27
11	27	129	43	46	52	52	50	110	50	24	28	26
12	27	60	40	51	512	52	48	80	47	27	27	24
13	26	62	39	55	135	53	47	58	45	28	26	33
14	25	45	38	50	77	51	45	53	43	24	25	33
15	25	38	68	52	77	49	46	49	42	23	23	25
16	26	35	83	59	293	47	48	48	41	20	20	24
17	25	34	49	64	86	47	44	55	41	25	18	24
18	26	41	43	113	72	46	46	218	41	48	19	27
19	27	37	42	168	141	47	51	1690	39	58	22	26
20	27	33	51	645	439	46	45	205	38	32	31	25
21	28	34	53	135	106	44	43	143	37	120	35	24
22	31	34	44	80	79	43	41	105	36	64	28	22
23	29	34	43	59	75	44	41	92	36	45	24	22
24	29	36	42	52	73	44	50	292	34	139	117	22
25	29	36	44	58	64	44	43	112	33	41	105	26
26	29	35	58	69	61	91	40	89	33	59	39	26
27	36	34	49	57	61	152	47	78	32	221	32	22
28	141	37	45	56	63	65	179	72	31	51	30	21
29	40	404	48	58	59	55	63	68	30	41	198	19
30	32	746	43	52	---	52	58	63	29	36	97	20
31	29	---	48	68	---	50	---	59	---	34	35	---
TOTAL	1003	2280	1549	2529	3488	1875	1672	4467	1323	1425	1288	1004
MEAN	32.4	76.0	50.0	81.6	120	60.5	55.7	144	44.1	46.0	41.5	33.5
MAX	141	746	99	645	512	152	179	1690	62	221	198	184
MIN	25	28	38	44	49	43	40	44	29	20	18	19
CFSM	.62	1.44	.95	1.55	2.29	1.15	1.06	2.74	.84	.87	.79	.64
IN.	.71	1.61	1.10	1.79	2.47	1.33	1.18	3.16	.94	1.01	.91	.71

CAL YR 1987 TOTAL 21478 MEAN 58.8 MAX 746 MIN 14 CFSM 1.12 IN. 15.19
WTR YR 1988 TOTAL 23903 MEAN 65.3 MAX 1690 MIN 18 CFSM 1.24 IN. 16.90

01495900 ELK RIVER NEAR TOWN POINT, MD

LOCATION.--Lat 39°30′09″, long 75°54′58″, Cecil County, Hydrologic Unit 02060001, at site of Old Town Point Wharf, at the Corps of Engineers substation, on left bank of Elk River, 0.7 mi west of Port Herman, 1.1 mi northwest of Town Point, and 1.8 mi downstream from mouth of Back Creek.

PERIOD OF RECORD.--Water years 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1981 to November 1985, October 1986 to current year.
WATER TEMPERATURE: October 1981 to November 1985, October 1986 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1981.

REMARKS.--Records good except those which were partly estimated (probes out of water for short periods during extreme low tides), which are fair. Interruptions of the daily temperature record were due to malfunction of recording instrument. Probes are attached to southeast side of bulkhead of wharf; prior to Oct. 1986, probes were attached to bulkhead on the north side of the wharf.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water year 1982-85, 1987-88): Maximum, 19,900 microsiemens, Oct. 26, 1982; minimum, 117 microsiemens, July 21-23, 28, 1984.
WATER TEMPERATURE (water year 1982-85, 1987-88): Maximum, 33.0°C, Aug. 6, 1988; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 9,690 microsiemens, Nov. 12; minimum, 200 microsiemens, Mar. 26-31.
WATER TEMPERATURE: Maximum recorded, 33.0°C, Aug. 6; minimum recorded, 0.0°C, on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	1660	892	1110	2930	e2790	e2880	6800	4060	5750	2010	1620	1790
2	1120	830	1030	2910	e2690	e2850	4480	2620	3470	1770	1670	1720
3	809	600	699	2890	2670	2800	2760	2090	2420	1770	1690	1740
4	1330	642	947	2690	2290	2530	2260	1940	2090	1850	1650	1700
5	1190	768	939	2290	e2090	e2220	2440	2020	2170	1740	1260	1440
6	959	748	845	2390	e1940	e2160	2690	2460	2610	1420	700	1030
7	841	621	698	1820	e1020	e1480	2400	1440	1800	1260	e718	e893
8	960	639	770	1460	e913	e1130	1580	1320	1450	3830	e737	e1230
9	940	477	731	1080	847	957	1440	1300	1410	9100	2570	4680
10	778	576	639	955	e738	e841	1260	924	1090	4910	3790	4410
11	797	555	608	4900	e824	e1740	3180	1040	1360	4910	3790	4350
12	2480	532	785	9690	4880	5710	2150	1470	1850	5440	4280	4620
13	2500	1480	1950	7310	3640	4870	1450	977	1310	5340	4580	4860
14	4240	2700	3180	4080	3320	3640	1060	591	814	4620	e4020	e4270
15	4000	2860	3400	3920	3380	3620	1690	e686	e865	7940	5140	5840
16	3740	2340	3470	4760	3620	3820	2080	685	921	6730	5470	6060
17	4640	3980	4290	4220	3560	3730	704	e608	e650	5970	5130	5480
18	5000	4380	4610	3880	3020	3340	4660	588	1350	5470	4910	5320
19	5320	e4840	e5060	3160	2890	3090	3730	1920	2610	5410	4900	5190
20	5420	e5020	e5230	2870	2310	2600	2250	1580	1980	5240	4980	5100
21	5380	e5040	e5250	2650	e2330	e2480	2030	1600	1820	5840	5060	5230
22	5220	e4200	e4670	2510	1310	2070	1950	1690	1810	5330	4550	5020
23	4900	4160	4590	1390	1070	1260	1730	1470	1620	4830	4190	4580
24	3920	e3560	e3730	1170	968	1110	1610	1470	1560	4410	3610	4140
25	3620	3410	3510	1170	1070	1120	1450	1210	1340	3610	3160	3350
26	3500	e3420	e3470	1160	1120	1140	1250	1190	1220	3240	2200	2910
27	3450	e3150	e3400	5150	1140	e1620	1330	1170	1250	2880	1280	2030
28	3510	e3370	e3460	6230	e4670	e5310	1330	1270	1300	1470	1110	1270
29	3530	e3370	e3510	8630	6190	7300	2250	1270	1620	1290	1170	1220
30	3470	e3090	e3250	8170	6480	7060	3880	1920	3120	1150	786	1060
31	3210	e2750	e2970	---	---	---	3780	1870	2630	1150	683	811
MONTH	5420	477	2670	9690	738	2880	6800	588	1850	9100	683	3330

e Estimated

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	942	622	746	858	658	760	260	220	241	663	507	585
2	819	719	766	858	734	786	398	260	301	686	596	631
3	837	694	756	900	775	843	1320	363	619	2120	617	1070
4	1010	694	904	838	692	788	834	404	621	1020	682	876
5	1010	748	909	887	798	845	560	393	461	750	612	687
6	787	445	611	1110	849	921	678	419	520	2000	657	909
7	684	419	550	997	834	903	1720	678	1290	5310	1760	3310
8	501	333	373	920	858	888	2160	1700	1840	5110	3760	4420
9	581	360	407	939	857	896	2060	1700	1870	4000	3180	3560
10	359	319	347	918	855	902	2000	1900	1950	3300	2500	2810
11	358	298	326	938	812	905	2040	1780	1930	2660	2280	2430
12	2380	258	1060	895	573	775	3360	2020	2580	2400	2160	2300
13	974	597	700	663	498	585	7690	3460	5280	2320	1960	2180
14	813	575	686	587	477	525	8670	4980	6710	2100	1800	1960
15	614	375	489	603	530	557	5390	4140	4650	2180	1820	2000
16	415	335	359	582	493	534	4340	3760	4090	2760	2000	2310
17	413	355	386	527	456	486	3840	2100	3090	2540	1920	2310
18	432	393	411	508	380	451	2620	1680	2240	2760	2120	2480
19	823	392	482	400	360	380	2220	1840	2040	3520	1940	2840
20	2190	666	1300	418	380	396	2280	1600	2050	4060	2520	2970
21	1340	819	1080	417	380	394	2320	1100	1710	2540	2280	2420
22	876	486	770	400	351	383	1280	1040	1120	2200	2000	2090
23	640	425	531	398	292	356	1240	1100	1180	1980	1680	1870
24	444	347	391	300	220	259	1160	1000	1100	1780	1100	1560
25	461	326	394	320	220	252	1260	979	1080	1440	1060	1350
26	421	307	348	240	200	219	1100	825	940	1400	1120	1240
27	382	285	322	260	200	239	913	736	808	1320	1260	1290
28	1880	303	728	340	200	255	979	646	776	1280	1020	1130
29	1510	776	1020	240	200	215	890	444	672	1060	781	905
30	---	---	---	240	200	220	644	463	523	941	741	813
31	---	---	---	240	200	221	---	---	---	881	721	778
MONTH	2380	258	626	1110	200	553	8670	220	1810	5310	507	1870

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	821	741	783	3360	2580	2950	1780	1660	1700	3000	2840	2930
2	961	741	804	2960	2400	2650	1880	1680	1730	2900	2720	2840
3	2860	961	2170	3940	2600	3200	1860	1720	1760	2780	2560	2690
4	2280	1360	2040	3460	3140	3240	1840	1660	1730	2580	2080	2380
5	1800	1580	1700	3100	2820	2970	1700	1500	1580	2180	1980	2080
6	1540	1240	1370	2840	2540	2670	1500	1140	1280	2160	1960	2020
7	1540	1140	1290	2680	2480	2570	1320	1120	1200	2060	1980	2010
8	1620	1360	1490	2600	2420	2530	1240	1060	1160	2020	1880	1960
9	1940	1540	1730	2460	2260	2370	1120	1000	1060	1960	1880	1930
10	2340	1700	2010	2340	2200	2230	1060	941	1000	1900	1760	1850
11	3340	2080	2440	2220	2160	2200	1140	941	1010	1860	1720	1800
12	3480	2240	2690	2220	2160	2200	1000	881	941	1780	1640	1710
13	2740	2360	2600	2220	2160	2190	1000	861	935	1700	1460	1640
14	2640	2180	2510	2260	2140	2190	1300	821	961	1560	1400	1460
15	2580	2240	2460	2200	2120	2150	1520	861	1020	1480	1340	1400
16	2400	2000	2290	2240	2120	2160	1300	981	1090	2380	1440	1560
17	2100	1880	2020	2160	1980	2110	1420	881	1180	1700	1480	1590
18	2000	1880	1920	2100	2040	2070	1280	901	1070	1460	1260	1350
19	2020	1900	1960	2140	2080	2100	921	861	883	1400	1300	1350
20	2020	1840	1920	2120	2080	2110	981	861	908	2140	1360	1640
21	1860	1640	1790	2080	1660	2000	1160	921	1010	2400	1940	2100
22	1700	1520	1630	1820	1680	1750	3060	1000	1140	2180	1960	2080
23	1540	1400	1460	1840	1720	1800	4220	1740	2120	2280	2100	2170
24	3980	1300	1450	1840	1740	1780	2580	1700	2230	2260	2160	2230
25	4880	1460	2140	1900	1780	1850	3020	2440	2620	2540	2080	2200
26	1660	1360	1470	1980	1900	1940	3060	2700	2870	4960	2200	2760
27	1480	1380	1430	2020	1940	1980	3040	2740	2910	5070	2660	3370
28	5370	1760	3090	2000	1920	1960	3060	2920	2990	4720	3460	4010
29	3940	2080	2770	1940	1820	1890	3160	2820	3060	8610	3840	4980
30	2940	2480	2740	1860	1740	1800	3140	2620	2920	7430	5330	6100
31	---	---	---	1780	1680	1730	2960	2800	2900	---	---	---
MONTH	5370	741	1940	3940	1660	2240	4220	821	1640	8610	1260	2340

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	17.5	19.0	13.5	11.5	12.5	5.0	.0	2.0	1.5	.5	1.0
2	19.5	18.0	19.0	13.5	12.5	13.0	2.0	.0	.5	1.0	.0	.0
3	19.0	14.5	17.5	13.5	12.0	13.0	4.0	.0	1.5	.0	.0	.0
4	16.5	12.5	14.5	14.0	12.0	13.0	4.5	3.0	4.0	1.0	.0	.5
5	17.5	14.0	15.5	13.5	11.5	13.0	3.5	2.0	2.5	.0	.0	.0
6	17.0	15.0	16.0	11.5	9.0	10.0	4.5	3.5	4.0	.0	.0	.0
7	17.0	16.0	16.5	11.0	9.5	10.5	5.0	3.0	4.5	.0	.0	.0
8	16.0	14.0	15.0	11.5	10.5	11.0	5.0	4.0	4.5	.0	.0	.0
9	15.5	13.0	14.0	12.5	11.0	11.5	5.5	4.5	5.0	.0	.0	.0
10	15.5	14.5	15.0	12.0	6.5	9.5	6.0	5.0	5.5	.0	.0	.0
11	14.5	13.0	14.5	7.0	5.0	6.0	6.5	5.5	6.0	.0	.0	.0
12	15.0	12.0	13.0	9.5	6.5	7.5	6.0	5.5	5.5	.0	.0	.0
13	14.5	12.5	13.5	9.0	7.5	8.0	5.5	4.5	5.0	.0	.0	.0
14	15.0	13.0	14.0	9.0	7.5	8.0	5.5	4.5	5.0	.0	.0	.0
15	15.5	13.5	14.5	9.5	7.5	8.5	5.5	4.5	5.0	.0	.0	.0
16	16.5	14.0	15.0	9.5	8.0	8.5	5.0	3.5	4.5	.0	.0	.0
17	16.0	14.0	15.0	10.5	8.5	9.5	3.5	2.0	3.0	.5	.0	.0
18	16.5	14.5	15.5	11.0	10.0	10.5	4.5	.5	2.0	.5	.0	.0
19	16.5	14.5	15.5	10.5	8.5	10.0	4.0	3.0	3.5	.5	.0	.5
20	16.0	15.0	15.5	10.0	8.5	9.5	4.5	3.5	4.0	.5	.5	.5
21	16.0	13.5	15.0	8.0	3.0	6.0	4.0	4.0	4.0	1.0	.5	.5
22	13.5	11.5	12.5	4.0	2.0	3.5	4.0	3.0	3.5	.5	.5	.5
23	14.0	12.5	13.5	5.0	3.5	4.5	4.5	3.5	4.0	1.0	.5	.5
24	14.5	12.5	13.5	6.0	5.0	5.5	4.5	3.5	4.0	1.0	.5	.5
25	14.0	12.5	13.5	6.5	5.0	5.5	5.5	4.5	5.0	.5	.5	.5
26	13.5	11.0	12.5	7.5	5.5	6.5	5.5	3.5	5.0	.5	.5	.5
27	13.0	11.5	12.5	6.5	5.5	6.0	4.0	3.0	3.5	.5	.5	.5
28	13.5	12.0	12.5	7.0	6.5	6.5	3.5	1.0	2.5	.5	.5	.5
29	12.5	11.0	12.0	8.0	7.0	7.5	2.5	.5	1.5	.5	.5	.5
30	12.5	11.0	11.5	8.5	.0	5.5	1.0	.0	.5	.5	.5	.5
31	14.0	11.5	12.5	---	---	---	2.0	.5	1.0	1.0	.5	.5
MONTH	20.0	11.0	14.5	14.0	.0	8.5	6.5	.0	3.5	1.5	.0	.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.0	.5	2.0	.5	.5	.5	12.5	12.5	12.5	14.5	14.0	14.0
2	4.0	.5	2.0	.5	.5	.5	13.0	12.5	12.5	14.5	14.5	14.5
3	.5	.5	.5	.5	.5	.5	13.0	12.5	12.5	14.5	14.0	14.5
4	.5	.5	.5	.5	.5	.5	13.5	12.5	13.0	14.5	14.0	14.5
5	.5	.5	.5	.5	.5	.5	15.0	14.0	14.0	14.5	14.5	14.5
6	.5	.5	.5	.5	.5	.5	15.0	14.5	15.0	14.5	14.5	14.5
7	.5	.5	.5	7.5	.5	3.5	14.5	14.0	14.5	15.0	14.5	14.5
8	.5	.5	.5	7.0	2.5	6.0	14.0	14.0	14.0	15.0	14.5	14.5
9	.5	.5	.5	6.5	.5	3.0	14.0	13.5	13.5	16.5	15.0	15.5
10	.5	.5	.5	.5	.5	.5	14.0	13.5	13.5	17.5	15.5	16.5
11	.5	.5	.5	.5	.5	.5	14.0	13.5	14.0	19.5	16.5	18.0
12	1.0	.5	.5	.5	.5	.5	14.0	14.0	14.0	20.0	16.5	18.0
13	.5	.5	.5	.5	.5	.5	14.0	13.5	14.0	20.0	17.5	19.0
14	.5	.5	.5	.5	.5	.5	14.0	13.5	13.5	21.0	18.0	19.5
15	.5	.5	.5	.5	.5	.5	13.5	13.5	13.5	21.0	18.0	19.5
16	.5	.5	.5	.5	.5	.5	13.5	13.5	13.5	20.0	18.0	19.0
17	.5	.5	.5	.5	.5	.5	13.5	13.5	13.5	21.0	19.0	19.5
18	.5	.5	.5	.5	.5	.5	13.5	13.5	13.5	19.5	18.0	18.5
19	.5	.5	.5	.5	.5	.5	13.5	13.5	13.5	18.5	17.5	18.0
20	.5	.5	.5	.5	.5	.5	13.5	13.5	13.5	18.5	17.5	18.0
21	.5	.5	.5	7.0	.5	3.0	13.5	13.0	13.5	20.5	18.0	19.0
22	.5	.5	.5	7.5	6.5	7.0	13.5	13.5	13.5	22.0	19.0	20.5
23	.5	.5	.5	7.5	7.0	7.5	13.5	13.5	13.5	22.5	20.0	21.0
24	.5	.5	.5	8.0	7.5	8.0	13.5	13.5	13.5	23.0	20.5	21.5
25	.5	.5	.5	9.0	8.0	8.5	14.0	13.5	13.5	21.5	17.0	20.0
26	.5	.5	.5	9.5	9.0	9.5	14.0	13.5	14.0	22.0	16.5	19.0
27	.5	.5	.5	10.5	9.5	10.0	14.5	14.0	14.0	22.0	19.0	20.5
28	.5	.5	.5	10.5	10.0	10.0	14.5	14.0	14.5	23.0	19.5	21.0
29	.5	.5	.5	11.0	10.5	10.5	14.5	14.0	14.0	23.0	20.0	21.5
30	---	---	---	11.5	11.0	11.0	14.0	14.0	14.0	24.0	21.0	22.5
31	---	---	---	12.5	11.5	11.5	---	---	---	25.0	22.0	23.5
MONTH	4.0	.5	.5	12.5	.5	4.0	15.0	12.5	13.5	25.0	14.0	18.0

01495900 ELK RIVER NEAR TOWN POINT, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25.0	23.0	24.0	23.5	20.5	22.0	31.0	28.5	29.5	26.0	24.0	25.0
2	23.5	20.5	22.0	23.5	20.5	22.0	30.5	29.0	30.0	26.5	24.0	25.0
3	22.0	20.5	21.0	25.5	22.0	23.5	31.5	29.0	30.0	26.5	24.0	25.0
4	21.0	19.5	20.0	26.5	23.5	25.0	31.5	29.0	30.0	24.5	24.0	24.5
5	21.5	19.0	20.5	26.5	24.0	25.5	31.0	29.0	30.0	24.5	22.5	24.0
6	23.0	19.5	21.5	26.5	24.5	25.5	33.0	29.0	30.5	23.5	21.0	22.5
7	24.0	21.5	22.5	29.0	25.5	26.5	31.5	29.0	30.0	23.5	20.5	22.0
8	22.5	21.0	21.5	28.5	25.5	27.0	32.0	29.0	30.5	24.0	21.0	22.5
9	21.5	19.5	20.0	27.5	26.0	26.5	32.0	29.0	30.5	24.0	22.0	23.0
10	22.0	18.5	20.0	29.0	26.0	27.0	31.5	29.5	30.5	24.5	22.5	23.5
11	22.5	19.0	20.5	29.0	26.5	27.5	31.5	29.5	30.5	24.0	22.0	23.0
12	24.0	20.0	21.5	27.5	26.5	27.5	31.0	29.5	30.5	24.0	21.5	22.5
13	24.0	21.0	22.5	29.5	26.5	28.0	31.0	29.5	30.5	24.0	22.5	23.0
14	25.0	22.0	23.5	30.0	27.0	28.5	31.0	29.5	30.0	24.0	21.5	22.5
15	25.5	23.0	24.5	30.0	28.0	29.0	31.0	29.0	29.5	23.0	21.0	22.0
16	25.5	24.0	25.0	30.0	27.5	29.0	29.5	27.5	28.5	22.5	19.0	21.0
17	26.0	24.5	25.0	30.0	28.0	29.0	30.0	27.5	29.0	21.5	21.0	21.0
18	27.0	24.0	25.5	31.5	28.0	29.5	30.0	27.5	29.0	22.0	21.0	21.5
19	27.0	24.5	26.0	29.5	28.5	29.0	27.5	25.5	26.5	23.0	21.0	22.0
20	27.0	25.5	26.5	29.0	28.0	28.5	26.5	24.5	25.5	23.0	22.0	22.0
21	28.0	26.0	27.0	28.5	28.0	28.0	27.0	25.0	25.5	23.0	21.0	22.0
22	29.0	26.5	27.5	28.0	27.5	27.5	27.0	23.0	25.0	23.0	20.5	21.5
23	29.0	24.5	27.5	28.0	27.0	27.0	26.0	24.5	25.5	23.5	21.0	22.0
24	28.5	23.0	26.0	29.0	26.5	27.5	27.0	24.0	25.0	22.5	21.0	21.5
25	28.0	25.5	26.5	30.0	26.5	28.0	26.5	24.5	25.5	20.5	19.5	20.0
26	27.5	24.5	26.0	29.0	27.5	28.0	27.0	24.5	25.5	21.5	19.0	20.5
27	26.0	22.5	24.0	29.0	27.0	28.0	27.0	25.0	26.0	22.0	19.5	20.5
28	27.0	24.0	25.5	29.0	26.5	27.5	26.5	25.5	26.0	22.5	20.0	21.0
29	26.5	24.5	25.5	29.5	27.0	28.0	26.0	24.5	25.5	20.5	17.0	19.0
30	25.0	22.5	24.0	30.5	28.0	29.0	25.0	24.0	24.5	20.5	19.5	20.0
31	---	---	---	30.5	28.0	29.5	25.5	23.5	24.5	---	---	---
MONTH	29.0	18.5	24.0	31.5	20.5	27.0	33.0	23.0	28.0	26.5	17.0	22.0

01496200 PRINCIPIO CREEK NEAR PRINCIPIO FURNACE, MD

LOCATION.--Lat 39°37′34″, long 76°02′27″, Cecil County, Hydrologic Unit 02060002, on left bank, 55 ft downstream from bridge on Belvedere Road, 3.5 mi north of Principio Furnace, and 4.9 mi upstream from mouth.

DRAINAGE AREA.--9.03 mi^2.

PERIOD OF RECORD.--June 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 215 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--21 years, 12.4 ft^3/s, 18.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,060 ft^3/s, Aug. 4, 1969, gage height, 9.26 ft, from rating curve extended above 600 ft^3/s on basis of slope-area measurements at gage heights 8.89 ft and 9.26 ft; minimum discharge, 0.79 ft^3/s, Sept. 16, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1745	314	4.26	Apr. 27	2330	350	4.40
Jan. 20	0630	468	4.80	May 11	0045	342	4.37
Feb. 12	0515	424	4.66	May 19	0730	*932	*6.04
Feb. 19	2300	449	4.74				

Minimum discharge, 1.6 ft^3/s, Aug. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.5	11	8.2	31	8.8	7.4	8.0	7.3	3.5	5.2	3.4
2	2.6	3.5	8.0	7.3	24	8.6	7.2	7.4	7.1	3.5	4.0	3.0
3	3.4	3.5	7.0	e6.2	21	8.8	7.3	7.0	7.0	3.4	3.5	2.9
4	3.6	3.6	7.1	6.6	29	30	7.2	7.6	7.1	3.3	3.4	19
5	3.0	3.4	6.3	e5.7	13	19	6.9	35	6.8	3.2	3.2	34
6	3.0	3.3	5.8	e5.7	e9.4	12	6.7	74	6.4	3.1	3.0	6.0
7	4.3	3.4	5.5	e5.7	e8.1	10	16	21	6.4	3.0	3.0	4.6
8	3.2	3.7	5.5	e8.5	8.0	9.6	12	11	6.5	2.9	2.8	4.0
9	3.1	3.7	5.5	8.3	7.8	9.5	8.4	9.4	7.5	3.1	2.6	3.8
10	3.0	9.6	5.5	e7.0	7.6	9.1	7.5	12	6.7	3.6	2.8	3.6
11	3.2	13	5.8	e7.0	8.0	8.4	7.0	74	6.2	3.0	2.7	3.5
12	3.3	8.4	5.4	e7.0	109	8.4	7.0	17	5.9	3.8	2.5	3.3
13	3.1	7.8	5.1	e8.0	e15	8.6	6.9	11	5.6	3.6	2.4	4.6
14	3.0	5.5	4.9	e7.0	e12	8.1	6.6	9.1	5.5	3.0	2.4	3.5
15	3.0	4.8	20	8.0	12	7.8	6.8	8.5	5.3	2.7	2.1	3.1
16	3.1	4.5	13	8.6	42	7.5	7.1	8.2	5.2	2.5	1.8	3.0
17	3.0	4.5	7.3	8.3	13	7.5	6.6	8.5	5.3	3.1	1.8	3.2
18	3.1	5.4	6.2	25	11	7.5	7.0	27	5.2	4.0	1.7	3.7
19	3.1	4.4	6.1	20	63	7.6	7.1	270	5.0	4.7	2.1	3.5
20	3.2	4.4	8.9	159	62	7.4	6.4	33	4.7	3.6	3.4	3.2
21	3.6	4.2	7.5	20	16	7.1	6.2	22	4.5	5.1	3.0	3.1
22	3.5	3.8	6.5	12	12	6.8	5.8	15	4.3	4.4	2.2	2.9
23	3.5	4.0	6.3	9.3	12	7.0	6.1	14	4.2	17	2.2	2.9
24	3.5	4.3	5.9	8.3	11	7.1	8.0	21	4.0	17	14	2.8
25	3.5	4.3	6.3	12	9.9	6.9	6.2	13	4.0	4.5	17	4.6
26	3.5	4.4	9.9	12	9.4	27	5.8	10	4.0	4.6	3.8	3.6
27	20	4.1	7.3	e7.5	9.7	28	34	9.4	3.9	6.2	3.2	3.0
28	20	5.0	6.9	e6.7	9.9	9.4	57	8.9	3.8	4.6	3.3	2.9
29	4.5	75	7.7	e6.5	9.3	8.2	11	8.6	3.8	4.2	41	2.8
30	3.9	75	6.5	e7.0	---	7.7	9.4	8.2	3.7	3.8	8.1	2.9
31	3.7	---	e5.9	25	---	7.4	---	7.7	---	3.6	4.1	---
TOTAL	136.4	288.0	226.6	453.4	605.1	326.8	304.6	796.5	162.9	141.6	158.3	150.4
MEAN	4.40	9.60	7.31	14.6	20.9	10.5	10.2	25.7	5.43	4.57	5.11	5.01
MAX	20	75	20	159	109	30	57	270	7.5	17	41	34
MIN	2.6	3.3	4.9	5.7	7.6	6.8	5.8	7.0	3.7	2.5	1.7	2.8
CFSM	.49	1.06	.81	1.62	2.31	1.17	1.12	2.85	.60	.51	.57	.56
IN.	.56	1.19	.93	1.87	2.49	1.35	1.25	3.28	.67	.58	.65	.62

CAL YR 1987 TOTAL 3153.0 MEAN 8.64 MAX 164 MIN 1.3 CFSM .96 IN. 12.99
WTR YR 1988 TOTAL 3750.6 MEAN 10.2 MAX 270 MIN 1.7 CFSM 1.13 IN. 15.45

e Estimated

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD

LOCATION.--Lat 39°39′31″, long 76°10′28″, Harford County, Hydrologic Unit 02050306, at downstream side of Conowingo Dam, 1.0 mi southwest of Conowingo, and 9.9 mi upstream from mouth.

DRAINAGE AREA.--27,100 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Water-discharge records good. Flow regulated by Conowingo Reservoir beginning October 1928, usable capacity, 55,070,000,000 gal; dead storage, 45,290,000,000 gal. Records do not include a small infrequent diversion upstream from station to augment municipal supply of city of Baltimore. Records of diversion available from Baltimore Department of Public Works. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130,000 ft^3/s, June 24, 1972, gage height, 36.83 ft; minimum discharge, 144 ft^3/s, Mar. 2, 1969, gage height, 6.28 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 211,000 ft^3/s, Feb. 4, gage height, 21.64 ft; minimum discharge, 796 ft^3/s, Oct. 4, gage height, 7.35 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20800	11800	74900	21700	27900	31200	73100	18300	41000	7210	19100	26300
2	21300	36200	79300	29200	36100	27500	53800	41300	28700	5050	13100	23800
3	19400	25800	83400	14500	65100	30400	40500	41600	29800	5120	12600	15900
4	14100	20200	84700	24600	147000	34700	52900	37500	22000	5130	13900	11800
5	18900	19600	58700	22600	156000	35800	48400	35600	10200	5150	10100	20100
6	22700	31100	47700	18000	126000	33900	48000	43600	29900	5430	5760	26300
7	25300	10400	51200	21000	84600	57100	53000	31700	28300	5120	5090	22800
8	21300	4540	41300	14700	74300	50600	54000	31900	24700	7420	7230	26200
9	30700	20000	40600	2720	70000	42900	44600	42400	24300	4950	15600	19600
10	9170	19800	35200	4190	60900	50000	44300	37300	19400	4960	5660	12500
11	5680	27000	35900	20500	53000	52600	50100	42100	8430	8000	7860	5340
12	23300	18300	32200	17700	63000	51400	48500	35500	7900	6270	7630	12300
13	20900	22500	15700	17600	36300	50600	41600	37200	24600	5910	5270	14000
14	23000	13700	32100	18400	22600	70400	37700	21200	18100	8240	5600	11800
15	25600	13600	33400	24800	34600	70000	38200	16300	18900	7390	6110	13700
16	30300	27600	32000	3790	43500	68400	22500	33400	18300	4470	5310	16300
17	3700	25000	36800	2260	37800	64900	17800	31000	7020	4250	5280	4370
18	3780	30100	34600	18400	40300	62800	37300	43400	5600	4490	8350	4580
19	22700	38000	28000	17700	39800	49400	26000	70600	3920	6650	5250	8400
20	15800	40600	22800	38300	38300	31000	28300	132000	16400	7160	5290	9390
21	18400	33400	35200	38000	35700	47100	27200	184000	13200	14400	5240	11800
22	21200	21600	38500	50700	45200	39000	34000	181000	17300	19600	5350	14400
23	22000	35300	45100	38100	47600	34300	6090	147000	7630	8730	5470	14600
24	893	34800	50300	27800	43700	33100	14400	118000	6880	18200	5440	4270
25	987	35200	36000	48900	44100	39600	26300	104000	4470	19100	10100	4280
26	15100	12200	39000	39700	42000	25400	25700	88300	4950	17400	6180	9150
27	15500	26600	30600	34500	30700	25600	25100	77700	5380	25300	5340	9220
28	22000	25000	41700	35300	14700	55300	21200	59000	5010	22900	5350	10900
29	23900	11600	41400	38700	35200	78700	36100	48500	5480	17300	12100	12100
30	31600	61300	36900	19800	---	91800	23400	41700	9480	9810	15500	8360
31	13000	---	38700	4330	---	80100	---	47500	---	5400	23700	---
TOTAL	563010	752840	1333900	728490	1596000	1515600	1100090	1920600	467250	296510	269860	404560
MEAN	18160	25090	43030	23500	55030	48890	36670	61950	15570	9565	8705	13490
MAX	31600	61300	84700	50700	156000	91800	73100	184000	41000	25300	23700	26300
MIN	893	4540	15700	2260	14700	25400	6090	16300	3920	4250	5090	4270
CFSM	.67	.93	1.59	.87	2.03	1.80	1.35	2.29	.57	.35	.32	.50
IN.	.77	1.03	1.83	1.00	2.19	2.08	1.51	2.64	.64	.41	.37	.56

CAL YR 1987 TOTAL 11775840 MEAN 32260 MAX 236000 MIN 893 CFSM 1.19 IN. 16.16
WTR YR 1988 TOTAL 10948710 MEAN 29910 MAX 184000 MIN 893 CFSM 1.10 IN. 15.03

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1979 to April 1981, July 1984 to current year.
WATER TEMPERATURE: June 1979 to April 1981, July 1984 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1979 to April 1981, July 1984 to current year.

REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling.

COOPERATION.--Some chemical data were collected by the U. S. Geological Survey and analyzed by the Pennsylvania Department of Environmental Resources Laboratory.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 475 microsiemens, Nov. 13-15, 1980; minimum daily, 113 microsiemens, Mar. 17, 1986.
WATER TEMPERATURE (water years 1979-80, 1984-88): Maximum daily, 30.5°C, Aug. 18, 1988; minimum daily, 1.0°C, Feb. 5, 6, 9, 1980, Feb. 12, 1988.
SEDIMENT CONCENTRATION: Maximun daily mean, 207 mg/L, Mar. 17, 1986; minimum daily mean, 1 mg/L, June 27, 1987.
SEDIMENT LOAD: Maximum daily, 197,000 tons, Mar. 16, 17, 1986; minimum daily, 4.4 tons, Feb. 10, 1985.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 454 microsiemens, July 27; minimum daily, 133 microsiemens, May 23.
WATER TEMPERATURE: Maximum daily, 30.5°C, Aug. 18; minimum daily, 1.0°C, Feb. 12.
SEDIMENT CONCENTRATION: Maximum daily mean, 70 mg/L, May 20; minimum daily mean, 3 mg/L, on many days during the year.
SEDIMENT LOAD: Maximum daily, 26,500 tons, Feb. 5; minimum daily, 24 tons, Jan. 17.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
07...	1115	12900	237	7.8	17.0	18.0	758	--	8.9	93	--	--
21...	1100	43400	268	8.2	15.0	13.0	765	--	11.3	112	--	--
21...	1105	43400	268	8.2	15.0	13.0	765	--	11.3	112	--	--
NOV												
18...	1010	61700	264	7.6	11.0	19.0	768	2.9	11.3	102	37	22
DEC												
01...	1100	82500	230	7.7	7.0	12.0	755	--	12.2	101	--	--
03...	1030	86900	193	7.8	7.0	5.0	766	--	12.0	98	--	--
16...	1130	59700	205	7.8	5.0	5.0	755	--	12.6	100	--	--
29...	1145	25000	219	8.0	4.0	6.0	762	--	13.2	101	--	--
29...	1150	25000	219	8.0	4.0	6.0	762	--	13.2	101	--	--
JAN												
06...	1100	36900	230	7.9	1.0	-6.0	779	2.4	12.1	83	12	K7
13...	1130	25800	252	7.9	2.0	2.5	764	--	14.5	105	--	--
27...	1240	34500	248	7.8	0.0	-1.0	776	--	14.2	95	--	--
FEB												
03...	1015	87900	264	7.8	1.0	-2.0	777	--	14.2	98	--	--
03...	1020	87900	260	7.4	1.0	-2.0	777	--	14.1	97	--	--
04...	1145	185000	242	7.3	--	--	--	--	--	--	--	--
04...	1150	185000	241	7.3	--	--	--	--	--	--	--	--
05...	0640	178000	157	7.3	--	--	--	--	--	--	--	--
05...	0645	178000	157	7.3	--	--	--	--	--	--	--	--
05...	0650	178000	163	7.4	--	--	--	--	--	--	--	--
05...	1030	179000	210	7.3	--	--	--	--	--	--	--	--
05...	1055	179000	193	7.3	--	--	--	--	--	--	--	--
05...	1106	179000	180	7.3	--	--	--	--	--	--	--	--
05...	1111	179000	183	7.3	--	--	--	--	--	--	--	--
10...	1115	77700	183	7.2	1.0	5.0	776	--	15.2	105	--	--
12...	1105	84800	183	7.7	1.0	4.0	756	--	15.0	106	--	--
17...	1230	54700	217	7.6	2.0	6.0	770	--	15.0	107	--	--
24...	1400	60300	240	7.6	3.0	5.0	765	--	14.2	105	--	--
MAR												
03...	1130	65000	252	7.6	4.0	11.0	767	2.8	14.3	108	K7	15
09...	0745	79400	--	--	--	--	--	--	--	--	--	--
09...	0750	79400	--	--	--	--	--	--	--	--	--	--
09...	0755	79400	--	--	--	--	--	--	--	--	--	--
16...	1030	84200	217	7.9	6.5	5.0	763	--	12.2	99	--	--
23...	1355	48400	195	7.4	7.0	14.0	775	--	12.1	98	--	--
29...	1105	79800	223	7.7	12.0	15.0	773	--	11.0	101	--	--
30...	1100	79000	214	7.8	13.0	17.0	760	--	12.8	122	--	--
30...	1105	79000	--	--	--	--	--	--	--	--	--	--
31...	1115	79600	200	7.6	12.0	16.0	774	--	11.3	103	--	--

K: Results based on colony count outside the accepted range (non-ideal colony).

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
APR												
01...	1300	78700	--	--	--	--	--	--	--	--	--	--
01...	1305	78700	--	--	--	--	--	--	--	--	--	--
03...	0820	51900	--	--	--	--	--	--	--	--	--	--
03...	0825	51900	--	--	--	--	--	--	--	--	--	--
06...	1155	75400	148	7.58	13.5	17.0	760	--	11.4	110	--	--
13...	1200	75600	192	7.64	12.0	10.0	765	--	10.6	98	--	--
20...	1200	52000	212	7.72	13.0	13.0	761	--	11.8	112	--	--
27...	1100	60700	226	8.26	13.0	15.0	761	--	11.5	109	--	--
MAY												
04...	0925	64100	254	7.85	14.0	11.0	766	2.8	10.8	104	K5	K5
04...	0930	64100	--	--	--	--	--	--	--	--	--	--
04...	1000	64600	--	--	--	--	--	--	--	--	--	--
11...	1100	71600	211	7.62	16.0	22.0	763	--	10.0	101	--	--
18...	1230	70900	206	7.27	20.0	19.0	761	--	7.1	78	--	--
19...	1310	81000	202	--	--	--	--	--	--	--	--	--
20...	0815	86900	215	--	--	--	--	--	--	--	--	--
20...	1745	179000	216	--	--	--	--	--	--	--	--	--
20...	1750	179000	216	--	--	--	--	--	--	--	--	--
21...	0750	177000	177	--	--	--	--	--	--	--	--	--
22...	0730	180000	138	--	--	--	--	--	--	--	--	--
22...	0740	180000	138	--	--	--	--	--	--	--	--	--
22...	0810	180000	148	--	--	--	--	--	--	--	--	--
23...	1310	155000	142	--	--	--	--	--	--	--	--	--
24...	1100	145000	--	--	--	--	--	--	--	--	--	--
24...	1110	147000	150	7.63	21.0	26.0	760	--	9.7	109	--	--
24...	1115	145000	--	--	--	--	--	--	--	--	--	--
25...	1100	125000	--	--	--	--	--	--	--	--	--	--
25...	1105	125000	--	--	--	--	--	--	--	--	--	--
25...	1110	126000	--	--	--	--	--	--	--	--	--	--
25...	1115	126000	--	--	--	--	--	--	--	--	--	--
25...	1120	126000	--	--	--	--	--	--	--	--	--	--
26...	1100	80300	--	--	--	--	--	--	--	--	--	--
27...	1230	64900	167	7.34	18.0	23.0	770	--	9.1	95	--	--
31...	1245	72600	183	7.17	21.0	30.5	764	--	7.4	83	--	--
JUN												
06...	1030	57500	197	7.47	22.0	25.5	760	--	8.3	95	--	--
22...	1000	7880	255	7.40	24.0	32.0	762	--	2.5	30	--	--
22...	1100	9000	255	7.40	24.0	32.0	762	--	2.5	30	--	--
JUL												
06...	1130	7890	288	7.35	25.0	29.0	770	1.9	4.3	52	15	44
12...	1030	4860	300	7.97	26.0	26.0	763	--	3.2	39	--	--
20...	0955	4800	328	7.63	28.0	28.5	766	--	1.4	18	--	--
20...	1000	4800	--	--	--	--	--	--	1.4	--	--	--
27...	1030	4800	330	7.30	27.5	22.0	768	--	3.8	48	--	--
AUG												
01...	1050	4700	354	7.33	28.0	29.0	767	--	2.1	27	--	--
01...	1055	4700	354	7.33	28.0	29.0	767	--	2.1	27	--	--
03...	1005	5000	352	7.26	28.0	30.0	771	--	2.7	34	--	--
10...	1230	2090	360	7.73	30.0	31.0	768	--	2.9	38	--	--
24...	1105	5500	340	7.35	27.0	25.0	760	--	4.9	62	--	--
SEP												
02...	1105	57200	365	7.64	26.0	26.0	772	4.8	5.8	71	130	K14
22...	1300	47600	280	7.35	23.0	22.0	766	--	6.0	70	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT												
07...	--	--	--	--	46	--	--	--	--	--	5.6	--
21...	--	--	--	--	54	--	--	--	--	--	1.0	--
21...	--	--	--	--	54	--	--	--	--	--	1.0	--
NOV												
18...	27	7.8	9.7	2.2	--	50	61	43	15	0.10	1.5	155
DEC												
01...	--	--	--	--	44	--	--	--	--	--	2.7	--
03...	--	--	--	--	40	--	--	--	--	--	4.0	--
16...	--	--	--	--	42	--	--	--	--	--	13	--
29...	--	--	--	--	42	--	--	--	--	--	4.7	--
29...	--	--	--	--	42	--	--	--	--	--	4.7	--
JAN												
06...	20	5.9	7.9	1.3	--	41	50	31	12	0.10	4.7	113
13...	--	--	--	--	45	--	--	--	--	--	5.8	--
27...	--	--	--	--	51	--	--	--	--	--	4.7	--
FEB												
03...	--	--	--	--	45	--	--	--	--	--	5.1	--
03...	--	--	--	--	46	--	--	--	--	--	5.1	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	28	--	--	--	--	--	5.4	--
12...	--	--	--	--	32	--	--	--	--	--	5.6	--
17...	--	--	--	--	34	--	--	--	--	--	5.7	--
24...	--	--	--	--	45	--	--	--	--	--	5.4	--
MAR												
03...	24	6.7	10	1.8	44	44	54	38	16	0.10	5.2	134
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	36	--	--	--	--	--	4.2	--
23...	--	--	--	--	36	--	--	--	--	--	5.4	--
29...	--	--	--	--	41	--	--	--	--	--	2.7	--
30...	--	--	--	--	39	--	--	--	--	--	2.8	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	36	--	--	--	--	--	3.0	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
APR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	32	--	--	--	--	--	4.1	--
13...	--	--	--	--	44	--	--	--	--	--	4.2	--
20...	--	--	--	--	40	--	--	--	--	--	2.8	--
27...	--	--	--	--	44	--	--	--	--	--	0.30	--
MAY												
04...	27	7.5	9.2	1.5	49	50	61	45	13	0.60	<0.01	142
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	43	--	--	--	--	--	1.2	--
18...	--	--	--	--	--	--	--	--	--	--	0.90	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	31	--	--	--	--	--	4.5	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	5.4	--
31...	--	--	--	--	--	--	--	--	--	--	4.9	--
JUN												
06...	--	--	--	--	40	--	--	--	--	--	3.4	--
22...	--	--	--	--	60	--	--	--	--	--	--	--
22...	--	--	--	--	60	--	--	--	--	--	--	--
JUL												
06...	31	9.3	11	2.0	65	63	77	48	15	0.30	1.1	160
12...	--	--	--	--	59	--	--	--	--	--	1.0	--
20...	--	--	--	--	67	--	--	--	--	--	1.2	--
20...	--	--	--	--	32	--	--	60	18	--	--	--
27...	--	--	--	--	66	--	--	--	--	--	2.8	--
AUG												
01...	--	--	--	--	65	--	--	--	--	--	3.4	--
01...	--	--	--	--	65	--	--	--	--	--	3.4	--
03...	--	--	--	--	66	--	--	--	--	--	3.4	--
10...	--	--	--	--	62	--	--	--	--	--	3.5	--
24...	--	--	--	--	64	--	--	--	--	--	2.0	--
SEP												
02...	38	13	16	2.8	66	63	77	67	22	0.10	2.2	218
22...	--	--	--	--	53	--	--	--	--	--	0.80	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)
OCT											
07...	--	1.18	0.020	--	1.20	--	0.060	0.80	<0.20	0.030	0.042
21...	--	0.820	0.010	--	0.830	--	0.050	0.80	0.20	0.010	0.005
21...	--	0.820	0.010	--	0.830	--	0.040	0.50	0.40	0.010	0.006
NOV											
18...	141	--	<0.010	--	1.10	0.050	0.040	0.50	<0.20	0.020	0.008
DEC											
01...	--	1.19	0.010	--	1.20	--	0.080	0.40	0.40	0.050	0.045
03...	--	--	<0.010	--	1.60	--	0.060	0.40	<0.20	0.050	0.031
16...	--	--	<0.010	--	1.40	--	0.090	0.20	0.20	0.030	0.016
29...	--	--	<0.010	--	1.20	--	0.050	0.20	0.30	0.030	0.009
29...	--	--	<0.010	--	1.20	--	0.060	0.30	0.20	0.020	0.008
JAN											
06...	113	1.28	0.020	--	1.30	0.080	0.080	0.20	0.30	0.020	--
13...	--	1.78	0.120	--	1.90	--	0.040	--	--	0.030	0.011
27...	--	1.78	0.020	--	1.80	--	0.240	0.60	0.80	0.090	0.041
FEB											
03...	--	1.59	0.010	--	1.60	--	0.170	--	--	0.040	0.016
03...	--	1.59	0.010	--	1.60	--	0.180	--	--	0.030	0.017
04...	--	--	--	1.80	1.80	0.200	0.200	0.62	0.47	0.090	0.060
04...	--	--	--	1.80	1.80	0.210	0.200	0.66	0.50	0.090	0.060
05...	--	--	--	1.32	1.32	0.170	0.160	0.76	0.48	0.100	0.030
05...	--	--	--	1.28	1.28	0.180	0.160	0.76	0.46	0.080	0.030
05...	--	--	--	1.28	1.28	0.160	0.150	0.78	0.46	0.080	0.030
05...	--	--	--	1.68	1.56	0.250	0.220	0.90	0.54	0.110	0.050
05...	--	--	--	1.56	1.56	0.240	0.220	1.0	0.54	0.120	0.040
05...	--	--	--	1.56	1.56	0.220	0.210	0.98	0.52	0.120	0.040
05...	--	--	--	1.56	1.56	0.240	0.220	1.0	0.54	0.120	0.040
10...	--	--	<0.010	--	1.30	--	0.120	0.50	0.30	0.030	0.006
12...	--	1.38	0.020	--	1.40	--	0.110	0.50	--	0.030	0.009
17...	--	1.58	0.020	--	1.60	--	0.160	0.30	0.20	0.040	0.020
24...	--	1.49	0.010	--	1.50	--	0.330	0.70	--	0.070	0.038
MAR											
03...	135	1.38	0.020	--	1.40	0.160	0.170	0.50	0.40	0.040	0.035
09...	--	--	--	1.80	1.80	0.120	0.120	0.35	0.29	0.060	0.020
09...	--	--	--	1.80	1.80	0.120	0.120	0.37	0.29	0.060	0.020
09...	--	--	--	1.80	1.80	0.120	0.110	0.44	0.40	0.060	0.020
16...	--	1.29	0.010	--	1.30	--	0.100	0.40	--	0.030	0.011
23...	--	1.19	0.010	--	1.20	--	0.130	0.50	0.40	0.030	0.011
29...	--	1.29	0.010	--	1.30	--	0.100	0.40	0.30	0.040	0.012
30...	--	--	<0.010	--	1.10	--	0.060	0.40	--	0.030	0.013
30...	--	--	--	1.14	1.14	0.060	0.050	0.52	0.27	0.060	0.040
31...	--	--	--	--	--	--	--	--	--	--	0.008

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)
APR											
01...	--	--	--	0.920	0.920	0.075	0.075	0.52	0.27	0.120	0.060
01...	--	--	--	0.920	0.920	0.075	0.060	0.56	0.36	0.100	0.060
03...	--	--	--	0.840	0.840	0.080	0.075	0.64	0.36	0.090	0.060
03...	--	--	--	0.860	0.860	0.090	0.080	0.56	0.31	0.090	0.050
06...	--	0.950	0.020	--	0.970	--	0.120	0.60	--	0.030	0.010
13...	--	1.08	0.020	--	1.10	--	0.100	0.40	0.50	0.050	0.014
20...	--	1.08	0.020	--	1.10	--	0.070	0.40	0.20	0.040	0.006
27...	--	0.880	0.020	--	0.900	--	0.040	<0.20	<0.20	0.050	0.011
MAY											
04...	137	0.760	0.010	--	0.770	0.130	0.040	0.20	<0.20	0.040	0.005
04...	--	--	--	0.800	0.800	0.040	0.040	0.20	0.20	0.080	0.020
04...	--	--	--	0.800	0.800	0.040	0.040	<0.20	<0.20	0.080	0.030
11...	--	0.860	0.020	--	0.880	--	0.070	0.50	<0.20	0.030	0.009
18...	--	0.770	0.020	--	0.790	--	0.170	0.70	0.70	0.030	0.017
19...	--	--	--	0.840	0.840	0.090	0.080	0.81	0.20	0.080	0.030
20...	--	--	--	1.14	1.18	0.070	0.080	0.73	0.61	0.090	0.040
20...	--	--	--	1.20	1.20	0.080	0.080	0.83	0.61	0.160	0.040
20...	--	--	--	1.18	1.18	0.090	0.080	0.76	0.56	0.160	0.040
21...	--	--	--	1.36	1.36	0.060	0.060	0.76	0.20	0.150	0.030
22...	--	--	--	1.44	1.44	0.030	0.030	0.76	0.20	0.130	0.030
22...	--	--	--	1.44	1.44	0.030	0.030	0.56	0.20	0.140	0.030
22...	--	--	--	1.48	1.48	0.040	0.040	0.84	0.20	0.170	0.070
23...	--	--	--	1.06	1.06	0.010	0.010	0.20	0.20	0.090	0.020
24...	--	--	--	1.12	1.16	0.020	0.020	0.20	0.20	0.080	0.030
24...	--	1.08	0.020	--	1.10	--	0.080	0.60	0.50	0.040	0.016
24...	--	--	--	1.10	1.08	0.030	0.020	0.20	0.20	0.080	0.020
25...	--	--	--	1.12	1.10	0.040	0.020	0.75	0.68	0.110	0.030
25...	--	--	--	1.12	1.12	0.020	0.080	0.73	0.20	0.100	0.030
25...	--	--	--	1.10	1.10	0.030	0.030	0.75	0.58	0.100	0.040
25...	--	--	--	1.12	1.12	0.030	0.020	0.68	0.60	0.100	0.030
25...	--	--	--	1.12	1.12	0.020	0.010	0.68	0.54	0.090	0.030
26...	--	--	--	1.14	1.14	0.060	0.060	0.81	0.81	0.110	0.040
27...	--	1.18	0.020	--	1.20	--	0.110	0.40	0.30	0.060	0.015
31...	--	1.08	0.020	--	1.10	--	0.040	0.40	0.30	0.020	0.007
JUN											
06...	--	1.08	0.020	--	1.10	--	0.040	0.40	0.30	0.020	0.007
22...	--	0.780	0.020	--	0.800	--	0.340	0.60	0.60	0.050	0.016
22...	--	0.820	0.040	--	0.860	--	0.290	--	0.70	--	0.020
JUL											
06...	161	0.860	0.070	--	0.930	0.290	0.330	0.70	0.70	0.050	0.009
12...	--	0.780	0.200	--	0.980	--	0.190	<0.20	--	0.030	0.008
20...	--	0.780	0.060	--	0.840	--	0.210	0.80	0.30	0.020	<0.001
20...	--	--	--	0.900	0.900	0.140	0.140	0.31	0.54	0.080	0.030
27...	--	1.00	0.200	--	1.20	--	0.140	0.70	0.40	0.120	0.048
AUG											
01...	--	1.54	0.060	--	1.60	--	<0.010	0.60	0.80	0.040	0.042
01...	--	1.64	0.060	--	1.70	--	<0.010	0.50	0.60	0.050	0.077
03...	--	1.52	0.080	--	1.60	--	0.110	0.40	0.40	0.060	0.020
10...	--	1.33	0.170	--	1.50	--	0.070	0.80	0.50	0.050	0.010
24...	--	--	<0.010	--	--	--	<0.010	0.80	<0.20	0.050	0.002
SEP											
02...	207	1.31	0.090	--	1.40	0.040	0.050	0.50	0.50	0.050	0.010
22...	--	0.940	0.050	--	0.990	--	0.030	0.30	0.30	0.050	0.008

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT											
07...	0.005	<10	--	--	--	--	--	--	--	--	--
21...	0.002	20	--	--	--	--	--	--	--	--	--
21...	<0.001	30	--	--	--	--	--	--	--	--	--
NOV											
18...	0.004	10	<1	27	<0.5	<1	3	<3	3	55	<5
DEC											
01...	0.014	20	--	--	--	--	--	--	--	--	--
03...	0.022	30	--	--	--	--	--	--	--	--	--
16...	0.015	20	--	--	--	--	--	--	--	--	--
29...	0.009	<10	--	--	--	--	--	--	--	--	--
29...	0.009	20	--	--	--	--	--	--	--	--	--
JAN											
06...	--	10	--	--	--	--	--	--	--	--	--
13...	0.016	10	--	--	--	--	--	--	--	--	--
27...	0.026	30	--	--	--	--	--	--	--	--	--
FEB											
03...	<0.002	<10	--	--	--	--	--	--	--	--	--
03...	<0.002	20	--	--	--	--	--	--	--	--	--
04...	0.018	--	--	--	--	--	--	--	--	--	--
04...	0.015	--	--	--	--	--	--	--	--	--	--
05...	0.002	--	--	--	--	--	--	--	--	--	--
05...	<0.002	--	--	--	--	--	--	--	--	--	--
05...	0.003	--	--	--	--	--	--	--	--	--	--
05...	0.009	--	--	--	--	--	--	--	--	--	--
05...	0.007	--	--	--	--	--	--	--	--	--	--
05...	0.005	--	--	--	--	--	--	--	--	--	--
05...	0.007	--	--	--	--	--	--	--	--	--	--
10...	<0.001	20	--	--	--	--	--	--	--	--	--
12...	0.001	30	--	--	--	--	--	--	--	--	--
17...	0.015	20	--	--	--	--	--	--	--	--	--
24...	0.027	20	--	--	--	--	--	--	--	--	--
MAR											
03...	0.010	<10	<1	28	<0.5	<1	<1	<3	2	76	<5
09...	0.008	--	--	--	--	--	--	--	--	--	--
09...	0.009	--	--	--	--	--	--	--	--	--	--
09...	0.009	--	--	--	--	--	--	--	--	--	--
16...	0.004	20	--	--	--	--	--	--	--	--	--
23...	0.005	20	--	--	--	--	--	--	--	--	--
29...	0.008	40	--	--	--	--	--	--	--	--	--
30...	0.008	30	--	--	--	--	--	--	--	--	--
30...	0.004	--	--	--	--	--	--	--	--	--	--
31...	0.004	30	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
APR											
01...	0.006	--	--	--	--	--	--	--	--	--	--
01...	0.005	--	--	--	--	--	--	--	--	--	--
03...	0.003	--	--	--	--	--	--	--	--	--	--
03...	0.002	--	--	--	--	--	--	--	--	--	--
06...	0.008	<10	--	--	--	--	--	--	--	--	--
13...	0.006	20	--	--	--	--	--	--	--	--	--
20...	0.001	30	--	--	--	--	--	--	--	--	--
27...	0.006	80	--	--	--	--	--	--	--	--	--
MAY											
04...	0.002	100	<1	25	<0.5	<1	<1	<3	1	11	<5
04...	0.001	--	--	--	--	--	--	--	--	--	--
04...	0.001	--	--	--	--	--	--	--	--	--	--
11...	0.002	40	--	--	--	--	--	--	--	--	--
18...	0.009	30	--	--	--	--	--	--	--	--	--
19...	0.009	--	--	--	--	--	--	--	--	--	--
20...	0.007	--	--	--	--	--	--	--	--	--	--
20...	0.006	--	--	--	--	--	--	--	--	--	--
20...	0.013	--	--	--	--	--	--	--	--	--	--
21...	0.008	--	--	--	--	--	--	--	--	--	--
22...	0.010	--	--	--	--	--	--	--	--	--	--
22...	0.008	--	--	--	--	--	--	--	--	--	--
22...	0.043	--	--	--	--	--	--	--	--	--	--
23...	0.008	--	--	--	--	--	--	--	--	--	--
24...	0.007	--	--	--	--	--	--	--	--	--	--
24...	0.012	20	--	--	--	--	--	--	--	--	--
24...	0.005	--	--	--	--	--	--	--	--	--	--
25...	0.002	--	--	--	--	--	--	--	--	--	--
25...	0.002	--	--	--	--	--	--	--	--	--	--
25...	0.007	--	--	--	--	--	--	--	--	--	--
25...	0.004	--	--	--	--	--	--	--	--	--	--
25...	0.002	--	--	--	--	--	--	--	--	--	--
26...	0.002	--	--	--	--	--	--	--	--	--	--
27...	0.011	30	--	--	--	--	--	--	--	--	--
31...	0.004	30	--	--	--	--	--	--	--	--	--
JUN											
06...	0.001	20	--	--	--	--	--	--	--	--	--
22...	0.010	40	--	--	--	--	--	--	--	--	--
22...	0.015	--	--	--	--	--	--	--	--	--	--
JUL											
06...	<0.001	10	--	--	--	--	--	--	--	--	--
12...	0.004	<10	--	--	--	--	--	--	--	--	--
20...	0.008	10	--	--	--	--	--	--	--	--	--
20...	0.004	--	--	--	--	--	--	--	--	--	--
27...	0.025	10	--	--	--	--	--	--	--	--	--
AUG											
01...	0.020	<10	--	--	--	--	--	--	--	--	--
01...	0.021	<10	--	--	--	--	--	--	--	--	--
03...	0.013	20	--	--	--	--	--	--	--	--	--
10...	<0.001	20	--	--	--	--	--	--	--	--	--
24...	<0.001	10	--	--	--	--	--	--	--	--	--
SEP											
02...	<0.010	<10	<1	41	<0.5	<1	<1	<3	2	5	<5
22...	0.003	10	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
07...	--	--	--	--	--	--	--	--	--	--	3.4
21...	--	--	--	--	--	--	--	--	--	--	3.2
21...	--	--	--	--	--	--	--	--	--	--	3.4
NOV											
18...	12	7	<0.1	<10	2	<1	<1.0	140	<6	<3	3.5
DEC											
01...	--	--	--	--	--	--	--	--	--	--	2.4
03...	--	--	--	--	--	--	--	--	--	--	5.8
16...	--	--	--	--	--	--	--	--	--	--	2.0
29...	--	--	--	--	--	--	--	--	--	--	1.9
29...	--	--	--	--	--	--	--	--	--	--	2.0
JAN											
06...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	2.5
27...	--	--	--	--	--	--	--	--	--	--	4.6
FEB											
03...	--	--	--	--	--	--	--	--	--	--	2.1
03...	--	--	--	--	--	--	--	--	--	--	2.1
04...	--	--	--	--	--	--	--	--	--	--	2.3
04...	--	--	--	--	--	--	--	--	--	--	2.3
05...	--	--	--	--	--	--	--	--	--	--	3.0
05...	--	--	--	--	--	--	--	--	--	--	3.0
05...	--	--	--	--	--	--	--	--	--	--	3.3
05...	--	--	--	--	--	--	--	--	--	--	2.7
05...	--	--	--	--	--	--	--	--	--	--	3.0
05...	--	--	--	--	--	--	--	--	--	--	3.1
05...	--	--	--	--	--	--	--	--	--	--	3.1
10...	--	--	--	--	--	--	--	--	--	--	2.4
12...	--	--	--	--	--	--	--	--	--	--	2.5
17...	--	--	--	--	--	--	--	--	--	--	1.9
24...	--	--	--	--	--	--	--	--	--	--	3.0
MAR											
03...	<4	180	<0.1	<10	8	<1	<1.0	120	<6	45	2.0
09...	--	--	--	--	--	--	--	--	--	--	2.6
09...	--	--	--	--	--	--	--	--	--	--	2.5
09...	--	--	--	--	--	--	--	--	--	--	2.5
16...	--	--	--	--	--	--	--	--	--	--	2.9
23...	--	--	--	--	--	--	--	--	--	--	2.6
29...	--	--	--	--	--	--	--	--	--	--	2.8
30...	--	--	--	--	--	--	--	--	--	--	2.8
30...	--	--	--	--	--	--	--	--	--	--	2.4
31...	--	--	--	--	--	--	--	--	--	--	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR											
01...	--	--	--	--	--	--	--	--	--	--	2.6
01...	--	--	--	--	--	--	--	--	--	--	2.5
03...	--	--	--	--	--	--	--	--	--	--	2.8
03...	--	--	--	--	--	--	--	--	--	--	2.7
06...	--	--	--	--	--	--	--	--	--	--	3.3
13...	--	--	--	--	--	--	--	--	--	--	2.9
20...	--	--	--	--	--	--	--	--	--	--	3.4
27...	--	--	--	--	--	--	--	--	--	--	2.3
MAY											
04...	10	3	<0.1	<10	1	<1	<1.0	140	<6	35	3.8
04...	--	--	--	--	--	--	--	--	--	--	3.1
04...	--	--	--	--	--	--	--	--	--	--	3.1
11...	--	--	--	--	--	--	--	--	--	--	3.8
18...	--	--	--	--	--	--	--	--	--	--	3.2
19...	--	--	--	--	--	--	--	--	--	--	2.5
20...	--	--	--	--	--	--	--	--	--	--	2.6
20...	--	--	--	--	--	--	--	--	--	--	2.7
20...	--	--	--	--	--	--	--	--	--	--	2.8
21...	--	--	--	--	--	--	--	--	--	--	3.7
22...	--	--	--	--	--	--	--	--	--	--	3.8
22...	--	--	--	--	--	--	--	--	--	--	3.9
22...	--	--	--	--	--	--	--	--	--	--	3.9
23...	--	--	--	--	--	--	--	--	--	--	2.9
24...	--	--	--	--	--	--	--	--	--	--	3.4
24...	--	--	--	--	--	--	--	--	--	--	3.9
24...	--	--	--	--	--	--	--	--	--	--	3.3
25...	--	--	--	--	--	--	--	--	--	--	3.2
25...	--	--	--	--	--	--	--	--	--	--	3.2
25...	--	--	--	--	--	--	--	--	--	--	3.3
25...	--	--	--	--	--	--	--	--	--	--	3.5
25...	--	--	--	--	--	--	--	--	--	--	3.2
26...	--	--	--	--	--	--	--	--	--	--	3.0
27...	--	--	--	--	--	--	--	--	--	--	3.6
31...	--	--	--	--	--	--	--	--	--	--	3.4
JUN											
06...	--	--	--	--	--	--	--	--	--	--	4.0
22...	--	--	--	--	--	--	--	--	--	--	3.5
22...	--	--	--	--	--	--	--	--	--	--	--
JUL											
06...	--	--	--	--	--	--	--	--	--	--	3.7
12...	--	--	--	--	--	--	--	--	--	--	3.1
20...	--	--	--	--	--	--	--	--	--	--	3.3
20...	--	--	--	--	--	--	--	--	--	--	2.7
27...	--	--	--	--	--	--	--	--	--	--	4.0
AUG											
01...	--	--	--	--	--	--	--	--	--	--	3.6
01...	--	--	--	--	--	--	--	--	--	--	3.8
03...	--	--	--	--	--	--	--	--	--	--	3.7
10...	--	--	--	--	--	--	--	--	--	--	3.9
24...	--	--	--	--	--	--	--	--	--	--	3.7
SEP											
02...	10	26	<0.1	<10	3	<1	<1.0	210	<6	<3	3.7
22...	--	--	--	--	--	--	--	--	--	--	3.9

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
MAR										
03...	1130	65000	0.5	<0.4	2.1	<0.4	0.05	<0.4	1.6	0.04

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
07...	1115	12900	8	278	--
21...	1100	43400	6	703	--
NOV					
18...	1010	61700	9	1500	97
DEC					
01...	1100	82500	12	2670	--
03...	1030	86900	31	7270	--
16...	1130	59700	6	967	--
29...	1145	25000	6	406	--
JAN					
06...	1100	36900	5	498	75
13...	1130	25800	3	209	87
21...	1105	73100	6	1180	--
21...	1110	73100	8	1580	--
23...	1420	56800	24	3680	--
23...	1425	53400	22	3170	--
27...	1240	34500	20	1860	--
FEB					
03...	1015	87900	4	949	--
03...	1020	87900	4	949	--
04...	1145	185000	18	8990	--
04...	1150	185000	17	8490	--
05...	0645	178000	43	20700	--
05...	0650	178000	43	20700	--
05...	1030	179000	47	22700	--
05...	1055	179000	66	31900	--
05...	1106	179000	76	36700	--
05...	1111	179000	65	31400	--
07...	0645	84800	43	9840	--
07...	0650	84800	43	9840	--
10...	1115	77700	18	3780	--
12...	1105	84800	15	3430	--
17...	1230	54700	23	3400	--
24...	1400	60300	19	3090	--
MAR					
03...	1130	65000	6	1050	96
09...	0745	79400	15	3220	--
09...	0750	79400	14	3000	--
09...	0755	79400	15	3220	--
16...	1030	84200	19	4320	--
23...	1355	48400	9	1180	--
29...	1105	79800	14	3020	--
30...	1100	79000	17	3630	--
30...	1105	79000	20	4270	--
31...	1115	79600	16	3440	--
APR					
01...	1300	78700	19	4040	--
03...	0820	51900	22	3080	--
06...	1155	75400	15	3050	--
13...	1200	75600	15	3060	--
20...	1200	52000	15	2110	--
27...	1100	60700	13	2130	--
MAY					
04...	0925	64100	16	2770	98
11...	1100	71600	10	1930	--
18...	1230	70900	9	1720	--
19...	1310	81000	25	5470	--
20...	0815	86900	29	6800	--
20...	1745	179000	132	63800	--
20...	1800	185000	71	35400	--
21...	0750	177000	61	29200	--
21...	0800	177000	54	25800	--
21...	0830	177000	64	30500	--
21...	0840	177000	64	30500	--
22...	0730	180000	60	29200	--
22...	0740	180000	55	26800	--
22...	0810	180000	55	26800	--
23...	1310	155000	29	12100	--
24...	1100	145000	28	11000	--
24...	1110	147000	26	10300	--
25...	1100	125000	23	7760	--
25...	1105	125000	18	6070	--
25...	1110	126000	21	7140	--
25...	1115	126000	28	9530	--
25...	1120	126000	31	10500	--
26...	1100	80300	26	5640	--
27...	1230	64900	23	4030	--
31...	1245	72600	10	1960	--
JUN					
06...	1030	57500	10	1550	--
22...	1000	7880	8	170	--
JUL					
06...	1130	7890	12	256	88
12...	1030	4860	6	79	--
20...	0955	4800	12	156	--
27...	1030	4800	12	156	--
AUG					
01...	1050	4700	7	89	--
03...	1005	5000	9	121	--
10...	1230	2090	9	51	--
24...	1105	5500	11	163	--
SEP					
02...	1105	57200	10	1540	98
22...	1300	47600	14	1800	--

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	227	284	215	204	251	233	174	232	156	246	362	337
2	226	270	219	205	249	233	153	243	166	276	359	343
3	228	280	185	200	247	241	156	---	166	285	355	356
4	231	278	174	202	250	244	154	254	161	290	342	358
5	241	276	183	205	187	244	156	231	167	294	338	353
6	247	275	170	202	171	247	160	223	177	292	338	349
7	237	275	172	208	163	254	165	208	174	290	338	354
8	---	275	184	---	162	253	172	206	187	290	---	277
9	---	267	179	216	163	242	175	197	193	290	338	285
10	---	262	177	217	166	235	180	190	193	289	338	275
11	---	252	178	214	---	231	185	189	195	289	340	275
12	---	250	---	---	183	237	187	189	195	298	338	303
13	---	242	---	252	184	231	188	187	203	302	337	294
14	---	237	---	225	178	240	190	193	208	307	338	295
15	---	232	193	238	189	224	192	204	208	316	337	295
16	---	244	192	245	193	209	196	189	209	326	336	284
17	268	244	198	246	200	203	192	183	218	320	337	273
18	265	246	212	227	202	209	194	192	218	318	337	274
19	266	---	217	250	209	179	207	204	228	321	337	275
20	262	250	215	261	209	177	207	192	220	321	337	271
21	268	266	209	265	212	185	207	192	220	324	336	272
22	268	284	219	262	216	179	209	138	220	332	336	275
23	267	263	214	275	225	204	215	133	220	346	337	273
24	263	257	209	285	223	178	213	143	225	349	316	271
25	267	229	213	245	222	180	213	136	230	343	314	269
26	270	271	204	241	223	185	217	137	233	354	314	270
27	264	226	216	240	222	189	218	147	235	454	317	271
28	268	217	210	230	224	196	222	140	228	444	316	278
29	271	220	207	234	231	210	222	154	243	440	316	281
30	263	214	---	241	---	214	229	187	254	448	316	285
31	276	---	---	249	---	188	---	164	---	444	315	---

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	13.5	7.0	6.0	3.0	4.0	12.0	14.0	23.0	26.0	27.0	27.0
2	19.0	13.0	8.0	5.0	3.0	4.0	13.0	15.0	22.0	25.0	28.0	26.0
3	19.0	13.0	8.0	3.0	3.0	5.0	12.5	15.5	22.0	25.0	28.0	25.0
4	19.0	13.0	8.0	3.0	4.0	5.0	13.0	14.0	22.0	24.0	29.0	25.0
5	18.0	12.0	7.5	2.0	3.0	6.0	14.0	15.0	22.0	25.0	29.0	25.0
6	18.0	12.0	7.0	2.0	2.0	5.0	14.0	15.0	23.0	25.0	28.0	25.0
7	17.0	12.0	6.0	2.0	2.0	6.0	14.0	10.0	23.0	25.0	28.0	25.0
8	17.0	12.0	7.0	3.0	3.0	6.0	15.0	11.0	23.0	26.0	29.0	23.5
9	16.0	12.0	7.0	2.0	3.0	7.0	14.0	16.0	22.0	27.0	30.0	25.0
10	16.0	12.0	7.0	2.0	3.0	8.5	14.0	17.0	22.0	27.0	30.0	25.0
11	16.0	12.0	7.0	2.0	3.5	8.5	14.0	18.0	22.0	26.0	30.0	25.0
12	16.0	11.0	7.0	2.0	1.0	9.0	14.0	18.0	23.0	26.0	30.0	24.0
13	15.0	10.0	7.0	2.0	2.0	9.0	14.0	17.0	23.0	26.0	30.5	23.0
14	15.0	10.0	7.0	2.0	2.0	9.0	13.0	19.0	23.0	27.0	29.0	23.0
15	14.0	10.0	7.0	2.0	3.0	9.0	13.0	19.0	23.0	27.0	30.0	23.0
16	14.0	10.0	7.0	2.0	2.0	8.5	13.5	19.0	23.0	27.0	30.0	23.0
17	14.0	10.0	7.0	2.0	3.0	8.0	13.0	20.0	23.0	27.0	30.0	23.0
18	14.0	10.0	7.0	2.0	3.0	7.0	13.5	20.0	23.0	28.0	30.5	22.5
19	14.0	10.0	7.0	2.0	2.5	6.0	13.5	20.0	24.0	28.0	30.0	22.0
20	14.0	9.0	7.0	2.0	4.5	7.0	13.0	20.0	23.0	28.0	29.0	22.5
21	14.0	9.0	6.0	2.0	4.0	6.5	13.0	19.5	24.0	28.0	29.0	23.0
22	14.5	9.0	6.0	3.0	4.0	7.0	12.5	17.0	24.0	28.0	28.0	23.0
23	14.0	8.0	6.0	3.0	6.0	6.0	12.5	20.0	25.0	28.0	27.0	23.0
24	14.5	8.0	5.0	2.0	5.0	8.0	13.0	18.0	26.0	28.0	27.0	23.0
25	14.0	8.0	6.0	3.0	5.0	9.0	12.5	18.0	26.0	29.0	26.5	22.0
26	14.0	8.0	6.0	2.0	4.0	8.0	13.0	19.0	26.0	29.0	26.0	22.0
27	14.0	8.0	6.0	2.0	4.0	9.0	13.0	19.0	27.0	28.0	27.0	22.0
28	14.0	8.0	6.0	2.0	4.0	10.0	13.0	20.0	26.5	29.0	27.0	21.5
29	14.0	7.0	6.0	3.0	4.0	10.0	11.5	20.5	27.0	29.0	27.0	21.0
30	14.0	7.0	6.0	3.0	---	13.0	14.0	20.5	26.0	29.0	27.0	21.0
31	14.0	---	5.5	3.0	---	13.0	---	21.5	---	29.0	27.0	---

01578310 SUSQUEHANNA RIVER AT CONOWINGO, MD--Continued

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8	449	16	510	15	3030	5	293	5	377	7	590
2	11	633	12	1170	21	4500	5	394	5	487	7	520
3	9	471	12	836	28	6310	5	196	3	527	7	575
4	13	495	13	709	20	4570	5	332	14	5560	6	562
5	10	510	10	529	14	2220	7	427	63	26500	5	483
6	9	552	13	1090	15	1930	6	292	63	21400	6	549
7	8	546	11	309	13	1800	11	624	43	9820	9	1390
8	11	633	12	147	11	1230	8	318	31	6220	11	1500
9	12	995	11	594	9	987	5	37	20	3780	17	1970
10	14	347	7	374	10	950	5	57	16	2630	28	3780
11	16	245	12	875	9	872	7	387	16	2290	20	2840
12	11	692	10	494	8	696	5	239	15	2550	27	3750
13	13	734	8	486	8	339	3	143	10	980	12	1640
14	14	869	7	259	7	607	4	199	27	1650	37	7030
15	11	760	7	257	7	631	3	201	8	747	12	2270
16	13	1060	7	522	7	605	18	184	9	1060	13	2400
17	14	140	10	675	7	696	4	24	8	816	40	7010
18	11	112	8	650	7	654	6	298	8	870	28	4750
19	7	429	8	821	6	454	6	287	8	860	9	1200
20	8	341	8	877	5	308	5	517	14	1450	9	753
21	9	447	11	992	4	380	9	923	12	1160	14	1780
22	16	916	14	816	3	312	13	1780	10	1220	27	2840
23	14	832	7	667	8	974	29	2980	12	1540	20	1850
24	13	31	8	752	12	1630	14	1050	19	2240	6	536
25	10	27	9	855	4	389	23	3040	16	1910	11	1180
26	8	326	6	198	7	737	18	1930	13	1470	11	754
27	8	335	4	287	5	413	17	1580	12	995	12	829
28	8	475	15	1010	4	450	14	1330	16	635	11	1640
29	13	839	5	157	6	671	18	1880	9	855	12	2550
30	9	768	3	497	6	598	8	428	---	---	17	4210
31	9	316	---	---	5	522	7	82	---	---	17	3680
TOTAL	---	16325	---	18415	---	40465	---	22452	---	102599	---	67411
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18	3550	7	346	8	886	12	234	8	413	8	568
2	24	3490	8	892	12	930	18	245	8	283	10	643
3	21	2300	16	1800	11	885	15	207	14	476	11	472
4	18	2570	15	1520	13	772	17	235	5	188	9	287
5	15	1960	13	1250	11	303	11	153	4	109	5	271
6	13	1680	17	2000	12	969	7	103	6	93	9	639
7	14	2000	17	1460	18	1380	6	83	7	96	9	554
8	18	2620	14	1210	11	734	8	160	6	117	7	495
9	17	2050	19	2180	8	525	5	67	5	211	6	318
10	12	1440	11	1110	12	629	7	94	7	107	7	236
11	12	1620	10	1140	8	182	9	194	9	191	6	87
12	13	1700	9	863	7	149	7	119	9	185	10	332
13	12	1350	12	1210	5	332	7	112	8	114	16	605
14	15	1530	13	744	3	147	17	378	3	45	9	287
15	12	1240	15	660	3	153	11	219	5	82	9	333
16	17	1030	11	992	6	296	9	109	4	57	10	440
17	6	288	6	502	5	95	9	103	8	114	11	130
18	11	1110	7	820	5	76	11	133	4	90	13	161
19	13	913	14	2670	8	85	6	108	9	128	8	181
20	6	458	70	24900	9	399	12	232	9	129	14	355
21	13	955	45	22400	7	249	7	272	9	127	13	414
22	9	826	60	29300	10	467	15	794	7	101	10	389
23	9	148	28	11100	12	247	11	259	13	192	12	473
24	7	272	15	4780	8	149	11	541	7	103	13	150
25	9	639	30	8420	7	84	12	619	12	327	9	104
26	10	694	21	5010	9	120	13	611	10	167	9	222
27	12	813	23	4830	9	131	15	1020	7	101	15	373
28	12	687	14	2230	11	149	11	680	5	72	12	353
29	14	1360	15	1960	16	237	9	420	3	98	8	261
30	15	948	16	1800	9	230	11	291	4	167	16	361
31	---	---	13	1670	---	---	10	146	8	512	---	---
TOTAL	---	42241	---	141769	---	11990	---	8941	---	5195	---	10494

TOTAL LOAD FOR YEAR: 488297 TONS.

01580000 DEER CREEK AT ROCKS, MD

LOCATION.--Lat 39°37'49", long 76°24'13", Harford County, Hydrologic Unit 02050306, on right bank 0.3 mi upstream from bridge on Cherry Hill Road, 0.8 mi southeast of Rocks, 1.2 mi upstream from Stirrup Run, and 23.5 mi upstream from mouth.

DRAINAGE AREA.--94.4 mi^2.

PERIOD OF RECORD.--October 1926 to current year. Monthly discharge only for November and December 1926, published in WSP 1302.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1927-36 (maximum and minimum only 1927-29, maximum only 1930-32, 1936).

GAGE.--Water-stage recorder. Concrete control since Sept. 7, 1938. Datum of gage is 250.40 ft above National Geodetic Vertical Datum of 1929 (Baltimore City bench mark).

REMARKS.--Records good except for estimated daily discharges, which are fair. Prior to 1965, some regulation at low flow by mills upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior years have been collected at this location.

AVERAGE DISCHARGE.--62 years, 124 ft^3/s, 17.84 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s, Aug. 23, 1933, gage height, 17.7 ft, from flood-marks, from rating curve extended above 3,000 ft^3/s, on basis of slope-area measurements at gage heights 13.3 ft and 17.7 ft; minimum discharge, 8 ft^3/s, Dec. 16, 1930, Jan. 26, 1939, result of regulation; minimum daily discharge, 8.6 ft^3/s, Sept. 11, 12, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1888, that of Aug. 23, 1933.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 19	1800	2,240	6.42	Jan. 20	0800	*2,850	*7.34

Minimum discharge, 45 ft^3/s, Aug. 19, gage height, 2.06 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	76	221	102	307	129	121	117	158	81	73	65
2	63	74	167	101	234	126	116	111	155	80	70	61
3	68	72	143	e95	211	128	116	109	151	77	68	60
4	71	72	142	96	193	182	122	113	148	75	66	156
5	63	70	133	e90	166	220	116	231	144	73	65	177
6	63	67	119	e85	e150	154	111	800	138	71	63	92
7	87	66	111	e85	e140	144	190	370	135	70	65	78
8	69	66	108	e100	e130	137	200	236	135	68	61	72
9	64	67	105	e90	e120	135	150	194	157	68	58	68
10	63	95	104	e85	118	135	135	191	152	73	58	66
11	64	185	102	e100	116	126	127	372	140	69	57	63
12	64	113	100	e90	414	125	123	239	127	73	56	60
13	62	120	97	e85	211	126	118	190	118	73	55	67
14	60	115	94	e85	188	123	114	173	113	66	53	64
15	59	99	124	e90	166	117	113	161	109	63	51	58
16	60	92	134	e85	382	114	117	157	112	59	50	54
17	59	89	106	e85	176	112	111	168	140	62	48	58
18	59	109	98	e250	160	112	117	625	114	72	48	66
19	58	93	97	e200	174	113	130	575	108	84	57	63
20	59	89	113	1260	336	111	112	348	104	74	66	58
21	97	84	109	277	191	107	108	402	100	147	64	55
22	69	78	99	184	163	104	103	285	97	180	54	53
23	63	77	98	151	160	105	103	255	95	159	54	52
24	61	78	94	136	154	107	120	282	99	215	162	51
25	60	77	98	137	144	105	106	283	100	91	170	65
26	59	76	120	139	140	186	101	228	95	227	72	60
27	91	76	107	e130	139	199	115	204	87	179	62	53
28	397	84	103	e125	139	142	200	191	86	99	58	51
29	116	619	109	e125	134	129	130	181	85	87	154	50
30	92	681	e95	e120	---	124	134	172	82	78	122	51
31	82	---	104	119	---	119	---	164	---	75	74	---
TOTAL	2469	3759	3554	4902	5456	4096	3779	8127	3584	2968	2234	2047
MEAN	79.6	125	115	158	188	132	126	262	119	95.7	72.1	68.2
MAX	397	681	221	1260	414	220	200	800	158	227	170	177
MIN	58	66	94	85	116	104	101	109	82	59	48	50
CFSM	.84	1.33	1.21	1.68	1.99	1.40	1.33	2.78	1.27	1.01	.76	.72
IN.	.97	1.48	1.40	1.93	2.15	1.61	1.49	3.20	1.41	1.17	.88	.81

CAL YR 1987 TOTAL 39611 MEAN 109 MAX 737 MIN 44 CFSM 1.15 IN. 15.61
WTR YR 1988 TOTAL 46975 MEAN 128 MAX 1260 MIN 48 CFSM 1.36 IN. 18.51

e Estimated

01581657 CRANBERRY RUN AT ABERDEEN, MD

LOCATION.--Lat 39°29′22″, long 76°11′32″, Harford County, Hydrologic Unit 02060003, on left bank at downstream side of bridge on U. S. Highway 40, 2.0 mi southwest of intersection with State Highway 132, and 2.1 mi upstream from mouth.

DRAINAGE AREA.--4.16 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1987 to September 1988.

GAGE.--Water-stage recorder and concrete block control. Elevation of gage is 25 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records fair except those for estimated daily values, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 443 ft^3/s, Aug. 24, 1988, gage height, 5.27 ft; minimum discharge, 0.11 ft^3/s, Aug. 14, 15, 17, 1988; minimum daily discharge, 0.16 ft^3/s, Aug. 14, 1988.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	0445	381	4.82	Aug. 24	2300	*443	*5.27
May 18	0715	341	4.51	Aug. 29	1530	371	4.74
May 19	0745	413	5.05				

Water year 1988: Minimum discharge, 0.11 ft^3/s, Aug. 14, 15, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.60	e.55	9.0	3.9	8.7	2.5	3.3	3.4	e.90	e.30	.46	.87
2	e.80	e.50	4.5	3.5	15	2.4	3.0	2.8	e.90	e.30	.42	.54
3	e2.5	e.50	2.7	2.2	14	2.5	2.7	2.4	e.90	e.25	.42	.52
4	e.60	e.50	3.3	3.0	20	27	2.7	3.3	e.90	e.25	.34	34
5	e.50	e.50	2.3	2.2	9.1	15	2.5	30	e.90	e.25	.26	12
6	e.50	e.50	2.0	1.7	4.7	7.3	2.2	46	e.85	e.25	.21	2.1
7	e3.6	e.50	1.7	1.5	3.2	5.8	17	15	e.80	e.25	.23	1.3
8	e.50	e.50	1.7	1.9	3.0	4.6	14	6.8	e1.5	e.25	.24	1.0
9	e.40	e.50	1.7	2.2	2.9	4.4	6.3	4.6	e1.0	.22	.24	.92
10	e.35	e8.0	1.9	2.2	2.9	4.1	4.3	3.9	e.80	.32	.24	.79
11	e.40	e6.0	2.6	1.9	5.4	3.3	3.5	16	e.70	2.3	.20	.64
12	e.40	e4.0	1.9	2.0	115	3.0	3.0	6.6	e.60	4.8	.22	.42
13	e.40	3.2	1.6	2.4	13	3.6	2.7	2.6	e.50	.51	.18	3.1
14	e.40	1.5	1.5	2.1	8.1	3.1	2.4	1.7	e.40	.33	.16	.86
15	e.40	.81	18	1.8	7.7	2.6	2.7	.92	e.35	.33	.17	e.35
16	e.40	.55	9.6	1.7	31	2.4	3.3	.83	e.35	.30	.21	e.25
17	e.40	.46	4.1	1.8	8.3	2.4	2.3	9.8	e.35	e.30	.22	e.30
18	e.45	1.2	2.7	12	6.3	2.4	3.8	106	e.40	e.35	.33	e.33
19	e.50	.41	2.4	9.6	36	2.7	3.9	99	e.40	e.50	.69	e.35
20	e.50	.28	5.3	81	37	2.4	2.4	17	e.35	5.6	.95	e.35
21	e.50	.24	3.6	18	9.7	2.2	2.1	10	e.35	2.1	.34	e.30
22	e.50	.60	2.5	9.3	5.6	2.2	1.9	6.4	e.35	1.4	.18	e.27
23	e.50	.69	2.4	6.2	4.9	2.2	1.8	10	e.35	26	.23	e.26
24	e.50	.68	2.0	4.5	4.2	2.2	3.4	16	e.35	5.9	52	.93
25	e.50	.70	2.2	11	3.4	2.2	2.0	17	e.30	.97	15	4.7
26	e.50	.78	12	15	2.8	32	1.8	5.3	e.30	14	1.2	1.1
27	e8.0	.78	4.8	6.8	2.7	24	19	2.4	e.35	4.8	.72	e.31
28	e2.0	2.0	4.3	3.8	3.1	7.1	33	e1.5	e.35	3.1	.51	e.30
29	e.80	70	7.6	3.0	2.8	5.0	7.0	e1.3	e.30	1.1	41	e.28
30	e.70	50	3.4	3.4	---	4.1	4.9	e1.1	e.30	.79	3.9	e.28
31	e.60	---	2.7	6.9	---	3.5	---	e1.0	---	.53	1.3	---
TOTAL	29.70	157.43	128.0	228.5	390.5	190.2	164.9	450.65	17.15	78.65	122.77	69.72
MEAN	.96	5.25	4.13	7.37	13.5	6.14	5.50	14.5	.57	2.54	3.96	2.32
MAX	8.0	70	18	81	115	32	33	106	1.5	26	52	34
MIN	.35	.24	1.5	1.5	2.7	2.2	1.8	.83	.30	.22	.16	.25
CFSM	.23	1.26	.99	1.77	3.24	1.47	1.32	3.49	.14	.61	.95	.56
IN.	.27	1.41	1.14	2.04	3.49	1.70	1.47	4.03	.15	.70	1.10	.62

WTR YR 1988 TOTAL 2028.17 MEAN 5.54 MAX 115 MIN .16 CFSM 1.33 IN. 18.14

e Estimated

01581657 CRANBERRY RUN AT ABERDEEN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1987 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR									
25...	1130	1.9	200	7.4	11.0	14.0	--	13.1	10
AUG									
17...	1440	0.23	250	6.4	22.0	31.5	2	8.2	9.2

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR								
25...	5.9	16	1.0	25	16	31	0.10	10
AUG								
17...	7.1	21	2.2	13	6.7	46	<0.10	11

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR									
25...	113	106	0.800	<0.010	340	170	50	58	3.2
AUG									
17...	153	111	4.60	0.020	740	93	130	76	2.0

01581658 CRANBERRY RUN AT PERRYMAN, MD

LOCATION.--Lat 39°28′42″, long 76°12′08″, Harford County, Hydrologic Unit 02060003, on right bank 150 ft downstream from bridge on Mayberry Road, 0.5 mi north of Perryman, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--5.22 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1987 to September 1988.

GAGE.--Water-stage recorder and concrete block control. Elevation of gage is 6.6 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 714 ft^3/s, Sept. 9, 1987, gage height, 6.20 ft, from floodmarks; minimum discharge, 0.39 ft^3/s, Aug. 23, 1987; minimum daily discharge, 0.50 ft^3/s, Aug. 21, 1987.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Sept. 9, 1987	0015	*714	*6.20	May 18, 1988	0800	430	4.90
Sept. 13, 1987	0130	Unknown	Unknown	May 19, 1988	0830	*513	*5.20
Feb. 12, 1988	0530	475	5.05	Aug. 24, 1988	2345	506	5.17

May to September 1987: Minimum discharge, 0.39 ft^3/s, Aug. 23.

Water year 1988: Minimum discharge, 0.59 ft^3/s, July 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY 1987 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	2.2	1.3	11	.62	.98
2	---	---	---	---	---	---	---	2.2	1.2	9.4	.64	.64
3	---	---	---	---	---	---	---	2.4	1.2	2.6	.64	.62
4	---	---	---	---	---	---	---	21	10	1.5	.64	.58
5	---	---	---	---	---	---	---	7.6	5.8	1.3	.67	.60
6	---	---	---	---	---	---	---	4.0	1.9	1.1	.76	.98
7	---	---	---	---	---	---	---	3.0	1.5	1.1	.70	1.5
8	---	---	---	---	---	---	---	2.5	1.4	1.3	.72	74
9	---	---	---	---	---	---	---	2.2	4.7	2.5	.74	e34
10	---	---	---	---	---	---	---	1.9	3.0	.98	.60	2.0
11	---	---	---	---	---	---	---	1.8	1.5	.85	.54	1.4
12	---	---	---	---	---	---	---	2.0	1.4	3.9	.54	18
13	---	---	---	---	---	---	---	2.0	1.4	2.1	.54	106
14	---	---	---	---	---	---	---	1.4	1.4	2.1	.54	7.4
15	---	---	---	---	---	---	---	5.0	1.2	1.5	.55	3.0
16	---	---	---	---	---	---	---	2.9	1.5	.97	.64	2.7
17	---	---	---	---	---	---	---	1.8	1.2	.97	.64	1.9
18	---	---	---	---	---	---	---	1.7	1.1	.93	.64	43
19	---	---	---	---	---	---	---	3.2	.97	.85	.64	11
20	---	---	---	---	---	---	---	20	.97	.83	.62	4.3
21	---	---	---	---	---	---	---	10	5.9	.74	.50	3.0
22	---	---	---	---	---	---	---	4.1	3.9	.74	1.1	3.0
23	---	---	---	---	---	---	---	2.9	1.9	.74	.51	2.0
24	---	---	---	---	---	---	---	2.5	1.2	.74	.54	1.6
25	---	---	---	---	---	---	---	2.1	1.1	.74	.60	1.4
26	---	---	---	---	---	---	---	2.0	.99	.80	.64	1.3
27	---	---	---	---	---	---	---	2.2	1.2	.82	.79	1.2
28	---	---	---	---	---	---	---	2.0	.99	.69	.74	1.2
29	---	---	---	---	---	---	2.2	1.6	.85	.55	.72	1.0
30	---	---	---	---	---	---	2.2	1.4	1.1	.59	.64	1.3
31	---	---	---	---	---	---	---	1.4	---	.64	.79	---
TOTAL	---	---	---	---	---	---	---	123.0	63.77	55.57	20.19	331.60
MEAN	---	---	---	---	---	---	---	3.97	2.13	1.79	.65	11.1
MAX	---	---	---	---	---	---	---	21	10	11	1.1	106
MIN	---	---	---	---	---	---	---	1.4	.85	.55	.50	.58
CFSM	---	---	---	---	---	---	---	.76	.41	.34	.12	2.12
IN.	---	---	---	---	---	---	---	.88	.45	.40	.14	2.36

e Estimated

01581658 CRANBERRY RUN AT PERRYMAN, MD--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	e1.1	8.0	4.4	8.3	3.8	4.1	4.6	2.6	.91	1.0	1.3
2	1.5	e1.1	4.7	4.2	15	3.7	3.8	4.1	2.7	.89	1.0	1.2
3	2.8	e1.0	3.5	3.0	14	3.7	3.7	3.7	2.6	.80	1.0	1.0
4	e1.5	e1.0	4.0	3.6	21	28	3.7	4.3	2.6	.80	.91	33
5	e1.0	e1.0	3.4	3.0	8.9	17	3.4	30	2.6	.80	.91	13
6	e1.0	e1.0	3.2	2.1	5.1	7.2	3.2	48	2.4	.80	.91	3.3
7	3.4	e1.0	3.0	1.9	4.5	5.8	16	15	2.2	.75	.91	2.1
8	1.0	e1.0	2.9	2.4	3.7	4.9	13	7.2	3.3	.70	.88	1.6
9	.85	e1.1	2.9	2.5	3.7	4.6	6.3	5.6	2.3	.77	.80	1.5
10	.80	e8.0	2.9	2.4	3.7	4.5	4.8	5.6	2.4	.78	.80	1.3
11	.86	6.0	3.8	2.3	4.9	3.9	4.2	16	1.9	1.9	.80	1.3
12	1.0	4.3	3.0	2.4	138	3.7	3.8	8.4	1.7	5.7	.80	1.2
13	1.0	3.6	2.5	2.5	13	4.1	3.6	5.0	1.3	1.1	.80	3.8
14	1.0	2.3	2.4	2.5	6.7	3.9	3.4	3.3	1.2	.89	.80	1.5
15	1.0	1.5	20	2.0	7.2	3.5	3.2	2.6	1.1	.80	.80	1.2
16	1.0	1.3	11	2.0	35	3.3	4.2	2.4	1.0	.80	.80	1.0
17	1.0	1.2	4.7	1.9	8.4	3.2	3.4	8.1	1.1	.80	.80	1.0
18	1.1	1.8	3.5	8.7	6.4	3.2	4.2	123	1.2	.85	.80	1.1
19	1.2	1.1	3.2	8.3	31	3.2	4.9	121	1.2	1.2	1.0	1.2
20	1.2	.94	5.6	81	45	3.2	3.7	20	1.1	4.9	1.6	1.2
21	1.2	1.2	4.4	20	10	2.9	3.3	11	1.0	3.1	1.0	1.2
22	1.2	1.4	3.4	9.5	6.0	2.9	2.9	7.2	1.0	1.9	.80	1.1
23	1.2	1.4	3.3	6.3	5.7	2.9	2.9	9.8	1.0	24	.81	1.0
24	1.2	1.4	2.9	5.0	5.2	2.9	4.3	17	1.0	8.1	49	1.2
25	e1.2	1.3	3.0	11	4.6	2.9	3.2	19	.91	1.4	32	5.4
26	e1.2	1.5	13	15	4.3	30	3.1	7.2	.91	14	2.0	1.6
27	7.0	1.6	5.2	6.1	4.3	28	13	5.0	1.0	6.5	1.3	1.3
28	7.7	2.2	4.6	5.2	4.4	7.0	38	4.2	1.0	4.3	1.2	1.1
29	1.6	56	7.9	3.7	4.1	5.2	7.3	3.7	.90	1.7	45	1.0
30	1.3	49	4.1	3.7	---	4.5	5.6	3.1	.83	1.3	6.0	.91
31	e1.2	---	3.3	6.5	---	4.2	---	2.8	---	1.1	2.1	---
TOTAL	51.61	158.34	153.3	235.1	432.1	211.8	184.2	527.9	48.05	94.34	159.33	89.61
MEAN	1.66	5.28	4.95	7.58	14.9	6.83	6.14	17.0	1.60	3.04	5.14	2.99
MAX	7.7	56	20	81	138	30	38	123	3.3	24	49	33
MIN	.80	.94	2.4	1.9	3.7	2.9	2.9	2.4	.83	.70	.80	.91
CFSM	.32	1.01	.95	1.45	2.85	1.31	1.18	3.26	.31	.58	.98	.57
IN.	.37	1.13	1.09	1.68	3.08	1.51	1.31	3.76	.34	.67	1.14	.64

WTR YR 1988 TOTAL 2345.68 MEAN 6.41 MAX 138 MIN .70 CFSM 1.23 IN. 16.72

e Estimated

01581658 CRANBERRY RUN AT PERRYMAN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1987 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR									
25...	1245	2.8	204	6.9	12.5	15.0	--	14.4	9.8
AUG									
17...	1400	0.83	207	6.6	21.5	31.5	1	9.0	9.7

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR								
25...	5.7	15	1.4	20	14	30	0.10	8.9
AUG								
17...	6.4	14	2.4	13	8.2	29	<0.10	8.4

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR									
25...	118	97	2.10	0.010	320	130	40	46	3.4
AUG									
17...	122	86	5.30	0.030	230	43	30	23	1.8

01581700 WINTERS RUN NEAR BENSON, MD

LOCATION.--Lat 39°31′12″, long 76°22′24″, Harford County, Hydrologic Unit 02060003, on left bank 30 ft downstream from bridge on U.S. Highway 1, 0.1 mi upstream from Heavenly Waters, 1.2 mi northeast of Benson, 1.8 mi southwest of Bel Air, and 10.5 mi upstream from mouth.

DRAINAGE AREA.--34.8 mi^2.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 195 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good below 200 ft^3/s and fair above, except those for estimated daily discharges, which are also fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 52.0 ft^3s, 20.29 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,600 ft^3/s, June 22, 1972, gage height, 11.60 ft; minimum discharge, 3.0 ft^3/s, Jan. 10, 1982, result of freezeup; minimum daily discharge, 6.7 ft^3/s, Aug. 28, 29, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0715	1,520	5.30	Aug. 24	2215	1,130	4.63
July 23	2115	*2,020	*6.04				

Minimum discharge, 12 ft^3/s, Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	24	76	e35	133	44	46	40	46	23	33	22
2	18	24	51	e35	94	43	44	36	44	23	23	20
3	19	23	41	34	78	42	43	36	43	23	e22	20
4	25	24	42	35	83	99	43	37	43	22	e20	86
5	21	24	39	e32	53	93	42	179	42	22	e19	105
6	19	23	37	31	41	58	38	337	41	21	e19	33
7	43	22	35	e30	e38	52	103	135	40	20	e18	26
8	24	22	32	34	e38	48	102	75	39	20	e18	23
9	20	23	31	e32	38	46	59	61	45	20	e17	22
10	19	48	34	e30	38	46	50	59	44	21	e17	21
11	19	95	33	e34	39	43	48	170	39	23	e16	20
12	19	53	30	e32	e360	43	44	116	37	32	e18	19
13	19	53	30	e30	89	43	41	72	35	24	e16	30
14	18	46	29	e30	68	44	40	63	34	20	e15	21
15	18	36	86	e32	61	39	40	54	33	19	e20	19
16	17	33	64	e30	158	39	40	50	33	18	e18	18
17	18	32	40	e28	66	39	36	e130	33	18	e16	18
18	18	35	36	e100	57	37	41	e410	33	18	14	20
19	19	30	34	e90	94	39	45	e200	32	29	15	20
20	18	28	45	e620	147	39	40	e100	30	39	24	19
21	26	28	39	100	71	36	37	e80	29	48	20	19
22	22	26	36	56	57	36	35	e70	28	33	16	17
23	20	26	35	43	53	36	34	e70	28	e260	15	17
24	20	26	33	39	50	37	53	e90	27	126	e180	18
25	19	25	32	43	47	37	39	81	26	34	92	48
26	18	24	61	42	44	112	35	65	27	101	25	25
27	e75	24	44	e38	45	112	52	59	25	105	21	20
28	e155	29	40	e36	47	55	108	56	25	47	20	19
29	39	e340	43	e36	46	48	47	54	24	31	122	17
30	31	e250	34	e36	---	46	44	50	24	26	47	18
31	28	---	37	46	---	45	---	47	---	26	26	---
TOTAL	864	1496	1279	1869	2233	1576	1469	3082	1029	1292	962	800
MEAN	27.9	49.9	41.3	60.3	77.0	50.8	49.0	99.4	34.3	41.7	31.0	26.7
MAX	155	340	86	620	360	112	108	410	46	260	180	105
MIN	17	22	29	28	38	36	34	36	24	18	14	17
CFSM	.80	1.43	1.19	1.73	2.21	1.46	1.41	2.86	.99	1.20	.89	.77
IN.	.92	1.60	1.37	2.00	2.39	1.68	1.57	3.29	1.10	1.38	1.03	.86

CAL YR 1987 TOTAL 16696.9 MEAN 45.7 MAX 750 MIN 9.9 CFSM 1.31 IN. 17.85
WTR YR 1988 TOTAL 17951 MEAN 49.0 MAX 620 MIN 14 CFSM 1.41 IN. 19.19

e Estimated

01582000 LITTLE FALLS AT BLUE MOUNT, MD

LOCATION.--Lat 39°36′16″, long 76°37′16″, Baltimore County, Hydrologic Unit 02060003, on left bank at downstream side of Pennsylvania Railroad bridge, 0.2 mi north of Blue Mount, 0.6 mi upstream from mouth, 0.9 mi downstream from First Mine Branch, and 1.2 mi south of White Hall.

DRAINAGE AREA.--52.9 mi^2.

PERIOD OF RECORD.--June 1944 to current year.

REVISED RECORDS.--WSP 111: 1944(M), 1945-47(P). WDR MD-DE-85-1: 1984(P).

GAGE.--Water-stage recorders. Elevation of gage is 305 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight diurnal fluctuation at low flow caused by mill upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 67.8 ft^3/s, 17.40 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,280 ft^3/s, June 22, 1972, gage height, 18.54 ft, from rating curve extended above 1,300 ft^3/s on basis of contracted-opening measurement of peak flow; minimum discharge, 1.9 ft^3/s, Aug. 29, 1966; minimum daily discharge, 4.5 ft^3/s, Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1745	1,190	4.48	Jan. 20	0700	*1,770	*5.66

Minimum discharge, 21 ft^3/s, Aug. 16, 17, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	41	112	57	177	70	67	65	83	43	36	31
2	32	40	88	56	131	70	66	62	81	42	34	29
3	34	39	77	53	117	73	65	61	79	41	34	28
4	35	39	79	54	113	116	69	65	79	40	33	108
5	32	38	71	49	94	110	64	112	77	39	32	66
6	32	36	64	e48	81	86	62	272	73	38	35	40
7	52	36	61	e48	e75	80	99	150	72	37	38	35
8	35	37	60	e55	e70	76	99	112	72	36	32	33
9	33	37	60	e50	e70	76	78	97	81	37	30	31
10	33	62	59	e48	67	75	71	96	75	40	29	31
11	34	82	58	e55	66	71	69	211	70	36	29	29
12	33	61	56	e50	204	70	66	133	67	40	28	28
13	32	64	54	e48	107	71	65	109	64	38	28	32
14	32	64	52	e48	105	70	63	100	62	35	27	29
15	32	58	72	e50	109	69	63	92	60	33	25	27
16	32	52	67	e46	170	66	65	90	76	31	24	26
17	31	50	59	e46	97	66	61	93	83	36	23	27
18	31	67	55	e130	90	65	68	198	64	42	23	30
19	31	53	54	108	102	66	70	259	61	42	27	29
20	31	50	65	625	163	65	62	151	59	39	36	27
21	58	48	60	130	105	62	60	169	56	95	32	27
22	37	44	57	99	92	61	57	131	54	96	26	26
23	34	43	55	83	90	62	58	121	52	68	28	25
24	33	44	53	75	85	62	66	133	49	86	87	25
25	32	42	56	78	79	61	58	141	48	45	52	38
26	32	41	68	75	76	113	56	113	48	46	32	31
27	108	41	59	70	76	106	70	103	46	65	30	27
28	170	52	59	e70	76	76	101	98	45	47	29	26
29	61	367	61	e70	73	72	70	95	45	43	71	25
30	50	244	53	e65	---	70	72	91	43	39	47	26
31	45	---	62	72	---	68	---	86	---	37	34	---
TOTAL	1330	1972	1966	2611	2960	2324	2060	3809	1924	1432	1071	992
MEAN	42.9	65.7	63.4	84.2	102	75.0	68.7	123	64.1	46.2	34.5	33.1
MAX	170	367	112	625	204	116	101	272	83	96	87	108
MIN	31	36	52	46	66	61	56	61	43	31	23	25
CFSM	.81	1.24	1.20	1.59	1.93	1.42	1.30	2.32	1.21	.87	.65	.63
IN.	.94	1.39	1.38	1.84	2.08	1.63	1.45	2.68	1.35	1.01	.75	.70

CAL YR 1987 TOTAL 21365 MEAN 58.5 MAX 587 MIN 21 CFSM 1.11 IN. 15.02
WTR YR 1988 TOTAL 24451 MEAN 66.8 MAX 625 MIN 23 CFSM 1.26 IN. 17.19

e Estimated

01582500 GUNPOWDER FALLS AT GLENCOE, MD

LOCATION.--Lat 39°32′59″, long 76°38′11″, Baltimore County, Hydrologic Unit 02060003, on right downstream wingwall of bridge on Glencoe Road at intersection of Upper Glencoe Road and Lower Glencoe Road in Glencoe, and 0.7 mi upstream from Piney Creek.

DRAINAGE AREA.--160 mi^2.

PERIOD OF RECORD.--December 1982 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 250 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Prettyboy Reservoir, 12 mi upstream, beginning Apr. 10, 1933, for water supply of Baltimore City (usable capacity, 20,000,000,000 gal; dead storage, 1,080,000,000 gal). Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,310 ft^3/s, Feb. 12, 1985, gage height, 13.16 ft, from floodmarks; minimum discharge, 35 ft^3/s, Jan. 4, 1983, result of freezeup; minimum daily discharge, 42 ft^3/s, Sept. 17, 18, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,560 ft^3/s, Jan. 20, gage height, 8.91 ft; minimum daily discharge, 83 ft^3/s, Sept. 23, 24, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	131	478	160	354	216	196	203	210	120	110	93
2	90	123	334	162	408	209	193	189	206	120	107	90
3	90	118	257	149	394	210	190	180	192	117	106	88
4	108	116	245	154	359	268	196	181	191	116	104	171
5	89	116	233	e150	319	348	196	250	191	114	104	161
6	86	117	207	e140	266	277	185	617	185	113	105	106
7	122	99	185	e140	243	255	233	521	176	112	116	98
8	111	96	177	e160	225	237	272	373	175	110	103	95
9	100	94	173	e150	216	227	239	300	190	110	100	92
10	94	124	171	e140	211	229	212	277	191	115	99	91
11	95	236	168	e160	206	216	196	524	178	109	99	89
12	98	196	163	e150	471	210	187	433	170	115	98	87
13	93	182	161	e140	365	212	184	336	162	115	97	94
14	89	185	151	e140	275	211	179	294	156	108	96	90
15	88	172	184	e150	263	206	177	264	151	105	94	86
16	88	157	210	e140	465	199	187	249	150	102	91	85
17	87	148	185	e140	318	193	176	254	215	104	133	85
18	87	182	164	e400	282	176	179	474	167	122	225	89
19	86	167	154	e340	277	146	208	570	156	122	227	88
20	86	156	175	1310	442	167	190	409	150	114	242	87
21	144	158	183	642	352	169	181	457	145	172	237	87
22	124	137	168	401	285	166	168	371	141	184	229	85
23	107	124	163	296	270	168	163	323	139	148	228	83
24	101	124	156	251	259	172	189	342	134	205	316	83
25	99	125	157	242	242	175	175	367	129	135	277	109
26	91	124	192	260	231	276	163	318	129	122	236	93
27	123	122	181	223	228	333	169	286	128	157	232	87
28	480	141	173	214	228	254	310	259	124	135	232	85
29	219	641	186	209	221	221	240	242	124	125	274	83
30	169	983	171	193	---	210	230	229	121	117	127	83
31	146	---	156	196	---	200	---	219	---	113	98	---
TOTAL	3691	5594	6061	7702	8675	6756	5963	10311	4876	3876	4942	2843
MEAN	119	186	196	248	299	218	199	333	163	125	159	94.8
MAX	480	983	478	1310	471	348	310	617	215	205	316	171
MIN	86	94	151	140	206	146	163	180	121	102	91	83
(†)	19984	20148	20066	20281	19968	19963	19973	20035	19886	19832	18486	18374

CAL YR 1987 TOTAL 50496 MEAN 138 MAX 1020 MIN 62 CFSM .86 IN. 11.74
WTR YR 1988 TOTAL 71290 MEAN 195 MAX 1310 MIN 83 CFSM 1.22 IN. 16.57

e Estimated
† Month-end contents, in millions of gallons in Prettyboy Reservoir (contents on Sept. 30, 1987, 20,266,000,000 gal). Records provided by Baltimore Department of Public Works.

01583100 PINEY RUN AT DOVER, MD

LOCATION.--Lat 39°31'15", long 76°46'02", Baltimore County, Hydrologic Unit 02060003, on right bank 400 ft downstream from bridge on Maryland Route 128, 0.7 mi upstream from mouth, and 2.4 mi southwest of Butler.

DRAINAGE AREA.--12.3 mi^2.

PERIOD OF RECORD.--May 1982 to February 1988 (discontinued).

REVISED RECORDS.--WDR MD-DE-87-1: 1984-86(P).

GAGE.--Water-stage recorder. Elevation of gage is 380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 14.2 ft^3/s, 15.68 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,220 ft^3/s, Sept. 8, 1987, gage height, 8.28 ft; minimum discharge, 2.4 ft^3/s, Aug. 15, 1986.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1445	423	3.86	Jan. 20	0530	*725	*4.70

Minimum discharge, 6.8 ft^3/s, Oct. 1, 2, 3, 4, 5, 6, 15, 16, 17, 18, 19, 20, 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO FEBRUARY 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	8.8	19	12	53	---	---	---	---	---	---	---
2	6.8	8.6	15	11	26	---	---	---	---	---	---	---
3	7.6	8.6	14	11	22	---	---	---	---	---	---	---
4	7.6	8.6	14	11	21	---	---	---	---	---	---	---
5	6.8	8.5	13	e10	16	---	---	---	---	---	---	---
6	6.9	8.2	12	e10	e15	---	---	---	---	---	---	---
7	10	8.3	12	10	e14	---	---	---	---	---	---	---
8	7.7	8.5	12	11	13	---	---	---	---	---	---	---
9	7.1	8.6	12	11	13	---	---	---	---	---	---	---
10	7.0	14	11	e10	13	---	---	---	---	---	---	---
11	7.3	16	11	e11	13	---	---	---	---	---	---	---
12	7.4	13	11	e9.5	44	---	---	---	---	---	---	---
13	7.0	14	11	10	19	---	---	---	---	---	---	---
14	7.0	13	10	e10	17	---	---	---	---	---	---	---
15	6.9	12	15	e9.5	26	---	---	---	---	---	---	---
16	6.8	11	13	e9.5	35	---	---	---	---	---	---	---
17	6.8	11	12	9.2	17	---	---	---	---	---	---	---
18	6.8	16	11	37	16	---	---	---	---	---	---	---
19	6.8	12	11	15	22	---	---	---	---	---	---	---
20	6.9	11	13	217	34	---	---	---	---	---	---	---
21	12	10	12	25	18	---	---	---	---	---	---	---
22	7.9	9.6	12	17	16	---	---	---	---	---	---	---
23	7.5	9.5	11	15	16	---	---	---	---	---	---	---
24	7.2	9.4	11	13	15	---	---	---	---	---	---	---
25	7.2	9.3	11	14	14	---	---	---	---	---	---	---
26	7.0	9.2	14	14	14	---	---	---	---	---	---	---
27	34	9.1	12	e13	14	---	---	---	---	---	---	---
28	27	12	12	e13	13	---	---	---	---	---	---	---
29	12	107	13	e12	13	---	---	---	---	---	---	---
30	10	40	11	12	---	---	---	---	---	---	---	---
31	9.3	---	11	14	---	---	---	---	---	---	---	---
TOTAL	285.3	444.8	382	606.7	582	---	---	---	---	---	---	---
MEAN	9.20	14.8	12.3	19.6	20.1	---	---	---	---	---	---	---
MAX	34	107	19	217	53	---	---	---	---	---	---	---
MIN	6.8	8.2	10	9.2	13	---	---	---	---	---	---	---
CFSM	.75	1.21	1.00	1.59	1.63	---	---	---	---	---	---	---
IN.	.86	1.35	1.16	1.83	1.76	---	---	---	---	---	---	---

CAL YR 1987 TOTAL 5026.1 MEAN 13.8 MAX 276 MIN 5.3 CFSM 1.12 IN. 15.20

e Estimated

01583500 WESTERN RUN AT WESTERN RUN, MD

LOCATION.--Lat 39°30′38″, long 76°40′37″, Baltimore County, Hydrologic Unit 02060003, on right bank 100 ft downstream from bridge on Western Run Road, 0.3 mi southeast of Western Run, 2.5 mi northwest of Cockeysville, 3.2 mi upstream from Beaverdam Run, and 5.0 mi upstream from mouth.

DRAINAGE AREA.--59.8 mi^2.

PERIOD OF RECORD.--September 1944 to current year.

REVISED RECORDS.--WSP 1502: 1945-46, 1948(M).

GAGE.--Water-stage recorder. Datum of gage is 262.78 ft above National Geodetic Vertical Datum of 1929 (Baltimore County bench mark).

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 68.3 ft^3/s, 15.51 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,000 ft^3/s, June 22, 1972, gage height, 26.0 ft, from floodmarks, from rating curve extended above 3,200 ft^3/s, on basis of slope-area measurement and contracted-opening measurement of peak flow; minimum discharge, 2.4 ft^3/s, Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1800	1,400	4.85	Jan. 20	0845	*2,350	*6.43

Minimum discharge, 19 ft^3/s, Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	44	110	59	176	e65	e60	61	63	35	32	29
2	33	43	84	56	121	e65	e60	58	63	34	31	27
3	35	42	73	53	120	e70	e60	57	62	34	30	26
4	38	42	78	55	110	e110	e60	58	61	33	29	77
5	34	40	71	e55	90	e100	e60	85	60	32	29	84
6	33	37	64	e50	76	e80	e60	285	56	31	29	39
7	48	37	60	e50	e75	e75	e70	136	55	31	30	33
8	36	38	59	e60	70	e75	e90	94	54	30	28	31
9	34	38	59	e55	66	e70	69	82	64	34	26	29
10	34	60	58	e50	65	e70	63	80	60	55	25	29
11	35	100	56	e60	64	e65	61	163	54	34	25	28
12	35	64	55	e55	208	e65	60	114	52	41	24	27
13	34	71	52	e50	103	e65	60	89	50	36	24	30
14	33	71	50	e50	83	e65	58	80	49	32	23	28
15	33	63	84	e55	87	e65	58	74	47	30	21	26
16	33	57	74	e50	178	e60	57	72	60	29	22	25
17	33	54	60	e50	92	e60	55	74	75	31	20	26
18	33	71	57	e140	84	e60	61	149	52	51	20	28
19	33	56	55	e90	92	e60	67	127	48	36	23	27
20	34	53	69	861	167	e60	58	99	46	38	32	26
21	56	50	62	133	99	e55	55	185	45	64	31	26
22	38	47	58	95	86	e55	54	105	43	55	25	25
23	36	47	57	80	84	e55	55	91	42	83	24	24
24	35	47	54	73	e80	e55	69	106	41	87	68	25
25	35	46	56	76	e75	e55	57	136	40	41	57	55
26	35	45	72	76	e70	e90	54	96	40	38	30	33
27	102	44	61	71	e70	e100	59	85	38	48	28	29
28	207	61	60	e70	e70	e80	122	79	37	45	27	28
29	61	458	65	e65	e70	e70	69	74	36	39	57	26
30	51	248	57	e60	---	e65	66	70	35	35	44	27
31	47	---	56	e60	---	e65	---	66	---	34	31	---
TOTAL	1398	2174	1986	2863	2831	2150	1907	3130	1528	1276	945	973
MEAN	45.1	72.5	64.1	92.4	97.6	69.4	63.6	101	50.9	41.2	30.5	32.4
MAX	207	458	110	861	208	110	122	285	75	87	68	84
MIN	33	37	50	50	64	55	54	57	35	29	20	24
CFSM	.75	1.21	1.07	1.54	1.63	1.16	1.06	1.69	.85	.69	.51	.54
IN.	.87	1.35	1.24	1.78	1.76	1.34	1.19	1.95	.95	.79	.59	.61

CAL YR 1987 TOTAL 22172 MEAN 60.7 MAX 844 MIN 20 CFSM 1.02 IN. 13.79
WTR YR 1988 TOTAL 23161 MEAN 63.3 MAX 861 MIN 20 CFSM 1.06 IN. 14.41

e Estimated

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD

LOCATION.--Lat 39°29′13″, long 76°38′42″, Baltimore County, Hydrologic Unit 02060003, on left bank 50 ft upstream from bridge on Beaverdam Run Lane, 600 ft downstream from bridge on Maryland Route 45 at Cockeysville, and 0.45 mi upstream from mouth.

DRAINAGE AREA.--20.9 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 239.04 ft above National Geodetic Vertical Datum of 1929. Previously operated as a low-flow site during water years 1955-59 and 1962-64 at site 600 ft upstream.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 26.7 ft^3/s, 17.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,360 ft^3/s, July 1, 1984, gage height 12.10 ft, from floodmarks, from rating curve extended above 1,000 ft^3/s; minimum discharge, 4.1 ft^3/s (revised), Oct. 1, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 650 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1645	904	6.45	Aug. 29	1330	668	5.46
Jan. 20	0815	820	6.14	Sept. 5	0245	727	5.72
July 23	1900	*965	*6.69				

Minimum discharge, 8.0 ft^3/s, Aug. 15.

REVISIONS.--Revised figures of discharge for water years 1983-1987, superseding those published in corresponding annual reports are given herein.

EXTREMES FOR WATER YEARS 1983-1987.--Peak discharges greater than base discharge of 650 ft^3/s and maximum (*):

Water Year	Date	Time	Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Time	Discharge (ft^3/s)	Gage height (ft)
1983	Mar. 27, 1983	1930	709	5.84	1985	Feb. 12, 1985	Unknown	*1,950	*a9.34
1983	Apr. 10, 1983	0830	665	5.71	1985	Sept. 27, 1985	0745	1,130	7.19
1983	Apr. 15, 1983	1530	*962	*6.68					
1983	June 20, 1983	2145	895	6.45	1986	Apr. 15, 1986	2330	*b473	*4.59
1984	Dec. 13, 1983	1400	744	5.87	1987	Dec. 24, 1986	2200	*823	*6.15
1984	Dec. 28, 1983	2030	924	6.52	1987	Sept. 12, 1987	2130	788	5.98
1984	June 13, 1984	2330	717	5.82					
1984	July 1, 1984	Unknown	*3,370	*a12.10					

a From floodmarks.
b No peak greater than base discharge.

Water year 1983: Minimum discharge, 7.2 ft^3/s, Jan. 18, 1983, gage height 1.10 ft.

Water year 1984: Minimum discharge, 10 ft^3/s, Oct. 6, 7, 10, 1983, gage height, 1.06 ft.

Water year 1985: Minimum discharge, 6.6 ft^3/s, Sept. 6, 1985, gage height, 0.83 ft.

Water year 1986: Minimum discharge, 4.4 ft^3/s, July 8, 1986, gage height, 0.73 ft.

Water year 1987: Minimum discharge, 4.1 ft^3/s, Oct. 1, 1986.

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e10	e10	e16	11	13	31	29	42	38	26	15	13
2	e10	e10	e17	11	96	28	36	40	34	25	16	12
3	e9.5	e10	e15	11	36	20	108	41	33	25	19	13
4	e9.0	e23	e14	11	21	19	37	42	39	28	28	12
5	e9.0	e50	e13	16	18	19	32	39	35	30	20	11
6	e9.0	e15	e13	13	18	25	30	37	32	25	20	11
7	e9.0	e12	e12	11	21	25	38	37	32	22	17	11
8	e9.0	e11	e11	11	16	163	50	43	29	22	15	11
9	e9.0	e10	e11	11	16	63	79	35	28	23	14	11
10	e8.8	e9.8	e10	49	15	67	276	32	28	21	13	10
11	e8.8	e9.8	e11	31	e13	37	74	32	28	20	68	11
12	e9.5	e9.8	e13	17	e16	30	47	31	27	21	25	12
13	e11	e25	e12	15	e19	27	40	31	25	21	19	14
14	e14	e14	e11	14	21	23	36	31	25	19	18	13
15	e12	e12	e13	18	21	23	410	46	25	19	15	12
16	e11	e11	76	16	24	22	239	152	25	19	14	12
17	e10	e11	22	13	25	21	78	59	24	18	14	12
18	e10	e11	16	11	30	92	62	41	64	18	15	11
19	e10	e10	14	11	26	100	56	44	98	19	14	9.8
20	e9.7	e10	13	11	25	38	55	40	213	18	14	11
21	e9.6	e10	14	11	24	100	50	109	103	18	14	28
22	e9.4	e10	13	12	31	39	48	140	44	18	14	18
23	e9.4	e10	11	82	40	32	47	97	36	17	14	12
24	e9.4	e10	11	27	29	29	182	51	32	20	13	12
25	e15	e10	11	19	26	27	78	44	30	17	13	11
26	e17	e10	11	17	22	25	53	69	27	16	13	11
27	e14	e10	12	16	21	167	47	45	25	17	13	11
28	e11	e12	15	15	19	69	45	38	51	15	13	12
29	e10	e60	12	14	---	40	43	58	52	15	12	12
30	e10	e18	11	16	---	34	42	85	29	14	12	31
31	e10	---	10	13	---	33	---	42	---	15	13	---
TOTAL	323.1	444.4	464	554	702	1468	2447	1673	1311	621	537	390.8
MEAN	10.4	14.8	15.0	17.9	25.1	47.4	81.6	54.0	43.7	20.0	17.3	13.0
MAX	17	60	76	82	96	167	410	152	213	30	68	31
MIN	8.8	9.8	10	11	13	19	29	31	24	14	12	9.8
CFSM	.50	.71	.72	.86	1.20	2.27	3.90	2.58	2.09	.96	.83	.62
IN.	.58	.79	.83	.99	1.25	2.61	4.36	2.98	2.33	1.11	.96	.70

WTR YR 1983 TOTAL 10935.3 MEAN 30.0 MAX 410 MIN 8.8 CFSM 1.43 IN. 19.46

e Estimated

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	16	25	27	22	35	55	41	33	e500	22	16
2	14	14	23	24	21	32	46	36	30	e75	21	16
3	12	17	23	25	55	31	43	101	29	e60	55	33
4	12	18	105	24	68	29	94	141	28	e45	42	33
5	12	17	32	24	45	42	199	60	27	e35	34	19
6	11	16	52	24	33	38	104	53	27	e50	24	17
7	11	13	34	23	26	33	72	48	26	e70	21	16
8	12	16	27	22	23	31	59	127	25	e50	19	16
9	12	15	24	22	22	33	51	70	25	e40	21	17
10	11	82	24	44	23	30	e46	54	25	e34	64	15
11	e13	59	21	36	33	30	e43	48	23	e32	29	15
12	e24	28	134	24	31	28	43	48	23	e30	37	15
13	e20	20	328	22	30	49	43	43	57	29	40	15
14	19	17	e70	24	154	49	59	39	79	27	34	16
15	14	34	e50	22	180	39	91	38	27	27	39	16
16	12	32	e40	19	83	37	76	36	25	27	24	15
17	12	19	e34	21	56	33	57	36	27	25	21	14
18	12	18	e32	21	48	32	51	36	26	38	20	14
19	21	17	e30	21	41	30	45	38	34	26	23	14
20	16	43	e28	20	35	30	42	36	26	25	25	13
21	14	61	e26	e19	33	54	41	35	24	43	19	15
22	14	24	e150	e20	31	37	43	33	23	32	18	14
23	116	21	e40	19	79	32	51	52	23	27	20	13
24	103	28	e34	27	81	31	46	37	34	25	18	12
25	28	99	e30	53	48	36	42	33	28	23	18	14
26	23	32	e28	90	40	51	39	32	24	22	19	12
27	18	25	e26	54	36	35	38	32	23	34	16	14
28	17	88	e240	39	58	99	37	31	21	25	17	29
29	16	51	e60	30	40	194	38	56	22	24	17	20
30	15	29	e30	25	---	93	49	54	24	22	17	18
31	14	---	e28	24	---	67	---	38	---	21	16	---
TOTAL	666	969	1828	889	1475	1420	1743	1562	868	1543	810	506
MEAN	21.5	32.3	59.0	28.7	50.9	45.8	58.1	50.4	28.9	49.8	26.1	16.9
MAX	116	99	328	90	180	194	199	141	79	500	64	33
MIN	11	13	21	19	21	28	37	31	21	21	16	12
CFSM	1.03	1.55	2.82	1.37	2.43	2.19	2.78	2.41	1.38	2.38	1.25	.81
IN.	1.19	1.72	3.25	1.58	2.63	2.53	3.10	2.78	1.54	2.75	1.44	.90

CAL YR 1983 TOTAL 13166.8 MEAN 36.1 MAX 410 MIN 9.8 CFSM 1.73 IN. 23.44
WTR YR 1984 TOTAL 14279 MEAN 39.0 MAX 500 MIN 11 CFSM 1.87 IN. 25.42

e Estimated

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	18	31	17	59	20	40	14	16	11	10	8.8
2	34	17	25	23	48	20	27	26	13	9.8	8.1	8.2
3	19	17	33	23	26	19	23	65	12	8.8	8.1	8.2
4	17	16	24	22	22	20	22	20	13	9.3	8.5	7.9
5	16	36	29	27	20	21	22	18	55	9.2	7.9	7.7
6	16	18	56	20	e19	17	19	16	16	8.2	11	7.6
7	16	17	26	19	e18	18	19	16	15	10	9.0	8.0
8	15	17	24	18	16	20	19	15	20	11	23	13
9	16	18	22	17	19	17	19	14	14	9.0	8.5	26
10	14	17	20	e16	16	18	18	13	13	29	9.9	9.7
11	14	20	20	e16	18	18	20	13	11	9.9	9.1	8.1
12	15	17	19	16	e600	23	19	25	12	10	8.0	8.0
13	15	17	19	16	e70	19	18	19	11	9.2	8.1	7.7
14	15	16	18	16	e44	17	17	14	11	8.7	8.1	7.6
15	14	16	19	15	e34	17	19	13	16	9.7	8.0	7.9
16	15	17	18	15	e30	17	18	21	20	9.7	7.8	7.5
17	15	16	17	e16	e26	16	17	57	11	8.3	8.5	7.8
18	14	17	17	e17	e25	16	17	27	11	8.0	11	7.8
19	14	24	20	e16	e24	17	17	18	12	8.2	8.7	7.5
20	15	17	18	15	23	17	16	16	9.8	8.2	8.6	7.6
21	14	16	26	e16	23	15	15	25	11	9.1	15	7.5
22	24	16	23	e16	23	17	15	19	11	12	7.8	7.3
23	42	15	18	16	23	46	16	46	9.6	8.3	7.5	7.9
24	33	15	18	15	24	32	16	22	9.3	7.6	8.7	9.4
25	22	15	18	15	23	26	16	18	10	18	27	7.7
26	19	16	17	16	22	20	16	16	8.8	11	12	18
27	18	16	17	15	21	19	15	13	12	13	9.0	356
28	22	126	17	e15	20	18	14	21	13	9.1	8.5	26
29	31	127	17	e14	---	26	12	17	9.6	7.8	8.2	19
30	20	40	16	14	---	36	14	14	9.7	8.0	8.4	18
31	18	---	16	16	---	40	---	20	---	13	8.0	---
TOTAL	623	770	678	528	1336	662	555	671	415.8	322.1	310.0	659.4
MEAN	20.1	25.7	21.9	17.0	47.7	21.4	18.5	21.6	13.9	10.4	10.0	22.0
MAX	51	127	56	27	600	46	40	65	55	29	27	356
MIN	14	15	16	14	16	15	12	13	8.8	7.6	7.5	7.3
CFSM	.96	1.23	1.05	.81	2.28	1.02	.89	1.04	.66	.50	.48	1.05
IN.	1.11	1.37	1.21	.94	2.38	1.18	.99	1.19	.74	.57	.55	1.17

CAL YR 1984 TOTAL 12887 MEAN 35.2 MAX 500 MIN 12 CFSM 1.68 IN. 22.94
WTR YR 1985 TOTAL 7530.3 MEAN 20.6 MAX 600 MIN 7.3 CFSM .99 IN. 13.40

e Estimated

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	12	36	14	19	21	16	17	11	7.7	6.2	6.1
2	21	11	28	13	20	20	16	16	10	18	14	22
3	43	12	21	15	17	19	15	16	10	8.1	7.8	8.9
4	28	56	21	14	52	22	16	17	11	7.1	6.3	8.1
5	17	61	21	14	34	21	18	13	10	7.9	6.3	8.6
6	13	28	23	12	25	21	33	15	9.9	6.2	5.8	7.9
7	11	20	19	12	23	20	21	15	11	5.8	6.2	6.2
8	13	16	19	12	22	20	18	13	9.5	6.1	11	6.5
9	12	16	16	11	24	19	17	15	7.8	6.6	7.0	7.1
10	12	15	16	12	21	18	17	15	9.3	6.5	5.6	6.5
11	12	16	17	12	22	27	16	15	8.6	6.1	6.0	6.8
12	13	17	17	13	20	20	16	13	12	7.5	6.4	6.5
13	11	16	43	11	17	33	17	13	10	6.1	5.8	6.6
14	9.8	15	23	12	17	63	15	14	7.8	6.3	5.6	5.9
15	12	15	19	12	19	49	56	14	8.3	5.6	5.8	6.0
16	12	26	17	12	18	33	107	14	12	7.4	5.5	6.9
17	11	23	17	12	23	25	49	14	15	6.9	37	6.5
18	10	15	15	12	65	26	35	12	8.3	8.1	11	6.3
19	11	15	14	34	49	24	26	17	8.2	8.8	9.7	6.5
20	14	15	13	29	45	22	23	19	9.2	50	20	6.6
21	30	14	14	17	41	20	22	28	7.4	14	50	6.4
22	40	71	14	15	33	20	25	17	7.2	9.0	13	6.4
23	26	26	15	14	37	20	23	13	7.7	7.7	8.2	5.9
24	20	20	16	14	29	18	20	13	10	7.0	6.3	8.3
25	17	16	20	53	30	18	19	13	8.1	6.8	6.3	7.6
26	12	16	14	119	25	18	18	11	7.4	7.0	7.1	6.7
27	11	18	13	43	26	18	19	12	6.8	6.7	7.1	6.4
28	10	51	14	e22	24	17	18	11	6.2	7.1	18	6.0
29	13	44	15	20	---	18	17	11	7.7	6.6	7.7	6.0
30	12	45	14	18	---	18	17	11	9.5	6.3	7.5	6.4
31	12	---	14	18	---	17	---	11	---	6.2	6.5	---
TOTAL	503.8	741	578	641	797	725	745	448	276.9	277.2	326.7	218.6
MEAN	16.3	24.7	18.6	20.7	28.5	23.4	24.8	14.5	9.23	8.94	10.5	7.29
MAX	43	71	43	119	65	63	107	28	15	50	50	22
MIN	9.8	11	13	11	17	17	15	11	6.2	5.6	5.5	5.9
CFSM	.78	1.18	.89	.99	1.36	1.12	1.19	.69	.44	.43	.50	.35
IN.	.90	1.32	1.03	1.14	1.42	1.29	1.33	.80	.49	.49	.58	.39

CAL YR 1985 TOTAL 7282.1 MEAN 20.0 MAX 600 MIN 7.3 CFSM .95 IN. 12.96
WTR YR 1986 TOTAL 6278.2 MEAN 17.2 MAX 119 MIN 5.5 CFSM .82 IN. 11.17

e Estimated

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	8.3	13	22	18	184	33	19	18	50	10	8.6
2	23	28	69	50	29	64	27	21	18	44	10	8.2
3	9.3	10	73	27	38	45	30	20	18	20	8.6	7.7
4	9.8	13	24	24	35	38	55	76	48	16	8.9	7.9
5	9.1	57	20	20	26	33	42	29	24	16	44	8.2
6	7.3	30	18	20	24	32	48	23	19	13	15	24
7	8.5	17	18	20	25	31	32	22	21	15	12	11
8	7.0	29	15	19	26	32	28	20	18	18	12	e250
9	6.4	17	37	19	22	28	26	20	25	14	13	77
10	6.5	12	23	25	21	27	26	20	20	13	13	21
11	7.3	90	32	21	21	25	24	17	17	13	10	17
12	6.3	23	24	20	21	26	23	21	17	53	9.4	105
13	15	16	20	18	20	25	21	18	19	21	7.5	117
14	21	15	18	18	20	25	21	16	19	33	8.5	24
15	8.4	12	16	19	18	25	21	38	16	17	9.3	69
16	7.9	12	16	18	16	23	37	21	20	14	9.3	38
17	7.2	11	15	18	17	23	47	19	15	14	7.8	27
18	7.4	27	63	41	18	23	27	19	14	14	8.1	50
19	6.6	22	25	91	18	23	29	36	14	14	8.3	23
20	7.0	61	20	41	17	22	23	128	26	11	8.5	27
21	7.9	38	18	28	18	23	23	38	26	11	7.7	22
22	7.1	18	16	22	18	21	22	28	19	11	32	32
23	7.1	15	16	e22	28	21	21	62	16	10	10	19
24	7.9	19	185	e22	26	22	29	37	15	10	8.9	17
25	8.1	15	e125	22	22	22	24	30	14	10	9.2	16
26	17	58	35	20	20	22	23	27	16	10	9.2	16
27	15	26	28	e20	21	22	20	25	15	9.5	9.9	17
28	12	18	24	e20	32	29	20	23	15	8.4	12	14
29	9.3	17	21	19	---	24	20	22	12	9.5	10	13
30	8.3	15	22	21	---	32	19	21	23	9.4	9.3	14
31	8.1	---	22	21	---	92	---	21	---	9.4	8.2	---
TOTAL	338.8	749.3	1071	788	635	1084	841	937	577	531.2	359.6	1100.6
MEAN	10.9	25.0	34.5	25.4	22.7	35.0	28.0	30.2	19.2	17.1	11.6	36.7
MAX	50	90	185	91	38	184	55	128	48	53	44	250
MIN	6.3	8.3	13	18	16	21	19	16	12	8.4	7.5	7.7
CFSM	.52	1.20	1.65	1.22	1.09	1.67	1.34	1.45	.92	.82	.56	1.76
IN.	.60	1.33	1.91	1.40	1.13	1.93	1.50	1.67	1.03	.95	.64	1.96

CAL YR 1986 TOTAL 6614.5 MEAN 18.1 MAX 185 MIN 5.5 CFSM .87 IN. 11.77
WTR YR 1987 TOTAL 9012.5 MEAN 24.7 MAX 250 MIN 6.3 CFSM 1.18 IN. 16.04

e Estimated

01583600 BEAVERDAM RUN AT COCKEYSVILLE, MD--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	46	20	35	22	27	22	23	14	15	15
2	13	13	36	20	48	22	23	20	23	14	16	13
3	19	14	32	20	44	23	23	20	22	13	16	15
4	16	14	32	20	46	63	24	21	22	12	14	67
5	13	14	27	17	32	37	22	77	23	12	13	137
6	12	13	25	18	27	30	23	139	20	13	13	23
7	27	13	22	16	26	26	57	64	20	13	14	19
8	13	14	21	17	24	25	35	48	20	11	12	18
9	13	13	21	18	23	24	27	38	26	25	13	17
10	14	57	20	16	22	24	26	48	22	17	13	17
11	16	44	20	20	31	23	24	62	20	23	12	16
12	13	40	20	16	124	23	23	44	20	18	12	14
13	12	36	19	18	40	23	23	35	18	14	12	24
14	14	28	18	16	32	21	22	31	17	12	12	14
15	13	25	56	19	33	21	24	28	16	12	20	13
16	14	19	26	17	48	20	21	26	56	11	16	13
17	15	18	22	16	33	20	21	78	44	25	12	14
18	14	34	21	47	28	20	32	104	23	21	12	15
19	13	19	21	26	55	21	24	78	21	30	13	13
20	18	18	33	398	54	20	21	54	19	54	24	13
21	25	17	22	88	36	19	20	77	17	32	16	14
22	15	17	21	48	29	23	20	49	18	26	12	13
23	14	15	21	34	28	23	23	43	17	186	28	12
24	16	15	19	29	26	23	24	53	16	41	58	16
25	16	14	20	33	27	23	19	56	16	22	20	53
26	16	14	37	30	25	117	19	39	17	38	15	15
27	126	15	23	24	25	54	56	33	16	25	15	14
28	58	45	23	22	25	35	44	31	16	24	14	13
29	25	340	25	22	23	28	28	30	17	19	93	13
30	19	83	20	23	---	26	25	26	15	18	22	13
31	18	---	20	28	---	24	---	25	---	17	17	---
TOTAL	643	1036	789	1156	1049	903	800	1499	640	812	594	666
MEAN	20.7	34.5	25.5	37.3	36.2	29.1	26.7	48.4	21.3	26.2	19.2	22.2
MAX	126	340	56	398	124	117	57	139	56	186	93	137
MIN	12	13	18	16	22	19	19	20	15	11	12	12
CFSM	.99	1.65	1.22	1.78	1.73	1.39	1.28	2.31	1.02	1.25	.92	1.06
IN.	1.14	1.84	1.40	2.06	1.87	1.61	1.42	2.67	1.14	1.45	1.06	1.19

CAL YR 1987 TOTAL 9321.4 MEAN 25.5 MAX 340 MIN 7.5 CFSM 1.22 IN. 16.59
WTR YR 1988 TOTAL 10587 MEAN 28.9 MAX 398 MIN 11 CFSM 1.38 IN. 18.84

01584050 LONG GREEN CREEK AT GLEN ARM, MD

LOCATION.--Lat 39°27′17″, long 76°28′45″, Baltimore County, Hydrologic Unit 02060003, on right bank 0.5 mi downstream from bridge on Glen Arm Road, 0.6 mi upstream from State Highway 147 (Harford Road), 0.8 mi east of Glen Arm, and 1.6 mi upstream from mouth.

DRAINAGE AREA.--9.40 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 230 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 11.1 ft^3/s, 16.04 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,250 ft^3/s, July 1, 1984, gage height, 6.70 ft, from rating curve extended above 1,300 ft^3/s; minimum discharge, 1.0 ft^3/s, Jan. 29, 1977, gage height, 0.79 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb. 12	Unknown	383	3.75	July 23	2045	*497	*4.03
May 17	2145	369	3.71	July 26	2115	312	3.54

Minimum discharge, 3.3 ft^3/s, July 17, gage height, 1.01 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	5.1	12	7.6	26	9.9	9.8	9.0	9.4	5.4	6.4	5.9
2	4.0	4.8	10	7.5	21	9.9	9.6	9.0	9.2	5.4	6.0	5.3
3	4.9	4.7	9.3	6.8	18	9.9	9.5	8.7	9.2	5.3	5.6	4.9
4	4.8	4.7	9.3	7.5	22	23	9.3	9.3	9.0	5.1	5.5	18
5	4.2	4.6	8.7	6.7	14	15	9.2	23	8.9	5.0	5.0	30
6	4.0	4.4	8.1	6.4	11	12	8.7	51	8.7	4.8	5.1	8.9
7	8.8	4.2	7.7	6.3	10	11	16	19	8.3	4.8	4.9	7.4
8	4.7	4.6	7.6	7.2	10	11	12	14	8.3	4.4	4.7	6.6
9	4.5	4.5	7.3	6.6	10	10	10	12	9.1	4.4	4.6	6.1
10	4.5	8.6	7.3	e6.5	9.9	10	9.3	e15	8.8	4.3	4.4	5.8
11	4.5	9.8	7.2	7.4	11	9.9	9.1	22	8.1	5.2	4.4	5.5
12	4.4	9.0	6.9	6.7	e90	9.9	8.7	13	7.7	5.9	4.8	5.3
13	4.2	9.0	6.6	6.4	16	9.9	8.7	12	7.6	4.8	4.3	7.5
14	4.2	8.2	6.4	6.5	13	9.6	8.9	11	7.3	4.3	4.0	5.5
15	4.0	7.0	15	6.9	14	9.3	8.7	11	7.0	4.0	5.3	4.9
16	4.0	6.2	11	e6.0	26	9.0	8.6	10	7.4	3.8	4.9	4.7
17	4.0	6.1	8.8	5.9	14	9.0	8.0	46	8.0	4.2	4.0	4.7
18	4.0	7.0	8.1	18	13	9.0	9.1	68	7.7	4.4	3.9	5.0
19	4.0	6.1	7.7	13	26	9.1	9.1	27	7.3	4.8	4.7	5.0
20	4.0	5.9	9.6	37	25	8.9	8.5	18	7.1	5.6	6.0	4.8
21	4.2	5.6	8.4	16	14	8.3	8.3	17	6.8	7.6	5.0	4.7
22	4.0	5.1	8.0	12	12	8.3	8.0	14	6.5	7.1	4.2	4.4
23	4.0	5.0	7.8	10	13	8.3	8.0	14	6.3	66	5.6	4.4
24	4.0	5.0	7.0	9.6	12	8.6	9.0	18	6.1	18	24	4.7
25	4.0	5.0	7.0	11	11	8.7	8.3	18	6.0	7.2	12	14
26	4.0	5.0	11	10	11	19	8.0	13	6.2	40	5.6	6.3
27	21	5.0	8.8	9.0	11	16	14	12	5.9	20	5.0	5.4
28	14	6.4	8.5	8.9	11	11	16	11	5.8	22	4.6	5.0
29	6.5	67	9.5	8.6	10	10	9.9	11	5.5	9.6	39	4.7
30	5.7	30	7.8	8.3	---	9.9	9.7	10	5.4	7.7	9.5	4.7
31	5.3	---	7.4	11	---	9.7	---	9.8	---	6.8	6.8	---
TOTAL	166.7	263.6	265.8	297.3	504.9	333.1	290.0	555.8	224.6	307.9	219.8	210.1
MEAN	5.38	8.79	8.57	9.59	17.4	10.7	9.67	17.9	7.49	9.93	7.09	7.00
MAX	21	67	15	37	90	23	16	68	9.4	66	39	30
MIN	4.0	4.2	6.4	5.9	9.9	8.3	8.0	8.7	5.4	3.8	3.9	4.4
CFSM	.57	.93	.91	1.02	1.85	1.14	1.03	1.91	.80	1.06	.75	.75
IN.	.66	1.04	1.05	1.18	2.00	1.32	1.15	2.20	.89	1.22	.87	.83

CAL YR 1987 TOTAL 3358.4 MEAN 9.20 MAX 125 MIN 2.2 CFSM .98 IN. 13.29
WTR YR 1988 TOTAL 3639.6 MEAN 9.94 MAX 90 MIN 3.8 CFSM 1.06 IN. 14.40

e Estimated

01585100 WHITEMARSH RUN AT WHITE MARSH, MD

LOCATION.--Lat 39°22′15″, long 76°26′46″, Baltimore County, Hydrologic Unit 02060003, on left bank at upstream side of bridge on State Highway 7, 1.0 mi southwest of White Marsh, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--7.61 mi^2.

PERIOD OF RECORD.--February 1959 to current year.

REVISED RECORDS.--WDR MD-DE-73-1: 1960(M), 1967-68, 1969(M). WDR MD-DE-79-1: 1965-66(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 38.96 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Low flow affected by operations of sand and gravel plant in vicinity of gage. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--29 years, 11.3 ft^3/s, 20.16 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft^3/s, Aug. 1, 1971, gage height, 14.05 ft, from rating curve extended above 1,300 ft^3/s on basis of a culvert measurement at gage height 10.04 ft and on basis of a culvert and flow-over-road measurement at gage height 14.05 ft; no flow for part of Mar. 20, 1965, caused by construction work upstream from station; minimum daily discharge, 0.10 ft^3/s, Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1515	944	5.09	July 23	2030	1,330	6.97
May 17	2130	904	4.92	July 28	0115	1,260	6.63
May 23	2115	1,320	6.90	Aug. 29	1430	984	5.28
May 24	1815	*1,450	*7.53				

Minimum discharge, 0.59 ft^3/s, Aug. 14, 15, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.6	9.8	4.5	16	3.6	4.6	3.7	4.8	1.4	2.2	1.6
2	1.4	2.9	6.5	3.5	44	4.5	3.8	3.5	4.8	1.3	1.9	1.3
3	5.1	2.2	5.0	3.3	24	3.4	3.9	3.2	4.1	e1.3	1.6	1.3
4	2.7	2.7	7.3	7.0	33	55	4.2	5.6	4.0	e1.4	1.4	87
5	1.4	2.4	4.5	e4.6	e9.0	13	3.6	65	3.6	e1.3	1.3	16
6	1.4	2.5	3.5	e2.8	e6.5	7.4	3.5	92	3.3	e1.2	1.4	3.8
7	22	2.7	3.4	e2.4	4.5	6.1	41	15	2.8	e1.2	1.7	2.3
8	2.1	3.0	3.6	e2.8	e4.2	5.1	14	7.5	2.8	e1.1	1.0	2.1
9	1.4	3.9	3.4	e3.0	e4.0	5.1	6.6	6.4	4.3	e1.1	.90	1.8
10	1.4	34	4.1	e3.2	3.8	4.5	4.9	7.2	2.9	e1.1	.87	1.8
11	1.9	15	9.1	e2.8	26	4.1	4.3	17	e2.6	e35	1.0	1.5
12	1.6	21	3.7	e2.6	166	4.1	4.0	6.7	e2.2	e18	.96	1.5
13	1.3	11	3.0	e3.2	13	4.8	3.8	4.7	e2.0	e3.5	.81	7.3
14	1.3	6.2	3.1	e3.2	8.5	3.9	3.9	4.1	e2.0	e2.5	.75	2.0
15	1.4	3.7	67	e2.8	18	3.7	4.0	3.8	e1.9	e2.0	5.9	1.4
16	1.4	2.9	12	e2.6	53	3.5	4.2	3.9	e2.0	e1.4	3.5	1.5
17	1.5	3.0	5.7	e2.6	15	3.5	3.5	82	e3.6	e1.4	.90	1.6
18	1.5	11	4.4	e30	8.1	3.6	10	134	2.2	e2.0	.67	1.8
19	1.6	3.1	3.5	e12	60	3.5	5.5	45	1.7	e3.0	1.1	1.9
20	1.6	2.9	16	151	36	3.3	3.7	15	1.8	14	18	1.8
21	3.7	2.9	5.7	17	11	2.9	3.5	9.6	1.7	9.7	3.1	1.9
22	1.8	2.5	4.3	8.3	7.6	3.0	3.1	7.1	1.6	7.6	1.3	1.6
23	1.6	2.3	5.5	6.1	8.2	3.2	3.0	93	1.6	117	3.7	2.0
24	1.6	2.0	3.3	5.3	6.3	3.5	4.6	167	1.5	18	45	4.7
25	1.7	1.8	4.2	15	4.9	3.5	3.0	54	1.5	4.5	2.8	36
26	1.6	1.7	35	e15	4.2	78	2.9	16	1.8	72	1.3	3.7
27	61	2.1	6.6	e7.5	4.4	22	26	10	1.6	16	1.1	2.2
28	13	12	7.4	4.6	5.1	7.3	18	7.8	1.6	138	1.1	2.0
29	3.5	236	15	4.2	4.0	5.9	5.3	6.5	1.5	6.1	68	1.9
30	2.9	41	7.7	4.9	---	4.8	4.9	5.8	1.9	3.3	6.4	2.1
31	2.8	---	4.1	17	---	4.3	---	5.0	---	2.4	2.5	---
TOTAL	150.7	443.0	277.4	354.8	608.3	284.1	211.3	907.1	75.7	489.8	184.16	199.4
MEAN	4.86	14.8	8.95	11.4	21.0	9.16	7.04	29.3	2.52	15.8	5.94	6.65
MAX	61	236	67	151	166	78	41	167	4.8	138	68	87
MIN	1.3	1.7	3.0	2.4	3.8	2.9	2.9	3.2	1.5	1.1	.67	1.3
CFSM	.64	1.94	1.18	1.50	2.76	1.20	.93	3.85	.33	2.08	.78	.87
IN.	.74	2.17	1.36	1.73	2.97	1.39	1.03	4.43	.37	2.39	.90	.97

CAL YR 1987 TOTAL 3390.94 MEAN 9.29 MAX 304 MIN .33 CFSM 1.22 IN. 16.58
WTR YR 1988 TOTAL 4185.76 MEAN 11.4 MAX 236 MIN .67 CFSM 1.50 IN. 20.46

e Estimated

01585300 STEMMERS RUN AT ROSSVILLE, MD

LOCATION.--Lat 39°20′28″, long 76°29′17″, Baltimore County, Hydrologic Unit 02060003, on left bank 500 ft upstream from bridge on State Highway 7, at Rossville, 0.9 mi upstream from Brien Run, and 2.1 mi upstresm from mouth.

DRAINAGE AREA.--4.46 mi^2.

PERIOD OF RECORD.--December 1958 to September 1972, October 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 21.64 ft above National Geodetic Vertical Datum of 1929 (Baltimore County bench mark). Prior to Sept. 30, 1972, at site on old channel about 550 ft southeast of present site at datum 2.40 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight diurnal fluctuation at times from unknown source. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--28 years (water years 1960-72, 1974-88), 6.49 ft^3/s, 19.76 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,950 ft^3/s, Aug. 1, 1971, gage height, 11.34 ft, from high-water mark in well, site and datum then in use, from rating curve extended above 1,100 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 0.02 ft^3/s, Aug. 21, 1987, gage height, 1.12 ft; minimum daily discharge, 0.03 ft^3/s, Aug. 20, 21, Sept. 3, 4, 5, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1445	854	3.73	July 23	1945	*1,410	4.41
May 23	2045	935	3.82	July 28	0030	818	3.69
May 24	1745	Unknown	*a5.70	Aug. 29	1345	1,100	4.03

a Backwater

Minimum discharge, 0.09 ft^3/s, Aug. 14, 15, 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.40	.61	3.8	1.9	7.1	2.0	2.1	1.6	1.8	.33	.56	.40
2	e.40	.61	2.4	1.5	25	2.0	1.9	1.5	1.7	.28	.49	.33
3	e1.6	.57	1.9	1.5	13	2.0	1.9	1.5	1.5	.29	.38	.29
4	e.70	.60	2.7	3.0	19	36	2.1	2.1	1.6	.30	.35	51
5	e.40	.55	1.7	1.5	4.7	6.9	1.8	28	1.5	.29	.30	4.0
6	e.40	.50	1.3	1.1	3.2	3.3	1.6	52	1.4	.28	.31	.99
7	e7.0	.54	1.2	.93	2.3	2.7	24	7.3	1.3	.26	.39	.62
8	e.60	.57	1.2	1.3	2.2	2.3	7.9	3.2	1.2	.22	.27	.50
9	e.40	.61	1.3	1.4	2.1	2.3	3.2	2.6	1.8	.22	.21	.47
10	e.40	17	1.4	1.5	2.1	2.2	2.3	3.2	1.3	.21	.21	.41
11	e.60	6.4	3.8	1.3	20	1.9	2.1	7.6	1.1	24	.21	.37
12	e.50	8.0	1.4	1.2	115	1.9	1.9	2.6	.98	4.9	.18	.35
13	e.40	4.0	1.1	1.5	8.5	2.2	1.8	2.0	.92	.82	.17	2.6
14	e.40	e2.4	1.0	1.5	4.3	1.8	1.7	1.8	.91	.44	.15	.49
15	.43	e1.4	30	1.0	11	1.8	1.7	1.7	.84	.36	.42	.37
16	.40	e1.0	5.0	1.0	25	1.7	1.9	1.7	.88	.28	1.2	.29
17	.43	e1.0	2.2	1.2	4.4	1.6	1.6	32	1.6	.28	.15	.30
18	.47	5.6	1.7	14	3.5	1.5	6.2	63	.95	.41	.21	.35
19	.43	1.3	1.6	5.7	36	1.6	2.5	28	.72	.94	.60	.40
20	.42	1.1	8.7	109	18	1.5	1.7	6.7	.69	5.6	9.2	.37
21	.86	1.2	2.4	9.3	5.1	1.4	1.6	4.2	.61	4.6	1.5	.31
22	.63	1.0	1.8	4.4	3.2	1.4	1.5	3.0	.61	3.7	.30	.24
23	.40	.89	2.3	3.0	3.1	1.3	1.4	39	.55	83	.95	.23
24	.42	.87	1.6	2.4	2.9	1.4	2.1	e100	.48	4.9	22	1.1
25	.40	.82	1.9	10	2.5	1.4	1.4	18	.46	1.0	.63	21
26	.38	.83	17	9.7	2.3	51	1.4	5.0	.49	31	.28	1.1
27	29	.79	2.8	3.0	2.3	12	15	3.4	.46	5.0	.22	.53
28	5.2	7.2	3.2	2.3	2.7	3.1	7.8	2.8	.39	45	.24	.38
29	1.1	142	6.5	2.0	2.2	2.4	2.2	2.6	.35	1.9	50	.36
30	.73	17	2.1	2.8	---	2.3	2.3	2.3	.34	.88	1.9	.36
31	.66	---	1.8	8.9	---	2.1	---	2.0	---	.64	.65	---
TOTAL	56.56	226.96	118.8	210.83	352.7	159.0	108.6	432.4	29.43	222.33	94.63	90.51
MEAN	1.82	7.57	3.83	6.80	12.2	5.13	3.62	13.9	.98	7.17	3.05	3.02
MAX	29	142	30	109	115	51	24	100	1.8	83	50	51
MIN	.38	.50	1.0	.93	2.1	1.3	1.4	1.5	.34	.21	.15	.23
CFSM	.41	1.70	.86	1.52	2.73	1.15	.81	3.13	.22	1.61	.68	.68
IN.	.47	1.89	.99	1.76	2.94	1.33	.91	3.61	.25	1.85	.79	.75

CAL YR 1987 TOTAL 1560.91 MEAN 4.28 MAX 142 MIN .03 CFSM .96 IN. 13.02
WTR YR 1988 TOTAL 2102.75 MEAN 5.75 MAX 142 MIN .15 CFSM 1.29 IN. 17.54

e Estimated

01585500 CRANBERRY BRANCH NEAR WESTMINSTER, MD

LOCATION.--Lat 39°35′35″, long 76°58′05″, Carroll County, Hydrologic Unit 02060003, on left bank 80 ft upstream from culvert, 0.7 mi upstream from mouth, and 1.8 mi northeast of Westminster.

DRAINAGE AREA.--3.29 mi^2.

PERIOD OF RECORD.--September 1949 to current year.

REVISED RECORDS.--WSP 1432: Drainage area, 1954-55. WDR MD-DE-75-1: 1972(M). WDR MD-DE-79-1: 1973-78(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 670 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Occasional small diversions to and releases from Cranberry Reservoir located offstream 1 mi upstream from station since August 1957, capacity, 113,700,000 gal. Beginning October 1972 occasional large diversions past the gaging station from the reservoir through a 30-inch pipe. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--39 years, 3.41 ft^3/s, 14.08 in/yr, unadjusted for storage and diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,220 ft^3/s, Sept. 26, 1975, gage height, 7.47 ft, from rating curve extended above 200 ft^3/s on the basis of culvert measurements at gage heights 5.54 ft and 7.47; minimum daily discharge, 0.16 ft^3/s, Oct. 29, 30, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1345	92	2.84	May 18	0700	120	3.00
Jan. 20	0445	*140	*3.10				

Minimum discharge, 0.39 ft^3/s, Jan. 10, gage height, 1.37 ft, result of regulation; minimum daily discharge, 0.67 ft^3/s, Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.94	.87	3.7	1.9	8.8	2.1	2.9	2.8	2.0	2.2	1.0	.79
2	.90	1.3	2.0	1.7	6.7	1.2	3.2	2.6	1.7	1.7	1.0	.80
3	1.7	1.6	1.9	1.8	5.5	2.7	3.1	2.5	1.3	1.0	.96	.87
4	.99	1.7	2.6	1.2	5.6	6.6	3.2	2.4	1.3	1.1	.91	4.1
5	.93	1.7	2.6	1.3	4.0	5.5	2.7	3.6	1.3	1.2	.92	1.7
6	1.0	1.6	1.6	1.6	3.5	3.3	3.0	14	1.2	1.1	1.0	.90
7	2.1	1.7	1.3	2.6	2.0	3.2	3.9	4.8	1.1	1.1	1.2	.86
8	.91	.90	1.2	1.5	3.0	2.6	3.9	2.5	1.1	1.0	.94	.93
9	1.1	1.7	2.0	1.1	3.0	1.9	3.1	1.3	1.2	1.2	.86	.88
10	1.0	5.2	2.1	e1.0	3.0	3.0	1.9	3.7	1.1	1.1	.83	.83
11	1.1	3.9	1.7	1.2	3.0	2.6	1.9	7.2	1.1	1.0	.83	.79
12	1.4	4.2	1.3	1.6	8.0	1.8	2.1	2.7	1.1	1.1	.84	.83
13	1.4	4.3	2.1	1.0	3.8	2.0	2.7	1.3	1.1	.98	.92	.82
14	1.1	3.6	.96	1.4	2.9	2.1	2.5	1.9	1.1	.95	.96	.80
15	.94	2.8	2.6	1.0	5.8	1.7	2.9	1.5	1.2	.89	.83	.76
16	1.2	2.8	1.9	e1.0	6.7	1.6	2.9	1.3	1.4	.96	.74	.76
17	1.0	2.8	1.3	1.5	4.2	1.6	2.8	5.7	2.0	.95	.76	.90
18	.84	4.6	2.5	5.0	4.0	1.9	3.4	25	1.8	.95	.75	.82
19	1.2	2.9	1.7	2.4	6.1	1.8	3.2	11	1.9	.98	.86	.75
20	1.1	2.8	2.8	38	7.3	1.9	2.7	5.2	1.7	2.1	1.2	.87
21	2.4	2.6	2.1	4.9	4.5	1.4	2.5	8.2	1.4	6.6	.98	.90
22	1.8	2.4	1.7	3.5	3.6	1.5	2.5	2.0	1.2	3.3	.82	.83
23	1.8	2.5	1.4	2.4	3.7	1.7	2.6	2.1	1.1	1.8	.99	.91
24	1.8	2.5	1.5	1.8	3.5	1.8	2.8	3.6	1.1	1.1	3.3	.90
25	1.3	2.3	1.5	2.7	3.2	1.1	2.5	3.3	2.2	1.1	1.0	1.7
26	1.8	1.8	3.9	3.4	3.1	6.9	2.5	2.5	2.4	1.1	.88	.95
27	5.7	1.9	3.1	3.3	3.2	4.8	6.2	2.4	1.8	1.3	.82	.77
28	4.0	.99	1.5	2.9	2.8	2.2	5.7	2.2	1.6	1.1	.81	.69
29	2.3	27	1.7	2.6	3.2	1.8	3.4	2.0	2.3	1.0	.95	.67
30	1.5	8.9	1.2	2.7	---	2.3	3.1	1.8	2.2	.99	.87	.68
31	1.4	---	1.3	4.1	---	2.5	---	1.5	---	.99	.86	---
TOTAL	48.65	105.86	60.76	104.1	127.7	79.1	91.8	134.6	45.0	43.94	30.59	29.76
MEAN	1.57	3.53	1.96	3.36	4.40	2.55	3.06	4.34	1.50	1.42	.99	.99
MAX	5.7	27	3.9	38	8.8	6.9	6.2	25	2.4	6.6	3.3	4.1
MIN	.84	.87	.96	1.0	2.0	1.1	1.9	1.3	1.1	.89	.74	.67
CFSM	.48	1.07	.60	1.02	1.34	.78	.93	1.32	.46	.43	.30	.30
IN.	.55	1.20	.69	1.18	1.44	.89	1.04	1.52	.51	.50	.35	.34

CAL YR 1987 TOTAL 999.02 MEAN 2.74 MAX 42 MIN .37 CFSM .83 IN. 11.30
WTR YR 1988 TOTAL 901.86 MEAN 2.46 MAX 38 MIN .67 CFSM .75 IN. 10.20

e Estimated

01586000 NORTH BRANCH PATAPSCO RIVER AT CEDARHURST, MD

LOCATION.--Lat 39°30′00″, long 76°53′00″, Carroll County, Hydrologic Unit 02060003, on left bank at downstream side of private footbridge at Cedarhurst, 0.8 mi downstream from Roaring Run, 8 mi southeast of Westminster, and 16.5 mi upstream from confluence with South Branch.

DRAINAGE AREA.--56.6 mi^2.

PERIOD OF RECORD.--September 1945 to current year.

REVISED RECORDS.--WSP 1903: 1959-60.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 425 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight diurnal fluctuation at low and medium flow caused by mill upstream from station. Low flow affected slightly by Cranberry Reservoir since August 1957, capacity, 113,700,000 gal. Records do not include a mean discharge of 2.84 ft^3/s diverted upstream from station for municipal supply of Westminster; sewage effluent discharged into Little Pipe Creek in Monocacy River basin. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 63.6 ft^3/s, 15.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,800 ft^3/s, June 22, 1972, gage height, 20.75 ft, from high-water mark in well, from rating curve extended above 4,100 ft^3/s on basis of contracted-opening measurement of peak flow; minimum discharge, 1.3 ft^3/s, Sept. 17, 1983 and Aug. 10, 1985, result of regulation; minimum daily discharge, 3.1 ft^3/s, Sept. 10, 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1715	1,820	5.79	Jan. 20	0815	*2,100	*6.20

Minimum discharge, 3.9 ft^3/s, July 31, result of regulation, gage height, 1.17 ft; minimum daily discharge, 15 ft^3/s, Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	33	101	51	149	58	55	59	63	31	29	22
2	23	32	77	49	114	57	54	55	63	31	26	22
3	33	31	66	43	104	59	53	51	60	31	26	22
4	39	31	72	45	96	108	55	52	60	30	25	113
5	27	31	66	e42	e75	100	50	80	58	27	24	66
6	27	30	59	e39	e66	73	47	262	54	27	24	33
7	55	30	53	36	e64	67	62	120	52	26	30	27
8	33	31	51	38	63	64	76	90	52	25	24	25
9	29	29	50	42	59	64	59	75	62	48	21	24
10	29	62	50	40	58	63	54	76	56	46	21	24
11	29	77	49	37	57	60	51	165	51	30	21	23
12	28	58	47	37	145	58	49	88	48	34	20	22
13	25	63	46	40	e75	60	49	73	46	31	20	29
14	24	58	43	36	e60	57	47	68	44	28	19	24
15	24	49	70	33	78	55	47	65	44	26	17	22
16	24	43	62	34	127	52	47	64	43	24	16	21
17	26	41	50	37	76	52	46	83	58	34	15	23
18	26	70	46	90	71	51	51	331	46	39	16	25
19	24	46	47	68	83	52	58	171	43	29	20	23
20	25	43	65	639	137	52	48	124	41	41	33	22
21	67	41	54	108	85	49	46	166	40	102	28	23
22	33	38	49	80	73	47	44	108	38	73	19	21
23	29	36	48	68	71	48	44	97	36	55	20	21
24	28	37	44	63	68	48	55	102	36	61	91	22
25	29	37	48	65	65	49	44	114	35	36	58	52
26	26	35	75	65	62	106	42	89	36	35	27	28
27	78	36	57	55	63	93	90	83	35	58	24	23
28	122	55	52	e50	62	63	143	78	33	43	23	21
29	49	508	58	e44	60	59	71	71	33	35	43	20
30	39	194	46	53	---	56	67	68	31	32	36	21
31	36	---	45	62	---	54	---	65	---	31	25	---
TOTAL	1110	1905	1746	2189	2366	1934	1704	3193	1397	1199	841	864
MEAN	35.8	63.5	56.3	70.6	81.6	62.4	56.8	103	46.6	38.7	27.1	28.8
MAX	122	508	101	639	149	108	143	331	63	102	91	113
MIN	23	29	43	33	57	47	42	51	31	24	15	20
CFSM	.63	1.12	1.00	1.25	1.44	1.10	1.00	1.82	.82	.68	.48	.51
IN.	.73	1.25	1.15	1.44	1.56	1.27	1.12	2.10	.92	.79	.55	.57

CAL YR 1987 TOTAL 21838 MEAN 59.8 MAX 1030 MIN 14 CFSM 1.06 IN. 14.35
WTR YR 1988 TOTAL 20448 MEAN 55.9 MAX 639 MIN 15 CFSM .99 IN. 13.44

e Estimated

01586210 BEAVER RUN NEAR FINKSBURG, MD

LOCATION.--Lat 39°29′22″, long 76°54′12″, Carroll County, Hydrologic Unit 02060003, on downstream center line of bridge pier on Hughes Road, 0.25 mi northwest of intersection of Hughes Road and Maryland Route 91, and 0.75 mi southwest of Finksburg.

DRAINAGE AREA.--14.0 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 439.12 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 15.4 ft^3/s, 14.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,920 ft^3/s, Feb. 12, 1985, gage height, 5.45 ft, from rating curve extended above 600 ft^3/s; minimum discharge, 2.0 ft^3/s, Sept. 12, 1983, Sept. 17, 18, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0600	*650	*3.59	No other peak greater than base discharge.			

Minimum daily discharge, 4.0 ft^3/s, Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	e9.1	25	13	37	16	15	15	17	7.6	6.9	5.6
2	6.0	e8.6	21	12	28	16	15	15	16	7.6	6.7	5.3
3	7.5	e8.2	18	13	26	16	14	14	16	7.6	6.5	5.2
4	7.4	e8.2	19	12	25	27	15	13	16	e7.2	6.4	27
5	6.1	e8.1	17	e11	21	25	14	23	15	e6.8	6.3	18
6	5.9	e8.0	16	e10	e19	20	13	60	15	e6.6	6.2	7.6
7	12	e8.0	15	e10	18	19	17	33	14	e6.2	6.5	6.5
8	7.0	e8.1	14	e11	e17	18	20	25	14	e6.4	5.9	6.2
9	6.3	e7.9	13	e12	e16	17	16	23	16	e6.8	5.5	6.2
10	6.2	20	13	e11	16	17	15	24	15	e7.2	5.4	5.9
11	6.3	18	13	e10	15	17	14	41	13	7.6	5.4	5.9
12	6.5	14	13	e10	36	17	13	27	13	8.6	5.3	5.9
13	6.3	14	12	e12	26	17	13	24	12	8.3	5.2	5.9
14	6.2	13	12	e10	e17	16	13	22	12	7.3	5.0	5.7
15	6.2	11	21	e9.0	21	15	13	21	11	6.6	4.6	5.3
16	6.2	10	16	e10	30	15	12	20	11	6.3	4.4	5.2
17	6.2	10	14	e11	20	15	12	25	11	12	4.1	5.2
18	6.2	18	13	e24	19	14	14	48	11	8.9	4.0	5.8
19	6.2	12	13	18	23	14	14	38	11	7.3	4.5	5.6
20	6.7	11	17	199	31	14	13	32	10	26	6.6	5.5
21	17	11	14	30	23	14	12	40	10	23	6.1	5.5
22	7.7	9.9	13	23	22	13	12	30	9.9	15	5.0	5.3
23	6.9	9.5	13	20	21	13	13	27	9.7	14	5.2	5.0
24	6.7	9.8	12	18	20	13	17	28	9.5	14	17	5.1
25	6.7	9.9	13	19	18	13	13	35	9.0	9.2	9.5	12
26	6.9	9.9	17	19	17	31	12	25	8.7	9.2	6.0	6.5
27	26	9.9	14	e15	17	25	19	23	8.6	11	5.6	5.9
28	27	15	14	e14	17	18	31	21	8.7	14	5.3	5.4
29	12	117	14	e13	16	16	18	20	8.3	9.5	10	5.3
30	11	43	13	e15	---	16	17	19	7.9	7.9	7.6	5.3
31	e9.7	---	13	e17	---	15	---	18	---	7.3	5.9	---
TOTAL	270.9	470.1	465	631.0	632	532	449	829	359.3	303.0	194.6	210.8
MEAN	8.74	15.7	15.0	20.4	21.8	17.2	15.0	26.7	12.0	9.77	6.28	7.03
MAX	27	117	25	199	37	31	31	60	17	26	17	27
MIN	5.9	7.9	12	9.0	15	13	12	13	7.9	6.2	4.0	5.0
CFSM	.62	1.12	1.07	1.45	1.56	1.23	1.07	1.91	.86	.70	.45	.50
IN.	.72	1.25	1.24	1.68	1.68	1.41	1.19	2.20	.95	.81	.52	.56

CAL YR 1987 TOTAL 5360.1 MEAN 14.7 MAX 136 MIN 3.3 CFSM 1.05 IN. 14.24
WTR YR 1988 TOTAL 5346.7 MEAN 14.6 MAX 199 MIN 4.0 CFSM 1.04 IN. 14.21

e Estimated

01586610 MORGAN RUN NEAR LOUISVILLE, MD

LOCATION.--Lat 39°27′07″, long 76°57′20″, Carroll County, Hydrologic Unit 02060003, on right downstream wingwall of bridge on London Bridge Road, 1.4 mi southwest of Gamber, and 1.65 mi south of the intersection of Maryland Route 32, and 1.7 mi west of Louisville.

DRAINAGE AREA.--28.0 mi^2.

PERIOD OF RECORD.--October 1982 to current year.

REVISED RECORDS.--WRD MD-DE-84: 1983(P).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 430 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--6 years, 31.6 ft^3/s, 15.33 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,350 ft^3/s, Feb. 12, 1985, gage height, 8.26 ft, from floodmarks, from rating curve extended above 1,900 ft^3/s; minimum daily discharge, 4.0 ft^3/s, Sept. 18, 19, 20, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1545	784	4.69	Jan. 20	0630	*1,010	*5.17

Minimum discharge, 8.1 ft^3/s, Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	17	54	27	56	33	34	32	30	13	14	11
2	11	16	42	25	53	32	32	30	30	13	13	9.8
3	15	16	36	24	53	33	31	29	29	13	13	9.6
4	17	16	39	24	49	58	32	29	29	12	12	43
5	13	15	35	22	43	53	30	44	28	12	12	38
6	12	14	30	e21	37	41	29	125	26	11	17	15
7	21	14	28	e19	e35	40	38	75	25	11	15	13
8	14	14	27	e22	e34	38	44	56	24	11	12	11
9	13	14	27	e23	34	38	36	48	29	11	11	11
10	12	32	27	e22	33	37	33	46	27	13	11	11
11	13	36	26	e21	33	35	31	65	24	16	11	9.9
12	13	26	25	e21	68	34	30	45	23	20	10	9.3
13	12	29	24	e22	42	34	30	41	21	14	10	11
14	12	28	23	e20	e35	33	28	39	20	12	9.5	10
15	12	23	40	e19	42	32	28	37	20	11	11	8.9
16	12	21	33	e21	57	31	27	36	19	11	13	8.5
17	12	21	27	e23	42	30	27	41	19	21	9.1	8.7
18	12	34	25	e45	40	30	30	74	20	18	8.8	9.6
19	12	24	25	37	47	30	31	56	19	14	9.5	9.4
20	12	22	33	340	63	29	27	52	18	48	15	9.0
21	34	21	29	66	47	28	26	75	17	38	13	9.5
22	16	19	26	49	42	27	25	51	17	25	10	8.6
23	14	18	26	42	42	27	26	46	16	26	9.9	8.2
24	14	18	25	38	40	27	39	51	16	27	34	8.2
25	13	18	25	40	38	27	28	62	15	17	17	20
26	13	18	33	39	36	65	26	45	15	16	12	12
27	31	18	28	34	36	55	35	41	14	17	11	10
28	51	27	27	e30	36	39	58	38	14	52	10	9.4
29	23	223	29	e27	34	36	37	36	14	20	19	8.9
30	19	98	26	e32	---	35	35	34	13	16	15	8.9
31	18	---	27	39	---	33	---	32	---	15	12	---
TOTAL	508	910	927	1234	1247	1120	963	1511	631	574	399.8	370.4
MEAN	16.4	30.3	29.9	39.8	43.0	36.1	32.1	48.7	21.0	18.5	12.9	12.3
MAX	51	223	54	340	68	65	58	125	30	52	34	43
MIN	11	14	23	19	33	27	25	29	13	11	8.8	8.2
CFSM	.59	1.08	1.07	1.42	1.54	1.29	1.15	1.74	.75	.66	.46	.44
IN.	.67	1.21	1.23	1.64	1.66	1.49	1.28	2.01	.84	.76	.53	.49

CAL YR 1987 TOTAL 10777.3 MEAN 29.5 MAX 223 MIN 5.9 CFSM 1.05 IN. 14.32
WTR YR 1988 TOTAL 10395.2 MEAN 28.4 MAX 340 MIN 8.2 CFSM 1.01 IN. 13.81

e Estimated

01589000 PATAPSCO RIVER AT HOLLOFIELD, MD

LOCATION.--Lat 39°18′36″, long 76°47′34″, Baltimore County, Hydrologic Unit 0206003, on left bank at downstream side of highway bridge at Hollofield, 0.3 mi downstream from Dogwood Run, 3.0 mi north of Ellicott City and 28 mi upstream from mouth.

DRAINAGE AREA.--285 mi^2.

PERIOD OF RECORD.--May 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 187.7 ft above National Geodetic Vertical Datum of 1929. June 26 to Dec. 8, 1972, nonrecording gage at same site and datum. Prior to June 22, 1972, water-stage recorder at site on opposite bank at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Flow regulated by Liberty Reservoir, 11 mi upstream, beginning July 22, 1954, usable capacity, 42,070,000,000 gal; dead storage, 1,260,000,000 gal. Diversions upstream from station for municipal supply of Westminster (sewage effluent discharged into Little Pipe Creek), and from Liberty Reservoir beginning Feb. 26, 1953, for municipal supply of Baltimore, and beginning February 1970 for a small municipal supply for part of Carroll County. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,600 ft^3/s, June 22, 1972, gage height, 31.3 ft, from flood-marks, from rating curve extended above 27,000 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 6 ft^3/s, Sept. 6, 1944; minimum daily discharge, 7.9 ft^3/s, Oct. 12, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,940 ft^3/s, Jan. 20, gage height, 7.60 ft; minimum daily discharge, 33 ft^3/s, Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e46	62	187	97	208	116	118	109	e130	e55	67	40
2	e44	62	136	93	222	115	118	105	e130	e55	58	36
3	e55	62	113	84	254	117	114	101	e125	e55	55	34
4	e60	62	116	88	230	161	119	104	e120	e55	53	95
5	e50	60	110	e85	e170	230	113	187	e120	e50	50	189
6	e50	57	98	e80	e140	150	109	558	e110	e50	59	77
7	e80	56	93	75	e130	139	145	291	e110	e48	65	54
8	e65	58	97	81	e125	128	188	195	e110	e46	47	48
9	e55	60	183	87	e120	125	141	165	e130	e90	42	46
10	e55	116	176	81	e120	125	124	157	e120	e80	40	44
11	e55	327	86	79	e120	119	116	193	e110	e55	39	41
12	e50	212	79	85	e300	119	111	163	e100	e60	39	39
13	e48	126	75	90	e150	123	109	137	e95	e55	40	47
14	e46	116	73	81	e130	120	107	126	e90	e50	37	47
15	45	99	163	73	e150	116	105	120	e90	46	35	39
16	45	86	151	75	e220	113	102	116	e90	43	36	36
17	44	80	98	77	e170	112	100	220	e120	42	34	37
18	45	138	89	172	e140	113	114	684	e95	46	33	41
19	45	96	86	194	e160	115	134	432	e80	53	34	42
20	47	83	111	e1600	257	112	109	254	e75	65	64	41
21	84	74	108	300	174	109	103	727	e70	130	65	42
22	62	67	92	204	146	106	100	254	e70	92	42	41
23	54	67	89	167	144	106	99	224	e65	291	37	38
24	53	69	85	149	139	108	107	364	e65	187	83	41
25	55	68	85	152	129	106	100	408	e65	76	56	103
26	55	67	136	158	123	284	97	e230	e65	77	43	67
27	149	67	106	e160	123	270	111	e190	e60	98	39	49
28	e250	130	97	e110	125	159	237	e170	e60	356	37	44
29	84	859	111	e100	120	140	129	e150	e60	118	94	40
30	71	501	95	e120	---	135	118	e140	e55	86	79	40
31	65	---	86	140	---	125	---	e130	---	77	47	---
TOTAL	2012	3987	3410	5137	4739	4216	3597	7404	2785	2687	1549	1578
MEAN	64.9	133	110	166	163	136	120	239	92.8	86.7	50.0	52.6
MAX	250	859	187	1600	300	284	237	727	130	356	94	189
MIN	44	56	73	73	120	106	97	101	55	42	33	34
(†)	30636	30118	30919	32473	34709	36048	36641	40666	40576	38833	35230	33093
(≠)	197	130	137	156	142	139	150	138	211	195	189	207

CAL YR 1987 TOTAL 41967 MEAN 115 MAX 939 MIN 24 ≠ 103
WTR YR 1988 TOTAL 43101 MEAN 118 MAX 1600 MIN 33 ≠ 166

e Estimated
† Month-end contents, in millions of gallons in Liberty Reservoir (contents on Sept. 30, 1987, 32,140,000,000 gal). Records provided by Baltimore Department of Public Works.
≠ Diversions, in cubic feet per second, upstream from station for municipal supply of city of Westminster; and from Liberty Reservoir for municipal supply of city of Baltimore, and for part of Carroll County. Records provided by cities of Westminster and Baltimore, respectively.

01589100 EAST BRANCH HERBERT RUN AT ARBUTUS, MD

LOCATION.--Lat 39°14′24″, long 76°41′33″, Baltimore County, Hydrologic Unit 02060003, on left bank 50 ft upstream from bridge on Tom Day Boulevard at U.S. Route 1 in Arbutus, 0.5 mi upstream from mouth, and 2 mi south of Baltimore city limits.

DRAINAGE AREA.--2.47 mi^2.

PERIOD OF RECORD.--August 1957 to current year.

REVISED RECORDS.--WDR MD-DE-81: 1979.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 45 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to August 1981 at site 100 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight regulation at low flow from unknown source upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--31 years, 3.26 ft^3/s, 17.92 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,460 ft^3/s, Sept. 6, 1979, gage height, 13.7 ft, present site, from floodmarks, from rating curve extended above 280 ft^3/s on basis of culvert measurement at gage height 5.0 ft, present site, and culvert and flow-over-road measurement of peak flow at gage height 13.7 ft, present site, from floodmarks; minimum daily discharge, 0.30 ft^3/s, July 24, Sept. 4, 11, 1966, Oct. 12, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 23	1915	501	4.75	Aug. 29	1245	*594	*5.22

Minimum daily discharge, 0.36 ft^3/s, Aug. 28, Sept. 11, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	.83	3.0	1.5	2.7	1.5	1.3	1.1	.98	.43	.57	.52
2	.62	e.80	1.9	1.5	14	1.5	1.2	1.1	.98	.43	e.55	.52
3	5.3	e.80	2.0	1.5	5.8	1.5	1.1	1.1	.98	.50	e.50	.49
4	.90	e.80	3.1	2.6	8.8	16	1.3	1.1	.98	.48	e.50	17
5	.64	e.80	1.6	1.2	2.7	2.9	1.3	19	.94	.44	e.50	1.5
6	.87	e.80	1.4	1.1	1.9	1.9	1.3	20	.86	.57	e1.0	.60
7	6.2	e.80	1.3	1.4	1.8	1.8	14	3.0	.91	.51	e.80	.51
8	.72	e.80	1.3	1.7	1.8	1.7	5.0	1.6	4.1	.51	e.50	.48
9	.72	e.80	1.3	1.5	1.8	1.7	1.7	1.6	6.6	.51	e.45	.46
10	.72	e16	1.7	1.3	1.7	1.7	1.4	2.3	.95	.48	e.45	.44
11	.72	4.4	4.5	1.4	16	1.5	1.4	2.3	.72	10	e.45	.36
12	.72	8.3	1.5	1.5	31	1.5	1.3	1.5	.72	2.3	e.45	.38
13	.72	4.4	1.2	1.9	3.6	1.9	1.3	1.1	.72	.65	e.45	1.2
14	.72	2.4	1.1	1.2	2.4	1.5	1.3	.98	.69	.74	e.40	.41
15	.72	1.4	14	1.1	4.8	1.4	1.4	.98	.59	.62	e.60	.38
16	.72	1.3	2.2	1.3	7.0	1.3	1.3	.97	7.7	.64	e1.3	.38
17	.72	1.7	1.6	1.4	2.4	1.3	1.3	11	3.3	2.3	e.50	.52
18	.72	4.6	1.5	7.8	2.2	1.3	4.7	19	.79	1.4	e.40	.52
19	e.72	.88	1.5	3.2	14	1.3	1.4	8.6	.67	1.5	e.40	.45
20	e.72	.72	5.5	37	5.2	1.3	1.1	3.4	.59	8.7	e2.6	.43
21	e1.2	.61	1.5	4.5	2.4	1.3	.96	5.3	.51	5.2	e.80	.42
22	e.90	.73	1.7	2.6	1.9	1.3	1.2	1.7	.51	2.0	e.50	.36
23	e.70	.67	1.6	2.1	2.1	1.3	1.3	11	.58	25	4.7	.37
24	e.70	.72	1.3	1.9	2.0	1.3	1.3	4.9	.51	2.4	6.9	4.4
25	e.70	1.1	1.6	7.8	1.8	1.3	1.1	2.6	.51	1.1	1.2	9.8
26	e.70	.84	8.5	5.3	1.8	29	1.1	1.6	.50	21	.56	.69
27	e28	1.4	1.6	1.9	1.9	4.1	13	1.4	.43	2.7	.41	.38
28	3.5	11	4.6	1.8	1.9	1.9	2.9	1.3	.43	2.0	.36	.39
29	1.1	75	4.6	1.8	1.7	1.3	1.1	1.3	.43	.91	25	.39
30	.95	7.7	1.6	2.2	---	1.3	1.1	1.1	.50	.68	1.4	.41
31	.84	---	1.5	3.6	---	1.3	---	1.1	---	.59	.69	---
TOTAL	63.80	153.10	83.3	108.6	149.1	91.9	71.16	135.03	39.68	97.29	55.89	45.16
MEAN	2.06	5.10	2.69	3.50	5.14	2.96	2.37	4.36	1.32	3.14	1.80	1.51
MAX	28	75	14	37	31	29	14	20	7.7	25	25	17
MIN	.62	.61	1.1	1.1	1.7	1.3	.96	.97	.43	.43	.36	.36
CFSM	.83	2.07	1.09	1.42	2.08	1.20	.96	1.76	.54	1.27	.73	.61
IN.	.96	2.31	1.25	1.64	2.25	1.38	1.07	2.03	.60	1.47	.84	.68

CAL YR 1987 TOTAL 1079.91 MEAN 2.96 MAX 75 MIN .43 CFSM 1.20 IN. 16.26
WTR YR 1988 TOTAL 1094.01 MEAN 2.99 MAX 75 MIN .36 CFSM 1.21 IN. 16.48

e Estimated

01589300 GWYNNS FALLS AT VILLA NOVA, MD

LOCATION.--Lat 39°20'45", long 76°44'01", Baltimore County, Hydrologic Unit 02060003, on right bank 300 ft downstream from bridge on Essex Road, 300 ft north of State Highway 26 (Liberty Road), in Villa Nova, 1.1 mi west of Baltimore city limits, and 11.5 mi upstream from mouth.

DRAINAGE AREA.--32.5 mi^2.

PERIOD OF RECORD.--February 1957 to September 1988 (discontinued).

REVISED RECORDS.--WDR MD-DE-83: 1981-82(P). WDR MD-DE-84: 1981(P).

GAGE.--Water-stage recorder. Datum of gage is 361.32 ft above National Geodetic Vertical Datum of 1929 (Baltimore County bench mark). Prior to Aug. 27, 1963 and Oct. 25, 1972, to Sept. 20, 1973, water-stage recorder, and June 26, 1972 to Oct. 24, 1972, nonrecording gage, at site 300 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight diurnal fluctuation at times from unknown source upstream from station. Small diversion for irrigation upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--31 years, 38.6 ft^3/s, 16.13 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft^3/s, June 22, 1972, gage height, 21.5 ft, from flood-marks, from rating curve extended above 4,200 ft^3/s on basis of contracted-opening measurement of peak flow; minimum discharge, 1.7 ft^3/s, Sept. 7, 8, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 21, 1956, reached a stage of 12.6 ft, discharge, 5,270 ft^3/s on basis of contracted-opening measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 27	2030	981	5.08	July 23	2000	1,530	6.48
Nov. 29	1530	*1,570	*6.57	July 28	0215	1,380	6.11
Jan. 20	0630	1,050	5.27	Sept. 5	0745	855	4.72

Minimum discharge, 8.1 ft^3/s, July 17, Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	45	25	59	25	29	24	23	12	16	13
2	11	17	34	23	87	25	26	23	21	11	15	11
3	16	15	29	21	80	26	25	22	21	11	14	10
4	19	15	38	24	84	109	28	26	21	11	13	119
5	12	15	30	22	42	64	24	147	21	11	13	204
6	11	14	24	e22	31	35	23	346	20	11	17	27
7	36	14	22	e22	30	31	53	73	19	9.8	16	18
8	13	14	22	e25	e27	28	47	39	18	10	13	15
9	11	14	21	e23	e25	29	29	34	26	9.5	12	14
10	11	73	21	e22	e25	27	26	36	22	13	12	13
11	12	80	21	e25	34	25	24	80	19	28	12	12
12	12	60	20	e23	258	25	24	47	18	41	11	12
13	11	59	19	e22	50	27	23	31	17	14	11	26
14	11	48	18	e22	39	24	23	28	16	11	10	13
15	11	35	107	e23	35	23	24	26	16	10	15	12
16	11	26	46	e22	73	23	23	25	48	9.1	24	11
17	12	25	28	22	36	23	22	98	24	18	10	11
18	12	63	23	91	33	22	41	235	18	28	9.1	12
19	12	27	23	39	75	23	35	156	16	27	10	12
20	12	23	53	456	104	22	24	53	16	119	41	11
21	43	21	30	64	41	22	22	169	15	67	17	12
22	14	19	25	41	32	21	21	45	15	36	11	11
23	12	19	24	32	32	22	21	45	15	351	12	11
24	12	19	22	28	30	22	27	149	13	121	74	18
25	12	18	24	39	28	21	21	125	13	25	17	85
26	11	18	71	39	27	208	21	44	13	42	11	18
27	199	19	31	31	27	98	85	35	12	67	10	14
28	176	86	32	30	28	37	122	31	13	285	9.7	12
29	29	617	42	e30	27	31	33	28	12	29	163	11
30	21	129	26	27	---	28	29	26	11	20	32	11
31	18	---	24	42	---	26	---	24	---	17	15	---
TOTAL	815	1618	995	1377	1499	1172	975	2270	552	1474.4	665.8	779
MEAN	26.3	53.9	32.1	44.4	51.7	37.8	32.5	73.2	18.4	47.6	21.5	26.0
MAX	199	617	107	456	258	208	122	346	48	351	163	204
MIN	11	14	18	21	25	21	21	22	11	9.1	9.1	10
CFSM	.81	1.66	.99	1.37	1.59	1.16	1.00	2.25	.57	1.46	.66	.80
IN.	.93	1.85	1.14	1.58	1.72	1.34	1.12	2.60	.63	1.69	.76	.89

CAL YR 1987 TOTAL 13305.8 MEAN 36.5 MAX 702 MIN 6.5 CFSM 1.12 IN. 15.23
WTR YR 1988 TOTAL 14192.2 MEAN 38.8 MAX 617 MIN 9.1 CFSM 1.19 IN. 16.24

e Estimated

01589440 JONES FALLS AT SORRENTO, MD

LOCATION.--Lat 39°23′30″, long 76°39′42″, Baltimore County, Hydrologic Unit 02060003, on right bank 0.3 mi downstream from bridge on State Highway 25 (Falls Road), 0.4 mi downstream from Slaughterhouse Branch and Sorrento, and 12.5 mi upstream from mouth.

DRAINAGE AREA.--25.2 mi^2.

PERIOD OF RECORD.--Annual maximum, water years 1958-66. April 1966 to September 1988 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 240 ft above National Geodetic Vertical Datum of 1929, from topographic map. January 1958 to April 1966, non-recording gage at site 450 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 32.2 ft^3/s, 17.35 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,800 ft^3/s, June 22, 1972, gage height, 18.11 ft, from flood-marks, from rating curve extended above 1,400 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 1.8 ft^3/s, Sept. 7, 8, 1966, gage height, 1.16 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1615	*1,110	*7.76	July 23	1900	836	7.13
May 17	2200	691	6.75				

Minimum daily discharge, 9.8 ft^3/s, Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	50	30	45	29	30	25	24	13	15	12
2	11	16	40	28	54	28	28	24	23	14	14	11
3	14	15	37	27	54	29	27	24	23	13	13	11
4	14	15	39	29	56	53	28	25	23	13	13	49
5	12	15	35	28	41	47	26	62	23	13	12	73
6	11	13	32	e27	e34	35	25	120	21	12	12	19
7	20	13	30	e27	e32	32	40	54	20	12	12	15
8	13	14	30	e31	e30	30	36	37	20	12	11	13
9	12	14	30	e29	e29	30	30	32	23	13	11	13
10	12	34	29	e27	29	30	28	32	22	13	11	12
11	13	43	29	e30	32	28	27	40	20	15	11	12
12	12	33	28	e27	114	28	26	32	19	17	10	11
13	12	33	27	e27	49	29	25	28	18	13	10	16
14	12	33	26	e27	e40	28	24	27	17	12	10	12
15	12	27	58	e29	37	27	24	25	16	11	11	11
16	12	22	40	e27	52	27	25	25	24	11	14	11
17	12	20	32	e27	38	26	24	105	32	13	10	11
18	12	34	30	46	36	27	30	117	20	13	9.8	12
19	12	22	29	34	50	27	28	81	18	18	10	12
20	12	20	39	216	67	27	24	49	17	49	20	11
21	17	19	32	54	41	26	24	56	16	32	14	11
22	12	18	30	41	35	25	23	40	16	21	11	11
23	12	17	29	35	35	25	23	38	15	131	12	11
24	12	17	28	33	33	26	25	56	15	68	33	13
25	12	17	28	37	31	25	23	63	15	21	15	42
26	12	17	45	37	30	85	22	39	15	21	11	15
27	80	17	33	e35	31	59	39	33	14	33	11	13
28	83	43	32	e34	31	35	58	31	14	86	11	12
29	23	372	37	e32	30	31	29	29	14	26	67	11
30	19	110	29	e30	---	30	27	27	14	19	22	11
31	17	---	28	e35	---	28	---	25	---	16	14	---
TOTAL	551	1099	1041	1176	1216	1012	848	1401	571	774	460.8	497
MEAN	17.8	36.6	33.6	37.9	41.9	32.6	28.3	45.2	19.0	25.0	14.9	16.6
MAX	83	372	58	216	114	85	58	120	32	131	67	73
MIN	11	13	26	27	29	25	22	24	14	11	9.8	11
CFSM	.71	1.45	1.33	1.51	1.66	1.30	1.12	1.79	.76	.99	.59	.66
IN.	.81	1.62	1.54	1.74	1.80	1.49	1.25	2.07	.84	1.14	.68	.73

CAL YR 1987 TOTAL 9239.8 MEAN 25.3 MAX 372 MIN 5.3 CFSM 1.00 IN. 13.64
WTR YR 1988 TOTAL 10646.8 MEAN 29.1 MAX 372 MIN 9.8 CFSM 1.15 IN. 15.72

e Estimated

01589500 SAWMILL CREEK AT GLEN BURNIE, MD

LOCATION.--Lat 39°10′12″, long 76°37′51″, Anne Arundel County, Hydrologic Unit 02060003, on left bank 300 ft upstream from bridge on State Highway 648, 0.25 mile southeast of State Highway 3, and 0.50 mile northwest of Glen Burnie.

DRAINAGE AREA.--4.97 mi^2.

PERIOD OF RECORD.--May 1944 to September 1952. Annual maximum, water years 1965-70. October 1983 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 26.07 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good exceot those for estimated daily discharges, which are fair. Low flow affected by ground-water diversions from Anne Arundel County municipal well fields upstream from station. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years (water years 1945-52, 1984-88), 5.62 ft^3/s, 15.36 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 436 ft^3/s, Sept. 27, 1985, gage height, 4.03 ft, from rating curve extended above 16.0 ft^3/s; maximum gage height, 4.77 ft, Sept. 1, 1952; no flow for part of each day Sept. 6, 7, 1985, July 29, Aug. 2, 1986.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1933 reached a stage of about 14 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 30 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1645	43	2.57	Nov. 29	2330	*57	*2.70

Minimum discharge, 0.02 ft^3/s part or all of each day Aug. 14, 15, 16, 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.25	3.9	1.2	2.0	1.3	1.4	1.3	.83	.08	.09	.13
2	.26	.35	2.1	1.0	2.7	1.3	1.4	1.3	.79	.06	.05	.06
3	.35	.47	1.3	.83	3.5	1.3	1.4	1.3	.80	.05	.04	.04
4	.76	.37	1.4	1.0	3.0	2.9	1.4	1.4	.83	.05	.04	1.0
5	.44	.22	1.3	.89	2.3	3.6	1.3	3.6	.82	.04	.04	1.6
6	.28	.18	.96	.53	1.5	2.2	1.3	8.3	.71	.04	.04	.38
7	1.1	.14	.81	.40	.97	1.8	3.6	4.8	.60	.04	.04	.12
8	.50	.11	.78	.48	1.1	1.6	5.1	2.5	.83	.05	.03	.06
9	.28	.12	.75	.59	1.1	1.6	2.7	1.9	3.3	.06	.03	.05
10	.20	.91	.84	e.55	1.1	1.6	1.9	1.8	1.6	.05	.03	.05
11	.22	2.0	1.4	e.55	1.6	1.4	1.7	2.2	.95	.05	.03	.04
12	.22	1.6	1.0	.47	14	1.4	1.5	1.6	.74	.04	.03	.04
13	.17	1.5	.77	.53	4.9	1.6	1.5	1.5	.62	.04	.03	.04
14	.13	1.2	.66	.51	2.4	1.4	1.4	1.4	.52	.04	.03	.04
15	.11	1.0	2.0	.34	2.1	1.3	1.5	1.3	.47	.04	.03	.04
16	.11	.83	1.8	.26	2.9	1.2	1.3	1.4	.44	.04	.03	.04
17	.12	.75	1.1	.29	2.2	1.2	1.3	1.8	.47	.07	.02	.06
18	.13	1.4	.81	1.8	1.8	1.2	1.4	4.0	.50	.04	.02	.05
19	.14	.88	.71	1.5	2.4	1.3	1.5	3.6	.39	.04	.04	.04
20	.15	.63	1.3	10	4.9	1.2	1.3	2.5	.36	.12	.26	.07
21	.19	.55	1.1	5.7	2.7	1.2	1.3	2.0	.30	.15	.04	.12
22	.18	.39	.84	2.8	1.9	1.1	1.2	1.7	.24	.55	.03	.13
23	.15	.30	.83	1.9	1.8	1.1	1.2	1.9	.19	1.4	.13	.09
24	.12	.30	.72	1.3	1.7	1.2	1.3	3.6	.17	3.3	.17	.06
25	.13	.30	.80	1.6	1.6	1.2	1.2	4.0	.17	.65	.26	.20
26	.13	.28	2.3	1.8	1.4	5.4	1.2	2.3	.17	.33	.08	.04
27	1.5	.27	1.8	1.1	1.5	6.2	2.3	1.7	.17	1.2	.04	.04
28	3.6	1.0	1.7	.85	1.6	2.6	5.3	1.4	.14	.70	.04	.04
29	.93	17	2.3	.77	1.4	1.9	2.3	1.2	.11	.39	1.9	.04
30	.42	14	1.5	.93	---	1.7	1.6	1.0	.09	.19	2.3	.04
31	.29	---	1.1	1.4	---	1.5	---	.91	---	.11	.41	---
TOTAL	13.71	49.30	40.68	43.87	74.07	57.5	54.8	71.21	18.32	10.01	6.35	4.75
MEAN	.44	1.64	1.31	1.42	2.55	1.85	1.83	2.30	.61	.32	.20	.16
MAX	3.6	17	3.9	10	14	6.2	5.3	8.3	3.3	3.3	2.3	1.6
MIN	.11	.11	.66	.26	.97	1.1	1.2	.91	.09	.04	.02	.04
CFSM	.09	.33	.26	.28	.51	.37	.37	.46	.12	.06	.04	.03
IN.	.10	.37	.30	.33	.55	.43	.41	.53	.14	.07	.05	.04

CAL YR 1987 TOTAL 435.77 MEAN 1.19 MAX 68 MIN .03 CFSM .24 IN. 3.26
WTR YR 1988 TOTAL 444.57 MEAN 1.21 MAX 17 MIN .02 CFSM .24 IN. 3.33

e Estimated

01590500 BACON RIDGE BRANCH AT CHESTERFIELD, MD

LOCATION.--Lat 39°00′07″, long 76°36′53″, Anne Arundel County, Hydrologic Unit 02060004, on left bank 50 ft downstream from highway bridge, 0.5 mi east of Chesterfield, 1.4 mi upstream from confluence with North River, and 6.8 mi northwest of Annapolis.

DRAINAGE AREA.--6.92 mi^2.

PERIOD OF RECORD.--October 1942 to September 1952. Annual maximum, water years 1965-74. October 1974 to current year. Monthly discharge only October and November 1942, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 15 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Records include sewage from Crownsville State Hospital, which obtains its water supply from wells. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years (water years 1943-52, 1975-88), 8.84 ft^3/s, 17.35 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft^3/s, Aug. 2, 1944, gage height, 5.49 ft, from rating curve extended above 200 ft^3/s on basis of contracted-opening measurement at gage height 4.43 ft; minimum discharge, 0.65 ft^3/s, July 27, 28, Aug. 4, 5, 21, 22, 1987; minimum gage height, 1.71 ft, Feb. 11, 1983, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 185 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	2130	*70	*2.67	No peak greater than base discharge.			

Minimum discharge, 0.62 ft^3/s, July 11, gage height, 1.75 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.0	13	5.7	8.7	5.1	5.3	4.7	3.3	.99	4.5	2.1
2	1.5	2.1	7.3	4.5	8.6	4.9	5.2	4.4	3.0	.95	11	1.7
3	1.9	2.2	5.5	3.7	16	4.9	5.2	4.4	3.0	.98	2.6	1.6
4	2.5	2.2	6.3	4.7	11	9.1	5.4	4.9	3.1	.93	1.8	6.1
5	1.5	2.4	6.9	4.7	9.1	16	5.1	12	3.0	.87	4.0	6.0
6	1.4	2.4	4.7	4.1	6.3	7.0	4.8	41	2.6	.87	1.4	2.5
7	4.1	2.5	3.9	e4.0	4.1	6.1	13	23	2.3	.87	1.3	1.9
8	2.0	2.7	3.8	e3.5	4.7	5.5	19	10	2.1	.83	1.2	1.6
9	1.6	2.9	3.9	e3.2	5.3	5.6	9.2	7.6	14	.88	1.0	1.6
10	1.6	5.9	4.8	e3.0	5.3	5.8	6.9	7.0	4.9	.92	1.0	2.3
11	1.7	12	11	e2.9	5.5	4.9	6.1	13	3.1	.84	1.0	1.7
12	1.6	9.5	6.8	e2.9	42	4.8	5.7	12	2.6	1.0	1.0	1.5
13	1.6	9.5	4.6	e2.8	24	5.8	5.6	6.7	2.3	1.1	.99	1.5
14	1.6	11	4.0	2.8	14	5.2	5.2	5.4	2.1	.92	.92	1.5
15	1.6	13	11	2.8	8.1	4.7	5.3	4.7	1.9	.89	1.1	1.3
16	1.5	9.7	11	2.7	13	4.4	5.0	4.8	1.8	.87	2.6	1.1
17	1.6	9.3	5.8	2.7	7.7	4.3	4.8	5.6	1.8	1.0	1.1	1.3
18	1.9	11	4.6	5.1	6.7	4.2	5.2	17	1.8	1.9	1.2	2.0
19	2.0	6.6	4.2	5.8	7.0	4.5	5.5	15	1.7	1.0	1.3	1.6
20	2.0	5.0	6.8	35	19	4.3	4.8	8.2	1.6	1.3	8.2	1.5
21	2.2	4.1	6.1	19	9.5	4.0	4.6	6.5	1.6	3.0	9.8	1.5
22	2.0	3.2	4.8	11	6.7	3.9	4.3	5.4	1.5	11	1.9	1.4
23	2.0	3.2	4.9	8.5	6.9	4.0	4.4	6.4	1.4	4.1	1.5	1.3
24	2.1	3.6	4.2	6.7	6.9	4.2	4.7	25	1.2	9.6	2.8	1.4
25	2.2	3.5	4.5	7.0	5.7	4.3	4.2	36	1.2	2.2	4.2	5.6
26	2.3	3.5	8.9	8.8	5.4	16	3.9	13	1.2	2.9	1.9	3.6
27	3.5	3.5	6.7	5.2	5.7	23	4.4	7.7	1.2	30	1.5	2.0
28	11	7.6	6.1	4.2	6.0	8.5	20	6.2	1.1	7.1	1.4	1.7
29	3.6	32	11	4.0	5.4	6.6	6.8	5.2	1.1	3.5	20	1.7
30	2.5	39	5.9	4.8	---	6.1	5.5	4.4	1.0	2.1	18	1.7
31	2.2	---	4.6	7.0	---	5.7	---	3.7	---	1.6	3.4	---
TOTAL	72.6	227.1	197.6	192.8	284.3	203.4	195.1	330.9	74.5	97.01	115.61	64.3
MEAN	2.34	7.57	6.37	6.22	9.80	6.56	6.50	10.7	2.48	3.13	3.73	2.14
MAX	11	39	13	35	42	23	20	41	14	30	20	6.1
MIN	1.4	2.0	3.8	2.7	4.1	3.9	3.9	3.7	1.0	.83	.92	1.1
CFSM	.34	1.09	.92	.90	1.42	.95	.94	1.54	.36	.45	.54	.31
IN.	.39	1.22	1.06	1.04	1.53	1.09	1.05	1.78	.40	.52	.62	.35

CAL YR 1987 TOTAL 1840.12 MEAN 5.04 MAX 65 MIN .76 CFSM .73 IN. 9.89
WTR YR 1988 TOTAL 2055.22 MEAN 5.62 MAX 42 MIN .83 CFSM .81 IN. 11.05

e Estimated

01591000 PATUXENT RIVER NEAR UNITY, MD

LOCATION.--Lat 39°14′18″, long 77°03′23″, Montgomery County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 97, 0.6 mi upstream from Cattail Creek, 0.8 mi upstream from Triadelphia Reservoir, 1.1 mi northeast of Unity, and 97 mi upstream from mouth.

DRAINAGE AREA.--34.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1944 to current year.
REVISED RECORDS.--WSP 1111: 1947. WSP 1432: 1948.
GAGE.--Water stage recorder and concrete control. Datum of gage is 364.76 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to Aug. 14, 1946, non-recording gage at same site and datum.
REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--44 years, 39.0 ft^3/s, 15.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,800 ft^3/s, Sept. 11, 1971, gage height, 18.60 ft, from rating curve extended above 1,500 ft^3/s on basis of slope-area measurement at gage height 13.00 ft; minimum discharge, 0.20 ft^3/s, Sept 10, 11, 12, 1966, gage height, 1.66 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 770 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1830	1,050	6.10	May 21	0300	787	5.49
Jan. 20	0930	1,290	6.60	May 24	0300	*1,550	*7.08
May 19	0400	1,070	6.16				

Minimum discharge, 8.1 ft^3/s, Aug. 17, 18, 19.

DISCHARGE, IN CUBUC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	78	38	61	40	41	35	60	17	16	12
2	14	17	57	34	76	39	40	34	58	17	16	11
3	18	17	48	31	90	40	39	34	56	16	15	11
4	24	17	52	32	77	66	40	35	52	16	15	34
5	16	17	45	e29	62	72	37	63	49	15	14	40
6	16	15	39	e27	52	51	36	210	45	14	14	18
7	26	15	36	e24	e50	48	67	99	43	14	16	15
8	18	15	34	e24	50	45	81	69	41	13	13	14
9	16	15	33	e23	47	45	56	58	49	16	11	13
10	15	34	32	e23	45	44	49	61	44	16	11	13
11	16	52	31	e23	44	40	46	74	39	14	11	12
12	16	34	30	e22	93	40	43	52	36	16	11	12
13	15	38	28	e22	58	42	42	47	34	15	10	14
14	14	37	27	e22	e54	39	40	43	32	13	9.5	13
15	14	30	66	e21	49	37	39	41	31	12	8.8	11
16	14	26	54	e21	69	36	38	40	30	12	9.4	11
17	14	26	39	25	51	35	37	54	31	11	8.4	11
18	14	55	35	89	49	35	44	154	31	11	8.1	13
19	14	35	33	44	53	36	47	384	29	13	9.6	12
20	14	30	45	514	83	34	39	111	28	26	17	11
21	25	27	40	96	59	33	37	271	26	39	16	12
22	16	24	35	69	51	32	35	108	24	23	11	11
23	15	23	34	57	51	32	34	187	23	86	11	10
24	15	23	31	50	49	33	39	428	22	40	21	10
25	14	22	33	53	46	32	34	250	22	21	15	24
26	14	22	49	52	44	103	33	136	21	22	12	16
27	25	22	39	e49	44	89	40	109	20	24	11	13
28	63	46	38	e45	43	54	61	93	19	34	11	11
29	26	360	43	40	42	48	41	81	19	22	18	11
30	21	189	35	40	---	46	38	72	17	18	17	11
31	19	---	36	50	---	43	---	65	---	17	13	---
TOTAL	577	1301	1255	1689	1642	1409	1293	3498	1031	643	399.8	430
MEAN	18.6	43.4	40.5	54.5	56.6	45.5	43.1	113	34.4	20.7	12.9	14.3
MAX	63	360	78	514	93	103	81	428	60	86	21	40
MIN	14	15	27	21	42	32	33	34	17	11	8.1	10
CFSM	.53	1.25	1.16	1.57	1.63	1.31	1.24	3.24	.99	.60	.37	.41
IN.	.62	1.39	1.34	1.81	1.76	1.51	1.38	3.74	1.10	.69	.43	.46

CAL YR 1987 TOTAL 13500.0 MEAN 37.0 MAX 397 MIN 4.2 CFSM 1.06 IN. 14.43
WTR YR 1988 TOTAL 15167.8 MEAN 41.4 MAX 514 MIN 8.1 CFSM 1.19 IN. 16.21

e Estimated

01591000 PATUXENT RIVER NEAR UNITY, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (FTU)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT											
21...	1135	31	101	6.4	11.0	13.0	2.3	12	1.7	17	6.6
21...	1215	26	101	6.4	11.0	13.0	55	<10	<0.5	18	6.6

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT											
21...	2.49	0.009	2.50	<0.008	0.43	0.30	0.050	0.030	0.014	3.2	3.3
21...	2.39	0.009	2.40	<0.008	0.45	0.35	0.050	0.090	0.010	3.1	3.7

01591400 CATTAIL CREEK NEAR GLENWOOD, MD

LOCATION (REVISED).--Lat 39°15′21″, long 77°03′05″, Howard County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 97, 1.2 mi upstream from mouth.

DRAINAGE AREA.--22.9 mi^2.

PERIOD OF RECORD.--June 1978 to September 1983 (published as "at Roxbury Mills Road at Roxbury Mills, MD"), October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 28, 1983, at site 800 ft upstream at datum 1.76 ft lower.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 24.9 ft^3/s, 14.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,040 ft^3/s, Feb. 12, 1985, gage height, 8.12 ft, from rating curve extended above 175 ft^3/s on basis of contracted-opening and flow-over-road measurement at gage height of 8.1 ft, from floodmarks; minimum discharge , 1.8 ft^3/s, July 5, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1645	889	4.70	May 21	0445	1,680	5.91
Jan. 20	0830	*2,200	*6.51	July 23	1945	772	4.47

Minimum discharge, 5.0 ft^3/s, Aug. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	28	20	39	22	22	19	25	e10	9.6	7.7
2	10	13	23	18	49	22	22	18	e25	10	9.2	7.1
3	13	13	21	17	52	22	21	18	e24	e9.5	9.0	7.0
4	14	13	22	17	44	40	22	19	e24	e9.5	8.9	19
5	11	13	21	e15	34	40	21	37	e25	e8.5	8.5	19
6	11	13	19	e15	28	29	20	99	e24	e8.0	8.4	10
7	21	13	17	e14	31	27	43	42	e21	e8.0	8.6	8.8
8	13	13	17	e14	24	25	43	30	e20	e7.5	8.9	8.3
9	12	14	17	e14	23	25	29	26	e26	e10	9.5	7.9
10	12	26	17	e14	23	24	25	26	e24	e11	8.1	7.9
11	12	36	16	e14	23	22	23	37	e19	e9.0	7.8	7.4
12	12	25	16	e13	64	22	21	27	e18	e10	7.6	7.0
13	11	26	15	e13	33	23	21	23	e17	e9.0	7.3	8.4
14	11	23	15	e13	37	22	20	21	e17	e8.5	7.2	7.9
15	11	20	35	e12	27	21	20	20	e16	e8.0	6.4	7.0
16	11	18	26	e12	41	20	19	20	e16	e7.5	6.4	6.5
17	11	18	20	e14	29	19	18	26	e16	e7.0	5.8	6.7
18	11	30	18	46	28	19	23	63	e17	e6.5	5.6	7.9
19	11	20	17	24	32	20	25	85	e16	e9.0	6.3	7.4
20	11	18	24	723	50	20	20	38	e15	e20	11	7.4
21	18	17	21	46	33	18	19	360	e14	e26	9.5	7.5
22	12	16	18	33	27	18	18	45	e14	e20	7.2	7.0
23	11	15	18	28	28	18	18	56	e13	128	6.9	6.9
24	12	15	17	25	27	18	20	86	e12	29	13	7.1
25	11	15	17	28	25	18	18	79	e12	14	8.7	16
26	11	15	27	29	24	62	17	44	e11	13	7.5	11
27	21	15	21	e25	24	47	23	37	e11	13	7.1	8.6
28	37	29	20	e22	24	29	38	33	e11	15	6.8	7.9
29	17	191	23	21	23	25	22	31	e10	12	13	7.3
30	15	59	18	21	---	23	21	28	e10	11	11	7.5
31	14	---	19	30	---	22	---	26	---	9.7	8.6	---
TOTAL	420	765	623	1350	946	782	692	1519	523	477.2	259.4	263.1
MEAN	13.5	25.5	20.1	43.5	32.6	25.2	23.1	49.0	17.4	15.4	8.37	8.77
MAX	37	191	35	723	64	62	43	360	26	128	13	19
MIN	10	13	15	12	23	18	17	18	10	6.5	5.6	6.5
CFSM	.59	1.11	.88	1.90	1.42	1.10	1.01	2.14	.76	.67	.37	.38
IN.	.68	1.24	1.01	2.19	1.54	1.27	1.12	2.47	.85	.78	.42	.43

CAL YR 1987 TOTAL 7818.0 MEAN 21.4 MAX 502 MIN 3.4 CFSM .94 IN. 12.70
WTR YR 1988 TOTAL 8619.7 MEAN 23.6 MAX 723 MIN 5.6 CFSM 1.03 IN. 14.00

e Estimated

01591610 PATUXENT RIVER BELOW BRIGHTON DAM NEAR BRIGHTON, MD

LOCATION.--Lat 39°11′31″, long 77°00′16″, Montgomery County, Hydrologic Unit 02060006, on right bank at Brighton Dam, 500 ft downstream from Triadelphia Reservoir, 1.3 mi east of Brighton, and 92 mi upstream from mouth.

DRAINAGE AREA.--78.6 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 310 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 1978 to October 1980, nonrecording gage 300 ft upstream on left bank at different datum.

REMARKS.--Records good. Flow completely regulated by Triadelphia Reservoir, 500 ft upstream, usable capacity, 6,200,000,000 gal; no dead storage. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,280 ft^3/s, Dec. 1, 1983, gage height, 6.02 ft; minimum discharge, 1.2 ft^3/s, Dec. 3, 1985, gage height, 0.78 ft; minimum daily discharge, 2.1 ft^3/s, Jan. 27, 28, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a discharge of 17,800 ft^3/s. Data provided by Washington Suburban Sanitary Commission.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft^3/s, Oct. 21, gage height, 5.02 ft; minimum discharge, 2.4 ft^3/s, Oct. 31, gage height, 0.89 ft; minimum daily discharge, 8.5 ft^3/s, Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	9.5	e9.9	101	114	80	154	48	97	31	94	63
2	43	24	e12	101	114	49	96	48	96	30	93	50
3	9.6	64	10	101	114	41	96	46	97	28	93	46
4	23	18	10	101	107	35	94	47	97	29	76	46
5	44	38	12	101	99	50	94	48	96	28	84	46
6	32	44	12	101	99	50	93	53	96	26	93	68
7	22	60	11	108	99	50	94	63	96	28	92	84
8	24	90	22	113	99	59	95	62	96	26	92	89
9	28	90	25	114	165	98	93	62	104	26	86	90
10	9.6	88	26	114	200	96	93	99	106	25	92	88
11	20	86	24	114	156	99	74	243	108	30	92	76
12	47	86	9.8	114	109	99	97	298	108	41	92	46
13	47	83	9.5	89	134	98	97	128	108	11	91	61
14	47	88	39	65	134	97	96	8.7	108	28	90	40
15	47	88	66	68	134	98	97	8.6	85	50	88	8.9
16	47	88	87	68	135	97	97	90	53	31	40	8.5
17	48	90	225	68	135	96	97	137	53	17	52	8.8
18	48	e88	245	69	133	95	81	140	53	51	101	8.9
19	367	e88	155	68	133	93	96	444	53	96	102	9.6
20	390	e74	113	101	133	92	96	512	51	94	105	8.9
21	480	e14	119	212	133	83	68	302	51	94	108	9.1
22	250	e12	101	262	133	92	96	302	40	95	94	9.1
23	8.8	e11	103	258	133	92	94	248	24	98	90	9.0
24	8.8	e9.9	103	255	132	92	96	291	47	95	85	8.9
25	8.8	e9.2	101	148	129	91	96	384	47	94	71	9.1
26	8.8	e8.1	101	75	136	94	83	610	48	92	90	8.9
27	8.8	e8.4	101	116	135	94	43	444	49	84	79	9.1
28	130	e11	101	119	135	94	34	337	33	94	46	9.4
29	608	e13	101	118	117	93	48	193	31	85	72	9.4
30	390	e10	101	118	---	152	48	97	47	94	90	9.5
31	9.0	---	101	116	---	186	---	88	---	94	72	---
TOTAL	3301.2	1491.1	2256.2	3676	3729	2735	2636	5881.3	2178	1745	2645	1038.1
MEAN	106	49.7	72.8	119	129	88.2	87.9	190	72.6	56.3	85.3	34.6
MAX	608	90	245	262	200	186	154	610	108	98	108	90
MIN	8.8	8.1	9.5	65	99	35	34	8.6	24	11	40	8.5
(†)	4960	5650	5880	5950	5880	6000	5950	5900	5840	5790	4690	4540

CAL YR 1987 TOTAL 24543.7 MEAN 67.2 MAX 608 MIN 7.2 CFSM .85 IN. 11.59
WTR YR 1988 TOTAL 33311.9 MEAN 91.0 MAX 610 MIN 8.1 CFSM 1.16 IN. 15.73

† Month-end contents, in millions of gallons, in Triadelphia Reservoir (contents on Sept. 30, 1987, 6,140,000,000 gal). Records provided by Washington Suburban Sanitary Commission.

01591700 HAWLINGS RIVER NEAR SANDY SPRING, MD

LOCATION.--Lat 39°10′29″, long 77°01′22″, Montgomery County, Hydrologic Unit 02060006, on right bank at downstream side of bridge on State Highway 650, 1.0 mi upstream from mouth, and 1.7 mi north of Sandy Spring.

DRAINAGE AREA.--27.0 mi^2.

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 29.0 ft^3/s, 14.59 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,300 ft^3/s, Sept. 6, 1979, gage height, 8.80 ft, from rating curve extended above 1,200 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 0.75 ft^3/s, Jan. 30, 1981, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	Unknown	*Unknown	*Unknown	Sept. 23	2030	*733	*4.48

Minimum daily discharge, 3.9 ft^3/s, Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	15	47	25	e30	e26	26	21	21	7.5	e8.0	e6.0
2	11	14	32	24	e40	e26	24	21	20	7.6	e7.8	e5.6
3	14	14	26	22	e55	e25	24	20	20	7.3	e7.4	e5.6
4	21	e13	25	21	e40	e40	25	20	20	7.2	e7.2	e15
5	14	e13	26	e20	e35	e43	24	56	19	6.7	e7.0	e18
6	12	e12	24	e19	e33	e35	22	165	18	6.7	e7.0	e9.0
7	27	e12	22	e17	e31	e32	43	63	17	6.3	e7.5	e7.0
8	15	e13	20	e17	e30	e30	82	39	16	6.3	e6.4	e6.4
9	13	e14	20	e16	e29	30	51	33	22	6.2	e5.8	e6.2
10	12	28	20	e16	e28	30	36	34	19	7.4	e5.8	e6.2
11	12	62	20	e16	e27	30	30	62	17	7.8	e5.8	e6.0
12	12	35	20	e16	e50	29	27	35	16	11	e5.4	e6.0
13	12	32	19	e16	e35	28	26	29	15	8.3	e4.8	e7.0
14	e11	30	18	e16	e30	28	24	26	14	7.0	e4.5	e6.0
15	e11	25	44	e15	e30	27	22	24	13	6.0	e4.2	e5.6
16	e11	21	51	e15	e38	26	22	23	13	5.6	e4.2	e5.6
17	e11	19	31	e18	e30	26	21	43	13	5.2	e4.0	e5.6
18	e11	33	25	e50	e28	25	21	146	14	5.7	e3.9	e6.2
19	e11	27	22	e30	e32	e24	31	143	13	12	e5.0	e5.8
20	e12	21	25	e200	e43	e24	24	54	12	12	e10	e5.4
21	e20	19	29	e60	e32	24	23	103	12	36	e8.0	e6.0
22	e15	18	25	e40	e31	23	21	47	11	26	e6.0	e5.4
23	e12	18	23	e35	e30	23	21	98	10	154	e6.0	e5.2
24	e12	18	21	e30	e30	23	22	129	9.8	70	e12	e5.2
25	e11	18	20	e32	e29	22	20	86	9.2	17	e10	e14
26	e12	18	32	e32	e29	e110	20	46	9.1	12	e7.0	e8.0
27	30	17	33	e29	e28	e60	26	36	8.8	15	e6.2	e7.0
28	84	37	27	e26	e28	e40	47	31	8.3	11	e6.2	e6.0
29	27	197	30	e25	e27	e30	27	27	8.3	9.4	e10	e6.0
30	18	143	e27	e25	---	31	23	24	7.8	e10	e8.0	e6.0
31	16	---	25	e30	---	27	---	22	---	e9.0	e7.0	---
TOTAL	521	956	829	953	958	997	855	1706	426.3	519.2	208.1	213.0
MEAN	16.8	31.9	26.7	30.7	33.0	32.2	28.5	55.0	14.2	16.7	6.71	7.10
MAX	84	197	51	200	55	110	82	165	22	154	12	18
MIN	11	12	18	15	27	22	20	20	7.8	5.2	3.9	5.2
CFSM	.62	1.18	.99	1.14	1.22	1.19	1.06	2.04	.53	.62	.25	.26
IN.	.72	1.32	1.14	1.31	1.32	1.37	1.18	2.35	.59	.72	.29	.29

CAL YR 1987 TOTAL 9337.3 MEAN 25.6 MAX 417 MIN 3.1 CFSM .95 IN. 12.86
WTR YR 1988 TOTAL 9141.6 MEAN 25.0 MAX 200 MIN 3.9 CFSM .93 IN. 12.60

e Estimated

01592500 PATUXENT RIVER NEAR LAUREL, MD

LOCATION.--Lat 39°06′56″, long 76°52′27″, Prince Georges County, Hydrologic Unit 02060006, on right bank at Rocky Gorge pumping station, 600 ft downstream from T. Howard Duckett Reservoir, 0.7 mi upstream from Walker Branch, 1.3 mi northwest of Laurel, and 81 mi upstream from mouth.

DRAINAGE AREA.--132 mi^2.

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WDR MD-DE-78-1: 1976(M).

GAGE.--Water-stage recorder. Datum of gage is 153.5 ft above National Geodetic Vertical Datum of 1929 (levels by Washington Suburban Sanitary Commission). Prior to Oct. 1, 1955, water-stage recorder and concrete control at site 0.3 mi downstream at different datum. Oct. 1, 1955, to Sept. 30, 1956, nonrecording gage at present site at datum 1.2 ft lower. Oct. 1, 1956, to Jan. 27, 1957, nonrecording gage at present site and datum. Jan. 28, 1957, to May 3, 1972, water-stage recorder and concrete control at present site and datum. May 4, 1972, to Sept. 4, 1973, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Records do not include diversion at Patuxent (formerly Willis School) filtration plant for supply of Washington Suburban Sanitary District. Flow regulated by Triadelphia Reservoir, and since March 1954 by T. Howard Duckett Reservoir, combined usable capacity, 11,800,000,000 gal; dead storage, 80,000,000 gal. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 26,000 ft^3/s, June 22, 1972, gage height, about 25 ft, from floodmarks, from rating curve extended above 6,600 ft^3/s on basis of contracted-opening measurement of peak flow; minimum discharge, 0.05 ft^3/s, July 18, 1985 (valve closed for repair); minimum daily discharge, 1.1 ft^3/s, June 26, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 995 ft^3/s, Nov. 16, gage height, 7.57 ft; minimum daily discharge, 16 ft^3/s, Oct. 12, 13, 14, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	17	122	81	141	19	18	78	72	19	19	18
2	46	17	101	84	90	19	17	52	81	19	19	19
3	17	17	86	84	91	19	18	19	79	18	19	18
4	17	22	83	100	110	19	19	19	82	18	20	19
5	17	17	83	91	95	18	346	20	83	19	20	20
6	17	17	83	91	91	19	53	43	83	19	20	20
7	17	17	85	91	91	220	78	83	82	18	21	19
8	17	17	49	91	91	366	145	84	80	19	21	18
9	17	17	19	91	234	19	288	85	81	18	21	18
10	17	18	23	90	236	18	290	86	82	18	19	17
11	17	18	19	90	91	18	195	235	83	18	20	18
12	16	18	19	90	188	19	81	328	83	18	19	17
13	16	18	19	162	331	18	81	284	84	18	19	17
14	16	18	20	90	328	18	79	203	83	18	19	17
15	17	17	20	90	347	18	81	198	69	17	19	17
16	17	40	20	89	364	136	81	134	18	17	21	18
17	17	17	20	86	368	210	83	86	18	18	20	18
18	17	17	20	85	368	210	83	86	19	18	20	17
19	16	18	20	84	358	210	81	543	18	17	21	18
20	17	18	20	87	358	209	80	742	17	17	21	19
21	17	18	63	239	354	133	80	258	17	18	21	18
22	17	18	207	334	463	19	81	386	17	18	21	18
23	17	20	280	334	256	18	55	294	17	17	22	18
24	17	18	174	334	84	18	19	300	17	18	21	18
25	17	18	93	334	85	18	57	587	17	18	19	18
26	22	17	93	189	84	19	81	831	18	18	18	18
27	17	17	93	90	86	18	82	691	18	18	18	18
28	17	17	105	101	86	17	72	468	18	18	17	18
29	17	18	91	111	46	436	75	462	18	19	18	18
30	19	69	194	90	---	560	76	454	19	19	19	18
31	17	---	211	89	---	310	---	208	---	19	18	---
TOTAL	624	605	2535	4092	5915	3368	2875	8347	1473	561	610	542
MEAN	20.1	20.2	81.8	132	204	109	95.8	269	49.1	18.1	19.7	18.1
MAX	82	69	280	334	463	560	346	831	84	19	22	20
MIN	16	17	19	81	46	17	17	19	17	17	17	17
(†)	9980	11260	11330	11440	11380	11370	11460	11280	11050	10930	10180	9520
(≠)	52.2	52.2	51.4	56.9	48.3	39.3	44.1	59.0	59.0	99.8	93.5	83.3

CAL YR 1987 TOTAL 22250.0 MEAN 61.0 MAX 863 MIN 15 ≠ 55.5
WTR YR 1988 TOTAL 31547.0 MEAN 86.2 MAX 831 MIN 16 ≠ 61.7

† Combined month-end total contents, in millions of gallons, in Triadelphia and T. Howard Duckett Reservoirs (contents on Sept. 30, 1987, 9,980,000,000 gal). Records provided by Washington Suburban Sanitary Commission.

≠ Diversions, in cubic feet per second, upstream from station at Patuxent (formerly Willis School) filtration plant for supply of Washington Suburban Sanitary District. Records provided by Washington Suburban Sanitary Commission.

01593500 LITTLE PATUXENT RIVER AT GUILFORD, MD

LOCATION.--Lat 39°10′04″, long 76°51′07″, Howard County, Hydrologic Unit 02060006, on left bank 25 ft downstream from bridge on State Highway 32, 1 mi west of Guilford, 3 mi upstream from Middle Patuxent River, 4 mi north of Laurel, and 20.1 mi upstream from mouth.

DRAINAGE AREA.--38.0 mi^2.

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for April 1932, published in WSP 1302.

REVISED RECORDS.--WSP 1502: 1933, 1934(M), 1939(M), 1945(M), 1948(P).

GAGE.--Water-stage recorder. Concrete control since June 20, 1946. Datum of gage is 259.26 ft above National Geodetic Vertical Datum of 1929. Prior to June 25, 1946, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Low flow affected by regulation from unknown source. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years, 42.7 ft^3/s, 15.26 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,400 ft^3/s June 22, 1972, gage height, 18.38 ft, from high-water mark in well, from rating curve extended above 1,800 ft^3/s on basis of contracted-opening measurement at gage height 13.26 ft and contracted-opening and flow-over-embankment measurement at gage height 18.38 ft; no flow Sept. 8, and parts of Sept. 6, 7, 9-12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 27	2400	932	6.70	May 18	0800	941	6.74
Nov. 29	1730	*1,230	*7.94	May 24	0230	854	6.35
Jan. 20	0830	1,100	7.41	July 23	2030	1,180	7.73
Feb. 12	0500	847	6.32	July 26	2200	1,090	7.38
May 5	2230	812	6.16				

Minimum discharge, 5.7 ft^3/s, Aug. 19, gage height, 2.43 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	19	53	33	54	31	31	29	29	9.9	11	11
2	11	18	43	31	154	30	30	27	29	9.8	10	8.9
3	14	18	36	28	139	30	29	28	27	9.8	9.5	8.6
4	18	17	44	e27	78	108	31	28	26	9.7	8.8	226
5	12	17	40	e26	50	83	27	223	26	9.6	8.3	67
6	12	16	32	e24	43	42	26	641	24	9.0	9.6	20
7	37	19	28	21	e38	37	80	149	23	9.0	42	14
8	16	17	27	24	33	33	84	59	24	8.1	12	13
9	12	17	27	e23	31	33	41	42	83	8.8	9.2	11
10	11	54	27	e22	31	33	33	40	33	13	8.3	10
11	11	65	33	22	37	30	30	78	25	12	8.0	9.6
12	10	50	28	22	454	29	28	59	22	28	7.6	9.3
13	9.9	51	26	24	62	31	27	35	20	16	7.8	11
14	9.5	48	25	22	47	30	26	33	20	11	7.5	9.9
15	9.4	38	92	21	42	28	27	30	18	9.7	7.1	8.8
16	9.4	35	56	20	74	27	28	30	16	8.7	7.9	8.4
17	9.3	31	37	22	45	27	26	126	17	13	6.8	9.2
18	9.3	48	31	60	41	27	31	655	17	15	6.6	14
19	9.3	32	29	53	69	28	38	200	16	12	7.3	11
20	9.4	28	46	683	135	27	28	72	15	18	57	11
21	13	25	38	102	46	25	27	92	15	52	26	12
22	15	22	31	52	40	24	25	52	14	70	13	10
23	14	21	31	45	38	25	25	104	13	280	10	9.7
24	13	21	28	40	37	26	27	386	12	248	47	13
25	13	21	28	e38	34	25	24	138	11	32	28	63
26	13	21	55	e37	32	236	24	60	12	201	13	23
27	138	21	40	e36	32	180	54	44	12	185	9.7	14
28	266	92	39	e35	33	45	158	38	11	50	9.1	12
29	31	535	51	e34	32	39	40	34	11	22	128	10
30	26	288	38	34	---	35	33	33	10	15	38	9.8
31	22	---	33	44	---	32	---	36	---	13	15	---
TOTAL	815.5	1705	1172	1705	1981	1436	1138	3601	631	1408.1	589.1	668.2
MEAN	26.3	56.8	37.8	55.0	68.3	46.3	37.9	116	21.0	45.4	19.0	22.3
MAX	266	535	92	683	454	236	158	655	83	280	128	226
MIN	9.3	16	25	20	31	24	24	27	10	8.1	6.6	8.4
CFSM	.69	1.50	.99	1.45	1.80	1.22	1.00	3.06	.55	1.20	.50	.59
IN.	.80	1.67	1.15	1.67	1.94	1.41	1.11	3.53	.62	1.38	.58	.65

CAL YR 1987 TOTAL 14846.4 MEAN 40.7 MAX 605 MIN 4.9 CFSM 1.07 IN. 14.53
WTR YR 1988 TOTAL 16849.9 MEAN 46.0 MAX 683 MIN 6.6 CFSM 1.21 IN. 16.50

e Estimated

01593710 MIDDLE PATUXENT RIVER NEAR SIMPSONVILLE, MD

LOCATION.--Lat 39°11′48″, long 76°53′59″, Howard County, Hydrologic Unit 02060006, on right bank 0.8 mi upstream from bridge on State Highway 32 on W. R. Grace Company property, 1.3 mi northwest of Simpsonville, and 7.8 mi upstream from Little Patuxent River.

DRAINAGE AREA.--48.4 mi^2.

PERIOD OF RECORD.--August 1987 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 275 ft above National Geodetic Vertical Datum of 1929 from topographic maps.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,340 ft^3/s, Jan. 20, 1988, gage height, 5.77 ft, from rating curve extended above 160 ft^3/s; minimum discharge, 6.6 ft^3/s, Aug. 20, Sept. 3, 4, 5, 1987, gage height, 0.91 ft.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Sept. 8, 1987	2015	1,120	4.52	Jan. 20	0600	*2,340	*5.77
Sept. 12, 1987	2200	953	4.28	May 21	0500	913	4.22
				July 23	2130	1,150	4.55
Nov. 29, 1987	1700	1,240	4.67				

August to September 1987: Minimum discharge, 6.6 ft^3/s, Aug. 20, Sept. 3, 4, 5, gage height, 0.91 ft.

Water year 1988: Minimum discharge, 9.3 ft^3/s, Aug. 18, 19, gage height, 1.04 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST 1987 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	e12	12
2	---	---	---	---	---	---	---	---	---	---	e11	7.7
3	---	---	---	---	---	---	---	---	---	---	e12	7.0
4	---	---	---	---	---	---	---	---	---	---	e11	6.6
5	---	---	---	---	---	---	---	---	---	---	e12	6.8
6	---	---	---	---	---	---	---	---	---	---	e13	13
7	---	---	---	---	---	---	---	---	---	---	e12	13
8	---	---	---	---	---	---	---	---	---	---	e11	259
9	---	---	---	---	---	---	---	---	---	---	e10	69
10	---	---	---	---	---	---	---	---	---	---	e9.7	18
11	---	---	---	---	---	---	---	---	---	---	e9.3	14
12	---	---	---	---	---	---	---	---	---	---	e9.0	128
13	---	---	---	---	---	---	---	---	---	---	e8.8	156
14	---	---	---	---	---	---	---	---	---	---	8.6	36
15	---	---	---	---	---	---	---	---	---	---	8.7	25
16	---	---	---	---	---	---	---	---	---	---	8.9	48
17	---	---	---	---	---	---	---	---	---	---	10	31
18	---	---	---	---	---	---	---	---	---	---	9.4	140
19	---	---	---	---	---	---	---	---	---	---	7.8	36
20	---	---	---	---	---	---	---	---	---	---	8.8	34
21	---	---	---	---	---	---	---	---	---	---	7.7	37
22	---	---	---	---	---	---	---	---	---	---	10	29
23	---	---	---	---	---	---	---	---	---	---	12	24
24	---	---	---	---	---	---	---	---	---	---	8.5	21
25	---	---	---	---	---	---	---	---	---	---	7.9	19
26	---	---	---	---	---	---	---	---	---	---	8.4	18
27	---	---	---	---	---	---	---	---	---	---	9.1	18
28	---	---	---	---	---	---	---	---	---	---	8.3	17
29	---	---	---	---	---	---	---	---	---	---	9.0	16
30	---	---	---	---	---	---	---	---	---	---	7.6	18
31	---	---	---	---	---	---	---	---	---	---	8.1	---
TOTAL	---	---	---	---	---	---	---	---	---	---	299.6	1277.1
MEAN	---	---	---	---	---	---	---	---	---	---	9.66	42.6
MAX	---	---	---	---	---	---	---	---	---	---	13	259
MIN	---	---	---	---	---	---	---	---	---	---	7.6	6.6
CFSM	---	---	---	---	---	---	---	---	---	---	.20	.88
IN.	---	---	---	---	---	---	---	---	---	---	.23	.98

e Estimated

01593710 MIDDLE PATUXENT RIVER NEAR SIMPSONVILLE, MD--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	24	60	41	69	40	41	37	37	17	17	14
2	16	23	47	38	109	39	40	35	36	17	16	13
3	18	23	41	34	108	40	40	35	36	17	15	12
4	23	23	46	e33	92	69	41	36	36	17	15	45
5	16	22	42	e31	66	82	38	98	35	e17	15	35
6	17	21	37	e30	50	52	37	258	33	e16	16	18
7	32	21	35	e29	e47	48	88	97	31	e16	23	15
8	21	22	34	e28	e45	44	98	60	31	e15	15	14
9	18	22	34	e27	e42	44	57	51	41	17	14	14
10	e17	40	33	e26	41	43	49	50	36	19	13	14
11	e16	68	34	e26	46	40	44	76	32	16	13	13
12	e16	45	32	e26	187	39	42	55	30	23	13	12
13	e15	52	30	e28	69	41	41	47	28	19	12	14
14	e14	50	29	e26	56	39	39	43	27	17	12	13
15	e14	40	76	e25	51	38	39	41	26	16	11	12
16	e14	35	52	e24	79	36	39	40	26	15	10	11
17	e14	33	40	e24	54	36	37	55	26	16	10	12
18	e14	52	37	124	51	36	42	154	28	15	9.8	15
19	e14	36	35	77	69	37	49	106	25	16	11	14
20	e14	33	50	804	110	36	39	68	25	17	24	13
21	e22	29	42	93	64	34	38	203	23	e39	20	13
22	19	27	37	64	52	33	35	68	23	e32	13	12
23	18	27	37	52	51	34	35	106	22	e180	12	12
24	19	27	35	47	49	35	37	196	21	77	27	12
25	18	27	35	e46	45	35	35	134	20	26	19	28
26	18	26	59	e45	43	122	33	71	21	31	13	18
27	85	27	42	e44	43	109	44	57	20	28	12	14
28	126	66	42	e43	43	55	87	51	19	23	12	13
29	35	386	52	e43	42	48	44	46	19	21	35	13
30	28	129	40	e42	---	45	40	42	18	18	25	13
31	25	---	39	55	---	42	---	40	---	17	16	---
TOTAL	753	1456	1284	2075	1873	1471	1368	2456	831	830	488.8	471
MEAN	24.3	48.5	41.4	66.9	64.6	47.5	45.6	79.2	27.7	26.8	15.8	15.7
MAX	126	386	76	804	187	122	98	258	41	180	35	45
MIN	14	21	29	24	41	33	33	35	18	15	9.8	11
CFSM	.50	1.00	.86	1.38	1.33	.98	.94	1.64	.57	.55	.33	.32
IN.	.58	1.12	.99	1.60	1.44	1.13	1.05	1.89	.64	.64	.38	.36

WTR YR 1988 TOTAL 15356.8 MEAN 42.0 MAX 804 MIN 9.8 CFSM .87 IN. 11.81

e Estimated

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD

LOCATION.--Lat 39°08′06″, long 76°48′58″, Howard County, Hydrologic Unit 02060006, on left bank 20 ft downstream from bridge on southbound lanes of U.S. Highway 1, 0.4 mi southeast of Savage, 0.9 mi downstream from Middle Patuxent River, and 16.2 mi upstream from mouth.

DRAINAGE AREA.--98.4 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1939 to September 1958. Annual maximums, water years 1959-66, 68, 72, 75. October 1975 to September 1980. May 1985 to current year. Prior to December 1939 monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder. Elevation of gage is 140 ft above National Geodetic Vertical Datum of 1929, from topographic maps. Prior to October 1958, water-stage recorder at site 400 ft downstream at datum 15 ft lower. October 1958 to September 1972, crest-stage gage at site 400 ft downstream on right bank at datum 15 ft lower. October 1939 to September 1980, water-stage recorder at site 500 ft downstream at datum 15 ft lower.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair. Some diurnal fluctuation at low flow caused by plant 0.5 mi upstream. Several observations of water temperature were made during the period.

AVERAGE DISCHARGE.--27 years (water years 1940-58, 1976-80, 1986-88), 106 ft^3/s, 14.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,400 ft^3/s, June 22, 1972, gage height, 25.4 ft, from floodmarks, from rating curve extended above 11,000 ft^3/s on basis of contracted-opening measurement of peak flow; minimum daily discharge, 7.0 ft^3/s, Sept. 19, 1943.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	2015	1,760	8.72	July 23	2400	1,520	8.15
Jan. 20	0915	*2,210	*9.64				

Minimum discharge, 14 ft^3/s, Aug. 17, 18, 19, gage height 3.02 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR 1987 TO SEPTEMBER 1988

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	46	147	80	155	82	82	73	e80	28	31	27
2	30	44	107	77	221	79	81	68	e76	27	29	23
3	32	42	86	69	314	79	79	69	e71	27	28	22
4	50	42	100	75	212	156	81	69	e68	27	26	205
5	34	41	99	68	155	227	77	257	67	26	25	136
6	32	38	77	e66	109	116	73	739	63	25	24	44
7	76	39	69	e62	95	103	179	263	59	24	67	31
8	44	38	66	e70	e92	93	241	138	56	23	31	27
9	33	38	66	e65	e88	90	126	112	132	22	25	25
10	31	97	65	e62	84	89	102	109	77	30	23	24
11	31	181	76	e62	92	81	92	168	62	26	22	23
12	31	121	66	e66	553	79	85	138	57	45	21	22
13	30	129	61	e68	180	85	83	99	53	37	20	22
14	28	121	58	e64	119	80	78	88	52	26	20	24
15	28	93	164	e58	109	75	77	81	49	23	18	20
16	29	77	154	e58	188	72	79	77	46	21	16	18
17	29	73	90	e60	121	70	75	120	45	21	15	18
18	29	121	74	165	109	69	82	620	49	33	14	29
19	30	79	69	195	130	73	112	276	45	23	14	25
20	28	66	105	1100	284	71	81	157	44	31	73	23
21	33	59	98	259	143	67	75	290	41	82	56	23
22	36	52	76	152	110	65	69	137	40	112	27	21
23	31	50	75	118	109	66	67	152	38	305	22	19
24	30	50	69	103	105	68	71	565	35	407	70	23
25	30	50	68	e100	92	68	67	282	34	62	52	94
26	30	50	138	e96	89	319	63	159	35	191	29	48
27	145	49	99	e94	87	306	83	123	33	239	23	29
28	441	168	91	89	88	124	266	e110	31	67	20	24
29	80	e730	130	100	85	102	98	e103	30	47	133	23
30	59	e567	91	97	---	93	82	e92	29	38	91	21
31	52	---	78	105	---	87	---	e88	---	33	35	---
TOTAL	1655	3351	2812	3903	4318	3234	2906	5822	1597	2128	1100	1113
MEAN	53.4	112	90.7	126	149	104	96.9	188	53.2	68.6	35.5	37.1
MAX	441	730	164	1100	553	319	266	739	132	407	133	205
MIN	28	38	58	58	84	65	63	68	29	21	14	18
CFSM	.54	1.14	.92	1.28	1.51	1.06	.98	1.91	.54	.70	.36	.38
IN.	.63	1.27	1.06	1.48	1.63	1.22	1.10	2.20	.60	.80	.42	.42

CAL YR 1987 TOTAL 32659.5 MEAN 89.5 MAX 998 MIN 9.0 CFSM .91 IN. 12.35
WTR YR 1988 TOTAL 33939 MEAN 92.7 MAX 1100 MIN 14 CFSM .94 IN. 12.83

e Estimated

01594000 LITTLE PATUXENT RIVER AT SAVAGE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969, 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (FTU)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
OCT											
20...	1245	29	217	7.4	12.0	20.5	1.8	2	48	8.4	1.49

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT										
20...	0.008	1.50	<0.008	0.40	0.25	0.040	0.030	<0.004	2.1	2.1

01594440 PATUXENT RIVER NEAR BOWIE, MD

LOCATION.--Lat 38°57′21″, long 76°41′36″, Anne Arundel County, Hydrologic Unit 02060006, on left bank 45 ft upstream from bridge on U.S. Highway 50 (John Hanson Highway), 3.0 mi west of Bowie City Hall, 3.1 mi downstream from mouth of Little Patuxent River, 4.2 mi northwest of Davidsonville, and 60 mi upstream from mouth.

DRAINAGE AREA.--348 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1955 to June 1977 (gage heights and discharge measurements only), August 1977 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 13.10 ft above National Geodetic Vertical Datum of 1929. Prior to June 27, 1977, nonrecording gage at same site and datum.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair. Flow regulated by T. Howard Duckett Reservoir, usable capacity 5,600,000,000 gal, 21 mi upstream from station.

AVERAGE DISCHARGE.--11 years, 362 ft^3/s, 14.13 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,100 ft^3/s, June 22, 1972, gage height, 27.9 ft, from flood-marks, on basis of contracted-opening measurement of peak flow; minimum discharge observed, 32 ft^3/s, Aug. 9, 1966; minimum daily discharge, 56 ft^3/s Sept. 17, 18, 19, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,510 ft^3/s, Nov. 30, gage height, 11.65 ft; minimum daily discharge, 84 ft^3/s, Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	151	1250	341	449	253	490	286	353	101	116	116
2	153	143	482	288	446	226	246	269	257	98	111	103
3	131	137	361	267	920	221	227	233	252	98	106	97
4	152	134	351	273	720	258	224	212	239	97	103	155
5	128	136	438	e260	676	734	221	282	240	94	99	454
6	106	128	328	e220	420	395	382	1710	235	95	98	174
7	168	125	294	e280	e300	292	366	1860	223	93	119	119
8	165	127	274	274	327	476	878	644	215	90	120	105
9	115	129	240	e260	316	601	660	403	394	93	98	99
10	105	143	215	e240	460	276	574	362	312	98	93	99
11	105	476	342	e240	369	238	523	435	240	98	91	96
12	104	389	279	e250	1310	224	343	649	223	96	91	92
13	103	445	225	252	1430	230	291	576	216	112	89	92
14	99	421	204	e240	739	232	280	476	208	99	88	92
15	99	366	326	e230	646	212	269	390	203	90	90	90
16	99	284	601	e235	631	205	273	374	163	88	131	86
17	100	264	319	233	670	320	268	312	158	90	93	84
18	101	280	246	324	649	364	269	742	143	133	85	94
19	102	272	220	549	535	371	308	1040	141	109	85	99
20	105	202	252	1200	774	368	288	836	138	100	168	92
21	105	181	318	2480	604	357	264	980	136	148	295	97
22	109	165	280	878	396	235	255	755	127	260	128	92
23	109	158	405	725	571	188	249	633	123	171	104	88
24	107	158	453	641	514	190	228	1420	121	768	137	86
25	106	154	334	617	333	191	202	1830	117	312	167	169
26	106	151	380	634	309	375	223	1010	116	183	119	202
27	118	149	430	387	300	1120	243	957	113	1260	99	114
28	832	218	325	307	307	541	719	952	109	361	93	99
29	601	687	468	296	300	306	472	740	104	180	191	94
30	198	2720	403	296	---	565	321	647	103	143	475	92
31	166	---	384	332	---	727	---	618	---	126	159	---
TOTAL	4961	9493	11427	14049	16421	11291	10556	22633	5722	5884	4041	3571
MEAN	160	316	369	453	566	364	352	730	191	190	130	119
MAX	832	2720	1250	2480	1430	1120	878	1860	394	1260	475	454
MIN	99	125	204	220	300	188	202	212	103	88	85	84
CFSM	.46	.91	1.06	1.30	1.63	1.05	1.01	2.10	.55	.55	.37	.34
IN.	.53	1.01	1.22	1.50	1.76	1.21	1.13	2.42	.61	.63	.43	.38

CAL YR 1987 TOTAL 106582 MEAN 292 MAX 2720 MIN 74 CFSM .84 IN. 11.39
WTR YR 1988 TOTAL 120049 MEAN 328 MAX 2720 MIN 84 CFSM .94 IN. 12.83

e Estimated

01594440 PATUXENT RIVER NEAR BOWIE, MD--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978-80, 1985 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Water years 1978-80, 1985 to current year.
WATER TEMPERATURE: Water years 1978-80, 1985 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1985 to current year.

REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling.

COOPERATION.--Some chemical data were collected by the U. S. Geological Survey and analyzed by the Maryland Department of Health and Mental Hygiene Laboratory Administration.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1985-88): Maximum daily, 843 microsiemens, Feb. 1, 1987; minimum daily, 109 microsiemens, Apr. 10, 1988.
WATER TEMPERATURE (water years 1985-88): Maximum daily, 29.0°C, July 25, 1987; minimum daily, 0.0°C, on many days during winter periods.
SEDIMENT CONCENTRATION: Maximun daily mean, 700 mg/L, June 3, 1985; minimum daily mean, 2 mg/L, Dec. 4, 5, 1985.
SEDIMENT LOAD: Maximum daily, 3,720 tons, Feb. 13, 1985; minimum daily, 1.1 tons, Dec. 5, 1985, Oct. 18, 1987.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 625 microsiemens, Nov. 13; minimum daily, 109 microsiemens, Apr. 10.
WATER TEMPERATURE: Maximum daily, 28.5°C, July 17; minimum daily, 0.0°C, Jan. 5-9, 11, 12, 14-16.
SEDIMENT CONCENTRATION: Maximum daily mean, 448 mg/L, July 24; minimum daily mean, 4 mg/L, Oct. 18, Nov. 23.
SEDIMENT LOAD: Maximum daily, 1,500 tons, May 6; minimum daily, 1.1 tons, Oct. 18.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT												
06...	1040	107	293	7.8	15.0	19.0	762	10	7.1	70	--	--
20...	1015	108	330	7.5	15.0	19.0	767	--	7.1	70	--	--
20...	1020	108	330	7.5	15.0	19.0	767	--	7.1	70	--	--
28...	1045	830	182	7.8	14.0	16.0	765	240	7.8	75	--	--
29...	1030	527	195	6.9	10.0	12.0	770	68	7.5	66	--	--
NOV												
16...	0845	297	324	7.5	7.0	7.0	781	4.3	10.1	81	210	680
24...	1040	157	324	7.4	7.0	15.0	777	--	10.6	86	--	--
30...	1235	3150	149	7.4	10.0	12.0	755	94	8.3	74	--	--
DEC												
02...	1105	477	209	7.5	8.0	7.0	764	23	9.8	83	--	--
22...	1010	255	250	7.7	6.0	10.0	770	11	10.8	86	--	--
JAN												
11...	1125	213	339	7.3	1.0	1.0	778	1.9	13.3	92	14	49
20...	1145	984	267	7.2	2.0	8.0	762	--	12.7	92	--	--
20...	1150	984	267	7.2	2.0	8.0	762	160	12.7	92	--	--
20...	1510	1240	285	7.2	2.0	14.0	759	170	12.8	93	--	--
21...	1100	3030	205	7.1	3.0	7.0	762	85	12.3	91	--	--
21...	1410	2490	208	7.4	5.0	9.0	761	92	12.1	95	--	--
26...	1210	645	261	7.5	2.0	-1.0	766	16	12.5	90	--	--
FEB												
02...	1145	403	322	7.7	9.0	17.0	766	12	10.5	90	--	--
04...	1115	647	290	7.2	6.0	8.0	762	34	11.3	91	--	--
16...	1240	611	236	7.7	5.0	11.0	763	25	11.6	91	--	--

01594440 PATUXENT RIVER AT BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
MAR												
02...	1135	207	290	7.4	6.0	14.0	769	0.30	11.2	89	10	12
08...	1050	473	249	7.7	8.0	12.0	776	33	10.8	90	--	--
15...	1040	191	287	7.7	6.0	4.0	760	--	10.5	85	--	--
15...	1045	191	287	7.7	6.0	4.0	760	4.7	10.5	85	--	--
22...	1235	196	243	7.2	7.0	8.0	774	6.0	10.4	84	--	--
28...	1030	479	217	7.5	11.0	15.0	775	23	9.4	84	--	--
28...	1300	434	220	7.2	12.0	18.0	773	30	9.2	84	--	--
31...	0920	690	175	6.9	13.0	12.0	--	--	--	--	--	--
APR												
05...	1040	202	273	7.4	16.0	20.0	765	9.2	7.1	72	--	--
07...	1305	300	228	7.3	13.0	10.0	751	19	8.2	79	--	--
APR												
08-08	0700	819	204	7.5	--	--	--	--	--	--	--	--
19...	1210	300	241	7.5	11.0	10.0	759	9.2	9.0	82	--	--
19...	1215	300	241	7.4	11.0	10.0	759	9.0	9.1	83	--	--
26...	1030	207	282	7.3	14.0	18.0	764	8.0	7.6	74	--	--
APR												
28-28	1300	819	187	7.1	--	--	--	--	--	--	--	--
28...	1340	837	195	7.5	15.0	17.0	758	97	8.2	82	--	--
29...	1100	407	205	7.3	13.0	13.0	760	--	8.0	76	--	--
MAY												
06-07	1412	1050	172	7.2	--	--	--	--	--	--	--	--
09...	0910	384	209	7.4	15.0	18.0	769	14	8.4	83	250	200
09...	0915	384	209	7.4	15.0	18.0	769	15	8.4	83	--	--
18...	1600	888	184	--	--	--	--	170	--	--	--	--
20...	1110	760	169	7.1	17.5	20.0	765	32	7.3	76	--	--
JUN												
10...	0940	291	228	7.2	17.0	18.0	769	32	7.5	77	--	--
21...	1100	129	320	7.5	25.0	31.0	--	--	4.2	--	--	--
JUL												
07...	1040	81	350	7.4	24.0	32.5	769	5.8	5.2	61	75	39
18...	0930	111	330	7.2	--	--	--	--	--	--	--	--
19...	1030	91	358	7.8	27.0	29.0	766	11	4.9	61	--	--
22...	1030	193	238	7.4	--	--	--	--	--	--	--	--
24...	1130	760	173	7.1	--	--	--	--	--	--	--	--
25...	0845	262	208	7.1	--	--	--	--	--	--	--	--
25...	1630	192	226	7.5	--	--	--	--	--	--	--	--
28...	1335	249	224	7.0	23.5	29.0	770	72	6.0	70	--	--
AUG												
25...	1140	155	292	7.3	23.0	31.0	759	35	6.0	70	--	--
30...	1000	575	185	7.2	23.0	24.0	766	--	5.9	68	--	--
30...	1410	412	190	7.2	23.0	26.0	766	--	5.8	67	--	--
31...	1040	145	240	7.2	21.0	26.0	770	30	6.5	72	2900	6800
SEP												
13...	1140	81	394	7.4	22.0	27.0	763	--	6.7	77	--	--
13...	1145	81	394	7.4	22.0	27.0	763	3.0	6.7	77	--	--
26...	1030	196	245	7.7	24.0	26.0	--	--	--	--	--	--

01594440 PATUXENT RIVER AT BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
OCT											
06...	--	--	--	--	61	--	--	--	--	--	9.2
20...	--	--	--	--	58	--	--	--	--	--	7.6
20...	--	--	--	--	58	--	--	--	--	--	7.6
28...	--	--	--	--	35	--	--	--	--	--	4.3
29...	--	--	--	--	28	--	--	--	--	--	7.8
NOV											
16...	20	4.5	31	4.3	40	39	48	25	48	0.20	9.7
24...	--	--	--	--	54	--	--	--	--	--	10
30...	--	--	--	--	24	--	--	--	--	--	5.6
DEC											
02...	--	--	--	--	34	--	--	--	--	--	4.1
22...	--	--	--	--	44	--	--	--	--	--	9.0
JAN											
11...	20	4.5	30	4.1	--	47	57	21	47	0.20	9.0
20...	--	--	--	--	28	--	--	--	--	--	6.0
20...	--	--	--	--	28	--	--	--	--	--	3.8
20...	--	--	--	--	24	--	--	--	--	--	5.4
21...	--	--	--	--	22	--	--	--	--	--	5.1
21...	--	--	--	--	19	--	--	--	--	--	5.6
26...	--	--	--	--	37	--	--	--	--	--	7.5
FEB											
02...	--	--	--	--	37	--	--	--	--	--	--
04...	--	--	--	--	32	--	--	--	--	--	7.5
16...	--	--	--	--	36	--	--	--	--	--	8.1
MAR											
02...	21	4.8	22	3.6	45	--	--	21	41	0.30	9.7
08...	--	--	--	--	35	--	--	--	--	--	6.4
15...	--	--	--	--	50	--	--	--	--	--	8.3
15...	--	--	--	--	50	--	--	--	--	--	8.3
22...	--	--	--	--	42	--	--	--	--	--	6.0
28...	--	--	--	--	34	--	--	--	--	--	7.9
28...	--	--	--	--	34	--	--	--	--	--	--
31...	--	--	--	--	26	--	--	--	--	--	--
APR											
05...	--	--	--	--	48	--	--	--	--	--	7.5
07...	--	--	--	--	38	--	--	--	--	--	5.4
APR											
08-08	--	--	--	--	37	--	--	--	--	--	5.5
19...	--	--	--	--	45	--	--	--	--	--	4.9
19...	--	--	--	--	44	--	--	--	--	--	4.9
26...	--	--	--	--	48	--	--	--	--	--	4.9
APR											
28-28	--	--	--	--	32	--	--	--	--	--	4.2
28...	--	--	--	--	33	--	--	--	--	--	3.6
29...	--	--	--	--	35	--	--	--	--	--	--
MAY											
06-07	--	--	--	--	31	--	--	--	--	--	4.7
09...	16	3.9	15	2.9	--	34	41	19	21	0.30	8.3
09...	--	--	--	--	39	--	--	--	--	--	8.3
18...	--	--	--	--	36	--	--	--	--	--	5.8
20...	--	--	--	--	33	--	--	--	--	--	6.0
JUN											
10...	--	--	--	--	39	--	--	--	--	--	6.2
21...	--	--	--	--	66	--	--	--	--	--	8.8
JUL											
07...	25	4.6	33	5.4	72	70	85	27	35	0.40	8.2
18...	--	--	--	--	52	--	--	--	--	--	7.1
19...	--	--	--	--	65	--	--	--	--	--	8.6
22...	--	--	--	--	40	--	--	--	--	--	8.0
24...	--	--	--	--	32	--	--	--	--	--	5.9
25...	--	--	--	--	34	--	--	--	--	--	7.1
25...	--	--	--	--	42	--	--	--	--	--	8.1
28...	--	--	--	--	40	--	--	--	--	--	8.1
AUG											
25...	--	--	--	--	52	--	--	--	--	--	7.7
30...	--	--	--	--	33	--	--	--	--	--	6.3
30...	--	--	--	--	35	--	--	--	--	--	6.9
31...	20	3.8	21	3.8	44	45	55	21	23	0.20	8.4
SEP											
13...	--	--	--	--	69	--	--	--	--	--	8.5
13...	--	--	--	--	69	--	--	--	--	--	4.2
26...	--	--	--	--	52	--	--	--	--	--	6.6

01594440 PATUXENT RIVER AT BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)
OCT											
06...	--	--	3.86	0.240	4.10	--	0.800	1.3	1.5	0.250	0.140
20...	--	--	4.95	0.250	5.20	--	0.900	1.7	1.7	0.220	0.220
20...	--	--	4.60	0.200	4.80	--	0.920	1.4	1.2	0.200	0.140
28...	--	--	1.48	0.022	1.50	--	0.100	1.5	0.70	--	0.110
29...	60	--	1.48	0.020	1.50	--	0.132	1.1	0.90	0.230	0.230
NOV											
16...	168	175	1.68	0.020	1.70	0.350	0.380	0.90	0.60	0.110	0.040
24...	--	--	3.45	0.052	3.50	--	--	1.6	1.3	0.230	0.110
30...	--	--	0.731	0.019	0.750	--	0.068	1.2	0.70	0.360	0.070
DEC											
02...	--	--	2.08	0.015	2.10	--	0.196	0.90	0.70	0.130	0.030
22...	--	--	2.14	0.055	2.20	--	1.25	1.3	1.2	0.150	0.070
JAN											
11...	167	174	2.37	0.030	2.40	0.840	0.830	1.5	1.2	0.150	0.050
20...	--	--	1.18	0.020	1.20	--	0.330	0.70	0.80	0.540	0.060
20...	200	--	1.38	0.024	1.40	--	--	1.7	0.95	0.900	0.090
20...	228	--	1.18	0.020	1.20	--	--	1.5	0.80	0.440	0.060
21...	85	--	1.19	0.013	1.20	--	0.240	1.2	0.80	0.290	0.060
21...	55	--	1.19	0.013	1.20	--	0.268	1.2	0.80	0.240	0.060
26...	19	--	1.78	0.020	1.80	--	0.272	0.70	0.55	0.120	0.050
FEB											
02...	--	--	2.18	0.018	2.20	--	0.294	0.95	0.70	0.180	0.060
04...	--	--	0.987	0.013	1.00	--	0.284	1.0	0.80	0.160	0.050
16...	--	--	2.18	0.017	2.20	--	0.232	0.75	0.60	0.170	0.050
MAR											
02...	151	164	2.77	0.030	2.80	0.520	0.570	1.2	0.90	0.120	0.040
08...	--	--	2.66	0.035	2.70	--	0.276	1.2	0.70	0.230	0.080
15...	--	--	2.86	0.040	2.90	--	0.770	1.1	1.1	0.160	0.060
15...	--	--	2.97	0.032	3.00	--	0.750	1.8	1.1	0.230	0.070
22...	--	--	2.67	0.025	2.70	--	0.400	0.95	0.35	0.070	0.060
28...	--	--	1.48	0.016	1.50	--	0.268	0.95	0.80	0.150	0.050
28...	--	--	1.58	0.015	1.60	--	0.236	1.0	0.85	0.140	0.050
31...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	--	--	2.63	0.067	2.70	--	0.650	1.7	1.3	0.250	0.080
07...	--	--	2.25	0.049	2.30	--	0.284	0.90	0.70	0.150	0.060
APR											
08-08	--	--	1.36	0.040	1.40	--	0.350	1.2	1.1	0.270	0.030
19...	--	--	2.46	0.036	2.50	--	0.260	0.95	0.65	0.190	0.060
19...	--	--	2.46	0.036	2.50	--	0.276	0.90	0.75	0.160	0.070
26...	--	--	3.12	0.080	3.20	--	0.800	1.5	1.4	0.170	0.080
APR											
28-28	--	--	1.45	0.050	1.50	--	0.200	0.80	0.70	0.130	0.030
28...	--	--	1.46	0.035	1.50	--	0.280	1.5	0.70	0.330	0.050
29...	--	--	1.77	0.028	1.80	--	--	1.0	0.65	0.140	0.040
MAY											
06-07	--	--	1.17	0.030	1.20	--	0.170	0.80	0.60	0.100	0.030
09...	112	115	1.77	0.030	1.80	0.570	0.300	0.80	0.70	0.080	0.040
09...	--	--	1.97	0.034	2.00	--	0.284	1.0	0.70	0.170	0.050
18...	--	--	1.54	0.064	1.60	--	0.380	1.9	0.85	0.480	0.070
20...	--	--	--	--	1.40	--	--	1.2	0.80	0.220	0.050
JUN											
10...	--	--	2.45	0.053	2.50	--	0.184	1.0	0.70	0.170	0.050
21...	--	--	3.86	0.240	4.10	--	0.460	1.1	0.90	0.190	0.110
JUL											
07...	208	206	5.05	0.250	5.30	0.390	0.380	--	0.20	0.140	0.110
18...	--	--	3.50	0.200	3.70	--	0.310	--	1.3	0.430	0.130
19...	--	--	4.48	0.215	4.70	--	0.400	1.4	1.2	0.230	0.160
22...	--	--	2.43	0.070	2.50	--	0.160	1.1	1.1	0.170	0.090
24...	--	--	1.47	0.030	1.50	--	0.050	1.2	0.60	0.700	0.050
25...	--	--	1.57	0.030	1.60	--	0.210	1.4	0.70	0.310	0.070
25...	--	--	1.76	0.040	1.80	--	0.170	0.90	0.40	0.190	0.080
28...	--	--	1.65	0.047	1.70	--	0.136	1.0	1.0	0.260	0.240
AUG											
25...	--	--	3.27	0.030	3.30	--	0.080	1.2	0.75	0.270	0.110
30...	--	--	1.38	0.020	1.40	--	0.160	0.90	0.60	0.330	0.090
30...	--	--	1.38	0.020	1.40	--	0.190	1.1	1.0	0.250	0.070
31...	140	139	2.28	0.020	2.30	0.140	0.160	0.70	0.80	0.240	0.070
SEP											
13...	--	--	4.44	0.060	4.50	--	0.180	1.4	0.80	0.260	0.110
13...	--	--	4.64	0.056	4.70	--	0.204	0.75	0.80	0.220	0.120
26...	--	--	1.78	0.020	1.80	--	0.060	0.50	0.50	0.250	0.100

01594440 PATUXENT RIVER AT BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
OCT											
06...	0.194	--	--	--	--	--	--	--	--	--	--
20...	0.144	<10	--	--	--	--	--	--	--	--	--
20...	0.100	<10	--	--	--	--	--	--	--	--	--
28...	0.078	--	--	--	--	--	--	--	--	--	--
29...	0.058	--	--	--	--	--	--	--	--	--	--
NOV											
16...	0.030	20	<1	34	<0.5	<1	<1	<3	2	210	<5
24...	0.064	--	--	--	--	--	--	--	--	--	--
30...	0.030	--	--	--	--	--	--	--	--	--	--
DEC											
02...	0.034	--	--	--	--	--	--	--	--	--	--
22...	0.051	--	--	--	--	--	--	--	--	--	--
JAN											
11...	0.030	<10	--	--	--	--	--	--	--	--	--
20...	0.040	40	--	--	--	--	--	--	--	--	--
20...	0.056	--	--	--	--	--	--	--	--	--	--
20...	0.044	--	--	--	--	--	--	--	--	--	--
21...	0.038	--	--	--	--	--	--	--	--	--	--
21...	0.034	--	--	--	--	--	--	--	--	--	--
26...	0.034	--	--	--	--	--	--	--	--	--	--
FEB											
02...	0.030	--	--	--	--	--	--	--	--	--	--
04...	0.026	--	--	--	--	--	--	--	--	--	--
16...	0.032	--	--	--	--	--	--	--	--	--	--
MAR											
02...	0.030	<10	<1	32	<0.5	1	<1	<3	6	89	<5
08...	0.040	--	--	--	--	--	--	--	--	--	--
15...	0.030	20	--	--	--	--	--	--	--	--	--
15...	0.058	--	--	--	--	--	--	--	--	--	--
22...	0.048	--	--	--	--	--	--	--	--	--	--
28...	0.032	--	--	--	--	--	--	--	--	--	--
28...	0.030	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	0.074	--	--	--	--	--	--	--	--	--	--
07...	0.052	--	--	--	--	--	--	--	--	--	--
APR											
08-08	0.020	50	--	--	--	--	--	--	--	--	--
19...	0.046	--	--	--	--	--	--	--	--	--	--
19...	0.052	--	--	--	--	--	--	--	--	--	--
26...	0.066	--	--	--	--	--	--	--	--	--	--
APR											
28-28	0.020	90	--	--	--	--	--	--	--	--	--
28...	0.022	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06-07	<0.010	100	--	--	--	--	--	--	--	--	--
09...	0.060	40	<1	35	<0.5	<1	<1	<3	3	160	<5
09...	0.038	--	--	--	--	--	--	--	--	--	--
18...	0.024	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
JUN											
10...	0.042	--	--	--	--	--	--	--	--	--	--
21...	0.080	<10	--	--	--	--	--	--	--	--	--
JUL											
07...	0.110	<10	--	--	--	--	--	--	--	--	--
18...	0.080	--	--	--	--	--	--	--	--	--	--
19...	0.154	--	--	--	--	--	--	--	--	--	--
22...	0.070	40	--	--	--	--	--	--	--	--	--
24...	0.040	30	--	--	--	--	--	--	--	--	--
25...	0.060	90	--	--	--	--	--	--	--	--	--
25...	0.060	50	--	--	--	--	--	--	--	--	--
28...	0.044	--	--	--	--	--	--	--	--	--	--
AUG											
25...	0.086	--	--	--	--	--	--	--	--	--	--
30...	0.080	30	--	--	--	--	--	--	--	--	--
30...	0.060	30	--	--	--	--	--	--	--	--	--
31...	0.050	40	1	26	<0.5	<1	<1	<3	<1	91	<5
SEP											
13...	0.090	<10	--	--	--	--	--	--	--	--	--
13...	0.104	--	--	--	--	--	--	--	--	--	--
26...	0.080	30	--	--	--	--	--	--	--	--	--

01594440 PATUXENT RIVER AT BOWIE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT											
06...	--	--	--	--	--	--	--	--	--	--	3.3
20...	--	--	--	--	--	--	--	--	--	--	3.8
20...	--	--	--	--	--	--	--	--	--	--	4.9
28...	--	--	--	--	--	--	--	--	--	--	12
29...	--	--	--	--	--	--	--	--	--	--	10
NOV											
16...	4	190	0.1	<10	4	<1	1.0	82	<6	20	--
24...	--	--	--	--	--	--	--	--	--	--	3.4
30...	--	--	--	--	--	--	--	--	--	--	--
DEC											
02...	--	--	--	--	--	--	--	--	--	--	3.8
22...	--	--	--	--	--	--	--	--	--	--	2.9
JAN											
11...	--	--	--	--	--	--	--	--	--	--	3.7
20...	--	--	--	--	--	--	--	--	--	--	14
20...	--	--	--	--	--	--	--	--	--	--	9.7
20...	--	--	--	--	--	--	--	--	--	--	9.2
21...	--	--	--	--	--	--	--	--	--	--	11
21...	--	--	--	--	--	--	--	--	--	--	8.2
26...	--	--	--	--	--	--	--	--	--	--	2.8
FEB											
02...	--	--	--	--	--	--	--	--	--	--	2.9
04...	--	--	--	--	--	--	--	--	--	--	4.0
16...	--	--	--	--	--	--	--	--	--	--	--
MAR											
02...	6	170	<0.1	<10	4	<1	<1.0	85	<6	61	4.2
08...	--	--	--	--	--	--	--	--	--	--	3.6
15...	--	--	--	--	--	--	--	--	--	--	4.6
15...	--	--	--	--	--	--	--	--	--	--	2.6
22...	--	--	--	--	--	--	--	--	--	--	3.0
28...	--	--	--	--	--	--	--	--	--	--	4.6
28...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	--	--	--	--	--	--	--	--	--	--	3.5
07...	--	--	--	--	--	--	--	--	--	--	4.0
APR											
08-08	--	--	--	--	--	--	--	--	--	--	11
19...	--	--	--	--	--	--	--	--	--	--	2.2
19...	--	--	--	--	--	--	--	--	--	--	2.7
26...	--	--	--	--	--	--	--	--	--	--	3.6
APR											
28-28	--	--	--	--	--	--	--	--	--	--	10
28...	--	--	--	--	--	--	--	--	--	--	8.5
29...	--	--	--	--	--	--	--	--	--	--	6.1
MAY											
06-07	--	--	--	--	--	--	--	--	--	--	15
09...	4	120	<0.1	<10	3	<1	<1.0	70	<6	11	5.2
09...	--	--	--	--	--	--	--	--	--	--	4.1
18...	--	--	--	--	--	--	--	--	--	--	8.2
20...	--	--	--	--	--	--	--	--	--	--	8.0
JUN											
10...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	4.7
JUL											
07...	--	--	--	--	--	--	--	--	--	--	4.4
18...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	5.1
22...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	6.2
AUG											
25...	--	--	--	--	--	--	--	--	--	--	4.8
30...	--	--	--	--	--	--	--	--	--	--	8.9
30...	--	--	--	--	--	--	--	--	--	--	8.3
31...	5	120	<0.1	<10	1	<1	1.0	72	<6	480	5.9
SEP											
13...	--	--	--	--	--	--	--	--	--	--	4.3
13...	--	--	--	--	--	--	--	--	--	--	3.2
26...	--	--	--	--	--	--	--	--	--	--	--

01594440 PATUXENT RIVER AT BOWIE, MD--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, MARCH 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM
MAR 1987							
31...	1300	376	99	100	76	94	100
APR							
01...	1030	956	284	733	70	97	100
02...	1110	468	127	161	77	95	100
JUN							
05...	1313	1060	245	702	62	99	100
OCT							
20...	1015	108	6	1.7	--	--	--
20...	1020	108	6	1.7	--	--	--
28...	1045	830	251	562	--	--	--
29...	1030	527	44	63	--	--	--
NOV							
16...	0845	297	12	9.6	--	84	--
24...	1040	157	24	10	--	--	--
30...	1235	3150	136	1160	--	--	--
30...	1845	3470	87	816	72	89	100
DEC 1987							
22...	1010	255	11	7.6	--	--	--
JAN 1988							
11...	1125	213	7	4.0	--	87	--
20...	1145	984	257	683	--	--	--
20...	1150	984	257	683	--	--	--
20...	1510	1240	258	864	--	--	--
21...	1100	3030	83	679	89	92	100
21...	1410	2490	62	417	--	--	--
26...	1210	645	24	42	--	--	--
FEB							
02...	1145	403	32	35	--	--	--
04...	1115	647	50	87	--	--	--
12...	1815	2010	--	--	73	94	100
16...	1240	611	155	256	--	--	--
MAR							
02...	1135	207	14	7.8	--	99	--
08...	1050	473	101	129	--	--	--
15...	1040	191	16	8.3	--	--	--
22...	1235	196	49	26	--	--	--
28...	1030	479	127	164	--	--	--
28...	1300	434	127	149	--	--	--
31...	0920	690	32	60	--	--	--
APR							
05...	1040	202	61	33	--	--	--
07...	1305	300	93	75	--	--	--
19...	1210	300	16	13	--	--	--
26...	1030	207	14	7.8	--	--	--
APR							
28-28	1300	819	439	971	--	--	--
28...	1340	837	225	508	--	--	--
29...	1100	407	43	47	--	--	--
MAY							
06...	1825	2500	79	533	63	90	100
09...	0910	384	25	26	--	99	--
18...	1600	888	340	815	--	--	--
20...	1110	760	68	140	--	--	--
24...	1735	1910	--	--	63	88	100
25...	1805	1610	--	--	78	95	100
JUN							
10...	0940	291	58	46	--	--	--
21...	1100	129	19	6.6	--	--	--
JUL							
07...	1040	81	17	3.7	--	99	--
18...	0930	111	31	9.3	--	--	--
19...	1030	91	18	4.4	--	--	--
22...	1030	193	81	42	--	--	--
24...	1130	760	611	1250	--	--	--
25...	0845	262	189	134	--	--	--
25...	1630	192	64	33	--	--	--
27...	1653	1580	--	--	78	96	100
28...	1335	249	89	60	--	--	--
AUG							
25...	1140	155	47	20	--	--	--
30...	1000	575	183	284	--	--	--
30...	1410	412	147	164	--	--	--
31...	1040	145	51	20	--	100	--
SEP 1988							
13...	1140	81	43	9.4	--	--	--
13...	1145	81	27	5.9	--	--	--
26...	1030	196	54	29	--	--	--

01594440 PATUXENT RIVER AT BOWIE, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	277	189	236	325	257	210	215	205	368	316	273
2	---	285	208	234	301	267	241	223	223	370	---	295
3	---	291	219	232	300	271	255	235	223	370	---	315
4	---	295	227	489	267	269	246	---	225	355	---	268
5	290	297	215	505	267	212	233	---	226	344	---	174
6	288	302	224	548	256	236	189	---	238	354	---	225
7	300	307	233	---	252	250	210	---	227	362	---	271
8	251	310	232	340	265	172	179	---	231	371	---	288
9	258	311	258	284	255	205	174	---	---	369	---	314
10	---	290	263	281	197	248	109	205	228	360	---	320
11	310	---	240	304	238	260	171	198	---	367	---	361
12	315	230	236	281	---	265	207	171	---	373	---	356
13	315	625	249	279	198	266	213	164	---	372	---	345
14	320	489	266	274	190	259	214	193	---	365	---	346
15	332	360	235	320	190	268	219	197	---	366	---	355
16	337	312	207	289	268	276	215	199	---	383	---	363
17	331	303	225	266	218	210	224	222	---	384	---	377
18	320	300	242	288	201	206	223	169	---	333	---	370
19	317	300	259	418	221	206	226	180	---	345	---	344
20	319	302	258	241	251	201	215	154	---	358	---	349
21	330	310	248	208	235	201	222	190	316	348	---	348
22	334	301	242	196	239	245	220	164	---	273	246	353
23	328	311	192	193	183	261	225	168	---	262	278	368
24	333	315	189	191	229	265	234	---	---	153	318	378
25	333	309	210	189	237	267	251	---	---	210	257	349
26	323	309	218	303	238	219	265	152	---	269	257	254
27	330	306	210	315	236	184	232	147	---	---	300	267
28	164	293	210	418	236	213	201	147	324	216	315	303
29	202	207	242	362	244	225	263	159	330	260	249	328
30	246	---	272	308	---	162	206	167	347	294	180	340
31	267	---	215	291	---	159	---	161	---	294	230	---

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	11.5	8.5	5.0	7.5	5.5	15.0	15.0	23.0	20.5	27.0	22.0
2	---	12.5	8.0	4.0	9.0	7.0	15.5	14.5	21.0	21.0	27.0	21.5
3	---	13.0	6.5	2.0	6.5	8.0	16.0	14.0	18.5	22.0	27.5	21.5
4	---	14.0	6.5	3.0	5.5	7.5	17.0	---	17.0	23.5	27.5	22.0
5	14.0	13.0	6.0	.0	4.0	6.5	18.0	---	18.5	23.5	27.0	22.5
6	14.0	10.0	6.0	.0	1.5	7.0	16.5	---	21.0	24.5	27.0	20.5
7	15.0	10.0	5.5	.0	.5	8.5	12.0	---	23.0	25.5	27.5	19.0
8	13.5	11.0	5.5	.0	2.5	8.0	10.5	---	22.5	25.5	27.0	19.0
9	13.0	13.0	7.5	.0	2.5	9.5	12.5	18.0	18.5	25.5	26.0	20.5
10	14.0	10.0	8.5	.5	3.0	10.0	14.0	18.0	18.5	25.5	27.0	21.5
11	14.0	---	8.5	.0	3.5	9.5	14.0	18.0	19.0	26.5	27.5	22.0
12	13.5	4.5	8.0	.0	---	10.5	12.5	18.0	20.0	25.0	28.0	20.5
13	12.0	5.5	8.0	1.0	1.5	12.0	12.0	18.5	22.0	26.0	28.0	22.0
14	11.0	7.0	7.0	.0	2.0	9.0	12.5	19.5	23.0	28.0	28.0	21.5
15	11.5	8.0	7.0	.0	3.5	5.5	14.0	19.5	24.0	28.0	28.0	20.0
16	13.0	8.5	5.5	.0	4.5	6.5	12.5	18.5	24.5	28.0	27.0	19.0
17	13.5	11.5	5.0	1.5	4.5	7.0	13.5	19.5	23.5	28.5	27.0	18.0
18	14.0	13.0	4.5	3.0	5.0	7.0	13.5	18.0	24.0	28.0	27.0	20.5
19	13.5	11.5	5.0	2.0	5.5	7.5	11.5	18.5	24.0	27.0	27.0	21.5
20	14.0	10.0	7.0	1.0	6.5	7.5	12.0	17.5	25.5	26.5	27.0	22.5
21	14.0	5.5	7.0	9.0	5.0	7.0	14.0	18.0	26.0	26.0	24.0	21.5
22	12.0	4.5	6.0	4.0	4.5	7.0	14.5	20.0	27.0	25.5	23.0	21.0
23	12.0	4.5	6.0	4.0	5.5	8.5	13.5	21.0	26.5	24.5	22.0	21.5
24	12.5	7.5	6.5	4.0	6.0	13.0	14.5	---	24.0	24.5	23.5	20.5
25	13.0	9.5	8.5	3.5	4.5	15.5	15.0	---	23.5	25.5	24.0	18.0
26	10.0	11.0	9.0	1.5	4.0	14.0	15.5	17.0	23.5	26.0	24.0	18.5
27	10.0	9.5	7.0	1.0	4.5	12.5	16.0	18.0	22.5	25.0	25.5	18.5
28	11.0	8.5	5.5	.5	4.5	12.5	14.5	19.5	22.0	24.5	24.5	18.5
29	10.5	10.5	4.5	1.5	5.5	13.0	13.0	20.5	23.0	26.0	24.0	17.5
30	10.5	12.0	2.5	2.5	---	13.0	14.0	22.0	21.5	27.0	22.5	18.5
31	11.5	---	2.5	5.5	---	13.5	---	23.0	---	27.5	22.0	---

01594440 PATUXENT RIVER AT BOWIE, MD--Continued

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10	4.4	24	9.8	44	155	11	10	22	27	14	9.6
2	10	4.1	24	9.3	26	34	7	5.4	32	39	14	8.5
3	10	3.5	19	7.0	12	12	7	5.0	76	189	15	9.0
4	10	4.1	19	6.9	10	9.5	8	5.9	53	103	18	13
5	10	3.5	21	7.7	24	28	10	7.0	43	78	87	181
6	11	3.1	16	5.5	10	8.9	10	5.9	24	27	54	58
7	28	13	14	4.7	8	6.4	11	8.3	14	11	24	19
8	18	8.0	12	4.1	7	5.2	12	8.9	14	12	66	85
9	10	3.1	10	3.5	6	3.9	10	7.0	11	9.4	33	54
10	6	1.7	27	10	17	9.9	11	7.1	32	40	21	16
11	12	3.4	69	89	42	39	7	4.5	20	20	18	12
12	11	3.1	19	20	22	17	7	4.7	84	330	16	9.7
13	7	1.9	23	28	12	7.3	7	4.8	62	239	16	9.9
14	8	2.1	23	26	10	5.5	6	3.9	34	68	16	10
15	10	2.7	16	16	32	28	6	3.7	26	45	15	8.6
16	15	4.0	14	11	47	76	19	12	56	95	9	5.0
17	7	1.9	30	21	15	13	14	8.8	37	67	20	17
18	4	1.1	25	19	11	7.3	15	13	29	51	20	20
19	6	1.7	25	18	9	5.3	44	65	24	35	18	18
20	6	1.7	12	6.5	20	14	164	535	26	54	16	16
21	6	1.7	6	2.9	34	29	92	660	27	44	14	13
22	6	1.8	5	2.2	13	9.8	49	116	27	29	12	7.6
23	15	4.4	4	1.7	24	26	29	57	30	46	14	7.1
24	12	3.5	9	3.8	22	27	27	47	40	56	14	7.2
25	18	5.2	12	5.0	14	13	26	43	13	12	12	6.2
26	10	2.9	10	4.1	33	34	23	39	12	10	52	53
27	7	2.2	7	2.8	40	46	15	16	9	7.3	128	387
28	167	423	13	7.7	10	8.8	11	9.1	12	9.9	49	72
29	56	97	84	192	16	20	10	8.0	15	12	22	18
30	62	33	130	914	15	16	7	5.6	---	---	56	85
31	50	22	---	---	10	10	7	6.3	---	---	45	88
TOTAL	---	668.8	---	1459.2	---	724.8	---	1732.9	---	1765.6	---	1323.4
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	24	32	13	10	32	30	18	4.9	22	6.9	28	8.8
2	16	11	15	11	33	23	20	5.3	19	5.7	21	5.8
3	16	9.8	24	15	32	22	20	5.3	22	6.3	17	4.5
4	16	9.7	25	14	26	17	16	4.2	18	5.0	46	19
5	34	20	30	23	26	17	17	4.3	23	6.1	198	255
6	16	17	262	1500	26	16	19	4.9	20	5.3	64	30
7	42	42	242	1210	24	14	17	4.3	16	5.1	22	7.1
8	382	891	90	156	29	17	16	3.9	13	4.2	24	6.8
9	120	214	25	27	64	68	12	3.0	12	3.2	24	6.4
10	32	50	22	22	50	42	16	4.2	15	3.8	20	5.3
11	14	20	40	47	28	18	20	5.3	16	3.9	17	4.4
12	16	15	59	103	30	18	17	4.4	14	3.4	13	3.2
13	12	9.4	54	84	24	14	20	6.0	12	2.9	18	4.5
14	7	5.3	40	51	27	15	16	4.3	9	2.1	16	4.0
15	12	8.7	36	38	26	14	14	3.4	12	2.9	19	4.6
16	13	9.6	34	34	24	11	20	4.8	34	12	17	3.9
17	14	10	28	24	24	10	27	6.6	22	5.5	12	2.7
18	20	15	192	451	20	7.7	32	11	19	4.4	14	3.6
19	18	15	170	477	19	7.2	18	5.3	18	4.1	13	3.5
20	12	9.3	66	149	19	7.1	19	5.1	48	27	13	3.2
21	9	6.4	74	196	19	7.0	32	13	79	64	14	3.7
22	10	6.9	71	145	20	6.9	102	72	50	17	13	3.2
23	14	9.4	46	79	18	6.0	50	23	43	12	12	2.9
24	21	13	51	196	22	7.2	448	972	42	16	15	3.5
25	16	8.7	39	193	22	6.9	141	147	42	19	56	30
26	6	3.6	52	142	17	5.3	35	17	18	5.8	56	31
27	16	10	48	124	22	6.7	208	762	20	5.3	22	6.8
28	181	359	45	116	25	7.4	100	97	20	5.0	20	5.3
29	44	56	40	80	19	5.3	40	19	98	73	21	5.3
30	16	14	42	73	19	5.3	26	10	178	253	12	3.0
31	---	---	42	70	---	---	21	7.1	56	24	---	---
TOTAL	---	1900.8	---	5860	---	452.0	---	2239.6	---	613.9	---	481.0

TOTAL LOAD FOR YEAR: 19222.0 TONS.

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD

LOCATION.--Lat 38°48′52″, long 76°44′53″, Prince Georges County, Hydrologic Unit 02060006, on right bank 1000 ft upstream from bridge on Water Street, 0.2 mi south of Upper Marlboro, and 4.7 mi upstream from mouth.

DRAINAGE AREA.--89.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 30 ft above National Geodetic Vertical Datum of 1929, from topographic maps.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft^3/s, Dec. 25, 1986, gage height, 10.15 ft; minimum discharge, 2.6 ft^3/s, June 19, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1900	*1,030	*9.06	No other peak greater than base discharge.			

Minimum discharge, 3.0 ft^3/s, July 9, gage height, 0.75 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	24	231	67	99	64	69	49	34	5.5	15	26
2	16	20	105	58	133	61	66	49	30	11	13	21
3	16	19	76	52	339	61	62	45	29	11	11	16
4	54	16	88	62	201	118	64	46	30	15	10	49
5	23	15	91	e56	155	277	60	113	30	12	9.8	50
6	21	13	66	e52	107	124	57	404	25	7.7	10	24
7	65	13	56	e52	95	95	210	246	23	5.7	34	16
8	33	12	50	e56	e83	79	350	111	21	4.5	15	12
9	23	13	48	60	76	77	151	79	39	3.8	9.8	11
10	20	44	53	55	73	75	100	68	38	9.8	8.7	15
11	17	143	256	50	75	66	83	133	24	8.3	7.7	11
12	18	135	115	48	709	61	74	110	20	8.2	7.2	9.5
13	15	171	78	52	414	69	68	68	18	19	7.3	9.7
14	13	170	62	52	151	62	62	56	16	14	6.3	16
15	13	164	196	44	124	56	62	49	17	6.0	6.4	12
16	13	111	180	42	201	52	57	46	20	6.0	27	9.1
17	14	87	97	45	128	50	54	61	21	10	18	8.4
18	13	98	71	154	105	48	54	174	17	61	12	10
19	13	63	61	186	108	50	63	625	13	12	9.2	9.5
20	14	49	87	731	266	48	55	294	13	13	89	8.1
21	14	38	79	675	140	45	50	121	13	34	72	11
22	13	31	64	207	102	44	46	88	12	111	28	8.4
23	13	29	63	133	93	48	46	73	9.5	46	16	6.5
24	12	28	54	105	95	47	47	131	8.9	198	15	6.9
25	11	28	53	e100	80	47	44	177	8.3	43	13	50
26	11	26	109	e95	74	202	42	93	7.9	29	12	30
27	26	26	92	e90	73	464	42	65	8.2	417	9.0	14
28	202	63	86	e85	72	153	196	57	7.0	179	8.1	11
29	71	311	149	e77	68	99	77	52	5.9	51	124	9.4
30	36	685	96	73	---	84	57	46	5.7	28	111	9.2
31	27	---	71	94	---	74	---	44	---	20	38	---
TOTAL	869	2645	2983	3708	4439	2900	2468	3773	564.4	1399.5	772.5	499.7
MEAN	28.0	88.2	96.2	120	153	93.5	82.3	122	18.8	45.1	24.9	16.7
MAX	202	685	256	731	709	464	350	625	39	417	124	50
MIN	11	12	48	42	68	44	42	44	5.7	3.8	6.3	6.5
CFSM	.31	.98	1.07	1.33	1.71	1.04	.92	1.36	.21	.50	.28	.19
IN.	.36	1.10	1.24	1.54	1.84	1.20	1.02	1.56	.23	.58	.32	.21

CAL YR 1987 TOTAL 26853.8 MEAN 73.6 MAX 685 MIN 5.1 CFSM .82 IN. 11.14
WTR YR 1988 TOTAL 27021.1 MEAN 73.8 MAX 731 MIN 3.8 CFSM .82 IN. 11.21

e Estimated

01594526 WESTERN BRANCH AT UPPER MARLBORO, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (FTU)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT											
20...	1015	16	290	6.8	12.0	17.0	6.5	<10	2.1	71	8.6

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT											
20...	0.165	0.005	0.170	<0.008	0.40	0.30	0.060	0.030	0.010	3.0	3.2

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD

LOCATION.--Lat 38°28′37″, long 76°44′08″, St Marys County, Hydrologic Unit 02060006, on left bank at private footbridge, 600 ft upstream from culvert on All Faith Church Road, 0.65 mi north of Huntersville, and 2.3 mi upstream from mouth.

DRAINAGE AREA.--3.54 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1985 to September 1988.

GAGE.--Water-stage recorder and concrete block control. Elevation of gage is 50 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good below 20 ft^3/s and fair above, except those for estimated daily discharges, which are also fair. Several measurements of water temperature were made during the period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 147 ft^3/s, Dec. 24, 1986, gage height, 4.39 ft; minimum discharge, 0.21 ft^3/s, July 8, 1986, Sept. 3, 4, 5, 1987.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 17, 1986	0045	*124	*4.12	Sept. 12, 1987	0800	101	3.82
July 20, 1986	2315	117	4.03				
Aug. 6, 1986	2345	117	4.03	Jan. 20, 1988	0700	*104	*3.85
Dec. 24, 1986	2330	*147	*4.39				

Water year 1986: Minimum discharge, 0.21 ft^3/s, July 8, gage height, 1.06 ft.

Water year 1987: Minimum discharge, 0.21 ft^3/s, Sept. 3, 4, 5, gage height, 1.06 ft.

Water year 1988: Minimum discharge, 0.24 ft^3/s, July 16, 17, gage height, 0.97 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	e7.0	14	3.9	4.3	4.6	3.5	2.5	1.1	.91	.58	.93
2	2.5	3.6	8.4	3.3	4.8	4.5	3.5	2.3	1.6	1.2	.56	1.1
3	16	5.7	6.8	4.6	4.3	4.5	3.4	2.2	1.3	1.2	.74	1.0
4	8.0	19	6.4	3.6	11	4.5	3.3	2.2	1.2	.72	.64	.93
5	5.0	10	6.1	3.4	5.8	4.4	3.3	2.2	1.1	.63	.49	.95
6	3.3	5.1	5.5	3.3	4.9	4.3	3.7	2.1	1.0	.55	5.2	.97
7	2.6	4.3	5.3	3.1	7.9	4.1	4.0	2.1	1.1	.48	7.0	.81
8	2.4	3.8	5.8	2.9	5.3	4.0	3.5	2.0	1.2	.38	1.2	1.2
9	e2.3	3.5	5.4	3.5	5.1	4.0	3.4	1.9	.99	1.7	.99	.83
10	e2.2	3.5	4.9	3.1	5.2	3.7	3.3	2.0	.79	.97	.78	.77
11	e2.1	3.4	5.0	3.1	5.9	3.9	3.3	1.9	.88	.56	1.1	.80
12	e2.0	3.3	5.2	3.1	4.9	3.7	3.2	1.9	.96	.50	.84	.72
13	e1.9	3.5	6.0	3.0	4.5	7.7	3.1	1.8	.86	1.1	.84	.64
14	e1.9	3.3	5.2	2.8	5.1	8.5	3.0	2.1	.71	.74	.68	.62
15	e2.1	3.2	4.8	e2.7	4.5	7.9	3.1	2.1	.72	.37	.60	.64
16	e1.9	4.1	4.8	e2.7	4.5	6.7	3.9	1.9	.76	2.9	.56	.54
17	e1.8	5.7	4.6	3.0	5.1	5.3	3.4	1.7	.63	12	3.0	.53
18	e1.7	3.4	4.4	3.1	8.7	4.9	3.4	1.5	.55	1.4	7.7	.57
19	e1.6	3.3	4.0	5.4	6.1	4.8	3.2	1.6	.57	1.2	4.7	.58
20	e4.0	3.3	e3.8	6.4	5.4	4.6	3.1	2.8	.96	9.6	6.1	.64
21	e20	3.6	e3.6	4.2	5.1	4.3	4.0	3.1	.94	6.7	13	.64
22	e12	16	e3.8	3.7	5.0	4.3	4.0	2.7	.66	1.6	2.2	.61
23	e7.0	5.7	4.4	3.3	5.8	4.3	4.0	1.8	.66	1.4	1.5	.62
24	e5.5	4.3	4.3	3.1	5.3	4.1	3.2	1.7	1.3	1.2	1.2	.58
25	e4.5	4.0	4.0	4.5	5.4	3.7	3.1	1.5	.74	1.0	1.0	.63
26	e4.2	3.7	3.3	16	5.1	3.7	3.0	1.4	.63	.99	.96	e.55
27	e4.0	3.7	3.5	7.8	5.2	3.7	2.8	1.5	.57	.94	1.1	e.46
28	e3.9	10	3.7	5.1	4.7	3.7	2.8	1.6	1.8	.85	3.0	e.40
29	e3.8	16	3.7	e4.6	---	3.7	2.8	1.3	2.1	.76	1.3	e.40
30	e3.8	47	3.4	4.4	---	3.5	2.7	1.3	.89	.63	1.0	e.60
31	e3.8	---	3.6	4.0	---	3.5	---	1.2	---	.63	.92	---
TOTAL	140.3	216.0	157.7	130.7	154.9	143.1	100.0	59.9	29.27	55.81	71.48	21.26
MEAN	4.53	7.20	5.09	4.22	5.53	4.62	3.33	1.93	.98	1.80	2.31	.71
MAX	20	47	14	16	11	8.5	4.0	3.1	2.1	12	13	1.2
MIN	1.6	3.2	3.3	2.7	4.3	3.5	2.7	1.2	.55	.37	.49	.40
CFSM	1.28	2.03	1.44	1.19	1.56	1.30	.94	.55	.28	.51	.65	.20
IN.	1.47	2.27	1.66	1.37	1.63	1.50	1.05	.63	.31	.59	.75	.22

WTR YR 1986 TOTAL 1280.42 MEAN 3.51 MAX 47 MIN .37 CFSM .99 IN. 13.46

e Estimated

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.39	e1.0	e2.0	9.2	5.5	e20	e6.0	4.5	2.4	1.3	1.2	.61
2	e.38	e1.0	e3.0	14	9.4	e11	e5.0	4.4	2.3	1.7	1.1	.40
3	e.39	e1.1	e10	6.9	12	e9.0	e4.5	7.4	2.4	1.7	.99	.37
4	e.41	e1.0	e3.0	5.5	11	e7.0	e12	17	4.4	1.4	.88	.31
5	e.39	e1.4	2.3	5.2	8.1	e6.5	7.9	8.0	3.4	1.4	2.0	.34
6	e.36	e2.4	2.1	4.8	7.2	e6.5	6.2	6.2	2.6	1.4	1.6	1.2
7	e.34	e2.0	2.0	4.7	7.7	e6.5	5.6	5.2	2.3	2.3	1.3	.93
8	e.31	e1.8	1.9	4.4	7.6	e6.5	5.3	4.6	2.2	1.4	1.1	1.0
9	e.32	e1.7	6.0	4.3	7.0	e7.0	5.0	4.3	2.1	1.2	.90	.79
10	e.64	e2.0	2.9	6.0	6.0	e8.0	4.7	4.1	2.1	1.1	.89	.58
11	e.64	e3.0	12	4.7	5.7	e7.0	4.5	3.8	2.0	1.1	.66	.57
12	e.50	e5.0	5.6	4.2	7.0	e5.5	4.8	3.7	2.0	3.2	.65	14
13	e.60	e3.5	3.2	4.0	6.3	e5.0	4.7	4.1	2.1	1.9	.62	4.1
14	e2.7	e2.5	2.7	4.0	5.8	e5.0	4.5	3.3	2.2	1.4	.69	2.2
15	e2.0	e2.0	2.5	4.3	5.5	e5.0	4.9	3.9	1.9	1.2	.70	1.4
16	e1.4	e1.8	2.4	4.0	5.0	e8.0	9.5	3.5	1.8	2.1	1.5	1.2
17	e1.1	e1.7	2.3	3.8	5.2	e6.5	15	3.2	1.8	1.6	.97	1.1
18	e1.0	e1.6	6.7	8.7	5.1	e5.0	6.6	3.1	1.7	1.2	.64	1.2
19	e.98	e3.0	3.2	21	4.6	e4.8	5.9	3.4	1.6	1.1	.64	1.1
20	e.95	e2.5	2.5	12	4.5	e4.6	5.5	5.4	2.2	.97	.61	2.1
21	e.95	e4.0	2.3	7.4	4.6	e4.5	5.4	4.0	3.4	.81	.51	1.4
22	e.94	e3.0	2.2	7.8	4.9	e4.5	5.0	3.4	2.3	.75	1.2	1.0
23	e.94	e2.4	2.2	6.9	19	e4.4	4.8	3.2	2.0	.74	.90	.92
24	e.94	e2.0	42	e6.0	e13	e4.3	5.0	3.4	1.8	.71	.55	.87
25	e1.1	e2.0	22	5.2	e9.0	e4.2	14	3.2	1.7	.94	.60	.84
26	e4.0	e3.0	9.0	e5.0	e8.0	e4.2	9.1	3.0	3.5	.71	.70	.85
27	e3.0	e6.0	6.4	e5.0	e7.0	e4.2	6.4	3.0	3.5	.71	1.2	.86
28	e2.3	e4.0	5.5	e5.0	e7.0	e6.0	5.6	2.8	1.8	9.5	1.1	.83
29	e1.7	e3.0	4.9	e5.0	---	e5.0	5.3	2.7	1.5	1.4	.70	.81
30	e1.4	e2.4	4.7	e5.0	---	e6.0	4.9	2.5	1.3	1.2	.51	1.6
31	e1.1	---	4.1	5.8	---	e7.5	---	2.4	---	1.1	.53	---
TOTAL	34.17	73.8	183.6	199.8	208.7	199.2	193.6	136.7	68.3	49.24	28.14	45.48
MEAN	1.10	2.46	5.92	6.45	7.45	6.43	6.45	4.41	2.28	1.59	.91	1.52
MAX	4.0	6.0	42	21	19	20	15	17	4.4	9.5	2.0	14
MIN	.31	1.0	1.9	3.8	4.5	4.2	4.5	2.4	1.3	.71	.51	.31
CFSM	.31	.69	1.67	1.82	2.11	1.82	1.82	1.25	.64	.45	.26	.43
IN.	.36	.78	1.93	2.10	2.19	2.09	2.03	1.44	.72	.52	.30	.48

CAL YR 1986 TOTAL 1057.99 MEAN 2.90 MAX 42 MIN .31 CFSM .82 IN. 11.12
WTR YR 1987 TOTAL 1420.73 MEAN 3.89 MAX 42 MIN .31 CFSM 1.10 IN. 14.93

e Estimated

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	1.1	2.1	2.1	3.1	3.1	4.7	2.8	1.3	.57	.71	.61
2	.86	1.1	1.8	1.9	4.9	3.1	4.6	2.8	2.0	.56	.72	.55
3	e2.0	1.0	1.6	1.9	7.0	e3.0	4.4	2.8	1.9	.50	.71	.53
4	e1.4	1.1	1.8	2.5	5.5	e3.5	6.1	2.9	1.8	.49	.62	2.6
5	e1.1	.94	1.7	2.2	4.5	e5.0	4.7	5.3	1.6	.50	.60	1.1
6	e1.0	e.90	1.6	1.9	3.6	e4.0	3.6	7.9	1.3	.46	.58	.63
7	e3.5	e.90	1.6	1.7	e3.5	e3.5	11	4.9	1.2	.42	.60	.55
8	e2.0	e.90	1.5	2.5	3.3	e3.2	11	3.6	1.1	.40	.54	.62
9	e1.5	1.0	1.5	1.9	3.3	e3.5	6.7	3.3	1.5	.69	.52	.57
10	e1.1	2.8	1.9	1.7	3.1	e4.2	5.7	3.6	1.5	.63	.50	1.0
11	e1.0	2.6	6.1	1.9	5.2	e3.8	5.3	3.7	1.2	.45	.51	.63
12	e1.3	2.5	2.3	1.9	24	e3.4	4.7	2.9	1.1	.57	.47	.56
13	e1.1	2.2	1.8	1.8	6.7	e3.4	4.4	2.7	.99	.57	.43	.52
14	e1.0	2.0	1.7	1.7	5.5	e3.2	4.0	2.5	.92	.45	.40	.47
15	e.90	1.7	5.0	1.7	4.9	e2.8	3.8	2.5	.89	.39	.53	.45
16	e.85	1.5	2.5	1.8	4.9	e2.7	3.8	2.4	.87	.35	.59	.41
17	e.80	1.5	2.1	1.6	4.3	e2.6	3.8	2.8	.95	1.5	.39	.44
18	e.80	1.5	1.9	4.6	4.3	2.8	4.2	4.5	.92	2.1	.36	.57
19	.89	1.4	1.9	2.7	5.3	2.9	5.3	4.0	.86	5.7	.96	.47
20	1.0	1.4	2.2	32	5.6	2.6	4.1	2.8	.84	2.5	1.8	.44
21	e.90	1.3	1.9	7.5	4.2	2.6	3.7	2.7	.76	1.1	.92	.43
22	e1.0	1.3	1.7	5.1	3.9	2.6	3.5	2.4	.71	1.6	.59	.38
23	e.95	1.3	1.7	4.4	4.0	2.6	3.3	2.1	.71	5.8	.58	1.3
24	e.85	1.2	1.7	4.0	4.0	2.6	3.2	2.1	.72	3.0	.59	1.3
25	e.80	1.2	2.0	5.5	3.3	2.6	3.1	2.5	.68	1.4	.50	1.5
26	e.80	1.3	2.4	5.2	3.3	11	3.0	2.1	.82	1.6	.44	.75
27	e2.0	1.3	2.0	3.7	3.3	9.2	3.2	1.9	.77	1.7	.42	.63
28	1.9	1.6	4.3	e3.0	3.3	6.0	4.0	1.8	.63	1.3	.43	.57
29	1.2	5.8	3.2	e2.6	3.3	5.5	3.1	1.7	.58	1.0	3.3	.57
30	1.1	3.5	2.3	3.1	---	5.1	3.0	1.6	.56	.81	1.2	.57
31	1.1	---	2.1	3.1	---	4.9	---	1.5	---	.74	.78	---
TOTAL	37.67	49.84	69.9	119.2	145.1	121.0	139.0	93.1	31.68	39.85	22.29	21.72
MEAN	1.22	1.66	2.25	3.85	5.00	3.90	4.63	3.00	1.06	1.29	.72	.72
MAX	3.5	5.8	6.1	32	24	11	11	7.9	2.0	5.8	3.3	2.6
MIN	.80	.90	1.5	1.6	3.1	2.6	3.0	1.5	.56	.35	.36	.38
CFSM	.34	.47	.64	1.09	1.41	1.10	1.31	.85	.30	.36	.20	.20
IN.	.40	.52	.73	1.25	1.52	1.27	1.46	.98	.33	.42	.23	.23

CAL YR 1987 TOTAL 1286.57 MEAN 3.52 MAX 21 MIN .31 CFSM 1.00 IN. 13.52
WTR YR 1988 TOTAL 890.35 MEAN 2.43 MAX 32 MIN .35 CFSM .69 IN. 9.36

e Estimated

01594710 KILLPECK CREEK AT HUNTERSVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	TUR-BID-ITY (FTU)	OXYGEN DEMAND, CHEM-ICAL (LOW LEVEL) (MG/L)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT											
19...	1220	0.89	162	6.6	12.0	20.0	4.6	<10	3.0	32	10

DATE	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
OCT											
19...	1.49	0.005	1.50	0.040	0.33	0.50	0.070	0.030	0.026	2.0	2.2

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD

LOCATION.--Lat 39°14'37", long 79°25'43", Garrett County, Hydrologic Unit 02070002, on left bank at downstream side of bridge (abandoned) on Dobbin Road, 0.6 mi south of intersection of Kempton Road, 1.2 mi from mouth, and 3.0 mi southwest of Wilson.

DRAINAGE AREA.--8.23 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair. Natural flow of stream affected by inflow from deep coal mine dewatering process.

AVERAGE DISCHARGE.--8 years, 24.0 ft^3/s, 39.60 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 863 ft^3/s, Nov. 5, 1985, gage height, 10.10 ft, from rating curve extended above 450 ft^3/s on basis of runoff comparisons with nearby stations; minimum discharge, 1.7 ft^3/s, Aug. 17, 18, 1988.

EXTREMES FOR CURRENT YEAR--Peak discharges greater than base discharge of 170 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0545	*222	*4.18	May 19	0415	197	3.98
May 6	1015	192	3.94				

Minimum discharge, 1.7 ft^3/s, Aug. 17, 18, gage height, 1.25 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	6.4	21	66	30	12	18	34	12	3.2	2.3	2.0
2	9.3	6.2	20	44	43	12	16	29	15	3.5	2.1	1.9
3	16	6.1	17	37	43	17	15	25	13	3.1	2.2	1.9
4	12	6.1	20	30	77	60	18	26	11	3.0	2.1	6.1
5	10	6.1	17	e25	51	54	14	59	9.7	3.0	2.1	6.0
6	9.9	6.1	15	e20	42	38	14	157	8.7	2.9	2.2	4.2
7	11	6.1	14	e18	40	30	34	77	7.9	2.9	2.5	2.8
8	15	6.1	17	e17	25	24	49	47	7.2	2.8	2.0	2.3
9	13	7.0	40	e16	21	22	38	37	23	2.8	2.0	2.2
10	12	33	53	e14	18	22	30	32	13	2.7	1.9	2.1
11	12	e27	37	e13	16	18	25	28	9.1	2.8	1.9	1.9
12	11	e16	30	e12	15	16	21	22	7.8	4.2	1.9	1.9
13	9.9	e14	24	e12	e14	30	18	19	7.0	3.0	1.8	12
14	9.2	e19	20	e11	e13	25	15	17	6.4	2.8	2.3	14
15	8.8	18	27	e11	e12	22	14	15	5.9	2.7	1.9	4.8
16	8.4	17	21	e12	e12	20	12	15	5.6	2.5	1.8	3.4
17	8.1	16	20	e14	e12	18	12	14	5.8	2.5	1.7	5.9
18	7.9	16	17	32	e12	17	21	34	5.6	2.4	1.7	6.4
19	7.7	13	16	25	e13	16	20	118	4.8	2.7	5.7	4.7
20	7.9	13	51	136	26	15	15	74	4.6	3.4	5.8	4.0
21	9.6	12	37	55	22	13	14	48	4.4	4.8	4.4	3.4
22	7.9	11	29	38	20	13	13	36	4.3	3.4	2.5	3.2
23	7.5	11	25	30	22	24	12	28	4.3	2.9	2.7	6.8
24	7.1	15	21	25	20	44	13	32	4.2	2.7	5.2	15
25	6.9	13	50	22	18	38	11	58	4.0	2.5	3.2	28
26	6.8	12	64	19	19	50	9.8	38	4.0	2.4	2.3	19
27	7.8	12	47	e17	15	41	9.1	31	3.5	2.5	1.9	11
28	8.5	11	42	e16	14	32	11	25	3.5	2.4	1.9	8.4
29	7.3	27	39	e14	13	26	25	20	3.4	2.3	2.6	6.8
30	7.0	25	29	e14	---	22	39	17	3.4	2.2	2.7	5.7
31	6.6	---	35	e18	---	19	---	14	---	2.3	2.1	---
TOTAL	293.1	407.2	915	833	698	810	575.9	1226	222.1	89.3	79.4	197.8
MEAN	9.45	13.6	29.5	26.9	24.1	26.1	19.2	39.5	7.40	2.88	2.56	6.59
MAX	16	33	64	136	77	60	49	157	23	4.8	5.8	28
MIN	6.6	6.1	14	11	12	12	9.1	14	3.4	2.2	1.7	1.9
CFSM	1.15	1.65	3.59	3.27	2.92	3.17	2.33	4.81	.90	.35	.31	.80
IN.	1.32	1.84	4.14	3.77	3.15	3.66	2.60	5.54	1.00	.40	.36	.89

CAL YR 1987 TOTAL 6472.3 MEAN 17.7 MAX 81 MIN 2.6 CFSM 2.15 IN. 29.26
WTR YR 1988 TOTAL 6346.8 MEAN 17.3 MAX 157 MIN 1.7 CFSM 2.11 IN. 28.69

e Estimated

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to May 1988 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to May 1988 (discontinued).
pH: May 1984 to May 1988 (discontinued).
WATER TEMPERATURE: October 1980 to May 1988 (discontinued).

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--All periods of missing record due to monitor malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1984-88): Maximum, 1,590 microsiemens, Sept. 14, 1984; minimum, 106 microsiemens, Nov. 29, 1984.
pH (water year 1988): Maximum, 4.6 units, June, 1, 1987; minimum, 2.8 units, July 29-31, Aug. 1-3, 12, 16-22, 1987.
WATER TEMPERATURE (water years 1984-88): Maximum, 25.0°C, Jul. 8, 24, 1987; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum, 899 microsiemens, Nov. 9; minimum, 134 microsiemens, Feb. 4.
pH: Maximum, 4.2 units, Feb. 4; minimum, 3.0 units, Nov. 10.
WATER TEMPERATURE: Maximum, 15.5°C, May 8, 10; minimum, 0.0°C on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	817	792	801	326	292	311	314	203	237
2	---	---	---	833	813	822	353	322	332	244	203	220
3	---	---	---	845	829	837	387	351	362	293	244	268
4	---	---	---	855	841	847	400	350	373	326	293	311
5	---	---	---	868	839	851	371	348	363	406	322	353
6	---	---	---	870	863	866	404	371	387	453	402	421
7	---	---	---	874	861	865	473	402	427	492	451	468
8	---	---	---	893	874	886	457	449	451	488	478	484
9	---	---	---	899	879	891	455	290	397	507	483	493
10	---	---	---	879	274	589	290	208	221	544	507	528
11	---	---	---	274	242	255	241	210	221	656	507	567
12	---	---	---	323	274	297	280	241	260	637	599	610
13	---	---	---	354	323	339	327	280	304	617	551	592
14	---	---	---	359	321	347	383	327	362	647	546	577
15	---	---	---	343	321	331	388	328	355	709	616	644
16	---	---	---	356	343	348	374	314	342	743	656	685
17	705	670	690	385	356	367	411	369	385	716	645	698
18	725	701	712	393	371	383	422	388	407	645	330	480
19	752	713	731	415	373	396	454	422	444	344	264	329
20	776	732	753	448	415	434	445	217	299	264	140	156
21	770	683	740	481	430	451	246	217	226	172	143	155
22	713	681	691	492	463	475	306	246	282	221	172	195
23	751	714	729	511	486	501	336	306	315	262	221	242
24	776	745	762	491	414	452	376	336	354	306	262	284
25	826	774	795	427	412	417	378	221	289	336	306	322
26	824	807	814	465	427	448	221	181	193	378	336	351
27	827	810	819	507	465	482	222	186	201	427	377	400
28	810	694	744	511	505	508	254	222	239	452	425	440
29	720	693	707	512	301	417	269	242	248	486	450	467
30	743	714	730	301	279	287	321	261	288	480	456	470
31	798	744	772	---	---	---	353	314	331	456	352	413
MONTH	---	---	---	899	242	540	473	181	322	743	140	415

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	354	272	310	499	476	488	431	401	413	280	233	248
2	276	186	248	556	499	517	450	430	437	299	260	272
3	208	180	187	512	456	496	486	450	474	322	285	296
4	210	134	163	456	248	350	480	319	426	338	294	323
5	166	146	153	316	232	253	511	380	464	294	197	241
6	240	166	202	316	222	247	542	510	527	202	142	163
7	296	224	255	338	260	306	510	271	361	198	155	174
8	314	278	296	366	298	318	271	200	216	244	198	216
9	364	314	341	348	328	339	243	203	223	299	244	270
10	394	364	378	369	322	339	299	240	263	322	295	307
11	430	394	410	401	357	373	352	290	308	349	322	330
12	454	430	441	439	397	412	387	327	350	---	---	---
13	520	404	453	439	286	338	407	387	394	---	---	---
14	542	494	515	325	290	310	437	391	415	---	---	---
15	528	482	508	355	317	335	476	434	450	---	---	---
16	482	418	434	378	341	356	508	476	499	---	---	---
17	494	438	468	407	376	385	535	501	523	---	---	---
18	496	480	489	409	391	400	574	323	491	---	---	---
19	486	431	474	429	407	417	382	313	334	---	---	---
20	431	318	352	439	429	434	449	382	415	---	---	---
21	338	316	324	471	439	453	476	447	456	---	---	---
22	382	322	355	502	469	487	503	476	492	---	---	---
23	370	343	361	486	302	427	541	503	519	---	---	---
24	365	340	350	302	227	247	530	498	512	---	---	---
25	394	365	381	245	219	229	556	501	532	---	---	---
26	420	394	405	243	210	225	605	556	586	---	---	---
27	446	418	428	239	208	224	638	593	624	---	---	---
28	476	432	441	307	237	266	649	530	616	---	---	---
29	476	458	466	328	292	305	530	288	418	---	---	---
30	---	---	---	353	328	339	288	245	259	---	---	---
31	---	---	---	412	353	378	---	---	---	---	---	---
MONTH	542	134	365	556	208	355	649	200	433	---	---	---

PH (STANDARD UNITS), OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	3.4	3.4	3.4	3.1	3.1	3.1	3.6	3.5	3.6	3.9	3.7	3.9
2	3.4	3.3	3.4	3.1	3.1	3.1	3.5	3.5	3.5	3.9	3.8	3.9
3	3.4	3.4	3.4	3.1	3.1	3.1	3.5	3.5	3.5	3.8	3.7	3.8
4	3.4	3.4	3.4	3.1	3.1	3.1	3.5	3.5	3.5	3.7	3.7	3.7
5	3.4	3.4	3.4	3.1	3.1	3.1	3.5	3.5	3.5	3.7	3.6	3.7
6	3.4	3.3	3.3	3.1	3.1	3.1	3.5	3.5	3.5	3.6	3.6	3.6
7	3.3	3.3	3.3	3.1	3.1	3.1	3.5	3.4	3.5	3.6	3.5	3.5
8	3.4	3.3	3.4	3.1	3.1	3.1	3.5	3.4	3.4	3.5	3.5	3.5
9	3.4	3.4	3.4	3.1	3.1	3.1	---	---	---	3.5	3.5	3.5
10	3.4	3.3	3.4	3.4	3.0	3.2	---	---	---	3.5	3.5	3.5
11	3.3	3.3	3.3	3.4	3.4	3.4	---	---	---	3.5	3.4	3.4
12	3.3	3.3	3.3	3.4	3.4	3.4	---	---	---	3.4	3.4	3.4
13	3.3	3.3	3.3	3.4	3.3	3.3	---	---	---	3.4	3.4	3.4
14	3.3	3.2	3.3	3.4	3.3	3.3	---	---	---	3.4	3.4	3.4
15	3.3	3.2	3.2	3.4	3.4	3.4	---	---	---	3.4	3.4	3.4
16	3.2	3.2	3.2	3.4	3.4	3.4	---	---	---	3.4	3.3	3.4
17	3.2	3.2	3.2	3.4	3.4	3.4	---	---	---	3.4	3.3	3.4
18	3.2	3.2	3.2	3.4	3.3	3.3	---	---	---	3.6	3.4	3.5
19	3.2	3.1	3.2	3.4	3.3	3.3	---	---	---	3.8	3.6	3.7
20	3.2	3.1	3.2	3.3	3.3	3.3	---	---	---	4.1	3.7	3.9
21	3.2	3.1	3.1	3.3	3.3	3.3	---	---	---	4.1	4.0	4.1
22	3.2	3.2	3.2	3.3	3.3	3.3	3.8	3.7	3.8	4.0	3.9	4.0
23	3.2	3.1	3.2	3.3	3.2	3.3	3.7	3.6	3.7	3.9	3.8	3.8
24	3.2	3.1	3.1	3.4	3.3	3.3	3.7	3.6	3.6	3.8	3.7	3.8
25	3.1	3.1	3.1	3.4	3.3	3.4	3.8	3.6	3.7	3.7	3.7	3.7
26	3.1	3.1	3.1	3.3	3.3	3.3	3.9	3.8	3.9	3.7	3.7	3.7
27	3.1	3.1	3.1	3.3	3.3	3.3	4.0	3.8	3.9	3.7	3.6	3.6
28	3.2	3.1	3.2	3.3	3.3	3.3	3.8	3.8	3.8	3.7	3.6	3.6
29	3.2	3.2	3.2	3.6	3.3	3.4	3.8	3.8	3.8	3.7	3.6	3.6
30	3.2	3.2	3.2	3.6	3.6	3.6	3.8	3.7	3.7	3.6	3.6	3.6
31	3.2	3.1	3.1	---	---	---	3.7	3.6	3.7	3.7	3.6	3.7
MONTH	3.4	3.1	3.3	3.6	3.0	3.3	---	---	---	4.1	3.3	3.6

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

PH (STANDARD UNITS), OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.8	3.7	3.8	3.6	3.5	3.6	3.5	3.5	3.5	3.8	3.7	3.7
2	3.9	3.8	3.8	3.6	3.5	3.5	3.5	3.5	3.5	3.7	3.6	3.7
3	4.0	3.9	4.0	3.7	3.5	3.6	3.5	3.4	3.5	3.6	3.6	3.6
4	4.2	3.9	4.0	4.1	3.7	3.9	3.6	3.4	3.5	3.6	3.6	3.6
5	4.0	4.0	4.0	4.1	4.0	4.1	3.6	3.4	3.5	3.9	3.6	3.8
6	4.1	3.9	4.0	4.1	3.9	4.0	3.4	3.4	3.4	4.0	3.8	3.9
7	3.9	3.8	3.9	3.9	3.9	3.9	3.7	3.4	3.6	4.1	3.9	4.0
8	3.8	3.7	3.8	3.9	3.8	3.8	3.9	3.7	3.8	3.9	3.7	3.8
9	3.7	3.7	3.7	3.8	3.8	3.8	3.8	3.7	3.8	3.7	3.6	3.7
10	3.7	3.6	3.7	3.8	3.8	3.8	3.7	3.6	3.7	3.6	3.6	3.6
11	3.6	3.6	3.6	3.8	3.7	3.7	3.7	3.6	3.6	3.6	3.5	3.6
12	3.6	3.6	3.6	3.7	3.6	3.7	3.6	3.5	3.5	---	---	---
13	3.6	3.5	3.6	3.8	3.6	3.8	3.5	3.5	3.5	---	---	---
14	3.5	3.5	3.5	3.8	3.8	3.8	3.5	3.4	3.5	---	---	---
15	3.5	3.5	3.5	3.8	3.7	3.7	3.5	3.4	3.4	---	---	---
16	3.5	3.5	3.5	3.8	3.7	3.7	3.4	3.4	3.4	---	---	---
17	3.5	3.5	3.5	3.7	3.7	3.7	3.4	3.3	3.4	---	---	---
18	3.7	3.4	3.5	3.7	3.6	3.7	3.6	3.3	3.4	---	---	---
19	3.6	3.4	3.5	3.7	3.6	3.6	3.6	3.5	3.5	---	---	---
20	3.7	3.6	3.7	3.6	3.6	3.6	3.5	3.4	3.5	---	---	---
21	3.7	3.7	3.7	3.6	3.6	3.6	3.5	3.4	3.4	---	---	---
22	3.7	3.6	3.7	3.6	3.5	3.5	3.4	3.4	3.4	---	---	---
23	3.7	3.6	3.7	3.7	3.5	3.6	3.4	3.3	3.4	---	---	---
24	3.7	3.6	3.7	3.9	3.7	3.8	3.4	3.3	3.4	---	---	---
25	3.7	3.6	3.6	3.9	3.8	3.9	3.4	3.3	3.4	---	---	---
26	3.7	3.6	3.6	3.9	3.8	3.9	3.3	3.3	3.3	---	---	---
27	3.6	3.6	3.6	3.9	3.8	3.9	3.3	3.2	3.3	---	---	---
28	3.6	3.6	3.6	3.8	3.7	3.8	3.4	3.2	3.3	---	---	---
29	3.6	3.5	3.6	3.7	3.6	3.7	3.7	3.4	3.5	---	---	---
30	---	---	---	3.7	3.6	3.6	3.8	3.7	3.7	---	---	---
31	---	---	---	3.6	3.5	3.6	---	---	---	---	---	---
MONTH	4.2	3.4	3.7	4.1	3.5	3.7	3.9	3.2	3.5	---	---	---

WATER TEMPERATURE, DEGREES CENTIGRADE, OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.0	9.5	11.5	9.0	7.0	8.0	4.0	2.5	3.5	3.5	1.5	3.0
2	10.0	8.5	9.5	10.0	8.0	9.0	2.5	.5	1.0	1.5	.0	.5
3	11.5	8.5	10.0	10.5	9.0	10.0	1.5	.5	1.0	1.5	.0	.5
4	8.5	7.0	7.5	10.5	9.0	10.0	2.0	.5	1.5	1.5	.0	1.0
5	8.5	7.5	8.0	10.5	8.5	9.5	.5	.5	.5	.0	.0	.0
6	10.0	8.5	9.5	8.5	4.5	6.5	.5	.5	.5	.0	.0	.0
7	9.5	8.0	9.0	4.5	3.0	4.0	.5	.5	.5	.0	.0	.0
8	8.0	6.5	7.0	6.0	4.0	5.0	3.0	.5	2.0	.0	.0	.0
9	6.5	5.0	6.0	7.5	5.5	6.5	5.0	3.0	3.5	.0	.0	.0
10	10.0	6.5	8.5	8.0	3.5	6.0	5.5	4.5	5.0	.0	.0	.0
11	11.0	9.0	10.5	3.5	1.0	2.0	5.0	4.0	4.5	.0	.0	.0
12	9.0	7.0	8.0	2.5	.5	1.5	5.0	4.0	4.5	.0	.0	.0
13	7.5	6.0	6.5	3.5	2.0	2.5	4.0	2.5	3.0	.0	.0	.0
14	6.5	5.5	6.0	4.5	3.5	4.0	3.5	2.0	3.0	.0	.0	.0
15	7.0	5.5	6.0	4.5	3.0	4.0	5.5	3.5	4.5	.0	.0	.0
16	8.0	6.0	7.0	6.5	3.5	4.5	4.5	.0	1.5	.0	.0	.0
17	9.0	7.0	8.0	9.0	6.5	8.0	.0	.0	.0	.0	.0	.0
18	10.5	8.5	9.5	9.0	7.0	8.5	.0	.0	.0	1.0	.0	.0
19	9.5	8.5	9.0	7.0	5.0	5.5	1.5	.0	.5	2.0	1.0	1.0
20	10.5	9.0	9.5	5.0	1.5	4.0	5.0	1.5	3.5	4.0	.5	2.5
21	10.5	7.0	9.0	1.5	.0	.5	5.0	2.5	3.5	3.0	2.0	3.0
22	7.0	5.0	6.0	.0	.0	.0	2.5	1.0	2.0	2.0	1.5	1.5
23	6.0	4.0	5.0	.0	.0	.0	3.0	2.0	2.5	1.5	.5	1.0
24	7.5	5.5	6.5	4.5	.0	2.0	3.5	2.0	2.5	3.0	.5	1.5
25	9.0	7.0	8.0	6.0	4.5	5.5	6.5	3.5	5.5	3.0	1.0	2.0
26	7.0	5.0	6.0	7.5	6.0	6.5	6.5	4.5	5.5	1.0	.0	.0
27	6.0	4.5	5.5	8.0	6.0	7.5	5.5	4.0	4.5	.0	.0	.0
28	6.0	5.0	6.0	6.0	5.5	6.0	5.0	3.5	4.0	.0	.0	.0
29	5.0	4.0	4.5	7.0	5.5	6.0	3.0	.5	2.0	.0	.0	.0
30	5.5	3.5	4.5	7.0	4.0	5.5	.5	.0	.0	1.0	.0	.0
31	8.5	5.5	7.0	---	---	---	3.0	.0	.5	4.0	1.0	2.5
MONTH	13.0	3.5	7.5	10.5	.0	5.5	6.5	.0	2.5	4.0	.0	.5

01594930 LAUREL RUN AT DOBBIN ROAD NEAR WILSON, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.0	3.5	4.5	2.5	1.5	2.0	12.5	10.5	11.5	12.0	5.0	8.0
2	6.5	5.0	6.0	4.0	2.0	2.5	12.5	11.0	12.0	11.5	7.5	9.0
3	5.5	4.0	4.5	4.5	3.5	4.0	12.5	11.0	12.0	9.5	7.0	8.5
4	5.0	1.5	3.5	4.0	3.0	4.0	14.0	11.5	13.0	9.5	7.5	8.0
5	1.5	.0	.5	6.0	1.5	3.5	14.0	11.0	12.5	9.0	8.5	8.5
6	.0	.0	.0	6.5	1.5	4.0	14.0	11.5	12.5	9.0	8.0	8.5
7	.0	.0	.0	6.0	4.0	4.5	11.5	8.0	9.0	15.0	7.0	10.5
8	.5	.0	.0	8.0	2.0	4.5	8.5	7.5	8.0	15.5	8.0	12.0
9	1.0	.0	.5	8.0	6.0	7.0	8.5	5.5	7.0	14.5	11.0	12.5
10	2.0	1.0	1.5	7.0	5.0	6.0	11.5	5.5	8.0	15.5	11.5	13.5
11	2.5	1.5	2.0	6.5	3.0	4.5	11.5	6.0	9.0	14.5	11.5	12.5
12	2.5	.0	1.5	8.5	4.5	6.0	11.5	6.5	8.0	---	---	---
13	.0	.0	.0	8.5	3.5	6.0	10.5	5.5	7.5	---	---	---
14	.5	.0	.0	3.5	1.0	1.5	10.5	7.5	8.5	---	---	---
15	.0	.0	.0	1.0	.0	.5	10.0	8.0	9.0	---	---	---
16	1.0	.0	.5	1.0	.0	.0	9.5	5.5	7.0	---	---	---
17	1.5	.0	.5	2.5	.0	1.0	9.5	5.0	6.5	---	---	---
18	3.0	1.5	2.5	2.5	1.0	1.5	10.5	8.0	9.5	---	---	---
19	3.0	2.5	3.0	2.5	1.0	2.0	8.5	6.0	7.5	---	---	---
20	3.0	2.0	2.5	2.5	1.0	1.5	9.5	6.0	7.5	---	---	---
21	2.0	.0	.5	2.0	1.0	1.5	10.5	8.5	9.5	---	---	---
22	3.0	.0	.5	4.0	1.0	2.0	10.5	8.5	9.0	---	---	---
23	3.5	1.5	2.5	6.5	3.5	4.5	12.5	9.0	10.0	---	---	---
24	1.5	.0	.5	9.5	3.0	6.0	13.0	7.5	10.5	---	---	---
25	.5	.0	.0	12.0	4.5	8.0	9.5	6.0	7.5	---	---	---
26	.5	.0	.0	11.5	7.5	9.5	11.5	8.5	10.0	---	---	---
27	1.5	.5	1.0	8.5	4.0	5.5	11.5	10.5	11.0	---	---	---
28	2.0	.0	1.0	9.5	2.0	5.0	10.5	4.5	8.0	---	---	---
29	2.0	1.5	2.0	12.0	5.0	8.0	5.0	2.5	4.0	---	---	---
30	---	---	---	11.5	7.5	9.5	8.0	4.5	6.0	---	---	---
31	---	---	---	12.0	8.5	10.0	---	---	---	---	---	---
MONTH	6.5	.0	1.5	12.0	.0	4.5	14.0	2.5	9.0	---	---	---

01594936 NORTH FORK SAND RUN NEAR WILSON, MD

LOCATION.--Lat 39°15′36″, long 79°24′36″, Garrett County, Hydrologic Unit 02070002, on right bank, 0.1 mi northwest of Wilson-Corunna Road, 0.1 mi upstream from mouth and 0.8 mi northwest of Wilson.

DRAINAGE AREA.--1.91 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and steel weir plate. Elevation of gage is 2,515 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good above 0.5 ft^3/s and fair below, except those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--8 years, 4.60 ft^3/s, 32.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 895 ft^3/s, May 31, 1985, gage height, 10.47 ft, from rating curve extended above 90 ft^3/s on basis of contracted-opening measurement of peak flow; minimum discharge, 0.01 ft^3/s, July 18 and Aug. 9, 1988, gage height, 1.34 ft, result of beaver activity upstream.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 40 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0315	*63	*3.48	May 19	0215	40	3.24
May 6	0245	51	3.40				

Minimum discharge, 0.01 ft^3/s, July 18, Aug. 9, gage height, 1.34 ft, result of beaver activity upstream.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	.71	5.3	16	6.6	2.7	3.7	8.4	2.5	e.27	.19	.23
2	1.9	.69	4.6	8.8	9.7	2.9	3.4	6.5	3.0	e.26	.17	.17
3	3.0	.67	4.0	7.1	9.2	3.7	3.1	5.4	2.7	e.26	.16	.21
4	2.1	.66	4.9	6.3	19	14	3.9	5.9	2.3	e.25	e.16	1.5
5	1.8	.67	4.3	5.1	11	11	3.6	23	2.0	e.24	.16	1.4
6	1.7	.62	3.8	e4.6	8.1	7.7	3.5	39	1.8	e.22	.17	.94
7	1.7	.61	3.5	e3.9	6.8	6.2	14	18	1.6	e.21	.17	.63
8	2.1	.58	3.5	e3.2	5.2	4.9	19	12	1.5	e.21	.17	.45
9	2.0	.72	6.8	e2.8	4.4	4.6	11	9.0	5.4	e.21	.11	.38
10	1.7	6.6	9.0	e2.5	3.8	4.6	8.5	7.4	2.9	e.20	.13	.36
11	1.6	5.1	6.2	e2.3	3.6	3.7	6.5	5.8	2.1	e.20	.14	.33
12	1.6	3.0	5.0	e2.1	3.4	3.3	5.0	4.5	1.7	e.70	.13	.24
13	1.4	3.0	3.9	e2.0	2.9	5.6	4.2	3.8	1.5	e.40	.13	2.8
14	1.3	3.9	3.4	e2.0	2.6	4.5	3.7	3.4	1.3	e.35	.14	2.0
15	1.2	3.6	5.9	e1.9	e2.4	3.9	3.3	3.1	1.2	.33	.12	.89
16	1.1	3.1	4.7	e1.8	e2.3	3.7	3.0	2.9	1.0	.23	.11	.57
17	1.0	3.1	3.8	e1.8	e2.2	3.5	2.7	2.8	e.94	e.21	.12	1.4
18	.97	3.6	3.3	8.1	e2.3	3.3	4.9	11	e.86	e.20	.12	1.5
19	.90	3.2	3.1	7.6	3.2	3.1	5.1	24	e.82	e.20	1.1	.93
20	.88	3.1	14	32	6.2	3.0	3.4	15	e.76	e.23	1.5	.72
21	1.2	2.9	8.1	12	4.7	2.7	2.9	10	e.72	e.60	.82	.61
22	.99	2.6	6.0	8.2	3.9	3.0	2.7	7.4	e.68	.49	.28	.53
23	.86	2.7	5.1	6.4	4.4	8.9	2.6	5.6	e.64	.34	.53	.75
24	.79	3.3	4.2	5.1	4.1	12	2.8	8.3	e.58	.28	.97	2.1
25	.75	3.1	11	4.6	3.6	8.7	2.6	15	e.52	.28	.47	5.6
26	.73	2.7	15	4.1	3.3	13	2.3	8.0	e.46	.26	.33	3.4
27	.83	2.7	9.8	3.4	3.2	9.9	2.1	6.2	e.40	.24	.27	1.8
28	1.2	2.6	8.3	2.9	3.0	7.0	2.5	4.9	e.31	.21	.24	1.2
29	.91	8.4	7.5	2.7	2.8	5.6	8.7	4.1	e.28	.21	.40	.86
30	.81	7.0	5.5	3.1	---	4.7	12	3.4	e.28	.20	.41	.75
31	.77	---	6.1	4.3	---	3.9	---	2.9	---	.18	.25	---
TOTAL	42.09	85.23	189.6	178.7	147.9	179.3	156.7	286.7	42.75	8.67	10.17	35.25
MEAN	1.36	2.84	6.12	5.76	5.10	5.78	5.22	9.25	1.42	.28	.33	1.17
MAX	3.0	8.4	15	32	19	14	19	39	5.4	.70	1.5	5.6
MIN	.73	.58	3.1	1.8	2.2	2.7	2.1	2.8	.28	.18	.11	.17
CFSM	.71	1.49	3.20	3.02	2.67	3.03	2.73	4.84	.75	.15	.17	.62
IN.	.82	1.66	3.69	3.48	2.88	3.49	3.05	5.58	.83	.17	.20	.69

CAL YR 1987 TOTAL 1348.16 MEAN 3.69 MAX 27 MIN .30 CFSM 1.93 IN. 26.26
WTR YR 1988 TOTAL 1363.06 MEAN 3.72 MAX 39 MIN .11 CFSM 1.95 IN. 26.55

e Estimated

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to May 1988 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to May 1988 (discontinued).
pH: June 1985 to May 1988 (discontinued).
WATER TEMPERATURE: October 1980 to May 1988 (discontinued).

INSTRUMENTATION.--Water-quality monitor since October 1980.

REMARKS.--Periods of missing record due to monitor malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1982-88): Maximum, 1,870 microsiemens, Aug. 17, 1987; minimum, 53 microsiemens, Nov. 5, 1985.
pH (water year 1986-88): Maximum, 7.4 units, Jan. 20, 1988; minimum, 5.5 units, Nov. 5, 1986.
WATER TEMPERATURE (water years 1982-88): Maximum, 26.0°C, July 24, 1987; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum, 773 microsiemens, Nov. 8; minimum, 82 microsiemens, May 6.
pH: Maximum, 7.4 units, Jan. 20; minimum, 6.1 units, Nov. 21, 30, Dec. 7, Feb. 21, May. 5-8.
WATER TEMPERATURE: Maximum, 16.0°C, Oct. 2; minimum, 0.0°C, on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	291	257	271	645	628	637	e215	e200	e205	165	126	134
2	318	272	303	661	645	653	e220	e210	e212	138	130	134
3	285	249	262	669	649	661	e232	e220	e225	146	138	142
4	279	254	264	675	659	668	e238	e225	e232	155	146	151
5	304	281	290	704	674	688	e227	e225	e225	174	155	165
6	310	304	307	736	706	720	e242	e227	e235	191	172	182
7	313	306	310	763	736	751	e268	e250	e255	204	191	198
8	313	279	293	773	752	764	e270	e268	e270	210	204	207
9	288	273	280	772	692	748	e268	e202	e240	222	210	215
10	304	287	292	692	208	423	e202	e163	e178	235	222	227
11	316	304	310	252	206	228	e180	e162	e178	250	235	244
12	323	316	320	301	252	270	192	180	186	262	250	258
13	331	323	327	303	271	293	206	192	199	265	256	261
14	346	331	341	273	232	250	217	206	212	274	261	266
15	371	344	358	240	234	236	214	177	197	291	272	283
16	382	373	378	246	240	242	216	184	200	307	291	301
17	395	382	389	248	246	247	232	216	224	311	299	308
18	411	395	403	e255	e250	e252	247	232	238	299	181	236
19	419	411	416	e260	e253	e258	253	245	250	186	162	181
20	426	418	423	e270	e258	e262	245	139	168	162	121	132
21	433	417	426	e272	e265	e268	164	146	156	135	129	132
22	429	419	422	e280	e265	e275	173	164	170	143	133	138
23	461	427	443	e287	e277	e280	185	173	178	156	143	149
24	496	463	482	e277	e245	e260	196	185	191	170	156	162
25	516	500	511	e248	e247	e248	196	141	162	180	167	173
26	530	515	524	e265	e248	e258	145	127	132	193	177	185
27	537	493	526	e275	e265	e272	137	131	134	209	193	202
28	516	482	495	e287	e275	e285	147	137	142	230	209	220
29	522	485	496	e278	e205	e247	152	144	147	243	230	238
30	572	526	549	e205	e190	e190	169	152	161	255	239	248
31	629	572	605	---	---	---	173	165	170	245	208	227
MONTH	629	249	388	773	190	394	270	127	196	311	121	203

e Estimated

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	200	170	180	296	283	289	206	190	199	157	136	147
2	174	137	163	296	276	287	220	206	214	164	157	159
3	149	135	144	278	239	260	230	220	225	178	164	170
4	149	112	126	239	122	177	239	202	224	184	167	179
5	132	119	126	141	125	133	224	202	212	169	93	126
6	144	132	138	151	141	145	234	192	225	93	82	86
7	e170	e144	e158	163	149	156	200	124	160	99	86	92
8	e190	e163	e176	180	163	172	127	114	119	111	99	105
9	e210	e178	e191	190	182	186	132	124	129	122	111	116
10	e225	e195	e210	192	186	190	144	132	138	129	120	124
11	e235	e215	e225	206	190	198	155	142	148	141	131	135
12	e260	e235	e247	215	206	211	170	155	164	---	---	---
13	e265	e235	e252	209	180	195	189	170	181	---	---	---
14	e290	e270	e281	194	180	187	210	189	201	---	---	---
15	e285	e260	e275	202	194	198	233	210	222	---	---	---
16	e260	e235	e248	210	202	205	252	233	243	---	---	---
17	e280	e260	e272	215	210	212	267	252	259	---	---	---
18	e285	e265	e278	221	215	219	271	221	249	---	---	---
19	e283	e260	e274	226	220	223	221	195	205	---	---	---
20	e260	e215	e222	231	225	228	247	218	234	---	---	---
21	e215	e200	e208	239	231	234	269	245	258	---	---	---
22	e230	e215	e222	250	233	243	290	269	280	---	---	---
23	235	224	230	240	128	209	305	290	297	---	---	---
24	243	226	233	136	126	131	310	293	302	---	---	---
25	261	245	252	146	132	140	310	297	303	---	---	---
26	269	261	265	149	126	134	327	310	318	---	---	---
27	274	267	271	140	134	137	342	327	333	---	---	---
28	282	273	276	149	140	144	344	294	328	---	---	---
29	288	279	284	161	148	155	294	172	220	---	---	---
30	---	---	---	179	161	169	175	138	151	---	---	---
31	---	---	---	190	175	182	---	---	---	---	---	---
MONTH	290	112	222	296	122	192	344	114	225	---	---	---

PH (STANDARD UNITS), OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.6	6.5	6.5	6.9	6.8	6.8	e6.2	e6.2	e6.2	6.6	6.3	6.3
2	6.7	6.5	6.6	6.9	6.8	6.8	e6.3	e6.2	e6.2	6.4	6.2	6.3
3	6.6	6.5	6.6	6.9	6.8	6.8	e6.4	e6.2	e6.3	6.5	6.2	6.4
4	6.6	6.5	6.6	6.9	6.8	6.8	e6.3	e6.2	e6.3	6.5	6.3	6.4
5	6.7	6.6	6.7	6.9	6.8	6.8	e6.3	e6.2	e6.2	6.5	6.3	6.4
6	6.8	6.7	6.7	6.8	6.8	6.8	e6.2	e6.2	e6.2	6.6	6.5	6.5
7	6.8	6.8	6.8	6.9	6.8	6.8	e6.3	e6.1	e6.2	6.6	6.5	6.5
8	6.8	6.7	6.8	6.9	6.8	6.8	e6.3	e6.2	e6.2	6.7	6.6	6.6
9	6.8	6.8	6.8	6.8	6.8	6.8	e6.4	e6.2	e6.3	6.7	6.7	6.7
10	6.8	6.7	6.8	6.8	6.3	6.5	e6.5	e6.2	e6.4	6.8	6.7	6.7
11	6.9	6.7	6.8	6.4	6.3	6.3	e6.7	e6.1	e6.6	6.8	6.7	6.7
12	6.9	6.9	6.9	6.5	6.4	6.4	6.8	6.7	6.8	6.8	6.8	6.8
13	6.9	6.9	6.9	6.5	6.5	6.5	6.8	6.8	6.8	6.8	6.7	6.8
14	7.0	6.9	6.9	6.5	6.4	6.5	6.8	6.7	6.8	6.8	6.8	6.8
15	7.0	6.9	7.0	6.5	6.4	6.4	6.8	6.5	6.7	6.8	6.8	6.8
16	7.0	7.0	7.0	6.5	6.4	6.4	6.6	6.5	6.6	6.9	6.8	6.9
17	7.0	7.0	7.0	6.6	6.5	6.5	6.7	6.6	6.7	6.9	6.9	6.9
18	7.0	7.0	7.0	e6.5	e6.4	e6.5	6.7	6.6	6.7	6.8	6.5	6.7
19	7.0	7.0	7.0	e6.5	e6.3	e6.4	6.8	6.7	6.7	7.3	6.5	6.5
20	7.0	6.9	7.0	e6.4	e6.2	e6.4	6.7	6.3	6.5	7.4	6.4	6.6
21	6.9	6.9	6.9	e6.3	e6.1	e6.3	6.4	6.2	6.3	6.5	6.5	6.5
22	7.0	6.9	6.9	e6.3	e6.2	e6.3	6.6	6.4	6.5	6.5	6.5	6.5
23	7.0	6.9	6.9	e6.3	e6.2	e6.3	6.5	6.3	6.4	6.5	6.5	6.5
24	7.0	6.9	6.9	e6.3	e6.2	e6.3	6.6	6.5	6.6	6.6	6.4	6.5
25	7.0	6.9	6.9	e6.4	e6.2	e6.3	6.6	6.3	6.4	6.7	6.6	6.6
26	7.0	6.9	6.9	e6.5	e6.4	e6.4	6.3	6.2	6.3	6.7	6.5	6.6
27	6.9	6.9	6.9	e6.5	e6.4	e6.5	6.3	6.2	6.3	6.7	6.7	6.7
28	6.9	6.9	6.9	e6.5	e6.5	e6.5	6.4	6.3	6.3	6.8	6.7	6.7
29	6.9	6.8	6.9	e6.5	e6.2	e6.3	6.4	6.2	6.3	6.8	6.7	6.8
30	6.9	6.9	6.9	e6.2	e6.1	e6.2	6.5	6.2	6.3	6.8	6.8	6.8
31	6.9	6.8	6.9	---	---	---	6.6	6.4	6.5	6.8	6.7	6.8
MONTH	7.0	6.5	6.9	6.9	6.1	6.5	6.8	6.1	6.4	7.4	6.2	6.6

e estimated

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

PH (STANDARD UNITS), OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.7	6.6	6.7	7.0	6.9	7.0	6.7	6.7	6.7	6.4	6.3	6.3
2	6.6	6.5	6.6	7.1	6.9	7.0	6.7	6.7	6.7	6.4	6.3	6.4
3	6.6	6.5	6.5	7.1	6.9	7.0	6.7	6.7	6.7	6.4	6.4	6.4
4	6.6	6.3	6.4	7.0	6.6	6.8	6.9	6.6	6.8	6.6	6.4	6.4
5	6.4	6.4	6.4	6.8	6.6	6.7	6.7	6.7	6.7	6.5	6.1	6.3
6	6.4	6.4	6.4	6.8	6.7	6.7	6.7	6.5	6.7	6.2	6.1	6.1
7	e6.4	e6.2	e6.4	6.9	6.8	6.8	6.7	6.4	6.5	6.2	6.1	6.1
8	e6.4	e6.2	e6.4	6.9	6.8	6.8	6.5	6.4	6.4	6.3	6.1	6.2
9	e6.4	e6.3	e6.4	6.9	6.9	6.9	6.5	6.4	6.5	6.3	6.2	6.2
10	e6.4	e6.4	e6.4	6.9	6.8	6.9	6.5	6.5	6.5	6.4	6.2	6.3
11	e6.5	e6.4	e6.5	6.9	6.6	6.8	6.5	6.5	6.5	6.5	6.4	6.4
12	e6.6	e6.5	e6.5	6.8	6.6	6.8	6.5	6.5	6.5	---	---	---
13	e6.5	e6.3	e6.5	6.8	6.8	6.8	6.5	6.5	6.5	---	---	---
14	e6.5	e6.2	e6.4	6.8	6.8	6.8	6.5	6.5	6.5	---	---	---
15	e6.3	e6.2	e6.2	6.8	6.8	6.8	6.5	6.5	6.5	---	---	---
16	e6.2	e6.2	e6.2	6.9	6.7	6.8	6.5	6.5	6.5	---	---	---
17	e6.3	e6.2	e6.3	6.9	6.7	6.8	6.5	6.5	6.5	---	---	---
18	e6.4	e6.3	e6.3	6.9	6.8	6.8	6.5	6.3	6.5	---	---	---
19	e6.4	e6.3	e6.4	6.9	6.7	6.8	6.5	6.3	6.4	---	---	---
20	e6.5	e6.3	e6.4	7.0	6.8	6.9	6.4	6.2	6.4	---	---	---
21	e6.6	e6.1	e6.4	7.0	6.7	6.8	6.4	6.4	6.4	---	---	---
22	e6.9	e6.4	e6.6	6.9	6.5	6.8	6.4	6.4	6.4	---	---	---
23	7.0	6.9	6.9	6.9	6.6	6.8	6.5	6.4	6.4	---	---	---
24	6.9	6.8	6.9	6.6	6.5	6.6	6.5	6.4	6.5	---	---	---
25	6.9	6.8	6.9	6.7	6.5	6.6	6.5	6.5	6.5	---	---	---
26	7.0	6.8	6.9	6.8	6.6	6.6	6.6	6.5	6.5	---	---	---
27	7.0	6.9	6.9	6.7	6.6	6.7	6.6	6.5	6.6	---	---	---
28	7.0	6.8	6.9	6.7	6.5	6.6	6.6	6.5	6.5	---	---	---
29	7.0	6.9	6.9	6.7	6.6	6.7	6.5	6.2	6.3	---	---	---
30	---	---	---	6.7	6.7	6.7	6.3	6.3	6.3	---	---	---
31	---	---	---	6.7	6.7	6.7	---	---	---	---	---	---
MONTH	7.0	6.1	6.5	7.1	6.5	6.8	6.9	6.2	6.5	---	---	---

WATER TEMPERATURE, DEGREES CENTIGRADE, OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.5	12.5	14.0	10.5	6.5	9.0	e5.5	e3.5	e5.0	4.5	2.5	4.0
2	16.0	10.5	13.0	11.5	8.5	10.5	e3.5	e2.5	e3.0	2.5	1.0	2.0
3	14.5	10.5	12.5	12.0	9.0	11.0	e4.0	e2.0	e3.0	2.5	.5	1.5
4	12.0	9.0	10.5	12.5	9.0	11.0	e4.5	e2.0	e3.5	2.5	.5	2.0
5	13.5	8.5	11.0	12.0	8.5	11.0	e3.0	e1.5	e2.0	.5	.0	.5
6	12.0	10.0	11.0	8.5	5.0	6.0	e3.0	e.5	e2.0	.0	.0	.0
7	12.0	10.5	11.5	7.5	4.5	6.0	e3.0	e.0	e1.5	.5	.0	.0
8	10.5	8.5	9.5	9.0	6.5	8.0	e4.5	e2.5	e3.5	.5	.0	.5
9	10.5	6.5	8.5	10.0	8.0	9.0	e6.5	e3.0	e4.5	.5	.5	.5
10	14.0	10.0	11.5	10.0	4.5	7.5	e6.5	e5.0	e6.0	.5	.0	.5
11	13.0	11.0	12.0	4.5	2.0	3.0	e6.5	e4.5	e5.5	.5	.0	.5
12	11.0	9.0	10.0	4.0	2.0	3.0	6.0	4.5	5.5	.5	.0	.5
13	10.0	7.0	8.5	5.5	2.5	3.5	4.5	2.5	3.5	1.0	.5	.5
14	9.5	5.5	7.5	6.5	4.0	5.0	4.5	2.5	3.5	.5	.0	.0
15	8.0	5.5	7.0	6.5	3.0	5.0	6.5	3.5	5.0	.5	.0	.0
16	9.5	5.0	7.0	7.5	3.5	5.5	3.5	.0	1.5	.5	.0	.5
17	11.0	5.5	8.5	10.0	7.5	9.0	1.0	.0	.5	.5	.5	.5
18	11.5	8.5	10.0	e10.0	e7.5	e8.5	2.0	.5	1.0	1.0	.5	.5
19	11.0	6.5	9.0	e7.5	e5.5	e6.0	3.0	.5	2.0	2.5	1.0	1.5
20	11.5	9.5	10.5	e6.0	e2.0	e4.0	6.0	3.0	4.5	4.0	1.0	2.5
21	11.5	7.0	9.5	e2.5	e.0	e1.0	5.5	3.5	4.5	4.0	3.0	3.5
22	7.5	5.0	6.5	e2.0	e.0	e.5	4.0	2.0	3.0	3.0	1.5	2.5
23	7.5	4.0	6.0	e3.5	e.0	e1.5	4.5	3.0	4.0	2.5	1.5	2.0
24	10.0	5.0	7.5	e6.0	e3.0	e4.5	4.5	2.5	3.5	4.0	1.5	2.5
25	10.0	7.0	8.5	e7.5	e5.0	e6.0	7.5	4.5	6.5	3.0	1.5	2.5
26	7.5	3.5	6.0	e9.0	e6.0	e7.0	7.5	5.5	7.0	1.5	.0	.5
27	7.0	5.0	6.0	e8.5	e5.5	e6.5	6.5	5.5	6.0	.0	.0	.0
28	8.0	6.0	7.0	e6.0	e5.0	e5.5	5.5	4.0	5.0	.0	.0	.0
29	7.0	4.5	6.0	e7.5	e5.0	e6.0	4.0	.5	3.0	.0	.0	.0
30	8.5	4.0	6.5	e7.5	e5.0	e5.5	1.5	.5	1.0	2.0	.0	1.0
31	10.5	7.0	9.0	---	---	---	3.5	.0	1.5	3.5	1.0	2.5
MONTH	16.0	3.5	9.0	12.5	.0	6.0	7.5	.0	3.5	4.5	.0	1.0

e estimated

01594936 NORTH FORK SAND RUN NEAR WILSON, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, OCTOBER 1987 TO MAY 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	3.0	4.0	2.5	.0	1.0	12.0	8.0	9.5	10.0	4.0	7.0
2	6.5	4.5	6.0	3.0	.0	1.5	11.0	8.0	10.0	8.5	6.0	7.5
3	5.5	4.0	4.5	3.0	2.0	2.5	11.5	8.5	10.0	8.5	5.5	7.5
4	5.5	1.5	4.0	3.5	2.5	3.0	14.0	9.5	11.5	8.0	6.0	7.0
5	2.0	.0	1.0	4.5	1.0	2.5	14.5	8.0	11.0	8.0	7.5	7.5
6	.0	.0	.0	6.0	1.0	3.5	12.0	8.5	10.0	8.0	7.0	7.5
7	e1.5	e.0	e.0	5.0	3.0	4.0	8.5	7.5	7.5	12.5	6.5	9.5
8	e2.0	e1.0	e1.0	7.0	1.5	4.0	7.5	6.0	7.0	13.5	7.5	10.5
9	e2.0	e.0	e.5	6.5	4.0	5.0	8.0	5.5	6.5	12.0	10.0	11.0
10	e2.5	e1.5	e1.5	6.0	3.5	5.0	10.5	4.5	7.5	14.5	10.0	12.0
11	e2.5	e1.0	e1.5	6.5	1.5	4.0	10.5	4.5	7.5	12.0	10.0	11.0
12	e2.0	e.0	e.5	7.5	2.0	5.0	7.5	5.5	6.0	---	---	---
13	e.0	e.0	e.0	6.0	2.5	5.0	10.0	5.0	7.0	---	---	---
14	e.0	e.0	e.0	2.5	.0	1.5	9.0	4.5	7.0	---	---	---
15	e1.0	e.0	e.5	.5	.0	.0	10.5	5.5	8.0	---	---	---
16	e1.0	e.0	e.5	1.0	.0	.5	6.5	4.0	5.5	---	---	---
17	e2.0	e.0	e.5	2.0	.0	.5	10.5	3.5	6.5	---	---	---
18	e2.5	e.5	e1.0	1.5	.5	1.0	8.5	6.5	7.5	---	---	---
19	e1.5	e1.0	e1.0	2.5	.5	1.5	9.5	5.0	6.5	---	---	---
20	e2.0	e1.0	e1.5	1.5	.0	.5	10.0	3.5	6.5	---	---	---
21	e.5	e.0	e.5	2.0	.0	1.0	11.0	6.0	8.0	---	---	---
22	e1.5	e.0	e.5	2.5	.0	1.0	9.0	6.0	7.5	---	---	---
23	2.0	.5	1.5	4.5	.5	2.5	12.5	6.5	9.0	---	---	---
24	.5	.0	.0	7.5	2.5	4.5	10.0	6.0	8.0	---	---	---
25	.0	.0	.0	10.0	4.0	7.0	11.5	4.5	7.5	---	---	---
26	.0	.0	.0	9.5	6.5	8.0	12.5	5.0	8.5	---	---	---
27	1.0	.0	.5	7.0	3.0	5.0	11.0	6.0	8.5	---	---	---
28	1.5	.0	.5	7.5	2.0	4.5	7.5	3.5	5.5	---	---	---
29	1.5	.0	.5	10.0	3.5	6.5	5.5	2.5	4.0	---	---	---
30	---	---	---	9.5	5.5	7.5	7.0	4.5	5.5	---	---	---
31	---	---	---	10.5	6.5	8.5	---	---	---	---	---	---
MONTH	6.5	.0	1.0	10.5	.0	3.5	14.5	2.5	7.5	---	---	---

e estimated

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD

LOCATION.--Lat 39°16′36″, long 79°23′26″, Garrett County, Hydrologic Unit 02070002, on left bank upstream side of culvert on private driveway off Wilson-Corona Road, 1.7 mi southwest of Fort Pendleton, 1.0 mi south of Bayard, WV, and 200 ft upstream from mouth.

DRAINAGE AREA.--2.30 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1986 to September 1988.

GAGE.--Water-stage recorder and sacrete bag control. Elevation of gage is 2,441.94 ft above National Geodetic Vertical Datum of 1929 (Garrett County bench mark).

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 64 ft^3/s, Jan. 20, 1988, gage height, 2.81 ft; minimum discharge, 0.09 ft^3/s, Aug. 4, 1988.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 40 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 19, 1987	1300	*48	*2.42	Jan. 20, 1988	0315	*64	*2.81
Apr. 16, 1987	2000	40	2.22	May 6, 1988	0215	63	2.80
June 20, 1987	1945	41	2.23	May 19, 1988	0330	41	2.23

Water year 1987: Minimum discharge, 0.14 ft^3/s, Aug. 15, 16, gage height, 0.22 ft.

Water year 1988: Minimum discharge, 0.09 ft^3/s, Aug. 4, gage height, 0.16 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.3	e1.7	6.1	3.8	4.8	13	6.5	7.6	.96	1.0	.36	e.50
2	e3.1	e3.4	6.8	3.7	7.6	14	6.8	7.2	.87	1.6	.27	e.40
3	e2.0	e2.4	9.2	3.4	7.6	9.6	6.7	7.0	.83	1.2	.80	e.34
4	e1.9	e2.4	7.5	3.3	6.6	8.0	6.6	15	.80	.94	.45	e.27
5	e3.8	e16	6.4	4.4	5.8	6.7	6.1	11	.68	.80	1.5	e.30
6	e2.3	e28	5.7	2.9	5.4	7.0	6.1	9.0	.61	.67	.80	4.2
7	e1.6	e13	5.3	3.0	5.2	10	7.7	7.5	.59	.60	.44	3.6
8	e1.4	e11	4.9	2.8	5.1	13	19	6.3	.55	.55	.32	13
9	e1.2	e17	16	2.6	6.6	16	19	5.3	.85	.50	.28	4.7
10	e1.1	e12	18	2.6	5.6	13	19	4.6	.68	.49	.24	3.0
11	e.96	e17	13	2.6	4.0	9.5	17	4.0	.55	.52	.23	2.7
12	e.90	e10	10	2.5	5.7	7.6	16	3.6	.66	.50	.21	9.9
13	e1.3	e8.5	8.0	2.3	5.3	6.3	13	3.1	.94	.46	e.18	7.7
14	e3.2	6.9	7.4	2.5	4.7	5.4	10	2.8	.69	.49	.18	4.8
15	e2.6	5.9	5.7	6.8	4.3	4.9	11	2.9	.56	.46	.16	3.6
16	e1.7	5.2	5.1	9.9	5.9	4.5	20	2.5	1.3	.45	e.16	3.0
17	e1.4	4.5	4.7	6.9	3.6	4.6	32	2.3	.87	e.43	e.23	3.5
18	e1.2	8.4	5.9	6.1	3.3	4.0	20	2.1	.55	e.43	e.30	7.2
19	e1.1	11	5.3	23	4.5	4.1	14	3.1	.49	e.40	e.19	5.0
20	e1.0	12	4.7	16	3.6	4.2	10	2.8	5.4	e.34	e.15	5.2
21	e.98	17	4.2	11	2.8	4.2	8.3	2.2	8.0	e.29	e.14	4.4
22	e.95	11	4.6	9.2	2.9	4.2	6.8	1.9	3.6	e.24	e2.3	3.8
23	e.93	9.2	4.1	8.1	3.1	4.3	6.0	1.7	3.6	e.24	e2.4	3.4
24	e.96	9.1	5.4	11	2.8	4.5	7.7	1.4	2.8	e.24	e.90	2.9
25	e1.0	7.8	9.6	6.9	3.2	5.0	7.9	1.3	2.2	e.21	e.50	2.5
26	e2.5	15	8.0	4.9	3.3	4.8	6.7	1.3	2.0	e.34	e.40	2.2
27	e2.4	14	6.9	5.4	2.5	4.3	6.2	1.2	1.7	e.35	e1.9	1.9
28	e4.1	11	5.9	4.9	2.9	4.1	6.4	1.2	1.4	e.32	e2.0	1.7
29	e3.0	8.9	5.2	3.7	---	3.7	5.8	1.0	1.2	e.29	e3.2	1.6
30	e2.3	7.3	4.8	e4.2	---	4.3	11	1.1	1.1	.23	e1.5	3.9
31	e1.9	---	4.2	e4.6	---	8.3	---	1.1	---	.35	e.80	---
TOTAL	58.08	306.6	218.6	185.0	128.7	217.1	339.3	125.1	47.03	15.93	23.49	111.21
MEAN	1.87	10.2	7.05	5.97	4.60	7.00	11.3	4.04	1.57	.51	.76	3.71
MAX	4.1	28	18	23	7.6	16	32	15	8.0	1.6	3.2	13
MIN	.90	1.7	4.1	2.3	2.5	3.7	5.8	1.0	.49	.21	.14	.27
CFSM	.81	4.44	3.07	2.59	2.00	3.04	4.92	1.75	.68	.22	.33	1.61
IN.	.94	4.96	3.54	2.99	2.08	3.51	5.49	2.02	.76	.26	.38	1.80

WTR YR 1987 TOTAL 1776.14 MEAN 4.87 MAX 32 MIN .14 CFSM 2.12 IN. 28.73

e Estimated

01594950 MCMILLAN FORK NEAR FORT PENDELTON, MD--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	.82	5.8	16	6.9	3.3	4.7	8.7	3.3	.37	e.18	e.24
2	2.3	.82	5.1	11	9.8	3.4	4.3	7.6	3.5	.37	e.17	e.18
3	3.6	.82	4.6	9.0	10	4.2	3.9	6.7	3.0	.36	e.16	e.19
4	2.6	.78	5.1	7.9	19	14	4.9	7.0	2.7	.33	e.16	e1.3
5	2.3	.75	4.5	e6.0	13	12	4.0	27	2.4	.32	e.15	e1.2
6	2.3	.69	4.0	e5.3	13	9.3	4.4	50	2.0	.30	e.15	e.56
7	2.4	.68	3.8	e4.7	11	7.6	11	25	1.7	.28	e.17	e.39
8	2.8	.66	3.7	e4.2	6.7	6.3	14	15	1.5	.25	e.15	e.36
9	2.5	.78	6.5	e3.6	5.7	5.9	11	11	4.9	.23	e.15	e.33
10	2.2	6.2	8.8	e3.2	5.0	5.5	8.6	8.8	2.6	.22	e.14	e.29
11	2.2	4.1	7.1	e2.8	4.5	4.7	7.1	7.1	1.9	.24	e.14	e.26
12	2.2	3.1	6.2	e2.8	e4.0	4.4	6.1	5.8	1.6	e.80	e.14	e.26
13	1.9	3.3	5.1	e2.6	e3.5	5.7	5.3	5.0	1.4	e.60	e.13	e1.7
14	1.7	4.2	4.5	e2.5	e3.3	4.9	4.7	4.5	1.2	.47	e.16	e2.0
15	1.5	4.3	7.0	e2.4	e3.0	4.5	4.2	4.1	1.1	e.38	e.14	e.76
16	1.3	4.2	5.7	e2.4	e2.7	4.3	3.7	3.8	.99	e.30	e.12	e.48
17	1.3	4.0	5.0	e2.4	e2.7	4.0	3.4	3.9	.97	e.25	e.11	e.66
18	1.2	3.9	4.5	7.5	e3.0	3.9	5.0	12	.97	e.23	e.11	e1.3
19	1.2	3.3	4.2	7.7	e4.0	3.8	4.4	26	.87	e.23	.75	e.70
20	1.1	3.2	15	37	e7.0	3.6	3.7	17	.78	e.29	1.2	e.60
21	1.6	2.9	10	16	e6.0	3.3	3.5	12	.72	e.60	.65	e.50
22	1.3	3.1	8.4	11	e5.4	3.9	3.2	9.0	.66	e.50	.30	e.40
23	1.1	2.7	7.2	8.4	5.1	6.7	3.2	7.6	.63	e.38	.55	e.60
24	1.1	3.0	6.2	6.8	4.7	10	3.5	11	.59	e.30	.74	e1.7
25	1.0	2.8	12	6.1	4.5	8.9	3.0	14	.53	e.26	.36	e3.7
26	.97	2.6	17	e5.4	4.6	11	2.8	8.9	.49	e.24	.26	e2.2
27	1.1	2.5	13	e4.7	3.9	9.2	2.6	7.1	.46	e.23	.21	e1.5
28	1.4	2.4	11	e4.2	3.5	7.6	3.2	5.9	.44	e.21	.20	e1.1
29	1.0	8.3	9.3	e3.9	3.4	6.7	7.5	5.1	.41	e.20	.42	e.90
30	.94	6.8	7.3	e3.7	---	5.9	9.9	4.3	.39	e.19	e.37	e.80
31	.89	---	7.6	4.8	---	5.2	---	3.7	---	e.18	e.31	---
TOTAL	53.50	87.70	225.2	216.0	178.9	193.7	160.8	344.6	44.70	10.11	8.95	27.16
MEAN	1.73	2.92	7.26	6.97	6.17	6.25	5.36	11.1	1.49	.33	.29	.91
MAX	3.6	8.3	17	37	19	14	14	50	4.9	.80	1.2	3.7
MIN	.89	.66	3.7	2.4	2.7	3.3	2.6	3.7	.39	.18	.11	.18
CFSM	.75	1.27	3.16	3.03	2.68	2.72	2.33	4.83	.65	.14	.13	.39
IN.	.87	1.42	3.64	3.49	2.89	3.13	2.60	5.57	.72	.16	.14	.44

CAL YR 1987 TOTAL 1559.26 MEAN 4.27 MAX 32 MIN .14 CFSM 1.86 IN. 25.22
WTR YR 1988 TOTAL 1551.32 MEAN 4.24 MAX 50 MIN .11 CFSM 1.84 IN. 25.09

e Estimated

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--November 1986 to September 1988.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1986 to September 1988.
pH: November 1986 to September 1988.
WATER TEMPERATURE: November 1986 to September 1988.

INSTRUMENTATION.--Water-quality monitor since November 1986.

REMARKS.--Periods of missing record due to monitor malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 281 microsiemens, Sept. 4, 1988; minimum, 58 microsiemens, Dec. 1, 2, 1987, Mar. 6, 24, 25, 1988.
pH: Maximum, 7.8 units, Aug. 28, 1988; minimum, 5.9 units, Mar. 3, 4, 1987.
WATER TEMPERATURE: Maximum, 22.0°C, Aug. 18, 1988; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT PERIOD.--
SPECIFIC CONDUCTANCE: Maximum, 281 microsiemens, Sept. 4, 1988; minimum, 58 microsiemens, Dec. 1, 2, Mar. 6, 24, 25, 1988.
pH: Maximum, 7.8 units, Aug. 28, 1988; minimum, 5.8 units, Mar. 3, 4, 1987.
WATER TEMPERATURE: Maximum, 22.0°C, Aug. 18, 1988; minimum, 0.0°C, on many days during winter periods.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), NOVEMBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	---	---	---	104	99	103	87	85	86
2	---	---	---	---	---	---	112	104	105	93	87	90
3	---	---	---	---	---	---	125	96	107	95	93	93
4	---	---	---	---	---	---	96	88	92	95	93	94
5	---	---	---	---	---	---	90	88	89	100	93	97
6	---	---	---	---	---	---	92	90	91	98	93	95
7	---	---	---	---	---	---	94	90	92	95	91	93
8	---	---	---	---	---	---	94	92	94	95	93	95
9	---	---	---	---	---	---	113	83	99	95	91	93
10	---	---	---	---	---	---	79	75	76	93	91	91
11	---	---	---	---	---	---	86	77	80	98	93	95
12	---	---	---	---	---	---	92	86	88	98	96	97
13	---	---	---	---	---	---	94	90	93	98	96	97
14	---	---	---	---	---	---	96	94	95	98	92	96
15	---	---	---	---	---	---	98	96	96	105	96	99
16	---	---	---	---	---	---	98	96	98	92	69	78
17	---	---	---	---	---	---	101	96	98	69	67	67
18	---	---	---	---	---	---	109	96	101	73	67	69
19	---	---	---	---	---	---	109	94	100	89	69	76
20	---	---	---	---	---	---	94	92	93	69	63	66
21	---	---	---	---	---	---	94	92	94	74	67	70
22	---	---	---	89	78	82	96	92	94	81	74	76
23	---	---	---	95	86	91	96	94	95	85	81	82
24	---	---	---	110	95	102	107	88	94	89	85	87
25	---	---	---	106	99	101	107	79	92	92	87	89
26	---	---	---	114	97	103	79	71	73	94	89	91
27	---	---	---	93	84	88	72	68	70	106	92	95
28	---	---	---	95	91	92	74	72	73	112	95	99
29	---	---	---	97	93	95	78	74	76	99	97	97
30	---	---	---	99	97	99	83	78	81	106	92	98
31	---	---	---	---	---	---	85	83	84	97	86	92
MONTH	---	---	---	---	---	---	125	68	91	112	63	88

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), NOVEMBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	90	87	88	108	75	93	87	76	80	72	64	68
2	91	84	89	75	59	64	85	68	77	70	64	67
3	91	80	85	77	67	72	74	70	72	70	65	68
4	82	80	81	79	71	74	76	72	73	75	67	72
5	84	81	82	79	71	75	78	70	74	69	65	68
6	87	83	85	90	78	81	81	68	76	69	65	67
7	90	85	87	91	72	78	131	76	94	71	65	68
8	92	86	90	71	66	67	148	85	113	72	68	71
9	92	85	89	69	63	66	106	81	92	74	70	72
10	93	89	92	71	65	68	116	92	103	74	72	74
11	94	90	92	78	71	74	101	71	95	77	73	75
12	104	84	93	84	78	79	88	67	81	77	77	77
13	104	84	91	88	81	84	78	71	73	80	76	77
14	86	82	84	90	86	88	78	76	77	82	76	80
15	84	81	82	89	87	88	88	76	80	87	80	82
16	86	84	85	91	86	90	84	76	80	87	84	87
17	86	84	84	93	89	91	76	63	67	86	82	86
18	86	83	84	101	92	96	67	63	65	86	82	86
19	86	83	85	94	87	91	78	67	68	98	80	86
20	85	83	84	89	83	86	88	71	76	106	96	103
21	84	80	83	85	80	83	80	76	77	98	85	89
22	84	81	83	82	78	80	80	76	78	89	85	85
23	92	81	88	80	73	77	80	78	80	91	83	87
24	92	87	89	75	71	74	87	79	81	93	89	89
25	89	84	86	73	68	71	80	71	76	93	87	90
26	89	85	87	74	62	70	75	67	71	92	87	91
27	88	86	86	74	72	72	73	69	69	92	92	92
28	88	80	85	78	70	74	75	69	72	96	92	95
29	---	---	---	78	76	77	75	71	73	96	92	93
30	---	---	---	85	76	79	87	70	75	96	89	93
31	---	---	---	100	72	88	---	---	---	95	91	93
MONTH	104	80	86	108	59	79	148	63	79	106	64	82

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	99	95	97	120	116	118	132	126	130	---	---	---
2	99	95	96	148	118	128	136	132	134	---	---	---
3	99	95	96	152	144	147	132	109	124	136	132	134
4	99	94	96	144	134	138	154	130	145	136	134	135
5	94	94	94	136	132	133	196	105	140	138	121	134
6	94	94	94	134	130	131	216	179	199	166	112	134
7	94	94	94	133	127	130	177	157	166	157	112	133
8	94	94	94	129	125	127	157	144	150	124	110	120
9	97	87	92	127	123	126	150	140	142	133	122	127
10	97	91	93	127	123	124	140	134	137	145	133	137
11	99	93	97	127	119	124	134	130	131	153	122	133
12	98	89	95	125	123	124	132	128	130	147	106	127
13	103	88	93	127	125	126	130	126	128	120	109	113
14	110	102	105	129	121	125	126	122	125	125	113	119
15	108	100	104	124	121	122	126	122	124	133	123	128
16	116	86	99	128	126	127	128	122	124	139	131	134
17	124	118	122	130	126	128	125	116	121	153	131	141
18	119	105	109	128	124	126	116	108	113	151	119	137
19	105	95	99	126	122	124	125	116	122	119	111	116
20	121	68	96	135	122	124	125	123	124	123	114	118
21	112	93	102	139	120	123	127	123	125	116	114	114
22	110	105	109	127	120	123	200	85	129	116	112	114
23	109	99	105	147	120	124	202	168	180	116	112	115
24	111	104	107	127	120	122	168	155	162	124	116	118
25	113	107	110	142	119	122	155	147	151	128	119	124
26	115	112	114	136	103	116	147	134	140	132	126	128
27	115	112	114	200	121	176	137	113	127	132	128	130
28	114	110	112	194	159	174	---	---	---	134	130	132
29	115	110	112	161	146	152	---	---	---	136	126	134
30	120	114	116	146	136	140	---	---	---	179	109	152
31	---	---	---	138	124	131	---	---	---	---	---	---
MONTH	124	68	102	200	103	131	---	---	---	---	---	---

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

PH (STANDARD UNITS), NOVEMBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	6.5	6.4	6.5	6.8	6.7	6.7
2				---	---	---	6.5	6.5	6.5	6.7	6.7	6.7
3				---	---	---	6.5	6.5	6.5	6.8	6.7	6.8
4				---	---	---	6.5	6.5	6.5	7.1	6.7	6.9
5				---	---	---	6.5	6.5	6.5	7.2	6.8	7.1
6				---	---	---	6.6	6.5	6.5	7.0	6.6	6.8
7				---	---	---	6.7	6.6	6.6	7.0	6.8	6.8
8				---	---	---	6.7	6.7	6.7	6.8	6.7	6.8
9				---	---	---	6.7	6.3	6.6	6.9	6.9	6.9
10				---	---	---	6.4	6.3	6.3	6.9	6.9	6.9
11				---	---	---	6.4	6.3	6.4	6.9	6.9	6.9
12				---	---	---	6.5	6.4	6.5	6.9	6.9	6.9
13				---	---	---	6.5	6.5	6.5	6.9	6.9	6.9
14				---	---	---	6.5	6.4	6.5	6.9	6.9	6.9
15				---	---	---	6.5	6.5	6.5	6.9	6.7	6.8
16				---	---	---	6.7	6.5	6.5	6.7	6.6	6.6
17				---	---	---	6.8	6.7	6.7	6.6	6.6	6.6
18				---	---	---	6.8	6.8	6.8	6.6	6.6	6.6
19				---	---	---	6.8	6.8	6.8	6.6	6.3	6.5
20				---	---	---	6.8	6.7	6.8	6.4	6.3	6.3
21				6.2	6.0	6.1	6.8	6.7	6.7	6.5	6.4	6.4
22				6.1	6.0	6.1	6.8	6.6	6.7	6.5	6.4	6.5
23				6.3	6.1	6.2	6.7	6.6	6.7	6.5	6.4	6.5
24				6.3	6.2	6.3	6.6	6.6	6.6	6.5	6.4	6.5
25				6.3	6.3	6.3	6.6	6.6	6.6	6.5	6.5	6.5
26				6.4	6.3	6.3	6.6	6.6	6.6	6.5	6.5	6.5
27				6.3	6.3	6.3	6.6	6.6	6.6	6.6	6.5	6.5
28				6.4	6.3	6.4	6.6	6.6	6.6	6.6	6.5	6.5
29				6.4	6.4	6.4	6.7	6.6	6.6	6.6	6.6	6.6
30				6.4	6.4	6.4	6.7	6.6	6.7	6.6	6.5	6.5
31				---	---	---	6.7	6.7	6.7	6.6	6.5	6.5
MONTH				---	---	---	6.8	6.3	6.6	7.2	6.3	6.7

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.6	6.5	6.6	6.4	6.1	6.3	7.1	7.0	7.0	6.7	6.5	6.6
2	6.6	6.5	6.5	6.1	5.9	6.0	7.1	7.0	7.1	6.6	6.6	6.6
3	6.5	6.5	6.5	5.9	5.8	5.9	7.1	7.1	7.1	6.6	6.6	6.6
4	6.6	6.5	6.5	5.8	5.8	5.8	7.1	7.1	7.1	6.7	6.5	6.6
5	6.6	6.6	6.6	5.8	5.8	5.8	7.2	7.1	7.1	6.6	6.5	6.5
6	6.7	6.6	6.6	---	---	---	7.2	7.1	7.1	6.6	6.5	6.6
7	6.7	6.6	6.6	---	---	---	7.1	7.0	7.1	6.6	6.6	6.6
8	6.7	6.6	6.7	---	---	---	7.2	6.9	7.1	6.7	6.6	6.7
9	6.6	6.6	6.6	---	---	---	7.0	6.8	6.9	6.7	6.7	6.7
10	6.6	6.6	6.6	7.0	6.9	7.0	7.0	6.8	6.9	6.9	6.8	6.8
11	6.7	6.6	6.6	7.0	6.9	6.9	6.9	6.8	6.9	6.8	6.8	6.8
12	6.6	6.5	6.6	7.0	6.9	6.9	7.0	6.7	6.9	6.9	6.8	6.9
13	6.6	6.5	6.5	6.9	6.8	6.9	6.8	6.7	6.7	7.0	6.9	6.9
14	6.6	6.5	6.5	6.9	6.9	6.9	6.7	6.7	6.7	6.9	6.8	6.9
15	6.6	6.5	6.5	6.9	6.8	6.9	6.7	6.6	6.6	7.0	6.8	6.9
16	6.5	6.4	6.5	6.9	6.7	6.8	6.7	6.6	6.6	7.0	6.9	6.9
17	6.5	6.5	6.5	6.9	6.8	6.9	6.8	6.6	6.7	7.0	6.9	6.9
18	6.5	6.5	6.5	6.9	6.8	6.8	6.8	6.8	6.8	7.0	6.9	6.9
19	6.5	6.4	6.5	6.9	6.8	6.8	6.8	6.7	6.7	7.0	6.8	6.9
20	6.5	6.4	6.5	6.9	6.8	6.8	6.8	6.7	6.7	6.9	6.8	6.9
21	6.5	6.5	6.5	6.9	6.7	6.8	6.8	6.7	6.7	6.9	6.8	6.9
22	6.5	6.5	6.5	6.8	6.7	6.8	6.7	6.6	6.7	7.0	6.8	6.9
23	6.5	6.4	6.4	6.8	6.5	6.6	6.7	6.7	6.7	6.9	6.8	6.8
24	6.5	6.4	6.4	6.6	6.4	6.5	6.9	6.7	6.8	7.0	6.8	6.9
25	6.4	6.4	6.4	6.8	6.6	6.7	6.9	6.9	6.9	6.8	6.8	6.8
26	6.4	6.3	6.4	6.8	6.7	6.7	6.9	6.8	6.9	6.8	6.8	6.8
27	6.4	6.4	6.4	7.0	6.8	6.9	6.9	6.8	6.9	6.8	6.8	6.8
28	6.4	6.3	6.4	7.0	6.9	7.0	6.9	6.8	6.9	6.8	6.8	6.8
29	---	---	---	7.1	7.0	7.1	6.9	6.9	6.9	6.9	6.8	6.9
30	---	---	---	7.1	7.1	7.1	6.8	6.7	6.7	6.9	6.8	6.8
31	---	---	---	7.1	6.9	7.0	---	---	---	6.9	6.8	6.8
MONTH	6.7	6.3	6.5	---	---	---	7.2	6.6	6.9	7.0	6.5	6.8

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

PH (STANDARD UNITS), NOVEMBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.9	6.8	6.9	6.9	6.8	6.9	7.0	7.0	7.0	---	---	---
2	7.0	6.9	6.9	6.9	6.7	6.8	7.1	7.0	7.0	---	---	---
3	7.0	6.9	7.0	6.9	6.8	6.8	7.0	6.8	6.9	6.7	6.5	6.6
4	7.0	6.9	7.0	6.9	6.8	6.9	7.0	6.9	7.0	6.7	6.6	6.7
5	7.0	6.9	7.0	6.9	6.9	6.9	7.1	6.6	6.9	6.8	6.7	6.7
6	7.0	6.9	7.0	6.9	6.9	6.9	6.9	6.6	6.8	6.7	6.3	6.4
7	7.0	7.0	7.0	7.0	6.9	6.9	7.1	6.9	7.0	6.5	6.3	6.4
8	7.1	7.0	7.0	7.0	6.9	7.0	7.2	7.0	7.1	6.3	5.9	6.1
9	7.1	7.0	7.0	7.0	6.9	7.0	7.3	7.1	7.2	6.4	6.3	6.3
10	7.1	7.0	7.0	7.0	6.9	7.0	7.3	7.2	7.2	6.5	6.3	6.4
11	7.1	7.0	7.0	7.0	6.9	6.9	7.4	7.2	7.3	6.6	6.4	6.5
12	7.1	7.0	7.0	7.0	6.9	7.0	7.4	7.2	7.3	6.5	6.2	6.3
13	7.0	7.0	7.0	7.0	6.9	7.0	7.4	7.2	7.3	6.4	6.2	6.3
14	7.1	7.0	7.0	7.0	6.9	7.0	7.4	7.2	7.3	6.5	6.4	6.4
15	7.1	7.0	7.0	7.0	7.0	7.0	7.4	7.2	7.3	6.6	6.5	6.5
16	7.0	6.7	6.9	7.0	6.9	7.0	7.3	7.2	7.2	6.6	6.5	6.6
17	7.0	6.8	6.9	7.0	6.8	6.9	7.4	7.0	7.2	6.6	6.5	6.6
18	7.1	6.9	7.0	7.0	6.8	6.9	7.2	7.0	7.1	6.5	6.5	6.5
19	7.1	6.9	7.0	7.0	6.8	6.9	7.2	7.0	7.1	6.6	6.5	6.6
20	7.1	6.1	6.9	7.0	6.9	6.9	7.1	6.8	7.0	6.6	6.6	6.6
21	6.6	6.4	6.5	7.0	6.8	6.9	6.9	6.6	6.8	6.6	6.6	6.6
22	6.7	6.5	6.6	7.0	6.8	6.9	6.7	6.3	6.5	6.7	6.6	6.6
23	6.6	6.6	6.6	7.0	6.8	6.9	6.4	6.3	6.4	6.7	6.7	6.7
24	6.7	6.6	6.6	7.0	6.7	6.9	6.5	6.4	6.4	6.9	6.7	6.8
25	6.7	6.7	6.7	7.0	6.8	6.9	6.5	6.4	6.5	6.9	6.9	6.9
26	6.8	6.7	6.8	7.0	6.7	6.8	6.6	6.4	6.5	7.0	6.9	6.9
27	6.8	6.8	6.8	6.8	6.6	6.7	6.7	6.6	6.7	7.0	7.0	7.0
28	6.9	6.8	6.9	6.9	6.7	6.9	---	---	---	7.1	7.0	7.0
29	6.9	6.8	6.9	7.0	6.8	6.9	---	---	---	7.1	7.0	7.1
30	6.9	6.8	6.9	7.0	6.9	7.0	---	---	---	7.1	6.8	6.9
31	---	---	---	7.0	6.8	7.0	---	---	---	---	---	---
MONTH	7.1	6.1	6.9	7.0	6.6	6.9	---	---	---	---	---	---

WATER TEMPERATURE, DEGREES CENTIGRADE, NOVEMBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	5.0	2.5	4.0	1.5	.5	1.0
2				---	---	---	4.5	2.5	3.5	1.0	.0	.5
3				---	---	---	5.5	4.0	5.0	.5	.0	.5
4				---	---	---	3.5	3.0	3.5	.5	.0	.0
5				---	---	---	3.0	2.0	2.5	.0	.0	.0
6				---	---	---	3.0	1.0	2.0	.0	.0	.0
7				---	---	---	4.0	2.5	3.0	1.0	.0	.5
8				---	---	---	5.0	3.5	4.5	1.0	.0	.5
9				---	---	---	7.0	5.0	5.5	1.5	.5	1.0
10				---	---	---	7.0	4.5	6.0	1.5	1.0	1.5
11				---	---	---	5.0	4.0	4.5	1.0	.0	.5
12				---	---	---	5.0	3.0	4.0	.0	.0	.0
13				---	---	---	3.0	.5	2.0	.5	.0	.5
14				---	---	---	2.0	.0	1.0	2.0	.0	1.0
15				---	---	---	3.5	2.0	3.0	2.5	2.0	2.0
16				---	---	---	3.5	1.5	2.5	3.0	2.5	2.5
17				---	---	---	4.0	3.5	4.0	2.5	2.0	2.5
18				---	---	---	4.5	2.5	4.0	3.0	2.0	2.5
19				---	---	---	2.5	2.0	2.0	3.0	2.0	2.5
20				---	---	---	2.5	1.5	2.0	2.5	2.0	2.5
21				5.0	4.5	5.0	2.0	1.0	1.5	2.5	2.0	2.5
22				6.0	4.5	5.0	1.0	.0	.5	2.0	.0	1.0
23				7.0	4.0	5.5	1.5	.0	.5	1.0	.0	.0
24				7.5	6.0	7.0	2.0	1.5	2.0	.0	.0	.0
25				6.5	4.5	5.5	3.0	2.0	2.5	.0	.0	.0
26				9.0	6.5	8.0	3.0	3.0	3.0	.0	.0	.0
27				8.5	6.0	7.5	3.5	2.5	3.0	.0	.0	.0
28				7.5	6.0	6.5	2.5	2.0	2.5	.0	.0	.0
29				7.0	5.5	6.5	2.5	.5	1.5	.5	.0	.0
30				6.0	4.5	5.5	2.0	1.5	1.5	.5	.0	.0
31				---	---	---	2.0	1.0	1.5	.5	.0	.0
MONTH				---	---	---	---	---	---	3.0	.0	1.0

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, NOVEMBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	.0	1.0	2.5	1.5	2.0	4.5	1.5	3.0	10.5	6.0	8.0
2	2.0	1.0	1.5	3.0	1.5	2.0	4.5	3.0	3.5	11.5	7.0	9.0
3	2.5	2.0	2.5	4.5	2.5	3.0	3.0	1.0	2.0	11.5	8.5	10.0
4	2.5	1.5	1.5	2.5	1.0	2.0	2.0	.5	1.5	9.5	7.0	8.5
5	2.5	.5	1.5	3.5	.0	1.5	3.0	1.5	2.5	10.0	5.5	8.0
6	2.5	.0	1.0	5.0	2.0	3.5	2.5	1.0	2.0	11.5	6.0	8.5
7	2.5	1.0	2.0	6.0	2.5	4.0	3.5	2.5	3.0	12.0	7.0	9.0
8	2.5	.0	1.5	6.0	3.0	4.5	6.0	3.0	4.0	11.0	7.5	9.0
9	.0	.0	.0	6.0	4.0	5.0	7.0	3.0	4.5	12.5	6.5	9.5
10	.5	.0	.0	4.0	2.0	3.0	8.5	3.5	5.5	14.0	8.0	11.0
11	1.5	.0	.5	4.0	1.5	2.5	7.0	4.0	5.5	14.0	9.5	11.5
12	1.5	1.0	1.5	4.5	2.0	3.5	7.0	4.5	5.5	14.5	10.5	12.5
13	2.0	.5	1.5	4.0	2.5	3.0	8.0	5.5	6.5	14.0	11.0	12.5
14	2.0	.0	1.0	3.5	1.0	2.5	9.0	5.0	7.0	15.5	10.5	12.5
15	1.5	.0	1.0	3.5	.5	2.5	8.0	6.5	7.5	14.5	12.0	13.5
16	.0	.0	.0	3.5	1.0	2.0	6.5	5.5	6.0	14.0	9.0	11.5
17	.5	.0	.0	3.5	.0	2.0	6.5	6.0	6.5	15.0	9.5	12.0
18	1.5	.0	.5	4.5	1.0	2.5	11.0	6.5	8.5	15.0	11.0	13.0
19	.5	.0	.0	5.0	2.0	3.5	10.5	7.5	8.5	15.0	12.5	13.5
20	1.0	.0	.5	5.5	1.5	3.5	12.0	6.5	9.0	12.5	11.0	12.0
21	2.0	.5	1.5	5.5	3.0	4.0	12.5	7.5	10.0	15.0	10.5	12.5
22	2.5	.5	1.5	6.0	3.0	4.0	13.0	8.5	11.0	15.5	11.5	13.5
23	1.0	.0	.5	6.5	2.5	4.5	12.0	10.5	11.0	16.5	13.5	15.0
24	2.0	.5	1.0	7.0	3.0	5.0	10.5	9.0	10.0	16.5	14.5	15.5
25	1.5	.0	.5	7.0	5.5	6.0	9.0	7.5	8.0	15.5	13.5	14.5
26	1.5	.0	.5	8.0	5.5	6.5	10.5	5.5	8.0	16.0	14.0	15.0
27	1.5	1.0	1.0	7.5	4.5	6.0	10.5	6.0	8.5	16.0	14.5	15.5
28	2.0	1.5	1.5	8.5	6.0	7.0	8.5	6.5	7.0	17.0	14.5	15.5
29	---	---	---	9.5	5.0	7.5	11.0	5.5	8.0	17.0	14.0	16.0
30	---	---	---	8.5	7.5	8.0	11.0	7.0	9.0	16.5	15.0	16.0
31	---	---	---	8.0	2.0	4.5	---	---	---	17.0	15.5	16.0
MONTH	2.5	.0	1.0	9.5	.0	4.0	13.0	.5	6.5	17.0	5.5	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	15.0	16.0	17.5	16.0	17.0	19.0	16.0	17.5	---	---	---
2	17.0	15.0	16.0	18.5	16.5	17.5	20.5	16.5	18.5	---	---	---
3	17.0	15.0	16.0	19.0	17.5	18.0	20.0	18.0	19.0	14.0	12.0	13.0
4	16.0	14.5	15.5	19.5	17.5	18.5	20.5	18.0	19.0	14.0	11.0	13.0
5	14.5	12.0	13.5	19.0	17.5	18.0	19.5	18.0	18.5	13.0	12.0	12.5
6	15.0	12.0	13.5	19.5	17.5	18.5	19.0	16.5	17.5	15.0	13.0	14.0
7	16.0	12.5	14.5	20.5	18.5	19.5	19.5	17.5	18.5	15.5	14.5	15.0
8	17.5	15.5	16.5	21.0	19.0	20.0	19.5	17.0	18.0	16.0	15.0	15.5
9	17.0	14.5	16.5	20.5	19.0	20.0	20.5	17.5	19.0	17.0	15.5	16.0
10	14.0	11.5	13.0	20.5	19.0	19.5	20.5	19.0	19.5	17.0	15.0	16.0
11	14.0	10.0	12.0	20.0	18.0	19.0	19.0	17.0	18.0	16.5	14.5	15.5
12	15.0	13.0	14.0	20.0	18.5	19.5	18.5	15.5	16.5	16.5	15.5	16.0
13	17.0	15.0	16.0	20.5	18.0	19.0	18.5	14.5	16.5	16.5	15.5	16.0
14	17.5	14.5	16.0	19.0	16.5	18.0	18.0	14.0	16.0	16.5	14.0	15.5
15	18.0	14.5	16.5	16.0	13.5	15.0	18.0	13.5	16.0	16.0	13.5	15.0
16	17.0	16.0	16.5	16.0	14.0	15.0	19.0	15.5	17.5	16.0	14.0	15.0
17	18.0	16.0	17.0	16.5	13.0	15.0	20.5	17.5	18.5	17.0	15.0	15.5
18	18.0	15.0	16.5	17.5	13.5	15.5	19.5	17.0	18.5	16.0	15.5	16.0
19	18.5	15.5	17.0	18.0	14.0	16.0	18.5	15.5	17.0	15.5	15.0	15.5
20	19.0	17.0	17.5	19.5	15.0	17.0	17.5	15.0	16.0	15.0	14.5	15.0
21	18.0	16.5	17.0	20.5	17.5	19.0	16.0	12.5	14.5	14.5	13.0	14.0
22	17.5	16.5	17.0	21.0	17.5	19.0	17.5	15.5	16.0	13.5	12.0	13.0
23	17.5	16.5	17.0	20.5	17.5	19.0	17.5	15.0	16.0	13.0	12.0	12.5
24	18.0	16.0	17.0	21.0	18.5	19.5	15.0	12.5	13.5	13.5	12.0	12.5
25	17.5	15.0	16.0	20.5	17.5	19.0	13.0	11.5	12.5	12.5	11.0	12.0
26	17.5	16.0	17.0	20.0	18.0	19.0	14.0	13.0	13.5	12.0	9.0	10.5
27	16.5	14.5	15.5	20.0	18.5	19.0	17.5	14.0	16.0	12.5	9.5	11.0
28	15.5	13.0	14.5	18.5	17.0	17.5	---	---	---	13.0	9.5	11.5
29	16.5	12.5	14.5	18.0	15.0	16.5	---	---	---	13.5	11.0	12.5
30	18.5	15.5	17.0	19.0	15.0	17.0	---	---	---	13.5	11.5	13.0
31	---	---	---	19.0	16.5	18.0	---	---	---	---	---	---
MONTH	19.0	10.0	16.0	21.0	13.0	18.0	---	---	---	---	---	---

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	146	124	132	89	85	87	62	58	60	135	122	129
2	126	109	120	86	84	85	77	58	60	138	120	128
3	139	105	123	86	83	84	73	61	67	142	117	136
4	133	112	119	84	82	83	73	63	66	157	132	144
5	112	110	111	83	81	82	68	67	67	140	104	124
6	112	108	110	82	80	81	70	67	68	122	85	97
7	114	108	111	81	79	80	71	68	70	92	84	88
8	116	105	109	80	77	79	75	70	71	92	88	90
9	115	109	113	78	73	76	86	73	81	94	90	92
10	113	105	108	109	66	77	79	67	71	94	92	93
11	107	103	105	113	87	107	67	62	64	96	92	95
12	108	105	106	88	79	82	68	64	65	99	94	97
13	108	104	106	83	79	80	71	65	68	101	95	98
14	106	104	105	87	76	81	73	71	72	103	101	102
15	106	99	102	76	68	71	92	73	81	105	101	103
16	102	98	101	68	63	65	78	73	75	107	103	104
17	101	99	100	63	61	62	76	74	75	105	91	102
18	100	97	99	63	61	62	76	74	75	119	85	103
19	101	96	98	63	61	62	78	72	76	99	61	83
20	99	97	98	63	61	62	113	69	81	83	59	68
21	98	94	96	66	61	64	67	63	65	71	61	66
22	100	96	99	66	62	64	70	65	68	77	69	73
23	101	96	99	66	64	65	74	70	72	83	75	78
24	98	93	95	71	66	69	80	74	78	88	82	85
25	94	91	93	67	63	66	90	73	81	92	88	89
26	93	91	92	65	63	64	81	71	75	94	86	93
27	92	88	91	67	65	65	91	71	77	94	90	92
28	92	85	89	67	65	66	106	84	94	94	90	92
29	92	90	92	97	63	75	115	100	106	94	89	92
30	94	89	91	72	60	65	114	98	104	102	92	95
31	90	86	88	---	---	---	129	110	118	102	94	97
MONTH	146	85	103	113	60	74	129	58	76	157	59	98

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	112	81	98	82	78	79	77	74	76	82	69	72
2	100	73	83	84	80	83	79	76	78	69	67	68
3	87	73	81	84	78	81	81	78	79	69	68	68
4	87	71	77	82	72	78	92	77	84	77	68	70
5	77	71	74	68	60	63	89	80	84	84	71	77
6	81	77	79	62	58	60	82	76	80	76	68	71
7	83	79	81	68	62	65	90	78	83	75	69	72
8	85	81	84	72	68	70	80	73	76	87	75	82
9	85	83	85	77	72	74	74	73	73	93	87	91
10	87	84	86	80	77	79	78	72	75	93	91	92
11	87	84	85	79	78	78	82	75	79	91	89	90
12	89	84	87	79	76	78	87	82	83	91	89	89
13	91	87	89	83	74	79	85	83	84	91	88	90
14	93	89	91	80	75	77	88	84	86	90	87	88
15	91	89	90	77	75	77	89	82	87	88	85	87
16	99	91	97	78	76	77	90	88	89	87	83	85
17	97	91	94	78	76	77	91	86	89	86	81	85
18	93	91	92	79	76	77	91	85	88	90	77	84
19	93	89	91	79	77	79	99	88	95	85	70	76
20	99	89	93	80	77	79	88	83	84	76	72	74
21	89	80	83	90	80	81	86	83	84	79	75	77
22	82	70	76	93	80	87	86	83	84	83	78	81
23	76	72	73	115	81	89	85	83	84	84	82	83
24	78	74	75	104	58	73	90	82	86	85	76	82
25	74	72	74	70	58	62	90	86	88	80	76	78
26	78	72	74	76	61	68	87	85	86	77	75	76
27	76	74	75	70	63	66	87	85	86	77	75	76
28	76	76	76	70	66	68	88	82	85	76	73	75
29	78	76	78	71	69	70	84	78	82	76	73	74
30	---	---	---	72	70	71	92	82	87	76	73	74
31	---	---	---	75	72	73	---	---	---	77	74	76
MONTH	112	70	83	115	58	75	99	72	83	93	67	79

01594950 MCMILLAN FORK NEAR FORT PENDLETON, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	80	76	77	102	99	101	123	119	120	146	138	141
2	83	80	81	103	100	101	120	117	119	161	130	137
3	87	83	85	104	102	103	119	116	118	132	129	130
4	87	85	86	106	103	104	119	114	116	281	124	169
5	89	85	87	109	104	106	115	112	113	183	161	171
6	89	86	88	109	104	106	113	110	112	166	160	164
7	90	86	89	108	105	106	113	109	111	162	158	160
8	93	91	92	107	106	106	112	108	110	177	155	159
9	117	85	102	107	105	106	133	107	111	154	146	150
10	113	92	100	109	104	106	125	107	109	145	133	137
11	92	87	90	107	104	106	113	107	108	139	131	136
12	93	90	91	135	95	106	112	106	108	141	131	138
13	94	92	93	160	135	153	111	106	108	139	127	132
14	96	92	94	147	135	141	131	106	109	166	138	152
15	99	94	96	135	128	132	109	105	107	172	166	170
16	100	96	98	129	124	127	117	106	108	171	167	168
17	100	96	98	124	121	123	114	108	110	---	---	---
18	98	96	98	124	118	121	136	108	113	---	---	---
19	105	102	104	119	114	117	127	102	110	---	---	---
20	107	102	104	114	112	113	163	107	130	---	---	---
21	107	103	106	127	111	116	190	132	170	---	---	---
22	107	103	105	145	127	141	186	170	177	---	---	---
23	106	102	105	144	140	143	170	134	156	---	---	---
24	105	103	104	140	134	137	164	134	147	225	134	159
25	106	103	105	136	132	134	178	164	173	155	140	147
26	107	105	106	132	129	131	170	155	163	152	145	149
27	106	103	105	129	126	127	156	148	152	153	148	151
28	104	102	103	126	125	126	150	144	146	148	144	146
29	103	101	102	126	124	125	144	129	136	147	140	142
30	103	101	102	124	122	123	144	137	141	158	140	142
31	---	---	---	123	120	122	145	141	143	---	---	---
MONTH	117	76	97	160	95	120	190	102	128	---	---	---

PH (STANDARD UNITS), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.0	6.9	6.9	7.2	7.1	7.1	6.7	6.7	6.7	7.2	7.0	7.1
2	7.1	7.0	7.0	7.2	7.1	7.1	6.8	6.7	6.7	7.2	7.0	7.1
3	7.0	6.9	7.0	7.2	7.1	7.1	6.9	6.8	6.8	7.2	7.1	7.1
4	7.0	6.8	6.9	7.1	7.1	7.1	6.8	6.7	6.8	7.1	7.0	7.1
5	6.8	6.8	6.8	7.2	7.1	7.1	6.8	6.7	6.7	7.0	6.9	7.0
6	6.8	6.8	6.8	7.2	7.1	7.2	6.7	6.7	6.7	6.9	6.9	6.9
7	6.9	6.8	6.9	7.2	7.1	7.1	6.8	6.7	6.7	7.1	6.9	7.0
8	6.9	6.9	6.9	7.1	7.1	7.1	6.8	6.7	6.8	7.2	7.1	7.2
9	6.9	6.9	6.9	7.1	7.1	7.1	6.9	6.7	6.8	7.3	7.2	7.3
10	6.9	6.9	6.9	7.1	6.6	6.9	6.8	6.7	6.8	7.3	7.1	7.3
11	7.0	6.9	7.0	6.7	6.6	6.6	7.0	6.6	6.8	7.3	7.0	7.2
12	7.0	7.0	7.0	6.8	6.5	6.7	7.1	7.0	7.0	7.4	7.3	7.4
13	7.0	7.0	7.0	6.9	6.8	6.8	7.1	7.0	7.1	7.4	7.4	7.4
14	7.0	7.0	7.0	6.8	6.8	6.8	7.2	7.1	7.1	7.5	7.1	7.4
15	7.1	6.9	7.0	6.8	6.7	6.7	7.2	7.1	7.1	7.5	7.3	7.4
16	7.2	7.0	7.1	6.7	6.6	6.7	7.1	7.1	7.1	7.5	7.4	7.5
17	7.2	7.0	7.1	6.8	6.7	6.7	7.1	7.1	7.1	7.5	7.5	7.5
18	7.2	7.2	7.2	6.7	6.7	6.7	7.2	7.1	7.2	7.5	7.3	7.4
19	7.2	7.2	7.2	6.7	6.7	6.7	7.3	7.2	7.2	7.3	7.1	7.2
20	7.2	7.2	7.2	6.8	6.7	6.7	7.2	6.9	7.0	7.1	7.1	7.1
21	7.2	7.1	7.1	6.7	6.6	6.7	7.1	6.9	7.0	7.1	7.0	7.0
22	7.2	7.1	7.1	6.8	6.7	6.8	7.1	6.9	7.0	7.0	7.0	7.0
23	7.2	7.1	7.2	6.8	6.7	6.8	7.2	7.1	7.2	7.0	7.0	7.0
24	7.2	7.2	7.2	6.8	6.7	6.8	7.3	7.2	7.2	7.0	7.0	7.0
25	7.2	7.1	7.1	6.9	6.7	6.9	7.3	7.1	7.2	7.0	7.0	7.0
26	7.2	7.1	7.1	7.0	6.9	6.9	7.1	6.9	7.0	7.0	6.9	7.0
27	7.2	7.1	7.1	7.0	7.0	7.0	6.9	6.8	6.9	7.0	7.0	7.0
28	7.1	7.0	7.1	7.0	7.0	7.0	7.1	6.8	6.9	7.0	6.9	7.0
29	7.1	7.0	7.1	7.0	6.7	6.8	7.1	6.9	7.0	7.0	6.8	6.9
30	7.1	7.1	7.1	6.7	6.7	6.7	7.0	6.9	7.0	7.0	6.9	6.9
31	7.1	7.1	7.1	---	---	---	7.0	6.9	7.0	7.0	6.9	7.0
MONTH	7.2	6.8	7.0	7.2	6.5	6.9	7.3	6.6	7.0	7.5	6.8	7.1

01594950 MCMILLAN FORK NEAR FORT PENDELTON, MD--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	6.9	6.8	6.8	7.5	7.4	7.5	6.6	6.6	6.6	6.7	6.6	6.6
2	6.8	6.6	6.7	7.5	7.5	7.5	6.7	6.6	6.6	6.7	6.6	6.7
3	6.7	6.6	6.6	7.5	7.4	7.4	6.8	6.6	6.7	6.8	6.7	6.8
4	6.7	6.3	6.5	7.4	7.0	7.2	6.7	6.7	6.7	6.8	6.8	6.8
5	6.6	6.5	6.6	7.1	6.9	7.0	6.8	6.7	6.7	6.8	6.2	6.6
6	6.8	6.6	6.7	7.2	7.0	7.1	6.8	6.7	6.7	6.4	6.2	6.3
7	6.8	6.8	6.8	7.0	6.9	7.0	6.7	6.5	6.6	6.2	6.1	6.2
8	6.8	6.8	6.8	7.1	6.9	7.0	6.5	6.3	6.4	6.3	6.1	6.2
9	6.9	6.8	6.9	7.1	7.0	7.1	6.3	6.2	6.2	6.8	6.2	6.4
10	6.9	6.9	6.9	7.2	7.1	7.1	6.5	6.2	6.3	6.9	6.2	6.5
11	7.0	6.9	7.0	7.2	7.1	7.2	6.6	6.5	6.5	6.8	6.3	6.5
12	7.1	7.0	7.0	7.2	7.1	7.2	---	---	---	6.5	6.3	6.4
13	7.1	6.9	7.0	7.2	7.1	7.1	6.6	6.5	6.6	6.7	6.3	6.4
14	7.0	6.7	6.9	7.2	7.1	7.2	6.6	6.5	6.6	6.4	6.3	6.3
15	6.8	6.7	6.7	7.2	7.1	7.2	6.6	6.6	6.6	6.4	6.2	6.3
16	6.7	6.7	6.7	7.2	7.1	7.2	6.6	6.6	6.6	6.4	6.2	6.3
17	6.8	6.7	6.8	7.2	7.2	7.2	6.6	6.6	6.6	6.5	6.4	6.4
18	6.9	6.8	6.9	7.2	7.2	7.2	6.7	6.6	6.6	6.4	6.2	6.3
19	6.9	6.8	6.9	7.2	7.2	7.2	6.7	6.6	6.6	6.2	6.0	6.1
20	7.0	6.8	6.9	7.2	7.2	7.2	6.7	6.6	6.6	6.2	6.0	6.1
21	7.1	6.6	6.9	7.2	7.2	7.2	6.7	6.6	6.7	6.2	6.1	6.2
22	7.2	7.0	7.1	7.2	7.2	7.2	6.8	6.7	6.7	6.2	6.0	6.1
23	7.2	7.2	7.2	7.2	7.0	7.1	6.8	6.7	6.8	6.1	6.0	6.1
24	7.3	7.2	7.2	7.0	6.8	6.9	6.8	6.7	6.8	6.1	5.9	6.0
25	7.3	7.2	7.3	6.8	6.7	6.8	6.9	6.7	6.8	6.2	6.0	6.1
26	7.3	7.2	7.3	6.7	6.6	6.6	6.9	6.8	6.8	6.3	6.1	6.2
27	7.4	7.3	7.3	6.6	6.6	6.6	7.0	6.8	6.9	6.3	6.2	6.3
28	7.4	7.4	7.4	6.6	6.5	6.6	7.0	6.8	6.9	6.3	6.2	6.2
29	7.5	7.4	7.4	6.6	6.5	6.6	6.8	6.7	6.8	6.4	6.2	6.3
30	---	---	---	6.7	6.6	6.6	6.7	6.6	6.7	6.4	6.2	6.3
31	---	---	---	6.7	6.6	6.6	---	---	---	6.4	6.2	6.3
MONTH	7.5	6.3	6.9	7.5	6.5	7.1	---	---	---	6.9	5.9	6.3

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.4	6.2	6.3	7.0	6.9	6.9	7.0	6.8	6.9	7.4	7.2	7.3
2	6.4	6.3	6.4	7.0	6.9	7.0	7.0	6.8	6.9	7.4	7.2	7.3
3	6.6	6.4	6.5	7.0	6.9	7.0	7.3	6.8	7.0	7.3	6.9	7.1
4	6.7	6.6	6.6	7.0	6.9	7.0	7.3	7.0	7.2	7.0	6.3	6.7
5	6.7	6.6	6.6	7.0	6.8	6.9	7.3	7.1	7.2	7.0	6.7	6.9
6	6.7	6.5	6.6	6.9	6.7	6.8	7.4	7.1	7.2	7.1	6.8	7.0
7	6.6	6.4	6.6	6.9	6.7	6.8	7.4	7.1	7.3	7.1	6.9	7.0
8	6.6	6.4	6.5	6.9	6.8	6.8	7.4	7.2	7.3	7.2	6.9	7.1
9	6.4	6.3	6.3	6.9	6.8	6.8	7.5	7.2	7.3	7.2	6.9	7.1
10	6.5	6.3	6.4	6.9	6.7	6.8	7.5	7.2	7.3	7.1	6.9	7.0
11	6.6	6.4	6.5	6.9	6.7	6.8	7.6	7.3	7.4	7.1	6.9	7.0
12	6.5	6.3	6.5	6.7	6.5	6.6	7.6	7.3	7.4	7.1	6.9	7.0
13	6.5	6.4	6.4	6.7	6.4	6.6	7.5	7.2	7.4	7.0	6.8	6.9
14	6.5	6.3	6.4	6.9	6.7	6.8	7.5	7.2	7.4	6.8	6.6	6.7
15	6.4	6.3	6.4	6.9	6.8	6.9	7.6	7.2	7.3	6.9	6.6	6.8
16	6.7	6.4	6.6	7.0	6.8	6.9	7.4	7.2	7.3	7.0	6.8	6.9
17	6.8	6.6	6.7	7.1	6.9	7.0	7.5	7.2	7.3	6.9	6.2	6.5
18	6.9	6.7	6.8	7.0	6.8	6.9	7.5	7.2	7.4	6.6	6.3	6.4
19	6.9	6.7	6.8	7.0	6.8	6.9	7.4	7.1	7.3	6.6	6.5	6.6
20	6.9	6.7	6.8	7.0	6.8	6.9	7.4	7.2	7.3	6.5	6.5	6.5
21	6.9	6.7	6.8	6.9	6.8	6.9	7.4	7.2	7.3	6.5	6.4	6.5
22	6.9	6.7	6.8	6.9	6.8	6.8	7.6	7.4	7.5	6.6	6.5	6.5
23	6.8	6.7	6.8	6.9	6.8	6.8	7.7	7.5	7.5	6.6	6.4	6.5
24	6.9	6.7	6.8	6.9	6.8	6.9	7.5	7.4	7.4	6.5	5.5	6.1
25	6.9	6.7	6.8	7.0	6.8	6.9	7.6	7.4	7.5	6.3	6.1	6.3
26	6.8	6.7	6.8	7.0	6.9	6.9	7.7	7.5	7.6	6.1	6.0	6.1
27	6.8	6.7	6.8	7.0	6.8	6.9	7.7	7.5	7.6	6.1	6.0	6.0
28	6.9	6.7	6.8	7.0	6.9	6.9	7.8	7.5	7.7	6.0	6.0	6.0
29	6.9	6.8	6.9	7.0	6.8	6.9	7.7	7.6	7.7	6.0	5.9	5.9
30	6.9	6.8	6.9	7.0	6.9	6.9	7.6	7.2	7.4	6.0	5.9	6.0
31	---	---	---	7.0	6.8	6.9	7.5	7.2	7.3	---	---	---
MONTH	6.9	6.2	6.6	7.1	6.4	6.9	7.8	6.8	7.3	7.4	5.5	6.7

01594950 MCMILLAN FORK NEAR FORT PENDELTON, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	11.5	9.0	10.0	8.0	5.0	7.0	4.5	3.0	4.5	4.0	2.5	4.0
2	11.5	8.0	9.5	9.0	7.0	8.0	3.0	2.5	2.5	2.5	1.5	2.0
3	11.0	8.0	9.5	9.5	7.5	8.5	3.5	2.0	3.0	2.5	1.0	1.5
4	8.0	7.0	7.5	9.5	7.0	8.5	3.5	2.0	3.0	2.5	.5	2.0
5	9.5	6.5	8.0	9.5	6.0	8.5	2.0	1.5	1.5	.5	.0	.0
6	9.0	7.5	8.5	6.0	3.5	4.0	2.0	.5	1.5	.0	.0	.0
7	9.0	7.5	8.5	5.5	3.5	4.5	2.5	.0	1.0	.0	.0	.0
8	7.5	6.0	7.0	7.0	5.0	6.0	3.5	2.5	3.0	.0	.0	.0
9	7.5	4.5	6.0	8.0	6.0	7.0	5.5	3.0	4.0	.5	.0	.0
10	10.0	7.5	8.5	8.0	4.5	6.0	6.0	5.0	5.5	.5	.0	.0
11	10.0	8.0	9.0	4.5	2.0	3.0	5.5	4.5	5.0	.0	.0	.0
12	8.0	6.5	7.0	3.0	2.0	2.5	5.5	4.5	5.0	1.0	.0	.5
13	6.5	5.0	6.0	4.0	2.0	3.0	4.5	3.0	3.5	1.0	.0	.5
14	6.5	3.5	5.0	5.0	4.0	4.5	4.0	3.0	3.5	.0	.0	.0
15	7.0	4.0	5.5	5.5	3.0	4.5	6.0	3.5	4.5	.0	.0	.0
16	7.5	4.5	6.0	7.0	3.5	5.0	3.5	.5	2.0	.0	.0	.0
17	8.5	5.5	7.0	9.0	7.0	8.0	1.0	.5	1.0	.5	.0	.5
18	9.0	7.5	8.0	9.0	6.5	8.0	1.5	1.0	1.0	1.5	.0	1.0
19	9.0	6.0	7.5	6.5	5.0	5.5	3.0	1.0	2.0	2.0	.5	1.5
20	9.5	8.5	9.0	5.0	2.0	4.0	6.0	3.0	4.5	4.5	1.0	3.0
21	9.5	5.5	7.5	2.0	.0	.5	5.5	3.5	4.0	4.0	3.0	3.5
22	5.5	4.5	5.0	1.0	.0	.5	4.0	2.0	3.0	3.0	2.0	2.5
23	6.5	4.0	5.0	3.0	.0	1.5	4.0	3.0	3.5	2.5	2.0	2.0
24	8.0	4.5	6.0	5.5	3.0	4.5	4.0	2.5	3.5	3.5	1.5	2.5
25	8.0	5.0	6.5	6.5	4.5	5.5	7.0	4.0	6.0	3.0	1.5	2.5
26	5.5	2.5	4.0	8.0	5.5	7.0	6.5	5.0	6.0	.5	.0	.0
27	5.5	4.0	5.0	7.5	5.0	6.0	5.5	5.0	5.5	.0	.0	.0
28	5.5	4.5	5.0	5.0	4.5	5.0	5.0	3.5	4.5	.0	.0	.0
29	4.5	3.5	4.0	6.5	5.0	5.5	4.0	1.5	3.0	.5	.0	.0
30	6.5	3.0	4.5	6.5	4.5	5.5	1.5	.5	1.0	2.0	.5	1.5
31	8.0	6.0	7.0	---	---	---	3.5	.0	2.0	3.0	1.5	2.5
MONTH	11.5	2.5	7.0	9.5	.0	5.5	7.0	.0	3.5	4.5	.0	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	3.0	4.0	3.0	.5	1.5	10.5	8.0	9.5	9.5	4.5	7.0
2	6.5	4.5	5.5	3.5	.0	2.0	10.5	8.0	9.5	8.0	6.0	7.5
3	5.0	4.0	4.5	3.5	2.5	3.0	10.5	8.5	9.5	8.5	6.0	7.5
4	5.0	2.0	3.5	4.0	3.0	3.5	12.0	9.5	10.5	8.0	6.5	7.5
5	2.0	.5	1.5	4.5	2.0	3.0	12.5	8.0	10.5	8.5	7.5	8.0
6	.5	.0	.0	5.5	2.0	3.5	11.0	8.0	9.5	8.5	7.5	8.0
7	1.5	.0	.5	5.0	4.0	4.5	8.5	7.5	7.5	12.0	7.0	9.0
8	2.0	1.0	1.5	7.0	2.5	4.5	7.5	6.5	7.5	12.5	7.0	9.5
9	2.0	.0	1.0	6.5	5.0	6.0	7.5	5.5	6.5	11.0	9.0	10.0
10	2.5	1.5	2.0	6.0	4.0	5.0	9.5	5.0	7.5	13.0	9.5	10.5
11	2.5	1.5	2.0	5.5	2.5	4.0	9.5	5.0	7.0	11.0	9.0	10.0
12	2.0	.0	1.0	7.0	2.5	5.0	8.0	5.5	6.5	13.0	7.0	10.0
13	.0	.0	.0	6.0	3.0	5.0	9.0	5.5	7.0	14.0	8.5	11.5
14	.0	.0	.0	3.0	.5	2.0	8.5	5.0	6.5	14.0	10.5	12.0
15	1.5	.0	1.0	1.0	.0	.5	9.0	5.5	7.5	15.0	10.5	13.0
16	1.5	.5	1.0	1.5	.0	.5	6.5	4.5	5.5	15.0	11.5	13.5
17	2.0	.0	1.0	2.0	.5	1.0	9.0	4.0	6.0	13.5	12.5	13.0
18	2.5	1.0	2.0	2.0	1.0	1.5	8.5	6.5	7.5	12.5	11.0	11.5
19	2.0	1.5	2.0	3.0	1.0	2.0	7.5	5.0	6.0	11.0	10.5	11.0
20	3.0	1.5	2.5	2.0	.0	1.0	8.0	4.5	6.0	12.0	10.0	10.5
21	1.5	.0	.5	2.0	.0	1.0	9.0	6.5	7.5	12.5	9.0	11.0
22	2.0	.0	1.0	2.5	.0	1.0	8.0	6.0	7.0	14.0	9.5	11.5
23	3.0	1.0	2.0	5.0	1.0	3.0	11.0	6.5	8.5	14.5	10.5	12.5
24	1.0	.0	.5	7.5	3.0	5.0	9.5	6.0	8.0	13.5	11.5	12.5
25	.5	.0	.0	9.5	4.5	7.0	9.5	5.5	7.0	12.0	9.5	11.0
26	1.0	.0	.5	9.0	6.5	7.5	10.5	5.0	7.5	11.5	7.5	9.5
27	2.0	.5	1.5	6.5	3.5	5.0	10.0	6.0	8.0	13.0	8.0	10.5
28	2.0	.0	1.0	7.0	3.0	5.0	7.5	4.0	6.0	13.5	9.5	11.5
29	2.5	.5	1.5	9.5	4.0	6.5	5.5	3.0	4.5	14.0	10.0	12.0
30	---	---	---	9.0	6.0	7.5	7.5	5.0	6.0	14.5	11.0	12.5
31	---	---	---	9.5	6.5	8.0	---	---	---	15.5	12.0	13.5
MONTH	6.5	.0	1.5	9.5	.0	3.5	12.5	3.0	7.5	15.5	4.5	10.5

01594950 MCMILLAN FORK NEAR FORT PENDELTON, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	16.0	12.0	14.0	12.0	8.5	10.5	20.0	16.0	18.0	13.5	12.0	12.5
2	14.5	10.5	12.5	13.0	8.5	11.0	20.5	16.0	18.5	15.0	12.0	13.5
3	10.5	9.5	10.0	15.0	10.0	12.5	21.0	17.5	19.5	15.0	12.0	13.5
4	10.0	8.0	9.0	16.0	11.5	14.0	21.0	17.5	19.0	16.0	15.0	15.5
5	12.5	7.5	10.0	17.0	12.5	14.5	21.0	17.0	19.0	16.0	13.5	14.5
6	15.5	11.5	13.0	17.5	13.0	15.0	20.5	17.5	19.0	13.5	12.0	12.5
7	16.5	13.5	15.0	18.5	14.5	16.5	19.0	16.5	18.5	12.0	9.5	10.5
8	16.0	13.0	15.0	19.0	15.0	17.0	19.5	12.5	17.0	10.5	9.5	10.0
9	15.0	11.0	13.0	19.5	16.5	18.0	19.5	15.0	17.0	10.5	10.0	10.0
10	11.0	8.5	10.0	19.5	15.5	17.5	20.5	16.0	18.0	11.5	10.5	11.0
11	12.0	8.5	10.0	19.5	16.5	18.0	20.5	17.0	18.5	12.0	11.5	12.0
12	13.5	9.5	11.5	18.5	17.5	18.0	21.0	17.0	19.0	12.0	11.5	12.0
13	14.5	10.5	13.0	18.5	16.0	17.5	21.0	16.5	18.5	13.5	12.0	12.5
14	15.5	11.5	13.5	19.5	17.5	18.5	21.5	17.5	19.5	14.0	13.5	14.0
15	16.0	12.5	14.5	20.5	18.5	19.0	21.5	17.5	19.5	14.0	12.5	13.0
16	16.0	13.5	15.0	21.0	16.5	18.5	20.0	16.5	18.5	13.0	11.0	12.0
17	15.5	14.0	14.5	22.0	18.5	20.0	21.5	16.5	19.0	13.5	11.5	12.5
18	15.5	12.5	14.0	20.5	17.5	19.0	22.0	19.5	20.5	14.5	13.5	14.0
19	16.0	13.0	14.5	19.5	18.5	19.0	19.5	18.5	19.0	15.0	14.5	14.5
20	17.0	14.0	15.5	20.0	18.5	19.0	19.0	18.0	18.5	15.0	14.5	15.0
21	18.5	15.5	17.0	18.5	18.0	18.5	18.0	15.0	16.5	15.0	14.5	14.5
22	19.0	16.0	17.5	19.0	17.5	18.0	16.0	13.0	15.0	14.5	14.0	14.0
23	18.0	16.0	17.5	18.5	17.0	17.5	16.5	13.5	15.0	15.5	14.0	15.0
24	16.5	13.5	15.0	19.0	16.5	17.5	17.5	16.0	16.5	15.5	13.0	14.0
25	18.0	14.0	16.0	18.5	15.0	16.5	16.5	14.5	15.5	13.0	12.5	12.5
26	18.0	14.5	17.0	17.5	15.5	16.5	17.5	14.5	16.0	13.0	11.5	12.5
27	14.5	12.5	13.5	18.0	15.0	16.5	17.5	11.5	15.5	12.5	11.0	12.0
28	14.0	10.5	12.5	19.0	15.0	17.0	18.0	14.5	16.5	12.5	11.0	12.0
29	15.5	13.0	14.0	19.5	15.5	17.5	17.0	15.5	17.0	13.0	12.0	12.5
30	13.0	10.5	12.0	19.5	15.5	17.5	15.5	13.0	14.0	13.0	12.0	12.5
31	---	---	---	20.0	18.0	19.0	14.5	13.0	14.0	---	---	---
MONTH	19.0	7.5	13.5	22.0	8.5	17.0	22.0	11.5	17.5	16.0	9.5	13.0

01595000 NORTH BRANCH POTOMAC RIVER AT STEYER, MD

LOCATION.--Lat 39°18′07″, long 79°18′26″, Garrett County, Hydrologic Unit 02070002, on left bank 0.3 mi southeast of Steyer, 0.4 mi downstream from Steyer Run, 2.0 mi northeast of Gorman, and at mile 81.8.

DRAINAGE AREA.--73.0 mi^2.

PERIOD OF RECORD.--July 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,276.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--32 years, 173 ft^3/s, 32.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft^3/s, Nov. 5, 1985, gage height, 13.14 ft, from rating curve extended above 3,000 ft^3/s on basis of slope-area measurement at gage height 10.30 ft; minimum discharge 2.9 ft^3/s, Sept. 10, 1965, gage height, 2.03 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 15, 1954, reached a stage of 13.0 ft, from floodmarks; discharge, 11,300 ft^3/s, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0300	*2,440	*6.47	No other peak greater than base discharge.			

Minimum discharge, 10 ft^3/s, Sept. 12, gage height, 1.80 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	32	192	495	225	102	138	283	113	28	16	14
2	71	29	175	335	292	101	117	230	122	26	22	13
3	103	33	152	262	322	127	108	202	119	23	23	12
4	76	39	175	227	471	404	124	205	96	23	19	33
5	62	32	152	208	354	417	110	755	83	25	17	43
6	61	27	130	e180	253	269	106	1730	72	25	16	30
7	72	27	123	e160	244	223	374	794	69	24	e15	24
8	90	26	132	e140	212	192	539	443	65	24	e14	22
9	94	25	233	e120	186	170	351	330	201	20	e15	17
10	68	171	373	e110	152	171	264	293	126	16	e15	15
11	62	193	263	e94	140	142	219	262	87	16	e15	11
12	61	114	219	e84	119	123	192	218	66	39	e17	12
13	59	108	176	e92	e110	177	168	189	54	32	14	40
14	53	141	147	e86	e100	164	144	163	53	28	12	121
15	51	140	253	e80	e100	150	132	145	52	24	11	36
16	48	129	209	e80	e98	137	113	147	50	21	15	26
17	42	128	172	e95	e98	128	102	143	45	16	17	31
18	38	121	151	432	e100	124	140	408	44	16	16	37
19	35	100	135	388	108	116	179	1190	36	23	30	26
20	36	96	439	1090	211	108	131	578	35	27	34	24
21	45	90	313	430	175	103	118	397	36	36	30	21
22	46	102	237	289	158	102	108	292	35	39	16	21
23	41	101	212	232	170	184	102	239	34	27	17	21
24	39	122	184	192	167	333	106	270	34	23	33	76
25	33	118	334	170	150	267	91	464	30	23	22	200
26	31	100	498	150	137	313	94	292	26	24	19	128
27	34	86	353	e140	120	272	89	238	23	24	16	61
28	54	84	298	e130	111	218	92	195	25	19	13	46
29	48	269	292	e120	104	194	217	164	28	22	17	39
30	45	253	230	e120	---	169	339	139	28	24	25	30
31	41	---	237	e150	---	148	---	125	---	19	17	---
TOTAL	1727	3036	7189	6881	5187	5848	5107	11523	1887	756	578	1230
MEAN	55.7	101	232	222	179	189	170	372	62.9	24.4	18.6	41.0
MAX	103	269	498	1090	471	417	539	1730	201	39	34	200
MIN	31	25	123	80	98	101	89	125	23	16	11	11
CFSM	.76	1.39	3.18	3.04	2.45	2.58	2.33	5.09	.86	.33	.26	.56
IN.	.88	1.55	3.66	3.51	2.64	2.98	2.60	5.87	.96	.39	.29	.63

CAL YR 1987 TOTAL 53537 MEAN 147 MAX 1050 MIN 12 CFSM 2.01 IN. 27.28
WTR YR 1988 TOTAL 50949 MEAN 139 MAX 1730 MIN 11 CFSM 1.91 IN. 25.96

e Estimated

01595200 STONY RIVER NEAR MOUNT STORM, WV

LOCATION.--Lat 39°16′10″, long 79°15′45″, Grant County, Hydrologic Unit 02070002, on left bank 100 ft downstream from highway bridge on U.S. Highway 50, 1.0 mi west of Mt. Storm, and at mile 6.4.

DRAINAGE AREA.--48.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,554.54 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are poor. Flow regulated by Stony River Reservoir, 14.0 mi upstream from station, prior to June 1987. Regulation since 1963 by Virginia Electric and Power Company dam (Mount Storm Lake), 4.0 mi upstream from station.

AVERAGE DISCHARGE.--27 years, 100 ft^3/s, 27.83 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft^3/s, Nov. 5, 1985, gage height, 16.41 ft, from floodmarks, from rating curve extended above 7,500 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 1.7 ft^3/s, Aug. 22, 23, 27-29, 31, 1988; minimum gage height, 1.73 ft, Sept. 25, 1985.

EXTREMES FOR CURRENT YEAR.--Maximium discharge, 3,150 ft^3/s, May 6, gage height, 8.40 ft; minimum discharge, 1.7 ft^3/s, Aug. 22, 23, 27-29, 31; minimum gage height, 1.74 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	85	215	179	169	28	26	117	30	2.5	3.7	2.2
2	8.7	88	176	143	192	27	25	100	62	2.4	7.0	2.2
3	11	99	97	316	196	29	61	91	161	2.4	6.9	2.0
4	6.0	98	34	54	466	97	150	93	81	2.3	7.0	4.6
5	5.5	99	42	98	e100	120	22	311	33	2.3	7.0	3.6
6	5.9	104	46	e84	e70	107	24	1990	18	2.7	5.7	2.7
7	7.1	96	46	e74	e46	256	158	595	17	3.1	3.7	2.6
8	15	89	57	e66	44	299	334	436	16	2.9	3.4	2.9
9	15	93	97	e60	42	197	266	183	47	2.4	3.8	2.8
10	9.4	152	135	e54	42	43	177	374	33	2.2	3.2	2.2
11	11	140	134	e48	41	29	185	137	21	2.2	3.5	1.9
12	17	110	121	e44	32	26	159	291	16	2.4	3.4	1.9
13	26	114	108	e41	46	98	132	55	15	2.3	3.4	3.5
14	31	148	100	e38	40	64	108	42	16	2.3	3.1	3.5
15	42	149	131	e36	31	39	27	35	16	2.8	2.8	2.7
16	50	143	122	e34	32	38	22	39	20	3.1	2.3	2.6
17	58	142	107	e33	32	91	18	101	20	3.2	1.9	2.5
18	58	141	95	85	28	28	22	303	15	3.2	1.9	2.5
19	62	121	87	97	41	71	27	1270	9.4	3.5	2.5	2.3
20	76	119	196	706	67	20	22	367	8.7	4.4	2.5	2.2
21	68	115	174	566	70	22	20	451	13	7.9	2.3	2.3
22	70	111	152	462	68	23	20	362	11	6.8	1.8	2.6
23	78	113	284	263	147	45	17	77	8.7	4.6	2.1	4.7
24	76	147	228	52	147	90	17	70	15	4.3	2.3	12
25	76	139	182	52	128	209	16	142	7.7	3.8	2.3	31
26	78	124	130	82	113	298	17	152	6.1	4.5	2.3	19
27	93	121	118	79	76	256	16	131	6.1	5.9	2.1	11
28	104	128	118	71	27	212	18	58	4.5	5.5	1.7	8.8
29	95	232	114	68	27	111	37	35	3.0	5.8	1.9	7.9
30	96	280	90	65	---	29	138	31	2.6	5.5	2.1	7.6
31	92	---	91	74	---	28	---	29	---	3.7	2.0	---
TOTAL	1451.6	3840	3827	4124	2560	3030	2281	8468	732.8	112.9	101.6	160.3
MEAN	46.8	128	123	133	88.3	97.7	76.0	273	24.4	3.64	3.28	5.34
MAX	104	280	284	706	466	299	334	1990	161	7.9	7.0	31
MIN	5.5	85	34	33	27	20	16	29	2.6	2.2	1.7	1.9

CAL YR 1987 TOTAL 37245.9 MEAN 102 MAX 1160 MIN 4.8
WTR YR 1988 TOTAL 30689.2 MEAN 83.9 MAX 1990 MIN 1.7

e Estimated

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: December 1961 to March 1974, September 1974 to current year.

INSTRUMENTATION.--Temperature recorder (continuous ethyl alcohol - actuated thermograph) since December 1961.

REMARKS.--Upstream reservoir regulation stopped June 1987. Temperature recorder stopped Oct. 1-7 and Sept. 8-30.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum, 27.5°C, Aug. 14, 1984; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum, 25.0°C, July 17, Aug. 17; minimum, 0.0°C, Jan. 8-18, Feb. 7-10, 14-18.

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	7.5	9.0	5.0	7.0	2.5	10.5	12.5	18.5	15.0	23.0	18.0
2	---	8.5	9.0	4.0	8.0	2.5	10.5	12.5	18.0	17.0	22.5	17.0
3	---	8.5	8.5	8.5	7.0	3.0	12.5	12.0	16.5	18.5	23.5	17.5
4	---	9.0	6.0	4.5	9.0	3.0	14.5	12.0	16.5	19.5	23.5	17.0
5	---	8.5	3.5	1.0	5.0	3.0	13.0	12.5	16.0	21.0	23.5	16.5
6	---	6.0	2.5	.5	3.0	5.5	11.5	14.5	18.0	21.0	23.0	16.0
7	---	4.0	3.0	.5	1.5	9.0	10.5	16.0	19.0	21.5	23.0	14.0
8	8.0	5.0	4.5	.5	.0	10.5	11.5	17.0	19.0	21.0	23.0	---
9	8.0	6.5	5.5	.0	.0	10.0	12.5	16.0	18.5	21.5	22.5	---
10	9.0	6.5	7.0	.0	1.0	8.0	14.0	17.0	14.5	21.5	23.0	---
11	9.0	4.5	7.0	.0	1.5	5.0	14.0	15.0	15.0	21.5	22.5	---
12	8.5	3.0	7.0	.0	1.0	4.5	13.0	17.0	16.0	20.5	23.0	---
13	7.5	2.5	7.0	.0	1.0	8.0	14.0	16.0	18.0	21.5	23.0	---
14	6.0	3.0	7.0	.0	.5	7.0	13.0	15.0	19.0	22.0	24.0	---
15	6.0	3.0	7.0	.0	.0	3.0	12.0	15.5	20.0	22.5	24.5	---
16	6.5	4.5	6.0	.0	.0	2.0	9.5	17.0	20.0	24.0	24.5	---
17	7.5	7.0	5.0	.0	.0	5.5	10.0	16.0	19.0	25.0	25.0	---
18	8.5	7.0	5.0	1.0	1.5	5.0	9.0	16.0	18.0	24.0	23.5	---
19	8.5	6.0	5.0	2.0	1.0	7.0	8.5	17.0	20.0	23.0	22.0	---
20	9.0	5.0	5.0	7.0	1.5	4.0	9.5	16.0	21.0	22.0	20.5	---
21	9.0	3.0	5.0	7.5	1.0	3.0	10.5	16.5	22.5	21.5	20.5	---
22	6.5	2.0	6.0	8.0	1.5	2.5	9.0	18.5	23.0	21.5	21.0	---
23	5.5	1.0	7.0	8.0	5.0	5.0	10.5	18.0	22.5	21.0	18.0	---
24	7.0	2.5	8.0	4.0	5.0	7.0	10.5	16.0	20.0	22.0	19.5	---
25	7.0	4.5	9.0	2.5	4.5	13.0	10.5	14.5	22.5	22.0	19.0	---
26	6.0	6.0	8.0	1.5	4.0	12.5	12.0	15.5	22.5	20.5	19.0	---
27	5.0	6.0	7.0	1.0	4.0	11.5	11.5	17.0	19.0	21.0	20.0	---
28	5.0	5.0	7.0	1.0	3.0	11.5	10.0	17.0	18.0	22.5	20.0	---
29	5.0	5.0	6.5	1.5	2.0	12.0	8.5	17.0	17.5	23.5	19.0	---
30	5.0	9.0	5.0	2.5	---	10.0	11.0	17.0	16.5	23.5	19.5	---
31	7.0	---	5.0	3.0	---	10.5	---	18.5	---	23.5	18.0	---
MAX	---	9.0	9.0	8.5	9.0	13.0	14.5	18.5	23.0	25.0	25.0	---

YEAR MAXIMUM 25.0

01595200 STONY RIVER NEAR MOUNT STORM, WV--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	5.5	9.0	4.0	3.0	1.0	9.0	9.5	15.5	12.0	19.5	13.5
2	---	7.0	8.5	3.5	7.0	1.0	9.0	10.5	15.0	12.0	20.0	13.0
3	---	7.5	6.0	3.5	7.0	2.0	9.5	11.0	15.0	13.0	21.0	13.5
4	---	8.0	3.5	1.0	5.0	2.5	12.5	11.5	15.0	14.5	21.0	16.0
5	---	6.5	2.5	.5	3.0	1.0	9.5	11.0	13.5	15.5	21.0	14.0
6	---	3.5	2.5	.5	1.5	3.0	10.0	11.0	13.5	16.0	21.0	13.0
7	---	3.0	2.0	.5	.0	5.0	9.0	12.0	16.0	17.0	20.0	13.0
8	8.0	3.5	3.0	.0	.0	9.0	9.0	14.5	16.0	17.5	18.5	---
9	6.0	5.0	4.5	.0	.0	8.5	11.0	12.5	14.5	18.5	18.5	---
10	7.0	4.5	5.5	.0	.0	5.0	10.0	15.0	11.5	17.5	19.0	---
11	8.5	3.0	7.0	.0	1.0	3.0	11.5	12.5	11.0	18.0	19.5	---
12	7.5	2.0	7.0	.0	1.0	3.0	12.0	14.0	12.5	19.0	19.5	---
13	6.0	2.0	7.0	.0	.5	5.0	12.0	13.0	13.5	17.5	20.5	---
14	5.0	2.5	7.0	.0	.0	3.0	11.0	13.0	14.5	18.5	20.5	---
15	5.0	3.0	6.0	.0	.0	1.5	9.0	13.0	15.5	19.5	21.0	---
16	5.5	3.0	5.0	.0	.0	1.0	7.5	13.5	16.5	19.0	20.0	---
17	6.0	4.5	5.0	.0	.0	1.0	6.0	15.5	17.0	21.5	19.5	---
18	7.5	6.0	4.5	.0	.0	3.0	8.0	13.5	15.5	20.0	21.0	---
19	7.0	5.0	4.5	1.0	.5	3.0	7.0	13.0	15.5	21.0	20.5	---
20	8.0	3.0	4.5	1.5	1.0	2.0	6.5	13.0	17.0	20.5	20.0	---
21	6.5	2.0	5.0	7.0	.5	1.0	7.5	16.0	18.0	20.5	17.5	---
22	5.0	1.0	5.0	7.5	.5	.5	7.5	16.0	19.5	19.5	15.5	---
23	5.0	1.0	6.0	4.0	1.5	1.5	8.0	15.0	19.5	19.5	16.5	---
24	5.0	1.0	7.0	2.5	4.5	3.5	8.0	14.5	16.5	19.0	16.5	---
25	6.0	2.5	8.0	1.5	4.0	7.5	6.5	13.0	17.0	18.5	16.0	---
26	3.5	4.5	6.5	1.0	3.0	11.5	7.5	13.0	19.0	19.0	16.0	---
27	4.5	5.0	6.5	.5	2.5	10.0	8.5	13.5	16.0	18.5	16.0	---
28	5.0	5.0	6.5	.5	1.0	9.5	8.0	14.0	14.5	19.0	17.0	---
29	4.5	5.0	5.0	.5	1.0	10.5	6.5	13.5	16.0	19.0	17.5	---
30	4.0	5.0	3.5	1.5	---	8.0	7.0	14.0	13.5	20.0	16.0	---
31	5.0	---	3.5	2.5	---	8.0	---	15.0	---	20.5	15.0	---
MIN	---	1.0	2.0	.0	.0	.5	6.0	9.5	11.0	12.0	15.0	---

YEAR MINIMUM 0.0

01596500 SAVAGE RIVER NEAR BARTON, MD

LOCATION.--Lat 39°34'05", long 79°06'10", Garrett County, Hydrologic Unit 02070002, on right bank 0.9 mi upstream from Bear Pen Run, 1.5 mi downstream from Popular Lick Run, 5.4 mi northwest of Barton, and 10 mi upstream from mouth.

DRAINAGE AREA.--49.1 mi^2.

PERIOD OF RECORD.--September 1948 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1603.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--40 years, 74.9 ft^3/s, 20.72 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,510 ft^3/s, Oct. 15, 1954, gage height, 8.45 ft, from rating curve extended above 1,600 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 0.40 ft^3/s, Sept. 3, 4, 1966, gage height, 0.96 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0600	*1,040	*3.62	May 20	0230	855	3.39

Minimum daily discharge, 0.81 ft^3/s, Aug. 11, 12, 15

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	7.1	149	104	85	45	56	103	41	3.4	1.0	8.9
2	12	7.0	97	103	117	40	51	90	44	3.2	1.0	6.7
3	14	6.7	68	107	177	41	48	78	41	3.0	1.0	6.3
4	13	6.5	57	92	374	162	60	69	40	3.0	1.0	27
5	11	6.3	47	e70	e250	349	56	209	29	3.0	1.0	40
6	11	6.1	40	e58	e160	242	62	651	24	2.8	1.0	28
7	11	5.6	36	e52	e120	167	497	415	20	2.7	1.0	20
8	12	5.5	35	e47	e120	125	470	286	18	2.7	.99	15
9	11	5.6	43	e43	83	104	317	188	49	2.7	.92	12
10	9.9	12	77	e40	68	95	205	145	35	2.7	.92	10
11	8.6	22	81	e38	56	86	142	108	24	2.7	.81	8.7
12	8.2	16	74	e36	50	78	106	86	19	3.4	.81	7.5
13	7.6	16	61	e46	42	74	85	72	17	3.7	.91	15
14	7.3	34	50	e41	76	73	70	63	14	3.1	.82	36
15	7.1	53	75	e36	81	68	60	56	11	2.6	.81	22
16	6.9	56	111	e34	71	62	51	50	10	2.4	.86	15
17	6.7	65	102	e33	45	60	45	45	9.4	2.4	.92	52
18	6.7	56	82	e75	32	52	43	126	8.9	2.4	.94	93
19	6.7	42	69	e85	29	43	39	465	7.9	2.8	5.8	65
20	6.9	35	193	e750	43	40	32	693	7.3	4.1	123	46
21	7.4	30	256	e230	74	38	29	457	6.7	6.9	45	32
22	7.3	41	177	e170	92	42	25	309	6.3	6.3	16	24
23	6.8	34	128	e135	78	37	24	195	5.7	4.3	59	20
24	6.7	26	96	114	75	59	35	207	5.2	3.3	206	31
25	6.7	29	122	91	69	72	29	181	4.8	2.4	68	135
26	6.6	28	248	69	67	82	25	155	4.5	1.9	35	169
27	6.7	26	257	e65	62	88	24	127	4.1	1.3	21	105
28	8.7	24	187	e64	55	81	24	101	3.8	1.1	14	72
29	9.2	214	139	e63	49	75	38	81	3.6	1.5	16	50
30	8.6	275	97	e62	---	69	92	66	3.5	1.1	16	37
31	7.5	---	89	e70	---	62	---	52	---	1.0	11	---
TOTAL	273.8	1190.4	3343	3023	2700	2711	2840	5929	517.7	89.9	652.51	1209.1
MEAN	8.83	39.7	108	97.5	93.1	87.5	94.7	191	17.3	2.90	21.0	40.3
MAX	14	275	257	750	374	349	497	693	49	6.9	206	169
MIN	6.6	5.5	35	33	29	37	24	45	3.5	1.0	.81	6.3
CFSM	.18	.81	2.20	1.99	1.90	1.78	1.93	3.90	.35	.06	.43	.82
IN.	.21	.90	2.53	2.29	2.05	2.05	2.15	4.49	.39	.07	.49	.92

CAL YR 1987 TOTAL 22156.1 MEAN 60.7 MAX 749 MIN 2.3 CFSM 1.24 IN. 16.79
WTR YR 1988 TOTAL 24479.41 MEAN 66.9 MAX 750 MIN .81 CFSM 1.36 IN. 18.55

e Estimated

01597500 SAVAGE RIVER, BELOW SAVAGE RIVER DAM, NEAR BLOOMINGTON, MD

LOCATION.--Lat 39°30′05″, long 79°07′25″, Garrett County, Hydrologic Unit 02070002, on left bank 0.7 mi downstream from Savage River Dam, 1.1 mi downstream from Crabtree Creek, 3.2 mi northwest of Bloomington, and 3.7 mi upstream from mouth.

DRAINAGE AREA.--106 mi^2.

PERIOD OF RECORD.--October 1948 to current year.

REVISED RECORDS.--WSP 1432: 1955.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,276.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Diversions upstream from station by Baltimore and Ohio Railroad and by cities of Frostburg and Westernport for municipal supply. Flow regulated by Savage River Reservoir beginning December 1950, capacity 20,000 acre-ft. U.S. Army Corps of Engineers satellite telemeter at station. Upper Potomac River Commission gage height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--40 years, 165 ft^3/s, 21.14 in/yr, adjusted for storage since December 1950.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,550 ft^3/s, Nov. 4, 1985, gage height, 7.81 ft; minimum discharge, 0.35 ft^3/s, Oct. 27, 1966, gage height, 0.57 ft; minimum daily discharge, 0.6 ft^3/s, July 27-31, Aug. 5, 6, 9, 10, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,270 ft^3/s, May 6, gage height, 5.39 ft; minimum discharge, 7.2 ft^3/s, Nov. 16, Sept. 15, gage height, 0.39 ft; minimum daily discharge, 33 ft^3/s, July 24 to Aug. 4, 6-18, 21, 22, 25-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	43	51	667	164	101	159	180	183	35	33	51
2	43	44	51	407	102	101	159	190	139	35	33	50
3	43	43	51	275	104	101	159	170	88	35	33	50
4	43	43	51	272	190	104	160	142	65	35	33	51
5	43	43	51	210	414	106	152	655	65	35	34	51
6	43	43	50	e121	514	108	127	2010	65	35	33	51
7	43	43	50	e96	513	108	107	1230	58	35	33	51
8	43	43	50	e96	333	108	112	543	52	35	33	47
9	43	43	135	e96	228	108	110	370	53	35	33	49
10	43	44	185	e96	228	108	268	315	52	35	33	49
11	43	44	198	e96	226	108	306	243	52	35	33	49
12	43	43	208	96	225	108	234	205	52	35	33	49
13	43	43	207	96	223	109	181	222	51	34	33	51
14	43	44	207	96	222	108	164	229	51	34	33	50
15	43	44	208	96	221	108	148	228	51	34	33	45
16	43	68	207	96	219	108	150	191	51	34	33	128
17	136	45	207	96	219	108	150	113	51	34	33	285
18	94	45	207	96	143	108	118	173	51	34	33	283
19	43	70	207	97	99	108	76	901	51	34	34	136
20	43	47	209	107	98	108	64	1340	312	34	34	49
21	43	46	210	213	98	130	63	1130	414	34	33	49
22	43	46	212	280	99	145	63	562	390	34	33	48
23	41	46	299	280	100	147	63	436	245	34	34	49
24	43	46	351	280	100	127	62	386	349	33	34	49
25	44	47	351	278	100	106	62	386	442	33	33	50
26	43	47	350	276	100	108	62	381	325	33	33	49
27	44	47	347	274	100	107	62	298	44	33	33	49
28	44	46	571	272	101	108	62	215	36	33	33	49
29	43	51	700	271	101	108	62	185	36	33	42	51
30	43	51	690	269	---	132	75	185	35	33	51	52
31	43	---	678	269	---	159	---	183	---	33	51	---
TOTAL	1478	1398	7549	6270	5584	3511	3740	13997	3909	1058	1073	2120
MEAN	47.7	46.6	244	202	193	113	125	452	130	34.1	34.6	70.7
MAX	136	70	700	667	514	159	306	2010	442	35	51	285
MIN	41	43	50	96	98	101	62	113	35	33	33	45
(†)	8490	11060	10460	10330	10730	15080	20060	19580	14040	12280	12350	12310

CAL YR 1987 TOTAL 49258 MEAN 135 MAX 1290 MIN 32 CFSM 1.27 IN 17.29
WTR YR 1988 TOTAL 51687 MEAN 141 MAX 2010 MIN 33 CFSM 1.33 IN 18.14

e Estimated
† Monthend contents, in acre-feet, in Savage River Reservoir (contents on Sept. 30, 1987, 10,360 acre-feet). Records provided by U.S. Army Corps of Engineers.

01598500 NORTH BRANCH POTOMAC RIVER AT LUKE, MD

LOCATION.--Lat 39°28′45″, long 79°03′55″, Mineral County, W. Va., Hydrologic Unit 02070002, on right bank 0.2 mi downstream from Savage River, 0.5 mi northwest of Luke, and at mile 53.3.

DRAINAGE AREA.--404 mi^2.

PERIOD OF RECORD.--June 1899 to July 1906 (published as "at Piedmont, W. Va."), October 1949 to current year.

REVISED RECORDS.--WSP 192: 1899-1904. WSP 1432: 1905-6, drainage area at former site.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 944.22 ft above National Geodetic Vertical Datum of 1929. June 27, 1899, to July 15, 1906, nonrecording gage at bridge 1.1 mi downstream at datum about 35 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow regulated prior to July 1981 by Stony River Reservoir, 45 mi upstream from station, since December 1950 by Savage River Reservoir, 5 mi upstream from station (see station 01597500), and since July 1981 by Jennings Randolph Lake, 9 mi upstream from station. Some regulation at low flow by West Virginia Pulp and Paper Company at site used 1899-1906. U.S. Army Corps of Engineers satellite telemeter at station. Upper Potomac River Commission gage height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--45 years (water years 1900-05, 1950-88), 714 ft^3/s, 24.00 in/yr, adjusted for storage since October 1949.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,400 ft^3/s, Oct. 15, 1954, gage height, 17.15 ft, from rating curve extended above 25,000 ft^3/s on basis of slope-area measurement of peak flow; minimum daily discharge, 6 ft^3/s, Sept. 4, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,100 ft^3/s, May 6, gage height, 9.76 ft; minimum discharge, 117 ft^3/s, June 28, gage height, 1.39 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	296	300	522	1040	705	513	444	526	650	206	222	326
2	296	298	338	817	640	515	444	617	597	191	222	334
3	295	298	335	678	642	517	444	597	529	191	222	348
4	294	298	333	676	756	560	446	571	481	190	222	485
5	295	296	331	614	1570	566	434	1130	472	191	222	526
6	295	295	327	540	2210	555	418	7780	467	191	219	428
7	294	295	326	500	2190	550	577	8510	432	190	217	347
8	294	295	326	498	1420	545	881	6820	368	189	217	342
9	293	295	403	493	759	544	1060	3120	486	189	216	344
10	296	310	469	491	760	516	1070	822	458	189	216	342
11	295	301	479	438	812	486	1010	1140	406	193	216	342
12	295	298	491	387	757	483	928	595	406	219	219	341
13	295	303	489	399	749	484	867	1330	402	223	219	343
14	294	314	489	432	744	458	836	1180	401	221	217	327
15	292	314	511	430	743	433	684	1180	397	220	216	337
16	292	336	507	430	739	421	549	1060	364	220	215	653
17	755	316	502	429	733	391	544	717	330	220	213	1380
18	633	302	487	445	612	391	519	1260	329	220	213	1370
19	312	324	501	457	511	390	477	4590	328	220	233	790
20	310	302	555	1140	523	390	460	5890	624	226	236	329
21	308	302	537	1760	520	409	456	4370	715	236	221	327
22	308	301	529	1380	516	427	415	3600	681	238	218	332
23	304	301	634	846	519	426	379	2710	496	227	246	327
24	304	301	721	829	517	411	380	1690	602	225	286	341
25	303	301	746	823	514	413	362	1600	712	222	321	365
26	303	301	774	810	513	441	348	1490	562	222	314	343
27	306	301	759	799	513	441	318	1180	225	222	312	332
28	303	301	947	791	511	440	314	909	192	222	311	330
29	301	378	1070	785	509	440	347	849	215	222	329	327
30	301	532	1050	783	---	456	356	824	214	222	330	327
31	301	---	1040	788	---	477	---	733	---	222	327	---
TOTAL	10063	9409	17528	21728	23207	14489	16767	69390	13541	6579	7607	13385
MEAN	325	314	565	701	800	467	559	2238	451	212	245	446
MAX	755	532	1070	1760	2210	566	1070	8510	715	238	330	1380
MIN	292	295	326	387	509	390	314	526	192	189	213	326

CAL YR 1987 TOTAL 197285 MEAN 541 MAX 5480 MIN 232 CFSM 1.34 IN. 18.17
WTR YR 1988 TOTAL 223693 MEAN 611 MAX 8510 MIN 189 CFSM 1.51 IN. 20.60

01599000 GEORGES CREEK AT FRANKLIN, MD

LOCATION.--Lat 39°29′38″, long 79°02′42″, Allegany County, Hydrologic Unit 02070002, on right bank at Franklin, and 1.2 mi upstream from Westernport and mouth.

DRAINAGE AREA.--72.4 mi^2.

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Westernport"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1502: 1940. WDR MD-DE-86-1: 1984(M).

GAGE.--Water-stage recorder. Datum of gage is 958.96 ft Westvaco Corporation datum. May 4, 1905, to July 15, 1906, nonrecording gage at bridge 0.8 mi downstream at different datum. Oct. 16, 1929, to Oct. 1, 1937, water-stage recorder at site 95 ft downstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Records include about 0.5 ft^3/s of sewage from city of Frostburg, which obtains its water supply from Big Piney Run (Monongahela River basin) and Savage River. A negligible discharge is diverted upstream from station by Frostburg Water Co. for municipal supplies of Eckhart and Welch Hill. An undetermined amount of water is diverted from the upper third of basin into the Wills Creek basin by the Hoffman drainage tunnel (see station 01601500). Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--59 years (water years 1930-88), 81.4 ft^3/s, 15.27 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,500 ft^3/s, Mar. 17, 1936, gage height, 9.6 ft, site then in use, from rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 1.6 ft^3/s, Sept. 29 to Oct. 13, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 29, 1924, reached a stage of about 10 ft, from floodmarks, at site 95 ft downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 23	2300	*1,320	*6.50	No other peak greater than base discharge.			

Minimum discharge, 4.6 ft^3/s, Aug. 9, 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	e8.2	49	83	66	39	37	58	67	17	6.4	16
2	12	e7.8	38	74	77	36	36	55	71	17	6.1	14
3	12	e7.8	30	63	84	35	35	52	75	16	5.8	13
4	11	e7.6	30	63	141	152	36	49	68	15	5.8	68
5	10	e7.6	26	34	113	154	44	165	60	15	5.5	59
6	10	e7.4	23	38	84	111	49	730	57	14	5.4	39
7	11	e7.4	20	38	77	95	435	505	53	13	6.5	29
8	11	e7.2	20	e38	76	83	410	310	53	13	5.9	24
9	10	e7.2	23	e37	65	78	258	220	143	13	5.6	21
10	10	17	33	34	61	74	176	179	77	13	5.0	19
11	9.9	17	27	e34	58	66	136	144	60	12	5.2	16
12	9.7	16	26	31	56	62	109	115	58	12	6.5	15
13	9.2	17	23	32	43	61	92	99	55	12	12	27
14	8.8	26	21	27	49	59	80	89	50	10	7.3	34
15	9.0	28	46	24	47	55	74	82	47	9.3	6.0	20
16	9.0	24	58	24	43	49	68	77	43	8.3	6.9	16
17	8.9	23	42	24	37	46	63	77	41	7.6	5.5	27
18	9.3	23	34	47	34	43	65	268	39	7.2	6.2	37
19	8.8	19	31	56	33	42	61	588	36	13	21	24
20	9.2	17	117	549	58	41	59	691	34	15	159	22
21	e9.2	16	90	217	65	39	54	530	32	26	49	19
22	e9.0	15	74	133	54	35	49	426	30	20	22	17
23	e8.8	15	66	101	57	34	46	285	28	15	126	18
24	e8.6	15	58	84	56	35	62	338	24	12	226	30
25	e8.5	15	83	78	51	36	55	276	22	10	60	92
26	e8.4	14	126	65	45	36	47	193	21	9.1	37	76
27	e8.4	14	95	54	44	40	43	154	20	9.1	26	54
28	e10	15	87	53	43	41	40	126	19	10	22	43
29	e9.4	90	82	51	41	40	43	103	18	8.9	34	34
30	e9.0	77	68	48	---	39	59	87	18	7.4	32	30
31	e8.6	---	61	58	---	38	---	76	---	6.7	20	---
TOTAL	300.7	581.2	1607	2292	1758	1794	2821	7147	1419	386.6	947.6	953
MEAN	9.70	19.4	51.8	73.9	60.6	57.9	94.0	231	47.3	12.5	30.6	31.8
MAX	14	90	126	549	141	154	435	730	143	26	226	92
MIN	8.4	7.2	20	24	33	34	35	49	18	6.7	5.0	13
CFSM	.13	.27	.72	1.02	.84	.80	1.30	3.18	.65	.17	.42	.44
IN.	.15	.30	.83	1.18	.90	.92	1.45	3.67	.73	.20	.49	.49

CAL YR 1987 TOTAL 23258.1 MEAN 63.7 MAX 969 MIN 5.1 CFSM .88 IN. 11.95
WTR YR 1988 TOTAL 22007.1 MEAN 60.1 MAX 730 MIN 5.0 CFSM .83 IN. 11.31

e Estimated

01601500 WILLS CREEK NEAR CUMBERLAND, MD

LOCATION.--Lat 39°40'07", long 78°47'18", Allegany County, Hydrologic Unit 02070002, on right bank at downstream side of Western Maryland Railway bridge, 0.15 mi downstream from Braddock Run, 2.0 mi upstream from Cumberland, and mouth.

DRAINAGE AREA.--247 mi^2.

PERIOD OF RECORD.--May 1905 to July 1906 (published as "at Cumberland"), October 1929 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WSP 1432: 1906, 1930(M), 1933-34(M), 1936-37, 1945(M).

GAGE.--Water-stage recorder. Datum of gage is 640.89 ft above National Geodetic Vertical Datum of 1929. May 6, 1905, to July 14, 1906, nonrecording gage at highway bridge 700 ft upstream at different datum. Oct. 18, 1929, to Mar. 17, 1936, water-stage recorder, and Apr. 1, 1936, to Mar. 19, 1937, nonrecording gage at site 200 ft upstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Records include drainage from numerous active and abandoned coal mines. An undetermined amount of water is diverted into the basin from Georges Creek basin by Hoffman drainage tunnel. Miscellaneous measurements of discharge from the Hoffman drainage tunnel have been made in the water years 1944, 1964-65, and 1967-82, 84 by the U.S. Geological Survey, and in the water years 1958 and 1959 by the Maryland Geological Survey. Slight diurnal fluctuation at low flow caused by quarry upstream. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

DISCHARGE.--59 years (water years 1930-88), 328 ft^3/s, 18.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,100 ft^3/s, Mar. 17, 1936, gage height, 20.2 ft, from flood-marks at present site, from rating curve extended above 11,000 ft^3/s on basis of slope-area measurements at gage heights 13.45 ft and 20.2 ft; minimum discharge, 9 ft^3/s, Oct. 14, 1930.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0630	*4,910	*7.10	May 19	0215	3,650	6.40
Apr. 7	2145	3,570	6.35				

Minimum discharge, 26 ft^3/s, Nov. 7, Aug. 12, gage height, 1.67 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	33	445	401	376	237	260	225	255	48	38	36
2	46	31	303	421	548	217	246	223	251	48	35	34
3	46	31	228	e340	782	226	233	221	261	47	34	32
4	51	30	202	e250	1180	973	256	220	228	45	33	118
5	44	30	175	208	1080	1930	241	796	192	44	32	110
6	41	29	146	179	807	1170	333	2910	167	43	32	66
7	42	28	122	e170	599	849	2710	2130	150	42	31	50
8	41	28	116	e165	550	659	2920	1300	139	40	30	43
9	40	28	115	e165	431	565	1650	955	230	40	29	38
10	38	39	156	e165	370	512	1090	852	198	40	29	36
11	37	52	177	e155	318	430	826	670	146	38	28	35
12	36	56	176	e150	293	380	662	568	128	40	27	33
13	35	56	158	e145	226	363	552	499	115	41	29	39
14	33	82	134	e140	213	331	466	435	104	40	31	36
15	33	146	196	e135	242	301	403	384	95	38	35	36
16	32	126	252	e135	228	271	351	345	88	37	32	34
17	32	118	234	e140	194	253	314	332	85	37	29	55
18	32	137	214	e150	193	236	291	1070	83	35	28	84
19	30	115	193	e180	194	233	267	3330	76	39	34	63
20	30	96	620	2080	322	227	234	3160	72	49	95	50
21	30	91	868	1220	454	207	215	2450	68	66	66	44
22	31	78	658	853	345	182	199	1570	64	75	46	40
23	30	67	489	652	396	195	196	1070	61	56	57	38
24	30	79	357	528	367	194	273	1080	59	53	93	56
25	30	96	380	452	328	203	226	872	58	55	65	100
26	29	93	564	365	299	243	207	701	56	46	46	142
27	31	88	555	270	306	309	205	593	53	45	38	87
28	36	89	557	243	281	308	204	509	52	64	34	65
29	36	432	497	233	256	305	211	424	51	56	42	55
30	35	696	363	236	---	296	242	353	49	46	46	49
31	34	---	274	280	---	275	---	297	---	41	42	---
TOTAL	1126	3100	9924	11206	12178	13080	16483	30544	3634	1434	1266	1704
MEAN	36.3	103	320	361	420	422	549	985	121	46.3	40.8	56.8
MAX	55	696	868	2080	1180	1930	2920	3330	261	75	95	142
MIN	29	28	115	135	193	182	196	220	49	35	27	32
CFSM	.15	.42	1.30	1.46	1.70	1.71	2.22	3.99	.49	.19	.17	.23
IN.	.17	.47	1.49	1.69	1.83	1.97	2.48	4.60	.55	.22	.19	.26

CAL YR 1987 TOTAL 103554 MEAN 284 MAX 3720 MIN 21 CFSM 1.15 IN. 15.60
WTR YR 1988 TOTAL 105679 MEAN 289 MAX 3330 MIN 27 CFSM 1.17 IN. 15.92

e Estimated

01603000 NORTH BRANCH POTOMAC RIVER NEAR CUMBERLAND, MD

LOCATION.--Lat 39°37′16″, long 78°46′24″, Allegany County, Hydrologic Unit 02070002, on left bank at downstream side of Wiley Ford Bridge, 2.0 mi south of Cumberland, 2.1 mi downstream from Wills Creek, and at mile 19.6.

DRAINAGE AREA.--875 mi^2.

PERIOD OF RECORD.--May 1929 to current year. Gage-height records collected at various sites about 2.0 mi upstream from September 1901 to December 1932 and thereafter at present site, are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 726: Drainage area. WSP 781: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 585.22 ft above National Geodetic Vertical Datum of 1929. Prior to June 18, 1929, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Prior to July 1981 some regulation at low flow by Stony River Reservoir, 79 mi upstream from station. Low-flow regulation since December 1950 by Savage River Reservoir, 39 mi upstream from station (see station 01597500). Flow regulated by Jennings Randolph Lake, 43 mi upstream from station since July 1981. Prior to July 1957, small amount of inflow from industrial wastes and sewage from city of Cumberland from water diverted from Evitts Creek, mouth of which is downstream from station. Diversion to Chesapeake and Ohio Canal prior to 1935. National Weather Service gage height telemeter at station. U.S. Army Corps of Engineers satellite telemeter at gage. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--59 years, 1,272 ft^3/s, 19.74 in/yr, adjusted for storage since October 1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88,200 ft^3/s, Mar. 17, 1936, gage height, 29.1 ft, from rating curve extended above 33,000 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge (river only), 12 ft^3/s, Sept. 22, 1932, gage height, 2.38 ft; minimum daily discharge (including flow in canal), 38 ft^3/s, Sept. 24, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 29.2 ft June 1, 1889, discharge, about 89,000 ft^3/s. Flood of Mar. 29, 1924, reached a stage of 28.4 ft, discharge, about 82,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,000 ft^3/s, May 7, gage height, 13.06 ft; minimum discharge, 240 ft^3/s, Aug. 17, 18, gage height, 2.39 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	415	385	1430	1880	1490	944	913	803	1110	289	276	384
2	395	384	884	1850	1490	923	865	1060	1100	282	273	372
3	396	382	725	1390	1800	927	845	1070	1040	272	269	379
4	392	380	692	1380	2140	1310	856	1040	972	268	266	625
5	383	377	649	1170	2590	3040	875	1650	847	265	264	827
6	378	369	599	967	3300	2490	855	11100	789	264	261	661
7	388	368	564	940	3340	1910	3710	13000	748	261	260	472
8	380	371	548	e800	3220	1600	5570	9460	664	260	253	425
9	377	375	548	e780	1680	1440	4130	6170	976	260	250	410
10	376	430	756	e760	1470	1370	3210	2330	1030	255	251	405
11	375	479	806	e740	1400	1220	2670	2320	776	252	249	395
12	373	449	833	e710	1400	1130	2230	1570	697	266	248	388
13	370	445	810	677	1270	1100	1960	1670	656	298	258	428
14	366	485	777	670	1190	1060	1750	1800	629	285	268	418
15	357	557	889	645	1260	970	1640	1670	613	280	260	398
16	363	534	1040	642	1240	909	1260	1610	597	272	255	390
17	385	557	973	656	1180	855	1170	1340	542	281	247	1150
18	1270	541	923	719	1160	796	1130	2210	522	268	244	1460
19	432	499	873	899	936	795	1050	8020	502	279	291	1360
20	387	507	1510	4340	1090	782	945	11600	488	298	512	491
21	381	471	1920	4120	1300	765	898	8630	676	380	584	408
22	383	454	1560	3770	1110	761	862	6670	722	369	331	391
23	381	442	1340	2270	1180	770	771	5020	650	340	323	394
24	379	449	1410	1910	1140	772	874	4140	532	315	1070	427
25	376	469	1490	1770	1080	760	799	3460	629	300	558	643
26	376	469	1860	1650	1030	816	727	2960	712	289	444	700
27	389	468	1860	1420	1040	912	711	2420	612	285	402	548
28	415	476	1850	1370	1010	924	647	1850	318	303	381	481
29	398	909	2160	1340	971	911	705	1580	280	298	430	446
30	390	1520	1900	1330	---	904	772	1430	292	286	453	425
31	388	---	1730	1380	---	917	---	1300	---	281	407	---
TOTAL	12814	15001	35909	44945	44507	34783	45400	120953	20721	8901	10838	16701
MEAN	413	500	1158	1450	1535	1122	1513	3902	691	287	350	557
MAX	1270	1520	2160	4340	3340	3040	5570	13000	1110	380	1070	1460
MIN	357	368	548	642	936	760	647	803	280	252	244	372

CAL YR 1987 TOTAL 401950 MEAN 1101 MAX 8780 MIN 269 CFSM 1.26 IN. 17.09
WTR YR 1988 TOTAL 411473 MEAN 1124 MAX 13000 MIN 244 CFSM 1.28 IN. 17.49

e Estimated

01608500 SOUTH BRANCH POTOMAC RIVER NEAR SPRINGFIELD, WV

LOCATION.--Lat 39°26′49″, long 78°39′16″, Hampshire County, Hydrologic Unit 02070001, on left bank at highway bridge, 2.0 mi east of Springfield, and at mile 13.4.

DRAINAGE AREA.--1,471 mi^2.

PERIOD OF RECORD.--June 1894 to February 1896 (fragmentary), June 1899 to February 1902, August 1903 to July 1906, August 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 562.02 ft above National Geodetic Vertical Datum of 1929. June 1984 to February 1986, nonrecording gage at Baltimore & Ohio Railroad bridge 11.2 mi upstream at different datum. June 26, 1899, to Feb. 2, 1902, nonrecording gage at bridge 10.0 mi upstream at different datum. Aug. 28, 1903, to July 14, 1906, nonrecording gage at present site at different datum. Aug. 8, to Sept. 24, 1928, nonrecording gage at present site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers satellite telementer at station.

AVERAGE DISCHARGE.--64 years (water years 1900-01, 1904-05, 1929-88), 1,319 ft^3/s, 12.18 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 240,000 ft^3/s, Nov. 5, 1985, gage height, 44.22 ft, from floodmarks, from rating curve extended above 145,000 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 29 ft^3/s, Jan. 28, 1956, result of freezeup, July 30, 1966, result of temporary dam; minimum gage height, 0.39 ft, July 30, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in November 1877 reached a stage of about 34 ft, from floodmarks, discharge, 140,000 ft^3/s.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 10,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	2400	12,400	10.94	May 19	1400	20,600	14.21
May 7	0400	*22,000	*14.67				

Minimum discharge, 104 ft^3/s, Aug. 18, 19, gage height, 1.75 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	765	228	3860	1940	1090	564	763	654	782	188	170	173
2	720	219	2350	1800	1130	544	737	712	727	182	160	158
3	585	212	1670	1610	1270	521	707	711	725	177	149	145
4	495	207	1320	1430	1750	544	681	684	834	172	146	225
5	432	201	1120	e1180	1870	827	661	756	825	168	136	453
6	394	193	963	e820	1660	1350	679	11400	719	161	133	348
7	377	186	838	e580	1330	1260	3260	18500	633	151	143	262
8	353	182	746	e600	1290	1130	4450	8840	570	145	130	252
9	329	182	686	e760	1230	1010	3650	5060	563	140	128	213
10	322	205	698	e740	1090	950	2580	3320	595	138	127	184
11	312	322	845	e640	996	917	1980	2560	553	141	132	166
12	298	515	809	e580	920	853	1600	2040	530	156	127	154
13	283	654	750	e640	839	798	1370	1670	472	159	126	149
14	269	684	689	e620	737	785	1190	1430	418	167	116	149
15	260	741	666	e780	681	782	1050	1270	383	181	112	144
16	250	681	801	e840	750	749	942	1170	352	194	126	230
17	242	614	1180	e720	728	707	848	1250	330	179	110	203
18	237	577	1160	e600	686	669	783	3380	317	166	105	174
19	230	570	1020	e640	644	642	763	14000	325	161	119	162
20	225	663	1080	7460	713	628	769	9630	310	174	169	158
21	221	648	1470	8950	763	613	721	6240	341	230	195	154
22	212	617	1570	4740	762	595	659	4160	405	287	175	145
23	204	570	1400	3130	714	561	623	2890	327	270	161	138
24	203	512	1240	2330	713	545	626	2400	286	250	196	135
25	205	489	1090	1880	690	716	631	2120	264	230	194	152
26	199	495	1090	1680	650	924	644	1830	245	204	180	263
27	202	511	1560	1320	619	1040	622	1490	229	197	159	430
28	219	513	1850	1130	608	1050	591	1260	217	206	159	395
29	230	807	2910	1040	594	957	562	1100	207	195	196	305
30	230	5080	3320	989	---	870	572	979	198	195	253	247
31	232	---	2380	988	---	806	---	873	---	186	204	---
TOTAL	9735	18278	43131	53157	27517	24907	35714	114379	13682	5750	4736	6466
MEAN	314	609	1391	1715	949	803	1190	3690	456	185	153	216
MAX	765	5080	3860	8950	1870	1350	4450	18500	834	287	253	453
MIN	199	182	666	580	594	521	562	654	198	138	105	135
CFSM	.21	.41	.95	1.17	.65	.55	.81	2.51	.31	.13	.10	.15
IN.	.25	.46	1.09	1.34	.70	.63	.90	2.89	.35	.15	.12	.16

CAL YR 1987 TOTAL 532757 MEAN 1460 MAX 33700 MIN 99 CFSM .99 IN. 13.47
WTR YR 1988 TOTAL 357452 MEAN 977 MAX 18500 MIN 105 CFSM .66 IN. 9.04

e Estimated

01610000 POTOMAC RIVER AT PAW PAW, WV

LOCATION.--Lat 39°32′13″, long 78°27′28″, Allegany County, Md., Hydrologic Unit 02070003, on left bank 250 ft upstream from bridge on Maryland State Highway 51 at Paw Paw, 3.3 mi downstream from Little Cacapon River, and at mile 277.

DRAINAGE AREA.--3,109 mi^2.

PERIOD OF RECORD.--October 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 487.88 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 25, 1939, nonrecording gage at bridge 250 ft downstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Low flow affected by Stony River Reservoir prior to July 1981, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage height telemeter at station. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--50 years, 3,294 ft^3/s, 14.39 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 235,000 ft^3/s, Nov. 5, 1985, gage height, 53.58 ft, from rating curve extended above 85,000 ft^3/s on basis of slope-area measurement of peak flow at site 5.0 mi upstream at Okonoko, W. Va.; minimum discharge, 164 ft^3/s, Sept. 10, 11, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 54.0 ft on Mar. 18, 1936, discharge, 240,000 ft^3/s, from rating curve extended above 85,000 ft^3/s on basis of slope-area measurement of peak flow at site 5.0 mi upstream at Okonoko, W. Va.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1845	26.100	17.71	May 19	1915	36,100	20.98
May 7	0715	*41,500	*22.66				

Minimum discharge, 464 ft^3/s, Aug. 19, gage height, 3.42 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1150	681	7060	4560	3700	2140	2340	1850	3170	639	573	872
2	1340	669	4710	4390	3970	2040	2230	2100	2860	626	556	764
3	1170	657	3340	3650	4660	1990	2160	2280	2780	605	547	702
4	1040	644	2690	3450	5640	2300	2120	2250	2760	587	532	1510
5	952	630	2310	2980	6450	5850	2150	2380	2570	578	524	2560
6	893	609	2030	2360	6380	5450	2080	18600	2260	566	531	1860
7	874	597	1800	1810	5770	4780	12000	38400	1990	551	567	1360
8	843	592	1650	1780	5590	4140	17200	23700	1780	542	532	1070
9	806	596	1540	e1750	4350	3720	12600	15200	1950	531	513	968
10	786	652	1560	e1700	3680	3490	8810	8790	2530	524	499	887
11	774	819	1820	e1650	3410	3210	6940	6750	2010	513	485	828
12	754	1030	1860	e1600	3260	2940	5750	5730	1710	510	481	780
13	736	1200	1800	e1550	2980	2790	4980	4750	1550	553	481	796
14	719	1410	1700	e1500	2530	2670	4390	4670	1420	578	481	817
15	700	1680	1680	e1450	2710	2560	3970	4190	1320	577	479	760
16	687	1630	2000	1390	2690	2390	3430	3940	1250	579	475	752
17	673	1470	2420	1430	2610	2260	3020	3820	1180	591	473	980
18	1040	1410	2490	1530	2510	2100	2810	7540	1090	565	470	1830
19	1140	1340	2240	1740	2310	2030	2700	28900	1060	570	466	1770
20	690	1320	2750	16200	2500	1990	2510	31400	1020	572	892	1340
21	669	1330	4450	18700	3190	1940	2360	24400	1230	722	1190	764
22	648	1310	4300	11800	2910	1870	2200	16800	1430	820	828	712
23	640	1230	3710	8030	2880	1810	2040	11600	1380	820	704	688
24	632	1140	3310	6260	2750	1770	2090	12200	1140	833	2570	683
25	624	1120	3180	5400	2620	1830	2110	9780	1150	732	1450	897
26	625	1100	3680	5010	2460	2260	1960	8100	1210	682	990	1210
27	637	1140	4440	4240	2370	2680	1900	6460	1070	631	817	1310
28	706	1150	4620	3660	2320	2830	1820	5310	829	625	763	1250
29	721	1540	5440	3490	2230	2650	1720	4520	693	643	1210	1090
30	723	7770	6510	3290	---	2500	1760	3960	638	617	1590	947
31	703	---	5220	3280	---	2400	---	3540	---	595	1080	---
TOTAL	25095	38466	98310	131630	101430	85380	124150	323910	49030	19077	23749	32757
MEAN	810	1282	3171	4246	3498	2754	4138	10450	1634	615	766	1092
MAX	1340	7770	7060	18700	6450	5850	17200	38400	3170	833	2570	2560
MIN	624	592	1540	1390	2230	1770	1720	1850	638	510	466	683
CFSM	.26	.41	1.02	1.37	1.12	.89	1.33	3.36	.53	.20	.25	.35
IN.	.30	.46	1.18	1.57	1.21	1.02	1.49	3.88	.59	.23	.28	.39

CAL YR 1987 TOTAL 1105252 MEAN 3028 MAX 43400 MIN 403 CFSM .97 IN. 13.22
WTR YR 1988 TOTAL 1052984 MEAN 2877 MAX 38400 MIN 466 CFSM .93 IN. 12.60

e Estimated

01613000 POTOMAC RIVER AT HANCOCK, MD

LOCATION.--Lat 39°41'49", long 78°10'39", Washington County, Hydrologic Unit 02070004, on left bank, 0.2 mi downstream from Little Tonoloway Creek, 0.5 mi downstream from bridge on U.S. Highway 522 at Hancock, 1.1 mi upstream from Tonoloway Creek (formerly called Great or Big Tonoloway Creek), and at mile 239.

DRAINAGE AREA.--4,073 mi^2.

PERIOD OF RECORD.--October 1932 to current year. Gage-height records collected at same site since June 1925 are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 781: 1933(M). WSP 801: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 383.68 ft above National Geodetic Vertical Datum of 1929. Oct. 1, 1932, to Jan. 5, 1935, Mar. 18, 1936, to Jan. 20, 1937, nonrecording gage, on former highway bridge just upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight regulation at low flow from power plants upstream. Low flow affected slightly by Stony River Reservoir prior to July 1981, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage height telemeter at station. U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--56 years, 4,154 ft^3/s, 13.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 340,000 ft^3/s, Mar. 18, 1936, gage height, 47.6 ft, from rating curve extended above 120,000 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge observed, 180 ft^3/s, Oct. 4, 1932, gage height, 2.01 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1932, about 40 ft in May 1889, discharge, about 220,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 21	0315	30,900	15.42	May 7	1115	*55,800	*21.25
Apr. 8	0715	25,400	13.86	May 20	0330	49,100	19.86

Minimum discharge, 497 ft^3/s, Aug. 17, gage height, 2.58 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1140	1010	11600	5860	3860	2440	2610	2030	3800	730	695	1140
2	1470	980	7640	5440	4670	2330	2530	2110	3350	727	654	959
3	1650	964	5260	5000	5120	2240	2430	2380	3180	717	625	867
4	1440	957	4120	4350	6340	2340	2370	2400	3090	699	618	1000
5	1280	946	3510	3930	7930	5060	2380	2470	3040	672	592	2600
6	1180	920	3080	3520	7390	6890	2350	10500	2740	654	585	2570
7	1140	897	2700	e2800	6790	5990	8600	50300	2420	637	607	1840
8	1100	884	2410	e2500	6150	5120	24200	31700	2160	621	622	1430
9	1070	894	2200	e2300	5770	4490	19000	19200	2150	603	617	1150
10	1030	950	2080	e2300	4390	4130	12600	12700	2640	597	577	1040
11	1000	1040	2160	e2200	3970	3850	9360	8580	2650	601	551	952
12	983	1190	2410	e2150	3700	3500	7490	7440	2170	690	549	896
13	960	1680	2380	e2100	3440	3260	6290	5940	1910	614	540	876
14	936	2020	2250	e2000	3040	3090	5450	5410	1720	624	527	868
15	916	2480	2190	e1900	2900	2950	4800	4980	1590	650	522	873
16	895	2880	2260	e1850	2980	2780	4310	4640	1490	638	519	822
17	882	2780	2760	e2000	2960	2610	3680	4610	1420	631	500	820
18	869	2650	3190	e2100	2830	2460	3380	8100	1340	639	514	1160
19	1350	2450	3100	e2300	2730	2320	3240	36400	1270	709	544	1790
20	1260	2250	3130	e11000	2680	2260	3090	43600	1250	649	582	1730
21	903	2220	4900	26200	3250	2200	2860	35300	1210	739	1020	1230
22	866	2130	5640	15600	3580	2120	2650	22200	1400	829	1180	830
23	853	2000	5080	10800	3290	2050	2480	15300	1570	889	918	779
24	841	1870	4420	7950	3200	2000	2390	15900	1480	912	1490	766
25	830	1740	4180	6620	3020	1950	2470	14200	1240	896	2390	814
26	827	1690	4480	5920	2830	2120	2390	11500	1260	816	1350	1020
27	842	1670	5460	5070	2680	2660	2240	8830	1290	763	1020	1280
28	900	1700	6000	4210	2620	3050	2160	7110	1140	716	887	1350
29	965	1920	6170	3940	2530	3030	2060	5840	925	725	960	1260
30	1000	7320	7640	3910	---	2840	1990	4970	792	732	1800	1100
31	1040	---	7020	3650	---	2700	---	4330	---	725	1570	---
TOTAL	32418	55082	131420	161470	116640	96830	153850	410970	57687	21844	26125	35812
MEAN	1046	1836	4239	5209	4022	3124	5128	13260	1923	705	843	1194
MAX	1650	7320	11600	26200	7930	6890	24200	50300	3800	912	2390	2600
MIN	827	884	2080	1850	2530	1950	1990	2030	792	597	500	766
CFSM	.26	.45	1.04	1.28	.99	.77	1.26	3.25	.47	.17	.21	.29
IN.	.30	.50	1.20	1.47	1.07	.88	1.41	3.75	.53	.20	.24	.33

CAL YR 1987 TOTAL 1474782 MEAN 4040 MAX 59500 MIN 454 CFSM .99 IN. 13.47
WTR YR 1988 TOTAL 1300148 MEAN 3552 MAX 50300 MIN 500 CFSM .87 IN. 11.87

e Estimated

01614500 CONOCOCHEAGUE CREEK AT FAIRVIEW, MD

LOCATION.--Lat 39°42′57″, long 77°49′28″, Washington County, Hydrologic Unit 02070004, on right bank 0.7 mi upstream from highway bridge in Fairview, 2.0 mi upstream from Rockdale Run, 6.5 mi northwest of Hagerstown, and 19.1 mi upstream from mouth.

DRAINAGE AREA.--494 mi^2.

PERIOD OF RECORD.--June 1928 to current year.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1432: 1929(M), 1930, 1931-32(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 391.85 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 6, 1932, nonrecording gage at highway bridge 0.7 mi downstream at datum 2.93 ft lower. Dec. 6, 1932, to Oct. 7, 1933, nonrecording gage 150 ft downstream from former site at datum 4.92 ft lower than present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Low flow partly regulated by small powerplants near Mercersburg, Pa. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--60 years, 587 ft^3/s, 16.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft^3/s, June 23, 1972, gage height, 24.5 ft, from flood-mark, from rating curve extended above 15,000 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow; minimum discharge, 21 ft^3/s, Aug. 8, Sept. 12, 1966; minimum daily discharge, 25 ft^3/s Nov. 28, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to 1928, about 16.5 ft, present datum, sometime in 1889, from information by local residents, discharge, about 22,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0930	6,140	9.03	May 21	1015	7,260	9.84
May 19	1500	*8,330	*10.56				

Minimum discharge, 88 ft^3/s, Aug. 17, gage height, 1.26 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	202	143	1170	447	542	367	251	237	759	156	155	145
2	174	135	810	425	904	347	248	221	707	155	132	124
3	154	131	630	362	1120	349	243	214	643	152	123	113
4	145	127	557	359	1460	527	244	204	596	152	116	210
5	133	123	486	299	1560	1220	245	269	548	144	110	799
6	131	116	422	e290	1100	974	238	1290	500	141	106	397
7	157	113	371	e270	888	810	541	1630	465	141	183	250
8	177	113	338	e250	821	698	1050	1120	428	130	143	195
9	170	112	325	e270	720	633	782	874	499	127	126	168
10	147	130	313	e280	648	611	620	769	525	125	116	153
11	141	183	296	e250	596	551	535	694	422	124	109	141
12	135	185	275	e270	573	504	482	597	375	153	104	130
13	133	239	254	e280	517	485	444	517	346	144	102	134
14	128	307	238	e270	464	460	408	465	323	132	100	138
15	122	381	258	e250	473	430	384	427	302	123	99	150
16	119	385	351	e250	474	403	358	407	288	118	98	130
17	118	325	319	e280	458	383	337	463	300	112	91	123
18	114	390	275	464	425	367	330	2110	283	111	93	140
19	112	524	255	674	423	371	348	7220	259	113	96	132
20	112	390	359	3570	765	357	321	6240	246	122	108	136
21	111	333	535	1760	839	340	293	6690	235	181	122	158
22	106	279	472	1040	637	315	273	3440	220	175	109	131
23	106	247	422	791	587	301	264	2300	211	171	107	120
24	105	234	377	673	541	296	300	3280	201	211	150	115
25	104	220	413	629	481	288	287	2620	193	167	157	127
26	101	206	640	638	439	302	258	1930	187	143	131	140
27	109	196	699	512	423	321	249	1530	182	134	119	131
28	244	199	606	474	407	300	246	1290	175	126	111	122
29	226	613	605	453	385	277	267	1100	169	119	125	112
30	189	2160	500	420	---	262	248	963	163	113	260	105
31	159	---	426	414	---	256	---	850	---	207	180	---
TOTAL	4384	9239	13997	17614	19670	14105	11094	51961	10750	4422	3881	5169
MEAN	141	308	452	568	678	455	370	1676	358	143	125	172
MAX	244	2160	1170	3570	1560	1220	1050	7220	759	211	260	799
MIN	101	112	238	250	385	256	238	204	163	111	91	105
CFSM	.29	.62	.91	1.15	1.37	.92	.75	3.39	.73	.29	.25	.35
IN.	.33	.70	1.05	1.33	1.48	1.06	.84	3.91	.81	.33	.29	.39

CAL YR 1987 TOTAL 155753 MEAN 427 MAX 5740 MIN 78 CFSM .86 IN. 11.73
WTR YR 1988 TOTAL 166286 MEAN 454 MAX 7220 MIN 91 CFSM .92 IN. 12.52

e Estimated

01617800 MARSH RUN AT GRIMES, MD

LOCATION.--Lat 39°30′53″, long 77°46′38″, Washington County, Hydrologic Unit 02070004, on right bank 220 ft upstream from bridge on Sprecher Road, 0.1 mi downstream from unnamed tributary, 0.5 mi southwest of Grimes, 1.5 mi upstream from mouth, and 2.2 mi southwest of Fairplay.

DRAINAGE AREA.--18.9 mi^2.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 354.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--25 years, 12.2 ft^3/s, 8.77 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 459 ft^3/s, Feb. 12, 1985, gage height, 4.45 ft, from rating curve extended above 220 ft^3/s; no flow Oct. 1, 1977, result of regulation caused by construction work upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0915	*40	*1.70	No peak greater than base discharge.			

Minimum discharge, 0.80 ft^3/s, Sept. 23, 24, gage height, 0.74 ft, result of regulation from unknown source.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	1.1	6.9	3.3	7.3	4.9	3.9	3.8	10	4.4	3.0	1.9
2	.69	1.1	5.4	3.2	8.7	4.9	3.7	3.6	8.2	4.3	3.0	1.8
3	.97	1.1	4.0	3.8	10	5.4	3.6	3.6	10	4.3	2.9	1.6
4	1.4	1.1	3.9	3.0	9.8	7.1	3.6	3.4	11	4.1	2.5	1.9
5	1.4	1.1	3.6	3.1	9.4	9.8	3.6	4.7	10	4.4	2.2	2.6
6	1.4	1.0	2.8	e2.9	8.6	7.5	3.4	8.7	9.6	4.6	2.2	2.5
7	2.1	1.1	2.7	e2.7	12	7.0	9.4	7.5	9.1	4.1	2.5	2.4
8	1.6	e1.3	2.6	e2.5	7.5	6.7	11	6.0	8.9	3.6	2.2	2.1
9	1.4	e1.4	2.8	e2.7	7.1	6.7	8.2	5.5	11	3.2	2.0	2.0
10	1.4	e1.7	2.7	e2.9	6.7	6.5	6.9	4.7	12	3.2	2.0	2.0
11	1.4	e2.9	2.5	e2.5	6.7	6.1	6.4	4.6	10	3.4	1.9	1.9
12	1.4	e2.3	2.5	e2.9	7.1	6.0	6.0	4.1	8.7	5.0	1.8	1.6
13	1.4	e2.1	2.4	e3.1	5.9	6.0	5.7	3.7	8.4	4.6	1.7	1.6
14	1.4	e2.1	2.4	e2.7	9.1	5.7	5.5	3.6	8.0	3.9	1.6	1.6
15	1.4	e2.1	2.9	e2.5	6.1	5.5	4.6	3.4	7.7	3.5	1.6	1.5
16	1.4	e2.0	3.3	e2.5	6.9	5.4	3.9	3.6	7.7	3.1	1.6	1.3
17	1.3	e1.9	2.9	e2.7	6.1	5.3	5.0	4.7	7.4	2.9	1.6	1.4
18	1.2	e2.0	2.8	e2.9	6.2	5.1	5.3	18	7.3	3.0	1.7	1.7
19	1.2	e2.1	2.8	3.1	6.4	5.1	5.0	28	7.3	4.0	1.8	1.7
20	.93	e2.0	3.7	28	8.2	5.1	4.5	24	7.1	3.9	2.0	1.5
21	1.0	e1.8	3.9	14	7.3	4.9	4.3	26	6.6	4.5	2.3	1.5
22	.92	e1.7	3.3	10	7.1	4.7	4.1	21	6.3	4.2	2.2	1.3
23	.97	e1.7	3.2	8.5	7.2	4.6	3.9	18	6.2	3.7	1.9	.81
24	1.0	1.7	2.9	7.1	7.1	4.6	4.3	18	6.0	4.0	5.5	.82
25	1.0	1.7	2.9	7.8	6.6	4.6	4.2	19	6.0	3.7	2.8	1.3
26	1.2	1.5	3.6	8.8	6.0	5.5	3.9	18	6.0	3.2	2.0	2.0
27	1.3	1.5	3.7	8.3	6.0	5.3	3.9	16	5.7	3.2	1.9	1.9
28	2.7	1.5	3.5	7.2	5.9	4.6	4.1	13	4.8	3.2	1.8	1.8
29	1.5	7.4	4.2	6.1	5.6	4.3	3.9	13	4.2	3.0	2.2	1.2
30	1.2	12	4.2	6.0	---	4.3	3.9	13	4.6	3.0	2.7	1.2
31	1.2	---	6.3	6.2	---	4.1	---	13	---	3.1	2.1	---
TOTAL	40.25	66.0	107.3	173.0	214.6	173.3	149.7	337.2	235.8	116.3	69.2	50.43
MEAN	1.30	2.20	3.46	5.58	7.40	5.59	4.99	10.9	7.86	3.75	2.23	1.68
MAX	2.7	12	6.9	28	12	9.8	11	28	12	5.0	5.5	2.6
MIN	.69	1.0	2.4	2.5	5.6	4.1	3.4	3.4	4.2	2.9	1.6	.81
CFSM	.07	.12	.18	.30	.39	.30	.26	.58	.42	.20	.12	.09
IN.	.08	.13	.21	.34	.42	.34	.29	.66	.46	.23	.14	.10

CAL YR 1987 TOTAL 2303.98 MEAN 6.31 MAX 30 MIN .69 CFSM .33 IN. 4.53
WTR YR 1988 TOTAL 1733.08 MEAN 4.74 MAX 28 MIN .69 CFSM .25 IN. 3.41

e Estimated

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV

LOCATION.--Lat 39°26′04″, long 77°48′07″, Jefferson County, Hydrologic Unit 02070004, on right bank, 0.1 mi downstream from Rumsey Bridge at Shepherdstown, 3.3 mi upstream from Antietam Creek, and at mile 184.

DRAINAGE AREA.--5,936 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to September 1953. Annual maximums, water years 1954-64. July 1964 to current year. Gage-height record and estimated discharges October 1953 to June 1964 available in files of the Mid-Atlantic district office.

REVISED RECORDS.--WSP 756: Drainage area. WSP 781: 1929(M).

GAGE.--Water-stage recorder. Datum of gage is 281.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair. Some regulation at low flow by power plants upstream from station, prior to July 1981 by Stony River Reservoir, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--49 years (water years 1929-53, 1965-88), 6,129 ft^3/s, 14.02 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 335,000 ft^3/s, Mar. 19, 1936, gage height, 42.1 ft, from floodmarks, from rating curve extended above 200,000 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 170 ft^3/s, Aug. 1, 1966; minimum daily discharge, 185 ft^3/s, July 31, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods in June 1889 and May 1924 reached stages of 39.2 ft and 29.8 ft respectively, from floodmarks, discharges, about 290,000 ft^3/s and 168,000 ft^3/s respectively, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 23,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 21	0900	42,500	12.98	May 19	2130	*72,300	*18.19
Apr. 8	1830	34,600	11.38	May 25	0430	31,600	10.76
May 7	1830	68,800	17.63				

Minimum discharge, 744 ft^3/s, Aug. 18, gage height, 1.68 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	1620	15500	8130	5160	3560	3640	2970	6970	e1650	1150	2830
2	1770	1570	13100	7180	6330	3460	3530	2920	6420	e1500	1500	2110
3	2050	1530	8980	6530	7720	3330	3450	2990	6060	e1400	1410	1930
4	2280	1460	6650	5700	9370	3440	3360	3190	5420	e1300	1440	2050
5	1890	1510	5440	4820	12000	5140	3280	3380	4960	e1300	1250	2650
6	1860	1420	4750	3650	12100	10400	3270	7240	5010	e1250	1370	4400
7	1860	1470	4090	e3200	10100	9740	3760	53100	4510	e1200	1630	4100
8	1750	1380	3700	e2800	9030	8330	25800	50500	4030	e1200	1590	3020
9	1780	1320	3390	e2750	8480	7150	30300	30300	4300	e1200	1330	2390
10	1760	1500	3160	e2700	7180	6430	20800	20900	4590	e1200	1200	2340
11	1690	2070	3070	e2650	5780	5900	14700	14000	4480	e1200	1360	2210
12	1540	2550	3020	e2600	5270	5400	11400	11000	3950	e1250	1270	2320
13	1460	2590	3230	e2550	4930	5010	9330	9300	3400	e1400	1230	2160
14	1520	2680	3140	e2500	4110	4750	7940	7620	3300	e1300	1230	1910
15	1510	3120	3160	e2400	4050	4460	6960	7050	2960	e1250	1230	1550
16	1470	3610	3220	e2350	4240	4250	6200	6470	2780	e1200	1230	1810
17	1360	3880	3510	e2300	4310	4120	5540	6650	2640	e1250	1160	1460
18	1400	3600	3820	2310	4080	3840	4980	9520	2700	e1300	852	1350
19	1350	3830	4100	2640	4010	3610	4770	50500	2850	e1250	1020	1700
20	1560	3790	4130	6210	4120	3400	4600	67300	e2600	e1400	1230	2820
21	1960	3370	4850	38600	4730	3440	4340	61600	e2400	e1500	1490	2620
22	1380	3080	6990	27300	5280	3230	3960	43100	e2300	1400	1540	2060
23	1350	2950	6960	17900	5070	3070	3680	28800	e2100	1410	2080	1480
24	1320	2690	6070	12900	4830	3050	3570	25000	e2400	1540	2650	1350
25	1330	2640	5330	10300	4600	2970	3480	28900	e2400	1450	2870	1570
26	1210	2490	5510	9020	4350	3040	3520	21900	e2100	1380	3280	1510
27	1260	2390	6740	8000	4070	3300	3370	16700	e2100	1300	2490	1540
28	1590	2310	7790	6510	3920	3840	3260	13200	e2000	1260	2020	2100
29	1730	2950	8180	5410	3760	4150	3150	10800	e1850	1140	2090	2370
30	1770	7270	8600	5330	---	4030	3060	9160	e1700	1140	2250	2010
31	1700	---	9530	5270	---	3780	---	7840	---	1150	3020	---
TOTAL	50260	78640	179710	222510	172980	143620	213000	633900	105280	40670	51462	65720
MEAN	1621	2621	5797	7178	5965	4633	7100	20450	3509	1312	1660	2191
MAX	2280	7270	15500	38600	12100	10400	30300	67300	6970	1650	3280	4400
MIN	1210	1320	3020	2300	3760	2970	3060	2920	1700	1140	852	1350
CFSM	.27	.44	.98	1.21	1.00	.78	1.20	3.44	.59	.22	.28	.37
IN.	.31	.49	1.13	1.39	1.08	.90	1.33	3.97	.66	.25	.32	.41

CAL YR 1987 TOTAL 2158255 MEAN 5913 MAX 80700 MIN 731 CFSM 1.00 IN. 13.53
WTR YR 1988 TOTAL 1957752 MEAN 5349 MAX 67300 MIN 852 CFSM .90 IN. 12.27

e Estimated

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to September 1981 (discontinued).
WATER TEMPERATURE: October 1980 to September 1981 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE: Maximum, 670 microsiemens, Aug. 6, 10, 15, 30, Sept. 3, 1881; minimum, 160 microsiemens, Apr. 14-15, 1981.
WATER TEMPERATURE: Maximum, 30.0°C, July 17, 21, 25, 1981; minimum, 1.0°C, Feb. 13, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV											
09...	1115	1140	430	8.0	13.0	18.0	761	1.4	10.7	102	1000
JAN											
05...	1030	5100	228	7.4	0.0	-7.0	770	2.8	14.2	96	36
FEB											
29...	1145	3500	286	7.8	4.0	10.0	758	2.9	13.7	105	K12
MAY											
05...	1230	3200	300	7.7	14.0	16.0	753	0.90	8.9	87	340
JUL											
05...	1110	1650	408	8.0	27.0	30.0	766	1.0	10.1	126	240
SEP											
01...	1105	2780	366	7.7	24.0	21.0	766	2.5	7.6	90	290

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV											
09...	100	56	10	16	3.2	104	127	74	25	0.20	0.33
JAN											
05...	59	27	5.3	6.6	1.7	50	60	34	8.5	0.20	6.0
FEB											
29...	K7	34	6.8	8.4	1.6	64	78	40	13	0.20	4.6
MAY											
05...	840	37	7.4	9.3	2.1	70	85	48	15	0.10	2.3
JUL											
05...	47	53	11	12	2.5	113	139	54	21	0.20	3.2
SEP											
01...	97	47	9.8	17	2.9	90	110	53	22	0.10	5.7

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)
NOV											
09...	251	251	--	<0.010	0.830	0.030	0.030	0.30	0.040	0.040	0.020
JAN											
05...	127	126	--	<0.010	1.20	0.040	0.040	<0.20	0.030	0.020	<0.010
FEB											
29...	160	153	--	<0.010	1.40	<0.010	<0.010	<0.20	0.030	0.030	0.010
MAY											
05...	171	170	0.870	0.020	0.890	0.060	0.070	0.20	0.040	0.030	0.070
JUL											
05...	241	234	1.49	0.010	1.50	<0.010	<0.010	0.30	0.040	0.010	0.010
SEP											
01...	233	221	1.29	0.010	1.30	0.050	0.060	0.40	0.070	0.050	0.040

K: Results based on colony count outside the accepted range (non-ideal colony).

01618000 POTOMAC RIVER AT SHEPHERDSTOWN, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
NOV										
09...	<10	<1	51	<0.5	<1	<1	<3	2	21	<5
JAN										
05...	--	--	--	--	--	--	--	--	--	--
FEB										
29...	20	<1	36	<0.5	<1	<1	<3	1	22	<5
MAY										
05...	10	<1	43	<0.5	<1	<1	<3	<1	26	<5
JUL										
05...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	<10	1	50	<0.5	1	<1	<3	2	16	<5

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
NOV										
09...	7	13	0.3	<10	3	<1	<1.0	280	<6	6
JAN										
05...	--	--	--	--	--	--	--	--	--	--
FEB										
29...	9	50	<0.1	<10	1	<1	<1.0	160	<6	12
MAY										
05...	9	16	<0.1	<10	3	<1	1.0	190	<6	7
JUL										
05...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	7	13	<0.1	<10	<1	<1	<1.0	230	<6	15

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
09...	1115	1140	9	28	60
JAN					
05...	1030	5100	18	248	51
FEB					
29...	1145	3500	6	57	65
MAY					
05...	1230	3200	4	35	84
JUL					
05...	1110	1650	7	31	96
SEP					
01...	1105	2780	6	45	91

01619320 ALBERT POWELL FISH HATCHERY SPRING AT BEAVER CREEK, MD

LOCATION.--Lat 39°35′22″, long 77°38′19″, Washington County, Hydrologic Unit 02070004, on left bank at spring outlet, 0.2 mi upstream from Beaver Creek, and 0.4 mi north of the town of Beaver Creek.

PERIOD OF RECORD.--April 1987 to September 1988.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 505 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14 ft^3/s, May 19, 1988, gage height, 1.66 ft; minimum discharge, 5.2 ft^3/s, Nov. 5-10, 15-17, 19, 21-29, Dec. 13, 21, 1987.

EXTREMES FOR CURRENT PERIOD.--April to September 1987: Maximum daily discharge, 9.1 ft^3/s, Apr. 22; minimum daily discharge, 6.1 ft^3/s, Sept. 6.

Water year 1988: Maximum daily discharge, 14 ft^3/s, May 19, 20; minimum daily discharge, 5.2 ft^3/s, Nov. 6-9, 16, 22-28.

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	8.6	7.7	7.2	7.0	6.3
2	---	---	---	---	---	---	---	8.5	7.6	7.3	7.0	6.3
3	---	---	---	---	---	---	---	8.5	7.6	7.6	7.0	6.3
4	---	---	---	---	---	---	---	8.5	7.6	7.4	7.0	6.3
5	---	---	---	---	---	---	---	8.5	7.6	7.8	7.0	6.3
6	---	---	---	---	---	---	---	8.5	7.6	7.6	7.0	6.3
7	---	---	---	---	---	---	---	8.5	7.6	7.6	7.0	6.3
8	---	---	---	---	---	---	---	8.4	7.6	7.6	7.0	6.3
9	---	---	---	---	---	---	---	8.3	7.6	7.6	6.9	6.3
10	---	---	---	---	---	---	---	8.2	7.6	7.6	6.8	6.3
11	---	---	---	---	---	---	---	8.0	7.6	7.6	6.8	6.3
12	---	---	---	---	---	---	---	8.1	7.6	7.6	6.8	6.3
13	---	---	---	---	---	---	---	8.3	7.6	7.6	6.8	6.3
14	---	---	---	---	---	---	---	8.3	7.6	7.5	6.8	6.2
15	---	---	---	---	---	---	---	8.2	7.6	7.4	6.8	6.1
16	---	---	---	---	---	---	---	8.0	7.6	7.4	6.8	6.1
17	---	---	---	---	---	---	---	8.0	7.6	7.4	6.8	6.1
18	---	---	---	---	---	---	---	8.0	7.6	7.2	6.8	6.2
19	---	---	---	---	---	---	---	8.0	7.6	7.2	6.8	6.3
20	---	---	---	---	---	---	---	8.0	7.6	7.2	6.6	6.3
21	---	---	---	---	---	---	---	8.0	7.6	7.2	6.5	6.3
22	---	---	---	---	---	---	8.9	8.0	7.6	7.2	6.5	6.3
23	---	---	---	---	---	---	8.9	8.0	7.6	7.2	6.4	6.3
24	---	---	---	---	---	---	8.9	7.8	7.6	7.2	6.3	6.3
25	---	---	---	---	---	---	8.7	7.8	7.5	7.2	6.3	6.2
26	---	---	---	---	---	---	8.5	7.8	7.4	7.1	6.3	6.1
27	---	---	---	---	---	---	8.5	7.8	7.4	7.0	6.4	6.1
28	---	---	---	---	---	---	8.5	7.8	7.2	7.0	6.5	6.1
29	---	---	---	---	---	---	8.7	7.8	7.2	7.0	6.4	6.1
30	---	---	---	---	---	---	8.7	7.8	7.2	7.0	6.3	6.1
31	---	---	---	---	---	---	---	7.8	---	7.0	6.3	---
TOTAL	---	---	---	---	---	---	---	251.8	226.4	227.5	207.7	187.1
MEAN	---	---	---	---	---	---	---	8.12	7.55	7.34	6.70	6.24
MAX	---	---	---	---	---	---	---	8.6	7.7	7.8	7.0	6.3
MIN	---	---	---	---	---	---	---	7.8	7.2	7.0	6.3	6.1

01619320 ALBERT POWELL FISH HATCHERY SPRING AT BEAVER CREEK, MD--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	5.4	5.7	5.4	6.3	6.5	6.3	6.1	9.3	8.0	6.8	6.3
2	5.9	5.4	5.6	5.4	6.3	6.5	6.2	6.1	9.3	7.8	6.8	6.2
3	5.8	5.4	5.6	5.4	6.3	6.5	6.1	6.1	9.3	7.7	6.8	6.1
4	5.7	5.4	5.5	5.4	6.5	6.5	6.1	6.1	9.3	7.7	6.8	6.1
5	5.7	5.4	5.4	5.4	6.5	6.5	6.1	6.1	9.2	7.7	6.8	6.1
6	5.7	5.2	5.4	5.4	6.3	6.5	6.2	6.3	9.0	7.7	6.8	6.1
7	5.9	5.2	5.4	5.4	6.3	6.5	6.3	6.5	9.0	7.7	6.8	6.1
8	5.8	5.2	5.4	5.4	6.3	6.5	6.3	6.5	9.0	7.7	6.7	6.1
9	5.7	5.2	5.4	5.4	6.3	6.8	6.2	6.5	8.7	7.5	6.5	6.1
10	5.7	5.3	5.4	5.4	6.3	6.7	6.1	6.5	8.6	7.4	6.5	6.1
11	5.7	5.4	5.4	5.4	6.3	6.8	6.1	6.5	8.6	7.3	6.5	6.0
12	5.7	5.4	5.4	5.4	6.3	6.7	6.1	6.5	8.6	7.4	6.5	5.9
13	5.7	5.4	5.4	5.4	6.3	6.5	6.2	6.5	8.6	7.4	6.5	6.0
14	5.7	5.4	5.4	5.4	6.3	6.5	6.3	6.3	8.6	7.4	6.5	6.1
15	5.7	5.4	5.4	5.4	6.3	6.5	6.3	6.3	8.6	7.4	6.5	6.3
16	5.7	5.2	5.4	5.4	6.4	6.5	6.1	6.3	8.6	7.3	6.3	6.3
17	5.7	5.4	5.4	5.4	6.5	6.3	6.1	6.4	8.6	7.2	6.3	6.1
18	5.7	5.4	5.4	5.4	6.5	6.3	6.1	8.1	8.6	7.2	6.2	6.1
19	5.7	5.4	5.4	5.4	6.5	6.2	6.1	14	8.5	7.2	6.1	6.1
20	5.7	5.4	5.4	6.6	6.5	6.1	6.1	14	8.3	7.2	6.1	6.1
21	5.7	5.3	5.3	6.8	6.3	6.1	6.1	13	8.2	7.2	6.1	6.1
22	5.7	5.2	5.4	6.7	6.4	6.1	6.1	13	8.1	7.2	6.1	6.1
23	5.7	5.2	5.4	6.5	6.5	6.3	6.1	12	8.1	7.2	6.2	6.1
24	5.5	5.2	5.4	6.4	6.5	6.3	6.0	11	8.1	7.2	6.5	6.1
25	5.4	5.2	5.4	6.3	6.5	6.3	6.0	11	8.1	7.2	6.4	6.1
26	5.4	5.2	5.4	6.3	6.5	6.3	6.1	10	8.1	7.2	6.3	5.9
27	5.5	5.2	5.4	6.3	6.5	6.2	6.1	9.9	8.1	7.2	6.3	5.9
28	5.7	5.2	5.4	6.3	6.5	6.1	6.1	9.8	8.1	7.2	6.3	5.9
29	5.7	5.4	5.4	6.3	6.5	6.2	6.1	9.8	8.1	7.2	6.3	5.9
30	5.7	5.7	5.4	6.3	---	6.3	6.1	9.8	8.1	7.0	6.3	5.9
31	5.4	---	5.4	6.3	---	6.3	---	9.4	---	6.8	6.3	---
TOTAL	176.2	159.7	168.1	179.7	185.5	198.4	184.2	262.4	257.4	228.5	199.9	182.3
MEAN	5.68	5.32	5.42	5.80	6.40	6.40	6.14	8.46	8.58	7.37	6.45	6.08
MAX	5.9	5.7	5.7	6.8	6.5	6.8	6.3	14	9.3	8.0	6.8	6.3
MIN	5.4	5.2	5.3	5.4	6.3	6.1	6.0	6.1	8.1	6.8	6.1	5.9

WTR YR 1988 TOTAL 2382.3 MEAN 6.51 MAX 14 MIN 5.2

01619500 ANTIETAM CREEK NEAR SHARPSBURG, MD

LOCATION.--Lat 39°27′01″, long 77°43′52″, Washington County, Hydrologic Unit 02070004, on left bank 400 ft downstream from Burnside Bridge, 1.0 mi southeast of Sharpsburg, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--281 mi^2.

PERIOD OF RECORD.--June 1897 to September 1905, August 1928 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 192: 1897-1905. WSP 726: Drainage area. WSP 1432: 1929-31(M), 1933, 1935(M), 1937(M), 1949(M), 1952(M).

GAGE.--Water-stage recorder. Concrete control since Mar. 29, 1934. Datum of gage is 311.05 ft above National Geodetic Vertical Datum of 1929. June 24, 1897, to Aug. 25, 1905, nonrecording gage a few hundred feet downstream from Middle Bridge, 1.2 mi upstream at datum 12 ft higher. Aug. 21, 1928, to July 13, 1933, nonrecording gage at Burnside Bridge, 0.1 mi upstream at present datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some diurnal fluctuation caused by powerplant upstream from station. Since 1928 records include pumpage from the Potomac River for municipal supply of Hagerstown. This water later enters Antietam Creek upstream from station as sewage. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--65 years (water years 1898-1903, 1905, 1931-88), 275 ft^3/s, 13.29 in/yr, adjusted for inflow since January 1930.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,600 ft^3/s, July 20, 1956, gage height, 16.73 ft, from rating curve extended above 7,300 ft^3/s on basis of contracted-opening measurement of peak flow; minimum discharge, 9.4 ft^3/s, Nov. 22, 1957, result of regulation caused by construction work upstream from station; minimum daily discharge, 37 ft^3/s, Jan. 30, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 19	1830	*3,060	*7.63	May 21	0015	2,500	6.89

Minimum discharge, 87 ft^3/s, Nov. 6, gage height, 2.29 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	102	259	162	233	203	172	159	442	176	135	118
2	115	100	204	165	261	197	170	156	426	174	128	112
3	112	102	183	161	300	197	168	153	403	169	124	109
4	110	100	177	156	299	233	172	156	386	165	118	133
5	109	97	169	e150	333	348	176	190	367	162	117	182
6	111	91	163	e135	290	278	166	377	349	158	119	139
7	134	92	159	e130	268	258	256	698	334	155	132	121
8	128	92	158	e120	280	251	300	451	321	153	123	114
9	112	94	152	e130	268	245	252	364	366	151	117	110
10	108	115	148	e135	257	246	225	328	364	164	114	108
11	107	191	144	e120	250	237	214	314	314	163	111	104
12	105	149	140	e135	254	228	208	282	295	237	109	102
13	105	135	136	e145	247	226	204	251	282	195	108	107
14	102	134	132	e130	219	222	198	233	274	163	105	118
15	102	132	152	e120	227	217	193	221	265	152	103	107
16	102	127	162	e120	258	212	186	234	257	144	101	103
17	101	123	152	134	241	208	181	255	254	140	99	107
18	99	130	137	154	222	202	185	765	248	143	102	117
19	99	134	133	169	218	201	200	2400	238	178	112	109
20	100	124	154	632	267	199	183	2170	233	167	127	107
21	101	117	164	494	266	196	173	1580	225	216	136	104
22	97	112	152	321	235	192	168	1040	217	173	114	103
23	97	110	142	281	231	186	165	858	211	158	114	100
24	95	112	140	259	230	185	183	880	205	175	204	101
25	94	111	147	257	221	183	177	852	199	158	172	138
26	91	111	171	270	215	210	164	730	194	147	132	131
27	100	109	181	233	212	208	162	645	189	142	118	112
28	187	114	169	217	209	188	174	589	186	141	114	104
29	153	212	181	210	205	181	172	547	184	135	130	102
30	116	474	170	208	---	176	163	505	180	133	172	100
31	108	---	162	211	---	174	---	472	---	142	134	---
TOTAL	3428	3946	4993	6264	7216	6687	5710	18855	8408	5029	3844	3422
MEAN	111	132	161	202	249	216	190	608	280	162	124	114
MAX	187	474	259	632	333	348	300	2400	442	237	204	182
MIN	91	91	132	120	205	174	162	153	180	133	99	100
(†)	-15.8	-14.8	-15.0	-15.6	-14.9	-15.1	-15.6	-16.0	-18.5	-18.7	-18.2	-16.2
MEAN≠	95.2	117	146	186	234	201	174	592	262	143	106	97.8
CFSM≠	0.34	0.42	0.52	0.66	0.83	0.72	0.62	2.11	0.93	0.51	0.38	0.35
IN≠	0.39	0.47	0.60	0.76	0.90	0.83	0.69	2.43	1.04	0.59	0.44	0.39

CAL YR 1987	TOTAL	82834	MEAN 227	MAX	1780	MIN 91	MEAN≠	211	CFSM≠	0.75	IN≠	10.21
WTR YR 1988	TOTAL	77802	MEAN 213	MAX	2400	MIN 91	MEAN≠	197	CFSM≠	0.70	IN≠	9.51

e Estimated
† Pumpage in cubic feet per second, from Potomac River for municipal supply of Hagerstown.
≠ Adjusted for pumpage.

01636500 SHENANDOAH RIVER AT MILLVILLE, WV

LOCATION.--Lat 39°16′55″, long 77°47′22″, Jefferson County, Hydrologic Unit 02070007, on left bank 0.4 mi downstream from Cattail Run, 1.0 mi upstream from Millville, 5.0 mi upstream from Harpers Ferry, and at mile 5.0.

DRAINAGE AREA.--3,040 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1895 to March 1909, August 1928 to current year.

REVISED RECORDS.--WSP 951: 1936(M). WSP 1432: Drainage area at former site, 1895-99, 1901-02, 1905, 1907-08, 1932(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 293.00 ft above National Geodetic Vertical Datum of 1929. Apr. 15, 1895, to Mar. 31, 1909, nonrecording gage at site 0.8 mi downstream at datum 0.32 ft higher.

REMARKS.--Water-discharge records good. Regulation by hydroelectric plants, particularly that of Potomac Light and Power Company, 0.5 mi upstream from station. National Weather Service gage-height telemeter and U.S. Army Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--73 years (water years 1896-1908, 1929-88), 2,693 ft^3/s, 12.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 230,000 ft^3/s, Oct. 16, 1942, gage height, 32.4 ft, from flood-marks; minimum discharge, 59 ft^3/s, Oct. 4, 1930, gage height, 0.39 ft; minimum daily discharge, 194 ft^3/s, July 24, 1930.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1870 reached practically same stage as flood of Mar. 18, 1936, 26.36 ft, discharge, 151,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 7	1845	*22,900	*10.42	May 20	1145	17,800	9.17

Minimum discharge, 261 ft^3/s, Aug. 13, gage height, 0.98 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1410	912	7660	4120	2420	1510	1570	1210	2980	771	620	653
2	1310	831	6660	3550	2480	1480	1480	1190	2720	749	661	664
3	1330	793	4870	3140	3100	1410	1370	1150	2560	733	618	695
4	1240	785	3790	2780	3780	1520	1400	1070	2390	725	575	633
5	1180	775	3080	2510	3950	1770	1400	1160	2290	665	553	671
6	1060	737	2640	2230	3690	2250	1370	4200	2220	652	556	635
7	1130	729	2310	1910	3350	2070	1780	18700	2060	642	587	615
8	1080	740	2110	1480	3070	1940	4330	16800	1850	623	602	565
9	1010	732	1680	1540	2890	1800	4770	10100	1760	627	591	559
10	975	783	1740	1840	2730	1750	4150	7110	1720	647	560	574
11	980	924	1660	1830	2630	1690	3530	5610	1670	540	523	544
12	908	1070	1570	1650	2480	1610	3050	4650	1560	578	571	515
13	951	1070	1530	1700	2330	1590	2760	3890	1450	558	509	480
14	938	1350	1690	2060	2210	1550	2490	3270	1390	657	471	501
15	793	1290	1660	1840	2070	1480	2240	2760	1330	644	514	467
16	750	1150	1720	1690	2110	1460	2150	2480	1300	697	406	469
17	840	1190	2000	1660	2080	1430	1930	2440	1290	789	410	447
18	840	1160	2320	1850	1960	1380	1850	3940	1230	650	525	449
19	834	1210	2420	1810	2000	1340	1840	8850	1140	678	411	502
20	832	1160	2300	2240	1940	1330	1810	15200	1170	753	508	439
21	858	1210	2260	5510	1870	1310	1550	12400	1130	1570	614	557
22	871	1250	2180	7300	1830	1250	1570	9940	1060	767	687	447
23	820	1120	2080	5900	1810	1260	1500	9220	1080	766	508	508
24	810	1070	2090	4770	1790	1180	1460	12600	967	753	435	412
25	793	1050	1990	4120	1670	1160	1340	13100	875	887	569	525
26	763	1030	1850	3780	1640	1270	1370	9580	927	890	580	577
27	762	1000	2220	3420	1580	1340	1210	7130	796	999	532	544
28	886	1050	2330	3060	1580	1540	1470	5680	805	1010	497	516
29	969	1640	2830	2670	1500	1720	1100	4690	814	834	514	517
30	917	4450	4250	2400	---	1800	1220	4000	788	795	573	591
31	908	---	4980	2370	---	1640	---	3470	---	797	580	---
TOTAL	29748	34261	84470	88730	68540	47830	61060	207590	45322	23446	16860	16271
MEAN	960	1142	2725	2862	2363	1543	2035	6696	1511	756	544	542
MAX	1410	4450	7660	7300	3950	2250	4770	18700	2980	1570	687	695
MIN	750	729	1530	1480	1500	1160	1100	1070	788	540	406	412
CFSM	.32	.38	.90	.94	.78	.51	.67	2.20	.50	.25	.18	.18
IN.	.36	.42	1.03	1.09	.84	.59	.75	2.54	.55	.29	.21	.20

CAL YR 1987 TOTAL 1134085 MEAN 3107 MAX 61100 MIN 449 CFSM 1.02 IN. 13.88
WTR YR 1988 TOTAL 724128 MEAN 1978 MAX 18700 MIN 406 CFSM .65 IN. 8.86

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-63, 1965, 1969-71, 1979 to current year.

INSTRUMENTATION.--Water-quality monitor October 1980 to September 1983.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1980 to September 1983 (discontinued).
WATER TEMPERATURES: October 1980 to September 1983 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (water years 1981-82): Maximum, 778 microsiemens, Dec. 29, 1980; minimum, 212 microsiemens, Jan. 17,1982.
WATER TEMPERATURE: Maximum, 30.0°C, July 20, 21, 1981; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV											
09...	0840	742	447	8.5	13.5	18.0	760	1.5	10.3	99	7
JAN											
05...	0900	2590	320	8.2	0.0	-8.0	768	26	14.0	95	9
FEB											
29...	0935	1500	383	8.7	5.0	5.0	757	1.3	14.1	111	K6
MAY											
05...	1015	1120	368	7.9	16.0	18.0	752	0.80	8.2	84	40
JUL											
05...	0905	659	497	8.1	25.5	27.0	765	4.3	6.7	82	200
SEP											
01...	0900	659	408	7.6	23.0	21.0	765	18	6.2	72	130

DATE	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE WATER DIS IT FIELD MG/L AS CO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
NOV											
09...	150	52	16	44	3.0	164	172	14	94	22	0.10
JAN											
05...	17	35	7.9	14	2.0	--	--	--	39	7.8	0.20
FEB											
29...	K8	46	11	24	1.8	128	137	10	58	13	0.20
MAY											
05...	140	40	11	22	2.6	122	149	--	51	13	0.10
JUL											
05...	980	47	15	36	2.8	146	177	--	73	18	0.30
SEP											
01...	1000	39	16	46	2.6	118	144	--	100	23	0.20

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)
NOV											
09...	0.29	326	334	--	<0.010	0.920	0.020	0.010	0.40	0.030	0.030
JAN											
05...	6.4	176	173	--	<0.010	1.40	0.040	0.040	0.40	0.070	0.060
FEB											
29...	0.73	244	239	--	<0.010	1.40	<0.010	<0.010	0.20	0.020	0.020
MAY											
05...	1.4	219	217	0.710	0.010	0.720	0.040	0.070	0.40	0.030	0.060
JUL											
05...	8.3	297	291	0.740	0.010	0.750	0.050	0.040	0.50	0.080	0.050
SEP											
01...	7.6	320	311	--	<0.010	0.550	0.070	0.090	0.70	0.150	0.080

K: Results based on colony count outside the accepted range (non-ideal colony).

01636500 SHENANDOAH RIVER AT MILLVILLE, WV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV											
09...	0.020	<10	1	36	<0.5	<1	1	<3	1	12	<5
JAN											
05...	0.030	--	--	--	--	--	--	--	--	--	--
FEB											
29...	0.010	<10	<1	35	<0.5	<1	<1	<3	1	12	<5
MAY											
05...	0.060	<10	1	34	<0.5	<1	<1	<3	<1	24	<5
JUL											
05...	0.040	--	--	--	--	--	--	--	--	--	--
SEP											
01...	0.070	<10	2	46	<0.5	<1	<1	<3	1	22	<5

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
09...	6	6	0.2	<10	2	<1	<1.0	170	<6	11
JAN										
05...	--	--	--	--	--	--	--	--	--	--
FEB										
29...	10	5	<0.1	<10	<1	<1	<1.0	140	<6	16
MAY										
05...	9	8	<0.1	<10	<1	<1	1.0	140	<6	16
JUL										
05...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	10	11	<0.1	<10	<1	<1	<1.0	190	<6	6

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
09...	0840	742	7	14	88
JAN					
05...	0900	2590	8	56	89
FEB					
29...	0935	1500	5	20	68
MAY					
05...	1015	1120	6	18	94
JUL					
05...	0905	659	14	25	93
SEP					
01...	0900	659	33	59	96

01637500 CATOCTIN CREEK NEAR MIDDLETOWN, MD

LOCATION.--Lat 39°25′35″, long 77°33′25″, Frederick County, Hydrologic Unit 02070008, on right bank 300 ft downstream from bridge on State Highway 17, 1.3 mi south of Middletown, 2.2 mi downstream from Little Catoctin Creek, and 14.8 mi upstream from mouth.

DRAINAGE AREA.--66.9 mi^2.

PERIOD OF RECORD.--August 1947 to current year.

REVISED RECORDS.--WSP 1432: 1947-48. WDR MD-DE-77-1: 1960(M), 1965(M), 1970(M), 1972(P), 1975(P).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 385 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges (ice effect), which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--41 years, 75.3 ft^3/s, 15.29 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft^3/s, Oct. 9, 1976, gage height, 14.13 ft, from rating curve extended above 2,600 ft^3/s on basis of slope-area measurement of peak flow; no flow Aug. 27 to Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0630	1,390	4.80	May 19	1400	3,080	6.92
May 18	2200	*6,040	*9.76	May 20	2230	3,990	7.89

Minimum discharge, 1.2 ft^3/s, Jan. 5, gage height, 1.39 ft, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	9.2	88	43	84	44	38	39	118	14	10	6.7
2	5.8	8.8	63	39	106	41	37	37	108	13	8.6	5.1
3	5.4	8.3	51	28	129	42	36	36	99	13	6.5	4.3
4	4.8	7.7	47	40	123	81	37	36	91	12	5.7	19
5	3.9	7.1	41	20	109	132	35	73	81	11	5.3	28
6	4.1	6.1	35	e22	82	92	33	408	72	10	5.4	14
7	8.8	6.4	31	e24	e76	87	94	276	64	9.2	6.6	9.0
8	9.9	7.3	28	e25	e74	79	126	190	59	8.5	5.6	6.8
9	6.8	7.8	26	e24	e66	75	94	153	77	9.1	4.6	6.0
10	5.3	22	25	e23	e64	74	82	138	69	11	4.0	6.3
11	4.8	45	24	e22	60	65	75	125	54	11	3.7	5.7
12	4.5	25	23	e20	75	61	69	105	48	33	3.4	4.5
13	4.1	23	21	e19	51	62	64	92	44	19	3.0	4.9
14	3.7	25	19	21	52	57	59	83	40	13	2.9	4.9
15	3.6	23	35	18	66	52	56	76	36	10	2.8	4.8
16	4.3	19	46	19	101	49	52	84	34	8.2	2.3	4.3
17	4.3	17	33	21	67	46	50	142	37	7.1	1.9	5.0
18	4.1	36	27	48	60	44	54	1340	32	13	1.8	8.5
19	3.8	29	24	58	64	44	66	2750	29	70	3.5	7.8
20	3.9	21	42	650	97	42	50	1340	28	78	7.5	6.4
21	4.9	18	47	156	79	39	45	1150	25	59	10	6.5
22	3.9	15	37	106	64	36	42	579	23	29	7.5	6.9
23	4.4	14	35	85	68	35	41	425	21	21	8.6	5.0
24	5.2	14	32	72	62	36	55	575	20	23	53	4.7
25	4.8	13	34	75	55	35	44	489	19	18	18	13
26	4.3	13	51	74	51	70	40	364	18	14	10	15
27	14	13	50	55	52	61	42	294	17	13	6.9	9.6
28	57	14	45	51	49	45	57	237	16	12	5.4	6.9
29	23	343	50	50	46	41	46	195	15	11	10	5.4
30	14	189	38	50	---	39	43	162	14	9.6	12	4.8
31	11	---	40	58	---	38	---	137	---	10	9.9	---
TOTAL	248.1	999.7	1188	2016	2132	1744	1662	12130	1408	592.7	246.4	239.8
MEAN	8.00	33.3	38.3	65.0	73.5	56.3	55.4	391	46.9	19.1	7.95	7.99
MAX	57	343	88	650	129	132	126	2750	118	78	53	28
MIN	3.6	6.1	19	18	46	35	33	36	14	7.1	1.8	4.3
CFSM	.12	.50	.57	.97	1.10	.84	.83	5.85	.70	.29	.12	.12
IN.	.14	.56	.66	1.12	1.19	.97	.92	6.74	.78	.33	.14	.13

CAL YR 1987 TOTAL 19609.0 MEAN 53.7 MAX 1240 MIN 1.0 CFSM .80 IN. 10.90
WTR YR 1988 TOTAL 24606.7 MEAN 67.2 MAX 2750 MIN 1.8 CFSM 1.00 IN. 13.68

e Estimated

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD

LOCATION.--Lat 39°16′25″, long 77°32′35″, Frederick County, Hydrologic Unit 02070008, on left bank at downstream side of bridge on U.S. Highway 15 at Point of Rocks, 0.3 mi downstream from Catoctin Creek (Virginia), 6 mi upstream from Monocacy River, and at mile 159.5.

DRAINAGE AREA.--9,651 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1895 to current year.
REVISED RECORDS.--WSP 192: 1895-1905. WSP 1432: 1899, 1901-2, 1904-5, 1912, 1914(M), 1915, 1917(M), 1918, 1919(M), 1920, 1921-23(M), 1924, 1925-28(M), 1930(M).
GAGE.--Water-stage recorder. Datum of gage is 200.63 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 28, 1929, nonrecording gage at same site. Prior to Sept. 2, 1902, at datum about 0.45 ft higher.
REMARKS.--Water-discharge records good except those for estimated daily discharges which are fair. Low flow affected slightly from 1913 to July 1981 by Stony River Reservoir, since December 1950 by Savage River Reservoir (see station 01597500), and since July 1981 by Jennings Randolph Lake. Low flow affected extensively at times by run-of-the-river hydroelectric plants. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--93 years, 9,395 ft^3/s, 13.22 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480,000 ft^3/s, Mar. 19, 1936, gage height, 41.03 ft, from rating curve extended above 300,000 ft^3/s, on the basis of adjustment of figure of peak flow at station near Washington for inflow and storage, and slope-area measurement of peak flow; minimum discharge, 530 ft^3/s, Sept. 11, 12, 1966, gage height, 0.27 ft.
EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, reached a stage of 40.2 ft, from floodmarks, discharge, about 460,000 ft^3/s from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 9	0300	38,900	9.03	May 20	1400	*96,100	*17.01
May 8	0130	92,200	16.53	May 25	1130	48,100	10.48

Minimum discharge, 1,210 ft^3/s, Aug. 14, 17, gage height, 0.69 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3360	2610	22000	13800	8650	5700	5710	4410	11100	2360	1880	3390
2	3210	2450	21800	12000	9470	5510	5490	4330	9940	2120	1980	2660
3	3290	2350	16400	10900	11700	5330	5310	4290	9050	2060	1920	2410
4	3520	2260	12200	9860	14000	5460	5080	4390	8470	2020	1720	2260
5	3300	2150	9870	e9000	16400	6760	5070	4820	8060	2010	1620	2390
6	3120	2000	8400	e7030	17300	12300	4970	8540	7790	1980	1580	3720
7	2970	2000	7310	e5260	14900	13400	6220	54900	7160	1930	1740	4670
8	2890	1960	6580	e4760	13400	11700	21200	78300	6480	1880	1740	3740
9	2780	1940	5660	e4650	12600	10200	37000	46600	6120	1830	1710	2990
10	2700	2140	5290	e4600	11500	9200	28700	32100	6210	1860	1760	2580
11	2660	2680	5060	e4550	9900	8540	21000	23300	6360	1800	1630	2260
12	2500	2870	4830	e4500	9230	8030	16400	17500	6280	1850	1530	2100
13	2420	3210	4880	e4450	8610	7420	13700	14700	5480	1990	1590	1910
14	2370	3690	5060	e4450	8010	6890	11700	12100	5050	2010	1340	1810
15	2320	4350	5300	e4400	7080	6590	10400	10700	4610	1890	1420	1820
16	2060	4850	5240	e4500	7450	6280	9310	9970	4350	1820	1430	1680
17	2140	5350	5740	e4600	7280	5980	8400	10300	4150	1900	1230	1720
18	2120	5330	6250	4790	7010	5690	7640	16000	4010	1880	1280	1780
19	2140	5180	6960	5030	6910	5420	7220	58500	3970	2050	1350	1760
20	2080	5400	6900	10300	6950	5090	6920	93400	3740	2150	1400	2300
21	2820	4840	7100	e28600	7330	5130	6510	84000	3520	3800	1720	2840
22	2430	4590	9420	31400	7960	4860	6050	63000	3390	2500	1740	2660
23	2080	4300	10100	27300	8020	4700	5670	43100	3320	3110	2070	2190
24	2020	3970	9350	20600	7590	4550	5460	41600	3390	2700	2530	1560
25	1970	3780	8420	16300	7200	4470	5220	45900	3320	2600	2370	1750
26	1930	3570	8210	14300	6740	4830	5170	36500	3200	2660	3610	1870
27	1970	3460	9400	12700	6370	4880	5010	27900	2890	2630	3150	1930
28	2650	3480	11000	10900	6150	5510	4980	22000	2760	2650	2300	2070
29	2650	7260	11900	9180	5950	6180	4730	17800	2820	2340	2120	2350
30	2720	10600	13200	8500	---	6410	4420	14800	2660	2040	2150	2370
31	2710	---	15800	8500	---	6050	---	12700	---	2240	2450	---
TOTAL	79900	114620	285630	321710	271660	209060	290660	918450	159650	68660	58060	71540
MEAN	2577	3821	9214	10380	9368	6744	9689	29630	5322	2215	1873	2385
MAX	3520	10600	22000	31400	17300	13400	37000	93400	11100	3800	3610	4670
MIN	1930	1940	4830	4400	5950	4470	4420	4290	2660	1800	1230	1560
CFSM	.27	.40	.95	1.08	.97	.70	1.00	3.07	.55	.23	.19	.25
IN.	.31	.44	1.10	1.24	1.05	.81	1.12	3.54	.62	.26	.22	.28

CAL YR 1987 TOTAL 3518580 MEAN 9640 MAX 136000 MIN 1290 CFSM 1.00 IN. 13.56
WTR YR 1988 TOTAL 2849600 MEAN 7786 MAX 93400 MIN 1230 CFSM .81 IN. 10.98

e Estimated

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1960 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to current year.

REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum daily, 33.5°C, Aug. 24, 1964, July 19, 1977; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 2,690 mg/L, Nov. 7, 1985; minimum daily mean, 1 mg/L, on many days most years.
SEDIMENT LOAD: Maximum daily, 1,930,000 tons, Nov. 7, 1985; minimum daily, 2.0 tons on many days during 1964, 1966-69.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum daily, 32.0°C, Aug. 13-15; minimum daily, 0.0°C, Jan. 6, 9, 10, 19, 20, 21, 29.
SEDIMENT CONCENTRATION: Maximum daily mean, 673 mg/L, May 20; minimum daily mean, 1 mg/L, Nov. 3.
SEDIMENT LOAD: Maximum daily, 170,000 tons, May 20; minimum daily, 6.3 tons, Nov. 3.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM
MAY												
08...	1340	77600	706	148000	30	43	59	75	80	85	90	95

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.0	12.0	---	3.0	5.0	4.0	14.0	15.0	21.0	---	---	25.0
2	---	---	7.0	2.0	4.0	9.0	14.0	15.0	21.0	---	---	25.0
3	16.0	12.0	6.0	2.0	3.0	9.0	15.0	13.0	20.0	---	30.0	25.0
4	15.0	---	---	3.0	4.0	4.0	8.0	14.0	14.0	24.0	30.0	23.0
5	17.0	13.0	5.0	1.0	5.0	5.0	15.0	15.0	20.0	26.0	30.0	23.0
6	15.0	8.0	5.0	.0	6.0	7.0	16.0	14.0	20.0	25.0	30.0	22.0
7	16.0	9.0	5.0	---	4.0	7.0	13.0	14.0	24.0	30.0	30.0	19.0
8	14.0	12.0	4.0	---	2.0	---	13.0	13.0	19.0	29.0	30.0	20.0
9	12.0	11.0	6.0	.0	1.0	7.0	11.0	15.0	20.0	31.0	31.0	---
10	15.0	11.0	5.0	.0	3.0	---	12.0	15.0	17.0	30.0	28.0	23.0
11	15.0	9.0	6.0	---	3.0	9.0	---	15.0	---	28.0	31.0	24.0
12	14.0	6.0	7.0	---	5.0	9.0	---	18.0	23.0	27.0	30.0	22.0
13	13.0	8.0	7.0	1.0	3.0	---	10.0	18.0	21.0	26.0	32.0	26.0
14	13.0	8.0	5.0	---	---	7.0	11.0	18.0	22.0	30.0	32.0	23.0
15	12.0	10.0	7.0	---	2.0	6.0	11.0	20.0	24.0	30.0	32.0	23.0
16	15.0	7.0	7.0	---	---	10.0	11.0	18.0	25.0	28.0	30.0	20.0
17	14.0	9.0	5.0	1.0	2.0	5.0	12.0	20.0	25.0	32.0	30.0	20.0
18	15.0	10.0	4.0	1.0	---	8.0	12.0	20.0	26.0	29.0	29.0	22.0
19	14.0	---	4.0	.0	3.0	6.0	12.0	17.0	26.0	29.0	25.0	26.0
20	14.0	8.0	5.0	.0	5.0	6.0	10.0	15.0	25.0	28.0	24.0	23.0
21	13.0	6.0	5.0	---	3.0	5.0	14.0	16.0	30.0	27.0	25.0	22.0
22	---	5.0	4.0	.0	4.0	6.0	15.0	16.0	28.0	26.0	---	20.0
23	11.0	---	5.0	2.0	5.0	7.0	13.0	16.0	27.0	---	24.0	24.0
24	13.0	7.0	4.0	4.0	4.0	---	13.0	17.0	27.0	27.0	26.0	21.0
25	---	7.0	5.0	---	3.0	14.0	14.0	17.0	27.0	---	26.0	18.0
26	12.0	8.0	5.0	---	4.0	12.0	13.0	17.0	---	26.0	26.0	18.0
27	10.0	7.0	---	1.0	2.0	11.0	14.0	18.0	23.0	---	25.0	21.0
28	---	7.0	4.0	2.0	---	10.0	16.0	16.0	23.0	---	25.0	22.0
29	9.0	7.0	5.0	.0	4.0	11.0	12.0	21.0	25.0	---	25.0	18.0
30	---	7.0	4.0	1.0	---	12.0	15.0	20.0	24.0	---	25.0	18.0
31	11.0	---	3.0	2.0	---	13.0	---	---	---	---	---	---

01638500 POTOMAC RIVER AT POINT OF ROCKS, MD--Continued

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9	82	2	14	120	7360	10	373	11	257	9	139
2	8	69	2	13	75	4410	9	292	11	281	14	208
3	9	80	1	6.3	41	1820	12	353	12	379	7	101
4	9	86	2	12	27	889	21	559	15	567	8	118
5	9	80	2	12	15	400	21	510	19	841	7	128
6	8	67	4	22	12	272	18	342	29	1350	27	897
7	6	48	4	22	10	197	14	199	22	885	30	1090
8	5	39	3	16	12	213	10	129	16	579	30	948
9	4	30	3	16	14	214	6	75	12	408	21	578
10	5	36	2	12	10	143	5	62	10	310	17	422
11	7	50	2	14	7	96	5	61	9	241	15	346
12	13	88	2	15	14	183	4	49	15	374	21	455
13	9	59	2	17	21	277	4	48	21	488	29	581
14	5	32	2	20	17	232	4	48	19	411	22	409
15	3	19	4	47	10	143	3	36	14	268	8	142
16	3	17	5	65	6	85	3	36	13	261	7	119
17	4	23	4	58	5	77	2	25	12	236	8	129
18	6	34	3	43	5	84	4	52	14	265	20	307
19	5	29	4	56	5	94	11	149	16	299	17	249
20	3	17	4	58	5	93	198	5780	13	244	10	137
21	2	15	3	39	6	115	462	37500	10	198	5	69
22	2	13	2	25	8	203	410	34800	9	193	6	79
23	2	11	3	35	10	273	200	14700	9	195	8	102
24	3	16	3	32	11	278	62	3450	8	164	11	135
25	3	16	3	31	12	273	47	2070	6	117	10	121
26	3	16	3	29	11	244	31	1200	6	109	11	143
27	8	43	4	37	11	279	15	514	5	86	22	290
28	12	86	5	47	11	327	12	353	5	83	23	342
29	9	64	36	968	16	514	12	297	5	80	22	367
30	5	37	41	1270	13	463	13	298	---	---	30	519
31	4	29	---	---	15	640	12	275	---	---	28	457
TOTAL	---	1331	---	3051.3	---	20891	---	104635	---	10169	---	10127
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	25	385	17	202	31	929	11	70	15	76	14	128
2	23	341	19	222	29	778	11	63	14	75	10	72
3	23	330	20	232	28	684	11	61	13	67	7	46
4	23	315	20	237	23	526	11	60	17	79	9	55
5	20	274	21	273	18	392	11	60	26	114	13	84
6	17	228	37	853	17	358	9	48	33	141	22	221
7	34	571	602	117000	17	329	12	63	29	136	20	252
8	131	9380	631	139000	15	262	9	46	24	113	16	162
9	269	26900	230	28900	19	314	7	35	19	88	13	105
10	134	10400	120	10400	17	285	6	30	16	76	11	77
11	78	4420	80	5030	17	292	8	39	15	66	9	55
12	46	2040	44	2080	14	237	10	50	14	58	10	57
13	33	1220	33	1310	13	192	16	86	11	47	12	62
14	25	790	25	817	11	150	18	98	8	29	10	49
15	20	562	22	636	11	137	22	112	7	27	16	79
16	16	402	20	538	14	164	11	54	8	31	15	68
17	17	386	20	556	20	224	8	41	6	20	13	60
18	18	371	72	4150	15	162	9	46	7	24	8	38
19	14	273	638	116000	14	150	10	55	14	51	8	38
20	10	187	673	170000	12	121	12	70	21	79	21	130
21	10	176	464	105000	11	105	37	380	17	79	20	153
22	11	180	259	45200	10	92	14	94	15	70	12	86
23	10	153	138	16100	12	108	13	109	14	78	8	47
24	7	103	174	19500	15	137	14	102	13	89	8	34
25	6	85	208	25800	15	134	20	140	12	77	7	33
26	6	84	162	16000	14	121	24	172	23	224	8	40
27	8	108	115	8660	13	101	23	163	16	136	5	26
28	10	134	78	4630	15	112	22	157	10	62	5	28
29	12	153	50	2400	14	107	20	126	13	74	7	44
30	14	167	42	1680	11	79	29	160	29	168	16	102
31	---	---	36	1230	---	---	17	103	14	93	---	---
TOTAL	---	61118	---	844636	---	7782	---	2893	---	2547	---	2431

TOTAL LOAD FOR YEAR: 1071611.3 TONS.

01639000 MONOCACY RIVER AT BRIDGEPORT, MD

LOCATION.--Lat 39°40′43″, long 77°14′06″, Frederick County, Hydrologic Unit 02070009, on right bank 60 ft downstream from bridge on State Highway 140 at Bridgeport, 0.9 mi upstream from Cattail Branch, 3.4 mi northwest of Taneytown, 4.8 mi downstream from confluence of Rock and Marsh Creeks at Pennsylvania-Maryland State line, and 52 mi upstream from mouth.

DRAINAGE AREA.--173 mi^2.

PERIOD OF RECORD.--May 1942 to current year.

REVISED RECORDS.--WSP 1382: 1944(M).

GAGE.--Water-stage recorder. Concrete control since Sept. 15, 1947. Datum of gage is 340.83 ft above National Geodetic Vertical datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to May 3, 1946, nonrecording gage and crest-stage gages at site 0.3 mi downstream at datum 0.98 ft lower.

REMARKS.--No estimated daily discharges. Records good. Occasional regulation at low flow from unknown source upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--46 years, 203 ft^3/s, 15.94 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,300 ft^3/s, June 22, 1972, gage height, 24.05 ft, from rating curve extended above 7,000 ft^3/s on basis of slope-conveyance study; no flow July 24-29, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 24, 1933, reached a stage of about 25 ft, present site and datum, from floodmarks, discharge, about 23,000 ft^3/s. Stage exceeded that of June 1889, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	2300	*12,800	*16.85	May 18	0300	5,230	10.56
Jan. 20	1230	6,490	11.79	May 18	1400	5,130	10.45

Minimum discharge, 1.7 ft^3/s, Aug. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	51	638	166	890	114	60	65	93	6.8	23	15
2	28	43	382	186	969	104	60	54	86	6.2	23	9.9
3	23	51	267	113	954	110	58	49	78	6.6	17	7.3
4	27	51	266	137	1300	504	59	50	73	7.0	11	10
5	30	48	251	93	585	993	58	75	67	7.1	7.3	71
6	24	43	186	74	258	328	50	1480	60	5.5	7.3	36
7	30	40	154	59	197	253	124	901	53	5.0	45	19
8	55	38	142	56	188	201	308	302	47	3.5	32	13
9	33	39	134	66	144	179	162	197	49	5.7	17	11
10	25	85	130	63	138	178	116	172	70	6.1	11	9.1
11	22	434	121	54	126	147	95	230	51	4.6	7.7	6.3
12	21	246	112	51	228	128	82	137	43	7.6	5.7	5.7
13	21	465	102	55	287	125	77	108	38	12	5.9	5.8
14	20	316	91	53	166	117	70	91	33	17	6.7	5.7
15	18	184	210	43	138	102	66	81	29	12	8.8	5.3
16	17	138	475	38	481	91	62	82	27	8.2	4.8	4.9
17	18	120	190	40	223	85	57	329	26	6.5	3.0	5.6
18	18	422	141	73	189	80	56	4190	24	5.1	2.1	6.5
19	17	226	123	257	239	81	68	3150	23	7.1	1.8	7.3
20	17	149	290	3060	1470	78	60	1040	22	11	2.7	7.9
21	17	127	307	738	471	71	51	1280	21	13	3.9	7.7
22	15	96	187	362	234	62	46	545	19	17	6.4	6.5
23	15	87	162	228	225	59	42	369	17	18	7.9	5.4
24	16	85	139	190	204	60	54	843	16	155	18	5.0
25	16	82	156	180	160	59	59	722	14	42	40	8.4
26	14	78	440	193	134	115	46	390	13	21	24	13
27	17	76	294	137	137	155	47	247	11	15	13	14
28	500	90	203	139	129	95	212	190	10	12	5.5	12
29	155	4550	252	127	120	75	106	158	9.1	11	9.7	8.7
30	85	4590	180	115	---	67	79	130	7.7	14	15	6.7
31	62	---	140	133	---	63	---	111	---	21	22	---
TOTAL	1409	13050	6865	7279	10984	4879	2490	17768	1129.8	489.6	408.2	349.7
MEAN	45.5	435	221	235	379	157	83.0	573	37.7	15.8	13.2	11.7
MAX	500	4590	638	3060	1470	993	308	4190	93	155	45	71
MIN	14	38	91	38	120	59	42	49	7.7	3.5	1.8	4.9
CFSM	.26	2.51	1.28	1.36	2.19	.91	.48	3.31	.22	.09	.08	.07
IN.	.30	2.81	1.48	1.57	2.36	1.05	.54	3.82	.24	.11	.09	.08

CAL YR 1987 TOTAL 69879.6 MEAN 191 MAX 4590 MIN 2.4 CFSM 1.11 IN. 15.03
WTR YR 1988 TOTAL 67101.3 MEAN 183 MAX 4590 MIN 1.8 CFSM 1.06 IN. 14.43

01639375 TOMS CREEK AT EMMITSBURG, MD

LOCATION.--Lat 39°42′13″, long 77°20′41″, Frederick County, Hydrologic Unit 02070009, on upstream face of left abutment of old bridge site, 80 ft upstream from new bridge on Hampton Valley Road, 0.5 mi west of Emmitsburg, 1.7 mi downstream from confluence with Friends Creek, and 8.0 mi upstream from mouth.

DRAINAGE AREA.--41.3 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 408 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,910 ft^3/s, May 19, 1988, gage height, 8.36 ft; minimum daily discharge, 1.2 ft^3/s, Aug. 17, 18, 1988.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1445	2,210	7.38	May 19	0215	*2,910	*8.36
Jan. 20	0630	962	5.16	May 19	1945	953	5.08
May 6	1300	874	4.96	May 20	2145	1,080	5.37
May 18	0815	857	4.92				

Minimum daily discharge, 1.2 ft^3/s, Aug. 17, 18.

REVISIONS.--The peak discharges and annual maximum (*) reported for water years 1986 and 1987 have been revised as shown in the following table. They supersede figures published in the report for 1987.

Water Year	Date	Time	Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Time	Discharge (ft^3/s)	Gage height (ft)
1986	Mar. 15, 1986	0015	1,120	5.47	1987	Dec. 24, 1986	2130	1,180	5.59
1986	May 20, 1986	2000	*1,560	*6.33	1987	Apr. 4, 1987	1130	*1,290	*5.82

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	9.7	136	49	95	38	21	25	73	8.2	6.2	3.7
2	8.5	9.3	102	47	103	35	21	23	70	7.9	4.1	2.9
3	8.9	8.9	82	39	106	43	20	22	67	7.6	3.8	2.6
4	9.1	8.1	77	40	146	93	22	22	57	7.4	3.1	12
5	7.4	8.0	63	25	111	95	20	63	51	8.0	2.7	15
6	6.9	7.4	52	25	87	75	18	484	44	7.2	3.8	7.2
7	13	6.7	e43	28	e76	71	103	275	41	5.7	7.8	4.8
8	9.4	6.8	e38	33	e70	66	115	176	39	5.1	4.1	3.6
9	7.9	7.4	e35	33	66	65	89	137	51	6.1	3.1	2.9
10	7.6	27	33	27	63	63	78	119	43	7.7	2.5	2.9
11	7.4	40	30	25	57	55	71	110	35	22	2.3	2.5
12	7.8	26	28	24	73	51	64	93	30	35	2.1	2.2
13	7.0	31	24	25	51	52	58	80	28	16	2.1	3.0
14	6.7	34	22	23	48	46	52	71	26	11	2.3	3.6
15	6.8	26	58	22	57	42	49	64	24	9.6	2.0	2.4
16	6.9	18	56	21	78	37	44	68	22	7.6	1.8	1.9
17	6.5	20	38	20	55	34	40	85	21	5.8	1.2	1.9
18	6.3	58	30	47	52	33	44	503	20	5.0	1.2	4.0
19	6.0	32	29	41	68	33	43	1140	19	12	1.5	3.4
20	6.2	25	59	312	117	32	35	540	19	8.3	3.6	2.9
21	6.7	21	51	104	80	28	33	474	17	12	5.2	2.5
22	6.7	16	42	81	68	25	28	325	16	9.3	3.4	2.2
23	6.5	15	39	68	68	24	27	280	15	6.9	3.0	1.6
24	6.3	15	34	61	63	25	39	323	14	12	21	1.7
25	6.3	14	47	62	56	23	28	273	13	7.2	13	7.9
26	5.7	13	68	56	49	42	25	192	12	5.7	5.9	6.9
27	15	13	57	46	49	33	30	155	11	6.2	4.1	4.2
28	57	20	53	44	46	25	40	133	10	5.7	3.5	3.0
29	16	660	57	42	42	24	30	113	9.8	4.7	7.0	2.5
30	12	251	43	42	---	23	29	95	8.5	4.0	9.0	2.1
31	11	---	43	49	---	22	---	81	---	9.6	4.9	---
TOTAL	305.3	1447.3	1569	1561	2100	1353	1316	6544	906.3	286.5	141.3	120.0
MEAN	9.85	48.2	50.6	50.4	72.4	43.6	43.9	211	30.2	9.24	4.56	4.00
MAX	57	660	136	312	146	95	115	1140	73	35	21	15
MIN	5.7	6.7	22	20	42	22	18	22	8.5	4.0	1.2	1.6
CFSM	.24	1.17	1.23	1.22	1.75	1.06	1.06	5.11	.73	.22	.11	.10
IN.	.27	1.30	1.41	1.41	1.89	1.22	1.19	5.89	.82	.26	.13	.11

CAL YR 1987 TOTAL 18210.8 MEAN 49.9 MAX 660 MIN 1.7 CFSM 1.21 IN. 16.40
WTR YR 1988 TOTAL 17649.7 MEAN 48.2 MAX 1140 MIN 1.2 CFSM 1.17 IN. 15.90

e Estimated

01639500 BIG PIPE CREEK AT BRUCEVILLE, MD

LOCATION.--Lat 39°36′45″, long 77°14′10″, Carroll County, Hydrologic Unit 02070009, on left bank 300 ft downstream from bridge on State Highway 194, 800 ft downstream from Bruceville, 3.5 mi upstream from Detour, and confluence with Little Pipe Creek.

DRAINAGE AREA.--102 mi^2.

PERIOD OF RECORD.--October 1947 to current year. Prior to December 1947, monthly discharge only, published in WSP 1302.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 340 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional diversion for irrigation upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--41 years, 110 ft^3/s, 14.65 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft^3/s, Sept. 26, 1975, gage height, 18.98 ft, from rating curve extended above 3,900 ft^3/s on the basis of contracted-opening measurement at gage height 17.86 ft; minimum daily discharge, 1.0 ft^3/s, Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1930	*3,720	*9.03	May 17	2030	2,410	6.72
Jan. 20	0430	2,820	7.50				

Minimum discharge, 9.7 ft^3/s, Aug. 19, gage height, 0.75 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	43	246	86	338	88	71	70	89	28	33	23
2	33	42	175	81	295	84	71	64	87	28	32	23
3	34	40	139	78	264	88	69	61	83	28	28	21
4	69	40	153	73	272	225	71	65	80	26	27	42
5	40	39	135	69	184	264	67	88	77	24	24	101
6	37	35	109	59	127	142	62	404	72	24	27	37
7	51	34	96	61	118	125	78	263	67	22	30	30
8	46	35	92	59	e115	112	93	151	64	23	27	28
9	37	36	89	e59	e108	108	77	121	74	22	23	24
10	36	82	86	58	101	107	68	111	77	28	20	25
11	36	169	82	58	107	94	63	173	65	27	20	25
12	38	99	78	e58	188	90	61	116	61	28	20	22
13	35	124	72	e52	128	91	60	97	57	30	19	23
14	33	108	68	e51	104	86	57	87	54	26	19	24
15	33	82	137	47	126	81	57	82	51	22	18	21
16	33	70	138	48	230	77	55	80	49	20	15	19
17	33	67	93	52	128	75	54	520	52	19	14	20
18	32	105	81	213	119	72	57	1060	51	28	15	25
19	32	77	77	247	166	74	74	594	48	31	14	25
20	32	67	129	1580	377	71	58	355	46	29	24	22
21	43	62	111	263	188	67	54	411	42	112	32	22
22	40	55	91	180	138	63	51	236	40	92	23	20
23	34	56	85	144	137	64	50	187	37	112	20	20
24	33	53	78	132	126	65	62	313	35	146	69	18
25	31	52	84	118	110	64	54	242	33	48	75	28
26	31	50	122	125	102	137	50	175	33	39	34	32
27	38	49	96	106	102	133	54	144	31	60	27	25
28	201	69	89	99	99	89	198	128	31	46	23	22
29	68	1410	105	e95	93	79	89	115	30	48	26	20
30	52	826	83	e95	---	74	78	105	29	37	36	20
31	47	---	84	110	---	72	---	96	---	35	29	---
TOTAL	1374	4076	3303	4556	4690	3061	2063	6714	1645	1288	843	807
MEAN	44.3	136	107	147	162	98.7	68.8	217	54.8	41.5	27.2	26.9
MAX	201	1410	246	1580	377	264	198	1060	89	146	75	101
MIN	31	34	68	47	93	63	50	61	29	19	14	18
CFSM	.43	1.33	1.04	1.44	1.59	.97	.67	2.12	.54	.41	.27	.26
IN.	.50	1.49	1.20	1.66	1.71	1.12	.75	2.45	.60	.47	.31	.29

CAL YR 1987 TOTAL 36067 MEAN 98.8 MAX 1410 MIN 13 CFSM .97 IN. 13.15
WTR YR 1988 TOTAL 34420 MEAN 94.0 MAX 1580 MIN 14 CFSM .92 IN. 12.55

e Estimated

01640965 HUNTING CREEK NEAR FOXVILLE, MD

LOCATION.--Lat 39°37′10″, long 77°28′00″, Frederick County, Hydrologic Unit 02070008, on left downstream wingwall of culvert on park road in Cunningham Falls State Park, 0.25 mi upstream from Hunting Creek Lake, and 2.9 mi west of Thurmont.

DRAINAGE AREA.--2.14 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,030 ft above National Geodetic Vertical datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except those below 1.0 ft^3/s and above 20 ft^3/s and those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--7 years, 3.24 ft^3/s, 20.56 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 814 ft^3/s, May 19, 1988, gage height, 4.08 ft, from rating curve extended above 40 ft^3/s on basis of computation of peak flow through culvert; minimum daily discharge, 0.03 ft^3/s, Aug. 21, 25, Sept. 2, 3, 4, 1987.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 40 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1345	81	3.36	May 18	2400	220	3.90
May 6	1045	57	3.26	May 19	1630	*814	*4.71

Minimum daily discharge, 0.04 ft^3/s, Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.10	.20	4.6	2.9	7.9	2.2	1.8	2.5	2.7	.32	.14	.12
2	e.06	.18	3.1	2.8	8.2	2.1	1.8	2.5	2.5	.32	.12	.10
3	e.09	.17	2.3	2.5	8.3	2.2	1.7	2.5	2.5	.29	.10	.08
4	e.08	.18	2.1	2.6	9.6	5.7	1.7	2.5	2.3	.26	.10	.93
5	e.07	.18	1.9	2.0	7.4	5.4	1.7	13	2.1	.24	.10	.51
6	e.07	.18	1.6	e1.9	5.5	4.0	1.6	43	1.9	.22	.10	.24
7	e.25	.18	1.4	e1.7	e5.0	3.7	12	23	1.7	.21	.12	.17
8	.16	.18	1.3	e1.6	4.7	3.3	11	12	1.6	.20	.08	.15
9	.11	.18	1.2	e1.7	4.3	3.2	6.8	8.6	2.1	.20	.07	.14
10	.10	.76	1.2	e1.5	4.1	3.2	5.4	6.8	1.8	.19	.06	.13
11	.10	.90	1.0	e1.3	3.8	2.9	4.8	5.7	1.6	.29	.06	.11
12	.10	.51	1.0	e1.2	4.5	2.8	4.2	5.0	1.4	.55	.06	.09
13	.10	.84	.91	e1.1	3.5	2.7	3.7	4.3	1.3	.27	.06	.17
14	.09	1.1	.84	e1.1	3.3	2.6	3.4	3.7	1.2	.22	.06	.14
15	.09	.89	3.2	e1.1	4.0	2.4	3.2	3.3	1.0	.18	.05	.11
16	.09	.48	2.8	e1.1	5.7	2.2	3.0	3.7	.96	.17	.05	.10
17	.09	.58	1.9	e1.1	4.3	2.1	2.8	7.5	.93	.15	.04	.23
18	.09	2.2	1.7	e3.0	4.0	2.0	3.3	37	.88	.22	.06	.22
19	.09	.86	1.7	3.6	5.2	1.9	3.2	98	.80	.70	.10	.16
20	.10	.64	3.7	25	7.8	1.9	2.6	32	.74	.28	.32	.17
21	.15	.50	3.2	12	5.5	1.7	2.5	25	.64	.81	.19	.18
22	.14	.39	2.7	7.7	4.9	1.7	2.3	16	.57	.37	.11	.14
23	.14	.34	2.5	5.8	4.7	1.6	2.3	11	.50	.36	.27	.13
24	.14	.34	2.2	5.1	4.0	1.6	2.6	17	.47	.50	.94	.16
25	.14	.32	2.9	4.7	3.1	1.6	2.1	16	.47	.26	.26	.52
26	.14	.30	4.4	4.2	2.9	3.8	1.9	9.9	.45	.21	.15	.32
27	.73	.31	3.6	3.8	2.8	2.7	2.7	7.5	.41	.20	.11	.22
28	1.7	.70	3.2	3.3	2.6	2.2	3.6	5.8	.39	.19	.09	.17
29	.48	31	3.2	3.1	2.5	2.0	2.7	4.7	.37	.18	.28	.13
30	.31	12	2.7	3.1	---	1.9	2.6	3.8	.33	.16	.24	.12
31	.25	---	2.7	4.3	---	1.9	---	3.2	---	.18	.15	---
TOTAL	6.35	57.59	72.75	117.9	144.1	81.2	105.0	436.5	36.61	8.90	4.64	6.16
MEAN	.20	1.92	2.35	3.80	4.97	2.62	3.50	14.1	1.22	.29	.15	.21
MAX	1.7	31	4.6	25	9.6	5.7	12	98	2.7	.81	.94	.93
MIN	.06	.17	.84	1.1	2.5	1.6	1.6	2.5	.33	.15	.04	.08
CFSM	.10	.90	1.10	1.78	2.32	1.22	1.64	6.58	.57	.13	.07	.10
IN.	.11	1.00	1.26	2.05	2.50	1.41	1.83	7.59	.64	.15	.08	.11

CAL YR 1987 TOTAL 1045.60 MEAN 2.86 MAX 76 MIN .03 CFSM 1.34 IN. 18.18
WTR YR 1988 TOTAL 1077.70 MEAN 2.94 MAX 98 MIN .04 CFSM 1.38 IN. 18.73

e Estimated

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1987 to current year.
WATER TEMPERATURE: October 1987 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1987.

REMARKS.--Periods of missing record are due to instrument malfunction.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
DEC							
31...	1430	69	6.9	0.0	4.3	2.9	--
JAN							
08...	1100	65	6.7	0.0	3.8	2.4	2.1
15...	1330	63	6.5	0.0	3.8	2.5	1.6
22...	1100	64	6.7	0.0	3.8	2.6	2.1
28...	1140	62	6.9	0.0	4.1	2.6	2.0
FEB							
04...	1050	66	6.8	1.0	4.1	2.7	2.2
11...	1110	62	6.8	0.0	4.1	2.6	1.1
18...	1330	65	6.8	0.5	4.0	2.6	1.4
25...	1055	64	6.8	1.0	3.8	2.5	1.1
MAR							
04...	1230	64	6.8	1.0	4.3	2.6	1.4
11...	1115	67	6.8	3.0	5.4	2.6	1.7
18...	1100	65	6.8	5.0	5.6	2.4	2.2
25...	1125	63	7.1	7.0	4.0	2.2	4.4
APR							
01...	1210	66	7.1	9.5	4.4	2.2	4.0
07...	1040	65	7.0	3.0	4.1	2.2	4.1
16...	1050	63	7.3	8.5	4.0	2.3	2.6
22...	1105	66	7.0	9.0	4.1	2.3	2.3
29...	1110	64	7.3	9.5	4.2	2.3	3.5
MAY							
06...	1120	68	7.4	12.0	4.4	2.3	3.6
13...	1105	68	7.3	14.0	4.7	2.4	3.3
20...	1130	71	7.4	15.0	5.0	2.4	3.0
27...	1400	78	7.4	17.0	5.4	2.5	2.3
JUN							
02...	1115	74	7.2	15.0	5.2	2.6	2.9
08...	1250	71	7.0	14.0	4.7	2.6	1.3
15...	1140	64	7.1	14.0	4.5	2.3	2.8
24...	1155	65	7.2	14.0	4.5	2.2	3.8
JUL							
01...	1145	69	7.2	16.0	4.8	2.4	2.9
08...	1115	69	7.3	17.0	6.5	2.4	3.5
14...	1210	67	7.1	16.5	6.6	2.4	3.1
21...	1330	73	7.0	19.0	5.5	2.6	3.2
28...	1415	80	7.3	19.0	6.2	2.9	--
AUG							
04...	1240	71	7.2	19.0	5.4	2.4	2.6
11...	1015	70	7.1	17.5	5.4	2.4	2.6
18...	1145	70	7.2	16.0	5.5	2.4	2.0
25...	1115	68	7.1	17.5	5.4	2.1	2.4
SEP							
01...	1200	65	6.9	17.0	5.0	2.0	2.6
08...	1220	62	6.9	14.5	4.9	1.9	2.5
15...	1315	63	6.9	18.0	4.9	1.9	2.6
22...	1430	69	7.2	13.5	5.0	2.4	2.4
29...	1200	72	7.2	14.0	5.7	2.4	2.3

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)
DEC							
31...	0.39	17	9.9	2.7	--	1.9	--
JAN							
08...	0.39	14	10	3.1	12	3.5	--
15...	0.37	13	8.2	2.8	11	2.5	--
22...	0.31	19	7.9	2.9	11	2.2	--
28...	0.27	16	11	2.9	12	6.0	0.10
FEB							
04...	0.27	11	15	3.3	9.8	12	0.10
11...	0.26	13	9.1	2.7	11	2.9	0.08
18...	0.29	11	10	3.3	12	3.6	0.10
25...	0.22	12	9.5	4.5	11	2.7	0.07
MAR							
04...	0.17	16	7.8	15	11	3.4	--
11...	0.27	14	7.0	4.3	11	3.1	--
18...	0.22	11	9.6	3.7	11	2.8	--
25...	0.66	18	8.9	14	11	3.1	--
APR							
01...	0.25	18	8.2	4.3	11	2.1	0.02
07...	0.37	18	9.8	6.9	11	2.8	0.03
16...	0.17	20	8.4	8.7	11	1.9	0.05
22...	0.25	15	7.6	12	12	2.3	0.05
29...	0.38	20	9.1	3.5	12	1.5	0.13
MAY							
06...	0.34	21	8.4	3.5	12	1.2	0.09
13...	0.38	22	7.0	4.4	13	0.79	0.04
20...	0.33	18	6.8	7.0	14	0.83	--
27...	0.25	23	6.9	7.0	14	0.92	--
JUN							
02...	0.31	29	7.3	7.2	14	0.87	--
08...	0.18	25	10	4.5	14	1.1	0.35
15...	0.39	22	9.3	3.0	12	1.2	0.12
24...	0.33	24	7.2	3.7	13	0.97	--
JUL							
01...	0.25	25	6.3	4.7	13	0.77	--
08...	0.31	23	5.8	7.3	13	0.93	--
14...	0.32	33	4.9	2.4	13	0.96	--
21...	0.43	26	5.5	4.2	14	0.48	--
28...	--	--	--	--	14	--	--
AUG							
04...	0.33	26	4.8	3.9	13	0.86	0.06
11...	0.34	27	4.2	3.8	14	0.97	--
18...	0.30	26	4.1	7.4	14	1.3	0.79
25...	0.38	26	3.3	8.1	12	1.2	0.10
SEP							
01...	0.38	26	2.7	3.7	13	1.0	0.14
08...	0.47	24	2.7	3.8	13	1.1	0.06
15...	0.60	24	2.4	4.4	14	1.1	0.11
22...	0.40	26	4.1	2.7	14	2.2	--
29...	0.41	24	6.9	3.6	12	1.4	0.08

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT							
06...	1410	67	7.2	16.0	5.8	2.3	2.4
14...	1325	73	7.3	13.0	6.0	2.7	2.5
21...	1515	71	7.0	11.0	5.8	2.8	2.4
28...	1515	79	7.1	9.5	7.3	2.6	2.4
NOV							
04...	1235	81	6.9	13.0	6.7	3.3	2.6
12...	1115	75	7.2	9.0	6.2	3.0	2.7
19...	1400	77	7.3	6.0	6.8	3.0	3.0
26...	1200	81	7.2	6.0	7.0	3.0	2.8
DEC							
02...	1045	86	7.2	8.0	7.4	3.5	5.1
09...	1110	81	7.3	4.0	7.1	3.1	3.0
20...	1245	78	7.4	1.5	6.5	1.9	2.4
31...	1130	80	7.1	2.0	6.8	3.1	2.8
JAN							
06...	1230	75	7.4	1.0	6.7	3.2	2.5
13...	1230	78	7.2	1.0	6.3	3.2	2.6
20...	1200	80	7.2	0.0	6.4	3.2	2.3
27...	1230	78	7.1	1.0	6.1	3.0	2.5
FEB							
03...	1105	70	7.0	4.0	6.0	1.7	2.5
10...	1215	73	7.2	0.0	5.7	2.6	2.3
17...	1115	66	7.3	1.0	5.7	2.6	2.3
24...	1200	70	7.1	3.0	5.6	2.6	2.0
MAR							
03...	1330	72	7.1	5.0	5.7	2.4	3.1
10...	1220	67	7.1	4.5	5.5	2.4	2.5
17...	1210	68	7.2	4.0	5.5	2.4	2.8
24...	1245	62	7.1	4.0	5.1	2.2	2.4
31...	1130	62	7.1	5.0	5.1	2.3	2.6
APR							
07...	1220	63	7.0	8.5	5.3	2.3	2.6
14...	1215	62	7.1	9.0	4.8	2.3	2.3
21...	1230	63	7.1	9.0	4.6	2.2	2.4
28...	1150	58	7.2	12.5	4.7	1.9	2.3
MAY							
05...	1230	66	7.3	12.0	5.1	2.3	2.5
12...	1200	67	7.3	11.0	5.3	2.4	2.3
19...	1300	65	7.2	11.0	5.2	2.5	2.0
26...	1230	69	7.3	13.0	5.1	2.5	2.2
JUN							
02...	1230	68	7.2	12.5	5.3	2.4	2.4
09...	1115	67	7.2	13.0	5.4	2.6	2.3
16...	1215	73	7.4	17.0	5.8	2.6	2.4
23...	1300	76	7.3	16.0	6.1	2.7	2.1
30...	1240	75	7.3	16.0	6.3	2.8	2.3
JUL							
07...	1245	74	7.2	16.5	6.1	2.6	2.5
14...	1125	71	7.1	17.0	5.9	2.4	2.5
21...	1155	82	7.2	20.0	6.9	2.8	2.5
28...	1235	72	7.1	19.0	6.1	2.5	2.6
AUG							
05...	1215	67	6.9	19.0	6.0	2.6	2.6
11...	1245	68	7.0	19.0	6.2	2.4	2.5
18...	1210	75	7.1	18.5	6.7	2.5	2.7
25...	1145	74	7.0	18.0	6.2	2.1	2.8
SEP							
01...	1155	71	7.0	17.0	5.9	2.4	2.5
08...	1155	68	6.8	16.0	5.9	1.8	2.5
15...	1310	65	7.0	15.0	6.3	2.1	2.4
22...	1230	69	6.9	13.0	6.6	2.7	2.4
29...	1315	63	6.9	13.0	6.3	2.1	2.4

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)
OCT							
06...	0.61	24	3.8	4.2	13	0.69	0.04
14...	0.56	30	4.9	5.1	14	0.40	0.08
21...	0.48	28	4.1	3.7	14	0.23	0.07
28...	0.34	28	6.0	4.4	13	0.26	--
NOV							
04...	1.1	31	6.1	5.0	13	0.29	--
12...	0.96	25	6.5	4.0	--	0.32	--
19...	0.47	27	6.3	5.1	12	0.05	0.05
26...	0.47	27	6.5	3.8	--	0.13	--
DEC							
02...	0.92	24	9.4	5.3	12	1.3	0.15
09...	1.3	26	7.7	5.0	12	0.37	0.22
20...	0.28	10	8.4	3.8	13	1.6	0.04
31...	0.37	22	8.8	6.2	--	1.3	--
JAN							
06...	0.31	21	7.8	3.5	15	1.2	0.08
13...	0.45	16	9.3	3.6	17	2.9	--
20...	0.20	17	9.4	7.4	18	2.4	--
27...	0.18	16	10	4.6	15	2.4	0.05
FEB							
03...	0.27	9	10	4.1	16	4.2	--
10...	0.15	13	10	4.1	17	3.0	--
17...	0.15	14	9.8	4.0	17	2.2	--
24...	0.14	12	11	3.6	16	2.9	--
MAR							
03...	0.15	13	9.9	10	13	2.5	--
10...	0.17	12	10	3.6	16	2.8	--
17...	0.16	14	8.9	4.4	17	2.2	--
24...	0.17	11	9.1	3.6	16	2.4	--
31...	0.15	11	9.2	3.8	16	2.7	--
APR							
07...	0.17	13	9.3	3.9	9.6	2.3	--
14...	0.17	12	8.5	3.1	9.4	1.8	--
21...	0.17	12	8.5	4.2	9.3	2.0	--
28...	0.17	12	8.9	3.6	9.4	0.65	--
MAY							
05...	0.18	16	8.6	4.5	12	0.45	--
12...	0.18	18	7.7	4.5	11	0.45	--
19...	0.15	16	9.5	2.9	12	0.60	--
26...	0.15	17	8.6	3.8	11	0.53	--
JUN							
02...	0.16	18	7.8	4.3	11	0.47	--
09...	0.16	19	8.5	3.8	12	0.47	--
16...	0.20	21	7.0	4.0	14	0.63	--
23...	0.20	23	7.7	3.6	14	0.87	--
30...	0.19	24	6.3	3.6	14	0.93	--
JUL							
07...	0.61	25	3.3	3.5	14	0.84	--
14...	0.20	24	4.1	5.3	14	1.5	--
21...	0.70	25	6.7	4.8	13	2.8	--
28...	0.52	25	3.5	5.7	12	1.4	--
AUG							
05...	0.38	26	3.4	5.0	11	1.5	--
11...	0.42	26	3.4	5.0	12	1.2	--
18...	0.54	27	3.9	4.7	12	1.6	--
25...	0.57	26	2.8	5.4	11	1.4	--
SEP							
01...	0.39	27	3.5	3.8	11	1.6	--
08...	0.45	25	2.0	4.1	11	0.92	--
15...	0.44	25	2.9	3.9	11	1.7	--
22...	0.35	27	4.2	2.7	12	2.5	--
29...	0.47	23	8.4	4.4	10	1.2	--

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT							
06...	1510	74	6.9	15.0	6.6	2.3	2.7
13...	1245	81	6.9	15.0	5.9	2.3	2.4
20...	1245	73	6.6	11.0	6.3	2.2	2.4
27...	1220	70	6.8	10.0	5.9	2.3	2.0
NOV							
04...	1150	76	6.8	11.0	6.6	2.3	2.0
09...	1235	74	6.8	9.0	6.3	2.3	2.0
16...	1155	67	7.1	6.0	5.4	2.2	1.5
23...	1210	65	6.9	9.0	4.5	1.9	1.6
DEC							
01...	1215	63	7.1	6.0	5.0	2.0	1.5
08...	1235	60	7.3	5.0	4.7	2.0	1.5
15...	1315	69	7.0	8.0	5.0	1.8	1.4
23...	1410	59	7.2	1.0	4.6	1.8	1.6
JAN							
05...	1120	64	7.2	2.0	5.3	2.4	2.0
09...	1320	61	7.2	2.0	5.0	2.4	1.9
17...	1330	62	7.2	2.0	5.2	2.4	2.0
25...	1235	67	7.3	1.0	5.4	2.5	2.2
31...	1300	65	7.2	1.0	5.5	2.6	2.1
FEB							
07...	1200	67	7.3	0.0	8.1	2.6	1.9
15...	1200	62	7.1	5.0	5.1	2.1	1.9
21...	1140	67	7.3	4.0	5.4	2.4	2.2
28...	1230	71	7.2	3.0	5.4	2.4	2.7
MAR							
06...	1045	72	7.1	1.0	5.1	2.4	2.3
14...	1210	64	7.2	3.0	4.9	2.4	2.2
20...	1145	65	7.1	6.0	5.0	2.4	2.1
27...	1220	64	7.2	5.0	4.9	2.2	2.2
APR							
03...	1230	62	7.0	8.0	4.9	2.1	2.1
10...	1150	63	7.1	8.0	4.5	2.1	2.6
17...	1130	61	7.2	10.0	4.1	2.2	2.2
24...	1110	63	7.2	8.0	4.9	2.2	2.4
MAR							
01...	1045	67	7.2	12.0	5.3	2.4	2.6
08...	1210	65	7.3	11.0	5.5	2.4	2.2
15...	1130	64	7.3	10.0	5.2	2.4	2.5
22...	1200	70	6.6	16.0	6.0	2.5	2.6
30...	1200	66	6.8	13.0	5.8	2.5	2.1
JUN							
05...	1110	69	7.1	14.0	5.5	2.4	2.3
12...	1055	72	7.1	17.0	6.2	2.6	2.7
19...	1135	82	7.3	18.0	6.6	2.8	2.6
26...	1125	81	7.3	15.0	6.8	2.8	3.0
JUL							
03...	1110	77	7.3	17.0	7.0	2.8	2.8
10...	1200	76	7.3	16.0	6.9	3.0	2.4
17...	1200	76	7.4	18.0	7.1	2.8	2.7
24...	1145	79	7.5	19.0	7.3	3.1	2.6
31...	1200	77	7.1	17.0	7.1	3.0	2.4
AUG							
07...	1230	84	7.5	20.0	7.7	3.2	2.4
21...	1130	70	7.0	15.0	5.8	2.5	2.1
SEP							
05...	1100	73	7.0	15.0	7.0	2.7	2.2
18...	1135	72	7.1	12.0	6.6	2.5	2.3

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
OCT						
06...	0.83	27	3.3	3.8	11	1.7
13...	0.42	23	10	5.1	11	1.8
20...	0.46	25	6.9	5.5	10	0.60
27...	0.29	18	11	4.4	10	1.1
NOV						
04...	0.35	25	8.2	2.9	10	0.25
09...	0.31	25	8.5	3.0	10	0.28
16...	0.23	15	10	2.9	9.4	1.3
23...	0.21	15	10	2.7	10	1.4
DEC						
01...	0.21	14	10	2.7	10	1.5
08...	0.16	13	9.8	2.8	10	1.8
15...	0.24	12	9.2	2.6	9.1	2.0
23...	0.17	11	9.0	3.4	8.7	2.1
JAN						
05...	0.17	14	8.6	4.2	9.8	2.3
09...	0.20	15	8.5	4.4	10	2.3
17...	0.22	13	8.5	4.0	13	2.1
25...	0.20	13	8.6	5.7	12	2.9
31...	0.18	13	9.4	3.8	13	2.8
FEB						
07...	0.18	13	9.4	5.7	12	2.8
15...	0.38	10	8.0	5.7	--	2.2
21...	0.25	13	7.9	5.6	12	2.3
28...	0.24	11	8.3	5.9	11	2.4
MAR						
06...	0.23	11	8.9	6.1	12	2.4
14...	0.20	13	7.7	4.7	11	2.2
20...	0.21	12	8.7	4.4	12	2.3
27...	0.21	13	8.5	3.4	12	2.2
APR						
03...	0.21	12	8.6	3.5	11	2.2
10...	0.23	13	8.4	4.2	12	1.2
17...	0.21	13	8.3	4.2	12	1.2
24...	0.19	12	8.5	4.7	12	1.9
MAY						
01...	0.22	15	8.3	4.7	13	1.2
08...	0.21	16	9.0	3.3	13	1.8
15...	0.20	16	8.0	3.9	16	1.3
22...	0.26	19	11	2.9	17	1.4
30...	0.21	17	9.8	2.6	17	1.4
JUN						
05...	0.22	19	7.4	3.8	16	1.1
12...	0.28	23	6.7	4.4	18	0.63
19...	0.33	24	7.0	3.3	12	0.68
26...	0.77	26	6.6	3.8	14	0.87
JUL						
03...	0.51	30	5.6	7.4	18	0.90
10...	0.39	26	7.6	3.1	19	0.93
17...	0.32	28	5.7	3.8	19	0.90
24...	0.35	31	6.0	3.6	19	1.0
31...	0.39	29	5.3	2.8	--	0.89
AUG						
07...	0.34	31	6.8	2.2	19	0.80
21...	0.22	20	8.2	2.5	14	0.97
SEP						
05...	0.35	26	6.9	2.8	14	0.86
18...	0.40	26	5.4	3.9	13	0.95

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT							
03...	1245	75	7.0	10.0	7.3	2.8	2.3
16...	1225	78	6.9	13.0	7.9	2.9	2.5
30...	1145	88	7.1	14.0	9.0	3.6	2.4
NOV							
13...	1120	72	6.8	6.0	7.6	3.2	2.2
27...	1055	75	7.2	4.0	7.2	3.2	2.3
DEC							
12...	1245	68	7.2	5.0	6.0	2.8	1.9
24...	1220	69	7.2	5.0	6.1	2.7	1.9
JAN							
08...	1200	64	7.2	4.0	4.7	2.7	2.7
22...	1235	68	7.0	1.0	4.7	2.7	2.6
FEB							
05...	1130	63	7.3	1.0	4.9	2.7	1.9
19...	1215	66	7.1	4.0	4.9	2.6	2.0
MAR							
05...	1155	67	7.2	8.0	4.7	2.5	2.5
19...	1155	68	7.2	5.0	4.6	2.6	2.4
APR							
02...	1100	65	6.9	7.0	4.7	2.6	2.4
16...	1200	69	7.2	13.0	4.8	2.6	2.5
30...	1110	73	7.2	14.0	5.5	2.8	2.5
MAY							
14...	1130	75	7.3	17.0	6.1	2.9	1.7
28...	1125	73	7.2	16.0	6.2	3.0	1.9
JUN							
11...	1145	76	7.1	17.0	6.4	3.1	2.5
25...	1105	76	7.1	16.0	6.4	2.9	2.5
JUL							
11...	1120	75	7.2	19.0	6.4	2.9	2.5
23...	1210	74	7.0	18.0	6.5	2.5	2.9
AUG							
06...	1100	65	7.4	17.0	6.0	2.9	3.0
20...	1225	80	7.2	19.0	6.2	3.0	3.4
SEP							
18...	1150	76	7.0	15.0	5.3	2.6	3.2

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
OCT						
03...	0.35	27	6.3	3.9	13	1.1
16...	0.19	31	4.7	3.8	17	0.44
30...	0.48	32	4.3	5.2	--	0.50
NOV						
13...	0.47	28	6.8	5.0	--	0.43
27...	0.22	27	8.2	3.5	15	0.65
DEC						
12...	0.16	18	8.5	3.2	15	1.9
24...	0.15	24	8.5	2.5	16	1.6
JAN						
08...	0.26	17	9.1	3.5	--	2.1
22...	0.20	18	8.1	3.6	--	2.0
FEB						
05...	0.26	18	7.6	3.6	--	2.3
19...	0.22	14	8.7	4.0	--	3.6
MAR						
05...	0.21	15	8.2	4.8	--	2.5
19...	0.19	16	8.2	4.5	--	2.0
APR						
02...	0.22	15	9.7	4.7	--	2.7
16...	0.23	19	8.0	4.3	--	1.7
30...	0.26	24	7.0	4.3	--	1.3
MAY						
14...	0.26	24	7.2	3.8	--	1.3
28...	0.33	24	7.4	3.8	--	1.3
JUN						
11...	0.25	23	6.6	10	--	1.7
25...	0.27	33	3.8	9.8	--	2.0
JUL						
11...	0.31	27	6.0	4.7	--	1.3
23...	0.38	28	3.4	5.2	--	1.2
AUG						
06...	0.26	29	4.3	5.6	9.7	0.99
20...	0.86	31	4.0	6.1	10	1.2
SEP						
18...	0.69	27	3.6	4.3	9.4	1.1

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT							
15...	1145	81	7.0	16.0	6.7	3.3	3.1
NOV							
06...	1415	--	--	--	5.3	2.6	1.7
12...	1230	67	7.1	13.0	5.3	2.9	2.3
DEC							
03...	1230	66	6.7	6.0	4.9	2.4	1.8
10...	1130	66	6.7	6.0	4.9	2.2	2.4
JAN							
14...	1200	68	7.1	1.0	4.8	2.5	2.5
FEB							
10...	1140	74	6.8	2.0	5.5	2.7	2.8
MAR							
19...	1120	64	7.2	10.0	5.0	1.8	3.0
APR							
15...	1115	71	6.8	9.0	5.6	2.7	3.2
MAY							
13...	1135	75	7.2	13.0	6.1	2.8	3.1
21...	1105	--	--	15.0	--	--	--
JUN							
17...	1235	75	6.9	18.0	5.2	2.8	2.6
JUL							
01...	1150	--	--	--	--	--	--
15...	1100	74	7.2	18.0	5.7	2.5	3.0
AUG							
12...	1530	69	7.1	18.0	5.2	2.9	3.0
SEP							
16...	1100	70	7.1	15.0	7.1	1.8	2.9

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
OCT						
15...	0.43	34	4.4	4.2	9.7	0.22
NOV						
06...	0.26	14	11	3.6	7.9	1.5
12...	0.26	19	9.5	4.7	9.3	1.1
DEC						
03...	0.21	13	10	2.9	10	1.8
10...	0.21	15	7.0	3.7	9.5	1.2
JAN						
14...	1.3	17	7.4	4.3	8.5	1.6
FEB						
10...	0.27	14	9.1	6.0	8.5	2.5
MAR						
19...	0.27	13	9.0	4.5	8.5	2.1
APR						
15...	0.27	19	8.3	4.6	9.4	1.2
MAY						
13...	0.29	22	7.8	4.0	11	1.0
21...	--	21	10	3.4	--	1.1
JUN						
17...	0.29	26	7.2	4.1	13	2.0
JUL						
01...	--	27	--	--	--	--
15...	0.40	28	4.1	4.4	12	1.3
AUG						
12...	0.49	27	2.6	5.6	11	0.95
SEP						
16...	0.54	26	2.5	5.1	13	1.1

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT							
14...	1215	68	7.3	14.0	7.2	2.7	2.6
NOV							
13...	1225	88	7.2	8.0	8.4	3.2	2.8
DEC							
16...	1105	70	7.3	3.0	6.6	2.4	2.1
JAN							
12...	1055	78	7.0	2.0	--	--	--
FEB							
18...	1045	65	7.1	6.0	5.5	2.3	2.4
MAR							
17...	1015	68	7.2	4.0	5.2	2.1	3.1
APR							
14...	1145	68	7.3	11.0	4.3	2.2	2.9
28...	1050	71	7.5	10.0	5.3	2.6	3.6
MAY							
04...	1345	72	7.6	10.0	5.3	2.4	2.5
13...	1115	77	7.5	14.0	6.8	2.6	2.5
JUN							
16...	1120	96	7.4	19.0	5.5	2.8	2.6
JUL							
14...	1230	90	7.5	20.0	5.2	2.9	3.2
AUG							
11...	1115	75	7.2	18.0	5.1	2.7	3.3
SEP							
15...	1400	88	7.2	17.0	8.0	2.7	2.8

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3)
OCT						
14...	0.62	31	4.1	3.6	12	0.63
NOV						
13...	0.54	26	12	4.7	10	0.03
DEC						
16...	0.25	16	10	3.6	9.4	0.60
JAN						
12...	--	14	9.2	4.0	--	0.85
FEB						
18...	0.21	14	8.8	4.9	5.5	1.0
MAR						
17...	0.21	13	8.5	6.6	6.2	1.4
APR						
14...	0.23	16	8.5	5.1	6.1	1.0
28...	0.30	17	8.3	6.7	9.4	0.68
MAY						
04...	0.24	18	9.2	3.1	9.3	1.1
13...	0.22	21	8.1	3.2	10	--
JUN						
16...	0.30	22	6.1	5.0	12	0.64
JUL						
14...	0.36	30	4.8	4.3	20	1.2
AUG						
11...	0.43	28	2.5	4.9	10	0.94
SEP						
15...	0.48	30	5.2	4.4	11	0.98

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	91	83	87	90	75	80	84	---	---	75	70	72
2	106	80	86	87	70	77	88	82	86	85	74	79
3	90	83	85	86	72	79	90	84	87	88	76	80
4	90	81	84	85	76	81	---	---	---	75	71	72
5	85	80	82	85	79	83	---	---	---	74	66	70
6	85	80	83	90	80	84	---	---	---	85	67	75
7	85	80	83	88	85	86	---	---	---	91	67	85
8	85	81	83	93	86	90	---	---	---	88	65	75
9	83	80	81	101	87	95	---	---	---	74	63	67
10	88	80	83	98	88	94	---	---	---	74	69	71
11	86	81	83	98	94	96	103	74	78	77	68	73
12	89	82	84	95	92	93	93	72	84	74	70	72
13	---	---	---	96	93	95	89	67	78	74	71	72
14	---	---	---	97	93	94	89	68	74	80	72	75
15	---	---	---	94	91	92	78	67	73	77	71	74
16	---	---	---	94	91	92	86	67	79	78	70	72
17	---	---	---	---	92	---	77	65	70	72	68	70
18	---	---	---	---	---	---	75	67	70	78	69	75
19	---	---	---	---	---	---	76	69	72	81	65	70
20	---	---	---	---	---	---	83	71	79	72	63	65
21	---	---	---	---	---	---	86	71	78	64	63	64
22	---	---	---	---	---	---	79	71	75	65	63	64
23	---	---	---	---	---	---	76	71	73	66	64	66
24	---	---	---	---	---	---	84	72	75	71	66	67
25	---	---	---	---	---	---	78	72	75	71	69	70
26	---	---	---	---	---	---	90	75	85	72	69	71
27	95	---	---	---	---	---	91	85	87	77	70	72
28	100	91	95	---	---	---	90	85	87	79	72	76
29	93	83	89	---	---	---	89	79	84	82	76	79
30	97	81	89	---	---	---	82	75	78	83	77	81
31	97	79	85	---	---	---	82	73	78	79	73	77
MONTH	---	---	---	---	---	---	---	---	---	91	63	73

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	89	77	84	71	63	67	70	68	69	68	61	63
2	88	82	85	67	64	66	70	68	69	72	66	68
3	86	76	81	70	66	68	72	69	70	74	71	72
4	77	73	75	70	55	66	75	71	72	74	69	71
5	74	67	71	60	56	58	75	72	74	72	63	69
6	70	66	68	70	60	65	74	71	72	75	63	68
7	71	66	68	73	69	71	74	51	61	73	67	70
8	71	65	69	73	70	72	53	49	50	74	70	72
9	68	61	65	73	69	71	50	47	48	74	70	72
10	67	64	65	74	70	73	---	---	---	73	70	72
11	70	65	68	73	71	72	---	---	---	74	72	73
12	73	67	70	73	70	71	---	---	---	74	71	73
13	78	70	73	73	70	72	67	54	63	77	73	74
14	82	77	80	72	70	71	63	59	62	78	73	75
15	85	72	81	72	69	70	63	61	62	78	73	75
16	78	73	75	74	71	72	63	62	62	80	76	77
17	79	75	77	77	73	75	63	61	62	99	65	79
18	78	75	76	80	76	78	64	57	63	80	19	66
19	77	70	75	85	79	81	64	62	63	---	20	---
20	77	71	73	84	80	82	64	61	63	---	---	---
21	73	70	72	82	73	76	64	57	62	---	---	---
22	74	70	72	76	70	72	64	54	62	---	---	---
23	75	71	73	72	68	70	68	59	64	---	---	---
24	73	69	72	72	66	70	65	63	64	---	---	---
25	76	58	73	71	66	68	67	52	64	---	---	---
26	74	70	72	76	59	65	71	64	67	---	---	---
27	73	69	71	73	65	69	68	60	66	---	---	---
28	74	71	73	74	70	72	66	64	66	---	---	---
29	74	68	70	75	69	72	66	55	61	---	---	---
30	---	---	---	73	68	69	63	57	58	---	---	---
31	---	---	---	73	68	70	---	---	---	---	---	---
MONTH	89	58	73	85	55	71	---	---	---	---	---	---

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	99	86	92
8	---	---	---	---	---	---	---	---	---	89	83	86
9	---	---	---	---	---	---	---	---	---	90	80	84
10	---	---	---	---	---	---	---	---	---	87	78	82
11	---	---	---	---	---	---	---	---	---	84	75	78
12	---	---	---	---	---	---	---	---	---	80	73	76
13	---	---	---	---	---	---	---	---	---	81	76	78
14	---	---	---	---	---	---	---	---	---	84	75	79
15	---	---	---	---	---	---	---	---	---	80	72	76
16	---	---	---	---	---	---	---	---	---	75	71	73
17	---	---	---	---	---	---	---	---	---	80	71	74
18	---	---	---	---	---	---	---	---	---	81	78	80
19	---	---	---	---	---	---	---	---	---	80	75	77
20	---	---	---	---	---	---	---	---	---	76	73	74
21	---	---	---	---	---	---	---	---	---	78	73	76
22	---	---	---	---	---	---	---	---	---	78	72	75
23	---	---	---	---	---	---	---	---	---	75	71	73
24	---	---	---	---	---	---	---	---	---	75	71	73
25	---	---	---	---	---	---	---	---	---	80	75	78
26	---	---	---	---	---	---	---	---	---	80	78	79
27	---	---	---	---	---	---	---	---	---	81	76	78
28	---	---	---	---	---	---	---	---	---	78	74	76
29	---	---	---	---	---	---	---	---	---	76	73	74
30	---	---	---	---	---	---	---	---	---	75	73	74
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.5	12.5	13.5	10.0	7.5	9.0	7.0	---	---	2.5	1.5	2.0
2	13.0	11.5	12.5	10.5	9.0	10.0	6.0	4.5	5.5	2.0	.5	1.0
3	13.0	11.0	12.5	11.5	9.0	10.0	5.5	4.5	4.5	1.0	.5	.5
4	10.5	9.0	10.0	12.0	10.0	11.0	---	---	---	2.0	.5	1.0
5	11.0	9.5	---	11.0	9.0	10.5	---	---	---	.5	.5	.5
6	11.5	10.0	11.0	9.0	7.0	8.0	---	---	---	.5	.0	.5
7	12.0	10.5	11.5	8.0	6.0	7.0	---	---	---	.5	.0	.5
8	10.5	9.5	10.0	9.5	7.5	8.5	---	---	---	.5	.0	.5
9	10.0	8.0	9.0	10.5	9.0	9.5	---	---	---	.5	.5	.5
10	11.5	9.5	10.5	10.0	5.0	8.0	6.5	---	---	1.0	.5	1.0
11	11.5	10.5	11.0	5.5	4.5	5.0	6.0	5.0	5.5	1.0	.5	.5
12	10.5	9.0	9.5	5.5	4.0	4.5	6.0	4.5	5.0	1.0	.5	1.0
13	---	---	---	6.5	4.0	5.5	5.0	3.5	4.5	1.0	.5	1.0
14	---	---	---	7.5	5.0	6.0	4.5	3.5	4.0	1.0	.5	.5
15	---	---	---	7.5	5.5	6.5	4.5	4.0	4.5	.5	.5	.5
16	---	---	---	8.0	5.5	6.5	4.0	2.5	3.5	.5	.5	.5
17	---	---	---	---	---	---	3.0	2.0	2.5	.5	.5	.5
18	---	---	---	---	---	---	2.5	1.5	2.0	.5	.5	.5
19	---	---	---	---	---	---	3.5	1.5	3.0	1.0	.5	1.0
20	---	---	---	---	---	---	5.0	3.5	4.0	2.0	.5	1.0
21	---	---	---	---	---	---	5.0	3.5	4.5	3.0	1.5	2.0
22	---	---	---	---	---	---	4.0	2.5	3.5	2.0	1.0	1.5
23	---	---	---	---	---	---	4.5	3.5	4.0	2.0	1.0	1.5
24	---	---	---	---	---	---	4.5	3.0	4.0	2.5	1.0	1.5
25	---	---	---	---	---	---	7.0	4.5	6.0	2.0	1.0	1.5
26	---	---	---	---	---	---	6.5	5.0	6.0	1.0	.0	.5
27	---	---	---	---	---	---	5.0	4.0	4.5	.5	.0	.5
28	9.0	7.5	8.5	---	---	---	4.0	2.5	3.5	.5	.0	.5
29	8.0	7.0	7.5	---	---	---	3.0	1.0	2.5	.5	.0	.5
30	8.5	6.0	7.5	---	---	---	1.0	.5	1.0	1.0	.0	.5
31	9.5	7.5	8.5	---	---	---	1.5	.5	1.0	2.0	1.0	1.5
MONTH	---	---	---	---	---	---	---	---	---	3.0	.0	1.0

01640965 HUNTING CREEK NEAR FOXVILLE, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.5	2.0	4.0	3.5	1.0	2.0	11.5	10.0	10.5	12.5	7.5	10.0
2	5.5	4.0	5.0	5.0	1.0	3.0	13.0	9.5	11.0	11.5	8.5	10.0
3	4.0	3.0	3.5	5.0	4.0	4.5	12.0	10.0	11.0	11.0	8.5	9.5
4	3.5	2.0	3.0	4.5	3.0	4.0	14.5	11.0	12.0	10.0	9.0	9.5
5	2.0	.5	1.5	4.5	1.5	3.0	14.5	10.0	12.0	10.0	9.5	10.0
6	.5	.0	.5	5.0	1.5	3.0	13.5	10.5	11.5	10.5	10.0	10.0
7	.5	.0	.5	6.5	2.5	4.5	10.5	8.5	9.0	14.0	9.5	11.5
8	1.0	.5	.5	6.5	3.0	4.5	9.5	7.5	8.5	14.0	10.0	11.5
9	1.5	.5	1.0	6.5	3.5	5.5	10.5	7.0	---	13.5	10.0	11.5
10	2.0	1.0	1.5	7.0	4.0	5.5	---	---	---	14.5	11.5	13.0
11	2.0	1.0	1.5	6.5	3.0	4.5	---	---	---	14.0	11.5	12.5
12	2.0	.5	1.5	7.5	3.5	5.5	8.0	---	---	14.5	10.5	12.5
13	.5	.0	.5	8.0	5.0	6.5	10.5	6.0	8.0	15.5	11.5	13.5
14	.5	.0	.5	5.0	3.0	4.0	9.5	6.5	8.0	14.0	12.5	13.5
15	1.5	.5	1.0	3.5	1.5	2.5	11.0	7.0	8.5	14.0	12.5	13.0
16	2.5	1.0	1.5	4.5	1.0	2.5	9.0	6.0	7.0	13.5	13.0	13.0
17	3.0	1.0	2.0	5.0	1.5	3.0	11.5	5.5	8.5	14.5	12.5	13.5
18	4.0	1.5	2.5	4.0	2.0	3.0	9.5	7.5	8.5	13.5	12.5	13.0
19	3.0	2.0	2.5	5.5	2.5	3.5	9.5	6.0	7.5	---	---	---
20	4.0	2.0	3.0	5.0	2.0	3.0	10.5	5.5	8.0	---	---	---
21	2.5	.5	1.5	4.5	1.5	2.5	11.5	7.5	9.0	---	---	---
22	2.5	.5	1.5	5.0	.5	2.5	11.5	6.5	8.5	---	---	---
23	3.5	2.0	2.5	7.0	1.5	4.5	10.5	7.5	9.0	---	---	---
24	2.5	1.0	2.0	11.0	5.5	8.0	10.5	8.5	9.5	---	---	---
25	2.0	.5	1.0	13.0	7.5	10.0	12.5	7.0	9.5	---	---	---
26	2.0	.5	1.0	11.5	9.5	10.5	12.0	7.5	9.5	---	---	---
27	2.5	1.0	2.0	9.5	6.5	8.0	12.0	8.5	10.0	---	---	---
28	3.0	1.5	2.0	10.0	5.5	7.5	10.5	8.0	9.5	---	---	---
29	4.0	1.0	2.0	11.5	6.5	9.0	9.0	7.5	8.0	---	---	---
30	---	---	---	11.5	7.5	9.5	11.0	7.5	9.0	---	---	---
31	---	---	---	12.0	9.0	10.5	---	---	---	---	---	---
MONTH	5.5	.0	2.0	13.0	.5	5.0	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	15.0	---	---
7	---	---	---	---	---	---	---	---	---	14.5	12.5	13.5
8	---	---	---	---	---	---	---	---	---	14.5	12.5	13.5
9	---	---	---	---	---	---	---	---	---	15.0	13.0	14.0
10	---	---	---	---	---	---	---	---	---	16.0	14.5	15.0
11	---	---	---	---	---	---	---	---	---	15.5	14.0	15.0
12	---	---	---	---	---	---	---	---	---	15.0	13.5	14.5
13	---	---	---	---	---	---	---	---	---	16.5	14.5	15.5
14	---	---	---	---	---	---	---	---	---	16.5	15.0	15.5
15	---	---	---	---	---	---	---	---	---	15.0	14.0	14.5
16	---	---	---	---	---	---	---	---	---	14.0	12.5	13.5
17	---	---	---	---	---	---	---	---	---	14.0	12.5	13.0
18	---	---	---	---	---	---	---	---	---	15.0	14.0	14.5
19	---	---	---	---	---	---	---	---	---	16.5	14.5	15.5
20	---	---	---	---	---	---	---	---	---	17.0	16.0	16.5
21	---	---	---	---	---	---	---	---	---	17.0	16.0	16.5
22	---	---	---	---	---	---	---	---	---	16.5	15.5	16.0
23	---	---	---	---	---	---	---	---	---	17.0	15.5	16.5
24	---	---	---	---	---	---	---	---	---	17.0	15.0	16.5
25	---	---	---	---	---	---	---	---	---	15.0	14.5	15.0
26	---	---	---	---	---	---	---	---	---	16.0	14.5	15.0
27	---	---	---	---	---	---	---	---	---	16.0	14.5	15.0
28	---	---	---	---	---	---	---	---	---	16.0	14.5	15.0
29	---	---	---	---	---	---	---	---	---	15.5	14.0	14.5
30	---	---	---	---	---	---	---	---	---	15.0	13.5	14.5
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD

LOCATION.--Lat 39°37′42″, long 77°27′44″, Frederick County, Hydrologic Unit 02070003, on left downstream wingwall of culvert of park road in Cunningham Falls State Park, 600 ft upstream from Hunting Creek Lake, and 2.7 mi west of Thurmont.

DRAINAGE AREA.--4.01 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,030 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except those below 1.0 ft^3/s and those for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--7 years, 6.54 ft^3/s, 21.87 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,905 ft^3/s, May 19, 1988, gage height, 3.78 ft, from rating curve extended above 80 ft^3/s on basis of computation of peak flow through culvert; minimum discharge, 0.12 ft^3/s, Sept. 10, 11, 12, 20, 1983, Aug. 17, 18, Sept. 16, 17, 24, 1988.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 90 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1415	197	2.57	May 19	0015	826	3.49
Jan. 20	0515	102	2.09	May 19	1630	*1,905	*3.78
May 18	0945	90	2.01	May 20	2100	117	2.18

Minimum daily discharge, 0.12 ft^3/s, Sept. 16.

REVISIONS.--The peak discharges and annual maximums (*) reported for water years 1984 and 1987 have been revised as shown in the following table. They supersede figures published in reports for 1984 and 1987.

Water Year	Date	Time	Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Time	Discharge (ft^3/s)	Gage height (ft)
1984	Feb. 2, 1984	1100	681	3.38	1984	Aug. 13, 1984	1500	590	3.30
	Aug. 11, 1984	0030	*757	*3.44	1987	Apr. 4, 1987	1230	*926	*3.54

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.96	7.0	5.0	e11	4.1	3.4	e4.0	7.9	1.2	.50	.24
2	.33	.93	5.4	4.6	12	4.1	3.3	e4.0	7.5	1.1	.45	.21
3	.45	.93	4.7	3.9	11	4.8	3.3	e4.0	7.3	1.0	.43	.21
4	.56	.93	4.9	e3.4	13	12	3.4	e4.0	6.8	.96	.41	2.7
5	.41	.93	4.5	e3.2	8.6	8.1	3.2	e23	6.2	.96	.40	1.0
6	.38	.91	4.1	e3.0	5.9	6.0	3.1	e80	5.5	.95	.37	.37
7	1.7	.94	3.9	e2.7	5.9	5.8	17	e46	5.1	.88	.54	.27
8	.57	.97	3.8	e2.5	5.9	5.5	12	e24	4.9	.83	.35	.25
9	.41	.99	3.8	e2.7	5.9	5.5	7.3	e16	7.2	.84	.29	.24
10	.38	2.4	3.7	e2.4	5.8	5.4	6.1	e12	5.3	.81	.31	.24
11	.38	2.4	3.6	e2.2	5.5	4.8	5.6	9.3	4.6	.88	.31	.21
12	.44	2.1	3.5	e2.1	6.2	4.7	5.2	8.0	4.1	2.0	.27	.18
13	.37	2.7	3.3	e2.1	6.6	5.0	4.9	7.2	3.8	1.1	.25	.28
14	.34	3.1	3.3	e2.1	5.7	4.5	4.7	6.6	3.5	.82	.24	.27
15	.34	2.4	7.0	e2.1	7.2	4.3	4.5	6.2	3.2	.71	.20	.16
16	.34	1.9	5.4	e2.1	9.5	4.1	4.3	7.2	3.1	.62	.19	.12
17	.35	2.2	4.3	e2.1	6.0	4.0	4.1	15	3.2	.57	.15	.32
18	.37	4.3	3.8	e6.8	5.9	4.0	5.3	79	2.9	.70	.21	.41
19	.37	2.2	3.8	5.7	8.1	4.1	4.9	257	2.7	3.7	.35	.25
20	.40	1.8	6.4	42	11	3.9	4.3	80	2.5	1.0	1.3	.21
21	.79	1.5	5.0	12	6.7	3.6	4.0	54	2.1	3.0	.60	.21
22	.69	1.2	4.4	7.9	5.9	3.5	3.8	34	2.0	1.2	.25	.15
23	.56	1.2	4.3	6.4	5.7	3.5	3.8	26	1.8	1.4	.61	.15
24	.55	1.4	4.1	5.8	5.3	3.5	4.5	38	1.7	1.6	3.0	.21
25	.64	1.3	5.3	5.8	4.8	3.4	3.8	33	1.7	.77	.62	1.9
26	.68	1.2	7.2	5.5	4.6	7.0	3.5	20	1.6	.64	.28	.49
27	3.2	1.3	5.5	e5.3	4.5	4.5	4.4	16	1.4	.68	.25	.27
28	4.1	2.4	5.2	e5.0	4.4	3.8	5.1	14	1.4	.71	.23	.21
29	1.5	60	5.1	e5.0	4.3	3.5	4.2	11	1.3	.60	1.2	.18
30	1.1	16	4.2	e5.0	---	3.4	e4.1	9.8	1.2	.53	.71	.19
31	1.0	---	4.4	e5.0	---	3.4	---	8.7	---	.70	.28	---
TOTAL	24.19	123.49	144.9	171.4	202.9	147.8	151.1	957.0	113.5	33.46	15.55	12.10
MEAN	.78	4.12	4.67	5.53	7.00	4.77	5.04	30.9	3.78	1.08	.50	.40
MAX	4.1	60	7.2	42	13	12	17	257	7.9	3.7	3.0	2.7
MIN	.33	.91	3.3	2.1	4.3	3.4	3.1	4.0	1.2	.53	.15	.12
CFSM	.19	1.03	1.17	1.38	1.74	1.19	1.26	7.70	.94	.27	.13	.10
IN.	.22	1.15	1.34	1.59	1.88	1.37	1.40	8.88	1.05	.31	.14	.11

CAL YR 1987 TOTAL 1946.34 MEAN 5.33 MAX 160 MIN .21 CFSM 1.33 IN. 18.06
WTR YR 1988 TOTAL 2097.39 MEAN 5.73 MAX 257 MIN .12 CFSM 1.43 IN. 19.46

e Estimated

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1987 to current year.
WATER TEMPERATURE: October 1987 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1987.

REMARKS.--Periods of missing record are due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: Maximum daily, 36.0°C, Aug. 15, 17, 1988; minimum daily, 0.0°C, on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURE: Maximum daily, 36.0°C, Aug. 15, 17; minimum daily, 0.0°C, on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
DEC							
31...	1445	120	6.9	0.0	6.3	3.0	3.7
JAN							
08...	1210	103	7.2	0.0	7.4	2.6	5.5
15...	1300	103	6.7	0.0	5.4	2.5	6.6
22...	1200	100	6.8	0.0	5.6	2.6	6.5
28...	1300	96	6.9	0.0	5.4	2.5	6.3
FEB							
04...	1315	121	7.0	0.0	5.6	2.7	9.8
11...	1140	104	6.9	0.0	5.4	2.6	1.3
18...	1240	142	6.9	0.0	6.0	2.9	2.0
25...	1245	131	6.8	0.0	6.2	2.8	17
MAR							
04...	1200	113	6.9	1.0	5.8	2.7	2.9
11...	1030	131	6.8	2.0	6.1	2.8	3.8
18...	1100	102	7.0	5.0	6.0	2.5	6.9
25...	1200	94	7.1	6.0	5.1	2.2	4.1
APR							
01...	1130	99	7.2	8.5	5.3	2.3	6.1
07...	1130	95	7.1	2.0	5.3	2.3	6.9
16...	1130	88	7.2	8.0	5.1	3.6	7.8
22...	1135	90	7.2	8.0	5.3	2.2	6.0
29...	1140	95	7.4	9.5	5.3	2.3	7.1
MAY							
06...	1209	89	7.5	12.0	5.4	2.3	6.1
13...	1135	86	7.5	14.0	5.5	2.3	4.9
20...	1205	89	7.6	15.0	6.0	2.3	5.2
27...	1330	85	7.5	18.0	6.3	2.4	5.1
JUN							
02...	1145	107	7.5	15.0	6.8	2.5	7.0
08...	1315	97	7.2	14.0	6.0	2.6	5.7
15...	1215	88	7.2	14.0	5.2	2.2	6.1
24...	1225	84	7.3	13.0	5.6	2.3	6.3
JUL							
01...	1225	87	7.4	16.0	6.0	2.3	5.1
08...	1150	89	7.3	18.0	6.0	2.4	5.2
14...	1235	93	7.4	18.0	6.5	2.5	6.4
21...	1400	96	7.5	20.0	7.5	2.6	5.9
28...	1145	110	7.5	20.0	7.9	2.7	--
AUG							
04...	1015	98	7.3	18.5	7.6	2.7	5.0
11...	1330	101	7.3	18.5	8.1	2.7	5.2
18...	1215	100	7.6	17.0	7.9	2.8	4.6
25...	1200	98	7.6	18.0	8.0	2.7	4.5
SEP							
01...	1245	98	7.3	17.5	8.0	2.7	6.3
08...	1320	100	7.5	15.5	8.5	2.8	6.2
15...	1120	104	7.6	19.0	8.7	2.5	5.1
22...	1300	95	7.5	14.0	7.6	2.7	5.1
29...	1310	114	7.5	14.0	8.3	2.9	6.4

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)
DEC							
31...	0.39	13	7.6	17	--	3.2	--
JAN							
08...	0.39	14	8.0	20	--	3.6	0.18
15...	0.57	17	6.5	10	15	4.1	--
22...	0.68	19	6.1	13	15	4.6	--
28...	0.80	20	5.6	11	15	4.0	--
FEB							
04...	0.71	11	8.8	2.5	10	3.4	--
11...	0.33	16	7.3	10	--	4.6	0.26
18...	0.24	14	8.0	38	13	4.2	0.04
25...	0.25	20	7.9	22	13	3.6	0.21
MAR							
04...	0.60	15	6.6	16	14	3.8	0.24
11...	0.30	15	7.7	15	14	3.4	--
18...	0.49	13	7.0	15	13	3.8	--
25...	1.1	24	7.0	9.5	14	4.0	0.02
APR							
01...	0.67	20	6.6	10	14	3.6	--
07...	0.45	20	7.1	14	12	3.5	0.01
16...	0.64	26	6.1	16	14	3.1	--
22...	0.54	17	6.4	16	14	2.8	--
29...	0.80	24	7.2	13	13	2.3	0.08
MAY							
06...	0.77	22	6.3	10	14	2.6	0.03
13...	0.77	20	5.0	11	19	2.5	0.04
20...	0.74	23	7.3	9.8	18	1.3	0.01
27...	0.71	17	4.7	12	--	2.4	--
JUN							
02...	0.92	28	5.2	11	18	2.0	--
08...	0.60	27	6.9	12	15	1.7	0.10
15...	0.57	52	6.8	9.3	14	2.2	--
24...	0.87	28	5.1	9.1	15	2.9	0.03
JUL							
01...	0.53	33	3.9	7.2	16	2.8	--
08...	0.80	27	4.0	12	16	2.6	--
14...	1.0	16	3.6	13	17	2.4	--
21...	1.2	32	4.0	10	17	1.5	--
28...	--	--	--	--	16	--	--
AUG							
04...	0.89	26	3.5	12	18	1.7	0.01
11...	1.1	30	3.2	14	18	1.7	0.03
18...	1.0	18	4.2	7.8	17	1.5	0.04
25...	0.98	20	3.2	10	18	1.1	--
SEP							
01...	1.2	39	2.9	7.1	19	1.3	--
08...	1.4	40	3.1	7.1	18	1.1	0.09
15...	1.2	42	2.8	9.0	15	1.0	0.05
22...	1.4	33	5.1	7.1	16	1.6	--
29...	1.3	33	8.2	11	19	0.77	0.06

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT							
06...	1210	111	7.7	15.5	8.7	3.3	5.5
14...	1230	121	7.6	12.5	9.4	3.1	6.2
21...	1350	106	7.6	10.0	8.7	3.3	5.4
28...	1200	114	7.4	8.0	9.5	3.5	6.3
NOV							
04...	1130	110	7.5	13.0	8.7	3.4	6.6
12...	1035	111	7.6	8.0	8.1	3.2	6.1
19...	1300	110	7.6	5.0	9.1	3.1	7.5
26...	1100	112	7.6	6.0	8.9	3.2	8.1
DEC							
02...	0945	112	7.4	7.0	8.9	2.7	9.7
09...	1030	110	7.5	4.0	8.8	3.0	7.8
20...	1430	125	7.4	0.0	8.5	3.1	11
31...	1030	124	7.1	1.0	9.0	3.1	9.4
JAN							
06...	1140	111	7.4	0.0	8.1	3.0	7.8
13...	1110	128	7.3	0.0	8.1	3.1	9.6
20...	1300	140	7.4	0.0	8.8	3.4	9.6
27...	1130	146	7.2	0.0	8.2	3.1	12
FEB							
03...	1220	105	7.1	4.0	6.7	2.4	5.2
10...	1245	118	7.2	0.0	6.8	2.7	5.1
17...	1500	128	7.2	1.0	7.9	2.7	11
24...	1330	108	7.2	2.0	6.7	2.6	8.1
MAR							
03...	1230	104	7.1	4.0	6.5	2.3	6.9
10...	1130	94	7.1	4.0	6.4	2.4	6.4
17...	1130	90	7.3	4.0	6.5	2.3	5.7
24...	1200	84	7.2	3.0	6.1	2.2	5.2
31...	1200	84	7.1	5.0	6.1	2.3	5.2
APR							
07...	1245	84	7.1	8.0	6.2	2.3	5.2
14...	1145	80	7.2	8.0	5.8	2.2	4.2
21...	1145	85	7.1	7.0	5.8	2.2	4.2
28...	1115	78	7.3	11.0	6.0	2.0	4.2
MAY							
05...	1150	84	7.3	11.0	6.4	2.3	3.5
12...	1115	88	7.3	10.5	6.5	2.4	4.3
19...	1330	84	7.2	11.0	6.3	2.4	4.5
26...	1410	80	7.3	13.0	6.0	2.2	4.2
JUN							
02...	1330	89	7.2	12.0	3.6	2.7	4.2
09...	1230	82	7.2	13.5	6.7	2.5	4.2
16...	1300	89	7.5	17.0	7.1	2.4	3.9
23...	1425	100	7.4	17.0	7.6	2.6	4.2
30...	1430	92	7.5	16.5	7.6	2.6	4.2
JUL							
07...	1330	94	7.5	16.0	7.6	2.6	4.3
14...	1300	93	7.6	18.0	7.8	2.6	4.4
21...	1315	116	7.6	20.5	10	3.2	4.5
28...	1120	104	7.5	18.5	4.5	3.1	4.4
AUG							
05...	1245	108	7.6	20.5	9.8	3.5	4.5
11...	1200	102	7.5	20.0	9.8	3.4	4.5
18...	1105	110	7.7	19.0	9.7	3.1	4.5
25...	1325	110	7.6	18.5	9.9	3.1	4.6
SEP							
01...	1310	106	7.5	18.5	9.2	3.1	4.7
08...	1305	120	7.5	19.0	11	3.3	4.6
15...	1405	116	7.5	15.0	10	3.6	4.6
22...	1130	115	7.4	14.0	9.9	3.2	4.8
29...	1205	110	7.5	13.0	9.8	3.2	4.4

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)	NITROGEN, AMMONIA DISSOLVED (MG/L AS NH4)
OCT							
06...	1.3	43	3.7	9.7	19	0.09	0.03
14...	1.7	35	7.3	14	18	--	0.05
21...	1.0	39	3.7	9.0	18	--	--
28...	1.2	35	7.5	12	18	0.14	--
NOV							
04...	1.5	42	4.7	10	19	--	--
12...	1.0	36	5.2	10	18	0.88	--
19...	1.4	34	5.5	10	17	1.7	--
26...	1.4	34	5.7	12	16	1.3	0.09
DEC							
02...	2.9	25	6.4	11	15	1.5	0.16
09...	1.6	30	6.7	12	17	2.3	--
20...	0.87	22	5.5	13	12	2.8	--
31...	0.83	25	6.9	13	--	2.7	0.06
JAN							
06...	0.58	24	5.6	9.2	22	3.8	--
13...	1.1	18	8.4	12	14	3.3	0.11
20...	0.61	22	7.4	16	23	4.1	--
27...	0.46	18	7.7	5.3	21	3.2	--
FEB							
03...	0.52	10	10	7.5	20	3.7	--
10...	0.51	16	9.1	16	20	2.8	--
17...	0.47	17	7.7	17	21	3.6	--
24...	0.40	13	8.6	--	18	1.5	--
MAR							
03...	0.44	14	7.7	10	18	3.0	--
10...	0.44	13	8.6	10	21	3.1	--
17...	0.46	16	6.7	11	21	3.3	--
24...	0.47	14	7.2	7.8	19	4.3	--
31...	0.46	15	6.9	7.5	15	3.8	--
APR							
07...	0.50	16	7.1	7.1	15	3.7	--
14...	0.49	16	7.0	7.5	14	3.7	--
21...	0.49	16	6.9	8.3	12	4.1	--
28...	0.50	16	7.2	8.7	12	3.3	--
MAY							
05...	0.51	20	6.7	8.2	14	1.2	--
12...	0.50	20	6.8	8.0	13	1.1	--
19...	0.47	21	6.1	8.4	13	1.3	--
26...	0.48	19	6.7	7.0	13	3.6	--
JUN							
02...	0.44	22	5.7	7.7	14	3.6	--
09...	0.46	23	6.4	7.5	14	1.2	--
16...	0.54	26	4.6	7.1	17	3.1	--
23...	0.56	28	5.3	7.2	17	2.8	--
30...	0.61	29	4.4	7.2	18	2.8	--
JUL							
07...	0.55	29	3.9	8.7	15	2.8	--
14...	0.10	29	3.5	8.7	15	2.5	--
21...	1.0	31	7.3	11	16	2.6	--
28...	1.3	38	3.2	10	15	2.1	--
AUG							
05...	1.1	39	3.7	11	16	1.5	--
11...	1.1	42	3.1	10	15	1.5	--
18...	1.1	40	3.4	9.6	15	1.8	--
25...	1.2	42	2.8	10	16	1.4	--
SEP							
01...	0.69	39	5.4	8.0	14	1.7	--
08...	0.66	47	3.1	8.0	16	1.2	--
15...	1.1	41	5.7	9.0	15	1.2	--
22...	1.2	31	11	9.1	14	0.96	--
29...	0.99	38	4.0	8.4	15	1.5	--

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT							
06...	1435	116	7.4	14.5	9.8	3.2	4.8
13...	1205	112	7.2	15.0	9.3	2.3	5.7
20...	1155	104	6.9	10.0	9.5	2.4	5.2
27...	1120	93	7.1	8.5	7.5	2.2	4.6
NOV							
04...	1240	97	7.2	10.0	7.9	2.2	4.4
09...	1345	97	7.2	7.5	7.8	2.2	4.4
16...	1115	90	7.0	5.0	6.8	2.1	4.4
23...	1330	85	6.9	9.0	6.6	2.0	3.9
DEC							
01...	1400	79	7.1	5.0	6.1	1.9	3.7
08...	1140	79	7.4	4.0	4.9	1.8	3.5
15...	1215	71	7.2	8.0	5.6	1.7	3.2
23...	1330	88	7.3	1.0	6.0	1.9	4.6
JAN							
05...	1015	95	7.3	1.0	6.8	2.4	4.9
09...	1230	90	7.3	1.0	--	--	--
17...	1300	97	7.3	1.0	6.9	2.5	5.4
25...	1200	175	7.3	0.0	9.3	3.3	15
31...	1330	142	7.3	1.0	8.3	3.1	10
FEB							
07...	1230	142	7.3	0.0	8.1	3.0	9.9
15...	1130	95	7.3	5.0	6.7	2.4	5.5
21...	1100	98	7.4	4.0	6.7	2.4	5.5
28...	1200	140	7.3	2.0	7.4	2.7	10
MAR							
06...	0945	123	6.9	1.0	7.3	2.7	4.8
14...	1300	120	7.3	1.0	7.3	2.8	4.4
20...	1105	105	7.3	5.0	6.7	2.6	4.3
27...	1130	98	7.4	5.0	6.4	2.4	5.7
APR							
03...	1150	91	7.4	6.0	6.0	2.2	5.2
10...	1110	88	7.2	7.0	5.7	2.2	5.3
17...	1100	86	7.4	9.0	6.0	2.3	5.5
24...	1030	87	7.5	7.0	6.1	2.3	5.4
MAY							
01...	1130	90	7.5	12.0	6.6	2.4	5.4
08...	1140	86	7.4	11.0	6.6	2.4	5.1
15...	1050	85	7.5	10.0	7.1	2.4	4.9
22...	1320	95	6.8	16.0	7.3	2.5	4.8
30...	1310	87	6.9	12.0	7.0	2.6	4.8
JUN							
05...	1215	91	7.4	15.0	7.0	2.4	4.5
12...	1150	93	7.3	18.0	8.1	2.7	4.7
19...	1215	106	7.4	18.0	8.3	2.8	5.6
26...	1200	100	7.5	15.0	8.3	2.8	5.1
JUL							
03...	1230	102	7.7	18.0	8.7	2.8	5.1
10...	1240	98	7.6	16.0	8.5	2.8	5.1
17...	1300	106	7.7	19.0	9.1	2.9	5.1
24...	1105	107	7.7	19.0	9.4	3.0	5.4
31...	1100	104	7.4	17.0	9.1	3.0	4.9
AUG							
07...	1110	106	7.4	20.0	9.5	3.2	5.1
21...	1310	93	7.4	16.0	7.5	2.6	4.4
SEP							
05...	1130	100	7.4	15.0	8.8	2.7	4.5
18...	1245	95	7.5	12.0	8.7	2.7	4.0

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
OCT						
06...	1.1	40	5.0	8.6	15	0.77
13...	1.3	24	13	14	12	1.4
20...	1.1	33	7.4	13	14	0.32
27...	0.81	22	9.3	12	13	1.7
NOV						
04...	0.95	30	6.7	7.8	13	1.5
09...	0.86	29	6.1	8.2	13	1.9
16...	0.68	18	9.0	10	11	2.0
23...	0.63	20	7.9	7.8	12	2.3
DEC						
01...	0.54	17	8.0	6.8	12	3.1
08...	0.51	15	7.9	7.0	11	3.1
15...	0.62	14	7.5	5.3	11	3.6
23...	0.45	13	7.6	11	11	3.6
JAN						
05...	0.62	16	6.6	13	15	5.6
09...	--	--	--	--	--	--
17...	0.62	16	6.4	12	16	5.6
25...	0.77	15	7.5	14	14	5.1
31...	0.63	14	7.1	14	15	4.6
FEB						
07...	0.62	16	7.4	13	15	4.5
15...	0.83	12	7.5	11	--	4.4
21...	0.74	15	6.3	12	14	4.6
28...	0.71	13	6.9	13	15	4.0
MAR						
06...	0.70	14	7.3	9.9	13	4.3
14...	0.69	15	6.1	8.8	13	5.2
20...	0.64	16	6.7	8.7	14	3.9
27...	0.68	15	7.1	6.9	14	4.2
APR						
03...	0.62	12	7.4	6.8	13	3.8
10...	0.71	17	6.6	8.4	14	4.3
17...	0.59	16	7.2	8.4	14	3.1
24...	0.59	17	8.8	6.8	14	2.1
MAY						
01...	0.64	20	6.3	8.3	15	2.9
08...	0.57	19	7.4	8.3	14	2.3
15...	0.61	20	6.0	8.0	19	2.7
22...	0.79	24	6.1	7.5	20	3.1
30...	0.54	19	7.7	6.7	19	2.0
JUN						
05...	0.68	23	7.0	8.1	20	3.3
12...	0.89	29	4.9	8.0	22	2.2
19...	1.0	28	6.7	10	21	1.6
26...	0.87	30	5.0	9.2	22	2.4
JUL						
03...	0.66	32	4.3	8.6	--	2.7
10...	0.70	31	4.4	9.2	21	2.2
17...	0.64	35	4.2	8.1	--	2.2
24...	0.78	37	4.5	9.4	23	2.3
31...	0.59	37	3.8	6.7	22	2.0
AUG						
07...	0.48	39	3.9	5.4	23	1.5
21...	0.73	26	4.7	7.3	16	2.6
SEP						
05...	0.86	32	4.9	4.9	17	2.5
18...	0.43	31	4.1	4.7	17	2.9

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT							
03...	1315	107	7.5	10.0	9.0	2.7	4.8
16...	1300	106	7.3	12.0	10	3.2	4.6
30...	1230	120	7.6	14.0	11	3.6	5.4
NOV							
13...	1200	105	7.1	6.0	10	3.2	4.8
27...	1140	106	7.6	4.0	9.2	3.0	5.0
DEC							
12...	1315	102	7.3	4.0	8.3	2.8	4.7
31...	1210	97	7.5	7.0	8.3	2.6	5.0
JAN							
08...	1230	102	7.3	3.0	6.5	2.8	7.5
22...	1300	105	7.3	1.0	7.1	2.9	5.1
FEB							
05...	1200	154	7.4	1.0	8.1	3.3	6.2
19...	1235	117	7.3	3.0	6.7	2.8	7.5
MAR							
05...	1215	104	7.4	7.0	6.5	2.6	5.6
19...	1245	104	7.1	4.0	6.5	2.6	6.7
APR							
02...	1220	96	7.2	7.0	6.1	2.6	7.1
16...	1230	98	7.5	12.0	6.4	2.6	6.7
30...	1220	104	7.3	14.0	7.1	2.7	6.5
MAY							
14...	1250	119	7.4	18.0	8.1	2.8	5.0
28...	1230	104	7.5	17.0	8.1	2.9	4.9
JUN							
11...	1050	99	7.3	16.0	8.7	2.9	6.3
25...	1210	99	7.5	17.0	8.4	2.8	5.4
JUL							
11...	1215	112	7.5	21.0	9.1	3.0	6.1
23...	1210	110	7.4	21.0	9.8	3.1	5.3
AUG							
06...	1200	104	7.5	18.0	10	3.3	5.8
20...	1325	110	7.6	20.0	9.3	3.3	5.7
SEP							
18...	1215	110	7.6	16.0	9.3	3.4	5.4

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
OCT						
03...	--	32	5.1	8.2	17	2.5
16...	0.66	40	3.6	4.9	22	0.93
30...	0.72	39	6.2	13	--	0.51
NOV						
13...	0.68	33	5.7	4.4	--	0.62
27...	0.80	30	7.5	5.0	20	1.8
DEC						
12...	0.65	22	6.8	8.0	18	3.0
31...	0.65	24	5.9	7.9	19	2.8
JAN						
08...	0.63	21	7.1	13	--	3.4
22...	0.68	24	6.3	11	--	4.9
FEB						
05...	0.73	21	6.0	11	--	4.6
19...	0.67	17	6.9	10	--	4.6
MAR						
05...	0.69	19	6.5	11	--	4.1
19...	0.62	20	5.8	14	--	4.0
APR						
02...	0.60	17	7.9	14	--	3.3
16...	0.73	23	5.7	12	--	3.2
30...	0.76	28	7.0	9.8	--	2.5
MAY						
14...	2.0	32	7.3	9.8	--	2.2
28...	0.74	29	5.5	11	--	2.5
JUN						
11...	0.83	32	4.7	11	--	2.1
25...	0.89	29	5.0	9.9	--	1.2
JUL						
11...	0.79	40	3.6	10	--	2.0
23...	1.1	41	3.3	9.9	--	1.6
AUG						
06...	1.1	43	3.4	10	13	1.4
20...	1.1	44	3.0	11	13	1.3
SEP						
18...	0.95	37	3.1	11	12	1.1

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT							
15...	1100	116	7.5	16.0	10	3.6	6.1
NOV							
12...	1115	95	7.1	12.0	7.1	2.8	2.6
DEC							
10...	1055	89	6.8	5.0	6.3	2.4	5.0
JAN							
14...	1040	99	7.4	0.0	6.6	2.5	5.3
FEB							
10...	1115	138	7.0	2.0	7.8	1.9	6.1
MAR							
19...	1040	105	7.1	9.0	6.8	1.9	6.9
APR							
15...	1040	100	7.1	8.0	7.0	2.8	6.9
MAY							
13...	1230	100	7.3	13.0	7.8	2.8	5.9
21...	1205	--	--	15.0	--	--	--
JUN							
17...	1330	100	6.9	19.0	6.6	2.7	5.4
JUL							
15...	1150	105	7.4	20.0	7.4	2.9	5.4
AUG							
12...	1250	111	7.6	20.0	13	4.9	5.5
SEP							
16...	1430	120	7.7	18.0	11	3.1	6.0

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
OCT						
15...	1.4	45	3.8	9.1	13	--
NOV						
12...	0.95	23	7.0	9.5	11	2.5
DEC						
10...	0.71	19	6.6	7.5	12	3.3
JAN						
14...	0.78	20	5.8	7.7	11	4.7
FEB						
10...	0.71	23	6.7	8.2	10	3.6
MAR						
19...	0.73	22	6.4	7.1	9.8	3.6
APR						
15...	0.82	24	6.3	8.5	12	3.4
MAY						
13...	0.75	26	5.3	9.1	13	2.9
21...	--	21	9.1	8.7	--	1.3
JUN						
17...	0.87	30	5.0	11	15	2.6
JUL						
15...	1.1	39	3.2	9.5	16	1.9
AUG						
12...	1.2	45	3.0	10	16	1.1
SEP						
16...	1.2	46	3.6	11	16	1.6

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
OCT							
14...	1315	122	7.6	13.0	12	3.3	6.6
NOV							
13...	1520	142	7.7	4.0	8.2	3.2	8.3
DEC							
16...	1215	112	7.4	2.0	8.4	2.6	5.8
JAN							
12...	1200	142	7.5	2.0	7.5	2.4	6.2
FEB							
18...	1145	119	7.5	5.0	7.6	2.5	7.7
MAR							
17...	1130	100	7.4	3.0	7.1	2.2	6.6
APR							
14...	1215	97	7.5	10.0	6.2	2.4	5.2
28...	1410	99	7.8	10.0	6.4	2.4	6.9
MAY							
04...	1420	102	7.5	10.0	6.8	2.4	5.9
13...	1205	103	7.7	15.0	7.7	2.6	5.5
JUN							
16...	1225	127	7.8	19.0	6.9	2.8	5.1
JUL							
14...	1500	112	7.8	20.0	6.8	2.8	5.3
AUG							
11...	1150	137	7.2	20.0	8.8	3.4	5.5
SEP							
15...	0945	157	7.8	18.0	14	3.8	6.9

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	BICARBONATE WATER WH FET FIELD MG/L AS HCO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	NITROGEN, NITRATE DISSOLVED (MG/L AS NO3)
OCT						
14...	0.85	39	5.3	13	15	0.03
NOV						
13...	1.4	29	13	9.6	13	0.47
DEC						
16...	0.70	20	8.2	15	12	2.7
JAN						
12...	0.72	19	9.6	14	10	3.5
FEB						
18...	0.64	17	9.3	14	8.2	1.7
MAR						
17...	0.70	16	6.5	15	6.2	3.6
APR						
14...	0.68	18	6.7	12	9.7	3.4
28...	0.69	20	6.2	12	11	2.8
MAY						
04...	0.77	21	7.8	6.9	10	1.8
13...	0.79	26	5.9	6.6	12	1.8
JUN						
16...	0.97	27	3.8	9.3	16	2.0
JUL						
14...	1.0	33	4.6	10	12	1.7
AUG						
11...	0.89	42	2.7	8.4	16	0.89
SEP						
15...	1.5	44	9.9	12	16	0.50

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	134	132	133	141	138	139	117	113	115	157	145	149
2	134	133	133	139	137	138	117	116	117	162	153	158
3	135	129	132	140	136	137	138	115	117	162	144	153
4	130	128	129	141	136	138	141	123	128	144	136	139
5	132	129	130	140	136	137	124	120	122	148	137	143
6	134	126	132	137	132	135	121	118	120	150	147	148
7	140	123	131	135	132	133	119	117	118	148	143	146
8	147	140	144	133	130	131	120	116	118	162	131	143
9	148	146	147	134	130	132	119	118	118	152	125	135
10	150	146	148	139	122	131	120	118	119	126	104	122
11	152	149	150	271	140	208	120	118	119	119	102	117
12	151	147	149	252	228	239	119	117	118	116	111	113
13	151	149	150	236	199	224	118	117	117	113	108	110
14	150	148	149	201	173	191	117	116	117	116	112	114
15	149	146	148	173	166	168	135	115	126	116	114	115
16	148	145	147	168	163	166	132	126	128	115	111	113
17	148	145	147	200	152	163	126	123	124	111	107	109
18	148	146	147	193	175	181	123	121	122	186	107	158
19	148	142	147	175	167	171	121	118	120	156	139	148
20	148	146	147	167	159	163	165	115	137	171	83	103
21	---	---	---	166	157	160	132	126	129	111	98	107
22	---	---	---	165	162	164	127	122	124	113	110	112
23	---	---	---	164	159	162	125	122	123	113	109	111
24	---	---	---	160	154	156	126	124	125	110	107	109
25	---	---	---	155	151	153	135	124	128	162	107	119
26	---	---	---	152	148	150	140	133	137	163	132	143
27	137	114	---	150	144	147	140	136	138	145	122	131
28	149	137	147	179	149	164	183	136	153	123	116	119
29	149	146	148	184	78	130	221	153	193	117	112	115
30	147	143	145	122	99	108	194	168	183	118	109	112
31	144	140	142	---	---	---	169	150	160	157	118	133
MONTH	---	---	---	271	78	157	221	113	129	186	83	127

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	166	136	147	111	108	109	---	---	---	112	109	110
2	160	135	144	111	107	109	---	---	---	112	108	110
3	158	139	147	125	108	112	---	---	---	111	107	109
4	174	139	155	137	120	127	---	---	---	108	103	105
5	142	130	135	124	120	122	---	---	---	117	100	108
6	134	128	132	121	116	119	120	116	118	112	96	102
7	128	118	125	117	114	116	132	115	122	104	100	102
8	118	110	114	119	113	116	117	113	115	103	101	102
9	112	108	110	118	115	116	117	116	116	102	97	99
10	108	106	107	116	115	115	117	115	116	101	96	98
11	109	106	107	115	113	114	116	113	114	105	100	103
12	193	110	157	114	112	113	114	111	112	111	105	107
13	163	135	148	115	112	114	112	109	111	117	110	113
14	135	121	130	115	112	113	111	108	109	121	116	118
15	149	116	123	112	110	111	111	108	109	133	98	121
16	155	133	138	111	108	110	110	107	108	139	96	105
17	135	126	131	109	108	109	109	106	108	130	96	110
18	128	123	126	109	107	108	115	106	109	129	104	118
19	143	124	128	109	107	108	116	113	114	130	105	117
20	142	131	135	109	107	108	114	111	112	128	118	126
21	132	125	129	109	107	108	113	110	112	118	99	103
22	130	117	124	110	106	108	112	109	111	109	97	100
23	118	116	117	108	106	107	112	109	110	99	92	96
24	118	116	117	110	107	108	114	110	112	105	92	95
25	120	114	116	112	109	110	113	111	112	117	90	106
26	118	111	115	135	109	126	114	106	110	121	116	118
27	112	110	111	131	123	126	114	103	107	121	117	119
28	114	110	112	190	120	123	117	114	115	127	121	123
29	111	109	110	121	118	119	115	111	113	135	126	130
30	---	---	---	120	116	118	113	110	111	139	107	132
31	---	---	---	---	---	---	---	---	---	107	101	103
MONTH	193	106	127	---	---	---	---	---	---	139	90	110

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	104	102	103	124	116	120	135	126	129	---	---	---
2	104	101	102	128	112	118	137	132	134	---	---	---
3	103	101	101	132	113	120	---	---	---	---	---	---
4	102	101	102	132	115	121	---	---	---	---	---	---
5	105	101	102	131	119	125	---	---	---	---	---	---
6	113	104	107	135	126	130	---	---	---	---	---	---
7	116	111	113	133	122	128	---	---	---	---	---	---
8	117	112	115	141	99	121	---	---	---	---	---	---
9	116	102	109	104	99	102	---	---	---	---	---	---
10	114	104	107	105	99	102	---	---	---	---	---	---
11	117	113	115	115	100	105	---	---	---	---	---	---
12	117	112	115	126	116	120	---	---	---	---	---	---
13	118	112	115	133	124	128	---	---	---	---	---	---
14	127	115	119	141	127	133	---	---	---	---	---	---
15	132	112	120	147	138	142	---	---	---	---	---	---
16	132	119	124	155	143	148	---	---	---	---	---	---
17	126	119	122	162	144	153	---	---	---	---	---	---
18	125	117	121	167	151	159	---	---	---	---	---	---
19	123	115	119	161	118	140	---	---	---	---	---	---
20	116	110	113	161	150	157	---	---	---	---	---	---
21	123	114	118	150	136	142	---	---	---	---	---	---
22	121	114	117	155	123	140	---	---	---	---	---	---
23	117	112	115	130	113	122	---	---	---	---	---	---
24	116	110	113	128	114	122	---	---	---	---	---	---
25	114	105	109	130	115	119	---	---	---	---	---	---
26	115	104	110	125	117	120	---	---	---	---	---	---
27	117	102	108	126	114	116	---	---	---	---	---	---
28	118	109	112	118	114	115	---	---	---	---	---	---
29	133	119	126	130	117	121	---	---	---	---	---	---
30	131	123	126	130	123	125	---	---	---	---	---	---
31	---	---	---	128	120	123	---	---	---	---	---	---
MONTH	133	101	113	167	99	127	---	---	---	---	---	---

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.5	12.5	13.5	8.0	6.5	7.5	6.0	5.5	5.5	1.5	.5	1.0
2	13.5	11.5	12.5	9.0	7.5	8.5	5.5	4.0	4.5	.5	.0	.0
3	13.0	10.5	12.0	10.0	8.0	9.0	4.0	3.5	3.5	.0	.0	.0
4	10.5	9.0	10.0	10.5	9.0	10.0	4.0	3.0	3.5	.5	.0	.0
5	11.5	9.0	10.0	10.0	8.0	9.5	3.0	2.5	2.5	.0	.0	.0
6	11.5	9.5	10.5	8.0	6.0	7.0	3.0	2.0	2.5	.0	.0	.0
7	11.5	10.5	11.0	7.5	5.5	6.5	2.5	1.5	2.0	.0	.0	.0
8	11.0	9.0	10.0	8.5	6.5	7.5	2.5	2.0	2.0	.0	.0	.0
9	10.0	8.0	9.0	9.0	8.0	8.5	5.0	2.0	3.5	.0	.0	.0
10	11.0	9.0	10.0	9.0	4.5	7.0	5.0	4.5	5.0	.0	.0	.0
11	11.0	9.5	10.5	4.5	3.0	3.5	5.0	4.0	4.5	.0	.0	.0
12	9.5	8.0	9.0	3.5	2.5	3.0	4.5	4.0	4.5	.0	.0	.0
13	8.5	7.0	8.0	4.0	3.0	3.5	4.0	3.0	3.5	.0	.0	.0
14	8.5	6.5	7.5	5.5	3.5	4.5	3.5	3.0	3.0	.0	.0	.0
15	8.5	6.5	7.5	5.5	4.5	5.0	3.5	2.0	3.0	.0	.0	.0
16	9.5	7.5	8.5	6.0	4.5	5.5	3.0	2.0	2.5	.0	.0	.0
17	10.0	8.0	9.0	9.0	6.0	7.0	2.0	1.5	1.5	.0	.0	.0
18	10.5	8.5	9.5	9.0	7.5	9.0	1.5	.5	1.0	.0	.0	.0
19	10.5	8.5	9.5	7.5	6.5	7.0	2.0	.5	1.5	.0	.0	.0
20	---	9.5	---	6.5	4.5	6.0	4.0	2.0	3.0	.5	.0	.0
21	---	---	---	4.5	2.0	3.0	4.0	2.5	3.5	1.0	.5	.5
22	---	---	---	2.0	1.5	1.5	2.5	1.5	2.5	.5	.0	.5
23	---	---	---	2.0	1.0	1.5	3.0	2.5	2.5	.5	.0	.0
24	---	---	---	4.0	2.0	3.5	3.5	2.0	3.0	1.0	.0	.5
25	---	---	---	5.5	4.0	5.0	5.5	3.5	4.5	1.0	.0	.5
26	---	---	---	7.0	5.5	6.0	6.0	4.5	5.5	.0	.0	.0
27	7.0	---	---	6.0	5.0	5.5	4.5	3.5	4.0	.0	.0	.0
28	7.5	6.5	7.0	5.0	4.5	4.5	3.5	1.5	2.5	.0	.0	.0
29	6.5	5.5	6.0	7.5	5.0	6.0	2.0	.0	1.5	.0	.0	.0
30	6.5	5.0	6.0	7.0	5.5	6.5	.0	.0	.0	.0	.0	.0
31	8.0	6.5	7.0	---	---	---	.5	.0	.5	.5	.0	.0
MONTH	---	---	---	10.5	1.0	6.0	6.0	.0	3.0	1.5	.0	.0

01640970 HUNTING CREEK TRIBUTARY NEAR FOXVILLE, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.5	.5	2.0	1.5	.0	.5	---	---	---	10.0	7.0	8.5
2	4.5	3.5	4.0	2.0	.0	1.5	---	---	---	9.5	8.0	9.0
3	3.5	2.5	2.5	3.0	2.0	3.0	---	---	---	9.5	8.0	8.5
4	2.5	1.0	2.0	3.0	2.0	3.0	---	---	---	9.0	8.5	8.5
5	1.0	.0	.5	2.0	1.0	1.5	12.5	---	---	10.0	9.0	9.5
6	.0	.0	.0	2.5	.5	1.5	12.0	10.0	11.0	10.0	9.5	10.0
7	.0	.0	.0	4.0	1.5	3.0	10.0	7.5	8.5	12.5	9.5	11.0
8	.0	.0	.0	4.0	2.0	3.5	8.0	7.0	8.0	13.0	10.0	11.5
9	.0	.0	.0	5.0	3.0	4.0	8.5	6.5	7.5	12.5	10.0	11.0
10	.5	.0	.0	5.0	3.5	4.5	9.0	6.5	8.0	14.0	11.5	12.5
11	.5	.0	.0	4.0	2.5	3.5	9.0	6.5	8.0	13.5	12.0	12.5
12	.5	.0	.0	5.5	2.5	4.0	8.0	6.5	7.0	13.0	10.5	12.0
13	.0	.0	.0	6.5	4.5	5.5	8.0	5.5	7.0	14.5	12.0	13.0
14	.0	.0	.0	4.5	2.0	3.5	7.5	5.5	7.0	14.5	13.0	14.0
15	.0	.0	.0	2.0	.5	1.5	8.5	6.5	7.5	14.0	13.0	13.5
16	.5	.0	.0	2.0	.0	1.0	7.0	5.5	6.0	13.5	13.0	13.5
17	1.0	.0	.5	2.5	.5	1.5	8.5	5.0	7.0	14.0	13.0	13.5
18	2.0	.5	1.0	2.0	1.0	1.5	8.0	7.0	7.5	13.0	12.5	12.5
19	1.5	.5	1.0	3.0	1.5	2.0	7.5	6.0	6.5	13.0	12.0	12.5
20	2.5	.5	1.5	2.5	1.0	1.5	8.0	5.0	6.5	12.5	12.0	12.0
21	2.0	.0	.5	2.0	.0	1.0	9.0	7.0	7.5	13.5	12.0	12.5
22	1.0	.0	.5	1.5	.0	1.0	8.5	6.0	7.5	14.5	12.0	13.0
23	2.0	1.0	1.5	4.0	.5	2.5	8.5	7.0	7.5	15.0	13.0	14.0
24	1.5	.0	1.0	7.5	4.0	6.0	9.0	7.5	8.5	15.5	14.0	14.5
25	.0	.0	.0	10.0	6.5	8.5	9.5	6.5	8.0	14.5	11.0	13.0
26	.5	.0	.0	9.5	8.5	9.0	9.5	6.5	8.0	12.0	10.0	11.0
27	1.0	.0	.5	8.5	5.5	7.0	10.5	8.0	9.5	13.0	10.5	12.0
28	1.0	.5	.5	6.5	4.5	5.5	9.5	8.0	8.5	14.0	12.0	13.0
29	1.5	.0	.5	8.0	5.0	6.5	8.0	7.0	7.5	15.0	12.5	14.0
30	---	---	---	8.5	6.5	7.5	9.0	7.0	8.0	15.5	13.0	14.5
31	---	---	---	---	---	---	---	---	---	16.5	14.0	15.5
MONTH	4.5	.0	.5	10.0	.0	3.5	---	---	---	16.5	7.0	12.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.0	15.0	16.0	16.0	14.5	15.5	24.5	22.0	23.5	22.5	11.5	16.0
2	16.5	14.0	15.0	17.0	14.5	16.0	25.0	22.5	24.0	21.5	12.0	15.5
3	14.0	12.5	13.0	18.0	15.5	16.5	25.0	23.0	24.0	21.5	12.0	16.5
4	13.0	11.5	12.5	19.0	17.0	18.0	24.5	23.5	24.0	17.5	16.5	17.0
5	14.5	12.0	13.0	20.0	18.0	19.0	25.0	22.5	23.5	19.0	15.0	17.0
6	16.5	14.0	15.5	21.5	19.0	20.5	24.5	22.5	23.5	17.0	10.0	13.0
7	18.5	16.0	17.5	22.5	20.0	21.0	24.0	22.0	23.0	16.5	8.0	11.5
8	18.0	16.5	17.0	22.5	20.5	21.5	24.5	20.0	22.5	19.0	7.5	12.0
9	16.5	14.0	15.0	22.0	21.0	21.5	31.5	19.5	22.5	20.5	10.5	15.0
10	14.0	13.0	13.5	23.0	20.5	21.5	33.0	19.5	24.0	20.5	13.0	16.0
11	14.0	12.5	13.5	22.5	20.5	21.5	32.0	20.0	24.5	21.0	11.5	15.0
12	15.5	13.5	14.5	21.0	20.5	20.5	31.5	21.0	25.0	20.0	9.0	14.5
13	17.0	15.0	16.0	22.0	20.0	21.0	32.5	22.0	25.5	21.0	16.0	18.0
14	18.0	16.0	17.0	22.5	20.0	21.0	32.5	21.0	26.5	18.0	11.5	14.0
15	19.0	17.0	18.0	23.0	21.0	22.0	36.0	21.5	26.0	18.0	9.0	13.0
16	19.5	18.0	19.0	23.0	20.5	21.5	33.0	17.0	24.0	16.0	6.0	11.0
17	19.0	18.5	19.0	23.5	21.5	22.5	36.0	19.0	26.0	14.0	10.0	12.5
18	19.0	18.0	18.5	23.5	21.5	22.5	30.0	19.5	23.5	17.0	13.5	15.0
19	19.5	18.0	18.5	22.5	21.0	21.5	20.0	16.5	18.5	20.5	14.0	17.0
20	20.5	19.0	20.0	22.0	21.0	21.5	18.5	17.0	18.0	22.5	17.0	19.5
21	21.5	20.0	20.5	21.5	20.5	21.0	22.5	15.0	19.0	18.0	13.5	16.0
22	21.5	20.5	21.0	22.0	20.5	21.0	26.0	11.5	17.0	17.0	12.5	14.5
23	21.5	20.5	21.0	21.0	20.5	20.5	20.5	13.5	17.0	23.0	14.0	18.0
24	20.0	18.5	19.0	21.5	20.0	20.5	19.0	17.0	18.0	17.0	12.5	14.5
25	19.5	17.5	18.5	22.0	19.5	21.0	21.5	16.0	18.0	14.0	13.0	13.0
26	20.0	18.0	19.0	22.0	20.5	21.5	27.5	15.0	19.5	15.0	11.0	13.0
27	18.0	16.5	17.0	22.0	20.5	21.5	28.5	16.0	20.5	15.0	9.0	12.0
28	17.0	15.5	16.5	22.5	21.0	21.5	26.0	18.5	22.0	17.5	10.5	13.5
29	18.0	16.5	17.0	24.5	21.5	22.5	20.5	18.5	19.5	12.5	10.0	11.0
30	17.0	15.5	16.0	25.0	22.0	23.5	20.5	14.5	18.5	17.0	11.0	13.5
31	---	---	---	24.5	22.5	23.5	22.0	12.0	16.0	---	---	---
MONTH	21.5	11.5	17.0	25.0	14.5	21.0	36.0	11.5	22.0	23.0	6.0	14.5

01641000 HUNTING CREEK AT JIMTOWN, MD

LOCATION.--Lat 39°35′40″, long 77°23′50″, Frederick County, Hydrologic Unit 02070009, on right bank just downstream from highway bridge, 0.4 mi southwest of Jimtown, about 2.2 mi southeast of Thurmont, 2.2 mi upstream from Little Hunting Creek, and 5.2 mi upstream from mouth.

DRAINAGE AREA.--18.4 mi^2.

PERIOD OF RECORD.--October 1949 to current year.

REVISED RECORDS.--WSP 1332: 1952.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 355 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Slight regulation at irregular intervals caused by pumpage at recreation camp near Foxville, and from occasional draining and refilling of pond near Thurmont by Maryland Game and Inland Fish Commission. Regulation since spring of 1970 at low flow by Hunting Creek Lake, 5.6 miles upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--39 years, 26.7 ft^3/s, 19.71 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,670 ft^3/s, Oct. 9, 1976, gage height, 6.32 ft; minimum discharge, 0.4 ft^3/s, Sept. 9, 1966, gage height, 1.48 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1300	879	4.29	May 19	1900	1,490	5.06
May 19	0130	*1,820	*5.35	May 20	2300	501	3.56

Minimum discharge, 3.1 ft^3/s, Aug. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	e8.9	31	18	38	19	12	16	33	e5.4	3.9	4.5
2	6.3	e8.8	24	17	46	19	12	16	37	e5.3	3.6	4.4
3	7.5	e8.7	21	16	44	18	12	16	34	e5.3	3.6	4.5
4	7.2	e8.6	20	16	54	38	12	16	28	e5.1	3.6	15
5	7.2	e8.5	17	14	42	28	11	44	25	e4.9	3.7	6.7
6	8.6	e8.4	16	e13	e37	22	12	204	20	e4.7	3.8	4.9
7	11	e8.3	15	e13	e36	20	46	123	16	e4.5	3.9	4.6
8	e8.7	e8.4	14	e13	e35	19	56	80	20	e4.5	3.4	4.5
9	e8.0	e10	14	e15	e35	19	39	62	24	e4.5	3.4	4.6
10	e8.0	e18	14	e14	e35	19	31	54	21	e5.5	3.2	4.6
11	e8.0	14	13	e14	35	18	28	46	18	e5.3	3.1	4.6
12	e8.4	11	13	e14	45	18	25	38	16	e5.5	3.2	4.6
13	e7.8	11	12	14	e34	18	24	33	14	e5.8	3.7	5.5
14	e7.5	10	12	12	e32	17	23	29	13	e5.5	3.3	5.1
15	e7.5	9.2	28	12	40	17	22	27	12	e5.0	3.1	4.7
16	e7.5	8.7	18	12	39	16	20	30	11	e4.6	3.1	4.8
17	e7.5	12	15	13	29	15	19	64	13	e4.4	3.2	6.7
18	e7.5	17	14	24	28	15	21	238	11	e5.5	3.6	5.3
19	e7.5	11	14	18	41	15	22	874	11	e7.2	4.3	4.8
20	e8.0	11	24	122	47	14	20	338	10	5.3	8.0	e5.5
21	e9.0	10	17	42	33	13	18	251	8.9	7.5	4.8	e5.0
22	e8.5	9.4	16	37	30	13	17	161	7.9	4.6	4.2	e4.8
23	e8.0	9.2	15	32	30	13	17	110	7.4	5.5	8.5	e4.8
24	e7.4	9.8	14	29	28	13	19	138	6.7	5.7	14	e5.5
25	e7.2	9.7	16	32	26	12	17	126	6.4	4.9	5.3	e10
26	e9.0	9.6	22	31	25	21	16	82	6.2	4.4	4.6	e6.5
27	e20	10	17	e29	25	15	22	66	e6.1	4.0	4.6	e5.0
28	e14	12	18	e28	25	13	24	57	e5.9	4.1	4.5	e4.8
29	e10	221	20	e27	23	13	20	50	e5.7	4.1	9.4	e4.6
30	e9.5	62	16	27	---	12	18	44	e5.6	4.1	5.4	e4.5
31	e9.0	---	15	33	---	12	---	34	---	4.4	4.6	---
TOTAL	267.5	574.2	535	751	1017	534	655	3467	453.8	157.1	144.6	165.4
MEAN	8.63	19.1	17.3	24.2	35.1	17.2	21.8	112	15.1	5.07	4.66	5.51
MAX	20	221	31	122	54	38	56	874	37	7.5	14	15
MIN	6.2	8.3	12	12	23	12	11	16	5.6	4.0	3.1	4.4
CFSM	.47	1.04	.94	1.32	1.91	.94	1.19	6.08	.82	.28	.25	.30
IN.	.54	1.16	1.08	1.52	2.06	1.08	1.32	7.01	.92	.32	.29	.33

CAL YR 1987 TOTAL 8416.0 MEAN 23.1 MAX 559 MIN 3.4 CFSM 1.25 IN. 17.01
WTR YR 1988 TOTAL 8721.6 MEAN 23.8 MAX 874 MIN 3.1 CFSM 1.30 IN. 17.63

e Estimated

01641510 FISHING CREEK TRIBUTARY NEAR LEWISTOWN, MD

LOCATION.--Lat 39°33'09", long 77°26'48", Frederick County, Hydrologic Unit 02070009, on right bank 800 ft upstream from entrance to Lewistown State Fish Hatchery, 1.2 mi west of U.S. Route 15, 1.7 mi west of Lewistown, and 0.6 mi upstream from Fishing Creek.

DRAINAGE AREA.--0.40 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1987 to September 1988.

GAGE.--Water-stage recorder. Elevation of gage is 575 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Water-discharge records good except those for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33 ft^3/s, May 18, 1988, gage height, 2.60 ft; minimum discharge, 0.03 ft^3/s, Aug. 15, 1988, gage height, 1.54 ft.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 10 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 18	2400	*33	*2.60	May 20	2115	12	2.27
May 19	1600	11	2.23				

Minimum discharge, 0.03 ft^3/s, Aug. 15, gage height, 1.54 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.11	.61	.42	.68	.63	.47	.52	1.5	.34	.15	.11
2	.10	.11	.60	.41	.63	.63	.47	.50	1.4	.32	.15	.11
3	e.11	.09	.61	.38	.63	.63	.43	.47	1.4	.29	.15	.11
4	e.11	.08	.63	.38	.65	.83	.43	.47	1.2	.26	.15	.31
5	e.08	e.08	.60	.38	.63	.67	.43	.82	1.1	.26	.14	.14
6	.12	e.07	.54	.38	.63	.63	.43	1.5	1.0	.23	.14	.11
7	.14	e.07	.54	.38	.63	.63	.85	1.2	.95	.22	.15	.13
8	.09	e.07	.49	.38	.63	.63	.68	1.2	.86	.20	.12	.13
9	e.08	e.08	.48	.38	.63	.63	.63	1.2	.87	.20	.12	.13
10	e.08	.42	.48	.38	.63	.63	.63	1.4	.79	.19	.12	.11
11	e.09	.18	.48	.38	.63	.63	.63	1.3	.73	.22	.11	.11
12	e.09	.17	.43	.38	.79	.63	.63	1.2	.66	.33	.09	.11
13	e.08	.19	.43	.38	.76	.63	.63	1.1	.61	.22	.07	.11
14	e.08	.15	.43	.35	.76	.63	.63	1.1	.57	.19	.07	.11
15	e.07	.15	.64	.32	.83	.60	.63	1.0	.56	.18	.07	.11
16	e.07	.15	.47	.32	.73	.60	.63	1.0	.52	.18	.07	.11
17	.07	.24	.43	.33	.69	.63	.63	1.2	.59	.18	.07	.15
18	e.07	.20	.43	.46	.69	.63	.67	3.1	.53	.20	.09	.12
19	e.07	.15	.43	.40	.76	.63	.62	11	.46	.22	.13	.11
20	e.08	e.14	.55	1.3	.74	.61	.57	8.1	.43	.23	.16	.11
21	e.08	e.13	.42	.76	.69	.57	.57	6.4	.41	.25	.13	.11
22	e.08	e.12	.38	.76	.64	.54	.57	5.2	.38	.21	.11	.11
23	e.07	e.11	.35	.76	.63	.52	.61	4.3	.38	.22	.31	.11
24	e.07	e.11	.32	.76	.63	.51	.61	4.0	.38	.20	.20	.12
25	e.07	e.11	.36	.83	.63	.47	.57	3.6	.37	.17	.13	.17
26	e.07	e.11	.46	.86	.63	.70	.54	3.0	.34	.18	.13	.13
27	.65	e.11	.38	.76	.63	.53	.60	2.6	.34	.18	.12	.12
28	.17	.33	.38	.76	.63	.52	.58	2.4	.34	.17	.12	e.11
29	.11	2.6	.38	.72	.63	.49	.52	2.1	.34	.16	.23	e.10
30	.11	.83	.38	.65	---	.47	.52	2.0	.34	.15	.14	e.10
31	.11	---	.38	.66	---	.47	---	1.7	---	.15	.12	---
TOTAL	3.38	7.46	14.49	16.77	19.49	18.55	17.41	76.68	20.35	6.70	4.06	3.72
MEAN	.11	.25	.47	.54	.67	.60	.58	2.47	.68	.22	.13	.12
MAX	.65	2.6	.64	1.3	.83	.83	.85	11	1.5	.34	.31	.31
MIN	.07	.07	.32	.32	.63	.47	.43	.47	.34	.15	.07	.10
CFSM	.27	.62	1.17	1.35	1.68	1.50	1.45	6.18	1.70	.54	.33	.31
IN.	.31	.69	1.35	1.56	1.81	1.73	1.62	7.13	1.89	.62	.38	.35

WTR YR 1988 TOTAL 209.06 MEAN .57 MAX 11 MIN .07 CFSM 1.43 IN. 19.44

e Estimated

01641510 FISHING CREEK TRIBUTARY NEAR LEWISTOWN, MD--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1987 to September 1988.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1987 to current year.
WATER TEMPERATURE: October 1987 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1987.

REMARKS.--Periods of missing record are due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 90 microsiemens, Oct. 29, 1988; minimum, 14 microsiemens, on many days in 1988.
WATER TEMPERATURE: Maximum daily, 23.0°C, Aug. 15, 1988; minimum daily, 1.0°C, Jan. 6, 7, 8, 15, 16, 1988.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 90 microsiemens, Oct. 29; minimum 14 microsiemens, on many days in 1988.
WATER TEMPERATURE: Maximum daily, 23.0°C, Aug. 15; minimum daily, 1.0°C, Jan. 6, 7, 8, 15, 16.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	20	18	19	22	18	20	16	14	15
2	---	---	---	19	18	18	19	17	18	18	16	17
3	---	---	---	19	17	18	17	16	17	17	15	16
4	---	---	---	18	17	18	17	16	16	17	16	16
5	---	16	17	21	18	19	17	15	16	17	14	15
6	18	16	17	32	17	19	17	16	17	16	14	14
7	18	17	18	69	26	49	17	16	17	16	14	15
8	18	16	17	72	21	41	19	16	17	16	15	15
9	17	16	17	57	22	35	21	18	19	17	15	16
10	18	16	17	45	21	31	22	20	21	17	16	17
11	18	16	17	31	23	26	23	21	22	18	16	17
12	17	16	16	24	21	23	23	21	22	18	17	18
13	17	16	16	23	21	22	22	20	21	18	17	18
14	17	16	16	21	20	21	22	20	21	20	16	17
15	17	15	16	21	19	20	27	22	24	17	16	17
16	17	15	16	21	19	20	27	23	25	17	16	17
17	17	15	16	33	20	23	24	20	22	18	16	17
18	17	15	16	33	25	29	22	18	20	22	18	20
19	16	14	15	26	21	23	19	17	18	21	17	18
20	21	15	16	23	20	21	21	17	19	27	21	25
21	22	18	19	21	18	19	21	17	19	22	19	20
22	19	17	18	20	17	18	18	17	17	20	18	19
23	19	18	18	19	17	18	18	17	18	19	17	18
24	20	18	19	19	17	18	18	17	18	19	17	18
25	21	19	19	19	17	17	18	16	17	21	18	19
26	21	18	20	18	16	17	18	17	18	21	19	20
27	44	19	27	18	16	17	18	17	17	20	19	19
28	57	37	45	24	17	20	17	16	17	20	18	19
29	90	22	40	36	24	30	17	16	17	19	17	18
30	23	20	21	32	22	26	17	14	16	18	17	17
31	21	18	20	---	---	---	15	14	15	19	17	18
MONTH	---	---	---	72	16	23	27	14	19	27	14	18

01641510 FISHING CREEK TRIBUTARY NEAR LEWISTOWN, MD--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	19	18	18	19	16	17	18	17	17	22	16	18
2	20	17	18	18	16	17	18	16	17	24	16	19
3	19	18	19	17	16	17	18	17	18	18	17	17
4	20	18	19	22	16	19	18	18	18	18	16	17
5	19	17	18	21	17	18	18	17	18	23	17	21
6	18	17	18	18	16	17	18	16	17	23	21	22
7	17	17	17	17	16	17	25	17	21	21	19	20
8	17	16	17	18	17	18	22	18	20	20	18	19
9	17	16	17	19	15	17	18	16	17	19	18	18
10	18	16	17	16	15	16	17	16	16	20	18	19
11	17	16	17	17	15	16	16	15	15	19	18	19
12	18	17	18	17	16	17	18	14	16	19	18	18
13	18	16	17	18	16	17	17	15	16	18	17	18
14	17	16	16	17	16	17	17	16	16	18	17	17
15	18	16	17	18	16	17	19	16	17	18	17	17
16	19	17	18	18	16	17	17	16	16	17	16	17
17	20	16	17	---	---	---	17	16	16	19	16	17
18	18	16	17	---	---	---	17	16	17	22	19	20
19	19	16	17	---	---	---	17	15	16	21	16	18
20	20	16	18	---	---	---	17	16	16	18	15	17
21	17	15	17	---	---	---	17	15	16	19	15	16
22	19	16	17	18	---	17	17	16	16	17	15	16
23	19	16	18	19	17	18	18	16	16	18	15	16
24	21	17	18	19	17	18	18	16	17	20	16	17
25	22	16	17	19	18	18	17	16	16	19	15	16
26	17	16	17	23	18	22	18	15	16	17	15	16
27	17	16	17	21	19	20	22	16	18	16	15	16
28	17	16	17	20	18	19	21	16	18	20	15	16
29	17	16	17	18	16	17	21	16	17	16	15	16
30	---	---	---	17	16	16	22	17	19	18	15	16
31	---	---	---	17	16	17	---	---	---	17	16	16
MONTH	22	15	17	---	---	---	25	14	17	24	15	18

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

01641510 FISHING CREEK TRIBUTARY NEAR LEWISTOWN, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	10.5	9.5	10.0	8.5	8.0	8.0	5.0	4.5	5.0
2	---	---	---	11.0	10.0	10.5	8.0	7.0	7.5	5.0	3.5	4.0
3	---	---	---	11.5	10.5	11.0	7.5	7.0	7.5	4.0	3.5	3.5
4	---	---	---	12.0	11.0	11.5	7.5	7.0	7.0	4.5	3.5	4.0
5	---	---	---	12.0	10.5	11.5	7.0	6.5	6.5	3.5	1.5	2.5
6	13.0	11.5	12.0	10.5	8.5	9.5	6.5	6.0	6.5	1.5	1.0	1.5
7	13.0	12.0	12.5	9.0	8.0	8.5	6.5	5.5	6.0	1.5	1.0	1.5
8	12.0	11.0	11.5	10.0	9.0	9.5	6.5	6.0	6.5	2.5	1.0	2.0
9	11.0	10.0	10.5	11.0	10.0	10.5	7.5	6.0	7.0	2.5	2.0	2.5
10	12.0	11.0	11.5	11.0	8.0	9.5	8.0	7.5	8.0	2.5	2.0	2.0
11	12.5	11.5	12.0	8.0	7.0	7.5	8.0	7.5	7.5	2.0	1.5	2.0
12	11.5	10.5	11.0	7.0	6.5	6.5	8.0	7.0	7.5	2.5	1.5	2.0
13	10.5	10.0	10.5	7.5	6.5	7.0	7.0	6.5	7.0	3.0	2.0	3.0
14	10.5	9.5	10.0	8.5	7.0	8.0	7.0	6.5	6.5	2.0	1.5	1.5
15	10.5	9.5	10.0	8.5	8.0	8.0	7.0	6.5	7.0	2.0	1.0	1.5
16	11.5	10.0	11.0	9.0	8.0	8.5	6.5	5.5	6.0	2.0	1.0	1.5
17	11.5	10.5	11.0	10.5	9.0	9.5	5.5	5.0	5.5	3.0	2.0	2.5
18	12.0	11.0	11.5	10.5	9.5	10.5	5.0	4.5	5.0	3.5	2.5	3.0
19	12.0	11.0	11.5	9.5	9.0	9.5	6.0	5.0	5.5	4.0	3.0	3.5
20	12.0	11.5	12.0	9.0	7.5	8.5	7.0	5.5	6.5	5.0	3.5	4.5
21	12.0	10.0	11.5	7.5	5.5	6.5	7.0	6.0	6.5	5.5	5.0	5.0
22	10.0	9.5	10.0	5.5	5.0	5.5	6.0	5.5	6.0	5.0	4.5	5.0
23	10.0	9.5	9.5	6.0	5.0	5.5	6.5	6.0	6.0	5.0	4.5	4.5
24	11.0	9.5	10.0	7.5	6.0	7.0	6.5	5.5	6.5	5.5	4.5	5.0
25	11.0	10.0	10.5	8.5	7.5	8.0	8.0	6.5	7.5	5.5	5.0	5.0
26	10.0	9.0	9.5	9.5	8.0	8.5	8.0	7.0	8.0	5.0	3.0	4.0
27	9.5	9.0	9.0	8.5	7.5	8.0	7.0	6.5	7.0	3.5	3.0	3.0
28	9.5	9.0	9.5	7.5	7.5	7.5	6.5	5.5	6.0	3.5	2.5	3.0
29	9.5	8.5	9.0	9.5	7.5	8.5	5.5	4.5	5.5	3.5	2.5	3.0
30	9.5	8.0	9.0	9.5	8.0	9.0	4.5	3.5	4.0	4.5	3.0	3.5
31	10.0	9.0	9.5	---	---	---	4.5	3.5	4.0	5.5	4.0	4.5
MONTH	---	---	---	12.0	5.0	8.5	8.5	3.5	6.5	5.5	1.0	3.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	7.5	5.5	6.5	6.5	5.0	5.5	11.0	10.0	10.5	12.0	10.0	11.0
2	8.5	7.5	8.0	7.0	5.0	6.0	11.5	10.0	11.0	12.0	10.5	11.5
3	7.5	6.5	7.0	7.5	7.0	7.0	11.5	10.5	11.0	11.5	10.5	11.0
4	6.5	5.5	6.5	7.5	6.5	7.0	13.0	11.0	12.0	11.5	11.0	11.0
5	5.5	4.0	5.0	7.0	5.5	6.5	13.0	10.5	12.0	11.5	11.0	11.5
6	4.0	3.0	3.5	7.0	5.5	6.0	13.0	11.0	12.0	12.0	11.5	11.5
7	3.5	2.5	3.0	8.0	6.0	7.0	11.0	9.5	10.0	13.5	11.5	12.5
8	4.0	3.0	3.5	8.0	6.0	7.0	10.0	9.0	9.5	13.0	12.0	12.5
9	4.5	3.5	4.0	8.5	7.0	7.5	10.5	8.5	9.5	13.0	12.0	12.5
10	5.0	4.0	4.5	8.5	7.0	8.0	11.0	8.5	9.5	13.5	12.5	13.0
11	5.5	4.5	5.0	8.5	6.5	7.5	11.0	8.5	10.0	13.5	12.5	13.0
12	5.5	3.5	5.0	9.0	6.5	8.0	9.5	9.0	9.5	13.0	12.0	12.5
13	3.5	3.0	3.0	9.5	7.5	8.5	10.5	8.0	9.5	13.5	12.5	13.0
14	4.0	2.5	3.0	7.5	6.0	7.0	10.0	8.0	9.0	13.5	13.0	13.0
15	5.0	3.5	4.0	6.0	5.0	5.5	10.5	9.0	9.5	13.5	13.0	13.0
16	5.5	4.5	5.0	6.5	4.5	5.5	9.5	8.0	8.5	13.0	13.0	13.0
17	6.0	4.5	5.0	---	---	---	10.5	8.0	9.0	13.5	13.0	13.0
18	6.5	5.0	6.0	---	---	---	10.0	9.5	9.5	13.5	12.5	13.0
19	6.0	5.5	6.0	---	---	---	10.0	8.5	9.0	14.0	13.0	13.5
20	7.0	6.0	6.5	---	---	---	10.5	8.0	9.5	13.0	12.5	13.0
21	6.0	4.5	5.0	---	---	---	11.5	9.5	10.5	13.0	12.5	12.5
22	5.5	4.0	5.0	6.5	---	---	12.0	9.5	10.5	13.0	12.0	12.5
23	6.5	5.5	6.0	7.5	5.0	6.5	12.0	10.5	11.0	13.0	12.0	12.5
24	6.0	5.0	5.5	10.0	7.0	8.5	12.0	11.5	11.5	13.0	12.5	12.5
25	5.5	4.5	5.0	11.0	9.0	10.0	13.0	10.5	12.0	12.5	11.5	12.0
26	5.5	4.0	5.0	11.0	10.0	10.5	12.5	10.5	11.5	12.0	11.0	11.5
27	5.5	5.0	5.0	10.0	8.0	9.5	12.0	10.0	11.0	12.5	11.5	12.0
28	6.0	5.0	5.5	9.5	7.5	8.5	11.5	10.5	11.0	13.0	12.0	12.5
29	6.5	4.5	5.5	10.5	8.0	9.0	10.5	9.5	10.0	13.5	12.5	13.0
30	---	---	---	10.5	8.5	9.5	11.0	9.5	10.5	14.0	13.0	13.5
31	---	---	---	11.0	9.5	10.5	---	---	---	14.5	13.5	14.0
MONTH	8.5	2.5	5.0	---	---	---	13.0	8.0	10.5	14.5	10.0	12.5

01641510 FISHING CREEK TRIBUTARY NEAR LEWISTOWN, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.0	14.0	14.5	16.0	15.0	15.5	20.0	---	---	18.5	17.5	18.5
2	14.5	13.0	14.0	---	15.0	---	20.0	19.5	20.0	18.5	17.5	18.0
3	13.0	12.5	13.0	16.5	15.5	16.0	20.5	20.0	20.0	18.5	17.5	18.0
4	12.5	12.0	12.5	---	16.0	---	21.0	20.0	20.5	18.5	18.0	18.5
5	13.5	12.0	13.0	---	16.5	---	21.5	20.5	21.0	18.5	17.5	18.0
6	14.5	13.5	14.0	18.0	---	---	21.5	20.0	21.0	17.5	16.0	16.5
7	15.5	14.0	15.0	19.0	17.5	18.5	20.5	20.0	20.0	16.5	15.5	16.0
8	15.0	14.0	14.5	19.0	18.0	18.5	20.5	19.5	20.0	16.5	15.0	16.0
9	14.0	13.0	13.5	19.0	18.5	19.0	20.0	19.5	20.0	17.0	16.0	16.5
10	13.0	12.5	13.0	19.5	18.5	19.0	20.5	20.0	20.5	18.0	17.0	17.5
11	13.5	12.5	13.0	20.0	19.0	19.5	21.0	20.0	20.5	18.0	17.0	17.5
12	14.5	13.0	14.0	19.5	19.0	19.0	21.5	20.5	21.0	17.5	16.5	17.5
13	15.5	14.0	15.0	19.5	18.5	19.0	22.0	21.0	21.5	19.0	17.5	18.5
14	16.0	15.0	15.5	20.0	19.0	19.5	22.5	21.5	22.0	19.0	17.5	18.0
15	16.5	15.5	16.0	20.5	19.5	20.0	23.0	21.5	22.5	17.5	16.5	17.0
16	17.0	16.0	16.5	20.5	19.5	20.0	22.0	21.5	22.0	16.5	15.5	16.5
17	17.0	16.0	16.5	21.0	20.0	20.5	22.5	21.0	22.0	16.5	16.0	16.5
18	16.5	16.0	16.5	21.0	20.0	20.5	22.5	21.5	22.0	17.5	16.5	17.0
19	17.0	16.0	16.5	21.0	20.0	20.5	21.5	19.5	20.5	18.5	17.5	18.0
20	17.5	16.5	17.0	21.0	20.5	20.5	19.5	19.0	19.5	19.0	18.5	18.5
21	18.5	17.5	18.0	20.5	20.0	20.5	20.0	19.0	19.5	19.0	17.5	18.0
22	19.0	18.0	18.5	20.5	20.0	20.0	19.5	18.5	19.0	17.5	17.0	17.5
23	19.0	18.0	18.5	20.0	19.5	20.0	19.0	18.0	18.5	18.0	17.0	17.5
24	18.0	17.0	17.5	20.0	19.5	20.0	19.5	18.5	19.0	18.0	16.5	17.5
25	18.0	17.0	17.5	20.5	19.5	20.0	19.5	18.5	19.0	16.5	15.0	15.5
26	18.0	17.0	17.5	20.5	19.5	20.0	19.5	19.0	19.5	16.0	15.0	15.5
27	17.5	16.5	17.0	20.0	19.5	19.5	20.0	19.5	20.0	16.0	15.0	15.5
28	17.0	16.0	16.5	20.0	19.5	19.5	20.5	20.0	20.5	16.5	15.0	16.0
29	17.5	16.5	17.0	20.5	19.5	20.0	20.5	20.0	20.5	16.0	14.5	15.0
30	16.5	16.0	16.0	20.5	19.5	20.0	20.0	19.0	19.5	15.5	14.5	15.0
31	---	---	---	18.5	19.0	19.5	19.0	18.0	18.5	---	---	---
MONTH	19.0	12.0	15.5	21.0	15.0	---	23.0	18.0	20.5	19.0	14.5	17.0

01643000 MONOCACY RIVER AT JUG BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°24′13″, long 77°21′58″, Frederick County, Hydrologic Unit 02070009, on right bank 0.2 mi upstream from Jug Bridge on U.S. Highway 40, 0.4 mi downstream from Linganore Creek, 2.0 mi east of Frederick, and 16.9 mi upstream from mouth.

DRAINAGE AREA.--817 mi^2.

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for October, November 1929, published in WSP 1302.

REVISED RECORDS.--WSP 711: 1930.

GAGE.--Water-stage recorder. Nonrecording gage at site 0.2 mile downstream. Datum of gage is 231.92 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Occasional regulation at low and medium flows since September 1972 by Linganore Reservoir, total capacity, 883,200,000 gal, 2.8 mi upstream from station. National Weather Service gage height telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--59 years, 928 ft^3/s, 15.42 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,600 ft^3/s, June 23, 1972, gage height, 35.9 ft, from floodmark; minimum daily, 19 ft^3/s, Sept. 7-13, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1889 reached a stage of 30 ft, from floodmarks, discharge, 56,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 30	1400	22,900	18.28	May 19	0715	*23,300	*18.47
Jan. 20	2130	12,600	13.25				

Minimum discharge, 84 ft^3/s, Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	286	3790	772	1670	702	468	490	860	166	157	128
2	176	259	1900	829	2930	660	458	437	800	162	150	116
3	192	239	1410	693	3150	642	447	406	759	160	143	102
4	210	232	1300	645	2410	925	447	401	707	157	137	248
5	243	229	1250	522	2920	3140	441	521	655	153	131	401
6	197	216	1020	415	1390	1560	420	2960	596	145	125	347
7	216	201	859	e475	1050	1220	633	4750	538	143	129	207
8	236	195	769	506	1050	1060	1560	2060	507	138	142	145
9	243	195	725	470	966	953	1160	1420	550	141	160	120
10	204	292	694	471	900	928	866	1180	582	142	141	109
11	187	1160	662	e465	829	854	736	1470	521	143	127	100
12	178	990	622	e420	1030	756	661	1180	452	164	119	95
13	170	1050	573	413	1280	727	613	907	409	206	115	94
14	164	990	523	423	804	703	574	791	380	189	109	92
15	159	786	717	389	844	649	542	706	356	159	110	93
16	156	586	1610	348	1590	602	511	667	334	147	108	89
17	154	507	1040	333	1330	565	481	983	337	133	94	92
18	154	867	758	534	1010	541	476	7590	329	156	98	99
19	148	1080	658	1040	1020	532	545	19900	309	175	99	103
20	153	665	828	8330	3320	525	522	7840	297	300	118	133
21	200	550	1320	5040	2230	495	458	6600	281	502	119	106
22	195	469	935	1770	1350	460	422	3590	263	432	128	96
23	175	412	790	1310	1180	444	396	2520	255	334	114	93
24	159	385	712	1100	1140	439	451	3350	238	484	287	92
25	151	376	672	1040	993	436	458	3310	223	486	294	141
26	151	362	1020	1140	866	670	415	2510	213	259	256	137
27	206	348	1350	868	816	1040	388	1730	201	250	172	144
28	913	387	958	751	802	730	824	1450	190	294	128	125
29	990	4580	1030	713	755	570	787	1270	183	249	182	112
30	473	19700	970	706	---	517	559	1120	173	190	159	106
31	342	---	706	769	---	485	---	980	---	177	142	---
TOTAL	7678	38594	32171	33700	41625	24530	17719	85089	12498	6936	4493	4065
MEAN	248	1286	1038	1087	1435	791	591	2745	417	224	145	135
MAX	990	19700	3790	8330	3320	3140	1560	19900	860	502	294	401
MIN	148	195	523	333	755	436	388	401	173	133	94	89
CFSM	.30	1.57	1.27	1.33	1.76	.97	.72	3.36	.51	.27	.18	.17
IN.	.35	1.76	1.46	1.53	1.90	1.12	.81	3.87	.57	.32	.20	.19

CAL YR 1987 TOTAL 310028 MEAN 849 MAX 19700 MIN 79 CFSM 1.04 IN. 14.12
WTR YR 1988 TOTAL 309098 MEAN 845 MAX 19900 MIN 89 CFSM 1.03 IN. 14.07

e Estimated

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD

LOCATION.--Lat 39°23'16", long 77°22'40", Frederick County, Hydrologic Unit 02070009, at Reich's Ford Bridge, 1.1 mi downstream from U.S. Highway 40, 1.2 mi downstream from gaging station, 2 mi southeast of Frederick, and 15.0 mi upstream from mouth.

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: October 1960 to current year.
SUSPENDED-SEDIMENT DISCHARGE: October 1960 to current year.

REMARKS.--Water temperatures are measured daily in field by local observer at time of sampling. Water-discharge records for Monocacy River at Jug bridge near Frederick (station 01643000) are used for computation of sediment loads. Prior to 1970, published as Monocacy River at Jug Bridge near Frederick (station 01643000).

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURE (water years 1961-72, 1975, 1977, 1980-87): Maximum daily, 32.0°C, July 21, 1980; minimum, daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATION: Maximum daily mean, 2,000 mg/L, July 10, 1970; minimum daily mean, 1 mg/L on many days in water years 1961-67, 1970, 1972, 1982, 1985.
SEDIMENT LOAD: Maximum daily, 134,000 tons, June 22, 1972; minimum daily, 0.39 ton, Dec. 14, 1981.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATION: Maximum daily mean, 1,150 mg/L, May 19; minimum daily mean, 2 mg/L, Aug. 13-16.
SEDIMENT LOAD: Maximum daily, 61,700 tons, May 19; minimum daily, 0.76 ton, Aug. 17.

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
NOV							
29...	1850	10700	774	22300	39	45	61
30...	1415	22700	318	19500	--	60	71
JAN							
20...	1600	12600	562	19100	28	43	61

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM
NOV						
29...	77	86	96	99	100	100
30...	84	94	98	99	100	100
JAN						
20...	76	88	94	97	99	100

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	9.0	10.0	---	5.0	8.0	---	---	---	---	27.0	22.0
2	18.0	12.0	6.0	---	6.0	8.0	---	---	---	---	27.0	23.0
3	15.0	14.0	8.0	---	5.0	7.0	---	---	---	---	---	19.0
4	15.0	15.0	7.0	4.0	---	---	---	---	---	---	26.0	---
5	16.0	14.0	7.0	.0	3.0	---	---	---	---	---	29.0	---
6	16.0	11.0	7.0	---	---	---	---	---	---	---	27.0	19.0
7	16.0	11.0	6.0	---	---	---	---	---	---	---	29.0	18.0
8	15.0	11.0	6.0	---	3.0	---	---	---	---	---	28.0	18.0
9	14.0	12.0	---	---	3.0	---	---	---	---	---	25.0	19.0
10	15.0	11.0	6.0	---	5.0	---	---	---	---	---	27.0	22.0
11	14.0	7.0	---	---	---	---	---	---	---	---	27.0	21.0
12	14.0	7.0	---	---	---	---	---	---	---	---	31.0	19.0
13	13.0	9.0	---	---	---	---	---	---	---	---	29.0	21.0
14	13.0	9.0	---	---	---	---	---	---	---	---	27.0	19.0
15	---	7.0	---	---	---	---	---	---	---	---	26.0	21.0
16	14.0	10.0	---	---	5.0	---	---	---	---	---	29.0	21.0
17	14.0	11.0	---	---	6.0	---	---	---	---	---	25.0	19.0
18	15.0	13.0	---	3.0	7.0	---	---	---	---	---	29.0	21.0
19	15.0	12.0	---	3.0	---	---	---	---	---	---	25.0	22.0
20	15.0	10.0	---	2.0	5.0	---	---	---	---	---	22.0	21.0
21	14.0	10.0	---	---	3.0	---	---	---	---	---	22.0	22.0
22	12.0	4.0	---	---	5.0	---	---	---	---	---	21.0	22.0
23	12.0	6.0	---	---	5.0	---	---	---	---	---	21.0	19.0
24	12.0	7.0	---	---	---	---	---	---	---	---	24.0	18.0
25	12.0	9.0	---	---	---	---	---	---	---	---	21.0	17.0
26	13.0	10.0	---	---	---	---	---	---	---	---	21.0	17.0
27	9.0	8.0	---	1.0	2.0	---	---	---	---	---	27.0	20.0
28	11.0	7.0	---	.0	5.0	---	---	---	---	23.0	24.0	20.0
29	10.0	8.0	---	4.0	8.0	---	---	---	---	25.0	23.0	17.0
30	11.0	9.0	---	4.0	---	---	---	---	---	---	21.0	17.0
31	12.0	---	---	5.0	---	---	---	---	---	---	19.0	---

01643020 MONOCACY RIVER AT REICH'S FORD BRIDGE NEAR FREDERICK, MD--Continued

SEDIMENT, SUSPENDED CONCENTRATION (MG/L), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)	MEAN CONCEN-TRATION (MG/L)	LOAD (TONS/ DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9	4.4	21	16	115	1180	26	54	60	298	12	23
2	14	6.7	20	14	45	231	32	72	122	965	23	41
3	24	12	18	12	25	95	27	51	95	808	20	35
4	24	14	19	12	16	56	45	78	78	508	14	35
5	20	13	24	15	15	51	50	70	90	710	89	751
6	18	9.6	27	16	15	41	41	46	44	165	31	130
7	11	6.4	22	12	14	32	34	44	25	71	21	70
8	29	18	11	5.8	12	25	33	45	16	45	17	49
9	26	17	12	6.3	14	27	33	42	11	29	15	38
10	19	10	16	13	17	32	32	41	19	46	14	35
11	9	4.5	96	336	19	34	32	40	12	27	12	29
12	11	5.3	39	111	20	34	31	35	26	72	10	21
13	18	8.3	29	82	19	29	31	35	40	138	10	19
14	14	6.2	37	99	21	30	29	33	18	39	9	18
15	11	4.7	27	57	32	62	27	28	24	55	8	14
16	8	3.4	12	19	86	374	25	23	57	245	7	12
17	4	1.7	13	18	54	152	23	21	50	180	7	10
18	5	2.1	29	68	26	53	22	32	47	128	6	9.1
19	9	3.6	41	120	16	28	28	79	29	80	6	8.7
20	16	6.6	24	43	21	47	375	11100	283	2960	6	8.4
21	26	14	21	31	59	210	263	4650	152	950	5	7.3
22	29	15	25	32	43	109	41	196	61	222	5	6.1
23	25	12	26	29	22	47	37	131	22	70	5	5.5
24	37	16	7	7.3	16	31	28	83	39	120	4	5.4
25	48	20	7	7.1	16	29	23	65	13	35	4	5.3
26	47	19	8	7.8	23	63	20	62	9	21	9	16
27	50	31	9	8.5	61	222	17	40	8	18	17	47
28	104	286	11	11	29	75	17	34	16	35	10	19
29	78	227	356	8590	30	83	18	35	13	27	7	10
30	40	51	410	21500	28	73	11	21	---	---	6	8.1
31	26	24	---	---	17	32	18	37	---	---	5	6.9
TOTAL	---	872.5	---	31298.8	---	3587	---	17323	---	9067	---	1492.8
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14	18	27	35	149	346	11	5.0	5	5.6	31	11
2	14	17	23	27	133	287	11	4.7	19	21	43	13
3	14	17	21	23	122	251	10	4.5	13	13	56	15
4	14	17	21	22	109	209	10	4.3	8	6.7	75	50
5	14	16	29	41	97	171	10	4.0	7	5.2	117	127
6	13	15	271	2160	83	134	9	3.5	5	3.7	105	98
7	19	32	497	6380	71	103	9	3.4	3	4.1	77	43
8	41	175	170	944	65	89	8	3.1	3	3.8	44	17
9	32	100	105	403	74	109	9	3.3	4	4.0	34	11
10	25	58	83	264	80	126	9	3.3	4	3.4	32	9.4
11	21	42	110	437	67	95	9	3.4	4	3.1	32	8.6
12	19	35	83	264	54	66	11	4.8	3	2.1	32	8.2
13	18	30	59	145	46	51	16	8.7	2	1.4	31	7.9
14	17	26	50	106	41	42	14	7.0	2	1.5	30	7.5
15	16	24	43	82	37	36	10	4.5	2	1.6	27	6.8
16	15	21	40	72	33	30	9	3.6	2	1.0	19	4.6
17	15	19	66	174	34	31	8	2.8	3	.76	18	4.5
18	14	19	330	6770	33	29	15	8.5	9	2.4	21	5.6
19	16	24	1150	61700	30	25	26	20	30	8.0	24	6.7
20	16	22	344	7290	28	22	32	27	50	16	27	9.7
21	14	17	275	4910	25	19	33	30	60	19	21	6.0
22	13	15	347	3360	23	16	38	37	60	21	17	4.4
23	12	13	220	1500	22	15	40	40	73	22	16	4.0
24	14	17	317	2870	20	13	139	309	101	78	17	4.2
25	14	17	312	2790	18	11	65	89	55	44	42	16
26	13	14	219	1480	16	9.5	43	46	55	38	27	10
27	12	13	136	634	15	8.1	41	39	50	23	19	7.4
28	24	52	108	423	14	7.0	35	31	32	11	16	5.4
29	23	48	91	313	13	6.4	22	19	52	26	13	3.9
30	17	25	78	234	12	5.5	14	13	59	25	9	2.6
31	---	---	183	484	---	---	7	7.5	39	15	---	---
TOTAL	---	958	---	106337	---	2362.5	---	789.9	---	430.36	---	528.4

TOTAL LOAD FOR YEAR: 175047.26 TONS.

01643500 BENNETT CREEK AT PARK MILLS, MD

LOCATION.--Lat 39°17′40″, long 77°24′30″, Frederick County, Hydrologic Unit 02070009, on left bank 75 ft downstream from highway bridge, 0.2 mi south of Park Mills, 1.8 mi upstream from mouth, and 3.7 mi southwest of Urbana.

DRAINAGE AREA.--62.8 mi^2.

PERIOD OF RECORD.--July 1948 to September 1958. Annual maximum, water years 1960-66. August 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 240 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good except those for estimated daily discharges which are fair to poor. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--32 years (water years 1949-58, 1967-88), 69.5 ft^3/s, 15.03 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,200 ft^3/s, June 21, 1972, gage height, 22.1 ft, from flood-mark, from rating curve extended above 2,700 ft^3/s on basis of contracted-opening measurements at gage heights 11.15 ft, 14.33 ft, and 22.1 ft; minimum discharge, 0.30 ft^3/s, Sept. 8, 1966, gage height, 0.80 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	Unknown	2,520	7.29	May 19	0245	*9,680	*12.65
Jan. 20	0345	3,660	8.56	May 23	2345	5,980	10.40

Minimum daily discharge, 15 ft^3/s, Aug. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e30	37	e110	e64	102	59	66	53	129	37	29	18
2	e28	37	e90	e57	123	58	64	50	124	37	28	16
3	e40	37	e80	e54	148	58	65	50	116	35	26	16
4	e55	37	e90	e54	115	121	61	51	110	34	25	76
5	e31	37	e75	e50	96	122	e59	72	104	32	28	88
6	e31	36	e65	e48	86	83	e58	320	97	30	24	37
7	e50	37	e60	e45	e84	74	158	143	92	30	27	28
8	e35	37	e55	e45	e80	69	183	96	87	28	22	24
9	e30	37	e55	e43	77	70	111	81	98	37	20	23
10	30	83	e53	e43	71	66	93	76	90	35	19	23
11	31	102	e50	e40	69	64	82	79	82	29	19	20
12	31	68	e48	e40	105	63	77	68	78	33	18	20
13	29	75	e46	e38	78	63	72	62	72	32	17	23
14	29	65	e45	e37	e74	59	e67	58	69	e28	16	21
15	29	55	e110	e37	71	57	67	57	66	e26	16	18
16	30	51	e80	e39	95	55	64	70	64	e24	23	17
17	30	52	e65	e43	75	53	62	164	64	e23	15	e18
18	30	83	e60	109	72	53	68	623	65	e22	16	e23
19	28	57	e55	65	79	52	71	2220	60	e23	21	e21
20	32	54	e75	825	118	51	61	468	58	e120	47	e20
21	53	50	e65	167	86	49	58	583	55	86	35	e19
22	34	46	e60	110	76	50	56	298	52	43	21	e18
23	31	44	e55	93	77	49	56	666	50	80	20	e17
24	31	41	e52	84	73	50	62	1160	47	74	61	e17
25	32	e37	e58	91	69	240	55	523	46	39	30	e54
26	31	e37	e80	90	65	148	51	319	45	34	22	e30
27	57	e45	e62	e85	66	91	e80	249	43	45	19	e22
28	126	e200	e62	e80	66	81	e110	208	41	93	18	e19
29	50	e600	e72	e70	63	75	60	180	40	43	29	e18
30	43	e150	e60	66	---	70	57	158	38	34	25	e19
31	41	---	e62	85	---	70	---	142	---	33	19	---
TOTAL	1188	2327	2055	2797	2459	2323	2254	9347	2182	1299	755	783
MEAN	38.3	77.6	66.3	90.2	84.8	74.9	75.1	302	72.7	41.9	24.4	26.1
MAX	126	600	110	825	148	240	183	2220	129	120	61	88
MIN	28	36	45	37	63	49	51	50	38	22	15	16
CFSM	.61	1.24	1.06	1.44	1.35	1.19	1.20	4.80	1.16	.67	.39	.42
IN.	.70	1.38	1.22	1.66	1.46	1.38	1.34	5.54	1.29	.77	.45	.46

CAL YR 1987 TOTAL 29510.3 MEAN 80.9 MAX 2460 MIN 9.2 CFSM 1.29 IN. 17.48
WTR YR 1988 TOTAL 29769 MEAN 81.3 MAX 2220 MIN 15 CFSM 1.30 IN. 17.63

e Estimated

01645000 SENECA CREEK AT DAWSONVILLE, MD

LOCATION.--Lat 39°07'41", long 77°20'13", Montgomery County, Hydrologic Unit 02070008, on right bank 60 ft downstream from bridge on State Highway 28, 150 ft downstream from mouth of Great Seneca Creek, 0.5 mi east of Dawsonville, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--101 mi^2.
PERIOD OF RECORD.--September 1930 to current year.
REVISED RECORDS.--WSP 726: Drainage area. WSP 1232: 1930. WSP 1272: 1933. WSP 1432: 1934-35(M), 1941(M). WDR MD-DE-74-1: 1970(M).
GAGE.--Water-stage recorder. Concrete control since Mar. 3, 1934. Datum of gage is 214.02 ft above National Geodetic Vertical Datum of 1929. Sept. 26 to Nov. 9, 1930, chain gage, and Nov. 10, 1930, to Apr. 6, 1934, water-stage recorder, at highway bridge 60 ft upstream at same datum.
REMARKS.--No estimated daily discharges. Records good. Small diversion at times for irrigation upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--58 years, 103 ft^3/s, 13.85 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,100 ft^3/s, June 22, 1972, gage height, 16.4 ft, from high-water mark in gage house, from rating curve extended above 3,000 ft^3/s on basis of contracted-opening and flow over-road measurement at gage height 12.17 ft at gage; and contracted-opening and flow-over-road measurement at gage height 16.32 ft at site 5.0 mi downstream, adjusted for flow from intervening area; minimum discharge observed, 1.7 ft^3/s, Sept. 28, 29, 1930, gage height, 0.56 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1915	3,010	7.92	May 19	0215	*7,410	*9.81
Jan. 20	0730	2,480	7.45	July 20	2000	1,900	6.78
May 17	2030	2,970	7.89	July 23	1930	3,450	8.22

Minimum discharge, 33.0 ft^3/s, Aug. 15, 23, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	53	299	101	144	95	100	87	167	50	59	46
2	53	51	192	96	238	91	98	85	172	49	58	41
3	73	50	151	88	336	92	96	82	158	47	56	39
4	92	50	145	90	244	170	98	84	115	47	53	114
5	58	50	128	e84	183	236	94	155	109	45	52	112
6	54	51	108	e82	142	138	90	594	101	41	49	58
7	85	47	97	e78	128	122	308	251	95	40	54	53
8	64	46	94	e83	115	106	324	158	87	39	47	57
9	56	48	91	82	108	103	187	135	122	49	46	47
10	53	90	89	e75	114	102	147	136	99	61	42	48
11	53	217	90	e75	120	95	130	159	89	73	41	47
12	53	133	85	e75	270	92	114	114	85	116	40	59
13	52	114	80	76	146	98	106	101	83	68	40	55
14	49	93	74	e69	123	91	100	97	83	54	38	42
15	50	84	230	e69	114	88	99	89	82	43	39	38
16	51	76	166	e67	165	86	98	128	101	40	42	40
17	47	77	116	68	127	84	92	701	119	48	38	41
18	45	166	93	149	117	81	112	1480	86	51	37	41
19	44	101	89	129	125	84	137	3910	83	64	56	40
20	44	88	123	1490	216	83	99	744	79	412	87	44
21	73	82	106	367	147	79	95	1030	69	642	75	54
22	54	68	91	213	123	74	88	381	65	277	52	42
23	53	64	88	157	121	77	86	687	59	825	53	41
24	45	64	85	136	116	78	92	1430	57	527	103	43
25	45	65	87	144	105	77	86	750	57	189	93	99
26	45	64	148	156	101	413	84	399	57	127	58	62
27	70	68	118	e110	100	329	89	291	55	137	54	49
28	134	160	115	e100	98	162	199	238	54	109	52	43
29	74	1300	156	e94	96	136	104	210	54	88	72	40
30	59	1050	115	95	---	117	94	192	52	72	75	40
31	55	---	98	113	---	108	---	176	---	67	54	---
TOTAL	1837	4670	3747	4811	4282	3787	3646	15074	2694	4497	1715	1575
MEAN	59.3	156	121	155	148	122	122	486	89.8	145	55.3	52.5
MAX	134	1300	299	1490	336	413	324	3910	172	825	103	114
MIN	44	46	74	67	96	74	84	82	52	39	37	38
CFSM	.59	1.54	1.20	1.54	1.46	1.21	1.20	4.81	.89	1.44	.55	.52
IN.	.68	1.72	1.38	1.77	1.58	1.39	1.34	5.55	.99	1.66	.63	.58

CAL YR 1987 TOTAL 43657 MEAN 120 MAX 1650 MIN 22 CFSM 1.18 IN. 16.08
WTR YR 1988 TOTAL 52335 MEAN 143 MAX 3910 MIN 37 CFSM 1.42 IN. 19.28

e Estimated

01646500 POTOMAC RIVER NEAR WASHINGTON, DC

LOCATION.--Lat 38°56′58″, long 77°07′40″, Montgomery County, Md., Hydrologic Unit 02070008, on left bank just above Little Falls Dam, 1 mi upstream from District of Columbia boundary line, 1.2 mi upstream from Chain Bridge, 1.8 mi east of Langley, Fairfax County, Va., and at mile 117.4.

DRAINAGE AREA.--11,560 mi^2.

PERIOD OF RECORD.--March 1930 to current year.

REVISED RECORDS.--WSP 726: Drainage area. WDR MD-DE-75-1: 1973-74(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 37.95 ft above National Geodetic Vertical Datum of 1929. Prior to June 7, 1930, nonrecording gage, and June 7, 1930, to Jan. 22, 1965, water-stage recorder at site 1 mi upstream on right bank at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Diversions at Great Falls through aqueducts, and since June 1959, from gage pool at Little Falls Dam, for municipal supply of Washington, D.C.; since October 1958, at Rockville Filtration Plant, for municipal supply of city of Rockville; since April 1961, at Potomac Filtration Plant for water supply of Washington Suburban Sanitary District; since October 1961, at Fairfax Water Treatment Plant for water supply of city of Fairfax (from Goose Creek); since April 1964, at Violets Lock to Chesapeake and Ohio Canal; and since October 1985, at Fairfax County Water Authority Treatment Plant for water supply of the county. Low flow affected slightly prior to July 1981 by Stony River Reservoir, since December 1950, by Savage River Reservoir (see station 01597500), and since July 1981, by Jennings Randolph Lake. Gage-height telemeter at station.

AVERAGE DISCHARGE.--58 years, 11,510 ft^3/s, 13.52 in/yr, adjusted for diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 484,000 ft^3/s, Mar. 19, 1936, gage height, 28.1 ft, site then in use; minimum daily discharge observed at gaging station, 121 ft^3/s, Sept. 9, 1966, does not include diversion of 489 ft^3 for municipal use; minimum daily discharge (adjusted), 601 ft^3/s, Sept. 10, 1966, includes diversion of 449 ft^3/s for municipal use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 2, 1889, was of approximately the same magnitude as that of March 19, 1936.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 45,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 21	2230	58,100	7.10	May 19	0515	92,100	8.56
Apr. 9	1345	47,500	6.57	May 20	0615	*129,000	*9.83
May 8	0745	108,000	9.15	May 25	1700	63,300	7.55

Minimum daily discharge, 742 ft^3/s, Aug. 19, does not include diversion for municipal use; minimum daily (adjusted) discharge, 1,430 ft^3/s, Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3290	2850	34800	16900	10800	e6800	6880	5310	14300	2240	1830	1970
2	3050	2680	30600	14800	12800	6630	6520	5190	12500	2040	1590	2800
3	3240	2530	22900	13200	17300	6440	6210	5020	11300	1720	1510	2370
4	3400	2390	17000	11900	18400	6530	6050	4950	10400	1630	1500	2320
5	3320	2270	13500	e10500	20200	9310	5840	5590	9760	1510	1250	2610
6	3170	2140	11200	e9800	21500	12600	5610	13600	9010	1510	1180	2560
7	3260	2010	9530	e7000	18500	16400	7750	41100	8590	1410	1610	3570
8	2950	1910	8300	e5000	16300	14900	15200	100000	7790	1330	1440	4270
9	2800	1810	7420	e4900	15200	13100	44000	64300	7370	1270	1320	3450
10	2750	2120	6510	e4900	14300	11600	38500	41600	7220	1390	1250	2730
11	2650	3380	6250	e4800	12700	10700	27800	30900	7220	1340	1240	2340
12	2540	4160	5850	e4800	e12000	9850	21200	22800	7260	1700	1140	1960
13	2460	4330	5510	e4700	e11000	9150	17500	18500	6730	1540	1030	1800
14	2330	4310	5440	e4600	9920	8450	14800	15600	5840	1550	1020	1620
15	2270	4680	6520	e4580	9040	7910	13000	13100	5350	1510	882	1460
16	2200	4960	7880	e4700	9210	7320	11400	12300	4910	1400	1030	1440
17	1990	5360	7650	4860	10000	7020	10400	12900	4840	1230	889	1390
18	1990	6860	7340	5310	9330	6720	9420	22000	4610	1460	767	1380
19	1880	6430	7520	6230	8710	6400	8900	88600	4370	1660	742	1450
20	1940	6480	8210	16600	9750	5930	8400	125000	4200	1970	1340	1480
21	2080	5870	8420	39900	12000	5650	7870	114000	3910	5080	1460	2180
22	2590	5140	9380	51700	10700	5640	7240	88700	3600	5020	1420	2480
23	2440	4740	11400	35700	10300	5290	6780	58300	3190	3110	1390	2390
24	2070	4380	11200	26000	9880	5220	6340	59600	3100	7740	1680	1940
25	1920	4030	10300	20400	9270	4870	6220	61000	3150	3530	2370	1950
26	1770	3830	10100	18000	8580	7490	6020	51400	3010	3150	2300	1580
27	2060	3720	10700	15600	8040	9920	5950	37600	2950	3260	3090	1660
28	2980	4090	12300	13700	7580	7540	6390	28900	2620	2840	2830	1670
29	3430	9530	14300	11600	e7100	7350	6410	23300	2450	3110	2380	1730
30	3610	35800	14700	10300	---	7590	5880	19400	2340	2380	2140	1950
31	3110	---	16200	9970	---	7450	---	16400	---	1980	1990	---
TOTAL	81540	154790	358930	412950	350410	257770	350480	1206960	183890	72610	47610	64500
MEAN	2630	5160	11580	13320	12080	8315	11680	38930	6130	2342	1536	2150
MAX	3610	35800	34800	51700	21500	16400	44000	125000	14300	7740	3090	4270
MIN	1770	1810	5440	4580	7100	4870	5610	4950	2340	1230	742	1380
(†)	590	576	545	552	544	551	567	562	702	736	713	629
MEAN≠	3220	5736	12130	13870	12620	8866	12250	39490	6832	3078	2249	2779
CFSM≠	.28	.50	1.05	1.20	1.09	.77	1.06	3.42	.59	.27	.19	.24
IN≠	.32	.55	1.21	1.38	1.18	.88	1.18	3.94	.66	.31	.22	.27

CAL YR 1987 TOTAL 4185394 MEAN 11470 MAX 153000 MIN 757 MEAN≠ 12070 CFSM≠ 1.04 IN≠ 14.18
WTR YR 1988 TOTAL 3542440 MEAN 9679 MAX 125000 MIN 742 MEAN≠ 10290 CFSM≠ .89 IN≠ 12.12

e Estimated

† Diversions, in cubic feet per second, for municipal supply of Washington, D.C., Washington Suburban Sanitary District, city of Rockville, city of Fairfax (from Goose Creek), Fairfax County, and the Chesapeake and Ohio Canal (insignificant diversion to canal during current water year). Records provided by U.S. Army Corps of Engineers, Washington Suburban Sanitary Commission, city of Rockville, city of Fairfax, and Fairfax County Water Authority.

≠ Adjusted for diversion.

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC
(National stream-quality accounting network station)

LOCATION.--Lat 38°55'46", long 77°07'02", Arlington County, Va., Hydrologic Unit 02070010, under right downstream side of bridge on Virginia State Highway 123, and at river mile 115.9.

DRAINAGE AREA.--11,570 mi^2.

PERIOD OF RECORD.--Water years 1973 to current year. Prior to October 1977, published as "at Great Falls."

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1978 to September 1981 (discontinued).
pH: June 1978 to September 1981 (discontinued).
WATER TEMPERATURE: June 1978 to September 1981 (discontinued).
DISSOLVED OXYGEN: June 1978 to September 1981 (discontinued).
SUSPENDED SEDIMENT DISCHARGE: October 1978 to September 1981 (discontinued).

INSTRUMENTATION.--Water-quality monitor June 1978 to September 1981.

REMARKS--High flows are sampled from the George Mason Memorial Bridge (14th Street) located 6 mi downstream from Chain Bridge.

EXTREMES FOR PERIOD OF DAILY RECORD--
SPECIFIC CONDUCTANCE (water years 1979, 1981): Maximum, 598 microsiemens, Sept. 12, 1981; minimum, 116 microsiemens, Jan. 25, 1979.
pH (water years 1979, 1981): Maximum, 9.3 units, Mar. 29, 1981; minimum, 6.7 units, June 2, 1981.
WATER TEMPERATURE (water years 1979, 1981): Maximum, 31.0°C, July 23-24, 1978; minimum, 0.0°C on many days during winter periods.
DISSOLVED OXYGEN (water years 1979, 1981): Maximum, 16.4 mg/L, on many days in 1979; minimum, 5.6 mg/L, June 2, 1981.
SEDIMENT CONCENTRATION: Maximun daily mean, 812 mg/L, Sept. 6, 1979; minimum daily mean, 1 mg/L on many days during winter periods.
SEDIMENT LOAD: Maximum daily, 281,000 tons, Feb. 27, 1979; minimum daily, 3.2 tons, Jan. 5, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV												
10...	1045	2000	400	8.2	12.0	8.0	768	1.8	11.0	101	63	380
10...	1050	2000	395	8.3	12.0	8.0	768	--	11.0	101	--	--
JAN												
07...	1040	6960	266	7.6	0.0	-4.5	784	2.9	14.5	96	--	--
MAR												
01...	1100	8200	308	7.8	6.0	9.0	771	3.2	13.5	107	K7	E6
01...	1105	8200	305	8.0	6.0	9.0	771	--	13.5	107	--	--
MAY												
03...	1100	4400	303	8.1	16.0	16.0	768	1.7	9.5	96	K19	340
03...	1105	4400	303	8.2	16.0	16.0	768	--	9.5	96	--	--
JUL												
08...	1005	1420	395	7.9	29.0	31.0	767	--	7.5	97	--	--
08...	1010	1420	395	8.0	29.0	31.0	767	3.7	7.5	97	K440	1900
SEP												
07...	1045	3500	400	7.8	23.0	23.0	769	--	8.4	97	--	--
07...	1050	3500	400	7.9	23.0	23.0	769	4.0	8.4	97	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKA-LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	BICAR-BONATE WATER DIS IT FIELD MG/L AS HCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
NOV											
10...	49	12	23	3.1	--	129	157	70	21	0.40	0.20
10...	--	--	--	--	126	--	--	--	--	--	0.30
JAN											
07...	29	6.4	9.9	2.4	68	67	83	34	12	0.20	6.3
MAR											
01...	36	8.2	12	1.9	--	80	--	37	13	0.20	4.0
01...	--	--	--	--	82	--	--	--	--	--	3.8
MAY											
03...	35	7.9	12	2.0	--	83	101	40	14	0.20	0.83
03...	--	--	--	--	80	--	--	--	--	--	1.0
JUL											
08...	--	--	--	--	114	--	--	--	--	--	4.3
08...	43	12	18	2.8	--	108	132	56	19	0.30	4.4
SEP											
07...	--	--	--	--	95	--	--	--	--	--	6.0
07...	42	11	23	2.8	--	94	115	61	23	0.10	6.0

K: Results based on colony count outside the accepted range (non-ideal colony).

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)
NOV											
10...	254	260	--	<0.010	0.800	0.030	0.010	0.70	--	0.030	0.010
10...	--	--	0.837	0.003	0.840	--	0.030	0.30	<0.20	0.030	0.020
JAN											
07...	157	149	1.68	0.020	1.70	0.110	0.030	0.90	0.90	0.050	0.032
MAR											
01...	168	169	1.78	0.020	1.80	0.010	0.010	<0.20	--	0.030	0.010
01...	--	--	1.78	0.016	1.80	--	0.010	<0.20	--	0.030	0.020
MAY											
03...	167	166	0.920	0.010	0.930	0.010	0.020	0.30	--	0.030	0.020
03...	--	--	0.909	0.011	0.920	--	0.020	0.30	0.30	0.040	0.020
JUL											
08...	--	--	--	0.014	<0.100	--	0.040	0.60	0.60	0.040	0.010
08...	237	229	0.850	0.010	0.860	0.040	0.020	0.60	--	0.050	0.010
SEP											
07...	--	--	4.49	0.011	4.50	--	0.010	0.50	0.30	0.070	0.050
07...	232	233	--	<0.010	1.20	<0.010	0.020	0.50	--	0.060	0.050

DATE	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
NOV											
10...	<0.010	10	<1	38	<0.5	<1	<1	<3	2	13	<5
10...	0.010	20	--	--	--	--	--	--	--	--	--
JAN											
07...	0.031	<10	--	--	--	--	--	--	--	--	--
MAR											
01...	<0.010	<10	<1	33	<0.5	<1	<1	<3	2	19	<5
01...	<0.010	10	--	--	--	--	--	--	--	--	--
MAY											
03...	<0.010	<10	<1	35	<0.5	<1	<1	<3	1	24	<5
03...	<0.010	<10	--	--	--	--	--	--	--	--	--
JUL											
08...	<0.010	<10	--	--	--	--	--	--	--	--	--
08...	<0.010	--	--	--	--	--	--	--	--	--	--
SEP											
07...	<0.010	10	--	--	--	--	--	--	--	--	--
07...	0.040	<10	<1	45	<0.5	<1	<1	<3	1	10	<5

01646580 POTOMAC RIVER AT CHAIN BRIDGE AT WASHINGTON, DC--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV											
10...	6	13	0.2	<10	3	<1	<1.0	210	<6	<3	--
10...	--	--	--	--	--	--	--	--	--	--	4.8
JAN											
07...	--	--	--	--	--	--	--	--	--	--	2.9
MAR											
01...	10	20	<0.1	<10	2	<1	<1.0	150	<6	39	1.9
01...	--	--	--	--	--	--	--	--	--	--	2.1
MAY											
03...	9	10	<0.1	<10	2	<1	1.0	160	<6	5	3.6
03...	--	--	--	--	--	--	--	--	--	--	3.7
JUL											
08...	--	--	--	--	--	--	--	--	--	--	4.0
08...	--	--	--	--	--	--	--	--	--	--	--
SEP											
07...	--	--	--	--	--	--	--	--	--	--	5.8
07...	7	11	0.3	<10	1	<1	<1.0	220	<6	30	4.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
10...	1045	2000	11	59	84
10...	1050	2000	7	38	--
JAN					
07...	1040	6960	14	263	67
MAR					
01...	1100	8200	10	221	88
01...	1105	8200	48	1060	61
MAY					
03...	1100	4400	10	119	97
03...	1105	4400	8	95	--
JUL					
08...	1005	1420	28	107	--
08...	1010	1420	30	115	47
SEP					
07...	1045	3500	21	198	--
07...	1050	3500	10	94	84

RADIOCHEMICAL ANALYSES

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
MAR										
01...	1100	8200	<0.4	<0.4	2.0	<0.4	0.04	<0.4	1.5	0.24

01648000 ROCK CREEK AT SHERRILL DRIVE, WASHINGTON, DC

LOCATION.--Lat 38°58′21″, long 77°02′25″, District of Columbia, Hydrologic Unit 02070010, on left bank 125 ft downstream from Sherrill Drive Bridge in Rock Creek Park in Washington, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--62.2 mi^2.

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 1432: 1933(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 148.87 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good exept those for estimated daily discharges, which are fair. Flow affected by two upstream reservoirs which control flow from about 25 mi^2, Needwood Lake on Rock Creek since Sept. 1966 and Bernard Frank Lake on North Branch Rock Creek since February 1968. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--59 years, 62.1 ft^3/s, 13.56 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft^3/s, June 22, 1972, gage height, 16.2 ft, from flood-mark, from rating curve extended above 5,640 ft^3/s on basis of contracted-opening measurements at gage heights 13.19 ft and 16.2 ft; minimum discharge, 0.5 ft^3/s, Oct. 1-7, 1930, gage height, 1.04 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1630	1,370	6.24	May 24	0630	*1,830	*7.42

Minimum discharge, 8.6 ft^3/s, Sept. 16, 17, gage height, 1.23 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	23	159	92	56	38	44	40	44	16	18	16
2	15	21	125	41	138	37	42	37	46	15	17	14
3	80	21	89	35	155	36	40	36	39	14	16	12
4	64	21	100	44	144	153	40	37	37	14	15	174
5	27	24	64	42	87	119	39	143	36	14	14	65
6	22	23	49	39	65	65	38	364	35	14	19	26
7	118	23	43	34	e59	54	192	162	34	14	36	18
8	34	25	41	45	47	47	153	107	32	13	16	14
9	25	24	40	36	43	44	85	82	106	13	14	13
10	22	134	39	32	40	43	65	83	53	19	14	13
11	20	125	69	33	52	40	54	168	37	47	14	13
12	19	115	38	34	309	39	48	66	33	97	12	10
13	18	87	34	33	96	46	45	53	30	30	11	12
14	21	64	34	32	68	39	43	46	29	21	10	11
15	16	47	164	29	58	38	41	42	28	17	70	9.5
16	17	39	85	30	113	37	42	60	30	15	63	8.8
17	16	38	59	31	62	35	39	231	35	14	13	9.8
18	15	107	48	108	54	35	43	558	26	46	13	12
19	15	49	42	86	77	35	67	213	24	78	14	10
20	20	42	87	512	142	35	45	163	24	93	204	46
21	30	37	54	173	73	34	41	241	24	118	45	66
22	25	32	43	135	59	33	39	131	23	83	20	15
23	23	32	40	104	53	32	37	272	23	74	15	11
24	22	32	35	75	51	33	44	754	22	162	34	28
25	21	29	38	89	45	34	38	212	20	80	21	141
26	21	29	110	89	42	297	37	153	19	124	15	31
27	186	41	55	57	41	207	59	121	18	148	12	17
28	171	157	68	e47	40	87	172	95	18	37	11	14
29	57	588	99	e44	39	66	59	73	18	26	162	12
30	38	256	54	41	---	54	47	58	17	23	41	11
31	28	---	43	48	---	48	---	49	---	20	22	---
TOTAL	1225	2285	2048	2270	2308	1940	1778	4850	960	1499	1001	853.1
MEAN	39.5	76.2	66.1	73.2	79.6	62.6	59.3	156	32.0	48.4	32.3	28.4
MAX	186	588	164	512	309	297	192	754	106	162	204	174
MIN	15	21	34	29	39	32	37	36	17	13	10	8.8
CFSM	.64	1.22	1.06	1.18	1.28	1.01	.95	2.52	.51	.78	.52	.46
IN.	.73	1.37	1.22	1.36	1.38	1.16	1.06	2.90	.57	.90	.60	.51

CAL YR 1987 TOTAL 23291.1 MEAN 63.8 MAX 657 MIN 6.5 CFSM 1.03 IN. 13.93
WTR YR 1988 TOTAL 23017.1 MEAN 62.9 MAX 754 MIN 8.8 CFSM 1.01 IN. 13.77

e Estimated

01649500 NORTHEAST BRANCH ANACOSTIA RIVER AT RIVERDALE, MD

LOCATION.--Lat 38°57′37″, long 76°55′34″, Prince Georges County, Hydrologic Unit 02070010, on right bank at downstream side of bridge on Riverdale Road, 1.8 mi downstream from Indian Creek, and 1.8 mi upstream from confluence with Northwest Branch.

DRAINAGE AREA.--72.8 mi^2.

PERIOD OF RECORD.--August 1938 to current year.

REVISED RECORDS.--WDR MD-DE-75-1: 1972(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 12.68 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to June 12, 1942, nonrecording gage; June 12, 1942, to Mar. 22, 1966, and Apr. 12, 1967, to Sept. 3, 1969, water-stage recorder, all at bridge at datum 14.00 ft above mean sea level. Mar. 23, 1966, to Apr. 11, 1967, nonrecording gage 600 ft downstream from bridge at datum 9.25 ft above mean sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Some regulation at low flow by sand and gravel plants upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--50 years, 83.8 ft^3/s, 15.63 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft^3/s, June 22, 1972, gage height, 9.52 ft, from rating curve extended above 3,800 ft^3/s on basis of the average of contracted-opening and slope-area measurements at gage height 9.52 ft; maximum gage height, 12.93 ft, prior to major channel improvements, Oct. 16, 1942; minimum daily discharge, 1.4 ft^3/s Sept. 12, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 23 or 24, 1933, reached a stage of about 15.5 ft at datum 14.00 ft above mean sea level, from floodmarks, discharge, 10,500 ft^3/s, from rating curve extended above 3,000 ft^3/s on basis of velocity-area study.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 27	2030	2,890	5.94	May 23	2400	*3,110	*6.15
Nov. 29	1430	2,630	5.69	July 26	2100	2,440	5.51
Jan. 20	0415	2,440	5.50				

Minimum daily discharge, 10 ft^3/s, Aug. 5, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	26	112	56	95	47	49	44	31	12	11	25
2	17	25	71	51	244	45	48	41	33	12	11	22
3	40	25	56	46	277	44	46	39	32	12	11	21
4	32	25	120	61	223	261	46	39	31	12	11	204
5	19	23	83	e50	123	180	43	313	28	12	10	69
6	19	22	56	e50	75	80	41	536	27	12	162	31
7	84	22	46	e50	62	64	365	194	25	12	74	25
8	23	22	44	e53	62	56	e200	82	23	11	18	23
9	19	22	43	e50	54	55	e100	64	103	12	14	22
10	18	160	46	e50	53	54	e80	77	40	12	12	25
11	18	125	146	e50	139	48	e65	94	28	19	11	21
12	18	171	61	51	767	46	52	49	26	24	11	20
13	17	148	47	54	162	59	48	43	26	16	11	21
14	17	127	42	49	88	49	46	39	24	12	10	20
15	16	85	262	47	78	45	47	37	22	11	128	18
16	16	55	126	47	172	44	44	46	40	11	58	17
17	16	45	66	48	89	42	42	173	21	18	18	18
18	16	115	50	218	75	42	48	308	21	17	14	24
19	16	46	46	116	131	42	49	672	20	17	17	20
20	17	36	100	1170	201	40	42	140	20	22	286	28
21	19	31	62	255	95	39	40	114	17	75	62	35
22	19	29	51	113	63	39	38	67	16	57	27	20
23	18	29	52	79	63	39	38	369	15	127	23	19
24	18	29	44	65	59	40	43	846	15	84	52	28
25	18	29	47	e105	51	40	38	240	14	24	38	139
26	18	29	146	e95	50	448	37	95	14	241	19	29
27	527	34	72	e70	50	314	117	61	14	176	17	20
28	271	170	99	e60	53	98	203	50	13	45	16	17
29	46	963	149	58	49	69	64	43	13	20	341	16
30	30	390	76	59	---	59	50	37	13	15	77	15
31	27	---	57	81	---	54	---	34	---	13	32	---
TOTAL	1468	3058	2478	3407	3703	2582	2169	4986	765	1163	1602	1012
MEAN	47.4	102	79.9	110	128	83.3	72.3	161	25.5	37.5	51.7	33.7
MAX	527	963	262	1170	767	448	365	846	103	241	341	204
MIN	16	22	42	46	49	39	37	34	13	11	10	15
CFSM	.65	1.40	1.10	1.51	1.75	1.14	.99	2.21	.35	.52	.71	.46
IN.	.75	1.56	1.27	1.74	1.89	1.32	1.11	2.55	.39	.59	.82	.52

CAL YR 1987 TOTAL 25602.4 MEAN 70.1 MAX 963 MIN 9.0 CFSM .96 IN. 13.08
WTR YR 1988 TOTAL 28393 MEAN 77.6 MAX 1170 MIN 10 CFSM 1.07 IN. 14.51

e Estimated

01651000 NORTHWEST BRANCH ANACOSTIA RIVER NEAR HYATTSVILLE, MD

LOCATION.--Lat 38°57′09″, long 76°58′00″, Prince Georges County, Hydrologic Unit 02070010, on right bank at downstream side of bridge on Queens Chapel Road (State Highway 500), 0.8 mi downstream from Sligo Branch, 1.0 mi west of Hyattsville, and 1.6 mi upstream from confluence with Northeast Branch.

DRAINAGE AREA.--49.4 mi^2.

PERIOD OF RECORD.--July 1938 to current year. Monthly discharge only for July 1938 published in WSP 1302.

REVISED RECORDS.--WSP 971: 1942(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 17.10 ft above National Geodetic Vertical Datum of 1929 (Washington Suburban Sanitary Commission bench mark). Prior to Oct. 22, 1938, nonrecording gage; Oct. 22, 1938, to Sept. 17, 1951, water-stage recorder; Sept. 17, 1951, to Aug. 29, 1952, nonrecording gage and crest-stage gage.

REMARKS.--Estimated daily discharges: Apr. 28 to May 20. Records fair except for period of estimated daily discharges, which is poor. Prior to June 1961, low flow regulated by storage at Burnt Mills Dam, 7.0 mi upstream from station. Inflow pumped from Patuxent River to augment water supply for Washington Suburban Sanitary District, August 1939 to August 1960. Small diversion since 1962 for irrigation of golf courses upstream from station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--50 years, 46.6 ft^3/s, 12.81 in/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,000 ft^3/s, June 22, 1972, gage height, 14.47 ft, from rating curve extended above 4,000 ft^3/s on the basis of the average of slope-area and step-backwater measurements of peak flow 14.47 ft; minimum discharge, 0.2 ft^3/s, Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 27	2000	2,110	4.64	May 23	2330	2,180	4.69
Nov. 29	1300	1,900	4.47	Aug. 6	1830	*2,190	*4.70

Minimum discharge, 4.6 ft^3/s Aug. 13, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	45	24	54	35	35	26	30	9.9	8.5	8.7
2	11	13	33	23	151	35	33	25	32	10	8.2	8.0
3	41	13	28	22	141	35	32	25	28	11	8.1	8.6
4	30	14	67	31	120	178	32	25	26	9.9	8.6	138
5	13	13	32	21	57	95	31	183	25	9.7	7.5	45
6	12	13	24	e21	e50	44	30	e300	26	9.7	140	13
7	70	13	23	e21	e44	39	193	e150	24	9.3	32	9.6
8	15	15	22	26	e36	37	100	e100	23	8.9	11	8.4
9	12	14	22	25	32	36	41	e60	78	8.4	8.1	8.4
10	11	130	25	22	34	36	34	e60	32	9.1	7.3	12
11	11	85	56	20	93	32	32	e130	24	23	6.4	8.6
12	11	95	23	22	325	32	30	e40	22	32	6.4	8.8
13	11	65	20	23	e65	41	29	33	21	14	5.9	8.5
14	11	49	19	20	e50	32	27	31	19	10	6.1	9.3
15	11	31	155	19	e46	30	27	29	19	8.5	119	8.6
16	11	23	50	20	e90	29	27	53	21	8.0	34	8.1
17	12	23	29	22	e50	29	26	280	24	9.9	8.6	8.8
18	12	71	24	98	e42	29	32	395	16	16	6.2	12
19	11	26	22	65	e55	29	36	188	16	32	7.7	10
20	13	21	58	627	e120	29	26	74	16	23	177	18
21	14	18	30	88	e80	27	25	132	19	50	30	35
22	11	16	25	54	e60	26	25	53	14	46	10	12
23	11	16	26	44	e55	26	24	297	14	46	8.0	10
24	12	16	22	39	e50	26	29	527	15	35	30	16
25	10	15	25	e70	e44	28	25	106	13	12	19	109
26	10	15	81	e46	e40	313	24	58	12	97	7.8	20
27	306	24	32	e34	e38	155	92	47	12	170	6.7	11
28	142	140	55	e30	e37	45	129	41	12	24	6.1	8.5
29	24	690	65	e30	e36	38	34	37	12	12	193	7.8
30	17	139	31	36	---	35	30	34	11	10	27	8.5
31	14	---	25	44	---	35	---	32	---	9.4	11	---
TOTAL	913	1830	1194	1687	2095	1636	1290	3571	656	783.7	965.2	598.2
MEAN	29.5	61.0	38.5	54.4	72.2	52.8	43.0	115	21.9	25.3	31.1	19.9
MAX	306	690	155	627	325	313	193	527	78	170	193	138
MIN	10	13	19	19	32	26	24	25	11	8.0	5.9	7.8
CFSM	.60	1.23	.78	1.10	1.46	1.07	.87	2.33	.44	.51	.63	.40
IN.	.69	1.38	.90	1.27	1.58	1.23	.97	2.69	.49	.59	.73	.45

CAL YR 1987 TOTAL 17642.1 MEAN 48.3 MAX 829 MIN 2.9 CFSM .98 IN. 13.29
WTR YR 1988 TOTAL 17219.1 MEAN 47.0 MAX 690 MIN 5.9 CFSM .95 IN. 12.97

e Estimated

01653600 PISCATAWAY CREEK AT PISCATAWAY, MD

LOCATION.--Lat 38°42'20", long 76°58'00", Prince Georges County, Hydrologic Unit 02070010, on left bank 75 ft downstream from bridge on State Highway 223, at Piscataway, 0.4 mi upstream from Tinker Creek, and 4.8 mi upstream from mouth.

DRAINAGE AREA.--39.5 mi^2.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--23 years, 45.0 ft^3/s, 15.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,540 ft^3/s, Sept. 6, 1979, gage height, 11.21 ft, from rating curve extended above 1,700 ft^3/s on basis of contracted-opening measurement of peak flow at bridge 100 ft upstream; no flow at times in 1966, 1970, 1977, 1980-83, 1985-88.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 30	1300	533	6.14	Feb. 12	0900	454	5.78
Jan. 20	1230	*648	*6.57				

No flow July 6-12, 17, Aug. 7-20, 26-28, Sept. 18, 19, 23, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	7.8	88	42	58	45	44	27	13	.05	.61	2.2
2	4.7	7.4	56	36	66	44	41	26	13	.02	.32	1.2
3	4.5	6.8	44	33	144	43	39	25	14	.01	.09	.82
4	17	6.9	51	40	99	53	48	26	13	.03	.05	9.0
5	6.8	6.7	58	37	80	83	41	60	12	.01	.02	15
6	5.0	5.9	37	30	61	54	36	156	10	.00	.01	4.9
7	29	5.5	31	29	53	47	125	95	8.5	.00	.00	2.6
8	11	5.7	29	37	55	42	158	53	7.3	.00	.00	1.4
9	6.0	5.9	28	38	53	43	78	42	8.2	.00	.00	.79
10	5.2	17	32	33	51	46	61	39	12	.00	.00	2.5
11	5.3	73	158	e32	52	38	56	61	8.5	.00	.00	4.2
12	5.2	55	66	e30	398	37	51	38	7.1	.00	.00	2.5
13	5.1	77	44	e30	128	44	48	30	6.2	.16	.00	1.3
14	4.0	73	36	29	76	38	44	27	5.5	.58	.00	.06
15	4.0	66	105	27	73	34	42	24	5.0	.05	.00	.05
16	4.2	53	89	e26	112	32	38	48	4.7	.01	.00	.02
17	4.2	39	52	e28	73	31	37	86	4.3	.00	.00	.01
18	4.6	57	41	91	65	30	39	144	4.3	9.8	.00	.00
19	4.0	35	37	120	69	32	40	123	4.4	2.8	.00	.00
20	3.8	26	53	512	120	30	35	61	4.0	1.9	.00	.01
21	3.7	20	49	298	72	30	34	51	3.3	2.0	6.8	.05
22	3.7	17	37	94	60	32	30	42	2.6	18	1.3	.02
23	3.7	16	37	74	60	29	29	35	1.9	7.1	.10	.00
24	3.7	15	33	64	62	29	32	31	1.8	32	.03	.00
25	3.5	15	34	68	57	29	28	37	1.2	6.5	.02	11
26	3.3	14	60	83	54	102	26	32	1.0	3.0	.00	13
27	22	14	52	60	53	208	27	25	.92	18	.00	2.9
28	108	30	52	52	52	69	75	22	.62	6.2	.00	1.1
29	20	212	92	52	49	56	38	20	.26	3.5	21	.33
30	11	439	53	53	---	51	30	17	.25	2.1	26	.21
31	9.2	---	43	62	---	45	---	15	---	.93	4.7	---
TOTAL	337.4	1421.6	1677	2240	2405	1526	1450	1518	178.85	114.75	61.05	77.17
MEAN	10.9	47.4	54.1	72.3	82.9	49.2	48.3	49.0	5.96	3.70	1.97	2.57
MAX	108	439	158	512	398	208	158	156	14	32	26	15
MIN	3.3	5.5	28	26	49	29	26	15	.25	.00	.00	.00
CFSM	.28	1.20	1.37	1.83	2.10	1.25	1.22	1.24	.15	.09	.05	.07
IN.	.32	1.34	1.58	2.11	2.26	1.44	1.37	1.43	.17	.11	.06	.07

CAL YR 1987 TOTAL 13822.62 MEAN 37.9 MAX 439 MIN .00 CFSM .96 IN. 13.02
WTR YR 1988 TOTAL 13006.82 MEAN 35.5 MAX 512 MIN .00 CFSM .90 IN. 12.25

e Estimated

01660920 ZEKIAH SWAMP RUN NEAR NEWTOWN, MD

LOCATION.--Lat 38°29′26″, long 76°55′37″, Charles County, Hydrologic Unit 02070011, on left-center downstream side of bridge on Maryland Route 6, 1.0 miles southeast of Newtown, and 1.7 miles downstream from Kerrick Swamp.

DRAINAGE AREA.--79.9 mi^2.

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 34.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair above 75 ft^3/s and poor below except for estimated daily discharges, which are also poor. Low flow affected by ground-water diversions from municipal well fields at Waldorf and St. Charles, and occasional farm irrigation upstream from station during summer months. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years, 77.3 ft^3/s, 13.14 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft^3/s, Mar. 29, 1984, gage height, 4.71 ft; no flow for several days in 1983, 1985-88.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1900	*961	*4.12	Feb. 13	1430	541	3.64

No flow July 5-17, Aug. 6-20, 26-28, Sept. 21-24.

DISCHARGE IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e13	e24	325	82	108	87	97	75	23	1.0	2.8	11
2	e14	e16	147	73	109	83	95	69	21	.47	1.8	3.6
3	e9.0	e14	87	65	229	83	89	67	31	.42	1.2	1.5
4	18	e14	74	e75	252	89	97	67	33	.08	.80	7.2
5	e15	e13	80	e70	204	116	126	115	28	.00	.38	21
6	e10	e12	76	e65	e160	111	139	271	22	.00	.00	13
7	23	e11	61	e60	e130	94	154	292	15	.00	.00	4.5
8	25	e11	53	e70	e110	84	360	200	11	.00	.00	2.6
9	e20	e11	52	e70	e105	80	418	125	9.8	.00	.00	1.2
10	e12	e30	52	e65	102	93	232	107	15	.00	.00	2.0
11	e10	83	141	e60	99	91	161	106	15	.00	.00	2.4
12	e10	116	170	e60	380	77	137	108	11	.00	.00	3.4
13	e10	117	114	e60	524	77	124	92	8.6	.00	.00	3.0
14	e9.0	112	77	e55	392	77	113	75	6.5	.00	.00	2.2
15	e8.0	103	106	e50	189	71	107	64	4.9	.00	.00	.84
16	e8.0	88	170	e50	171	67	102	54	4.0	.00	.00	.36
17	e8.0	73	137	e55	161	63	98	71	3.2	.00	.00	.13
18	e9.0	71	91	e100	136	62	96	259	3.3	2.1	.00	.02
19	e8.0	71	74	186	125	62	118	365	3.3	7.2	.00	.29
20	e7.0	64	74	687	172	63	130	345	3.1	11	.00	.11
21	e7.0	e40	80	870	170	61	107	190	2.5	18	.77	.00
22	e7.0	e34	72	467	129	61	90	129	1.7	77	1.4	.00
23	e7.0	e32	67	221	114	61	82	96	1.0	67	1.5	.00
24	e7.0	e30	63	155	118	60	82	75	12	82	1.0	.00
25	e7.0	e30	62	140	114	60	76	81	13	64	.32	2.6
26	e7.0	e30	74	e190	103	132	68	108	7.5	19	.00	14
27	e18	e30	85	e170	98	386	69	79	6.6	12	.00	12
28	56	e40	90	e130	97	324	89	59	4.5	12	.00	6.0
29	69	150	156	e120	93	160	100	47	3.0	9.3	4.8	3.6
30	57	404	140	113	---	119	86	36	2.0	6.5	39	2.5
31	e36	---	97	110	---	106	---	28	---	4.1	41	---
TOTAL	524.0	1874	3147	4744	4894	3160	3842	3855	325.5	393.17	96.77	121.05
MEAN	16.9	62.5	102	153	169	102	128	124	10.8	12.7	3.12	4.03
MAX	69	404	325	870	524	386	418	365	33	82	41	21
MIN	7.0	11	52	50	93	60	68	28	1.0	.00	.00	.00
CFSM	.21	.78	1.27	1.92	2.11	1.28	1.60	1.56	.14	.16	.04	.05
IN.	.24	.87	1.47	2.21	2.28	1.47	1.79	1.79	.15	.18	.05	.06

CAL YR 1987 TOTAL 28138.04 MEAN 77.1 MAX 442 MIN .00 CFSM .96 IN. 13.10
WTR YR 1988 TOTAL 26976.49 MEAN 73.7 MAX 870 MIN .00 CFSM .92 IN. 12.56

e Estimated

01661050 ST. CLEMENT CREEK NEAR CLEMENTS, MD

LOCATION.--Lat 38°20′00″, long 76°43′31″, St. Marys County, Hydrologic Unit 02070011, on left bank 60ft downstream from bridge on State Highway 242, 0.5 mi north of Clements, 2.3 mi upstream from mouth, and 5.7 mi northwest of Leonardtown.

DRAINAGE AREA.--18.5 mi^2.

PERIOD OF RECORD.--October 1968 to current year.

REVISED RECORDS.--WDR MD-DE-79-1: 1974(P).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 8 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Several measurements of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years, 19.9 ft^3/s, 14.61 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,500 ft^3/s, Sept. 6, 1979, from rating curve extended above 480 ft^3/s on basis of contracted-opening and flow-over-road measurement of peak flow; maximum gage height, 6.96 ft, Sept. 6, 1979 (backwater from tide); maximum gage height unaffected by backwater, 6.55 ft, June 22, 1972; no flow at times in 1977, 1980, 1981, 1983, 1985-88.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1500	319	4.19	Feb. 12	1130	*334	*4.27

No flow June 23, July 2-23, Aug. 8 to Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.6	14	11	14	13	14	8.8	2.2	.09	.41	.00
2	1.9	2.6	8.4	9.9	15	13	14	8.5	2.2	.00	.25	.00
3	1.4	2.6	6.7	8.7	43	12	13	8.5	3.4	.00	.16	.00
4	2.7	2.6	6.0	12	33	15	15	8.6	3.8	.00	.13	.00
5	2.6	2.8	6.0	14	28	26	17	13	3.4	.00	.09	.00
6	1.9	2.4	5.6	9.4	17	17	13	28	2.9	.00	.04	.00
7	3.9	2.2	5.2	7.1	12	15	40	24	2.3	.00	.03	.00
8	4.2	2.2	5.1	7.1	13	13	78	14	1.8	.00	.0	.00
9	2.8	2.3	5.1	8.2	13	14	35	11	1.5	.00	.00	.00
10	2.1	5.4	5.7	8.9	13	22	22	11	1.7	.00	.00	.00
11	1.7	18	39	9.1	16	18	18	18	2.1	.00	.00	.00
12	1.7	18	25	8.0	228	14	16	13	1.9	.00	.00	.00
13	1.7	13	12	8.3	68	14	15	9.3	1.5	.00	.00	.00
14	1.7	11	8.6	9.3	30	14	14	7.9	1.3	.00	.00	.00
15	1.7	9.2	28	7.9	26	12	14	6.7	1.0	.00	.00	.00
16	1.7	7.5	28	6.8	27	11	13	6.2	.78	.00	.00	.00
17	1.7	6.4	13	6.9	21	11	12	7.0	.91	.00	.00	.00
18	1.7	6.0	9.5	23	18	11	12	22	1.1	.00	.00	.00
19	1.7	5.5	8.5	33	18	11	16	13	.78	.00	.00	.00
20	1.7	4.9	8.5	211	31	11	21	8.6	.76	.00	.00	.00
21	1.7	4.2	8.9	86	22	10	15	7.9	.61	.00	.00	.00
22	1.4	3.8	8.6	33	16	10	12	7.5	.27	.00	.00	.00
23	1.3	3.7	7.9	22	16	10	12	6.6	.00	.00	.00	.00
24	1.3	3.6	7.4	17	19	10	11	5.2	.13	.66	.00	.00
25	1.3	3.6	7.6	21	17	10	10	5.4	.19	3.6	.00	.00
26	1.3	3.6	10	39	14	36	9.9	7.7	.24	1.9	.00	.00
27	1.9	3.6	11	19	14	74	9.8	5.6	.38	1.9	.00	.00
28	5.6	4.2	16	14	14	28	11	4.4	.20	3.2	.00	.00
29	5.4	15	35	12	14	19	11	3.6	.18	2.2	.00	.00
30	4.0	25	17	14	---	17	10	3.1	.17	1.3	.00	.00
31	3.1	---	11	14	---	15	---	2.6	---	.72	.00	---
TOTAL	71.2	197.5	388.3	710.6	830	526	523.7	306.7	39.70	15.57	1.11	0.00
MEAN	2.30	6.58	12.5	22.9	28.6	17.0	17.5	9.89	1.32	.50	.036	.00
MAX	5.6	25	39	211	228	74	78	28	3.8	3.6	.41	.00
MIN	1.3	2.2	5.1	6.8	12	10	9.8	2.6	.00	.00	.00	.00
CFSM	.12	.36	.68	1.24	1.55	.92	.94	.53	.07	.03	.00	.00
IN.	.14	.40	.78	1.43	1.67	1.06	1.05	.62	.08	.03	.00	.00

CAL YR 1987 TOTAL 5172.42 MEAN 14.2 MAX 127 MIN .00 CFSM .77 IN. 10.40
WTR YR 1988 TOTAL 3610.38 MEAN 9.86 MAX 228 MIN .00 CFSM .53 IN. 7.26

01661500 ST. MARYS RIVER AT GREAT MILLS, MD

LOCATION.--Lat 38°14′36″, long 76°30′13″, St. Marys County, Hydrologic Unit 02070011, on left bank at downstream side of bridge on State Highway 471 in Great Mills, 0.3 mi downstream from Western Branch, and 12.0 mi upstream from mouth.

DRAINAGE AREA.--24.0 mi^2.

PERIOD OF RECORD.--June 1946 to current year.

REVISED RECORDS.--WSP 1702: 1946, 1948-49, 1955, 1957-58. WDR MD-DE-83-1: 1981-82(M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 10 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Occasional regulation by reservoir on Western Branch of St. Marys River, 2.0 mi upstream since 1975, total capacity, 3,200 acre feet. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--42 years, 23.8 ft^3/s, 13.47 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,950 ft^3/s, Aug. 20, 1969, gage height, 13.34 ft, from rating curve extended above 1,500 ft^3/s on basis of contracted-opening measurement at gage height 12.08 ft; minimum discharge, 0.2 ft^3/s, Sept. 7, 1966, gage height, 1.13 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1330	401	4.53	Feb. 12	1000	*598	*5.86

Minimum discharge, 1.0 ft^3/s, July 8, 9, Aug. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.5	72	13	11	16	22	11	4.9	2.1	2.8	1.8
2	3.0	4.2	145	12	12	16	19	10	5.6	1.9	2.6	1.6
3	3.7	3.9	140	11	44	15	17	9.9	6.8	1.6	2.2	1.4
4	7.2	4.1	133	17	30	17	24	10	6.4	1.5	1.9	2.3
5	3.9	5.7	112	18	23	22	26	18	6.0	1.4	1.7	3.2
6	3.6	4.1	81	13	16	18	19	34	4.8	1.5	1.6	2.4
7	11	3.4	51	10	12	16	41	33	3.6	1.3	1.7	1.8
8	6.3	3.0	31	12	12	15	219	20	4.7	1.2	1.7	1.6
9	4.5	3.2	21	12	12	16	105	17	3.4	1.2	1.5	1.6
10	3.8	11	18	11	11	30	62	15	5.7	1.7	1.5	3.4
11	3.5	45	54	10	16	21	42	24	3.4	1.5	1.5	2.8
12	4.0	33	31	10	352	18	31	24	2.7	20	1.5	2.0
13	3.7	24	19	10	93	19	26	13	3.0	23	1.3	2.2
14	3.1	18	15	10	35	17	25	11	2.6	10	1.2	2.1
15	3.5	14	46	9.1	25	15	19	10	2.2	6.0	1.1	1.7
16	3.1	11	39	8.3	24	14	19	9.6	2.0	4.0	1.6	1.5
17	2.8	9.5	23	8.9	18	13	16	19	70	4.5	1.5	1.4
18	2.7	9.3	17	33	17	12	16	95	63	4.8	1.5	2.0
19	2.8	8.1	14	34	20	14	23	45	31	3.9	5.3	1.9
20	3.3	7.6	14	266	36	12	26	30	19	7.6	8.8	1.7
21	3.0	7.2	13	134	29	12	19	23	14	4.0	8.9	1.5
22	3.3	5.9	12	34	23	12	15	18	9.8	6.4	4.3	1.3
23	3.3	5.5	11	21	21	11	16	14	7.3	15	2.8	1.2
24	3.0	5.5	10	16	30	12	15	13	5.3	22	4.1	1.2
25	2.8	6.0	11	21	25	12	13	14	3.8	11	3.5	3.2
26	2.3	5.8	13	41	21	100	12	13	5.5	7.5	2.6	3.5
27	3.2	5.8	13	21	20	130	12	11	7.2	7.2	2.0	2.6
28	8.7	7.4	15	15	19	61	14	8.9	4.9	7.7	1.9	2.1
29	5.7	30	29	12	18	40	13	7.5	3.7	6.3	2.2	1.8
30	4.3	41	18	12	---	30	12	6.7	2.7	4.9	2.5	1.7
31	4.2	---	14	12	---	26	---	5.9	---	3.8	2.3	---
TOTAL	127.5	346.7	1235	867.3	1025	782	938	593.5	315.0	196.5	81.6	60.5
MEAN	4.11	11.6	39.8	28.0	35.3	25.2	31.3	19.1	10.5	6.34	2.63	2.02
MAX	11	45	145	266	352	130	219	95	70	23	8.9	3.5
MIN	2.3	3.0	10	8.3	11	11	12	5.9	2.0	1.2	1.1	1.2
CFSM	.17	.48	1.66	1.17	1.47	1.05	1.30	.80	.44	.26	.11	.08
IN.	.20	.54	1.91	1.34	1.59	1.21	1.45	.92	.49	.30	.13	.09

CAL YR 1987 TOTAL 8240.5 MEAN 22.6 MAX 246 MIN 1.1 CFSM .94 IN. 12.77
WTR YR 1988 TOTAL 6568.6 MEAN 17.9 MAX 352 MIN 1.1 CFSM .75 IN. 10.18

03075500 YOUGHIOGHENY RIVER NEAR OAKLAND, MD

LOCATION.--Lat 39°25'19", long 79°25'32", Garrett County, Hydrologic Unit 05020006, on left bank 200 ft downstream from Baltimore and Ohio Railroad bridge, 250 ft downstream from Little Youghiogheny River, 1.2 mi northwest of Oakland, and 1.5 mi upstream from Dunkard Lick Run.

DRAINAGE AREA.--134 mi^2.

PERIOD OF RECORD.--August 1941 to current year.

REVISED RECORDS.--WSP 1113: 1947(M).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,353.61 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 1, 1946, nonrecording gage at bridge 200 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Town of Oakland diverted an average of 0.4 ft^3/s for water supply. The diversion is returned upstream from station as sewage. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--47 years, 299 ft^3/s, 30.30 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft^3/s, Oct. 16, 1954, gage height, 12.16 ft, from rating curve extended above 7,000 ft^3/s; minimum daily discharge, 2.5 ft^3/s, Oct. 4, 1953.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1936 reached a stage of 15.3 ft, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	1045	2,410	5.69	May 6	1545	*2,480	*5.76

Minimum discharge, 5.8 ft^3/s, Aug. 18, gage height, 1.81 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	42	554	944	458	179	216	650	138	19	10	9.1
2	98	40	416	719	591	182	191	500	142	17	9.7	8.6
3	151	40	321	520	749	225	174	383	147	17	8.7	9.2
4	140	39	357	425	1130	869	208	328	125	16	8.5	26
5	112	38	326	366	1000	1360	189	801	105	15	9.5	62
6	99	38	282	377	643	755	164	2180	88	14	15	43
7	101	35	250	257	491	530	427	1730	76	13	14	30
8	114	35	244	207	368	402	776	972	67	12	11	20
9	120	40	387	193	298	339	624	652	247	12	9.4	15
10	97	203	882	178	255	346	471	561	189	11	7.9	12
11	88	321	594	149	220	275	367	444	110	11	7.4	10
12	91	179	445	139	203	238	305	345	84	25	7.9	9.5
13	80	167	335	148	153	336	260	274	69	37	8.7	25
14	70	246	267	142	189	301	215	232	60	22	9.1	70
15	64	268	421	120	174	271	188	205	53	17	8.3	34
16	61	272	394	110	218	248	167	183	47	15	7.6	18
17	55	271	318	112	172	229	150	166	46	13	7.0	43
18	50	265	273	408	172	217	207	304	45	12	6.1	83
19	47	217	240	394	188	209	290	1360	40	12	12	48
20	47	197	775	1920	448	201	199	1260	36	22	65	35
21	53	188	708	1140	414	187	176	807	34	53	91	38
22	56	181	490	662	330	173	160	548	30	47	31	48
23	51	144	404	474	332	270	173	415	27	30	21	48
24	45	215	327	356	314	619	202	562	26	46	35	100
25	43	234	892	312	263	511	164	579	25	27	34	271
26	42	199	1340	253	236	539	145	458	23	19	21	195
27	43	177	1000	224	220	470	135	368	22	17	15	125
28	52	160	720	214	199	375	144	291	20	14	13	93
29	53	780	630	198	189	314	412	236	19	13	12	74
30	50	932	455	187	---	272	802	194	19	12	13	63
31	46	---	413	249	---	238	---	162	---	11	11	---
TOTAL	2354	6163	15460	12097	10617	11680	8301	18150	2159	621	539.8	1665.4
MEAN	75.9	205	499	390	366	377	277	585	72.0	20.0	17.4	55.5
MAX	151	932	1340	1920	1130	1360	802	2180	247	53	91	271
MIN	42	35	240	110	153	173	135	162	19	11	6.1	8.6
CFSM	.57	1.53	3.72	2.91	2.73	2.81	2.06	4.37	.54	.15	.13	.41
IN.	.65	1.71	4.29	3.36	2.95	3.24	2.30	5.04	.60	.17	.15	.46

CAL YR 1987 TOTAL 91043.1 MEAN 249 MAX 1570 MIN 9.1 CFSM 1.86 IN. 25.27
WTR YR 1988 TOTAL 89807.2 MEAN 245 MAX 2180 MIN 6.1 CFSM 1.83 IN. 24.93

03076000 DEEP CREEK RESERVOIR NEAR OAKLAND, MD

LOCATION.--Lat 39°30′34″, long 79°23′28″, Garrett County, Hydrologic Unit 05020006, on Deep Creek at dam, 1.8 mi upstream from mouth and 7.0 mi north of Oakland.

DRAINAGE AREA.--64.7 mi^2.

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1950, monthend contents published in WSP 1305, and October 1950 to September 1955, monthend contents published in WSP 1385.

GAGE.--Water-stage recorder at right end of spillway. Datum of gage is at mean sea level, unadjusted.

REMARKS.--Reservoir is formed by an earthfill dam completed January 1925, with storage beginning at that time. Usable capacity, 92,975 acre-ft between elevations 2,425 ft, top of intake to outlet tunnel, and 2,462 ft, crest of spillway. Dead storage, 13,085 acre-ft. Figures given herein represent usable contents. Reservoir is used for hydroelectric power.

COOPERATION.--Elevations and capacity table furnished by Pennsylvania Electric Co.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 93,258 acre-ft, July 24, 25, 1949, elevation, 2,462.075 ft; minimum observed, 11,763 acre-ft, Sept. 30, 1925, elevation, 2,433.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 89,600 acre-ft, May 9, elevation, 2,461.10 ft; minimum, 60,700 acre-ft, Nov. 10, elevation, 2,452.90 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTBER 1987 TO SEPTEMBER 1988

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2454.8	67000	
Oct. 31	2453.1	61400	-5600
Nov. 30	2453.7	63400	+2000
Dec. 31	2455.9	70800	+7400
CAL YR 1987			-5300
Jan. 31	2455.6	69800	-1000
Feb. 29	2456.6	73200	+3400
Mar. 31	2458.1	78600	+5400
Apr. 30	2459.5	83700	+5100
May 31	2460.5	87400	+3700
June 30	2460.0	85500	-1900
July 31	2459.4	83300	-2200
Aug. 31	2458.6	80400	-2900
Sept. 30	2457.2	75400	-5000
WTR YR 1988			+8400

03076500 YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39′13″, long 79°24′31″, Garrett County, Hydrologic Unit 05020006, on left bank 0.7 mi upstream from bridge on State Highway 42 at Friendsville, and 1.5 mi upstream from Bear Creek.

DRAINAGE AREA.--295 mi^2.

PERIOD OF RECORD.--August 1898 to December 1904 and October 1940 to current year. Annual maximum, water years 1905, 1923-31, 1940, published in WSP 1675. October, November 1940 monthly discharge only, published in WSP 1305. September 1922 to September 1926 (gage heights only) in reports of Pennsylvania Department of Forests and Waters.

REVISED RECORDS.--WSP 1385: Drainage area at former site, 1898-1905, 1941(M), 1942, 1944-45, 1948-49, 1951(M).

GAGE.--Water-stage recorder. Datum of gage is 1,487.33 ft above National Geodetic Vertical Datum of 1929. Aug. 17, 1898, to Dec. 31, 1904, and Sept. 1, 1922, to Sept. 30, 1926, nonrecording gages at bridge 0.7 mi downstream at datum 16.24 ft and 16.29 ft lower, respectively.

REMARKS.--Records good. Low and medium flow regulated since July 1925 by Deep Creek Reservoir, 12 mi upstream from station (see station 03076000). U.S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--54 years (water years 1899-1904, 1941-88), 643 ft^3/s, 29.60 in/yr, adjusted for storage since October 1940.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,600 ft^3/s, Mar. 29, 1924, gage height, 14.2 ft, from flood-marks, site and datum then in use or 10.2 ft, present site and datum, from rating curve extended above 5,800 ft^3/s on basis of slope-area measurement of peak flow; minimum daily discharge, 8.2 ft^3/s, Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,930 ft^3/s, Jan. 20, gage height, 5.20 ft; minimum discharge, 29 ft^3/s, Aug. 18, gage height, 1.87 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	479	78	1110	1380	840	332	423	1150	338	93	75	127
2	350	122	822	1210	1270	324	388	949	320	61	51	128
3	383	73	707	862	1550	388	333	702	369	50	71	46
4	314	72	652	939	2370	1580	356	587	262	94	52	81
5	259	71	574	758	2230	2480	379	1050	227	91	88	276
6	324	60	491	611	1230	1410	336	3040	243	55	65	239
7	312	67	531	513	1000	997	665	2630	236	44	54	234
8	353	64	424	437	949	836	1240	1490	206	81	83	158
9	417	70	513	255	709	718	1070	1410	332	51	53	170
10	277	140	1310	218	645	714	820	1610	490	39	33	145
11	298	463	1140	e200	609	621	654	1430	237	69	88	54
12	297	284	775	188	598	463	551	970	185	74	118	168
13	195	236	601	289	314	577	485	716	202	61	49	231
14	133	315	579	322	e290	648	418	482	185	81	44	366
15	122	395	668	335	273	610	416	390	170	112	133	273
16	209	401	745	182	383	593	381	459	157	56	56	220
17	107	419	668	146	346	597	308	432	191	49	31	364
18	100	420	612	396	324	562	386	569	118	42	143	381
19	195	364	433	677	345	382	542	2220	102	40	144	366
20	155	317	1050	2740	736	360	400	2490	131	64	136	295
21	94	311	1360	2200	804	450	352	1910	88	87	165	264
22	142	259	970	1370	588	368	361	1550	194	147	161	297
23	143	255	797	849	605	431	312	1120	182	83	184	308
24	89	281	575	642	581	948	404	1140	124	71	323	241
25	84	448	1140	756	490	912	392	1070	75	75	214	429
26	132	320	2130	619	435	870	306	944	63	58	175	530
27	89	368	1660	590	413	813	288	770	97	52	74	411
28	132	269	1480	547	375	654	289	528	68	47	56	346
29	137	1170	1250	472	351	554	630	446	55	115	139	313
30	126	2060	986	332	---	492	1420	454	54	50	153	283
31	129	---	848	368	---	436	---	428	---	48	127	---
TOTAL	6576	10172	27601	21403	21653	22120	15305	35136	5701	2140	3338	7744
MEAN	212	339	890	690	747	714	510	1133	190	69.0	108	258
MAX	479	2060	2130	2740	2370	2480	1420	3040	490	147	323	530
MIN	84	60	424	146	273	324	288	390	54	39	31	46
(†)	-91.3	+33.6	+120	-16.3	+59.0	+87.7	+85.7	+60.0	-31.9	-35.8	-47.1	-84.2
MEAN≠	121	373	1010	674	806	802	596	1193	158	33.2	60.9	174
CFSM≠	0.41	1.26	3.42	2.28	2.73	2.72	2.02	4.04	0.54	0.11	0.21	0.59
IN≠	0.47	1.41	3.94	2.63	2.94	3.14	2.25	4.66	0.60	0.13	0.24	0.66

CAL YR 1987 TOTAL 179815 MEAN 493 MAX 2770 MIN 35 MEAN≠ 486 CFSM≠ 1.65 IN≠ 22.33
WTR YR 1988 TOTAL 178889 MEAN 489 MAX 3040 MIN 31 MEAN≠ 501 CFSM≠ 1.70 IN≠ 23.09

e Estimated
† Change in contents, equivalent in cubic feet per second, in Deep Creek Reservoir, provided by Pennsylvania Electric Co.
≠ Adjusted for change in contents.

03076600 BEAR CREEK AT FRIENDSVILLE, MD

LOCATION.--Lat 39°39′22″, long 79°23′41″, Garrett County, Hydrologic Unit 05020006, on right bank 0.2 mi downstream from bridge on Accident-Friendsville Road, 0.6 mi downstream from South Branch Bear Creek, 0.8 mi southeast of Friendsville, and 1.2 mi upstream from mouth.

DRAINAGE AREA.--48.9 mi^2.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,551.34 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily discharges, which are fair. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--24 years, 89.9 ft^3/s, 24.97 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,650 ft^3/s, Sept. 14, 1971, gage height, 9.6 ft, from flood-marks, from rating curve extended above 2,000 ft^3/s on basis of slope-area measurement of peak flow; minimum discharge, 1.5 ft^3/s, Sept. 12, 1966, gage height, 0.42 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 29	1330	707	3.51	Mar. 4	1645	*1,200	*4.29
Jan. 20	0430	1,110	4.14	May 6	0330	949	3.87
Feb. 4	0930	707	3.51	Aug. 23	2245	880	3.77

Minimum discharge, 2.2 ft^3/s, Aug. 18, 19, 20, gage height, 0.47 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	7.5	158	211	129	55	72	171	48	9.2	4.6	14
2	19	7.2	107	169	261	55	64	129	50	9.1	4.2	12
3	38	7.2	80	127	348	70	58	101	51	8.6	4.0	11
4	32	7.1	76	104	527	632	67	88	43	8.0	3.8	33
5	28	6.9	69	74	375	646	55	433	37	8.0	4.2	57
6	24	6.6	60	e64	e252	374	54	809	33	7.5	6.4	45
7	24	6.3	53	e56	e155	261	228	490	30	7.2	8.6	35
8	26	6.3	54	e50	116	163	322	339	29	6.9	4.9	29
9	23	7.6	91	e48	90	132	260	245	70	7.2	3.9	24
10	20	20	157	e45	77	118	188	158	45	6.7	3.4	21
11	19	21	128	e40	68	92	133	120	35	6.5	3.2	17
12	19	16	99	e37	63	83	104	95	31	11	3.0	14
13	16	17	75	e40	52	94	87	78	28	11	2.9	44
14	15	33	62	e39	e58	81	74	70	25	7.7	2.9	49
15	14	45	92	e37	57	77	66	64	22	7.0	2.7	33
16	13	45	91	e35	58	71	58	58	21	6.2	2.5	27
17	12	46	86	e34	50	67	52	54	21	5.4	2.4	268
18	11	43	74	e76	50	64	59	72	19	5.0	2.2	284
19	11	35	66	59	60	62	54	267	17	5.3	27	137
20	11	32	274	607	146	60	46	416	16	22	165	88
21	10	29	250	313	154	55	44	361	14	23	43	65
22	9.9	27	153	209	129	53	41	261	14	13	20	51
23	9.3	28	113	136	118	79	43	169	13	8.5	90	50
24	8.9	30	91	105	99	148	56	331	13	7.6	217	60
25	8.5	29	188	90	87	140	45	225	12	7.2	77	173
26	8.1	28	431	73	77	184	42	143	11	6.3	46	225
27	8.0	26	372	67	74	155	41	110	11	6.2	33	133
28	8.9	24	278	e65	66	127	45	88	10	6.0	25	91
29	8.7	300	186	e63	58	108	94	75	9.8	5.3	33	68
30	8.0	293	115	62	---	92	213	62	9.6	5.0	25	55
31	7.8	---	98	73	---	79	---	53	---	4.7	18	---
TOTAL	494.1	1229.7	4227	3208	3854	4477	2765	6135	788.4	258.3	888.8	2213
MEAN	15.9	41.0	136	103	133	144	92.2	198	26.3	8.33	28.7	73.8
MAX	38	300	431	607	527	646	322	809	70	23	217	284
MIN	7.8	6.3	53	34	50	53	41	53	9.6	4.7	2.2	11
CFSM	.33	.84	2.79	2.12	2.72	2.95	1.88	4.05	.54	.17	.59	1.51
IN.	.38	.94	3.22	2.44	2.93	3.41	2.10	4.67	.60	.20	.68	1.68

CAL YR 1987 TOTAL 24851.7 MEAN 68.1 MAX 783 MIN 3.2 CFSM 1.39 IN. 18.91
WTR YR 1988 TOTAL 30538.3 MEAN 83.4 MAX 809 MIN 2.2 CFSM 1.71 IN. 23.23

e Estimated

03078000 CASSELMAN RIVER AT GRANTSVILLE, MD

LOCATION.--Lat 39°42′08″, long 79°08′12″, Garrett County, Hydrologic Unit 05020006, on left bank at downstream side of highway bridge, 0.3 mi upstream from Slaubaugh Run, 0.7 mi downstream from U.S. Highway 40, and 1.0 mi northeast of Grantsville.

DRAINAGE AREA.--62.5 mi^2.

PERIOD OF RECORD.--July 1947 to current year.

REVISED RECORDS.--WSP 1143: 1948.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,088.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for estimated daily dischareges, which are fair. U. S. Army Corps of Engineers satellite telemeter at station. Several measurements of water temperature were made during the year. Water-quality records for some prior periods have been collected at this location.

AVERAGE DISCHARGE.--41 years, 118 ft^3/s, 25.64 in/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft^3/s, Oct. 15, 1954, gage height, 10.70 ft, from rating curve extended above 1,600 ft^3/s on basis of contracted-opening measurement at gage height 8.13 ft; no flow Aug. 31, 1962, result of regulation from unknown source.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Jan. 20	0030	(a)	*4.55	May 5	1715	*1,310	4.10
Jan. 20	0745	1,230	4.01				

(a) Backwater from ice

Minimum discharge, 2.2 ft^3/s, Aug. 14, gage height, 0.69 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	16	191	317	219	79	96	190	71	7.0	4.0	13
2	49	15	146	207	281	76	91	150	89	6.6	3.9	11
3	81	15	118	162	263	106	82	137	91	6.5	3.3	9.5
4	56	15	120	146	454	540	88	131	86	5.6	2.7	35
5	42	14	106	102	281	382	100	615	63	5.1	2.6	77
6	36	14	93	e90	194	209	89	908	49	4.8	3.8	48
7	37	13	87	e80	172	183	425	493	42	4.6	3.8	31
8	42	12	88	e74	163	161	325	315	38	4.5	3.4	21
9	42	14	166	e70	154	157	196	256	117	4.7	3.2	17
10	36	32	286	e66	125	161	155	243	92	4.6	2.8	15
11	33	45	176	e62	113	136	138	201	51	10	2.6	13
12	30	37	142	e59	102	119	127	168	41	9.0	2.5	12
13	28	38	114	e58	75	141	121	141	35	9.5	2.4	46
14	25	77	95	e56	117	131	113	125	30	8.8	2.4	97
15	24	103	228	e54	91	114	103	114	26	7.3	2.7	36
16	22	97	215	e52	e78	101	96	105	23	5.3	2.8	23
17	20	115	146	e52	e74	93	93	113	22	4.7	2.8	303
18	19	93	120	e120	e72	87	86	323	22	4.3	3.2	256
19	19	66	104	201	e70	83	85	581	19	5.7	14	116
20	19	59	387	806	194	77	78	539	18	19	247	78
21	19	52	307	336	175	73	73	431	16	25	90	57
22	19	64	192	212	143	68	67	284	14	17	26	46
23	18	74	161	170	147	95	61	218	13	11	19	43
24	18	71	141	144	141	168	75	365	13	8.6	325	80
25	16	69	293	136	119	143	81	290	12	7.4	87	342
26	16	55	467	113	105	158	72	215	10	6.1	40	252
27	17	48	288	105	100	144	66	169	8.9	5.3	26	134
28	19	45	220	100	88	129	62	139	8.5	4.9	18	94
29	19	431	185	101	83	120	126	115	8.0	4.5	23	72
30	17	357	151	111	---	109	306	96	7.3	4.3	25	60
31	16	---	156	131	---	102	---	82	---	4.1	17	---
TOTAL	924	2156	5689	4493	4393	4445	3676	8252	1135.7	235.8	1011.9	2437.5
MEAN	29.8	71.9	184	145	151	143	123	266	37.9	7.61	32.6	81.2
MAX	81	431	467	806	454	540	425	908	117	25	325	342
MIN	16	12	87	52	70	68	61	82	7.3	4.1	2.4	9.5
CFSM	.48	1.15	2.94	2.32	2.42	2.29	1.96	4.26	.61	.12	.52	1.30
IN.	.55	1.28	3.39	2.67	2.61	2.65	2.19	4.91	.68	.14	.60	1.45

CAL YR 1987 TOTAL 33422.2 MEAN 91.6 MAX 721 MIN 3.5 CFSM 1.47 IN. 19.89
WTR YR 1988 TOTAL 38848.9 MEAN 106 MAX 908 MIN 2.4 CFSM 1.70 IN. 23.12

e Estimated

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of annual maximum stage for tidal crest-stage stations.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream when continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1988

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements: Date	Measurements: Discharge (ft^3/s)
		INDIAN RIVER BASIN				
01484510	Sheep Pen Ditch near Shortly, De.	Lat 38°36′21″, long 75°21′29″, Sussex County, Hydrologic Unit 02060010 at bridge on road no. 432, 2.0 mi east of Shortly, and 3.8 mi upstream from mouth at Millsboro Pond.	5.4	1986-88	10-16-87 6-23-88	1.14 2.66
01484530	Iron Branch at Millsboro, De.	Lat 38°34′40″, long 75°17′19″, Sussex County, Hydrologic Unit 02060010, at bridge on U.S. Highway 113, at Millsboro, 1.1 mi upstream from Whartons Branch, and 1.4 mi upstream from mouth.	8.0	1985-88	10-16-87 6-23-88	0.67 1.61
01484531	Whartons Branch near Millsboro, De.	Lat 38°33′42″, long 75°16′30″, Sussex County, Hydrologic Unit 02060010, at bridge on U.S. Highway 113, 2.2 mi southeast of Millsboro, and 1.7 mi upstream from mouth.	5.8	1968-69, 1971, 1985-88	10-16-87 6-23-88	0.04 0.62
01484535	Swan Creek near Warwick, De.	Lat 38°36′49″, long 75°15′19″, Sussex County, Hydrologic Unit 02060010, at bridge on road No. 304, 0.6 mi upstream from Waples Pond, 1.5 mi northwest of Warwick, and 2.3 miles upstream from mouth.	7.2	1985-88	10-16-87 6-23-88	1.44 2.38
01484550	Pepper Creek at Dagsboro, De.	Lat 38°32′50″, long 75°14′40″, Sussex County, Hydrologic Unit 02060010, at bridge on State Highway 26, at Dagsboro, and 3.5 mi upstream from mouth.	8.78	1955-71, 1985-88	10-16-87 6-23-88	1.05 2.07
01484600	Blackwater Creek near Clarksville, De.	Lat 38°32′43″, long 75°09′49″, Sussex County, Hydrologic Unit 02060010, at bridge on State Highway 54, 1.0 mi west of Clarksville, and 3.1 mi upstream from mouth.	3.5	1968-69*, 1971*, 1985-88	10-16-87 6-23-88	0.00 0.19
01484655	Love Creek at Robinsonville, De.	Lat 38°43′03″, long 75°11′14″, Sussex County, Hydrologic Unit 02060010, at bridge on road No. 277, 0.4 mi northeast of Robinsonville, and about 2.8 mi upstream from mouth.	12	1985-88	10-16-87 6-23-88	4.31 5.86

* Drainage area was published as 4.5 sq mi.

Discharge measurements made at low-flow partial-record stations during water year 1988

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Measurements Discharge (ft^3/s)
		INDIAN RIVER BASIN--Continued				
01484677	Chapel Branch at Angola, De.	Lat 38°40′18″, long 75°11′10″, Sussex County, Hydrologic Unit 02060010, at bridge on State Highway 24, at Angola, and 0.3 mi upstream from mouth.	8.0	1985-88	10-16-87 6-23-88	1.39 2.73
		DIRICKSON CREEK BASIN				
01484700	Bearhole Ditch at Bunting, De.	Lat 38°28′17″, long 75°09′22″, Sussex County, Hydrologic Unit 02060010, at culverts on road No. 390A, 0.6 mi north of Bunting, 3.7 mi east of Selbyville, and 1.6 mi upstream from mouth.	6.4	1968-71*, 1985-88	10-16-87 6-23-88	0.18 1.27

* Drainage area was published as 6.2 sq mi.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1988

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (ft)	Annual Maximum Discharge (ft^3/s)
		DELAWARE RIVER BASIN					
01478040	Christina River near Bear, DE	Lat 39°38′12″, long 75°40′53″, New Castle County, Hydrologic Unit 02040205, on right bank 500 ft upstream from highway bridge, 1.3 mi northwest of Bear, 1.6 mi downstream from Belltown Run, and 17.7 mi upstream from mouth.	40.6	1979-82≠, 1983-88	5-19-88	11.57	4,140
		INDIAN RIVER BASIN					
*01484531	Whartons Branch near Millsboro, De.	Lat 38°33′42″, long 75°16′30″, Sussex County, Hydrologic Unit 02060010, at bridge on U. S. Highway 113, 1.7 mi upstream from mouth, and 2.2 mi southeast on Millsboro.	5.8	1986-88	4- 8-88	3.28	68
*01484600	Blackwater Creek near Clarksville, De.	Lat 38°32′43″, long 75°09′49″, Sussex County, Hydrologic Unit 02060010, at bridge on State Highway 54, 1.0 mi west of Clarksville, and 3.1 mi upstream from mouth.	3.5	1986-88	2-12-88	3.86	76

≠ Operated as a continuous-record station.
* Operated as a low-flow partial-record station

Annual maximum discharge at crest-stage partial-record stations during water year 1988

Tidal crest-stage partial-record stations

The following table contains annual maximum stages for tidal crest-stage stations. The informaton is obtained from a crest-stage gage or a water-stage recorder located at each site. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. All stages are elevations above National Geodetic Vertical Datum of 1929. Only the maximum stage is given. Information on some other high stages may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum stage at tidal crest-stage partial-record stations during water year 1988

Station No.	Station Name	Location	Period of Record	Annual Maximum Date	Annual Maximum Elevation, in feet NGVD
		SMYRNA RIVER BASIN			
01483335	Duck Creek at Smyrna, DE	Lat 39°18′31″, long 75°36′34″, Kent County, Hydrologic Unit 02040207, at bridge on U.S. Highway 13, at north edge of Smyrna, 2 mi north of intersection of State Highway 300 and U.S. Highway 13 on downstream right wingwall of bridge.	1966-88	2-12-88	4.43
		MURDERKILL RIVER BASIN			
01484085	Murderkill River at Bowers, DE	Lat 39°03′30″, long 75°23′51″, Kent County, Hydrologic Unit 02040207, at Faulkner's Landing in Bowers, on left bank 10 ft southeast of southeast corner of restaurant on Faulkner's Pier.	1966-88	4- 8-88	6.09
		CEDAR CREEK BASIN			
01484235	Cedar Creek near Slaughter Beach, DE	Lat 38°56′06″, long 75°19′26″, Sussex County, Hydrologic Unit 02040207, at bridge No. S-164 on State Highway 36, 1.8 mi northwest of Slaughter Beach.	1966-88	4- 8-88	4.84
		INDIAN RIVER BASIN			
01484549	Vines Creek near Dagsboro, DE	Lat 38°33′23″, long 75°12′13″, Sussex County, Hydrologic Unit 02060010, on right bank at upstream side of bridge on State Highway 26, 2.4 mi east of Dagsboro and 3.8 mi upstream from the confluence with Indian River at Indian River Bay.	1985-88	4- 8-88	4.61
01484595	Indian River at Oak Orchard, DE	Lat 38°35′45″, long 75°10′24″, Sussex County, Hydrologic Unit 02060010, at Hanes Landing, 2.0 mi southeast of intersection of State Highways 24 and 5, at Oak Orchard.	1966-88	4- 8-88	4.70
01484670	Rehoboth Bay at Dewey Beach, DE	Lat 38°41′40″, long 75°05′05″, Sussex County, Hydrologic Unit 02060010, on north shore of Rehoboth Bay at Head of Bay Cove, at Dewey Beach and at south end of Ventian Drive on bulkhead of a boat slip.	1985-88	4- 8-88	3.05

Howard County low-flow investigations

Base-flow discharge measurements were made throughout Howard County as part of a water-availability study in cooperation with Howard County and the Maryland Geological Survey. The data collected in these measurements, along with that already collected, will provide the basis for determining the base-flow yields throughout the county.

Weather records at Clarksville, in the central portion of the area, and Woodstock, in the northeastern part of the area, were used to check periods prior to measurements for rainfall. Measurements are considered to represent base flow except as indicated.

The measurements on each stream are listed in order proceeding downstream, and each tributary is inserted in the order in which it enters the main stream. Drainage areas were determined from recent U.S. Geological Survey topographic maps of a scale of 1:24,000 and contour interval of 10 to 20 ft. Previous series of measurements were made as indicated.

Discharge measurements of streams in or adjacent to Howard County, MD

Station No.	Station Name	Location	Drainage area (mi^2)	Measured previously (water years)	Date of measurement	Measured discharge (ft^3/s)	Cfs per square mile
		PATAPSCO RIVER BASIN					
01587070	South Branch Patapsco River, at Woodbine, Md.	Lat 39°21′44″, long 77°04′00″, Carroll County, Hydrologic Unit 02060003, at bridge on county highway, 0.1 mi upstream from Gillis Falls, and 0.3 mi west of Woodbine.	11.4	1975-79	10-20-87	4.99	0.438
					11-09-87	4.99	.438
					3-19-88	10.2	.895
					7-01-88	7.12	.625
					8-18-88	3.57	.313
01587500	South Branch Patapsco River, at Henryton, Md.	Lat 39°21′05″, long 76°54′50″, Howard County, Hydrologic Unit 02060003, at downstream side of bridge on Henryton Road at Henryton, 1.3 mi upstream from Piney Run, and 3.2 mi southeast of Sykesville.	64.4	1948-80≠	10-19-87	29.5	.458
					11-09-87	30.3	.470
					11-24-87	44.2	.686
					3-01-88	72.2	1.121
					3-11-88	76.1	1.182
					3-18-88	71.2	1.106
					6-30-88	40.3	.626
					8-17-88	18.5	.287
					9-12-88	23.2	.360
01589040	Rockburn Branch at Elkridge, Md.	Lat 39°13′30″, long 76°43′12″, Howard County, Hydrologic Unit 02060003, at bridge on Levering Avenue, 0.1 mi upstream from mouth, amd 0.8 mi west of Elkridge.	3.69	---	10-19-87	0.63	.171
					11-09-87	1.00	.271
					3-01-88	3.69	1.000
					3-18-88	3.26	.883
					6-30-88	0.92	.249
					8-17-88	0.33	.089
					9-12-88	0.48	.130
01589080	Deep Run at Hanover, Md.	Lat 39°11′24″, long 76°43′12″, Howard County, Hydrologic Unit 02060003, at bridge on county highway, 0.3 mi southeast of Hanover, and 2.4 mi upstream from mouth.	18.0	1975-79	10-19-87	2.59	.144
					11-09-87	4.63	.257
					3-04-88	12.9	.717
					3-18-88	10.3	.572
					6-30-88	2.27	.126
					8-17-88	0.78	.043
		PATUXENT RIVER BASIN					
01591350	Cattail Creek near Cooksville, Md.	Lat 39°18′50″, long 77°03′15″, Howard County, Hydrologic Unit 02060006, at upstream side of bridge on Bushy Park Road, 2.3 mi west of Cookesville, and 6.8 mi upstream from mouth.	8.37	1977-81≠	10-20-87	3.21	.384
					11-09-87	3.92	.468
					3-02-88	7.87	.940
					3-19-88	7.39	.883
					7-01-88	4.69	.560
					8-18-88	2.33	.278
01590800	Patuxent River at Mullinix, Md.	Lat 39°17′40″, long 77°08′42″, Howard County, Hydrologic Unit 02060006, at bridge on Mullinix Mill Road, 0.8 mi upstream from Scott Branch, and 3.1 mi east of Damascus.	10.7	---	10-20-87	4.30	.402
					11-09-87	4.62	.432
					3-02-88	12.5	1.168
					3-19-88	10.4	.972
					7-01-88	5.92	.553
					8-18-88	1.32	.123
01590900	Cabin Branch near Florence, Md.	Lat 39°16′36″, long 77°06′20″, Howard County, Hydrologic Unit 02060006, at bridge on light-duty road, 0.9 mi upstream from mouth, and 2.3 mi south of Florence.	8.36	1975-79	10-20-87	3.38	.404
					11-09-87	3.69	.441
					3-02-88	8.08	.967
					3-19-88	7.04	.842
					7-01-88	5.23	.626
01591375	Cattail Creek tributary at Daisy, Md.	Lat 39°17′58″, long 77°03′52″, Howard County, Hydrologic Unit 02060006, at bridge on Daisy Road, 0.3 mi upstream from mouth, and 0.5 mi north of Daisy.	3.12	1977-82	10-20-87	1.55	.497
					11-09-87	1.25	.401
					3-02-88	3.01	.965
					3-19-88	2.71	.867
					7-01-88	1.27	.407
					8-18-88	0.73	.234

≠ Operated as a continuous-record gaging station.

Discharge measurements of streams in or adjacent to Howard County, MD

Station No.	Station Name	Location	Drainage area (mi^2)	Measured previously (water years)	Date of measurement	Measured discharge (ft^3/s)	Cfs per square mile
		PATUXENT RIVER BASIN--Continued					
01591200	Cattail Creek tributary at Carrs Mill, Md.	Lat 39°18′57″, long 77°03′41″, Howard County, Hydrologic Unit 02060006, at bridge on Daisy Road, 0.3 mi upstream from mouth, and 0.5 mi west of Carrs Mill.	3.93	1956-59, 1961-63, 1966	10-20-87	1.32	0.336
					11-09-87	1.65	.420
					3-02-88	3.87	.985
					3-19-88	3.19	.812
					7-01-88	2.31	.588
					8-18-88	1.17	.298
01591475	Dorsey Branch near Knollwood, Md.	Lat 39°15′41″, long 77°02′17″, Howard County, Hydrologic Unit 02060006, at bridge on Roxbury Road, 0.4 mi upstream from mouth, and 0.8 mi west of Knollwood.	3.78	---	10-20-87	1.54	.407
					11-09-87	1.80	.476
					3-02-88	3.74	.989
					3-19-88	3.37	.892
					7-01-88	1.61	.426
					8-18-88	1.25	.331
01593200	Little Patuxent River at Pine Orchard, Md.	Lat 39°16′42″, long 76°51′11″, Howard County, Hydrologic Unit 02060006, at bridge on U.S. Highway 40, 0.4 mi east of Pine Orchard, and 2.4 mi upstream from Red Hill Branch.	7.03	1956-59, 1961-64, 1966	10-20-87	1.12	.159
					11-09-87	2.70	.384
					3-02-88	6.38	.908
					7-01-88	1.79	.255
					8-17-88	1.01	.144
01593300	Red Hill Branch at Columbia, Md.	Lat 39°14′44″, long 76°50′43″, Howard County, Hydrologic Unit 02060006, 0.05 mi upstream from mouth, 0.1 mi downstream from culvert on Columbia Road, and 2.1 mi north of Columbia.	5.98	---	10-19-87	1.63	.273
					11-09-87	1.79	.299
					3-01-88	4.65	.778
					3-18-88	3.65	.610
					6-30-88	1.49	.249
					8-17-88	0.94	.157
					9-12-88	1.23	.206
01593600	Middle Patuxent River near West Friendship, Md.	Lat 39°17′14″, long 76°57′33″, Howard County, Hydrologic Unit 02060006, at bridge on State Highway 32, 0.25 mi upstream from Terrapin Branch, and 1.1 mi south of West Friendship.	11.4	1956-59, 1961-64, 1966	10-19-87	4.28	.375
					11-09-87	5.23	.459
					3-18-88	22.1	1.939
					6-30-88	4.87	.427
					9-12-88	3.36	.295
01593675	Middle Patuxent River tributary near Columbia, Md.	Lat 39°14′02″, long 76°55′04″, Howard County, Hydrologic Unit 02060006, 0.05 mi upstream from mouth, and 3.1 mi west of Columbia.	9.12	---	10-19-87	3.47	.380
					11-09-87	4.19	.459
					3-02-88	8.62	.945
					3-18-88	7.95	.872
					6-30-88	3.53	.387
					8-17-88	1.80	.197
					9-12-88	2.41	.264
01593700	Middle Patuxent River tributary near Clarksville, Md.	Lat 39°12′00″, long 76°55′12″, Howard County, Hydrologic Unit 02060006, 0.1 mi upstream from bridge on Trotter Road, 0.8 mi upstream from mouth, and 1.3 mi southeast of Clarkesville.	6.24	1977-82	10-20-87	2.14	.343
					11-09-87	2.48	.397
					3-18-88	5.18	.830
					6-30-88	2.08	.333
					9-12-88	1.46	.234
01594200	Hammond Branch near Laurel, Md.	Lat 39°07′23″, long 76°49′31″, Howard County, Hydrologic Unit 02060006, at bridge on U.S. Highway 1, 0.5 mi upstream from mouth, and 1.6 mi northeast of Laurel.	6.83	---	10-19-87	1.80	.264
					11-09-87	2.38	.348
					3-01-88	5.23	.766
					3-18-88	4.31	.631
					6-30-88	1.29	.189
					8-17-88	0.57	.083
					9-12-88	1.15	.168

Laurel Run seepage investigations--Headwaters to mouth, Garrett County, MD

One series of discharge measurements was made during the 1988 water year, on August 17, on Laurel Run and its tributaries in Maryland, to study the effects of underground coal mining on channel gains and losses. The reach is 4.62 mi in length and extends from its mouth near Wilson, Md., to its headwaters. The measurements were made during a period of base flow; for 5 days before the investigation no measurable precipitation had fallen. Tributary flow was considered a contribution and not a gain. Indicated gains or losses may be substantially in error as affected by small inaccuracies in open-channel measurements. Previous series of measurements were made in the 1981, 1983, 1984 and 1987 water years.

Laurel Run mile	Stream	Location	Meas. discharge (ft^3/s)	Gain or loss	Water temp. (°C)	pH (units)	Conductivity (microsiemens)
				August 17, 1988			
4.62	Kempton mine bore hole	Lat 39°13′17″, long 79°28′43″, Garrett Co., 1.0 mi northeast of Kempton.	1.72	-	10.5	3.41	1040
4.54	Laurel Run	Lat 39°13′18″, long 79°28′38″, Garrett Co., 1.05 mi northeast of Kempton.	1.78	+ .06	19.0	3.05	1220
3.69	Laurel Run	Lat 39°13′39″, long 79°27′50″, Garrett Co., 1.8 mi northeast of Kempton.	1.91	+ .13	25.0	2.75	1360
3.64	Laurel Run tributary	Lat 39°13′41″, long 79°27′49″, Garrett Co., at mouth.	Dry				
3.48	....do....	Lat 39°13′44″, long 79°27′39″, Garrett Co., at mouth.	Dry				
2.70	Laurel Run	Lat 39°14′14″, long 79°27′02″, Garrett Co., 2.8 mi northeast of Kempton.	1.88	- .03	20.0	2.72	1390
2.60	Chestnut Ridge Run	Lat 39°14′18″, long 79°27′02″, Garrett Co., at mouth.	Dry				
2.32	Laurel Run tributary	Lat 39°14′12″, long 79°26′41″, Garrett Co., at mouth.	Dry				
2.30	Laurel Run	Lat 39°14′14″, long 79°26′38″, Garrett Co., 3.0 mi northeast of Kempton.	1.67	- .21	20.0	2.64	1400
2.10	....do....	Lat 39°14′43″, long 79°26′30″, Garrett Co., 3.2 mi northeast of Kempton.	2.18	+ .51	20.0	2.65	1410
1.67	Dutch Run	Lat 39°14′42″, long 79°26′00″, Garrett Co., at mouth.	Dry				
1.67	Laurel Run	Lat 39°14′42″, long 79°26′00″, Garrett Co., below confluence with Dutch Run.	1.14	-1.04	20.5	2.69	1405
1.18	Laurel Run	Gaging station near Wilson (01594930).	1.64	+ .50	23.0	2.73	1375
.63	....do....	Lat 39°14′52″, long 79°25′09″, Garrett Co., 4.6 mi northeast of Kempton.	.92	- .72	24.0	2.69	1420
.10	....do....	Lat 39°14′47″, long 79°24′42″, Garrett Co., at mouth.	.90	- .02	24.0	2.61	1460
		Overall net gain or loss		- .82			

Sand Run seepage investigations--Headwaters to Wilson, MD

One series of discharge measurements was made during the 1988 water year, on August 16, on Sand Run and its tributaries in Maryland, to study the effects of underground coal mining on channel gains and losses. The reach is 2.60 mi in length along the North Fork of Sand Run and 2.40 mi in length along the South Fork of Sand Run and extends from the headwaters to .1 mi upstream from the mouth. The measurements were made during periods of base flow; for 4 days before the investigation no measurable precipitation had fallen. Tributary flow was considered a contribution and not a gain. Indicated gains or losses may be substantially in error as affected by small inaccuracies in open-channel measurements. Previous series of measurements were made in the 1981, 1983, 1984 and 1987 water years.

Run mile	Stream	Location	Meas. discharge (ft^3/s)	Gain or loss	Water temp. (°C)	pH (units)	Conductivity (microsiemens)
				August 16, 1988			
1.81	North Fork Sand Run	Lat 39°16′35″, long 79°25′56″, Garrett Co., 2.4 mi northwest of Wilson.	0.02	-	17.0	6.46	33
1.38	North Fork Sand Run tributary	Lat 39°16′19″, long 79°25′27″, Garrett Co., 1.9 mi northwest of Wilson.	Dry				
1.38	North Fork Sand Run	Lat 39°16′19″, long 79°25′36″, Garrett Co., 1.9 mi northwest of Wilson.	.04	+ .02	14.0	6.48	1500
.43	....do....	Lat 39°15′55″, long 79°24′42″, Garrett Co., 1.1 mi northwest of Wilson.	.06	+ .02	26.0	6.91	1320
.05	....do....	Gaging station nr. Wilson (01594936).	.15	+ .09	26.0	6.83	1270
		Overall net gain or loss North Fork Sand Run		+ .13			
1.75	South Fork Sand Run	Lat 39°15′58″, long 79°26′13″, Garrett Co., 2.2 mi northwest of Wilson.	Dry				
1.15	....do....	Lat 39°15′34″, long 79°25′44″, Garrett Co., 1.6 mi northwest of Wilson.	Dry				
.90	....do....	Lat 39°15′26″, long 79°25′29″, Garrett Co., 1.3 mi northwest of Wilson.	.04	+ .04	22.0	3.46	2490
.48	....do....	Gaging station near Wilson (01594934).	*7.80	+7.76	22.0	7.05	2220
		Overall net gain or loss South Fork Sand Run		+7.80			
.75	Sand Run	Lat 39°15′30″, long 79°24′34″, Garrett Co., .65 mi northwest of Wilson.	7.29	- .66	19.5	7.16	2140
.45	....do....	Lat 39°15′21″, long 79°24′25″, Garrett Co., 0.4 mi northwest of Wilson (01594942).	7.52	+ .23	20.5	7.13	2150
.10	....do....	Lat 39°15′13″, long 79°24′04″, Garrett Co., 0.2 mi west of Wilson.	7.29	- .23	21.0	7.21	2190
		Overall net gain or loss		+7.27			

* Includes flow from acid mine drainage treatment plant

Shields Run and McMillan Fork seepage investigations--Headwaters to mouth, Garrett County, MD

One series of discharge measurements was made during the 1988 water year, on August 18, on Shields Run and McMillan Fork and their tributaries in Maryland, to document channel gains and losses. The reach on Shields Run is 1.95 mi in length and extends from its mouth near Wilson, Md., to its headwaters. The reach on McMillan Fork is 1.45 mi in length and extends from its mouth near Fort Pendleton, Md., to its headwaters. The measurements were made during a period of base flow; for 5 days before the investigation no measurable precipitation had fallen. Tributary flow was considered a contribution and not a gain. Indicated gains or losses may be substantially in error as affected by small inaccuracies in open-channel measurements. A previous seepage investigation was conducted during July 1987 on this basin.

Run mile	Stream	Location	Meas. discharge (ft^3/s)	Gain or loss	Water temp. (°C)	pH (units)	Conductivity (microsiemens)
				August 18, 1988			
1.45	McMillan Fork	Lat 39°17′03″, long 79°24′43″, Garrett Co., 2.2 mi north of Wilson.	0.01	-	19.0	4.81	365
1.35	McMillan Fork tributary	Lat 39°16′55″, long 79°24′40″, Garrett Co., at mouth.	.01	-	19.0	5.25	45
1.30	McMillan Fork	Lat 39°16′54″, long 79°24′38″, Garrett Co., 2.0 mi north of Wilson.	.02	+ .00	19.0	6.03	167
1.10	....do....	Lat 39°16′54″, long 79°24′26″, Garrett Co., 1.8 mi north of Wilson.	.01	- .01	19.0	6.45	146
.95	McMillan Fork tributary	Lat 39°16′44″, long 79°24′18″, Garrett Co., 1.7 mi north of Wilson.	Dry				
.80	....do....	Lat 39°16′37″, long 79°24′14″, Garrett Co., at mouth.	.03	-	11.0	8.09	163
.75	McMillan Fork	Lat 39°16′37″, long 79°24′10″, Garrett Co., 1.6 mi north of Wilson.	.03	- .01	16.0	7.56	120
.60	....do....	Lat 39°16′35″, long 79°23′55″, Garrett Co., 1.5 mi north of Wilson.	.08	+ .05	19.0	7.48	105
.20	....do....	Lat 39°16′33″, long 79°23′40″, Garrett Co., 1.5 mi north of Wilson.	.08	+ .00	19.0	7.60	110
.05	....do....	Gaging station near Fort Pendleton (01594950).	.11	+ .03	20.0	7.56	109
		Overall net gain or loss McMillan Fork		+ .06			
1.95	Shields Run	Lat 39°17′36″, long 79°24′04″, Garrett Co., 2.5 mi north of Wilson.	.02	-	19.0	6.77	28
1.80	....do....	Lat 39°17′19″, long 79°23′57″, Garrett Co., 2.3 mi north of Wilson.	.01	- .01	19.0	6.69	30
1.60	....do....	Lat 39°17′11″, long 79°23′49″, Garrett Co., 2.2 mi north of Wilson.	.01	+ .00	20.0	6.98	45
1.40	....do....	Lat 39°17′02″, long 79°23′41″, Garrett Co., 2.0 mi north of Wilson.	.02	+ .01	25.0	7.21	51
1.25	....do....	Lat 39°16′55″, long 79°23′33″, Garrett Co., 1.9 mi north of Wilson.	.01	- .01	24.0	7.32	109
1.20	Aronhalt Fork	Lat 39°16′53″, long 79°23′31″, Garrett Co., at mouth.	< .01	-	26.0	7.14	235
1.00	Shields Run	Lat 39°16′45″, long 79°23′26″, Garrett Co., 1.8 mi north of Wilson.	.02	+ .01	25.0	7.39	155

< Less than

Shields Run and McMillan Fork seepage investigations--Headwaters to mouth, Garrett County, MD

Run mile	Stream	Location	Meas. discharge (ft^3/s)	Gain or loss	Water temp. (°C)	pH (units)	Conductivity (microsiemens)
				August 18, 1988			
.85	Shields Run	Lat 39°16′38″, long 79°23′26″, Garrett Co., 1.7 mi north of Wilson.	.01	- .01	26.0	7.58	165
		Overall net gain or loss upper Shields Run.		- .01			
.70	Shields Run main stem	Lat 39°16′35″, long 79°23′21″, Garrett Co., 1.6 mi northeast of Wilson.	.11	- .01	22.0	7.62	121
.55	....do....	Lat 39°16′28″, long 79°23′15″, Garrett Co., 1.5 mi northeast of Wilson.	.14	+ .03	22.0	7.52	147
.40	....do....	Lat 39°16′23″, long 79°23′09″, Garrett Co., 1.4 mi northeast of Wilson.	.11	- .03	22.0	7.65	149
.25	....do....	Lat 39°16′18″, long 79°22′58″, Garrett Co., 1.6 mi northeast of Wilson.	.12	+ .01	21.5	7.56	142
.05	....do....	Lat 39°16′18″, long 79°22′47″, Garrett Co., at mouth.	.06	- .06	21.5	7.70	135
		Overall net gain or loss Shields Run and McMillan Fork		+ .01			

Water-quality partial-record stations are particular sites where chemical-quality, biological, and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected usually less than quarterly. Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin are referred to as miscellaneous sites.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

POCOMOKE RIVER BASIN

382544075212201 - DAVIS DITCH AT WILLARDS, MD

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)
APR												
14...	1224	269	5.6	8.5	12.0	5	12.0	0.030	12.0	0.080	0.90	<0.010

DATE	ALA-CHLOR TOTAL RECOVER (UG/L)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	PROME-TRYNE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)	TRI-FLURA-LIN TOTAL RECOVER (UG/L)
APR												
14...	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1	<0.10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

POCOMOKE RIVER BASIN--Continued

382543075204001 - DAVIS DITCH NEAR WILLARDS, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
APR 14...	1330	191	5.4	9.5	10.0	15	4.2	7.2	6.1	10	32

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
APR 14...	12	0.10	16	127	6.08	0.020	6.10	0.270	1.0	0.010	130

DATE	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
APR 14...	<1	<1	85	<0.5	10	<1	<5	4	<10	1500	<10

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	ALACHLOR TOTAL RECOVER (UG/L)	AMETRYNE TOTAL
APR 14...	<4	110	<10	<10	<1	<1.0	78	<6	29	<0.10	<0.10

DATE	ATRAZINE, TOTAL (UG/L)	CYANAZINE TOTAL (UG/L)	METOLACHLOR WATER WHOLE TOT.REC (UG/L)	METRIBUZIN WATER WHOLE TOT.REC (UG/L)	PROMETRYNE TOTAL (UG/L)	PROMETONE TOTAL (UG/L)	PROPAZINE TOTAL (UG/L)	SIMAZINE TOTAL (UG/L)	SIMETRYNE TOTAL (UG/L)	TRIFLURALIN TOTAL RECOVER (UG/L)
APR 14...	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1	<0.10

382452075212301 - MURRAY BRANCH NEAR WILLARDS, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)
APR 14...	1034	206	5.2	7.0	7.0	5	8.19	0.010	8.20	1.40	2.0	<0.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHESTER RIVER BASIN

392059075443801 - EPHEMERAL POND 2 NEAR VANDYKE, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)
MAR 15...	1415	156	3.8	9.2	10	4.5	2.0	1.5	0	54	2.2

DATE	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)
MAR 15...	0.20	5.2	82	<0.010	<0.100	0.030	0.60	<0.010	810	<1	<1

DATE	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)
MAR 15...	160	<0.5	20	<1	<5	4	<10	69	<10	<4

DATE	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	S-34 / S-32 STABLE ISOTOPE RATIO PER MIL	CARBON, ORGANIC DISSOLVED (MG/L AS C)
MAR 15...	960	<10	<10	<1	<1.0	100	<6	110	3.30	12

392045075443302 - INTERSTITIAL WATER FROM PEAT NEAR VANDYKE, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3
MAR 16...	1230	139	3.9	10.5	5.0	3.5	2.9	2.8	3.6	3.1	0

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
MAR 16...	49	7.1	0.10	14	89	<0.010	<0.100	0.210	1.9	<0.010	1800

DATE	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
MAR 16...	<1	<1	63	0.7	30	<1	<5	7	<10	3500	20

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
MAR 16...	<4	210	0.4	<10	10	<1	<1.0	63	7	110	52

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHESTER RIVER BASIN--Continued

392045075443301 - EPHEMERAL POND 6A NEAR VANDYKE, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3
MAR 15...	0953	98	4.9	5.0	5.5	3.0	6.3	3.2	2.6	3.0	1

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
MAR 15...	41	4.7	0.10	9.7	74	0.010	<0.100	0.070	1.1	<0.010	360

DATE	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
MAR 15...	<1	<1	45	<0.5	30	<1	<5	4	<10	670	<10

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
MAR 15...	<4	900	<10	<10	<1	<1.0	56	<6	66	34

392048075444101 - EPHEMERAL POND 8 NEAR VANDYKE, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3
MAR 16...	0945	111	4.5	4.0	6.5	7.0	6.9	3.1	1.7	2.0	1

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)
MAR 16...	39	2.2	0.10	4.8	62	<0.010	<0.100	0.040	<0.010	190	<1

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
MAR 16...	<1	86	<0.5	20	<1	<5	<3	<10	93	10

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
MAR 16...	<4	1500	<10	<10	<1	<1.0	69	<6	57	14

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHESTER RIVER BASIN--Continued

392053075443401 - EPHEMERAL POND 7 NEAR VANDYKE, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3
MAR 15...	1700	104	3.7	6.5	2.0	3.8	5.6	2.2	2.8	1.6	0

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
MAR 15...	38	4.9	0.20	11	68	<0.010	<0.100	0.090	0.90	<0.010	500

DATE	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
MAR 15...	<1	<1	77	<0.5	20	<1	<5	4	<10	520	<10

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	S-34 / S-32 STABLE ISOTOPE RATIO PER MIL	CARBON, ORGANIC DISSOLVED (MG/L AS C)
MAR 15...	<4	320	<10	<10	<1	<1.0	62	<6	66	8.10	36

392047075443401 - EPHEMERAL POND 1 NEAR VANDYKE, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3
MAR 14...	1650	85	4.2	10.5	3.0	11.2	8.1	3.4	1.6	2.4	0

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)
MAR 14...	29	2.1	0.10	0.48	65	<0.010	3.70	0.070	0.80	<0.010	150

DATE	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
MAR 14...	<1	<1	77	<0.5	20	1	<5	<3	<10	56	<10

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
MAR 14...	<4	1100	<10	<10	<1	<1.0	71	<6	91	16

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHESTER RIVER BASIN--Continued

392044075443201 - EPHEMERAL POND 3 NEAR VANDYKE, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3
MAR 15...	1130	58	5.1	6.5	5.0	5.8	5.8	2.9	2.6	3.3	1

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)
MAR 15...	39	4.0	0.10	6.8	68	<0.010	<0.100	0.040	0.030	280	<1

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
MAR 15...	<1	78	1	20	<1	<5	<3	<10	1400	<10

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
MAR 15...	<4	490	<10	<10	<1	<1.0	76	<6	56	30

392032075442401 - CYPRESS BRANCH TRIBUTARY NEAR VANDYKE, DE

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3
MAR 16...	1130	92	3.9	7.5	8.0	6.2	3.1	1.8	4.2	1.2	0

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)
MAR 16...	23	6.6	0.10	16	57	<0.010	<0.100	0.030	<0.010	530	<1

DATE	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)
MAR 16...	<1	64	<0.5	20	<1	<5	4	<10	620	<10

DATE	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC DISSOLVED (MG/L AS C)
MAR 16...	<4	91	<10	<10	<1	<1.0	49	<6	31	19

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

BUSH RIVER BASIN

01581650 - JAMES RUN AT BUSH, MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR									
26...	0945	8.2	--	7.4	10.0	11.0	--	12.8	14
AUG									
17...	1215	1.0	238	7.2	23.5	28.5	1	7.0	20

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR								
26...	6.3	9.1	1.3	38	17	15	0.10	10
AUG								
17...	8.1	12	2.7	60	22	16	0.10	12

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR									
26...	108	96	1.60	0.010	120	44	20	20	--
AUG									
17...	133	129	1.30	0.030	470	110	140	120	3.3

01581651 - JAMES RUN ABOVE BYNUM RUN AT BUSH, MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR									
26...	1015	8.3	--	7.4	10.0	11.0	--	11.6	14
AUG									
17...	1110	1.0	230	7.2	23.0	28.5	2	6.9	20

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR								
26...	6.4	9.1	1.2	40	16	14	0.10	9.9
AUG								
17...	8.0	11	2.8	61	23	16	0.10	12

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR									
26...	107	95	1.50	0.010	210	82	40	42	--
AUG									
17...	140	130	1.00	0.030	980	210	210	170	3.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

BUSH RIVER BASIN--Continued

01581671 - HAHA BRANCH NEAR ABINGDON, MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR									
25...	0930	0.70	123	7.3	9.5	14.0	--	11.1	5.0
AUG									
17...	0900	0.20	118	6.7	21.0	24.0	32	7.0	6.2

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR								
25...	2.2	12	1.1	11	14	17	0.10	7.2
AUG								
17...	2.6	11	1.5	19	10	16	0.10	7.7

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR									
25...	76	66	0.300	0.020	660	230	70	82	3.8
AUG									
17...	82	67	0.100	0.030	2700	160	70	39	5.5

01581754 - WINTERS RUN NEAR EDGEWOOD, MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR									
25...	1445	53	141	8.7	16.5	17.0	--	11.9	9.5
AUG									
17...	1630	14	145	9.2	29.0	32.0	3	10.7	10

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR								
25...	4.8	7.3	1.5	26	11	12	0.10	8.9
AUG								
17...	5.2	7.5	2.2	31	9.2	13	0.10	8.6

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR									
25...	80	71	2.20	0.020	370	76	40	29	--
AUG									
17...	88	75	1.60	0.020	270	68	40	10	2.7

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

BUSH RIVER BASIN--Continued

01581755 - WINTERS RUN AT MD RT 7 NEAR EDGEWOOD, MD

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)
APR									
25...	1345	53	141	8.4	15.0	17.0	--	14.6	9.5
AUG									
17...	1540	13	152	8.7	28.0	31.5	1	9.7	11

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
APR								
25...	4.8	7.6	1.6	25	11	13	0.10	8.8
AUG								
17...	5.5	7.3	2.4	34	8.7	13	0.10	7.4

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
APR									
25...	84	71	2.20	0.020	380	78	50	31	2.5
AUG									
17...	93	76	1.70	0.020	300	81	40	21	2.7

PATAPSCO RIVER BASIN

393813076520701 - PRECIPITATION AT GREENMOUNT, MD

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SILICA, DIS-SOLVED (MG/L AS SIO2)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
MAR												
26...	1315	10	5.7	0.88	0.11	0.70	1	0.04	<2	<0.5	<1	<5

DATE	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR												
26...	<3	<10	4	<10	<4	5	<10	<10	<1.0	2	<6	190

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PATAPSCO RIVER BASIN--Continued

393811076521105 - NORTH CARROLL SHOPPING CENTER RETENTION POND BOTTOM AT GREENMOUNT, MD

DATE	TIME	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	ACENAPHTHYLENE BOT.MAT (UG/KG)	ACENAPHTHENE BOT.MAT (UG/KG)	ANTHRACENE BOT.MAT (UG/KG)	BENZO A ANTHRACENE1,2-BENZANTHRACENE BOT.MAT (UG/KG)	BENZO-A-PYRENE BOT.MAT (UG/KG)	BENZO B FLUORANTHENE BOT.MAT (UG/KG)	BENZO K FLUORANTHENE BOT.MAT (UG/KG)	BENZOGHI PERYLENE1,12-BENZOPERYLENE BOT.MAT (UG/KG)	BIS (2-CHLOROETHYL) ETHER BOT.MAT (UG/KG)
OCT 15...	1045	1.2	15	<200	<200	<200	<400	<400	<400	<400	<400	<200

DATE	BIS (2-CHLOROISOPROPYL) ETHER BOT.MAT (UG/KG)	BIS (2-CHLOROETHOXY) METHANE BOT.MAT (UG/KG)	BIS(2-ETHYL HEXYL) PHTHALATE BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHALATE BOT.MAT (UG/KG)	CHRYSENE BOT.MAT (UG/KG)	DIETHYL PHTHALATE BOT.MAT (UG/KG)	DI-METHYL PHTHALATE BOT.MAT (UG/KG)	DI-N-BUTYL PHTHALATE BOT.MAT (UG/KG)	DI-N-OCTYL PHTHALATE BOT.MAT (UG/KG)	FLUORANTHENE BOT.MAT (UG/KG)	FLUORENE BOT.MAT (UG/KG)	HEXACHLOROBENZENE TOT. IN BOTTOM MATL. (UG/KG)
OCT 15...	<200	<200	<200	<200	<400	<200	<200	<200	<400	<200	<200	<200

DATE	HEXACHLOROBUTADIENCE BOT.MAT (UG/KG)	HEXACHLOROCYCLOPENTADIENE BOT.MAT (UG/KG)	HEXACHLOROETHANE BOT.MAT (UG/KG)	INDENO (1,2,3-CD) PYRENE BOT.MAT (UG/KG)	ISOPHORONE BOT.MAT (UG/KG)	N-NITROSODI-N-PROPYLAMINE BOT.MAT (UG/KG)	N-NITROSODIPHENYLAMINE BOT.MAT (UG/KG)	N-NITROSODIMETHYLAMINE BOT.MAT (UG/KG)	NAPHTHALENE BOT.MAT (UG/KG)	NITROBENZENE BOT.MAT (UG/KG)	PARACHLOROMETA CRESOL BOT.MAT (UG/KG)
OCT 15...	<200	<200	<200	<400	<200	<200	<200	<200	<200	<200	<600

DATE	PENTACHLOROPHENOL BOT.MAT (UG/KG)	PHENOL (C6H5OH) BOT.MAT (UG/KG)	PHENANTHRENE BOT.MAT (UG/KG)	PYRENE BOT.MAT (UG/KG)	1,2-DICHLOROBENZENE BOT.MAT (UG/KG)	1,2,4-TRICHLOROBENZENE BOT.MAT (UG/KG)	1,2,5,6-DIBENZ-ANTHRACENE BOT.MAT (UG/KG)	1,3-DICHLOROBENZENE BOT.MAT (UG/KG)	1,4-DICHLOROBENZENE BOT.MAT (UG/KG)	2-CHLORONAPHTHALENE BOT.MAT (UG/KG)	2-CHLOROPHENOL BOT.MAT (UG/KG)
OCT 15...	<600	<200	<200	<200	<200	<200	<400	<200	<200	<200	<200

DATE	2-NITROPHENOL BOT.MAT (UG/KG)	2,4-DICHLOROPHENOL BOT.MAT (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4-DINITROTOLUENE BOT.MAT (UG/KG)	2,4-DINITROPHENOL BOT.MAT (UG/KG)	2,4,6-TRICHLOROPHENOL BOT.MAT (UG/KG)	2,6-DINITROTOLUENE BOT.MAT (UG/KG)	4-BROMOPHENYL PHENYL ETHER BOT.MAT (UG/KG)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL BOT.MAT (UG/KG)	4,6-DINITRO-ORTHO-CRESOL BOT.MAT (UG/KG)
OCT 15...	<200	<200	<200	<200	<600	<600	<200	<200	<200	<600	<600

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PATAPSCO RIVER BASIN--Continued

393811076521104 - SOIL SAMPLE NEAR NORTH CARROLL SHOPPING CENTER RETENTION POND AT GREENMOUNT, MD

DATE	TIME	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (MG/KG AS C)	ACENAPHTHYLENE BOT.MAT (UG/KG)	ACENAPHTHENE BOT.MAT (UG/KG)	ANTHRACENE BOT.MAT (UG/KG)	BENZO A ANTHRACENE1,2-BENZANTHRACENE BOT.MAT (UG/KG)	BENZO-A-PYRENE BOT.MAT (UG/KG)	BENZO B FLUORANTHENE BOT.MAT (UG/KG)	BENZO K FLUORANTHENE BOT.MAT (UG/KG)	BENZOGHI PERYLENE1,12-BENZOPERYLENE BOT.MAT (UG/KG)	BIS (2-CHLOROETHYL) ETHER BOT.MAT (UG/KG)
OCT 15...	1245	0.1	5.3	<200	<200	<200	<400	<400	<400	<400	<400	<200

DATE	BIS (2-CHLOROISOPROPYL) ETHER BOT.MAT (UG/KG)	BIS (2-CHLOROETHOXY) METHANE BOT.MAT (UG/KG)	BIS(2-ETHYL HEXYL) PHTHALATE BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHALATE BOT.MAT (UG/KG)	CHRYSENE BOT.MAT (UG/KG)	DIETHYL PHTHALATE BOT.MAT (UG/KG)	DI-METHYL PHTHALATE BOT.MAT (UG/KG)	DI-N-BUTYL PHTHALATE BOT.MAT (UG/KG)	DI-N-OCTYL PHTHALATE BOT.MAT (UG/KG)	FLUORANTHENE BOT.MAT (UG/KG)	FLUORENE BOT.MAT (UG/KG)	HEXACHLOROBENZENE TOT. IN BOTTOM MATL. (UG/KG)
OCT 15...	<200	<200	<200	<200	<400	<200	<200	<200	<400	<200	<200	<200

DATE	HEXACHLOROBUTADIENCE BOT.MAT (UG/KG)	HEXACHLOROCYCLOPENTADIENE BOT.MAT (UG/KG)	HEXACHLOROETHANE BOT.MAT (UG/KG)	INDENO (1,2,3-CD) PYRENE BOT.MAT (UG/KG)	ISOPHORONE BOT.MAT (UG/KG)	N-NITROSODI-N-PROPYLAMINE BOT.MAT (UG/KG)	N-NITRO-SODI-PHENYLAMINE BOT.MAT (UG/KG)	N-NITRO-SODI-METHYLAMINE BOT.MAT (UG/KG)	NAPHTHALENE BOT.MAT (UG/KG)	NITROBENZENE BOT.MAT (UG/KG)	PARACHLOROMETA CRESOL BOT.MAT (UG/KG)
OCT 15...	<200	<200	<200	<400	<200	<200	<200	<200	<200	<200	<600

DATE	PENTACHLOROPHENOL BOT.MAT (UG/KG)	PHENOL (C6H5OH) BOT.MAT (UG/KG)	PHENANTHRENE BOT.MAT (UG/KG)	PYRENE BOT.MAT (UG/KG)	1,2-DICHLOROBENZENE BOT.MAT (UG/KG)	1,2,4-TRICHLOROBENZENE BOT.MAT (UG/KG)	1,2,5,6-DIBENZ-ANTHRACENE BOT.MAT (UG/KG)	1,3-DICHLOROBENZENE BOT.MAT (UG/KG)	1,4-DICHLOROBENZENE BOT.MAT (UG/KG)	2-CHLORONAPHTHALENE BOT.MAT (UG/KG)	2-CHLOROPHENOL BOT.MAT (UG/KG)
OCT 15...	<600	<200	<200	<200	<200	<200	<400	<200	<200	<200	<200

DATE	2-NITROPHENOL BOT.MAT (UG/KG)	2,4-DICHLOROPHENOL BOT.MAT (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4-DINITROTOLUENE BOT.MAT (UG/KG)	2,4-DINITROPHENOL BOT.MAT (UG/KG)	2,4,6-TRICHLOROPHENOL BOT.MAT (UG/KG)	2,6-DINITROTOLUENE BOT.MAT (UG/KG)	4-BROMOPHENYL PHENYL ETHER BOT.MAT (UG/KG)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)	4-NITROPHENOL BOT.MAT (UG/KG)	4,6-DINITRO-ORTHOCRESOL BOT.MAT (UG/KG)
OCT 15...	<200	<200	<200	<200	<600	<600	<200	<200	<200	<600	<600

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PATAPSCO RIVER BASIN--Continued

01585680 - EAST BRANCH TRIBUTARY AT GREENMOUNT, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR												
26...	1345	189	7.4	8.0	8.9	7.7	14	1.5	64	22	27	0.10
MAY												
06...	1530	160	7.3	--	21	1.2	3.4	0.90	28	22	4.2	0.30

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BORON, DISSOLVED (UG/L AS B)
MAR												
26...	6.6	93	--	--	1.9	--	10	<1	<1	<100	54	<10
MAY												
06...	0.80	72	3.80	1.8	1.6	0.040	30	1	<1	<100	13	20

DATE	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)
MAR												
26...	2	1	4	<0	--	36	15	5	<5	<5	42	<1
MAY												
06...	2	1	2	<0	2	21	12	23	5	1	49	1

DATE	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
MAR											
26...	<1	<1	<1	<1.0	42	<1	30	25	1.9	1.5	0.05
MAY											
06...	<1	<1	<1	--	38	5	1200	620	--	--	0.45

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PATAPSCO RIVER BASIN--Continued

01585681 - NORTH CARROLL SHOPPING CENTER RETENTION POND AT GREENMOUNT, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3
MAR											
23...	1100	1030	9.7	10.0	15.0	14.8	21	1.1	180	2.5	162
24...	1130	--	--	--	--	--	--	--	--	--	--
31...	1500	655	9.9	14.5	19.5	14.7	16	0.79	100	1.5	--
SEP											
28...	0945	106	9.8	18.5	24.0	10.8	19	0.55	1.5	0.80	45

DATE	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)
MAR										
23...	--	15	300	0.20	0.66	571	<0.010	<0.100	0.030	1.1
24...	--	--	--	--	--	--	--	--	--	--
31...	--	11	160	0.20	0.83	322	<0.010	<0.100	0.090	1.1
SEP										
28...	1.6	9.5	2.3	0.10	1.0	67	<0.010	<0.100	<0.010	0.60

DATE	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
MAR										
23...	<0.010	180	2	<1	300	12	10	5	<0	100
24...	--	--	--	--	--	--	--	--	--	--
31...	<0.010	190	1	<1	200	8	10	4	<0	93
SEP										
28...	0.040	90	1	<1	<100	<2	20	<1	0	6

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)
MAR										
23...	<0	160	5	16	100	<0	70	7	<1	<1
24...	--	--	--	--	--	--	--	--	--	--
31...	<0	720	2	9	600	<0	8	1	<1	<1
SEP										
28...	<0	19	2	21	18	1	29	<1	<1	<1

DATE	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CYANIDE DISSOLVED (MG/L AS CN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
MAR										
23...	1	<1.0	43	6	2600	53	9.9	8.5	--	1.1
24...	--	--	--	--	--	--	0.6	1.3	--	--
31...	2	<1.0	39	6	2300	<3	55	7.9	--	0.78
SEP										
28...	<1	<1.0	27	2	180	8	9.9	9.3	<0.01	0.21

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PATAPSCO RIVER BASIN--Continued

01585682 - EAST BRANCH TRIBUTARY NEAR GREENMOUNT, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR 24...	1500	215	6.3	8.0	15	5.2	10	1.1	21	14	19	0.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
MAR 24...	3.6	81	<10	30	<0.5	<0	2	<0	<3	2	3	<3

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
MAR 24...	<5	<0	<4	17	2	<10	<1.0	46	<6	<10	<10

SEVERN RIVER BASIN

385927076321705 - PRECIPITATION AT ANNAPOLIS, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)
JUN 09...	1130	124	3.7	2.2	0.44	1.2	13	0.76	0.16	<0.010
AUG 16...	1000	68	4.0	1.1	0.18	1.3	--	--	--	--

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)
JUN 09...	0.16	25	1.60	<0.010	5	<0.5	2	30	<3	70
AUG 16...	0.25	--	--	--	4	<0.5	<1	<5	<3	<10

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
JUN 09...	50	<10	<4	26	<10	<10	<1.0	5	<6	160
AUG 16...	110	<10	<4	9	<10	<10	<1.0	3	<6	230

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

SEVERN RIVER BASIN--Continued

01589903 - ANNAPOLIS PLAZA POND INLET AT ANNAPOLIS, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)
JUN											
09...	1045	79	6.4	--	8.8	0.69	0.80	1.0	9	<0.5	15
AUG											
16...	0715	84	6.5	25.5	9.6	0.77	3.6	1.4	16	--	19

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)
JUN											
09...	1.4	0.20	0.29	35	--	--	--	--	2.5	0.100	--
AUG											
16...	2.0	0.10	0.84	53	0.760	0.030	0.790	0.300	0.70	39.0	0.540

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ANTIMONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)
JUN											
09...	40	<1	<1	<1	<1	100	7	--	30	20	1
AUG											
16...	30	<1	<1	7	7	<100	8	<0.5	20	40	1

DATE	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
JUN											
09...	1	5	<0	2	13	7	39	12	1	<4	27
AUG											
16...	<0	3	1	2	21	3	60	11	<0	<4	52

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
JUN											
09...	<0.10	11	3	5	2	22	4	240	180	8.7	0.28
AUG											
16...	0.20	1	1	13	7	26	--	290	150	--	0.90

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

SEVERN RIVER BASIN--Continued

01589906 - ANNAPOLIS PLAZA POND OUTLET AT ANNAPOLIS, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFIDE TOTAL (MG/L AS S)
JUN												
03...	1130	64	7.8	23.5	16.0	9.0	7.7	1.1	1.8	2.5	17	<0.5
AUG												
17...	0930	71	6.8	26.0	29.0	8.0	10	0.85	1.6	1.2	17	<0.5

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)
JUN												
03...	9.6	3.3	0.30	0.75	41	--	<0.010	<0.100	0.080	0.70	0.090	<0.010
AUG												
17...	13	1.4	<0.10	1.1	41	0.150	0.010	0.160	0.020	0.50	0.410	<0.010

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ANTIMONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)
JUN												
03...	30	<1	4	3	1	<100	7	--	10	40	2	<0
AUG												
17...	20	<1	<1	2	1	<100	16	<0.5	10	80	2	1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
JUN											
03...	58	<0	3	30	2	37	55	<0	<4	3	<0.10
AUG											
17...	58	<0	1	38	5	69	74	1	<4	23	<0.10

DATE	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
JUN											
03...	6	2	20	3	21	3	730	3	13	12	0.55
AUG											
17...	1	1	29	5	26	4	90	7	--	--	0.49

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PATUXENT RIVER BASIN

383218076351702 - PRECIPITATION AT PRINCE FREDERICK, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)
DEC 11...	1230	25	4.8	11.0	0.53	0.22	1.4	2.5	0.32	0.02	<0.010

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)
DEC 11...	0.11	7	0.380	<0.010	5	<0.5	0	5	0	20

DATE	IRON, DISSOLVED (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
DEC 11...	22	1	<4	4	<10	>1	4.0	6	<6	66

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PATUXENT RIVER BASIN--Continued

383217076351704 - POROUS PAVEMENT PERCOLATE AT PRINCE FREDERICK, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	OXYGEN, DISSOLVED (MG/L)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)
DEC												
14...	0900	395	8.6	--	--	--	5.5	48	5.9	--	199	16
APR												
20...	1430	540	8.1	12.0	--	10.6	6.6	48	23	1.6	191	13
AUG												
23...	1000	430	--	27.0	26.0	6.9	5.9	47	9.8	3.8	--	16

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)
DEC												
14...	8.2	0.10	<0.010	1.3	89	--	<0.010	0.820	0.020	<0.20	<0.010	<0.010
APR												
20...	38	0.10	--	1.5	239	1.09	0.010	1.10	0.100	0.30	<0.010	<0.010
AUG												
23...	16	0.10	--	1.8	222	--	<0.010	1.70	<0.010	--	--	0.010

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
DEC												
14...	--	--	--	--	5	<10	<0.5	--	<1	0	3	<5
APR												
20...	<10	<1	<1	1	6	--	--	30	--	0	<1	<0
AUG												
23...	10	<1	--	--	8	--	<0.5	--	--	0	--	<0

DATE	CHROMIUM, HEXAVALENT, DIS. (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)
DEC												
14...	--	1	<0	5	<10	8	<5	<0	<4	<1	--	1
APR												
20...	<1	--	<0	3	1	3	<5	<0	--	<1	<0.10	<1
AUG												
23...	1	<1	<0	--	7	7	--	<0	--	1	--	4

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
DEC											
14...	<10	4	<10	<1.0	<10	14	<6	<10	6	2.1	0.06
APR											
20...	<1	--	6	--	--	19	<1	<10	<3	6.4	0.08
AUG											
23...	<1	--	4	--	--	19	<1	--	10	--	0.07

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PATUXENT RIVER BASIN--Continued

01594680 - MILL CREEK TRIBUTARY AT PRINCE FREDERICK, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT												
09...	1400	395	7.9	14.5	4.9	29	24	1.6	116	12	38	0.10
DEC												
11...	1200	783	8.0	--	4.8	29	110	1.7	125	15	160	0.10
APR												
20...	1300	698	8.1	11.5	6.8	30	86	1.3	125	13	130	0.10
MAY												
09...	0730	850	8.2	--	7.7	39	93	3.2	165	17	150	0.20
JUL												
12...	1000	--	7.4	27.0	9.4	21	35	2.9	--	27	46	<0.10
AUG												
23...	1100	240	7.3	--	7.5	17	14	3.0	74	18	15	0.10

DATE	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHOROUS TOTAL (MG/L AS P)	PHOSPHOROUS DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
OCT											
09...	--	2.1	181	--	--	--	--	--	--	--	--
DEC											
11...	--	1.6	405	1.38	0.020	1.40	0.150	0.70	--	0.020	--
APR											
20...	--	1.8	357	2.77	0.030	2.80	0.210	1.1	0.030	0.020	0.010
MAY											
09...	--	1.6	427	2.57	0.130	2.70	0.460	1.7	0.050	--	<0.010
JUL											
12...	18	2.1	218	--	--	--	--	1.3	--	0.010	--
AUG											
23...	--	2.3	130	1.89	0.210	2.10	0.360	1.3	0.130	--	--

DATE	PHOSPHOROUS ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, DISSOLVED (UG/L AS SB)	ANTIMONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)
OCT											
09...	--	--	2	<1	<1	1	<100	7	--	--	20
DEC											
11...	0.020	--	--	--	--	--	--	--	<10	--	--
APR											
20...	0.010	<10	1	--	1	<1	--	7	--	--	10
MAY											
09...	0.010	<10	<1	--	--	<1	--	11	--	--	20
JUL											
12...	--	<10	<1	--	1	1	--	4	--	--	20
AUG											
23...	0.070	20	<1	--	--	--	--	8	--	<0.5	--

DATE	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)	CHROMIUM, HEXAVALENT, DIS. (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
OCT											
09...	30	<1	0	<10	<0	--	<1	<0	5	6	--
DEC											
11...	--	<1	<0	2	<0	--	2	<0	4	5	--
APR											
20...	--	--	0	<1	<0	<1	--	<0	4	4	<3
MAY											
09...	--	--	0	1	<0	--	--	<0	10	6	6
JUL											
12...	--	--	0	5	<0	--	--	<0	11	8	20
AUG											
23...	--	--	0	--	<0	<1	<1	<0	--	6	16

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PATUXENT RIVER BASIN--Continued

01594680 - MILL CREEK TRIBUTARY AT PRINCE FREDERICK, MD--Continued

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)
OCT											
09...	<5	<5	<10	6	--	--	--	1	<1	5	7
DEC											
11...	<5	<0	--	--	--	--	--	<1	<1	6	4
APR											
20...	<5	1	--	--	1	--	<0.10	<1	<1	--	3
MAY											
09...	<5	<0	--	--	6	--	--	4	3	--	9
JUL											
12...	7	<0	--	--	21	--	0.10	3	<1	--	16
AUG											
23...	--	<0	--	--	4	0.1	<0.10	3	1	--	3

DATE	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
OCT											
09...	<1	<1	<1.0	<10	19	<1	170	97	8.9	6.5	0.07
DEC											
11...	<1	--	--	<10	27	<1	110	57	7.0	--	0.11
APR											
20...	--	--	--	--	26	<1	200	60	12	--	0.19
MAY											
09...	--	--	--	--	31	<1	250	140	--	--	0.18
JUL											
12...	--	--	--	--	35	6	250	230	--	--	0.74
AUG											
23...	--	--	--	--	31	2	--	100	--	--	0.33

POTOMAC RIVER BASIN

384040077073000 - POTOMAC RIVER AT BUOY 64/66 BETWEEN MARSHALL HALL, MD AND HL

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
AUG								
30...	1340	396	8.0	15.0	20.0	29	10	31

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG								
30...	53	43	0.044	0.61	222	201	12	4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

POTOMAC RIVER BASIN--Continued

383330077141000 - POTOMAC RIVER AT BUOY 45/46 BETWEEN INDIAN HEAD, MD AND QUANTICO, VA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 30...	1230	944	7.5	14.5	28.0	20	21	120

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 30...	69	210	0.61	0.88	530	461	14	69

01655480 - POTOMAC RIVER AT INDIAN HEAD, MD

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TEMPERATURE AIR (DEG C)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
AUG 30...	1300	403	8.0	15.5	20.0	23	11	35

DATE	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	BROMIDE DISSOLVED (MG/L AS BR)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
AUG 30...	51	56	0.081	0.31	216	203	<3	3

GROUND-WATER SPRING DISCHARGE

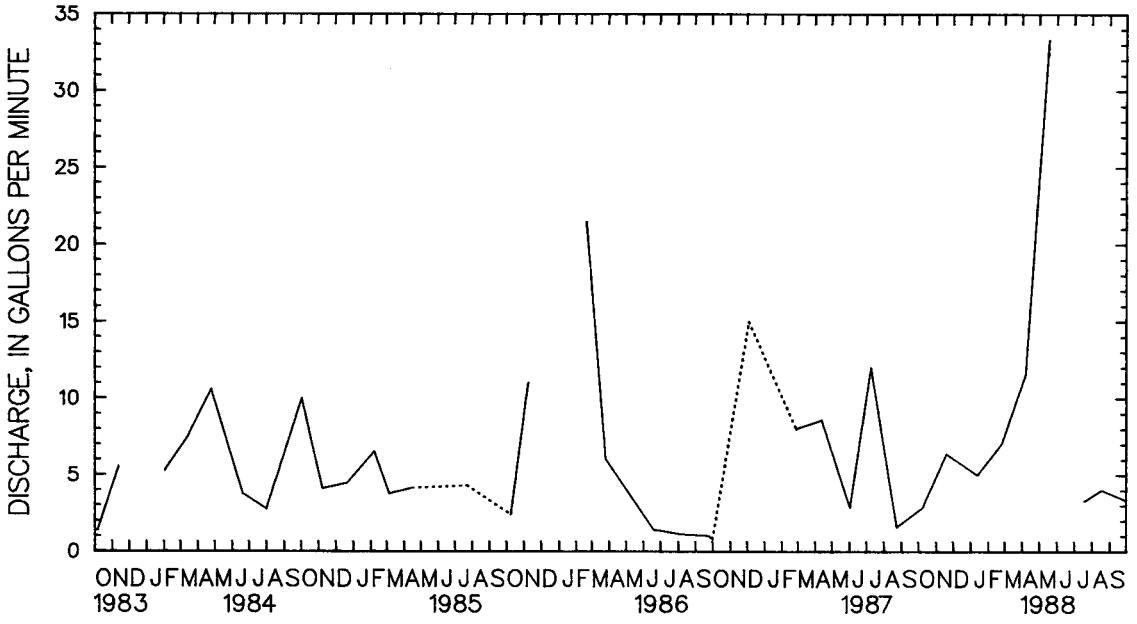
MARYLAND

FREDERICK COUNTY

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.
SPRING IMPROVEMENTS.--2 in. outflow pipe.
INSTRUMENTATION.--Measured volumetrically with calibrated bucket and stop watch.
DATUM.--Elevation of land-surface datum is 300 ft above National Geodetic Vertical Datum of 1929.
REMARKS.--Temperatures 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 1987 TO SEPTEMBER 1988

DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE	DATE	DISCHARGE
OCT 8	2.86	JAN 13	5.00	APR 7	11.54	JUL 20	3.30
NOV 19	6.38	FEB 25	7.06	MAY 18	33.33	AUG 18	4.00



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

GROUND-WATER LEVELS

DELAWARE

KENT COUNTY

WELL NUMBER.--Id 55-1. SITE ID.--391026075304901.
LOCATION.--Lat 39°10'26", long 75°30'49", Hydrologic Unit 02040207, White Oak Road at Dover.
Owner: City of Dover.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2.5 in., depth 349 ft, cased to 329 ft, screened 329 to 349 ft.
INSTRUMENTATION.--Water-level recorder--60-minute recording interval.
DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.0 ft above land-surface datum.
REMARKS.--Water level affected by pumping in the Dover area. Missing record from Oct. 1-15 and July 24 to Aug 4, water level was below orifice.
PERIOD OF RECORD.--August 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 67.40 ft below land-surface datum, May 5, 1970; lowest recorded, 165.81 ft below land-surface datum, Aug. 19-20, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	155.70	155.63	149.80	149.49	147.97	147.88	143.49	143.36	143.45	143.17	141.46	141.26
2	155.63	155.46	149.47	149.17	148.24	147.97	143.35	143.22	143.73	143.45	141.27	141.11
3	155.44	155.25	149.15	148.79	148.27	148.16	143.20	142.69	143.87	143.74	141.13	141.06
4	155.24	154.94	148.77	148.52	---	---	142.66	142.21	143.75	143.51	141.10	140.96
5	154.92	154.47	148.50	148.38	---	---	142.20	142.00	143.59	143.45	141.24	141.11
6	154.46	154.18	148.48	148.45	---	---	141.99	141.85	143.46	143.35	141.21	140.93
7	154.17	154.00	148.48	148.36	---	---	141.88	141.70	143.39	143.06	140.93	140.74
8	154.02	153.93	148.38	148.26	---	---	141.68	141.51	143.04	142.66	140.85	140.78
9	153.98	153.87	148.26	148.15	---	---	141.65	141.58	142.64	142.34	140.78	140.53
10	153.88	153.72	148.15	147.95	---	---	141.67	141.64	142.76	142.33	140.64	140.51
11	153.71	153.35	147.95	147.78	148.81	148.78	141.63	141.32	143.05	142.78	140.73	140.64
12	153.34	152.86	147.78	147.72	148.96	148.81	141.32	141.21	143.25	142.93	140.71	140.55
13	152.85	152.59	147.72	147.62	149.19	148.98	141.31	141.19	143.55	143.26	140.55	140.45
14	152.59	152.41	147.63	147.58	149.27	149.19	141.41	141.32	143.73	143.56	140.57	140.48
15	152.40	152.28	147.70	147.63	149.27	148.94	141.35	141.24	143.71	143.51	140.51	140.45
16	152.30	152.21	147.65	147.47	148.96	148.93	141.69	141.36	143.68	143.46	140.57	140.47
17	152.21	152.08	147.45	147.12	149.10	148.93	141.97	141.70	143.75	143.67	140.71	140.58
18	152.08	151.93	147.14	147.07	149.14	149.05	142.27	141.96	144.05	143.75	140.92	140.72
19	151.93	151.74	147.17	147.10	149.03	148.63	142.32	142.21	144.07	143.86	141.18	140.93
20	151.73	151.49	147.32	147.08	148.60	147.99	142.19	141.88	143.86	143.78	141.45	141.19
21	151.49	151.37	147.78	147.33	147.95	147.54	142.06	141.91	143.78	143.61	141.59	141.46
22	151.40	151.31	148.00	147.79	147.52	147.02	142.09	142.04	143.60	143.08	141.71	141.60
23	151.33	151.10	148.06	148.00	147.02	146.81	142.04	141.88	143.07	142.83	141.67	141.53
24	151.10	150.71	148.30	148.06	146.80	146.18	141.88	141.66	142.86	142.79	141.52	141.45
25	150.71	150.50	148.43	148.31	146.15	145.47	141.66	141.46	142.79	142.63	141.66	141.51
26	150.50	150.33	148.54	148.44	145.44	145.04	141.67	141.46	142.63	142.36	141.78	141.67
27	150.33	150.03	148.58	148.45	145.01	144.53	141.75	141.67	142.36	142.12	141.93	141.78
28	150.12	150.04	148.44	148.23	144.51	143.97	141.98	141.75	142.12	141.84	141.95	141.81
29	150.15	150.08	148.22	147.90	143.94	143.82	142.23	141.99	141.84	141.46	141.80	141.35
30	150.09	149.88	147.88	147.85	143.90	143.81	142.63	142.24	---	---	141.35	141.04
31	149.88	149.82	---	---	143.79	143.51	143.16	142.65	---	---	141.04	140.86
MONTH	155.70	149.82	149.80	147.07	---	---	143.49	141.19	144.07	141.46	141.95	140.45

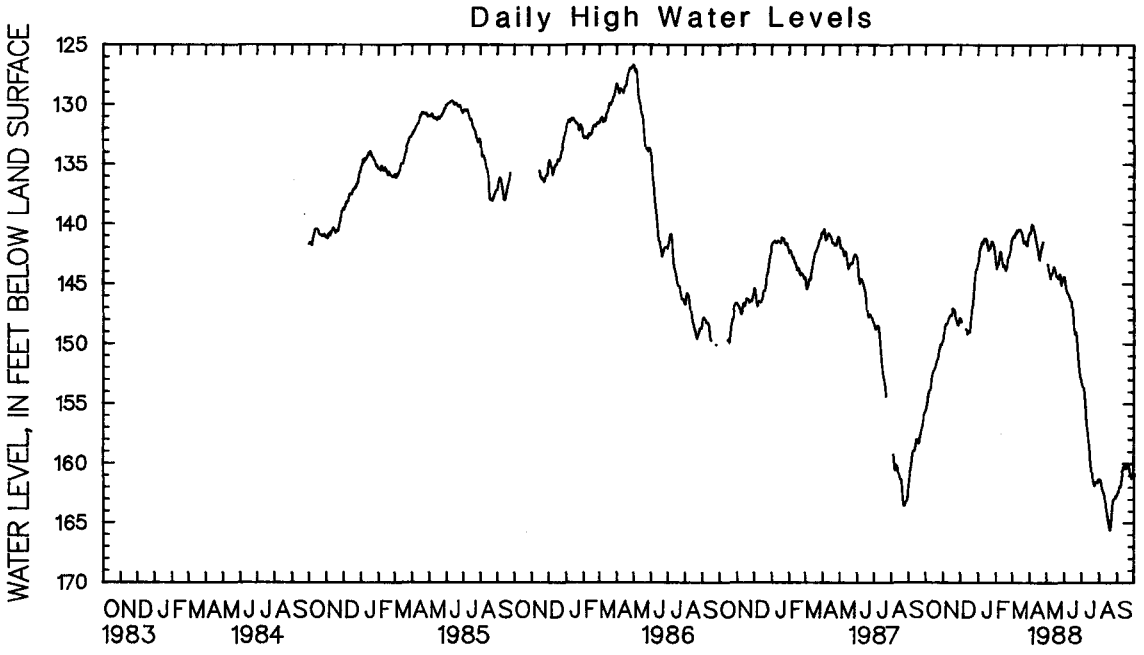
GROUND-WATER LEVELS

DELAWARE--Continued

KENT COUNTY--Continued

Id 55-1--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	140.87	140.74	---	---	144.50	144.43	153.48	153.24	161.39	161.37	162.68	162.54
2	140.88	140.76	---	---	145.02	144.53	153.59	153.48	161.51	161.39	162.54	162.38
3	140.88	140.64	143.66	143.37	145.34	145.04	153.67	153.60	161.77	161.53	162.39	162.38
4	140.64	140.22	143.98	143.67	145.62	145.34	153.74	153.68	162.09	161.79	162.38	162.04
5	140.22	140.05	144.13	143.99	145.75	145.64	154.03	153.75	162.28	162.11	162.02	161.95
6	140.12	140.05	144.32	144.08	145.84	145.75	154.56	154.05	162.42	162.29	162.03	161.98
7	140.38	140.12	144.58	144.34	145.88	145.81	155.29	154.59	162.54	162.42	161.97	161.80
8	140.54	140.38	144.66	144.57	145.98	145.88	155.98	155.32	162.60	162.54	161.79	161.48
9	140.70	140.54	144.56	144.30	146.09	145.95	156.69	156.01	162.83	162.61	161.46	161.06
10	140.93	140.70	144.29	144.18	146.20	146.09	157.20	156.72	163.19	162.84	161.03	160.64
11	141.22	140.93	144.18	144.07	146.40	146.21	157.50	157.21	163.50	163.20	160.63	160.55
12	141.50	141.22	144.06	143.88	146.52	146.41	157.94	157.52	163.84	163.51	160.56	160.36
13	141.81	141.50	143.86	143.60	146.50	146.42	158.44	157.96	164.19	163.86	160.35	160.24
14	142.05	141.81	143.70	143.58	147.02	146.48	158.93	158.46	164.46	164.21	160.40	160.31
15	142.28	142.05	143.89	143.71	147.64	147.05	159.57	158.95	164.72	164.47	160.42	160.39
16	142.74	142.29	144.07	143.90	148.28	147.67	160.13	159.60	165.09	164.74	160.51	160.42
17	142.95	142.75	144.32	144.08	148.89	148.30	160.44	160.15	165.24	165.11	160.54	160.41
18	143.25	142.96	144.47	144.32	149.20	148.91	160.81	160.46	165.61	165.27	160.40	160.14
19	143.28	143.01	144.47	144.40	149.23	149.21	161.20	160.82	165.81	165.64	160.13	160.01
20	143.00	142.52	144.54	144.43	149.22	149.06	161.55	161.22	165.81	165.55	160.03	159.99
21	142.50	142.17	144.62	144.54	149.29	149.06	161.76	161.56	165.54	165.17	160.39	160.04
22	142.17	142.10	144.65	144.62	149.83	149.31	162.00	161.77	165.15	164.61	160.84	160.40
23	142.13	141.79	144.61	144.37	150.50	149.86	162.03	161.90	164.59	163.97	161.10	160.84
24	141.77	141.66	144.36	144.23	151.19	150.53	161.90	161.80	163.92	163.35	161.30	161.11
25	141.66	141.52	144.79	144.27	151.68	151.22	161.79	161.62	163.30	163.06	161.31	161.27
26	---	---	145.17	144.81	152.13	151.69	161.61	161.57	163.07	163.00	161.31	161.21
27	---	---	145.28	145.15	152.56	152.14	161.63	161.56	163.01	162.96	161.23	161.10
28	---	---	145.14	144.91	152.85	152.57	161.78	161.63	163.00	162.95	161.10	160.98
29	---	---	144.90	144.77	152.95	152.85	161.78	161.65	162.95	162.74	161.04	160.97
30	---	---	144.77	144.58	153.23	152.96	161.64	161.41	162.89	162.78	160.97	160.77
31	---	---	144.59	144.46	---	---	161.41	161.34	162.89	162.68	---	---
MONTH	---	---	---	---	153.23	144.43	162.03	153.24	165.81	161.37	162.68	159.99



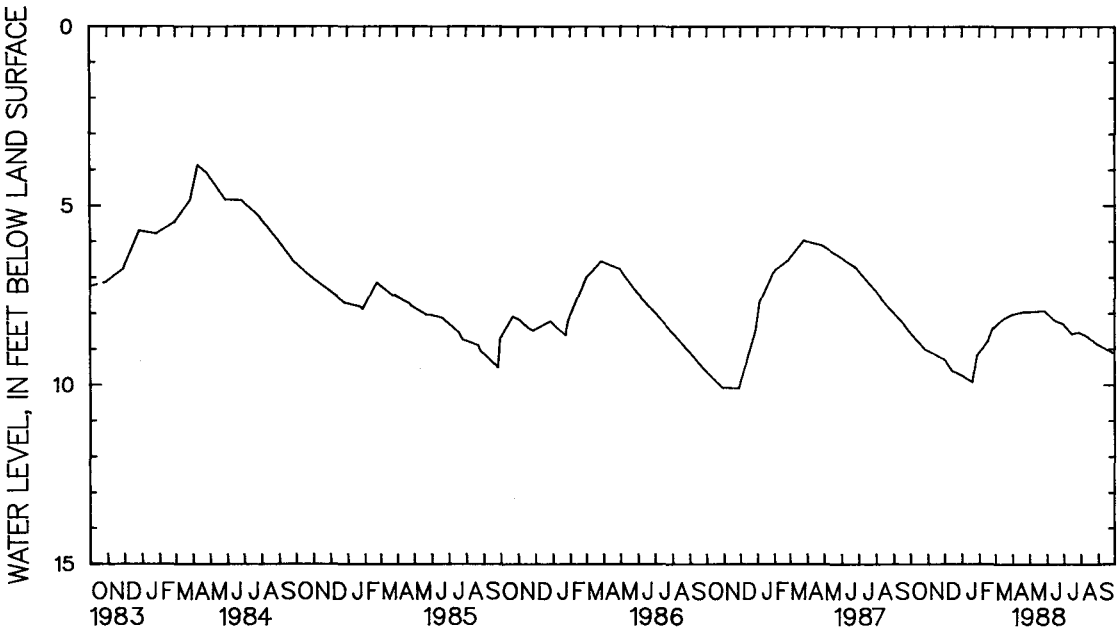
5 YEAR HYDROGRAPH

OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--Jd 42-3. STATION ID.--390607075331501.
LOCATION.--Lat 39°06'07", long 75°33'15", Hydrologic Unit 02040207, 1 mi south of Camden.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 1.25 in., depth 11 ft, well point 8.5 to 11 ft.
INSTRUMENTATION.--Measurements with chalked steel tape.
DATUM.--Elevation of land-surface datum is 44 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
REMARKS.--This is a replacement well and is located 2 ft north of the original well. The measurements published in WSP 1782, for the years 1958-61 for the original well, are doubtful.
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 datum, July 18, 1975; lowest measured, 10.10 ft below land-surface datum, Nov. 28, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	8.80	DEC 28	9.72	FEB 25	8.43	APR 26	7.97	JUL 15	8.58	SEP 26	9.11
28	9.03	JAN 19	9.94	MAR 16	8.16	MAY 27	7.94	28	8.55		
DEC 1	9.31	28	9.19	31	8.04	JUN 16	8.22	AUG 11	8.65		
15	9.63	FEB 16	8.80	APR 19	7.97	29	8.30	29	8.86		

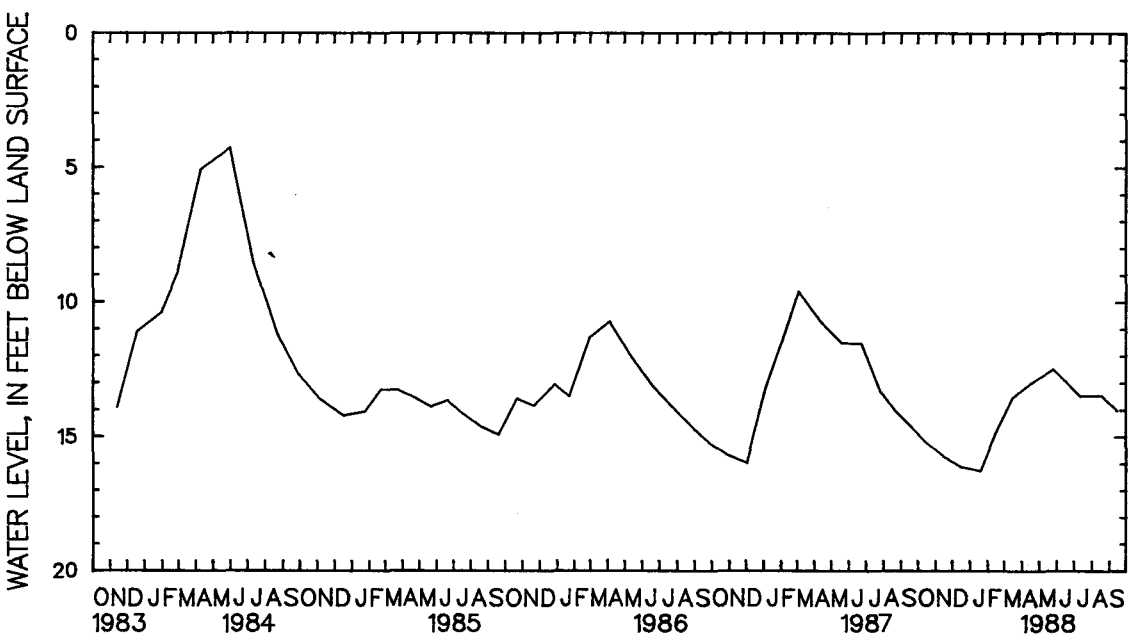


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--Mc 51-1. 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 Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 2 in., depth 19 ft, well point 15 to 19 ft.
INSTRUMENTATION.--Measurements with chalked steel tape.
DATUM.--Elevation of land-surface datum is 55 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
REMARKS.--This is a replacement well and is located about 60 ft north of original well.
PERIOD OF RECORD.--September 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.28 ft below land-surface datum, May 31, 1984; lowest measured, 16.29 ft below land-surface datum, Jan. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	15.21	JAN 19	16.29	APR 19	12.98	JUL 11	13.49	SEP 15	14.02
NOV 17	15.79	FEB 16	14.85	MAY 25	12.50	13	13.50		
DEC 15	16.13	MAR 16	13.55	JUN 16	12.94	AUG 17	13.48		

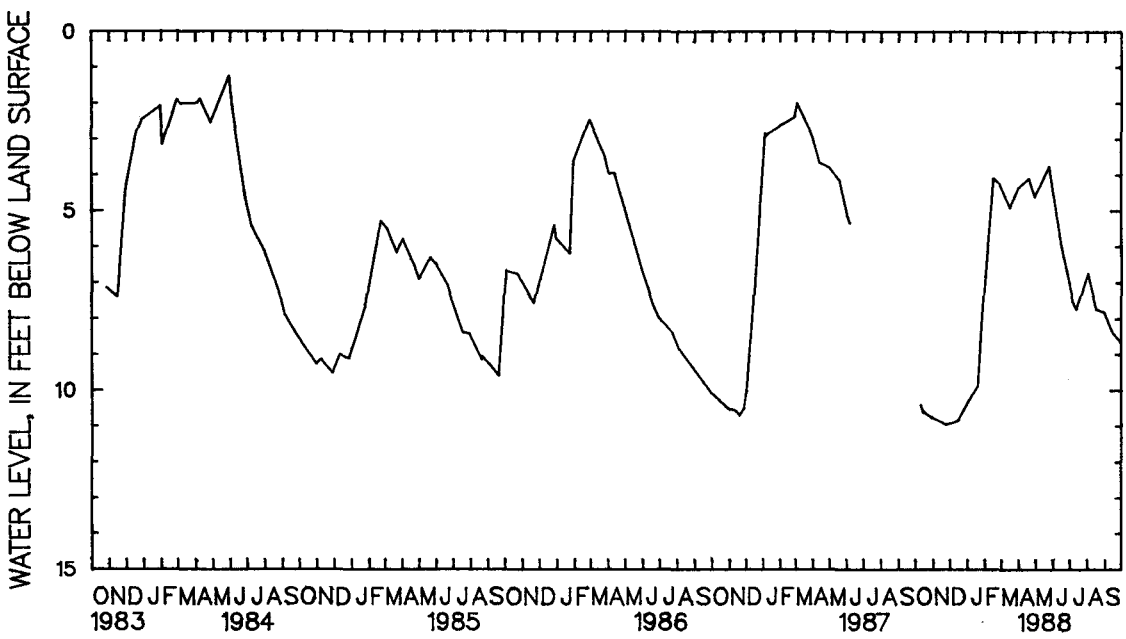


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--Md 22-1. SITE ID.--385310075331301.
LOCATION.--Lat 38°53′10″, long 75°33′13″, Hydrologic Unit 02040207, 2.4 mi west of Williamsville.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 1 in., depth 17 ft, well point 14 to 17 ft.
INSTRUMENTATION.--Measurements with chalked steel tape.
DATUM.--Elevation of land-surface datum is 58 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--September 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.07 ft below land-surface datum, July 14, 1975; lowest measured, 11.14 ft below land-surface datum, Jan. 6, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	10.61	DEC 15	10.86	FEB 16	4.09	APR 19	4.09	JUN 30	7.02	AUG 17	7.75
29	10.77	JAN 4	10.27	26	4.22	29	4.60	JUL 7	7.55	31	7.84
NOV 23	10.96	19	9.90	MAR 16	4.90	MAY 25	3.76	13	7.75	SEP 15	8.41
30	10.94	28	7.76	31	4.35	JUN 16	6.00	AUG 2	6.76	29	8.66



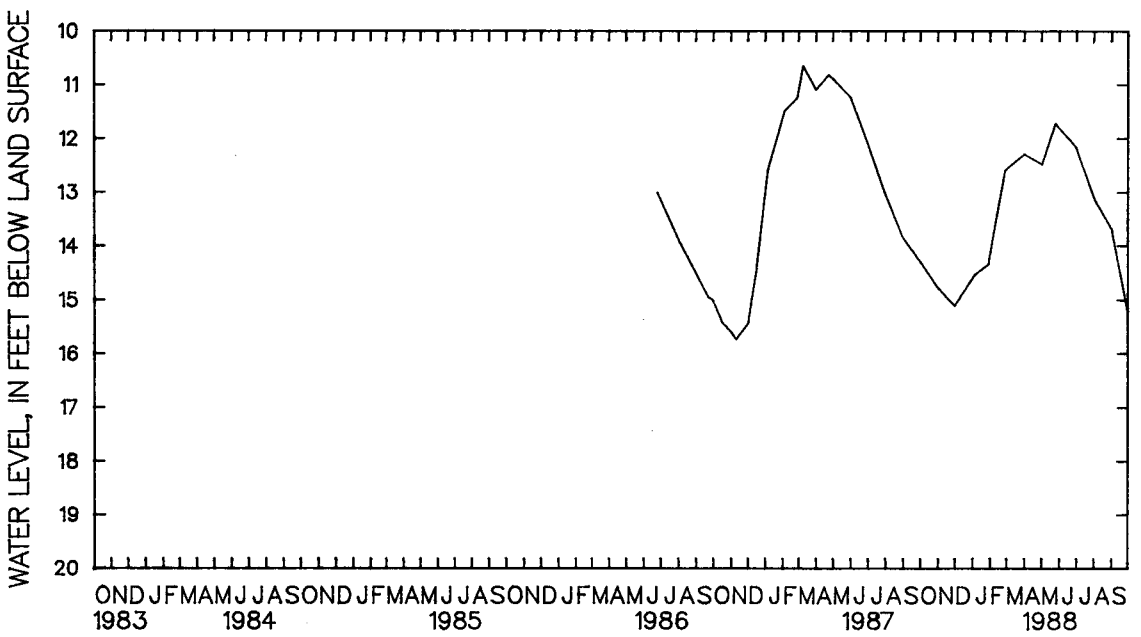
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

NEW CASTLE COUNTY

WELL NUMBER.--Db 24-17. SITE ID.--393855075415402.
LOCATION.--Lat 39°38′55″, long 75°41′54″, Hydrologic Unit 02040205, 2 mi south of Ogletown.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 2 in., depth 22 ft, screened 17 to 22 ft.
INSTRUMENTATION.--Measurements with chalked steel tape.
DATUM.--Elevation of land-surface datum is 77 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .55 ft above land-surface datum.
REMARKS.--This is a replacement well for Db 24-10, and is located 48 ft west of Db 24-10.
PERIOD OF RECORD.--June 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.65 ft below land-surface datum, Mar. 9, 1987; lowest measured, 15.74 ft below land-surface datum, Nov. 10, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	14.32	JAN 5	14.54	APR 1	12.29	JUN 30	12.15	SEP 30	15.25
NOV 2	14.80	29	14.35	MAY 2	12.48	AUG 3	13.16		
DEC 1	15.12	FEB 28	12.59	25	11.72	SEP 1	13.69		

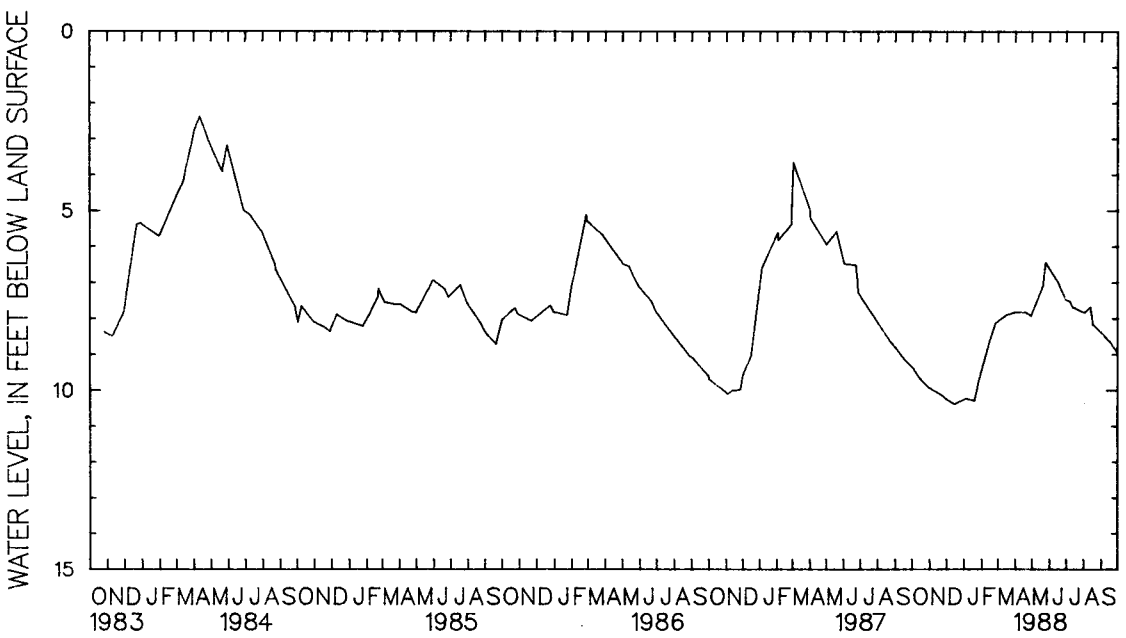


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--Hb 14-1. SITE ID.--391949075410701.
LOCATION.--Lat 39°19′49″, long 75°41′07″, Hydrologic Unit 02040205, at Prices Corners.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 1 in., depth 19 ft, well point 16 to 19 ft.
INSTRUMENTATION.--Measurements with chalked steel tape.
DATUM.--Elevation of land-surface datum is 72 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--October 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.49 ft below land-surface datum, Apr. 7, 1958; lowest measured, 11.95 ft below land-surface datum, Aug. 31, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	9.37	DEC 15	10.40	FEB 26	8.12	MAY 20	7.10	JUL 13	7.69	SEP 15	8.63
14	9.68	JAN 4	10.25	MAR 16	7.90	25	6.44	AUG 2	7.84	29	8.94
29	9.93	19	10.30	31	7.83	JUN 16	6.99	13	7.69		
NOV 23	10.16	28	9.67	APR 19	7.83	30	7.48	17	8.17		
30	10.26	FEB 16	8.60	29	7.93	JUL 7	7.52	31	8.38		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--Nc 13-3. SITE ID.--384930075370201.
LOCATION.--Lat 38°49′30″, long 75°37′02″, Hydrologic Unit 02060008, 2.0 mi northwest of Greenwood.
Owner: University of Delaware.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in., depth 630 ft, cased to 620 ft, screened 620 to 630 ft.
INSTRUMENTATION.--Digital water-level recorder--60-minute recording interval.
DATUM.--Land surface datum is 62.5 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--December 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 69.70 ft below land-surface datum, Jan. 1, 1971; lowest recorded, 84.38 ft below land-surface datum, Sept. 29-30, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	82.71	82.52	83.16	83.08	82.83	82.77	83.25	83.10	83.22	83.11	83.15	83.07
2	82.77	82.69	83.12	83.07	83.04	82.82	83.36	83.26	83.19	83.04	83.16	83.03
3	82.73	82.63	83.09	82.95	83.05	82.88	83.36	83.11	83.22	83.15	83.07	83.01
4	82.74	82.67	82.97	82.84	82.93	82.78	83.14	83.02	83.11	82.93	83.07	82.89
5	82.75	82.67	82.99	82.79	83.05	82.93	83.29	83.16	83.17	83.10	83.23	83.11
6	82.71	82.62	83.10	82.99	83.20	83.05	83.38	83.28	83.29	83.18	83.18	83.05
7	82.69	82.57	83.10	83.03	83.24	83.20	83.40	83.28	83.35	83.20	83.17	83.04
8	82.90	82.70	83.10	83.04	83.26	83.16	83.24	83.01	83.21	83.18	83.25	83.14
9	82.94	82.90	83.06	83.02	83.16	82.99	83.19	83.05	83.21	83.15	83.13	82.86
10	82.93	82.86	83.05	82.86	83.02	82.88	83.29	83.19	83.21	83.15	83.01	82.84
11	82.87	82.78	82.91	82.79	82.89	82.85	83.28	83.21	83.22	82.96	83.14	83.03
12	82.83	82.75	82.90	82.82	82.92	82.82	83.21	83.08	82.90	82.71	83.13	82.97
13	82.89	82.79	82.92	82.88	83.15	82.94	83.19	83.02	82.98	82.79	82.97	82.86
14	82.96	82.90	83.04	82.90	83.20	83.14	83.40	83.19	83.06	82.98	82.97	82.90
15	82.93	82.86	83.18	83.04	83.15	82.75	83.38	83.24	82.98	82.77	83.07	82.94
16	82.93	82.89	83.19	83.12	82.93	82.82	83.30	83.24	83.04	82.71	83.17	83.04
17	82.90	82.81	83.11	82.92	83.16	82.93	83.29	83.16	83.06	82.99	83.24	83.16
18	82.89	82.82	83.05	82.89	83.22	83.16	83.18	83.03	83.06	82.98	83.24	83.04
19	82.92	82.85	83.07	82.95	83.21	83.11	83.20	83.16	83.06	82.73	83.04	82.99
20	82.91	82.81	82.95	82.77	83.19	82.96	83.16	82.87	82.79	82.74	83.18	82.99
21	82.95	82.79	83.05	82.87	83.16	83.03	83.01	82.91	83.05	82.80	83.33	83.21
22	83.04	82.95	83.14	83.05	83.17	83.02	83.04	83.01	83.07	82.96	83.41	83.34
23	83.05	82.99	83.15	83.07	83.25	83.05	83.06	83.00	82.97	82.88	83.40	83.30
24	83.07	82.98	83.15	83.11	83.28	83.15	83.08	83.04	83.04	82.97	83.29	83.26
25	83.01	82.97	83.17	83.08	83.14	83.02	83.04	82.82	83.07	83.01	83.28	83.23
26	83.03	82.96	83.12	83.04	83.19	83.02	83.15	82.82	83.10	83.00	83.23	82.99
27	82.97	82.71	83.19	83.12	83.21	83.17	83.31	83.15	82.98	82.85	83.19	82.98
28	82.92	82.76	83.16	83.04	83.18	82.95	83.36	83.26	83.06	82.98	83.29	83.19
29	83.00	82.93	83.04	82.80	83.19	82.88	83.38	83.31	83.10	82.99	83.29	83.19
30	83.04	82.96	82.80	82.73	83.33	83.18	83.30	83.18	---	---	83.25	83.17
31	83.16	82.99	---	---	83.30	83.14	83.23	83.18	---	---	83.31	83.22
MONTH	83.16	82.52	83.19	82.73	83.33	82.75	83.40	82.82	83.35	82.71	83.41	82.84

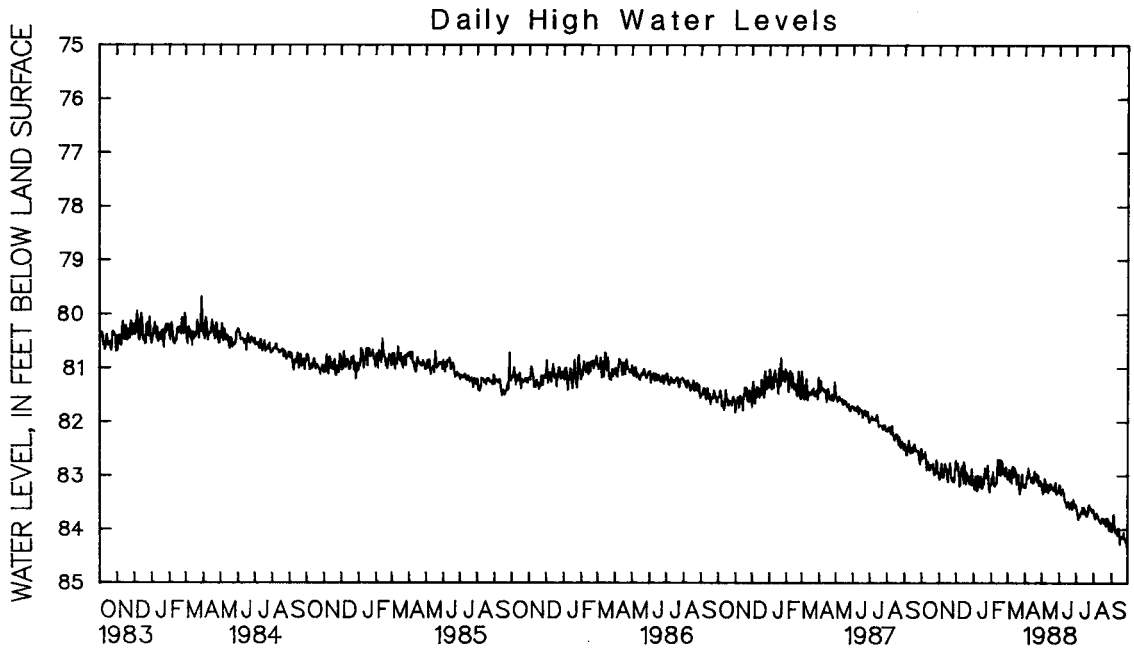
GROUND-WATER LEVELS

DELAWARE--Continued

SUSSEX COUNTY--Continued

Nc 13-3--Continued

DAY	APRIL MAX	APRIL MIN	MAY MAX	MAY MIN	JUNE MAX	JUNE MIN	JULY MAX	JULY MIN	AUGUST MAX	AUGUST MIN	SEPTEMBER MAX	SEPTEMBER MIN
1	83.27	83.21	83.32	83.25	83.31	83.18	83.64	83.58	83.74	83.68	84.09	84.05
2	83.29	83.22	83.35	83.28	83.38	83.19	83.69	83.64	83.79	83.75	84.10	84.04
3	83.25	83.13	83.38	83.34	83.37	83.32	83.74	83.68	83.82	83.80	84.03	83.96
4	83.13	83.02	83.35	83.31	83.41	83.36	83.81	83.75	83.85	83.79	83.96	83.76
5	83.14	83.06	83.31	83.13	83.41	83.30	83.85	83.82	83.82	83.77	83.88	83.73
6	83.11	82.96	83.12	83.07	83.35	83.29	83.84	83.77	83.79	83.71	83.99	83.89
7	82.95	82.87	83.28	83.11	83.32	83.26	83.79	83.77	83.79	83.73	84.10	83.99
8	83.03	82.93	83.36	83.29	83.37	83.32	83.80	83.74	83.81	83.76	84.15	84.06
9	83.10	83.02	83.35	83.26	83.42	83.32	83.76	83.70	83.86	83.80	84.09	84.04
10	83.09	83.05	83.24	83.17	83.53	83.42	83.75	83.68	83.89	83.82	84.09	84.02
11	83.16	83.05	83.33	83.17	83.54	83.48	83.77	83.70	83.93	83.84	84.16	84.09
12	83.16	83.12	83.41	83.32	83.56	83.49	83.77	83.60	83.91	83.86	84.19	84.12
13	83.18	83.09	83.39	83.26	83.61	83.53	83.70	83.60	83.93	83.89	84.12	83.98
14	83.23	83.14	83.36	83.27	83.66	83.59	83.66	83.60	83.92	83.87	84.12	84.04
15	83.16	83.03	83.36	83.27	83.62	83.56	83.72	83.61	83.88	83.80	84.28	84.14
16	83.19	83.13	83.28	83.16	83.56	83.50	83.75	83.71	83.88	83.85	84.32	84.28
17	83.19	83.04	83.28	83.18	83.53	83.49	83.73	83.65	83.90	83.80	84.30	84.20
18	83.03	82.93	83.29	83.23	83.62	83.54	83.75	83.70	83.89	83.81	84.20	84.16
19	83.12	83.04	83.27	83.22	83.65	83.62	83.76	83.73	83.93	83.89	84.20	84.16
20	83.16	83.07	83.30	83.26	83.62	83.56	83.78	83.76	83.90	83.81	84.20	84.14
21	83.11	82.97	83.31	83.26	83.56	83.53	83.78	83.72	83.93	83.83	84.19	84.13
22	83.19	83.12	83.31	83.28	83.55	83.51	83.77	83.68	84.05	83.94	84.24	84.17
23	83.24	83.06	83.28	83.23	83.62	83.50	83.70	83.56	84.07	83.93	84.17	84.07
24	83.18	83.00	83.24	83.18	83.72	83.63	83.60	83.55	83.91	83.80	84.27	84.16
25	83.24	83.18	83.31	83.14	83.72	83.56	83.65	83.60	83.87	83.80	84.26	84.18
26	83.26	83.19	83.38	83.31	83.55	83.45	83.68	83.60	83.94	83.83	84.28	84.21
27	83.23	83.12	83.42	83.35	83.63	83.54	83.71	83.62	84.04	83.94	84.29	84.25
28	83.16	83.11	83.39	83.30	83.66	83.59	83.74	83.64	84.09	84.03	84.32	84.25
29	83.17	83.13	83.35	83.29	83.62	83.54	83.74	83.68	84.07	83.88	84.38	84.34
30	83.31	83.15	83.39	83.32	83.59	83.54	83.71	83.64	83.94	83.90	84.38	84.32
31	---	---	83.37	83.29	---	---	83.67	83.63	84.03	83.95	---	---
MONTH	83.31	82.87	83.42	83.07	83.72	83.18	83.85	83.55	84.09	83.68	84.38	83.73



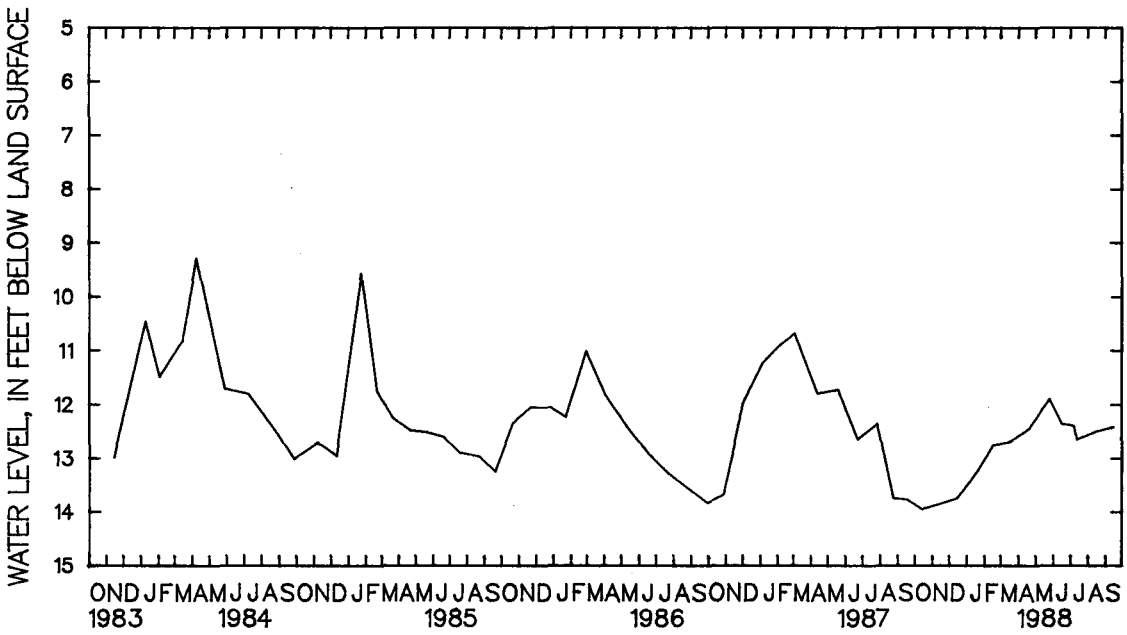
5 YEAR HYDROGRAPH

OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--Nc 45-1. SITE ID.--384639075353101.
LOCATION.--Lat 38°46′39″, long 75°35′31″, Hydrologic Unit 02060008, 2.0 mi south of Greenwood.
Owner: P. H. Cannon.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Driven water-table observation well, diameter 1 in., depth 15 ft, screened 14 to 15 ft.
INSTRUMENTATION.--Measurements with chalked steel tape.
DATUM.--Elevation of land-surface datum is 43 ft above National Geodectic Vertical Datum of 1929.
Measuring point: Top of casing, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--October 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.67 ft below land-surface datum, Jan. 30, 1952; lowest measured, 14.66 ft below land-surface datum, Dec. 11, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	13.96	JAN 19	13.25	APR 19	12.46	JUL 7	12.40	SEP 15	12.42
NOV 23	13.83	FEB 16	12.76	MAY 25	11.90	13	12.65		
DEC 15	13.75	MAR 16	12.70	JUN 16	12.36	AUG 17	12.50		

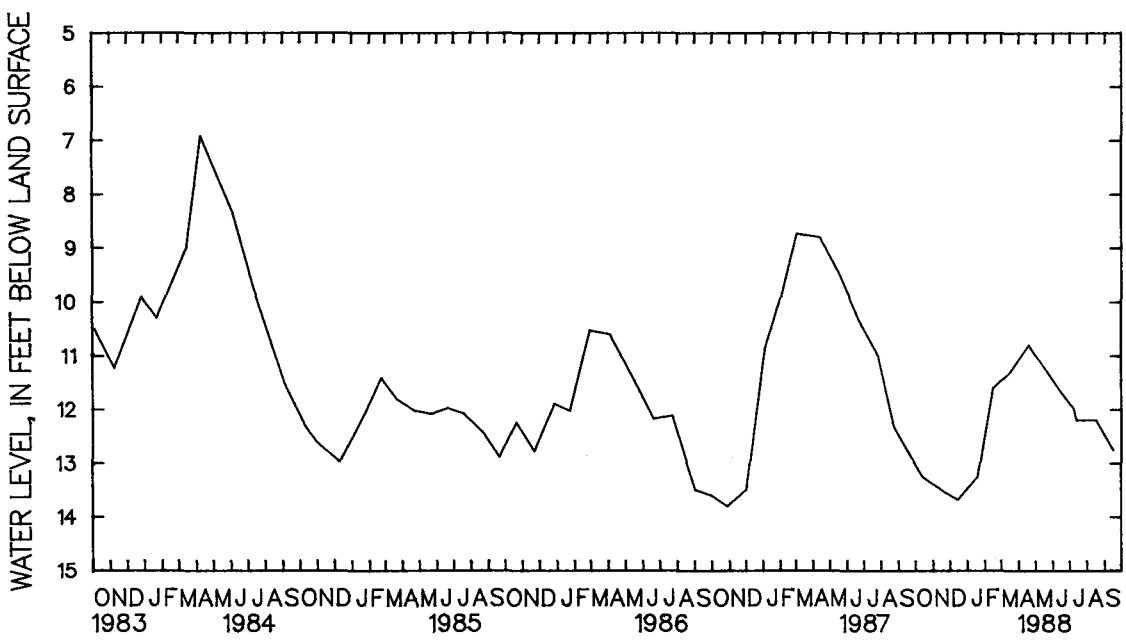


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--Ng 11-1. SITE ID.--384955075192801.
LOCATION.--Lat 38°49'55", long 75°19'28", Hydrologic Unit 02040207, 1.2 mi east of Jefferson Crossroads.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 1 in., depth 19 ft, well point 16 to 19 ft.
INSTRUMENTATION.--Measurements with chalked steel tape.
DATUM.--Elevation of land-surface datum is 24 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--September 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.91 ft below land-surface datum, Apr. 10, 1984; lowest measured, 14.64 ft below land-surface datum, Jan. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	13.26	JAN 19	13.26	APR 19	10.80	JUL 8	11.98	SEP 15	12.75
NOV 23	13.55	FEB 16	11.60	MAY 25	11.35	13	12.20		
DEC 15	13.68	MAR 16	11.32	JUN 16	11.69	AUG 17	12.20		

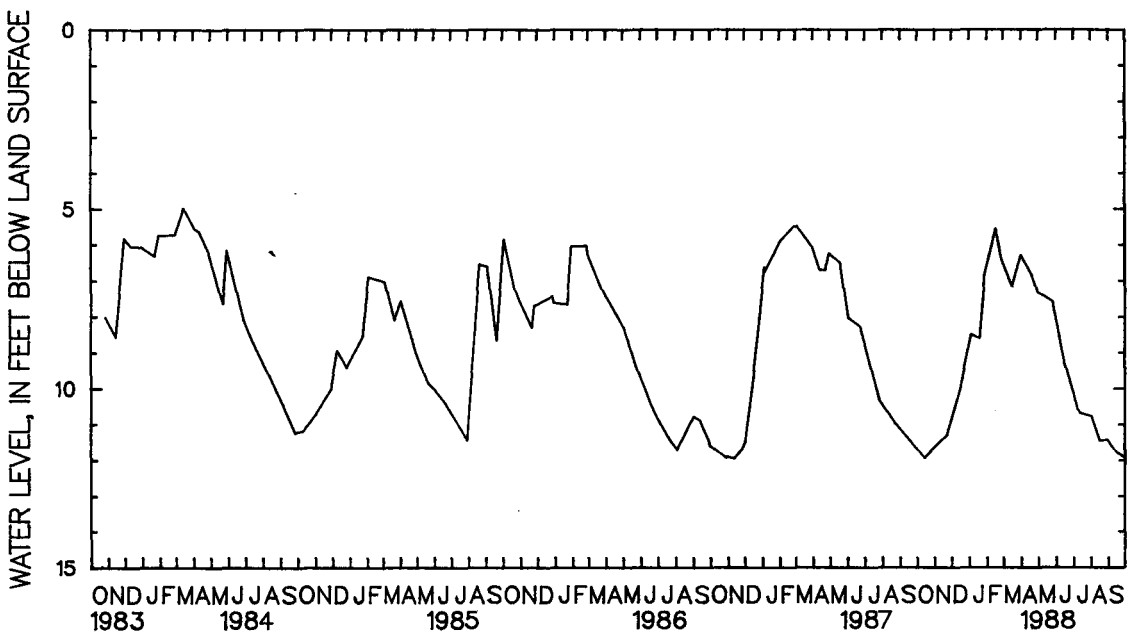


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--Qe 44-1. SITE ID.--383138075260201.
LOCTION.--Lat 38°31′38″, long 75°26′02″, Hydrologic Unit 02060008, 1.0 mi east of Whaleys Crossroads.
Owner: Delaware Department of Highways and Transportation.
AQUIFER.--Columbia Deposits.
WELL CHARACTERISTICS.--Drilled water-table observation well, diameter 1 in., depth 25 ft, well point 22 to 25 ft.
INSTRUMENTATION.--Measurements with chalked steel tape.
DATUM.--Elevation of land-surface datum is 50 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--September 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.98 ft below land-surface datum, Mar. 16, 1979 and Mar. 15, 1984; lowest measured, 12.22 ft below land-surface datum, Dec. 2, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	11.71	DEC 15	10.07	FEB 26	6.40	MAY 25	7.58	AUG 2	10.79
14	11.95	JAN 4	8.50	MAR 16	7.16	JUN 16	9.35	17	11.47
29	11.70	19	8.60	31	6.29	30	10.13	31	11.45
NOV 23	11.32	28	6.83	APR 19	6.82	JUL 8	10.59	SEP 15	11.79
30	10.90	FEB 16	5.55	29	7.32	13	10.70	29	11.93

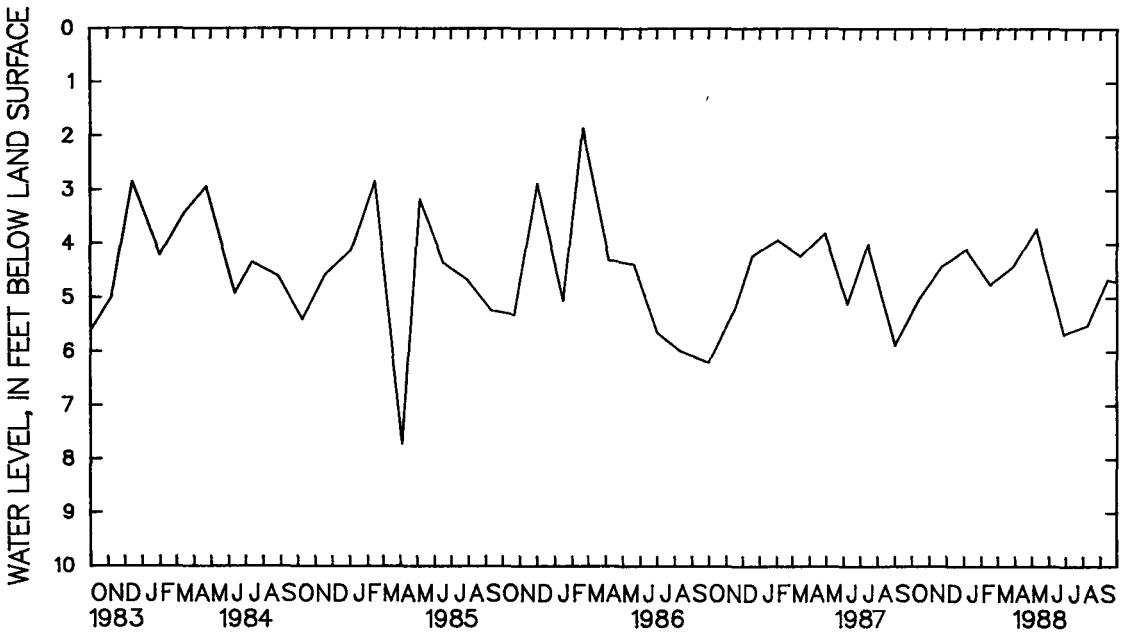


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, reported depth 300 ft, measured depth 113 ft; casing diameter 8 in. to unknown depth; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface is 720 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of sanitary seal in casing, 0.3 ft above land-surface datum.
REMARKS.--Water level was deeper than 40 ft below land-surface datum 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 datum, May 18, 1978; lowest measured 22.80 ft below land-surface datum, July 16, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	5.05	JAN 5	4.10	MAR 29	4.42	JUN 27	5.69	SEP 14	4.67
NOV 23	4.42	FEB 17	4.76	MAY 9	3.73	AUG 9	5.52		

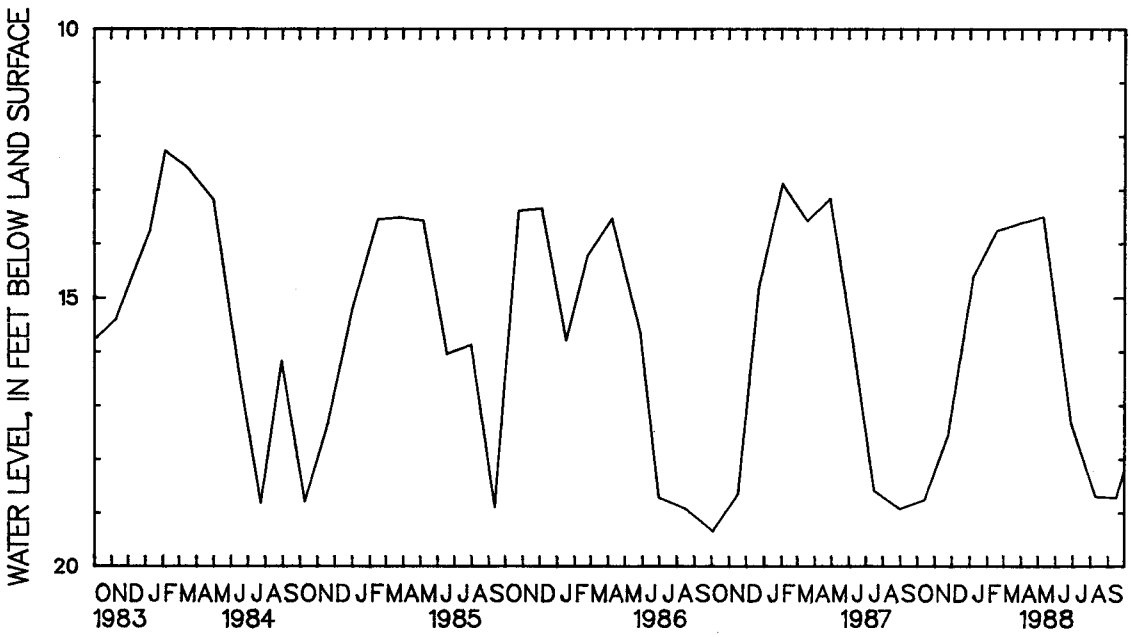


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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: Cumberland Brewing Company.
AQUIFER.--Tonoloway Limestone.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 100 ft; casing diameter 6 in. to unknown depth; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 640 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--October 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.24 ft below land-surface datum, Feb. 8, 1973; lowest measured, 32.55 ft below land-surface datum, Sept. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	18.76	JAN 7	14.60	MAR 30	13.62	JUN 28	17.34	SEP 15	18.72
NOV 24	17.56	FEB 18	13.76	MAY 10	13.50	AUG 10	18.70		

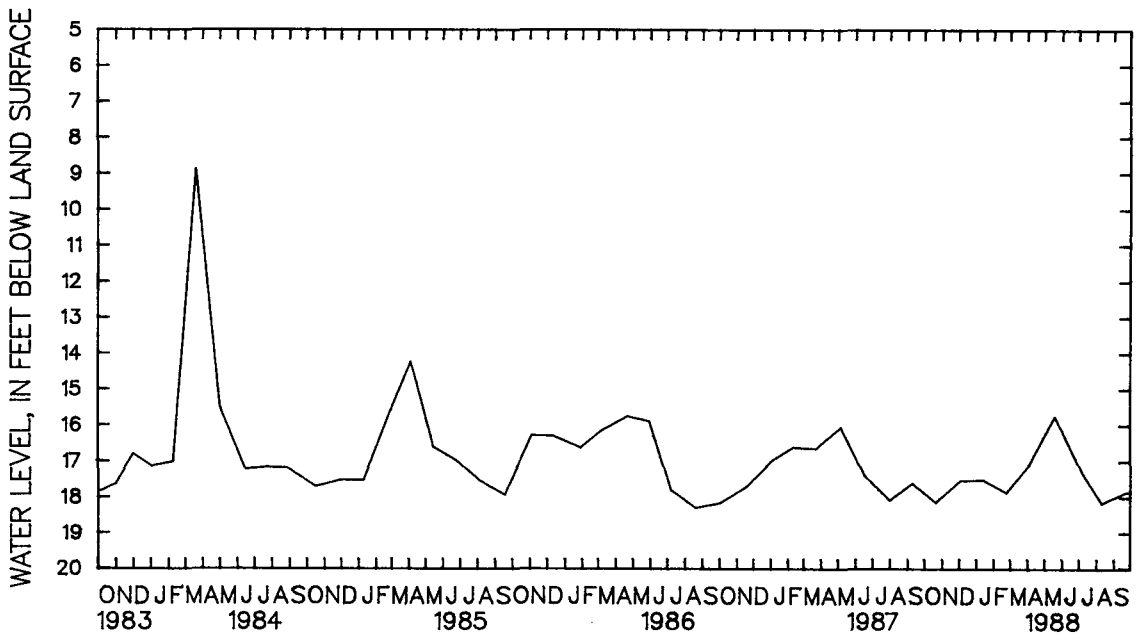


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused water-table well, reported depth 93 ft, measured depth 84.5 ft; casing diameter 6 in. with depth to 46 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1035 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--July 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.88 ft below land-surface datum, Mar. 19, 1984; lowest measured, 19.30 ft below land-surface datum, Nov. 1, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	18.16	JAN 13	17.52	APR 5	17.06	JUL 7	17.34	SEP 21	17.87
DEC 3	17.54	FEB 23	17.88	MAY 19	15.75	AUG 10	18.18		



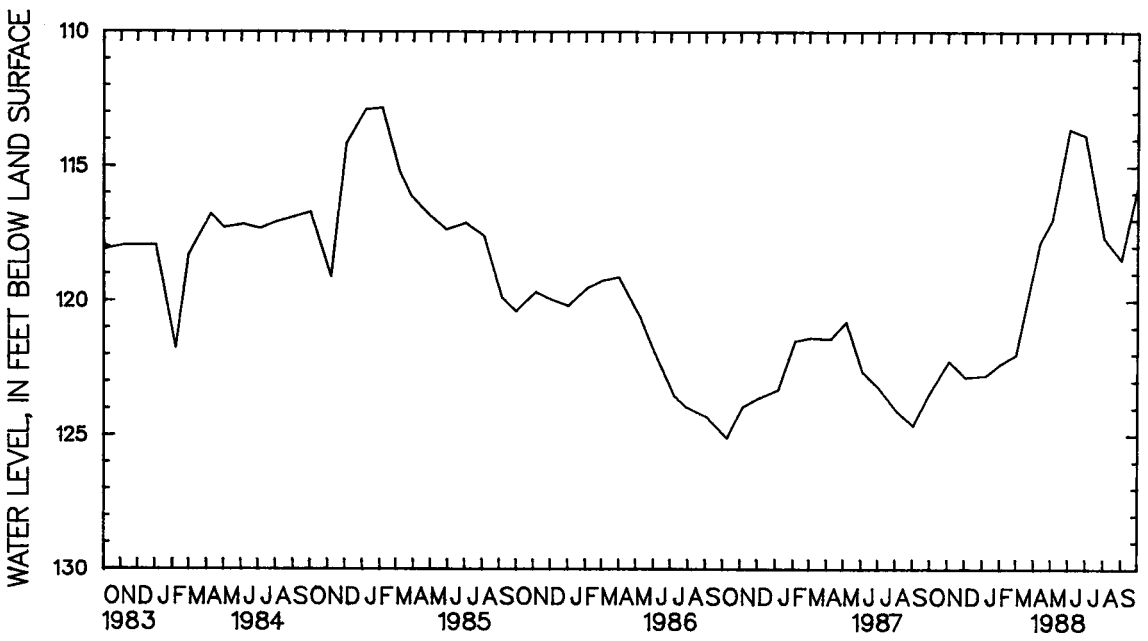
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 320 ft; casing diameter 6 in. with depth to 312 ft; screened from 312 to 320 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 136.9 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
REMARKS.--Well used during construction of airport. Water level reported by driller 90 ft below land-surface datum, 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 datum, Mar. 9, 1965; lowest measured, 125.12 ft below land-surface datum, Oct. 9, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	123.46	JAN 7	122.79	APR 12	117.84	JUN 30	113.84	SEP 30	115.78
NOV 4	122.25	FEB 3	122.34	MAY 4	116.98	AUG 2	117.69		
DEC 3	122.85	MAR 1	122.02	JUN 3	113.61	SEP 1	118.50		

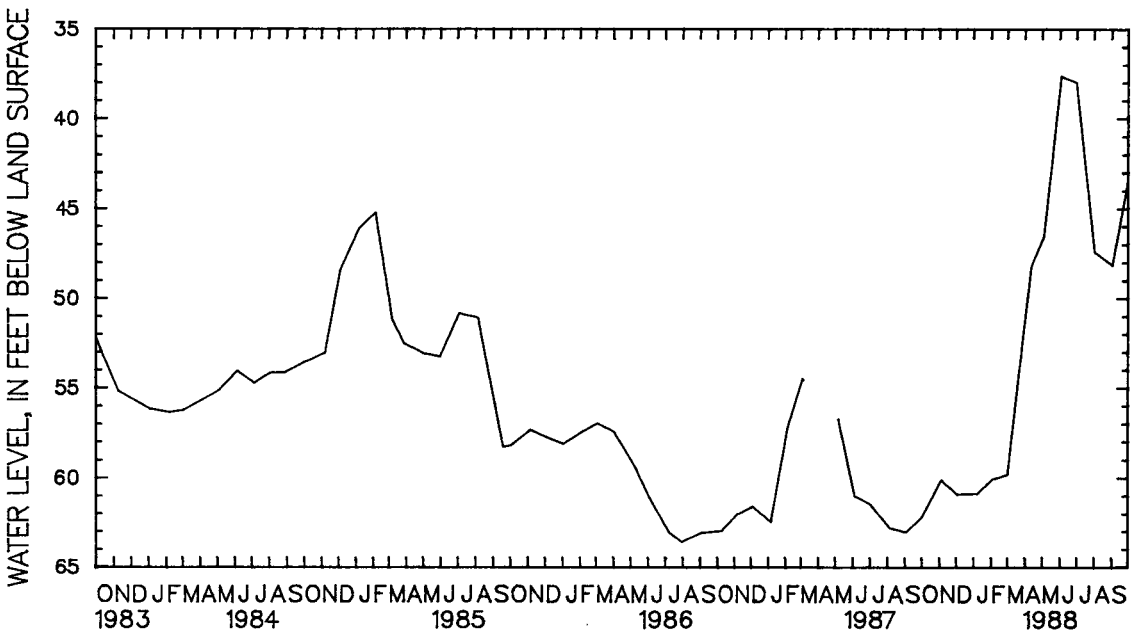


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 500 ft; casing diameter 3 in. with depth 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.--Equipped with continuous strip chart recorder from July 19, 1948 to Jan. 18, 1968. Monthly measurements with chalk steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 37 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.47 ft above land-surface datum.
PERIOD OF RECORD.--June 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.04 ft above land-surface datum, Sept. 2, 1952; lowest measured, 63.63 ft below land-surface datum, July 30, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	62.23	JAN 7	60.92	APR 12	48.18	JUN 30	37.98	SEP 30	43.47
NOV 4	60.13	FEB 3	60.08	MAY 4	46.55	AUG 2	47.47		
DEC 3	60.95	MAR 1	59.82	JUN 3	37.63	SEP 2	48.20		

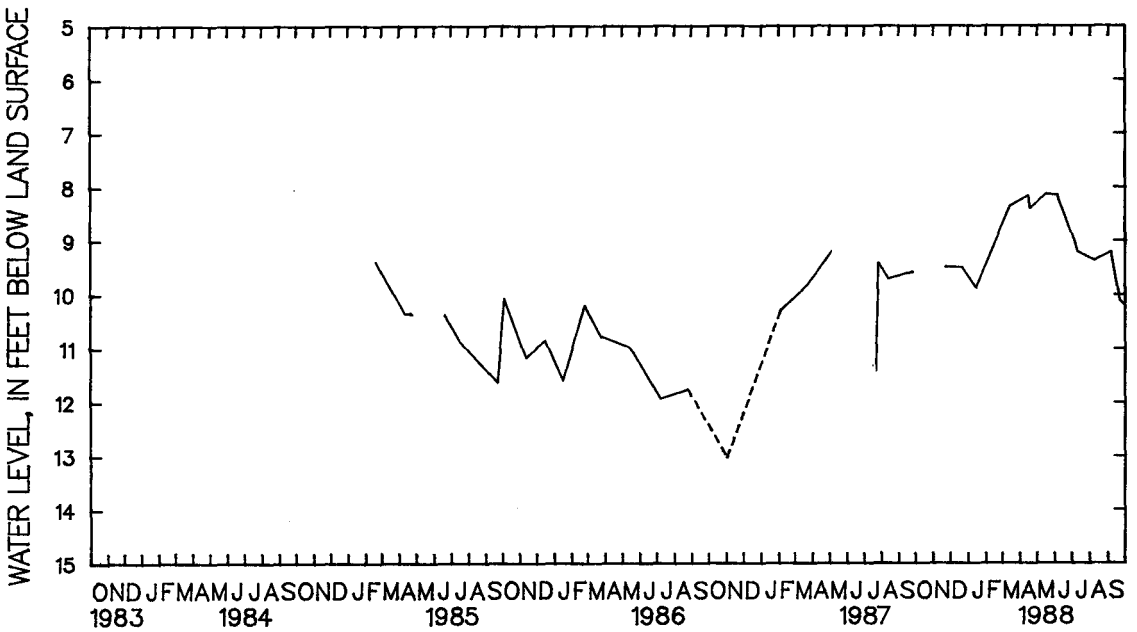


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--AA Ad 104. SITE ID.--391032076385905. PERMIT NUMBER.--AA-81-2760.
LOCATION.--Lat 39°10′32″, long 76°38′59″, Hydrologic Unit 02060003, off Hammonds Ferry Rd., 0.5 mi north of Dorsey Rd. intersection.
Owner: U.S. Geological Survey.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 29 ft; casing diameter 4 in. with depth to 19 ft; screen diameter 4 in. from 19 to 29 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--30-minute recorder interval from November 1985 to current year.
DATUM.--Elevation of land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder platform, 2.3 ft above land-surface datum.
PERIOD OF RECORD.--February 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.13 ft below land-surface datum, May 17, 1988; lowest measured, 13.03 ft below land surface datum, Nov. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 20	9.48	MAR 15	8.35	MAY 17	8.13	JUL 5	8.99	SEP 6	9.21
DEC 21	9.49	APR 15	8.16	JUN 6	8.15	11	9.21	21	10.12
JAN 15	9.88	19	8.39	8	8.23	AUG 10	9.37		

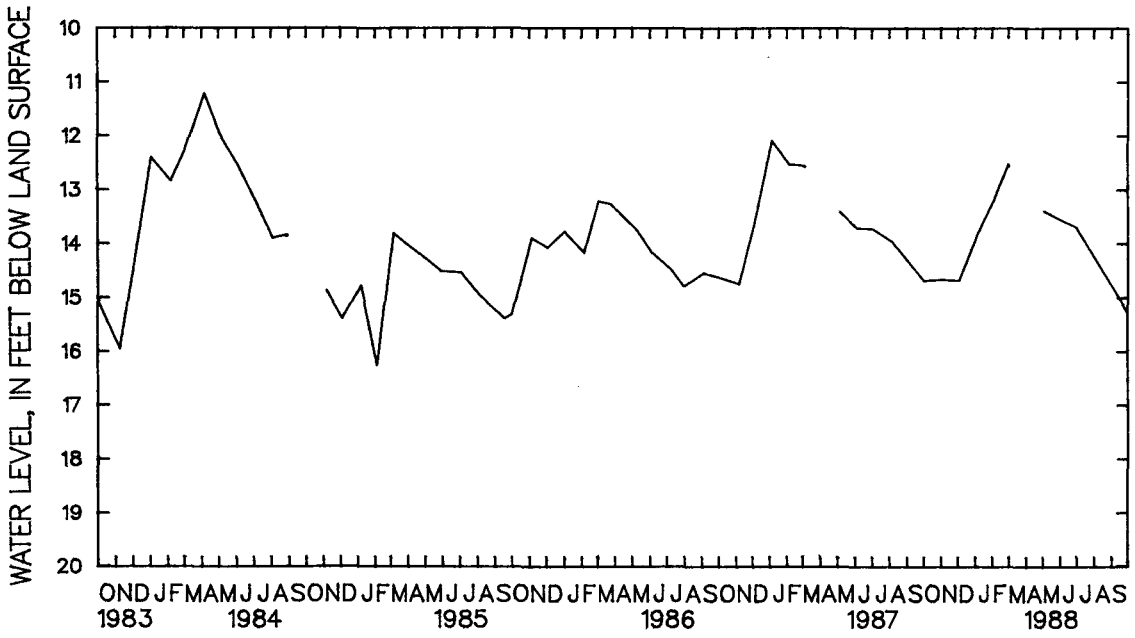


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--AA Bf 3. SITE. ID.--390945076285601.
LOCATION.--Lat 39°09′45″, long 76°28′56″, Hydrologic Unit 02060003, 8 mi east of Glen Burnie at Fort Smallwood Park.
Owner: Baltimore City Department of Recreation and Parks.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Dug brick-lined unused water-table well, diameter 48 in., depth 22.8 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Hole in concrete cover at land-surface datum.
REMARKS.--Water level measured 14.10 ft below land-surface datum, 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 datum, Mar. 31, 1958; lowest measured, 19.09 ft below land-surface datum, Dec. 7, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	14.70	DEC 3	14.69	FEB 3	13.22	MAY 4	13.41	JUN 30	13.70	SEP 30	15.29
NOV 4	14.67	JAN 7	13.78	MAR 1	12.53	JUN 3	13.57	AUG 2	14.27		

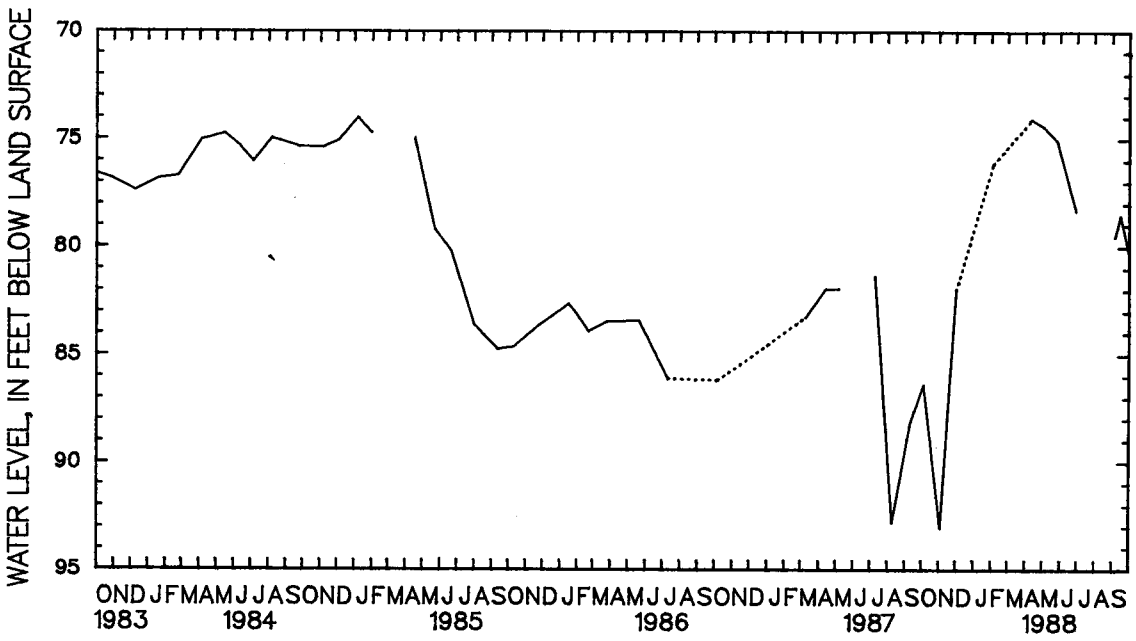


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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., Fort George G. Meade. Owner: U.S. Army.
AQUIFER.--Patuxent Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 505 ft; casing diameter 6 in. with depth to 485 ft; screened from 485 to 505 ft.
INSTRUMENTATION.--Prior to July 2, 1984, measured with chalked steel tape by USGS personnel. Digital recorder from July 2, 1964 to current year--60-minute punch.
DATUM.--Elevation of land-surface datum is 126 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top lip of 3 in. extension pipe, 3.35 ft above land-surface datum.
PERIOD OF RECORD.--March 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.60 ft below land-surface datum, May 1, 1962; lowest measured, 93.08 ft below land-surface datum, Nov. 4, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	86.38	DEC 2	81.97	APR 12	74.06	MAY 27	75.07	SEP 6	79.54
NOV 4	93.08	FEB 5	76.12	MAY 3	74.38	JUN 29	78.34	15	78.53



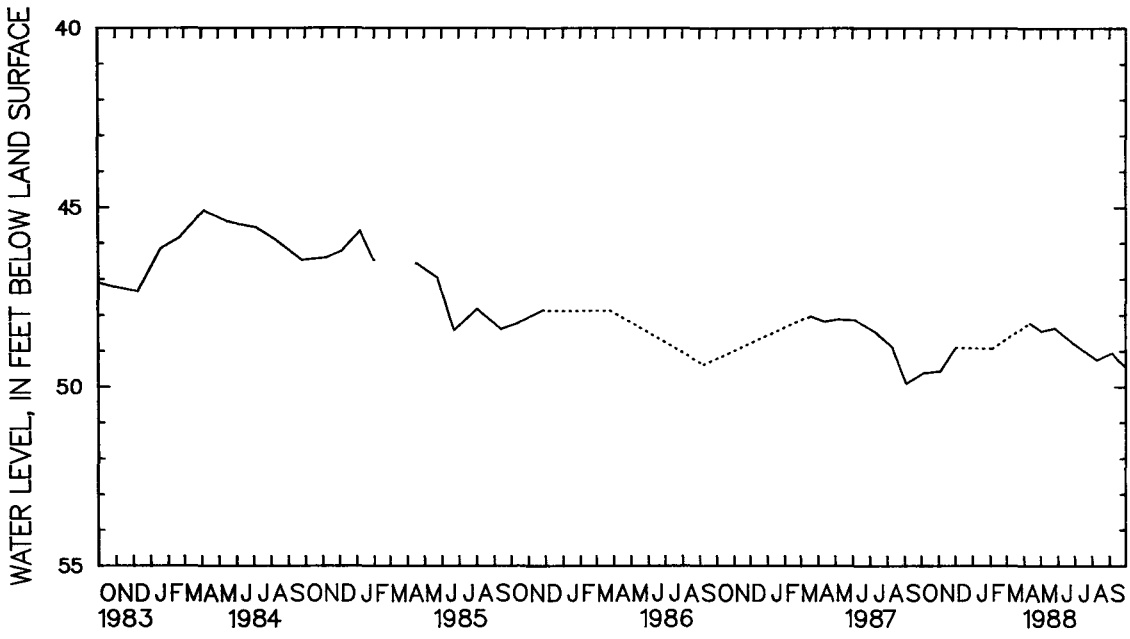
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cc 40. SITE ID.--390423076432001. PERMIT NUMBER.--AA-03-5693.
LOCATION.--Lat 39°04′23″, long 76°43′20″, Hydrologic Unit 02060006, on Rifle Range Rd., Fort George G. Meade. Owner: U.S. Army.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 238 ft; casing diameter 6 in. with depth to 208 ft; screened from 208 to 238 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water level recorder Dec. 4, 1959 to July 21, 1960 and Jan. 12, 1978 to Dec. 1985.
DATUM.--Elevation of land-surface datum is 137 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of recorder platform, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--December 1959 to current year
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.58 ft below land-surface datum, Mar. 25, 1961; lowest measured, 50.09 ft below land-surface datum, Oct. 14, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	49.62	DEC 2	48.91	APR 12	48.23	MAY 27	48.37	AUG 10	49.25	SEP 19	49.30
NOV 4	49.57	FEB 5	48.94	MAY 3	48.45	JUN 29	48.80	SEP 6	49.06		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

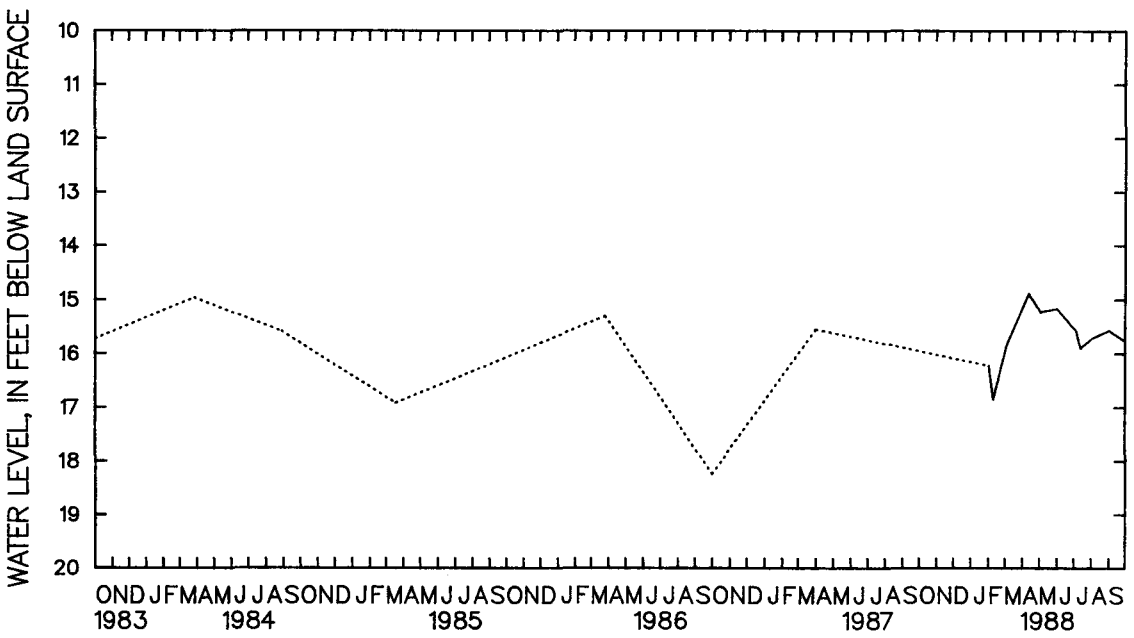
MARYLAND--Continued

ANNE ARUNDEL COUNTY--Continued

WELL NUMBER.--AA Cg 25. SITE ID.--390127076240301. PERMIT NUMBER.--AA-74-1240.
LOCATION.--Lat 39°01'27", long 76°24'03", Hydrologic Unit 02060004, at Sandy Point State Park, nr maintenance area.
Owner: Maryland Department of Natural Resources.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 107 ft; casing diameter 3 in. with depth to 100 ft; screen diameter 3 in. from 100 to 107 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.1 ft above land-surface datum.
PERIOD OF RECORD.--April 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.89 ft below land-surface datum, Apr. 12, 1988; lowest measured, 18.25 ft below land surface datum, Oct. 1, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 2	16.23	MAR 4	15.85	MAY 3	15.23	JUL 5	15.57	AUG 4	15.71
10	16.86	APR 12	14.89	JUN 1	15.17	13	15.90	SEP 1	15.57

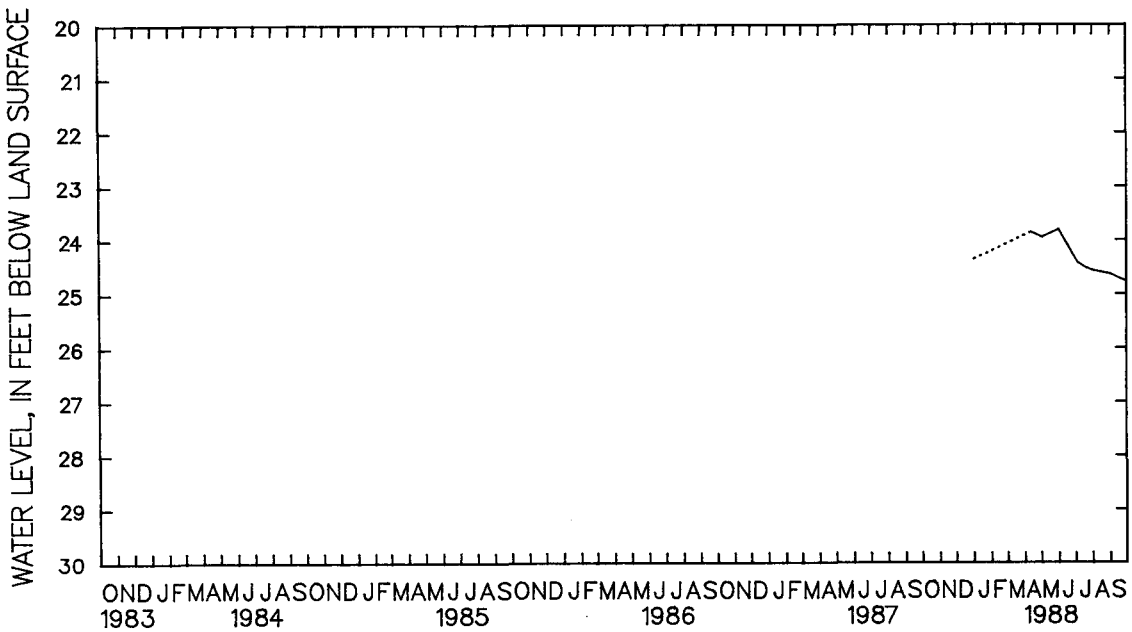


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 46 ft; casing diameter 4 in. with depth to 39 ft; screen diameter 2 in. from 39 to 46 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 26.5 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, ft above land-surface datum.
PERIOD OF RECORD.--January 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.82 ft below land-surface datum, June 1, 1988; lowest measured, 24.65 ft below land surface datum, Sept. 1, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 2	24.37	MAY 3	23.96	JUL 5	24.43	AUG 4	24.59
APR 12	23.87	JUN 1	23.82	21	24.54	SEP 1	24.65

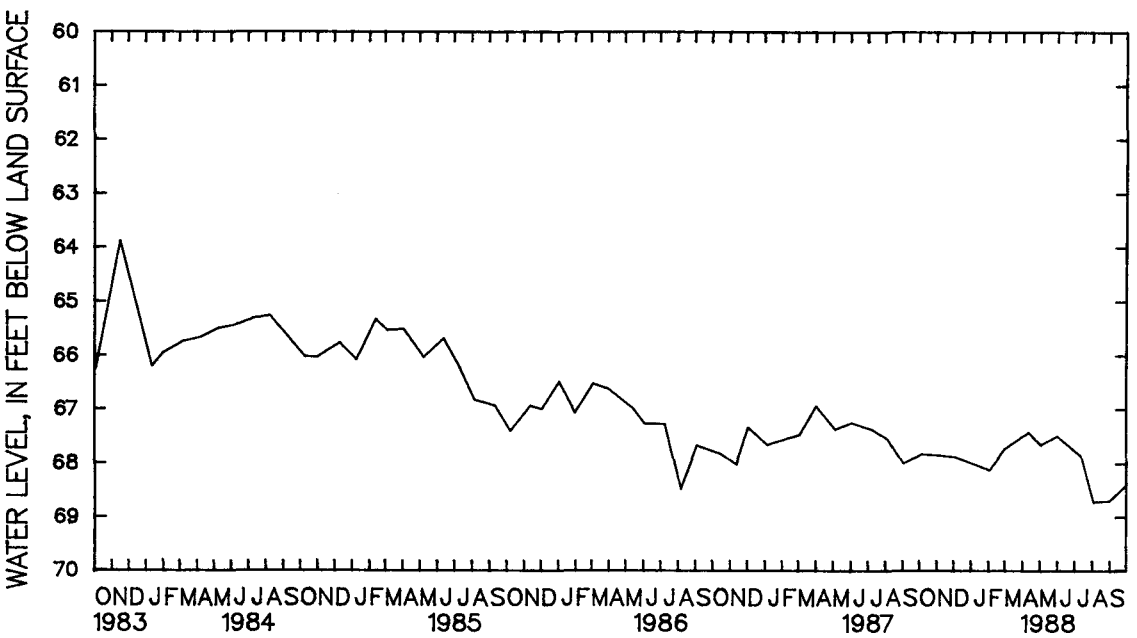


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 220 ft; casing diameter 4 in. with depth to 147 ft; screen diameter 2 in. from 147 to 157 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 100 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of coupling, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--August 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.51 ft below land-surface datum, May 6, 1980; lowest measured, 68.73 ft below land-surface datum, Aug. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	67.84	DEC 3	67.89	MAR 1	67.74	MAY 3	67.67	JUL 12	67.87	AUG 31	68.71
NOV 4	67.86	FEB 3	68.14	APR 12	67.43	JUN 1	67.50	AUG 3	68.73		

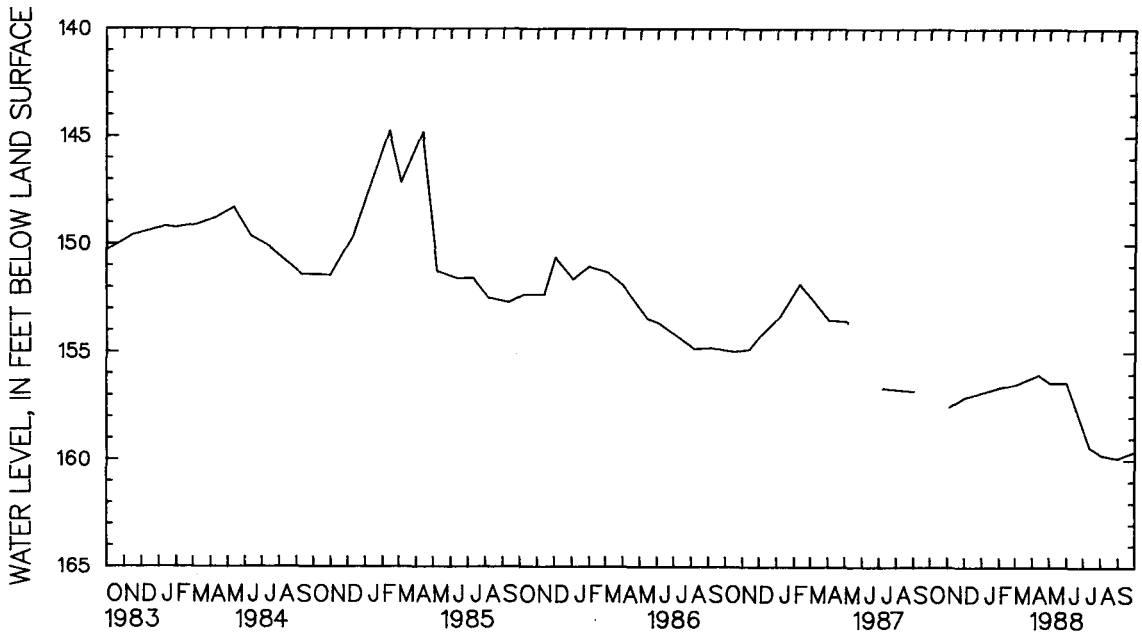


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--AA Fd 43. SITE ID.--384646076352401.
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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 280 ft, casing diameter 4 in. with depth to 231 ft; casing diameter 2 in. from 231 to 270 ft; screen diameter 2 in. from 270 to 280 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 140 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of coupling, 1.1 ft above land-surface datum.
PERIOD OF RECORD.--August 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 143.90 ft below land-surface datum, May 6, 1980; lowest measured, 159.93 ft below land-surface datum, Aug. 30, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 4	157.55	JAN 6	156.85	MAR 1	156.51	MAY 3	156.42	JUL 12	159.43	AUG 30	159.93
DEC 3	157.10	FEB 3	156.64	APR 12	156.05	JUN 1	156.42	AUG 3	159.79		



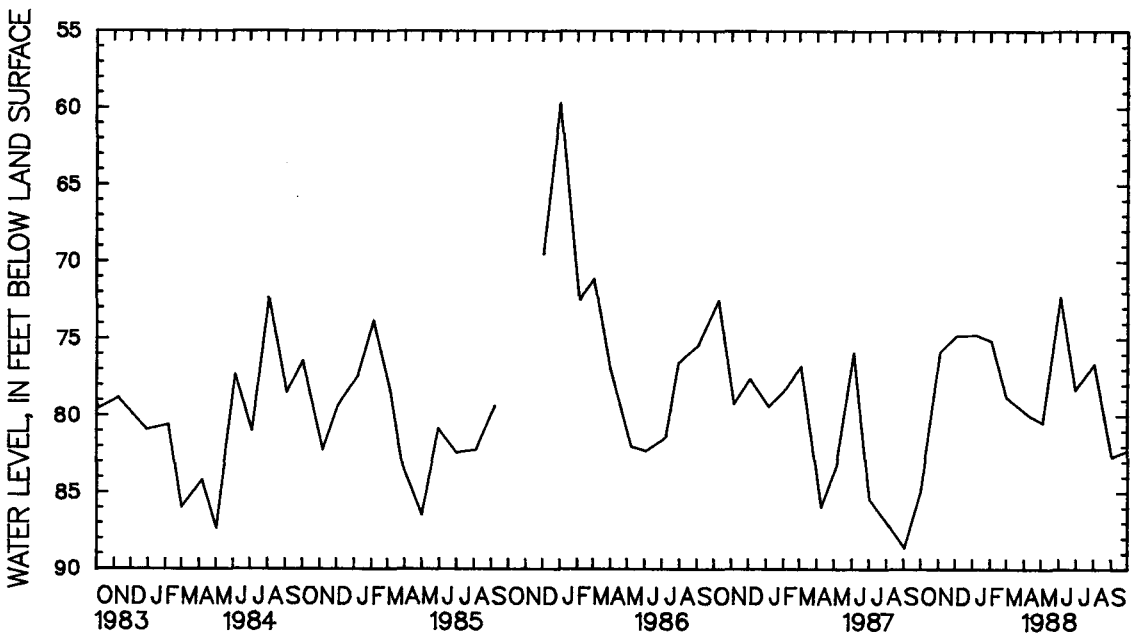
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

BALTIMORE CITY

WELL NUMBER.--2S5E- 1. SITE ID.--391617076322001.
LOCATION.--Lat 39°16′17″, long 76°32′20″, Hydrologic Unit 02060003, near Holabird Avenue and Pumphrey Street, at Holabird Industrial Park.
Owner: City of Baltimore.
AQUIFER.--Patuxent Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 290 ft; casing diameter 13 in. to unknown depth.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 30 ft above National Geodetic Vertical Datum of 1929.
Measuring point: lip of discharge pipe, 2.0 ft above land-surface datum from April 1943 to April 1966; top of casing extension, 1.8 ft above land-surface datum from April 1966 to current year.
REMARKS.--Water level reported 58 ft below land-surface datum in 1934.
PERIOD OF RECORD.--April 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.15 ft below land-surface datum, Sept. 27, 1976; lowest measured, 103.70 ft below land-surface datum, Oct. 15, 1948.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	84.93	JAN 7	74.74	APR 12	80.05	JUN 30	78.35	SEP 30	82.30
NOV 4	75.84	FEB 3	75.12	MAY 4	80.48	AUG 2	76.67		
DEC 3	74.82	MAR 1	78.80	JUN 3	72.30	SEP 2	82.72		

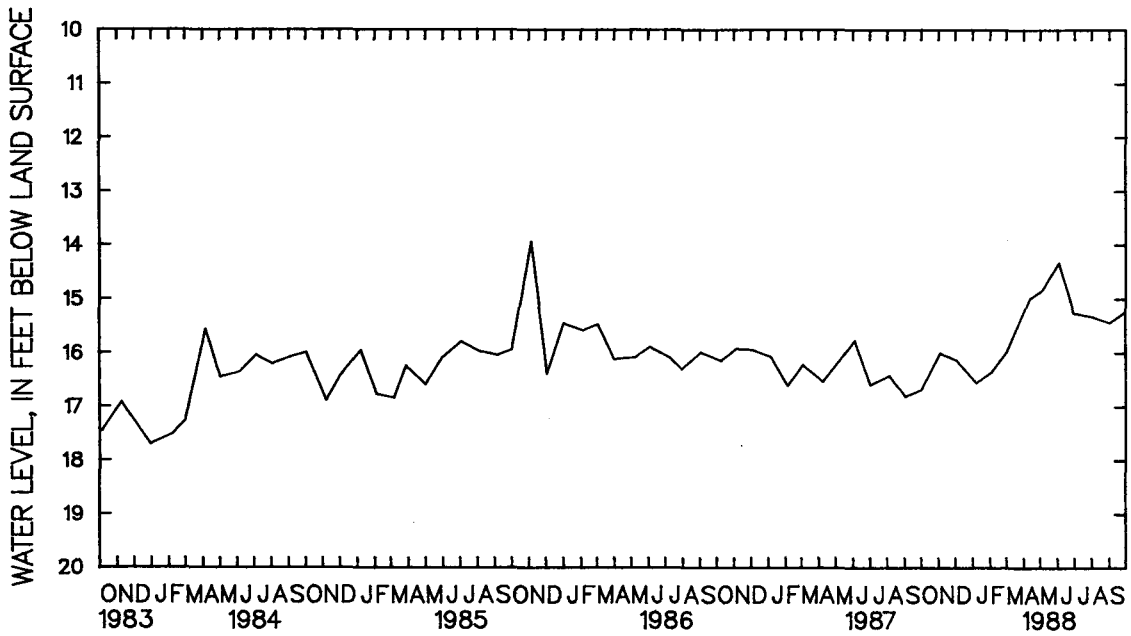


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 136 ft; casing diameter 4 in. with depth to 126 ft; screen diameter 4 in. from 126 to 136 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 0.5 ft above land-surface datum.
PERIOD OF RECORD.--January 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.94 ft below land-surface datum, Nov. 5, 1985; lowest measured, 17.71 ft below land-surface datum, Dec. 30, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	16.70	JAN 7	16.56	APR 12	14.99	JUN 30	15.26	SEP 30	15.24
NOV 4	16.01	FEB 3	16.37	MAY 4	14.84	AUG 2	15.33		
DEC 3	16.14	MAR 1	16.00	JUN 3	14.33	SEP 2	15.44		

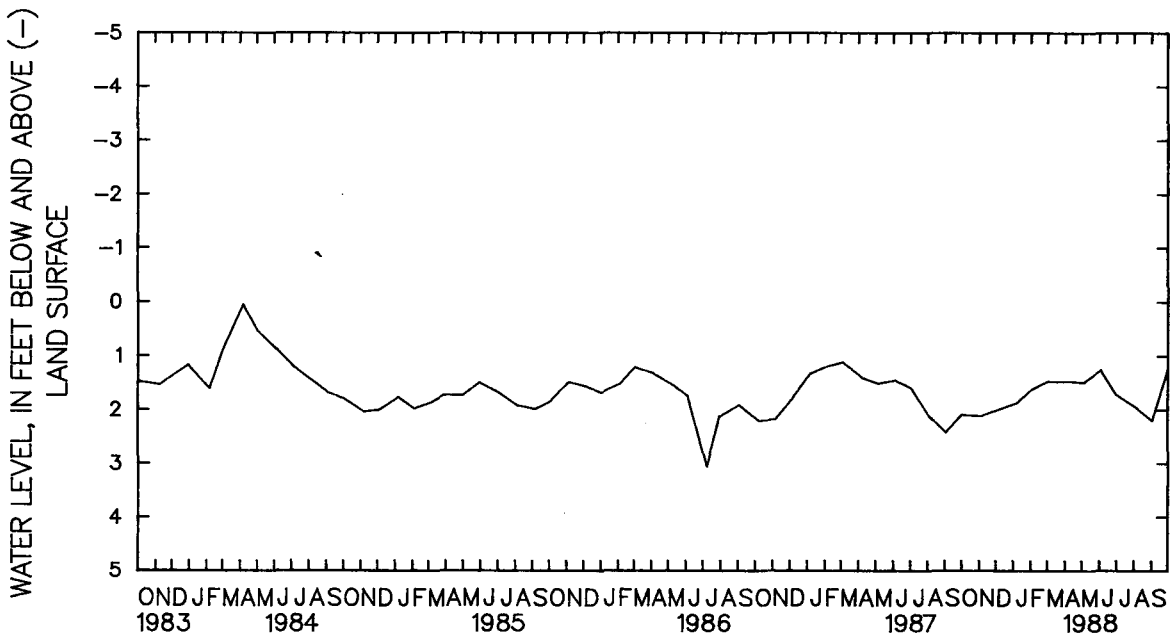


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 75 ft; casing diameter 4 in. with depth to 63 ft; screen diameter 4 in. from 63 to 73 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .7 ft above land-surface datum.
PERIOD OF RECORD.--January 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .22 ft above land-surface datum, May 5, 1983; lowest measured, 3.07 ft below land-surface datum, July 8, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	2.10	JAN 7	1.88	APR 12	1.48	JUN 30	1.72	SEP 30	1.26
NOV 4	2.12	FEB 3	1.63	MAY 4	1.50	AUG 2	1.94		
DEC 3	2.01	MAR 1	1.48	JUN 3	1.27	SEP 2	2.21		

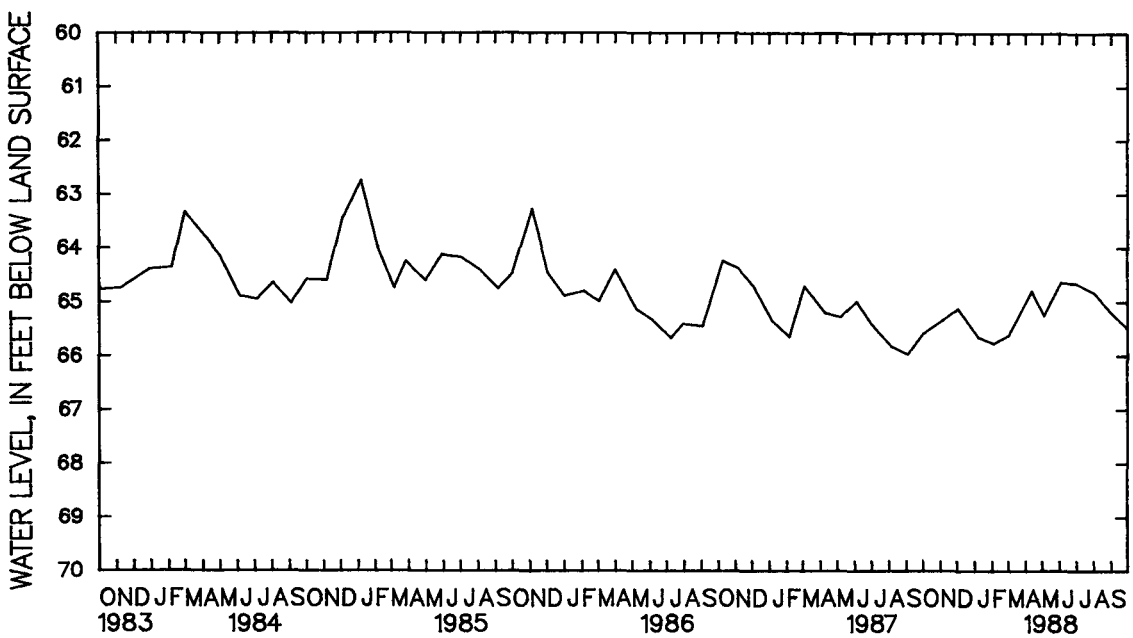


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 272 ft; casing diameter 4 in. with depth to 262 ft; screen diameter 3 in. from 262 ft to 272 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .25 ft above land-surface datum.
PERIOD OF RECORD.--January 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.74 ft below land-surface datum, Jan. 7, 1985; lowest measured, 66.36 ft below land-surface datum, May 5, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	65.59	JAN 7	65.66	APR 12	64.81	JUN 30	64.66	SEP 30	65.50
NOV 4	65.35	FEB 3	65.78	MAY 4	65.26	AUG 2	64.84		
DEC 3	65.13	MAR 1	65.63	JUN 3	64.65	SEP 2	65.22		

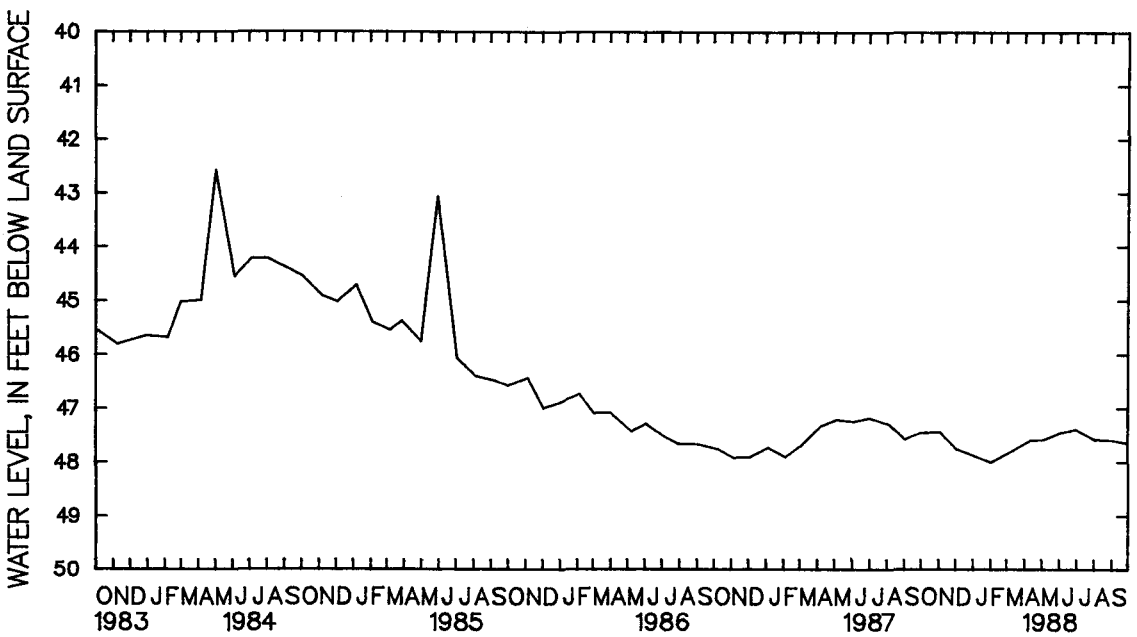


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--5S2E- 25. SITE ID.--391349076354502. PERMIT NUMBER.--BC-81-0090.
LOCATION.--Lat 39°13′49″, long 76°35′45″, Hydrologic Unit 02060003, at Farrington Park.
Owner: U.S. Geological Survey.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 115 ft; casing diameter 4 in. with depth to 105 ft; screen diameter 3 in. from 105 to 115 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .2 ft above land-surface datum.
PERIOD OF RECORD.--January 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.58 ft below land-surface datum, May 2, 1984; lowest measured, 48.01 ft below land-surface datum, Feb. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	47.46	JAN 7	47.90	APR 12	47.60	JUN 30	47.40	SEP 30	47.65
NOV 4	47.45	FEB 3	48.01	MAY 4	47.59	AUG 2	47.58		
DEC 3	47.76	MAR 1	47.86	JUN 3	47.46	SEP 2	47.60		

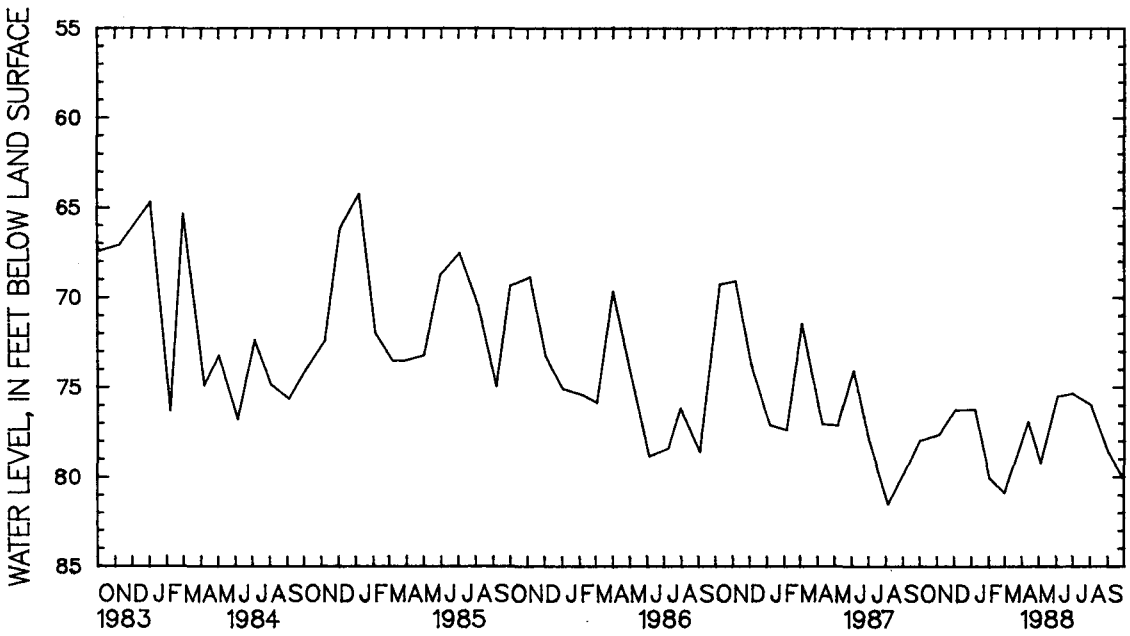


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--7S4E- 1. SITE ID.--391213076324401. PERMIT NUMBER.--BC-01-7129.
LOCATION.--Lat 39°12′13″, long 76°32′44″, Hydrologic Unit 02060003, near Hawkins Point, at SCM Plant.
Owner: SCM Pigments Corp.
AQUIFER.--Patuxent Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 638 ft; casing diameter 2 in. with depth to 565 ft; screen diameter 2 in. from 565 to 575 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.55 ft above land-surface datum.
PERIOD OF RECORD.--September 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 59.94 ft below land-surface datum, Jan. 3, 1983; lowest measured, 98.17 ft below land-surface datum, Mar. 30, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	77.98	JAN 7	76.25	APR 12	76.94	JUN 30	75.35	SEP 30	80.15
NOV 4	77.64	FEB 3	80.08	MAY 4	79.23	AUG 2	75.97		
DEC 3	76.28	MAR 1	80.89	JUN 3	75.51	SEP 2	78.65		



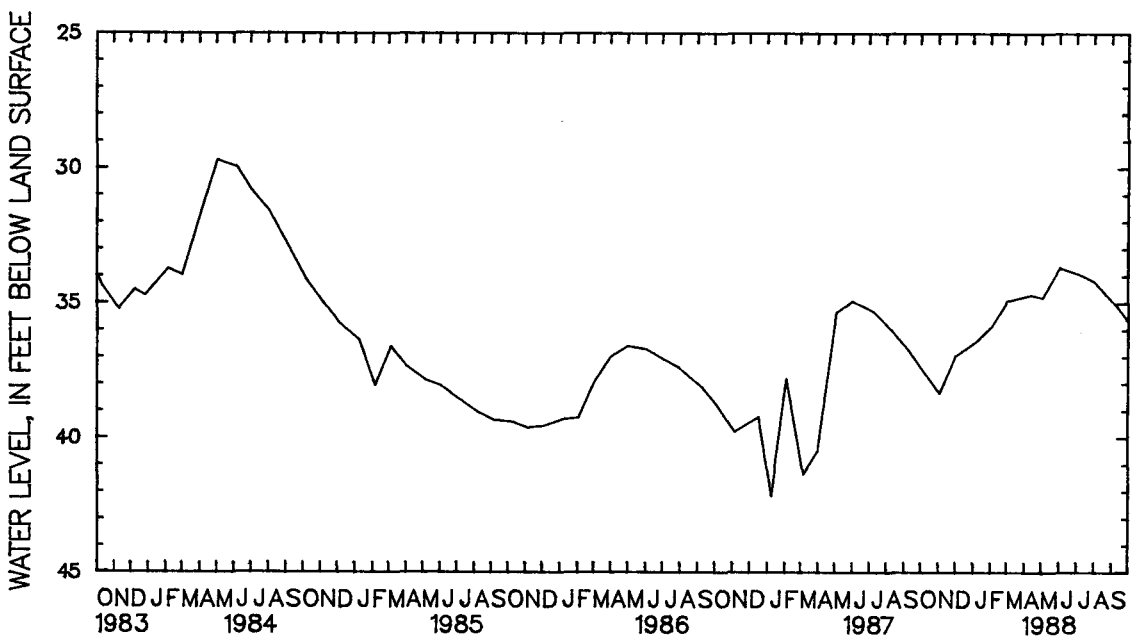
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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, Inc.
AQUIFER.--Baltimore Gneiss.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 250 ft; casing diameter 6 in. with depth to 19 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 480 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .3 ft above land-surface datum.
PERIOD OF RECORD.--January 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.42 ft below land-surface datum, Sept. 9, 1975; lowest measured, 80.20 ft below land-surface datum, Dec. 23, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 3	38.38	JAN 6	36.43	MAR 2	34.91	MAY 4	34.79	JUL 7	33.94	SEP 7	35.05
DEC 1	36.95	FEB 3	35.86	APR 13	34.70	JUN 2	33.69	AUG 2	34.21		

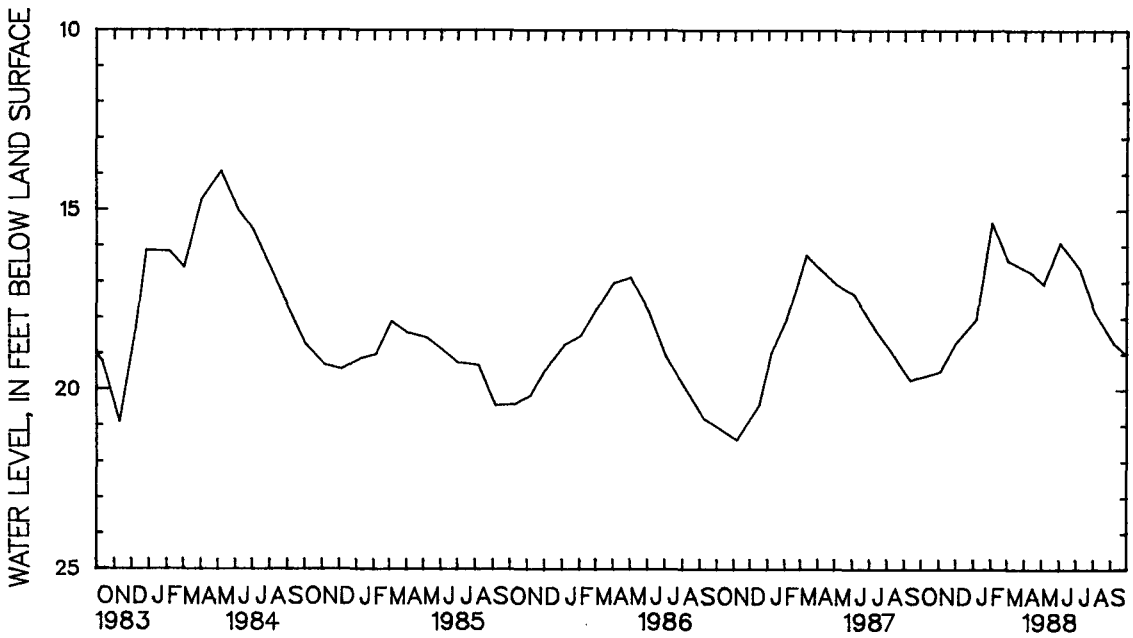


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 350 ft; casing diameter 10 in. with depth to 12.4 ft; casing diameter 6 in. from 0 to 33.1 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 536 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--November and December 1955, November 1956 through September 1975, July 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.60 ft below land-surface datum, June 23, 1972; lowest measured, 21.54 ft below land-surface datum, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 3	19.50	JAN 6	18.04	MAR 2	16.41	MAY 4	17.07	JUL 7	16.63	SEP 7	18.72
DEC 1	18.70	FEB 3	15.35	APR 13	16.76	JUN 2	15.91	AUG 3	17.82		

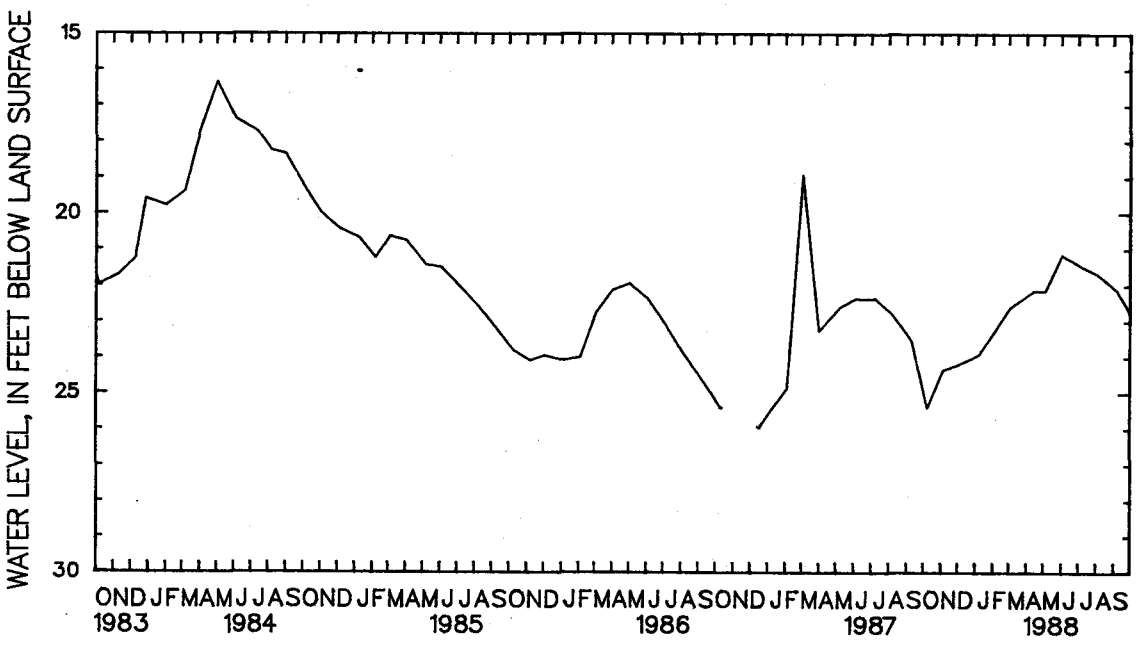


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
AQUIFER.--Woodstock Granite.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 250 ft; casing diameter 10 in. with depth to 50.7 ft; casing diameter 6 in. with depth to 71.3 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 491 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.5 ft above land-surface datum.
REMARKS.--Water level measured 24 ft below land-surface datum, Dec. 20, 1954.
PERIOD OF RECORD.-- November 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.94 ft below land-surface datum, June 24, 1972; lowest measured, 27.57 ft below land-surface datum, Sept. 13, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	25.43	DEC 2	24.20	FEB 4	23.28	APR 14	22.14	JUN 2	21.15	AUG 3	21.68
NOV 5	24.36	JAN 7	23.92	MAR 3	22.61	MAY 4	22.14	JUL 8	21.48	SEP 6	22.12



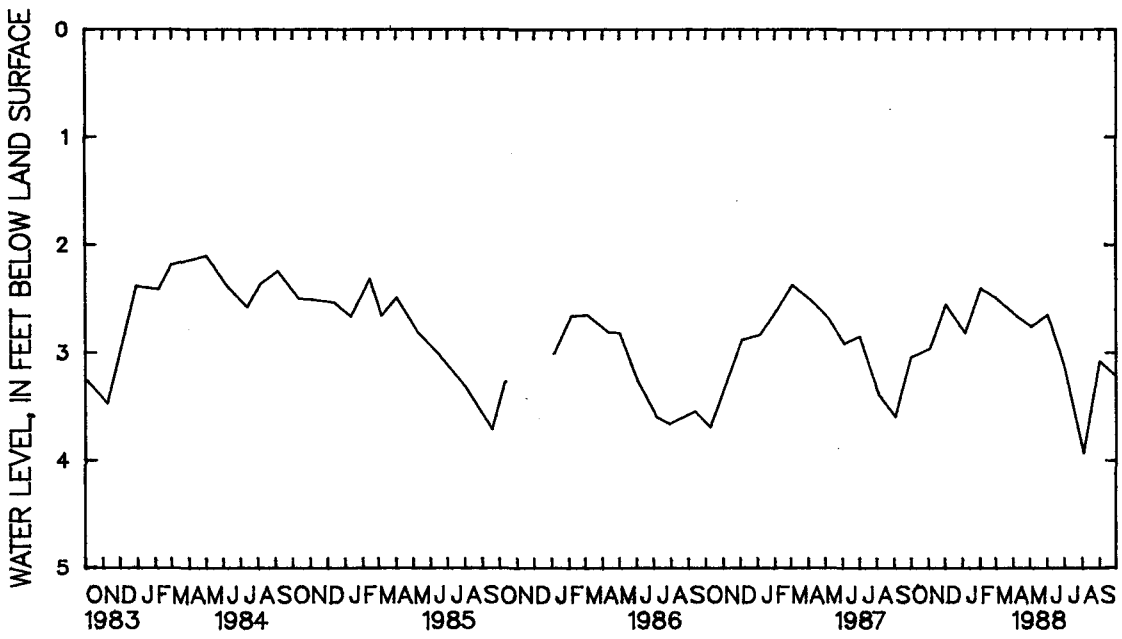
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

BALTIMORE COUNTY--Continued

WELL NUMBER.--BA Ec 43. SITE ID.--392305076432001.
LOCATION.--Lat 39°23'05", long 76°43'20", Hydrologic Unit 02060003, near Pikesville at Druid Ridge Cemetery.
Owner: Druid Ridge Cemetery.
AQUIFER.--Baltimore Gneiss.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 111 ft; casing diameter 6 in. with depth to 40 ft; open hole.
DATUM.--Elevation of land-surface datum is 500 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--March 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.27 ft below land-surface datum, June 24, 1972; lowest measured, 4.69 ft below land-surface datum, Nov. 11, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	3.04	JAN 6	2.82	APR 12	2.68	JUN 30	3.11	SEP 28	3.21
NOV 4	2.96	FEB 3	2.40	MAY 4	2.76	AUG 3	3.94		
DEC 3	2.55	MAR 1	2.49	JUN 2	2.65	SEP 1	3.08		

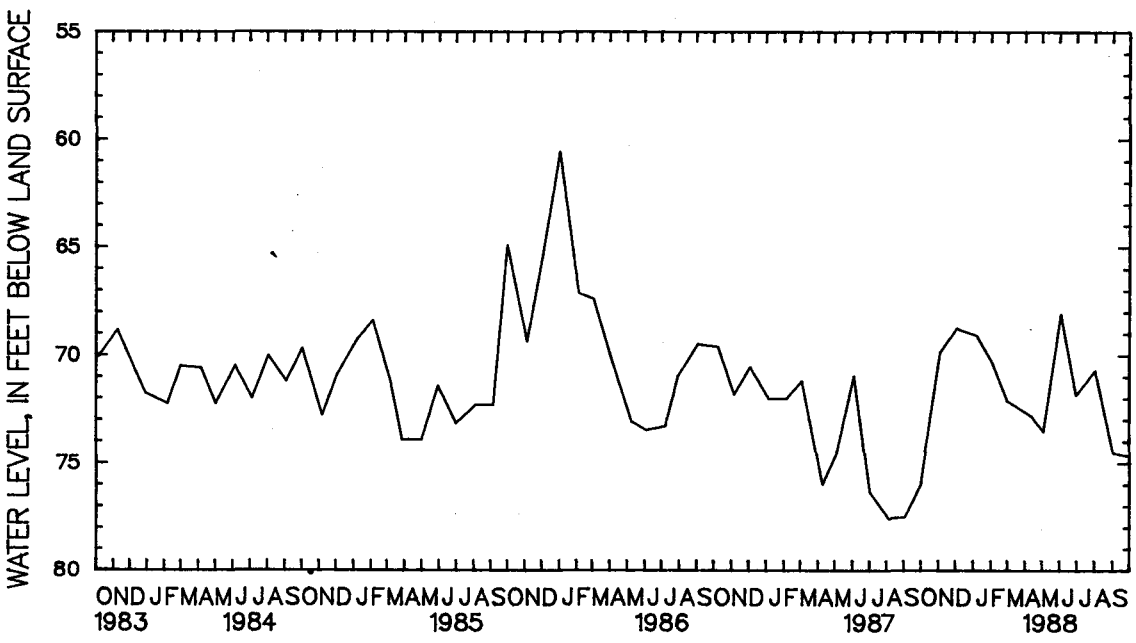


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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., Dundalk.
Owner: Seagrams Distillery.
AQUIFER.--Patuxent Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 402 ft; casing diameter 8 in. to unknown depth; screen length 35 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 30 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .5 ft above land-surface datum.
PERIOD OF RECORD.--January 1952 to March 1954, January 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.34 ft below land-surface datum, Jan. 3, 1983; lowest measured, 95.88 ft below land-surface datum, Oct. 6, 1952.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	76.00	JAN 7	69.09	APR 12	72.85	JUN 30	71.88	SEP 30	74.70
NOV 4	69.86	FEB 3	70.35	MAY 4	73.58	AUG 2	70.71		
DEC 3	68.76	MAR 1	72.14	JUN 3	68.09	SEP 2	74.56		

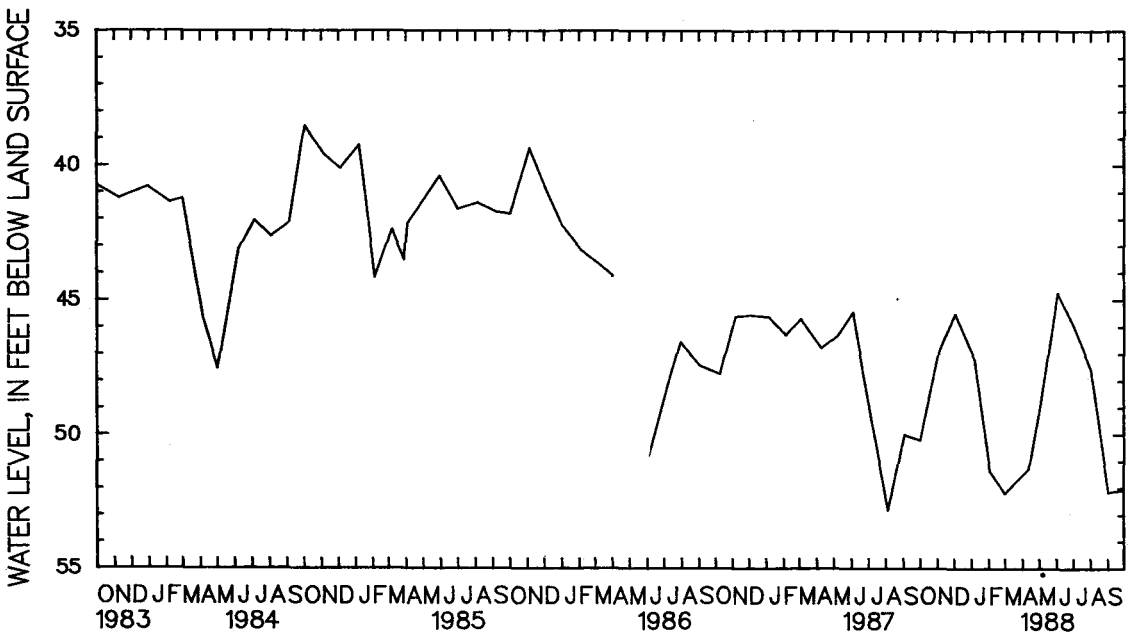


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--BA Gf 11. SITE ID.--391356076293501.
LOCATION.--Lat 39°13′56″, long 76°29′35″, Hydrologic Unit 02060003, near Tin Mill Rd., Sparrows Point.
Owner: Bethlehem Steel Co.
AQUIFER.-- Patuxent Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 645 ft; casing diameter 14 in. to unknown depth.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 13.6 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing 3.3 ft above land-surface datum.
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 datum, June 3, 1983; lowest measured, 52.83 ft below land-surface datum, Aug. 5, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	50.22	JAN 7	47.22	APR 12	51.30	JUN 30	45.89	SEP 30	52.07
NOV 4	46.87	FEB 3	51.36	MAY 4	48.82	AUG 2	47.58		
DEC 3	45.51	MAR 1	52.20	JUN 3	44.75	SEP 2	52.16		

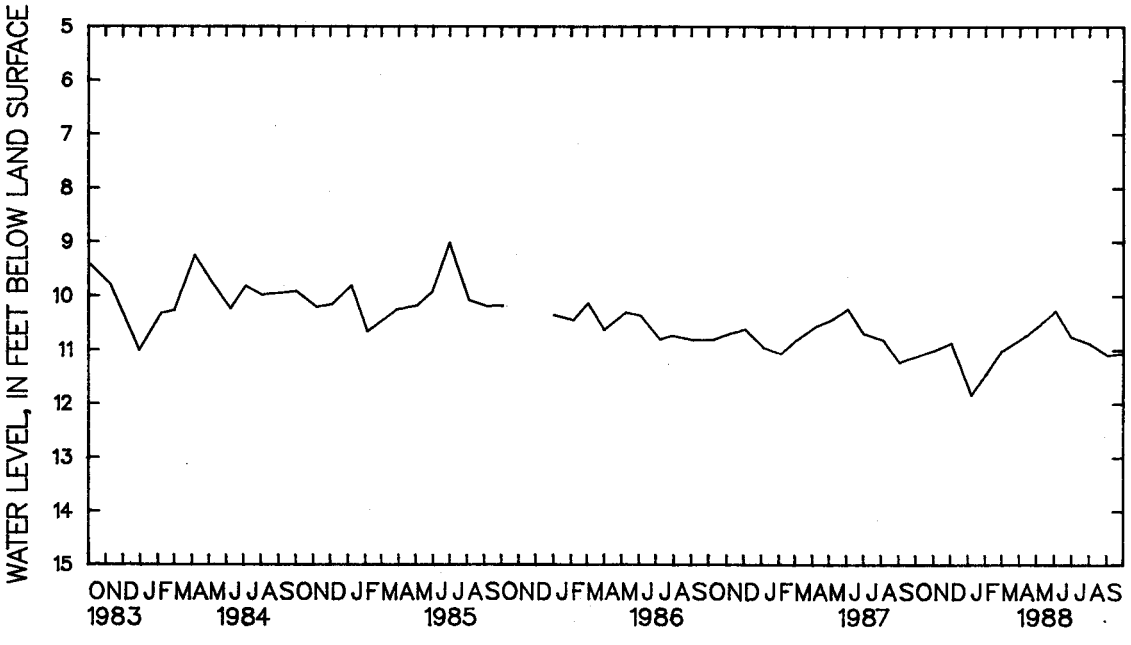


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 308 ft; casing diameter 10 to 6 in. with depth to 283 ft; screened from 283 to 304 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .6 ft above land-surface datum.
PERIOD OF RECORD.--September 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.01 ft below land-surface datum, July 6, 1983; lowest measured, 109.54 ft below land-surface datum, July 18, 1955.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	11.14	JAN 7	11.85	APR 12	10.74	JUN 30	10.76	SEP 30	11.07
NOV 4	11.01	FEB 3	11.45	MAY 4	10.56	AUG 2	10.89		
DEC 3	10.88	MAR 1	11.02	JUN 3	10.28	SEP 2	11.10		

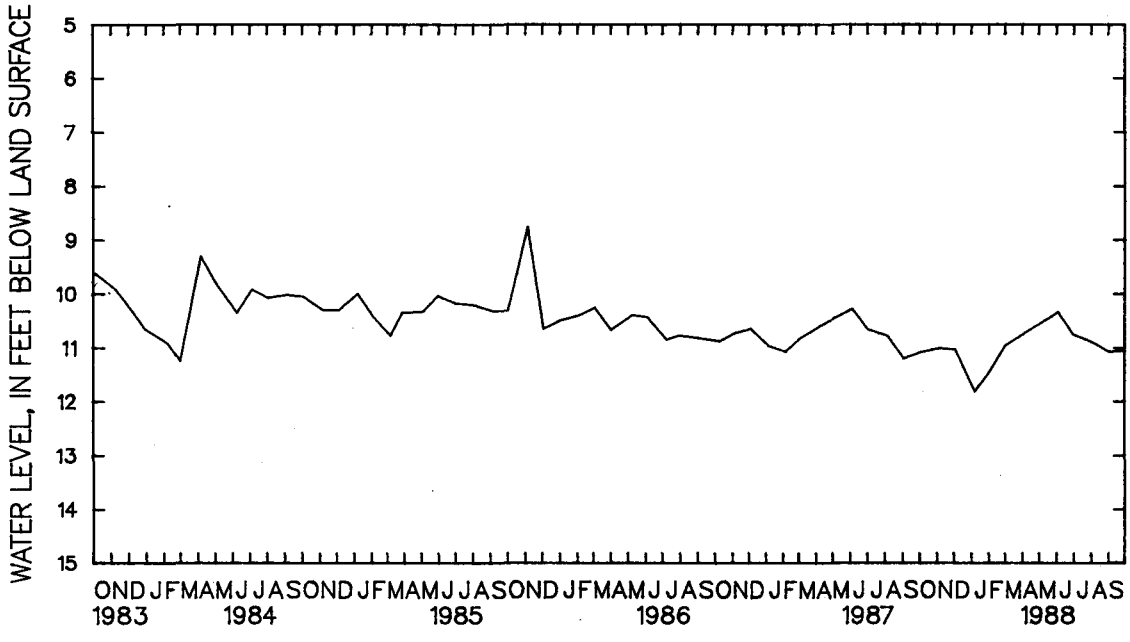


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--BA Gf 169. SITE. ID.--391256076282501.
LOCATION.--Lat 39°12'56", long 76°28'25", Hydrologic Unit 02060003, at Sparrows Point.
Owner: Bethlehem Steel Co.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 224 ft; casing diameter 10 to 6 in. with depth to 202 ft; screened from 202 to 222 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--August 1943 to September 1946, March 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.76 ft below land-surface datum, Nov. 5, 1985; lowest measured, 85.19 ft below land-surface datum, Sept. 30, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	11.09	JAN 7	11.83	APR 12	10.68	JUN 30	10.76	SEP 30	11.06
NOV 4	11.01	FEB 3	11.44	MAY 4	10.54	AUG 2	10.90		
DEC 3	11.03	MAR 1	10.96	JUN 3	10.34	SEP 2	11.08		

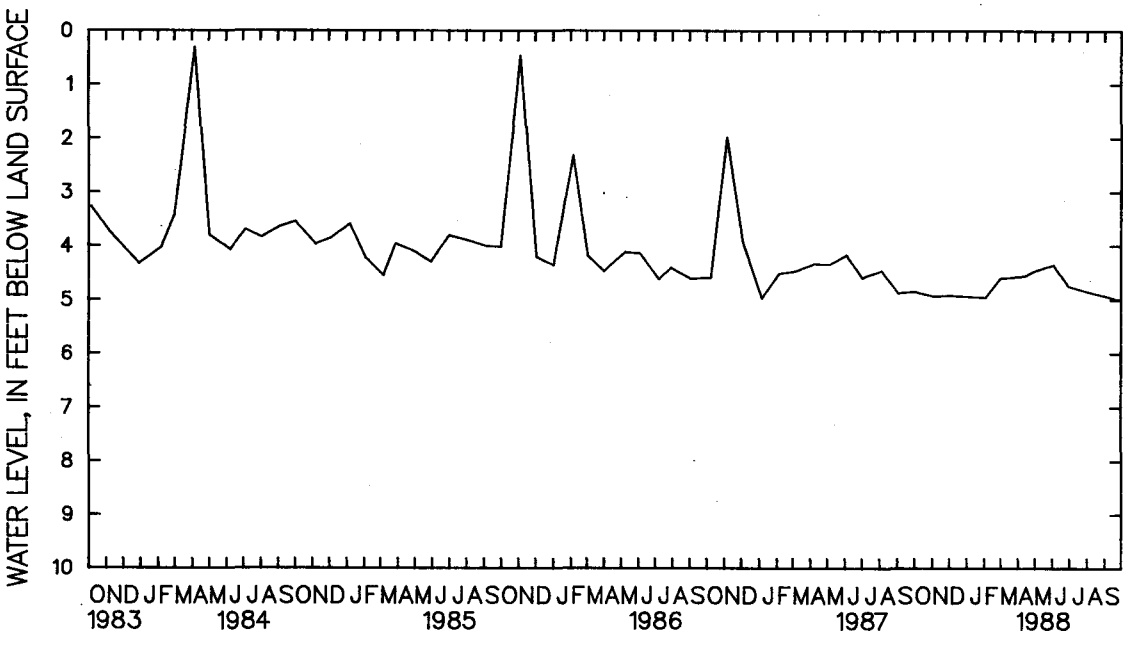


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--BA Gf 178. SITE ID.--391226076253401.
LOCATION.--Lat 39°12′26″, long 76°25′34″, Hydrologic Unit 02060003, at former Bay Shore Park.
Owner: Bethlehem Steel Co.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 339.5 ft; casing diameter 8 in. to unknown depth; screen at unknown depth.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--October 1945 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .32 ft below land-surface datum, April 6, 1984; lowest measured, 61.97 ft below land-surface datum, Dec. 2, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	4.86	DEC 3	4.93	MAR 1	4.61	MAY 4	4.46	JUN 30	4.76	SEP 2	4.94
NOV 4	4.95	FEB 3	4.97	APR 12	4.57	JUN 3	4.36	AUG 2	4.86	30	5.02



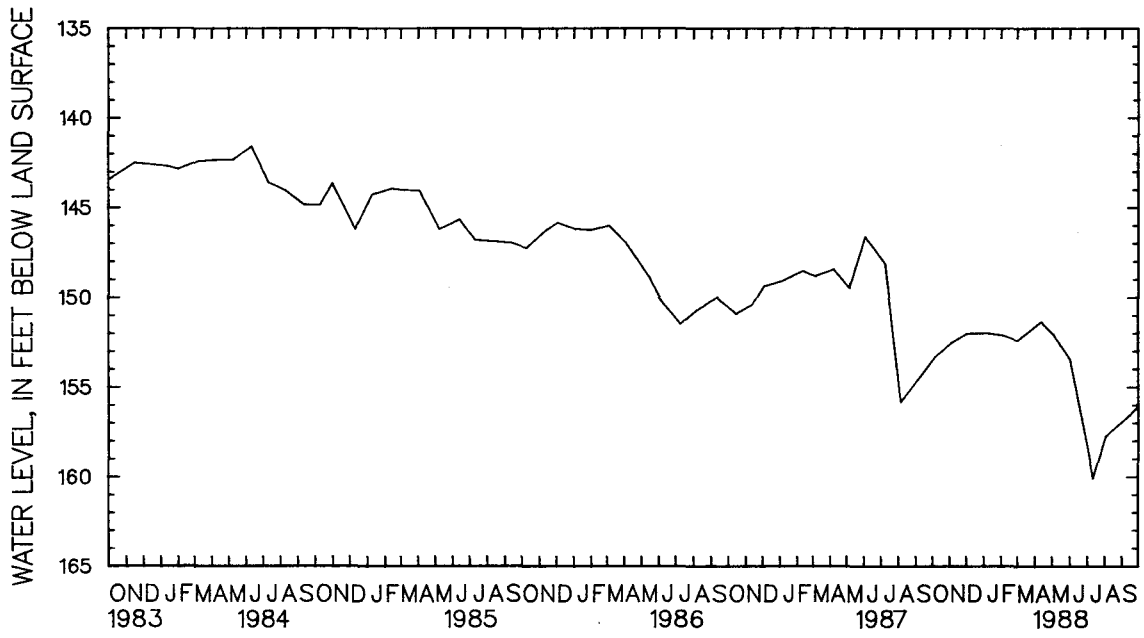
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 320 ft; casing diameter 4 in. with depth to 250 ft; casing diameter 2 in. from 250 to 310 ft; screen diameter 2 in. from 310 to 320 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 140 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.3 ft above land-surface datum.
PERIOD OF RECORD.--August 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 133.82 ft below land-surface datum, May 6, 1980; lowest measured, 160.09 ft below land-surface datum, July 12, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	153.33	DEC 2	152.03	FEB 3	152.11	APR 12	151.36	JUN 1	153.46	AUG 3	157.74
NOV 4	152.53	JAN 6	152.00	MAR 1	152.42	MAY 3	152.04	JUL 12	160.09	SEP 14	156.59

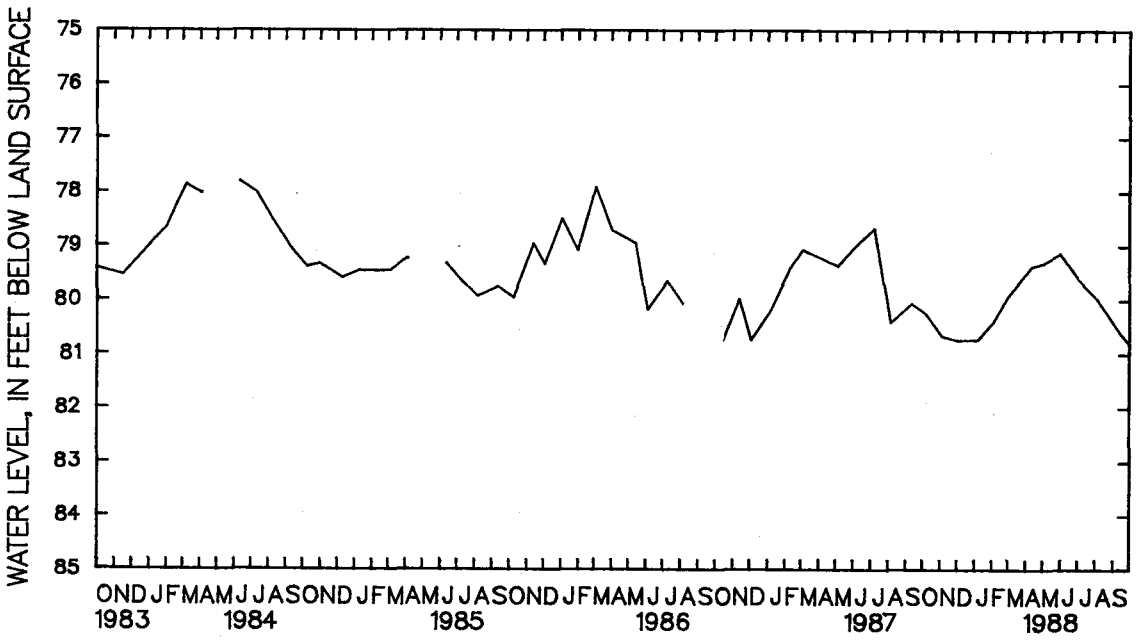


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 170 ft; casing diameter 4 in. with depth to 147 ft; casing diameter 2 in. from 147 to 160 ft; screen diameter 2 in. from 160 to 170 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 140 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.05 ft above land-surface datum.
PERIOD OF RECORD.--July 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 77.60 ft below land-surface datum, June 7, 1983; lowest measured, 81.18 ft below land-surface datum, Jan. 5, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	80.25	DEC 2	80.75	FEB 3	80.40	APR 12	79.37	JUN 1	79.13	AUG 3	79.97
NOV 4	80.67	JAN 6	80.74	MAR 1	79.91	MAY 3	79.30	JUL 12	79.73	SEP 14	80.62

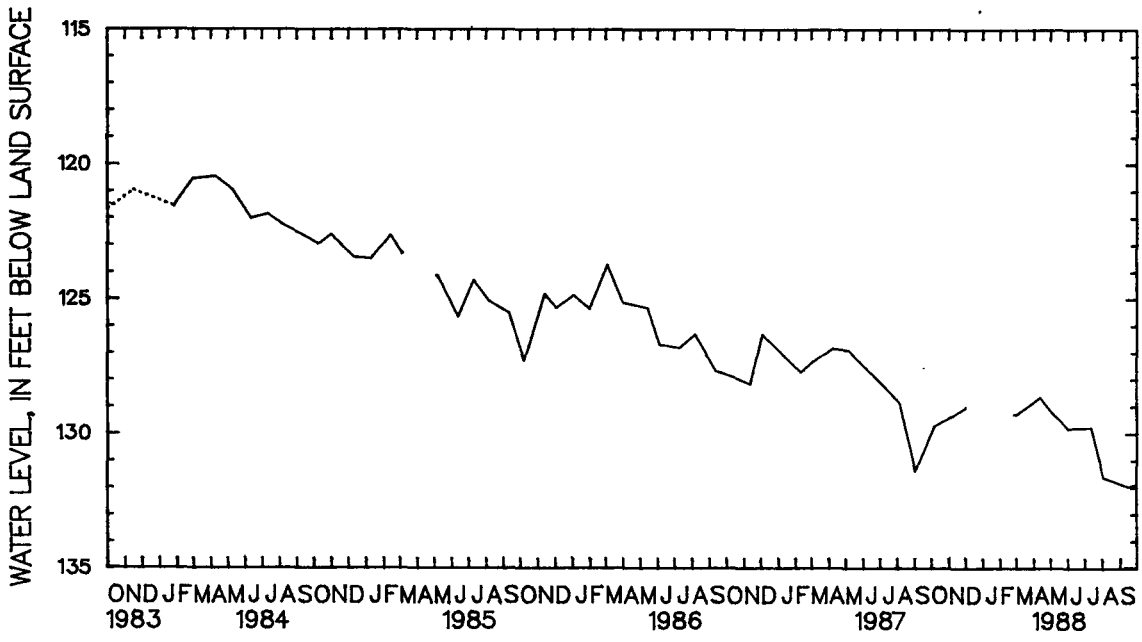


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 476 ft; casing diameter 6 in., screened from 462 to 476 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water level recorder Sept. 15, 1958 to Dec. 7, 1962.
DATUM.--Elevation of land-surface datum is 111.31 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .3 ft above land-surface datum.
REMARKS.--Water level measured 76.68 ft below land-surface datum, Sept. 10, 1952.
PERIOD OF RECORD.--September 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 103.63 ft below land-surface datum, May 14, 1961; lowest measured, 131.98 ft below land-surface datum, Sept. 14, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	129.72	DEC 2	129.02	APR 12	128.65	JUN 1	129.83	AUG 3	131.64
NOV 4	129.38	MAR 1	129.30	MAY 3	129.21	JUL 12	129.79	SEP 14	131.98

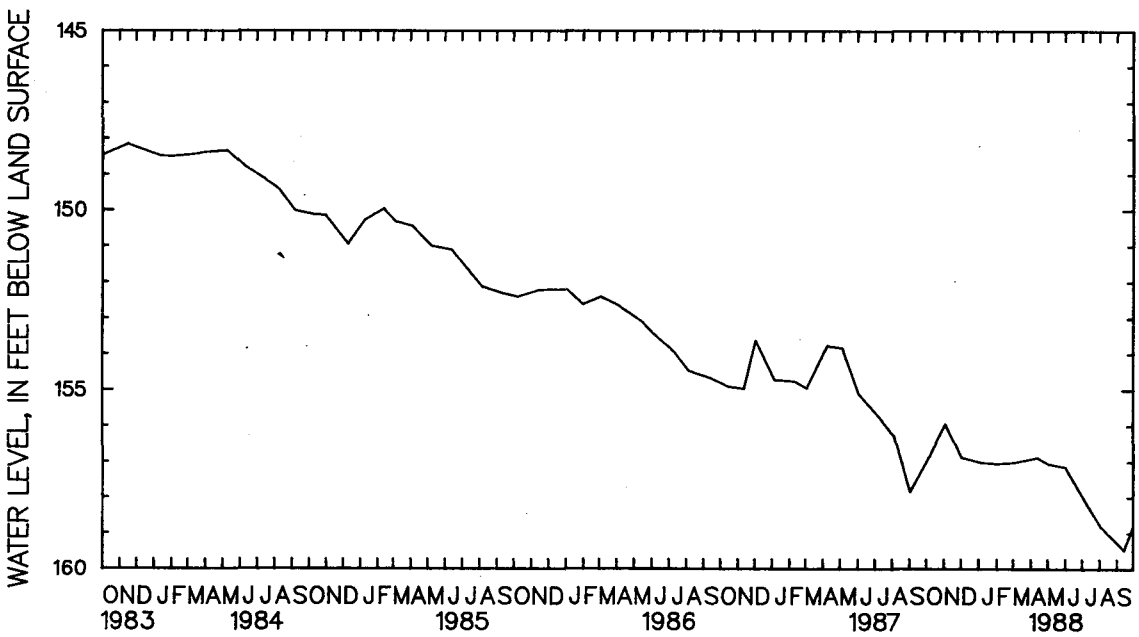


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--CA Cc 57. SITE ID.--383605076344601. PERMIT NUMBER.--CA-73-2893.
LOCATION.--Lat 38°36'05", long 76°34'46", Hydrologic Unit 02060006, Cox Rd. nr MD Rt.263, Huntingtown.
Owner: U.S. Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 579 ft; casing diameter 4 in. with depth 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.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 135 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.8 ft above land-surface datum.
PERIOD OF RECORD.--December 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 140.00 ft below land-surface datum, Mar. 7, 1979; lowest measured, 159.47 ft below land-surface datum, Sept. 14, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	156.87	DEC 2	156.89	FEB 3	157.06	APR 12	156.89	JUN 1	157.16	AUG 3	158.82
NOV 4	155.96	JAN 6	157.03	MAR 1	157.03	MAY 3	157.07	JUL 12	158.26	SEP 14	159.47

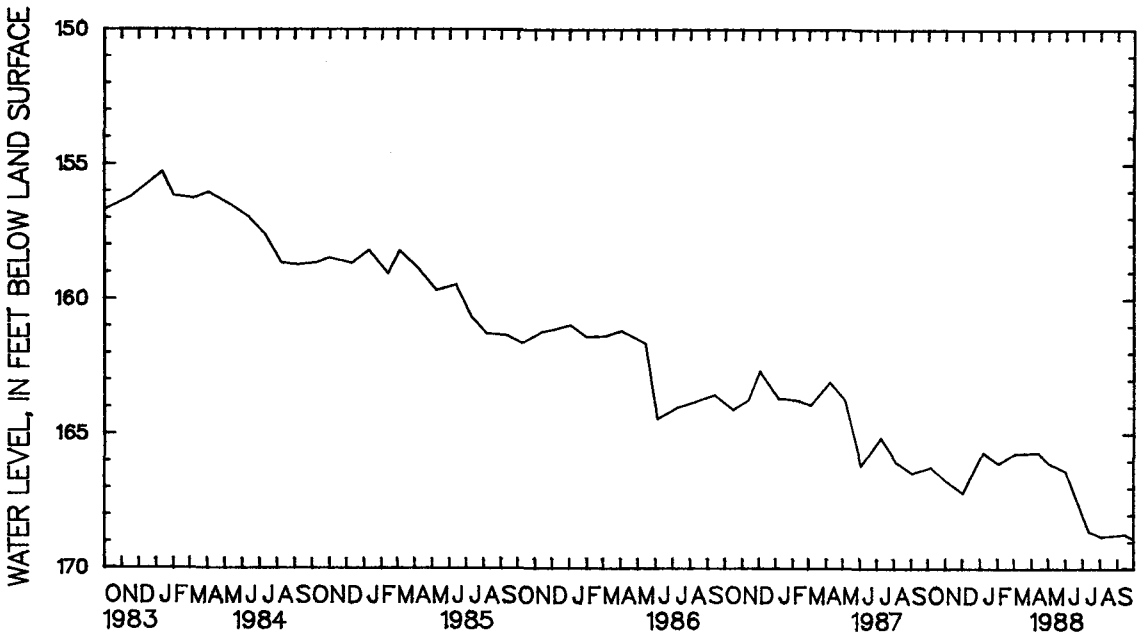


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 570 ft; casing diameter 4 in. with depth to 483 ft; casing diameter 2 in. from 483 to 560 ft; screen diameter 2 in. from 560 to 570 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 140 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.46 ft above land-surface datum.
PERIOD OF RECORD.--July 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 148.54 ft below land-surface datum, July 31, 1979; lowest measured, 168.83 ft below land-surface datum, Aug. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	166.25	DEC 2	167.20	FEB 3	166.10	APR 12	165.69	JUN 1	166.39	AUG 3	168.83
NOV 3	166.76	JAN 6	165.69	MAR 1	165.74	MAY 3	166.10	JUL 12	168.64	SEP 14	168.74

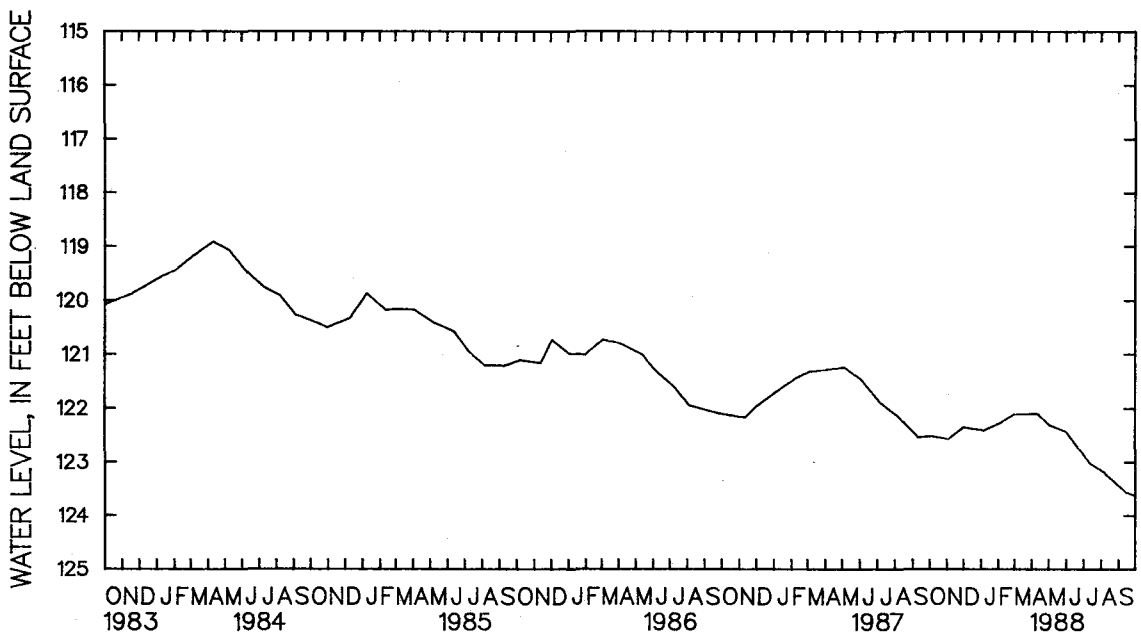


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 352 ft; casing diameter 6 in. with depth to 140 ft; casing diameter 2 in. from 140 to 342 ft; screen diameter 2 in. from 342 to 352 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 120 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--February 1977 to current year.
EXTREMES FOR PERIOD.--Highest water level measured, 116.36 ft below land-surface datum, Jan. 8, 1980; lowest measured, 123.57 ft below land-surface datum, Sep. 14, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	122.53	DEC 2	122.36	FEB 3	122.29	APR 12	122.11	JUN 1	122.44	AUG 3	123.17
NOV 4	122.58	JAN 6	122.42	MAR 1	122.12	MAY 3	122.32	JUL 12	123.03	SEP 14	123.57

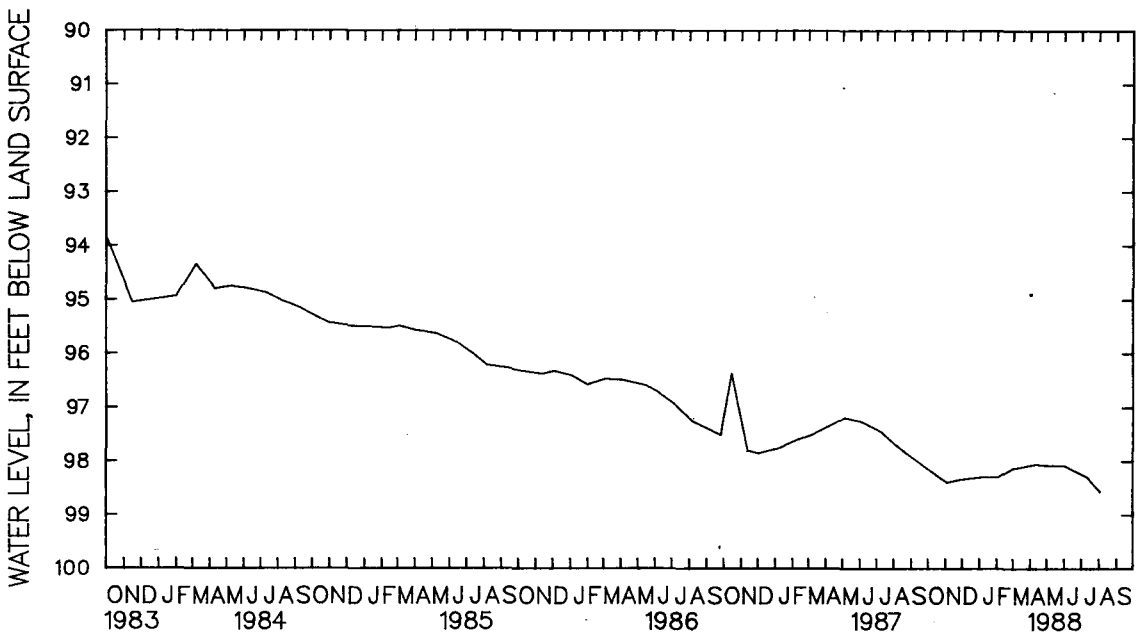


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--CA Fd 52. SITE ID.--382316076284801. PERMIT NUMBER.--CA-73-1450.
LOCATION.--Lat 38°23′16″, long 76°28′48″, Hydrologic Unit 02060006, 2 mi west of Lusby on Sollers Wharf Rd.
Owner: U.S. Geological Survey.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 318 ft; diameter of casing 6 in. with depth to 140 ft; casing diameter 2 in. from 140 to 308 ft; screen diameter 2 in. from 308 to 318 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 101 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.3 ft above land-surface datum.
REMARKS.--Well discontinued as an observation well. Well used by owner for domestic supply.
PERIOD OF RECORD.--November 1976 to August 1988.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 91.47 ft below land-surface datum, May 1, 1980; lowest measured, 98.57 ft below land-surface datum, Aug. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	98.19	DEC 2	98.34	FEB 3	98.30	APR 12	98.06	JUN 1	98.08	AUG 3	98.57
NOV 4	98.40	JAN 6	98.30	MAR 1	98.14	MAY 3	98.08	JUL 12	98.30		

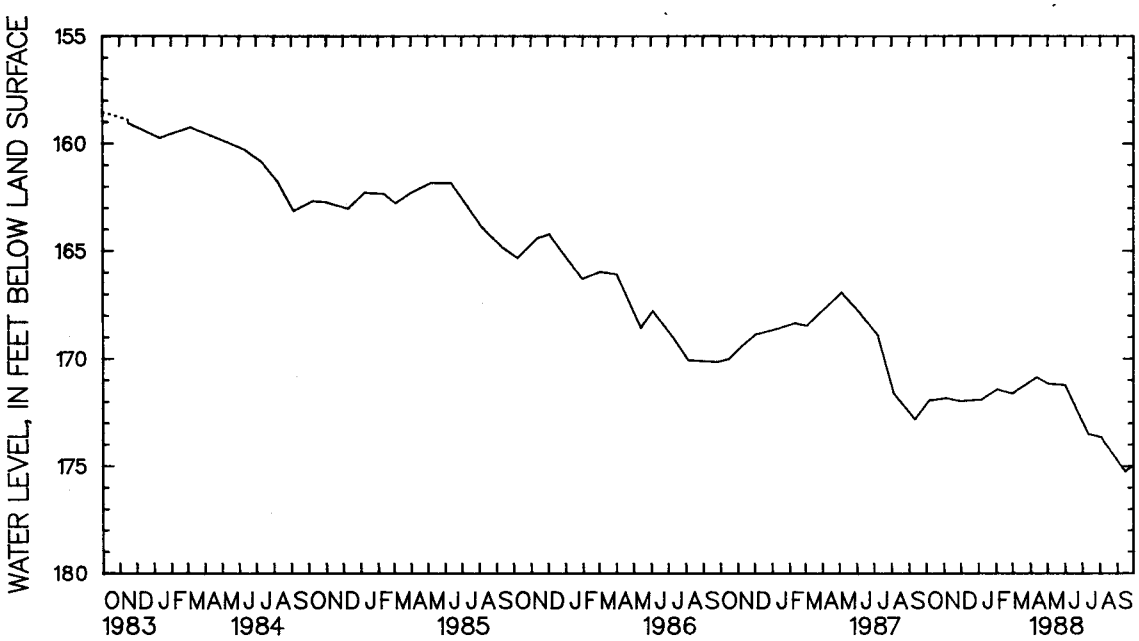


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--CA Fd 54. SITE ID.--382407076260301. PERMIT NUMBER.--CA-73-2892.
LOCATION.--Lat 38°24'07", long 76°26'03", Hydrologic Unit 02060006, at Calvert Cliffs State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 698 ft; casing diameter 4 in. with depth 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.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 129 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.93 ft above land-surface datum.
PERIOD OF RECORD.--October 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 142.69 ft below land-surface datum, April 21, 1980; lowest measured, 175.26 ft below land-surface datum, Sept. 14, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	171.96	DEC 2	171.99	FEB 3	171.46	APR 12	170.89	JUN 1	171.25	AUG 3	173.68
NOV 4	171.85	JAN 6	171.92	MAR 1	171.63	MAY 3	171.19	JUL 12	173.54	SEP 14	175.26

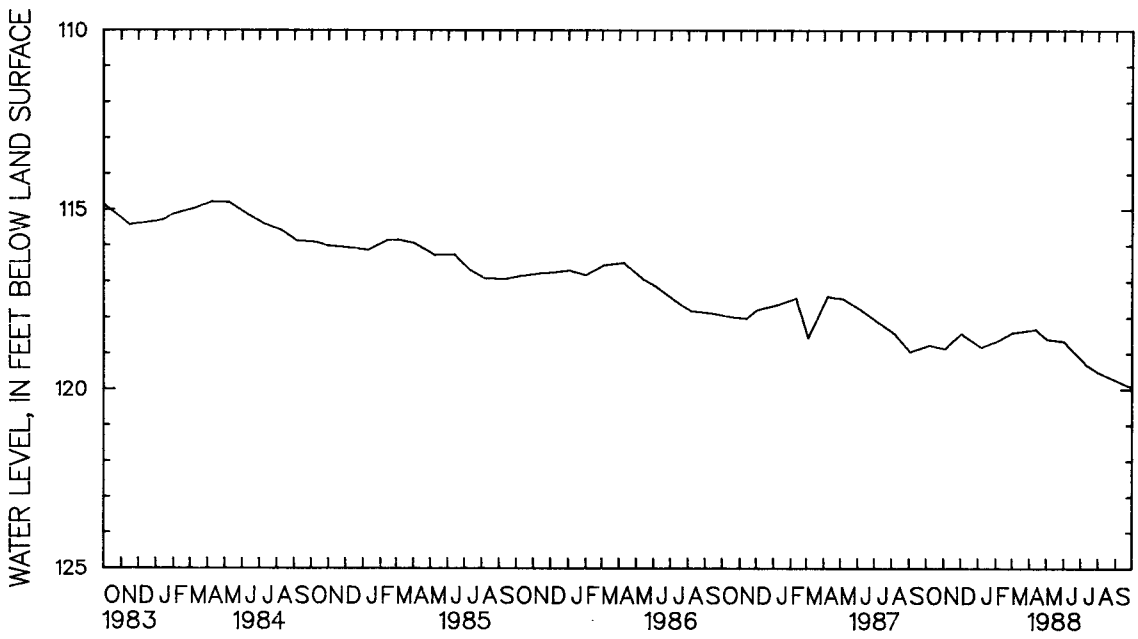


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 350 ft; casing diameter 6 in. with depth to 10 ft; casing diameter 2 in. from 10 to 340 ft; screen diameter 2 in. from 340 to 350 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 120 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.4 ft above land-surface datum.
PERIOD OF RECORD.--October 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.50 ft below land-surface datum, Oct. 5, 1976; lowest measured, 119.86 ft below land-surface datum, Sept. 14, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	118.79	DEC 2	118.46	FEB 3	118.67	APR 12	118.34	JUN 1	118.68	AUG 3	119.56
NOV 3	118.88	JAN 6	118.84	MAR 2	118.43	MAY 3	118.62	JUL 12	119.34	SEP 14	119.86

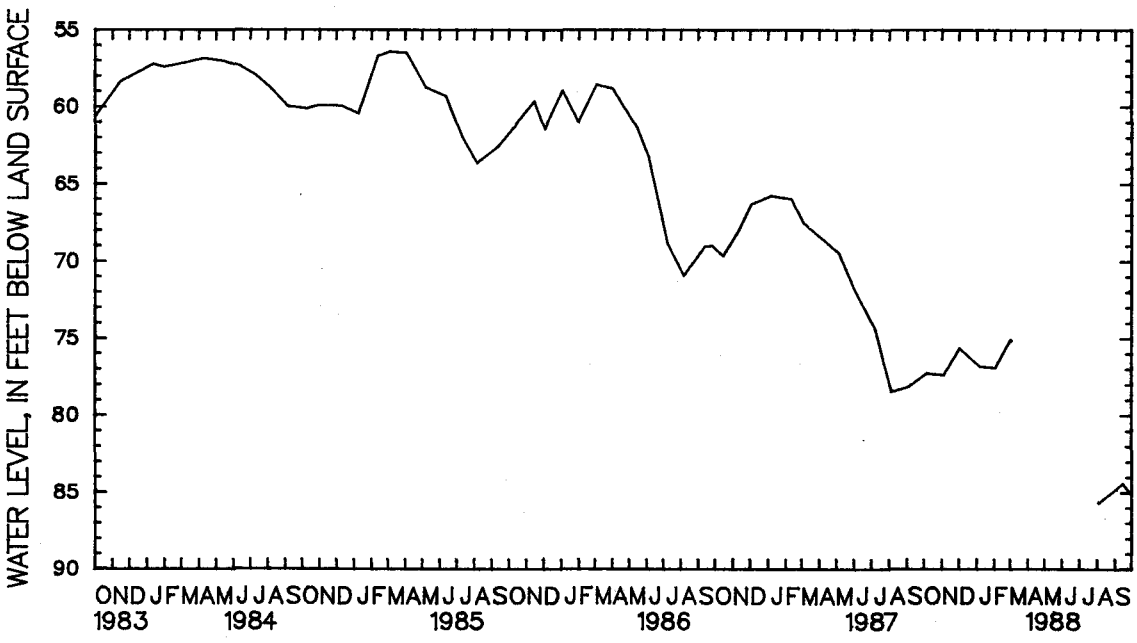


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 493 ft; casing diameter 8 in. with depth to 272 ft; casing diameter 6 in. with depth to 472 ft; screened from 469 to 493 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder Oct. 19, 1949 to Feb. 25, 1960.
DATUM.--Elevation of land-surface datum is 12.58 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of pump base, 10.0 ft above land-surface datum.
REMARKS.--Water level reported at land surface 1942; water level measured 58.9 ft below land-surface datum, Jan. 13, 1944. Well not measured from April through July 1988 during building construction at well site.
PERIOD OF RECORD.-- October 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 26.15 ft below land-surface datum May 18, 1950; lowest measured, 85.75 ft below land-surface datum, Aug. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	77.30	DEC 2	75.66	FEB 3	76.95	AUG 3	85.75	SEP 30	85.17
NOV 4	77.40	JAN 6	76.86	MAR 1	75.08	SEP 14	84.44		



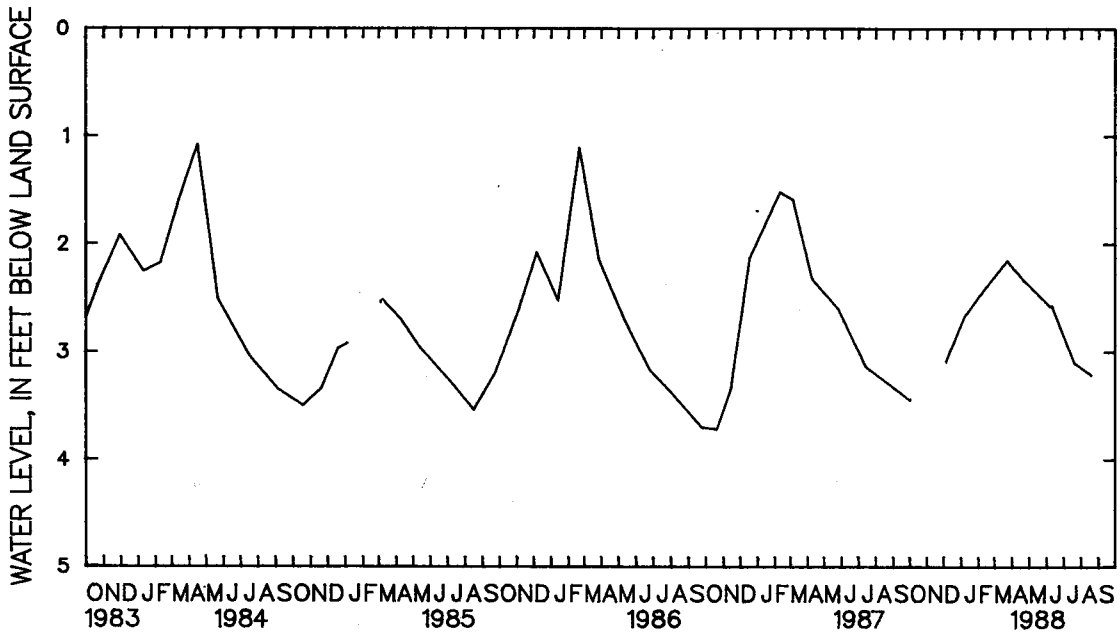
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Driven water-table observation well, depth 20.5 ft; casing diameter 1.25 in. with depth to 20.5 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 50 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .25 above land-surface datum.
PERIOD OF RECORD.--August 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .25 ft above land-surface datum, Nov. 27, 1951; lowest measured, 4.37 ft below land-surface datum, Oct. 11, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	3.46	JAN 7	2.67	MAR 23	2.15	JUN 6	2.58	JUL 20	3.11
DEC 4	3.10	FEB 4	2.47	APR 22	2.34	10	2.58	AUG 19	3.22

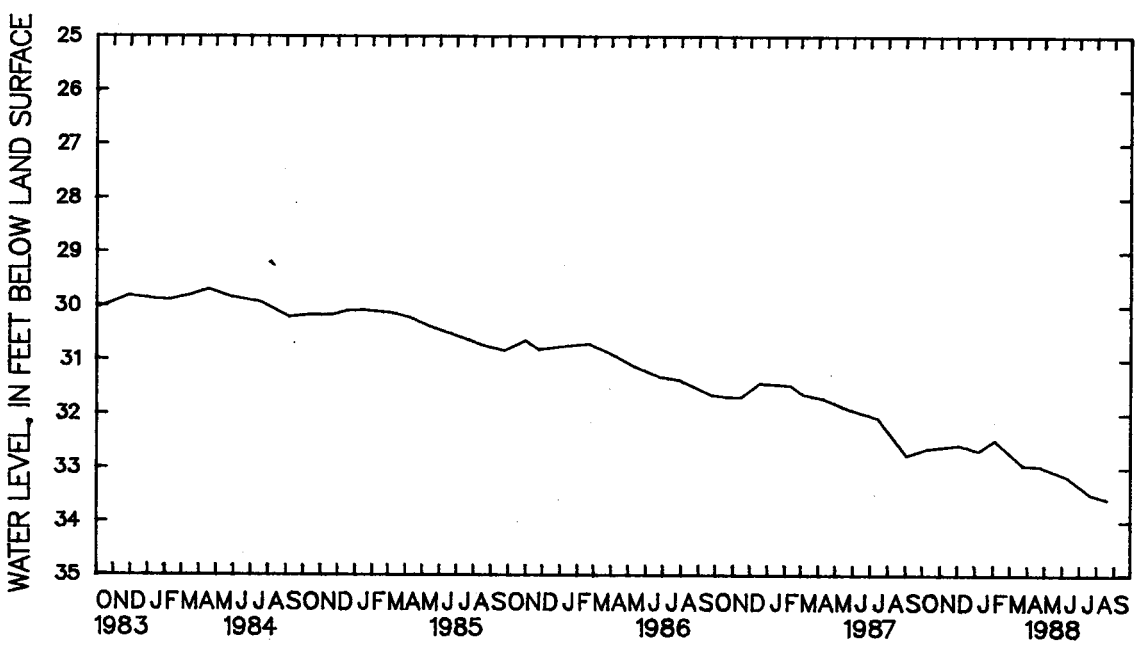


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 312 ft; casing diameter 6 in. with depth to 70 ft; casing diameter 2 in. from 70 to 300 ft; screen diameter 2 in. from 300 to 312 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 60 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.6 ft above land-surface datum.
PERIOD OF RECORD.--February 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.64 ft below land-surface datum, Dec. 10, 1976; lowest measured, 33.59 ft below land-surface datum, Aug. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	32.65	JAN 7	32.69	MAR 23	32.96	JUN 10	33.18	AUG 19	33.59
DEC 4	32.58	FEB 4	32.49	APR 22	32.98	JUL 20	33.50		

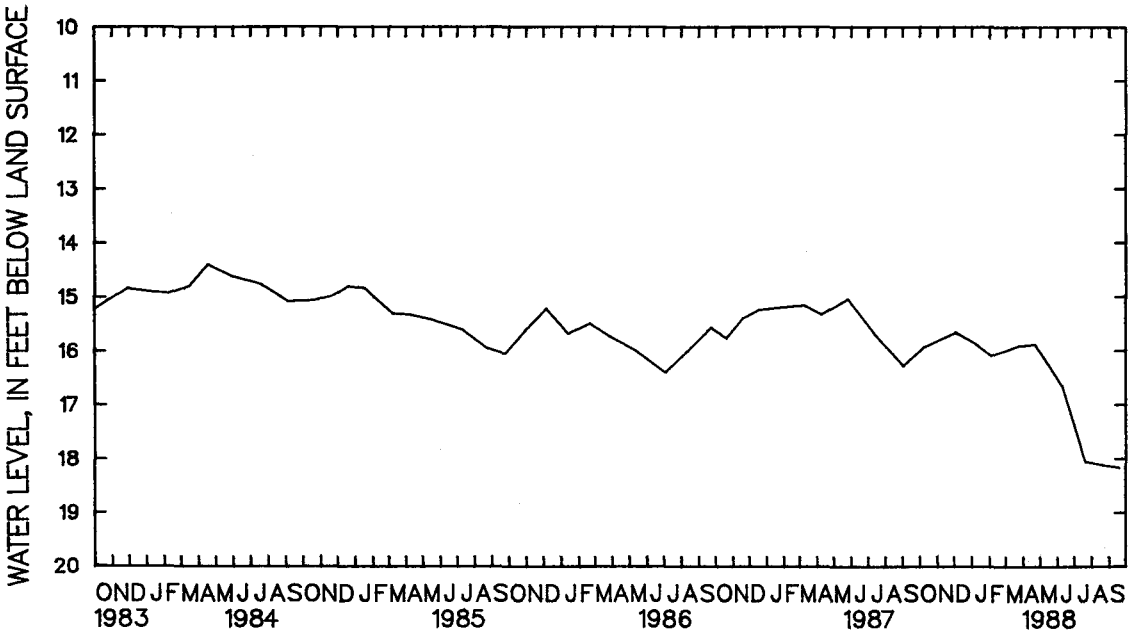


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 229 ft; casing diameter 4 in. with depth to 137.4 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .4 ft below land-surface datum.
REMARKS.--Equipped with water level recorder Aug. 1, 1956 to June 8, 1957.
PERIOD OF RECORD.--August 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.63 ft below land-surface datum, April 5, 1973; lowest measured, 56.09 ft below land-surface datum, Nov. 5, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	15.93	JAN 7	15.87	MAR 23	15.91	JUN 10	16.68	AUG 19	18.13
DEC 4	15.66	FEB 4	16.10	APR 22	15.88	JUL 20	18.07		

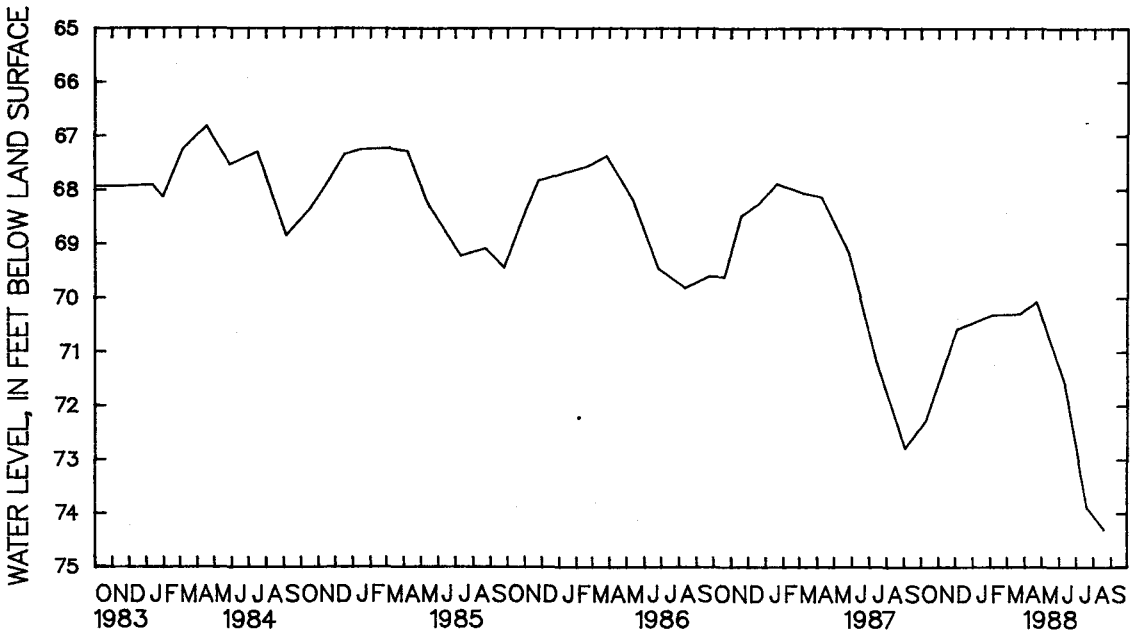


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 380 ft; casing diameter 4 in. with depth to 86 ft; casing diameter 2 in. from 86 to 365 ft; screen diameter 2 in. from 365 to 375 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 46 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.4 ft above land-surface datum.
PERIOD OF RECORD.--April 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.78 ft below land-surface datum, May 27, 1976; lowest measured, 74.31 ft below land-surface datum, Aug. 19, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	72.28	DEC 23	70.50	MAR 23	70.30	JUN 10	71.58	AUG 19	74.31
DEC 4	70.58	FEB 4	70.32	APR 22	70.08	JUL 20	73.90		



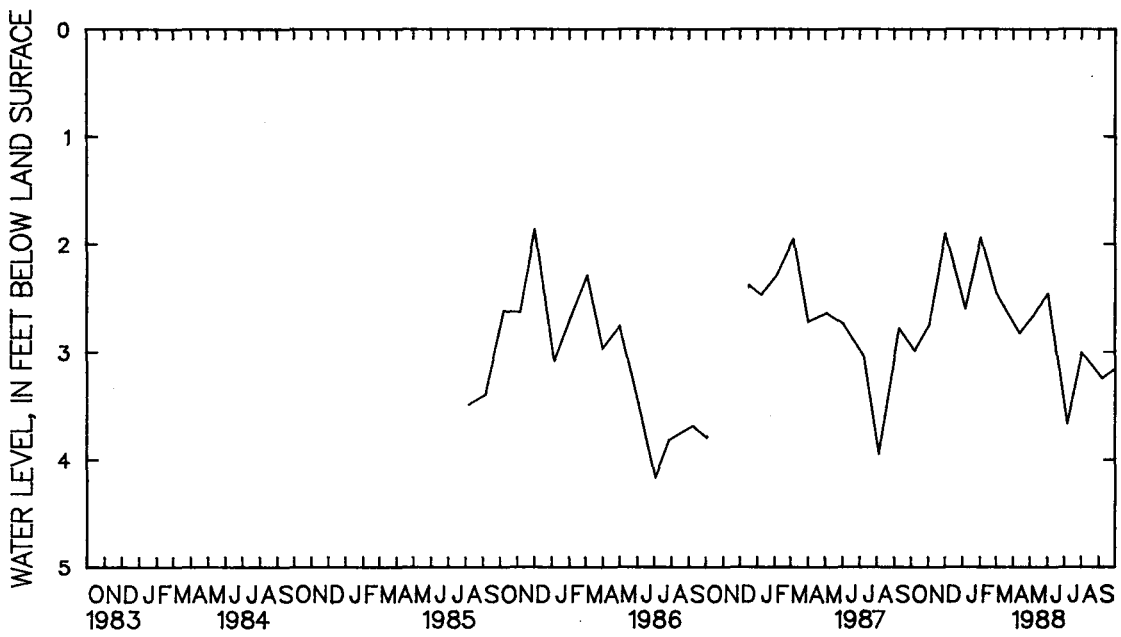
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 310 ft; casing diameter 6 in. with depth to 35 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 540 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing 2.9 ft above land-surface datum.
PERIOD OF RECORD.--August 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.86 ft below land-surface datum, Dec. 2, 1985; lowest measured, 4.17 ft below land-surface datum, July 3, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	2.99	DEC 2	1.90	FEB 3	1.94	APR 13	2.83	JUN 2	2.46	AUG 2	3.01
NOV 3	2.75	JAN 6	2.60	MAR 2	2.46	MAY 5	2.68	JUL 7	3.67	SEP 7	3.25

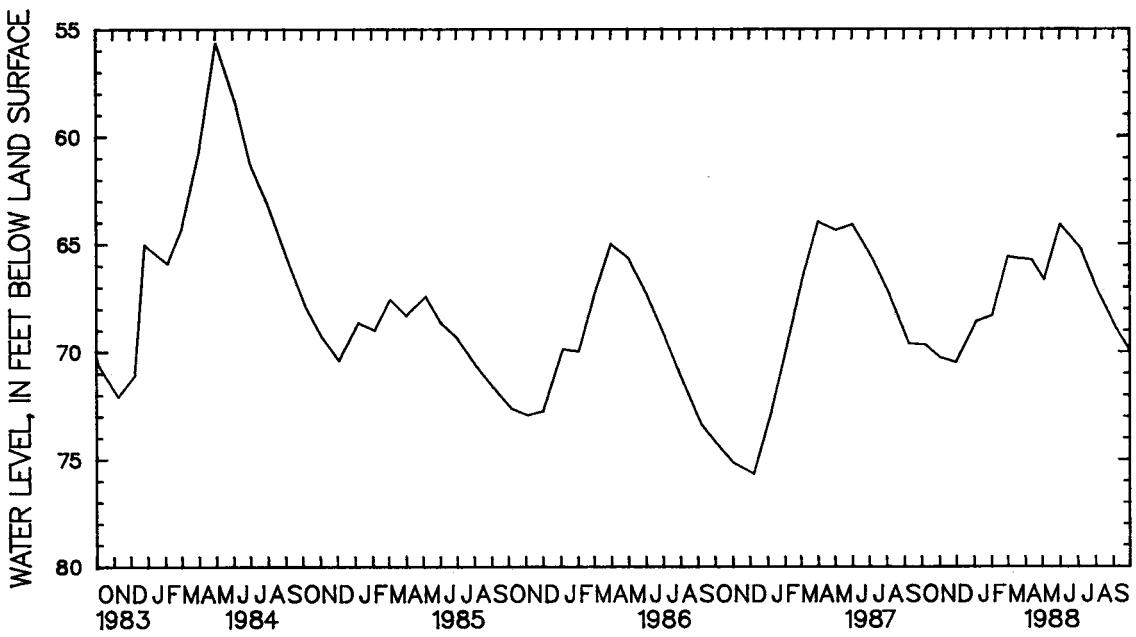


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 407 ft; casing diameter 8 in. with depth to approximately 65 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder July 1, 1952, to Nov. 7, 1962.
DATUM.--Elevation of land-surface datum is 933 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 2 in. casing extension, 2.35 ft above land-surface datum.
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, 52.30 ft below land-surface datum, May 13, 1952; lowest measured, 76.26 ft below land-surface datum, Feb. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	69.69	DEC 1	70.52	FEB 3	68.33	APR 13	65.74	JUN 2	64.09	AUG 3	67.05
NOV 3	70.30	JAN 6	68.59	MAR 2	65.60	MAY 5	66.67	JUL 7	65.22	SEP 7	68.94

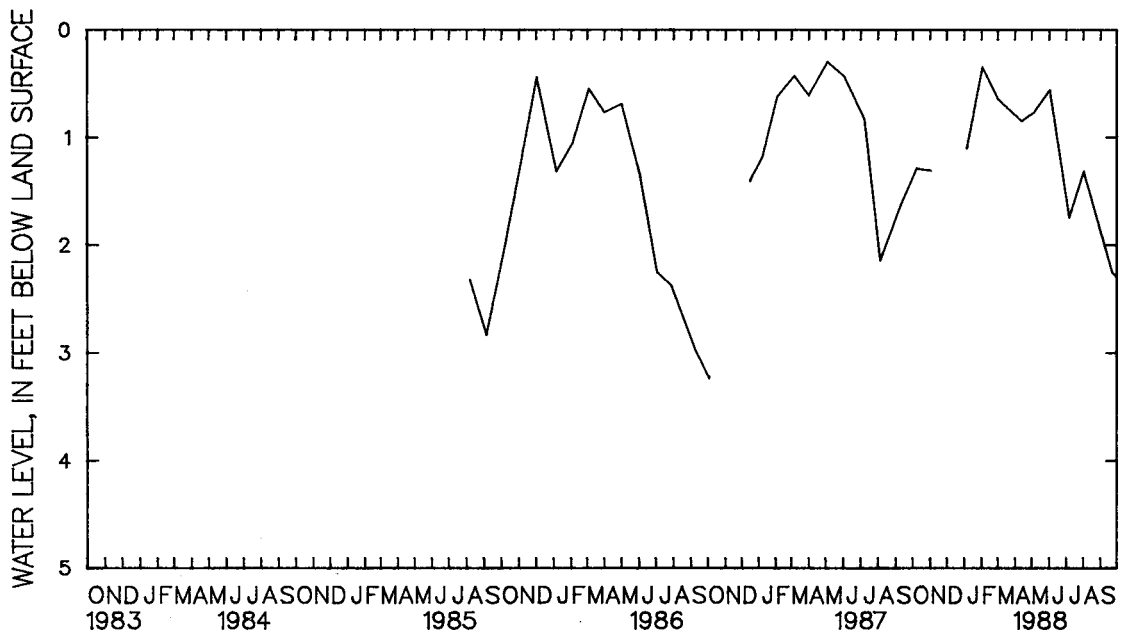


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 340 ft; casing diameter 6 in. with depth to 50 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 790 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing 1.8 ft above land-surface datum.
PERIOD OF RECORD.--August 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .30 ft below land-surface datum, May 4, 1987; lowest measured, 3.24 ft below land-surface datum, Oct. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	1.29	JAN 6	1.10	MAR 2	.65	MAY 5	.77	JUL 7	1.75	SEP 22	2.26
NOV 3	1.31	FEB 3	.35	APR 13	.85	JUN 2	.56	AUG 2	1.32		



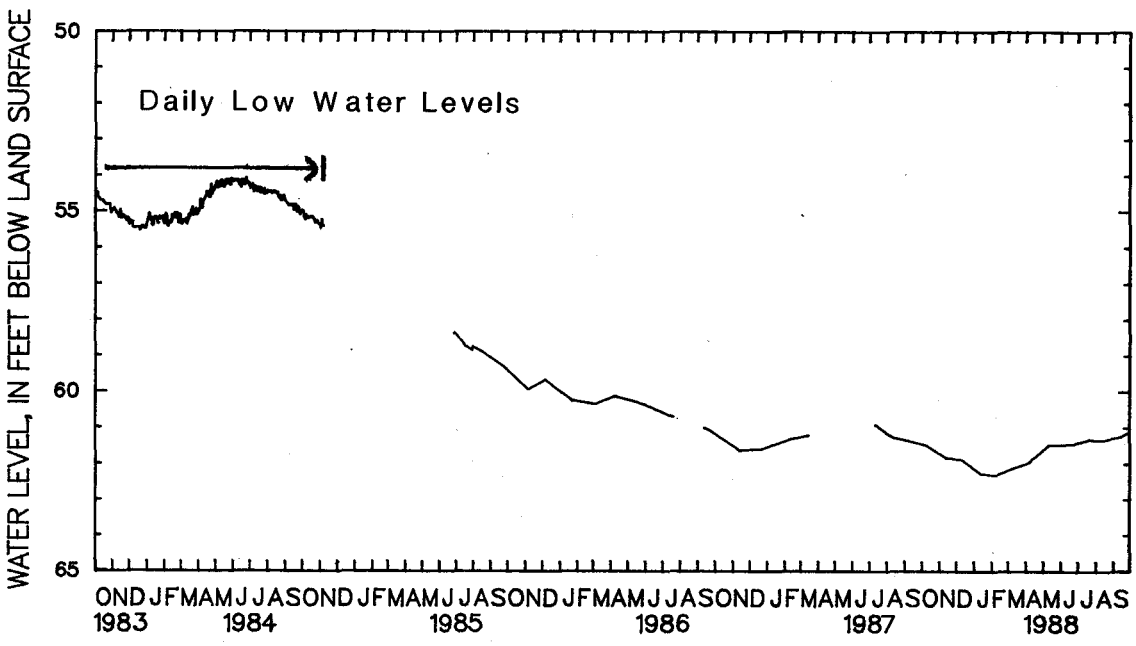
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

CECIL COUNTY

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 125 ft; casing diameter 4 in. with depth to 120 ft; screen diameter 2 in. from 120 to 125 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder July 1, 1983 to November 6, 1984.
DATUM.--Elevation of land-surface datum is 70 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.6 ft above land-surface datum.
PERIOD OF RECORD.--February 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.13 ft below land-surface datum, July 1, 1983; lowest measured, 62.34 ft below land-surface datum, Feb. 8, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	61.50	DEC 11	61.91	FEB 8	62.34	APR 5	61.98	JUN 22	61.46	AUG 11	61.35
NOV 12	61.85	JAN 12	62.29	MAR 7	62.16	MAY 10	61.49	JUL 21	61.33	SEP 12	61.25



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--CE Bf 142. SITE ID.--393603075471701. PERMIT NUMBER.--CE-05-5728.
LOCATION.--Lat 39°36′03″, long 75°47′17″, Hydrologic Unit 02060002, 0.3 mi south of intersection of Delancy Rd. and U.S. Rt. 40, Elkton.
Owner: Gary Davis.
AQUIFER.--Potomac Group.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 106 ft; casing diameter 4 in. with depth to 97.8 ft; screen from 97.8 ft to 102.8 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water level recorder Aug. 19, 1986 to April 5, 1988.
DATUM.--Elevation of land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 1.5 ft above land-surface datum.
REMARKS.--Well destroyed September 1988.
PERIOD OF RECORD.--August 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.77 ft below land-surface datum, Mar. 19, 1987; lowest measured, 61.64 ft below land-surface datum, Dec. 26, 1987 and Dec. 27, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
LOWEST VALUE

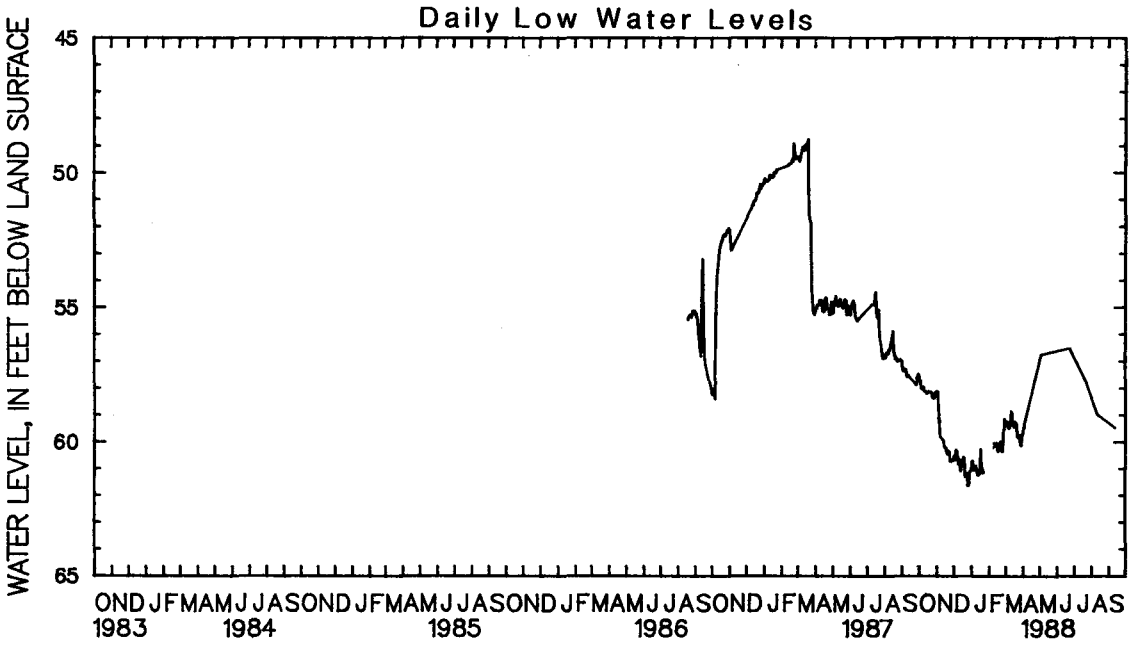
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57.58	58.15	60.56	61.00	---	59.41	59.65	---	---	---	---	---
2	---	58.15	60.60	60.73	---	59.35	59.50	---	---	---	---	---
3	57.74	58.55	60.68	60.71	---	59.25	59.47	56.76	---	---	---	---
4	58.00	58.88	60.42	60.85	---	59.36	59.26	---	---	---	---	---
5	58.05	59.20	60.30	61.07	---	59.36	59.21	---	---	---	---	---
6	58.03	59.57	60.37	60.97	---	59.49	---	---	---	---	---	---
7	57.99	59.83	60.55	60.95	---	59.49	---	---	---	---	---	---
8	57.99	---	60.55	60.97	60.19	59.39	---	---	---	---	---	---
9	58.13	---	60.84	60.90	60.07	59.38	---	---	---	---	---	---
10	58.13	---	60.67	61.02	60.07	59.15	---	---	---	---	---	---
11	58.15	---	60.67	61.08	60.08	58.87	---	---	---	---	58.96	---
12	58.16	59.95	61.05	61.25	60.10	58.93	---	---	---	---	---	59.45
13	58.16	60.00	61.10	61.25	60.13	59.23	---	---	---	---	---	---
14	58.20	60.18	61.05	61.08	60.05	59.26	---	---	---	---	---	---
15	58.20	60.23	60.83	61.07	60.06	59.31	---	---	---	---	---	---
16	58.17	60.23	60.76	61.20	60.27	59.46	---	---	---	---	---	---
17	58.17	60.23	60.74	60.28	60.34	59.45	---	---	---	---	---	---
18	58.17	60.37	60.57	60.78	60.30	59.26	---	---	---	---	---	---
19	58.18	60.45	60.58	60.95	60.30	59.29	---	---	---	---	---	---
20	58.18	60.35	60.82	61.05	60.06	59.34	---	---	---	---	---	---
21	58.17	60.48	61.25	61.17	60.00	59.58	---	---	---	57.72	---	---
22	58.18	60.46	61.32	61.18	60.28	59.83	---	---	56.50	---	---	---
23	58.24	60.38	61.22	---	60.24	59.84	---	---	---	---	---	---
24	58.38	60.72	61.23	---	60.36	59.77	---	---	---	---	---	---
25	58.38	60.72	61.20	---	60.35	59.77	---	---	---	---	---	---
26	58.40	60.75	61.64	---	59.59	59.74	---	---	---	---	---	---
27	58.40	60.72	61.64	---	59.55	60.02	---	---	---	---	---	---
28	58.26	60.71	61.56	---	59.15	60.14	---	---	---	---	---	---
29	58.20	60.71	61.15	---	59.21	60.13	---	---	---	---	---	---
30	58.17	60.66	61.09	---	---	59.90	---	---	---	---	---	---
31	58.15	---	61.09	---	---	59.74	---	---	---	---	---	---
MAX	58.40	60.75	61.64	---	---	60.14	---	---	---	---	---	---
MIN	57.58	58.15	60.30	---	59.15	58.87	---	---	---	---	---	---

GROUND-WATER LEVELS

MARYLAND--Continued

CECIL COUNTY--Continued

CE Bf 142--Continued



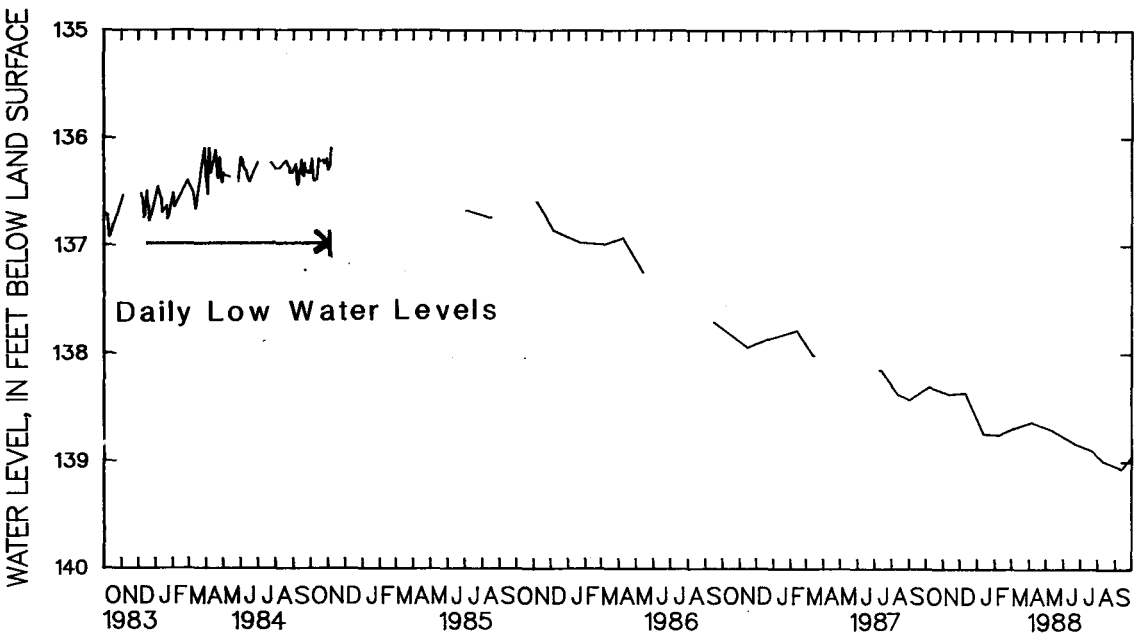
5 YEAR HYDROGRAPH

OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 250 ft; casing diameter 4 in. with depth to 245 ft; screen diameter 2 in. from 245 to 250 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder July 21, 1983 to Nov. 6, 1984.
DATUM.--Elevation of land-surface datum is 180 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing 2.0 ft above land-surface datum.
PERIOD OF RECORD.--March 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.10 ft below land-surface datum, Mar. 29, 1984, April 6, 1984 and Nov. 6, 1984; lowest measured, 138.43 ft below land-surface datum, Sept. 2, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	138.31	DEC 11	138.37	FEB 8	138.76	APR 5	138.64	JUN 22	138.84	AUG 11	139.00
NOV 12	138.38	JAN 12	138.75	MAR 7	138.69	MAY 10	138.71	JUL 21	138.90	SEP 12	139.07

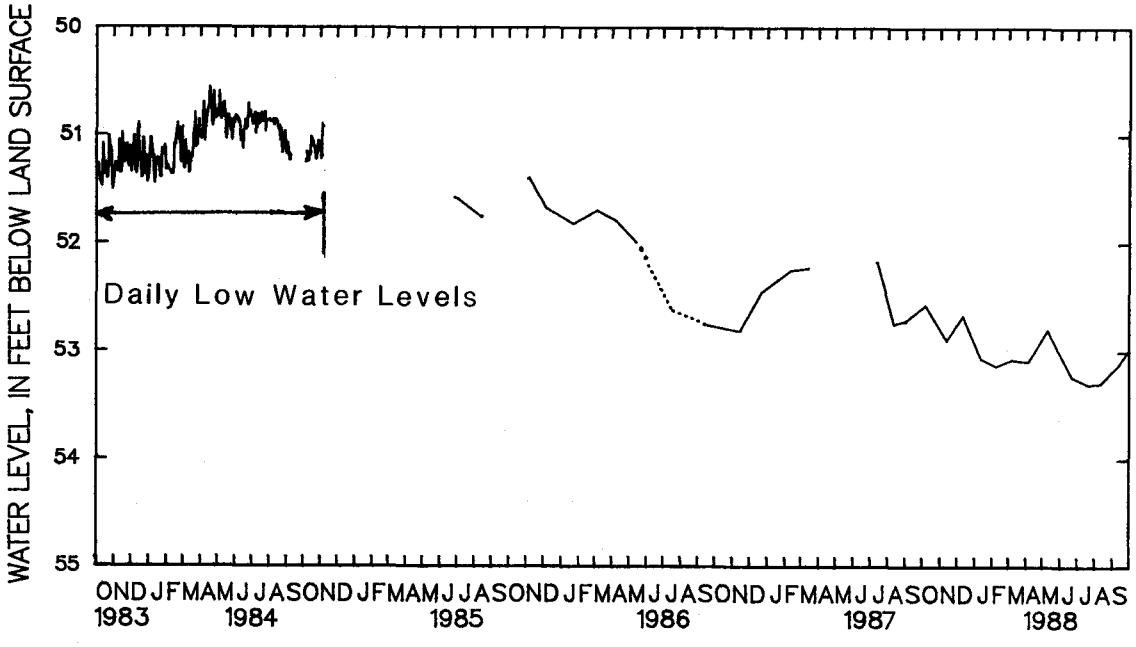


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 375 ft; casing diameter 4 in. with depth to 370 ft; screen diameter 2 in. from 370 to 375 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder July 21, 1983 to Nov. 6, 1984.
DATUM.--Elevation of land-surface datum is 60 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing 2.4 ft above land-surface datum.
PERIOD OF RECORD.--March 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 50.56 ft below land-surface datum, April 17, 1984; lowest measured, 53.31 ft below land-surface datum, Jul. 21, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	52.57	DEC 11	52.67	FEB 8	53.14	APR 5	53.10	JUN 22	53.24	AUG 11	53.30
NOV 12	52.90	JAN 12	53.07	MAR 7	53.08	MAY 10	52.80	JUL 21	53.31	SEP 12	53.12

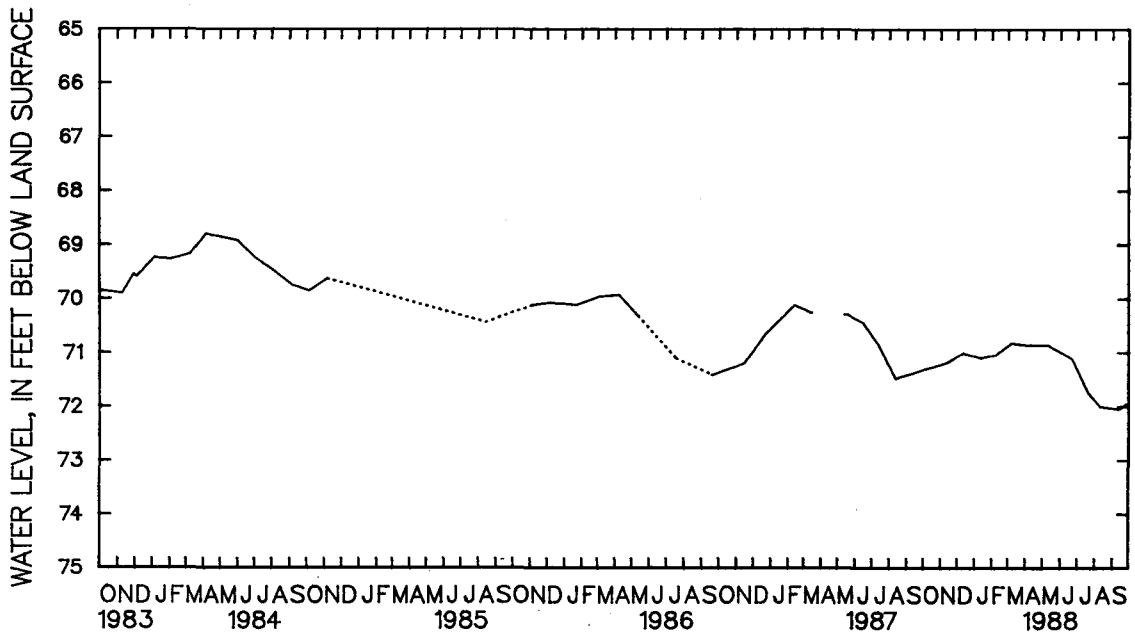


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 547 ft; casing diameter 10 in. with depth to 158 ft; casing diameter 4 in. from -2.35 to 515 ft and 525 to 547 ft; screen diameter 4 in. from 515 to 525 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder Aug. 22, 1979 to Dec. 4, 1979.
DATUM.--Elevation of land-surface datum is 80 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.35 ft above land-surface datum.
PERIOD OF RECORD.--August 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 67.99 ft below land-surface datum, Mar. 25, 1979; lowest measured, 72.06 ft below land-surface datum, Sept. 12, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	71.30	DEC 11	71.01	FEB 8	71.04	APR 5	70.86	JUN 22	71.12	AUG 11	72.02
NOV 12	71.19	JAN 12	71.10	MAR 7	70.82	MAY 10	70.86	JUL 21	71.77	SEP 12	72.06



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY

WELL NUMBER.--CH Bb 17. SITE ID.--383524077111802.
LOCATION.--Lat 38°35'24" long 77°11'18", Hydrologic Unit 02070011, at Farnum Road; U.S. Naval Ordnance Station, about 2.5 miles southwest of Indian Head.
Owner: U.S. Navy
AQUIFER.--Patapsco Formation
WELL CHARACTERISTICS.--Drilled artesian well, depth 294 ft; casing diameter 16 in. with depth to 230 ft; casing diameter 10 in. with depth to 240 ft; screen diameter 10 in. from 240 to 294 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--60 minute recorder interval, May 1988 to current year.
DATUM.--Elevation of land-surface datum is 52 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 3 ft above land-surface datum.
PERIOD OF RECORD.--May 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 114.41 ft below land-surface datum, June 4, 1988; lowest measured, 119.87 ft below land surface datum, Sept. 28-29, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

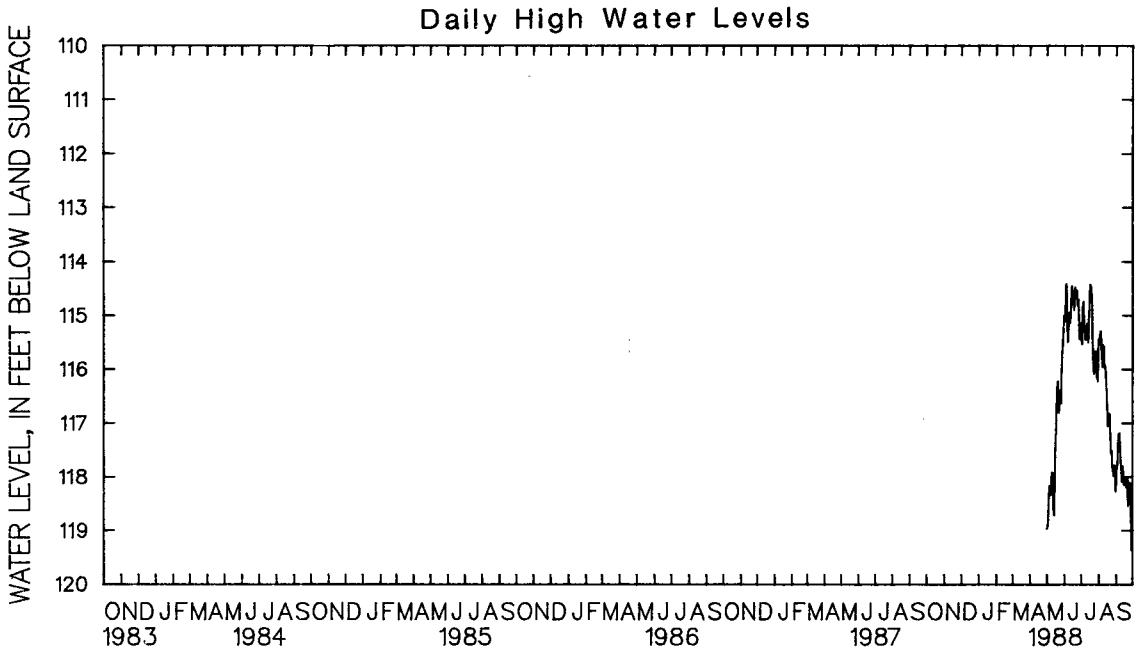
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	119.55	118.97	115.58	115.11	115.87	115.22	116.11	115.45	118.77	118.10
2	---	---	119.39	118.93	115.72	115.10	116.07	115.54	115.98	115.45	118.42	117.79
3	---	---	119.25	118.81	115.13	114.50	115.78	115.03	115.98	115.38	118.22	117.78
4	---	---	118.99	118.44	114.89	114.41	115.28	114.77	115.86	115.30	117.96	117.42
5	---	---	118.62	118.17	115.53	114.70	115.49	114.74	116.07	115.46	117.69	117.22
6	---	---	118.78	118.35	116.09	115.29	115.71	115.19	116.33	115.67	117.58	117.27
7	---	---	118.64	118.23	115.96	115.50	115.84	115.23	116.31	115.96	117.77	117.19
8	---	---	118.77	118.32	115.64	115.28	116.03	115.45	115.99	115.56	117.95	117.46
9	---	---	118.26	118.01	115.41	114.95	115.88	115.45	115.96	115.57	118.14	117.70
10	---	---	118.38	117.92	115.66	115.11	115.70	115.27	116.05	115.58	118.32	117.84
11	---	---	118.96	117.93	115.64	115.14	115.72	115.16	116.33	115.96	118.47	118.10
12	---	---	119.03	118.61	115.57	114.99	115.78	115.30	116.37	115.93	118.45	117.93
13	---	---	119.06	118.57	115.25	114.71	115.92	115.50	116.47	116.01	118.20	117.81
14	---	---	119.23	118.72	114.97	114.45	115.73	115.08	116.63	116.19	118.58	118.13
15	---	---	118.91	117.97	115.05	114.55	115.35	114.91	116.91	116.41	118.51	118.16
16	---	---	118.13	117.33	115.19	114.78	115.20	114.56	117.76	116.77	118.49	118.09
17	---	---	117.58	117.17	115.13	114.64	114.84	114.42	117.63	117.07	118.43	118.06
18	---	---	117.34	116.56	115.29	114.89	114.99	114.45	117.36	116.89	118.57	118.05
19	---	---	116.86	116.30	115.08	114.52	114.93	114.58	117.15	116.83	118.60	118.20
20	---	---	116.73	116.22	114.99	114.48	115.67	114.77	117.35	116.83	118.43	118.14
21	---	---	117.48	116.67	114.95	114.67	116.22	115.56	117.79	117.07	118.82	118.01
22	---	---	117.39	116.81	114.98	114.64	116.47	115.89	118.08	117.43	118.89	118.55
23	---	---	116.70	116.39	115.05	114.54	116.39	116.09	117.88	117.56	118.68	118.20
24	---	---	---	---	115.26	114.79	116.27	115.95	118.08	117.52	118.76	118.30
25	---	---	117.04	116.44	115.15	114.81	116.14	115.75	118.30	117.83	118.71	118.12
26	---	---	117.06	116.63	115.49	114.71	116.29	115.67	118.40	117.81	118.87	118.24
27	---	---	116.53	115.93	115.94	115.29	116.57	115.98	118.50	117.99	119.37	118.75
28	---	---	116.14	115.67	115.89	115.44	116.69	116.15	118.49	117.99	119.87	119.37
29	---	---	115.96	115.55	115.71	115.15	116.47	115.93	118.41	117.79	119.87	119.36
30	119.55	118.97	115.83	115.31	115.83	115.28	116.80	116.23	118.54	117.94	119.66	119.22
31	---	---	115.55	115.00	---	---	116.57	115.74	118.77	118.28	---	---
MONTH	---	---	---	---	116.09	114.41	116.80	114.42	118.77	115.30	119.87	117.19

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY

CH Bb 17--Continued

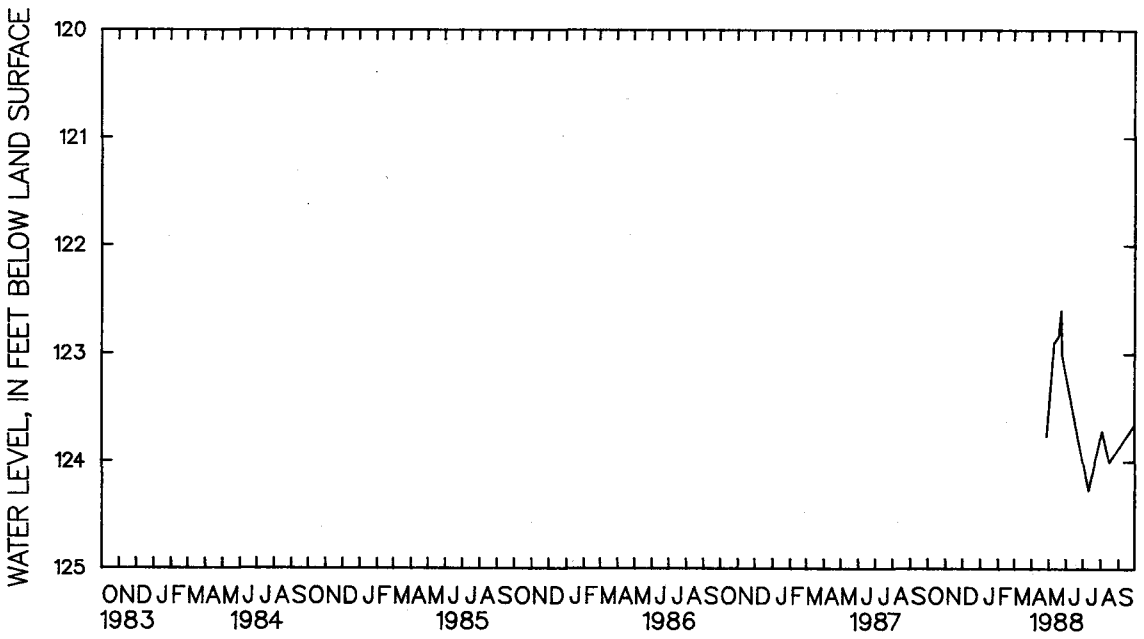


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--CH Bc 5. SITE ID.--383524077094401.
LOCATION.--Lat 38°35′24″, long 77°09′44″, Hydrologic Unit 02070011, at Benson Road; U.S. Naval Ordnance Station, about 2.5 miles southwest of Indian Head.
Owner: U.S. Navy.
AQUIFER.--Patuxent Formation
WELL CHARACTERISTICS.--Drilled artesian well, depth 430 ft; casing diameter 8 in. to unknown depth; screen 8 in. to unknown depth.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval, May 1988 to current year.
DATUM.--Elevation of land-surface datum is 38.2 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf 2.5 ft above land-surface datum.
REMARKS.--Recorder data not reported because of malfuctioning float/counter-weight system.
PERIOD OF RECORD.--May 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 122.60 ft below land-surface datum, May 25, 1988; lowest measured, 124.27 ft below land surface datum, July 11, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
APR 4	123.77	MAY 19	122.84	MAY 25	123.01	AUG 4	123.72
MAY 11	122.90	MAY 24	122.60	JUL 11	124.27	AUG 17	124.01



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--CH Bc 24. SITE ID.--383633077083001. PERMIT NUMBER.--CH-02-0874.
LOCATION.--Lat 38°36'33" long 77°08'30", Hydrologic Unit 02070010, at Cedar Lane, Potomac Heights.
Owner: Potomac Heights Mutual Home Owners' Association.
AQUIFER.--Patuxent Formation.
WELL CHARACTERISTICS.--Drilled artesian well, depth 435 ft; casing diameter 10 in. with depth to 383.5 ft; casing diameter 10 in. from 398.5 to 415 ft; screen diameter 10 in. from 383.5 to 398.5 ft and 415 to 435 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--60-minute recorder interval, May 1988 to current year.
DATUM.--Elevation of land-surface datum is 72 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 1.6 ft above land-surface datum.
PERIOD OF RECORD.--May 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 142.26 ft below land-surface datum, Apr. 30, 1988; lowest measured, 155.53 ft below land surface datum, Aug. 30, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

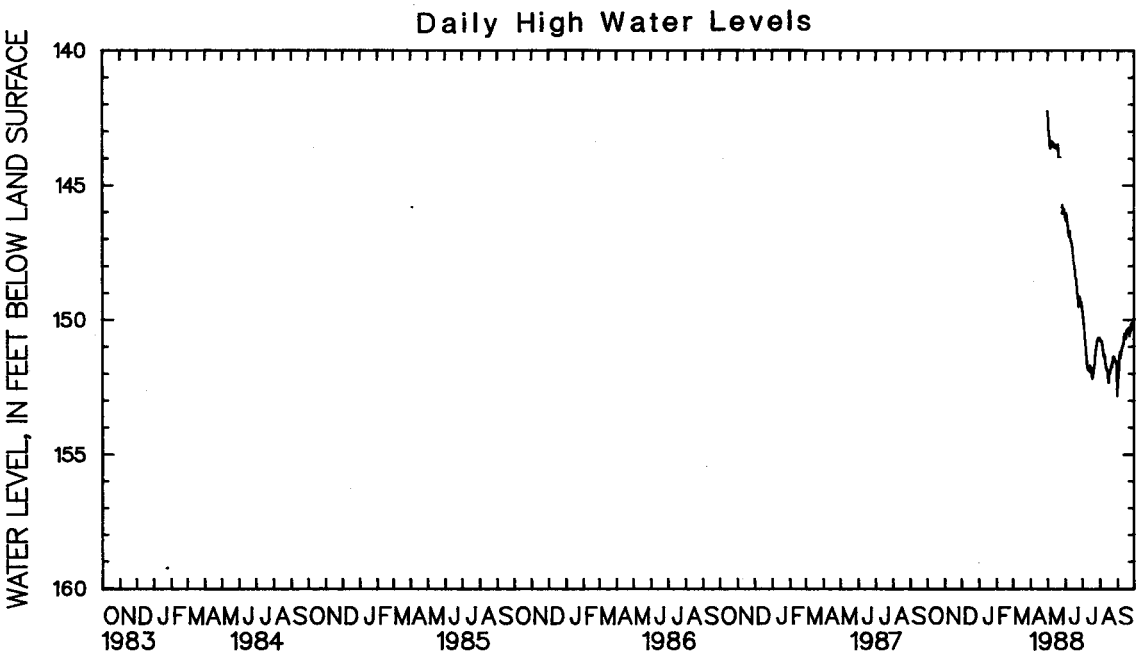
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	142.94	142.40	146.69	146.22	150.36	149.72	151.31	150.79	153.22	152.46
2	---	---	143.44	142.81	146.83	146.33	150.52	149.97	151.30	150.82	152.80	152.17
3	---	---	143.65	143.14	146.59	146.06	150.72	150.13	151.34	150.80	152.40	151.88
4	---	---	143.96	143.26	146.76	146.23	150.95	150.29	151.44	150.84	151.84	151.40
5	---	---	144.13	143.65	147.09	146.48	151.30	150.57	---	---	151.79	151.22
6	---	---	144.03	143.57	147.34	146.76	151.61	150.95	151.70	151.16	151.80	151.43
7	---	---	144.07	143.57	147.34	146.92	151.85	151.21	151.75	151.35	151.72	151.31
8	---	---	143.74	143.37	147.26	146.86	152.10	151.43	151.84	151.30	151.65	151.12
9	---	---	143.90	143.41	147.47	146.74	152.31	151.74	151.84	151.44	151.53	151.04
10	---	---	143.91	143.42	147.57	147.08	152.34	151.84	151.88	151.42	151.42	150.97
11	---	---	144.06	143.58	147.68	147.09	---	---	152.16	151.73	151.37	150.91
12	---	---	144.06	143.59	147.71	147.19	152.40	151.91	152.28	151.82	151.30	150.75
13	---	---	144.04	143.56	147.84	147.33	152.43	151.93	152.29	151.85	151.07	150.53
14	---	---	144.06	143.51	148.04	147.51	152.29	151.73	152.39	151.95	151.19	150.70
15	---	---	144.07	143.61	148.27	147.75	152.22	151.76	152.60	152.18	151.08	150.70
16	---	---	144.12	143.63	148.44	147.95	152.34	151.94	152.83	152.36	151.09	150.59
17	---	---	144.13	143.61	148.59	148.09	152.42	151.99	152.64	152.01	150.86	150.41
18	---	---	144.14	143.53	148.80	148.39	152.64	152.21	152.43	152.00	150.78	150.37
19	---	---	144.74	143.50	148.87	148.49	152.53	152.14	152.34	151.89	150.82	150.39
20	---	---	144.48	143.99	149.03	148.52	152.51	152.01	152.16	151.82	150.74	150.39
21	---	---	144.30	143.98	149.40	148.79	152.22	151.83	152.17	151.69	151.01	150.30
22	---	---	144.29	143.98	149.55	149.09	152.03	151.71	152.18	151.75	151.04	150.62
23	---	---	144.29	143.98	149.80	149.22	151.84	151.36	151.95	151.63	150.85	150.32
24	---	---	144.42	144.01	149.79	149.53	151.51	151.13	151.84	151.39	150.89	150.41
25	---	---	144.80	144.08	149.62	149.21	151.43	151.08	151.94	151.50	150.84	150.15
26	---	---	---	---	149.68	149.17	151.31	150.89	151.94	151.41	150.71	150.17
27	---	---	146.69	146.06	149.97	149.42	151.27	150.76	152.05	151.54	150.70	150.10
28	---	---	146.34	145.95	149.77	149.36	151.22	150.70	152.10	151.57	150.64	150.09
29	---	---	146.34	145.89	149.78	149.37	151.22	150.70	152.10	151.55	150.65	150.10
30	142.87	142.26	146.42	145.93	150.16	149.59	151.21	150.68	155.53	151.66	150.44	149.99
31	---	---	146.62	146.09	---	---	151.20	150.68	154.19	152.85	---	---
MONTH	---	---	---	---	150.16	146.06	---	---	---	---	153.22	149.99

GROUND-WATER LEVELS

MARYLAND--Continued

CHARLES COUNTY--Continued

CH Bc 24--Continued

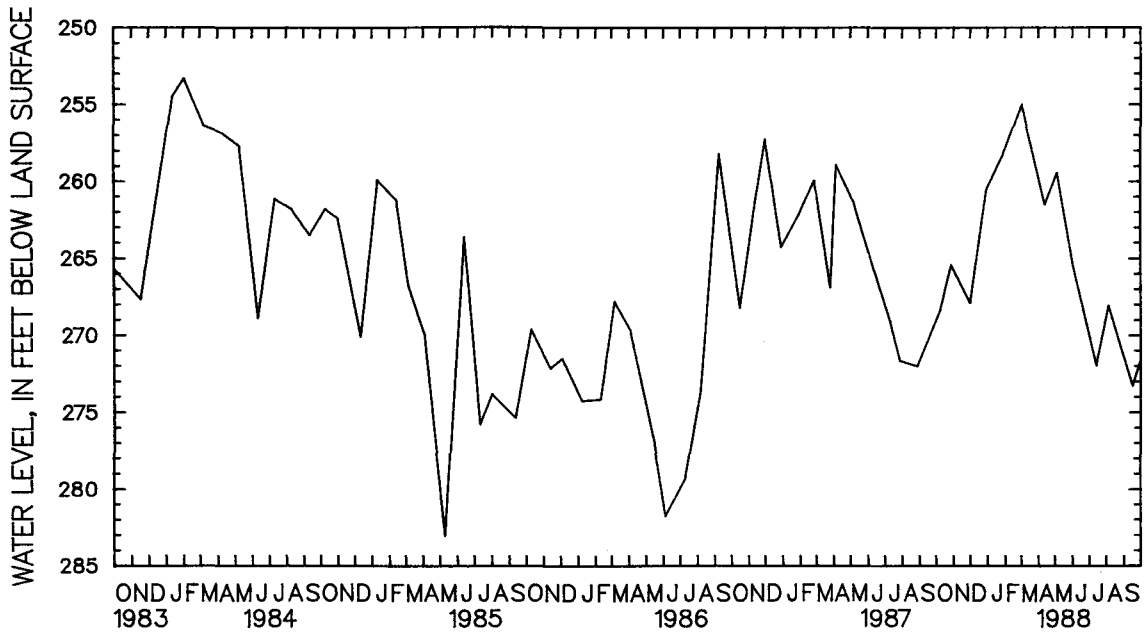


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--CH Bf 128. SITE ID.--383722076544001. PERMIT NUMBER.--CH-03-1306.
LOCATION.--Lat 38°37'22", long 76°54'40", Hydrologic Unit 02070011, 0.3 mi south of MD Rts. 5 & 925 near Washington Ave., Waldorf.
Owner: Southern Maryland Novelty Co.
AQUIFER.--Magothy Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 430 ft; casing diameter 4 in. with depth to 420 ft; screen diameter 2.5 in. from 420 to 430 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 210 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2 ft above land-surface datum.
PERIOD OF RECORD.--September 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 170.31 ft below land-surface datum, Mar. 6, 1963; lowest measured, 283.05 ft below land-surface datum, May 10, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	268.42	DEC 1	267.90	JAN 27	258.38	APR 13	261.53	JUN 2	265.52	AUG 5	268.09
28	265.42	30	260.53	MAR 2	255.01	MAY 5	259.45	JUL 14	272.00	SEP 16	273.32



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

GROUND-WATER LEVELS

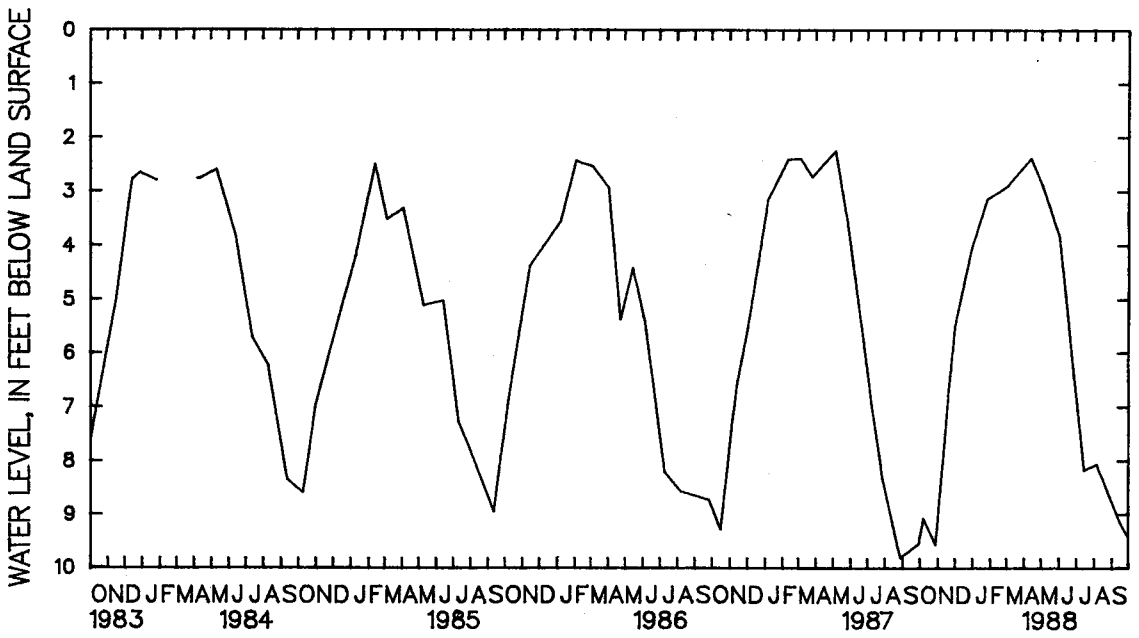
MARYLAND--Continued

CHARLES COUNTY--Continued

WELL NUMBER.--CH Bg 12. SITE ID.--383746076482901. PERMIT NUMBER.--CH-81-0600.
LOCATION.--Lat 38°37′46″, long 76°48′29″, Hydrologic Unit 02070011, Cedarville State Forest, near Forest Rd.
Owner: U.S. Geological Survey.
AQUIFER.--Calvert Formation.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 24.5 ft; casing diameter 4 in. with depth to 13.5 ft; perforated casing diameter 2 in. from 13.5 to 18.5 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 150 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.3 ft above land-surface datum.
PERIOD OF RECORD.--April 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.25 ft below land-surface datum, May 6, 1987; lowest measured, 9.82 ft below land-surface datum, Aug. 28, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	9.08	DEC 1	5.50	JAN 27	3.15	APR 13	2.39	JUN 2	3.85	AUG 5	8.08
28	9.57	30	4.08	MAR 2	2.91	MAY 4	2.91	JUL 14	8.19	SEP 15	9.16



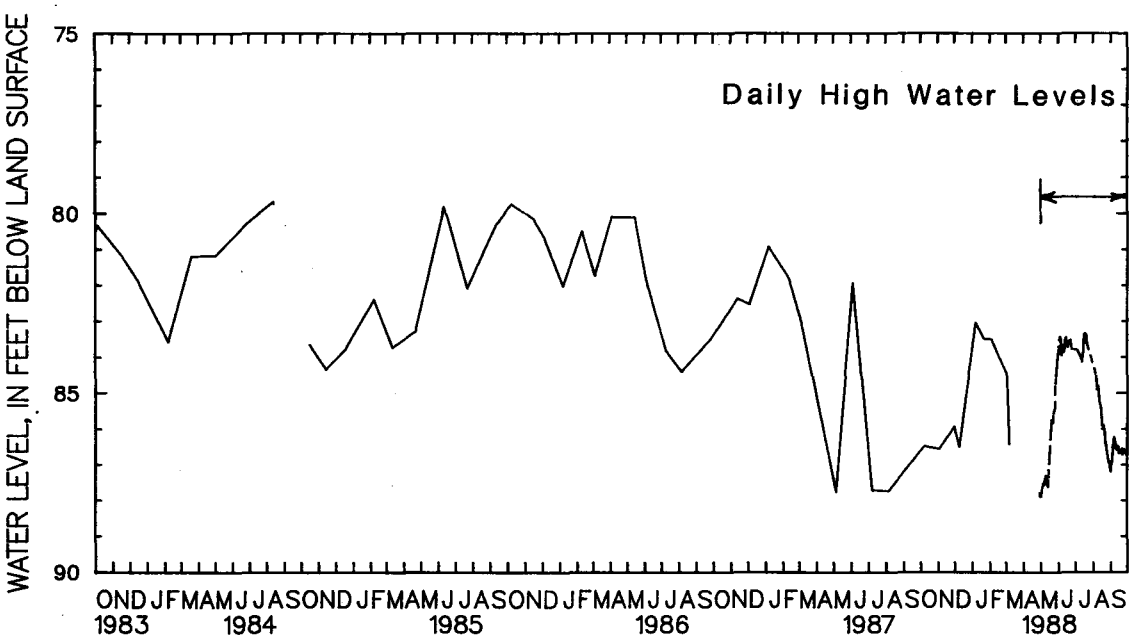
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 400 ft; casing diameter 8 in. with depth to 400 ft; screen diameter 6 in. from 154.1 to 167 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--60 minute recording interval, April 1988 to current year.
Sept. 21, 1953, to July 8, 1965.
DATUM.--Elevation of land-surface datum is 36 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of recorder shelf, 1.1 ft above land-surface datum.
PERIOD OF RECORD.--March and April 1952, August 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.35 ft below land-surface datum, April 18, 1952; lowest measured, 88.58 ft below land-surface datum, Oct. 22, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	86.48	NOV 30	85.94	JAN 7	83.05	FEB 4	83.50	MAR 7	86.43
NOV 3	86.56	DEC 9	86.51	22	83.49	MAR 2	84.43		

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	87.91	87.90	84.08	83.92	---	---	---	---	87.35	87.21
2	---	---	87.91	87.90	84.06	83.92	---	---	---	---	87.22	87.00
3	---	---	87.90	87.80	83.91	83.55	---	---	---	---	86.98	86.92
4	---	---	87.82	87.66	83.60	83.46	---	---	---	---	86.92	86.71
5	---	---	87.73	87.60	83.83	83.50	84.00	83.80	84.67	84.42	86.70	86.52
6	---	---	87.60	87.52	83.96	83.80	---	---	84.92	84.61	86.55	86.36
7	---	---	87.64	87.56	83.96	83.96	---	---	85.03	84.90	86.38	86.24
8	---	---	87.58	87.46	83.96	83.84	---	---	84.97	84.81	86.39	86.33
9	---	---	87.49	87.38	83.84	83.67	---	---	84.91	84.81	86.48	86.39
10	---	---	87.40	87.32	83.96	83.72	---	---	85.07	84.88	86.58	86.44
11	---	---	---	---	83.96	83.87	---	---	85.27	85.10	86.71	86.58
12	---	---	87.67	87.54	83.97	83.79	84.13	84.04	85.38	85.26	86.73	86.58
13	---	---	87.70	87.57	83.83	83.62	84.26	84.14	85.39	85.28	86.60	86.49
14	---	---	87.80	87.63	83.65	83.48	84.22	83.98	85.52	85.36	86.75	86.50
15	---	---	87.77	87.35	83.58	83.46	84.00	83.82	85.71	85.51	86.74	86.69
16	---	---	87.35	86.86	83.74	83.61	83.85	83.57	86.04	85.72	86.75	86.68
17	---	---	86.91	86.67	83.72	83.60	83.58	83.38	86.10	86.00	86.70	86.64
18	---	---	86.69	86.26	83.88	83.72	83.47	83.35	86.10	86.00	86.75	86.61
19	---	---	86.29	86.03	83.81	83.60	83.49	83.40	86.06	85.90	86.75	86.68
20	---	---	86.00	85.76	83.66	83.56	83.62	83.39	86.14	86.00	86.70	86.61
21	---	---	85.98	85.75	83.67	83.60	83.87	83.60	86.40	86.09	86.77	86.56
22	---	---	86.01	85.83	83.67	83.58	---	---	86.61	86.35	86.84	86.73
23	---	---	85.79	85.57	83.66	83.53	---	---	86.60	86.48	86.80	86.66
24	---	---	85.62	85.52	83.87	83.64	---	---	86.61	86.46	86.76	86.68
25	---	---	85.58	85.46	83.89	83.78	---	---	86.78	86.61	86.75	86.58
26	---	---	85.60	85.43	83.99	83.78	---	---	86.82	86.72	86.70	86.60
27	---	---	85.40	85.02	---	---	---	---	86.97	86.82	86.72	86.61
28	---	---	85.03	84.74	---	---	---	---	87.05	86.94	86.75	86.64
29	87.90	87.80	84.76	84.51	---	---	---	---	87.11	86.91	86.87	86.70
30	87.91	87.90	84.54	84.31	---	---	---	---	87.19	87.01	86.85	86.75
31	---	---	84.33	84.07	---	---	---	---	87.30	87.15	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	87.35	86.24

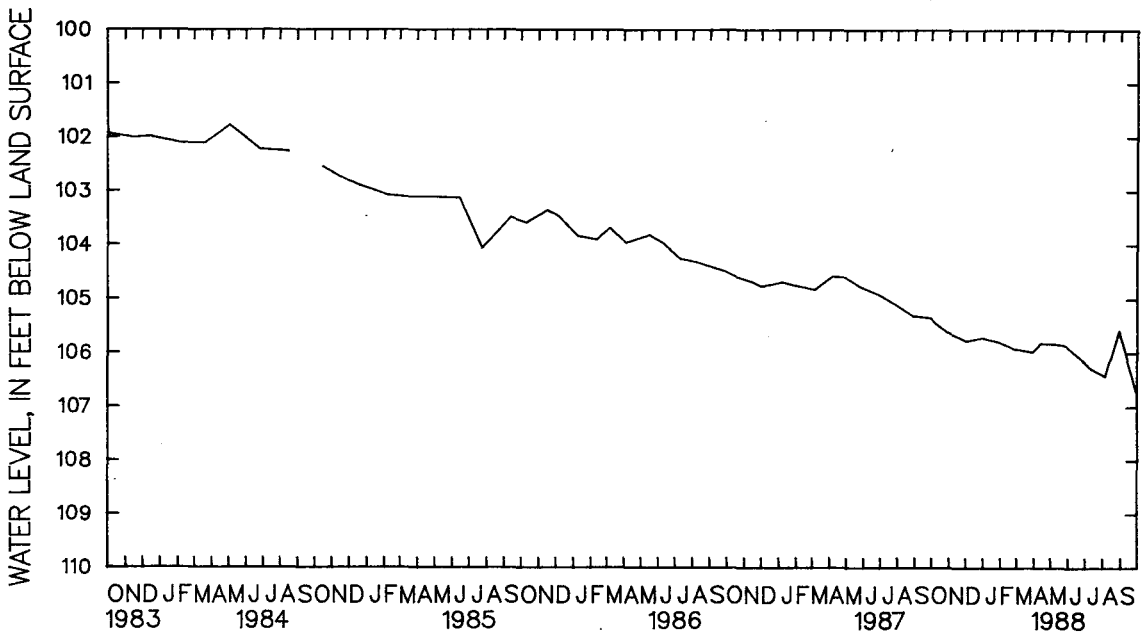


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--CH Dd 33. SITE ID.--382607077002601. PERMIT NUMBER.--CH-02-6769.
LOCATION.--Lat 38°26'07", long 77°00'26", Hydrologic Unit 0207001, 1.8 mi southwest of Faulkner off Popes Creek Rd.
Owner: Jesuit Order (Loyola Retreat House).
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 694 ft; casing diameter 6 in. with depth to 564 ft; casing diameter 4 in. from 532 to 688 ft; screen diameter 4 in. from 687 to 694 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 99.8 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1 ft above land-surface datum.
REMARKS.--Water level reported 104 ft below land-surface datum, June 27, 1957.
PERIOD OF RECORD.--March 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 88.28 ft below land-surface datum, Mar. 14, 1962; lowest measured, 107.05 ft below land-surface datum, April 14, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	105.47	DEC 30	105.73	MAR 29	105.99	MAY 27	105.87	AUG 5	106.44
28	105.62	JAN 27	105.80	APR 13	105.83	JUN 29	106.17	29	105.59
DEC 1	105.79	FEB 25	105.93	MAY 4	105.84	JUL 12	106.30	SEP 28	106.72

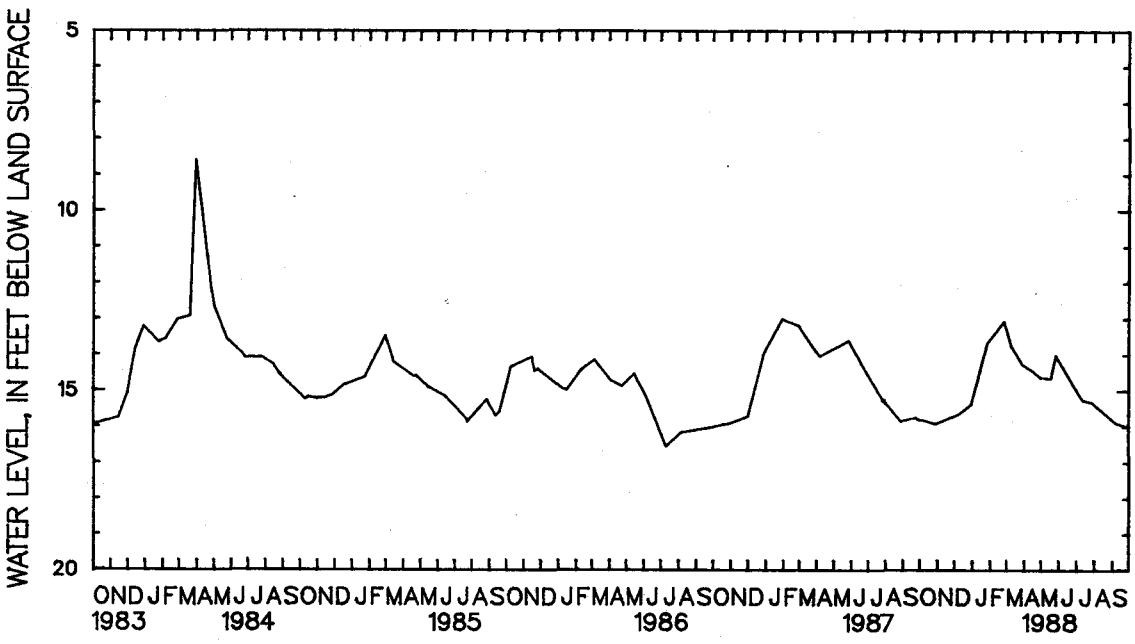


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.--Talbot Formation.
WELL CHARACTERISTICS.--Dug unused water-table well, depth 23 ft; casing diameter 42 in.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder Mar. 29, 1966 to Oct. 11, 1967.
DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.8 ft above land-surface datum.
PERIOD OF RECORD.--May 1946, 1947, March 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.60 ft below land-surface datum, Mar. 30, 1984; lowest measured, 20.65 ft below land-surface datum, Dec. 20, 1949.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	15.85	DEC 30	15.39	MAR 9	13.76	APR 29	14.64	JUN 28	14.92	SEP 8	15.92
28	15.95	JAN 27	13.66	29	14.29	MAY 18	14.68	JUL 12	15.28		
DEC 8	15.67	FEB 25	13.07	APR 13	14.43	27	14.02	27	15.34		



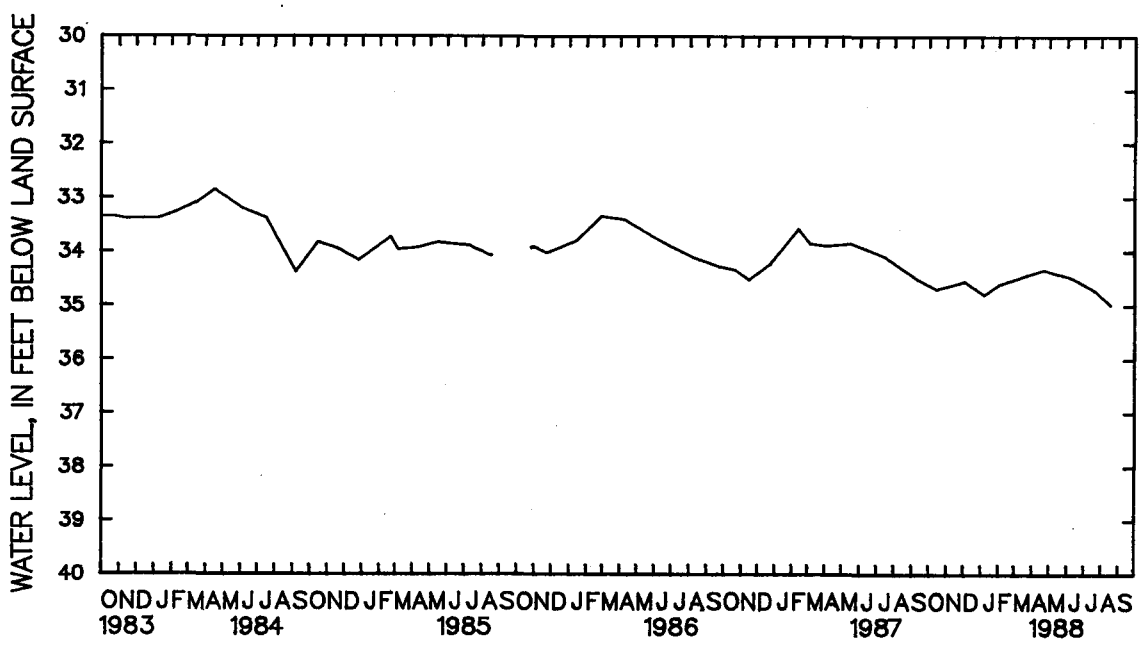
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 537 ft; casing diameter 6 in. with depth to 65 ft; casing diameter 2 in. from 65 to 527 ft; screen diameter 2 in. from 527 to 537 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 25 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.55 ft above land-surface datum.
PERIOD OF RECORD.--October 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.79 ft below land-surface datum, Aug. 2, 1978; lowest measured, 34.99 ft below land surface datum, Aug. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	34.70	JAN 6	34.80	MAR 22	34.43	JUN 9	34.48	AUG 18	34.99
DEC 3	34.55	FEB 3	34.60	APR 21	34.33	JUL 19	34.71		

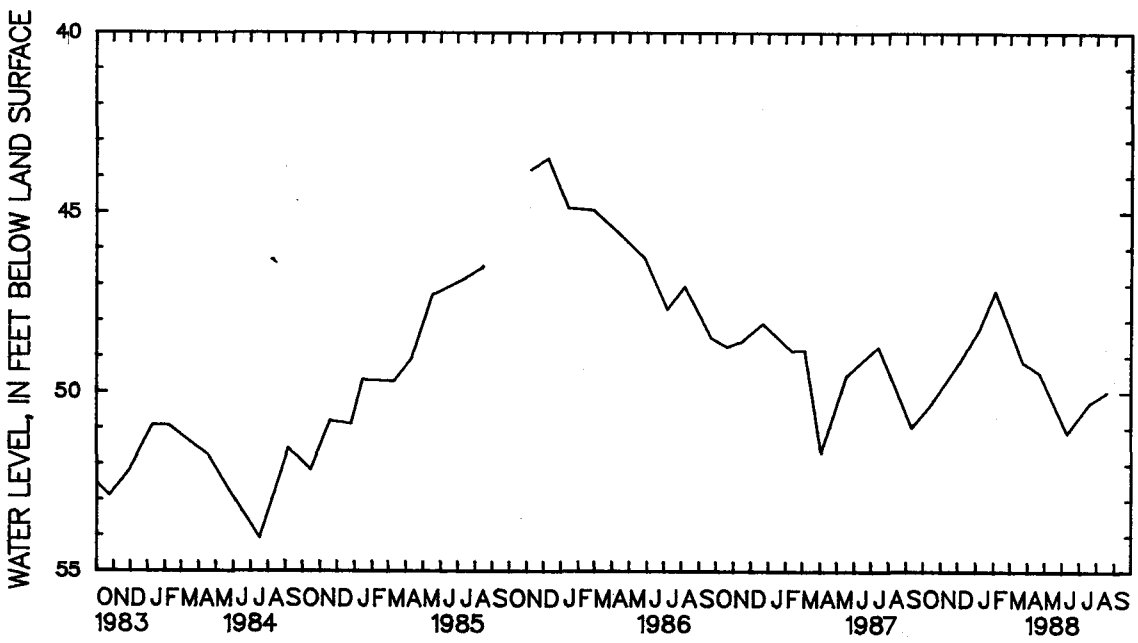


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 390 ft; casing diameter 2 in. to unknown depth.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 4 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .5 ft above land-surface datum.
PERIOD OF RECORD.--October 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 43.50 ft below land-surface datum, Dec. 9, 1985; lowest measured, 80.32 ft below land-surface datum, Oct. 16, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	50.35	JAN 7	48.25	MAR 23	49.17	JUN 10	51.15	AUG 19	49.99
DEC 4	49.16	FEB 4	47.18	APR 22	49.48	JUL 20	50.29		

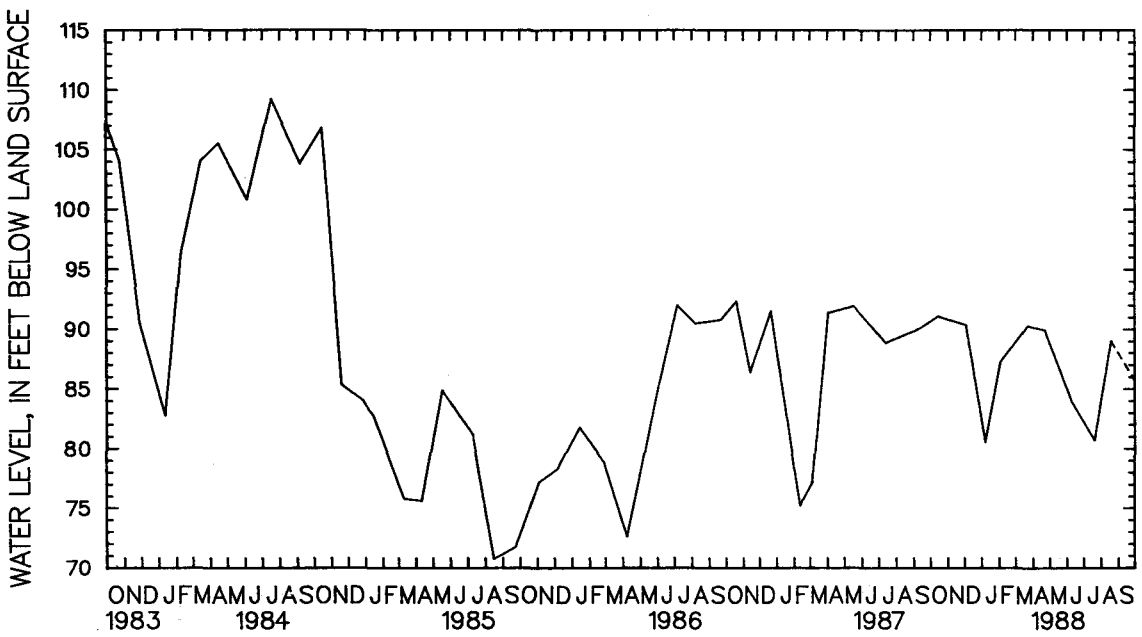


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 405 ft; casing diameter 12 in. with depth to 385 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 18 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 4 ft above land-surface datum.
PERIOD OF RECORD.--October 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 70.71 ft below land-surface datum, Aug. 16, 1985; lowest measured, 115.06 ft below land-surface datum, Aug. 29, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	91.07	JAN 7	80.50	MAR 23	90.27	JUN 10	83.90	AUG 19	89.01
DEC 4	90.34	FEB 4	87.26	APR 22	89.93	JUL 20	80.68		

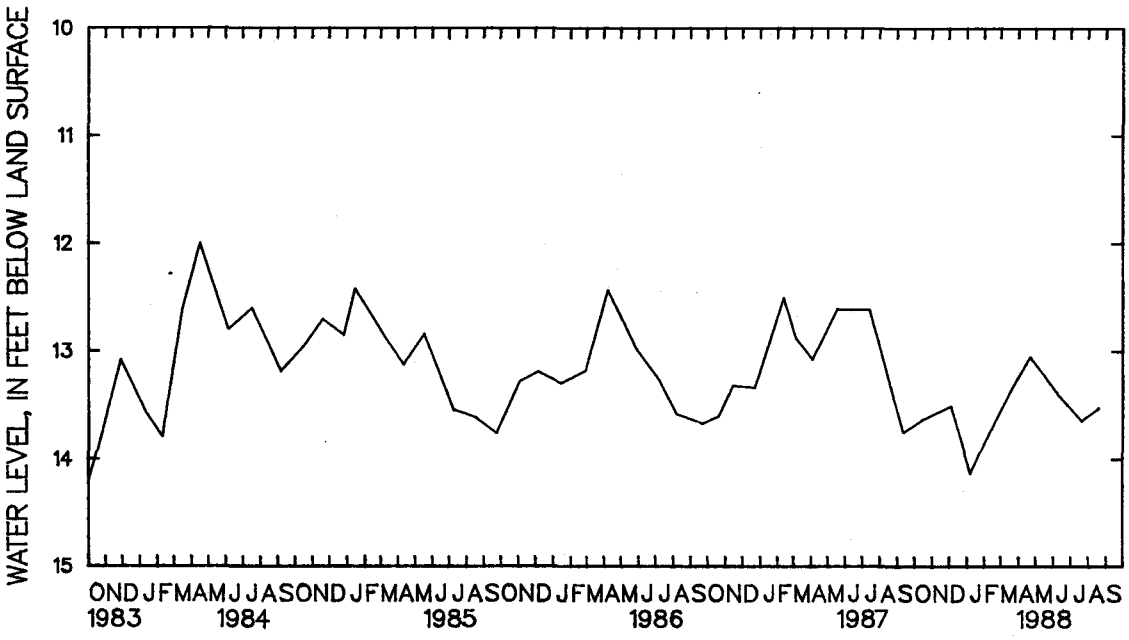


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL LOCATION.--DO Ce 15. SITE ID.--383408076042302. PERMIT NUMBER.--DO-00-1220.
LOCATION.--Lat 38°34′08″, long 76°04′23″, Hydrologic Unit 02060005, near Cambridge Creek off Trenton St., Cambridge.
Owner: Carroll W. Thomas & Sons., Inc.
AQUIFER.--Magothy Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 973.7 ft; casing diameter 10 in. with depth 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 950.5 to 970.5 ft.
REMARKS--Water level reported 68 ft below land-surface datum Aug. 30, 1947.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--June 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.41 ft below land-surface datum, Mar. 1, 1960; lowest measured, 41.12 ft below land-surface datum, Aug. 7, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	13.64	JAN 7	14.14	MAR 23	13.32	JUN 10	13.41	AUG 19	13.53
DEC 4	13.51	FEB 4	13.82	APR 22	13.05	JUL 20	13.65		

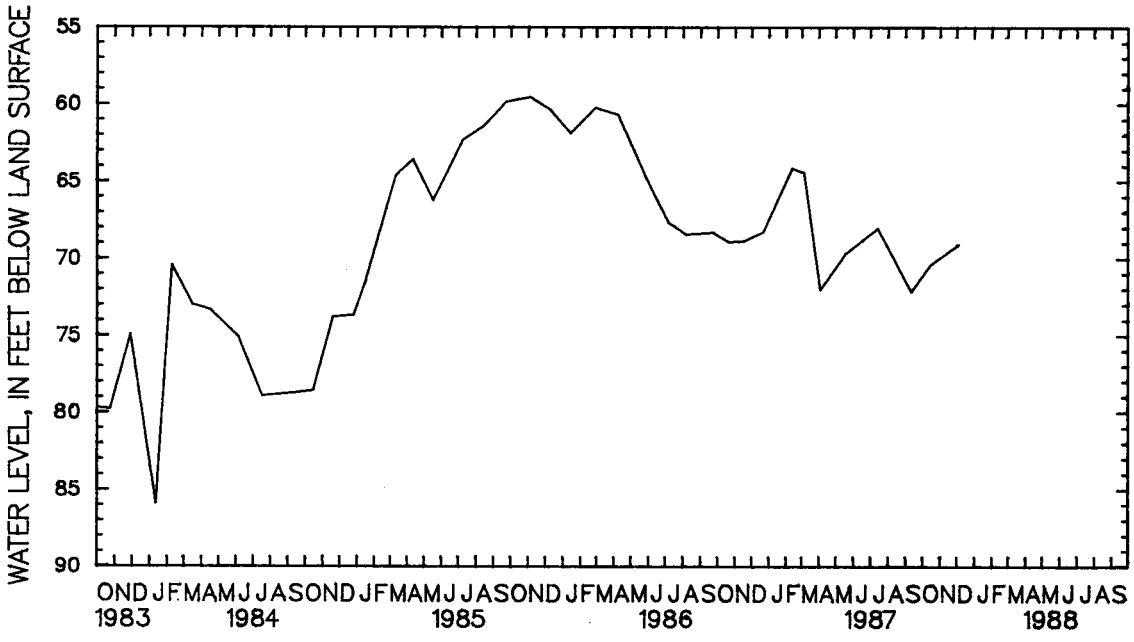


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 368.5 ft; casing diameter 8 in. with depth to 239 ft; casing diameter 4.5 in. with depth to 368.5 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder Aug. 23, 1956 to Nov. 6, 1958, and Sept. 11, 1965 to Oct. 13, 1966.
DATUM.--Elevation of land-surface datum is 11.7 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
REMARKS.--Water level measured 73.77 ft below land-surface datum, Feb. 14, 1952. Water levels may be affected by nearby pumping. Access to well blocked by construction equipment, beginning January 1988.
PERIOD OF RECORD.--August 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level reported, 14 ft below land-surface datum, August 1914; highest water level measured, 59.53 ft below land-surface datum, Nov. 4, 1985; lowest measured, 132.95 ft below land-surface datum, Sept. 6, 1956.

WATER LEVELS IN FEET BELOW LAND SURFACE DATUM WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	70.40	DEC 04	69.08

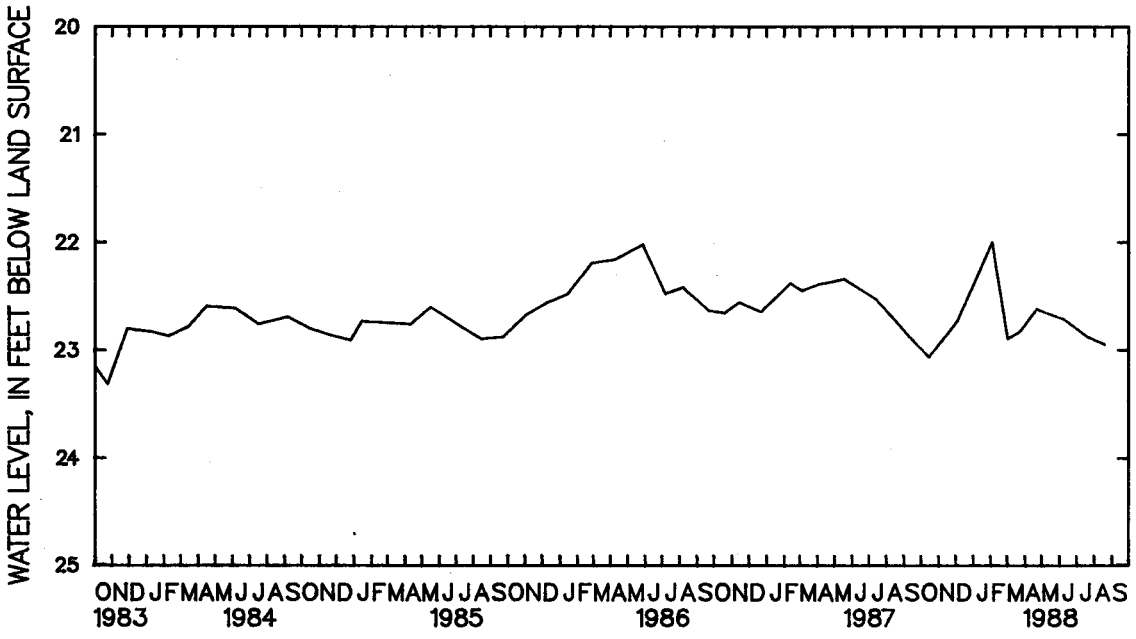


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--DO Ce 78. SITE ID.--383243076042301. PERMIT NUMBER.--DO-66-0026.
LOCATION.--Lat 38°32'43", long 76°04'23", Hydrologic Unit 02060005, at Stone Boundary Rd., Cambridge.
Owner: City of Cambridge.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 517 ft; casing diameter 12 in.; screen diameter 12 in. from 360.3 to 363.7 ft, 368 to 380 ft, 385 to 400 ft, 405 to 420 ft, 425 to 440 ft, 445 to 460 ft, 465 to 480 ft, and 485 to 500 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.1 ft above land-surface datum.
PERIOD OF RECORD.--October 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.00 ft below land-surface datum, Feb. 4, 1988; lowest measured, 26.39 ft below land-surface datum, Oct. 4, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	23.07	FEB 4	22.00	MAR 23	22.83	JUN 10	22.72	AUG 19	22.95
DEC 4	22.73	MAR 2	22.90	APR 22	22.62	JUL 20	22.88		

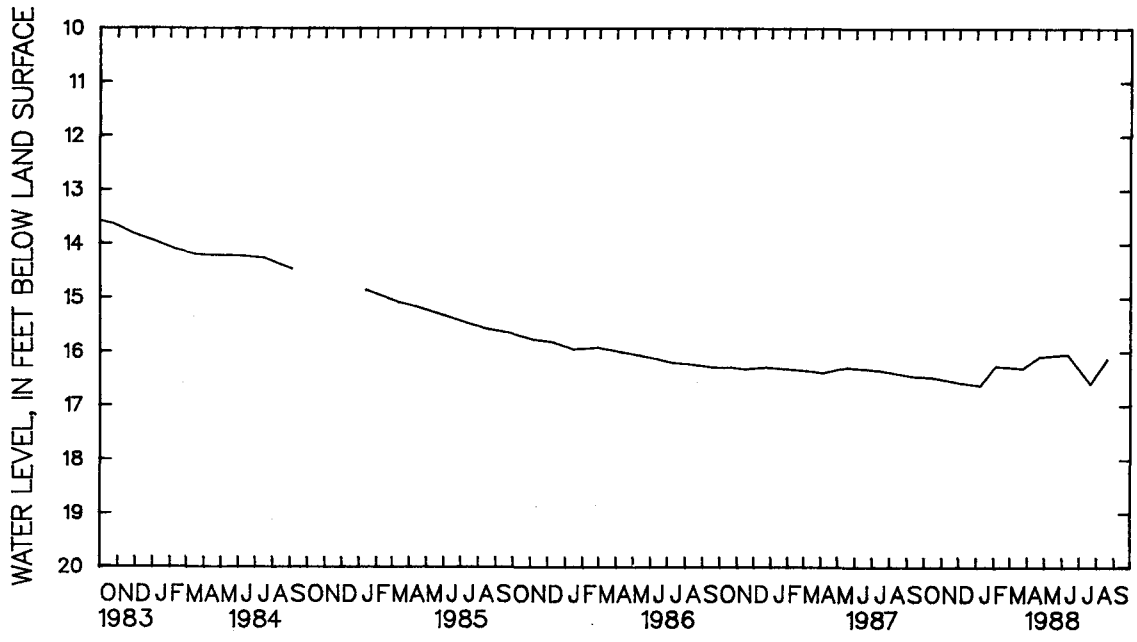


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 1427.4 ft; casing diameter 12 in. with depth to 103 ft; casing diameter 4 in. with depth to 1427.4 ft; perforated casing diameter 4 in. from 1417.4 to 1427.4 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 4.4 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.18 ft above land-surface datum.
PERIOD OF RECORD.--October 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.51 ft below land-surface datum, July 20, 1983; lowest measured, 22.22 ft below land-surface datum, Nov. 13, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	16.49	JAN 7	16.64	MAR 23	16.31	JUN 10	16.05	AUG 19	16.14
DEC 4	16.59	FEB 4	16.27	APR 22	16.09	JUL 20	16.60		

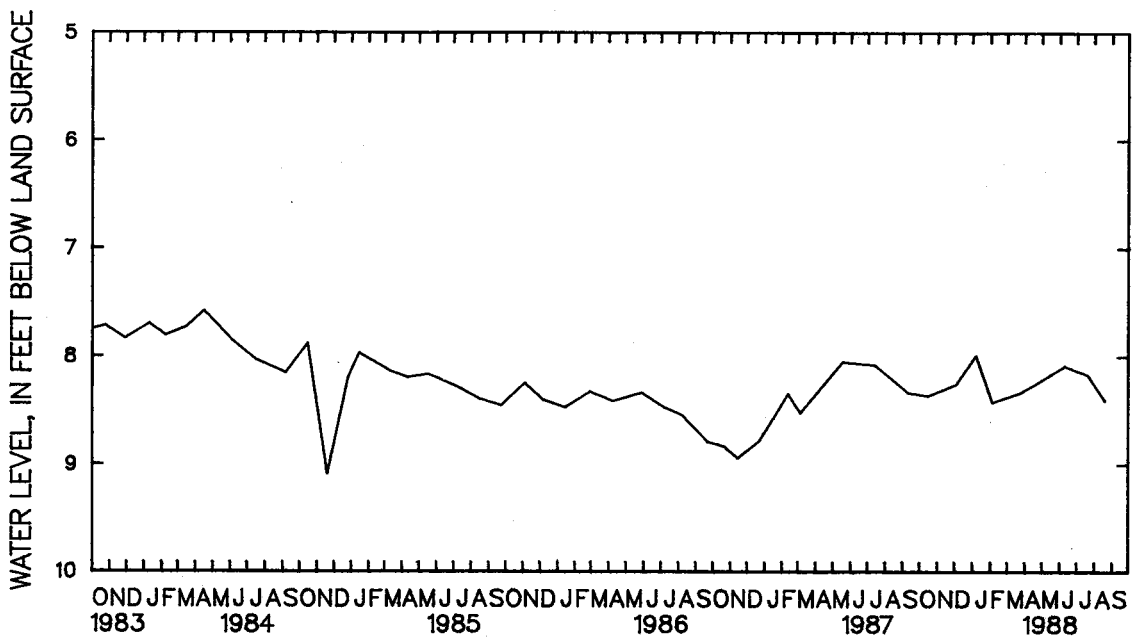


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--DO Db 17. SITE ID.--382800076180701.
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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 320 ft; casing diameter 6 in. with depth to 55 ft; casing diameter 2 in. from 55 to 270 ft; screen diameter 2 in. from 270 to 280 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 4 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2 ft above land-surface datum.
PERIOD OF RECORD.--April 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.77 ft below land-surface datum, Oct. 4, 1979; lowest measured, 9.10 ft below land-surface datum, Nov. 19, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	8.37	JAN 7	7.99	MAR 23	8.34	JUN 10	8.09	AUG 19	8.41
DEC 4	8.26	FEB 4	8.43	APR 22	8.25	JUL 20	8.17		



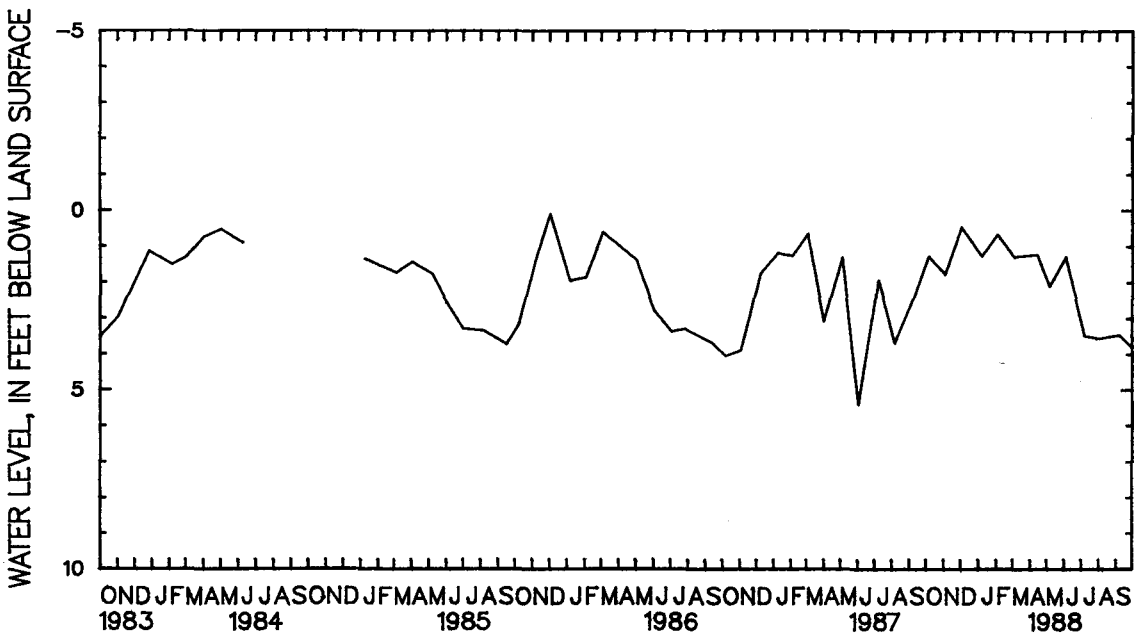
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 365 ft; casing diameter 6 in. with depth to 39 ft; open hole.
DATUM.--Elevation of land-surface datum is 390 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--April 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .62 ft above land-surface datum, May 23, 1983; lowest measured, 5.43 ft below land-surface datum, June 2, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	1.28	JAN 6	1.30	APR 13	1.24	JUL 7	3.50	SEP 29	3.82
NOV 3	1.79	FEB 3	.68	MAY 5	2.12	AUG 2	3.57		
DEC 2	.48	MAR 2	1.31	JUN 3	1.29	SEP 7	3.47		

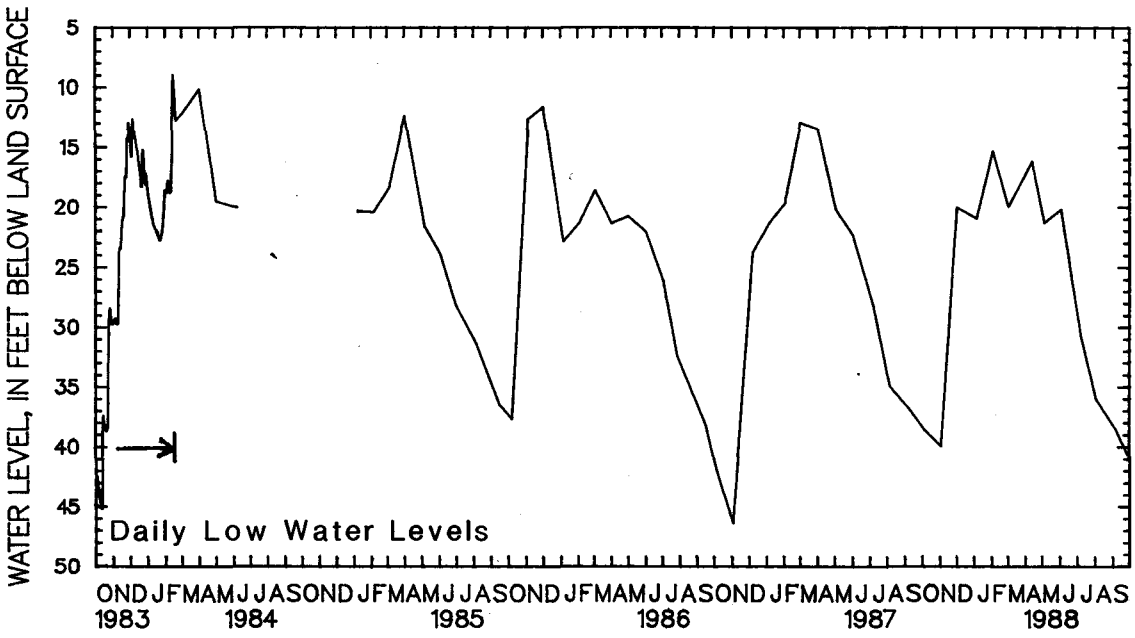


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 189 ft; casing diameter 6 in.; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder Apr. 5, 1982 to Feb. 21, 1984.
DATUM--Elevation of land-surface datum is 1150 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--April 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.80 ft below land-surface datum, Apr. 10, 1983; lowest measured, 46.46 ft below land-surface datum, Nov. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	38.68	JAN 6	20.98	APR 13	16.18	JUL 7	30.78	SEP 29	40.95
NOV 3	40.03	FEB 3	15.32	MAY 5	21.36	AUG 3	36.08		
DEC 2	20.04	MAR 2	20.03	JUN 3	20.21	SEP 7	38.65		



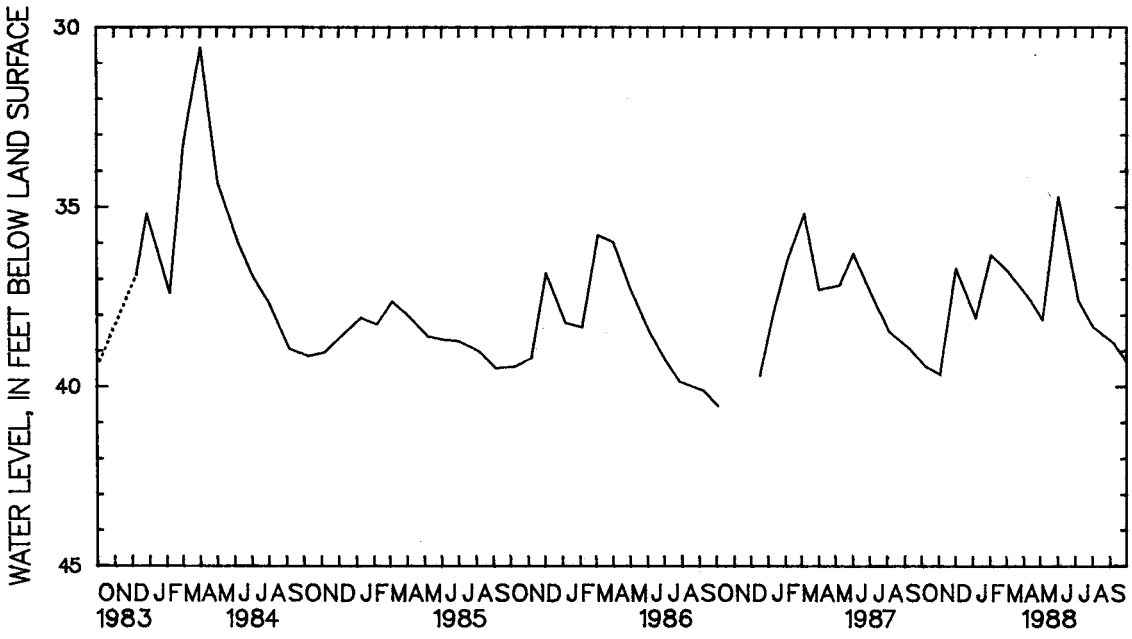
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

FREDERICK COUNTY

WELL NUMBER.--FR Cg 1. SITE ID.--393156077135701.
LOCATION.--Lat 39°31'56", long 77°13'57", Hydrologic Unit 02070009, at Johnsville.
Owner: Michael Hutchison.
AQUIFER.--Ijamsville Formation.
WELL CHARACTERISTICS.--Dug stone-lined domestic water-table well, depth 43 ft; diameter 36 in.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 600 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of wooden well cover, .6 ft above land-surface datum.
PERIOD OF RECORD.--July 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.63 ft below land-surface datum, Sept. 29, 1975; lowest measured, 42.02 ft below land-surface datum, Oct. 5, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	39.46	DEC 2	36.70	FEB 3	36.33	APR 13	37.59	JUN 2	34.72	AUG 2	38.35
NOV 3	39.68	JAN 6	38.10	MAR 2	36.76	MAY 5	38.15	JUL 7	37.62	SEP 7	38.80

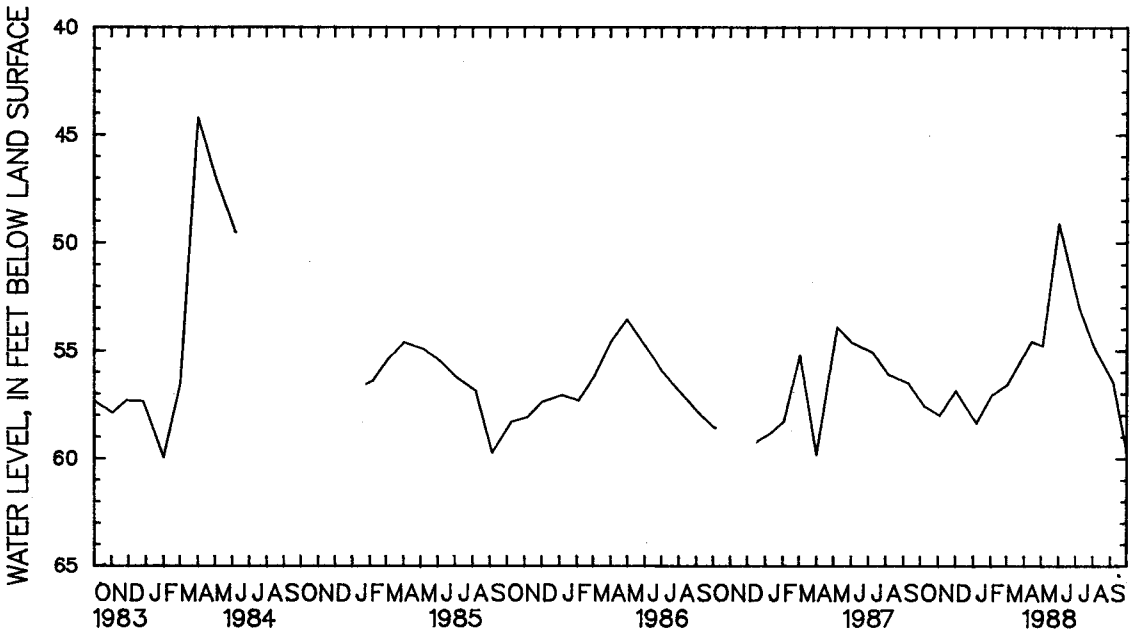


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 302 ft, casing diameter 6 in. with depth to 26 ft, open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 570 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing 1.0 ft above land-surface datum.
PERIOD OF RECORD.--May 1982 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.20 ft below land-surface datum, April 2, 1984; lowest measured, 59.98 ft below land-surface datum, Feb. 1, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	57.61	DEC 2	56.88	FEB 4	57.07	APR 14	54.58	JUN 2	49.10	AUG 3	54.85
NOV 4	58.04	JAN 7	58.41	MAR 3	56.58	MAY 4	54.77	JUL 8	53.06	SEP 6	56.48

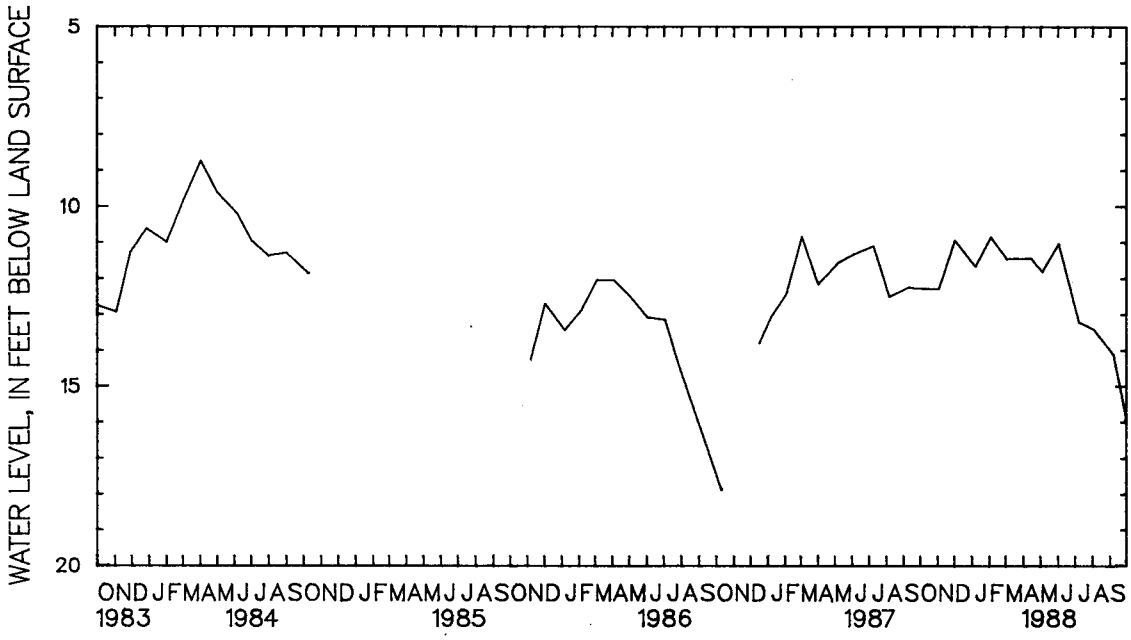


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused water table well, depth 103 ft; casing diameter 6 in. with depth to 24 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.-- Elevation of land-surface datum is 650 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.0 ft above land-surface datum.
PERIOD OF RECORD.-- November 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.35 ft below land-surface datum, Mar. 23, 1983; lowest measured, 17.91 ft below land-surface datum, Oct. 10, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	12.29	DEC 2	10.94	FEB 4	10.85	APR 15	11.46	JUN 2	11.03	AUG 3	13.43
NOV 3	12.29	JAN 7	11.68	MAR 3	11.47	MAY 4	11.82	JUL 8	13.23	SEP 7	14.13



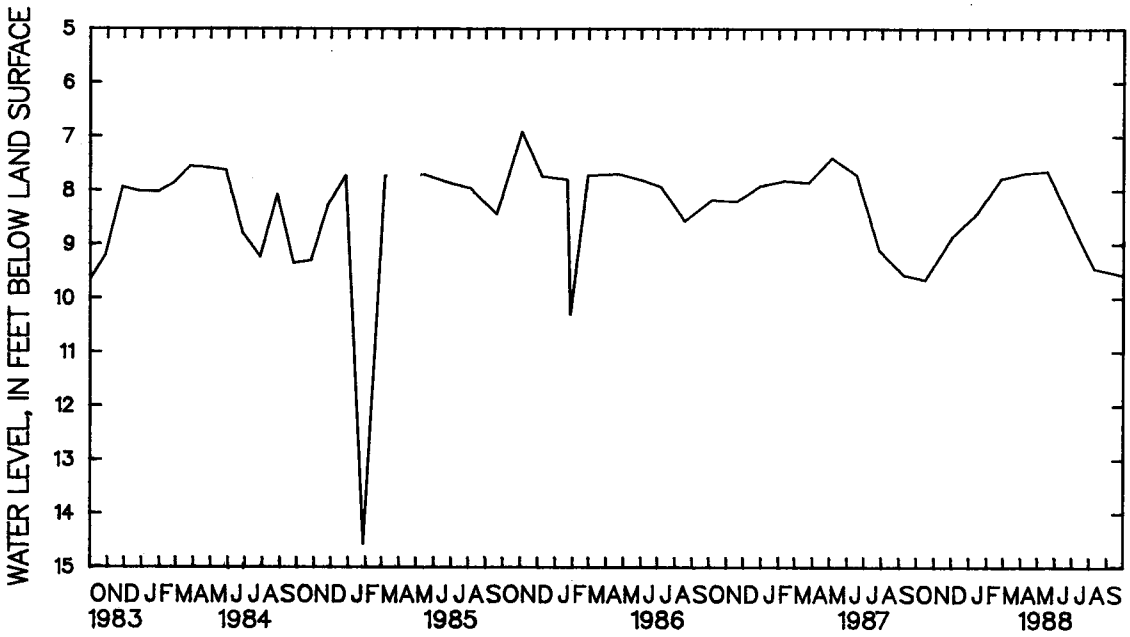
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 30 ft; casing diameter 8 in. to unknown depth; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 2,530 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing at land-surface datum.
REMARKS.--Water level measured, 11.75 ft below land-surface datum, Mar. 26, 1984; 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 datum, Jan. 14, 1950; lowest measured, 14.59 ft below land-surface datum, Jan. 28, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 16	9.67	JAN 14	8.44	APR 5	7.68	JUL 8	8.78	SEP 23	9.57
DEC 3	8.86	FEB 26	7.78	MAY 18	7.64	AUG 10	9.46		

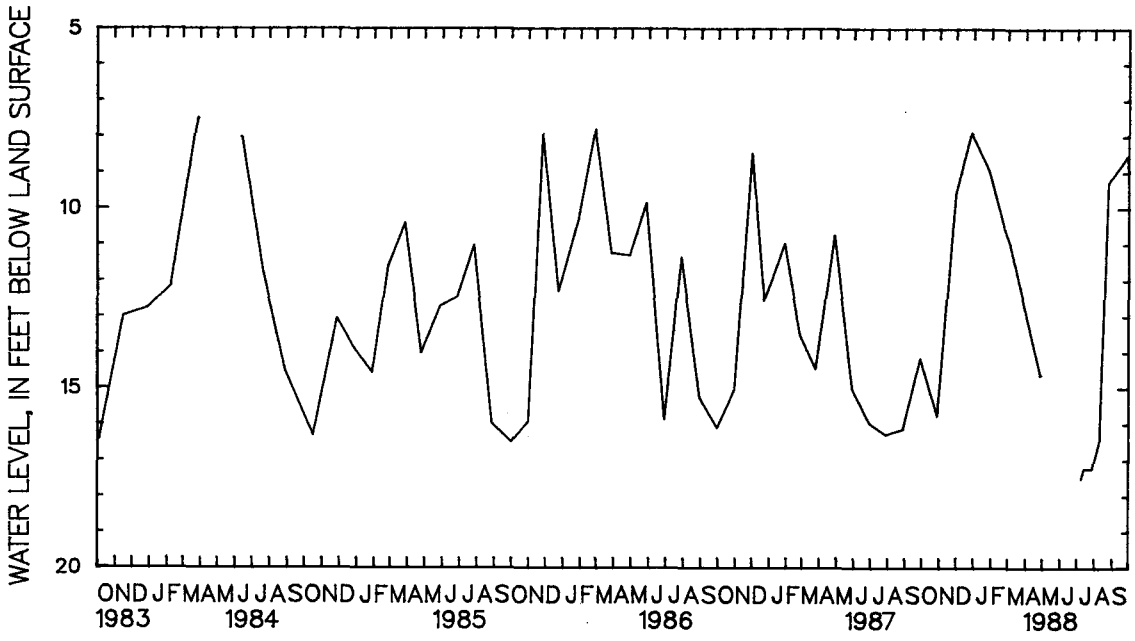


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--GA Bc 1. SITE ID.--393749079190301.
LOCATION.--Lat 39°37′49″, long 79°19′03″, Hydrologic Unit 05020006, at Accident.
Owner: E. H. Ault.
AQUIFER.--Hampshire Formation.
WELL CHARACTERISTICS.--Dug stone-lined domestic water-table well, depth 20 ft; diameter 36 in.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 2,415 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 1 in. board cover, 2.3 ft above land-surface datum.
PERIOD OF RECORD.--August 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.25 ft below land-surface datum, Mar. 6, 1979; lowest measured, 19.65 ft below land-surface datum, Dec. 9, 1953.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	15.78	JAN 28	8.96	APR 26	14.62	JUL 28	17.23	SEP 27	8.55
NOV 30	9.58	FEB 24	10.61	JUN 29	18.09	AUG 10	16.44		
DEC 28	7.89	MAR 3	10.95	JUL 14	17.24	25	9.28		

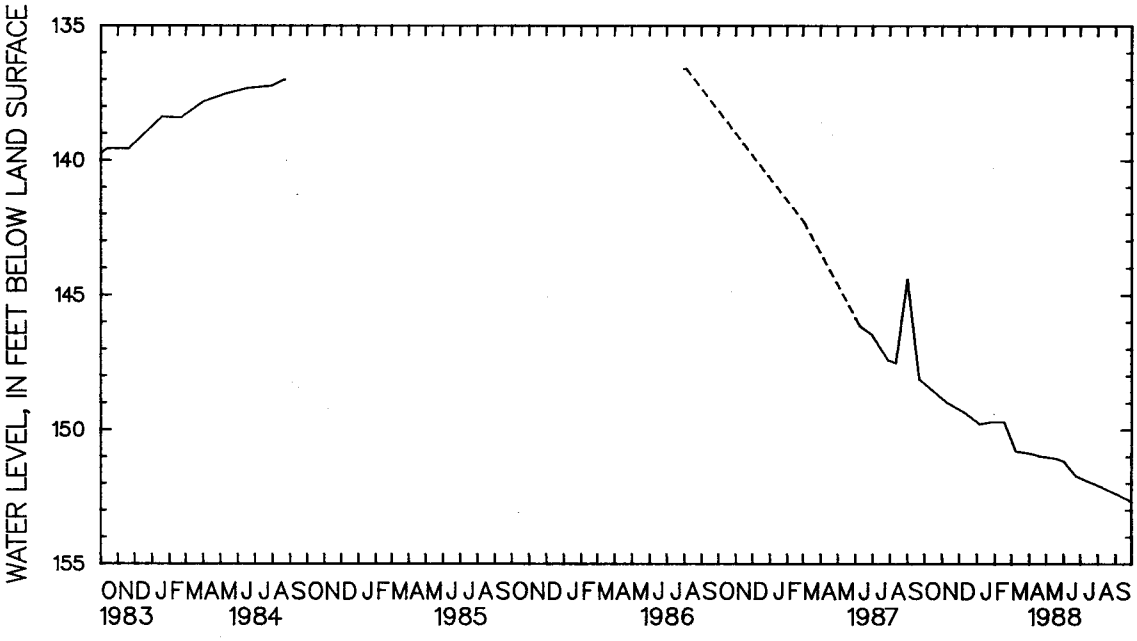


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--GA Fa 25. SITE ID.--391559079260901. PERMIT NUMBER.--GA-73-1696.
LOCATION.--Lat 39°15′59″, long 79°26′09″, Hydrologic Unit 02070002, on north side of coal conveyor belt, 1,800 ft west of Table Rock Rd., 2.2 mi northwest of Wilson.
Owner: Mettiki Coal Co.
AQUIFER.--Conemaugh Formation
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 315 ft; casing diameter 6 in. with depth to 304 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 2,670 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.0 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--June 1978 to August 1984, August 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 136.61 ft below land-surface datum, Aug. 5, 1986; lowest measured, 301.00 ft below land surface datum, June 23, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	148.53	JAN 06	149.82	MAR 09	150.82	MAY 19	151.09	JUL 13	151.92	SEP 21	152.59
NOV 10	149.01	26	149.74	31	150.89	JUN 01	151.18	AUG 03	152.10		
DEC 10	149.38	FEB 18	149.74	APR 19	150.99	23	151.73	SEP 01	152.39		

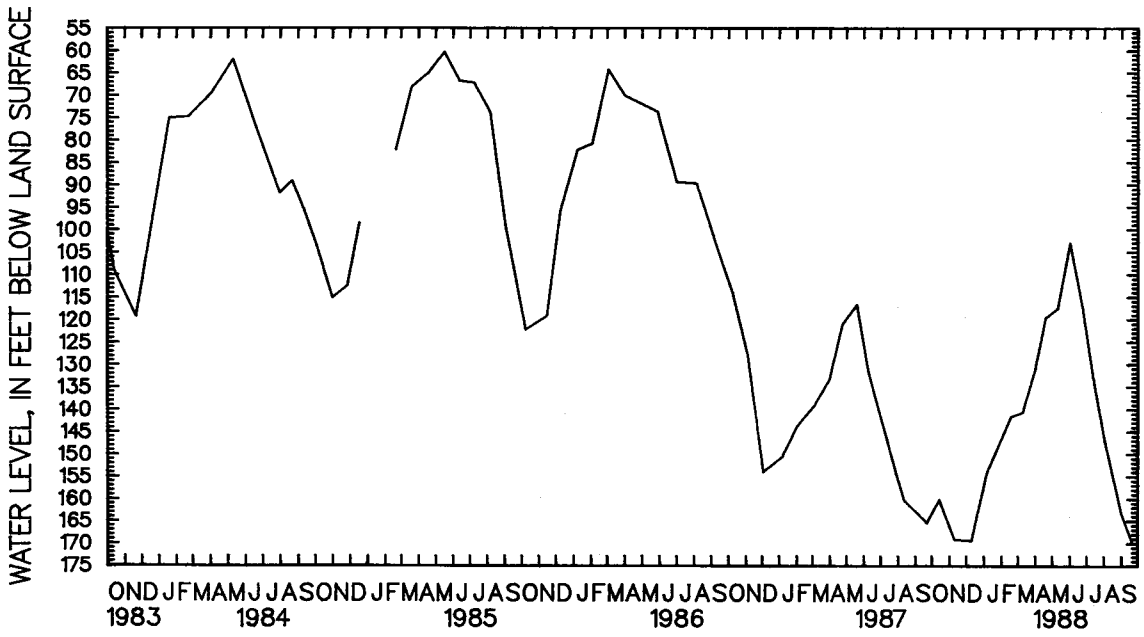


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--GA Fa 26. SITE ID.--391559079260902. PERMIT NUMBER.--GA-73-1695.
LOCATION.--Lat 39°15'59", long 79°26'09", Hydrologic Unit 02070002, on north side of conveyor belt, 1,800 ft west of Table Rock Road., 2.2 mi northwest of Wilson.
Owner: Mettiki Coal Co.
AQUIFER.--Conemaugh Formation.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 170 ft; casing diameter 6 in. with depth to 150 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 2,670 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.0 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.00 ft below land-surface datum, June 23, 1978; lowest measured, dry on Sept. 21, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	160.18	JAN 6	154.21	MAR 31	131.32	JUN 1	103.02	AUG 3	147.54
NOV 10	169.19	FEB 18	141.58	APR 19	119.53	23	117.18	SEP 1	163.38
DEC 10	169.42	MAR 9	140.69	MAY 10	117.56	JUL 13	133.34	21	DRY

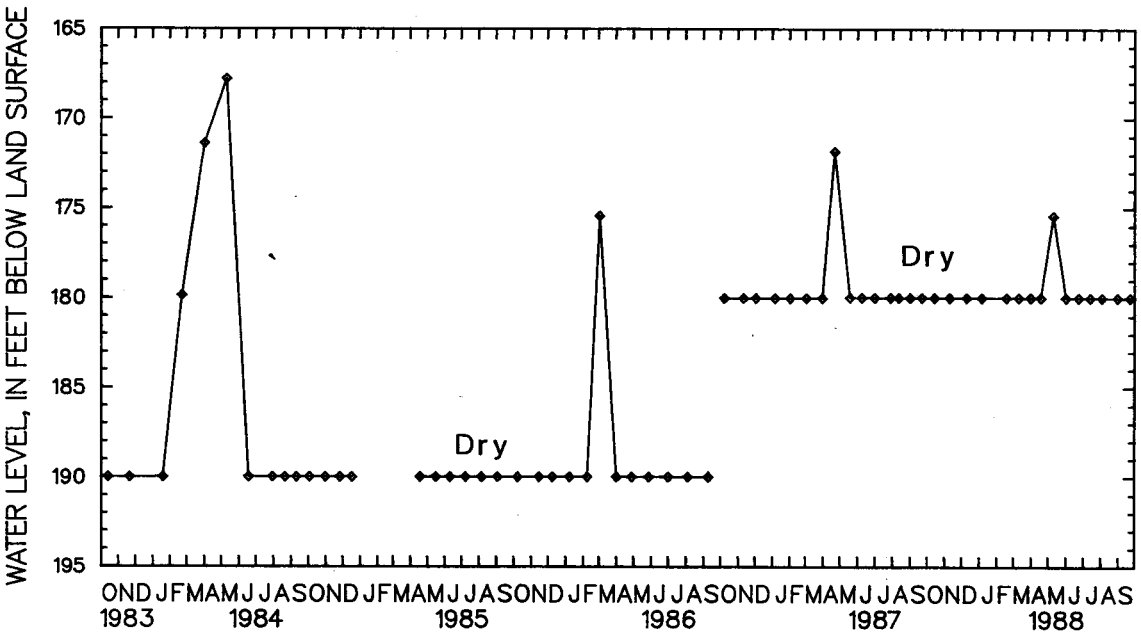


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--GA Fa 27. SITE ID.--391511079265001. PERMIT NUMBER.--GA-73-1710.
LOCATION.--Lat 39°15′11″, long 79°26′50″, Hydrologic Unit 02070002, on south side of Red Oak Rd., 0.6 mi west from intersection with Kempton Rd., 2.3 mi west of Wilson.
Owner: Mettiki Coal Co.
AQUIFER.--Conemaugh Formation.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 215 ft; casing diameter 6 in. with depth to 190 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 2,860 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.0 ft above land-surface datum.
REMARKS.--Water levels affected by underground coal mining operations. Well depth changed by collapse of well, prior to October 1987 well was approximately 190 ft.; after October 1987 well depth measured at 180 ft.
PERIOD OF RECORD.--June 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 141.93 ft below land-surface datum, Apr. 8, 1980; lowest measured, dry on numerous occassions--See Remarks.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	DRY	JAN 6	DRY	MAR 31	DRY	JUN 1	DRY	AUG 3	DRY
NOV 10	DRY	FEB 18	DRY	APR 18	DRY	23	DRY	31	DRY
DEC 10	DRY	MAR 10	DRY	MAY 10	175.45	JUL 13	DRY	SEP 22	DRY

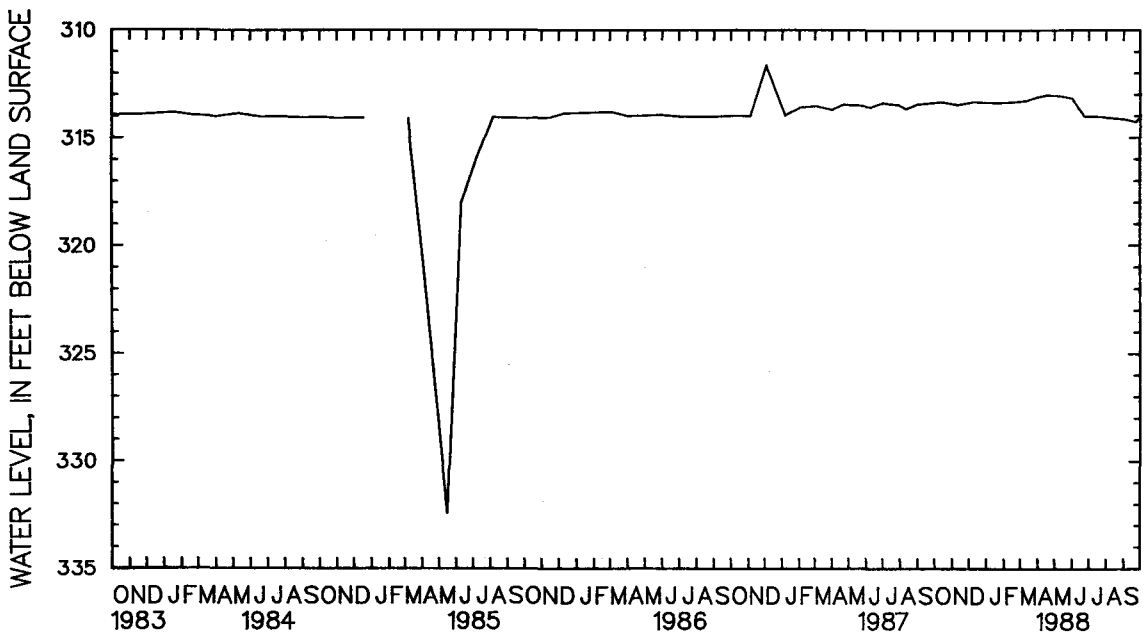


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 intersection with Kempton Rd., 2.6 mi west of Wilson.
Owner: Mettiki Coal Co.
AQUIFER.--Conemaugh Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 341 ft; casing diameter 6 in. with depth to 317 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 2,890 ft above National Geodetic Vertical Datum of 1929. Measuring Point: Top of casing, 1.5 ft above land-surface datum.
REMARKS.--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 datum, Dec. 14, 1978; lowest measured, 332.43 ft below land surface datum, May 16, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	313.33	JAN 6	313.35	MAR 10	313.29	MAY 10	313.06	JUL 13	314.03	SEP 22	314.29
NOV 10	313.46	26	313.37	31	313.12	JUN 1	313.18	AUG 3	314.08		
DEC 10	313.32	FEB 18	313.34	APR 18	313.02	23	314.01	31	314.15		

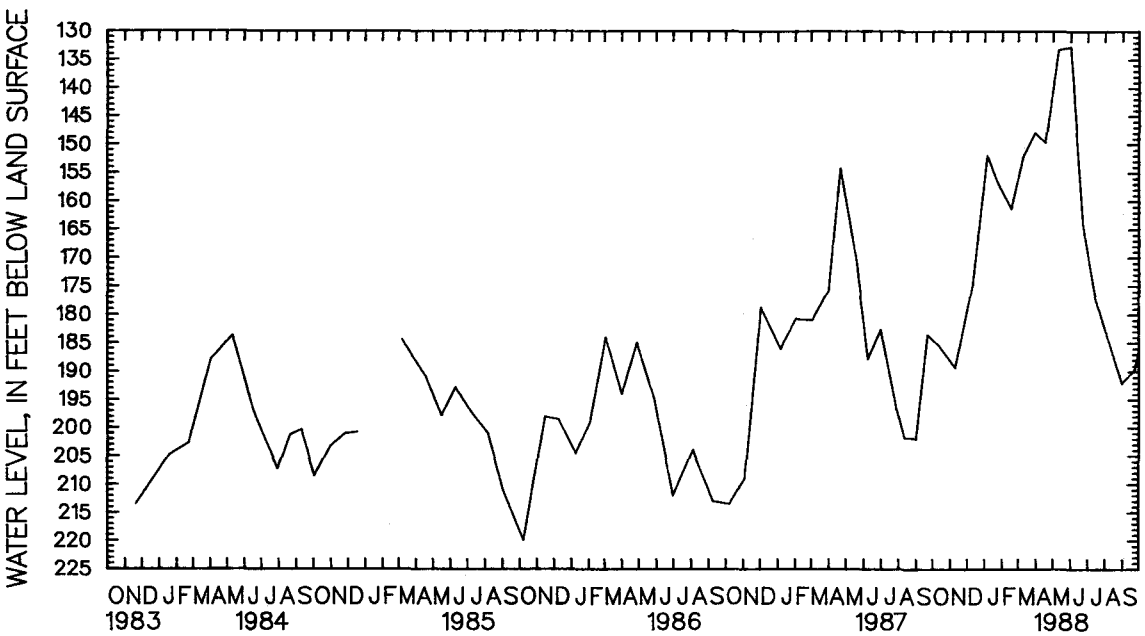


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 226 ft; casing diameter 6 in. with depth to 203 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 2,890 ft above National Geodetic Vertical Datum of 1929. Measuring Point: Top of casing, 2.0 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--June 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 123.40 ft below land-surface datum, Dec. 14, 1978; lowest measured, dry on Nov. 17, 1982, Nov. 18, 1982, Dec. 28, 1982, Feb. 18, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 11	185.29	JAN 6	151.88	MAR 10	152.13	MAY 10	133.25	JUL 13	176.53	SEP 22	189.85
NOV 10	189.36	26	157.01	31	147.91	JUN 1	132.68	AUG 3	183.20		
DEC 10	174.94	FEB 18	161.35	APR 18	149.58	23	164.34	31	192.12		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 606 ft; casing diameter 8 in. with depth to 25.5 ft; casing diameter 4 in. with depth to 470 ft; open hole.
INSTRUMENTATION.--Equipped with digital water level recorder--60-minute recorder interval.
DATUM.--Elevation of land-surface datum is 2,620 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 2.6 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--August 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.38 ft below land-surface datum, Aug. 29, 1980; lowest measured, 142.69 ft below land-surface datum, Sept 30, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	138.18	138.09	138.70	138.63	138.84	138.84	138.95	138.95	139.24	139.17	139.48	139.41
2	138.20	138.13	138.68	138.60	138.84	138.84	138.97	138.95	139.19	139.16	139.49	139.40
3	138.29	138.16	138.67	138.53	138.84	138.84	138.98	138.97	139.21	139.17	139.45	139.29
4	138.34	138.25	138.61	138.44	138.84	138.84	138.98	138.98	139.17	139.13	139.41	139.27
5	138.27	138.20	138.59	138.39	138.84	138.84	138.98	138.98	139.15	139.14	139.52	139.44
6	138.23	138.10	138.64	138.55	138.84	138.84	138.99	138.98	139.20	139.17	139.50	139.41
7	138.20	138.07	138.68	138.60	138.84	138.84	139.05	138.99	139.27	139.21	139.51	139.41
8	138.36	138.23	138.70	138.61	138.85	138.84	139.06	139.05	139.26	139.26	139.50	139.50
9	138.43	138.36	138.66	138.62	138.85	138.85	139.06	139.06	139.26	139.26	139.50	139.43
10	138.47	138.37	138.66	138.54	138.70	138.70	139.06	139.06	139.26	139.26	139.43	139.42
11	138.41	138.34	138.57	138.53	138.70	138.62	139.06	139.06	139.26	139.26	139.43	139.42
12	138.35	138.28	138.56	138.52	138.62	138.61	139.07	139.06	139.26	139.24	139.43	139.43
13	138.34	138.28	138.55	138.52	138.77	138.61	139.07	139.07	139.24	139.24	139.43	139.43
14	138.44	138.34	138.62	138.55	138.81	138.77	139.07	139.07	139.24	139.24	139.43	139.43
15	138.46	138.41	138.73	138.62	138.81	138.73	139.07	139.07	139.24	139.24	139.43	139.43
16	138.46	138.40	138.73	138.73	138.73	138.73	139.08	139.07	139.27	139.24	139.44	139.43
17	138.42	138.32	138.73	138.73	138.90	138.71	139.08	139.08	139.30	139.29	139.44	139.44
18	138.44	138.36	138.79	138.73	138.90	138.90	139.08	139.08	139.38	139.30	139.44	139.44
19	138.42	138.35	138.80	138.80	138.90	138.90	139.08	139.08	139.39	139.29	139.44	139.44
20	138.41	138.31	138.80	138.80	138.90	138.89	139.08	139.08	139.29	139.29	139.44	139.44
21	138.47	138.31	138.80	138.80	138.89	138.89	139.09	139.08	139.30	139.29	139.44	139.44
22	138.50	138.41	138.80	138.80	138.89	138.89	139.09	139.09	139.30	139.30	139.45	139.44
23	138.56	138.44	138.80	138.80	138.89	138.89	139.09	139.09	139.30	139.29	139.45	139.45
24	138.62	138.47	138.83	138.80	138.92	138.89	139.09	139.09	139.29	139.29	139.45	139.45
25	138.61	138.50	138.84	138.83	138.92	138.92	139.10	139.09	139.41	139.29	139.45	139.45
26	138.59	138.42	138.84	138.84	138.92	138.92	139.10	139.10	139.41	139.33	139.45	139.45
27	138.46	138.37	138.84	138.84	138.92	138.92	139.19	139.10	139.39	139.23	139.46	139.45
28	138.45	138.37	138.84	138.84	138.92	138.92	139.30	139.19	139.40	139.33	139.46	139.46
29	138.50	138.43	138.84	138.84	138.93	138.91	139.30	139.20	139.45	139.32	139.46	139.46
30	138.55	138.49	138.84	138.84	138.95	138.92	139.26	139.20	---	---	139.46	139.46
31	138.67	138.51	---	---	138.95	138.95	139.24	139.20	---	---	139.46	139.46
MONTH	138.67	138.07	138.84	138.39	138.95	138.61	139.30	138.95	139.45	139.13	139.52	139.27

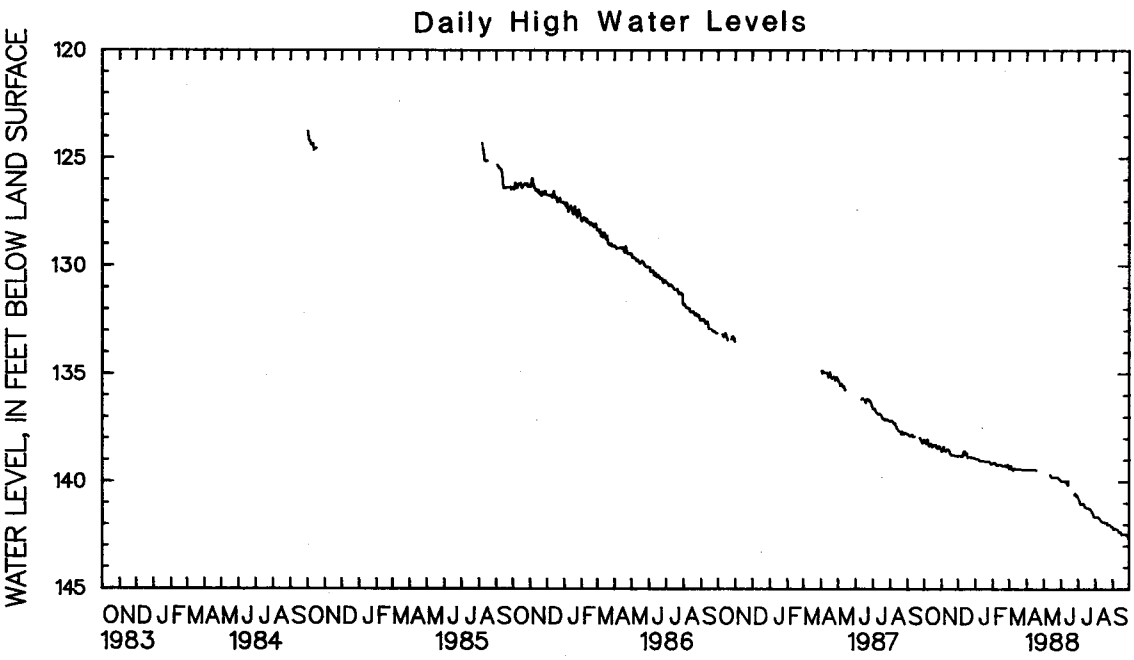
GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

GA Fa 31--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	139.46	139.46	---	---	140.00	139.99	140.89	140.73	141.66	141.65	142.23	142.13
2	139.46	139.46	---	---	140.00	140.00	140.92	140.81	141.66	141.66	142.23	142.23
3	139.46	139.46	---	---	140.00	140.00	140.94	140.87	141.67	141.66	142.23	142.22
4	139.46	139.46	---	---	140.00	140.00	141.02	140.91	141.71	141.66	142.22	142.22
5	139.46	139.46	---	---	140.00	140.00	141.07	141.02	141.72	141.66	142.22	142.22
6	139.46	139.46	---	---	140.00	140.00	141.11	141.07	141.69	141.66	142.22	142.22
7	139.46	139.46	---	---	140.00	140.00	141.13	141.07	141.71	141.69	142.23	142.22
8	139.46	139.46	---	---	140.00	140.00	141.13	141.05	141.74	141.71	142.25	142.23
9	139.47	139.46	---	---	140.00	140.00	141.13	141.03	141.77	141.74	142.25	142.24
10	139.47	139.47	---	---	140.06	140.00	141.15	141.03	141.82	141.77	142.30	142.25
11	139.47	139.47	---	---	140.13	140.06	141.19	141.05	141.85	141.82	142.37	142.31
12	139.47	139.47	139.78	139.69	140.18	140.13	141.19	141.07	141.88	141.85	142.37	142.37
13	139.47	139.47	139.78	139.78	140.25	140.18	141.19	141.18	141.90	141.88	142.37	142.36
14	139.47	139.47	139.81	139.78	140.29	140.00	141.21	141.19	141.91	141.90	142.36	142.36
15	139.47	139.47	139.81	139.81	---	---	141.23	141.21	141.91	141.91	142.39	142.36
16	139.48	139.47	139.81	139.81	---	---	141.25	141.23	141.91	141.91	142.49	142.42
17	139.48	139.48	139.81	139.81	---	---	141.25	141.25	141.93	141.91	142.49	142.49
18	139.48	139.48	139.81	139.81	---	---	141.25	141.25	141.93	141.93	142.49	142.48
19	---	---	139.81	139.81	---	---	141.26	141.25	141.93	141.93	142.48	142.48
20	---	---	139.81	139.81	---	---	141.26	141.26	141.93	141.93	142.48	142.46
21	---	---	139.81	139.81	---	---	141.26	141.26	141.94	141.93	142.47	142.46
22	---	---	139.81	139.81	---	---	141.30	141.26	142.03	141.94	142.47	142.47
23	---	---	139.81	139.81	---	---	141.36	141.30	142.03	142.03	142.48	142.47
24	---	---	139.81	139.81	140.73	140.61	141.39	141.36	142.03	142.03	142.48	142.48
25	---	---	139.81	139.81	140.75	140.63	141.43	141.39	142.03	142.03	142.49	142.48
26	---	---	139.86	139.81	140.66	140.56	141.47	141.43	142.03	142.03	142.51	142.49
27	---	---	139.90	139.86	140.79	140.60	141.56	141.47	142.05	142.03	142.58	142.54
28	---	---	139.90	139.90	140.84	140.68	141.62	141.56	142.11	142.05	142.58	142.58
29	---	---	139.93	139.90	140.84	140.67	141.65	141.62	142.11	142.11	142.65	142.58
30	---	---	139.98	139.93	140.83	140.69	141.65	141.65	142.11	142.11	142.69	142.66
31	---	---	139.99	139.98	---	---	141.65	141.65	142.13	142.11	---	---
MONTH	---	---	---	---	---	---	141.65	140.73	142.13	141.65	142.69	142.13

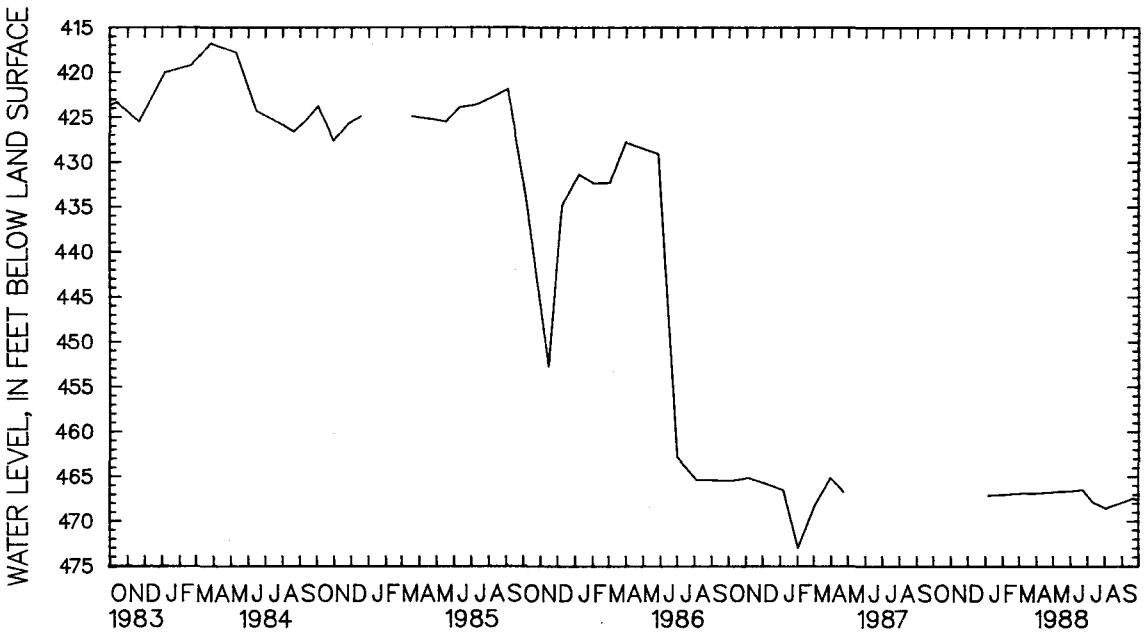


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 473 ft; casing diameter 4 in. with depth to 430 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 2,890 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.15 ft above land-surface datum.
REMARKS.--Equipped with digital water level recorder--60-minute interval; July 1980 to November 1982. 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 datum, Feb. 27, 1980; lowest measured, 473.34 ft below land surface datum, Feb. 2, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 6	467.09	MAR 8	466.84	MAY 11	466.67	JUL 12	467.90	SEP 20	467.42
27	467.04	30	466.86	JUN 1	466.60	AUG 3	468.56		
FEB 18	466.93	APR 19	466.78	23	466.45	SEP 11	467.66		

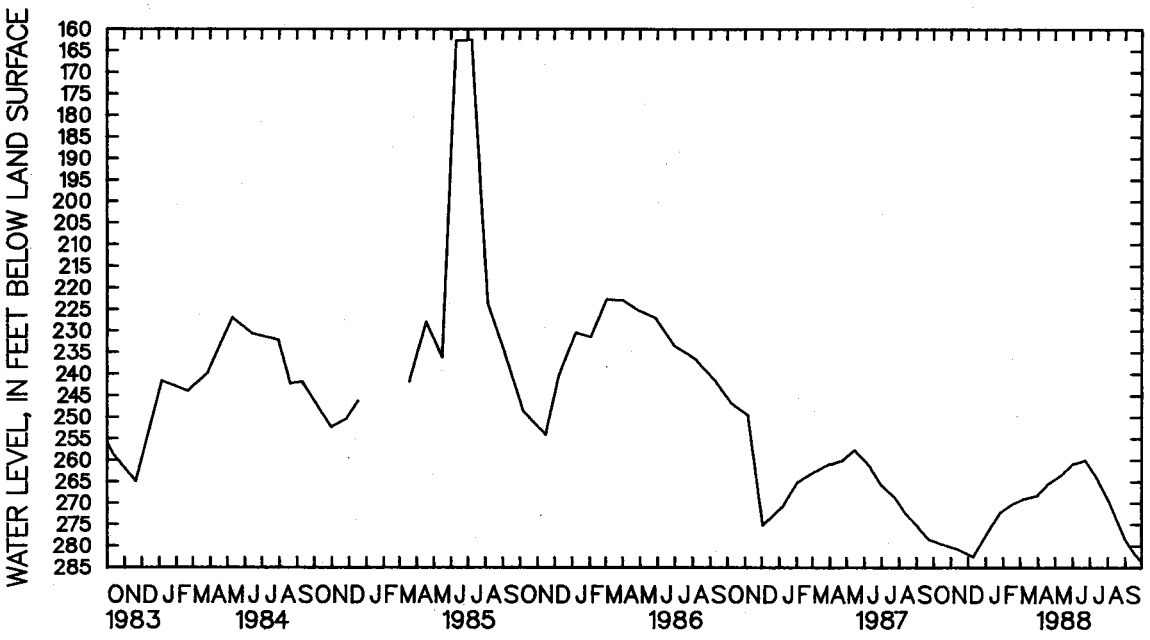


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 391 ft; casing diameter 8 in. with depth to 23 ft; casing diameter 4 in. with depth to 318 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital recorder--60-minute recorder interval from July 21, 1980 to Oct. 14, 1982.
DATUM.--Elevation of land-surface datum is 2,620 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 3.9 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--February 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.51 ft below land-surface datum, July 23, 1980; lowest measured, 282.57 ft below land surface datum, Dec. 10, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	279.58	JAN 6	276.50	MAR 8	269.01	MAY 11	263.56	JUL 12	263.98	SEP 20	282.17
NOV 13	280.84	27	272.27	30	268.32	JUN 1	260.93	AUG 3	269.51		
DEC 10	282.57	FEB 18	270.22	APR 19	265.48	23	260.03	SEP 1	278.56		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 115 ft; casing diameter 8 in. with depth to 23.5 ft; casing diameter 4 in. with depth to 96 ft; open hole.
INSTRUMENTATION.--Equipped with digital water-level recorder--60-minute recorder interval.
DATUM.--Elevation of land-surface datum is 2,620 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 3.3 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--July 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.19 ft below land-surface datum, Aug. 3, 1980; lowest measured, 93.07 ft below land-surface datum, Sept. 29, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

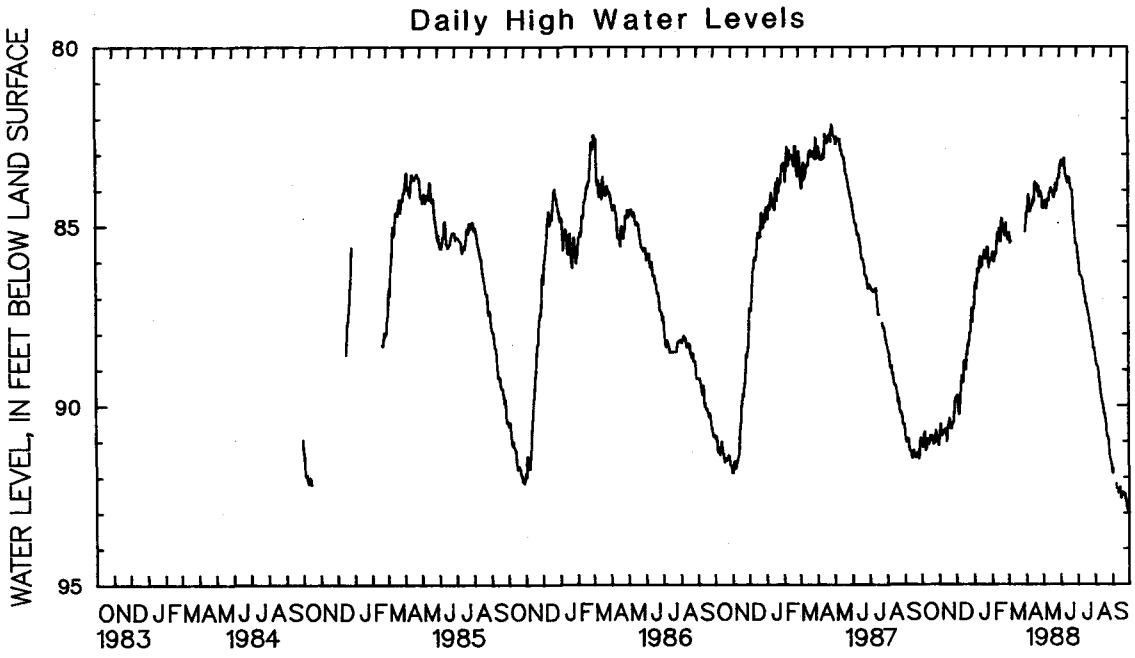
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	91.07	90.94	91.23	91.14	89.81	89.79	87.36	87.29	85.99	85.93	85.50	85.38
2	91.08	90.98	91.14	91.00	90.16	89.84	87.40	87.29	86.12	85.91	85.47	85.37
3	91.19	91.09	91.00	90.76	90.16	89.73	87.28	86.81	86.16	85.86	85.41	85.26
4	91.20	91.17	90.75	90.56	90.01	89.72	86.78	86.59	85.99	85.73	85.49	85.19
5	91.17	90.97	90.76	90.53	90.19	90.01	86.79	86.70	86.06	85.97	85.65	85.49
6	90.97	90.79	90.87	90.77	90.31	90.19	86.81	86.75	86.13	86.01	85.59	85.42
7	90.95	90.75	90.87	90.85	90.31	90.26	86.80	86.44	86.16	85.85	85.64	85.44
8	91.27	90.95	90.87	90.83	90.26	89.99	86.40	86.19	85.95	85.85	---	---
9	91.32	91.27	90.83	90.80	89.97	89.71	86.30	86.23	85.91	85.73	---	---
10	91.30	91.23	90.81	90.70	89.71	89.50	86.38	86.30	85.86	85.76	---	---
11	91.21	91.11	90.74	90.70	89.50	89.18	86.35	86.24	85.81	85.43	---	---
12	91.10	90.95	90.75	90.72	89.32	89.18	86.23	85.89	85.38	85.19	---	---
13	91.09	90.95	90.75	90.66	89.61	89.34	86.16	85.85	85.47	85.20	---	---
14	91.16	91.11	91.01	90.74	89.61	89.37	86.34	86.16	85.54	85.29	---	---
15	91.14	91.07	91.15	91.02	89.34	88.75	86.24	86.10	85.26	85.07	---	---
16	91.08	91.01	91.12	90.92	89.00	88.84	86.16	86.11	85.45	85.10	---	---
17	91.01	90.86	90.90	90.56	89.23	89.01	86.12	85.89	85.50	85.44	---	---
18	90.96	90.89	90.92	90.61	89.25	89.01	86.13	85.85	85.45	85.38	---	---
19	90.94	90.89	90.92	90.54	89.01	88.78	86.14	85.90	85.36	84.78	---	---
20	90.89	90.86	90.52	90.37	88.76	88.50	85.87	85.68	84.95	84.79	---	---
21	91.02	90.86	90.66	90.42	88.65	88.58	85.93	85.75	85.31	84.96	---	---
22	91.17	91.04	90.73	90.66	88.56	88.27	85.96	85.93	85.30	85.11	---	---
23	91.15	91.09	90.66	90.61	88.50	88.34	85.94	85.85	85.23	85.05	---	---
24	91.18	91.05	90.76	90.65	88.47	88.20	85.92	85.83	85.31	85.24	---	---
25	91.14	91.05	90.66	90.53	88.17	87.98	85.92	85.58	85.33	85.27	---	---
26	91.08	90.86	90.53	90.51	88.11	87.95	86.00	85.58	85.34	85.07	---	---
27	90.85	90.71	90.52	90.48	88.11	87.92	86.19	86.02	85.24	84.92	---	---
28	90.90	90.77	90.47	90.25	87.92	87.39	86.22	86.17	85.29	85.22	---	---
29	91.00	90.91	90.21	89.89	87.76	87.28	86.22	86.01	85.38	85.19	---	---
30	91.04	90.98	89.89	89.81	87.76	87.67	86.01	85.92	---	---	---	---
31	91.23	91.04	---	---	87.64	87.32	86.00	85.95	---	---	85.23	85.16
MONTH	91.32	90.71	91.23	89.81	90.31	87.28	87.40	85.58	86.16	84.78	---	---

MARYLAND--Continued

GARRETT COUNTY--Continued

GA Fa 34--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	85.14	85.03	84.50	84.49	83.54	83.28	85.81	85.61	88.68	88.53	91.98	91.87
2	85.03	84.88	84.55	84.50	83.28	83.25	85.90	85.82	88.82	88.69	91.99	91.90
3	84.87	84.63	84.55	84.50	83.30	83.17	86.02	85.91	88.89	88.82	91.90	91.77
4	84.62	84.58	84.50	84.46	83.42	83.30	86.27	86.02	88.92	88.89	---	---
5	84.68	84.60	84.43	84.33	83.43	83.32	86.39	86.27	88.94	88.89	---	---
6	84.60	84.18	84.42	84.29	83.36	83.28	86.42	86.38	89.03	88.94	---	---
7	84.37	84.12	84.52	84.43	83.28	83.19	86.42	86.39	89.21	89.03	92.32	92.19
8	84.60	84.38	84.56	84.51	83.19	83.14	86.46	86.41	89.32	89.21	92.36	92.31
9	84.67	84.60	84.51	84.33	83.41	83.11	86.50	86.44	89.44	89.33	92.32	92.32
10	84.67	84.56	84.35	84.26	83.59	83.43	86.58	86.50	89.58	89.44	92.46	92.32
11	84.56	84.45	84.37	84.29	83.64	83.59	86.72	86.58	89.70	89.58	92.53	92.46
12	84.45	84.45	84.40	84.29	83.68	83.62	86.87	86.72	89.82	89.71	92.53	92.36
13	84.45	84.44	84.29	84.08	83.79	83.69	86.96	86.87	89.90	89.83	92.35	92.28
14	84.44	84.31	84.12	84.06	83.85	83.79	86.99	86.94	89.96	89.90	92.46	92.28
15	84.32	84.26	84.08	84.00	83.81	83.73	87.16	86.99	90.06	89.95	92.62	92.46
16	84.35	84.32	84.00	83.93	83.73	83.64	87.20	87.16	90.20	90.06	92.63	92.59
17	84.35	83.95	84.10	83.98	83.74	83.64	87.25	87.17	90.28	90.21	92.59	92.48
18	83.98	83.77	84.10	84.06	83.88	83.75	87.30	87.26	90.34	90.22	92.50	92.48
19	84.09	83.96	84.15	84.05	83.96	83.90	87.41	87.30	90.41	90.34	92.48	92.43
20	84.15	83.93	84.21	84.15	84.02	83.96	87.49	87.41	90.51	90.41	92.48	92.43
21	84.05	83.83	84.23	84.21	84.01	83.98	87.56	87.48	90.85	90.54	92.59	92.48
22	84.13	84.05	84.22	84.18	84.06	84.01	87.70	87.57	90.97	90.85	92.59	92.52
23	84.13	83.90	84.18	83.95	84.50	84.01	87.76	87.71	90.98	90.87	92.60	92.48
24	84.19	83.89	83.99	83.83	84.88	84.53	87.92	87.76	90.94	90.87	92.70	92.60
25	84.21	84.19	84.03	83.81	84.98	84.90	87.99	87.92	91.09	90.94	92.82	92.68
26	84.19	84.11	84.06	84.02	85.20	84.94	88.09	87.98	91.33	91.10	92.90	92.83
27	84.12	84.03	84.02	83.86	85.43	85.21	88.24	88.10	91.46	91.33	92.94	92.90
28	84.14	84.05	83.86	83.70	85.51	85.44	88.40	88.24	91.56	91.46	92.98	92.90
29	84.22	84.13	83.71	83.67	85.53	85.51	88.48	88.40	91.58	91.51	93.07	92.99
30	84.49	84.22	83.72	83.67	85.61	85.53	88.48	88.43	91.67	91.58	93.05	93.02
31	---	---	83.67	83.55	---	---	88.52	88.42	91.87	91.67	---	---
MONTH	85.14	83.77	84.56	83.55	85.61	83.11	88.52	85.61	91.87	88.53	---	---



5 YEAR HYDROGRAPH

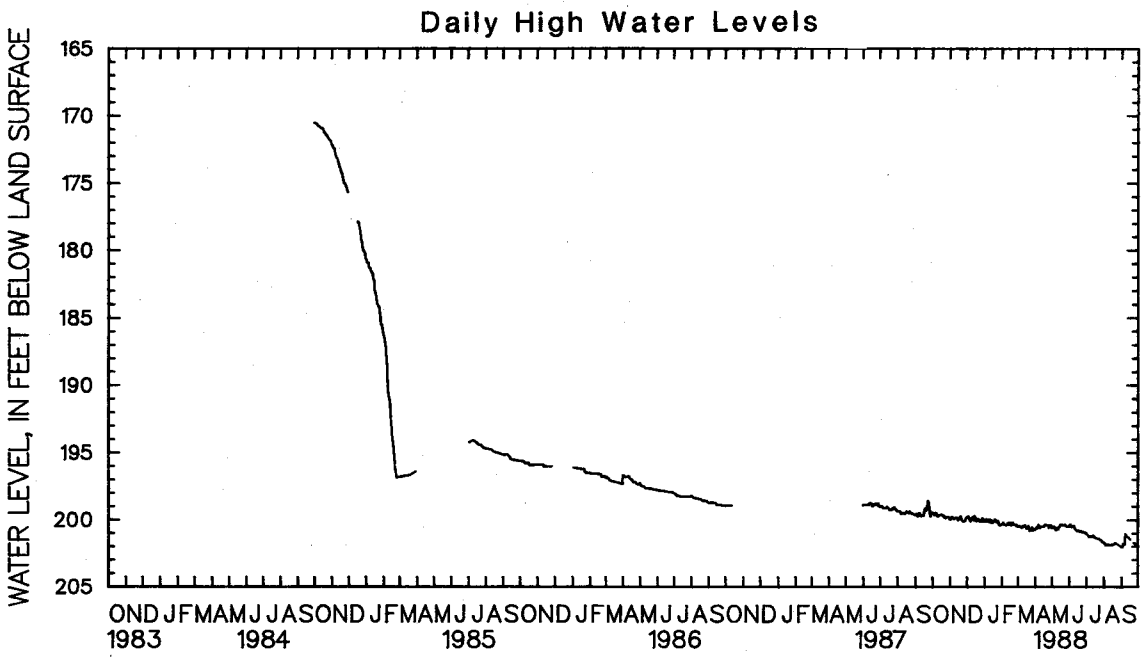
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 intersection with Wilson-Coronna Rd., 0.4 mi northwest of Wilson.
Owner: U.S. Geological Survey.
AQUIFER.--Allegheny Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 640 ft; casing diameter 4 in. with depth to 517 ft; open hole.
INSTRUMENTATION.--Equipped with digital water level recorder--60-minute recorder interval.
DATUM.--Elevation of land-surface datum is 2,530 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.0 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--May 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 68.48 ft below land-surface datum, May 15, 1980; lowest measured, 202.06 ft below land surface datum, Sept. 29-30, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	199.64	199.46	200.01	199.99	199.82	199.79	200.14	200.01	200.48	200.32	200.56	200.55
2	199.64	199.50	200.01	199.98	199.98	199.81	200.18	200.13	200.47	200.31	200.56	200.54
3	199.73	199.58	199.98	199.91	199.98	199.77	200.18	200.03	200.48	200.31	200.55	200.47
4	199.80	199.64	199.91	199.79	199.92	199.75	200.04	199.96	200.36	200.21	200.54	200.45
5	199.73	199.55	199.86	199.79	200.03	199.91	200.16	200.03	200.39	200.33	200.64	200.56
6	199.67	199.48	199.92	199.87	200.14	200.04	200.24	200.12	200.44	200.40	200.64	200.57
7	199.60	199.48	199.94	199.93	200.15	200.12	200.30	200.06	200.50	200.38	200.62	200.57
8	199.69	199.52	199.94	199.93	200.13	200.08	200.10	199.99	200.42	200.38	200.63	200.62
9	199.78	199.72	199.93	199.93	200.08	199.93	200.17	200.07	200.42	200.41	200.62	200.52
10	199.84	199.76	199.93	199.88	199.94	199.90	200.19	200.17	200.45	200.41	200.56	200.45
11	199.85	199.77	199.88	199.86	199.96	199.80	200.18	200.14	200.45	200.40	200.66	200.56
12	199.85	199.65	199.86	199.85	199.91	199.80	200.17	200.02	200.35	200.24	200.65	200.53
13	199.74	199.65	201.41	199.85	200.13	199.92	200.25	200.02	200.43	200.25	200.58	200.46
14	199.75	199.67	200.03	199.87	200.16	200.07	200.37	200.24	200.43	200.36	200.58	200.42
15	199.74	199.66	200.15	200.03	200.05	199.73	200.34	200.19	200.37	200.20	200.70	200.47
16	199.73	199.65	200.14	200.04	200.02	199.86	200.38	200.22	200.48	200.29	200.79	200.62
17	199.66	199.61	200.05	199.87	200.22	200.01	200.28	200.09	200.49	200.40	200.83	200.70
18	199.73	199.63	200.14	199.88	200.22	200.11	200.42	200.09	200.50	200.44	200.81	200.56
19	199.74	199.71	200.14	199.91	200.19	200.10	200.25	200.03	200.46	200.20	200.64	200.53
20	199.72	199.70	199.98	199.77	200.15	199.95	200.20	199.97	200.20	200.20	200.73	200.47
21	199.82	199.70	200.05	199.87	200.14	200.07	200.25	200.07	200.40	200.22	200.85	200.68
22	199.85	199.82	200.08	200.02	200.17	199.98	200.22	200.17	200.40	200.40	200.89	200.84
23	199.91	199.86	200.10	200.06	200.14	200.08	200.23	200.13	200.40	200.36	200.88	200.84
24	199.94	199.88	200.15	200.12	200.19	200.13	200.23	200.19	200.41	200.37	200.84	200.82
25	199.94	199.90	200.16	200.12	200.13	200.06	200.22	200.08	200.46	200.41	200.82	200.73
26	199.93	199.87	200.12	200.12	200.09	200.06	200.38	200.14	200.46	200.46	200.73	200.61
27	199.87	199.80	200.13	200.11	200.09	200.09	200.50	200.36	200.48	200.36	200.82	200.60
28	199.80	199.80	200.13	200.09	200.09	199.96	200.56	200.44	200.48	200.47	200.86	200.81
29	199.84	199.80	200.05	199.88	200.11	199.90	200.56	200.43	200.55	200.47	200.86	200.72
30	199.87	199.83	199.88	199.82	200.12	200.11	200.50	200.40	---	---	200.84	200.74
31	199.99	199.87	---	---	200.12	200.01	200.49	200.39	---	---	200.84	200.75
MONTH	199.99	199.46	201.41	199.77	200.22	199.73	200.56	199.96	200.55	200.20	200.89	200.42

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	200.83	200.74	200.81	200.63	200.53	200.44	201.11	201.01	201.81	201.73	---	---
2	200.83	200.72	200.84	200.64	200.49	200.40	201.14	201.07	201.86	201.77	202.10	202.06
3	200.77	200.62	200.82	200.64	200.50	200.33	201.16	201.12	201.95	201.82	202.06	201.96
4	200.69	200.60	200.80	200.66	200.57	200.45	201.22	201.15	201.99	201.93	201.95	201.82
5	200.74	200.62	200.68	200.54	200.56	200.55	201.29	201.22	201.96	201.88	201.82	201.82
6	200.65	200.45	200.73	200.55	200.55	200.53	201.33	201.29	201.93	201.87	201.85	201.82
7	200.49	200.39	200.80	200.68	200.53	200.50	201.33	201.30	201.95	201.87	201.93	201.85
8	200.65	200.49	200.80	200.79	200.50	200.47	201.32	201.28	201.98	201.88	201.93	201.10
9	200.69	200.62	200.78	200.73	200.47	200.46	201.31	201.26	201.97	201.88	---	---
10	200.69	200.62	200.72	200.66	200.67	200.46	201.32	201.26	202.01	201.88	---	---
11	200.64	200.54	200.79	200.68	200.74	200.65	201.33	201.27	202.02	201.91	---	---
12	200.63	200.54	200.84	200.72	200.77	200.71	201.31	201.25	202.03	201.93	---	---
13	200.63	200.54	200.80	200.62	200.87	200.75	201.40	201.22	202.02	201.94	---	---
14	200.63	200.50	200.78	200.60	200.90	200.83	201.35	201.21	201.98	201.91	---	---
15	200.61	200.52	200.68	200.48	200.90	200.87	201.42	201.25	201.91	201.87	---	---
16	200.69	200.54	200.53	200.39	200.90	200.83	201.44	201.32	201.93	201.90	---	---
17	200.66	200.47	200.52	200.39	200.83	200.81	201.40	201.33	201.96	201.88	---	---
18	200.49	200.39	200.45	200.35	200.89	200.82	201.41	201.37	201.89	201.88	---	---
19	200.51	200.41	200.42	200.33	200.91	200.89	201.44	201.38	201.90	201.83	---	---
20	200.56	200.42	200.43	200.36	200.91	200.91	201.46	201.42	201.83	201.77	---	---
21	200.43	200.40	200.44	200.40	200.91	200.91	201.43	201.41	201.86	201.77	---	---
22	200.53	200.41	200.43	200.42	200.92	200.89	201.50	201.41	---	---	---	---
23	200.49	200.41	200.43	200.42	200.90	200.89	201.55	201.46	---	---	201.86	201.73
24	200.60	200.41	200.42	200.40	201.00	200.89	201.60	201.48	---	---	201.94	201.78
25	200.60	200.60	200.43	200.36	201.01	200.97	201.65	201.51	---	---	201.94	201.77
26	200.60	200.42	200.50	200.43	200.97	200.92	201.67	201.52	---	---	201.98	201.90
27	200.58	200.42	200.55	200.50	201.05	200.94	201.74	201.55	---	---	202.04	201.93
28	200.61	200.52	200.56	200.51	201.09	200.99	201.84	201.63	---	---	202.02	201.96
29	200.61	200.43	200.56	200.51	201.06	200.98	201.87	201.69	---	---	202.06	202.01
30	200.75	200.45	200.62	200.51	201.05	200.98	201.83	201.68	---	---	202.06	202.03
31	---	---	200.63	200.53	---	---	201.79	201.66	---	---	---	---
MONTH	200.83	200.39	200.84	200.33	201.09	200.33	201.87	201.01	---	---	---	---

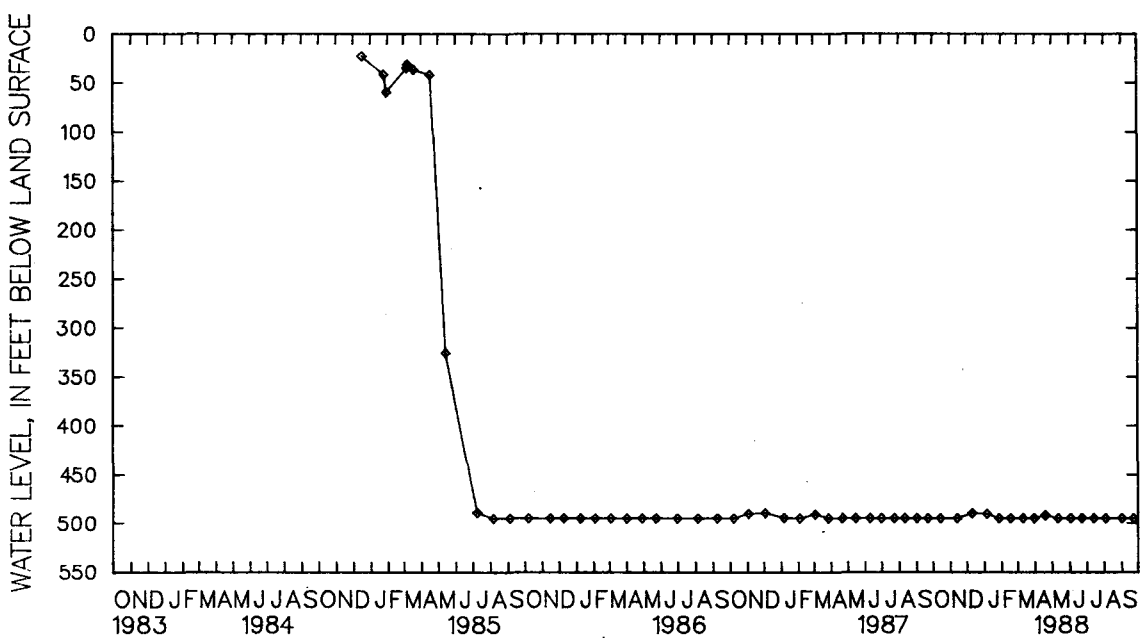


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--GA Fb 23. SITE ID.--391530079244402 PERMIT NUMBER.--GA-73-2176
LOCATION.--Lat 39°15′30″, long 79°24′44″, Hydrologic Unit 02070002, south side of Wilson Rd., 500 ft west of intersection with Wilson-Coronna Rd., 0.4 mi northwest of Wilson.
Owner: U.S. Geological Survey.
AQUIFER.--Conemaugh Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 495 ft; casing diameter 4 in. with depth to 460 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute interval; May 1980 to Dec. 9, 1985.
DATUM.--Elevation of land-surface datum is 2,530 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.0 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--April 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.89 ft below land-surface datum, May 25, 1980; lowest measured, dry on numerous occassions--See Remarks.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	DRY	JAN 5	490.35	MAR 10	DRY	MAY 11	DRY	JUL 13	DRY	SEP 22	DRY
NOV 13	DRY	27	DRY	30	DRY	JUN 2	DRY	AUG 3	DRY		
DEC 10	489.76	FEB 17	DRY	APR 19	492.11	22	DRY	SEP 1	DRY		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 intersection with Wilson-Coronna Rd., 0.4 mi northwest of Wilson.
Owner: U.S. Geological Survey.
AQUIFER.--Conemaugh Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 400 ft; casing diameter 4 in. with depth to 340 ft; open hole.
INSTRUMENTATION.--Equipped with digital water level recorder--60-minute recorder interval.
DATUM.--Elevation of land-surface datum is 2,530 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.0 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--May 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.09 ft below land-surface datum, Jan. 12, 1981; lowest measured, 54.85 ft below land surface datum, March 2, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	31.81	31.79	32.56	32.51	32.94	32.92	33.26	33.25	33.64	33.63	33.86	33.85
2	31.79	31.78	32.58	32.56	32.92	32.91	33.31	33.27	33.64	33.64	33.89	33.87
3	31.82	31.78	32.60	32.58	32.91	32.91	33.33	33.31	33.64	33.64	33.90	33.89
4	31.86	31.82	32.60	32.60	32.91	32.90	33.33	33.33	33.64	33.64	33.90	33.90
5	31.93	31.86	32.60	32.60	32.90	32.90	33.34	33.33	33.64	33.64	33.92	33.90
6	31.93	31.90	32.64	32.60	32.93	32.90	33.35	33.33	33.65	33.64	33.93	33.92
7	31.95	31.92	32.67	32.64	32.96	32.93	33.38	33.35	33.68	33.66	33.94	33.93
8	31.98	31.95	32.71	32.67	32.98	32.96	33.38	33.38	33.69	33.68	33.97	33.94
9	32.02	31.97	32.72	32.71	32.98	32.98	33.38	33.38	33.70	33.69	33.97	33.97
10	32.05	32.01	32.73	32.72	32.99	32.98	33.40	33.38	33.72	33.70	33.97	33.92
11	32.07	32.04	32.73	32.73	32.99	32.98	33.41	33.40	33.72	33.72	33.97	33.96
12	32.08	32.06	32.73	32.73	32.98	32.97	33.42	33.41	33.72	33.72	33.98	33.90
13	32.09	32.07	32.74	32.73	33.00	32.97	33.42	33.42	33.72	33.71	33.98	33.83
14	32.11	32.08	32.76	32.74	33.03	33.00	33.45	33.42	33.71	33.71	33.96	33.95
15	32.13	32.11	32.81	32.76	33.03	33.03	33.47	33.45	33.72	33.72	33.95	33.95
16	32.15	32.13	32.85	32.81	33.03	33.03	33.48	33.47	33.72	33.72	33.96	33.95
17	32.16	32.15	32.84	32.84	33.04	33.03	33.49	33.49	33.72	33.72	33.98	33.96
18	32.19	32.16	32.85	32.84	33.09	33.05	33.49	33.49	33.74	33.72	33.99	33.98
19	32.22	32.19	32.87	32.86	33.11	33.09	33.49	33.49	33.76	33.74	33.99	33.99
20	32.23	32.22	32.87	32.87	33.12	33.11	33.49	33.49	33.76	33.74	33.99	33.97
21	32.25	32.23	32.87	32.87	33.12	33.12	33.49	33.48	33.74	33.74	33.98	33.97
22	32.28	32.25	32.90	32.87	33.13	33.12	33.48	33.48	33.76	33.74	34.01	33.99
23	32.31	32.28	32.92	32.91	33.16	33.13	33.48	33.48	33.76	33.76	34.03	34.01
24	32.35	32.31	32.94	32.92	33.18	33.16	33.48	33.48	33.78	33.76	34.05	34.03
25	32.39	32.35	32.96	32.94	33.19	33.18	33.49	33.48	33.80	33.78	34.05	34.05
26	32.41	32.39	32.97	32.96	33.19	33.19	33.49	33.49	33.81	33.80	34.05	34.05
27	32.41	32.41	32.99	32.97	33.21	33.19	33.53	33.49	33.81	33.81	34.05	34.04
28	32.41	32.41	33.00	32.99	33.22	33.21	33.57	33.53	33.83	33.81	34.06	34.04
29	32.43	32.41	33.00	32.99	33.22	33.21	33.60	33.57	33.84	33.83	34.07	34.06
30	32.46	32.43	32.98	32.94	33.24	33.21	33.61	33.60	---	---	34.08	34.07
31	32.51	32.46	---	---	33.25	33.24	33.63	33.62	---	---	34.09	34.08
MONTH	32.51	31.78	33.00	32.51	33.25	32.90	33.63	33.25	33.84	33.63	34.09	33.83

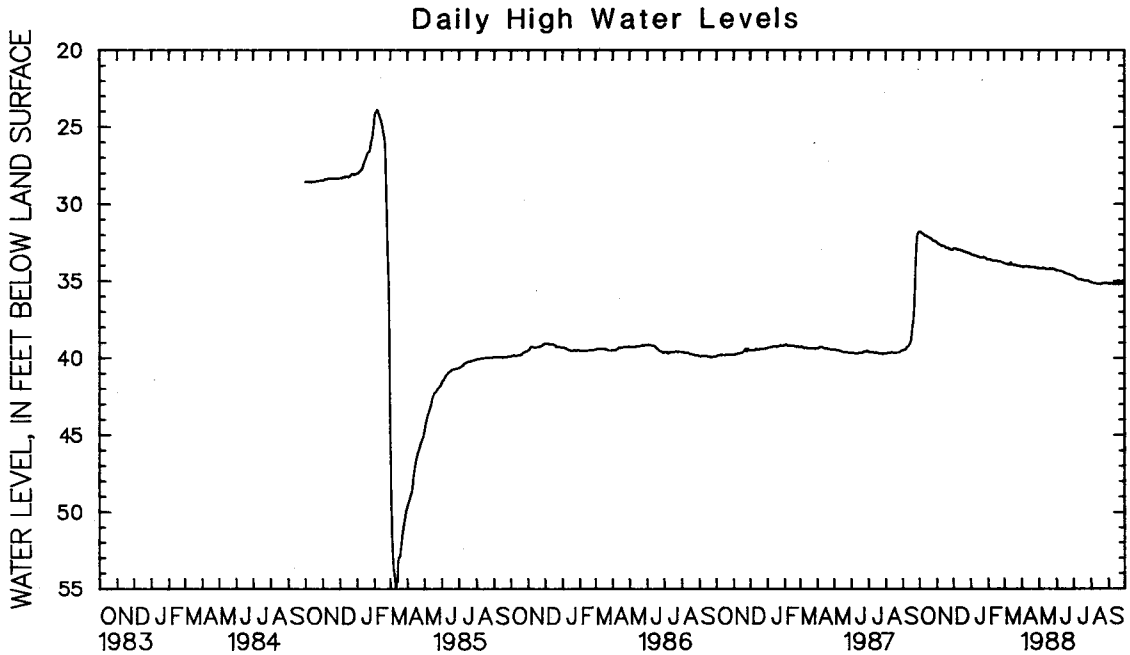
GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

GA Fb 24--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	34.10	34.09	34.20	34.18	34.35	34.33	34.72	34.71	35.10	35.09	35.20	35.17
2	34.11	34.10	34.21	34.20	34.35	34.35	34.74	34.72	35.11	35.10	35.22	35.20
3	34.11	34.10	34.22	34.21	34.35	34.35	34.77	34.74	35.13	35.11	35.22	35.22
4	34.11	34.11	34.22	34.22	34.35	34.35	34.80	34.77	35.14	35.13	35.22	35.19
5	34.11	34.11	34.22	34.21	34.37	34.35	34.82	34.80	35.15	35.14	35.19	35.16
6	34.11	34.10	34.21	34.20	34.38	34.37	34.86	34.83	35.15	35.15	35.16	35.15
7	34.10	34.07	34.20	34.19	34.39	34.38	34.88	34.86	35.16	35.15	35.16	35.15
8	34.07	34.06	34.20	34.19	34.39	34.39	34.89	34.88	35.16	35.16	35.17	35.16
9	34.08	34.06	34.20	34.20	34.39	34.39	34.91	34.89	35.17	35.16	35.18	35.17
10	34.09	34.08	34.20	34.20	34.39	34.39	34.92	34.91	35.18	35.17	35.20	35.18
11	34.09	34.09	34.21	34.20	34.41	34.39	34.92	34.92	35.19	35.18	35.22	35.20
12	34.09	34.09	34.23	34.21	34.44	34.41	34.93	34.92	35.20	35.19	35.23	35.22
13	34.10	34.09	34.24	34.23	34.46	34.44	34.93	34.92	35.21	35.20	35.23	35.22
14	34.11	34.10	34.25	34.24	34.49	34.46	34.93	34.92	35.22	35.21	35.22	35.21
15	34.11	34.11	34.26	34.25	34.51	34.49	34.94	34.93	35.22	35.22	35.21	35.21
16	34.13	34.11	34.26	34.26	34.52	34.51	34.95	34.94	35.22	35.22	35.23	35.21
17	34.14	34.13	34.26	34.25	34.53	34.52	34.96	34.95	35.23	35.22	35.23	35.22
18	34.14	34.13	34.25	34.25	34.54	34.53	34.98	34.96	35.23	35.23	35.22	35.22
19	34.13	34.12	34.24	34.23	34.56	34.54	34.98	34.98	35.23	35.22	35.22	35.22
20	34.12	34.12	34.23	34.22	34.57	34.56	34.99	34.98	35.21	35.18	35.22	35.21
21	34.12	34.12	34.23	34.22	34.58	34.57	34.99	34.99	35.18	35.17	35.21	35.21
22	34.13	34.12	34.24	34.23	34.59	34.58	34.99	34.99	35.17	35.17	35.21	35.21
23	34.14	34.13	34.24	34.24	34.59	34.58	34.99	34.99	35.17	35.17	35.21	35.20
24	34.15	34.14	34.24	34.24	34.62	34.59	35.00	34.99	35.17	35.16	35.20	35.19
25	34.16	34.15	34.24	34.23	34.63	34.62	35.01	35.00	35.16	35.14	35.19	35.18
26	34.17	34.16	34.24	34.23	34.64	34.63	35.01	35.01	35.14	35.14	35.19	35.19
27	34.18	34.17	34.26	34.25	34.66	34.64	35.02	35.01	35.14	35.14	35.19	35.19
28	34.18	34.18	34.28	34.26	34.68	34.66	35.04	35.02	35.16	35.14	35.19	35.19
29	34.18	34.18	34.30	34.28	34.69	34.68	35.07	35.04	35.16	35.16	35.20	35.19
30	34.18	34.18	34.32	34.30	34.71	34.69	35.08	35.07	35.16	35.16	35.22	35.20
31	---	---	34.33	34.32	---	---	35.09	35.08	35.17	35.16	---	---
MONTH	34.18	34.06	34.33	34.18	34.71	34.33	35.09	34.71	35.23	35.09	35.23	35.15



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--GA Fb 25. SITE ID.--391530079244404. PERMIT NUMBER.--GA-73-2182.
LOCATION.--Lat 39°15'30", long 79°24'44", Hydrologic Unit 02070002, south side of Wilson Rd., 500 ft west of intersection with Wilson-Coronna Rd., 0.4 mi northwest of Wilson.
Owner: U.S. Geological Survey
AQUIFER.--Conemaugh Formation
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 180 ft; casing diameter 4 in. with depth to 120 ft; open hole
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--60-minute recorder interval.
DATUM.--Elevation of land-surface datum is 2,530 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.0 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--June 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.36 ft below land-surface datum, Feb. 4, 1988; lowest measured, 38.56 ft below land surface datum, May 18, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

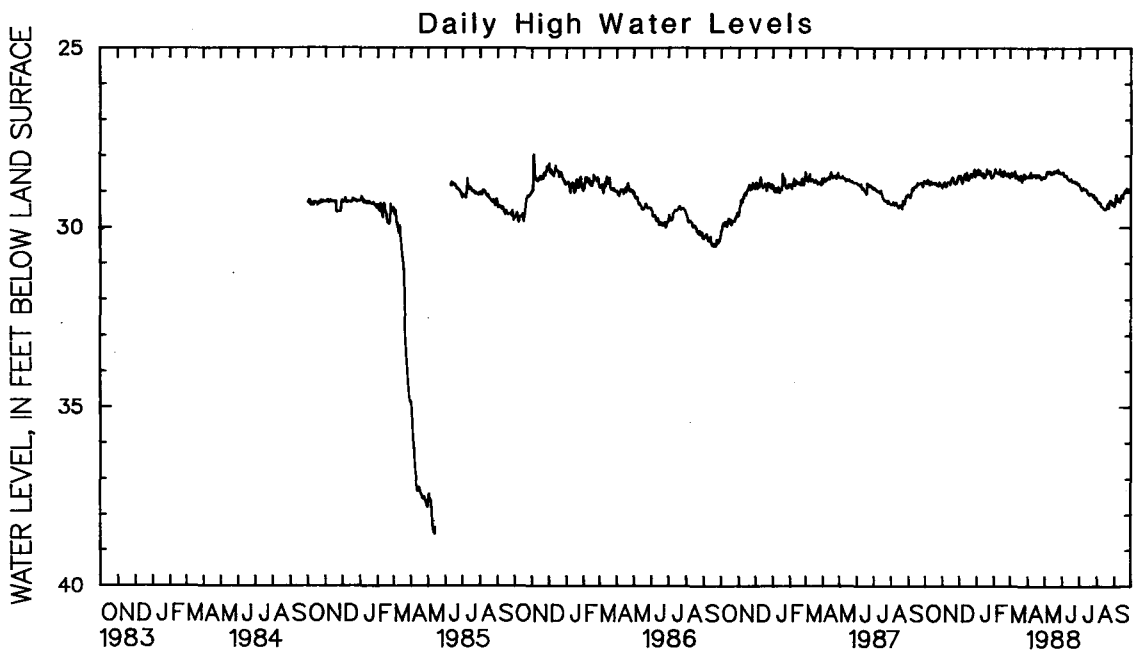
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	28.78	28.71	28.94	28.89	28.61	28.56	28.54	28.46	28.61	28.53	28.64	28.61
2	28.78	28.72	28.90	28.85	28.72	28.61	28.54	28.52	28.55	28.49	28.63	28.56
3	28.81	28.76	28.88	28.80	28.72	28.60	28.53	28.43	28.56	28.45	28.60	28.51
4	28.82	28.77	28.82	28.74	28.71	28.56	28.45	28.38	28.48	28.36	28.59	28.47
5	28.78	28.70	28.84	28.73	28.76	28.68	28.52	28.46	28.49	28.43	28.61	28.57
6	28.75	28.66	28.91	28.83	28.81	28.75	28.58	28.52	28.53	28.47	28.57	28.50
7	28.77	28.67	28.91	28.85	28.81	28.77	28.58	28.49	28.55	28.46	28.60	28.53
8	28.87	28.76	28.90	28.86	28.79	28.69	28.51	28.42	28.51	28.48	28.58	28.52
9	28.87	28.81	28.88	28.83	28.70	28.61	28.53	28.49	28.52	28.47	28.53	28.44
10	28.87	28.80	28.88	28.76	28.64	28.58	28.58	28.54	28.55	28.51	28.62	28.43
11	28.80	28.76	28.79	28.73	28.59	28.50	28.58	28.54	28.55	28.45	28.68	28.62
12	28.77	28.71	28.78	28.73	28.63	28.50	28.57	28.49	28.46	28.37	28.64	28.58
13	28.77	28.74	28.76	28.72	28.73	28.63	28.62	28.48	28.56	28.42	28.60	28.55
14	28.83	28.78	28.80	28.75	28.74	28.67	28.65	28.61	28.58	28.55	28.61	28.54
15	28.81	28.77	28.84	28.80	28.65	28.47	28.63	28.59	28.53	28.45	28.68	28.56
16	28.81	28.77	28.82	28.76	28.63	28.54	28.64	28.60	28.66	28.50	28.71	28.64
17	28.80	28.74	28.76	28.66	28.74	28.59	28.64	28.57	28.66	28.57	28.71	28.66
18	28.81	28.78	28.78	28.66	28.74	28.68	28.64	28.53	28.62	28.58	28.71	28.57
19	28.82	28.76	28.78	28.60	28.71	28.64	28.64	28.51	28.61	28.43	28.60	28.56
20	28.81	28.76	28.68	28.60	28.70	28.54	28.49	28.38	28.49	28.42	28.67	28.54
21	28.83	28.76	28.77	28.66	28.64	28.59	28.48	28.42	28.58	28.50	28.74	28.67
22	28.86	28.82	28.80	28.75	28.64	28.50	28.49	28.47	28.59	28.53	28.74	28.72
23	28.87	28.81	28.80	28.74	28.64	28.57	28.48	28.45	28.55	28.50	28.72	28.67
24	28.88	28.82	28.80	28.78	28.67	28.59	28.50	28.49	28.60	28.55	28.67	28.63
25	28.88	28.84	28.79	28.73	28.59	28.52	28.51	28.42	28.60	28.55	28.64	28.56
26	28.85	28.78	28.76	28.72	28.57	28.52	28.58	28.43	28.59	28.52	28.58	28.50
27	28.81	28.73	28.77	28.76	28.57	28.54	28.65	28.59	28.59	28.48	28.63	28.51
28	28.80	28.76	28.76	28.70	28.54	28.41	28.68	28.62	28.60	28.57	28.68	28.62
29	28.84	28.80	28.69	28.58	28.59	28.38	28.66	28.60	28.64	28.55	28.65	28.57
30	28.87	28.80	28.59	28.56	28.60	28.58	28.63	28.58	---	---	28.66	28.57
31	28.94	28.87	---	---	28.58	28.49	28.62	28.58	---	---	28.64	28.59
MONTH	28.94	28.66	28.94	28.56	28.81	28.38	28.68	28.38	28.66	28.36	28.74	28.43

GROUND-WATER LEVELS

MARYLAND--Continued

GA Fb 25--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	28.62	28.59	28.65	28.59	28.52	28.46	28.85	28.81	29.27	29.21	29.43	29.41
2	28.63	28.59	28.64	28.60	28.49	28.46	28.88	28.84	29.30	29.26	29.44	29.36
3	28.61	28.55	28.62	28.57	28.51	28.45	28.91	28.86	29.33	29.29	29.36	29.25
4	28.60	28.53	28.59	28.54	28.57	28.51	28.97	28.90	29.34	29.31	29.24	29.09
5	28.63	28.59	28.54	28.44	28.57	28.56	29.01	28.96	29.33	29.28	29.17	29.08
6	28.62	28.49	28.47	28.42	28.58	28.56	29.00	28.95	29.33	29.30	29.26	29.17
7	28.56	28.45	28.52	28.45	28.57	28.55	28.96	28.92	29.39	29.31	29.31	29.26
8	28.60	28.54	28.50	28.47	28.58	28.54	28.94	28.89	29.45	29.39	29.31	29.24
9	28.61	28.59	28.47	28.44	28.62	28.54	28.93	28.90	29.45	29.41	29.26	29.20
10	28.59	28.56	28.46	28.42	28.66	28.61	28.98	28.92	29.47	29.42	29.29	29.22
11	28.59	28.53	---	---	28.67	28.64	29.00	28.95	29.49	29.44	29.33	29.29
12	28.58	28.53	28.54	28.50	28.69	28.65	28.96	28.92	29.49	29.45	29.33	29.24
13	28.59	28.55	28.54	28.46	28.72	28.68	29.01	28.95	29.52	29.48	29.24	29.10
14	28.61	28.53	28.54	28.50	28.74	28.69	29.00	28.95	29.52	29.49	29.15	29.09
15	28.62	28.57	28.53	28.47	28.71	28.67	29.04	28.97	29.50	29.48	29.21	29.16
16	28.65	28.60	28.49	28.46	28.67	28.64	29.08	29.03	29.54	29.50	29.23	29.17
17	28.65	28.56	28.53	28.49	28.71	28.64	29.09	29.05	29.55	29.48	29.18	29.08
18	28.58	28.52	28.54	28.42	28.74	28.68	29.12	29.09	29.49	29.46	29.09	29.06
19	---	---	28.45	28.41	28.75	28.73	29.11	29.09	29.47	29.40	29.06	29.01
20	28.62	28.55	28.44	28.43	28.74	28.71	29.11	29.09	29.40	29.33	29.03	28.97
21	28.59	28.52	28.46	28.41	28.74	28.71	29.09	29.04	29.45	29.35	29.06	29.01
22	28.65	28.59	28.45	28.44	28.74	28.71	29.08	29.05	29.52	29.46	29.06	28.98
23	28.63	28.58	28.44	28.42	28.77	28.70	29.10	29.07	29.48	29.32	29.01	28.90
24	28.67	28.57	28.43	28.39	28.78	28.75	29.13	29.08	29.33	29.26	29.05	28.98
25	28.68	28.65	28.46	28.37	28.78	28.73	29.17	29.12	29.28	29.24	29.01	28.94
26	28.67	28.63	28.48	28.46	28.77	28.72	29.13	29.08	29.34	29.26	29.01	28.96
27	28.65	28.60	28.49	28.45	28.82	28.77	29.17	29.11	29.38	29.34	29.01	28.93
28	28.64	28.61	28.49	28.44	28.83	28.79	29.26	29.17	29.43	29.37	28.99	28.93
29	28.63	28.59	28.51	28.47	28.81	28.77	29.27	29.21	29.42	29.30	29.00	28.94
30	28.66	28.60	28.55	28.49	28.81	28.77	29.25	29.16	29.37	29.32	28.99	28.92
31	---	---	28.55	28.50	---	---	29.22	29.16	29.40	29.35	---	---
MONTH	---	---	---	---	28.83	28.45	29.27	28.81	29.55	29.21	29.44	28.90

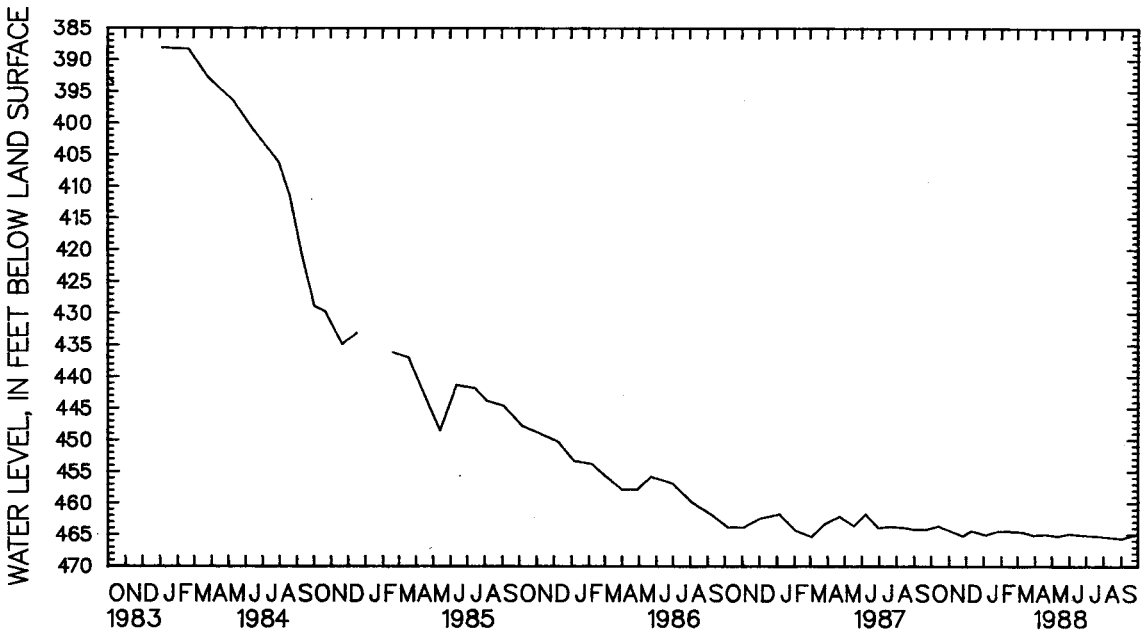


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--GA Fb 26. SITE ID.--391513079243601. PERMIT NUMBER.--GA-73-2179.
LOCATION.--Lat 39°15′13″, long 79°24′36″, Hydrologic Unit 02070002, 3,000 ft west of Wilson.
Owner: U.S. Geological Survey.
AQUIFER.--Allegheny Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 832 ft; steel casing diameter 4 in. with depth to 218 ft; plastic casing diameter 4 in. from 218 to 687 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute interval; July 1980 to October 1984.
DATUM.--Elevation of land-surface datum is 2,760 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.1 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--October 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 261.07 ft below land-surface datum, July 27, 1980; lowest measured, 465.68 ft below land surface datum, Sept. 1, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	463.72	JAN 5	465.07	MAR 10	464.64	MAY 11	465.31	JUL 13	465.24	SEP 22	465.13
NOV 25	465.26	27	464.49	30	465.16	JUN 1	464.92	AUG 3	465.41		
DEC 10	464.47	FEB 13	464.46	APR 19	465.05	22	465.10	SEP 1	465.68		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

GARRETT COUNTY--Continued

WELL NUMBER.--GA Fb 27. SITE ID.--391530079243602. PERMIT NUMBER.--GA-73-2182.
LOCATION.--Lat 39°15'13", long 79°24'36", Hydrologic Unit 02070002, 3,000 ft west of Wilson.
Owner: U.S. Geological Survey
AQUIFER.--Conemaugh Formation
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 656 ft; casing diameter 4 in. with depth to 117 ft; open hole
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--60-minute recorder interval.
DATUM.--Elevation of land-surface datum is 2,760 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.00 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--June 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .41 ft below land-surface datum, May 6, 1988; lowest measured, 11.37 ft below land surface datum, Sept. 30, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR 1987 TO SEPTEMBER 1980

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3.02	2.94	5.78	5.69	7.74	7.70	2.10	2.10	2.32	2.24	3.37	3.30
2	3.11	3.03	5.86	5.78	7.79	7.73	2.10	2.10	2.40	2.33	3.45	3.38
3	3.20	3.11	5.94	5.86	7.86	7.79	2.10	2.10	2.42	1.30	3.53	3.45
4	3.29	3.20	6.03	5.94	7.89	7.85	2.10	2.10	1.31	.69	3.57	1.48
5	3.38	3.30	6.11	6.03	7.91	7.89	2.10	1.75	1.18	1.00	1.61	1.23
6	3.47	3.38	6.19	6.11	8.01	7.91	1.85	1.77	1.53	1.18	1.57	1.24
7	3.55	3.47	6.28	6.19	8.07	8.02	1.89	1.85	1.65	1.55	1.66	1.58
8	3.64	3.56	6.37	6.28	8.12	8.07	1.99	1.89	1.73	1.66	1.73	1.66
9	3.73	3.65	6.45	6.37	8.18	8.13	2.06	1.99	1.80	1.73	1.81	1.74
10	3.81	3.73	6.54	6.45	4.15	1.10	2.15	2.06	1.87	1.81	1.88	1.81
11	3.91	3.81	6.60	6.54	1.48	1.14	2.22	2.15	1.95	1.88	1.95	1.89
12	3.98	3.91	6.70	6.60	1.54	1.48	2.30	2.23	2.02	1.95	2.03	1.96
13	4.07	3.99	6.78	6.70	1.62	1.54	2.38	2.31	2.11	2.02	2.10	2.03
14	4.16	4.07	6.86	6.78	1.71	1.62	2.46	2.38	2.18	2.11	2.18	2.11
15	4.25	4.16	6.94	6.86	1.79	1.71	2.53	2.46	2.25	2.18	2.26	2.18
16	4.35	4.25	7.02	6.94	1.91	1.79	2.61	2.54	2.33	2.26	2.33	2.26
17	4.43	4.35	7.10	7.02	1.91	1.91	2.69	2.61	2.39	2.33	2.41	2.34
18	4.52	4.44	7.17	7.10	2.02	2.00	2.70	2.58	2.47	2.39	2.49	2.42
19	4.62	4.52	7.24	7.17	2.08	2.03	2.69	.74	2.55	2.47	2.56	2.49
20	4.70	4.62	7.33	7.24	2.11	2.08	1.03	.78	2.62	2.55	2.64	2.57
21	4.78	4.70	7.40	7.33	2.11	2.11	1.14	.86	2.69	2.62	2.72	2.64
22	4.88	4.79	7.47	7.40	2.11	2.11	1.50	1.15	2.77	2.69	2.79	2.72
23	4.97	4.88	7.55	7.47	2.11	2.11	1.64	1.52	2.84	2.77	2.83	1.45
24	5.05	4.97	7.62	7.55	2.11	2.11	1.72	1.64	2.92	2.85	1.64	1.27
25	5.15	5.06	7.68	7.62	2.11	2.11	1.79	1.72	2.98	2.92	1.55	1.27
26	5.24	5.15	7.73	7.68	2.11	2.11	1.87	1.79	3.07	2.99	1.62	1.46
27	5.33	5.24	7.78	7.73	2.11	2.11	1.93	1.87	3.14	3.07	1.70	1.63
28	5.43	5.34	7.84	7.78	2.11	2.11	2.00	1.93	3.22	3.15	1.78	1.71
29	5.51	5.43	7.85	7.82	2.11	2.10	2.08	2.00	3.29	3.22	1.85	1.78
30	5.60	5.52	7.70	7.64	2.10	2.10	2.16	2.09	---	---	1.92	1.85
31	5.68	5.61	---	---	2.10	2.10	2.24	2.16	---	---	2.00	1.93
MONTH	5.68	2.94	7.85	5.69	8.18	1.10	2.70	.74	3.29	.69	3.57	1.23

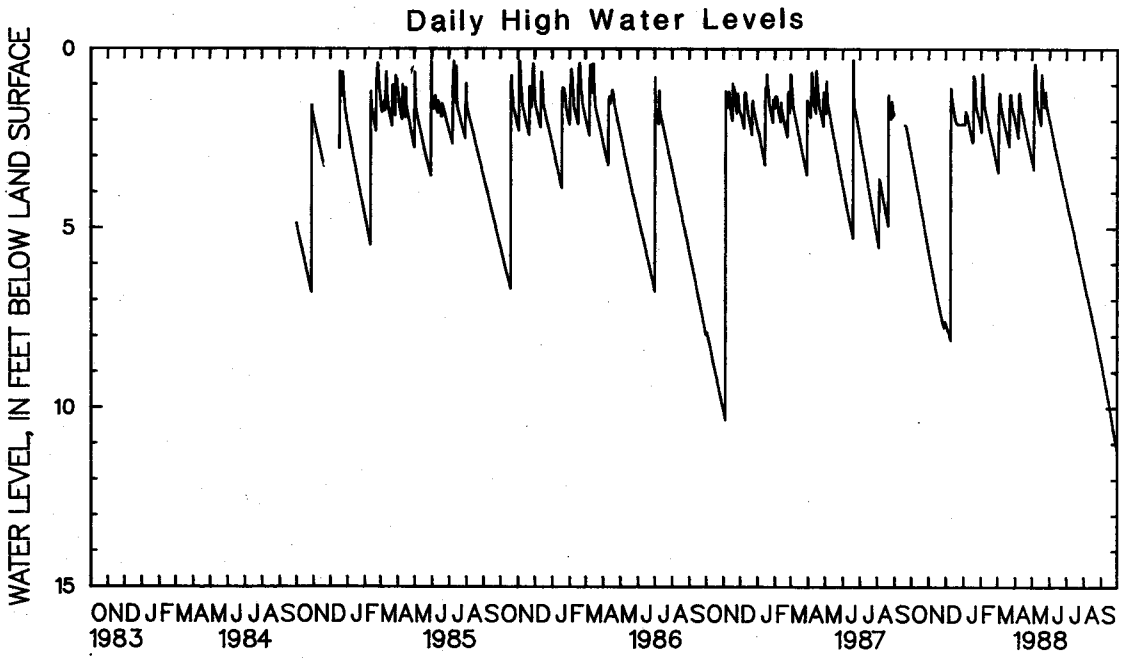
GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

GA Fb 27--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.07	2.00	3.21	3.14	2.06	1.99	4.30	4.23	6.56	6.48	8.83	8.75
2	2.15	2.07	3.29	3.22	2.13	2.06	4.37	4.30	6.64	6.56	8.90	8.83
3	2.23	2.15	3.37	3.29	2.21	2.14	4.43	4.37	---	---	8.98	8.90
4	2.31	2.24	3.44	3.37	2.30	2.22	4.50	4.44	6.78	6.71	9.06	8.98
5	2.39	2.31	3.46	.71	2.38	2.30	4.58	4.51	6.85	6.78	9.13	9.06
6	2.46	2.39	.61	.41	2.46	2.39	4.65	4.58	6.91	6.86	9.22	9.14
7	2.54	2.47	.95	.51	2.54	2.47	4.72	4.65	6.98	6.92	9.31	9.22
8	2.60	1.26	1.27	.97	2.62	2.54	4.78	4.72	7.04	6.98	9.39	9.31
9	1.36	1.23	1.54	1.28	2.69	2.62	4.85	4.79	7.11	7.05	9.47	9.39
10	1.60	1.37	1.64	1.55	2.77	2.69	4.92	4.85	7.18	7.11	9.56	9.47
11	1.68	1.60	1.75	1.65	2.84	2.77	4.98	4.92	7.25	7.18	9.64	9.56
12	1.76	1.68	1.82	1.75	2.92	2.84	5.06	4.99	7.31	7.25	9.72	9.64
13	1.83	1.76	1.90	1.83	2.99	2.92	5.12	5.06	7.38	7.31	9.81	9.73
14	1.90	1.83	1.97	1.90	3.07	2.99	5.20	5.12	7.45	7.38	9.89	9.81
15	1.98	1.91	2.05	1.97	3.14	3.07	5.28	5.20	7.53	7.45	9.97	9.89
16	2.06	1.98	2.12	2.05	3.21	3.14	5.35	5.28	7.60	7.53	10.07	9.98
17	2.13	2.06	2.20	2.12	3.29	3.22	5.43	5.36	7.67	7.61	10.15	10.07
18	2.21	2.14	2.27	.71	3.36	3.29	5.51	5.44	7.74	7.68	10.25	10.16
19	---	---	1.48	.85	3.44	3.36	5.59	5.52	7.82	7.75	10.34	10.26
20	2.37	2.29	1.29	1.10	3.52	3.45	5.66	5.59	7.90	7.82	10.45	10.35
21	2.45	2.37	1.46	1.29	3.59	3.52	5.74	5.67	7.98	7.90	10.54	10.45
22	2.53	2.46	1.63	1.46	3.66	3.59	5.81	5.74	8.05	7.98	---	---
23	2.60	2.53	1.70	1.63	3.73	3.66	5.89	5.81	8.12	8.05	10.72	10.64
24	2.68	2.61	1.77	1.56	3.80	3.73	5.96	5.89	8.19	8.13	10.82	10.73
25	2.76	2.69	1.63	1.20	3.87	3.80	6.03	5.97	8.28	8.20	10.91	10.82
26	2.83	2.76	1.61	1.46	3.94	3.87	6.11	6.03	8.35	8.28	10.99	10.91
27	2.91	2.84	1.69	1.62	4.01	3.90	6.18	6.11	8.43	8.36	11.08	11.00
28	2.99	2.91	1.77	1.69	4.08	4.02	6.25	6.19	8.51	8.44	11.18	11.09
29	3.06	2.99	1.84	1.77	4.15	4.09	6.33	6.25	8.58	8.51	11.28	11.19
30	3.14	3.06	1.91	1.84	4.23	4.16	6.41	6.33	8.67	8.59	11.37	11.28
31	---	---	1.98	1.91	---	---	6.48	6.41	8.75	8.67	---	---
MONTH	---	---	3.46	.41	4.23	1.99	6.48	4.23	---	---	---	---

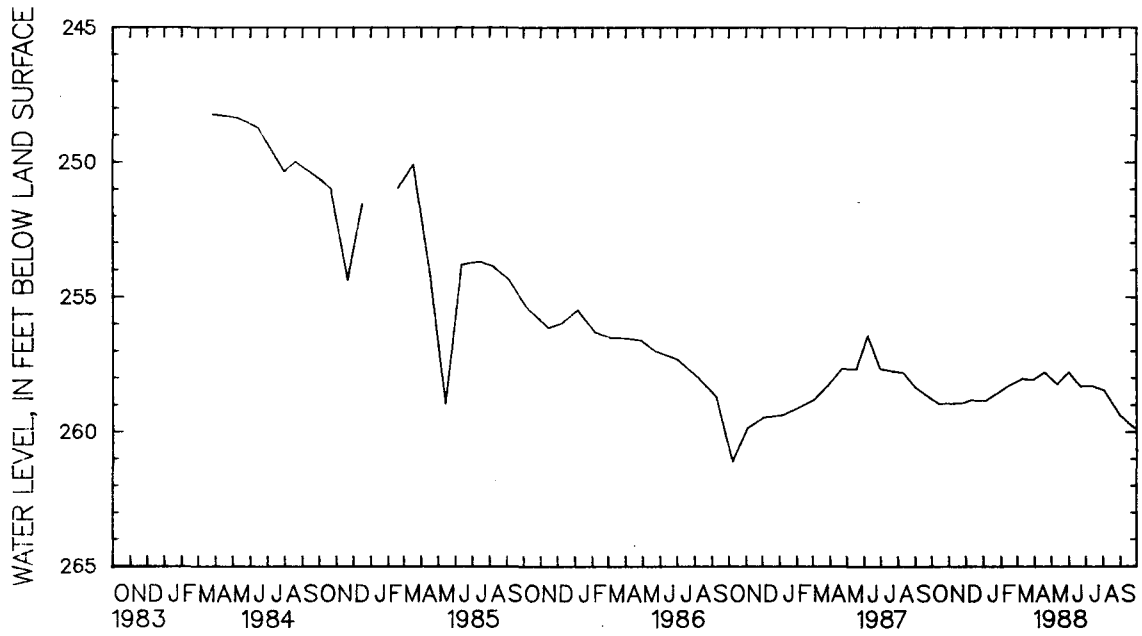


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--GA Fb 28. SITE ID.--391513079243603. PERMIT NUMBER.--GA-73-2183.
LOCATION.--Lat 39°15′13″, long 79°24′36″, Hydrologic Unit 02070002, 3,000 ft west of Wilson.
Owner: U.S. Geological Survey.
AQUIFER.--Conemaugh Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 556 ft; steel casing diameter 4 in. with depth to 57.5 ft; plastic casing diameter 4 in. from 57.5 to 516.5 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval from July 21, 1980 to February 1984.
DATUM.--Elevation of land-surface datum is 2,760 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.95 ft above land-surface datum.
REMARKS.--Water levels affected by coal mining operations.
PERIOD OF RECORD.--April 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 214.18 ft below land-surface datum, July 21, 1980; lowest measured, 261.11 ft below land surface datum, Oct. 7, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	258.97	JAN 5	258.85	MAR 10	258.04	MAY 11	258.23	JUL 13	258.31	SEP 22	259.80
NOV 25	258.94	27	258.55	30	258.07	JUN 1	257.80	AUG 3	258.47		
DEC 10	258.83	FEB 17	258.27	APR 19	257.80	22	258.32	SEP 1	259.41		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--GA Fb 29 SITE ID.--391513079243604. PERMIT NUMBER.--GA-73-2184.
LOCATION.--Lat 39°15′13″, long 79°24′36″, Hydrologic Unit 02070002, 3,000 ft west of Wilson.
Owner: U.S. Geological Survey.
AQUIFER.--Conemaugh Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 360 ft; casing diameter 4 in. with depth to 316 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--60-minute recorder interval.
DATUM.--Elevation of land-surface datum is 2,760 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of shelter floor, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--July 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 249.73 ft below land-surface datum, March 27, 1988; lowest measured, 270.41 ft below land surface datum, May 26, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	250.28	250.17	250.57	250.48	---	---	250.02	249.92	250.11	250.10	250.15	250.04
2	250.30	250.20	250.56	250.43	---	---	250.02	249.94	250.10	249.95	250.15	249.99
3	250.35	250.25	250.50	250.37	---	---	250.01	249.80	250.01	249.89	250.10	249.93
4	250.38	250.24	250.43	250.26	---	---	249.92	249.79	249.89	249.83	250.04	249.89
5	250.31	250.24	250.49	250.23	---	---	250.03	249.90	249.83	249.82	250.07	249.96
6	250.26	250.16	250.52	250.39	---	---	250.07	249.95	249.82	249.82	250.01	249.87
7	250.28	250.12	250.56	250.43	---	---	250.09	249.93	249.88	249.82	249.99	249.89
8	250.37	250.23	250.57	250.46	---	---	249.95	249.85	249.88	249.87	249.95	249.85
9	250.42	250.30	250.54	250.45	---	---	249.98	249.91	249.87	249.87	249.85	249.74
10	250.39	250.30	250.50	250.33	250.10	250.00	250.06	249.99	249.87	249.86	249.86	249.75
11	250.36	250.26	250.35	250.24	250.00	249.92	250.05	250.01	249.86	249.86	249.96	249.85
12	250.30	250.25	250.28	250.25	249.99	249.92	250.03	249.95	249.86	249.85	249.92	249.85
13	250.27	250.25	250.27	250.25	250.19	249.99	250.10	249.92	249.95	249.85	249.90	249.77
14	250.34	250.27	250.34	250.25	250.19	250.15	250.19	250.06	249.95	249.87	249.92	249.77
15	250.34	250.28	250.41	250.34	250.14	249.96	250.17	250.04	249.94	249.85	250.00	249.77
16	250.38	250.29	250.41	250.41	250.09	249.97	250.22	250.04	250.03	249.86	250.04	249.86
17	250.36	250.29	250.41	250.13	250.24	250.07	250.20	250.05	250.13	249.98	250.05	249.91
18	250.42	250.34	250.31	250.14	250.24	250.16	250.22	249.96	250.14	249.98	250.03	249.78
19	250.41	250.33	250.31	250.15	250.22	250.11	250.22	249.93	250.10	249.77	249.91	249.77
20	250.39	250.34	250.21	250.03	250.21	250.09	250.03	249.73	249.87	249.84	250.01	249.76
21	250.46	250.30	250.33	250.09	250.17	250.07	249.89	249.75	250.04	249.90	250.10	249.94
22	250.47	250.38	250.37	250.22	250.14	250.06	249.90	249.80	250.02	249.93	250.11	250.02
23	250.49	250.36	250.38	250.25	250.10	250.05	249.86	249.78	250.02	249.92	250.02	250.00
24	250.54	250.39	250.41	250.29	250.14	250.07	249.90	249.84	250.04	249.97	250.00	249.94
25	250.52	250.41	---	---	250.07	250.00	249.89	249.79	250.04	249.96	249.92	249.86
26	250.50	250.35	---	---	250.00	250.00	250.00	249.77	250.02	249.96	249.86	249.76
27	250.39	250.35	---	---	250.00	249.99	250.11	249.97	250.08	249.85	249.91	249.73
28	250.38	250.36	---	---	249.99	249.84	250.12	250.10	250.08	249.99	249.94	249.88
29	250.43	250.36	---	---	250.02	249.78	250.12	250.12	250.15	249.97	249.94	249.82
30	250.45	250.36	---	---	250.05	249.99	250.12	250.11	---	---	249.98	249.82
31	250.56	250.40	---	---	250.05	249.93	250.11	250.11	---	---	250.00	249.94
MONTH	250.56	250.12	---	---	---	---	250.22	249.73	250.15	249.77	250.15	249.73

GROUND-WATER LEVELS

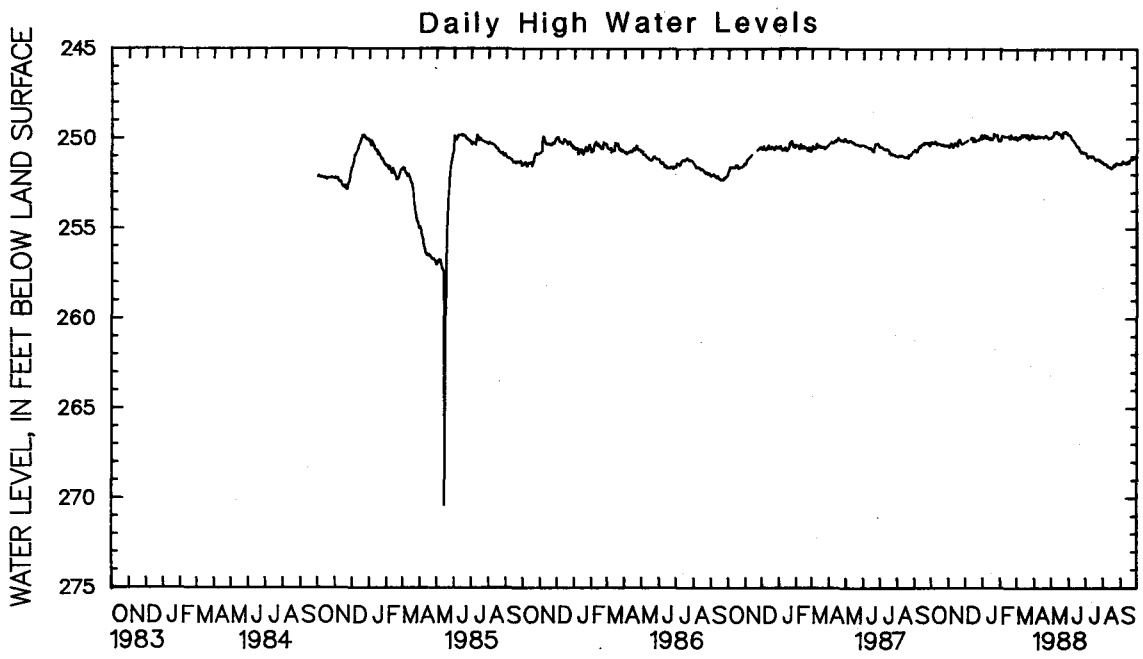
MARYLAND--Continued

GARRETT COUNTY--Continued

GA Fb 29--Continued

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	249.97	249.93	249.99	249.88	249.93	249.75	251.00	250.81	251.41	251.33	251.51	251.44
2	250.01	249.92	249.99	249.88	249.94	249.78	251.01	250.84	251.44	251.40	251.51	251.43
3	249.98	249.88	249.95	249.82	249.99	249.78	251.04	250.87	251.45	251.42	251.43	251.39
4	249.96	249.88	249.93	249.78	250.07	249.88	251.11	250.96	251.48	251.42	251.38	251.26
5	250.02	249.92	249.83	249.64	250.10	249.98	251.12	251.05	251.47	251.41	251.27	251.25
6	249.97	249.83	249.72	249.61	250.13	250.03	251.12	251.03	251.49	251.41	251.36	251.25
7	249.86	249.82	249.71	249.60	250.13	250.07	251.09	251.00	251.57	251.43	251.40	251.32
8	249.93	249.86	249.71	249.63	250.15	250.08	251.08	250.96	251.64	251.49	251.40	251.35
9	249.93	249.89	249.64	249.61	250.18	250.09	251.08	250.94	251.64	251.56	251.36	251.33
10	249.92	249.89	249.66	249.58	250.33	250.18	251.13	250.99	251.66	251.56	251.39	251.33
11	249.91	249.85	249.81	249.60	250.39	250.22	251.18	251.01	251.66	251.56	251.45	251.39
12	249.91	249.86	249.88	249.72	250.41	250.27	251.12	250.97	251.65	251.56	251.46	251.40
13	249.93	249.86	249.87	249.67	250.51	250.32	251.13	250.97	251.67	251.57	251.40	251.28
14	249.94	249.85	249.91	249.72	250.56	250.41	251.12	250.96	251.69	251.62	251.30	251.26
15	249.94	249.89	249.91	249.71	250.54	250.42	251.16	251.00	251.68	251.65	251.31	251.28
16	250.02	249.92	249.90	249.73	250.51	250.43	251.19	251.05	251.68	251.65	251.37	251.33
17	250.03	249.89	249.93	249.77	250.52	250.44	251.20	251.10	251.68	251.63	251.35	251.24
18	249.92	249.86	249.92	249.92	250.63	250.50	251.24	251.17	251.63	251.63	251.25	251.22
19	---	---	249.92	249.92	250.68	250.63	251.23	251.20	251.64	251.50	251.22	251.18
20	249.92	249.81	249.92	249.92	250.71	250.68	251.23	251.17	251.51	251.44	251.22	251.15
21	249.89	249.79	249.92	249.63	250.73	250.71	251.19	251.14	251.53	251.44	251.25	251.15
22	249.94	249.88	249.71	249.63	250.74	250.73	251.20	251.15	251.64	251.51	251.28	251.14
23	249.94	249.90	249.68	249.64	250.79	250.71	251.22	251.14	251.62	251.42	251.20	251.11
24	250.00	249.89	249.68	249.62	250.86	250.78	251.28	251.15	251.48	251.36	251.22	251.11
25	250.00	249.97	249.71	249.58	250.86	250.75	251.33	251.22	251.44	251.35	251.15	251.07
26	250.00	249.95	249.77	249.65	250.84	250.73	251.31	251.20	251.47	251.35	251.15	251.07
27	249.97	249.93	249.80	249.65	250.98	250.79	251.32	251.20	251.50	251.39	251.14	251.04
28	249.98	249.94	249.82	249.64	251.02	250.78	251.41	251.22	251.55	251.42	251.11	251.03
29	249.97	249.94	249.87	249.70	250.98	250.78	251.43	251.31	251.52	251.40	251.11	251.06
30	250.01	249.90	249.94	249.76	250.96	250.78	251.37	251.28	251.46	251.40	251.08	251.06
31	---	---	249.96	249.76	---	---	251.37	251.29	251.46	251.41	---	---
MONTH	---	---	249.99	249.58	251.02	249.75	251.43	250.81	251.69	251.33	251.51	251.03



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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, 3,000 ft west of Wilson.
Owner: U.S. Geological Survey.
AQUIFER.--Conemaugh Formation.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 85 ft; casing diameter 4 in. with depth to 82 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water-level recorder--60-minute recorder interval.
DATUM.--Elevation of land-surface datum is 2,760 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of shelter floor, 2.0 ft above land-surface datum.
REMARKS.--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 datum, April 16, 1981; lowest measured, 36.43 ft below land surface datum, October 16, 17, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	35.55	35.38	36.06	35.93	35.36	35.28	34.86	34.76	35.21	35.08	35.40	35.32
2	35.61	35.45	35.95	35.87	35.55	35.39	34.88	34.76	35.17	35.02	35.31	35.22
3	35.69	35.62	35.90	35.82	35.50	35.13	34.74	34.50	35.16	34.81	35.24	35.08
4	35.68	35.58	35.86	35.79	35.45	35.13	34.70	34.46	34.90	34.70	35.29	35.01
5	35.58	35.43	36.07	35.80	35.50	35.41	34.92	34.72	34.85	34.72	35.33	35.09
6	35.45	35.39	36.13	36.04	35.55	35.49	35.13	34.93	34.78	34.66	35.07	34.84
7	35.66	35.40	36.06	36.00	35.48	35.39	35.16	34.95	34.79	34.55	35.00	34.85
8	35.86	35.66	36.07	35.98	35.38	35.21	35.03	34.89	34.75	34.59	34.99	34.76
9	35.86	35.73	36.05	35.96	35.20	35.02	35.28	35.04	34.81	34.69	34.74	34.53
10	35.75	35.61	36.02	35.92	35.10	34.95	35.42	35.28	34.96	34.81	34.92	34.56
11	35.61	35.41	35.97	35.91	34.97	34.79	35.41	35.36	34.97	34.75	35.08	34.94
12	35.55	35.47	35.96	35.85	35.11	34.82	35.41	35.22	34.80	34.63	34.97	34.80
13	35.72	35.55	35.88	35.78	35.37	35.12	35.58	35.22	35.20	34.80	34.97	34.82
14	35.76	35.67	35.88	35.83	35.36	35.10	35.74	35.59	35.30	35.07	35.01	34.92
15	35.70	35.62	35.90	35.77	35.08	34.67	35.61	35.50	35.08	34.97	35.27	35.00
16	35.68	35.60	35.76	35.57	35.18	34.92	35.62	35.55	35.44	35.09	35.35	35.27
17	35.63	35.53	35.56	35.41	35.40	35.19	35.60	35.41	35.49	35.40	35.41	35.31
18	35.70	35.63	35.73	35.50	35.44	35.23	35.64	35.39	35.46	35.38	35.30	35.07
19	35.69	35.63	35.71	35.39	35.28	35.17	35.64	35.31	35.35	34.92	35.08	35.04
20	35.68	35.64	35.49	35.34	35.16	35.00	35.29	35.04	35.15	34.94	35.39	35.00
21	35.83	35.66	35.69	35.49	35.21	35.09	35.07	35.00	35.40	35.17	35.54	35.37
22	35.93	35.78	35.71	35.60	35.07	34.83	34.98	34.85	35.36	35.12	35.55	35.46
23	35.86	35.77	35.63	35.55	35.18	34.97	34.84	34.75	35.24	35.09	35.45	35.27
24	35.87	35.72	35.70	35.58	35.12	34.97	34.88	34.76	35.29	35.24	35.27	35.11
25	35.86	35.76	35.58	35.49	34.99	34.88	34.88	34.66	35.26	35.17	35.10	34.87
26	35.78	35.67	35.60	35.53	35.00	34.86	35.18	34.67	35.26	35.03	34.94	34.67
27	35.78	35.64	35.61	35.55	34.95	34.76	35.30	35.18	35.27	34.95	34.99	34.75
28	35.91	35.77	35.54	35.43	34.75	34.46	35.36	35.27	35.31	35.18	35.09	34.95
29	35.97	35.88	35.41	35.26	34.96	34.42	35.34	35.22	35.33	35.16	34.94	34.77
30	35.99	35.89	35.35	35.29	34.98	34.89	35.29	35.21	---	---	34.95	34.78
31	36.12	35.99	---	---	34.87	34.73	35.32	35.21	---	---	34.97	34.90
MONTH	36.12	35.38	36.13	35.26	35.55	34.42	35.74	34.46	35.49	34.55	35.55	34.53

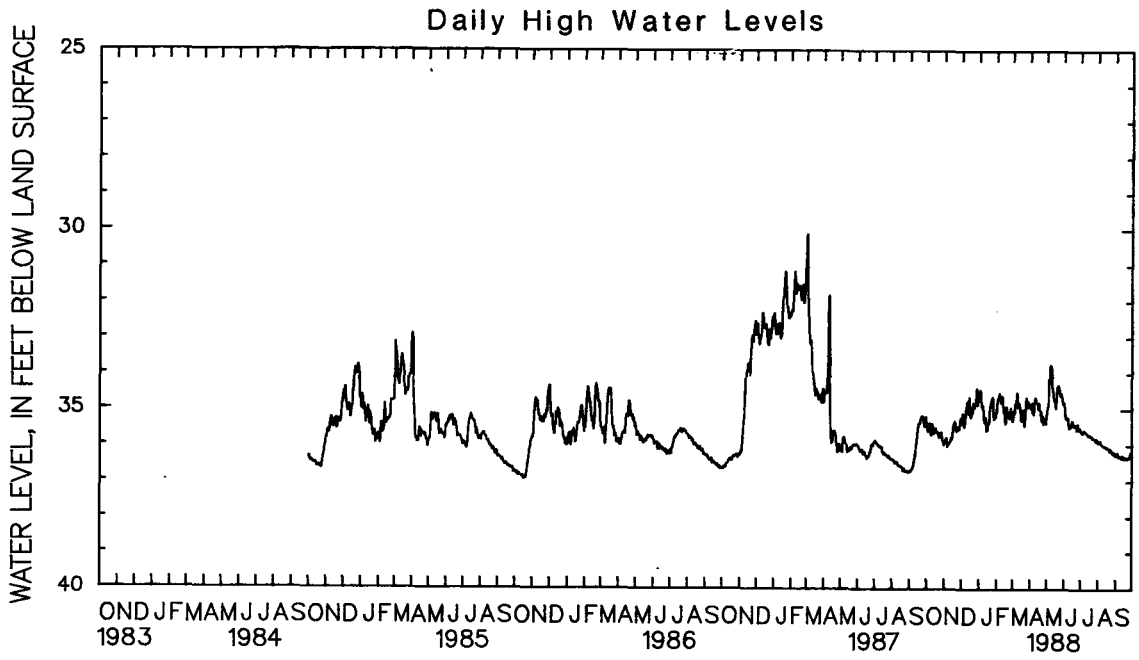
GROUND-WATER LEVELS

MARYLAND--Continued

GARRETT COUNTY--Continued

GA Fb 30--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	34.96	34.89	35.38	35.16	34.88	34.79	35.66	35.59	35.96	35.91	36.33	36.28
2	35.00	34.95	35.15	35.10	34.97	34.82	35.67	35.61	35.99	35.92	36.30	36.23
3	34.97	34.86	35.09	34.96	35.17	34.93	35.66	35.61	35.97	35.92	36.27	36.22
4	35.07	34.86	34.96	34.91	35.33	35.17	35.72	35.65	35.97	35.91	36.26	36.19
5	35.19	35.08	34.90	34.74	35.34	35.25	35.73	35.65	35.97	35.87	36.37	36.24
6	35.12	34.81	34.73	34.15	35.34	35.26	35.70	35.59	35.98	35.93	36.37	36.31
7	35.18	34.87	34.11	33.76	35.30	35.22	35.66	35.58	36.01	35.96	36.37	36.31
8	35.24	35.14	33.81	33.74	35.29	35.24	35.65	35.58	36.03	35.98	36.34	36.29
9	35.11	34.98	33.89	33.77	35.53	35.23	35.65	35.59	36.03	35.98	36.34	36.31
10	34.97	34.76	34.10	33.88	35.59	35.51	35.68	35.63	36.07	35.99	36.38	36.34
11	34.75	34.66	34.44	34.12	35.55	35.47	35.69	35.64	36.08	36.01	36.38	36.34
12	34.78	34.69	34.55	34.45	35.51	35.44	35.74	35.66	36.09	36.03	36.35	36.29
13	34.85	34.76	34.63	34.53	35.54	35.48	35.75	35.68	36.09	36.03	36.35	36.29
14	34.86	34.80	34.77	34.64	35.53	35.44	35.74	35.68	36.08	36.02	36.38	36.34
15	35.01	34.85	34.78	34.73	35.45	35.35	35.79	35.72	36.11	36.03	36.42	36.37
16	35.12	34.98	34.86	34.73	35.36	35.30	35.80	35.71	36.12	36.07	36.40	36.34
17	35.12	34.87	35.04	34.87	35.45	35.32	35.81	35.71	36.13	36.04	36.36	36.32
18	35.10	34.82	35.04	34.97	35.51	35.45	35.81	35.71	36.14	36.07	36.39	36.33
19	---	---	34.97	34.77	35.52	35.46	35.82	35.74	36.13	36.08	36.37	36.33
20	35.32	35.12	34.75	34.51	35.51	35.42	35.81	35.75	36.16	36.09	36.39	36.34
21	35.30	35.05	34.50	34.37	35.46	35.43	35.83	35.74	36.22	36.15	36.41	36.37
22	35.37	35.31	34.41	34.34	35.48	35.41	35.85	35.79	36.22	36.16	36.39	36.34
23	35.38	35.16	34.41	34.32	35.60	35.42	35.84	35.78	36.17	36.09	36.43	36.34
24	35.47	35.18	34.47	34.40	35.62	35.56	35.86	35.80	36.17	36.12	36.42	36.35
25	35.48	35.40	34.67	34.46	35.56	35.41	35.86	35.80	36.21	36.15	36.37	36.33
26	35.41	35.32	34.67	34.61	35.55	35.39	35.87	35.80	36.27	36.20	36.35	36.28
27	35.40	35.27	34.64	34.55	35.60	35.56	35.90	35.84	36.26	36.22	36.29	36.22
28	35.41	35.31	34.61	34.54	35.60	35.54	35.94	35.88	36.28	36.22	36.25	36.20
29	35.42	35.36	34.73	34.61	35.55	35.51	35.93	35.87	36.27	36.18	36.23	36.15
30	35.49	35.39	34.85	34.73	35.60	35.52	35.89	35.82	36.28	36.24	36.16	36.10
31	---	---	34.89	34.84	---	---	35.92	35.83	36.32	36.27	---	---
MONTH	---	---	35.38	33.74	35.62	34.79	35.94	35.58	36.32	35.87	36.43	36.10



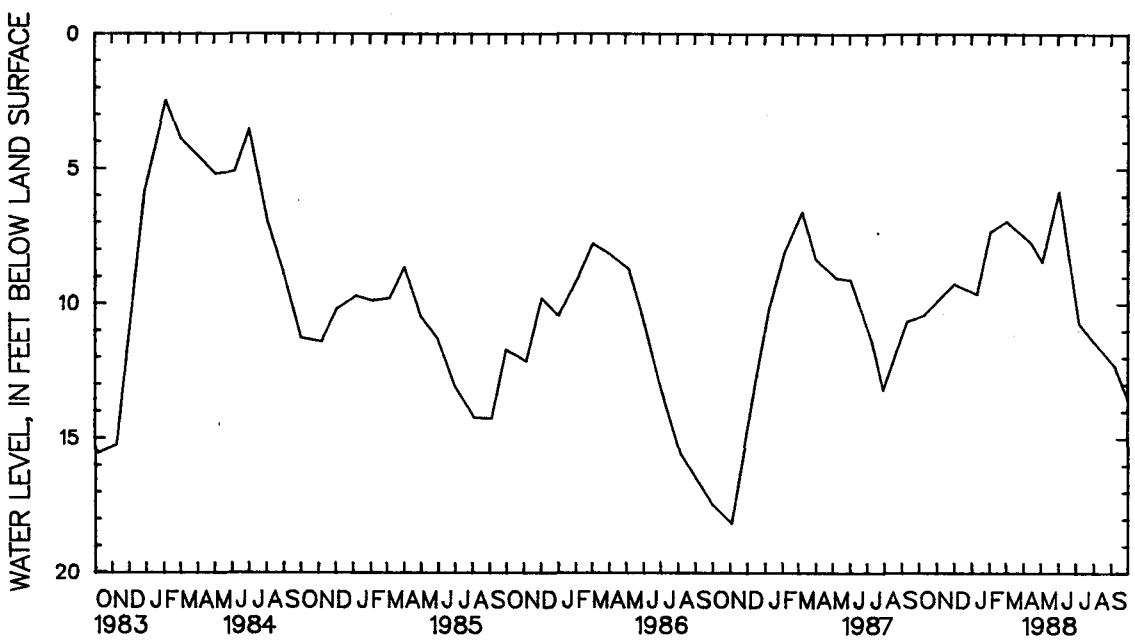
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Dug stone-lined water-table well, measured depth 25.9 ft; diameter 36 in. (?)
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder July 9, 1954 to Aug. 5, 1958.
DATUM.--Elevation of land-surface datum is 460 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of wood floor, .1 ft above land-surface datum.
PERIOD OF RECORD.--May 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.00 ft below land-surface datum, Mar. 8, 1979; lowest measured, 19.59 ft below land-surface datum, Feb. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	10.43	JAN 10	9.65	MAR 2	6.96	MAY 4	8.46	JUL 7	10.76	SEP 7	12.33
DEC 1	9.26	FEB 3	7.34	APR 13	7.74	JUN 2	5.84	AUG 1	11.42		

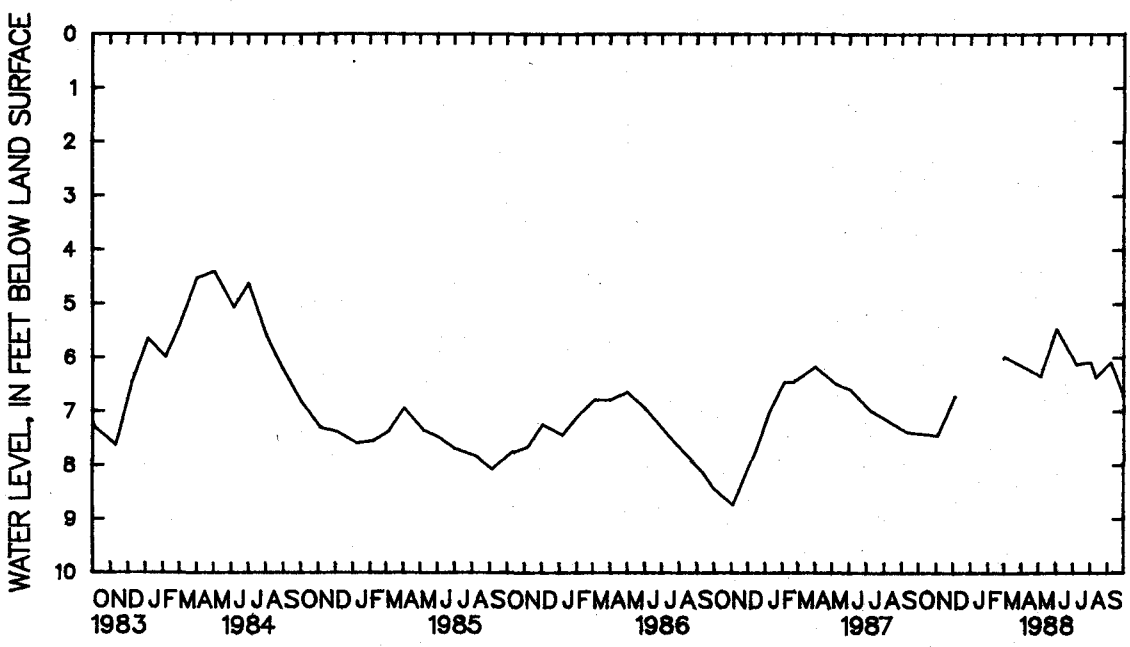


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--HA Ca 23. SITE ID.--393158076302601.
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.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 200 ft; casing diameter 6 in. with depth to 24 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder July 10, 1974 to Sept. 13, 1976.
DATUM.--Elevation of land-surface datum is 470 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.6 ft above land-surface datum.
PERIOD OF RECORD.--July 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.59 ft below land-surface datum, Sept. 27, 1975; lowest measured, 9.03 ft below land-surface datum, Dec. 15, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 3	7.46	MAR 2	5.99	MAY 5	6.35	JUL 7	6.13	AUG 11	6.38
DEC 4	6.73	APR 13	6.22	JUN 2	5.46	AUG 2	6.09	SEP 7	6.09

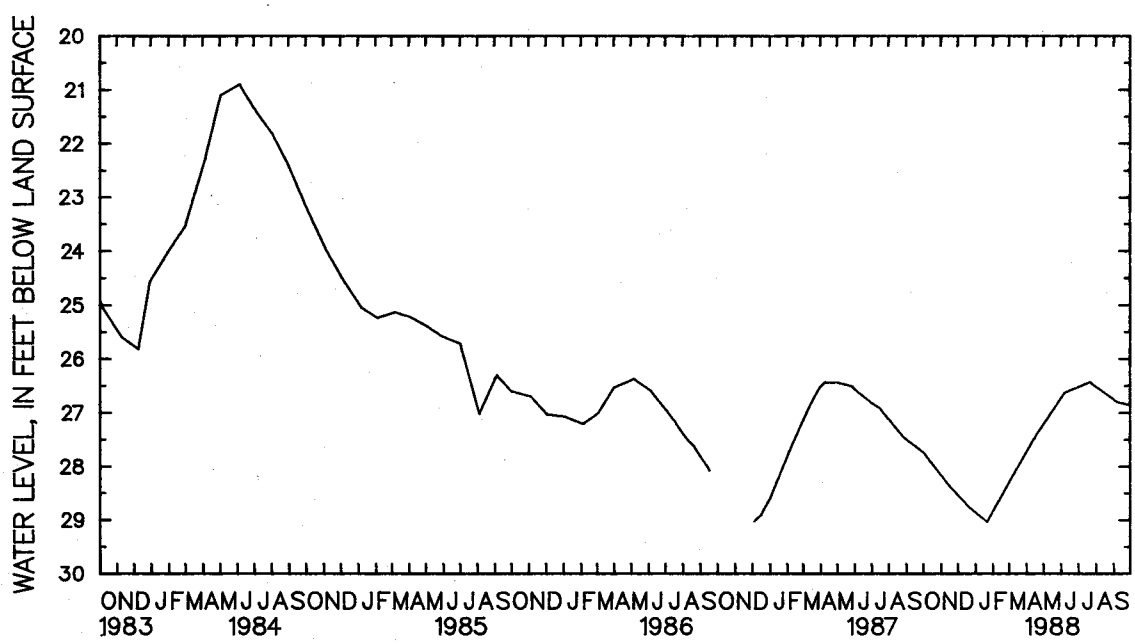


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 135 ft; casing diameter 4 in. with depth to 45 ft; screen diameter 4 in. from 45 to 66 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--60-minute recorder interval.
DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.6 ft above land-surface datum.
PERIOD OF RECORD.--October 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.31 ft below land-surface datum, July 28, 1975; lowest measured, 29.04 ft below land-surface datum, Jan. 22, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	27.74	DEC 22	28.78	MAR 8	28.16	JUN 7	26.63	SEP 7	26.80
NOV 13	28.33	JAN 22	29.04	APR 14	27.49	JUL 21	26.43		

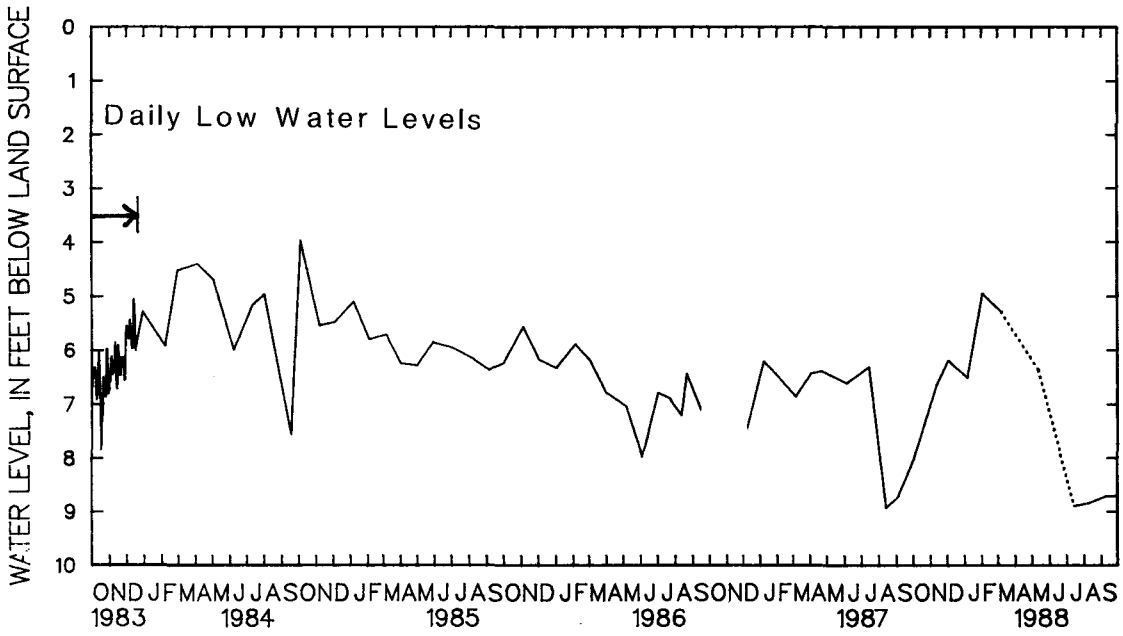


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--HA Ec 11. SITE ID.--392433076203301. PERMIT NUMBER.--HA-04-7211.
LOCATION.--Lat 39°24′33″, long 76°20′33″, Hydrologic Unit 02060003, off Trimble Rd., Joppatowne.
Owner: Joppatowne Utilities Corp.
AQUIFER.--Patuxent Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 68 ft; diameter of casing 6 in. with depth to 63 ft; screen diameter 2 in. from 63 to 68 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder May 23, 1962 to Dec. 17, 1983.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.5 ft above land-surface datum.
PERIOD OF RECORD.--May 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .13 ft at land-surface datum, May 24, 1962; lowest measured, 12.80 ft below land-surface datum, May 26, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	8.03	DEC 3	6.19	FEB 3	4.94	MAY 12	6.37	AUG 8	8.85
NOV 12	6.64	JAN 6	6.51	MAR 7	5.28	JUL 14	8.90	SEP 9	8.72

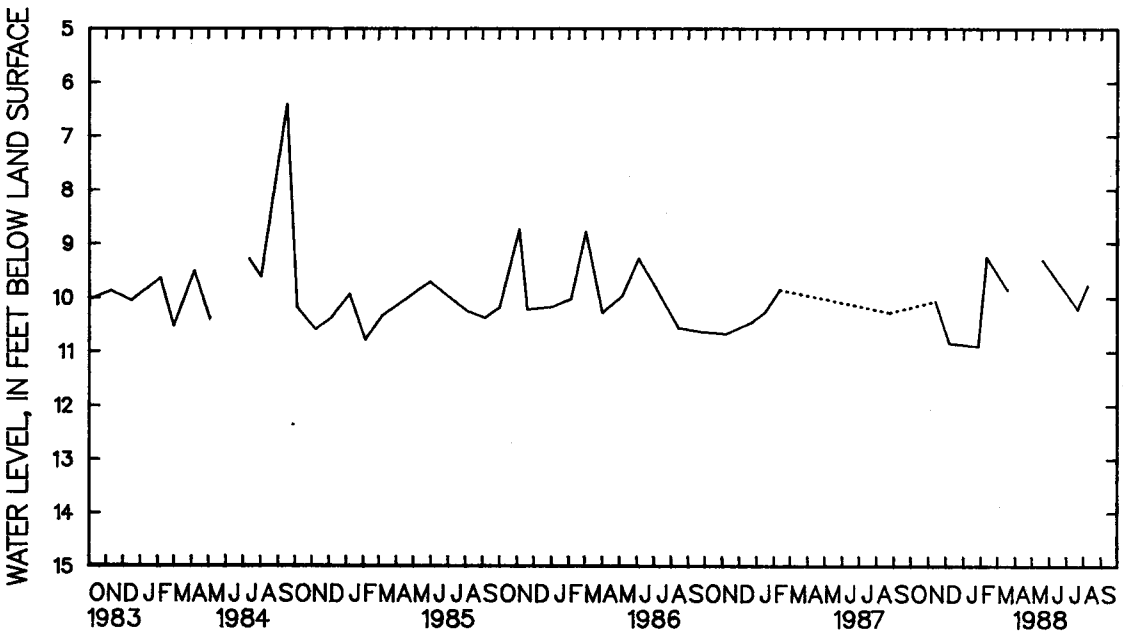


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 149 ft; casing diameter 18 in. with depth to 73 ft; casing diameter 10 in. from 65 to 120 ft; screen diameter 10 in. from 120 to 135 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder Jan. 24, 1950, to June 6, 1961.
DATUM.--Elevation of land-surface datum is 12.8 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.15 ft above land-surface datum.
REMARKS.--Water level measured, 8.24 ft below land-surface datum, Apr. 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 datum, Sept. 17, 1984; lowest measured, 42.55 ft below land-surface datum, June 26, 1955.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 13	10.07	JAN 27	10.91	MAR 18	9.86	JUL 21	10.22
DEC 7	10.85	FEB 11	9.25	MAY 20	9.31	AUG 8	9.78



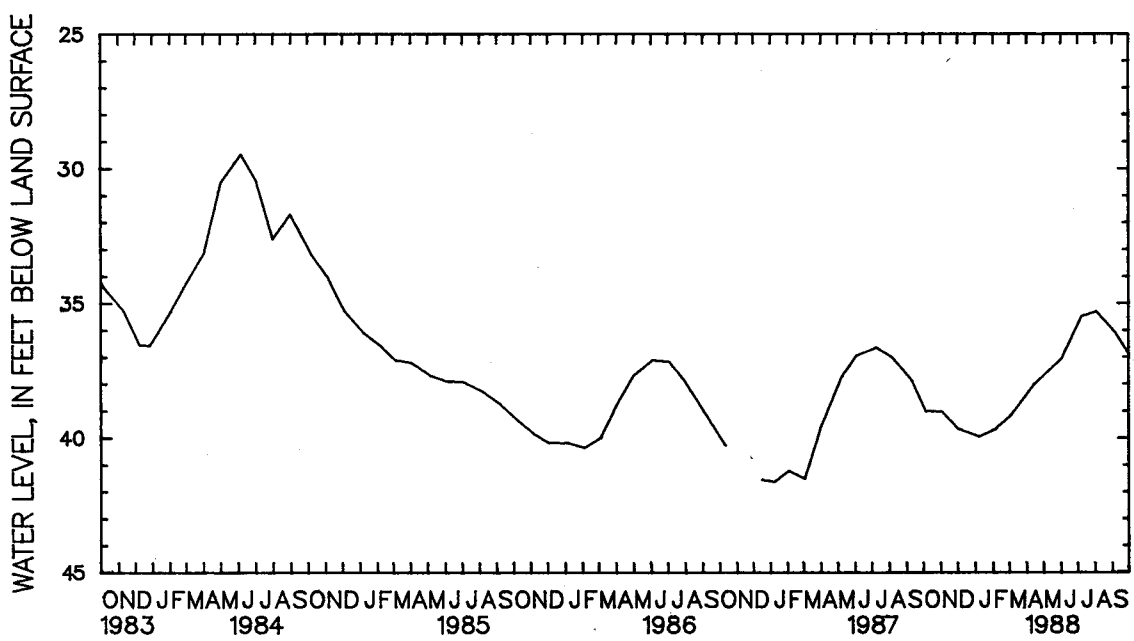
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 Rts. 32 and 99.
Owner: Maryland State Highway Administration.
AQUIFER.--Loch Raven Schist.
WELL CHARACTERISTICS.--Dug stone-lined water-table observation well, diameter 60 in., measured depth 48 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 630 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Hole in center of steel plate well cover, .4 ft above land-surface datum.
PERIOD OF RECORD.--October 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 27.76 ft below land-surface datum, July 3, 1972; lowest measured, 46.88 ft below land-surface datum, Sept. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	39.04	DEC 2	39.69	FEB 4	39.71	APR 14	38.02	JUL 8	35.49	SEP 6	36.09
NOV 3	39.05	JAN 7	39.98	MAR 3	39.20	JUN 2	37.06	AUG 3	35.30		



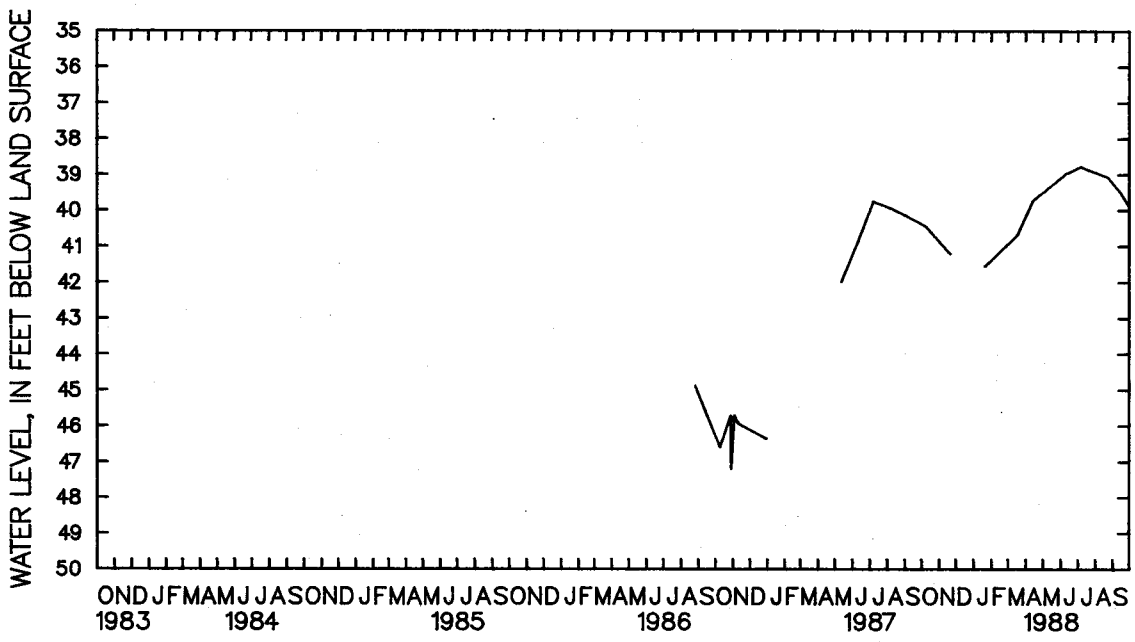
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

HOWARD COUNTY--Continued

WELL NUMBER.--HO Cd 25. SITE ID.--391444076554701. PERMIT NUMBER.--HO-81-1578.
LOCATION.--Lat 39°14'44", long 76°55'47", Hydrologic Unit 02060006, south of Homewood Rd at the University of Maryland Central Farm.
Owner: U.S. Geological Survey.
AQUIFER.--Wissahickon Formation.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 100 ft; casing diameter 6 in. with depth to 58 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 470.9 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.37 ft above land-surface datum.
PERIOD OF RECORD.--August 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.78 ft below land-surface datum, July 6, 1988; lowest measured, 47.21 ft below land surface datum, Oct. 29, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	40.45	JAN 21	41.56	APR 14	39.72	JUL 6	38.78	SEP 14	39.48
NOV 19	41.19	MAR 17	40.69	JUN 10	38.97	AUG 23	39.07		

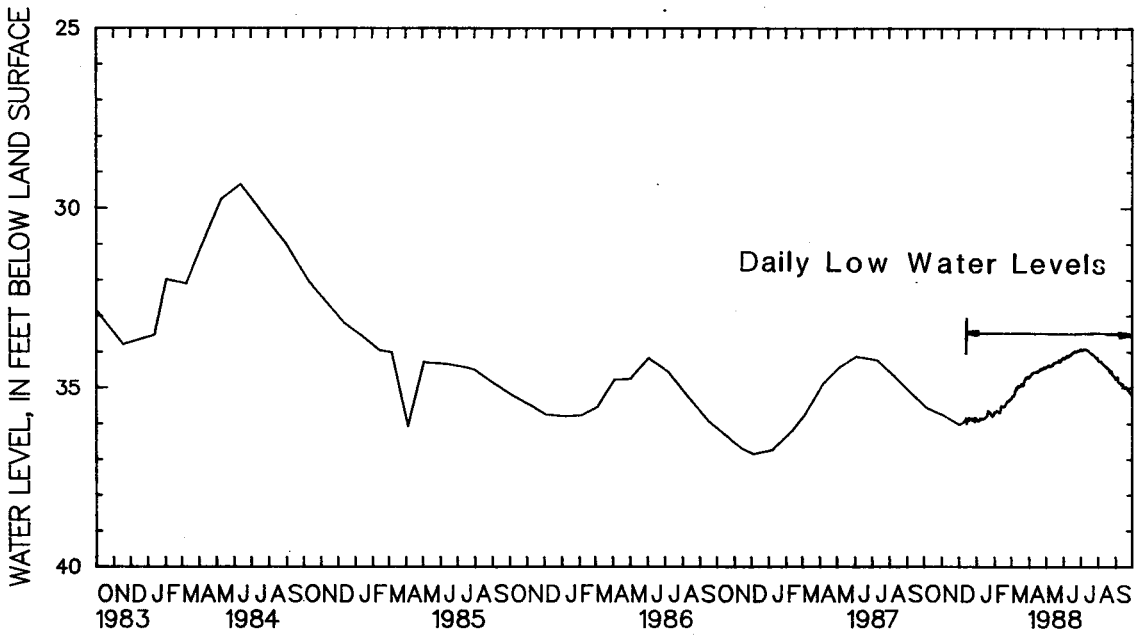


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.--Wissahickon Formation (oligoclase).
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 125 ft; casing diameter 6 in. with depth to 51.4 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water level recorder Dec. 9, 1987 to current year.
DATUM.--Elevation of land-surface datum is 430 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.8 ft above land-surface datum.
PERIOD OF RECORD.--May 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.84 ft below land-surface datum, May 5, 1972; lowest measured, 36.87 ft below land-surface datum, Dec. 5, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	35.91	35.72	35.32	34.73	34.45	34.16	33.95	34.22	34.77
2	---	---	36.04	35.88	35.69	35.31	34.72	34.42	34.18	33.92	34.26	34.77
3	---	35.77	---	35.92	35.68	35.26	34.71	34.42	34.18	33.93	34.27	34.75
4	---	---	---	35.95	35.68	35.23	34.66	34.41	34.17	33.96	34.27	34.70
5	35.55	---	---	35.91	35.65	35.24	34.64	34.39	34.16	33.96	34.26	34.81
6	---	---	---	35.90	35.66	35.23	34.64	34.37	34.14	33.95	34.26	34.84
7	---	---	---	35.91	35.67	35.19	34.59	34.41	34.11	33.93	34.29	34.87
8	35.59	---	---	35.87	35.68	35.11	34.59	34.42	34.14	33.93	34.31	34.88
9	---	---	35.99	35.87	35.69	35.07	---	34.40	34.11	33.92	34.33	34.86
10	---	---	35.95	35.88	35.70	35.01	---	34.39	34.13	33.92	34.35	34.89
11	---	---	35.95	35.88	35.70	35.04	---	34.38	34.12	33.93	34.36	34.92
12	---	---	35.95	35.86	---	35.02	---	34.39	34.09	33.94	34.38	34.93
13	---	---	35.90	35.87	35.52	34.96	---	34.37	34.09	33.95	34.40	34.90
14	---	---	35.86	35.88	35.54	34.94	---	34.34	34.09	33.95	34.40	34.94
15	---	---	36.02	35.87	35.52	34.98	34.55	34.33	34.06	33.97	34.41	34.99
16	---	---	35.96	35.85	35.52	---	34.57	34.31	34.04	33.98	34.44	35.01
17	---	---	35.94	35.83	35.53	---	34.57	34.31	34.02	34.00	34.44	34.99
18	---	---	35.88	35.80	35.53	34.96	34.54	34.29	34.02	34.02	34.46	34.97
19	---	---	35.85	35.80	35.52	34.89	34.54	34.29	34.02	34.03	34.47	34.99
20	---	---	35.91	35.78	---	34.92	34.53	34.29	34.00	34.04	34.47	34.99
21	---	---	35.88	35.66	---	34.94	34.48	34.28	33.98	34.04	34.56	35.02
22	---	---	35.88	35.66	---	34.94	34.51	34.27	33.97	34.07	34.59	35.06
23	---	---	35.87	---	35.40	34.92	34.49	34.26	34.00	34.07	34.59	35.04
24	---	---	35.88	---	35.38	34.84	34.47	34.23	34.01	34.09	34.53	35.10
25	---	---	35.92	35.70	35.38	34.80	34.48	34.28	33.99	34.10	34.57	35.12
26	---	---	35.92	35.75	35.38	34.76	34.46	34.28	33.97	34.12	34.63	35.14
27	---	---	35.87	35.78	35.35	34.72	34.44	34.26	33.97	34.15	34.66	35.16
28	---	---	35.94	35.80	35.33	34.73	34.43	34.23	33.97	34.16	34.66	35.16
29	---	---	35.96	35.81	35.32	34.72	34.42	34.20	33.95	34.17	34.68	35.21
30	---	---	35.85	35.78	---	34.69	34.45	34.20	33.94	34.16	34.71	35.21
31	---	---	35.89	35.74	---	34.73	---	34.18	---	34.16	34.74	---
MAX	---	---	---	35.95	35.72	35.32	34.73	34.45	34.18	34.17	34.74	35.21
MIN	---	---	35.85	---	35.32	34.69	34.42	34.18	33.94	33.92	34.22	34.70



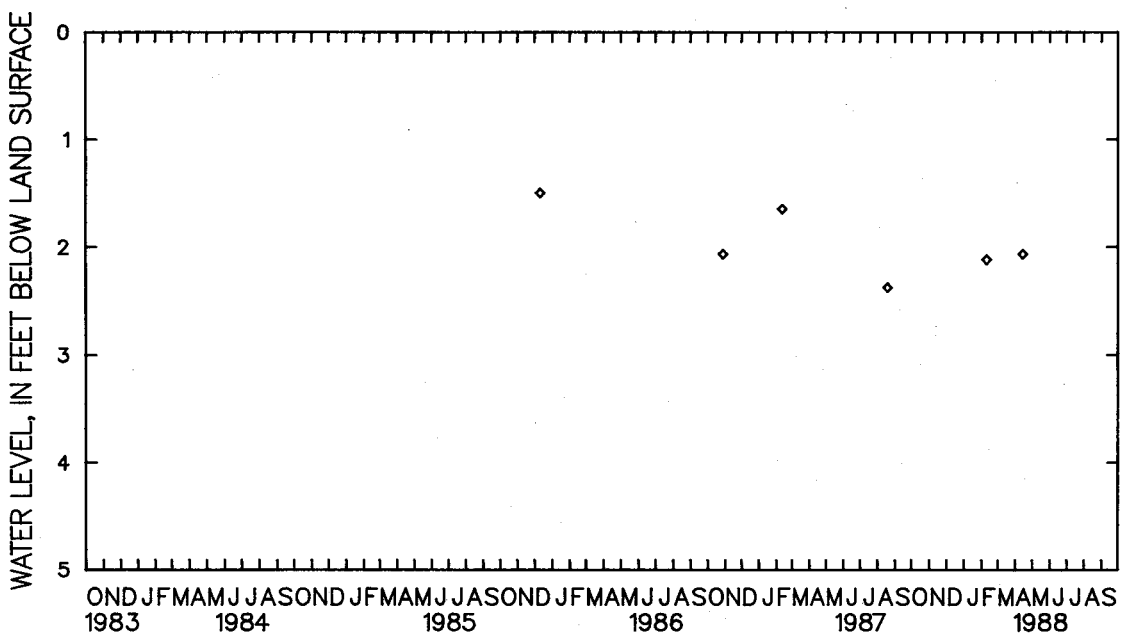
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

KENT COUNTY

WELL NUMBER.--KE Ac 20. SITE ID.--392007076075501. PERMIT NUMBER.--KE-73-0658.
LOCATION.--Lat 39°20'07", long 76°07'50", Hydrologic Unit 02060001, at U.S. Coast Guard Station at end of Still Pond Neck Rd.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 582 ft; casing diameter 10 in. with depth to 73 ft; casing diameter 4 in. from -2 to 550 ft and 560 to 582 ft; screen diameter 4 in. from 550 to 560 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 7 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 4.18 ft above land-surface datum.
REMARKS.--Measured twice yearly beginning October 1986.
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 datum, Apr. 13, 1978, May 5, 1978, Dec. 11, 1985; lowest measured, 2.70 ft below land surface datum, Mar. 7, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 10	2.12	APR 14	2.07

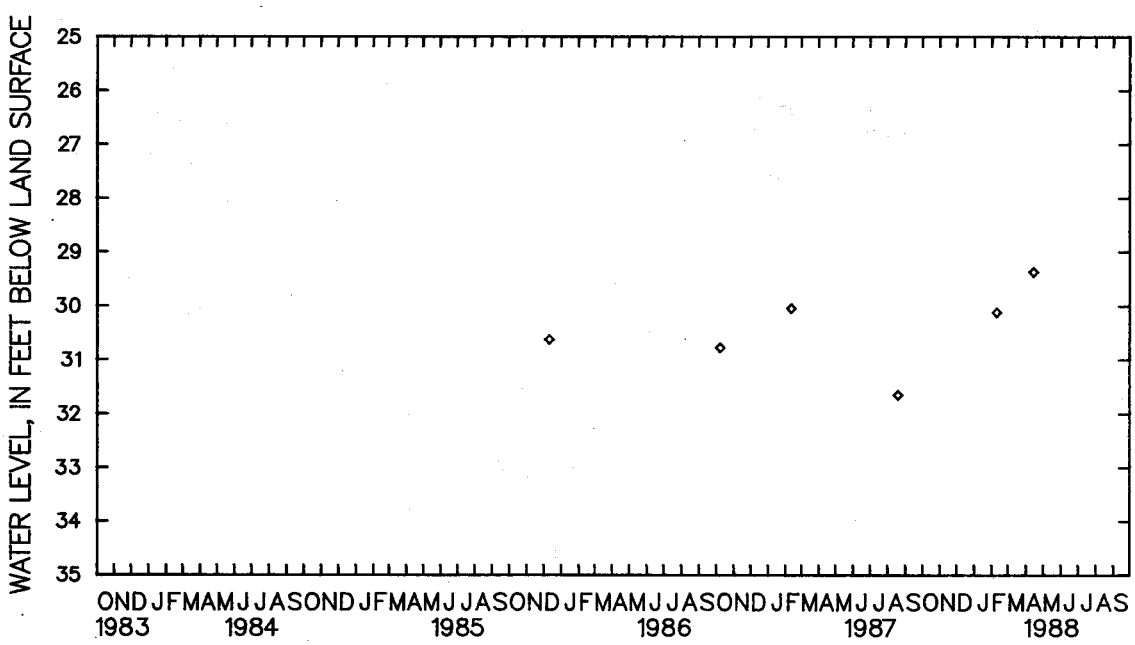


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--KE Be 43. SITE ID.--391823075594701. PERMIT NUMBER.--KE-73-0659.
LOCATION.--Lat 39°18′23″, long 75°59′47″, Hydrologic Unit 02060002, at Kennedyville.
Owner: U.S. Geological Survey.
AQUIFER.--Magothy Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 297 ft; casing diameter 10 in. with depth to 171 ft; casing diameter 4 in. from -2 to 275 ft and 285 to 297 ft; screen diameter 4 in. from 275 to 285 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.5 ft above land-surface datum.
REMARKS.--Measured twice yearly beginning October 1986.
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 datum, Jun. 5, 1979; lowest measured, 31.66 ft below land surface datum, Aug. 19, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 10	30.12	APR 14	29.37

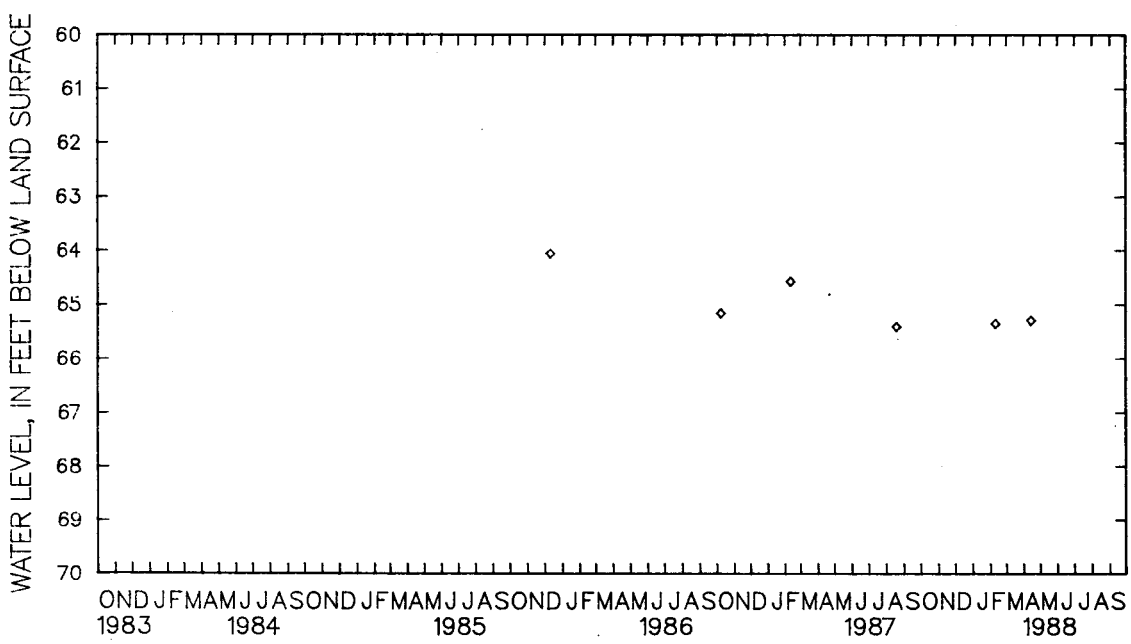


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 705 ft; casing diameter 4 in. with depth to 695 ft; screen diameter 4 in. from 695 to 705 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.5 ft above land-surface datum.
REMARKS.--Measured twice yearly beginning October 1986.
PERIOD OF RECORD.--March 1979 to July 1979, December 1985, October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.62 ft below land-surface datum, Jun. 5, 1979; lowest measured, 65.42 ft below land surface datum, Aug. 19, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 10	65.36	APR 14	65.30



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

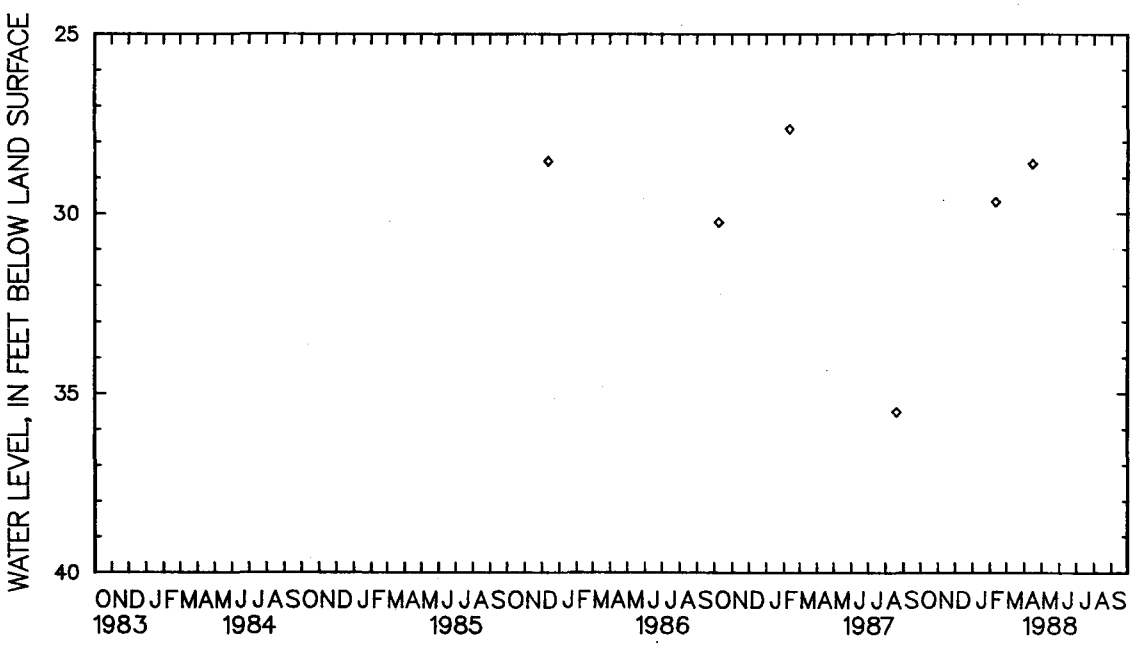
MARYLAND--Continued

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 State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 186 ft; casing diameter 6 in. with depth to 125 ft; screen diameter 6 in. from 125 to 186 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 3.2 ft above land-surface datum.
REMARKS.--Measured twice yearly beginning October 1986.
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 datum, Apr. 11, 1979; lowest measured, 35.54 ft below land surface datum, Aug. 19, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 10	29.67	APR 14	28.61

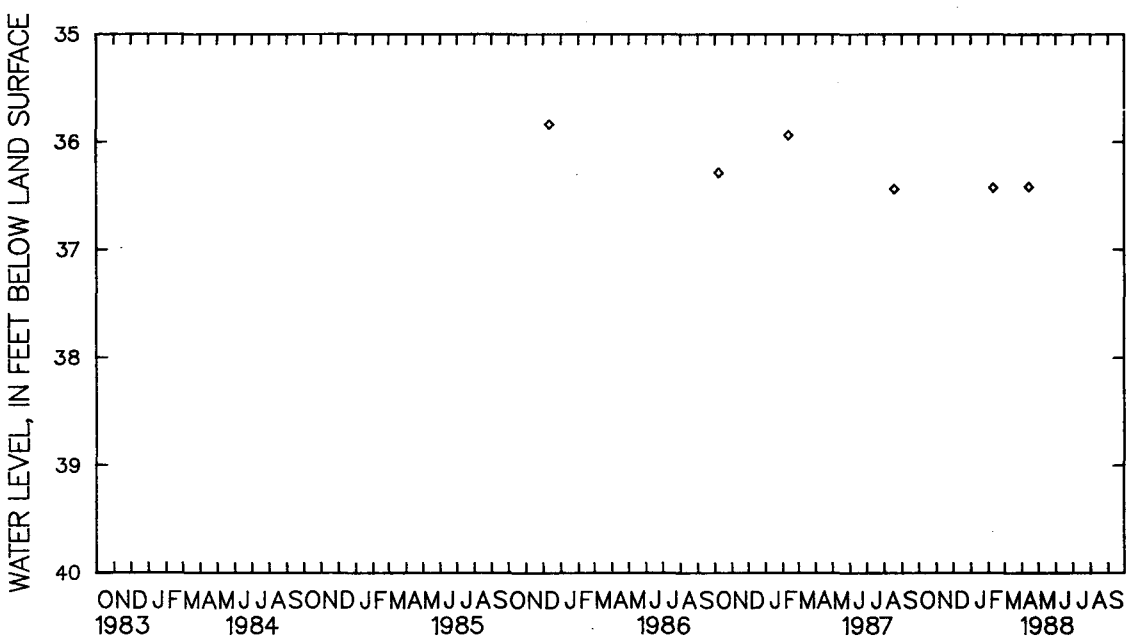


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 650 ft; casing diameter 10 in. with depth to 114 ft; casing diameter 4 in. from -2 to 595 ft and 605 to 650 ft; screen diameter 4 in. from 595 to 605 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 4.15 ft above land-surface datum.
REMARKS.--Measured twice yearly beginning October 1986.
PERIOD OF RECORD.--June 1978 to July 1979, December 1985, October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.72 ft below land-surface datum, Nov. 20, 1978; lowest measured, 36.78 ft below land surface datum, Jun. 5, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 10	36.43	APR 14	36.42

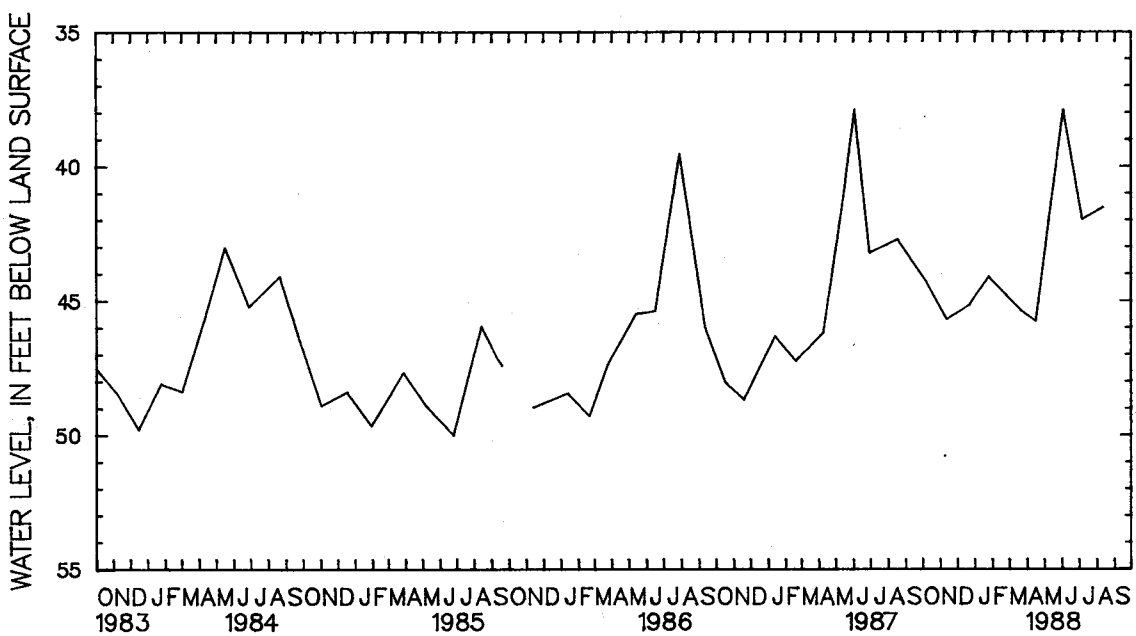


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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: Campbell Soup Co.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 84 ft; casing diameter 4 in. with depth to 79 ft; screen diameter 5 in. from 79 to 84 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 50 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.0 ft above land-surface datum.
REMARKS.--Water levels measured by plant personnel with an electric tape, Sept. 18, 1959 to April 18, 1963.
PERIOD OF RECORD.--September 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.00 ft below land-surface datum, Sept. 18, 1959; lowest measured, 54.46 ft below land-surface datum, Aug. 4, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 5	44.27	DEC 21	45.20	MAR 21	45.40	JUN 3	37.90	AUG 11	41.56
NOV 12	45.72	JAN 25	44.13	APR 15	45.78	JUL 6	42.00		



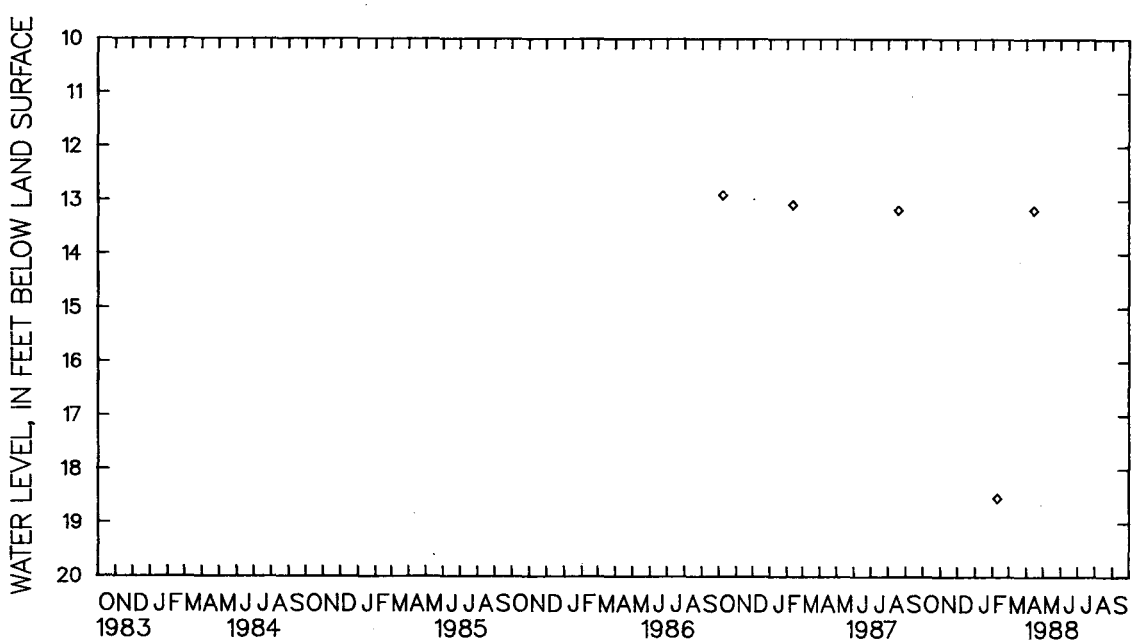
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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, nr Rock Hall.
Owner: U.S. Geological Survey.
AQUIFER.--Potomac Group.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 1030 ft; casing diameter 4 in. with depth to 1018 ft; screen diameter 4 in. from 1018 to 1030 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.65 ft above land-surface datum.
REMARKS.--Measured twice yearly beginning October 1986.
PERIOD OF RECORD.--December 1978 to July 1979, October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.23 ft below land-surface datum, Mar. 6, 1979; lowest measured, 18.54 ft below land surface datum, Feb. 10, 1988.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 10	18.54	APR 14	13.18



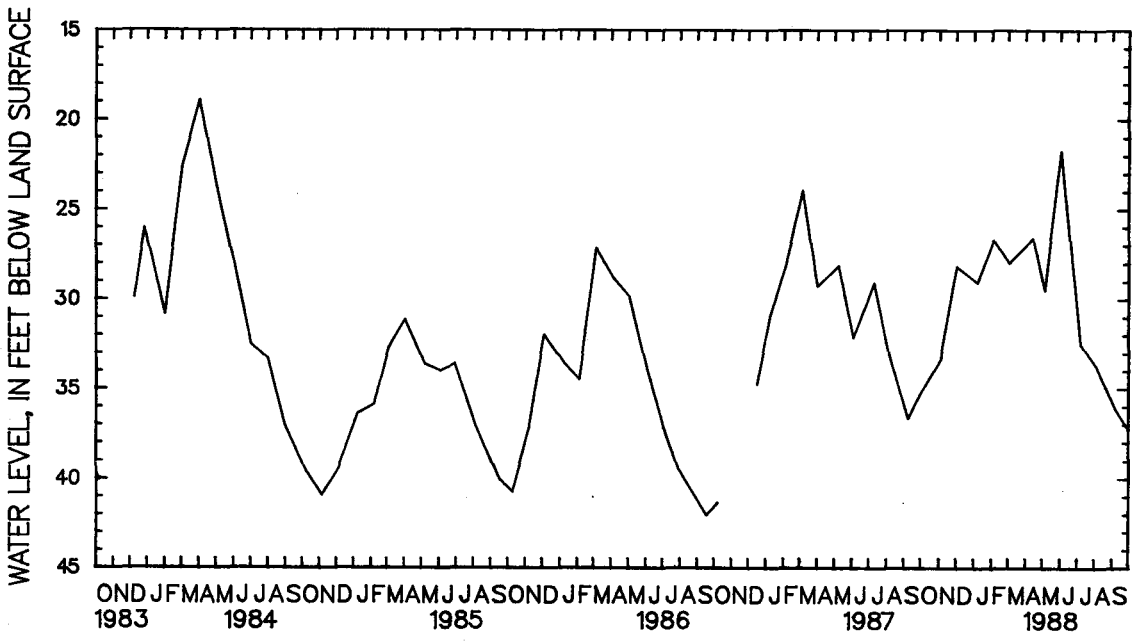
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Dug stone-lined unused water-table well, depth 46 ft; casing diameter 60 to 24 in.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 560 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of wooden well cover, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--November 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.92 ft below land-surface datum, Apr. 2, 1984; 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 DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 3	33.38	JAN 7	29.07	MAR 3	27.98	MAY 5	29.53	JUL 8	32.57	SEP 7	36.17
DEC 2	28.16	FEB 4	26.70	APR 14	26.61	JUN 2	21.74	AUG 3	33.71		

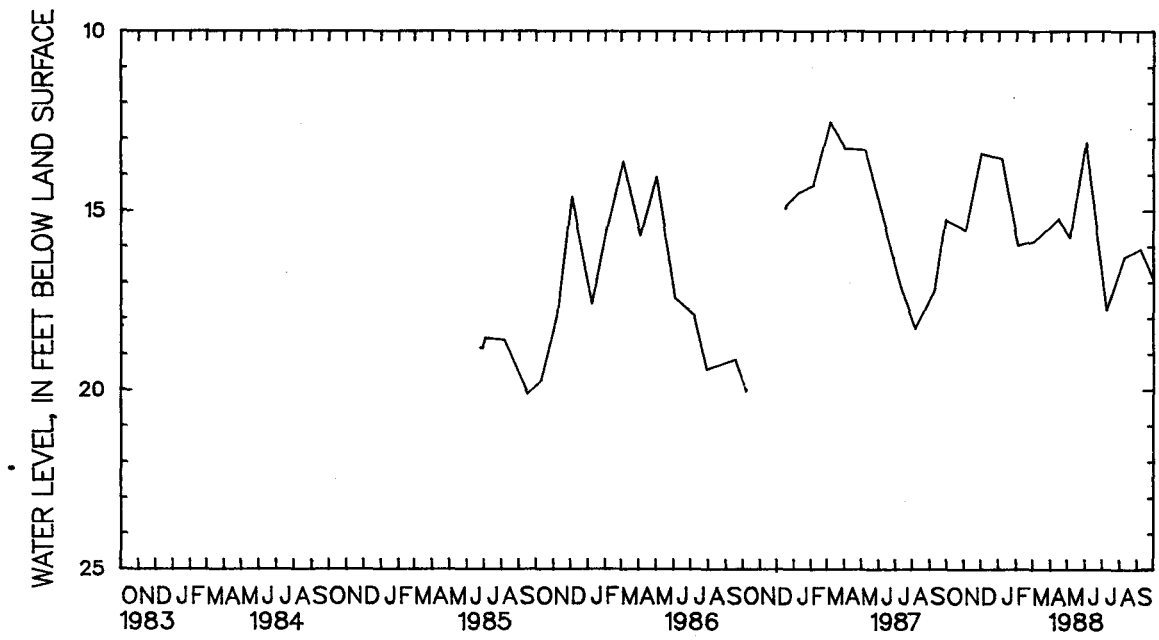


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 National Institutes of Health Animal Center.
Owner: U.S. Geological Survey.
AQUIFER.--New Oxford Formation.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 250 ft; casing diameter 6 in. with depth to 40 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 260 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .8 ft above land-surface datum.
PERIOD OF RECORD.--May 1978 to August 1980, June 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.40 ft below land-surface datum, May 30, 1978; lowest measured, 20.15 ft below land-surface datum, Sept. 16, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 3	15.55	JAN 7	13.55	MAR 3	15.87	MAY 5	15.75	JUL 8	17.79	SEP 7	16.08
DEC 2	13.41	FEB 4	15.98	APR 14	15.24	JUN 3	13.10	AUG 9	16.30		

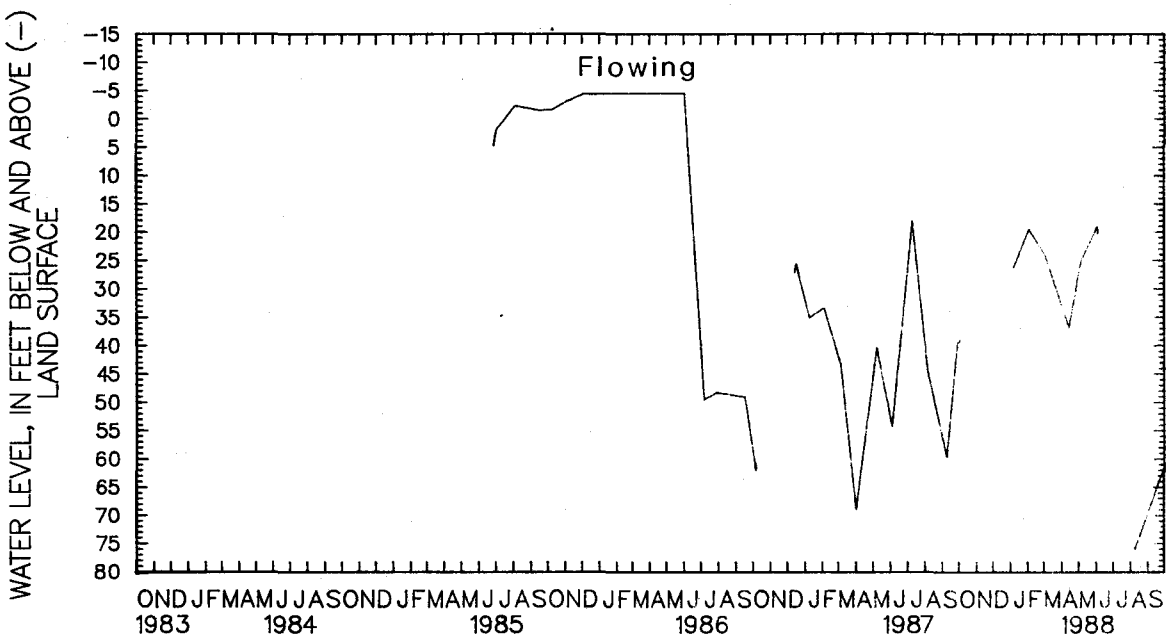


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--MO Dc 72. SITE ID.--390752077243101. PERMIT NUMBER.--MO-73-2284.
LOCATION.--Lat 39°07′52″, long 77°24′31″, Hydrologic Unit 02070008, 0.1 mi west of Hughes Rd., Poolesville.
Owner: U.S. Geological Survey.
AQUIFER.--New Oxford Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 275 ft; casing diameter 6 in. with depth to 41 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface is 330 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 4.42 ft above land-surface datum.
REMARKS.--Well flowing Dec. 4, 1985 through June 3, 1986. Water level affected by nearby pumping.
PERIOD OF RECORD.--June 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.21 ft above land-surface datum, Nov. 7, 1985; lowest measured, 76.06 ft below land-surface datum, Aug. 9, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 7	26.13	MAR 3	23.92	MAY 5	25.16	AUG 9	76.06
FEB 4	19.53	APR 14	36.84	JUN 3	19.01	SEP 7	68.12

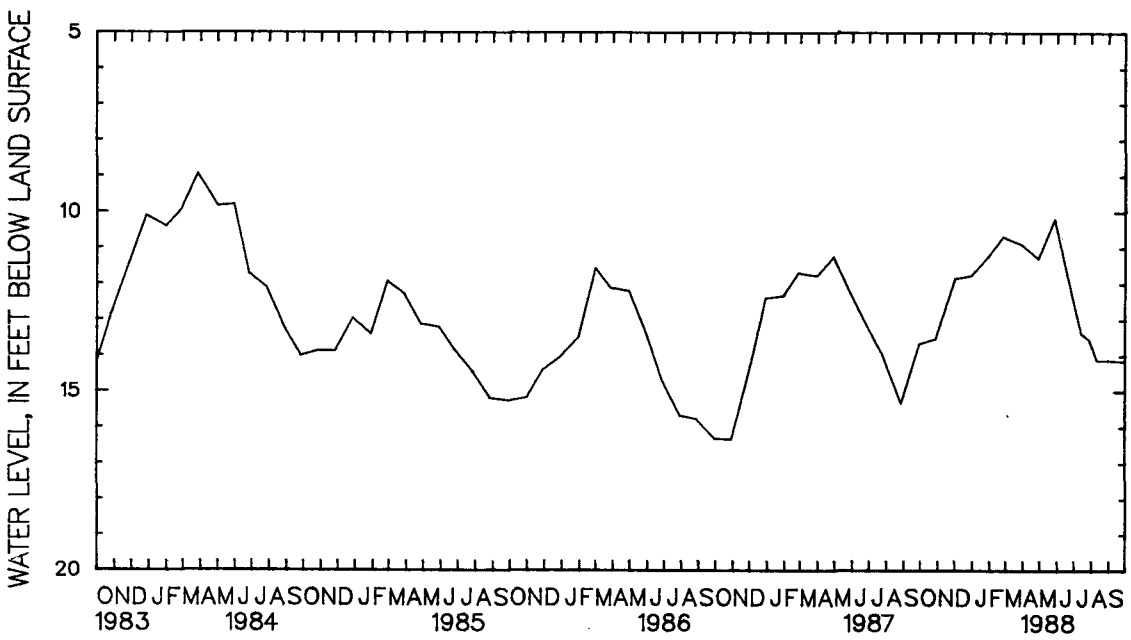


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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).
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 102.9 ft; casing diameter 6 in. with depth to 50 ft; open hole.
DATUM.--Elevation of land-surface datum is 410 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--March 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.39 ft below land-surface datum, June 25, 1972; lowest measured, 16.36 ft below land-surface datum, Oct. 29, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	13.52	JAN 28	11.25	APR 28	11.30	JUL 14	13.40	AUG 29	14.14
DEC 1	11.85	FEB 25	10.68	MAY 27	10.19	28	13.57	SEP 27	14.16
30	11.76	MAR 30	10.91	JUN 29	12.44	AUG 11	14.14		



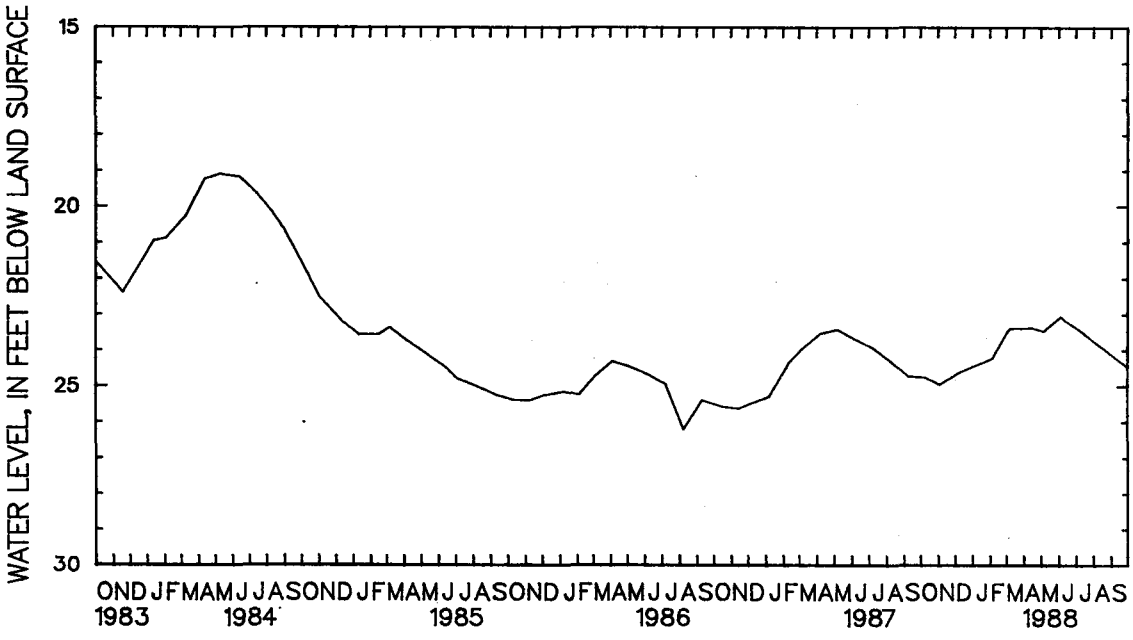
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

PRINCE GEORGE'S 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.
WELL CHARACTERISTICS.--Dug brick-lined unused water-table well, measured depth 27.4 ft; casing diameter 40 in.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder Oct. 31, 1962 to Feb. 9, 1965.
DATUM.--Elevation of land-surface datum is 190 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of steel cover, .1 ft above land-surface datum.
PERIOD OF RECORD.--September 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.26 ft below land-surface datum, July 6, 1972; lowest measured, 26.46 ft below land-surface datum, July 8, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	24.77	DEC 9	24.62	MAR 3	23.47	APR 14	23.37	JUN 3	23.07	AUG 5	23.81
NOV 3	24.97	FEB 5	24.23	8	23.39	MAY 5	23.46	JUL 12	23.50	SEP 16	24.32

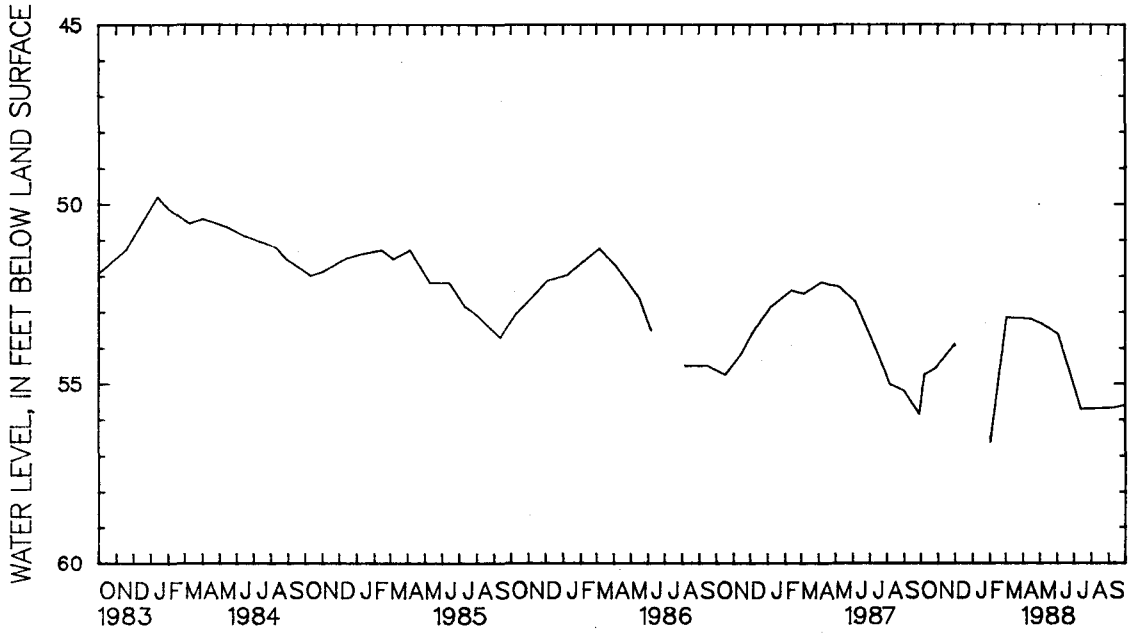


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 & Educational Facility at Oak Grove.
Owner: University of Maryland.
AQUIFER.--Magothy Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 155 ft; casing diameter 6 in. with depth to 150 ft; screen diameter 6 in. from 150 to 155 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water level recorder May 26, 1958 to Jan. 27, 1965.
DATUM.--Elevation of land-surface datum is 96 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .9 ft above land-surface datum.
PERIOD OF RECORD.--May 1958 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.39 ft below land-surface datum, May 29, 1958; lowest measured, 56.63 ft below land-surface datum, Feb. 3, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	54.73	NOV 30	53.88	MAR 3	53.14	MAY 5	53.33	JUL 14	55.72	SEP 7	55.68
28	54.55	FEB 3	56.63	APR 14	53.18	JUN 3	53.62	AUG 5	55.71		

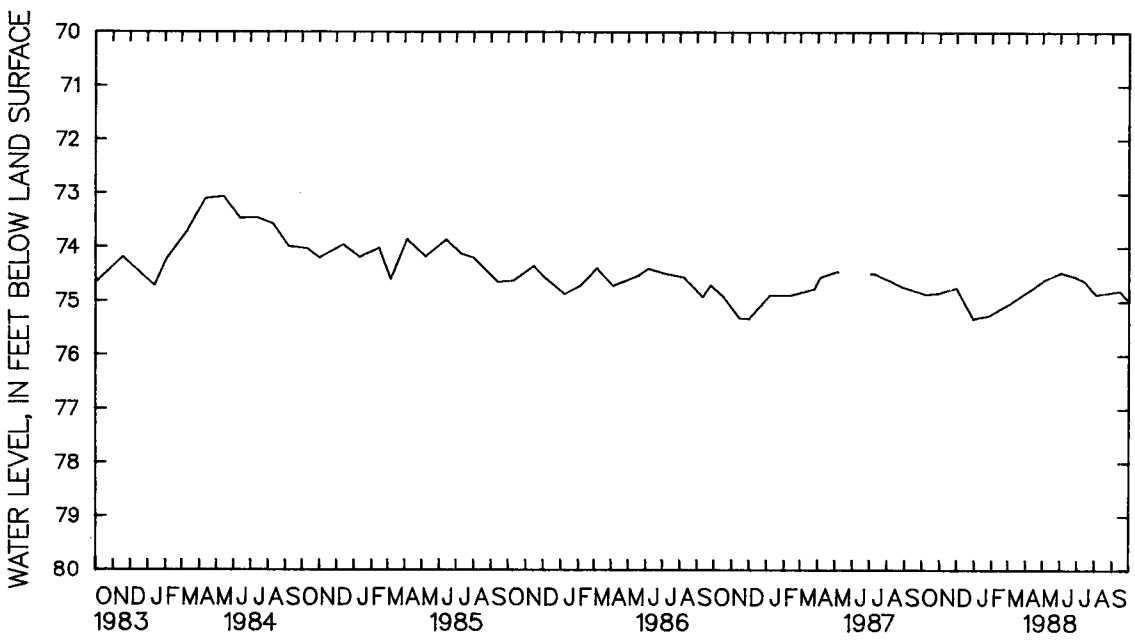


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Dug unused artesian well, depth 81.5 ft; diameter of concrete-ring lining 48 in.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 145 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Edge of steel cover, 3.0 ft below land-surface datum.
PERIOD OF RECORD.--November 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured 69.87 ft below land-surface datum, Dec. 17, 1979; lowest measured, 75.96 ft below land-surface datum, Nov. 19, 1951.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	74.88	DEC 30	75.33	APR 14	74.76	JUN 29	74.55	SEP 14	74.81
28	74.86	JAN 27	75.27	MAY 5	74.60	JUL 14	74.63		
NOV 30	74.76	MAR 3	75.05	JUN 3	74.47	AUG 4	74.88		

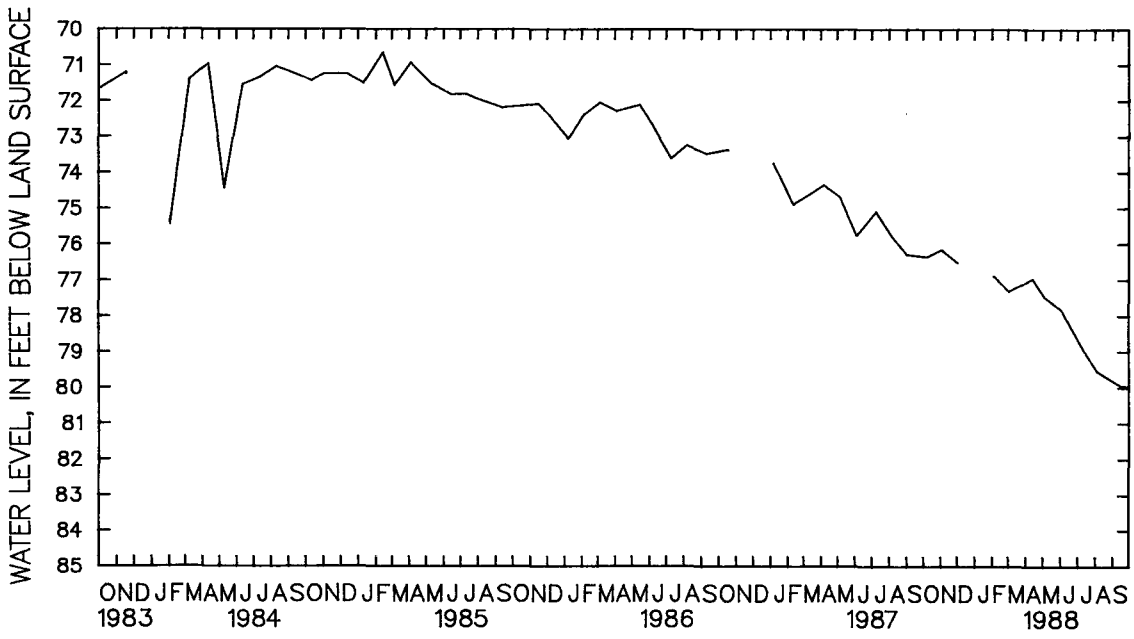


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 284 ft; casing diameter 8 in. with depth to 271.5 ft; screen diameter 8 in. from 267.5 to 284 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 78 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.5 ft above land-surface datum.
REMARKS.--Water level reported 62 ft below land-surface datum May 29, 1957; measured 84 ft below land-surface datum July 7, 1961.
PERIOD OF RECORD.--March 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level reported, 62 ft below land-surface datum, May 29, 1957; highest level measured, 68.99 ft below land-surface datum, Oct. 3, 1979; lowest measured, 84.84 ft below land-surface datum, Feb. 14, 1963.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	76.37	NOV 30	76.51	MAR 2	77.33	MAY 4	77.49	JUL 14	79.02	SEP 15	79.96
NOV 3	76.17	FEB 4	76.90	APR 13	76.98	JUN 2	77.83	AUG 5	79.56		

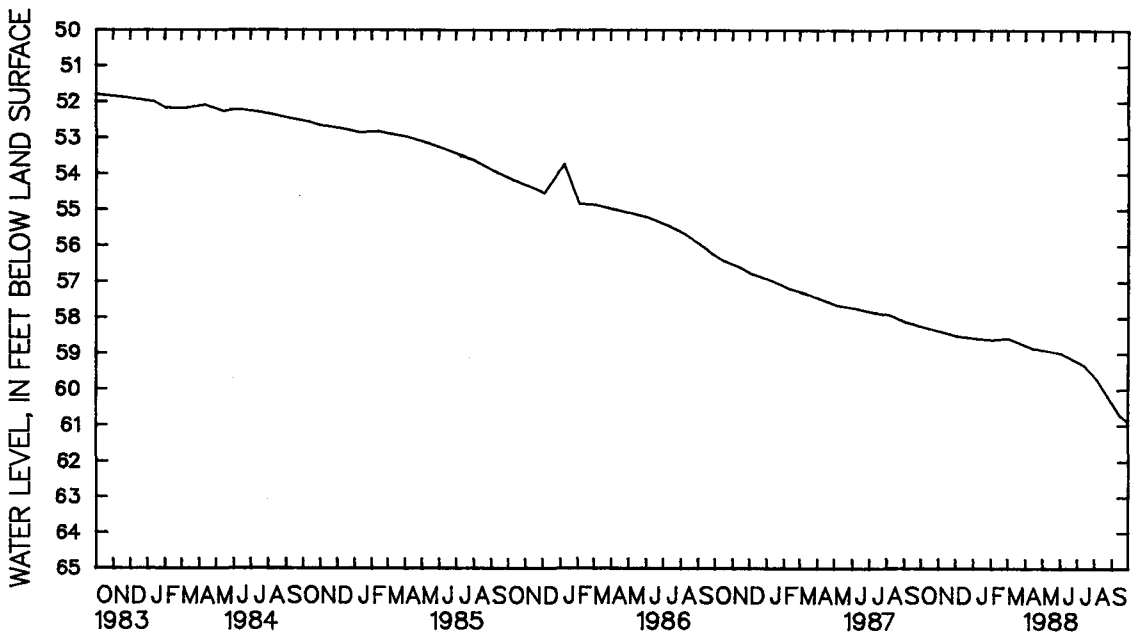


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--PG Fc 17. SITE ID.--384230076555601.
LOCATION.--Lat 38°42′30″, long 76°55′56″, Hydrologic Unit 02070010, south of Floral Park Rd. and west of MD Rt. 5, Piscataway.
Owner: Washington Gas Light Co.
AQUIFER.--Patapsco Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 750 ft; casing diameter 6 in.; casing perforated from 712 to 716 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder Oct. 27, 1955 to Sept. 4, 1956.
DATUM.--Elevation of land-surface datum is 58.6 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .5 ft above land-surface datum.
PERIOD OF RECORD.--October 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.62 ft below land-surface datum, Oct. 27, 1955; lowest measured, 60.75 ft below land-surface datum, Sept. 15, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	58.30	NOV 30	58.52	FEB 4	58.64	APR 13	58.87	JUN 2	59.02	AUG 5	59.73
NOV 3	58.41	JAN 7	58.61	MAR 2	58.60	MAY 4	58.93	JUL 14	59.36	SEP 15	60.75

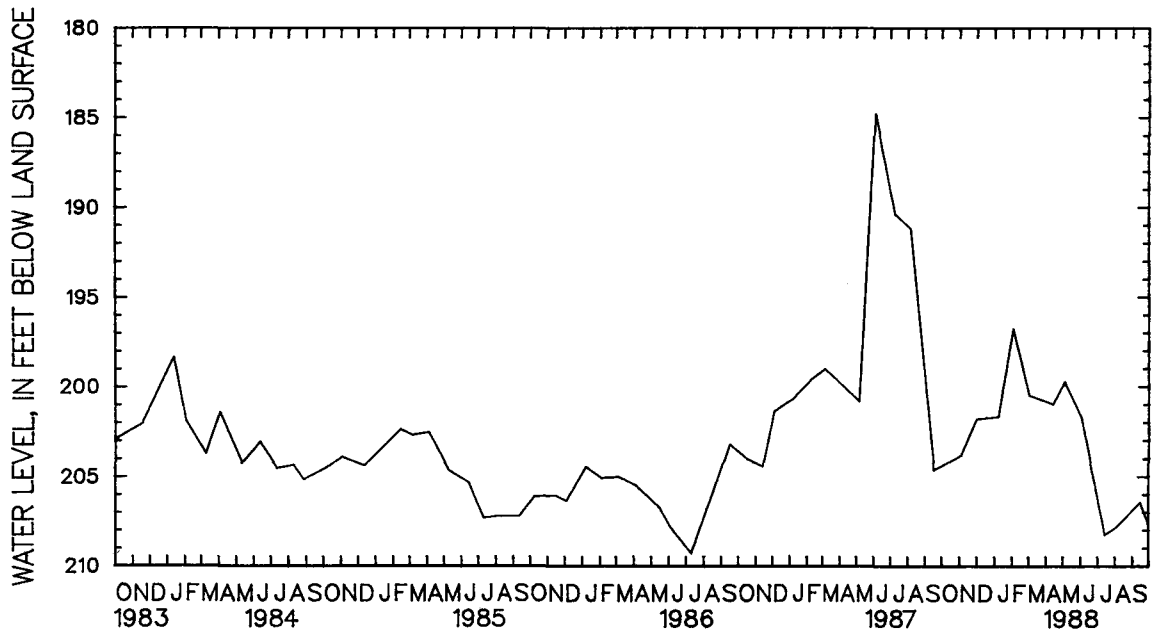


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 362 ft; casing diameter 4 in. with depth to 352 ft; screen diameter 2.5 in. from 352 to 362 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 198 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.8 ft above land-surface datum.
REMARKS.--Water level reported 146 ft below land-surface datum, March 11, 1955.
PERIOD OF RECORD.--May 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 157.24 ft below land-surface datum, Mar. 4, 1968; lowest measured, 209.31 ft below land-surface datum, July 10, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	204.32	NOV 30	201.79	FEB 3	196.74	APR 13	201.00	JUN 2	201.75	AUG 4	207.84
NOV 3	203.83	JAN 7	201.67	MAR 2	200.52	MAY 4	199.74	JUL 14	208.28	SEP 15	206.46

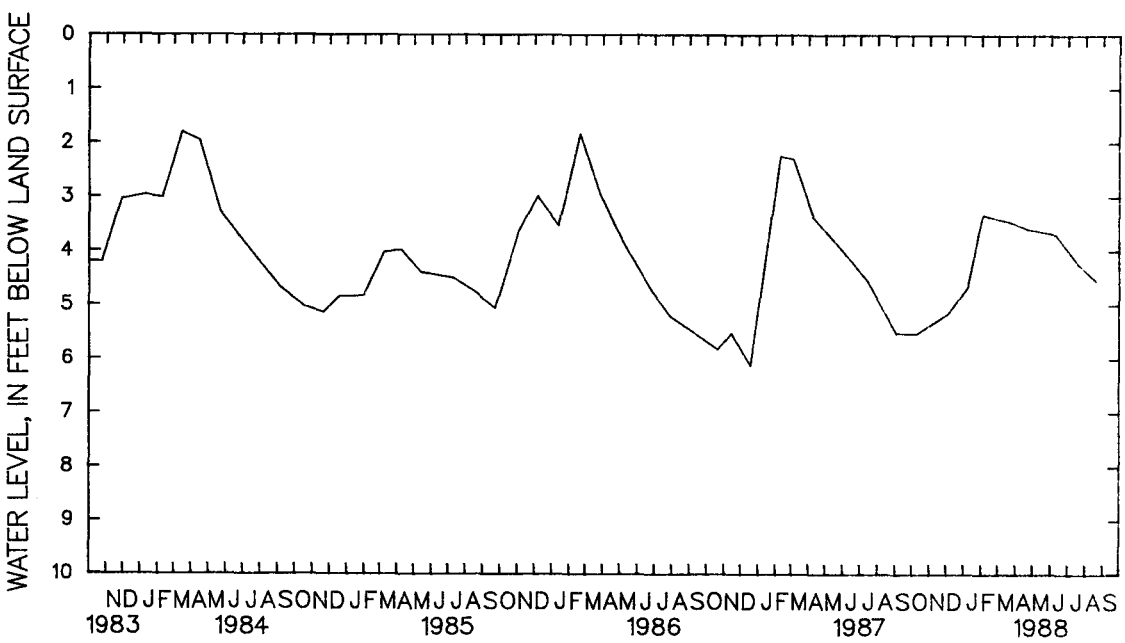


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused water-table well, reported depth 60 ft, measured depth 44 ft; casing diameter 4 in. with depth to 50 ft; screened from 50 to 60 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 69 ft above National Geodetic Vertical Datum of 1929. Measuring point: Lip of hose connector, 1.9 ft above land-surface datum.
REMARKS.--Reported water level 4.0 ft below land-surface datum, June 10, 1949.
PERIOD OF RECORD.--July 1953, May 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.67 ft below land-surface datum, Feb. 8, 1973; lowest measured, 6.47 ft below land-surface datum, Jan. 3, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	5.55	JAN 7	4.68	MAR 23	3.47	JUN 10	3.70	AUG 19	4.55
DEC 4	5.17	FEB 4	3.33	APR 22	3.60	JUL 20	4.26		

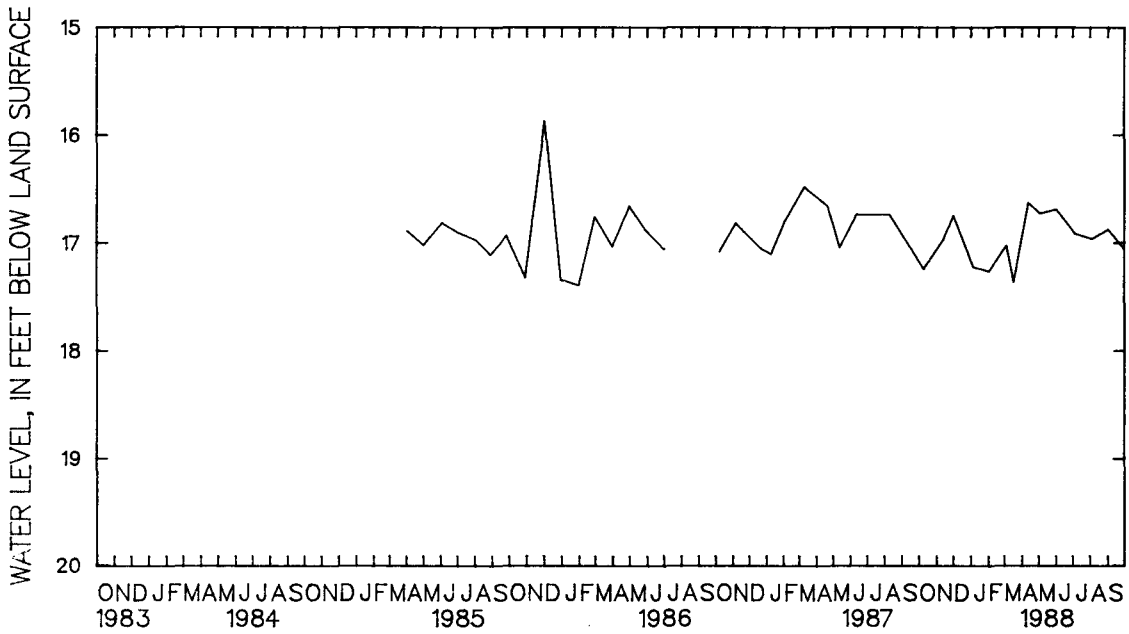


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 220 ft; casing diameter 4 in. with depth to 210 ft; screen diameter 4 in. from 210 to 220 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 23.4 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.4 ft above land-surface datum.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.87 ft below land-surface datum, Dec. 2, 1985; lowest measured, 17.40 ft below land-surface datum, Jan. 31, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	17.25	JAN 5	17.23	MAR 17	17.37	JUN 1	16.69	SEP 1	16.88
NOV 13	16.97	FEB 2	17.27	APR 12	16.63	JUL 5	16.92		
DEC 1	16.75	MAR 4	17.03	MAY 3	16.73	AUG 4	16.97		

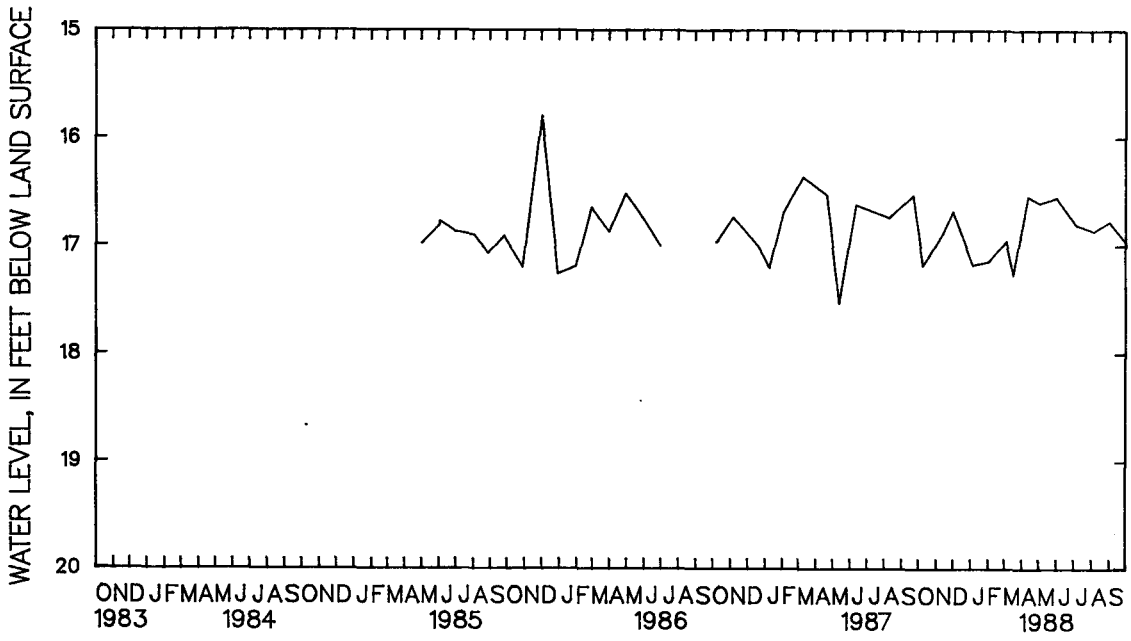


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 116 ft; casing diameter 4 in. with depth to 106 ft; screen diameter 4 in. from 106 to 116 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 21.2 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.1 ft above land-surface datum.
PERIOD OF RECORD.--May 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.80 ft below land-surface datum, Dec. 2, 1985; lowest measured, 17.54 ft below land-surface datum, May 13, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	17.19	JAN 5	17.18	MAR 17	17.27	JUN 1	16.55	SEP 1	16.78
NOV 13	16.88	FEB 2	17.15	APR 12	16.54	JUL 5	16.81		
DEC 1	16.68	MAR 4	16.96	MAY 3	16.60	AUG 4	16.87		

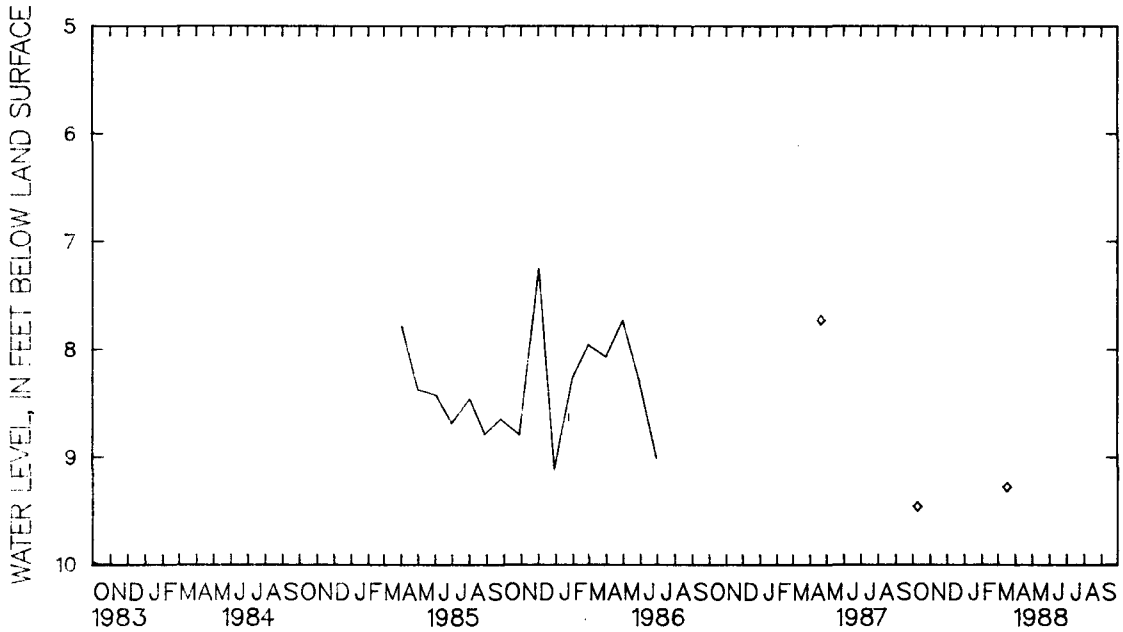


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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, nr Cloverfields community park, Kent Island.
Owner: Maryland Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 180 ft; casing diameter 4 in. with depth to 170 ft; screen diameter 4 in. from 170 to 180 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 7.4 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.5 ft above land-surface datum.
REMARKS.--Measured twice yearly.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.25 ft below land-surface datum, Dec. 2, 1985; lowest measured, 9.46 ft below land surface datum, Oct. 9, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	9.46	MAR 17	9.28

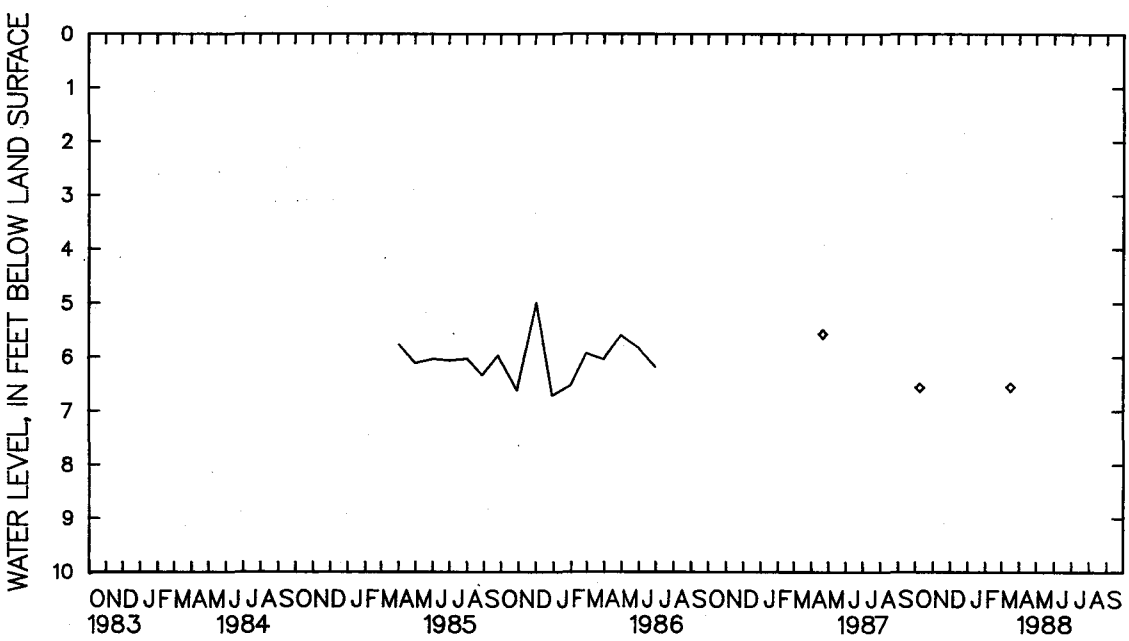


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 200 ft; casing diameter 4 in. with depth to 190 ft; screen diameter 4 in. from 190 to 200 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 7.5 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.2 ft above land-surface datum.
REMARKS.--Measured twice yearly.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.00 ft below land-surface datum, Dec. 2, 1985; lowest measured, 6.73 ft below land surface datum, Dec. 30, 1985.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	6.58	MAR 17	6.57

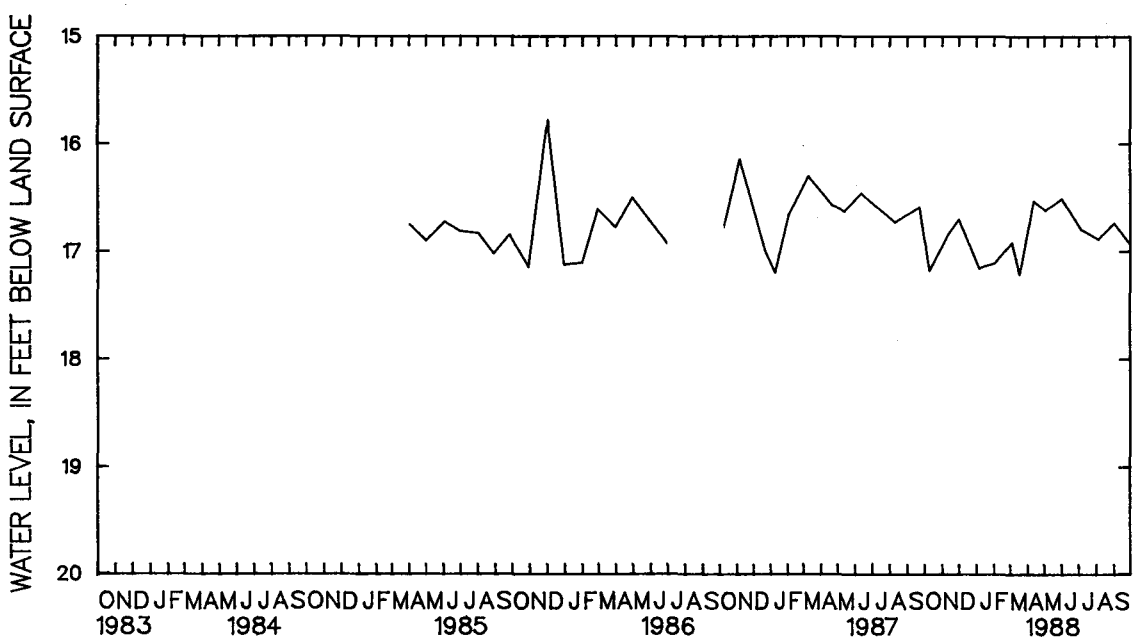


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--QA Db 36. SITE ID.--390201076182704. 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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 180 ft; casing diameter 4 in. with depth to 170 ft; screen diameter 4 in. from 170 to 180 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 21.3 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.6 ft above land-surface datum.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.78 ft below land-surface datum, Dec. 2, 1985; lowest measured, 17.22 ft below land-surface datum, Mar. 17, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	17.18	JAN 5	17.16	MAR 17	17.22	JUN 1	16.51	SEP 1	16.74
NOV 13	16.83	FEB 2	17.11	APR 12	16.53	JUL 5	16.80		
DEC 1	16.70	MAR 4	16.92	MAY 3	16.62	AUG 4	16.89		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

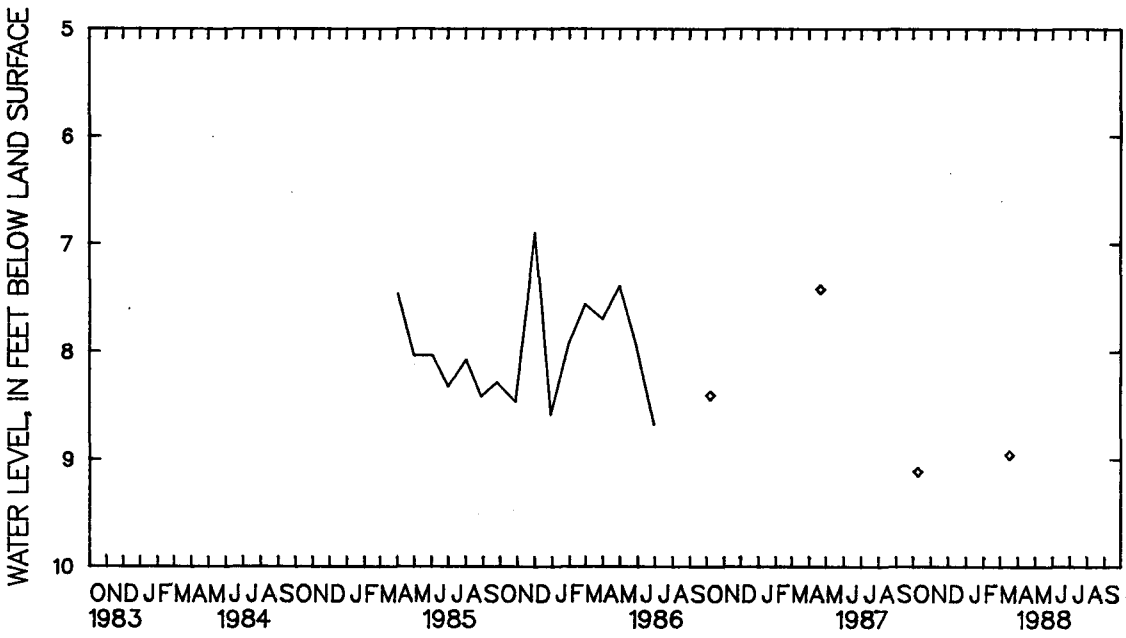
MARYLAND--Continued

QUEEN ANNE'S 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, nr Cloverfield community park, Kent Island.
Owner: Maryland Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 250 ft; casing diameter 4 in. with depth to 240 ft; screen diameter 4 in. from 240 to 250 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 7.1 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.5 ft above land-surface datum.
REMARKS.--Measured twice yearly.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.90 ft below land-surface datum, Dec.2, 1985; lowest measured, 9.12 ft below land surface datum, Oct. 9, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	9.12	MAR 17	8.96

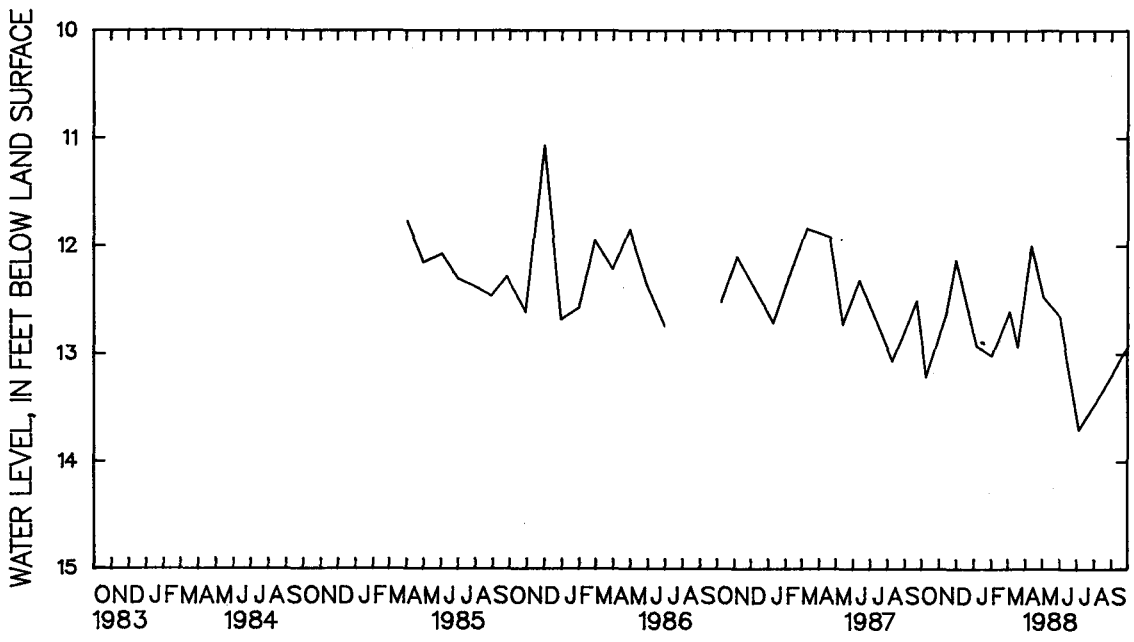


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 205 ft; casing diameter 4 in. with depth to 195 ft; screen diameter 4 in. from 195 to 205 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 11 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.24 ft above land-surface datum.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.07 ft below land-surface datum, Dec. 2, 1985; lowest measured, 13.71 ft below land-surface datum, Jul. 5, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	13.22	JAN 5	12.93	MAR 18	12.94	JUN 1	12.66	SEP 1	13.21
NOV 13	12.63	FEB 2	13.02	APR 12	12.00	JUL 5	13.71		
DEC 1	12.13	MAR 4	12.61	MAY 3	12.48	AUG 4	13.46		

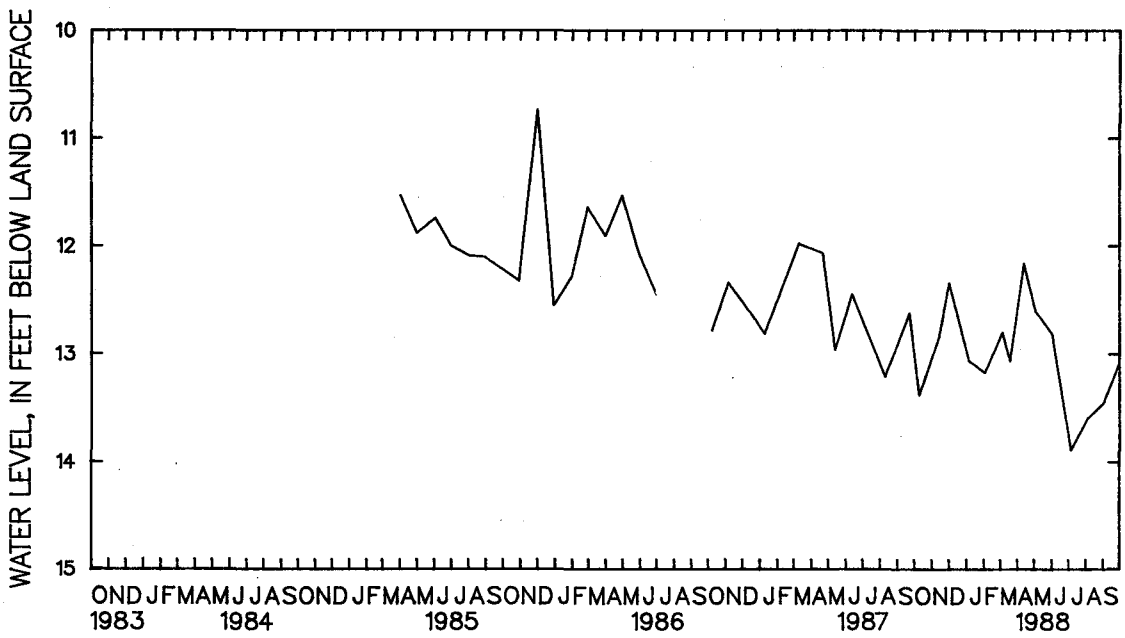


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 135 ft; casing diameter 4 in. with depth to 125 ft; screen diameter 4 in. from 125 to 135 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 11.8 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.98 ft above land-surface datum.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.74 ft below land-surface datum, Dec. 2, 1985; lowest measured, 13.90 ft below land-surface datum, Jul. 5, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	13.39	JAN 5	13.07	MAR 18	13.07	JUN 1	12.82	SEP 1	13.46
NOV 13	12.85	FEB 2	13.18	APR 12	12.16	JUL 5	13.90		
DEC 1	12.34	MAR 4	12.80	MAY 3	12.61	AUG 4	13.60		

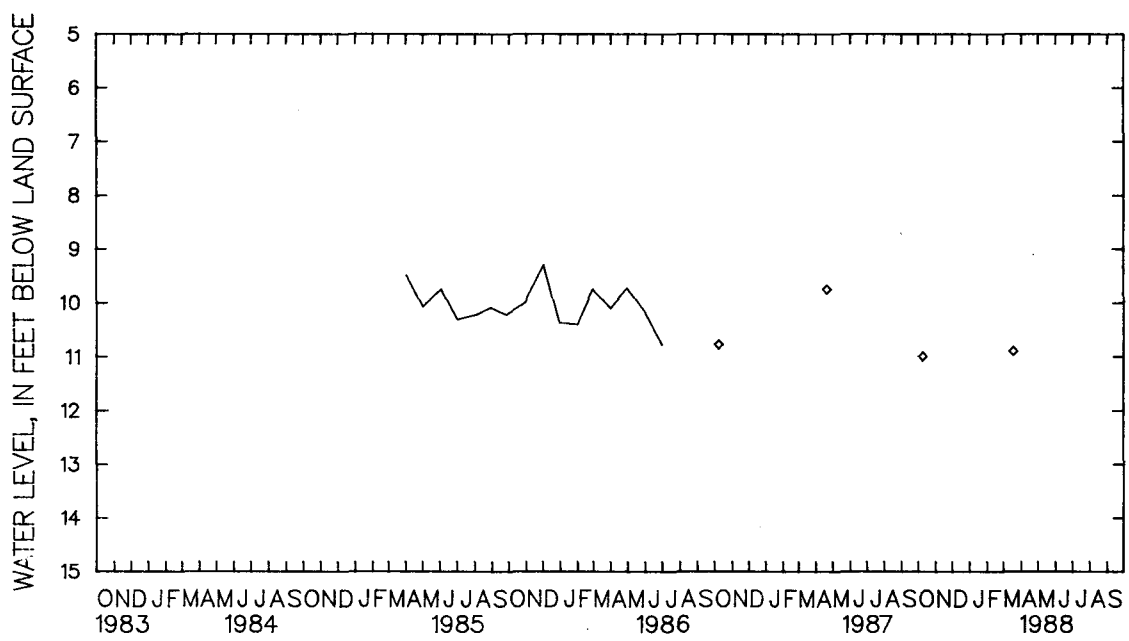


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 State Park, Kent Island.
Owner: Maryland Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 298 ft; casing diameter 4 in. with depth to 288 ft; screen diameter 4 in. from 288 to 298 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 8.3 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.3 ft above land-surface datum.
REMARKS.--Measured twice yearly.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.30 ft below land-surface datum, Dec. 2, 1985; lowest measured, 11.00 ft below land surface datum, Oct. 9, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	11.00	MAR 18	10.90



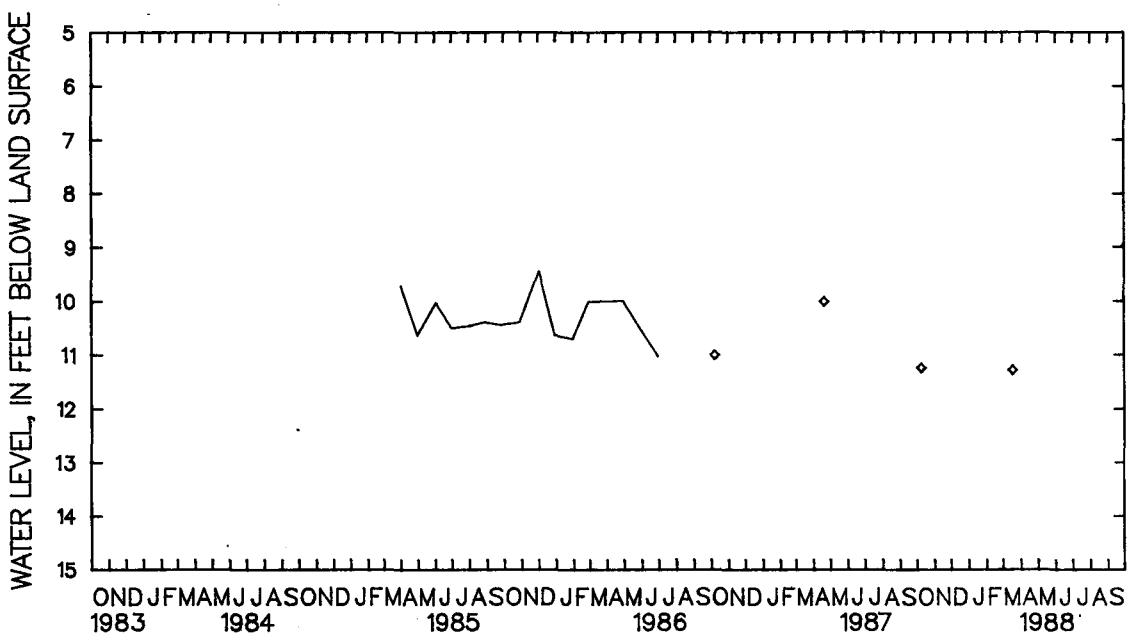
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

QUEEN ANNE'S 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 State Park, Kent Island.
Owner: Maryland Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 130 ft; casing diameter 4 in. with depth to 120 ft; screen diameter 4 in. from 120 to 130 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 8.5 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.5 ft above land-surface datum.
REMARKS.--Measured twice yearly.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.45 ft below land-surface datum, Dec. 2, 1985; lowest measured, 11.29 ft below land surface datum, Mar. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	11.25	MAR 18	11.29

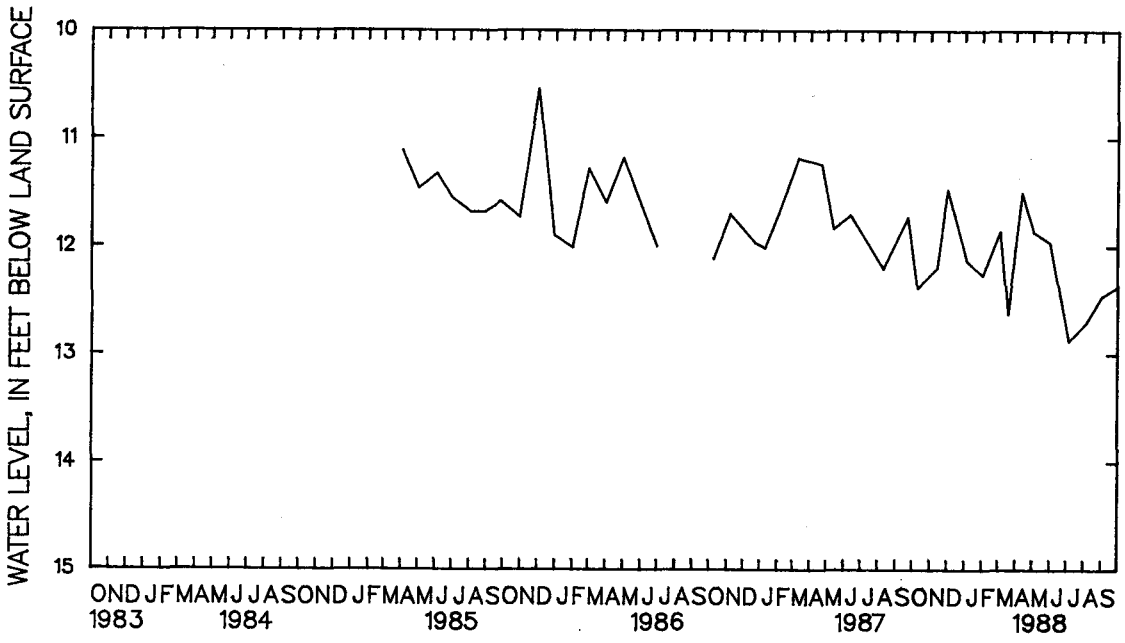


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 310 ft; casing diameter 4 in. with depth to 300 ft; screen diameter 4 in. from 300 to 310 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 12 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.63 ft above land-surface datum.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.54 ft below land-surface datum, Dec. 2, 1985; lowest measured, 12.88 ft below land-surface datum, July 5, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	12.39	JAN 5	12.14	MAR 18	12.63	JUN 1	11.97	SEP 1	12.46
NOV 13	12.20	FEB 2	12.27	APR 12	11.50	JUL 5	12.88		
DEC 1	11.47	MAR 4	11.86	MAY 3	11.87	AUG 4	12.71		



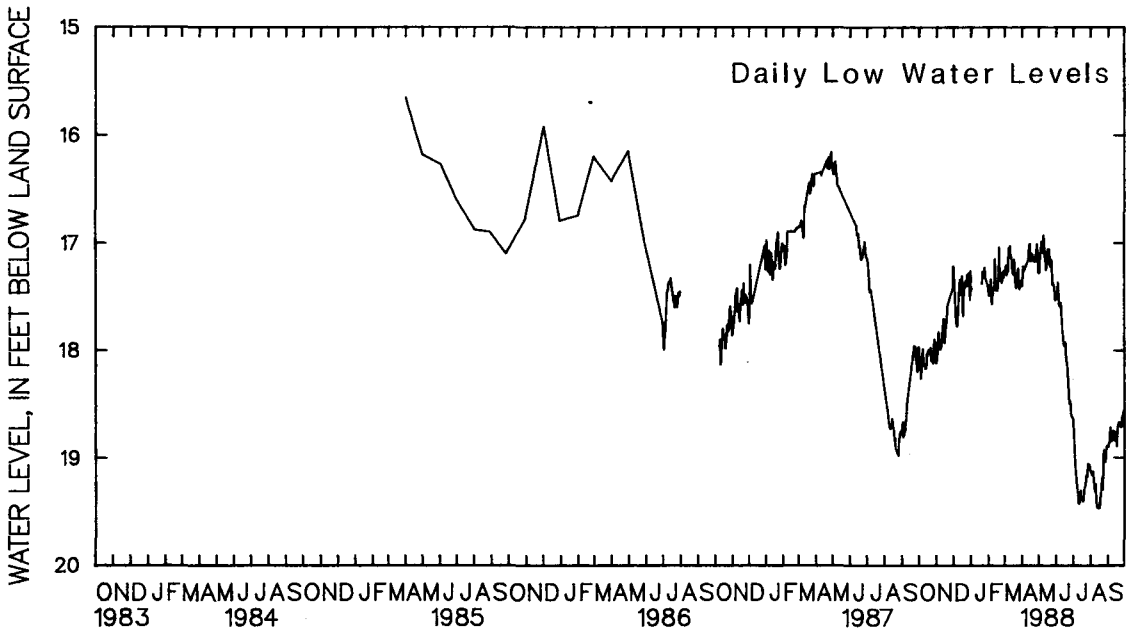
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--QA Eb 113. SITE ID.--385748076172001. PERMIT NUMBER.--QA-73-3172.
LOCATION.--Lat 38°57'48", long 76°17'20", Hydrologic Unit 02060002, nr Chester, Kent Island.
Owner: U.S. Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 216 ft; casing diameter 6 in. with depth to 176 ft; screen diameter 6 in. from 176 to 216 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water level recorder June 30, 1986 to current year.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.6 ft above land-surface datum.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 15.65 ft below land-surface datum, Apr. 2, 1985; lowest measured, 19.47 ft below land surface datum, Aug. 13, 1988, Aug. 16, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.12	18.10	17.22	17.44	---	17.29	17.40	17.28	17.52	18.67	19.13	18.90
2	18.06	18.04	---	---	17.49	17.29	17.32	17.28	17.52	---	19.14	18.87
3	18.13	17.99	---	---	---	17.21	17.22	17.18	17.46	---	19.16	18.85
4	18.26	17.83	---	17.37	17.39	17.30	17.26	17.14	17.37	---	19.14	18.78
5	18.18	17.85	17.68	17.38	17.34	17.21	---	17.07	17.44	19.11	19.13	18.72
6	18.10	17.95	17.75	---	17.54	17.27	---	16.99	17.57	19.17	19.20	18.80
7	17.99	17.97	17.78	---	17.57	17.26	---	17.08	17.59	19.24	19.25	18.84
8	18.12	17.99	17.76	---	17.48	17.05	---	17.09	17.58	19.29	19.31	18.84
9	18.14	17.98	17.62	---	17.48	17.14	---	17.03	17.56	19.32	19.32	18.79
10	18.13	17.94	17.49	---	17.41	17.13	---	16.93	17.64	19.43	19.25	18.75
11	18.13	---	17.41	---	17.41	17.03	---	17.03	17.75	19.43	19.40	18.81
12	18.17	---	17.34	---	17.15	17.13	17.16	17.13	17.83	19.40	19.46	18.84
13	18.17	17.71	17.48	---	17.31	17.13	17.07	17.10	17.87	19.32	19.47	18.76
14	18.14	17.88	17.47	---	17.44	17.19	17.02	17.25	17.95	19.31	19.46	18.78
15	18.03	17.93	17.45	---	17.41	17.26	17.01	17.22	17.96	19.38	19.45	18.85
16	18.04	17.88	17.31	---	17.44	17.29	17.17	17.19	17.93	19.38	19.47	18.89
17	18.00	17.79	17.64	---	17.44	17.21	17.17	17.09	17.94	19.37	19.45	18.80
18	18.02	17.71	17.68	---	17.36	17.16	17.10	17.06	18.08	19.41	19.37	18.71
19	18.02	17.74	17.47	---	17.35	17.30	17.11	17.06	18.11	19.40	19.35	18.69
20	18.02	17.59	17.42	17.38	17.04	17.37	17.11	17.06	18.12	19.34	19.25	18.67
21	17.98	---	17.38	17.27	17.29	17.42	17.15	17.17	18.23	19.28	19.19	18.67
22	18.10	---	17.36	17.30	17.30	17.34	17.17	17.22	18.28	19.27	19.30	18.70
23	18.10	---	17.40	17.29	17.28	17.32	17.17	17.19	18.40	19.23	19.19	18.68
24	18.05	---	17.40	17.31	17.37	17.32	17.15	17.16	18.50	19.17	18.95	18.71
25	18.10	---	17.30	17.23	17.36	17.24	17.17	17.31	18.48	19.18	18.93	18.71
26	18.12	---	17.36	17.32	17.33	17.41	17.13	17.39	18.50	19.12	18.99	18.62
27	18.00	---	17.36	---	17.27	17.43	17.08	17.38	18.60	19.06	19.04	18.63
28	17.90	---	17.28	---	17.32	17.42	17.01	17.40	18.62	19.08	19.01	18.58
29	17.92	17.43	17.41	---	17.26	17.36	17.07	17.43	18.63	19.07	18.90	18.64
30	17.93	17.22	17.53	17.39	---	17.39	17.27	17.53	18.64	19.07	18.89	18.56
31	18.12	---	17.26	---	---	17.37	---	17.53	---	19.12	18.90	---
MAX	18.26	18.10	17.78	---	17.57	17.43	---	17.53	18.64	19.43	19.47	18.90
MIN	17.90	17.22	---	---	17.04	17.03	17.01	16.93	17.37	18.67	18.89	18.56

QA Eb 113--Continued

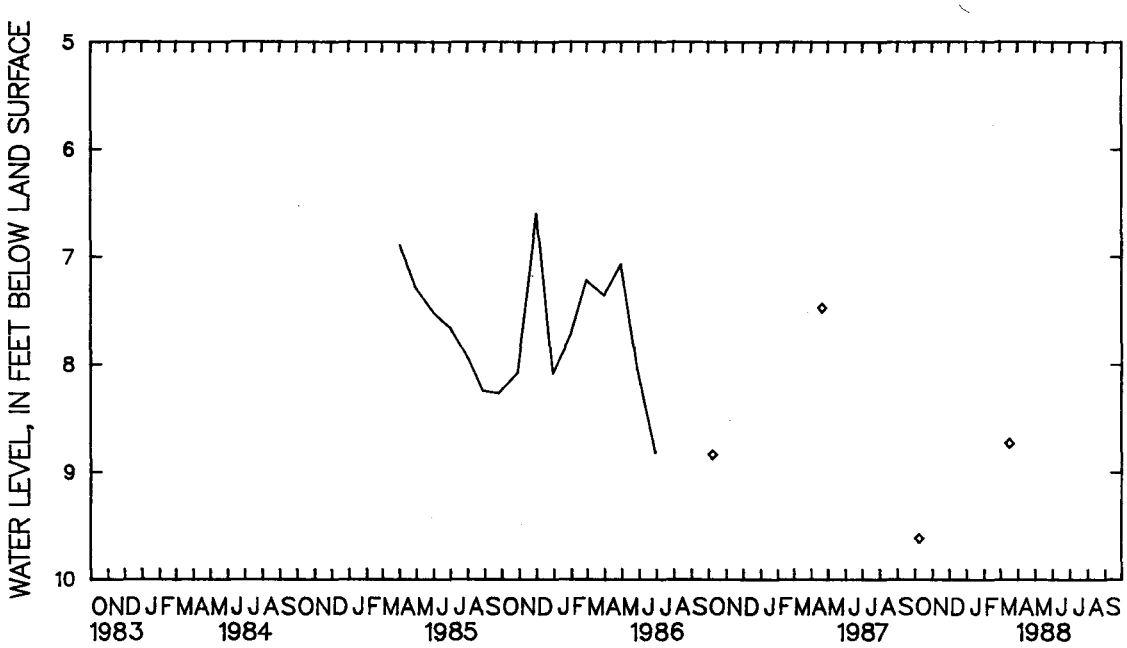


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 245 ft; casing diameter 4 in. with depth to 235 ft; screen diameter 4 in. from 235 to 245 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 3.9 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.5 ft above land-surface datum.
REMARKS.--Measured twice yearly.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.60 ft below land-surface datum, Dec. 2, 1985; lowest measured, 9.62 ft below land surface datum, Oct. 9, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 09	9.62	MAR 18	8.73

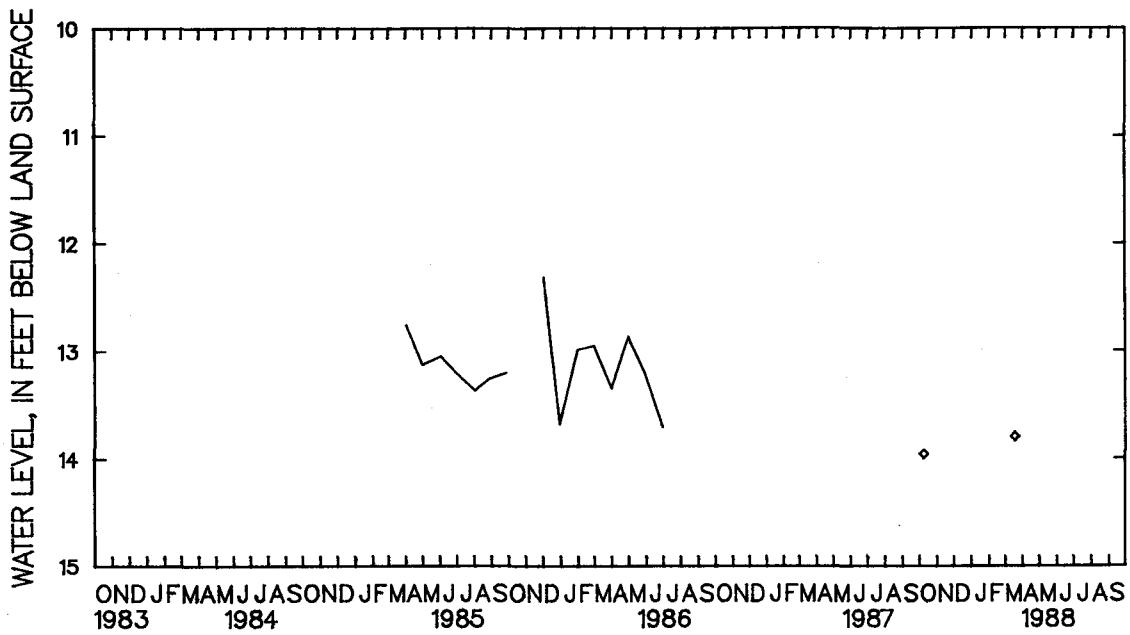


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 220 ft; casing diameter 4 in. with depth to 210 ft; screen diameter 4 in. from 210 to 220 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 7.5 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.3 ft above land-surface datum.
REMARKS.--Measured twice yearly.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.32 ft below land-surface datum, Dec. 2, 1985; lowest measured, 13.96 ft below land surface datum, Oct. 9, 1987.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 9	13.96	MAR 18	13.80

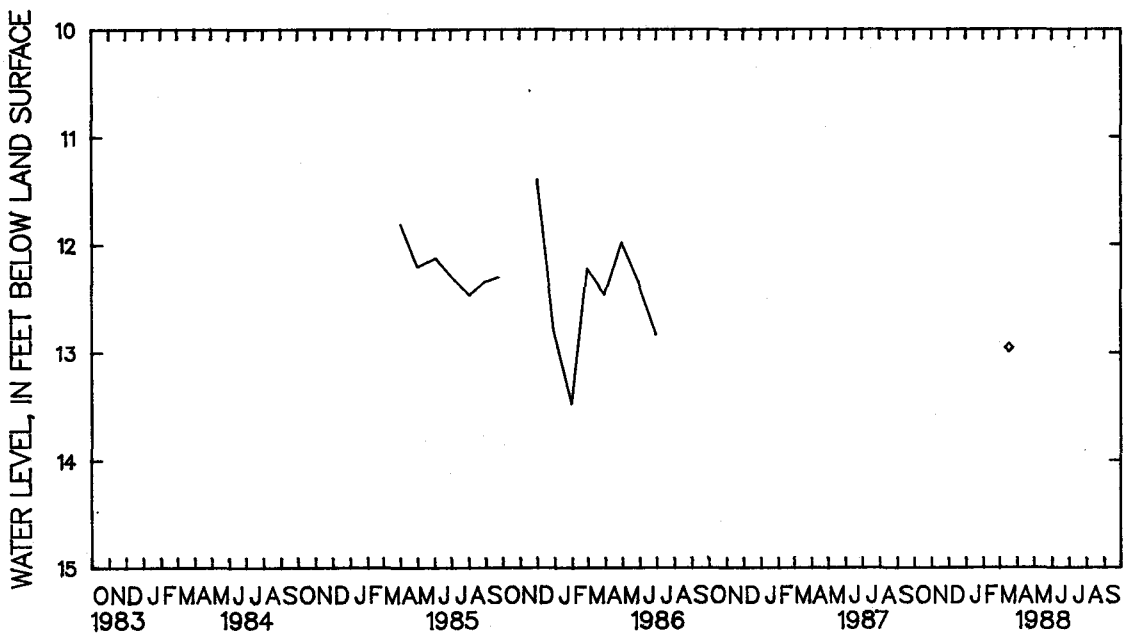


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 120 ft; casing diameter 4 in. with depth to 110 ft; screen diameter 4 in. from 110 to 120 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 12 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 2.5 ft above land-surface datum.
REMARKS.--Measured twice yearly.
PERIOD OF RECORD.--April 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.40 ft below land-surface datum, Dec. 2, 1985; lowest measured, 13.48 ft below land surface datum, Jan. 31, 1986.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL
MAR 18	12.96

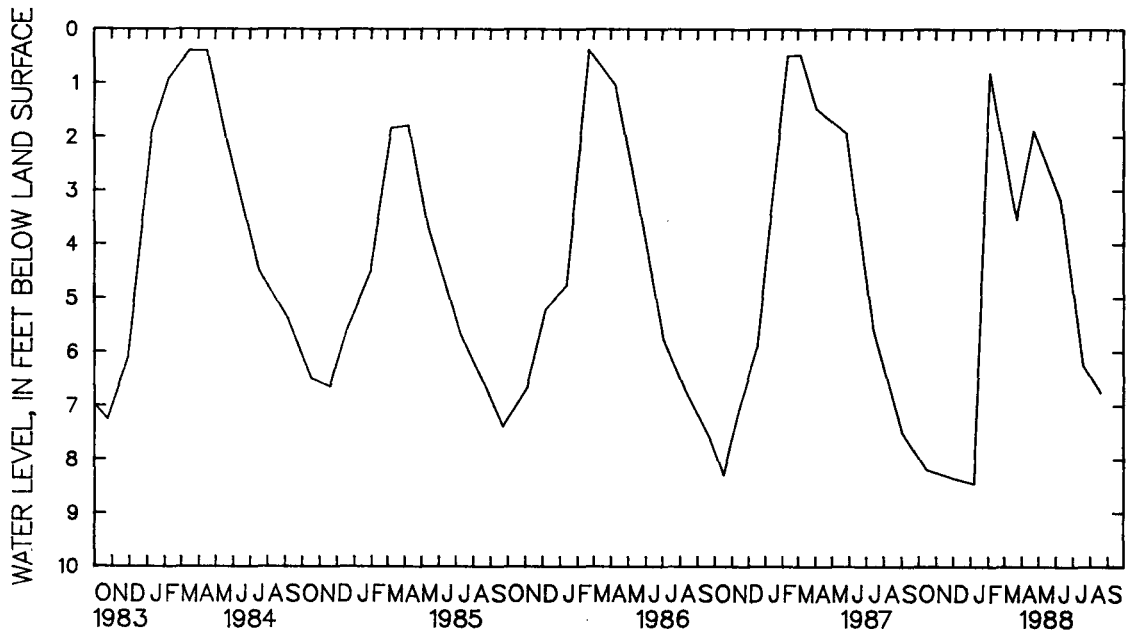


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 21 ft; casing diameter 1.25 in. with depth to 21 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 2 in. sleeve at land-surface datum.
PERIOD OF RECORD.--September 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .04 ft below land-surface datum, May 8, 1958; lowest measured, 8.37 ft below land-surface datum, Dec. 4, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	8.20	JAN 7	8.46	MAR 23	3.55	JUN 10	3.18	AUG 19	6.76
DEC 4	8.37	FEB 4	.81	APR 22	1.89	JUL 20	6.26		

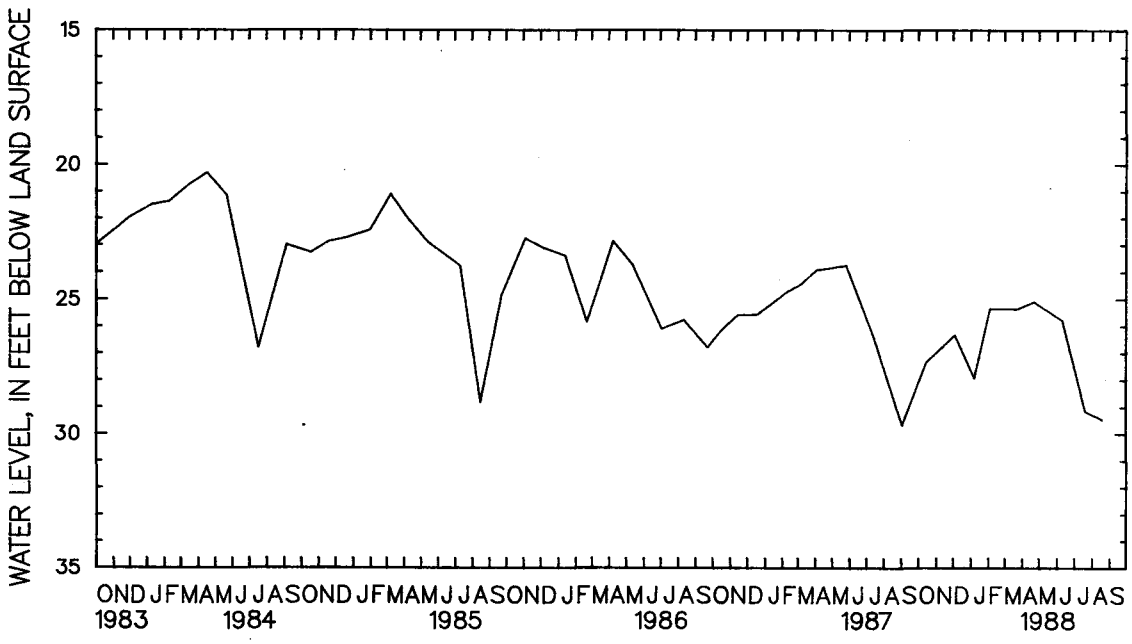


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 356 ft; casing diameter 4 in. with depth to 336 ft; screen diameter 2 in. from 336 to 356 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--September 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.77 ft below land-surface datum, Mar. 3, 1983; lowest measured, 29.70 ft below land-surface datum, Sept. 3, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	27.32	JAN 7	27.94	MAR 23	25.36	JUN 10	25.78	AUG 19	29.47
DEC 4	26.34	FEB 4	25.35	APR 22	25.09	JUL 20	29.17		

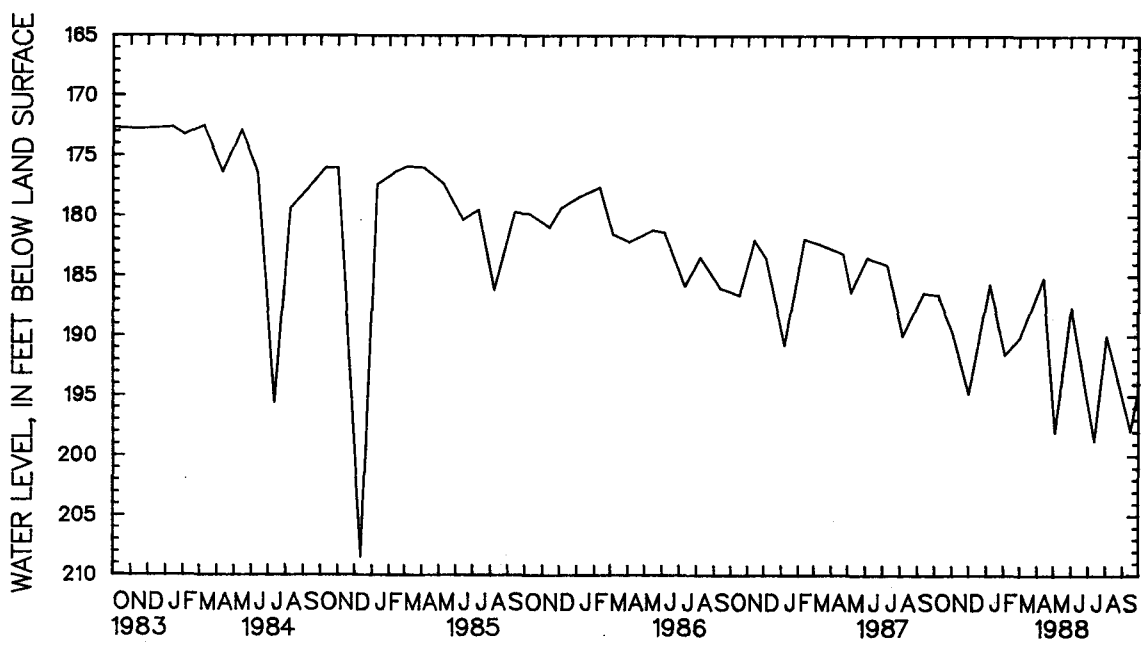


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--SM Bb 15. SITE ID.--382838076470101. PERMIT NUMBER.--SM-72-3430.
LOCATION.--Lat 38°28'38", long 76°47'01", Hydrologic Unit 02070011, at Charlotte Hall.
Owner: U.S. Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 460 ft; casing diameter 4 in. with depth to 441 ft; casing diameter 2 in. from 441 to 450 ft; screen diameter 2 in. from 450 to 460 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 170 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.5 ft above land-surface datum.
REMARKS.--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, 160.76 ft below land-surface datum, Aug. 10, 1979, and Aug. 31, 1979; lowest measured, 208.55 ft below land-surface datum, Dec. 12, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	186.58	DEC 1	194.89	FEB 4	191.60	APR 13	185.17	JUN 2	187.67	AUG 4	189.99
NOV 3	189.85	JAN 7	185.72	MAR 2	190.13	MAY 4	198.12	JUL 12	198.81	SEP 15	197.97

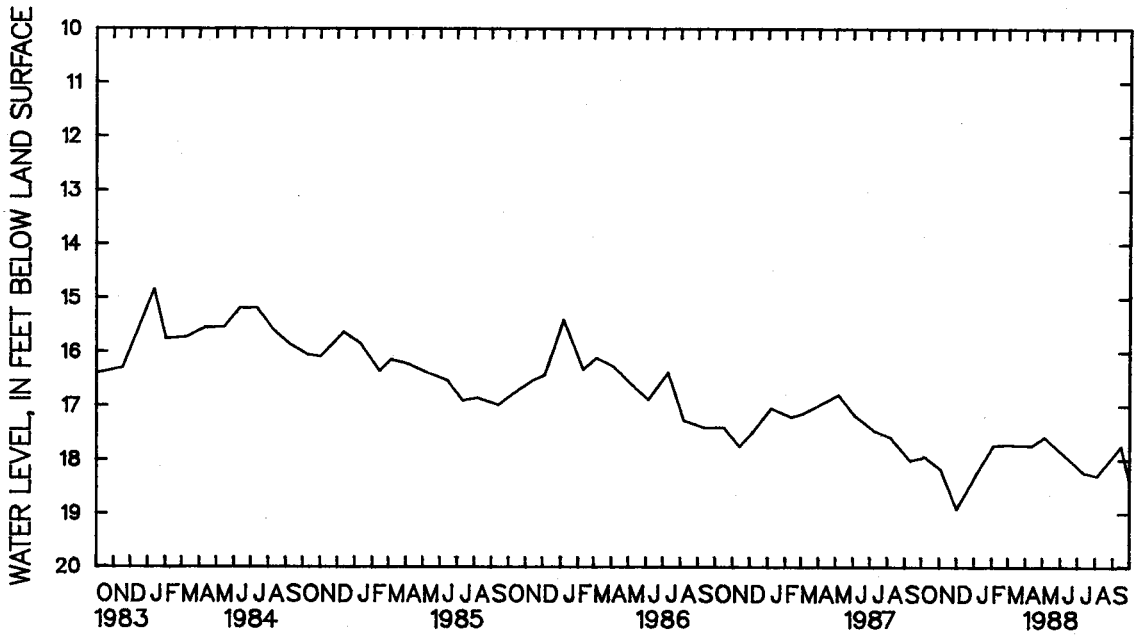


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
Owner: U.S. Geological Survey.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 218 ft; casing diameter 4 in. with depth to 210 ft; screen diameter 2 in. from 210 to 218 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 170 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.7 ft above land-surface datum.
PERIOD OF RECORD.--July 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.27 ft below land-surface datum, July 9, 1980; lowest measured, 18.93 ft below land-surface datum, Dec. 1, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	17.96	DEC 1	18.93	FEB 4	17.74	APR 12	17.74	JUN 2	17.86	AUG 4	18.31
NOV 3	18.19	JAN 7	18.23	MAR 2	17.72	MAY 4	17.58	JUL 12	18.25	SEP 15	17.75

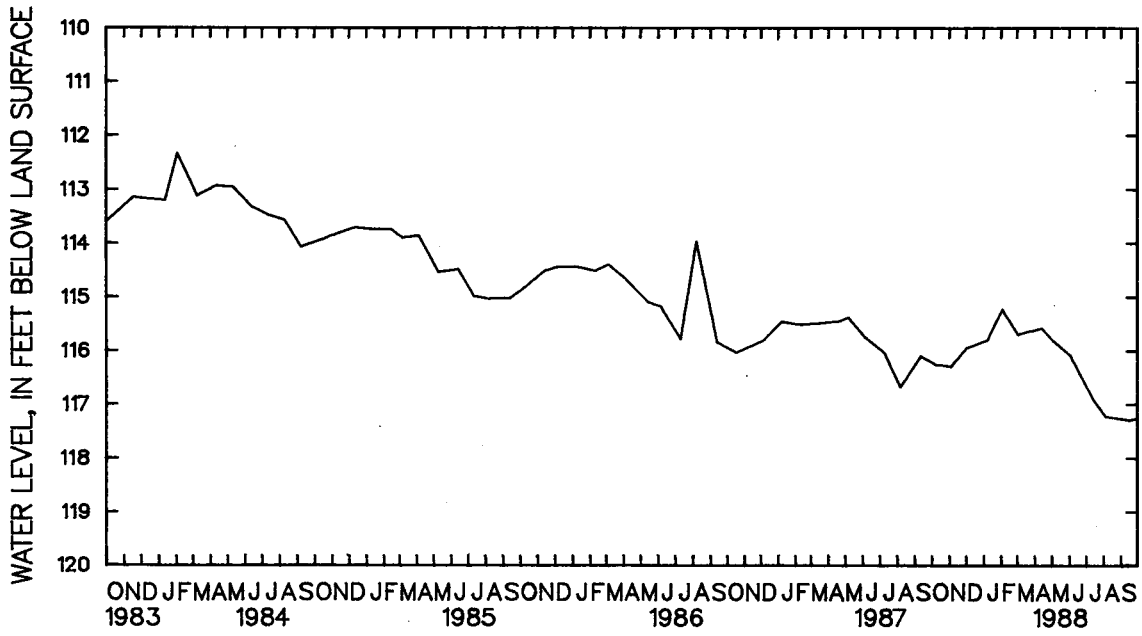


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--SM Dd 46. SITE ID.--381616076364701.
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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 296 ft; casing diameter 6 in. with depth to 150 ft; casing diameter 2 in. from 150 to 286 ft; screen diameter 2 in. from 286 to 296 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 115 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.5 ft above land-surface datum.
PERIOD OF RECORD.--October 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 110.01 ft below land-surface datum, Jan. 4, 1977; lowest measured 117.31 ft below land-surface datum, Sept. 15, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	116.26	DEC 1	115.95	FEB 3	115.23	APR 13	115.58	JUN 2	116.09	AUG 4	117.24
NOV 3	116.30	JAN 7	115.80	MAR 2	115.70	MAY 4	115.83	JUL 13	116.92	SEP 15	117.31

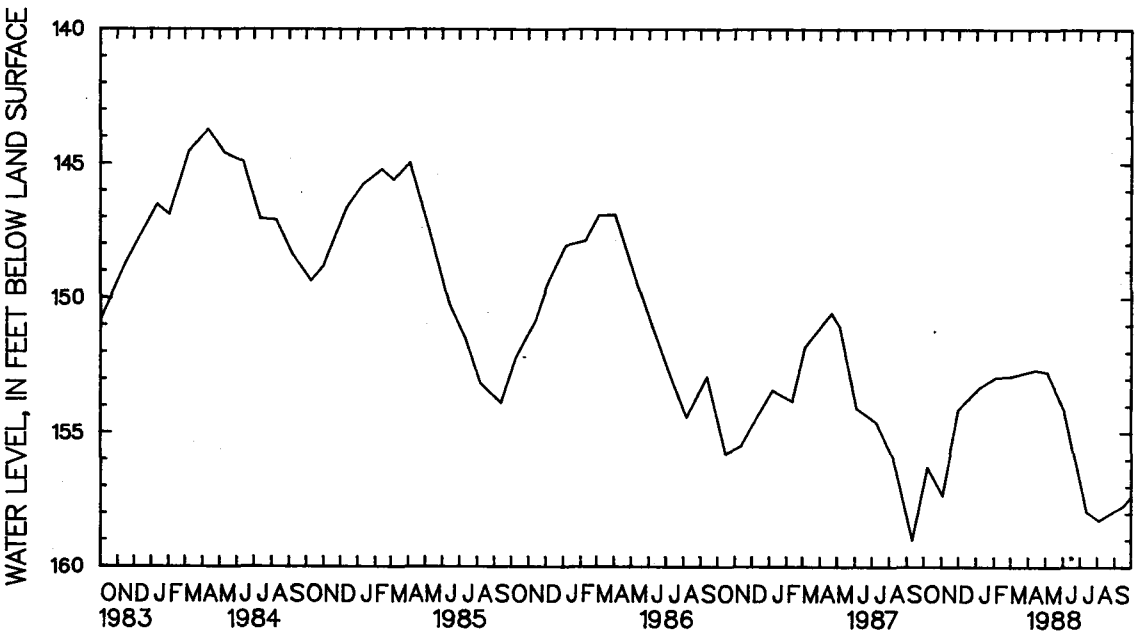


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 619 ft; casing diameter 4 in. with depth 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.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 115 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--December 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 138.95 ft below land-surface datum, April 5, 1979; lowest measured, 159.02 ft below land-surface datum, Sept. 11, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	156.29	DEC 1	154.14	FEB 3	152.95	APR 13	152.66	JUN 2	154.12	AUG 4	158.27
NOV 3	157.35	JAN 7	153.31	MAR 2	152.90	MAY 4	152.74	JUL 13	157.96	SEP 15	157.73

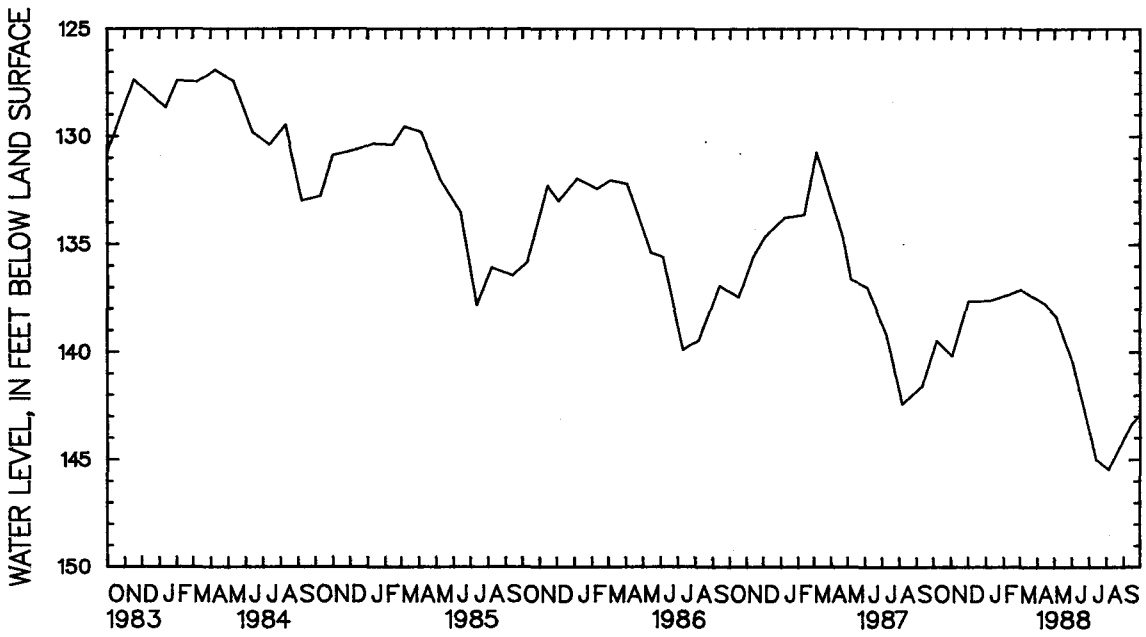


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 579 ft; casing diameter 4 in. with depth to 270 ft; casing diameter 2 in. from 270 to 505 ft; screen diameter 3 in. from 505 to 515 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 90 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1 ft above land-surface datum.
PERIOD OF RECORD.--December 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 119.05 ft below land-surface datum, Feb. 2, 1979 lowest measured, 145.49 ft below land-surface datum, Aug. 4, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	139.47	DEC 1	137.65	FEB 4	137.38	APR 12	137.75	JUN 2	140.51	AUG 4	145.49
NOV 3	140.20	JAN 7	137.62	MAR 2	137.12	MAY 4	138.37	JUL 13	145.04	SEP 15	143.35

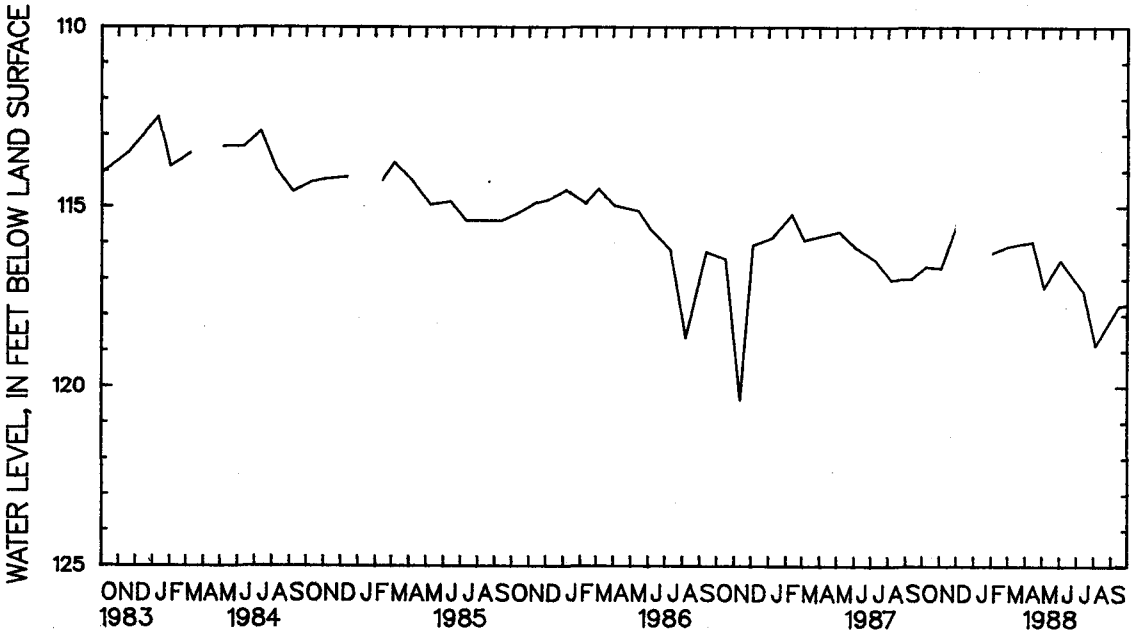


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 358 ft; casing diameter 4 in. with depth to 210 ft; casing diameter 2 in. from 210 to 348 ft; screen diameter 2 in. from 348 to 358 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 115 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, .95 ft above land-surface datum.
PERIOD OF RECORD.--July 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 111.06 ft below land-surface datum, Oct. 30, 1980; lowest measured, 120.39 ft below land-surface datum, Nov. 12, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	116.67	DEC 1	115.51	MAR 2	116.10	MAY 4	117.26	JUL 13	117.36	SEP 15	117.74
NOV 3	116.71	FEB 3	116.29	APR 13	115.98	JUN 2	116.49	AUG 4	118.86		

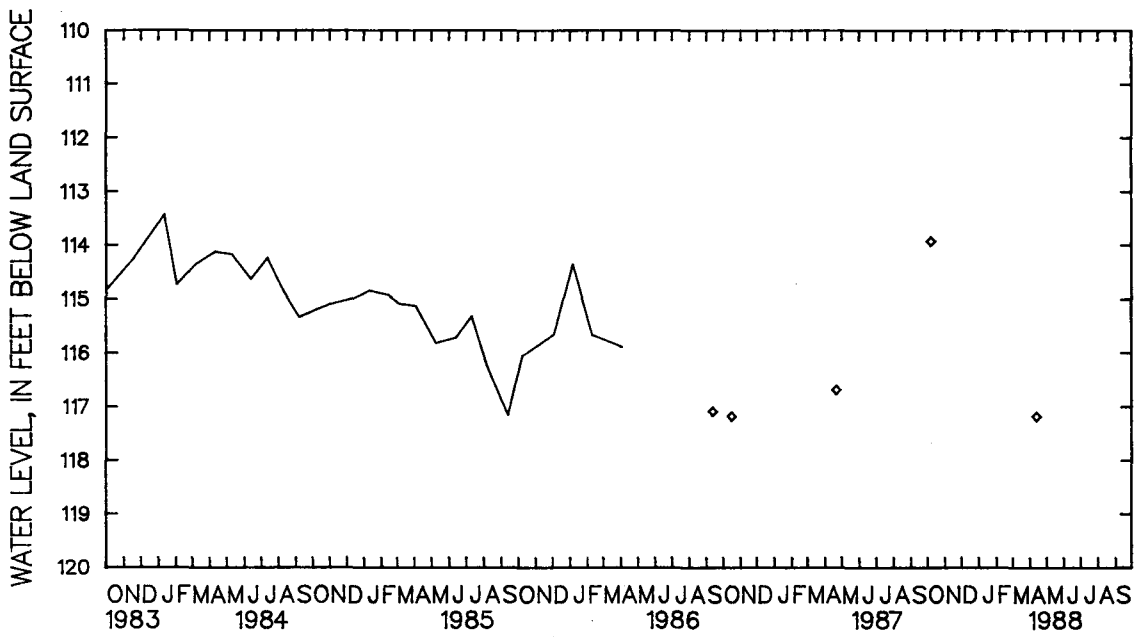


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 356 ft; casing diameter 4 in. with depth to 327 ft; casing diameter 2 in. from 327 to 346 ft; screen diameter 2 in. from 346 to 356 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 115 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.55 ft above land-surface datum.
PERIOD OF RECORD.--October 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 112.57 ft below land-surface datum, April 5, 1979; lowest measured, 117.19 ft below land-surface datum, Oct. 16, 1986.

WATER LEVELS, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL		WATER LEVEL
OCT 7	113.93	APR 13	117.19

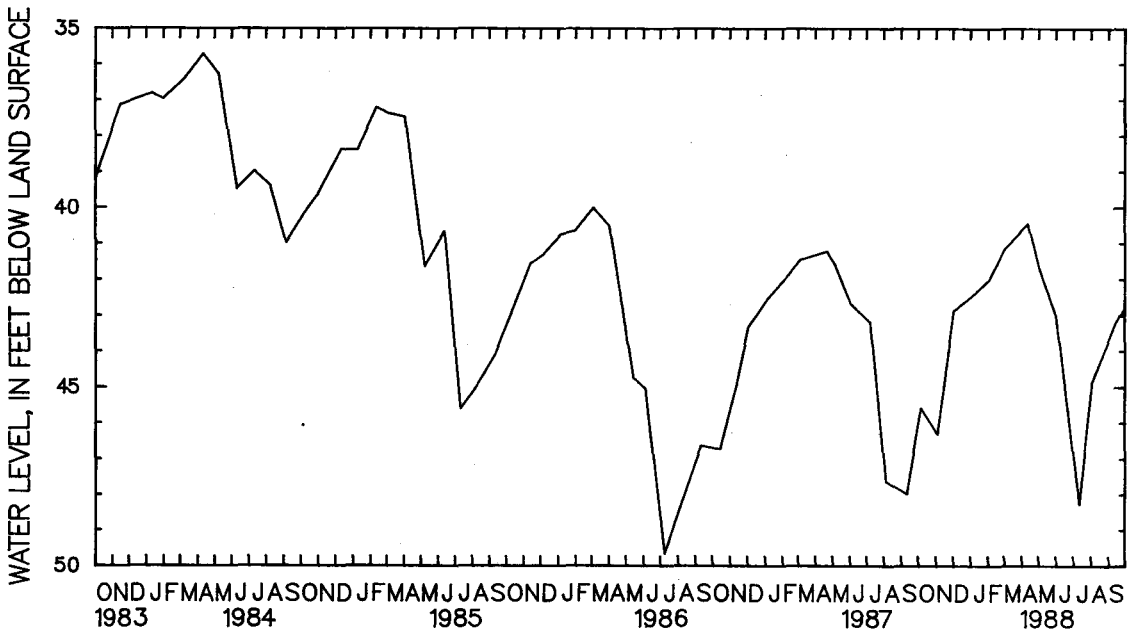


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 258 ft; casing diameter 6 in. with depth to 84 ft; casing diameter 2 in. from 84 to 248 ft; screen diameter 2 in. from 248 to 258 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 15 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.55 ft above land-surface datum.
PERIOD OF RECORD.--July 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.79 ft below land-surface datum, April 5, 1979; lowest measured, 49.66 ft below land-surface datum, July 9, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	45.58	DEC 2	42.87	FEB 3	42.01	APR 12	40.45	JUN 1	43.02	AUG 3	44.85
NOV 4	46.32	JAN 6	42.43	MAR 1	41.16	MAY 3	41.73	JUL 12	48.28	SEP 14	43.18

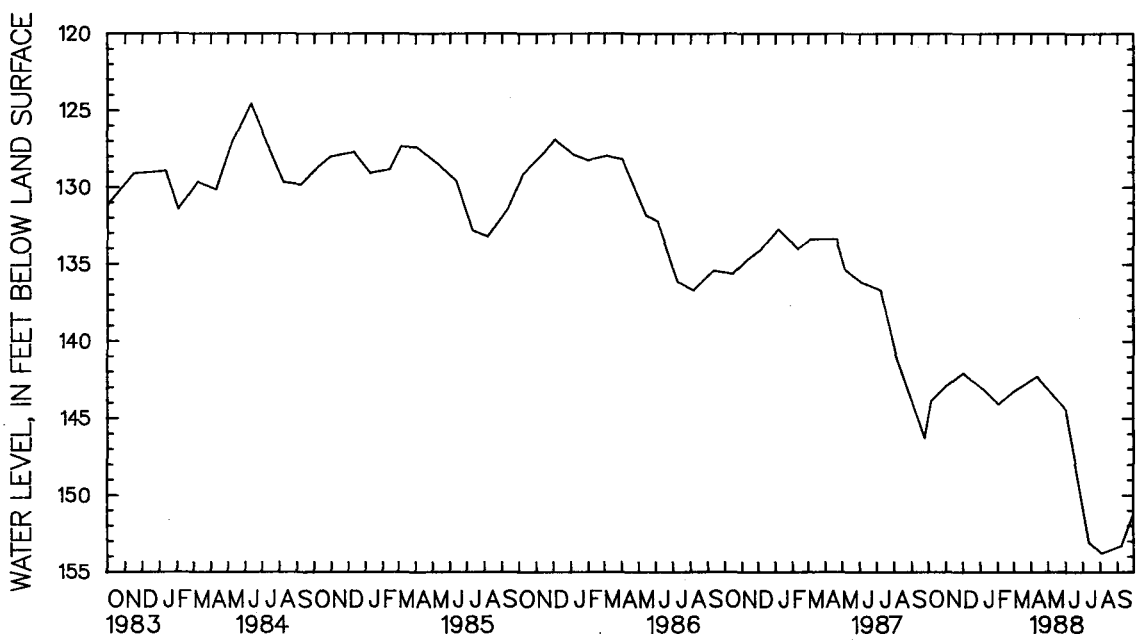


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 Great Mills Rd, Lexington Park.
Owner: U.S. Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 560 ft; casing diameter 4 in. with depth to 420 ft; casing diameter 2 in. from 420 to 550 ft; screen diameter 2 in. from 550 to 560 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.3 ft above land-surface datum.
PERIOD OF RECORD.--August 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 119.19 ft below land-surface datum, May 1, 1980; lowest measured, 153.79 ft below land-surface datum, Aug. 4, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	143.88	DEC 2	142.09	FEB 3	144.10	APR 12	142.31	JUN 1	144.46	AUG 4	153.79
NOV 3	142.88	JAN 7	143.14	MAR 1	143.29	MAY 3	143.22	JUL 12	153.12	SEP 8	153.32

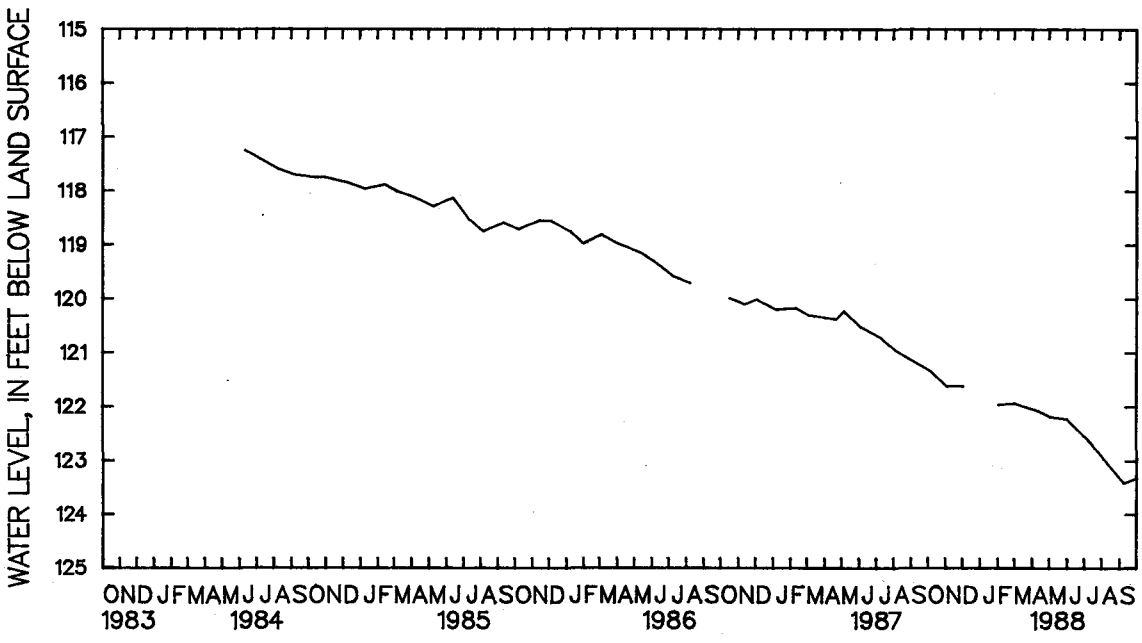


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--SM Df 84. SITE ID.--381548076272102. PERMIT NUMBER.--SM-0119.
LOCATION.--Lat 38°15'48", long 76°27'21", Hydrologic Unit 0206001, at Lexington Park.
Owner: Maryland Geological Survey.
AQUIFER.--Mataponi aquifer.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 920 ft; casing diameter 6 in. with depth to 246 ft; casing diameter 4 in. from 246 ft to 831 ft, from 856 to 862 ft and from 867 to 897; screen diameter 4 in. from 831 to 856 ft, from 862 to 867 ft and from 897 to 912 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 105 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing 3.0 ft above land-surface datum.
PERIOD OF RECORD.--June 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 117.27 ft below land-surface datum, June 11, 1984; lowest measured, 123.43 ft below land-surface datum, Sept. 8, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	121.35	DEC 2	121.63	MAR 1	121.96	MAY 3	122.21	JUL 12	122.67	SEP 8	123.43
NOV 3	121.63	FEB 3	121.98	APR 12	122.10	JUN 1	122.25	AUG 4	122.98		

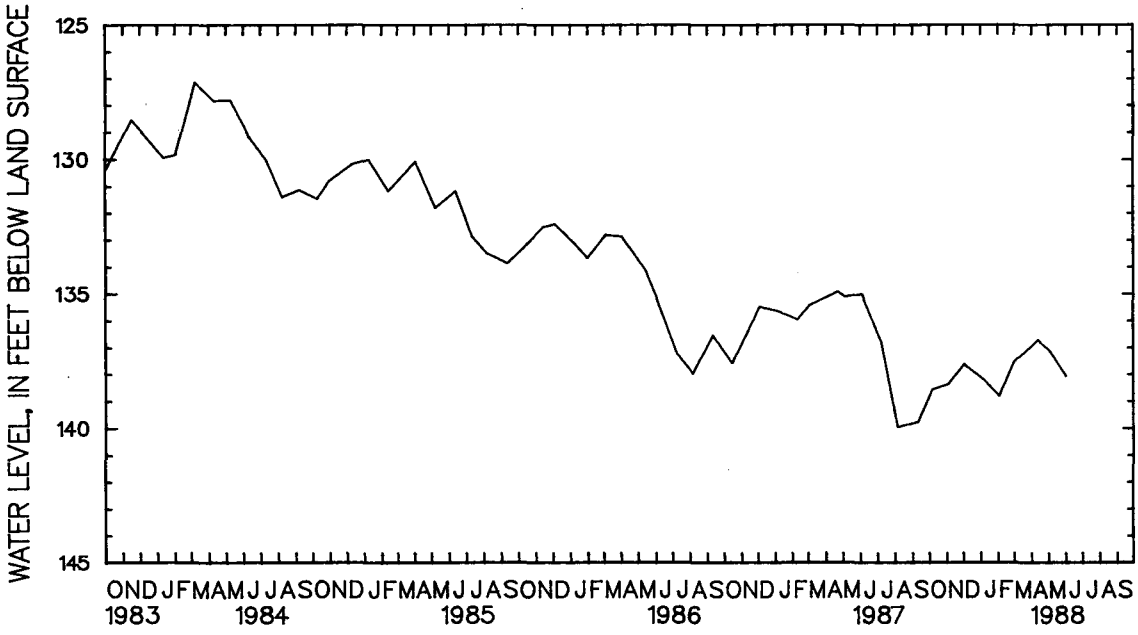


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--SM Ef 57. SITE ID.--381435076291802. PERMIT NUMBER.--SM-67-0089.
LOCATION.--Lat 38°14'35", long 76°29'18", Hydrologic Unit 02070011, at Great Mills Fire Tower.
Owner: Maryland Forest, Park and Wildlife Service.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 322 ft; casing diameter 4 in. with depth to 317 ft; screen diameter 4 in. from 317 to 322 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 108 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.5 ft above land-surface datum.
REMARKS.--Originally drilled to a depth of 1,509 ft as well SM Ef 56; finished well numbered SM Ef 57. Well vandalized July 1988; due to obstruction in well unable to measure water level.
PERIOD OF RECORD.--December 1966, June 1967, February 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 114.46 ft below land-surface datum, Dec. 15, 1966; lowest measured, 139.99 ft below land-surface datum, Aug. 5, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	138.57	DEC 2	137.64	FEB 3	138.83	APR 12	136.72	JUN 1	138.07
NOV 3	138.37	JAN 7	138.23	MAR 1	137.52	MAY 3	137.12		

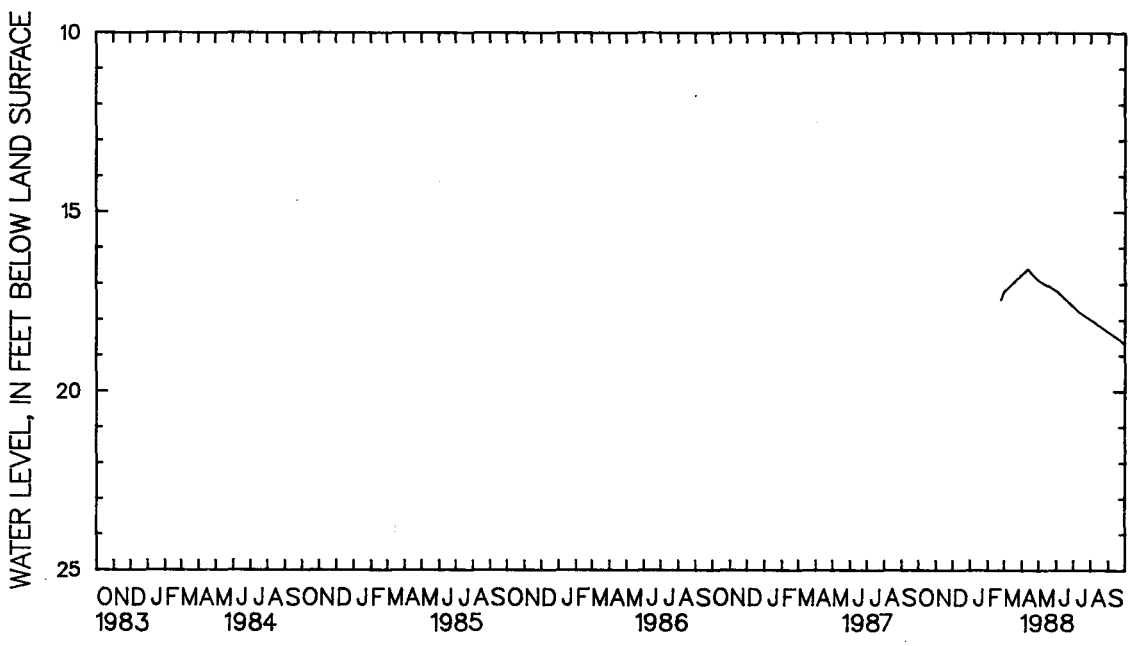


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--SM Ef 80. SITE ID.--381052076253001.
LOCATION.--Lat 38°10′52″, long 76°25′30″, Hydrologic Unit 02070011, 0.1 mi south of intersection of MD Rt 5 and Rosecroft Rd.
Owner: St. Mary's College of Maryland.
AQUIFER.--Omar Formation.
WELL CHARACTERISTICS.--Dug unused water-table well, depth 20.7 ft; casing diameter 42 in.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.5 ft above land-surface datum.
PERIOD OF RECORD.--February 1988 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.60 ft below land-surface datum, Apr. 12, 1988; lowest measured, 18.50 ft below land surface datum, Sept. 15, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
FEB 24	17.46	APR 12	16.60	JUN 1	17.21	AUG 4	18.04
MAR 1	17.23	MAY 3	16.94	JUL 12	17.81	SEP 15	18.50

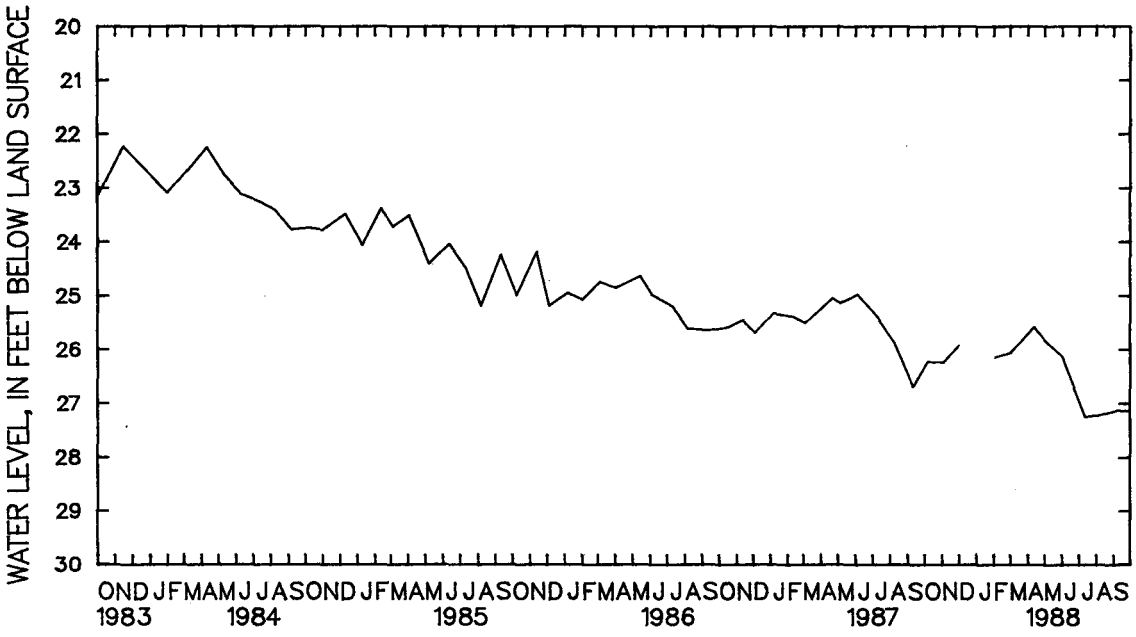


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--SM Eg 27. SITE ID.--381213076222801. PERMIT NUMBER.--SM-73-1993.
LOCATION.--Lat 38°12'13", long 76°22'28", Hydrologic Unit 02060001, 1.6 miles east of St. James at the St. Mary's Co. Environmental Studies Area.
Owner: U.S. Geological Survey.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 320 ft; casing diameter 6 in. with depth to 70 ft; casing diameter 2 in. from 70 to 310 ft; screen diameter 2 in. from 310 to 320 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 3.3 ft above land-surface datum.
PERIOD OF RECORD.--August 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.84 ft below land-surface datum, May 12, 1978; lowest measured, 27.27 ft below land-surface datum, July 12, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	26.23	DEC 1	25.93	MAR 1	26.07	MAY 3	25.85	JUL 12	27.27	SEP 8	27.14
NOV 3	26.24	FEB 3	26.15	APR 12	25.58	JUN 1	26.14	AUG 4	27.24		

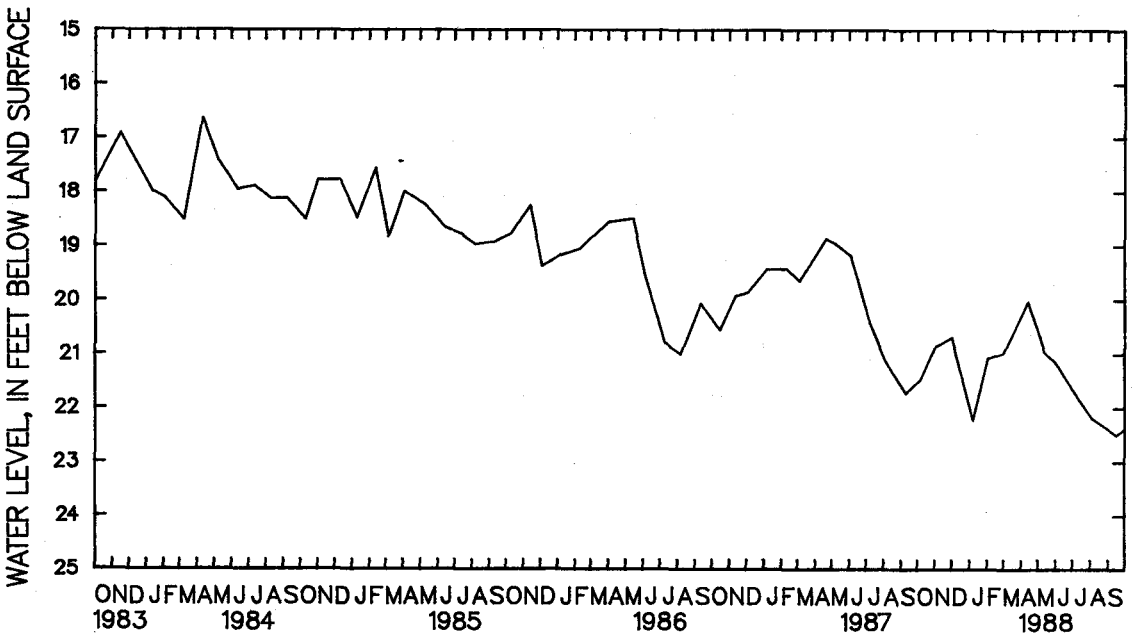


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 270 ft; casing diameter 6 in. with depth to 67 ft; casing diameter 2 in. from 67 to 260 ft; screen diameter 2 in. from 260 to 270 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 9 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 4 ft above land-surface datum.
PERIOD OF RECORD.--August 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.24 ft below land-surface datum, Oct. 6, 1976; lowest measured, 22.51 ft below land-surface datum, Sept. 15, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	21.47	JAN 7	22.24	APR 13	20.03	MAY 19	21.04	AUG 4	22.20
NOV 3	20.85	FEB 3	21.08	MAY 4	20.68	JUN 1	21.16	SEP 15	22.51
DEC 1	20.69	MAR 1	20.98	12	20.96	JUL 13	21.86		

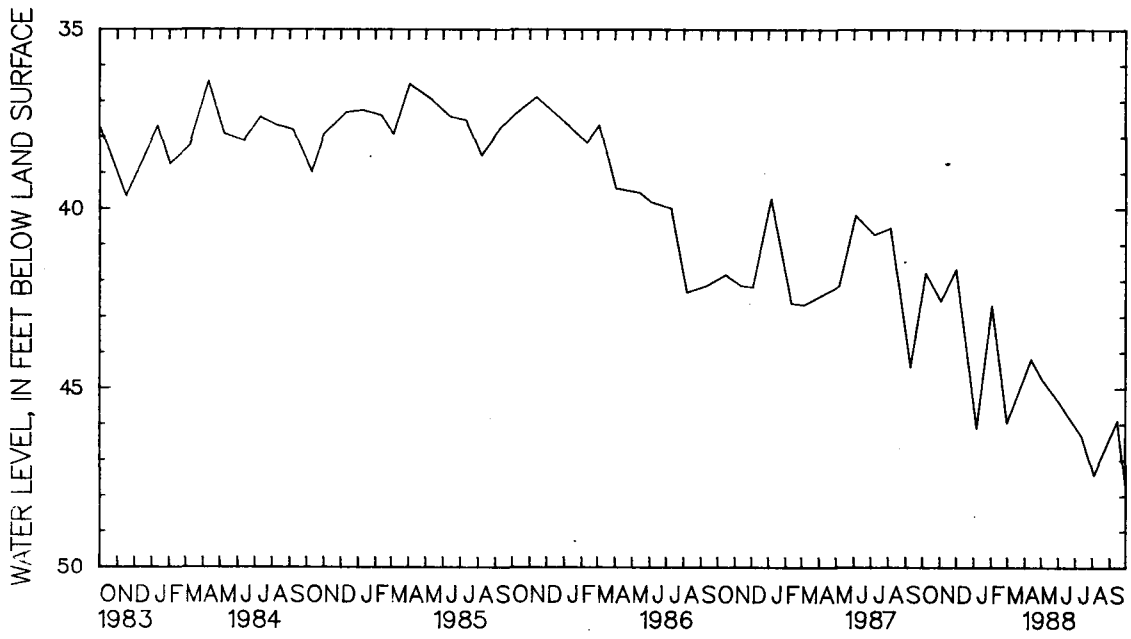


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 water tower, Piney Point.
Owner: U.S. Geological Survey.
AQUIFER.--Aquia Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 639 ft; casing diameter 4 in. with depth to 171 ft; casing diameter 2 in. from 171 to 451 ft; screen diameter 3 in. from 451 to 461 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 8 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.7 ft above land-surface datum.
REMARKS.--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 datum, Dec. 5, 1978; lowest measured, 47.42 ft below land-surface datum, Aug. 4, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 7	41.80	DEC 1	41.70	FEB 3	42.70	APR 13	44.20	JUN 1	45.35	AUG 4	47.42
NOV 3	42.58	JAN 7	46.13	MAR 1	45.97	MAY 4	44.78	JUL 13	46.34	SEP 15	45.92

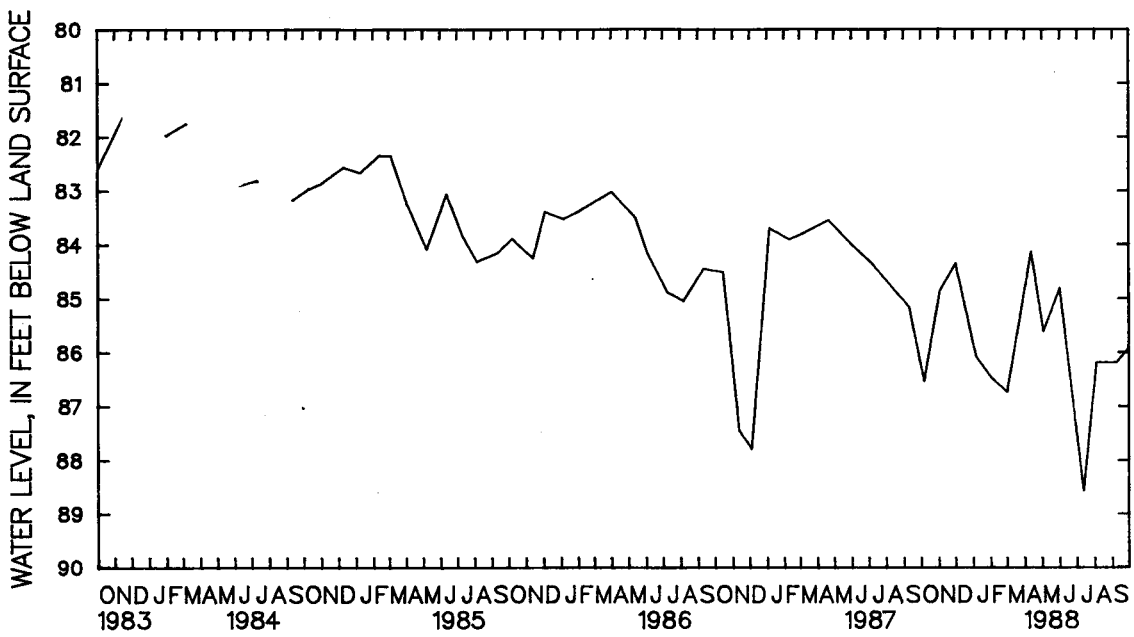


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 fire pumphouse at Ridge.
Owner: Ridge Volunteer Fire Department.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 436 ft; casing diameter 6 in. with depth to 386 ft; casing diameter 4 in. from 415 to 436 ft; screen diameter 5 in. from 386 to 415 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 65 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Hole in sanitary seal, 0.55 ft above land-surface datum.
PERIOD OF RECORD.--May 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 74.83 ft below land-surface datum, May 16, 1967; lowest measured, 88.59 ft below land-surface datum, July 12, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 6	86.55	DEC 1	84.35	FEB 3	86.50	APR 12	84.13	JUN 1	84.81	AUG 4	86.19
NOV 3	84.86	JAN 6	86.09	MAR 1	86.75	MAY 3	85.62	JUL 12	88.59	SEP 8	86.19



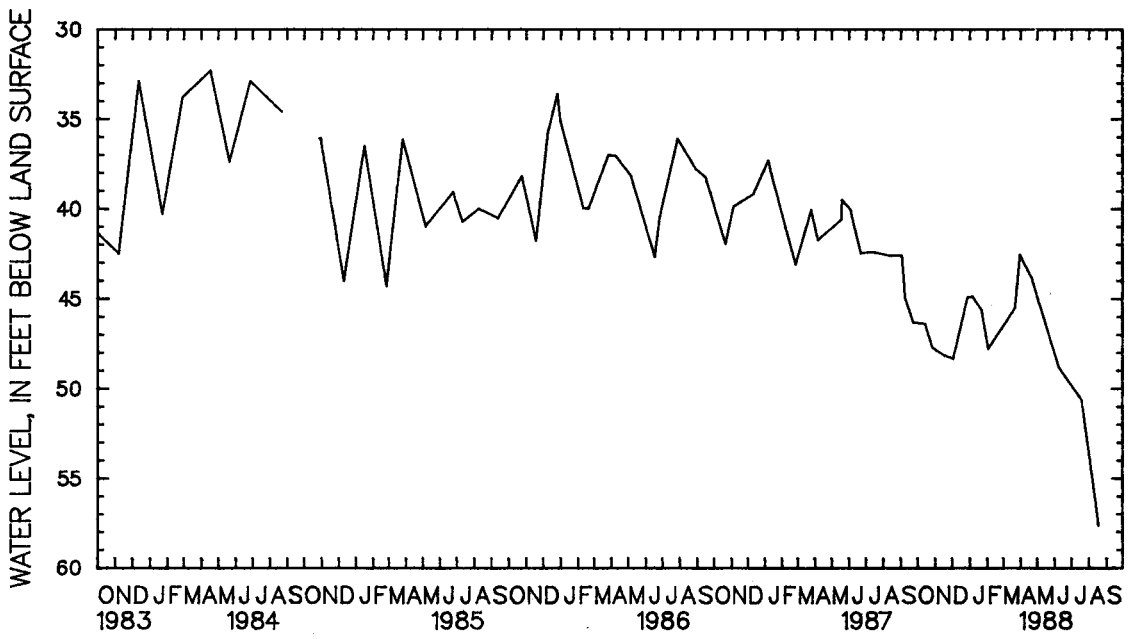
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, measured depth 184 ft; casing diameter 2 in.; casing length unknown.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 17 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.5 ft above land-surface datum.
PERIOD OF RECORD.--August 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.15 ft below land-surface datum, May 1, 1953; lowest measured 57.61 ft below land-surface datum, Aug. 18, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	46.42	DEC 3	48.37	JAN 22	45.64	MAR 31	42.56	JUL 19	50.64
27	47.74	28	44.95	FEB 3	47.80	APR 21	43.86	AUG 18	57.61
NOV 17	48.18	JAN 6	44.90	MAR 22	45.51	JUN 9	48.85		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.-Drilled artesian observation well, depth 215 ft; casing diameter 4 in. from -2 to 185 ft; screen diameter 4 in. from 185 to 215 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with digital water level recorder--60-minute recording interval.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 1.6 ft above land-surface datum.
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 datum, Feb. 21, 1986; lowest measured, 44.13 ft below land surface datum, Sept. 29, 1988 .

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	33.95	33.83	33.18	33.14	34.91	34.75	34.27	34.12	37.16	37.04	37.14	37.05
2	33.96	33.77	33.22	33.18	34.99	34.72	34.37	34.27	37.22	36.97	37.08	36.90
3	33.85	33.76	33.25	33.22	35.03	34.94	34.37	34.30	37.36	37.25	36.87	36.78
4	33.86	33.78	33.30	33.25	34.96	34.83	34.31	34.19	37.50	37.36	36.76	36.51
5	33.76	33.67	33.45	33.30	35.03	34.93	34.47	34.27	37.50	37.32	36.70	36.52
6	33.73	33.62	33.79	33.45	35.25	35.02	34.57	34.47	37.36	37.31	36.85	36.67
7	33.71	33.52	34.15	33.80	35.51	35.25	34.59	34.56	37.33	37.28	37.10	36.82
8	33.66	33.49	34.22	34.15	35.57	35.51	34.67	34.48	37.44	37.26	37.19	37.08
9	33.65	33.54	34.23	34.22	35.57	35.39	34.98	34.69	37.51	37.33	37.19	36.98
10	33.59	33.45	34.36	34.26	35.41	35.17	35.20	35.00	37.46	37.21	37.01	36.85
11	33.50	33.35	34.40	34.35	35.17	35.08	35.27	35.21	37.69	37.39	37.07	37.00
12	33.41	33.25	34.38	34.35	35.11	34.89	35.34	35.28	37.72	37.66	37.09	36.99
13	33.29	33.21	34.53	34.40	34.97	34.88	35.47	35.31	37.66	37.54	37.08	37.02
14	33.24	33.20	34.70	34.55	34.91	34.78	35.65	35.49	37.67	37.54	37.05	36.94
15	33.21	33.21	34.82	34.70	34.79	34.34	35.63	35.54	37.70	37.55	37.04	36.94
16	33.21	33.20	34.92	34.82	34.48	34.34	35.55	35.46	37.70	37.53	37.16	36.98
17	33.20	33.20	34.92	34.78	34.55	34.42	35.57	35.48	37.58	37.21	37.31	37.10
18	33.20	33.08	35.01	34.76	34.50	34.36	35.60	35.46	37.35	37.19	37.42	37.26
19	33.08	33.08	35.18	35.01	34.37	34.18	35.73	35.57	37.44	37.22	37.54	37.31
20	33.08	33.07	35.15	35.02	34.35	34.17	35.72	35.53	37.39	37.27	37.64	37.42
21	33.07	33.07	35.18	35.07	34.30	34.16	35.91	35.61	---	---	37.67	37.58
22	33.07	33.07	35.22	35.15	34.27	34.11	36.47	35.87	---	---	37.67	37.61
23	33.07	33.04	35.18	34.98	34.32	34.18	36.47	36.38	---	---	37.63	37.54
24	33.04	33.04	35.06	34.97	34.32	34.21	36.73	36.36	37.25	37.17	37.54	37.46
25	33.04	33.03	35.04	34.94	34.29	34.16	36.86	36.73	37.18	37.10	37.68	37.55
26	33.03	32.99	35.01	34.92	34.28	34.18	36.94	36.85	37.12	37.01	37.74	37.68
27	32.99	32.80	35.05	34.94	34.25	33.92	36.97	36.92	37.01	36.90	37.98	37.73
28	32.87	32.80	35.01	34.88	33.94	33.76	37.03	36.88	37.08	36.97	38.10	37.98
29	32.91	32.88	34.98	34.77	33.94	33.72	37.09	37.02	37.10	36.92	38.19	38.09
30	32.99	32.92	34.91	34.76	34.13	33.95	37.08	36.99	---	---	38.24	38.16
31	33.14	32.99	---	---	34.14	33.97	37.07	36.95	---	---	38.35	38.16
MONTH	33.96	32.80	35.22	33.14	35.57	33.72	37.09	34.12	---	---	38.35	36.51

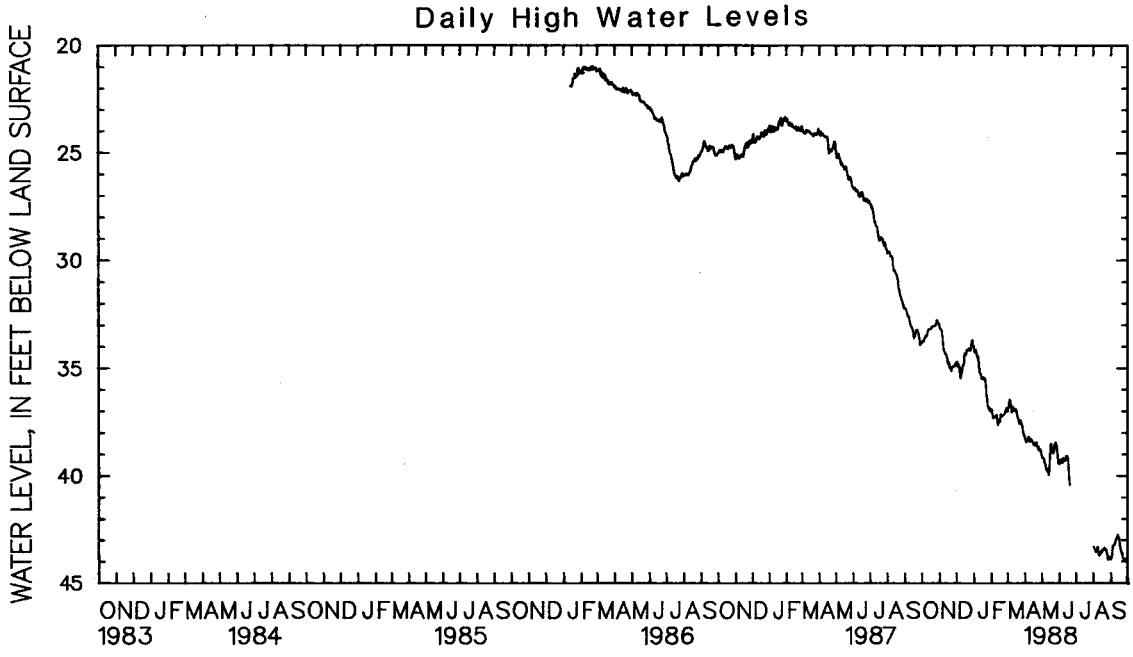
GROUND-WATER LEVELS

MARYLAND--Continued

SOMERSET COUNTY--Continued

SO Ce 42--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	38.52	38.30	39.30	39.19	39.64	39.48	---	---	---	---	44.01	43.90
2	38.57	38.43	39.31	39.18	39.55	39.42	---	---	---	---	44.01	43.83
3	38.58	38.48	39.37	39.19	39.48	39.27	---	---	---	---	43.88	43.66
4	38.55	38.39	39.48	39.23	39.42	39.24	---	---	---	---	43.68	43.30
5	38.52	38.38	39.55	39.40	39.49	39.36	---	---	43.80	43.54	43.39	43.29
6	38.52	38.40	39.62	39.43	39.52	39.42	---	---	43.61	43.55	43.38	43.24
7	38.49	38.22	39.71	39.56	39.47	39.31	---	---	43.65	43.53	43.30	43.23
8	38.46	38.28	39.83	39.65	39.41	39.22	---	---	43.57	43.35	43.26	43.18
9	38.53	38.44	39.88	39.75	39.41	39.23	---	---	43.57	43.34	43.18	43.08
10	38.51	38.40	39.90	39.72	39.46	39.32	---	---	---	---	43.06	42.96
11	38.45	38.33	40.04	39.82	39.43	39.32	---	---	43.82	43.66	43.02	42.93
12	38.54	38.38	40.08	39.94	39.31	39.21	---	---	43.84	43.73	43.00	42.89
13	38.65	38.44	40.08	39.97	39.21	39.11	---	---	43.83	43.71	42.95	42.77
14	38.67	38.46	39.98	39.76	39.23	39.09	---	---	43.77	43.63	42.97	42.87
15	38.69	38.49	39.72	39.24	39.28	39.14	---	---	43.67	43.53	43.09	42.90
16	38.77	38.59	39.20	38.75	39.61	39.21	---	---	43.65	43.58	43.26	43.11
17	38.75	38.62	38.82	38.54	40.07	39.62	---	---	43.63	43.47	43.35	43.26
18	38.70	38.55	39.00	38.75	40.40	40.09	---	---	43.60	43.49	43.51	43.37
19	38.70	38.58	39.08	38.89	40.52	40.40	---	---	43.59	43.44	43.65	43.53
20	38.67	38.51	39.10	38.96	---	---	---	---	43.52	43.38	43.73	43.62
21	38.70	38.48	39.07	38.98	---	---	---	---	43.50	43.43	43.87	43.61
22	38.74	38.67	39.02	38.83	---	---	---	---	43.56	43.45	43.98	43.83
23	38.80	38.73	38.85	38.61	---	---	---	---	43.62	43.48	44.01	43.86
24	38.85	38.68	38.64	38.51	---	---	---	---	43.66	43.45	44.10	43.93
25	38.90	38.85	38.58	38.48	---	---	---	---	43.86	43.57	44.09	43.93
26	38.93	38.86	38.65	38.56	---	---	---	---	44.04	43.73	44.05	43.90
27	38.97	38.86	38.93	38.63	---	---	---	---	44.11	43.91	44.08	43.92
28	39.06	38.81	39.23	38.91	---	---	---	---	44.09	43.92	44.06	43.92
29	39.17	38.97	39.51	39.18	---	---	---	---	44.03	43.79	44.13	44.02
30	39.29	39.08	39.62	39.44	---	---	---	---	43.96	43.83	44.11	43.99
31	---	---	39.66	39.48	---	---	---	---	43.99	43.85	---	---
MONTH	39.29	38.22	40.08	38.48	---	---	---	---	---	---	44.13	42.77

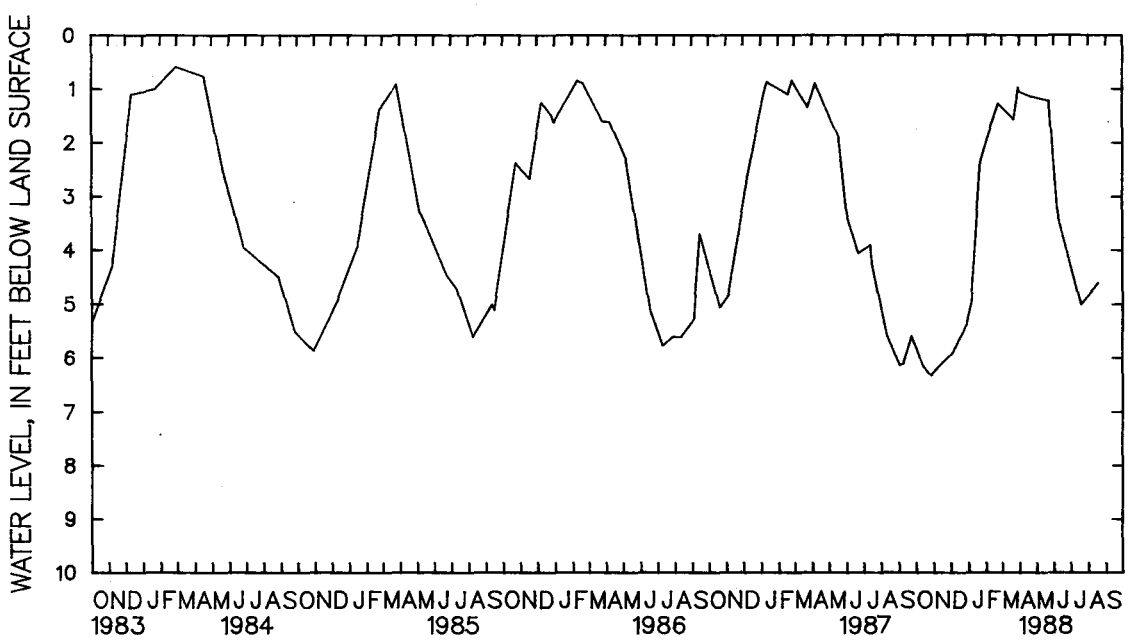


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 15 ft; casing diameter 1.25 in.; casing length unknown.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 20 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of casing, 1.0 ft above land-surface datum.
PERIOD OF RECORD.--August 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .28 ft below land-surface datum, May 9, 1958; lowest measured, 6.34 ft below land surface datum, Oct. 27, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	6.17	DEC 3	5.93	JAN 22	2.37	MAR 22	1.57	APR 21	1.14	JUN 9	3.42
27	6.34	28	5.40	FEB 3	1.92	30	.97	MAY 23	1.22	JUL 19	5.02
NOV 17	6.09	JAN 6	4.94	23	1.27	31	1.05	31	2.30	AUG 18	4.62



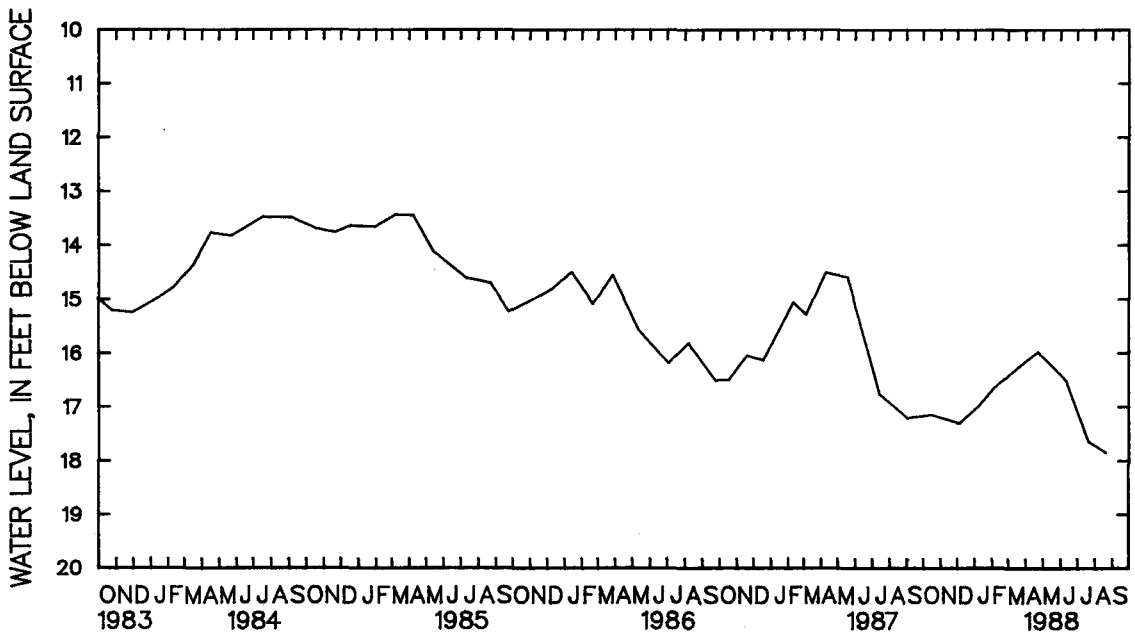
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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: William Schluderberg-T. J. Kurdle Co.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 288 ft; casing diameter 4 in. with depth to 276 ft; casing diameter 2 in. from 276 to 283 ft; screen diameter 3 in. from 283 to 288 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 42 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 0.5 ft above land-surface datum.
REMARKS.--Water level reported by driller 26 ft below land-surface datum Dec. 16, 1955; water level measured 26.64 ft below land-surface datum March 10, 1956. These measurements may be affected by nearby pumping.
PERIOD OF RECORD.--December 1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.29 ft below land-surface datum, May 4, 1961; lowest measured, 76.57 ft below land-surface datum, Dec. 6, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	17.16	JAN 7	17.00	MAR 23	16.23	JUN 10	16.52	AUG 19	17.86
DEC 4	17.32	FEB 4	16.66	APR 22	15.98	JUL 20	17.66		

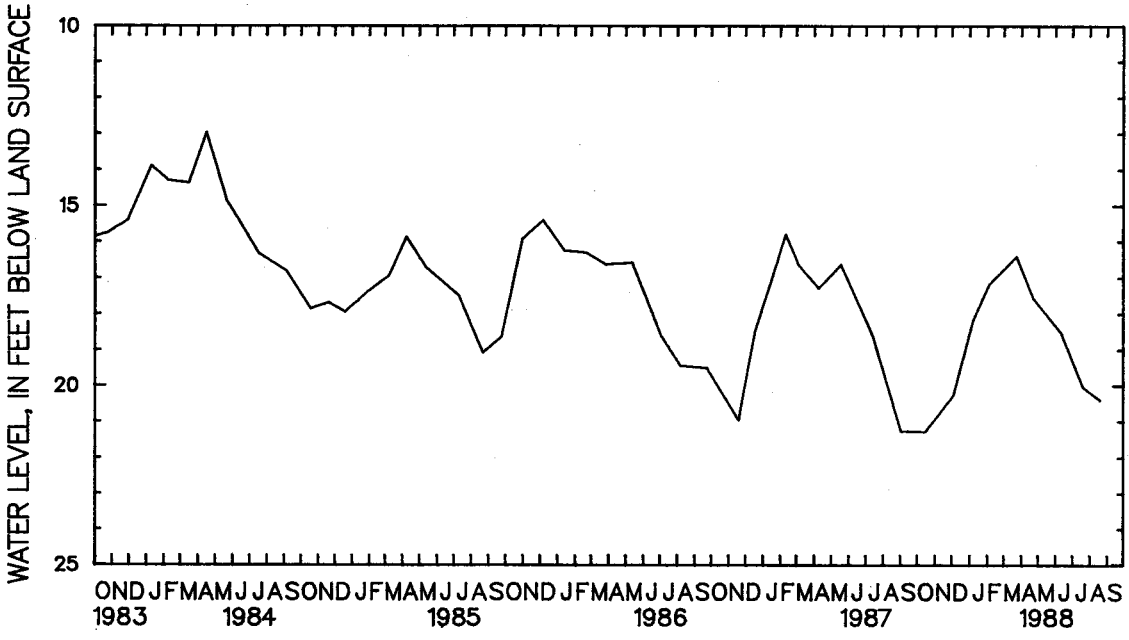


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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: William Schluderberg- T. J. Kurdle Co.
AQUIFER.--Wicomico Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 48.4 ft; casing diameter 4 in. with depth to 42.5 ft; screen diameter 3 in. from 43.2 to 48.4 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 42 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 0.7 ft above land-surface datum.
PERIOD OF RECORD.--April 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.48 ft below land-surface datum, Dec. 14, 1971; lowest measured, 21.32 ft below land-surface datum, Oct. 15, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	21.32	JAN 7	18.18	MAR 23	16.40	JUN 10	18.53	AUG 19	20.42
DEC 4	20.28	FEB 4	17.18	APR 22	17.57	JUL 20	20.07		

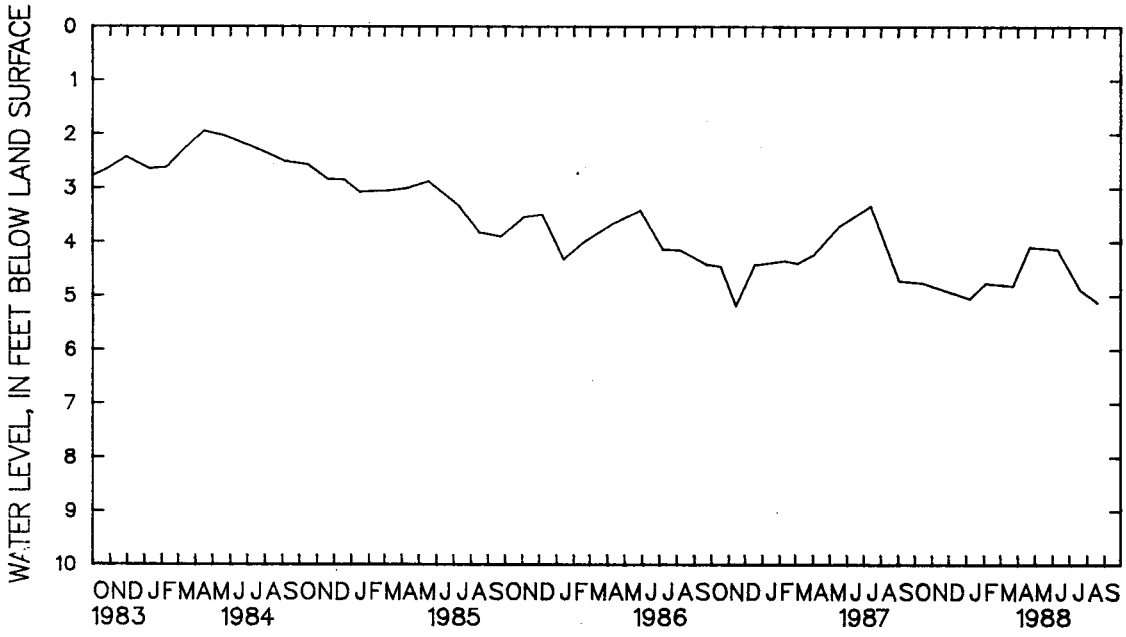


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 220 ft; casing diameter 6 to 2 in.; screened from 170 to 180 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing, 1.8 ft above land-surface datum.
PERIOD OF RECORD.--August 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, .97 ft below land-surface datum, April 2, 1980; lowest measured, 5.20 ft below land-surface datum, Nov. 14, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	4.77	JAN 7	5.06	MAR 23	4.82	JUN 10	4.14	AUG 19	5.13
DEC 4	4.94	FEB 4	4.77	APR 22	4.09	JUL 20	4.90		

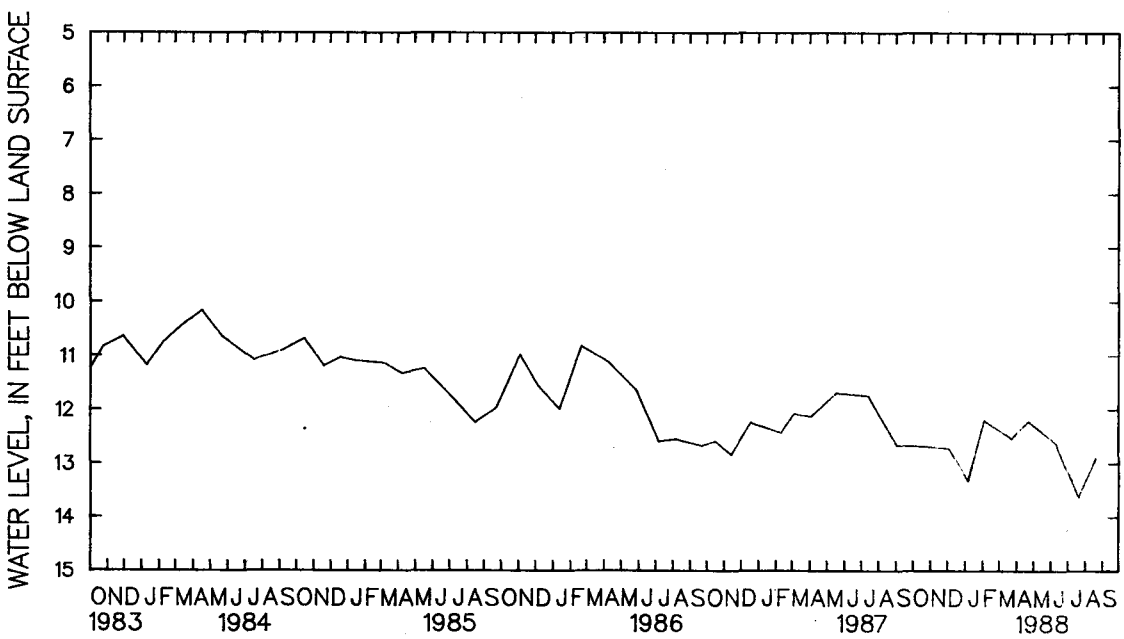


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--TA Cc 36. SITE ID.--384514076103701. PERMIT NUMBER.--TA-73-0750.
LOCATION.--Lat 38°45′14″, long 76°10′37″, Hydrologic Unit 02060002, at Newcomb.
Owner: U.S. Geological Survey.
AQUIFER.--Piney Point Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 241 ft; casing diameter 6 in. with depth to 57 ft; casing diameter 2 in. from 51 to 231 ft; screen diameter 2 in. from 231 to 241 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 7 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.4 ft above land-surface datum.
PERIOD OF RECORD.--October 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.89 ft below land-surface datum, April 2, 1980; lowest measured, 13.63 ft below land-surface datum, Jul. 20, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	12.69	JAN 7	13.33	MAR 23	12.54	JUN 10	12.62	AUG 19	12.91
DEC 4	12.73	FEB 4	12.21	APR 22	12.22	JUL 20	13.63		

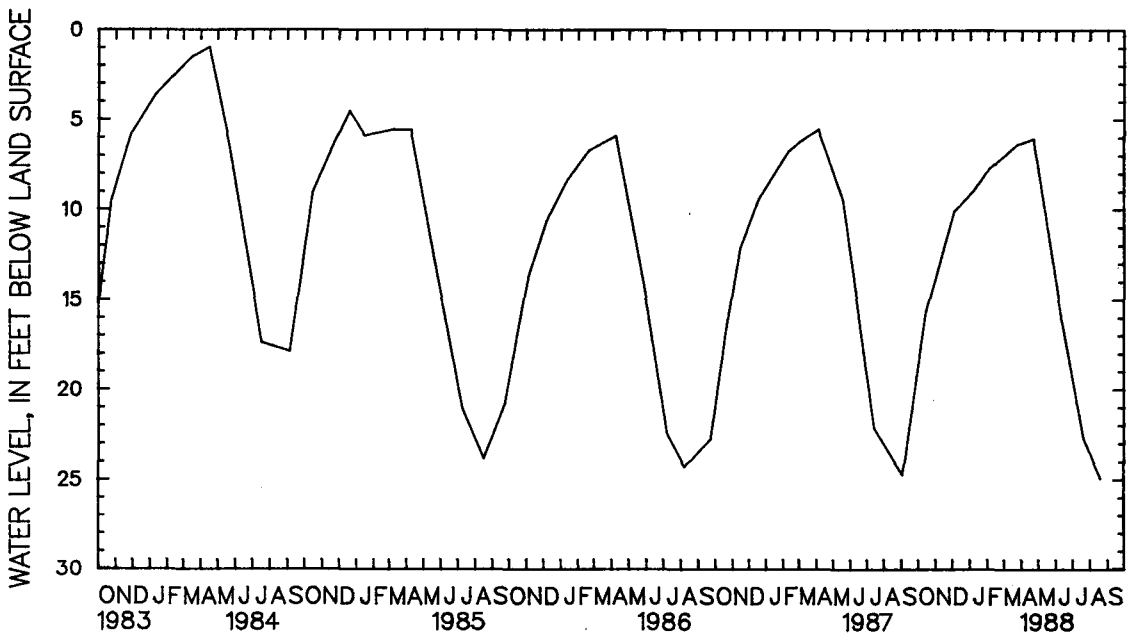


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--TA Ce 7. SITE ID.--384643076043801.
LOCATION.--Lat 38°46′43″, long 76°04′38″, Hydrologic Unit 02060005, in Easton.
Owner: Easton Utilities Commission.
AQUIFER.--Calvert Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, measured depth 104 ft; casing diameter 4 in.; casing length unknown
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 13 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.4 ft above land-surface datum.
REMARKS.--Water level measured 43.43 ft below land-surface datum 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, .97 ft below land-surface datum, Apr. 16, 1984; lowest measured 75.36 ft below land-surface datum, Aug. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 15	15.60	JAN 7	8.93	MAR 23	6.38	JUN 10	15.85	AUG 19	24.98
DEC 4	10.10	FEB 4	7.70	APR 22	6.04	JUL 20	22.76		

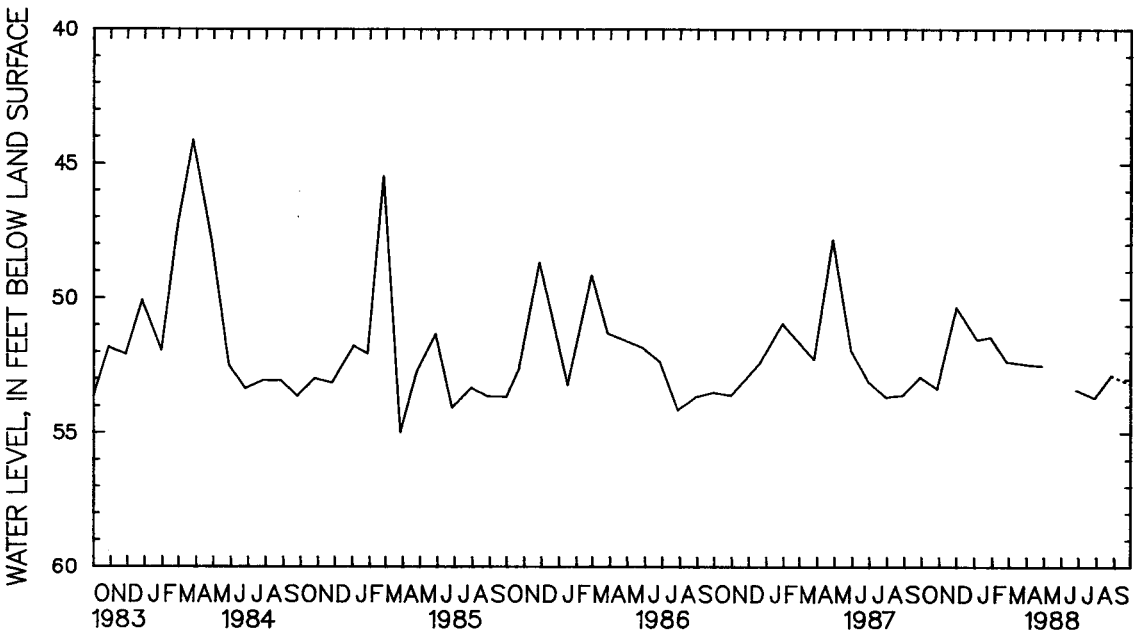


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 86.2 ft; casing diameter 4 in. to unknown depth; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 440 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of tile pipe, .25 ft above land-surface datum.
PERIOD OF RECORD.--October 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.65 ft below land surface datum, Jan. 2, 1976; lowest measured, 55.83 ft below land-surface datum, Nov. 19, 1953.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	53.38	JAN 5	51.55	FEB 25	52.37	APR 26	52.52	JUL 28	53.71
NOV 30	50.35	28	51.45	MAR 31	52.47	JUN 29	53.44	AUG 26	52.87

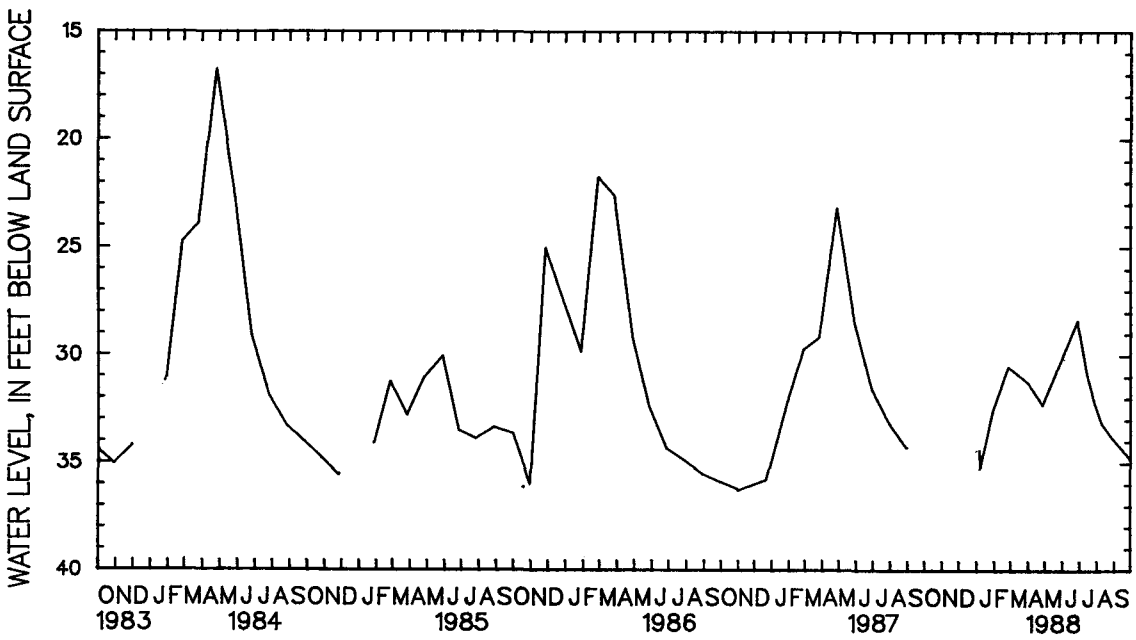


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Dug stone-lined unused water-table well, depth 42.7 ft; casing diameter 42 in.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 470 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of stone sill, .8 ft above land-surface datum.
PERIOD OF RECORD.--December 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.75 ft below land-surface datum, Apr. 26, 1984; lowest measured, 36.92 ft below land-surface datum, Jan. 11, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
JAN 5	34.45	JAN 28	32.65	MAR 31	31.27	JUN 27	28.37	JUL 28	32.30	AUG 26	33.80
6	35.30	FEB 25	30.53	APR 26	32.33	JUL 14	30.89	AUG 9	33.20	SEP 27	34.78

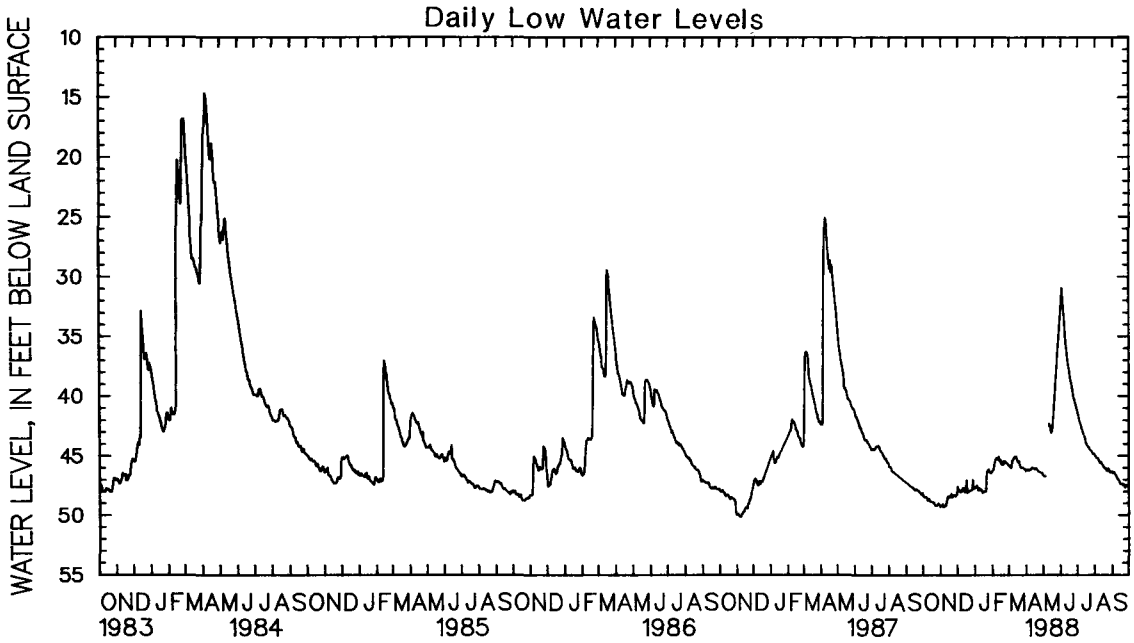


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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, 1/2 mi south of Smithsburg at Hagerstown Water Supply Plant.
Owner: U.S. Geological Survey.
AQUIFER.--Tomstown Dolomite.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 200 ft; casing diameter 6 in. with depth to 128 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water level recorder Apr. 27, 1970 to current year.
DATUM.--Elevation of land-surface datum is 790 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of shelter shelf, 1.7 ft above land-surface datum.
PERIOD OF RECORD.--April 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.68 ft below land-surface datum, Apr. 6, 1984; lowest measured, 51.37 ft below land-surface datum Jan. 31, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.36	49.29	47.61	47.62	46.25	45.89	46.22	46.69	---	41.48	45.00	46.40
2	48.45	49.24	47.85	47.65	46.15	45.89	46.26	46.73	---	41.65	45.08	46.48
3	48.51	49.19	47.84	47.61	46.15	45.94	46.21	46.74	30.95	41.83	45.16	46.48
4	48.53	49.11	47.84	47.51	45.70	46.03	46.16	46.75	31.76	42.07	45.21	46.44
5	48.54	49.28	47.97	47.66	45.56	46.04	46.26	46.70	32.36	42.25	45.22	46.47
6	48.49	49.31	48.05	47.88	45.38	45.75	46.23	46.55	33.07	42.35	45.26	46.60
7	48.55	49.31	48.05	47.90	45.35	45.42	46.19	44.98	33.70	42.52	45.34	46.65
8	48.76	49.31	48.03	47.75	45.20	45.42	46.19	43.43	34.35	42.74	45.45	46.73
9	48.83	49.24	47.88	47.81	45.20	45.20	46.16	42.83	35.06	42.86	45.52	46.87
10	48.79	49.22	47.75	47.90	45.30	45.13	46.10	42.44	35.63	43.04	45.58	46.98
11	48.67	49.06	47.72	47.89	45.31	45.22	46.02	42.33	36.08	43.16	45.66	47.03
12	48.66	48.83	47.82	47.85	45.11	45.14	46.05	42.43	36.56	43.28	45.58	47.05
13	48.80	48.56	48.03	48.01	45.43	45.10	46.06	42.63	37.06	43.42	45.69	47.18
14	48.89	48.42	48.03	48.13	45.53	45.10	46.11	42.93	37.43	43.53	45.75	47.32
15	48.88	48.53	47.96	48.10	45.38	45.30	46.10	43.09	37.72	43.77	45.84	47.42
16	48.92	48.49	47.86	48.03	45.66	45.46	46.16	42.97	37.98	43.93	45.95	47.38
17	48.91	48.43	47.09	48.03	45.72	45.57	46.13	42.77	38.34	44.08	45.97	47.37
18	48.95	48.48	48.11	47.99	45.78	45.57	46.07	---	38.65	44.18	46.06	47.39
19	48.98	48.48	48.05	48.00	45.78	45.49	46.15	---	38.89	44.22	46.13	47.39
20	48.97	48.26	48.05	47.87	45.49	45.74	46.20	---	39.10	44.33	46.11	47.48
21	49.12	48.49	47.93	46.74	45.63	45.93	46.26	---	39.33	44.33	46.15	47.52
22	49.22	48.52	47.93	46.40	45.61	46.02	46.35	---	39.52	44.48	46.29	47.44
23	49.23	48.46	47.94	46.25	45.49	46.02	46.36	---	39.91	44.54	46.31	47.68
24	49.24	48.34	47.94	46.20	45.58	46.00	46.41	---	40.20	44.57	46.17	47.63
25	49.22	48.31	47.89	46.16	45.65	46.01	46.42	---	40.26	44.62	46.12	47.64
26	49.20	48.36	47.88	46.33	45.66	46.03	46.44	---	40.48	44.66	46.25	47.50
27	49.11	48.42	47.83	46.44	45.67	46.09	46.46	---	40.71	44.76	46.34	47.52
28	49.04	48.38	47.05	46.46	45.71	46.15	46.48	---	40.91	44.83	46.45	---
29	49.13	48.32	47.77	46.46	45.82	46.15	46.51	---	41.10	44.88	46.46	---
30	49.16	48.03	47.77	46.36	---	46.21	46.67	---	41.27	44.89	46.40	---
31	49.29	---	47.71	46.35	---	46.30	---	---	---	44.89	46.45	---
MAX	49.29	49.31	48.11	48.13	46.25	46.30	46.67	46.75	41.27	44.89	46.46	47.68
MIN	48.36	48.03	47.05	46.16	45.11	45.10	46.02	---	---	41.48	45.00	---

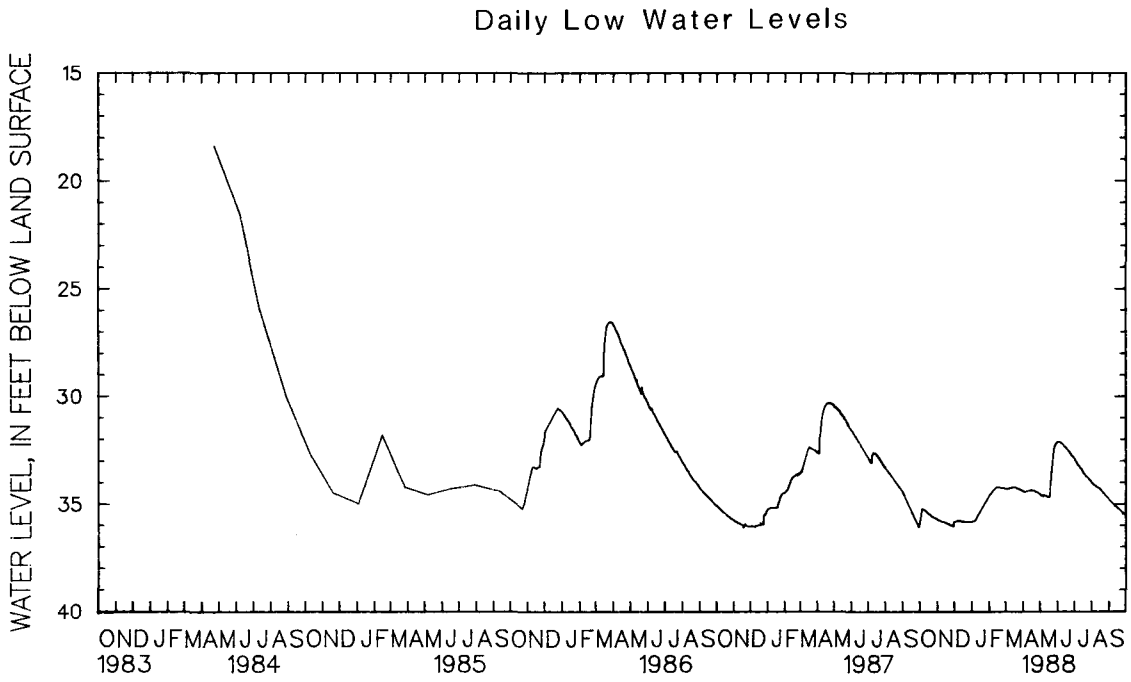


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 69 ft; casing diameter 6 in. with depth to 41 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water level recorder Mar. 29, 1978 to June 19, 1981, Nov. 6, 1985 to May 3, 1987, July 1, 1987 to current year
DATUM.--Elevation of land-surface datum is 520 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.45 ft above land-surface datum.
PERIOD OF RECORD.--February 1978 to June 1981, April 1984 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.41 ft below land-surface datum, Apr. 23, 1984, Apr. 23, 1987; lowest measured, 36.13 ft below land-surface datum, Jan. 16, 1981.

WATER LEVEL IN, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
LOWEST VALUE

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	35.74	35.82	35.82	---	34.29	34.42	34.57	32.12	32.93	34.02	---
2	---	35.76	35.82	35.82	---	34.30	34.44	34.59	32.11	32.98	34.05	---
3	---	35.77	35.82	---	34.52	34.31	34.45	34.61	32.11	33.02	34.08	---
4	---	35.78	35.80	---	34.52	34.31	---	34.64	32.12	33.06	34.11	---
5	35.22	35.79	35.79	---	34.48	34.28	---	34.64	32.13	33.10	34.13	---
6	35.24	35.80	35.79	35.78	34.43	34.28	---	34.64	32.15	---	34.15	34.97
7	35.26	35.82	35.79	---	34.40	34.28	---	34.60	32.16	33.19	34.17	34.99
8	35.28	35.83	35.79	---	34.36	34.28	---	34.62	32.19	33.22	---	35.02
9	35.30	35.84	35.79	---	34.33	34.27	---	34.63	32.21	33.26	34.21	35.04
10	35.31	35.86	35.79	---	34.31	34.26	---	34.64	32.24	33.29	34.23	35.07
11	35.34	35.84	35.79	---	34.28	34.25	---	34.64	32.27	33.33	34.24	35.10
12	35.35	35.85	35.79	---	34.26	34.25	---	34.65	32.30	33.36	34.25	35.12
13	35.40	35.86	35.80	---	34.24	34.24	---	34.66	32.33	33.40	34.27	35.14
14	35.42	35.87	35.80	---	34.23	34.24	34.37	34.68	32.36	33.43	34.28	35.17
15	35.44	35.89	35.80	---	34.23	34.24	34.37	34.69	32.38	33.48	---	35.19
16	35.47	35.90	35.81	---	34.23	34.24	34.38	34.69	32.41	33.53	---	35.21
17	35.48	35.91	35.82	---	34.24	34.24	34.38	34.70	32.44	33.57	---	35.24
18	35.50	35.92	35.82	---	34.24	34.24	34.39	34.64	32.48	33.60	---	35.25
19	35.52	35.93	35.83	---	34.24	34.25	34.39	33.96	32.51	33.63	---	35.28
20	35.55	35.94	35.83	---	34.24	34.26	34.40	33.88	32.54	33.66	---	35.30
21	35.57	35.96	35.83	---	34.24	34.28	34.41	33.46	32.57	33.70	---	35.33
22	35.59	35.97	35.83	---	34.25	34.29	34.43	33.14	32.60	33.74	---	35.35
23	35.60	35.99	35.84	---	34.25	34.30	34.45	32.85	32.64	33.76	---	35.38
24	35.62	36.00	35.84	---	34.26	34.31	34.46	32.64	32.68	33.78	---	35.40
25	35.64	36.00	35.84	---	34.26	34.33	34.47	32.49	32.72	33.81	---	35.47
26	35.65	36.01	35.84	---	34.27	34.33	34.48	32.37	32.75	33.84	---	35.45
27	35.66	36.03	35.84	---	34.27	34.35	34.50	32.30	32.79	33.87	---	35.47
28	35.67	36.04	35.84	---	34.28	34.37	34.51	32.24	32.82	33.90	---	35.49
29	35.68	36.04	35.84	---	34.29	34.38	34.53	32.19	32.86	33.93	---	35.52
30	35.70	35.84	35.84	---	---	34.39	34.55	32.16	32.88	33.96	---	35.54
31	35.73	---	35.84	---	---	34.41	---	32.14	---	33.99	---	---
MAX	35.73	36.04	35.84	---	---	34.41	---	34.70	32.88	33.99	---	35.54
MIN	---	35.74	35.79	---	34.23	34.24	---	32.14	32.11	32.93	---	---

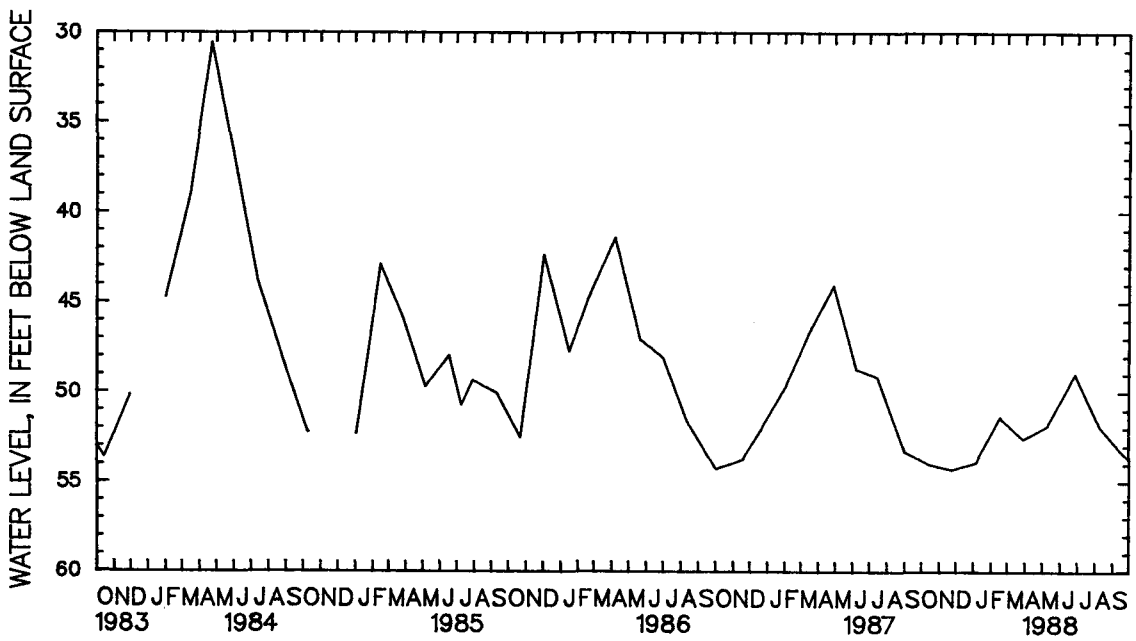


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled water-table observation well, depth 84 ft; casing diameter 6 in. with depth to 32 ft; open hole.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder Apr. 25, 1978 to June 19, 1981.
DATUM.--Elevation of land-surface datum is 500 ft above National Geodetic Vertical Datum of 1929. Measuring point: Top of casing 2.3 ft above land-surface datum.
PERIOD OF RECORD.--February 1978 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.56 ft below land-surface datum, Feb. 28, 1979; lowest measured, 59.28 ft below land-surface datum, Feb. 1, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	54.05	JAN 5	53.95	MAR 29	52.63	JUN 27	48.98	SEP 14	53.24
NOV 23	54.36	FEB 17	51.40	MAY 9	51.90	AUG 9	51.94		

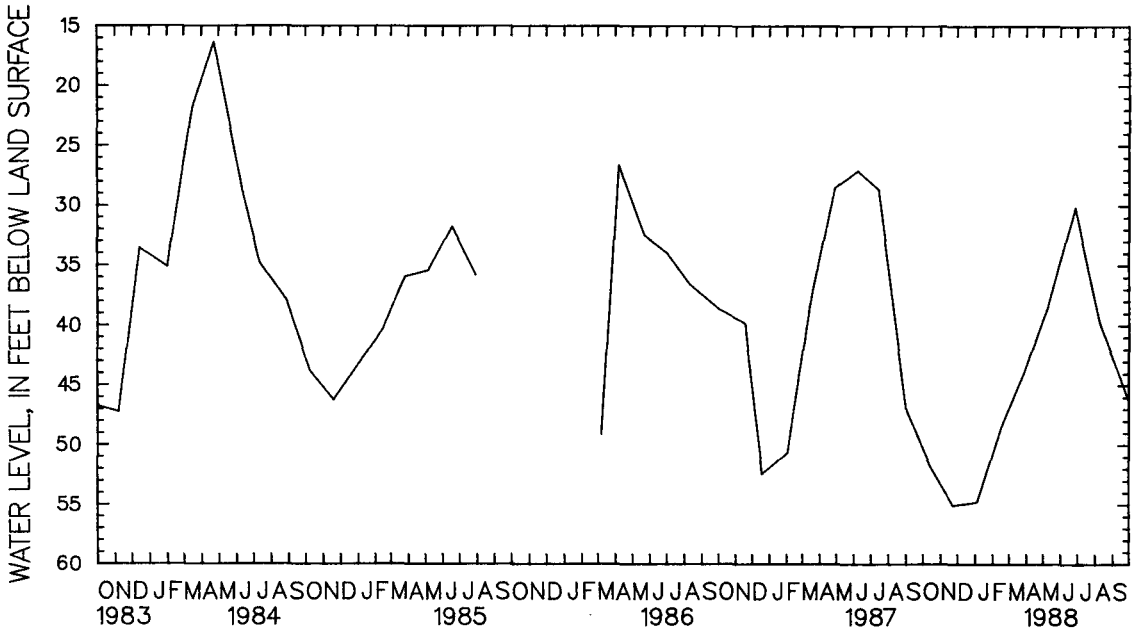


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Dug stone-lined water-table observation well, depth 61.3 ft; casing diameter 48 in.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 1,070 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of concrete cover, .25 ft above land-surface datum.
PERIOD OF RECORD.--December 1956 to current year.
EXTREMES FOR PERIOD FOR RECORD.--Highest water level measured, 16.35 ft below land-surface datum, Apr. 23, 1984; lowest measured, 58.88 ft below land-surface datum, Oct. 5, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 13	51.70	JAN 5	54.78	MAR 29	43.86	JUN 27	30.15	SEP 14	44.32
NOV 23	55.10	FEB 17	48.46	MAY 9	38.49	AUG 9	39.80		



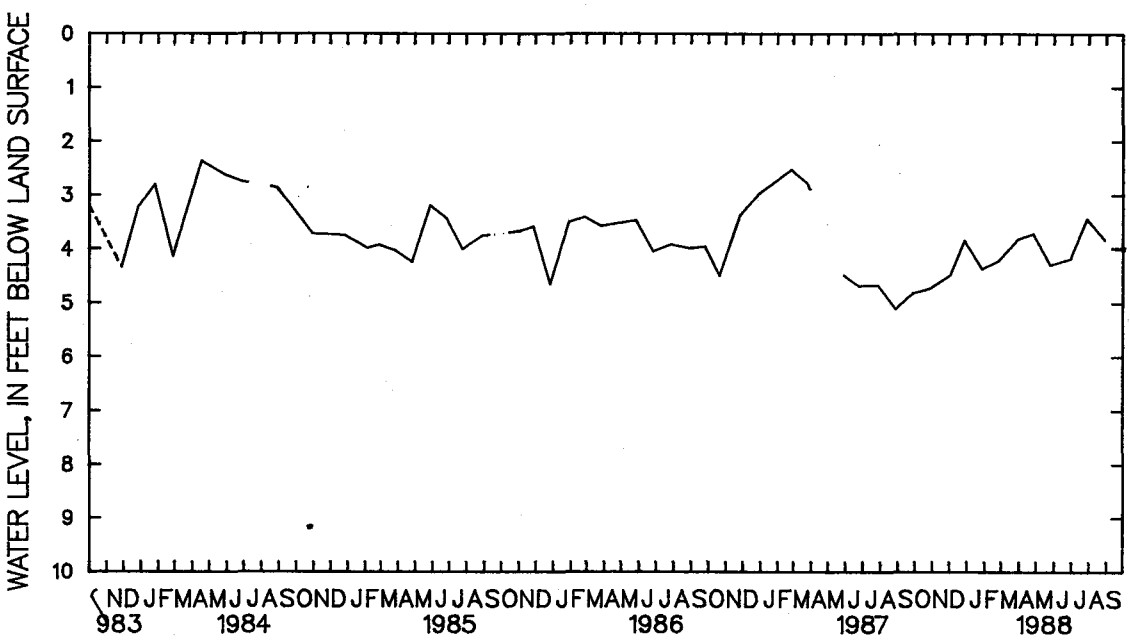
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.--Beaverdam Sand.
WELL CHARACTERISTICS.--Drilled unused water-table well, reported depth 65 ft, measured depth 51.7 ft; casing 16 to 10 in. with 20 ft screen.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water level recorder July 16, 1947 to Jan. 3, 1955; Aug. 23, 1962 to Aug. 20, 1968.
DATUM.--Elevation of land-surface datum is 7 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 1.04 ft above land-surface datum.
PERIOD OF RECORD.--July 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.07 ft below land-surface datum, Aug. 5, 1948; lowest measured, 10.72 ft below land-surface datum, Aug. 30, 1947.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	4.74	DEC 28	3.85	FEB 25	4.23	APR 26	3.72	JUN 29	4.19	AUG 29	3.83
DEC 3	4.49	JAN 28	4.38	MAR 31	3.82	MAY 25	4.30	JUL 28	3.44		

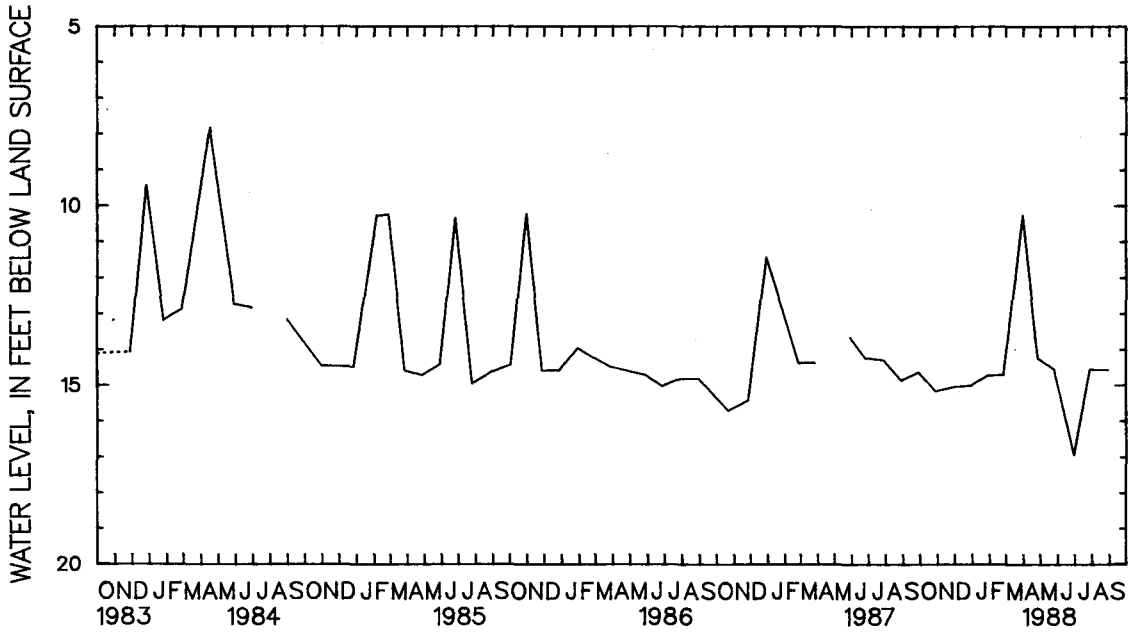


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--WI Ce 204. SITE ID.--382442075355302. PERMIT NUMBER.--WI-67-0191.
LOCATION.--Lat 38°24′42″, long 75°35′53″, Hydrologic Unit 02060007, north side of Naylor Mill Rd., near Salisbury
Owner: City of Salisbury.
AQUIFER.--Beaverdam Sand.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 113 ft; casing diameter 8 in. with depth to 109 ft; screen diameter 3 in. from 109 to 113 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 28 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 3.14 ft above land-surface datum.
PERIOD OF RECORD.--April 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 6.35 ft below land-surface datum, April 27, 1967; lowest measured, 16.96 ft below land-surface datum, June 29, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	15.19	DEC 28	15.03	FEB 25	14.72	APR 26	14.27	JUN 29	16.96	AUG 29	14.57
DEC 3	15.06	JAN 28	14.74	MAR 31	10.26	MAY 25	14.58	JUL 28	14.56		

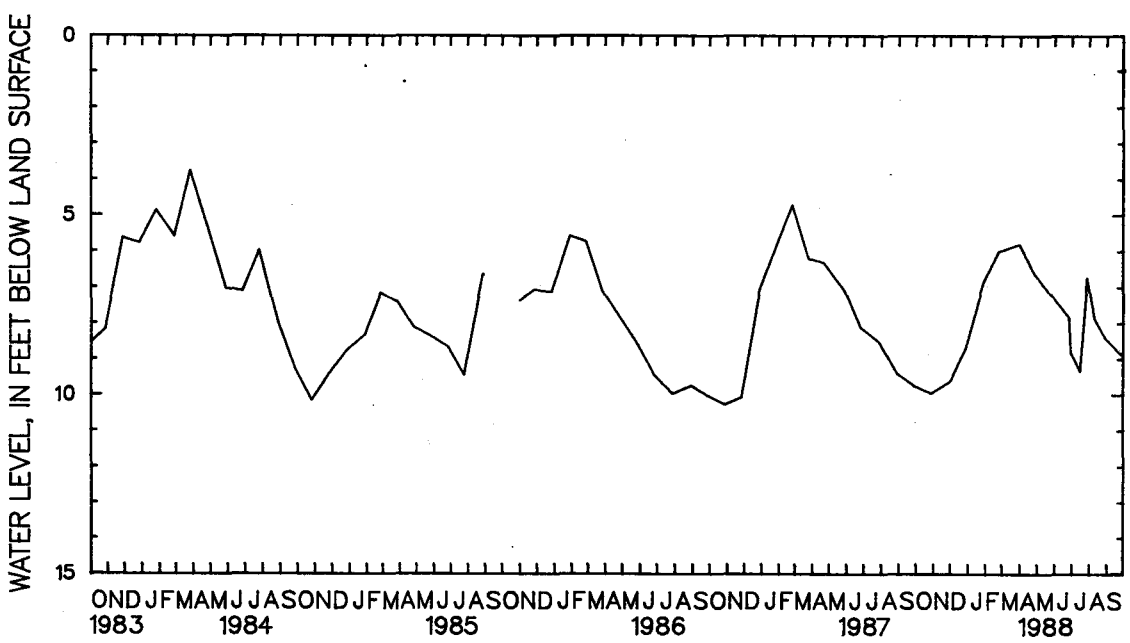


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--WI Cf 3. SITE ID.--382037075310801.
LOCATION.--Lat 38°20′37″, long 75°31′08″, Hydrologic Unit 02060007, on Airport Rd., about 5 mi southeast of Salisbury.
Owner: Salisbury Wicomico Airport.
AQUIFER.--Beaverdam Sand.
WELL CHARACTERISTICS.--Drilled unused water-table well, depth 109 ft; casing diameter 16 in. with depth to 90 ft; screened from 90 to 110 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel. Equipped with water-level recorder Mar. 24, 1948 to July 9, 1948, Aug. 2, 1949 to Apr. 11, 1960 and Aug. 29, 1963 to Aug. 20, 1968.
DATUM.--Elevation of land-surface datum is 44.79 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 2.0 ft above land-surface datum.
REMARKS.--Water level reported 7.2 ft below land-surface datum, Oct. 26, 1942.
PERIOD OF RECORD.--September 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.90 ft below land-surface datum, May 7, 1958; lowest measured, 13.44 ft below land-surface datum, Sept. 18, 1947.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	9.99	JAN 28	6.89	APR 26	6.63	JUL 15	9.37	AUG 29	8.44
DEC 1	9.64	FEB 25	6.01	JUN 25	7.85	28	6.74	SEP 26	8.89
28	8.70	MAR 31	5.81	29	8.85	AUG 10	7.90		

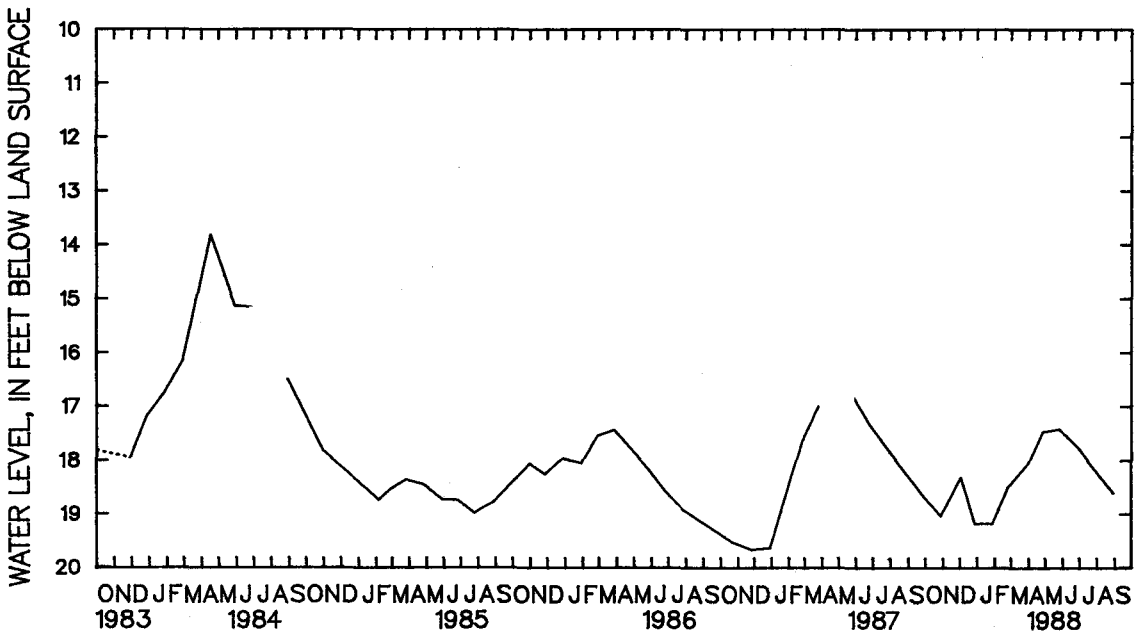


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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, near Salisbury.
Owner: A. S. Abell Co.
AQUIFER.--Beaverdam Sand.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 80 ft; casing diameter 2 in. with depth to 80 ft; casing slotted from 60 to 80 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 41.83 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing at land surface datum.
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 datum, June 18, 1979; lowest measured, 19.68 ft below land-surface datum, Nov. 26, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	19.05	DEC 28	19.19	FEB 25	18.49	APR 26	17.47	JUN 29	17.78	AUG 29	18.61
DEC 3	18.32	JAN 28	19.19	MAR 31	18.06	MAY 25	17.42	JUL 28	18.19		

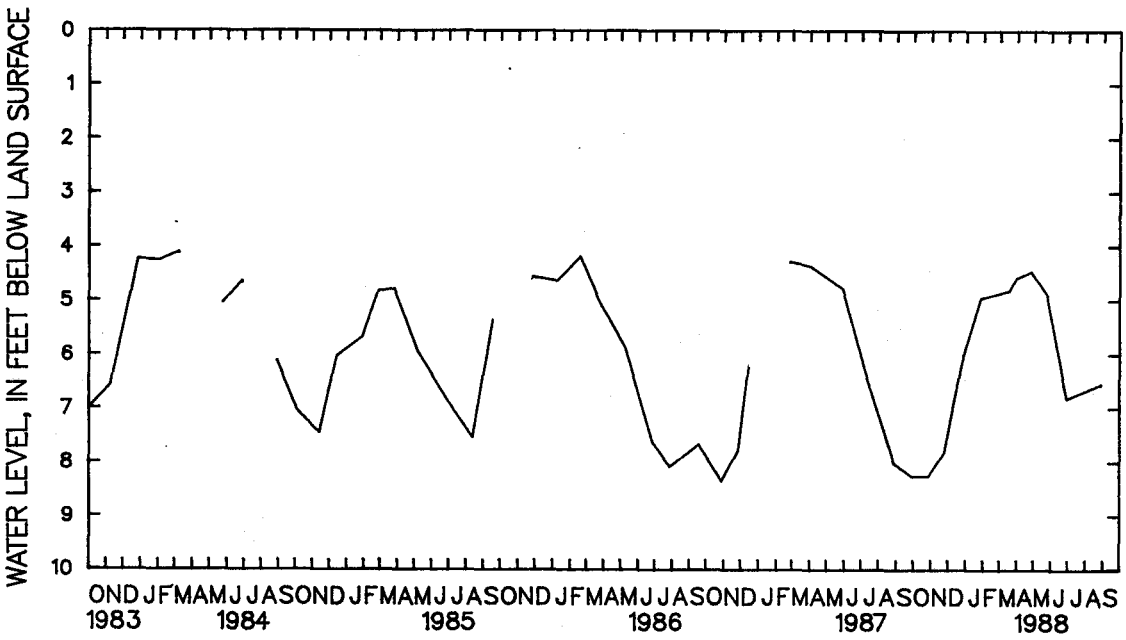


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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 on south side of MD Rt. 346.
Owner: Maryland State Highway Administration.
AQUIFER.--Parsonsburg Sand.
WELL CHARACTERISTICS.--Driven unused water-table well, depth 25 ft, casing diameter 1.25 in.; casing length unknown.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 68 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 2 in. sleeve, .17 ft above land-surface datum.
PERIOD OF RECORD.--August 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.84 ft below land-surface datum, Jan. 31, 1950; lowest measured, 8.68 ft below land-surface datum, Oct. 10, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 28	8.27	DEC 28	6.01	MAR 18	4.81	APR 26	4.46	JUN 29	6.83
NOV 24	7.82	JAN 28	4.95	31	4.58	MAY 25	4.90	AUG 29	6.56



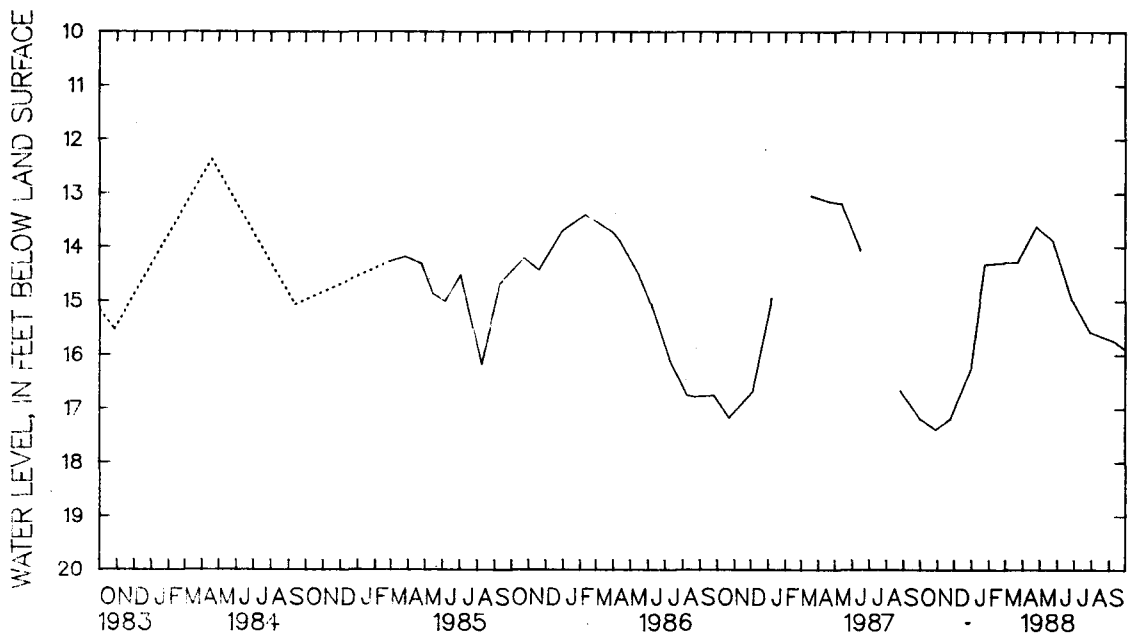
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WORCESTER COUNTY

WELL NUMBER.--WO Ae 23. SITE ID.--382621075174201. PERMIT NUMBER.--WO-73-0512.
LOCATION.--Lat 38°26′21″, long 75°17′42″, Hydrologic Unit 02060010, 2.75 mi north of Whaleysville.
Owner: U.S. Geological Survey.
AQUIFER.--Manokin aquifer.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 280 ft; casing diameter 4 in. with depth to 270 ft; screen diameter 4 in. from 270 to 280 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 4 in. coupling, 3.7 ft above land-surface datum.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.85 ft below land-surface datum, Dec. 16, 1975; lowest measured, 17.40 ft below land-surface datum, Oct. 29, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	17.20	DEC 31	16.26	MAR 23	14.28	JUN 28	15.00	SEP 28	15.89
29	17.40	JAN 25	14.32	APR 25	13.62	JUL 29	15.58		
NOV 24	17.20	FEB 24	14.29	MAY 24	13.88	SEP 9	15.75		

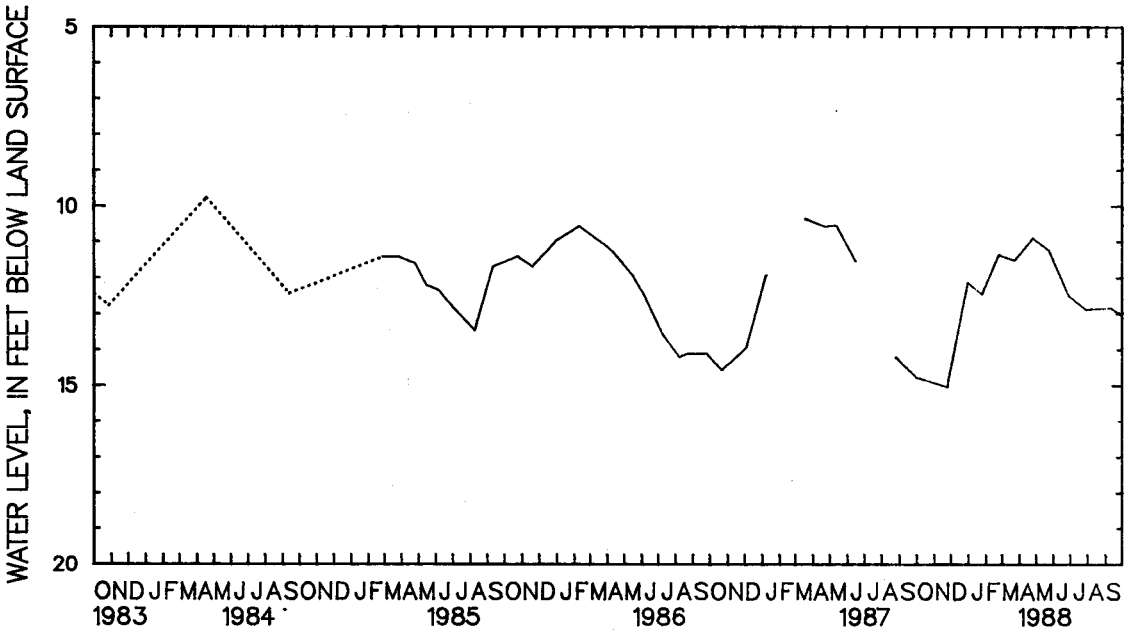


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--WO Ae 24. SITE ID.--382621075174202. PERMIT NUMBER.--WO-73-0515.
LOCATION.--Lat 38°26′21″, long 75°17′42″, Hydrologic Unit 02060010, 2.75 mi north of Whaleysville.
Owner: U.S. Geological Survey.
AQUIFER.--Ocean City aquifer.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 200 ft; casing diameter 4 in. with depth to 190 ft; screen diameter 4 in. from 190 to 200 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 4 in. coupling, 4.4 ft above land-surface datum.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.49 ft below land-surface datum, May 31, 1978; lowest measured, 15.06 ft below land-surface datum, Nov. 24, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	14.80	DEC 31	12.14	MAR 23	11.52	JUN 28	12.50	SEP 28	13.03
29	14.93	JAN 25	12.46	APR 25	10.90	JUL 29	12.89		
NOV 24	15.06	FEB 24	11.36	MAY 24	11.24	SEP 9	12.85		



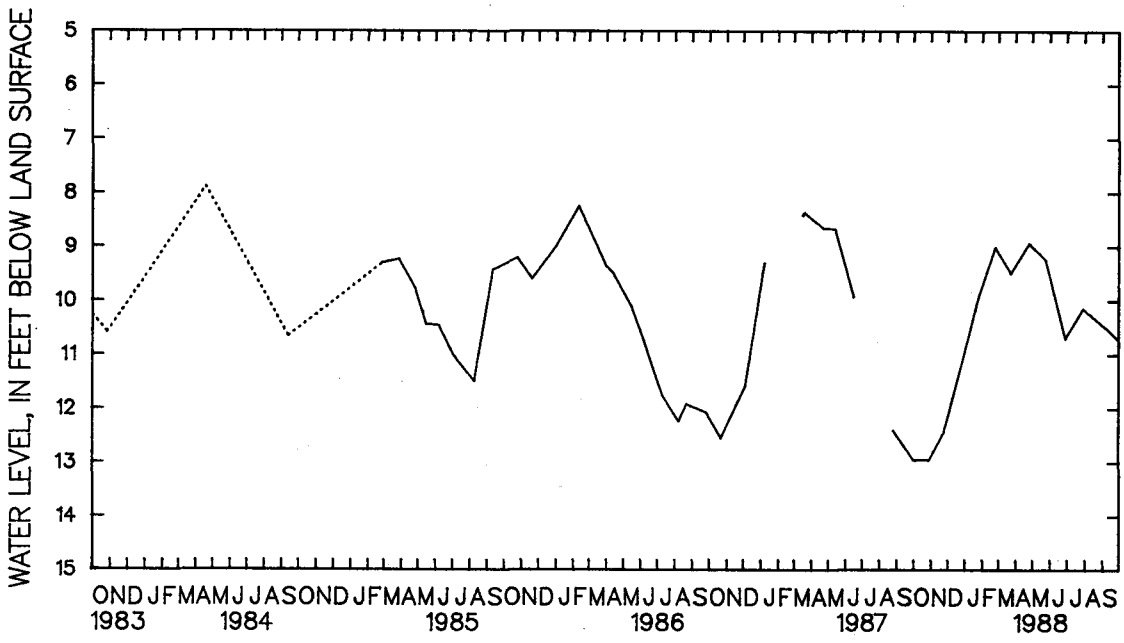
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--WO Ae 25. SITE ID.--382621075174203. PERMIT NUMBER.--WO-73-0514.
LOCATION.--Lat 38°26′21″, long 75°17′42″, Hydrologic Unit 02060010, 2.75 mi north of Whaleysville.
Owner: U.S. Geological Survey.
AQUIFER.--Pocomoke aquifer.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 118 ft; casing diameter 4 in. with depth 108 ft; screened diameter 4 in. from 108 to 118 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 40 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 4 in. coupling, 3.6 ft above land-surface datum.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.79 ft below land-surface datum, Nov. 20, 1975; lowest measured, 12.96 ft below land-surface datum, Oct. 1, 1987 and Oct. 29, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

WATEWATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	12.96	DEC 31	10.99	MAR 23	9.49	JUN 28	10.70	SEP 28	10.71
29	12.96	JAN 25	9.95	APR 25	8.94	JUL 29	10.15		
NOV 24	12.46	FEB 24	9.01	MAY 24	9.24	SEP 9	10.52		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 357 ft; casing diameter 4 in., with depth to 347 ft; screen diameter 4 in. from 347 to 357 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape from June 1972 to March 1985. Equipped with digital water-level recorder--15-minute recording interval, March 1985 to current year.
DATUM.--Elevation of land-surface datum is 6.35 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of shelter floor, 3.27 ft above land-surface datum.
REMARKS.--Water levels affected by nearby pumping.
PERIOD OF RECORD.--June 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.32 ft above land-surface datum, Apr. 8, 1988; lowest recorded, 46.32 ft below land surface datum, Aug. 16, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	33.04	13.99	31.21	11.75	15.16	8.24	20.09	5.32	5.11	4.01	4.09	3.13
2	33.54	13.83	29.37	9.89	16.62	7.87	22.71	5.76	4.88	3.86	4.22	3.29
3	36.44	13.77	28.02	9.62	14.00	7.57	6.30	4.98	4.66	3.32	4.39	3.39
4	32.43	13.58	27.21	9.52	26.79	8.11	5.44	4.17	4.08	2.89	4.21	3.04
5	30.21	12.68	29.17	8.79	26.76	7.56	5.95	4.85	4.36	3.34	4.07	3.10
6	31.20	12.05	29.22	10.01	25.77	7.91	6.24	5.23	4.68	3.81	4.25	3.23
7	33.98	12.94	31.34	11.35	27.41	8.35	6.32	5.31	4.66	3.83	4.11	3.28
8	35.58	12.93	30.56	11.00	25.30	7.77	5.55	3.98	4.72	3.95	4.22	3.31
9	36.37	14.09	29.03	10.72	26.87	8.12	4.88	3.92	4.58	3.62	3.98	2.88
10	38.14	15.26	26.80	9.40	26.36	7.28	5.14	4.32	4.25	3.56	3.57	2.86
11	38.02	16.84	25.19	8.20	26.46	6.30	5.10	4.45	4.03	3.20	3.92	2.77
12	36.33	15.32	26.64	8.92	23.94	7.14	5.06	4.43	3.46	2.62	4.13	3.16
13	35.43	15.18	27.25	9.60	25.88	6.87	5.34	4.24	4.88	2.86	3.92	3.16
14	31.88	13.47	30.40	10.00	8.52	7.04	5.35	4.40	4.99	3.95	3.75	2.75
15	31.05	12.23	28.07	10.49	6.99	5.76	5.20	4.31	4.99	3.56	3.68	2.41
16	31.55	11.74	29.26	9.86	16.64	5.53	5.32	4.07	4.34	2.83	3.82	2.49
17	36.41	12.75	25.93	9.50	24.70	6.21	5.34	4.08	4.39	2.99	3.97	2.70
18	35.34	14.29	17.90	9.64	25.21	6.17	5.28	3.71	4.37	2.92	4.08	2.58
19	31.45	12.19	17.97	9.42	24.03	6.04	5.22	3.75	4.24	2.48	3.83	2.42
20	30.98	11.89	16.62	8.79	23.83	5.99	5.14	3.25	3.67	2.43	4.02	2.72
21	30.81	11.27	17.26	8.29	7.10	5.38	4.65	3.18	4.17	2.64	4.16	2.90
22	30.30	11.97	17.75	8.81	6.66	5.12	4.74	3.42	4.50	3.19	4.95	3.17
23	30.51	10.86	18.45	9.74	6.27	4.89	4.76	3.58	4.44	3.53	4.20	3.25
24	34.95	11.54	16.81	8.99	6.26	5.02	4.69	3.65	4.57	3.38	4.13	3.20
25	35.72	12.54	15.87	9.22	5.99	4.83	4.54	3.40	4.38	3.60	3.99	3.38
26	31.44	11.24	16.56	8.58	5.75	4.73	5.13	3.19	4.14	3.44	3.62	3.13
27	11.23	8.84	17.83	7.71	5.58	4.72	5.38	4.46	3.96	3.22	3.71	2.84
28	9.41	8.13	18.33	9.11	5.44	4.69	5.10	4.38	3.76	2.74	3.99	3.15
29	8.90	7.87	18.23	10.03	4.93	3.88	4.99	4.14	4.00	2.99	3.98	3.16
30	28.84	8.23	15.37	7.84	5.41	4.06	5.07	4.05	---	---	3.79	2.92
31	29.33	13.05	---	---	21.80	4.47	5.09	4.20	---	---	3.68	2.81
MONTH	38.14	7.87	31.34	7.71	27.41	3.88	22.71	3.18	5.11	2.43	4.95	2.41

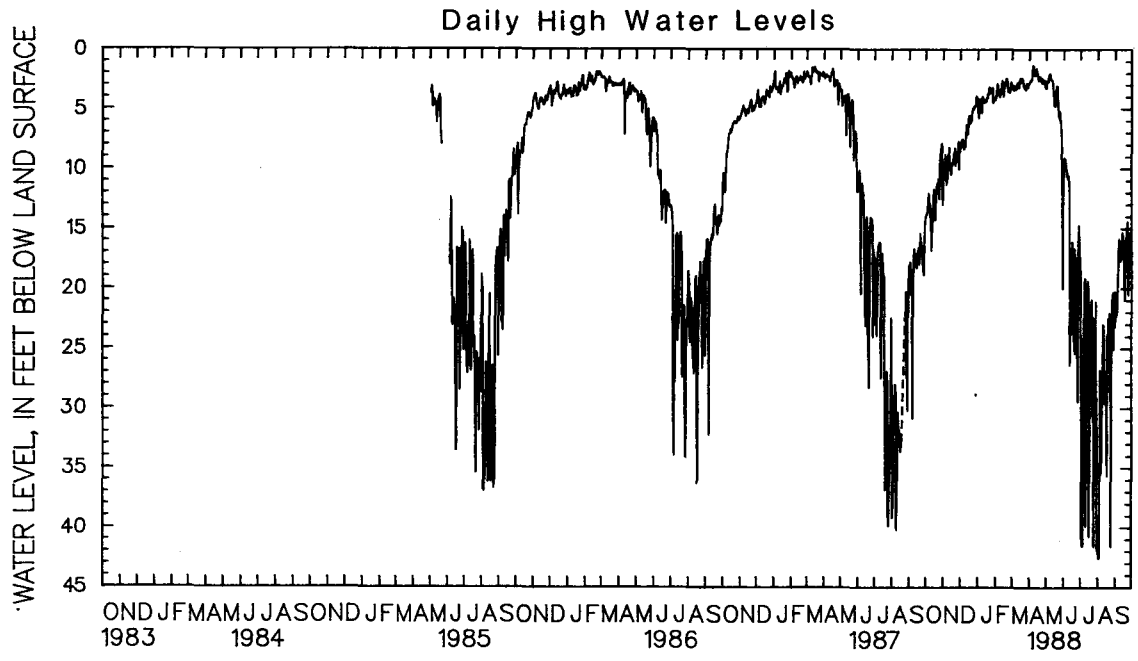
GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Ah 6--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.74	2.73	19.73	3.26	33.04	10.42	41.48	19.54	45.24	41.95	42.74	23.21
2	3.71	2.72	4.27	2.67	28.17	9.07	42.39	28.19	45.60	42.25	41.10	22.58
3	3.68	2.57	3.78	2.61	28.55	9.17	43.48	40.45	45.89	42.59	41.17	22.11
4	3.63	2.55	3.90	2.75	32.76	9.20	44.23	41.24	45.96	42.48	40.97	21.90
5	3.60	2.50	3.83	2.33	34.11	9.75	44.44	41.57	45.83	26.78	40.82	20.27
6	3.44	1.91	3.22	2.10	33.85	10.07	44.53	41.38	45.83	35.46	40.40	19.46
7	2.60	1.36	3.27	2.02	34.66	10.47	43.92	25.39	45.77	34.42	36.62	17.27
8	2.64	1.32	3.50	2.32	35.09	10.76	43.58	19.51	45.75	30.24	34.96	15.84
9	2.93	1.86	3.50	2.53	31.75	10.56	42.99	19.16	39.72	28.89	37.11	16.89
10	3.15	2.13	3.60	2.56	30.94	10.83	42.46	20.15	39.70	27.96	38.28	17.74
11	3.05	2.19	6.22	2.62	36.11	11.27	43.21	39.90	39.81	23.01	38.42	17.60
12	2.94	1.88	27.46	2.78	37.29	26.42	43.23	20.72	39.19	23.06	34.47	16.45
13	2.73	1.60	19.16	3.75	37.88	23.96	42.17	20.89	39.58	29.63	34.55	15.90
14	3.10	1.87	24.07	3.95	37.92	22.48	42.25	19.38	39.95	29.62	33.56	15.36
15	3.35	2.00	27.62	4.76	38.17	23.12	42.70	20.46	40.18	29.62	34.36	17.47
16	3.57	2.33	22.56	4.77	37.77	16.15	43.31	29.27	46.32	29.50	33.91	16.01
17	3.96	2.61	27.08	4.17	38.19	17.27	44.04	40.75	46.13	35.69	35.96	19.46
18	3.83	2.27	5.33	3.44	38.55	23.34	43.97	23.10	45.96	23.93	37.58	21.02
19	3.42	2.26	4.26	3.10	38.99	24.38	44.04	22.37	45.55	26.53	34.68	17.85
20	3.56	2.30	20.51	3.10	39.23	16.69	43.85	21.11	45.24	22.88	33.73	16.57
21	3.61	2.61	26.65	4.49	39.39	25.48	43.81	20.94	45.59	22.06	32.95	15.75
22	3.69	2.69	27.07	5.60	39.51	24.31	43.90	28.53	45.48	23.44	33.22	15.38
23	3.42	2.83	26.05	5.20	39.43	17.43	44.12	31.14	44.90	28.67	33.31	14.40
24	3.31	2.46	24.81	5.90	39.24	24.71	44.18	22.46	45.01	27.78	36.74	20.55
25	3.54	2.72	24.76	5.31	39.50	21.80	44.68	41.61	45.06	41.62	36.35	16.52
26	3.47	2.84	25.84	5.99	39.67	29.52	44.71	22.66	44.97	20.90	36.47	15.36
27	3.39	2.65	30.24	6.75	38.65	16.18	44.33	30.91	45.18	21.05	33.55	16.07
28	21.58	2.61	33.86	8.31	41.06	14.73	44.43	21.10	44.51	20.34	35.85	17.44
29	19.01	3.21	34.72	10.06	40.65	16.68	44.16	29.45	44.23	25.09	33.43	15.52
30	16.98	3.02	35.43	20.07	40.82	17.72	44.59	29.13	43.40	21.65	34.68	15.13
31	---	---	34.59	12.02	---	---	45.05	41.76	43.94	20.27	---	---
MONTH	21.58	1.32	35.43	2.02	41.06	9.07	45.05	19.16	46.32	20.27	42.74	14.40

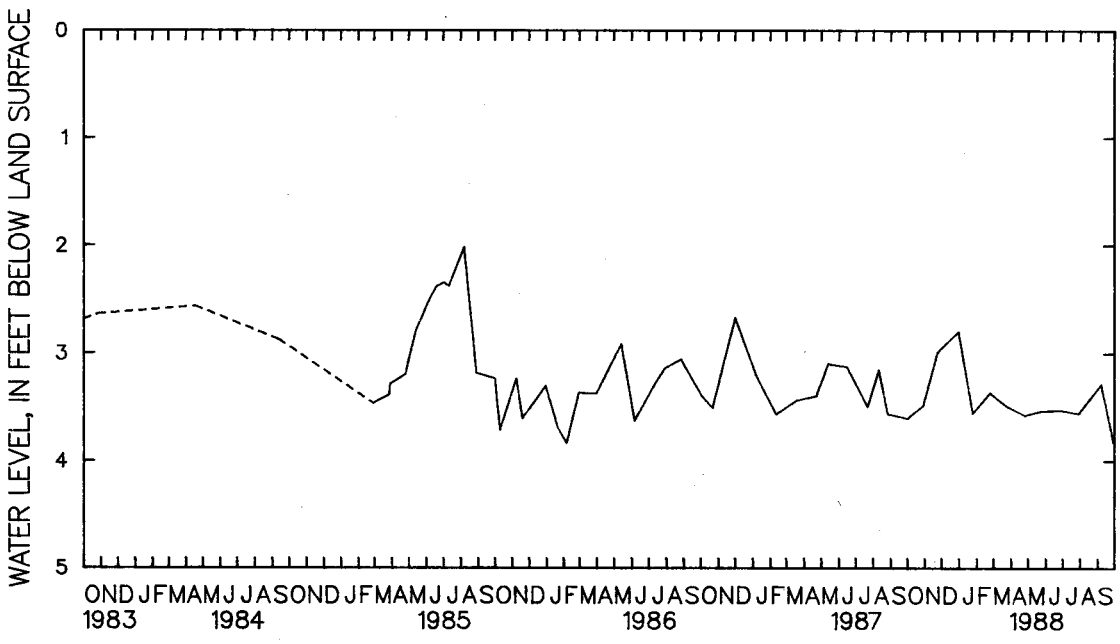


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.--Choptank Formation.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 726 ft; casing diameter 4 in. with depth to 726 ft; screen diameter 2 in. from 716 to 726 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 13.99 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 4 in. coupling, 3.7 ft above land-surface datum.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.90 ft below land-surface datum, Mar. 10, 1976; lowest measured, 10.26 ft below land-surface datum, Oct. 28, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	3.61	DEC 31	2.80	MAR 23	3.49	JUN 28	3.53	SEP 28	3.82
29	3.49	JAN 25	3.56	APR 25	3.58	JUL 29	3.56		
NOV 24	2.99	FEB 24	3.37	MAY 24	3.54	SEP 7	3.29		

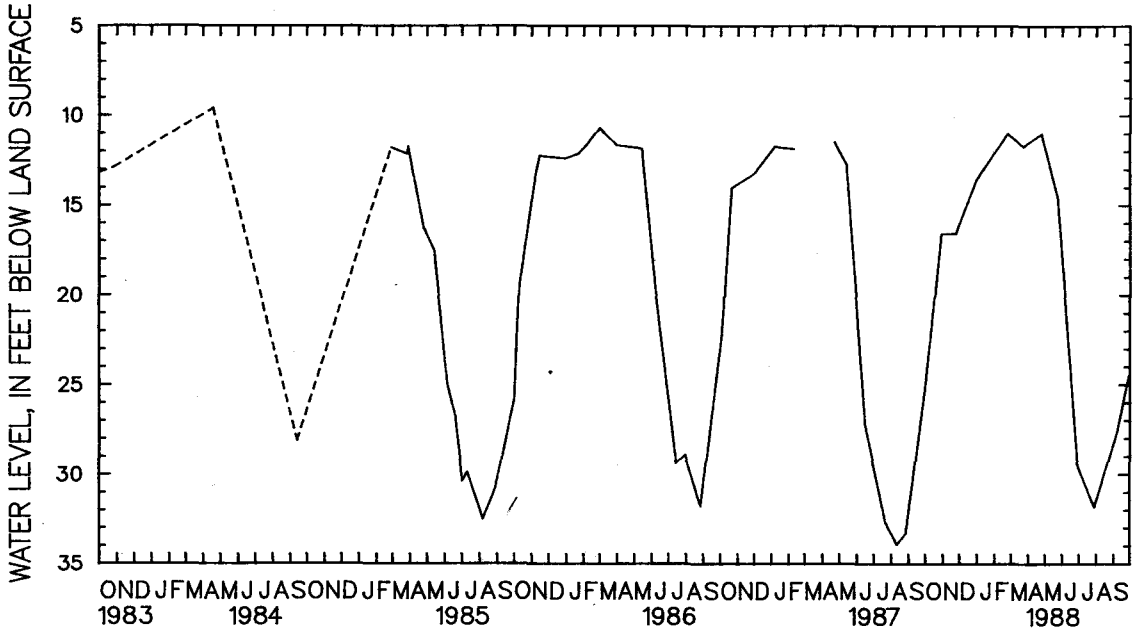


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--WO Ah 36. SITE ID.--382635075030602. 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.--Manokin aquifer.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 430 ft; casing diameter 4 in. with depth to 420 ft; screen diameter 2 in. from 420 to 430 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 14.32 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 4 in. coupling, 1.08 ft above land-surface datum.
REMARKS.--Water levels affected by nearby pumping.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.61 ft below land-surface datum, Apr. 18, 1984; lowest measured, 33.92 ft below land-surface datum, Aug. 11, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	24.93	NOV 24	16.58	FEB 24	11.00	APR 25	11.00	JUN 28	29.43	SEP 7	27.66
29	16.60	DEC 31	13.55	MAR 23	11.71	MAY 24	14.57	JUL 29	31.85	28	24.52

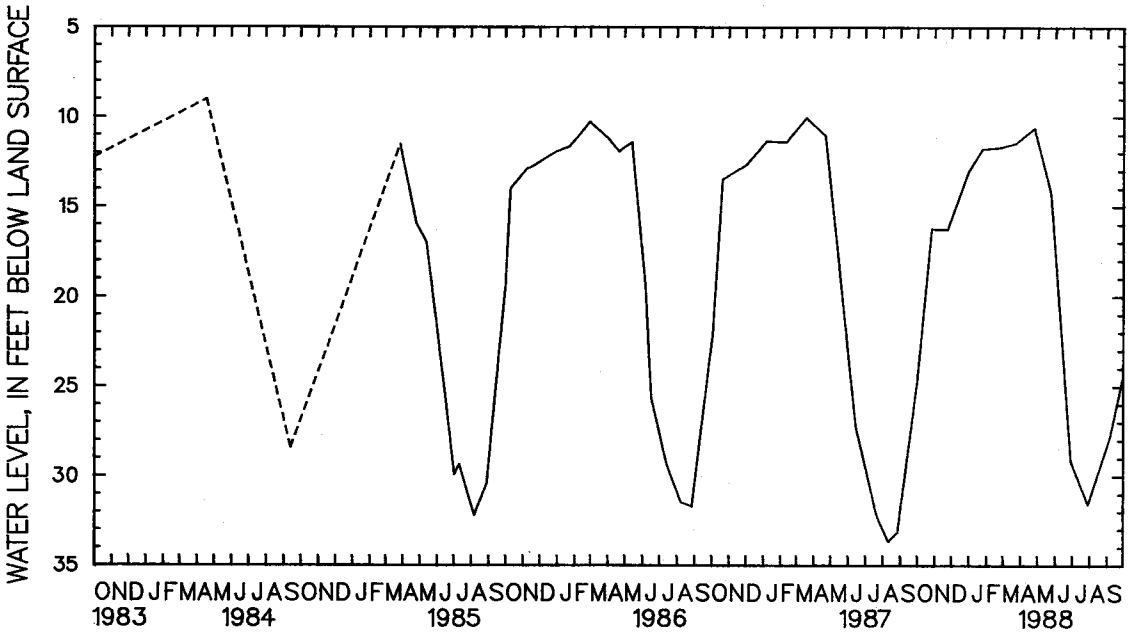


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 478 ft; casing diameter 4 in. with depth to 468 ft; screen diameter 2 in. from 468 to 478 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 13.89 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 4 in. casing, 2.75 ft above land-surface datum.
REMARKS.--Water levels affected by nearby pumping.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.58 ft below land-surface datum, Feb. 10, 1977; lowest measured, 33.66 ft below land-surface datum, Aug. 11, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	24.80	DEC 31	13.03	MAR 23	11.45	JUN 28	29.15	SEP 28	24.63
27	16.24	JAN 25	11.77	APR 25	10.61	JUL 29	31.59		
NOV 24	16.27	FEB 24	11.68	MAY 24	14.27	SEP 7	27.77		

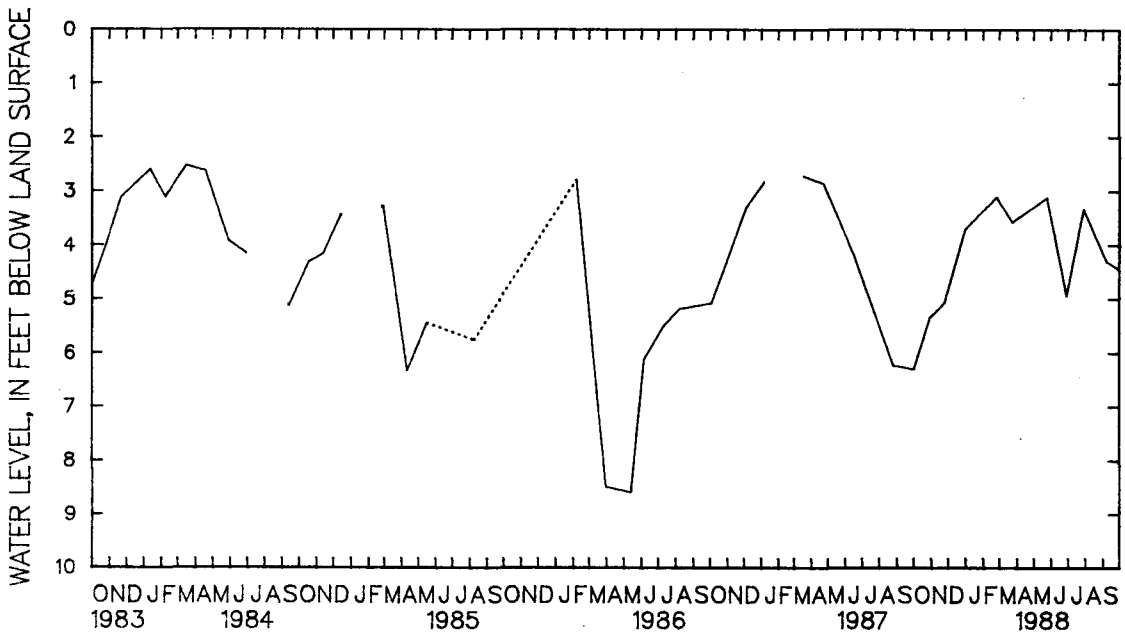


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Driven water-table well, depth 14 ft; casing diameter 1.25 in. with depth to 14 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing, 0.25 ft above land-surface datum.
PERIOD OF RECORD.--August 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.41 ft below land-surface datum, Mar. 8, 1962; lowest measured, 8.61 ft below land-surface datum, May 14, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	6.32	NOV 24	5.07	FEB 24	3.11	MAY 24	3.12	JUL 29	3.33	SEP 28	4.45
29	5.35	DEC 31	3.70	MAR 23	3.58	JUN 28	4.95	SEP 7	4.31		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

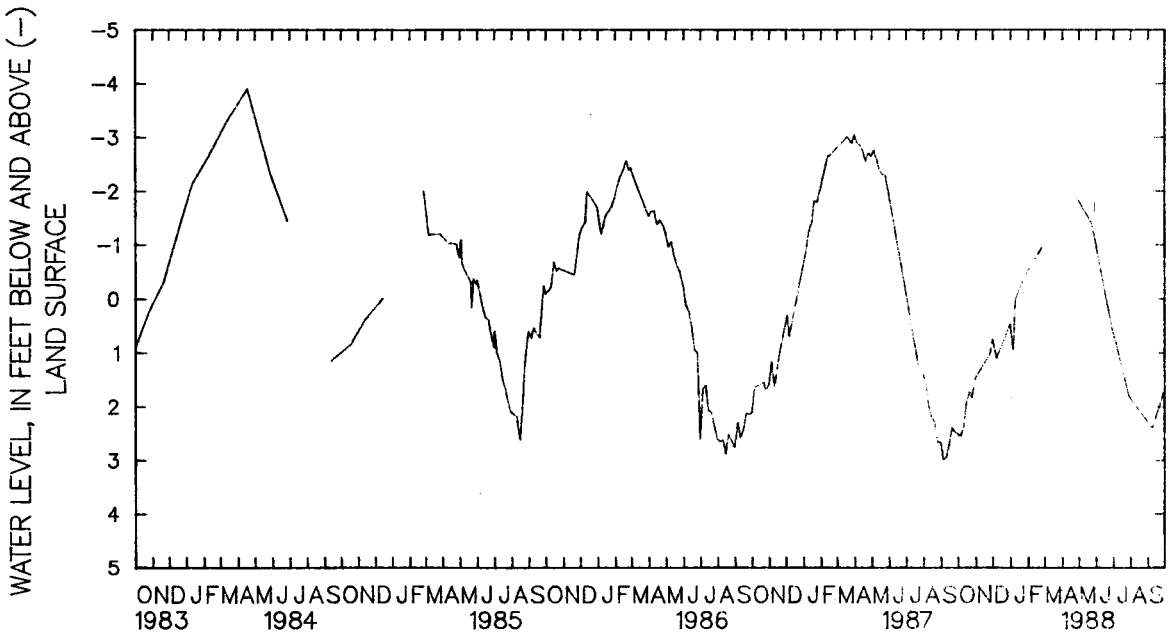
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bg 15. SITE ID.--382359075094501 PERMIT NUMBER.--WO-78-0066
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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 318 ft; casing diameter 6 in., with depth to 288 ft; screen diameter 6 in. from 288 to 318 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personel.
DATUM.--Elevation of land-surface datum is 7 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of 6 in. casing, 5.94 ft above land-surface datum.
PERIOD OF RECORD.--September 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.13 ft above land-surface datum, Feb. 29, 1972; lowest measured, 3.0 ft below land surface datum, Sept. 5, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
(READINGS ABOVE LAND SURFACE INDICATED BY "+")

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	2.53	OCT 20	1.72	NOV 25	1.03	JAN 5	.95	APR 27	+1.88	SEP 8	2.41
5	2.55	25	1.85	30	.74	9	.03	MAY 24	+1.39	28	1.76
10	2.40	29	1.51	DEC 7	1.10	25	+0.41	JUN 28	.53		
15	1.95	NOV 24	1.05	31	.46	FEB 24	+0.94	JUL 29	1.81		

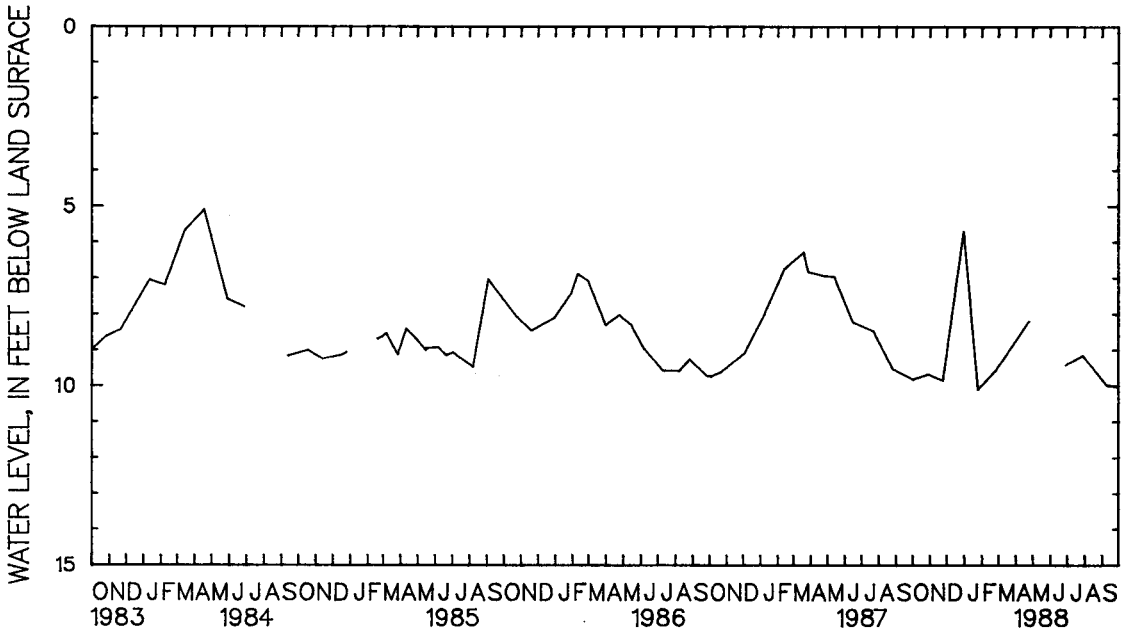


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--WO Bg 45. SITE ID.--382358075094501 PERMIT NUMBER.--WO-78-0066
LOCATION.--Lat 38°23′58″, long 75°09′45″, Hydrologic Unit 02060010, south side of Beauchamp Rd. at Ocean Pines.
Owner: Ocean Pines
AQUIFER.--Columbia aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 77 ft; casing diameter 2 in., with depth to 56 ft; screen diameter 2 in. from 56 to 77 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personel.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of 2 in. casing, 1.7 ft above land-surface datum.
PERIOD OF RECORD.--May 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.23 ft below land-surface datum, Jan. 8, 1971; lowest measured, 10.12 ft below land surface datum, Jan. 25, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	9.84	NOV 24	9.87	JAN 25	10.12	APR 24	8.21	JUL 29	9.16	SEP 28	10.05
29	9.69	DEC 31	5.70	FEB 24	9.60	JUN 28	9.43	SEP 8	9.98		

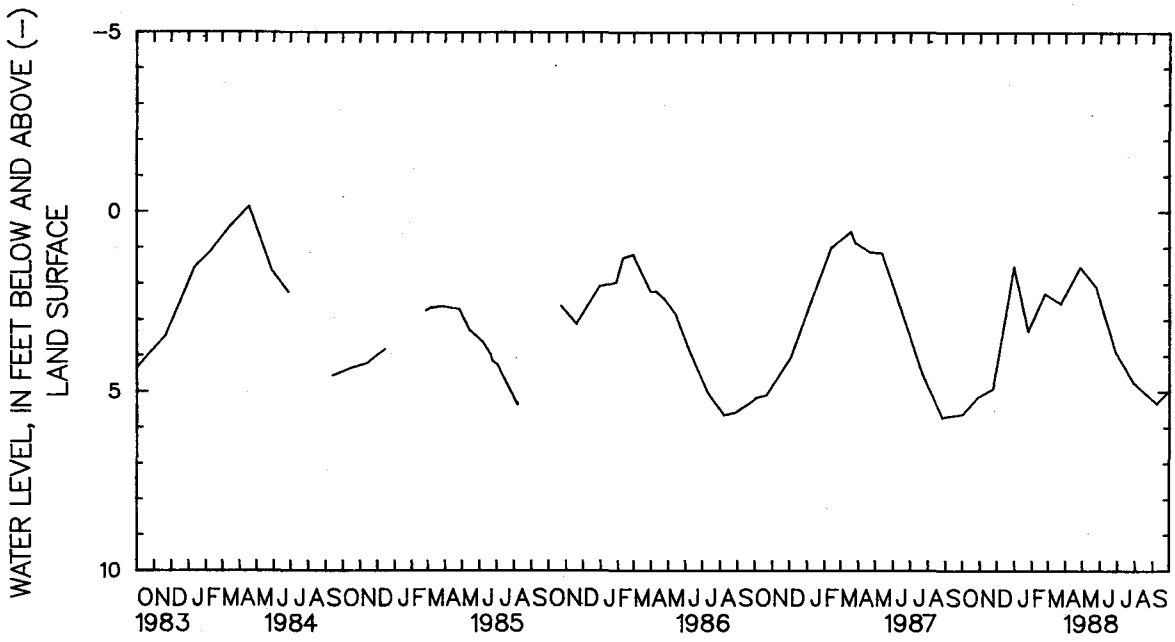


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--WO Bg 46. SITE ID.--382358075094502 PERMIT NUMBER.--WO-78-0066
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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 194 ft; casing diameter 6 in., with depth to 164 ft; screen diameter 6 in. from 164 to 194 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personel.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of 2 in. coupling, 2.5 ft above land-surface datum.
PERIOD OF RECORD.--October 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.22 ft above land-surface datum, Apr. 27, 1983, lowest measured, 5.74 ft below land surface datum, Aug. 26, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	5.65	DEC 31	1.52	MAR 23	2.55	JUN 28	3.91	SEP 28	5.00
29	5.16	JAN 25	3.32	APR 27	1.53	JUL 29	4.76		
NOV 24	4.93	FEB 24	2.27	MAY 24	2.07	SEP 8	5.34		



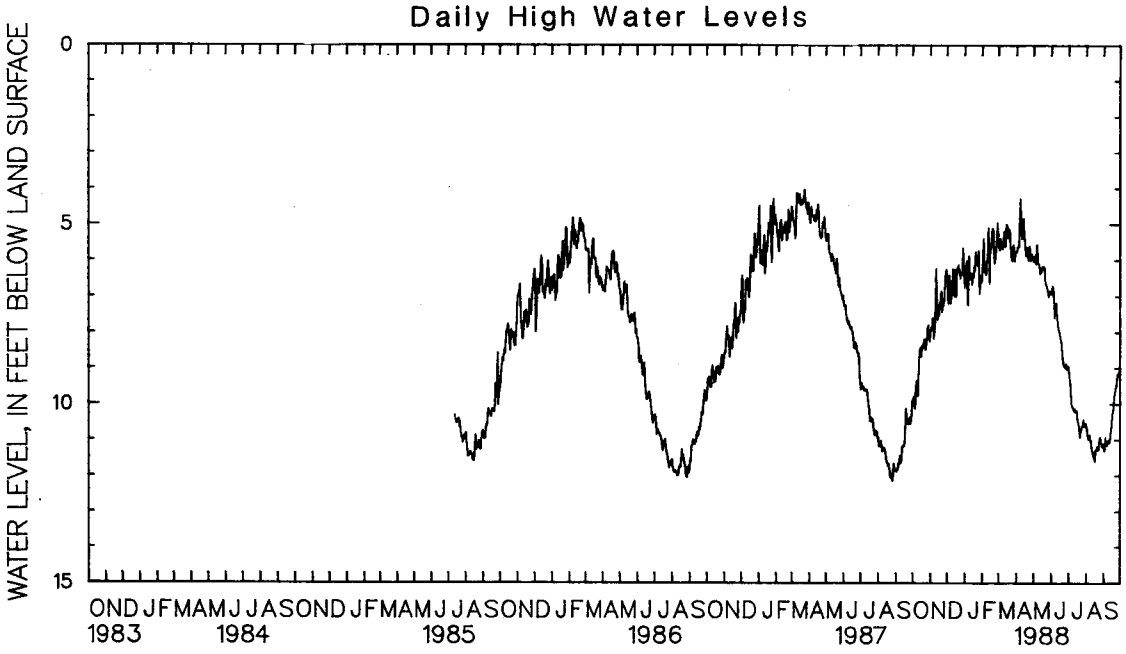
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--WO Bg 47. SITE ID.--382325075063301. PERMIT NUMBER.--WO-73-0517.
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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 268 ft; casing diameter 4 in. with depth to 258 ft; screen diameter 2 in. from 258 to 268 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape September 1975 to July 1985. Equipped with digital water level recorder--60-minute recording interval, July 1985 to current year.
DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 4.07 ft above land-surface datum.
REMARKS.--Water levels affected by nearby pumping.
PERIOD OF RECORD.--September 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.54 ft below land-surface datum, Feb. 10, 1977; lowest recorded, 32.22 ft below land surface datum, Aug. 7, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.65	9.90	8.72	8.00	7.16	6.51	7.40	6.78	7.13	6.46	6.07	5.47
2	10.71	9.98	8.53	7.92	7.72	6.80	7.32	6.66	6.88	6.30	6.18	5.65
3	10.58	9.80	8.43	7.85	7.90	7.23	7.29	6.57	6.78	5.84	6.26	5.73
4	10.58	9.91	8.44	7.84	7.64	6.71	6.88	6.03	6.20	5.39	6.13	5.41
5	10.87	10.14	8.40	7.60	7.24	6.42	7.49	6.64	6.50	5.91	6.03	5.47
6	10.60	9.69	8.41	7.69	7.48	6.70	7.80	7.24	6.83	6.24	6.20	5.65
7	10.15	9.46	8.75	8.18	7.91	7.19	7.84	7.25	6.88	6.35	6.16	5.63
8	10.10	9.37	8.79	8.02	7.80	7.02	7.21	5.98	6.87	6.39	6.25	5.68
9	10.39	9.71	8.45	7.86	7.61	6.98	6.58	5.88	6.76	6.28	6.06	5.55
10	10.40	9.79	8.36	7.31	7.55	6.86	6.93	6.37	6.53	6.00	5.84	5.23
11	10.19	9.40	7.26	6.23	6.99	6.24	6.94	6.51	6.31	5.94	6.09	5.19
12	9.78	8.93	7.74	6.81	6.84	6.35	6.93	6.50	5.80	5.09	6.31	5.58
13	9.30	8.64	8.07	7.53	7.43	6.49	7.21	6.38	7.09	5.50	6.21	5.62
14	9.10	8.45	8.25	7.66	7.44	7.00	7.28	6.69	7.14	6.66	6.07	5.23
15	9.10	8.58	7.96	7.49	7.26	6.25	7.25	6.55	7.11	6.02	5.76	5.00
16	9.29	8.68	7.98	7.54	7.58	6.32	7.13	6.38	6.39	5.56	5.80	5.13
17	9.08	8.39	8.01	7.32	7.72	7.01	7.25	6.46	6.38	5.67	6.00	5.37
18	9.00	8.44	7.78	7.17	7.32	6.39	7.16	6.20	6.34	5.63	6.07	5.23
19	9.00	8.43	7.96	7.35	7.00	6.22	7.06	6.28	6.23	5.13	5.86	5.14
20	8.92	8.29	7.82	6.91	7.26	6.29	6.96	5.85	5.76	5.10	6.09	5.19
21	8.81	8.19	7.78	6.87	7.05	6.14	6.61	5.78	6.38	5.19	6.35	5.47
22	9.01	8.42	8.16	7.45	7.20	6.32	6.73	6.04	6.62	5.87	6.56	5.83
23	9.10	8.49	8.12	7.30	7.11	6.29	6.78	6.08	6.68	6.09	6.51	5.98
24	9.22	8.47	8.05	7.26	7.21	6.52	6.78	6.14	6.48	5.97	6.52	5.87
25	9.04	8.32	7.97	7.15	7.08	6.41	6.67	6.13	6.31	5.76	6.44	6.02
26	8.97	8.15	7.78	7.06	7.02	6.37	7.21	5.73	6.19	5.62	6.36	5.75
27	8.76	7.92	7.51	6.64	6.93	6.35	7.50	6.94	6.07	5.37	6.31	5.57
28	8.54	7.80	7.04	6.41	6.89	6.39	7.44	6.83	5.66	4.95	6.56	5.99
29	8.73	7.96	6.90	6.30	6.54	5.66	7.17	6.51	5.83	5.24	6.63	6.02
30	8.86	8.14	7.02	6.26	6.95	5.99	7.02	6.44	---	---	6.39	5.82
31	8.98	8.25	---	---	7.25	6.39	7.15	6.61	---	---	6.29	5.78
MONTH	10.87	7.80	8.79	6.23	7.91	5.66	7.84	5.73	7.14	4.95	6.63	5.00

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.33	5.76	6.74	6.04	7.75	6.93	9.94	8.97	11.31	10.61	11.95	11.26
2	6.32	5.74	6.73	5.91	7.55	6.85	10.08	9.18	11.38	10.70	12.00	11.32
3	6.29	5.64	6.64	5.90	7.56	6.71	10.11	9.32	11.47	10.87	12.01	11.29
4	6.28	5.63	6.86	5.92	7.85	6.76	10.31	9.44	11.55	10.93	11.82	10.94
5	6.28	5.61	6.80	6.12	8.15	7.16	10.49	9.77	11.64	10.99	11.68	11.07
6	6.08	5.15	6.36	5.78	8.20	7.61	10.57	10.01	11.70	10.95	11.80	11.13
7	5.23	4.55	6.50	5.57	7.99	7.36	10.65	10.06	11.59	10.88	11.84	11.16
8	5.57	4.26	6.77	5.84	7.88	7.28	10.76	10.09	11.75	11.02	11.85	11.07
9	5.91	5.02	6.74	6.10	7.89	7.20	10.84	10.14	11.76	11.03	11.70	11.03
10	6.09	5.29	6.75	6.12	8.09	7.45	10.91	10.18	11.84	11.15	11.65	11.09
11	6.05	5.39	6.81	6.22	8.37	7.65	10.96	10.21	12.02	11.28	11.62	11.08
12	5.96	5.07	6.98	6.38	8.57	7.82	10.89	10.15	12.06	11.38	11.58	11.01
13	5.60	4.84	7.03	6.35	8.62	7.89	10.99	10.22	12.09	11.40	11.48	10.95
14	5.91	5.19	7.12	6.32	8.76	7.98	10.94	10.21	12.12	11.48	11.38	10.71
15	6.10	5.38	7.08	6.26	8.86	8.01	11.04	10.20	12.14	11.54	11.23	10.60
16	6.41	5.61	6.99	6.19	8.96	8.11	11.05	10.33	12.14	11.62	11.09	10.36
17	6.75	5.88	7.00	6.19	8.92	8.21	11.06	10.44	11.97	11.40	10.96	10.25
18	6.57	5.76	7.04	6.21	9.03	8.28	11.13	10.54	11.85	11.29	10.88	10.16
19	6.32	5.70	6.93	6.19	9.23	8.45	11.21	10.62	11.91	11.27	10.79	10.02
20	6.58	5.65	7.14	6.22	9.28	8.71	11.31	10.82	11.94	11.20	10.55	9.76
21	6.69	5.91	7.27	6.58	9.33	8.86	11.39	10.95	11.94	11.30	10.52	9.70
22	6.70	6.01	7.25	6.67	9.28	8.84	11.38	10.85	12.05	11.28	10.36	9.57
23	6.46	5.97	7.22	6.70	9.54	8.98	11.38	10.73	12.14	11.28	10.22	9.52
24	6.42	5.61	7.26	6.77	9.57	8.97	11.30	10.64	11.99	11.11	10.13	9.38
25	6.59	5.95	7.27	6.82	9.61	8.98	11.39	10.64	11.80	10.96	9.97	9.25
26	6.61	6.01	7.33	6.88	9.70	9.02	11.42	10.61	11.77	10.93	9.89	9.17
27	6.41	5.87	7.57	7.01	9.66	8.89	11.40	10.45	11.82	11.07	9.96	9.21
28	6.34	5.84	7.61	6.95	9.82	9.04	11.38	10.56	11.89	11.12	9.93	9.20
29	6.52	5.94	7.59	6.89	9.94	9.04	11.45	10.62	11.89	11.19	9.90	8.95
30	6.59	5.95	7.61	6.87	9.85	9.00	11.38	10.63	11.87	11.17	9.83	9.11
31	---	---	7.72	6.91	---	---	11.30	10.55	11.86	11.13	---	---
MONTH	6.75	4.26	7.72	5.57	9.94	6.71	11.45	8.97	12.14	10.61	12.01	8.95



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 420 ft; casing diameter 4 in. with depth to 410 ft; screen diameter 2 in. from 410 to 420 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape September 1975 to April 1985. Equipped with digital water level recorder--60 minute recording interval, July 1985 to current year.
DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of recorder shelf, 3.87 ft above land-surface datum.
REMARKS.--Water levels affected by nearby pumping.
PERIOD OF RECORD.--September 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.92 ft below land-surface datum, Jan. 30 1976; lowest recorded, 14.29 ft below land-surface datum, Aug. 26, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.83	11.18	9.51	8.87	7.70	7.11	7.66	7.12	7.31	6.74	6.11	5.62
2	11.86	11.24	9.28	8.74	8.23	7.40	7.58	7.02	7.05	6.56	6.23	5.79
3	11.72	11.05	9.16	8.66	8.38	7.84	7.56	6.91	6.96	6.11	6.29	5.84
4	11.67	11.13	9.13	8.63	8.12	7.32	7.15	6.42	6.39	5.69	6.16	5.54
5	11.92	11.31	9.08	8.38	7.77	7.05	7.74	6.97	6.68	6.17	6.07	5.60
6	11.68	10.85	9.10	8.49	7.98	7.28	8.03	7.58	6.98	6.49	6.24	5.74
7	11.23	10.64	9.39	8.92	8.34	7.76	8.09	7.55	7.06	6.61	6.19	5.74
8	11.16	10.56	9.42	8.77	8.25	7.59	7.50	6.33	7.02	6.62	6.27	5.79
9	11.43	10.87	9.07	8.57	8.04	7.50	6.85	6.22	6.91	6.51	6.07	5.58
10	11.41	10.89	8.99	7.97	7.97	7.36	7.19	6.69	6.69	6.24	5.85	5.32
11	11.18	10.48	7.96	7.00	7.44	6.79	7.20	6.84	6.49	6.11	6.09	5.31
12	10.76	10.00	8.34	7.50	7.27	6.85	7.17	6.82	5.98	5.35	6.29	5.67
13	10.29	9.72	8.66	8.20	7.85	6.99	7.42	6.70	7.18	5.71	6.19	5.69
14	10.10	9.52	8.85	8.34	7.87	7.50	7.53	7.01	7.21	6.85	6.07	5.32
15	10.05	9.60	8.58	8.19	7.70	6.74	7.49	6.89	7.22	6.24	5.76	5.11
16	10.20	9.67	8.59	8.22	7.92	6.79	7.35	6.72	6.52	5.80	5.80	5.24
17	10.00	9.37	8.61	7.98	8.03	7.49	7.45	6.79	6.51	5.90	5.99	5.48
18	9.87	9.39	8.34	7.85	7.75	6.94	7.36	6.54	6.46	5.87	6.06	5.33
19	9.86	9.36	8.51	8.01	7.42	6.74	7.26	6.63	6.35	5.36	5.85	5.25
20	9.77	9.21	8.34	7.55	7.64	6.81	7.17	6.19	5.88	5.32	6.08	5.30
21	9.62	9.10	8.29	7.49	7.43	6.66	6.83	6.12	6.48	5.42	6.34	5.57
22	9.82	9.33	8.65	8.06	7.56	6.82	6.96	6.38	6.71	6.07	6.54	5.91
23	9.89	9.38	8.62	7.93	7.47	6.79	7.02	6.43	6.76	6.26	6.50	6.06
24	10.00	9.35	8.53	7.89	7.56	6.98	7.02	6.49	6.55	6.16	6.48	5.95
25	9.80	9.19	8.48	7.79	7.43	6.85	6.92	6.45	6.39	5.94	6.40	6.06
26	9.72	9.01	8.29	7.68	7.36	6.82	7.41	6.08	6.26	5.79	6.31	5.77
27	9.49	8.73	8.06	7.29	7.25	6.79	7.73	7.20	6.12	5.50	6.31	5.62
28	9.24	8.61	7.60	7.04	7.21	6.79	7.68	7.16	5.75	5.13	6.59	6.06
29	9.43	8.84	7.45	6.92	6.87	6.08	7.42	6.86	5.94	5.40	6.64	6.12
30	9.62	9.00	7.55	6.86	7.27	6.41	7.23	6.74	---	---	6.44	5.95
31	9.74	9.14	---	---	7.53	6.81	7.33	6.88	---	---	6.34	5.91
MONTH	11.92	8.61	9.51	6.86	8.38	6.08	8.09	6.08	7.31	5.13	6.64	5.11

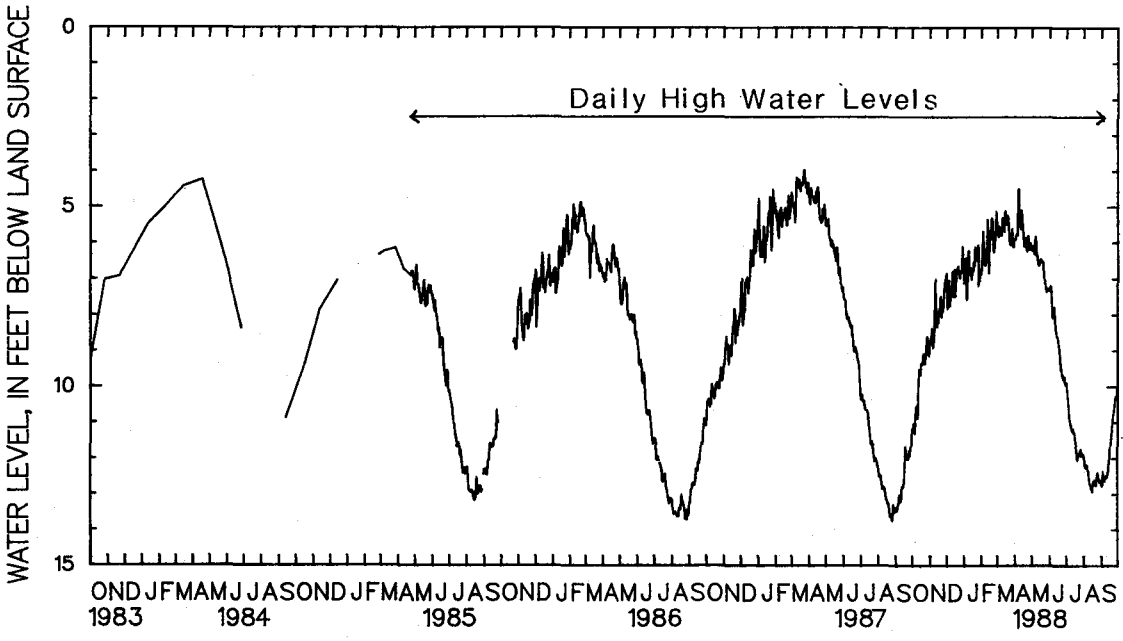
GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Bg 48--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.38	5.90	6.81	6.22	8.04	7.34	10.75	9.91	12.52	11.94	13.28	12.73
2	6.39	5.91	6.82	6.11	7.93	7.31	10.90	10.12	12.61	12.02	13.34	12.77
3	6.36	5.79	6.76	6.12	7.96	7.21	10.95	10.28	12.70	12.20	13.33	12.73
4	6.34	5.80	6.97	6.15	8.26	7.29	11.14	10.39	12.77	12.24	13.14	12.36
5	6.36	5.79	6.94	6.31	8.55	7.69	11.31	10.71	12.84	12.28	12.99	12.49
6	6.18	5.30	6.52	6.03	8.62	8.10	11.39	10.93	12.88	12.25	13.12	12.58
7	5.37	4.72	6.66	5.83	8.43	7.91	11.48	10.99	12.79	12.19	13.18	12.63
8	5.69	4.49	6.92	6.09	8.34	7.85	11.59	11.06	12.94	12.33	13.19	12.56
9	6.02	5.20	6.90	6.35	8.36	7.80	11.71	11.14	12.96	12.35	13.06	12.50
10	6.20	5.51	6.93	6.37	8.58	8.05	11.79	11.20	13.04	12.48	13.00	12.54
11	6.16	5.61	6.97	6.50	8.88	8.27	11.88	11.25	13.21	12.62	12.97	12.53
12	6.10	5.31	7.13	6.63	9.08	8.44	11.82	11.20	13.28	12.72	12.94	12.43
13	5.79	5.10	7.20	6.63	9.13	8.51	11.94	11.30	13.30	12.75	12.81	12.36
14	6.05	5.42	7.27	6.60	9.27	8.62	11.91	11.31	13.34	12.82	12.74	12.15
15	6.22	5.61	7.23	6.54	9.36	8.65	12.05	11.32	13.35	12.86	12.56	12.02
16	6.52	5.85	7.14	6.47	9.48	8.75	12.07	11.46	13.38	12.94	12.39	11.77
17	6.83	6.11	7.19	6.49	9.46	8.88	12.08	11.56	13.23	12.75	12.21	11.61
18	6.67	5.97	7.24	6.53	9.61	8.95	12.16	11.66	13.11	12.66	12.08	11.46
19	6.45	5.93	7.15	6.52	9.81	9.13	12.24	11.75	13.18	12.66	11.95	11.28
20	6.71	5.89	7.36	6.56	9.88	9.37	12.37	11.93	13.23	12.61	11.69	11.00
21	6.81	6.13	7.51	6.89	9.95	9.53	12.44	12.06	13.25	12.73	11.62	10.91
22	6.81	6.24	7.50	7.00	9.93	9.55	12.43	12.01	13.39	12.75	11.44	10.77
23	6.58	6.16	7.49	7.05	10.20	9.68	12.46	11.92	13.47	12.75	11.26	10.68
24	6.53	5.81	7.54	7.11	10.22	9.74	12.41	11.86	13.31	12.59	11.16	10.54
25	6.71	6.14	7.56	7.15	10.28	9.76	12.53	11.90	13.15	12.44	11.00	10.37
26	6.72	6.19	7.63	7.24	10.37	9.82	12.56	11.88	13.11	12.40	10.89	10.29
27	6.52	6.04	7.86	7.37	10.40	9.75	12.56	11.76	13.14	12.53	10.94	10.30
28	6.45	6.02	7.90	7.33	10.56	9.92	12.54	11.86	13.22	12.60	10.90	10.28
29	6.61	6.12	7.88	7.28	10.69	9.96	12.64	11.94	13.21	12.67	10.89	10.07
30	6.68	6.15	7.92	7.27	10.64	9.93	12.59	11.93	13.18	12.63	10.79	10.19
31	---	---	8.00	7.31	---	---	12.51	11.89	13.21	12.61	---	---
MONTH	6.83	4.49	8.00	5.83	10.69	7.21	12.64	9.91	13.47	11.94	13.34	10.07



5 YEAR HYDROGRAPH

OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 243 ft; casing diameter 4 in. with depth to 233 ft; screen diameter 4 in. from 233 to 243 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape October 1975 to May 1985. Equipped with digital water-level recorder--60-minute recording interval, May 1985 to current year.
DATUM.--Elevation of land-surface datum is 10 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 4.40 ft above land-surface datum.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 5.71 ft below land-surface datum, Apr. 18, 1984; lowest recorded, 24.84 ft below land surface datum, Aug. 16, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.28	13.04	9.88	9.73	7.62	7.47	---	---	8.05	7.89	7.73	7.62
2	13.06	12.92	9.75	9.61	7.95	7.61	---	---	7.92	7.79	7.75	7.70
3	12.93	12.62	9.64	9.49	7.98	7.88	---	---	7.80	7.48	7.81	7.73
4	12.66	12.59	9.54	9.45	7.92	7.64	---	---	7.48	7.21	7.77	7.51
5	12.72	12.59	9.48	9.30	7.68	7.50	---	---	7.41	7.32	7.71	7.55
6	12.60	12.28	9.44	9.28	7.82	7.58	---	---	7.55	7.41	8.05	7.73
7	12.28	12.02	9.55	9.46	7.93	7.83	---	---	7.60	7.52	8.17	8.04
8	12.06	11.95	9.61	9.42	7.98	7.82	---	---	7.60	7.51	8.15	8.05
9	12.15	12.06	9.43	9.31	7.85	7.74	---	---	7.57	7.45	8.04	7.84
10	12.14	12.01	9.31	8.77	7.79	7.54	---	---	7.42	7.36	7.81	7.65
11	12.01	11.73	8.75	8.16	7.53	7.25	---	---	7.38	7.09	7.78	7.61
12	11.72	11.37	8.52	8.20	7.26	7.20	---	---	7.05	6.67	8.25	7.78
13	11.36	11.08	8.73	8.53	7.53	7.25	---	---	7.34	6.73	8.49	8.25
14	11.08	10.87	8.84	8.73	7.60	7.53	---	---	7.75	7.35	8.50	8.37
15	10.92	10.81	8.79	8.69	7.57	7.15	---	---	8.11	7.77	8.58	8.37
16	10.93	10.80	8.74	8.67	7.46	7.09	---	---	8.13	7.94	8.61	8.50
17	10.81	10.58	8.71	8.53	7.56	7.47	---	---	7.99	7.77	8.62	8.55
18	10.59	10.48	8.55	8.46	7.54	7.24	---	---	7.85	7.66	8.66	8.46
19	10.51	10.41	8.57	8.48	7.33	7.14	---	---	7.68	7.27	8.51	8.42
20	10.42	10.25	8.49	8.19	7.35	7.16	---	---	7.35	7.23	8.57	8.47
21	10.27	10.15	8.38	8.12	7.24	7.07	---	---	7.92	7.27	8.76	8.56
22	10.27	10.21	8.49	8.40	7.28	7.14	---	---	8.25	7.92	9.09	8.75
23	10.29	10.21	8.54	8.40	7.29	7.18	---	---	8.26	8.20	9.25	9.07
24	10.33	10.16	8.51	8.37	7.42	7.29	---	---	8.17	8.02	9.15	8.82
25	10.19	10.04	8.45	8.29	7.44	7.33	---	---	7.99	7.76	8.82	8.53
26	10.09	9.89	8.32	8.17	7.42	7.31	7.85	7.41	7.74	7.45	8.53	7.97
27	9.91	9.53	8.18	7.91	7.38	7.30	8.18	7.86	7.47	7.28	7.97	7.84
28	9.62	9.49	7.89	7.66	7.38	7.25	8.18	8.07	7.66	7.34	8.03	7.87
29	9.71	9.59	7.68	7.47	7.25	6.92	8.11	7.95	7.71	7.65	8.05	7.91
30	9.84	9.72	7.52	7.38	7.44	7.05	7.99	7.88	---	---	7.92	7.70
31	9.93	9.81	---	---	---	---	8.03	7.95	---	---	7.73	7.56
MONTH	13.28	9.49	9.88	7.38	---	---	---	---	8.26	6.67	9.25	7.51

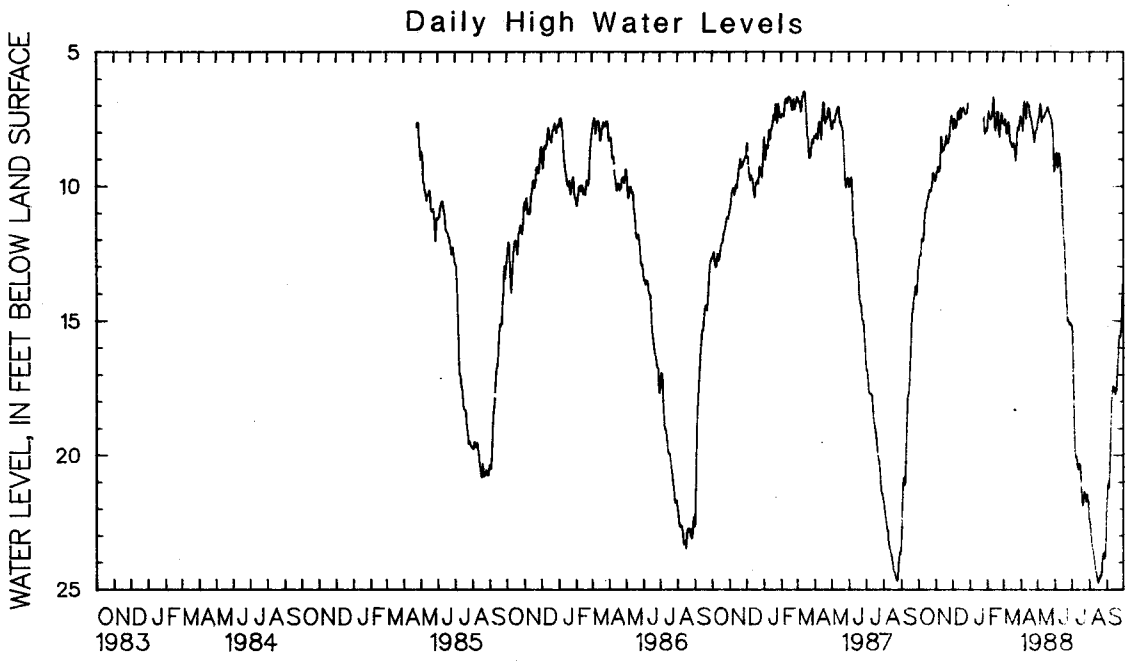
GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Bg 49--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.59	7.41	7.94	7.81	9.66	9.40	15.39	15.19	22.53	22.42	22.34	21.67
2	7.56	7.42	7.82	7.65	9.38	9.09	16.07	15.41	22.70	22.49	21.64	21.24
3	7.74	7.54	7.65	7.51	9.05	8.83	17.18	16.10	23.04	22.70	21.23	21.06
4	7.97	7.69	7.61	7.50	8.98	8.74	18.30	17.21	23.25	23.04	21.39	21.21
5	8.19	7.97	7.53	7.31	9.37	8.98	19.18	18.32	23.38	23.25	21.36	21.10
6	8.06	7.68	7.28	7.02	9.38	9.32	19.84	19.20	23.55	23.39	21.10	20.63
7	7.66	6.99	7.18	6.91	9.30	9.04	20.26	19.85	23.68	23.53	20.62	19.73
8	7.14	6.84	7.66	7.12	9.07	8.87	20.35	20.09	23.88	23.67	19.70	18.92
9	7.33	7.04	7.67	7.61	8.92	8.78	20.20	20.06	24.02	23.85	18.91	18.27
10	7.59	7.26	7.65	7.52	9.16	8.90	20.39	20.14	24.17	23.96	18.23	17.71
11	7.59	7.50	7.58	7.46	9.42	9.19	20.61	20.41	24.36	24.13	17.75	17.63
12	7.55	7.16	7.54	7.46	9.89	9.46	20.77	20.54	24.45	24.30	17.68	17.45
13	7.17	6.87	7.52	7.40	10.54	9.93	20.55	20.33	24.57	24.38	17.57	17.44
14	7.04	6.93	7.54	7.40	11.12	10.60	20.42	20.33	24.70	24.52	17.65	17.57
15	7.09	6.98	7.52	7.35	11.61	11.15	20.47	20.33	24.78	24.65	17.76	17.63
16	7.19	6.99	7.42	7.27	11.98	11.59	20.77	20.45	24.84	24.77	17.85	17.73
17	7.54	7.20	7.36	7.24	12.17	11.94	21.23	20.78	24.81	24.71	17.74	17.59
18	7.50	7.41	7.30	7.19	12.75	12.16	21.64	21.23	24.73	24.59	17.74	17.59
19	7.54	7.40	7.18	7.11	13.44	12.76	21.94	21.64	24.69	24.59	17.61	17.15
20	7.69	7.49	7.20	7.05	13.85	13.44	22.02	21.89	24.69	24.47	17.13	16.66
21	7.76	7.60	7.32	7.15	14.27	13.86	21.97	21.81	24.64	24.50	16.66	16.24
22	7.90	7.73	7.39	7.23	14.66	14.29	21.88	21.53	24.62	24.43	16.24	15.88
23	8.06	7.89	7.43	7.31	15.10	14.69	21.61	21.36	24.46	24.24	15.89	15.56
24	8.26	7.98	7.49	7.38	15.14	15.03	21.57	21.44	24.27	23.92	15.67	15.56
25	8.48	8.28	7.51	7.44	15.10	14.98	21.76	21.60	23.95	23.75	15.69	15.62
26	8.50	8.39	7.56	7.49	15.23	15.06	21.86	21.73	23.82	23.64	15.72	15.33
27	8.39	8.15	7.74	7.57	15.33	15.16	21.80	21.46	23.88	23.66	15.32	14.70
28	8.17	7.95	7.96	7.75	15.23	15.08	21.71	21.50	24.09	23.85	14.68	14.17
29	8.03	7.92	8.63	8.01	15.27	15.11	21.81	21.66	24.16	23.77	14.15	13.61
30	7.93	7.88	9.42	8.68	15.30	15.20	22.09	21.75	23.75	23.22	13.59	13.26
31	---	---	9.82	9.46	---	---	22.43	22.07	23.19	22.37	---	---
MONTH	8.50	6.84	9.82	6.91	15.33	8.74	22.43	15.19	24.84	22.37	22.34	13.26



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 278 ft; casing diameter 4 in. with depth to 263 ft; screen diameter 4 in. from 263 to 278 ft.
INSTRUMENTATION.--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.--Elevation of land-surface datum is 5.59 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 3.47 ft above land-surface datum.
PERIOD OF RECORD.--September 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 4.83 ft below land-surface datum, May 4, 1982; lowest recorded, 51.03 ft below land surface datum, July 27, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	35.76	29.78	19.49	18.32	16.20	14.98	19.47	17.41	20.48	15.07	19.69	18.66
2	35.06	31.87	19.43	18.18	16.93	15.19	19.81	16.77	20.62	14.29	19.80	14.11
3	36.53	22.36	19.27	18.16	16.95	15.72	20.00	16.21	20.39	14.67	19.89	18.86
4	35.88	32.44	19.32	17.14	16.67	13.34	16.66	15.13	19.88	18.63	19.73	18.37
5	36.01	32.59	19.04	14.36	15.76	14.54	16.92	15.77	20.46	19.32	19.61	18.54
6	35.79	25.34	17.54	14.53	16.40	14.92	17.22	16.14	20.81	19.95	19.83	18.63
7	25.87	23.44	18.43	14.64	16.82	15.56	17.17	16.09	20.89	20.03	19.46	14.36
8	24.35	22.88	18.76	17.60	16.65	15.39	16.35	13.97	20.98	20.15	19.76	18.75
9	24.66	22.80	18.54	17.38	16.41	15.38	15.05	13.98	20.81	19.77	19.45	18.24
10	23.71	22.52	18.35	14.35	16.25	15.05	17.55	14.50	20.42	19.64	18.72	13.67
11	30.60	19.82	16.58	15.36	15.50	14.46	18.72	15.64	20.22	19.39	19.34	17.90
12	20.25	16.41	17.50	16.12	15.23	13.90	18.70	16.70	19.58	18.61	19.73	18.47
13	21.00	14.53	17.92	17.08	15.96	14.72	18.17	16.01	21.28	18.95	19.38	18.52
14	23.35	19.46	18.12	14.41	18.29	15.31	18.58	16.07	21.45	20.18	19.21	11.93
15	20.91	20.08	17.14	14.22	18.91	17.87	17.48	16.48	21.46	19.76	18.84	17.29
16	21.15	20.24	16.99	13.12	18.84	16.60	17.84	16.31	20.65	18.74	19.12	17.31
17	20.85	19.93	16.52	12.71	17.34	15.80	17.85	16.41	20.53	19.10	19.25	17.93
18	20.80	19.81	16.78	13.10	16.41	14.91	17.82	16.15	20.53	19.03	19.43	17.91
19	20.80	19.84	17.03	15.97	16.01	14.54	17.75	14.85	20.25	15.40	19.17	17.79
20	20.69	19.61	17.13	15.63	16.10	14.45	17.71	15.76	19.74	18.44	19.46	18.13
21	20.58	19.51	17.08	15.52	15.74	14.15	17.19	15.69	20.31	18.74	19.68	18.32
22	20.79	19.67	17.62	16.26	15.87	13.53	17.20	15.30	20.70	19.32	19.63	18.62
23	20.91	19.81	17.59	16.13	15.68	13.45	17.25	16.05	20.41	15.48	19.63	18.60
24	21.00	19.68	17.46	16.14	15.85	14.64	17.30	16.15	20.24	19.35	24.28	18.58
25	20.62	19.44	17.32	15.97	15.76	14.47	17.13	15.92	20.06	19.13	24.11	18.57
26	20.89	18.29	17.00	15.81	15.60	14.51	17.69	14.68	19.80	18.99	24.30	19.26
27	22.67	20.49	16.58	15.32	15.52	14.54	17.82	15.18	19.65	18.77	25.07	23.64
28	22.65	19.52	16.05	15.07	15.46	14.60	17.52	14.61	19.35	18.02	25.70	24.36
29	22.91	19.95	15.83	14.92	14.95	13.75	17.27	14.25	19.67	17.93	25.61	21.44
30	23.46	17.44	16.01	14.79	15.67	14.05	17.21	13.88	---	---	25.41	24.36
31	19.41	15.76	---	---	18.95	14.65	17.31	14.98	---	---	25.43	24.42
MONTH	36.53	14.53	19.49	12.71	18.95	13.34	20.00	13.88	21.46	14.29	25.70	11.93

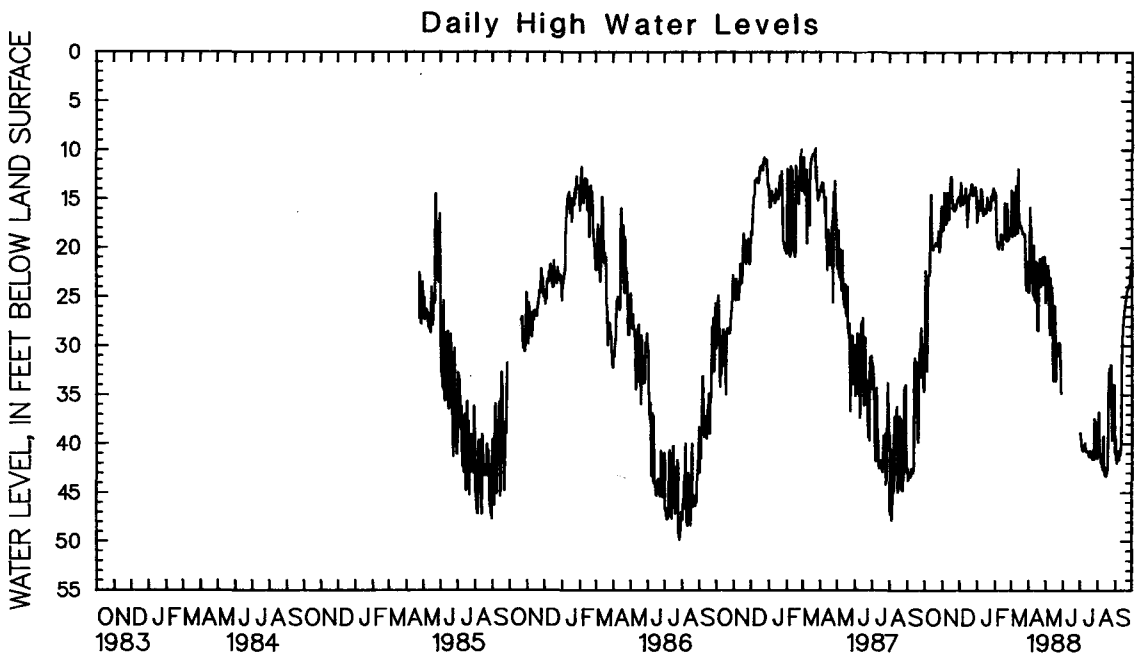
GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Bh 31--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	25.62	24.59	33.76	25.67	---	---	40.45	38.82	43.23	39.63	42.61	39.53
2	25.57	24.45	33.71	25.08	---	---	40.84	39.21	42.33	37.50	42.88	41.76
3	25.62	20.43	33.26	22.37	---	---	41.25	39.56	41.88	36.83	43.06	42.04
4	25.24	15.86	33.31	22.97	---	---	41.84	40.18	42.71	41.38	42.98	41.24
5	24.54	22.95	33.00	21.86	---	---	41.96	40.65	43.02	41.01	42.79	41.53
6	23.91	17.94	32.42	23.32	---	---	41.84	40.78	43.10	41.96	42.62	40.81
7	24.37	22.04	33.22	25.99	---	---	41.69	40.24	43.26	42.03	42.59	41.68
8	27.42	23.67	34.03	28.91	---	---	41.68	40.21	43.39	42.32	42.50	41.19
9	28.32	24.88	32.94	23.06	---	---	41.73	40.59	43.52	42.67	42.30	41.14
10	28.64	19.78	32.28	23.80	---	---	41.88	40.00	43.70	42.69	42.01	40.94
11	28.02	25.31	33.41	24.59	---	---	41.98	40.89	43.90	39.30	41.89	39.89
12	27.12	24.39	33.53	24.08	---	---	42.08	40.81	44.17	42.90	41.59	31.68
13	27.80	25.48	34.12	27.77	---	---	42.01	40.80	44.26	43.21	31.82	29.49
14	28.67	21.46	34.80	33.53	---	---	41.94	40.80	44.40	43.28	29.91	28.35
15	28.81	22.57	35.26	33.63	---	---	42.09	40.99	44.50	43.38	28.87	27.68
16	29.81	28.45	34.79	29.12	---	---	42.24	41.14	44.17	43.11	28.10	26.96
17	30.16	24.40	34.44	25.92	---	---	42.43	41.38	43.88	42.81	27.46	26.32
18	30.16	28.47	34.71	27.56	---	---	42.43	41.29	43.62	42.21	26.88	25.94
19	29.15	23.51	34.97	33.64	---	---	42.40	40.80	43.52	39.34	26.72	25.60
20	29.03	21.81	35.45	30.86	---	---	42.53	41.24	43.15	34.15	26.25	25.06
21	28.79	21.17	35.64	31.08	---	---	42.47	41.02	43.08	32.35	26.02	24.66
22	29.51	22.78	35.33	30.09	---	---	42.39	41.58	43.17	34.75	25.71	24.36
23	29.27	23.94	35.42	29.75	---	---	42.43	41.66	43.15	33.90	25.59	24.23
24	29.00	22.20	35.39	29.73	---	---	42.38	40.75	41.76	31.95	25.34	24.03
25	29.77	21.05	35.48	29.75	---	---	42.47	41.61	41.38	31.97	25.24	23.79
26	30.88	23.76	35.72	29.72	---	---	42.47	37.48	42.40	39.71	25.09	23.74
27	26.68	20.95	35.86	29.91	---	---	42.72	37.66	42.46	38.02	25.01	23.57
28	26.31	23.06	36.13	34.37	---	---	42.56	38.37	42.67	38.48	25.16	21.78
29	32.28	20.91	36.58	34.93	---	---	42.87	41.45	42.09	34.63	22.99	21.52
30	32.79	22.91	---	---	---	---	42.91	41.56	41.51	33.96	22.75	21.60
31	---	---	---	---	---	---	43.01	41.58	42.49	41.02	---	---
MONTH	32.79	15.86	---	---	---	---	43.01	37.48	44.50	31.95	43.06	21.52



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 353 ft; casing diameter 4 in. with depth to 337 ft; screened from 337 to 353 ft.
INSTRUMENTATION.--April 1985 to current year, digital water-level recorder--60-minute recording interval. Prior to April 1985, periodic measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 4 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of recorder shelf, 2.86 ft above land-surface datum.
PERIOD OF RECORD.--December 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 2.54 ft above land-surface datum, Mar. 27, 1973; lowest recorded, 16.24 ft below land-surface datum, Aug. 25, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.20	12.10	10.06	9.02	7.87	6.78	6.36	5.37	5.52	4.48	4.44	3.55
2	13.19	12.17	9.99	8.93	8.40	6.99	6.21	5.24	5.25	4.31	4.58	3.73
3	13.06	11.82	9.90	8.89	8.45	6.97	6.25	5.17	5.04	3.75	4.76	3.86
4	13.23	12.02	9.89	8.79	8.07	6.71	5.65	4.44	4.42	3.23	4.59	3.08
5	13.34	12.04	9.77	8.40	7.53	6.36	6.26	5.23	4.70	3.75	4.45	3.56
6	12.94	11.42	9.73	8.54	7.91	6.78	6.59	5.69	5.02	4.24	4.65	3.72
7	12.41	11.15	10.21	9.23	8.33	7.25	6.71	5.76	5.02	4.28	4.54	3.18
8	12.40	11.12	10.32	9.16	8.20	7.09	5.93	4.34	5.07	4.36	4.67	3.83
9	12.79	11.64	9.95	9.02	7.96	7.01	5.17	4.24	4.94	4.15	4.41	3.37
10	12.89	11.88	9.75	8.12	7.79	6.77	5.48	4.72	4.60	3.94	4.04	3.35
11	12.78	11.71	8.32	7.01	7.03	6.08	5.43	4.84	4.38	3.84	4.41	3.26
12	12.38	11.30	8.61	7.51	6.85	6.23	5.41	4.85	3.78	2.93	4.67	3.71
13	11.91	11.07	8.92	8.21	7.47	6.38	5.69	4.62	5.28	3.22	4.42	3.74
14	11.69	10.88	9.08	8.36	7.47	6.86	5.71	4.83	5.38	4.45	4.14	3.27
15	11.49	10.82	9.06	8.39	7.05	5.88	5.57	4.73	5.41	3.96	4.17	3.12
16	11.50	10.73	9.16	8.46	7.33	5.79	5.65	4.49	4.68	3.23	4.35	3.13
17	11.25	10.40	9.12	8.23	7.33	6.29	5.70	4.52	4.71	3.40	4.48	3.29
18	11.36	10.55	9.12	8.08	6.88	5.61	5.64	4.13	4.70	3.34	4.60	3.21
19	11.37	10.49	9.14	8.12	6.84	5.50	5.56	4.17	4.53	2.83	4.35	3.14
20	11.29	10.28	8.94	7.54	7.02	5.54	5.47	3.66	3.95	2.81	4.57	3.36
21	11.08	10.10	8.67	7.32	6.79	5.33	4.98	3.59	4.50	2.93	4.77	3.71
22	11.18	10.16	9.04	7.88	6.88	5.42	5.07	3.85	4.84	3.59	4.93	3.93
23	11.23	10.17	9.09	7.86	6.66	5.28	5.11	4.00	---	---	4.83	3.98
24	11.31	10.09	9.14	7.91	6.64	5.47	5.05	4.07	---	---	4.81	3.94
25	11.10	9.99	8.94	7.68	6.38	5.27	4.90	4.01	4.68	3.96	4.65	4.11
26	11.06	9.82	8.61	7.52	6.16	5.17	5.51	3.58	4.43	3.81	4.27	3.82
27	10.68	9.31	8.15	6.96	5.97	5.14	5.81	4.94	4.18	3.56	4.38	3.52
28	10.02	8.86	7.69	6.77	5.85	5.12	5.59	4.88	4.09	3.11	4.70	3.89
29	9.82	8.69	7.70	6.78	5.32	4.23	5.43	4.60	4.35	3.33	4.70	3.93
30	9.68	8.63	7.77	6.73	5.84	4.47	5.40	4.51	---	---	4.49	3.69
31	10.00	9.02	---	---	6.32	4.94	5.50	4.67	---	---	4.40	3.60
MONTH	13.34	8.63	10.32	6.73	8.45	4.23	6.71	3.58	---	---	4.93	3.08

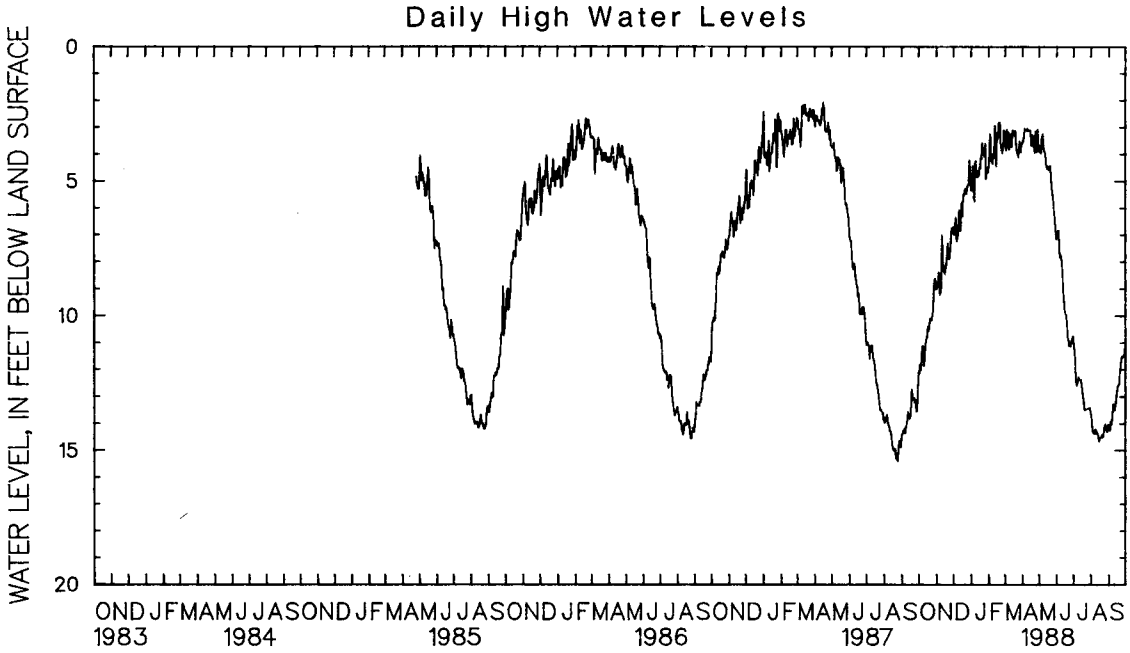
GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Bh 34--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4.47	3.55	4.97	3.90	8.40	7.13	12.22	11.03	14.86	13.70	15.19	14.19
2	4.47	3.55	4.93	3.69	8.26	6.92	12.50	11.20	14.98	13.80	15.20	14.26
3	4.43	3.40	4.84	3.74	8.07	6.86	12.67	11.36	15.11	14.12	15.19	14.26
4	4.42	3.39	5.06	3.96	8.30	6.86	13.06	11.65	15.24	14.31	15.00	13.95
5	4.41	3.04	4.99	3.56	8.66	7.30	13.31	12.14	15.31	14.38	14.84	14.05
6	4.24	3.12	4.40	3.36	8.87	7.86	13.45	12.52	15.29	14.32	14.89	14.01
7	3.33	3.11	4.52	3.25	8.66	7.71	13.54	12.61	15.19	14.28	14.79	13.83
8	3.44	3.11	4.78	3.58	8.76	7.83	13.54	12.52	15.38	14.39	14.61	13.44
9	3.76	3.12	4.80	3.84	8.86	7.80	13.50	12.41	15.28	14.25	14.23	13.29
10	4.01	3.05	4.91	3.90	9.04	7.98	13.42	12.31	15.28	14.28	14.27	13.44
11	3.91	3.12	4.99	3.99	9.38	8.30	13.43	12.39	15.40	14.40	14.31	13.51
12	3.76	3.11	5.28	4.18	9.91	8.82	13.54	12.40	15.36	14.35	14.31	13.38
13	3.57	3.11	5.58	4.47	10.29	9.20	13.54	12.40	15.39	14.44	14.11	13.27
14	4.01	3.11	5.65	4.42	10.64	9.49	13.43	12.39	15.39	14.53	13.95	12.98
15	4.28	3.11	5.79	4.55	10.84	9.76	13.53	12.53	15.39	14.68	13.69	12.85
16	4.50	3.32	5.79	4.52	10.97	9.92	13.63	12.70	15.39	14.58	13.56	12.66
17	4.93	3.68	5.73	4.58	10.92	9.97	13.78	12.87	15.29	14.57	13.44	12.60
18	4.80	3.31	5.76	4.55	11.04	10.00	13.87	13.05	15.25	14.55	13.43	12.59
19	4.40	3.29	5.45	4.45	11.33	10.24	13.98	13.17	15.31	14.53	13.47	12.55
20	4.59	3.36	5.55	4.44	11.41	10.62	14.08	13.40	15.36	14.45	13.22	12.22
21	4.66	3.70	5.72	4.72	11.51	10.83	14.18	13.51	15.32	14.52	13.12	11.99
22	4.73	3.80	5.96	5.05	11.51	10.90	---	---	15.41	14.50	12.90	11.76
23	4.43	3.93	6.03	5.34	11.80	11.12	---	---	15.58	14.46	12.79	11.60
24	4.35	3.14	6.23	5.49	11.83	11.06	---	---	15.48	14.21	12.69	11.51
25	4.57	3.77	6.26	5.65	11.91	11.04	---	---	15.38	14.13	12.73	11.53
26	4.48	3.91	6.53	5.77	12.14	11.15	---	---	15.42	14.03	12.72	11.49
27	4.43	3.72	6.86	6.12	12.09	10.96	---	---	15.49	14.17	12.81	11.49
28	4.36	3.07	7.21	6.31	12.17	10.97	---	---	15.53	14.27	12.68	11.46
29	4.63	3.82	7.56	6.60	12.23	10.85	---	---	15.50	14.33	12.54	11.19
30	4.75	3.80	8.01	6.96	12.10	10.78	14.81	13.44	15.43	14.21	12.36	11.34
31	---	---	8.36	7.17	---	---	14.83	13.58	15.23	14.06	---	---
MONTH	4.93	3.04	8.36	3.25	12.23	6.86	---	---	15.58	13.70	15.20	11.19



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

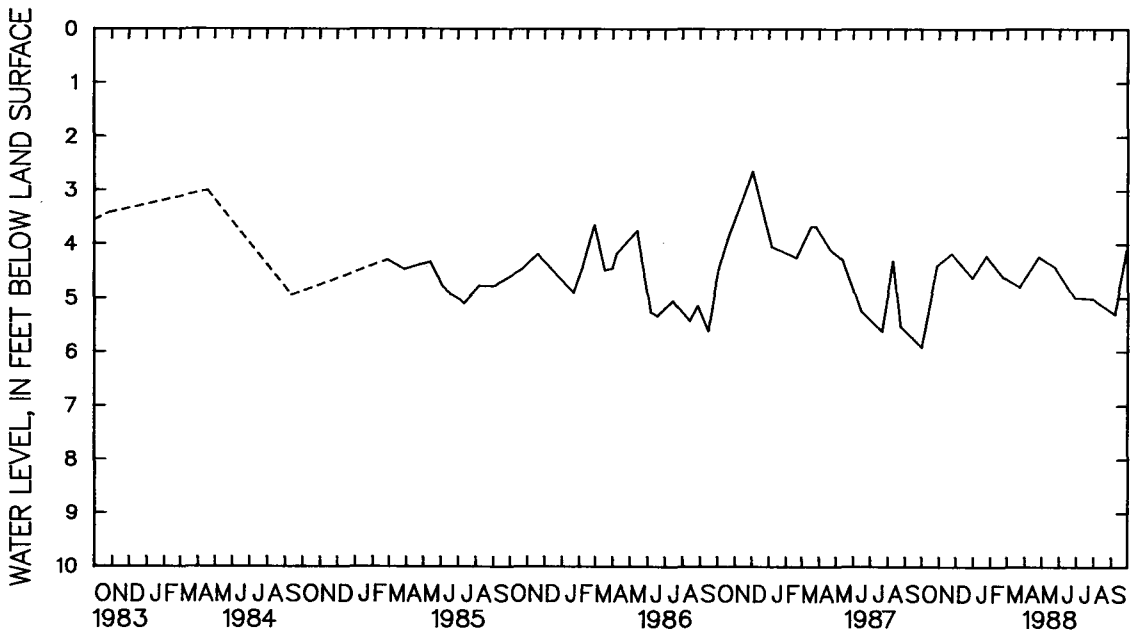
MARYLAND--Continued

WORCESTER COUNTY--Continued

WELL NUMBER.--WO Bh 84. SITE ID.--382215075041901 PERMIT NUMBER.--WO-73-0095
LOCATION.--Lat 38°22′15″, long 75°04′19″, Hydrologic Unit 02060010, west end of 44th St., Ocean City.
Owner: U.S. Geological Survey.
AQUIFER.--Columbia aquifer.
WELL CHARACTERISTICS.--Drilled observation well, depth 86 ft; casing diameter 4 in., with depth to 81 ft; screen diameter 4 in. from 81 to 86 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personel.
DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of 4 in. coupling, 0.9 ft above land-surface datum.
PERIOD OF RECORD.--April 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.65 ft below land-surface datum, Dec. 3, 1986, lowest measured, 5.92 ft below land surface datum, Oct. 1, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	5.92	DEC 31	4.63	MAR 23	4.80	JUN 28	5.00	SEP 28	4.12
29	4.40	JAN 25	4.22	APR 26	4.24	JUL 29	5.02		
NOV 24	4.18	FEB 24	4.62	MAY 24	4.43	SEP 7	5.31		



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

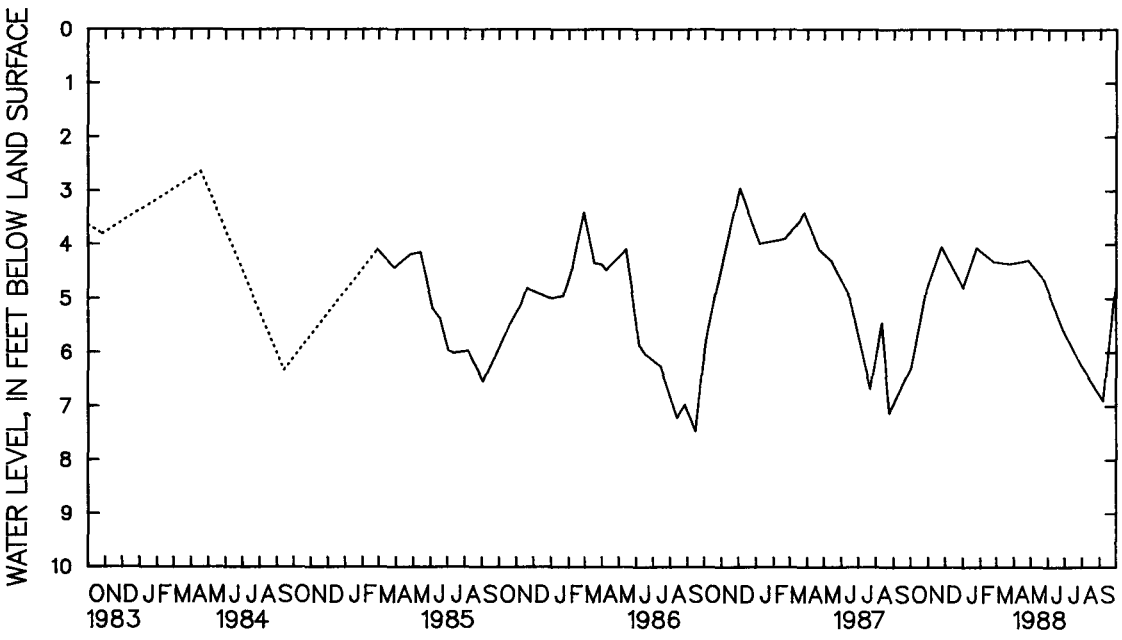
MARYLAND--Continued

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 195 ft; casing diameter 4 in., with depth to 190 ft; screen diameter 4 in. from 190 to 195 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personel.
DATUM.--Elevation of land-surface datum is 5 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of 4 in. coupling, 2.1 ft above land-surface datum.
PERIOD OF RECORD.--April 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.00 ft below land-surface datum, Apr. 26, 1973, lowest measured, 7.48 ft below land surface datum, Sept. 15, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	6.30	DEC 31	4.80	MAR 23	4.36	JUN 28	5.60	SEP 28	4.82
29	4.81	JAN 25	4.06	APR 26	4.30	JUL 29	6.23		
NOV 24	4.05	FEB 24	4.32	MAY 24	4.66	SEP 7	6.91		



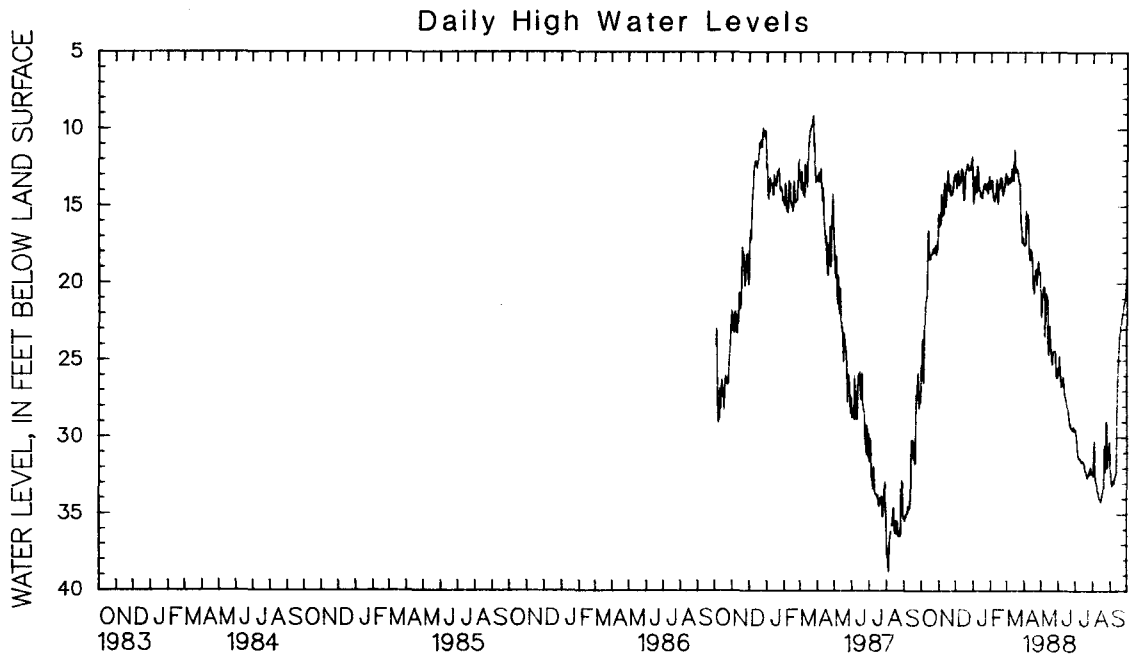
5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 500 ft; casing diameter 4 in. with depth to 388 ft; screen diameter 4 in. from 388 to 500 ft.
INSTRUMENTATION.--Equipped with digital water-level recorder--60-minute recording interval, October 1986 to current year.
DATUM.--Elevation of land-surface datum is 5.59 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 2.90 ft above land-surface datum.
REMARKS.--Water levels affected by nearby pumping.
PERIOD OF RECORD.--October 1986 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 9.17 ft below land-surface datum, March 24, 1987; lowest recorded, 39.83 ft below land surface datum, Aug. 6, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	28.25	25.36	17.29	16.31	14.12	13.09	15.89	14.90	15.12	13.69	14.23	13.39
2	27.52	25.90	17.23	16.20	14.79	13.31	16.15	14.50	15.19	13.36	14.38	13.06
3	28.25	23.61	17.07	16.14	14.84	13.83	16.39	14.09	15.00	13.32	14.44	13.63
4	28.03	26.24	17.09	15.95	14.55	12.90	14.41	13.12	14.38	13.31	14.30	13.22
5	28.19	26.46	16.84	14.21	13.71	12.66	14.66	13.69	14.86	13.96	14.13	13.29
6	28.24	23.61	15.66	14.38	14.25	13.04	14.94	14.09	15.20	14.42	14.35	13.47
7	23.98	21.81	16.29	14.55	14.69	13.65	14.94	14.04	15.29	14.62	14.21	13.16
8	22.52	21.24	16.59	15.60	14.56	13.49	14.18	12.45	15.40	14.68	14.31	13.39
9	22.31	21.11	16.40	15.52	14.34	13.46	13.28	12.39	15.27	14.49	14.07	13.10
10	21.86	20.84	16.20	14.03	14.19	13.18	14.23	12.85	14.94	14.31	13.37	12.58
11	22.89	20.41	14.53	13.45	13.48	12.55	15.23	13.87	14.72	14.13	13.95	12.69
12	20.67	18.10	15.35	14.11	13.22	12.64	15.37	13.98	14.07	13.30	14.29	13.26
13	18.66	16.55	15.75	15.05	13.88	12.77	15.24	14.00	15.65	13.58	14.06	13.35
14	18.94	18.03	15.96	14.13	15.00	13.33	15.33	14.38	15.81	14.88	13.92	11.35
15	19.06	18.38	15.09	13.92	15.50	14.63	15.17	14.33	15.83	14.46	13.41	12.13
16	19.28	18.51	14.99	13.05	15.48	14.48	15.38	14.18	15.07	13.60	13.56	12.45
17	19.03	18.19	14.57	12.67	15.18	13.82	15.42	14.50	15.01	13.82	13.83	12.77
18	18.93	18.16	14.78	13.00	14.32	12.99	15.46	14.06	15.00	13.77	14.00	12.74
19	18.93	18.12	14.91	14.04	13.81	12.65	15.40	13.72	14.85	13.14	13.78	12.60
20	18.84	17.92	14.99	13.72	13.95	12.55	15.30	13.64	14.19	13.16	14.01	12.83
21	18.70	17.78	15.07	13.61	13.60	12.27	14.82	13.57	14.79	13.31	14.25	13.01
22	18.87	17.94	15.47	14.33	13.75	12.18	14.87	13.52	15.21	13.98	14.38	13.40
23	19.02	18.05	15.48	14.27	13.54	12.37	14.89	13.88	14.96	14.32	14.32	13.53
24	19.11	17.97	15.39	14.24	13.69	12.67	14.96	13.97	14.78	14.05	16.57	13.47
25	18.80	17.73	15.25	14.10	13.61	12.54	14.81	13.87	14.60	13.86	17.04	15.75
26	18.72	17.57	14.94	13.93	13.46	12.54	15.31	13.52	14.36	13.69	17.14	16.26
27	19.68	18.17	14.56	13.46	13.37	12.55	15.50	14.20	14.28	13.47	17.85	16.65
28	19.75	17.86	14.02	13.19	13.31	12.60	15.37	13.74	13.87	12.86	18.45	17.40
29	20.04	17.77	13.81	13.03	12.80	11.77	15.07	13.40	14.12	13.14	18.45	17.12
30	20.05	16.88	13.93	12.90	13.46	12.08	14.91	13.07	---	---	18.24	17.46
31	17.08	15.48	---	---	15.35	12.62	14.98	13.87	---	---	18.26	17.47
MONTH	28.25	15.48	17.29	12.67	15.50	11.77	16.39	12.39	15.83	12.86	18.45	11.35

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18.41	17.59	24.73	22.23	27.05	25.54	30.97	29.58	33.73	32.56	33.66	32.35
2	18.40	17.53	24.69	21.89	27.04	25.85	31.31	29.85	32.98	30.90	33.85	32.98
3	18.45	17.44	24.33	20.71	26.51	24.75	31.54	30.18	32.62	30.28	34.05	33.20
4	18.34	15.22	24.51	20.90	27.20	25.47	32.06	30.63	33.42	32.28	33.96	32.96
5	17.62	16.47	24.11	20.21	27.65	26.22	32.26	31.18	33.68	32.81	33.81	33.10
6	17.22	15.61	23.64	20.21	27.75	26.77	32.26	31.40	33.85	33.00	33.79	32.84
7	16.74	15.56	24.19	20.35	27.44	26.57	32.24	31.44	33.87	33.09	33.83	32.97
8	19.29	15.99	25.08	23.52	27.45	26.59	32.29	31.41	34.14	33.34	33.73	32.69
9	20.10	17.86	24.03	21.14	27.45	26.52	32.38	31.48	34.30	33.45	33.46	32.56
10	20.49	18.22	23.54	20.75	27.45	26.15	32.49	31.58	34.42	33.60	33.27	32.44
11	20.11	18.54	24.43	20.92	27.96	26.92	32.60	31.66	34.54	33.59	33.06	32.29
12	19.57	17.83	24.21	21.11	28.30	27.22	32.61	31.60	34.71	33.91	32.98	29.00
13	19.77	18.31	24.83	22.66	28.45	27.41	32.62	31.64	34.86	34.02	29.05	26.89
14	20.29	17.99	25.61	24.45	28.65	27.61	32.55	31.63	34.95	34.09	27.19	25.75
15	20.72	18.80	25.94	24.68	28.97	27.78	32.67	31.68	35.02	34.22	26.16	25.09
16	21.61	20.44	25.47	23.82	29.19	28.03	32.81	31.79	34.90	34.09	25.42	24.42
17	22.01	20.45	25.15	22.71	29.23	28.16	32.94	32.04	34.65	33.85	24.82	23.82
18	21.95	20.69	25.38	23.76	29.37	28.26	32.97	32.23	34.37	33.65	24.27	23.41
19	21.25	19.74	25.67	24.44	29.76	28.61	33.03	32.28	34.25	33.47	24.01	23.04
20	21.12	19.53	26.04	24.77	29.83	28.95	33.19	32.50	34.10	31.90	23.56	22.54
21	20.95	19.18	26.29	25.32	29.91	29.25	33.22	32.65	33.83	30.55	23.32	22.19
22	21.32	19.40	26.11	24.81	29.86	29.17	33.18	32.60	33.80	32.24	23.00	21.88
23	21.17	20.15	26.13	24.49	30.23	29.46	33.25	32.50	33.87	31.66	22.82	21.72
24	20.91	19.44	26.10	24.48	30.23	29.46	33.12	32.35	33.80	28.99	22.60	21.47
25	21.10	18.93	26.09	24.43	30.36	29.53	33.33	32.41	32.03	29.02	22.43	21.25
26	22.48	18.65	26.28	24.41	30.57	29.59	33.22	32.06	33.25	32.05	22.26	21.13
27	21.94	19.43	26.40	24.57	30.46	29.37	33.44	31.97	33.16	31.00	22.23	21.02
28	21.37	19.33	26.73	25.93	30.70	29.63	33.37	32.25	33.47	31.39	21.97	20.23
29	23.28	19.35	27.07	26.17	30.85	29.59	33.55	32.39	33.05	30.75	20.83	19.52
30	23.87	20.99	27.30	26.19	30.78	29.51	33.57	32.41	32.64	30.30	20.55	19.56
31	---	---	27.26	26.02	---	---	33.61	32.43	33.44	32.09	---	---
MONTH	23.87	15.22	27.30	20.21	30.85	24.75	33.61	29.58	35.02	28.99	34.05	19.52

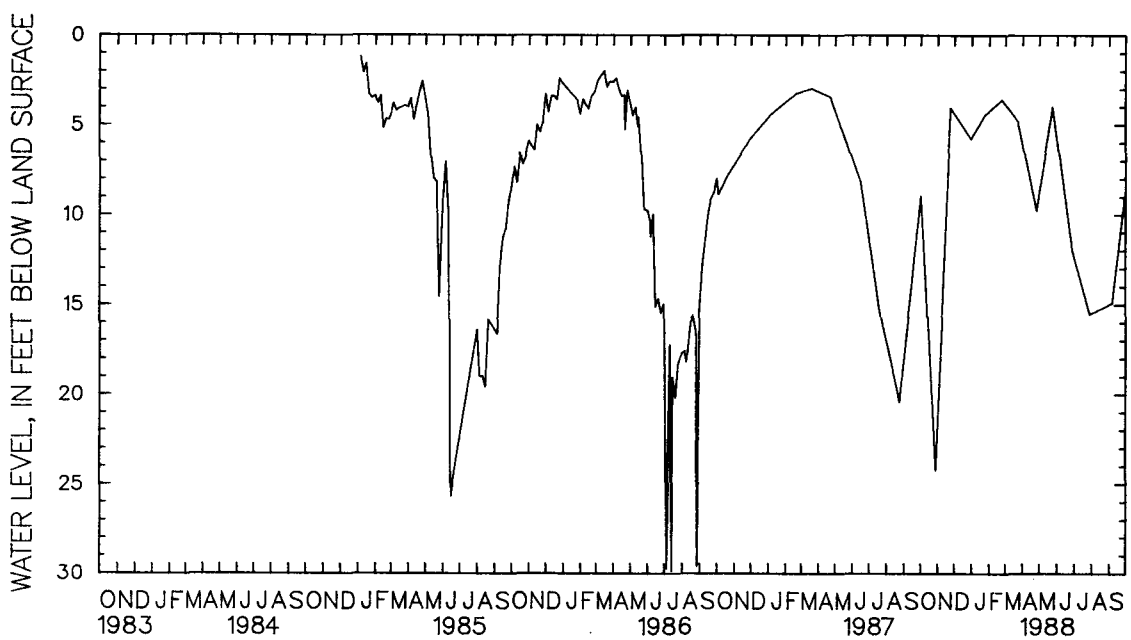


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 450 ft; casing diameter 4 in., with depth to 384 ft; screen diameter 4 in. from 384 to 450 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personel.
DATUM.--Elevation of land-surface datum is 4 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of 6 in. flange, 3.2 ft above land-surface datum.
REMARKS.--Water levels affected by nearby pumping.
PERIOD OF RECORD.--January 1985 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 1.20 ft below land-surface datum, Jan. 5, 1985, lowest measured, 29.85 ft below land surface datum, July 14, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 1	8.95	DEC 31	5.77	MAR 23	4.78	JUN 28	12.10	SEP 28	9.13
29	24.24	JAN 25	4.43	APR 26	9.78	JUL 29	15.57		
NOV 24	4.05	FEB 24	3.59	MAY 24	4.00	SEP 7	14.93		

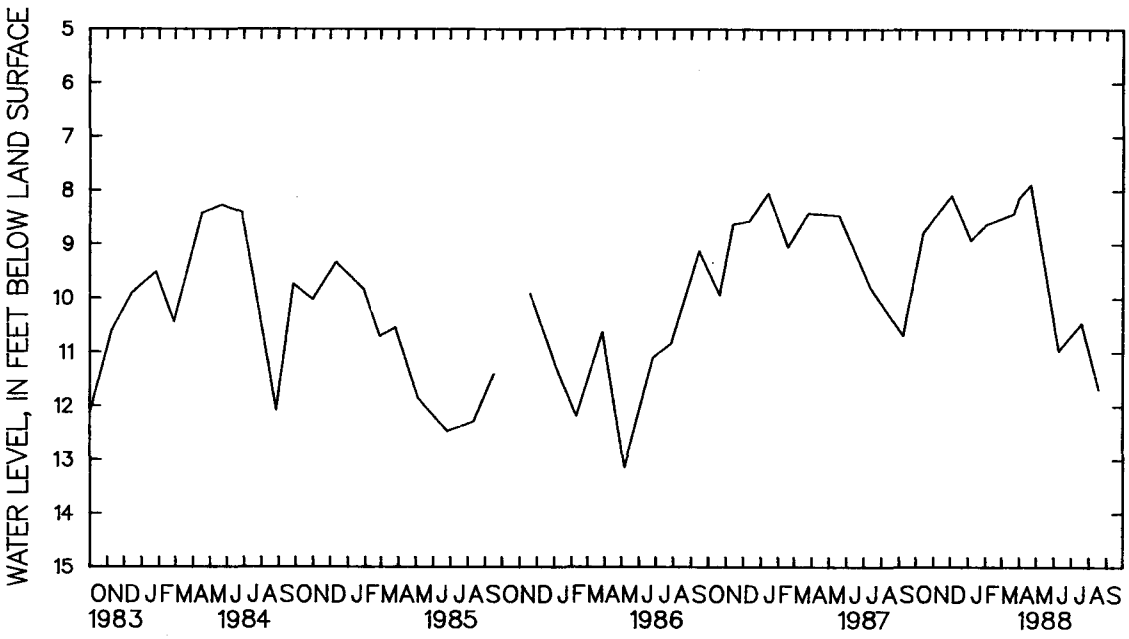


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 290 ft; casing diameter 6 in.; casing length unknown.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface datum is 13 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of casing extension, .40 ft below land-surface datum.
REMARKS.--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 datum, Mar. 8, 1962; lowest measured, 38.02 ft below land-surface datum, Sept. 17, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	8.79	JAN 6	8.93	MAR 22	8.43	APR 21	7.89	JUL 19	10.47
DEC 3	8.09	FEB 3	8.63	31	8.14	JUN 9	10.98	AUG 18	11.69

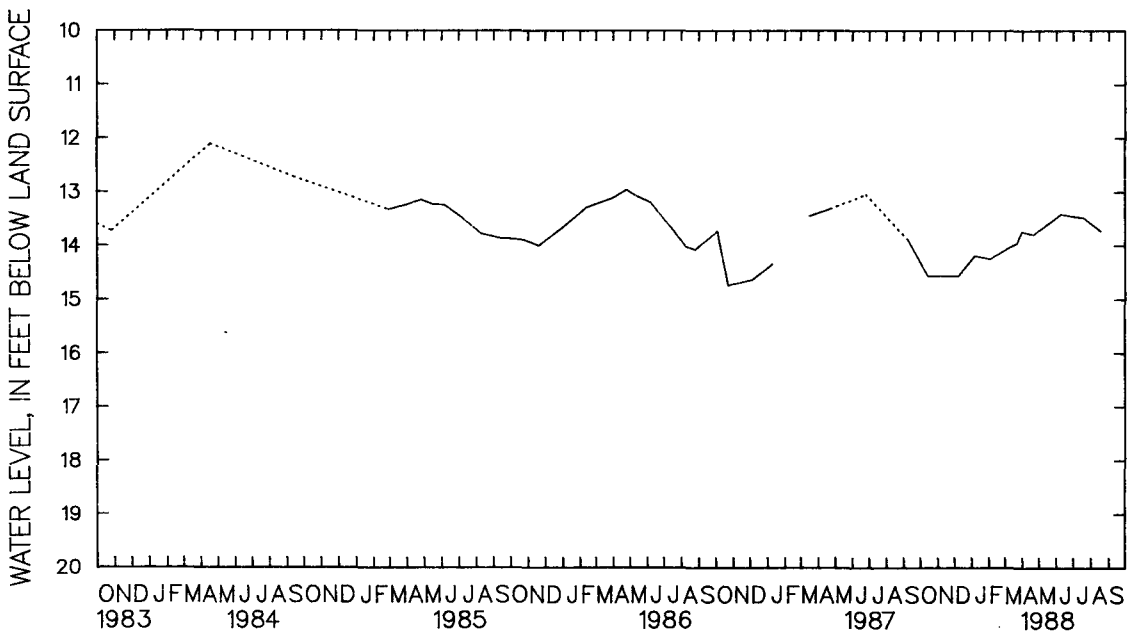


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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, Md.
Owner: U.S. Geological Survey
AQUIFER.--Manokin aquifer.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 330 ft; casing diameter 4 in., with depth to 320 ft; screen diameter 4 in. from 320 to 330 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape by USGS personel.
DATUM.--Elevation of land-surface datum is 30 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of 4 in. coupling, 2.0 ft above land-surface datum.
PERIOD OF RECORD.--September 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.62 ft below land-surface datum, May 20, 1976, lowest measured, 14.75 ft below land surface datum, Oct. 22, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	14.58	JAN 6	14.20	MAR 22	13.96	APR 21	13.80	JUL 19	13.48
DEC 7	14.58	FEB 3	14.26	31	13.75	JUN 9	13.42	AUG 18	13.73



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

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.
WELL CHARACTERISTICS.--Drilled artesian observation well, depth 310 ft; casing diameter 4 in. with depth to 300 ft; screen diameter 4 in. from 300 to 310 ft.
INSTRUMENTATION.--Periodic measurements with chalked steel tape October 1975, to April 1985. Equipped with digital water-level recorder--60-minute recording interval, April 1985 to current year.
DATUM.--Elevation of land-surface datum is 6 ft above National Geodetic Vertical Datum of 1929.
Measuring Point: Top of recorder shelf, 4.06 ft above land-surface datum.
PERIOD OF RECORD.--October 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level recorded, 0.66 ft above land-surface datum, April 18, 1984; lowest recorded, 5.25 ft below land surface datum, Aug. 25, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	4.06	3.67	3.61	3.19	2.22	1.76	2.39	1.96	2.39	1.99	1.47	1.03
2	4.09	3.69	3.50	3.08	2.68	1.91	2.45	2.06	2.25	1.88	1.54	1.18
3	4.04	3.57	3.38	2.98	2.70	2.31	2.46	2.01	2.16	1.65	1.60	1.27
4	4.20	3.64	3.32	2.93	2.67	2.16	2.16	1.66	1.85	1.27	1.59	1.08
5	4.34	3.89	3.31	2.78	2.45	1.98	2.41	1.91	1.73	1.39	1.54	1.17
6	4.26	3.67	3.35	2.82	2.57	2.01	2.65	2.26	1.94	1.65	1.64	1.26
7	4.03	3.49	3.46	3.09	2.72	2.35	2.83	2.55	2.04	1.78	1.61	1.29
8	3.93	3.46	3.60	3.17	2.84	2.44	2.62	1.76	2.09	1.84	1.71	1.38
9	4.15	3.74	3.43	3.06	2.78	2.44	1.94	1.65	2.08	1.70	1.59	1.07
10	4.27	3.92	3.30	2.60	2.74	2.29	2.07	1.77	1.91	1.67	1.30	1.02
11	4.28	3.89	2.67	2.06	2.40	1.93	2.10	1.86	1.80	1.35	1.44	1.02
12	4.11	3.69	2.35	2.04	2.05	1.83	2.08	1.87	1.27	.95	1.54	1.16
13	3.83	3.51	2.68	2.33	2.35	1.89	2.21	1.79	1.79	.93	1.50	1.19
14	3.76	3.51	2.88	2.61	2.45	2.21	2.35	1.93	2.17	1.58	1.35	1.01
15	3.77	3.55	2.97	2.72	2.24	1.82	2.25	1.98	2.10	1.61	1.26	.85
16	3.87	3.65	3.03	2.76	2.32	1.76	2.31	1.85	1.84	1.29	1.36	.83
17	3.86	3.59	2.93	2.66	2.37	2.10	2.28	1.87	1.83	1.34	1.42	.95
18	3.95	3.67	3.02	2.55	2.28	1.86	2.25	1.66	1.79	1.24	1.49	.92
19	3.96	3.66	3.02	2.68	2.21	1.66	2.19	1.66	1.73	.95	1.34	.83
20	3.96	3.50	2.99	2.47	2.21	1.65	2.14	1.39	1.30	.81	1.42	.91
21	3.75	3.34	3.06	2.37	2.09	1.57	1.80	1.24	1.49	.97	1.61	1.19
22	3.75	3.36	3.14	2.74	2.21	1.67	1.78	1.31	1.74	1.30	1.83	1.42
23	3.81	3.40	3.25	2.76	2.15	1.68	1.82	1.38	1.85	1.45	1.86	1.50
24	3.92	3.47	3.22	2.77	2.23	1.83	1.80	1.46	1.84	1.52	1.83	1.50
25	3.88	3.41	3.17	2.72	2.18	1.74	1.75	1.22	1.75	1.51	1.81	1.57
26	3.84	3.37	3.03	2.62	2.11	1.76	1.94	1.18	1.59	1.41	1.59	1.28
27	3.65	3.00	2.91	2.50	2.06	1.77	2.39	1.79	1.40	1.12	1.47	1.11
28	3.32	2.92	2.66	2.27	2.02	1.71	2.38	2.07	1.22	.93	1.72	1.27
29	3.38	2.99	2.37	1.95	1.69	1.25	2.31	2.05	1.31	.93	1.70	1.37
30	3.53	3.14	2.09	1.75	1.96	1.38	2.35	1.96	---	---	1.61	1.21
31	3.61	3.25	---	---	2.27	1.67	2.39	2.04	---	---	1.48	1.14
MONTH	4.34	2.92	3.61	1.75	2.84	1.25	2.83	1.18	2.39	.81	1.86	.83

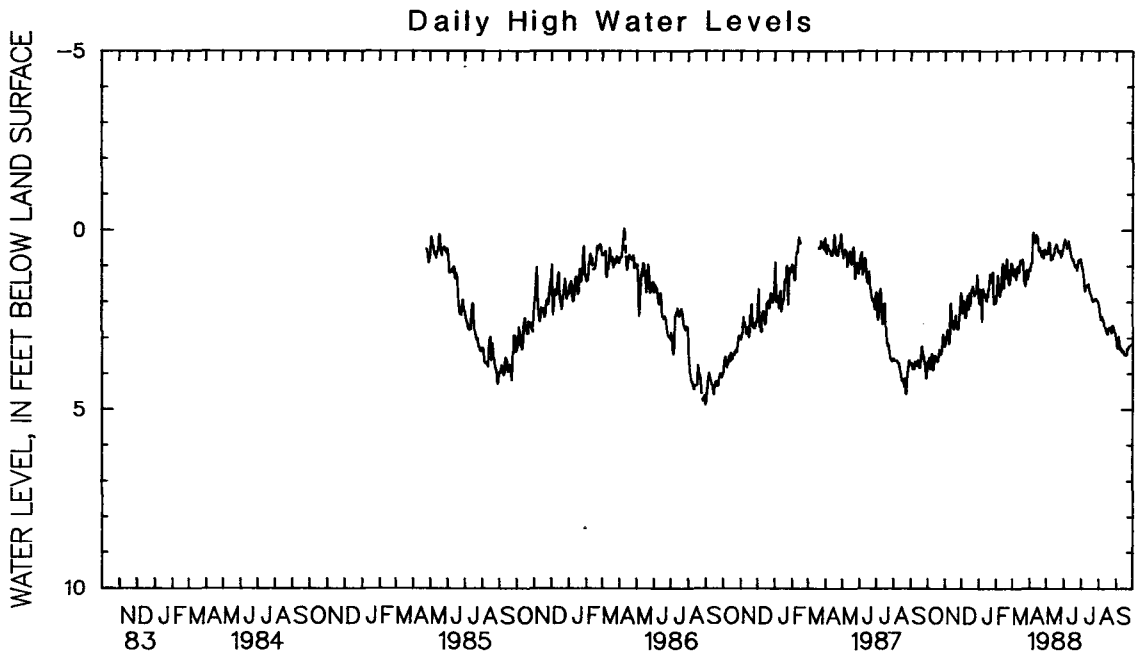
GROUND-WATER LEVELS

MARYLAND--Continued

WORCESTER COUNTY--Continued

WO Dg 21--Continued

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.49	1.09	1.09	.69	.92	.37	1.35	.88	2.49	2.08	3.53	3.16
2	1.49	1.14	1.11	.65	.85	.32	1.47	1.00	2.57	2.14	3.62	3.27
3	1.50	1.03	1.02	.57	.74	.26	1.50	1.06	2.64	2.27	3.66	3.30
4	1.35	.91	1.05	.66	.78	.35	1.60	1.10	2.74	2.39	3.55	3.08
5	1.31	.93	1.05	.42	.83	.39	1.72	1.25	2.84	2.50	3.35	2.97
6	1.22	.62	.77	.34	.91	.51	1.78	1.40	2.87	2.50	3.51	3.18
7	.74	.07	.91	.37	.85	.47	1.96	1.57	2.81	2.43	---	---
8	.55	.07	1.18	.64	.76	.41	2.12	1.71	2.87	2.50	3.78	3.35
9	.63	.20	1.13	.85	.73	.31	2.02	1.61	2.88	2.51	3.65	3.31
10	.70	.32	1.07	.73	.79	.39	1.97	1.55	2.93	2.55	3.65	3.32
11	.72	.35	1.12	.76	.91	.47	1.98	1.55	3.04	2.68	3.73	3.41
12	.62	.24	1.20	.81	1.03	.58	1.98	1.54	3.11	2.73	3.75	3.37
13	.66	.14	1.20	.72	1.11	.67	1.98	1.55	3.17	2.81	3.71	3.38
14	.75	.29	1.20	.72	1.19	.75	1.94	1.51	3.18	2.84	3.75	3.44
15	.74	.19	1.18	.66	1.21	.79	1.99	1.62	3.19	2.89	3.81	3.48
16	.85	.39	1.02	.51	1.22	.84	2.04	1.69	3.22	2.92	3.80	3.50
17	1.07	.59	.92	.48	1.19	.83	2.03	1.75	3.17	2.76	3.79	3.47
18	.99	.50	.90	.43	1.20	.89	2.10	1.79	3.01	2.74	3.82	3.48
19	.89	.49	.78	.39	1.27	.96	2.11	1.83	3.01	2.73	3.76	3.49
20	.95	.55	.80	.45	1.25	1.02	2.17	1.90	3.05	2.72	3.67	3.31
21	1.01	.64	.89	.55	1.26	1.03	2.21	1.97	3.01	2.75	3.74	3.32
22	1.12	.72	.89	.62	1.23	.99	2.27	2.00	3.17	2.86	3.69	3.29
23	1.02	.75	.86	.64	1.30	.99	2.29	1.99	3.30	2.88	3.77	3.24
24	.87	.59	.87	.64	1.40	1.13	2.26	1.94	3.19	2.74	3.74	3.23
25	1.73	.65	.87	.59	1.40	1.03	2.33	1.96	3.16	2.67	---	---
26	1.03	.80	.95	.67	1.27	.89	2.39	1.92	3.19	2.66	---	---
27	.96	.66	1.06	.76	1.29	.84	2.41	1.92	3.25	2.76	---	---
28	.86	.55	1.11	.74	1.30	.86	2.44	1.93	3.33	2.84	---	---
29	.92	.59	1.08	.66	1.35	.83	2.51	1.98	3.33	2.86	---	---
30	1.00	.64	1.05	.59	1.31	.81	2.50	1.98	3.36	2.89	---	---
31	---	---	1.00	.49	---	---	2.46	2.00	3.44	3.02	---	---
MONTH	1.73	.07	1.20	.34	1.40	.26	2.51	.88	3.44	2.08	---	---

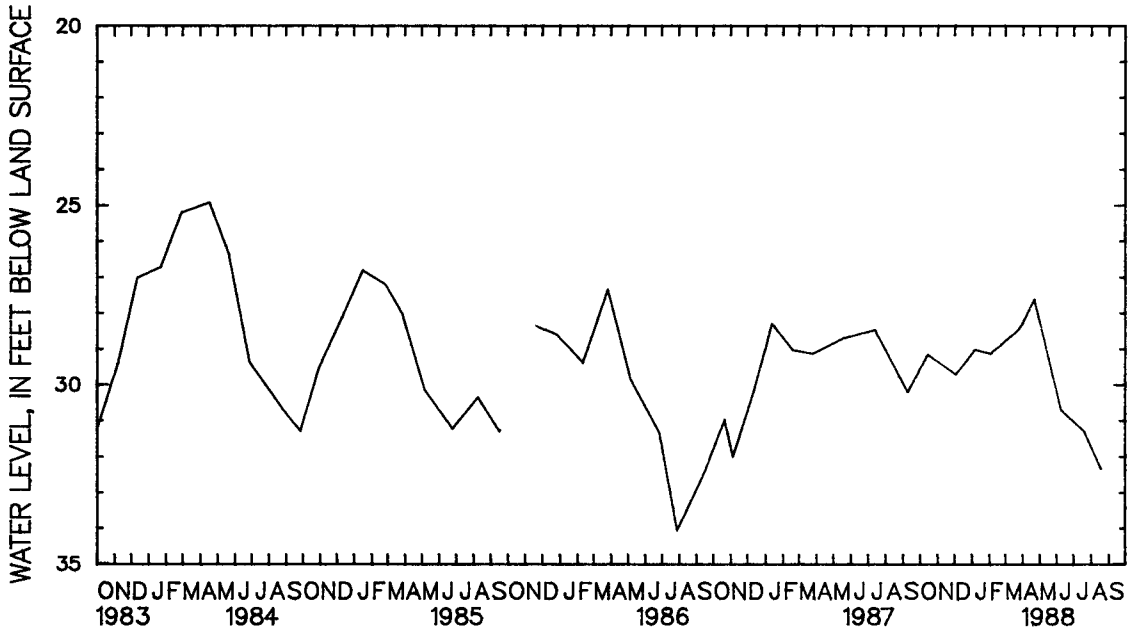


5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

WELL NUMBER.--WO Fb 2. SITE ID.--380408075335701.
LOCATION.--Lat 38°04′08″, long 75°33′57″, Hydrologic Unit 02060009. nr 7th and Young Sts., Pocomoke City.
Owner: City of Pocomoke.
AQUIFER.--Pocomoke aquifer.
WELL CHARACTERISTICS.--Drilled unused artesian well, depth 130 ft; casing diameter 16 in. with depth to 100 ft; casing diameter 10 in. from 0 to 100 ft; screen diameter 9.5 in. from 100 to 130 ft.
INSTRUMENTATION.--Measurements with chalked steel tape by USGS personnel.
DATUM.--Elevation of land-surface is 15 ft above National Geodetic Vertical Datum of 1929.
Measuring point: Top of 1.5 in. casing extension, 3.4 ft above land-surface datum.
REMARKS.--Water level reported 30 ft below land-surface datum Oct. 3, 1947; water level may be affected by nearby pumpage.
PERIOD OF RECORD.--January 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.61 ft below land-surface datum, Feb. 20, 1953; lowest measured, 49.70 ft below land-surface datum, July 1, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 14	29.15	JAN 6	29.01	MAR 22	28.48	APR 21	27.61	JUL 19	31.31
DEC 3	29.72	FEB 3	29.13	31	28.30	JUN 9	30.73	AUG 18	32.35



5 YEAR HYDROGRAPH
OCTOBER 1, 1983 THROUGH SEPTEMBER 30, 1988

GROUND-WATER-QUALITY RECORDS

REMARK CODES.--The following remark codes may appear with the water-quality data in this section.

PRINTED OUTPUT	REMARK
E	Estimated
>	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 egual to or greater than 15 percent (dominant).
&	Biological organism estimated as dominant.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

KENT COUNTY, DELAWARE

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
Cd31-19	09-08-88	1530	394224075340501	217PTMC	4040	58.20	75.00	72	75
Ib32-04	07-06-88	1045	391233075433101	112CLMB	--	26.40	30.00	25	30
Ib32-05	07-06-88	0900	391233075433102	112CLMB	4040	3.67	33.00	27	30
Jc55-02	06-29-88	0815	390503075354301	112CLMB	4040	6.57	15.00	12	15
Jc55-03	06-29-88	1030	390503075354001	112CLMB	4090	6.50	30.00	25	30
Le35-11	06-29-88	1600	385713075253701	112CLMB	4090	--	48.00	40	48
Le35-12	06-29-88	1430	385713075253702	112CLMB	--	13.10	20.50	17	20

	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
Cd31-19	68.0	20	0.9	129	5.1	14.5	28.0	5.3	7.6	3.8
Ib32-04	65.0	20	10	184	5.8	13.5	--	5.6	16	4.0
Ib32-05	65.0	22	0.8	192	7.6	13.5	23.5	0.4	34	0.41
Jc55-02	62.0	20	1.0	114	4.5	17.0	29.0	9.4	5.6	4.9
Jc55-03	65.0	--	4.4	235	5.2	15.5	27.0	4.1	14	6.9
Le35-11	20.0	5	6.0	134	4.8	15.0	30.5	9.0	6.5	5.4
Le35-12	20.0	10	1.3	256	5.3	14.0	33.0	6.6	15	6.9

	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
Cd31-19	9.3	1.4	11	2.4	21	<0.10	13	79	<0.010	3.30
Ib32-04	6.2	6.7	16	16	16	0.20	15	118	<0.010	6.40
Ib32-05	3.5	0.90	68	20	4.4	0.20	17	123	<0.010	<0.100
Jc55-02	3.9	2.3	1	26	7.3	0.20	12	73	<0.010	2.00
Jc55-03	14	3.0	10	20	15	0.20	19	99	<0.010	<0.100
Le35-11	6.6	2.7	2	6.8	11	0.20	12	92	<0.010	8.80
Le35-12	29	3.4	9	58	20	0.20	8.9	190	<0.010	9.40

	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)
Cd31-19	<0.010	0.20	0.020	<10	<1	<1	80	<0.5	<10	<1
Ib32-04	<0.010	0.20	0.020	<10	<1	<1	250	<0.5	10	<1
Ib32-05	0.010	0.20	0.100	<10	<1	1	34	<0.5	<10	<1
Jc55-02	<0.010	<0.20	<0.010	100	<1	<1	290	1	<10	<1
Jc55-03	<0.010	0.30	<0.010	<20	<1	<1	300	0.5	<10	<1
Le35-11	0.020	0.30	<0.010	20	<1	<1	180	<0.5	20	<1
Le35-12	<0.010	<0.20	0.020	40	<1	<1	110	<0.5	60	<1

Geologic unit (aquifer): 112CLMB - Columbia Formation
217PTMC - Potomac Group

Sampling method: 4040 - Submersible pump
4090 - Jet pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

KENT COUNTY, DELAWARE--Continued

LOCAL IDENT-I-FIER	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)
Cd31-19	<5	<3	<10	<6	<10	<4	12	<0.1	<10	<10
Ib32-04	<5	<3	<10	6	<10	<4	13	<0.1	<10	<10
Ib32-05	<5	<3	<10	33	<10	5	54	<0.1	<10	<10
Jc55-02	<5	<3	40	10	<10	5	11	<0.1	<10	<10
Jc55-03	<5	4	<10	34	<10	5	22	<0.1	<10	<10
Le35-11	<5	<3	20	12	<10	7	12	<0.1	<10	<10
Le35-12	<5	3	50	12	<10	6	140	<0.1	<10	<10

	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
Cd31-19	<1	<1.0	61	<6	13	4.0	3.1	<80	2.7	0.8
Ib32-04	2	<1.0	220	<6	17	1.0	8.5	900	7.2	0.8
Ib32-05	<1	<1.0	200	<6	9	0.9	1.6	1300	1.3	1.0
Jc55-02	2	2.0	130	<6	39	<0.4	2.6	140	2.4	2.5
Jc55-03	5	<1.0	350	<6	33	0.9	3.4	93	2.7	2.3
Le35-11	<1	<1.0	110	<6	21	1.5	3.3	--	2.9	2.6
Le35-12	<1	<1.0	120	<6	29	0.9	3.7	220	2.8	4.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

NEW CASTLE COUNTY, DELAWARE

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
Ec42-15	07-07-88	1230	393122075383201	112CLMB	4040	28.00	38.00	33	38
Gb41-05	03-16-88	1400	392104075443501	112CLMB	4080	9.17	30.00	27	30
Gb41-06	03-14-88	1755	392045075443501	112CLMB	4080	6.35	27.00	24	27
Gb41-07	03-15-88	1030	392051075443901	112CLMB	4080	4.00	22.00	17	22
Gb41-08	08-26-88	0900	392123075440801	112CLMB	4040	3.90	11.00	8.0	11
Gb41-09	08-26-88	1545	392120075441901	112CLMB	4040	15.00	15.00	12	15
Gb41-10	08-26-88	1445	392120075441501	112CLMB	4040	9.00	15.00	12	15
Gb41-11	08-26-88	1330	392119075441301	112CLMB	4040	6.90	13.00	10	13
Gb41-12	08-26-88	1145	392120075441001	112CLMB	4040	7.10	18.00	15	18
Gb42-03	08-25-88	1730	392131075440801	112CLMB	4040	10.50	23.00	20	23
Gb51-03	10-01-87	0945	392043075443101	112CLMB	4080	6.55	8.70	6.2	8.7
	03-14-88	1300		112CLMB	4080	0.21	8.70	6.2	8.7
Gb51-04	10-01-87	1230	392045075443401	112CLMB	4080	8.77	10.35	7.8	10
	03-14-88	1500		112CLMB	4080	2.78	10.35	7.8	10
Gb51-05	10-01-87	1400	392052075443401	112CLMB	4080	6.78	8.64	6.1	8.6
	03-16-88	0915		112CLMB	4080	1.91	8.64	6.1	8.6
Gb51-06	10-01-87	1600	392055075443501	112CLMB	4080	8.59	12.55	10	13
	03-15-88	1615		112CLMB	4080	1.15	12.55	10	13
Gb51-07	10-01-87	1745	392057075443601	112CLMB	4080	12.54	20.01	18	20
	03-15-88	1515		112CLMB	4080	7.61	20.01	18	20
Gb51-08	10-02-87	1030	392058075443801	112CLMB	4080	5.45	8.50	6.0	8.5
	03-15-88	1330		112CLMB	4080	2.19	8.50	6.0	8.5
Gb51-09	03-15-88	0915	392049075444001	112CLMB	4080	-0.28	12.35	9.8	12
Gb51-10	03-14-88	1600	392046075443402	112CLMB	4080	0.0	8.47	5.9	8.5
Gb51-11	03-16-88	1030	392055075443301	112CLMB	4080	0.69	11.30	8.7	11
Gc14-02	07-06-88	1430	392414075360901	112CLMB	4040	7.10	16.00	13	16
Gc13-03	07-06-88	1630	392414075361001	112CLMB	4040	--	80.00	60	80

	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
Ec42-15	53.0	25	4.0	262	6.0	13.0	27.5	11.0	22	10
Gb41-05	76.5	10	0.1	254	6.5	12.5	--	4.4	26	6.5
Gb41-06	76.2	16	0.2	63	5.7	11.5	3.0	1.2	3.3	1.2
Gb41-07	74.1	--	0.1	66	6.0	11.5	5.0	1.8	3.8	1.5
Gb41-08	80.9	30	1.0	117	4.9	20.0	22.5	4.4	5.5	3.6
Gb41-09	84.1	10	0.5	166	--	20.0	35.5	6.0	9.0	7.8
Gb41-10	82.8	20	1.0	144	6.9	19.0	34.5	6.9	6.3	8.7
Gb41-11	80.3	15	0.5	62	--	20.5	28.5	4.1	3.3	2.5
Gb41-12	80.8	20	0.6	198	4.1	17.0	30.0	7.0	13	9.5
Gb42-03	85.0	35	0.3	94	5.4	14.5	27.0	4.5	3.9	3.4
Gb51-03	70.2	--	--	57	5.2	15.0	16.0	2.6	2.2	0.70
	70.2	--	--	54	5.2	9.5	8.0	4.4	2.1	0.81
Gb51-04	72.6	--	--	48	4.6	15.0	15.5	1.8	0.55	1.1
	72.6	15	0.2	29	4.6	9.5	8.5	1.7	0.80	1.2
Gb51-05	72.4	--	--	89	5.6	15.5	16.0	2.8	6.2	2.3
	72.4	15	0.1	71	5.4	9.5	2.0	7.0	3.4	2.1
Gb51-06	73.4	--	--	45	5.4	14.0	16.0	5.2	0.94	0.65
	73.4	15	0.1	45	5.5	10.0	4.0	5.8	1.7	0.71
Gb51-07	77.9	--	--	30	5.6	12.5	16.0	5.7	1.0	0.48
	77.9	15	0.1	37	5.8	11.5	6.0	7.8	1.7	0.63
Gb51-08	72.0	--	--	52	5.2	15.5	16.0	1.0	1.9	0.61
	72.0	16	--	44	4.6	9.5	6.5	1.8	1.4	0.45
Gb51-09	69.9	16	0.1	85	6.0	11.0	--	2.4	6.0	2.7
Gb51-10	69.9	--	0.2	58	5.6	7.0	--	4.4	5.7	1.9
Gb51-11	70.7	15	0.1	74	5.1	9.5	6.5	1.3	4.6	1.4
Gc14-02	10.0	--	1.0	380	7.4	17.0	37.5	2.4	70	3.2
Gc13-03	12.0	--	6.0	396	7.3	14.0	31.5	1.4	76	1.6

Geologic unit (aquifer): 112CLMB - Columbia Formation

Sampling method: 4040 - Submersible pump
4080 - Peristaltic pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

NEW CASTLE COUNTY, DELAWARE--Continued

LOCAL IDENT-I-FIER	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
Ec42-15	5.8	1.7	18	13	24	0.20	14	103	--
Gb41-05	9.9	2.2	71	9.2	12	0.10	21	154	--
Gb41-06	2.4	1.8	34	10	3.6	0.10	11	55	--
Gb41-07	2.5	1.5	19	7.8	3.4	0.10	11	44	--
Gb41-08	4.7	4.2	7	13	10	<0.10	18	78	--
Gb41-09	4.5	1.7	--	19	21	<0.10	12	93	--
Gb41-10	2.9	1.9	--	18	22	<0.10	7.1	76	--
Gb41-11	1.9	4.0	--	11	2.9	0.10	13	49	0.540
Gb41-12	4.6	1.3	--	26	17	<0.10	18	127	--
Gb42-03	5.9	1.0	7	0.80	11	<0.10	15	64	--
Gb51-03	3.1	1.3	10	15	--	--	11	--	--
	3.1	1.6	12	9.6	3.4	0.10	9.1	35	--
Gb51-04	1.8	1.3	1	13	2.1	0.10	7.4	30	--
	1.6	4.5	2	13	2.0	0.10	6.2	32	--
Gb51-05	5.5	--	10	19	4.7	0.10	22	61	--
	5.2	0.90	2	20	5.5	0.10	18	57	--
Gb51-06	4.2	0.60	10	0.50	2.9	0.10	21	31	--
	4.4	0.50	11	1.6	3.9	0.10	20	40	--
Gb51-07	4.0	0.80	10	0.30	2.2	0.10	18	27	--
	4.2	0.80	11	1.8	2.7	0.10	17	36	--
Gb51-08	2.5	0.70	8	11	2.9	0.10	13	38	--
	2.0	0.40	2	9.9	3.5	0.10	11	31	--
Gb51-09	8.8	3.7	38	10	5.6	0.10	25	82	--
Gb51-10	3.6	0.70	18	18	2.6	0.10	25	69	--
Gb51-11	2.7	0.60	6	16	3.0	0.10	13	46	--
Gc14-02	5.8	1.7	143	19	8.7	0.30	21	254	3.59
Gc13-03	5.4	1.5	164	11	11	0.20	27	230	--

	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)
Ec42-15	--	--	--	0.30	--	--	<10	<1	<1
Gb41-05	<0.010	5.90	0.030	--	<0.010	--	<10	<1	<1
Gb41-06	<0.010	0.270	0.090	0.40	<0.010	--	60	<1	<1
Gb41-07	<0.010	<0.100	0.030	<0.20	<0.010	--	<10	<1	<1
Gb41-08	<0.010	3.10	0.010	0.20	<0.010	--	40	<1	<1
Gb41-09	<0.010	2.10	<0.010	<0.20	<0.010	--	<10	<1	<1
Gb41-10	<0.010	1.40	<0.010	0.30	<0.010	--	50	<1	<1
Gb41-11	0.020	0.560	0.080	0.40	0.020	--	<10	<1	<1
Gb41-12	<0.010	7.70	<0.010	0.70	<0.010	--	20	<1	<1
Gb42-03	<0.010	4.70	<0.010	0.30	<0.010	--	20	<1	<1
Gb51-03	<0.010	<0.100	0.110	<0.20	0.040	<10	40	--	--
	<0.010	<0.100	0.060	0.30	<0.010	--	40	<1	<1
Gb51-04	<0.010	<0.100	0.040	<0.20	<0.010	--	840	--	--
	0.110	--	0.060	<0.20	0.010	--	900	<1	<1
Gb51-05	<0.010	<0.100	0.040	<0.20	0.010	--	20	--	--
	<0.010	<0.100	<0.010	<0.20	<0.010	--	<10	<1	<1
Gb51-06	<0.010	<0.100	0.050	<0.20	0.020	<10	<10	--	--
	<0.010	<0.100	<0.010	--	<0.010	--	<10	<1	<1
Gb51-07	<0.010	<0.100	0.030	<0.20	<0.010	<10	<10	--	--
	<0.010	<0.100	0.030	--	<0.010	--	<10	<1	<1
Gb51-08	0.010	<0.100	0.090	<0.20	<0.010	--	140	--	--
	<0.010	<0.100	0.030	--	<0.010	--	170	<1	<1
Gb51-09	<0.010	<0.100	0.040	0.30	0.040	--	30	<1	<1
Gb51-10	<0.010	<0.100	0.200	0.40	0.020	--	30	<1	1
Gb51-11	<0.010	<0.100	0.020	--	<0.010	--	80	<1	<1
Gc14-02	0.010	3.60	0.030	0.30	0.020	--	<10	<1	1
Gc13-03	<0.010	3.80	0.010	0.30	<0.010	--	<10	<1	<1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

NEW CASTLE COUNTY, DELAWARE--Continued

LOCAL IDENT-I-FIER	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
Ec42-15	110	<0.5	<10	<1	<5	<3	100	<3	<10
Gb41-05	48	<0.5	<10	<1	<5	<3	<10	81	<10
Gb41-06	48	<0.5	<10	<1	<5	<3	<10	12000	<10
Gb41-07	38	<0.5	<10	<1	<5	<3	<10	4500	<10
Gb41-08	120	2	10	<1	<5	<3	<10	<8	<10
Gb41-09	85	<0.5	<10	<1	<5	<3	<10	21	<10
Gb41-10	42	<0.5	10	<1	<5	<3	<10	21	<10
Gb41-11	37	<0.5	<10	<1	<5	<3	<10	<6	<10
Gb41-12	83	<0.5	<10	<1	<5	10	<10	15	<10
Gb42-03	120	<0.5	<10	<1	<5	<3	<10	17	<10
Gb51-03	94	<0.5	<10	<1	<5	<3	<10	4100	<10
	72	<0.5	<10	<1	<5	<3	<10	2800	<10
Gb51-04	68	0.6	30	<1	<5	5	<10	1700	<10
	53	<0.5	20	<1	<5	<3	<10	360	<10
Gb51-05	51	<0.5	<10	<1	<5	6	<10	560	<10
	56	<0.5	<10	<1	<5	<3	<10	11	<10
Gb51-06	18	0.6	<10	<1	<5	<3	<10	22	<10
	20	<0.5	<10	<1	<5	<3	<10	11	<10
Gb51-07	16	0.6	<10	<1	<5	<3	<10	7	10
	15	<0.5	<10	5	<5	<3	<10	17	<10
Gb51-08	77	1	<10	<1	<5	10	<10	4400	<10
	54	<0.5	<10	<1	<5	<3	<10	1500	<10
Gb51-09	62	<0.5	<10	<1	<5	<3	<10	5000	<10
Gb51-10	59	<0.5	<10	<1	<5	<3	<10	5500	<10
Gb51-11	150	<0.5	<10	<1	<5	10	<10	380	<10
Gc14-02	7	<0.5	10	<1	<5	<3	90	3	<10
Gc13-03	7	<0.5	10	<1	<5	<3	<10	7	<10

	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)
Ec42-15	<4	5	<0.1	<10	<10	7	2.0	180	<6
Gb41-05	<4	250	--	<10	<10	1	<1.0	150	<6
Gb41-06	<4	170	--	<10	<10	<1	<1.0	39	<6
Gb41-07	<4	300	--	<10	<10	<1	<1.0	44	<6
Gb41-08	<4	39	--	<10	10	1	<1.0	130	<6
Gb41-09	<4	37	--	<10	<10	1	3.0	88	<6
Gb41-10	<4	12	--	<10	<10	2	5.0	76	<6
Gb41-11	<4	59	--	<10	<10	<1	<1.0	29	<6
Gb41-12	<4	170	--	<10	<10	<1	2.0	170	<6
Gb42-03	<4	51	--	<10	<10	<1	<1.0	96	<6
Gb51-03	<4	26	--	<10	<10	--	<1.0	52	6
	<4	25	--	<10	<10	<1	<1.0	47	<6
Gb51-04	<4	74	--	<10	<10	--	<1.0	6	<6
	<4	77	--	<10	<10	<1	<1.0	5	<6
Gb51-05	5	85	--	<10	<10	--	<1.0	62	<6
	<4	9	--	<10	<10	<1	<1.0	54	<6
Gb51-06	<4	15	--	<10	<10	--	<1.0	16	<6
	<4	28	--	<10	80	<1	<1.0	20	<6
Gb51-07	<4	30	--	<10	<10	--	<1.0	19	<6
	<4	25	--	<10	40	<1	<1.0	26	<6
Gb51-08	<4	39	--	<10	20	--	<1.0	27	<6
	<4	24	--	<10	<10	<1	<1.0	18	<6
Gb51-09	<4	130	--	<10	<10	<1	<1.0	95	<6
Gb51-10	<4	220	--	<10	<10	<1	<1.0	68	<6
Gb51-11	<4	110	--	<10	<10	<1	<1.0	83	<6
Gc14-02	11	11	<0.1	<10	<10	2	<1.0	150	<6
Gc13-03	16	<1	<0.1	<10	<10	1	<1.0	140	<6

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

NEW CASTLE COUNTY, DELAWARE--Continued

LOCAL IDENT-I-FIER	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	TRITIUM TOTAL (PCI/L)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL	S-34 / S-32 STABLE ISOTOPE RATIO PER MIL	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
*Ec42-15	15	0.7	2.0	480	1.6	--	--	--	0.9
Gb41-05	<3	--	--	--	--	--	-7.55	--	1.6
Gb41-06	4	--	--	--	--	--	-3.50	--	6.8
Gb41-07	11	--	--	--	--	--	--	--	2.6
Gb41-08	<3	--	--	--	--	--	--	--	0.7
Gb41-09	<3	--	--	--	--	--	--	--	0.6
Gb41-10	3	--	--	--	--	--	--	--	0.7
Gb41-11	<3	--	--	--	--	--	--	--	2.6
Gb41-12	4	--	--	--	--	--	--	--	0.7
Gb42-03	<3	--	--	--	--	--	--	--	0.4
Gb51-03	4	--	--	--	--	23	-5.10	--	5.7
	10	--	--	--	--	--	-6.00	--	4.7
Gb51-04	5	--	--	--	--	20	-4.10	--	8.7
	8	--	--	--	--	16	-6.70	--	6.3
Gb51-05	15	--	--	--	--	23	-6.75	--	2.3
	4	--	--	--	--	--	-6.60	3.00	1.6
Gb51-06	7	--	--	--	--	19	-7.55	--	1.4
	9	--	--	--	--	--	-7.40	--	1.4
Gb51-07	5	--	--	--	--	18	-7.60	--	1.4
	6	--	--	--	--	19	-7.50	--	1.4
Gb51-08	24	--	--	--	--	--	-4.75	--	6.6
	7	--	--	--	--	21	-5.15	--	4.4
Gb51-09	27	--	--	--	--	23	-5.85	--	6.2
Gb51-10	4	--	--	--	--	28	-4.15	--	5.1
Gb51-11	24	--	--	--	--	22	-4.10	--	3.4
Gc14-02	55	3.7	3.5	930	2.8	--	--	--	1.4
Gc13-03	<3	1.4	1.8	<80	1.3	--	--	--	1.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

SUSSEX COUNTY, DELAWARE

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
Oc21-02	06-30-88	1400	384322075394401	112CLMB	4030	7.00	45.00	35	45
Oc21-03	06-30-88	1145	384323075393201	112CLMB	4040	7.65	23.00	20	23
Oe44-01	06-14-88	1130	384150075265301	112CLMB	4040	6.15	18.50	15	18
Oe44-02	06-22-88	0830	384150075265302	112CLMB	4030	--	90.00	E50	E90
Oi51-06	06-22-88	1530	384032075094001	112CLMB	4030	--	60.00	55	60
Pg15-03	09-02-88	1000	383921075151501	112CLMB	4080	8.34	105.00	66	69
Ph15-02	09-01-88	1130	383921075151502	112CLMB	4040	8.22	20.00	12	15
Ph12-06	08-04-88	1515	383906075130302	112CLMB	4040	17.10	23.00	20	23
Ph12-08	08-24-88	1130	383908075133501	112CLMB	4040	15.30	20.00	17	20
Ph12-09	08-24-88	1230	383915075130801	112CLMB	4040	10.60	17.05	14	17
Ph13-16	08-04-88	1330	383907075124103	112CLMB	4040	11.50	45.00	40	45
Ph13-23	08-04-88	1030	383903075123004	112CLMB	4040	6.60	45.00	40	45
Ph21-07	09-02-88	1415	383853075141201	112CLMB	4080	10.38	20.00	12	15
Ph22-08	08-24-88	0900	383834075130501	112CLMB	4040	9.30	18.00	15	18
Ph22-10	08-23-88	1630	383845075132102	112CLMB	4040	9.90	13.00	10	13
	09-06-88	0945		112CLMB	4080	10.07	13.00	10	13
Ph22-11	08-23-88	1330	383855075135701	112CLMB	4040	8.80	54.00	51	54
	09-02-88	1300		112CLMB	4080	8.93	54.00	51	54
Ph22-12	08-23-88	1130	383855075135702	112CLMB	4040	8.80	15.00	12	15
Ph23-08	08-04-88	1645	383854075124801	112CLMB	4040	10.50	30.00	25	30
Ph23-10	08-24-88	1430	383854075122004	112CLMB	4040	9.93	25.00	20	25
Ph23-12	08-24-88	1530	383854075122003	112CLMB	4040	9.90	45.00	40	45
Qc22-04	08-03-88	1500	383308075382301	112CLMB	4040	14.60	29.00	26	29
Qc22-05	08-03-88	1245	383251075382801	112CLMB	4090	--	60.00	50	60
Rf14-02	06-23-88	1530	382927075211701	112CLMB	4030	--	56.00	46	56
Rf14-03	06-23-88	0900	382932075215001	112CLMB	4020	7.45	19.00	16	19
Ri22-03	08-09-88	1600	382825075081601	112CLMB	4040	--	50.00	40	50
Ri22-04	08-25-88	0930	382824075081501	112CLMB	4020	12.00	17.50	14	17

	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
Oc21-02	51.0	12	4.0	144	5.3	14.0	8.5	9.9	1.6	12
Oc21-03	51.0	15	0.9	304	4.9	14.0	6.9	21	13	9.1
Oe44-01	39.0	27	1.0	90	5.1	14.5	0.5	3.6	1.4	5.4
Oe44-02	39.0	16	50	84	5.8	14.5	0.8	0.84	0.24	7.8
Oi51-06	31.0	18	8.0	145	5.4	15.5	7.4	12	5.7	9.0
Pg15-03	37.0	60	--	46	6.0	15.0	4.3	1.3	0.58	6.7
Ph15-02	37.0	45	--	50	5.0	19.0	10.3	1.8	2.1	2.9
Ph12-06	26.0	15	0.7	156	4.6	16.0	7.0	4.0	5.4	7.9
Ph12-08	25.0	15	0.7	179	4.4	17.5	7.4	6.8	9.4	6.5
Ph12-09	25.0	20	0.5	204	6.8	17.5	6.8	12	8.9	6.2
Ph13-16	22.0	45	0.9	294	5.1	15.0	7.2	19	9.6	5.6
Ph13-23	20.0	25	1.0	342	4.9	15.0	8.1	4.2	5.3	13
Ph21-07	30.0	35	--	132	5.2	17.5	8.7	2.6	10	3.4
Ph22-08	25.0	20	0.7	346	4.4	19.5	7.2	28	9.1	7.4
Ph22-10	26.0	20	--	528	4.6	21.0	6.5	39	11	12
	26.0	60	--	513	4.8	18.0	8.7	39	10	12
Ph22-11	30.0	30	0.8	180	4.9	15.0	5.0	8.1	2.8	18
	30.0	60	--	178	5.1	15.5	6.2	8.7	3.1	18
Ph22-12	30.0	20	1.0	179	4.0	17.0	1.4	7.5	7.8	4.9
Ph23-08	13.3	15	0.5	254	5.0	15.5	8.3	19	9.8	5.8
Ph23-10	10.9	30	0.9	333	5.2	13.5	1.4	23	21	14
Ph23-12	10.8	25	0.5	308	5.7	14.0	3.8	25	18	11
Qc22-04	26.0	15	9.0	43	4.6	14.5	5.5	1.5	1.2	4.7
Qc22-05	30.0	10	7.0	64	5.6	13.5	5.8	4.2	1.2	7.3
Rf14-02	45.0	3	10	85	5.1	16.0	0.3	2.2	0.63	11
Rf14-03	45.0	--	--	203	5.0	13.5	6.1	13	6.2	20
Ri22-03	15.0	15	22	257	6.3	14.5	0.4	29	2.8	9.9
Ri22-04	15.0	30	1.5	34	5.2	27.0	3.1	9.4	5.9	47

Geologic unit (aquifer): 112CLMB - Columbia Formation

E Estimated

Sampling method: 4020 - Bailer
4030 - Suction pump
4040 - Submersible pump
4080 - Peristaltic pump
4090 - Jet pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

SUSSEX COUNTY, DELAWARE--Continued

LOCAL IDENT-I-FIER	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)
Oc21-02	1.3	7	5.5	11	0.20	23	109	<0.010	9.10	<0.010
Oc21-03	1.6	3	39	16	0.20	17	199	<0.010	18.0	0.020
Oe44-01	0.10	4	14	13	0.10	6.7	54	<0.010	<0.100	0.100
Oe44-02	0.80	29	4.7	8.1	0.20	34	74	<0.010	<0.100	0.030
Oi51-06	1.9	7	21	14	0.30	15	118	<0.010	7.60	0.020
Pg15-03	1.2	20	2.2	6.4	0.10	14	44	--	--	--
Ph15-02	1.2	3	11	4.1	0.10	7.6	33	--	--	--
Ph12-06	6.4	4	9.7	13	<0.10	16	104	<0.010	8.60	0.020
Ph12-08	2.8	--	32	20	<0.10	8.1	94	<0.010	1.60	<0.010
Ph12-09	2.4	--	6.8	16	<0.10	15	126	<0.010	13.0	0.010
Ph13-16	4.4	4	16	18	<0.10	11	184	<0.010	22.0	0.110
Ph13-23	7.6	3	20	19	<0.10	11	201	<0.010	27.0	0.010
Ph21-07	1.3	2	8.8	11	0.10	11	50	--	--	--
Ph22-08	18	--	23	11	<0.10	11	223	<0.010	26.0	<0.010
Ph22-10	32	2	48	15	<0.10	5.9	345	<0.010	41.0	<0.010
	42	2	51	16	0.10	6.0	178	--	--	--
Ph22-11	2.6	6	0.40	17	<0.10	13	114	<0.010	11.0	<0.010
	2.7	9	0.40	18	<0.10	14	71	--	--	--
Ph22-12	7.3	--	7.4	10	0.10	8.8	110	<0.010	12.0	0.020
Ph23-08	3.9	2	20	17	<0.10	12	169	<0.010	18.0	0.010
Ph23-10	3.3	4	21	16	<0.10	11	259	<0.010	33.0	<0.010
Ph23-12	2.9	7	15	19	<0.10	16	250	<0.010	31.0	<0.010
Qc22-04	1.1	3	5.0	3.6	<0.10	11	39	<0.010	2.00	<0.010
Qc22-05	1.7	4	<0.20	7.8	<0.10	13	--	<0.010	5.10	<0.010
Rf14-02	1.1	8	8.7	12	0.30	26	75	<0.010	1.30	0.070
Rf14-03	6.4	5	21	15	0.20	13	173	<0.010	17.0	0.090
Ri22-03	1.1	120	2.3	9.4	0.10	45	174	0.010	<0.100	0.450
Ri22-04	2.2	5	120	13	<0.10	27	233	<0.010	0.990	0.100

	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
Oc21-02	0.60	<0.010	<10	<1	<1	100	0.5	<10	<1	6
Oc21-03	<0.20	<0.010	10	<1	<1	300	2	<10	<1	<5
Oe44-01	0.30	<0.010	120	2	2	130	0.5	<10	<1	<5
Oe44-02	0.30	0.010	<10	2	9	48	<0.5	<10	1	<5
Oi51-06	0.50	0.010	<10	<1	<1	79	<0.5	<10	1	<5
Pg15-03	--	--	--	<1	<1	30	<0.5	<10	<1	<5
Ph15-02	--	--	--	<1	<1	36	<0.5	20	<1	<5
Ph12-06	0.50	<0.010	50	<1	<1	400	<0.5	10	<1	<5
Ph12-08	0.40	<0.010	150	<1	<1	180	<0.5	10	<1	<5
Ph12-09	0.60	0.020	30	<1	<1	210	<0.5	<10	<1	<5
Ph13-16	0.30	<0.010	20	<1	<1	230	<0.5	10	1	<5
Ph13-23	0.40	<0.010	40	<1	<1	450	<0.5	10	<1	<5
Ph21-07	--	--	--	<1	<1	50	<0.5	20	<1	<5
Ph22-08	0.80	<0.010	170	<1	<1	370	<0.5	20	<1	<5
Ph22-10	0.60	<0.010	280	<1	<1	100	<0.5	10	<1	<5
	--	--	--	<1	<1	94	<0.5	20	<1	<5
Ph22-11	0.30	<0.010	<10	<1	<1	220	<0.5	10	<1	<5
	--	--	--	<1	<1	230	<0.5	20	<1	<5
Ph22-12	1.3	<0.010	250	<1	<1	240	<0.5	10	<1	<5
Ph23-08	0.90	<0.010	30	<1	<1	230	0.6	<10	<1	<5
Ph23-10	0.80	<0.010	80	<1	<1	180	<0.5	10	<1	<5
Ph23-12	0.80	<0.010	<10	<1	<1	230	<0.5	10	<1	<5
Qc22-04	0.20	<0.010	10	<1	<1	43	<0.5	<10	<1	<5
Qc22-05	0.40	<0.010	<10	<1	<1	46	<0.5	<10	<1	<5
Rf14-02	<0.20	<0.010	20	<1	<1	62	<0.5	<10	<1	<5
Rf14-03	0.80	<0.010	40	<1	<1	290	<0.5	30	5	<5
Ri22-03	0.70	0.040	<10	<1	3	10	<0.5	10	<1	<5
Ri22-04	0.50	<0.010	<10	<1	1	110	<0.5	30	1	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

SUSSEX COUNTY, DELAWARE--Continued

LOCAL IDENT-I-FIER	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)
Oc21-02	<3	40	14	<10	5	<1	<0.1	<10	<10	2
Oc21-03	<3	140	9	<10	6	40	<0.1	<10	<10	1
Oe44-01	<3	<10	4700	<10	<4	39	<0.1	<10	<10	<1
Oe44-02	8	<10	12000	<10	<4	120	<0.1	<10	<10	<1
Oi51-06	<3	20	24	<10	<4	3	<0.1	<10	<10	2
Pg15-03	3	<10	16	<10	<4	64	--	<10	<10	<1
Ph15-02	<3	10	6	<10	<4	5	--	<10	<10	<1
Ph12-06	5	10	7	<10	6	57	--	<10	<10	<1
Ph12-08	<3	<10	<9	10	<4	16	--	<10	<10	2
Ph12-09	5	<10	16	<10	<4	34	--	<10	<10	<1
Ph13-16	3	10	13	<10	5	15	--	<10	<10	1
Ph13-23	<3	<10	9	<10	5	27	--	<10	<10	1
Ph21-07	<3	<10	9	<10	<4	77	--	<10	<10	<1
Ph22-08	<3	<10	13	<10	<4	35	--	<10	<10	<1
Ph22-10	4	170	67	160	<4	49	--	<10	<10	1
	4	<10	16	<10	<4	40	--	<10	<10	1
Ph22-11	<3	<10	<9	<10	<4	36	--	<10	<10	<1
	<3	<10	<3	<10	<4	38	--	<10	<10	<1
Ph22-12	<3	<10	11	<10	<4	180	--	<10	<10	<1
Ph23-08	<3	10	17	<10	<4	16	--	<10	<10	<1
Ph23-10	10	<10	<6	<10	<4	450	--	<10	<10	<1
Ph23-12	7	<10	<3	<10	<4	59	--	<10	<10	<1
Qc22-04	<3	<10	16	<10	<4	30	<0.1	<10	<10	3
Qc22-05	<3	20	8	<10	<4	3	<0.1	<10	<10	<1
Rf14-02	4	<10	1200	<10	<4	34	<0.1	<10	<10	<1
Rf14-03	10	<10	18	<10	<4	270	<0.1	<10	<10	1
Ri22-03	<3	<10	17000	40	<4	210	<0.1	<10	20	<1
Ri22-04	10	<10	3800	<10	12	180	<0.1	<10	20	<1

	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
Oc21-02	1.0	240	<6	42	<0.4	1.6	180	1.3	3.2
Oc21-03	<1.0	740	<6	91	2.0	2.1	150	1.6	3.3
Oe44-01	<1.0	47	<6	4	<0.4	1.5	130	1.4	3.4
Oe44-02	3.0	18	<6	8	<0.4	1.1	<80	1.0	1.8
Oi51-06	<1.0	230	<6	28	0.5	2.9	120	2.4	1.0
Pg15-03	<1.0	30	<6	9	--	--	--	--	--
Ph15-02	<1.0	16	<6	26	--	--	--	--	--
Ph12-06	<1.0	440	<6	4	--	--	--	--	1.1
Ph12-08	<1.0	86	<6	4	--	--	--	--	0.7
Ph12-09	4.0	280	<6	7	--	--	--	--	0.6
Ph13-16	<1.0	340	<6	22	--	--	--	--	1.3
Ph13-23	<1.0	99	<6	11	--	--	--	--	1.2
Ph21-07	<1.0	70	<6	12	--	--	--	--	--
Ph22-08	<1.0	250	<6	5	--	--	--	--	2.2
Ph22-10	4.0	270	<6	97	--	--	--	--	1.7
	<1.0	260	<6	49	--	--	--	--	--
Ph22-11	1.0	200	<6	4	--	--	--	--	0.6
	<1.0	220	<6	16	--	--	--	--	--
Ph22-12	<1.0	140	<6	4	--	--	--	--	2.5
Ph23-08	<1.0	340	<6	19	--	--	--	--	1.3
Ph23-10	4.0	320	<6	16	--	--	--	--	2.3
Ph23-12	3.0	570	<6	18	--	--	--	--	1.1
Qc22-04	<1.0	42	<6	5	0.6	1.1	270	1.0	2.5
Qc22-05	<1.0	120	<6	7	<0.4	1.6	120	1.5	1.0
Rf14-02	<1.0	66	<6	10	<0.4	1.6	86	1.4	2.7
Rf14-03	<1.0	220	<6	19	0.8	7.3	220	5.8	2.9
Ri22-03	<1.0	130	<6	31	1.2	1.8	<80	1.4	4.8
Ri22-04	<1.0	110	<6	95	2.1	3.4	200	2.7	0.8

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

ANNE ARUNDEL COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
AA Ad 104	12-07-87	1245	391032076385905	217PPSC	4020	9.05	28.00	19	28
	03-15-88	1220		217PPSC	4040	7.80	28.00	19	28
	05-17-88	1100		217PPSC	4040	7.58	28.00	19	28
	07-11-88	1325		217PPSC	4040	9.21	28.00	19	28
AA Cf 136	04-07-88	0730	390205076292701	217PTXN	--	121.50	1568.00	1300	1560
AA Cf 137	04-29-88	0710	390205076292702	217PPSC	--	130.00	976.00	791	966
AA Cg 25	02-10-88	1230	390127076240301	112PLSC	4040	16.86	107.00	100	107
	07-13-88	1310		112PLSC	4040	15.90	107.00	100	107
AA De 140	12-07-87	1500	385920076322401	125AQUI	4020	37.21	45.00	32	42
	08-17-88	0915		125AQUI	4020	37.45	45.00	32	42
AA De 143	12-07-87	1300	385928076321702	125AQUI	4020	27.22	46.00	33	43
	06-10-88	1430		125AQUI	4020	27.29	46.00	33	43
	08-16-88	1530		125AQUI	4020	27.23	46.00	33	43
	08-17-88	1145		125AQUI	4020	27.00	46.00	33	43
AA De 155	12-07-87	1145	385927076321704	125AQUI	4020	12.89	60.00	47	57
AA De 156	06-10-88	1300	385927076321703	125AQUI	4020	12.20	39.00	24	32
AA De 157	12-07-87	1100	385927076321702	125AQUI	4020	11.70	24.00	10	20
	06-10-88	0830		125AQUI	4020	11.72	24.00	10	20
	08-16-88	1345		125AQUI	4020	11.60	24.00	10	20
	08-17-88	1115		125AQUI	4020	10.94	24.00	10	20
AA De 159	12-07-87	1345	385928076321703	125AQUI	4020	27.09	109.00	64	79
AA Df 103	02-11-88	1230	385623076274401	125AQUI	4040	24.57	46.00	39	46
	07-21-88	1140		125AQUI	4040	24.54	46.00	39	46
AA Df 131	05-19-88	1030	385633076284401	211MNMT	4040	40.00	183.00	176	183
AA Df 132	05-17-88	0930	385633076284402	125AQUI	4040	40.00	100.00	93	100

	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
AA Ad 104	80.0	30	1.7	292	6.4	14.0	--	--	28	4.2
	80.0	45	1.5	321	6.3	9.5	--	--	23	4.5
	80.0	30	1.4	330	6.0	10.0	--	--	23	4.7
	80.0	90	1.7	415	6.2	13.0	--	--	29	5.2
AA Cf 136	125	1400	210	118	6.5	21.5	230	--	6.7	3.8
AA Cf 137	123	1400	250	68	6.0	17.5	--	--	2.6	1.3
AA Cg 25	10.0	110	1.5	134	6.3	13.0	--	--	8.5	2.4
	10.0	145	1.6	111	6.4	14.0	--	0.1	8.4	2.5
AA De 140	85.0	--	--	30	5.4	13.5	--	8.9	0.93	0.55
	85.0	55	--	36	4.8	14.5	--	9.5	1.2	0.50
AA De 143	69.9	--	--	77	5.4	15.0	--	6.3	3.3	2.2
	69.9	--	--	94	5.2	15.5	--	6.7	4.1	2.6
	69.9	100	--	80	5.3	14.5	--	8.2	3.0	1.7
	69.9	--	--	--	--	--	--	--	3.0	1.9
AA De 155	56.3	--	--	68	4.9	15.0	--	2.9	3.3	1.6
AA De 156	55.9	--	--	320	4.9	14.5	--	1.3	16	10
AA De 157	55.7	--	--	480	4.8	18.0	--	2.7	25	9.4
	55.7	83	1.0	251	5.2	13.5	--	4.3	11	4.4
	55.7	136	--	225	5.3	18.5	--	3.7	8.6	3.2
	55.7	--	--	--	--	--	--	--	6.7	2.4
AA De 159	69.7	--	--	110	6.4	15.0	--	3.1	9.8	2.1
AA Df 103	22.0	70	0.7	260	5.8	11.5	--	--	17	6.4
	22.0	70	1.4	308	5.6	14.0	--	5.1	19	7.6
AA Df 131	44.0	1410	14	430	7.1	14.5	--	--	84	4.7
AA Df 132	44.0	1410	15	391	7.4	13.5	--	--	68	1.6

Geologic unit (aquifer):
112PLSC - Pleistocene Series
125AQUI - Aquia Formation
211MNMT - Monmouth Formation
217PPSC - Patapsco Formation
217PTXN - Patuxent Formation

Sampling method:
4020 - Bailer
4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

ANNE ARUNDEL COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
AA Ad 104	25	3.2	76	--	19	44	0.20	6.2	187	178
	28	3.2	67	--	19	50	0.20	4.9	--	174
	30	1.8	57	--	20	56	0.20	5.0	--	176
	38	3.5	67	--	15	81	<0.10	4.8	--	220
AA Cf 136	2.7	5.0	--	--	16	1.7	0.20	11	72	65
AA Cf 137	1.0	1.4	--	--	12	1.4	0.10	8.2	39	33
AA Cg 25	3.6	3.5	56	--	4.5	6.1	0.60	27	99	105
	3.2	3.1	56	--	3.8	4.6	0.50	2.8	--	79
AA De 140	1.7	1.7	3	--	0.50	6.1	0.20	14	--	29
	1.8	1.6	2	--	1.9	3.8	<0.10	13	--	30
AA De 143	4.0	2.9	3	--	0.70	18	0.20	16	--	50
	4.4	3.4	3	--	0.80	20	0.20	16	--	58
	7.5	4.0	7	--	4.8	17	<0.10	14	--	57
	4.8	2.6	--	--	1.2	15	<0.10	15	--	46
AA De 155	3.6	2.7	--	--	8.3	14	0.20	18	--	54
AA De 156	14	6.2	2	--	0.50	85	0.20	17	--	152
AA De 157	42	6.7	--	--	0.70	150	0.20	15	--	256
	21	3.6	5	--	0.80	65	0.30	14	--	125
	21	3.6	5	<0.5	0.70	55	<0.10	15	--	111
	20	3.3	--	--	0.50	45	<0.10	15	--	96
AA De 159	1.6	2.1	40	--	12	4.0	0.60	17	--	67
AA Df 103	18	4.4	19	--	11	53	0.10	18	162	140
	20	3.8	20	--	10	77	0.10	16	--	166
AA Df 131	1.9	3.4	--	--	7.2	3.0	0.30	35	259	278
AA Df 132	3.1	4.1	--	--	8.7	5.9	0.20	29	214	225

	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
AA Ad 104	--	<0.100	0.027	--	--	0.050	--	0.026	--	140
	--	0.300	--	--	--	--	--	--	180	--
	--	0.200	--	--	--	<0.010	--	--	240	--
	--	<0.100	--	--	--	0.030	--	--	160	--
AA Cf 136	--	<0.100	--	--	--	0.440	--	--	--	--
AA Cf 137	--	<0.100	--	--	--	0.020	--	--	--	--
AA Cg 25	--	<0.100	--	--	--	0.390	--	--	--	--
	--	<0.100	--	--	--	0.470	--	--	20	--
AA De 140	--	--	0.700	<0.010	<0.20	--	<0.005	<0.001	--	30
	<0.010	--	1.20	<0.010	0.40	0.060	--	<0.010	--	30
AA De 143	--	--	0.240	0.010	<0.20	--	<0.005	<0.001	--	20
	<0.010	--	0.380	0.050	1.3	<0.010	--	<0.010	--	10
	<0.010	--	0.320	0.060	0.60	0.060	--	0.010	--	20
	--	--	--	--	--	--	--	--	--	20
AA De 155	--	--	0.310	<0.010	<0.20	--	<0.005	<0.001	--	40
AA De 156	<0.010	--	0.130	0.020	0.40	0.030	--	<0.010	--	40
AA De 157	--	--	0.990	0.030	<0.20	--	<0.005	0.003	--	50
	<0.010	--	0.320	0.020	0.70	<0.010	--	<0.010	--	20
	<0.010	--	0.360	0.010	0.40	0.020	--	<0.010	--	20
	--	--	--	--	--	--	--	--	--	20
AA De 159	--	--	0.300	0.040	0.30	--	0.012	0.018	--	<10
AA Df 103	--	1.80	--	--	--	0.140	--	--	--	--
	--	1.90	--	--	--	0.090	--	--	270	--
AA Df 131	--	<0.100	--	--	--	0.020	--	--	--	--
AA Df 132	--	<0.100	--	--	--	0.020	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

ANNE ARUNDEL COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
AA Ad 104	1	--	--	29	<0.5	50	--	--	<1	--
	--	--	--	--	--	--	20	--	--	--
	--	--	--	--	--	--	20	--	--	--
	--	--	--	--	--	--	20	--	--	--
AA Cf 136	--	--	--	--	--	--	--	--	--	--
AA Cf 137	--	--	--	--	--	--	--	--	--	--
AA Cg 25	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	20	--	--	--
AA De 140	--	--	<1	--	--	10	--	--	<1	--
	--	1	2	9	<0.5	10	--	--	<1	--
AA De 143	--	--	<1	--	--	10	--	--	4	--
	--	--	<1	33	--	10	--	--	5	--
	--	1	1	26	<0.5	20	--	12	9	15
	--	--	<1	25	<0.5	10	--	--	2	--
AA De 155	--	--	<1	--	--	<10	--	--	7	--
AA De 156	--	--	<1	160	--	10	--	--	23	--
AA De 157	--	--	<1	--	--	20	--	--	10	--
	--	--	<1	63	--	10	--	--	5	--
	--	2	<1	50	<0.5	20	--	4	5	4
	--	--	<1	38	<0.5	20	--	--	3	--
AA De 159	--	--	<1	--	--	20	--	--	1	--
AA Df 103	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	10	--	--	--
AA Df 131	--	--	--	--	--	--	--	--	--	--
AA Df 132	--	--	--	--	--	--	--	--	--	--

	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
AA Ad 104	--	1	--	2	1600	1600	--	<5	<4	140
	--	--	--	--	1300	1300	--	--	--	170
	--	--	--	--	1100	1000	--	--	--	190
	--	--	--	--	2700	2800	--	--	--	160
AA Cf 136	--	--	--	--	8100	78	--	--	--	300
AA Cf 137	--	--	--	--	8200	2100	--	--	--	210
AA Cg 25	--	--	--	--	13000	15000	--	--	--	350
	--	--	--	--	14000	16000	--	--	--	360
AA De 140	2	1	--	3	--	20	--	<0.5	<4	--
	3	1	--	3	--	10	--	1	--	--
AA De 143	1	3	--	2	--	<10	--	<0.5	<4	--
	2	2	--	3	--	7	--	1	--	--
	<1	1	27	9	--	90	6	<0.5	--	--
	3	<1	--	3	--	27	--	<5	--	--
AA De 155	4	2	--	2	--	100	--	1	<4	--
AA De 156	3	<1	--	32	--	75	--	2	--	--
AA De 157	<0.5	2	--	5	--	<10	--	1	<4	--
	2	1	--	24	--	5	--	1	--	--
	1	1	7	3	--	12	<5	1	--	--
	3	1	--	3	--	8	--	<5	--	--
AA De 159	<0.5	1	--	1	--	4600	--	7	5	--
AA Df 103	--	--	--	--	13000	520	--	--	--	30
	--	--	--	--	1500	19	--	--	--	20
AA Df 131	--	--	--	--	1000	14	--	--	--	20
AA Df 132	--	--	--	--	930	140	--	--	--	10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

ANNE ARUNDEL COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
AA Ad 104	140	--	<1	<1	--	--	73	5	--	19
	170	--	--	--	--	--	--	--	<10	--
	180	--	--	--	--	--	--	--	<10	--
	160	--	--	--	--	--	--	--	<10	--
AA Cf 136	300	--	--	--	--	--	--	--	--	--
AA Cf 137	210	--	--	--	--	--	--	--	--	--
AA Cg 25	380	--	--	--	--	--	--	--	--	--
	360	--	--	--	--	--	--	--	<10	--
AA De 140	20	--	<1	3	<1	--	3	<1	--	18
	39	<0.10	<1	2	--	--	4	<1	--	42
AA De 143	10	--	<1	69	<1	--	18	<1	--	66
	27	<0.10	1	14	--	--	19	<1	--	54
	37	<0.10	<1	13	--	40	22	<1	--	53
	22	--	<1	8	--	--	17	<1	--	35
AA De 155	20	--	<1	7	<1	--	13	<1	--	26
AA De 156	40	<0.10	2	50	--	--	67	<1	--	200
AA De 157	80	--	<1	27	<1	--	80	<1	--	69
	27	<0.10	2	15	--	--	37	<1	--	32
	23	<0.10	<1	10	--	40	28	<1	--	33
	22	--	<1	9	--	--	21	<1	--	26
AA De 159	260	--	<1	3	<1	--	26	<1	--	53
AA Df 103	9	--	--	--	--	--	--	--	--	--
	13	--	--	--	--	--	--	--	10	--
AA Df 131	14	--	--	--	--	--	--	--	--	--
AA Df 132	18	--	--	--	--	--	--	--	--	--

	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)	PCN DISSOLV (UG/L)	BROMO-FORM TOTAL (UG/L)	BENZENE TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)
AA Ad 104	--	--	--	<0.10	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	--	--	--	--	--	--	--	--	--	--
	12	--	--	--	--	--	--	--	--	--
	11	--	--	--	--	--	--	--	--	--
AA Cf 136	--	--	--	--	--	--	--	--	--	--
AA Cf 137	--	--	--	--	--	--	--	--	--	--
AA Cg 25	--	--	--	--	--	--	--	--	--	--
	4.2	--	--	--	--	--	--	--	--	--
AA De 140	0.9	0.8	0.02	--	--	--	--	--	--	--
	--	--	0.01	--	--	--	--	--	--	--
AA De 143	0.6	1.0	0.03	--	--	--	--	--	--	--
	1.6	1.8	0.03	--	--	--	--	--	--	--
	--	--	0.02	--	--	--	--	--	--	--
	--	--	0.03	--	--	--	--	--	--	--
AA De 155	0.3	0.5	0.02	--	--	--	--	--	--	--
AA De 156	1.0	1.0	0.04	--	--	--	--	--	--	--
AA De 157	0.8	1.3	0.05	--	--	--	--	--	--	--
	1.0	1.3	0.03	--	--	--	--	--	--	--
	--	--	0.03	--	--	--	--	--	--	--
	--	--	0.03	--	--	--	--	--	--	--
AA De 159	0.9	1.1	0.02	--	--	--	--	--	--	--
AA Df 103	--	--	--	--	--	--	--	--	--	--
	2.0	--	--	--	--	--	--	--	--	--
AA Df 131	--	--	--	--	--	--	--	--	--	--
AA Df 132	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

ANNE ARUNDEL COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	CHLORO-ETHANE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)
AA Ad 104	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

LOCAL IDENT-I-FIER	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-FLURA-LIN TOTAL RECOVER (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)
AA Ad 104	<3.0	<3.0	<3.0	<3.0	<0.10	<3.0	<3.0	<3.0	<3.0	<3.0

LOCAL IDENT-I-FIER	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DIBROMO ETHYL-ENE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)
AA Ad 104	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

LOCAL IDENT-I-FIER	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	PCB, DIS-SOLVED (UG/L)	ALA-CHLOR TOTAL RECOVER (UG/L)	ALDRIN, DIS-SOLVED (UG/L)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, DIS-SOLVED (UG/L)	CYAN-AZINE TOTAL (UG/L)	DDD, DIS-SOLVED (UG/L)	DDE, DIS-SOLVED (UG/L)
AA Ad 104	<3.0	<0.1	<0.10	<0.01	<0.10	<0.10	<0.1	<0.10	<0.01	<0.01

LOCAL IDENT-I-FIER	DDT, DIS-SOLVED (UG/L)	DI-AZINON, DIS-SOLVED (UG/L)	DI-ELDRIN DIS-SOLVED (UG/L)	ENDO-SULFAN DISSOLV (UG/L)	ENDRIN, DIS-SOLVED (UG/L)	ETHION DISSOLV (UG/L)	HEPTA-CHLOR, DIS-SOLVED (UG/L)	HEPTA-CHLOR EPOXIDE DIS-SOLVED (UG/L)	LINDANE DIS-SOLVED (UG/L)	MALA-THION, DIS-SOLVED (UG/L)
AA Ad 104	<0.01	<0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10

LOCAL IDENT-I-FIER	METH-OXY-CHLOR DISSOLV (UG/L)	METHYL PARA-THION, DIS-SOLVED (UG/L)	METHYL-TRI-THION DISSOLV (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	MIREX, DIS-SOLVED (UG/L)	PARA-THION, DIS-SOLVED (UG/L)	PER-THANE DISSOLV (UG/L)	PROME-TRYNE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)
AA Ad 104	<0.01	<0.10	<0.01	<0.1	<0.1	<0.01	<0.01	<0.10	<0.1	<0.1

LOCAL IDENT-I-FIER	PRO-PAZINE TOTAL (UG/L)	TOX-APHENE, DIS-SOLVED (UG/L)	TRI-THION DISSOLV (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
AA Ad 104	<0.10	<1.0	<0.01	<0.01	<0.01	<0.01	0.01	<0.10	<0.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
CA Db 66	12-11-87	0930	383216076351402	112UPLD	GW	4020	25.47	34.00	21	31
	12-14-87	0915		112UPLD	GW	4020	25.66	34.00	21	31
	04-21-88	1100		112UPLD	GW	4020	24.16	34.00	21	31
	08-24-88	1030		112UPLD	GW	4020	25.39	34.00	21	31
CA Db 67	12-11-87	1030	383216076351403	112UPLD	GW	4020	25.39	31.00	18	28
	12-14-87	0930		112UPLD	GW	4020	25.57	31.00	18	28
CA Db 69	12-11-87	1300	383217076351802	112UPLD	GW	4020	29.52	39.00	26	36
	12-14-87	1030		112UPLD	GW	4020	29.45	39.00	26	36
	04-20-88	1530		112UPLD	GW	4020	28.73	39.00	26	36
	08-23-88	1030		112UPLD	GW	4020	30.09	39.00	26	36
CA Db 70	12-11-87	1400	383217076351803	112UPLD	GW	4020	28.97	35.00	22	32
	12-14-87	1045		112UPLD	GW	4020	28.87	35.00	22	32
CA Db 72	12-11-87	1130	383217076351702	112UPLD	GW	4020	26.05	35.00	22	32
	12-14-87	1000		112UPLD	GW	4020	26.08	35.00	22	32
	04-21-88	1130		112UPLD	GW	4020	25.83	35.00	22	32
	08-24-88	1000		112UPLD	GW	4020	26.32	35.00	22	32
CA Db 73	12-11-87	1245	383217076351703	112UPLD	GW	4020	26.29	32.00	19	29
	12-14-87	1015		112UPLD	GW	4020	26.31	32.00	19	29
	04-21-88	1300		112UPLD	GW	4020	25.70	32.00	19	29
	08-23-88	1300		112UPLD	GW	4020	26.58	32.00	19	29
CA Db 74	04-20-88	1445	383218076351701	112UPLD	GW	4020	23.63	34.00	21	31
CA Db 84	12-11-87	0915	383218076351703	112UPLD	LYS	4080	--	2.90	--	--
	04-20-88	1400		112UPLD	LYS	4080	--	2.90	--	--
	08-23-88	0900		112UPLD	LYS	4080	--	2.90	--	--
CA Fc 13	10-14-87	1055	382343076302901	122CSPK	GW	4040	29.40	35.00	30	35
	11-17-87	1215		122CSPK	GW	4040	29.78	35.00	30	35
	12-09-87	1130		122CSPK	GW	4040	30.05	35.00	30	35
	12-09-87	1135		122CSPK	GW	4040	30.05	35.00	30	35
	01-12-88	1130		122CSPK	GW	4040	30.35	35.00	30	35

	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
CA Db 66	170	--	--	260	6.9	15.5	3.9	44	3.0	5.1
	170	--	--	246	6.8	15.0	3.1	43	2.7	3.0
	170	80	0.9	242	6.7	15.5	2.6	33	2.0	2.6
	170	--	--	263	6.7	14.5	4.1	46	2.4	2.9
CA Db 67	170	--	--	189	6.2	15.5	2.1	24	3.7	4.5
	170	--	--	145	6.5	15.5	3.9	17	3.0	4.2
CA Db 69	168	--	--	763	4.7	15.5	0.1	6.4	23	93
	168	--	--	650	4.8	15.0	0.1	4.9	18	81
	168	155	1.3	392	4.9	14.5	0.2	3.7	9.5	43
	168	25	--	887	4.4	15.5	0.9	9.8	29	110
CA Db 70	167	--	--	457	5.2	15.0	2.6	3.7	5.9	67
	167	--	--	415	5.2	15.5	1	3.5	5.6	65
CA Db 72	167	--	--	781	5.7	17.0	1.0	26	18	83
	167	--	--	720	5.7	17.5	0.8	20	17	80
	167	--	38	746	5.5	16.0	0.2	19	22	91
	167	--	--	728	5.4	16.0	2.1	19	16	83
CA Db 73	167	--	--	739	5.9	17.0	0.1	34	16	76
	167	--	--	724	6.1	17.0	0.1	31	16	76
	167	--	--	685	5.9	16.0	1.5	41	12	65
	167	--	--	520	5.9	16.5	1.0	38	8.8	49
CA Db 74	165	210	--	912	5.1	15.0	4.3	38	31	67
CA Db 84	--	--	--	--	--	--	--	5.7	35	200
	--	--	--	--	--	--	--	6.4	31	82
	--	--	--	456	7.8	27.5	--	6.6	37	30
CA Fc 13	47.4	55	1.0	544	7.1	15.0	6.0	--	--	--
	47.4	60	1.0	608	7.1	16.0	5.9	--	--	--
	47.4	90	1.0	501	7.2	15.5	5.9	120	5.1	10
	47.4	90	1.0	501	7.2	15.5	5.9	120	5.0	10
	47.4	15	0.5	618	7.1	15.0	5.6	--	--	--

Geologic unit (aquifer): 112UPLD - Upland Deposits
122CSPK - Chesapeake Group

Sampling method: 4020 - Bailer
4040 - Submersible pump
4080 - Peristaltic pump

Site type: GW - Ground Water
LYS - Lysimeter

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
CA Db 66	1.4	124	--	13	4.3	0.20	--	8.2	--	147
	--	107	--	14	2.6	0.20	0.023	8.7	--	75
	1.1	100	--	11	2.7	0.20	--	9.3	--	130
	1.8	116	--	12	3.3	0.10	--	8.1	--	140
CA Db 67	--	67	--	17	6.0	0.20	0.031	8.1	--	64
	--	53	--	10	4.7	0.10	0.012	7.9	--	48
CA Db 69	2.6	--	--	5.9	200	0.20	--	8.5	--	366
	--	--	--	6.6	170	0.20	0.25	8.7	--	314
	1.5	7	--	6.5	85	0.20	--	7.7	--	180
	2.5	--	--	5.3	260	0.20	--	7.7	--	464
CA Db 70	--	10	--	5.0	120	0.10	0.17	6.3	--	220
	--	11	--	5.8	110	0.20	0.21	6.4	--	209
CA Db 72	4.5	42	--	13	190	0.20	--	13	--	378
	--	25	--	14	190	0.20	0.20	12	--	347
	3.3	21	--	13	200	0.20	--	12	--	390
	4.8	19	--	13	190	0.20	--	12	--	361
CA Db 73	--	445	--	11	180	0.20	0.16	13	--	341
	--	45	--	10	180	0.20	0.17	12	--	336
	2.2	67	--	15	140	0.20	--	12	--	341
	2.2	56	7.0	13	120	0.10	--	13	--	294
CA Db 74	4.7	9	--	12	240	0.20	--	5.3	--	415
CA Db 84	--	--	--	19	360	0.20	0.054	1.2	--	630
	1.4	--	--	9.3	120	0.10	--	2.0	--	334
	1.6	--	--	6.5	27	0.10	--	3.0	--	212
CA Fc 13	--	264	--	--	--	--	--	--	--	--
	--	260	--	--	--	--	--	--	--	--
	3.1	--	--	13	14	0.30	--	23	390	384
	3.4	256	--	16	17	0.40	0.040	23	--	386
	--	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)
CA Db 66	--	<0.010	--	0.100	0.020	<0.20	--	0.010	--	0.010
	--	--	--	0.100	--	--	--	--	--	--
	--	<0.010	--	0.200	0.060	0.60	0.030	0.020	<0.010	0.010
	--	<0.010	--	0.120	0.010	0.40	0.020	--	--	0.020
CA Db 67	--	--	--	0.120	--	--	--	--	--	--
	--	--	--	0.100	--	--	--	--	--	--
CA Db 69	5.68	0.020	--	5.70	0.010	<0.20	--	<0.010	--	<0.010
	--	--	--	5.40	--	--	--	--	--	--
	--	<0.010	--	3.90	0.040	0.60	0.010	<0.010	<0.010	0.010
	8.29	0.010	--	8.30	<0.010	1.4	0.110	--	--	<0.010
CA Db 70	--	--	--	2.70	--	--	--	--	--	--
	--	--	--	2.70	--	--	--	--	--	--
CA Db 72	2.28	0.020	--	2.30	0.020	<0.20	--	0.050	--	<0.010
	--	--	--	2.80	--	--	--	--	--	--
	2.68	0.020	--	2.70	0.040	1.1	0.050	<0.010	<0.010	<0.010
	--	<0.010	--	2.30	0.020	0.50	0.040	--	--	<0.010
CA Db 73	--	--	--	2.20	--	--	--	--	--	--
	--	--	--	2.20	--	--	--	--	--	--
	--	<0.010	--	1.70	0.040	0.70	0.020	0.020	<0.010	0.010
	--	<0.010	--	1.80	0.020	0.60	0.090	--	--	<0.010
CA Db 74	--	<0.010	--	2.20	0.050	0.40	0.020	<0.010	<0.010	<0.010
CA Db 84	--	--	--	2.00	--	--	--	--	--	--
	--	<0.010	--	<0.100	0.020	0.40	--	--	--	<0.010
	--	--	--	--	--	--	--	--	--	--
CA Fc 13	--	<0.010	--	8.80	0.010	<0.20	--	--	--	--
	--	<0.010	--	8.50	0.030	<0.20	--	--	--	--
	--	--	8.60	9.30	--	--	--	--	--	0.150
	--	<0.010	--	8.60	<0.010	--	--	0.300	--	--
	--	<0.010	--	9.50	0.010	0.50	--	0.130	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)
CA Db 66	10	--	--	--	--	<0.5	--	--	0.3	--
	--	--	--	--	22	<0.5	--	--	<0.4	--
	<10	<1	1	<1	18	--	<10	2	0.3	2
	<10	<1	--	--	21	<0.5	--	--	0.4	--
CA Db 67	--	--	--	--	24	<0.5	--	--	0.3	--
	--	--	--	--	18	<0.5	--	--	<0.3	--
CA Db 69	840	--	--	--	--	<0.5	--	--	0.5	--
	--	--	--	--	140	<0.5	--	--	<0.4	--
	260	<1	<1	<1	71	--	10	--	0.6	4
	1200	<1	--	--	220	<0.5	--	--	1	--
CA Db 70	--	--	--	--	50	<0.5	--	--	0.4	--
	--	--	--	--	46	<0.5	--	--	<0.3	--
CA Db 72	110	--	--	--	--	<0.5	--	--	8	--
	--	--	--	--	130	<0.5	--	--	3	--
	190	<1	1	<1	160	--	<10	--	1	4
	130	<1	--	--	120	<0.5	--	--	2	--
CA Db 73	--	--	--	--	100	<0.5	--	--	1	--
	--	--	--	--	110	<0.5	--	--	1	--
	30	<1	<1	<1	82	--	<10	--	1	8
	20	<1	--	--	62	<0.5	--	--	2	--
CA Db 74	380	<1	<1	<1	300	--	10	--	1	6
CA Db 84	--	--	--	--	27	4	--	--	1	--
	20	<1	<1	<1	7	--	10	--	0.4	1
	--	<1	--	--	7	<0.5	--	--	1	--
CA Fc 13	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	<10	<1	--	<1	14	<0.5	30	--	<1	--
	<10	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--

	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	CHRO-MIUM, HEXA-VALENT, DIS. (UG/L AS CR)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
CA Db 66	<0.5	--	--	1	--	4	--	20	--
	<0.5	--	--	<0.5	--	<10	--	8	--
	<1	<1	1	3	4	<1	--	<3	<5
	1	<1	--	<1	--	3	--	6	--
CA Db 67	<5	--	--	1	--	<10	--	34	--
	<0.5	--	--	<1	--	<10	--	10	--
CA Db 69	<0.5	--	--	10	--	3	--	60	--
	<0.5	--	--	10	--	<10	--	29	--
	<0.5	1	--	7	5	5	--	8	<5
	1	2	--	20	--	8	--	35	--
CA Db 70	<5	--	--	5	--	<10	--	29	--
	<0.5	--	--	4	--	<10	--	12	--
CA Db 72	<0.5	--	--	20	--	4	--	30	--
	<0.5	--	--	20	--	<10	--	15	--
	<0.5	<1	--	20	7	5	--	18	<5
	<0.5	<1	--	20	--	3	--	11	--
CA Db 73	<5	--	--	20	--	<10	--	33	--
	<0.5	--	--	20	--	<10	--	11	--
	<0.5	1	--	10	6	2	--	8	<5
	<0.5	1	--	10	--	2	--	8	--
CA Db 74	<0.5	1	--	20	7	6	--	5	<5
CA Db 84	5	--	--	7	--	30	--	20	--
	<1	<1	--	<1	3	1	--	6	<5
	<1	--	--	<1	--	3	--	8	--
CA Fc 13	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<5	--	--	2	--	19	20	7	--
	--	--	--	--	--	--	--	5	--
	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)
CA Db 66	<0.5	--	--	80	--	--	--	1	--
	<0.5	<4	--	30	--	--	--	<10	--
	<0.5	--	--	75	--	--	1	1	7
	<0.5	--	--	62	0.2	<0.10	--	6	--
CA Db 67	<0.5	<4	--	120	--	--	--	<10	--
	<0.5	<4	--	67	--	--	--	<10	--
CA Db 69	1	--	--	130	--	--	--	<1	--
	<1	<4	--	120	--	--	--	<10	--
	1	--	--	80	--	0.70	<1	<1	--
	3	--	--	210	0.6	0.30	--	<1	--
CA Db 70	<0.5	<4	--	72	--	--	--	<10	--
	<0.5	<4	--	59	--	--	--	<10	--
CA Db 72	4	--	--	630	--	--	--	<1	--
	<0.5	<4	--	570	--	--	--	<10	--
	<0.5	--	--	580	--	0.10	<1	1	--
	<0.5	--	--	570	0.1	<0.10	--	<1	--
CA Db 73	<0.5	<4	--	790	--	--	--	<10	--
	<0.5	<4	--	660	--	--	--	<10	--
	<0.5	--	--	670	--	--	<1	1	--
	<0.5	--	--	460	3.6	0.20	--	<1	--
CA Db 74	1	--	--	250	--	0.20	1	<1	--
CA Db 84	<10	<4	--	8	--	--	--	<10	--
	<0.5	--	--	1	--	--	5	1	--
	<5	--	--	1	--	--	--	<1	--
CA Fc 13	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<5	11	<10	<1	--	--	--	2	--
	--	--	--	<1	--	--	--	--	--
	--	--	--	--	--	--	--	--	--

	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
CA Db 66	6	<1	--	220	<1	--	16	2.6	1.7
	<5	--	<1.0	210	<6	--	16	1.9	--
	4	--	--	170	<1	20	10	1.2	0.7
	2	--	--	230	<1	--	5	--	--
CA Db 67	<10	--	<2.0	97	<6	--	13	5.4	--
	<2	--	<1.0	79	<6	--	10	2.0	--
CA Db 69	15	<1	--	110	<1	--	46	1.2	2.2
	<10	--	<1.0	80	<6	--	32	0.6	--
	5	--	--	51	<1	40	22	1.2	1.2
	21	--	--	150	2	--	44	--	--
CA Db 70	<10	--	1.0	40	<6	--	26	1.0	--
	<5	--	<1.0	36	<6	--	22	1.7	--
CA Db 72	33	<1	--	200	<1	--	73	3.1	1.2
	37	--	1.0	170	<6	--	65	1.2	--
	24	--	--	170	<1	90	70	1.7	1.1
	26	--	--	160	1	--	83	--	--
CA Db 73	30	--	<1.0	230	<6	--	64	0.6	--
	25	--	1.0	210	<6	--	51	0.7	--
	9	--	--	260	<1	60	43	1.7	1.0
	18	--	--	220	<1	--	<3	--	--
CA Db 74	10	--	--	240	<1	90	74	1.0	1.2
CA Db 84	<10	--	<1.0	41	6	--	9	3.0	--
	4	--	--	28	<1	<10	<3	3.5	--
	3	--	--	26	<1	--	55	--	--
CA Fc 13	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	2	2	--	470	<1	--	8	--	--
	--	--	--	--	--	--	--	0.1	--
	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
CA Fc 13	02-17-88	1135	382343076302901	122CSPK	GW	4040	28.19	35.00	30	35
	03-15-88	1130		122CSPK	GW	4040	27.87	35.00	30	35
	03-15-88	1135		122CSPK	GW	4040	27.87	35.00	30	35
	04-18-88	1520		122CSPK	GW	4040	26.98	35.00	30	35
	05-16-88	1515		122CSPK	GW	4040	27.20	35.00	30	35
	06-22-88	1120		122CSPK	GW	4040	27.63	35.00	30	35
	06-22-88	1125		122CSPK	GW	4040	27.63	35.00	30	35
	07-13-88	1450		122CSPK	GW	4040	28.03	35.00	30	35
	07-13-88	1455		122CSPK	GW	4040	28.03	35.00	30	35
	08-15-88	1415		122CSPK	GW	4040	28.52	35.00	30	35
	08-31-88	1450		122CSPK	GW	4040	28.88	35.00	30	35
CA Fc 14	03-16-88	1350	382343076302902	111LLND	GW	4040	28.12	30.00	25	30
	04-20-88	1120		111LLND	GW	4020	27.20	30.00	25	30
	04-20-88	1125		111LLND	GW	4020	27.20	30.00	25	30
	05-17-88	1115		111LLND	GW	4040	27.48	30.00	25	30
	06-22-88	1100		111LLND	GW	4020	27.02	30.00	25	30
	07-13-88	1515		111LLND	GW	4040	28.29	30.00	25	30
CA Fc 15	10-14-87	1410	382340076303001	122CSPK	GW	4040	16.94	37.00	32	37
	11-17-87	1425		122CSPK	GW	4040	17.38	37.00	32	37
	12-15-87	1010		122CSPK	GW	4040	17.64	37.00	32	37
	01-12-88	1405		122CSPK	GW	4040	17.83	37.00	32	37
	02-17-88	1225		122CSPK	GW	4040	15.61	37.00	32	37
	03-15-88	1220		122CSPK	GW	4040	15.39	37.00	32	37
	04-18-88	1120		122CSPK	GW	4040	14.53	37.00	32	37
	05-16-88	1135		122CSPK	GW	4040	14.77	37.00	32	37
	06-21-88	1135		122CSPK	GW	4040	15.19	37.00	32	37
	07-13-88	1125		122CSPK	GW	4040	15.52	37.00	32	37
	08-15-88	1110		122CSPK	GW	4040	16.00	37.00	32	37
	08-31-88	1050		122CSPK	GW	4040	16.27	37.00	32	37
CA Fc 16	10-16-87	1215	382340076303002	122CSPK	GW	4040	17.35	24.00	19	24
	11-18-87	1215		122CSPK	GW	4040	17.75	24.00	19	24
	12-15-87	1120		122CSPK	GW	4040	18.00	24.00	19	24
	01-13-88	1225		122CSPK	GW	4040	18.07	24.00	19	24
	02-18-88	1115		122CSPK	GW	4040	15.85	24.00	19	24
	02-18-88	1120		122CSPK	GW	4040	15.85	24.00	19	24
	03-15-88	1300		122CSPK	GW	4040	15.69	24.00	19	24
	04-18-88	1410		122CSPK	GW	4040	14.83	24.00	19	24
	05-16-88	1200		122CSPK	GW	4040	15.06	24.00	19	24
	06-21-88	1420		122CSPK	GW	4040	15.50	24.00	19	24
	07-13-88	1410		122CSPK	GW	4040	15.87	24.00	19	24
	08-16-88	1040		122CSPK	GW	4040	16.34	24.00	19	24
	08-31-88	1105		122CSPK	GW	4040	16.61	24.00	19	24
CA Fc 17	10-15-87	1410	382343076303801	122CSPK	GW	4040	14.32	39.00	34	39
	11-16-87	1100		122CSPK	GW	4040	14.63	39.00	34	39
	12-10-87	1145		122CSPK	GW	4040	14.87	39.00	34	39
	01-13-88	1115		122CSPK	GW	4040	14.71	39.00	34	39
	02-18-88	1045		122CSPK	GW	4040	12.67	39.00	34	39
	03-16-88	1055		122CSPK	GW	4040	12.64	39.00	34	39
	04-18-88	1340		122CSPK	GW	4040	11.36	39.00	34	39
	05-16-88	1240		122CSPK	GW	4040	12.06	39.00	34	39
	06-21-88	1400		122CSPK	GW	4040	12.65	39.00	34	39
	07-13-88	1340		122CSPK	GW	4040	13.02	39.00	34	39
	08-15-88	1325		122CSPK	GW	4040	13.48	39.00	34	39
	08-31-88	1340		122CSPK	GW	4040	13.72	39.00	34	39
	08-31-88	1345		122CSPK	GW	4040	13.72	39.00	34	39
CA Fc 18	10-15-87	1305	382340076303801	122CSPK	GW	4040	8.87	34.00	29	34
	11-16-87	1415		122CSPK	GW	4040	9.21	34.00	29	34
	12-10-87	1500		122CSPK	GW	4040	9.41	34.00	29	34
	01-13-88	1200		122CSPK	GW	4040	9.13	34.00	29	34
	02-17-88	1510		122CSPK	GW	4040	6.96	34.00	29	34
	03-15-88	1435		122CSPK	GW	4040	7.32	34.00	29	34
	04-18-88	1200		122CSPK	GW	4040	6.31	34.00	29	34
	05-16-88	1315		122CSPK	GW	4040	6.52	34.00	29	34
	06-21-88	1320		122CSPK	GW	4040	7.14	34.00	29	34
	07-13-88	1305		122CSPK	GW	4040	7.56	34.00	29	34
	08-15-88	1250		122CSPK	GW	4040	8.04	34.00	29	34
	08-31-88	1300		122CSPK	GW	4040	8.28	34.00	29	34

Geologic unit (aquifer): 111LLND - Lowland Deposits
122CSPK - Chesapeake Group

Sampling method: 4020 - Bailer
4040 - Submersible pump

Site type: GW - Ground Water

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
CA Fc 13	47.4	10	0.7	719	7.1	16.0	4.2	--	--
	47.4	15	0.7	688	7.1	15.0	4.9	120	8.1
	47.4	15	0.7	688	7.1	15.0	4.9	130	8.2
	47.4	10	1.0	658	7.2	15.0	6.2	--	--
	47.4	10	1.3	623	7.1	15.0	6.4	--	--
	47.4	10	1.0	596	7.1	14.5	6.1	110	6.8
	47.4	10	1.0	596	7.1	14.5	6.1	110	6.7
	47.4	10	1.0	607	7.1	15.0	6.1	--	--
	47.4	10	1.0	607	7.1	15.0	6.1	--	--
	47.4	5	1.5	591	7.0	14.0	6.0	--	--
	47.4	5	1.0	582	6.9	14.5	7.9	--	--
CA Fc 14	47.6	3	0.7	583	7.4	15.0	6.9	80	24
	47.6	3	1.0	597	7.2	15.0	7.6	--	--
	47.6	3	1.0	597	7.2	15.0	7.6	--	--
	47.6	5	1.3	598	7.2	14.5	8.0	--	--
	47.6	--	--	562	7.1	14.5	8.2	77	24
	47.6	2	1.0	543	7.1	15.0	8.8	--	--
CA Fc 15	30.6	60	1.0	497	7.4	14.5	5.9	--	--
	30.6	60	0.7	579	7.2	15.0	6.7	--	--
	30.6	65	0.7	591	7.3	14.0	6.7	110	4.1
	30.6	55	0.4	600	7.3	14.0	6.7	--	--
	30.6	25	1.0	591	7.3	14.0	7.9	--	--
	30.6	30	0.7	610	7.3	13.5	8.5	110	4.5
	30.6	45	0.5	575	7.4	14.0	8.8	--	--
	30.6	20	1.3	549	7.3	13.0	9.0	--	--
	30.6	30	0.5	609	7.3	13.5	7.9	100	4.4
	30.6	25	1.0	546	7.3	13.5	8.0	--	--
	30.6	20	1.5	532	7.2	13.5	7.9	--	--
	30.6	25	1.0	522	7.2	14.0	7.1	--	--
CA Fc 16	30.7	30	1.0	550	7.2	15.5	8.3	--	--
	30.7	--	--	579	7.2	15.5	7.5	--	--
	30.7	60	0.5	589	7.2	15.0	7.8	110	4.0
	30.7	8	0.9	595	7.3	15.0	7.4	--	--
	30.7	15	0.7	588	7.3	14.5	7.7	--	--
	30.7	15	0.7	588	7.3	14.5	7.7	--	--
	30.7	30	0.7	607	7.4	13.5	7.0	110	4.3
	30.7	25	0.5	591	7.3	13.5	7.7	--	--
	30.7	15	1.3	575	7.3	13.0	6.0	--	--
	30.7	15	1.0	572	7.3	13.0	7.3	110	4.2
	30.7	20	1.0	590	7.3	13.0	8.8	--	--
	30.7	10	1.5	579	6.9	14.0	8.5	--	--
	30.7	10	1.0	543	7.2	14.0	7.1	--	--
CA Fc 17	22.6	60	1.0	572	6.8	15.5	6.0	--	--
	22.6	60	1.0	590	7.2	15.5	5.8	--	--
	22.6	60	1.0	587	7.1	15.0	5.7	120	3.3
	22.6	40	0.8	608	7.2	14.5	5.5	--	--
	22.6	35	0.7	603	7.3	15.0	7.9	--	--
	22.6	40	0.7	609	7.3	13.5	7.3	120	3.4
	22.6	35	1.0	604	7.3	13.0	7.7	--	--
	22.6	35	1.3	588	7.3	13.5	8.4	--	--
	22.6	30	1.0	581	7.2	13.5	7.4	120	3.5
	22.6	30	1.0	582	7.2	13.0	7.9	--	--
	22.6	25	1.5	528	7.1	13.5	7.7	--	--
	22.6	25	1.0	548	7.1	14.0	8.9	--	--
	22.6	25	1.0	548	7.1	14.0	8.9	--	--
CA Fc 18	15.6	60	1.0	587	7.0	16.5	5.1	--	--
	15.6	60	0.7	535	7.1	15.5	3.2	--	--
	15.6	60	0.5	591	7.2	15.0	1.9	120	3.1
	15.6	40	1.0	612	7.1	14.0	4.1	--	--
	15.6	60	0.5	614	7.2	12.0	8.1	--	--
	15.6	35	1.0	627	7.2	12.5	7.8	120	3.4
	15.6	35	1.0	581	7.2	12.0	9.4	--	--
	15.6	30	1.3	539	7.2	12.0	10.2	--	--
	15.6	35	1.0	602	7.1	13.5	8.4	110	3.1
	15.6	30	1.0	580	7.1	14.0	8.6	--	--
	15.6	25	1.5	560	6.9	14.0	7.3	--	--
	15.6	20	1.5	569	6.9	14.0	7.2	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
CA Fc 13	--	--	310	--	--	--	--	--	--
	11	6.2	282	24	15	0.20	0.039	21	415
	11	6.5	282	23	15	0.10	--	22	425
	--	--	281	--	--	--	--	--	--
	--	--	275	--	--	--	--	--	--
	10	4.0	264	18	14	0.20	0.045	22	380
	9.7	4.1	264	16	14	0.30	--	22	382
	--	--	263	--	--	--	--	--	--
	--	--	263	--	--	--	--	--	--
	--	--	271	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 14	3.8	10	238	36	7.3	0.30	0.025	8.6	350
	--	--	240	--	--	--	--	--	--
	--	--	240	--	--	--	--	--	--
	--	--	263	--	--	--	--	--	--
	3.6	9.1	244	34	6.2	0.20	0.030	8.0	350
	--	--	231	--	--	--	--	--	--
CA Fc 15	--	--	207	--	--	--	--	--	--
	--	--	219	--	--	--	--	--	--
	8.9	3.6	220	19	18	0.20	0.046	17	361
	--	--	224	--	--	--	--	--	--
	--	--	231	--	--	--	--	--	--
	9.1	3.3	225	21	18	0.20	0.035	16	360
	--	--	212	--	--	--	--	--	--
	--	--	212	--	--	--	--	--	--
	8.7	2.8	206	18	18	0.20	0.046	16	336
	--	--	210	--	--	--	--	--	--
	--	--	205	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 16	--	--	201	--	--	--	--	--	--
	--	--	225	--	--	--	--	--	--
	9.0	3.3	221	18	18	0.20	0.041	17	361
	--	--	232	--	--	--	--	--	--
	--	--	229	--	--	--	--	--	--
	--	--	229	--	--	--	--	--	--
	9.5	2.9	226	20	18	0.20	0.036	17	362
	--	--	224	--	--	--	--	--	--
	--	--	241	--	--	--	--	--	--
	9.0	3.5	232	19	19	0.10	0.036	16	368
	--	--	223	--	--	--	--	--	--
	--	--	236	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 17	--	--	216	--	--	--	--	--	--
	--	--	203	--	--	--	--	--	--
	7.7	1.1	231	22	20	0.30	0.039	17	369
	--	--	241	--	--	--	--	--	--
	--	--	245	--	--	--	--	--	--
	8.0	1.1	251	24	18	0.20	0.031	16	379
	--	--	238	--	--	--	--	--	--
	--	--	232	--	--	--	--	--	--
	7.8	0.90	237	25	19	0.10	0.035	16	372
	--	--	229	--	--	--	--	--	--
	--	--	235	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 18	--	--	223	--	--	--	--	--	--
	--	--	240	--	--	--	--	--	--
	7.1	0.90	238	33	19	0.30	0.037	24	376
	--	--	245	--	--	--	--	--	--
	--	--	243	--	--	--	--	--	--
	7.8	0.90	241	24	18	0.20	0.031	14	373
	--	--	218	--	--	--	--	--	--
	--	--	217	--	--	--	--	--	--
	6.2	0.80	207	26	20	0.20	0.029	14	336
	--	--	230	--	--	--	--	--	--
	--	--	247	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)
CA Fc 13	--	<0.010	--	9.50	0.020	0.30	--	--	--
	--	<0.010	--	9.20	0.020	<0.20	--	0.120	--
	9.19	0.010	9.40	9.20	--	--	--	--	<10
	--	--	--	--	--	--	--	--	--
	--	<0.010	--	8.30	0.040	<0.20	--	--	--
	--	<0.010	--	8.30	<0.010	0.60	--	0.140	--
	9.19	0.010	8.20	9.20	--	--	0.130	--	40
	--	<0.010	--	7.70	0.020	<0.20	--	--	--
	--	<0.010	--	7.80	0.020	0.30	--	--	--
	--	<0.010	--	8.40	0.030	0.30	--	--	--
	--	<0.010	--	8.10	0.010	0.50	--	--	--
CA Fc 14	--	<0.010	--	8.50	<0.010	<0.20	--	0.110	--
	--	<0.010	--	8.50	0.010	0.20	--	--	--
	--	<0.010	--	8.50	0.010	0.20	--	--	--
	--	<0.010	--	7.90	0.030	0.40	--	--	--
	--	<0.010	--	9.50	<0.010	0.70	--	0.130	--
	--	<0.010	--	7.20	<0.010	2.0	--	--	--
CA Fc 15	--	<0.010	--	11.0	0.010	<0.20	--	--	--
	--	<0.010	--	10.0	0.020	0.20	--	--	--
	--	<0.010	--	11.0	<0.010	0.30	--	0.190	--
	11.0	0.010	--	11.0	0.020	0.30	--	--	--
	--	<0.010	--	9.50	0.010	0.30	--	--	--
	--	<0.010	--	9.80	0.020	<0.20	--	0.190	--
	--	<0.010	--	9.70	0.020	0.20	--	--	--
	--	<0.010	--	9.60	0.040	<0.20	--	--	--
	--	<0.010	--	10.0	<0.010	0.90	--	0.180	--
	--	<0.010	--	9.70	<0.010	0.80	--	--	--
	--	<0.010	--	10.0	0.010	0.40	--	--	--
	--	<0.010	--	9.70	0.010	0.50	--	--	--
CA Fc 16	--	<0.010	--	10.0	0.010	<0.20	--	--	--
	--	<0.010	--	11.0	0.010	<0.20	--	--	--
	--	<0.010	--	11.0	0.010	0.40	--	0.160	--
	11.0	0.010	--	11.0	0.020	<0.20	--	--	--
	--	<0.010	--	10.0	0.010	0.20	--	--	--
	--	<0.010	--	11.0	<0.010	0.30	--	--	--
	--	<0.010	--	10.0	0.010	<0.20	--	0.010	--
	--	<0.010	--	10.0	0.020	0.30	--	--	--
	--	<0.010	--	10.0	0.040	0.60	--	--	--
	--	<0.010	--	11.0	<0.010	0.40	--	0.160	--
	--	<0.010	--	9.90	0.060	0.80	--	--	--
	--	<0.010	--	<0.100	0.020	0.30	--	--	--
	--	<0.010	--	0.100	0.020	0.70	--	--	--
CA Fc 17	--	<0.010	--	8.60	0.010	0.20	--	--	--
	--	<0.010	--	8.90	0.030	0.20	--	--	--
	--	<0.010	--	8.80	<0.010	0.40	--	0.140	--
	8.59	0.010	--	8.60	0.020	<0.20	--	--	--
	--	<0.010	--	9.00	0.010	0.20	--	--	--
	--	<0.010	--	8.60	0.010	0.20	--	0.140	--
	--	<0.010	--	8.70	0.020	1.3	--	--	--
	--	<0.010	--	8.20	0.040	<0.20	--	--	--
	--	<0.010	--	8.50	<0.010	0.70	--	0.140	--
	--	<0.010	--	7.90	0.030	0.30	--	--	--
	--	<0.010	--	8.40	0.020	0.30	--	--	--
	--	<0.010	--	8.10	0.020	0.60	--	--	--
	--	<0.010	--	8.10	0.020	0.40	--	--	--
CA Fc 18	--	<0.010	--	5.80	0.020	0.40	--	--	--
	--	<0.010	--	5.90	0.030	0.20	--	--	--
	--	<0.010	--	5.80	<0.010	0.70	--	0.130	--
	7.08	0.020	--	7.10	0.010	<0.20	--	--	--
	--	<0.010	--	8.60	0.010	0.30	--	--	--
	--	<0.010	--	9.00	0.010	<0.20	--	0.110	--
	--	--	--	--	--	--	--	--	--
	--	<0.010	--	7.00	0.040	<0.20	--	--	--
	--	<0.010	--	7.30	<0.010	0.90	--	0.130	--
	--	<0.010	--	7.50	0.020	0.50	--	--	--
	--	<0.010	--	8.30	0.030	0.50	--	--	--
	--	<0.010	--	7.50	0.020	0.50	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
CA Fc 13	--	--	--	--	--	--	--	--	--
	<10	--	--	--	4	--	2	--	15
	--	--	20	<10	<3	<10	<1	<10	<0.1
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	<3	--	<1	--	0.6
	--	--	30	50	<3	<10	<1	20	0.3
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 14	<10	--	--	--	<3	--	<1	--	3.0
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	<3	--	<1	--	2.7
	--	--	--	--	--	--	--	--	--
CA Fc 15	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	10	--	<1	--	0.2
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	8	--	6	--	<0.1
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	<3	--	<1	--	0.8
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 16	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	9	--	<1	--	0.2
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	4	--	<1	--	<0.1
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	10	--	--	--	<3	--	<1	--	1.1
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 17	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	5	--	<1	--	0.1
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	6	--	4	--	<0.1
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	<3	--	<1	--	0.6
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 18	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	0.2
	<10	<1	--	--	<3	--	5	--	0.2
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	<3	--	<1	--	0.1
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	<10	--	--	--	<3	--	<1	--	1.0
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
CA Fc 19	10-15-87	1200	382337076303701	122CSPK	GW	4040	18.25	34.00	29	34
	11-16-87	1205		122CSPK	GW	4040	18.55	34.00	29	34
	12-10-87	1250		122CSPK	GW	4040	18.77	34.00	29	34
	01-12-88	1455		122CSPK	GW	4040	18.98	34.00	29	34
	02-17-88	1320		122CSPK	GW	4040	17.71	34.00	29	34
	03-15-88	1350		122CSPK	GW	4040	17.05	34.00	29	34
	04-18-88	1230		122CSPK	GW	4040	16.73	34.00	29	34
	05-16-88	1430		122CSPK	GW	4040	16.47	34.00	29	34
	06-21-88	1235		122CSPK	GW	4040	16.79	34.00	29	34
	07-13-88	1205		122CSPK	GW	4040	17.08	34.00	29	34
	08-15-88	1140		122CSPK	GW	4040	17.45	34.00	29	34
	08-31-88	1150		122CSPK	GW	4040	17.58	34.00	29	34
CA Fc 20	10-15-87	1055	382337076303702	122CSPK	GW	4040	13.67	29.00	24	29
	11-16-87	1310		122CSPK	GW	4040	14.02	29.00	24	29
	12-10-87	1355		122CSPK	GW	4040	14.25	29.00	24	29
	01-12-88	1530		122CSPK	GW	4040	14.17	29.00	24	29
	02-17-88	1405		122CSPK	GW	4040	16.11	29.00	24	29
	03-16-88	1125		122CSPK	GW	4040	12.22	29.00	24	29
	04-18-88	1300		122CSPK	GW	4040	11.43	29.00	24	29
	05-16-88	1345		122CSPK	GW	4040	11.52	29.00	24	29
	06-21-88	1210		122CSPK	GW	4040	11.98	29.00	24	29
	07-13-88	1230		122CSPK	GW	4040	12.36	29.00	24	29
	08-15-88	1215		122CSPK	GW	4040	12.79	29.00	24	29
	08-31-88	1215		122CSPK	GW	4040	13.01	29.00	24	29
CA Fc 21	10-14-87	1310	382342076303401	122CSPK	GW	4040	19.26	35.00	30	35
	11-17-87	1110		122CSPK	GW	4040	19.82	35.00	30	35
	12-09-87	1430		122CSPK	GW	4040	20.10	35.00	30	35
	01-12-88	1235		122CSPK	GW	4040	20.24	35.00	30	35
	02-17-88	1102		122CSPK	GW	4040	18.50	35.00	30	35
	03-15-88	1110		122CSPK	GW	4040	17.61	35.00	30	35
	04-18-88	1440		122CSPK	GW	4040	16.74	35.00	30	35
	05-16-88	1110		122CSPK	GW	4040	17.09	35.00	30	35
	06-21-88	1055		122CSPK	GW	4040	17.51	35.00	30	35
	07-13-88	1055		122CSPK	GW	4040	17.90	35.00	30	35
	08-15-88	1010		122CSPK	GW	4040	18.45	35.00	30	35
	08-15-88	1015		122CSPK	GW	4040	18.45	35.00	30	35
	08-31-88	0920		122CSPK	GW	4040	18.71	35.00	30	35
CA Fc 22	10-14-87	1205	382340076303201	122CSPK	GW	4040	19.65	36.00	31	36
	11-17-87	1320		122CSPK	GW	4040	20.03	36.00	31	36
	12-09-87	1325		122CSPK	GW	4040	20.30	36.00	31	36
	01-12-88	1053		122CSPK	GW	4040	20.51	36.00	31	36
	02-17-88	1013		122CSPK	GW	4040	17.87	36.00	31	36
	03-15-88	1030		122CSPK	GW	4040	17.99	36.00	31	36
	04-18-88	1025		122CSPK	GW	4040	17.10	36.00	31	36
	05-16-88	1040		122CSPK	GW	4040	17.50	36.00	31	36
	06-21-88	1025		122CSPK	GW	4040	17.93	36.00	31	36
	07-13-88	1015		122CSPK	GW	4040	18.32	36.00	31	36
	08-15-88	1030		122CSPK	GW	4040	18.81	36.00	31	36
	08-31-88	0955		122CSPK	GW	4040	19.07	36.00	31	36
CA Fc 28	10-16-87	1300	382340076303401	111LLND	LYS	4030	--	3.56	3.6	3.6
	11-18-87	1130		111LLND	LYS	4030	--	3.56	3.6	3.6
	12-15-87	1350		111LLND	LYS	4030	--	3.56	3.6	3.6
	01-13-88	1400		111LLND	LYS	4030	--	3.56	3.6	3.6
	02-18-88	1300		111LLND	LYS	4030	--	3.56	3.6	3.6
	03-16-88	1345		111LLND	LYS	4030	--	3.56	3.6	3.6
	04-20-88	1335		111LLND	LYS	4030	--	3.56	3.6	3.6
	05-17-88	1245		111LLND	LYS	4030	--	3.56	3.6	3.6
	06-22-88	1210		111LLND	LYS	4030	--	3.56	3.6	3.6
	07-14-88	1050		111LLND	LYS	4030	--	3.56	3.6	3.6
CA Fc 29	11-18-87	1250	382340076303402	111LLND	LYS	4030	--	8.52	8.5	8.5
	12-15-87	1305		111LLND	LYS	4030	--	8.52	8.5	8.5
	01-13-88	1345		111LLND	LYS	4030	--	8.52	8.5	8.5
	02-18-88	1320		111LLND	LYS	4030	--	8.52	8.5	8.5
	03-16-88	1325		111LLND	LYS	4030	--	8.52	8.5	8.5
	04-20-88	1315		111LLND	LYS	4030	--	8.52	8.5	8.5
CA Fc 30	10-16-87	1130	382340076303403	111LLND	LYS	4030	--	13.70	14	14
	11-18-87	1420		111LLND	LYS	4030	--	13.70	14	14

Geologic unit (aquifer): 111LLND - Lowland Deposits
122CSPK - Chesapeake Group

Sampling method: 4030 - Suction pump
4040 - Submersible pump

Site type: GW - Ground Water
LYS - Lysimeter

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
CA Fc 19	25.5	60	1.0	552	7.4	14.0	2.4	--	--	--
	25.5	60	1.0	569	7.2	15.0	2.8	--	--	--
	25.5	60	1.0	559	7.2	14.0	2.2	110	4.3	6.6
	25.5	35	0.5	577	7.3	14.0	0.3	--	--	--
	25.5	25	0.7	579	7.2	14.0	2.3	--	--	--
	25.5	40	0.5	585	7.3	14.0	4.5	110	4.5	6.9
	25.5	15	1.0	557	7.3	13.0	6.3	--	--	--
	25.5	40	1.0	552	7.3	13.0	3.4	--	--	--
	25.5	20	1.0	609	7.2	13.0	3.2	110	4.5	6.7
	25.5	30	1.0	548	7.2	13.0	3.5	--	--	--
	25.5	20	1.0	562	7.1	13.5	2.8	--	--	--
	25.5	25	1.0	528	7.1	13.0	1.3	--	--	--
CA Fc 20	20.6	60	1.0	558	7.1	15.0	2.0	--	--	--
	20.6	60	1.0	590	7.1	15.5	4.3	--	--	--
	20.6	60	0.7	589	7.2	14.5	2.4	120	2.8	7.1
	20.6	30	0.5	639	7.2	14.0	5.9	--	--	--
	20.6	35	0.5	624	7.1	13.5	7.0	--	--	--
	20.6	25	0.7	615	7.2	13.0	6.8	120	2.9	7.5
	20.6	25	1.0	562	7.2	12.5	7.5	--	--	--
	20.6	25	1.3	558	7.2	12.0	7.7	--	--	--
	20.6	25	1.0	665	7.1	12.5	4.9	120	3.0	7.6
	20.6	20	1.0	589	7.1	13.0	7.0	--	--	--
	20.6	15	1.5	574	7.0	--	--	--	--	--
	20.6	15	1.0	539	7.0	13.5	7.2	--	--	--
CA Fc 21	35.5	60	1.0	419	7.4	14.5	4.8	--	--	--
	35.5	60	1.0	505	7.2	15.5	4.8	--	--	--
	35.5	60	0.5	443	7.2	15.0	4.5	94	5.0	7.4
	35.5	45	0.5	524	7.2	14.5	2.2	--	--	--
	35.5	25	0.7	497	7.3	14.5	3.9	--	--	--
	35.5	30	0.7	494	7.2	13.5	6.7	84	4.5	7.3
	35.5	25	1.0	467	7.2	14.5	6.4	--	--	--
	35.5	25	1.3	452	7.3	13.5	6.3	--	--	--
	35.5	20	1.0	477	7.1	14.0	4.1	77	4.1	7.1
	35.5	25	1.0	506	7.2	13.0	4.3	--	--	--
	35.5	15	1.5	449	7.0	13.0	6.7	--	--	--
	35.5	15	1.5	449	7.0	13.0	6.7	--	--	--
	35.5	15	1.0	429	6.9	14.0	3.7	--	--	--
CA Fc 22	36.5	60	1.0	527	7.3	14.5	5.5	--	--	--
	36.5	60	0.7	623	7.1	15.5	6.3	--	--	--
	36.5	60	0.7	538	7.2	15.5	6.2	120	5.8	9.5
	36.5	30	0.5	643	7.2	13.5	6.8	--	--	--
	36.5	25	0.7	677	7.3	14.5	7.5	--	--	--
	36.5	30	0.7	576	7.3	14.5	7.5	100	5.2	9.1
	36.5	40	0.5	567	7.3	13.5	7.9	--	--	--
	36.5	25	1.3	543	7.3	14.0	8.6	--	--	--
	36.5	25	1.0	603	7.3	13.0	7.1	100	5.2	8.8
	36.5	20	1.0	555	7.2	13.5	7.8	--	--	--
	36.5	10	1.5	558	7.1	13.5	7.7	--	--	--
	36.5	15	1.0	551	7.1	13.5	6.6	--	--	--
CA Fc 28	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
CA Fc 29	31.4	--	--	442	5.9	--	--	--	--	--
	31.4	--	--	408	5.9	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
	31.4	--	--	--	--	--	--	--	--	--
CA Fc 30	31.4	--	--	683	6.9	--	--	--	--	--
	31.4	--	--	725	7.1	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
CA Fc 19	--	214	--	--	--	--	--	--	--
	--	205	--	--	--	--	--	--	--
	1.8	232	33	15	0.30	0.026	25	359	--
	--	233	--	--	--	--	--	--	5.28
	--	234	--	--	--	--	--	--	--
	1.6	230	33	14	0.20	0.027	22	355	--
	--	230	--	--	--	--	--	--	--
	--	224	--	--	--	--	--	--	--
	1.4	221	33	14	0.20	0.033	21	350	--
	--	224	--	--	--	--	--	--	--
	--	222	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 20	--	218	--	--	--	--	--	--	3.38
	--	209	--	--	--	--	--	--	5.98
	1.2	237	33	17	0.30	0.036	22	372	5.99
	--	250	--	--	--	--	--	--	9.38
	--	254	--	--	--	--	--	--	--
	1.3	250	24	18	0.20	0.033	15	379	--
	--	228	--	--	--	--	--	--	7.88
	--	229	--	--	--	--	--	--	--
	1.0	235	24	17	0.20	0.036	15	371	9.49
	--	238	--	--	--	--	--	--	--
	--	230	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 21	--	167	--	--	--	--	--	--	--
	--	167	--	--	--	--	--	--	--
	3.1	173	25	20	0.30	0.036	16	316	--
	--	183	--	--	--	--	--	--	8.69
	--	170	--	--	--	--	--	--	--
	1.2	159	23	19	0.10	0.029	16	290	--
	--	160	--	--	--	--	--	--	--
	--	153	--	--	--	--	--	--	--
	2.1	147	19	18	0.10	0.033	15	270	--
	--	152	--	--	--	--	--	--	--
	--	157	--	--	--	--	--	--	--
	--	157	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 22	--	252	--	--	--	--	--	--	9.99
	--	255	--	--	--	--	--	--	--
	5.6	256	19	19	0.30	0.035	19	396	--
	--	264	--	--	--	--	--	--	9.99
	--	226	--	--	--	--	--	--	--
	4.4	220	19	17	0.20	0.032	18	349	--
	--	210	--	--	--	--	--	--	--
	--	215	--	--	--	--	--	--	--
	4.0	224	16	17	0.20	0.038	18	347	--
	--	226	--	--	--	--	--	--	--
	--	225	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 28	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	11.0
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
CA Fc 29	--	11	--	--	--	--	--	--	--
	--	7	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	19.0
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	1.8	--	--	--
CA Fc 30	--	255	--	--	--	--	--	--	--
	--	243	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
CA Fc 19	<0.010	5.40	0.020	<0.20	--	--	--	--	--
	<0.010	5.50	0.030	0.70	--	--	--	--	--
	<0.010	5.40	<0.010	0.20	0.120	<10	19	4	0.2
	0.020	5.30	0.030	<0.20	--	--	--	--	--
	<0.010	5.50	0.010	<0.20	--	--	--	--	--
	<0.010	5.80	0.010	0.20	0.110	<10	11	<1	0.8
	<0.010	5.50	0.020	0.30	--	--	--	--	--
	<0.010	5.90	0.040	<0.20	--	--	--	--	--
	<0.010	6.00	<0.010	0.70	0.120	<10	11	<1	1.0
	<0.010	5.80	0.020	0.60	--	--	--	--	--
	<0.010	6.30	0.020	0.30	--	--	--	--	--
	<0.010	6.10	0.020	0.70	--	--	--	--	--
CA Fc 20	0.020	3.40	0.010	0.40	--	--	--	--	--
	0.020	6.00	0.040	0.30	--	--	--	--	--
	0.010	6.00	<0.010	0.40	0.150	<10	6	<1	0.2
	0.020	9.40	0.030	0.20	--	--	--	--	--
	<0.010	9.40	0.020	0.30	--	--	--	--	--
	<0.010	9.10	0.010	0.30	0.140	<10	<3	<1	0.2
	0.020	7.90	0.030	0.20	--	--	--	--	--
	<0.010	8.40	0.030	0.30	--	--	--	--	--
	0.010	9.50	0.010	2.2	0.170	10	<3	<1	0.4
	<0.010	9.10	0.020	0.60	--	--	--	--	--
	<0.010	9.20	0.020	0.70	--	--	--	--	--
	<0.010	8.80	0.020	0.70	--	--	--	--	--
CA Fc 21	<0.010	9.70	0.010	0.60	--	--	--	--	--
	<0.010	9.40	0.020	0.20	--	--	--	--	--
	<0.010	9.30	<0.010	0.20	0.140	10	7	<1	0.2
	0.010	8.70	0.020	0.20	--	--	--	--	--
	<0.010	8.80	<0.010	0.40	--	--	--	--	--
	<0.010	8.90	<0.010	0.30	0.130	<10	<3	<1	3.4
	--	--	--	--	--	--	--	--	--
	<0.010	8.70	0.020	0.20	--	--	--	--	--
	<0.010	9.10	<0.010	0.60	0.140	<10	<3	<1	--
	<0.010	8.80	<0.010	0.20	--	--	--	--	--
	<0.010	9.00	0.010	0.30	--	--	--	--	--
	<0.010	9.10	0.010	0.40	--	--	--	--	--
	<0.010	8.90	0.010	0.60	--	--	--	--	--
CA Fc 22	0.010	10.0	0.010	<0.20	--	--	--	--	--
	<0.010	10.0	0.020	<0.20	--	--	--	--	--
	<0.010	10.0	<0.010	0.30	0.170	<10	4	<1	0.9
	0.010	10.0	0.030	<0.20	--	--	--	--	--
	<0.010	10.0	0.010	<0.20	--	--	--	--	--
	<0.010	10.0	0.010	<0.20	0.160	<10	3	<1	0.5
	<0.010	10.0	0.020	0.20	--	--	--	--	--
	<0.010	10.0	0.020	0.40	--	--	--	--	--
	<0.010	10.0	<0.010	0.90	0.170	20	<3	<1	0.9
	<0.010	9.90	0.020	1.4	--	--	--	--	--
	<0.010	10.0	0.020	0.40	--	--	--	--	--
	<0.010	9.90	0.020	0.20	--	--	--	--	--
CA Fc 28	<0.010	14.0	0.020	1.0	--	--	--	--	--
	<0.010	13.0	<0.010	<0.20	--	--	--	--	--
	<0.010	12.0	<0.010	0.20	<0.010	--	--	--	1.2
	0.020	11.0	0.010	0.50	--	--	--	--	--
	<0.010	13.0	<0.010	0.50	--	--	--	--	--
	<0.010	11.0	<0.010	0.40	--	--	--	--	--
	<0.010	11.0	0.010	0.40	--	--	--	--	--
	<0.010	8.40	0.040	0.60	--	--	--	--	--
	<0.010	7.90	0.020	1.0	--	--	--	--	--
	<0.010	9.10	0.020	0.70	--	--	--	--	--
CA Fc 29	<0.010	10.0	<0.010	0.40	--	--	--	--	--
	<0.010	13.0	<0.010	0.30	<0.010	--	--	--	1.3
	0.010	19.0	0.010	0.60	--	--	--	--	--
	<0.010	26.0	<0.010	0.40	--	--	--	--	--
	<0.010	25.0	<0.010	0.40	--	--	--	--	--
	<0.010	21.0	0.020	0.50	--	--	--	--	--
CA Fc 30	<0.010	5.20	0.020	0.50	--	--	--	--	--
	<0.010	5.90	0.020	0.50	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CALVERT COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES	DEPTH OF WELL, TOTAL (FEET)
CA Fc 30	12-15-87	1220	382340076303403	111LLND	LYS	4030	13.70
	01-13-88	1325		111LLND	LYS	4030	13.70
	02-18-88	1345		111LLND	LYS	4030	13.70
	03-16-88	1245		111LLND	LYS	4030	13.70
	04-20-88	1200		111LLND	LYS	4030	13.70
	05-17-88	1110		111LLND	LYS	4030	13.70
	06-22-88	1225		111LLND	LYS	4030	13.70
	07-14-88	1000		111LLND	LYS	4030	13.70
	07-14-88	1005		111LLND	LYS	4030	13.70
	08-16-88	1145		111LLND	LYS	4030	13.70
	09-01-88	0935		111LLND	LYS	4030	13.70

DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	BROMIDE DIS-SOLVED (MG/L AS BR)
14	14	31.4	719	7.2	247	--
14	14	31.4	720	7.3	220	--
14	14	31.4	467	7.4	187	--
14	14	31.4	520	7.6	200	--
14	14	31.4	505	7.5	191	25
14	14	31.4	529	7.4	205	--
14	14	31.4	558	7.3	216	--
14	14	31.4	--	--	--	--
14	14	31.4	--	--	--	--
14	14	31.4	528	--	--	--
14	14	31.4	572	7.0	--	--

NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
--	<0.010	13.0	0.020	0.30	0.230	4.2
8.79	0.010	8.80	0.030	0.60	--	--
--	<0.010	3.90	<0.010	0.30	--	--
--	<0.010	6.20	0.020	0.30	--	2.9
--	<0.010	4.30	0.020	0.40	--	--
--	<0.010	5.70	0.040	0.60	--	--
--	<0.010	7.20	<0.010	0.50	--	2.6
--	<0.010	6.50	0.010	0.40	--	--
--	<0.010	7.60	0.010	1.8	--	--
--	<0.010	6.80	0.030	0.50	--	--
--	<0.010	7.10	0.030	0.20	--	2.8

Geologic unit (aquifer): 111LLND - Lowland Deposits

Sampling method: 4030 - Suction pump

Site type: LYS - Lysimeter

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CAROLINE COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)
CO Dd 60	07-14-88	1300	385114075485201	112CLMB	4040	6.60	16.00	13
CO Dd 61	07-14-88	1530	385114075485202	112CLMB	4040	6.40	10.00	8.0
CO De 15	07-19-88	1230	385009075445001	112CLMB	4040	8.80	33.00	30
CO De 16	07-19-88	0900	385009075445002	112CLMB	4040	8.80	17.00	14
CO Ec 25	07-21-88	0900	384630075524801	112PCPC	4040	11.50	28.00	18
CO Ec 32	07-14-88	1130	384630075524803	112CLMB	4040	6.15	18.00	15

LOCAL IDENT-I-FIER	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
CO Dd 60	16	40.0	15	0.4	267	5.0	15.5	38.0	0.7
CO Dd 61	10	40.0	20	0.1	230	6.0	21.5	36.0	1.0
CO De 15	33	61.0	35	1.0	87	4.8	16.5	27.5	6.3
CO De 16	17	61.0	--	0.7	384	4.3	22.0	27.5	8.8
CO Ec 25	28	50.0	35	1.0	155	4.3	14.5	27.0	7.1
CO Ec 32	18	49.0	15	0.1	237	4.7	17.5	28.5	4.7

LOCAL IDENT-I-FIER	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
CO Dd 60	16	9.3	7.5	3.7	6	80	15	<0.10	17
CO Dd 61	19	9.0	8.4	6.8	45	32	15	<0.10	10
CO De 15	2.7	1.2	8.8	2.1	5	<0.20	5.2	<0.10	13
CO De 16	4.4	12	39	4.6	1	1.2	100	0.10	15
CO Ec 25	10	6.7	2.9	3.0	--	11	11	<0.10	9.8
CO Ec 32	16	9.5	7.3	3.0	4	22	31	<0.10	8.4

LOCAL IDENT-I-FIER	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
CO Dd 60	169	1.78	0.020	1.80	0.190	1.1	<0.010	30	<1
CO Dd 61	129	--	<0.010	<0.100	0.110	0.20	<0.010	30	<1
CO De 15	--	--	<0.010	6.10	<0.010	<0.20	<0.010	<10	<1
CO De 16	190	--	<0.010	2.70	0.010	0.30	<0.010	530	<1
CO Ec 25	97	--	<0.010	9.20	<0.010	0.60	0.010	50	<1
CO Ec 32	132	--	<0.010	7.40	0.020	0.50	<0.001	30	<1

Geologic unit (aquifer): 112CLMB - Columbia Formation
112PCPC - Pleistocene-Pliocene series

Sampling method: 4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CAROLINE COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
CO Dd 60	<1	99	<0.5	10	2	<5	<3	<10	12000
CO Dd 61	1	100	<0.5	20	<1	<5	<3	<10	380
CO De 15	<1	110	<0.5	<10	<1	<5	<3	<10	220
CO De 16	<1	1300	2	<10	<1	<5	10	<10	29
CO Ec 25	<1	360	<0.5	<10	<1	<5	<3	<10	3
CO Ec 32	<1	200	<0.5	<10	<1	<5	<3	<10	4

	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)
CO Dd 60	<10	6	250	<0.1	<10	<10	<1	<1.0
CO Dd 61	<10	<4	230	<0.1	<10	<10	<1	<1.0
CO De 15	<10	<4	94	<0.1	<10	<10	<1	1.0
CO De 16	<10	<4	88	<0.1	<10	10	<1	<1.0
CO Ec 25	<10	<4	30	<0.1	<10	<10	<1	<1.0
CO Ec 32	<10	4	160	<0.1	<10	<10	2	<1.0

	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
CO Dd 60	90	<6	10	3.0	5.3	300	4.2	2.7
CO Dd 61	89	<6	6	<0.4	7.6	<80	6.2	1.1
CO De 15	68	<6	8	<0.4	2.1	200	1.9	1.0
CO De 16	160	<6	64	1.9	5.4	170	4.0	1.1
CO Ec 25	160	<6	<3	1.1	3.5	320	3.1	1.0
	--	--	--	--	--	--	--	--
CO Ec 32	170	<6	<3	<0.4	3.8	240	3.2	1.0
	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CARROLL COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
CL Bf 184	09-22-88	1355	393754076512401	300PRTB	GW	4040	2.26	340.00	50	340
CL Bf 194	12-10-87	1300	393811076521101	300PRTB	GW	4020	5.12	53.00	48	53
	09-28-88	1445		300PRTB	GW	4020	8.78	53.00	48	53
CL Bf 195	12-10-87	1345	393811076521102	300PRTB	GW	4020	3.89	18.00	8.0	18
	03-23-88	1515		300PRTB	GW	4020	3.08	18.00	8.0	18
	03-24-88	1100		300PRTB	GW	4020	--	18.00	8.0	18
	03-26-88	1130		300PRTB	GW	4020	4.05	18.00	8.0	18
	03-31-88	1115		300PRTB	GW	4020	3.11	18.00	8.0	18
	09-28-88	1230		300PRTB	GW	4020	8.16	18.00	8.0	18
CL Bf 198	12-10-87	1730	393817076520801	300PRTB	GW	4020	50.11	73.00	46	71
	03-24-88	1145		300PRTB	GW	4040	50.17	73.00	46	71
	09-29-88	1230		300PRTB	GW	4020	55.18	73.00	46	71
CL Bf 199	12-10-87	1445	393810076521001	300PRTB	GW	4020	4.18	18.00	5.0	15
	03-26-88	1300		300PRTB	GW	4020	4.09	18.00	5.0	15
	03-31-88	1400		300PRTB	GW	4020	4.39	18.00	5.0	15
	09-29-88	1030		300PRTB	GW	4020	8.33	15.00	5.0	15
CL Bf 200	12-10-87	1530	393810076521002	300PRTB	GW	4020	4.78	79.00	66	76
CL Bf 201	12-10-87	1600	393811076521103	300PRTB	LYS	4020	--	2.90	2.0	2.4
	03-23-88	1130		300PRTB	LYS	4080	--	2.90	2.0	2.4
	03-31-88	1045		300PRTB	LYS	4080	--	2.90	2.0	2.4
	09-29-88	0900		300PRTB	LYS	4080	--	2.90	2.0	2.4

	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
CL Bf 184	785	225	1.7	181	6.5	11.5	6.0	22	5.3	4.0
CL Bf 194	819	--	--	218	6.5	12.0	1.9	9.7	8.1	12
	819	60	0.8	264	5.7	16.0	3.9	11	9.5	19
CL Bf 195	819	--	--	194	5.4	13.5	2.2	7.8	7.0	14
	819	40	1.4	210	5.3	11.5	0.8	8.4	7.2	14
	819	--	--	--	--	--	--	--	--	--
	819	5	--	210	5.4	11.5	0.7	20	1.1	11
	819	--	--	230	5.3	11.0	0.7	9.0	7.2	17
	819	105	0.9	323	5.3	15.5	0.3	11	9.2	24
CL Bf 198	866	--	--	201	5.5	--	--	7.2	11	10
	866	100	0.5	188	5.3	14.0	6.9	5.1	9.1	9.1
	866	--	--	278	5.1	12.5	6.0	15	5.3	32
CL Bf 199	818	--	--	400	5.6	12.5	5.3	26	5.5	40
	818	33	--	300	5.7	9.0	2.0	16	5.8	25
	818	60	1.5	319	5.3	9.5	2.5	--	--	--
	818	45	1.1	320	5.6	13.5	0.5	8.0	16	9.3
CL Bf 200	819	--	--	159	5.5	11.5	4.6	7.5	6.9	10
CL Bf 201	821	--	--	--	--	--	--	83	9.0	12
	821	--	--	--	--	--	--	46	4.1	110
	821	--	--	--	--	--	--	47	4.1	110
	821	--	--	--	--	--	--	170	18	69

Geologic unit (aquifer): 300PRTB - Prettyboy Schist

Site type: GW - Ground Water
LYS - Lysimeter

Sampling method: 4020 - Bailer
4080 - Peristaltic pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CARROLL COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
CL Bf 184	0.60	31	--	3.4	11	<0.10	--	9.6	75	--
CL Bf 194	1.5	12	--	5.5	26	0.30	--	7.1	122	--
	1.8	15	1.0	7.5	28	<0.10	--	7.7	146	12.0
CL Bf 195	1.6	8	--	18	23	0.20	--	7.0	106	--
	1.5	9	--	18	27	0.10	--	6.5	109	--
	--	--	--	--	--	--	--	--	--	--
	1.6	9	--	21	16	0.20	--	0.97	108	--
	1.9	9	--	24	29	0.10	--	6.5	118	--
	1.8	8	0.6	16	61	<0.10	--	6.6	154	4.38
CL Bf 198	2.3	10	--	1.0	24	0.30	--	6.1	127	--
	1.9	5	--	<0.20	17	0.10	--	5.9	--	--
	1.0	6	<0.5	0.40	17	<0.10	--	6.2	168	--
CL Bf 199	1.3	19	--	34	79	0.30	--	6.8	218	--
	1.1	13	--	12	53	0.10	--	5.5	151	--
	1.0	6	--	--	--	--	--	--	--	--
	2.5	15	<0.5	16	60	0.10	--	6.0	142	--
CL Bf 200	1.5	6	--	2.1	20	0.20	--	1.7	94	--
CL Bf 201	--	--	--	45	14	0.70	0.40	2.1	178	0.120
	--	--	--	12	230	0.20	--	1.3	488	--
	--	--	--	10	210	0.20	--	1.7	461	--
	1.8	--	--	47	310	0.10	--	3.5	794	--

LOCAL IDENT-I-FIER	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)
CL Bf 184	--	7.00	--	--	--	--	--	<0.010	--	--
CL Bf 194	--	10.0	10.0	0.030	0.170	0.20	0.20	<0.010	<0.010	0.040
	0.020	--	12.0	--	0.030	--	0.70	--	--	--
CL Bf 195	--	5.00	4.90	0.010	0.030	0.20	0.40	0.020	0.010	<0.010
	<0.010	--	4.70	--	0.030	--	0.50	--	--	--
	--	--	--	--	--	--	--	--	--	--
	<0.010	--	4.40	--	0.030	--	1.8	--	--	--
	<0.010	--	3.90	--	0.090	--	--	--	--	--
	0.020	--	4.40	--	<0.010	--	0.50	--	--	--
CL Bf 198	--	13.0	13.0	0.040	0.060	1.2	0.30	0.310	<0.010	<0.010
	--	--	11.0	--	--	--	--	--	--	--
	<0.010	--	20.0	--	0.010	--	0.40	--	--	--
CL Bf 199	--	3.60	3.40	0.020	0.020	0.40	0.40	0.030	<0.010	0.010
	<0.010	--	5.40	--	0.020	--	0.30	--	--	--
	--	--	--	--	--	--	--	--	--	--
	<0.010	--	3.40	--	0.030	--	0.50	--	--	--
CL Bf 200	--	9.10	9.00	--	--	--	--	--	<0.010	--
CL Bf 201	--	--	--	--	--	--	--	--	--	--
	--	--	<0.100	--	--	--	--	--	--	--
	--	--	<0.100	--	--	--	--	--	--	--
	--	--	<0.100	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CARROLL COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)
CL Bf 184	--	<10	--	--	--	--	--	--	--	20
CL Bf 194	<0.010	--	<10	--	<1	--	--	--	<10	--
	0.010	--	<10	1	<1	<100	57	--	<10	--
CL Bf 195	<0.010	--	20	--	<1	--	--	--	<10	--
	<0.010	--	10	<1	<1	100	52	--	<10	--
	--	--	--	--	--	--	--	--	--	--
	0.020	--	50	1	1	<100	12	--	40	--
	<0.010	--	20	<1	<1	100	100	--	<10	--
	<0.010	--	20	<1	6	<100	70	--	<10	--
CL Bf 198	<0.010	--	<10	--	<1	--	--	--	<10	--
	--	--	10	--	<1	--	47	<0.5	10	--
	<0.010	--	100	<1	<1	--	--	--	--	--
CL Bf 199	<0.010	--	160	--	<1	--	--	--	<10	--
	0.030	--	40	--	--	--	61	<0.5	--	--
	--	--	90	--	--	--	--	--	--	--
	<0.010	--	50	<1	<1	--	--	--	10	--
CL Bf 200	--	--	10	--	<1	--	--	--	<10	--
CL Bf 201	<0.100	--	--	--	--	--	10	<0.5	--	--
	--	--	--	--	--	--	29	<0.5	--	--
	--	--	--	--	--	--	27	<0.5	--	--
	--	--	<10	--	<1	--	46	<0.5	<10	--

LOCAL IDENT-I-FIER	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)
CL Bf 184	--	--	--	--	--	--	--	5800	86	--
CL Bf 194	--	--	--	0.5	--	--	6	--	<10	--
	7	6	4	<0.5	--	21	10	--	7	6
CL Bf 195	--	--	--	<0.5	--	--	2	--	<10	--
	<1	2	2	<0.5	--	14	12	--	9	<5
	--	--	--	--	--	--	--	--	--	--
	2	1	22	<0.5	--	--	22	--	31	73
	1	0.5	3	<0.5	--	6	4	--	<10	<5
	<1	4	9	<0.5	--	20	4	--	12	<5
CL Bf 198	--	--	--	1	--	--	1	--	10	--
	--	<1	--	<5	9	--	30	--	9	--
	--	0.4	--	<0.5	--	--	6	--	8	--
CL Bf 199	--	--	--	1	--	--	4	--	<10	--
	--	0.4	2	<0.5	<3	22	16	--	<3	<5
	--	0.3	--	<0.5	--	23	7	--	--	<5
	--	0.5	--	<0.5	--	--	1	--	5	--
CL Bf 200	--	--	--	<0.5	--	--	4	--	<10	--
CL Bf 201	--	<1	--	20	4	--	<10	--	6	--
	--	<1	--	6	9	--	<10	--	7	--
	--	<1	<10	<5	9	3	<10	--	3	<5
	--	1	1	9	30	9	<10	--	9	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CARROLL COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)
CL Bf 184	--	--	20	4	--	--	--	--	--	--
CL Bf 194	7	--	--	30	<1	--	--	--	--	--
	5	--	--	33	<1	--	--	<1	<1	<1
CL Bf 195	<0.5	--	--	30	<1	--	--	--	--	--
	<0.5	--	--	51	1	--	--	1	1	<1
	--	--	--	--	--	--	--	--	--	--
	1	--	--	97	1	--	--	<1	<1	<1
	<0.5	--	--	50	10	--	--	<1	<1	<1
	5	--	--	160	1	11	--	1	<1	<1
CL Bf 198	<0.5	--	--	620	<1	--	--	--	--	--
	<10	<4	--	110	<10	--	20	--	--	--
	1	--	--	230	<1	--	--	<1	<1	--
CL Bf 199	1	--	--	140	1	--	--	--	--	--
	<0.5	<4	--	170	1	--	<10	--	--	--
	<0.5	--	--	--	1	--	--	--	--	--
	3	--	--	84	<1	--	--	<1	<1	--
CL Bf 200	3	--	--	20	<1	--	--	--	--	--
CL Bf 201	<10	6	--	11000	<10	--	10	--	--	--
	<10	<4	--	15000	--	--	<10	--	--	--
	<10	<4	--	13000	<10	--	<10	--	--	--
	<10	14	--	37000	<1	--	<10	--	<1	--

LOCAL IDENT-I-FIER	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CYANIDE DIS-SOLVED (MG/L AS CN)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
CL Bf 184	--	--	--	20	--	3.1	--	--	--
CL Bf 194	--	51	<1	--	200	0.8	1.4	--	0.11
	<1.0	57	<1	140	120	1.1	1.3	<0.01	0.21
CL Bf 195	--	38	<1	--	<22	0.7	1.6	--	0.08
	<1.0	40	<1	20	24	0.8	1.2	--	0.07
	--	--	--	--	--	16	7.4	--	--
	<1.0	58	13	1300	650	7.5	7.4	--	1.3
	1.0	50	<1	20	20	1.5	1.4	--	0.07
	<1.0	51	<1	40	47	3.8	1.7	<0.01	0.08
CL Bf 198	--	50	<1	--	46	2.1	1.5	--	0.09
	<1.0	40	<6	--	60	<0.1	0.5	--	0.10
	<1.0	47	--	--	50	1.5	0.6	<0.01	0.14
CL Bf 199	--	100	<1	--	31	0.6	1.5	--	0.08
	<1.0	52	<6	20	20	1.1	1.1	--	0.05
	--	--	--	20	20	--	--	--	--
	<1.0	68	2	--	92	2.2	1.3	<0.01	0.09
CL Bf 200	--	170	<1	--	21	0.3	0.8	--	0.10
CL Bf 201	5.0	160	<6	--	7	--	--	--	0.34
	2.0	120	<6	--	23	--	--	--	0.13
	1.0	120	<6	<10	5	--	--	--	--
	9.0	370	<5	20	20	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CECIL COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
CE Ce 80	09-01-88	1030	393223075534702	217NNMR	4040	--	200.00	195	200
CE Ce 81	09-01-88	1500	393223075534701	112CLMB	4020	52.50	70.00	65	68

LOCAL IDENT-I-FIER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
CE Ce 80	85.0	35	8.0	14	4.5	14.5	23.0	7.5	0.38	0.17
CE Ce 81	85.0	15	--	47	5.0	13.0	29.0	8.1	2.6	1.9

LOCAL IDENT-I-FIER	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
CE Ce 80	1.6	0.40	0	0.60	1.8	<0.10	6.8	15	--	--
CE Ce 81	3.8	0.90	5	8.3	4.3	<0.10	8.6	36	<0.010	0.120

LOCAL IDENT-I-FIER	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)
CE Ce 80	--	1.1	--	<10	<1	<1	6	<0.5	<10	<1
CE Ce 81	<0.010	0.20	0.920	<10	<1	<1	64	<0.5	20	<1

LOCAL IDENT-I-FIER	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)
CE Ce 80	<5	<3	30	65	<10	<4	11	<0.1	<10	<10
CE Ce 81	<5	<3	<10	6	<10	<4	19	<0.1	<10	10

LOCAL IDENT-I-FIER	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
CE Ce 80	<1	<1.0	2	<6	480	0.4	1.0	<80	0.9	1.0
CE Ce 81	<1	<1.0	25	<6	46	2.2	2.7	<80	2.5	0.7

Geologic unit (aquifer): 112CLMB - Columbia Formation
217NNMR - Nonmarine Cretaceous Aquifer

Sampling method: 4020 - Bailer
4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHARLES COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
CH Bb 6	05-17-88	1350	383505077101006	217PPSC	4040	--	398.00	251	397
	08-29-88	1130		217PPSC	4040	--	398.00	251	397
CH Bb 7	05-17-88	1245	383505077101007	217PPSC	4040	--	399.00	255	399
	08-29-88	1315		217PPSC	4040	--	399.00	255	399
CH Bb 9	05-17-88	1440	383505077101009	217PPSC	4040	--	390.00	185	376
	08-29-88	1130		217PPSC	4040	--	390.00	185	376
CH Bb 12	05-19-88	1430	383552077100401	217PPSC	4040	--	515.00	238	298
	05-26-88	0915		217PPSC	4040	--	515.00	238	298
	08-30-88	1315		217PPSC	4040	--	515.00	238	298
CH Bb 17	05-24-88	1400	383524077111802	217PPSC	4040	116.75	294.00	240	294
CH Bb 19	05-18-88	1400	383533077104002	217PPSC	4040	--	380.00	270	380
	08-29-88	1705		217PPSC	4040	--	380.00	270	380
CH Bc 3	05-17-88	1300	383507077094903	210CRCS	4040	--	390.00	--	--
	08-29-88	1325		210CRCS	4040	--	390.00	--	--
CH Bc 5	05-25-88	1230	383524077094401	210CRCS	4040	122.60	430.00	--	--
CH Bc 6	05-19-88	1600	383631077083501	217PTXN	4040	--	412.00	362	412
	05-26-88	1500		217PTXN	4040	--	412.00	362	412
	08-30-88	1030		217PTXN	4040	--	412.00	362	412
CH Bc 23	05-19-88	1400	383545077095501	217PPSC	4040	--	352.00	229	311
	05-26-88	0900		217PPSC	4040	--	352.00	229	311
	08-30-88	0845		217PPSC	4040	--	352.00	229	311
CH Bc 24	05-26-88	1600	383633077083001	210CRCS	4040	145.00	435.00	383	435
CH Bc 49	05-19-88	1130	383540077090701	217PTXN	4040	--	404.00	340	404
	08-30-88	1000		217PTXN	4040	--	404.00	340	404
CH Bc 67	05-19-88	1100	383606077092101	217PTXN	4040	--	522.00	488	522
	05-26-88	1000		217PTXN	4040	--	522.00	488	522
	08-30-88	0820		217PTXN	4040	--	522.00	488	522
CH Bc 68	05-19-88	1630	383610077081001	217PTXN	4040	--	514.00	414	514
	08-30-88	1040		217PTXN	4040	--	514.00	414	514
CH Bc 70	05-19-88	1330	383554077085702	217PTXN	4040	--	442.00	372	442
	08-29-88	1045		217PTXN	4040	--	442.00	372	442
CH Bc 72	05-19-88	1200	383548077091101	217PPSC	4040	--	360.00	224	347
	08-30-88	1030		217PPSC	4040	--	360.00	224	347
CH Be 63	02-25-88	0945	383649076555201	121PLCN	4040	4.92	23.00	11	23
CH Cb 7	05-11-88	1400	383422077114601	217PPSC	4040	87.52	400.00	154	167
CH Cb 9	05-17-88	0930	383354077121501	217PPSC	4040	--	280.00	191	280
	08-29-88	1510		217PPSC	4040	--	280.00	191	280
CH Cb 11	05-18-88	1100	383313077125401	217PTXN	4040	56.18	454.00	--	--
	05-26-88	1045		217PTXN	4040	--	454.00	--	--
	08-29-88	1200		217PTXN	4040	--	454.00	--	--
CH Cb 18	05-17-88	1000	383412077112802	217PPSC	4040	--	295.00	261	295
	08-29-88	1615		217PPSC	4040	--	295.00	261	295
CH Cb 19	05-18-88	1500	383448077105202	217PPSC	4040	--	302.00	208	302
	08-29-88	1450		217PPSC	4040	--	302.00	208	302
CH Cb 28	05-18-88	1000	383315077131401	217PPSC	4040	50.58	290.00	190	290
	05-26-88	1030		217PPSC	4040	--	290.00	190	290
	08-29-88	1215		217PPSC	4040	--	290.00	190	290
CH Cb 29	05-17-88	1400	383451077102601	217PPSC	4040	--	286.00	228	286
	08-29-88	1510		217PPSC	4040	--	286.00	228	286
CH Cb 34	05-17-88	1015	383427077121001	217PPSC	4040	--	232.00	217	232
	05-25-88	1315		217PPSC	4040	--	232.00	217	232
	08-29-88	1625		217PPSC	4040	--	232.00	217	232
CH Cb 35	05-18-88	1530	383407077120501	217PTXN	4040	86.40	486.00	433	486
	05-25-88	1300		217PTXN	4040	--	486.00	433	486
	08-30-88	1445		217PTXN	4040	--	486.00	433	486
CH Cb 38	05-18-88	1230	393328077114201	217PPSC	4040	--	235.00	220	235
	08-30-88	1450		217PPSC	4040	--	235.00	220	235
CH Ee 16	12-08-87	1400	382103076560201	112TLBT	4020	15.67	23.00	23	23
	03-09-88	1220		112TLBT	4040	13.76	23.00	23	23
	05-19-88	1125		112TLBT	4040	14.68	23.00	23	23
	07-28-88	1125		112TLBT	4040	19.73	23.00	23	23

Geologic unit (aquifer):
112TLBT - Talbot Formation
121PLCN - Pliocene Series
210CRCS - Cretaceous System
217PPSC - Patapsco Formation
217PXTN - Patuxent Formation

Sampling method:
4020 - Bailer
4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHARLES COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
CH Bb 6	38.7	>1000	150	286	7.9	17.0	25.0	3	0.27	0.25
	38.7	>1000	150	386	7.6	20.0	28.0	--	0.30	0.29
CH Bb 7	38.9	50	150	315	7.9	18.0	24.5	1	0.31	0.27
	38.9	60	150	310	7.9	19.0	28.0	--	0.28	0.32
CH Bb 9	32.1	>1000	150	262	7.8	17.0	25.0	1	0.36	0.34
	32.1	>1000	150	265	7.4	19.0	28.0	--	0.35	0.33
CH Bb 12	95.0	20	200	750	7.2	18.5	24.0	14	5.8	3.9
	95.0	360	200	337	7.2	12.0	20.0	--	--	--
	95.0	70	200	651	7.3	17.0	--	--	4.5	3.1
CH Bb 17	52.0	240	7.2	497	7.7	19.0	35.0	3	4.4	0.86
CH Bb 19	90.0	15	150	473	7.6	17.5	22.0	2	0.75	0.73
	90.0	30	150	493	7.8	17.0	20.0	--	0.81	0.84
CH Bc 3	18.7	>1000	150	281	7.8	18.0	25.0	2	0.19	0.14
	18.7	>1000	150	280	7.7	18.0	28.0	--	0.19	0.29
CH Bc 5	39.2	240	8.0	420	8.0	16.0	17.5	2	0.65	0.51
CH Bc 6	55.0	30	150	252	8.0	17.0	24.0	<1	0.05	0.03
	55.0	30	150	246	8.1	17.5	21.0	--	--	--
	55.0	120	150	251	8.0	17.5	28.0	--	0.07	0.06
CH Bc 23	65.0	240	150	720	7.5	18.5	24.0	13	4.1	3.1
	65.0	360	150	467	7.3	18.0	20.0	--	--	--
	65.0	120	150	485	7.5	16.5	20.0	--	1.9	1.5
CH Bc 24	72.0	240	8.0	659	7.2	17.5	22.0	2	34	14
CH Bc 49	33.0	45	150	294	7.6	17.0	23.0	1	0.58	0.27
	33.0	45	150	272	7.9	16.5	20.0	--	0.35	0.22
CH Bc 67	30.0	20	200	675	7.7	18.5	23.0	<1	0.29	0.24
	30.0	360	200	647	7.7	10.0	21.0	--	--	--
	30.0	120	200	678	7.9	18.5	20.0	--	0.32	0.30
CH Bc 68	75.0	20	150	244	7.8	16.5	24.0	<1	0.12	0.12
	75.0	30	150	245	8.0	18.0	20.0	--	0.11	0.18
CH Bc 70	35.0	20	200	242	7.7	18.5	25.0	2	0.09	0.14
	35.0	30	200	242	8.0	17.5	20.0	--	0.09	0.11
CH Bc 72	34.0	15	200	264	7.8	17.0	24.0	<1	0.33	0.19
	34.0	120	200	275	7.9	16.5	20.0	--	0.27	0.33
CH Be 63	205	35	1.7	150	6.3	5.0	2.5	--	15	1.0
CH Cb 7	36.0	105	6.0	290	6.8	14.0	21.0	--	2.8	1.7
CH Cb 9	24.0	>1000	150	370	7.8	16.5	20.0	2	0.83	0.74
	24.0	>1000	150	312	7.9	18.0	28.0	--	0.73	0.72
CH Cb 11	35.0	20	100	590	7.5	17.0	20.0	2	1.5	0.74
	35.0	30	100	594	7.9	14.0	19.0	--	--	--
	35.0	60	100	314	7.6	20.0	28.0	--	2.0	0.70
CH Cb 18	30.5	>1000	150	481	7.6	16.5	20.0	2	0.42	0.51
	30.5	>1000	150	421	7.8	18.0	20.0	--	0.41	0.44
CH Cb 19	32.0	20	150	374	8.0	18.5	23.0	1	0.52	0.48
	32.0	120	150	376	8.0	18.0	28.0	--	0.50	0.36
CH Cb 28	5.0	20	150	297	7.5	16.5	20.0	3	1.7	1.3
	5.0	20	150	277	7.4	17.0	19.0	--	--	--
	5.0	60	150	292	7.4	19.0	28.0	--	1.6	1.2
CH Cb 29	12.4	150	150	302	8.0	17.0	25.0	2	0.25	0.21
	12.4	120	150	301	8.1	18.0	28.0	--	0.23	0.28
CH Cb 34	30.0	>1000	120	1310	7.0	14.5	20.0	45	8.1	8.7
	30.0	20	120	1230	7.1	16.0	15.5	--	--	--
	30.0	60	120	1300	7.2	17.0	20.0	--	8.1	8.4
CH Cb 35	25.0	20	200	575	7.8	19.0	23.0	2	0.39	0.39
	25.0	30	200	551	7.8	17.0	15.5	--	--	--
	25.0	20	200	578	8.0	18.5	20.0	--	0.41	0.36
CH Cb 38	5.0	20	15	290	7.7	17.0	21.0	3	1.1	1.0
	5.0	20	15	--	--	--	--	--	1.1	1.0
CH Ee 16	40.0	160	1.8	401	7.4	15.0	10.0	--	61	5.2
	40.0	165	1.3	295	7.1	12.0	16.0	--	43	4.3
	40.0	285	1.0	207	6.3	13.0	23.0	--	26	4.1
	40.0	205	1.5	260	6.6	14.0	23.0	--	37	5.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHARLES COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
CH Bb 6	67	2.3	130	9.0	7.5	0.90	0.040	33	196	198
	67	--	--	8.9	7.9	--	0.036	32	199	194
CH Bb 7	70	2.3	138	10	11	1.0	0.040	33	202	211
	71	--	--	11	10	--	0.047	33	216	207
CH Bb 9	62	1.8	121	11	2.9	0.80	<0.010	34	187	186
	61	--	--	11	3.2	--	0.019	34	185	182
CH Bb 12	170	7.7	341	4.8	49	0.30	0.49	35	477	483
	--	--	163	--	12	--	0.078	--	239	--
	140	--	--	3.3	39	--	0.25	34	414	397
CH Bb 17	110	3.6	227	2.1	47	0.80	0.22	30	307	336
CH Bb 19	110	3.6	219	3.6	21	0.60	0.18	35	319	307
	110	--	--	2.5	23	--	0.18	33	320	307
CH Bc 3	67	2.0	130	8.3	6.2	0.80	0.035	33	193	196
	65	--	--	8.1	6.6	--	0.030	33	200	192
CH Bc 5	100	3.5	202	9.1	42	0.80	0.15	25	272	303
CH Bc 6	57	1.0	114	14	2.9	0.90	0.011	37	186	181
	--	--	110	--	3.1	--	0.013	--	181	--
	58	--	--	14	3.0	--	0.014	35	186	177
CH Bc 23	140	7.2	394	3.9	41	0.40	0.20	34	462	471
	--	--	291	--	24	--	0.14	--	330	--
	110	--	--	3.0	21	--	0.13	34	316	307
CH Bc 24	80	9.9	220	42	60	0.50	0.19	33	410	407
CH Bc 49	68	2.8	215	10	8.8	0.70	0.034	33	206	253
	63	--	--	12	6.0	--	0.010	33	185	188
CH Bc 67	150	4.0	152	7.3	120	1.5	0.38	35	402	410
	--	--	155	--	110	--	0.38	--	392	--
	140	--	--	7.0	120	--	0.37	34	396	394
CH Bc 68	58	1.2	149	18	1.6	0.70	0.012	36	182	205
	57	--	--	12	1.3	--	0.010	35	177	174
CH Bc 70	60	1.8	158	13	1.3	0.90	<0.010	35	181	207
	57	--	--	13	1.3	--	<0.010	35	183	173
CH Bc 72	64	2.3	121	10	3.7	0.80	0.026	36	197	190
	62	--	--	10	4.7	--	0.030	34	197	188
CH Be 63	2.1	1.9	49	19	5.8	0.20	--	12	97	95
CH Cb 7	63	2.7	136	9.9	7.1	0.90	--	33	--	203
CH Cb 9	76	2.8	146	11	22	1.1	0.075	33	242	235
	82	--	--	11	21	--	0.079	32	247	232
CH Cb 11	140	4.6	270	8.3	45	1.2	0.16	34	374	398
	--	--	246	--	48	--	0.17	--	389	--
	68	--	--	11	10	--	0.024	34	214	206
CH Cb 18	110	2.8	181	7.6	40	1.1	0.17	33	304	304
	92	--	--	11	31	--	0.11	33	272	262
CH Cb 19	86	2.7	155	8.1	18	0.80	0.093	35	242	245
	85	--	--	7.9	18	--	0.091	34	246	240
CH Cb 28	66	3.9	134	12	7.2	1.1	0.038	32	201	206
	--	--	118	--	6.6	--	0.034	--	195	--
	63	--	--	12	6.6	--	0.024	32	193	194
CH Cb 29	70	2.0	139	10	7.0	0.80	0.044	34	207	208
	70	--	--	10	7.1	--	0.024	33	196	203
CH Cb 34	270	7.5	364	12	210	0.50	1.1	39	768	778
	--	--	370	--	210	--	1.3	--	775	--
	250	--	--	14	200	--	1.2	38	759	740
CH Cb 35	130	3.4	305	7.7	44	1.2	0.16	34	366	404
	--	--	265	--	43	--	0.16	--	363	--
	130	--	--	7.8	43	--	0.15	33	366	351
CH Cb 38	62	3.0	135	15	3.1	1.0	0.010	33	201	201
	65	--	--	13	2.9	--	0.015	33	196	197
CH Ee 16	5.7	5.0	146	19	11	1.3	--	72	274	270
	5.7	3.9	86	32	11	1.6	--	69	--	223
	4.6	2.3	54	23	10	1.2	--	72	--	176
	4.5	3.3	92	18	8.6	1.0	--	73	--	207

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHARLES COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
CH Bb 6	<0.100	--	1.70	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bb 7	<0.100	--	0.020	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bb 9	<0.100	--	1.60	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bb 12	<0.100	--	0.630	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bb 17	<0.100	--	1.70	--	--	--	--	--	--	--
CH Bb 19	<0.100	--	0.770	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bc 3	<0.100	--	1.40	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bc 5	<0.100	--	0.770	--	--	--	--	--	--	--
CH Bc 6	<0.100	--	0.090	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bc 23	<0.100	--	0.530	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bc 24	<0.100	--	0.150	--	--	--	--	--	--	--
CH Bc 49	<0.100	--	1.10	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bc 67	<0.100	--	0.950	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bc 68	<0.100	--	0.060	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bc 70	<0.100	--	1.60	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Bc 72	<0.100	--	1.40	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Be 63	<0.100	--	0.090	--	--	770	--	1	--	<0.5
CH Cb 7	<0.100	--	1.70	--	--	--	--	--	--	--
CH Cb 9	<0.100	--	1.90	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Cb 11	<0.100	--	0.920	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Cb 18	<0.100	--	1.60	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Cb 19	<0.100	--	1.40	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Cb 28	<0.100	--	2.00	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Cb 29	<0.100	--	1.60	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Cb 34	<0.100	--	0.300	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Cb 35	<0.100	--	0.750	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Cb 38	<0.100	--	1.90	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
CH Ee 16	0.200	0.170	1.20	0.250	--	<10	1	2	12	<0.5
	0.100	--	0.040	--	20	--	--	--	--	--
	0.200	--	1.40	--	80	--	--	--	--	--
	0.100	--	1.60	--	110	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHARLES COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	BORON, DIS-SOLVED (UG/L AS B)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)
CH Bb 6	--	--	--	--	--	--	150	45	--	--
	--	--	--	--	--	--	--	52	--	--
CH Bb 7	--	--	--	--	--	--	220	78	--	--
	--	--	--	--	--	--	--	56	--	--
CH Bb 9	--	--	--	--	--	--	30	34	--	--
	--	--	--	--	--	--	--	35	--	--
CH Bb 12	--	--	--	--	--	--	940	1000	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	660	--	--
CH Bb 17	--	--	--	--	--	--	500	410	--	--
CH Bb 19	--	--	--	--	--	--	150	170	--	--
	--	--	--	--	--	--	--	250	--	--
CH Bc 3	--	--	--	--	--	--	630	59	--	--
	--	--	--	--	--	--	--	69	--	--
CH Bc 5	--	--	--	--	--	--	380	260	--	--
CH Bc 6	--	--	--	--	--	--	60	69	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	30	--	--
CH Bc 23	--	--	--	--	--	--	740	760	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	290	--	--
CH Bc 24	--	--	--	--	--	--	13000	1400	--	--
CH Bc 49	--	--	--	--	--	--	450	130	--	--
	--	--	--	--	--	--	--	120	--	--
CH Bc 67	--	--	--	--	--	--	110	110	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	85	--	--
CH Bc 68	--	--	--	--	--	--	50	57	--	--
	--	--	--	--	--	--	--	62	--	--
CH Bc 70	--	--	--	--	--	--	180	80	--	--
	--	--	--	--	--	--	--	89	--	--
CH Bc 72	--	--	--	--	--	--	100	97	--	--
	--	--	--	--	--	--	--	120	--	--
CH Be 63	--	--	<1	<1	1	--	14000	7800	<5	<4
CH Cb 7	--	--	--	--	--	--	1800	370	--	--
CH Cb 9	--	--	--	--	--	--	90	110	--	--
	--	--	--	--	--	--	--	91	--	--
CH Cb 11	--	--	--	--	--	--	630	480	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	110	--	--
CH Cb 18	--	--	--	--	--	--	80	170	--	--
	--	--	--	--	--	--	--	210	--	--
CH Cb 19	--	--	--	--	--	--	60	100	--	--
	--	--	--	--	--	--	--	110	--	--
CH Cb 28	--	--	--	--	--	--	490	640	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	620	--	--
CH Cb 29	--	--	--	--	--	--	90	110	--	--
	--	--	--	--	--	--	--	100	--	--
CH Cb 34	--	--	--	--	--	--	4600	2400	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	3100	--	--
CH Cb 35	--	--	--	--	--	--	110	110	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	120	--	--
CH Cb 38	--	--	--	--	--	--	380	460	--	--
	--	--	--	--	--	--	--	420	--	--
CH Ee 16	40	--	<1	<1	<1	2	350	98	<5	23
	--	30	--	--	--	--	140	140	--	--
	--	<10	--	--	--	--	480	31	--	--
	--	<10	--	--	--	--	920	230	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHARLES COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
CH Bb 6	10	14	--	--	--	--	--	--	--	0.3
	--	11	--	--	--	--	--	--	--	--
CH Bb 7	20	7	--	--	--	--	--	--	--	0.1
	--	7	--	--	--	--	--	--	--	--
CH Bb 9	<10	10	--	--	--	--	--	--	--	0.2
	--	8	--	--	--	--	--	--	--	--
CH Bb 12	80	89	--	--	--	--	--	--	--	3.5
	--	--	--	--	--	--	--	--	--	--
	--	68	--	--	--	--	--	--	--	3.5
CH Bb 17	60	7	--	--	--	--	--	--	--	1.2
CH Bb 19	20	27	--	--	--	--	--	--	--	1.3
	--	31	--	--	--	--	--	--	--	--
CH Bc 3	<10	6	--	--	--	--	--	--	--	0.3
	--	8	--	--	--	--	--	--	--	--
CH Bc 5	10	18	--	--	--	--	--	--	--	0.3
CH Bc 6	<10	1	--	--	--	--	--	--	--	0.5
	--	--	--	--	--	--	--	--	--	--
	--	<1	--	--	--	--	--	--	--	--
CH Bc 23	70	88	--	--	--	--	--	--	--	3.5
	--	--	--	--	--	--	--	--	--	--
	--	43	--	--	--	--	--	--	--	--
CH Bc 24	420	43	--	--	--	--	--	--	--	2.0
CH Bc 49	<10	8	--	--	--	--	--	--	--	0.6
	--	7	--	--	--	--	--	--	--	--
CH Bc 67	<10	14	--	--	--	--	--	--	--	<0.1
	--	--	--	--	--	--	--	--	--	--
	--	9	--	--	--	--	--	--	--	--
CH Bc 68	<10	2	--	--	--	--	--	--	--	0.2
	--	3	--	--	--	--	--	--	--	--
CH Bc 70	<10	6	--	--	--	--	--	--	--	0.1
	--	5	--	--	--	--	--	--	--	--
CH Bc 72	<10	11	--	--	--	--	--	--	--	0.5
	--	7	--	--	--	--	--	--	--	--
CH Be 63	100	--	1	2	<1	--	31	--	6	--
CH Cb 7	60	55	--	--	--	--	--	--	--	--
CH Cb 9	20	19	--	--	--	--	--	--	--	0.6
	--	19	--	--	--	--	--	--	--	0.1
CH Cb 11	20	21	--	--	--	--	--	--	--	<0.1
	--	--	--	--	--	--	--	--	--	--
	--	14	--	--	--	--	--	--	--	0.7
CH Cb 18	10	19	--	--	--	--	--	--	--	0.8
	--	20	--	--	--	--	--	--	--	1.0
CH Cb 19	20	16	--	--	--	--	--	--	--	0.7
	--	14	--	--	--	--	--	--	--	1.1
CH Cb 28	20	30	--	--	--	--	--	--	--	0.2
	--	--	--	--	--	--	--	--	--	--
	--	29	--	--	--	--	--	--	--	0.6
CH Cb 29	<10	10	--	--	--	--	--	--	--	0.1
	--	12	--	--	--	--	--	--	--	--
CH Cb 34	360	370	--	--	--	--	--	--	--	5.2
	--	--	--	--	--	--	--	--	--	--
	--	350	--	--	--	--	--	--	--	7.2
CH Cb 35	10	120	--	--	--	--	--	--	--	<0.1
	--	--	--	--	--	--	--	--	--	--
	--	14	--	--	--	--	--	--	--	0.2
CH Cb 38	20	22	--	--	--	--	--	--	--	0.2
	--	23	--	--	--	--	--	--	--	--
CH Ee 16	20	23	2	4	1	250	<1	--	14	--
	<10	5	--	--	--	--	--	<10	--	0.7
	70	59	--	--	--	--	--	<10	--	1.7
	120	110	--	--	--	--	--	30	--	7.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

CHARLES COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	PCN DISSOLV (UG/L)	BROMO-FORM TOTAL (UG/L)	BENZENE TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)
CH Be 63	--	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
CH Ee 16	<0.10	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

LOCAL IDENT-I-FIER	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)	ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)
CH Be 63	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
CH Ee 16	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

LOCAL IDENT-I-FIER	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-FLURA-LIN TOTAL RECOVER (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DIBROMO ETHYL-ENE TOTAL (UG/L)
CH Be 63	<3.0	--	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
CH Ee 16	<3.0	<0.10	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

LOCAL IDENT-I-FIER	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	PCB, DIS-SOLVED (UG/L)	ALA-CHLOR TOTAL RECOVER (UG/L)
CH Be 63	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	--	--
CH Ee 16	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.1	<0.10

LOCAL IDENT-I-FIER	ALDRIN, DIS-SOLVED (UG/L)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, DIS-SOLVED (UG/L)	CYAN-AZINE TOTAL (UG/L)	DDD, DIS-SOLVED (UG/L)	DDE, DIS-SOLVED (UG/L)	DDT, DIS-SOLVED (UG/L)	DI-AZINON, DIS-SOLVED (UG/L)
CH Ee 16	<0.01	<0.10	<0.10	<0.1	<0.10	<0.01	<0.01	<0.01	<0.01

LOCAL IDENT-I-FIER	DI-ELDRIN DIS-SOLVED (UG/L)	ENDO-SULFAN DISSOLV (UG/L)	ENDRIN, DIS-SOLVED (UG/L)	ETHION DISSOLV (UG/L)	HEPTA-CHLOR, DIS-SOLVED (UG/L)	HEPTA-CHLOR EPOXIDE DIS-SOLVED (UG/L)	LINDANE DIS-SOLVED (UG/L)	MALA-THION, DIS-SOLVED (UG/L)	METH-OXY-CHLOR DISSOLV (UG/L)
CH Ee 16	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

LOCAL IDENT-I-FIER	METHYL PARA-THION, DIS-SOLVED (UG/L)	METHYL-TRI-THION DISSOLV (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	MIREX, DIS-SOLVED (UG/L)	PARA-THION, DIS-SOLVED (UG/L)	PER-THANE DISSOLV (UG/L)	PROME-TRYNE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)
CH Ee 16	<0.01	<0.01	<0.1	<0.1	<0.01	<0.01	<0.10	<0.1	<0.1

LOCAL IDENT-I-FIER	PRO-PAZINE TOTAL (UG/L)	TOX-APHENE, DIS-SOLVED (UG/L)	TRI-THION DISSOLV (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
CH Ee 16	<0.10	<1.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DORCHESTER COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
DO Cb 07	07-25-88	1545	383328076153601	112CLMB	4040	--	520.00	500	520
DO Cb 08	07-25-88	1415	383328076153602	112CLMB	4040	6.10	15.00	12	15
DO Cf 35	07-20-88	1300	383225075565001	112CLMB	4040	--	42.00	37	42
DO Cf 36	07-20-88	0945	383225075565002	112CLMB	4040	8.30	16.00	13	16

LOCAL IDENT-I-FIER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DO Cb 07	5.0	20	4.7	299	8.3	18.5	34.0	0	7.1	2.8
DO Cb 08	5.0	15	0.8	1000	4.9	17.0	34.0	0.2	2.2	6.8
DO Cf 35	22.0	15	3.3	271	5.0	17.5	29.0	1.7	13	8.4
DO Cf 36	22.0	--	--	208	4.9	19.5	29.0	3.4	9.1	6.2

LOCAL IDENT-I-FIER	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
DO Cb 07	48	6.0	120	7.0	21	0.30	12	169	<0.010	<0.100
DO Cb 08	180	1.2	13	160	190	0.10	60	607	<0.010	0.110
DO Cf 35	18	3.7	6	41	24	<0.10	19	160	<0.010	6.30
DO Cf 36	15	4.9	2	33	17	<0.10	12	132	<0.010	7.40

LOCAL IDENT-I-FIER	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)
DO Cb 07	0.060	0.80	<0.010	<10	2	21	<2	<0.5	170	<1
DO Cb 08	0.380	1.0	<0.010	40	2	5	13	<0.5	40	<1
DO Cf 35	0.040	1.1	<0.010	50	<1	<1	110	2	<10	2
DO Cf 36	0.020	0.60	<0.010	110	<1	<1	45	<0.5	50	1

LOCAL IDENT-I-FIER	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)
DO Cb 07	<5	<3	<10	<7	<10	8	<1	<0.1	<10	<10
DO Cb 08	<5	4	20	3200	<10	33	98	<0.1	<10	10
DO Cf 35	<5	90	360	100	30	7	52	<0.1	<10	90
DO Cf 36	<5	40	<10	8	<10	<4	67	<0.1	<10	50

LOCAL IDENT-I-FIER	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
DO Cb 07	<1	<1.0	75	<6	<3	<0.4	13	330	9.5	1.0
DO Cb 08	<1	<1.0	26	<6	6	0.5	3.7	<80	2.6	7.3
DO Cf 35	1	2.0	290	<6	260	2.0	4.4	92	3.5	2.1
DO Cf 36	<1	<1.0	100	<6	150	1.2	5.6	240	4.7	1.8

Geologic unit (aquifer): 112CLMB - Columbia Formation

Sampling method: 4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

FREDERICK COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
FR Df 35	09-28-88	1350	392517077190401	300SMCK	4040	60.32	302.00	26	302

ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
570	135	8.6	122	6.8	13.0	27.5	8.7	16	6.5

SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
1.7	0.90	65	0.50	1.5	<0.10	10	76	0.400

PHOS-PHOROUS TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)
0.150	150	<10	400	14	140	3	20	3.5

Geologic unit (aquifer): 300SMCK - Sams Creek Metabasalt

Sampling method: 4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

HARFORD COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)
HA Ca 23	09-21-88	1145	393158076302601	300LCRV	4040	6.64	200.00	24
HA Dd 89	04-20-88	1500	392529076180901	217PTMC	4040	--	140.00	120
HA Dd 91	04-15-88	1300	392721076150301	112TLBT	4040	14.97	78.00	58
HA Dd 92	04-07-88	1300	392721076150302	112TLBT	4040	13.22	38.00	18
	07-19-88	1040		112TLBT	4040	11.45	38.00	18
HA Dd 106	06-30-88	1200	392557076161601	217PTMC	4040	--	210.00	190
HA De 181	04-13-88	1100	392606076145801	217PTMC	4040	8.95	290.00	264
HA De 183	04-19-88	1330	392606076145803	217PTMC	4040	12.55	175.00	155
HA De 182	03-31-88	1300	392606076145802	112TLBT	4040	11.50	100.00	30
HA De 195	04-12-88	1600	392914076110301	112TLBT	4040	15.20	55.00	35
HA De 197	04-06-88	1100	392819076130901	217PTMC	4040	12.69	95.00	75
HA De 198	08-25-88	1300	392819076130902	112TLBT	4020	8.65	29.00	9.0
HA Ec 46	08-23-88	1300	392408076210101	217PTMC	4020	65.52	85.00	65
HA Ed 47	03-30-88	1130	392455076192101	217PTMC	4040	74.80	210.00	190
HA Ed 48	04-27-88	1130	392455076192102	217PTMC	4040	61.61	133.00	118
HA Ed 49	03-29-88	1230	392455076192103	112TLBT	4040	15.12	28.00	13
	07-19-88	1220		112TLBT	4040	13.99	28.00	13

	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	COLOR (PLAT-INUM-COBALT UNITS)
HA Ca 23	200	470	105	0.7	119	6.2	12.0	24.0	--
HA Dd 89	130	99.0	150	10	42	5.5	14.0	13.0	4
HA Dd 91	68	19.7	360	25	73	6.2	14.0	15.0	2
HA Dd 92	28	20.1	150	6.0	292	6.1	14.0	9.0	2
	28	21.1	40	1.7	360	6.1	15.0	29.5	--
HA Dd 106	200	33.9	--	--	96	6.5	17.0	24.0	17
HA De 181	280	12.2	120	20	186	6.6	7.0	70.0	2
HA De 183	165	12.5	390	9.0	46	5.3	14.0	8.0	4
HA De 182	40	12.3	150	9.0	138	5.7	15.0	20.0	3
HA De 195	45	52.7	180	5.0	178	5.6	14.0	11.0	2
HA De 197	85	19.1	90	6.0	49	6.1	13.5	17.0	1
HA De 198	19	18.9	--	--	177	4.5	15.0	26.0	25
HA Ec 46	75	23.2	--	--	207	7.1	14.0	26.0	<1
HA Ed 47	200	90.5	120	7.0	40	5.5	14.0	--	2
HA Ed 48	128	91.2	270	13	34	5.1	13.0	17.0	3
HA Ed 49	23	91.9	135	8.0	400	5.0	12.0	19.0	2
	23	91.9	20	1.6	315	4.6	13.0	22.5	--

	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
HA Ca 23	7.0	7.4	4.3	6.5	1.9	19	1.1	7.3
HA Dd 89	8.2	1.5	0.70	2.6	0.70	3	0.80	3.5
HA Dd 91	2.3	1.3	0.55	4.2	0.80	17	1.9	3.7
HA Dd 92	0	9.8	8.9	35	1.0	58	23	55
	--	12	9.9	34	1.5	55	20	63
HA Dd 106	0	5.2	2.5	7.6	1.1	--	11	2.5
HA De 181	0.9	8.2	4.9	20	1.4	47	43	7.4
HA De 183	0	1.1	0.57	3.2	0.50	5	7.7	5.2
HA De 182	2.8	4.3	3.1	16	1.8	19	11	16
HA De 195	7.5	11	7.3	9.7	3.4	7	14	26
HA De 197	0.1	2.8	0.87	2.6	0.90	16	7.3	1.8
HA De 198	7.7	12	7.2	8.3	3.1	--	22	14
HA Ec 46	1.2	15	4.5	23	4.9	106	5.9	6.6
HA Ed 47	7.1	1.8	0.73	2.9	0.80	4	1.1	3.8
HA Ed 48	8.2	3.6	1.9	5.6	0.70	2	3.5	9.3
HA Ed 49	0.4	37	26	15	4.0	3	210	21
	--	19	14	5.3	2.7	2	110	8.7

Geologic unit (aquifer): 112TLBT - Talbot Formation
217PTMC - Potomac Group
300LCRV - Loch Raven Schist

Sampling method: 4020 - Bailer
4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

HARFORD COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
HA Ca 23	0.10	21	--	61	4.60	<0.010	<10	<10	470
HA Dd 89	0.10	7.4	28	19	<0.100	<0.010	--	--	90
HA Dd 91	0.10	7.5	29	30	0.200	<0.010	--	--	140
HA Dd 92	0.20	34	209	208	0.100	0.160	--	--	6600
	0.30	33	--	214	<0.100	0.040	<10	<10	6300
HA Dd 106	0.10	9.4	47	61	--	--	--	--	7000
HA De 181	0.10	15	119	136	0.600	<0.010	--	--	7700
HA De 183	0.10	8.5	34	34	<0.100	<0.010	--	--	3300
HA De 182	0.10	17	92	81	2.70	<0.010	--	--	250
HA De 195	0.10	13	128	89	10.0	0.110	--	--	230
HA De 197	0.10	9.4	31	38	<0.100	0.120	--	--	3100
HA De 198	0.10	9.2	123	77	11.0	<0.010	--	--	--
HA Ec 46	0.30	15	126	142	0.100	<0.010	--	--	3300
HA Ed 47	0.10	7.7	31	22	1.80	<0.010	--	--	360
HA Ed 48	0.20	21	60	49	<0.100	0.010	--	--	2000
HA Ed 49	0.90	11	355	332	1.10	<0.010	--	--	80
	0.70	9.6	--	173	1.00	0.010	1500	10	90

	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	C-13 / C-12 STABLE ISOTOPE RATIO PER MIL	CARBON, ORGANIC TOTAL (MG/L AS C)	TRI-FLURA-LIN TOTAL RECOVER (UG/L)	ALA-CHLOR TOTAL RECOVER (UG/L)	AME-TRYNE TOTAL
HA Ca 23	210	50	48	20	--	0.9	--	--	--
HA Dd 89	58	20	24	--	--	<0.1	--	--	--
HA Dd 91	170	20	22	--	--	<0.1	--	--	--
HA Dd 92	6300	180	180	--	--	1.5	--	--	--
	7000	200	200	<10	--	--	<0.10	<0.10	<0.10
HA Dd 106	6800	110	120	--	--	--	--	--	--
HA De 181	8000	190	200	--	-21.50	<0.1	--	--	--
HA De 183	3500	30	40	--	-21.30	0.2	--	--	--
HA De 182	260	100	130	--	--	4.4	--	--	--
HA De 195	190	120	130	--	--	0.1	--	--	--
HA De 197	2600	70	72	--	--	0.8	--	--	--
HA De 198	23	--	60	--	--	1.3	--	--	--
HA Ec 46	2800	350	350	--	--	5.2	--	--	--
HA Ed 47	510	10	28	--	--	0.1	--	--	--
HA Ed 48	2400	50	80	--	--	8.0	--	--	--
HA Ed 49	22	4800	4900	--	--	2.1	--	--	--
	6	3100	2400	210	--	--	<0.10	<0.10	<0.10

	ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	PROME-TRYNE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
HA Ca 23	--	--	--	--	--	--	--	--	--
HA Dd 89	--	--	--	--	--	--	--	--	--
HA Dd 91	--	--	--	--	--	--	--	--	--
HA Dd 92	--	--	--	--	--	--	--	--	--
	<0.10	0.10	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1
HA Dd 106	--	--	--	--	--	--	--	--	--
HA De 181	--	--	--	--	--	--	--	--	--
HA De 183	--	--	--	--	--	--	--	--	--
HA De 182	--	--	--	--	--	--	--	--	--
HA De 195	--	--	--	--	--	--	--	--	--
HA De 197	--	--	--	--	--	--	--	--	--
HA De 198	--	--	--	--	--	--	--	--	--
HA Ec 46	--	--	--	--	--	--	--	--	--
HA Ed 47	--	--	--	--	--	--	--	--	--
HA Ed 48	--	--	--	--	--	--	--	--	--
HA Ed 49	--	--	--	--	--	--	--	--	--
	<0.10	0.10	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

HOWARD COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
HO Cd 20	10-08-87	1435	391440076555401	300WSCK	GW	4020	8.63	100.00	30	100
	11-19-87	1445		300WSCK	GW	4020	8.41	100.00	30	100
	09-15-88	1200		300WSCK	GW	4020	8.05	100.00	30	100
HO Cd 21	10-08-87	1320	391442076555301	300WSCK	GW	4020	16.17	100.00	55	100
	11-19-87	1340		300WSCK	GW	4020	16.01	100.00	55	100
	09-15-88	0930		300WSCK	GW	4020	15.53	100.00	55	100
HO Cd 25	11-19-87	1600	391444076554701	300WSCK	GW	4020	41.19	98.00	60	98
	09-14-88	1315		300WSCK	GW	4020	39.48	98.00	60	98
HO Cd 26	11-19-87	1145	391442076554701	300WSCK	GW	4020	47.24	150.00	106	150
	09-14-88	1140		300WSCK	GW	4020	45.30	150.00	106	150
HO Cd 28	10-08-87	1220	391447076554702	300WSCK	GW	4020	27.81	50.00	45	50
	11-19-87	1255		300WSCK	GW	4020	28.49	50.00	45	50
	03-17-88	1050		300WSCK	GW	4040	24.53	50.00	45	50
	04-13-88	1300		300WSCK	GW	4040	26.15	50.00	45	50
	06-09-88	1020		300WSCK	GW	4040	25.55	50.00	45	50
	07-06-88	0850		300WSCK	GW	4040	25.53	50.00	45	50
	08-23-88	1335		300WSCK	GW	4040	26.42	50.00	45	50
	09-14-88	0920		300WSCK	GW	4040	26.83	50.00	45	50
HO Cd 29	10-08-87	1050	391442076554702	300WSCK	GW	4020	44.65	69.00	64	69
	11-19-87	1045		300WSCK	GW	4020	45.39	69.00	64	69
	09-14-88	1010		300WSCK	GW	4040	43.49	69.00	64	69
HO Cd 78	12-01-87	0910	391440076555402	300WSCK	GW	4020	7.50	17.00	7.0	17
	12-01-87	1340		300WSCK	GW	4020	7.50	17.00	7.0	17
	12-02-87	0855		300WSCK	GW	4020	7.50	17.00	7.0	17
	12-02-87	1205		300WSCK	GW	4020	7.50	17.00	7.0	17
	12-03-87	1005		300WSCK	GW	4020	7.50	17.00	7.0	17
	12-03-87	1305		300WSCK	GW	4020	7.50	17.00	7.0	17
	01-20-88	1030		300WSCK	GW	4020	--	17.00	7.0	17
	01-20-88	1040		300WSCK	GW	4040	--	17.00	7.0	17
	01-20-88	1510		300WSCK	GW	4040	--	17.00	7.0	17
	01-21-88	0900		300WSCK	GW	4040	--	17.00	7.0	17
	01-21-88	1145		300WSCK	GW	4040	--	17.00	7.0	17
	01-21-88	1355		300WSCK	GW	4040	--	17.00	7.0	17
	03-17-88	1230		300WSCK	GW	4040	8.24	17.00	7.0	17
	04-13-88	1435		300WSCK	GW	4040	8.10	17.00	7.0	17
	06-09-88	1125		300WSCK	GW	4040	7.99	17.00	7.0	17
	07-06-88	1100		300WSCK	GW	4040	8.55	17.00	7.0	17
	07-06-88	1105		300WSCK	GW	4040	8.55	17.00	7.0	17
	08-23-88	1120		300WSCK	GW	4040	9.26	17.00	7.0	17
	09-14-88	1135		300WSCK	GW	4040	9.49	17.00	7.0	17
HO Cd 79	01-20-88	1325	391445076555101	300WSCK	GW	4040	--	53.00	43	53
	01-20-88	1645		300WSCK	GW	4040	--	53.00	43	53
	03-17-88	0940		300WSCK	GW	4040	25.56	53.00	43	53
	04-14-88	1220		300WSCK	GW	4040	25.89	53.00	43	53
	06-09-88	1240		300WSCK	GW	4040	25.28	53.00	43	53
	07-06-88	0945		300WSCK	GW	4040	25.21	53.00	43	53
	08-23-88	1430		300WSCK	GW	4040	26.09	53.00	43	53
	09-14-88	1550		300WSCK	GW	4040	26.69	53.00	43	53
HO Cd 80	12-01-87	1115	391439076555601	300WSCK	LYS	4030	--	2.00	0.0	2.0
	12-01-87	1450		300WSCK	LYS	4030	--	2.00	0.0	2.0
	12-02-87	0900		300WSCK	LYS	4030	--	2.00	0.0	2.0
	12-02-87	1200		300WSCK	LYS	4030	--	2.00	0.0	2.0
	12-03-87	1000		300WSCK	LYS	4030	--	2.00	0.0	2.0
	12-03-87	1300		300WSCK	LYS	4030	--	2.00	0.0	2.0
	03-17-88	1500		300WSCK	LYS	4030	--	2.00	0.0	2.0
	04-13-88	1645		300WSCK	LYS	4030	--	2.00	0.0	2.0
	06-09-88	1305		300WSCK	LYS	4030	--	2.00	0.0	2.0
	07-06-88	1200		300WSCK	LYS	4030	--	2.00	0.0	2.0
	08-23-88	1425		300WSCK	LYS	4030	--	2.00	0.0	2.0
	09-15-88	1330		300WSCK	LYS	4030	--	2.00	0.0	2.0

Geologic unit (aquifer): 300WSCK - Wissahickon Formation

Site type: GW - Ground Water
LYS - Lysimeter

Sampling method: 4020 - Bailer
4030 - Suction pump
4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

HOWARD COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
HO Cd 20	426	60	1.0	101	7.5	12.0	0.6	--	--	--
	426	60	1.0	112	--	12.0	0.4	--	--	--
	426	140	1.0	78	7.0	11.5	1.3	5.9	3.2	5.2
HO Cd 21	434	80	1.0	85	7.3	12.0	0.6	--	--	--
	434	60	1.0	72	--	12.0	0.7	--	--	--
	434	60	1.0	68	6.8	12.0	0.6	4.7	2.8	4.5
HO Cd 25	471	60	1.0	78	--	13.0	1.9	--	--	--
	471	100	1.0	57	6.8	--	--	3.8	2.2	4.4
HO Cd 26	470	60	1.0	109	--	13.0	1.2	--	--	--
	470	100	1.0	86	8.5	13.0	1.8	8.9	2.3	4.6
HO Cd 28	453	45	1.0	25	6.1	12.5	7.1	--	--	--
	453	50	1.0	25	--	12.5	4.7	--	--	--
	453	40	0.5	26	6.0	10.0	11.8	1.1	0.87	1.4
	453	50	0.5	24	5.9	12.0	5.0	--	--	--
	453	15	1.0	26	6.0	12.0	5.6	1.2	1.0	1.3
	453	20	1.0	24	5.9	12.0	4.6	--	--	--
	453	35	1.0	24	5.9	13.0	6.4	--	--	--
	453	15	1.0	26	5.6	14.0	2.7	1.8	1.0	1.3
HO Cd 29	470	70	1.0	27	6.2	13.0	1.5	--	--	--
	470	60	1.0	22	--	12.0	10.8	--	--	--
	470	25	1.0	21	5.5	12.5	10.2	0.97	0.60	1.2
HO Cd 78	422	0	--	271	7.0	13.5	0.8	--	--	--
	422	240	5.0	90	5.7	13.5	9.2	--	--	--
	422	0	--	84	5.6	13.0	9.3	--	--	--
	422	0	--	95	5.8	13.5	9.4	--	--	--
	422	0	--	81	5.6	13.0	9.5	--	--	--
	422	0	--	82	5.7	13.0	9.3	--	--	--
	422	0	--	82	5.6	--	--	--	--	--
	422	10	1.0	84	5.5	12.0	9.4	--	--	--
	422	10	1.0	87	5.5	11.5	9.4	--	--	--
	422	15	0.8	93	5.9	11.5	9.4	--	--	--
	422	30	0.4	94	5.6	11.5	9.4	--	--	--
	422	8	1.2	95	5.5	11.0	9.1	--	--	--
	422	20	0.5	83	5.6	10.0	9.2	4.1	3.2	3.5
	422	20	0.5	84	5.5	9.5	9.6	--	--	--
	422	10	1.0	84	5.5	10.0	9.4	4.4	3.5	3.3
	422	10	1.5	80	5.5	11.0	8.6	--	--	--
	422	10	1.5	80	5.5	11.0	8.6	--	--	--
	422	10	1.0	71	5.5	13.0	9.0	--	--	--
	422	10	1.0	74	5.4	13.0	10.9	4.2	3.4	3.5
HO Cd 79	449	45	0.6	42	5.8	12.0	7.7	--	--	--
	449	50	0.5	37	5.7	12.0	8.6	--	--	--
	449	60	0.5	36	5.9	12.5	8.4	2.1	1.2	1.9
	449	90	0.3	33	5.8	12.5	8.4	--	--	--
	449	50	0.7	33	5.7	13.0	8.6	1.9	1.2	1.6
	449	35	0.5	32	5.7	12.5	8.2	--	--	--
	449	25	1.0	31	5.7	12.5	8.5	--	--	--
	449	30	1.0	32	5.6	12.5	9.0	1.8	1.3	1.8
HO Cd 80	410	--	--	144	5.5	10.5	9.4	--	--	--
	410	--	--	129	5.7	10.0	9.3	--	--	--
	410	--	--	134	5.6	10.0	9.0	--	--	--
	410	--	--	146	5.5	10.0	8.8	--	--	--
	410	--	--	147	5.5	10.0	9.0	--	--	--
	410	--	--	147	5.5	9.5	8.9	--	--	--
	410	--	--	--	--	8.5	9.7	8.4	6.7	2.9
	410	--	--	140	5.6	10.0	10.3	--	--	--
	410	--	--	133	5.7	11.0	9.4	7.6	6.3	2.8
	410	--	--	124	5.5	12.0	9.2	--	--	--
	410	--	--	101	5.5	13.0	8.5	--	--	--
	410	--	--	112	5.5	13.5	7.6	7.6	6.5	2.8

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

HOWARD COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
HO Cd 20	--	42	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	2.6	37	<0.5	4.6	1.6	0.20	--	15	63	--
HO Cd 21	--	35	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	9.3	32	1.2	5.4	1.7	0.10	--	17	66	--
HO Cd 25	--	--	--	--	--	--	--	--	--	--
	4.1	22	0.6	5.5	1.1	0.20	--	20	56	--
HO Cd 26	--	--	--	--	--	--	--	--	--	--
	1.2	38	<0.5	7.4	1.1	0.20	--	3.7	56	--
HO Cd 28	--	6	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	1.3	8	--	0.70	1.3	0.10	<0.010	8.6	22	--
	--	6	--	--	--	--	--	--	--	--
	1.2	7	--	0.90	1.2	0.30	0.032	9.6	23	--
	--	8	--	--	--	--	--	--	--	--
	--	7	--	--	--	--	--	--	--	--
	7.8	8	<0.5	0.90	1.3	0.10	--	9.4	31	--
HO Cd 29	--	8	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	0.90	4	<0.5	0.60	1.3	<0.10	--	7.5	18	--
HO Cd 78	--	92	--	--	--	--	--	--	--	--
	--	12	--	--	--	--	--	--	--	--
	--	12	--	--	--	--	--	--	--	--
	--	13	--	--	--	--	--	--	--	--
	--	11	--	--	--	--	--	--	--	--
	--	10	--	--	--	--	--	--	--	--
	--	8	--	--	--	--	--	--	--	--
	--	7	--	--	--	--	--	--	--	--
	--	9	--	--	--	--	--	--	--	--
	--	9	--	--	--	--	--	--	--	--
	--	9	--	--	--	--	--	--	--	--
	--	9	--	--	--	--	--	--	--	--
	1.6	7	--	4.0	8.1	0.10	0.015	12	54	--
	--	4	--	--	--	--	--	--	--	--
	1.5	7	--	3.9	8.7	0.30	0.034	13	56	--
	--	7	--	--	--	--	--	--	--	--
	--	7	--	--	--	--	--	--	--	--
	--	9	--	--	--	--	--	--	--	--
	2.1	7	<0.5	3.6	8.4	<0.10	--	13	55	--
HO Cd 79	--	12	--	--	--	--	--	--	--	--
	--	10	--	--	--	--	--	--	--	--
	1.4	12	--	0.70	1.1	0.10	0.034	11	31	--
	--	9	--	--	--	--	--	--	--	--
	1.3	10	--	<0.20	1.0	0.20	0.025	11	--	--
	--	9	--	--	--	--	--	--	--	--
	--	8	--	--	--	--	--	--	--	--
	1.3	9	<0.5	<0.20	1.1	<0.10	--	10	--	0.880
HO Cd 80	--	7	--	--	--	--	--	--	--	--
	--	7	--	--	--	--	--	--	--	--
	--	7	--	--	--	--	--	--	--	--
	--	6	--	--	--	--	--	--	--	--
	--	6	--	--	--	--	--	--	--	--
	--	7	--	--	--	--	--	--	--	--
	1.5	--	--	7.5	11	0.10	0.020	8.9	87	--
	--	6	--	--	--	--	--	--	--	--
	1.7	5	--	7.8	9.8	0.20	0.036	9.4	80	--
	--	5	--	--	--	--	--	--	--	--
	--	7	--	--	--	--	--	--	--	5.79
	11	5	<0.5	7.7	10	<0.10	--	9.8	81	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

HOWARD COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
HO Cd 20	<0.010	<0.100	0.090	<0.20	--	--	--	--	--	--
	<0.010	<0.100	0.040	0.30	--	--	--	--	--	--
	<0.010	<0.100	0.100	0.30	<0.010	<0.010	<10	2400	170	2.3
HO Cd 21	<0.010	<0.100	0.010	<0.20	--	--	--	--	--	--
	<0.010	<0.100	0.040	0.20	--	--	--	--	--	--
	<0.010	<0.100	<0.010	0.20	<0.010	<0.010	<10	1600	150	2.7
HO Cd 25	<0.010	0.150	0.020	<0.20	--	--	--	--	--	--
	<0.010	0.370	<0.010	0.30	<0.010	<0.010	<10	260	98	3.3
HO Cd 26	<0.010	<0.100	0.020	0.20	--	--	--	--	--	--
	<0.010	<0.100	<0.010	0.30	<0.010	<0.010	<10	6	11	0.4
HO Cd 28	<0.010	0.480	0.010	<0.20	--	--	--	--	--	--
	<0.010	0.480	<0.010	<0.20	--	--	--	--	--	--
	<0.010	0.510	<0.010	<0.20	<0.010	--	<10	30	72	<0.1
	<0.010	0.540	<0.010	<0.20	--	--	--	--	--	--
	<0.010	0.570	<0.010	1.2	<0.010	--	<10	12	100	0.2
	<0.010	0.590	0.020	0.20	--	--	--	--	--	--
	<0.010	0.590	<0.010	0.30	--	--	--	--	--	--
	<0.010	0.510	<0.010	<0.20	0.030	<0.010	<10	9	43	1.2
HO Cd 29	<0.010	0.660	0.020	<0.20	--	--	--	--	--	--
	<0.010	0.660	<0.010	<0.20	--	--	--	--	--	--
	<0.010	0.630	<0.010	0.30	<0.010	<0.010	<10	6	5	1.0
HO Cd 78	<0.010	<0.100	0.030	0.40	--	--	--	--	--	--
	<0.010	2.60	0.020	<0.20	--	--	--	--	--	--
	<0.010	2.40	0.020	0.20	--	--	--	--	--	--
	<0.010	2.40	0.030	0.20	--	--	--	--	--	--
	<0.010	2.50	0.010	0.20	--	--	--	--	--	--
	<0.010	2.50	<0.010	0.20	--	--	--	--	--	--
	<0.010	2.80	<0.010	0.60	--	--	--	--	--	--
	<0.010	2.90	<0.010	0.20	--	--	--	--	--	--
	<0.010	3.00	<0.010	0.30	--	--	--	--	--	--
	<0.010	3.20	<0.010	0.30	--	--	--	--	--	--
	<0.010	3.20	<0.010	0.30	--	--	--	--	--	--
	<0.010	3.20	<0.010	0.30	--	--	--	--	--	--
	<0.010	2.90	<0.010	<0.20	<0.010	--	<10	4	3	<0.1
	<0.010	3.10	<0.010	0.20	--	--	--	--	--	--
	<0.010	3.00	<0.010	1.3	<0.010	--	10	<3	3	<0.1
	<0.010	3.00	0.010	0.30	--	--	--	--	--	--
	<0.010	3.00	<0.050	0.30	--	--	--	--	--	--
	<0.010	2.90	<0.010	0.50	--	--	--	--	--	--
	<0.010	2.80	<0.010	0.30	0.010	<0.010	<10	10	5	3.3
HO Cd 79	<0.010	0.850	<0.010	1.0	--	--	--	--	--	--
	<0.010	0.920	<0.010	<0.20	--	--	--	--	--	--
	<0.010	0.930	<0.010	<0.20	<0.010	--	<10	290	110	<0.1
	<0.010	1.00	0.010	<0.20	--	--	--	--	--	--
	<0.010	1.00	0.020	0.90	<0.010	--	<10	37	71	<0.1
	<0.010	1.20	0.020	0.30	--	--	--	--	--	--
	<0.010	1.20	<0.010	0.20	--	--	--	--	--	--
	0.020	0.900	<0.010	<0.20	<0.010	<0.010	<10	23	47	0.5
HO Cd 80	<0.010	6.80	0.030	0.60	--	--	--	--	--	--
	<0.010	4.90	0.020	0.30	--	--	--	--	--	--
	<0.010	6.60	0.020	0.50	--	--	--	--	--	--
	<0.010	6.80	0.020	0.40	--	--	--	--	--	--
	<0.010	7.80	<0.010	0.40	--	--	--	--	--	--
	<0.010	7.80	<0.010	0.30	--	--	--	--	--	--
	<0.010	8.00	0.030	<0.20	<0.010	--	10	11	86	33
	<0.010	8.60	0.010	0.20	--	--	--	--	--	--
	<0.010	7.10	0.020	1.3	<0.010	--	20	<3	22	2.9
	<0.010	7.60	0.020	0.50	--	--	--	--	--	--
	0.010	5.80	<0.010	0.50	--	--	--	--	--	--
	<0.010	5.20	<0.010	0.50	<0.010	<0.010	20	4	17	5.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

HOWARD COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SITE	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
HO Cd 81	03-17-88	1550	391439076555602	300WSCK	LYS	4030	--	2.00	0.0	2.0
	04-13-88	1535		300WSCK	LYS	4030	--	2.00	0.0	2.0
	06-09-88	1355		300WSCK	LYS	4030	--	2.00	0.0	2.0
	07-06-88	1205		300WSCK	LYS	4030	--	2.00	0.0	2.0
	08-23-88	1435		300WSCK	LYS	4030	--	2.00	0.0	2.0
	09-15-88	1100		300WSCK	LYS	4030	--	2.00	0.0	2.0
HO Cd 253	02-04-88	0900	391447076554703	300WSCK	LYS	4030	--	1.00	1.0	1.0
HO Cd 290	04-14-88	1325	391447076554704	300WSCK	LYS	4030	--	5.00	5.0	5.0
	06-13-88	1330		300WSCK	LYS	4030	--	5.00	5.0	5.0
	07-06-88	1405		300WSCK	LYS	4030	--	5.00	5.0	5.0
	08-23-88	1715		300WSCK	LYS	4030	--	5.00	5.0	5.0
	09-15-88	1445		300WSCK	LYS	4030	--	5.00	5.0	5.0
HO Cd 291	04-14-88	1410	391447076554705	300WSCK	LYS	4030	--	9.80	9.8	9.8
	06-13-88	1215		300WSCK	LYS	4030	--	9.80	9.8	9.8
	07-06-88	1325		300WSCK	LYS	4030	--	9.80	9.8	9.8
	08-23-88	1700		300WSCK	LYS	4030	--	9.80	9.8	9.8
	09-15-88	1415		300WSCK	LYS	4030	--	9.80	9.8	9.8
HO Cd 292	04-14-88	1445	391447076554706	300WSCK	LYS	4030	--	13.80	14	14
	06-13-88	1140		300WSCK	LYS	4030	--	13.80	14	14
	08-23-88	1630		300WSCK	LYS	4030	--	13.80	14	14
	09-15-88	1455		300WSCK	LYS	4030	--	13.80	14	14
HO Cd 341	08-23-88	1240	391447076554707	300WSCK	GW	4040	26.21	30.00	25	30
	09-14-88	1715		300WSCK	GW	4040	26.74	30.00	25	30
HO Cd 342	08-23-88	1000	391438076555001	300WSCK	GW	4040	21.88	25.00	20	25
	09-14-88	1445		300WSCK	GW	4040	22.32	25.00	20	25

	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
HO Cd 81	409	--	--	103	5.8	9.0	9.2	6.1	3.8	3.8
	409	--	--	99	5.8	10.0	9.7	--	--	--
	409	--	--	98	5.9	12.0	8.8	6.0	3.7	3.5
	409	--	--	92	5.8	13.0	8.1	--	--	--
	409	--	--	87	5.8	14.5	8.5	--	--	--
	409	--	--	86	5.9	14.0	8.1	6.0	3.9	3.6
HO Cd 253	453	--	--	--	--	--	--	--	--	--
HO Cd 290	453	--	--	391	7.3	--	--	--	--	--
	453	--	--	--	--	--	--	33	4.7	1.3
	453	--	--	--	--	--	--	--	--	--
	453	--	--	--	--	--	--	--	--	--
	453	--	--	--	--	--	--	--	--	--
HO Cd 291	453	--	--	299	7.1	--	--	--	--	--
	453	--	--	--	--	--	--	16	9.1	4.9
	453	--	--	--	--	--	--	--	--	--
	453	--	--	300	--	--	--	--	--	--
	453	--	--	--	--	--	--	--	--	--
HO Cd 292	453	--	--	91	--	--	--	--	--	--
	453	--	--	81	6.4	--	--	--	--	--
	453	--	--	--	--	--	--	--	--	--
	453	--	--	--	--	--	--	--	--	--
HO Cd 341	450	5	1.0	50	5.6	12.0	8.5	--	--	--
	450	5	1.0	46	5.6	12.5	10.5	2.6	1.7	2.6
HO Cd 342	433	5	1.0	59	6.0	11.0	8.9	--	--	--
	433	5	1.0	66	6.0	11.0	10.4	5.6	2.5	2.6

Geologic unit (aquifer): 300WSCK - Wissahickon Formation

Sampling method: 4030 - Suction pump
4040 - Submersible pump

Site type: GW - Ground Water
LYS - Lysimeter

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

HOWARD COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	BROMIDE DIS-SOLVED (MG/L AS BR)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
HO Cd 81	1.9	9	--	3.1	8.0	0.10	0.017	14	69	--
	--	8	--	--	--	--	--	--	--	--
	1.8	10	--	3.1	7.8	0.20	0.029	14	68	--
	--	8	--	--	--	--	--	--	--	--
	--	8	--	--	--	--	--	--	--	--
	1.0	8	<0.5	3.2	8.5	0.10	--	14	61	3.48
HO Cd 253	--	--	--	--	--	--	--	--	--	6.09
HO Cd 290	--	117	--	--	--	--	--	--	--	8.48
	5.2	--	--	20	12	0.20	0.35	26	180	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	8.78
HO Cd 291	--	80	--	--	--	--	--	--	--	--
	2.9	--	--	27	4.1	0.50	0.028	37	173	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	7.37
HO Cd 292	--	--	--	--	--	--	--	--	--	1.29
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	4.87
HO Cd 341	--	6	--	--	--	--	--	--	--	--
	1.3	9	<0.5	1.1	2.9	0.10	--	9.3	34	1.58
HO Cd 342	--	15	--	--	--	--	--	--	--	--
	7.9	15	<0.5	1.0	4.5	<0.10	--	14	59	--

LOCAL IDENT-I-FIER	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS DIS-SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC TOTAL (MG/L AS C)
HO Cd 81	<0.010	5.20	<0.010	<0.20	0.110	--	20	11	<1	1.2
	<0.010	5.30	<0.010	<0.20	--	--	--	--	--	--
	<0.010	4.90	<0.010	1.2	0.020	--	10	<3	2	1.1
	<0.010	4.60	<0.010	0.30	--	--	--	--	--	--
	<0.010	5.40	<0.010	0.20	--	--	--	--	--	--
	0.020	3.50	<0.010	0.30	0.020	<0.010	<10	13	2	0.9
HO Cd 253	0.010	6.10	<0.010	0.40	--	--	--	--	--	--
HO Cd 290	0.020	8.50	0.020	0.40	--	--	--	--	--	0.8
	<0.010	13.0	<0.010	0.40	<0.010	--	<10	9	18	0.9
	<0.010	10.0	<0.010	0.50	--	--	--	--	--	--
	<0.010	15.0	<0.010	0.90	--	--	--	--	--	--
	0.020	8.80	<0.010	0.90	--	--	--	--	--	--
HO Cd 291	<0.010	2.10	0.100	0.30	--	--	--	--	--	--
	<0.010	15.0	0.010	0.20	<0.010	--	30	16	560	0.7
	<0.010	13.0	<0.010	0.50	--	--	--	--	--	--
	<0.010	17.0	<0.010	0.70	--	--	--	--	--	--
	0.030	7.40	<0.010	0.50	--	--	--	--	--	--
HO Cd 292	0.010	1.30	0.150	0.30	--	--	--	--	--	--
	<0.010	2.30	<0.010	<0.20	--	--	--	--	--	--
	<0.010	6.70	0.010	1.0	--	--	--	--	--	--
	0.030	4.90	<0.010	0.50	--	--	--	--	--	--
HO Cd 341	<0.010	2.10	0.010	0.30	--	--	--	--	--	--
	0.020	1.60	<0.010	0.30	0.010	<0.010	20	5	60	2.5
HO Cd 342	<0.010	2.40	<0.010	0.30	--	--	--	--	--	--
	<0.010	2.70	<0.010	<0.20	0.020	<0.010	<10	9	5	0.8

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

HOWARD COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	DATE	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L)	TRI-FLURA-LIN TOTAL RECOVER (UG/L)	PCB, TOTAL (UG/L)	ALA-CHLOR TOTAL RECOVER (UG/L)	ALDRIN, TOTAL (UG/L)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, TOTAL (UG/L)
HO Cd 78	08-23-88	<0.10	<0.10	<0.1	<0.10	<0.010	<0.10	<0.10	<0.1
HO Cd 341	08-23-88	<0.10	<0.10	<0.1	<0.10	<0.010	<0.10	<0.10	0.1

	CYAN-AZINE TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)	ETHION, TOTAL (UG/L)
HO Cd 78	0.10	<0.010	<0.010	<0.010	<0.01	<0.010	<0.010	<0.010	<0.01
HO Cd 341	0.10	<0.010	<0.010	<0.010	<0.01	0.010	<0.010	<0.010	<0.01

	HEPTA-CHLOR, TOTAL (UG/L)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L)	LINDANE TOTAL (UG/L)	MALA-THION, TOTAL (UG/L)	METHO-MYL TOTAL (UG/L)	METH-OXY-CHLOR, TOTAL (UG/L)	METHYL PARA-THION, TOTAL (UG/L)	METHYL TRI-THION, TOTAL (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)
HO Cd 78	<0.010	<0.010	<0.010	<0.01	<0.5	<0.01	<0.01	<0.01	0.3
HO Cd 341	<0.010	<0.010	<0.010	<0.01	<0.5	<0.01	<0.01	<0.01	0.1

	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	MIREX, TOTAL (UG/L)	PARA-THION, TOTAL (UG/L)	PER-THANE TOTAL (UG/L)	PROME-TRYNE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	TOX-APHENE, TOTAL (UG/L)
HO Cd 78	<0.1	<0.01	<0.01	<0.1	<0.1	<0.1	<0.10	<0.5	<1
HO Cd 341	<0.1	<0.01	<0.01	<0.1	<0.1	<0.1	<0.10	<0.5	<1

	TOTAL TRI-THION (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SEVIN, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
HO Cd 78	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01	<0.10	<0.1
HO Cd 341	<0.01	<0.01	<0.01	<0.01	<0.50	<0.01	<0.10	<0.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

KENT COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)
KE Be 44	09-07-88	1500	391927076000301	112CLMB	4040	12.10	27.00	24
KE Be 46	07-18-88	1730	391832075560801	112CLMB	4040	--	50.00	40
KE Be 47	07-13-88	1000	391832075560802	112CLMB	4040	14.40	24.00	21

	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
KE Be 44	27	75.0	10	1.0	235	--	21.0	26.5	5.7
KE Be 46	50	64.0	15	4.0	127	4.6	14.5	30.0	10.0
KE Be 47	24	64.0	10	0.5	373	5.1	15.0	34.5	7.3

	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
KE Be 44	23	7.7	9.0	2.9	68	11	25	0.10	18
KE Be 46	9.6	2.7	5.1	2.7	2	<0.20	10	<0.10	13
KE Be 47	22	22	11	1.7	9	35	77	0.10	13

	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
KE Be 44	162	4.79	0.010	4.80	0.130	1.1	0.040	<10	<1
KE Be 46	--	--	<0.010	8.40	<0.010	1.4	<0.010	10	<1
KE Be 47	205	--	<0.010	3.70	<0.010	<0.20	<0.010	<10	<1

	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
KE Be 44	<1	100	<0.5	40	2	<5	30	<10	10000
KE Be 46	<1	52	<0.5	<10	<1	<5	<3	50	7
KE Be 47	<1	130	<0.5	<10	<1	<5	<3	50	4

	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)
KE Be 44	<10	<4	2200	<0.1	<10	<10	<1	<1.0
KE Be 46	20	<4	8	<0.1	<10	<10	<1	2.0
KE Be 47	<10	<4	84	<0.1	<10	<10	14	1.0

	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
KE Be 44	110	<6	28	--	--	<80	--	1.0
KE Be 46	48	<6	20	0.7	3.1	260	2.8	0.8
KE Be 47	250	<6	30	1.3	1.9	250	1.4	1.1

Geologic unit (aquifer): 112CLMB - Columbia Formation

Sampling method: 4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PRINCE GEORGES COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
PG Bc 16	12-09-87	1240	390151076561501	217PTXN	4020	24.62	27.00	27	27
	03-08-88	1205		217PTXN	4040	23.39	27.00	27	27
	05-17-88	1545		217PTXN	4040	23.26	27.00	27	27
	07-12-88	1430		217PTXN	4040	23.50	27.00	27	27

ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
190	120	1.7	600	5.4	15.0	12.0	--	21	10
190	130	1.3	409	5.5	12.0	11.0	--	17	6.6
190	115	1.4	500	5.3	--	22.5	--	24	9.2
190	165	1.5	601	5.3	14.0	27.5	6.9	25	9.2

SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
57	4.1	6	21	120	0.30	8.5	306	269	5.00
41	6.6	6	23	92	0.10	6.5	--	196	4.00
70	4.5	6	36	150	0.20	5.8	--	303	5.50
67	4.9	6	28	140	0.10	5.9	--	284	5.70

NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)
5.20	0.020	0.003	--	130	<1	<1	160	<0.5	30
--	--	--	60	--	--	--	--	--	--
--	<0.010	--	40	--	--	--	--	--	--
--	0.020	--	50	--	--	--	--	--	--

BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
--	<1	1	1	27	1100	220	<5	<4	90
40	--	--	--	--	<10	14	--	--	30
20	--	--	--	--	20	13	--	--	40
<10	--	--	--	--	<10	9	--	--	50

MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)	CARBON, ORGANIC TOTAL (MG/L AS C)	PCN DISSOLV (UG/L)
93	<1	4	<1	150	<1	--	40	--	<0.10
28	--	--	--	--	--	20	--	0.5	--
45	--	--	--	--	--	<10	--	0.7	--
40	--	--	--	--	--	10	--	0.6	--

Geologic unit (aquifer): 217PXTN - Patuxent Formation

Sampling method: 4020 - Bailer
4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

PRINCE GEORGES COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	BROMO-FORM TOTAL (UG/L)	BENZENE TOTAL (UG/L)	CARBON-TETRA-CHLO-RIDE TOTAL (UG/L)	CHLORO-BENZENE TOTAL (UG/L)	CHLORO-DI-BROMO-METHANE TOTAL (UG/L)	CHLORO-FORM TOTAL (UG/L)	CHLORO-ETHANE TOTAL (UG/L)	CIS 1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	DI-CHLORO-BROMO-METHANE TOTAL (UG/L)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (UG/L)
PG Bc 16	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

ETHYL-BENZENE TOTAL (UG/L)	METHYL-BROMIDE TOTAL (UG/L)	METHYL-CHLO-RIDE TOTAL (UG/L)	METHYL-ENE CHLO-RIDE TOTAL (UG/L)	STYRENE TOTAL (UG/L)	TETRA-CHLORO-ETHYL-ENE TOTAL (UG/L)	TRI-CHLORO-FLUORO-METHANE TOTAL (UG/L)	TOLUENE TOTAL (UG/L)	TRANS-1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	TRI-CHLORO-ETHYL-ENE TOTAL (UG/L)
<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

TRI-FLURA-LIN TOTAL RECOVER (UG/L)	VINYL CHLO-RIDE TOTAL (UG/L)	XYLENE TOTAL WATER WHOLE TOT REC (UG/L)	1,1-DI-CHLORO-ETHANE TOTAL (UG/L)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (UG/L)	1,1,1-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2-TRI-CHLORO-ETHANE TOTAL (UG/L)	1,1,2,2 TETRA-CHLORO-ETHANE TOTAL (UG/L)	1,2-DIBROMO ETHYL-ENE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)
<0.10	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0

1,2-DI-CHLORO-ETHANE TOTAL (UG/L)	1,2-DI-CHLORO-PROPANE TOTAL (UG/L)	1,2-TRANSDI CHLORO-ETHENE TOTAL (UG/L)	1,3-DI-CHLORO-PROPENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	2-CHLORO-ETHYL-VINYL-ETHER TOTAL (UG/L)	PCB, DIS-SOLVED (UG/L)	ALA-CHLOR TOTAL RECOVER (UG/L)
<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<0.1	<0.10

ALDRIN, DIS-SOLVED (UG/L)	AME-TRYNE TOTAL	ATRA-ZINE, TOTAL (UG/L)	CHLOR-DANE, DIS-SOLVED (UG/L)	CYAN-AZINE TOTAL (UG/L)	DDD, DIS-SOLVED (UG/L)	DDE, DIS-SOLVED (UG/L)	DDT, DIS-SOLVED (UG/L)	DI-AZINON, DIS-SOLVED (UG/L)
<0.01	<0.10	<0.10	0.8	<0.10	<0.01	0.03	0.05	<0.01

DI-ELDRIN DIS-SOLVED (UG/L)	ENDO-SULFAN DISSOLV (UG/L)	ENDRIN, DIS-SOLVED (UG/L)	ETHION DISSOLV (UG/L)	HEPTA-CHLOR, DIS-SOLVED (UG/L)	HEPTA-CHLOR EPOXIDE DIS-SOLVED (UG/L)	LINDANE DIS-SOLVED (UG/L)	MALA-THION, DIS-SOLVED (UG/L)	METH-OXY-CHLOR DISSOLV (UG/L)
0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

METHYL PARA-THION, DIS-SOLVED (UG/L)	METHYL-TRI-THION DISSOLV (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	MIREX, DIS-SOLVED (UG/L)	PARA-THION, DIS-SOLVED (UG/L)	PER-THANE DISSOLV (UG/L)	PROME-TRYNE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)
<0.01	<0.01	<0.1	<0.1	<0.01	<0.01	<0.10	<0.1	<0.1

PRO-PAZINE TOTAL (UG/L)	TOX-APHENE, DIS-SOLVED (UG/L)	TRI-THION DISSOLV (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
<0.10	<1.0	<0.01	<0.01	<0.01	<0.01	<0.01	0.20	<0.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

QUEEN ANNES COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)
QA Be 19	07-13-88	1500	391042076011701	112CLMB	4040	7.80	44.00	41
QA Be 20	07-13-88	1345	391042076011702	112CLMB	4040	7.80	22.00	19
QA Db 13	06-15-88	1050	390158076183701	112PLSC	4040	20.76	35.00	25
QA Db 14	06-15-88	1135	390055076184501	125AQUI	4040	15.56	165.00	145
QA Db 17	06-15-88	1200	390059076191801	125AQUI	4040	--	--	--
QA Db 19	06-15-88	0930	390211076183401	112PLSC	4040	--	55.00	--
QA Db 25	06-15-88	1020	390212076181501	112PLSC	4040	18.62	45.00	37
QA Db 27	06-15-88	1240	390117076191301	125AQUI	4040	--	110.00	--
QA Db 40	07-25-88	1045	390217076181401	112CLMB	4090	--	35.00	25
QA Df 54	07-12-88	1330	390126075575401	112CLMB	4040	--	42.00	36
QA Df 55	07-12-88	0930	390126075575402	112CLMB	4040	7.80	27.00	24
QA Ea 37	06-16-88	1200	385822076202501	125AQUI	4040	18.30	92.00	85
QA Ea 39	06-16-88	1230	385825076202901	125AQUI	4040	15.61	95.00	80
QA Ea 42	06-15-88	1630	385820076202501	125AQUI	4040	--	120.00	100
QA Ea 45	06-15-88	1505	385554076213801	125AQUI	4040	15.84	210.00	200
QA Ea 48	06-16-88	1330	385825076201201	125AQUI	4040	--	160.00	129
QA Ea 52	06-16-88	1100	385807076204401	125AQUI	4040	--	170.00	150
QA Ea 59	06-16-88	1015	385505076215001	125AQUI	4040	--	215.00	195
QA Ea 60	06-15-88	1550	385701076212501	125AQUI	4040	--	185.00	165
QA Ea 61	06-16-88	1130	385812076202801	125AQUI	4040	--	170.00	150
QA Eb 123	06-16-88	1400	385848076195801	125AQUI	4040	7.62	120.00	100
QA Eb 124	06-16-88	1450	385910076193501	125AQUI	4040	16.00	150.00	130
QA Fa 49	06-15-88	1415	385354076212701	125AQUI	4040	--	210.00	--
QA Fa 64	06-15-88	1445	385454076214901	125AQUI	4040	9.95	231.00	191

	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
QA Be 19	44	20.0	40	0.5	459	6.6	15.5	34.5	0.4
QA Be 20	22	20.0	20	0.7	192	4.0	14.5	34.5	5.1
QA Db 13	35	15.0	25	10	448	4.4	17.5	45.0	--
QA Db 14	165	15.0	25	10	442	7.4	17.0	45.0	--
QA Db 17	--	20.0	20	10	622	7.3	17.0	45.0	--
QA Db 19	--	23.0	25	10	1360	7.7	17.5	45.0	--
QA Db 25	45	19.0	20	10	1340	5.8	17.0	45.0	--
QA Db 27	--	15.0	25	10	1320	7.1	16.5	45.0	--
QA Db 40	35	17.0	15	6.3	506	4.2	14.5	31.0	0.6
QA Df 54	42	58.0	25	6.5	138	5.6	20.5	25.0	7.8
QA Df 55	27	58.0	30	0.5	173	5.3	19.5	23.0	7.1
QA Ea 37	92	17.0	20	10	300	7.6	17.0	45.0	--
QA Ea 39	95	15.0	20	10	377	7.6	16.0	45.0	--
QA Ea 42	120	18.0	20	10	438	7.6	16.5	45.0	--
QA Ea 45	210	15.0	20	10	343	7.6	16.5	45.0	--
QA Ea 48	160	5.0	20	10	980	7.5	16.0	45.0	--
QA Ea 52	170	19.0	20	10	813	7.5	17.0	45.0	--
QA Ea 59	215	10.0	20	10	619	8.0	17.5	45.0	--
QA Ea 60	185	7.0	20	10	960	7.5	16.5	45.0	--
QA Ea 61	170	18.0	20	10	1930	7.4	17.0	45.0	--
QA Eb 123	120	5.0	20	10	364	7.4	17.5	45.0	--
QA Eb 124	150	20.0	30	10	326	7.7	17.0	45.0	--
QA Fa 49	--	8.0	15	10	878	7.6	16.5	45.0	--
QA Fa 64	231	5.0	15	10	706	7.7	17.0	45.0	--

Geologic unit (aquifer): 112CLMB - Columbia Formation
112PLSC - Pleistocene Series
125AQUI - Aquia Formation

Sampling method: 4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

QUEEN ANNES COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
QA Be 19	76	9.1	3.5	1.9	180	11	12	<0.10	9.4
QA Be 20	2.4	10	2.8	4.9	<1	--	--	--	15
QA Db 13	--	--	--	--	--	--	50	--	--
QA Db 14	--	--	--	--	--	--	15	--	--
QA Db 17	--	--	--	--	--	--	71	--	--
QA Db 19	--	--	--	--	--	--	250	--	--
QA Db 25	--	--	--	--	--	--	380	--	--
QA Db 27	--	--	--	--	--	--	310	--	--
QA Db 40	4.6	7.1	77	1.1	--	42	110	<0.10	36
QA Df 54	10	4.9	12	1.4	21	0.50	13	0.10	20
QA Df 55	9.1	4.2	13	1.3	11	0.60	12	0.20	20
QA Ea 37	--	--	--	--	--	--	4.5	--	--
QA Ea 39	--	--	--	--	--	--	21	--	--
QA Ea 42	--	--	--	--	--	--	47	--	--
QA Ea 45	--	--	--	--	--	--	5.4	--	--
QA Ea 48	--	--	--	--	--	--	210	--	--
QA Ea 52	--	--	--	--	--	--	170	--	--
QA Ea 59	--	--	--	--	--	--	100	--	--
QA Ea 60	--	--	--	--	--	--	220	--	--
QA Ea 61	--	--	--	--	--	--	560	--	--
QA Eb 123	--	--	--	--	--	--	17	--	--
QA Eb 124	--	--	--	--	--	--	4.4	--	--
QA Fa 49	--	--	--	--	--	--	160	--	--
QA Fa 64	--	--	--	--	--	--	160	--	--

	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
QA Be 19	257	8.47	0.030	8.50	0.020	<0.20	<0.010	70	<1
QA Be 20	--	--	<0.010	12.0	<0.010	0.20	<0.010	1500	<1
QA Db 40	308	--	<0.010	6.30	<0.010	0.90	0.010	310	<1
QA Df 54	118	--	<0.010	9.80	<0.010	0.40	0.020	<10	<1
QA Df 55	112	--	<0.010	9.80	<0.010	<0.20	0.030	<10	<1

	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
QA Be 19	<1	170	<0.5	10	<1	<5	<3	50	360
QA Be 20	<1	490	3	<10	1	<5	10	90	15
QA Db 40	1	130	<0.5	170	<1	<5	10	80	260
QA Df 54	<1	110	<0.5	<10	<1	<5	<3	60	5
QA Df 55	<1	98	<0.5	<10	<1	<5	<3	40	<3

	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)
QA Be 19	<10	4	220	<0.1	<10	<10	<1	<1.0
QA Be 20	<10	<4	490	<0.1	<10	20	<1	<1.0
QA Db 40	<10	19	120	<0.1	<10	20	<1	<1.0
QA Df 54	<10	<4	5	<0.1	<10	<10	<1	<1.0
QA Df 55	<10	<4	34	<0.1	<10	<10	<1	<1.0

	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
QA Be 19	130	<6	36	5.8	4.4	830	3.3	1.1
QA Be 20	63	<6	160	2.1	6.8	250	5.8	0.6
QA Db 40	54	<6	86	--	--	500	--	1.7
QA Df 54	77	<6	17	0.6	1.8	560	1.5	0.8
QA Df 55	80	<6	18	0.6	1.6	530	1.4	1.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

ST. MARYS COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)
SM Ef 80	02-24-88	1200	381052076253001	112OMAR	4040	17.46	20.70	40.0	30

FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	TRI-FLURA-LIN TOTAL RECOVER (UG/L)	ALA-CHLOR TOTAL RECOVER (UG/L)	AME-TRYNE TOTAL
1.5	258	5.6	10.0	3.0	5	<0.10	<0.10	<0.10

ATRA-ZINE, TOTAL (UG/L)	CYAN-AZINE TOTAL (UG/L)	METOLA-CHLOR WATER WHOLE TOT.REC (UG/L)	METRI-BUZIN WATER WHOLE TOT.REC (UG/L)	PROME-TRYNE TOTAL (UG/L)	PROME-TONE TOTAL (UG/L)	PRO-PAZINE TOTAL (UG/L)	SIMA-ZINE TOTAL (UG/L)	SIME-TRYNE TOTAL (UG/L)
<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.10	<0.10	<0.1

Geologic unit (aquifer): 112OMAR - Omar Formation

Sampling method: 4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

SOMERSET COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)
SO Be 58	08-05-88	1200	381141075415601	112PCPC	4040	8.00	55.00	50
SO Be 59	08-05-88	0945	381141075415602	112CLMB	4040	8.30	20.00	17
SO De 30	08-10-88	1700	380027075410802	112CLMB	4040	8.60	43.00	40
SO De 31	08-10-88	1600	380027075410803	112CLMB	4040	8.80	12.00	9.0

LOCAL IDENT-I-FIER	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
SO Be 58	55	10.0	25	10	190	5.7	16.5	27.0	0
SO Be 59	20	10.0	24	0.7	1830	4.9	17.0	24.5	0.3
SO De 30	43	5.0	25	0.6	271	6.4	16.5	36.0	0.2
SO De 31	12	5.0	20	0.6	468	4.8	19.0	36.0	0.2

LOCAL IDENT-I-FIER	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
SO Be 58	5.9	2.7	17	1.6	26	25	26	<0.10	24
SO Be 59	51	27	260	7.4	6	74	510	<0.10	25
SO De 30	16	8.5	10	2.9	121	5.1	11	0.20	25
SO De 31	4.6	10	27	2.4	7	15	81	<0.10	21

LOCAL IDENT-I-FIER	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)
SO Be 58	118	--	0.020	<0.100	0.110	--	<0.010	<10	<1
SO Be 59	1020	13.0	0.020	13.0	0.450	--	<0.010	40	<1
SO De 30	153	--	<0.010	<0.100	0.340	0.50	<0.010	<10	<1
SO De 31	175	--	<0.010	<0.100	0.040	0.40	<0.010	40	<1

LOCAL IDENT-I-FIER	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
SO Be 58	1	45	<0.5	<10	2	<5	<3	<10	14000
SO Be 59	1	170	<0.5	<10	<1	<5	10	30	610
SO De 30	2	26	<0.5	30	2	<5	<3	<10	26000
SO De 31	2	93	<0.5	30	2	<5	<3	<10	13000

Geologic unit (aquifer): 112CLMB - Columbia Formation
112PCPC - Pleistocene-Pliocene series

Sampling method: 4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

SOMERSET COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)
SO Be 58	<10	4	180	<0.1	<10	<10	<1	<1.0
SO Be 59	<10	68	540	<0.1	<10	<10	1	1.0
SO De 30	<10	10	530	<0.1	<10	<10	<1	<1.0
SO De 31	<10	12	330	<0.1	<10	40	<1	<1.0

	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
SO Be 58	93	<6	180	0.9	2.7	<80	2.3	1.3
SO Be 59	780	<6	22	5.2	12	<80	7.6	1.5
SO De 30	110	<6	<3	1.7	3.9	<80	2.9	1.7
SO De 31	57	<6	12	4.7	5.3	<80	3.9	1.9

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

TALBOT COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
TA Be 83	07-20-88	1545	385023076012601	112CLMB	4090	--	37.00	30	37
TA Be 84	07-19-88	1645	385023076012602	112CLMB	4040	7.60	18.00	15	18

LOCAL IDENT-I-FIER	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
TA Be 83	68.0	15	4.6	259	5.0	13.5	34.0	5.5	8.7	3.1
TA Be 84	68.0	26	1.0	188	5.0	15.5	--	3.8	7.2	3.9

LOCAL IDENT-I-FIER	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
TA Be 83	33	1.6	7	<0.20	44	<0.10	27	--	--	<0.010
TA Be 84	21	1.2	7	2.1	24	<0.10	20	126	9.19	0.010

LOCAL IDENT-I-FIER	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)
TA Be 83	10.0	<0.010	1.0	0.010	<10	<1	<1	120	<0.5	<10
TA Be 84	9.20	<0.010	0.60	<0.010	10	1	<1	93	<0.5	<10

LOCAL IDENT-I-FIER	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)
TA Be 83	<1	<5	<3	40	9	<10	<4	9	<0.1
TA Be 84	<1	<5	5	<10	140	<10	<4	190	<0.1

LOCAL IDENT-I-FIER	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	RADON 222 TOTAL (PC/L)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
TA Be 83	<10	<10	<1	<1.0	140	<6	200	210	1.3
TA Be 84	<10	<10	<1	<1.0	140	<6	<3	200	1.6

Geologic unit (aquifer): 112CLMB - Columbia Formation

Sampling method: 4040 - Submersible pump
4090 - Jet pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

WICOMICO COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)
WI Cd 70	07-21-88	1400	382329075412001	112CLMB	4040	5.23	38.00	35	38
WI Cd 71	07-21-88	1200	382329075412002	112CLMB	4040	5.00	18.00	15	18
WI Ch 50	07-27-88	1430	382403075233201	112CLMB	4040	6.00	70.00	65	70
WI Ch 51	07-27-88	1000	382403075233202	112CLMB	4040	6.23	20.00	17	20

	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
WI Cd 70	35.0	16	1.0	57	7.8	15.5	37.0	0.7	1.9	0.52
WI Cd 71	35.0	10	1.2	48	4.7	15.0	38.0	1.8	1.5	1.2
WI Ch 50	44.0	10	4.8	67	5.6	17.0	31.5	0	<0.02	<0.01
WI Ch 51	44.0	10	1.0	47	5.4	15.0	31.5	0.8	1.2	0.30

	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
WI Cd 70	6.7	1.1	12	1.9	5.8	<0.10	20	48	<0.010	0.380
WI Cd 71	3.7	1.4	3	11	3.6	0.10	12	37	<0.010	<0.100
WI Ch 50	15	0.10	23	1.1	6.6	<0.10	31	--	<0.010	<0.100
WI Ch 51	12	2.0	7	2.3	7.8	<0.10	24	76	<0.010	4.50

	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)
WI Cd 70	<0.010	<0.20	0.010	<10	<1	<1	26	<0.5	<10	<1
WI Cd 71	0.020	<0.20	0.010	20	<1	<1	49	<0.5	<10	<1
WI Ch 50	<0.010	0.40	0.020	<10	3	1	<2	<0.5	<10	1
WI Ch 51	0.040	0.70	0.010	110	<1	<1	68	<0.5	<10	<1

	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)
WI Cd 70	<5	3	<10	57	<10	<4	58	<0.1	<10	<10
WI Cd 71	<5	<3	<10	5	<10	<4	9	<0.1	<10	<10
WI Ch 50	<5	<3	<10	<4	<10	<4	<1	<0.1	<10	<10
WI Ch 51	<5	6	<10	1000	<10	<4	15	<0.1	<10	<10

Geologic unit (aquifer): 112CLMB - Columbia Formation

Sampling method: 4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

WICOMICO COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
WI Cd 70	<1	<1.0	41	<6	<3	0.5	1.6	170	1.5	1.1
WI Cd 71	<1	<1.0	43	<6	<3	<0.4	2.0	180	1.9	1.9
WI Ch 50	<1	<1.0	<0	<6	<3	<0.4	<0.4	130	<0.4	2.0
WI Ch 51	<1	<1.0	26	<6	41	<0.4	2.3	260	2.1	2.0

	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	TRITIUM TOTAL (PCI/L)	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL
WI Bd 68	12-10-87	1100	382748075441201	112CLMB	98	100	1.1	-7.00
WI Bd 69	12-10-87	1115	382748075441202	112CLMB	58	60	0.2	-6.80
WI Bd 70	12-10-87	1130	382748075441203	112CLMB	33	35	23	-6.85

Geologic unit (aquifer): 112CLMB - Columbia Formation

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

WORCHESTER COUNTY, MARYLAND

LOCAL IDENT-I-FIER	DATE	TIME	STATION NUMBER	GEO-LOGIC UNIT	SAM-PLING METHOD, CODES	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT)
WO Ae 23	04-25-88	1035	382621075174201	122MNKN	4030	13.62	280.00	270
	09-09-88	1140		122MNKN	4030	15.75	280.00	270
WO Ae 24	04-25-88	1120	382621075174202	122OCNC	4030	10.90	200.00	190
	09-09-88	1125		122OCNC	4030	12.85	200.00	190
WO Ae 25	04-25-88	1150	382621075174203	122PCMK	4030	8.94	118.00	108
	09-09-88	1200		122PCMK	4030	10.52	118.00	108
WO Ah 34	09-07-88	1040	382632075031901	122MNKN	4040	--	450.00	350
WO Bg 15	04-27-88	1540	382359075094501	122MNKN	4030	-1.88	318.00	288
	09-08-88	1125		122MNKN	4030	2.41	318.00	288
WO Bg 45	09-08-88	1145	382358075094501	112CLMB	4030	9.98	77.00	56
WO Bg 46	04-27-88	1545	382358075094502	122PCMK	4030	1.53	194.00	164
	09-08-88	1100		122PCMK	4030	5.34	194.00	164
WO Bg 47	04-26-88	1425	382325075063301	122OCNC	4030	6.47	268.00	258
	09-08-88	1340		122OCNC	4030	11.66	268.00	258
WO Bg 48	04-26-88	1420	382325075063302	122MNKN	4030	6.60	420.00	410
	09-08-88	1340		122MNKN	4030	13.05	420.00	410
WO Bg 49	04-27-88	1350	382038075065901	122OCNC	4030	8.23	243.00	233
WO Bh 28	04-26-88	1135	382215075041802	122OCNC	4040	--	294.00	248
	09-07-88	1310		122OCNC	4040	--	278.00	248
WO Bh 34	04-27-88	1105	382443075033501	122MNKN	4030	4.24	353.00	337
	09-08-88	1500		122MNKN	4030	14.53	353.00	337
WO Bh 84	04-26-88	1225	382215075041901	112CLMB	4030	4.24	86.00	81
	09-07-88	1345		112CLMB	4030	5.31	86.00	81
WO Bh 85	04-26-88	1200	382215075041902	122PCMK	4030	4.30	195.00	190
	09-07-88	1400		122PCMK	4030	6.91	195.00	190
WO Cc 02	07-26-88	1730	381543075273801	112CLMB	4040	3.10	55.00	52
WO Cc 03	07-26-88	1630	381543075273802	112CLMB	4040	5.30	21.00	18
WO Cg 32	04-26-88	1030	381941075052201	122OCNC	4040	--	280.00	245
	09-07-88	1205		122OCNC	4040	--	280.00	245
WO Cg 75	04-26-88	1010	381939075052102	122MNKN	4040	--	427.00	367
	09-07-88	1145		122MNKN	4040	--	427.00	367
WO Cg 76	07-26-88	1230	381754075083601	112CLMB	4040	--	90.00	70
WO Cg 77	07-26-88	1100	381754075083602	112CLMB	4040	5.60	33.00	30
WO Cg 78	07-26-88	1000	381754075083603	112CLMB	4040	4.50	13.00	10
WO Dg 21	04-25-88	1420	381427075081102	122MNKN	4030	0.84	310.00	300
	09-07-88	1545		122MNKN	4030	3.58	310.00	300
WO Fc 46	08-11-88	1230	380403075292901	112CLMB	4040	5.00	43.00	40
WO Fc 47	08-11-88	1100	380403075292902	112CLMB	4040	5.20	18.00	15

Geologic unit (aquifer): 112CLMB - Columbia Formation
122MNKN - Manokin Aquifer
122OCNC - Ocean City Aquifer
122PCMK - Pocomoke Aquifer

Sampling method: 4030 - Suction pump
4040 - Submersible pump

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

WORCHESTER COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN)	FLOW RATE, INSTAN-TANEOUS (G/M)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (DEG C)	OXYGEN, DIS-SOLVED (MG/L)
WO Ae 23	280	40.0	45	40	136	5.3	14.0	--	--
	280	40.0	62	30	140	6.8	14.5	--	--
WO Ae 24	200	40.0	35	38	450	6.3	14.0	--	--
	200	40.0	43	30	467	7.2	14.5	--	--
WO Ae 25	118	40.0	20	48	475	6.6	13.5	--	--
	118	40.0	30	60	489	7.1	14.5	--	--
WO Ah 34	450	5.0	--	--	492	5.2	17.0	--	--
WO Bg 15	318	7.0	50	60	283	6.7	15.0	--	--
	318	7.0	70	50	276	7.00	15.5	--	--
WO Bg 45	77	10.0	35	50	74	6.50	14.0	--	--
WO Bg 46	194	10.0	45	40	290	6.9	14.0	--	--
	194	10.0	40	50	270	7.2	14.5	--	--
WO Bg 47	268	5.0	50	30	380	--	15.5	--	--
	268	5.0	55	25	359	6.7	16.5	--	--
WO Bg 48	420	5.0	60	48	440	--	16.5	--	--
	420	5.0	60	40	421	6.6	17.0	--	--
WO Bg 49	243	10.0	50	20	428	7.7	15.0	--	--
WO Bh 28	294	5.0	--	--	770	6.5	16.0	--	--
	294	5.0	--	--	827	7.6	17.0	--	--
WO Bh 34	353	4.0	30	48	230	6.7	16.0	--	--
	353	4.0	30	40	225	--	16.5	--	--
WO Bh 84	86	5.0	40	48	370	6.0	15.5	--	--
	86	5.0	60	50	356	7.0	16.0	--	--
WO Bh 85	195	5.0	45	19	418	6.0	15.5	--	--
	195	5.0	75	5.0	401	6.5	17.5	--	--
WO Cc 02	55	30.0	15	0.6	115	6.2	14.5	26.0	0
WO Cc 03	21	30.0	20	0.9	53	5.5	14.5	26.0	0.1
WO Cg 32	280	4.0	--	--	450	5.6	15.5	--	--
	280	4.0	--	--	425	7.1	16.5	--	--
WO Cg 75	427	5.0	20	--	450	5.6	16.0	--	--
	427	5.0	20	--	433	7.3	17.5	--	--
WO Cg 76	90	12.0	20	3.8	217	7.1	16.5	31.0	0
WO Cg 77	33	12.0	25	0.8	243	6.4	15.5	26.5	0
WO Cg 78	13	12.0	10	0.9	105	4.7	16.5	26.5	0.3
WO Dg 21	310	6.0	50	20	500	6.9	16.0	--	--
	310	6.0	60	10	481	7.3	16.5	--	--
WO Fc 46	43	33.0	45	0.4	136	5.7	16.0	32.0	0.2
WO Fc 47	18	33.0	15	0.6	95	4.7	17.0	32.0	0.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

WORCHESTER COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY WAT WH TOT FET FIELD MG/L AS CACO3	ALKA-LINITY WAT WH TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
WO Ae 23	--	--	--	--	85	--	--	8.5	--
	9.3	3.9	9.7	2.6	15	--	9.6	6.7	0.10
WO Ae 24	--	--	--	--	250	--	--	12	--
	80	3.3	7.8	1.2	240	--	3.1	9.3	0.10
WO Ae 25	--	--	--	--	270	--	--	12	--
	87	2.5	8.7	0.60	247	--	3.4	11	0.10
WO Ah 34	22	5.9	59	4.0	--	--	3.8	90	0.10
WO Bg 15	--	--	--	--	113	--	--	27	--
	17	5.0	20	2.7	103	--	16	24	0.10
WO Bg 45	2.6	0.86	9.7	1.4	20	--	1.1	12	<0.10
WO Bg 46	--	--	--	--	147	--	--	10	--
	16	7.5	13	5.3	142	--	0.80	9.9	0.10
WO Bg 47	--	--	--	--	--	--	--	49	--
	13	6.6	47	4.5	100	--	11	45	0.10
WO Bg 48	--	--	--	--	--	--	--	67	--
	16	8.7	48	6.7	90	--	1.8	67	0.10
WO Bg 49	31	9.8	42	9.5	202	--	1.9	15	0.20
WO Bh 28	--	--	--	--	137	--	--	170	--
	18	17	120	11	--	--	1.4	180	0.20
WO Bh 34	--	--	--	--	97	--	--	15	--
	15	6.2	12	4.4	--	--	3.6	14	0.10
WO Bh 84	--	--	--	--	118	--	--	40	--
	17	11	32	9.1	--	--	9.5	38	0.10
WO Bh 85	--	--	--	--	145	--	--	48	--
	15	15	40	9.0	--	--	4.6	45	0.10
WO Cc 02	3.6	0.91	9.4	1.0	--	48	1.0	8.7	<0.10
WO Cc 03	1.3	0.64	6.3	0.90	--	14	4.8	6.5	<0.10
WO Cg 32	--	--	--	--	175	--	--	40	--
	33	12	36	8.8	--	--	0.90	34	0.20
WO Cg 75	--	--	--	--	176	--	--	38	--
	34	12	38	8.8	--	--	0.70	34	0.20
WO Cg 76	25	5.4	12	1.0	--	102	6.6	10	0.10
WO Cg 77	19	6.4	13	1.8	--	44	40	17	<0.10
WO Cg 78	4.9	2.2	8.7	0.80	--	7	18	14	<0.10
WO Dg 21	--	--	--	--	237	--	--	26	--
	38	14	49	8.9	--	--	0.60	25	0.10
WO Fc 46	9.8	2.4	8.9	1.2	--	42	12	13	0.10
WO Fc 47	4.9	1.9	6.8	1.7	--	5	20	9.1	<0.10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

WORCHESTER COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHOROUS ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)
WO Ae 23	--	--	--	--	--	--	--	--	--
	28	94	85	--	<0.100	--	--	0.090	--
WO Ae 24	--	--	--	--	--	--	--	--	--
	30	299	293	--	<0.100	--	--	0.060	--
WO Ae 25	--	--	--	--	--	--	--	--	--
	35	325	311	--	<0.100	--	--	0.050	--
WO Ah 34	35	280	283	--	<0.100	--	--	0.090	--
WO Bg 15	--	--	--	--	--	--	--	--	--
	36	163	193	--	<0.100	--	--	0.230	--
WO Bg 45	19	47	59	--	<0.100	--	--	<0.010	--
WO Bg 46	--	--	--	--	--	--	--	--	--
	30	159	191	--	<0.100	--	--	0.050	--
WO Bg 47	--	--	--	--	--	--	--	--	--
	35	216	231	--	<0.100	--	--	0.370	--
WO Bg 48	--	--	--	--	--	--	--	--	--
	37	248	245	--	<0.100	--	--	0.210	--
WO Bg 49	24	245	256	--	<0.100	--	--	0.180	--
WO Bh 28	--	--	--	--	--	--	--	--	--
	34	449	463	--	<0.100	--	--	0.050	--
WO Bh 34	--	--	--	--	--	--	--	--	--
	35	149	146	--	<0.100	--	--	0.030	--
WO Bh 84	--	--	--	--	--	--	--	--	--
	36	210	227	--	<0.100	--	--	0.200	--
WO Bh 85	--	--	--	--	--	--	--	--	--
	33	235	246	--	<0.100	--	--	0.230	--
WO Cc 02	36	--	86	<0.010	<0.100	0.030	<0.20	<0.010	10
WO Cc 03	23	--	51	<0.010	<0.100	0.170	<0.20	0.100	<10
WO Cg 32	--	--	--	--	--	--	--	--	--
	27	254	257	--	<0.100	--	--	0.290	--
WO Cg 75	--	--	--	--	--	--	--	--	--
	25	251	259	--	<0.100	--	--	0.200	--
WO Cg 76	40	--	160	<0.010	<0.100	0.430	0.80	0.060	<10
WO Cg 77	24	--	148	<0.010	<0.100	0.040	0.50	<0.010	<10
WO Cg 78	11	--	65	<0.010	0.140	0.080	0.60	<0.010	70
WO Dg 21	--	--	--	--	--	--	--	--	--
	20	282	289	--	<0.100	--	--	0.170	--
WO Fc 46	48	--	122	<0.010	<0.100	0.440	0.60	0.080	<10
WO Fc 47	10	--	58	<0.010	<0.100	0.030	0.40	<0.010	20

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

WORCHESTER COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)
WO Ae 23	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Ae 24	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Ae 25	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Ah 34	--	--	--	--	--	--	--	--	--
WO Bg 15	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Bg 45	--	--	--	--	--	--	--	--	--
WO Bg 46	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Bg 47	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Bg 48	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Bg 49	--	--	--	--	--	--	--	--	--
WO Bh 28	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Bh 34	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Bh 84	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Bh 85	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Cc 02	<1	<1	42	<0.5	<10	2	<5	<3	<10
WO Cc 03	<1	<1	37	<0.5	<10	<1	<5	<3	<10
WO Cg 32	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Cg 75	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Cg 76	<1	<1	8	<0.5	20	<1	<5	<3	<10
WO Cg 77	<1	<1	13	<0.5	10	<1	<5	<3	<10
WO Cg 78	<1	<1	42	<0.5	10	<1	<5	<3	<10
WO Dg 21	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
WO Fc 46	<1	<1	9	<0.5	20	<1	<5	<3	<10
WO Fc 47	<1	<1	32	<0.5	20	<1	<5	<3	<10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

WORCHESTER COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)
WO Ae 23	--	--	--	--	--	--	--	--	--
	5500	--	--	110	--	--	--	--	--
WO Ae 24	--	--	--	--	--	--	--	--	--
	14000	--	--	89	--	--	--	--	--
WO Ae 25	--	--	--	--	--	--	--	--	--
	14000	--	--	130	--	--	--	--	--
WO Ah 34	12000	--	--	130	--	--	--	--	--
WO Bg 15	--	--	--	--	--	--	--	--	--
	9200	--	--	130	--	--	--	--	--
WO Bg 45	49	--	--	2	--	--	--	--	--
WO Bg 46	--	--	--	--	--	--	--	--	--
	23000	--	--	310	--	--	--	--	--
WO Bg 47	--	--	--	--	--	--	--	--	--
	7300	--	--	92	--	--	--	--	--
WO Bg 48	--	--	--	--	--	--	--	--	--
	4800	--	--	100	--	--	--	--	--
WO Bg 49	1400	--	--	23	--	--	--	--	--
WO Bh 28	--	--	--	--	--	--	--	--	--
	6800	--	--	130	--	--	--	--	--
WO Bh 34	--	--	--	--	--	--	--	--	--
	13000	--	--	110	--	--	--	--	--
WO Bh 84	--	--	--	--	--	--	--	--	--
	6100	--	--	80	--	--	--	--	--
WO Bh 85	--	--	--	--	--	--	--	--	--
	4500	--	--	92	--	--	--	--	--
WO Cc 02	13000	<10	5	61	<0.1	<10	<10	<1	<1.0
WO Cc 03	1600	<10	<4	150	<0.1	<10	<10	<1	<1.0
WO Cg 32	--	--	--	--	--	--	--	--	--
	2400	--	--	94	--	--	--	--	--
WO Cg 75	--	--	--	--	--	--	--	--	--
	1600	--	--	70	--	--	--	--	--
WO Cg 76	2500	<10	7	240	<0.1	<10	<10	<1	<1.0
WO Cg 77	6200	<10	5	210	<0.1	<10	<10	<1	1.0
WO Cg 78	890	<10	<4	28	<0.1	<10	<10	<1	<1.0
WO Dg 21	--	--	--	--	--	--	--	--	--
	290	--	--	48	--	--	--	--	--
WO Fc 46	5300	10	12	140	<0.1	<10	<10	<1	<1.0
WO Fc 47	1100	<10	<4	34	<0.1	<10	<10	<1	<1.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

WORCHESTER COUNTY, MARYLAND--Continued

LOCAL IDENT-I-FIER	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	RADON 222 TOTAL (PC/L)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
WO Ae 23	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Ae 24	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Ae 25	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Ah 34	--	--	--	--	--	--	--	--
WO Bg 15	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Bg 45	--	--	--	--	--	--	--	--
WO Bg 46	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Bg 47	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Bg 48	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Bg 49	--	--	--	--	--	--	--	--
WO Bh 28	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Bh 34	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Bh 84	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Bh 85	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Cc 02	61	<6	<3	<0.4	1.2	<80	1.1	1.1
WO Cc 03	30	<6	3	<0.4	1.1	250	1.0	2.7
WO Cg 32	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Cg 75	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Cg 76	130	<6	170	<0.4	0.8	100	0.6	1.3
WO Cg 77	110	<6	<3	0.4	2.6	<80	2.1	1.3
WO Cg 78	53	<6	<3	<0.4	1.6	170	1.4	1.4
WO Dg 21	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
WO Fc 46	77	<6	4	<0.4	1.5	<80	1.2	3.9
WO Fc 47	60	<6	<3	0.9	2.2	94	2.0	1.8

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CALENDAR FOR WATER YEAR 1988

1987

OCTOBER

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

NOVEMBER

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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

DECEMBER

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6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

1988

JANUARY

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

FEBRUARY

S	M	T	W	T	F	S
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7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

MARCH

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

APRIL

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

MAY

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

JUNE

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

JULY

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

AUGUST

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

SEPTEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
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