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**BASIC HYDROLOGIC DATA FOR  
COASTAL SUSSEX COUNTY, DELAWARE**

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AND  
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**NEWARK, DELAWARE**  
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Delaware Geological Survey

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## BASIC HYDROLOGIC DATA FOR COASTAL SUSSEX COUNTY, DELAWARE

### INTRODUCTION

#### Purpose and Scope

This report presents hydrologic data for coastal Sussex County, Delaware, an environmentally sensitive area which includes the Inland Bays. The area is undergoing rapid economic and population growth that is expected to continue for the foreseeable future. Ground water is used for all domestic and public water supplies and practically all industrial and agricultural water supplies in the study area. Thus, demand for ground-water resources will continue to grow.

Ground water in this area has historically been of generally good quality and large quantities have been available at low cost. In addition to providing water to individual wells for consumption, natural discharge of ground water provides base flow (fair weather) to streams, rivers, and bays that supports fish, wildlife, and recreation.

During the past ten years, incidents of ground- and surface-water contamination resulting from man's activities have been both occurring and being detected with greater frequency. Many of the problems develop in urbanized areas where both the present demand for ground water is large and most future growth is expected to occur. Other problems occur in rural areas where agricultural activities are prevalent.

The Delaware Geological Survey has initiated a program of detailed hydrologic mapping in coastal Sussex County. One objective of this program is to compile basic hydrologic data for use by regulatory and health officials, municipal officials, planners, consultants, and others who are involved in investigating, developing, and regulating ground- and surface-water resources.

Most of the data contained in this report were compiled from reports published by the Delaware Geological Survey (DGS) since 1951 and from unpublished data contained in the DGS files. Additional data were obtained from the U. S. Geological Survey (USGS) through joint-funded programs with the DGS. Recent water-level and water-quality data were obtained as part of the hydrologic mapping project as well as from two projects being conducted by the DGS and USGS for the Delaware Department of Natural Resources and Environmental Control (DNREC) (Coastal Aquifer Salinity Project and Inland Bays Low Flow Project).

## Location and Geologic Setting

The area of investigation is shown in Figure 1. The area is bounded on the north by Primehook Beach, on the south by the Delaware-Maryland boundary, on the east by the Atlantic Ocean, and on the west by a line running from Primehook Beach to Selbyville. The area of investigation encompasses parts of the Lewes, Cape Henlopen, Fairmount, Rehoboth Beach, Frankford, Bethany Beach, Selbyville, and Assawoman Bay 7.5-minute topographic quadrangle maps.

Physiographically the land area is fairly flat with only slight relief (sea level to 45 ft.), and is underlain by unconsolidated to semi-consolidated sands, gravels, silts, and clays. The lithologies and water-bearing characteristics of materials penetrated by water wells are presented in Table 1.

## DGS Well Numbering System

DGS well numbers are assigned to individual wells in this manner: the State is divided into 5-minute quadrangles of latitude and longitude. The quadrangles are lettered north to south with upper case letters, and from west to east with lower case letters. Each 5-minute quadrangle is further subdivided into 25 1-minute blocks that are numbered from north to south in series of 10 from 10 to 50, and from west to east in units from 1 to 5 (Figure 2). Wells within these 1-minute blocks are assigned numbers sequentially as they are scheduled. The identity of a well is established by prefixing the serial 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 Qh43-02 is the second well to be scheduled in the 1-minute block that has coordinates "Qh43."

## Acknowledgments

The authors wish to express appreciation to the staff of the Water Resources Division of the U. S. Geological Survey, especially Messrs. Robert H. Simmons and Daniel Phelan; the Division of Water Resources, DNREC; and the Division of Public Health, Department of Health and Social Services. Thanks are also due to all municipalities, mobile home parks, and industries that provided information either directly or in cooperation with the DGS, USGS, and DNREC. We also appreciate the cooperation of several private citizens who permitted access to their wells. Technical assistance in preparing computer-generated reports was provided by Edward C. Ratledge, College of Urban Affairs and Public Policy, University of Delaware.

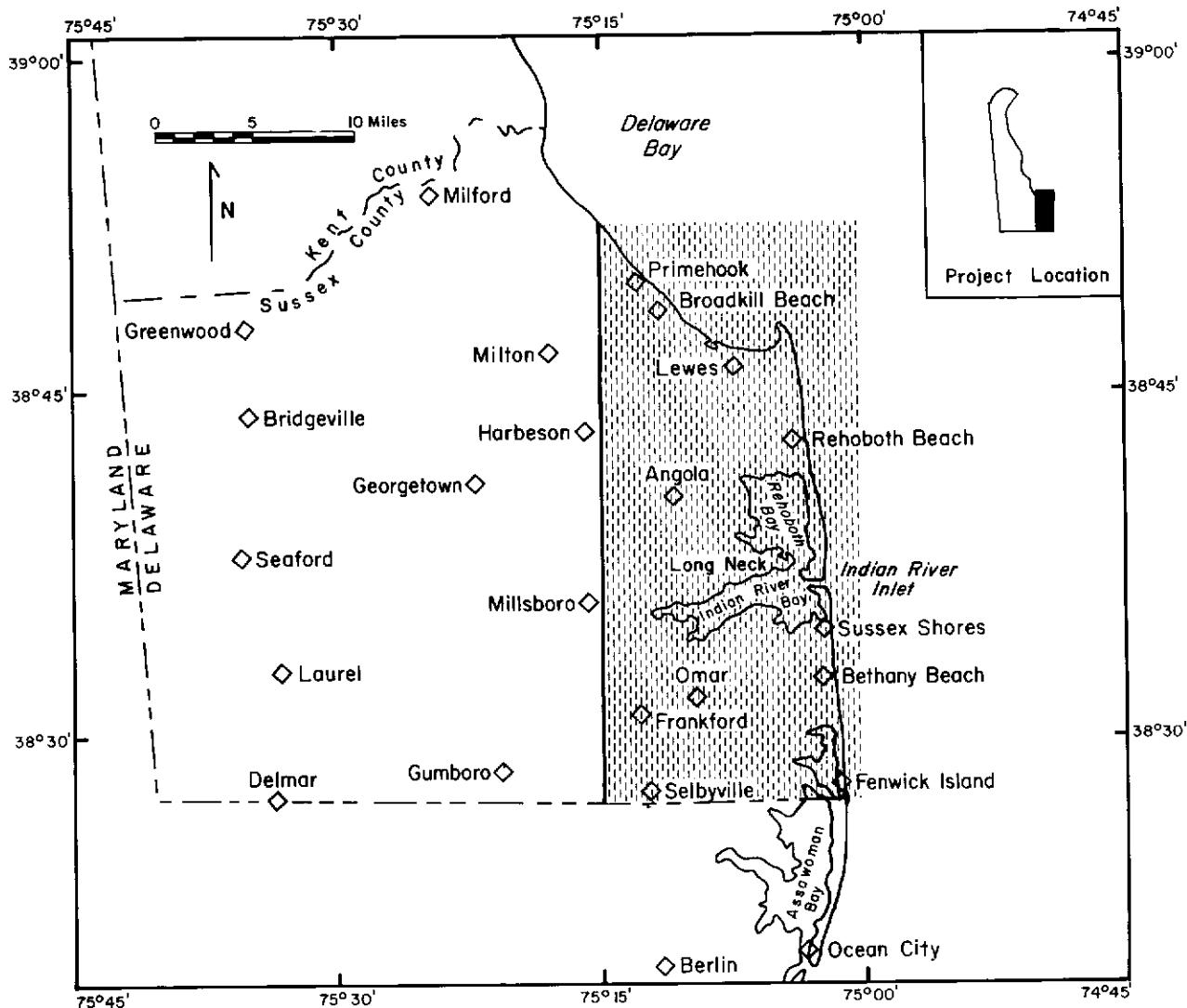


Figure 1. Location of area of investigation.

System	Series	Geologic unit	Descriptions of materials constituting deposits in coastal Sussex County	Water-bearing characteristics of the deposits	
Quaternary	Holocene		Sand and gravel, tan, yellow, and white; silt and clay, gray with organic matter. The unit occurs adjacent to tidal waters at or near land surface and may be up to 150 feet thick in buried stream channels.	Coarse-grained sections capable of yielding enough water for domestic use. However, because unit is restricted to coastal areas, water is usually brackish or salty.	
	Pleistocene	Columbia Group	<p>Omar Formation</p> <p>Sand, fine to medium, and silt, gray to dark gray. Sands and silts are interbedded with individual beds ranging in thickness from a few inches to 10 feet. Silts usually contain organic matter and are fossiliferous. Formation occurs throughout the southernmost portion of coastal Delaware and is approximately 45 feet thick.</p> <p>Beaverdam Formation</p> <p>Sand, medium to coarse, tan, yellow, white, reddish-brown, and gray, with variable amounts of gravel. Formation ranges from 60 to 120 feet thick.</p>	<p>Includes the Columbia aquifer. Yields moderate to large quantities of water to wells and is the source of water to most domestic wells and to public and irrigation wells in inland areas. Water-table conditions usually prevail. Highly susceptible to contamination from surface and near surface sources. Iron may be a problem locally. Generally salty along the coast and Inland Bays.</p>	
Tertiary	Miocene	Chesapeake Group	Bethany formation	<p>Sand, fine to coarse, white, tan, gray to bluish-gray with variable amounts of silt and clay, gray, bluish-gray, and olive-gray, fine gravel, and shell material. Interbedded layers of clay and silt tend to be more continuous than those in the overlying Columbia Group and underlying Manokin formation. The top of the unit occurs between 80 and 175 feet below land surface and is 0 to 200 feet thick.</p>	<p>Includes the Pocomoke aquifer. Yields small to moderate quantities of water to small domestic wells and moderate to large quantities of water to public supply wells. Water generally occurs under confined conditions. Water-table conditions prevail where hydraulically connected to overlying Columbia aquifer. Rated good to excellent in water-bearing characteristics. Largely undeveloped in inland areas. Iron and hydrogen sulfide may pose problems. Locally salty along coast.</p>
			Manokin formation	<p>Sand, fine to coarse, gray to olive-gray with variable amounts of silt and clay, gray, bluish-gray, and olive-gray, fine gravel, and shell beds. Generally becomes finer grained near the base. The top of the unit occurs between 150 and 350 feet below land surface and is about 200 feet thick.</p>	<p>Includes the Manokin aquifer. Yields moderate to large quantities of water to most wells. Is the primary aquifer used for public supply purposes along the coast south of Indian River. Water occurs under artesian conditions. Forms the base of the fresh-water aquifer system. Rated good to excellent in water-bearing characteristics. Largely undeveloped in inland areas. Iron and hydrogen sulfide may pose problems. Locally salty along the coast, especially near the base.</p>
			St. Marys Formation	Silt and clay, gray, bluish-gray, and olive-gray, with shell bed sand beds of sand, fine to medium, silty, gray and bluish-gray.	Functions as a confining unit and along with the bottom of the Manokin formation forms the base of the fresh-water aquifer system.
			Choptank Formation	Water wells normally do not penetrate these deposits in coastal Sussex County. Older units thousands of feet thick lie beneath the Calvert Formation. Ground water at such depths is mineralized and not useful for water supply.	
			Calvert Formation		

Table 1. Lithology and water-bearing characteristics of deposits penetrated by water wells in coastal Sussex County, Delaware.

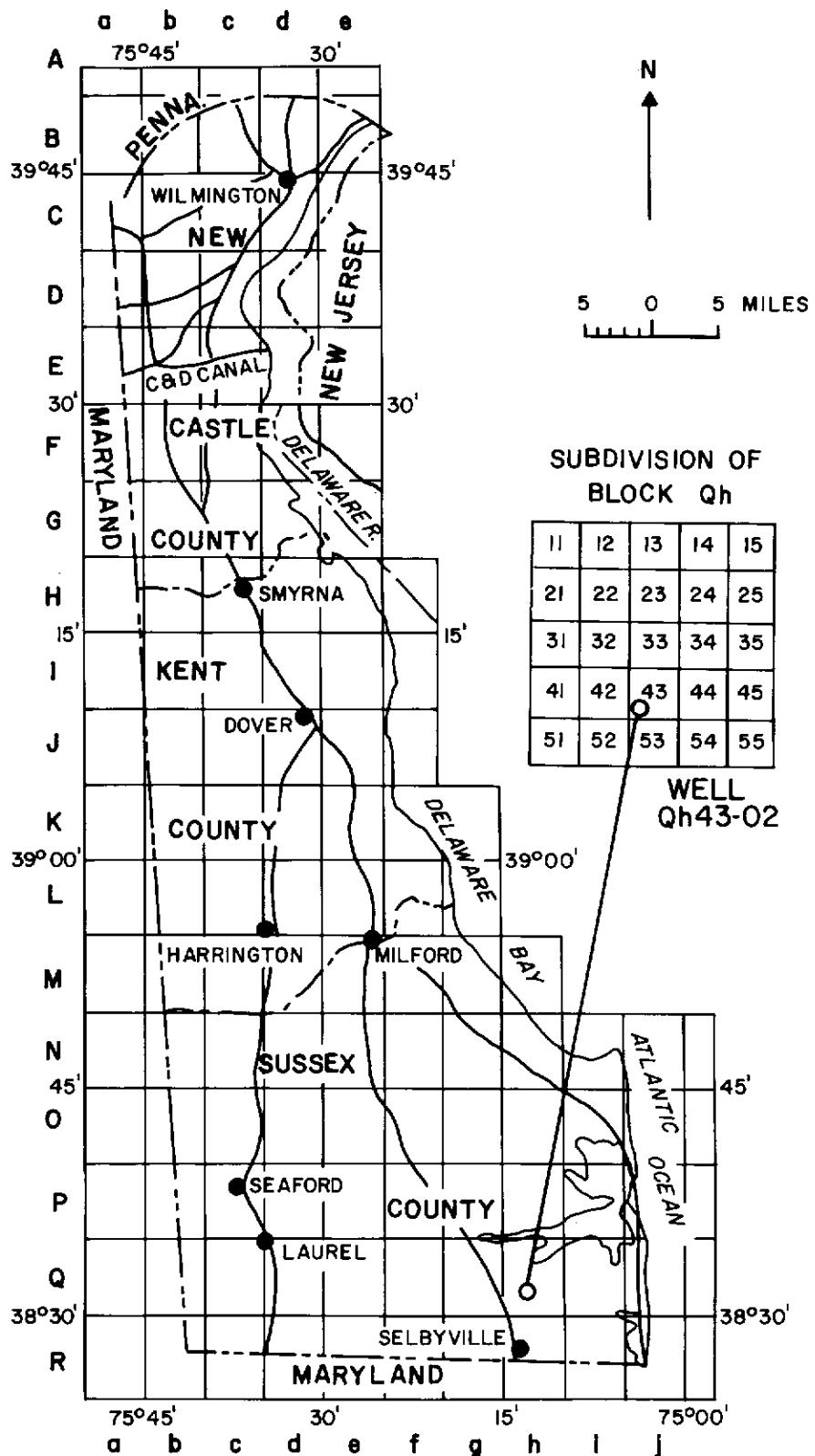


Figure 2. Map explaining the DGS well numbering system.

## WELL RECORDS

Information for selected wells in coastal Sussex County is listed by DGS well numbers in Table 2. Please note that Table 2 does not contain records of all of the wells in the study area, but only those for which detailed geologic and hydrologic information is available. The locations of wells included in Table 2 are shown in figures 3, 4, and 5 if ground-water level, ground-water quality, or aquifer test data are available. Persons interested in obtaining locations of wells not included in figures 3, 4, and 5 should contact the Delaware Geological Survey. Original and additional data may be consulted at the DGS.

Aquifer designations in Table 2 were made on the basis of a review of data in existing reports and/or through the interpretation of geologist's logs, driller's logs, and geophysical logs in the DGS Geologic, Hydrologic, and Mineral Resource Management Information System. Future geologic studies may show that aquifer designations for some wells will have to be revised.

DNREC permit numbers are included for most wells drilled after the permitting system was established in 1969. In addition, public, industrial, and many agricultural (irrigation) wells completed prior to 1969 were assigned permit numbers retroactively for management purposes.

## GROUND-WATER LEVELS

Table 3 lists water levels and hydrographs for 36 selected wells (Figure 3). Specific information pertaining to each well is presented along with water levels. Please note that water levels in wells that are located near production wells are affected by pumpage and often fluctuate greatly within fairly short time periods (for example, Qj32-14 in Table 3). In such cases, five to ten years of data may be required to properly analyze long term trends in ground-water levels.

## GROUND-WATER QUALITY

Results of chemical analyses of ground water from selected wells (Figure 4) are presented in Table 4. Much of the data presented is old, and thus provide information on water quality at that time. These data are useful background information with which current and future

Table 2. Records of selected water and test wells.

Well Use:

A	Agricultural
C	Commercial
D	Domestic
F	Fire Protection
G	Geothermal
I	Industrial
M	Observation
O	Other
P	Public Supply
R	Irrigation
U	Unknown

Aquifer:

clg	Columbia Group
clgpoc	Columbia Group-Pocomoke
poco	Pocomoke
mnkn	Manokin
chg	Chesapeake Group

Table 2. Records of selected water and test wells.

DGS Well No.	Permit No.	Owner	Driller	Year Drilled	Altitude (ft.)	Depth Drilled (ft.)	Screen Interval (ft.)	Well Diameter (in.)	Well Use	Aquifer
Mh41-03	010280	PRIME HOOK WATER CO.	SHANNAHAN ARTESIAN W	67	10	333	286-333	4	P	chg
Mh41-04	033475	PRIME HOOK WATER CO.	WHITE DRILLING CORPO	75	5	342	304-335	4	P	chg
Mh41-05	031171	PRIME HOOK WATER CO.	WHITE DRILLING CORPO	74	5	280	241-262	4	P	chg
Nh11-01	002939	BROADKILL BEACH WATE	WHITE DRILLING CORPO	71	7	120	105-120	4	P	
Nh12-01	Nh1201	UNKNOWN	BURNS, INC	70	10	420	-	4	D	
Nh13-01	Nh1301	H. LAYTON	C.D. PENTZ	40	10	387	-	5	U	chg
Nh13-02	036271	FREDERICK C. STURGIS	BURNS, INC	76	10	78	61- 71	4	P	
Nh13-03	Nh1303	W. P. HEARN	UNKNOWN	48	8	6	-	1	D	
Nh13-04	Nh1304	RANDOLPH HUGHES	UNKNOWN	53	8	6	-	3	D	
Nh14-01	Nh2401	DELUXE CHECK PRINTER	UNKNOWN	69	10	732	611-621	4	D	chg
Nh15-02	036271	FREDERICK C. STURGIS	BURNS, INC	76	10	78	61- 71	4	P	
Nh35-01	Nh3501	DOXSEE CO.	C.D. PENTZ	52	7	62	57- 62	4	I	cig
Nh42-01	Nh4201	BOB WHITE	WHITE DRILLING CORPO	48	24	87	-	3	D	cig
Nh42-02	Nh4202	DEL. DEPT. OF TRANSP	USGS DENVER HYDRO, L	59	24	26	24- 27	1	M R	cig
Nh42-03	Nh4203	JOSEPH HUDSON	SHANNAHAN ARTESIAN W	56	30	107	60-105	12	O	
Nh43-01	Nh4301	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	85	25	154	-	0		
Nh45-01	Nh4501	DELAWARE GEOLOGIC	DELAWARE GEOLOGICAL	85	18	149	-	0		
Nh52-01	Nh5201	JOHN SPEVAK	WHITE DRILLING CORPO	48	21	142	107-115	4	U	cig
Nh52-03	036604	SWEETBRIAR MOBIL HOME	BURNS, INC	76	15	78	68- 78	4	P	cig
Nh53-01	036657	TIDEMATER UTILITIES,	WHITE DRILLING CORPO	74	23	133	100-110	4	P	cig
Nh54-01	035810	NASSAU ORCHARD	BURNS, INC	76	24	58	53- 58	2	C	cig
Ni25-01	Ni2501	SHELL DEVELOPMENT CO	SHELL DEVELOPMENT CO	63	5	67	-	0		
Ni31-01	Ni3101	LEWES DAIRY	C.D. PENTZ	38	18	100	90-100	1	U A	cig
Ni31-02	Ni3102	LEWES DAIRY	SHANNAHAN ARTESIAN W	46	18	40	25- 29	6	M	cig
Ni31-03	Ni3103	LEWES DAIRY	SHANNAHAN ARTESIAN W	49	18	60	55- 60	8	A	cig
Ni31-07	Ni3107	U.S. DEPT. OF ENERGY	ENERGY SYSTEMS	78	15	1035	-	4	G	
Ni34-01	Ni3401	SEA COAST PRODUCTS,	SHANNAHAN ARTESIAN W	98	10	1080	-	2	U O	
Ni35-03	Ni3503	SHELL DEVELOPMENT CO	SHELL DEVELOPMENT CO	63	5	90	75- 90	2	O	
Ni35-05	Ni3505	WATER RESOURCES CENT	DELMARVA DRILLING CO	74	10	80	68- 77	6	M M	cig
Ni35-07	Ni3507	WATER RESOURCES CENT	DELMARVA DRILLING CO	74	5	80	-	6	P	cig
Ni41-01	Ni4101	U.S. ARMY, FORT MILES	SHANNAHAN ARTESIAN W	44	15	110	100-110	8	P	cig
Ni42-02	Ni4202	TOWN OF LEWES	SHANNAHAN ARTESIAN W	36	15	65	55- 65	6	M	cig
Ni42-08	Ni4208	TOWN OF LEWES	SHANNAHAN ARTESIAN W	42	17	65	55- 65	6	P	mkn
Ni42-09	Ni4209	TOWN OF LEWES	SHANNAHAN ARTESIAN W	42	15	65	55- 65	8	M	cig
Ni42-10	Ni4210	TOWN OF LEWES	SHANNAHAN ARTESIAN W	42	14	65	55- 65	4	P	poco
Ni42-15	057364	TOWN OF LEWES	DELMARVA DRILLING CO	84	10	152	142-152	4	M	poco
Ni43-01	010395	DNREC-CAPE HENlopen	SHANNAHAN ARTESIAN W	44	10	110	100-110	10	P	cig
Ni43-02	010396	DNREC-CAPE HENlopen	SHANNAHAN ARTESIAN W	44	10	103	93-103	10	P U	cig
Ni45-01	Ni4501	UNITED STATES NAVY	MIDDLETON WELL DRIL	60	20	247	-	6	M	cig
Ni51-03	Ni5103	TOWN OF LEWES	SHANNAHAN ARTESIAN W	44	22	84	74- 84	1	D	cig
Ni51-09	Ni5109	TOWN OF LEWES	SYDNR HYDRODYNAMICS	54	10	170	150-160	4	P	cig
Ni51-13	Ni5113	FRANK THORPE	WHITE DRILLING CORPO	59	26	87	77- 87	3	A	cig
Ni51-14	Ni5114	J W WEBB	JAMES R COWEN	50	26	85	-	4	D	cig
Ni51-15	Ni5115	RALPH MARTIN	SHANNAHAN ARTESIAN W	45	23	39	25- 30	1	P	cig
Ni51-16	Ni5116	TOWN OF LEWES	SHANNAHAN ARTESIAN W	45	23	64	-	16	M D	cig
Ni51-17	Ni5117	TOWN OF LEWES	SHANNAHAN ARTESIAN W	45	22	163	130-157	26	P	poco

Table 2. (continued) Records of selected water and test wells.

DGS Well No.	Permit No.	Owner	Driller	Year Drilled	Altitude (ft.)	Depth Drilled (ft.)	Screen Interval (ft.)	Well Diameter (in.)	Well Use	Aquifer
Ni51-18	010198	TOWN OF LEWES	SHANNANAH ARTESIAN W	45	19	89	69- 81	16	P	cig
Ni51-19	010200	TOWN OF LEWES	SYDOR HYDRODYNAMICS	55	12	151	120-151	16	P	cigpoc
Ni51-20	010209	TOWN OF LEWES	SYDOR HYDRODYNAMICS	82	12	146	115-146	16	P	cigpoc
Ni51-21	Ni5121	RALPH MARTIN	WHITE DRILLING CORPO	52	19	105	97-105	3	D	chg
Ni51-24	032002	TOWN OF LEWES	DELMARVA DRILLING CO	74	8	339	200-220	2	O	mnnn
Ni51-25	Ni5125	TOWN OF LEWES	DELMARVA DRILLING CO	74	18	242	200-220	6	P	mnnn
Ni51-26	036869	TOWN OF LEWES	DELMARVA DRILLING CO	77	23	157	70- 95	18	P	cigpoc
Ni51-27	Ni5127	TOWN OF LEWES	DELMARVA DRILLING CO	84	15	171	-	16	P	cigpoc
Ni51-28	050389	TOWN OF LEWES	DELMARVA DRILLING CO	82	22	152	70-150	18	P	cigpoc
Ni51-29	045267	TOWN OF LEWES	DELMARVA DRILLING CO	80	23	148	117-147	18	M	poco
Ni51-30	056242	TOWN OF LEWES	DELMARVA DRILLING CO	84	15	170	150-155	4	P	cigpoc
Ni51-31	055832	TOWN OF LEWES	DELMARVA DRILLING CO	84	23	155	100-150	16	P	cigpoc
Ni51-32	055833	TOWN OF LEWES	DELMARVA DRILLING CO	84	22	139	85-135	16	P	cigpoc
Ni51-33	Ni5133	IRMA M DONVAN'S TRAI	CHARLES I DAISEY	76	11	115	107-115	4	P	cigpoc
Ni51-34	Ni5134	IRMA M DONVAN'S TRAI	CHARLES I DAISEY	76	9	115	107-115	4	P	cigpoc
Ni52-01	Ni5201	DIAMOND STATE POULTR	SHANNANAH ARTESIAN W	50	15	93	- 93	8	I	cig
Ni52-02	Ni5202	DIAMOND STATE POULTR	SHANNANAH ARTESIAN W	50	15	80	70- 80	4	I	cig
Ni52-03	Ni5203	VIRGIL L DENNIS	UNKNOWN	39	19	65	-	1	D	cig
Ni52-04	Ni5204	FRED C MARSHALL	DUFFY'S WELL DRILLIN	48	19	65	60- 65	1	D	cig
Ni52-05	Ni5205	EUGENE H MAUL	DUFFY'S WELL DRILLIN	49	19	65	60- 65	1	cig	cig
Ni52-06	Ni5206	LOWDER MITCHELL	DUFFY'S WELL DRILLIN	46	19	70	65- 70	1	cig	cig
Ni52-08	Ni5208	OSCAR H WARRINGTON	DUFFY'S WELL DRILLIN	59	19	72	67- 72	1	D A R	cig
Ni52-10	047056	J G TOWNSEND JR & CO	DELMARVA DRILLING CO	81	22	136	36-136	16	M	poco
Ni52-11	057363	TOWN OF LEWES	DELMARVA DRILLING CO	84	18	155	145-155	4	M	cig
Ni52-12	057365	TOWN OF LEWES	DELMARVA DRILLING CO	84	18	80	70- 80	4	M	cig
Ni53-05	047055	J G TOWNSEND JR & CO	DELMARVA DRILLING CO	81	21	135	35-135	16	R O O	cig
Ni55-02	Ni5502	SHELL DEVELOPMENT CO	SHELL DEVELOPMENT CO	63	4	122	-	3	O O O	cig
Ni51-02	Ni5102	SHELL DEVELOPMENT CO	SHELL DEVELOPMENT CO	63	7	92	- 72	4	P	cig
Oh11-01	Oh1101	ANN HANBY	WHITE DRILLING CORPO	50	40	72	66- 72	2	P	cig
Oh11-02	Oh1102	M. C. VAUGHN	WHITE DRILLING CORPO	50	29	84	-	2	P	cig
Oh11-03	Oh1103	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	85	18	124	- 80	2	P	cig
Oh11-04	030124	LOG CABIN HILL	DELMARVA DRILLING CO	73	24	80	70- 80	2	P	cig
Oh11-05	010610	LOG CABIN HILL	DELMARVA DRILLING CO	73	24	80	60- 70	2	P	cig
Oh11-06	Oh1106	LOG CABIN HILL	UNKNOWN	19	-	-	-	2	P	cig
Oh11-07	Oh1107	LOG CABIN HILL	UNKNOWN	15	-	-	-	2	P	cig
Oh12-02	041533	LOG CABIN HILL	DELMARVA DRILLING CO	78	27	100	90-100	2	P	cig
Oh12-03	Oh1203	LOG CABIN HILL	UNKNOWN	26	-	-	-	2	P	cig
Oh12-04	Oh1204	LOG CABIN HILL	UNKNOWN	21	-	-	-	2	P	cig
Oh14-01	Oh1401	NASSAU PARK	DELMARVA DRILLING CO	72	31	130	90-110	6	P	cig
Oh14-02	Oh1402	NASSAU PARK	DELMARVA DRILLING CO	72	32	110	55- 65	6	P	cig
Oh15-02	037151	HOLIDAY PARK	DUFFY'S WELL DRILLIN	77	20	65	-	6	P O	cig
Oh23-01	Oh2301	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	86	21	150	-	2	M O	cig
Oh24-03	062711	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	85	20	24	14- 19	2	M O	cig
Oh25-01	Oh2501	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	86	19	114	-	4	M O	chg
Oh25-02	066505	DELAWARE GEOLOGICAL	AMERICAN WATER WELL	86	20	1338	390-410	4		

Table 2. (continued) Records of selected water and test wells.

DGS Well No.	Permit No.	Owner	Driller	Year Drilled	Altitude (ft.)	Depth Drilled (ft.)	Screen Interval (ft.)	Well Diameter (in.)	Well Use	Aquifer
Oh25-03	067394	DELAWARE GEOLOGICAL	AMERICAN WATER WELL	86	20	250	210-220	4	M	mnnk
Oh31-02	0h3102	DELAWARE GEOLOGICAL	DELWARE GEOLOGICAL	86	35	125	-	0	R	cig
Oh42-01	047174	ALL SAINTS EPISCOPAL	WHITE DRILLING CORPO	80	22	77	57- 77	6	R	cig
Oh42-02	0h4202	ALL SAINTS EPISCOPAL	WHITE DRILLING CORPO	71	22	91	87- 91	2	P	cig
Oh43-03	0h4303	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	85	30	189	-	0	O	cig
Oh45-02	0h4502	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	86	21	145	-	0	O	cig
Oh51-02	0h5102	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	86	34	189	-	0	P	cig
Oh51-04	0h5104	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	86	34	189	-	0	P	cig
Oh52-01	0h5201	ALL SAINTS	WHITE DRILLING CORPO	71	32	100	87- 91	2	D	cig
Oh54-01	0h5401	U.S. GEOLOGICAL SURV	DELMARVA DRILLING CO	77	18	375	280-290	2	D	mnnk
Oh54-02	0h5402	U.S. GEOLOGICAL SURV	DELMARVA DRILLING CO	77	18	189	179-189	2	O	poco
Oh55-03	0h5503	TIDEWATER UTILITIES	DELMARVA DRILLING CO	68	17	87	67- 87	6	P	cig
Oh55-05	039165	TIDEWATER UTILITIES	DELMARVA DRILLING CO	78	22	124	94-124	6	P	cig
Oh55-06	034269	TIDEWATER UTILITIES	WHITE DRILLING CORPO	22	127	64- 85	10	0	P	cig
Oi11-01	0i1101	C. BAKER	UNKNOWN	20	80	75- 80	1	D	D	cig
Oi11-04	0i1104	W. CARPENTER	C.D. PENTZ	48	20	90	80- 90	3	D	cig
Oi12-01	0i1201	CHARLES NELSON	WHITE DRILLING CORPO	53	29	80	67- 73	3	C	cig
Oi12-02	0i1202	ANCHORAGE COURT	WHITE DRILLING CORPO	54	29	71	-	0	P	cig
Oi12-04	0i1204	M H ESTATES	DELMARVA DRILLING CO	72	23	90	70- 90	6	P	cig
Oi12-05	0i1205	M H ESTATES	DELMARVA DRILLING CO	72	22	90	70- 90	6	P	cig
Oi12-06	043309	MIDWAY REALITY	DELMARVA DRILLING CO	79	20	98	76- 96	6	P	cig
Oi12-07	0103386	MIDWAY REALITY	DELMARVA DRILLING CO	72	27	120	70-120	6	P	cig
Oi13-02	049604	WALTER LEHMAN	BURNS, INC.	82	23	102	82-102	6	P	cig
Oi14-01	039670	J G TOWNSEND JR & CO	DELMARVA DRILLING CO	77	17	123	63-123	15	R	cig
Oi14-02	039669	J G TOWNSEND JR & CO	DELMARVA DRILLING CO	77	22	118	58-118	15	R	cig
Oi22-01	047982	LAMP POST RESTAURANT	WHITE DRILLING CORPO	81	25	101	85- 95	2	P	cig
Oi22-02	055754	TIDEWATER ASSOCIATES	CHARLES I DAISEY	84	22	116	108-116	4	P	cig
Oi22-03	040445	MCDONALDS INC	DELMARVA DRILLING CO	78	35	95	50- 60	4	P	cig
Oi22-04	050481	TED STEVENS	DELMARVA DRILLING CO	82	2	90	67- 77	4	P	cig
Oi22-05	061564	CITY OF REHOBOTH BEA	DELMARVA DRILLING CO	85	30	120	90-120	8	O	cig
Oi22-06	058225	ANCHORAGE MOTEL	WHITE DRILLING CORPO	85	26	180	170-180	4	P	poco
Oi23-04	039119	CAMELOT MOBIL HOME P	UNKNOWN	78	23	117	90-109	6	P	cig
Oi23-06	036605	CAMELOT MOBIL HOME P	BURNS, INC	76	25	109	99-109	4	P	cig
Oi23-07	039118	TIDEWATER UTILITIES,	WHITE DRILLING CORPO	74	22	102	82-102	8	P	cig
Oi23-08	0300031	W O MELSON - PINE VA	BURNS, INC	76	25	92	82- 92	4	P	cig
Oi23-09	036553	WALTER LEHMAN	BURNS, INC	82	22	103	83-103	6	P	cig
Oi23-10	049603	CITY OF REHOBOTH BEA	DELMARVA DRILLING CO	79	25	118	84-114	18	P	cig
Oi23-11	038961	CITY OF REHOBOTH BEA	DELMARVA DRILLING CO	71	23	126	99-119	8	P	cig
Oi23-12	002498	CITY OF REHOBOTH BEA	WHITE DRILLING CORPO	74	26	125	92- 96	2	M	cig
Oi23-13	033181	CITY OF REHOBOTH BEA	SHANNANAH ARTESIAN W	52	24	102	73-102	12	P	cig
Oi24-01	010345	CITY OF REHOBOTH BEA	SHANNANAH ARTESIAN W	63	24	110	-110	20	P	cig
Oi24-05	010347	CITY OF REHOBOTH BEA	DELMARVA DRILLING CO	75	25	390	230-250	4	M	mnnk
Oi24-06	034869	CITY OF REHOBOTH BEA	DELMARVA DRILLING CO	77	25	140	70- 80	18	P	cig
Oi24-07	036907	CITY OF REHOBOTH BEA	WHITE DRILLING CORPO	48	25	118	-118	4	D	cig
Oi25-01	012501	ALFRED RICHARDSON	DELMARVA DRILLING CO	80	5	46	30- 40	4	P	cig
Oi25-05	045865	TOWN OF HENLOPEN ACR	DELMARVA DRILLING CO	80	10	48	29- 39	4	P	cig
Oi25-06	045863	TOWN OF HENLOPEN ACR	DELMARVA DRILLING CO	80	10	48	29- 39	4	P	cig

Table 2. (continued) Records of selected water and test wells.

DGS Well No.	Permit No.	Owner	Driller	Year Drilled	Altitude (ft.)	Depth Drilled (ft.)	Screen Interval (ft.)	Well Diameter (in.)	Well Use	Aquifer
0125-07	045864	TOWN OF HENOPEN ACR	DELMARVA DRILLING CO	80	10	50	30- 40	4	D	cig
0125-08	045862	TOWN OF HENOPEN ACR	DELMARVA DRILLING CO	80	20	50	30- 40	4	P	cig
0125-09	052473	TOWN OF HENOPEN ACR	WHITE DRILLING CORPO	82	20	40	30- 40	4	P	cig
0125-10	047792	TOWN OF HENOPEN ACR	DELMARVA DRILLING CO	81	20	46	38- 50	4	P	cig
0131-03	038510	LOVE CREEK MARINA	CHARLES 1 DAISEY	77	10	94	88- 94	4	P	cig
0133-02	037869	D. F. Quillen	BURNS, INC	77	10	71	51- 71	4	P	cig
0134-01	010344	CITY OF REHOBOTH BEA	SHANNAHAN ARTESIAN W	52	24	137	69- 74	12	P	cig poc
0134-02	0134-0	CITY OF REHOBOTH BEA	SHANNAHAN ARTESIAN W	52	24	133	-	12	O	cig
0134-03	013403	DEL. DEPT. OF TRANSP	C.D. PENTZ	46	24	150	-116	6	D	cig
0134-04	013404	J. S. BOYD	UNKNOWN	48	25	35	36- 35	1	D	cig
0134-05	013405	JACK WOLFE	WHITE DRILLING CORPO	50	24	104	4	D	P	cig
0134-07	010346	CITY OF REHOBOTH BEA	DELMARVA DRILLING CO	63	23	120	-110	18	P	cig
0134-09	041778	TIDEWATER UTILITIES,	DELMARVA DRILLING CO	80	22	85	56- 76	6	P	cig
0134-10	048045	SPORTS COMPLEX	WHITE DRILLING CORPO	81	25	103	77- 97	4	C	cig
0134-11	040354	SPORTS COMPLEX	DELMARVA DRILLING CO	78	25	123	97-117	4	C	cig
0134-13	035413	JAMES TRUITT	DELMARVA DRILLING CO	76	21	73	53- 68	4	P	cig
0134-14	035414	JAMES TRUITT	DELMARVA DRILLING CO	76	21	73	54- 69	4	P	cig
0134-15	013415	JAMES TRUITT	UNKNOWN	10	10	80	80- 90	3	P	cig
0134-16	030184	TIDEWATER UTILITIES,	WHITE DRILLING CORPO	74	8	100	81- 85	2	P	cig
0135-01	013501	CITY OF REHOBOTH BEA	C.D. PENTZ	43	18	110	-110	16	P	cig
0135-02	013502	CITY OF REHOBOTH BEA	C.D. PENTZ	48	18	110	-110	10	P	cig
0135-03	013503	CITY OF REHOBOTH BEA	DUFFY'S WELL DRILLIN	38	15	4	30- 40	2	P	cig
0135-05	013505	STOCKLEY FOODS	C.D. PENTZ	39	28	128	-128	8	P	cig poc
0135-15	013515	ATL. ICE MFG. CO.	UNKNOWN	25	136	-136	3	D	D	cig poc
0135-18	013518	HARRY R. WATSON	WHITE DRILLING CORPO	49	25	119	-119	3	D	cig
0135-19	013519	W. M. MELVIN	WHITE DRILLING CORPO	52	16	110	-110	3	D	cig
0135-20	013520	J. D. JOHNSON	WHITE DRILLING CORPO	52	20	77	-77	4	D	cig poc
0135-21	013521	CITY OF REHOBOTH BEA	C.D. PENTZ	46	25	134	-128	2	M	mnkn
0135-27	036950	SUSSEX CO. ENGINEERI	DELMARVA DRILLING CO	76	18	340	238-248	2	M	mnkn
0135-28	36959	SUSSEX CO. ENGINEERI	DELMARVA DRILLING CO	76	18	261	238-248	2	M	mnkn
0135-29	36960	SUSSEX CO. ENGINEERI	DELMARVA DRILLING CO	76	18	260	208-248	6	R	mnkn
0143-01	041078	REHOBOTH BAY MOBILE	BURNS, INC	78	11	61	41- 61	4	P	cig
0143-02	036059	REHOBOTH BAY MOBILE	BURNS, INC	73	5	53	43- 53	2	P	cig
0143-03	054581	REHOBOTH BAY MOBILE	BURNS, INC	83	6	60	50- 60	4	P	cig
0143-04	059737	REHOBOTH BAY MOBILE	BURNS, INC	85	10	56	51- 56	6	P	cig
0144-01	032758	REHOBOTH BEACH COUNT	BURNS, INC	74	5	71	61- 71	4	R	cig
0144-02	032759	REHOBOTH BEACH COUNT	BURNS, INC	74	5	70	60- 70	4	R	cig
0144-03	002688	REHOBOTH BEACH COUNT	WHITE DRILLING CORPO	71	3	45	41- 45	4	P	cig poc
0144-04	056321	REHOBOTH BEACH COUNT	BURNS, INC	84	2	69	59- 69	6	P	cig
0144-05	062284	REHOBOTH BEACH COUNT	DELMARVA DRILLING CO	85	4	130	64-114	6	P	cig
0145-01	038461	TIDEWATER UTILITIES,	DELMARVA DRILLING CO	78	10	83	60- 80	6	P	cig
0151-03	050629	ANGOLA CREST MOBILE	WHITE DRILLING CORPO	82	28	115	95-115	4	P	cig
0151-04	002941	ANGOLA CREST MOBILE	WHITE DRILLING CORPO	71	22	120	105-116	4	P	cig poc
0151-05	060948	ANGOLA CREST MOBILE	WHITE DRILLING CORPO	85	18	97	77- 97	4	P	cig
0131-01	013101	CITY OF REHOBOTH BEA	C.D. PENTZ	39	18	110	-110	10	P	cig
0131-02	013102	CITY OF REHOBOTH BEA	C.D. PENTZ	39	18	110	-110	10	P	cig
0131-03	013103	BLUE HEN THEATER	C.D. PENTZ	39	15	-136	-136	3	I	cig poc

Table 2. (continued) Records of selected water and test wells.

DGS Well No.	Permit No.	Owner	Driller	Year Drilled	Altitude (ft.)	Depth Drilled (ft.)	Screen Interval (ft.)	Well Diameter (in.)	Well Use	Aquifer
0131-04	0J3104	REMSEN C BARNARD	WHITE DRILLING CORPO	51	10	120	114-120	3	D	c1g
0131-05	0J3105	LEO MILLER	WHITE DRILLING CORPO	53	15	113	107-113	3	D	c1g
0131-06	0J3106	LEO MILLER	WHITE DRILLING CORPO	53	15	38	32-38	3	P	c1g
0131-09	0J3109	SIDNEY COHAN	WHITE DRILLING CORPO	55	15	40	-40	3	D	c1g
0141-02	0J4102	HARRY SHAND	WHITE DRILLING CORPO	52	7	108	101-108	3	D	c1g
0141-03	0J4103	JAMES DILLON	WHITE DRILLING CORPO	61	7	101	95-101	3	D	c1g
0141-04	0J4104	MIKE McCARTY	WHITE DRILLING CORPO	48	7	102	102-102	3	D	c1g
0141-05	0J4105	F DENMEAD	WHITE DRILLING CORPO	51	7	112	106-112	3	D	c1g
0141-06	0J4106	ROY PALMER	WHITE DRILLING CORPO	48	7	103	-103	3	D	c1g
0141-07	0J4107	CONWAY AND McDONALD	WHITE DRILLING CORPO	48	5	117	-117	3	D	c1g
0141-08	0J4108	WILSON BOAT CO	WHITE DRILLING CORPO	52	5	94	87-94	4	D	c1g
0141-09	0J4109	JAMES PIERCE	WHITE DRILLING CORPO	51	5	96	88-96	4	D	c1g
0141-10	0J4110	EARL KLINE	WHITE DRILLING CORPO	52	5	100	-100	3	D	c1g
0141-11	0J4111	MEGGINSON	WHITE DRILLING CORPO	48	5	103	-103	3	D	c1g
0141-12	0J4112	SAPP	WHITE DRILLING CORPO	52	5	109	101-109	3	D	c1g
0141-13	0J4113	JOE L. RAWLINS	WHITE DRILLING CORPO	50	10	106	98-106	3	D	c1g
0141-14	0J4114	CHAPMAN	WHITE DRILLING CORPO	52	5	109	-109	3	D	c1g
0141-15	0J4115	HORACE HOUGH	WHITE DRILLING CORPO	51	10	11	106-111	3	D	c1g
0141-16	0J4116	J B O'TOOLE	WHITE DRILLING CORPO	48	10	111	-111	3	D	c1g
0141-17	0J4117	J B O'TOOLE	WHITE DRILLING CORPO	47	12	105	-105	3	D	c1g
0141-18	0J4118	CLARENCE RIGGS	WHITE DRILLING CORPO	51	10	105	101-105	2	D	c1g
0141-19	0J4119	CLARENCE RIGGS	WHITE DRILLING CORPO	51	10	100	96-100	2	D	c1g
0141-20	0J4120	CARLTON DRAPER	WHITE DRILLING CORPO	52	7	107	-107	3	D	c1g
0141-22	0J4122	HORACE LEGATE	WHITE DRILLING CORPO	54	6	119	113-119	3	D	c1g
0141-23	0J4123	GEORGE McMAHON	WHITE DRILLING CORPO	54	8	115	-115	3	D	c1g
0141-25	0J4125	BOB CLARK	WHITE DRILLING CORPO	54	6	100	-100	3	D	c1g
0141-26	0J4126	F DENMEAD	WHITE DRILLING CORPO	53	5	110	104-110	4	I	c1g
Ph12-04	059700	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	85	20	35	20-25	2	M	c1g
Ph12-07	040946	TOWNSEND'S, INC.	DELMARVA DRILLING CO	78	22	105	60-100	4	R	c1g
Ph13-02	039667	TOWNSEND'S, INC.	DELMARVA DRILLING CO	77	22	93	63-93	15	c1g	
Ph13-03	059683	TOWNSEND'S, INC.	DELAWARE GEOLOGICAL	85	22	160	20-25	2	c1g	
Ph13-04	059678	TOWNSEND'S, INC.	DELAWARE GEOLOGICAL	85	20	150	20-25	2	c1g	
Ph13-05	059704	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	85	22	35	20-25	2	c1g	
Ph13-06	059703	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	85	16	35	20-25	2	c1g	
Ph13-07	059693	TOWNSEND'S, INC.	DELAWARE GEOLOGICAL	85	18	175	15-20	2	c1g	
Ph13-08	059688	TOWNSEND'S, INC.	DELAWARE GEOLOGICAL	85	22	125	20-25	2	c1g	
Ph13-09	059701	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	85	18	35	20-25	2	c1g	
Ph13-10	048699	R. A. RALEY (HOLLY L BURNS, INC.	BURNS, INC.	81	14	62	57-62	4	P	c1g
Ph13-11	035700	R. A. RALEY (HOLLY L BURNS, INC.	BURNS, INC.	76	12	63	53-63	4	P	c1g
Ph13-12	Ph1312	R. A. RALEY (HOLLY L BURNS, INC.	BURNS, INC.	70	17	60	-60	4	P	c1g
Ph13-27	Ph1327	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	86	19	189	-	4	P	c1g
Ph14-04	Ph1404	R. A. RALEY (HOLLY L BURNS, INC.	BURNS, INC.	69	20	60	-60	4	P	c1g
Ph14-05	Ph1405	R. A. RALEY (HOLLY L BURNS, INC.	DELMARVA DRILLING CO	74	15	70	54-59	2	P	c1g
Ph15-02	031716	SHAWNS HIDEAWAY - G.	UNKNOWN	20	16	60	-60	2	P	c1g
Ph15-04	Ph1504	SHAWNS HIDEAWAY - G.	UNKNOWN	13	13	-	-	2	P	c1g
Ph15-05	Ph1505	SHAWNS HIDEAWAY - G.	UNKNOWN	78	10	70	60-70	2	P	c1g
Ph15-06	Ph1506	SHAWNS HIDEAWAY - G.	DELMARVA DRILLING CO	78	10	-	-	2	P	c1g

Table 2. (continued) Records of selected water and test wells.

DGS Well No.	Permit No.	Owner	Driller	Year Drilled	Altitude (ft.)	Depth Drilled (ft.)	Screen Interval (ft.)	Well Diameter (in.)	Well Use	Aquifer
Ph15-07	035986	SHAWNS HIDEAWAY - G. DELAWARE GEOLOGICAL TOWNSEND'S, INC.	DELMARVA DRILLING CO DELAWARE GEOLOGICAL	85	32	149	-	-	P	c1g
Ph21-05	Ph2105	U.S. GEOLOGICAL SURV	DELMARVA DRILLING CO DELAWARE GEOLOGICAL	81	28	97	60- 95	16	O R	c1g
Ph22-07	049484	U.S. GEOLOGICAL SURV	DELMARVA DRILLING CO DELAWARE GEOLOGICAL	85	26	35	20- 25	2	M	c1g
Ph23-08	059699	TOWNSEND'S, INC.	DELMARVA DRILLING CO DELAWARE GEOLOGICAL	85	24	35	20- 25	2	M	c1g
Ph23-09	059698	TOWNSEND'S, INC.	DELMARVA DRILLING CO DELAWARE GEOLOGICAL	85	20	120	20- 25	2	M	c1g
Ph23-10	059673	TOWNSEND'S, INC. (USE TOWNSEND'S INC.)	DELMARVA DRILLING CO DELAWARE GEOLOGICAL	85	22	35	20- 25	2	M	c1g
Ph23-11	059705	INDIAN RIVER VOL. F1 DELAWARE GEOLOGICAL TOWNSEND'S, INC.	DELMARVA DRILLING CO DELAWARE GEOLOGICAL	76	20	100	68- 88	6	O R P	c1g
Ph25-05	Ph2505	WHITE HOUSE BEACH, 1	DELMARVA DRILLING CO CHARLES I DAISEY BURNS, INC	74	25	101	55- 95	4	P	c1g
Ph25-06	Ph2506	PUBLIC WATER SUPPLY ENCHANTED ACRES	DELMARVA DRILLING CO BURNS, INC	84	17	75	67- 75	6	P P P	c1g
Ph32-03	039666	TOWNSEND'S, INC.	DELMARVA DRILLING CO BURNS, INC	84	18	189	-	-	P	c1g
Ph35-01	031025	WILLIAM H. DAVIS PUBLIC WATER SUPPLY	DELMARVA DRILLING CO WHITE DRILLING CORPO	84	22	103	43-103	16	R R	c1g
Ph35-02	053147	ENCHANTED ACRES	DELMARVA DRILLING CO WHITE DRILLING CORPO	84	25	118	58-118	16	R R	c1g
Ph35-03	053148	TOWNSEND'S, INC.	DELMARVA DRILLING CO WHITE DRILLING CORPO	84	18	69	59- 69	4	P P P	c1g
Ph35-04	048623	WILLIAM H. DAVIS PUBLIC WATER SUPPLY	DELMARVA DRILLING CO WHITE DRILLING CORPO	84	17	69	59- 69	4	P P P	c1g
Ph41-03	058501	TOWNSEND'S, INC.	DELMARVA DRILLING CO WHITE DRILLING CORPO	84	22	103	43-103	16	R R	c1g
Ph43-02	047746	PH44-01	DELMARVA DRILLING CO WHITE DRILLING CORPO	84	25	118	58-118	16	R R	c1g
Ph44-01	042176	PH44-02	DELMARVA DRILLING CO WHITE DRILLING CORPO	84	7	97	82- 97	8	P P	c1g
Ph44-02	042175	PH44-03	DELMARVA DRILLING CO WHITE DRILLING CORPO	78	7	105	83- 97	2	P P	c1g
Ph44-03	043682	PH44-04	DELMARVA DRILLING CO WHITE DRILLING CORPO	79	6	116	97-107	4	P P	c1g
Ph44-04	031821	PH45-01	DELMARVA DRILLING CO WHITE DRILLING CORPO	74	8	118	93-103	6	P P	c1g
Ph45-01	039665	PH45-02	DELMARVA DRILLING CO WHITE DRILLING CORPO	77	18	141	90-130	4	R R R R	c1g
Ph45-02	047054	PH51-19	DELMARVA POWER & LIG DELMARVA POWER & LIG	81	15	130	40-130	16	M M	c1g
Ph51-19	046539	PH51-20	DELMARVA POWER & LIG TOWNSEND'S, INC.	80	5	300	236-256	4	m m k n	c1g
Ph51-20	046621	PH51-21	DELMARVA POWER & LIG DELMARVA POWER & LIG	81	5	275	200-260	16	m m k n	c1g
Ph51-21	053122	PH51-22	DEL ATLANTIC ASH COM PUBLIC WATER SUPPLY	84	18	103	50-100	16	I R	c1g
Ph51-22	010270	PH52-01	ANGOLA BEACH MOBILE ANGOLA BEACH MOBILE	65	10	28	22- 28	2	I I I I	c1g
Ph52-01	045811	PH55-03	JAMES TRAVIS & SONS JAMES TRAVIS & SONS	80	2	85	75- 85	6	P P P	c1g
Ph55-03	010451	PI11-01	UNKNOWN	80	4	81	62- 72	4	P P P	c1g
PI11-01	044939	PI11-02	DELMARVA DRILLING CO WHITE DRILLING CORPO	69	12	74	64- 74	4	P P P	c1g
PI11-02	044940	PI12-01	BURNS, INC BURNS, INC	80	12	74	64- 74	4	P P P	c1g
PI12-01	040183	PI12-02	JAMES TRAVIS & SONS JAMES TRAVIS & SONS	79	17	77	57- 77	4	P P P	c1g
PI12-02	Pi1202	PI12-03	UNKNOWN	15	15	50- 60	50- 60	3	P P P	c1g
PI12-03	Pi1203	PI12-04	UNKNOWN	15	15	50- 60	50- 60	3	P P P	c1g
PI12-04	Pi1204	PI12-05	CAMP ARROWHEAD TIDEMATER UTILITIES, TIDEMATER UTILITIES,	79	10	55	50- 55	2	P P P	c1g
PI12-05	042857	PI12-06	SHAWNS HIDEAWAY - G. LEISURE POINT TRAILER LEISURE POINT TRAILER	85	12	100	80-100	8	P P P	c1g
PI12-06	061100	PI12-07	LIFETIME WELL DRILLI LIFETIME WELL DRILLI	85	13	94	74- 94	8	P P P	c1g
PI12-07	061099	PI15-03	WHITE DRILLING CORPO WHITE DRILLING CORPO	80	11	61	50- 60	4	P P P	c1g
PI15-03	045900	PI21-01	POT NETS MOBILE HOME POT NETS MOBILE HOME	84	11	80	70- 80	4	P P P	c1g
PI21-01	Pi2101	PI21-02	BURNS, INC BURNS, INC	82	12	67	54- 66	8	P P P	c1g
PI21-02	055269	PI31-01	NANTICOKE SHORES - M JOHN R HITCHENS/BAY	82	12	70	55- 70	8	P P P	c1g
PI31-01	049714	PI31-02	COZY COVE MOBILE HOME COZY COVE MOBILE HOME	76	7	86	66- 86	6	P P P	c1g
PI31-02	049713	PI32-01	COZY COVE MOBILE HOME COZY COVE MOBILE HOME	84	5	75	60- 70	4	M C P	c1g
PI32-01	035121	PI32-02	058539	85	4	160	155-160	2	P P P	c1g
PI32-02	060050	PI32-03	048745	81	5	78	71- 77	4	P P P	c1g
PI32-03	048746	PI32-04	049268	81	5	72	64- 69	4	P P P	c1g

Table 2. (continued) Records of selected water and test wells.

DGS Well No.	Permit No.	Owner	Driller	Year Drilled	Altitude (ft.)	Depth Drilled (ft.)	Screen Interval (ft.)	Well Diameter (in.)	Well Use	Aquifer
P132-06	049267	COZY COVE MOBILE HOME	WHITE DRILLING CORPO	81	5	59	37- 47	4	P	c1g
P132-07	035249	JOHN R HITCHENS/BAY	BURNS, INC	76	6	82	72- 82	2	U	c1g
P132-08	049815	POT NETS MOBILE HOME	WHITE DRILLING CORPO	82	17	74	60- 73	8	P	c1g
P132-09	049816	POT NETS MOBILE HOME	WHITE DRILLING CORPO	82	17	73	60- 73	8	P	c1g
P132-10	057258	JOHN R HITCHENS/BAY	BURNS, INC	85	5	90	80- 90	4	P	c1g
P132-11	060588	JOHN R HITCHENS/BAY	BURNS, INC	85	5	94	84- 94	4	P	c1g
P132-12	060589	JOHN R HITCHENS/BAY	BURNS, INC	85	4	93	83- 93	4	P	c1g
P133-01	Pi3301	SAN HOUSTON SHONELL	CHARLES I DAISEY	68	8	60	- 60	4	P	c1g
P133-02	045143	WHITE HOUSE BEACH, 1	CHARLES I DAISEY	89	5	55	49- 55	4	P	c1g
P134-01	Pi3401	POT NETS MOBILE HOME	WHITE DRILLING CORPO	62	19	319	112-116	2	M	c1g
P134-02	Pi3402	LINFORD FAWCETT	WHITE DRILLING CORPO	71	16	115	68- 72	2	M	c1g
P134-07	046010	POT NETS MOBILE HOME	BURNS, INC	89	8	38	23- 38	4	P	c1g
P141-02	P4102	POT NETS MOBILE HOME	WHITE DRILLING CORPO	63	19	60	- 60	6	P	c1g
P141-03	Pi4103	POT NETS MOBILE HOME	WHITE DRILLING CORPO	66	19	85	- 85	6	P	c1g
P142-01	040846	WHITE HOUSE BEACH, 1	CHARLES I DAISEY	78	11	70	64- 70	4	R	c1g
P152-01	054666	PUBLIC WATER SUPPLY	WHITE DRILLING CORPO	83	9	98	77- 90	4	R	c1g
P152-02	010422	BUNTINGS' NURSERIES	UNKNOWN	60	8	-	-	4	U	mnkn
Pj11-01	DEL. STATE HIGHWAY D	ENNIS BROTHERS	59	5	539	-	184-188	4	U	poco
Pj12-01	DNREC - DELAWARE STA	WHITE DRILLING CORPO	71	5	502	-	184-188	3	U	poco
Pj31-01	U. S. COAST GUARD	WHITE DRILLING CORPO	53	5	505	-	184-188	3	U	poco
Pj41-04	047453	DNREC - PARKS & RECR	WHITE DRILLING CORPO	81	16	243	200-220	4	P	poco
Pj41-05	062724	DNREC - PARKS & RECR	WHITE DRILLING CORPO	85	19	230	200-230	2	G	poco
Pj42-01	P 4201	DEL. DEPT. OF TRANSP	JOHN ENNIS	47	6	250	239-244	4	P	poco
Pj51-03	051104	VFW Post 7234	WHITE DRILLING CORPO	82	16	200	180-200	4	P	poco
Pj51-04	052232	QUILLENS PT. (W. TYDIN	WHITE DRILLING CORPO	82	7	223	179-209	4	P	poco
Pj51-05	053075	QUILLENS PT. (W. TYDIN	WHITE DRILLING CORPO	83	7	223	190-215	4	P	poco
Qh11-03	031822	DELMARVA POWER & LIG	DELMARVA DRILLING CO	74	24	110	90-110	10	I	c1g
Qh11-04	Qh1104	DELMARVA POWER & LIG	DELMARVA DRILLING CO	74	25	100	95-100	2	M	c1g
Qh11-05	Qh1105	DELMARVA POWER & LIG	DELMARVA DRILLING CO	74	25	120	96-101	2	M	c1g
Qh11-06	032061	DELMARVA POWER & LIG	DELMARVA DRILLING CO	74	26	105	90-100	2	M	c1g
Qh11-07	032062	DELMARVA POWER & LIG	DELMARVA DRILLING CO	74	26	120	95-100	2	M	c1g
Qh11-08	032057	DELMARVA POWER & LIG	DELMARVA DRILLING CO	74	25	130	80-100	10	I	c1g
Qh15-02	Qh1502	BAKE TIMMONS	DELMARVA DRILLING CO	72	5	280	270-280	2	D	mnkn
Qh23-02	049654	CHARLES P. TOWNSEND	LIFETIME WELL DRILLI	82	12	116	86-116	12	R	c1g
Qh24-01	010421	BUNTINGS' NURSERIES	UNKNOWN	60	16	-	-	6	R	c1g
Qh24-02	050213	JOE CALHOUN	LIFETIME WELL DRILLI	82	12	96	16- 96	12	R	c1g
Qh24-03	050214	JOE CALHOUN	LIFETIME WELL DRILLI	82	12	96	76- 96	12	R	c1g
Qh25-03	056429	JOE CALHOUN	LIFETIME WELL DRILLI	84	12	110	30-110	8	F	c1g
Qh31-07	Qh3107	DAGSBORO VOLUNTEER F	ENNIS BROTHERS	51	25	74	64- 74	3	R	c1g
Qh31-08	038530	INDIAN RIVER SCHOOL	BURNS, INC	77	9	74	64- 74	4	R	c1g
Qh33-04	034866	BUNTINGS' NURSERIES	LARSON DRILLING CO.	76	23	82	42- 82	6	I	c1g
Qh41-01	Qh4101	DELMARVA POULTRY	WHITE DRILLING CORPO	51	35	111	90-111	8	M	poco
Qh41-09	056106	TOWN OF FRANKFORD	DELMARVA DRILLING CO	84	35	280	178-225	4	P	c1g
Qh41-10	056105	TOWN OF FRANKFORD	DELMARVA DRILLING CO	84	35	143	88-128	12	P	c1g
Qh41-11	057712	TOWN OF FRANKFORD	DELMARVA DRILLING CO	84	35	140	100-140	4	M	c1g
Qh43-02	062672	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	85	25	19	7- 12	4	M	c1g
Qh44-01	Qh4401	DELAWARE GEOLOGICAL	MIDDLETON WELL DRIL	58	22	206	-	-	O	c1g

Table 2. (continued) Records of selected water and test wells.

Permit No.	DGS Well No.	Owner	Driller	Year Drilled	Altitude (ft.)	Depth Drilled (ft.)	Screen Interval (ft.)	Well Diameter (in.)	Well Use	Aquifer
Qh51-07	Qh5107	TOWN OF FRANKFORD DELMARVA POULTRY HYPRO ASSOC	WHITE DRILLING CORPO	62	35	102	80-100	8	P	c1g
Qh51-10	Qh5110	ARTHUR BANKS	WHITE DRILLING CORPO	48	35	105	-105	8	1	c1g
Qh51-11	Qh5111	BUNTINGS' NURSERIES	WHITE DRILLING CORPO	49	35	121	-121	8	1	cigdoc
Qh51-12	Qh5112	U. S. GEOLOGICAL SURV	WHITE DRILLING CORPO	50	35	99	89-99	4	D	c1g
Qh51-14	001279	U. S. GEOLOGICAL SURV	WHITE DRILLING CORPO	70	35	112	80-101	8	P	c1g
Qh51-16	053221	U. S. GEOLOGICAL SURV	DELMARVA DRILLING CO	83	35	95	55-95	6	R	c1g
Qh54-04	Qh5404	EDWARD W PYLE CENTER	WHITE DRILLING CORPO	78	28	424	324-328	2	M	mnnkn
Qh54-05	Qh5405	DELAWARE GEOLOGICAL	WHITE DRILLING CORPO	78	28	232	229-232	2	M	poco
Qh54-06	Qh5406	UNKNOWN	WHITE DRILLING CORPO	78	28	148	144-148	2	M	c1g
Qh54-07	Qh5407	WHITE DRILLING CORPO	WHITE DRILLING CORPO	78	28	108	104-108	2	M	c1g
Qh54-08	Qh5472	WAYNE WEBER	WHITE DRILLING CORPO	84	25	70	60-70	4	P	c1g
Qh12-04	Qh48646	DELAWARE GEOLOGICAL	WHITE DRILLING CORPO	81	28	190	12-17	2	R	c1g
Qh12-05	010423	BUNTINGS' NURSERIES	WHITE DRILLING CORPO	80	12	-	-	6	P	c1g
Qh12-06	062162	CRIPPLE CREEK PROPER	WHITE DRILLING CORPO	85	8	90	70-90	6	P	c1g
Qh13-03	Qi1303	JAMES T BUCK 3rd	WHITE DRILLING CORPO	85	12	56-66	6	6	P	c1g
Qh13-04	Qi1304	UNKNOWN	WHITE DRILLING CORPO	11	11	34-44	6	6	P	c1g
Qh15-03	036927	BAY SHORE MOBILE HOME	WHITE DRILLING CORPO	76	10	202	160-170	6	P	c1g
Qh15-04	035427	BAY SHORE MOBILE HOME	LARSON DRILLING CO.	76	12	92	84-92	6	P	poco
Qh15-05	036167	BAY SHORE MOBILE HOME	WHITE DRILLING CORPO	76	12	81	77-81	6	P	poco
Qh15-07	051990	J TEMPLE JUMP JR	CHARLES I DAISEY	82	3	201	195-201	4	P	poco
Qh24-01	050791	PUBLIC WATER SUPPLY	WHITE DRILLING CORPO	82	11	103	88-98	2	M	c1g
Qh24-02	050809	WHITE GREEK MANOR RE	WHITE DRILLING CORPO	82	11	98	83-98	6	P	c1g
Qh24-03	037996	DELAWARE GEOLOGICAL	DELMARVA DRILLING CO	77	12	75	52-62	2	M	c1g
Qh31-03	062670	MILLVILLE FIRE DEPART	DELAWARE GEOLOGICAL	85	16	19	10-15	2	F	c1g
Qh34-01	Qi3401	SUSSEX CO. ENGINEERI	ENNIS BROTHERS	43	12	85	65-85	6	M	c1g
Qh41-01	063708	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	86	20	19	10-15	2	M	c1g
Qh41-02	063709	SUSSEX CO. ENGINEERI	DELAWARE GEOLOGICAL	86	20	39	30-35	2	M	c1g
Qh41-03	063710	SUSSEX CO. ENGINEERI	DELAWARE GEOLOGICAL	86	20	39	10-15	2	M	c1g
Qh41-04	063711	SUSSEX CO. ENGINEERI	DELAWARE GEOLOGICAL	86	20	36	30-35	1	M	c1g
Qh45-02	032929	DELMARVA DRILLING CO	DELMARVA DRILLING CO	74	15	120	92-102	6	P	c1g
Qh51-07	051990	J TEMPLE JUMP JR	CHARLES I DAISEY	3	3	195-201	4	P	O	poco
Qh53-02	048347	DEL. DEPT. OF TRANSP	DELAWARE GEOLOGICAL	81	19	165	-	6	R	c1g
Qj21-01	048442	BUNTINGS' NURSERIES	DELMARVA DRILLING CO	81	5	115	40-100	6	P	poco
Qj22-01	010258	SUSSEX SHORES WATER	SHANNANAH ARTESIAN W	57	5	188	168-178	4	P	poco
Qj22-02	010360	SUSSEX SHORES WATER	SHANNANAH ARTESIAN W	68	5	200	-	6	P	poco
Qj22-03	010259	SUSSEX SHORES WATER	SHANNANAH ARTESIAN W	68	5	186	163-182	10	F	c1g
Qj22-04	010362	SUSSEX SHORES WATER	SHANNANAH ARTESIAN W	68	5	186	167-184	10	P	c1g
Qj32-06	Qj3206	TOWN OF BETHANY BEAC	JOHN ENNIS	43	7	60	39-64	4	P	c1g
Qj32-07	Qj3207	WILLIAM P SHORT	SHANNANAH ARTESIAN W	54	5	69	61-69	6	P	poco
Qj32-10	010256	TOWN OF BETHANY BEAC	MIDDLETON WELL DRIL	59	5	257	186-211	8	P	poco
Qj32-12	010257	TOWN OF BETHANY BEAC	MIDDLETON WELL DRIL	67	6	240	179-214	15	P	mnnkn
Qj32-14	Qj3214	TOWN OF BETHANY BEAC	DELMARVA DRILLING CO	74	5	410	350-370	4	M	poco
Qj32-15	031782	TOWN OF BETHANY BEAC	DELMARVA DRILLING CO	74	5	400	353-383	10	P	poco
Qj32-16	032267	DELAWARE NATIONAL GU	WHITE DRILLING CORPO	75	5	242	189-210	12	P	mnnkn
Qj32-17	045428	TOWN OF BETHANY BEAC	DELMARVA DRILLING CO	80	7	400	335-400	4	M	poco
Qj32-22	045003	TOWN OF BETHANY BEAC	DELMARVA DRILLING CO	80	16	254	206-256	16	P	mnnkn
Qj41-02	002359	SEA COLONY DEVELOPM	DELMARVA DRILLING CO	71	5	366	341-366	8	P	

Table 2. (continued) Records of selected water and test wells.

DGS Well No.	Permit No.	Owner	Driller	Year Drilled	Altitude (ft.)	Depth Drilled (ft.)	Screen Interval (ft.)	Well Diameter (in.)	Well Use	Aquifer
Qj41-03	042728	SEA COLONY DEVELOPM	DELMARVA DRILLING CO	79	6	420	331-366	8	P	mnnk
Qj41-04	056505	SEA COLONY DEVELOPM	DELMARVA DRILLING CO	84	5	400	370-400	4	M	mnnk
Qj41-05	058224	PUBLIC WATER SUPPLY	WHITE DRILLING CORPO	84	8	117	95-115	4	P	c1g
Qj41-06	056109	SEA COLONY DEVELOPM	DELMARVA DRILLING CO	84	5	420	335-370	12	P	mnnk
Qj41-07	056506	SEA COLONY DEVELOPM	DELMARVA DRILLING CO	84	5	294	284-294	2	M	poco
Qj41-08	010602	SEA COLONY DEVELOPM	DELMARVA DRILLING CO	84	5	210	200-210	2	M	mnnk
Qj42-05	Qj4205	SEA COLONY DEVELOPM	DELMARVA DRILLING CO	70	6	400	340-360	4	U	poco
Qj42-09	053322	SEA PINES VILLAGE	DELMARVA DRILLING CO	83	6	195	163-183	4	P	poco
Rh12-01	Rh1201	UNKNOWN	C.D. PENTZ	51	37	102	92-102	6	I	c1g
Rh15-01	Rh1501	H F WILGUS	JOHN ENNIS	43	21	125	106-126	4	F	c1g
Rh32-01	Rh3201	TOWN OF SELBYVILLE	C.D. PENTZ	48	30	96	76-96	8	D	c1g
Rh32-02	Rh3202	TOWN OF SELBYVILLE	C.D. PENTZ	51	35	110	-	8	P	c1g
Rh32-06	Rh3206	TOWN OF SELBYVILLE	C.D. PENTZ	57	35	185	175-185	4	M	poco
Rh32-07	Rh3207	TOWN OF SELBYVILLE	SHANNANAH ARTESIAN W	65	38	495	-	O	O	c1g
Rh32-10	Rh3202	MOUNTAIRE OF DELMAR	SHANNANAH ARTESIAN W	70	32	127	102-122	1	I	c1g
Rh32-11	001113	MOUNTAIRE OF DELMAR	SHANNANAH ARTESIAN W	73	32	126	91-122	16	M	c1g
Rh32-12	059416	TOWN OF SELBYVILLE	DELMARVA DRILLING CO	85	32	110	85-110	12	P	c1g
Rh32-13	034796	MOUNTAIRE OF DELMAR	SHANNANAH ARTESIAN W	75	33	126	96-126	16	M	c1g
Rh32-14	034795	MOUNTAIRE OF DELMAR	SHANNANAH ARTESIAN W	75	32	120	100-120	8	I	c1g
Ri15-01	Ri1501	U.S. DEPT. OF ENERGY	ENERGY SYSTEMS	78	5	1007	-	4	G	c1g
Ri15-02	064537	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	5	120	-	2	M	c1g
Ri15-03	064538	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	5	20	10-12	2	M	c1g
Ri15-04	064539	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	5	20	5-7	2	M	c1g
Ri21-01	062673	DELAWARE GEOLOGICAL	DELAWARE GEOLOGICAL	85	15	18	7-12	4	M	c1g
Ri24-03	040387	SUSSEX CO. COMMUNITY	DELMARVA DRILLING CO	78	13	220	144-154	4	I	poco
Ri25-01	Ri2501	JAMES E SWANN BET, INC.	CHARLES I DAISEY BURNS, INC	67	5	131	123-131	6	P	poco
Ri25-04	037639	BET, INC. (SWAN KEY BET, INC.)	CHARLES I DAISEY BURNS, INC	77	5	175	155-175	6	P	c1g
Ri25-05	046003	SHADY PARK - GEORGE DEL. DEPT. OF TRANSP	CHARLES I DAISEY BURNS, INC	81	5	166	126-166	6	P	c1g
Ri25-06	059876	DAVID THORTON	DELAWARE GEOLOGICAL	85	7	117	111-117	4	O	c1g
Ri32-05	048348	DAVID THORTON	DELMARVA DRILLING CO	81	7	165	-	4	R	c1g
Ri33-03	049426	DAVID THORTON	DELMARVA DRILLING CO	81	8	110	35-100	4	R	c1g
Ri33-04	047795	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	5	110	35-100	4	O	c1g
Rj11-01	064536	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	5	20	10-12	2	M	c1g
Rj11-02	064535	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	5	15	15	2	M	c1g
Rj11-03	064532	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	5	15	8-10	2	M	c1g
Rj11-04	064529	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	5	15	6-8	2	M	mnnk
Rj11-05	064526	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	4	110	-	2	M	c1g
Rj11-06	064523	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	4	20	10-12	2	M	poco
Rj11-07	064525	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	5	15	7-12	2	M	c1g
Rj11-08	064524	U.S. GEOLOGICAL SURV	DELAWARE GEOLOGICAL	86	5	15	7-12	2	M	c1g
Rj22-05	Rj2205	WHITE DRILLING CORPO	WHITE DRILLING CORPO	77	5	493	450-455	1	P	mnnk
Rj22-06	Rj2206	WHITE DRILLING CORPO	WHITE DRILLING CORPO	77	5	295	290-295	1	P	c1g
Rj22-07	Rj2207	WHITE DRILLING CORPO	WHITE DRILLING CORPO	77	5	185	180-185	1	P	poco
Rj22-08	Rj2208	WHITE DRILLING CORPO	WHITE DRILLING CORPO	77	4	115	110-115	1	P	c1g
Rj22-09	059547	DNREC - PARKS & RECR	WHITE DRILLING CORPO	85	5	225	190-220	6	P	poco
Rj22-10	060512	BEACH DEVELOPMENT CO	SHANNANAH ARTESIAN W	85	5	196	176-196	6	chg	chg
Rj22-11	060511	BEACH DEVELOPMENT CO	SHANNANAH ARTESIAN W	85	8	190	175-190	6	P	P

Table 2. (continued) Records of selected water and test wells.

DGS Well No.	Permit No.	Owner	Driller	Year Drilled	Altitude (ft.)	Depth Drilled (ft.)	Screen Interval (ft.)	Well Diameter (in.)	Well Use	Aquifer
RJ31-02	049479	CAPE WINDSOR COMMUNI	DELMARVA DRILLING CO	81	5	403	340-380	6	P	mnkn
RJ31-03	002254	TREASURE BEACH CAMPG	WHITE DRILLING CORPO	71	4	214	194-204	4	P	poco
RJ31-04	033409	TREASURE BEACH CAMPG	WHITE DRILLING CORPO	75	4	220	204-214	4	P	poco
RJ31-05	042713	TREASURE BEACH CAMPG	WHITE DRILLING CORPO	79	4	223	201-211	4	P	poco
RJ31-06	048069	TREASURE BEACH CAMPG	WHITE DRILLING CORPO	81	4	214	204-214	4	P	poco
RJ31-07	RJ3107	CAPE WINDSOR COMMUNI	CHARLES I DAISEY	72	7	180	160-180	4	P	poco
RJ31-08	062688	CAPE WINDSOR COMMUNI	DELMARVA DRILLING CO	85	5	400	345-365	6	P	mnkn
RJ32-05	RJ3205	E B McCABE	WHITE DRILLING CORPO	51	10	287	—	9	D	mnkn
RJ32-22	RJ3222	ROGER SCHERFF	DELMARVA DRILLING CO	75	7	220	186-196	2	D	poco
RJ32-24	055861	JOHN CONLIN	BURNS, INC	84	5	180	168-178	2	D	poco
RJ32-25	053467	RICHARD GOLL	BURNS, INC	84	5	280	262-272	2	D	poco
RJ32-26	033853	VANS OUTPOST MARINA	DELMARVA DRILLING CO	75	5	230	210-220	4	C	poco
RJ32-27	040817	SURFSLIDE CORP	DELMARVA DRILLING CO	78	7	220	211-220	4	C	poco
RJ32-28	053336	TOM WHALEY	BURNS, INC	83	4	165	155-165	4	P	poco
RJ32-29	051215	LIBBY'S RESTURANT	BURNS, INC	82	5	306	300-306	2	P	mnkn
RJ32-30	060154	CANAL VIEW ASSOCIATE	COASTAL WATER SYSTEM	85	7	250	235-250	4	P	poco
RJ32-31	060155	CANAL VIEW ASSOCIATE	COASTAL WATER SYSTEM	85	7	250	235-250	4	P	poco

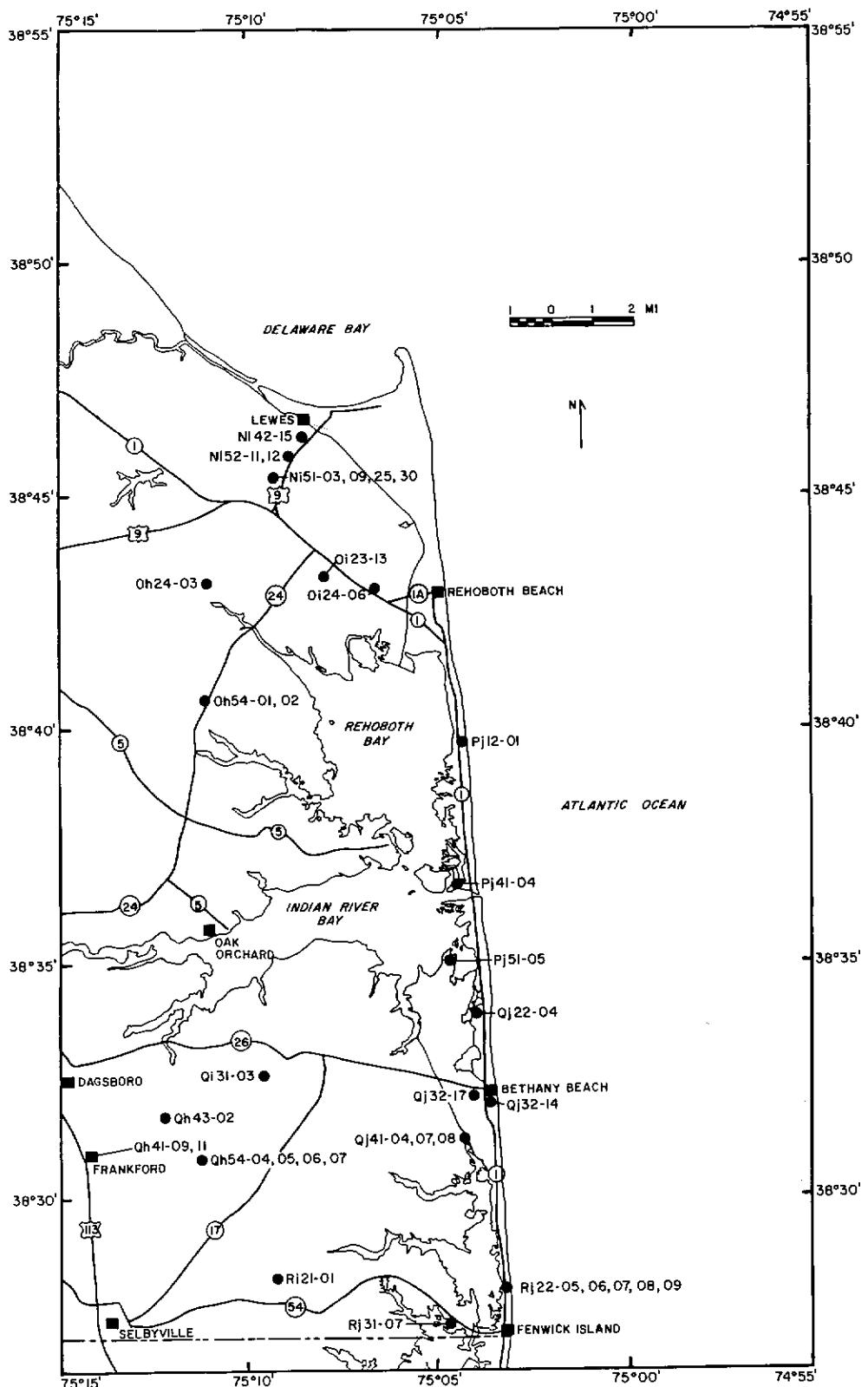


Figure 3. Map showing locations of selected wells used for water-level monitoring.

Table 3. Ground-water levels and hydrographs for selected wells.

WELL - Ni42-15  
 LOCATION - Lat  $38^{\circ}46'14''$ , long  $75^{\circ}08'18''$   
 OWNER - City of Lewes  
 AQUIFER - Pocomoke  
 WELL CHARACTERISTICS - Drilled observation well, diameter 4 in., depth 152 ft., cased to 142 ft., screened 142-152 ft. Continuous water-level recorder operating since August 1985.  
 DATUM - Altitude of land-surface datum is approximately 10 ft. (map). Measuring point: Base of water-level recorder housing, 4.27 ft. above land-surface datum. Measurements are daily lowest water levels taken from recorder graph.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 5.48 ft. below land-surface datum, September 27, 1985; lowest water level recorded, 7.08 ft. below land-surface datum, June 20, 1986.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
850514	6.80	851115	6.17	860228	5.86
850701	6.87	851120	6.22	860305	5.93
850801	7.01	851125	6.13	860310	6.21
850806	6.59	851130	5.91	860315	6.08
850810	6.48	851205	5.95	860320	6.10
850815	6.56	851210	5.91	860325	6.21
850830	5.85	851215	5.88	860330	6.34
850905	5.84	851220	6.17	860425	6.03
850910	5.85	851225	6.11	860430	6.14
850915	5.91	851230	6.29	860505	6.41
850920	5.97	860105	6.28	860510	6.38
850925	5.98	860110	6.61	860515	6.40
851005	5.80	860115	6.58	860520	6.61
851010	5.96	860120	6.51	860525	6.58
851015	5.86	860125	6.56	860530	6.66
851020	6.02	860130	6.22	860605	6.84
851025	5.90	860205	6.09	860610	6.95
851030	6.08	860210	5.90	860615	6.96
851105	5.53	860215	5.86	860620	7.08
851110	6.03	860225	5.91		

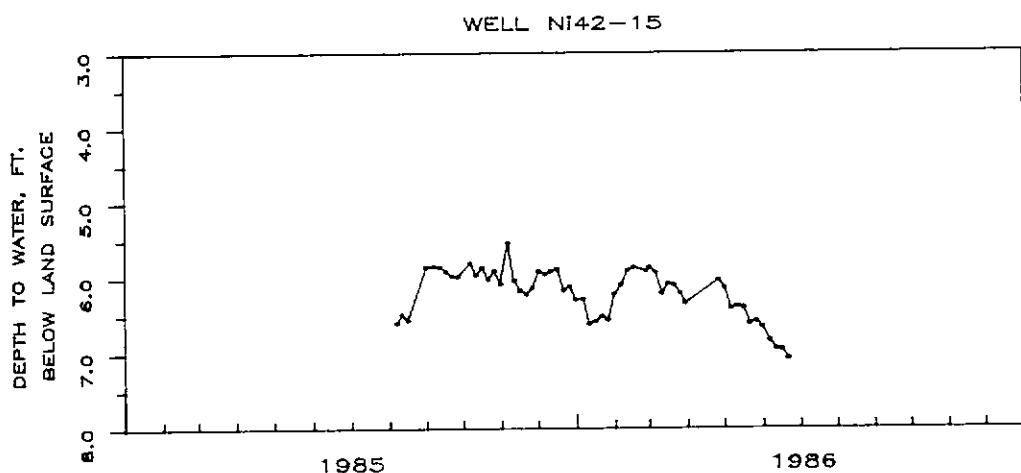


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Ni51-03  
 LOCATION - Lat 38°45'15", long 75°09'03"  
 OWNER - City of Lewes  
 AQUIFER - Columbia  
 WELL CHARACTERISTICS - Drilled observation well, diameter 6 in., depth 84 ft., screened interval unknown. Condition unknown.  
 DATUM - Altitude of land-surface datum is approximately 22 ft. Measuring point: Hole in recorder platform 2.34 ft. above land-surface datum. Measurements are daily lowest water levels taken from recorder graph. Water levels affected by pumping after 1955.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 13.36 ft. below land-surface datum, February 4, 1962; lowest water level recorded, 21.73 ft. below land-surface datum, October 16, 1947.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
470619	20.36	530415	15.50	560817	17.22
470723	20.07	530515	15.92	560906	17.39
470813	18.84	530618	16.69	570507	14.35
470918	21.70	530715	16.67	570703	16.72
471016	21.73	530815	14.93	570801	17.94
471113	19.47	530915	17.06	571202	16.74
471212	21.12	531015	17.43	580605	15.42
480131	19.64	531115	16.90	580816	16.41
480215	19.49	531215	16.88	581005	16.20
480313	19.01	540115	17.05	581210	17.35
480417	17.68	540215	16.78	590204	17.43
480515	16.82	540315	16.75	590409	15.45
480612	15.09	540415	14.98	590522	18.01
480718	18.07	541013	18.96	590803	16.44
480815	17.63	541115	19.12	590930	18.10
480917	18.12	541215	18.42	591117	16.51
481009	16.93	550225	16.72	600201	17.25
520115	18.13	550315	17.76	600331	16.20
520214	17.29	550415	17.85	600402	18.03
520315	17.04	550515	18.13	600422	17.47
520415	16.65	550615	19.06	600531	16.54
520515	16.61	550715	20.16	600602	17.71
520615	16.47	550815	18.49	600721	17.49
520715	15.29	550915	18.80	610302	15.90
520821	17.13	551021	18.66	610509	14.58
520915	17.56	551111	17.72	610630	17.02
521016	17.79	551212	17.31	610905	15.42
521115	17.68	560110	18.22	610927	15.72
521215	17.50	560214	17.72	611020	16.24
530116	16.86	560302	17.35	611031	17.46
530215	16.39	560417	17.20	611229	16.40
530315	15.75	560730	16.22	620131	13.91

WELL NI51-03

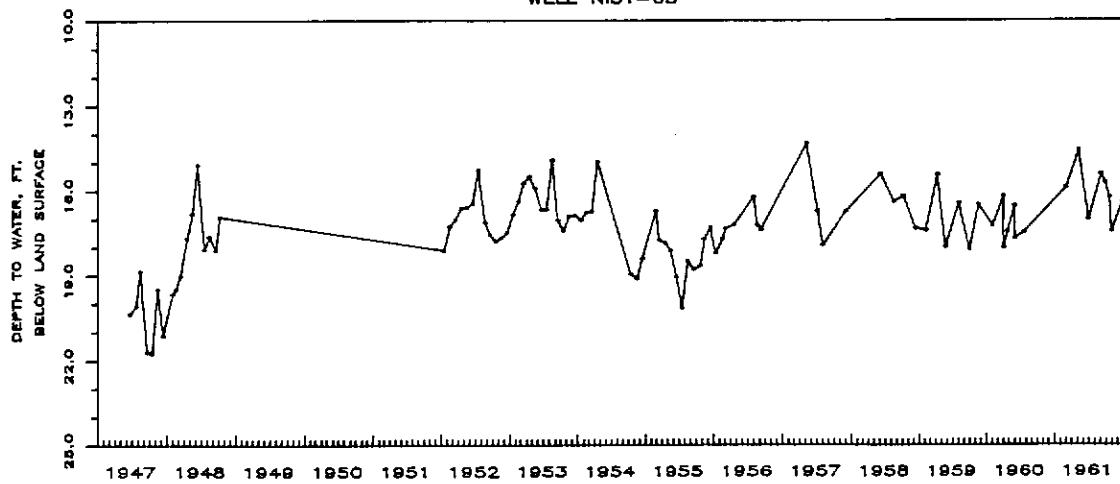
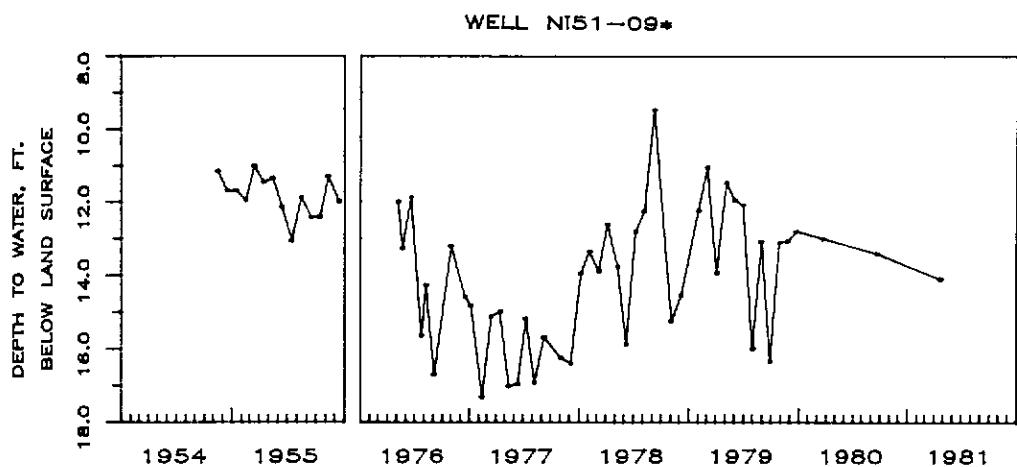


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Ni51-09  
 LOCATION - Lat  $38^{\circ}45'22''$ , long  $75^{\circ}09'13''$   
 OWNER - City of Lewes  
 AQUIFER - Pocomoke  
 WELL CHARACTERISTICS - Drilled test well, diameter 4 in., depth 160 ft., casing to 150 ft., screened 150-160 ft. Destroyed, not available for observation purposes.  
 DATUM - Altitude of land-surface datum is approximately 15 ft. (map). Measuring point: Top of casing, 1.50 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 9.48 ft. below land-surface datum, September 5, 1978; lowest water level recorded, 17.32 ft. below land-surface datum, February 11, 1977.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
541115	11.15	551014	12.41	780405	12.60
541215	11.68	551110	11.30	780508	13.76
550115	11.68	551215	11.99	780607	15.87
550215	11.96	760504	11.99	780706	12.79
550315	11.01	760519	13.25	780804	12.24
550415	11.45	760617	11.86	780905	9.48
550515	11.35	760722	15.63	781102	15.24
550615	12.15	760806	14.26	781205	14.53
550715	13.06	760903	16.70	790131	12.23
550815	11.88	761029	13.20	790301	11.05
550915	12.42	761215	14.58	790402	13.93
551014	12.41	770103	14.82	790503	11.47
551110	11.30	770211	17.32	790531	11.95
551215	11.99	770314	15.11	790628	12.08
541115	11.15	770413	14.98	790731	15.99
541215	11.68	770513	17.02	790828	13.08
550115	11.68	770613	16.96	790927	16.33
550215	11.96	770708	15.17	791026	13.10
550315	11.01	770808	16.92	791123	13.05
550415	11.45	770907	15.68	791221	12.80
550515	11.35	771102	16.23	800320	13.00
550615	12.15	771205	16.40	800918	13.40
550715	13.06	780105	13.93	810421	14.09
550815	11.88	780203	13.34		
550915	12.42	780307	13.88		



\*NO DATA AVAILABLE FROM 1956-1975

Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Ni51-25  
 LOCATION - Lat  $38^{\circ}45'24''$ , Long  $75^{\circ}09'20''$   
 OWNER - City of Lewes  
 AQUIFER - Manokin  
 WELL CHARACTERISTICS - Drilled public supply water well, diameter 6 in., depth 242 ft., casing to 200 ft., screened 200-220 ft. Destroyed, not available for observation purposes.  
 DATUM - Altitude of land-surface datum is approximately 15 ft. (map). Measuring point: Top of casing, 2.80 ft. above land-surface datum.

EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 9.11 ft. below land-surface datum, March 1, 1979; lowest water level recorded, 16.67 ft. below land-surface datum, May 20, 1974.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
740520	16.67	770708	13.60	790103	11.86
760504	10.99	770808	14.70	790131	10.20
760519	12.26	770907	14.11	790301	9.11
760617	11.11	771102	13.43	790402	9.63
760722	12.74	771205	13.82	790503	9.52
760806	13.29	780105	12.18	790531	10.05
760903	13.15	780203	11.00	790629	9.21
761029	12.93	780307	11.54	790731	11.22
761130	13.27	780405	10.31	790828	10.57
761215	13.41	780508	11.05	790929	11.54
770113	13.02	780607	12.79	791026	10.80
770211	13.99	780706	10.51	791123	10.48
770314	13.33	780805	10.68	791231	10.33
770413	13.59	780905	11.10	800320	10.57
770513	13.69	781102	12.44	800818	11.63
770613	13.51	781205	11.95	810421	12.06

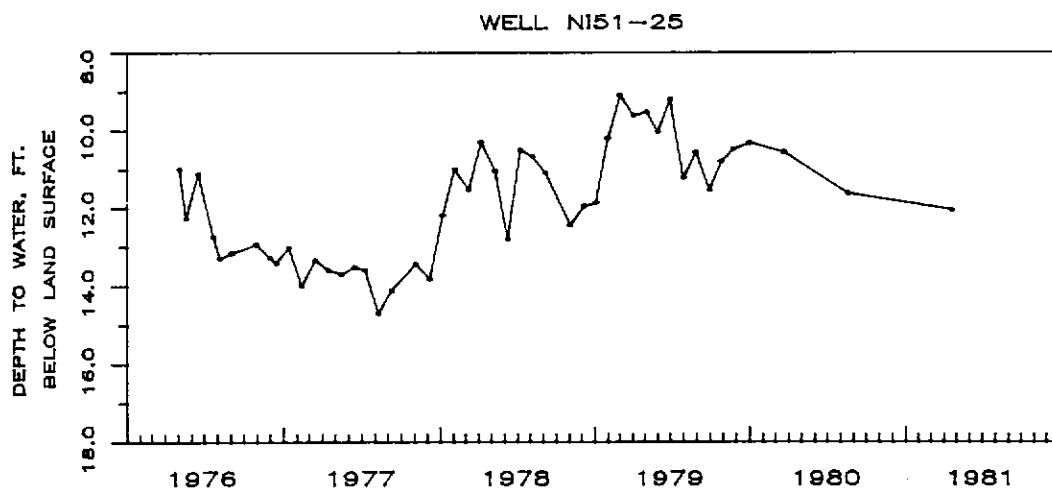


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Ni51-30  
**LOCATION** - Lat  $38^{\circ}45'24''$ , long  $75^{\circ}09'16''$   
**OWNER** - Town of Lewes  
**AQUIFER** - Pocomoke  
**WELL CHARACTERISTICS** - Drilled observation well, diameter 4 in., depth 155 ft., cased to 150 ft., screened 150-155 ft. Continuous water-level recorder in operation since May 1985. Water-level affected by nearby pumping wells.  
**DATUM** - Altitude of land-surface datum is approximately 15 ft. (map). Measuring point: Base of water-level recorder housing, 2 ft. above land-surface datum. Measurements are mean daily levels.  
**EXTREMES FOR PERIOD OF RECORD** - Highest mean daily water level recorded, 10.52 ft. below land-surface datum December 22, 1985; lowest mean daily water level recorded, 18.07 ft. below land-surface datum, July 5, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
840220	13.80	850920	13.50	860130	15.04
850515	14.13	850925	13.71	860205	14.98
850520	13.26	850930	15.12	860210	13.59
850525	14.74	851005	14.61	860215	12.17
850530	13.31	851010	15.32	860220	12.95
850605	15.78	851015	15.57	860225	12.67
850610	14.87	851020	14.52	860305	15.16
850615	14.46	851025	16.50	860310	14.67
850620	15.16	851030	14.91	860315	13.27
850625	17.56	851105	14.91	860320	12.27
850630	16.77	851110	12.99	860325	12.57
850705	18.07	851115	13.13	860330	12.12
850710	14.27	851120	13.18	860405	12.31
850715	13.94	851125	14.39	860410	14.20
850720	13.44	851130	14.24	860415	14.31
850725	14.76	851205	15.96	860420	14.31
850730	13.14	851210	15.98	860425	13.91
850805	15.42	851215	13.70	860430	12.16
850810	14.59	851220	12.66	860505	12.42
850815	16.92	851225	13.23	860510	12.74
850820	13.42	851230	13.13	860515	14.51
850825	13.05	860105	14.34	860520	16.14
850830	14.66	860110	13.33	860525	15.84
850905	15.68	860115	14.00	860530	15.84
850910	17.55	860120	16.81	860605	12.83
850915	16.00	860125	14.63		

WELL NI51-30

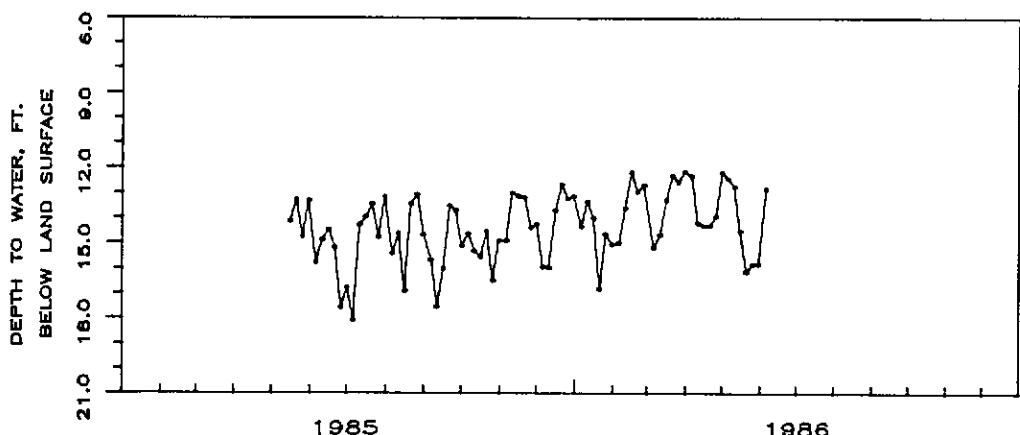


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Ni52-11  
 LOCATION - Lat  $38^{\circ}45'58''$ , long  $75^{\circ}08'35''$   
 OWNER - City of Lewes  
 AQUIFER - Pocomoke  
 WELL CHARACTERISTICS - Drilled observation well, diameter 4 in., depth 155 ft., cased to 145 ft., screened 145-155 ft.  
 DATUM - Altitude of land-surface datum is approximately 18 ft. (map). Measuring point: Top of protective casing at hinge bolt 1.3 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 9.48 ft. below land-surface datum, November 1, 1985; lowest water level recorded, 11.41 ft. below land-surface datum, July 7, 1986.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
850514	10.95	851115	10.70	860403	10.37
850701	10.98	851203	10.23	860423	9.90
850806	11.12	851227	10.54	860514	10.37
850822	10.58	851230	10.65	860529	10.55
851001	10.52	860203	10.59	860605	10.93
851003	10.42	860220	10.17	860624	10.95
851017	10.49	860228	10.03	860707	11.41
851101	9.48	860331	10.34		

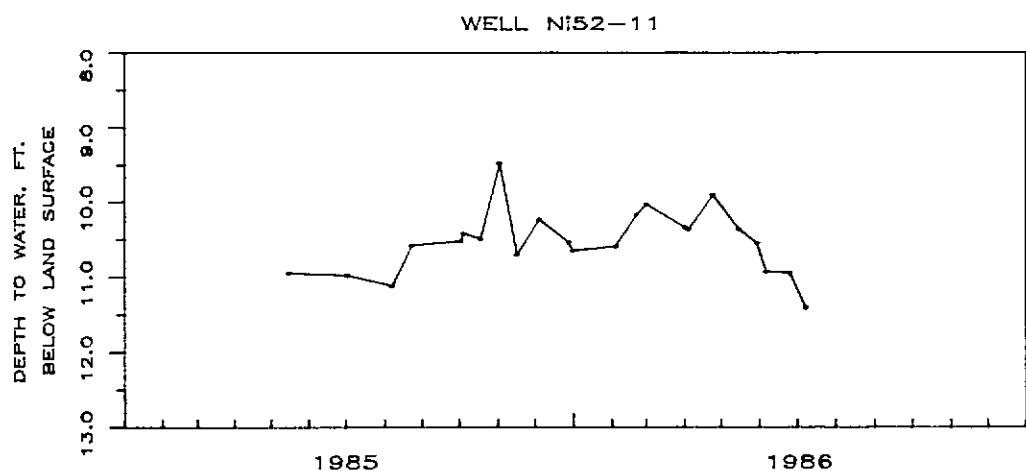


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Ni52-12  
 LOCATION - Lat  $38^{\circ}45'58''$ , long  $75^{\circ}08'35''$   
 OWNER - City of Lewes  
 AQUIFER - Columbia  
 WELL CHARACTERISTICS - Drilled observation well, diameter 4 in., depth 80 ft., cased to 70 ft., screened 70-80 ft.  
 DATUM - Altitude of land-surface datum is approximately 18 ft. (map). Measuring point: Top of protective casing at hinge bolt 1.2 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 9.22 ft. below land-surface datum, November 1, 1985; lowest water level recorded, 11.20 ft. below land-surface datum, August 6, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
850514	10.56	851115	10.41	860403	9.70
850701	10.89	851203	10.11	860423	9.74
850806	11.20	851227	10.21	860514	10.10
850822	10.11	851230	10.33	860529	9.43
851001	10.11	860203	10.03	860605	10.55
851003	10.09	860220	9.35	860624	10.70
851017	10.06	860228	9.27	860707	11.07
851101	9.22	860331	9.65		

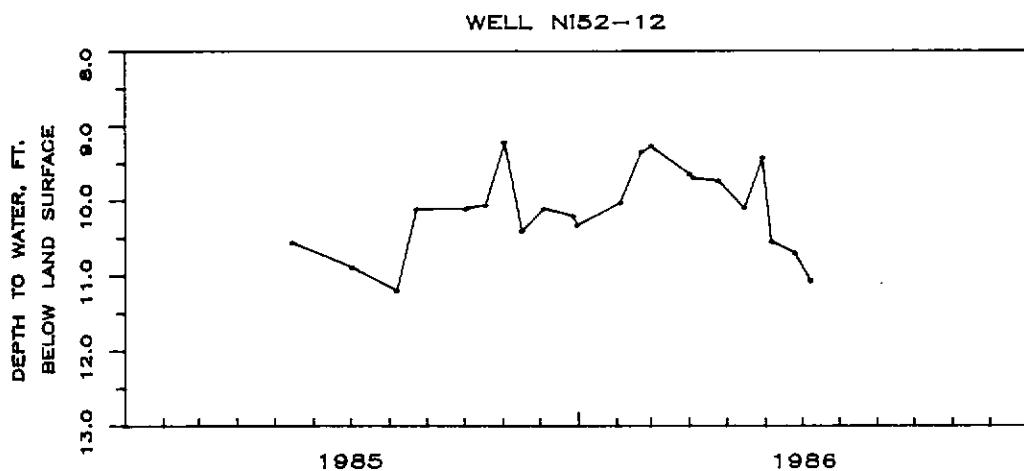


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Oh24-03  
LOCATION - Lat 38°43'12", long 75°11'03"  
OWNER - Delaware Geological Survey  
AQUIFER - Columbia  
WELL CHARACTERISTICS - Augered observation well, diameter 2 in., depth 24.4 ft., cased to 14.0 ft., screened 14.0-19.0 ft.  
DATUM - Altitude of land-surface datum is approximately 20 ft. (map). Measuring point: Top of casing at land-surface datum.  
EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 11.71 ft. below land-surface datum, March 18, 1986; lowest water level recorded, 13.15 ft. below land-surface datum, August 6, 1986.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
851001	12.90	860318	11.71	860529	12.37
851125	12.92	860328	11.84	860624	12.68
860108	12.80	860403	11.91	860806	13.15
860128	12.75	860425	12.06		

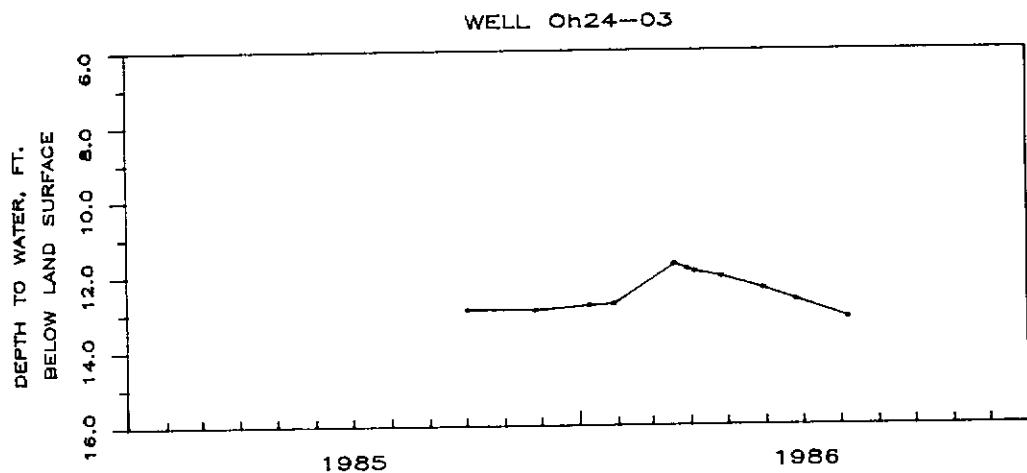


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Oh54-01  
**LOCATION** - Lat  $38^{\circ}40'38''$ , long  $75^{\circ}11'01''$   
**OWNER** - U. S. Geological Survey-Delaware Geological Survey  
**AQUIFER** - Manokin  
**WELL CHARACTERISTICS** - Drilled observation well, diameter 2 in., depth 375 ft., cased to 280 ft., screened 280-290 ft. Wells Oh54-01 and 02 installed at various depths in same test hole.  
**DATUM** - Altitude of land-surface datum is approximately 18 ft. (map). Measuring point: Top of casing, 1.5 ft. above land-surface datum.  
**EXTREMES FOR PERIOD OF RECORD** - Highest water level recorded 5.35 ft. below land-surface datum, April 4, 1984; lowest water level recorded 11.61 ft. below land-surface datum, November 2, 1977.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
771101	10.61	790927	8.21	850708	10.78
771102	11.61	791026	8.47	850717	10.87
771206	10.81	791123	7.92	850806	11.20
780105	9.16	791221	8.00	850821	10.98
780203	7.13	800326	8.09	850826	10.86
780326	6.35	800918	9.70	850828	10.92
780405	6.36	810421	10.16	851018	11.03
780607	6.72	810923	10.34	851108	11.12
780706	7.52	820415	8.52	851115	11.15
780804	8.13	820930	9.97	851227	10.87
780905	9.02	830322	7.63	851230	10.90
781102	10.06	831122	8.16	860205	11.47
781205	10.16	840404	5.35	860228	9.84
790103	10.49	841012	10.82	860403	9.68
790202	8.64	850205	9.57	860423	9.71
790301	6.76	850415	9.31	860514	9.93
790402	6.02	850510	9.58	860529	10.10
790503	6.49	850605	9.77	860605	10.52
790531	6.62	850620	9.89	860624	10.42
790731	7.67	850701	10.71	860707	10.73
790828	8.32				

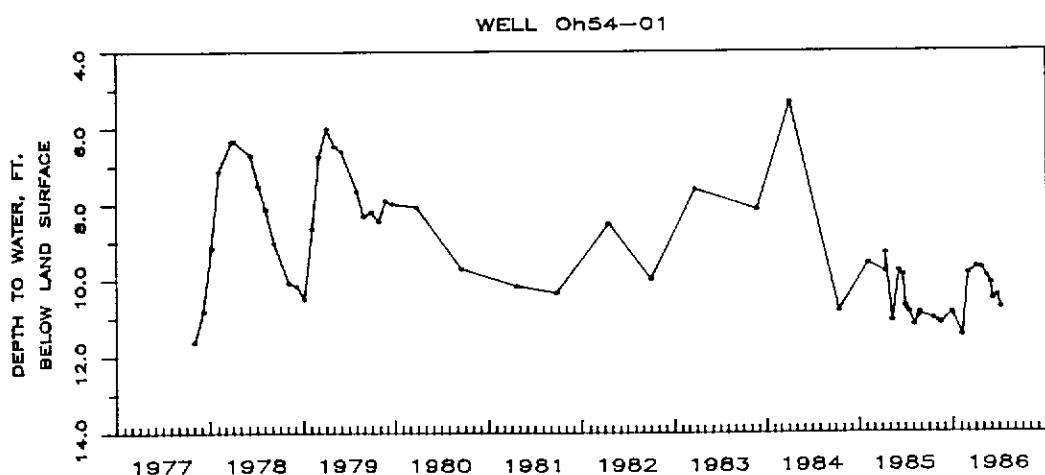


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Oh54-02  
**LOCATION** - Lat  $38^{\circ}40'38''$ , long  $75^{\circ}11'01''$   
**OWNER** - U. S. Geological Survey-Delaware Geological Survey  
**AQUIFER** - Pocomoke  
**WELL CHARACTERISTICS** - Drilled observation well, diameter 2 in., depth 189 ft., cased to 179 ft., screened 179-189 ft. Wells Oh54-02 and 01 installed at various depths in same test hole.  
**DATUM** - Altitude of land-surface datum is approximately 18 ft. (map). Measuring point: Top of casing, 1.5 ft. above land-surface datum.  
**EXTREMES FOR PERIOD OF RECORD** - Highest water level recorded 6.44 ft. below land-surface datum, April 2, 1979; lowest water level recorded, 13.85 ft. below land-surface datum, September 23, 1981.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
771102	12.41	790828	9.85	850717	11.84
771206	11.68	790927	9.75	850806	12.07
780105	9.68	791026	9.93	850821	11.81
780203	6.78	791123	9.11	850826	11.38
780326	6.75	791221	9.36	850828	11.81
780405	6.90	800320	9.43	851018	11.73
780607	7.26	800918	11.35	851108	11.82
780706	9.88	810421	11.47	851115	11.13
780804	10.71	810923	13.85	851227	11.52
780905	10.49	820415	9.49	851230	11.60
781102	12.90	820930	11.45	860205	11.16
781205	12.10	830322	8.13	860228	10.41
790103	11.46	841012	8.91	860403	10.23
790202	9.55	850205	11.18	860423	10.23
790301	6.73	850415	9.39	860514	10.54
790402	6.44	850510	9.79	860529	10.74
790503	7.62	850605	11.36	860605	10.91
790531	7.87	850620	11.48	860624	11.15
790629	8.07	850701	11.62	860707	11.47
790731	9.15	850708	11.77		

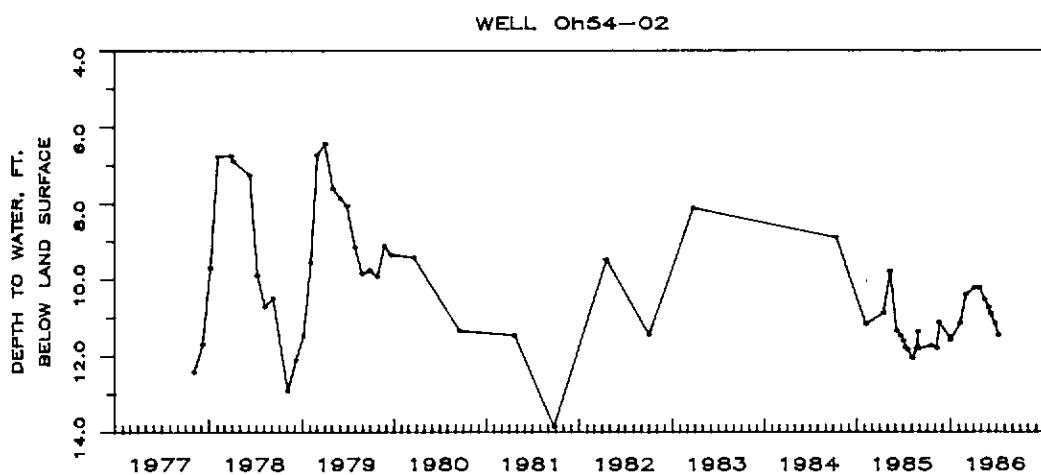


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - OI23-13  
 LOCATION - Lat  $38^{\circ}43'17''$ , long  $75^{\circ}07'50''$   
 OWNER - City of Rehoboth Beach  
 AQUIFER - Columbia  
 WELL CHARACTERISTICS - Drilled observation well, diameter 2 in., depth 96 ft., cased to 92 ft., screened 92-96 ft. Affected by pumping well OI23-12 located approximately 30 ft. away.  
 DATUM - Altitude of land-surface datum is approximately 26 ft. (map). Measuring point: Top of casing, 0.42 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 18.87 ft. below land-surface datum, April 29, 1986; lowest water level recorded, 39.97 ft. below land-surface datum, July 1, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
741021	19.00	851101	20.31	860331	18.90
850514	37.65	851230	20.28	860403	19.28
850605	38.37	860122	20.29	860429	18.87
850701	39.97	860203	21.01	860514	19.35
850806	23.70	860220	19.81	860605	19.78
851001	20.36	860228	19.45	860707	37.31
851017	20.15				

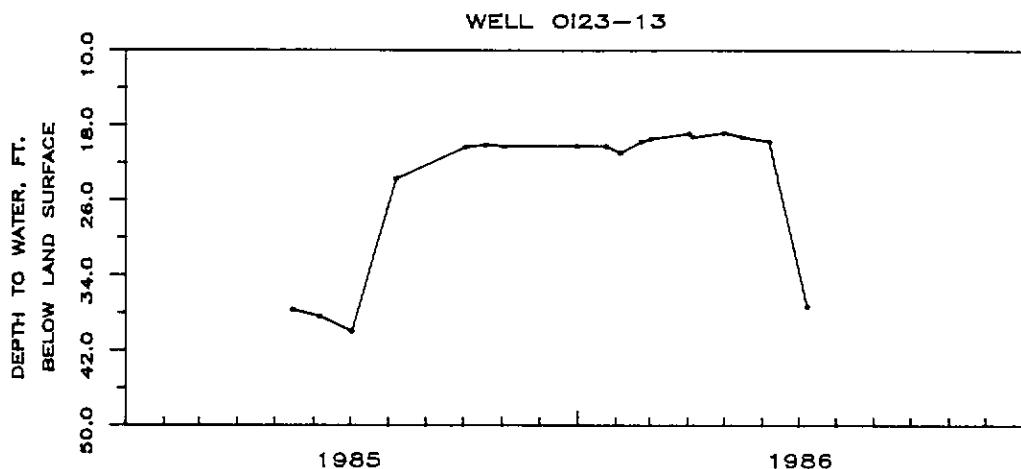


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - OI24-06  
 LOCATION - Lat 38°42'58", long 75°06'31"  
 OWNER - City of Rehoboth Beach  
 AQUIFER - Manokin  
 WELL CHARACTERISTICS - Drilled test well converted to observation well, diameter 4 in., depth 250 ft., cased to 230 ft., screened 230-250 ft. Continuous water-level recorder in operation from May 1976 to January 1980 and since May 1985.  
 DATUM - Altitude of land-surface datum is approximately 25 ft. (map). Measuring point: Top of casing 0.5 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 17.03 ft. below land-surface datum, March 31, 1979; lowest water level recorded, 20.49 ft. below land-surface datum, July 24, 1981.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
751027	20.00	780615	17.59	801114	19.35
760504	18.64	780630	17.99	801216	19.34
760615	19.33	780715	18.41	810116	19.63
760630	19.40	780731	18.67	810217	19.74
760715	19.52	780815	18.80	810320	19.51
760731	19.63	780831	19.07	810421	19.56
760815	19.60	780915	19.05	810522	19.37
760915	19.65	780930	19.07	810623	19.78
760930	19.62	781015	19.14	810724	20.49
761015	19.30	781031	19.29	810824	20.28
761031	19.10	781115	19.15	810923	19.14
761115	19.32	781130	18.90	811023	20.13
761130	19.34	781215	18.96	811119	19.90
761215	19.38	781231	19.20	811211	19.84
761231	19.25	790115	19.04	820128	20.04
770115	19.16	790131	18.40	850415	18.71
770131	19.40	790215	18.29	850514	19.16
770228	19.32	790228	17.72	850515	19.18
770315	19.23	790315	17.14	850531	19.10
770331	19.12	790331	17.03	850615	19.21
770415	19.32	790415	17.28	850630	19.52
770430	19.36	790430	17.43	850701	19.34
770515	19.27	790531	17.68	850715	19.82
770531	19.62	790615	17.45	850731	20.18
770615	19.56	790515	17.52	850815	20.24
770630	19.79	790625	17.60	850831	19.55
770715	19.93	790731	18.29	850915	19.62
770731	20.29	790815	18.58	850930	19.41
770815	20.30	790831	18.58	851015	19.36
770831	20.23	790915	18.59	851031	19.39
770915	20.14	790930	18.40	851115	19.28
770930	19.93	791015	18.40	851130	19.13
771015	19.85	791025	18.24	851215	19.09
771031	20.03	791115	17.92	851230	19.30
771115	19.50	791130	18.02	860115	19.51
771130	19.57	791215	18.14	860130	19.16
780105	18.88	800121	17.78	860215	18.89
780115	18.62	800220	18.17	860305	18.69
780131	18.20	800320	18.41	860315	18.74
780215	17.80	800418	17.79	860330	18.94
780228	17.98	800516	17.77	860415	18.87
780315	17.79	800616	18.21	860430	18.78
780331	17.50	800718	18.82	860515	19.11
780415	17.57	800818	19.35	860530	19.36
780430	17.39	800918	19.45	860615	19.76
780515	17.29	801015	19.37	860630	19.98
780531	17.45				

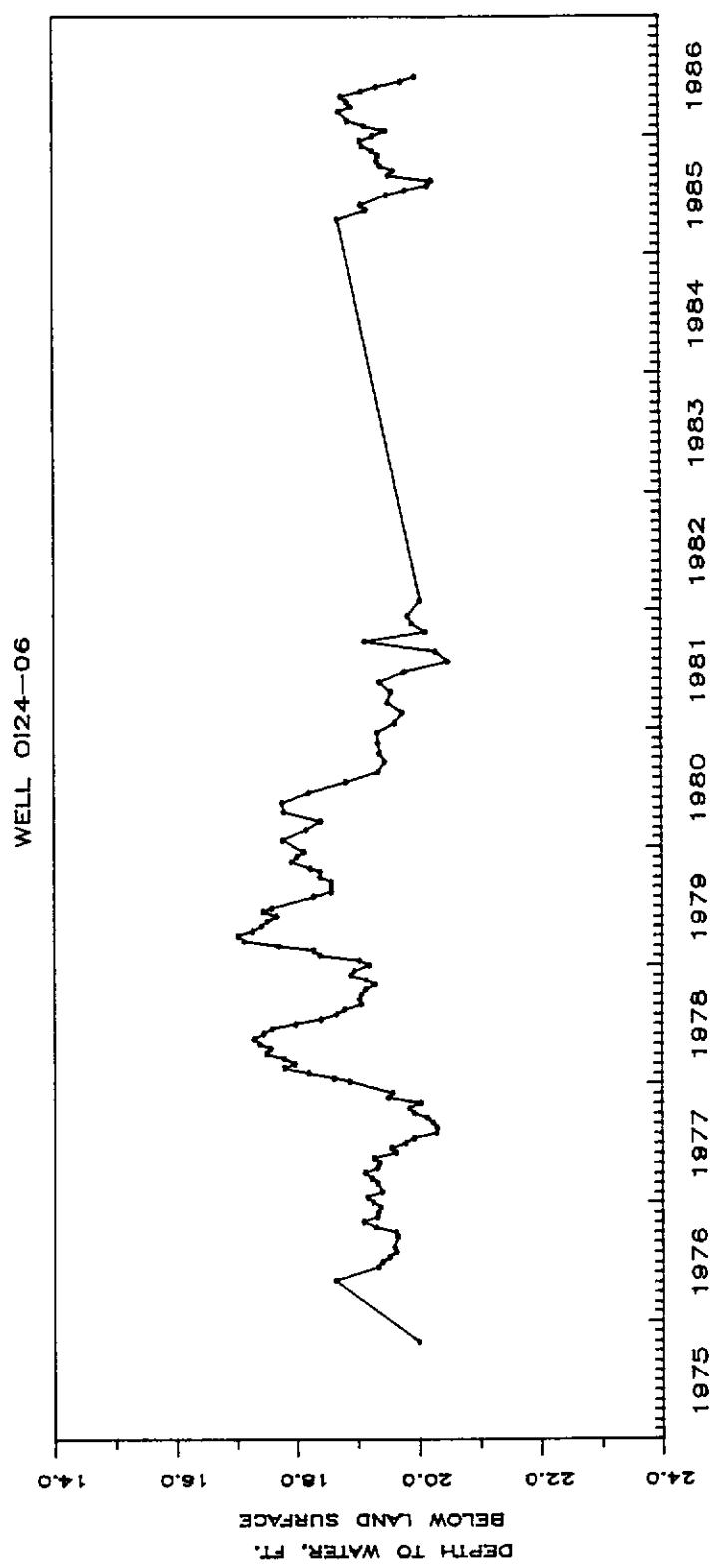


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Pj12-01  
**LOCATION** - Lat 38°39'16", long 75°04'20"  
**OWNER** - Delaware Division of Parks and Recreation  
**AQUIFER** - Pocomoke  
**WELL CHARACTERISTICS** - Drilled observation well, diameter 4 in., depth 188 ft., cased to 184 ft., screened 184-188, 192-196 ft. Continuous water-level recorder in operation from July 1976 to December 1979.  
**DATUM** - Altitude of land-surface datum is approximately 5 ft. (map). Measuring point: Top of casing, 1.0 ft. above land-surface datum.  
**EXTREMES FOR PERIOD OF RECORD** - Highest water level recorded, 0.30 ft. above land-surface datum, December 20, 1977; lowest water level recorded, 2.38 ft. below land-surface datum, August 19, 1971 and January 31, 1977.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
710720	1.80	771031	0.47	790215	1.35
710819	2.38	771115	1.00	790228	0.95
760628	0.74	771130	1.34	790315	1.73
760730	1.03	771215	1.01	790331	1.13
760815	1.35	771231	0.95	790415	0.91
760831	1.25	780115	0.45	790430	1.15
760915	1.42	780205	1.38	790515	1.25
760930	0.85	780215	0.80	790531	1.11
761015	1.48	780228	1.12	790615	1.31
761031	1.30	780315	0.92	790630	0.88
761115	1.75	780331	1.15	790715	0.94
761130	1.48	780415	1.35	790731	0.90
761215	2.06	780430	0.65	790815	1.05
761231	1.88	780515	0.66	790831	1.08
770115	1.40	780531	1.14	790915	1.07
770131	2.38	780615	1.57	790930	1.10
770215	1.65	780630	1.40	791015	1.40
770228	1.40	780715	1.20	791031	1.29
770315	1.35	780805	1.10	791115	1.03
770331	1.45	780815	1.03	791130	1.42
770413	1.65	780831	0.95	791215	1.18
770515	1.34	780915	0.89	800121	0.96
770531	1.25	780930	0.96	800320	1.69
770615	1.16	781015	0.77	800920	1.02
770630	1.07	781031	1.12	810421	1.49
770715	1.59	781115	1.15	810923	1.08
770731	1.35	781130	0.97	820415	1.34
770815	1.48	781215	1.72	820430	0.51
770831	1.32	781231	1.35	830322	0.60
770915	1.35	790115	1.82	831122	0.86
770930	0.70	790131	1.18	840404	0.67
771015	0.60				

WELL PJ12-01

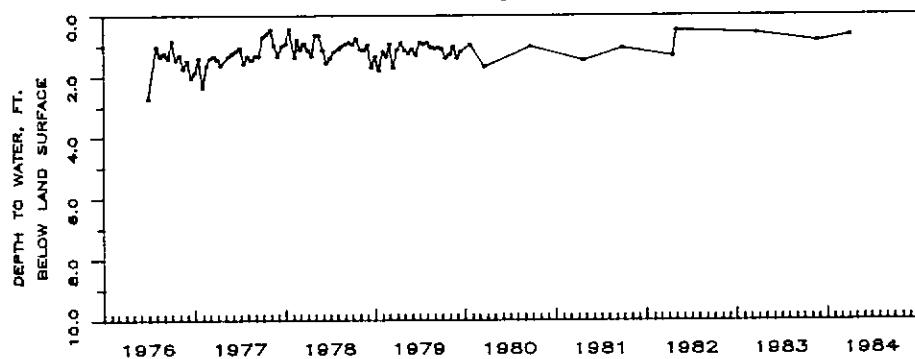


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Pj41-04  
 LOCATION - Lat 38°36'45", long 75°04'17"  
 OWNER - Delaware Division of Parks and Recreation  
 AQUIFER - Pocomoke  
 WELL CHARACTERISTICS - Drilled public supply water well, diameter 4 in., depth 220 ft., cased to 200 ft., screened 200-220 ft.  
 DATUM - Altitude of land-surface datum is approximately 10 ft. (map). Measuring point: Top of pitless adapter, 1.6 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 3.05 ft. below land-surface datum, November 1, 1985; lowest water level recorded, 6.13 ft. below land-surface datum, August 28, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
810312	4.50	850828	6.13	860220	4.02
850708	5.71	851003	4.15	860403	4.08
850722	5.55	851101	3.05	860429	4.56
850806	3.11	860122	4.39	860617	5.66

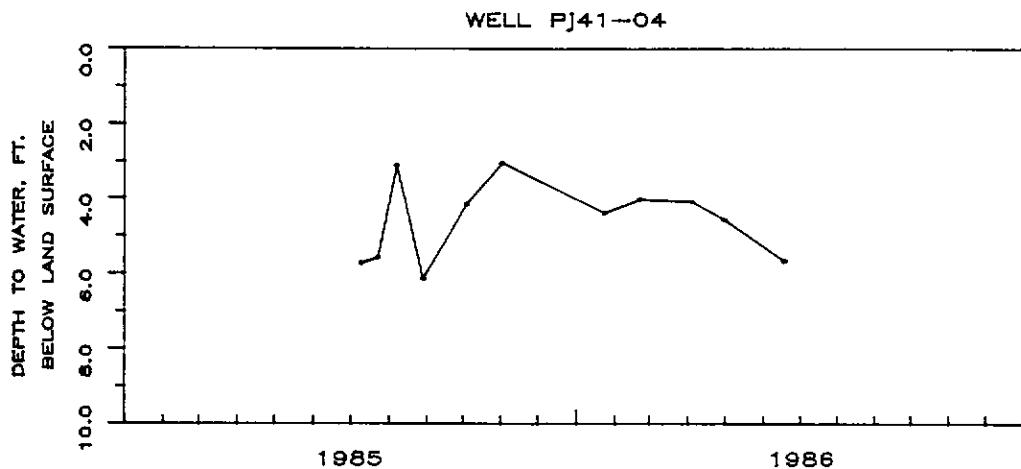


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Pj51-05  
 LOCATION - Lat 38°05'04", long 75°04'28"  
 OWNER - Quillens Point  
 AQUIFER - Pocomoke  
 WELL CHARACTERISTICS - Drilled public supply water well, diameter 4 in., depth 215 ft., cased to 190 ft., screened 190-215 ft.  
 DATUM - Altitude of land-surface datum is approximately 7 ft. (map). Measuring point: Top of casing, 1.15 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 7.0 ft. below land-surface datum, April 14, 1983; lowest water level recorded, 9.73 ft. below land-surface datum, August 28, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
830414	7.00	850806	9.20	860220	7.70
850501	8.80	850828	9.73	860403	7.89
850627	8.93	851003	7.25	860429	8.49
850708	9.63	851115	7.10	860617	9.57
850722	9.44	860122	8.10		

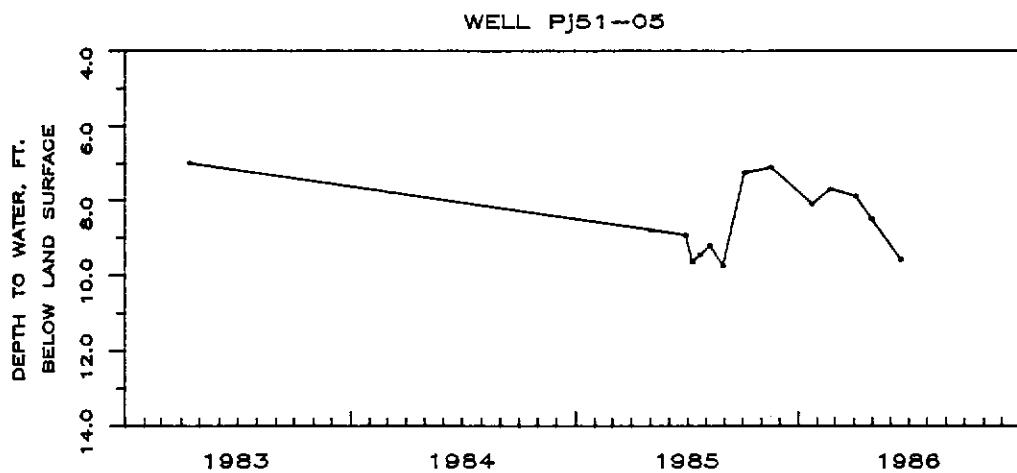


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Qh41-09  
**LOCATION** - Lat 38°31'01", long 75°14'14"  
**OWNER** - Town of Frankford  
**AQUIFER** - Pocomoke  
**WELL CHARACTERISTICS** - Drilled observation well, 4 in. diameter, depth 225 ft., cased to 178 ft., screened 178-225 ft.  
**DATUM** - Altitude of land-surface datum is approximately 35 ft. (map). Measuring point: Top of casing, 1.4 ft. above land-surface datum.  
**EXTREMES FOR PERIOD OF RECORD** - Highest water level recorded, 16.30 ft. below land-surface datum, February 22, 1984; lowest water level recorded, 19.95 ft. below land-surface datum, August 6, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
840222	16.30	850826	19.04	860220	16.74
850515	18.69	850828	18.90	860228	16.69
850606	18.88	851017	17.81	860331	17.39
850620	19.07	851115	18.22	860514	18.37
850703	19.26	851227	17.43	860606	18.91
850708	19.41	851231	17.46	860624	19.35
850806	19.95	860124	17.90	860711	19.94

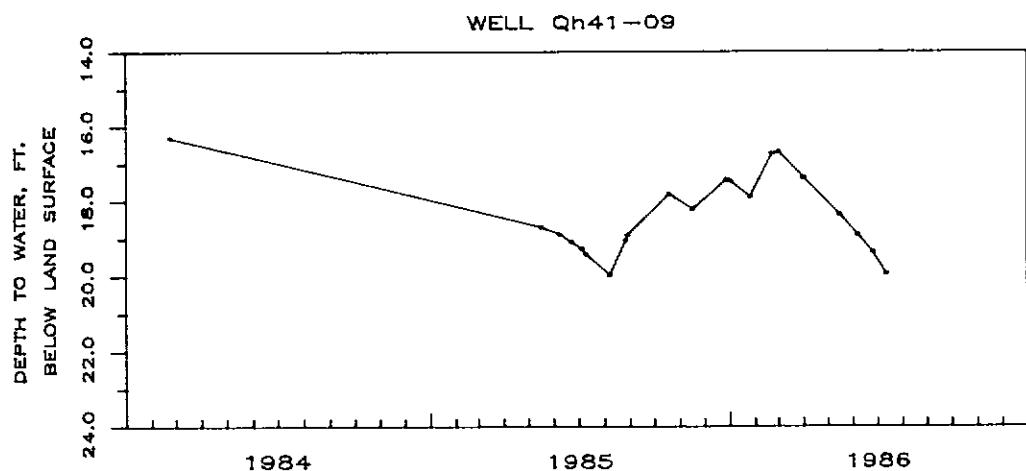


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Qh41-11  
 LOCATION - Lat  $38^{\circ}31'01''$ , long  $75^{\circ}14'12''$   
 OWNER - Town of Frankford  
 AQUIFER - Columbia-Pocomoke  
 WELL CHARACTERISTICS - Drilled observation well, diameter 4 in., depth 140 ft., cased to 100 ft., screened 100-140 ft. Water levels affected by nearby pumping wells.  
 DATUM - Altitude of land-surface datum is approximately 35 ft. (map). Measuring point: Top of steel casing, 2.83 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 11.19 ft. below land-surface datum, February 28, 1986; lowest water level recorded, 15.65 ft. below land-surface datum, August 6, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
840714	13.67	850826	11.82	860220	11.93
850515	14.38	850828	12.83	860228	11.19
850606	13.43	851018	12.81	860331	13.39
850620	13.73	851115	12.85	860514	13.27
850703	15.03	851227	11.87	860606	14.02
850708	15.44	851231	12.91	860624	15.05
850806	15.65	860124	12.92	860711	15.06

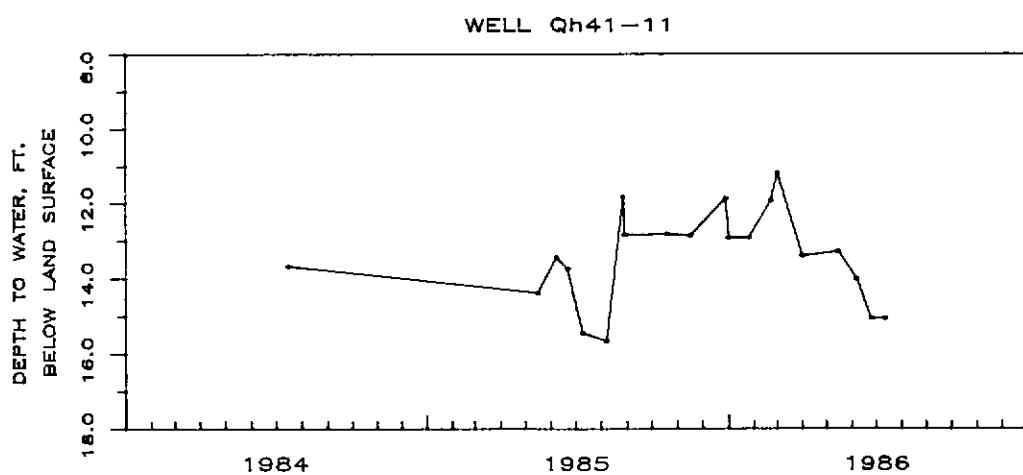


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Qh43-02  
 LOCATION - Lat  $38^{\circ}31'50''$ , long  $75^{\circ}12'19''$   
 OWNER - Delaware Geological Survey  
 AQUIFER - Columbia  
 WELL CHARACTERISTICS - Augered observation well, diameter 4 in., depth 12 ft., cased to 7.0 ft., screened 7.0-12.0 ft. Continuous water-level recorder in operation since January 1986.  
 DATUM - Altitude of land-surface datum is approximately 25 ft. (map). Measuring point: Base of water-level recorder housing, 2.2 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 3.49 ft. below land-surface datum, February 10, 1986; lowest water level recorded, 7.97 ft. below land-surface datum, August 6, 1986.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
851001	6.55	860220	3.80	860420	5.62
851125	5.45	860225	3.82	860425	5.72
851231	5.08	860304	4.27	860430	5.79
860108	5.17	860310	4.52	860505	5.88
861115	5.33	860315	4.67	860510	5.98
860120	5.37	860320	4.77	860515	6.09
860125	5.32	860325	4.95	860520	6.22
860128	3.90	860328	5.02	860525	6.35
860205	3.59	860403	5.19	860529	6.38
860210	3.49	860410	5.35	860624	6.83
860215	3.65	860415	5.51	860806	7.97

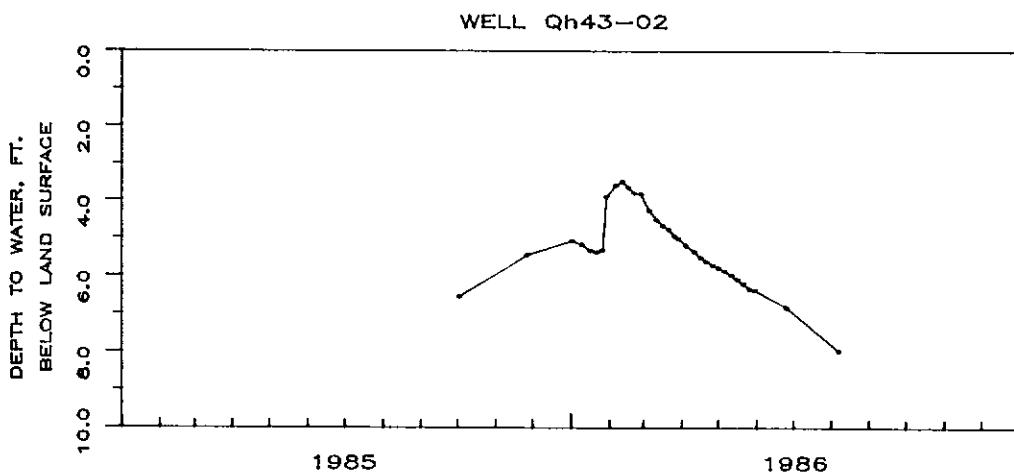


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Qh54-04  
**LOCATION** - Lat  $3^{\circ}30'56''$ , long  $75^{\circ}11'09''$   
**OWNER** - U. S. Geological Survey-Delaware Geological Survey  
**AQUIFER** - Manokin  
**WELL CHARACTERISTICS** - Drilled observation well, diameter 2 in., depth 328 ft., cased to 324 ft., screened 324-328 ft. Wells Qh54-04, 05, 06, and 07 installed at various depths in same test hole.  
**DATUM** - Altitude of land-surface datum is approximately 28 ft. (map). Measuring point: Top of casing, 2.0 ft. above land-surface datum.  
**EXTREMES FOR PERIOD OF RECORD** - Highest water level recorded, 9.07 ft. below land-surface datum, April 2, 1979; lowest water level recorded, 15.54 ft. below land-surface datum, September 18, 1980.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
781103	15.24	800918	15.54	851003	12.70
781205	14.63	810724	15.10	851018	12.84
790104	12.95	810923	15.38	851115	13.29
790202	10.69	811027	15.35	851231	12.70
790301	9.66	820415	12.22	860122	13.07
790402	9.07	820930	11.20	860124	13.14
790503	10.94	830322	10.44	860205	12.03
790531	11.68	831122	13.88	860220	11.60
790629	11.70	840404	9.89	860228	11.65
790731	12.57	850415	13.02	860403	12.77
790828	13.30	850510	13.88	860407	12.81
790927	13.18	850605	13.53	860515	13.66
791026	12.08	850620	14.27	860529	14.01
791123	11.03	850708	14.83	860606	14.32
791221	11.72	850717	14.99	860624	14.86
800320	11.99	850806	15.28	860708	15.35
800421	13.55	850829	12.56		

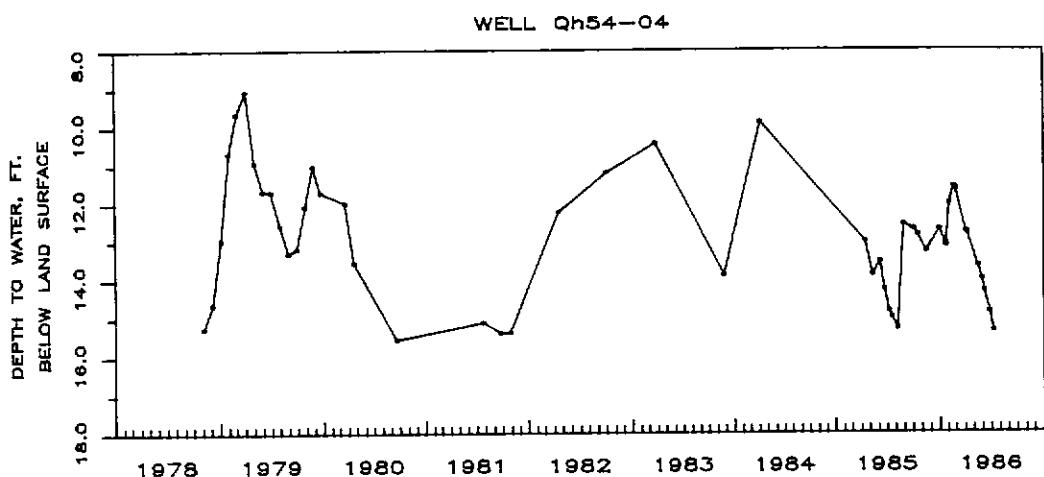


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Qh54-05  
**LOCATION** - Lat  $38^{\circ}30'56''$ , long  $75^{\circ}11'09''$   
**OWNER** - U. S. Geological Survey-Delaware geological Survey  
**AQUIFER** - Manokin  
**WELL CHARACTERISTICS** - Drilled observation well, diameter 2 in, depth 232 ft., cased to 229 ft., screened 229-232 ft. Wells Qh54-05, 04, 06, and 07 installed at various depths in same test hole.  
**DATUM** - Altitude of land-surface datum is approximately 28 ft. (map). Measuring point: Top of casing, 2.0 ft. above land-surface datum.  
**EXTREMES FOR PERIOD OF RECORD** - Highest water level recorded, 9.63 ft. below land-surface datum, March 1, 1979; lowest water level recorded, 15.57 ft. below land-surface datum, September 18, 1980.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
781103	15.23	810421	13.55	850829	12.51
781205	14.60	810724	15.10	851003	12.63
790104	12.92	810923	15.37	851018	12.79
790202	10.67	811027	15.36	851115	13.42
790301	9.63	820415	12.24	851231	12.67
790402	10.05	830322	10.46	860122	13.03
790503	10.94	831122	13.73	860124	13.11
790531	11.68	840404	9.89	860205	12.01
790629	11.69	850415	13.04	860220	11.56
790731	12.56	850510	13.85	860228	11.61
790828	13.40	850605	14.02	860403	12.75
790927	13.19	850620	14.29	860407	12.78
791026	12.08	850703	14.60	860515	13.62
791123	11.03	850708	14.79	860529	13.98
791221	11.73	850717	14.95	860606	14.29
800320	11.99	850806	15.27	860624	14.84
800918	15.57	850828	12.55	860708	15.31

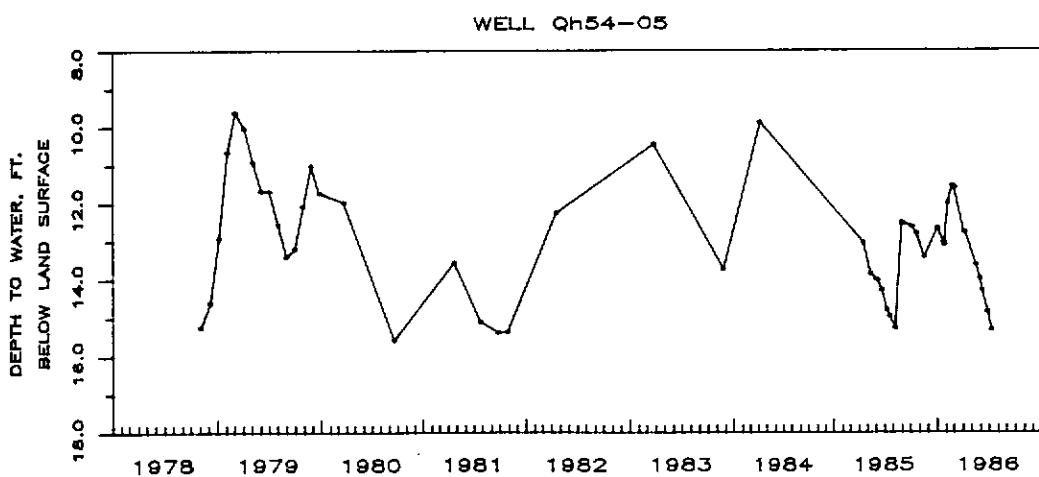


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Qh54-06  
 LOCATION - Lat  $38^{\circ}30'56''$ , long  $75^{\circ}11'09''$   
 OWNER - U. S. Geological Survey-Delaware Geological Survey  
 AQUIFER - Pocomoke  
 WELL CHARACTERISTICS - Drilled observation well, diameter 2 in., depth 148 ft., cased to 144 ft., screened 144-148 ft. Wells Qh54-06, 04, 05, and 07 installed at various depths in same test hole.  
 DATUM - Altitude of land-surface datum is approximately 28 ft. (map). Measuring point: Top of casing, 2.0 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 8.95 ft. below land-surface datum, March 1, 1979; lowest water level recorded, 14.95 ft. below land-surface datum, September 18, 1980.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
781103	14.63	810404	12.92	850828	11.74
781205	13.99	810724	14.50	851003	11.85
790104	12.25	810923	14.77	851018	12.10
790202	10.00	811027	14.79	851115	12.70
790301	8.95	820415	11.62	851231	12.00
790402	9.49	820930	11.62	860122	12.33
790503	10.37	830322	9.80	860124	12.42
790531	11.10	831122	13.24	860205	11.24
790629	11.15	840404	9.29	860220	10.83
790731	11.97	850415	12.45	860228	10.91
790828	12.60	850510	13.25	860403	12.07
790927	12.47	850605	13.53	860407	12.15
791026	11.46	850620	13.56	860515	12.99
791123	10.36	850703	13.91	860529	13.34
791221	11.08	850708	14.13	860608	13.65
800320	11.33	850717	14.23	860624	14.15
800918	14.95	850806	14.53	860708	14.65

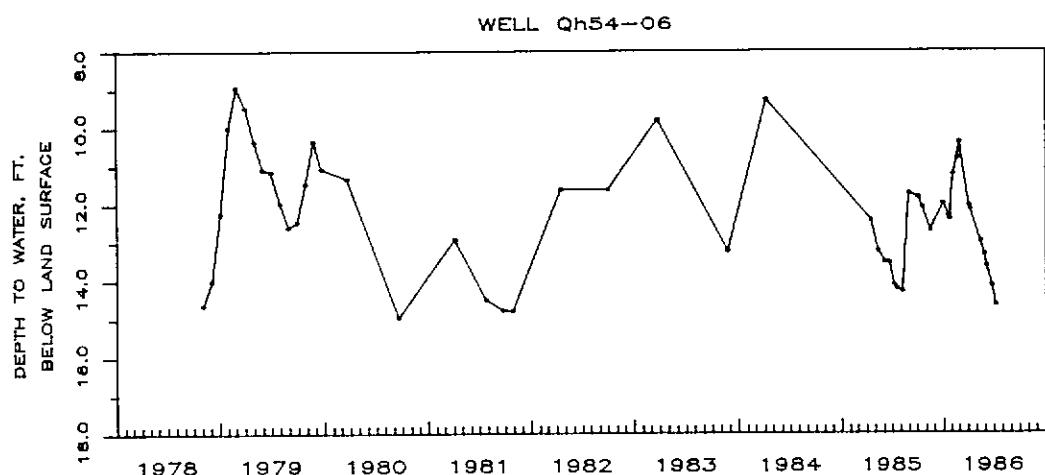


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Qh54-07  
 LOCATION - Lat 38°30'56", long 75°11'09"  
 OWNER - U. S. Geological Survey-Delaware Geological Survey  
 AQUIFER - Columbia  
 WELL CHARACTERISTICS - Drilled observation well, diameter 2 in., depth 108 ft., cased to 104 ft., screened 104-108 ft. Wells Qh54-07, 04, 05, and 06 installed at various depths in same test hole.  
 DATUM - Altitude of land-surface datum is approximately 28 ft. (map). Measuring point: Top of casing, 2.0 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 8.83 ft. below land-surface datum, March 1, 1979; lowest water level recorded, 15.08 ft. below land-surface datum, October 15, 1980.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
781205	13.90	810320	12.65	850717	14.18
790104	12.16	810421	12.85	850806	14.48
790212	9.92	810522	12.88	850828	11.62
790301	8.83	810623	13.57	850829	11.59
790402	9.41	810724	14.41	851003	11.78
790503	10.05	810824	14.91	851018	12.01
790531	11.03	810923	14.67	851115	12.63
790629	12.06	811027	14.70	851231	11.87
790731	11.88	811125	14.75	860122	12.22
790828	12.65	820106	13.52	860124	12.30
790927	12.40	820415	11.55	860205	11.70
791026	11.36	820930	14.36	860220	10.77
791123	10.28	830322	9.76	860228	10.78
791221	12.00	831122	13.12	860403	11.98
800320	11.24	840404	9.19	860407	12.06
800918	14.87	850415	12.33	860515	12.88
801015	15.08	850510	13.19	860529	13.22
801114	14.59	850605	13.38	860606	13.50
801216	13.97	850620	13.25	860624	14.07
810116	14.07	850703	11.81	860708	14.60
810217	14.05	850708	14.01		

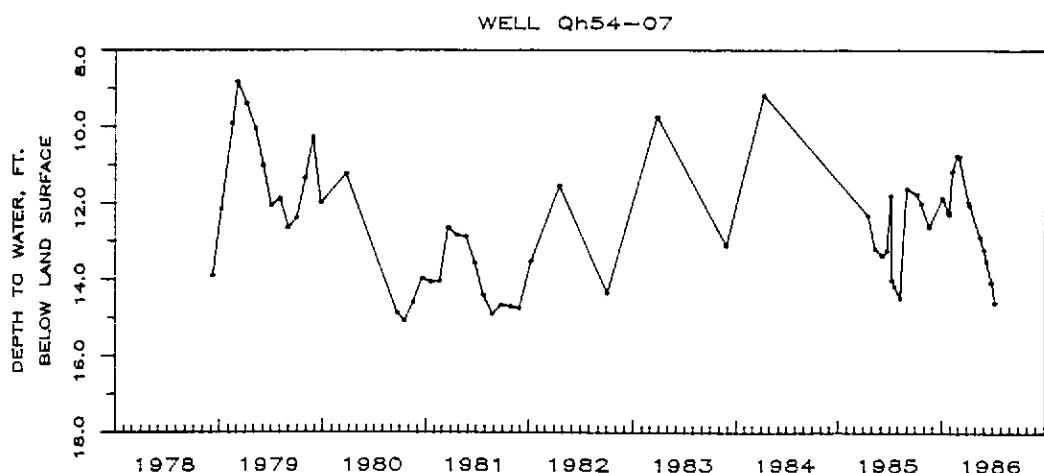


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Q131-03  
 LOCATION - Lat 38°32'45", long 75°09'41"  
 OWNER - Delaware Geological Survey  
 AQUIFER - Columbia  
 WELL CHARACTERISTICS - Augered observation well, diameter 2 in., depth 15 ft., cased to 10 ft., screened 10-15 ft.  
 DATUM - Altitude of land-surface datum is approximately 16 ft. (map). Measuring point: Top of casing at land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 4.80 ft. below land-surface datum, March 4, 1986; lowest water level recorded, 9.20 ft. below land-surface datum, August 6, 1986.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
851125	6.82	860304	4.80	860425	6.32
851231	6.03	860318	5.25	860529	7.14
860108	6.23	860329	5.57	860624	7.97
860122	6.39	860403	5.74	860806	9.20
860128	5.61				

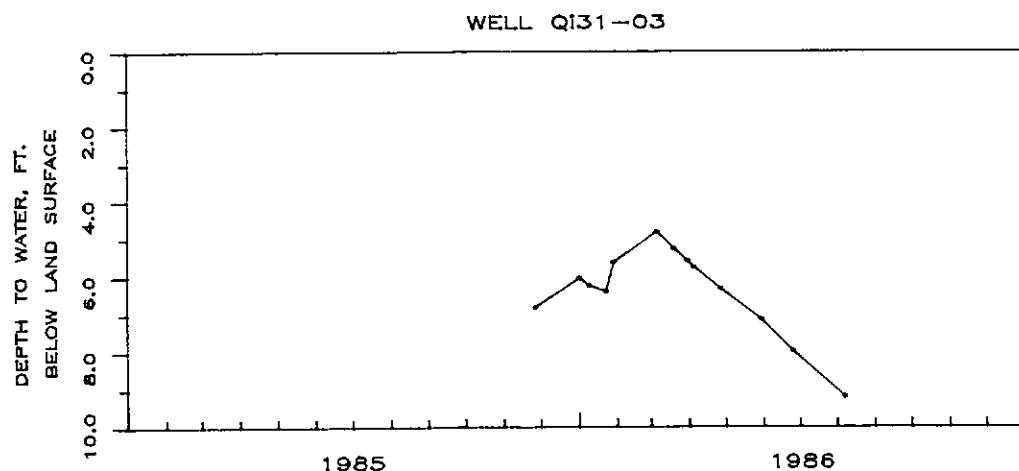


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Qj22-04  
 LOCATION - Lat  $38^{\circ}33'52''$ , long  $75^{\circ}03'52''$   
 OWNER - Sussex Shores Water Company  
 AQUIFER - Pocomoke  
 WELL CHARACTERISTICS - Drilled public supply water well, diameter 10 in., depth 184 ft., cased to 167 ft., screened 167-184 ft. (8 in. diameter).  
 DATUM - Altitude of land-surface datum is approximately 5 ft. (map). Measuring point: Top of casing, 4.0 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 3.50 ft. below land-surface datum, February 26, 1968; lowest water level recorded, 15.39 ft. below land-surface datum, September 3, 1976.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
680226	3.50	760903	15.39	780202	3.64
760504	8.00	770602	9.89	790202	3.74
760617	13.93	770922	6.86		

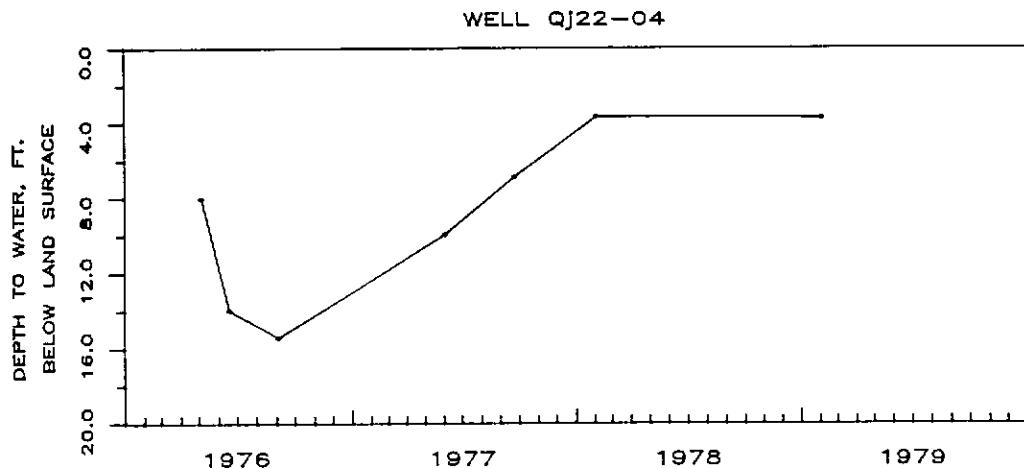


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Qj32-14  
**LOCATION** - Lat  $38^{\circ}32'15''$ , long  $75^{\circ}03'17''$   
**OWNER** - Town of Bethany Beach  
**AQUIFER** - Manokin  
**WELL CHARACTERISTICS** - Drilled test well converted to observation well, diameter 4 in., depth 370 ft., cased to 350 ft., screened 350-370 ft. Continuous water-level recorder in operation from May 1985 - January 1986. Water levels affected by nearby pumping wells.  
**DATUM** - Altitude of land-surface datum is approximately 5 ft. (map). Measuring point: Top of casing, 2.36 ft. above land-surface datum.  
**EXTREMES FOR PERIOD OF RECORD** - Highest water level recorded, 1.13 ft. below land-surface datum, April 2, 1979; lowest water level recorded, 65.08 ft. below land-surface datum, August 30, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
740514	1.95	790629	62.35	850524	27.63
770310	1.96	790731	47.30	850605	3.80
770601	4.03	790828	5.74	850623	39.29
770708	55.43	790927	3.10	850701	5.25
770808	58.50	791026	13.81	850721	48.60
770907	8.68	791123	1.81	850806	8.31
770922	3.34	791221	1.53	850825	6.73
771102	4.32	800320	3.45	850830	65.08
780104	4.10	800918	6.57	850905	65.06
780202	1.26	810421	2.60	850919	4.60
780705	53.92	810923	4.68	851008	31.31
780803	55.76	820415	2.18	851017	3.44
781205	2.17	820930	2.94	851108	2.42
790202	1.32	850205	5.75	851202	3.57
790301	1.70	850415	2.45	860331	2.27
790402	1.13	850502	2.39	860514	44.25
790531	2.08	850514	3.03	860604	48.00

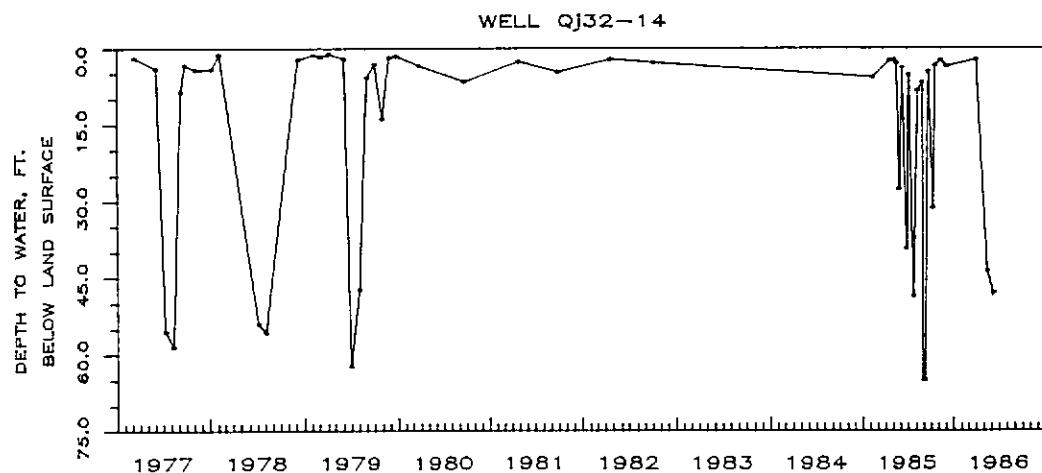


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Qj32-17  
**LOCATION** - Lat  $38^{\circ}32'08''$ , long  $75^{\circ}03'55''$   
**OWNER** - Town of Bethany Beach  
**AQUIFER** - Manokin  
**WELL CHARACTERISTICS** - Drilled observation well, diameter 4 in., depth 400 ft., cased to 335 ft., screened 335-400 ft. Continuous water-level recorder in operation since January 1986.  
**DATUM** - Altitude of land-surface datum is approximately 7 ft. (map). Measuring point: Top of protective casing, 0.3 ft. above land-surface datum.  
**EXTREMES FOR PERIOD OF RECORD** - Highest water level recorded, 1.80 ft. below land-surface datum, February 23, 1986; lowest water level recorded, 8.15 ft. below land-surface datum, August 6, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
800422	2.00	860205	2.70	860415	2.63
850503	2.78	860210	2.21	860420	2.10
850514	3.36	860215	2.62	860425	3.19
850701	5.64	860220	2.17	860430	3.10
850806	8.15	860225	2.06	860505	3.00
850823	7.16	860305	3.37	860510	2.70
851001	3.97	860310	2.46	860515	3.92
851003	4.01	860315	2.18	860520	4.04
851103	3.21	860320	2.87	860525	5.80
851119	3.43	860325	2.77	860530	4.19
851202	3.09	860330	2.63	860605	5.42
851230	3.50	860405	2.85	860610	5.18
860125	2.53	860410	2.74	860615	5.26
860130	3.27				

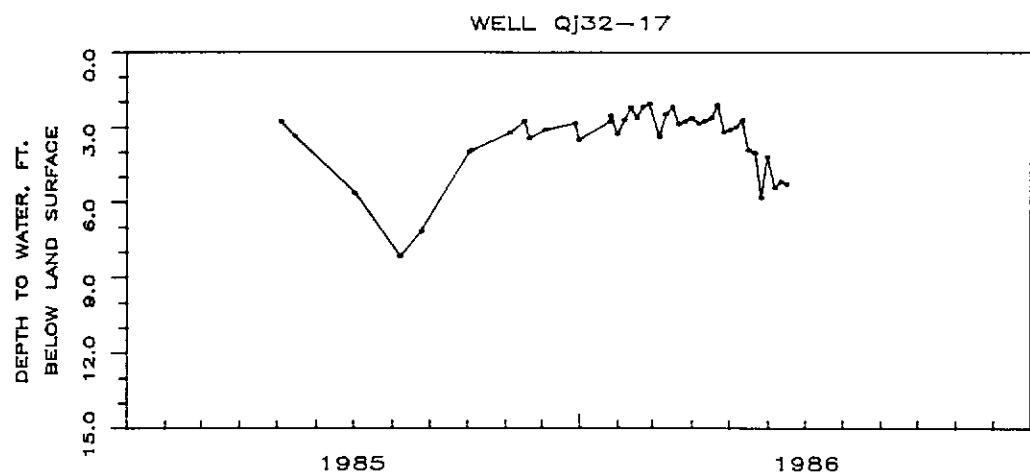


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Qj41-04  
 LOCATION - Lat 38°31'16", long 75°04'05"  
 OWNER - Sea Colony  
 AQUIFER - Manokin  
 WELL CHARACTERISTICS - Drilled observation well, diameter 4 in., depth 400 ft., cased to 400 ft., screened 370-400 ft. Water levels affected by nearby pumping wells.  
 DATUM - Altitude of land-surface datum is approximately 5 ft. (map). Measuring point: Top of protective casing, 1.67 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 0.18 ft. below land-surface datum, February 28, 1986; lowest water level recorded, 11.25 ft. below land-surface datum, August 26, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
850514	2.52	851108	5.12	860228	0.18
850605	3.81	851115	1.77	860407	4.24
850701	9.45	851227	2.59	860514	4.73
850772	10.44	851230	3.24	860605	8.18
850806	8.41	860124	1.38	860617	11.10
850826	11.25	860203	2.22	860708	7.55
851003	2.34	860220	2.69	860808	10.84

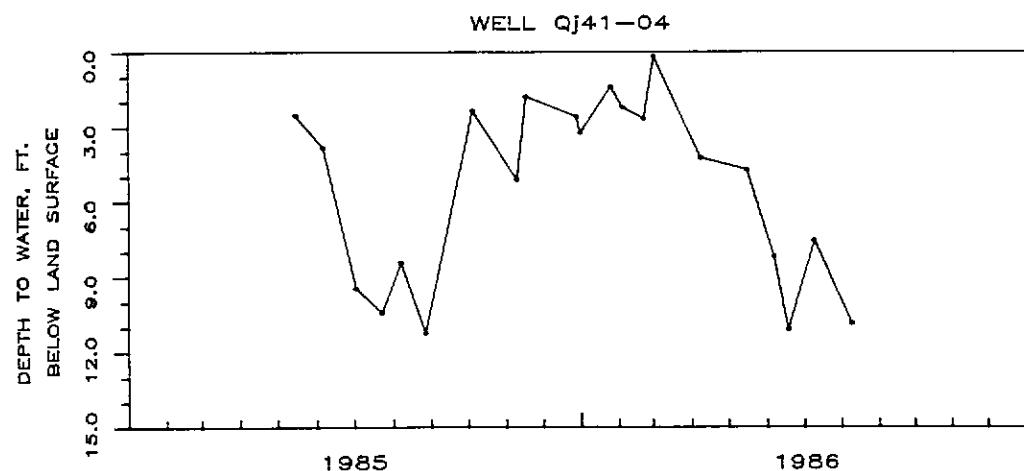


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Qj41-07  
 LOCATION - Lat 38°31'22", long 75°04'05"  
 OWNER - Sea Colony  
 AQUIFER - Pocomoke  
 WELL CHARACTERISTICS - Drilled observation well, diameter 2 in., depth 294 ft., cased to 284 ft., screened 284-294 ft. Wells Qj41-07 and 08 installed at different depths in same drill hole.  
 DATUM - Altitude of land-surface datum is approximately 5 ft. (map). Measuring point: Top of protective casing, 2.12 ft. above land-surface datum. Negative (-) indicates water levels above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 0.32 ft. above land-surface datum, February 20, 1986; lowest water level recorded, 5.27 ft. below land-surface datum, August 8, 1986.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
850514	1.33	851227	0.50	860429	0.47
850605	1.78	851230	0.65	860514	0.97
850701	3.28	860124	0.75	860529	2.17
850722	4.16	860203	1.59	860605	2.39
850806	4.85	860220	-0.32	860617	2.95
850826	4.33	860228	-0.22	860624	3.45
851003	1.71	860403	0.71	860708	4.60
851108	0.77	860407	0.42	860808	5.27
851115	0.99				

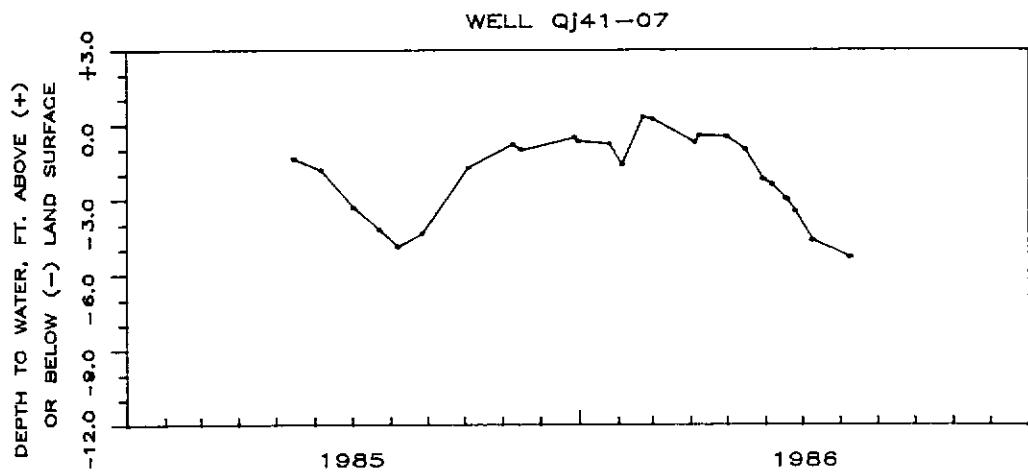


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Qj41-08  
 LOCATION - Lat 38°31'22", long 75°04'05"  
 OWNER - Sea Colony  
 AQUIFER - Pocomoke  
 WELL CHARACTERISTICS - Drilled observation well, diameter 2 in., depth 210 ft., cased to 200 ft., screened 200-210 ft. Wells Qj41-08 and 07 installed at different depths in same drill hole.  
 DATUM - Altitude of land-surface datum is approximately 5 ft. (map). Measuring point: Top of protective casing, 2.26 ft. above land-surface datum. Negative (-) indicates water levels above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 0.29 ft. above land-surface datum, February 20, 1986; lowest water level recorded, 5.33 ft. below land-surface datum, August 8, 1986.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
850514	1.33	851227	0.52	860429	0.49
850605	1.87	851230	0.63	860514	0.95
850701	3.27	860124	0.77	860529	3.92
850722	4.13	860203	0.59	860605	2.35
850806	4.83	860220	-0.29	860617	2.97
850826	4.28	860228	-0.23	860624	3.45
851003	1.65	860403	0.71	860708	4.55
851108	0.77	860407	0.04	860808	5.33
851115	1.00				

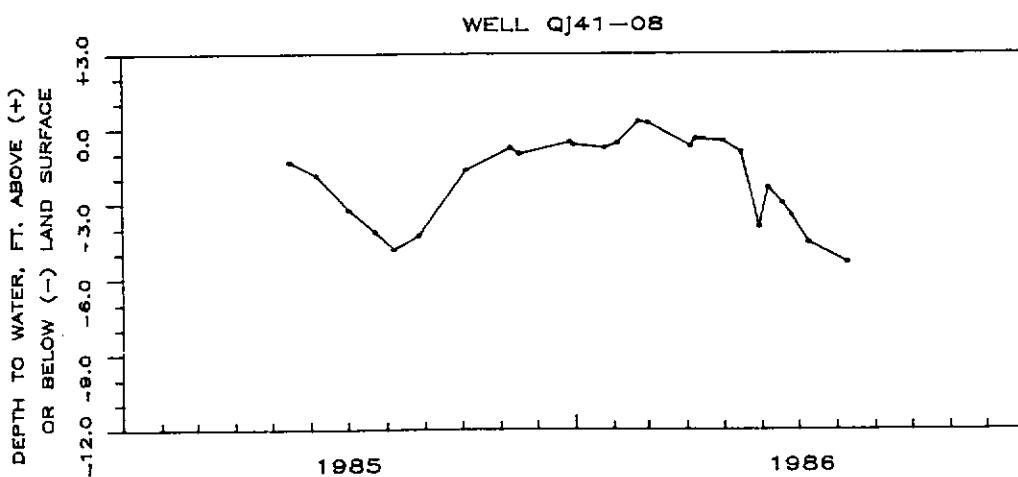


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - RI21-01  
 LOCATION - Lat  $38^{\circ}28'18''$ , long  $75^{\circ}09'14''$   
 OWNER - Delaware Geological Survey  
 AQUIFER - Columbia  
 WELL CHARACTERISTICS - Augered observation well, diameter 4 in., depth 12 ft., cased to 7 ft., screened 7-12 ft. Continuous water-level recorder in operation since January 1986.  
 DATUM - Altitude of land-surface datum is approximately 15 ft. (map). Measuring point: Based on water-level recorder housing, 2.80 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 6.10 ft. below land-surface datum, February 10, 1986; lowest water level recorded, 9.47 ft. below land-surface datum, August 6, 1986.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
851125	7.53	860304	6.75	060505	7.88
851231	7.33	860310	6.96	860510	8.03
860108	7.26	860315	7.00	860515	8.12
860115	7.54	860320	7.18	860520	8.22
860120	7.34	860325	7.32	860525	8.33
860125	7.34	860328	7.49	860529	8.42
860128	6.35	860403	7.65	860605	8.57
860205	6.12	860410	7.67	860610	8.67
860210	6.10	860415	7.78	860615	8.80
860215	6.23	860420	7.60	860620	8.93
860220	6.37	860425	7.65	860624	8.94
860225	6.40	860430	7.74	860806	9.47

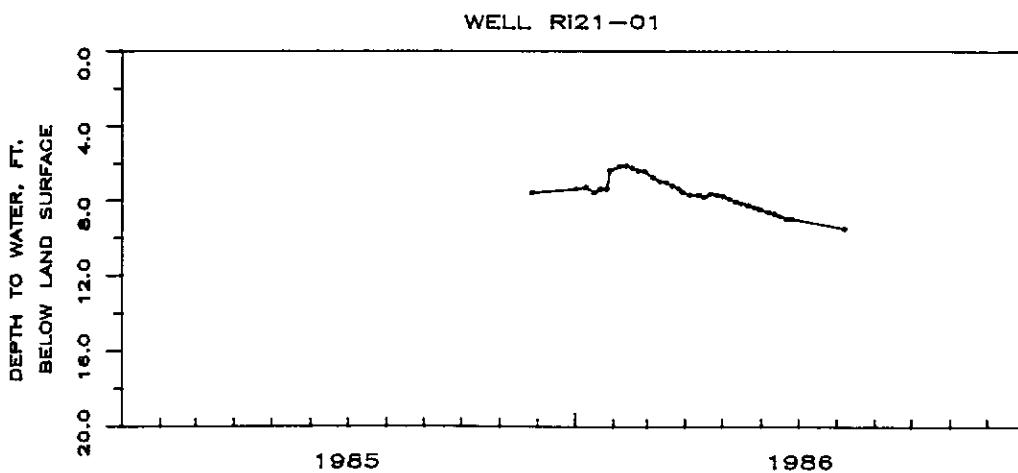


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Rj22-05  
 LOCATION - Lat  $38^{\circ}28'05''$ , long  $75^{\circ}03'04''$   
 OWNER - U. S. Geological Survey-Delaware Geological Survey  
 AQUIFER - Manokin  
 WELL CHARACTERISTICS - Drilled observation well, diameter 1.25 in., depth 455 ft., cased to 450 ft., screened 450-455 ft. Wells Rj22-05, 06, and 07 installed at various depths in same test hole. Water levels affected by pumping in the Fenwick Island and Ocean City, Maryland areas.  
 DATUM - Altitude of land-surface datum is approximately 5 ft. (map). Measuring point: Top of casing, 1.0 ft. above land-surface datum. Negative (-) indicates water levels above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 0.77 ft. above land-surface datum, April 2, 1979; lowest water level recorded, 9.97 ft. below land-surface datum, August 28, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
770425	1.28	790531	1.49	850605	4.42
770511	0.28	790729	3.23	850620	6.21
770602	3.04	790731	6.38	850627	6.72
770613	2.90	790828	7.38	850701	7.22
770708	3.37	790927	4.60	850708	7.49
770825	6.63	791026	2.16	850717	8.53
770922	4.38	791123	1.12	850807	8.75
780104	1.58	791221	0.18	850826	9.91
780202	0.50	800220	0.55	850828	9.97
780306	1.00	800330	0.53	851003	3.77
780327	-0.30	800918	6.00	851017	3.27
780405	0.09	810421	1.15	851115	1.18
780508	0.87	810724	0.00	851231	1.10
780606	1.55	810923	7.26	860122	1.42
780617	1.05	820415	0.65	860129	1.22
780706	3.66	820930	5.04	860203	0.70
780803	6.15	830322	-0.65	860220	-0.07
780901	6.83	831122	1.91	860331	0.91
781006	6.14	840404	-0.80	860429	0.55
781102	4.02	840719	7.05	860514	0.91
781205	0.75	841012	4.00	860529	2.30
790103	0.64	850205	1.19	860606	3.40
790202	-0.44	850415	1.09	860617	5.95
790301	0.73	850502	0.89	860624	3.94
790402	-0.77	850510	1.09	860709	7.52
790503	-0.10	850514	2.16		

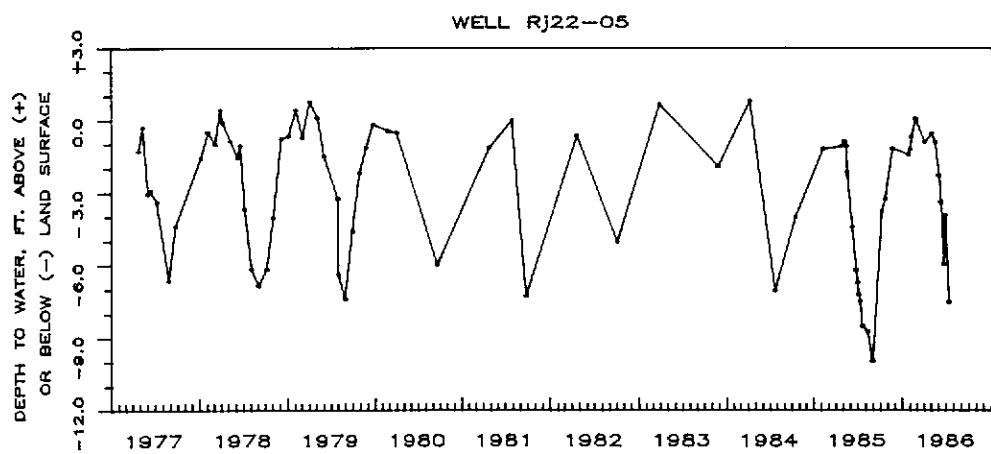


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Rj22-06  
**LOCATION** - Lat  $38^{\circ}28'05''$ , long  $75^{\circ}03'04''$   
**OWNER** - U. S. Geological Survey-Delaware Geological Survey  
**AQUIFER** - Manokin  
**WELL CHARACTERISTICS** - Drilled observation well, diameter 1.25 in., depth 295 ft., cased to 290 ft., screened 290-295 ft. Wells Rj22-06, 05, and 07 installed at various depths in same test hole. Water levels affected by pumping in the Fenwick Island and Ocean City, Maryland areas.  
**DATUM** - Altitude of land-surface datum is approximately 5 ft. (map). Measuring point: Top of casing, 1.0 ft. above land-surface datum. Negative (-) indicates water levels above land-surface datum.  
**EXTREMES FOR PERIOD OF RECORD** - Highest water level recorded, 1.00 ft. above land-surface datum, April 4, 1984; lowest water level recorded, 9.52 ft. below land-surface datum, August 26, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
770425	1.09	790402	0.00	850514	2.01
770511	0.53	790503	-0.28	850605	4.11
770602	2.67	790531	1.28	850620	5.92
770613	2.22	790629	2.98	850627	6.43
770708	3.17	790731	6.08	850701	6.91
770727	5.75	790828	6.12	850708	7.29
770825	4.73	790927	4.44	850717	8.16
770922	3.81	791026	2.06	850807	8.44
770928	4.19	791123	0.85	850826	9.52
771017	2.97	791221	-0.11	850828	9.51
771102	1.96	800220	-0.72	851003	3.56
780104	1.48	800320	0.31	851017	2.99
780202	0.42	800908	5.81	851115	1.04
780306	0.89	810421	0.92	851205	0.93
780327	-0.58	810724	7.08	851230	0.81
780405	0.14	810925	6.94	860122	1.12
780508	0.69	820415	0.47	860129	0.96
780606	2.25	820930	4.57	860203	0.51
780617	0.86	830322	-0.87	860220	-0.34
780706	3.41	831122	0.63	860331	0.68
780803	5.54	840404	-1.00	860429	0.39
780901	6.06	840719	6.82	860514	0.75
781102	2.63	841012	3.71	860529	2.27
781205	0.51	850205	0.93	860606	3.10
790103	0.41	850415	0.89	860617	5.63
790202	-0.64	850502	0.78	860624	4.22
790301	0.49	850510	1.44	860709	7.25

WELL Rj22-06

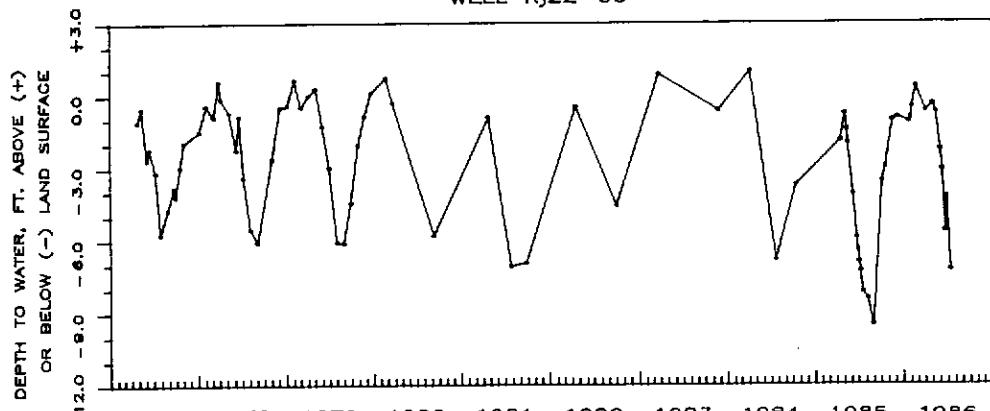


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - Rj22-07  
**LOCATION** - Lat  $38^{\circ}28'05''$ , long  $75^{\circ}03'04''$   
**OWNER** - U. S. Geological Survey-Delaware Geological Survey  
**AQUIFER** - Pocomoke  
**WELL CHARACTERISTICS** - Drilled observation well, 1.25 in., depth 185 ft., cased to 180 ft., screened 180-185 ft. Wells Rj22-07, 05, and 06 installed at various depths in same test hole.  
**DATUM** - Altitude of land-surface datum is approximately 5 ft. (map). Measuring point: Top of casing, 1.0 ft. above land-surface datum. Negative (-) indicates water levels above land-surface datum.  
**EXTREMES FOR PERIOD OF RECORD** - Highest water level recorded, 0.33 ft. above land-surface datum, February 20, 1986; lowest water level recorded, 8.63 ft. below land-surface datum, August 26, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
770425	2.45	790731	4.37	850602	2.52
770511	1.39	790828	4.63	850605	3.13
770602	2.52	790929	3.34	850620	4.00
770613	2.47	791026	2.16	850627	4.38
770708	3.05	791123	1.55	850701	4.88
770825	4.73	791221	0.78	850708	5.45
770922	3.29	800220	3.54	850717	5.89
780104	1.88	800320	1.40	850807	5.94
780202	1.31	800918	4.31	850826	8.63
780306	1.82	810421	1.68	850828	6.61
780327	1.00	810724	3.75	851003	3.03
780405	1.23	810923	4.98	851017	2.64
780508	3.63	820415	1.54	851115	1.66
780606	3.21	820930	3.50	851230	1.66
780612	1.76	830322	3.04	860122	2.02
780706	3.78	831122	1.85	860129	2.51
780803	4.24	840404	0.51	860203	1.75
780901	4.75	840719	5.03	860220	-0.33
781102	2.48	841210	2.16	860331	1.85
781205	0.22	850205	1.48	860429	1.35
790103	3.74	850301	1.09	860514	1.48
790202	0.87	850327	1.00	860529	3.08
790301	1.09	850405	1.23	860606	3.48
790402	0.65	850415	1.77	860617	4.41
790503	1.36	850502	1.92	860624	5.69
790531	1.57	850510	1.25	860709	5.27
790628	2.80	850514	2.62		

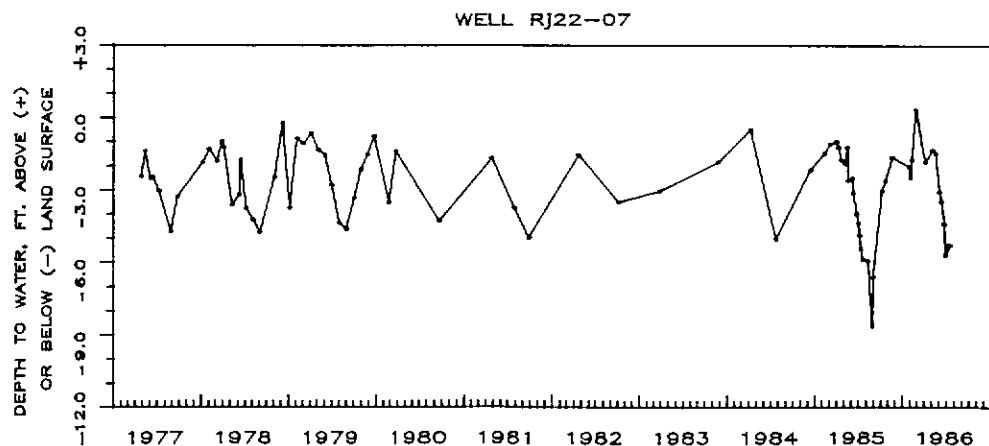


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Rj22-08  
 LOCATION - Lat 38°28'05", long 75°03'04"  
 OWNER - U. S. Geological Survey - Delaware Geological Survey  
 AQUIFER - Columbia  
 WELL CHARACTERISTICS - Drilled observation well, diameter 1.25 in., depth 115 ft., cased to 110 ft., screened 110-115 ft. Wells Rj22-05, 06, 07, and 08 installed at various depths in same test hole. Well contains salty water.  
 DATUM - Altitude of land-surface datum is 4.55 ft. (level). Measuring point: Top of casing, 1 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 0.28 ft. below land-surface datum, March 27, 1978; lowest water level recorded, 6.00 ft. below land-surface datum, June 24, 1986.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
770425	3.58	790731	3.32	840404	2.89
770511	3.58	790828	3.61	840719	3.71
770602	4.22	790929	3.33	841012	3.31
770613	3.95	791026	3.55	850205	3.58
770708	3.23	791123	3.79	850415	2.72
770727	4.06	791221	3.26	850510	2.98
770922	3.28	800220	0.88	850514	3.85
770928	3.60	800320	4.16	850605	3.42
771102	2.62	800918	3.45	850620	3.49
771228	3.56	801015	3.84	850627	1.58
780104	3.90	801114	3.62	850708	2.68
780202	3.53	801216	3.54	850717	4.16
780306	4.15	810116	3.97	850828	4.93
780327	0.28	810217	4.70	851003	1.07
780405	3.47	810320	3.66	851115	3.26
780508	1.28	810421	3.72	851230	3.96
780612	3.48	810522	3.22	860122	4.36
780706	3.49	810623	3.77	860129	4.34
780803	4.01	810724	5.39	860203	4.11
780901	4.01	810824	4.05	860220	2.95
781102	4.00	810923	4.18	860331	4.30
781205	3.17	811027	3.12	860429	3.22
790103	1.30	811125	3.24	860514	2.35
790202	3.44	820106	4.58	860529	3.67
790301	3.62	820415	3.95	860606	4.61
790402	3.19	820930	3.37	860617	4.69
790503	3.45	830322	0.46	860624	6.00
790531	3.42	831122	3.48	860709	4.04
790629	3.37				

WELL Rj22-08

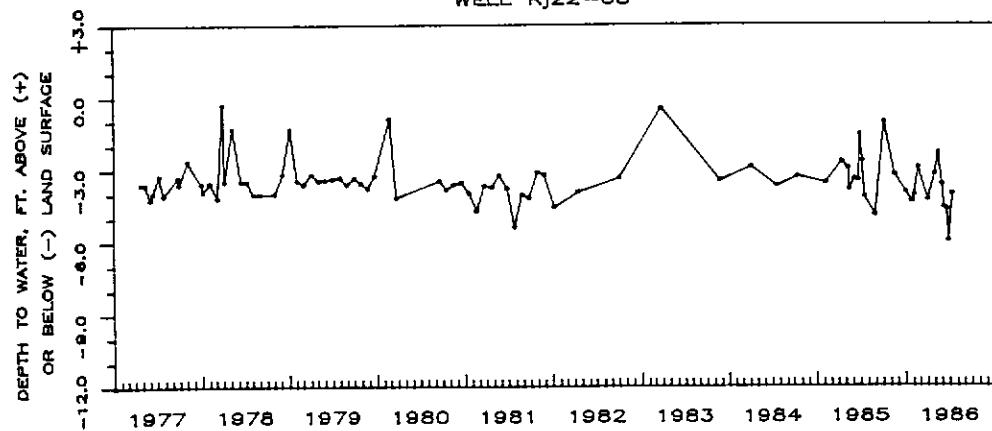


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

**WELL** - RJ22-09  
**LOCATION** - Lat 38°28'05", long 75°03'04"  
**OWNER** - Delaware Division of Parks and Recreation  
**AQUIFER** - Pocomoke  
**WELL CHARACTERISTICS** - Drilled well, diameter 4 in., depth 220 ft., cased to 190 ft., screened 190-220 ft. Continuous water-level recorder in operation from May 1985 - May 1986. Well abandoned May 1986.  
**DATUM** - Altitude of land-surface datum is approximately 5 ft. (map). Measurements are mean daily water levels determined from a continuous recorder. Measuring point: Hole in recorder platform, 3.40 ft. above land-surface datum.  
**EXTREMES FOR PERIOD RECORD** - Highest water level recorded, 1.32 ft. below land-surface datum, November 5, 1985; lowest water level recorded, 6.71 ft. below land-surface datum, August 28, 1985

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
850221	3.00	850905	5.99	851215	2.35
850502	2.13	850910	3.42	851220	2.59
850515	2.84	850915	5.31	851225	1.89
850520	2.91	850920	5.16	851230	2.36
850525	2.82	850925	4.47	860105	2.19
850530	3.38	850930	4.36	860110	2.89
850605	3.39	851005	3.42	860115	2.32
850610	3.69	851010	4.07	860120	1.97
850615	4.34	851015	3.22	860125	1.76
850620	4.34	851020	3.56	860130	2.20
850625	4.79	851025	3.01	860320	2.30
850630	4.71	851030	4.47	860325	2.33
850705	5.12	851105	1.32	860330	2.45
850710	5.42	851110	3.11	860405	2.16
850715	5.82	851115	2.75	860410	1.65
850720	5.73	851120	2.72	860415	2.11
850725	5.96	851125	2.55	860420	1.48
850730	6.07	851130	1.62	860425	1.94
850805	6.27	851205	2.53	860430	2.15
850827	6.66	851210	2.25	860514	1.90
850830	6.30				

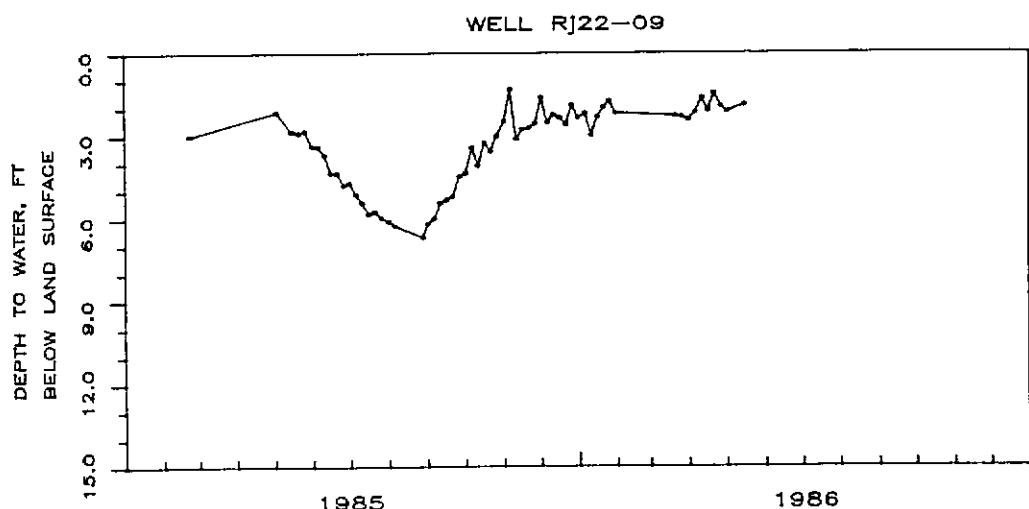
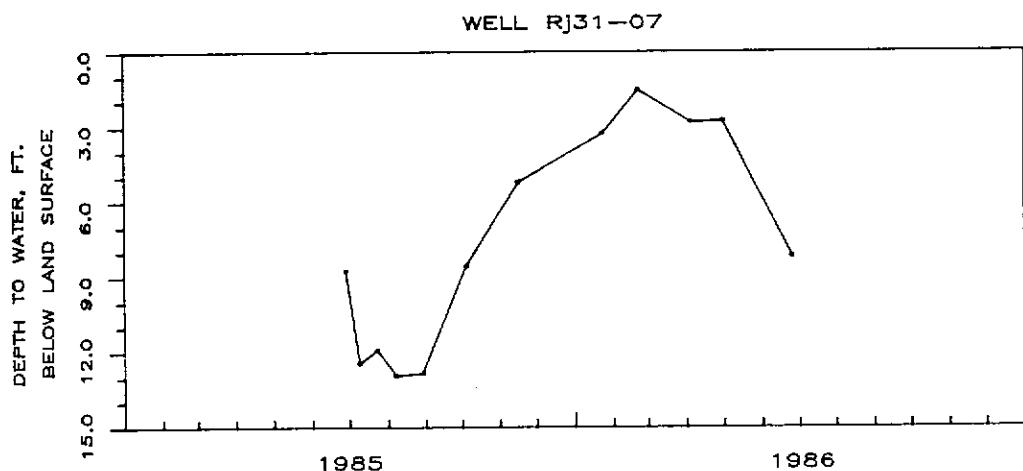


Table 3 (continued) Ground-water levels and hydrographs for selected wells.

WELL - Rj31-07  
 LOCATION - Lat  $38^{\circ}27'23''$ , long  $75^{\circ}04'23''$   
 OWNER - Cape Windsor Trailer Park  
 AQUIFER - Pocomoke(?)  
 WELL CHARACTERISTICS - Jetted public supply water well, diameter 4 in., depth (estimated) 180 ft., cased to approximately 160 ft., screened approximately 160-180 ft. Water levels affected by nearby pumping wells.  
 DATUM - Altitude of land-surface datum is approximately 7 ft. (map). Measuring point: Top of casing, 1.92 ft. above land-surface datum.  
 EXTREMES FOR PERIOD OF RECORD - Highest water level recorded, 1.54 ft. below land-surface datum, February 20, 1986; lowest water level recorded, 12.92 ft. below land-surface datum, August 6, 1985.

Date	Level (feet)	Date	Level (feet)	Date	Level (feet)
850627	8.76	850828	12.84	860220	1.54
850708	12.43	851003	8.56	860403	2.82
850722	11.91	851115	5.21	860429	2.76
850806	12.92	860122	3.27	860624	8.18



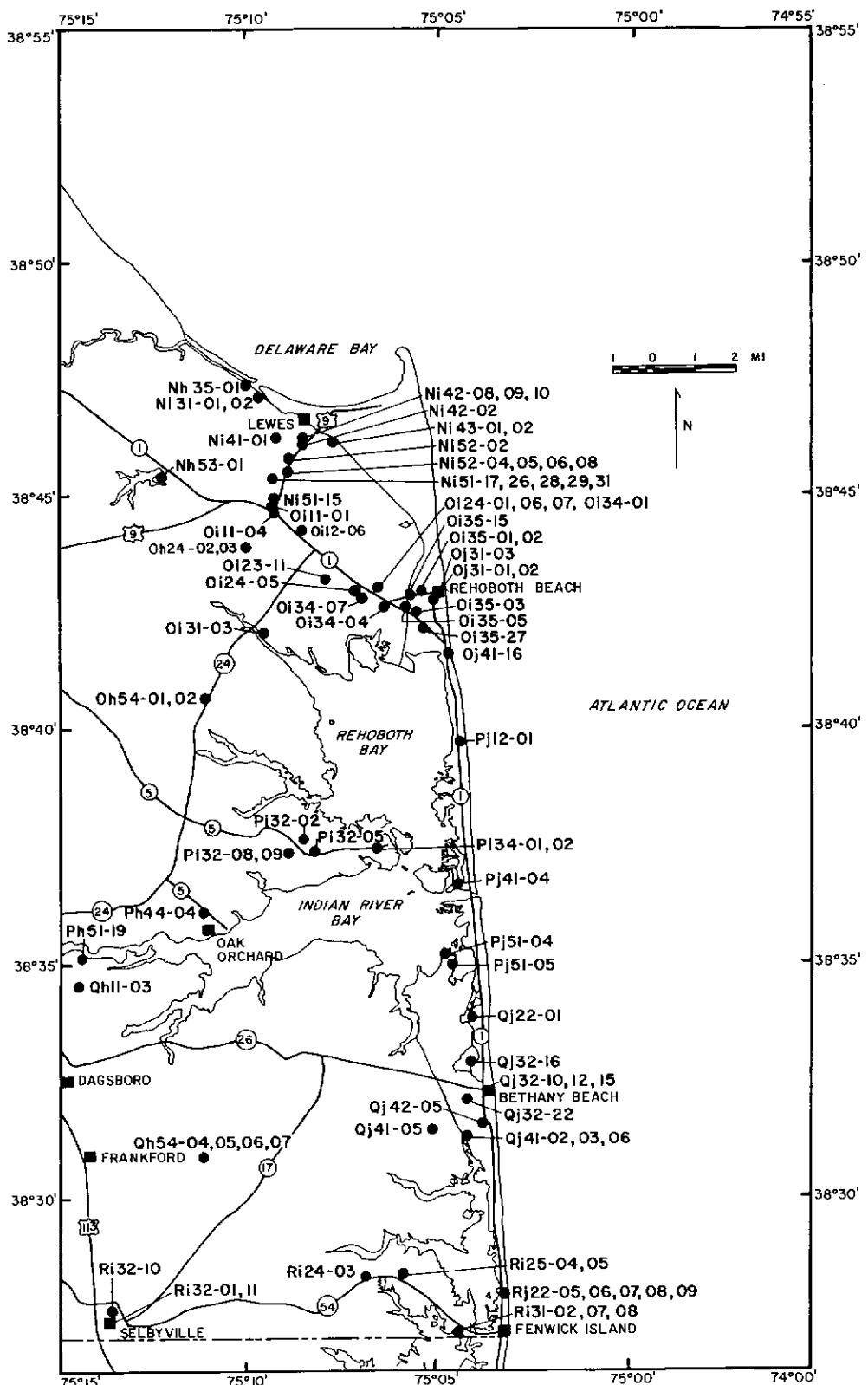


Figure 4. Map showing locations of selected wells used for water-quality sampling and analyses.

Table 4. Results of chemical analyses of water from selected wells.

Testing Agency:

AWC	Artesian Water Company
AWSC	American Water Softener Co.
BCM	Betz, Converse, and Murdoch
BGB	Booth, Garrett, and Blair
DGS	Delaware Geological Survey
DPH	DE Division of Public Health
DRILD	Drilling Contractor
GILB	Gilbert Associates
RICH	E. H. Richardson Associates
USGS	U. S. Geological Survey
WTRL	Wilmington Testing & Research Lab.

Aquifer:

clg	Columbia Group
clgpoc	Columbia Group-Pocomoke
poco	Pocomoke
mnkn	Manokin
chg	Chesapeake Group

Units:

M	Milligrams per liter
LM	Less than milligrams per liter
U	Micrograms per liter

Table 4  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Nh35-01	Nh53-01	Ni31-01	Ni31-02	Ni41-01	Ni42-02	Ni42-08
Sample Date	531104	740206	531104	531104	440301	440616	440616
Testing Agency	USGS	DRILL	USGS	USGS	WTRL	USGS	USGS
Aquifer	c1g	c1g	c1g	c1g	c1g	c1g	c1g
Screen Interval (ft.)	57 - 62	100 - 110	90 - 100	25 - 29	100 - 110	55 - 65	55 - 65
Constituents:							
Sodium (Na)	...	...	...	...	...	12.00 M	12.00 M
Potassium (K)	...	...	...	...	...	...	...
Calcium (Ca)	...	...	...	...	4.70 M	10.00 M	45.00 M
Magnesium (Mg)	...	...	...	...	3.45 M	5.30 M	57.00 M
Iron, Total (Fe)	...	0.30 M	...	...	0.02 M	0.45 M	0.02 M
Manganese (Mn)	...	...	...	...	...	...	...
Silica (SiO <sub>2</sub> )	...	...	...	...	12.00 M	11.00 M	14.00 M
Chloride (Cl)	6300 M	24 M	4000 M	31 M	20 M	18 M	660 M
Sulfate (SO <sub>4</sub> )	...	...	...	...	...	18.00 M	69.00 M
Bicarbonate (HCO <sub>3</sub> )	...	...	44.00 M	174.00 M	...	22.00 M	29.00 M
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	0.03 M	...	0.78 M	0.05 M	0.41 M	3.20 M	2.10 M
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	...	...	...	...
Dissolved Solids	...	...	...	...	...	...	...
Hardness, Total	...	...	...	...	...	...	...
Spec. Conductance	...	...	...	...	...	...	...
pH	3.40	5.50	6.30	7.40	6.50	6.20	6.40

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Ni42-08	Ni42-09	Ni42-10	Ni43-01	Ni43-02	Ni51-15	Ni51-17
Sample Date	531104	440616	440616	440922	440922	440516	451004
Testing Agency	USGS	USGS	USGS	USGS	USGS	USGS	USGS
Aquifer	c1g	c1g	c1g	c1g	c1g	c1g	poco
Screen Interval (ft.)	55 - 65	55 - 65	55 - 65	100 - 110	93 - 103	25 - 30	130 - 157
Constituents:							
Sodium (Na)	...	19.00 M	14.00 M	...	...	...	8.00 M
Potassium (K)	...	...	...	...	...	...	0.90 M
Calcium (Ca)	...	9.20 M	16.00 M	...	...	...	1.50 M
Magnesium (Mg)	...	8.50 M	13.00 M	...	...	...	0.70 M
Iron, Total (Fe)	...	0.70 M	0.01 M	...	...	0.62 M	0.13 M
Manganese (Mn)	...	...	...	...	...	...	...
Silica (SiO <sub>2</sub> )	...	13.00 M	14.00 M	...	...	...	17.00 M
Chloride (Cl)	31 M	25 M	28 M	13 M	12 M	37 M	10 M
Sulfate (SO <sub>4</sub> )	...	...	...	2.00 M	3.00 M	44.00 M	2.60 M
Bicarbonate (HCO <sub>3</sub> )	42.00 M	32.00 M	38.00 M	14.00 M	12.00 M	31.00 M	10.00 M
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	0.70 M	3.40 M	7.10 M	0.50	7.50 M	27.60 M	1.40 M
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	...	...	...	...
Dissolved Solids	...	...	...	...	...	...	...
Hardness, Total	...	...	...	...	...	...	...
Spec. Conductance	...	...	...	...	...	...	...
pH	6.70	6.20	6.20	6.00	6.00	6.60	6.90

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Ni51-26	Ni51-26	Ni51-28	Ni51-29	Ni51-31	Ni51-31	Ni52-02
Sample Date	770318	840313	840313	840313	850822	860403	440515
Testing Agency	USGS	DPH	DPH	DPH	USGS	DPH	USGS
Aquifer	c1gpoc	c1gpoc	c1gpoc	c1gpoc	c1gpoc	c1gpoc	c1gpoc
Screen Interval (ft.)	70 - 95	70 - 95	70 - 150	117 - 147	100 - 150	100 - 150	70 - 80
Constituents:							
Sodium (Na)	5.20 M	15.00 M	14.00 M	13.00 M	11.00 M	...	...
Potassium (K)	1.60 M	...	...	...	1.60 M	...	...
Calcium (Ca)	2.90 M	...	...	...	5.10 M	...	...
Magnesium (Mg)	...	...	...	...	2.00 M	...	...
Iron, Total (Fe)	0.08 M	0.05 M	0.05 M	0.00 LM	...	...	0.19 M
Manganese (Mn)	0.01 M	...	...	...	6.00 U	...	...
Silica (SiO <sub>2</sub> )	16.00 M	...	...	...	18.00 M	...	...
Chloride (Cl)	15 M	22 M	18 M	18 M	16 M	16 M	13 M
Sulfate (SO <sub>4</sub> )	3.20 M	...	...	...	7.10 M	...	3.00 M
Bicarbonate (HCO <sub>3</sub> )	10.00 M	...	...	...	...	...	9.00 M
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	12.00 M	3.50 M	4.60 M	...	...	2.80 M
Alkalinity (as CaCO <sub>3</sub> )	8 M	20 M	8 M	12 M	6 M	...	...
Dissolved Solids	77 M	...	81 M	88 M	48 M	...	...
Hardness, Total	19 M	...	...	...	21 M	...	...
Spec. Conductance	135	...	...	...	121	...	...
pH	5.50	6.00	5.90	5.80	5.30	...	6.70

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Ni52-04	Ni52-05	Ni52-06	Ni52-08	Oh25-02	Oh25-03	Oh54-01
Sample Date	440516	440516	440516	440515	861119	861119	771122
Testing Agency	USGS	USGS	USGS	USGS	USGS	USGS	USGS
Aquifer	c1g	c1g	c1g	c1g	c1g	c1g	mnnkn
Screen Interval (ft.)	60 - 65	60 - 65	65 - 70	67 - 72	390 - 410	210 - 220	280 - 290
Constituents:							
Sodium (Na)	...	...	...	...	...	...	66.00 M
Potassium (K)	...	...	...	...	...	...	6.00 M
Calcium (Ca)	...	...	...	...	...	...	2.10 M
Magnesium (Mg)	...	...	...	...	...	...	1.60 M
Iron, Total (Fe)	1.30 M	0.15 M	1.40 M	0.03 M	...	...	4.70 M
Manganese (Mn)	...	...	...	...	...	...	0.04 M
Silica (SiO <sub>2</sub> )	...	...	...	...	...	...	16.00 M
Chloride (Cl)	22 M	15 M	12 M	12 M	620 M	14 M	10 M
Sulfate (SO <sub>4</sub> )	11.00 M	26.00 M	36.00 M	7.00 M	...	...	6.60 M
Bicarbonate (HCO <sub>3</sub> )	19.00 M	20.00 M	8.00 M	10.00 M	...	...	190.00 M
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	8.80 M	6.40 M	5.00 M	5.00 M	...	...	...
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	...	...	...	160 M
Dissolved Solids	...	...	...	...	...	...	265 M
Hardness, Total	...	...	...	...	...	...	12 M
Spec. Conductance	...	...	...	...	2900	95	462 M
pH	6.20	6.20	5.60	5.50	8.00	6.30	8.00 M

**Table 4 (continued)**  
**Results of chemical analyses of water**  
**from selected wells.**

DGS Well No.	Oh54-01	Oh54-01	Oh54-01	Oh54-01	Oh54-01	Oh54-02	Oh54-02	
Sample Date	850620	850717	850826	850828	860403	771122	850620	
Testing Agency	DGS	DPH	USGS	DPH	USGS	DPH	DPH	
Aquifer	mnkn	mnkn	mnkn	mnkn	poco	poco	poco	
Screen Interval (ft.)	280 - 290	280 - 290	280 - 290	280 - 290	280 - 290	179 - 189	179 - 189	
Constituents:								
Sodium (Na)	...	...	72.00	M	...	7.70	M	
Potassium (K)	...	...	5.80	M	...	1.40	M	
Calcium (Ca)	...	...	1.30	M	...	3.50	M	
Magnesium (Mg)	...	...	1.30	M	...	0.80	M	
Iron, Total (Fe)	...	...	...	...	...	0.79	M	
Manganese (Mn)	...	...	9.00	U	...	0.04	M	
Silica (SiO <sub>2</sub> )	...	...	14.00	M	...	22.00	M	
Chloride (Cl)	11	M	10	M	9	M	12	M
Sulfate (SO <sub>4</sub> )	...	...	3.90	M	...	...	7	M
Bicarbonate (HCO <sub>3</sub> )	...	...	...	...	...	21.00	M	
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...	
Nitrate (NO <sub>3</sub> )	...	...	...	...	...	...	...	
Alkalinity (as CaCO <sub>3</sub> )	...	...	155	M	...	...	...	
Dissolved Solids	...	...	204	M	...	79	M	
Hardness, Total	...	...	9	M	...	12	M	
Spec. Conductance	42	265	362	...	...	220	245	
pH	...	8.00	7.80	...	...	5.90	...	

**Table 4 (continued)**  
**Results of chemical analyses of water**  
**from selected wells.**

DGS Well No.	Oh54-02	Oh54-02	Oh54-02	0i11-01	0i11-04	0i12-06	0i23-11
Sample Date	850717	850828	860403	440616	440515	830302	810707
Testing Agency	DGS	USGS	DPH	USGS	USGS	DPH	DPH
Aquifer	poco	poco	poco	c1g	c1g	c1g	c1g
Screen Interval (ft.)	179 - 189	179 - 189	179 - 189	75 - 80	80 - 90	76 - 96	84 - 114
Constituents:							
Sodium (Na)	7.10 M	....	....	....	....	15.00 M	11.00 M
Potassium (K)	1.10 M	....	....	....	....	....	....
Calcium (Ca)	8.00 M	....	....	....	....	....	....
Magnesium (Mg)	0.59 M	....	....	....	....	....	....
Iron, Total (Fe)	....	....	....	1.00 M	0.37 M	0.10 LM	0.05 M
Manganese (Mn)	2.00 U	....	....	....	....	....	....
Silica (SiO <sub>2</sub> )	21.00 M	....	....	....	....	....	....
Chloride (Cl)	8 M	9 M	8 M	18 M	11 M	23 M	26 M
Sulfate (SO <sub>4</sub> )	4.40 M	....	....	26.00 M	1.00 M	....	....
Bicarbonate (HC0 <sub>3</sub> )	....	....	....	12.00 M	18.00 M	....	....
Phosphate (PO <sub>4</sub> )	....	....	....	....	....	....	....
Nitrate (NO <sub>3</sub> )	....	....	....	6.60 M	2.60 M	5.80 M	6.50 M
Alkalinity (as CaCO <sub>3</sub> )	9 M	....	....	....	....	14 M	10 M
Dissolved Solids	63 M	....	....	....	....	147 M	71 M
Hardness, Total	....	7 M	....	....	....	....	....
Spec. Conductance	45	62	....	....	....	....	....
pH	6.00	7.20	....	5.70	5.90	6.00	5.90

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	0123-11	0124-01	0124-01	0124-01	0124-05	0124-05	0124-05
Sample Date	840905	440923	810624	840905	770614	810624	840905
Testing Agency	DPH	USGS	DPH	DPH	DPH	DPH	DPH
Aquifer	cig	cig	cig	cig	cig	cig	cig
Screen Interval (ft.)	84 - 114	73 - 102	73 - 102	73 - 102	? - 110	? - 110	? - 110
<b>Constituents:</b>							
Sodium (Na)	11.00 M	37.00 M	12.00 M	15.00 M	...	12.00 M	17.00 M
Potassium (K)	...	3.30 M	...	...	...	...	...
Calcium (Ca)	...	17.00 M	...	...	...	...	...
Magnesium (Mg)	...	5.30 M	...	...	...	...	...
Iron, Total (Fe)	0.00 M	14.00 M	0.00 M	0.05 M	0.84 M	0.05 M	0.00 M
Manganese (Mn)	...	...	...	...	...	...	...
Silica (SiO <sub>2</sub> )	...	25.00 M	...	...	...	...	...
Chloride (Cl)	18 M	86 M	22 M	17 M	27 M	26 M	24 M
Sulfate (SO <sub>4</sub> )	...	9.80 M	...	...	...	...	...
Bicarbonate (HCO <sub>3</sub> )	...	23.00 M	...	...	...	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	7.10 M	...	2.30 M	1.70 M	6.00 M	6.90 M	7.30 M
Alkalinity (as CaCO <sub>3</sub> )	11 M	...	14 M	17 M	17 M	10 M	11 M
Dissolved Solids	147 M	...	49 M	64 M	...	185 M	158 M
Hardness, Total	...	...	...	...	...	...	...
Spec. Conductance	...	...	...	...	...	...	...
pH	5.40	6.00	6.10	5.90	5.00	5.70	5.40

**Table 4 (continued)**  
**Results of chemical analyses of water**  
**from selected wells.**

DGS Well No.	0124-05	0124-06	0124-06	0124-06	0124-07	0124-07	0124-07
Sample Date	850912	751029	850823	860403	770414	810624	840912
Testing Agency	DPH	BGB	DPH	DPH	RICH	DPH	DPH
Aquifer	c1g	mnkn	mnkn	mnkn	c1groc	c1groc	c1groc
Screen Interval (ft.)	7 - 110	230 - 250	230 - 250	230 - 250	70 - 80	70 - 80	70 - 80
Constituents:							
Sodium (Na)	11.00 M	...	8.00 M	...	...	11.00 M	12.00 M
Potassium (K)	...	...	2.80 M	...	...	...	...
Calcium (Ca)	...	...	2.10 M	...	4.70 M	...	...
Magnesium (Mg)	...	...	1.20 M	...	1.20 M	...	...
Iron, Total (Fe)	0.45 M	2.15 M	...	...	0.12 M	0.10 M	0.35 M
Manganese (Mn)	...	0.00 M	23.00 U	...	0.05 LM	...	...
Silica (SiO <sub>2</sub> )	...	...	20.00 M	...	...	...	...
Chloride (Cl)	20 M	10 M	11 M	11 M	18 M	21 M	15 M
Sulfate (SO <sub>4</sub> )	...	...	4.50 M	...	...	...	...
Bicarbonate (HC0 <sub>3</sub> )	...	...	...	...	...	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	7.80 M	1.60 M	...	...	8.60 M	0.90 M	0.60 M
Alkalinity (as CaCO <sub>3</sub> )	11 M	15 M	13 M	...	10 M	17 M	16 M
Dissolved Solids	179 M	70 M	55 M	...	...	...	22 M
Hardness, Total	...	10 M	10 M	...	15 M	...	...
Spec. Conductance	...	...	84	...	...	...	...
pH	5.80	6.40	...	...	6.10	6.30	6.30

**Table 4 (continued)**  
**Results of chemical analyses of water**  
**from selected wells.**

DGS Well No.	031-03	031-03	034-01	034-01	034-01	034-01	034-01
Sample Date	810319	840315	440923	770614	810624	840905	850823
Testing Agency	DPH	DPH	USGS	DPH	DPH	DPH	USGS
Aquifer	cig	cig	cigpac	cigpac	cigpac	cigpac	cigpac
Screen Interval (ft.)	88 - 94	88 - 94	69 - 74	69 - 74	69 - 74	69 - 74	69 - 74
Constituents:							
Sodium (Na)	9.00 M	10.00 M	37.00 M	...	12.00 M	16.00 M	12.00 M
Potassium (K)	...	...	3.30 M	...	...	...	1.70 M
Calcium (Ca)	...	...	17.00 M	...	...	...	6.70 M
Magnesium (Mg)	...	...	5.30 M	...	...	...	3.90 M
Iron, Total (Fe)	0.00 M	0.00 M	14.00 M	0.03 M	0.00 M	0.00 M	...
Manganese (Mn)	...	...	...	...	...	...	3.00 U
Silica (SiO <sub>2</sub> )	...	...	25.00 M	...	...	...	16.00 M
Chloride (Cl)	17 M	10 M	86 M	20 M	21 M	15 M	20 M
Sulfate (SO <sub>4</sub> )	...	...	9.80 M	...	...	...	10.00 M
Bicarbonate (HCO <sub>3</sub> )	...	...	23.00 M	...	...	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	1.30 M	1.40 M	...	4.40 M	4.60 M	4.10 M	...
Alkalinity (as CaCO <sub>3</sub> )	13 M	12 M	...	16 M	11 M	11 M	10 M
Dissolved Solids	38 M	67 M	...	...	67 M	73 M	105 M
Hardness, Total	...	...	...	...	...	...	33 M
Spec. Conductance	...	...	...	...	...	...	164
pH	5.80	5.90	6.00	5.50	6.60	5.60	...

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	0134-01	0134-01	0134-04	0134-07	0134-07	0135-01	0135-02
Sample Date	850824	860403	440512	770614	810624	441219	441215
Testing Agency	USGS	DPH	USGS	DPH	DPH	USGS	USGS
Aquifer	c1gpoc	c1gpoc	c1g	c1g	c1g	c1g	c1g
Screen Interval (ft.)	69 - 74	69 - 74	30 - 35	? - 110	? - 110	? - 110	? - 110
Constituents:							
Sodium (Na)	...	...	...	...	11.00 M	...	...
Potassium (K)	...	...	...	...	...	...	...
Calcium (Ca)	...	...	...	...	...	...	...
Magnesium (Mg)	...	...	...	...	...	...	...
Iron, Total (Fe)	...	...	0.20 M	0.07 M	0.05 M	4.80 M	3.20 M
Manganese (Mn)	...	...	...	...	...	...	...
Silica (SiO <sub>2</sub> )	...	...	...	...	...	...	...
Chloride (Cl)	18 M	19 M	15 M	28 M	28 M	13 M	13 M
Sulfate (SO <sub>4</sub> )	...	...	14.00 M	...	...	1.00 M	1.00 M
Bicarbonate (HCO <sub>3</sub> )	...	...	81.00 M	...	...	46.00 M	36.00 M
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	...	6.40 M	8.80 M	7.50 M	0.00 M	0.00 M
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	...	16 M	8 M	...
Dissolved Solids	...	...	...	...	196 M	...	...
Hardness, Total	...	...	...	...	...	...	...
Spec. Conductance	...	...	...	...	...	...	...
pH	...	...	6.80	5.70	6.00	6.50	6.50

**Table 4 (continued)**  
**Results of chemical analyses of water**  
**from selected wells.**

DGS Well No.	0135-03	0135-05	0135-15	0135-27	0131-01	0131-02	0131-03
Sample Date	431202	430604	440922	761015	430218	430218	441024
Testing Agency	USGS	USGS	USGS	USGS	USGS	USGS	USGS
Aquifer	c1g	c1gpoc	c1gpoc	m1kn	c1g	c1g	c1gpoc
Screen Interval (ft.)	30 - 40	? - 128	? - 136	238 - 248	? - 110	? - 110	? - 136
Constituents:							
Sodium (Na)	...	...	...	...	...	...	...
Potassium (K)	...	...	...	...	...	...	...
Calcium (Ca)	...	...	...	...	...	...	...
Magnesium (Mg)	...	...	...	...	...	...	...
Iron, Total (Fe)	0.20 M	0.40 M	...	4.30 M	12.00 M	12.00 M	28.00 M
Manganese (Mn)	...	...	...	40.00 U	...	...	...
Silica (SiO <sub>2</sub> )	...	...	...	23.00 M	...	...	...
Chloride (Cl)	54 M	33 M	16 M	37 M	92 M	92 M	215 M
Sulfate (SO <sub>4</sub> )	...	...	...	1.00 M	9.00 M	...	...
Bicarbonate (HCO <sub>3</sub> )	14.00 M	...	...	37.00 M	14.00 M	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	...	...	0.40 M	...	...	...
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	...	11 M	...	...
Dissolved Solids	...	...	...	...	108 M	...	...
Hardness, Total	...	...	...	...	...	...	...
Spec. Conductance	...	...	...	169	...	...	...
pH	6.00	6.00	6.90	5.20	6.60	6.60	...

**Table 4 (continued)**  
**Results of chemical analyses of water**  
**from selected wells.**

DGS Well No.	Ph44-04	Ph51-19	Ph32-02	Ph32-05	Ph32-08	Ph32-09
Sample Date	421005	750217	801007	850321	811002	820331
Testing Agency	USGS	DRILD	BGB	DGS	DPH	DRILD
Aquifer	c1g	c1g	mnkn	c1g	c1g	c1g
Screen Interval (ft.)	? - 111	93 - 103	236 - 256	60 - 70	64 - 69	60 - 73
<b>Constituents:</b>						
Sodium (Na)	...	14.00 M	33.00 M	...	...	...
Potassium (K)	...	...	...	...	...	...
Calcium (Ca)	5.00 M	...	...	...	...	...
Magnesium (Mg)	1.10 M	...	...	...	...	...
Iron, Total (Fe)	...	0.20 M	...	...	0.30 M	0.30 M
Manganese (Mn)	...	...	...	...	...	...
Silica (SiO <sub>2</sub> )	24.00 M	...	...	...	...	...
Chloride (Cl)	23 M	21 M	...	5450 M	110 M	21 M
Sulfate (SO <sub>4</sub> )	...	...	...	...	...	...
Bicarbonate (HCO <sub>3</sub> )	...	...	...	...	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	...	...	...	...	4.00 M
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	60 M	...	...
Dissolved Solids	...	...	...	...	...	...
Hardness, Total	...	...	...	...	...	...
Spec. Conductance	...	...	...	...	...	...
pH	6.50	...	...	...	5.00	5.00

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Pj34-01	Pj34-02	Pj12-01	Pj41-04	Pj41-04	Pj41-04	Pj41-04
Sample Date	620327	711221	860318	810511	850820	850823	850823
Testing Agency	DRILD	DRILD	DGS	DPH	USGS	USGS	DPH
Aquifer	c1g	c1g	poco	poco	poco	poco	poco
Screen Interval (ft.)	112 - 116	68 - 72	184 - 188	200 - 220	200 - 220	200 - 220	200 - 220
Constituents:							
Sodium (Na)	...	...	...	16.00 M	...	16.00 M	...
Potassium (K)	...	...	...	...	...	4.00 M	...
Calcium (Ca)	...	...	...	...	...	23.00 M	...
Magnesium (Mg)	...	...	...	...	...	6.70 M	...
Iron, Total (Fe)	7.00 M	...	...	5.50 M	...	...	...
Manganese (Mn)	...	...	...	...	...	170.00 U	...
Silica (SiO <sub>2</sub> )	...	...	...	...	...	30.00 M	...
Chloride (Cl)	...	36 M	260 M	44 M	42 M	42 M	43 M
Sulfate (SO <sub>4</sub> )	...	...	...	...	...	28.00 M	...
Bicarbonate (HCO <sub>3</sub> )	...	...	...	...	...	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	...	...	0.00 M	...	...	...
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	...	...	68 M	...
Dissolved Solids	...	...	...	...	...	184 M	...
Hardness, Total	...	...	...	...	...	85 M	...
Spec. Conductance	...	...	...	...	...	345	...
pH	5.80	5.50	...	6.10	...	...	...

**Table 4 (continued)**  
**Results of chemical analyses of water**  
**from selected wells.**

DGS Well No.	Pj51-04	Pj51-05	Pj51-05	Pj51-05	Qh54-03	Qh54-04	Qh54-04
Sample Date	830803	830803	850627	850722	740613	781103	850620
Testing Agency	DPH	DPH	DPH	DPH	GILB	USGS	DGS
Aquifer	poco	poco	poco	poco	c1g	mnkn	mnkn
Screen Interval (ft.)	179 - 209	190 - 215	190 - 215	190 - 215	98 - 110	324 - 328	324 - 328
Constituents:							
Sodium (Na)	11.00 M	13.00 M	...	...	9.50 M	26.00 M	...
Potassium (K)	...	...	...	...	3.00 M	4.20 M	...
Calcium (Ca)	...	...	...	...	7.40 M	29.00 M	...
Magnesium (Mg)	...	...	...	...	2.10 M	7.60 M	...
Iron, Total (Fe)	5.30 M	5.70 M	...	...	0.10 M	17.00 M	...
Manganese (Mn)	...	...	...	...	0.01 M	160.00 U	...
Silica (SiO <sub>2</sub> )	...	...	...	...	19.10 M	33.00 M	...
Chloride (Cl)	17 M	36 M	28 M	22 M	13 M	33 M	34 M
Sulfate (SO <sub>4</sub> )	...	...	...	...	0.30 M	9.20 M	...
Bicarbonate (HCO <sub>3</sub> )	...	...	...	...	...	140.00 M	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	0.00 M	0.00 M	...	...	7.86 M	...	...
Alkalinity (as CaCO <sub>3</sub> )	69 M	66 M	...	...	5 M	110 M	...
Dissolved Solids,	...	...	...	...	122 M	246 M	...
Hardness, Total	...	...	...	...	28 M	100 M	...
Spec. Conductance	...	...	187	...	...	360	310
pH	6.40	6.30	...	...	5.70	6.30	...

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Qh54-04	Qh54-04	Qh54-04	Qh54-04	Qh54-05	Qh54-05	Qh54-05	
Sample Date	850717	850828	850830	860407	781103	850620	850717	
Testing Agency	DGS	USGS	USGS	DPH	USGS	DGS	DGS	
Aquifer	mnnkn							
Screen Interval (ft.)	324 - 328	324 - 328	324 - 328	324 - 328	229 - 232	229 - 232	229 - 232	
Constituents:								
Sodium (Na)	...	25.00	M	...	...	11.00	M	
Potassium (K)	...	3.90	M	...	...	1.50	M	
Calcium (Ca)	...	25.00	M	...	...	42.00	M	
Magnesium (Mg)	...	6.90	M	...	...	2.40	M	
Iron, Total (Fe)	...	...	...	...	...	13.00	M	
Manganese (Mn)	...	220.00	U	...	...	0.18	M	
Silica (SiO <sub>2</sub> )	...	33.00	M	...	...	45.00	M	
Chloride (Cl)	27	M	30	M	34	M	15	M
Sulfate (SO <sub>4</sub> )	...	15.00	M	...	...	7.70	M	
Bicarbonate (HCO <sub>3</sub> )	...	...	...	...	...	140.00	M	
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...	
Nitrate (NO <sub>3</sub> )	...	...	...	...	...	...	...	
Alkalinity (as CaCO <sub>3</sub> )	...	112	M	...	...	10	M	
Dissolved Solids	...	225	M	...	...	222	M	
Hardness, Total	...	91	M	...	...	110	M	
Spec. Conductance	340	405	M	...	...	209	160	
pH	6.70	6.40	...	...	...	6.30	...	
							6.00	

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Qh54-05	Qh54-05	Qh54-05	Qh54-06	Qh54-06	Qh54-06	Qh54-06
Sample Date	850828	850830	860424	781103	850620	850717	850828
Testing Agency	USGS	USGS	DPH	USGS	DGS	DGS	USGS
Aquifer	mnkn	mnkn	mnkn	poco	poco	poco	poco
Screen Interval (ft.)	229 - 232	229 - 232	229 - 232	144 - 148	144 - 148	144 - 148	144 - 148
Constituents:							
Sodium (Na)	8.70 M	...	...	11.00 M	...	...	9.10 M
Potassium (K)	1.60 M	...	...	1.50 M	...	...	1.10 M
Calcium (Ca)	13.00 M	...	...	19.00 M	...	...	19.00 M
Magnesium (Mg)	2.20 M	...	...	1.70 M	...	...	1.70 M
Iron, Total (Fe)	...	...	...	17.00 M	...	...	...
Manganese (Mn)	140.00 U	...	...	0.12 M	...	...	120.00 U
Silica (SiO <sub>2</sub> )	33.00 M	...	...	36.00 M	...	...	38.00 M
Chloride (Cl)	10 M	15 M	12 M	14 M	14 M	15 M	12 M
Sulfate (SO <sub>4</sub> )	29.00 M	...	...	8.30 M	...	...	21.00 M
Bicarbonate (HCO <sub>3</sub> )	...	...	...	75.00 M	...	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	...	...	...	...	...	...
Alkalinity (as CaCO <sub>3</sub> )	53 M	...	...	62 M	...	...	62 M
Dissolved Solids	195 M	...	...	154 M	...	...	148 M
Hardness, Total	42 M	...	...	54 M	...	...	54 M
Spec. Conductance	222	...	...	211	245	210	238
pH	6.60	...	...	6.30	...	6.30	6.50

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Qh54-06	Qh54-06	Qh54-07	Qh54-07	Qh54-07	Qh54-07	Qj22-01	Qj22-01
Sample Date	850830	860407	781103	850717	860407	810921	840924	840924
Testing Agency	USGS	DPH	USGS	DPH	DPH	DPH	DPH	DPH
Aquifer	poco	poco	c1g	c1g	c1g	poco	poco	poco
Screen Interval (ft.)	144 - 148	144 - 148	104 - 108	104 - 108	104 - 108	168 - 178	168 - 178	168 - 178
Constituents:								
Sodium (Na)	...	...	11.00 M	...	...	9.00 M	10.00 M	10.00 M
Potassium (K)	...	...	2.10 M	...	...	...	...	...
Calcium (Ca)	...	...	14.00 M	...	...	...	...	...
Magnesium (Mg)	...	...	2.20 M	...	...	...	...	...
Iron, Total (Fe)	...	...	20.00 M	...	...	6.40 M	8.80 M	8.80 M
Manganese (Mn)	...	...	...	...	...	...	...	...
Silica (SiO <sub>2</sub> )	...	...	32.00 M	...	...	...	...	...
Chloride (Cl)	15 M	15 M	13 M	11 M	12 M	15 M	11 M	11 M
Sulfate (SO <sub>4</sub> )	...	...	8.30 M	...	...	...	...	...
Bicarbonate (HCO <sub>3</sub> )	...	...	68.00 M	...	...	...	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	...	...	...	...	0.00 M	0.00 M	0.00 M
Alkalinity (as CaCO <sub>3</sub> )	...	...	56 M	...	...	68 M	76 M	76 M
Dissolved Solids	...	...	144 M	...	...	...	145 M	145 M
Hardness, Total	...	...	44 M	...	...	...	...	...
Spec. Conductance	...	...	309	280	...	...	...	...
pH	...	...	6.30	6.30	...	6.50	6.40	6.40

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Qj 32-16	Qj 32-12	Qj 32-12	Qj 32-12	Qj 32-15	Qj 32-15	Qj 32-15
Sample Date	840724	820422	840202	840724	820422	840202	840724
Testing Agency	AWC	DPH	DPH	AWC	DPH	DPH	AWC
Aquifer	poco	poco	poco	poco	mnkn	mnkn	mnkn
Screen Interval (ft.)	186 - 211	179 - 214	179 - 214	179 - 214	353 - 383	353 - 383	353 - 383
<b>Constituents:</b>							
Sodium (Na)	...	...	...	11.00 M	...	40.00 M	41.00 M
Potassium (K)	...	...	...	...	...	...	...
Calcium (Ca)	26.00 M	...	...	27.00 M	...	...	36.00 M
Magnesium (Mg)	9.00 M	...	...	6.00 M	...	...	5.00 M
Iron, Total (Fe)	9.60 M	6.00 M	2.40 M	13.00 M	2.90 M	2.80 M	7.80 M
Manganese (Mn)	0.15 M	...	...	0.19 M	...	...	0.10 M
Silica (SiO <sub>2</sub> )	...	...	...	...	...	...	...
Chloride (Cl)	15 M	21 M	13 M	15 M	61 M	69 M	66 M
Sulfate (SO <sub>4</sub> )	14.00 M	...	...	25.20 M	...	...	9.50 M
Bicarbonate (HCO <sub>3</sub> )	124.00 M	...	...	116.00 M	...	...	132.00 M
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	0.00 M	0.00 M	...	0.00 M	0.00 M	...
Alkalinity (as CaCO <sub>3</sub> )	...	115 M	127 M	...	103 M	143 M	...
Dissolved Solids	...	...	179 M	...	173 M	275 M	...
Hardness, Total	...	...	...	...	...	...	...
Spec. Conductance	...	...	...	...	...	...	...
pH	6.65	6.80	6.60 M	6.65	7.60	6.70	6.70

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Qj32-16	Qj32-22	Qj32-22	Qj32-22	Qj41-02	Qj41-02	Qj41-02
Sample Date	830928	840724	850823	860403	710805	850722	850826
Testing Agency	DPH	AWC	USGS	DPH	USGS	DPH	USGS
Aquifer	poco	poco	poco	poco	mnkn	mnkn	mnkn
Screen Interval (ft.)	189 - 210	200 - 250	200 - 250	200 - 250	341 - 366	341 - 366	341 - 366
<hr/>							
Constituents:							
Sodium (Na)	12.00 M	...	11.00 M	...	21.00 M	...	36.00 M
Potassium (K)	...	...	3.30 M	...	3.30 M	...	3.90 M
Calcium (Ca)	...	32.00 M	31.00 M	...	32.00 M	...	34.00 M
Magnesium (Mg)	...	6.00 M	6.30 M	...	3.90 M	...	4.50 M
Iron, Total (Fe)	4.00 M	8.80 M	...	...	9100.00 U	...	...
Manganese (Mn)	...	0.13 M	120.00 U	...	130.00 U	...	120.00 U
Silica (SiO <sub>2</sub> )	...	...	38.00 M	...	51.00 M	...	37.00 M
Chloride (Cl)	38 M	15 M	14 M	16 M	29 M	52 M	53 M
Sulfate (SO <sub>4</sub> )	...	14.00 M	14.00 M	...	...	...	14.00 M
Bicarbonate (HCO <sub>3</sub> )	...	122.00 M	...	...	133.00 M	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	0.00 LM	...	...	...	...	...	...
Alkalinity (as CaCO <sub>3</sub> )	104 M	...	112 M	...	...	...	109 M
Dissolved Solids	156 M	...	190 M	...	196 M	...	252 M
Hardness, Total	...	...	100 M	...	...	...	100 M
Spec. Conductance	...	...	315	...	306	...	482
pH	6.70	6.65	...	...	7.90	...	6.60

**Table 4 (continued)**  
**Results of chemical analyses of water**  
**from selected wells.**

DGS Well No.	Qj41-02	Qj41-02	Qj41-03	Qj41-05	Qj41-06	Qj42-05	Rh32-01
Sample Date	850827	860407	850722	850722	850722	700902	521124
Testing Agency	USGS	DPH	DPH	DPH	DGS	DRILD	AWSC
Aquifer	mnkn	mnkn	mnkn	c lg	mnkn	mnkn	c lg
Screen Interval (ft.)	341 - 366	341 - 366	331 - 366	95 - 115	335 - 370	340 - 360	76 - 96
<b>Constituents:</b>							
Sodium (Na)	...	...	...	...	...	...	5.10 M
Potassium (K)	...	...	...	...	...	...	...
Calcium (Ca)	...	...	...	...	...	...	4.80 M
Magnesium (Mg)	...	...	...	...	...	...	3.90 M
Iron, Total (Fe)	...	...	...	...	...	4.00 M	5.00 M
Manganese (Mn)	...	...	...	...	...	...	...
Silica (SiO <sub>2</sub> )	...	...	...	...	...	...	10.00 M
Chloride (Cl)	51 M	51 M	58 M	27 M	38 M	60 M	10 M
Sulfate (SO <sub>4</sub> )	...	...	...	...	...	...	12.00 M
Bicarbonate (HCO <sub>3</sub> )	...	...	...	...	...	...	4.30 M
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	...	...	...	...	...	...
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	...	...	...	...
Dissolved Solids	...	...	...	...	...	...	...
Hardness, Total	...	...	...	...	...	...	...
Spec. Conductance	...	...	370	...	300	...	...
pH	...	...	6.30	...	6.50	7.30	5.60

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Rh32-10	Rh32-11	Ri24-03	Ri25-04	Ri25-05	Rj22-05	Rj22-05
Sample Date	700116	730412	850722	840222	850627	770511	850620
Testing Agency			DPH	DPH	DPH	USGS	DGS
Aquifer	c1groc	c1g	poco	poco	c1groc	mnkn	mnkn
Screen Interval (ft.)	102 - 122	91 - 122	144 - 154	155 - 175	126 - 166	450 - 455	450 - 455
<hr/>							
Constituents:							
Sodium (Na)	...	...	...	9.00 M	...	350.00 M	...
Potassium (K)	...	...	...	...	...	18.00 M	...
Calcium (Ca)	...	...	...	...	...	26.00 M	...
Magnesium (Mg)	...	...	...	...	...	21.00 M	...
Iron, Total (Fe)	13.00 M	1.50 M	...	4.30 M	...	3.00 M	...
Manganese (Mn)	...	...	...	...	...	0.06 M	...
Silica (SiO <sub>2</sub> )	...	...	...	...	...	26.00 M	...
Chloride (Cl)	23 M	30 M	12 M	11 M	6 M	460 M	420 M
Sulfate (SO <sub>4</sub> )	...	...	...	...	...	54.00 M	...
Bicarbonate (HCO <sub>3</sub> )	...	...	...	...	...	210.00 M	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	0.22 M	0.00 M	...	0.00 M	...	...	...
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	82 M	...	170 M	...
Dissolved Solids	...	...	...	...	...	1010 M	...
Hardness, Total	...	...	...	...	...	150 M	...
Spec. Conductance	...	...	180	...	...	1720	1650
pH	5.70	5.30	...	6.50	...	7.00	...

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Rj22-05	Rj22-06	Rj22-06	Rj22-06	Rj22-07	Rj22-07	Rj22-08
Sample Date	850718	770511	850620	850718	770511	850718	770511
Testing Agency	DPH	USGS	DPH	DPH	USGS	DPH	USGS
Aquifer	mnkn	mnkn	mnkn	mnkn	poco	poco	c19
Screen Interval (ft.)	450 - 455	290 - 295	290 - 295	290 - 295	180 - 185	180 - 185	110 - 115
Constituents:							
Sodium (Na)	...	20.00 M	...	...	52.00 M	...	5500.00 M
Potassium (K)	...	3.50 M	...	...	9.50 M	...	80.00 M
Calcium (Ca)	...	18.00 M	...	...	24.00 M	...	440.00 M
Magnesium (Mg)	...	4.40 M	...	...	11.00 M	...	710.00 M
Iron, Total (Fe)	...	8.90 M	...	...	4.60 M	...	120.00 M
Manganese (Mn)	...	0.15 M	...	...	0.11 M	...	1.10 M
Silica (SiO <sub>2</sub> )	...	35.00 M	...	...	29.00 M	...	...
Chloride (Cl)	420 M	21 M	15 M	25 M	60 M	210 M	9506 M
Sulfate (SO <sub>4</sub> )	...	4.40 M	...	...	8.00 M	...	1300.00 M
Bicarbonate (HCO <sub>3</sub> )	...	83.00 M	...	...	150.00 M	...	7.00 M
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	...	...	...	...	...	...
Alkalinity (as CaCO <sub>3</sub> )	...	68 M	...	...	120 M	...	6 M
Dissolved Solids	...	144 M	...	...	263 M	...	17200 M
Hardness, Total	...	63 M	...	...	110 M	...	4000 M
Spec. Conductance	1650	230	180	173	420	650	23000
pH	7.00	6.30	...	...	6.80	6.70	6.70

**Table 4 (continued)**  
**Results of chemical analyses of water**  
**from selected wells.**

DGS Well No.	Rj22-08	Rj22-09	Rj22-09	Rj31-02	Rj31-02	Rj31-07
Sample Date	850718	850826	850827	811208	841121	850627
Testing Agency	DGS	DPH	DPH	RICH	BCM	DPH
Aquifer	cig	poco	poco	mnkn	mnkn	poco
Screen Interval (ft.)	110 - 115	190 - 220	190 - 220	340 - 380	340 - 380	160 - 180
Constituents:						
Sodium (Na)	...	...	...	27.00 M	32.00 M	...
Potassium (K)	...	...	...	2.60 M	...	...
Calcium (Ca)	...	...	...	...	43.00 M	...
Magnesium (Mg)	...	...	...	2.80 M	13.90 M	...
Iron, Total (Fe)	...	...	...	10.00 M	9.70 M	...
Manganese (Mn)	...	...	...	...	...	...
Silica (SiO <sub>2</sub> )	...	...	...	...	35.00 M	...
Chloride (Cl)	100000 M	990 M	990 M	34 M	39 M	38 M
Sulfate (SO <sub>4</sub> )	...	...	...	0.50 LM	10.00 LM	...
Bicarbonate (HCO <sub>3</sub> )	...	...	...	...	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	...	...	...	0.05 LM	...	...
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	59 M	55 M	...
Dissolved Solids	...	...	...	...	...	...
Hardness, Total	...	...	...	230 M	57 M	...
Spec. Conductance	24000	...	...	255	238	227
pH	6.50	...	...	6.30	6.80	...
80						
Rj31-07						
Alkalinity (as CaCO <sub>3</sub> )	...	...	...	...	...	97 M
Dissolved Solids	...	...	...	...	...	...
Hardness, Total	...	...	...	230 M	57 M	...
Spec. Conductance	24000	...	...	255	238	227
pH	6.50	...	...	6.30	6.80	...
6.30						

**Table 4 (continued)**  
**Results of chemical analyses of water**  
**from selected wells.**

DGS Well No.	RJ31-07	RJ31-07	RJ31-07	RJ31-07	RJ31-07	RJ31-07
Sample Date	840618	841121	850627	850722	850829	850830
Testing Agency	DPH	BCM	DPH	DPH	USGS	USGS
Aquifer	poco	poco	poco	poco	poco	poco
Screen Interval (ft.)	160 - 180	160 - 180	160 - 180	160 - 180	160 - 180	160 - 180
Constituents:						
Sodium (Na)	12.00 M	11.00 M	...	...	9.80 M	...
Potassium (K)	...	...	...	...	3.40 M	...
Calcium (Ca)	...	56.00 M	...	...	20.00 M	...
Magnesium (Mg)	...	25.00 M	...	...	4.90 M	...
Iron, Total (Fe)	1.30 M	6.80 M	...	...	...	...
Manganese (Mn)	...	...	...	...	94.00 U	...
Silica (SiO <sub>2</sub> )	...	38.00 M	...	...	36.00 M	...
Chloride (Cl)	19 M	13 M	16 M	15 M	12 M	14 M
Sulfate (SO <sub>4</sub> )	...	14.00 M	...	...	1.70 M	...
Bicarbonate (HCO <sub>3</sub> )	...	...	...	...	...	...
Phosphate (PO <sub>4</sub> )	...	...	...	...	...	...
Nitrate (NO <sub>3</sub> )	0.00 M	...	...	...	...	...
Alkalinity (as CaCO <sub>3</sub> )	...	79 M	...	...	82 M	...
Dissolved Solids	...	...	...	...	138 M	...
Hardness, Total	...	83 M	...	...	70 M	...
Spec. Conductance	...	192	180	185	245	...
pH	7.00	6.60	...	6.90	6.50	...

Table 4 (continued)  
Results of chemical analyses of water  
from selected wells.

DGS Well No.	Rj31-08
Sample Date	860404
Testing Agency	DPH
Aquifer	mnkn
Screen Interval (ft.)	345 - 365
Constituents:	
Sodium (Na)	...
Potassium (K)	...
Calcium (Ca)	...
Magnesium (Mg)	...
Iron, Total (Fe)	...
Manganese (Mn)	...
Silica (SiO <sub>2</sub> )	...
Chloride (Cl)	35 M
Sulfate (SO <sub>4</sub> )	...
Bicarbonate (HCO <sub>3</sub> )	...
Phosphate (PO <sub>4</sub> )	...
Nitrate (NO <sub>3</sub> )	...
Alkalinity (as CaCO <sub>3</sub> )	...
Dissolved Solids	...
Hardness, Total	...
Spec. Conductance	...
pH	...

analyses can be compared. However, some caution should be exercised when comparing the results of old and recent analyses because analytical methods have changed.

#### HYDRAULIC CHARACTERISTICS

Table 5 contains well and aquifer test data from selected wells (Figure 5).

Results are presented for the following aquifers: (1) Columbia Group, (2) Columbia Group-Pocomoke, (3) Pocomoke, (4) Manokin, and (5) Chesapeake Group (undifferentiated). The Columbia Group-Pocomoke aquifer occurs in areas where the Columbia aquifer directly overlies the Pocomoke aquifer thereby forming a single hydrologic unit. The name Chesapeake Group (undifferentiated) aquifer is used to identify those water-bearing bodies within the Chesapeake Group which at this time appear to be localized and not part of either the Pocomoke or Manokin aquifers.

#### PRECIPITATION

Precipitation data for the period 1950-1985 are presented in Table 6. The general location of NOAA station 5320 is shown in Figure 6. Although the exact location of this station has changed several times during the period of records (1942-1986), the various locations were within the same general area and the records are considered continuous.

#### SURFACE-WATER DISCHARGE

Descriptions of various measurements at stream discharge stations (Figure 6) are presented in Table 7. Low flow measurements were obtained after extended periods of little or no rainfall when streamflows were derived primarily from ground-water discharge. Annual maximum discharges for the period 1961-1975 are presented for Pepper Creek at Dagsboro, Delaware.

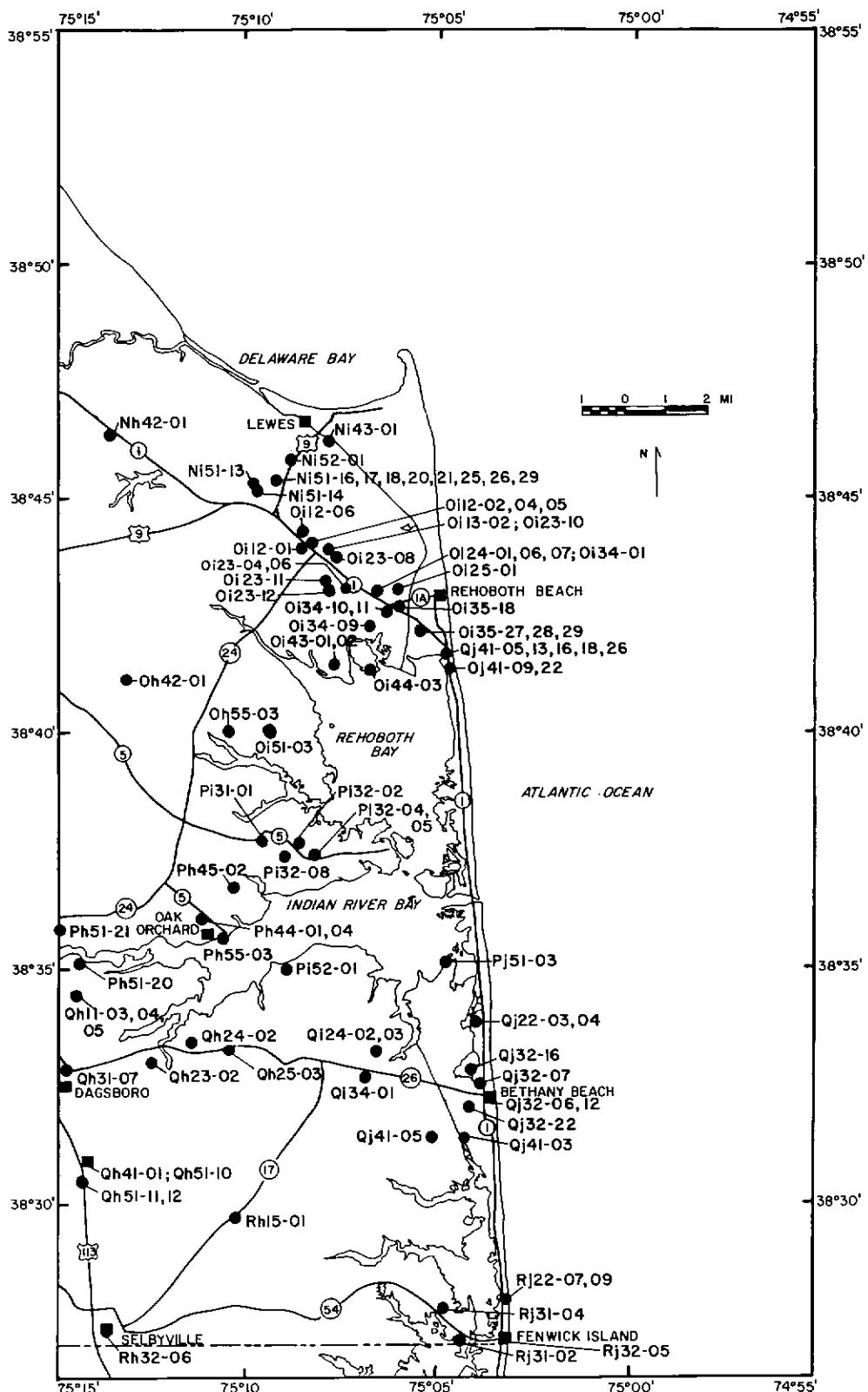


Figure 5. Map showing locations of selected wells used for aquifer test analyses.

Table 5. Well and aquifer test data from selected wells.

Water Use:

A	Agricultural
C	Commercial
D	Domestic
F	Fire Protection
I	Industrial
M	Observation
O	Other
P	Public Supply
R	Irrigation

Aquifer:

clg	Columbia Group
clgpoc	Columbia Group-Pocomoke
poco	Pocomoke
mnkn	Manokin
chg	Chesapeake Group

Table 5 (continued) Well and aquifer test data from selected wells.

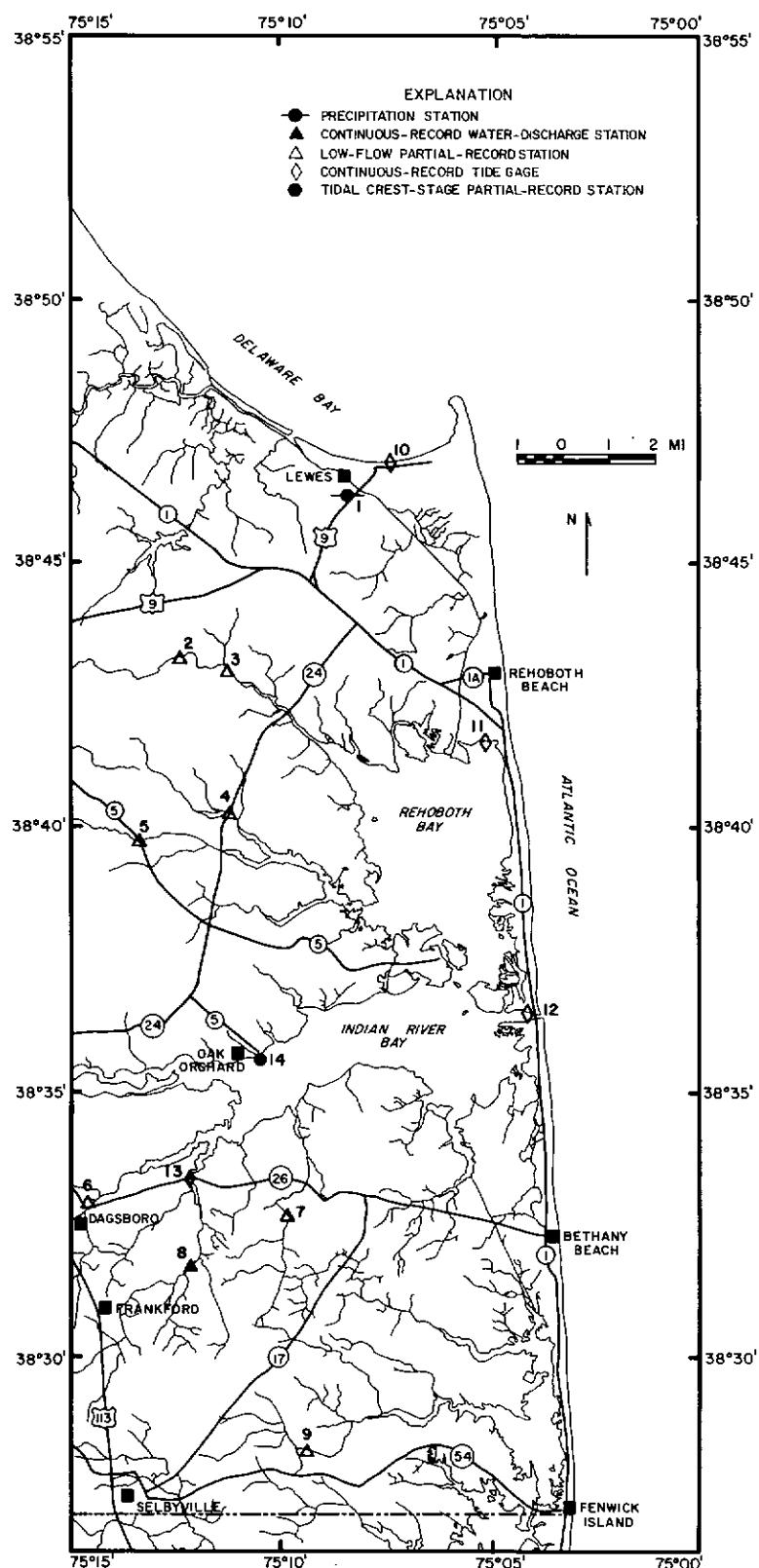
DGS Well No.	Water Use	Aquifer	Test Date	Discharge (gpm)	Duration (hrs)	Specific Capacity (gpm/ft drawdown)	Transmissivity ( $\text{ft}^2/\text{day}$ )
Nh42-01	D	c18	480901	100	8.0	5.7	-
N143-01	P	c18	440601	300	8.0	10.5	-
N151-13	D	c18	500801	35	-	3.5	-
N151-14	A	c18	-	30	-	2.5	-
N151-16	P	c18	541217	480	60.1	16.0	15000
N151-17	P	poco	-	500	-	11.4	-
N151-18	P	c18	-	400	-	11.0	-
N151-20	P	c1gpoc	550402	895	-	25.9	-
N151-21	D	ch8	520103	75	-	4.2	-
N151-25	T	mtnkn	740525	300	8.0	7.1	17420
N151-26	P	c1gpoc	770310	1030	24.0	51.3	-
N151-29	P	c1gpoc	800327	955	24.0	18.2	-
N152-01	I	c18	-	100	-	20.0	-
Oh42-01	R	c18	801209	100	4.5	33.3	-
Oh55-03	P	c18	680715	100	8.0	8.3	-
O112-01	C	c18	530328	25	-	2.5	-
O112-02	P	c18	540514	40	-	4.0	-
O112-04	P	c18	720724	75	2.0	1.4	-
O112-05	P	c18	720725	75	2.0	1.4	-
O112-06	P	c18	790607	40	4.0	40.0	-
O113-02	P	c18	820929	100	2.0	16.6	-
O123-04	P	c18	781025	100	2.0	10.0	-
O123-06	P	c18	761116	60	2.0	12.0	-
O123-08	P	c18	741212	200	4.0	8.9	-
O123-10	P	c18	821001	100	2.0	16.7	-
O123-11	P	c18	790312	1200	24.0	24.5	-
O123-11	P	c18	800311	1250	26.0	25.8	-
O123-12	P	c18	710914	225	8.0	3.4	-
O124-01	P	c18	520101	378	8.0	22.7	16000

Table 5 (continued) Well and aquifer test data from selected wells.

DGS Well No.	Water Use	Aquifer	Test Date	Discharge (gpm)	Duration (hrs)	Specific Capacity (gpm/ft drawdown)	Transmissivity (ft <sup>2</sup> /day)
Oi24-06	O	mnnkn clgpoc	751027 770411 481101	40 700 60	8.0 72.0	5.9	3300
Oi24-07	P	c1g	520101	725	-	-	-
Oi25-01	D	clgpoc	800912	100	4.0	12.0	12.0
Oi34-01	P	c1g	810428	55	2.0	22.7	22.7
Oi34-09	P	c1g	810428	55	2.0	3.3	3.3
Oi34-10	C	c1g	780531	50	3.0	12.2	12.2
Oi34-11	C	c1g	850724	80	-	25.0	25.0
Oi35-18	D	c1g	761012	200	72.0	16.0	16.0
Oi35-27	M	mnnkn	761012	200	72.0	2500	2500
Oi35-28	M	mnnkn	761012	200	72.0	2500	2500
Oi35-29	P	mnnkn	761012	200	72.0	6.3	6.3
Oi43-01	P	c1g	781113	100	2.0	7.1	7.1
Oi43-02	P	c1g	731005	60	2.0	3.5	3.5
Oi44-03	P	c1g	711105	75	4.0	6.8	6.8
Oj51-03	P	c1g	821019	80	4.0	16.0	16.0
Oj41-05	D	c1g	850724	40	-	1.6	1.6
Oj41-09	D	c1g	510727	100	-	5.6	5.6
Oj41-13	D	c1g	500101	80	-	3.8	3.8
Oj41-16	D	c1g	511001	100	-	6.6	6.6
Oj41-18	D	c1g	511003	60	-	4.0	4.0
Oj41-22	D	c1g	541112	100	-	9.8	9.8
Oj41-26	I	c1g	530505	100	-	5.6	5.6
Ph44-01	P	c1g	781213	352	8.0	22590	22590
Ph44-04	P	c1g	750217	138	8.4	-	-
Ph45-02	R	c1g	810314	1016	1.0	32.0	32.0
Ph51-20	I	mnnkn	810624	1000	20.0	26.3	26.3
Ph51-21	R	c1g	840106	1016	8.0	46.4	46.4
Ph55-03	P	c1g	690527	70	6.0	5.0	5.0
Pi31-01	P	c1g	821115	206	4.0	23.9	23.9
Pi32-02	P	c1g	841113	75	4.0	6.5	6.5
Pi32-04	C	c1g	810910	60	2.0	15.0	15.0
Pi32-05	P	c1g	811002	54	4.0	5.4	5.4
Pi32-08	P	c1g	820331	214	4.7	20.8	20.8

Table 5 (continued) Well and aquifer test data from selected wells.

DGS Well No.	Water Use	Aquifer	Test Date	Discharge (gpm)	Duration (hrs)	Specific Capacity (gpm/ft drawdown)	Transmissivity (ft <sup>2</sup> /day)
P152-01	P	c1g	821115	212	4.0	6.0	-
Pj51-03	P	poco		45	4.0	2.0	-
Qh11-03	I	c1g	740613	500	48.0	21.0	-
Qh11-04	M	c1g	740613	500	48.0	-	21000
Qh11-05	M	c1g	740613	500	48.0	-	21000
Qh23-02	R	c1g	820105	600	5.0	37.5	-
Qh24-02	R	c1g	850310	700	25.0	31.8	-
Qh25-03	R	c1g	840409	80	5.0	40.0	-
Qh31-07	F	c1g	510731	85	-	2.1	-
Qh41-01	I	c1g	510522	400	11.0	15.4	-
Qh51-10	I	c1g	480510	240	-	24.0	-
Qh51-11	I	c1g <poc></poc>	490202	240	-	17.6	-
Qh51-12	D	c1g	500101	70	-	3.9	-
Q124-02	P	c1g	820827	200	4.0	33.3	-
Q124-03	P	c1g	770504	40	1.5	3.1	-
Q134-01	F	c1g <poc></poc>	-	120	-	2.3	-
Qj22-03	P	poco	680316	267	8.0	9.5	-
Qj22-04	P	poco	680227	189	8.0	2.3	-
Qj32-06	F	c1g	430830	97	-	6.4	-
Qj32-07	P	c1g	560217	202	-	16.8	-
Qj32-12	P	poc	770601	333	2.0	15.8	8000
Qj32-16	P	poco	751226	272	24.0	2.9	8000
Qj32-22	P	poco	800612	500	24.0	12.8	-
Qj41-03	P	mnkn	790323	60	10.0	15.0	4900
Qj41-05	P	c1g	840913	100	4.0	4.0	-
Rh15-01	F	c1g <poc></poc>	430830	70	-	2.5	-
Rh32-06	M	poco	571013	100	-	10.0	-
Rj22-07	M	poco	850221	36	3.0	-	212
Rj22-09	P	poco	850221	36	3.0	1.3	616
Rj31-02	P	mnkn	851121	128	4.0	15.1	-
Rj31-04	P	poco	850402	50	8.0	1.8	-
Rj32-05	O	mnkn	511212	40	-	1.5	-



**Figure 6.** Map showing locations of precipitation, surface-water discharge, and tide stations.

Table 6. Precipitation data, City of Lewes, January 1950-December 1985.

INDEX NUMBER - 1  
STATION NUMBER - 5320/NOAA/NOS  
STATION NAME - Lewes  
LOCATION - Lat 38°46'14", long 75°08'20", Sussex County, at City of Lewes,  
Department of Public Works, Schley Avenue, Lewes, DE  
CLASSIFICATION - Precipitation  
PERIOD OF RECORD - 1942 - continuing

Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Total
1950	2.34	2.78	4.36	2.60	-	3.44	3.18	2.94	5.13	0.82	5.62	3.02	-
1951	1.88	2.41	4.50	2.40	3.41	5.11	2.76	3.72	2.57	3.16	4.64	4.55	41.11
1952	5.67	2.75	6.38	4.42	4.89	2.62	4.01	6.62	2.23	1.74	6.81	3.84	51.98
1953	4.13	3.99	5.70	5.05	6.12	2.80	2.92	11.06	2.02	2.78	4.02	3.04	53.63
1954	3.58	1.24	3.92	5.21	2.16	0.42	4.62	5.20	4.50	2.28	4.73	3.58	41.44
1955	0.66	2.96	4.63	3.01	1.79	6.61	1.08	7.58	3.83	4.90	2.87	1.05	40.97
1956	3.37	3.01	4.22	2.22	2.92	4.46	10.35	2.49	5.84	8.34	3.62	4.51	55.35
1957	2.52	3.53	4.02	1.52	1.30	7.85	1.67	2.42	4.98	2.88	5.44	6.70	44.83
1958	3.46	5.28	7.00	5.25	4.49	5.14	7.28	12.53	1.75	2.89	2.51	2.44	60.02
1959	1.41	1.54	3.25	4.85	1.29	2.63	9.02	4.33	0.52	4.57	5.18	3.23	41.82
1960	2.94	*4.60	2.82	1.64	4.82	2.59	7.15	6.10	6.13	3.52	1.78	2.79	*46.88
1961	3.57	5.25	5.69	2.18	5.94	3.88	4.27	3.86	2.80	6.44	1.85	4.31	50.04
1962	4.97	4.05	3.54	3.70	1.69	3.69	6.26	1.53	2.83	1.39	5.49	4.15	43.29
1963	2.75	2.16	6.64	1.71	3.28	2.49	1.83	3.01	5.71	0.26	6.00	2.74	38.58
1964	5.11	5.18	3.82	5.67	0.20	1.31	5.88	0.94	4.77	2.33	1.41	2.74	39.36
1965	4.13	1.79	4.26	2.46	0.92	3.10	5.99	5.88	2.57	1.03	0.78	1.06	33.97
1966	3.61	3.43	1.24	5.03	6.21	5.62	1.25	1.53	6.41	3.73	1.19	3.68	42.93
1967	1.29	3.70	2.17	2.00	4.69	3.93	3.08	13.73	1.50	2.09	2.19	5.60	*45.97
1968	2.91	1.68	4.00	1.74	3.12	3.62	1.45	1.20	1.12	2.07	2.88	3.50	29.29
1969	2.54	3.25	3.91	3.95	1.40	2.21	8.18	6.73	3.01	0.73	3.74	6.72	46.37
1970	2.49	3.82	4.68	4.40	2.77	6.03	4.80	4.00	0.76	2.97	2.59	4.20	43.51
1971	2.45	5.30	2.57	3.08	4.61	0.29	4.69	5.15	2.49	6.85	3.32	2.39	43.19
1972	3.12	5.96	2.24	4.30	5.47	5.82	2.21	5.84	3.25	4.20	7.17	4.49	54.07
1973	2.76	3.75	3.17	3.82	3.58	3.52	3.24	10.37	2.71	1.67	1.80	6.63	47.02
1974	2.37	2.24	4.41	1.83	5.45	6.03	0.65	5.96	2.33	2.56	0.87	4.77	39.47
1975	5.32	3.40	4.68	5.51	3.89	3.23	6.99	5.86	5.37	2.75	3.39	3.66	54.05
1976	3.41	1.78	1.74	1.04	3.35	3.47	2.53	6.15	4.89	5.89	1.24	3.59	39.08
1977	2.84	1.94	2.18	2.39	1.86	2.76	1.59	3.71	3.21	3.79	4.90	7.33	38.50
1978	6.95	1.87	6.57	2.87	6.88	1.95	4.64	4.95	0.53	2.69	4.32	4.77	48.99
1979	7.58	6.84	5.58	3.68	5.75	3.96	2.55	6.50	4.48	3.01	5.29	1.61	56.83
1980	4.25	1.24	6.68	-	2.03	-	-	-	-	-	-	-	-
1981	0.32	3.34	2.84	5.45	5.30	2.76	1.77	5.39	5.53	3.42	1.31	6.44	*43.87
1982	3.64	3.03	4.62	4.52	1.10	7.64	4.01	5.87	1.25	2.39	5.02	2.63	45.72
1983	2.41	3.25	-	8.71	5.07	4.39	2.18	6.48	4.09	4.31	5.43	5.00	-
1984	5.17	3.98	7.86	4.54	8.36	1.68	3.90	0.78	2.53	3.18	3.04	1.80	46.82
1985	*3.66	2.56	2.45	0.54	3.87	2.27	3.39	12.54	4.07	2.23	4.30	1.23	*43.11

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
Maximum	7.58	6.84	7.86	8.71	8.36	7.85	10.35	13.73	6.41	8.34	7.17	7.33	60.02
Average	3.37	3.30	4.24	3.52	3.71	3.69	4.03	5.51	3.36	3.14	3.62	3.82	45.21
Minimum	0.32	1.24	1.24	0.54	0.20	0.29	0.65	0.78	0.52	0.26	0.78	1.05	29.29

\* estimated

Table 7. Surface-water discharge data from continuous-record, low-flow partial-record, and crest-stage partial-record stations.

INDEX NUMBER - 2  
 STATION NUMBER - USGS-WRD  
 STATION NAME - Bundicks Branch near Jimtown, DE  
 LOCATION - Lat  $38^{\circ}43'17''$ , long  $75^{\circ}12'23''$ , Sussex County, at bridge on Road 285, 1.2 miles above confluence with Goslee Creek, 1.3 miles southwest of Jimtown, and 6.5 miles west of Rehoboth Beach, DE  
 CLASSIFICATION - Low-flow partial-record station  
 PERIOD OF RECORD - 1968-1970  
 DRAINAGE AREA - 5.5 mi<sup>2</sup> (approximate)

Date	Discharge (ft <sup>3</sup> /s)	Date	Discharge (ft <sup>3</sup> /s)
09/17/68	1.00	08/27/69	1.82
04/16/69	2.27	09/02/70	2.20
07/01/69	1.11	10/06/70	1.49

INDEX NUMBER - 3  
 STATION NUMBER - 01484655/USGS-WRD  
 STATION NAME - Love Creek at Robinsonville, DE  
 LOCATION - Lat  $38^{\circ}43'03''$ , long  $75^{\circ}11'14''$ , Sussex County, at bridge on Road 277, about 3.7 miles above mouth and 0.4 mile east of Robinsonville, DE  
 CLASSIFICATION - Low-flow partial-record station  
 PERIOD OF RECORD - 1985 - continuing  
 DRAINAGE AREA - 12 mi<sup>2</sup> (approximate)

Date	Discharge (ft <sup>3</sup> /s)	Date	Discharge (ft <sup>3</sup> /s)
07/08/85	4.28	04/03/86	7.32
11/20/85	4.27		

Table 7 (continued) Surface-water discharge data from continuous-record, low-flow partial-record, and crest-stage partial-record stations.

INDEX NUMBER - 4  
 STATION NUMBER - 01484677/USGS-WRD  
 STATION NAME - Chapel Branch at Angola, DE  
 LOCATION - Lat  $38^{\circ}40'18''$ , long  $75^{\circ}11'10''$ , Sussex County, at bridge on Highway 24, 0.2 mile above mouth and 0.15 mile northeast of Angola, DE  
 CLASSIFICATION - Low-flow partial-record station  
 PERIOD OF RECORD - 1985 - continuing  
 DRAINAGE AREA - 8.0 mi<sup>2</sup> (approximate)

Date	Discharge (ft <sup>3</sup> /s)	Date	Discharge (ft <sup>3</sup> /s)
07/08/85	2.11	04/03/86	4.87
11/20/85	2.25		

INDEX NUMBER - 5  
 STATION NUMBER - USGS-WRD  
 STATION NAME - Unity Branch at Fairmount, DE  
 LOCATION - Lat  $38^{\circ}39'45''$ , long  $75^{\circ}13'21''$ , Sussex County, at culvert on Highway 5 at Fairmount, DE, 1.6 miles above Phillips Branch, and 8 miles north of Dagsboro, DE  
 CLASSIFICATION - Low-flow partial-record station  
 PERIOD OF RECORD - 1968-1970  
 DRAINAGE AREA - 3.3 mi<sup>2</sup> (approximate)

Date	Discharge (ft <sup>3</sup> /s)	Date	Discharge (ft <sup>3</sup> /s)
09/17/68	0.09	05/06/70	4.78
04/16/69	2.10	09/02/70	0.38
07/01/69	0.24	10/06/70	0.17
08/27/69	1.78		

Table 7 (continued) Surface-water discharge data from continuous-record, low-flow partial-record, and crest-stage partial-record stations.

INDEX NUMBER - 6  
 STATION NUMBER - 01484559/USGS-WRD  
 STATION NAME - Pepper Creek at Dagsboro, DE  
 LOCATION - Lat  $38^{\circ}32'50''$ , long  $75^{\circ}14'39''$ , Sussex County, at bridge on Highway 26, 3.5 miles upstream from Vines Creek and at Dagsboro, DE  
 CLASSIFICATION - \*  
 PERIOD OF RECORD - \*  
 DRAINAGE AREA - 8.78 mi<sup>2</sup>

Low-Flow		Annual Maximum (Oct. 1-Sept. 30)	
Date	Discharge (ft <sup>3</sup> /s)	Date	Discharge (ft <sup>3</sup> /s)
03/04/65	4.08	02/08/61	215
07/24/65	1.73	03/06/62	292
10/04/65	1.56	03/12/63	156
07/20/66	1.46	04/08/64	280
09/14/66	0.91	08/02/65	182
09/15/67	4.34	05/29/66	54
06/21/68	4.78	08/25/67	346
07/23/68	1.96	01/14/68	137
09/17/68	0.79	08/03/69	330
04/17/69	7.57	07/30/70	479
09/18/70	1.48	08/28/71	259
04/27/71	4.41	10/24/71	545
07/08/85	1.48	02/02/73	403
11/20/85	5.07	08/09/74	303
04/03/86	5.17	07/25/75	521

\* Low-flow partial-record station June 1955 to August 1960.

Low-flow and crest-stage partial-record station August 1960 to August 1975.

Low-flow partial-record station 1985-continuing.

Table 7 (continued) Surface-water discharge data from continuous-record, low-flow partial-record, and crest-stage partial-record stations.

INDEX NUMBER - 7  
 STATION NUMBER - 01484600/USGS-WRD  
 STATION NAME - Blackwater Creek near Clarksville, DE  
 LOCATION - Lat  $38^{\circ}32'43''$ , long  $75^{\circ}09'49''$ , Sussex County, at bridge on Highway 54, 1.0 mile west of Clarksville, DE, and 3.1 miles above mouth  
 CLASSIFICATION - Low-flow and crest-stage partial-record station  
 PERIOD OF RECORD - 1968-1970; 1985-continuing  
 DRAINAGE AREA - Published as  $4.5 \text{ mi}^2$  1968-1970 (approximate)  
                   Published as  $3.5 \text{ mi}^2$  1985-continuing (approximate)

Date	Discharge (ft <sup>3</sup> /s)	Date	Discharge (ft <sup>3</sup> /s)
09/17/68	0.00	07/08/85	0.19
04/17/69	2.38	09/25/85	0.85
07/01/69	0.00	11/20/85	1.53
10/06/70	0.00	04/03/86	1.06

INDEX NUMBER - 8  
 STATION NUMBER - 01484548/USGS-WRD  
 STATION NAME - Vines Creek at Omar, DE  
 LOCATION - Lat  $38^{\circ}31'44''$ , long  $75^{\circ}12'09''$ , Sussex County, at bridge on Road 382, about 6.2 miles above mouth at Indian River Bay, and 0.15 mile northwest of Omar, DE  
 CLASSIFICATION - Continuous record water-discharge station  
 PERIOD OF RECORD - 1985-continuing  
 DRAINAGE AREA -  $13.6 \text{ mi}^2$

Date	Discharge (ft <sup>3</sup> /s)	Date	Discharge (ft <sup>3</sup> /s)
07/08/85	0.80	11/20/85	5.28
09/20/85	2.93	04/03/86	6.41

Table 7 (continued) Surface-water discharge data from continuous-record, low-flow partial-record, and crest-stage partial-record stations.

INDEX NUMBER - 9  
 STATION NUMBER - 01484700/USGS-WRD  
 STATION NAME - Bearhole Ditch at Bunting, DE  
 LOCATION - Lat 38°28'17", long 75°09'22", Sussex County, at bridge on Road 390A, 0.6 mile north of Bunting, 1.6 miles above mouth, and 3.7 miles east of Selbyville, DE  
 CLASSIFICATION - Low-flow partial-record station  
 PERIOD OF RECORD - 1968-1970; 1985-continuing  
 DRAINAGE AREA - 6.2 mi<sup>2</sup> (approximate)

Date	Discharge (ft <sup>3</sup> /s)	Date	Discharge (ft <sup>3</sup> /s)
09/17/68	0.21	10/06/70	0.60
04/17/69	6.49	07/08/85	0.96
07/01/69	1.00	11/20/85	3.32
08/27/69	7.71	04/03/86	2.67
09/02/70	1.70		

#### TIDE DATA

Table 8 contains information on tide measurements (continuous-record and crest-stage partial-record). The locations of the four continuous-record stations and one crest-stage partial-record station are shown in Figure 6. Maximum instantaneous heights of tide greater than three feet (NGVD 1929) are presented for Rehoboth Bay at Dewey Beach and Vines Creek; greater than four feet (NGVD 1929) for Indian River at Oak Orchard and Indian River Inlet; and greater than 5 feet (NGVD 1929) for Breakwater Harbor.

Table 8. Tide data from continuous-record and crest-stage partial-record stations.

INDEX NUMBER - 10  
 STATION NUMBER - 855-7380/NOAA/NOS  
 STATION NAME - Lewes, Breakwater Harbor, DE  
 LOCATION - Lat  $38^{\circ}46'56''$ , long  $75^{\circ}07'15''$ , Sussex County at Cape May-Lewes Ferry Terminal, Lewes, DE  
 CLASSIFICATION - Continuous-record tide gage  
 PERIOD OF RECORD - 1919 - continuing

Date	*Elevation of tide NGVD 1929 (feet)	Date	*Elevation of tide NGVD 1929 (feet)
03/06/62	7.8	09/72	5.3
10/25/80	6.49	11/53	5.3
03/29/84	6.45	10/48	5.3
10/61	6.3	10/83	5.24
10/14/77	6.2	01/83	5.22
12/22/72	6.0	04/78	5.2
11/62	6.0	01/78	5.2
09/36	6.0	01/07/70	5.2
12/09/73	5.9	11/12/68	5.2
10/23/53	5.9	11/10/68	5.2
01/64	5.8	01/23/66	5.2
11/10/69	5.7	01/17/65	5.2
01/10/56	5.6	05/10/39	5.2
11/47	5.6	09/73	5.1
11/15/81	5.58	04/73	5.1
02/26/74	5.51	03/73	5.1
05/24/67	5.5	03/71	5.1
01/61	5.5	11/70	5.1
12/12/60	5.5	01/29/22	5.1
09/56	5.5	05/81	5.07
02/67	5.4	01/79	5.04
09/67	5.4	01/80	5.02
12/04/83	5.39	10/84	5.01
10/73	5.3		

\* Greater than 5.00 feet

Table 8 (continued) Tide data from continuous-record and crest-stage partial-record stations.

INDEX NUMBER - 11  
 STATION NUMBER - 01484670/USGS  
 STATION NAME - Rehoboth Bay at Dewey Beach, DE  
 STATION - Lat  $38^{\circ}41'40''$ , long  $75^{\circ}05'05''$ , Sussex County, on north shore of Rehoboth Bay at Head of Bay Cove, Dewey Beach, and at south end of Ventian Drive  
 CLASSIFICATION - Continuous-record tide gage  
 PERIOD OF RECORD - August 1984-continuing  
 DATUM - NGVD 1929

Date	*Elevation of tide		Date	*Elevation of tide	
	NGVD 1929 (feet)			NGVD 1929 (feet)	
11/05/85	3.21		09/22/85	3.14	
10/14/84	3.18				

\* Greater than 3.00 feet

INDEX NUMBER - 12  
 STATION NUMBER - 855-8690/NOAA/NOS  
 STATION NAME - Indian River Inlet, U. S. Coast Guard Station  
 LOCATION - Lat  $38^{\circ}36'37''$ , long  $75^{\circ}04'05''$ , Sussex County, at U. S. Coast Guard Station, north side of Indian River Inlet and approximately 1,300 feet west-northwest of Indian River Inlet Bridge  
 CLASSIFICATION - Continuous-record tide gage  
 PERIOD OF RECORD - 1972 - August 1986

Date	*Elevation of tide		Date	*Elevation of tide	
	NGVD 1929 (feet)			NGVD 1929 (feet)	
3/29/84	5.35		12/14/77	4.29	
10/25/82	4.70		10/25/83	4.20	
10/14/77	4.60		10/14/84	4.19	
10/25/80	4.45		12/1/74	4.16	
11/15/81	4.41		2/26/79	4.14	
2/11/83	4.29		12/22/82	4.13	

\* Greater than 4.00 feet

Table 8 (continued) Tide data from continuous-record and crest-stage partial-record stations.

INDEX NUMBER - 13  
 STATION NUMBER - 01484549/USGS  
 STATION NAME - Vines Creek near Dagsboro, DE  
 LOCATION - Lat  $38^{\circ}33'23''$ , long  $75^{\circ}12'13''$ , Sussex County, on bridge on Highway 26, 2.4 miles east of Dagsboro and 3.8 miles upstream from the confluence with Indian River at Indian River Bay  
 CLASSIFICATION - Continuous-record tide gage  
 PERIOD OF RECORD - August 1984-continuing  
 DATUM - NGVD 1929

Date	*Elevation of tide NGVD 1929 (feet)	Date	*Elevation of tide NGVD 1929 (feet)
09/27/85	3.96	11/05/85	3.31
10/14/84	3.82	11/30/85	3.29
11/03/85	3.73	12/13/85	3.29
11/02/85	3.67	10/15/84	3.13
11/01/85	3.60	05/09/86	3.07
12/01/85	3.52	09/28/84	3.06
11/04/85	3.51	05/03/85	3.06
10/13/84	3.44	11/29/85	3.04
02/07/86	3.43	09/23/85	3.02
10/01/84	3.33		

\* Greater than 3.00 feet

Table 8 (continued) Tide data from continuous-record and crest-stage partial-record stations.

INDEX NUMBER - 14  
 STATION NUMBER - 01484595/USGS- WRD  
 STATION NAME - Indian River at Oak Orchard, DE  
 LOCATION - Lat  $38^{\circ}35'45''$  Long  $75^{\circ}10'24''$ , Sussex County, at Hanes Landing, 2.05 miles southeast of junction of State routes 24 and 5, at Oak Orchard, DE  
 CLASSIFICATION - Tidal crest-stage partial-record station  
 PERIOD OF RECORD - September 1965 – December 1985

Date	*Elevation of tide NGVD 1929 (feet)	Date	*Elevation of tide NGVD 1929 (feet)
3/6-7/62	** 8.25	2/11 or 12/83	4.45
9/12/68	5.34	11/15/81	4.34
3/29/84	5.23	4/6/71	4.27
4/27/67	5.01	Between 10/5 and 11/9/83	4.25
12/25/82	5.01	2/26/79	4.20
12/1/74	4.82	1/25 or 26/78	4.19
10/14/77	4.76	Between 9/22 and 10/14/82	4.11
Between 7/28 and 9/18/67	4.68	Between 8/12 and 9/22/82	4.07
12/19/77	4.56	9/21/72	4.05
9/27/85	4.52	Between 8/22 and 9/30/83	4.03
10/25/80	4.47		

\* Greater than 4.00 feet

\*\* Based on high water mark in a building adjacent to the present tidal crest-stage gage. Elevation determined by USGS-WRD personnel.

#### SELECTED REFERENCES

- Andres, A. S., 1986, Geohydrology of the northern coastal area, Delaware: Delaware Geological Survey Hydrologic Map Series No. 5.
- Hodges, A. L., 1983, Hydrology of the Manokin, Ocean City, and Pocomoke aquifers of southeastern Delaware: Delaware Geological Survey Report of Investigations No. 38, 60 p.
- Johnston, R. H., 1973, Hydrology of the Columbia (Pleistocene) deposits of Delaware: An appraisal of a regional water-table aquifer: Delaware Geological Survey Bulletin No. 14, 78 p.
- Jordan, R. R., 1962, Stratigraphy of the sedimentary rocks in Delaware: Delaware Geological Survey Bulletin No. 9, 51 p.
- Marine, I. W., and Rasmussen, W. C., 1955, Preliminary report on the geology and ground-water resources of Delaware: Delaware Geological Survey Bulletin No. 4, 336 p.
- Miller, J. C., 1971, Ground-water geology of the Delaware Atlantic seashore: Delaware Geological Survey Report of Investigations No. 17, 33 p.
- Rasmussen, W. C., Wilkens, R. A., and Beall, R.M., 1960, Water resources of Sussex County, Delaware - A progress report: Delaware Geological Survey Bulletin No. 8, 228 p.
- Sundstrom, R. W., and Pickett, T. E., 1969, The availability of ground water in eastern Sussex County, Delaware: Water Resources Center, University of Delaware, 136 p.
- Woodruff, K. D., 1969, The occurrence of saline ground water in Delaware aquifers: Delaware Geological Survey Report of Investigations No. 13, 45 p.
- \_\_\_\_\_, 1970, General ground-water quality in fresh-water aquifers of Delaware: Delaware Geological Survey Report of Investigations No. 15, 22 p.

