

**WATER SUPPLY PLAN
HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

Prepared For:

Heritage Village Water Company

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SECTION 1 - FRANCHISE AUTHORITY

1.0 LEGISLATIVE AUTHORITY

The Heritage Village Water Company (HVWC) Water Supply Plan (WSP) is being submitted as required by Connecticut Regulation 25-32d-1.

The utility was originally chartered to service an adult condominium community and attendant commercial services. As a result of a request for service by a major industrial firm in Middlebury and others in Oxford, the charter was amended to allow extension of the service. Anticipating increased future growth, HVWC provided distribution storage and large mains with a capacity in excess of immediate requirements. Completion of Route 84 brought a rapid increase in commercial and residential growth in Southbury. A well location map is identified as figure 1 and a site plan of the water supply system and the existing service area is identified as Plate 1.

1.1 Constraints

HVWC was incorporated under Connecticut House Bill 7429, General Assembly Session of January 1969, Special Act 110, awarding the company franchise rights to the service district and areas immediately adjacent. As amended by Special Act 74-63, House Bill 5805, franchise rights were expanded to include portions of Oxford and Middlebury. The complete Act and Amendment are shown in Appendix A. As a consequence, the system is being expanded to proposed industrial parks in Oxford and other developments in both Southbury and Middlebury.

1.2 Company-Owned Land

HVWC owns approximately 5.2 acres of land. Primarily, HVWC owns land at the storage tanks, the East Hill Road and Church Road booster pump stations. Wells H-1A, H-4 and H-5A are on land owned by the Masoret Holdings, LLC well H-2A is on land owned by Heritage Center LLC and H-3A is on land owned by Triangulum Associates. The 200-foot easements are in place for all the water supply wells with the exception of a small area to the west of Well 5A. Well 5A is located to the east of the Pomperaug River and the small area without the easement is located to the west of the Pomperaug River. The extent of the 200-foot sanitary radius is within 100 feet of the river bank which results in the area being regulated under the Town Wetland and Water Course Regulations.

These regulations would prevent any development of the area without the easement. Property rights for the Peck Lane booster pump station have been granted to HVWC for an indefinite period. Table 1 lists the location and amount of company owned land. Property maps are attached in Section 2. There are no plans of purchasing or disposing of any land.

An initial analysis has been performed to determine if there are any potential sites for high yielding wells in Middlebury or Oxford. No sites within HVWC's service area were identified, thus no land purchases for well sites are expected in those towns. However, consideration has been given to exploration in Southbury near the Housatonic River. If this occurs, land purchases may take place.

SECTION 2 - FIGURES, MAPS, HYDRALIC PROFILES, OPERATOR CERTIFICATION

2.0 HYDRAULIC PROFILE

Plate 2 is taken from a 1995 Water System Distribution Study prepared for HVWC by Roald Haestad, Inc. (Haestad) and shows pressure contours during 1991 average day pumping. A hydraulic profile has been developed and is included as figure 2.

2.1 Ownership

HVWC is a privately owned stock corporation. Officers are:

President	Henry J. Paparazzo	Unlimited Term
Vice President	Keith Sorensen	Unlimited Term
Secretary	New office to be elected	NA
Treasurer	Art Martens	Unlimited Term

2.2 Organizational Structure

Daily operation of the water system is under the direction of the Superintendent, James Litke, who in turn reports to the Utility Service Manager, Raymond Adamaitis, of Connecticut Water Company. Mr. Adamaitis reports to Mr. Keith Sorensen, Chief Financial Officer and President of Heritage Development Group, Inc., which manages the water company and Mr. Henry Paparazzo, President and Chief Executive Officer of Heritage Development Group. Details of responsibilities are presented in Section 2.3.

Connecticut Water Company has provided management and operation of the water-supply system since January 1998.

2.3 Personnel

The Utility Service Manager is responsible for overall supervision of water operations. This entails engineering coordination, water-quality monitoring, planning and implementation of improvements, financial planning and budget preparation, communication with the media and public, direction of complaint response, land management and source protection, as well as company administration.

The Superintendent is in charge of water operations and is responsible for all other operational functions, including but not limited to maintenance, collection of water samples, emergency response, water treatment, source production, and overall supervision of daily operations.

Responsibilities of the Supervisor of the Distribution System include cross-connection control, meter reading and coordination of meter testing, maintenance of the distribution system, pump station and storage facilities. There are eight employees (water/sewer works operators), under direct supervision of the Supervisor who perform routine tasks associated with the function of both the treatment and distribution systems. One operator is the foreman and is in charge of all maintenance regarding water operations. One operator is primarily responsible for all sampling and certain laboratory testing. Another employee is responsible for all meters. The plant maintenance person is responsible for maintaining treatment plant facilities.

2.4 Operator Certification

In accordance with Section 25-32-9 of the Public Health Code, the Superintendent is a duly certified Treatment Plant Operator. The Supervisor of the Distribution System is an appropriately certified Distribution System Operator per Public Health Code Section 25-32-11 and a certified Water-Treatment Plant Operator. One operator is a certified laboratory technician. HVWC also has three water works operators certified for cross connections. Copies of the certifications are included as Appendix B.

SECTION 3 - DIVERSION, INTERCONNECTIONS AND CROSS CONNECTION

3.0 DIVERSION

HWVC maintains a registered diversion from the Connecticut Department of Environmental Protection. The water supply system is authorized to divert up to 2.052 million gallons per day (mgd). A copy of the Connecticut Department of Environmental Protection's approval of the total current diversion registration for the well field is included in Appendix C.

3.1 Interconnections

HWVC is currently not interconnected with any other water supply systems. However, it is expected that by the spring of 2010, HWVC will be interconnected with the Connecticut Water Company (CWC) Naugatuck water supply system with a water main extension that runs through Middlebury. A 12-inch water main will be installed along Tucker Hill Road in Middlebury. The Town of Middlebury is the process of constructing a pumping station along Tucker Hill Road to facilitate the transfer of water from CWC to HWVC. Initially, this interconnection is to supply up to 200,000 gpd from CWC. In the future, it is anticipated that additional water from the City of Waterbury will be conveyed through the pipeline to meet future HWVC water demands.

3.2 Cross-Connection Inspection

HWVC conducts cross-connection inspections in accordance with the State of Connecticut Cross-Connection Control Manual, Fourth Edition, June 1994. HWVC personnel certified for Cross-Connection Inspection.

Cross-connection inspections are conducted on an annual basis and 252 backflow prevention devices were inspected in 2008. Any device that fails a backflow test is repaired or replaced. There have been no failures that were not repaired in a timely manner.

SECTION 4 - CURRENT SOURCES

4.0 SOURCE DESCRIPTION

HVWC is supplied solely by water from the Pomperaug Aquifer by five wells located on either side of the Pomperaug River near the Heritage Hotel and golf course in Heritage Village. Well locations are shown on figure 1. The aquifer is composed of stratified drift (a mix of sand, gravel, silt and clay). The portions of the aquifer suitable for the siting of production wells have a moderate transmissivity. The aquifer has an area of approximately 18 square miles and extends from the Housatonic River northward into central Woodbury, predominantly along the Pomperaug River. Recharge to the aquifer is principally from precipitation falling directly onto the stratified drift or on adjacent till-mantled uplands and, in the vicinity of the well field, from leakage out of the river.

Wells H-1, 2 and 3 are located to the south and west of the river. Wells H-1 and 2 were installed in 1966 to serve Heritage Village, and Well H-3 was added in 1972 to accommodate additional construction. All were originally 10-inch diameter wells varying in depth from 63 feet to 69 feet. These three wells have a combined diversion registration of 850 gpm (gallons per minute). Wells H-4 and 5 were originally 12 inches in diameter and range in depth from 61 to 68 feet. Originally intended to serve the Middlebury/Oxford system, they were installed in 1970 and 1971 on the north and east side of the river and were originally designated as M-1 and M-2. These two wells are registered at a total of 575 gpm. All five wells have been tied together and are sequentially set to respond to distribution system demand. Average daily demand from the five wells for the period 2003 to 2008 was 1.010 mgd (million gallons per day).

Two wells were replaced in 1997, H-2 and H-5 and an additional well was replaced in April 1999, H-1. These original wells are now abandoned, having been converted to use as monitor wells, with the new wells known as H-2A, H-5A, and H-1A, respectively. These wells had deteriorated to the point that redevelopment had limited and short-term impacts. For example, Well H-2 could only pump at about 130 gpm, compared to a registration of 270 gpm and Well H-5 could only pump about 168 gpm compared to a registration of 225 gpm. The replacement wells are within about 50 feet of the existing wells, thus diversion permits were not required. The Connecticut Department of Public Health issued well site approvals for all three wells. The existing pump houses have been expanded

to include the new wells; therefore, relatively few piping changes were needed and building expansions were easily constructed.

Wells H-2A and H-5A were tested at 568 and 588 gpm, respectively, with stabilization criteria met during the last 12 hours of the 72-hour tests. Well H-1A was tested at 340 gpm with stabilization criteria met during the last 12 hours of the 72-hour pumping test. The test data are in Appendix D. These rates are as much as double the registered limits. The replacement wells were intentionally designed to have a higher capacity than currently allowed. In addition, the wells were equipped with pumps that are capable of pumping against higher heads to achieve design yields against system pressures. The higher head pumps operate at the well's registered limits. Designing new wells with more capacity than they are pumped at allows for a longer time prior to the need for redevelopment (due to the well not being stressed), will increase the safe yield, and also will allow for the existing wells to be upgraded for higher pumping rates if a diversion permit can be obtained for an increase in maximum daily pumping beyond the 2.052 mgd registration. This could eliminate the need to install an additional well in the well field to achieve higher daily pumping totals, if it could be permitted.

The improvements (H-1A, H-2A and H-5A) have restored the summer season total well field pumping capacity to at 1,425 gpm (2.052 mgd). This is equivalent to the registration limit of the well field. Table 2 provides a summary description of the well specifications.

4.1 Source of Supply

The Pomperaug River aquifer is the only source used. Distribution system storage tanks have ample capacity to maintain the flows and pressures during a short-term power outage at the well field, but for long-term outages, Wells H-3 and H-4 are fitted with right-angle drives for connection to power take-offs on fuel-driven engines. All pump stations are equipped with generator sets and automatic transfer switches with the exception of H-3 and H-4, that are manually switched over to generators in the event of a power failure. Monthly production records for 2003 through 2008 are included in Appendix E. As discussed in Section 3.1, an interconnection with CWC will be completed in 2010 that will be utilized to meet future water needs beyond what the existing wellfield can provide.

SECTION 5 - TREATMENT SYSTEM

5.0 WATER TREATMENT FACILITIES

HVWC did not chlorinate until 1995 after bacteriological samples indicated the presence of bacteria and several violations had been issued. Following the violations, HVWC chlorinated intermittently and subsequently decided to apply sodium hypochlorite for disinfection permanently. Sodium hypochlorite is applied at the Well H-1A well house building. HVWC also injects Sequest (a form of sodium hexametaphosphate) at the Well H-1A well house. Sequest is added to keep iron and manganese in solution, (though there has been no history of high levels of dissolved metal in the system) and for corrosion control. Prior to the Sequest, HVWC applied potassium hydroxide starting in 1986 for pH adjustment (corrosion control). The pH adjustment was discontinued in February 1997 due to clogging by the sodium hydroxide in the pipe lines. The DPH approved the change to Sequest April 4, 1997. The specifications on the sodium hypochlorite and Sequest metering pumps are included on table 3. HVWC also owns several other chemical pumps which are not in use but could be used as back-ups for the existing pumps. Note that the water pumped from Wells H-2A through H-5A is routed to H-1A for treatment. The treatment systems have backup power in the event of a power failure.

SECTION 6 - STORAGE TANKS AND PUMPING STATIONS

6.0 STORAGE FACILITIES

There are two distribution storage tanks, one in Heritage Village and one in Middlebury. Both storage facilities exceed 10 State Standards and provide adequate fire protection. The interior and the exterior of the Heritage Village Tank and the Middlebury Tank were last inspected during May 2004 and April 2004, respectively. The tanks were found to be in good condition with the exception of some minor repairs which have been completed. Table 4 shows a summary of information on each tank.

6.1 Heritage Village Storage Tank

Located at East Hill and Wheeler Roads in the Village, the Heritage Village tank is constructed of prestressed concrete with no internal coating. Built in 1967, it is in good condition. It contains 1.0 mg (million gallons), of which 625,000 gallons is usable; this is equivalent to about two full days capacity for the Heritage Village area, at an overflow elevation of 510 feet.

6.2 Middlebury Tank

Located in the Kissawaug Road area of Middlebury, this tank is square and constructed of reinforced concrete with no internal coating. Built in 1970, it is in good condition. It contains 1.2 mg or approximately 2 days capacity for the Middlebury area, at an overflow elevation of 867 feet. The usable volume is the same as the total volume.

6.3 Service Areas and Booster Stations

The HVWC distribution system serves portions of the Towns of Southbury, Middlebury and Oxford. The system is divided into a low service and four high service areas (Church Road, East Hill, Life Care and Peck Lane). The limits of the existing distribution system and the high and low service areas are shown on the accompanying plate 1. Table 5 provides the information on booster pumps.

6.4 Low Service

The low service area serves Heritage Village and portions of the Town of Southbury. The low service area is served by the well field and the Heritage Tank.

6.5 Church Road High Service Area

The Church Road high service area consists of Old Waterbury Road in Southbury and the Middlebury and Oxford portions of the HVWC distribution system.

The Church Road high service area is served by the Church Road pumping station, located near the intersection of Old Waterbury Road and Dublin Road in Southbury. The station takes suction from the low service distribution system and boosts water to the Middlebury Tank. The pumping station is equipped with two vertical turbine pumps, each with a rated capacity of 600 gpm. The station is also equipped with a pressure reducing valve which can be manually operated to feed back into low service in the event of an emergency.

A 150-KW Onan diesel generator with integral fuel tank has been installed to supply power to the pumping equipment in the event of a power failure. The generator is equipped with an automatic transfer switch.

6.6 East Hill High Service Area

The East Hill high service area consists of the Heritage Crest and Hilltop Condominium developments located west of the Heritage Tank in Southbury. The Hilltop Condominium development is located on Hilltop Road East and West and Inwood Circle.

The East Hill high service area is served by the East Hill pumping station located on East Hill Drive near the Heritage Tank. The station takes suction from the low service distribution system and boosts water to an elevation of 660 feet. There is no operating storage in the East Hill high service area. The station is equipped with two identical variable speed pumps, each with a capacity of 380 gpm, a jockey pump, and a stand-by diesel generator with an automatic transfer switch. The jockey pump is reportedly never used. The diesel generator is large enough to run both variable speed pumps.

6.7 Life Care High Service Area

The Life Care high service area consists of the East Hill Woods Life Care development located southwest of the Heritage Tank in Southbury. A pump station was built to supply domestic water and fire protection to the development.

The Life Care high service area is served by the Life Care pumping station located on East Hill Drive near Heritage Tank. The station takes suction from the low service distribution system and boosts water to a hydraulic elevation of 660 feet. There is no operating storage in the Life Care high service area. The station is equipped with a constant pressure pumping system for domestic consumption and a fire pump with a rated capacity of 2,000 gpm. The constant pressure pumping system can deliver from 0 gpm to 610 gpm and consists of two 50-gpm pumps and two 300-gpm pumps. The station controls will start the fire pump whenever the system demand exceeds 610 gpm. The station is equipped with a diesel generator which is large enough to run either the domestic pumps or the fire pump. The generator has an automatic transfer switch.

6.8 Peck Lane High Service Area

The Peck Lane high service area is located south of Interstate 84 in Southbury and consists of the Far View Condominium development and Seymour Road from Peck Lane to Painter Road. A pump station was built to supply domestic water to the condominium development.

The Peck Lane high service area is served by the Peck Lane pumping station located on Community House Road. The station takes suction from the low service distribution system and boosts water to an elevation of 695 feet. Operating storage in the Peck Lane high service area is provided by a 100-gallon hydropneumatic tank. The station is equipped with a prefabricated, four pump system; at the present time only three pumps are in place. Two of the pumps are driven by electric motors and the third is driven by an automatic starting diesel engine. The two electric pumps have capacities of 105 gpm and 145 gpm. The diesel driven pump has a capacity of 300 gpm.

SECTION 7 – DISTRIBUTION PIPING

7.0 DISTRIBUTION PIPING

HVWC records indicate that the oldest pipes in the distribution system were installed in 1968. According to the 2007 “Annual Report,” filed with the Department of Public Utility Control of the State of Connecticut for the year ending December 31, 2008, the HVWC has a total of 409,589 feet (77.57 miles) of distribution piping. The piping ranges in size from 2-inch to 16-inch and includes transite, cast iron, ductile iron, PVC, permastran and copper K pipe. A list of the distribution system piping by type of material, size and length is included on table 6. The distribution system is shown on Plate 3.

SECTION 8 – METERING

8.0 CUSTOMER METERING

In 2008, 2,088 out of 4,598 customers, or 45 percent of total customers, were metered. Meters are tested and calibrated in accordance with DPUC standards. The number of meters in use in 2008 and the testing schedule are presented below.

	<u>Number in Use</u>	<u>Testing Schedule</u>
5/8"	1,833	Every 8 years
1"	132	Every 8 years
1 1/2"	52	Every 4 years
2"	48	Every 4 years
3"	12	Every 3 years
4"	4	Every 3 years
6"	3	Every year
8"	1	Every year
4" Detector Check	1	
8" Detector Check	<u>2</u>	
	2,088	

Metering of Heritage Village is not currently being proposed because in 1998 HVWC requested a mandate from the CTDEP and the DPUC to have Heritage Village metered, on behalf of the Heritage Village Master Association who would be paying for the installations. The mandate was never provided; therefore, the meters were never installed. There are no plans to install water meters within Heritage Village unless a mandate from the applicable state agencies is received.

SECTION 9 - WATER QUALITY

9.0 WATER QUALITY

HVWC performs water-quality testing in conformance with the Public Health Code. Organic compounds, pesticides, herbicides and PCBs are not detected. Inorganic constituents have been within criteria and, no water-quality parameters are approaching standards.

In the last five years, HVWC has experienced one Tier 2 and one Tier 1 water-quality violation. The Tier 2 violation occurred on September 16, 2003. The violation consisted of a routine and repeat bacteriological sample indicating the presence of coliform bacteria. On September 2, 2003 routine water quality samples were collected at three locations in the distribution system. Of the three samples, one sample was determined to have coliform present. The water sample that was found to have coliform bacteria was collected from the Lutheran Home. The sample was further tested to determine if E-coli bacteria was present. The subsequent test revealed that E-Coli was not present. On September 16, 2003 routine water quality samples were again collected at three locations in the distribution system. Of the three samples, one sample was determined to have coliform present. The water sample that was found to have coliform bacteria was collected from Heritage Crest. The sample was further tested to determine if E-coli bacteria was present (Tier 2 violation). The subsequent test revealed that E-Coli was not present. The CTDPH was notified and HVWC was instructed to, and completed, notification to its customers. The notification came in the form of a letter that was mailed to all the HVWC customers alerting them to the detections. Additional repeat sampling events indicated that coliform bacteria was no longer present.

The Tier 1 violation occurred on October 21, 2003. The violation consisted of the detection of E-coli in one sample. Routine water quality samples were collected at three locations in the distribution system. Of the three samples, one sample was determined to have coliform present. The water sample that was found to have coliform bacteria was collected from the Thatchers Restaurant. The sample was further tested to determine if E-coli bacteria was present. The subsequent test revealed that E-Coli was present. In addition, raw water samples from the five water supply wells were collected. Of the five samples collected, two samples were determined to have coliform present (Wells H-2A and H-5A). The CTDPH was notified and HVWC was issued a "boil water" order. Public notification commenced immediately after receiving the order. Several means

of communication were employed to notify the public of the boil water order including television, radio and hand delivery. After taking corrective actions such as increasing the chlorine residual in the distribution system and shutting down suspect sources (Wells H-2A and H-5A), the distribution system and sources of supply were retested for bacteria (sources of supply were pumped to waste to facilitate the sampling). All the samples collected were absent for total coliform bacteria.

Occasional coliform bacteria detections in the distribution system that are identified are resampled to verify the accuracy of the results. These occasional coliform detections, including the 2003 violations, are believed to be a result of human error.

SECTION 10 – POPULATION

10.0 HISTORICAL POPULATION AND POPULATION PROJECTIONS

Historical population and population projections for Southbury, Middlebury and Oxford are listed in table 7. The table shows U.S. Census Bureau data for 1970, 1980, 1990 and 2000, and projections made by the State Office of Policy Management (OPM) in 1995 for the years 2005 through 2020.

From 1970 to 1980, the total population of Southbury nearly doubled, from 7,852 to 14,156 (80.2 percent). Between 1980 and 1990, the population growth increased by 11.7 percent. Between 1990 and 2000 the population of Southbury increased by 17.4 percent. Middlebury's population increased by 8.2 percent between 1970 and 1980, between 1980 and 1990 by 2.5 percent, and between 1990 and 2000 the town population increased by 5.0 percent. The population for Oxford increased by 48.1 percent between 1970 and 1980, growth slowed slightly to 30.9 percent between 1980 and 1990 and further decreased to 13.1 percent between 1990 and 2000.

Projections indicate a 6.1 percent increase in Southbury's population between 2000 and 2010, while Middlebury's population is expected to increase by approximately 1 percent, and Oxford's by 16.1 percent. Between the years 2010 and 2020, it is estimated that a 5.1 percent increase in the Southbury population will occur. A 7.0 percent increase in population is expected for Oxford during the same period, and 1.5 percent for Middlebury.

10.1 Existing Service Population

HVWC had 4,598 residential customers in 2008, of which 2,580 were not metered. There were 1,662 metered residential customers, 809 in Southbury, 431 in Oxford, 355 in Middlebury and 67 in Heritage Village. These figures are based on 2008 billing accounts. Multi-family structures are included within the service area. Heritage Village is a condominium community in Southbury and a majority of the units are unmetered. Residential customers in Middlebury and Oxford are single family.

Utilizing data from the 2000 Census, the average number of people per housing unit for each town was computed. The number of residential customers was multiplied by the number of people

per housing unit to get an estimate of HVWC's service population. The calculation for each town's service population is shown in table 8.

The present land use within the HVWC service area is mostly residential with some industrial and commercial uses.

In Southbury, the land use in the existing service area is primarily single and multi-family developments. Heritage Village, which is the most concentrated portion of the service area, is a condominium development located in northern Southbury, which consists of 2,580 units. Single-family residences in the service area are mostly along Old Waterbury Road, which extends to the Southbury-Middlebury border. Commercial and industrial developments are located on Route 188 at the Southbury-Middlebury town line. The service area also includes the IBM development located near Interstate 84 and Kettletown Road in Southbury.

The existing service area in Middlebury is located in the southwestern corner of town. The service area contains industrial development along Benson Road and Kissawaug Road. The 20- and 50-year planning period service areas limits include light industrial development and 1.0-acre residential zones.

HVWC's existing service area in Oxford is located in the north and central portion of the town. The service area is primarily zoned for 2.5- and 5.0-acre industrial development to the north of Route 67 and single-family residential to the south of Route 67. The 20- and 50-year planning period service area limits include industrial and 1.5-acre residential zones.

10.2 Projected Service Populations

Projections for the service populations for the Towns of Southbury, Middlebury and Oxford were made for the 5-, 20- and 50-year planning periods. The projected service populations are shown in table 9. Plate 4 shows the future service areas for the 5-, 20- and 50-year planning periods. In order to project the service population for each town throughout the planning period, a service ratio has been developed for each town. The service ratio for a town is the existing service population in the town during the year 2008 divided by the actual town population in the year 2000 (based on census data). The service ratio for Southbury is 0.305 (5,939/19,450), the service ratio for Middlebury is 0.140 (355/6,500), and the service ratio for Oxford is 0.126 (431/11,200).

Population projections were developed in 1995 for Southbury, Middlebury, and Oxford by the Connecticut Office of Policy Management (CTOPM). According to the CTOPM, the population of Southbury in the year 2010 is projected to be 19,700 people, the population of Middlebury is projected to be 6,500 people and the town of Oxford is projected to have 11,400 people. The 2008 service population projections for each town is the sum of the town's population estimate in the year 2008 (based on CTOPM projections) multiplied by the service ratio for the town plus the projected service populations for each of the known large development projects proposed for construction that may not be reflected in the CTOPM projections (see table 10):

$$\begin{array}{r} \text{Estimated} \\ \text{Population} \\ \text{Served - Year} \\ \text{2008} \end{array} = \begin{array}{r} \text{Estimated} \\ \text{Town} \\ \text{Population} \\ \text{Year 2008} \end{array} \times \begin{array}{r} \text{Service} \\ \text{Ratio} \end{array} + \begin{array}{r} \text{Estimated} \\ \text{Population} \\ \text{in Proposed} \\ \text{Developments} \end{array}$$

To arrive at the estimated population for 2013, linear interpolation was utilized. For the proposed residential projects shown on table 10, the number of people per housing unit was based on the town wide average.

It is estimated that the service population for Southbury will be 6,091 people in the year 2013. This projection includes Heritage Village and assumes that the service ratio of 0.305 will remain constant throughout the planning period. In addition, several larger development projects with a total of 150 units (369 people) will be completed by 2013 in Southbury. The estimated service population in the year 2013 will be 6,460 people (6,091 people + 369 people in new developments). As HVWC is unaware of any large scale residential developments in Southbury for the 20-year planning periods, the projection for service population for this planning period is based on the town population projection for the year 2020 estimated by CTOPM in 1995, multiplied by the service ratio for the town as discussed above, plus the identified 5-year projects, and is estimated to be 6,573 people. The projected service population for the 50-year planning period was derived through straight-line projection from the service population from CTOPM data in the 20-year planning period, plus the identified 5-year projects and is estimated to be 7,473 people.

According to the CTOPM, the population of Middlebury remains constant until the year 2015. Therefore, no increase in service population is expected to come from normal population growth; however, seven development projects are expected to be completed within the 5-year

planning period. The new development projects include 135 units and would increase the service population of Middlebury by 366 people. The estimated service population for Middlebury in the year 2013 is 1,235 people. As HVWC is unaware of any large scale residential developments in Middlebury during the 20-year planning period, the projection for the service population for this planning period is based on the town population projection for the year 2020 estimated by CTOPM in 1995, multiplied by the service ratio for the town as discussed above, plus the 5-year projects, and is estimated to be 1,249 people. The projected service population for the 50-year planning period was derived through straight-line projection from the service population based on CTOPM data in the 20-year planning period, plus the 5-year projects, and is estimated to be 1,291 people.

It is estimated that the service population based on town growth for Oxford will be 1,462 people in the year 2013. The projection assumes that the service ratio of 0.126 will remain constant throughout the planning period. In addition, several larger development projects with a total of 116 units (354 people) will be completed by 2013 in Oxford. The estimated service population in the year 2013 will be 1,816 people (1,462 people + 354 people in new developments). For the 20-year planning period, the projection for the service population is based on the town population projection for the year 2020 estimated by CTOPM in 1995, multiplied by the service ratio for the town as discussed above, plus the 5-year projects, plus the 5-year projects is estimated to be 1,891 people. The projected service population for the 50-year planning period was derived through straight-line projection from the service population in the 20-year planning period from CTOPM data plus the know projects and is estimated to be 2,194 people.

Commercial developments are proposed within the five-year planning period. The amount of water allocated towards the commercial uses has been taken into account in determining future consumption. There are no known industrial developments within the 5-year planning period. However; the Towantic Energy Plant in Oxford is being accounted for in the 20-year planning period. The amount that has been allocated for the energy plant is 60,000 gpd.

SECTION 11 – MAJOR USERS

11.0 MAJOR USERS

A major user is defined as one of the ten largest water users in the system or one who uses more than 50,000 gpd of the system's production. There is one customer (IBM) that would be considered a major user. A list of the top ten users for each of the three systems is provided in table 11.

SECTION 12 - WATER PRODUCTION AND CONSUMPTION

12.0 SAFE YIELD

The safe yield of the well field was previously developed and approved with the use of pumping test data. The safe yield calculations are based on the five original wells that were pumped, with corrections for the three replacement wells. With no changes to the wellfield since the approved safe yield was calculated, there are no changes to it, but determination is repeated here for completeness.

The 72-hour pumping test was performed in November of 1990, following a redevelopment effort of all the wells. The pumping test data were analyzed for stabilization and an available drawdown analysis was performed, as shown on table 12. The pumping test data are presented graphically and in tables in Appendix D. The test was performed in mid-November, within the seasonal low water table period as defined by the regulations. These graphs and table are from the 1990 report "Heritage Village Water Company, Yield Testing of HV-1, HV-2, HV-3, HV-4 and HV-5." The report was submitted the DPUC as a part of the hearings that were held to evaluate the adequacy of the HVWC water supply. As can be seen, all the wells achieved stabilization criteria.

First, the test rate from the 1990 well field test is shown, as well as the drawdown and specific capacity. Next, the additional available drawdown is shown, less a 5-foot safety factor. This additional available drawdown is multiplied by the specific capacity to get the additional yield that would have been possible with a larger pump. For the three wells that have been replaced, the actual test rates are shown. In all cases, the pumping test rates for the three replacement wells are higher than the corrected 1990 pumping test yield. This is because of their designs. Therefore, the stabilized yields for the three replacement wells were used for the remaining calculations. The 75 percent drought factor was applied to all pumping rates, per the regulations. In all cases, the resulting yield is higher than the well registration, thus the safe yield is reduced to the registration, or 1,425 gpm (2.052 mgd). Note that this is the identical approach approved in the last plan under the regulations in force now, but with the addition of data for Well H-1A.

12.1 Available Water

Available water is the amount of water that can actually be distributed taking into account any pump or well performance problems, treatment limitations, hydraulic restrictions and permit limits. For current conditions, with replacement wells on line, the combined average pumping capacity is 1,471 gpm (2.118 mgd), which is greater than the safe yield and total registration. This rate was determined by pumping the five wells simultaneously into the distribution system during June of 2009 for a full 8-hour period. Some of the individual rates exceeded the registration, thus the available water was reduced for those wells to their respective registration limit. This resulted in a total available water of 1,425 gpm or 2.052 mgd. The test data are provided in table 13.

12.2 Margin of Safety

The margins of safety for the present, 5, 20 and 50-year average, maximum month and peak day demands are shown in table 14. The projected demands were arrived at based on population projections which are discussed in Section 10.0 of this plan. Based on the current available water of 2.052 mgd, the system has a current average daily demand margin of safety of 1.86. The system also has sufficient water with an excess pumping capacity of 167,636 gallons per day to meet current peak day demands.

The interconnection with CWC has been included in the calculations for margin of safety for the 5, 20 and 50-year planning periods. As previously indicated, the CWC can provide 200,000 gpd to meet the demand for the 5-year planning period and the amount available could increase up to 600,000 gpd to meet the demand in the long range planning periods through an interconnection with the City of Waterbury. For the purpose of this evaluation it is assumed that 200,000 gpd will be available for the 5-year and 20-year planning periods and 500,000 gpd will be available for the 50-year planning period.

At this rate, the system has sufficient water to meet average and maximum month demands through the 50-year planning period. The 2008, 5, 20 and 50-year peak-day demands result in margins of safety of 1.09, 1.24, 1.10 and 1.10, respectively.

12.3 Historic Water Consumption

HVWC's consumption and production data for 2003 through 2008 were reviewed. Table 15, Table 16 and Table 17 shows the historic consumption and production data, average day, maximum month and peak day demands. Consumption data are by user category. Historic and projected consumption is graphically represented on figure 3.

Most of HVWC's customers are located in the Heritage Village Condominiums in Southbury. For the most part, these services are not metered; therefore, consumption for the years 2003 through 2008 was estimated by HVWC using a flat rate of 100 gpud (gallons per unit per day).

12.4 Projected Water Consumption

All known development projects proposed for construction within the next five years are shown on table 10. The anticipated water consumption of these projects is also shown. These projects have been incorporated in the 2013 projections and beyond. Table 18 shows the total projected consumption for all towns by user category, the projected non-revenue water use, average day, maximum month and peak day demands for the 5-, 20- and 50-year planning periods. Projected metered residential consumption is based on water consumption of 61.6 gpcd (gallons per capita per day), which is the 2008 average. Projected residential consumption for each town is shown on table 19. The projected consumption data along with the peaking factors are identified on table 20.

Residential consumption (in gallons per day) was obtained by multiplying the projected service population by the expected per capita consumption. Projected consumption in other user categories is based on expected land use in the HVWC's Future Exclusive Service Area (FESA).

Unmetered residential consumption is assumed to remain the same because the installation of meters in Heritage Village will not be conducted within the foreseeable future. Metered residential consumption is expected to increase approximately 23 percent between 2008 and 2013 due to several residential projects. Metered commercial consumption is expected to increase by about 6 percent between 2008 and 2013 due to commercial developments listed in table 10. Metered industrial consumption is expected to increase approximately 8 percent. There are no large scale industrial projects that are expected within the 5-year planning period; therefore, the 8 percent increase represents the average increase between 2003 and 2008. "Other" consumption and Public

Authorities consumption are also expected to remain relatively constant during the same time period. The total consumption is expected to increase by approximately 7 percent from 2008 and 2013.

The projected average day demands are based on projections for total consumption and non-revenue water use. Project maximum month demands were calculated by multiplying the projected average day demands by a maximum month factor of 1.33 based on 2003 to 2008 data. Projected peak day demands were calculated by multiplying the projected average day demands by the peak day factor of 1.64, also based on 2003 to 2008 data.

Metered residential consumption for the years 2020 and 2050 is based on the previously discussed population projections and a historical use of 61.6 gpcd for metered residential customers. Due to the lack of activity on the Towantic power plant in Oxford its water demand was scheduled after the 5-year planning period.

SECTION 13 - FIRE FLOW

13.0 FIRE FLOW

Insurance Service Office (ISO) is a fire insurance rating organization established to assist insurance companies in developing fire insurance rates.

When ISO conducts a survey in a town for classification purposes, it essentially reviews three specific areas: the fire department; the water-supply system; and the communication network. Each shares a percentage of the overall rating. This survey would be initiated by the town or ISO, not the Water Company.

The majority of the credit given to the water-supply system is a function of the ability of that system to meet the "needed" fire flow rates. Rarely is a system ever capable of delivering all of the "needed" fire flows throughout the entire distribution system. Although the importance of providing "needed" fire flows is recognized, it would be impractical, sometimes impossible, and certainly in many cases, economically unjustifiable to design systems capable of supplying the "needed" fire flow at all locations. "Needed" fire flows, developed by ISO, however, should be used as a guideline in the design of water-supply systems to meet fire protection requirements. The fire flows also should be balanced with common sense to arrive at a water-supply system acceptable to fire departments, the water company and the customers who are the ultimate bearers of the financial burden. With this philosophy in mind, a reasonable distribution system analysis can be completed.

The actual amount of water used for fire fighting purposes is negligible in relation to the total water consumption. But peak water demands, were they to occur during fire fighting incidents, influence the design of water distribution systems and storage facilities.

Because HVWC serves primarily residential areas, fire flow needs are not burdensome. However, as a company design guideline, a minimum flow rate of 500 gpm at a residual pressure of 20 psi is utilized system-wide. Appendix F contains the most recently measured flow tests (2006) for system fire hydrants and distribution system maps identifying the locations of the hydrants.

HVWC acknowledges that additional work with regard to improving their fire flow capability is needed. HVWC will be addressing this issue by replacing the smaller diameter water mains (4-inch).

SECTION 14 - SYSTEM IMPROVEMENTS

14.0 SYSTEM ASSESSMENT

HVWC's water system is in excellent condition and is operating satisfactorily. A high standard of operating efficiency is being maintained. Water quality meets all State and Federal criteria.

The distribution piping is adequate for domestic water supply purposes, including current maximum day and peak hour demands. There are excessive pressures being experienced in some portions of the distribution system in Oxford. There is no storage available at the southern end of the 16-inch and 12-inch line, which extends from the 1.2-million gallon storage tank in Middlebury to Great Oak Road in Oxford. Two schools, Great Oak School and Quaker Farms School, are located at the end of this line. A break in the line would result in a loss of water service from the location of the break to the end of the line, which would result in loss of water service to the schools. Storage at the south end of the system or looping the main would provide continued service during a main break and would increase fire flows. Other dead end lines in the system should eventually be looped.

HVWC is currently in the process of installing an interconnection with CWC in Middlebury. The interconnection is expected to be complete in the spring of 2010. While the initial quantity of water (200,000 gpd) will be from CWC's sources, as indicated above this interconnection is eventually expected to convey water from the City of Waterbury for future needs within the HVWC service area. HVWC is also considering developing a new source along the Housatonic River. The most likely location for obtaining high quantities of water is in the portion of the Housatonic River aquifer at the confluence of Eightmile River and the Housatonic River, which is more than 3 miles further from the HVWC service area.

14.1 Short-Term Improvement Schedule

HVWC has a 5-year improvement program that is intended to improve overall system operation and maintenance and provide additional supply to meet existing maximum day demand, as well as projected water service demands. The water supply plan completed in 2004 identified several improvement projects that are no longer being considered for implementation. These

projects have been dropped from consideration because after re-evaluation, they were deemed unnecessary. Table 21 summarizes the proposed improvements.

14.2 Long-Term Improvement Schedule

As indicated above, there is a need for storage at the end of the 16-inch and 12-inch line in Oxford for continued water service in the event of a main break. Table 21 presents the improvements being proposed for the 20- year or the 50-year planning periods. As the water system expands over the 50-year planning period, additional storage and pumping facilities will be provided as needed.

SECTION 15 - SOURCE WATER PROTECTION

15.0 POTENTIAL CONTAMINATION

The Connecticut Department of Environmental Protection's Water Compliance Unit compiled an inventory of leachate and waste water discharges for the State of Connecticut in 1984 and revised the inventory in 2000. The inventory lists discharges and known sources of contamination in the Pomperaug River Basin. Sources of contamination that were identified in the Pomperaug Aquifer (which extends from the Housatonic River, in the southwestern portion of Southbury, northward into central Woodbury, predominately along the Pomperaug River) are discussed below. No new sources of contamination have been identified since the last Water Supply Plan.

15.1 Southbury

The inventory lists three closed landfills in the aquifer area. One of the landfills is located less than 1 mile northwest of the well field. One landfill is located south of the well field and the other southeast of the well field, both within a 1-mile radius. All the landfills are identified as being inactive. The inventory lists two salt storage sites located on the southern portion of the aquifer. The inventory reported a PCB spill by Hallmore Transportation located on I-84, which is the southern border of the aquifer.

Reportedly, Baskin Robbins was discharging organic waste into the ground less than 1 mile northeast of the well field. Baskin Robins is no longer in operation; therefore, the discharge has ceased. Further north, O & G Industries is, reportedly, discharging wash waters to the ground.

The Heritage Village sewage treatment plant discharge is located just south of the well field. The HVWC wells are in or near a golf course. The golf course utilizes fertilizers, and pesticides and herbicides. HVWC is provided details of the chemicals that are applied on a yearly basis. No pesticides or herbicides have been detected in well-water samples. A focused Integrated Pest Management Plan (IPM) was implemented at the request of the CTDPH to ensure that there is no possibility of contamination of the ground-water supply. A copy of the IPM plan, which was submitted to the CTDPH, is provided in Appendix G. All practices outlined in the focused IPM plan are currently being conducted within the 200-ft buffer zones surrounding the HVWC wells at golf

course. According to recent information, only one change has been made to the focused IPM. Barricade, the recommended weed control agent, has been replaced with Procade, which, according to superintendent for the golf course Mr. Peter Burnham, utilizes the same active ingredients.

Well H-2 (now H-2A) had historically been impacted with sodium from parking lot and road runoff. Modifications to salt application have corrected the problem.

15.2 Woodbury

The Pomperaug Aquifer extends to central Woodbury. The inventory lists subsurface sewage systems in and around the aquifer. The Pomperaug Village sewage system, located in south Woodbury within the aquifer area, is listed as failing. LBG did not independently investigate whether or not this is true for the purposes of this WSP. The reports list a well contaminated with TCE in southern Woodbury. Landfills and salt storage sites were reported in and around the aquifer, and a possible TCE spill near the Woodbury-Southbury border by Woodbury Supply was reported.

15.3 Source Protection Measures

The State of Connecticut has established the Aquifer Protection Area Program (General Statute's 22a-354a to 22a-354bb) to protect public water supply wells from pollution by managing land use. As part of the program the State of Connecticut has mandated that each town/city delineate the approved Level A mapping for public water supply wells on an the town/city's Official Zoning Map. The program also mandates that each town or city located within the delineated Level A aquifer protection develop Land Use Regulations, in accordance with Sections 220-354i-1 to 22a-254i-10 of the Regulations of Connecticut State Agencies. HVWC has completed Level A mapping and received approval from the CTDEP in June 2008.

15.4 Southbury

The Town of Southbury has complied with the Land Use Regulations by preparing and approving the Aquifer Protection Area Regulations included as Appendix H. The effective date for the regulations is April 16, 2009. In order to protect the water supplies, the Town of Southbury has mandated no new activities proposing to use significant quantities of hazardous materials be allowed within the designated Aquifer Protection Areas. Existing facilities identified in an aquifer Protection

Area will be required to register their existing regulated activities with the Town (or the State in some cases) in order to continue to operate at that site. As part of this registration, best management practices for handling and storing hazardous materials will be required. In some instances a materials management plan and/or a storm water management plan may be required. A copy of the Town of Southbury's Aquifer Protection Area Regulations is included as Appendix H.

15.5 Woodbury

Woodbury has also adopted aquifer protection regulations for the portion of the Pomperaug aquifer in Woodbury. Details on Woodbury's aquifer protection regulations are not included because Woodbury is a substantial distance away from the HVWC sources.

15.6 Watershed Inspection Program

HVWC is not required to complete a watershed inspection program because it has no surface-water sources of supply. The aquifer protection regulations developed by the Town of Southbury affords the town the authority to monitor registered properties. Thus, it is the responsibility of the Town of Southbury or the CTDEP to monitor these facilities.

SECTION 16 - WATER CONSERVATION PLAN AND NON-REVENUE WATER

16.0 WATER CONSERVATION

Public Act 89-266, effective in 1989, requires that public water-supply companies serving 1,000 or more persons, or 250 or more customers, provide customers with water conserving devices. HVWC has provided its customers with water-saving devices and installed the devices upon request. The State Building Code requires new construction to use water-saving devices. A Water Conservation Plan has been prepared and is attached to this plan.

The percentage of non-revenue water between 2003 to 2008 ranged from 5 to 14 percent. HVWC's goal is to maintain non-revenue usage below 10 percent through the year 2050. This is to be accomplished by continuing maintenance of the system and efforts to locate and repair leaks and other sources of wasted water.

The non-revenue water trend and the non-revenue water type are identified in Tables 22 and 23. The tables show the amount of non-revenue water as being essentially stable with the exception of the current period.

SECTION 17 - EMERGENCY CONTINGENCY PLAN

17.0 EMERGENCY CONTINGENCY PLAN

HVWC's outline of potential emergencies and response procedures is contained in the attached document, Emergency Contingency Plan (ECP) prepared by Roald Haestad Inc. in July 1996. The ECP was revised slightly for this plan (List of Emergency Contacts).

SECTION 18 - FINANCIAL PLANNING

18.0 IMPROVEMENT FINANCING

The HVWC has been able to fund improvements through normal revenue and, in some cases, bank financing. It is expected that future improvements will be funded in the same fashion.

SECTION 19 - SYSTEM DEFICIENCIES

19.0 EVALUATION OF SYSTEM PERFORMANCE AND IDENTIFICATION OF DEFICIENCIES

There are no major deficiencies in the system to be addressed at this time.

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TABLES

TABLE 1

**HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

Company Owned Land

Location (Town)	Purpose	Number of acres
Southbury	East Hill Booster Station and Heritage Village Tank	2.72
	Church Road Booster Station	0.33
Middlebury	Middlebury Tank	2.15
Southbury	Peck Lane Booster Station	N/A(Easement)

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TABLE 2

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Water-System Inventory
Sources of Supply

Name	Well type	Diameter (in)	Depth (ft)	Pump type	Pump capacity (gpm)	Power	Registration and Design capacity (gpm)	Age	Operating status
H-1A ^{1/}	Gravel Pack	16	60	Turbine	230	Electric	230	1999	Active
H-2A ^{1/}	Gravel Pack	16	67	Turbine	340	Electric	270	1997	Active
H-3	Gravel Pack	10	62	Turbine	480	Electric	350	1972	Active
H-4	Natural Pack	12	61	Turbine	440	Electric	350	1970	Active
H-5A ^{1/}	Gravel Pack	16	68	Turbine	320	Electric	225	1997	Active
H-6	Gravel Pack	12	76	None	--	--	225	1990	Inactive

^{1/} Replacement Well.

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TABLE 3

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

List of Chemical Pumps in Use

Location	Manufacturer	Model Number	Number of Units	Purpose	Method of Operation
Water Treatment Plant at H-1	Pulseatron Series E -250 psi	LPH4MA-KTC1-500	1	Sodium Hypochlorite Injection	Electric Pump
Water Treatment Plant at H-1	Neptune	EC5000-REV	1	Sequest Injection	Electric Pump

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TABLE 4

HERITAGE VILLAGE WATER COMPANY
SOUTHURY, CONNECTICUT

Storage Facility Details

Location	Material of construction	Open or covered	Capacity (million gallons)		Maximum number of days supply	Age	Condition	Service zone
			Total	Usable				
Heritage Village	Reinforced Concrete	Covered	1.0	0.625	2.0	1967	Excellent	High Pressure
Middlebury	Reinforced Concrete	Covered	1.2	1.2	2.5	1970	Excellent	High Pressure

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TABLE 5

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Booster Pump Facility Details

Name	Total number of pumps	Type of pump	Power	Maximum capacity ^{1/} (gpd)	Average hours operated per 24 hours	Emergency service	Age
Church Road	2	Deming	Diesel	864,000 each	10 ^{2/}	Generator Set	1972
East Hill	2 1	Deming Jockey Pump	Electric Electric	547,200 each NA	24 ^{2/} 0	Generator Set	1972 NA
Peck Lane	2 1	Cornell NA	Electric Diesel	208,800 and 151,200 432,000	24 ^{2/} Emergency Use	Diesel Driven Pump	1985 NA
Life Care	2 2	Alyan Alyan	Electric Electric	72,000 each 432,000 each	24 ^{2/}	Generator Set	1993

1/ Total for all pumps.

2/ System designed for alternate pumping.

NA Not available

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TABLE 6

**HERITAGE VILLAGE WATER COMPANY
SOUTHURY, CONNECTICUT**

Distribution System Piping Details

Type	Length	Diameter	Condition ^{1/}
Class 200 Trans.	1,800'	12"	Excellent
Class 150 Trans.	8,323'	10"	Excellent
Class 150 Trans.	47,106'	8"	Excellent
Class 150 Trans.	31,610'	6"	Excellent
Cast Iron	900'	10"	Excellent
Cast Iron	360'	6"	Excellent
Ductile Iron	28,300'	16"	Excellent
Ductile Iron	131,250'	12"	Excellent
Ductile Iron	7,255'	10"	Excellent
Ductile Iron	85,417'	8"	Excellent
Ductile Iron	14,720'	6"	Excellent
Ductile Iron	6,690'	4"	Excellent
PVC	13,235'	8"	Excellent
PVC	4,269'	6"	Excellent
PVC	3,720'	4"	Excellent
Permastran	8,850'	12"	Excellent
Permastran	7,480'	10"	Excellent
Permastran	7,414'	8"	Excellent
Permastran	260'	6"	Excellent
Copper "K"	630'	2"	Excellent
Total	409,589'		

^{1/} Based on HVWC's input because no pipes have been in place more than 30 years and are within service life of pipe material.

TABLE 7

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Population Projections

Year	Southbury	Middlebury	Oxford
1970 ^{1/}	7,852	5,542	4,480
1980 ^{1/}	14,156	5,995	6,634
1990 ^{1/}	15,818	6,145	8,685
1995 ^{1/}	17,000	6,300	9,600
2000 ^{1/}	18,567	6,451	9,821
2005 ^{2/}	19,200	6,500	11,000
2008	19,450	6,500	11,200
2010 ^{2/}	19,700	6,500	11,400
2013	19,950	6,500	11,600
2015 ^{2/}	20,200	6,550	11,800
2020 ^{2/}	20,700	6,600	12,200
2050 ^{2/}	23,700	6,900	14,600

1/: U.S. Census dtat

2/: 1995 Office of Policy and Management (OPM) Population.

TABLE 8
HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Calculation of Population Served (2008)^{1/}

Southbury Population Analysis

2008 Southbury population in occupied housing units:	19,450	
2008 Occupied housing units:	7,799	
Number People per housing unit:	2.49	(Town Average)
	1.52	(Heritage Village)
2008 Number of Residential Customers:		
Town of Southbury	809	
Heritage Village	2,580	
Total Service Population	(809 * 2.49) + (2,580 * 1.52) = 5,939	
2008 Southbury Service Population:	5,939	
Service Ratio (Service Population / Town Population)	0.305	

Middlebury Population Analysis

2008 Middlebury population in occupied housing units:	6,500
2008 Occupied housing units:	2,531
Number People per housing unit:	2.57
2008 Number of Residential Customers:	
Total Service Population	(355 * 2.57) = 912
2008 Middlebury Service Population:	912
Service Ratio	0.140

Oxford Population Analysis

2008 Oxford population in occupied housing units:	11,200
2008 Occupied housing units:	3,420
Number People per housing unit:	3.27
2008 Number of Residential Customers:	
Total Service Population	(431 * 3.27) = 1,411
2008 Oxford Service Population:	1,411
Service Ratio	0.126

Total HWC Service Population for 2008

Southbury service population + Middlebury service population + Oxford service population	8,262
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^{1/} Town populations, number of occupied housing units and number of people per housing unit obtained from 2000 U.S. Census Data

TABLE 9

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Population Projections

Year	Southbury ^{1/}		Middlebury	Oxford	Total	
2008	5,939	2,018	912	1,411	8,262	4,341
2013	6,460	2,539	1,235	1,816	9,511	5,590
2020	6,689	2,768	1,249	1,891	9,830	5,908
2050	7,605	3,684	1,291	2,194	11,090	7,169

1/: The larger of the two population values includes the population from Heritage Village.

TABLE 10

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Proposed and Active Development Projects
in 5-Year Planning Period

	Project	Type	Projected water use (gallons per day)
Southbury	The Courtyard at Heritage Green	Residential 70 Units ^{1/}	3,468
	Benson Woods Phase I	Residential 42 Units ^{2/}	3,992
	Avalon Farms	Residential 48 Units ^{3/}	1,842
	Winding Brook, LLC	Residential 16 units ^{4/}	1,535
	Reservoir Office Park	Commercial	540
Middlebury	Bayberry Farms Phase I and II	Residential 6 Units ^{6/}	1,742
	Tower Business Park	Commercial	500
	Woodruff Hill Industrial Park Phase II	Commercial	14,500
	Long Meadow Farm Phase I and II	Residential 33 Units	7,209
	Central Park	Residential 82 Units	12,985
	Ridgewood @ Middlebury Phase I and II	Residential 104 Units ^{5/}	11,716
Oxford	Oxford Hills	Residential 13 Units ^{7/}	1,413
	Glendale @ Oxford Phase I	Residential 19 Units	3,837
	Oxford Greens Phase IV	Residential 124 Units ^{8/}	7,067
	Fairways	Residential 14 Units	2,827
	Fox Hollow Phase I	Commercial	2,500
	Fox Hollow Phase II	Commercial	1,500
	Hogs Back Estates	Residential 12 Units ^{9/}	1,200
	Hunting Ridge Estates	Residential 23 Units	6,900

- 1/: 33 out of 70 units are built and occupied.
- 2/: 16 out of the 42 units are built and occupied.
- 3/: 36 out of the 48 units are built and occupied.
- 4/: 6 out of the 16 units are built and occupied.
- 5/: 41 out of the 104 units are built and occupied.
- 6/: 3 out of the 6 units are built and occupied.
- 7/: 6 out of the 7 units are built and occupied.
- 8/: 89 out of the 124 units are built and occupied.
- 9/: 2 out of the 12 units are built and occupied.

TABLE 11

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Major Users

Major User	2008 Average Daily Demand	Use of Water
IBM Corporation	62,115	Industrial
Preston Park 2004 LLC	21,992	Commercial
Crowne Plaza	20,553	Commercial
Heritage Resort and Conference Center	19,915	Commercial
River Glen Health Care Center	17,526	Commercial
Modern Metal Finishing	12,523	Industrial
Timex Inc.	10,348	Industrial
Watermark at East Hill Woods	8,951	Residential
Connecticut Water Company	8,227	Residential
Ridgewood at Middlebury	7,241	Residential

TABLE 12

**HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

Safe Yield Analysis Based on 1990 72-Hour Pumping Test and Well Completion Tests

	H-1A	H-2A	H-3	H-4	H-5A	Total
Registration (gpm)	230	270	350	350	225	1,425
Test Rate (gpm)	176	174	372	370	197	1,289
Drawdown at end of test (feet)	27	31	24	24.5	35	
Specific capacity (gpm/ft of drawdown)	6.52	5.61	15.5	15.1	5.63	
Additional available drawdown at end of test (feet)	22	8	20	18	9	
Additional available drawdown with 5 foot safety margin (feet)	17	3	15	13	4	
Additional pumping capacity (gpm) [additional drawdown x specific capacity]	111	17	232	196	22	578
Potential well yield with 5 foot safety margin (gpm) [Test rate + additional capacity]	287/340 ^{1/}	191/ 568 ^{1/}	604	566	219/ 588 ^{1/}	1,867/ 2,666 ^{2/}
Safe Yield (without diversion registration restrictions) [Potential yield x 75% drought factor]	255	426	453	425	441	2,000
Safe Yield (with diversion registration restriction) [Safe yield no higher than registration]	230	270	350	350	225	1,425

^{1/} The higher rate is the actual pumping rate during the 72-hour well completion pumping tests of Wells H-1A, H-2A and 5A. These higher yields are used for the safe yield calculation.

^{2/} The higher rate reflects the replacement Wells H-1A, H-2A and H-5A.

H:\HERITAGE\2009\Water Supply Plan\tables - word format.doc

TABLE 13

HERITAGE VILLAGE WATER COMPANY
SOUTHURY, CONNECTICUT

Available Water Pumping Test
June 29, 2009

Well No.	TIME					AVERAGE
	0800	1000	1200	1400	1600	
Pumping Rates (gpm)						
H1	244	247	243	241	245	244
H2	287	297	299	295	298	295
H3	358	361	362	361	363	361
H4	355	355	355	357	355	355
H5	250	235	238	236	234	238
Total	1494	1495	1497	1490	1495	1493
Water Levels (submergence in feet)						
H1	13	12	12	11.5	11.5	--
H2	18	17	17	16.5	16.5	--
H3	10	10	10	9.5	10	--
H4	14	13	13	13	13	--
H5	22	23	23	23	23	--

Notes: Test started with all wells off.
Total registration is 1,425 gpm.

H:\HERITAGE\2009\Water Supply Plan\tables - word format.doc

TABLE 14

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Margin of Safety Analysis

Margin of Safety (ADD)				Margin of Safety (MMADD)				Margin of Safety (MDD)			
2008	2013	2020	2050	2008	2013	2020	2050	2008	2013	2020	2050
1.86	2.03	1.80	1.80	1.38	1.53	1.35	1.35	1.09	1.24	1.10	1.10

Notes:

1. The 5- and 20- year margin of safety includes 200,000 gallons per day that will be available through the interconnection with Connecticut Water Company.
2. The 50-year margin of safety includes 500,000 gallons per day that will be available through the interconnection with Connecticut Water Company.

TABLE 15
HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Historic Water Consumption
(million gallons)

User Category	2003	2004	2005	2006	2007	2008
Unmetered Residential*	92.090	91.907	91.834	91.798	91.725	91.688
Metered Residential	49.296	62.387	81.676	92.168	110.259	99.757
Commercial	104.722	122.066	129.910	114.659	127.374	116.665
Industrial	6.433	7.208	8.046	8.027	8.905	9.429
Public Authorities	11.754	12.715	15.072	13.987	16.172	14.345
Other	19.297	25.332	15.564	9.523	9.645	8.027
Total Consumption	283.592	321.615	342.102	330.162	364.080	339.911
Non-Revenue	28.359	35.378	27.368	16.508	32.767	47.588
% Non-Revenue	10%	11%	8%	5%	9%	14%
Average Day Demand (mgd)	877,233	994,312	1,028,688	959,759	1,109,640	1,103,566
Maximum Month Demand	1,138,629	1,305,819	1,485,581	1,320,048	1,569,711	1,483,954
Peak Day Demand (mgd)	1,481,600	1,797,300	1,811,900	1,852,200	1,928,413	1,884,364

*Estimated by HVWC based on 100 gpcd.

TABLE 16

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Summary of Current Demand

ADD (mgd)						MMADD (mgd)						MDD (mgd)					
2003	2004	2005	2006	2007	2008	2003	2004	2005	2006	2007	2008	2003	2004	2005	2006	2007	2008
0.88	0.99	1.03	0.96	1.11	1.10	1.14	1.31	1.49	1.32	1.57	1.48	1.48	1.80	1.81	1.85	1.93	1.88

TABLE 17

HERITAGE VILLAGE WATER COMPANY
SOUTHURY, CONNECTICUT

Summary of Monthly Production

Monthly Production (mgd)													
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Annual Production (mgd)
2003	23.95	20.71	24.18	24.27	27.56	28.83	35.30	31.64	27.46	27.11	24.39	24.81	320.19
2004	27.58	23.25	26.47	27.68	30.76	38.07	40.48	36.15	32.49	29.27	24.39	26.32	362.92
2005	23.55	19.99	22.90	24.26	32.95	35.07	40.92	40.20	32.52	27.85	24.90	25.18	350.31
2006	23.55	19.99	22.90	24.26	32.95	35.07	40.92	40.20	32.52	27.85	24.90	25.18	350.31
2007	23.74	21.75	23.59	24.98	38.71	45.74	47.46	45.22	47.09	34.07	26.51	26.17	405.02
2008	26.18	25.32	27.16	30.45	39.15	41.66	46.00	42.49	36.07	32.71	25.88	29.71	402.80

TABLE 18
HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Projected Water Consumption by User Category
(gallons per day)

User Category	2008	2013	2020	2050
Unmetered Residential*	251,200	251,200	251,200	251,200
Metered Residential	273,307	344,657	364,305	442,034
Commercial	319,630	339,170	389,170	439,170
Industrial	25,833	27,900	87,900	112,900
Public Authorities	39,301	40,000	40,000	40,000
Other	21,992	7,000	7,000	7,000
Total Consumption	931,263	1,009,927	1,139,575	1,292,304
Non-Revenue	130,377	100,993	113,958	129,230
% Non-Revenue	14%	10%	10%	10%
Average Day Demand (mgd)	1.104	1.111	1.254	1.422
Maximum Month Demand (mgd)	1.484	1.476	1.665	1.888
Peak Day Demand (mgd)	1.884	1.817	2.050	2.325

TABLE 19

**HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

Projected Residential Consumption Per Town (gpd)

Year	Southbury	Middlebury	Oxford	Total
2008	366,211	56,215	87,031	509,458
2013	398,348	76,168	111,948	586,464
2020	412,470	77,033	116,610	606,112
2050	468,955	79,627	135,260	683,841

Note: Consumption includes 251,200 gpd of unmetered residential consumption in Heritage Village

TABLE 20

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Summary of Projected Demand

ADD (mgd)				MMADD (mgd)				MDD (mgd)				Peaking Factor (MMADD)	Peaking Factor (MDD)
2008	2013	2020	2050	2008	2013	2020	2050	2008	2013	2020	2050		
1.10	1.11	1.25	1.42	1.48	1.48	1.67	1.89	1.88	1.82	2.05	2.32	1.33	1.64

TABLE 21

HERITAGE VILLAGE WATER COMPANY
SOUTHURY, CONNECTICUT

Improvement Schedule

Project	New Projected Completion Date	Projected Cost
Five Year Improvement Schedule		
Inspect Storage Tanks	2009	\$5,000
Update Water Supply Plan	2014	18,000
Interconnect East Hill/Life Care Pumping Stations	2010	\$150,000
Leak Detection of Distribution System	2009	\$10,000
Well Rehabilitation	2014	\$15,000
Interconnection with CWC	2010	NA
Twenty Year Improvement Schedule		
Well rehabilitation and/or well replacement	As Needed	NA
Additional atmospheric storage or looping of the water main in Oxford	By 2024	NA
Transmission, pumping, emergency power generation, storage and treatment improvements	As needed	NA
Replacing smaller diameter water mains	By 2024	NA
Fifty Year Improvement Schedule		
Well rehabilitation and/or well replacement	As Needed	NA
Transmission, pumping, emergency power generation, storage and treatment improvements	As needed	NA

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TABLE 22

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Non-Revenue Water Trend

Accounted For Non-Revenue Water (mgl)						Unaccounted For Non-Revenue Water (mg)					
2003	2004	2005	2006	2007	2008	2003	2004	2005	2006	2007	2008
0.660	0.824	0.745	1.912	2.717	4.160	31.581	38.559	29.225	14.651	36.961	56.428

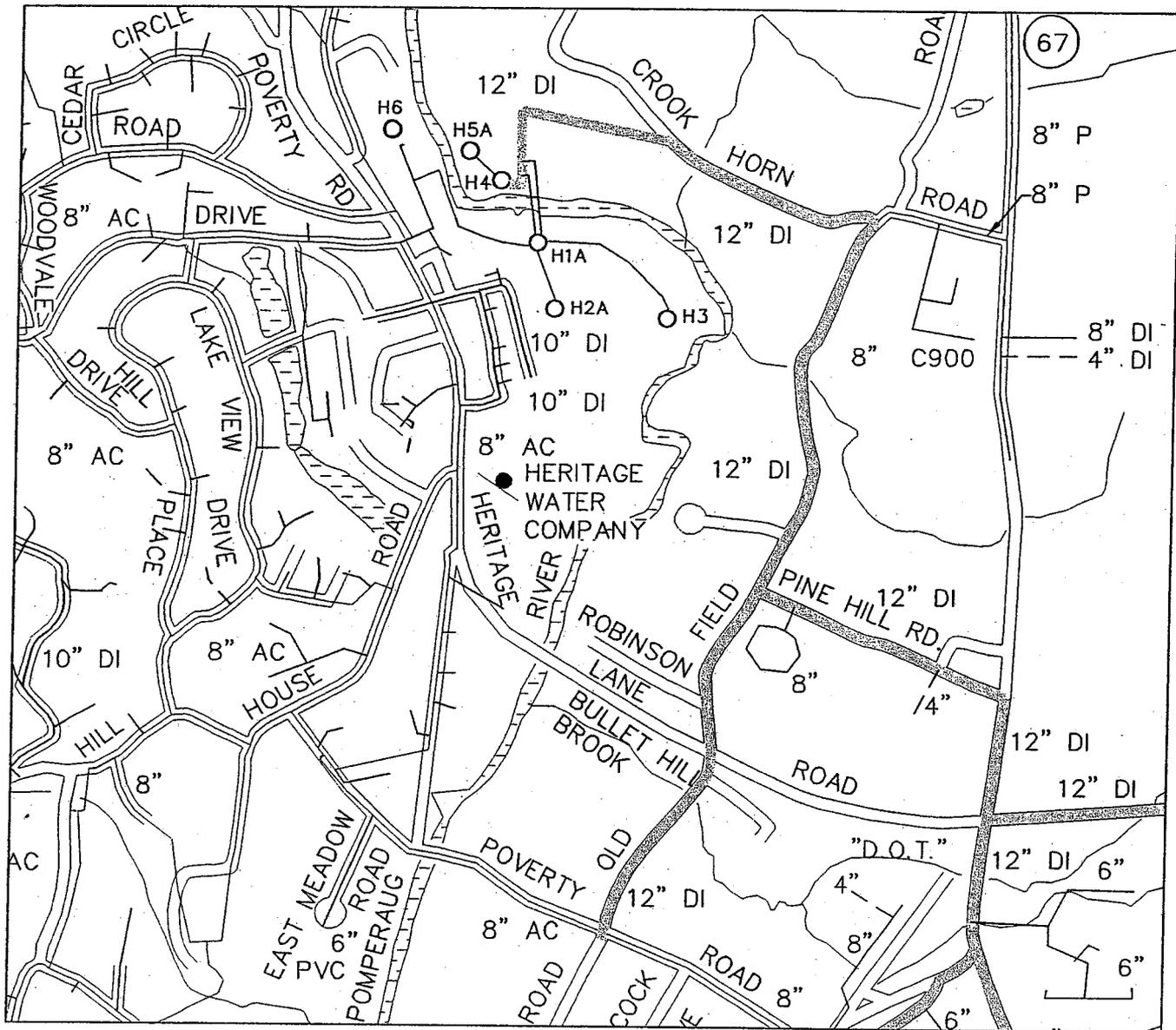
TABLE 23

HERITAGE VILLAGE WATER COMPANY
SOUTHURY, CONNECTICUT

Non-Revenue Water Type (mgl)

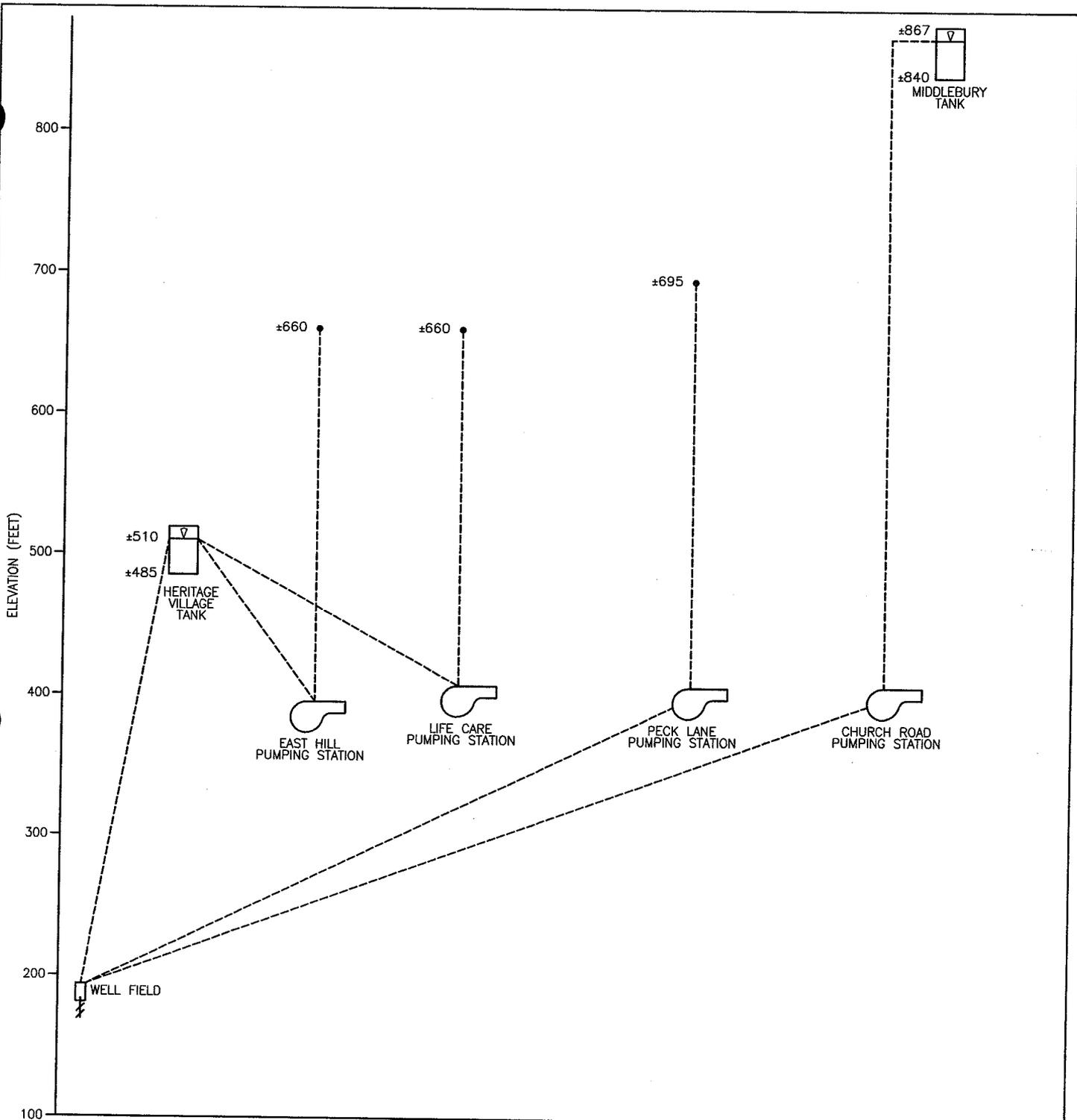
Period	Hydrant Flushing	Fire Fighting	Main Flushing	Sewer Cleaning	Main Breaks
2003	0.550	0.020	0.082	0.006	0.002
2004	0.610	0.025	0.148	0.010	0.030
2005	0.630	0.025	0.069	0.006	0.015
2006	1.796	Unknown	0.109	0.008	Unknown
2007	2.180	Unknown	0.170	0.018	0.350
2008	34.680	Unknown	0.048	0.024	0.180

FIGURES



HERITAGE VILLAGE WATER COMPANY SOUTHBURY, CONNECTICUT			
WELL LOCATION MAP			
DATE	REVISED	PREPARED BY:	
		LEGGETTE, BRASHEARS & GRAHAM, INC.	
		Professional Ground-Water and Environmental Engineering Services	
		126 Monroe Turnpike	
		Trumbull, CT 06611	
		(203) 452-3100	
DRAWN:	MRV	CHECKED:	MS
		DATE:	4/26/04
		FIGURE:	1

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LEGEND:

----- HYDRAULIC GRADE LINE

HERITAGE VILLAGE WATER COMPANY SOUTHBURY, CONNECTICUT

HYDRAULIC PROFILE

DATE	REVISED	PREPARED BY:
		LEGGETTE, BRASBEARS & GRAHAM, INC. Professional Ground-Water and Environmental Engineering Services 126 Monroe Turnpike Trumbull, CT 06611 (203) 452-3100
DRAWN:	MRV	<div style="display: flex; align-items: center;"> <div> CHECKED: MS DATE: 4/26/04 FIGURE: 2 </div> </div>

HERITAGE VILLAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Historical and Projected Water Demands

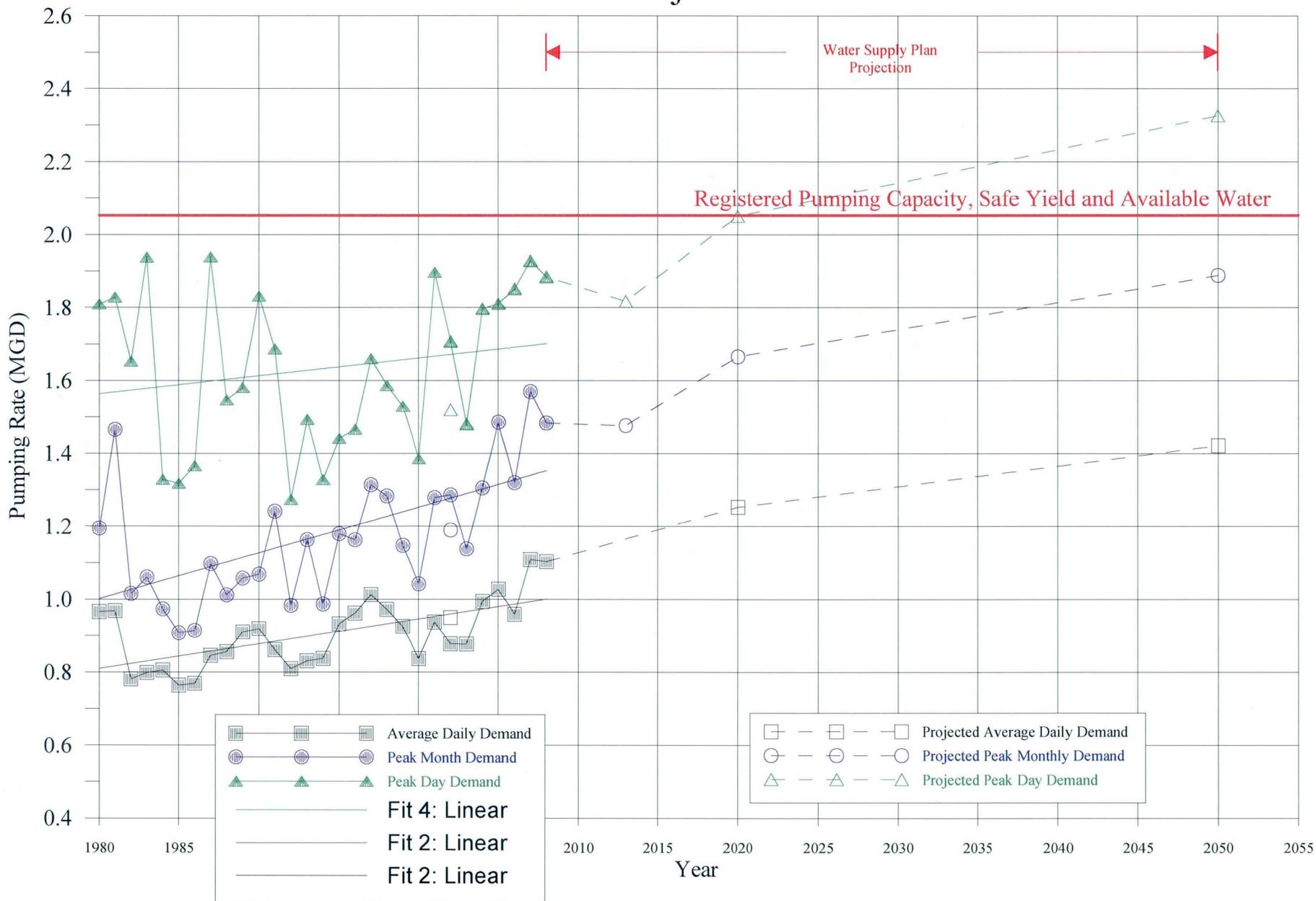


Figure 3

APPENDIX A

LEGISLATIVE ACT OF ORGANIZATION

John
TO

SPECIAL ACT NO. 110

AN ACT INCORPORATING THE HERITAGE VILLAGE WATER COMPANY.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

SECTION 1. F M Heritage Company, a Delaware corporation authorized to do business in the state of Connecticut, whose Connecticut address is Southbury, Connecticut, and Papparazzo Heritage Corporation with its principal office in Southbury, Connecticut, both doing business in joint venture under the recorded trade name of Heritage Village, together with such other persons as may be associated with them, their successors and assigns, are constituted a body corporate and politic by the name of The Heritage Village Water Company, with power under that name to exercise, in addition to all other powers herein specifically granted, all powers and privileges granted by the general statutes to water companies and to corporations organized under the general statutes, for the purpose of supplying water for public, domestic and other uses within the territorial limits hereinafter designated.

SEC. 2. Said corporation is authorized to serve the towns of Southbury and Middlebury. *ADD OXFORD*

SEC. 3. The capital stock of said corporation shall consist of five thousand shares divided into such classes, either with or without par value, as may be determined by its incorporators. Said corporation is authorized to increase, reduce or alter its capital stock from time to time to any amount, in the manner provided in the general statutes pertaining to increases, reductions or alterations of capital stock by specially chartered corporations or corporations organized under the general statutes, and to issue, subject to the approval of the public utilities commission, additional shares of capital stock to any amount with or without par value and with such preferences, voting powers, restrictions and qualifications, if any, as shall be determined in the vote authorizing such issue, provided no shares having a par value shall be issued for less than par in cash or in property at the actual value thereof.

SEC. 4. Said corporation is authorized to issue, subject to the approval of the public utilities commission, bonds, debentures and other certificates of indebtedness to any amount and may secure the same by mortgage or other lien on all or any part of its property and franchises.

SEC. 5. The government and direction of the affairs of said corporation shall be vested in a board of directors, of not less than three in number, who shall be chosen by the stockholders in the manner provided in the bylaws of said corporation and shall include either the chief executive or the chairman of the water commission of each of the towns of Southbury and Middlebury, as shall be determined by the legislative body of each town. *ADD OXFORD*

SEC. 6. In the same manner as is provided in sections 16-229 to 16-231, inclusive, of the general statutes, for public service

Post-It™ brand fax transmittal memo 7671	# of pages ▶ 5
To <i>Alan Kostoff</i>	From <i>Jeff Lennett</i>
Co.	Co. <i>CSG</i>
Dept.	Phone #
Fax # <i>860-521-3352</i>	Fax #

House Bill 5005
SPECIAL ACT 74-63
Approved 5/21/74

companies, said corporation is authorized within its territorial limits to open the ground in any streets, lanes, avenues, highways and public grounds for the purpose of laying water mains and storm drains and installing hydrants, building services and such other works as may be necessary in accordance with this act; and to reopen such streets, lanes, avenues, highways and public grounds as may be necessary to repair such works from time to time, provided such streets, lanes, avenues, highways and public grounds shall not be injured but shall be left in as good condition as before installing or repairing such works. Said corporation shall repair all defects or injuries to such streets, lanes, avenues, highways and public grounds caused by its use of the same for the purposes of this act, and may, for such purposes, carry and conduct any aqueduct or other works to be made or constructed by it under or over any water course, street, highway, private way or public grounds, provided such water course, street, highway, private way or public grounds shall be restored as speedily as possible to as good condition as before laying and constructing such works.

SEC. 7. Said corporation is authorized within the Pomperaug Water Basin to construct, repair, maintain and use such reservoir or reservoirs or drilled wells as may be deemed expedient or necessary; to take and use water from the Pomperaug Water Basin, to such extent and in such manner as may be necessary or expedient in carrying into effect the objects of this act; to construct, repair and maintain such canals or aqueducts as may become necessary or convenient for the conveyance of water to such places as may be desired, and to take and hold, by purchase, gift or condemnation, any real property or interest therein necessary for the purposes of this act and for laying and maintaining pipes and aqueducts for conducting, discharging, disposing of and distributing water, for forming a reservoir or reservoirs in the Pomperaug Water Basin, for all buildings, structures, machinery and necessary fixtures and for preserving such lands and waters for the use of said company, pure and free from all contamination, nuisances, ditches, drains and sewers, and from the erection of any buildings and structures other than those employed and used for the purposes of this act, and it may make, establish and enforce all necessary and proper regulations and bylaws for the preservation of the same, provided such regulations and bylaws shall be in accordance with the laws of this state and of the United States.

SEC. 8. Said corporation shall pay all damages that shall be sustained by any person or persons or corporations in their property or estate, by the taking of any real estate or easement, by the taking of water from any brooks, springs, ponds, lakes or any other source or by constructing or laying any pipes, aqueducts or reservoirs or other works for the purposes of this act, which damages, unless the same shall be agreed upon by the parties, shall be assessed by a committee to be appointed by the superior court for New Haven county or by a judge of said court, upon application made to it or him by said corporation or by any person or corporation sustaining such

damages, which application shall be accompanied by a summons served upon the owner of the property as in the case of civil process before said court.

SEC. 9. The committee appointed by said court shall consist of three disinterested persons, who, after being sworn and giving reasonable notice, shall hear the parties, view the property in question, assess just damages, if any, to the respective owners or parties interested in the premises or property so damaged or required, or proposed to be taken for the purposes of this act, as the case may be, and report their doings to the court, which report may be rejected at the discretion of the court.

SEC. 10. Said court may make any order necessary for the protection of the rights of all persons or corporations interested in such property, or sustaining such damages, but such property shall not be taken or interfered with by said corporation until the amount of such judgment shall be paid to the person to whom it is due, or deposited for the use of such person with the clerk of the superior court for New Haven county, and, if the land or estate which said corporation may wish to take consists of separate parcels owned by different parties, the application, made to the superior court or to a judge thereof, may include all or any number of such separate parcels, the same being therein specifically described, and the persons so appointed shall assess the damages, if any, separately to the parties owning the separate parcels.

SEC. 11. The occupant of any house, tenement or building who takes the water of said corporation, and the owner of the premises or buildings where such water is supplied, shall be jointly and severally liable for the price or the rent of the same as approved by the public utilities commission, and the agents of said corporation intrusted with the superintendence of such works may, at all reasonable times, enter the premises so supplied to examine the pipes and fixtures and to prevent all unnecessary waste.

SEC. 12. Any person who diverts the water or obstructs the same or any part thereof, from or in any aqueduct, reservoir, stream, spring or other place which is taken or used or constructed by said corporation, or who corrupts the same, shall be liable to said corporation in triple damages therefor, and may be fined not more than one hundred dollars or imprisoned not more than six months or both.

SEC. 13. Nothing contained in this act shall preclude the towns of Southbury and Middlebury, and any private water company from existing sources to areas presently served by existing systems.

SEC. 14. Any provision herein to the contrary notwithstanding, the corporation shall not be authorized to take water from any source other than the Pomperaug Water Basin, and, in the interest of conservation and the protection of the natural resources of the area, the corporation shall not be authorized to supply water to areas outside of its territorial limits.

SEC. 15. If the corporation shall receive a bona fide offer for the sale of said corporation which it intends to accept, it shall give notice to the town of Southbury, or any regional

THIS SECTION OF OUR
OWN BILL STATES OUR
AUTHORITY

water district or commission of which the town of Southbury is a member, of such offer and of such intention, the name and address of the proposed purchaser, the terms of the proposed transaction, and such other information as may reasonably be required, and shall offer to sell said corporation to said town or said district or commission on the same terms and conditions as shall be contained in such outside offer; and said town or district or commission may, within ninety days after receipt of such notice, elect to purchase said corporation on the same terms and conditions as contained in such offer. Any buyer shall succeed to all powers, obligations and duties of the corporation as herein established. Failure to notify said corporation of such election within ninety days after receipt of such notice shall constitute refusal.

Certified as correct by

Legislative Commissioner.

Clerk of the Senate.

Clerk of the House.

Approved _____, 1969.

Governor.

Signed by Gov 1774921

1974]

OF CONNECTICUT

133

Sp. No. 74-83

House Bill No. 5805

SPECIAL ACT NO. 74-63

AN ACT CONCERNING THE AREA SERVICED BY THE HERITAGE VILLAGE WATER COMPANY.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

Section 1. Section 2 of number 110 of the special acts of 1969, is amended to read as follows:

Said corporation is authorized to serve the towns of Southbury, OXFORD and Middlebury.

Sec. 2. Section 5 of number 110 of the special acts of 1969, is amended to read as follows:

The government and direction of the affairs of said corporation shall be vested in a board of directors, of not less than three in number, who shall be chosen by the stockholders in the manner provided in the bylaws of said corporation and shall include either the chief executive or the chairman of the water commission of each of the towns of Southbury, OXFORD and Middlebury, as shall be determined by the legislative body of each town.

Sec. 3. Section 13 of number 110 of the special acts of 1969, is amended to read as follows:

Nothing contained in this act shall preclude the towns of Southbury, OXFORD and Middlebury and any private water company from existing sources to areas presently served by existing systems.

Approved May 21, 1974

APPENDIX B
OPERATOR CERTIFICATIONS



State of Connecticut

Department of Public Health

Be it known that

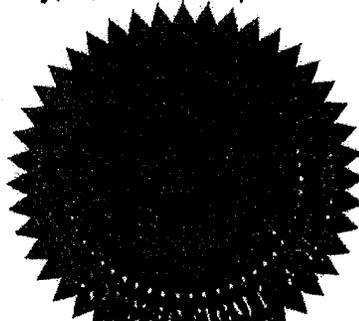
Matthew Ammirati

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Distribution System Class II Operator

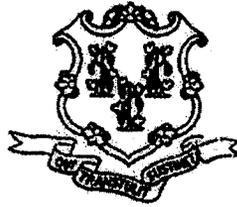
in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 199084 on this effective date of 15th day of
July, 2008 and expiration date of 30th day of June, 2011.



J. Robert Galvin MD, MPH, MBA

J. Robert Galvin, MD, MPH, MBA
COMMISSIONER



State of Connecticut

Department of Public Health

Be it known that

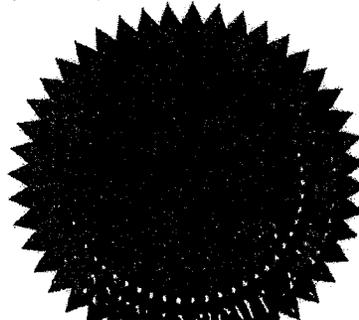
Matthew Ammirati

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Water Treatment Plant Class I Operator

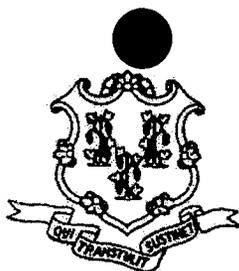
in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 199085 on this effective date of 15th day of
July, 2008 and expiration date of 30th day of June, 2011.



J. Robert Galvin MD, MPH, MBA

J. Robert Galvin, MD, MPH, MBA
COMMISSIONER



State of Connecticut
Department of Public Health

Be it known that

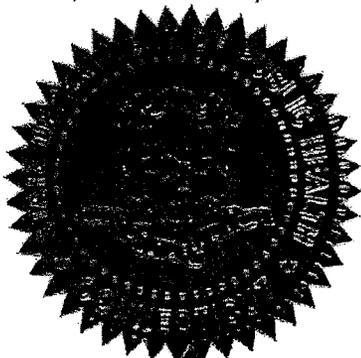
Michael J. Picard

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Distribution System Class II Operator

in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 204155 on this effective date of 5th day of
December, 2007 and expiration date of 30th day of September, 2010.



J. Robert Galvin MD, MPH, MBA

J. Robert Galvin, MD, MPH, MBA
COMMISSIONER



State of Connecticut

Department of Public Health

Be it known that

Michael J. Picard

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Water Treatment Plant Class I Operator

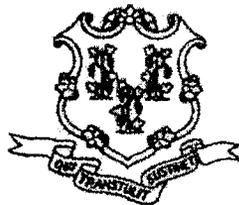
in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 204165 on this effective date of 27th day of
June, 2007 and expiration date of 31st day of March, 2010.



J. Robert Galvin M.D., M.P.H.

J. Robert Galvin, M.D., M.P.H.
COMMISSIONER



State of Connecticut

Department of Public Health

Be it known that

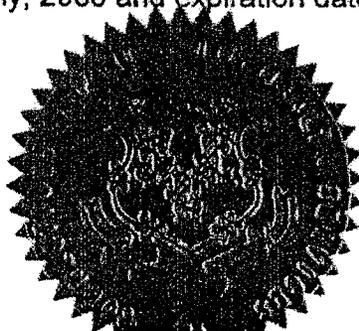
Thomas F. Dowling

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Distribution System Class II Operator

in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 204144 on this effective date of 17th day of
July, 2006 and expiration date of 30th day of June, 2009.



J. Robert Galvin M.D., M.A.H.

J. Robert Galvin, M.D., M.P.H.
COMMISSIONER



State of Connecticut
Department of Public Health

Be it known that

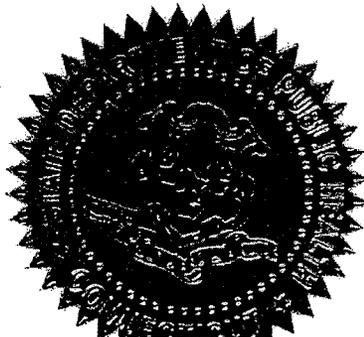
Thomas F. Dowling

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Water Treatment Plant Class I Operator

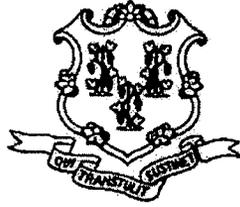
in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 204144 on this effective date of 25th day of
August, 2008 and expiration date of 30th day of September, 2011.



J. Robert Galvin MD, MPH, MBA

J. Robert Galvin, MD, MPH, MBA
COMMISSIONER



State of Connecticut
Department of Public Health

Be it known that

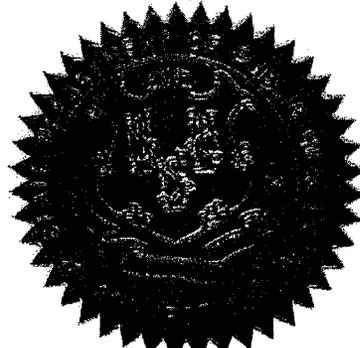
JAMES L. LITKE

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Distribution System Class I Operator

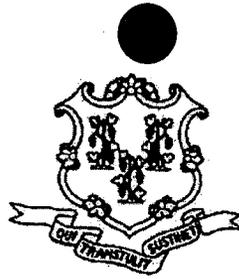
in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 201027 on this effective date of 12th day of
December, 2006 and expiration date of 31st day of December, 2009.



J. Robert Galvin M.D., M.P.H.

J. Robert Galvin, M.D., M.P.H.
COMMISSIONER



State of Connecticut

Department of Public Health

Be it known that

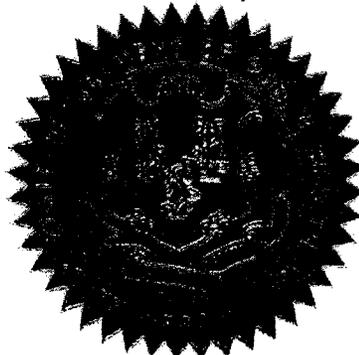
JAMES L. LITKE

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Water Treatment Plant Class I Operator

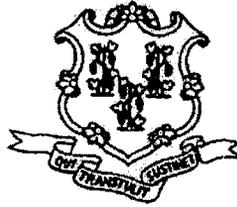
in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 201026 on this effective date of 12th day of
December, 2006 and expiration date of 31st day of December, 2009.



J. Robert Galvin M.D., M.P.H.

J. Robert Galvin, M.D., M.P.H.
COMMISSIONER



State of Connecticut

Department of Public Health

Be it known that

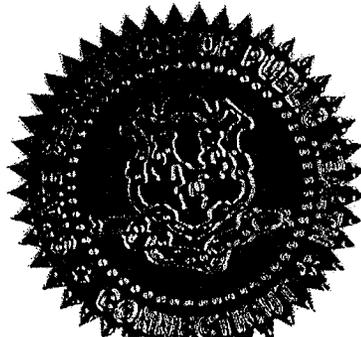
Robert A. Skelly

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Distribution System Class I Operator

in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 204187 on this effective date of 22nd day of
June, 2008 and expiration date of 31st day of March, 2011.



J. Robert Galvin MD, MPH, MBA

J. Robert Galvin, MD, MPH, MBA
COMMISSIONER



State of Connecticut
Department of Public Health

Be it known that

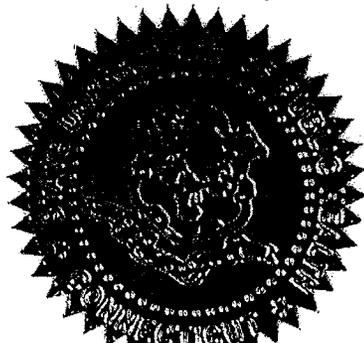
Robert A. Skelly

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Water Treatment Plant Class I Operator

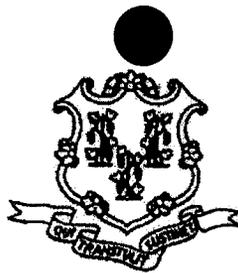
in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 204171 on this effective date of 22nd day of
June, 2008 and expiration date of 31st day of March, 2011.



J. Robert Galvin MD, MPH, MBA

J. Robert Galvin, MD, MPH, MBA
COMMISSIONER



State of Connecticut
Department of Public Health

Be it known that

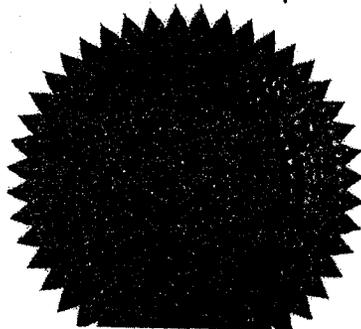
Christopher J. Sargeant

having given evidence satisfactory to the Department of Public Health
of having met the qualifications required by the General Statutes
of Connecticut is issued this certificate as

Distribution System Class I Operator

in the State of Connecticut

in witness whereof the Connecticut Department of Public Health
has issued certificate number 204185 on this effective date of 5th day of
December, 2007 and expiration date of 30th day of September, 2010.



J. Robert Galvin MD, MPH, MBA

J. Robert Galvin, MD, MPH, MBA
COMMISSIONER

APPENDIX C
DIVERSION PERMIT

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



November 19, 1982

*Jeff. Lemay
copy*

Heritage Village Water Company
Heritage Road
Southbury, CT 06488

Re: Section 4 Registration
Existing Diversions

Gentlemen:

This will acknowledge acceptance of your registration of an existing diversion submitted in accordance with Section 4 of the Connecticut Water Diversion Policy Act (P.A. 82-402).

Your diversion registration number is 6800-001 and covers the following:

Ground water withdrawal, Southbury, Connecticut
Pump capacity GPM:

1. HV 1 230
2. HV 2 270
3. HV 3 350
4. ~~M-1~~ 350 H-4
5. ~~M-2~~ 225 H-5

If the above description is not correct, contact my office at (203) 566-7220.

Sincerely,

Denis Cunningham

Denis Cunningham
Assistant Director
Water Resources Unit

Phone:

State Office Building, Hartford, Connecticut 06115

An Equal Opportunity Employer

APPENDIX D

PUMPING TEST DATA - H-2A AND H-5A AND 1990 PUMPING TEST

**HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

**72-HOUR WELL COMPLETION PUMPING TEST
FOR
WELL H-2A**

MAY 19 – MAY 22, 1997

PUMPING RATE = 568 GPM

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Pumping Test Data for Production Well HV-2A Prior to, During, and After Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997

Elapsed Time	Depth to Water (feet)	Drawdown (feet)
-210	9.76	
-180	9.73	
0	10.11	0.00
1	36.40	26.29
2	43.76	33.65
3	44.48	34.37
4	44.79	34.68
5	47.05	36.94
6	47.45	37.34
7	47.72	37.61
8	47.75	37.64
9	47.78	37.67
10	47.79	37.68
11	47.80	37.69
12	47.79	37.68
13	47.81	37.70
14	47.82	37.71
15	47.83	37.72
20	47.89	37.78
25	47.92	37.81
30	47.97	37.86
35	47.98	37.87
40	48.01	37.90
45	48.03	37.92
50	48.04	37.93
55	48.05	37.94
60	48.08	37.97
75	-	-
90	48.07	37.96
105	48.22	38.11
120	48.23	38.12
150	48.25	38.14
180	48.29	38.18
210	48.35	38.24
240	48.36	38.25
300	48.47	38.36
360	48.66	38.55
420	48.70	38.59
480	48.88	38.77
540	48.98	38.87
600	49.11	39.00
660	49.22	39.11
720	49.34	39.23
780	49.35	39.24
840	49.36	39.25

HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Pump Test Data for HV-2A

(continued)

Elapsed Time	Depth to Water (feet)	Drawdown (feet)
900	49.40	39.29
960	49.44	39.33
1020	49.49	39.38
1080	49.50	39.39
1140	49.53	39.42
1200	49.57	39.46
1260	49.59	39.48
1320	49.65	39.54
1380	49.66	39.55
1440	49.65	39.54
1500	49.65	39.54
1560	49.67	39.56
1620	49.68	39.57
1680	49.70	39.59
1740	49.74	39.63
1800	49.76	39.65
1860	49.79	39.68
1920	49.84	39.73
1980	49.87	39.76
2040	49.94	39.83
2100	49.97	39.86
2160	50.05	39.94
2220	50.10	39.99
2280	50.11	40.00
2340	50.14	40.03
2400	50.20	40.09
2460	50.22	40.11
2520	50.23	40.12
2580	50.22	40.11
2640	50.21	40.10
2700	50.21	40.10
2760	50.23	40.12
2820	50.23	40.12
2880	50.30	40.19
2940	50.30	40.19
3000	50.30	40.19
3060	50.30	40.19
3120	50.33	40.22
3180	50.37	40.26
3240	50.42	40.31
3300	50.47	40.36
3360	50.49	40.38
3420	50.50	40.39
3480	50.52	40.41

HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Pump Test Data for HV-2A

(continued)

Elapsed Time	Depth to Water (feet)	Drawdown (feet)
3540	50.57	40.46
3600	50.64	40.53
3660	50.73	40.62
3720	50.78	40.67
3780	50.72	40.61
3840	50.73	40.62
3900	50.73	40.62
3960	50.78	40.67
4020	50.70	40.59
4080	50.68	40.57
4140	50.68	40.57
4200	50.68	40.57
4260	50.74	40.63
4320	50.74	40.63
4320.5	15.62	5.51
4321	13.98	3.87
4321.5	13.53	3.42
4322	13.17	3.06
4323	12.90	2.79
4324	12.77	2.66
4325	12.73	2.62
4326	12.66	2.55
4327	12.64	2.53
4328	12.62	2.51
4329	12.61	2.50
4330	12.58	2.47
4331	12.56	2.45
4332	12.54	2.43
4333	12.54	2.43
4334	12.54	2.43
4335	12.52	2.41
4336	12.51	2.40
4338	12.49	2.38
4340	12.48	2.37
4345	12.43	2.32
4350	12.40	2.29
4355	12.36	2.25
4360	12.34	2.23
4365	12.32	2.21
4370	12.30	2.19
4375	12.27	2.16
4380	12.25	2.14
4410	12.13	2.02

HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

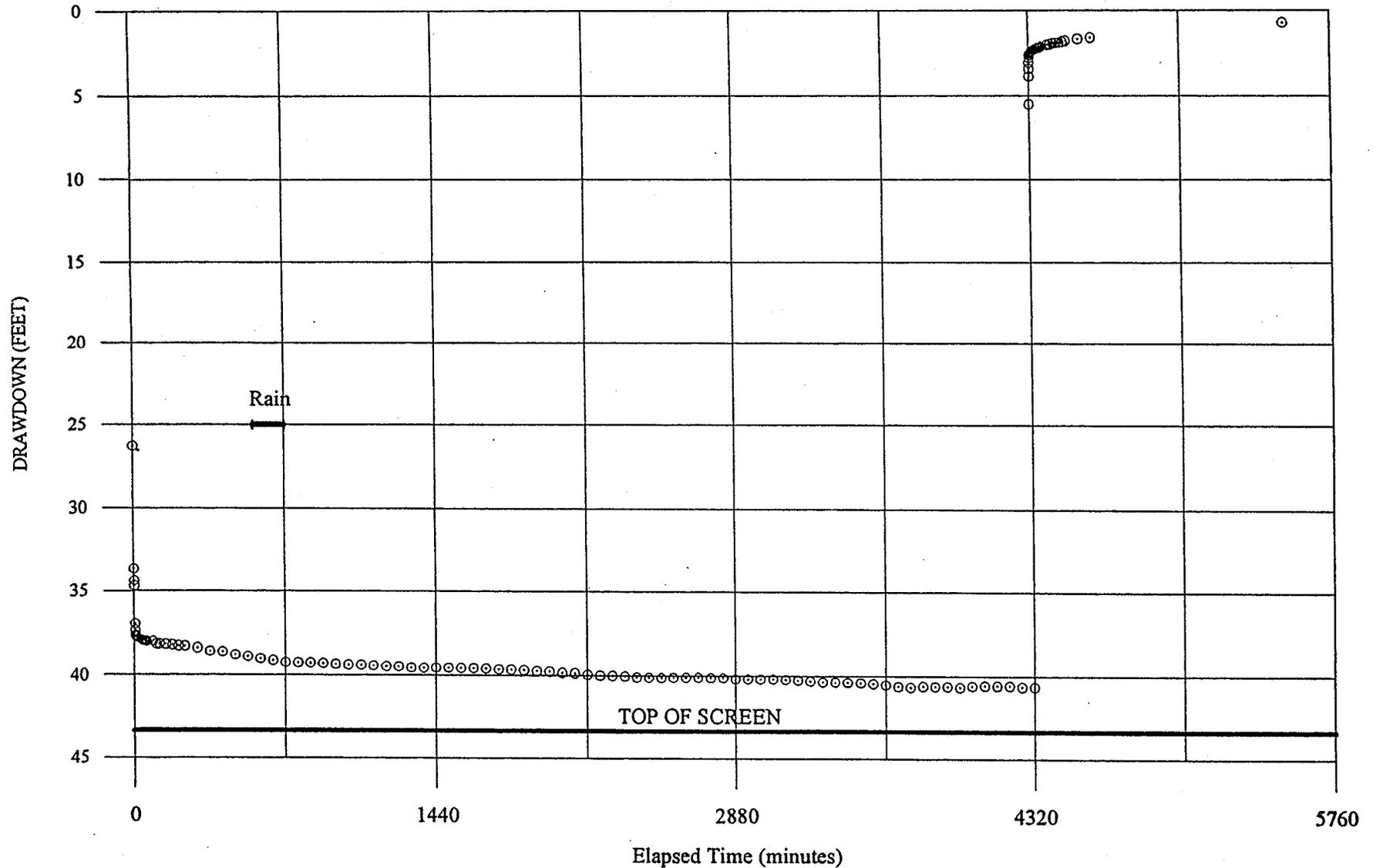
Pump Test Data for HV-2A

(continued)

Elapsed Time	Depth to Water (feet)	Drawdown (feet)
4425	12.10	1.99
4440	12.04	1.93
4455	12.02	1.91
4470	12.00	1.89
4485	11.95	1.84
4500	11.90	1.79
4560	11.79	1.68
4620	11.71	1.60
5535	10.82	0.71

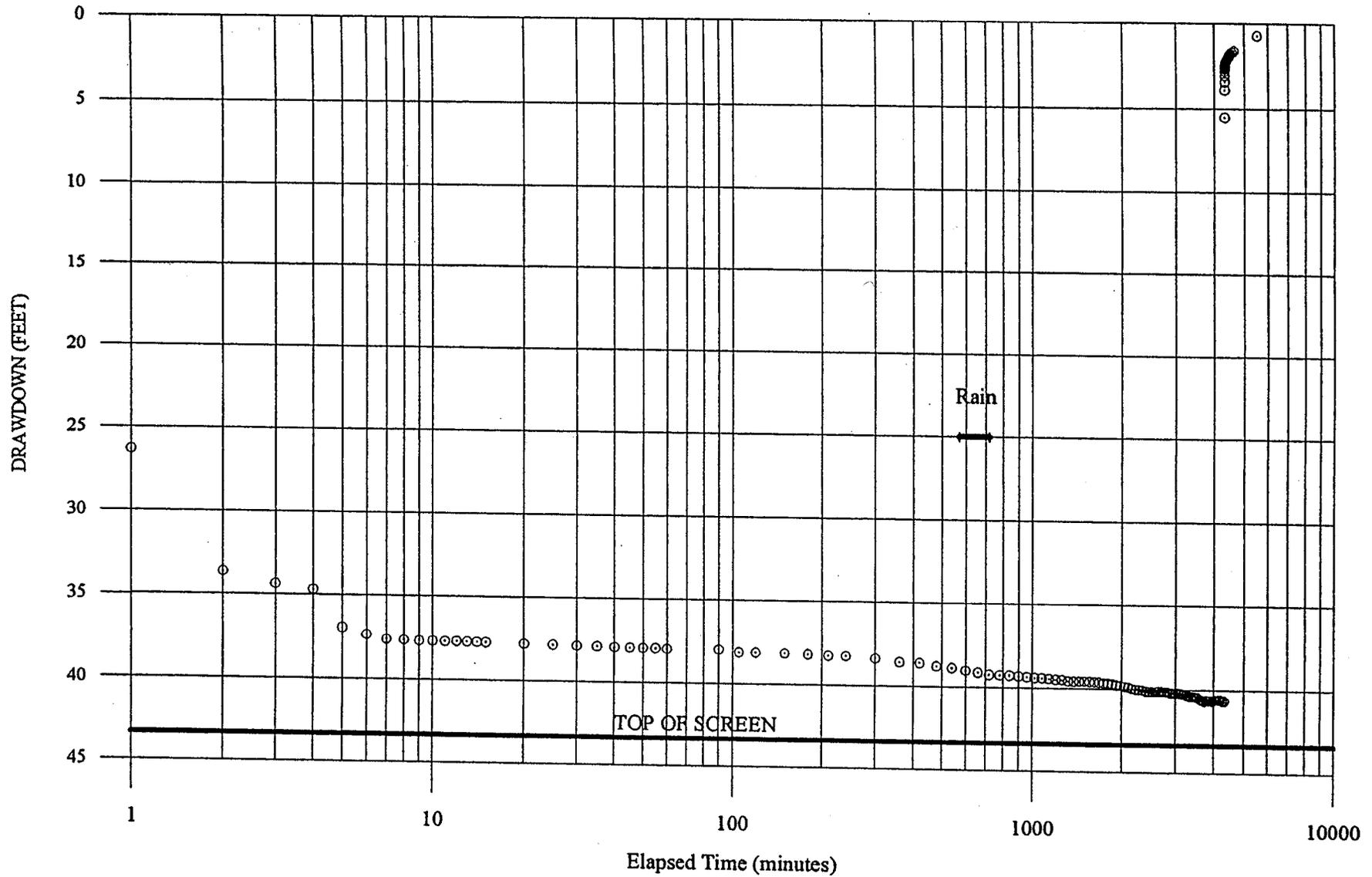
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Production Well HV-2A During and After 72-Hour Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Production Well HV-2A During and After 72-Hour Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Pumping Test Data for Production Well HV-2 During, and After Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997

Elapsed Time	Depth to Water (feet)	Drawdown (feet)
0	15.03	0.00
5	23.62	8.59
10	24.58	9.55
15	24.65	9.62
20	24.71	9.68
25	24.77	9.74
30	24.80	9.77
35	24.80	9.77
40	24.82	9.79
45	24.84	9.81
50	24.85	9.82
55	24.86	9.83
60	24.87	9.84
75		
90	24.93	9.90
105	24.97	9.94
120	24.99	9.96
150	25.06	10.03
180	25.15	10.12
210	25.20	10.17
240	25.26	10.23
300	25.30	10.27
360	25.40	10.37
420	25.48	10.45
480	25.56	10.53
540	25.64	10.61
600	25.71	10.68
660	25.81	10.78
720	25.81	10.78
780	25.85	10.82
840	25.87	10.84
900	25.91	10.88
960	25.93	10.90
1020	25.95	10.92
1080	25.97	10.94
1140	26.01	10.98
1200	26.03	11.00
1260	26.06	11.03
1320	26.10	11.07
1380	26.13	11.10
1440	26.14	11.11
1500	26.15	11.12
1560	26.18	11.15

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Pump Test Data for HV-2

(continued)

Elapsed Time	Depth to Water (feet)	Drawdown (feet)
1620	26.19	11.16
1680	26.21	11.18
1740	26.21	11.18
1800	26.21	11.18
1860	26.21	11.18
1920	26.23	11.20
1980	26.25	11.22
2040	26.27	11.24
2100	26.27	11.24
2160	26.31	11.28
2220	26.33	11.30
2280	26.35	11.32
2340	26.35	11.32
2400	26.37	11.34
2460	26.39	11.36
2520	26.39	11.36
2580	26.40	11.37
2640	26.41	11.38
2700	26.42	11.39
2760	26.48	11.45
2820	26.53	11.50
2880	26.54	11.51
2940	26.55	11.52
3000	26.55	11.52
3060	26.63	11.60
3120	26.65	11.62
3180	26.67	11.64
3240	26.63	11.60
3300	26.73	11.70
3360	26.75	11.72
3420	26.77	11.74
3480	26.79	11.76
3540	26.81	11.78
3600	26.83	11.80
3660	26.87	11.84
3720	26.89	11.86
3780	26.91	11.88
3840	26.93	11.90
3900	26.93	11.90
3960	26.91	11.88
4020	26.91	11.88
4080	26.89	11.86
4140	26.89	11.86

HERITAGE WATER COMPANY
SOUTHURY, CONNECTICUT

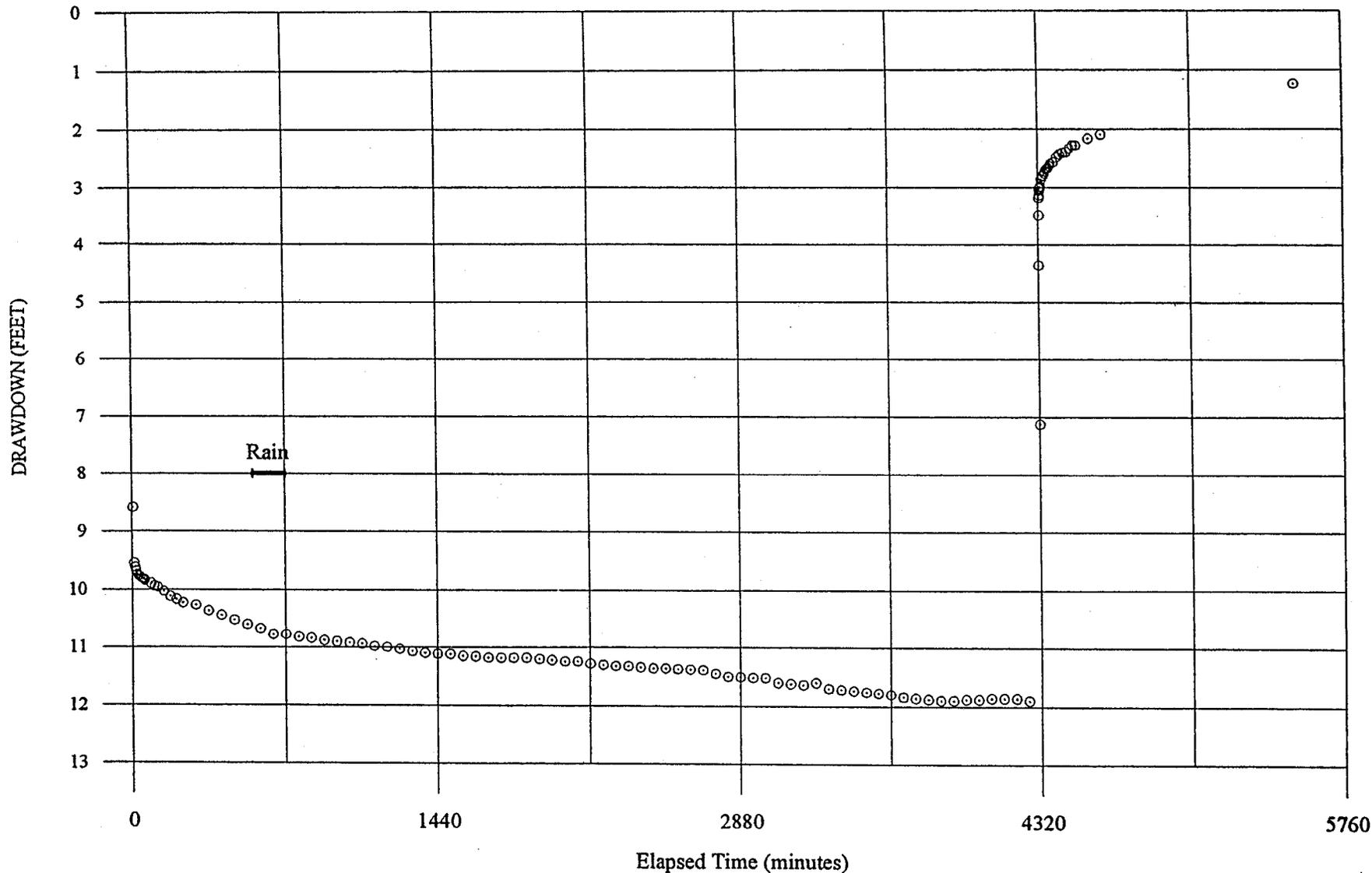
Pump Test Data for HV-2

(continued)

Elapsed Time	Depth to Water (feet)	Drawdown (feet)
4200	26.89	11.86
4260	26.93	11.90
4320		
4321	22.16	7.13
4322	19.39	4.36
4323	18.51	3.48
4324	18.22	3.19
4325	18.17	3.14
4326	18.09	3.06
4327	18.05	3.02
4328	18.04	3.01
4329	18.02	2.99
4330	18.01	2.98
4335	17.89	2.86
4340	17.84	2.81
4345	17.83	2.80
4350	17.79	2.76
4355	17.75	2.72
4360	17.72	2.69
4365	17.70	2.67
4370	17.69	2.66
4375	17.66	2.63
4380	17.62	2.59
4395	17.60	2.57
4410	17.02	2.48
4425	17.46	2.43
4440	17.43	2.40
4455	17.42	2.39
4470	17.36	2.33
4485	17.31	2.28
4500	17.31	2.28
4560	17.19	2.16
4620	17.12	2.09
5535	16.25	1.22

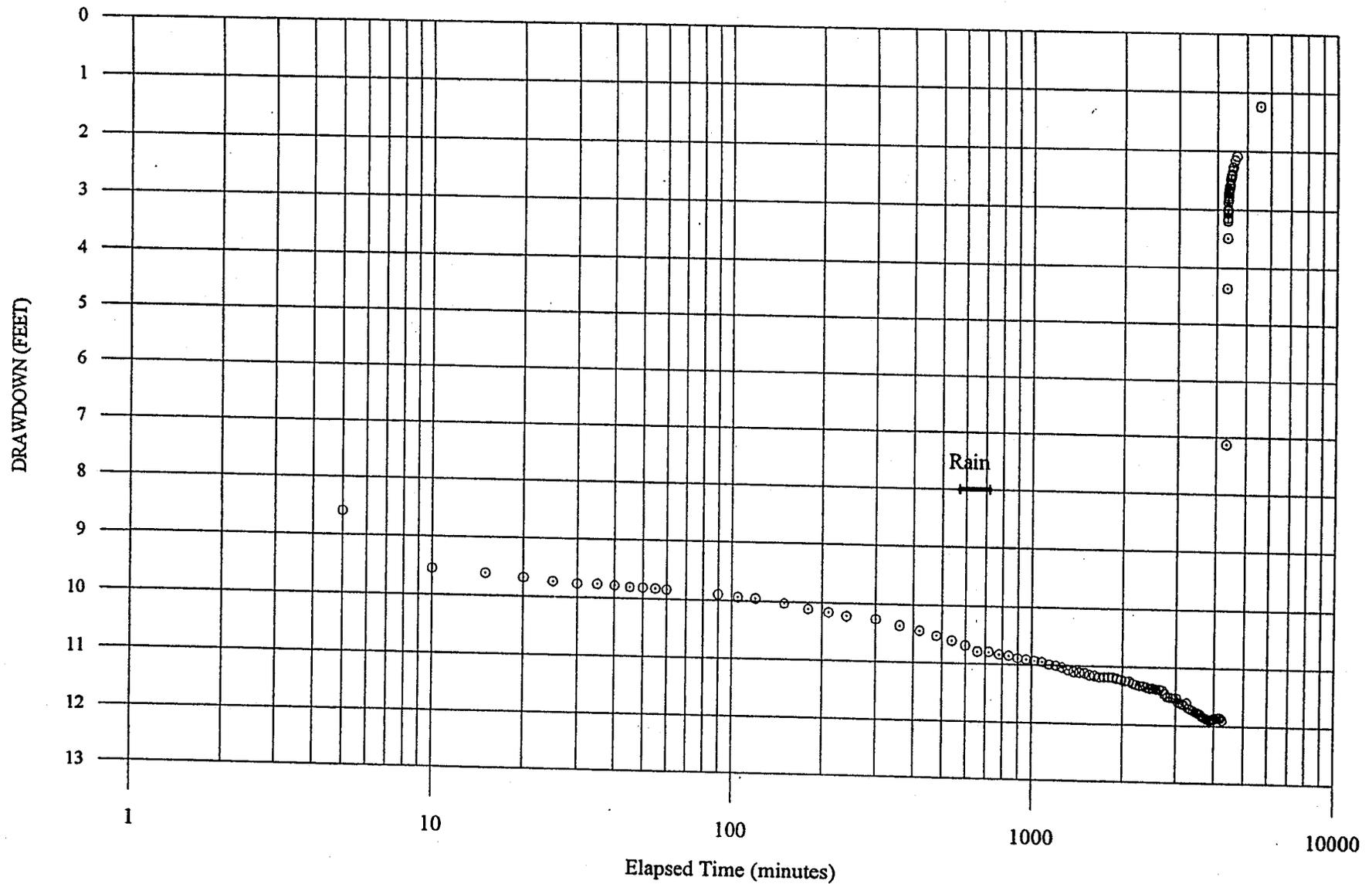
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Production Well HV-2 During and After 72-Hour Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Production Well HV-2 During and After 72-Hour Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997



HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

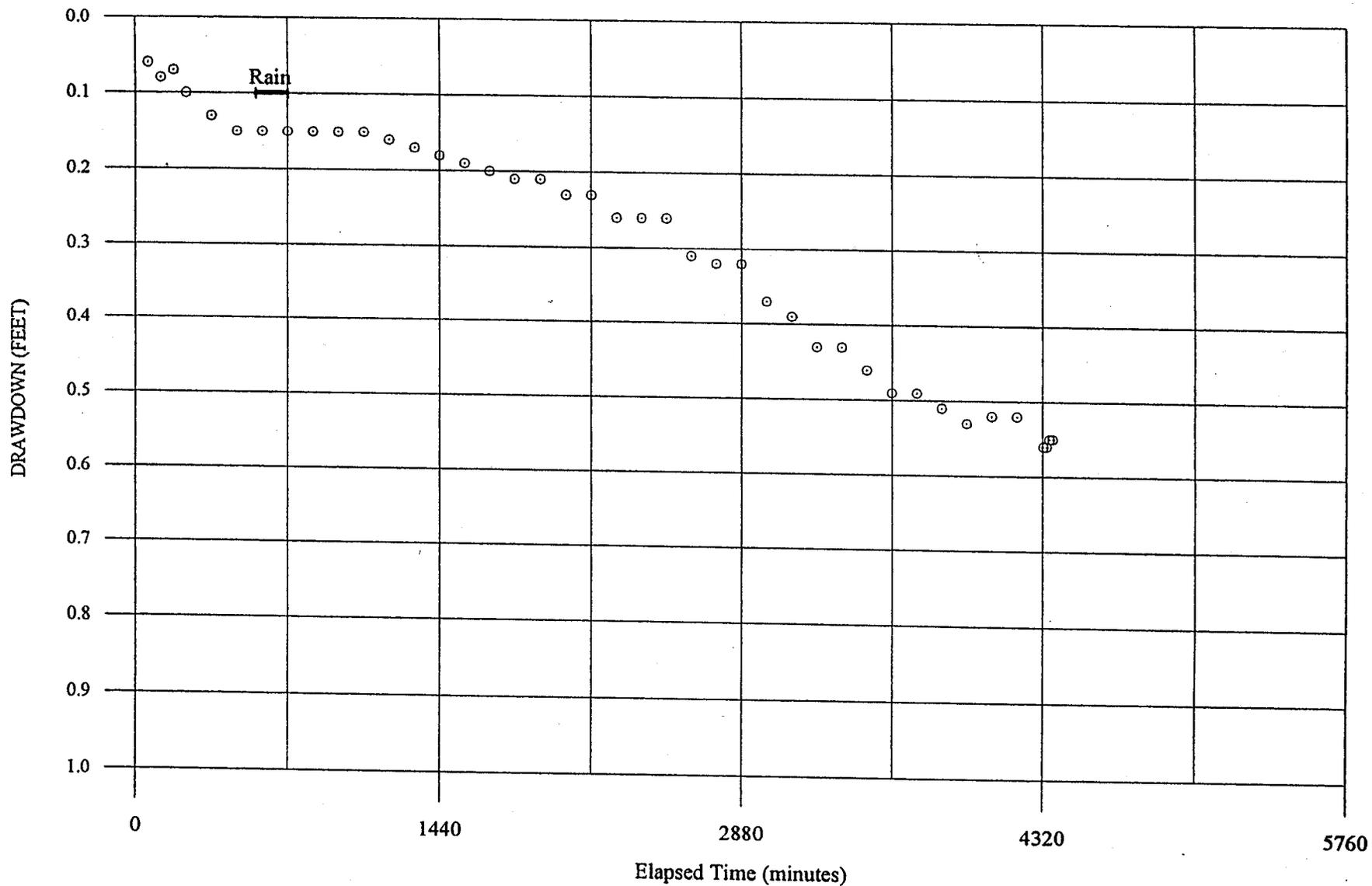
Pumping Test Data for Well SB-33 Prior to, During, and After Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997

(next to maintenance
building)

Elapsed Time	Depth to Water (feet)	Drawdown (feet)
-4115	9.74	
-40	9.79	
0	9.79	0.00
60	9.85	0.06
120	9.87	0.08
180	9.86	0.07
240	9.89	0.10
360	9.92	0.13
480	9.94	0.15
600	9.94	0.15
720	9.94	0.15
840	9.94	0.15
960	9.94	0.15
1080	9.94	0.15
1200	9.95	0.16
1320	9.96	0.17
1440	9.97	0.18
1560	9.98	0.19
1680	9.99	0.20
1800	10.00	0.21
1920	10.00	0.21
2040	10.02	0.23
2160	10.02	0.23
2280	10.05	0.26
2400	10.05	0.26
2520	10.05	0.26
2640	10.10	0.31
2760	10.11	0.32
2880	10.11	0.32
3000	10.16	0.37
3120	10.18	0.39
3240	10.22	0.43
3360	10.22	0.43
3480	10.25	0.46
3600	10.28	0.49
3720	10.28	0.49
3840	10.30	0.51
3960	10.32	0.53
4080	10.31	0.52
4200	10.31	0.52
4320	-	-
4323	10.35	0.56
4337	10.35	0.56
4352	10.34	0.55
4367	10.34	0.55
4440	10.33	0.54
4560	10.33	0.54
5550	10.25	0.46

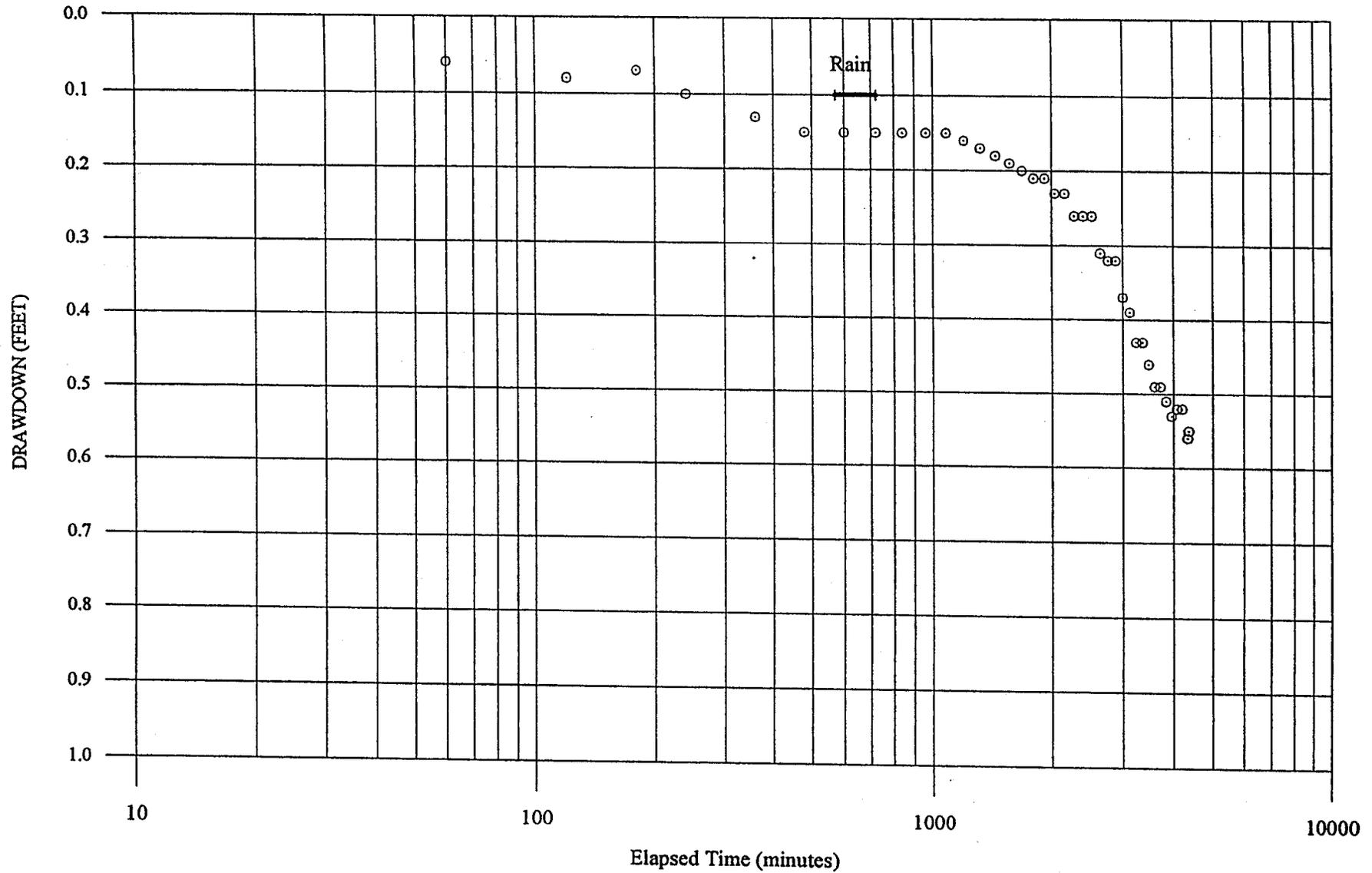
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Test Well SB-33 During and After 72-Hour Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Test Well SB-33 During and After 72-Hour Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997



HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

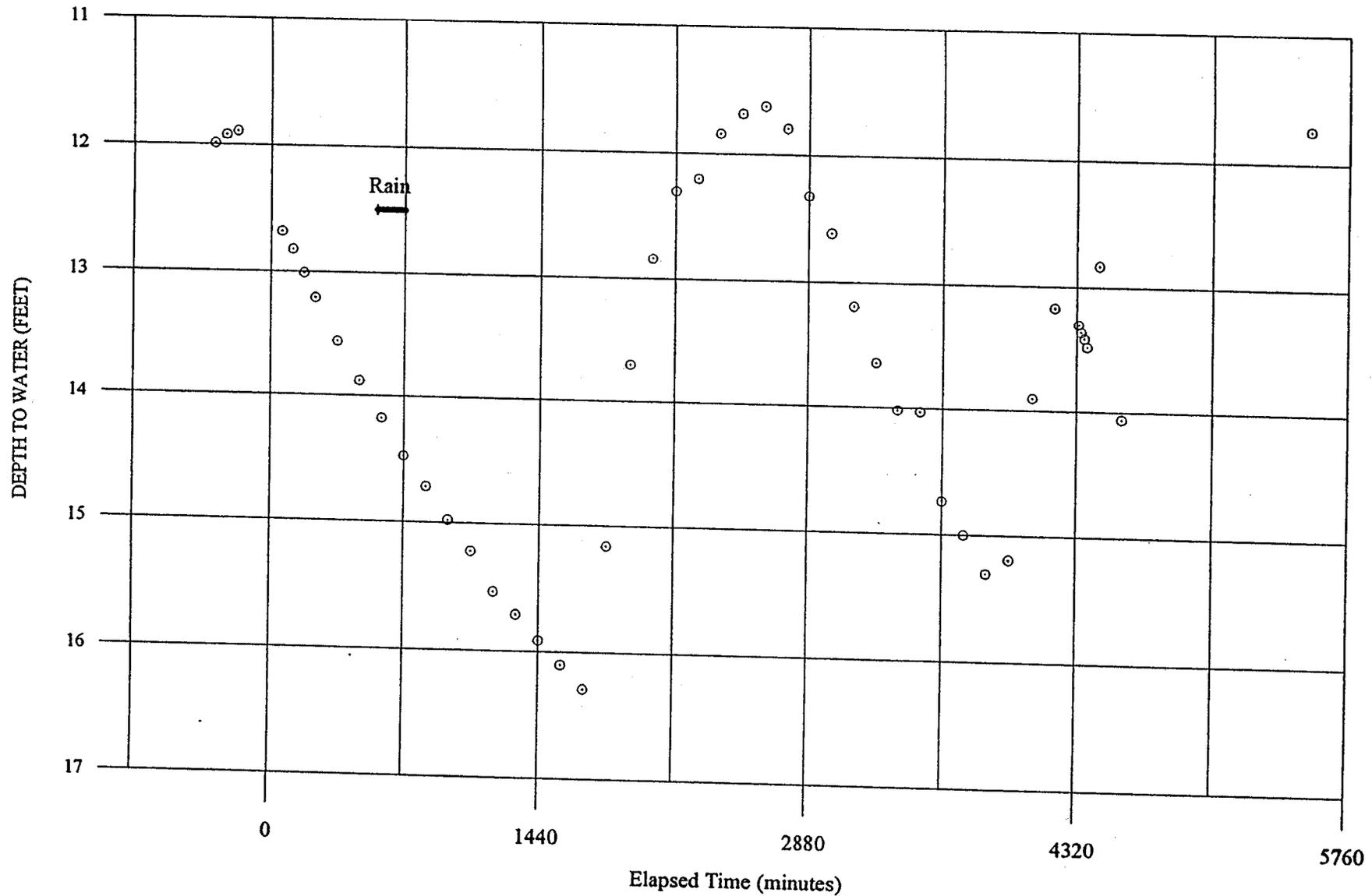
Pumping Test Data for Test Well C Prior to, During, and After Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997

(next to H-3)

Elapsed Time	Depth to Water (feet)
-4150	17.00
-216	11.92
0	11.99
60	12.68
120	12.82
180	13.01
240	13.21
360	13.56
480	13.88
600	14.18
720	14.48
840	14.72
960	14.98
1080	15.22
1200	15.53
1320	15.71
1440	15.91
1560	16.10
1680	16.29
1800	15.16
1920	13.70
2040	12.84
2160	12.30
2280	12.20
2400	11.84
2520	11.68
2640	11.62
2760	11.79
2880	12.32
3000	12.61
3120	13.19
3240	13.64
3360	14.02
3480	14.03
3600	14.74
3720	15.00
3840	15.30
3960	15.19
4080	13.90
4200	13.17
4329	13.30
4342	13.36
4359	13.41
4374	13.48
4440	12.83
4560	14.06
5555	11.74

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Test Well C Prior to, During and After 72-Hour Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Pumping Test Data for Piezometer, Stage, Orifice, and Rainfall
Prior to, During, and After Pumping Test on Production Well HV-2A
from May 19 to May 22, 1997

Date	Elapsed Time	Piezometer Depth to Water (feet)	Stage Readings (feet)	Orifice Flow Rates (gpm)	Rainfall (inches)
05/19/97	-199	3.18	2.94		
	-165	3.03	2.94		
	2	3.07	2.97		
	18	3.10	2.98		
	62	3.12	2.97		
	122	3.16	3.01		
	181	3.20	3.04		
	245	3.25	3.07		
	480	3.38	3.20		
	720				
05/20/97	1140	3.42	2.82		0.5
	1260		2.87		
	1380	3.36	2.90		
	1620	3.50	3.03	568	
	1860	3.64	3.10		
05/21/97	2580	4.00		570	
	2700	4.07			
	2820	4.10	3.73	572	
	2880	4.15	3.76	572	
	2940	4.16	3.77		
	3000	4.22	3.82	572	
	3060	4.24	3.83	572	
	3120	4.29	3.87	572	
05/22/97	4020	4.87			
	4080	4.86			
	4140	4.94			
	4200	4.98			
	4260	5.02	4.27		
	4320	5.05	4.29		
	4333	5.04	4.28		
	4346	5.06	4.28		
	4364	5.06	4.28		
	4410	5.07	4.30		
	4440	5.07	4.30		
	4500	5.07	4.30		
05/23/97	4560	5.07	4.32		
05/28/97	4620	5.07	4.34		
	5540	4.58	4.36		
	6980	3.72	3.66		
05/29/97	8400	3.79	3.66		
05/30/97	15600	3.90	3.84		
06/02/97	16060	3.90	3.90		
06/03/97	17500	3.86	3.69		

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

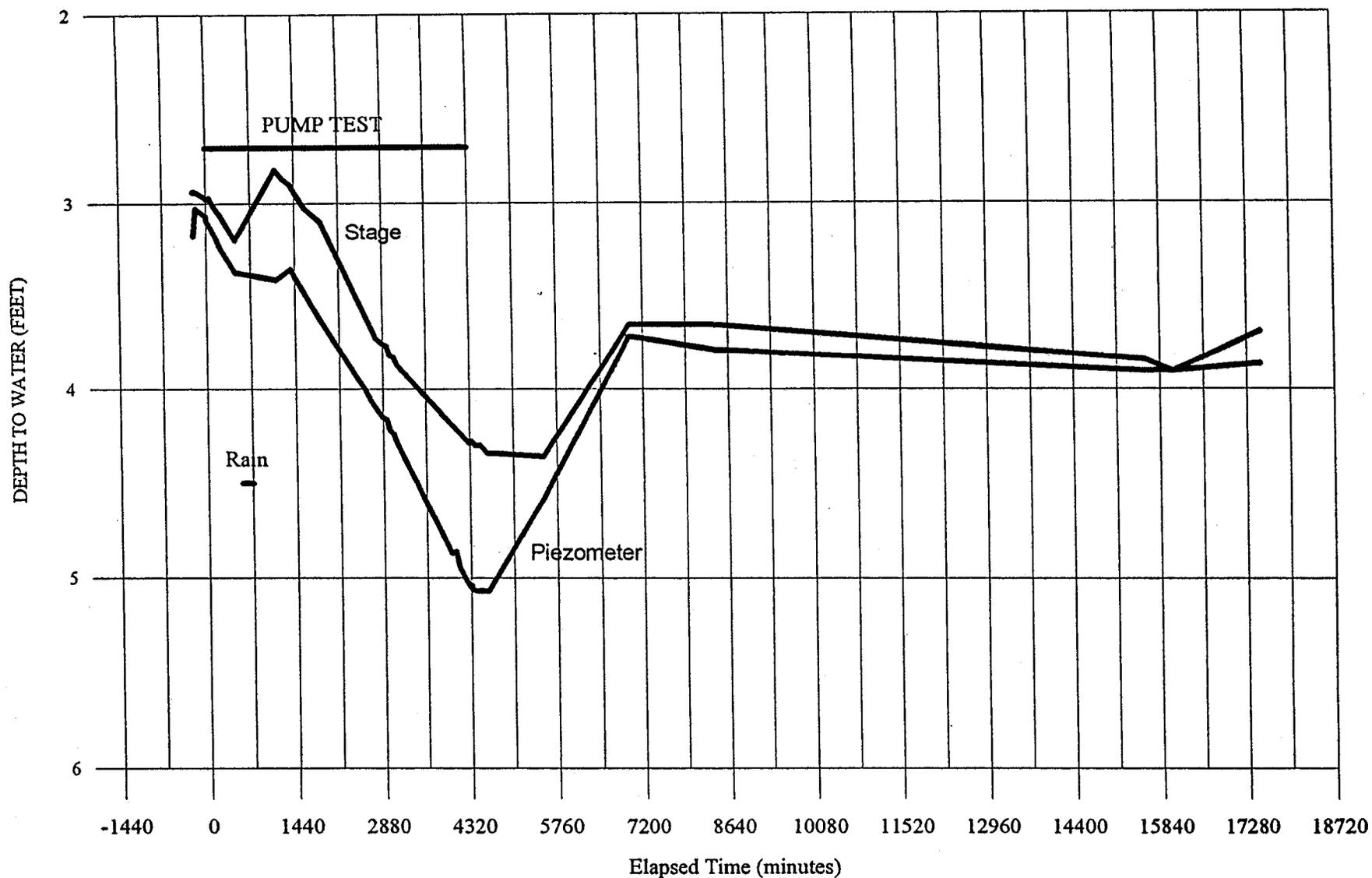
Pumping Test Data for Piezometer (inside) Prior to, During, and After Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997

(In adjacent pond)

Elapsed Time	Depth to Water (feet)	Drawdown (feet)
-199	3.18	0.00
2	3.07	-0.11
18	3.10	-0.08
62	3.12	-0.06
122	3.16	-0.02
181	3.20	0.02
245	3.25	0.07
480	3.38	0.20
1140	3.42	0.24
1380	3.36	0.18
1620	3.50	0.32
1860	3.64	0.46
2580	4.00	0.82
2700	4.07	0.89
2820	4.10	0.92
2880	4.15	0.97
2940	4.16	0.98
3000	4.22	1.04
3060	4.24	1.06
3120	4.29	1.11
4020	4.87	1.69
4080	4.86	1.68
4140	4.94	1.76
4200	4.98	1.80
4260	5.02	1.84
4320	5.05	1.87
4333	5.04	1.86
4346	5.06	1.88
4364	5.06	1.88
4410	5.07	1.89
4440	5.07	1.89
4500	5.07	1.89
4560	5.07	1.89
4620	5.07	1.89
5540	4.58	1.40

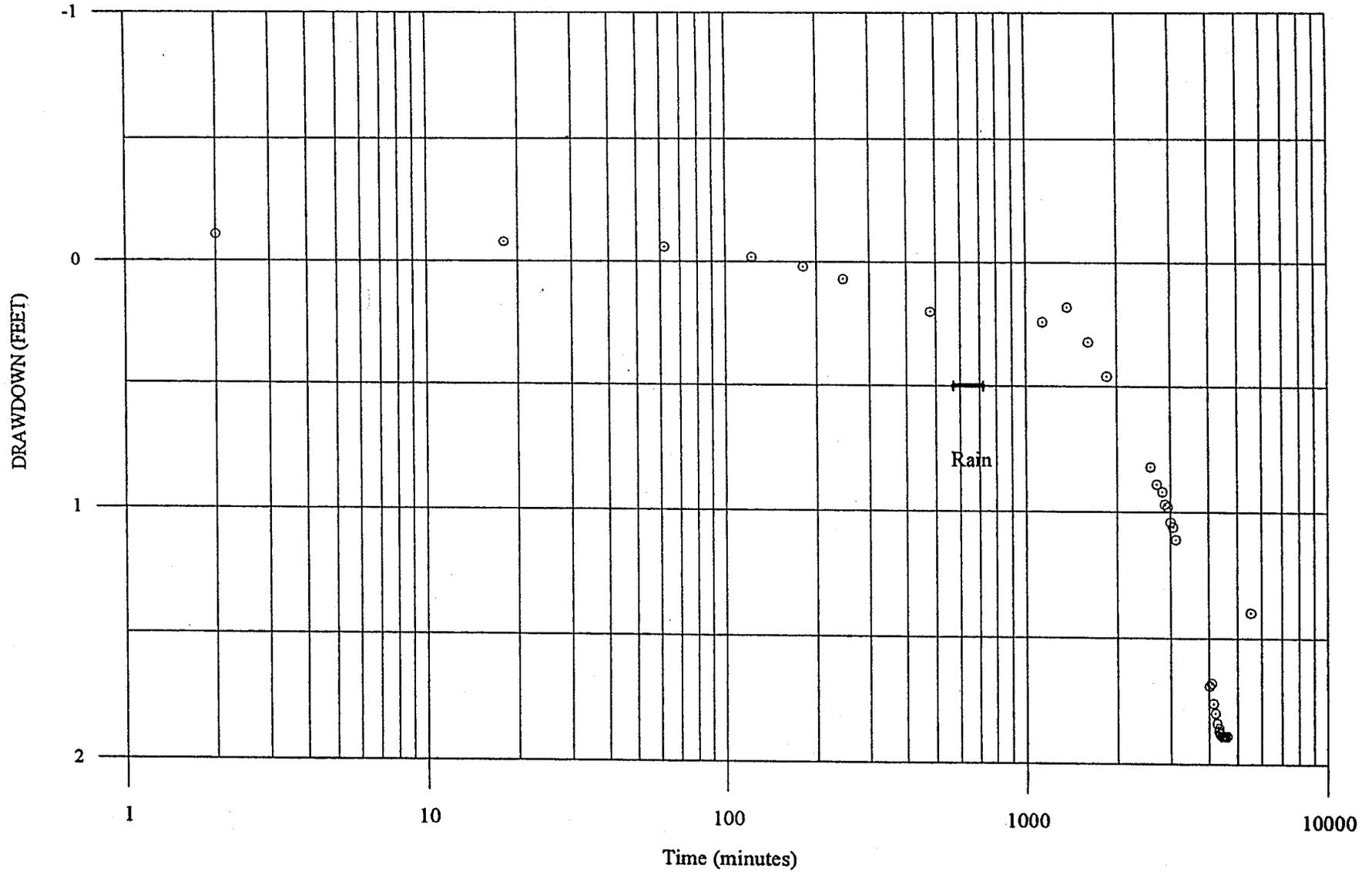
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Piezometer and Stage Prior to, During and After 72-Hour Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Piezometer (inside) During and After 72-Hour Pumping Test
on Production Well HV-2A from May 19 to May 22, 1997



GEOLOGIC LOG LEGGETTE, BRASHEARS & GRAHAM, INC. TRUMBULL, CONNECTICUT		OWNER: Heritage Village Water Company	
		WELL NO.: HV-2	
		PAGE: 1 OF 2 PAGES	
SITE LOCATION: Heritage Village Southbury, Connecticut		SCREEN SIZE & TYPE: --	
DATE COMPLETED: 3/20/97		SLOT NO.: SETTING:	
DRILLING COMPANY: S. B. Church Co.		SAND PACK SIZE & TYPE: --	
DRILLING METHOD: Drive and wash		SETTING:	
SAMPLING METHOD: Wash, split spoons		CASING SIZE & TYPE: --	
OBSERVER: Scott Snyder		SETTING:	
REFERENCE POINT (RP): Grade		SEAL TYPE: --	
ELEVATION OF RP: Not Determined		SETTING:	
STICK-UP: --		BACKFILL TYPE: --	
SURFACE COMPLETION: None, pilot hole		STATIC WATER LEVEL: --	
REMARKS: Started @ 0730, 17 feet from Well HV-2 toward road. End 1350.		DEVELOPMENT METHOD: --	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelly tube		DURATION: YIELD:	
REC = Recovery PPM = parts per million			

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	10	W	--	--	--	SAND, medium to fine; medium light brown; little coarse sand; little silt; brown; trace gravel, fine.
10	15	W	--	--	--	SAND, medium and coarse; some gravel, fine and medium; little fine sand; trace silt; brown.
15	20	W	--	--	--	Sand, medium; some coarse sand; little fine sand; trace fine gravel; trace silt; brown.
20	26	W	--	--	--	SAND, medium coarse to coarse; some fine to medium sand; brown; little gravel, fine to medium fine; trace silt brown.
26	31	W	--	--	--	SAND, medium; fine to coarse sand; some fine sand; little gravel; little silt; medium to dark brown.
31	36	W	--	--	--	SAND, medium; coarse sand; buff to tan; some fine sand; subangular; trace fine gravel; subangular; trace silt; brown.
36	41	W	--	--	--	SAND, medium brown; fine sand gray to light black; trace coarse sand; trace silt.
41	43	SS	5/11/12/14	100%	--	SAND, medium and fine; little coarse sand; little silt; brown.

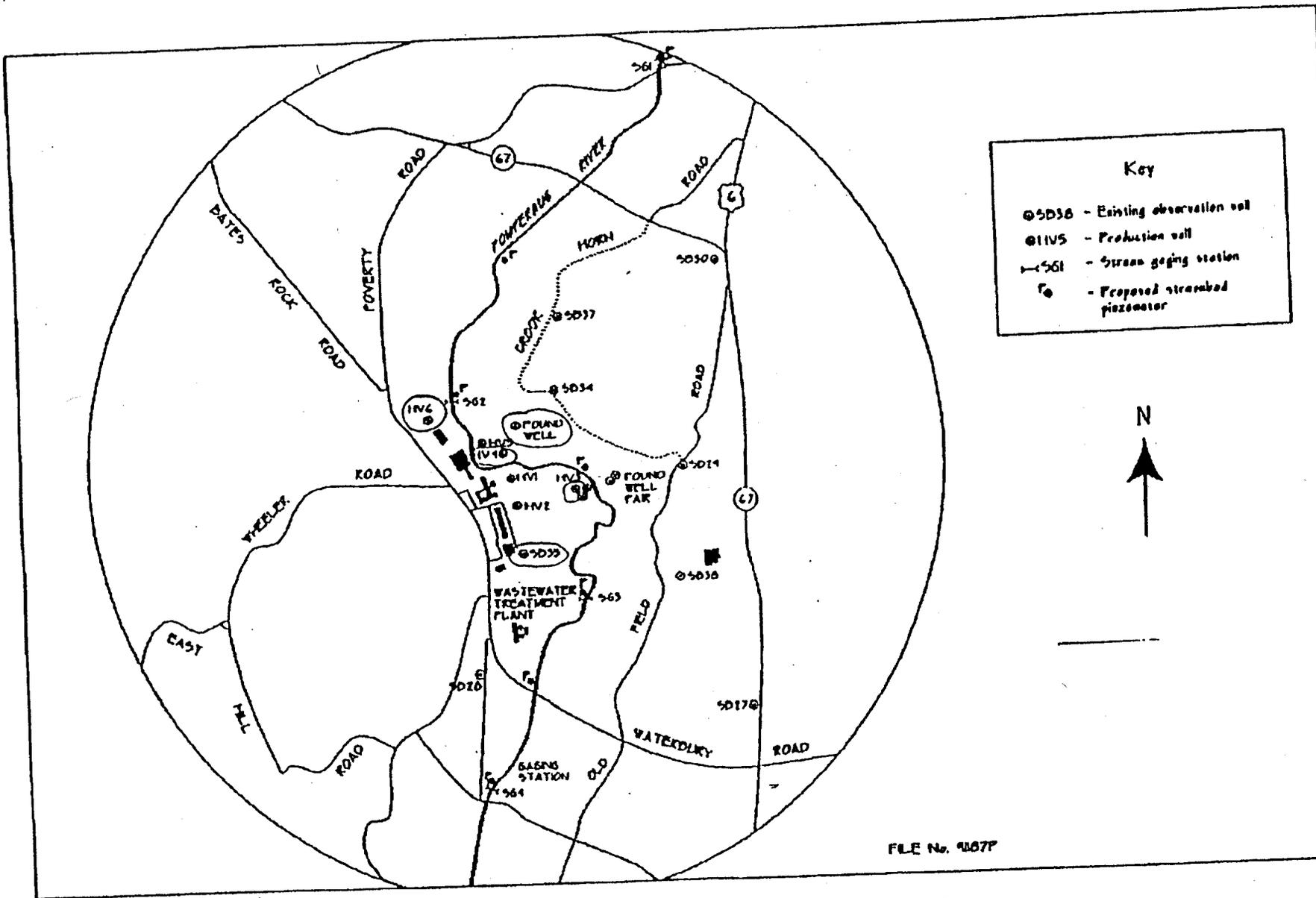
OWNER: Heritage Village Water Company

WELL NO.: HV-2

PAGE: 2 OF 2 PAGES

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
51.5	53.5	SS	3/5/6/10	2.0	--	SAND, fine and medium; reddish brown; some coarse; buff to tan; trace reddish silt; trace fine gravel.
51	56	W	--	--	--	SAND, medium and coarse; buff to light brown; some fine sand; brown; trace fine gravel; trace silt.
56.5	58.5	SS	3/4/6/8	1.4	--	SAND, fine and medium; little coarse sand; little silt; brown.
56	61	W	--	--	--	SAND, medium; some coarse; medium to light buff to light brown; little fine; sand; trace silt; trace gravel; brown.
62	64	SS	6/7/16/35	1.6	--	SAND, medium; some fine sand; some coarse; bottom 4 inches sand; fine and silt; reddish brown.
61	66	W	--	--	--	SAND, medium; buff to light tan; some coarse little fine sand; trace silt; trace gravel; brown.
66	68	SS	6/9/13/25	1.6	--	SAND, fine to medium fine; little silt; trace medium sand; brown; bottom 4-inch.; CLAY; little silt; little gravel, fine to medium; subangular to subrounded; trace very fine sand; red-brown.
70						Refusal; bedrock

hvwcth.logWELLFORM



Key

- ⊙5038 - Existing observation well
- ⊙11V5 - Production well
- S61— - Stream gaging station
- ⊙ - Proposed screened piezometer



FILE No. 9877

S.B. Church
Data

Heritage Village Water Company
72 Hour Pump Test on Well 2A - July 19 - 22, 1997
Page 1 of 5

Time	Well 2A Yield/gpm	Well 2A Water Level	Well 2 Water Level	T.W. #C Water Level	T.W. #5B33 Water Level	Piezometer Inside	Piezometer Outside
5/19/97							
12:00	Start Time	Static 10.11	Static 15.03	Static 11.99	Static 9.79	Static 3.07	Static 2.97
12:05	568	47.05	23.62			3.07	2.97
12:10	568	47.79	24.58				
12:15	568	47.83	24.65				
12:20	568	47.89	24.71				
12:25	568	47.92	24.77				
12:30	568	47.97	24.8				
12:35	568	47.98	24.8				
12:40	568	48.01	24.82				
12:45	568	48.03	24.84				
12:50	568	48.04	24.85				
12:55	568	48.05	24.86				
1:00	568	48.08	24.87	12.68	9.85	3.12	2.97
1:30	568	48.07	24.93				
2:00	568	48.23	24.99	12.82	9.87	3.16	3.01
2:30	568	48.25	25.06				
3:00	568	48.29	25.15	13.01	9.86	3.2	3.04
3:30	568	48.35	25.2				
4:00	568	48.36	25.26	13.21	9.89	3.25	3.07
5:00	568	48.47	25.3				
6:00	568	48.66	25.4	13.56	9.92		

Heritage	Village	Pump Test	Page 2 of 5						
Time		Well 2A	Well 2		T.W. #C	T.W. #SB33		Piezometer	
		Water Level	Water Level		Water Level	Water Level		Inside	Outside
7:00	568	48.7	25.48						
8:00	568	48.88	25.56		13.88	9.94		3.38	3.2
9:00	568	48.98	25.64						
10:00	568	49.11	26.2		14.18	9.94			
11:00	568	49.22	26.3						
12 Mid	568	49.34	26.3		14.48	9.94			
5/20/97									
1:00	568	49.35	26.34						
2:00	568	49.36	26.36		14.72	9.94			
3:00	568	49.4	26.4						
4:00	568	49.44	26.42		14.98	9.94			
5:00	568	49.49	26.44						
6:00	568	49.5	26.46		15.22	9.94			
7:00	568	49.53	26.5					3.42	2.82
8:00	568	49.57	26.52		15.53	9.95			
9:00	568	49.59	26.55						
10:00	568	49.65	26.59		15.71	9.96			
11:00	568	49.66	26.62					3.36	2.9
12 noon	568	49.65	26.63		15.91	9.97			
1:00	568	49.65	26.64						
2:00	568	49.67	26.67		16.1	9.98			
3:00	568	49.68	26.68					3.5	3.03
4:00	568	49.7	26.7		16.29	9.99			
5:00	568	49.74	26.7						
6:00	568	49.76	26.7		15.16	10			
7:00	568	49.79	26.7					3.64	3.1
8:00	568	49.84	26.72		13.7	10			
9:00	568	49.87	26.74						

Heritage	Village	Pump Test		Page 3 of 5						
Time		Well 2A		Well 2		T.W. #C		T.W. #SB33		Piezometer
	Yield/gpm	Water Level		Water Level		Water Level		Water Level		Inside Outside
10:00	568	49.94		26.76		12.84		10.02		
11:00	568	49.97		26.76						
12 Mid	568	50.05		26.8		12.3		10.02		
5/21/97										
1:00	568	50.1		26.82						
2:00	568	50.11		26.84		12.2		10.05		
3:00	568	50.14		26.84						
4:00	568	50.2		26.86		11.84		10.05		
5:00	568	50.22		26.88						
6:00	568	50.23		26.88		11.68		10.05		
7:00	568	50.22		26.4					4	Dry
8:00	568	50.21		26.9		11.62		10.1		
9:00	568	50.21		26.91					4.07	
10:00	568	50.23		26.97		11.79		10.11		
11:00	568	50.23		27.02					4.1	
12 Noon	568	50.3		27.03		12.32		10.11	4.15	
1:00	568	50.3		27.04					4.16	
2:00	568	50.3		27.04		12.61		10.16	4.22	
3:00	568	50.3		26.63					4.24	
4:00	568	50.33		27.14		13.19		10.18	4.29	
5:00	568	50.37		27.16						
6:00	568	50.42		27.12		13.64		10.22		
7:00	568	50.47		27.22						
8:00	568	50.49		27.24		14.02		10.22		
9:00	568	50.5		27.26						
10:00	568	50.52		27.28		14.03		10.25		
11:00	568	50.57		27.3						
12 Mid	568	50.64		27.32		14.74		10.28		

Heritage	Village	Pump Test	Page 4 of 5							
Time		Well 2A	Well 2		T.W. #C	T.W. #SB33		Piezometer		
	Yield/gpm	Water Level	Water Level		Water Level	Water Level		Inside	Outside	
5/22/97										
1:00	568	50.73	27.36							
2:00	568	50.78	27.38		15	10.28				
3:00	568	50.72	27.4							
4:00	568	50.73	27.42		15.3	10.3				
5:00	568	50.73	27.42							
6:00	568	50.78	27.4		15.19	10.32				
7:00	568	50.7	27.4					4.87		
8:00	568	50.68	27.38		13.9	10.31		4.86		
9:00	568	50.68	27.38					4.94		
10:00	568	50.65	27.38		13.17	10.31		4.98		
11:00	568	50.74	27.42					5.02		
12:00	568	50.74								
Recovery										
12:01		22.65								
12:02		19.88								
12:03		19								
12:04		18.71								
12:05		18.66	18.66							
12:06		18.58								
12:07		18.54								
12:08		18.53								
12:09		18.51								
12:10		18.5	18.5							
12:15			18.38							
12:20			18.33							
12:25			18.32							
12:30			18.28							

Heritage	Village	Pump Test	Well 2A	Well 2	T.W. #C	T.W. #SB33	Piezometer		
Time	Yield/gpm	Water Level	Inside	Outside					
12:35				18.24					
12:40				18.21					
12:45				18.19					
12:50				18.18					
12:55				18.15					
1:00 PM				18.11					
1:15				18.09					
1:30		12.13		17.51					
1:45		12.1		17.95					
2:00		12.04		17.92					
2:15		12.02		17.91					
2:30		12		17.85					
2:45		11.95		17.8					
3:00		11.9		17.8					
4:00		11.79		17.68					
5:00		11.71		17.61					
5/24/97									
8:15		10.82		16.74					
2:00 PM		10.78		16.65					

**HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

**72-HOUR WELL COMPLETION PUMPING TEST
FOR
WELL H-5A**

JUNE 10 - JUNE 13, 1997

PUMPING RATE = 588 GPM

(Note: There was no rainfall during test)

HERITAGE WATER COMPANY

SOUTHBURY, CONNECTICUT

Pumping Test Data for Production Well HV-5A During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
06/09/97	12:00	-1260	14.68	-0.26
	14:34	-986	14.72	-0.22
06/10/97	08:03	-57	14.91	-0.03
	08:44	-16	14.93	-0.01
	08:53	-7	14.94	0.00
	09:00:30	0.5	39.42	24.48
	09:01:00	1	46.65	31.71
	09:01:30	1.5	47.83	32.89
	09:02:00	2	48.12	33.18
	09:03	3	48.53	33.59
	09:04	4	48.90	33.96
	09:05	5	49.06	34.12
	09:06	6	49.17	34.23
	09:07	7	49.38	34.44
	09:08	8	49.50	34.56
	09:09	9	49.55	34.61
	09:10	10	49.61	34.67
	09:11	11	49.62	34.68
	09:12	12	49.68	34.74
	09:13	13	49.71	34.77
	09:14	14	49.74	34.80
	09:15	15	49.74	34.80
	09:20	20	49.83	34.89
	09:25	25	49.87	34.93
	09:30	30	49.90	34.96
	09:35	35	49.94	35.00
	09:40	40	49.96	35.02
	09:45	45	49.98	35.04
	09:50	50	49.99	35.05
09:55	55	50.00	35.06	
10:00	60	49.98	35.04	
10:15	75	50.02	35.08	
10:30	90	50.03	35.09	
10:45	105	50.07	35.13	
11:00	120	50.10	35.16	
11:30	150	50.11	35.17	
12:00	180	50.10	35.16	
12:30	210	50.08	35.14	
13:00	240	50.12	35.18	
14:00	300	50.17	35.23	
15:00	360	50.45	35.51	
16:00	420	50.58	35.64	
17:00	480	50.64	35.70	

HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Pumping Test Data for Production Well HV-5A During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

(continued)

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
06/11/97	18:00	540	50.70	35.76
	19:00	600	50.76	35.82
	20:00	660	50.90	35.96
	21:00	720	50.98	36.04
	22:00	780	51.08	36.14
	23:00	840	51.18	36.24
	24:00	900	51.28	36.34
	01:00	960	51.30	36.36
	02:00	1020	51.36	36.42
	03:00	1080	51.44	36.50
	04:00	1140	51.50	36.56
	05:00	1200	51.56	36.62
	06:00	1260	51.60	36.66
	07:00	1320	51.61	36.67
	08:00	1380	51.60	36.66
	09:00	1440	51.56	36.62
	10:00	1500	51.53	36.59
	11:00	1560	51.44	36.50
	12:00	1620	51.42	36.48
	13:00	1680	51.40	36.46
	14:00	1740	51.42	36.48
	15:00	1800	51.44	36.50
	16:00	1860	51.46	36.52
	17:00	1920	51.50	36.56
18:00	1980	51.56	36.62	
19:00	2040	51.62	36.68	
20:00	2100	51.70	36.76	
21:00	2160	51.80	36.86	
22:00	2220	51.82	36.88	
23:00	2280	51.84	36.90	
24:00	2340	51.92	36.98	
06/12/97	01:00	2400	51.94	37.00
	02:00	2460	52.00	37.06
	03:00	2520	52.02	37.08
	04:00	2580	52.04	37.10
	05:00	2640	52.06	37.12
	06:00	2700	52.08	37.14
	07:00	2760	52.04	37.10
	08:00	2820	52.06	37.12
	09:00	2880	52.04	37.10
	10:00	2940	51.99	37.05
	11:00	3000	51.95	37.01
	12:00	3060	51.92	36.98

HERITAGE WATER COMPANY

SOUTHURY, CONNECTICUT

Pumping Test Data for Production Well HV-5A During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

(continued)

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	13:00	3120	51.89	36.95
	14:00	3180	51.85	36.91
	15:00	3240	51.88	36.94
	16:00	3300	51.89	36.95
	17:00	3360	51.91	36.97
	18:00	3420	52.01	37.07
	19:00	3480	52.01	37.07
	20:00	3540	52.03	37.09
	21:00	3600	52.06	37.12
	22:00	3660	52.11	37.17
	23:00	3720	52.18	37.24
	24:00	3780	52.18	37.24
06/13/97	01:00	3840	52.17	37.23
	02:00	3900	52.21	37.27
	03:00	3960	52.24	37.30
	04:00	4020	52.23	37.29
	05:00	4080	52.25	37.31
	06:00	4140	52.27	37.33
	07:00	4200	52.28	37.34
	08:00	4260	52.27	37.33
	09:00	4320	52.28	37.34
PUMP OFF	09:01	4321	21.52	6.58
RECOVERY	09:02	4322	20.44	5.50
	09:03	4323	19.85	4.91
	09:04	4324	19.55	4.61
	09:05	4325	19.36	4.42
	09:06	4326	19.18	4.24
	09:07	4327	18.86	3.92
	09:08	4328	18.46	3.52
	09:09	4329	18.57	3.63
	09:10	4330	18.50	3.56
	09:15	4335	18.21	3.27
	09:20	4340	18.15	3.21
	09:25	4345	18.10	3.16
	09:30	4350	18.00	3.06
	09:35	4355	17.93	2.99
	09:40	4360	17.92	2.98
	09:45	4365	17.89	2.95
	09:50	4370	17.80	2.86
	09:55	4375	17.76	2.82
	10:00	4380	17.70	2.76
	10:20	4400	17.57	2.63
	10:30	4410	17.47	2.53

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

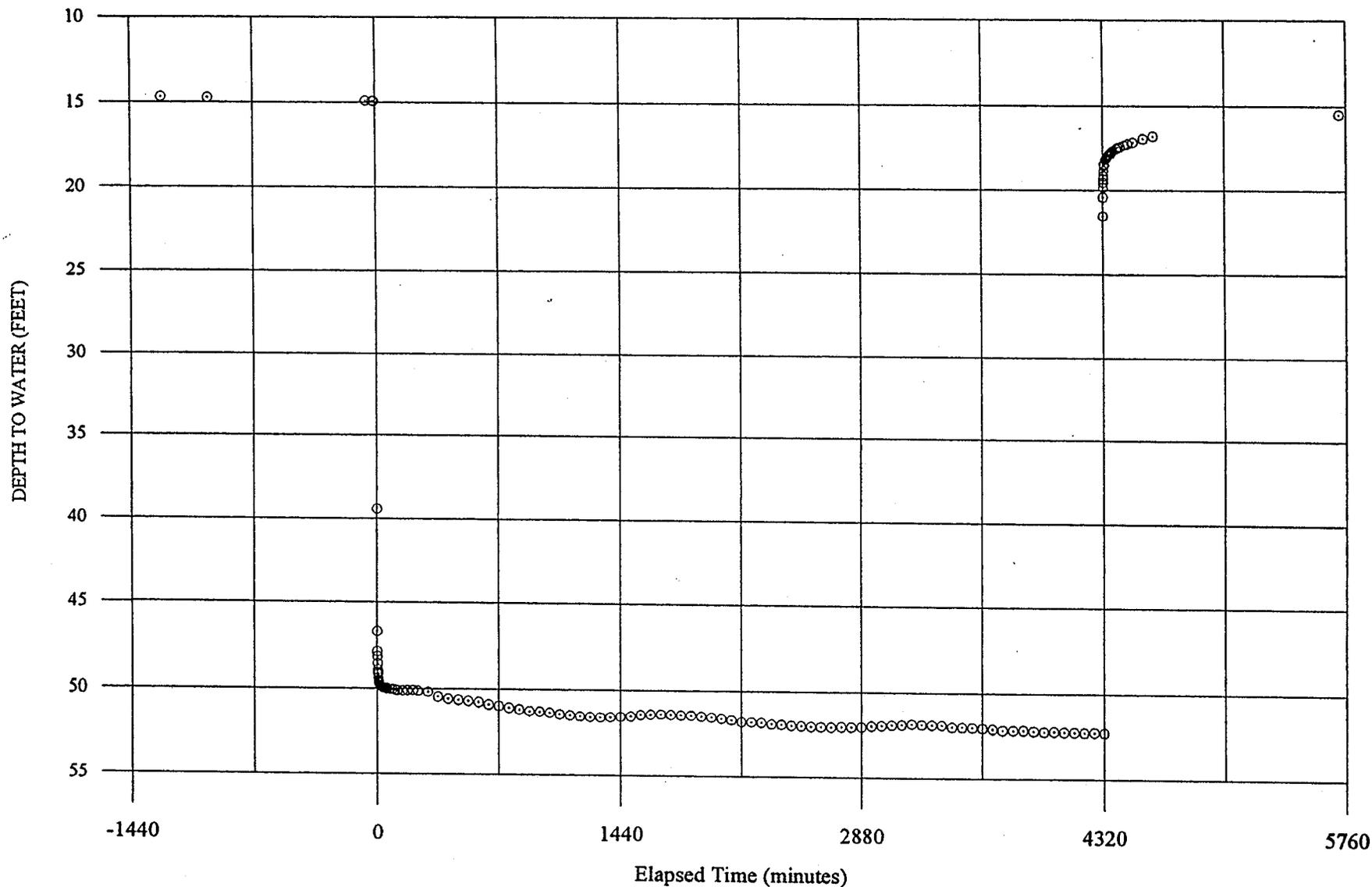
Pumping Test Data for Production Well HV-5A During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

(continued)

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	10:45	4425	17.45	2.51
	11:08	4448	17.35	2.41
	11:30	4470	17.27	2.33
	12:00	4500	17.19	2.25
	13:00	4560	16.96	2.02
	14:00	4620	16.81	1.87
06/16/97	08:20	5720	15.49	0.55

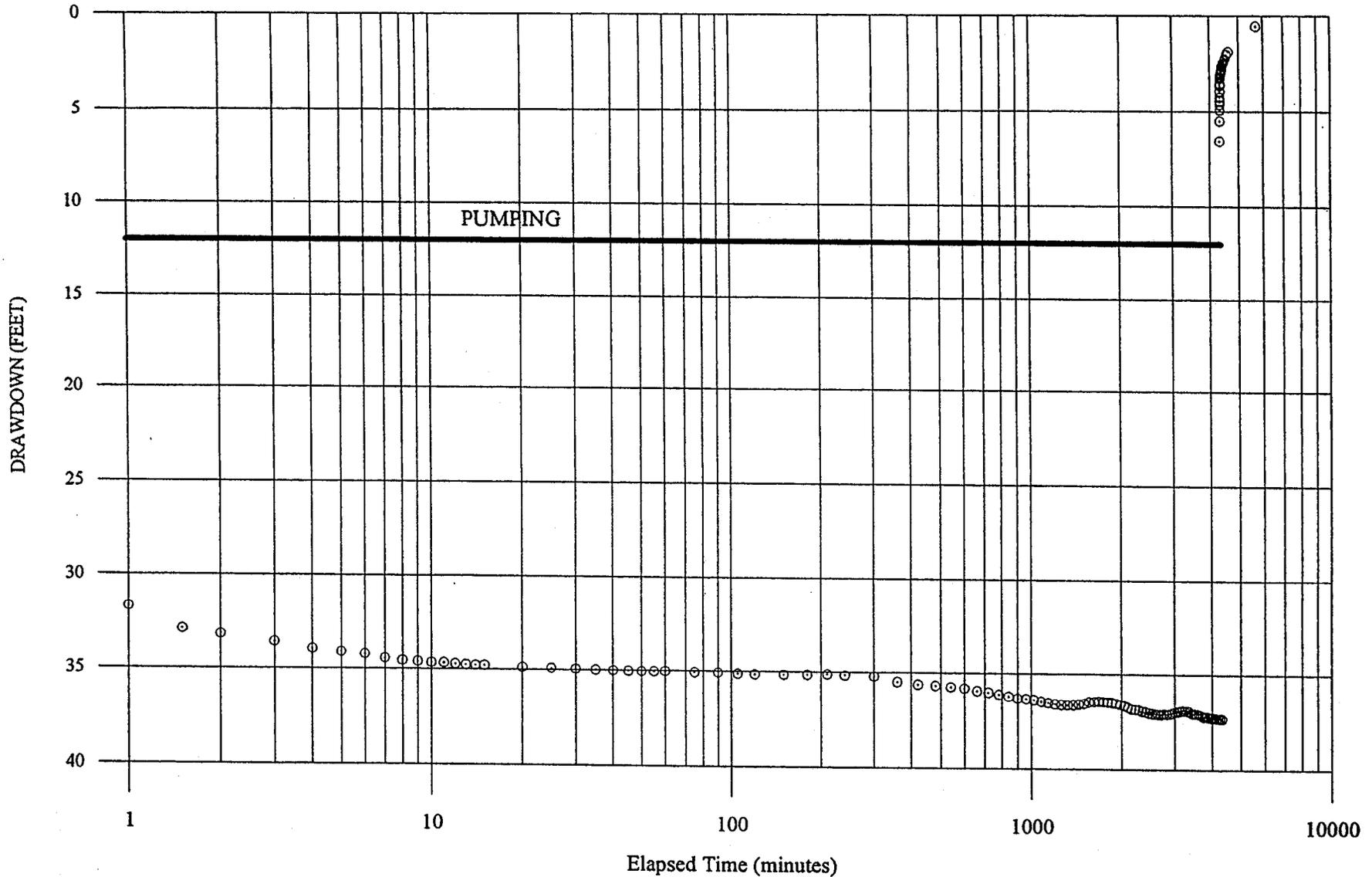
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Production Well HV-5A During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



**HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

Hydrograph of Production Well HV-5A During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Pumping Test Data for Production Well HV-5 During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
06/10/97	08:10	-50	15.04	0.00
	09:00	0	15.04	0.00
	09:02	2	20.51	5.47
	09:04	4	21.46	6.42
	09:06	6	21.93	6.89
	09:08	8	22.10	7.06
	09:10	10	22.20	7.16
	09:15	15	22.32	7.28
	09:20	20	22.39	7.35
	09:25	25	22.42	7.38
	09:30	30	22.47	7.43
	09:35	35	22.51	7.47
	09:40	40	22.54	7.50
	09:45	45	22.58	7.54
	09:50	50	22.61	7.57
	09:55	55	22.64	7.60
	10:00	60	22.66	7.62
	10:15	75	22.76	7.72
	10:30	90	22.78	7.74
	10:45	105	22.82	7.78
	11:00	120	22.87	7.83
	11:30	150	22.96	7.92
	12:00	180	23.04	8.00
	12:30	210	23.08	8.04
	13:00	240	23.13	8.09
	14:00	300	23.26	8.22
	15:00	360	23.39	8.35
	16:00	420	23.51	8.47
	17:00	480	23.58	8.54
	18:00	540	23.66	8.62
19:00	600	23.75	8.71	
20:00	660	23.84	8.80	
21:00	720	23.90	8.86	
22:00	780	23.97	8.93	
23:00	840	24.03	8.99	
24:00	900	24.10	9.06	
06/11/97	01:00	960	24.14	9.10
	02:00	1020	24.19	9.15
	03:00	1080	24.26	9.22
	04:00	1140	24.29	9.25
	05:00	1200	24.34	9.30
	06:00	1260	24.36	9.32
	07:00	1320	24.40	9.36

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Pumping Test Data for Production Well HV-5 During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

(continued)

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	08:00	1380	24.43	9.39
	09:00	1440	24.44	9.40
	10:00	1500	24.45	9.41
	11:00	1560	24.47	9.43
	12:00	1620	24.49	9.45
	13:00	1680	24.51	9.47
	14:00	1740	24.54	9.50
	15:00	1800	24.57	9.53
	16:00	1860	24.60	9.56
	17:00	1920	24.63	9.59
	18:00	1980	24.65	9.61
	19:00	2040	24.69	9.65
	20:00	2100	24.72	9.68
	21:00	2160	24.76	9.72
	22:00	2220	24.78	9.74
	23:00	2280	24.80	9.76
	24:00	2340	24.82	9.78
06/12/97	01:00	2400	24.85	9.81
	02:00	2460	24.88	9.84
	03:00	2520	24.90	9.86
	04:00	2580	24.92	9.88
	05:00	2640	24.94	9.90
	06:00	2700	24.96	9.92
	07:00	2760	24.97	9.93
	08:00	2820	24.98	9.94
	09:00	2880	24.99	9.95
	10:00	2940	25.00	9.96
	11:00	3000	24.99	9.95
	12:00	3060	25.00	9.96
	13:00	3120	25.01	9.97
	14:00	3180	25.01	9.97
	15:00	3240	25.03	9.99
	16:00	3300	25.05	10.01
	17:00	3360	25.08	10.04
	18:00	3420	25.09	10.05
	19:00	3480	25.10	10.06
	20:00	3540	25.10	10.06
	21:00	3600	25.13	10.09
	22:00	3660	25.15	10.11
	23:00	3720	25.16	10.12
	24:00	3780	25.17	10.13
06/13/97	01:00	3840	25.18	10.14
	02:00	3900	25.20	10.16

HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

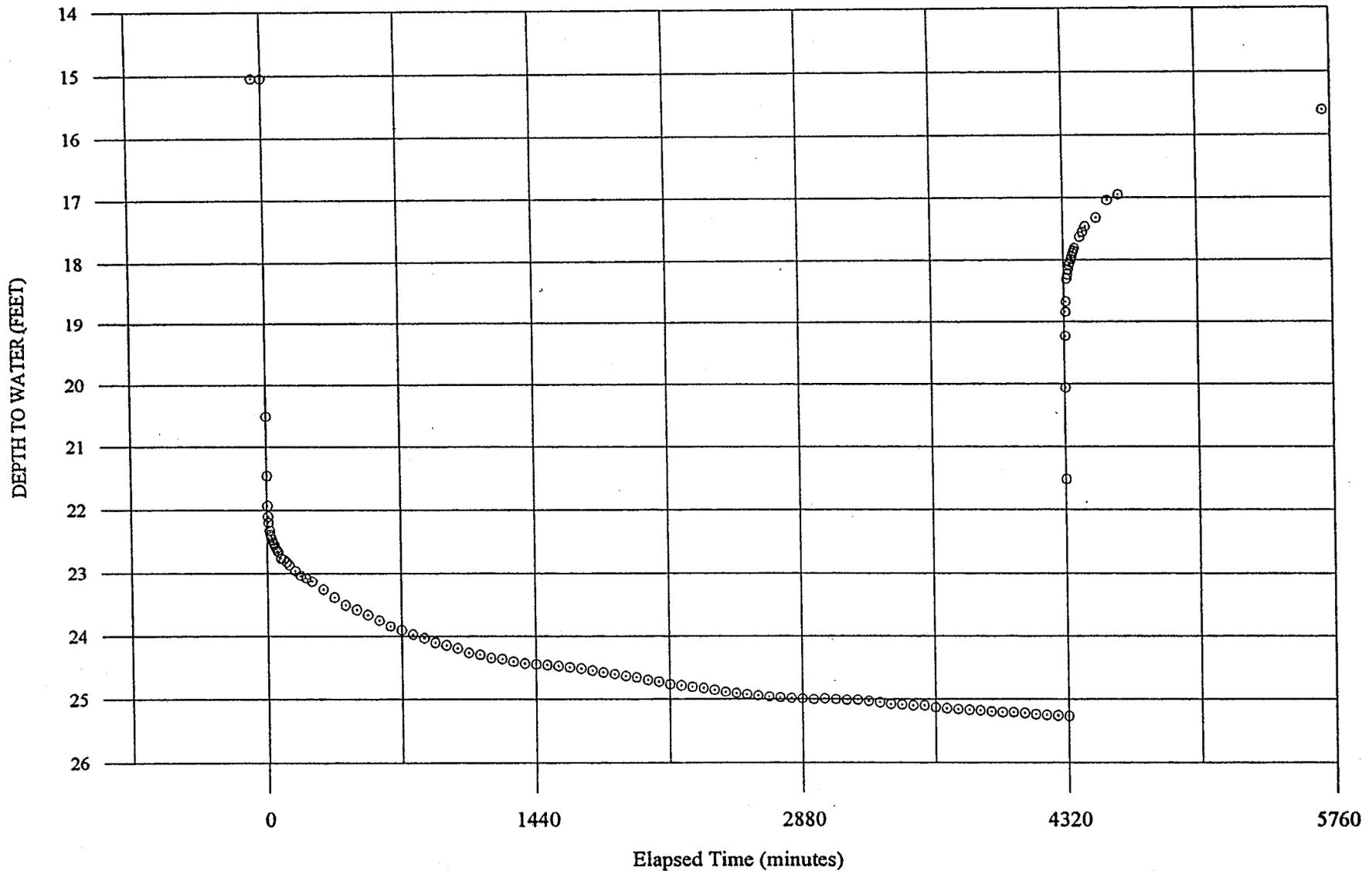
Pumping Test Data for Production Well HV-5 During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

(continued)

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	03:00	3960	25.21	10.17
	04:00	4020	25.21	10.17
	05:00	4080	25.22	10.18
	06:00	4140	25.24	10.20
	07:00	4200	25.25	10.21
	08:00	4260	25.26	10.22
PUMP OFF	09:00	4320	25.27	10.23
RECOVER	09:02	4322	21.52	6.48
	09:04	4324	20.06	5.02
	09:06	4326	19.23	4.19
	09:08	4328	18.84	3.80
	09:10	4330	18.67	3.63
	09:15	4335	18.30	3.26
	09:20	4340	18.23	3.19
	09:25	4345	18.15	3.11
	09:30	4350	18.08	3.04
	09:35	4355	18.04	3.00
	09:40	4360	17.99	2.95
	09:45	4365	17.94	2.90
	09:50	4370	17.89	2.85
	09:55	4375	17.85	2.81
	10:00	4380	17.81	2.77
	10:30	4410	17.63	2.59
	10:45	4425	17.55	2.51
	11:00	4440	17.46	2.42
	12:00	4500	17.32	2.28
	13:00	4560	17.04	2.00
	14:00	4620	16.95	1.91
06/16/97	08:20	5720	15.60	0.56

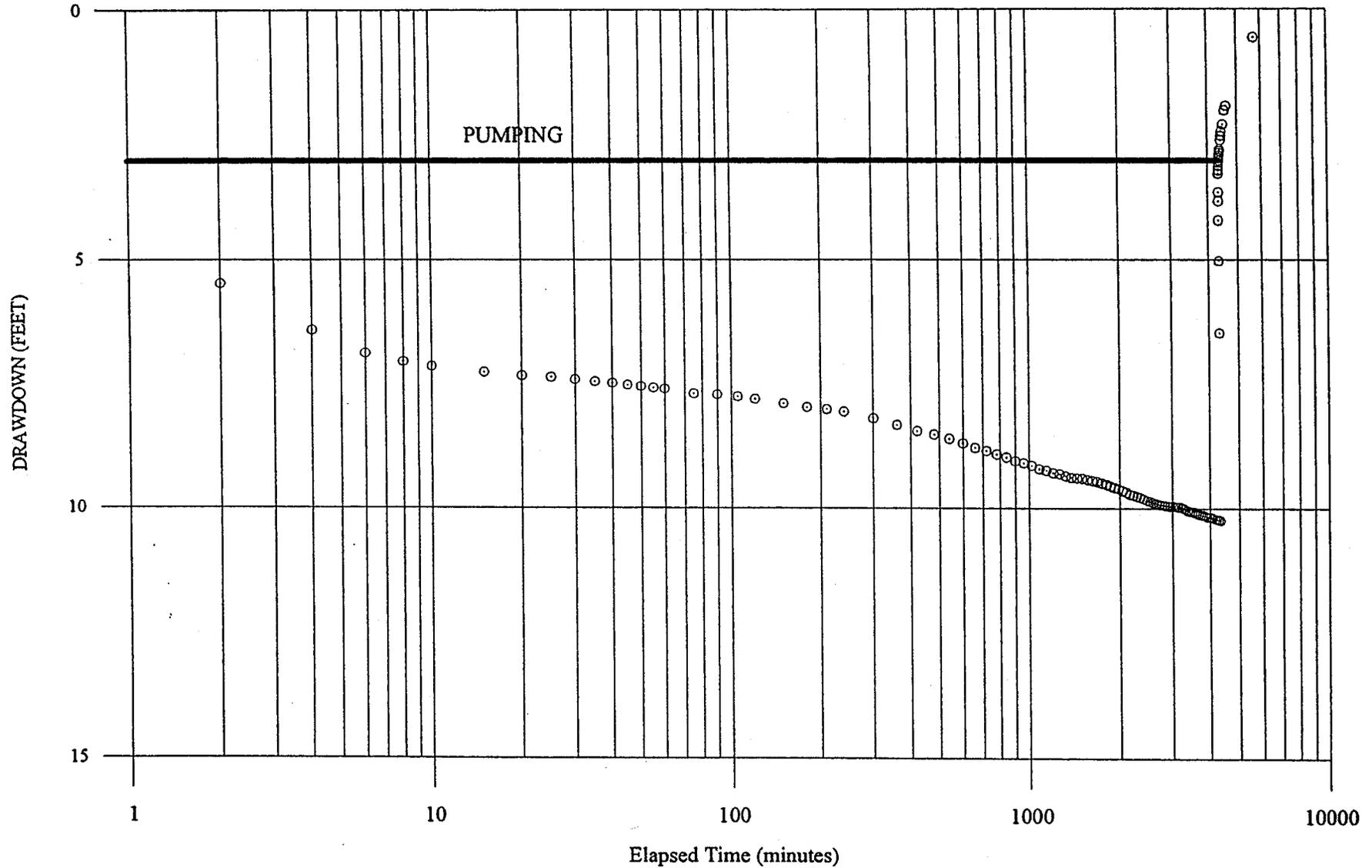
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Production Well HV-5 During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Production Well HV-5 During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

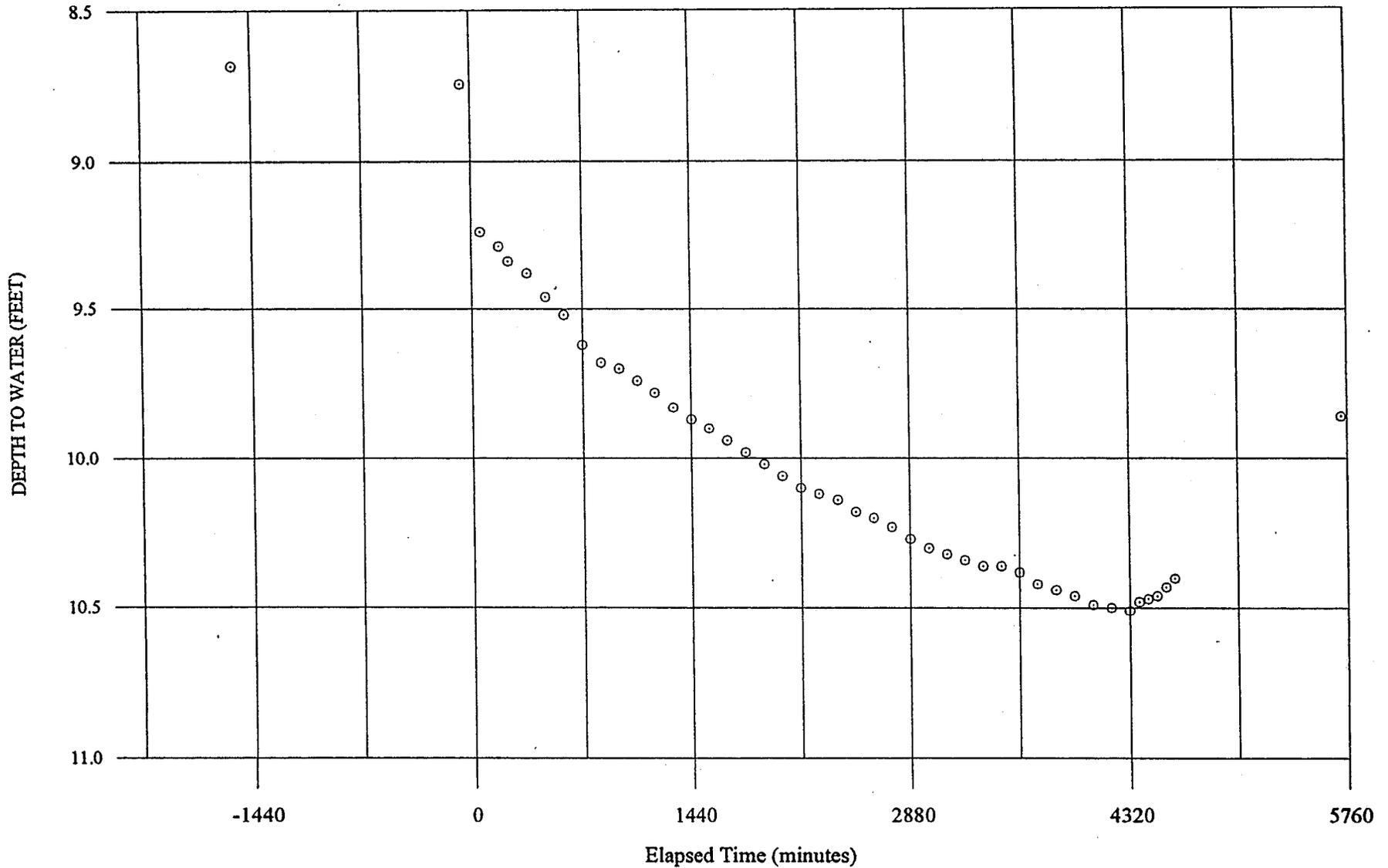
Pumping Test Data for Fairway Test Well During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

(near putting green)

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
06/09/97	19:00	-1560	8.68	-0.06
06/10/97	07:55	-65	8.74	0.00
	10:00	60	9.24	0.50
	12:00	180	9.29	0.55
	13:00	240	9.34	0.60
	15:00	360	9.38	0.64
	17:00	480	9.46	0.72
	19:00	600	9.52	0.78
	21:00	720	9.62	0.88
	23:00	840	9.68	0.94
06/11/97	01:00	960	9.70	0.96
	03:00	1080	9.74	1.00
	05:00	1200	9.78	1.04
	07:00	1320	9.83	1.09
	09:00	1440	9.87	1.13
	11:00	1560	9.90	1.16
	13:00	1680	9.94	1.20
	15:00	1800	9.98	1.24
	17:00	1920	10.02	1.28
	19:00	2040	10.06	1.32
	21:00	2160	10.10	1.36
	23:00	2280	10.12	1.38
06/12/97	01:00	2400	10.14	1.40
	03:00	2520	10.18	1.44
	05:00	2640	10.20	1.46
	07:00	2760	10.23	1.49
	09:00	2880	10.27	1.53
	11:00	3000	10.30	1.56
	13:00	3120	10.32	1.58
	15:00	3240	10.34	1.60
	17:00	3360	10.36	1.62
	19:00	3480	10.36	1.62
	21:00	3600	10.38	1.64
	23:00	3720	10.42	1.68
06/13/97	01:00	3840	10.44	1.70
	03:00	3960	10.46	1.72
	05:00	4080	10.49	1.75
	07:00	4200	10.50	1.76
	09:00	4320	10.51	1.77
	10:00	4380	10.48	1.74
	11:00	4440	10.47	1.73
	12:00	4500	10.46	1.72
	13:00	4560	10.43	1.69
	14:00	4620	10.40	1.66
06/16/97	08:20	5720	9.86	1.12

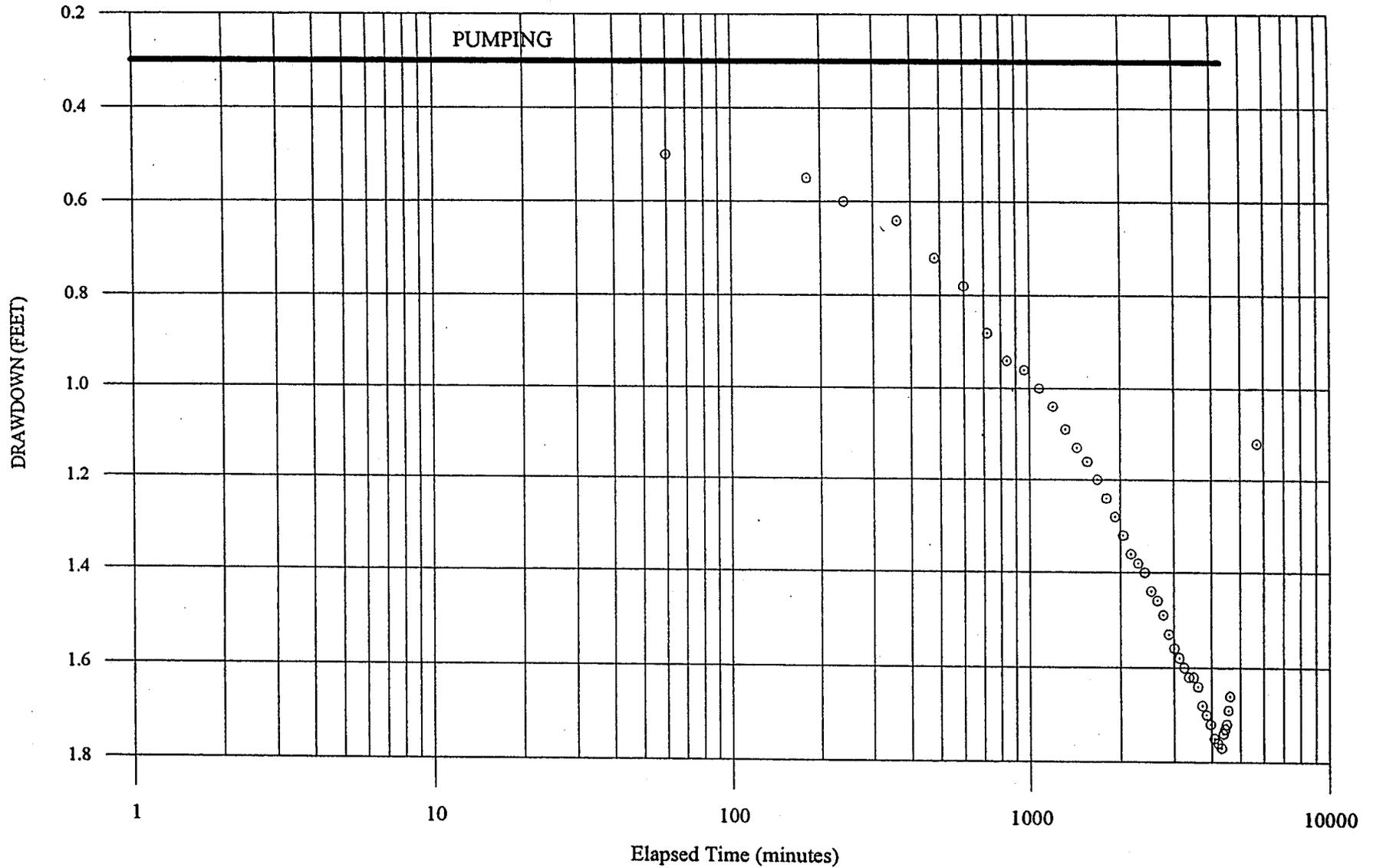
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Fairway Test Well During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Fairway Test Well During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



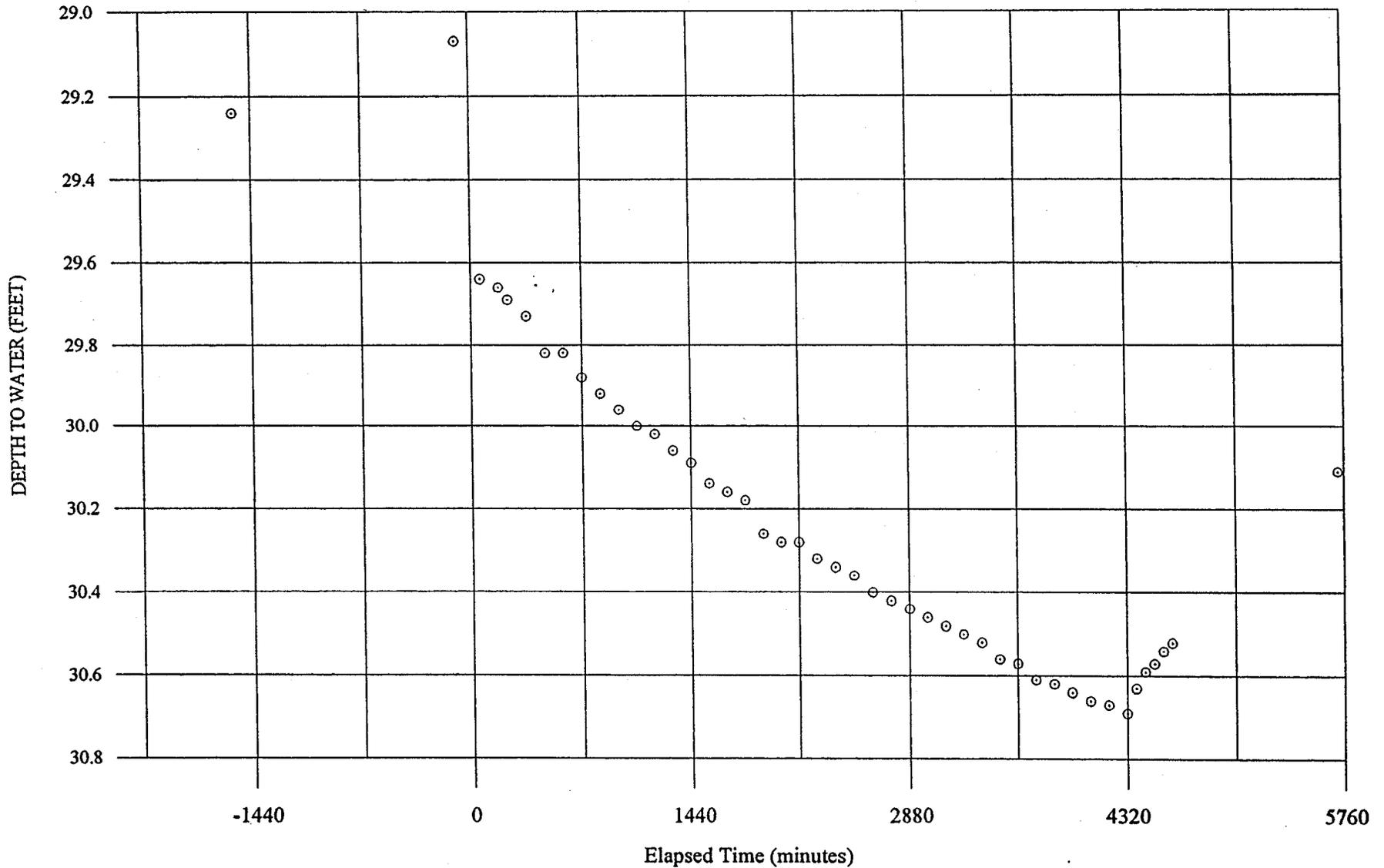
HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Pumping Test Data for Well HV-6 During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
06/09/97	19:00	-1560	29.24	0.17
06/10/97	07:32	-88	29.07	0.00
	10:00	60	29.64	0.57
	12:00	180	29.66	0.59
	13:00	240	29.69	0.62
	15:00	360	29.73	0.66
	17:00	480	29.82	0.75
	19:00	600	29.82	0.75
	21:00	720	29.88	0.81
	23:00	840	29.92	0.85
06/11/97	01:00	960	29.96	0.89
	03:00	1080	30.00	0.93
	05:00	1200	30.02	0.95
	07:00	1320	30.06	0.99
	09:00	1440	30.09	1.02
	11:00	1560	30.14	1.07
	13:00	1680	30.16	1.09
	15:00	1800	30.18	1.11
	17:00	1920	30.26	1.19
	19:00	2040	30.28	1.21
	21:00	2160	30.28	1.21
	23:00	2280	30.32	1.25
06/12/97	01:00	2400	30.34	1.27
	03:00	2520	30.36	1.29
	05:00	2640	30.40	1.33
	07:00	2760	30.42	1.35
	09:00	2880	30.44	1.37
	11:00	3000	30.46	1.39
	13:00	3120	30.48	1.41
	15:00	3240	30.50	1.43
	17:00	3360	30.52	1.45
	19:00	3480	30.56	1.49
	21:00	3600	30.57	1.50
	23:00	3720	30.61	1.54
06/13/97	01:00	3840	30.62	1.55
	03:00	3960	30.64	1.57
	05:00	4080	30.66	1.59
	07:00	4200	30.67	1.60
	09:00	4320	30.69	1.62
	10:00	4380	30.63	1.56
	11:00	4440	30.59	1.52
	12:00	4500	30.57	1.50
	13:00	4560	30.54	1.47
	14:00	4620	30.52	1.45
06/16/97	08:20	5720	30.11	1.04

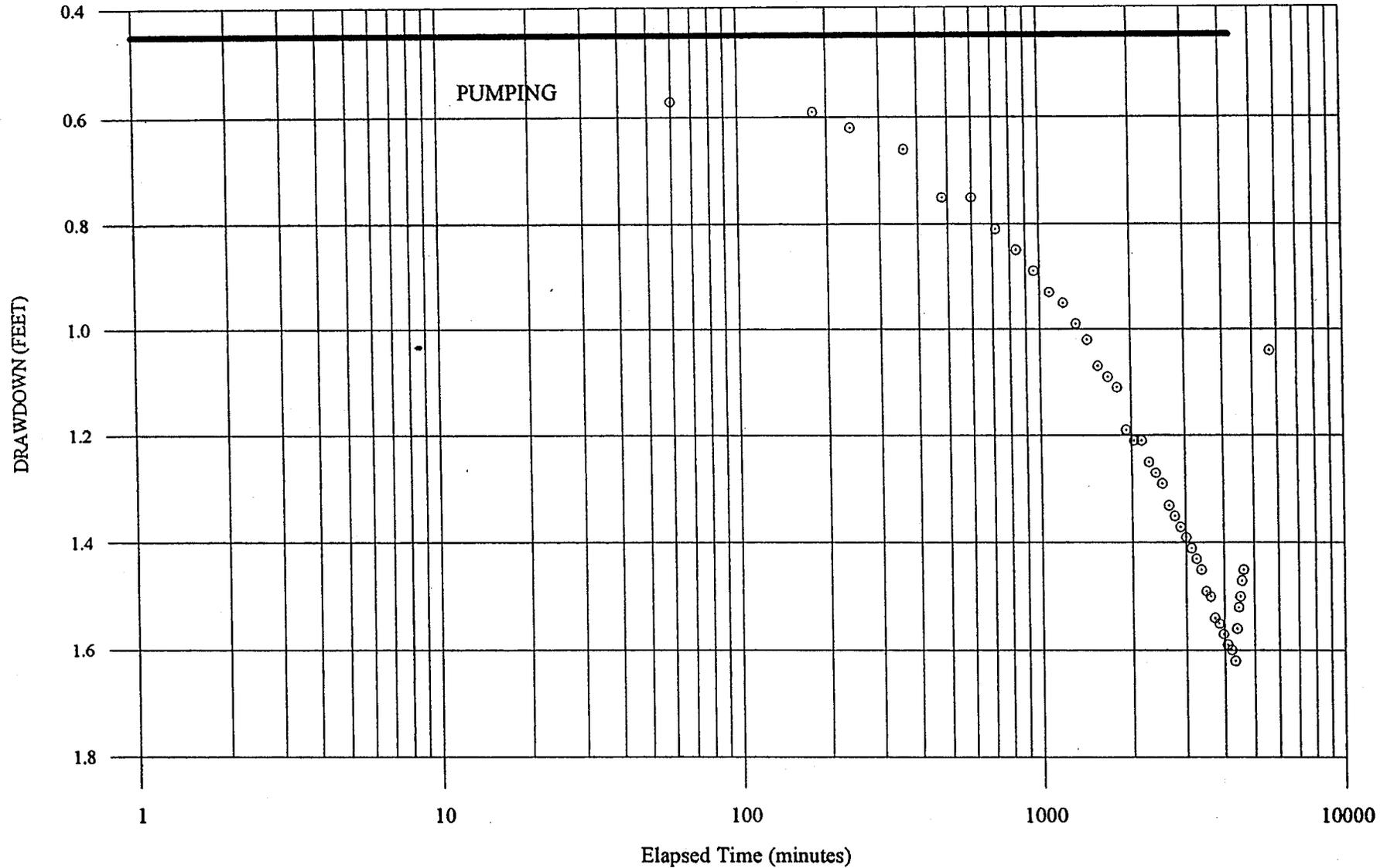
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Well HV-6 During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Production Well HV-6 During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

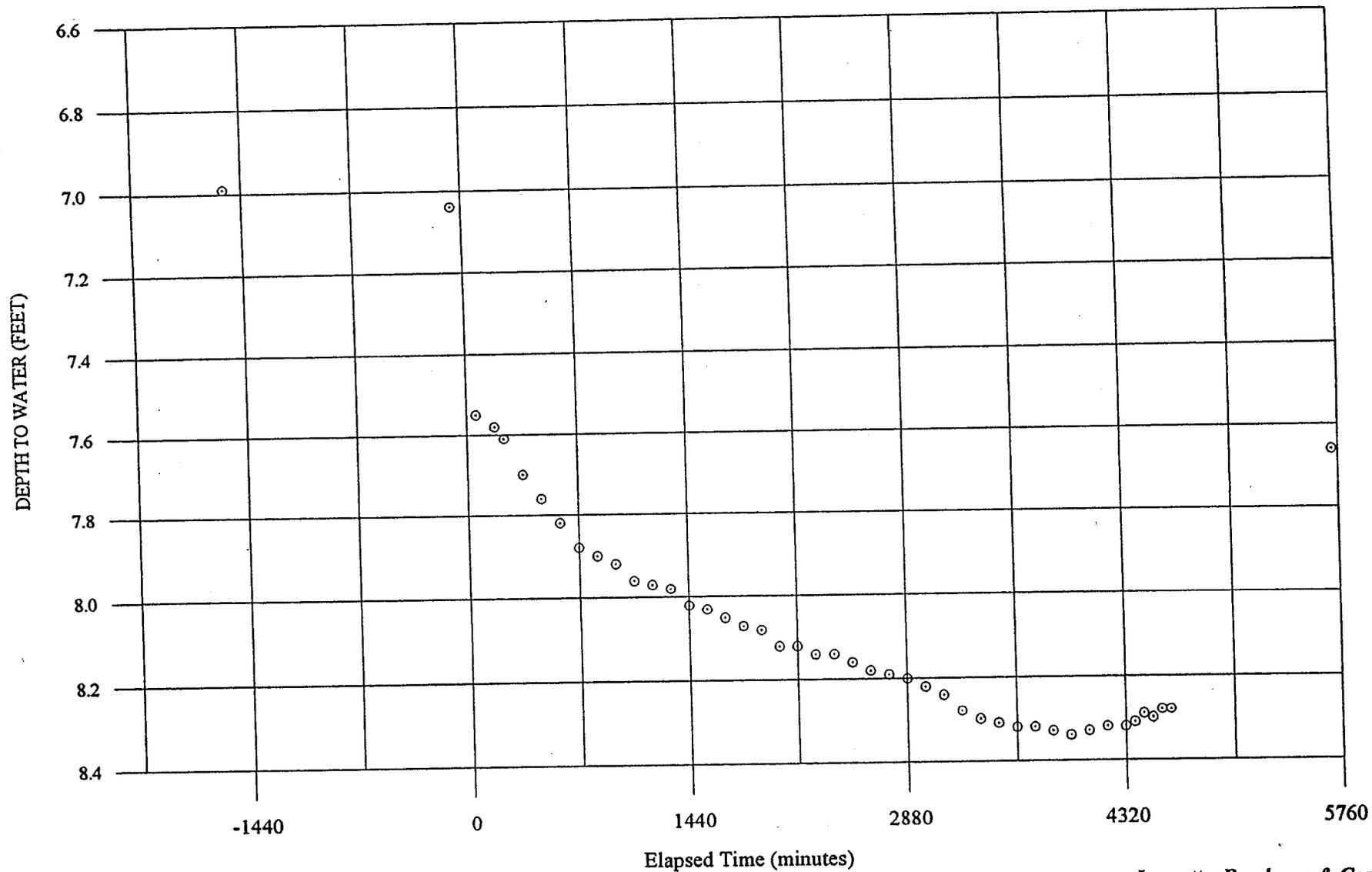
Pumping Test Data for Test Well 4 During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

(near H-4)

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
06/09/97	19:00	-1560	6.99	-0.05
06/10/97	07:51	-69	7.04	0.00
	10:00	60	7.55	0.51
	12:00	180	7.58	0.54
	13:00	240	7.61	0.57
	15:00	360	7.70	0.66
	17:00	480	7.76	0.72
	19:00	600	7.82	0.78
	21:00	720	7.88	0.84
	23:00	840	7.90	0.86
06/11/97	01:00	960	7.92	0.88
	03:00	1080	7.96	0.92
	05:00	1200	7.97	0.93
	07:00	1320	7.98	0.94
	09:00	1440	8.02	0.98
	11:00	1560	8.03	0.99
	13:00	1680	8.05	1.01
	15:00	1800	8.07	1.03
	17:00	1920	8.08	1.04
	19:00	2040	8.12	1.08
	21:00	2160	8.12	1.08
	23:00	2280	8.14	1.10
06/12/97	01:00	2400	8.14	1.10
	03:00	2520	8.16	1.12
	05:00	2640	8.18	1.14
	07:00	2760	8.19	1.15
	09:00	2880	8.20	1.16
	11:00	3000	8.22	1.18
	13:00	3120	8.24	1.20
	15:00	3240	8.28	1.24
	17:00	3360	8.30	1.26
	19:00	3480	8.31	1.27
	21:00	3600	8.32	1.28
	23:00	3720	8.32	1.28
06/13/97	01:00	3840	8.33	1.29
	03:00	3960	8.34	1.30
	05:00	4080	8.33	1.29
	07:00	4200	8.32	1.28
	09:00	4320	8.32	1.28
	10:00	4380	8.31	1.27
	11:00	4440	8.29	1.25
	12:00	4500	8.30	1.26
	13:00	4560	8.28	1.24
	14:00	4620	8.28	1.24
06/16/97	08:20	5720	7.66	0.62

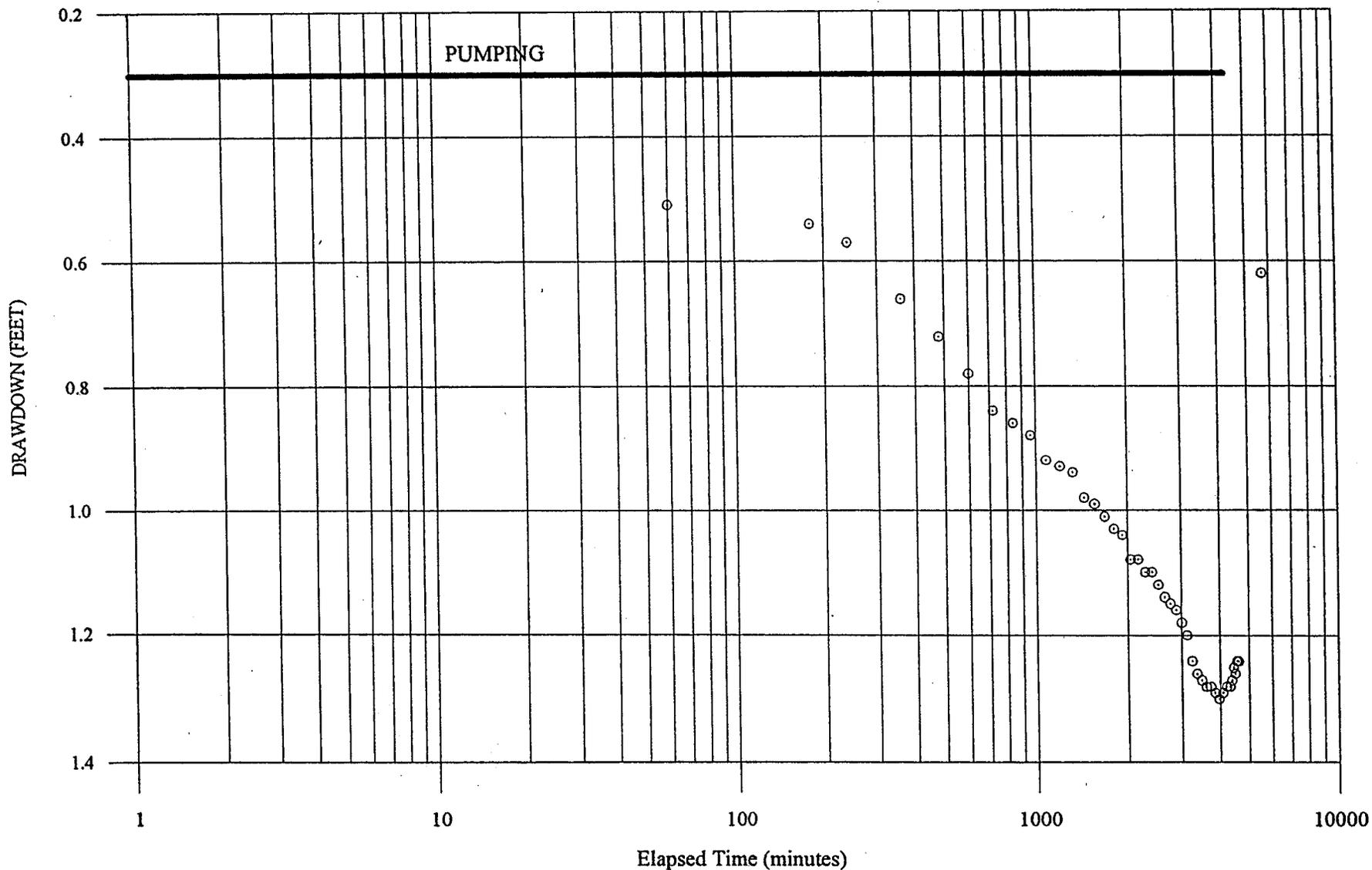
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Test Well 4 During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Test Well 4 During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

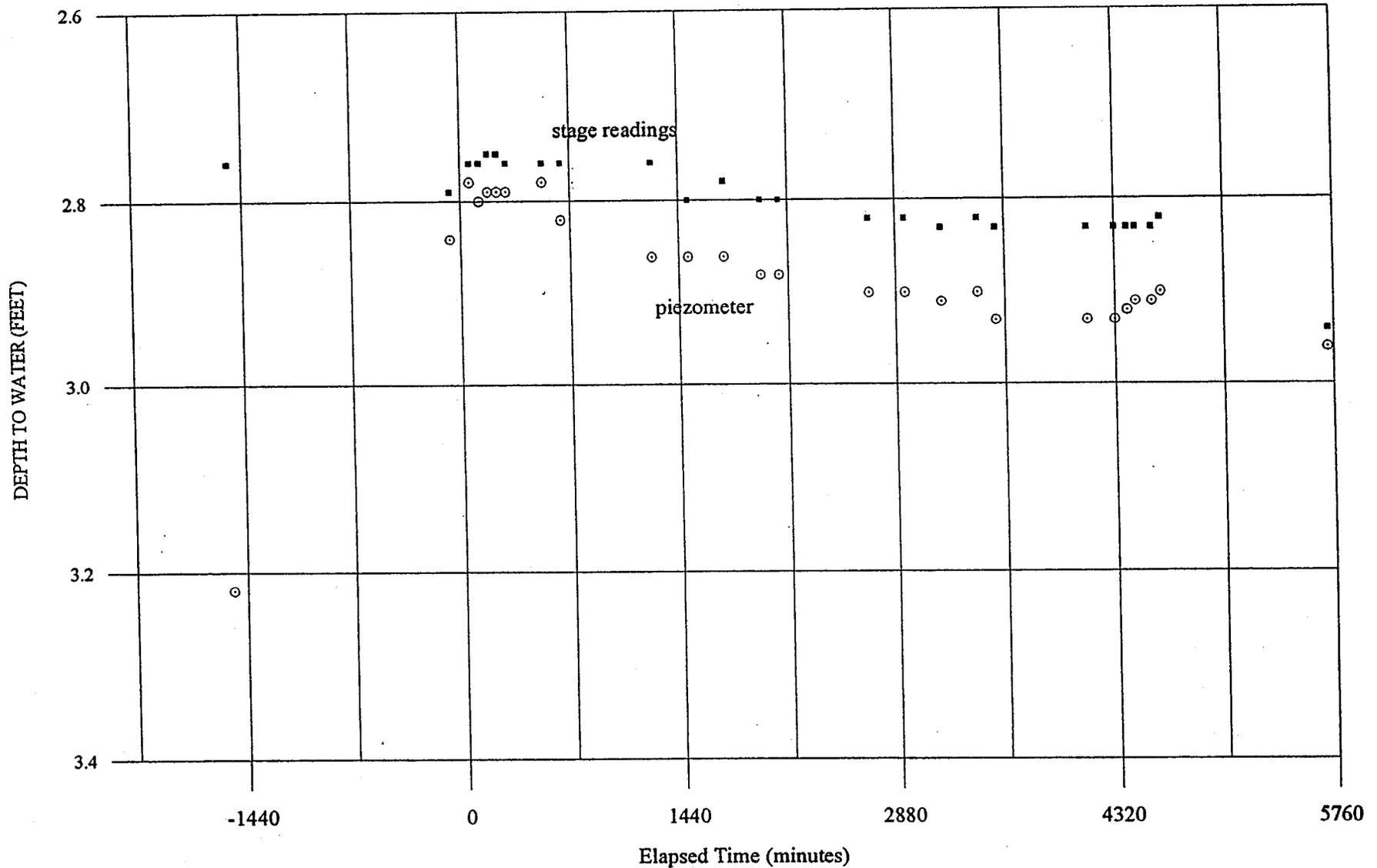
Pumping Test Data for River Piezometer During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

(next to H-5)

Date	Time	Elapsed Time (minutes)	Piezometer		Stage	
			Depth to Water (feet)	Drawdown (feet)	Depth to Water (feet)	Drawdown (feet)
06/09/97	19:30	-1530	3.22	0.38	2.76	-0.03
06/10/97	07:48	-72	2.84	0.00	2.79	0.00
	10:00	60	2.78	-0.06	2.76	-0.03
	11:00	120	2.80	-0.04	2.76	-0.03
	12:00	180	2.79	-0.05	2.75	-0.04
	13:00	240	2.79	-0.05	2.75	-0.04
	14:00	300	2.79	-0.05	2.76	-0.03
	18:00	540	2.78	-0.06	2.76	-0.03
	20:00	660	2.82	-0.02	2.76	-0.03
06/11/97	06:00	1260	2.86	0.02	2.76	-0.03
	10:00	1500	2.86	0.02	2.80	0.01
	14:00	1740	2.86	0.02	2.78	-0.01
	18:00	1980	2.88	0.04	2.80	0.01
	20:00	2100	2.88	0.04	2.80	0.01
06/12/97	06:00	2700	2.90	0.06	2.82	0.03
	10:00	2940	2.90	0.06	2.82	0.03
	14:00	3180	2.91	0.07	2.83	0.04
	18:00	3420	2.90	0.06	2.82	0.03
	20:00	3540	2.93	0.09	2.83	0.04
06/13/97	06:00	4140	2.93	0.09	2.83	0.04
	09:00	4320	2.93	0.09	2.83	0.04
	10:20	4400	2.92	0.08	2.83	0.04
	11:15	4455	2.91	0.07	2.83	0.04
	13:00	4560	2.91	0.07	2.83	0.04
	14:00	4620	2.90	0.06	2.82	0.03
06/16/97	08:20	5720	2.96	0.12	2.94	0.15

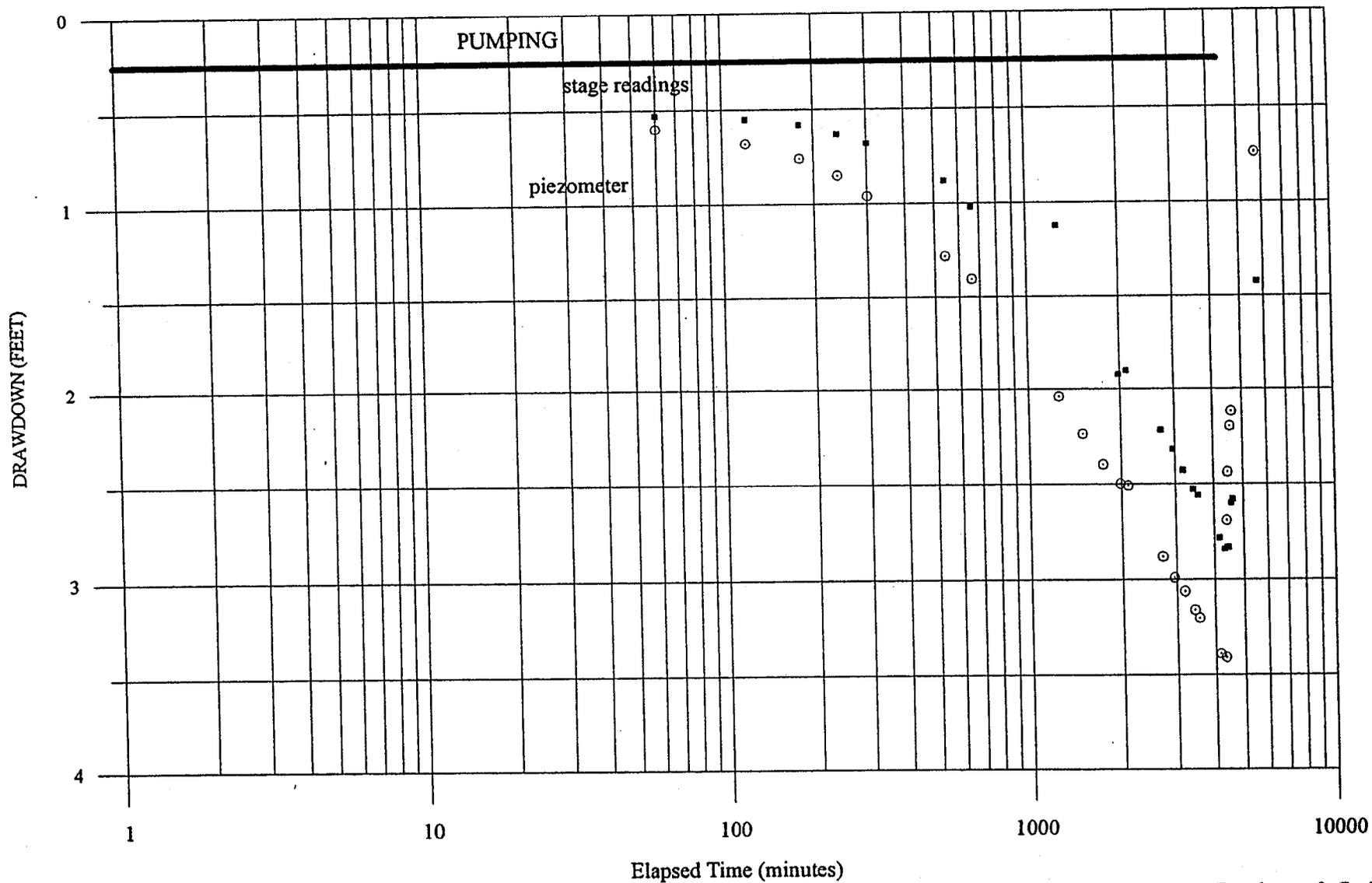
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of River Piezometer During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



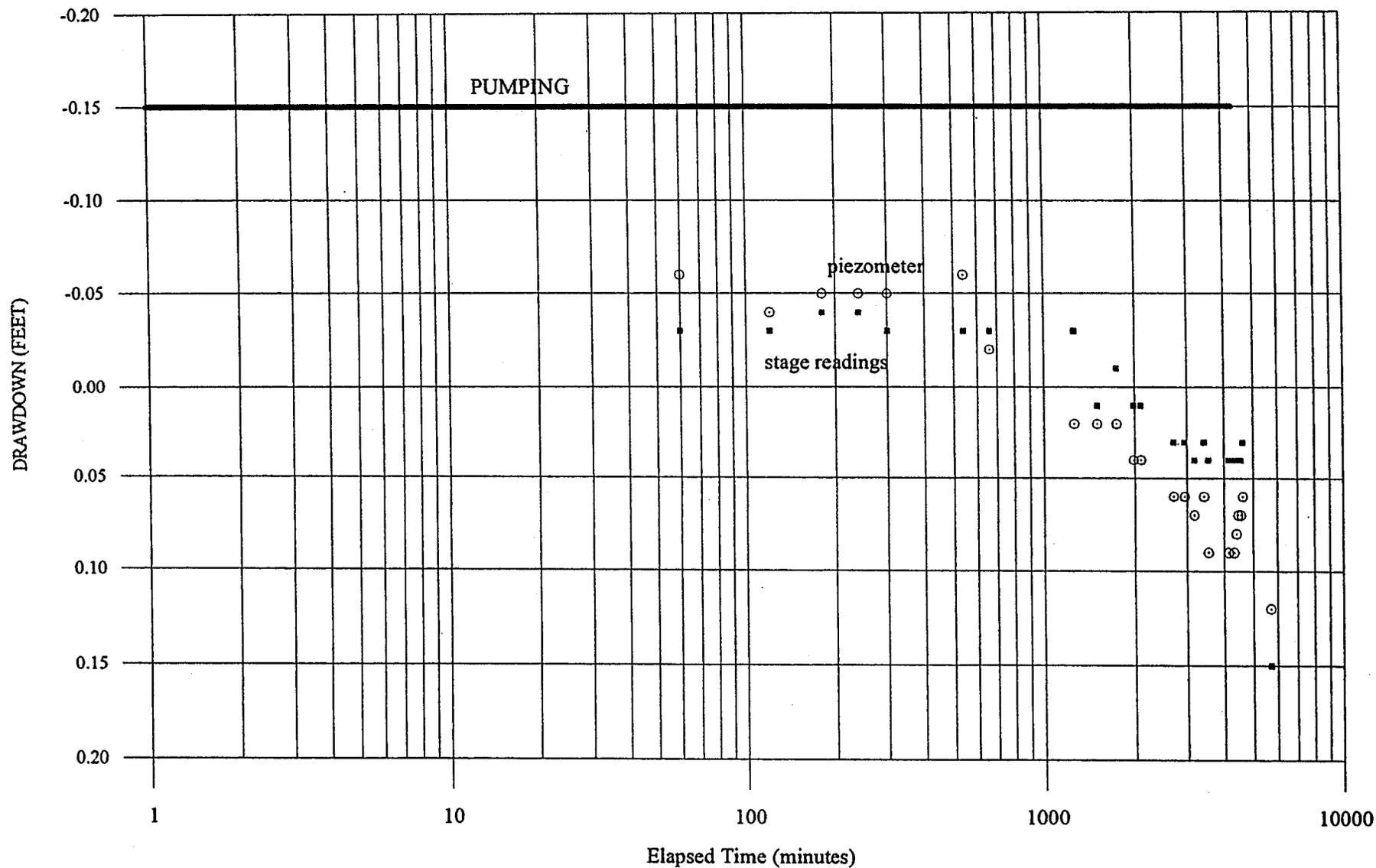
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Pond Piezometer During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of River Piezometer During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

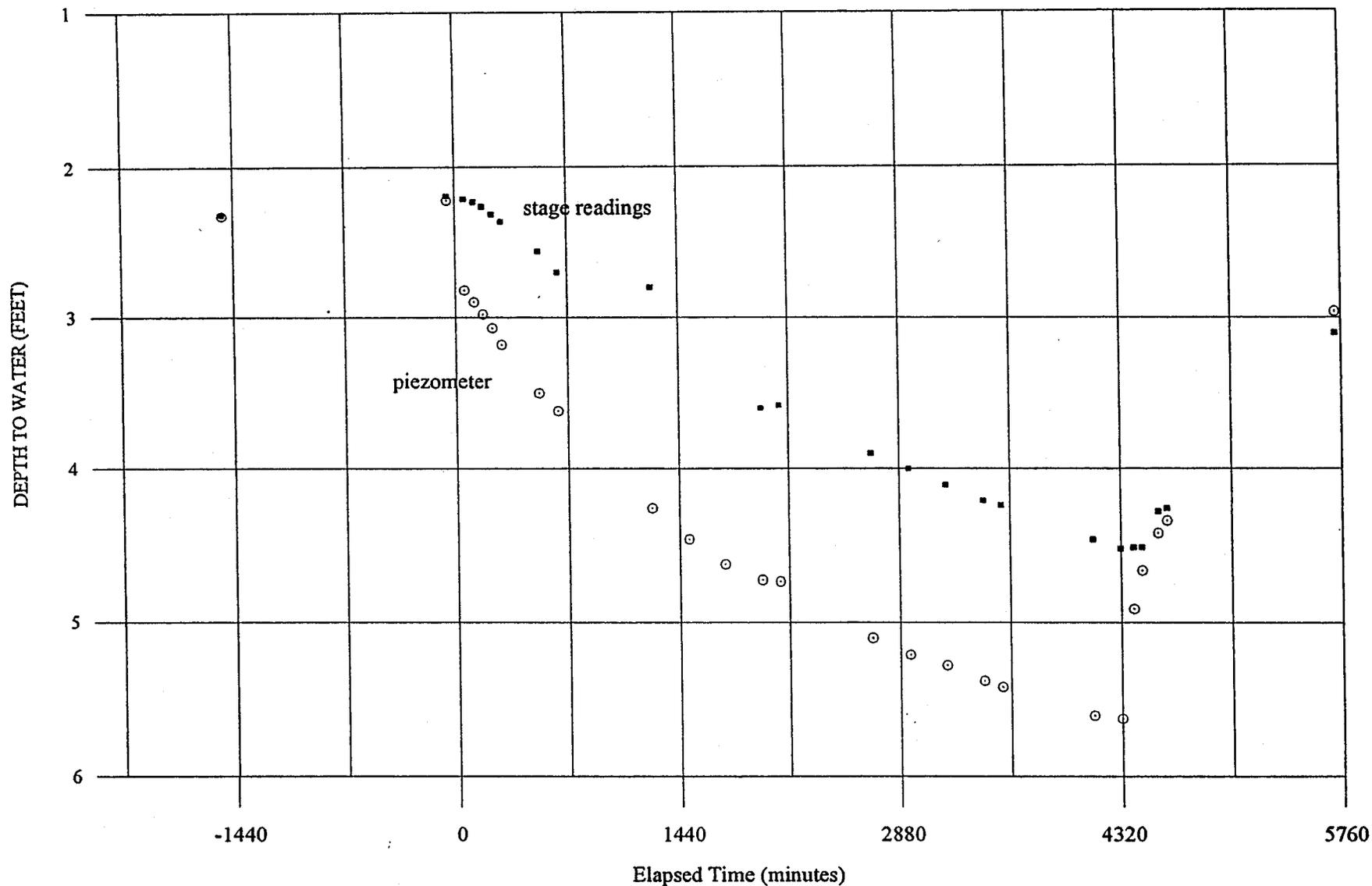
Pumping Test Data for Pond Piezometer During and After Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997

(In closest golf pond)

Date	Time	Elapsed Time (minutes)	Piezometer		Stage	
			Depth to Water (feet)	Drawdown (feet)	Depth to Water (feet)	Drawdown (feet)
06/09/97	19:50	-1510	2.32	0.10	2.31	0.12
06/10/97	08:08	-52	2.22	0.00	2.19	0.00
	10:00	60	2.82	0.60	2.21	0.53
	11:00	120	2.90	0.68	2.23	0.55
	12:00	180	2.98	0.76	2.26	0.58
	13:00	240	3.07	0.85	2.31	0.63
	14:00	300	3.18	0.96	2.36	0.68
	18:00	540	3.50	1.28	2.56	0.88
	20:00	660	3.62	1.40	2.70	1.02
06/11/97	06:00	1260	4.26	2.04	2.80	1.12
	10:00	1500	4.46	2.24	-	-
	14:00	1740	4.62	2.40	-	-
	18:00	1980	4.72	2.50	3.60	1.92
	20:00	2100	4.73	2.51	3.58	1.90
06/12/97	06:00	2700	5.10	2.88	3.90	2.22
	10:00	2940	5.21	2.99	4.08	2.32
	14:00	3180	5.28	3.06	4.11	2.43
	18:00	3420	5.38	3.16	4.21	2.53
	20:00	3540	5.42	3.20	4.24	2.56
06/13/97	06:00	4140	5.61	3.39	4.46	2.78
	09:00	4320	5.63	3.41	4.52	2.84
	10:20	4400	4.91	2.69	4.51	2.83
	11:15	4455	4.66	2.44	4.51	2.83
	13:00	4560	4.42	2.20	4.28	2.60
	14:00	4620	4.34	2.12	4.26	2.58
06/16/97	08:20	5720	2.96	0.74	3.1	1.42

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Pond Piezometer During and After 72-Hour Pumping Test
on Production Well HV-5A from June 10 to June 13, 1997



GEOLOGIC LOG LEGGETTE, BRASHEARS & GRAHAM, INC. TRUMBULL, CONNECTICUT		OWNER: Heritage Village Water Company	
		WELL NO.: HV-5	
		PAGE: 1 OF 2 PAGES	
SITE LOCATION: Heritage Village Southbury, Connecticut		SCREEN SIZE & TYPE: -- SLOT NO.: SETTING:	
DATE COMPLETED: 3/21/97		SAND PACK SIZE & TYPE: -- SETTING:	
DRILLING COMPANY: S. B. Church Co.		CASING SIZE & TYPE: -- SETTING:	
DRILLING METHOD: Drive and wash		SEAL TYPE: -- SETTING:	
SAMPLING METHOD: Wash, split spoons		BACKFILL TYPE: --	
OBSERVER: Scott Snyder		STATIC WATER LEVEL: --	
REFERENCE POINT (RP): Grade		DEVELOPMENT METHOD: --	
ELEVATION OF RP: Not Determined		DURATION: YIELD:	
STICK-UP: --		REMARKS: Started 3/20 1445; End 3/21 1500. 16 feet from Well HV-5	
SURFACE COMPLETION: None, pilot hole		ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube REC = Recovery PPM = parts per million	

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
0	10	W	--	--	--	
10	15	W	--	--	--	SAND, medium and fine; little coarse sand; trace silt; brown.
15	20	W	--	--	--	SAND, medium, and coarse; buff to light tan; subrounded to subangular quart little fine sand; trace silt; to light brown..
20	25	W	--	--	--	SAND, medium and coarse; some fine sand; trace fine gravel; trace silt; reddish orange brown.
25	30	W	--	--	--	SAND, coarse and medium; little fine sand; little fine to medium gravel; subangular to subrounded; light tan to brown.
30	35	W	--	--	--	SAND, fine; little medium sand; trace silt; greenish gray.
35	41	W	--	--	--	SAND, medium and fine; little coarse sand; trace silt; trace gravel; light brown.
41	43	SS	10/10/9/10	2.0		SAND, medium; little coarse subangular sand; little fine sand; trace silt; trace fine gravel.

OWNER: Heritage Village Water Company

WELL NO.: HV-5

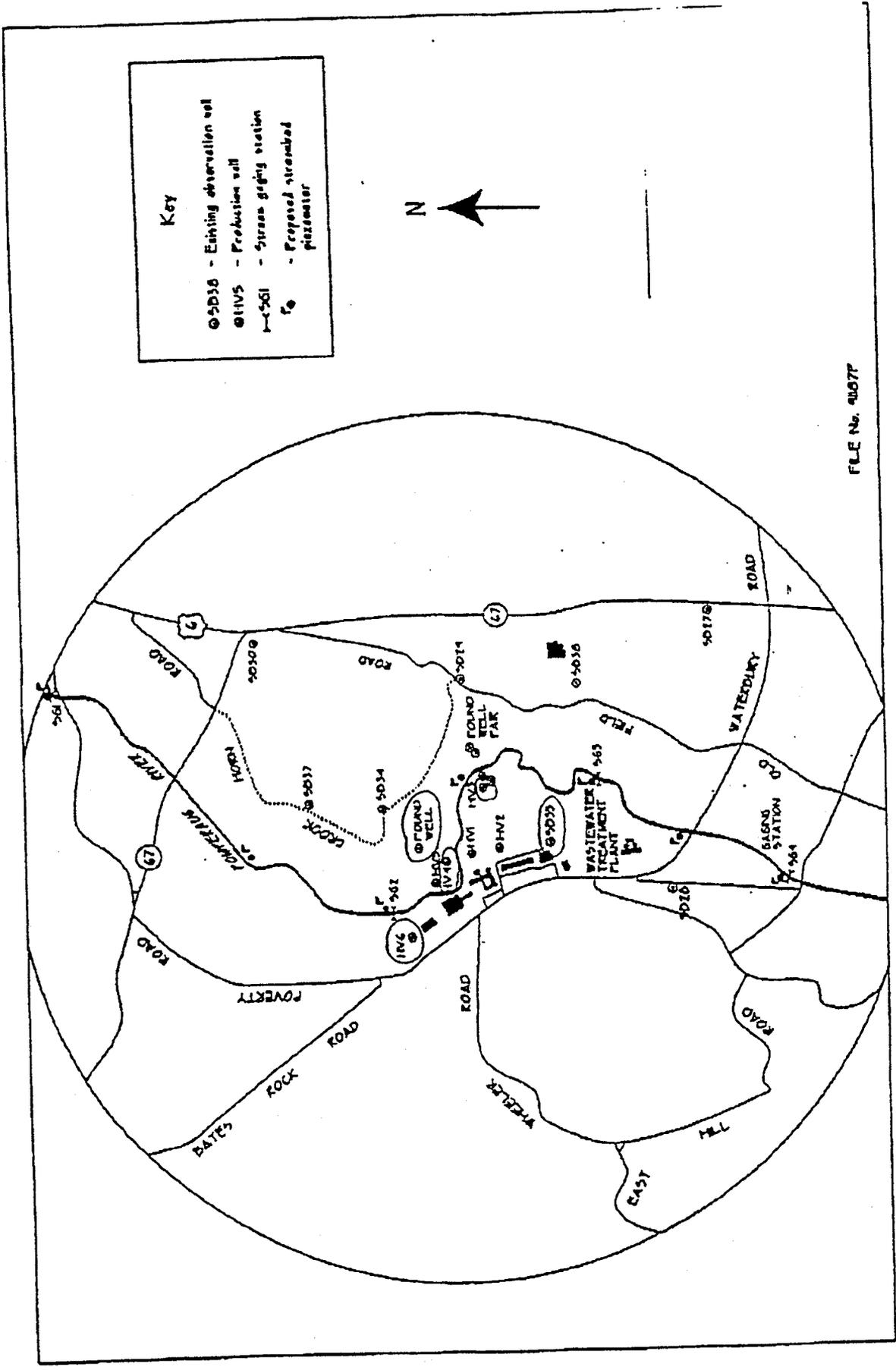
PAGE: 2 OF 2 PAGES

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
41	46	W	--	--	--	SAND, medium; some coarse sand; little fine gravel; angular to subangular; little fine sand; trace silt; reddish brown.
46	48	SS	8/7/9/9	2.0	--	SAND, medium, and coarse; little fine sand; trace subangular; fine gravel; trace silt; orange brown.
46	51	W	--	--	--	SAND, medium and coarse; trace gravel fine angular to rounded; trace fine sand; brown.
51	53	SS	7/9/10/12	2.0	--	SAND, medium and fine; little coarse sand; little gravel; fine angular to subangular trace silt; reddish dark brown.
51	56	W	--	--	--	SAND, fine and medium and coarse; little silt; brown
56	58	SS	7/8/11/11	--	--	SAND, fine; little medium sand; little silt; brown.
56	61	W	--	--	--	SAND, fine and medium; trace silt; trace coarse sand; brown.
61	63	SS	6/12/13/12	1.0	--	SAND, fine and medium; trace fine gravel; trace silt; brown.
61	66	W	--	--	--	SAND, fine; some medium sand; little silt; medium gray.
66	68	SS	6/10/15/13	1.0	--	SAND, fine and medium; little coarse; little silt; reddish brown.
66	71	W	--	--	--	SAND, fine; some medium sand; little silt; medium gray.
71	73	SS	9/10/14/18	1.0	--	SAND, fine; and clay; little fine sand; trace gravel; fine; brownish red.
71	76	W	--	--	--	SAND, very fine; and clay and silt; little fine sand; brownish red.
76	78	SS	10/22/51/34	1.4	--	CLAY; trace gravel; fine; compact; reddish brown

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Key

- ⊙ 5D36 - Existing observation well
- ⊙ 11V5 - Production well
- 5001 - Stream gaging station
- ⊙ - Proposed streambed piezometer



FILE No. 41077

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Page 2

Time	Yield/gpm	Well 5A	Well 5	T.W. #4
		Water Level	Water Level	Water Level
6/11/97				
1:00	588	51.3	24.14	7.92
2:00	588	51.36	24.16	
3:00	588	51.44	24.25	7.98
4:00	588	51.5	24.29	
5:00	588	51.58	24.34	7.97
6:00	588	51.6	24.36	
7:00	588	51.61	24.4	7.98
8:00	588	51.6	24.43	
9:00	588	51.55	24.44	8.02
10:00	588	51.53	24.45	
11:00	588	51.44	24.47	8.03
12 Noon	588	51.6		
1:00	588	51.4	24.51	8.05
2:00	588	51.42	24.54	
3:00	588	51.44	24.57	8.07
4:00	588	51.46	24.6	
5:00	588	51.5	24.63	8.08
6:00	588	51.56	24.65	
7:00	588	51.62	24.69	8.12
8:00	588	51.7	24.72	
9:00	588	51.8	24.76	8.12
10:00	588	51.82	24.78	
11:00	588	51.84	24.8	8.14
12 Mid	588	51.92	24.82	
6/12/97				
1:00	588	51.94	24.85	8.14
2:00	588	52	24.88	
3:00	588	52.02	24.9	8.18
4:00	588	52.04	24.92	
5:00	588	52.06	24.94	8.18
6:00	588	52.08	24.96	
7:00	588	52.04	24.97	8.19
8:00	588	52.06	24.98	
9:00	588	52.04	24.99	8.2
10:00	588	51.99	25	
11:00	588	51.95	24.99	8.22
12 Noon	588	51.92	25	
1:00	588	51.89	25.01	8.24
2:00	588	51.85	25.01	
3:00	588	51.88	25.03	8.28
4:00	588	51.89	25.05	
5:00	588	51.91	25.06	8.3
6:00	588	52.01	25.09	
7:00	588	52.01	25.1	8.31
8:00	588	52.03	25.1	
9:00	588	52.06	25.13	8.32
10:00	588	52.11	25.15	

Fairway	M.V. #6	River		#1 Pond		#2 Pond	
		Piezometer	Piezometer	Piezometer	Piezometer	Piezometer	Piezometer
Water Level	Water Level	Inside	Outside	Inside	Outside	Inside	Outside
	9.7	29.88					
	9.74	30					
	9.78	30.02					
	9.83	30.06	2.88	2.78	4.28	2.8	
	9.87	30.09					
	9.9	30.14	2.88	2.8	4.48	Dry	
	9.94	30.16					
	9.98	30.18	2.88	2.78	4.62	Dry	
	10.02	30.28					
	10.06	30.28	2.88	2.8	4.72	Mud	2.58
	10.1	30.28	2.88	2.8	4.78	Mud	2.6
	10.12	30.32					
	10.14	30.34					
	10.18	30.36					
	10.2	30.4					
	10.23	30.42	2.9	2.82	5.1	Mud	2.8
	10.27	30.44					
	10.3	30.46	2.9	2.82	5.21	Dry	2.98
	10.32	30.48					
	10.34	30.5	2.91	2.83	5.28	Dry	3.06
	10.38	30.52					
	10.38	30.56	2.9	2.82	5.36	Dry	3.84
	10.38	30.57	2.93	2.83	5.42	Dry	3.94

4 P. 3

Time	Well 5A Yield/gpm	Well 5A Water Level	Well 5 Water Level	T.W. #4 Water Lev.
11:00	588	52.18	25.18	8.32
12 Mid	588	52.18	25.17	
6/13/97				
1:00	588	52.17	25.18	8.33
2:00	588	52.21	25.2	
3:00	588	52.24	25.21	8.34
4:00	588	52.23	25.21	
5:00	588	52.25	25.22	8.33
6:00	588	52.27	25.24	
7:00	588	52.28	25.25	8.32
8:00	588	52.27	25.26	
9:00	588	52.28	25.27	8.32
Recovery				
9:01		21.52		
9:02		20.44	21.52	
9:03		19.85		
9:04		19.55	20.06	
9:05		19.38		
9:06		19.18	19.23	
9:07		18.86		
9:08		18.46	18.84	
9:09		18.57		
9:10		18.5	18.67	
9:15		18.21	18.3	
9:20		18.15	18.23	
9:25		18.1	18.15	
9:30		18	18.08	
9:35		17.83	18.04	
9:40		17.92	17.99	
9:45		17.89	17.94	
9:50		17.8	17.89	
9:55		17.76	17.85	
10:00		17.7	17.81	8.31
10:20		17.57		
10:30		17.47	17.63	
10:45		17.45	17.55	
11:00			17.46	8.29
11:08		17.35		
11:15				
11:30		17.27		
11:45				
12 Noon		17.19	17.32	8.3
1:00		16.96	17.04	8.28
2:00		16.81	16.95	8.28
8:20 AM	6/16/97	15.49	15.6	7.86

Fairway Water Level	H.V. #8 Water Level	River Piezometer Inside	Outside	#1 Pond Piezometer Inside	Outside	#2 Pond Piezometer Inside	Outside
10.42	30.61						
10.44	30.62						
10.46	30.64						
10.49	30.66						
10.5	30.67	2.93	2.83	5.61	Dry	3.96	2.16
10.51	30.69	2.93	2.83	5.63	Dry	4.01	2.22
10.48	30.63						
10.47	30.59						
10.46	30.57						
10.43	30.54	2.91	2.83	4.42	Dry	2.05	1.98
10.4	30.52	2.9	2.82	4.34	Dry	1.97	1.96
9.86	30.11	2.96	2.94	2.96	3.1	0	0.8

**HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

**72-HOUR WELL COMPLETION PUMPING TEST
FOR
WELL HV-1A**

APRIL 5 - 8, 1999

WELL HV-1A PUMPING RATE - 340 GPM

Notes: Wells HV-1 and HV-2 remained inactive during testing.
Other wells cycled on and off as needed after first 24 hours of the test.
0.05 inches of rainfall was recorded on April 6.

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Pumping Test Data for Production Well HV-1A During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)	Pumping Rate (gallons per minute)
04/02/99	13:11:00	-4154.0	9.73	0.02	
04/02/99	13:11:00	-4154.0	9.73	0.02	
04/03/99	16:35:00	-2510.0	9.64	-0.07	
04/05/99	9:01:00	-84.0	9.71	0.00	
	9:23:00	-62.0	9.75	0.04	
	10:25:00	0.0	9.75	0.04	
	10:27:00	2.0	35.84	26.13	
	10:28:00	3.0	36.18	26.47	
	10:29:00	4.0	36.32	26.61	337
	10:30:30	5.5	36.37	26.66	
	10:31:30	6.5	36.49	26.78	
	10:35:00	10.0	36.59	26.88	
	10:40:00	15.0	36.64	26.93	
	10:45:30	20.5	36.68	26.97	
	10:51:30	26.5	36.86	27.15	340
	10:56:00	31.0	36.89	27.18	
	11:00:00	35.0	36.91	27.20	
	11:05:00	40.0	36.92	27.21	340
	11:11:00	46.0	36.94	27.23	
	11:16:00	51.0	36.99	27.28	
	11:20:45	55.7	37.00	27.29	
	11:26:00	61.0	37.01	27.30	340
	11:34:00	69.0	37.02	27.31	
	11:45:00	80.0	37.07	27.36	340
	12:00:00	95.0	37.12	27.41	340
	12:15:00	110.0	37.16	27.45	340
	12:30:00	125.0	37.18	27.47	340
	13:00:00	155.0	37.25	27.54	340
	13:30:00	185.0	37.35	27.64	340
	14:00:00	215.0	37.40	27.69	340
	14:30:00	245.0	37.45	27.74	340
	15:30:00	305.0	37.53	27.82	340
	16:30:00	365.0	37.62	27.91	340
	17:30:00	425.0	37.67	27.96	340
	18:30:00	485.0	37.72	28.01	340
	19:30:00	545.0	37.79	28.08	340
	20:30:00	605.0	37.84	28.13	340
	21:30:00	665.0	37.91	28.20	340

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

**Pumping Test Data for Production Well HV-1A During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999**

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)	Pumping Rate (gallons per minute)
04/02/99	13:11:00	-4154.0	9.73	0.02	
	22:30:00	725.0	37.95	28.24	340
	23:30:00	785.0	38.03	28.32	340
04/06/99	00:30:00	845.0	38.06	28.35	340
	1:30:00	905.0	38.12	28.41	340
	2:30:00	965.0	38.16	28.45	340
	3:30:00	1025.0	38.19	28.48	340
	4:30:00	1085.0	38.22	28.51	340
	5:30:00	1145.0	38.24	28.53	340
	6:30:00	1205.0	38.26	28.55	340
	7:30:00	1265.0	38.30	28.59	340
	8:30:00	1325.0	38.32	28.61	340
	9:30:00	1385.0	38.36	28.65	340
	10:30:00	1445.0	38.37	28.66	340
	11:30:00	1505.0	38.39	28.68	340
	12:30:00	1565.0	38.44	28.73	340
	13:30:00	1625.0	38.48	28.77	340
	14:30:00	1685.0	38.49	28.78	340
	15:30:00	1745.0	38.49	28.78	340
	16:30:00	1805.0	38.51	28.80	340
	17:30:00	1865.0	38.50	28.79	340
	18:30:00	1925.0	38.56	28.85	340
	19:30:00	1985.0	38.54	28.83	340
	20:30:00	2045.0	38.63	28.92	340
	21:30:00	2105.0	38.67	28.96	340
	22:30:00	2165.0	38.70	28.99	340
23:30:00	2225.0	38.72	29.01	340	
04/07/99	00:30:00	2285.0	38.71	29.00	340
	1:30:00	2345.0	38.78	29.07	340
	2:30:00	2405.0	38.73	29.02	340
	3:30:00	2465.0	38.73	29.02	340
	4:30:00	2525.0	38.74	29.03	340
	5:30:00	2585.0	38.76	29.05	340
	6:30:00	2645.0	38.79	29.08	340
	7:30:00	2705.0	38.80	29.09	340
	8:30:00	2765.0	38.80	29.09	340
	9:30:00	2825.0	38.82	29.11	340
	10:30:00	2885.0	38.85	29.14	340

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

**Pumping Test Data for Production Well HV-1A During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999**

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)	Pumping Rate (gallons per minute)	
04/02/99	13:11:00	-4154.0	9.73	0.02		
	11:30:00	2945.0	38.87	29.16	340	
	12:30:00	3005.0	38.85	29.14	340	
	13:30:00	3065.0	38.90	29.19	340	
	14:30:00	3125.0	38.92	29.21	340	
	15:30:00	3185.0	38.95	29.24	340	
	16:30:00	3245.0	38.90	29.19	340	
	17:30:00	3305.0	38.87	29.16	340	
	18:30:00	3365.0	38.92	29.21	340	
	19:30:00	3425.0	38.97	29.26	340	
	20:30:00	3485.0	39.01	29.30	340	
	21:30:00	3545.0	39.01	29.30	340	
	22:30:00	3605.0	39.11	29.40	340	
	23:30:00	3665.0	39.11	29.40	340	
	04/08/99	00:30:00	3725.0	39.13	29.42	340
		1:30:00	3785.0	39.14	29.43	340
		2:30:00	3845.0	39.14	29.43	340
		3:30:00	3905.0	39.15	29.44	340
		4:30:00	3965.0	39.15	29.44	340
		5:30:00	4025.0	39.14	29.43	340
		6:30:00	4085.0	39.16	29.45	340
		7:30:00	4145.0	39.21	29.50	340
		8:30:00	4205.0	39.22	29.51	340
9:30:00		4265.0	39.22	29.51	340	
10:30:00		4325.0	39.22	29.51	340	
Pump Off		11:10:00	4365.0	39.24	29.53	340
Recovery		11:10:30	4365.5	16.92	7.21	0
		11:11:00	4366.0	14.69	4.98	0
		11:11:30	4366.5	13.23	3.52	0
		11:11:45	4366.8	12.80	3.09	0
		11:12:00	4367.0	12.43	2.72	0
	11:12:15	4367.2	12.19	2.48	0	
	11:12:30	4367.5	12.04	2.33	0	
	11:12:45	4367.8	11.87	2.16	0	
	11:13:00	4368.0	11.72	2.01	0	
	11:13:30	4368.5	11.59	1.88	0	
11:14:00	4369.0	11.52	1.81	0		
11:14:30	4369.5	11.37	1.66	0		

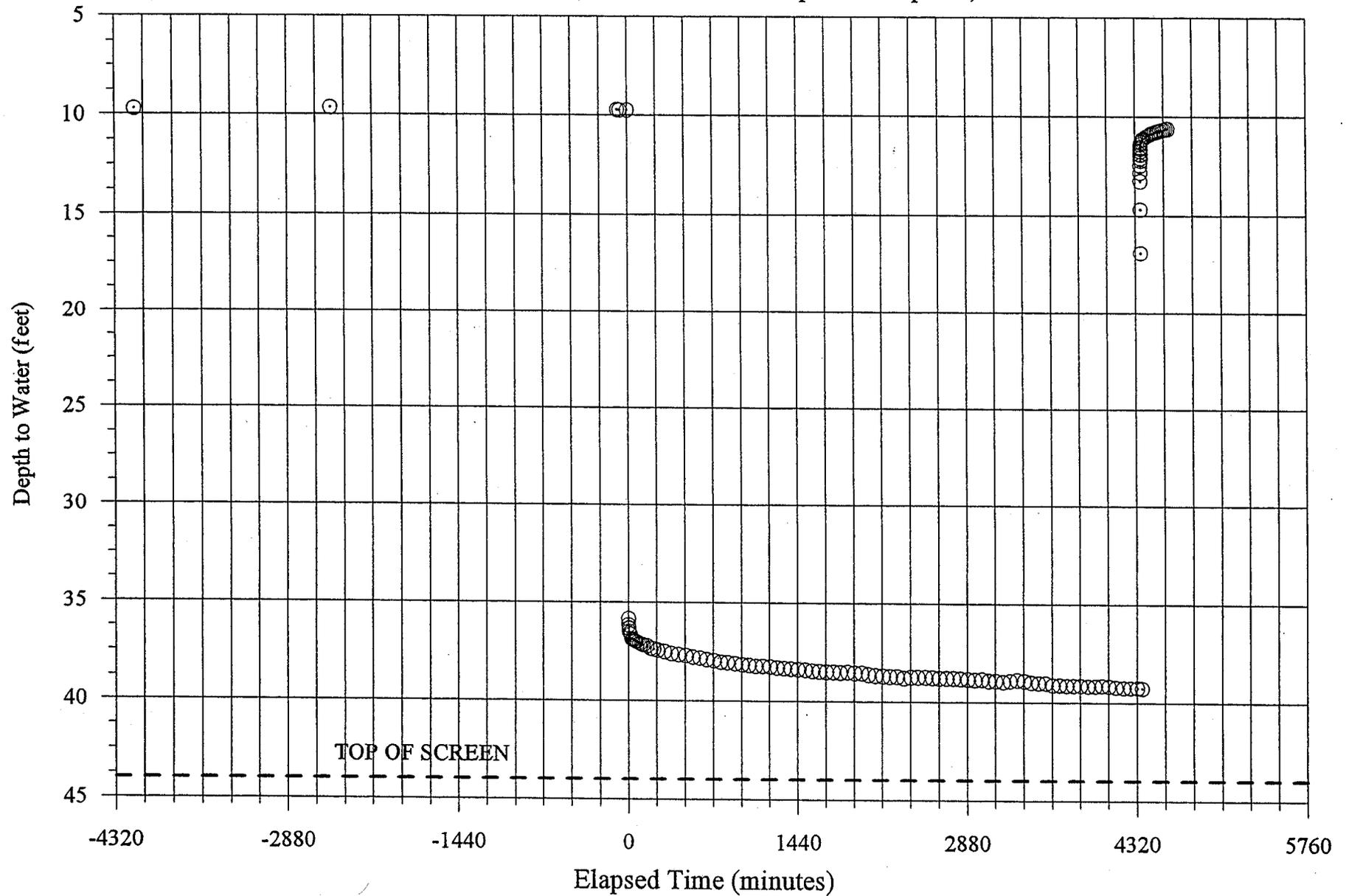
**HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

**Pumping Test Data for Production Well HV-1A During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999**

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)	Pumping Rate (gallons per minute)
04/02/99	13:11:00	4154.0	9.73	0.02	
	11:15:00	4370.0	11.35	1.64	0
	11:16:00	4371.0	11.28	1.57	0
	11:20:00	4375.0	11.22	1.51	0
	11:26:00	4381.0	11.16	1.45	0
	11:30:00	4385.0	11.12	1.41	0
	11:35:00	4390.0	11.10	1.39	0
	11:40:00	4395.0	11.08	1.37	0
	12:00:00	4415.0	10.98	1.27	0
	12:17:00	4432.0	10.93	1.22	0
	12:31:00	4446.0	10.88	1.17	0
	12:46:00	4461.0	10.84	1.13	0
	13:00:00	4475.0	10.81	1.10	0
	13:17:00	4492.0	10.76	1.05	0
	13:31:00	4506.0	10.75	1.04	0
	13:44:00	4519.0	10.72	1.01	0
	13:59:00	4534.0	10.70	0.99	0
	14:14:00	4549.0	10.67	0.96	0
	14:29:00	4564.0	10.64	0.93	0
	14:45:00	4580.0	10.61	0.90	0
	14:58:00	4593.0	10.59	0.88	0

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of Production Well HV-1A During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

**Pumping Test Data for Production Well HV-1 During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999
located approximately 65 feet for HV-1A**

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
04/02/99	15:05:00	-4040.0	6.02	-0.01
04/03/99	16:31:00	-2514.0	5.96	-0.07
04/05/99	8:59:00	-86.0	6.03	0.00
	9:29:00	-56.0	6.03	0.00
	10:30:00	5.0	7.65	1.62
	10:35:00	10.0	7.94	1.91
	10:40:00	15.0	7.98	1.95
	10:45:00	20.0	8.07	2.04
	10:50:00	25.0	8.11	2.08
	10:55:00	30.0	8.13	2.10
	11:00:00	35.0	8.14	2.11
	11:05:00	40.0	8.16	2.13
	11:10:00	45.0	8.18	2.15
	11:15:00	50.0	8.19	2.16
	11:20:00	55.0	8.19	2.16
	11:25:00	60.0	8.20	2.17
	11:30:00	65.0	8.21	2.18
	11:45:00	80.0	8.24	2.21
	12:00:00	95.0	8.30	2.27
	12:15:00	110.0	8.39	2.36
	12:30:00	125.0	8.39	2.36
	13:00:00	155.0	8.38	2.35
	13:30:00	185.0	8.41	2.38
	14:30:00	245.0	8.55	2.52
	15:30:00	305.0	8.56	2.53
16:32:00	367.0	8.60	2.57	
17:32:00	427.0	8.60	2.57	
18:32:00	487.0	8.65	2.62	
19:32:00	547.0	8.66	2.63	
20:32:00	607.0	8.78	2.75	
21:32:00	667.0	8.84	2.81	
22:33:00	728.0	8.86	2.83	
23:32:00	787.0	8.92	2.89	
04/06/99	00:31:00	846.0	8.93	2.90
	1:30:00	905.0	8.96	2.93
	2:30:00	965.0	9.00	2.97
	3:31:00	1026.0	9.01	2.98
	4:32:00	1087.0	9.02	2.99
	5:30:00	1145.0	9.03	3.00
	6:32:00	1207.0	9.05	3.02

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

**Pumping Test Data for Production Well HV-1 During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999
located approximately 65 feet for HV-1A**

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	7:32:00	1267.0	9.07	3.04
	8:33:00	1328.0	9.08	3.05
	9:30:00	1385.0	9.09	3.06
	10:31:00	1446.0	9.05	3.02
	11:30:00	1505.0	9.07	3.04
	12:31:00	1566.0	9.09	3.06
	13:32:00	1627.0	9.05	3.02
	14:31:00	1686.0	9.10	3.07
	15:33:00	1748.0	9.10	3.07
	16:30:00	1805.0	9.09	3.06
	17:31:00	1866.0	9.09	3.06
	18:32:00	1927.0	9.10	3.07
	19:33:00	1988.0	9.08	3.05
	20:31:00	2046.0	9.10	3.07
	21:33:00	2108.0	9.13	3.10
	22:30:00	2165.0	9.17	3.14
	23:30:00	2225.0	9.19	3.16
04/07/99	00:30:00	2285.0	9.21	3.18
	1:32:00	2347.0	9.22	3.19
	2:33:00	2408.0	9.23	3.20
	3:31:00	2466.0	9.23	3.20
	4:34:00	2529.0	9.24	3.21
	5:30:00	2585.0	9.25	3.22
	6:31:00	2646.0	9.26	3.23
	7:32:00	2707.0	9.25	3.22
	8:30:00	2765.0	9.28	3.25
	9:31:00	2826.0	9.26	3.23
	10:32:00	2887.0	9.27	3.24
	11:30:00	2945.0	9.28	3.25
	12:30:00	3005.0	9.25	3.22
	13:33:00	3068.0	9.26	3.23
	14:32:00	3127.0	9.27	3.24
	15:31:00	3186.0	9.28	3.25
	16:30:00	3245.0	9.29	3.26
	17:31:00	3306.0	9.26	3.23
	18:32:00	3367.0	9.30	3.27
	19:32:00	3427.0	9.33	3.30
	20:31:00	3486.0	9.34	3.31
	21:33:00	3548.0	9.35	3.32
	22:31:00	3606.0	9.41	3.38

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

**Pumping Test Data for Production Well HV-1 During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999
located approximately 65 feet for HV-1A**

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	23:33:00	3668.0	9.41	3.38
04/08/99	00:30:00	3725.0	9.41	3.38
	1:33:00	3788.0	9.42	3.39
	2:30:00	3845.0	9.42	3.39
	3:32:00	3907.0	9.42	3.39
	4:31:00	3966.0	9.42	3.39
	5:31:00	4026.0	9.42	3.39
	6:32:00	4087.0	9.40	3.37
	7:31:00	4146.0	9.42	3.39
	8:32:00	4207.0	9.42	3.39
	9:31:00	4266.0	9.42	3.39
	10:30:00	4325.0	9.42	3.39
Pump Off	11:10:00	4365.0	9.46	3.43
Recovery	11:11:00	4366.0	9.46	3.43
	11:12:00	4367.0	9.35	3.32
	11:13:00	4368.0	8.84	2.81
	11:14:00	4369.0	8.21	2.18
	11:15:00	4370.0	7.91	1.88
	11:16:00	4371.0	7.77	1.74
	11:17:00	4372.0	7.71	1.68
	11:18:00	4373.0	7.65	1.62
	11:19:00	4374.0	7.64	1.61
	11:20:00	4375.0	7.60	1.57
	11:21:00	4376.0	7.58	1.55
	11:22:00	4377.0	7.57	1.54
	11:23:00	4378.0	7.56	1.53
	11:24:00	4379.0	7.55	1.52
	11:25:00	4380.0	7.55	1.52
	11:35:00	4390.0	7.50	1.47
	11:47:00	4402.0	7.41	1.38
	12:04:00	4419.0	7.37	1.34
	12:18:00	4433.0	7.32	1.29
	12:32:00	4447.0	7.28	1.25
	12:47:00	4462.0	7.25	1.22
	13:01:00	4476.0	7.20	1.17
	13:19:00	4494.0	7.20	1.17
	13:32:00	4507.0	7.16	1.13
	13:46:00	4521.0	7.14	1.11
	14:00:00	4535.0	7.13	1.10
	14:18:00	4553.0	7.09	1.06

**HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

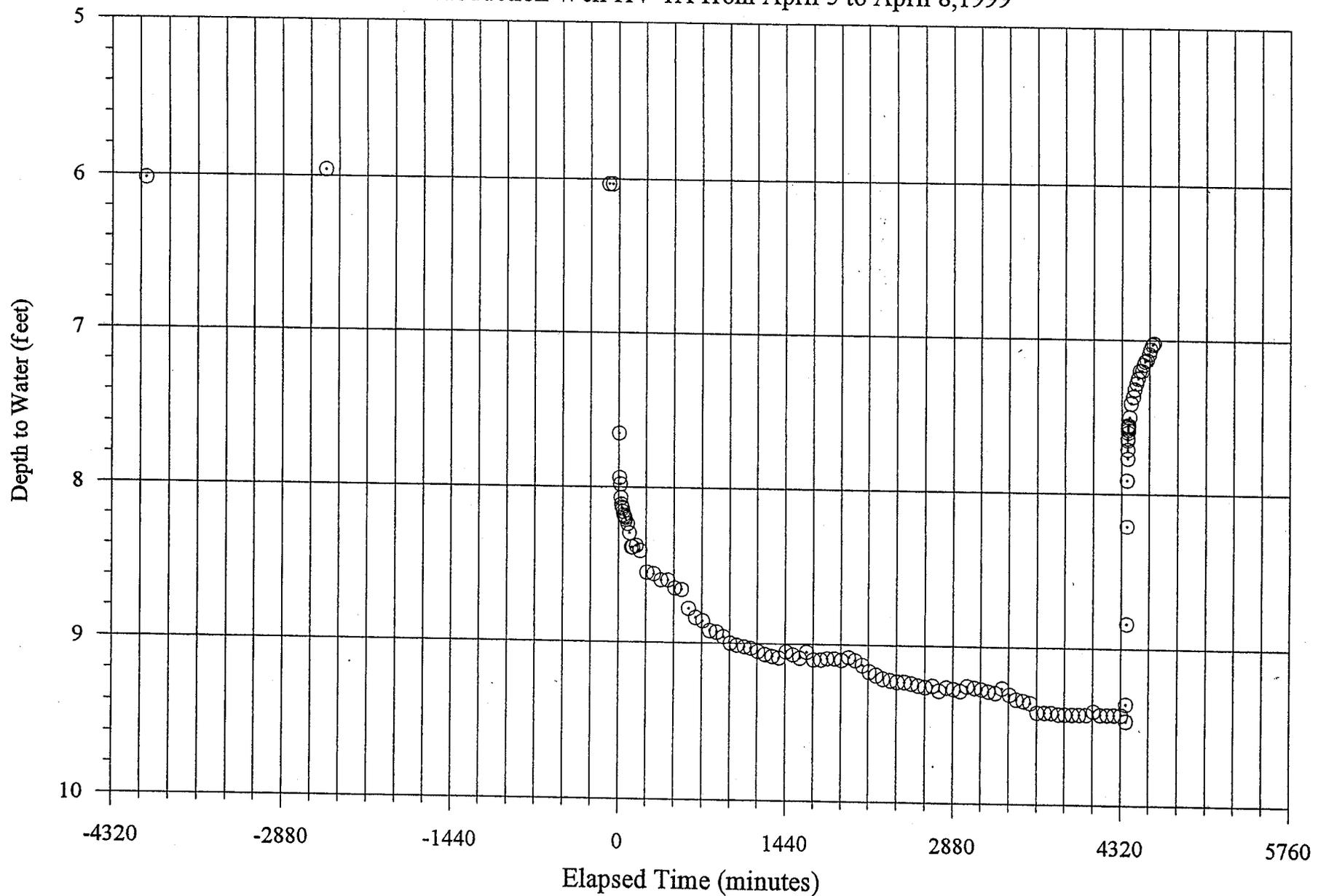
**Pumping Test Data for Production Well HV-1 During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999**

located approximately 65 feet for HV-1A

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	14:31:00	4566.0	7.06	1.03
	14:46:00	4581.0	7.03	1.00
	15:00:00	4595.0	7.02	0.99
04/09/99	16:47:00	6142.0	6.79	0.76

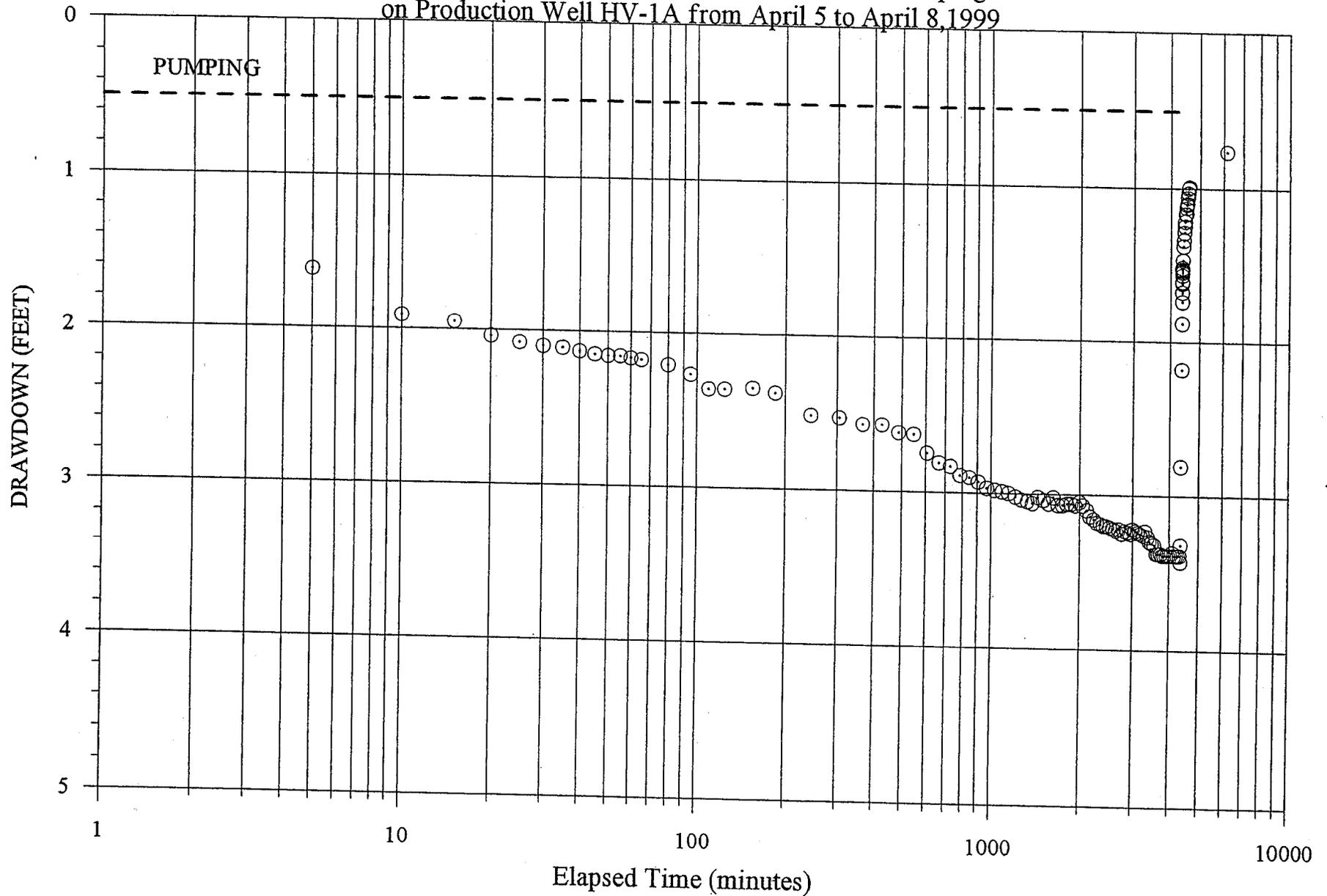
HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Hydrograph of Production Well HV-1 During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



HERITAGE WATER COMPANY SOUTH BURY, CONNECTICUT

Drawdown versus Time Plot of
Production Well HV-1 During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Pumping Test Data for Production Well HV-2 During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999
located approximatel 360 feet for HV-1A

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
04/02/99	15:05:00	-4040.0	--	--
04/03/99	16:23:00	-2522.0	14.02	-0.08
04/05/99	9:38:00	-47.0	14.10	0.00
	9:40:00	-45.0	14.24	0.14
	10:55:00	30.0	14.23	0.13
	11:05:00	40.0	14.23	0.13
	11:10:00	45.0	14.24	0.14
	11:15:00	50.0	14.24	0.14
	11:20:00	55.0	14.26	0.16
	11:25:00	60.0	14.26	0.16
	11:30:00	65.0	14.28	0.18
	11:35:00	70.0	14.28	0.18
	11:45:00	80.0	14.31	0.21
	12:00:00	95.0	14.32	0.22
	12:15:00	110.0	14.32	0.22
	12:40:00	135.0	14.36	0.26
	13:00:00	155.0	14.38	0.28
	13:40:00	195.0	14.42	0.32
	14:00:00	215.0	14.41	0.31
	14:40:00	255.0	14.42	0.32
	15:40:00	315.0	14.40	0.30
	16:40:00	375.0	14.40	0.30
17:40:00	435.0	14.39	0.29	
18:40:00	495.0	14.41	0.31	
19:40:00	555.0	14.40	0.30	
20:40:00	615.0	14.50	0.40	
21:40:00	675.0	14.54	0.44	
22:40:00	735.0	14.56	0.46	
23:40:00	795.0	14.58	0.48	
04/06/99	00:40:00	855.0	14.61	0.51
	1:40:00	915.0	14.62	0.52
	2:40:00	975.0	14.64	0.54
	3:35:00	1030.0	14.63	0.53
	4:35:00	1090.0	14.60	0.50
	5:35:00	1150.0	14.58	0.48
	6:35:00	1210.0	14.57	0.47
	7:35:00	1270.0	14.60	0.50
	8:35:00	1330.0	14.65	0.55
	9:35:00	1390.0	14.63	0.53
10:35:00	1450.0	14.61	0.51	

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

**Pumping Test Data for Production Well HV-2 During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999
located approximately 360 feet for HV-1A**

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	11:35:00	1510.0	14.70	0.60
	12:35:00	1570.0	14.68	0.58
	13:35:00	1630.0	14.69	0.59
	14:35:00	1690.0	14.69	0.59
	15:35:00	1750.0	14.68	0.58
	16:35:00	1810.0	14.64	0.54
	17:35:00	1870.0	14.63	0.53
	18:35:00	1930.0	14.68	0.58
	19:35:00	1990.0	14.66	0.56
	20:35:00	2050.0	14.73	0.63
	21:35:00	2110.0	14.77	0.67
	22:35:00	2170.0	14.75	0.65
	23:35:00	2230.0	14.74	0.64
04/07/99	00:35:00	2290.0	14.72	0.62
	1:35:00	2350.0	14.72	0.62
	2:35:00	2410.0	14.70	0.60
	3:35:00	2470.0	14.69	0.59
	4:35:00	2530.0	14.70	0.60
	5:35:00	2590.0	17.70	3.60
	6:35:00	2650.0	14.71	0.61
	7:35:00	2710.0	14.71	0.61
	8:35:00	2770.0	14.73	0.63
	9:35:00	2830.0	14.72	0.62
	10:35:00	2890.0	14.80	0.70
	11:35:00	2950.0	14.79	0.69
	12:35:00	3010.0	14.78	0.68
	13:35:00	3070.0	14.85	0.75
	14:35:00	3130.0	14.81	0.71
	15:35:00	3190.0	14.79	0.69
	16:35:00	3250.0	14.85	0.75
	17:35:00	3310.0	14.83	0.73
	18:35:00	3370.0	14.85	0.75
	19:35:00	3430.0	14.91	0.81
	20:35:00	3490.0	14.93	0.83
	21:35:00	3550.0	14.92	0.82
	22:35:00	3610.0	14.93	0.83
	23:35:00	3670.0	14.92	0.82
04/08/99	1:35:00	3790.0	14.92	0.82
	2:35:00	3850.0	14.92	0.82
	3:35:00	3910.0	14.89	0.79

HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

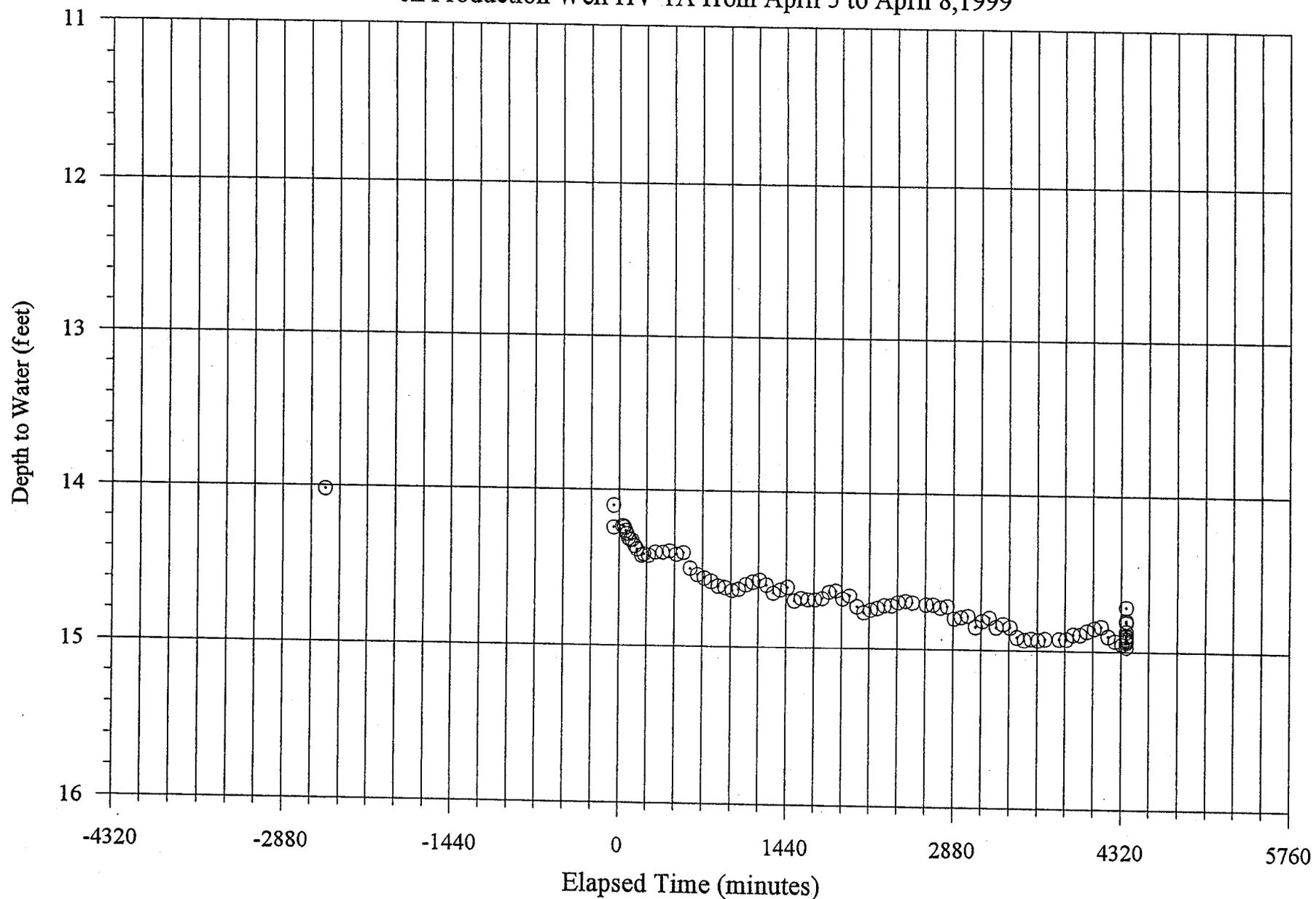
**Pumping Test Data for Production Well HV-2 During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999**

located approximately 360 feet for HV-1A

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	4:35:00	3970.0	14.89	0.79
	5:35:00	4030.0	14.87	0.77
	6:35:00	4090.0	14.85	0.75
	7:35:00	4150.0	14.84	0.74
	8:35:00	4210.0	14.90	0.80
	9:35:00	4270.0	14.93	0.83
	10:35:00	4330.0	14.95	0.85
Pump Off	11:10:00	4365.0	14.97	0.87
Recovery	11:11:00	4366.0	14.97	0.87
	11:12:00	4367.0	14.97	0.87
	11:12:00	4367.0	19.96	5.86
	11:12:00	4367.0	14.94	0.84
	11:12:00	4367.0	14.93	0.83
	11:12:00	4367.0	14.92	0.82
	11:12:00	4367.0	14.91	0.81
	11:12:00	4367.0	14.91	0.81
	11:12:00	4367.0	14.90	0.80
	11:12:00	4367.0	14.90	0.80
	11:12:00	4367.0	14.89	0.79
	11:12:00	4367.0	14.89	0.79
	11:12:00	4367.0	14.87	0.77
	11:12:00	4367.0	14.81	0.71
	11:12:00	4367.0	14.80	0.70
	11:12:00	4367.0	14.71	0.61

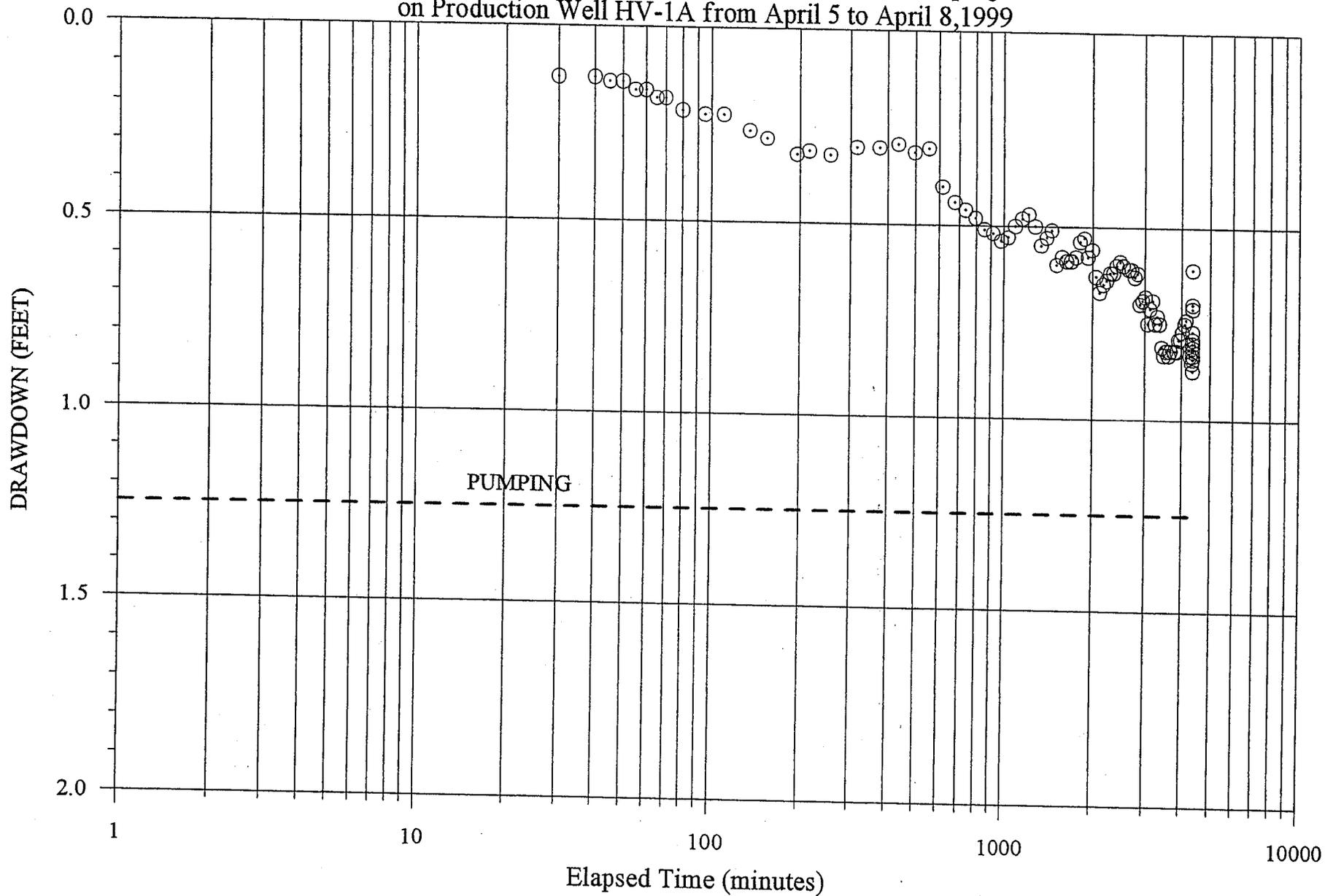
HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Hydrograph of Production Well HV-2 During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Drawdown versus Time Plot of
Production Well HV-2 During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

**Pumping Test Data for Fairway Test Well During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999**

located on west side of 1st fairway approximately 575 feet for HV-1A

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
04/02/99	15:30:00	-4015.0	7.76	-0.18
04/03/99	16:42:00	-2503.0	7.82	-0.12
04/05/99	8:45:00	-100.0	7.94	0.00
	9:45:00	-40.0	7.80	-0.14
	10:45:00	20.0	7.95	0.01
	11:45:00	80.0	7.96	0.02
	12:45:00	140.0	7.96	0.02
	14:45:00	260.0	8.00	0.06
	16:45:00	380.0	8.02	0.08
	18:45:00	500.0	8.03	0.09
	20:45:00	620.0	8.05	0.11
	22:45:00	740.0	8.07	0.13
04/06/99	00:45:00	860.0	8.10	0.16
	2:45:00	980.0	8.13	0.19
	4:45:00	1100.0	8.16	0.22
	6:45:00	1220.0	8.17	0.23
	8:45:00	1340.0	8.19	0.25
	10:45:00	1460.0	8.19	0.25
	12:45:00	1580.0	8.18	0.24
	14:45:00	1700.0	8.21	0.27
	16:45:00	1820.0	8.19	0.25
	18:45:00	1940.0	8.22	0.28
04/07/99	20:45:00	2060.0	8.22	0.28
	22:45:00	2180.0	8.25	0.31
	00:45:00	2300.0	8.27	0.33
	2:45:00	2420.0	8.27	0.33
	4:45:00	2540.0	8.26	0.32
	6:45:00	2660.0	8.26	0.32
	8:45:00	2780.0	8.27	0.33
	10:45:00	2900.0	8.25	0.31
	12:45:00	3020.0	8.26	0.32
	14:45:00	3140.0	8.25	0.31
04/08/99	16:45:00	3260.0	8.26	0.32
	18:45:00	3380.0	8.25	0.31
	20:45:00	3500.0	8.26	0.32
	22:45:00	3620.0	8.28	0.34
	00:45:00	3740.0	8.29	0.35
	2:45:00	3860.0	8.32	0.38
	4:45:00	3980.0	8.33	0.39
	6:45:00	4100.0	8.34	0.40

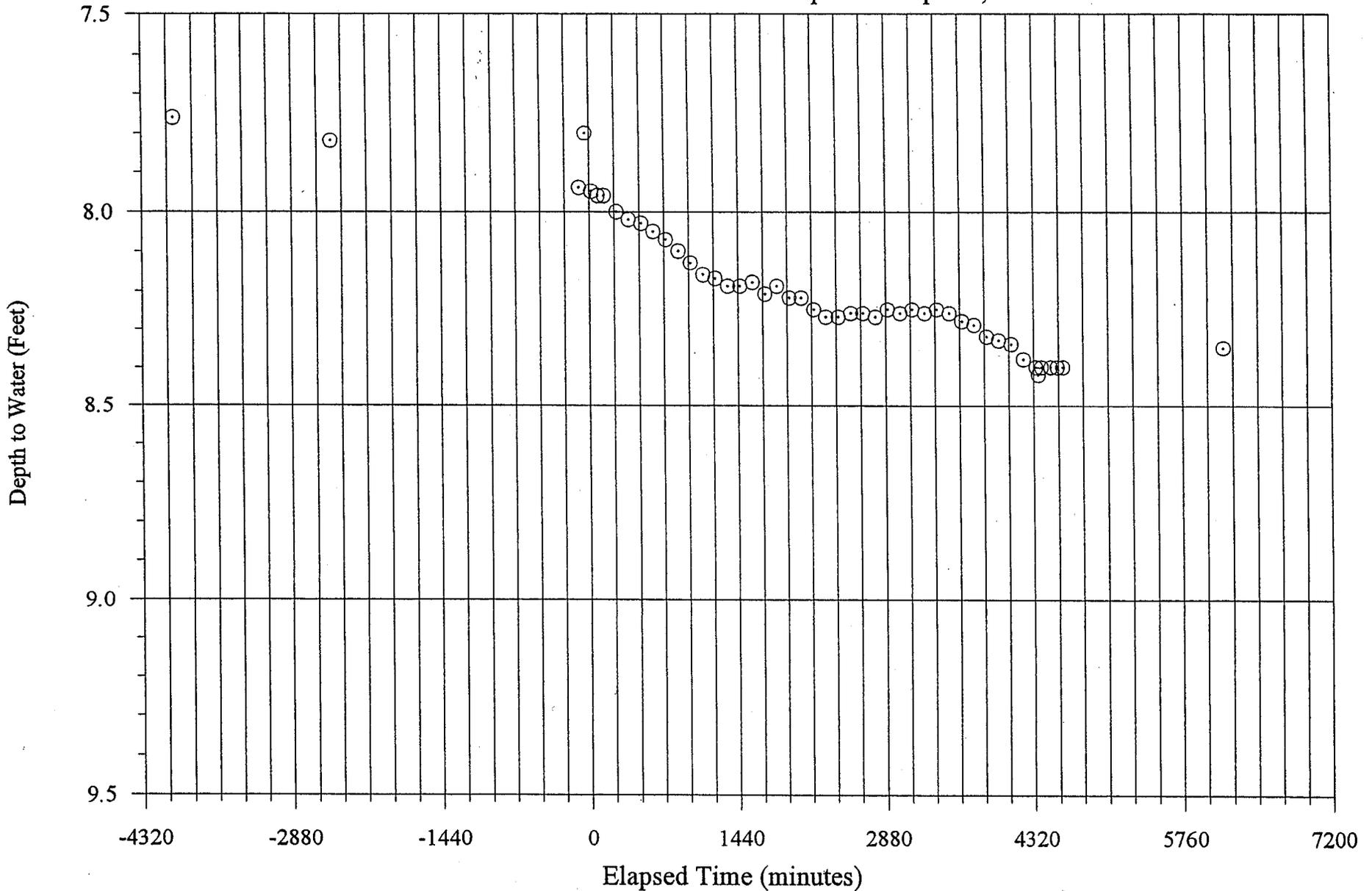
**HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

**Pumping Test Data for Fairway Test Well During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999
located on west side of 1st fairway approximately 575 feet for HV-1A**

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	8:45:00	4220.0	8.38	0.44
	10:45:00	4340.0	8.40	0.46
Pump Off	11:10:00	4365.0	8.42	0.48
Recovery	11:41:00	4396.0	8.40	0.46
	13:12:00	4487.0	8.40	0.46
	14:11:00	4546.0	8.40	0.46
	15:09:00	4604.0	8.40	0.46
04/09/99	16:59:00	6154.0	8.35	0.41

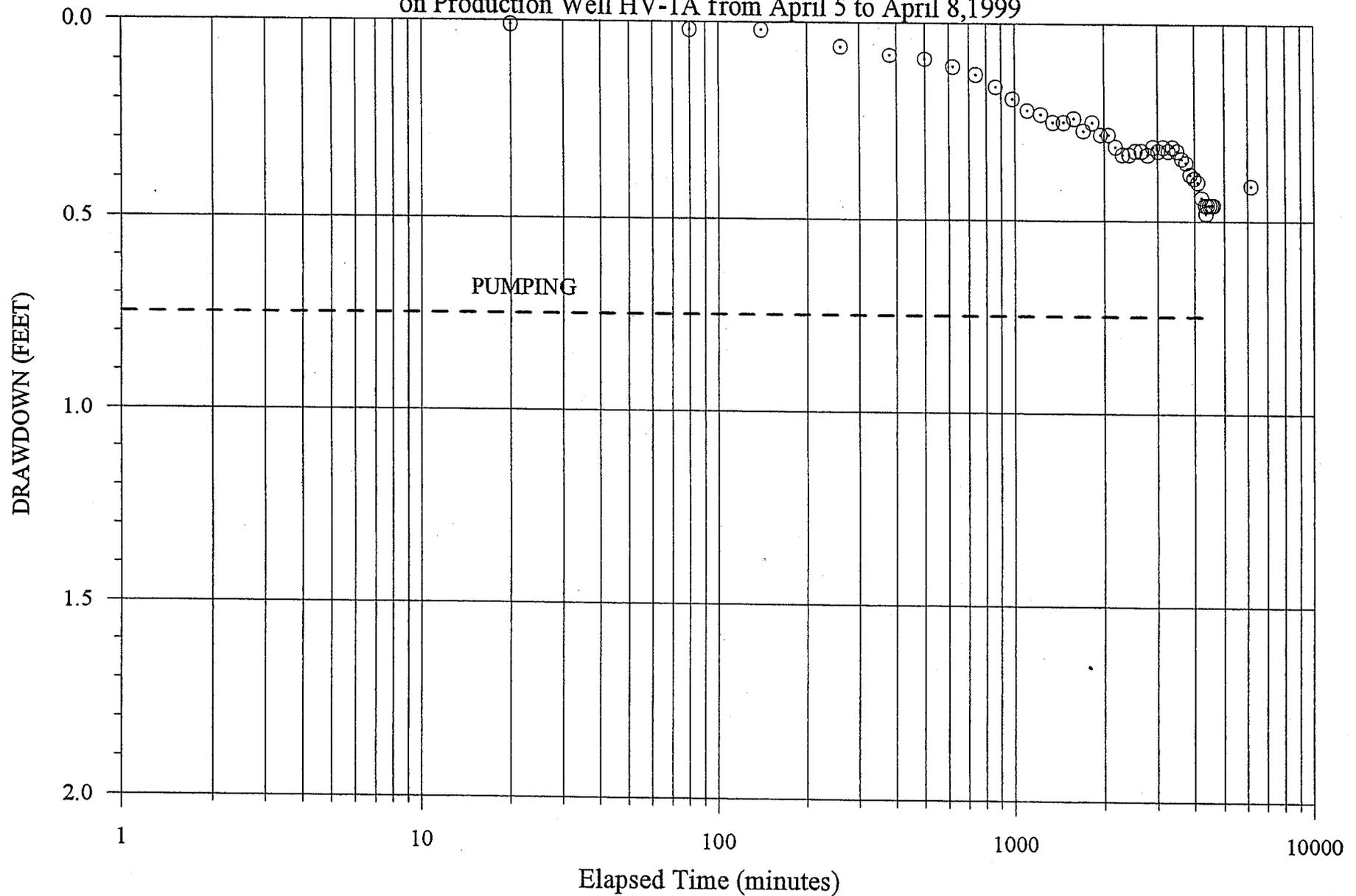
HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Hydrograph of Fairway Test Well During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Drawdown versus Time Plot of
Fairway Test Well During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Pumping Test Data for Test Well 4 During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999
located near HV-4 approximately 300 feet from HV-1A

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
04/02/99	15:21:00	-4024.0	5.72	-1.08
04/03/99	16:45:00	-2500.0	6.70	-0.10
04/05/99	8:45:00	-100.0	6.80	0.00
	9:45:00	-40.0	6.80	0.00
	10:45:00	20.0	6.80	0.00
	11:45:00	80.0	6.81	0.01
	12:40:00	135.0	6.83	0.03
	14:40:00	255.0	6.89	0.09
	16:40:00	375.0	6.94	0.14
	18:40:00	495.0	7.00	0.20
	20:40:00	615.0	7.03	0.23
	22:40:00	735.0	7.07	0.27
04/06/99	00:40:00	855.0	7.11	0.31
	2:40:00	975.0	7.16	0.36
	4:40:00	1095.0	7.20	0.40
	6:40:00	1215.0	7.24	0.44
	8:40:00	1335.0	7.29	0.49
	10:40:00	1455.0	7.27	0.47
	12:40:00	1575.0	7.29	0.49
	14:40:00	1695.0	7.31	0.51
	16:40:00	1815.0	7.28	0.48
	18:40:00	1935.0	7.36	0.56
	20:40:00	2055.0	7.33	0.53
	22:40:00	2175.0	7.37	0.57
04/07/99	00:40:00	2295.0	7.40	0.60
	2:40:00	2415.0	7.41	0.61
	4:40:00	2535.0	7.43	0.63
	6:40:00	2655.0	7.43	0.63
	8:40:00	2775.0	7.43	0.63
	10:40:00	2895.0	7.44	0.64
	12:40:00	3015.0	7.41	0.61
	14:40:00	3135.0	7.42	0.62
	16:40:00	3255.0	7.43	0.63
	18:40:00	3375.0	7.44	0.64
	20:40:00	3495.0	7.42	0.62
	22:40:00	3615.0	7.43	0.63
04/08/99	00:40:00	3735.0	7.44	0.64
	2:40:00	3855.0	7.44	0.64
	4:40:00	3975.0	7.46	0.66
	6:40:00	4095.0	7.46	0.66

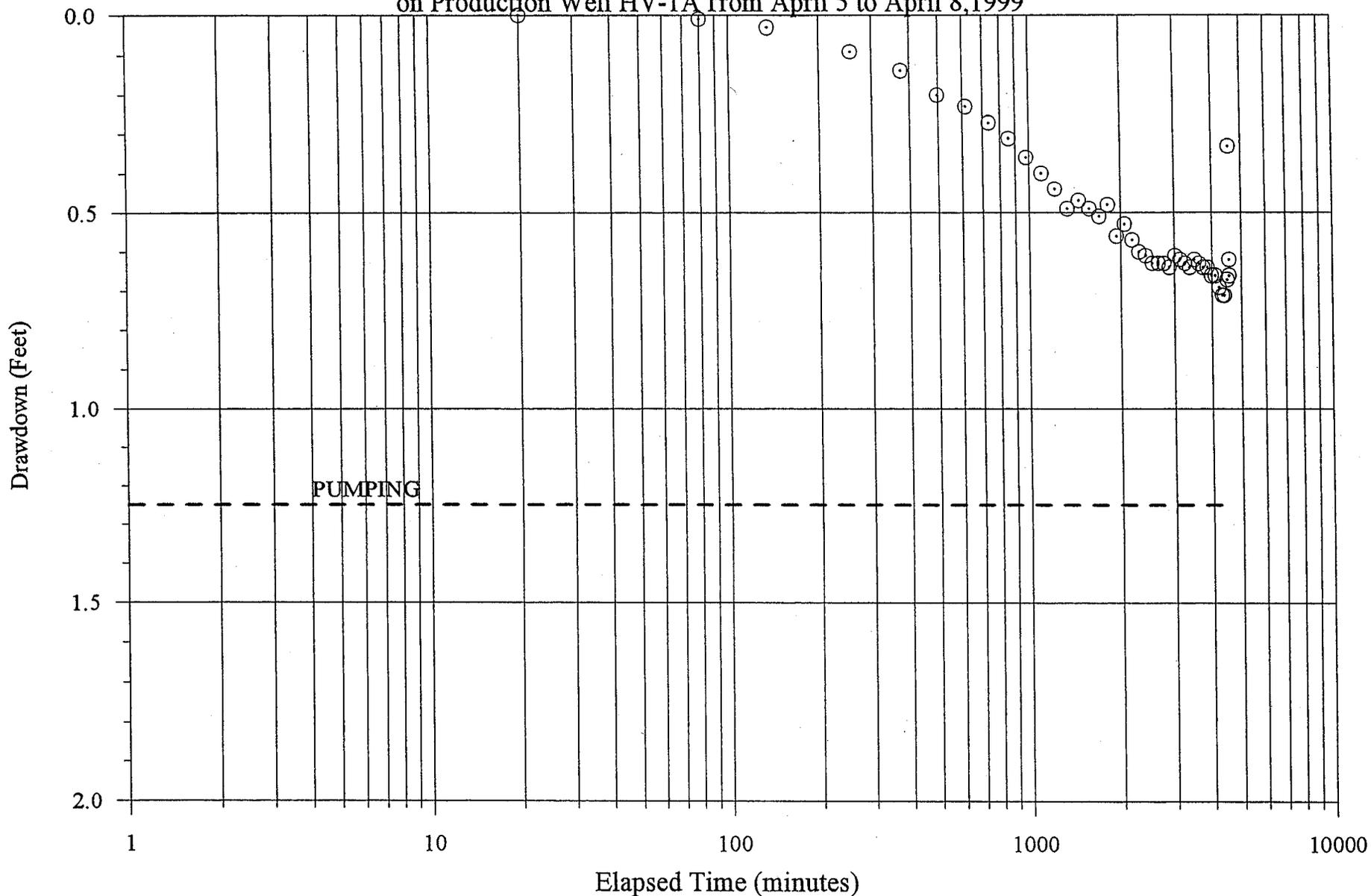
**HERITAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

**Pumping Test Data for Test Well 4 During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999
located near HV-4 approximately 300 feet from HV-1A**

Date	Time	Elapsed Time (minutes)	Depth to Water (feet)	Drawdown (feet)
	8:40:00	4215.0	7.49	0.69
	10:40:00	4335.0	7.51	0.71
Pump Off	11:10:00	4365.0	--	--
Recovery	11:39:00	4394.0	7.51	0.71
	13:09:00	4484.0	7.47	0.67
	14:08:00	4543.0	7.46	0.66
	14:07:00	4542.0	7.42	0.62
04/09/99	16:55:00	6150.0	7.13	0.33

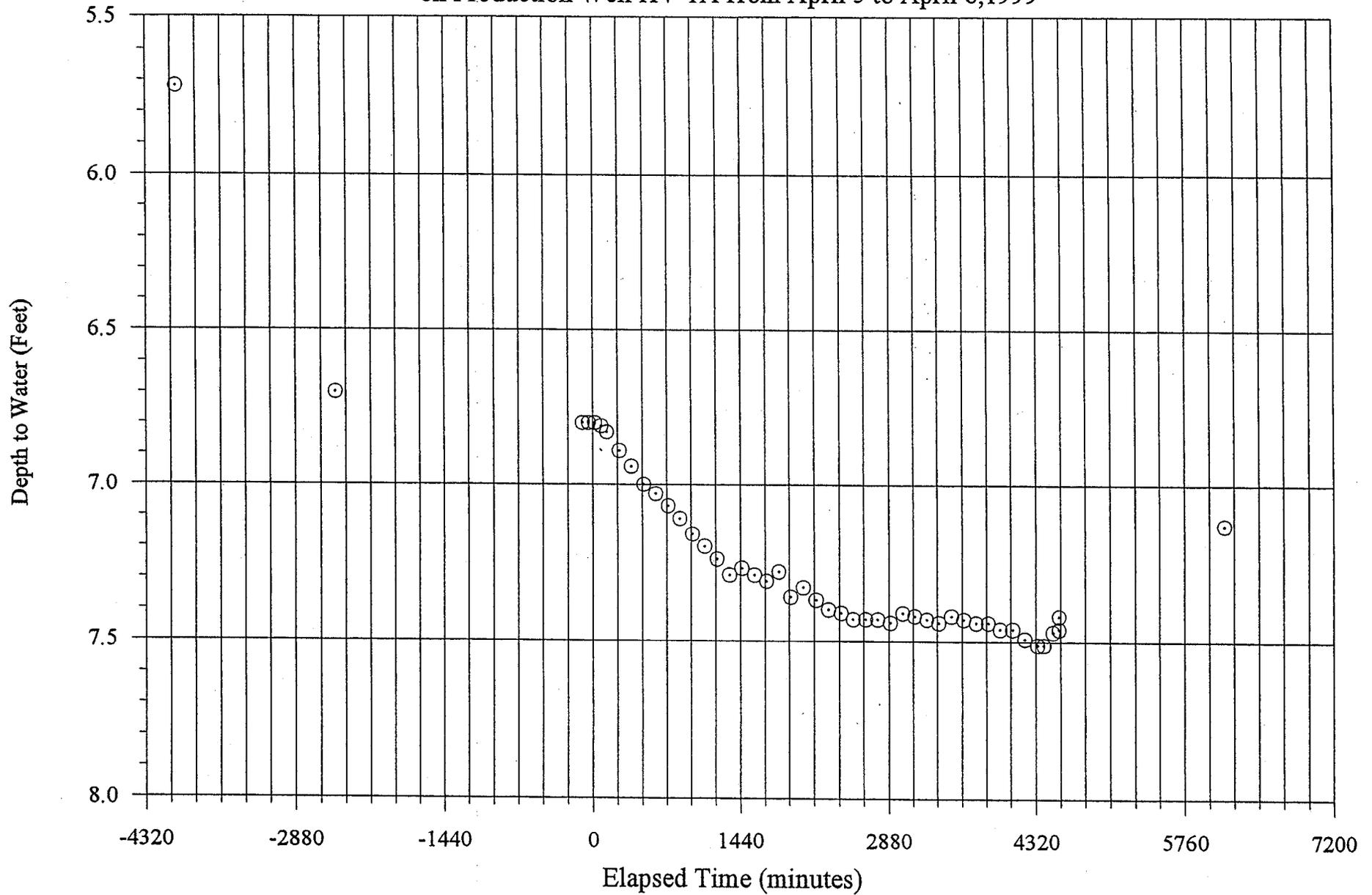
HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Drawdown versus Time Plot of
Test Well 4 During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Hydrograph of Test Well 4 During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

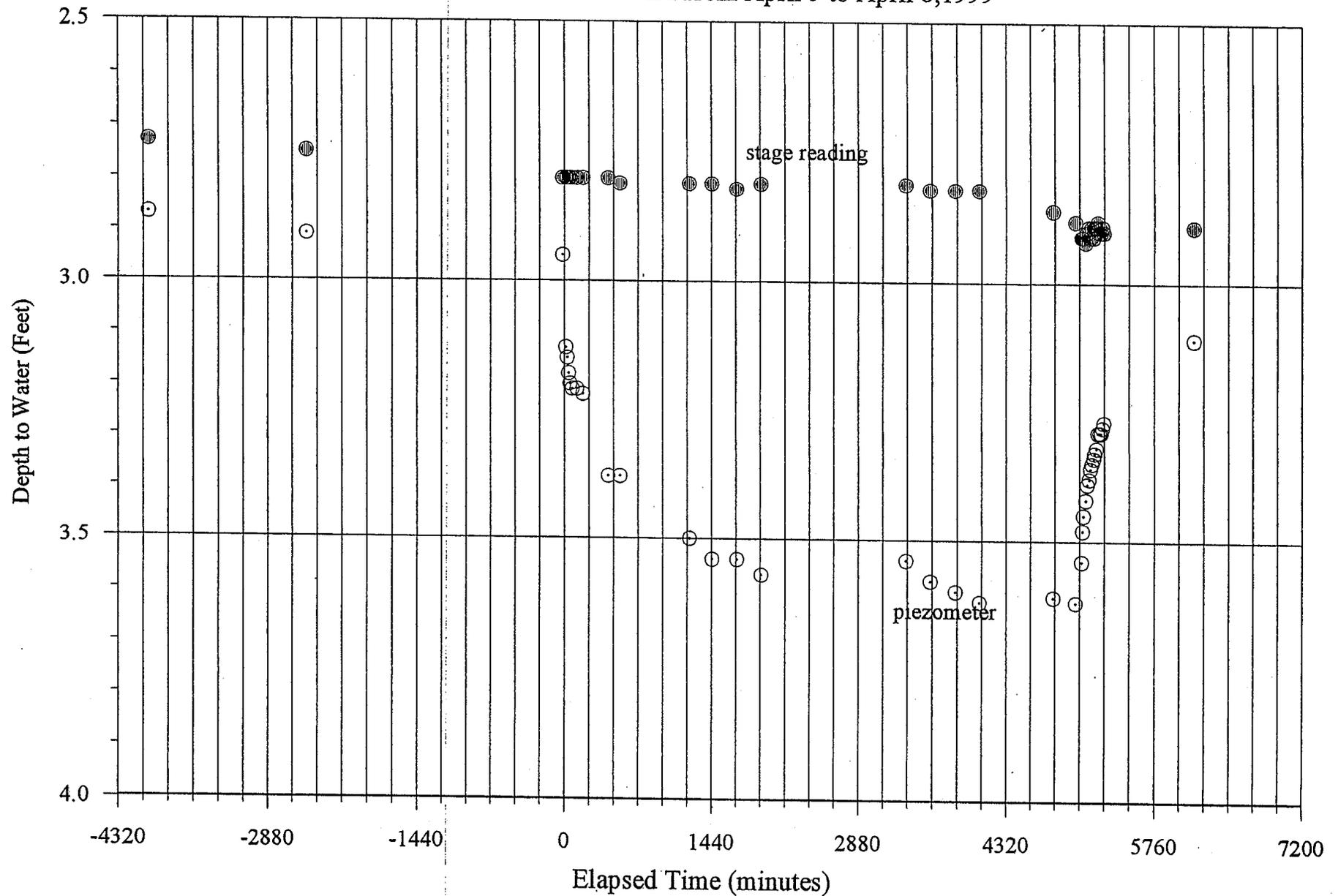
Pumping Test Data for River Piezometer During and After Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999

located next to HV-1A approximately 70 feet from pumping well

Date	Time	Elapsed Time (minutes)	Piezometer		Stage		
			Depth to Water (feet)	Drawdown (feet)	Depth to Water (feet)	Drawdown (feet)	
04/02/99	15:14:00	-4031.0	2.87	-0.08	2.73	-0.07	
04/03/99	16:38:00	-2507.0	2.91	-0.04	2.75	-0.05	
04/05/99	10:10:00	-15.0	2.95	0.00	2.80	0.00	
	10:43:00	18.0	3.13	0.18	2.80	0.00	
	10:55:00	30.0	3.15	0.20	2.80	0.00	
	11:09:00	44.0	3.18	0.23	2.80	0.00	
	11:24:00	59.0	3.20	0.25	2.80	0.00	
	11:45:00	80.0	3.21	0.26	2.80	0.00	
	12:30:00	125.0	3.21	0.26	2.80	0.00	
	13:30:00	185.0	3.22	0.27	2.80	0.00	
	17:30:00	425.0	3.38	0.43	2.80	0.00	
	19:30:00	545.0	3.38	0.43	2.81	0.01	
	04/06/99	6:45:00	1220.0	3.50	0.55	2.81	0.01
		10:30:00	1445.0	3.54	0.59	2.81	0.01
		14:30:00	1685.0	3.54	0.59	2.82	0.02
18:30:00		1925.0	3.57	0.62	2.81	0.01	
04/07/99	6:48:00	3346.6	3.54	0.59	2.81	0.01	
	10:40:00	3578.6	3.58	0.63	2.82	0.02	
	14:45:00	3823.6	3.60	0.65	2.82	0.02	
	18:40:00	4058.6	3.62	0.67	2.82	0.02	
04/08/99	6:45:00	4783.6	3.61	0.66	2.86	0.06	
	10:20:00	4998.6	3.62	0.67	2.88	0.08	
Pump Off	11:11:00	5049.6	--	--	--	--	
Recovery	11:18:00	5056.6	3.54	0.59	2.91	0.11	
	11:27:00	5065.6	3.48	0.53	2.91	0.11	
	11:36:00	5074.6	3.45	0.50	2.91	0.11	
	11:58:00	5096.6	3.42	0.47	2.92	0.12	
	12:14:00	5112.6	3.39	0.44	2.90	0.10	
	12:29:00	5127.6	3.38	0.43	2.89	0.09	
	12:44:00	5142.6	3.36	0.41	2.91	0.11	
	12:58:00	5156.6	3.35	0.40	2.89	0.09	
	13:15:00	5173.6	3.34	0.39	2.91	0.11	
	13:28:00	5186.6	3.33	0.38	2.89	0.09	
	13:42:00	5200.6	3.32	0.37	2.89	0.09	
	13:57:00	5215.6	3.29	0.34	2.88	0.08	
	14:16:00	5234.6	3.29	0.34	2.90	0.10	
	14:27:00	5245.6	3.29	0.34	2.90	0.10	
	14:43:00	5261.6	3.28	0.33	2.89	0.09	
	14:57:00	5275.6	3.27	0.32	2.90	0.10	
04/09/99	16:51:00	6146.0	3.11	0.16	2.89	0.09	

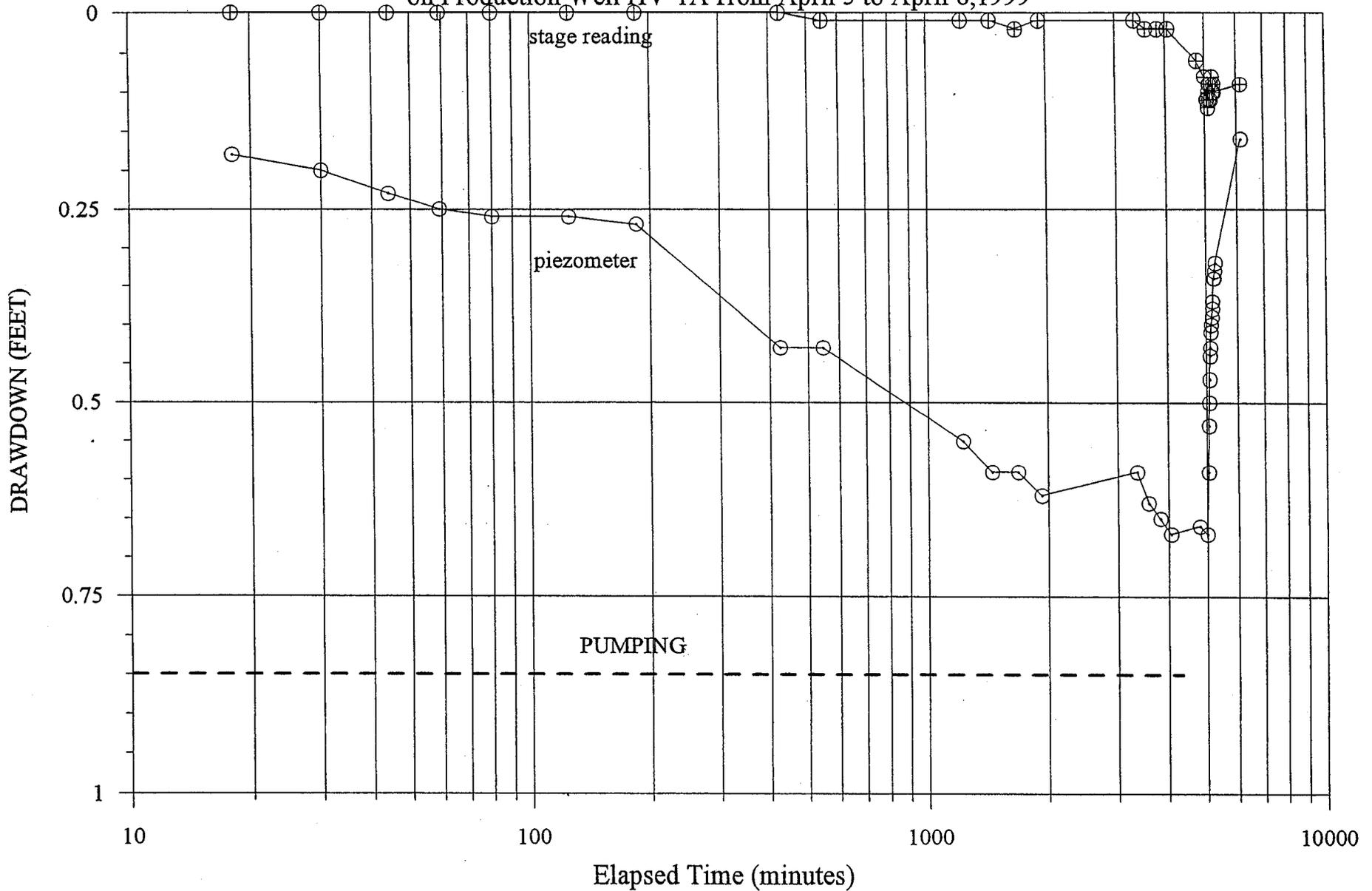
HERITAGE WATER COMPANY SOUTHBURY, CONNECTICUT

Hydrograph of River Piezometer During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



HERITAGE WATER COMPANY SOUTHURY, CONNECTICUT

Drawdown versus Time Plot of
River Piezometer During and After 72-Hour Pumping Test
on Production Well HV-1A from April 5 to April 8, 1999



WELL DATA

ALL = DRILLED, GRAVEL PACK

HV-1 (USGS S64)

10" DEPTH = 71' SCREEN = 23' (48-71)

T = 60,000 GPD/FT

S = 0.20

MAX AVAIL DRAWDOWN = 47 FT

SPECIFIC CAPACITY = 7.3 GPM/FT (.46 MGD)

STEADY MAX YIELD = 321 GPM (MEASURED)
 = 293 GPM (THEOS)

HV-2 (USGS S65)

10" DEPTH = 69' SCREEN = 26' (43-69)

T = 55,000 GPD/FT

S = 0.20

MAX AVAIL DRAWDOWN = 42 FT

SPECIFIC CAPACITY = 8.3 GPM/FT

STEADY MAX YIELD = 324 GPM (.47 MGD)
 = 325 GPM (THEOS)

$$K = \frac{T}{b} = \frac{60,000 \text{ GPD/FT}}{35'} = 1090 \text{ GPD/FT}^2 \text{ (164 FT/DAY)}$$

$$K = \frac{T}{b} = \frac{55,000 \text{ GPD/FT}}{63'} = 873 \text{ GPD/FT}^2 \text{ (131 FT/DAY)}$$

HV-3

10" DEPTH = 62' SCREEN = 12' (50-62)

b = 86.5 FT

T = 53,788 GPD/FT

S = 0.20

MAX AVAIL DRAWDOWN = 49 FT

SPECIFIC CAPACITY = 20.41 GPM/FT

STEADY MAX YIELD = 1000 GPM (1.4 MGD)

K = 952 GPD/FT² (143 FT/DAY)

HV-4

12" DEPTH = 61' SCREEN = 15' (46-61)

STATIC 3'11" = 392' b = 61 - 3.92 = 57.1

T = 21,488 GPD/FT

S = 0.20

MAX AVAIL DRAWDOWN = 45 FT

SPECIFIC CAPACITY = 13.8 GPM/FT

STEADY MAX YIELD = 621 GPM (.89 MGD)

K = 429 GPD/FT² (64 FT/DAY)

HV-5

12" DEPTH = 68' SCREEN = 15' (53-68)

T = 720 GPD/FT² x 59.25 FT = 42660 GPD/FT

S = 0.20

MAX AVAIL DRAWDOWN = 52 FT

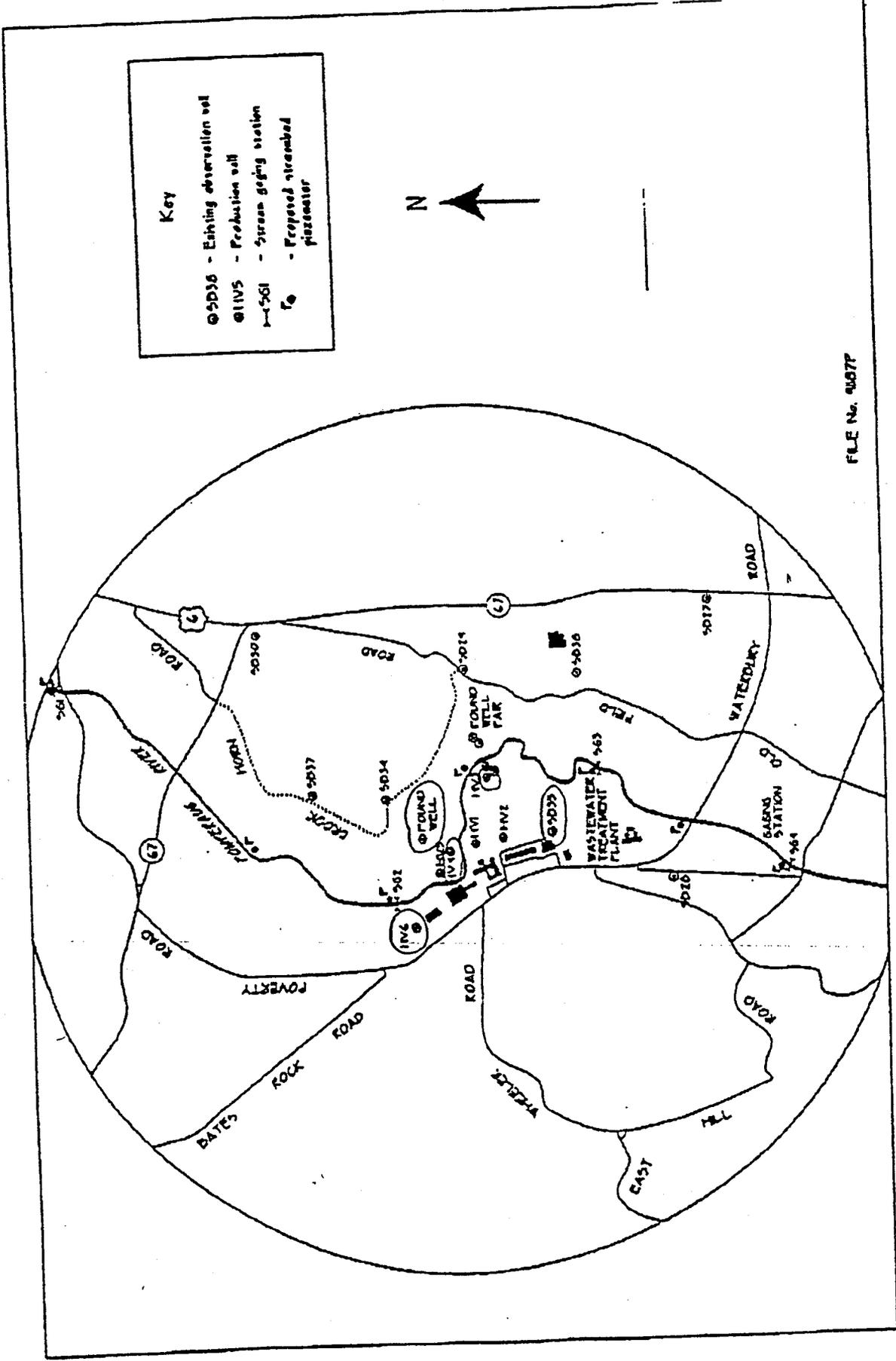
SPECIFIC CAPACITY = 6.15 GPM/FT

STEADY MAX YIELD = 320 GPM (.46 MGD)

K = 720 GPD/FT² (108 FT/DAY)

Key

- ⊙ 5036 - Existing observation well
- ⊙ 1105 - Production well
- 5061 - Stream gaging station
- ⊙ - Proposed streambed piezometer



FILE No. 48077

WELL COMPLETION REPORT

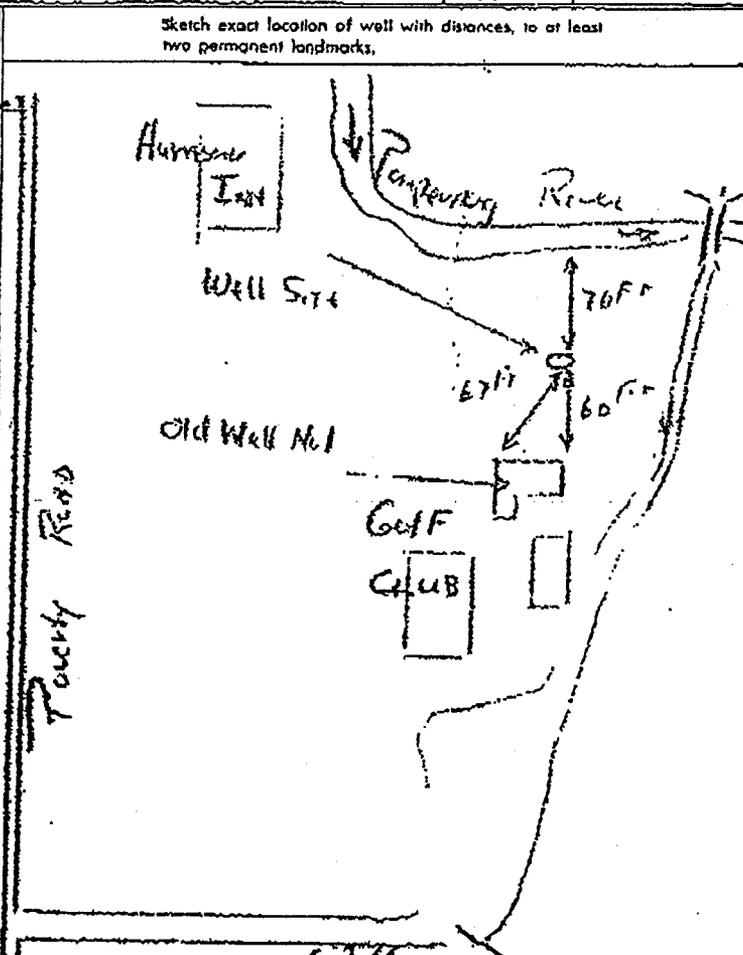
CPA-9 REV. 11 87

STATE OF CONNECTICUT
 DEPARTMENT OF CONSUMER PROTECTION
WELL DRILLING BOARD
 165 CAPITOL AVE.
 HARTFORD, CONNECTICUT 06106

Do NOT fill in
STATE WELL NO.
OTHER NO.

OWNER	Heritage Water Company		ADDRESS Poverty Road	
LOCATION OF WELL	(No. & Street) Poverty Road		(Town) (Lot Number) Southbury, Connecticut	
PROPOSED USE OF WELL	<input type="checkbox"/> DOMESTIC	<input type="checkbox"/> BUSINESS ESTABLISHMENT	<input type="checkbox"/> FARM	<input type="checkbox"/> TEST WELL
	<input checked="" type="checkbox"/> PUBLIC SUPPLY	<input type="checkbox"/> INDUSTRIAL	<input type="checkbox"/> AIR CONDITIONING	<input type="checkbox"/> OTHER (Specify)
DRILLING EQUIPMENT	<input type="checkbox"/> ROTARY	<input type="checkbox"/> COMPRESSED AIR PERCUSSION	<input checked="" type="checkbox"/> CABLE PERCUSSION	<input type="checkbox"/> OTHER (Specify)
CASING DETAILS	LENGTH (feet) 25/44	DIAMETER (inches) 24/16	WEIGHT PER FOOT	DRIVE SHOE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
			<input type="checkbox"/> THREADED <input checked="" type="checkbox"/> WELDED	WAS CASING GROUTED? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
YIELD TEST	<input type="checkbox"/> BARED	<input checked="" type="checkbox"/> PUMPED	<input type="checkbox"/> COMPRESSED AIR	HOURS 72
				YIELD (G.P.M.) 450
WATER LEVEL	MEASURE FROM LAND SURFACE...STATIC (Specify feet)		DURING YIELD TEST (feet)	
			Depth of Completed Well in feet below Land surface: 59	
SCREEN DETAILS	MAKE 15 feet Johnson - pipe size			LENGTH OPEN TO AQUIFER (feet) 15 feet
	SLOT SIZE .60	DIAMETER (inches) 16	IF GRAVEL PACKED: Diameter of well including gravel pack (inches):	GRAVEL SIZE (inches) FROM (feet) TO (feet) No. 3 59 20

DEPTH FROM LAND SURFACE FEET TO FEET		FORMATION DESCRIPTION
0	20	Topsoil - fine sand, clay, gravel
20	55	Sand, silt, and gravel
55	59	Hard packed sand, gravel, clay



If yield was tested at different depths during drilling, list below

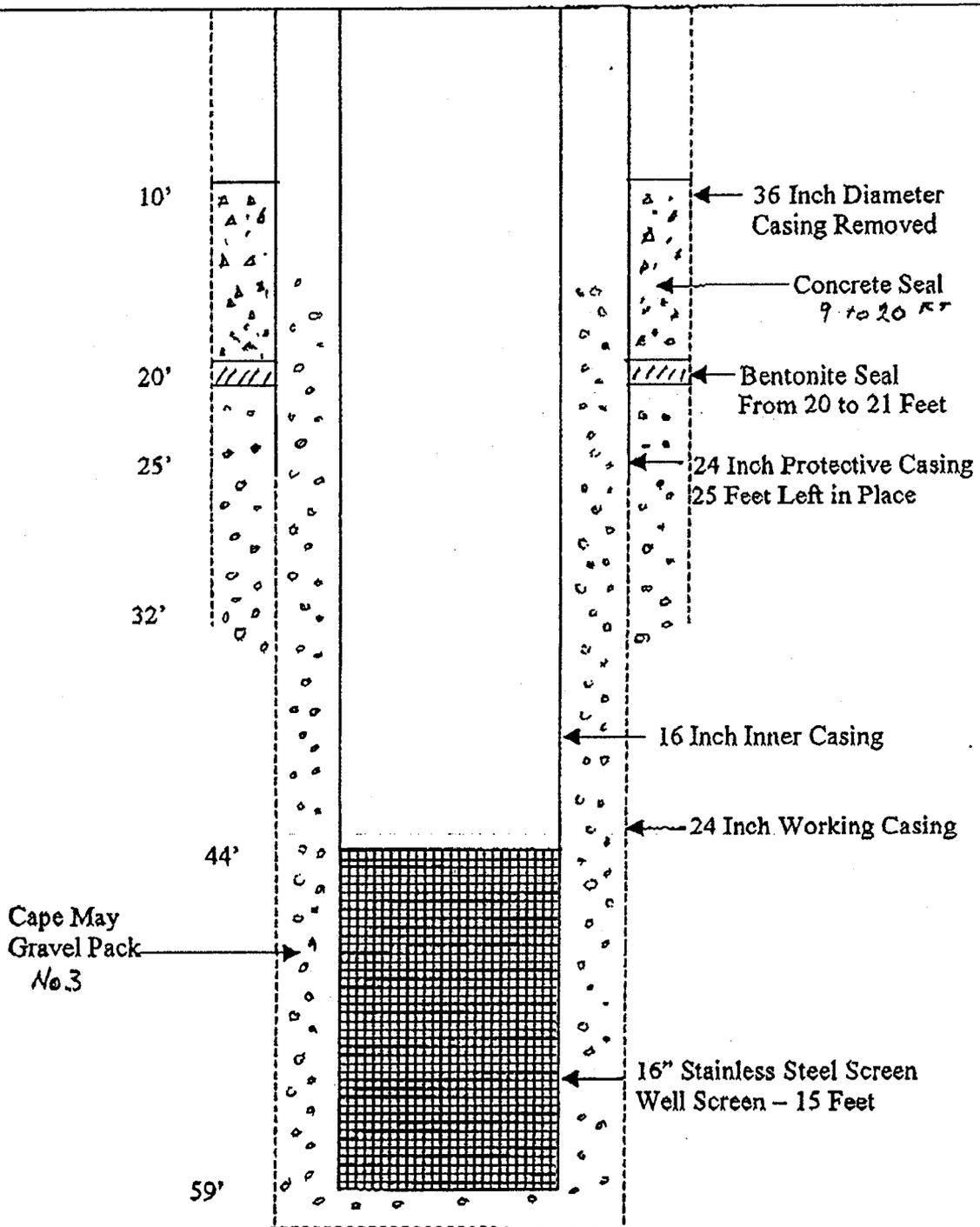
FEET	GALLONS PER MINUTE

DATE WELL COMPLETED 6/21/99	PERMIT NO. 185542	REGISTRATION NO. 121-21	DATE OF REPORT 6/28/99	WELL DRILLER (Signature) The Stephen B. Church Company
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CONTRACTOR

Heritage Water Co.

Replacement Well No. 1



Sketch BY
STEPHEN B CHURCH CO

GEOLOGIC LOG		OWNER: Heritage Water Company	
LEGGETTE, BRASHEARS & GRAHAM, INC.		WELL NO.: TB HV-1A	
TRUMBULL, CONNECTICUT		PAGE: 1 OF 1 PAGE	
SITE LOCATION: Poverty Road Southbury, CT		SCREEN SIZE & TYPE:	
DATE COMPLETED: 2/10/99		SLOT NO.: SETTING:	
DRILLING COMPANY: Stephen B. Church Company		SAND PACK SIZE & TYPE:	
DRILLING METHOD: Drive and wash		SETTING:	
SAMPLING METHOD: Wash and split spoon		CASING SIZE & TYPE:	
OBSERVER: Kenneth Taylor		SETTING:	
REFERENCE POINT (RP): Grade		SEAL TYPE:	
ELEVATION OF RP: Not determined		SETTING:	
STICK-UP: ---		BACKFILL TYPE:	
SURFACE COMPLETION: None, pilothole		STATIC WATER LEVEL:	
REMARKS:		DEVELOPMENT METHOD:	
		DURATION: YIELD:	
ABBREVIATIONS: SS = split spoon W = wash C = cuttings G = grab ST = shelby tube REC = Recovery PPM = parts per million			

DEPTH (FEET)		SAMPLE TYPE	BLOW COUNT	REC. (FEET)	PID READING (PPM)	DESCRIPTION
FROM	TO					
15	20	W				SAND, fine and very coarse; some very fine gravel; brown.
20	25	W				SAND, very fine and coarse; little very fine gravel; trace silt; brown.
25	30	W				SAND, fine and coarse; little very fine gravel; brown.
30	35	W				SAND, fine and very coarse; little very fine gravel; brown.
35	40	W				SAND, fine and very coarse; little very fine gravel; brown.
40	45	W				SAND, fine and very coarse; little very fine gravel; brown.
45	50	W				SAND, fine and coarse, some very fine gravel, brown.
50	55	W				SAND, very fine and coarse, little very fine gravel.
55	60	W				Gravel, very fine, and, very fine and medium sand; trace silt; brown.

\\WELLFORM\1999\STEPHCHC

HERITAGE VILLAGE WATER COMPANY
SOUTHURY, CONNECTICUT

72-Hour Yield Test Data
for the Final 24 Hours of the Test

Hours since start of pumping	HV-1		HV-2		HV-3		HV-4		HV-5	
	Pumping rate (gpm)	Depth to water (feet)	Pumping rate (gpm)	Depth to water (feet)	Pumping rate (gpm)	Depth to water (feet)	Pumping rate (gpm)	Depth to water (feet)	Pumping rate (gpm)	Depth to water (feet)
49	178	41.6	174	48.0	373	34.0	380	36.2	200	47.1
50	178	41.6	176	48.1	374	34.0	380	36.3	200	47.3
51	179	41.6	178	48.1	375	34.0	380	36.2	200	47.3
52	177	41.6	178	48.2	375	34.0	380	36.3	200	47.3
53	178	41.6	178	48.2	375	34.0	380	36.2	200	47.2
54	177	41.6	177	48.2	375	34.0	380	36.3	200	47.2
55	177	41.6	176	48.1	375	34.0	380	36.2	200	47.3
56	179	41.6	175	48.1	375	34.0	380	36.2	200	47.2
57	178	41.6	174	48.0	374	34.0	380	36.1	200	47.3
58	178	41.6	173	48.1	374	34.0	375	36.1	200	47.3
59	177	41.6	173	48.0	374	34.0	375	36.2	200	47.2
60	177	41.4	174	47.8	374	34.0	375	36.0	198	47.2
61	177	41.6	175	47.8	373	34.0	375	36.0	198	47.2
62	177	41.5	174	47.9	373	34.0	375	36.0	198	47.2
63	177	41.6	174	47.8	372	34.0	375	36.0	198	47.2
64	176	41.5	174	47.8	371	34.0	370	35.7	198	46.8

TABLE 1
(continued)

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

72-Hour Yield Test Data
for the Final 24 Hours of the Test

Hours since start of pumping	HV-1		HV-2		HV-3		HV-4		HV-5	
	Pumping rate (gpm)	Depth to water (feet)	Pumping rate (gpm)	Depth to water (feet)	Pumping rate (gpm)	Depth to water (feet)	Pumping rate (gpm)	Depth to water (feet)	Pumping rate (gpm)	Depth to water (feet)
65	175	41.5	174	47.6	370	34.0	365	35.5	196	46.7
66	175	41.5	173	47.4	370	33.9	365	35.5	196	46.6
67	175	41.5	173	47.3	370	33.9	365	35.5	196	46.6
68	175	41.5	174	47.3	370	33.9	365	35.6	196	46.6
69	176	41.7	174	47.4	372	33.9	370	35.6	196	46.6
70	177	41.8	175	47.5	374	34.0	370	35.7	196	46.7
71	178	41.9	175	47.5	373	34.0	375	36.0	198	46.9
72	179	41.9	175	47.6	373	34.0	375	36.2	200	47.2

lms
hvsout.rpt/90-40

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

YIELD TEST
HV-1

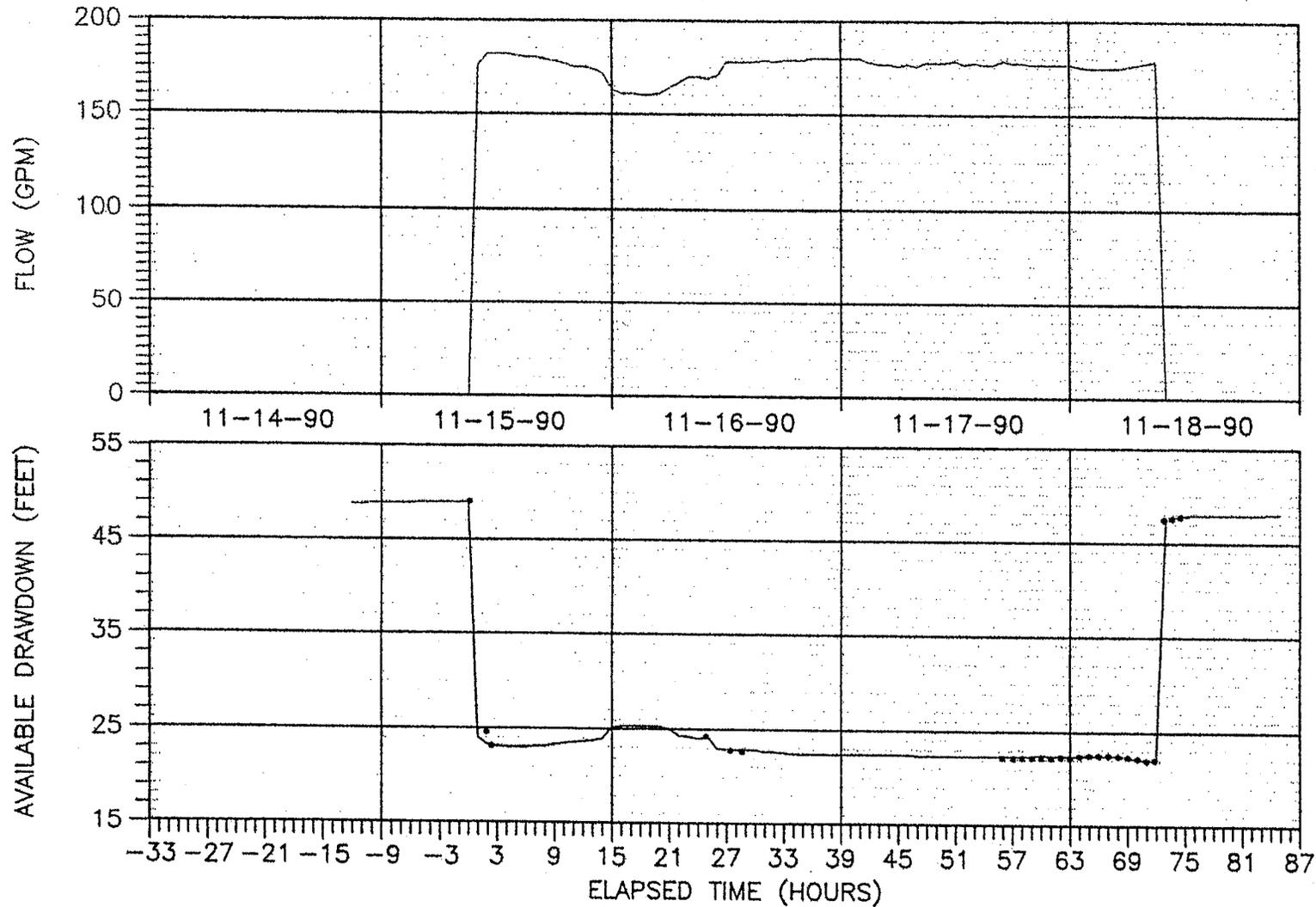


FIGURE 2

— AUTOMATIC RECORDER
..... ELECTRIC TAPE

LEGGETTE, BRASHEARS & GRAHAM, INC.

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

YIELD TEST
HV-2

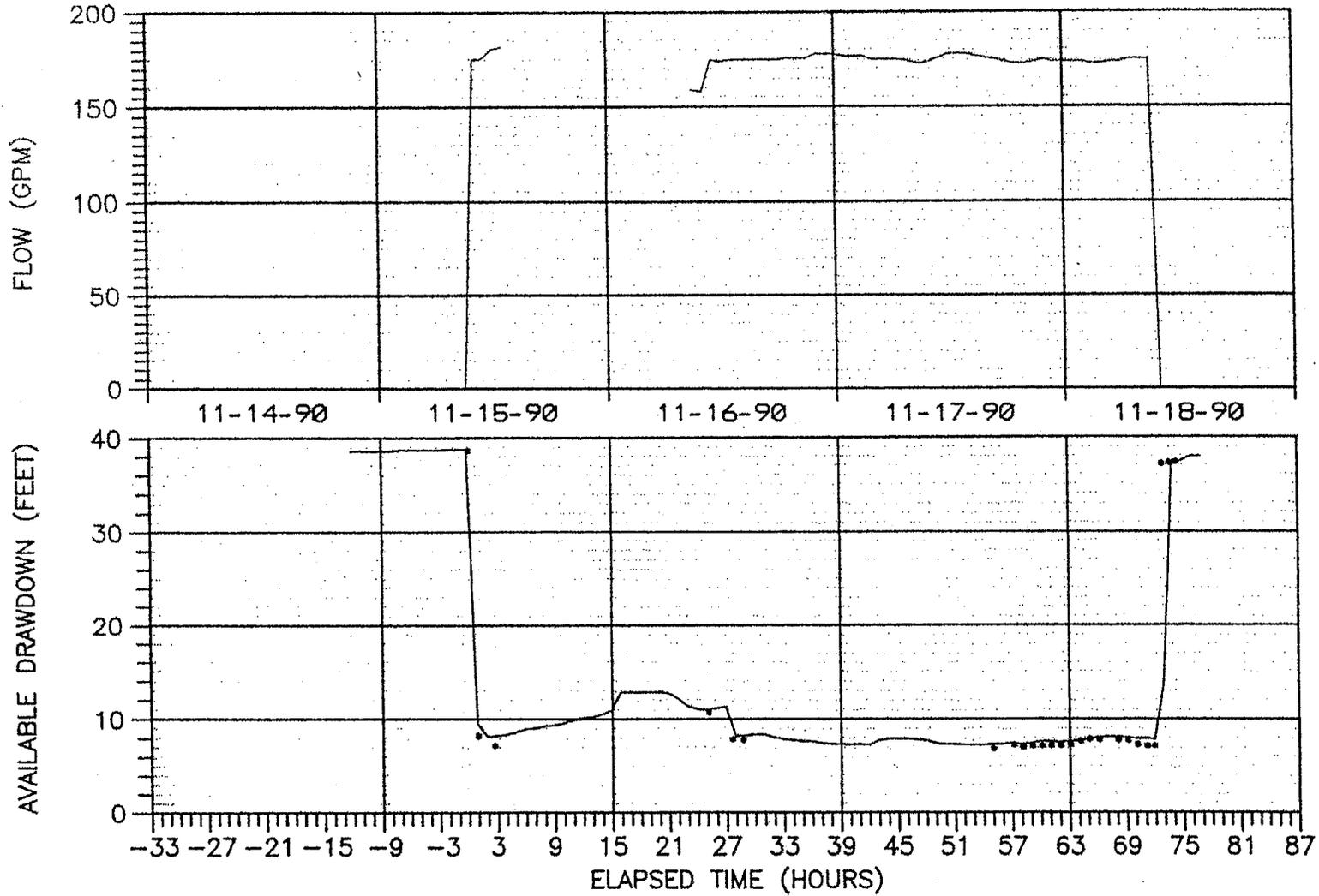


FIGURE 3

— AUTOMATIC RECORDER
..... ELECTRIC TAPE

LEGGETTE, BRASHEARS & GRAHAM, INC.

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

YIELD TEST
HV-3

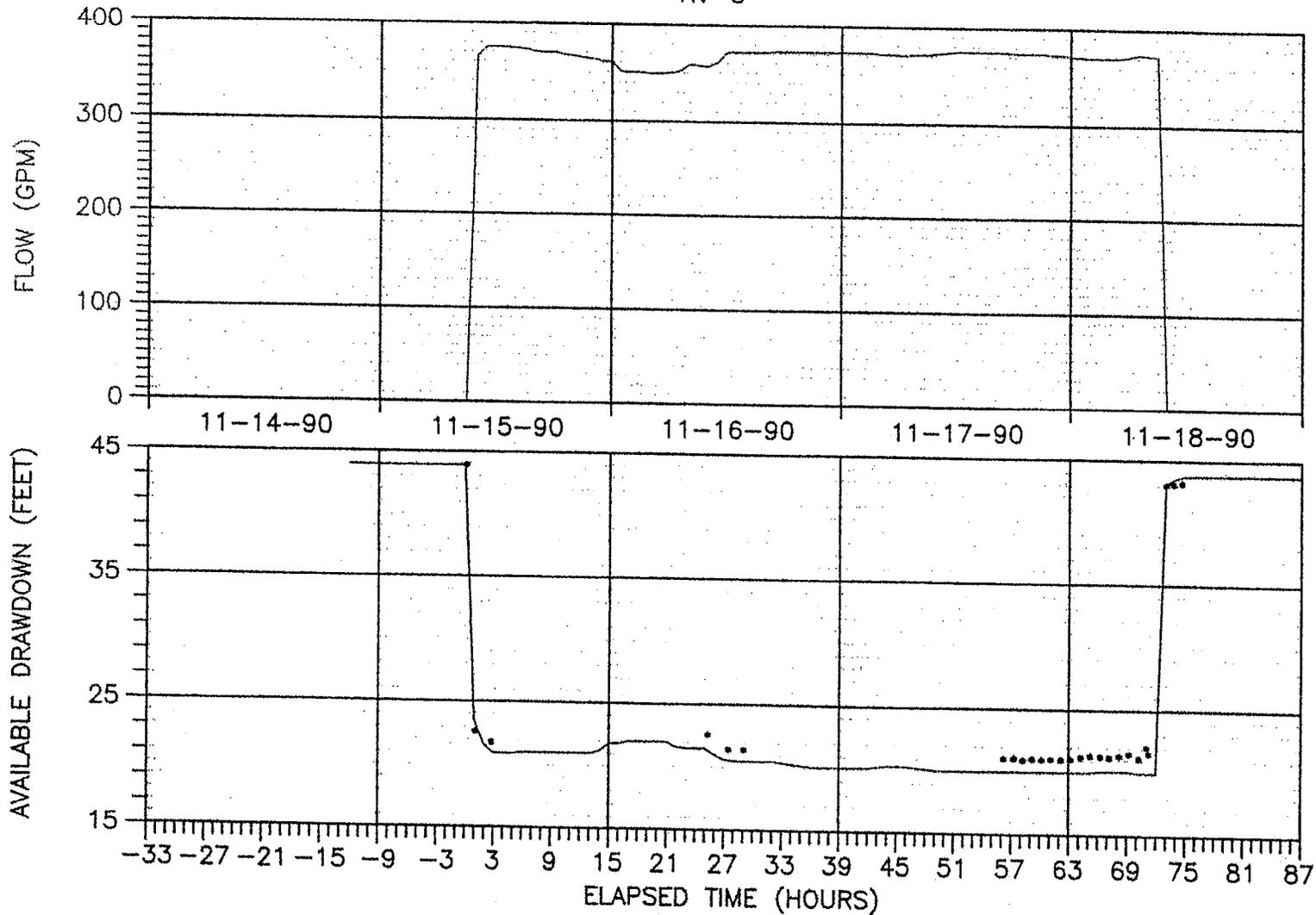


FIGURE 4

— AUTOMATIC RECORDER
..... ELECTRIC TAPE

LEGGETTE, BRASHEARS & GRAHAM, INC.

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

YIELD TEST
HV-4

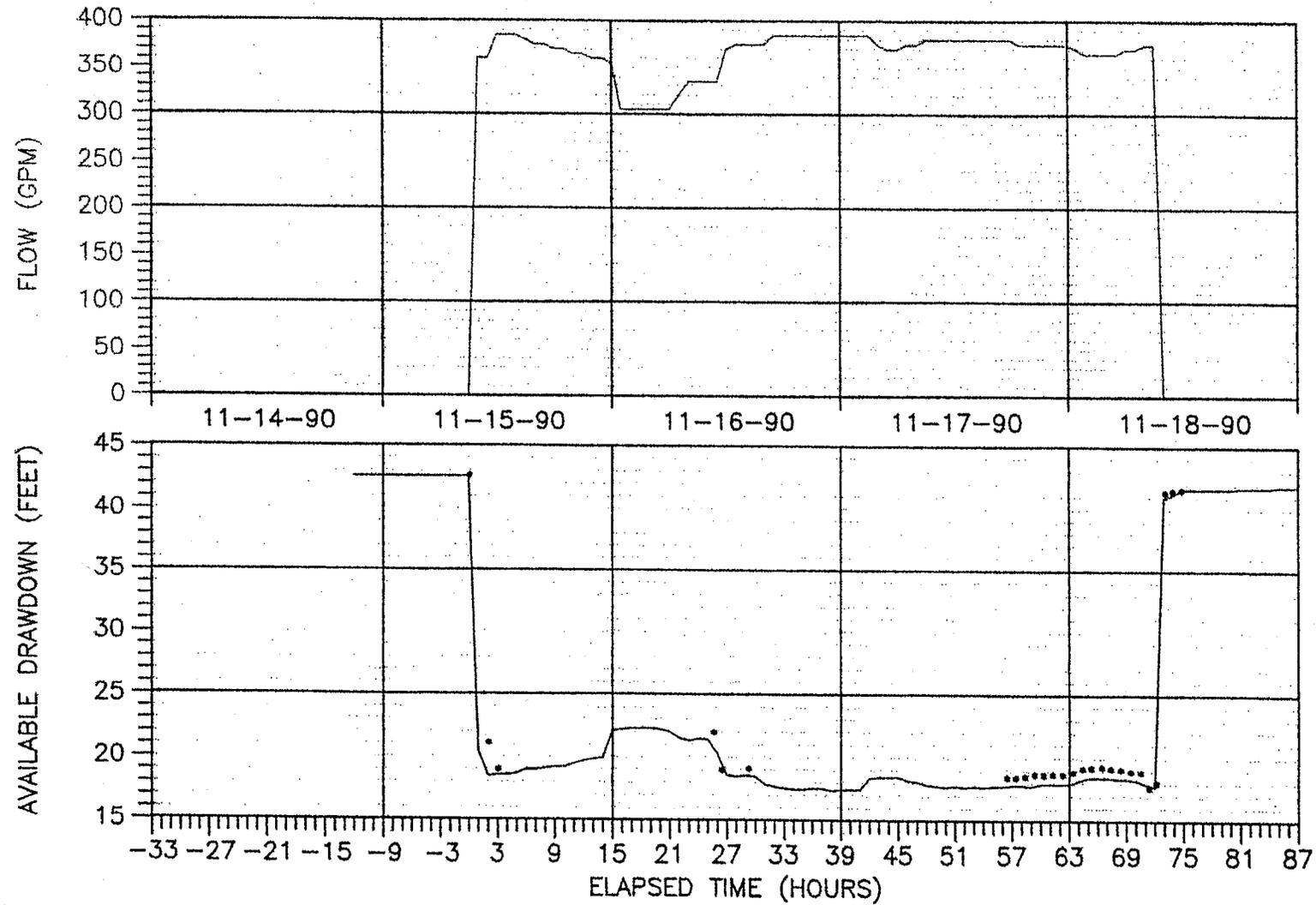


FIGURE 5

— AUTOMATIC RECORDER
..... ELECTRIC TAPE

LEGGETTE, BRASHEARS & GRAHAM, INC.

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

YIELD TEST
HV-5

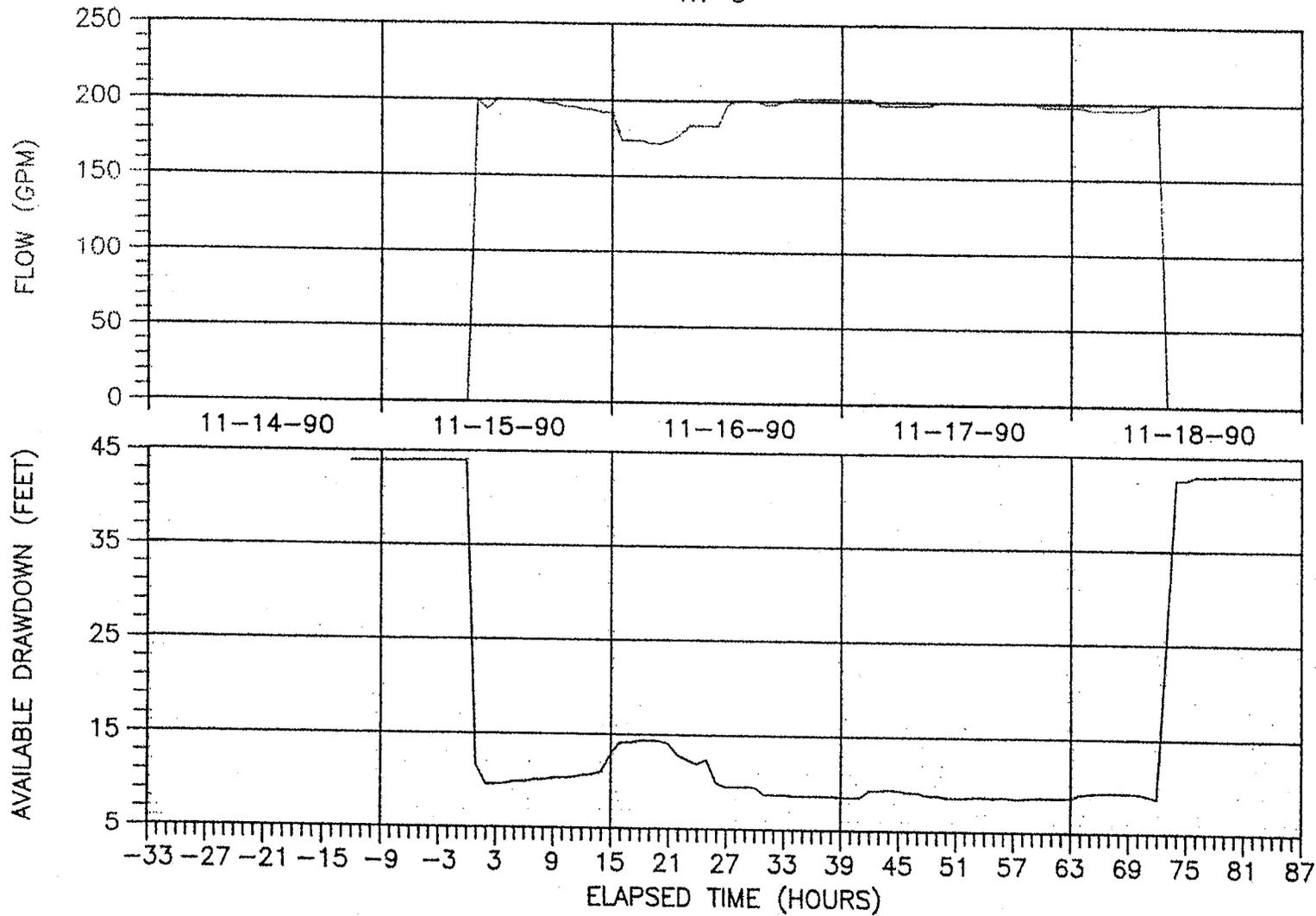


FIGURE 6

HERITAGE VILLAGE WATER COMPANY
SOUTHURY, CONNECTICUT

HYDROGRAPH
HV-6

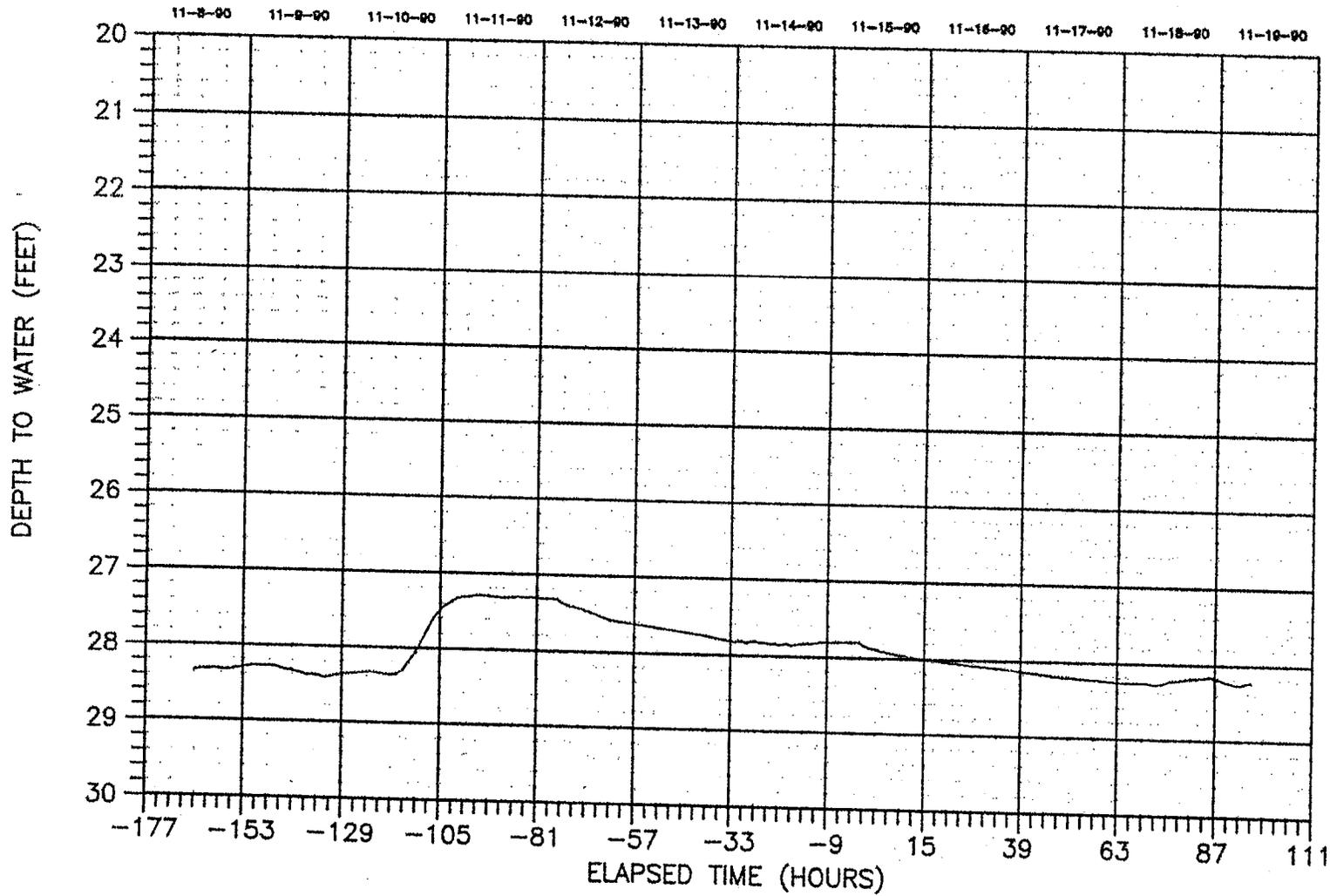


FIGURE 7

LEGGETTE, BRASHEARS & GRAHAM, INC.

APPENDIX E
MONTHLY PRODUCTION RECORDS
2003 - 2008

HERITAGE VILLAGE WATER COMPANY

**Monthly Water Production (gallons)
2003**

	H-1	H-2	H-3	H-4	H-5	Total Water Production	Average Daily Demand for Month	Maximum Day Demand	
								Day	Total
January	4,317,500	1,436,500	7,227,900	5,058,700	5,907,700	23,948,300	772,526	29	1,107,200
February	3,346,200	804,800	6,452,100	5,427,200	4,681,400	20,711,700	739,703	12	1,003,600
March	4,232,400	2,583,200	6,618,200	6,945,800	3,798,900	24,178,500	779,951	1	1,333,800
April	3,490,000	4,911,700	6,137,100	5,195,500	4,537,000	24,271,300	809,043	24	1,165,800
May	3,826,800	4,144,700	5,580,700	7,870,200	6,134,600	27,557,000	888,935	31	1,175,100
June	3,490,600	4,296,500	5,196,300	9,322,900	6,520,100	28,826,400	960,880	27	1,244,000
July	4,681,800	3,442,900	9,609,200	9,672,200	7,891,400	35,297,500	1,138,629	22	1,481,600
August	5,617,400	5,809,200	8,760,300	8,408,200	3,041,400	31,636,500	1,020,532	28	1,296,700
September	4,156,300	5,795,400	9,199,900	6,828,500	1,477,200	27,457,300	915,243	9	1,136,300
October	4,500,000	2,839,800	7,647,000	8,137,600	3,984,900	27,109,300	874,493	9	1,141,100
November	4,465,600	4,297,100	6,833,700	4,311,400	4,480,400	24,388,200	812,940	1	1,072,100
December	5,678,600	4,742,100	7,972,400	603,200	5,811,800	24,808,100	800,261	10	1,050,900
Total	51,803,200	45,103,900	87,234,800	77,781,400	58,266,800	320,190,100			

Average Daily Demand 2003 877,233
 Peak Month Average Daily - July 1,138,629
 Peak Day Demand (July 22) 1,481,600

HERITAGE VILLAGE WATER COMPANY

**Monthly Water Production (gallons)
2004**

	H-1	H-2	H-3	H-4	H-5	Total Water Production	Average Daily Demand for Month	Maximum Day Demand	
								Day	Total
January	5,293,100	4,716,800	7,066,200	5,803,400	4,701,100	27,580,600	889,697	23	1,176,100
February	4,278,500	4,456,700	5,692,800	4,486,200	4,333,600	23,247,800	801,648	19	920,800
March	5,437,900	4,323,900	7,254,600	5,264,900	4,193,100	26,474,400	854,013	31	1,064,100
April	4,492,500	2,506,700	6,806,200	8,796,600	5,075,400	27,677,400	922,580	15	1,227,200
May	7,579,100	6,690,300	7,296,200	6,511,800	2,686,500	30,763,900	992,384	19	1,198,300
June	7,903,400	7,158,100	9,259,300	7,779,000	5,972,100	38,071,900	1,269,063	24	1,739,900
July	7,370,000	7,567,500	10,177,100	9,176,200	6,189,600	40,480,400	1,305,819	3	1,797,300
August	6,118,100	5,915,200	9,818,300	8,522,400	5,779,500	36,153,500	1,166,242	11	1,641,200
September	5,795,100	4,519,600	7,968,000	8,749,100	5,459,200	32,491,000	1,083,033	2	1,288,300
October	5,857,200	4,779,500	7,612,300	5,775,500	5,247,700	29,272,200	944,265	5	1,104,100
November	4,903,300	4,641,500	5,820,300	4,686,800	4,339,800	24,391,700	813,057	2	925,000
December	5,273,700	4,321,300	6,248,800	5,530,900	4,944,300	26,319,000	849,000	30	1,043,900
Total	70,301,900	61,597,100	91,020,100	81,082,800	58,921,900	362,923,800			

Average Daily Demand 2004 994,312
 Peak Month Average Daily - July 1,305,819
 Peak Day Demand (July 3) 1,797,300

HERITAGE VILLAGE WATER COMPANY

**Monthly Water Production (gallons)
2005**

	H-1	H-2	H-3	H-4	H-5	Total Water Production	Average Daily Demand for Month	Maximum Day Demand	
								Day	Total
January	4,781,700	5,024,600	5,721,000	4,955,600	4,165,700	24,648,600	795,116	25	946,200
February	5,146,000	4,687,100	5,904,200	3,541,200	3,068,400	22,346,900	798,103	1	1,046,800
March	6,256,800	3,582,800	3,936,300	6,095,500	5,012,200	24,883,600	802,696	20	927,200
April	6,162,300	4,685,800	4,130,500	5,195,100	5,164,400	25,338,100	844,603	15	1,024,500
May	6,060,000	3,981,300	7,550,400	7,953,600	6,165,100	31,710,400	1,022,916	10	1,243,400
June	8,987,100	7,602,900	8,735,200	8,965,700	6,079,200	40,370,100	1,345,670	9	1,593,400
July	5,843,500	7,860,000	8,671,400	10,118,700	5,398,100	37,891,700	1,222,312	24	1,447,400
August	8,591,100	8,118,000	10,006,000	11,387,400	7,950,500	46,053,000	1,485,580	28	1,782,700
September	6,928,200	8,018,900	8,986,700	9,470,800	6,175,700	39,580,300	1,319,343	9	1,811,900
October	5,851,200	5,698,100	7,854,500	8,056,500	4,940,900	32,401,200	1,045,200	16	1,605,100
November	4,609,900	4,838,500	8,764,700	2,598,700	5,343,900	26,155,700	871,856	26	1,081,400
December	5,456,400	5,010,300	5,371,400	5,160,000	3,093,500	24,091,600	777,149	24	902,800
Total	74,674,200	69,108,300	85,632,300	83,498,800	62,557,600	375,471,200			

Average Daily Demand 2005 1,028,688
 Peak Month Average Daily - 1,485,581
 Peak Day Demand (September 9) 1,811,900

HERITAGE VILLAGE WATER COMPANY

**Monthly Water Production (gallons)
2006**

	H-1	H-2	H-3	H-4	H-5	Total Water Production	Average Daily Demand for Month	Maximum Day Demand	
								Day	Total
January	4,540,000	5,310,700	6,074,000	3,201,700	4,428,200	23,554,600	759,826	9	870,400
February	3,172,900	3,363,000	4,662,600	4,340,900	4,454,400	19,993,800	714,064	18	927,200
March	3,586,100	4,203,600	5,803,100	5,758,600	3,551,800	22,903,200	738,813	9	1,143,100
April	4,653,500	4,919,300	5,196,400	5,217,400	4,276,600	24,263,200	808,773	22	960,000
May	5,956,900	6,125,700	7,492,400	6,925,100	6,452,700	32,952,800	1,062,994	31	1,609,300
June	7,337,500	5,873,000	6,953,500	8,309,300	6,595,700	35,069,000	1,168,967	23	1,551,500
July	8,082,500	7,604,000	10,240,000	7,993,400	7,001,600	40,921,500	1,320,048	19	1,672,800
August	7,584,100	7,187,800	9,522,400	7,652,100	8,257,600	40,204,000	1,296,903	1	1,852,200
September	7,216,500	5,632,900	7,434,100	6,327,800	5,913,300	32,524,600	1,084,153	20	1,323,600
October	4,696,900	3,744,700	7,367,500	6,922,200	5,114,300	27,845,600	898,245	10	1,194,400
November	6,061,600	5,016,300	3,025,300	6,762,000	4,039,100	24,904,300	830,143	2	1,006,900
December	3,574,000	3,957,000	7,202,800	5,818,900	4,622,500	25,175,600	812,116	1	924,200
Total	66,462,500	62,938,000	80,974,100	75,229,400	64,707,800	350,312,200			

Average Daily Demand 2006 959,759
 Peak Month Average Daily - July 1,320,048
 Peak Day Demand (August 1) 1,852,200

HERITAGE VILLAGE WATER COMPANY

**Monthly Water Production (gallons)
2007**

	H-1	H-2	H-3	H-4	H-5	Total Water Production	Average Daily Demand for Month	Maximum Day Demand	
								Day	Total
January	4,778,200	5,257,000	6,389,300	3,807,800	3,504,200	23,736,500	765,694	28	955,800
February	4,669,700	4,323,300	5,408,000	4,260,900	3,089,800	21,751,700	776,846	2	1,270,700
March	2,706,600	3,218,500	8,764,200	6,418,600	2,483,000	23,590,900	760,997	24	886,300
April	3,312,887	5,392,906	8,599,200	3,767,500	3,906,600	24,979,093	832,636	24	1,115,390
May	5,446,089	6,182,602	11,149,000	10,949,600	4,978,900	38,706,191	1,248,587	31	1,928,413
June	6,407,552	6,525,021	12,235,079	14,186,828	6,385,974	45,740,452	1,524,681	26	1,920,295
July	4,912,240	8,650,124	12,629,177	14,621,876	6,645,487	47,458,904	1,530,932	2	1,912,858
August	3,804,090	8,288,026	12,587,635	14,752,723	5,786,367	45,218,841	1,458,672	1	1,787,595
September	3,550,598	9,780,810	12,177,079	14,246,285	7,336,585	47,091,357	1,569,711	6	1,847,907
October	2,703,925	4,987,630	10,434,287	12,244,281	3,698,666	34,068,789	1,098,993	4	1,743,838
November	3,673,124	8,608,246	8,608,861	2,348,826	3,270,249	26,509,306	883,643	8	1,083,072
December	5,270,720	5,619,033	4,442,053	5,437,230	5,397,682	26,166,718	844,087	14	1,008,742
Total	51,235,725	76,833,198	#####	#####	56,483,510	405,018,751			

Average Daily Demand 2007 1,109,640
 Peak Month Average Daily- Septemb 1,569,711
 Peak Day Demand (May 31) 1,928,413

HERITAGE VILLAGE WATER COMPANY

**Monthly Water Production (gallons)
2008**

	H-1	H-2	H-3	H-4	H-5	Total Water Production	Average Daily Demand for Month	Maximum Day Demand	
								Day	Total
January	4,633,037	5,416,542	5,204,914	6,883,714	4,037,916	26,176,123	844,391	7	1,013,621
February	5,093,543	648,696	4,546,717	4,547,218	4,638,146	25,324,320	873,252	19	1,033,027
March	5,932,679	6,388,545	5,551,584	4,183,004	5,109,123	27,164,935	876,288	4	1,089,935
April	5,314,977	6,427,872	5,649,385	8,005,271	5,047,531	30,445,036	1,014,834	24	1,350,107
May	7,637,479	9,032,058	7,624,110	8,448,866	6,412,047	39,154,560	1,263,050	14	1,628,840
June	7,726,731	8,476,488	9,934,133	8,715,651	6,805,876	41,658,879	1,388,629	10	1,873,420
July	6,998,417	8,359,061	11,533,891	12,887,088	6,224,124	46,002,581	1,483,954	12	1,884,364
August	5,053,804	6,127,147	11,917,554	14,498,107	4,897,711	42,494,323	1,370,785	28	1,768,104
September	5,534,085	5,812,225	9,695,422	10,913,073	4,118,010	36,072,815	1,202,427	1	1,601,609
October	5,553,953	8,015,016	6,503,817	7,317,176	5,322,718	32,712,680	1,055,247	25	1,268,765
November	6,671,346	5,453,395	3,441,956	6,759,659	3,555,628	25,881,984	862,733	17	1,341,234
December	5,659,050	9,101,363	4,901,555	3,360,997	6,690,462	29,713,427	958,497	3	1,215,183
Total	71,809,101	79,258,408	86,505,038	96,519,824	62,859,292	402,801,663			

Average Daily Demand 2008 1,103,566
 Peak Month Average Daily- July 1,483,954
 Peak Day Demand (July 12) 1,884,364

APPENDIX F
FIRE FLOW TEST RESULTS

FIRE FLOW TEST

Street:

Kimberwick

Station Flowed:

3 End of CULDESAC 90

Pitot Reading:

60

Nozzle Size:

2 1/2

GPM:

1300

Pressure Gauge Station:

#4

Static Pressure:

80

Residual Pressure:

70

Time of each test:

10:30

10-30-06

FIRE FLOW TEST

Street:

Hackamore

Station Flowed:

STATIC

7 Eo of Caldwell 70

Pitot Reading:

55

Nozzle Size:

2 1/2

GPM:

1250

Pressure Gauge Station:

X8

Static Pressure:

55

Residual Pressure:

50

Time of each test:

10:00 AM 10/20/06

FIRE FLOW TEST

Street:

KISSAWAUG

Station Flowed:

M-21

STATIC

70

Pitot Reading:

60

Nozzle Size:

2 1/2"

GPM:

1300

Pressure Gauge Station:

M-22

Static Pressure:

70

Residual Pressure:

65

Time of each test:

9:30 A.M.

10/30/06

FIRE FLOW TEST

Street:

Benson Rd

Station Flowed:

M-13

STATIC

98

Pitot Reading:

75

Nozzle Size:

2 1/2"

GPM:

1445

Pressure Gauge Station:

M-14

Static Pressure:

95

Residual Pressure:

75

Time of each test:

10:30 AM

10-30-06

FIRE FLOW TEST

Street:

Christies St

Station Flowed:

M137

STATIC

85

Pitot Reading:

60

Nozzle Size:

2 1/2

GPM:

1300

Pressure Gauge Station:

M 134

Static Pressure:

50

Residual Pressure:

45

Time of each test:

2:00 PM 10/30/06

FIRE FLOW TEST

Street:

North Benson Rd.

Station Flowed:

Static 90

M-143

Pitot Reading:

75

Nozzle Size:

2 1/2"

GPM:

1450

Pressure Gauge Station:

M-132

Static Pressure:

85

Residual Pressure:

80

Time of each test:

1:50 PM

10-30-06

FIRE FLOW TEST

Street:

North Benson Rd.

Station Flowed:

M-148

Static 120

Pitot Reading:

30

Nozzle Size:

4"

GPM:

2354

Pressure Gauge Station:

M-147

Static Pressure:

110

Residual Pressure:

100

Time of each test:

7:30 PM 10-30-06

FIRE FLOW TEST

Street:

Judd Hill Rd

Station Flowed:

M154

Static 80

Pitot Reading:

50

Nozzle Size:

2 1/2

GPM:

1190

Pressure Gauge Station:

M152

Static Pressure:

65

Residual Pressure:

60

Time of each test:

2.45

10/30/06

FIRE FLOW TEST

Street:

Christian St (Timer)

Station Flowed:

M-160

Static 65

Pitot Reading:

50

Nozzle Size:

2 1/2

GPM:

1188

Pressure Gauge Station:

Static Pressure:

Residual Pressure:

Time of each test:

3:00 PM . 10 - 30 - 00

FIRE FLOW TEST

Street:

Long meadow Rd

Station Flowed:

M166 STATIC 85

Pitot Reading:

45

Nozzle Size:

2 1/2

GPM:

1130

Pressure Gauge Station:

M164

Static Pressure:

75

Residual Pressure:

60

Time of each test:

3:10

10/30

FIRE FLOW TEST

Street:

Brookside dr. Nantucket Way

Station Flowed:

M 195

Static

80

Pitot Reading:

50

Nozzle Size:

2 1/2

GPM:

1190

Pressure Gauge Station:

M 193

Static Pressure:

60

Residual Pressure:

50

Time of each test:

11:45

10/30/06

FIRE FLOW TEST

Street:

Oxford Airport

Station Flowed:

Static ~~#~~

A-3 Airport Access Rd - (State Bldg)

Pitot Reading:

50

Nozzle Size:

2 1/2"

GPM:

1190

Pressure Gauge Station:

A-2

Static Pressure:

70

Residual Pressure:

50

Time of each test:

10-31-06 12:50 PM

FIRE FLOW TEST

Street:

(Oxford Airport)

Station Flowed:

Static 60

A-8

Northeast Perimeter Rd

Pitot Reading:

45

Nozzle Size:

2 1/2"

GPM:

1130

Pressure Gauge Station:

A-7

Static Pressure:

90

Residual Pressure:

85

Time of each test:

10-31-06

10:15 AM

FIRE FLOW TEST

Street:

Morse Rd, Oxford

Station Flowed:

static 115

0-13

Pitot Reading:

95

Nozzle Size:

2 1/2"

GPM:

1435

Pressure Gauge Station:

static 105

0-99

Static Pressure:

105

Residual Pressure:

85

Time of each test:

10-31-00

1:40 PM

FIRE FLOW TEST

Street:

Christian ST

Station Flowed:

0-39

STATIC 120

Pitot Reading:

70

Nozzle Size:

2 1/2

GPM:

1405

Pressure Gauge Station:

0-38

Christian ST

Static Pressure:

100

Residual Pressure:

90

Time of each test:

10:30

10/31/06

FIRE FLOW TEST

Street:

Jacks Hill Rd

Station Flowed:

0-41 Static 50

Pitot Reading:

40

Nozzle Size:

2 1/2"

GPM:

1060

Pressure Gauge Station: ~~2~~

0-40

Static Pressure:

80

Residual Pressure:

60

Time of each test:

11-1-06 9:30 AM

FIRE FLOW TEST

Street:

Riggs St

Station Flowed:

Static 85
#0-44 By CLEP Pwr # 4495

Pitot Reading:

65

Nozzle Size:

2 1/2"

GPM:

1350

Pressure Gauge Station:

~~#0-43~~ # 0-43

Static Pressure:

85

Residual Pressure:

75

Time of each test:

11-06 11:00 AM

FIRE FLOW TEST

Street:

Benson Rd. (Oxford)

Station Flowed:

Static 115

0-45

Pitot Reading:

90

Nozzle Size:

2 1/2"

GPM:

1590

Pressure Gauge Station:

M-34

Static Pressure:

115

Residual Pressure:

105

Time of each test:

10-31-06

9:30 AM

FIRE FLOW TEST

Street:

Hill Top Ridge

Station Flowed:

0-127

STATIC 95

Pitot Reading:

50

Nozzle Size:

2 1/2

GPM:

1190

Pressure Gauge Station:

0-119

000 Church Rd Tel Pole # 65321

Static Pressure:

95

Residual Pressure:

70

Time of each test:

11:00 AM

11-01-2006

FIRE FLOW TEST

Street:

Christian + Deanna Dr

Station Flowed:

0-103

Static 150

Pitot Reading:

110

Nozzle Size:

2 1/2

GPM:

1760

Pressure Gauge Station:

0-101

Christian + Towner Lane

Static Pressure:

100

Residual Pressure:

85

Time of each test:

11:40 Am

10/31/06

FIRE FLOW TEST

Street:

OLD STATE Rd # 2

Station Flowed:

0-105

STATIC 122

Pitot Reading:

110

Nozzle Size:

2 1/2

GPM:

1760

Pressure Gauge Station:

0-104

CHRISTIAN + OLD STATE

Static Pressure:

90

Residual Pressure:

90

Time of each test:

1:15 PM

10-31-06

FIRE FLOW TEST

Street:

Ancient Highway / Hoggs Back

Station Flowed:

0-108 STATIC 90

Pitot Reading:

55

Nozzle Size:

2 1/2

GPM:

1250

Pressure Gauge Station:

0-107 Hoggs Back

Static Pressure:

95

Residual Pressure:

95

Time of each test:

2:30 PM 10-31-2006

FIRE FLOW TEST

Street:

Great OAK Rd / Great OAK School

Station Flowed:

0-114 STATIC 55

Pitot Reading:

30

Nozzle Size:

2 1/2

GPM:

920

Pressure Gauge Station:

0-111 Hogs Back / Great OAK

Static Pressure:

40

Residual Pressure:

25

Time of each test:

3:30 PM 10-31-2006

FIRE FLOW TEST

Street:

RT 67 Oxford House Parking Lot

Station Flowed:

0-129

STATIC 100

Pitot Reading:

65

Nozzle Size:

2 1/2

GPM:

1350

Pressure Gauge Station:

0-128

RT 67

Static Pressure:

70

Residual Pressure:

55

Time of each test:

1:45 P.M

10/31/06

FIRE FLOW TEST

Street:

Country Club Rd

Station Flowed:

0-203 static 72

Pitot Reading:

65

Nozzle Size:

2 1/2"

GPM:

1350

Pressure Gauge Station:

0-202

Static Pressure:

85

Residual Pressure:

75

Time of each test:

12:50 PM 11-1-06

FIRE FLOW TEST

Street:

Country Club Rd.

Station Flowed:

Static 60

0-219

Pitot Reading:

45

Nozzle Size:

2 1/2"

GPM:

1130

Pressure Gauge Station:

0-218

Static Pressure:

65

Residual Pressure:

55

Time of each test:

11-1-06

1:20 Pm

FIRE FLOW TEST

Street:

Country Club Rd

Station Flowed:

0-223

Static 60

Pitot Reading:

45

Nozzle Size:

2 1/2"

GPM:

1130

Pressure Gauge Station:

#0-222

Static Pressure:

60

Residual Pressure:

50

Time of each test:

11-1-06

2:00 pm

FIRE FLOW TEST

Street:

010 Church Rd

Station Flowed:

0-228

STATIC 95

Pitot Reading:

60

Nozzle Size:

2 1/2

GPM:

1300

Pressure Gauge Station:

0-117

010 Church & Somers Lane

Static Pressure:

100

Residual Pressure:

80

Time of each test:

9:45 AM

11-1-2006

FIRE FLOW TEST

Street:

Oxford Hills End of Cul de Sac

Station Flowed:

0-236 Static 115

Pitot Reading:

75

Nozzle Size:

2 1/2

GPM:

1455

Pressure Gauge Station:

0-235

Static Pressure:

130

Residual Pressure:

90

Time of each test:

10:10 AM 11-01-2006

FIRE FLOW TEST

Street:

Kyle Court Col de Sac

Station Flowed:

O = 232

STATIC 55

Pitot Reading:

25

Nozzle Size:

2 1/2

GPM:

846

Pressure Gauge Station:

O = 229

Static Pressure:

50

Residual Pressure:

30

Time of each test:

11:20 AM

11-01-2006

FIRE FLOW TEST

Street:

(Oxford Airport)

Station Flowed:

Static 65

O-246 - Near Hanger Co.

Pitot Reading:

32

Nozzle Size:

2 1/2"

GPM:

950

Pressure Gauge Station:

O-245

Static Pressure:

80

Residual Pressure:

65

Time of each test:

10-31-06

11:00 AM

FIRE FLOW TEST

Street:

Mulligan Dr.

Station Flowed:

Static 75

#

Pitot Reading:

55

Nozzle Size:

2 1/2"

GPM:

1250

Pressure Gauge Station:

0-248

Static Pressure:

70

Residual Pressure:

60

Time of each test:

11-1-06

3:00 PM

FIRE FLOW TEST

Street:

Puttling Green Lane

Station Flowed:

Static 42

0-273

Pitot Reading:

36

Nozzle Size:

7 1/2"

GPM:

1010

Pressure Gauge Station:

0-272

Static Pressure:

45

Residual Pressure:

40

Time of each test:

11-2-06

1:30 PM

FIRE FLOW TEST

Street:

Comerace Park

Station Flowed:

0283

STATIC 100

Pitot Reading:

70

Nozzle Size:

2 1/2

GPM:

1405

Pressure Gauge Station:

0-39

Jacks Hill Rd

Static Pressure:

100

Residual Pressure:

90

Time of each test:

10:45 AM

10/31/06

FIRE FLOW TEST

Street:

Woodvale (near #134 Drive)

Station Flowed:

HV 13

Pitot Reading:

52

Nozzle Size:

2 1/2"

GPM:

1210

Pressure Gauge Station:

HV 11

Static Pressure:

75

Residual Pressure:

65

Time of each test:

10:00 AM

11-14-06

FIRE FLOW TEST

Street:

Condo #14 (#560 Drive)

Station Flowed:

HV-69

Pitot Reading:

85

Nozzle Size:

2 1/2"

GPM:

1550

Pressure Gauge Station:

HV #68 (#560 Drive)

Static Pressure:

124

Residual Pressure:

118

Time of each test:

1:30 Pm 11-10-06

FIRE FLOW TEST

Street:

Hill Place Dr.

Station Flowed:

HV 89

Pitot Reading:

55

Nozzle Size:

2 1/2"

GPM:

1250

Pressure Gauge Station:

HV 8

Static Pressure:

90

Residual Pressure:

80

Time of each test:

11-13-06

3:45 PM

FIRE FLOW TEST

Street:

Wheeler Rd / East Hill Rd

Station Flowed:

HV 142 Static 45

Pitot Reading:

15

Nozzle Size:

2 1/2

GPM:

650

Pressure Gauge Station:

HV 141

Static Pressure:

25

Residual Pressure:

15

Time of each test:

10:00 AM 11/07/06

FIRE FLOW TEST

Street:

Heritage Center

Station Flowed:

Static 128

214

Pitot Reading:

102

Nozzle Size:

2 1/2"

GPM:

169.5

Pressure Gauge Station:

124

Static Pressure:

132

Residual Pressure:

120

Time of each test:

11-10-06

10:00 AM

FIRE FLOW TEST

Street:

679 Drive H. Village

Station Flowed:

Station 105

HV 160

Pitot Reading:

75

Nozzle Size:

2 1/8"

GPM:

1455

Pressure Gauge Station:

7

Static Pressure:

108

Residual Pressure:

100

Time of each test:

11-13-06 10:30 AM

FIRE FLOW TEST

Street:

Old Wby Rd

Station Flowed:

S-4

Static - 40

Pitot Reading:

21

Nozzle Size:

2 1/2"

GPM:

770

Pressure Gauge Station:

S-24

Static Pressure:

70

Residual Pressure:

59

Time of each test:

10:00 Am

11-6-06

FIRE FLOW TEST

Street:

Old Wotby Rd.

Station Flowed:

S-7 static 70

Pitot Reading:

52

Nozzle Size:

2 1/2"

GPM:

1210

Pressure Gauge Station:

S-8

Static Pressure:

75

Residual Pressure:

65

Time of each test:

11:30 AM 10-30-06

FIRE FLOW TEST

Street:

Old Wtby Rd.

Station Flowed:

S-9

Static

122

Pitot Reading:

88

Nozzle Size:

2 1/2"

GPM:

1575

Pressure Gauge Station:

M-10

Static Pressure:

120

Residual Pressure:

105

Time of each test:

11:00 Am 10-30-06

FIRE FLOW TEST

Street:

South wood Terrace

Station Flowed:

S-26

Static-40

Pitot Reading:

23

Nozzle Size:

2 1/2"

GPM:

800

Pressure Gauge Station:

S-25

Static Pressure:

55

Residual Pressure:

40

Time of each test:

10:38 am 11-6-06

FIRE FLOW TEST

Street:

East Meadow (Condo's)

Station Flowed:

S-30 Static 135

Pitot Reading:

92

Nozzle Size:

2 1/2"

GPM:

1610

Pressure Gauge Station:

S-29

Static Pressure:

142

Residual Pressure:

120

Time of each test:

11-10-00 2:30 PM

FIRE FLOW TEST

Street:

Main St. South

Station Flowed:

Static 134

S-53

Pitot Reading:

78

Nozzle Size:

2 1/2"

GPM:

1480

Pressure Gauge Station:

S-52

Static Pressure:

125

Residual Pressure:

95

Time of each test:

11-7-00

10:30 AM

FIRE FLOW TEST

Street:

River Trail

Station Flowed:

S-60

static 140

Pitot Reading:

75

Nozzle Size:

2 1/2"

GPM:

1455

Pressure Gauge Station:

S-59

Static Pressure:

140

Residual Pressure:

100

Time of each test:

1:30pm

11-8-06

FIRE FLOW TEST

Street:

Northern Trail

Station Flowed:

S-64 static 124

Pitot Reading:

80

Nozzle Size:

2 1/2"

GPM:

1500

Pressure Gauge Station:

S-61

Static Pressure:

135

Residual Pressure:

100

Time of each test:

2:15 pm 11-8-06

FIRE FLOW TEST

Street:

Peter Rd.

Station Flowed:

S-76

Static 117

Pitot Reading:

65

Nozzle Size:

2 1/2

GPM:

1350

Pressure Gauge Station:

S-75

Static Pressure:

125

Residual Pressure:

95

Time of each test:

10:50 AM 11-8-06

FIRE FLOW TEST

Street:

Community House Rd

Station Flowed:

S-86

static 45

Pitot Reading:

24

Nozzle Size:

2 1/2

GPM:

820

Pressure Gauge Station:

S-85

Static Pressure:

55

Residual Pressure:

35

Time of each test:

1:30 pm 11-6-06

FIRE FLOW TEST

Street:

Main St. South

Station Flowed:

S-90

Static

Pitot Reading:

90

Nozzle Size:

2 1/2"

GPM:

1590

Pressure Gauge Station:

S-56

Static Pressure:

138

Residual Pressure:

104

Time of each test:

11:30 AM

11-7-06

FIRE FLOW TEST

Street:

Lake Side Rd (Rt. 172)

Station Flowed:

S-93

State 110

Pitot Reading:

54

Nozzle Size:

2 1/2"

GPM:

1230

Pressure Gauge Station:

S-92

Static Pressure:

125

Residual Pressure:

80

Time of each test:

11-7-06

2:00 pm

FIRE FLOW TEST

Street:

Rt. 172

Station Flowed:

S-125

Static 125

Pitot Reading:

75

Nozzle Size:

2 1/2"

GPM:

1470

Pressure Gauge Station:

S-92

Static Pressure:

125

Residual Pressure:

90

Time of each test:

11-7-06 2:40 pm

FIRE FLOW TEST

Street:

Winding Brook (Church Rd)

Station Flowed:

Static 140

S-224

Pitot Reading:

70

Nozzle Size:

2 1/2

GPM:

1405

Pressure Gauge Station:

S-225

Static Pressure:

140

Residual Pressure:

90

Time of each test:

1:15 PM 10-30-06

FIRE FLOW TEST

Street:

Bullet Hill Rd

Station Flowed:

Static 100

S-258

Pitot Reading:

60

Nozzle Size:

2 1/2"

GPM:

1300

Pressure Gauge Station:

S-47

Static Pressure:

120

Residual Pressure:

95

Time of each test:

11-8-06

APPENDIX H
AQUIFER PROTECTION REGULATIONS

RECEIVED FOR FILING
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TOWN CLERK'S OFFICE
SOUTHBRURY, CONN.
Laura S. Dunne - T
TOWN CLERK

**Town of Southbury
Aquifer Protection Regulations
Public Water Supply - Well Head Protection Areas**

Effective Date: August 20, 2007

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Aquifer Protection Regulations Public Water Supply - Well Head Protection Areas

SECTION 1. Title and Authority

- (a) Aquifers are an essential natural resource and a major source of public drinking water for the State of Connecticut. Use of groundwater will increase as the population grows and opportunities for new surface water supplies diminish due to the rising cost of land and increasingly intense development. At the same time, numerous drinking water wells have been contaminated by certain land use activities, and others are now threatened. To address this problem, Connecticut has established the Aquifer Protection Area Program (Connecticut General Statutes §22a-354a to §22a-354bb) to identify critical water supply aquifers and to protect them from pollution by managing land use. Protection requires coordinated responsibilities shared by the state, municipality and water companies to ensure a plentiful supply of public drinking water for present and future generations. It is therefore the purpose of these regulations to protect aquifer protection areas within the Town of Southbury by making provisions for:
- (1) implementing regulations consistent with state regulations and An Act Concerning Aquifer Protection Areas, Connecticut General Statutes §22a-354a to §22a-354bb ("the Act");
 - (2) delineating aquifer protection areas on the town zoning or inland wetland and watercourse areas maps;
 - (3) regulating land use activity within the aquifer protection area including: prohibiting certain new activities; registering existing regulated activities; and issuing permits for new regulated activities at registered facilities; and
 - (4) Administering and enforcing these regulations.
- (b) These regulations shall be known as the Aquifer Protection Area Regulations, Public Water Supply – Well Head Protection Areas” (the "APA Regulations") of the Town of Southbury.
- (c) These regulations were adopted and may be amended, from time to time, in accordance with the provisions of §22a-354p of An Act Concerning Aquifer Protection Areas, the Connecticut General Statutes §22a-354a to §22a-354bb and the Regulations of Connecticut State Agencies §22a-354i-1 through §22a-354i-10.
- (d) The Water Pollution Control Authority of the Town of Southbury is established as the Aquifer Protection Agency (the "Agency") in accordance with the "Ordinance for the Establishment of an Aquifer Protection Agency," (the "APA Ordinance") effective July 1, 2005, and shall implement the purposes and provisions of the APA Ordinance and the Act.

- (e) The Agency shall administer all provisions of the Act and shall approve or deny registrations, issue permits, issue permits with terms, conditions, limitations or modifications, or deny permits for all regulated activities in aquifer protection areas in the Town of Southbury pursuant to the Act.
- (f) In order to carry out the purposes of the APA Regulations, the Town of Southbury may at any time purchase land or an interest in land in fee simple or other acceptable title, or subject to acceptable restrictions or exceptions, and enter into covenants and agreements with landowners.

SECTION 2. Definitions

- (a) As used in these regulations, the following definitions apply:
 - (1) "Affected water company" means any public or private water company owning or operating a public water supply well within an aquifer protection area.
 - (2) "Agency" means the board or commission authorized by the municipality under §22a-354o of the Connecticut General Statutes;
 - (3) "Agriculture" means cultivation of the soil, dairying, forestry, raising or harvesting any agricultural or horticultural commodity, including the raising, shearing, feeding, caring for, training and management of livestock, including horses, bees, poultry, fur-bearing animals and wildlife, and the raising or harvesting of oysters, clams, mussels, other molluscan shellfish or fish; the operation, management, conservation, improvement or maintenance of a farm and its buildings, tools and equipment, or salvaging timber or cleared land of brush or other debris left by a storm, as an incident to such farming operations; the production or harvesting of maple syrup or maple sugar, or any agricultural commodity, including lumber, as an incident to ordinary farming operations or the harvesting of mushrooms, the hatching of poultry, or the construction, operation or maintenance of ditches, canals, reservoirs or waterways used exclusively for farming purposes; handling, planting, drying, packing, packaging, processing, freezing, grading, storing or delivering to storage or to market, or to a carrier for transportation to market, or for direct sale any agricultural or horticultural commodity as an incident to ordinary farming operations, or, in the case of fruits and vegetables, as an incident to the preparation of such fruits or vegetables for market or for direct sale.
 - (4) "Applicant" means, as appropriate in context, a person who applies for an exemption under §22a-354i-6 of the Regulations of Connecticut State Agencies, a permit under §22a-354i-8 of the Regulations of Connecticut State Agencies or a permit under Section 9 of the APA Regulations;

- (5) "Application" means, as appropriate in context, an application for an exemption under §22a-354i-6 of the Regulations of Connecticut State Agencies, an application for a permit under §22a-354i-8 of the Regulations of Connecticut State Agencies or an application for a permit under Section 9 of the APA Regulations;
- (6) "Aquifer protection area" means any area consisting of well fields, areas of contribution and recharge areas, identified on maps approved by the Commissioner of Environmental Protection pursuant to § 22a-354b to 22a-354d, inclusive, within which land uses or activities shall be required to comply with regulations adopted pursuant to § 22a-354p by the municipality where the aquifer protection area is located.
- (7) "Area of contribution" means the area where the water table or other potentiometric surface is lowered due to the pumping of a well and groundwater flows directly to the well.
- (8) "Bulk storage facility" means property where oil or petroleum liquids are received by tank vessel, pipeline, railroad car or tank vehicle for the purpose of storage for wholesale distribution;
- (9) "Certified Hazardous Materials Manager" means a hazardous materials manager certified by the Institute of Hazardous Materials Management and who is qualified by reason of relevant specialized training and relevant specialized experience to conduct audits of regulated activities to ensure compliance with applicable laws and identify appropriate pollution prevention practices for such activities;
- (10) "Commissioner" means the commissioner of environmental protection, or his or her agent;
- (11) "Domestic sewage" means sewage that consists of water and human excretions or other waterborne wastes incidental to the occupancy of a residential building or a non-residential building but not including manufacturing process water, cooling water, wastewater from water softening equipment, commercial laundry wastewater, blowdown from heating or cooling equipment, water from cellar or floor drains or surface water from roofs, paved surfaces or yard drains.
- (12) "Facility" means property where a regulated activity is conducted by any person, including without limitation any buildings located on the property that are owned or leased by that person; and includes contiguous land owned, leased, or for which there is an option to purchase by that person;
- (13) "Floor drain" means any opening in a floor or surface which opening or surface

receives materials spilled or deposited thereon;

- (14) "Hazardous material" means (A) any hazardous substance as defined in 40 CFR 302.4 and listed therein at Table 302.4, excluding mixtures with a total concentration of less than 1% hazardous substances based on volume, (B) any hazardous waste as defined in §22a-449(c)-101 of the Regulations of Connecticut State Agencies, (C) any pesticide as defined in §22a-47 of the Connecticut General Statutes, or (D) any oil or petroleum as defined in §22a-448 of the Connecticut General Statutes;
- (15) "Hazardous waste" means "hazardous waste" as defined in §22a-449(c)-101 of the Regulations of Connecticut State Agencies;
- (16) "Industrial laundry" means a facility for washing clothes, cloth or other fabric used in industrial operations;
- (17) "Infiltration device" means any discharge device installed below or above the ground surface that is designed to discharge liquid to the ground;
- (18) "Inland wetland and watercourse areas map" means a map pursuant to §22a-42a of the Connecticut General Statutes;
- (19) "ISO 14001 environmental management system certification" means a current ISO 14001 environmental management system certification issued by an ISO 14001 environmental management system registrar that is accredited by the American National Standards Institute (ANSI) – American Society for Quality (ASQ) National Accreditation Board (ANAB);
- (20) "Level A mapping" means the lines as shown on Level A maps approved or prepared by the Commissioner pursuant to §22a-354c, §22a-354d or §22a-354z of the Connecticut General Statutes encompassing the area of contribution and recharge areas;
- (21) "Lubricating oil" means oil that contains less than 1% chlorinated solvents and is used for the sole purpose of lubricating, cutting, grinding, machining, stamping or quenching metals;
- (22) "Municipality" means the Town of Southbury. "
- (23) "Owner" means the owner or lessee of the facility in question;
- (24) "De-icing chemical" means sodium chloride, calcium chloride, or calcium magnesium acetate;
- (25) "Person" means any individual, firm, partnership, association, syndicate, company, trust, corporation, limited liability company, municipality, agency, political or administrative subdivision of the state, or other legal entity of any kind;
- (26) "Pollution" means harmful thermal effect or the contamination or rendering unclean

or impure of any waters of the state by reason of any waste or other materials discharged or deposited therein by any public or private sewer or otherwise so directly or indirectly to come in contact with any waters. This includes, but is not limited to, erosion and sedimentation resulting from any filling, land clearing or excavation activity.

- (27) "Pollution prevention" means the use of processes and materials so as to reduce or minimize the amount of hazardous materials used or the quantity and concentration of pollutants in waste generated;
- (28) "Professional engineer" means a professional engineer licensed in accordance with chapter 391 of the Connecticut General Statutes, and who is qualified by reason of relevant specialized training and relevant specialized experience to conduct audits of regulated activities to ensure compliance with applicable law and identify appropriate pollution prevention practices for such activities;
- (29) "Publicly Owned Treatment Works" means a system used for collection, treatment and/or disposal of sewage from more than one lot as defined in section 22a-430-1 of the Regulations of Connecticut State Agencies and which discharges to the waters of the state and which is owned by a municipality or the state.
- (30) "Public service company" means electric, electric distribution, gas, telephone, telegraph, pipeline, sewage, water and community antenna television companies, owning, leasing, maintaining, operating, managing, or controlling plants or parts of plants or equipment, and all express companies having special privileges on railroads within this state, but shall not include telegraph company functions concerning intrastate money order service, towns, cities, boroughs, any municipal corporation or department thereof, whether separately incorporated or not, a private power producer, as defined in section 16-243b, or an exempt wholesale generator, as defined in 15 USC 79z-5a.
- (31) "Public supply well" means a water supply well used or made available by a water company to two or more consumers.
- (32) "Recharge area" means the area from which groundwater flows directly to the area of contribution.
- (33) "Registered regulated activity" means a regulated activity which has been registered under §22a-354i-7 of the Regulations of Connecticut State Agencies or Section 8 of the APA Regulations, and is conducted at the facility identified in such registration;
- (34) "Registrant" means a person, who or which, has submitted a registration for an existing regulated activity under §22a-354i-7 of the Regulations of Connecticut State Agencies or Section 4 of the APA Regulations;
- (35) "Regulated activity" means any of the following activities, which are located or conducted, wholly or partially, in an aquifer protection area, except as provided for in §22a-354i-5(c) and §22a-354i-6 of the Regulations of Connecticut State Agencies, or

Section 4 of the APA Regulations:

- (A) underground storage or transmission of oil or petroleum, to the extent such activity is not pre-empted by federal law, or hazardous material, except for (i) an underground storage tank that contains number two (2) fuel oil and is located more than five hundred (500) feet from a public supply well subject to regulation under §22a-354c or §22a-354z of the Connecticut General Statutes, or (ii) underground electrical facilities such as transformers, breakers, or cables containing oil for cooling or insulation purposes which are owned and operated by a public service company,
- (B) oil or petroleum dispensing for the purpose of retail, wholesale or fleet use,
- (C) on-site storage of hazardous materials for the purpose of wholesale sale,
- (D) repair or maintenance of vehicles or internal combustion engines of vehicles, involving the use, storage or disposal of hazardous materials, including solvents, lubricants, paints, brake fluids, transmission fluids or the generation of hazardous wastes,
- (E) salvage operations of metal or vehicle parts,
- (F) wastewater discharges to ground water other than domestic sewage and storm water, except for discharges from the following that have received a permit issued by the Commissioner pursuant to section 22a-430 of the Connecticut General Statutes: (i) a pump and treat system for ground water remediation, (ii) a potable water treatment system, (iii) heat pump system, (iv) non-contact cooling water system, or (v) swimming pools,
- (G) car or truck washing, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,
- (H) production or refining of chemicals, including without limitation hazardous materials or asphalt,
- (I) clothes or cloth cleaning service which involves the use, storage or disposal of hazardous materials including without limitation dry-cleaning solvents,
- (J) industrial laundry activity that involves the cleaning of clothes or cloth contaminated by hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,
- (K) generation of electrical power by means of fossil fuels, except for (i) generation of electrical power by an emergency engine as defined by §22a-174-22(a)(2) of the Regulations of Connecticut State Agencies, or (ii) generation of electrical power by means of natural gas or propane,

- (L) production of electronic boards, electrical components, or other electrical equipment involving the use, storage or disposal of any hazardous material or involving metal plating, degreasing of parts or equipment, or etching operations,
- (M) embalming or crematory services which involve the use, storage or disposal of hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,
- (N) furniture stripping operations which involve the use, storage or disposal of hazardous materials,
- (O) furniture finishing operations which involve the use, storage or disposal of hazardous materials, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,
- (P) storage, treatment or disposal of hazardous waste subject to a permit under §22a-449(c)-100 to §22a-449(c)-110, inclusive, of the Regulations of Connecticut State Agencies,
- (Q) biological or chemical testing, analysis or research which involves the use, storage or disposal of hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works, and provided that on-site testing of a public supply well by a public water utility is not a regulated activity,
- (R) pest control services which involve storage, mixing or loading of pesticides or other hazardous materials,
- (S) photographic finishing which involves the use, storage or disposal of hazardous materials, unless all waste water from such activity are lawfully disposed of through a connection to a publicly owned treatment works,
- (T) production or fabrication of metal products which involves the use, storage or disposal of hazardous materials including (i) metal cleaning or degreasing with industrial solvents, (ii) metal plating, or (iii) metal etching,
- (U) printing, plate making, lithography, photoengraving, or gravure, which involves the use, storage or disposal of hazardous materials,
- (V) accumulation or storage of waste oil, anti-freeze or spent lead-acid batteries which are subject to a general permit issued under §22a-208a(i) and §22a-454(e)(1) of the Connecticut General Statutes,
- (W) production of rubber, resin cements, elastomers or plastic, which involves the use, storage or disposal of hazardous materials,

- (X) storage of de-icing chemicals, unless such storage takes place within a weather-tight water-proof structure for the purpose of retail sale or for the purpose of de-icing parking areas or access roads to parking areas,
- (Y) accumulation, storage, handling, recycling, disposal, reduction, processing, burning, transfer or composting of solid waste which is subject to a permit issued by the Commissioner pursuant to §22a-207b, §22a-208a, and §22a-208c of the Connecticut General Statute, except for a potable water treatment sludge disposal area,
- (Z) dying, coating or printing of textiles, or tanning or finishing of leather, which activity involves the use, storage or disposal of hazardous materials,
- (AA) production of wood veneer, plywood, reconstituted wood or pressure-treated wood, which involves the use, storage or disposal of hazardous material, and
- (BB) pulp production processes that involve bleaching;
- (36) "Release" means "release" as defined in §22a-133k-1 of the Regulations of Connecticut State Agencies;
- (37) "State aquifer protection regulations" means §22a-354i-1 to §22a-354i-10, inclusive, of the Regulations of Connecticut State Agencies;
- (38) "Storage" means the holding or possession of any hazardous material;
- (39) "Storage tank" means a stationary device which is designed to store hazardous materials, and is constructed of non-earthen materials including without limitation concrete, steel, fiberglass or plastic;
- (40) "Topographic feature" means an object, whether natural or man-made, located on the earth surface and of sufficient size that it appears on a 1:24,000 scale topographic quadrangle map drawn by the United States Geological Survey;
- (41) "Underground" when referring to a storage tank or storage tank component means that ten percent or more of the volumetric capacity of such tank or component is below the surface of the ground and that portion which is below the surface of the ground is not fully visible for inspection;
- (42) "Vehicle" means any vehicle propelled or drawn by any non-muscular power, including without limitation an automobile, aircraft, all-terrain vehicle or snowmobile; a vessel means every description of watercraft, other than a seaplane on water, used or capable of being used as a means of transportation on water;
- (43) "Waters" means all tidal waters, harbors, estuaries, rivers, brooks, watercourses, waterways, wells, springs, lakes, ponds, marshes, drainage systems and all other surface or underground streams, bodies or accumulations of water, natural or artificial, public or private, which are contained within, flow through or border upon

this state or any portion thereof;

- (44) "Well field" means the immediate area surrounding a public drinking water supply well or group of wells;
- (45) "Zoning district map" means any map showing zoning districts prepared in accordance with maps adopted pursuant to §8-3 of the Connecticut General Statutes.

SECTION 3. Delineation of Aquifer Protection Area Boundaries

- (a) The zoning, planning, or planning and zoning commission shall delineate the aquifer protection areas on the Town of Southbury zoning district map or, if zoning district maps do not exist, the inland wetland and watercourse areas map adopted pursuant to §22a-42a of the Connecticut General Statutes. Such delineation shall consist of the combined areas of contribution and recharge areas as shown on Level A maps approved or prepared by the Commissioner.
 - (1) Such boundaries shall be delineated within one hundred twenty (120) days after being notified by the Commissioner that an aquifer protection area is located partially or entirely within the Town of Southbury.
 - (2) Notice of such delineation shall be published in a newspaper having substantial circulation in the affected area. Such notice shall include at least the following:
 - (A) a map or detailed description of the subject aquifer protection area; and
 - (B) the name, telephone number, and address of a representative of the Agency who may be reached for further information.
- (b) In order to clarify the location of an aquifer protection area boundary, the Agency may apply to the Commissioner to extend such boundary to coincide with the nearest property line, municipal boundary or topographic feature pursuant to §22a-354i-4 of the Regulations of Connecticut State Agencies. Such extension shall, at a minimum, fully encompass the aquifer protection areas bounded by the approved level A mapping but shall not exceed the distance necessary to clarify the location of the aquifer protection area or to facilitate the administration of regulations pertaining thereto. An aquifer protection area boundary may not be extended without prior written approval of the Commissioner.
 - (1) Any request by the Agency to the Commissioner for extension of an aquifer protection area boundary shall include at least the following:
 - (A) A map to scale delineating (i) the aquifer protection area boundary mapped under section 3(a) of the APA regulations and (ii) the proposed extension of the aquifer protection area boundary;
 - (B) A certification by the chairperson or duly authorized agent of the Agency that notice of such request has been provided to all owners of property within the

proposed extended aquifer protection area and all affected water companies in accordance with the following:

- (i) Such notice shall include at least the following:
 - (aa) A map showing the aquifer protection area boundaries and the proposed extension of such boundaries,
 - (bb) the name, address, and telephone number of a representative of the Agency who may be contacted for further information, and
 - (cc) a statement that any person may, not later than thirty (30) days after said notification, submit to the Agency written comments on such proposed boundary extension;
- (ii) Such notice shall be effectuated by the following:
 - (aa) Delivery of notice by certified mail to those individuals and entities identified in subsection (b)(1)(B) of this section, or
 - (bb) the publication of a notice in a newspaper having substantial circulation in the affected area; and posting of notice near the proposed boundaries of the subject aquifer protection area of at least four signs each of which shall be at least four square feet in size (2' x 2'); and
 - (iii) a summary of comments received by such Agency regarding the proposed boundary extension and the Agency's response.
- (2) Not later than sixty (60) days after receiving the Commissioner's written approval of a request to extend an aquifer protection area boundary, the Agency shall designate such delineated area as an aquifer protection area in accordance with subsection (a) of this section.
- (c) No person may challenge the boundaries of the aquifer protection area under the APA Regulations unless such challenge is based solely on a failure by the Agency to properly delineate the boundaries in accordance with §22a-354n of the Connecticut General Statutes.
- (d) A map of the location and boundaries of the aquifer protection areas, or regulated areas, shall be available for inspection in the Office of the Town Clerk or the Water Pollution Control Authority
- (e) If the Level A mapping is amended in accordance with §22a-354b-1(i) or §22a-354b-1(j) of the Regulations of Connecticut State Agencies, the Agency shall amend the aquifer protection area boundary in accordance with subsections (a) or (b) of this section.

SECTION 4. Prohibited and Regulated Activities

- (a) All regulated activities are prohibited in aquifer protection areas, except as specified in subsection (b) of this section.
- (b) The following regulated activities are not prohibited in aquifer protection areas:
 - (1) A registered regulated activity which is conducted in compliance with §22a-354i-9 of the Regulations of Connecticut State Agencies or section 12 of the APA Regulations; and
 - (2) a regulated activity which has received a permit issued pursuant to §22a-354i-8 of the Regulations of Connecticut State Agencies or section 9 of the APA Regulations.
- (c) The following are not regulated activities:
 - (1) Any activity conducted at a residence without compensation;
 - (2) any activity involving the use or storage of no more than two and one-half (2.5) gallons of each type of hazardous material on-site at any one time, provided the total of all hazardous materials on-site does not exceed fifty-five (55) gallons at any one time;
 - (3) any agricultural activity regulated pursuant to §22a-354m(d) of the Connecticut General Statutes;
 - (4) any activity provided all the following conditions are satisfied:
 - (A) such activity takes place solely within an enclosed building in an area with an impermeable floor,
 - (B) such activity involves no more than 10% of the floor area in the building where the activity takes place,
 - (C) any hazardous material used in connection with such activity is stored in such building at all times,
 - (D) all waste waters generated by such activity are lawfully disposed through a connection to a publicly owned treatment works, and
 - (E) such activity does not involve (i) repair or maintenance of internal combustion engines, including without limitation, vehicles, or equipment associated with such vehicles, (ii) underground storage of any hazardous material, or (iii) above ground storage of more than one hundred and ten (110) gallons of hazardous materials;
 - (5) any activity solely involving the use of lubricating oil provided all the following

conditions are satisfied:

- (A) such activity does not involve cleaning of metals with chlorinated solvents at the facility,
 - (B) such activity takes place solely within an enclosed building in an area with an impermeable floor,
 - (C) any hazardous material used in connection with such activity is stored in such building at all times, and
 - (D) such activity does not involve: (i) repair or maintenance of internal combustion engines, including without limitation, vehicles, or equipment associated with such vehicles, (ii) underground storage of any hazardous material, or (iii) above ground storage of more than one hundred ten (110) gallons of such lubricating oil and associated hazardous waste; and
- (6) any activity involving the dispensing of oil or petroleum from an above-ground storage tank or tanks with an aggregate volume of two thousand (2000) gallons or less provided all the following conditions are satisfied:
- (A) such dispensing activity takes place solely on a paved surface which is covered by a roof,
 - (B) the above-ground storage tank(s) is a double-walled tank with overfill alarms, and
 - (C) all associated piping is either above ground, or has secondary containment.
- (d) Determination of a non-regulated activity
- (1) Any person proposing to carry out a non-regulated activity, as set forth in section 4(c) of these regulations, in an aquifer protection area shall, prior to commencement of such activity, notify the Agency or its duly authorized agent on a form provided by the Agency. Such form shall provide sufficient information to enable the Agency or its duly authorized agent to properly determine that the proposed activity is a regulated activity or a non-regulated activity within the aquifer protection area.
 - (2) If such activity is determined to be a non-regulated activity, then no further action under the APA Regulations is necessary.

SECTION 5. Activities Regulated by the State

- (a) The Commissioner shall exclusively regulate activities within aquifer protection areas specified in §22a-354p(g) of the Connecticut General Statutes. The Agency shall regulate all other regulated activities.

- (b) Any person conducting regulated activities that are within the authority of the Commissioner shall submit a registration or obtain a permit or exemption from the Commissioner prior to engaging in such activity. The Commissioner shall process applications for those regulated activities.
- (c) The Agency may submit an advisory decision to the Commissioner for consideration on any permit regulated under this section in accordance with the Connecticut General Statutes §22a-354p(g).

SECTION 6. Application for an Exemption from Prohibition or Regulation

- (a) The owner or operator of a regulated activity may seek an exemption from the Commissioner pursuant to §22a-354i-6 of the Regulations of Connecticut State Agencies. Any person seeking an exemption from the Commissioner shall concurrently submit a copy of the application for an exemption to the Agency and any affected water company.
- (b) The Agency may submit written comments to the Commissioner on any exemption regulated under this section in accordance with §22a-354i-6(c) of the Regulations of Connecticut State Agencies within sixty (60) days of the agency receipt of copy of the application.

SECTION 7. General Registration, Permit Application and Transfer Procedures

- (a) All applications for permits and registrations shall contain sufficient information for a fair and informed determination of the issues. The Agency may request additional information from the applicant for this purpose.
- (b) The day of receipt of a registration, permit application or transfer form shall be the day of the next regularly scheduled meeting of the Agency, immediately following the day of submission of the application to the Agency or its duly authorized agent, provided such meeting is no earlier than three business days after receipt, or within thirty-five (35) days after such submission, whichever is sooner.
- (c) At any time during the review period, the Agency may require the applicant or registrant to provide additional information about the regulated activity. Requests for additional information shall not stay the time limitations for registrations and permits as set forth in sections 8 and 9 of the APA Regulations.
- (d) All permit applications and registrations shall be open for public inspection.
- (e) Incomplete permit applications and registrations may be denied without prejudice.
- (f) No permit or registration issued under sections 8 or 9 of the APA Regulations shall be assigned or transferred except with written approval by the Agency.

SECTION 8. Registration Requirements

- (a) Any person engaged in a regulated activity which substantially commenced, or was in active operation within the past five (5) years, or with respect to which a municipal building permit was issued, either (A) before the effective date of the state aquifer protection regulations, or (B) before the date an applicable aquifer protection area is designated on a municipal zoning district map or inland wetland and watercourse areas map, whichever occurs later, shall register the activity in accordance with this section unless such person has pending an application for an exemption pursuant to §22a-354i-6 of the Regulations of Connecticut State Agencies.
- (1) The Commissioner shall process registrations for those regulated activities specified in §22a-354p(g) of the Connecticut General Statutes. The Agency shall process registrations for all other regulated activities.
 - (2) If the regulated activity is not specified in §22a-354p(g) of the Connecticut General Statutes, the person engaged in such activity shall submit a registration to the Agency not later than one hundred eighty (180) days after adoption of regulations pursuant to §22a-354p of the Connecticut General Statutes, or the designation the aquifer protection area pursuant to §22a-354i-2 of the Regulations of Connecticut State Agencies, whichever occurs later. Said person shall simultaneously file a copy of the registration with the Commissioner, Commissioner of Public Health and the affected water company.
- (b) All registrations shall be provided on a form prescribed by the Agency and shall be accompanied by the correct registration fee in accordance with section 18 of the APA Regulations. Such registration forms may be obtained from the Water Pollution Control Authority. Such registration forms shall include at least the following information in writing or on maps or drawings:
- (1) The name, business telephone number, street address and mailing address of the:
 - (A) Registrant; if the registrant is a corporation or limited partnership, the full name of the facility and such corporation or limited partnership as registered with the Connecticut Secretary of State, and any officer or governing or managing body of any partnership, association, firm or corporation,
 - (B) owner of such facility if different than the registrant, and
 - (C) manager or operator overseeing the operations of such facility;
 - (2) the location of such facility, using street address or other appropriate method of location, and a map showing the property boundaries of the facility on a 1:24,000 scale United States Geological Survey topographic quadrangle base;
 - (3) an identification of the regulated activity or activities conducted at the facility, as described in 2(a)(35) of the APA Regulations, which regulated activity or activities

shall consist of any regulated activity which substantially commenced, was in active operation, or with respect to which a municipal building permit was issued within the past five years; and

- (4) a certification by the registrant that the subject regulated activity is in compliance with the best management practices set forth in section 12(a) of the APA Regulations, as follows, signed after satisfying the statements set forth in the following certification:

"I have personally examined and am familiar with the information submitted in this registration and all attachments, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in this document or certification may be punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law."

- (c) When deemed necessary to protect a public supply well subject to regulation under §22a-354c or §22a-354z of the Connecticut General Statutes, the Agency may:
 - (1) require, by written notice, any registrant to submit for review and written approval a storm water management plan prepared in accordance with section 12(b) of the APA Regulations. If so required, the storm water management plan shall be implemented by the registrant immediately upon its approval; or
 - (2) require, by written notice, any registrant to submit for review and written approval the materials management plan prepared in accordance with section 12(a) of the APA Regulations. If so required, the materials management plan shall be implemented by the registrant immediately upon its approval.
- (d) If the Agency determines that a registration is incomplete, it shall reject the registration and notify the registrant of what additional information is required and the date by which it shall be submitted.
- (e) If the registration is determined to be complete, and the regulated activity is eligible for registration, the Agency shall send written notification of such registration to the registrant. Such registration shall be determined to be complete and eligible if the registrant has not otherwise received a notice of rejection from the Agency, not later than one hundred and eighty (180) days after the date the registration is received by the Agency.
- (f) The following general provisions shall be included in the issuance of all registrations:
 - (1) The Agency has relied in whole or in part on information provided by the registrant and if such information subsequently proves to be false, deceptive, incomplete or inaccurate, the registration may be modified, suspended or revoked;
 - (2) all registrations issued by the Agency are subject to and do not derogate any present or future rights or powers of the Commissioner, Agency, or municipality, and convey

no rights in real estate or material nor any exclusive privileges, and are further subject to any and all public and private rights and to any federal, state, and municipal laws or regulations pertinent to the subject land or activity;

- (3) a complete registration shall expire five (5) years from the date of receipt of such registration by the Agency;
 - (4) the registrant shall apply to the Agency to renew the registration on a form prescribed by the Agency for a facility prior to expiration of such registration; and
 - (5) If a registered regulated activity is out of business or inactive when registration renewal is required, a five (5) year allowance shall be in effect from the date the registration expires. If the registrant has not applied to renew the registration within five (5) years of the date the registration expires, the facility is no longer eligible for registration.
- (g) If a regulated activity which is eligible for registration in accordance with subsection (a) of this section fails to be registered or if the registrant of an active registered activity fails to apply for renewal prior to expiration, the Commissioner or municipal aquifer protection agency, as appropriate, may accept a late registration at their discretion, subject to the limitations in subsection (f)(5) of this section.
- (h) Any person wishing to assume the benefits under a registration for regulated activities shall apply to transfer such registration on a form prescribed by the Agency and submitted to the Agency.

SECTION 9. Permit Requirements

- (a) Any person may apply for a permit to add a regulated activity to a facility where a registered regulated activity occurs.
- (b) The Agency shall process permit applications for those registrants that have registered pursuant to section 8 of the APA Regulations. The Commissioner shall process permit applications for regulated activities specified in §22a-354p(g) of the Connecticut General Statutes and for those registrants that have registered pursuant to §22a-354i-7(b)(1) of the Regulations of Connecticut State Agencies.
- (c) Action shall be taken on permit applications within thirty-five (35) days after the completion of a public hearing or in the absence of a public hearing within sixty-five (65) days from the date of receipt of the application.
- (d) An application for a permit shall be made on a form prescribed by the Agency and shall be accompanied by the correct application fee in accordance with section 18 of the APA Regulations. Such permit application forms may be obtained from the Town Clerk or the Water Pollution Control Authority. Simultaneously with filing an application, the applicant shall send a copy of the application to the Commissioner, the Commissioner of Public Health and the affected water company. An application shall include the following

information:

- (1) The information as required for a registration under section 8(b) of the APA Regulations shall be provided for the proposed regulated activity;
- (2) a confirmation and certification that the existing and proposed activity:
 - (A) remains and shall remain in compliance with section 12(a) of the APA Regulations,
 - (B) shall not increase the number of underground storage tanks used for storage of hazardous materials, and
 - (C) remains and shall remain in compliance with all local, state, and federal environmental laws;
- (3) a materials management plan in accordance with section 12(a) of the APA Regulations;
- (4) a storm water management plan in accordance with section 12(b) of the APA Regulations;
- (5) the following environmental compliance information with respect to environmental violations which occurred at the facility where the regulated activities are conducted, within the five years immediately preceding the date of the application:
 - (A) any criminal conviction involving a violation of any environmental protection law,
 - (B) any civil penalty imposed in any state or federal judicial proceeding, or any penalty exceeding five thousand dollars imposed in any administrative proceeding, and
 - (C) any judicial or administrative orders issued regarding any such violation together with the dates, case or docket numbers, or other information which identifies the proceeding. For any such proceeding initiated by the state or federal government, the Agency may require submission of a copy of any official document associated with the proceeding, the final judgment or order;
- (6) any additional information deemed necessary by the Agency regarding potential threats to the ground water and proposed safeguards; and
- (7) the following certification signed by the applicant and the individual responsible for preparing the application, after satisfying the statements set forth in the certification:

"I have personally examined and am familiar with the information submitted in this document and all attachments, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining

the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law.”

- (e) The Commissioner, any affected water company or the Commissioner of Public Health may, not later than thirty (30) days after receiving a copy of an application for a permit under this section, submit to the Agency written comments on such application. The Agency shall give due consideration to any such comments, and shall provide a copy of the decision to the Commissioner, the affected water company and the Commissioner of Public Health.
- (f) To carry out the purposes of the Act, the Agency may grant an application as filed, grant it upon such terms, conditions, limitations or modifications necessary, or deny it. The Agency shall state upon the record the reason for its decision.
- (g) The Agency may hold a public hearing on an application for a permit in accordance with section 10 of the APA regulations.
- (h) The Agency shall not issue a permit unless a complete application has been received and the applicant demonstrates to the Agency's satisfaction that all requirements of this section of the APA regulations have been satisfied and all of the following standards and criteria have been met:
 - (1) the proposed regulated activity shall take place at a facility where a registered regulated activity occurs;
 - (2) the proposed regulated activity shall not increase the number, or storage capacity of underground storage tanks used for hazardous materials except for the replacement of an existing underground storage tank in accordance with section 12(a)(3) of the APA Regulations;
 - (3) the materials management plan and storm water management plan have been satisfactorily prepared in accordance with sections 12(a) and 12(b) of the APA Regulations;
 - (4) the applicant has submitted a confirmation and certification that all regulated activities remain and shall remain in compliance with all local, state and federal environmental laws in accordance with subsection (d)(2) of this section;
 - (5) the applicant's compliance record does not indicate (A) that any noncompliance resulted from indifference to or disregard for the legal requirements, (B) an unwillingness or inability to devote the resources necessary to comply and remain in compliance, or (C) that instances of noncompliance have led to serious environmental harm, harm to human health or safety, or a substantial risk of such harm;
 - (6) the proposed regulated activity shall be conducted in accordance with section 12 of the APA Regulations;

- (7) the existing regulated activity is being conducted in accordance with section 12 of the APA Regulations; and
- (8) the certification required under subsection (d)(7) of this section has been signed by the applicant and the individual responsible for preparing the application.
- (i) The Agency may impose reasonable conditions or limitations on any permit issued under this section to assure protection of the ground water, including, but not limited to the following:
 - (1) best management practices in addition to those set forth in section 12 of the APA Regulations; and
 - (2) ground water monitoring.
- (j) The following general provisions shall be included in the issuance of all permits:
 - (1) the Agency has relied in whole or in part on information provided by the applicant and if such information subsequently proves to be false, deceptive, incomplete or inaccurate, the permit may be modified, suspended or revoked;
 - (2) all permits issued by the Agency are subject to and do not derogate any present or future rights or powers of the Commissioner, Agency, or municipality, and convey no rights in real estate or material nor any exclusive privileges, and are further subject to any and all public and private rights and to any federal, state, and municipal laws or regulations pertinent to the subject land or activity;
 - (3) the permit shall expire ten (10) years from the date of issuance of such permit by the Agency; and
 - (4) a person shall apply to the Agency to renew the permit on a form prescribed by the Agency prior to expiration of such permit. Such renewal shall be granted upon request by the Agency unless a substantial change in the permitted activity is proposed, or enforcement action with regard to the regulated activity has been taken, in which case, a new permit application shall be submitted and reviewed in accordance with the provisions of this section.
- (k) The Agency shall notify the applicant or permittee within fifteen (15) days of the date of the decision by certified mail, return receipt requested, and the Agency shall cause notice of its order in issuance or denial of a permit to be published in a newspaper having a general circulation in the municipality in which the aquifer protection area is located.
- (l) A permittee may request a modification of a permit from the Agency. Such request shall be on a form prescribed by the Agency, and shall include the facts and reasons supporting the request. The Agency may require the permittee to submit a new application for a permit or renewal in lieu of a modification request.
- (m) A person wishing to assume the benefits under a permit for regulated activities shall apply

to transfer such permit on a form prescribed by the Agency and submitted to the Agency.

SECTION 10. Public Hearings Regarding Permit Applications

- (a) If the Agency decides to hold a public hearing regarding an application for a permit to conduct a regulated activity within an aquifer protection area, such hearing shall commence no later than sixty-five (65) days after the receipt of such application.
- (b) Notice of the hearing shall be published at least twice at intervals of not less than two (2) days, the first not more than fifteen (15) days and not fewer than ten (10) days, and the last not less than two (2) days before the date set for the hearing in a newspaper having a general circulation in each city/town where the affected aquifer, or any part thereof, is located.
- (c) The Agency shall send to any affected water company, at least ten (10) days before the hearing, a copy of the notice by certified mail, return receipt requested. Any affected water company may, through a representative, appear and be heard at any such hearing.
- (d) All applications, maps and documents relating thereto shall be open for public inspection.
- (e) At such hearing any person or persons may appear and be heard.
- (f) The hearing shall be completed within forty-five (45) days of its commencement.
- (g) In reaching its decision on any application after a public hearing, the Agency shall base its decision on the record of that hearing. Documentary evidence or other material not in the hearing record shall not be considered by the Agency in its decision.
- (h) The applicant or permittee shall be notified of the Agency's decision in accordance with section 9(k) of the APA Regulations.

SECTION 11. Bond and Insurance Relevant to Permit Applicants

- (a) An applicant may be required to file a bond as a condition of the permit.
- (b) Any bond or surety shall be conditioned on compliance with all provisions of these regulations and the terms, conditions and limitations established in the permit.

SECTION 12. Best Management Practices

- (a) Every regulated activity shall be conducted in accordance with the following:
 - (1) Hazardous materials may be stored above ground within an aquifer protection area only in accordance with the following conditions:

- (A) hazardous material shall be stored in a building or under a roof that minimizes storm water entry to the hazardous material storage area, except that a roof is not required for a bulk storage facility as defined in section 2 of the APA Regulations,
 - (B) floors within a building or under a roof where hazardous material may be stored shall be constructed or treated to protect the surface of the floor from deterioration due to spillage of any such material,
 - (C) a structure which may be used for storage or transfer of hazardous material shall be protected from storm water run-on, and ground water intrusion,
 - (D) hazardous material shall be stored within an impermeable containment area which is capable of containing at least the volume of the largest container of such hazardous material present in such area, or 10% of the total volume of all such containers in such area, whichever is larger, without overflow of released hazardous material from the containment area,
 - (E) hazardous material shall not be stored with other hazardous materials that are incompatible and may create a hazard of fire, explosion or generation of toxic substances,
 - (F) hazardous material shall be stored only in a container that has been certified by a state or federal agency or the American Society of Testing Materials as suitable for the transport or storage of such material,
 - (G) hazardous material shall be stored only in an area that is secured against unauthorized entry by the public, and
 - (H) the requirements of this subdivision are intended to supplement, and not to supersede, any other applicable requirements of federal, state, or local law, including applicable requirements of the Resource Conservation and Recovery Act of 1976;
- (2) no person shall increase the number of underground storage tanks used to store hazardous materials;
 - (3) an underground storage tank used to store hazardous materials shall not be replaced with a larger tank unless (A) there is no more than a 25% increase in volume of the larger replacement tank, and (B) the larger replacement tank is a double-walled tank with co-axial piping, both meeting new installation component standards pursuant to §22a-449(d)-1(e) and §22a-449(d)-102 of the Regulations of Connecticut State Agencies, and with interstitial monitoring;
 - (4) no person shall use, maintain or install floor drains, dry wells or other infiltration devices or appurtenances which allow the release of waste waters to the ground, unless such release is permitted by the Commissioner in accordance with §22a-430 or §22a-430b of the Connecticut General Statutes; and

- (5) a materials management plan shall be developed and implemented in accordance with the following:
- (A) a materials management plan shall contain, at a minimum, the following information with respect to the subject regulated activity:
- (i) a pollution prevention assessment consisting of a detailed evaluation of alternatives to the use of hazardous materials or processes and practices that would reduce or eliminate the use of hazardous materials, and implementation of such alternatives where possible and feasible,
 - (ii) a description of any operations or practices which may pose a threat of pollution to the aquifer, which shall include the following:
 - (aa) a process flow diagram identifying where hazardous materials are stored, disposed and used, and where hazardous wastes are generated and subsequently stored and disposed,
 - (bb) an inventory of all hazardous materials which are likely to be or will be manufactured, produced, stored, utilized or otherwise handled, and
 - (cc) a description of waste, including waste waters generated, and a description of how such wastes are handled, stored and disposed,
 - (iii) the name, street address, mailing address, title and telephone number of the individual(s) responsible for implementing the materials management plan and the individual(s) who should be contacted in an emergency,
 - (iv) a record-keeping system to account for the types, quantities, and disposition of hazardous materials which are manufactured, produced, utilized, stored, or otherwise handled or which are discharged or emitted; such record-keeping system shall be maintained at the subject facility and shall be made available thereat for inspection during normal business hours by the Commissioner and the municipal aquifer protection agency, and
 - (v) an emergency response plan for responding to a release of hazardous materials. Such plan shall describe how each such release could result in pollution to the underlying aquifer and shall set forth the methods used or to be used to prevent and abate any such a release;
- (B) when a materials management plan is required under either section 8(c) or 9(d) of the APA Regulations, such materials management plan shall be completed and certified by a professional engineer or a certified hazardous materials manager, or, if the facility where the regulated activity is conducted has received and maintained an ISO 14001 environmental management system certification, then the registrant may complete and certify the materials

management plan; and

- (C) the materials management plan shall be maintained at the subject facility and shall be made available thereat for inspection during normal business hours by the Commissioner and the municipal aquifer protection agency.
- (b) The development and implementation of a storm water management plan required for regulated activities in accordance with sections 8(c) and 9(d) of the APA Regulations, shall be as follows: A storm water management plan shall assure that storm water run-off generated by the subject regulated activity is (i) managed in a manner so as to prevent pollution of ground water, and (ii) shall comply with all of the requirements for the General Permit of the Discharge of Storm water associated with a Commercial Activity issued pursuant to §22a-430b of the Connecticut General Statutes.

SECTION 13. Other State, Federal and Local Laws

- (a) Nothing in these regulations shall obviate the requirement for the applicant to obtain any other assents, permits or licenses required by law or regulation by the Town of Southbury, State of Connecticut and the Government of the United States including any approval required by the Connecticut Department of Environmental Protection and the U.S. Army Corps of Engineers and the United States Environmental Protection Agency. Obtaining such assents, permits or licenses are the sole responsibility of the applicant.
- (b) No person shall conduct any regulated activity within an aquifer protection area which requires zoning or subdivision approval without first having obtained a valid certificate of zoning or subdivision approval, special permit, special exception or variance, or other documentation establishing that the proposal complies with the Town of Southbury zoning or subdivision regulations.

SECTION 14. Enforcement

- (a) The Agency may appoint a duly authorized agent to act in its behalf with the authority to issue notices of violation or cease and desist orders.
- (b) If the Agency or its duly authorized agent finds that any person is conducting or maintaining any activity, facility or condition which violates any provision of these regulations, the Agency or its duly authorized agent may:
 - (1) Issue a notice of violation.
 - (A) The notice of violation shall state the nature of the violation, the jurisdiction of the Agency, and the necessary action required to correct the violation including without limitation halting the activity in the aquifer protection area.

- (B) The Agency may request that the person appear at the next regularly scheduled meeting of the Agency to discuss the unauthorized activity, and/or provide a written reply to the notice or file an application for the necessary permit or registration. Failure to carry out the action(s) directed in a notice of violation may result in issuance of an order under subsection (2) of this section or other enforcement proceedings as provided by law.
- (2) Issue a written order.
- (A) Such order shall be issued by certified mail, return receipt requested to such person conducting such activity or maintaining such facility or condition to cease such activity immediately or to correct such facility or condition. The Agency shall send a copy of such order to any affected water company by certified mail, return receipt requested.
- (B) Within ten (10) days of the issuance of such order the Agency shall hold a hearing to provide the person an opportunity to be heard and show cause why the order should not remain in effect. Any affected water company may testify at the hearing. The Agency shall consider the facts presented at the hearing and, within ten (10) days of the completion of the hearing, notify the person by certified mail, return receipt requested, that the original order remains in effect, that a revised order is in effect, or that the order has been withdrawn.
- (3) Suspend or revoke the registration or permit.
- (A) The Agency may suspend or revoke a registration or a permit if it finds, after a hearing, that the registrant or permittee has not complied with the terms, conditions or limitations set forth in the registration or the permit. Prior to revoking or suspending any registration or permit, the Agency shall issue notice to the registrant or the permittee, personally or by certified mail, return receipt requested, setting forth the facts or conduct that warrants the intended action.
- (B) The Agency shall hold a hearing to provide the registrant or permittee an opportunity to show that it is in compliance with its registration or permit. The Agency shall notify the registrant or permittee of its decision by certified mail within fifteen (15) days of the date of its decision. The Agency shall publish notice of a suspension or revocation in a newspaper having general circulation in the Town of Southbury.
- (c) An order issued pursuant to subsection (b)(2) shall be effective upon issuance, shall remain in effect until the Agency affirms, revises, or withdraws the order, and shall not delay or bar an action pursuant to subsection (b)(3) of this section.
- (d) A court may assess criminal and or civil penalties to any person who commits, takes part in, or assists in any violation of any provision of the APA regulations in accordance with §22a-354s(b) and §22a-354s(c) of the Connecticut General Statutes.

**REGISTRATION FORM – TOWN OF SOUTHBURY
WATER POLLUTION CONTROL AUTHORITY
AQUIFER PROTECTION - WELL HEAD PROTECTION AREAS**

Business Name: _____

Street Address of Business: _____

Mailing Address of Business if different from Street Address:

Business Telephone Number: _____

Name of Registrant:

Corporation Name, and list of officers, if applicable:

Mailing Address of Registrant:

Phone Number of Registrant: _____

Name of Manager/Operator of Facility: _____

Location of Facility shown on USGS quadrangle map:

List of Regulated Activities at Facility:

Certification by the Registrant:

“I have personally examined and am familiar with the information submitted in this registration and all attachments, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in this document or certification may be punishable as a criminal offense under Section 53a-157b of the Connecticut General Statutes and any other applicable law.”

Registrant: _____

**HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT
WATER CONSERVATION PLAN**

Prepared For

HERITAGE VILLAGE WATER COMPANY

June 2009

Prepared By

LEGGETTE, BRASHEARS & GRAHAM, INC.
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**HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT
WATER CONSERVATION PLAN**

1.0 INTRODUCTION

The Heritage Village Water Company (HVWC) furnishes public water supply to the northern portion of Southbury, along Old Waterbury Road, which extends to the Southbury-Middlebury border, and along a portion of Community House Road in Southbury. HVWC also provides water to the southwestern corner of Middlebury, and the northern and central portions of Oxford.

HVWC's safe yield is 2.052 mgd (million gallons per day), based on a 24-hour pumping day during actual drought condition pumping, and the current available water is 1.99 mgd. See Section 12.0 of the Water Supply Plan for more information. The available water is estimated to meet the projected average day demands through the year 2050.

The percentage of non-revenue water can only be estimated since a large portion of HVWC's customers are unmetered. In the past, non-revenue water estimates have ranged from 5 percent of total production in 2006 to 14 percent in 2008.

HVWC has developed the following plan for water conservation to promote efficient water use, eliminate waste, and meet future demands. This plan is divided into two components of management, namely Supply Management and Demand Management. Supply Management basically provides a good standard operating procedure to overcome system deficiencies, reduce water loss, and to provide adequate supply. Demand Management is geared toward persuading and encouraging consumers to reduce their water use.

2.0 SUPPLY MANAGEMENT

2.1 Objective

The objective of supply management is to provide water conservation practices to improve the efficiency of, and eliminate waste, within the water system, and to provide adequate safe yield.

2.2 Meter Management

All of HVWC's sources are metered as per Section B19-13-102(n) of the Public Health Code, and the meters are tested and calibrated annually. Water production and consumption forms from the 2003 through 2008 Department of Public Utility Control (DPUC) reports are provided in Appendix A. The production records are accurate; however, a large percentage of the consumption is estimated because many of HVWC's customers are unmetered.

In 2008, 2,088 of HVWC's 4,598 customers were metered. The unmetered residential units are located in the Heritage Village condominium community in Southbury, and make up 55 percent of HVWC's 4,598 service connections.

In the past, HVWC used the figure of 125 gpud (gallons per unit per day) in estimating consumption for the unmetered units. However, actual historical records showed an average day demand closer to 100 gpud; therefore, in 1999, HVWC began to utilize a flat rate of 100 gpud.

All new services are metered, and have been since late 1980's. The meters are appropriately sized for each customer's use. Meters are tested and calibrated in accordance with DPUC metering regulations. Meter sizes ranging from 5/8 inch to 1 inch are tested and calibrated every eight years, 1 1/2 inches to 2 inches - every four years, 3 inches to 4 inches - every three years, and 6 inches every year. Meters that do not fall within the DPUC accuracy range of 96 percent to 102 percent are repaired or replaced.

Metering of Heritage Village is not currently proposed because in 1998 HVWC requested a mandate from the CTDEP and the DPUC to have Heritage Village metered, on behalf of the Heritage Village Master Association who would be paying for the installations. The mandate was never provided; therefore, the meters were never installed. There are no plans to install water meters within Heritage Village unless a mandate from the applicable state agencies is received.

2.3 Water-System Evaluation

HVWC meters water use for fire protection, water and sewer main flushing, and other similar uses. HVWC keeps records of the quantities of such uses and reports them annually to the DPUC. Routine maintenance of the water system is conducted to ensure good system operation.

The DPUC requires a non-revenue water percentage of 15 percent or less. HVWC's non-revenue water has been less than 10 percent since 1998, with the exception of 2004 at 11 percent

and 2008 at 14 percent. HVWC's goal is to maintain non-revenue water to less than 10 percent in the five-year water-supply planning period.

2.4 Leak Detection

HVWC's water system is fairly new and in good condition. None of the system was constructed before 1968. An acceptable leakage rate is 1,500 gpdm (gallons per day per mile) of water main. HVWC has approximately 78 miles of mains in its water system; therefore, the acceptable leakage rate is 115,500 gpd, or 10 percent of the 2008 daily production. The leaks detected during previous surveys have shown leakages below 1,500 gpdm of main and, therefore, within an acceptable range.

Leak detection is scheduled to occur during 2009. The entire distribution system will be leak tested and any significant leaks that are identified will be repaired. HVWC has retained New England Water Utility Services, Inc. to conduct the leakage test.

2.5 Pressure Reduction

The existing system operating pressure ranges from 40 to 150 psi (pounds per square inch). Normal operating pressures are recommended to be within the range of 35 to 125 psi. Pressures above 125 psi are considered excessive. Excessive pressure has a detrimental effect on pipes, joints, and plumbing fixtures, and over a period of time can cause leakage problems as well as increase consumption. Excessive pressures have been experienced in low areas in the water system, especially in Oxford. The high pressures in Oxford are the result of a long distribution main constructed across a valley to serve a school complex, located on top of a hill. In the future, this main will be looped back to the distribution system. Eventually, a pumping station will be constructed, and a separate high service area created. This will permit the installation of pressure reducing valves to serve the valley area.

2.6 Scheduled Improvements

A water system evaluation will be performed annually in order to get a more accurate representation of non-revenue water use, so that unnecessary or excessive uses can be reduced or eliminated. HVWC is evaluating pump station meter records and corresponding customer meter

records for the high service areas to identify areas with excessive non-revenue water, and conversely, to eliminate areas from the search for non-revenue water.

It would be ideal for HVWC to maintain operating pressures at or below 80 psi. HVWC will install pressure-reducing devices in the water system where pressure is over 125 psi to eliminate potential long-term costly leakage problems and to reduce consumption. Additional looping of distribution mains and creation of high service areas will be done as necessary to permit reduced pressures in some of the valley areas.

3.0 DEMAND MANAGEMENT

3.1 Objective

The objective of demand management is to achieve permanent long-term water savings by providing incentives and technical assistance to consumers to reduce water use.

3.2 Historic Demands

Table WC-1 shows the consumption and production data, average day, and maximum day demands for the previous five years. Consumption is by user category.

Unmetered consumption is estimated based on a flat rate of 100 gpud for the years 2003 through 2008 for 2,510 Heritage Village condominiums. Average day consumption ranged from 0.877 mgd in 2003 to 1.109 mgd in 2007, peak day consumption ranged from 1.481 mgd in 2003 to 1.928 in 2007, and peak month demand ranged from 1.138 mgd in 2003 to 1.569 mgd in 2007.

3.3 Future Demands

A number of development projects are reported to be constructed within the 5-year water supply planning period. These projects are listed in table WC-2.

Projections were made based on 2008 data for the 5-, 20- and 50-year planning periods in Section 12.0 of the Water Supply Plan. Future consumption projections are listed on table WC-3. Unmetered residential consumption is expected to remain the same, metered residential consumption is expected to increase by approximately 26 percent over the five year planning period. Commercial consumption is expected to increase approximately 6 percent, and industrial consumption is expected to increase by approximately 8 percent over the 5-year period. "Other" uses are projected to

decrease. Overall, total consumption is projected to increase 28 percent over the 50-year planning period.

Non-revenue water is currently estimated at 14 percent of production. With existing and future water conservation measures, HVWC's goal is to reduce the non-revenue water to less than 10 percent.

3.4 Large Water Users

The top 10 volume customers are listed in the table in Appendix B. Most of the customers are fairly new facilities which have to comply with state regulations on water conservation, and also have water-conservation practices of their own. For instance, the IBM facility has a full-time professional staff which monitors water use as a part of their duties. As this is a relatively new facility, it is not considered a source of excessive water consumption. Water use for the industrial customers has remained relatively constant over the last few years, and only amounts to approximately 4 percent of water consumption. Water-use audits for the industrial customers would have little or no effect on consumption, and would not be cost effective because industrial customers constitute such a small portion of the demand.

3.5 Residential Retrofitting Program

The 1989 Public Act 89-226 required that public water-supply companies serving 1,000 or more persons, or 250 or more customers, provide residential customers with water conserving devices. In May 1991, HVWC distributed 3,075 water conservation kits to its customers.

Kits containing water-saving devices and water-conservation tips were left on the door knob of each residential customer. Of the 3,075 kits delivered, 140 of the water saving devices were installed by HVWC at the customer's request. See Appendix C for a detailed summary of the retrofit program. This program may have contributed to the 6 percent decrease in consumption noted in 1991.

Existing legislation requires water-saving devices in new construction. This will compliment HVWC's existing residential retrofit program in conserving water.

3.6 Water Rate Structure

The present rate structure, effective April 1, 2009, is included in Appendix D. Quarterly flat rates for water service are charged to each unmetered residential customer in Heritage Village dependent on the size of the unit. An additional fire service fee is also charged quarterly.

Metered customers are charged a quarterly service charge based on the meter size. An additional quarterly usage rate is also charged dependent on the amount of water consumed. For the first 15,000 gallons, a charge of \$2.50 per 1,000 gallons is applied. All water usage over 15,000 gallons is charged at the rate of \$3.14 per 1,000 gallons.

The unmetered customer is charged a flat rate for water consumption based on the estimated 100 gpd. If the metered customers were using the same amount of water, they would be paying approximately the same amount as the unmetered customers.

The inclining block rate is based on the assumption that heavy users are responsible for increasing the need for expansion of the system, and should, therefore, pay a higher unit price. This type of rate structure will promote water conservation.

3.7 Controlling Growth

The Towns of Middlebury and Oxford are actively encouraging development, especially industrial development, and the expansion of the water system. HVWC is currently working with town officials on keeping track of new developments to ensure that water service can be provided without imposing excessive demands on the water system. HVWC cannot control growth.

3.8 Public Education

HVWC uses the Heritage Village Masters Association's weekly news bulletins and closed circuit television to keep Heritage customers informed of activities and issues relating to water supply during times of drought or emergency. Letters are sent to all HVWC's customers annually to stress reduction in lawn watering during the summer. Customers are urged to water lawns only during the evening hours.

3.9 Scheduled Improvements

HVWC will conduct a water audit for commercial customers and recommend conservation practices to reduce water use, if requested. A review of each customer's water use will be conducted to identify areas in which overall efficiency can be improved. Water conservation such as reducing internal leakage by periodic leak detection surveys, preventive maintenance on water devices, replacing old or worn plumbing fixtures or retrofitting, are a few measures which will be implemented.

3.10 Water Conservation Measures

HVWC plans to complete leak detection of the entire distribution system every 5 years and will budget accordingly to have the testing done. In addition, HVWC performs routine maintenance and inspection of the pumping and metering facilities to insure that water loss is kept to a minimum.

4.0 5-YEAR IMPLEMENTATION PLAN

The 5-year implementation plans for supply and demand management measures follow. The supply management measures include a leak detection survey and annual meter calibration/testing. The leak detection survey will be conducted during 2009, and HVWC has budgeted \$10,000 to complete this leak detection survey and approximately \$5,000 to complete the annual meter calibration/testing. With regard to demand management, water saving devices are required for new construction which compliments HVWC's existing residential retrofit program. There is no ongoing cost to HVWC as a result of the retrofit program.

etn

June 24, 2009

H:\HERITAGE\2009\Water Supply Plan\WATER CONSERVATION PLAN.doc

TABLES

TABLE WC-1

HERITAGE VILLAGE WATER COMPANY
SOUTHURY, CONNECTICUT

Historic Water Consumption
(million gallons)

User Category	2003	2004	2005	2006	2007	2008
Unmetered Residential*	92.090	91.907	91.834	91.798	91.725	91.688
Metered Residential	49.296	62.387	81.676	92.168	110.259	99.757
Commercial	104.722	122.066	129.910	114.659	127.374	116.665
Industrial	6.433	7.208	8.046	8.027	8.905	9.429
Public Authorities	11.754	12.715	15.072	13.987	16.172	14.345
Other	19.297	25.332	15.564	9.523	9.645	8.027
Total Consumption	283.592	321.615	342.102	330.162	364.080	339.911
Non-Revenue	28.359	35.378	27.368	16.508	32.767	47.588
% Non-Revenue	10%	11%	8%	5%	9%	14%
Average Day Demand (mgd)	877,233	994,312	1,028,688	959,759	1,109,640	1,103,566
Maximum Month Demand	1,138,629	1,305,819	1,485,581	1,320,048	1,569,711	1,483,954
Peak Day Demand (mgd)	1,481,600	1,797,300	1,811,900	1,852,200	1,928,413	1,884,364

*Estimated by HVWC based on 100 gpcd.

**HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT**

**Proposed Development Projects
In 5-year Planning Period**

	Project	Type	Projected water use (gallons per day)
Southbury	The Courtyard at Heritage Green	Residential	3,468
	Benson Woods Phase I	Residential	3,992
	Avalon Farms	Residential	1,842
	Winding Brook, LLC	Residential	1,535
	Reservoir Office Park	Commercial	540
	Ridgewood @ Middlebury Phase I and II	Residential	11,716
Middlebury	Bayberry Farms Phase I and II	Residential	1,742
	Tower Business Park	Commercial	500
	Woodruff Hill Industrial Park Phase II	Commercial	14,500
	Long Meadow Farm Phase I and II	Residential	7,209
	Central Park	Residential	12,985
Oxford	Oxford Hills	Residential	1,413
	Glendale @ Oxford Phase I	Residential	3,837
	Oxford Greens Phase IV	Residential	7,067
	Fairways	Residential	2,827
	Fox Hollow Phase I	Commercial	2,500
	Fox Hollow Phase II	Commercial	1,500
	Hogs Back Estates	Residential	1,200
	Hunting Ridge Estates	Residential	6,900

WC-3

HERITAGE VILLAGE WATER COMPANY
SOUTHBURY, CONNECTICUT

Projected Water Consumption
(gallons per day)

User Category	2008	2013	2020	2050
Unmetered Residential*	251,200	251,200	251,200	251,200
Metered Residential	0	344,318	363,714	0
Commercial	0	19,540	69,540	119,540
Industrial	0	0	60,000	85,000
Public Authorities	0	40,000	40,000	40,000
Other	0	7,000	7,000	7,000
Total Consumption	251,200	662,058	791,454	502,740
Non-Revenue	35,168	66,206	79,145	50,274
% Non-Revenue	14%	10%	10%	10%
Average Day Demand (mgd)	0.000	0.728	0.871	0.553
Maximum Month Demand	0.000	0.967	1.156	0.735
Peak Day Demand (mgd)	0.000	1.191	1.424	0.904

APPENDIX A

WATER PRODUCTION AND CONSUMPTION

LEGGETTE, BRASHEARS & GRAHAM, INC.

Heritage Village Water Company
Report for the Year Ended December 31, 2003

OPERATING REVENUES (Account 400)

1. Report below the amount of operating revenue for the year for each prescribed account and the amount of increase or decrease over the preceding year.
 2. If increases or decreases are not derived from previously reported numbers explain any inconsistencies.
 3. Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts except that where separate meters are added for billing purposes one customer shall be counted for each group of meters so added. The average number of customers means the average of the 12 figures at the close of each month. If the customer count in the residential service classification includes customers counted more than once because of special services, such as air conditioning, etc. indicate in a footnote the number of such duplicate customers included in the classification.
 4. Unmetered sales should be included below.
 - *5. Classification of Commercial and Industrial Sales according to Small (or Commercial) and Large (or Industrial) may be the basis of classification regularly used by the respondent or on the basis of meter size (i.e. to 3/4" Residential, 1 1/2" Commercial, 2" and over Industrial).
- Explain basis of classification.

Line No.	Account (a)	OPERATING REVENUES		THOUSAND GALLONS SOLD*		AVERAGE NUMBER OF CUSTOMERS PER MONTH	
		Amount for year (b)	Increase or decrease from preceding year (c)	Amount for year (d)	Increase or decrease from preceding year (e)	Number for year (f)	Increase or decrease from preceding year (g)
1	OPERATING REVENUES	\$	\$				
2	SALES OF WATER						
3	Unmetered sales to general customers (460)	350,050.33	(84.23)	92,089.5	(36.5)	2,523	(1)
4	Residential						
5	Commercial						
6	Industrial						
7	Seasonal						
8	** Contract sales						
9	Total (460)	350,050.33	(84.23)	92,089.5	(36.5)	2,523	(1)
10	Metered sales to general customers (461)						
11	Residential	172,580.09	1,527.77	49,296.0	(2,417.9)	918	62
12	Commercial	205,925.67	(20,310.15)	104,722.1	(12,597.9)	260	6
13	Industrial	13,926.86	2,939.43	6,433.2	1,861.5	21	-
14	Public Authorities (464)	26,173.75	(3,337.72)	11,754.6	(2,146.2)	42	2
15	Contract (Preston Hill - Middlebury Part.)	88,893.87	(8,114.00)	18,835.6	(5,122.8)	1	0
16	Total	507,500.24	(27,294.67)	191,041.5	(20,423.3)	1,242	70
17	Private fire-protection service (462)	47,658.00	2,569.16	X X X X X X	X X X X X X	73	3
18	Public fire-protection service (463)	153,978.44	568.81	X X X X X X	X X X X X X	2,775	-
19	Sales to irrigation customers (465)						
20	Interdepartmental sales (467)	483.28	65.18	112.0	32.9	3	0
21	Sales for resale (466) (page 414)	1,142.67	1,142.67	349.5	349.5		0
22	Acquisition Surcharge - Sound View						
23							
24							
25	Total sales of water	1,050,812.96	(23,033.08)	283,592.5	(20,077.4)	6,616	72
26	OTHER OPERATING REVENUES						
27	Forfeited discounts (470)						
28	Miscellaneous service revenues (471)	13,674.41	1,703.86	4,356.4	2,209.7		
29	Rents from water property (472)						
30	Interdepartmental rents (473)						
31	Other water revenues (474) (Raw Water)						
32							
33							
34	Total other operating revenues	13,674.41	1,703.86	4,356.4	2,209.7		
35	Total operating revenues	1,074,487.37	(21,329.22)	287,948.9	(17,867.7)		
36							

(See page 105 Important Changes During the Year, for important new territory added and important rate increases or decreases)

Heritage Village Water Company
Report for the Year Ended December 31, 2003

WATER PRODUCTION AND CONSUMPTION

Show quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water, a primary efficiency

1. Potable water produced, metered, and discharged for consumptive use

Month	Thou. Gals. from terminal Reservoirs	Thou. Gals pumped from Wells	Thou. Gals. Purchased	Total Thou. Gals. delivered to mains
January		23,948.3		23,948.3
February		20,711.7		20,711.7
March		24,178.5		24,178.5
April		24,271.3		24,271.3
May		27,557.0		27,557.0
June		28,826.4		28,826.4
July		35,297.5		35,297.5
August		31,636.5		31,636.5
September		27,457.3		27,457.3
October		27,109.3		27,109.3
November		24,388.2		24,388.2
December		24,808.1		24,808.1

1(a) Total PRODUCTION WATER 320,190.1

2. Total REVENUE Water (Line 35, Page 413) ** 287,948.9

3. Balance as NON-REVENUE Water (State Percentage: 10 %) 32,241.2

4. Description and estimated consumption of Non-Revenue Water

a. Utility Usage -- at source/treatment plants	
b. Utility Usage -- flushing hydrants (No. flushed 346)	550.0
c. Utility Usage -- bleeders (No. in use)	
d. Utility Usage -- meter bench (No. meters tested)	
N/A - Sent outside for testing	
e. Utility Usage -- other purposes (specify):	
Water used for sewer flushing machine	5.8
Water used to fill & flush new lines	82.1
f. Fire Protection (No. of hydrant-using fires)	
g. Main Breaks (No. of breaks)	2.0
h. Service Line losses before meters (No. of cases)	
I. Other Non-Revenue uses/losses (specify):	
Police & Fire Department - Misc.	20.0
Leaks under Slabs	?
j. Balance (unknown)	31,581.3
Total Non-Revenue (Unaccounted-for) Water	32,241.2

5. System DEMAND Data

a. Average Daily Demand: 877 mgd

b. Maximum Day Demand: 1,482 mgd, on 7/22/03 20

c. Peak Hour Demand: mgd, on 20

425

** - To get total unmetered gallons on page 413, we used 100 / gals. / day / unit. Normally metered residential customers would use more, but the unmetered represents Heritage Village and quite a few customers are away for extended periods.

Heritage Village Water Company
Report for the Year Ended December 31, 2004

OPERATING REVENUES (Account 400)

1. Report below the amount of operating revenue for the year for each prescribed account and the amount of increase or decrease over the preceding year.
 2. If increases or decreases are not derived from previously reported numbers explain any inconsistencies.
 3. Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts except that where separate meters are added for billing purposes one customer shall be counted for each group of meters so added. The average number of customers means the average of the 12 figures at the close of each month. If the customer count in the residential service classification includes customers counted more than once because of special services, such as air conditioning, etc. indicate in a footnote the number of such duplicate customers included in the classification.
 4. Unmetered sales should be included below.
 5. Classification of Commercial and Industrial Sales according to Small (or Commercial) and Large (or Industrial) may be the basis of classification regularly used by the respondent or on the basis of meter size (i.e. to 3/4" Residential, 1 1/2" Commercial, 2" and over Industrial.)
- Explain basis of classification.

Line No.	Account	OPERATING REVENUES		THOUSAND GALLONS SOLD*		AVERAGE NUMBER OF CUSTOMERS PER MONTH	
		Amount for year (b)	Increase or decrease from preceding year (c)	Amount for year (d)	Increase or decrease from preceding year (e)	Number for year (f)	Increase or decrease from preceding year (g)
	(a)						
1	OPERATING REVENUES	\$	\$				
2	SALES OF WATER						
3	Unmetered sales to general customers (460)	349,313.48	(736.85)	91,907.0	(182.5)	2,518	(5)
4	Residential						
5	Commercial						
6	Industrial						
7	Seasonal						
8	** Contract sales						
9	Total (460)	349,313.48	(736.85)	91,907.0	(182.5)	2,518	(5)
10	Metered sales to general customers (461)						
11	Residential	204,552.43	31,972.34	62,387.0	13,091.0	970	52
12	Commercial	234,969.26	29,043.59	122,068.2	17,346.1	267	7
13	Industrial	15,279.92	1,353.06	7,207.6	774.4	23	2
14	Public Authorities (464)	27,973.28	1,799.53	12,715.4	960.8	42	-
15	Contract (Preston Hill - Middlebury Part.)	95,944.72	7,050.85	23,269.5	4,433.9	1	0
16	Total	578,719.61	71,219.37	227,647.70	36,606.2	1,303	61
17	Private fire-protection service (462)	46,852.24	(805.76)	x x x x x x	x x x x x x	72	(1)
18	Public fire-protection service (463)	166,367.93	12,389.49	x x x x x x	x x x x x x	2,779	4
19	Sales to irrigation customers (465)						
20	Interdepartmental sales (467)	538.89	55.61	140.1	28.1	3	0
21	Sales for resale (466) (page 414)	4,340.58	3,197.91	1,923.0	1,573.5		0
22	Acquisition Surcharge - Sound View						
23							
24	Total sales of water	1,146,132.73	85,319.77	321,617.8	38,025.3	6,675	59
26	OTHER OPERATING REVENUES						
27	Forfeited discounts (470)						
28	Miscellaneous service revenues (471)	12,764.12	(910.29)	1,923.0	(2,433.4)		
29	Rents from water property (472)						
30	Interdepartmental rents (473)						
31	Other water revenues (474) (Raw Water)						
32							
33							
34	Total other operating revenues	12,764.12	(910.29)	1,923.0	(2,433.4)		
35	Total operating revenues	1,158,896.85	84,409.48	323,540.8	35,591.9		
36							

(See page 105 Important Changes During the Year, for important new territory added and important rate increases or decreases)

Heritage Village Water Company
Report for the Year Ended December 31, 2004

WATER PRODUCTION AND CONSUMPTION

Show quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water, a primary efficiency

1. Potable water produced, metered, and discharged for consumptive use

<u>Month</u>	Thou. Gals. from terminal Reservoirs	Thou. Gals pumped from Wells	Thou. Gals. Purchased	Total Thou. Gals. delivered to mains
January		27,580.6		27,580.6
February		23,247.8		23,247.8
March		26,474.4		26,474.4
April		27,677.4		27,677.4
May		30,763.9		30,763.9
June		38,071.9		38,071.9
July		40,480.4		40,480.4
August		36,153.5		36,153.5
September		32,491.0		32,491.0
October		29,272.2		29,272.2
November		24,391.7		24,391.7
December		26,319.0		26,319.0

1(a) Total PRODUCTION WATER	362,923.8		362,923.8
Total REVENUE Water (Line 35, Page 413) **			323,540.8
Balance as NON-REVENUE Water		(State Percentage: 11 %)	39,383.0

4. Description and estimated consumption of Non-Revenue Water			
a. Utility Usage -- at source/treatment plants			
b. Utility Usage -- flushing hydrants (No. flushed 384)			610.0
c. Utility Usage -- bleeders (No. in use)			
d. Utility Usage -- meter bench (No. meters tested)			
N/A - Sent outside for testing			
e. Utility Usage -- other purposes (specify):			
Water used for sewer flushing machine			10.4
Water used to fill & flush new lines			148.2
f. Fire Protection (No. of hydrant-using fires)			
g. Main Breaks (No. of breaks 1)			30.0
h. Service Line losses before meters (No. of cases)			
i. Other Non-Revenue uses/losses (specify):			
Police & Fire Department - Misc.			25.0
Leaks under Slabs			?
j. Balance (unknown)			38,559.4
Total Non-Revenue (Unaccounted-for) Water			39,383.0

5. System DEMAND Data	
a. Average Daily Demand: 994 mgd	
b. Maximum Day Demand: 1.797 mgd. on 7/03/05 20	
c. Peak Hour Demand: mgd, on 20	

** - To get total unmetered gallons on page 413, we used 100 / gals. / day / unit. Normally metered residential customers would use more, but the unmetered represents Heritage Village and quite a few customers are away for extended periods.

Heritage Village Water Company
Report for the Year Ended December 31, 2005

OPERATING REVENUES (Account 400)

1. Report below the amount of operating revenue for the year for each prescribed account and the amount of increase or decrease over the preceding year.
2. If increases or decreases are not derived from previously reported numbers explain any inconsistencies.
3. Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts except that where separate meters are added for billing purposes one customer shall be counted for each group of meters so added. The average number of customers means the average of the 12 figures at the close of each month. If the customer count in the residential service classification includes customers counted more than once because of special services, such as air conditioning, etc. indicate in a footnote the number of such duplicate customers included in the classification.
4. Unmetered sales should be included below.
- *5. Classification of Commercial and Industrial Sales according to Small (or Commercial) and Large (or Industrial) may be the basis of classification regularly used by the respondent or on the basis of meter size (i.e. to 3/4" Residential, 1 1/2" Commercial, 2" and over Industrial.)
 Explain basis of classification.

Line No.	Account (e)	OPERATING REVENUES		THOUSAND GALLONS SOLD*		AVERAGE NUMBER OF CUSTOMERS PER MONTH	
		Amount for year (b)	Increase or decrease from preceding year (c)	Amount for year (d)	Increase or decrease from preceding year (e)	Number for year (f)	Increase or decrease from preceding year (g)
1	OPERATING REVENUES	\$	\$				
2	SALES OF WATER						
3	Unmetered sales to general customers (460)	349,060.32	(253.16)	91,834.0	(73.0)	2,516	(2)
4	Residential						
5	Commercial						
6	Industrial						
7	Seasonal						
8	** Contract sales						
9	Total (460)	349,060.32	(253.16)	91,834.0	(73.0)	2,516	(2)
10	Metered sales to general customers (461)						
11	Residential	261,118.46	56,566.03	81,876.0	19,289.0	1,251	281
12	Commercial	249,769.36	14,800.10	129,910.3	7,842.1	276	11
13	Industrial	17,496.61	2,218.69	8,048.2	840.6	32	9
14	Public Authorities (464)	31,915.24	3,941.96	15,071.5	2,356.1	42	-
15	Contract (Preston Park 2004 LLC)	80,017.15	(15,927.57)	13,137.5	(10,132.0)	1	0
16	Total	640,318.82	61,599.21	247,843.50	20,196.8	1,604	301
17	Private fire-protection service (462)	47,626.70	774.46	x x x x x x	x x x x x x	74	2
18	Public fire-protection service (463)	175,858.50	9,490.57	x x x x x x	x x x x x x	2,783	4
19	Sales to irrigation customers (465)						
20	Interdepartmental sales (467)	430.60	(108.29)	85.4	(54.7)	3	0
21	Sales for resale (466) (page 414)	4,706.01	365.43	2,341.0	418.0		0
22	Acquisition Surcharge - Sound View						
23							
24	Total sales of water	1,218,000.95	71,868.22	342,103.9	20,486.1	6,980	305
26	OTHER OPERATING REVENUES						
27	Forfeited discounts (470)						
28	Miscellaneous service revenues (471)	12,813.86	49.74	3,397.1	1,474.1		
29	Rents from water property (472)						
30	Interdepartmental rents (473)						
31	Other water revenues (474) (Raw Water)						
32							
33							
34	Total other operating revenues	12,813.86	49.74	3,397.1	1,474.1		
35	Total operating revenues	1,230,814.81	71,917.96	345,501.0	21,960.2		
36							

(See page 105 Important Changes During the Year, for important new territory added and important rate increases or decreases)

Heritage Village Water Company
Report for the Year Ended December 31, 2005

WATER PRODUCTION AND CONSUMPTION

Show quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water, a primary efficiency

1. Potable water produced, metered, and discharged for consumptive use

<u>Month</u>	Thou. Gals. from terminal Reservoirs	Thou. Gals pumped from Wells	Thou. Gals. Purchased	Total Thou. Gals. delivered to mains
January		24,648.6		24,648.6
February		22,346.9		22,346.9
March		24,883.6		24,883.6
April		25,338.1		25,338.1
May		31,710.4		31,710.4
June		40,370.1		40,370.1
July		37,891.7		37,891.7
August		46,053.0		46,053.0
September		39,580.3		39,580.3
October		32,401.2		32,401.2
November		26,155.7		26,155.7
December		24,091.6		24,091.6

1(a) Total PRODUCTION WATER	375,471.2		375,471.2
2. Total REVENUE Water (Line 35, Page 413) **			345,501.0
3. Balance as NON-REVENUE Water		(State Percentage: 8 %)	29,970.2

4. Description and estimated consumption of Non-Revenue Water			
a. Utility Usage -- at source/treatment plants			
b. Utility Usage -- flushing hydrants (No. flushed 397)			630.0
c. Utility Usage -- bleeders (No. in use)			
d. Utility Usage -- meter bench (No. meters tested)			
N/A - Sent outside for testing			
e. Utility Usage -- other purposes (specify):			
Water used for sewer flushing machine			6.4
Water used to fill & flush new lines			69.2
f. Fire Protection (No. of hydrant-using fires)			
g. Main Breaks (No. of breaks 1)			15.0
h. Service Line losses before meters (No. of cases)			
i. Other Non-Revenue uses/losses (specify):			
Police & Fire Department - Misc.			25.0
Leaks under Slabs			?
j. Balance (unknown)			29,224.6
Total Non-Revenue (Unaccounted-for) Water			29,970.2

5. System DEMAND Data			
a. Average Daily Demand:	1.029	mgd	
b. Maximum Day Demand:	1.812	mgd, on 9/09/05	20
c. Peak Hour Demand:		mgd, on	20

** - To get total unmetered gallons on page 413, we used 100 / gals. / day / unit. Normally metered residential customers would use more, but the unmetered represents Heritage Village and quite a few customers are away for extended periods.

Heritage Village Water Company
Report for the Year Ended December 31, 2006

OPERATING REVENUES (Account 400)

1. Report below the amount of operating revenue for the year for each prescribed account and the amount of increase or decrease over the preceding year.
2. If increases or decreases are not derived from previously reported numbers explain any inconsistencies.
3. Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts except that where separate meters are added for billing purposes one customer shall be counted for each group of meters so added. The average number of customers means the average of the 12 figures at the close of each month. If the customer count in the residential service classification includes customers counted more than once because of special services, such as air conditioning, etc. indicate in a footnote the number of such duplicate customers included in the classification.
4. Unmetered sales should be included below.
- *5. Classification of Commercial and Industrial Sales according to Small (or Commercial) and Large (or Industrial) may be the basis of classification regularly used by the respondent or on the basis of meter size (i.e. to 3/4" Residential, 1 1/2" Commercial, 2" and over Industrial).
Explain basis of classification.

Line No.	Account (a)	OPERATING REVENUES		THOUSAND GALLONS SOLD*		AVERAGE NUMBER OF CUSTOMERS PER MONTH	
		Amount for year (b)	Increase or decrease from preceding year (c)	Amount for year (d)	Increase or decrease from preceding year (e)	Number for year (f)	Increase or decrease from preceding year (g)
1	OPERATING REVENUES	\$	\$				
2	SALES OF WATER						
3	Unmetered sales to general customers (460)	348,977.00	(83.32)	91,797.5	(36.5)	2,515	(1)
4	Residential						
5	Commercial						
6	Industrial						
7	Seasonal						
8	** Contract sales						
9	Total (460)	348,977.00	(83.32)	91,797.5	(36.5)	2,515	(1)
10	Metered sales to general customers (461)						
11	Residential	299,815.59	38,697.13	92,187.5	10,511.5	1,465	214
12	Commercial	227,583.38	(22,185.98)	114,658.7	(15,251.6)	294	16
13	Industrial	17,799.16	300.55	8,027.0	(21.2)	35	3
14	Public Authorities (464)	30,022.11	(1,893.13)	13,976.8	(1,094.7)	44	2
15	Contract (Preston Park 2004 LLC)	70,409.00	(9,808.15)	6,987.2	(6,150.3)	1	0
16	Total	645,629.24	5,310.42	235,837.20	(12,006.3)	1,839	235
17	Private fire-protection service (462)	48,580.83	954.13	X X X X X X	X X X X X X	77	3
18	Public fire-protection service (463)	184,407.79	8,549.29	X X X X X X	X X X X X X	2,783	-
19	Sales to irrigation customers (465)						
20	Interdepartmental sales (467)	566.31	136.71	153.9	68.5	3	0
21	Sales for resale (466) (page 414)	5,051.59	345.58	2,381.5	40.5		0
22	Acquisition Surcharge - Sound View						
23							
24							
25	Total sales of water	1,233,212.76	15,211.81	330,170.1	(11,933.8)	7,217	237
26	OTHER OPERATING REVENUES						
27	Forfeited discounts (470)						
28	Miscellaneous service revenues (471)	15,624.86	2,811.00	3,578.5	181.4		
29	Rents from water property (472)						
30	Interdepartmental rents (473)						
31	Other water revenues (474) (Raw Water)						
32							
33							
34	Total other operating revenues	15,624.86	2,811.00	3,578.5	181.4		
35	Total operating revenues	1,248,837.62	18,022.81	333,748.6	(11,752.4)		
36							

(See page 105 Important Changes During the Year, for important new territory added and important rate increases or decreases)

Heritage Village Water Company
Report for the Year Ended December 31, 2006

WATER PRODUCTION AND CONSUMPTION

Show quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water, a primary efficiency

1. Potable water produced, metered, and discharged for consumptive use

<u>Month</u>	Thou. Gals. from terminal Reservoirs	Thou. Gals pumped from Wells	Thou. Gals. Purchased	Total Thou. Gals. delivered to mains
January		23,554.6		23,554.6
February		19,993.8		19,993.8
March		22,903.2		22,903.2
April		24,263.2		24,263.2
May		32,952.8		32,952.8
June		35,069.0		35,069.0
July		40,921.5		40,921.5
August		40,204.0		40,204.0
September		32,524.6		32,524.6
October		27,845.6		27,845.6
November		24,904.3		24,904.3
December		25,175.6		25,175.6

1(a) Total PRODUCTION WATER 350,312.2

2. Total REVENUE Water (Line 35, Page 413)** 333,748.6

3. Balance as NON-REVENUE Water (State Percentage: 5 %) 16,563.6

4. Description and estimated consumption of Non-Revenue Water

a. Utility Usage -- at source/treatment plants	
b. Utility Usage -- flushing hydrants (No. flushed <u>449</u>)	1,796.0
c. Utility Usage -- bleeders (No. in use _____)	
d. Utility Usage -- meter bench (No. meters tested _____)	-
N/A - Sent outside for testing	
e. Utility Usage -- other purposes (specify):	
Water used for sewer flushing machine	7.5
Water used to fill & flush new lines	108.8
f. Fire Protection (No. of hydrant-using fires _____)	
g. Main Breaks (No. of breaks <u>1</u>)	?
h. Service Line losses before meters (No. of cases _____)	?
i. Other Non-Revenue uses/losses (specify):	?
Police & Fire Department - Misc.	?
Leaks under Slabs	?
j. Balance (unknown)	14,651.30

Total Non-Revenue (Unaccounted-for) Water 16,563.6

5. System DEMAND Data

- a. Average Daily Demand: .960 mgd
- b. Maximum Day Demand: 1.852 mgd, on 8/1 20 06
- c. Peak Hour Demand: _____ mgd, on _____ 20 _____

** - To get total unmetered gallons on page 413, we used 100 / gals. / day / unit. Normally metered residential customers would use more, but the unmetered represents Heritage Village and quite a few customers are away for extended periods.

Heritage Village Water Company
Report for the Year Ended December 31, 2007

OPERATING REVENUES (Account 400)

1. Report below the amount of operating revenue for the year for each prescribed account and the amount of increase or decrease over the preceding year.
2. If increases or decreases are not derived from previously reported numbers explain any inconsistencies.
3. Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts except that where separate meters are added for billing purposes one customer shall be counted for each group of meters so added. The average number of customers means the average of the 12 figures at the close of each month. If the customer count in the residential service classification includes customers counted more than once because of special services, such as air conditioning, etc. indicate in a footnote the number of such duplicate customers included in the classification.
4. Unmetered sales should be included below.
- *5. Classification of Commercial and Industrial Sales according to Small (or Commercial) and Large (or Industrial) may be the basis of classification regularly used by the respondent or on the basis of meter size (i.e. to 3/4" Residential, 1 1/2" Commercial, 2" and over Industrial.)
 Explain basis of classification.

Line No.	Account (a)	OPERATING REVENUES		THOUSAND GALLONS SOLD*		AVERAGE NUMBER OF CUSTOMERS PER MONTH	
		Amount for year (b)	Increase or decrease from preceding year (c)	Amount for year (d)	Increase or decrease from preceding year (e)	Number for year (f)	Increase or decrease from preceding year (g)
1	OPERATING REVENUES	\$	\$				
2	SALES OF WATER						
3	Unmetered sales to general customers (460)	348,605.04	(371.96)	91,724.5	(73.0)	2,513	(2)
4	Residential						
5	Commercial						
6	Industrial						
7	Seasonal						
8	** Contract sales						
9	Total (460)	348,605.04	(371.96)	91,724.5	(73.0)	2,513	(2)
10	Metered sales to general customers (461)						
11	Residential	343,394.79	43,579.20	110,259.2	18,071.7	1,556	91
12	Commercial	249,869.68	22,286.30	127,373.6	12,714.9	306	12
13	Industrial	19,529.38	1,730.22	6,905.0	878.0	38	3
14	Public Authorities (464)	33,607.53	3,585.42	16,172.4	2,195.6	43	(1)
15	Contract (Preston Park 2004 LLC)	69,542.30	(866.70)	6,537.0	(450.2)	1	0
16	Total	716,943.68	70,314.44	269,247.20	33,410.0	1,944	105
17	Private fire-protection service (462)	53,980.72	5,399.89	x x x x x x	x x x x x x	83	6
18	Public fire-protection service (463)	190,637.82	6,230.03	x x x x x x	x x x x x x	2,784	1
19	Sales to irrigation customers (465)						
20	Interdepartmental sales (467)	571.39	5.08	156.5	2.6	3	0
21	Sales for resale (466) (page 414)	5,966.98	915.39	2,951.0	569.5		0
22	Acquisition Surcharge - Sound View						
23							
24							
25	Total sales of water	1,315,705.63	82,492.87	364,079.2	33,909.1	7,327	110
26	OTHER OPERATING REVENUES						
27	Forfeited discounts (470)						
28	Miscellaneous service revenues (471)	16,504.60	879.74	4,261.2	682.7		
29	Rents from water property (472)						
30	Interdepartmental rents (473)						
31	Other water revenues (474) (Raw Water)						
32							
33							
34	Total other operating revenues	16,504.60	879.74	4,261.2	682.7		
35	Total operating revenues	1,332,210.23	83,372.61	368,340.4	34,591.8		
36							

(See page 105 important Changes During the Year, for important new territory added and important rate increases or decreases)

Heritage Village Water Company
Report for the Year Ended December 31, 2007

WATER PRODUCTION AND CONSUMPTION

Show quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water, a primary efficiency

1. Potable water produced, metered, and discharged for consumptive use

<u>Month</u>	Thou. Gals. from terminal Reservoirs	Thou. Gals pumped from Wells	Thou. Gals. Purchased	Total Thou. Gals. delivered to mains
January		23,736.5		23,736.5
February		21,751.7		21,751.7
March		23,590.9		23,590.9
April		24,979.1		24,979.1
May		38,706.2		38,706.2
June		45,740.5		45,740.5
July		47,458.9		47,458.9
August		45,218.8		45,218.8
September		47,091.4		47,091.4
October		34,068.8		34,068.8
November		26,509.3		26,509.3
December		26,166.7		26,166.7

(a) Total PRODUCTION WATER 405,018.8

Total REVENUE Water (Line 35, Page 413) ** 368,340.4

3. Balance as NON-REVENUE Water (State Percentage: 9 %) 36,678.4

4. Description and estimated consumption of Non-Revenue Water

a. Utility Usage -- at source/treatment plants	
b. Utility Usage -- flushing hydrants (No. flushed <u>545</u>)	2,180.0
c. Utility Usage -- bleeders (No. in use _____)	
d. Utility Usage -- meter bench (No. meters tested _____)	-
N/A - Sent outside for testing	
e. Utility Usage -- other purposes (specify):	-
Water used for sewer flushing machine	17.7
Water used to fill & flush new lines	169.7
f. Fire Protection (No. of hydrant-using fires _____)	
g. Main Breaks (No. of breaks <u>1</u>)	350.0
h. Service Line losses before meters (No. of cases <u>4</u>)	?
i. Other Non-Revenue uses/losses (specify):	?
Police & Fire Department - Misc.	?
Leaks under Slabs	?
j. Balance (unknown)	33,961.0
Total Non-Revenue (Unaccounted-for) Water	36,678.4

5. System DEMAND Data

- a. Average Daily Demand: 1.110 mgd
- b. Maximum Day Demand: 1.928 mgd, on 5/31 2007
- c. Peak Hour Demand: _____ mgd, on _____ 20

- To get total unmetered gallons on page 413, we used 100 / gals. / day / unit. Normally metered residential customers would use more, but the unmetered represents Heritage Village and quite a few customers are away for extended periods.

OPERATING REVENUES (Account 400)

1. Report below the amount of operating revenue for the year for each prescribed account and the amount of increase or decrease over the preceding year.
 2. If increases or decreases are not derived from previously reported numbers explain any inconsistencies.
 3. Number of customers should be reported on the basis of number of meters, plus number of flat rate accounts except that where separate meters are added for billing purposes one customer shall be counted for each group of meters so added. The average number of customers means the average of the 12 figures at the close of each month. If the customer count in the residential service classification includes customers counted more than once because of special services, such as air conditioning, etc. indicate in a footnote the number of such duplicate customers included in the classification.
 4. Unmetered sales should be included below.
 - *5. Classification of Commercial and Industrial Sales according to Small (or Commercial) and Large (or Industrial) may be the basis of classification regularly used by the respondent or on the basis of meter size (i.e. to 3/4" Residential, 1 1/2" Commercial, 2" and over Industrial.)
- Explain basis of classification.

Line No.	Account (a)	OPERATING REVENUES		THOUSAND GALLONS SOLD*		AVERAGE NUMBER OF CUSTOMERS PER MONTH	
		Amount for year (b)	Increase or decrease from preceding year (c)	Amount for year (d)	Increase or decrease from preceding year (e)	Number for year (f)	Increase or decrease from preceding year (g)
1	OPERATING REVENUES	\$	\$				
2	SALES OF WATER						
3	Unmetered sales to general customers (460)			91,688.0	(36.5)	2,512	(1)
4	Residential						
5	Commercial						
6	Industrial						
7	Seasonal						
8	Contract sales						
9	Total (460)			91,688.0	(36.5)	2,512	(1)
10	Metered sales to general customers (461)			44,757.9	(10,501.3)	1,428	72
11	Residential			116,465.7	(10,707.9)	311	5
12	Commercial			9,429.9	534.9	42	4
13	Industrial			14,315.3	(1,827.1)	46	3
14	Public Authorities (464)			8,027.0	1,490.0	1	0
15	Seasonal Contract (Residential) (461) (464)			248,228.8	(21,021.4)	2,028	84
16	Total			xxxxxxx	xxxxxxx	89	6
17	Private fire-protection service (462)			xxxxxxx	xxxxxxx	2,785	1
18	Public fire-protection service (463)						
19	Sales to irrigation customers (465)			106.0	(50.6)	3	0
20	Interdepartmental sales (467)			3,008.0	57.0		
21	Sales for resale (468) (page 410)						
22	Acquisition Surcharges						
23							
24				343,027.8	(21,051.4)	7,417	70
25	Total sales of water						
26	OTHER OPERATING REVENUES						
27	Forfeited discounts (470)			3,346.7	(915.5)		
28	Miscellaneous service revenues (471)						
29	Rents from water property (472)						
30	Interdepartmental rents (473)						
31	Other water revenues (474) (Raw Water)						
32							
33				3,346.7	(915.5)		
34	Total other operating revenues			3,346.7	(915.5)		
35	Total operating revenues			346,374.5	(21,966.9)		
36							

(Page 300, Line 2)

(See page 105 Important Changes During the Year, for important new territory added and important rate increases or decreases)

Annual Report of _____
 Report for the Year Ended December 31, 20__ (or June 30, 20__) 2008

WATER PRODUCTION AND CONSUMPTION

Show quantities of water produced and purchased and the quantities delivered to consumer and lost or unaccounted for including system demand experience, during the year. Estimates for each of the listed items of non-revenue water, a primary efficiency

1. Potable water produced, metered, and discharged for consumptive use

Month	Thou. Gals. from terminal Reservoirs	Thou. Gals. pumped from Wells	Thou. Gals. Purchased	Total Thou. Gals. delivered to mains
January		26,176.1		26,176.1
February		25,324.3		25,324.3
March		27,164.9		27,164.9
April		30,445.0		30,445.0
May		39,157.6		39,157.6
June		41,658.9		41,658.9
July		46,002.6		46,002.6
August		42,494.3		42,494.3
September		36,072.8		36,072.8
October		32,712.7		32,712.7
November		25,882.0		25,882.0
December		29,713.4		29,713.4
		<u>402,501.4</u>		<u>402,501.4</u>

1(a) Total PRODUCTION WATER

2. Total REVENUE Water (Line 25, Page 413) **

3. Balance as NON-REVENUE Water

(State Percentage: 14 %)

4. Description and estimated consumption of Non-Revenue Water

- a. Utility Usage -- at source/treatment plants
- b. Utility Usage -- flushing hydrants (No. flushed 598)
- c. Utility Usage -- bleeders (No. in use _____)
- d. Utility Usage -- meter bench (No. meters tested N/A - sent out for testing)
- e. Utility Usage -- other purposes (specify):
Water used for sewer flushing machine 23.5
Water used to fill & flush new lines 48.2
- f. Fire Protection (No. of hydrant-using fires _____) 180.0
- g. Main Breaks (No. of breaks 1)
- h. Service Line losses before meters (No. of cases 4)
- i. Other Non-Revenue uses/losses (specify):
Police & Fire Department - Misc. 60.0
Water tank overflow 380.0
52,288.4
- j. Balance (unknown) 56,428.1

Total Non-Revenue (Unaccounted-for) Water

5. System DEMAND Data

- a. Average Daily Demand: 1,104 mgd
- b. Maximum Day Demand: 1,884 mgd, on 7/12 20 08
- c. Peak Hour Demand: _____ mgd, on _____ 20 _____

** To get total unmetered gallons on Page 413, we used 100 gals./day/unit. Normally metered residential customers would use more, but the unmetered represents Heritage 425 village and quite a few customers are away for extended periods.

APPENDIX B

HIGH VOLUME USERS - 2008

APPENDIX B

HERITAGE VILLAGE WATER COMPANY
SOUTHURY, CONNECTICUT

Major Users

Major User	2008 Average Daily Demand	Use of Water
IBM Corporation	62,115	Industrial
Preston Park 2004 LLC	21,992	Commercial
Crowne Plaza	20,553	Commercial
Heritage Resort and Conference Center	19,915	Commercial
River Glen Health Care Center	17,526	Commercial
Modern Metal Finishing	12,523	Industrial
Timex Inc.	10,348	Industrial
Watermark at East Hill Woods	8,951	Residential
Connecticut Water Company	8,227	Residential
Ridgewood at Middlebury	7,241	Residential

APPENDIX C
1991 RETROFIT PROGRAM

APPENDIX D

**SCHEDULE OF WATER RATES
(EFFECTIVE April 1, 2009)**



Heritage Village Water Company
 P.O. Box 873 • 450 Heritage Road
 Southbury, Connecticut 06488
 (203) 264-8100 • FAX (203) 264-6417

The DPUC has approved new rates effective April 1, 2009 – Docket No. 08-09-23
 The new rate schedule is presented below:

HERITAGE VILLAGE WATER COMPANY
 SCHEDULE OF APPROVED RATES AND CHARGES – WATER DIVISION
 (Effective April 1, 2009)

QUARTERLY FLAT RATE SCHEDULE

Residential Water Service

Carriage House	\$35.28
Berkshire	\$55.47
All Others	\$46.80

QUARTERLY METERED SCHEDULE

Service Charge

<u>Meter Size</u>	
5/8"	\$26.47
1"	\$30.46
1½"	\$40.14
2"	\$46.47
3"	\$86.72
4"	\$147.91
6"	\$209.13
8"	\$288.82

Residential Usage Rate

First 15,000 gals.	\$2.50 per 1,000 gals.
All over 15,000 gals.	\$3.14 per 1,000 gals.

General Service Usage Rate

All usage	\$2.39 per 1,000 gals.
-----------	------------------------

QUARTERLY RESIDENTIAL FIRE SERVICE CHARGE

Heritage Village, Heritage Circle and Heritage Crest	\$ 9.18
--	---------

ANNUAL FIRE HYDRANT CHARGE

\$540.00 per hydrant

ANNUAL PRIVATE FIRE SERVICE CHARGE

<u>Size of Connection</u>	
3" or less	\$164.00
4"	\$272.00
6"	\$340.00
8"	\$1,080.00
10"	\$1,624.00
12"	\$2,160.00

<u>SERVICE RECONNECTION CHARGE</u>	\$15.00
<u>RETURNED CHECK FEE</u>	\$30.00
<u>LATE PAYMENT FEE</u>	1½ % per month

Heritage Village • Southbury • Middlebury • Oxford



Heritage Village Water Company
 P.O. Box 873 • 450 Heritage Road
 Southbury, Connecticut 06488
 (203) 264-8100 • FAX (203) 264-6417

The DPUC has approved new rates effective April 1, 2009 – Docket No. 08-09-23
 The new rate schedule is presented below:

HERITAGE VILLAGE WATER COMPANY
SCHEDULE OF APPROVED RATES AND CHARGES – SEWER DIVISION
 (Effective April 1, 2009)

QUARTERLY FLAT RATE SCHEDULE

Residential Sewer Service

Carriage House	\$74.67
Berkshire	\$112.60
All Others	\$92.51

QUARTERLY METERED SCHEDULE

Service Charge

Meter Size

5/8"	\$34.34
1"	\$51.48
1½"	\$92.74
2"	\$120.33
3"	\$291.25

Usage Rate

All Flows \$4.71 per 1,000 gals.

RETURNED CHECK FEE
LATE PAYMENT FEE

\$30.00
 1½ % per month

EMERGENCY CONTINGENCY PLAN

Prepared For:

Heritage Village Water Company

June 2009

Prepared By:

Roald Haestad, Inc.

June 2009

Revised By:

LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Ground-Water and Environmental Engineers
4 Research Drive, Suite 301
Shelton, CT 06484

INTRODUCTION

This Emergency Contingency Plan has been prepared for the Heritage Village Water Company (HVWC) in accordance with CGS 16-32e. The purpose of this plan is to define procedures to prevent, or reduce to a minimum, loss of water service in the event of an emergency, and to maintain or restore service to priority users. The HVWC provides potable water to portions of the Towns of Southbury, Oxford, and Middlebury, including the Heritage Village condominium development. The Company obtains its supplies from five wells along the Pomperaug River in Southbury. Chlorination and pH adjustment for the system and performed by a central chemical feed unit.

CRITICAL SYSTEM COMPONENTS AND VULNERABILITY

Water system components are potentially vulnerable to damage or functional loss from a variety of natural disasters such as hurricanes, tornadoes, and earthquakes. System components may also be affected by accidents, fire, vandalism or even acts of war sabotage. Table 1 shows the relationship between each disaster type and the resulting emergency scenario within the water system. When severe conditions (e.g. a storm) are expected, the HVWC prepares accordingly. It should be noted that severity of damage resulting from certain catastrophic events, such as a major earthquake or war, generally cannot be anticipated, so that prior preparation is not possible.

Once damage or loss within the system occurs, from whatever cause, the Company's focus is on maintaining service and repairing damage. The purpose of the following discussion is to list each system emergency scenario, indicate which critical system components could be potentially affected, and discuss procedures both for preventing and restoring loss of service.

Source Contamination. Source contamination could affect any one or all of the HVWC wells. The contamination could be caused by an accidental chemical spill, sabotage, or flood waters entering one or more wells.

Table 1

DISASTER EFFECTS

Possible Affected System Components Disaster Type	Source Contamination	Pump Station Failure	Power Outages	Failure of treatment system	Failure of storage tank
Hurricane			X		
Tornado			X		
Earthquake		X	X		X
Flood	X	X	X	X	
Fire		X	X	X	
Snowstorm			X		
Ice Storm			X		
Chemical Spill	X				
Military Attack	X	X	X	X	X
Sabotage	X	X	X	X	X

A chemical spill at any location within the aquifer recharge area of the HVWC well field could potentially cause source contamination. A spill occurring in close proximity to the well field is of most immediate concern. For any spill, the objective of emergency response is to contain the contaminant and prevent the contamination from entering the aquifer. Spill response is discussed in more detail below.

The most likely scenario for a spill would be a vehicular accident involving a tank truck on one of the roads adjacent to the well field or Pomperaug River. As the well fields are located on golf course, there is the potential for a pesticide spill there.

Intentional contamination of wells is most likely to occur through local vandalism. To prevent unauthorized access, the wells and pumping equipment are housed in concrete block buildings, which are kept locked when unattended. The buildings are above the 100-year flood elevation and are relatively impervious to the entry of water, thereby protecting the wells during

flooding. If it appears that flood waters may reach any of the well buildings, additional barriers such as sandbags would be employed to further prevent entry of water into the wells.

Pump Station Failures. Failures of a pump station could be caused by electrical or mechanical failure of pumps or pumping equipment. There are four high service areas in the HVWC system which are served by pump stations. All four pump stations are equipped with two or more pumps, so the failure of a single pump will not cause complete disruption of service. The Church Road High Service Area, the largest of the four high service areas, can be served by storage from the Middlebury Storage Tank without operation of the pump station.

If a well pump failure were to occur, the system could be served by the remaining wells until the failed pump were repaired. The system is capable of providing the average day demand with the largest well out of service. In addition, HVWC is in the process of interconnecting with the Connecticut Water Company (CWC). It is expected that the interconnection will be completed by the spring of 2010 and this interconnection can be used as an emergency source.

Power Outages. Most power outages are routine situations which are handled by Water Company personnel. Power failures can affect pump stations or well pumping equipment. All four of the Company's pump stations have backup power sources or are equipped with a diesel generator, thus are not vulnerable to power outages. Wells H-1A, H-3 and H-4 are equipped with backup propane engines. The Company maintains two portable generators which can provide emergency power for auxiliary equipment.

Failure of Treatment System. Chlorination is the only critical component of the HVWC treatment system. All chlorination is performed by a single unit located near Well H-1A. A backup chlorination system is available if the primary unit becomes temporarily inoperable. In addition, there is adequate capacity in the Company's two storage tanks to provide approximately 2 days service for the entire system.

Failure of a Storage Tank. Loss of one or both of the distribution storage tanks would reduce the Company's ability to meet peak demands, but would not result in an extended disruption of service. The tanks can be taken out of service for maintenance by closing the valves to the tanks and operating the pumping facilities continuously. A temporary tank can also be installed to allow normal operation of the pumping facilities, although with reduced storage capacity.

MAINTAINING EMERGENCY SERVICE

In the unlikely event of an emergency which caused a severe shortage of potable water for any prolonged period, the HVWC would assign priority to those users for which an interruption of water service could jeopardize human life or health. Nursing homes, convalescent homes, medical facilities, and similar facilities would be included in this priority category. A list of such users is contained in Appendix A. The means for providing service to priority users would depend upon the extent of system damage and type of emergency. Possible actions include assigning repair priority to mains and other infrastructure serving priority users, providing water via tank trucks, and waiving rationing requirements during a drought emergency.

Maintaining adequate fire protection is the next highest priority. In any emergency situation, the HVWC would work with the local Fire Department to ensure that adequate fire flows are available.

PROCEDURES FOR RESPONDING TO HAZARDOUS SPILLS

Containment and cleanup of chemical spills, other than minor ones, is a specialized activity for which HVWC lacks resources and expertise. The role of HVWC personnel is to monitor activity within the aquifer recharge area, and to contact the appropriate authorities when spills occur. The Water Company annually notifies the local fire department of the locations of the wells and the recharge area, and asks for notification of spills within these areas. There is a staff member on call at all times, who can be contacted via a 24-hour answering service and pager. The Company also has mobile radios for emergency use. If a chemical spill occurs, the following emergency response procedures are followed:

- Identify the location, type, and extent of spill.
- Notify the local fire department and the DEP (see Appendix B).
- Contact the Company Manager or designated backup.
- Gather information to assist the fire department or other emergency response specialists.
- Install containments booms as appropriate to protect the well field.

- After emergency personnel have stabilized and contained the spill, an Emergency Notification Report should be filled out. A copy of the Company's form is contained in Appendix C.

INVENTORY OF EMERGENCY EQUIPMENT

The HVWC maintains an extensive inventory of spare parts and repair products. If additional parts, equipment, or repair services are required, the Company has a number of vendors available on a 24-hour basis. Names and telephone numbers for the vendors are listed in Appendix B. The Company has the following emergency equipment:

Portable Generators

One 7.5 KW, 110-220 volt 3 phase (located in Sewerage Treatment Plant)
One 3.5 KW, 110-220 volt (located at Church Road Booster Station)

Portable Pumps

One 1.5 inch, 180 gpm centrifugal (located in Sewerage Treatment Plant)
One 3-inch, 600 gpm (located in Sewerage Treatment Plant)
Two 3-inch diaphragm pumps (located in Sewerage Treatment Plant)

Other

Absorbent pads and containment booms for chemical spills.

EMERGENCY SOURCES

The HVWC has not interconnected with other systems; however, as indicated above, an interconnection with CWC should be completed by the spring of 2010.

EMERGENCY NOTIFICATIONS

A list of emergency phone numbers, including Water Company contacts, local emergency agencies, state agencies, news media and repair contractors is contained in Appendix B. Necessary notifications vary according to the type and severity of the emergency (e.g., flood, chemical spill, water shortage). If an emergency occurs outside normal business hours, the

HVWC General Manager or designated backup will be contacted. For emergency spills, the local Fire Department and the DEP will be called.

WATER SHORTAGE RESPONSE PLAN

Computer modeling performed by Leggette, Brashears & Graham, Inc. indicated that the HVWC's wellfield could sustain its permitted withdrawal rate of 2.05 mgd for a 180 day period with no recharge, and without the Pomperaug River running dry. Therefore, the system is not subject to shortages because of drought. However, water shortages caused by high demand and/or system performance problems and occur. The goal of this Water Shortage Response Plan is to have procedures which can be implemented to reduce demand and maximize supply in response to the inability of the system to meet demands.

The conditions for activating each stage are contained in Table 2. In order for a stage to be triggered, the conditions for each stage must be sustained for the period of time specified in Table 2.. If excessive peak usage causes a short duration supply problem, of only a few days duration, there is insufficient time to institute mandatory conservation measures or develop new sources. In such instances, the Company will request, via the news media, that consumers voluntarily reduce consumption, using the demand reduction measures for a Water Supply Emergency Phase I or II.

Table 2

Trigger Conditions for Water Supply Response Stages

Stage	Duration of Stage (days)	Hours of Well Pumping per Day	Storage Tank Levels
Water Supply Alert	30	20	Full
Water Supply Advisory	15	20-22	Full
Water Supply Emergency – Phase I	7	22-24	Full
Water Supply Emergency – Phase II	2	24	Not full
Water Supply Emergency – Phase III	1	24	Near empty

If a water supply emergency exists and mandatory restrictions are implemented, the HVWC does not have statutory authority to enforce the restrictions. In the past, the Company has relied on policing by its own staff and voluntary compliance. The only enforcement mechanism available to the HVWC is shutoff of service. The Company plans to work with the Towns of Southbury, Oxford, and Middlebury to improve enforcement of water use restrictions and to ensure that all of its users are subject to the same restrictions.

Once initiated, the demand reduction measures of each phase will remain in effect for one month after the trigger conditions for that phase are no longer met. The supply augmentation measures will remain in effect for two months after trigger conditions are no longer met.

1. Water Supply Alert
 - a) Notify the Department of Public Health (DPH) that a Water Supply Alert has been declared.
 - b) Suspend routine flushing of distribution piping, but continue responding to customer complaints.
 - c) Develop a consumer and media information plan.

2. Water Supply Advisory
 - a) Notify the DPH that a Water Supply Advisory has been declared.
 - b) Maintain all measures instituted under the Water Supply Alert.
 - c) Through the news media and/or direct mailing, request that all residential, commercial, and industrial customers voluntarily reduce consumption by 10%. Initiate a consumer and media information plan to encourage and educate consumers to conserve water.
 - d) Evaluate the feasibility of rebuilding or replacing wells to increase yield.
 - e) Prepare for mandatory conservation. Verify that enforcement mechanisms have been enacted in each town, and review the formal procedure for implementation of mandatory conservation measures.

3. Water Supply Emergency – Phase I
 - a) Notify the DPH that a Water Supply Emergency – Phase I has been declared.

- b) Maintain all measures instituted under the Water Supply Advisory.
- c) To achieve an overall 15% reduction in demand from non-drought years, institute the following mandatory limitations:
 - i) Lawn watering must follow "odd-even" scheduling.
 - ii) Outdoor gardens, landscaped areas, trees, shrubs, and other outdoor plants may only be watered using a bucket or pail.
 - iii) Prohibit topping of swimming pools
 - iv) Prohibit ornamental water use, including but not limited to fountains, artificial waterfalls, and reflecting pools.
 - v) Prohibit use of water for flushing sewers or hydrants by municipalities, or any public or private individual or entity except as deemed necessary and approved in the interest of public health or safety by the municipal health officials.
- d) Perform water audits at the ten largest water users. Request that they implement water conservation and reuse recommendations immediately.
- e) Construct pumping and treatment facilities to utilize the Pomperaug River as a water supply source.

4. Water Supply Emergency – Phase II

- a) Notify the DPH that a Water Supply Emergency – Phase II has been declared.
- b) Maintain all measures instituted under Water Supply Emergency Phase I.
- c) Implement mandatory conservation program to reduce demand by 20 percent from previous non-drought average.
- d) Request local enforcement officials for power of arrest to be used against violators of water usage bans.
- e) Prepare portable water supplies, including use of tankers to provide relief where needed.

5. Water Supply Emergency – Phase III

- a) Notify the DPH that a Water Supply Emergency – Phase III has been declared.
- b) Maintain all measures instituted under Water Supply Emergency Phase II.

- c) Enact mandatory water rationing. Allow 50 gallons per person per day. Read residential meters monthly.
- d) Require the ten largest water users to implement water conservation measures recommended by conservation program under Phase II.
- e) Initiate use of Pomperaug River as a water supply source, with approval of DPH.

SABOTAGE PREVENTION AND RESPONSE

It is the policy of the HVWC not to publish the procedures for coping with sabotage or attach, or to indicate the weaknesses of the system, to prevent such information being used by a potential saboteur. The HVWC has prepared a Sabotage Prevention and Response Plan. Key supervisory personnel have been apprised of the required actions during, or in response to, an attack on the HVWC system, and are apprised of any updates as they occur. A statement attesting to the existence of this Plan is included in Appendix D.

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APPENDIX A
LIST OF PRIORITY USERS
SYSTEM FACT SHEET (FORM WC-1)
VULNERABILITY ANALYSIS – CHLORINATION (FORM WC-16)

HERITAGE VILLAGE WATER COMPANY

LIST OF PRIORITY USERS

Nursing/Convalescent Homes

East Hill Woods	(888) 570- 6659 (203) 262-6868
Lutheran Convalescent Home	(203) 264-9135
Mediplex of CT, Inc. (Haven Health of Southbury)	(203) 264-9600
Pomperaug Woods	(203) 262-6555
Kensington Green	(203) 267-7100

APPENDIX B
LIST OF EMERGENCY CONTACTS

HERITAGE VILLAGE WATER COMPANY

LIST OF EMERGENCY CONTACTS

<u>Contact</u>	<u>Phone Number *</u>
<u>General</u>	
Heritage Village Water Company office, including staff on-call	203-264-8100
Connecticut Water Company (Raymond Adamaitis)	203-729-8243
HVWC Distribution Manager – Home	203-759-0641
HVWC Distribution Manager – Cell Phone	203-592-7287
National Weather Service – Brookhaven, NY	516-924-0383
Ambulance	911
Leggette, Brashears & Graham, Inc. – Aquifer Contamination Response	203-929-8555

State Agency Contacts

<u>Department of Public Health – Drinking Water Division (daytime)</u>	860-509-7333
<u>Department of Public Health – Drinking Water Division (emergency)</u>	860-509-8000
<u>Department of Environmental Protection</u>	860-424-3020

Municipal Emergency Contacts

Southbury

Fire Department	911
(other exchanges)	203-262-0615
Police Department – State Troop A	911
(Other exchanges)	203-267-2200 & 203-264-5912
Highway Department	203-264-0622
Civil Preparedness	203-262-0600
First Selectman (Bill Davis)	203-262-0647

Middlebury

Fire Department (758 exchange)	911
(other exchanges)	203-577-4028
Police Department – (758 exchange)	911
(Other exchanges)	203-577-4028
Highway Department	203-577-4170
Public Water	203-598-0614
First Selectman (Thomas Gormley)	203-758-2439

Contact

Phone Number *

Oxford

Fire Department	911 Routine calls – 888-9090
Police Department – Resident Trooper	911 Res. Trooper – 888-4353
Highway Department	203-888-0547
Public Works	203-888-7716
First Selectman (Mary Ann Drayton-Rogers)	203-888-2543
<u>Pomperaug Health District</u>	203-264-9616

Heritage Village

Master Association (security)	203-264-4001
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* All numbers in 203 area code, unless otherwise noted.

Vendors

Stanby Power	860-243-0288
Katz Pump Service	508-234-0061
S.B. Church	203-888-2132
Traver Electric	203-753-5103
Line Electric Company	203-757-8333
Stone Construction	203-264-6501
Aqua Smart (Seaquest)	1-800-278-2762
Jones Chemicals (Chlorine and Potassium Hydroxide)	1-800-777-8650
Savol Bleach Co. (Sodium Hypochlorite)	860-282-0878

Media Contacts

WTIC-Radio	860-677-6700
WATR-Radio	203-755-1121
WFSB-TV	860-728-3333
WVIT-TV	860-624-9534
WTNH-TV	860-296-8881
WTIC-TV	860-527-6161
Danbury News Times	203-744-5100
Waterbury Republican American	203-574-3636
New Haven Register	203-789-5200
Hartford Courant	860-241-6200
Associated Press	860-246-6876

APPENDIX C
HERITAGE VILLAGE WATER COMPANY
EMERGENCY NOTIFICATION REPORT

Emergency Accounting Procedure

In the event of an emergency, all invoices and related expenses will be stamped (EMERGENCY ACCOUNT) and kept separately. Later, they will be distributed in the various uniform system of accounts with an explanation of what particular emergency took place. Example: Hurricane Gloria, ice storm - December, 1986 etc.

EMERGENCY NOTIFICATION REPORT

PART 1 - FACTS RELATED TO EMERGENCY

1. Person or Department Calling in Emergency _____
Phone No./Radio Frequency _____ Date _____ Time Call Received _____

2. Location of Emergency:
Street and Home/Building Number _____
Other (approximate location, distance from landmark, etc.) _____

3. Condition at Scene:

4. Actual/Potential Damage (Briefly Describe the Situation) _____

5. Access Restrictions, if any _____

6. Assistance Already Available (Who, What are they doing etc.) _____

PART 2 - EMERGENCY INVESTIGATION

1. Personnel Investigation Emergency _____

2. Reported Results of Investigation _____

3. Time Assessed _____

PART 3 - EMERGENCY ACTION TAKEN

1. Immediate action taken _____

2. Is Immediate action? Permanent _____ Temporary _____

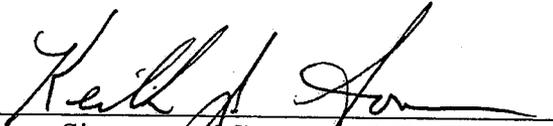
3. Was an Emergency Crew dispatched: Yes ___ No ___ Time Arrived on Scene

Names of Crew: _____

APPENDIX D
STATEMENT ATTESTING TO
EXISTENCE OF A SABOTAGE PREVENTION PLAN

CERTIFICATION OF RESPONSE PLAN AVAILABILITY
FOR SABOTAGE AND SIMILAR ATTACKS

I hereby certify that the Heritage Water Company has developed and completed a plan to respond to sabotage and other similar types of attacks on its water supply system.


Signature of Company Officer

LEGGETTE, BRASHEARS & GRAHAM, INC.

PROFESSIONAL GROUNDWATER AND ENVIRONMENTAL ENGINEERING SERVICES

4 RESEARCH DRIVE, SUITE 301
SHELTON, CT 06484
(203) 929-8555
FAX (203) 926-9140
www.lbgweb.com

June 29, 2009

Ms. Lori Mathieu
Department of Public Health
Drinking Water Section
410 Capitol Ave.
MS#51 WAT
Hartford, CT 06134-0308

RE: Water Supply Plan Update
Heritage Village Water Company
PWSID # CT1300021

Dear Ms. Mathieu:

Leggette, Brashears & Graham, Inc. (LBG) is submitting the update to the Water Supply Plan on behalf of Heritage Village Water Company (HVWC). The following State Agency contacts are receiving the update.

(2 paper copies, 1 electronic)

Lori Mathieu
Department of Public Health
Drinking Water Section
410 Capitol Avenue, MS#51 WAT
P.O. Box 340308
Hartford, CT 06134-0308

(4 copies)

Robert Hust
Department of Environmental Protection
Bureau of Water Management
79 Elm Street
Hartford, CT 06106-5127

(2 copies)

Steven Cadwallader
Department of Public Utility Control
10 Franklin Square
New Britain, CT 06051

(1 copy)

Tyler Kleycamp
Office of Policy and Management
450 Capitol Ave.
MS#54 ORG
P.O. Box 341441
Hartford, CT 06134-1441

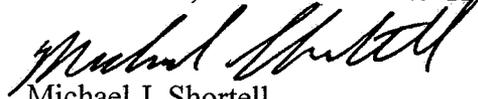
(1 copy)

Council of Governments, Central Naugatuck Valley
Peter Dorpalen
60 North Main Street, 3rd Floor
Waterbury CT, 06702

If you have any questions, please contact me at (203) 929-8555.

Very truly yours,

LEGGETTE, BRASHEARS & GRAHAM, INC.



Michael J. Shortell
Associate

MJS:cmm

Enclosures

cc: Keith Sorensen
Ray Adamaitis
Robert Hust
Steven Cadwallader
Tyler Kleycamp

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