DATA SUMMARY REPORT

Hudson River Project
1997 High Flow and Suspended Solids Monitoring Program

General Electric Company
Corporate Environmental Programs
Albany, New York

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O'BRIEN & GERE
ENGINEERS, INC.

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Vice President

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1. Introduction

On behalf of the General Electric Company (General Electric), O'Brien & Gere Engineers, Inc. (O'Brien & Gere) conducted field studies in the upper Hudson River (Figure 1-1) for the 1997 High Flow and Suspended Solids Monitoring Program. This program was implemented in accordance with the *1997 High Flow Monitoring Program, Upper Hudson River Sampling and Analysis Plan* (HydroQual and O'Brien & Gere 1997). The sampling and analysis plan was submitted to the New York State Department of Environmental Conservation (NYSDEC), The New York State Department of Health (NYSDOH), and the U.S. Environmental Protection Agency (USEPA) for review and comment. The agencies did not provide comments on the sampling and analysis plan.

Additional investigations conducted from 1996 through 1998 consisted of the 1996-1997 Thompson Island Pool Studies (O'Brien & Gere 1998a), the Ground Water Seepage Study (GeoTrans 1997; HydroQual et al. 1997), the 1998 High Flow Monitoring Program (O'Brien & Gere 1999a) and the 1998 Upper Hudson River Sediment Coring Program (O'Brien & Gere 1999b). This data summary report presents the project background, program objectives, sampling and analysis methods, and hydrologic and analytical data generated during the 1997 High Flow and Suspended Solids Monitoring Program.

1.1. Project Background

The 1997 High Flow and Suspended Solids Monitoring Program was performed to test a hypothesis for the origin of the elevated PCB loading originating in the Thompson Island Pool ("Thompson Island Pool anomaly") and to develop a solids mass balance in the Thompson Island Pool under both high and low flow conditions. Details of the Thompson Island Pool anomaly and solids mass balance are discussed below.

1.1.1. Thompson Island Pool anomaly

General Electric conducted extensive investigations from 1996 to 1998 to evaluate potential causes for the anomalous PCB loading in the Thompson

Island Pool. PCB loading attributable to diffusive flux based on principles of equilibrium partitioning is insufficient to account for the water column PCB concentrations measured at Thompson Island Dam (HydroQual 1995).

Several hypotheses were evaluated by the 1996 through 1998 sampling programs to investigate potential PCB loading mechanisms in Thompson Island Pool (HydroQual and O'Brien & Gere 1997):

Underestimating PCB loading at Fort Edward HRM 194.2[1] - The mass and concentration of PCBs entering the Thompson Island Pool are greater than the mass and concentration measured at the Fort Edward monitoring station due to pulsed loadings from the Bakers Falls area or due to PCB transport in the bed-load sediment (Figure 1-2). The Post-Construction Remnant Deposit Monitoring Program (PCRDMP) water sampling conducted weekly in the upper Hudson River (O'Brien & Gere 1998b) would not likely detect either of these potential PCB sources to Thompson Island Pool. Pulsed loadings from the Bakers Falls area were evaluated during the 1997 Hydro facility monitoring (O'Brien & Gere 1998b), the 1997 High and Suspended Solids Program, and the 1998 High Flow Monitoring Program (O'Brien & Gere 1999a). PCB transport in bed-load sediment was also evaluated during the 1997 High Flow and Suspended Solids Monitoring Program.

Overestimating PCB loading at Thompson Island Dam (HRM 188.5) - PCB concentrations measured in samples collected from the routine monitoring station at the Thompson Island Dam are greater than the average PCB concentrations in water as it passes over the dam. This hypothesis was evaluated during the 1996-1997 Thompson Island Pool Studies (O'Brien & Gere 1998a) and the PCRDMP since 1998.

Contributions from ground water flux through sediment - Ground water inflow to the Thompson Island Pool is transporting PCBs from sediment to the water column. Ground water seepage was evaluated during the 1997 Ground Water Seepage Investigation (GeoTrans 1997).

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[1] Hudson River mile (HRM) sample location designations indicate the approximate river mile upstream of the confluence of the Hudson River at the Battery in New York City, HRM 0.0. The north-south orientation of the river provides a convenient location reference.

Increased PCB concentrations in surface sediment - PCB concentrations in surface sediment are greater than historic surface sediment data. This could occur as a result of release(s) of PCBs from the Hudson Falls Plant site area. Surface sediment concentrations of PCBs were evaluated during the 1998 Upper Hudson River Sediment Coring Program (O'Brien & Gere 1999b).

Other PCB sources - Significant quantities of PCBs are entering the Thompson Island Pool between Rogers Island and the Thompson Island Pool from areas such as dredge spoil sites. Other potential sources of PCBs in the Thompson Island Pool were investigated during the 1996-1997 Thompson Island Pool Studies (O'Brien & Gere 1998a) and 1998 Upper Hudson River Sediment Coring Program (O'Brien & Gere 1999b).

Low flow resuspension - Resuspension of surface sediment contributes a significant quantity of PCBs into the Thompson Island Pool water column. Potential resuspension of surface sediment was evaluated during the 1997 High Flow and Suspended Solids Monitoring Program.

One purpose of the 1997 High Flow and Suspended Solids Monitoring Program was to evaluate the potential for pulsed loadings of PCBs to enter the river during high flow and pass the Rogers Island monitoring stations at the upstream portion of the Thompson Island Pool undetected by the PCRDMP water sampling.

Pulsed loadings from the Bakers Falls area are possible due to the known migration of PCBs as a dense non-aqueous phase liquid (DNAPL) through fractures in bedrock from the General Electric Hudson Falls facility to the Hudson River. PCB DNAPL seeps have been identified in Bakers Falls and the plunge pool located at the base of the falls (Figure 1-1). It is possible that accumulations of PCB DNAPL on the falls and in the plunge pool may be mobilized during periods of elevated flow over the falls and through the plunge pool. It is important to note that the oil seep discovered in the plunge pool (i.e., seep 13) in September 1996 and controlled in October 1996 may have been the major contributor of DNAPL loading to the river. Therefore, the importance of pulsed loading, as measured during this study, may have been diminished in magnitude and importance compared to periods prior to October 1996. Additional investigations of potential source(s) of PCBs in the vicinity of Bakers Falls are being conducted (General Electric 1998, 1999).

Under typical flow conditions (approximately 8,000 cfs or less), Bakers Falls is dewatered due to diversion of flow through the Adirondack Hydro

Development Corporation (AHDC) hydroelectric facility at Bakers Falls, which began operation in December 1995 (Figure 1-1). Pulsed loadings of PCBs to the river may result during periods of high flow, causing inundation of the falls and flow through the plunge pool. The changes in flow patterns and increased currents experienced during periods of high flow may mobilize PCB DNAPL. Some of this PCB DNAPL may be transported during the initial increase in river flow. This potential mass of PCB would be mobilized in a short period and unless routine river monitoring occurred at that point, this PCB mass would pass undetected and potentially deposit in the more quiescent sections of the Thompson Island Pool, resulting in increased PCB levels in surface sediment. One of the primary objectives of the 1997 High Flow and Suspended Solids Monitoring Program was to test this hypothesis.

Another potential means for underestimating the mass transport at the Fort Edward monitoring station (HRM 194.2) would be the movement of DNAPL as part of the bed-load, which would not be detected by the sampling device in the overlying water column. This hypothesis was previously tested and was reported on separately (HydroQual 1997a).

Brief periodic inundation of Bakers Falls during routine maintenance activities performed at the AHDC hydroelectric facility at Bakers Falls may also contribute to PCB loading to the Thompson Island Pool which is undetected by the PCRDMP water column sampling. The potential impact of the hydroelectric facility maintenance activities was investigated separately (O'Brien & Gere 1998b).

1.1.2. Solids mass balance

The processes that affect sediment accumulation and dispersal have a significant impact on controlling the PCB concentrations in surface sediment (HydroQual 1997b). Development of a solids balance within the Thompson Island Pool will allow the assessment of the importance of the various sediment fate processes, such as deposition, tributary inputs, resuspension, and downstream transport. Quantification of the sediment loading entering the Thompson Island Pool from upstream and from tributaries, as well as sediment loading leaving the Thompson Island Pool, was required to refine the current understanding of sediment fate processes. The resulting solids mass balance for Thompson Island Pool will provide data to further validate the PCB fate and transport model being developed for General Electric by Quantitative Environmental Analysis, LLC.

1.2. Program Objectives

The primary objective of the 1997 High Flow and Suspended Solids Monitoring Program was to provide data to evaluate the potential for pulsed loadings of PCBs that may pass the Roger's Island monitoring station during spring high flow events. Such PCB discharges may be undetected by the weekly monitoring program, resulting in under-estimation of PCB loading into the Thompson Island Pool during high flow events. A second objective of the program was to provide data for development of a solids mass balance within Thompson Island Pool.

In addition, the 1997 High Flow and Suspended Solids Monitoring Program included six corollary objectives (HydroQual and O'Brien & Gere 1997):

- evaluate sediment PCB bed-loading into the Thompson Island Pool during a spring high flow event.
- evaluate the PCB composition of loading from a spring high flow event.
- evaluate the fate of PCB loading from Hudson Falls during a spring high flow event.
- quantify Thompson Island Pool tributary solids loading during a spring high flow event.
- verify flow relationships between gauged Kayaderosseras Creek and the tributaries of Thompson Island Pool.
- establish flow and TSS relationships for Thompson Island Pool tributaries.

1.3. Approach

Three tasks were performed to obtain data to achieve the objectives presented above:

- high flow water column sampling was conducted from April 6 through 9, 1997.
- bed-load sediment sampling was conducted over that same time period.
- Thompson Island Pool tributary TSS and flow monitoring was conducted from April 5 through June 17, 1997.

Sampling and analytical methods for each task are described in Sections 2.1, 2.2, and 2.3, respectively. Results are presented in Section 3.

2. Methods

The 1997 High Flow and Suspended Solids Monitoring Program consisted of high flow water column sampling, bed-load sediment sampling, and Thompson Island Pool tributary TSS and flow monitoring. Sampling and analytical methods for these activities are presented in Sections 2.1, 2.2, and 2.3, respectively. Photographs showing various aspects of the field activities are presented in Appendix A. Sample handling, field equipment cleaning, quality assurance/quality control (QA/QC), and health and safety procedures are also presented (Sections 2.4, 2.5, 2.6 and 2.7, respectively). Provisional flow data for the subject section of the Hudson River were obtained from the United States Geological Survey (USGS 1997) Fort Edward monitoring station (Appendix B). In addition, to assist in the evaluation of the data, precipitation data for April, May, and June were obtained from the National Weather Service for several sampling stations in the Hudson River, Snook Kill, and Moses Kill watersheds (Appendix C).

2.1. High flow water column sampling

2.1.1. Sample locations

Water column samples were obtained from the same three river locations routinely sampled for the PCRDMP (Table 2-1 and Figure 1-1); however, samples collected from the bridges at HRM 194.2 (east and west channels) were not composited by location, and were submitted for analysis separately. Additionally, samples were collected from both the east and west abutments of Thompson Island Dam, instead of only the west abutment which is routinely sampled for the PCRDMP. For this monitoring event, sampling was primarily focused on HRM 194.2 and HRM 188.5. In addition, three rounds of samples were collected at the background station upstream of Bakers Falls (HRM 197.0, Figure 1-1) to periodically evaluate potential contributions from upstream and two rounds of samples were collected by Dames & Moore at the boat launch at the base of Bakers Falls.

2.1.2. Sample collection procedures

Samples were collected following PCRDMP sampling procedures (Table 2-1). Details of the procedures and specifications are defined in the FSP, FSP addendum, and QAPP (O'Brien & Gere 1992a, 1996a, 1992b). Field personnel were mobilized when river flows exceeding 13,000 cfs were anticipated based on forecasts obtained from the Northeast River Forecast Center (NERFC) via the internet site and instantaneous flow monitoring of the USGS gaging station at Fort Edward.

Using the criteria cited above, a marginal high flow event occurred on March 31, 1997 due to local rain and snow meltwater (Figure 2-1). For that event, high flows peaked at approximately 13,600 cfs. Routine PCRDMP sampling was conducted on that day during the rising limb of the hydrograph at approximately 10,700 cfs. No additional samples were collected.

On April 6 though 9, 1997, the high flow sampling event was conducted, as summarized in Figure 2-2. Sampling began on Sunday, April 6 at a flow of approximately 10,700 cfs (Figure 2-2). Subsequent sampling rounds were initiated at HRM 194.2 as flow increased at approximately 1,000 cfs increments based on instantaneous flow monitoring at the Fort Edward gaging station. Sampling times for HRM 188.5 were adjusted to correspond to the estimated time of travel for a parcel of water to travel from HRM 194.2 to HRM 188.5 to evaluate changes in PCB concentrations in water over that distance. Samples were not collected from the west channel at HRM 194.2 after dark due to safety concerns for highway traffic on the Route 197 bridge.

Sampling rounds continued to be initiated through the peak river flow of approximately 19,400 cfs and continued as the flow started to decrease. Approximately seven sampling rounds were conducted on the rising limb of the hydrograph, and three rounds were collected on the falling limb of the hydrograph (Figure 2-2). Additional samples were collected at HRM 188.5 to provide details of PCB concentrations observed during flow changes in this region of the river. USGS collected samples at the HRM 194.2 bridges during rounds 3 and 7.

The time required for water to travel from HRM 194.2 to HRM 188.5 for the range of flows encountered during the high flow water column monitoring was estimated from time of travel estimates developed previously (HydroQual and O'Brien & Gere 1996; O'Brien & Gere 1998a,c, 1996b, 1994, 1993; Tofflemire 1984; USGS 1969). A hydrograph illustrating the estimated times that sampled parcels of water passed the Fort Edward gaging station are presented in Figure 2-2.

This hydrograph is assumed to be consistent with the hydrograph at HRM 194.2, given the close proximity of the gaging station to HRM 194.2. The hydrograph at Thompson Island Dam (HRM 188.5) is also expected to be similar to the Fort Edward gaging station hydrograph, based on hydrographs developed in the Thompson Island Pool as a result of activities performed for the ground water seepage investigation (HydroQual et al. 1997). These activities included installation of two data loggers in the Thompson Island Pool to monitor river elevation. A comparison of hydrographs at the Fort Edward gaging station to hydrographs from the Thompson Island Pool are presented in Appendix D.

The vertically stratified composite samples collected from the east and west channels at HRM 194.2 were not combined as they typically are for the PCRDMP, and were submitted for analysis individually. To assess the representativeness of the composite samples typically collected at this station for the PCRDMP, PCB mass transport estimates were performed based on the PCB concentrations and estimated flow through each channel. These estimates are based on the flow at the Fort Edward gaging station at the time of sampling and assumes that approximately 65% of the total flow travels through the west channel and approximately 35% travels through the east channel at HRM 194.2 (O'Brien & Gere 1996c). These estimates were then compared to theoretical PCB mass transport using equal volume composite samples, as described in Section 3.1.

Field logs documenting sampling activities are provided in Appendix E.

2.1.3. Analytical testing

Laboratory testing of water column samples was performed by Northeast Analytical, Inc. (NEA) and consisted of analyses for PCBs by capillary column methodology and for total suspended solids (TSS). Analyses were performed on whole water (unfiltered) samples. Details of analytical methodologies are provided in the PCRDMP QAPP (O'Brien & Gere 1992b)

2.1.3.1. Capillary column analysis of PCBs

Whole water capillary column PCB analyses were performed by NEA using Method NEA-608 CAP, Rev. 3.0 (NEA 1990). The method detection and practical quantitation limits for the method are 11 ng/L and 44 ng/L, respectively. In samples collected for the PCRDMP, concentrations of PCBs which are between the method detection limit and practical quantitation limit (from 11 to 44 ng/l) are considered estimates and results are reported with a "P" qualifier (Table 2-2). The homolog and congener distributions may be less reliable at these low levels due to decreased sensitivity of the method for lower chlorinated congeners close to the detection limit (O'Brien & Gere 1996a). Water column samples collected for this monitoring program are subject to the same analytical constraints.

Research conducted in 1997 identified analytical biases in the quantification of PCB congener data generated by Method NEA608CAP (HydroQual 1997c). These analytical biases resulted from error in the original calibration of the PCB standard used in the NEA608CAP (calibration error), and from coeluting mixed peak deconvolution assumptions used for Hudson River samples (coelution error). Calibration error and coelution error correction factors were developed to adjust the PCB data for the analytical biases inherent in Method NEA608CAP (HydroQual 1997c). These correction factors have been applied to PCB analytical data collected from the Hudson River prior to September 1, 1997 (O'Brien & Gere 1997). The tables presented in this report contain the PCB data with the correction factors applied. The data presented in the laboratory reports are not adjusted.

2.1.3.2. Total suspended solids analysis

Analyses for TSS were performed according to USEPA Method 160.2 (USEPA 1983).

2.2. Bed-load sediment sampling

Bed-load sediment sampling devices were deployed in the Hudson River on March 27 and 28, 1997. These samplers were designed and fabricated based on designs used by the USGS and the system developed for the 1996 DNAPL particle study (HydroQual 1997a). The samplers consisted of a heavy gage steel frame which held a 100-um mesh nylon filter bag (Figure 2-3; Appendix A). Installation was performed under low flow, low turbidity conditions to allow visual verification that the samplers were properly installed. The sampler design included a gate that could be removed from shore when sample collection is desired. This gate prevented flow through the filter bag until the gate was removed during a high flow event. The gate was removed by pulling a chain which was run to shore. An additional chain was attached at the back of the sampler and locked to a tree on shore. The purpose of this chain was to prevent the loss of the sampler during high flow, and to facilitate retrieval of the sampler.

2.2.1. Sample locations

Six bed-load samplers were placed in the river near Rogers Island. Three samplers were placed in the east channel and three samplers were placed in the west channel (Figure 2-4).

2.2.2. Sample collection procedures

In accordance with the high flow monitoring program sampling and analysis plan (HydroQual and O'Brien & Gere 1997), the bed-load samplers were activated upon anticipation of a high flow event on the river. A summary of the bed-load sampler operation schedule is presented in Table 2-3.

Following removal of the bed-load sediment samplers from the river, the filter bags were removed from the steel frames. The bags and contents were then placed in dedicated zip-lock bags. The samples were maintained at approximately 4°C and transported to NEA. Analytical testing was performed on materials removed from the bags in the laboratory.

2.2.3. Analytical testing

The filter bags and contents were submitted to NEA for processing and subsequent analysis for total organic carbon (TOC; Lloyd Kahn method), total solids (TS; method 209F from Standard Methods, 16th edition 1989), and congener specific PCBs by NEA method NEA-608CAP, Rev. 3.0 (NEA 1990).

2.3. Thompson Island Pool tributary TSS monitoring

Total suspended solids monitoring was conducted at five locations on the upper Hudson River under both high and low flow conditions. Sample collection was initiated on April 5, 1997 at 12:00 AM and concluded on June 17, 1997 at 9:00 PM. Monitoring stations were installed at the five locations during the week of March 31, 1997 (Figure 2-4). These monitoring stations consisted of automated sampling equipment housed in protective sheds (Appendix A). The automatic samplers used were programmable Sigma

800 series units powered by 12-volt deep cycle batteries. The sampler intake was supported on a PVC pipe frame which extended into the water to a point where moving water was observed, and was suspended approximately 1 to 2 feet from the bottom of the stream. The intake tubing was run through a protective PVC pipe casing from the river to the sampler. Additionally, the intake tubing was installed on a slope to promote drainage and minimize the potential for pockets of standing water to form in the tubing.

2.3.1. Sample locations

TSS monitoring stations were located on the west channel of the Hudson River near the northern tip of Rogers Island, the Snook Kill (adjacent to the West River Road bridge), the Moses Kill (adjacent to the bridge at U.S. Rt. 4), and the east and west abutments of Thompson Island Dam (Figure 2-4).

2.3.2. Sample collection procedures

The automatic samplers were equipped with 24 one-liter plastic containers, which were rinsed with distilled water after use, and re-used. The samplers were programmed to collect an aliquot at three-hour intervals, and performed a pre- and post-sample purge cycle to clear the intake tubing of standing water prior to collecting each aliquot. Sample collection was initiated on April 5, 1997 at 12:00 AM and concluded on June 17, 1997 at 9:00 PM. The samplers were serviced by a technician three times per week.

The sample collection procedure was dependent upon flow rates observed in Snook Kill and Moses Kill. Flow monitoring activities are described in Section 2.4. Under normal or low flow conditions, the eight aliquots collected over a 24-hour period were combined to form a daily composite from each monitoring station. The composite samples were formed by thoroughly mixing the contents of each aliquot container, and subsequently placing 125 ml from each aliquot into a one-liter plastic container. During two tributary flow events (April 28 and May 3, 1997), the individual aliquots were not composited, and were placed in one-liter containers as discrete samples. Discrete samples continued to be collected at each of the five monitoring stations until flow in the tributaries returned to normal flow rates. Upon collection, the samples were chilled to approximately 4°C and transported to NEA.

In addition to the samples collected by the automatic samplers, five-gallon grab samples were collected from Snook Kill and Moses Kill on April 7, 1997 and again on April 9, 1997. One sample was scheduled to be collected from each tributary on the rising limb of the tributary hydrograph and a second sample was to be collected on the falling limb of the tributary hydrograph. Flow in the Hudson River increased significantly from April 6 through April 8, 1997 resulting in increased stage in the tributaries, followed by a decrease in stage on April 9, 1997 as flow in the river decreased. Subsequent evaluation of flow data indicated that although stage increased in the tributaries significantly, tributary flow actually decreased during the period from April 6 to April 9, 1997. Therefore, although there was significant flow in the tributaries, both sets of five-gallon grab samples were collected on the falling limb of the tributary hydrographs. Additional flow information is presented in Section 2.4. Upon collection, the samples were chilled to approximately 4°C and transported to NEA.

2.3.3. Analytical testing

The samples collected by the automatic samplers at the monitoring stations were submitted to NEA for TSS analysis by USEPA method 160.2 (USEPA 1983). The five gallon grab samples were submitted to NEA for processing prior to analysis. This processing consisted of allowing the samples to settle for three days, followed by removal of the supernatant, and centrifugation to obtain a solids sample. The supernatant was analyzed for TSS by USEPA method 160.2 and the solids were analyzed for total organic carbon (TOC) by USEPA method 415.2 (USEPA 1983), and loss on ignition by the Gradient Corporation method. An aliquot of the solids was provided to the University of Minnesota Limnological Research Center External Services Organization for laser based particle size analysis.

2.4. Thompson Island Pool tributary flow monitoring

Flow monitoring was conducted on Snook Kill and Moses Kill at the same locations as the automatic samplers (Figure 2-4). The flow monitoring equipment consisted of a Sigma 950 flow meter which records water velocity and depth (Appendix A). The instrument consists of a probe and a data logger, which was powered by a 12-volt deep cycle battery. The probe was mounted on a steel frame approximately 25 feet from shore at a location where the velocity appeared to be typical for the tributary. The probe was suspended two to three feet from the bottom, near the mid-depth of the stream at that location. A cable connecting the probe with the data logger was fastened to the steel frame and linked to the data logger, which was located in the protective shelter used for the automatic sampler. Data obtained by the flow meter were downloaded to a laptop personal computer approximately once per week.

In conjunction with the flow meter installation, a bathymetric survey of each stream was performed, and velocity profiles were developed. The results of the Snook Kill and Moses Kill surveys are presented in Figures 2-5 and 2-6, respectively. At the time of the surveys (April 3, 1997), both tributaries had significant flow and a suspended solids plume was observed extending into the river from each tributary. A benchmark was selected on the bridge adjacent to each flow meter installation to serve as a reference point for measuring stage. Water level data recorded by the flow meter was converted to stage based on measurements taken from this benchmark.

Instantaneous velocities were measured when the flow meters were installed, and approximately three times per week thereafter (Appendix F). Initially, the instantaneous velocities were measured at approximately 12 locations across each tributary with a velocity meter (Marsh-McBirney model 201). There did not appear to be significant vertical variation in velocity from the water surface to near the bottom of the tributaries; therefore, subsequent velocity measurements were taken from one location at each tributary approximately 1 to 2 feet below the surface of the water.

Flow in the tributaries was then estimated using three methods:

- The first method consisted of dividing the cross-sectional area of each tributary into sub-areas which corresponded to the approximate area from which a velocity measurement was taken. A flow for each sub-area of the stream was then calculated based on the velocity and cross-sectional area. The stream flow was then estimated by adding the flows calculated for the sub-areas. This method was the most accurate method used for estimating flow.

- The flow was also estimated by multiplying the cross-sectional area by the mean of instantaneous velocity measurements.

- The third method of estimating flow was to use the velocity measured by the Sigma flow meter and the cross-sectional area.

Comparisons of these methods of flow estimation for the Snook Kill and the Moses Kill is presented in Tables 2-4 and 2-5, respectively. The results of these comparisons indicate that flows calculated using the velocities measured by the Sigma flow meter are comparable to the flows estimated by using the individual velocity and sub-area method for both tributaries. Using the mean instantaneous velocity measurements in conjunction with the whole cross-sectional area typically resulted in a flow which was approximately 20% lower than the flow calculated using individual areas and velocities.

Therefore, the data obtained by the Sigma flow meter and corresponding the multiple station flow estimates appear to be good during periods of elevated flow. However, after the flow meters were installed, it became apparent that during periods of low flow, the velocity in the tributaries decreased to levels below the low-end range of the flow meters, particularly in Moses Kill. The flow meter in Snook Kill worked well when velocities increased above approximately 0.35 to 0.5 ft/sec, and suspended solids concentrations were sufficient for instrument operation. During periods of low flow, daily mean flows in Snook Kill were estimated by calculating a cross-sectional area based on stage data, and assuming a low flow velocity of 0.35 ft/sec.

Velocity in both tributaries, particularly Moses Kill, is reduced significantly as the streams approach the Hudson River. This is likely due to the relatively large cross-sectional area of each tributary as they approach the Hudson River. The elevation of the Hudson River increased upstream of Thompson Island with the formation of the Thompson Island Pool as a result of construction of the Thompson Island Dam in the early 1900's (Figure 2-4). Due to this increased stage, the confluence of the tributaries resemble backwater areas under low flow conditions. Flow was actually observed to be moving upstream in the tributaries during periods of low tributary flow and rapidly increasing in river stage.

2.5. Sample handling

Samples were handled according to procedures presented in the QAPP (O'Brien & Gere 1992b). Samples were assigned a unique sample designation identifying sample location, date and time of sample collection. Upon collection, PCB samples were placed in 1-liter clear glass Boston type bottles and TSS samples were placed in 1-liter plastic bottles. Samples were chilled with ice to approximately 4°C. Following completion of field activities, samples were transported to NEA for analysis. Standard chain of custody procedures were followed, as detailed in the QAPP (O'Brien & Gere 1992b). Copies of field logs documenting field activities are provided in Appendices

E and F. Copies of chains of custody are provided with the analytical data packages (Appendices G, H, and I).

2.6. Field equipment cleaning

For the high flow water column sampling task (Section 2.1), sampling equipment was cleaned prior to initiation of field sampling activities, according to procedures presented in the field sampling plan addendum presented in the *Fort Edward Dam PCB Remnant Containment 1995 Post-Construction Monitoring Program* report (O'Brien & Gere 1996a). In addition, sampling equipment was cleaned in the field between sampling rounds. Equipment used for collection of samples for PCB analysis was cleaned in the field using the following three sequential rinse steps:

1. acetone rinse
2. hexane rinse
3. rinse with distilled water, using at least approximately five times the volume of solvent used.

Subsequently, the sampling equipment was rinsed with river water prior to sampling.

Bed-load sampler (Section 2.2) sediment collection bags were used once; therefore, cleaning for reuse was not required.

The Thompson Island Pool tributary monitoring activities (Section 2.3) focused on TSS analysis, and did not include PCB analysis. Therefore, this equipment (including the containers within the automatic sampler trays, the compositing vessel, and graduated cylinder used to measure out aliquots) was not rinsed with acetone or hexane. The automatic sampler tray containers were rinsed thoroughly with distilled water when the samplers were serviced and re-installed in the automatic sampler. The remaining equipment was rinsed thoroughly with distilled water after use at each site.

2.7. Quality assurance/quality control

Field QA/QC activities were conducted according to procedures presented in the QAPP developed for the PCRDMP (O'Brien & Gere 1992b) and the addendum to the QAPP presented in the *Hudson River Project River Monitoring Test* sampling and analysis plan (O'Brien & Gere 1995). QA/QC field samples for PCB analyses consisted of a matrix spike, a duplicate and an equipment rinse blank. QA/QC field samples for TSS analyses consisted of duplicate analyses. The QA/QC field samples collected and analyzed for PCBs are summarized for the high flow water column sampling (Table 2-6). QA/QC field samples for the Thompson Island Pool tributary TSS monitoring included collection of duplicate samples were collected for approximately 20% of the samples collected. PCRDMP sampling conducted concurrently with the high flow water column sampling also included a matrix spike, a blind duplicate and an equipment blank, as required by that program.

Validation of PCB data indicated that the data quality was acceptable for the intended uses (Table 2-6; O'Brien & Gere 1999c). A summary of the results of the QA/QC review are presented in Section 3.5.

2.8. Health and safety

Field activities were conducted in accordance with health and safety procedures described in the health and safety plan developed for the PCRDMP (O'Brien & Gere 1992c) and the addendum to the health and safety plan provided in the *Hudson River Project River Monitoring Test* sampling and analysis plan (O'Brien & Gere 1995).

3. Results

3.1. High flow water column sampling

High flow water column sampling results for April 6 through 9, 1997 are presented below:

- High flow monitoring PCB and TSS results are presented in Tables 2-2 and 3-1, and in Figures 3-1 and 3-2. The water column PCB composition resembled Aroclor 1242 (Table 3-1). The interpretation of water column PCB composition at concentrations less than the practical quantitation limit (44 ng/l) is subject to analytical limitations (O'Brien & Gere 1996a). PCB analytical data packages are presented in Appendix G. TSS analytical data packages are presented in Appendix H.

- Mass transport estimates at HRM 194.2 are presented in Table 3-2. Estimates are presented for the sum of the east and west channels assuming the west and east channels represent approximately 65 and 35% of the total flow, respectively (O'Brien & Gere 1996c). In addition, the mean total PCB mass transport was also estimated without flow weighting (a 50/50 flow contribution from the east and west channels) to simulate the results of composite sampling.

- Comparisons of data collected at the east and west dam abutments at HRM 188.5 are presented for PCBs (Figure 3-3) and TSS (Figure 3-4).

- Concentrations of PCBs and TSS, and flow were compared for the HRM 194.2 and HRM 188.5 sampling stations. Results are presented for comparisons of PCBs versus flow (Figure 3-5), PCBs versus TSS (Figure 3-6), and TSS versus flow (Figure 3-7).

3.2. Bed-load sediment sampling

Bed-load sediment sampling results are presented in Table 3-3. The bed-load sediment sampling activities resulted in the collection of two bed-load samples from the west channel of the Hudson River at Rogers Island, and one bed-load sample from the east channel at Rogers Island. The materials collected from the east channel contained numerous wood fragments, and were noticeably coarser grained than the materials collected in the west channel.

3.3. Thompson Island Pool tributary monitoring

3.3.1. Thompson Island Pool tributary TSS monitoring

Approximately 545 samples were collected and analyzed during the Thompson Island Pool tributary TSS monitoring activities from April 5 through June 17, 1997. The results of these analyses are presented in Table 3-4. TSS concentrations and flow in the Hudson River at Rogers Island, Thompson Island Dam-east and Thompson Island Dam-west are presented in Figure 3-8. TSS data for the five TSS monitoring stations for the months of April, May, and June are summarized in Figures 3-9, 3-10, and 3-11, respectively.

In addition to composite samples collected daily from each of the five monitoring stations, discrete samples were collected during two tributary flow events. Tributary flow events were experienced on April 18, April 28, May 3, and May 11, 1997. These high flow events appear to have been in response to rainfall, as indicated in Figure 3-12 and the precipitation data presented in Appendix C.

Discrete samples were collected every three hours during the April 28 and May 3, 1997 flow events. These flow events were selected based on the intensity and duration of the flow event. Comparisons of TSS and flow data for the April 28 and May 3, 1997 flow events are presented in Figures 3-13 and 3-14, respectively. Comparisons of TSS concentrations in the Hudson River downstream of the tributaries at Thompson Island Dam and the increased solids loading from the tributaries during the flow events are presented in Figures 3-8, 3-13, and 3-14.

3.3.2. Thompson Island Pool tributary TOC, particle size and supernatant TSS monitoring

Results of tributary TOC and weight loss on ignition, and supernatant TSS sampling are presented in Table 3-5. Results of particle size analyses are presented in Appendix I.

3.3.3. Thompson Island Pool tributary flow monitoring

The results of the tributary flow monitoring are summarized in Table 3-4. As discussed in Section 2.4, the flow meters did not produce reliable data under low flow conditions due to the low range of stream velocities which fell below the accuracy limits of the instrument. Therefore, low flow data was estimated using stage measured by the flow meters and velocities estimated from instantaneous measurements. Hudson River flow data is also presented in Table 3-4. Hydrographs for Snook Kill and the Hudson River are presented in Figure 3-15. Stage and velocity data obtained by the Snook Kill flow meter are presented in Appendix J.

3.4. Quality assurance/quality control

The results of data validation review of PCB QA/QC data for the water column monitoring conducted during this high flow monitoring program indicated that the data quality was acceptable for the intended uses (Table 2-6; Appendix K; O'Brien & Gere 1999). Data validation of PCB results identified a PCB duplicate with data outside of the expected range. The samples analyzed with that duplicate pair were qualified as approximate consistent with data validation guidance (J). Other PCB data quality issues were not identified.

The mean duplicate results for 22 tributary TSS samples was within the expected range (Table 3-6); therefore, TSS results were judged acceptable for intended purposes.

For both high flow PCB and tributary TSS duplicate results, occasional excursions outside the expected RPD range occurred. No systematic sampling or analytical problems were identified; therefore, those occurrences were assumed to indicate sample heterogeneity and may be limited to individual duplicate pairs. The qualification of the PCB samples analyzed with the duplicate pair as approximate is a conservative evaluation of data quality.

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Table 2-1. *Comparison of Sample Locations and Potential Limitations of Data*

Sampling Location	Sampling Status	HRM*	Significance of location	River bed geometry	Sample type
County Route 27 Bridge, Hudson Falls	Active PCRDMP	197.0	Background location, upstream of GE Hudson Falls facility.	Water depth typically 4 to 6 feet.	Depth integrated composite sample collected with Kemmerer sampler from center of bridge.
Plunge Pool/ Boat Launch	Seasonal	196.9	Located at the base of Bakers Falls adjacent to GE Hudson Falls facility and upstream of remnant deposits.	Water depth 25 to 30 feet.	Deep water sample collected approximately 2 feet off of river bed.
Route 197 Bridges, Fort Edward	Active PCRDMP	194.2	Downstream of remnant deposits.	Water depth typically 6 to 12 feet deep. Water flow in east and west channels approximately 35% and 65% of total flow[1]. Water velocity lower than at HRM 196.8.	Depth integrated composite sample collected with Kemmerer sampler. Aliquots collected from east and west bridges are composited.
Thompson Island dam	Active	188.5	First pooled area downstream of PCB loading sources.	Water depth typically 3 to 4 feet deep.	Surface grab sample collected from the west wall of the west channel dam abutment.

Notes: * Approximate Hudson River mile; HRM 0.0 is located at the Battery in New York City. Table lists sampling stations from upstream to downstream.

Source: O'Brien & Gere Engineers, Inc.

Reference:

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Table 2-2. *High Flow Sampling Event, April 6 - 9, 1997 Preliminary total PCB and total suspended solids analytical results*

		Fort Edward	HRM 197.0		Boat Launch		HRM 194.2						HRM 188.5			
							Composite*		West		East		West		East	
Date	Sampling Round	Flow (cfs)	PCBs (ng/l)	TSS (mg/l)	PCBs (ng/l)	TSS (mg/l)	PCBs (ng/l)	TSS (mg/l)	PCBs (ng/l)	TSS (mg/l)	PCBs (ng/l)	TSS (mg/l)	PCBs (ng/l)	TSS (mg/l)	PCBs (ng/l)	TSS (mg/l)
04/06/97	1	11,000	13 PUJ	1.4	-	-	-	-	<11	1.7	12 PUJ	1.5	19 PUJ	5.6	23 PUJ	4.6
04/07/97	2	13,900	-	-	-	-	-	-	<11	<5.0	19 PUJ	3.4	<11	12	29 PUJ	7.0
04/07/97	3	14,200	<11	3.5	42(52) P	3.2	13 (13) P	4.1(3.5)	15 PU	4.4	28 PUJ	3.7	25 P	6.7	25 PUJ	7.3
04/07/97	3A	13,400	-	-	-	-	-	-	-	-	-	-	14 PU	8.7	23 PUJ	6.6
04/07/97	4	15,000	-	-	-	-	-	-	-	-	12 PUJ	3.7	31 PJ	9.4	23 PJ	6.8
04/08/97	5	16,100	-	-	-	-	-	-	-	-	20 PJ	4.2	33 PJ	10	40 PJ	8.4
04/08/97	6	16,700	<11	5.0	-	-	-	-	<11	6.1	22 PJ	7.0	23 PJ	9.8	23(44) PJ(J)	8.4(7.9)
04/08/97	7	18,900	-	-	24 P	6.2	-	-	15 J	10	54 J	7.4	27 PJ	12	47 J	8.8
04/08/97	7A	17,000	-	-	-	-	-	-	-	-	-	-	19 P	9.3	22 P	11
04/08/97	8	15,300	25 P	6.4	-	-	-	-	<11(<11)	7.1(7.8)	14 P	8.6	44	11	35 P	10
04/08/97	9	16,500	-	-	-	-	-	-	-	-	-	-	22 P	9.8	13 P	8.0
04/09/97	10	14,100	-	-	-	-	-	-	<11	3.9	<11	4.1	17 P	5.5	<11	5.6

Notes:

Total PCB and total suspended solids (TSS) concentrations were analyzed by Method NEA608CAP and USEPA Method 160.2, respectively.

PCB data has been adjusted for analytical biases (O'Brien & Gere 1997c).

HRM = Approximate Hudson River Mile; HRM 0.0 is located at the Battery in New York City.

Ft Edward Flow = instantaneous river discharge at the USGS Fort Edward gaging station during sampling at HRM 194.2, except rounds 3A, 7A and 9 which were not sampled at HRM 194.2. Flows for these rounds represent flows at the Fort Edward gaging station during sampling at HRM 188.5. Data was obtained from the USGS (3/31/99), and are considered "work" rather than "final" data; there is no provision to indicate the degree of refinement to which they have been processed.

* = Composite sample collected for routine Post Construction Remnant Deposit Monitoring Program (PCRDMP). Separate channel samples reported for round 3 of the high flow event were samples split from the same aliquots used for the PCRDMP composite sample.

"-" indicates sample was not collected for the round shown.

Boat launch samples collected at the base of Bakers Falls by Dames & Moore

PCB data qualifiers:

- P = PCB concentrations less than the practical quantitation detection limit (44 ng/l)
- U = PCB concentrations qualified due to method or field blank excursion from validation criteria
- J = PCB concentrations approximate

Source: O'Brien & Gere Engineers, Inc.

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Table 2-3. ***Activation schedule of bedload sediment samplers.***

Location	Activation			Retrieval		Notes
	date	time	flow	date	time	
east channel						
#1	4/6/97	1700	11,000	4/8/97	1030	
#2	–	–	–	–	–	inoperable due to vandalism
#3	–	–	–	–	–	inoperable at high flow
west channel						
#1	4/6/97	1700	11,000	4/8/97	1030	
#2	4/8/97	1030	16,000	4/9/97	0800	
#3	—	—	—	—	—	not used, flow decreasing

Source: O'Brien & Gere Engineers, Inc.

Table 2-4. *Comparison of flow estimation methods for Snook Kill.*

Date	Time	Stage (1)	Area of Flow (ft2)	Mean Instantaneous Velocity (ft/sec)	Sigma 950 Velocity (ft/sec)	Estimated Flow Using Individual Areas/Velocities (ft3/sec)(2)	Estimated Flow Using Mean Velocity (ft3/sec)	Estimated Flow Using Sigma 950 Velocity (ft3/sec)
04/01/97	14:00	13.1	447.8	1.31	1.44	759	587	645
04/03/97	15:00	14.5	354.0	1.04	1.10	398	368	389
04/17/97	09:00	14.4	360.7	0.33	(3)	161	119	–
04/21/97	14:00	13.5	421.0	0.38	(3)	190	160	–
04/23/97	08:45	13.5	421.0	0.29	(3)	150	122	–
04/25/97	13:00	13.6	414.3	0.21	(3)	107	87	–
04/28/97	11:00	13.4	427.7	0.66	0.82	334	282	351
04/28/97	15:00	13.3	434.4	1.24	1.53	589	539	665
05/02/97	13:00	12.8	467.9	0.25	(3)	164	117	–
05/03/97	13:30	12.4	494.7	0.45	(3)	249	223	–
05/05/97	09:00	12.4	494.7	0.47	(3)	256	233	–
05/07/97	08:45	12.4	494.7	0.43	(3)	243	213	–
05/09/97	09:30	12.8	467.9	0.28	(3)	147	131	–
05/12/97	11:30	13.2	441.1	0.37	(3)	192	163	–
05/14/97	09:00	13.4	427.7	0.27	(3)	–	139 (4)	–
05/16/97	09:00	13.5	421.0	0.35	(3)	–	177 (4)	–
05/19/97	10:00	14.0	387.5	0.24	(3)	–	112 (4)	–
05/20/97	08:45	14.8	333.9	0.43	(3)	–	172 (4)	–
05/21/97	09:00	14.3	367.4	0.25	(3)	–	110 (4)	–
05/23/97	08:45	14.4	360.7	0.22	(3)	–	95 (4)	–
05/27/97	09:00	14.8	333.9	0.14	(3)	–	56 (4)	–
05/30/97	08:00	15.3	300.4	0.20	(3)	–	72 (4)	–
06/02/97	08:00	15.0	320.5	0.17	(3)	–	65 (4)	–
06/04/97	09:30	14.9	327.2	0.15	(3)	–	59 (4)	–
06/06/97	08:00	15.4	293.7	0.20	(3)	–	70 (4)	–
06/09/97	10:00	15.2	307.1	0.12	(3)	–	44 (4)	–
06/11/97	09:00	15.6	280.3	0.02	(3)	–	7 (4)	–
06/13/97	08:30	15.6	280.3	0.06	(3)	–	20 (4)	–
06/16/97	09:15	15.8	266.9	0.03	(3)	–	10 (4)	–
06/18/97	10:30	15.5	287.0	0.05	(3)	–	17 (4)	–

(1) - stage measurement from top of bridge railing to water surface adjacent to north abutment. Stage impacted significantly by changes in river elevation.

(2) - flow estimated by dividing area of flow into sub-areas. Individual velocity measurements were collected near the center of each sub-area. Flow was calculated for each sub-area using the corresponding velocity and area. Total flow is the sum of the sub-area flows, and should be the most accurate method used to calculate flow.

(3) - instrument did not record velocity below approximately 0.35 ft/sec

(4) - flow estimated by increasing the flow calculated using the mean velocity by 20% based on the relationship observed during previous flow comparisons.

Source: O'Brien & Gere Engineers, Inc.

Table 2-5. *Moses Kill instantaneous flow summary and comparison.*

Date	Time	Stage (1)	Area of Flow (ft2)	Mean Instantaneous Velocity (ft/sec)	Sigma 950 Velocity (ft/sec)	Estimated Flow Using Individual Areas/Velocities (ft3/sec)(2)	Estimated Flow Using Mean Velocity (ft3/sec)	Estimated Flow Using Sigma 950 Velocity (ft3/sec)
04/03/97	10:00	18.4	1021	0.26	(3)	338	265	--
04/04/97	10:00	18.1	1055	0.20	(3)	274	215	--
04/18/97	10:00	18.6	998	0.08	(3)	88	80	--
04/23/97	13:00	18.0	1093	0.11	(3)	160	120	--
04/25/97	10:00	17.9	1105	0.15	(3)	191	166	--
04/28/97	09:30	17.9	1105	0.19	(3)	236	210	--
04/28/97	13:45	17.8	1117	0.15	(3)	207	168	--
04/28/97	18:00	17.6	1139	0.19	(3)	278	216	--
04/29/97	08:00	17.3	1175	0.09	(3)	105	106	--
05/02/97	10:00	17.4	1162	0.08	(3)	113	93	--
05/03/97	14:15	17.0	1215	0.29	(3)	403	346	--
05/05/97	16:00	17.1	1199	0.18	(3)	271	216	--
05/07/97	14:30	16.9	1222	0.09	(3)	153	110	--
05/09/97	15:15	17.2	1189	0.05	(3)	77	59	--
05/12/97	12:30	17.7	1130	0.13	(3)	191	147	--
05/14/97	12:00	17.8	1117	(5)	(3)	--	--	--
05/16/97	11:00	17.9	1105	0.16	(3)	--	217 (4)	--
05/19/97	14:30	18.3	1032	0.05	(3)	--	63 (4)	--
05/20/97	09:30	19.0	955	(5)	(3)	--	--	--
05/21/97	11:00	18.6	999	0.15	(3)	--	184 (4)	--
05/23/97	11:00	18.8	977	(5)	(3)	--	--	--
05/27/97	13:00	19.1	944	0.12	(3)	--	139 (4)	--
05/30/97	12:00	19.2	933	(5)	(3)	--	--	--
06/02/97	13:00	19.4	911	0.08	(3)	--	89 (4)	--
06/04/97	14:45	19.2	933	0.02	(3)	--	23 (4)	--
06/06/97	11:15	19.5	900	0.01	(3)	--	11 (4)	--
06/09/97	12:00	19.7	878	(5)	(3)	--	--	--
06/11/97	12:00	19.7	878	(5)	(3)	--	--	--
06/13/97	10:00	19.7	878	(5)	(3)	--	--	--
06/16/97	11:45	19.7	878	(5)	(3)	--	--	--
06/18/97	13:00	19.6	889	(5)	(3)	--	--	--

(1) - stage measurement from top of bridge railing to water surface adjacent to north abutment. Stage impacted significantly by changes in river elevation.

(2) - flow estimated by dividing area of flow into sub-areas. Individual velocity measurements were collected near the center of each sub-areas. Flow was calculated for each sub-area using the corresponding velocity and area. Total flow is the sum of the sub-area flows, and should be the most accurate method used to calculate flow.

(3) - instrument did not record velocity below approximately 0.35 ft/sec

(4) - flow estimated by increasing the flow calculated using the mean velocity by 22.7 % based on the relationship observed during previous flow comparisons.

(5) - velocity data unreliable due to high wind driving waves upstream and/or increasing river stage resulting in negative velocity measurements.

Source: O'Brien & Gere Engineers, Inc.

Table 2-6. ***Field Sampling PCB Quality Assurance/Quality Control***

QA/QC Sample Type	Purpose	Evaluation Procedure	Criteria	Quan	Result	Comments
Matrix spike	Evaluate accuracy of PCB quantification in the field media.	Duplicate samples are spiked with a known quantity of analyte by the laboratory. The percent recovery is calculated.	Spike recoveries are expected to be in the 70 to 130 recovery range.	2	89% 92%	Results within expected range
Duplicate	Evaluate the precision of analyses.	A relative percent difference (RPD) is calculated as: RPD = (C1 - C2) / ([C1+C2]) / 2) where C1 is the original sample and C2 is the duplicate sample.	The RPD is expected to be less than 35%. RPD is not calculated (NC) for samples and duplicates with total PCB <11 ng/l.	3	63%; 21% 0%	For one of the four duplicate analyses, results were outside expected range. No problems were identified with the collection and analysis of the sample. Cause of this occurrence is uncertain, but may be attributable to heterogenity of sample. Average of results appears representative.
		For data less than the five times the MDL, the difference is calculated for the original and duplicate samples.	The difference is expected to be less than the value of the MDL (11ng/l).	1	0	
Equipment blank	Evaluate the effectiveness of equipment decontamination procedures.	Detection of PCBs in the equipment blank requires evaluation of source and correction of contamination problem.	Detection of PCBs in the equipment blank results in qualification of the associated field samples. Field sample concentrations <5 times the concentration of the equipment blank are qualified with a "U." Field sample concentrations >5 times the detection limit are qualified with a "J."	3	<11 ng/l	No equipment problems identified.

Source: O'Brien & Gere Engineers, Inc.

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Table 3-1. *1997 Hudson River high flow water column PCB monitoring results (1)*

Table 3-1. *1997 Hudson River high flow water column PCB monitoring results (1)*

Date Collected	Location (2)	Comments	Time Collected	Instant. Flow (3) (cfs)	Temp. (Celcius)	TSS (4) (mg/l)	Total PCB (ng/l)	Homolog Distribution (weight percent) (5) Mono	Di	Tri	Tetra	Penta	Hexa	Hepta
06-Apr-97	HRM 197.0-1	PUJ	15:45	11,100	7.0	1.4	13	0.0	0.0	11.3	36.6	40.5	11.7	0.0
	HRM 194.2E-1	PUJ	16:10	11,000	9.0	1.5	12	0.0	6.1	38.8	34.9	15.8	4.4	0.0
	HRM 194.2W-1	-	16:20	11,000	9.0	1.7	<11	-	-	-	-	-	-	-
	HRM 188.5W-1	PUJ	16:55	11,000	9.0	5.6	19	0.0	20.5	28.6	23.1	21.2	6.5	0.0
	HRM 188.5E-1	PUJ	17:20	11,000	9.0	4.6	23	0.0	22.4	29.0	29.3	15.7	3.7	0.0
07-Apr-97	HRM 194.2E-2	PUJ	07:10	13,900	-	3.4	19	0.0	3.5	32.7	38.4	22.2	3.3	0.0
	HRM 194.2W-2	-	07:20	13,900	-	<5.0	<11	-	-	-	-	-	-	-
	HRM 188.5E-2	PUJ	07:40	14,300	-	7.0	29	0.0	32.9	25.8	19.5	16.4	5.5	0.0
	HRM 188.5W-2	-	07:40	14,300	-	12.0	<11	-	-	-	-	-	-	-
	Boat Launch	DM,P	09:12	14,400	-	3.2	42	0.0	4.8	37.6	47.8	9.9	0.0	0.0
	Boat Launch	DM	09:12	14,400	-		52	0.0	9.1	34.6	43.0	11.8	1.4	0.0
	HRM 197.0-3	PCRDMP	09:45	14,200	7.0	3.5	<11	-	-	-	-	-	-	-
	HRM 194.2E-3	PUJ	10:40	14,200	11.0	3.7	28	0.0	5.2	38.8	37.0	15.9	3.2	0.0
	HRM 194.2W-3	PU	11:15	14,300	11.0	4.4	15	0.0	0.0	22.9	43.2	27.8	6.0	0.0
	HRM 194.2 Comp.	PCRDMP,P	11:15	14,300	11.0	4.1	13	0.0	1.1	29.0	41.4	24.4	4.2	0.0
	HRM 194.2 Comp.	BD, PCRDMP,P	11:15	14,300	11.0	3.5	13	0.0	1.1	30.9	41.3	22.3	4.5	0.0
	HRM 188.5E-3	PUJ	11:40	14,100	-	7.3	25	0.0	11.9	33.6	36.5	14.3	3.6	0.0
	HRM 188.5W-3	PCRDMP,P	11:40	14,100	-	6.7	25	0.0	22.5	33.8	28.6	12.6	2.5	0.0
	HRM 188.5E-3A	PUJ	15:10	13,400	-	6.6	23	0.0	17.2	33.9	30.8	14.7	3.4	0.0
	HRM 188.5W-3A	PU	15:10	13,400	-	8.7	14	0.0	0.0	25.5	41.2	26.5	6.9	0.0
	HRM 194.2E-4	PUJ	21:45	15,000	-	3.7	12	0.0	7.5	29.4	35.9	20.6	6.7	0.0

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Table 3-1. *1997 Hudson River high flow water column PCB monitoring results (1)*

Date Collected	Location (2)	Comments	Time Collected	Instant. Flow (3) (cfs)	Temp. (Celcius)	TSS (4) (mg/l)	Total PCB (ng/l)	Homolog Distribution (weight percent) (5) Mono	Di	Tri	Tetra	Penta	Hexa	Hepta
08-Apr-97	Boat Launch	DM,P	10:06	16,500	-	6.2	24	0.0	7.5	36.8	31.5	18.2	6.1	0.0
	HRM 194.2E-5	PJ	01:30	16,100	-	4.2	20	0.0	6.6	33.3	39.1	18.1	2.9	0.0
	HRM 188.5W-4	PJ	01:55	16,300	-	9.4	31	0.0	21.3	31.9	26.0	15.7	5.2	0.0
	HRM 188.5E-4	PJ	02:20	16,400	-	6.8	23	0.0	11.7	39.1	34.8	11.7	2.7	0.0
	HRM 188.5W-5	PJ	07:35	16,100	-	10.0	33	0.0	23.3	33.7	29.9	10.8	2.4	0.0
	HRM 188.5E-5	PJ	07:40	17,200	-	8.4	40	0.0	14.0	25.4	35.0	21.5	4.1	0.0
	HRM 197.0-6	-	08:25	16,800	-	5.0	<11	-	-	-	-	-	-	-
	HRM 194.2E-6	PJ	09:00	16,700	4.0	7.0	22	0.0	3.0	27.7	45.1	21.1	3.1	0.0
	HRM 194.2W-6	-	09:00	16,700	4.0	6.1	<11	-	-	-	-	-	-	-
	HRM 188.5E-6	PJ	10:50	16,700	-	8.4	23	0.0	19.9	37.2	29.8	11.0	2.1	0.0
	HRM 188.5E-6	BD,J	10:50	16,700	-	7.9	44	0.0	11.0	28.1	45.8	12.0	3.0	0.0
	HRM 188.5W-6	PJ	10:55	17,200	5.0	9.8	23	0.0	20.5	35.7	27.5	14.1	2.2	0.0
	HRM 194.2E-7	J	12:00	18,900	-	7.4	54	0.0	2.8	35.4	47.3	12.6	1.9	0.0
	HRM 194.2W-7	PJ	12:10	18,800	-	10.0	15	0.0	0.0	24.2	47.5	23.7	4.6	0.0
	HRM 188.5E-7	J	12:35	18,800	-	8.8	47	0.0	12.9	29.1	31.0	18.6	8.4	0.0
	HRM 188.5W-7	PJ	12:40	18,400	-	12.0	27	0.0	23.4	37.0	28.6	9.4	1.6	0.0
	HRM 188.5E-7A	P	14:35	17,000	-	11.0	22	0.0	4.1	41.7	36.7	14.7	2.8	0.0
	HRM 188.5W-7A	P	14:35	17,000	-	9.3	19	0.0	7.4	41.7	36.2	12.4	2.4	0.0
	HRM 197.0-8	P	15:15	16,600	-	6.4	25	0.0	5.7	38.3	39.4	13.9	2.7	0.0
	HRM 194.2E-8	P	16:05	15,800	-	8.6	14	0.0	5.1	29.0	42.9	20.1	3.0	0.0
	HRM 194.2W-8	-	16:05	15,800	-	7.1	<11	-	-	-	-	-	-	-
	HRM 194.2W-8	BD	16:05	15,800	-	7.8	<11	-	-	-	-	-	-	-
	HRM 188.5E-8	P	16:25	16,600	-	10.0	35	0.0	7.5	40.0	38.0	11.5	3.0	0.0
	HRM 188.5W-8	-	16:30	16,600	-	11.0	44	0.0	5.4	42.9	42.7	7.9	1.1	0.0
	HRM 188.5E-9	P	19:00	16,500	-	8.0	13	0.0	5.2	46.3	32.6	12.1	3.8	0.0
	HRM 188.5W-9	P	19:00	16,500	-	9.8	22	0.0	6.1	43.9	30.5	15.7	3.7	0.0

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Table 3-1. ***1997 Hudson River high flow water column PCB monitoring results (1)***

Date Collected	Location (2)	Comments	Time Collected	Instant. Flow (3) (cfs)	Temp. (Celcius)	TSS (4) (mg/l)	Total PCB (ng/l)	Homolog Distribution (weight percent) (5)						
								Mono	Di	Tri	Tetra	Penta	Hexa	Hepta
09-Apr-97	HRM 194.2E-10	-	11:30	14,100	-	4.1	<11	-	-	-	-	-	-	-
	HRM 194.2W-10	-	11:30	14,100	-	3.9	<11	-	-	-	-	-	-	-
	HRM 188.5E-10	-	11:50	14,100	-	5.6	<11	-	-	-	-	-	-	-
	HRM 188.5W-10	P	11:50	14,100	-	5.5	17	0.0	11.6	40.2	32.6	13.1	2.6	0.0

Notes:

(1) Samples analyzed by capillary column using NEA Method 608CAP unless otherwise noted. PCB data has been adjusted for analytical biases (O'Brien & Gere 1997c).

(2) HRM = Approximate Hudson River mile; HRM 0.0 is located at the Battery in New York City. Samples designated with "W" or "E" were collected from the west or east channel, respectively. Samples from location HRM 194.2 Comp are a composite of west and east channels. Boat Launch sample is collected off the northwest corner of the old Niagara Mohawk building (approximate HRM 196.9).

(3) Instantaneous flows recorded at the Fort Edward USGS gaging station are presented for the sampling times shown.

(4) TSS data were analyzed by Method 160.2.

(5) Homolog groups octa-, nona- and deca-chlorinated biphenyls were not detected.

BD = Blind Duplicate - a field PCB duplicate sample submitted to the laboratory without identification of sampling location.

P = Practical quantitation limit (PQL) note that identifies PCB concentrations between <11 and 44 ng/l.

U = PCB concentrations qualified due to method or field blank excursion from validation criteria

J = PCB concentrations approximate

DM = Samples collected by Dames & Moore personnel.

nc = Sample not collected.

PCRDMP = samples collected for the Post-Construction Remnant Deposit Monitoring Program, conducted weekly.

Source: O'Brien & Gere Engineers, Inc.

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Table 3-2. *Comparison of PCB mass transport estimates, April 6-9, 1997 High Flow Monitoring Program.*

Date	Round	Time of Travel Flow (cfs)	HRM 194.2 West PCBs (ng/l)	West Mass (kg/d)	East PCBs (ng/l)	East Mass (kg/d)	Sum West and East Mass (kg/d)	Composites PCBs (ng/l)	Composites Mass (kg/d)
04/06/97	1	11000	10.9	0.19	12 PUJ	0.11	0.30	11	0.30
04/07/97	2	13900	10.9	0.24	19 PUJ	0.22	0.46	15	0.50
04/07/97	3	14200	15 PU	0.33	28 PUJ	0.34	0.67	21	0.74
04/07/97	PCRDMP	14200	-	-	-	-	-	13 P	0.44
04/07/97	4	15000	-	-	12 PUJ	0.16	-	-	-
04/08/97	5	16100	-	-	20 PJ	0.28	-	-	-
04/08/97	6	16700	10.9	0.29	22 PJ	0.31	0.60	16	0.67
04/08/97	7	18900	15 J	0.45	54 J	0.87	1.32	34	1.59
04/08/97	8	15300	10.9	0.27	14 P	0.18	0.45	12	0.47
04/08/97	9	-	-	-	-	-	-	-	-
04/09/97	10	14100	10.9	0.24	10.9	0.13	0.38	10.9	0.38

Notes:

The mass estimates are calculated using total PCB concentration (ng/l) from NEA608CAP analysis, instantaneous flow from the USGS gage in Fort Edward (cfs), and a conversion factor. Mass estimates are based on the following assumptions:

* For total PCB concentrations less than the method detection limit of 11 ng/l, a value of 10.9 was used in the mass estimate calculation.
* For separate west and east channel mass calculations, the total flow at the Fort Edward gaging station is divided between the two channels, 65% and 35%, respectively.
* Hypothetical composite sample results (shaded text) assume a 50-50 split between the two channels. The average of the PCB concentrations of samples collected in the west and east channels was used in the mass estimate. This approach is consistent with actual composite sample collection which is not flow-weighted.

PCB data has been adjusted for analytical biases (O'Brien & Gere 1997c).

P = Practical quantitation limit (PQL) note that identifies PCB concentrations between <11 and 44 ng/l.

U = PCB concentrations qualified due to method or field blank excursion from validation criteria

J = PCB concentrations approximate

Source: O'Brien & Gere Engineers, Inc.

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Table 3.3. ***1997 Hudson River high flow bed load sediment sampling results***

Date Collected	Location (1)	Comments	Time Collected	Daily Average Flow (2) (cfs)	Total Solids (3) (%)	TOC (4) (ug/g)	Total PCB (5) (ug/g)	Homolog Distribution (weight percent) (6)							
								Mono	Di	Tri	Tetra	Penta	Hexa	Hepta	Octa
08-Apr-97	HRM 194.2E	-	10:00	16,700	83.6	26,000	1.4	1.7	8.7	48.6	31.2	7.5	1.9	0.4	0.0
	HRM 194.2W	-	10:30	16,700	71.1	24,000	12.0	1.4	7.9	35.8	38.3	12.3	3.4	0.9	0.2
09-Apr-97	HRM 194.2W	-	08:00	14,000	70.0	13,000	4.6	0.7	8.6	43.5	34.8	9.5	2.5	0.5	0.1

Notes:

(1) HRM = Approximate Hudson River mile; HRM 0.0 is located at the Battery in New York City. Bed load samplers were deployed in the east and west channels at Roger's Island for approximately 24 hours.

(2) Daily average flows recorded at the Fort Edward USGS gaging station are presented. Daily averages are final, published values from the USGS Water Year Report.

(3) Total solids analyzed by Method 209F (Standard Methods, 16th edition, 1989).

(4) TOC (Total Organic Carbon) analyzed by Lloyd Kahn Method.

(5) Total PCBs analyzed by capillary column using NEA Method 608CAP and adjusted for analytical biases (O'Brien & Gere 1997c).

(6) Homolog groups nona- and deca-chlorinated biphenyls were not detected.

Source: O'Brien & Gere Engineers, Inc.

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Table 3-4. ***High flow automated composite sampling April 5 - June 17, 1997. Total suspended solids and flow results.***

		Roger's Island			Snook Kill			Moses Kill			TID (HRM 188.5)	
Date	Time	Daily Avg. Flow (cfs) (1)	Flow at time of sample collection (2) (cfs)	TSS (mg/l)	Daily Avg. Flow (cfs) (2)	Flow at time of sample collection (2) (cfs)	TSS (mg/l)	Daily Avg. Flow (cfs)(2), (3)	Flow at time of sample collection (2),(3) (cfs)	TSS (mg/l)	West TSS (mg/l)	East TSS (mg/l)
04/05/97	-	8,400	-	1.5	377	-	110	-	-	41.0	-	8.0
04/06/97	-	9,900	-	1.7	335	-	78	-	-	35.0	5.6 (4)	4.6 (4)
04/07/97	-	13,700	-	6.0	286	-	34	-	-	30.0	9.2 (4)	6.9 (4)
04/08/97	-	16,600	-	6.6	180 *	-	34	-	-	25.0	9.8	8.5
04/09/97	-	14,000	-	4.1	167 *	-	27	-	-	23.0	4.9	7.8
04/10/97	-	10,700	-	3.4	150 *	-	27	-	-	17.0	4.1	4.9
04/11/97	-	9,100	-	3.2	145 *	-	19	-	-	13.0	3.3	3.5
04/12/97	-	8,000	-	2.7	146 *	-	16	-	-	15.0	2.8	3.1
04/13/97	-	7,400	-	2.2	248	-	51	-	-	33.0	4.5	4.3
04/14/97	-	7,300	-	1.0	141 *	-	21	-	-	23.0	3.0	3.2
04/15/97	-	7,000	-	1.3	139 *	-	7.9	-	-	12.0	1.3	2.0
04/16/97	-	6,500	-	1.6	135 *	-	11	-	-	15.0	1.4	1.6
04/17/97	-	6,600	-	1.1	136 *	-	13	-	-	11.0	1.1	1.1
04/18/97	-	7,500	-	1.5	157 *	-	12	88 **	-	12.0	3.5	1.1
04/19/97	-	10,000	-	1.2	501	-	66	-	-	28.0	4.4	2.6
04/20/97	-	10,200	-	1.3	210	-	26	-	-	22.0	3.9	1.5
04/21/97	-	10,300	-	1.8	163 *	-	11	-	-	15.0	1.0	2.2
04/22/97	-	10,100	-	1.0	137 *	-	7.2	-	-	14.0	2.9	1.3
04/23/97	-	9,900	-	1.5	124 *	-	16	160 *	-	12.0	3.5	2.2
04/24/97	-	9,800	-	1.3	146 *	-	4.3	-	-	5.6	1.3	1.2
04/25/97	-	9,900	-	1.9	88 *	-	8.8	191 *	-	9.8	2.6	1.9
04/26/97	-	10,300	-	2.6	148 *	-	5.7	-	-	4.2	4.1	2.5
04/27/97	-	10,300	-	1.8	148 *	-	6.7	-	-	3.9	2.9	2.5
04/28/97	12:00 AM	11,100	10,100	2.8	336	148 *	4.1	-	-	5.3	2.1	2.0
	03:00 AM	-	10,300	2.1	-	148 *	4.1	-	-	4.9	2.2	2.0
	06:00 AM	-	10,300	2.2	-	148 *	3.6	-	-	3.6	2.2	2.2
	09:00 AM	-	10,400	2.6	-	150 *	6.4	-	236 **	6.0	2.2	2.3
	12:00 PM	-	10,600	2.1	-	487	45	-	-	10.0	3.3	5.7
	03:00 PM	-	10,700	2.4	-	667	190	-	207 **	17.0	8.2	--
	06:00 PM	-	12,000	2.8	-	764	170	-	278 **	37.0	10.0	6.0
	09:00 PM	-	13,000	3.9	-	- (5)	190	-	-	55.0	12.0	7.3
04/29/97	12:00 AM	14,300	13,000	1.6	207	- (5)	28	-	-	17.0	16.0	7.7
	03:00 AM	-	13,300	3.3	-	- (5)	23	-	-	15.0	16.0	7.9
	06:00 AM	-	13,400	2.9	-	- (5)	19	-	-	15.0	13.0	7.4
	09:00 AM	-	13,800	3.3	-	399	15	-	105 **	14.0	8.6	6.4

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Table 3-4. ***High flow automated composite sampling April 5 - June 17, 1997. Total suspended solids and flow results.***

		Roger's Island			Snook Kill			Moses Kill			TID (HRM 188.5)	
Date	Time	Daily Avg. Flow (cfs) (1)	Flow at time of sample collection (2) (cfs)	TSS (mg/l)	Daily Avg. Flow (cfs) (2)	Flow at time of sample collection (2) (cfs)	TSS (mg/l)	Daily Avg. Flow (cfs)(2), (3)	Flow at time of sample collection (2),(3) (cfs)	TSS (mg/l)	West TSS (mg/l)	East TSS (mg/l)
	12:00 PM	-	14,000	2.8	-	168 *	12	-	-	13.0	6.9	8.1
	03:00 PM	-	14,200	2.9	-	168 *	10	-	-	10.0	5.6	6.5
	06:00 PM	-	15,600	4.4	-	173 *	8.7	-	-	9.9	5.8	6.5
	09:00 PM	-	15,700	6.9	-	174 *	9.3	-	-	8.9	6.1	7.0
04/30/97	12:00 AM	15,200	15,700	6.1	172	174 *	9.4	-	-	9.3	8.9	8.3
	03:00 AM	-	15,400	5.2	-	174 *	8.6	-	-	8.1	7.6	7.4
	06:00 AM	-	15,400	5.1	-	174 *	8.5	-	-	5.3	6.8	6.9
	09:00 AM	-	14,900	5.0	-	172 *	9.3	-	-	7.0	5.8	6.9
	12:00 PM	-	15,300	4.8	-	172 *	9.6	-	-	14.0	5.1	6.5
	03:00 PM	-	15,300	5.5	-	171 *	7.9	-	-	18.0	4.8	7.3
	06:00 PM	-	15,000	4.2	-	171 *	18	-	-	15.0	5.2	6.9
	09:00 PM	-	14,800	4.3	-	170 *	12	-	-	14.0	7.5	6.9
05/01/97	-	13,800	-	3.2	164 *	-	9.3	-	-	7.4	3.1	3.1
05/02/97	-	14,400	-	2.1	167 *	-	11	113 *	-	9.6	4.9	3.9
05/03/97	12:00 AM	16,000	15,700	3.8	349	174 *	17	-	-	5.3	8.3	4.9
	03:00 AM	-	15,700	1.8	-	174 *	12	-	-	4.8	6.8	5.5
	06:00 AM	-	15,800	2.4	-	174 *	11	-	-	3.1	6.6	6.8
	09:00 AM	-	16,000	4.0	-	174 *	12	-	-	3.6	5.6	5.4
	12:00 PM	-	15,600	4.5	-	174 *	13	-	-	4.0	3.5	4.2
	03:00 PM	-	15,900	4.1	-	238	16	-	403 **	17.0	4.4	5.2
	06:00 PM	-	16,300	3.9	-	581	82	-	-	27.0	5.6	7.7
	09:00 PM	-	16,300	3.1	-	767	150	-	-	82.0	14.0	11.0
05/04/97	12:00 AM	16,500	16,300	4.0	472	871	290	-	-	250.0	20.0	18.0
	03:00 AM	-	16,700	4.4	-	825	260	-	-	290.0	22.0	27.0
	06:00 AM	-	16,800	4.1	-	705	140	-	-	200.0	23.0	27.0
	09:00 AM	-	16,000	5.1	-	572	120	-	-	160.0	15.0	19.0
	12:00 PM	-	16,600	4.4	-	438	85	-	-	130.0	--	13.0
	03:00 PM	-	16,600	3.8	-	324	57	-	-	90.0	8.3	11.0
	06:00 PM	-	16,400	4.5	-	179	45	-	-	81.0	7.0	9.8
	09:00 PM	-	16,200	3.8	-	178 *	31	-	-	64.0	7.7	8.1
05/05/97	-	16,100	-	2.8	256 **	-	14	271 *	-	28.0	5.7	5.7
05/06/97	-	17,000	-	4.5	218 *	-	10	-	-	10.0	4.9	4.5
05/07/97	-	16,000	-	2.6	243 **	-	17	153 *	-	24.0	5.2	5.1
05/08/97	-	15,300	-	3.2	206 *	-	7.1	-	-	13.0	3.5	4.2
05/09/97	-	14,400	-	2.7	147 **	-	14	77 *	-	13.0	3.3	4.0

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Table 3-4. ***High flow automated composite sampling April 5 - June 17, 1997. Total suspended solids and flow results.***

		Roger's Island			Snook Kill			Moses Kill			TID (HRM 188.5)	
Date	Time	Daily Avg. Flow (cfs) (1)	Flow at time of sample collection (2) (cfs)	TSS (mg/l)	Daily Avg. Flow (cfs) (2)	Flow at time of sample collection (2) (cfs)	TSS (mg/l)	Daily Avg. Flow (cfs)(2), (3)	Flow at time of sample collection (2),(3) (cfs)	TSS (mg/l)	West TSS (mg/l)	East TSS (mg/l)
05/10/97	-	11,600	-	1.7	457	-	90	-	-	77.0	12.0	14.0
05/11/97	-	12,000	-	1.4	185 *	-	20	-	-	24.0	3.8	3.7
05/12/97	-	11,700	-	2.0	192 **	-	14	191 *	-	22.0	3.7	3.4
05/13/97	-	11,100	-	1.4	180 *	-	9.2	-	-	11.0	2.9	4.3
05/14/97	-	10,900	-	14.0	139 **	-	37	-	-	15.0	4.4	3.8
05/15/97	-	10,700	-	2.3	176 *	-	11	-	-	8.1	3.8	na
05/16/97	-	10,200	-	1.8	177 **	-	10	217 *	-	12.0	2.3	2.6
05/17/97	-	9,100	-	1.7	167 *	-	9.8	-	-	16.0	2.9	3.0
05/18/97	-	8,500	-	1.9	162 *	-	7.3	-	-	8.0	3.4	3.6
05/19/97	-	7,900	-	1.8	112 **	-	6.7	63 *	-	10.0	2.0	2.4
05/20/97	-	5,600	-	2.4	172 **	-	9.4	-	-	18.0	2.3	3.4
05/21/97	-	6,900	-	1.8	110 **	-	10	184 *	-	17.0	2.4	2.9
05/22/97	-	6,400	-	1.5	146 *	-	9.5	-	-	22.0	7.3	2.7
05/23/97	-	6,500	-	2.3	95 **	-	7.9	-	-	9.6	3.0	3.3
05/24/97	-	6,300	-	1.7	144 *	-	8.3	-	-	12.0	2.1	2.4
05/25/97	-	5,700	-	1.5	139 *	-	7.9	-	-	7.9	2.6	2.5
05/26/97	-	5,500	-	1.9	138 *	-	8.1	-	-	7.6	11.0	2.3
05/27/97	-	5,100	-	1.9	56 **	-	8.9	139 *	-	8.8	3.6	3.1
05/28/97	-	4,300	-	1.6	129 *	-	7.5	-	-	7.0	3.4	2.9
05/29/97	-	4,300	-	2.4	128 *	-	6.9	-	-	10.0	3.7	3.2
05/30/97	-	3,900	-	1	72 **	-	9.2	-	-	7.4	4.6	3.2
05/31/97	-	4,200	-	2.3	127 *	-	8.2	-	-	7.6	3.5	3.1
06/01/97	-	3,700	-	2.1	127 *	-	9.2	-	-	10.0	8.1	3.3
06/02/97	-	3,500	-	2.3	65 **	-	6.4	89	-	14	3.9	3.7
06/03/97	-	3,900	-	2.9	126 *	-	4.9	-	-	6.7	2.9	2.8
06/04/97	-	4,500	-	2.2	59 **	-	5.1	23	-	6.6	2.6	3.1
06/05/97	-	3,400	-	2.0	120 *	-	4.3	-	-	5.1	1.8	2.4
06/06/97	-	3,300	-	<1.6	70 **	-	3.8	11	-	7.4	1.8	2.1
06/07/97	-	3,400	-	<1.3	121 *	-	3.3	-	-	1.5	<1.1	1.8
06/08/97	-	3,400	-	<1.6	122 *	-	4.8	-	-	4.9	<1.4	<1.4
06/09/97	-	2,900	-	4.5	44 **	-	4.9	(6)	-	9.5	4.0	3.6
06/10/97	-	2,100	-	1.7	110 *	-	4.5	-	-	5.4	3.6	2.8
06/11/97	-	2,400	-	3.6	7 **	-	7.3	(6)	-	17.0	7.6	5.7
06/12/97	-	2,600	-	3.9	149 *	-	6.5	-	-	6.2	3.9	3.8
06/13/97	-	2,800	-	3.0	20 **	-	6.1	(6)	-	11.0	3.6	3.4

Table 3-4. ***High flow automated composite sampling April 5 - June 17, 1997. Total suspended solids and flow results.***

		Roger's Island			Snook Kill			Moses Kill			TID (HRM 188.5)	
Date	Time	Daily Avg. Flow (cfs) (1)	Flow at time of sample collection (2) (cfs)	TSS (mg/l)	Daily Avg. Flow (cfs) (2)	Flow at time of sample collection (2) (cfs)	TSS (mg/l)	Daily Avg. Flow (cfs)(2), (3)	Flow at time of sample collection (2),(3) (cfs)	TSS (mg/l)	West TSS (mg/l)	East TSS (mg/l)
06/14/97	-	2,500	-	3.1	149 *	-	5.8	-	-	9.8	6.4	3.7
06/15/97	-	2,400	-	<1.4	148 *	-	6.5	-	-	9.7	4.3	5.9
06/16/97	-	2,100	-	2.1	10 **	-	5.1	(6)	-	2.1	1.6	1.6
06/17/97	-	2,800	-	2.8	153 *	-	8.6	-	-	9.0	4.3	5.2

Notes:

Total suspended solids analyzed by USEPA Method 160.2.

(1) USGS daily average flow calculated from real-time data monitored at the Fort Edward gaging station (cfs) and obtained via the USGS WEB site.

(2) Estimated flow obtained by automated flow meters on the tributaries. "*" indicates flows were calculated based on estimated mean velocity (0.35 ft/sec) and stage measured by automated flow meter during low flow, and are likely biased high after mid-May. "**" indicates instantaneous flow measured when the sampling equipment was serviced. **" indicates instantaneous flow

(3) - automated flow meter data not reliable.

(4) - data from high flow samples collected manually (automatic samplers did not operate properly).

(5) - Velocity meter probe obstructed.

(6) - Flow below measureable levels.

Source: O'Brien & Gere Engineers, Inc.

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Table 3-5. ***Tributary TOC, weight loss, and supernatant TSS data.***

	Snook Kill		Moses Kill	
Parameter	**04/07/97**	**04/09/97**	**04/07/97**	**04/09/97**
TOC (mg/kg)	41,000	37,000	24,000	18,000
weight loss on ignition (%)	6.5	7.3	5.1	4.7
Supernatant TSS (mg/kg)	2.4	2.8	3.1	2.9
Supernatant volume (ml)	20,350	20,300	20,600	20,300

Source: O'Brien & Gere Engineers, Inc.

Table 3-6. ***Quality assurance/quality control, TSS duplicate results. High flow automated composite sampling April 5 - June 17, 1997.***

		Roger's Island			Snook Kill			Moses Kill			TID (HRM 188.5)					
											West			East		
Date	Time	TSS (mg/l)	Dup (mg/l)	RPD	TSS (mg/l)	Dup (mg/l)	RPD	TSS (mg/l)	Dup (mg/l)	RPD	TSS (mg/l)	Dup (mg/l)	RPD	TSS (mg/l)	Dup (mg/l)	RPD
04/10/97	-	-	-	-	27	25	7.7%	-	-	-	-	-	-	-	-	-
04/13/97	-	-	-	-	51	53	3.8%	-	-	-	-	-	-	-	-	-
04/17/97	-	1.1	1.0	9.5%	-	-	-	-	-	-	-	-	-	-	-	-
04/20/97	-	1.3	1.1	16.7%	-	-	-	-	-	-	-	-	-	-	-	-
04/24/97	-	-	-	-	-	-	-	5.6	6.0	6.9%	-	-	-	-	-	-
04/26/97	-	-	-	-	-	-	-	4.2	3.8	10.0%	-	-	-	-	-	-
04/30/97	09:00	-	-	-	-	-	-	-	-	-	-	-	-	6.9	6.9	0.0%
04/30/97	12:00	4.8	4.4	8.7%	-	-	-	-	-	-	-	-	-	-	-	-
04/30/97	15:00	-	-	-	7.9	8.8	10.8%	-	-	-	-	-	-	-	-	-
05/01/97	-	3.2	2.9	9.8%	-	-	-	7.4	7.0	5.6%	-	-	-	-	-	-
05/06/97	-	-	-	-	-	-	-	-	-	-	4.9	4.6	6.3%	-	-	-
05/08/97	-	-	-	-	-	-	-	-	-	-	3.5	3.5	0.0%	-	-	-
05/10/97	-	1.7	2.0	16.2%	-	-	-	-	-	-	-	-	-	-	-	-
05/13/97	-	-	-	-	-	-	-	-	-	-	2.9	2.8	3.5%	-	-	-
05/22/97	-	1.5	2.5	50.0%	-	-	-	-	-	-	-	-	-	-	-	-
05/26/97	-	-	-	-	8.1	6.2	26.6%	-	-	-	-	-	-	-	-	-
05/31/97	-	-	-	-	8.2	8.3	1.2%	-	-	-	-	-	-	-	-	-
06/05/97	-	-	-	-	-	-	-	-	-	-	1.8	1.4	25.0%	-	-	-
06/10/97	-	1.7	2.7	45.5%	-	-	-	-	-	-	-	-	-	-	-	-
06/12/97	-	-	-	-	6.5	6.2	4.7%	-	-	-	-	-	-	-	-	-
06/15/97	-	-	-	-	-	-	-	9.7	5.8	50.3%	-	-	-	-	-	-

Notes:

Total suspended solids analyzed by USEPA Method 160.2.

Dup = indicates a field duplicate sample submitted to the laboratory without identification of sample location.

RPD = relative percent difference calculation: the absolute value of the difference between the sample and the duplicate divided by the average of the sample and the duplicate.

Source: O'Brien & Gere Engineers, Inc.

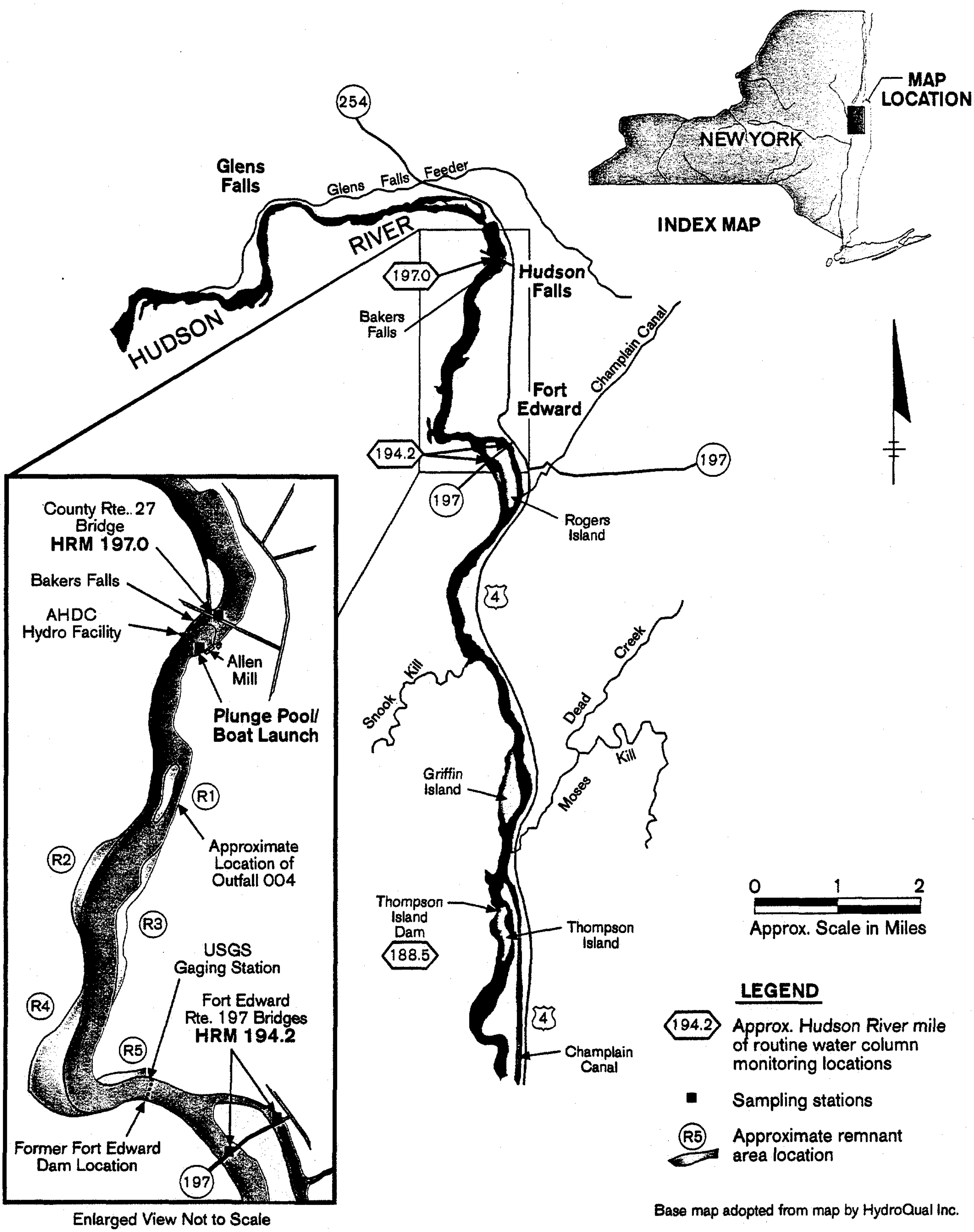
311137

FIGURES

DIV 26 GEMINI MAC REPORT GRAPHICS /GEHUDSON 8/05/97

FIGURE 1-1

GENERAL ELECTRIC COMPANY-HUDSON RIVER PROJECT
POST-CONSTRUCTION REMNANT DEPOSIT MONITORING PROGRAM
SITE LOCATION MAP



Base map adopted from map by HydroQual Inc.

REVISED 08/05/97 612.225-001

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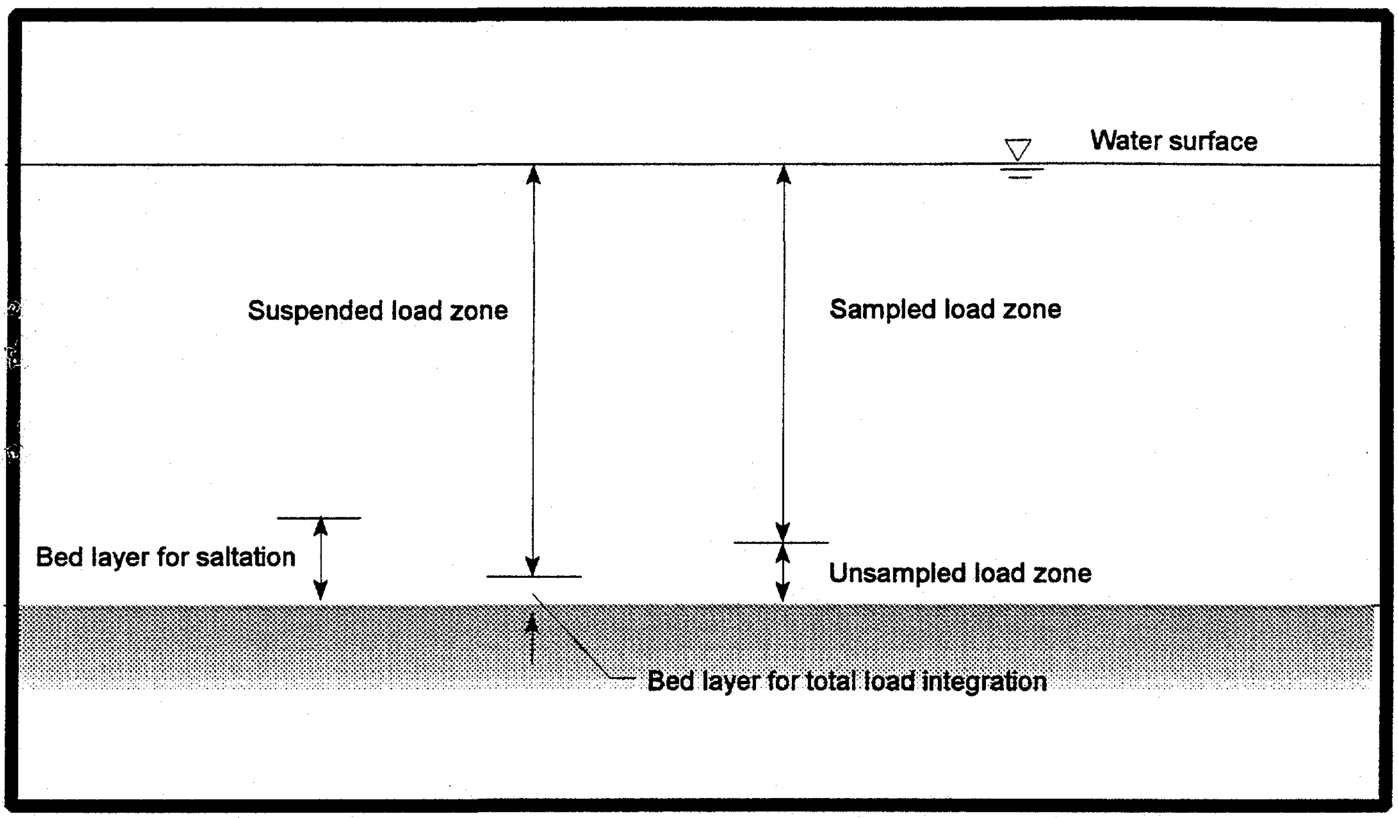
O'BRIEN & GERE ENGINEERS, INC.

Figure1-2
General Electric Company - Hudson River Project
1996 Post-Construction Remnant Deposit Monitoring
Vertical Flow Layers for Sediment Load Classification



Total sediment load by mechanism of movement:

bed load. The rate of movement of sediment particles along the stream bed in the process of rolling, sliding, and/or hopping (saltation).

suspended load. The rate of movement of sediment particles that are supported by the turbulent motion in the stream flow. Suspended load consists of fine sediment particles (wash load) and coarser material on the stream bed (suspended bed material load).

Total sediment load by measurement capabilities:

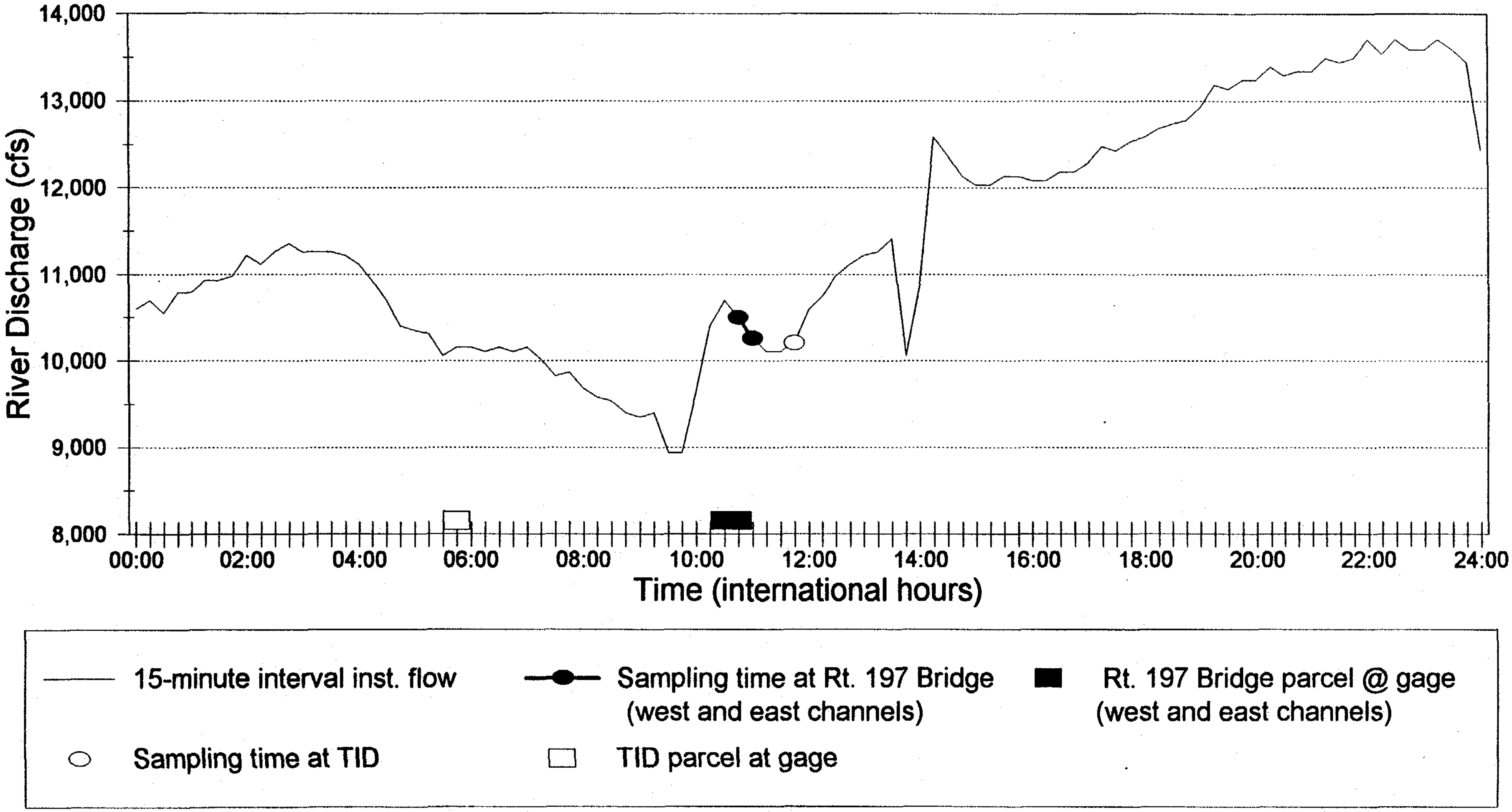
sampled load. The sampled load is that part of the total sediment load that can be reasonably accurately measured by either a depth integrated sampler or a point integrated sampler.

unsampled load. No instrument or procedure has been developed to obtain a reasonably accurate measurement of sediment movement rate in a flow zone within 10 to 20 centimeters from the surface of the stream bed. The rate of sediment movement in this unsampled zone is called the unsampled load.

Source: Shen, Hsieh, and Pierre Julien. 1993. Chapter 12, in Handbook of Hydrology. David R. Maidment, ed. McGraw-Hill, Inc. New York.

I:52/0612227/4_/sediment.wpg

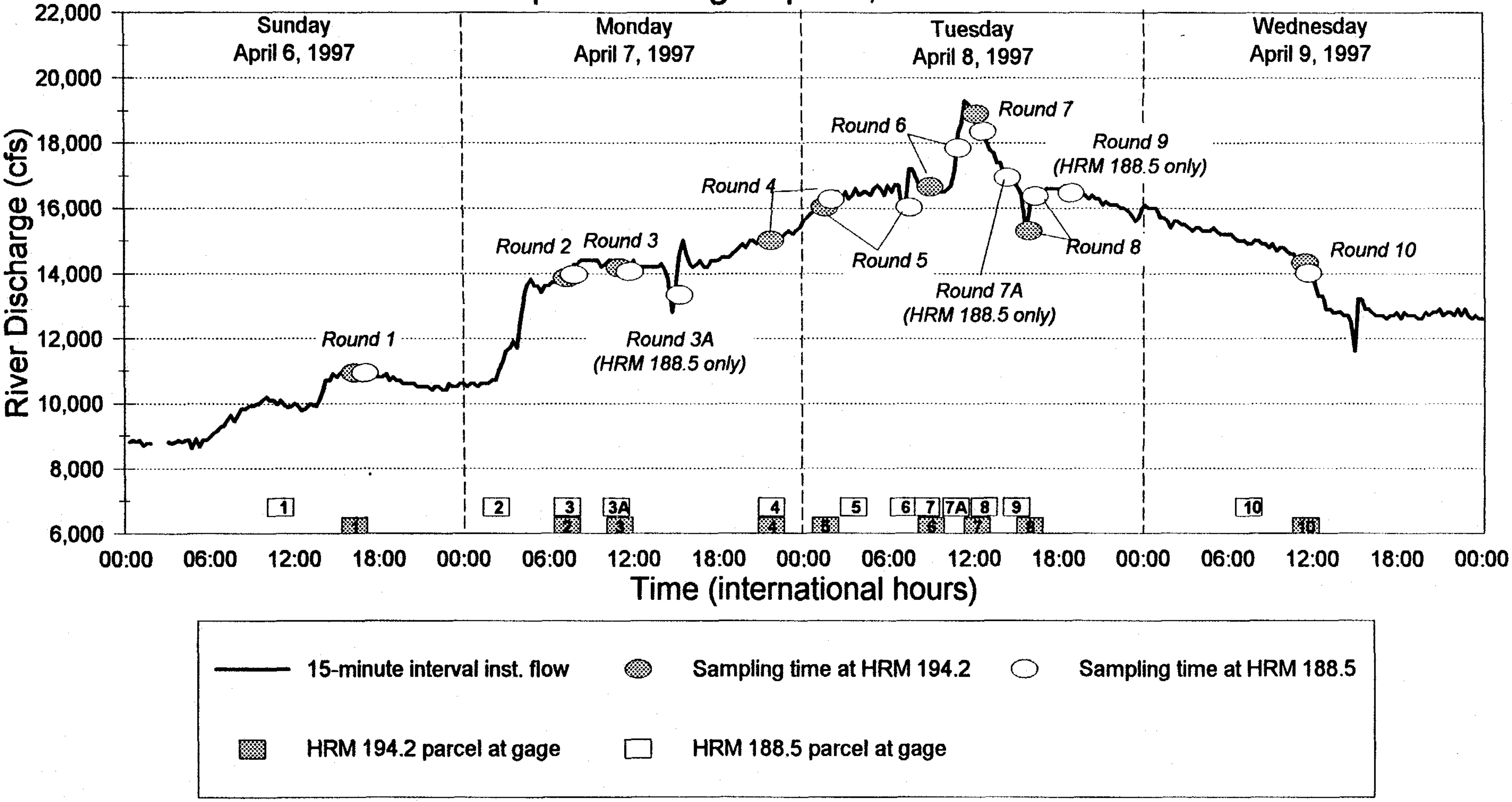
Figure 2-1
General Electric Company - Hudson River Project
Instantaneous Discharge at Fort Edward Gaging Station
PCRDMP Sample Date March 31, 1997



Note: River discharge data are provisional, real-time readings obtained through the USGS WEB site and have not been reviewed by the USGS. Circles indicate the sampling time on the river hydrograph. Squares represent the estimated time the sampled parcel would have passed by the gaging station at Fort Edward.

311141

Figure 2-2
General Electric Company - Hudson River Project
Instantaneous Discharge at Fort Edward Gaging Station and Sample Collection Times
April 6 through April 9, 1997



Note: River discharge data are provisional, real-time readings obtained through the USGS (3/31/99) and are considered "work" rather than "final" data; there is no provision to indicate the degree of refinement to which these work data have been processed. Circles on the hydrograph indicate the sampling time on the river. Squares represent the estimated time the sampled parcel would have passed by the gaging station in Fort Edward. Rounds consist of sampling at HRM 194.2 and HRM 188.5. Numbers inside the squares indicate the sampling round for the parcels.

311142

DATE: JULY 23, 1997

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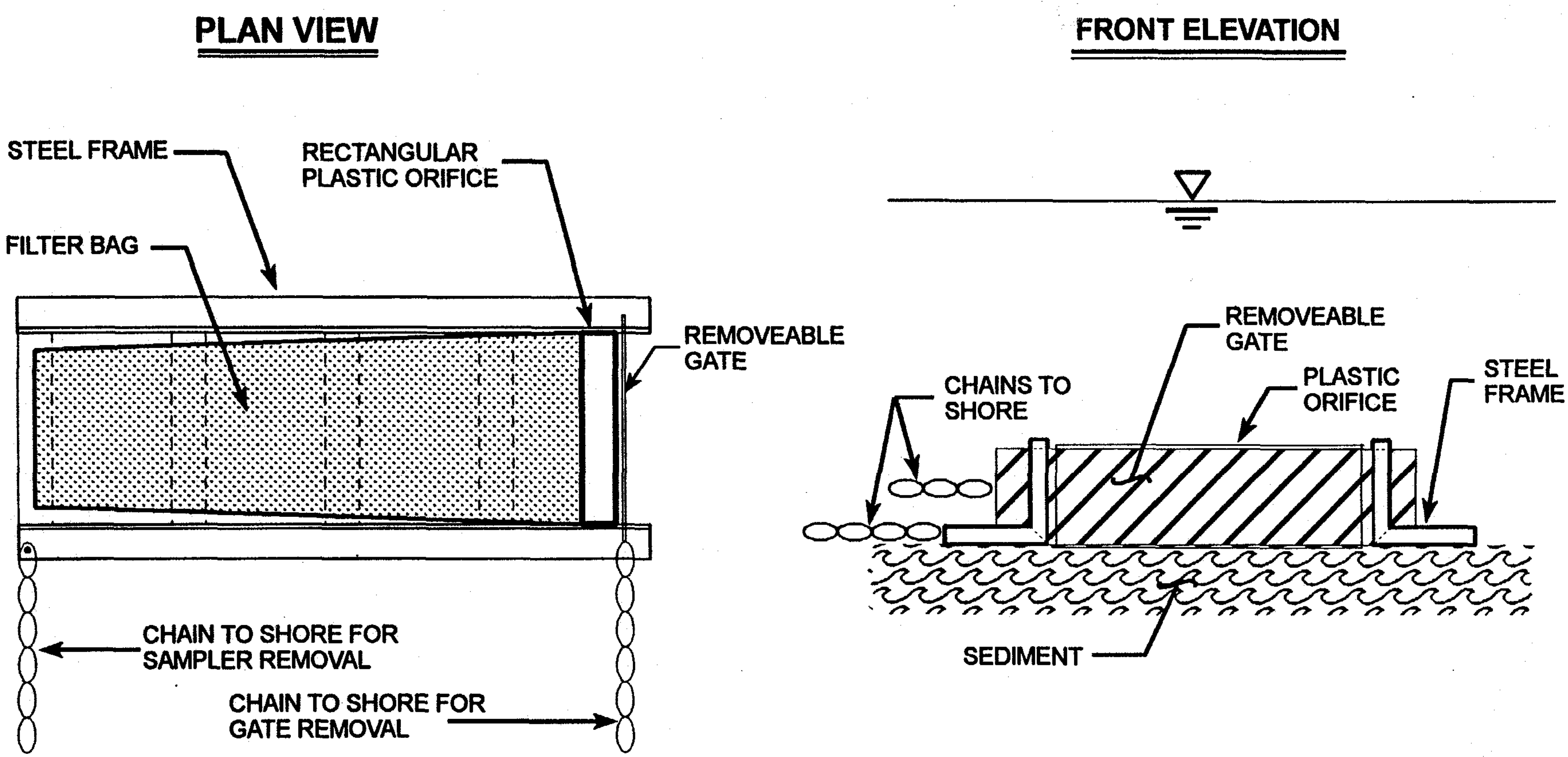
FILE NO. 0612.226-03F



311143

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

BED LOAD SAMPLER

NOT TO SCALE

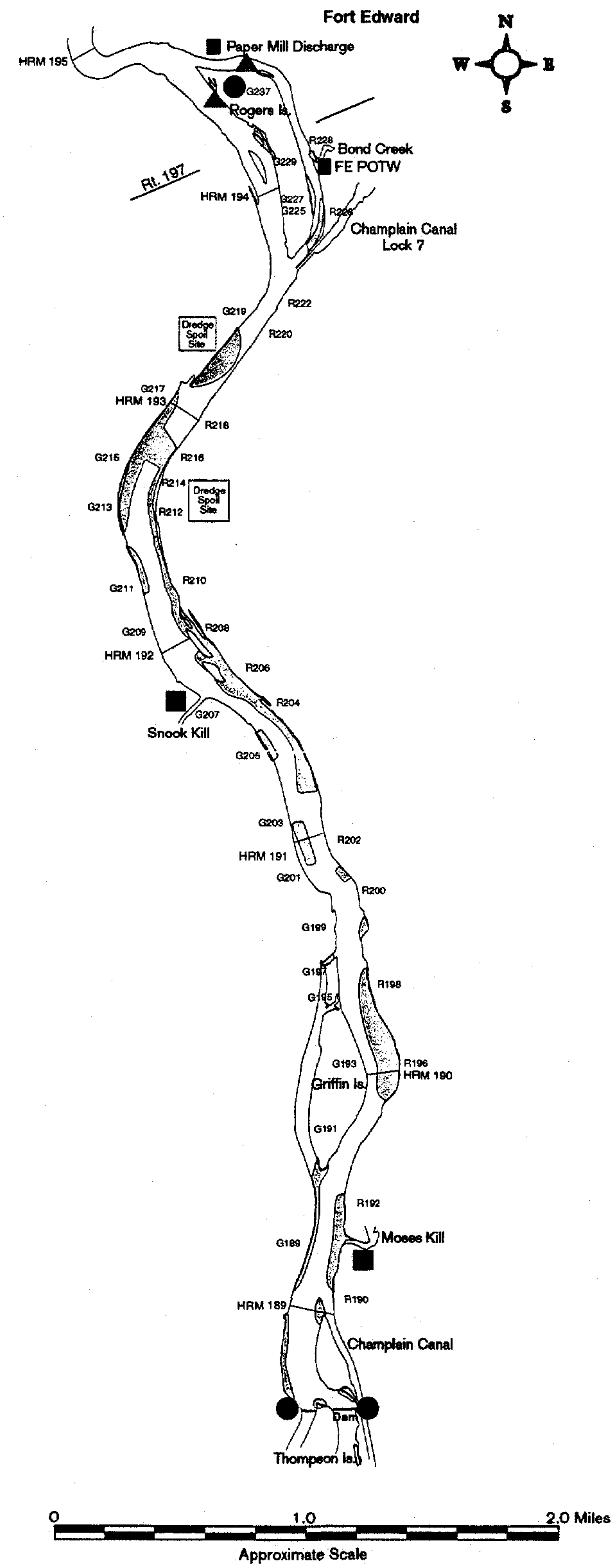
O'BRIEN & GERE ENGINEERS INC.

FIGURE 2-3

GENERAL ELECTRIC COMPANY-HUDSON RIVER PROJECT
1997 HIGH FLOW MONITORING PROGRAM

SAMPLING LOCATIONS

FIGURE 2-4



Legend

- ▲ Bedload sampler location
- ■ Automatic sampler and flow meter location
- ● Automatic sampler location
- HRM 189 —— Mile marker
- G237 Green NOAA bouy
- R228 Red NOAA bouy
- Hotspot

O'BRIEN & GERE ENGINEERS, INC.

Revised 7/08/97 (52) 0612.226-852

311144

DATE: JULY 28, 1997

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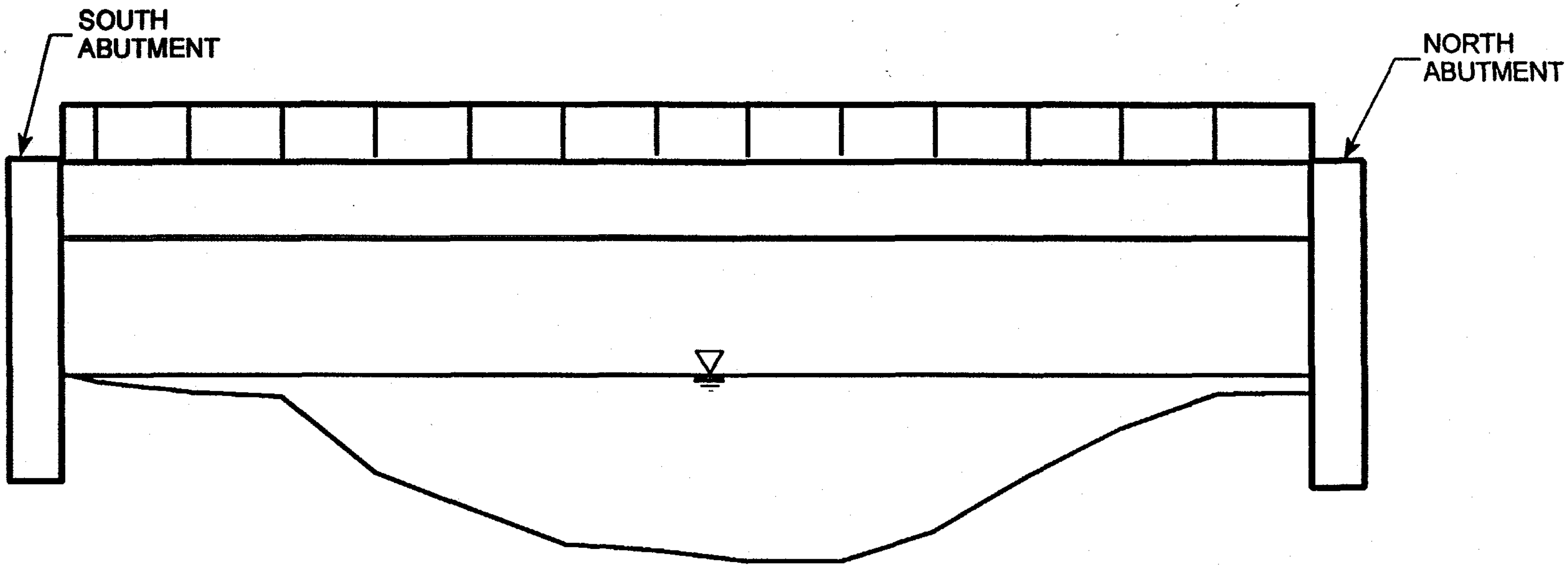
FILE NO. 0612.226-04F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE 2-5

311145

DATE: JULY 28, 1997

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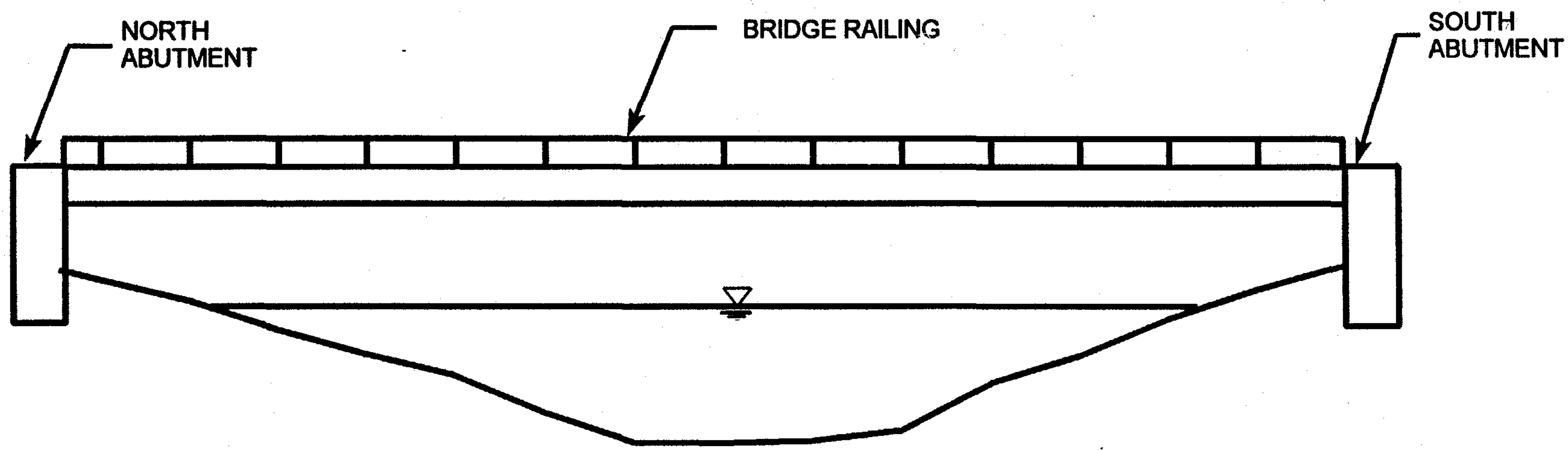
FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

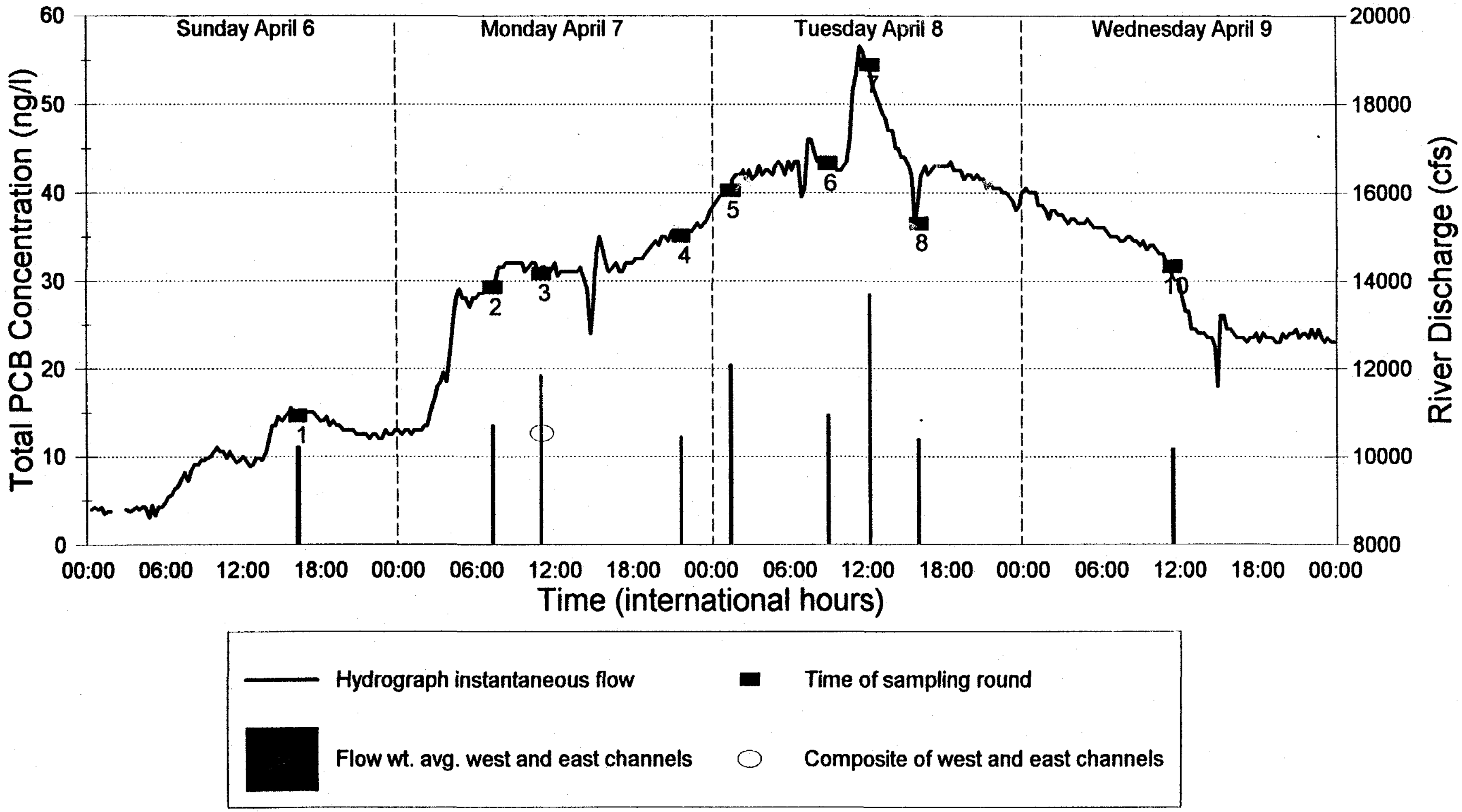
0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE 2-6

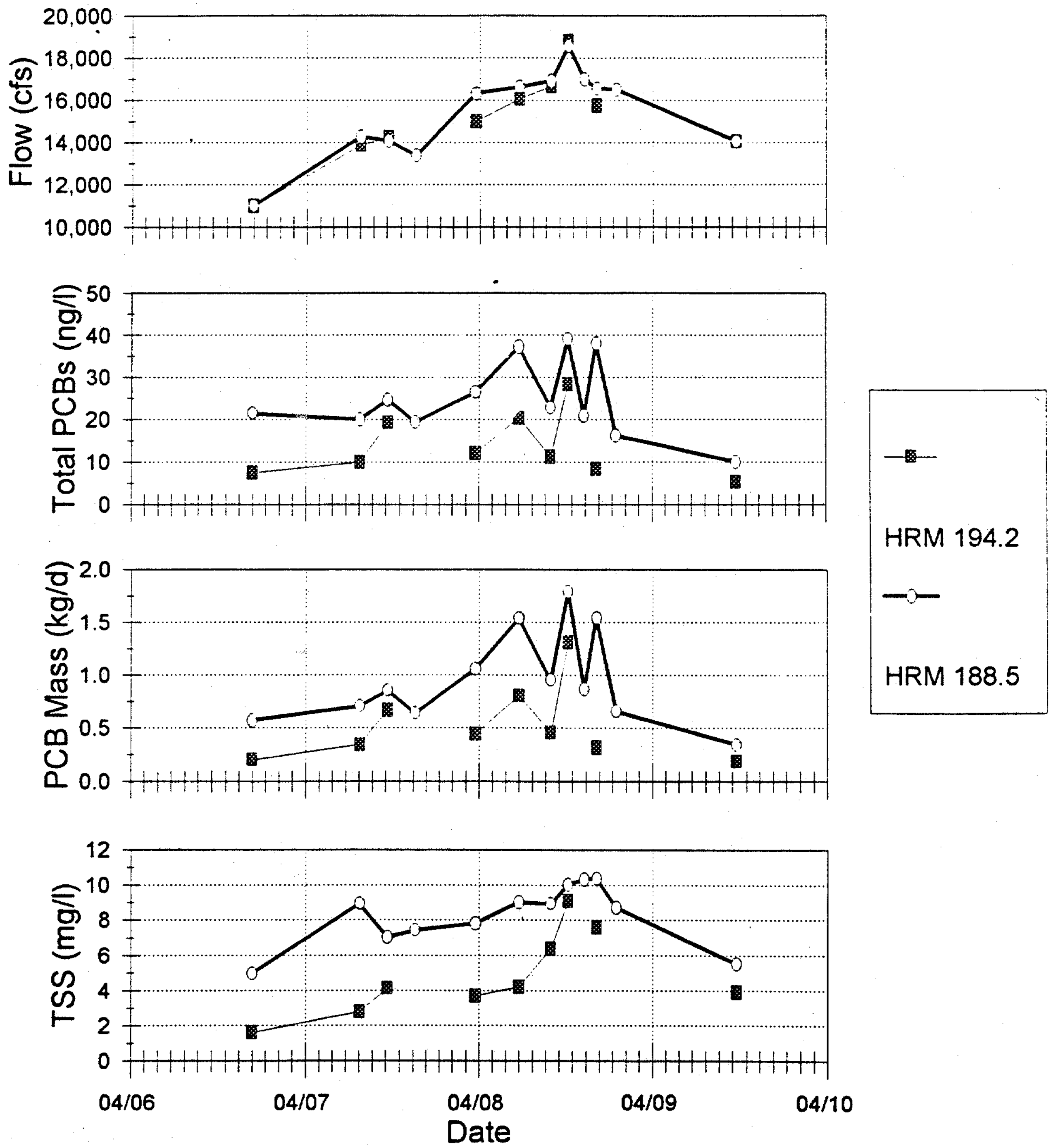
311146

Figure 3-1
General Electric Company - Hudson River Project
Total PCB Concentration at HRM 194.2: April 6 through April 9, 1997
and Instantaneous Discharge at Fort Edward Gaging Station



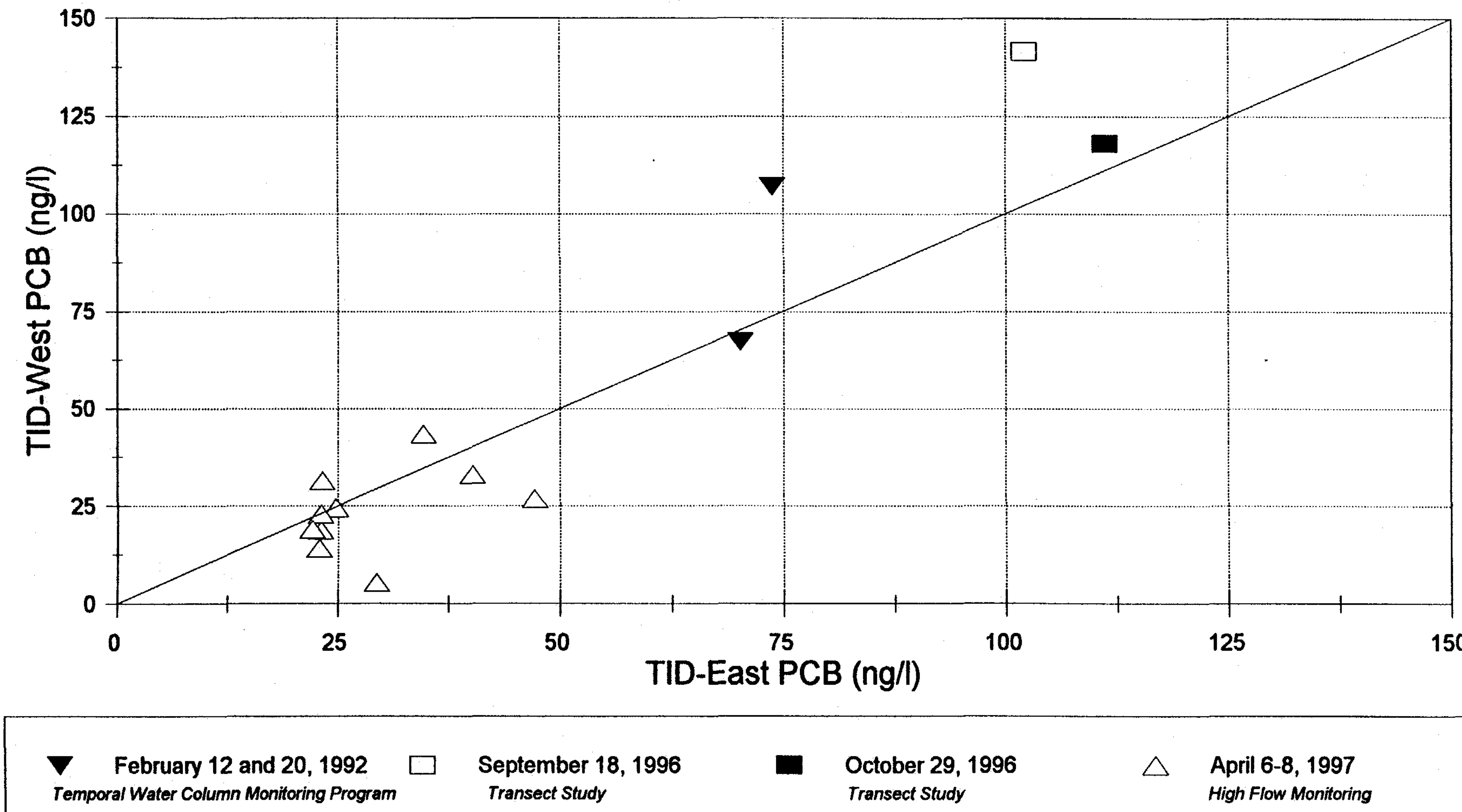
Note: River discharge data are provisional, real-time readings obtained through the USGS (3/31/99) and are considered "work" rather than "final" data; there is no provision to indicate the degree of refinement to which these work data have been processed. Total PCB concentrations by Method NEA608CAP analysis represent the flow-weighted average of separate west (65%) and east (35%) channel samples. Round 3 composite was collected for the routine Post-Construction Remnant Deposit Monitoring Program. The composite, and east and west channel samples for Round 3, were split samples. Round 9 was not sampled at HRM 194.2. PCB data has been adjusted for analytical biases (O'Brien & Gere 1997c).

Figure 3-2
General Electric Company - Hudson River Project
High Flow Monitoring Results: April 6-9, 1997



Note: Flow is presented as instantaneous readings from the USGS Ft. Edward gaging station (3/31/99). Flows are provisional "work" data with no provision to indicate the degree of refinement to which these data have been processed. Total PCBs were adjusted for analytical biases (O'Brien & Gere 1997c). Total PCBs, TSS, and estimated PCB mass are presented as flow-weighted averages of west and east channels for both stations. Flows are weighted: HRM 194.2E = 35%; HRM 194.2W = 65%; HRM 188.5E = 61%; HRM 188.5W = 39%. For sampling rounds 4 and 5, sampling at HRM 194.2 was from the east channel only. These data were assumed to be representative of both channels. Average sampling times for both stations were used to plot the flow, total PCB, PCB mass and TSS data.

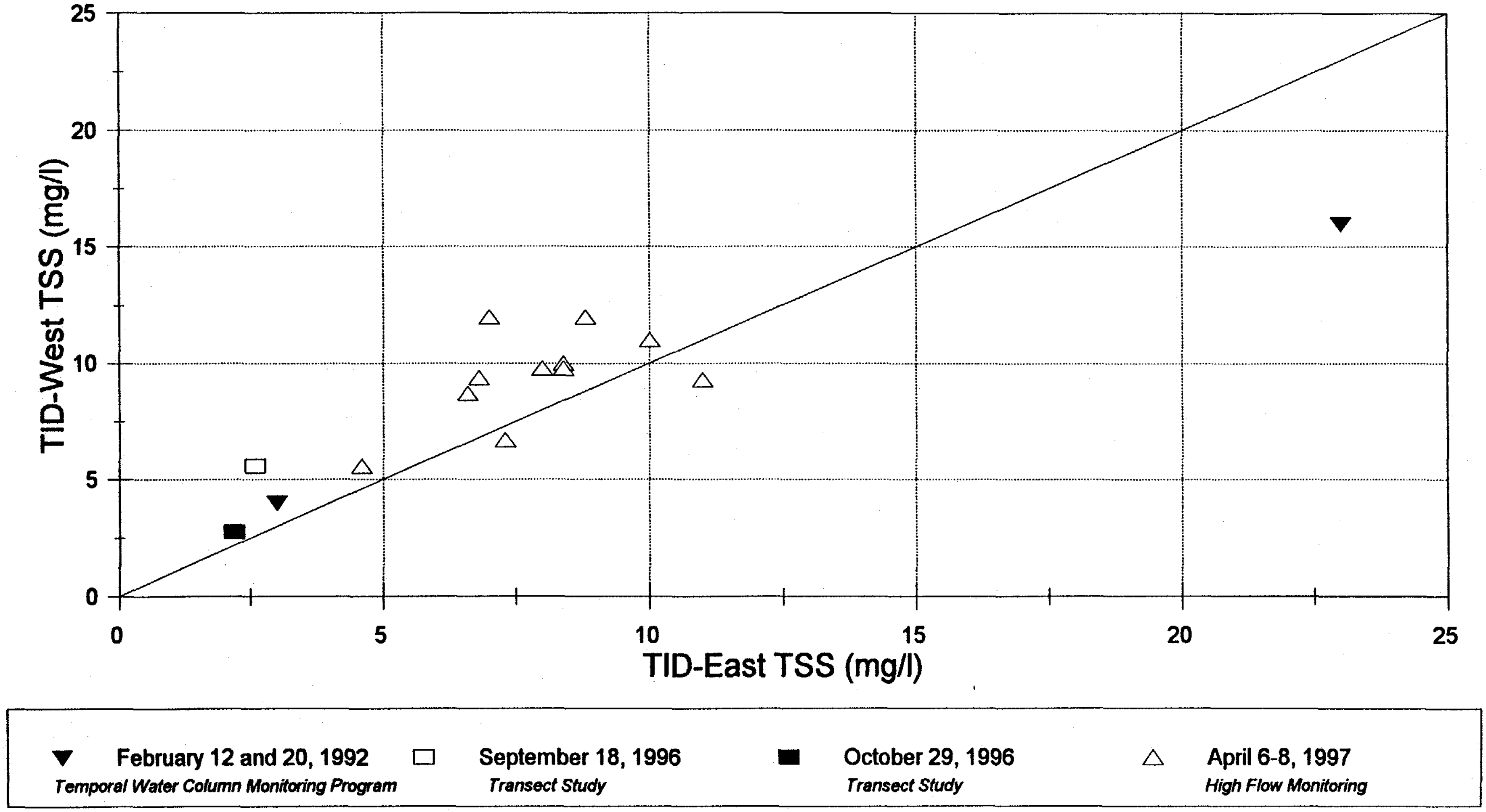
Figure 3-3
General Electric Company - Hudson River Project
Comparison of PCB Results from TID West and TID East Sampling Stations



Note: PCB analyzed by NEA Method 608CAP and adjusted for analytical biases (O'Brien & Gere 1997c). PCB data from TID-West on October 29 is an average of four samples collected at half-hourly intervals over a two-hour period.

311149

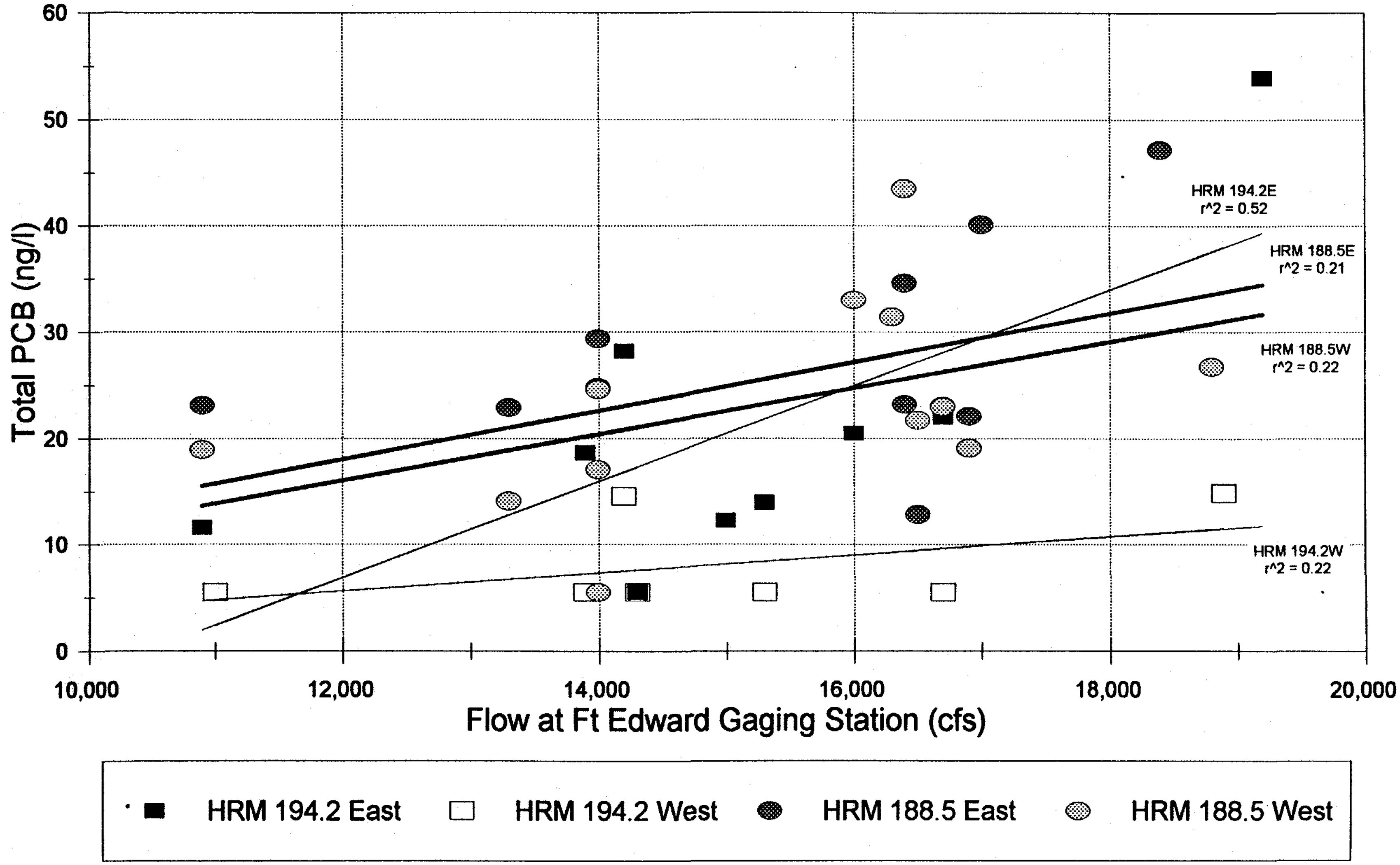
Figure 3-4
General Electric Company - Hudson River Project
Comparison of TSS Results from TID West and TID East Sampling Stations



Note: TSS analyzed by USEPA Method 160.2. TSS data from TID-West on October 29 is an average of four samples collected at half-hour intervals over a two-hour period.

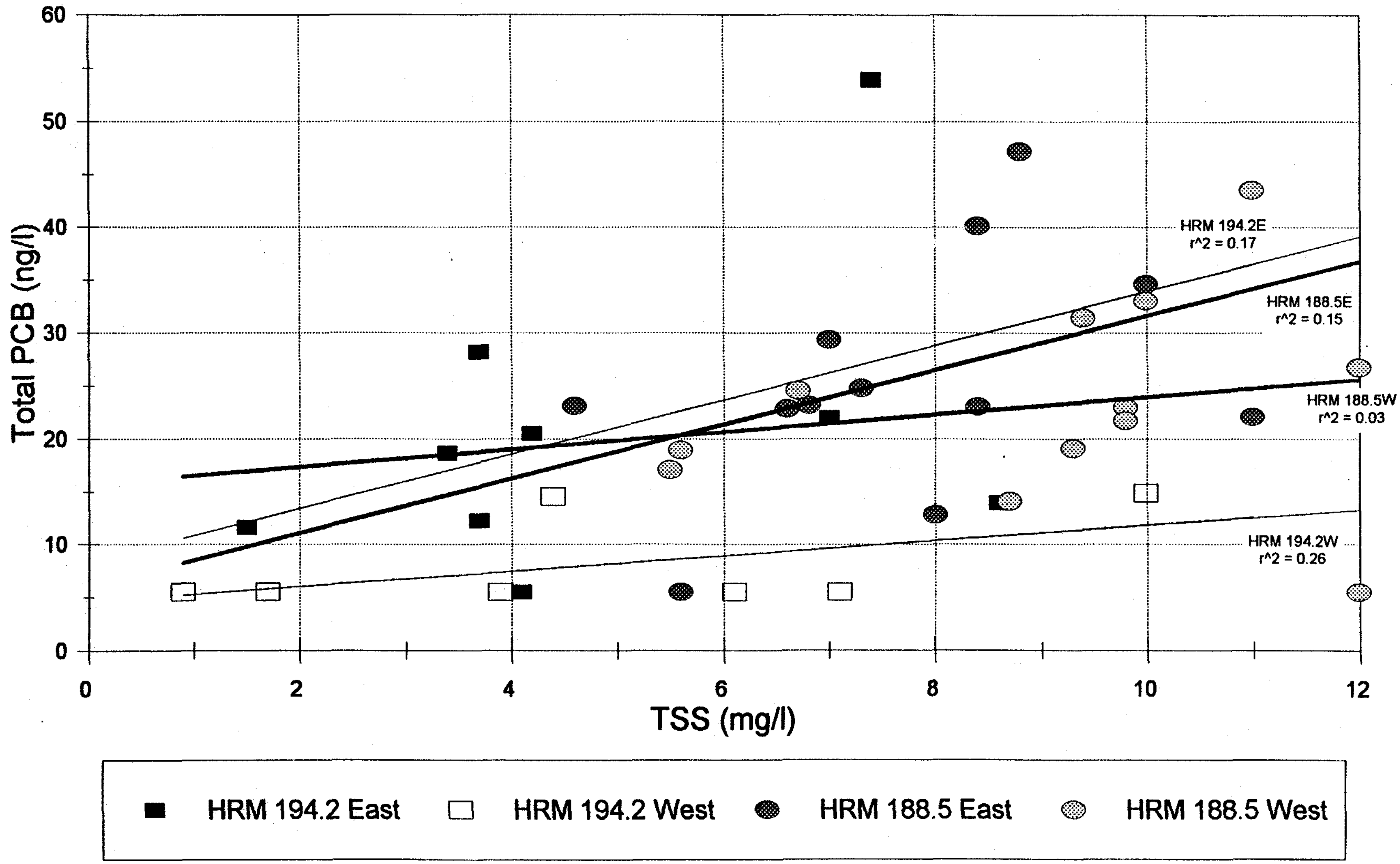
311150

Figure 3-5
General Electric Company - Hudson River Project
PCBs vs Flow: High Flow Monitoring April 6-9, 1997



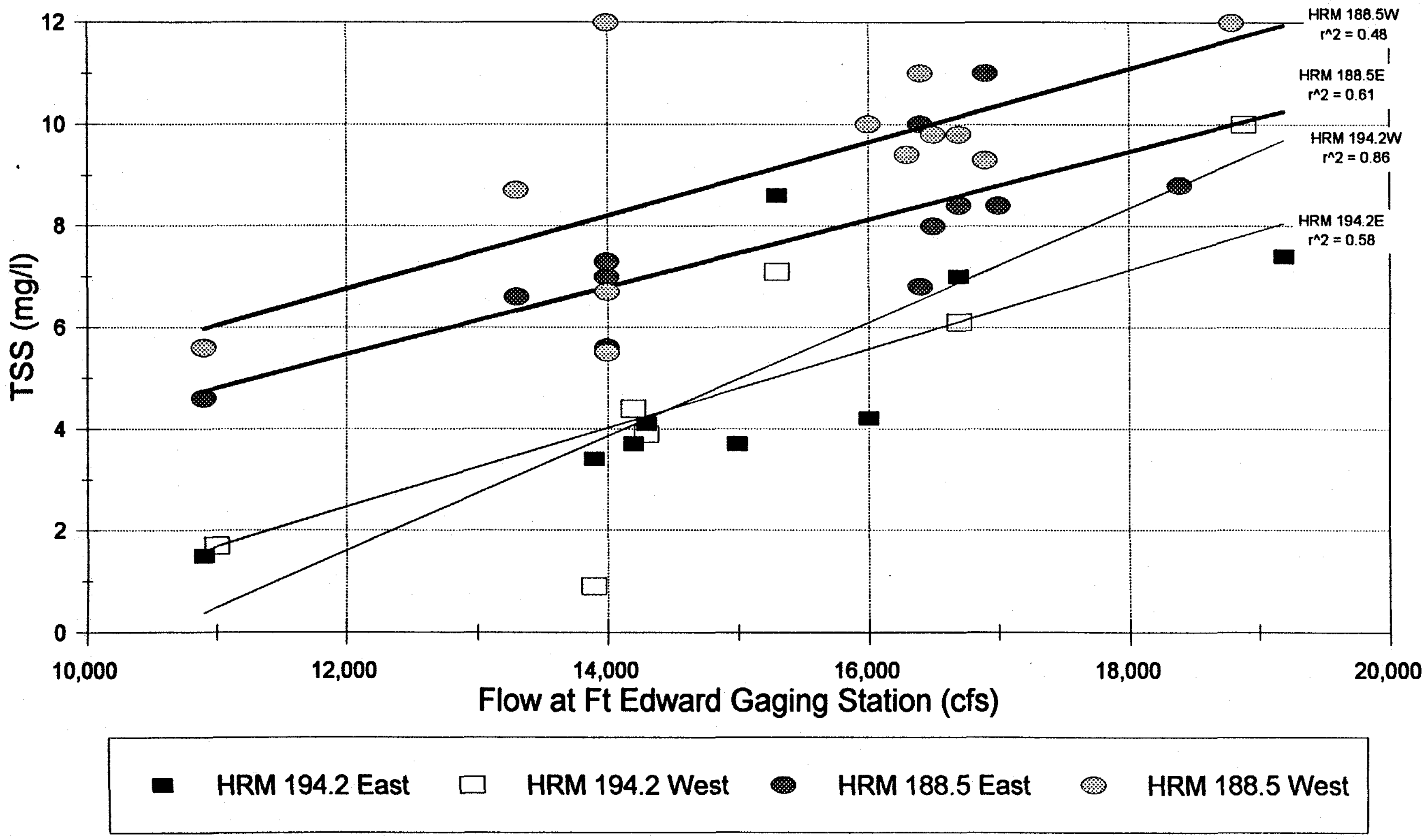
Note: Flow at the Fort Edward gaging station is 15-minute interval unit values obtained from the USGS WEB site; these data are provisional and subject to change. Total PCB data analyzed by NEA Method 608CAP and adjusted for analytical biases (O'Brien & Gere 1997c).

Figure 3-6
General Electric Company - Hudson River Project
PCBs vs TSS: High Flow Monitoring April 6-9, 1997



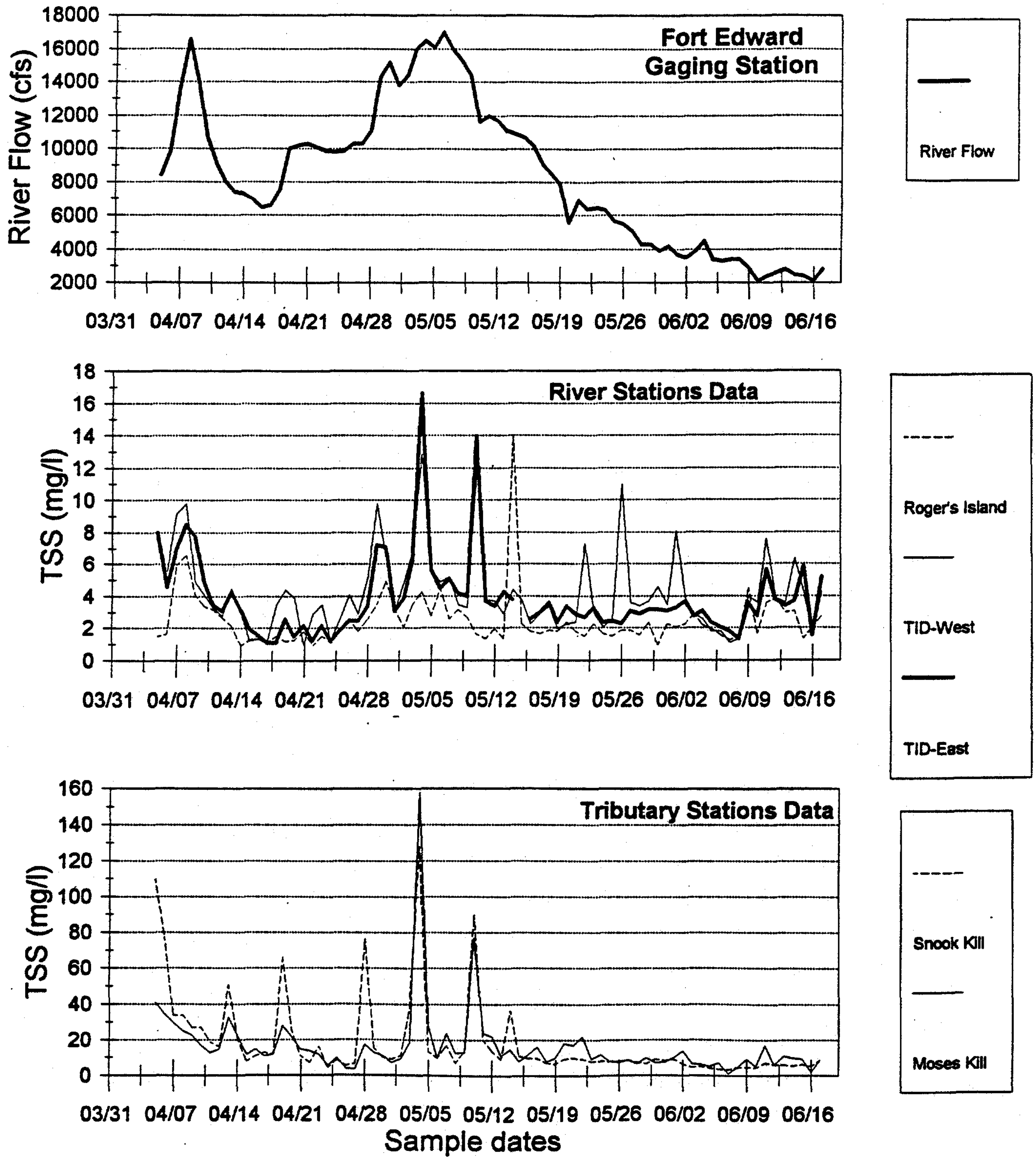
Note: Total PCB data analyzed by NEA Method 608CAP and adjusted for analytical biases (O'Brien & Gere 1997c). TSS data analyzed by USEPA Method 160.2.

Figure 3-7
General Electric Company - Hudson River Project
TSS vs Flow: High Flow Monitoring April 6-9, 1997



Note: Flow at the Fort Edward gaging station are 15-minute interval unit values obtained from the USGS WEB site; these data are provisional and subject to change. TSS data analyzed by USEPA Method 160.2.

Figure 3-8
General Electric Company - Hudson River Project
High Flow Water Column Monitoring
TSS Results from Automated Composite Samplers



Note: TSS data analyzed by USEPA Method 160.2. Data represents mean daily concentrations.

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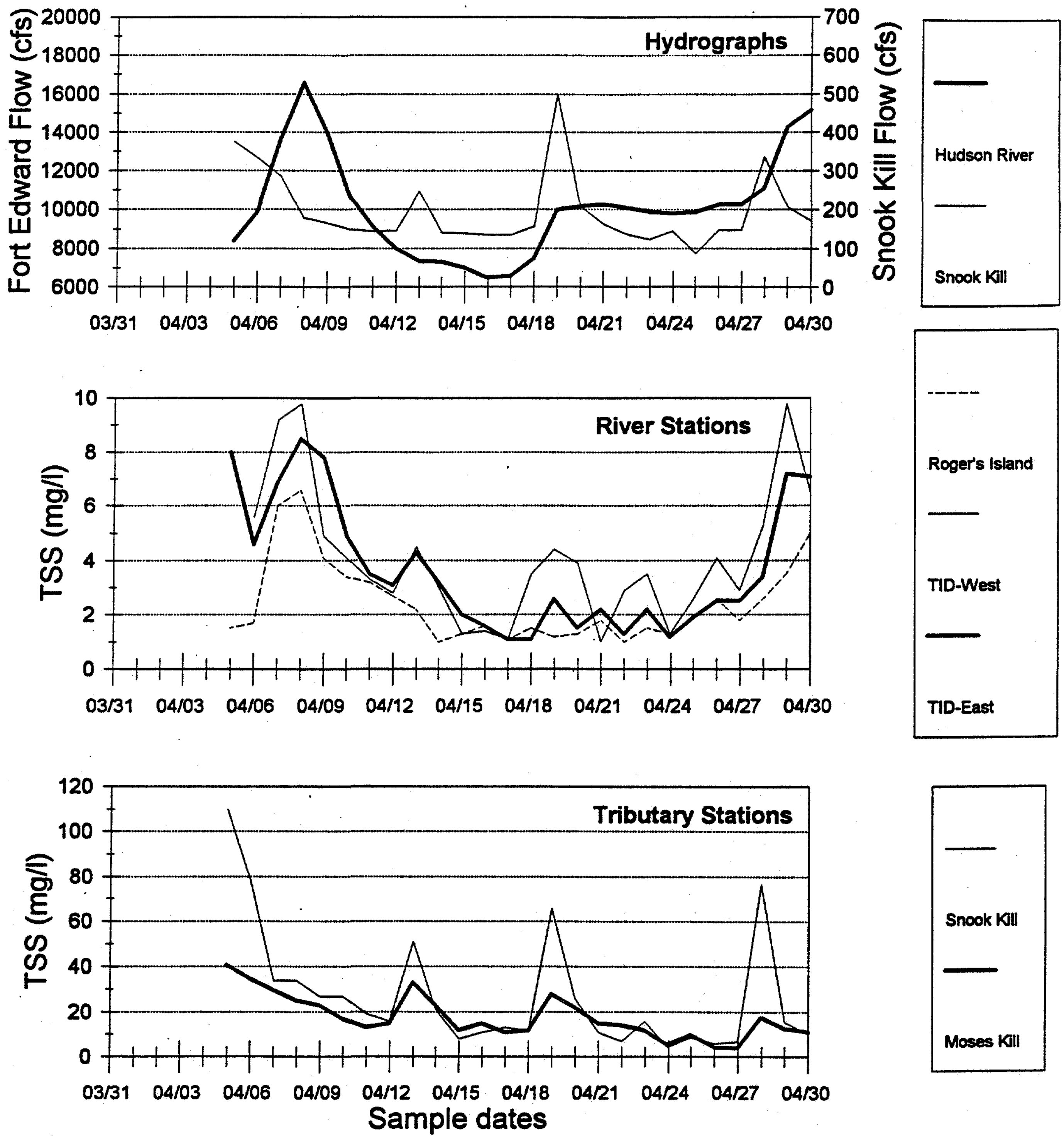
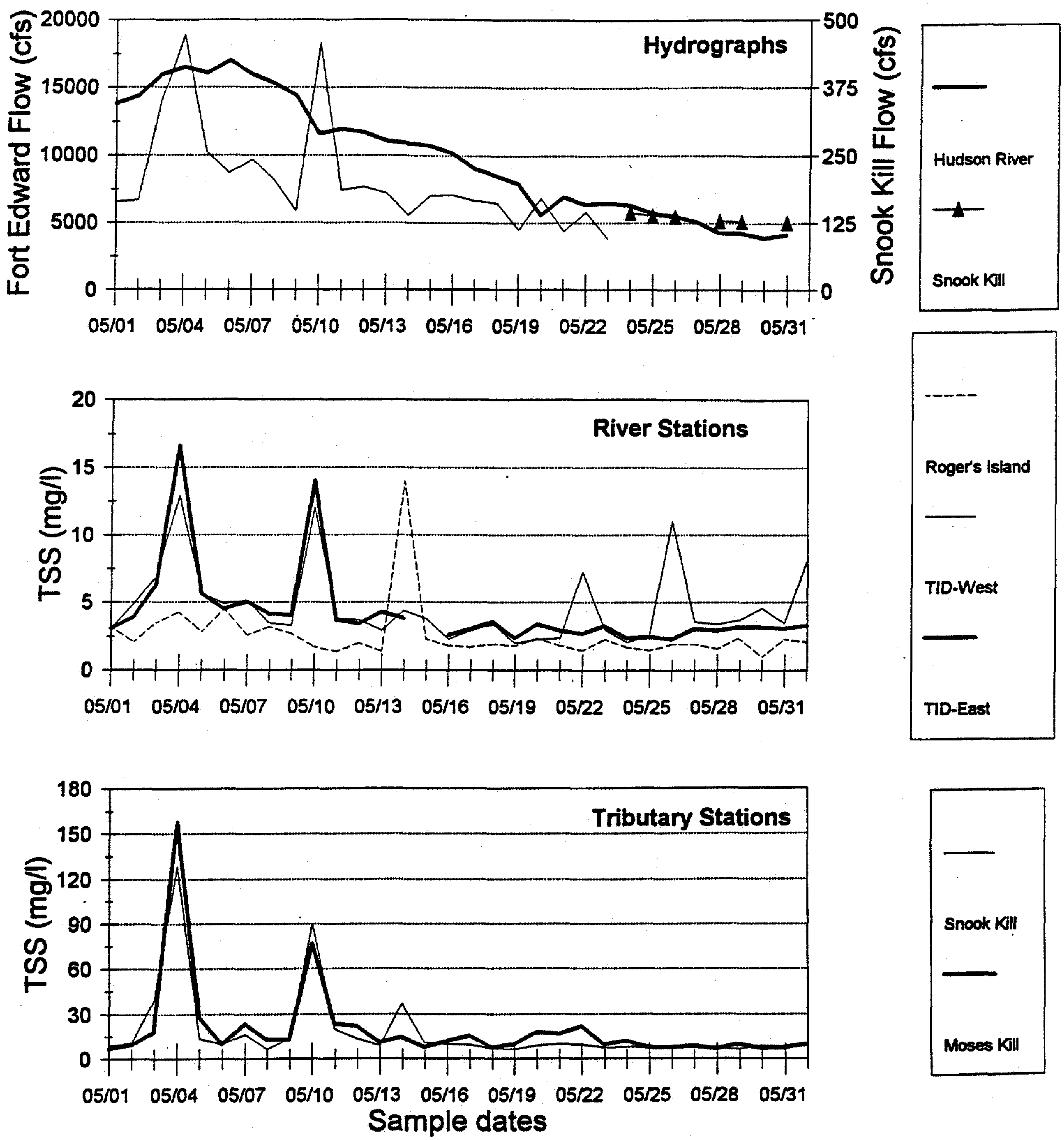
07/22/97

Figure 3-9
General Electric Company - Hudson River Project
High Flow Water Column Monitoring
Daily Mean TSS Results - April 1997



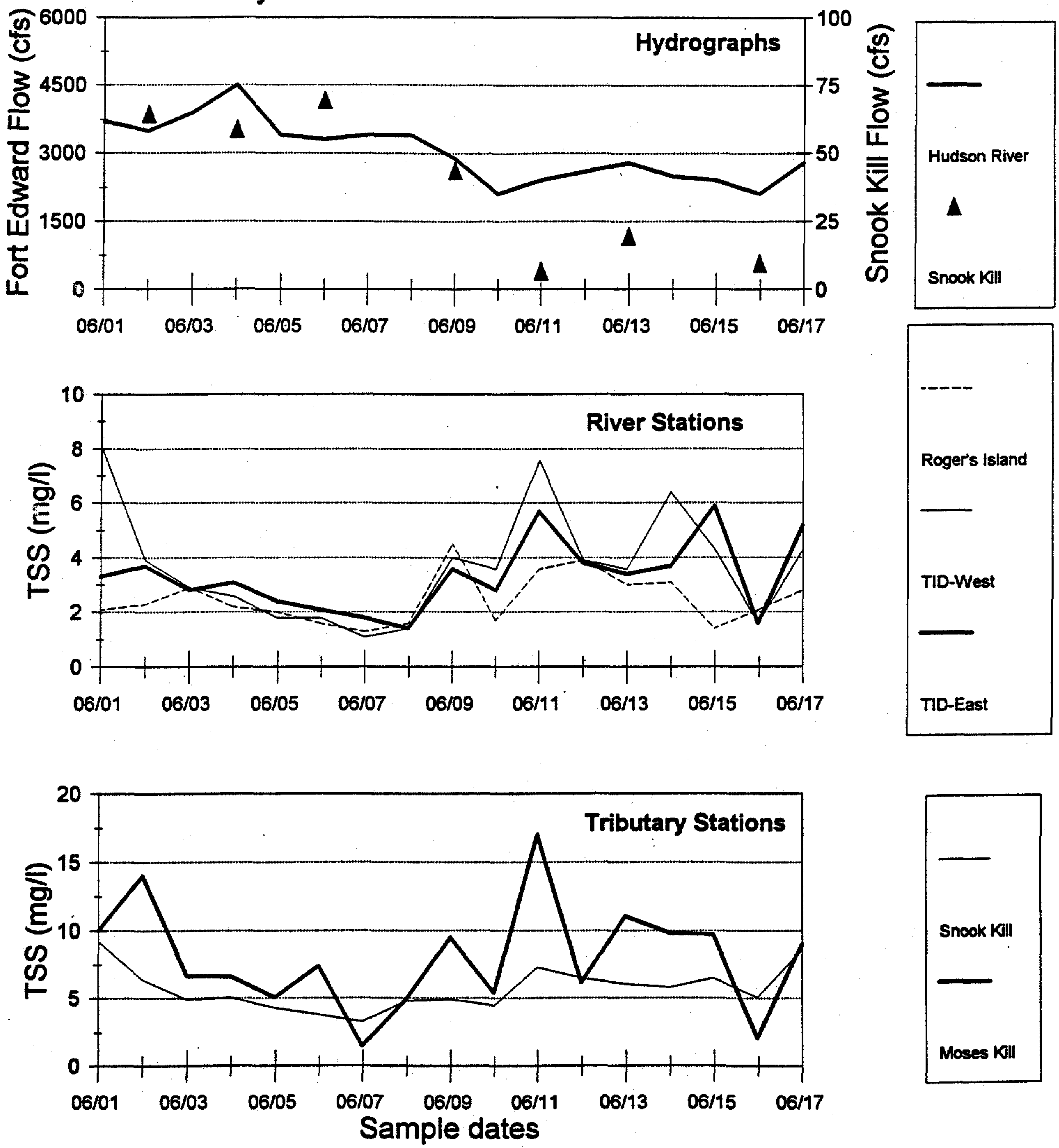
Note: TSS data analyzed by USEPA Method 160.2. Data represents mean daily concentrations.

Figure 3-10
General Electric Company - Hudson River Project
High Flow Water Column Monitoring
Daily Mean TSS Results - May 1997



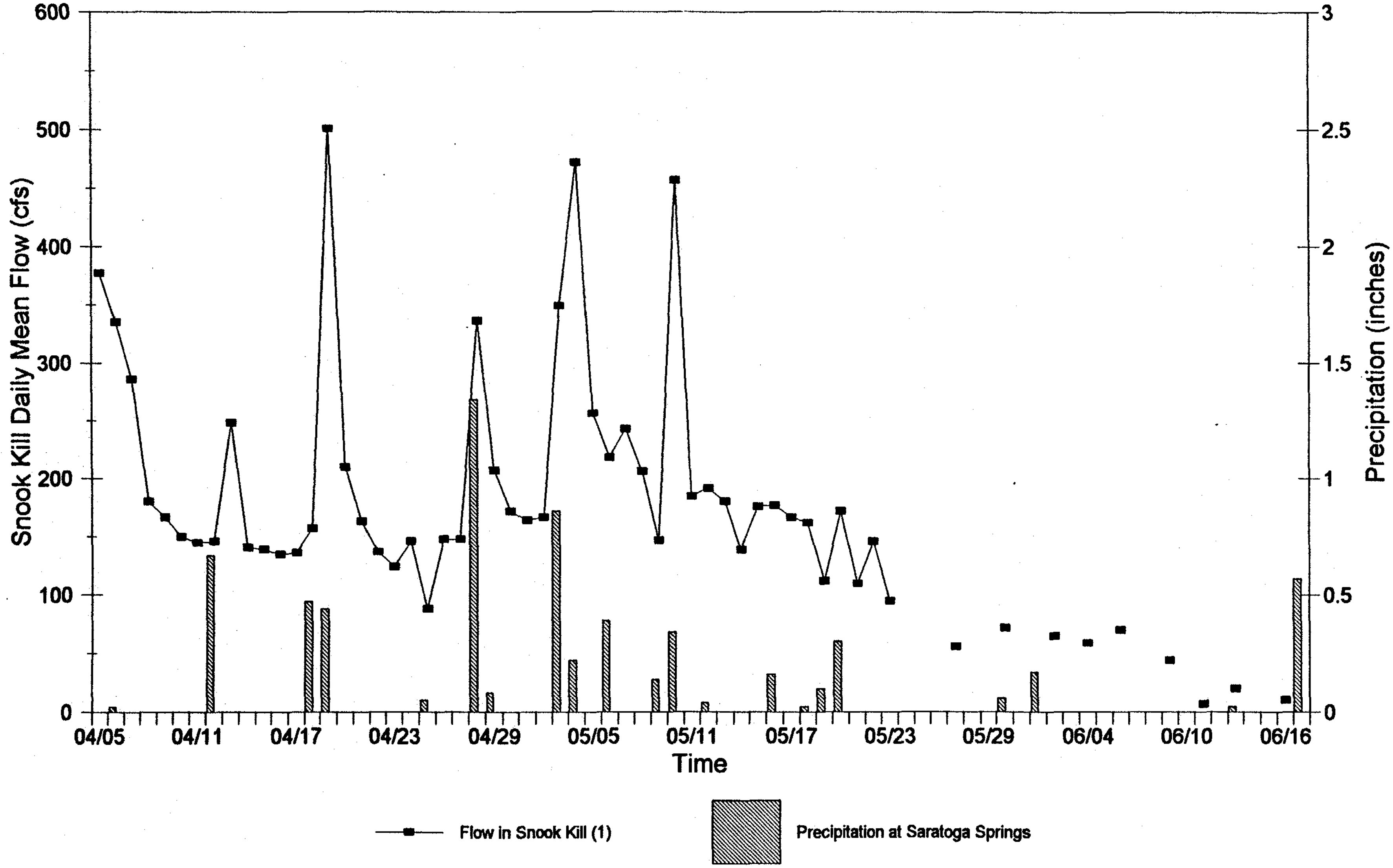
Note: TSS data analyzed by USEPA Method 160.2. Data represents mean daily concentrations. Flow on the Snook Kill after 05/23 is instantaneous flow measured on that day.

Figure 3-11
General Electric Company - Hudson River Project
High Flow Water Column Monitoring
Daily Mean TSS Results - June 1-17 1997



Note: TSS data analyzed by USEPA Method 160.2. Data represents mean daily concentrations. Flow on the Snook Kill is instantaneous flow measured at the time of sampling.

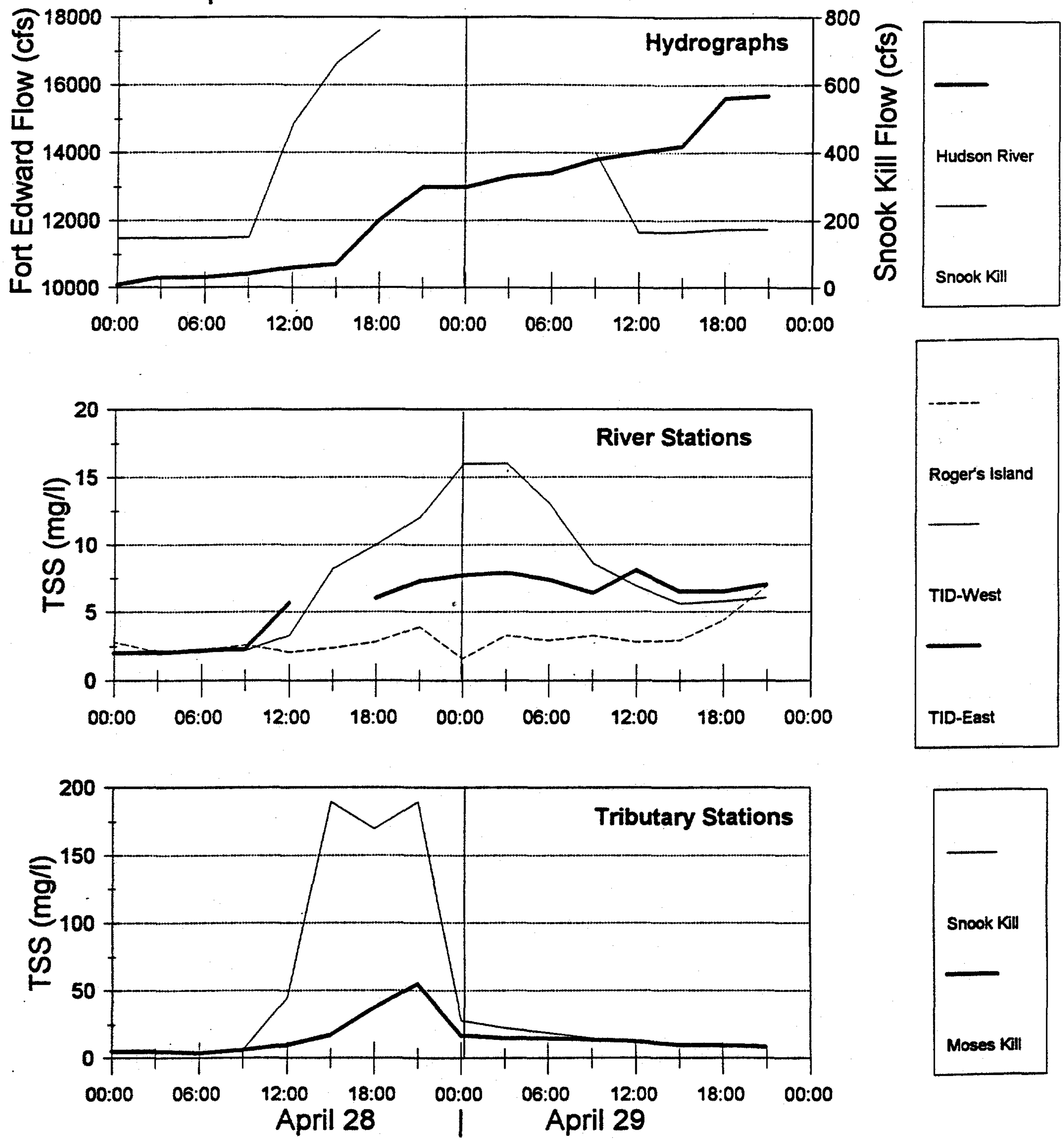
Figure 3-12
General Electric Company - Hudson River Project
Snook Kill Flow and Precipitation Data



(1) - Flows after 5/23/97 are instantaneous flows measured on that date.

311158

Figure 3-13
General Electric Company - Hudson River Project
High Flow Water Column Monitoring
April 28-29 1997 TSS Results and Flow Data



Note: TSS data analyzed by USEPA Method 160.2. Data represents mean daily concentrations. Flows are unit values recorded at the time of sampling. Missing data from the Snook Kill due to flow meter obstruction from 18:00 on 4/28 through 9:00 on 4/29.

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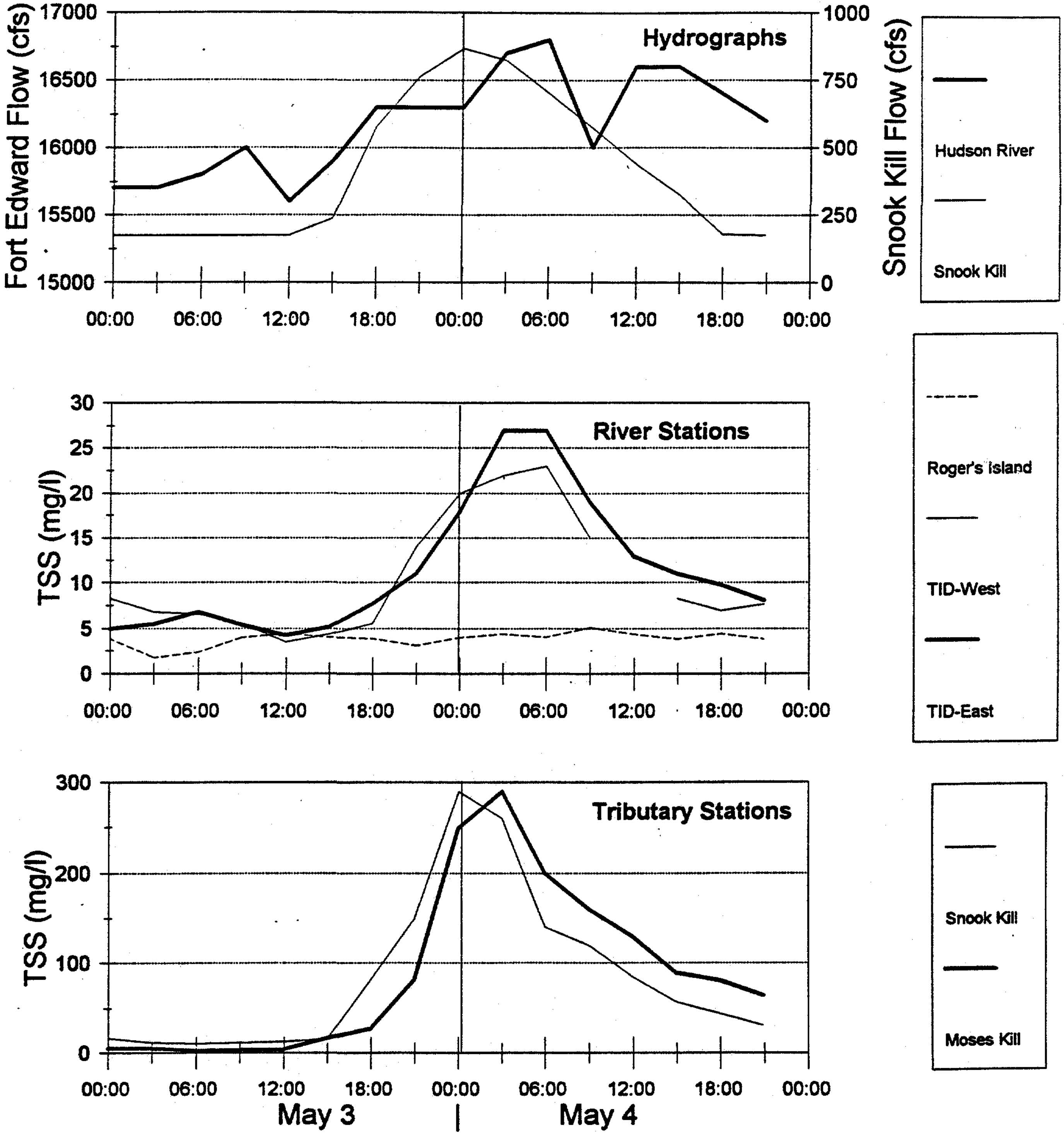
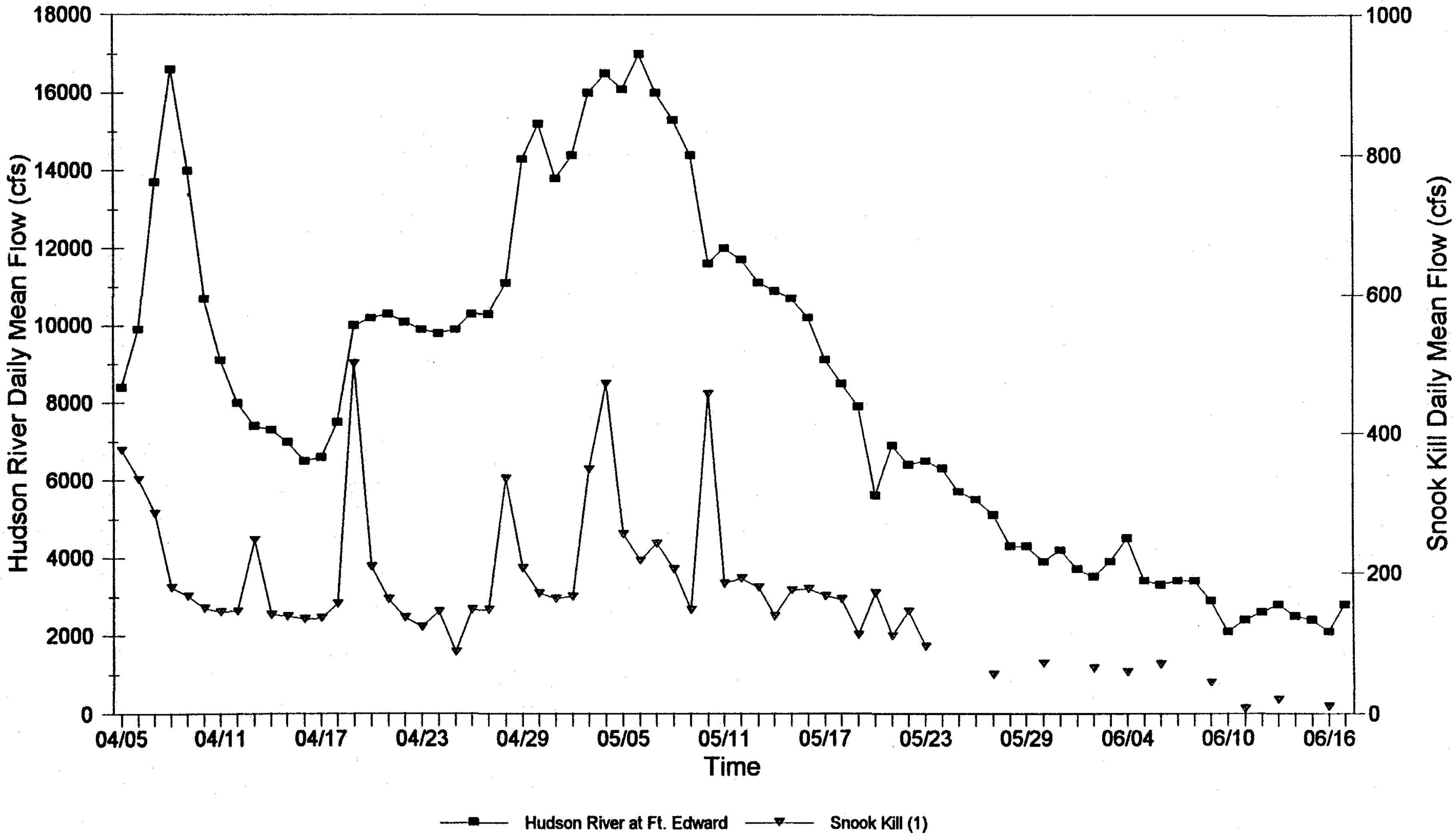
08/05/97

Figure 3-14
General Electric Company - Hudson River Project
High Flow Water Column Monitoring
May 3-4 1997 TSS Results and Flow Data



Note: TSS data analyzed by USEPA Method 160.2. Data represents mean daily concentrations. Flows are unit values recorded at the time of sampling.

Figure 3-15
General Electric Company - Hudson River Project
Hydrograph of Tributaries and River



(1) - Flows after 5/23/97 are instantaneous flows measured on that date.

O'Brien & Gere Engineers, Inc.
I:\DIV52\PROJECTS\0612226\4_N&D\HGHFLOW\TSSSUMDM.WB2

07/28/97

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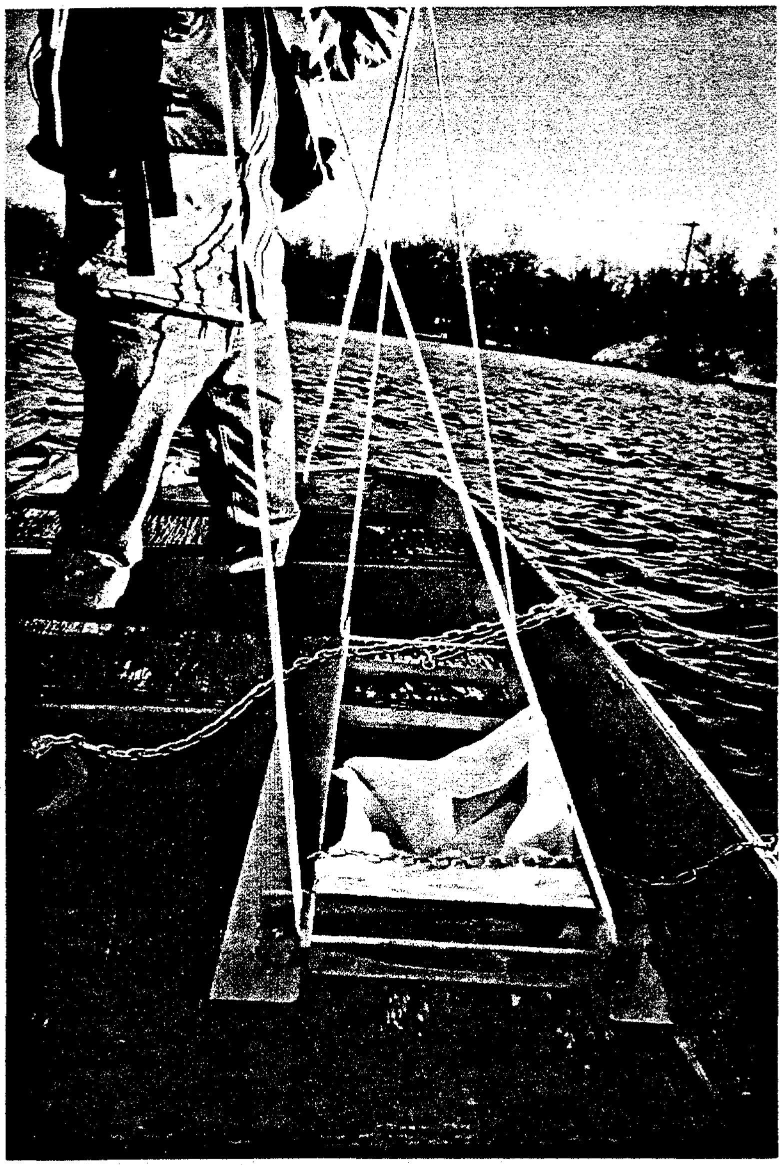
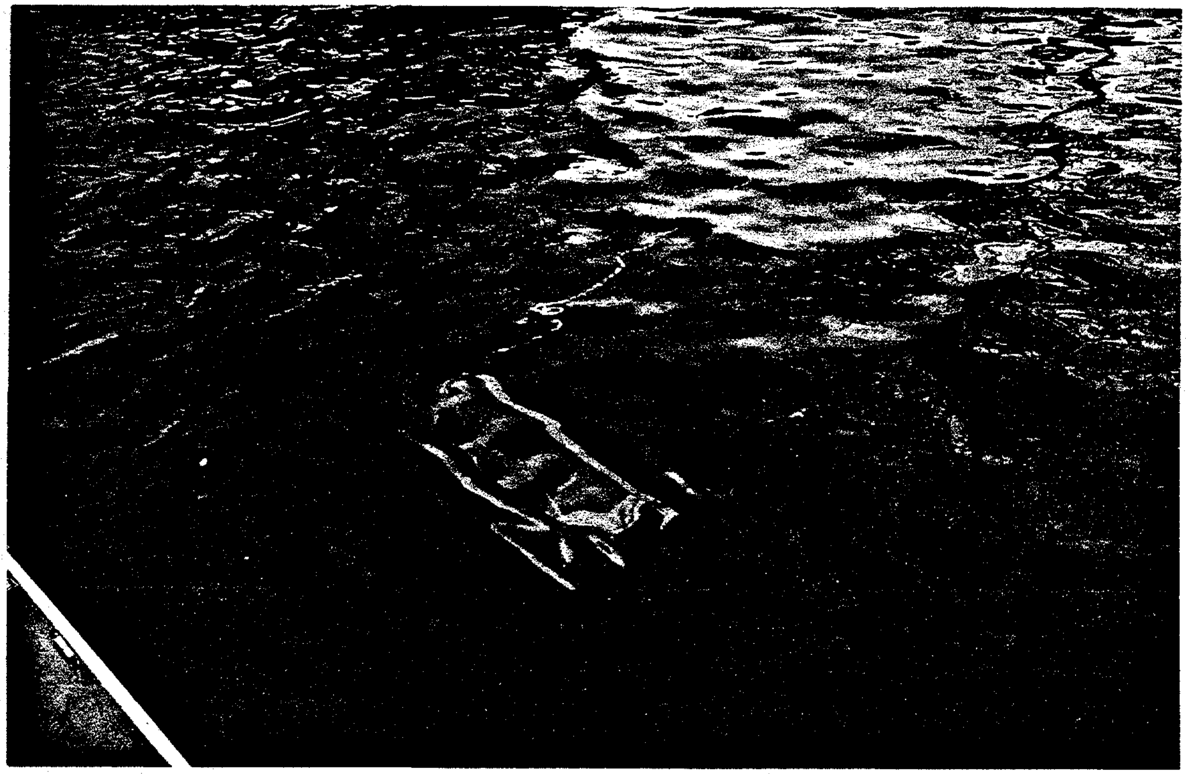
APPENDIX A

Photographs

General Electric Company - Hudson River Project
1997 High Flow Monitoring Program



Bedload sampler deployment.

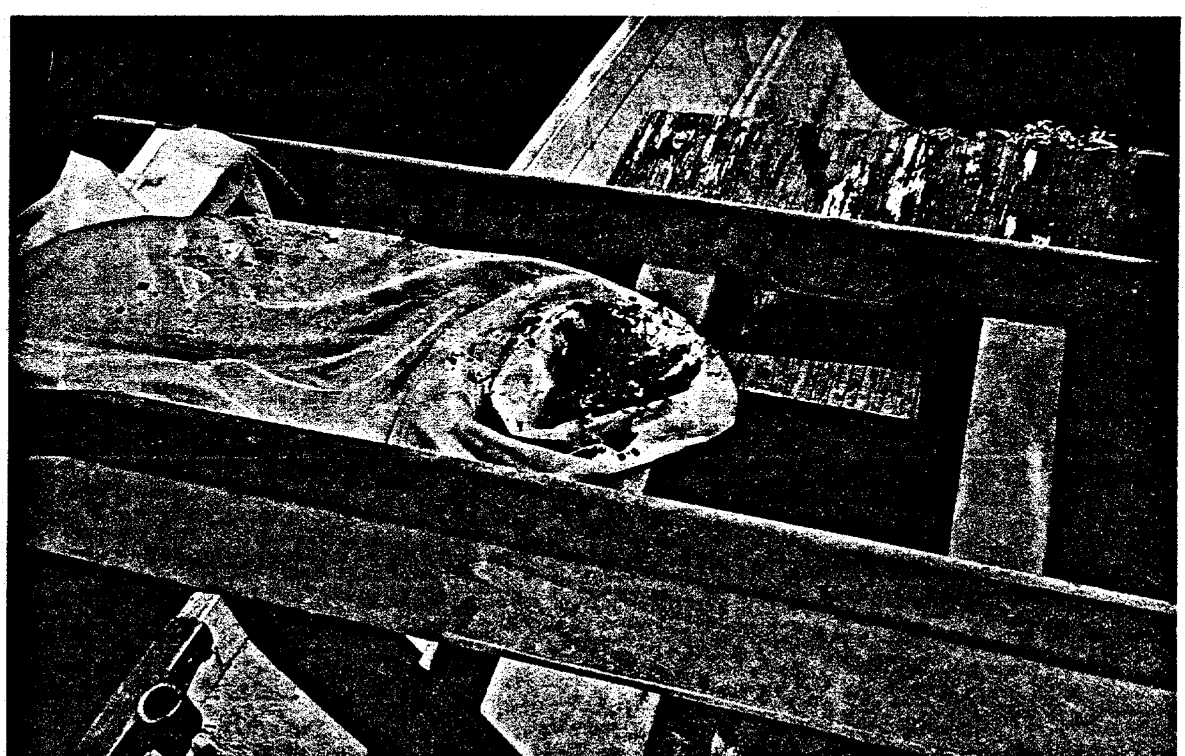


Bedload sampler deployed in approximately 4 feet of water.

Gate and sampler retrieval chains secured to trees along west channel on Rogers Island.

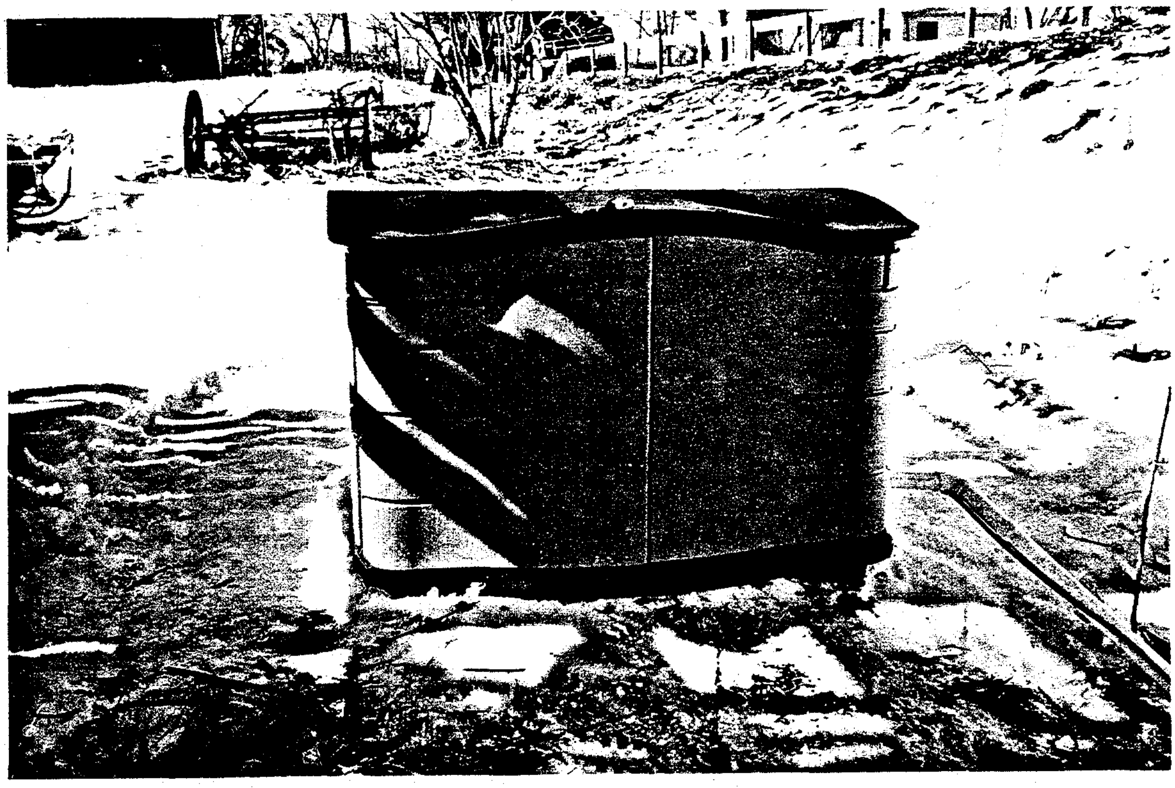
General Electric Company - Hudson River Project
1997 High Flow Monitoring Program

Gate and sampler retrieval chains secured to trees along east channel on Rogers Island.

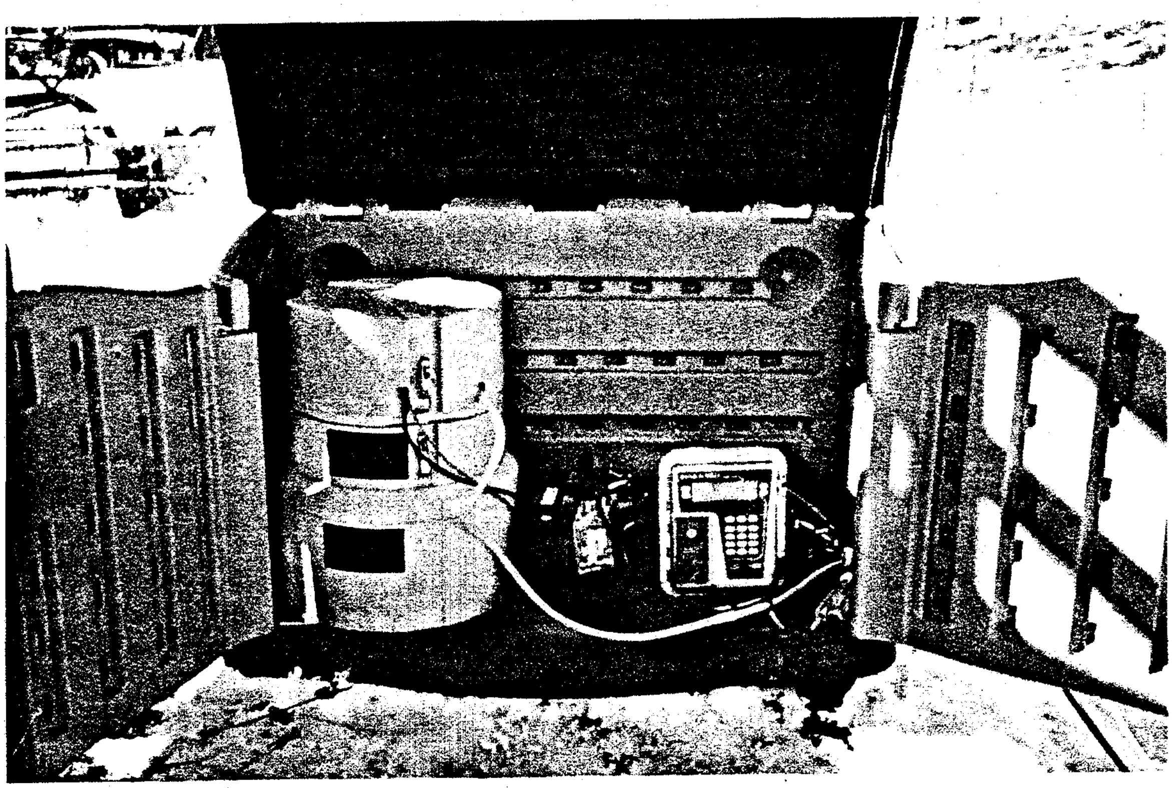


Sediment retained in filter bag after deployment.

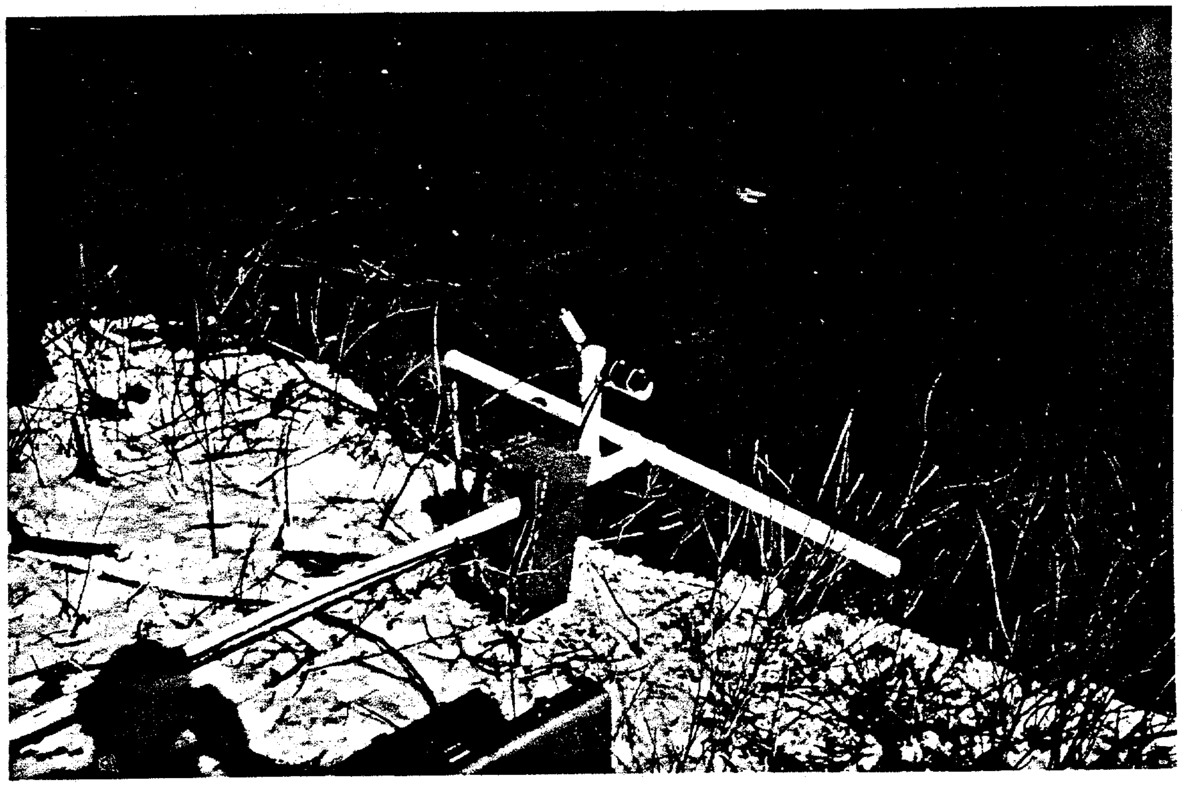
General Electric Company - Hudson River Project
1997 High Flow Monitoring Program



Storage shed for automatic samplers and flow meters.



Sigma automatic sampler and flow meter installation on Snook Kill.


Typical sampler intake tubing and velocity meter probe installation.


Sampler installation on east abutment of Thompson Island Dam.

APPENDIX B

USGS flow

UNITED STATES DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY - NEW YORK/NEW ENGLAND 07/14/97

STATION NUMBER 01327750 HUDSON RIVER AT FORT EDWARD NY STREAM SOURCE AGENCY USGS
LATITUDE 431610 LONGITUDE 0733547 DRAINAGE AREA 2817 DATUM 100.00 STATE 36 COUNTY 115
PROVISIONAL DATA SUBJECT TO REVISION

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2840	4170	7030	8330	6430	9810	10900	14100	3930	---	---	---
2	3560	2770	16700	8030	6830	8910	7820	14800	3730	---	---	---
3	3440	3370	19000	8640	6400	9300	7370	16300	4140	---	---	---
4	3140	3520	14200	8430	6290	9500	7310	16800	4700	---	---	---
5	3330	3120	15400	8420	6380	8970	8740	16500	3540	---	---	---
6	2770	3160	14300	8750	6290	8760	10200	17300	3510	---	---	---
7	3090	3180	12800	9370	6490	8130	14100	16400	3590	---	---	---
8	3040	2900	12000	8470	6400	8330	16900	15600	3640	---	---	---
9	2980	7500	9870	8200	6020	8090	14300	14800	3050	---	---	---
10	3350	21700	5910	8190	5780	7760	11100	11900	---	---	---	---
11	3240	16500	5170	7810	6120	7910	9380	12300	---	---	---	---
12	3360	11300	8590	7930	6110	7600	8330	12000	---	---	---	---
13	3350	8680	9120	7830	6090	7470	7700	11400	---	---	---	---
14	3070	6590	9220	7760	6140	6690	7590	11200	---	---	---	---
15	3560	9060	10200	7530	5920	6780	7330	11000	---	---	---	---
16	3260	8950	9890	7440	5960	7210	6760	10500	---	---	---	---
17	3520	8350	9400	7790	6170	6820	6920	9380	---	---	---	---
18	2930	7810	10100	7650	6020	6910	7800	8830	---	---	---	---
19	3630	7430	10200	7540	6240	6720	10400	8210	---	---	---	---
20	3360	7580	11000	7950	6550	5850	10500	5890	---	---	---	---
21	3260	7840	10500	6560	6770	5560	10600	7210	---	---	---	---
22	3880	7600	9560	6540	7200	5750	10400	6710	---	---	---	---
23	4120	7360	9510	6830	8620	5520	10200	6720	---	---	---	---
24	4410	7380	9160	8020	10100	5460	10200	6570	---	---	---	---
25	4660	6880	10800	6730	8780	5450	10200	5960	---	---	---	---
26	4120	6710	10800	6570	8080	5470	10600	5760	---	---	---	---
27	4060	6610	10600	7660	7860	5830	10600	5350	---	---	---	---
28	4110	6780	10200	7360	8530	6110	11500	4540	---	---	---	---
29	3000	6820	9670	7210	---	6960	14700	4500	---	---	---	---
30	2930	6560	7290	7740	---	8980	15500	4160	---	---	---	---
31	3520	---	8620	6520	---	11800	---	4460	---	---	---	---
TOTAL	106890	218180	326810	239800	190570	230410	305950	317150	---	---	---	---
MEAN	3448	7273	10540	7735	6806	7433	10200	10230	---	---	---	---
MAX	4660	21700	19000	9370	10100	11800	16900	17300	---	---	---	---
MIN	2770	2770	5170	6520	5780	5450	6760	4160	---	---	---	---

CAL YR 1996 TOTAL 2495020 MEAN 6817 MAX 26000 MIN 2030

APPENDIX C

Precipitation data

Northeast Regional Climate Center Monthly Climate Data Reports

CLIMATE SUMMARY FOR BATTENVILLE, NY APR 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	***	***	***	***	***	***	***	0.82	0.10	3.0	3
2	***	***	***	***	***	***	***	0.00	0.20	0.0	0
3	***	***	***	***	***	***	***	0.00	0.30	0.0	0
4	***	***	***	***	***	***	***	0.00	0.40	0.0	0
5	***	***	***	***	***	***	***	0.00	0.50	0.0	0
6	***	***	***	***	***	***	***	0.10	0.60	0.0	0
7	***	***	***	***	***	***	***	0.00	0.70	0.0	0
8	***	***	***	***	***	***	***	0.00	0.81	0.0	0
9	***	***	***	***	***	***	***	Tr	0.91	0.0	0
10	***	***	***	***	***	***	***	0.00	1.01	0.0	0
11	***	***	***	***	***	***	***	0.00	1.12	0.0	0
12	***	***	***	***	***	***	***	0.00	1.22	0.0	0
13	***	***	***	***	***	***	***	0.63	1.33	0.0	0
14	***	***	***	***	***	***	***	0.00	1.43	0.0	0
15	***	***	***	***	***	***	***	0.00	1.54	0.0	0
16	***	***	***	***	***	***	***	0.00	1.64	0.0	0
17	***	***	***	***	***	***	***	0.00	1.75	0.0	0
18	***	***	***	***	***	***	***	0.11	1.86	0.0	0
19	***	***	***	***	***	***	***	0.63	1.96	1.0	1
20	***	***	***	***	***	***	***	0.00	2.07	0.0	0
21	***	***	***	***	***	***	***	0.00	2.18	0.0	0
22	***	***	***	***	***	***	***	0.00	2.29	0.0	0
23	***	***	***	***	***	***	***	0.00	2.40	0.0	0
24	***	***	***	***	***	***	***	0.00	2.51	0.0	0
25	***	***	***	***	***	***	***	0.00	2.61	0.0	0
26	***	***	***	***	***	***	***	0.00	2.72	0.0	0
27	***	***	***	***	***	***	***	0.00	2.84	0.0	0
28	***	***	***	***	***	***	***	0.65	2.95	0.0	0
29	***	***	***	***	***	***	***	0.49	3.06	0.0	0
30	***	***	***	***	***	***	***	0.00	3.17	0.0	0
SUMS	0	0	0	0	0	0	0	3.43	3.17	4.0	
AVGS	********************										0.1
NORMAL	****	****	****		0	0					

CLIMATE SUMMARY FOR BATTENVILLE, NY MAY 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH	
1	77	55	66	***	0	1	16	0.00	0.11	0.0	0	Prelim
2	70	40	55	***	10	0	5	0.21	0.23	0.0	0	Prelim
3	63	37	50	***	15	0	0	0.14	0.34	0.0	0	Prelim
4	***	***	***	***	***	***	***	*****	0.46	****	***	
5	55	26	41	***	24	0	0	0.00	0.57	0.0	0	Prelim
6	***	***	***	***	***	***	***	*****	0.69	****	***	
7	67	37	52	***	13	0	2	0.40	0.80	0.0	0	Prelim
8	52	26	39	***	26	0	0	0.00	0.92	0.0	0	Prelim
9	***	***	***	***	***	***	***	*****	1.04	****	***	
10	62	41	52	***	13	0	2	0.67	1.16	0.0	0	Prelim
11	58	37	48	***	17	0	0	0.07	1.28	0.0	0	Prelim
12	67	42	55	***	10	0	5	Tr	1.40	0.0	0	Prelim
13	76	43	60	***	5	0	10	0.06	1.53	0.0	0	Prelim
14	***	***	***	***	***	***	***	*****	1.65	****	***	
15	***	***	***	***	***	***	***	*****	1.77	****	***	
16	***	***	***	***	***	***	***	*****	1.90	****	***	
17	***	***	***	***	***	***	***	*****	2.03	****	***	
18	52	30	41	***	24	0	0	0.05	2.16	0.0	0	Prelim
19	66	46	56	***	9	0	6	0.03	2.28	0.0	0	Prelim
20	60	49	55	***	10	0	5	0.30	2.41	0.0	0	Prelim
21	63	33	48	***	17	0	0	0.00	2.54	0.0	0	Prelim
22	***	***	***	***	***	***	***	*****	2.68	****	***	
23	***	***	***	***	***	***	***	*****	2.81	****	***	
24	***	***	***	***	***	***	***	*****	2.94	****	***	
25	***	***	***	***	***	***	***	*****	3.07	****	***	
26	***	***	***	***	***	***	***	*****	3.21	****	***	
27	***	***	***	***	***	***	***	*****	3.34	****	***	
28	***	***	***	***	***	***	***	*****	3.48	****	***	
29	***	***	***	***	***	***	***	*****	3.62	****	***	
30	***	***	***	***	***	***	***	*****	3.75	****	***	
31	***	***	***	***	***	***	***	*****	3.89	****	***	
SUMS	888	542	715	****	193	1	51	1.93	2.54	0.0		
AVGS	63.4	38.7	51.1	*****							0.0	
NORMAL	****	****	****		****	****						

All data for this location cover the 24 hour period ending at 7 Am on the date indicated.

Normals are for the period 1961-90.

Each line on the printout contains climate data for one day. The columns of data are as follows:

DAY	day of the month
MAX	maximum temperature (degrees Fahrenheit)
MIN	minimum temperature (degrees Fahrenheit)
AVG	average temperature (average of MAX and MIN)
DPT	departure of the average temperature from normal
HDD,CDD,GDD	heating, cooling, and growing degree days (base 65, 65, and 50)
PREC	precipitation total (rain and/or liquid equivalent of snow - inches)
AVGPRE . . .	normal month-to-date precip
SNOW	daily snowfall (inches)
DEPTH	depth of snow on the ground at the time of observation

Special values:

Tr	indicates a "trace" (less than 0.01 inch of PREC; less than 0.1 inch of SNOW; less than 1 inch for DEPTH)
***	indicates missing data

THESE DATA ARE PROVIDED BY THE NORTHEAST REGIONAL CLIMATE CENTER

Northeast Regional Climate Center Monthly Climate Data Reports

CLIMATE SUMMARY FOR BATTENVILLE, NY MAY 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	***	***	***	***	***	***	***	0.00	0.11	0.0	0
2	***	***	***	***	***	***	***	0.21	0.23	0.0	0
3	***	***	***	***	***	***	***	0.14	0.34	0.0	0
4	***	***	***	***	***	***	***	1.10	0.46	0.0	0
5	***	***	***	***	***	***	***	0.00	0.57	0.0	0
6	***	***	***	***	***	***	***	0.10	0.69	0.0	0
7	***	***	***	***	***	***	***	0.40	0.80	0.0	0
8	***	***	***	***	***	***	***	0.00	0.92	0.0	0
9	***	***	***	***	***	***	***	0.00	1.04	0.0	0
10	***	***	***	***	***	***	***	0.67	1.16	0.0	0
11	***	***	***	***	***	***	***	0.07	1.28	0.0	0
12	***	***	***	***	***	***	***	Tr	1.40	0.0	0
13	***	***	***	***	***	***	***	0.06	1.53	0.0	0
14	***	***	***	***	***	***	***	0.00	1.65	0.0	0
15	***	***	***	***	***	***	***	0.00	1.77	0.0	0
16	***	***	***	***	***	***	***	0.08	1.90	0.0	0
17	***	***	***	***	***	***	***	0.04	2.03	0.0	0
18	***	***	***	***	***	***	***	0.05	2.16	0.0	0
19	***	***	***	***	***	***	***	0.03	2.28	0.0	0
20	***	***	***	***	***	***	***	0.30	2.41	0.0	0
21	***	***	***	***	***	***	***	0.00	2.54	0.0	0
22	***	***	***	***	***	***	***	0.08	2.68	0.0	0
23	***	***	***	***	***	***	***	0.00	2.81	0.0	0
24	***	***	***	***	***	***	***	0.02	2.94	0.0	0
25	***	***	***	***	***	***	***	0.00	3.07	0.0	0
26	***	***	***	***	***	***	***	0.00	3.21	0.0	0
27	***	***	***	***	***	***	***	0.00	3.34	0.0	0
28	***	***	***	***	***	***	***	0.00	3.48	0.0	0
29	***	***	***	***	***	***	***	0.00	3.62	0.0	0
30	***	***	***	***	***	***	***	0.00	3.75	0.0	0
31	***	***	***	***	***	***	***	0.19	3.89	0.0	0
SUMS	0	0	0	0	0	0	0	3.54	3.89	0.0	
AVGS	********************										0.0
NORMAL	****	****	****		0	0					

CLIMATE SUMMARY FOR BATTENVILLE, NY JUN 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	***	***	***	***	***	***	***	0.26	0.14	0.0	0
2	***	***	***	***	***	***	***	0.00	0.27	0.0	0
3	***	***	***	***	***	***	***	0.02	0.41	0.0	0
4	***	***	***	***	***	***	***	0.00	0.55	0.0	0
5	***	***	***	***	***	***	***	0.00	0.69	0.0	0
6	***	***	***	***	***	***	***	0.00	0.82	0.0	0
7	***	***	***	***	***	***	***	0.00	0.96	0.0	0
8	***	***	***	***	***	***	***	0.02	1.09	0.0	0
9	***	***	***	***	***	***	***	0.14	1.23	0.0	0
10	***	***	***	***	***	***	***	0.00	1.36	0.0	0
11	***	***	***	***	***	***	***	0.00	1.50	0.0	0
12	***	***	***	***	***	***	***	0.00	1.63	0.0	0
13	***	***	***	***	***	***	***	0.02	1.76	0.0	0
14	***	***	***	***	***	***	***	0.00	1.89	0.0	0
15	***	***	***	***	***	***	***	0.00	2.02	0.0	0
16	***	***	***	***	***	***	***	0.00	2.15	0.0	0
17	***	***	***	***	***	***	***	0.00	2.28	0.0	0
18	***	***	***	***	***	***	***	0.46	2.40	0.0	0
19	***	***	***	***	***	***	***	0.26	2.52	0.0	0
20	***	***	***	***	***	***	***	0.00	2.65	0.0	0
21	***	***	***	***	***	***	***	0.00	2.77	0.0	0
22	***	***	***	***	***	***	***	0.00	2.88	0.0	0
23	***	***	***	***	***	***	***	0.00	3.00	0.0	0
24	***	***	***	***	***	***	***	0.00	3.12	0.0	0
25	***	***	***	***	***	***	***	0.08	3.23	0.0	0
26	***	***	***	***	***	***	***	0.04	3.34	0.0	0
27	***	***	***	***	***	***	***	0.00	3.46	0.0	0
28	***	***	***	***	***	***	***	0.00	3.56	0.0	0
29	***	***	***	***	***	***	***	0.00	3.67	0.0	0
30	***	***	***	***	***	***	***	0.00	3.78	0.0	0
SUMS	0	0	0	0	0	0	0	1.30	3.78	0.0	
AVGS	********************										0.0
NORMAL	****	****	****		0	0					

All data for this location cover the 24 hour period ending at 7 AM on the date indicated.

Normals are for the period 1961-90.

Each line on the printout contains climate data for one day. The columns of data are as follows:

DAY	day of the month
MAX	maximum temperature (degrees Fahrenheit)
MIN	minimum temperature (degrees Fahrenheit)
AVG	average temperature (average of MAX and MIN)
DPT	departure of the average temperature from normal
HDD,CDD,GDD	heating, cooling, and growing degree days (base 65, 65, and 50)
PREC	precipitation total (rain and/or liquid equivalent of snow - inches)
AVGPRE . . .	normal month-to-date precip
SNOW	daily snowfall (inches)
DEPTH	depth of snow on the ground at the time of observation

Special values:

Tr	indicates a "trace" (less than 0.01 inch of PREC; less than 0.1 inch of SNOW; less than 1 inch for DEPTH)
***	indicates missing data

THESE DATA ARE PROVIDED BY THE NORTHEAST REGIONAL CLIMATE CENTER

Northeast Regional Climate Center Monthly Climate Data Reports

CLIMATE SUMMARY FOR GLENS FALLS FARM, NY APR 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	42	25	34	-6	31	0	0	0.39	0.12	6.0	8
2	49	24	37	-3	28	0	0	0.00	0.23	0.0	5
3	56	23	40	0	25	0	0	0.00	0.35	0.0	2
4	57	35	46	6	19	0	0	0.00	0.46	0.0	2
5	60	29	45	4	20	0	0	0.00	0.58	0.0	0
6	60	38	49	8	16	0	0	0.05	0.70	0.0	0
7	60	38	49	7	16	0	0	0.00	0.81	0.0	0
8	57	30	44	2	21	0	0	0.00	0.93	0.0	0
9	35	14	25	-18	40	0	0	0.00	1.05	0.0	0
10	42	28	35	-8	30	0	0	0.00	1.17	0.0	0
11	48	20	34	-9	31	0	0	0.00	1.29	0.0	0
12	52	36	44	0	21	0	0	0.00	1.41	0.0	0
13	56	39	48	3	17	0	0	0.00	1.53	0.0	0
14	55	29	42	-2	23	0	0	0.00	1.65	0.0	0
15	55	22	39	-6	26	0	0	0.00	1.77	0.0	0
16	62	27	45	-1	20	0	0	0.00	1.89	0.0	0
17	63	40	52	6	13	0	2	0.40	2.01	0.0	0
18	55	33	44	-2	21	0	0	0.70	2.14	0.0	0
19	52	33	43	-4	22	0	0	0.40	2.26	0.0	0
20	55	27	41	-6	24	0	0	0.00	2.38	0.0	0
21	59	30	45	-3	20	0	0	0.00	2.51	0.0	0
22	61	36	49	1	16	0	0	0.00	2.64	0.0	0
23	64	33	49	0	16	0	0	0.00	2.76	0.0	0
24	64	33	49	0	16	0	0	0.00	2.89	0.0	0
25	56	38	47	-2	18	0	0	0.01	3.02	0.0	0
26	63	35	49	0	16	0	0	0.00	3.15	0.0	0
27	66	32	49	-1	16	0	0	0.00	3.28	0.0	0
28	64	31	48	-3	17	0	0	1.51	3.41	0.0	0
29	65	38	52	1	13	0	2	0.05	3.55	0.0	0
30	75	36	56	4	9	0	6	0.00	3.68	0.0	0
SUMS	1708	932	1320	-33	621	0	10	3.51	3.68	6.0	
AVGS	56.9	31.1	44.0	-1.1							0.6
NORMAL	57.9	32.3	45.1		597	0					

All data for this location cover the 24 hour period ending at 4 pm on the date indicated.

Normals are for the period 1961-90.

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DAY	day of the month
MAX	maximum temperature (degrees Fahrenheit)
MIN	minimum temperature (degrees Fahrenheit)
AVG	average temperature (average of MAX and MIN)
DPT	departure of the average temperature from normal
HDD,CDD,GDD	heating, cooling, and growing degree days (base 65, 65, and 50)
PREC	precipitation total (rain and/or liquid equivalent of snow - inches)
AVGPRE . . .	normal month-to-date precip
SNOW	daily snowfall (inches)
DEPTH	depth of snow on the ground at the time of observation

Special values:

Tr	indicates a "trace" (less than 0.01 inch of PREC; less than 0.1 inch of SNOW; less than 1 inch for DEPTH)
***	indicates missing data

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Northeast Regional Climate Center Monthly Climate Data Reports

CLIMATE SUMMARY FOR GLENS FALLS FARM, NY MAY 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	75	51	63	11	2	0	13	0.03	0.13	0.0	0
2	66	41	54	2	11	0	4	0.22	0.27	0.0	0
3	60	39	50	-3	15	0	0	0.86	0.41	0.0	0
4	52	39	46	-7	19	0	0	0.45	0.54	0.0	0
5	62	29	46	-8	19	0	0	0.00	0.68	0.0	0
6	63	45	54	0	11	0	4	0.50	0.82	0.0	0
7	49	37	43	-11	22	0	0	0.00	0.96	0.0	0
8	62	29	46	-9	19	0	0	0.00	1.10	0.0	0
9	63	42	53	-2	12	0	3	0.05	1.24	0.0	0
10	56	42	49	-6	16	0	0	0.55	1.39	0.0	0
11	64	40	52	-3	13	0	2	0.00	1.53	0.0	0
12	72	37	55	-1	10	0	5	0.06	1.67	0.0	0
13	71	42	57	0	8	0	7	0.00	1.82	0.0	0
14	66	42	54	-2	11	0	4	0.00	1.96	0.0	0
15	66	43	55	-2	10	0	5	0.00	2.11	0.0	0
16	64	41	53	-5	12	0	3	0.11	2.25	0.0	0
17	64	39	52	-6	13	0	2	0.00	2.40	0.0	0
18	65	36	51	-7	14	0	1	0.19	2.55	0.0	0
19	60	32	46	-12	19	0	0	0.16	2.69	0.0	0
20	58	50	54	-4	11	0	4	0.16	2.84	0.0	0
21	58	35	47	-12	18	0	0	0.00	2.99	0.0	0
22	57	38	48	-12	17	0	0	0.01	3.13	0.0	0
23	65	46	56	-4	9	0	6	0.00	3.28	0.0	0
24	71	43	57	-3	8	0	7	0.00	3.43	0.0	0
25	72	53	63	3	2	0	13	0.01	3.58	0.0	0
26	72	42	57	-3	8	0	7	0.00	3.72	0.0	0
27	65	41	53	-7	12	0	3	0.00	3.87	0.0	0
28	75	36	56	-5	9	0	6	0.00	4.01	0.0	0
29	76	44	60	-1	5	0	10	0.00	4.16	0.0	0
30	75	51	63	2	2	0	13	0.04	4.31	0.0	0
31	71	52	62	0	3	0	12	0.00	4.45	0.0	0
SUMS	2015	1277	1646	-118	360	0	134	3.40	4.45	0.0	
AVGS	65.0	41.2	53.1	-3.8							0.0
NORMAL	70.5	43.2	56.9		273	21					

CLIMATE SUMMARY FOR GLENS FALLS FARM, NY JUN 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	70	51	61	-1	4	0	11	0.30	0.14	0.0	0
2	68	48	58	-4	7	0	8	0.13	0.29	0.0	0
3	71	47	59	-3	6	0	9	0.00	0.43	0.0	0
4	73	44	59	-4	6	0	9	0.00	0.57	0.0	0
5	75	44	60	-3	5	0	10	0.00	0.71	0.0	0
6	75	46	61	-2	4	0	11	0.00	0.85	0.0	0
7	76	52	64	1	1	0	14	0.00	0.99	0.0	0
8	77	49	63	0	2	0	13	0.00	1.13	0.0	0
9	82	48	65	1	0	0	15	0.00	1.27	0.0	0
10	89	48	69	5	0	4	19	0.00	1.40	0.0	0
11	90	55	73	8	0	8	23	0.00	1.54	0.0	0
12	89	60	75	10	0	10	25	0.00	1.67	0.0	0
13	86	62	74	9	0	9	24	0.00	1.81	0.0	0
14	81	58	70	5	0	5	20	0.00	1.94	0.0	0
15	75	40	58	-8	7	0	8	0.00	2.07	0.0	0
16	79	56	68	2	0	3	18	0.00	2.20	0.0	0
17	75	54	65	-1	0	0	15	0.52	2.33	0.0	0
18	70	60	65	-1	0	0	15	0.17	2.46	0.0	0
19	80	63	72	5	0	7	22	0.95	2.58	0.0	0
20	79	54	67	0	0	2	17	0.00	2.71	0.0	0
21	88	62	75	8	0	10	25	0.00	2.84	0.0	0
22	88	67	78	11	0	13	28	0.00	2.96	0.0	0
23	82	58	70	3	0	5	20	0.00	3.08	0.0	0
24	80	55	68	0	0	3	18	0.07	3.20	0.0	0
25	85	60	73	5	0	8	23	0.05	3.33	0.0	0
26	87	60	74	6	0	9	24	0.00	3.45	0.0	0
27	79	54	67	-1	0	2	17	0.00	3.57	0.0	0
28	86	52	69	1	0	4	19	0.00	3.68	0.0	0
29	91	60	76	7	0	11	26	0.00	3.80	0.0	0
30	89	56	73	4	0	8	23	0.00	3.92	0.0	0
SUMS	2415	1623	2019	63	42	121	529	2.19	3.92	0.0	
AVGS	80.5	54.1	67.3	2.1							0.0
NORMAL	78.6	51.9	65.2		56	62					

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DPT	departure of the average temperature from normal
HDD,CDD,GDD	heating, cooling, and growing degree days (base 65, 65, and 50)
PREC	precipitation total (rain and/or liquid equivalent of snow - inches)
AVGPRE . . .	normal month-to-date precip
SNOW	daily snowfall (inches)
DEPTH	depth of snow on the ground at the time of observation

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Northeast Regional Climate Center Monthly Climate Data Reports

CLIMATE SUMMARY FOR SARATOGA SPRINGS 7, NY APR 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	50	27	39	-2	26	0	0	0.53	0.11	2.5	6
2	52	26	39	-2	26	0	0	0.00	0.22	0.0	1
3	62	24	43	2	22	0	0	0.00	0.33	0.0	0
4	62	44	53	11	12	0	3	0.00	0.45	0.0	0
5	63	29	46	4	19	0	0	0.00	0.56	0.0	0
6	63	42	53	10	12	0	3	0.02	0.67	0.0	0
7	61	51	56	13	9	0	6	0.00	0.79	0.0	0
8	56	29	43	-1	22	0	0	Tr	0.90	Tr	0
9	36	17	27	-17	38	0	0	0.00	1.02	0.0	0
10	46	19	33	-12	32	0	0	0.00	1.13	0.0	0
11	48	23	36	-9	29	0	0	0.00	1.25	0.0	0
12	52	28	40	-5	25	0	0	0.67	1.36	0.0	0
13	60	37	49	3	16	0	0	0.00	1.48	0.0	0
14	56	35	46	0	19	0	0	0.00	1.59	0.0	0
15	58	22	40	-6	25	0	0	0.00	1.71	0.0	0
16	65	27	46	0	19	0	0	0.00	1.83	0.0	0
17	65	43	54	7	11	0	4	Tr	1.95	0.0	0
18	54	33	44	-4	21	0	0	0.47	2.06	Tr	Tr
19	44	32	38	-10	27	0	0	0.44	2.18	0.7	0
20	56	29	43	-6	22	0	0	0.00	2.30	0.0	0
21	59	29	44	-4	21	0	0	0.00	2.42	0.0	0
22	62	36	49	0	16	0	0	0.00	2.54	0.0	0
23	65	34	50	0	15	0	0	0.00	2.66	0.0	0
24	63	40	52	2	13	0	2	0.00	2.78	0.0	0
25	58	40	49	-1	16	0	0	0.05	2.90	0.0	0
26	64	40	52	1	13	0	2	Tr	3.02	0.0	0
27	66	31	49	-2	16	0	0	0.00	3.14	0.0	0
28	61	43	52	1	13	0	2	1.34	3.26	0.0	0
29	68	36	52	0	13	0	2	0.08	3.39	0.0	0
30	78	37	58	5	7	0	8	0.00	3.51	0.0	0
SUMS	1753	983	1368	-21	575	0	32	3.60	3.51	3.2	
AVGS	58.4	32.8	45.6	-0.7							0.2
NORMAL	59.2	33.3	46.3		561	0					

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DPT	departure of the average temperature from normal
HDD,CDD,GDD	heating, cooling, and growing degree days (base 65, 65, and 50)
PREC	precipitation total (rain and/or liquid equivalent of snow - inches)
AVGPRE . . .	normal month-to-date precip
SNOW	daily snowfall (inches)
DEPTH	depth of snow on the ground at the time of observation

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Northeast Regional Climate Center Monthly Climate Data Reports

CLIMATE SUMMARY FOR SARATOGA SPRINGS 7, NY MAY 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	78	53	66	13	0	1	16	Tr	0.12	0.0	0
2	69	40	55	1	10	0	5	Tr	0.25	0.0	0
3	62	40	51	-2	14	0	1	0.86	0.37	0.0	0
4	57	40	49	-5	16	0	0	0.22	0.50	0.0	0
5	64	29	47	-8	18	0	0	0.00	0.62	0.0	0
6	65	47	56	1	9	0	6	0.39	0.75	0.0	0
7	50	38	44	-11	21	0	0	0.00	0.88	0.0	0
8	64	31	48	-8	17	0	0	0.00	1.00	0.0	0
9	64	44	54	-2	11	0	4	0.14	1.13	0.0	0
10	60	44	52	-4	13	0	2	0.34	1.26	0.0	0
11	66	42	54	-2	11	0	4	0.00	1.39	0.0	0
12	76	46	61	4	4	0	11	0.04	1.52	0.0	0
13	62	47	55	-3	10	0	5	Tr	1.65	0.0	0
14	68	38	53	-5	12	0	3	0.00	1.78	0.0	0
15	71	44	58	0	7	0	8	Tr	1.91	0.0	0
16	67	42	55	-4	10	0	5	0.16	2.05	0.0	0
17	53	39	46	-13	19	0	0	0.00	2.18	0.0	0
18	64	33	49	-10	16	0	0	0.02	2.31	0.0	0
19	63	48	56	-4	9	0	6	0.10	2.45	0.0	0
20	59	48	54	-6	11	0	4	0.30	2.58	0.0	0
21	60	41	51	-9	14	0	1	Tr	2.72	0.0	0
22	60	38	49	-11	16	0	0	Tr	2.85	0.0	0
23	68	46	57	-3	8	0	7	0.00	2.99	0.0	0
24	74	46	60	-1	5	0	10	0.00	3.12	0.0	0
25	74	46	60	-1	5	0	10	Tr	3.26	0.0	0
26	67	42	55	-7	10	0	5	0.00	3.39	0.0	0
27	68	34	51	-11	14	0	1	0.00	3.53	0.0	0
28	77	35	56	-6	9	0	6	0.00	3.67	0.0	0
29	78	42	60	-2	5	0	10	0.00	3.81	0.0	0
30	76	52	64	2	1	0	14	0.06	3.94	0.0	0
31	76	54	65	2	0	0	15	0.00	4.08	0.0	0
SUMS	2060	1309	1685	-114	325	1	159	2.63	4.08	0.0	
AVGS	66.5	42.2	54.3	-3.7							0.0
NORMAL	71.9	43.9	58.0		241	24					

CLIMATE SUMMARY FOR SARATOGA SPRINGS 7, NY JUN 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	76	59	68	5	0	3	18	0.17	0.14	0.0	0
2	68	57	63	-1	2	0	13	Tr	0.27	0.0	0
3	73	48	61	-3	4	0	11	0.00	0.41	0.0	0
4	75	42	59	-5	6	0	9	0.00	0.55	0.0	0
5	76	44	60	-4	5	0	10	0.00	0.68	0.0	0
6	76	49	63	-2	2	0	13	0.00	0.82	0.0	0
7	75	52	64	-1	1	0	14	0.00	0.96	0.0	0
8	78	49	64	-1	1	0	14	0.00	1.09	0.0	0
9	84	47	66	1	0	1	16	0.00	1.23	0.0	0
10	88	58	73	8	0	8	23	0.00	1.36	0.0	0
11	89	61	75	10	0	10	25	0.00	1.49	0.0	0
12	88	63	76	10	0	11	26	0.00	1.63	0.0	0
13	86	60	73	7	0	8	23	0.02	1.76	0.0	0
14	77	57	67	1	0	2	17	0.00	1.89	0.0	0
15	76	40	58	-8	7	0	8	0.00	2.02	0.0	0
16	80	46	63	-4	2	0	13	0.00	2.15	0.0	0
17	79	54	67	0	0	2	17	0.57	2.28	0.0	0
18	71	61	66	-1	0	1	16	0.39	2.40	0.0	0
19	80	64	72	5	0	7	22	0.18	2.53	0.0	0
20	82	54	68	0	0	3	18	0.00	2.66	0.0	0
21	93	62	78	10	0	13	28	0.00	2.78	0.0	0
22	92	70	81	13	0	16	31	0.00	2.90	0.0	0
23	85	60	73	4	0	8	23	0.00	3.02	0.0	0
24	81	56	69	0	0	4	19	0.15	3.15	0.0	0
25	89	63	76	7	0	11	26	0.32	3.27	0.0	0
26	89	69	79	10	0	14	29	0.03	3.38	0.0	0
27	80	55	68	-2	0	3	18	0.00	3.50	0.0	0
28	86	52	69	0	0	4	19	0.00	3.62	0.0	0
29	90	55	73	3	0	8	23	0.00	3.74	0.0	0
30	89	58	74	4	0	9	24	0.00	3.85	0.0	0
SUMS	2451	1665	2058	66	30	146	566	1.83	3.85	0.0	
AVGS	81.7	55.5	68.6	2.2							0.0
NORMAL	79.8	53.0	66.4		32	74					

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PREC	precipitation total (rain and/or liquid equivalent of snow - inches)
AVGPRE . . .	normal month-to-date precip
SNOW	daily snowfall (inches)
DEPTH	depth of snow on the ground at the time of observation

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CLIMATE SUMMARY FOR SMITHS BASIN, NY APR 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	***	***	***	***	***	***	***	0.54	0.09	****	***
2	***	***	***	***	***	***	***	0.00	0.19	****	***
3	***	***	***	***	***	***	***	0.00	0.28	****	***
4	***	***	***	***	***	***	***	0.00	0.37	****	***
5	***	***	***	***	***	***	***	*****	0.47	****	***
6	***	***	***	***	***	***	***	*****	0.56	****	***
7	***	***	***	***	***	***	***	0.00	0.65	****	***
8	***	***	***	***	***	***	***	0.00	0.75	****	***
9	***	***	***	***	***	***	***	0.00	0.84	****	***
10	***	***	***	***	***	***	***	0.00	0.94	****	***
11	***	***	***	***	***	***	***	0.00	1.03	****	***
12	***	***	***	***	***	***	***	*****	1.13	****	***
13	***	***	***	***	***	***	***	*****	1.23	****	***
14	***	***	***	***	***	***	***	*****	1.32	****	***
15	***	***	***	***	***	***	***	*****	1.42	****	***
16	***	***	***	***	***	***	***	0.00	1.52	****	***
17	***	***	***	***	***	***	***	0.00	1.62	****	***
18	***	***	***	***	***	***	***	Tr	1.72	****	***
19	***	***	***	***	***	***	***	0.59	1.82	****	***
20	***	***	***	***	***	***	***	*****	1.92	****	***
21	***	***	***	***	***	***	***	0.00	2.02	****	***
22	***	***	***	***	***	***	***	Tr	2.12	****	***
23	***	***	***	***	***	***	***	0.00	2.22	****	***
24	***	***	***	***	***	***	***	0.00	2.33	****	***
25	***	***	***	***	***	***	***	0.00	2.43	****	***
26	***	***	***	***	***	***	***	*****	2.53	****	***
27	***	***	***	***	***	***	***	*****	2.64	****	***
28	***	***	***	***	***	***	***	0.56	2.75	****	***
29	***	***	***	***	***	***	***	0.38	2.85	****	***
30	***	***	***	***	***	***	***	0.00	2.96	****	***
SUMS	0	0	0	0	0	0	0	2.07	2.96	0.0	
AVGS	********************										****
NORMAL	****	****	****		0	0					

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PREC	precipitation total (rain and/or liquid equivalent of snow - inches)
AVGPRE . . .	normal month-to-date precip
SNOW	daily snowfall (inches)
DEPTH	depth of snow on the ground at the time of observation

Special values:

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Northeast Regional Climate Center Monthly Climate Data Reports

CLIMATE SUMMARY FOR SMITHS BASIN, NY MAY 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	***	***	***	***	***	***	***	0.35	0.11	0.0	0
2	***	***	***	***	***	***	***	0.07	0.22	0.0	0
3	***	***	***	***	***	***	***	1.01	0.33	0.0	0
4	***	***	***	***	***	***	***	0.00	0.44	0.0	0
5	***	***	***	***	***	***	***	Tr	0.55	0.0	0
6	***	***	***	***	***	***	***	0.45	0.66	0.0	0
7	***	***	***	***	***	***	***	0.00	0.78	0.0	0
8	***	***	***	***	***	***	***	0.02	0.89	0.0	0
9	***	***	***	***	***	***	***	0.58	1.01	0.0	0
10	***	***	***	***	***	***	***	0.04	1.12	0.0	0
11	***	***	***	***	***	***	***	0.00	1.24	0.0	0
12	***	***	***	***	***	***	***	0.03	1.36	0.0	0
13	***	***	***	***	***	***	***	0.00	1.48	0.0	0
14	***	***	***	***	***	***	***	0.00	1.60	0.0	0
15	***	***	***	***	***	***	***	0.11	1.71	0.0	0
16	***	***	***	***	***	***	***	0.14	1.84	0.0	0
17	***	***	***	***	***	***	***	Tr	1.96	0.0	0
18	***	***	***	***	***	***	***	0.09	2.08	0.0	0
19	***	***	***	***	***	***	***	0.25	2.20	0.0	0
20	***	***	***	***	***	***	***	*****	2.32	0.0	0
21	***	***	***	***	***	***	***	Tr	2.45	0.0	0
22	***	***	***	***	***	***	***	0.00	2.57	0.0	0
23	***	***	***	***	***	***	***	0.00	2.69	0.0	0
24	***	***	***	***	***	***	***	0.00	2.82	0.0	0
25	***	***	***	***	***	***	***	Tr	2.94	0.0	0
26	***	***	***	***	***	***	***	0.00	3.07	0.0	0
27	***	***	***	***	***	***	***	0.00	3.19	0.0	0
28	***	***	***	***	***	***	***	0.00	3.32	0.0	0
29	***	***	***	***	***	***	***	0.00	3.44	0.0	0
30	***	***	***	***	***	***	***	0.00	3.57	0.0	0
31	***	***	***	***	***	***	***	0.00	3.69	0.0	0
SUMS	0	0	0	0	0	0	0	3.14	3.69	0.0	
AVGS	********************										0.0
NORMAL	****	****	****		0	0					

CLIMATE SUMMARY FOR SMITHS BASIN, NY JUN 97

DAY	MAX	MIN	AVG	DPT	HDD	CDD	GDD	PRECIP	AVGPRE	SNOW	DEPTH
1	***	***	***	***	***	***	***	0.17	0.12	0.0	0
2	***	***	***	***	***	***	***	0.00	0.25	0.0	0
3	***	***	***	***	***	***	***	0.00	0.37	0.0	0
4	***	***	***	***	***	***	***	0.00	0.50	0.0	0
5	***	***	***	***	***	***	***	0.00	0.62	0.0	0
6	***	***	***	***	***	***	***	0.00	0.74	0.0	0
7	***	***	***	***	***	***	***	0.00	0.86	0.0	0
8	***	***	***	***	***	***	***	0.00	0.98	0.0	0
9	***	***	***	***	***	***	***	0.00	1.10	0.0	0
10	***	***	***	***	***	***	***	0.00	1.22	0.0	0
11	***	***	***	***	***	***	***	0.00	1.34	0.0	0
12	***	***	***	***	***	***	***	Tr	1.46	0.0	0
13	***	***	***	***	***	***	***	0.00	1.58	0.0	0
14	***	***	***	***	***	***	***	0.00	1.69	0.0	0
15	***	***	***	***	***	***	***	0.00	1.81	0.0	0
16	***	***	***	***	***	***	***	Tr	1.92	0.0	0
17	***	***	***	***	***	***	***	0.80	2.04	0.0	0
18	***	***	***	***	***	***	***	1.03	2.15	0.0	0
19	***	***	***	***	***	***	***	0.00	2.26	0.0	0
20	***	***	***	***	***	***	***	0.00	2.37	0.0	0
21	***	***	***	***	***	***	***	0.00	2.48	0.0	0
22	***	***	***	***	***	***	***	0.00	2.59	0.0	0
23	***	***	***	***	***	***	***	Tr	2.70	0.0	0
24	***	***	***	***	***	***	***	0.12	2.80	0.0	0
25	***	***	***	***	***	***	***	0.00	2.91	0.0	0
26	***	***	***	***	***	***	***	0.00	3.02	0.0	0
27	***	***	***	***	***	***	***	0.00	3.12	0.0	0
28	***	***	***	***	***	***	***	0.00	3.22	0.0	0
29	***	***	***	***	***	***	***	0.00	3.33	0.0	0
30	***	***	***	***	***	***	***	0.00	3.43	0.0	0
SUMS	0	0	0	0	0	0	0	2.12	3.43	0.0	
AVGS	********************										0.0
NORMAL	****	****	****		0	0					

All data for this location cover the 24 hour period ending at 7 AM on the date indicated.

Normals are for the period 1961-90.

Each line on the printout contains climate data for one day. The columns of data are as follows:

DAY	day of the month
MAX	maximum temperature (degrees Fahrenheit)
MIN	minimum temperature (degrees Fahrenheit)
AVG	average temperature (average of MAX and MIN)
DPT	departure of the average temperature from normal
HDD,CDD,GDD	heating, cooling, and growing degree days (base 65, 65, and 50)
PREC	precipitation total (rain and/or liquid equivalent of snow - inches)
AVGPRE . . .	normal month-to-date precip
SNOW	daily snowfall (inches)
DEPTH	depth of snow on the ground at the time of observation

Special values:

Tr	indicates a "trace" (less than 0.01 inch of PREC; less than 0.1 inch of SNOW; less than 1 inch for DEPTH)
***	indicates missing data

THESE DATA ARE PROVIDED BY THE NORTHEAST REGIONAL CLIMATE CENTER

APPENDIX D

Thompson Island Pool hydrographs

Appendix D. Thompson Island Pool hydrographs

Methods of estimating flow in the Hudson River at Thompson Island Dam have been evaluated. Data obtained from data loggers installed as part of the ground water seepage investigation which monitor river elevation at three locations (Sites 1, 4, and 6) have been reviewed to evaluate downstream responses to changes in flow at Ft. Edward. As illustrated in the attached Figures, Site 1 is located near the H-7 site, Site 4 is near the McDonald property, and Site 6 is located downstream of Lock 6. Changes in river elevation at the gaging station have been plotted against relative river elevation changes observed at the data logger locations (figures attached). The gaging station and data loggers all obtain measurements at 15 minute intervals.

As indicated in the attached figures, river elevations downstream of Ft. Edward correlate well with changes in river elevation at the gaging station. Downstream river elevations respond rapidly (<1 hour) to changes in flow at Ft. Edward under the flow conditions experienced during the monitoring period (approximately 1000 to 6000 cfs) . Therefore, instantaneous flows obtained from the Ft. Edward gaging station should be reasonably representative of instantaneous flow at Thompson Island Dam, except during periods of rapid change in flow rates.

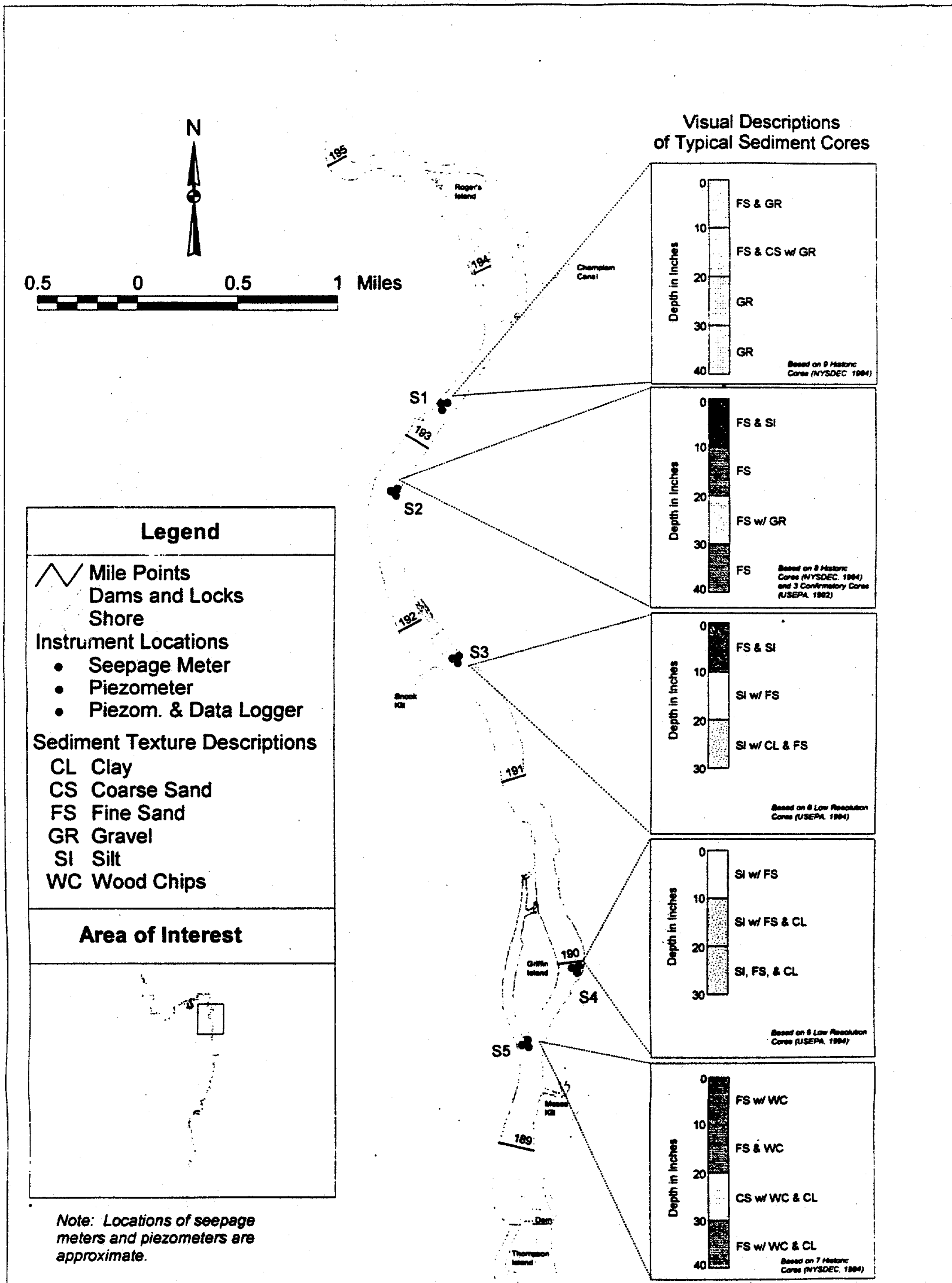


Figure 4. Groundwater Seepage Monitoring Stations and Sediment Core Visual Descriptions

HydroQual, Inc. February, 1997

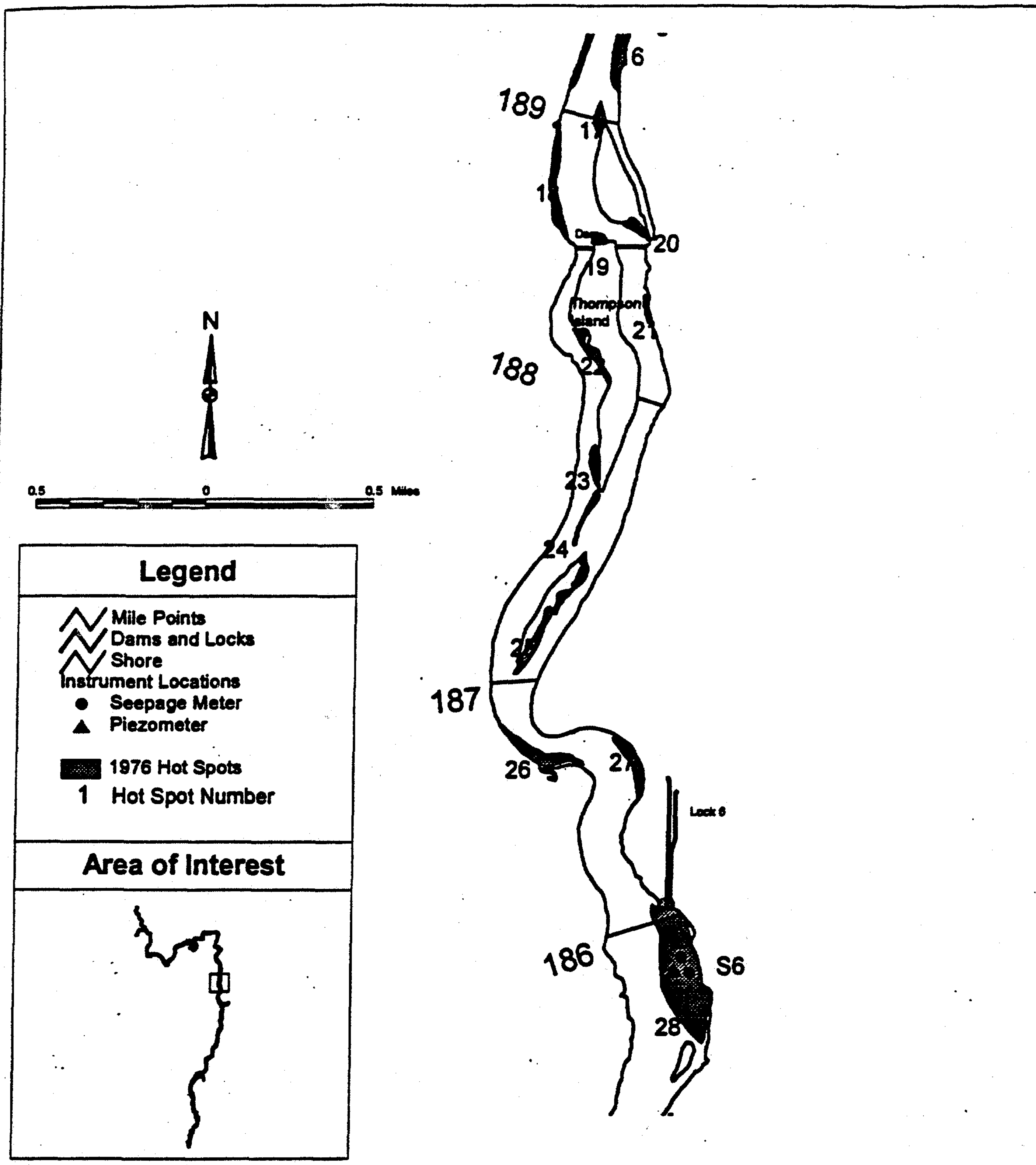


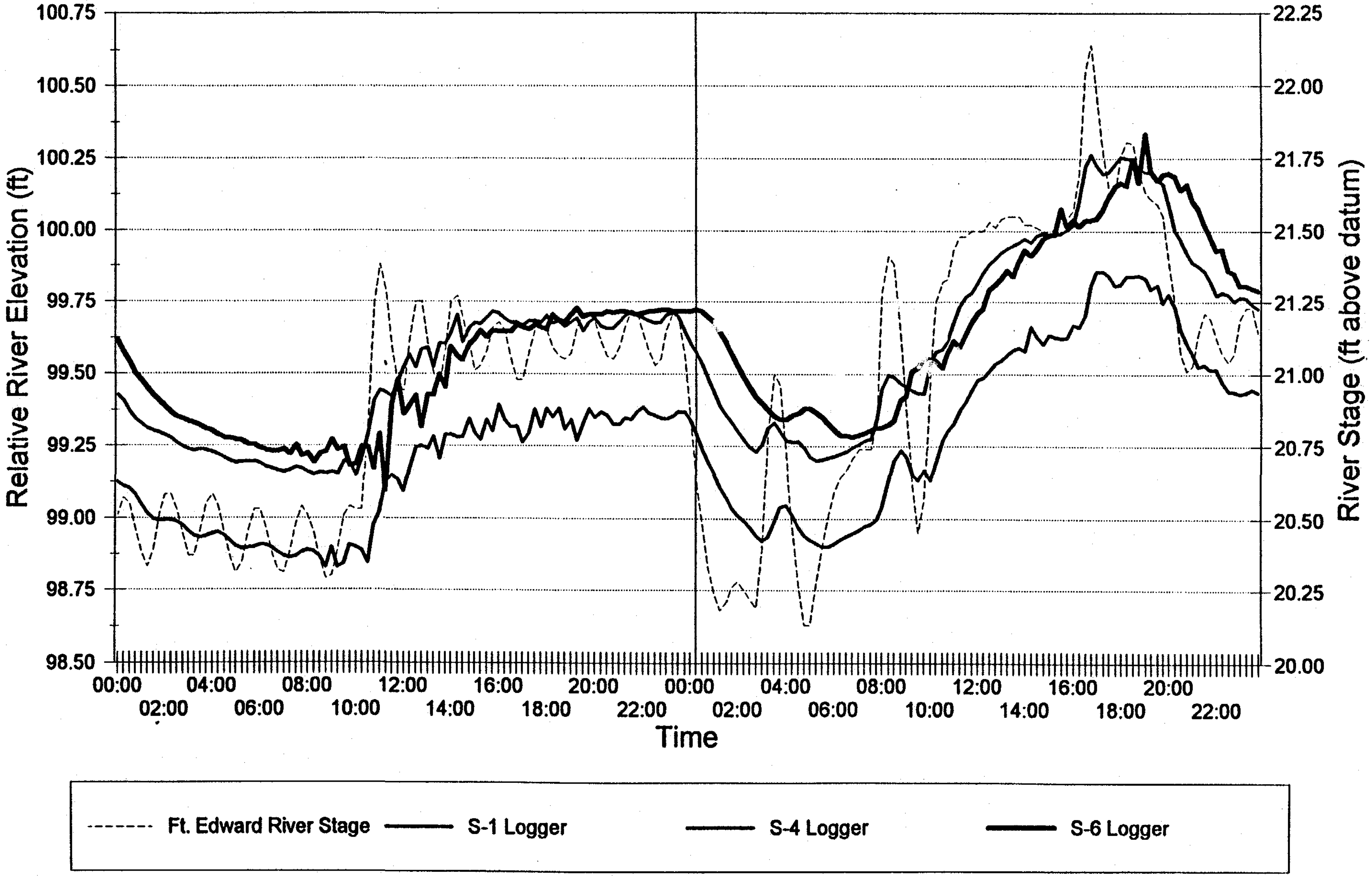
Figure A1. Additional Groundwater Seepage Monitoring Location Downstream of Thompson Island Pool

HydroQual

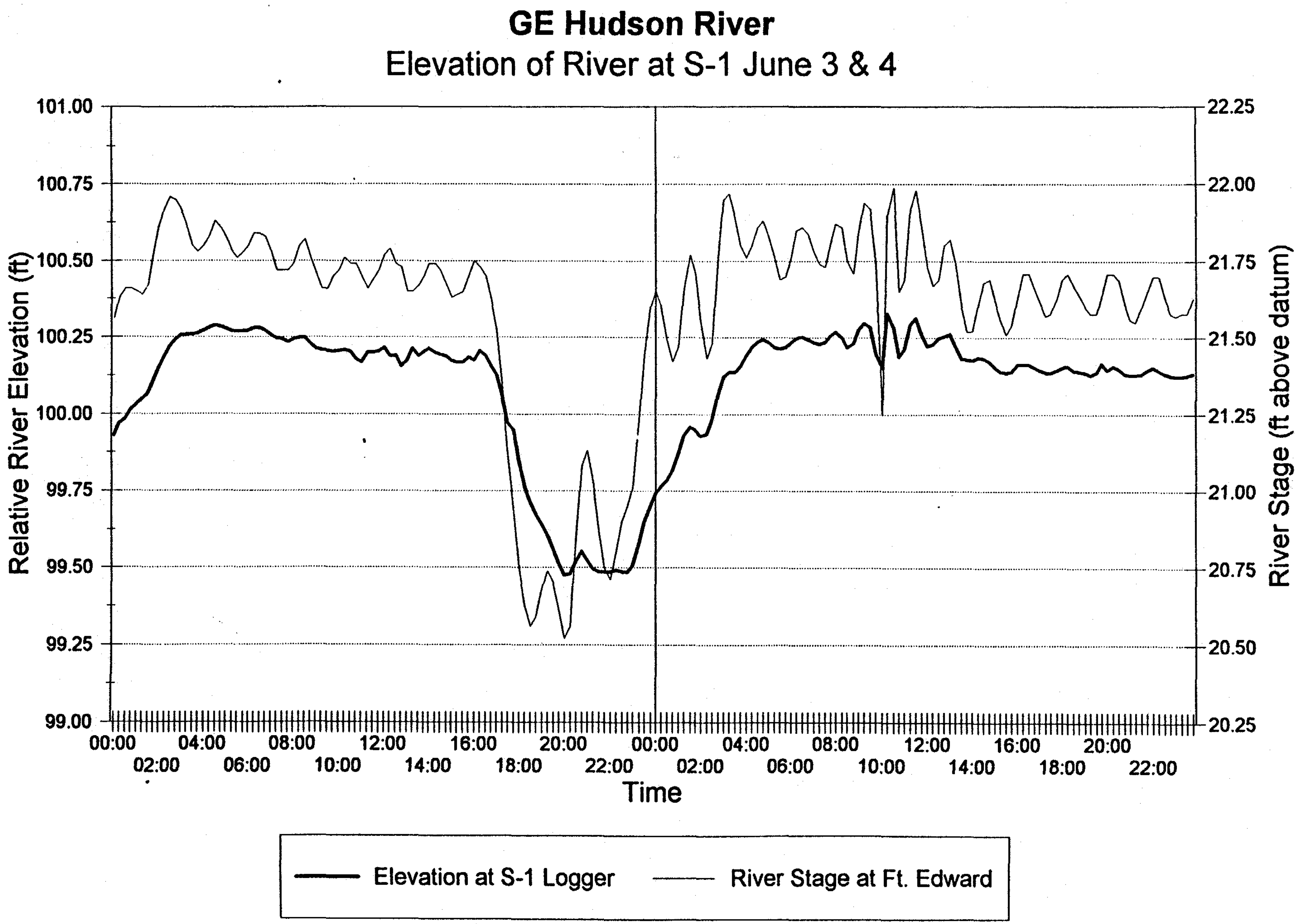
March, 1997

GE Hudson River

Elevation of River June 16 & 17, 1997

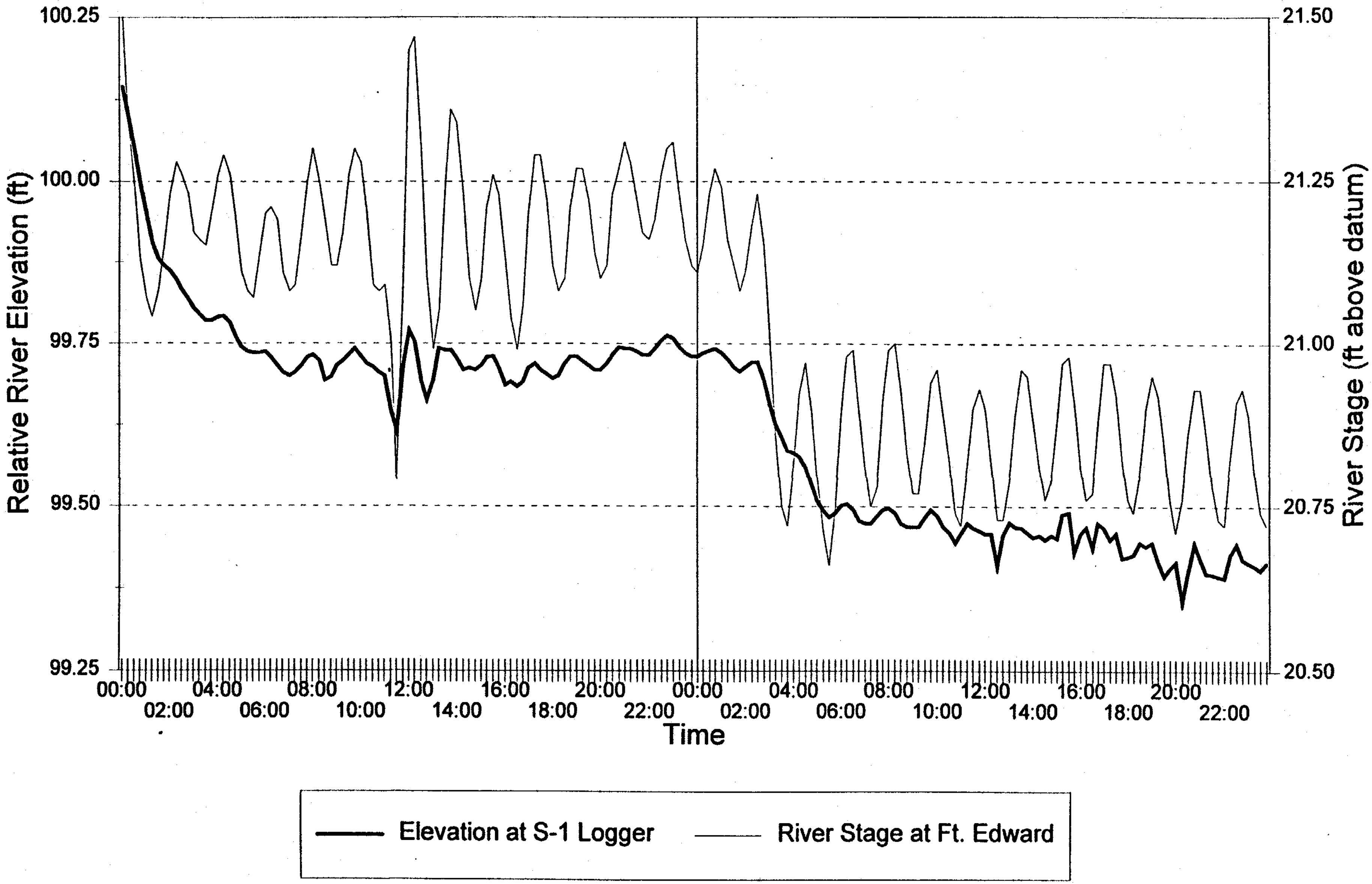


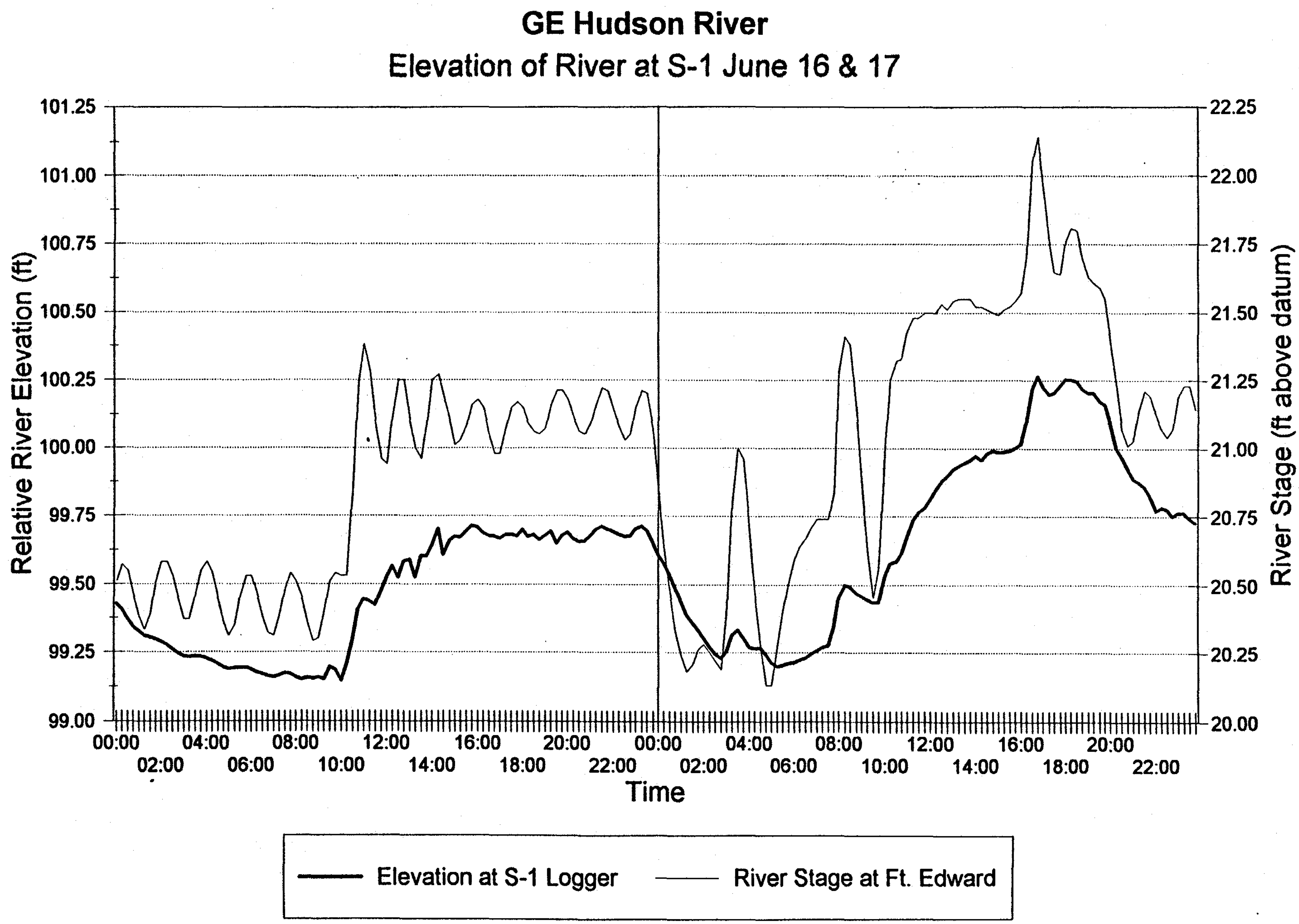
311189


GE Hudson River
Elevation of River at S-1 June 3 & 4
Relative River Elevation (ft)
101.00
100.75
100.50
100.25
100.00
99.75
99.50
99.25
99.00
River Stage (ft above datum)
22.25
22.00
21.75
21.50
21.25
21.00
20.75
20.50
20.25
00:00
02:00
04:00
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
00:00
02:00
04:00
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
Time
Elevation at S-1 Logger
River Stage at Ft. Edward

GE Hudson River

Elevation of River at S-1 June 9 & 10




GE Hudson River
Elevation of River at S-1 June 16 & 17
Relative River Elevation (ft)
101.25
101.00
100.75
100.50
100.25
100.00
99.75
99.50
99.25
99.00
River Stage (ft above datum)
22.25
22.00
21.75
21.50
21.25
21.00
20.75
20.50
20.25
20.00
00:00
02:00
04:00
06:00
08:00
10:00
12:00
14:00
16:00
18:00
20:00
22:00
Time
Elevation at S-1 Logger
River Stage at Ft. Edward

GE Hudson River

Elevation of River at S-4 June 3 & 4

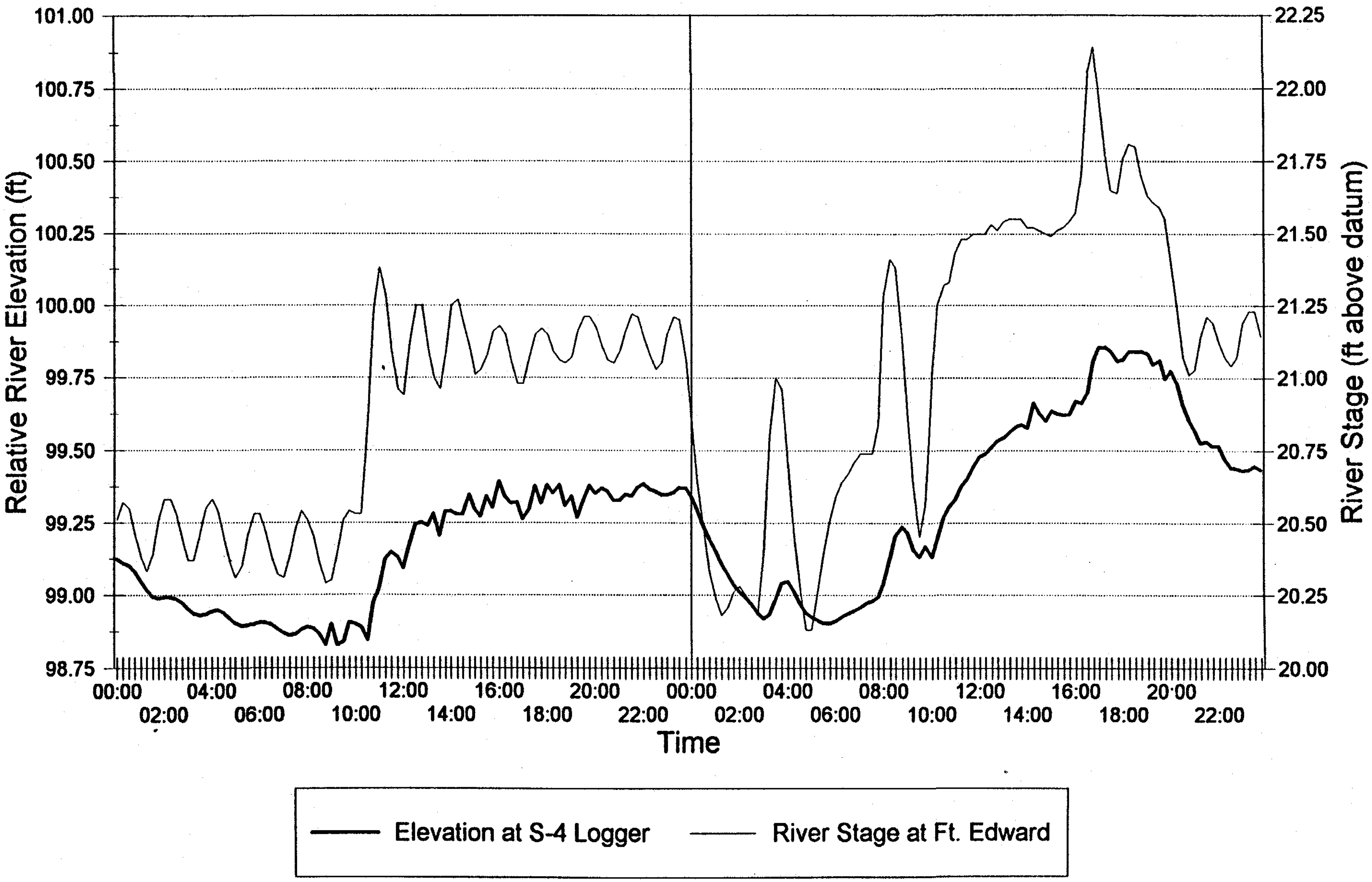
311193

GE Hudson River

Elevation of River at S-4 June 9 & 10

GE Hudson River

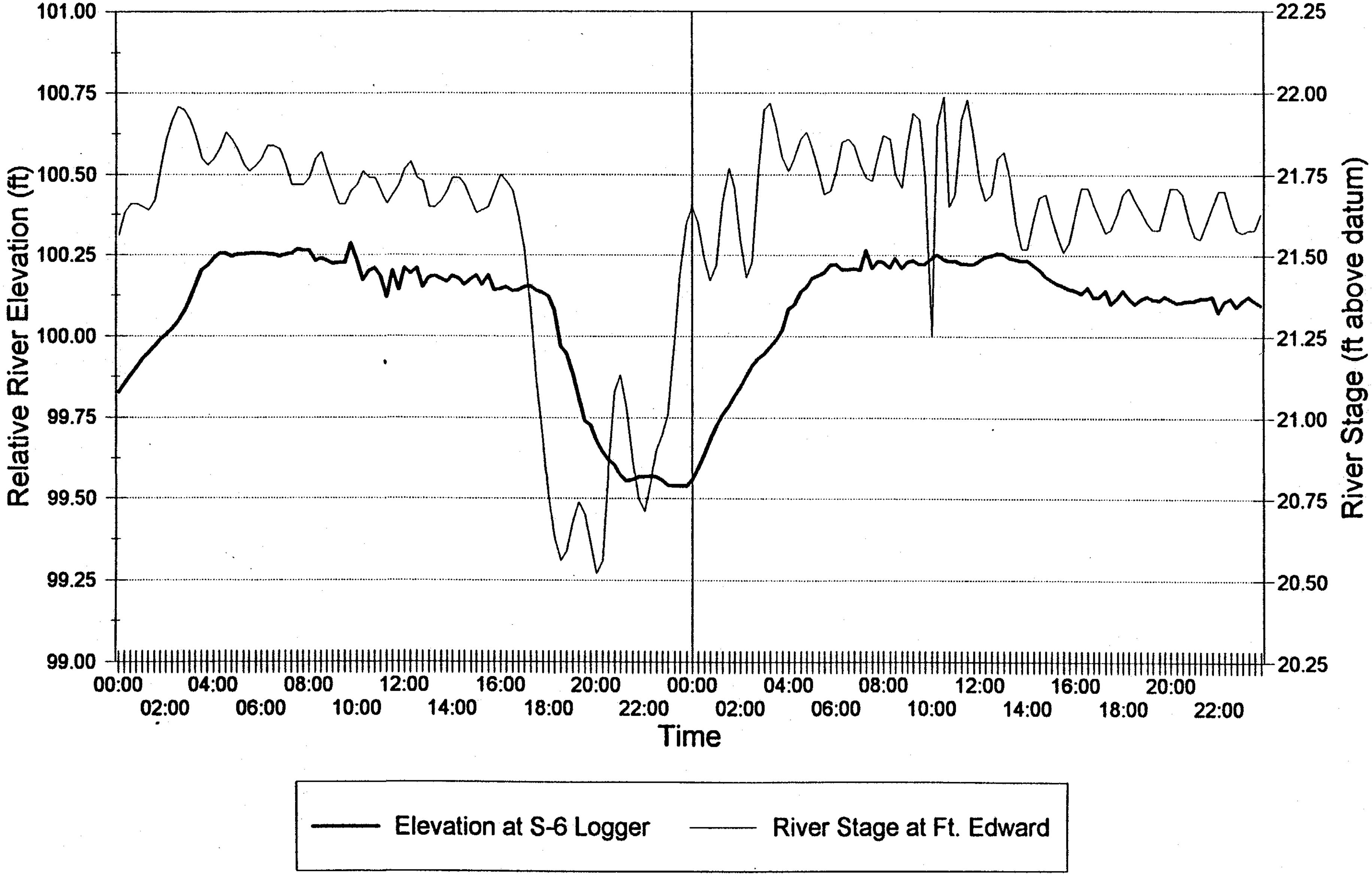
Elevation of River at S-4 June 16 & 17



311195

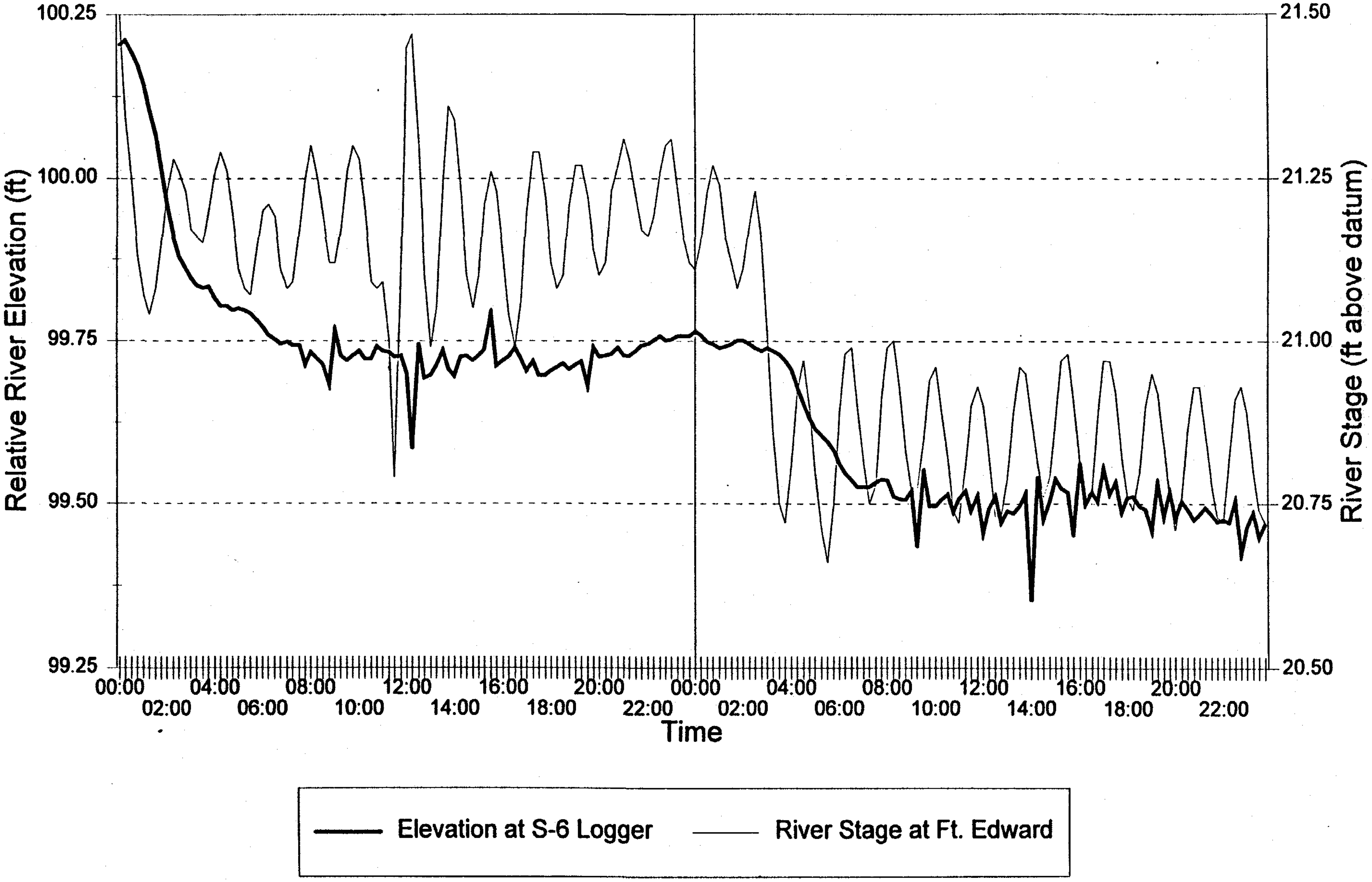
GE Hudson River

Elevation of River at S-6 June 3 & 4



GE Hudson River

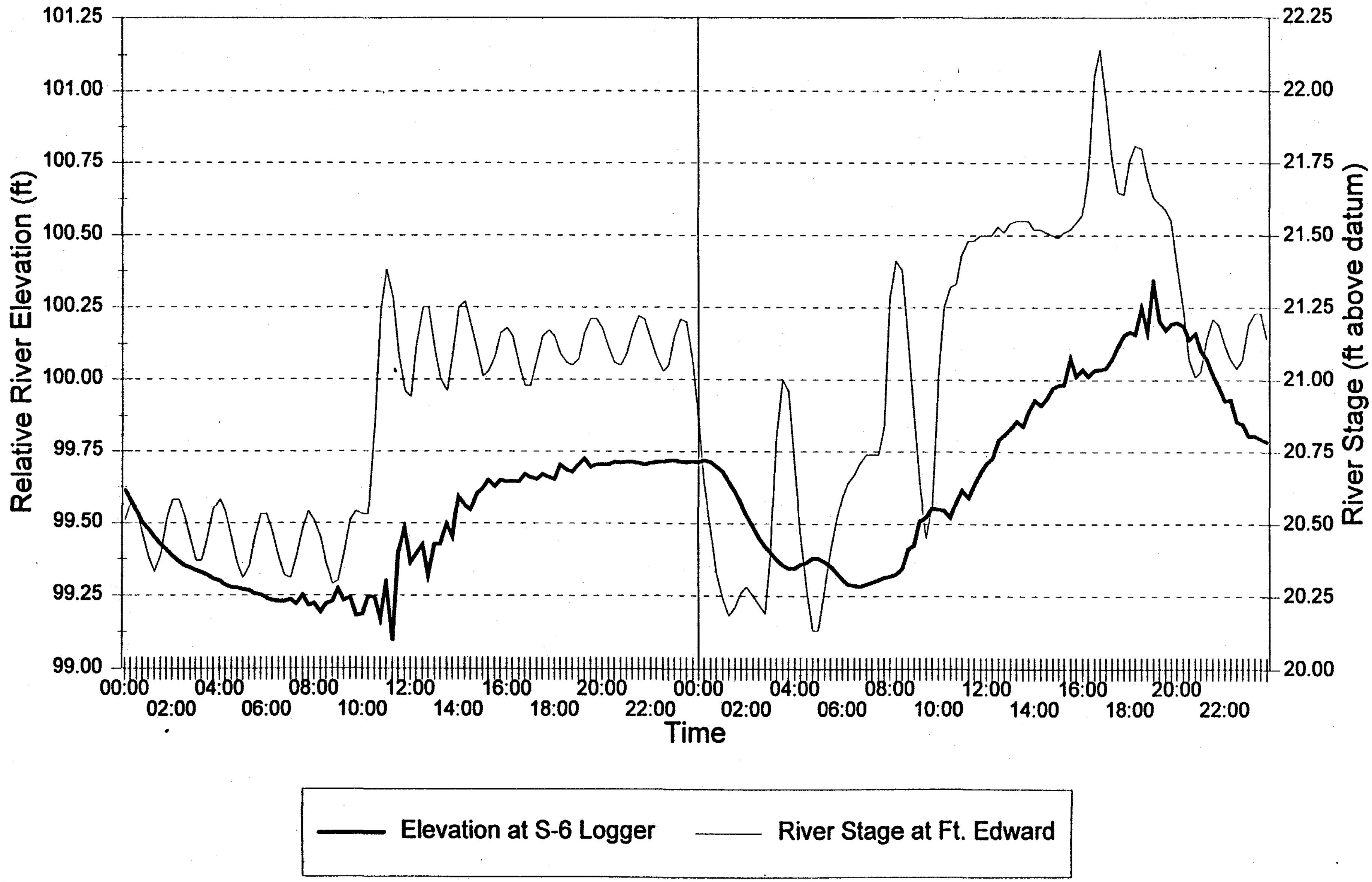
Elevation of River at S-6 June 9 & 10



311197

GE Hudson River

Elevation of River at S-6 June 16 & 17



311198

APPENDIX E

High flow event water column monitoring field logs

311200

GENERAL ELECTRIC COMPANY
1997 POST-CONSTRUCTION REMNANT DEPOSIT MONITORING PROGRAM
(Project 612.225)

FIELD LOG FOR April 6, 1997 (Sampling Date)

Round 1

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)	1545	Type: Composite Kemmerer: 95	7°C	0-7'	—		Bakers Falls: Water flowing over dam
HRM 194.2 W ~~(Rt. 197 Bridges Comp. - East and Main Channel)~~	16:20	Type: Composite Kemmerer: 96A	9°C	0-6'	—		
HRM 188.5 W (Thompson Island Dam)	16:56	Type: Grab	9°C	Surface	—		Turbidity 4.7
Equipment blank: HRM 188.5 W	16:45	Type: Grab Kemmerer: —					~~Turbidity 4.7~~
HRM 194.2 E	16:10	Composite 96B		0-6'	—		
HRM 188.5E	17:20	Grab	9.0C	Surface	-		6.1 Turbidity
Ft. Edward Staff Gage (518) 747-9900	16:14						Level: 23.25 11400

Additional Notes:

17:30 23.26 11,500
18:00 23:23 10,800

Sampled by: W Ayling / M. Muller

Weather Data
Description: overcast then clearing
Temperature: 60°F
Wind: Calm
Precipitation: None

311201

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR April 7, 1997 (Sampling Date)

Round 2

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)	0710	Type: Composite Kemmerer: #6B		6.5 4.0 1.5			
HRM 188.5W (Thompson Is. Dam - West)		Type: Grab					
HRM 188.5E (Thompson Is. Dam -East)	0740	Type: Grab		Surface			
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:
Additional Notes:							

Weather Data
Description: Partly Cloudy
Temperature: Mid 50's
Wind: Slight NW
Precipitation: 0

Sampled by: Michael Miller, HPF

311202

GENERAL ELECTRIC COMPANY
1997 POST-CONSTRUCTION REMNANT DEPOSIT MONITORING PROGRAM
(Project 612.225)

FIELD LOG FOR April 7 1997 **(Sampling Date)**

ALSO Round 3 OF High Flow monitoring

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)	0:945	Type: Composite Kemmerer: 95	7	0-7'	MS		Bakers Falls: high flow over falls
HRM 194.2 (Rt. 197 Bridges Comp. - East and Main Channel)	10:40E 11:15W	Type: Composite Kemmerer: 96A	11	0-7' 0-6.5'	Dup		
HRM 188.5 (Thompson Island Dam)	11:~~40~~	Type: Grab			—		
Equipment blank: HRM 197.0	0910	Type: Grab Kemmerer: 95					INCLUDES HRM 183.5E Bucket
HRM 194.2E-3	10:40E						USGS preparing to sample east channel
HRM 194.2W-3	11:15W						
Ft. Edward Staff Gage (518) 747-9900	10:30						Level: 23.91 ~ 14,200

Additional Notes: 1300 23.90 14,200

Weather Data
Description: Sunny
Temperature: 61°F @ Bank Temp 10:15
Wind:
Precipitation:

Sampled by: W Ayling

311203

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR April 7, 1997 (Sampling Date)

Round 3

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)		Type: Composite Kemmerer:					
HRM 188.5W (Thompson Is. Dam - West)		Type: Grab					
HRM 188.5E (Thompson Is. Dam -East)	1140	Type: Grab		Surface			
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:
Additional Notes:							

Sampled by: Michael Miller HSI

Weather Data
Description: ______
Temperature: ______
Wind: ______
Precipitation: ______

March 28, 1997

311204

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR 4/7/97 (Sampling Date)

Round 3A

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)		Type: Composite Kemmerer:					
HRM 188.5W (Thompson Is. Dam - West)		Type: Grab					
HRM 188.5E (Thompson Is. Dam -East)	1510	Type: Grab		Surface			
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:
Additional Notes:							

Sampled by: Michael Miller HKI

Weather Data
Description: ______
Temperature: ______
Wind: ______
Precipitation: ______

311205

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR April 7 1997 (Sampling Date)

Round 3A

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)		Type: Composite Kemmerer:					
HRM 188.5W (Thompson Is. Dam - West)	15:10	Type: Grab		Surface			
HRM 188.5E (Thompson Is. Dam -East)		Type: Grab					
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900	15:13						Level: 23.74 ~13,300

Additional Notes: Low Flow @ Tribs. Today
Snook Kill Turbidity 37.6 1230
Moses Kill Turbidity 43.4 12:00

Sampled by: W Ayling

Weather Data
Description: Sunny
Temperature: 62 @ Bank
Wind: Breeze
Precipitation: None

311206

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR April 7, 1997 / April 8, 1997 (Sampling Date)

Round 4

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel) 4/7/97	2145	Type: Composite Kemmerer: 2KB		0-7'			
HRM 188.5W (Thompson Is. Dam - West) 4/8/97	01:55	Type: Grab		Surface			
HRM 188.5E (Thompson Is. Dam -East) 4/8/97	02:20	Type: Grab		Surface			
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900	21.40 23:15						Level: 24.07 ~15,000 24.11
Additional Notes: 4/8/97 0108							24.27 ~15,900

Sampled by: W. Ayling / M. Miller / M. LaRue

Weather Data
Description: cool & clear
Temperature: ~30°F
Wind: calm
Precipitation: none

March 28, 1997

311207

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR APRIL 8, 1997 (Sampling Date)

Round 5

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel) 4/8/97	01:30	Type: Composite Kemmerer: 96B		0-8'			
HRM 188.5W (Thompson Is. Dam - West) 4/8/97	07:35	Type: Grab		SURFACE			
HRM 188.5E (Thompson Is. Dam -East)		Type: Grab					
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900	01:08						Level: 24.27 ~ 15,900
Additional Notes:							

Sampled by: M. LaRue / B. Ayling / M. Miller

Weather Data
Description: ______
Temperature: ______
Wind: ______
Precipitation: ______

311208

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR 4. 8. 97 **(Sampling Date)** Round 5

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)		Type: Composite Kemmerer:					
HRM 188.5W (Thompson Is. Dam - West)		Type: Grab					
HRM 188.5E (Thompson Is. Dam -East)	07:40	Type: Grab		SURFACE			
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:

Additional Notes:

Weather Data

Description: FLURRIES
Temperature: 35°
Wind: [illegible]
Precipitation:

Sampled by: [illegible]

March 28, 1997

311209

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR April 8, 1997 (Sampling Date)

Round 6

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)	08:25	Type: Composite Kemmerer: 95		0-7.5	—		Bakers Falls: high flow over dam
HRM 194.2W (Rt. 197 Br. - West Channel)	09:00	Type: Composite Kemmerer: 96A	4°C	0-7	MS		
HRM 194.2E (Rt. 197 Br. - East Channel)		Type: Composite Kemmerer: 96B			—		
HRM 188.5W (Thompson Is. Dam - West)	10:55	Type: Grab	5°C		—		Turbidity 5.2 Sunny
HRM 188.5E (Thompson Is. Dam - East)		Type: Grab			DUP		
Equipment blank: HRM 194.2	0810	Type: Grab Kemmerer: 96A/96B					E & W
Ft. Edward Staff Gage (518) 747-9900	0838 0910						Level: 24.43 16,700 24.42 16,700
Additional Notes:	0940						24.42

Weather Data
Description: Sun & dark clouds to west, then snow shower (~10am)
Temperature: 30°F
Wind: Calm - Light breeze
Precipitation: None

Sampled by: W Ayling / M. Miller

311210

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR 4/5/97 **(Sampling Date)**

Round 6

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)	0930	Type: Composite Kemmerer: 76 B		6.5 4.0 1.5			
HRM 188.5W (Thompson Is. Dam - West)		Type: Grab					
HRM 188.5E (Thompson Is. Dam -East)	1050	Type: Grab		Surface	Dup		Dup
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:
Additional Notes:							

Sampled by: Michael Miller HPI

Weather Data
Description: ______
Temperature: ______
Wind: ______
Precipitation: ______

311211

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR April 8, 1997 **(Sampling Date)**

Round 7

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		**Type: Composite Kemmerer:**					**Bakers Falls:**
HRM 194.2W (Rt. 197 Br. - West Channel)	12:10	**Type: Composite Kemmerer:** 96A		0, 5, 10			Sample Simultaneously w/ USGS, USGS reports 11' depth.
HRM 194.2E (Rt. 197 Br. - East Channel)		**Type: Composite Kemmerer:**					
HRM 188.5W (Thompson Is. Dam - West)	12:40	**Type: Grab**		Surface			Turbidity 5.4
HRM 188.5E (Thompson Is. Dam -East)		**Type: Grab**					
Equipment blank: HRM		**Type: Grab Kemmerer:**					
Ft. Edward Staff Gage (518) 747-9900	18:00						**Level:** 24.94 ~19,200 ~~17,700~~
Additional Notes:							

Weather Data
Description: Sunny, then cloudy
Temperature: 30°F
Wind: N
Precipitation: intermittent snow shower

Sampled by: W Ayling / MD LaRue

March 28, 1997

311212

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR 4/8/97 (Sampling Date)

Round 7

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)	1200	Type: Composite Kemmerer: 96B		7.5 4.5 1.5	—		USGS Sampled Site 15 min Delay
HRM 188.5W (Thompson Is. Dam - West)		Type: Grab					
HRM 188.5E (Thompson Is. Dam -East)	1235	Type: Grab		Surface	~~Dup~~		
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:

Additional Notes:

Sampled by: Michael Miller HYI

Weather Data
Description: ________
Temperature: ________
Wind: ________
Precipitation: ________

311213

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR April 8, 1997 (Sampling Date)

Round 7A

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)		Type: Composite Kemmerer:					
HRM 188.5W (Thompson Is. Dam - West)	1435	Type: Grab		Surface			
HRM 188.5E (Thompson Is. Dam -East)		Type: Grab					
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900	1330						Level: 24.65 17,700

Additional Notes:

Weather Data
Description: Overcast & partial Sun
Temperature:
Wind: Strong N
Precipitation:

Sampled by: W Ayling

March 28, 1997

311214

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR 4/3/97 (Sampling Date)

ROUND 7A

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)		Type: Composite Kemmerer:					
HRM 188.5W (Thompson Is. Dam - West)		Type: Grab					
HRM 188.5E (Thompson Is. Dam -East)	1435	Type: Grab		Surface			
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:

Additional Notes:

Weather Data
Description: ______
Temperature: ______
Wind: ______
Precipitation: ______

Sampled by: Michael Miller HQI

311215

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR 4/8/97 (Sampling Date)

Round 8

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)	1605	Type: Composite Kemmerer: 96D		7.5 5.0 1.5	MS		
HRM 188.5W (Thompson Is. Dam - West)		Type: Grab					
HRM 188.5E (Thompson Is. Dam -East)	1625	Type: Grab		Surface			
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:
Additional Notes:							

Weather Data
Description:
Temperature:
Wind:
Precipitation:

Sampled by: Michael Miller HSI

311216

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR April 8, 1997 (Sampling Date)

Round 8

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)	15:15	Type: Composite Kemmerer: 95		0-7'	~~MS~~		Bakers Falls: high flow
HRM 194.2W (Rt. 197 Br. - West Channel)	1605	Type: Composite Kemmerer: 96A		0-7.5	Dup		
HRM 194.2E (Rt. 197 Br. - East Channel)		Type: Composite Kemmerer:			MS		
HRM 188.5W (Thompson Is. Dam - West)	16:30	Type: Grab		Surface			Turbidity 6.0
HRM 188.5E (Thompson Is. Dam -East)		Type: Grab					
Equipment blank: HRM 188.5	1535	Type: Grab Kemmerer: —					buckets for east & west stations
Ft. Edward Staff Gage (518) 747-9900	16:00						Level: 24.44 ~16,800; 24.13 ~15,300; 24.39 16,500

Additional Notes:

Weather Data
Description: Overcast
Temperature: 50°F
Wind:
Precipitation:

Sampled by: W Ayling

311217

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR 4/8/97 (Sampling Date)

Round 9

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)		Type: Composite Kemmerer:					
HRM 188.5W (Thompson Is. Dam - West)		Type: Grab					
HRM 188.5E (Thompson Is. Dam -East)	1900	Type: Grab		Surface			
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:

Additional Notes:

Weather Data
Description: ______
Temperature: ______
Wind: ______
Precipitation: ______

Sampled by: Michael Miller III

March 28, 1997

311218

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR ______________________ (Sampling Date)

Round 9

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)		Type: Composite Kemmerer:					
HRM 188.5W (Thompson Is. Dam - West)	19:00	Type: Grab		Surface			
HRM 188.5E (Thompson Is. Dam -East)		Type: Grab					
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:
Additional Notes:							

Weather Data
Description: ______
Temperature: ______
Wind: ______
Precipitation: ______

Sampled by: [signature]

311219

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR April 9, 1997 (Sampling Date)

Round 10

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)	1130	Type: Composite Kemmerer: 7CM —		0-7.5			
HRM 194.2E (Rt. 197 Br. - East Channel)	~~1130~~	Type: Composite Kemmerer:					
HRM 188.5W (Thompson Is. Dam - West)	1150	Type: Grab		Surface			
HRM 188.5E (Thompson Is. Dam -East)	~~1150~~	Type: Grab					
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900	11:20						Level: 23.93 14,300

Additional Notes:

Weather Data
Description: Sunny & Breezy
Temperature: low 30's
Wind: N
Precipitation: None

Sampled by: [illegible signature]

311220

GENERAL ELECTRIC COMPANY
1997 WATER COLUMN MONITORING STUDY
(Project 612.226)

FIELD LOG FOR 4/9/97 **(Sampling Date)**

ROUND 10

Station	Time	Sample Data	Water Temp.	Sample Depths	QA/QC Sample	Inspect Sample	Comments
HRM 197.0 (County Rt. 27 Bridge)		Type: Composite Kemmerer:					Bakers Falls:
HRM 194.2W (Rt. 197 Br. - West Channel)		Type: Composite Kemmerer:					
HRM 194.2E (Rt. 197 Br. - East Channel)	1130	Type: Composite Kemmerer:		7.5 5.0 1.5			
HRM 188.5W (Thompson Is. Dam - West)		Type: Grab					
HRM 188.5E (Thompson Is. Dam -East)	1150	Type: Grab		SURFACE			
Equipment blank: HRM		Type: Grab Kemmerer:					
Ft. Edward Staff Gage (518) 747-9900							Level:

Additional Notes:

Sampled by: MICHAEL MILLER HPI

Weather Data
Description: ____
Temperature: ____
Wind: ____
Precipitation: ____

APPENDIX F

Tributary monitoring field logs and instantaneous velocity data

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 6-18-97
Weather hazy, humid
Temperature 60°F
Comments

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	6-16	12:00-21:00	~~[illegible]~~ 1030	1	4	Good	
	6-17	0:00-21:00	1030	5	12		Restart @
	6-18	0:00-9:00	1030	13	16		12:00 6/18
Station # 2 Moses Kill	6-16	12:00-21:00	1255	1	4	Good	Restart @
	6-17	0:00-21:00	1255	5	12		15:00 6-18
	6-18	0:00-12:00	1255	13	17		
Station # 3 Rogers Island	6-16	15:00-21:00	1450	1	3	Good	Restart @
	6-17	0:00-21:00	1450	4	11		15:00 6-18
	6-18	0:00-12:00	1450	12	16		
Station # 4 TID-West	6-16	15:00-21:00	1125	1	3	Good	Restart @
	6-17	0:00-21:00	1125	4	11		12:00 6-18
	6-18	0:00-9:00	1125	12	15		
Station # 5 -East	6-16	12:00-21:00	1150	1	4	Good	Restart @
	6-17	0:00-21:00	1150	5	12		12:00
	6-18	0:00-9:00	1150	13	16		6-18

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 6-16-97
Weather SUNNY, 65°F
Temperature
Comments DRY WEEKEND * Blind duplicate collected Moses Kill 6-15 sample

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	6-13	12:00-21:00	0915	1	4	Good	Downloaded all data from flow meter. Reprogramed to start 12:00 6-16
	6-14	0:00-21:00	0915	5	12		
	6-15	0:00-21:00	0915	13	20		
	6-16	0:00-9:00	0915	21	24		
Station # 2 Moses Kill	6-13	12:00-21:00	1145	1	4	Good	Downloaded data from flowmeter Restart at 12:00 6-16
	6-14	0:00-21:00	1145	5	12		
	6-15	0:00-21:00	1145	13	20	* X-24	
	6-16	0:00-9:00	1145	21	24		
Station # 3 Rogers Island	6-13	12:00-21:00	1250	1	4	Good	Restart at 3:00 pm 6-16
	6-14	0:00-21:00	1250	5	12	~~missed 12:00 on 6-16~~	
	6-15	0:00-21:00	1250	13	20		
	6-16	0:00-~~12~~:00	1250	21	24 plus one manual @ 12:50		
Station # 4 TID-West	6-13	15:00-21:00	~~0~~210	1	3	Good	Restart at 3:00 pm 6-16
	6-14	0:00-21:00	210	4	11		
	6-15	0:00-21:00	210	12	19		
	6-16	0:00-12:00	210	20	24		
Station # 5 East	6-13	12:00-21:00	1045	1	4	Good	Restart at 12:00 6-16
	6-14	0:00-21:00	1045	5	12		
	6-15	0:00-21:00	1045	13	20		
	6-16	0:00-9:00	1045	21	24		

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 6·13·97
Weather Hazy, Warm, humid, Chance of Showers
Temperature 80-90°
Comments
X-23 Blind Duplicate taken @ Snook Kill on 6·12·97

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	6·11·97	12:00-21:00	09:00	1	4	AOK	(*) Took Blind Duplicate X-23 @ 6·12·97
	6·12·97	00:00-21:00	09:00	5	12	Reprogrammed for 12:00 pm on 6·13·97	
	6·13·97	00:00-09:00	09:00	13	16		
Station # 2 Moses Kill	6·11·97	15:00-21:00	10:25	1	3	AOK	Reprogrammed for 12:00 on 6·13
	6·12·97	00:00-21:00	10:25	4	11		
	6·13·97	00:00-09:00	10:25	12	15		
Station # 3 Rogers Island	6·11·97	09:00-21:00	09:30	1	5	AOK	Reprogrammed for 12:00 on 6·13·97
	6·12·97	00:00-21:00	09:30	6	13		
	6·13·97	00:00-09:00	09:30	14	17		
Station # 4 TID-West	6·11·97	12:00-21:00	12:00	1	4	AOK	Reprogrammed for 15:00 on 6·13·97
	6·12·97	00:00-21:00	12:00	5	12		
	6·13·97	00:00-12:00	12:00	13	17		
Station # 5 -East	6·11·97	12:00-21:00	11:15	1	4	AOK	Reprogrammed for 12:00 on 6·13·97
	6·12·97	00:00-21:00	11:15	5	12		
	6·13·97	00:00-09:00	11:15	13	16		

M

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 6.11.97
Weather Clear, Sunny, Calm, Fantastic
Temperature 80-90°
Comments 6.10.97 - Rogers Island - X-22 Blind Duplicate

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	6.9.97 6.10.97 6.11.97	~~[illegible]~~ 12:00-21:00 00:00-21:00 00:00-09:00	09:00 09:00 09:00	1 5 13	4 12 16	Good Reprogrammed for 12:00 on 6.11.97	Skipped 09:00 S on monday tra 182.5 ml from e of 4 samples 12:00- on 6.9.97
Station # 2 Moses Kill	6.9.97 6.10.97 6.11.97	12:00-21:00 00:00-21:00 00:00-12:00	12:00 12:00 12:00	1 5 13	4 12 17	AOK	Reprogrammed fo 15:00 on 6.11.9
Station # 3 Rogers Island	6.9.97 6.10.97 6.11.97	15:00-21:00 00:00-21:00 00:00-06:00	08:00 08:00 08:00	1 4 12	3 11 14	AOK * Took Blind Duplicate X-22 on 6.10.97	Bottle 1 only parti filled ~ 250 ml Reprogrammed to be on 6.11.97 @ 09
Station # 4 TID-West	6.9.97 6.10.97 6.11.97	12:00-21:00 00:00-21:00 00:00-09:00	10:00 10:00 10:00	1 5 13	4 12 16	AOK	Reprogrammed for 12:00 on 6.11.97
Station # 5 -East	6.9.97 6.10.97 6.11.97	12:00-21:00 00:00-21:00 00:00-09:00	11:00 11:00 11:00	1 5 13	4 12 16	AOK	* Change Batte ✓ Yes Reprogrammed for 12:00 on 6.11.97

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 6-9-97
Weather clear, warm
Temperature 65-80°F
Comments No blind duplicate collected.

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	6-6-97	09:00 ~~0:00~~ - 21:00	9:30	1	5	Good	Restarted for 12:00 6-9-97
	6-7-97	0:00 - 21:00	9:30	6	13		
	6-8-97	0:00 - 21:00	9:30	14	21		
	6-9-97	0:00 - 6:00	9:30	22	24		
Station # 2 Moses Kill	6-6	12:00 - 21:00	12:00	1	4	Good	Restarted for 12:00 6-9-97
	6-7	0:00 - 21:00	12:00	5	12		
	6-8	0:00 - 21:00	12:00	13	20		
	6-9	0:00 - 9:00	12:00	21	24		
Station # 3 Rogers Island	6-6	15:00 - 21:00	13:15	1	3	Good	Restarted for 15:00 6-9-97
	6-7	0:00 - 21:00	13:15	4	11		
	6-8	0:00 - 21:00	13:15	12	19		
	6-9	0:00 - 12:00	13:15	20	24		
Station # 4 TID-West	6-6-97	12:00 - 21:00	10:30	1	4	Good	Restarted for 12:00 6-9-97
	6-7-97	0:00 - 21:00	10:30	5	12		
	6-8-97	0:00 - 21:00	10:30	13	20		
	6-9-97	0:00 - 9:00	10:30	21	24		
Station # 5 East	6-6	12:00 - 21:00	11:30	1	4	Good	Restarted for 12:00 6-9-97
	6-7	0:00 - 21:00	11:30	5	12		
	6-8	0:00 - 21:00	11:30	13	20		
	6-9	0:00 - 9:00	11:30	21	24		

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 6.6.97
Weather Clear, Sunny, Warm, Beautiful
Temperature 70-80°F
Comments X-21 Blind Duplicate on TID-West @ 6.5.97 - Check depths of Sample inlets due to low water levels

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	6.4.97	12:00-21:00	8:30	1	4	AOK	Reprogrammed 9:00 Am on 6.6
	6.5.97	00:00-21:00	8:30	5	12		
	6.6.97	00:00-06:00	8:30	13	15		
Station # 2 Moses Kill	6.4.97	15:00-21:00	11:00	1	3	AOK	Reprogrammed 12:00 Pm on 6.6
	6.5.97	00:00-21:00	11:00	4	11		
	6.6.97	00:00-09:00	11:00	12	15		
Station # 3 Rogers Island	6.4.97	15:00-21:00	12:00	1	3	AOK	Reprogrammed 15:00 on 6.6.9
	6.5.97	00:00-21:00	12:00	4	11		
	6.6.97	00:00-12:00	12:00	12	16		
Station # 4 TID-West	6.4.97	12:00-21:00	9:15	1	4	AOK * Sample inlet at 1 ft. depth	* Will Replace Battery ✓ - Yes
	6.5.97	00:00-21:00	9:15	5	12	Blind Dup collected X-21 on 6.5.97	
	6.6.97	00:00-09:00	9:15	13	16		Reprogrammed for 12:00 on 6.6.97
Station # 5 -East	6.4.97	12:00-21:00	10:15	1	4	AOK	Reprogrammed For 6.6.97 @ 12:00
	6.5.97	00:00-21:00	10:15	5	12		
	6.6.97	00:00-09:00	10:15	13	16		

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 6.4.97
Weather Fantastic - Clear, Sunny, Warm, Calm
Temperature 70° F
Comments Nice Day - No Dups

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	6.2.97	12:00-21:00	9:45	1	4	AOK	Downloaded data Did Velocity & Stage measurem
	6.3.97	00:00-21:00	9:45	5	12		
	6.4.97	00:00-09:00	9:45	13	16		
Station # 2 Moses Kill	6.2.97	15:00-21:00	14:15	1	3	AOK	Down loaded Data Did Velocity and Stage measurements
	6.3.97	00:00-21:00	14:15	4	11		
	6.4.97	00:00-12:00	14:15	12	16		
Station # 3 Rogers Island	6.2.97	12:00-21:00	12:30	1	4	AOK	check sample composite time w/ last Field log.
	6.3.97	00:00-21:00	12:30	5	12		
	6.4.97	00:00-12:00	12:30	13	17		
Station # 4 TID-West	6.2.97	12:00-21:00	10:30	1	4	AOK	—
	6.3.97	00:00-21:00	10:30	5	12		
	6.4.97	00:00-09:00	10:30	13	16		
Station # 5 [illegible]-East	6.2.97	15:00-21:00	11:45	1	3	AOK	—
	6.3.97	00:00-21:00	11:45	4	11		
	6.4.97	00:00-09:00	11:45	12	15		

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 6.2.97
Weather Cloudy, calm, humid, chance of rain
Temperature 60-70°F
Comments monday

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5.30.97	12:00-21:00	10:00	1	4	AOK	09:00 sample on
	5.31.97	00:00-21:00	10:00	5	12	Took 5.31.97	6.2.97 taken
	6.1.97	00:00-21:00	10:00	13	20	Blind Duplicate	at 10:00 Am - Stopped during Flow meter evaluat
	6.2.97	00:00-09:00	10:00	21	24	X-20 *	Reprogrammed for 12:00
Station # 2 Moses Kill	5.30.97	15:00-21:00	12:45	1	3	AOK	Reprogrammed for
	5.31.97	00:00-21:00	12:45	4	11		15:00 on 6.2.97
	6.1.97	00:00-21:00	12:45	12	19		
	6.2.97	00:00-12:00	12:45	20	24		
Station # 3 Rogers Island	5.30.97	15:00-21:00	9:15	1	3	AOK	Replaced Battery *
	5.31.97	00:00-21:00	9:15	4	11		Cleaned Sample Bottles also
	6.1.97	00:00-21:00	9:15	12	19		Reprogrammed for
	6.2.97	00:00-07:00	9:15	20	23		12:00 on 6.2.97
Station # 4 TID-West	5.30.97	12:00-21:00	10:30	1	4	AOK	Reprogrammed
	5.31.97	00:00-21:00	10:30	5	12	Cleaned Sample	For 12:00 on
	6.1.97	00:00-21:00	10:30	13	20	Bottles	6.2.97
	6.2.97	00:00-09:00	10:30	21	24		
Station # 5 TID-East	5.30.97	12:00-21:00	12:00	1	4	AOK	Reprogrammed
	5.31.97	00:00-21:00	12:00	5	12		For 3:00 on 6.29
	6.1.97	00:00-21:00	12:00	13	20		
	6.2.97	00:00-12:00	12:00	21	24(+1)		

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UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5.30.97
Weather Cloudy, Calm, Chance of Showers (Yes - intermittent showers)
Temperature 58°F - 65°F
Comments Friday after samplers have run since tuesday (5.27 day after memorial Day) X-19 Blind Duplicate - No computer Today so no downloading

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5.~~27~~.97	12:00 - 21:00	8:30	1	4	AOK	* Replaced Battery
	5.~~28~~.97	00:00 - 21:00	8:30	5	12		
	5.29.97	00:00 - 21:00	8:30	13	20		Tribs low flow
	5.30.97	00:00 - 09:00	8:30 +2:15	21	24		
Station # 2 Moses Kill	5.27.97	15:00 - 21:00	12:00	1	3	AOK	None Tribs - low flow
	5.28.97	00:00 - 21:00	12:00	4	11		
	5.29.97	00:00 - 21:00	12:00	12	19		
	5.30.97	00:00 - 12:00	12:00	20	24		
Station # 3 Rogers Island	5.27.97	12:00 - 21:00	13:30	1	4	*(X-19) Blind Duplicate Taken 5.28.97	Instead of 12:00 noon for part of 5.30.97 composite
	5.29.97	00:00 - 21:00	13:30	5	12		
	5.29.97	00:00 - 21:00	13:30	13	20		
	5.30.97	00:00 - 12:00	13:30	21	24 +(1)	took 1:15 pm sample	
Station # 4 TID-West	5.27.97	18:00 - 21:00	9:30	1	2	AOK	None
	5.28.97	00:00 - 21:00	9:30	3	10		
	5.29.97	00:00 - 21:00	9:30	11	18		
	5.30.97	00:00 - 09:00	9:30	19	22		
Station # 5)-East	5.27.97	15:00 - 21:00	10:30	1	3	AOK	None
	5.28.97	00:00 - 21:00	10:30	4	11		
	5.29.97	00:00 - 21:00	10:30	12	19		
	5.30.97	00:00 - 09:00	10:30	20	23		

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5.27.97
Weather Good, clear, Sunny, slight breeze
Temperature 60-70°F
Comments

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5.23.97	12:00 - 20:00	09:15	1	3	Program Complete AOK - * Collected X-18 5-26-97 Blind Duplicate Cleaned Sample Bottles	Interval set to 240 minutes beginning at 12:00 on 5.23.97. Interval Reset to 180 minutes on 5.27.97, Reprog to begin on 5.27.97 at 12:00
	5.24.97	00:00 - 20:00		4	9		
	5.25.97	00:00 - 20:00		10	15		
	5.26.97	00:00 - 20:00		16	21		
	5.27.97	00:00 - 08:00		22	24		
Station # 2 Moses Kill	5.23.97	12:00 - 20:00 16	12:30	1	2	Took 167 ml from 00:00, 04:00, 08:00 on 5.27.97 & 125 ml from 12:00 * Will Replace Battery ✓ Replaced Battery	Changed Interval from 240 minutes to 180 minutes on 5.27.97 at 12:10 Reset to sample at 15:00 on 5.27.97
	5.24.97	00:00 - 20:00		3	8		
	5.25.97	00:00 - 20:00		9	14		
	5.26.97	00:00 - 20:00		15	20		
	5.27.97	00:00 - 12:00		21	24		
Station # 3 Rogers Island	5.23.97	12:00 - 20:00	11:00	1	3	Program Complete AOK * Must Clean out Sample bottles on Friday	Interval set to 180 minutes Starting at 12:00 on 5.27.97 Reset from 240 min over 4-day weekend
	5.24.97	00:00 - 20:00	11:00	4	9		
	5.25.97	00:00 - 20:00	11:00	10	15		
	5.26.97	00:00 - 20:00	11:00	16	21		
	5.27.97	00:00 - 08:00	11:00	22	24		
Station # 4 TID-West	5.23.97	16:00 - 20:00	3:30	1	2	Program Complete. AOK took 15:30 sample instead of 15:00 on 5.27.97	Reset for 18:00 on 5.27.97 @ 180 min. interval
	5.24.97	00:00 - 20:00		3	8		
	5.25.97	00:00 - 20:00		9	14		
	5.26.97	00:00 - 20:00		15	20		
	5.27.97	00:00 - 15:30		21	24		
Station # 5 -East	5.23.97	18:00 - 20:00	2:00	1	2	Program Complete	Reset 15:00 5.27.97 @ 180 minute interval
	5.24.97	00:00 - 20:00		3	8		
	5.25.97	00:00 - 20:00		9	14		
	5.26.97	00:00 - 20:00		15	20		
	5.27.97	00:00 - 12:00		21	24		

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5.23.97
Weather Good - Sunny, few Clouds, mild, calm
Temperature 50° F
Comments Day Before Holiday weekend - must program samplers to Run for 4 days.
Interval = 240 minutes

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5.21.97	12:00-21:00	9:15	1	4	AOK -	Reprogrammed to Start on 5.23.9 at 12:00 -
	5.22.97	00:00-21:00	9:15	5	12		changed Interval
	5.23.97	00:00-09:00	9:15	13	16	on TUESDAY 5.27.97 - must take 167 ml From 12:00, 16:00, 20:00	240 minutes 4 hr so 6 Samples per D
Station # 2 Moses Kill	5.21.97	12:00-21:00	11:05	1	4	AOK	Reprogrammed to St at 12:00 on 5.23.9
	5.22.97	00:00-21:00	11:05	5	12	Used DI. and to scrub brush Cleaned scum off	and will begin inter of 240 minutes (4 hr
	5.23.97	00:00-09:00	11:05	13	16	of sample jars,	for the holiday weeke
Station # 3 Rogers Island	5.21.97	12:00-21:00	10:00			AOK	Reprogrammed to Star at 12:00 on 5.23.9
	5.22.97	00:00-21:00	10:00			X-17 blind Duplicate taken	at 4 hr interval, Tues composite of 5.23
	5.23.97	00:00-09:00	10:00			of 5.22.97.	will be of 167 ml the 3 samples
Station # 4 TID-West	5.21.97	15:00-21:00	3:30	1	3	AOK	Reprogrammed to start at 4:00 PM
	5.22.97	00:00-21:00	3:30	4	11		on 5.23.97 at
	5.23.97	00:00-12:00	3:30	12	16		4 hr. intervals
Station # 5 TID-East	5.21.97	15:00-21:00	2:00	1	3	AOK	Reprogrammed to Start at 16:00 on
	5.22.97	00:00-21:00	2:00	4	11	Used D.I. and Scrub brush to	5.23.97 at 4 hr
	5.23.97	00:00-12:00	2:00	12	16	clean Scum off of Sample Jars.	intervals.

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5.21.97
Weather Partly cloudy, Calm, slight chance of rain - yes rain intermittently from 10:00 - on
Temperature 50°F
Comments

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5.19.97	12:00-21:00	09:15	1	4	AOK -	Downloaded Data, Measured Velocit profile - Reprogrammed for 12:00 on ~~Friday~~ We 5.21.97
	5.20.97	00:00-21:00	09:15	5	12		
	5.21.97	00:00-09:00	09:15	13	16		
Station # 2 Moses Kill	5.19.97	15:00-21:00	11:15	1	3	AOK -	Reprogrammed for 12:00 on 5.21.97 5.19.97 composite made up of 7 samp 00:00, 03:00, 06:00, 09:00, 15:00, 18:00, 21:00.
	5.20.97	00:00-21:00	11:15	4	11		
	5.21.97	00:00-09:00	11:15	12	15		
Station # 3 Rogers Island	5.19.97	15:00-21:00	10:15	1	3	AOK -	
	5.20.97	00:00-21:00	10:15	4	11		Reprogrammed for 15:00 on 5.21.97
	5.21.97	00:00-~~[illegible]~~ 09:00	10:15	12	15		
Station # 4 TID-West	5.19.97	12:00-21:00	13:30	1	4	AOK -	* Will Replace Battery ✓
	5.20.97	00:00-21:00	13:30	5	12		Reprogrammed for 15:00 on 5.21.97
	5.21.97	00:00-12:00	13:30	13	17		
Station # 5 -East	5.19.97	15:00-21:00	12:30	1	3	AOK -	Reprogrammed for 15:00 on 5.21.97
	5.20.97	00:00-21:00	12:30	4	11		
	5.21.97	00:00-12:00	12:30	12	16		

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UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

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$ 400 -
Front Section
584-3091

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5.19.97
Weather Overcast, light Rain (drizzle), slight breeze
Temperature 50°F
Comments

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5.16.97	10:00	12:00-21:00	1	4	AOK - program complete	Reset for 12:00 PM on 5.19.97
	5.17.97	10:00	00:00-21:00	5	12		
	5.18.97	10:00	00:00-21:00	13	20		
	5.19.97	10:00	00:00-09:00	21	24		
Station # 2 Moses Kill	5.16.97	12:00-21:00 ~~14:00~~	14:45	1	4	AOK Reprogrammed for 15:00 on 5.19.97	Skipped sample 12:00 on 5.19.97 will composite with 7 samples 0:00-09:00, 15:00-21:00
	5.17.97	00:00-21:00 ~~14:00~~	14:45	5	12		
	5.18.97	00:00-21:00 ~~14:00~~	14:45	13	20		
	5.19.97	00:00-09:00 ~~14:00~~	14:45	21	24		
Station # 3 Rogers Island	5.16.97	~~12:00-21:00~~ 12:00-21:00	13:40	1	4	AOK - Reprogrammed (*) Replaced Battery	Took sample at 13:30 instead of 12:00 for 5.19.97 composite.
	5.17.97	00:00-21:00	13:40	5	12		
	5.18.97	00:00-21:00	13:40	13	20		
	5.19.97	00:00-09:00 13:30	13:40	21	24(41)		
Station # 4 TID-West	5.16.97	15:00-21:00	11:00	1	3	AOK Program Complete (*) X-16, Blind Duplicate Collected from 5.17.97	Reset for 12 PM on 5.19.97
	5.17.97	00:00-21:00	11:00	4	11		
	5.18.97	00:00-21:00	11:00	12	19		
	5.19.97	00:00-09:00	11:00	20	23		
Station # 5 TID-East	5.16.97	15:00-21:00	12:00	1	3	AOK - No problems	Reset for 15:00 on 5.19.97
	5.17.97	00:00-21:00	12:00	4	11		
	5.18.97	00:00-21:00	12:00	12	19		
	5.19.97	00:00-12:00	12:00	20	24		

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UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

ate 5.16.97
Weather Cloudy, occasional rain, windy
emperature 50°F
omments

ampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
ation # 1 Snook Kill	5.14.97	12:00–21:00	9:30	1	4	AOK	* Changed Battery
	5.15.97	00:00–21:00	9:30	5	12		Took Velocity measurements
	5.16.97	00:00–0900	9:30	13	16		Downloaded Data Reprogrammed for 12:00 on 5.16.97
Station # 2 Moses Kill	5.14.97	15:00–21:00	11:30	1	3	AOK	Reprogrammed for 12:00 on 5.16.97
	5.15.97	00:00–21:00	11:30	4	11		
	5.16.97	00:00–09:00	11:30	12	15		
Station # 3 gers Island	5.14.97	15:00–21:00	10:30	1	3	AOK	Reprogrammed for 12:00 on 5.16.97
	5.15.97	00:00–21:00	10:30	4	11		
	5.16.97	00:00–09:00	10:30	12	15		
ation # 4)-West	5.14.97	12:00–21:00	13:00	1	4	AOK	Reprogrammed for 15:00 on 5.16.97
	5.15.97	00:00–21:00	13:00	5	12		
	5.16.97	00:00–12:00	13:00	13	17		
ation # 5 East	5.14.97	12:00–21:00	12:15	1	4	AOK	Reprogrammed for 15:00 on 5.16.97
	~~5.15.97~~	~~00:00–21:00~~	~~12:15~~	~~5~~	~~12~~	→ SAMPLE SPILLED – NO SAMPLE AVAILABLE TO SUBMIT TO LAB	
	5.16.97	00:00–12:00	12:15	13	17		5.15.97 SAMPLE NOT OBTAINED – SAMPLE BOTTLE SPILLED

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311235

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5.14.97
Weather Partly cloudy, light winds, Sporadic Sunshine
Temperature 58-65°F
Comments Nice Day

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5.12.97	12:00-21:00	09:30	1	4	AOK	Restarted for 12:00 Pm on 5.14.96
	5.13.97	00:00-21:00	09:30	5	12		✱ Replaced Desiccant
	5.14.97	00:00-09:00	09:30	13	16		Took Velocity and Stage measurements
Station # 2 Moses Kill	5.12.97	15:00-21:00	12:30	1	3	AOK	Reprogrammed to Start at 15:00 on 5.14.96
	5.13.97	00:00-21:00	12:30	4	11		Took Velocity & Stage measurements
	5.14.97	00:00-12:00	12:30	12	16		
Station # 3 Rogers Island	5.12.97	12:00-21:00	13:30	1	4	AOK	Reprogrammed to Start at 15:00 on 5.14.
	5.13.97	00:00-21:00	13:30	5	12		
	5.14.97	00:00-12:00	13:30	13	17		
Station # 4 TID-West	5.12.97	15:00-21:00	10:15	1	3	AOK	Reprogrammed For 12:00 Pm on 5.14.97
	5.13.97	00:00-21:00	10:15	4	11	X-15 Blind Dup Collect on 5.13.97	
	5.14.97	00:00-09:00	10:15	12	15		
Station # 5 -East	5.12.97	15:00-21:00	11:05	1	3	AOK	Reprogrammed for 12:00 Pm on 5.14.97
	5.13.97	00:00-21:00	11:05	4	11		
	5.14.97	00:00-09:00	11:05	12	15		

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5.12.97
Weather Partly Cloudy - Raining early - Stopped by 10:30 Am
Temperature 50-55°
Comments Rains this past Weekend - EGH serviced samplers on Friday - will change dessic on Several Autosamplers.

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5.9.97 5.10.97 5.11.97 5.12.97	12:00-21:00 00:00-21:00 00:00-21:00 00:00-09:00	10:00	1 5 13 21	4 12 20 24	AOK Program Complete Measured Velocity Reset to start at 12:00 on 5.12.97	Downloaded Data Flow velocity got up to 1.3 ~~fps~~ on Sat May 11. Will composite Samples
Station # 2 Moses Kill	5.9.97 5.10.97 5.11.97 5.12.97	12:00-21:00 00:00-21:00 00:00-21:00 0:00-12:00	12:15	1 5 13 21	4 12 20 24(+1)	AOK Reset to Start at on 12:00 5.12.97	Replaced Dessicant Downloaded Data Measured Velocity Changed Battery
Station # 3 Rogers Island	5.9.97 5.10.97 5.11.97 5.12.97	12:00-21:00 00:00-21:00 00:00-21:00 00:00-09:00	11:00	1 5 13 21	4 12 20 24	AOK - Program Complete Reset to Start at 12:00 on 5.12.97	Changed Dessicant X-14 Blind Dup Collected 5.10.97
Station # 4 TID-West	5.9.97 5.10.97 5.11.97 5.12.97	15:00-21:00 00:00-21:00 00:00-21:00 00:00-12:00	2:30 PM 2:30	1 4 12 20	3 11 19 24	AOK - Program Complete	Reset to start at 15:00 on 5.12.97
Station # 5 -East	5.9.97 5.10.97 5.11.97 5.12.97	15:00-21:00 00:00-21:00 00:00-21:00 00:00-12:00	1:30	1 4 12 20	3 11 19 24	AOK - Program Complete	Replaced Dessicant Reset to Start at 15:00 on 5.12.97

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UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5-9-97
Weather LIGHT DRIZZLE A.M.; PT. CLOUDY P.M.
Temperature 55°F
Comments SUNNY YESTERDAY; RAIN THIS A.M.

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5-7-97	12:00-21:00	9:30	1	4	GOOD	Reprogramed to start @ 12:00 on 5-9-97
	5-8-97	0:00-21:00	9:30	5	12		
	5-9-97	0:00-9:00	9:30	13	16		
Station # 2 Moses Kill	5-7-97	18:00-21:00	11:45	1	2	GOOD	Reprogram to start @ 12:00 on 5-9-97
	5-8-97	0:00-21:00	11:45	3	10		
	5-9-97	0:00-9:00	11:45	11	14		
Station # 3 Rogers Island	5-7-97	15:00-21:00	10:45	1	3	GOOD	Reprogramed to start @ 12:00 on 5-9-97
	5-8-97	0:00-21:00	10:45	4	11		
	5-9-97	0:00-9:00	10:45	12	15		
Station # 4 TID-West	5-7-97	12:00-21:00	14:25	1	4	X-13 BD on 5-8-97	Reprogramed to start @ 15:00 on 5-9-97
	5-8-97	0:00-21:00	14:25	5	12	GOOD	
	5-9-97	0:00-12:00	14:25	13	17		
Station # 5 TID-East	5-7-97	12:00-21:00	13:00	1	4	~~X-13 Mixed duplicate on 5-8-97~~	Reprogram to start @ 15:00 on 5-9-97
	5-8-97	0:00-21:00	13:00	5	12		
	5-9-97	0:00-12:00	13:00	13	17	GOOD	

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5.7.97
Weather Cold, cloudy, moderate wind to Strong Wind (Afternoon)
Temperature 35-45° F
Comments Rained yesterday but no substantial Flow

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5.5.97	12:00-21:00	9:00	1	4	AOK	Reprogrammed to Start at 12:00 on 5.7.97
	5.6.97	00:00-21:00	9:00	5	12		
	5.7.97	00:00-09:00	9:00	13	16		Need to Replace Dessicant
Station # 2 Moses Kill	5.5.97	18:00-21:00	15:00	1	2	AOK	Reprogrammed to Start at 18:00 on 5.7.97
	5.6.97	00:00-21:00	15:00	3	10		
	5.7.97	00:00-03:00	15:00	11	16		Need to Replace Dessicant
Station # 3 Rogers Island	5.5.97	~~[illegible]~~ 15:00 -21:00	1:30	1	3	AOK	Reprogrammed For 15:00 on 5.9.97 Skipped 12:00 Sample on 5.5.97
	5.6.97	00:00-21:00	1:30	4	11		
	5.7.97	00:00-12:00	1:30	12	16		Need to Replace Dessicant
Station # 4 TID-West	5.5.97	15:00-21:00	10:30	1	3	AOK	Reprogrammed to Start at 12:00 on 5.7.97
	5.6.97	00:00-21:00 (missed 12:00)	10:30	4	11	$\boxed{X-12}$ *Blind	
	5.7.97	00:00-09:00	10:30	12	15	Dup collected 5.6.97 missed 12:00 on	-composite 5.6.97 so 7 bottles composited
Station # 5 TID-East	5.5.97	18:00-21:00	11:30	1	2	AOK	Reprogrammed to Begin on 5.7.97 at 12:00
	5.6.97	00:00-21:00	11:30	3	10	$\boxed{\text{* Replaced Battery}}$	
	5.7.97	00:00-09:00	11:30	11	14		

311240

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5.5.97
Weather Clear, Sunny, moderate breeze
Temperature 40 – 65° Cold in morning
Comments Nice Day – Discreet samples submitted – Should Replace Dessicant in Samplers – Soon – order Tuesday

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	5.2.97 5.3.97 5.4.97 5.5.97	15:00-21:00 00:00-21:00 (Grab) 00:00-21:00 (Grab) 00:00-09:00	09:00 Am GRAB Sample Every 3 Hours 0900 09:00	1 8 12 20	3 11 19 23	AOK 5.3 & 5.4.97 Discreet samples submitted every 3 hours.	Reprogrammed to Begin at 12:00 on 5.5.97
Station # 2 Moses Kill	5.2.97 5.3.97 5.4.97 5.5.97	12:00-21:00 00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00, 00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00 00:00, 03:00, 06:00, 09:00 & 15:00	15:15	1 5 13 21	4 12 20 24+1	Appears as though someone tried to Break in to shed – moved slightly – front R. door and Rt. side panel pulled apart – Side latches Undone on sampler	Must Replace Dessicant in Sampler Soon Reprogrammed for 12:00 on 5.5.97 Skipped 12:00 Sample in Composite of 5.5.97
Station # 3 Rogers Island	5.2.97 5.3.97 5.4.97 5.5.97	12:00-21:00 00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00 00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00 00:00 – 09:00	2:30 Pm 2:30 pm samples transferred	1 5 13 21	4 12 20 24	AOK program Complete	Reprogrammed to Start at 15:00 on 5.5.97 Skipped 12:00 Sample in Composite so Need to use 7 bottles ~143 ml
Station # 4 TID-West	5.2.97 5.3.97 5.4.97 5.5.97	15:00-21:00 00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00 00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00 00:00-12:00	12:00 12:00 Transferred Samples to Sample Bottles. 12:00	1 4 12 20	3 11 19 23	AOK 5.3 & 5.4 Discreet Samples Submitted every 3 hrs.	Reprogrammed to sample at 15:00 on 5.5.97 ~~[illegible] each of 7 bottles.~~
Station # 5 TID-East	5.2.97 5.3.97 5.4.97 5.5.97	12:00 - 21:00 00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00 00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00, 21:00 00:00, 03:00, 06:00, 09:00, 16:30	16:45 16:45 16:45 16:45	1 5 13 21	4 12 20 24+1	AOK Took 4:30 pm sample to Replace 12:00 & 15:00 samples on 5.5.97 → composite	With 7 bottles reset to Run at 6:00 on 5.5.97 ~~Need to~~ Replace Dessicant

 Need Concrete Bit – Concrete Set Screws, Hack Saw Gussets – Angle Iron

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 5.2.97
Weather Partly Cloudy, breezy, 45-60°F, Cool
Temperature 45-60°F
Comments 2nd part of 4:30 discrete Sampling, then composite 5.1, 5.2.97, X-10 Blind duplicate on Moses kill 5.1.97.

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.30.97 5.1.97 5.2.97	18:00, 21:00 00:00-21:00 00:00-12:00	12:15 transferred Grab Samples 12:15 12:15	1 3 11	2 10 15	AOK Changed Battery	Reprogramed for 3:00 Pm on 5.2.97 Flow/velocity is low 0.0 on Flowmeter
Station # 2 Moses Kill	4.30.97 5.1.97 5.2.97	12:00, 15:00, 18:00, 21:00 00:00-21:00 00:00-09:00	Grab Samples Transferred on 5.2.97 @ 9:45 Am 09:45	1 5 13	4 12 16	AOK X-10-Blind Duplicate collected 5.1.97	Reprogrammed for 12:00 Pm on 5.2.97
Station # 3 Rogers Island	4.30.97 5.1.97 5.2.97	15:00, 18:00, 21:00 00:00-21:00 00:00-09:00	Grab Samples transferred at 11:00 Am 11:00 11:00	1 4 12	3 11 16	AOK X-11 Blind Duplicate Collected 5.1.97	Reprogrammed for 12:00 Pm
Station # 4 TID-West	4.30.97 5.1.97 5.2.97	18:00, 21:00 00:00-21:00 00:00-12:00	transferred Samples at 13:45 13:45	1 3 11	2 10 15	AOK	Reprogrammed for 3:00 pm on 5.2.97
Station # 5 TID-East	4.30.97 5.1.97 5.2.97	12:00, 15:00, 18:00, 21:00 00:00-21:00 00:00-09:00	Grab; transfer @ 9:00 Am on 5.2.97 9:00 Am	1 5 13	4 12 16	AOK	Reprogrammed for 12:00 on 5.2.97

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4.30.97
Weather Beautiful – Clear, Sunny, calm
Temperature 55-65° F
Comments Collect Grab Samples today to coincide with high Flow

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.28.97 4.29.97 4.30.97	00:00, 03:00, 06:00 09:00, 12:00, 15:00 18:00, 21:00 00:00, 03:00, 06:00 09:00, 12:00, 15:00 18:00, 21:00 00:00, 03:00, 06:00 09:00, 12:00, 15:00	Grab Samples Every 3 Hours (Transferred to sample bottles @ 3:00 pm	20-23 1 – 5 13	4 12 18	AOK X-9 Blind Dup Collected here at 4.30.97 15:00, Reprogrammed to Start at 6:00 pm on	Downloaded Data Performed Stream Velocity Profile – Stage is up but Flow is slow 4.30.97
Station # 2 Moses Kill	4.28.97 4.29.97 4.30.97	00:00, 03:00, 06:00 09:00, 12:00, 15:00 18:00, 21:00 00:00, 03:00, 06:00 09:00, 12:00, 15:00 18:00, 21:00 00:00, 03:00 06:00 09:00	Samples Transferred at 1:00 on 4.30.97	21-24, 1 – 5 13	4 12 16	AOK ~~[illegible]~~ performed Stream Velocity measurements & Downloaded velocity and level data	Reset to start at 12:00 pm 4.30
Station # 3 Rogers Island	4.28.97 4.29.97 4.30.97	00:00, 03:00, 06:00 09:00, 12:00, 15:00 18:00, 21:00 00:00, 03:00, 06:00 09:00, 12:00, 15:00 18:00, 21:00 00:00, 03:00 06:00, 09:00, 12:00	Samples Transferred at 12:15 on 4.30.97	21-24, 19, 1 4 12	3 11 16	AOK X-8 Blind Dup Collected @ 12:00 pm on 4.30.97 – composite of additional Grab Sample	Reprogrammed to Start at 3:00 pm on 4.30.97
Station # 4 TID-West	4.28.97 4.29.97 4.30.97	00:00, 03:00, 06:00 09:00, 12:00, 15:00 18:00, 21:00 00:00, 03:00, 06:00 09:00, 12:00, 15:00 18:00, 21:00 00:00, 03:00, 06:00 09:00, 12:00, 15:00	Samples transferred at 16:45 on 4.30.97	20-24, 18, 1 3 11	2 10 16	AOK	Reset to begin at 12:00 on 4.30.97
Station # 5 East	4.28 4.29 4.30	00:00, 03:00, 06:00 09:00, ~~[illegible]~~ 15:00 18:00, 21:00 00:00, 03:00, 06:00 09:00, 12:00, 15:00 18:00, 21:00 00:00 – 03:00 06:00, 09:00	Grab Samples Every 3 Hours transferred to Sample bottles @ 8:30 on 4.30.97	21-24, 19, 1 – 3 11	2 10 14	4.28 – missed 12:00 & 15:00 but added 17:00 X-7 Blind Dup @ 09:00 on 4.30.97 ~~4.30.97 [illegible]~~ Composited Blind dup w/ 9:00 Sample two grab samples	Collecting Grab Samples to coincide w/ High Flow Restarted at 12:00 on 11:30

311242

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4.28.97
Weather Cloudy, Raining, cool, Slight Breeze
Temperature 40-50 °F
Comments Miserable Weather, Pulled one gate on 1 bedload sampler (middle one, west channel), only one left to pull - High flow sampling may occur tonight - left 4.28.97 samples to composite at later date or submit as grab samples. (X-6 Blind Dup on Moses Kill @ 4.26.97

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.25.97 4.26.97 4.27.97 4.28.97	15:00-21:00 00:00-21:00 00-21:00 00:00-09:00	11:00 AM 11:00 11:00 Not Yet	1 4 12 20	3 11 19 23	AOK	Reprogrammed to Start at 12:00 pm on 4.28.97 Did not composite bottles 20-23
Station # 2 Moses Kill	4.25.97 4.26.97 4.27.97 4.28.97	12:00-21:00 00-21:00 00-21:00 00:00-09:00	10:00 10:00 10:00 Not Yet	1 5 13 21	4 12 20 24	AOK - Program complete Did stream Velocity profile. 4.26.97 Moses Kill X-6 (Blind Dup)	Did not composite Bottles 21,22,23,24 but left until later date. Reprogrammed to Start at 12:00 pm on 4.28.97
Station # 3 Rogers Island	4.25.97 4.26.97 4.27.97 4.28.97	12:00-21:00 00:00-21:00 00:00-21:00 00:00-12:00	12:00 12:00 12:00 Not Yet	1 5 13 21	4 12 20 24(+)	AOK Checked bed load samplers - pulled one gate - Reprogrammed for 3:00PM 4.28.97. 19 12:00 pm 4.28.97	Did not composite Bottles # / Time: 19 / 12:00; 21 / 00:00; 22 / 03:00; 23 / 06:00; 24 / 09:00 for 4.28.97
Station # 4 TID-West	4.25.97 4.26.97 4.27.97 4.28.97	15:00-12:00 00:00-21:00 00:00-21:00 00:00-12:00	16:00 16:00 16:00 Not Yet	1 4 12 20	3 11 19 24(+)	AOK Reprogrammed to Start at 6:00 PM on 4.28.97 bottle # 18 12:00 pm 4.28.97	Did not composite bottles 20-24 and # 18 12:00 pm on 4.28.97
Station # 5 TID-East	4.25.97 4.26.97 4.27.97 4.28.97	12:00-21:00 00-21:00 00:00-21:00 00:00-09:00	 Not Yet	1 5 13 21	4 12 20 24(+)	AOK Reprogrammed to Start at bottle # 19 @ 17:15 pm on 4.28.97	Did not composite bottle # 21-24 and #19 (17:15pm 4.28.97)

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4.25.97
Weather Cool, overcast, chance of light rain
Temperature 45-50 °F
Comments Collected by Sean Lambert, X-5 blind Duplicate of Moses Kill 4.24.97

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.23.97 4.24.97 4.25.97	09:00-21:00 00:00-21:00 00:00-12:00	12:50 12:50 12:50	1 6 14	5 13 18	AOK Reprogrammed to start at 15:00 on 4.25.97	Velocity reads 0.0 on flow meter still. Will do velocity profile ab download data again
Station # 2 Moses Kill	4.23.97 4.24.97 4.25.97	15:00-21:00 00:00-21:00 00:00-09:00	10:00 10:00 10:00	1 4 12	3 11 15	AOK Battery - Good X-5 Blind Dup. 4.24.97	Downloaded data into Insight\data directory. Recorded Velocity Profile
Station # 3 Rogers Island	4.23.97 4.24.97 4.25.97	12:00-21:00 00:00-21:00 00:00-09:00	11:25 11:25 11:25	1 5 13	4 12 16	AOK Reprogrammed to start at 12:00 on 4.25.97	X Changed Batte[ry] Checked bedload samplers - same as weeds - no change
Station # 4 TID-West	4.23.97 4.24.97 4.25.97	09:00-21:00 00:00-21:00 00:00-12:00	13:45 13:45 13:45	1 6 14	5 13 18	AOK	Reprogrammed to start at 3:00 PM on 4.25.97
Station # 5 TID-East	4.23.97 4.24.97 4.25.97	15:00-21:00 00:00-21:00 00:00-09:00	9:00 9:00 9:00	1 4 12	3 11 15	AOK Reprogrammed to start at 12:00 PM on 4.25.97	Check Battery again - Not level so - Battery still green - It's goo[d]

HRSMPFRM.XLS X Changed Battery

311244

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4.23.97
Weather Clear, Sunny, Mild Breeze
Temperature 40-50's later
Comments Change Battery at Snook Kill,

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.21.97	15:00-21:00	8:45	1	3	AOK	Velocity = 0.0, was 0.0 all night - bubbler failed to help positive Readings - Removed Bubbler Pump
	4.22.97	00:00-21:00	8:45	4	11	* Changed Battery	
	4.23.97	00:00-06:00	8:45	12	14		
Station # 2 Moses Kill	4.21.97	09:00-21:00	13:10	1	5	AOK - No Problem	Downloaded Data and Performed Velocity Profile
	4.22.97	00:00-21:00	13:10	6	13		
	4.23.97	00:00-12:00	13:10	14	18		Reprogrammed for 15:00 on 4.23.97
Station # 3 Rogers Island	4.21.97	12:00-21:00	11:15	1	4	AOK Bed samplers west side 4 out of 6 chains have been pulled up several feet and lie on shore.	- Appears as though bed sediment samplers have been tampered with - Chains have a lot of slack.
	4.22.97	00:00-21:00	11:15	5	12		
	4.23.97	00:00-09:00	11:15	13	16		
Station # 4 TID-West	4.21.97	15:00-21:00	8:20	1	3	AOK - No problem	Reset to Start at 09:00 on 4.23.97
	4.22.97	00:00-21:00	8:20	4	11		
	4.23.97	00:00-06:00	8:20	12	14		
Station # 5 TID-East	4.21.97	09:00 - 21:00	~~8:20~~	1	5	AOK Battery is somewhat orange - may be getting low	Reprogrammed for 15:00 on 4.23.97
	4.22.97	00:00-21:00	~~8:20~~	6	13		
	4.23.97	00:00-12:00	~~8:20~~ 14:15	14	18		

311245

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

311246

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4.21.97
Weather partly cloudy, cold, No WIND
Temperature 35-40°F
Comments Replaced Battery in TID-West, X-4 blind dup 4.20.97 Rogers Isle

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.18.97 4.19.97 4.20.97 4.21.97	12:45 12:45 12:45 12:45	~~05:00~~-21:00 00:00-21:00 00:00-21:00 00:00-12:00	1 4 12 20	3 11 19 24	AOK - All Samples Collected Reprogrammed to start on 4.21.97	high velocity recorded 4.18.97 @ 8:00 PM 4.20.97 @ 8:30 AM From 0.5-1.4 fps
Station # 2 Moses Kill	4.18.97 4.19.97 4.20.97 4.21.97	12:00-21:00 00:00-21:00 00:00-21:00 00:00-06:00	08:30 08:30 08:30 08:30	1 5 13 21	4 12 20 23	AOK Reprogrammed to Start at 09:00 on 4.21.97	Velocity meter = 0.00 Visual 0.0-0.1 fps
Station # 3 Rogers Island	4.18.97 4.19.97 4.20.97 4.21.97	15:00-21:00 00:00-21:00 00:00-21:00 00:00-09:00	09:30 09:30 09:30 09:30	1 4 12 20	3 11 19 23	AOK Reprogrammed to Start at 12:00 on 4.21.97	X Blind Duplicate collected X-4 on 4.20.97
Station # 4 TID-West	4.18.97 4.19.97 4.20.97 4.21.97	15:00-21:00 00:00-21:00 00:00-21:00 00:00-12:00	12:30 12:30 12:30 12:30	1 4 12 20	3 11 19 24	AOK Reprogrammed to Start 15:00 on 4.21.97	* Replaced Battery
Station # 5 TID-East	1 Sample 4.18.96 - 4.21.96 4.21.97	4.18.96 - ~~[illegible]~~ 09:00 - 4.21.97 06:00 07:00	09:15 Grab Sample	— — —	— — —	No sample bottles Filled - water missed bottles and Filled center area of Sample bottle Holder - Distributor	Arm must be misaligned Will adjust again - Seems to be ok after adjusting ~~last time~~ Took weekend composite From 12:00 on 4.18.97 to 06:00 on 4.21.97.

HRSMPFRM.XLS

X Blind Duplicate 4.20.97 (X-4) Rogers Island

TOOK 4.21.97 sample @ 07:00 and Retained Full Sample.

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

311247

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4.18.97
Weather Cold, Raining / freezing Rain, moderate wind - Noreaster Storm
Temperature 30-35° F
Comments Terrible Weather had to transcribe field notes onto this log.

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.16.97 4.17.97 4.18.97	18:00-21:00 00:00-21:00 00:00-12:00	13:30 13:30 13:30	1 3 11	2 10 15	AOK - Changed Battery	Reprogrammed to start a 3:00 PM on 4.18.97 Had ~~[illegible]~~ Velocity of 0.43 a 0.34?
Station # 2 Moses Kill	4.16.97 4.17.97 4.18.97	10:00 Am 10:00 Am 10:00 Am	12:00-21:00 00:00-21:00 00:00-09:00	1 5 13	4 12 16	AOK Got velocity for Stream gauge and downloaded data onto computer	Programmed to start at 12:00 on 4.18.97
Station # 3 Rogers Island	4.16.97 4.17.97 4.18.97	12:10 PM 12:10 PM 12:10 PM	12:00-21:00 00:00-21:00 00:00-12:00	1 5 13	4 12 17	AOK Blind Dup Collected - X-3 from 4.17.97	Programmed to Start at 15:00 on 4.18.97
Station # 4 TID-West	4.16.97 4.17.97 4.18.97	15:00-21:00 00:00-21:00 00:00-12:00	14:05 14:05 14:05	1 4 12	3 11 16	AOK -	Reprogrammed to start at 3:00 PM on 4.18.97
Station # 5 TID-East	4.16.97 4.17.97 4.18.97	13:00, 18:00, 21:00 00:00, 06:00-21:00 00:00-09:00	08:45 08:45 08:45	24, 1 4 12	3 11 15	Samples from 13:00, 18:00, 21:00 00:00, 06:00-21:00 00:00-09:00 Some	Samples missed because program resets arm distributer even after it is advanced (manual) ~~composite of~~ Started at 09:00 am on 4.18.97

HRSMPFRM.XLS (X) Blind Dup X-3 - Rogers Island on 4.17.97 * Had to Adjust distributor Arm. Page 1 of 1

(*) Change Battery

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

311248

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4.16.97
Weather Clear, Sunny, Slight Breeze
Temperature 50–60 °F
Comments Gorgeous day – No Blind Dups, Switch Battery at Moses Kill. Problem with Sampler @ TID-East.

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.14.97 4.15.97 4.16.97	15:00-21:00 00:00-21:00 00:00-15:00	15:10 15:10 15:10	1 4 12	3 11 17	AOK – took 15:00 - 4.16.97 grab sample	Reprogrammed to Start at 15:00 on 4.16.97
Station # 2 Moses Kill	4.14.97 4.15.97 4.16.97	12:07 – 21:00 00:00-21:00 00:00-09:00	11:00 Am 11:00 Am 11:00 Am	1 4 12	3 11 15	12:07 and 15:00 sample both in Bottle #1, Arm did not advance properly? Composite will have mix of both times and take double Volume – 7 bottles total due	to one missed on 4.14.97 refer to previous field log. New Battery Reprogrammed to Start at 12:00 pm on 4.16.97
Station # 3 Rogers Island	4.14.97 4.15.97 4.16.97	12:00-21:00 00:00-21:00 00:00-09:00	11:45 Am 11:45 Am 11:45 Am	1 5 13	4 12 16	AOK	Reprogrammed to Start at 12:00 PM on 4.16.97
Station # 4 TID-West	4.14.97 4.15.97 4.16.97	15:00-21:00 00:00-3:00, 09:00-21:00 00:00 – 12:00	14:45 pm 14:45 pm 14:45 PM	1 4 12	3 11 16	missed 06:00 Sample on 4.15.97, Will Reprogram to Start at 15:00 on 4.16.97	7 sample composites for both 4.14.97 and 4.15.97 ~~six missed~~
Station # 5 TID-East	4.14.97 4.15.97 4.16.97	09:00-21:00 00:00-15:00 None	08:30 08:30	1 6	5 11	Sampler display says "Program discontinued" and does not respond to any buttons being pushed – Cannot be programmed	Sample volumes low – some discharged partially into brush holder. 200-400 ml bottles # 2,3,4,5,7,8 400-600 – 1,9 ~~600~~-800 – 10,11 The rest are empty

Friday

A - on Friday

HRSMPFRM.XLS Got 13:00 grab sample (bottle # 24) programmed to start on 15:00 on 4.16.97 on bottle # 6, bottle 5 is from 12:15 pm (Discard)

TID East 4.15.97 - 6 bottles composited

← – missed samples

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

311249

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4/14/97
Weather Clear, Sunny, No breeze
Temperature 45-50°F
Comments Nice Day - TID-East - Gate for Lock went up at 8:15 Am.

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.11.97 4.12.97 4.13.97 4.14.97	14:30 pm 14:30 pm 14:30 pm 14:30 pm	12:00-21:00 00:00-21:00 00:00-21:00 00:00-09:00	1 5 13 21	4 12 21 24	Programed to start at 15:00 on 4.14.97 missed 12:00 pm sample on 4.14.97 - 7 bottle Composite	Collect Blind Dup on 4.12.97 & (X-2)
Station # 2 Moses Kill	4.11.97 4.12.97 4.13.97 4.14.97	09:00-21:00 00:00-21:00 00:00-21:00 00:00-06:00	12:15 12:15 12:15 12:15	1 6 14 22	5 13 21 24	AOK - Program Complete, took @ 12:04 pm, 1 Sample, advanced to bottle 2 and programed to start at 3:00 Pm	11:48 - tried to download but RS-232 hookup was not being read properly. Need to review program. 4.14.97 sample missed 09:00 Sample, 7 bottle c
Station # 3 Rogers Island	4.11.97 4.12.97 4.13.97 4.14.97	12:00-21:00 00:00-21:00 00:00-21:00 00:00-09:00	10:30 10:30 10:30 10:30	1 5 13 21	4 12 20 24	AOK - Not Frozen, NO Samples Missed	Programmed to Start 12:00 pm on 4.14.97
Station # 4 TID-West	4.11.97 4.12.97 4.13.97 4.14.97	12:00-21:00 00:00-21:00 00:00-21:00 00:00-09:00	13:50 13:50 13:50 13:50	1 5 13 21	4 12 20 24	AOK. - No Samples missed - Program Complete - will Reprogram to Start at 15:00 on 4.14.97 will have	missed 12:00 Sample on 4.14.97 so composite of 7 Samples.
Station # 5 TID-East	4.11.97 4.12.97 4.13.97 4.14.97	09:00-21:00 00:00-21:00 00:00-21:00 00:00-06:00	8:45 Am 8:45 Am 8:45 Am 8:45 Am	1 6 14 22	5 13 21 24	AOK Programed to Start at 9:00 Am on 4.14.97	bottles 4, 5, 7, 8, 9 Volumes lower 700 ml

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

311250

Date 4.11.97
Weather Cold, Clear, Sunny, slight breeze
Temperature ~20°F
Comments

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.9.97 4.10.97 4.11.97	15:00-21:00 00:00-21:00 00:00-09:00	10:15 Am 10:15 Am 10:15 Am	1 4 12	3 11 15	ACK- Flow meter operation is questionable ⊗ Blind Dup collected 4.10.97	April 8th 9:00 pm last Velocity Non-zero value, mostly 0.0 before that back to 4.2.97 @ 9:30AM Depth 0.48 Ft.
Station # 2 Moses Kill	4.9.97 4.10.97 4.11.97	18:00, 21:00 00:00-21:00 00:00-06:00	7:52 Am 7:52 Am 7:52 Am	1 3 11	2 10 13	ACK/ 6 bottles for (Daily composite) 3 bottles taken - Programmed to start at 9:00 pm	Flow mostly 0.0 - Water Frozen on top air but the middle Visually Flow should about 0.0 (*)
Station # 3 Rogers Island	4.9.97 4.10.97 4.11.97	12:00-21:00 00:00-21:00 00:00-09:00	11:30 Am 11:30 Am 11:30 Am	1 5 12	4 12 16	SAMPLER-OK, No Samples missed Bottle # 16 @ 09:00 on 4.11.97 Low	Partially Frozen? Bottle 16 only 400ml
Station # 4 TID-West	4.9.97 4.10.97 4.11.97	00:00, 03:00, 06:00 16:00, 18:00, 21:00 00:00 & 09:00	Collected on 4.9.97 & Composited on 4.9.97 9:32 Am 9:32 Am	Also 1 bottle from 16:00 1 3	– 2 6	2 Samples missed on 4.11.97 @ 03:00 and 06:00. Many samples missed on 4.10.97 only 3 collected, Same with 4.9.97	⊗ ~~will take Blind Dup from 4.10.97~~ Reprogrammed start 12:00 4.11.97 Samples holding freeze during the night - Reprogrammed to start 12:00 on 4.11.97 missed (4,5) on 4.11.97
Station # 5 TID-East	4.9.97 4.10.97 4.11.97	12:00-21:00 00:00, 09:00-21:00 00:00-06:00	08:45 08:45 8:45 Am	1 5 13	4 12 15	missed 2 samples Composites of 00:00 & 09:00-21:00	* Changed battery at 03:00, 06:00 - Samples missed on 4.10.97 - 09:00 only ~200ml collected - Reprogrammed to start at 09:00 4.11.97

(*) moved Moses Kill - Flow meter out couple feet from depth of 0.99 to 1.83 ft.
⊗ Blind Dup collected 4.10.97 - SNOOK KILL

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4/10/97
Weather ~~4/23~~ Clear, Sunny, slight Breeze
Temperature 40° F
Comments

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill						AOK - Not Frozen No Samples missed	Flow is 0.0 fps and has been for all of 4/10 and most of 4/9 will check tomorrow again
Station # 2 Moses Kill						3:15 - AOK Not Frozen No Samples missed	Flow Sporadic but +/- 0.5 around 0.0
Station # 3 Rogers Island						3:30 AOK Not Frozen No Samples missed	
Station # 4 TID-West						3:55 pm - Took Grab Sample Reprogrammed to Start at 6:00 PM	→ Sample Bottle # 10 Will check tomorrow (Not Frozen) L: 07 left side
Station # 5 TID-East						Checked at 2:48 P.M. missed two samples and volumes are low - presumably due to frozen lines will check tomorrow	

311251

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

311252

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4.9.97
Weather ~~30~~ clear, moderate winds
Temperature 20°F, Wind Chill 0-10°F
Comments
Cold and things are Frozen

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	Sample Bottle Numbers end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.7.97 4.8.97 4.9.97	12:00 - 21:00 00:00 - 21:00 00:00 - 12:00	13:30 " "	1 5 13	4 12 17	Good -	AOK Flow reads 0 for Velocity - Visually zero Flow is practically (Need 3 bottles on Friday)
Station # 2 Moses Kill	4.7.97 4.8.97 4.9.97	15:00 - 21:00 00:00 - 21:00 00:00 - 06:00 & 15:00	10:00 10:00 ~~[illegible]~~ "	1 4 12	3 11 14	SAMPLER FROZEN Program Halted must Reprogram No bottle #15 EMPTY ?	3 bottles added to Mondays composite Resume with Sampler @ 12:00
Station # 3 Rogers Island	4.7.97 4.8.97 4.9.97	09:00 - 21:00 00:00 - 21:00 00:00 - 09:00	11:35 ~~[illegible]~~	1 6 14	5 13 16	GOOD - Switched Batteries Reset Program to Start at 12:00 Skipped one Sample	maybe program started at 12:00 Instead of 9:00 am - no indication somewhere
Station # 4 TID-West	4.8.97 4.9.97	09:00 - 21:00	14:30	1 6	5 8	GOOD - MOLane Reprogrammed on 4.8.97 in morning to Start at 9:00	Previous Program started at 8:53 Am 4.8.97 Took 8 Samples - missed 2 on Sample # 11. missed bottles 9,10 on 4.9.97 @ 9:00 am
Station # 5 TID-East	4.7.97 4.8.97	12:00 - 21:00 00:00 - 09:00	8:30 8:30	17 21	20 24	Arm Fault at bottle #7 - Program Halted - Arm would Reset to bottle 17 instead	of bottle #1 - MANUALLY MOVED Arm BACK TO #1 x Took Sample at 9:... on 4.9.97

...we #... 300 Sample ... In Start ... + Sam...

... Length ...

Program halted due to frozen line 12:00 ... due to frozen line

Must Resume program due to Frozen lines
Moses Kill Reprogrammed

Programmed to Run at 12:00 pm next Sample
Need Help [illegible]

Could Not Restart TID-West Due to Ice in Line

Moses Kill 4.9.97 missed 9:00 & 12:00 due to Frozen Sample Line - Got Sample at 3:00 pm

UPPER HUDSON RIVER HIGH FLOW MONITORING PROGRAM
TSS WATER COLUMN SAMPLING

FIELD SAMPLING AND INSPECTION LOG

Hudson River
Fort Edward, New York

Date 4/7/97
Weather Partly Cloudy / Slight Breeze
Temperature 45°F
Comments FIRST DAY OF COLLECTING SAMPLES FROM Automated Samplers - Will Reset Program due to Change of Clocks For Daylight Savings Time - Reset Time For ~~[illegible]~~ Daylight Savings time

Sampling Station ID	Date Sample Collected	Time Sample Collected	Time Sample Composited	Sample Bottle Numbers start	end	Condition of Sampling Station	Comments
Station # 1 Snook Kill	4.5.97 - 4.7.97	0:00 - 06:00 (Daylight Savings time)	09:30	1	19	Good	Reset Program to Start at 12:00 Am Daylight Savings time Reset Time from 8:37 to 9:37 Am Battery Good
(2 COMPOSITES, 1 PARTIAL)							
Station # 2 Moses Kill	4.5.97 — 4.7.97	00:00 — 12:00	11:53 & 12:08	1	20 21	Mouse nest inside Sampler - Connecting Line from battery to Sampler - mouse chewed through insulation and partly through wire	Check Power Cable Next time to see if mouse has chewed through again - Collected 12:00 sample and added to composite
(2 Full Composites, 1 partial collected)							
Station # 3 Rogers Island	4.5.97 - 4.7.97	0:00:00 - 08:00 (Daylight Savings Time)	08:30	1	19	Good	Reset Program to Start at 09:00 on 4/7/97 Battery - Good Reset time from 7:37 to 8:37 am
(2 Full Composites, 1 Partial)							
Station # 4 TID-West	~~4.5.97~~ - ~~4.7.97~~	~~00:00~~ - ~~09:00~~				GOOD	No Samples Collected Auto Sampler improperly programmed For level Mode -
(NO SAMPLES COLLECTED)							
Station # 5 TID-East	4.5.97 - ~~4.5.97~~	00:00 — 21:00	11:20	17	24	GOOD	Only 8 Samples Collected - all on 4.5.97 - Program Halted due to Arm Rotation Fault on bottle #9
(1 DAILY COMPOSITE)							

Restart program to [illegible] 3:00 PM (Next 3 [illegible] [illegible])

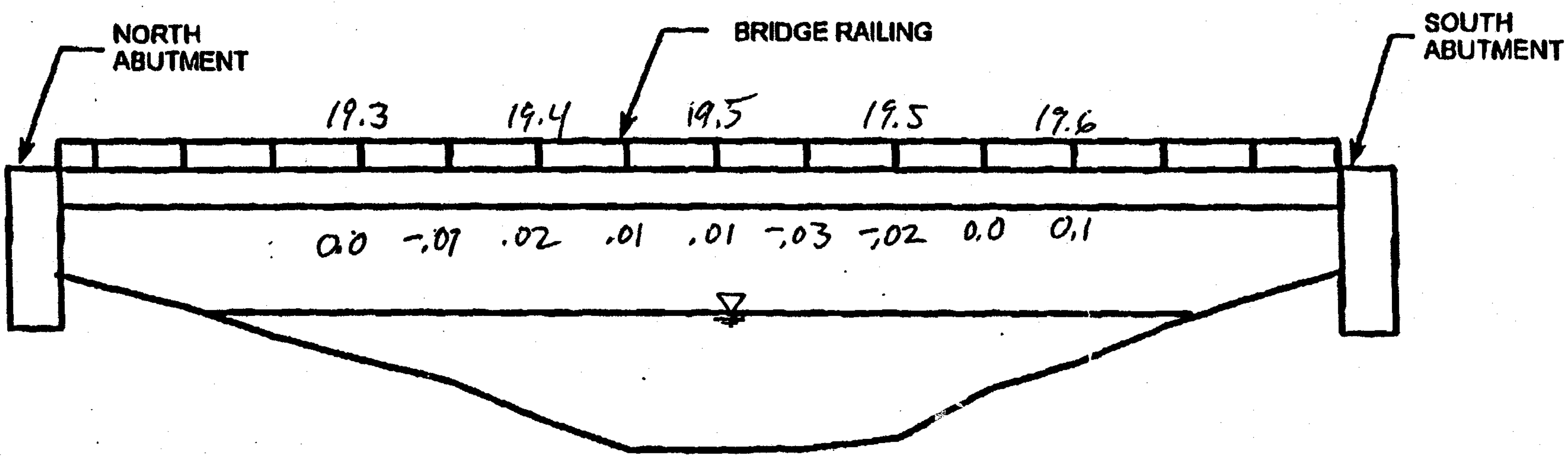
To Start Changing Pro

311253

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



6/18/97

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

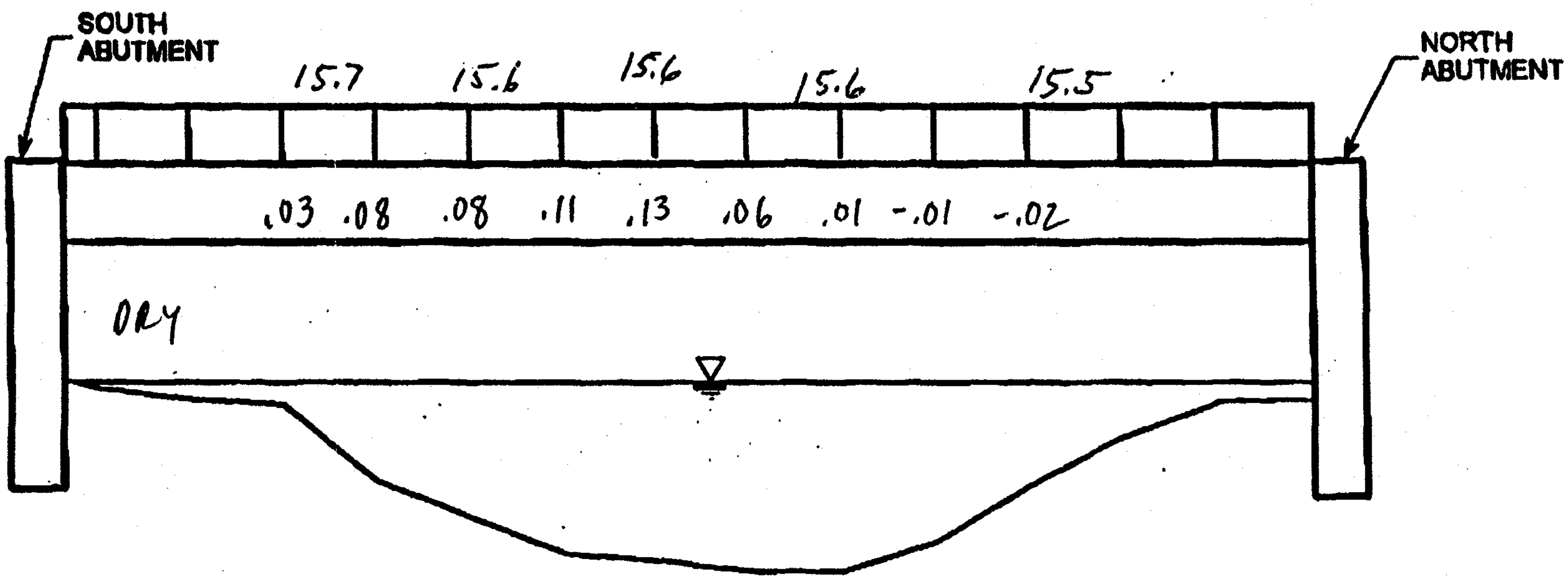
FIGURE

311254

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



6/18/97

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

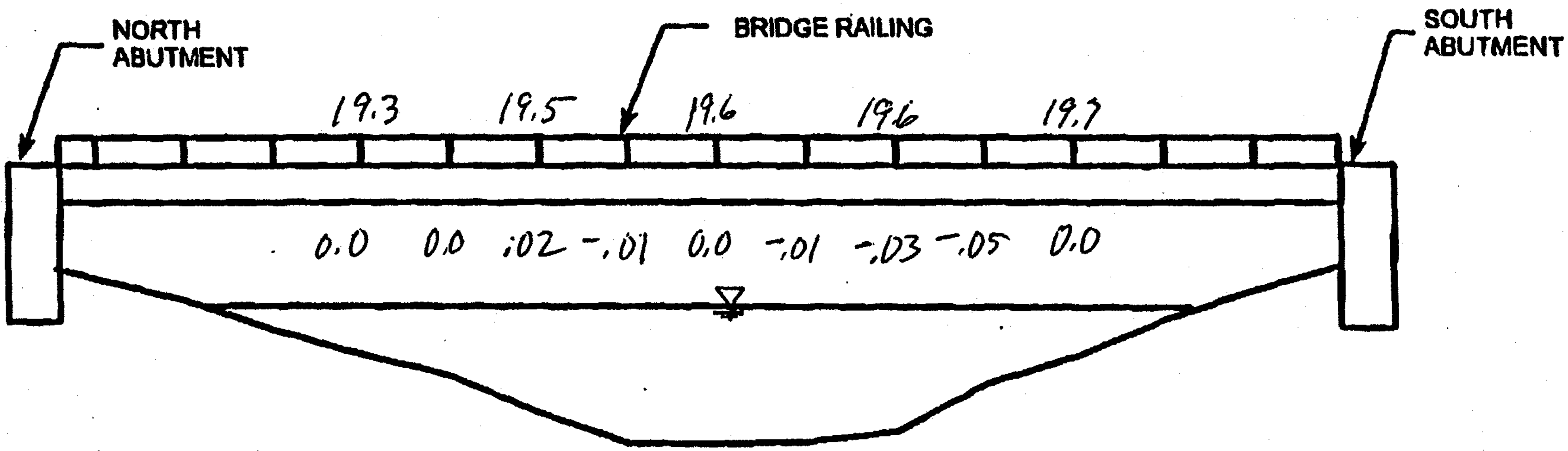
FIGURE

311255

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



6/16/97

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

O'BRIEN & GERE ENGINEERS, INC.

0 10 20
SCALE IN FEET

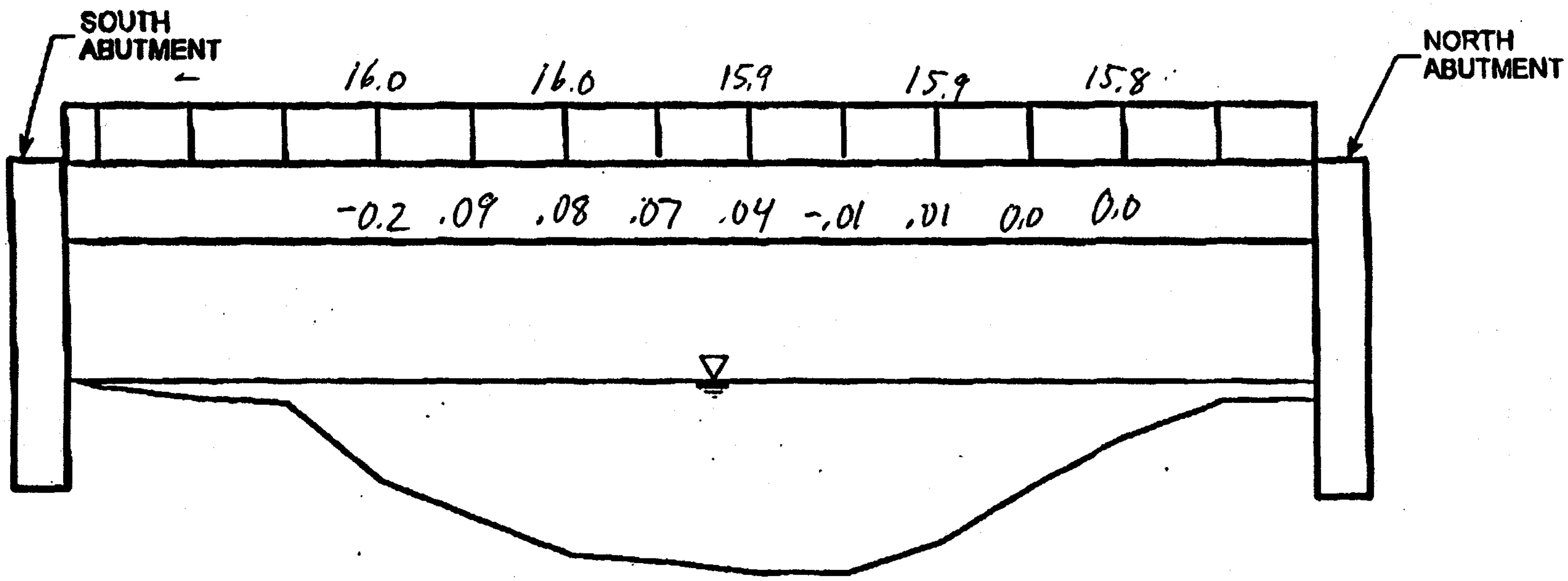
FIGURE

311256

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH WPO

FILE NO. 0612.226-04F



6/16/97

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

O'BRIEN & GERE ENGINEERS INC.

0 5 10

SCALE IN FEET

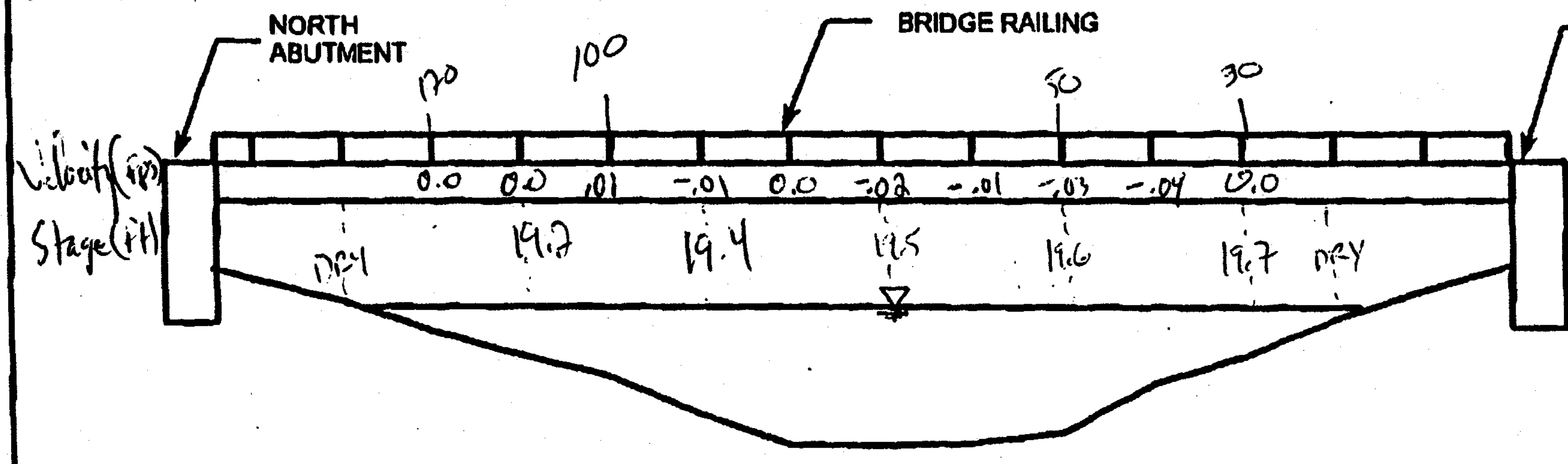
FIGURE

311257

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity Measured on 6·13·97 @ 10:00 Am

O'BRIEN & GERE ENGINEERS, INC.

0 10 20

SCALE IN FEET

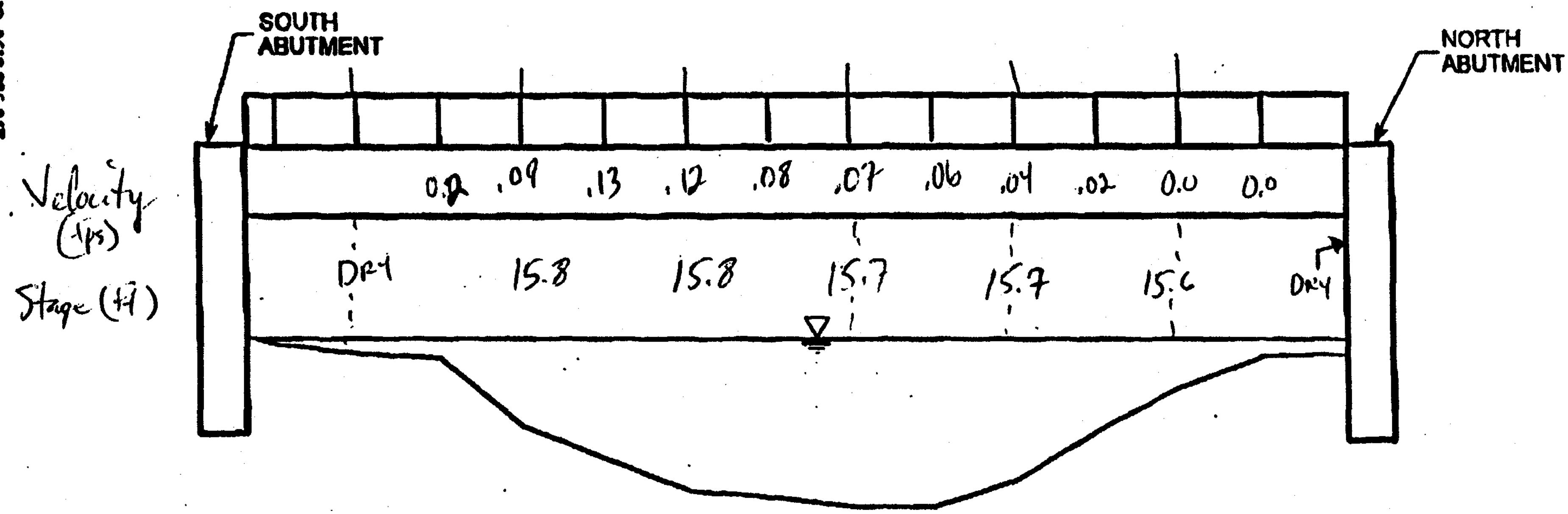
FIGURE

311258

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-047



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity Measured on 6.13.97 at 08:30 am

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

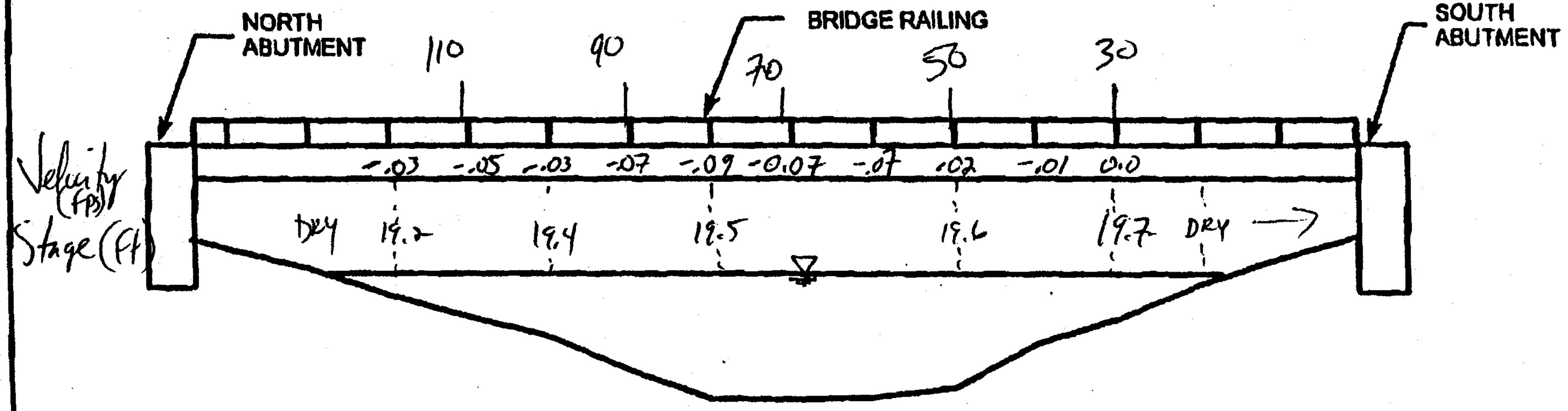
FIGURE

311259

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity Measured on 6.11.97 @ 12:00 pm

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

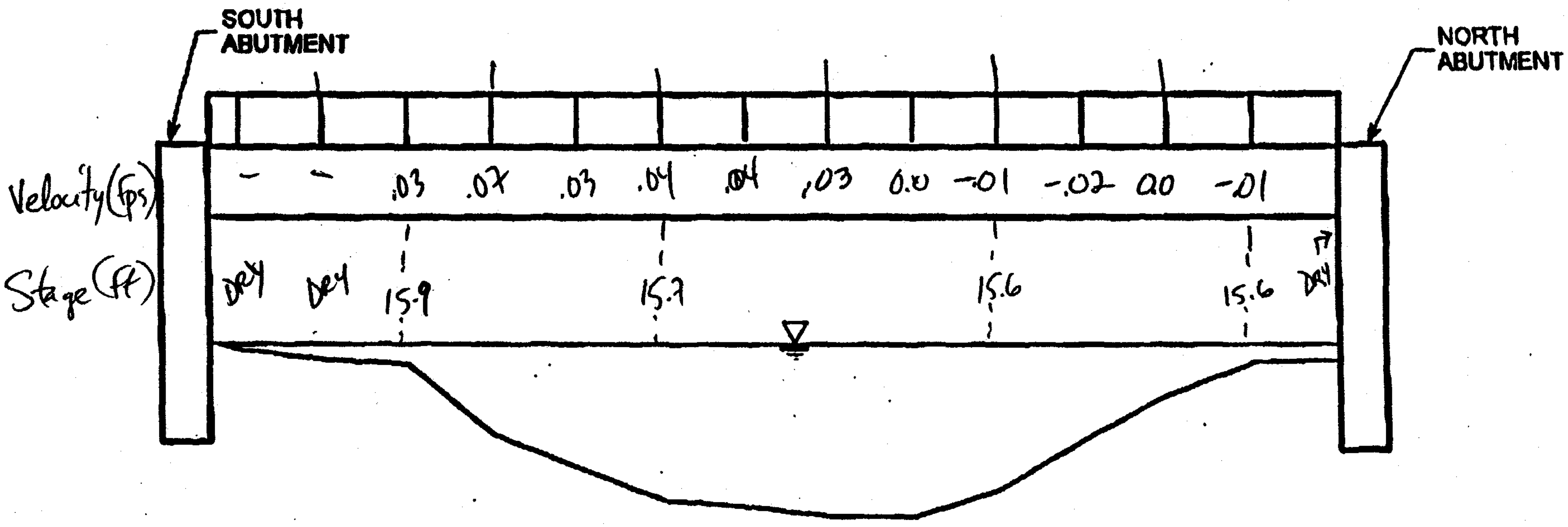
FIGURE

311260

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity measured on 6.11.97 @ 9:00 Am

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

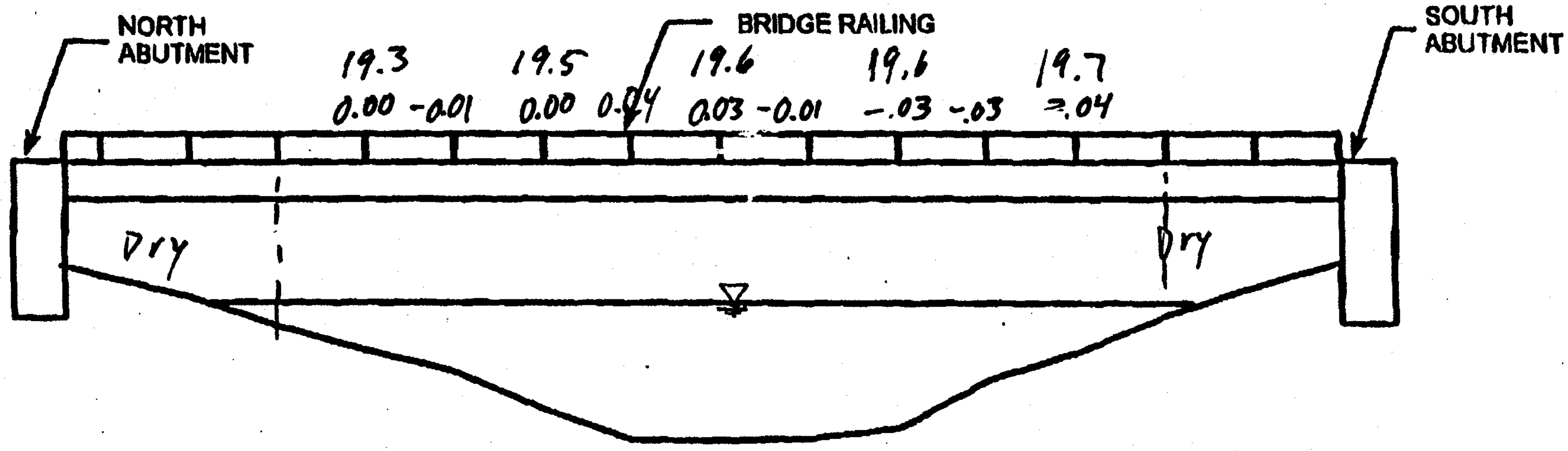
FIGURE

311261

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997)

6/9

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

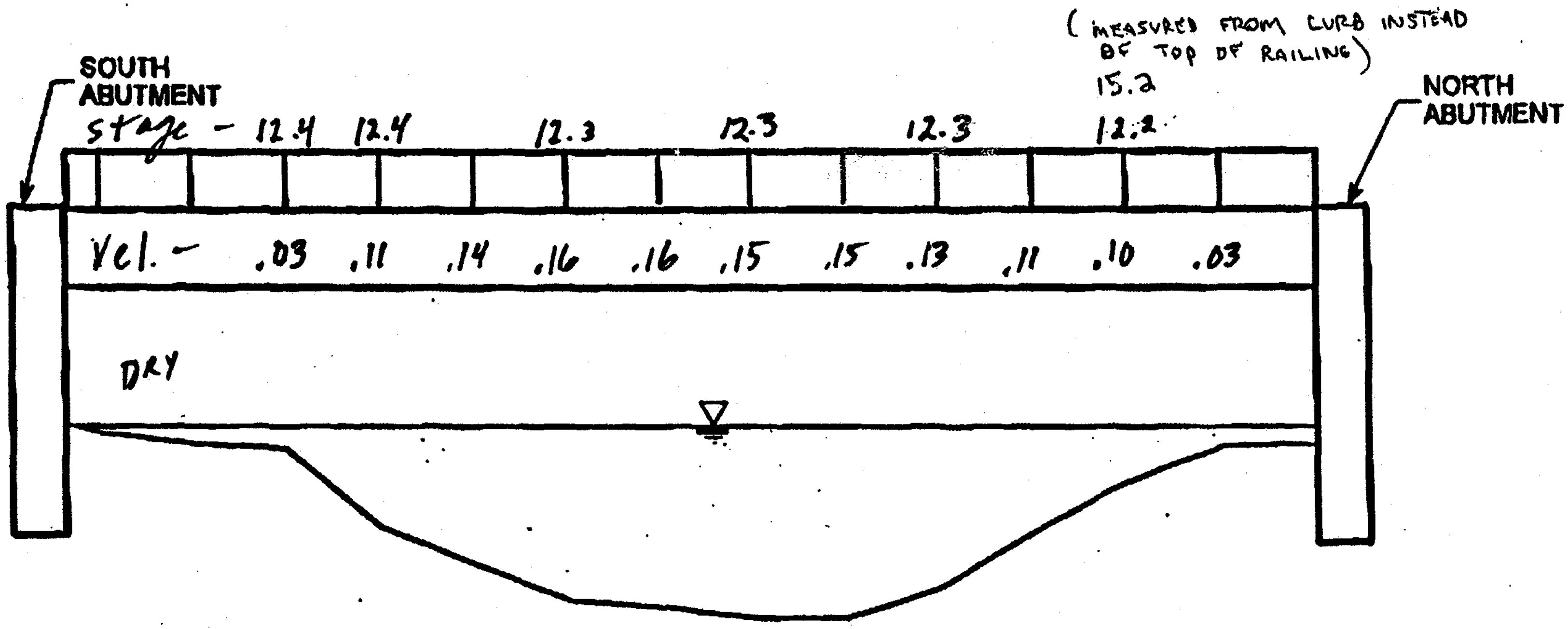
FIGURE

311262

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH WPO

FILE NO. 0612.226-04F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Vel. measured 6-9-97 @ 10:00

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

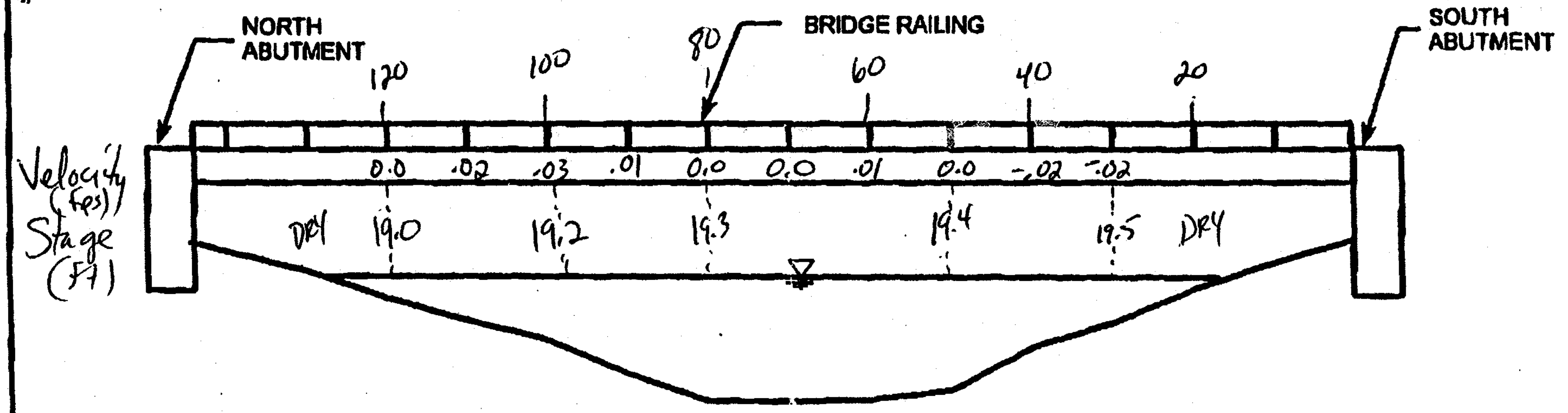
FIGURE

311263

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity measured on 6.6.97 @ 11:15 AM

0 10 20

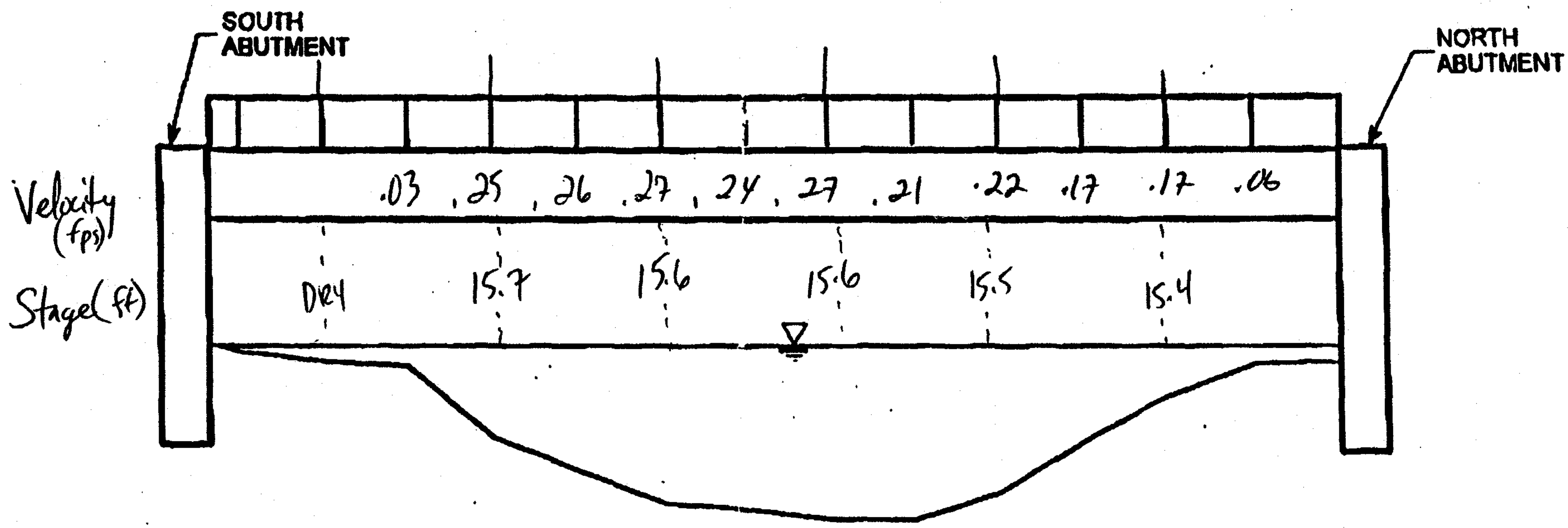
SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

FIGURE

311264

FILE NO. 0612.226-047



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity Measured on 6.6.97 @ 8:00

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

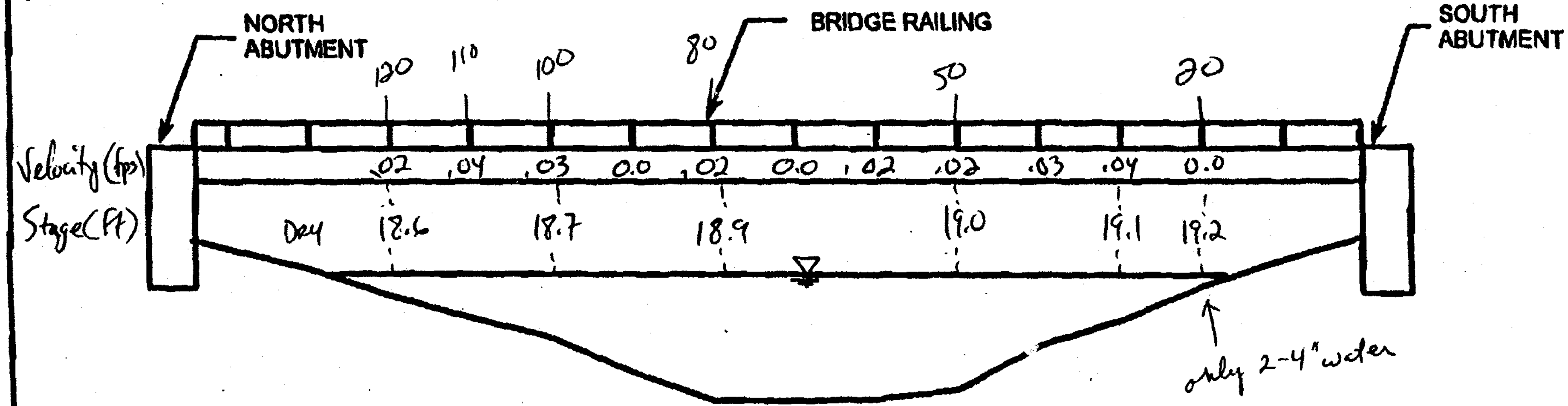
FIGURE

311265

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity measured at 1:45 pm on 6.4.97

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

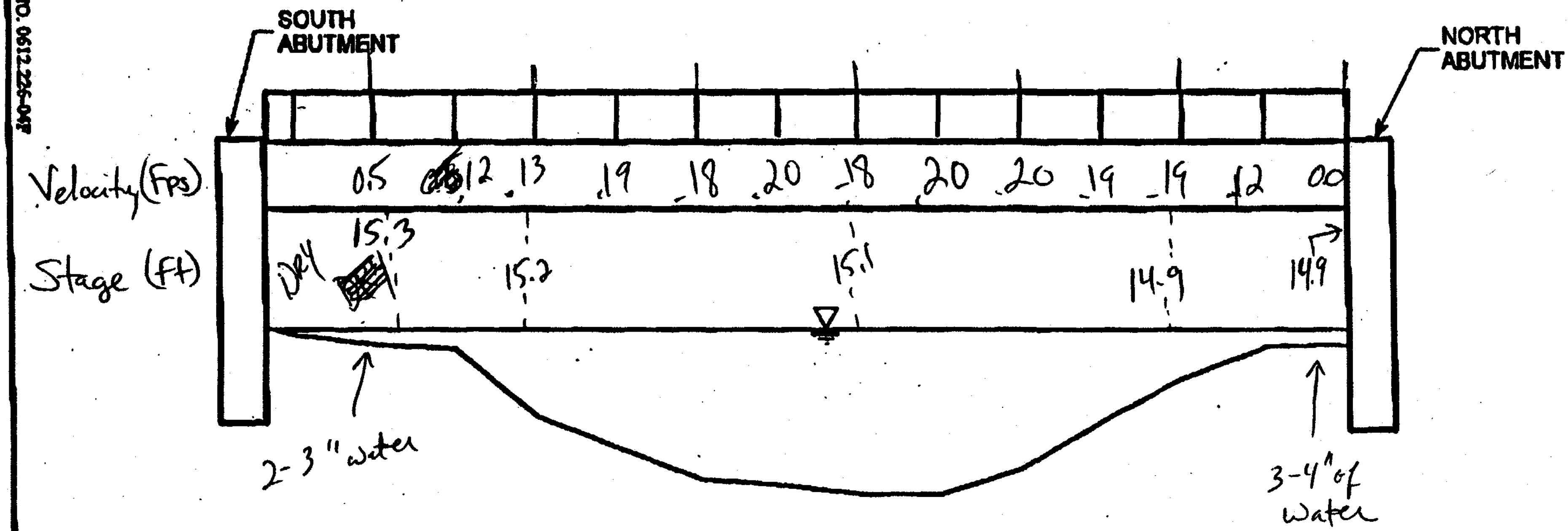
FIGURE

311266

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-047



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity Measured @ 9:30 Am on 6-4-97

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

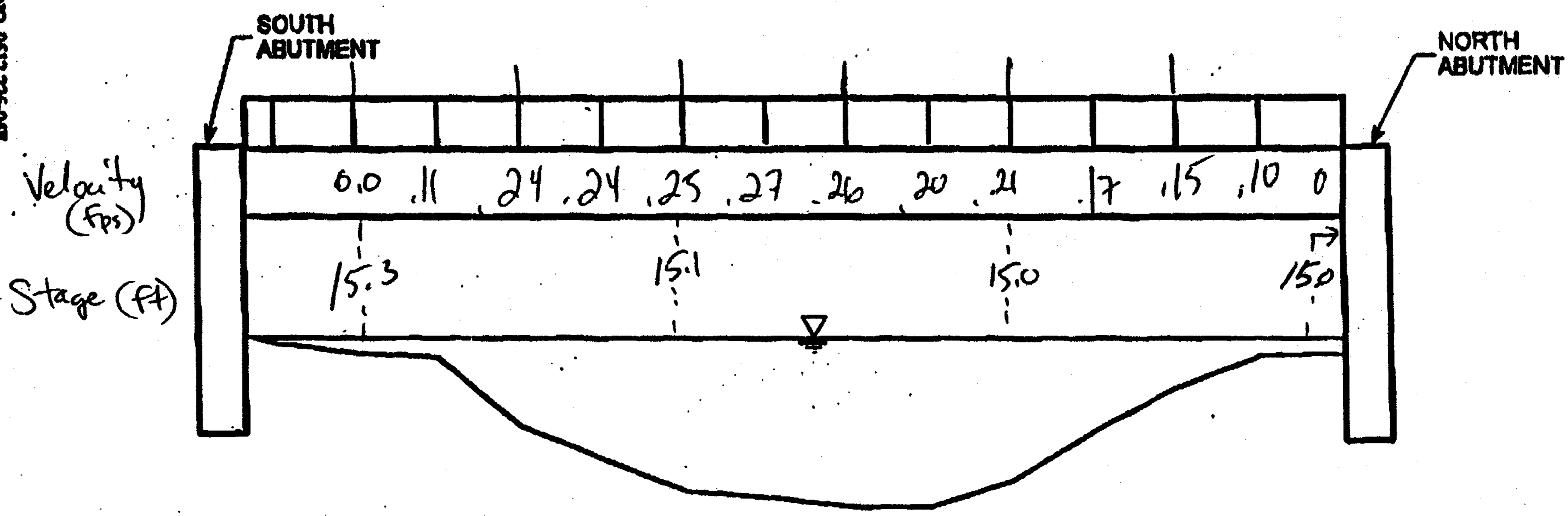
FIGURE

311267

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-047



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity measured on 6·2·97 @ 08:00

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

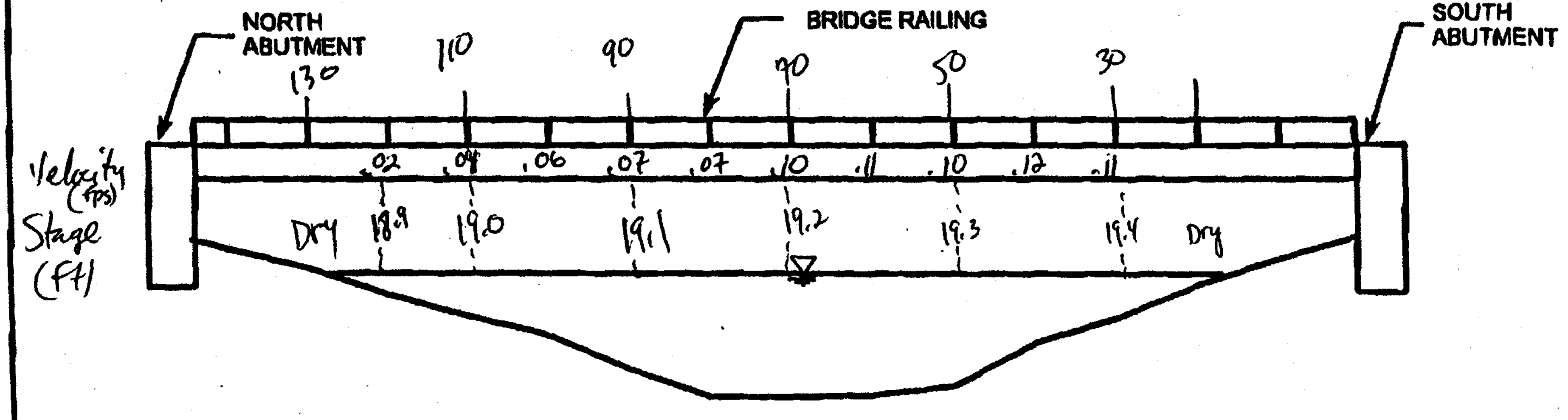
FIGURE

311268

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity Measured on 6.2.97 @ 13:00

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

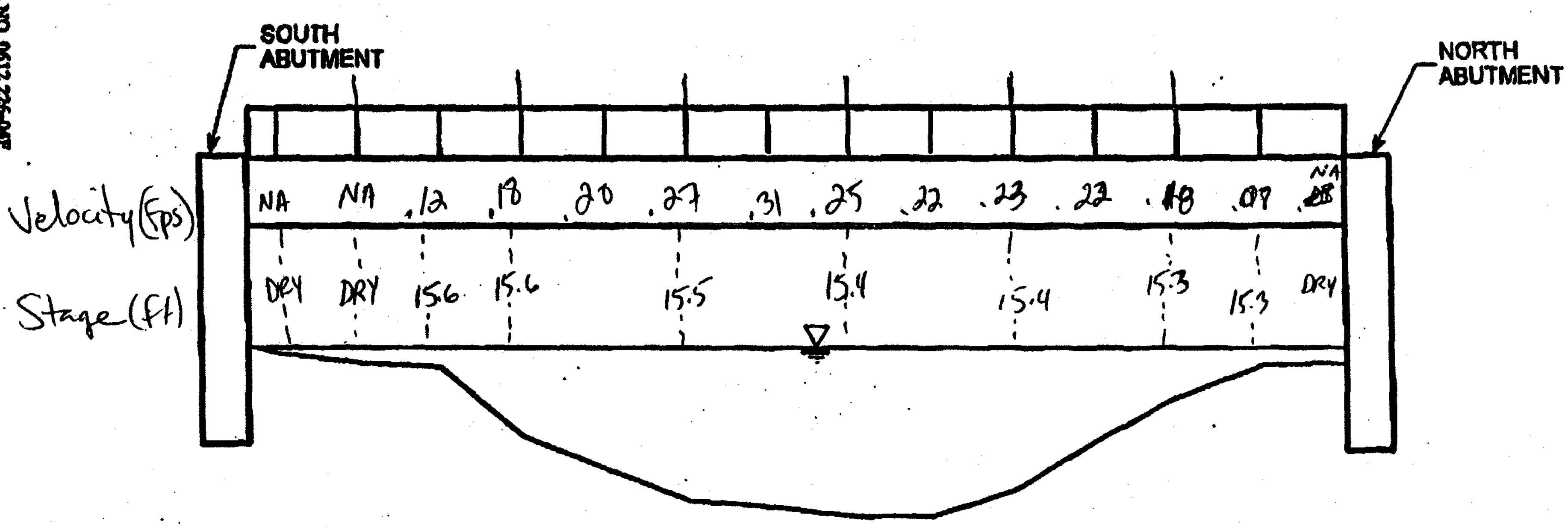
FIGURE

311269

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPO

FILE NO. 0612.226-097



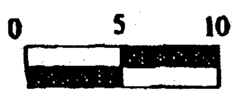
Velocity measured 0.5-1.0 ft. below top of water surface

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

measured 5·30·97 @ 08:00



SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

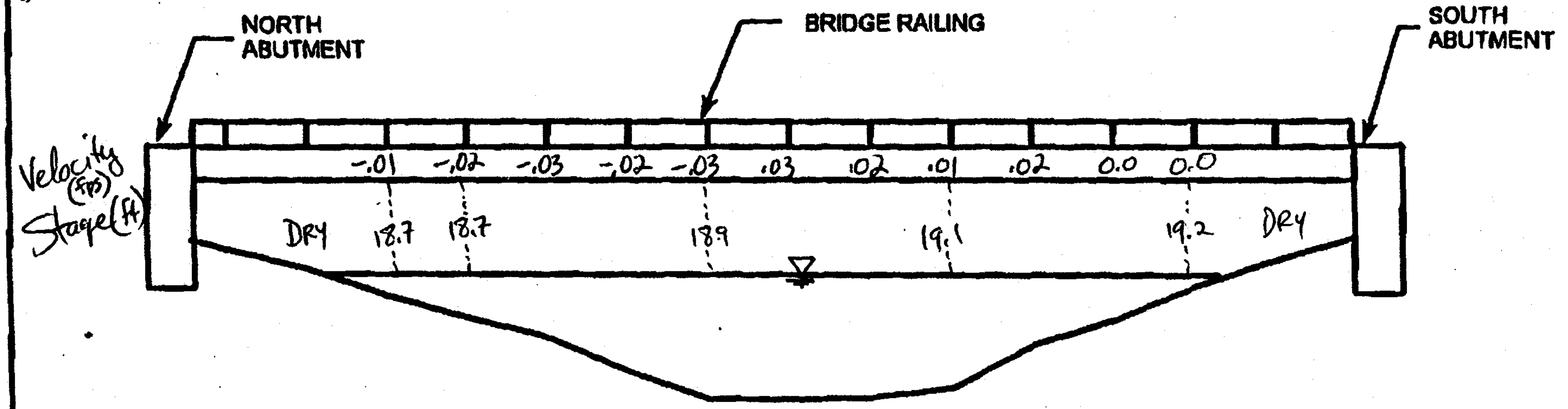
311270

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

5.30.97



Velocity measured 0.5 to 1.0 ft. below water surface due to low stage of stream and length limitation on cord

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity measured on May 30, 1997

transcribed from field notes - due to rain
Sean Lambert

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

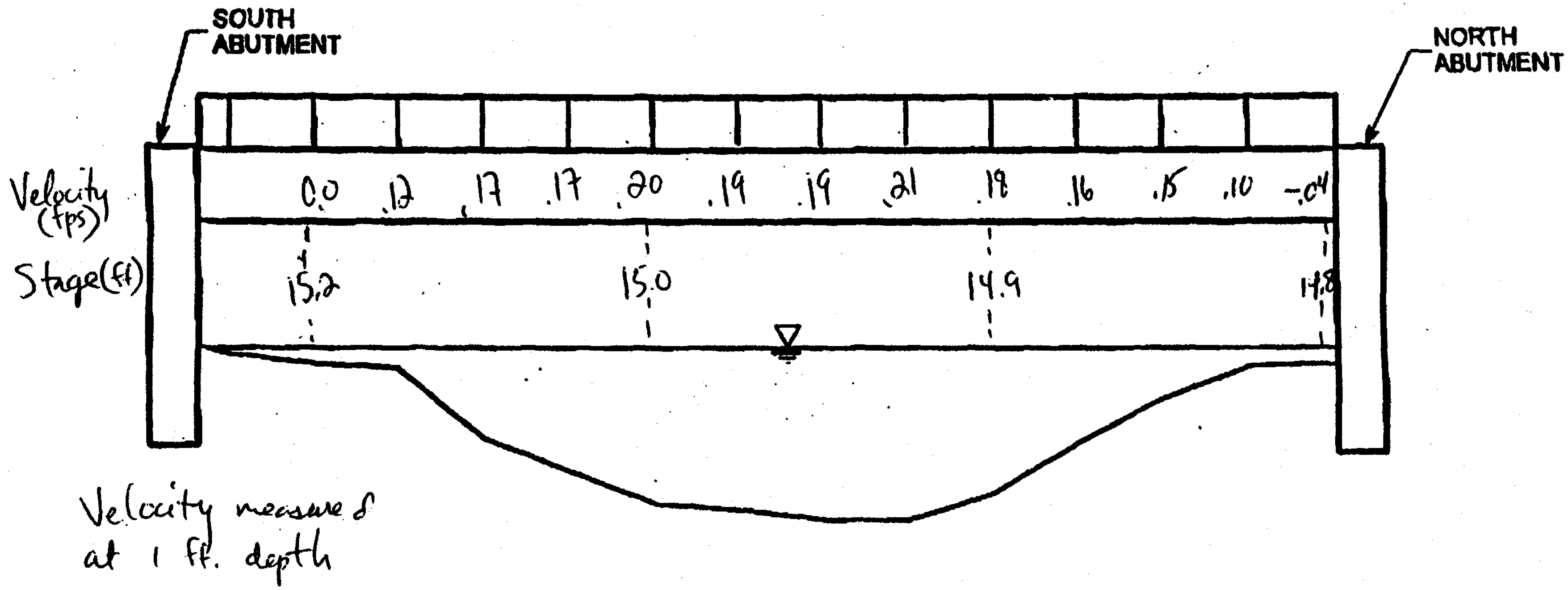
FIGURE

311271

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-047



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity measured 5.27.97 @ 9:00

0 5 10

SCALE IN FEET

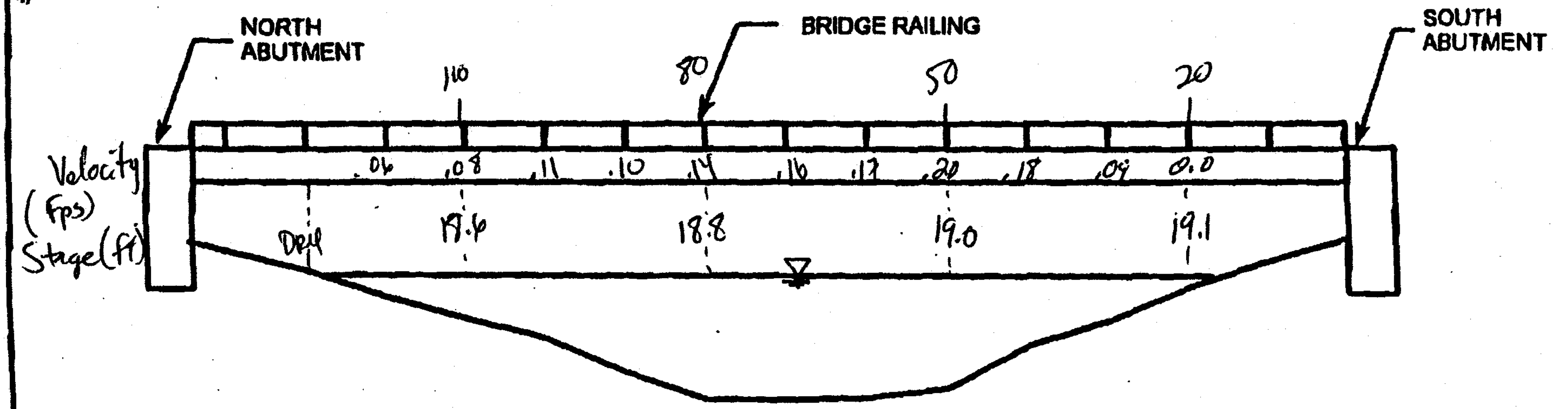
O'BRIEN & GERE ENGINEERS, INC.

FIGURE

DATE: MAY 20, 1997

E:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Measured on 5.27.97 @ 13:00

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

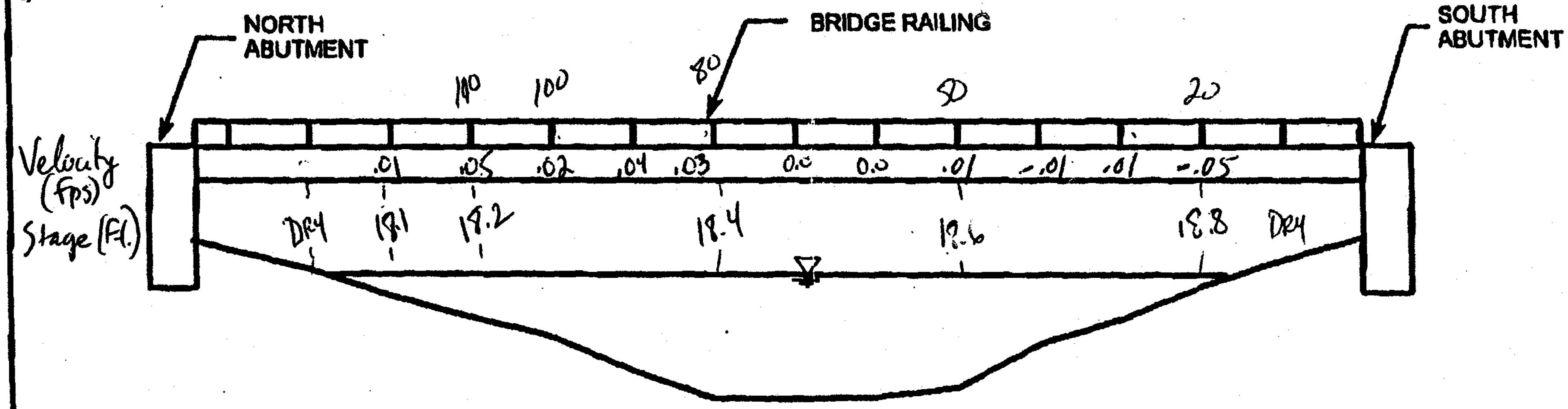
FIGURE

311273

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity measured on 5.23.97 @ 11:00

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

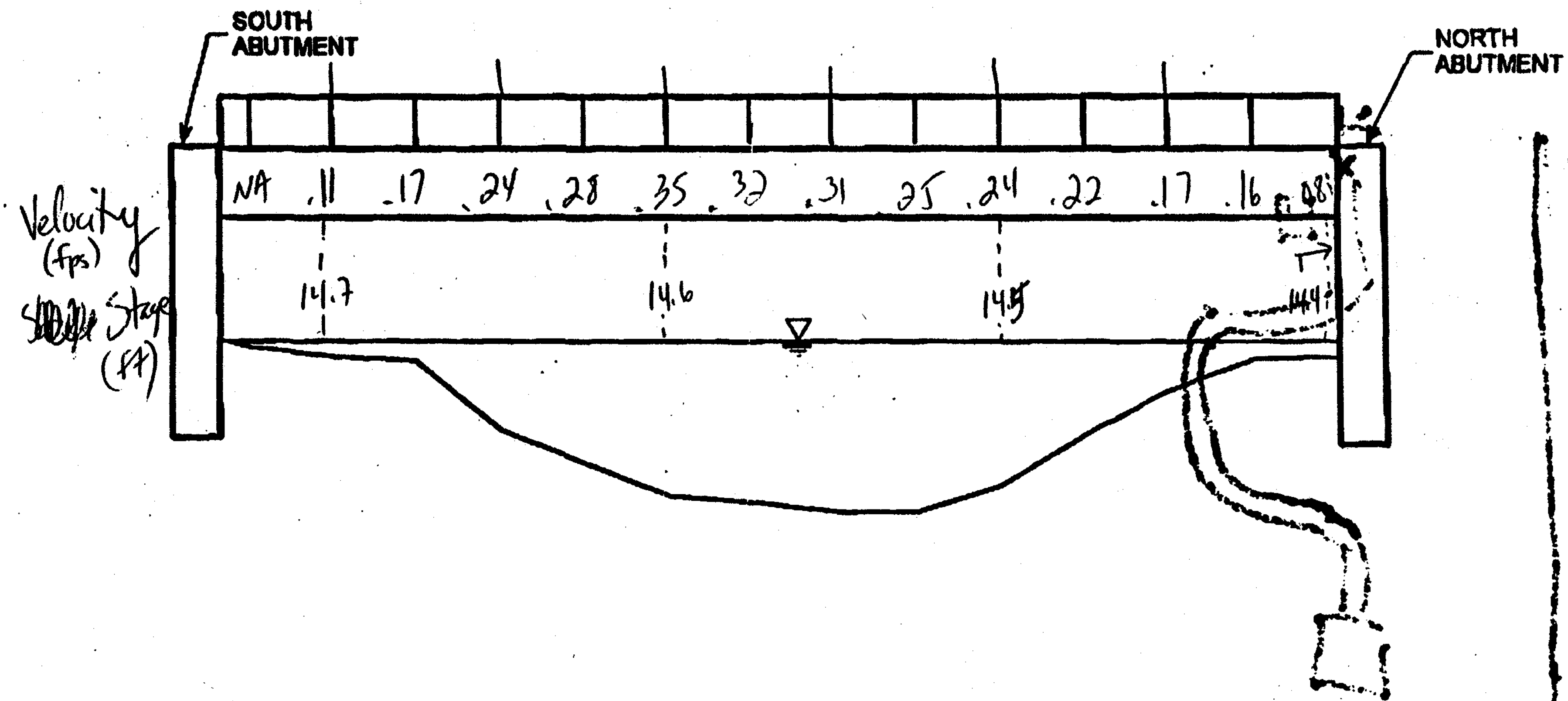
FIGURE

311274

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

measured on 5.23.97 @ 8:45

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

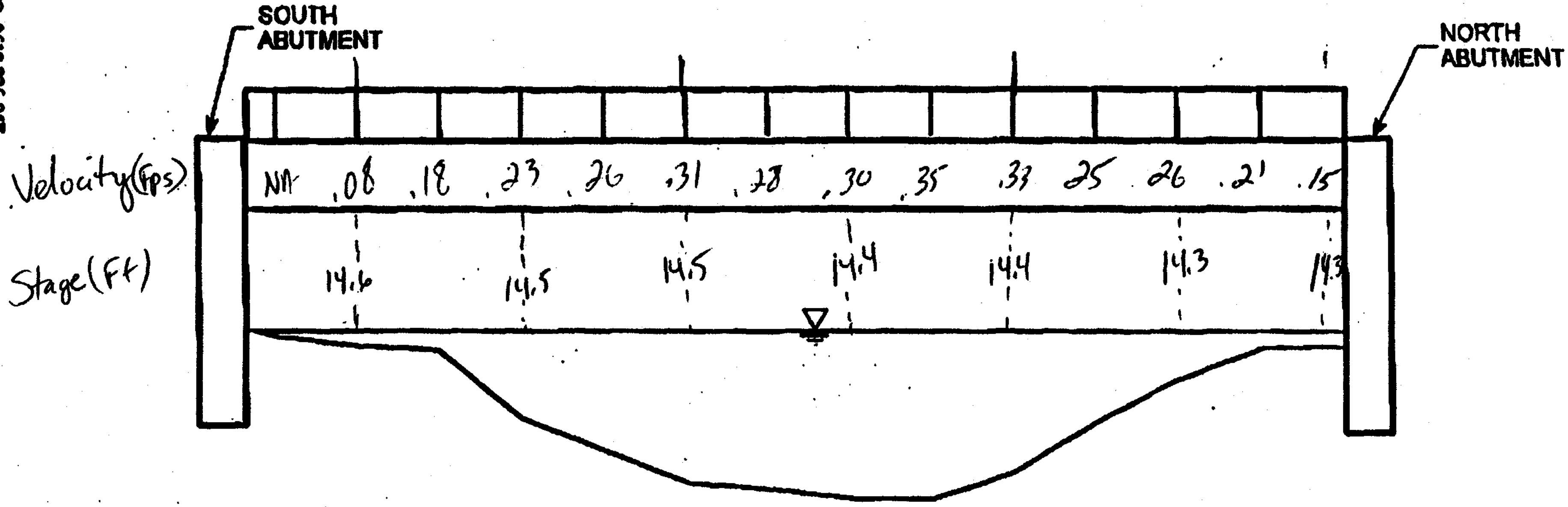
FIGURE

311275

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



Velocity measured 1 foot below water surface.

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity Measured on 5.21.97 @ 09:00

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

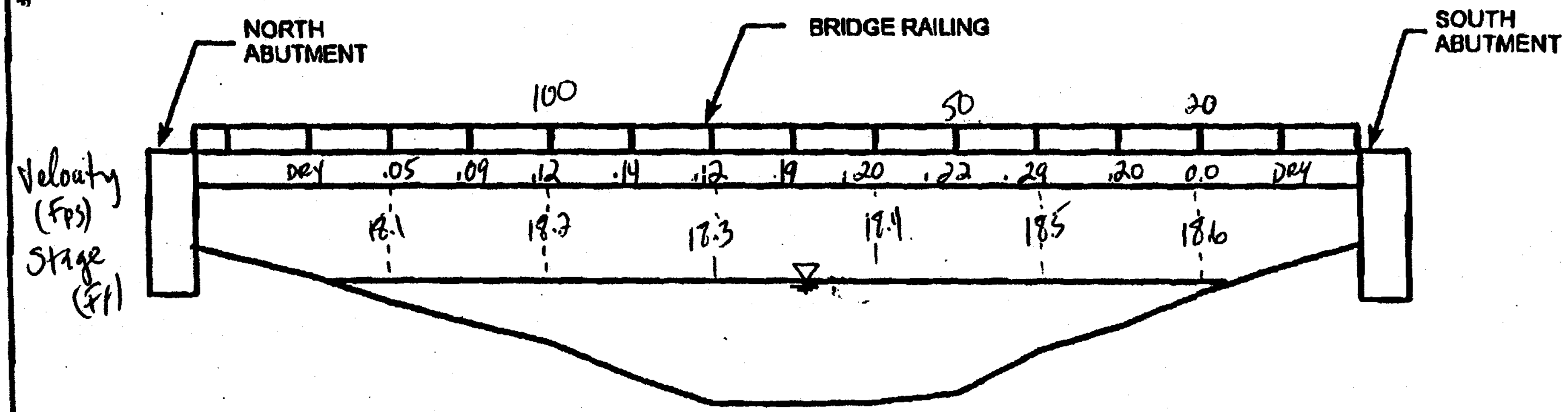
FIGURE

311276

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



Velocity measured at approx. 1 ft. below water surface

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity measured on 5.21.97 @ 11:00

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

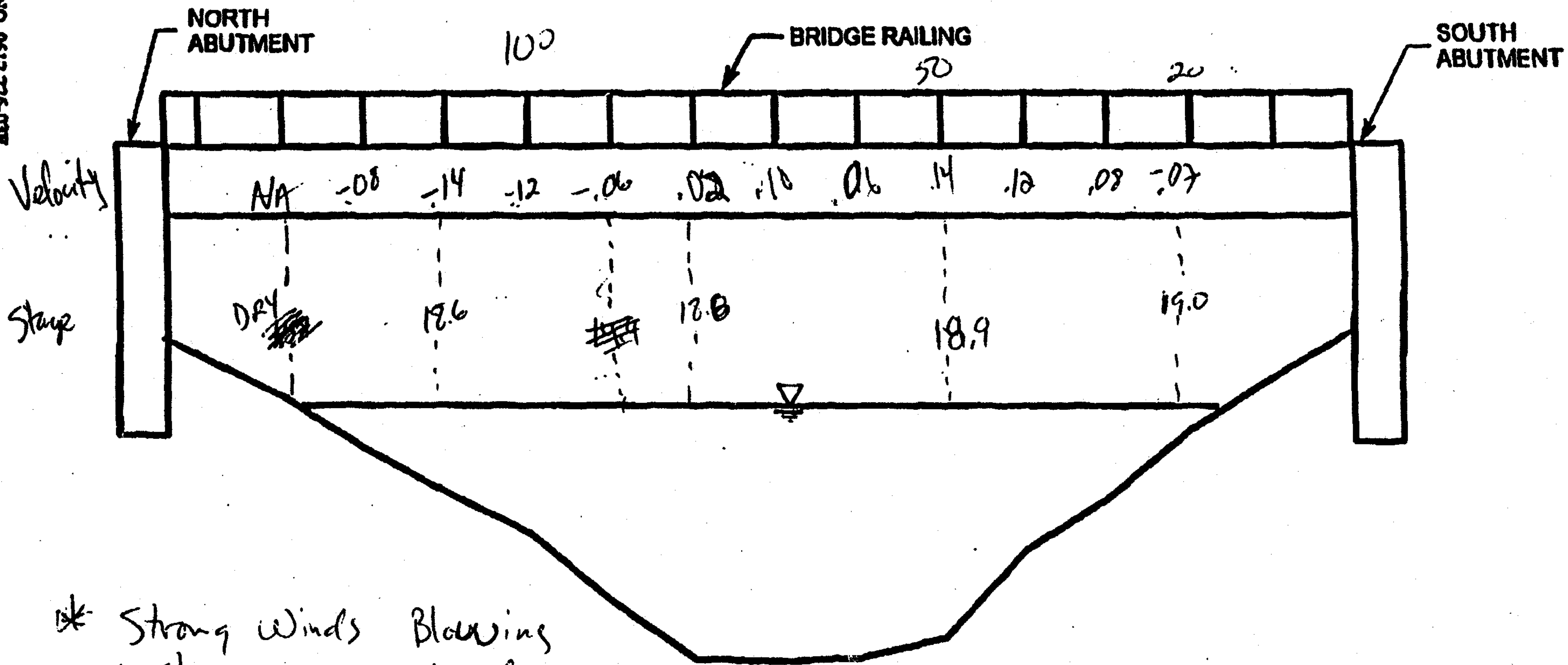
FIGURE

311277

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPO

FILE NO. 0612.226-03F



* Strong Winds Blowing upstream - waves traveling upstream

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL~~, 1997)

MAY 20, 1997 09:30

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

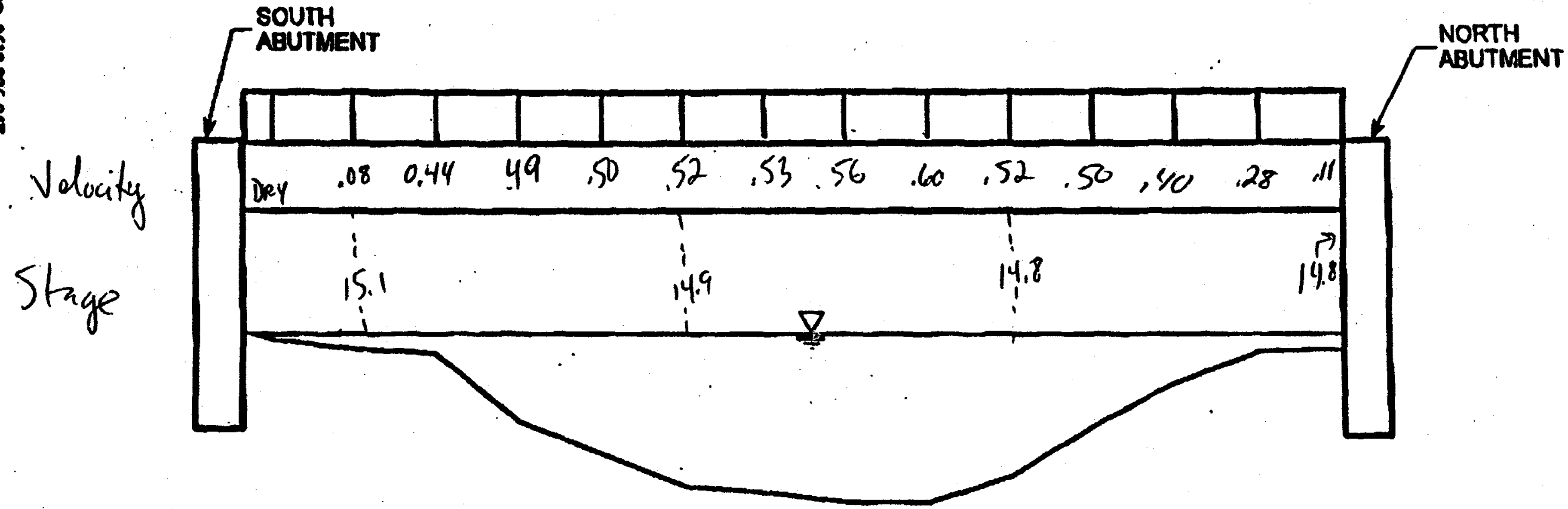
FIGURE

311278

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-047



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

May 20, 08:45

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

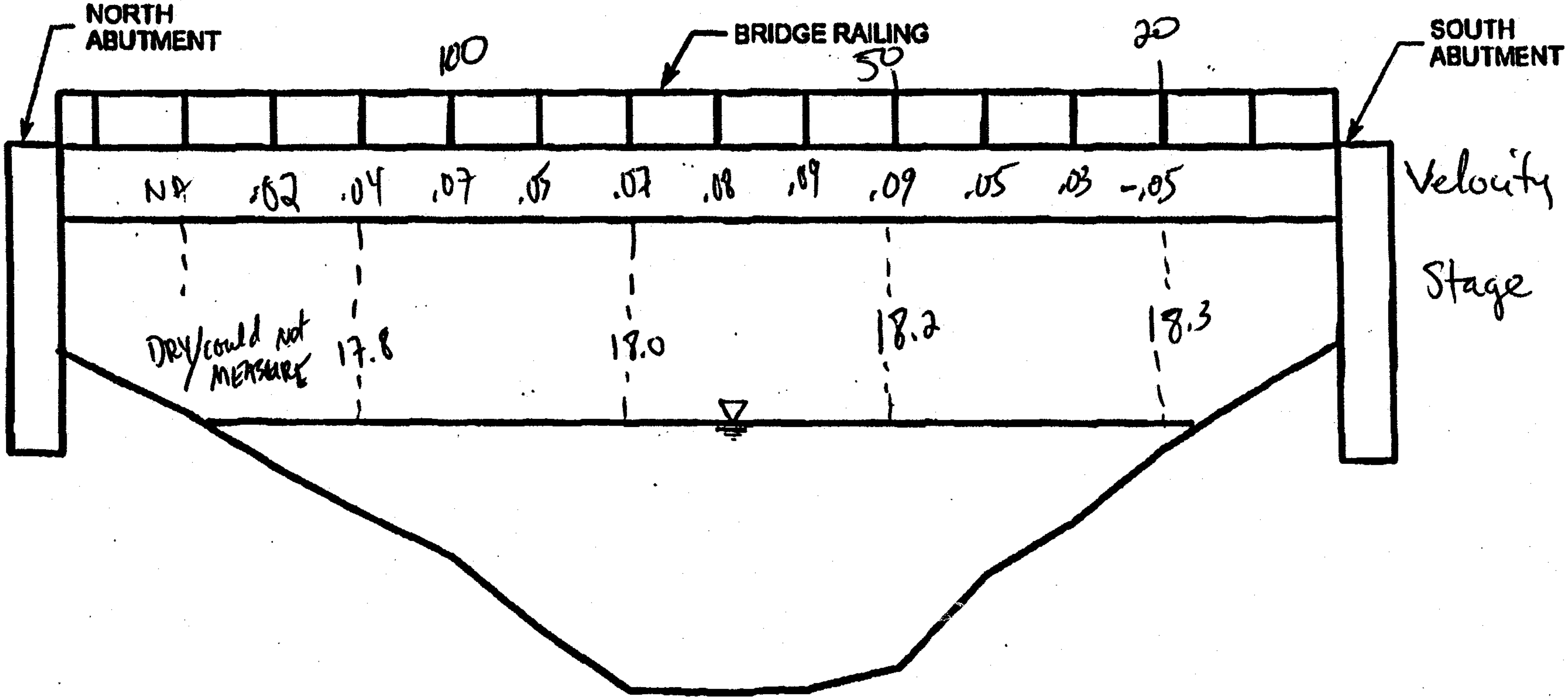
FIGURE

311279

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) MAY 17, 1997 @14:30

O'BRIEN & GERE ENGINEERS INC.

0 10 20

SCALE IN FEET

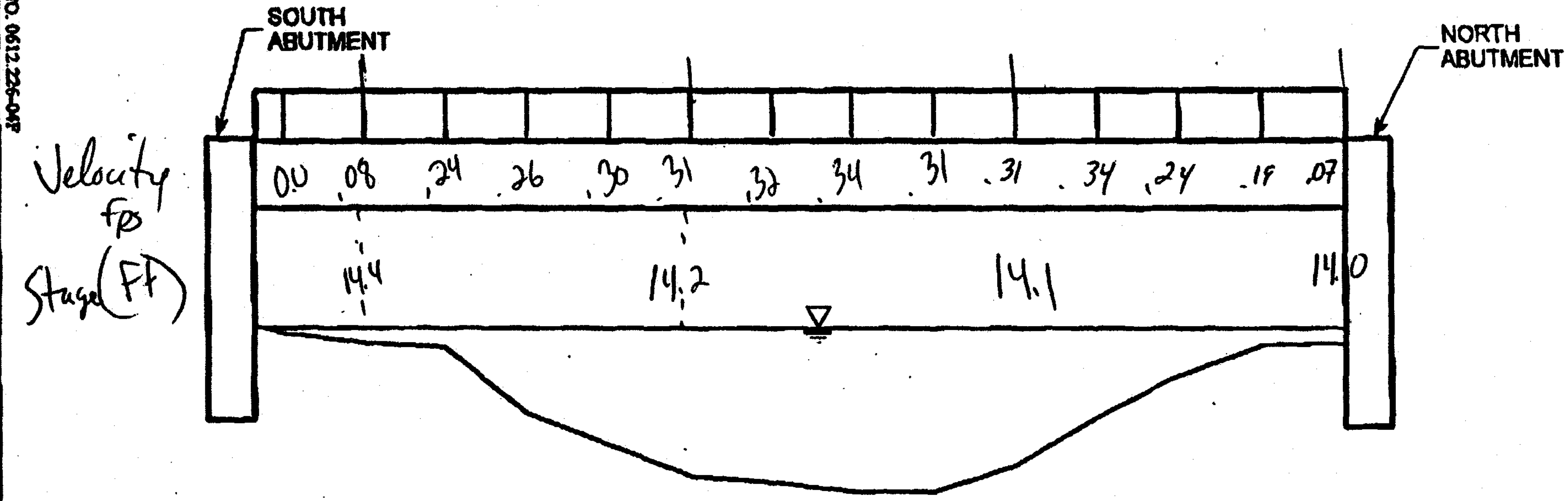
FIGURE

311280

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~ May 19, 1997) @ 10:00 Am

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

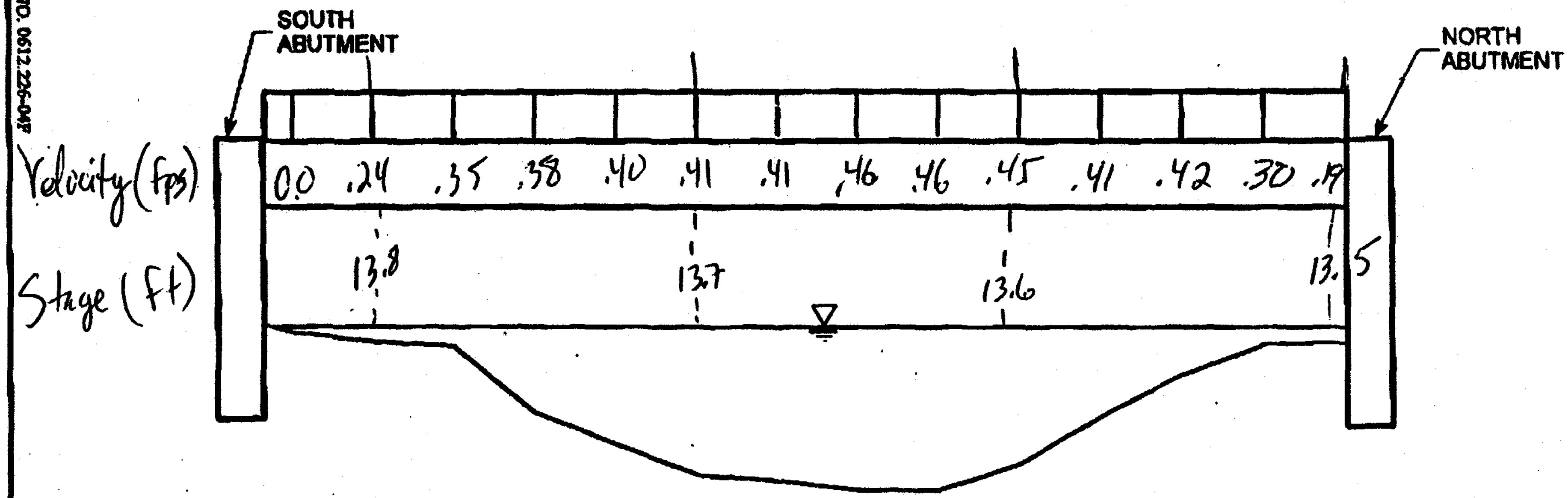
FIGURE

311281

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH WPG

FILE NO. 0612.226-04F



Velocity measured at 1 Ft. depth below surface

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Velocity measured May 16, 1997 @ 09:00

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

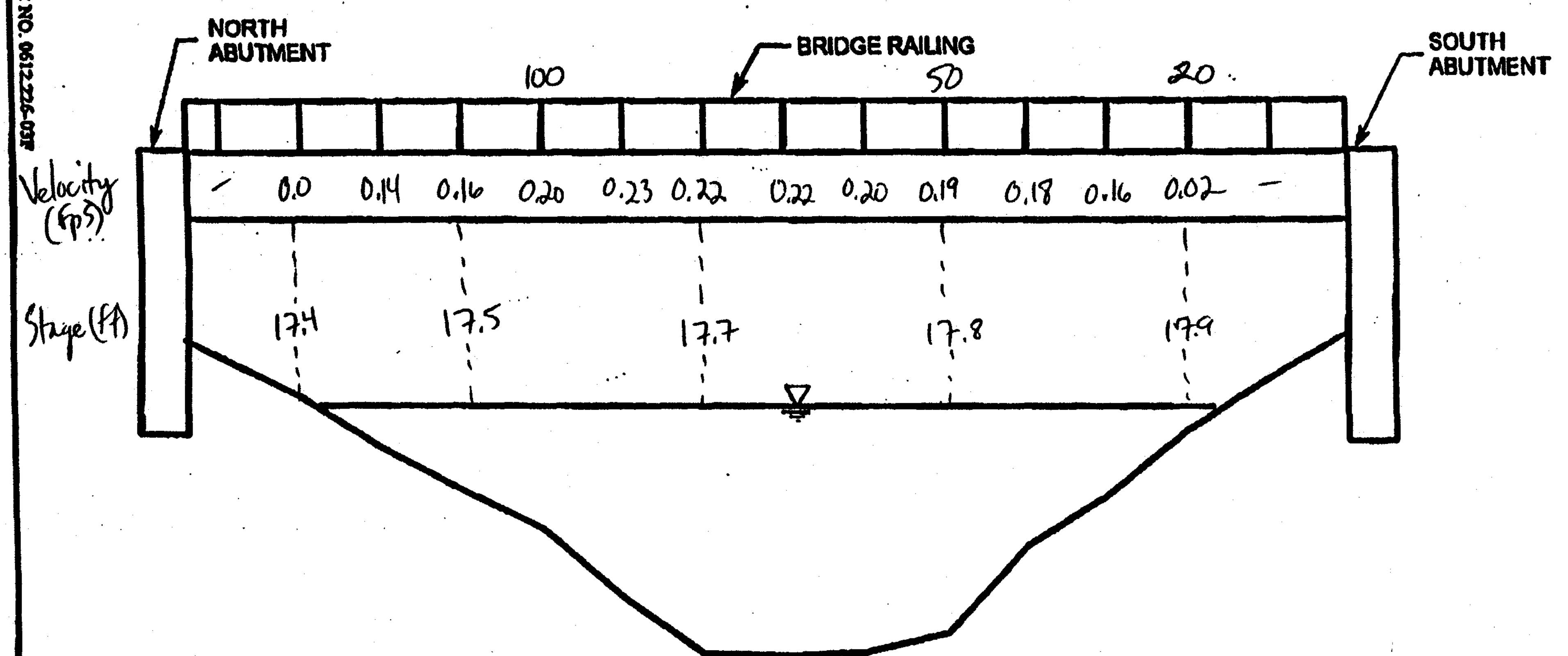
FIGURE

311282

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997)
May 16 @ 11:00

Transcribed from field Book

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

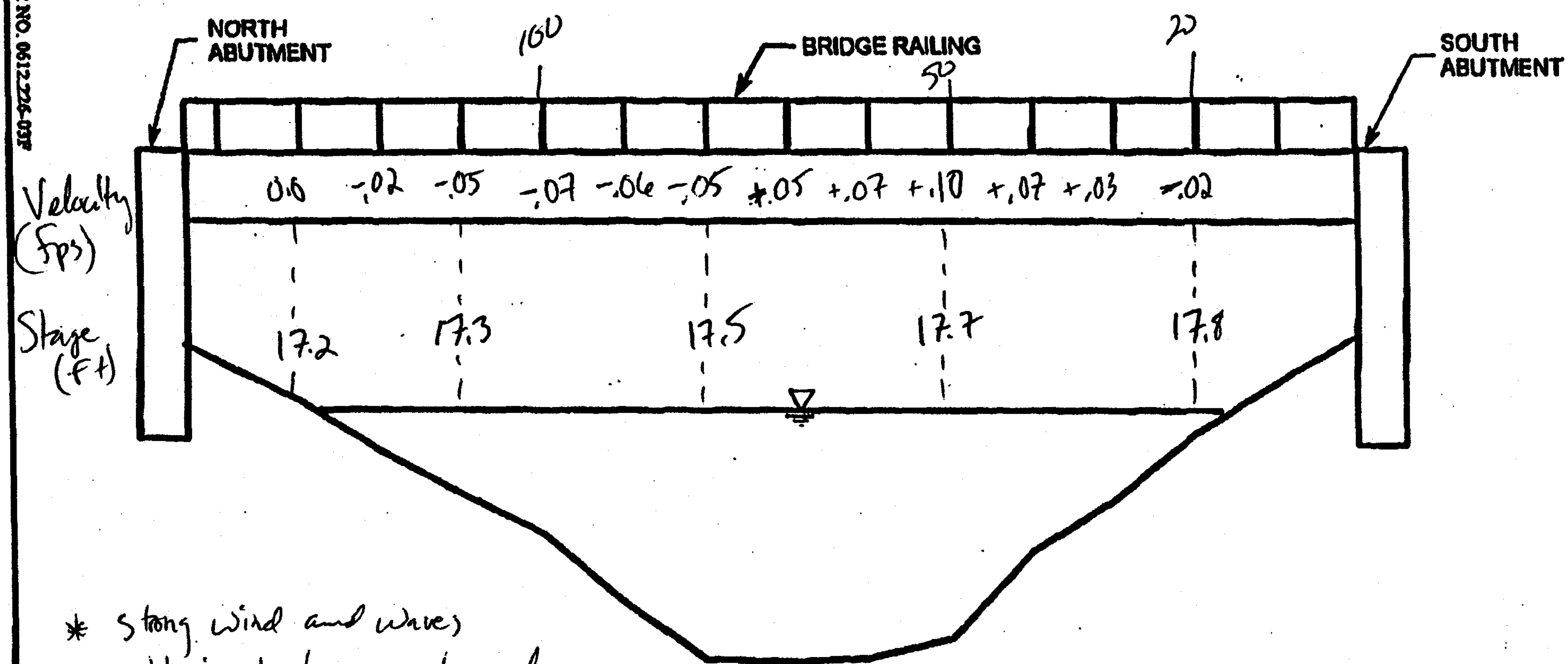
FIGURE

311283

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



* strong wind and waves blowing back - up channel.
Velocity measured at 1. ft depth below surface

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3,~~ 1997)

May 14, 1997 12:00

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

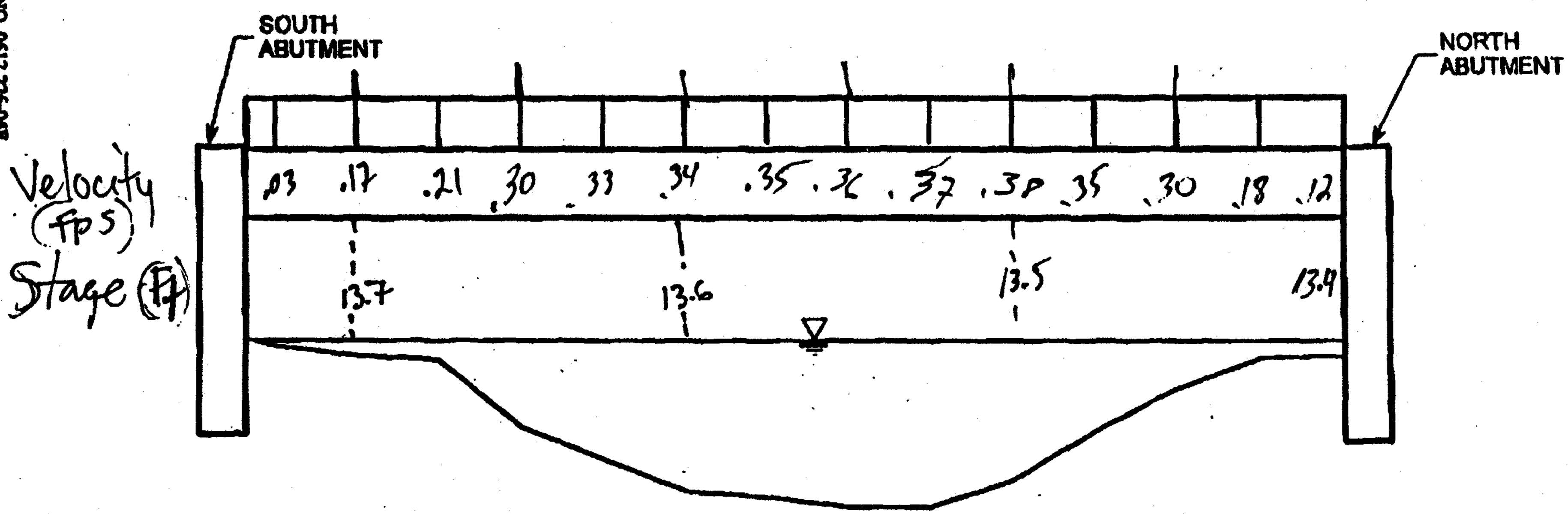
FIGURE

311284

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPO

FILE NO. 0612.226-047



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL~~ 8, 1997)

MAY 14, 1997 09:00

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

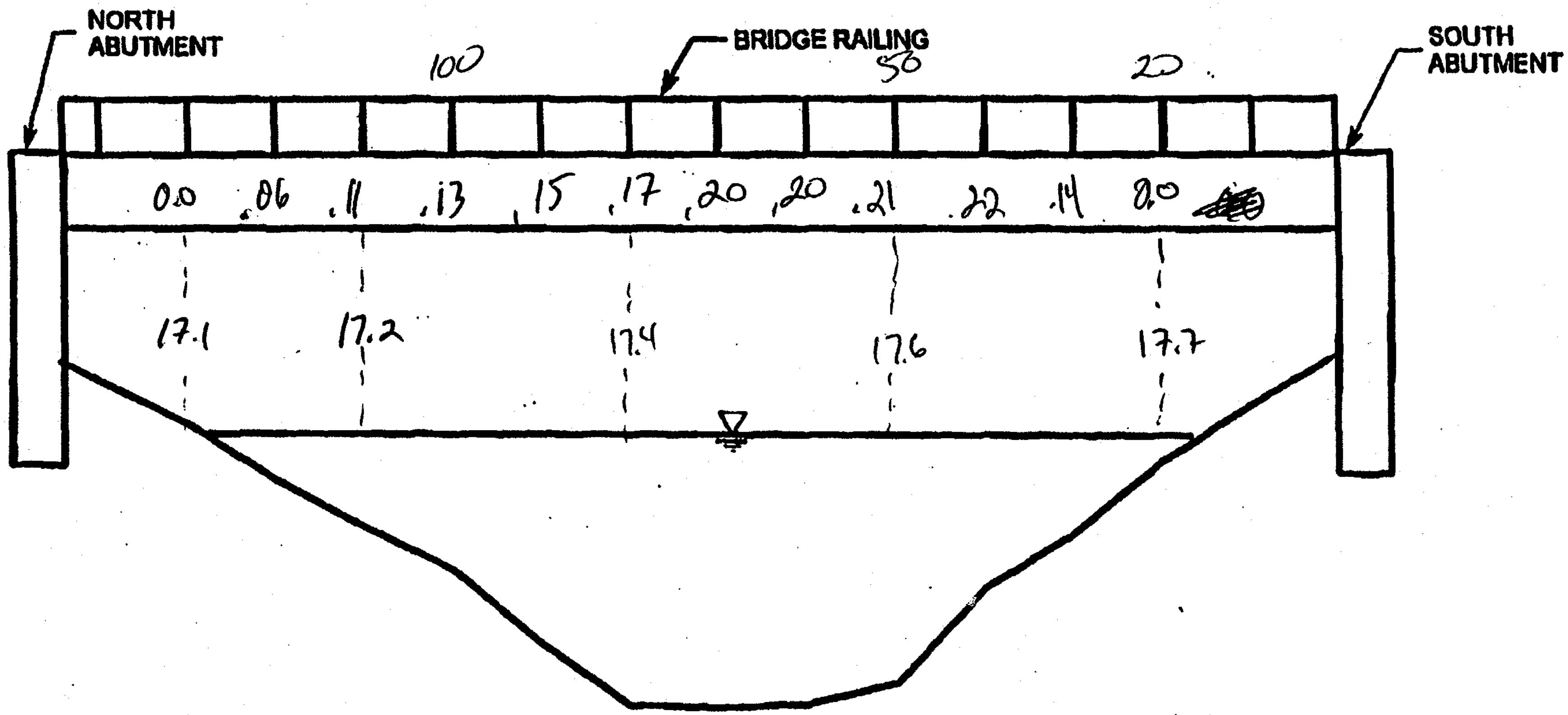
FIGURE

311285

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPO

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) 12:30

MAY 12, 1997

O'BRIEN & GERE ENGINEERS, INC.

0 10 20

SCALE IN FEET

FIGURE

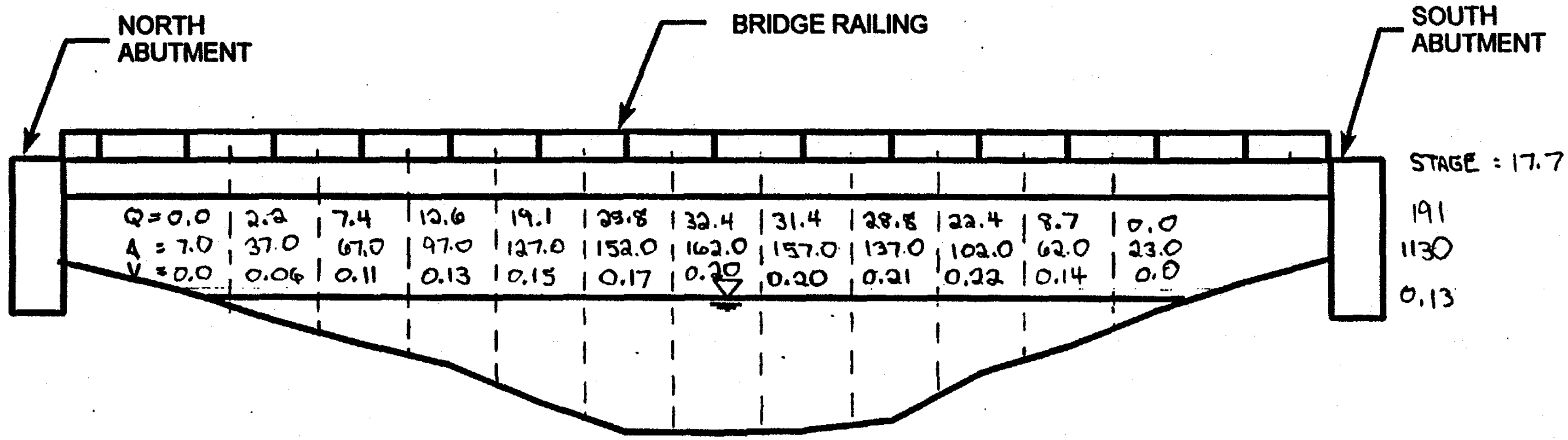
311286

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA = 1130

Q USING MEAN VELOCITY

Q = (0.13)(1130)

Q = 149.7

Q USING INDIVIDUAL AREAS

Q = 191

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) @ 12:30
MAY 12

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

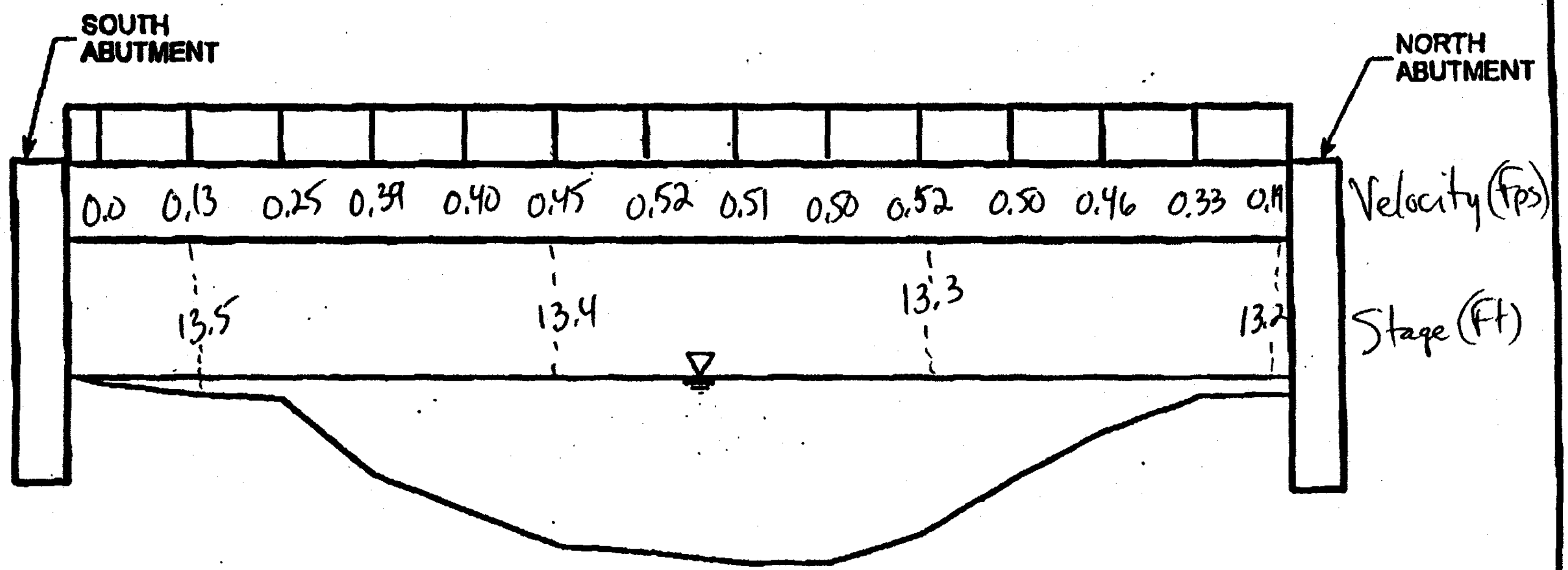
FIGURE

311287

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



Velocity measured at 1 ft. depth.

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - A~~PRIL 2~~3, 1997) 11:30
May 12, 1997

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

FIGURE

311288

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH1.WPG

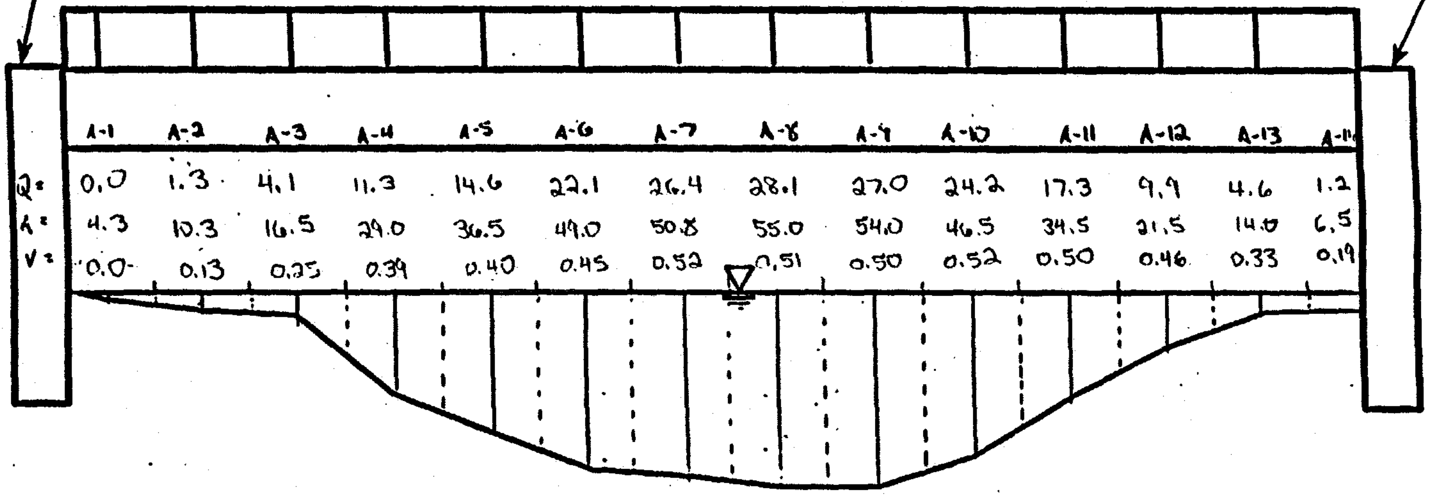
FILE NO. 0612.226-04F

FLOW COMPARISON

SOUTH ABUTMENT

NORTH ABUTMENT

STAGE = 13.2



	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14	
Q =	0.0	1.3	4.1	11.3	14.6	22.1	26.4	28.1	27.0	24.2	17.3	9.9	4.6	1.2	192 cfs
A =	4.3	10.3	16.5	29.0	36.5	49.0	50.8	55.0	54.0	46.5	34.5	21.5	14.0	6.5	428 ft²
V =	0.0	0.13	0.25	0.39	0.40	0.45	0.52	0.51	0.50	0.52	0.50	0.46	0.33	0.19	0.37 ft/sec

MEAN V = 0.37

Q USING MEAN V :

$Q = (0.37)(428)$

$Q = 157$

Q USING INDIVIDUAL AREAS

$Q = 192$

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) @ 11:30
MAY 12

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

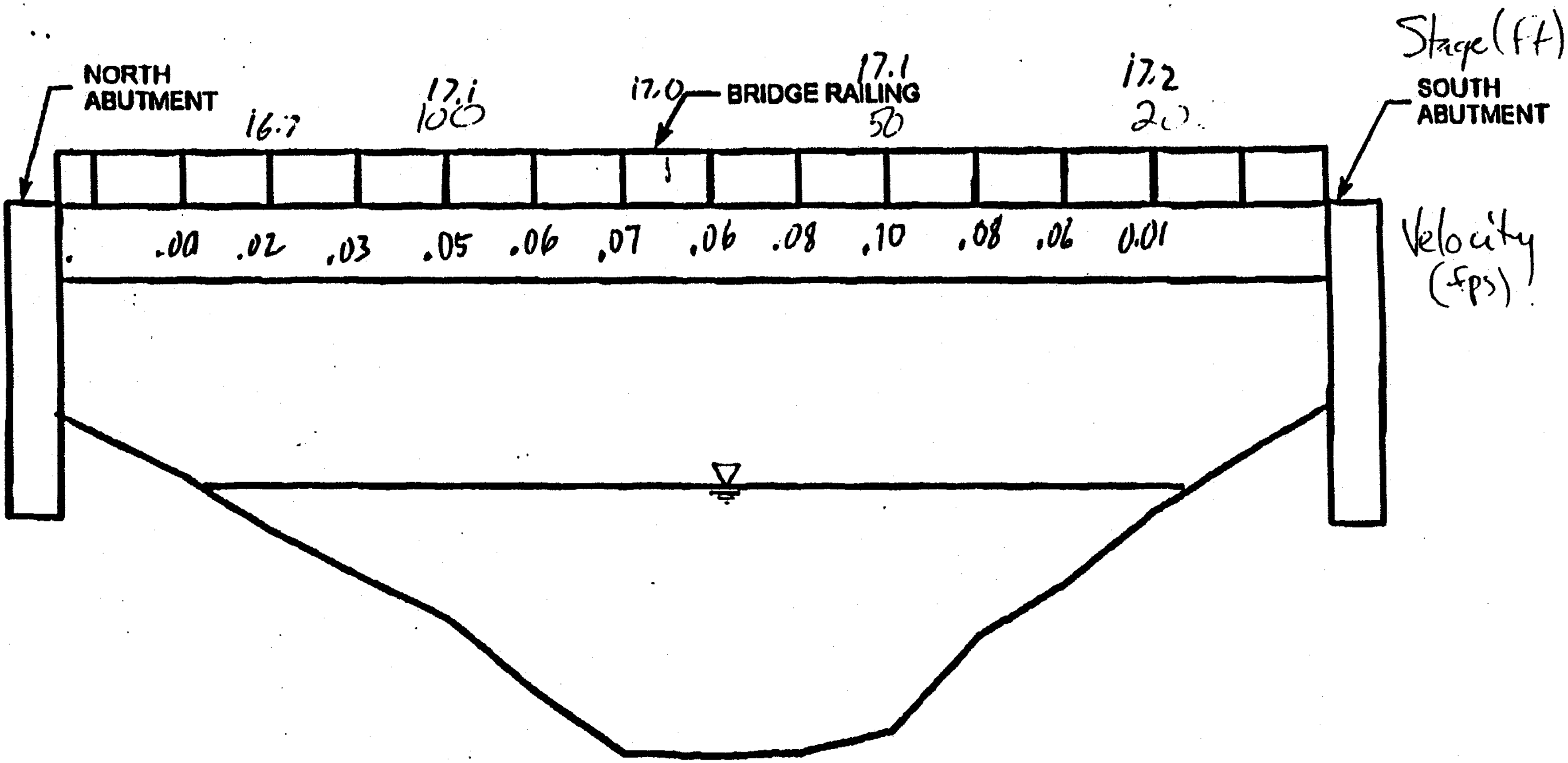
FIGURE

311289

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-05F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL~~ 3, 1997)

~~MAY 5, 1997~~

MAY 9, 1997

STL

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

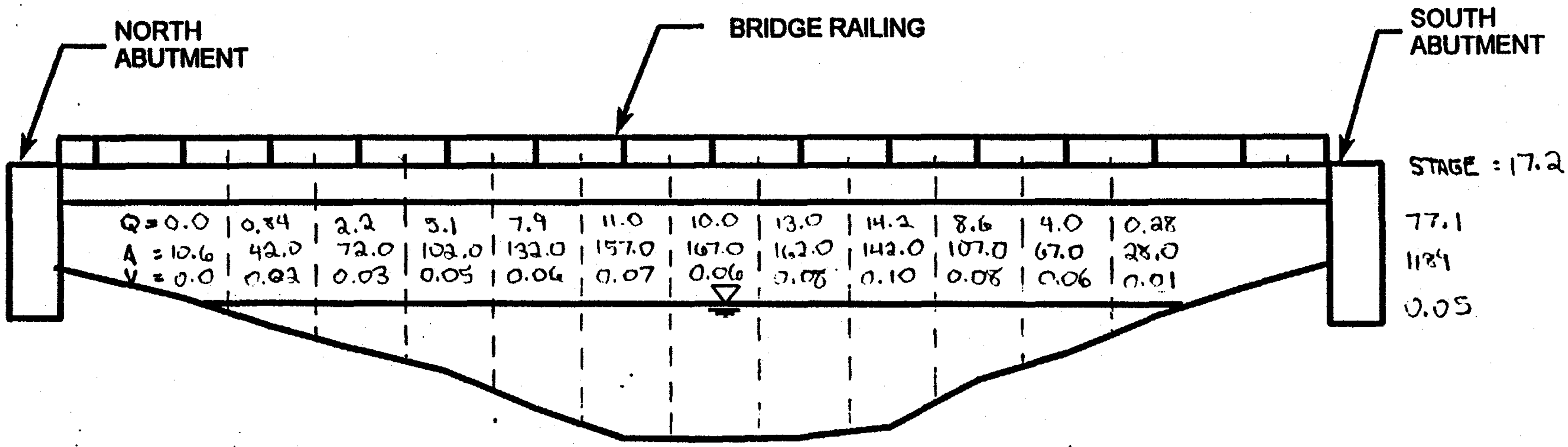
FIGURE

311290

DATE: MAY 16, 1997 I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA = 1189

Q USING MEAN VELOCITY

Q = (0.05)(1189)

Q = 61.4

Q USING INDIVIDUAL AREAS

Q = 77.1

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997)
MAY 9

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

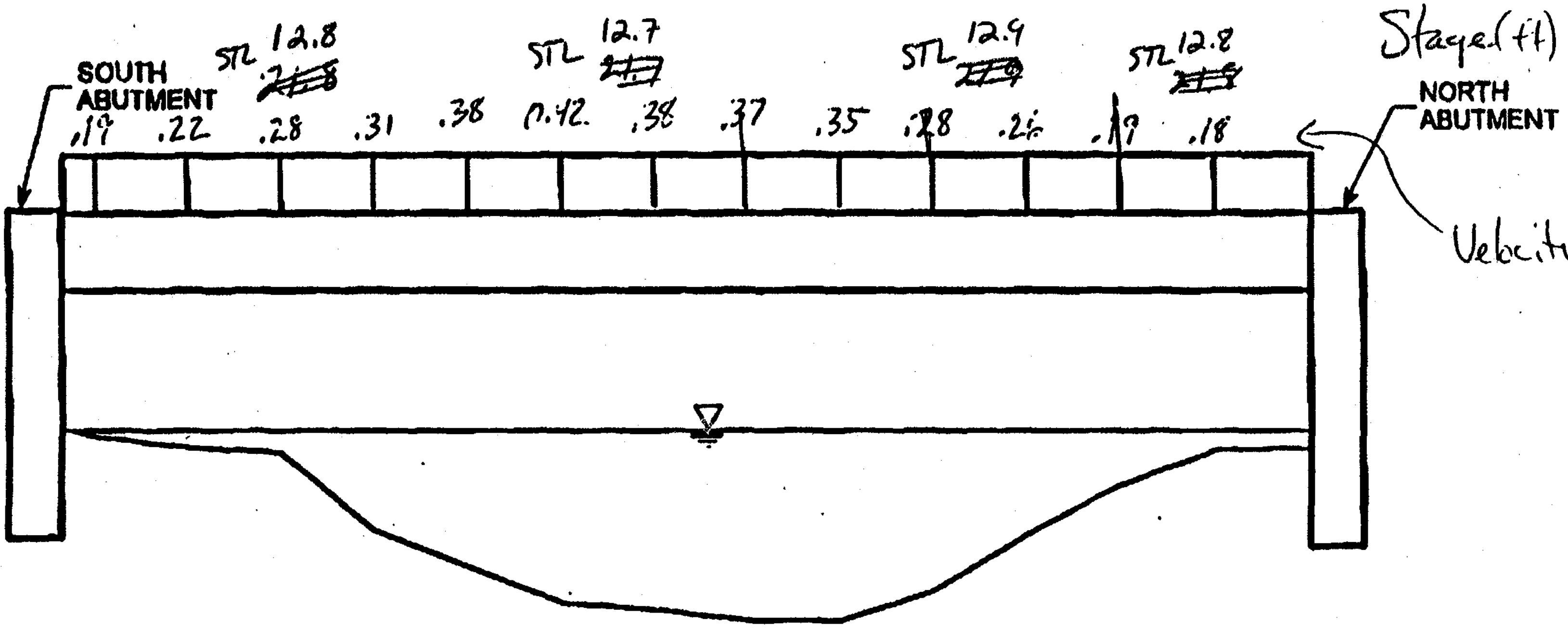
311291

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-047

3/9/97 5



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3,~~ 1997)

MAY 9

MDL

0 5 10

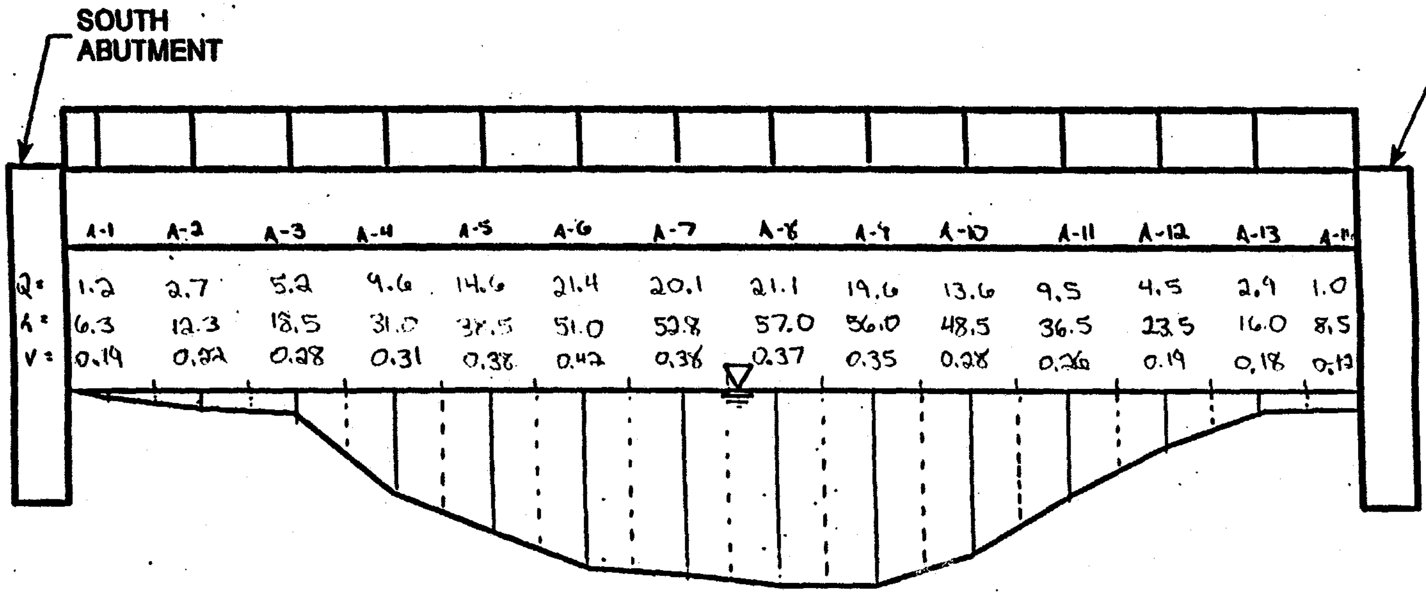
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

311292

FLOW COMPARISON



	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-1[illegible]
Q =	1.2	2.7	5.2	9.6	14.6	21.4	20.1	21.1	19.6	13.6	9.5	4.5	2.9	1.0
A =	6.3	12.3	18.5	31.0	38.5	51.0	52.8	57.0	56.0	48.5	36.5	23.5	16.0	8.5
V =	0.19	0.22	0.28	0.31	0.38	0.42	0.38	0.37	0.35	0.28	0.26	0.19	0.18	0.12

STAGE = 12.8

147 cfs

456 ft²

0.28 ft/sec

MEAN V = 0.28

Q USING MEAN V :

Q = (0.28) 456

Q = 128

Q USING INDIVIDUAL AREAS

Q = 147

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997)
MAY 9

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

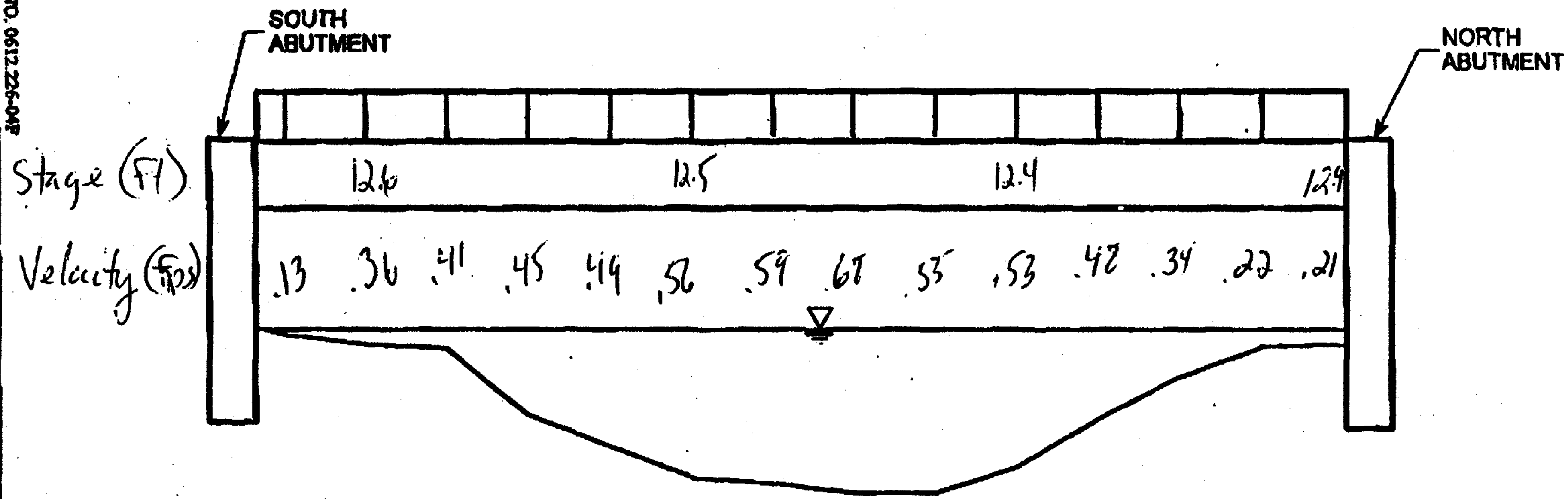
FIGURE

311293

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3, 1997)~~
May 7, 1997 @ 8:45

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

311294

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F

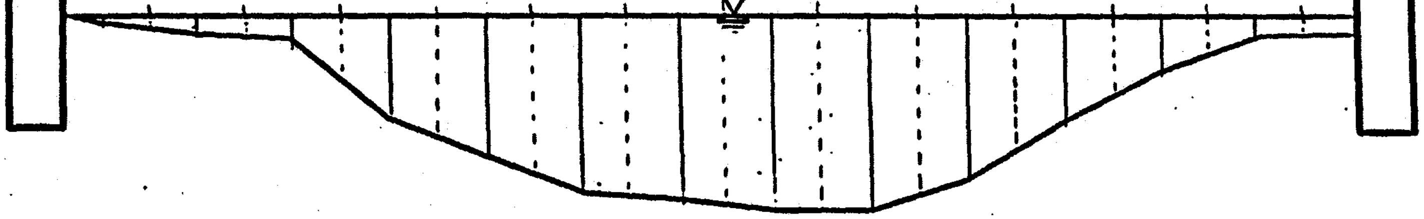
FLOW COMPARISON

SOUTH ABUTMENT

NORTH ABUTMENT

STAGE = 12.4

	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14		
Q =	1.1	5.1	8.4	14.9	19.8	24.7	32.3	40.1	31.4	26.8	18.5	8.0	4.0	2.2	243	cfs
A =	8.3	14.3	20.5	33.0	40.5	53.0	54.8	59.0	58.0	50.5	38.5	23.5	18.0	10.5	482	ft^2
V =	0.13	0.36	0.41	0.45	0.49	0.56	0.59	0.68	0.55	0.53	0.48	0.34	0.22	0.21	0.43	ft/sec



MEAN V = 0.43

Q USING MEAN V:

Q = (0.43)(482)

Q = 207

Q USING INDIVIDUAL AREAS

Q = 243

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) @ 8:45
MAY 7

O'BRIEN & GERE ENGINEERS INC.

0 5 10

SCALE IN FEET

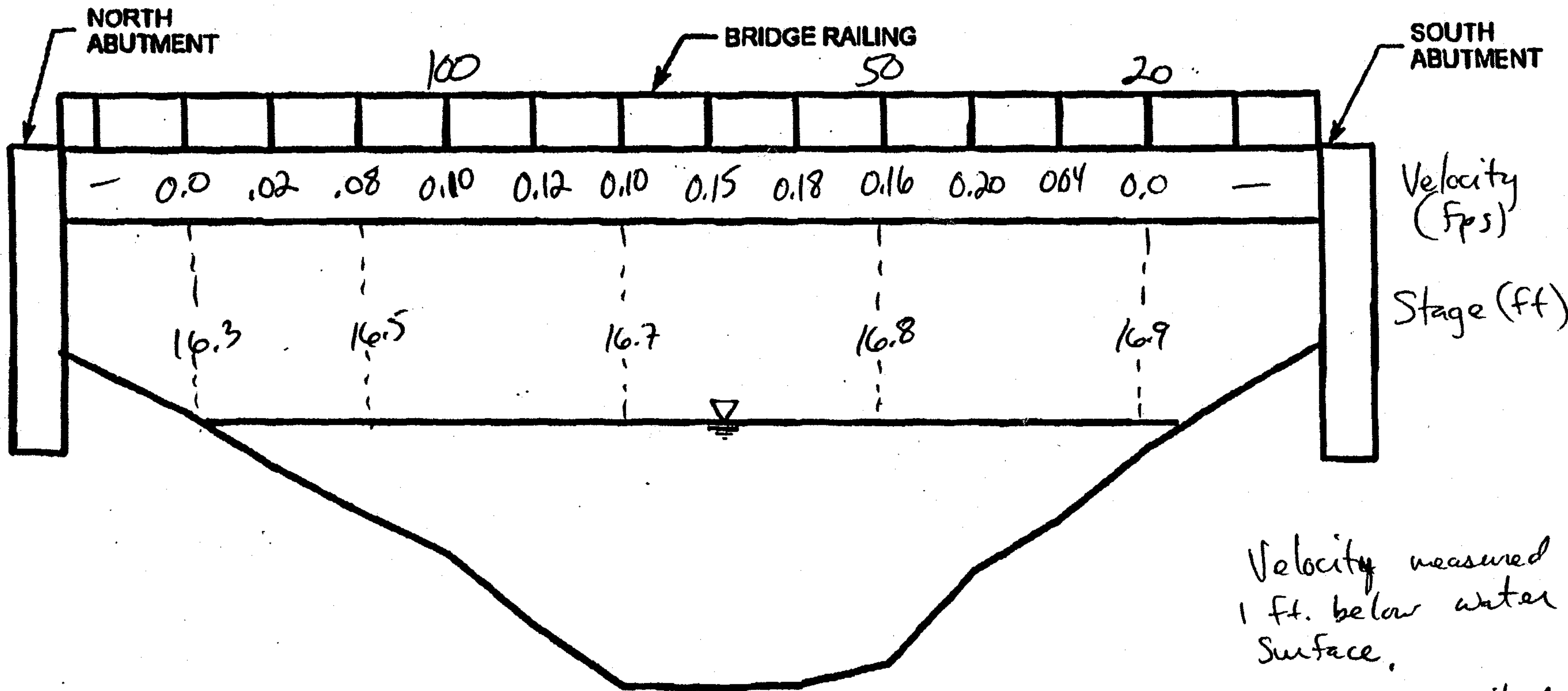
FIGURE

311295

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



Velocity measured 1 ft. below water Surface.

Notes transcribed from field Book

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3,~~ May 7 1997) @ 14:30

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

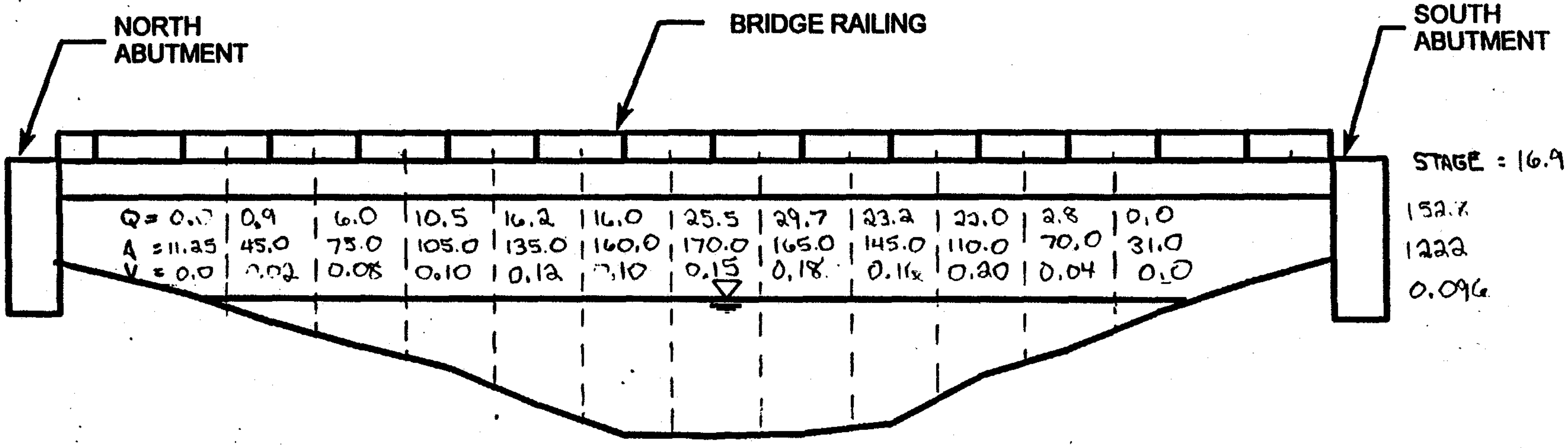
311296

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA = 1222

Q USING MEAN VELOCITY

Q = (0.09)(1222)

Q = 117

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) @ 14:30
MAY 7

Q USING INDIVIDUAL AREAS

Q = 153

O'BRIEN & GERE ENGINEERS INC.

0 10 20
SCALE IN FEET

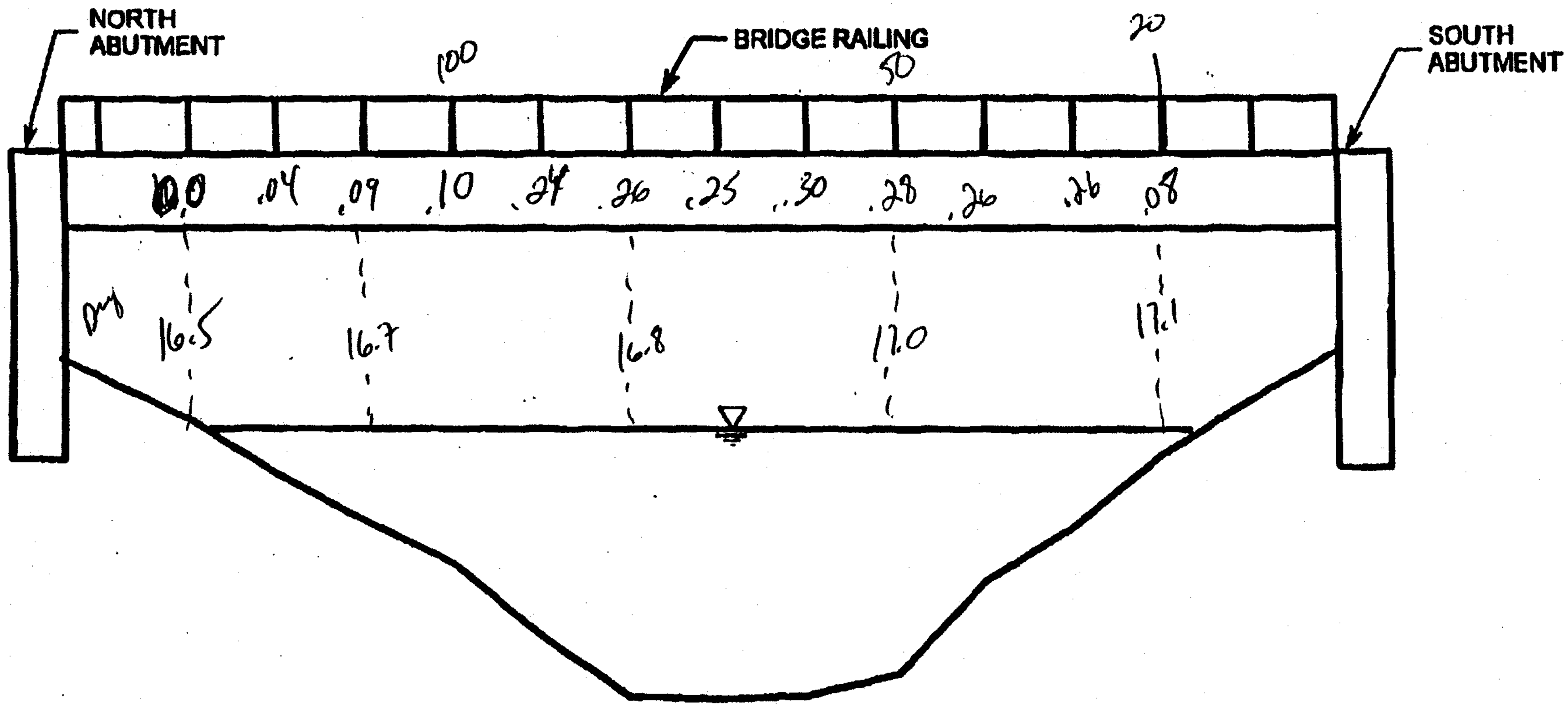
FIGURE

311297

DATE: APRIL 18, 1997

I:\DIV32\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL~~, 1997) @ 16:00
MAY 5

O'BRIEN & GERE ENGINEERS, INC.

0 10 20
SCALE IN FEET

FIGURE

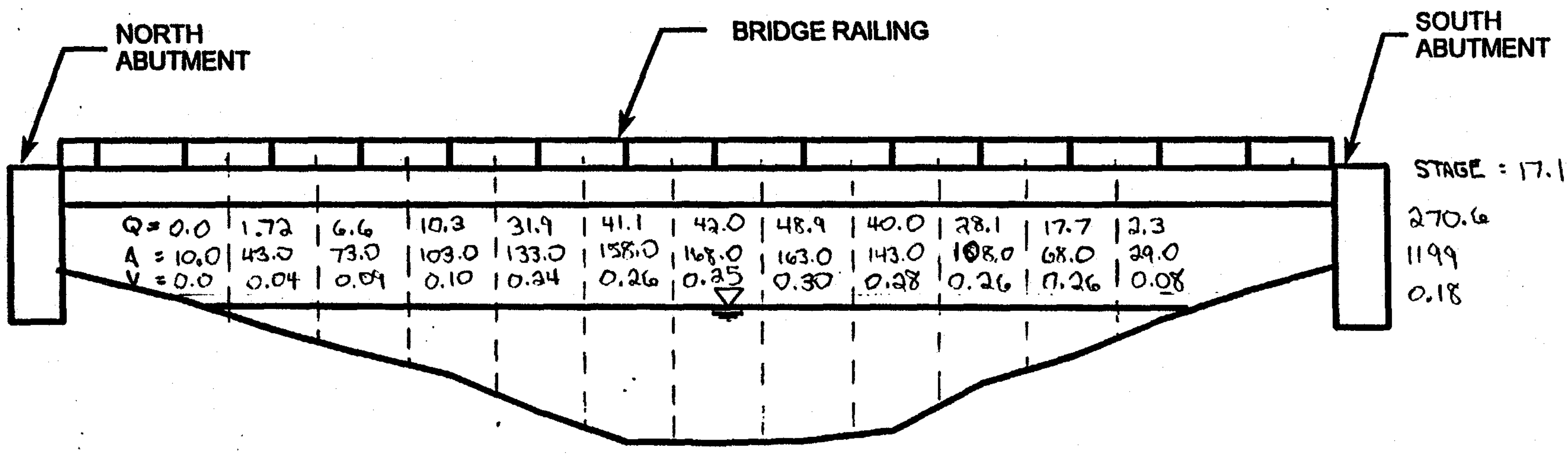
311298

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA = 1199

Q USING MEAN VELOCITY

Q = (0.18)(1199)

Q = 215.8

Q USING INDIVIDUAL AREAS

Q = 270.6

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 2~~, 1997)
MAY 5

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

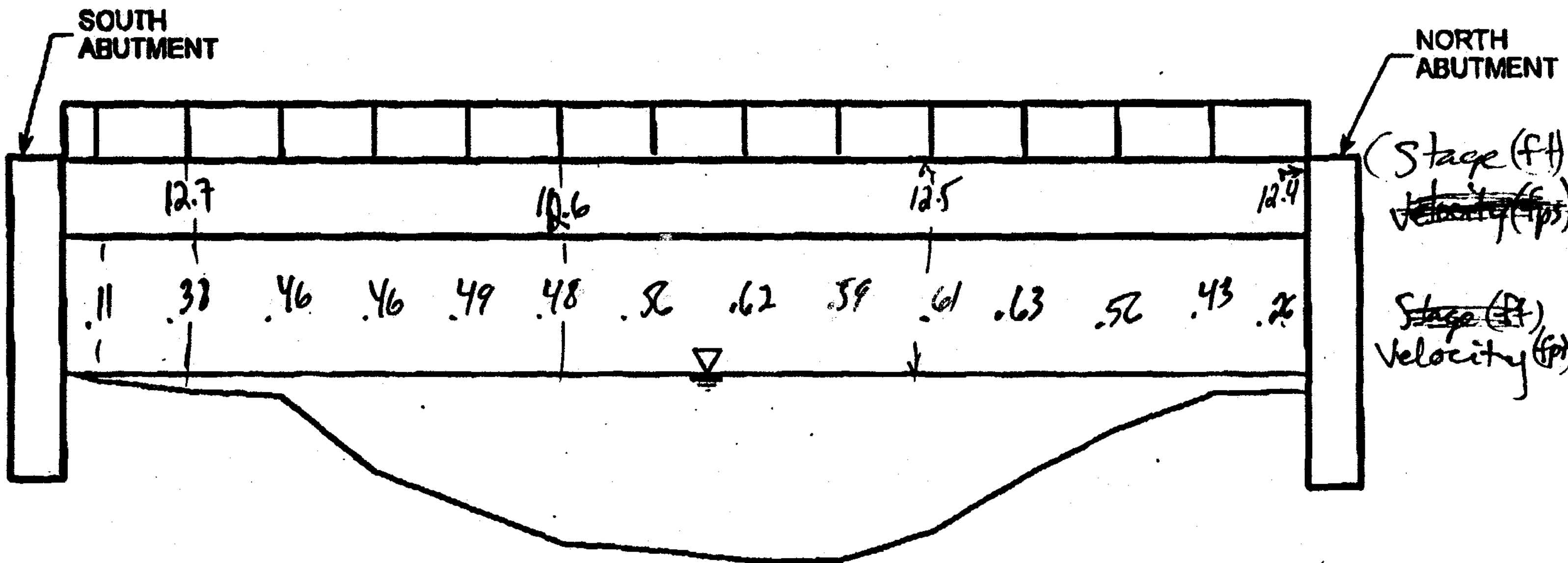
FIGURE

311299

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



Velocity (Scale x 2)
1 ft. below Surface

Stage measured to top of railing on Bridge

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3,~~ MAY 5 1997)

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

311300

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

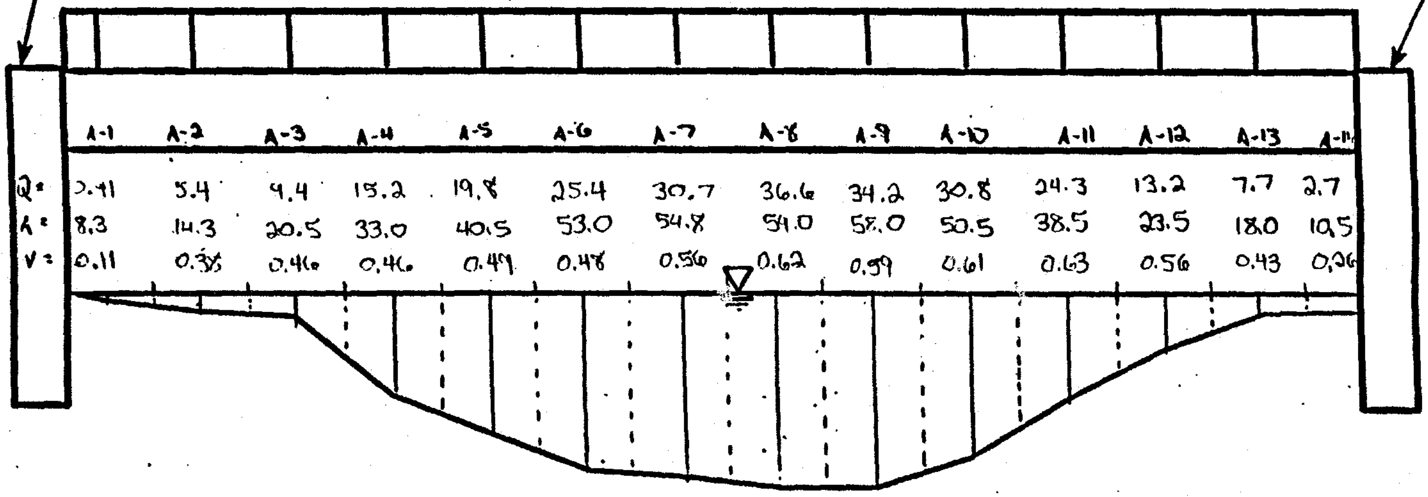
FILE NO. 0612.226-04F

FLOW COMPARISON

SOUTH ABUTMENT

NORTH ABUTMENT

STAGE = 12.4



	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14	
Q =	0.41	5.4	9.4	15.2	19.8	25.4	30.7	36.6	34.2	30.8	24.3	13.2	7.7	2.7	256 cfs
A =	8.3	14.3	20.5	33.0	40.5	53.0	54.8	59.0	58.0	50.5	38.5	23.5	18.0	10.5	482 ft^2
V =	0.11	0.38	0.46	0.46	0.49	0.48	0.56	0.62	0.59	0.61	0.63	0.56	0.43	0.26	0.47 ft/sec

MEAN V = 0.47

Q USING MEAN V :

Q = (0.47)(482)

Q = 227

Q USING INDIVIDUAL AREAS

Q = 256

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) @ 9:00
MAY 5

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

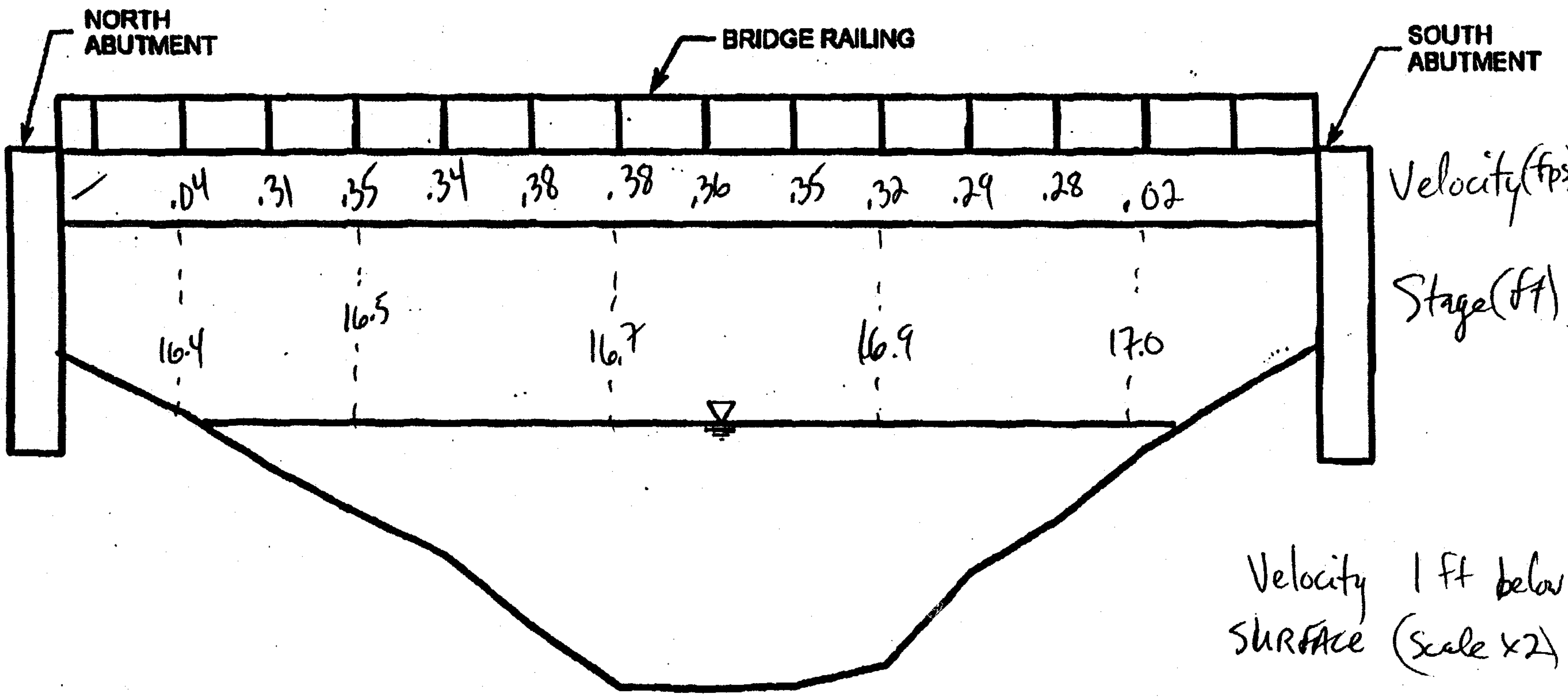
FIGURE

311301

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) May 3 @ 14:15

O'BRIEN & GERE ENGINEERS INC.

0 10 20
SCALE IN FEET

FIGURE

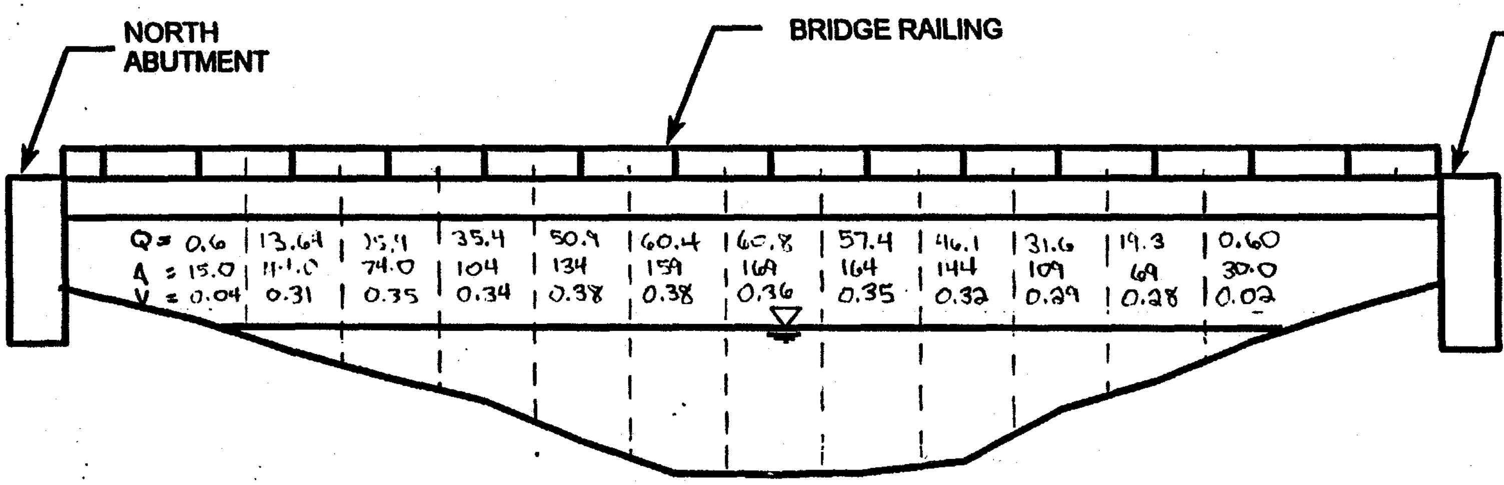
311302

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



STAGE : 17.0

403

1215

0.29

TOTAL AREA = 1215

Q USING MEAN VELOCITY

Q = (0.29)(1215)

Q = 352

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) @ 14:15
MAY 3

Q USING INDIVIDUAL AREAS

Q = 403

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

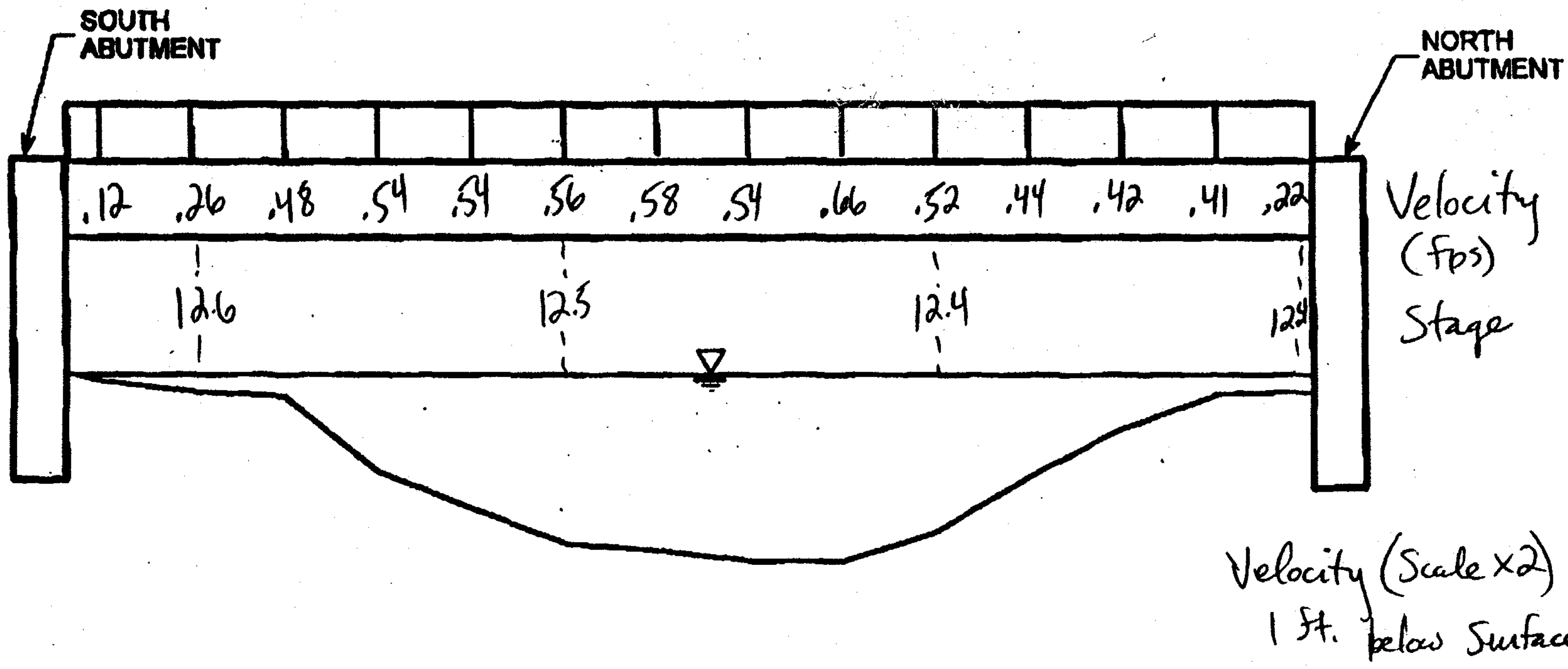
FIGURE

311303

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3,~~ May 3 1997) @ 13:30

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

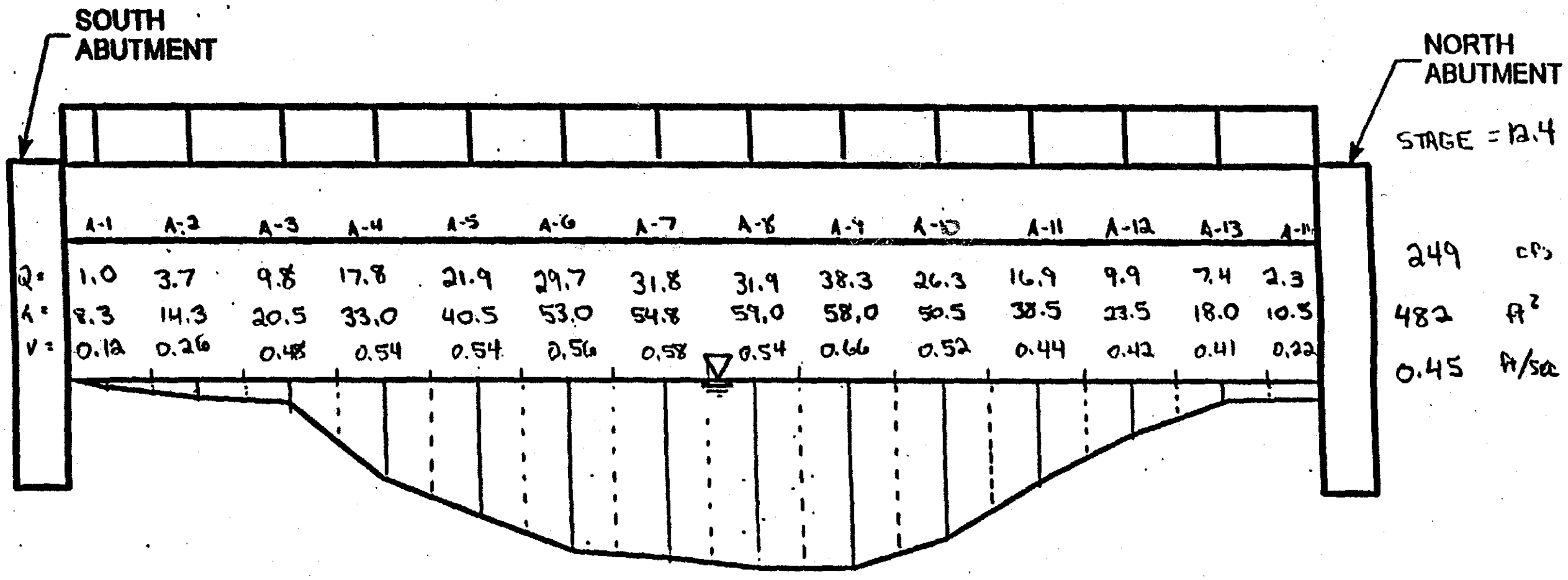
311304

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F

FLOW COMPARISON



	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14
Q =	1.0	3.7	9.8	17.8	21.9	29.7	31.8	31.9	38.3	26.3	16.9	9.9	7.4	2.3
A =	8.3	14.3	20.5	33.0	40.5	53.0	54.8	59.0	58.0	50.5	38.5	23.5	18.0	10.5
V =	0.12	0.26	0.48	0.54	0.54	0.56	0.58	0.54	0.66	0.52	0.44	0.42	0.41	0.22

STAGE = 12.4

249 cfs

482 ft^2

0.45 ft/sec

MEAN V = 0.45

Q USING MEAN V =

Q = (0.45) 482

Q = 217

Q USING INDIVIDUAL AREAS

Q = 249

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) @ 13:30
MAY 3

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

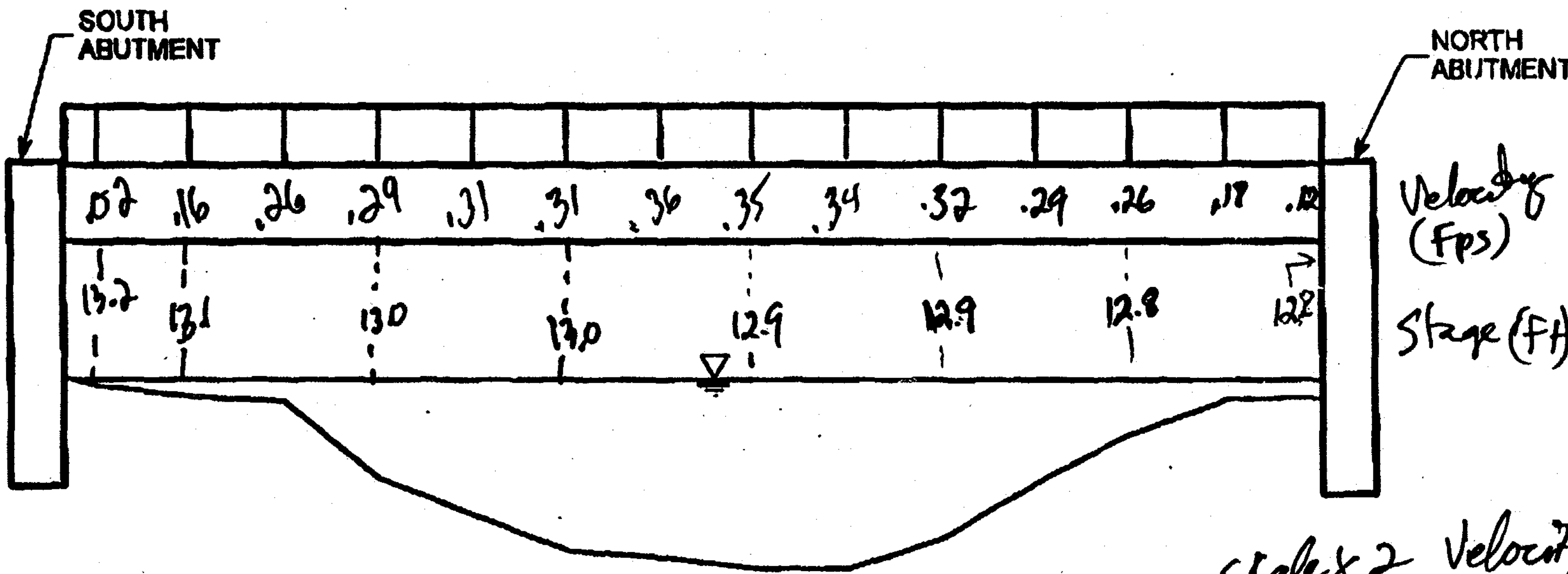
FIGURE

311305

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04P



Scale x 2 Velocity
measured @ 1 ft. depth

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3,~~ 1997)
May 2, 1997 @ 13:00

O'BRIEN & GERE ENGINEERS INC.

0 5 10
SCALE IN FEET

FIGURE

04/16/97 10:53 ☎315 463 7554 O'BRIEN & GERE

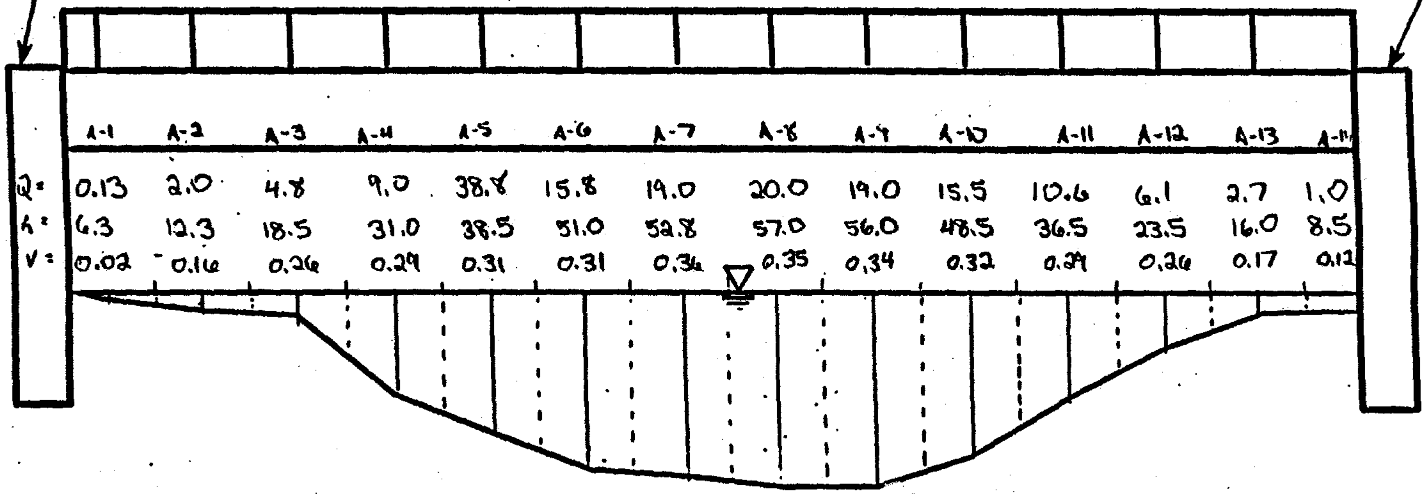
311306

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F

FLOW COMPARISON



STAGE = 12.8

	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14	Total	
Q =	0.13	2.0	4.8	9.0	38.8	15.8	19.0	20.0	19.0	15.5	10.6	6.1	2.7	1.0	164	cfs
A =	6.3	12.3	18.5	31.0	38.5	51.0	52.8	57.0	56.0	48.5	36.5	23.5	16.0	8.5	456	ft^2
V =	0.02	0.16	0.26	0.29	0.31	0.31	0.36	0.35	0.34	0.32	0.29	0.26	0.17	0.12	0.25	ft/sec

MEAN V =

Q USING MEAN V =

Q = (0.25) 456

Q = 116

Q USING INDIVIDUAL AREAS

Q = 164

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997) @ 13:00
MAY 2

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

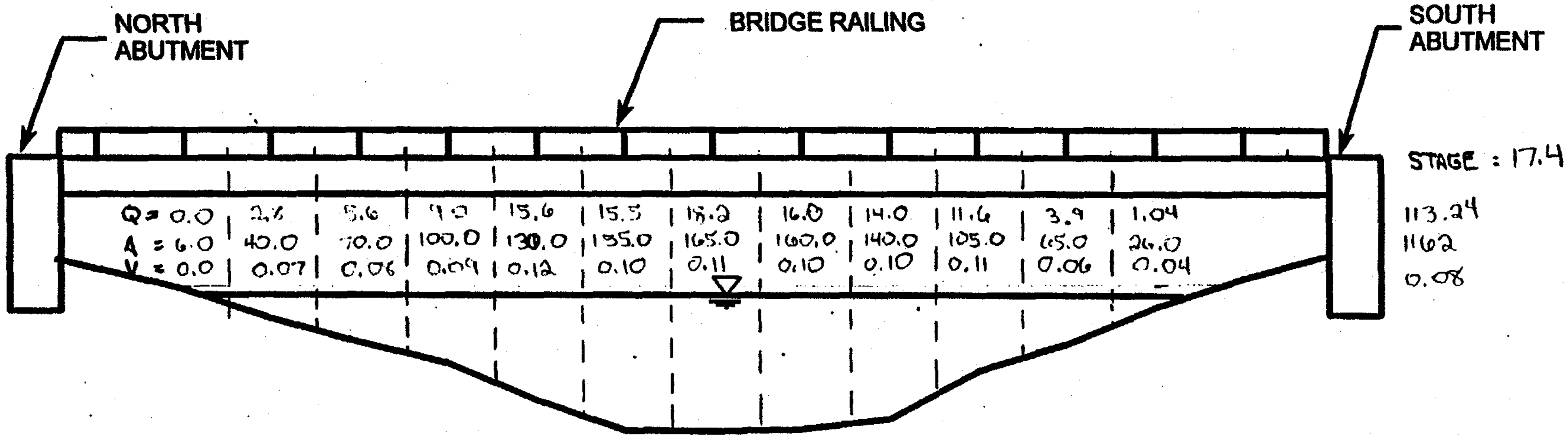
311307

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA = 1162

Q USING MEAN VELOCITY

Q = (0.08)(1162)

Q = 92.96

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 2,~~ 1997) @ 10:00
MAY 2

Q USING INDIVIDUAL AREAS

Q = 113

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

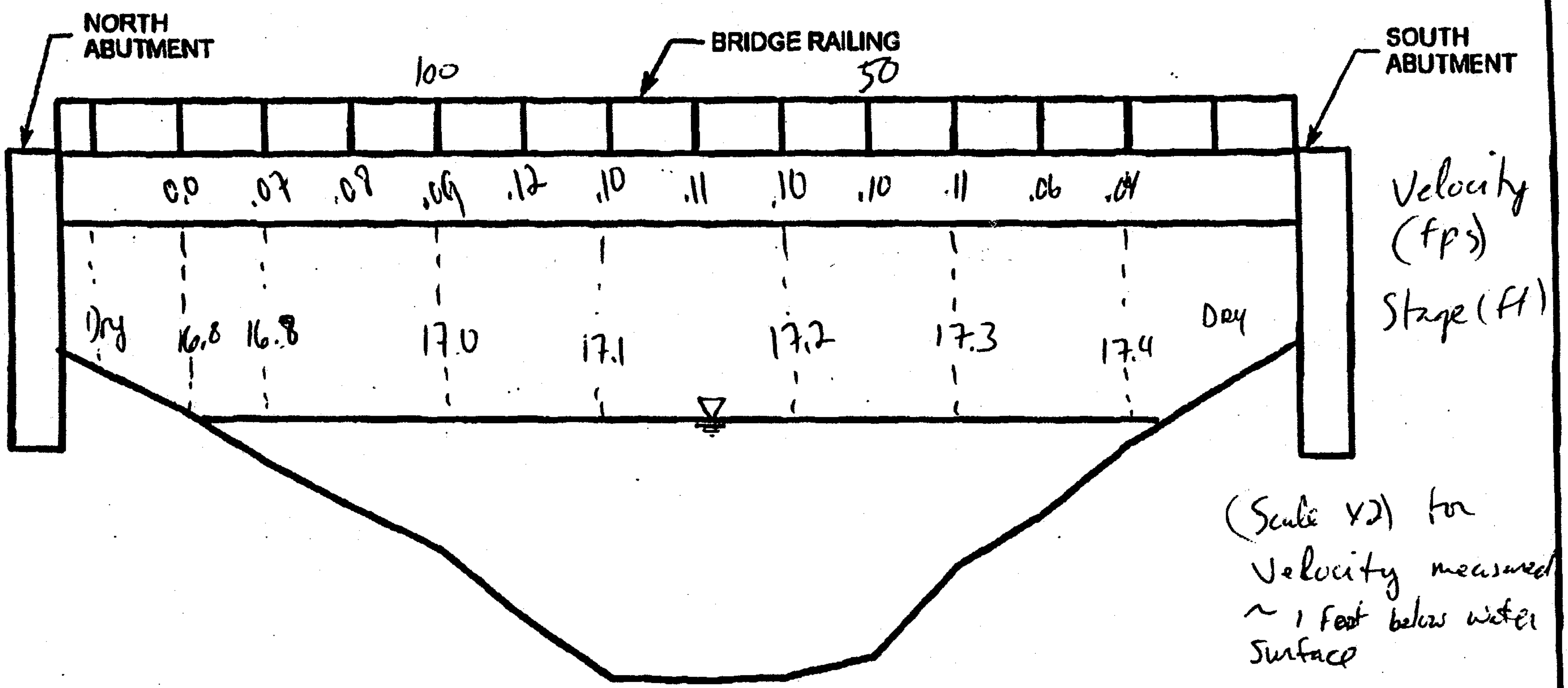
FIGURE

311308

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-05F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3~~, 1997)

May 2 10:00 AM

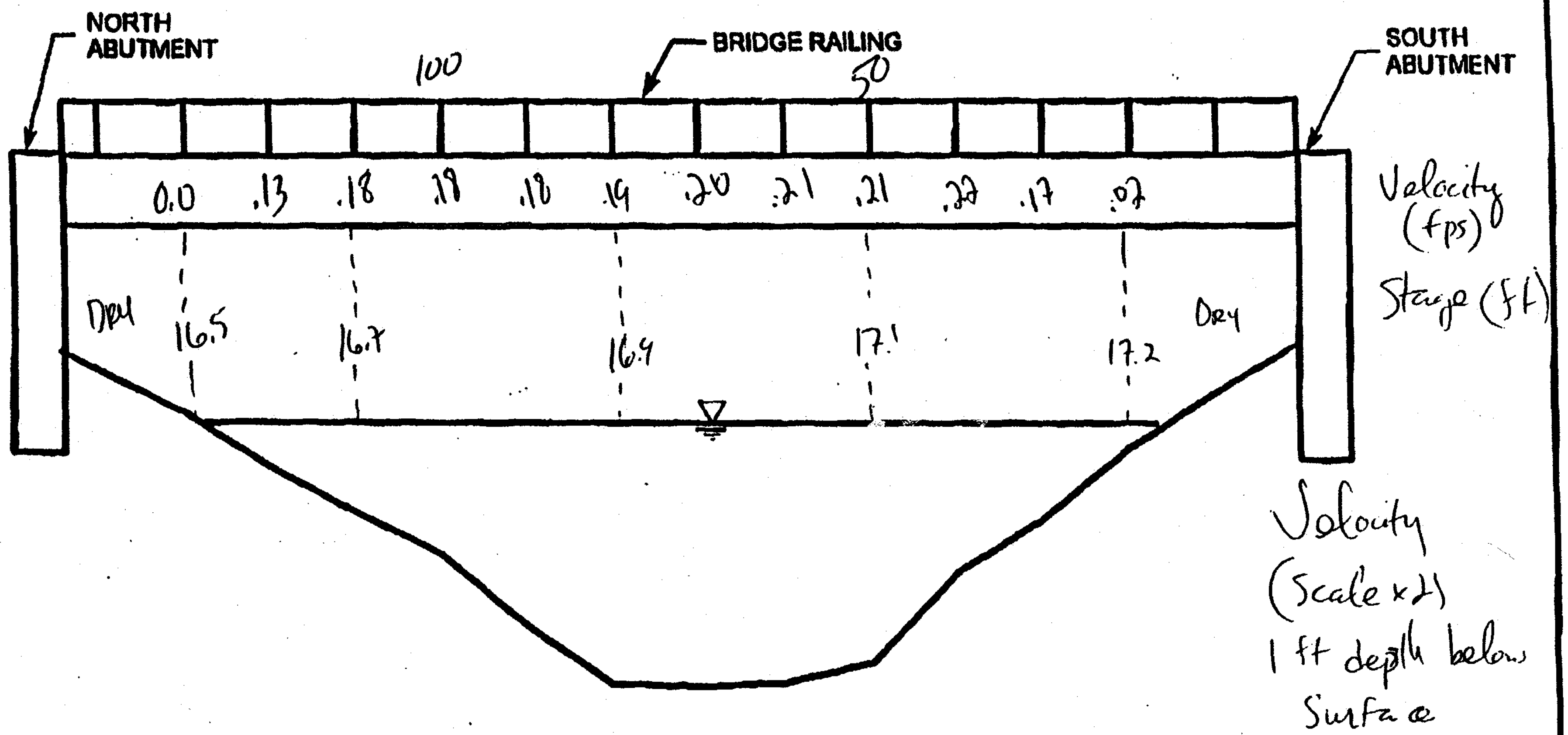
0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

311309

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~8~~, 1997) @ 10:40
30

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

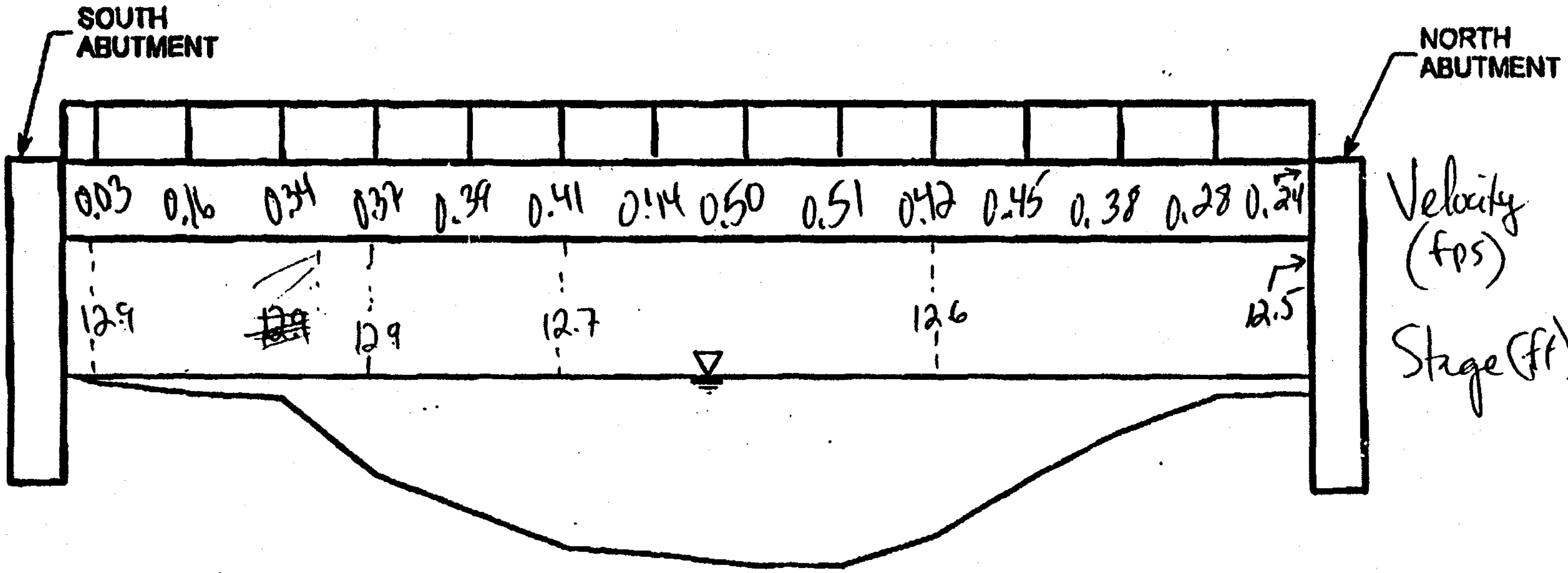
FIGURE

311310

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH WPO

FILE NO. 0612.226-04F



Velocity (Scale x2)

measured 1 foot below surface

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~8~~ 30, 1997) @ 14:30

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

FIGURE

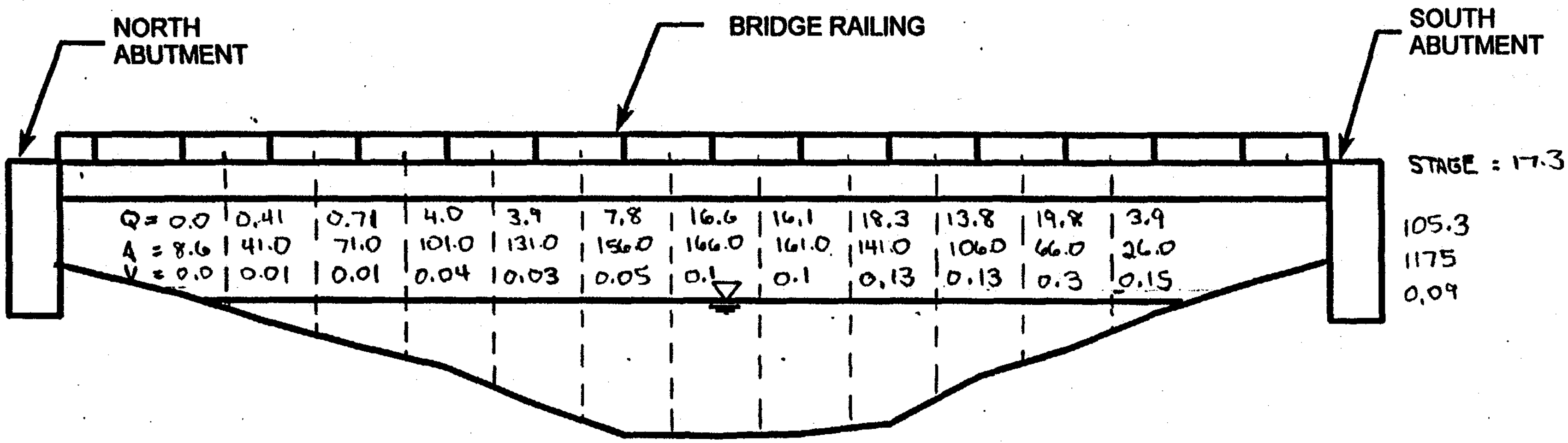
311311

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



Q =	0.0	0.41	0.71	4.0	3.9	7.8	16.6	16.1	18.3	13.8	19.8	3.9	105.3
A =	8.6	41.0	71.0	101.0	131.0	156.0	166.0	161.0	141.0	106.0	66.0	26.0	1175
V =	0.0	0.01	0.01	0.04	0.03	0.05	0.1	0.1	0.13	0.13	0.3	0.15	0.09

TOTAL AREA =

Q USING MEAN VELOCITY

Q = (0.09)(1175)

Q = 106

Q USING INDIVIDUAL AREAS

Q = 105

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~3~~, 1997)
29

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

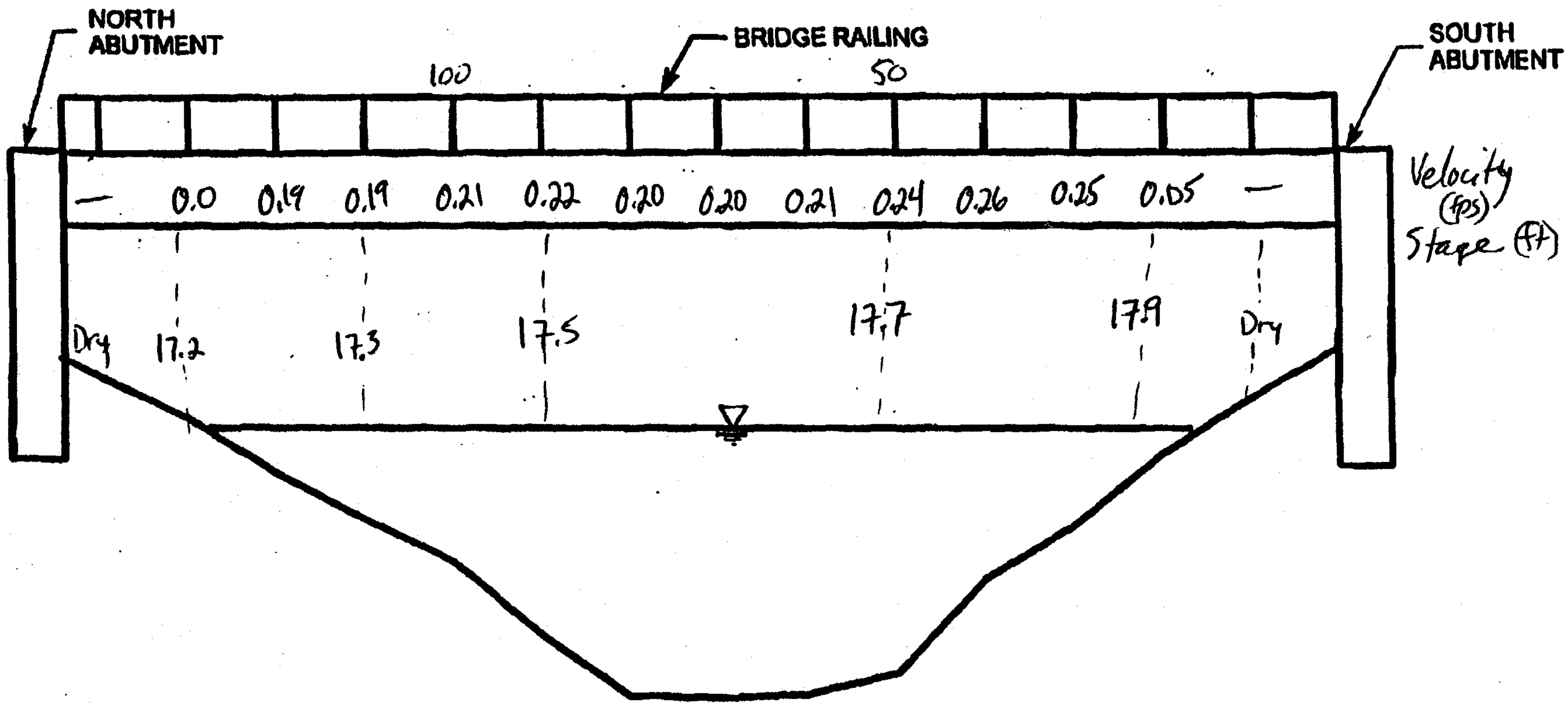
FIGURE

311312

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~8~~, 1997)

28, 1997 @ 09:30

VERT. SCALE: 1" = 10'

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

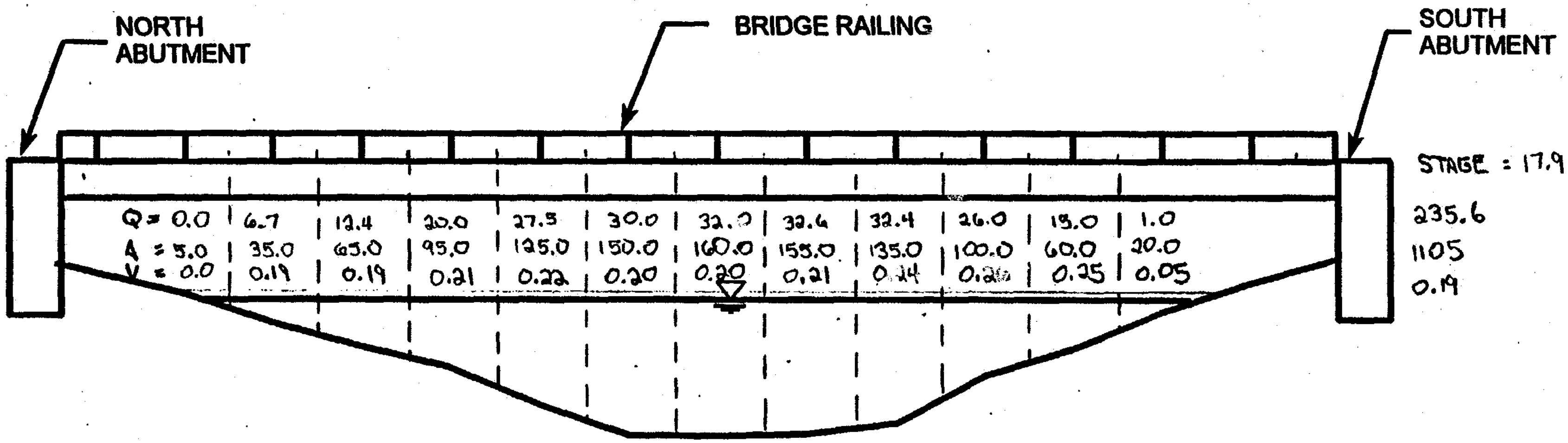
311313

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA = 1105

Q USING MEAN VELOCITY

Q = (0.19) (1105)

Q = 210 CFS

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~3~~ 28, 1997) @ 09:30

Q USING INDIVIDUAL AREAS

Q = 236 CFS

O'BRIEN & GERE ENGINEERS INC.

0 10 20

SCALE IN FEET

89.0%

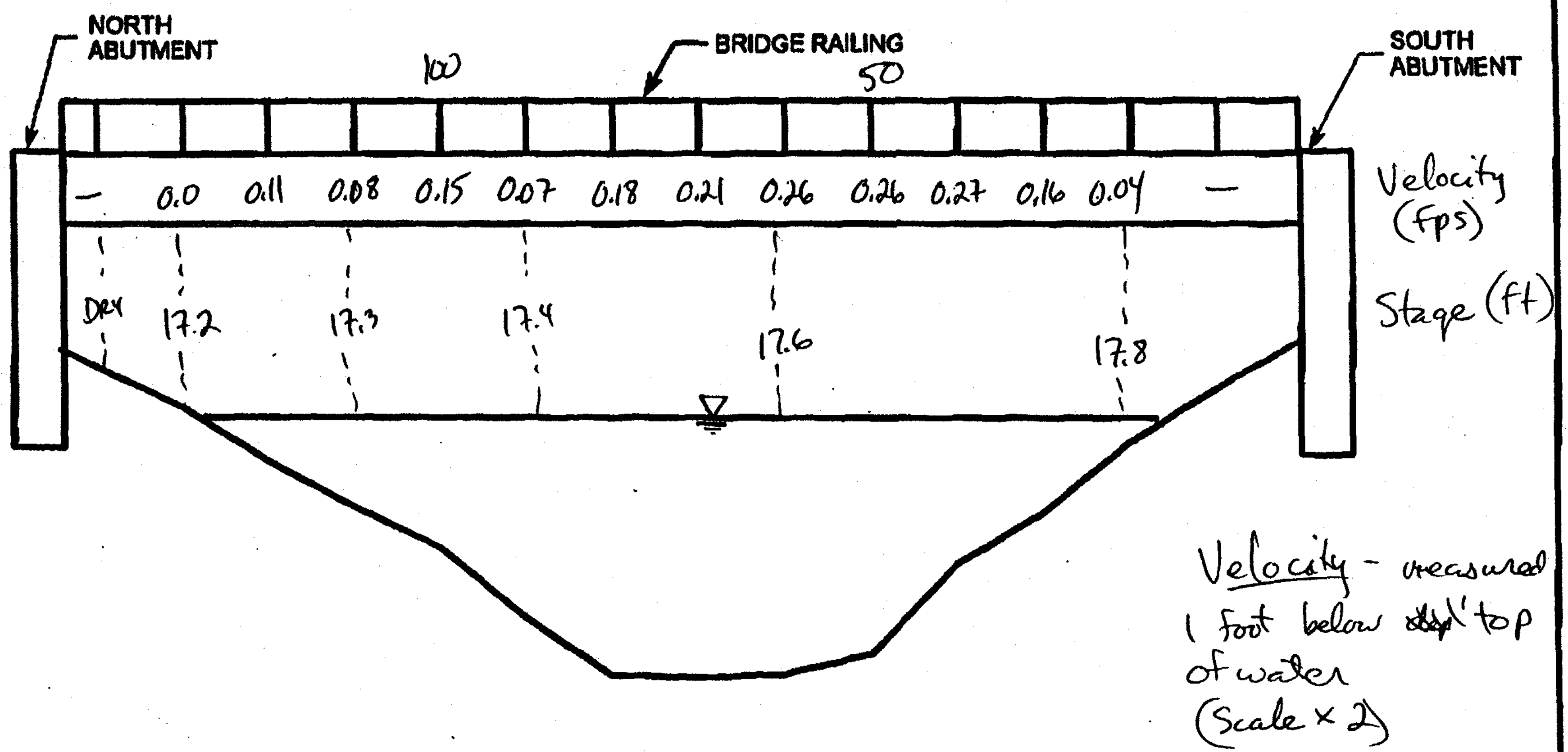
FIGURE

311314

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~8~~ 28, 1997) @ 13:45

O'BRIEN & GERE ENGINEERS INC.

0 10 20
SCALE IN FEET

VERT. SCALE : 1" = 10'

FIGURE

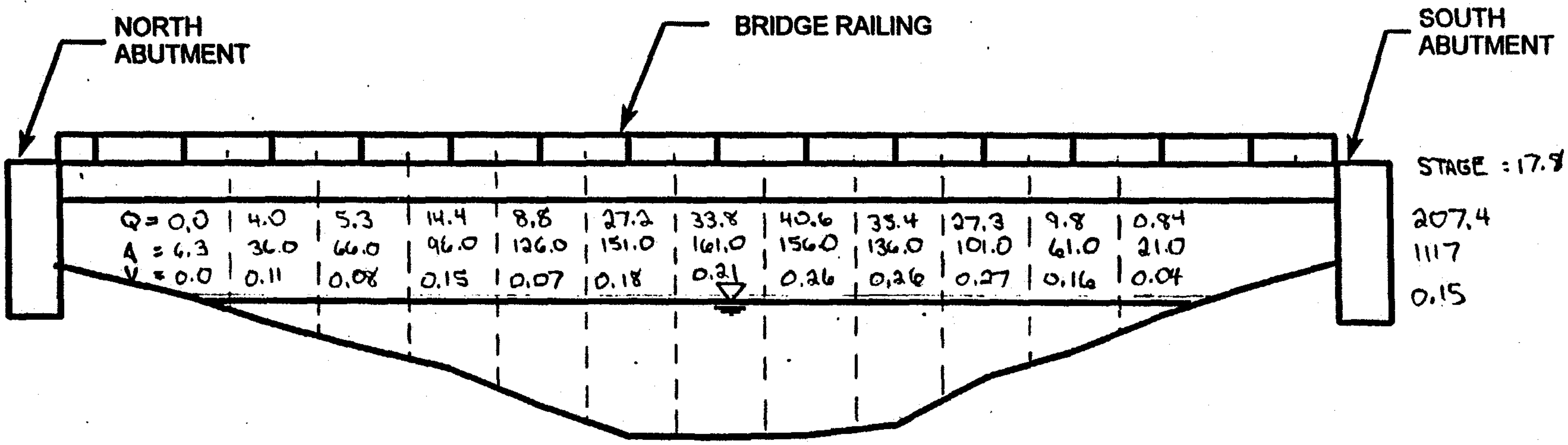
311315

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA =

Q USING MEAN VELOCITY

Q = (0.15)(1117)

Q = 166.6

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~2~~, 1997) @ 13:45
28

Q USING INDIVIDUAL AREAS

Q = 207.4

O'BRIEN & GERE ENGINEERS INC.

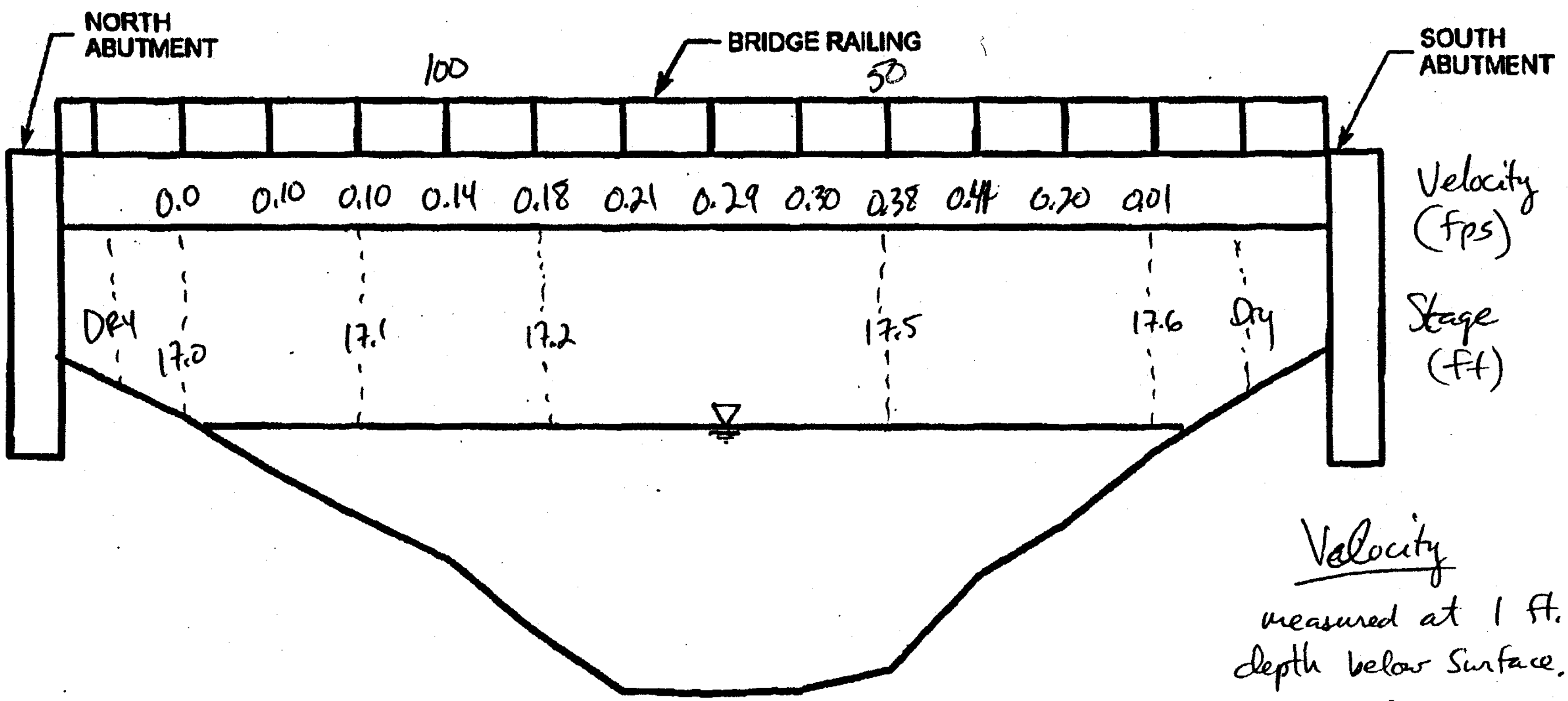
FIGURE

311316

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



Velocity measured at 1 ft. depth below Surface. (Scale x2)

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~8~~ 28, 1997) @ 18:00

O'BRIEN & GERE ENGINEERS INC.

0 10 20
SCALE IN FEET

VERT. SCALE : 1" = 10'

FIGURE

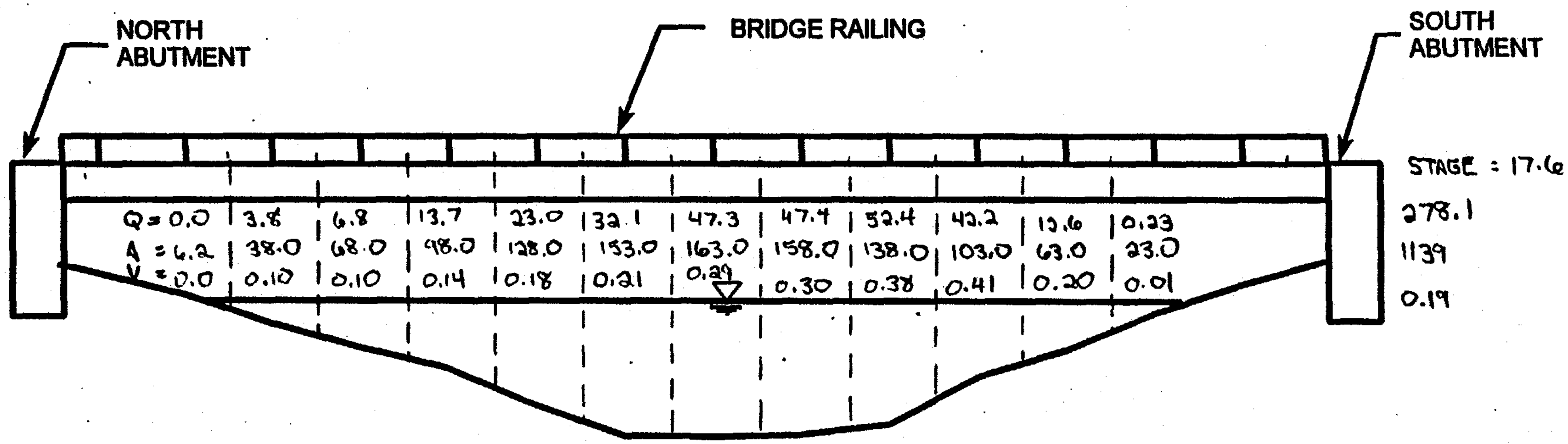
311317

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA =

Q USING MEAN VELOCITY

Q = (0.19)(1139)

Q = 220.2

Q USING INDIVIDUAL AREAS

Q = 278.1

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~3~~ 28, 1997) @ 18:00

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

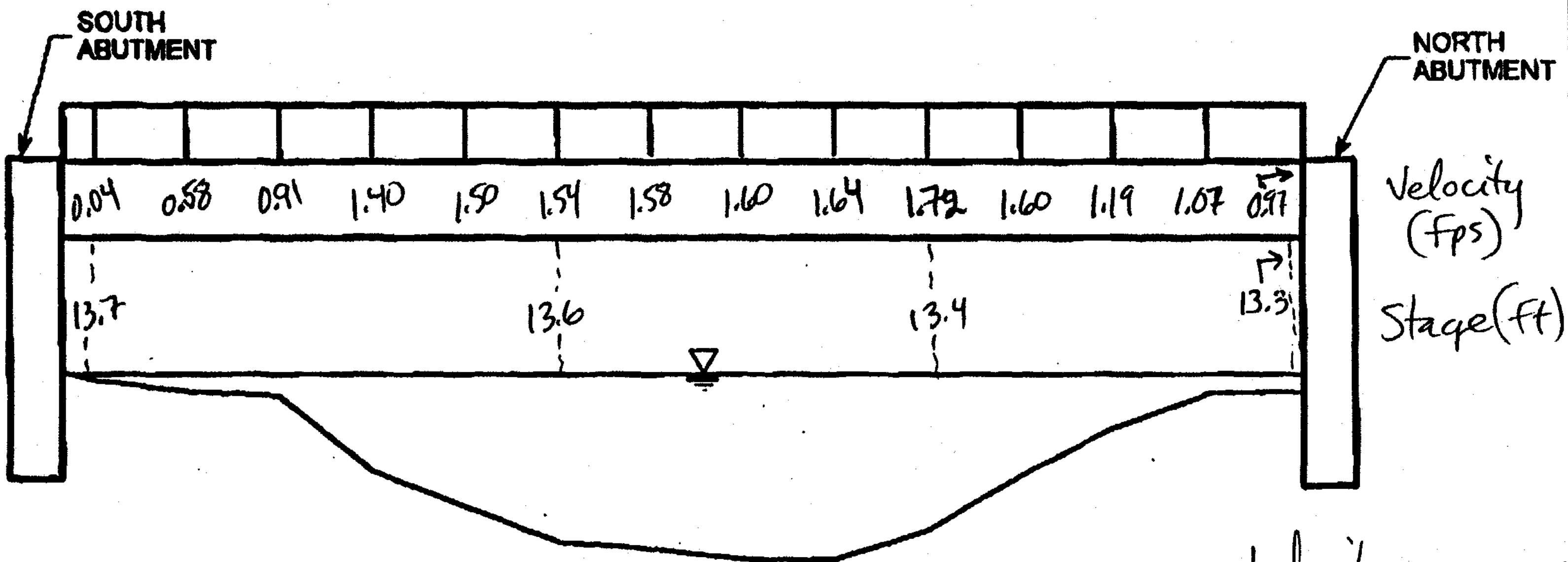
FIGURE

311318

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



Velocity measured 1 foot below surface of water (x2 Scale)

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 28, 1997) @ 15:00

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

FIGURE

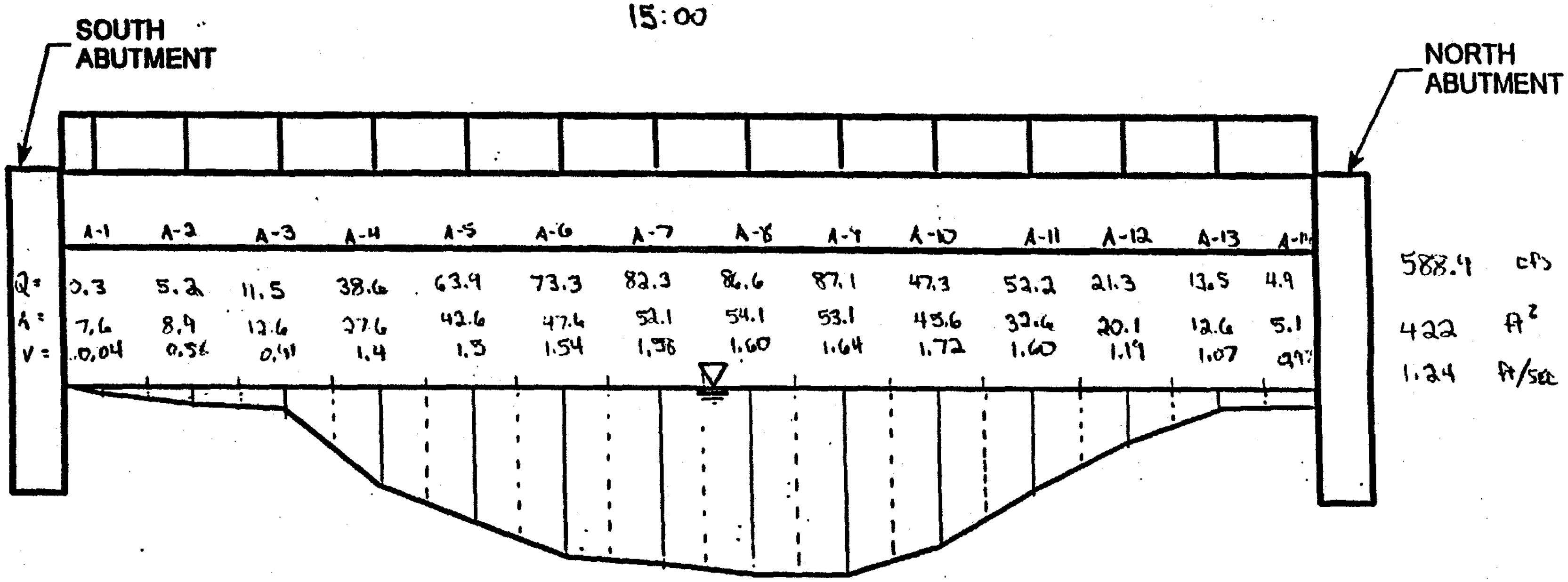
311319

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F

Flow comparison on 4/28/97
15:00



	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14	
Q =	0.3	5.2	11.5	38.6	63.9	73.3	82.3	86.6	87.1	47.3	52.2	21.3	13.5	4.9	588.9 cfs
A =	7.6	8.9	12.6	27.6	42.6	47.6	52.1	54.1	53.1	45.6	32.6	20.1	12.6	5.1	422 ft^2
V =	0.04	0.56	0.91	1.4	1.5	1.54	1.58	1.60	1.64	1.72	1.60	1.19	1.07	.97	1.24 ft/sec

441.1 FT^2 via planimeter
422 ft^2 sum of individual areas

MEAN V = 1.24

Q using MEAN V :
$Q = (1.24)\,441.1$
$Q = 547$

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT
SNOOK KILL BATHYMETRIC PROFILE
(FACING UPSTREAM - APRIL 3, 1997)

Q using individual areas
Q = 589

Q using Sigma Data
V = 1.53
$Q = (1.53)(441.1) = 674$

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

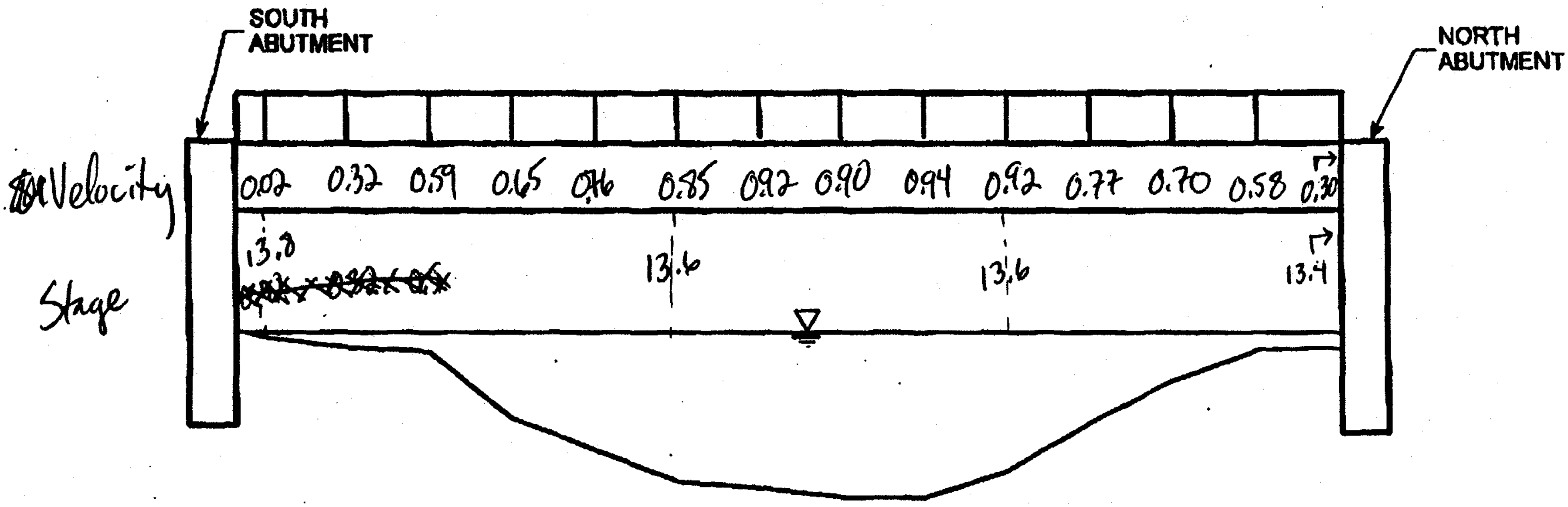
FIGURE

311320

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~8~~, 1997)

28, 1997 @ 11:00

0 5 10

SCALE IN FEET

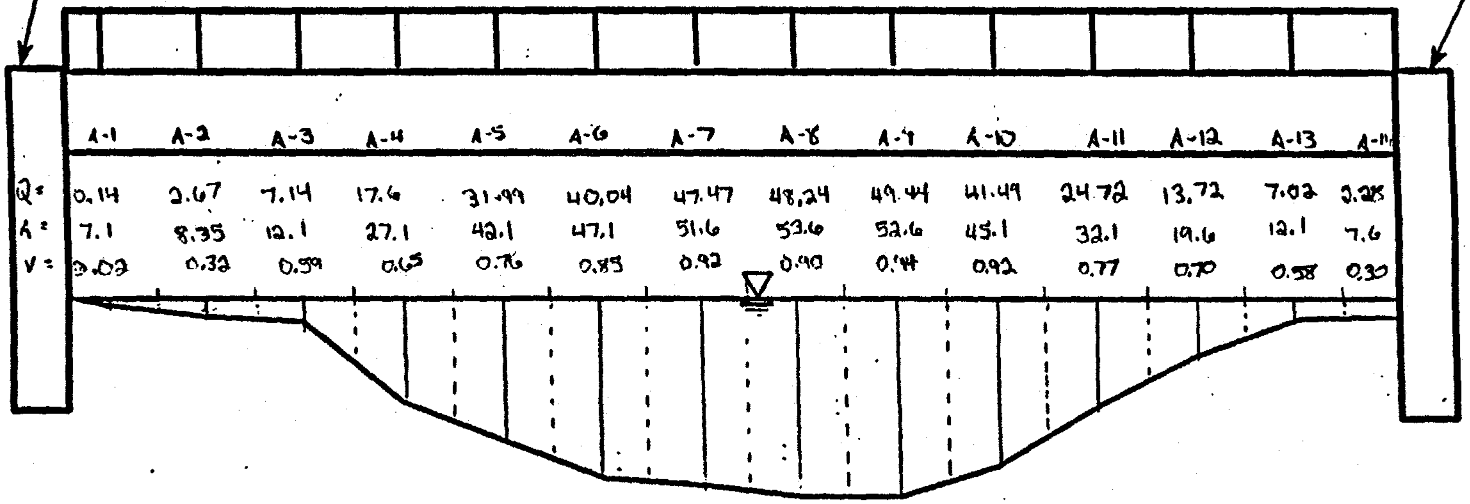
O'BRIEN & GERE ENGINEERS INC.

FIGURE

311321

FILE NO. 0612.226-04F

FLOW COMPARISON ON 4/28/97



	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14	
Q =	0.14	2.67	7.14	17.6	31.99	40.04	47.47	48.24	49.44	41.49	24.72	13.72	7.02	2.28	333.96 cfs
A =	7.1	8.35	12.1	27.1	42.1	47.1	51.6	53.6	52.6	45.1	32.1	19.6	12.1	7.6	418.15 ft^2
V =	0.02	0.32	0.59	0.65	0.76	0.85	0.92	0.90	0.94	0.92	0.77	0.70	0.58	0.30	0.66 ft/sec

429.2 FT^2 VIA PLANIMETER

418.15 FT^2 SUM OF INDIVIDUAL AREAS

MEAN V = 0.66

Q USING MEAN V =

Q = (0.66) 429.2

Q = 282.7

Q USING INDIVIDUAL AREAS

Q = 333.96

Q USING SIGMA DATA

V = 0.82

Q = (.82)(429.2) = 351.9

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~3~~, 1997)
21

11:00

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

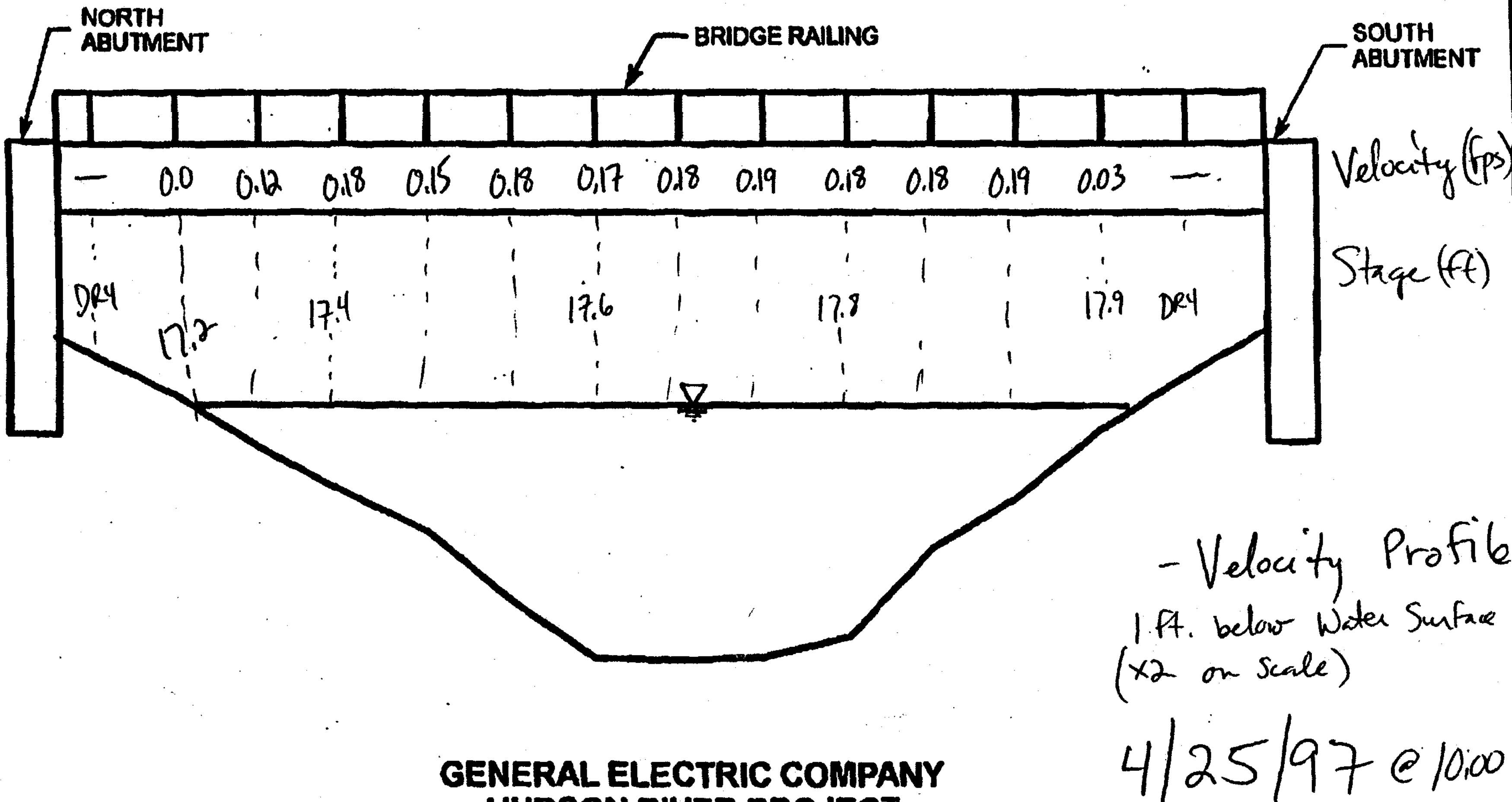
FIGURE

311322

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226.037



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~18~~, 1997)
25

0 10 20
SCALE IN FEET

VERT. SCALE: 1" = 10'

O'BRIEN & GERE ENGINEERS INC.

FIGURE

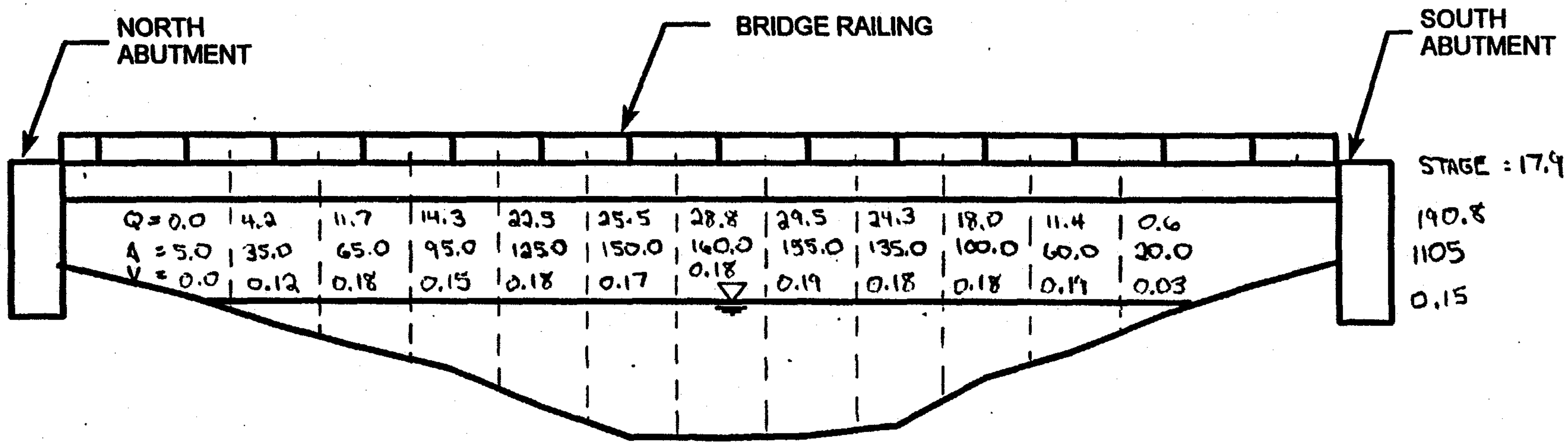
311323

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA =

Q USING MEAN VELOCITY

Q = (0.15)(1105)

Q = 161

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~3~~ 25, 1997) @ 10:00

Q USING INDIVIDUAL AREAS

Q = 190.8

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

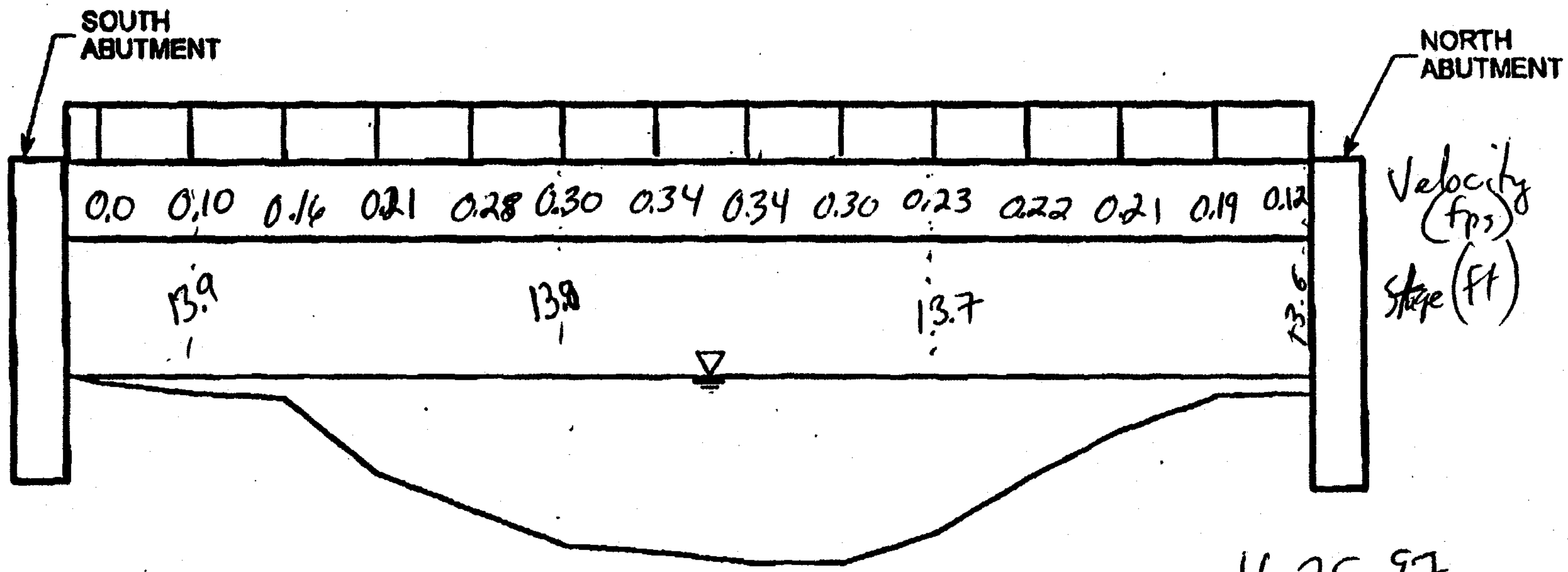
FIGURE

311324

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH WPG

FILE NO. 0612.226-04F



4·25·97

Velocity Profile & Stage measurements 13:00

Velocity (x2 scale)

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~18~~ 25, 1997)

0 5 10

SCALE IN FEET

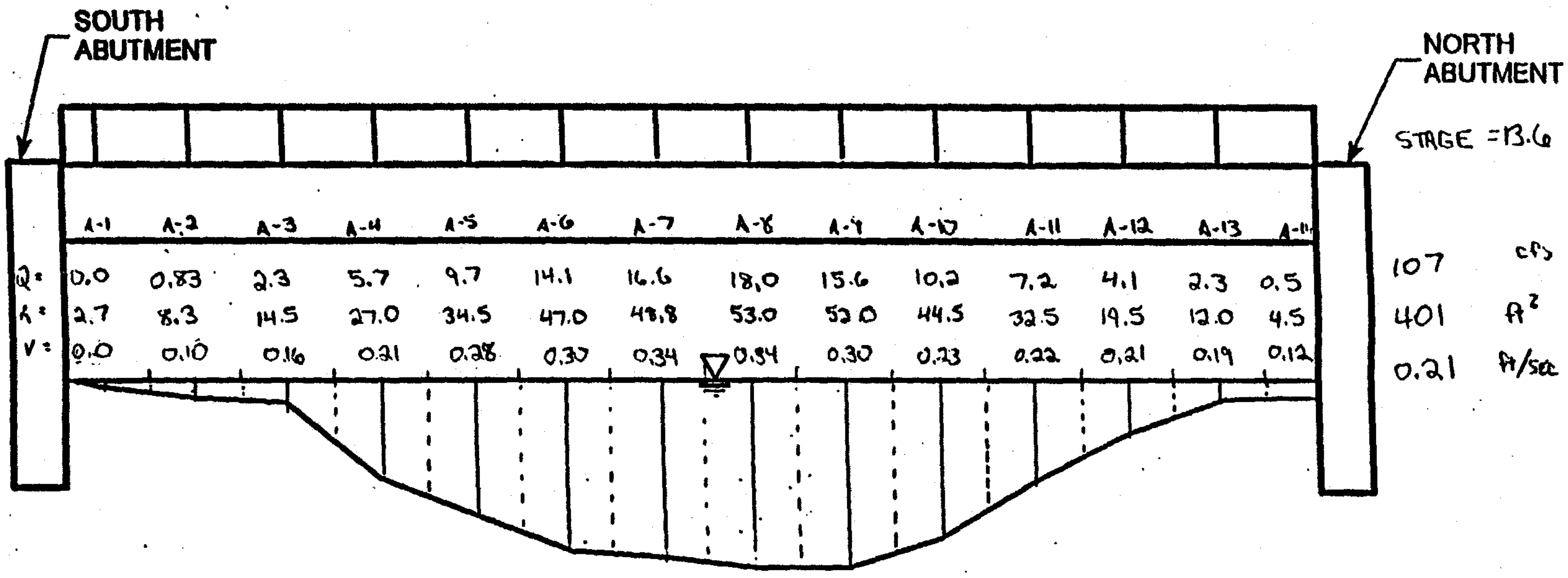
O'BRIEN & GERE ENGINEERS INC.

FIGURE

311325

FILE NO. 0612.226-04F

FLOW COMPARISON



	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14		
Q =	0.0	0.83	2.3	5.7	9.7	14.1	16.6	18.0	15.6	10.2	7.2	4.1	2.3	0.5	107	cfs
A =	2.7	8.3	14.5	27.0	34.5	47.0	48.8	53.0	53.0	44.5	32.5	19.5	12.0	4.5	401	ft^2
V =	0.0	0.10	0.16	0.21	0.28	0.30	0.34	0.34	0.30	0.23	0.22	0.21	0.19	0.12	0.21	ft/sec

MEAN V = 0.21

Q USING MEAN V :

Q = (0.21)(401)

Q = 86

Q USING INDIVIDUAL AREAS

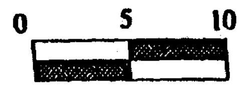
Q = 107

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~3~~, 1997)

25



SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

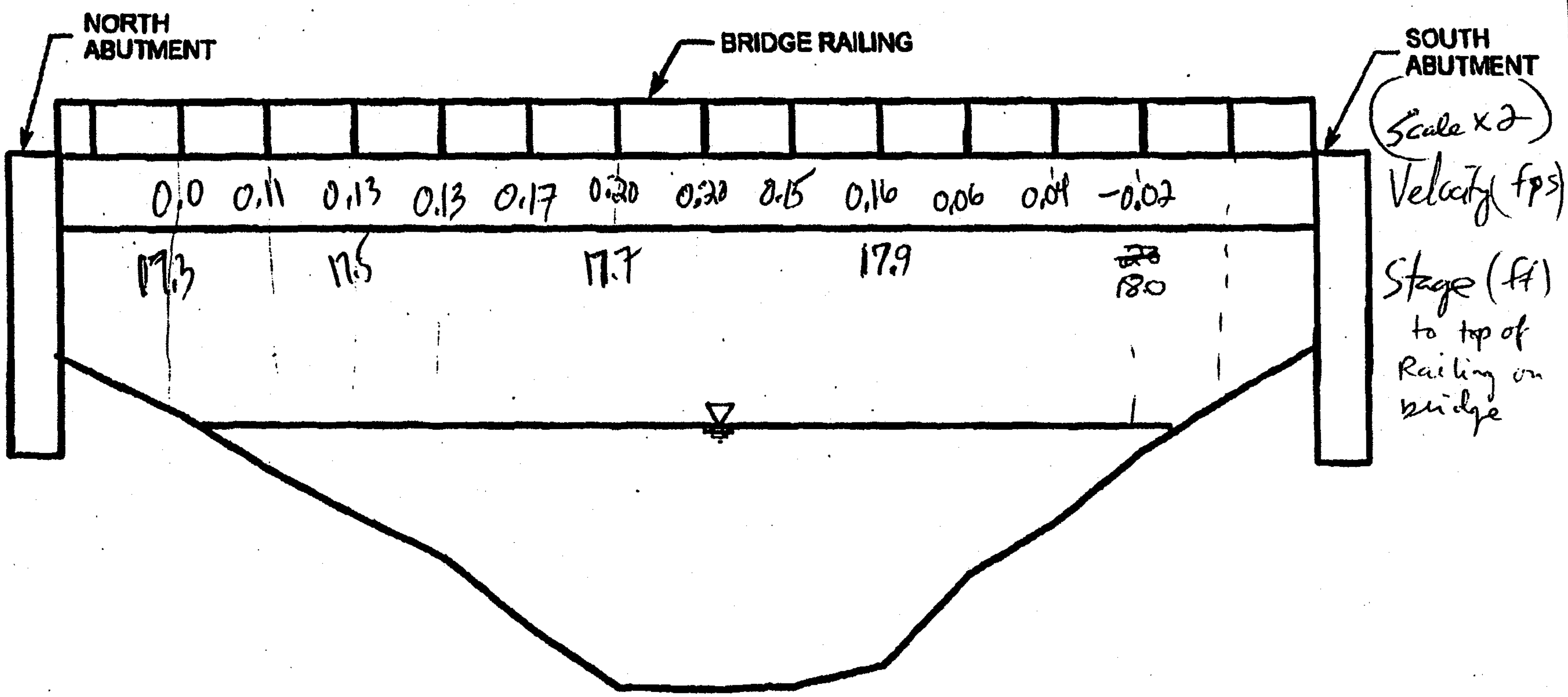
FIGURE

311326

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 3,~~ 1997)

April 23, 1997

0 10 20

SCALE IN FEET

VERT. SCALE: 1" = 10'

O'BRIEN & GERE ENGINEERS INC.

FIGURE

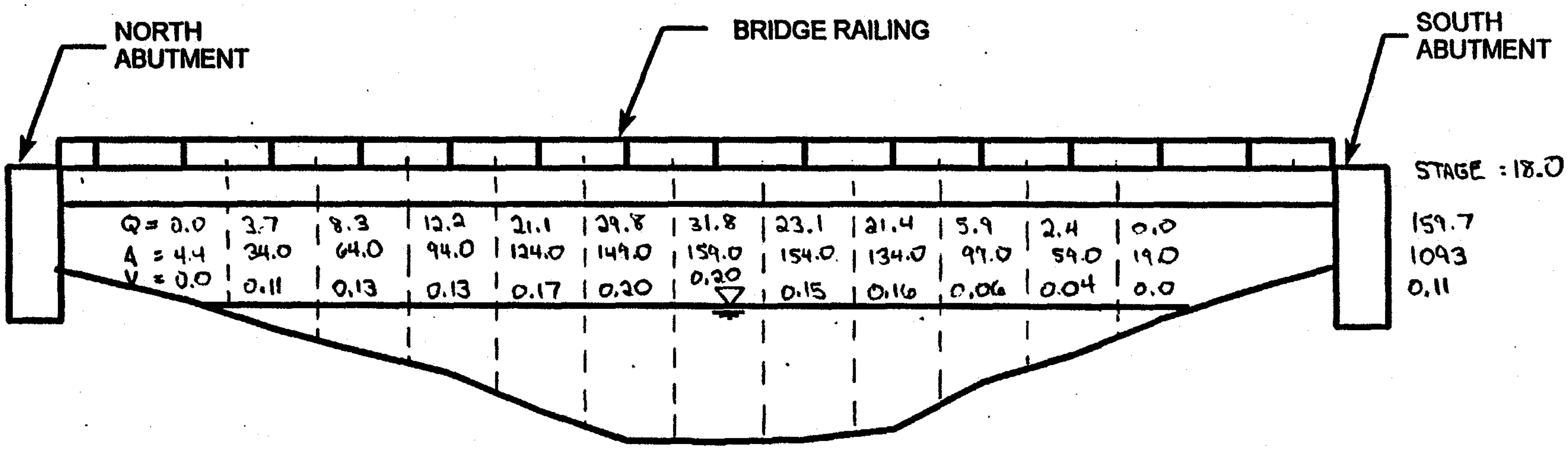
311327

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA =

Q USING MEAN VELOCITY

$Q = (0.11)(1093)$

$Q = 123$

Q USING INDIVIDUAL AREAS

$Q = 159.7$

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~2~~ 23, 1997) @ 13:00

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

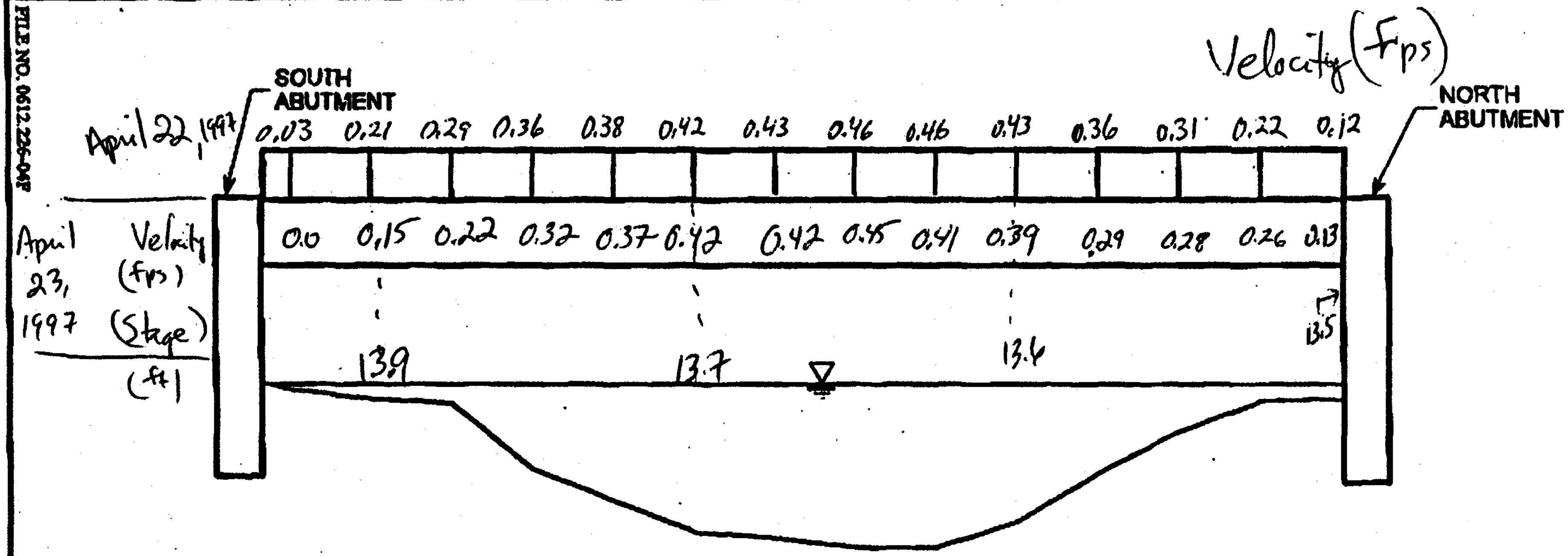
FIGURE

311328

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04P



* measured at 1 ft. below Surface

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~8~~, 1997)
22, & 23

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

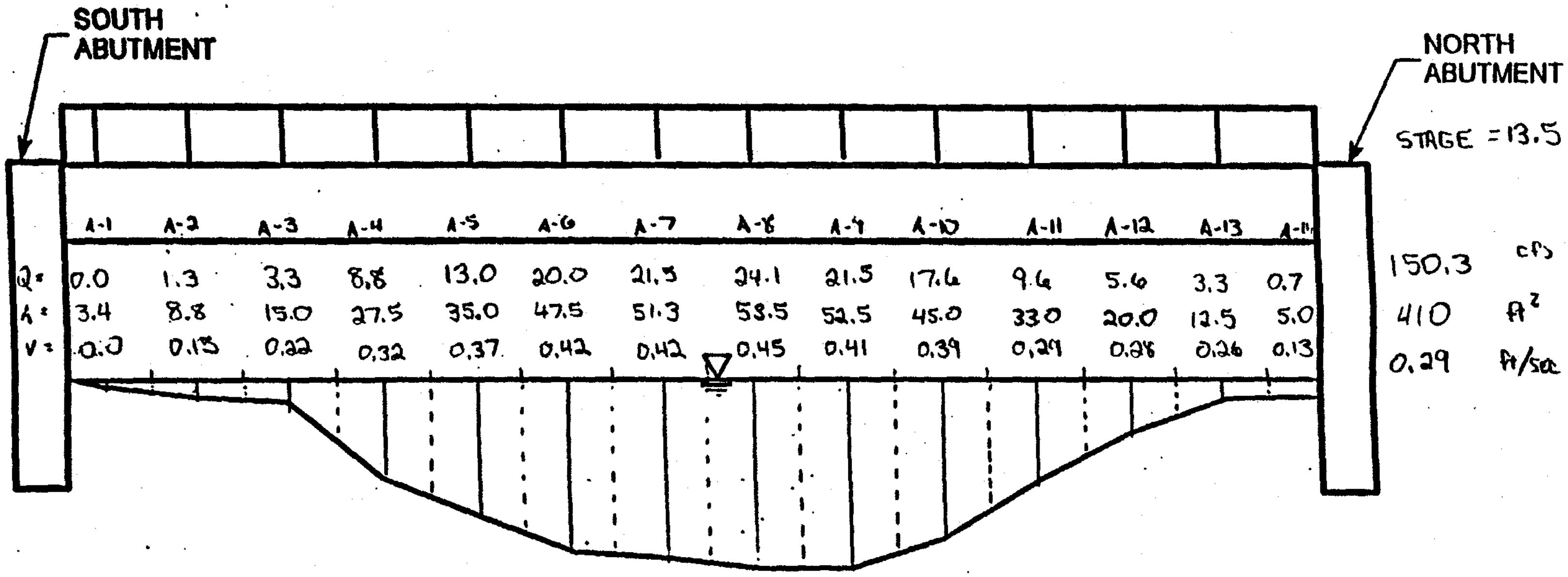
FIGURE

311329

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14	Total	
Q =	0.0	1.3	3.3	8.8	13.0	20.0	21.5	24.1	21.5	17.6	9.6	5.6	3.3	0.7	150.3	cfs
A =	3.4	8.8	15.0	27.5	35.0	47.5	51.3	53.5	52.5	45.0	33.0	20.0	12.5	5.0	410	ft²
V =	0.0	0.15	0.22	0.32	0.37	0.42	0.42	0.45	0.41	0.39	0.29	0.28	0.26	0.13	0.29	ft/sec

MEAN V = 0.29

Q USING MEAN V =

Q = (0.29)(410)

Q = 120.4

Q USING INDIVIDUAL AREAS

Q = 150.3

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~8~~ 23, 1997)

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC

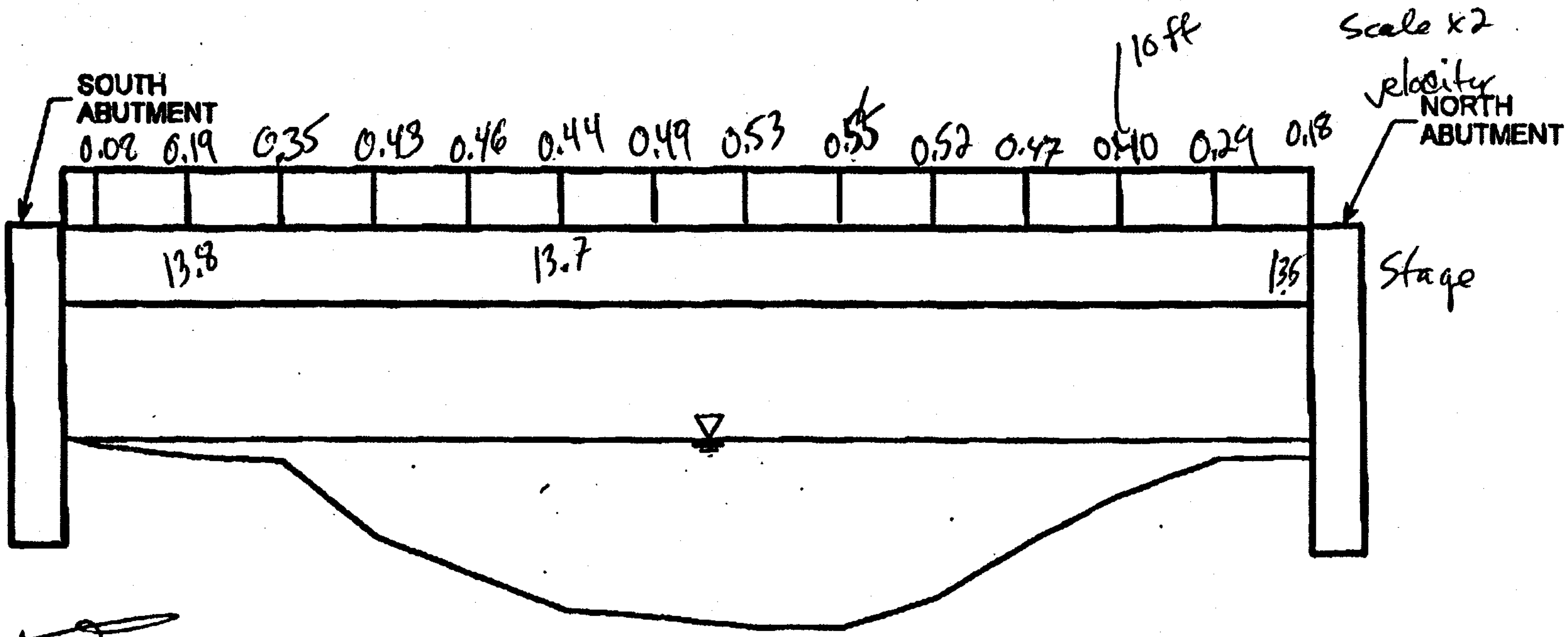
FIGURE

311330

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-047



Sean Kamke
4.21.97
14:00
-Stage in feet below top of Railing on bridge
Velocity in (fps) (x2) scale at about 1 foot depth below stream surface

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

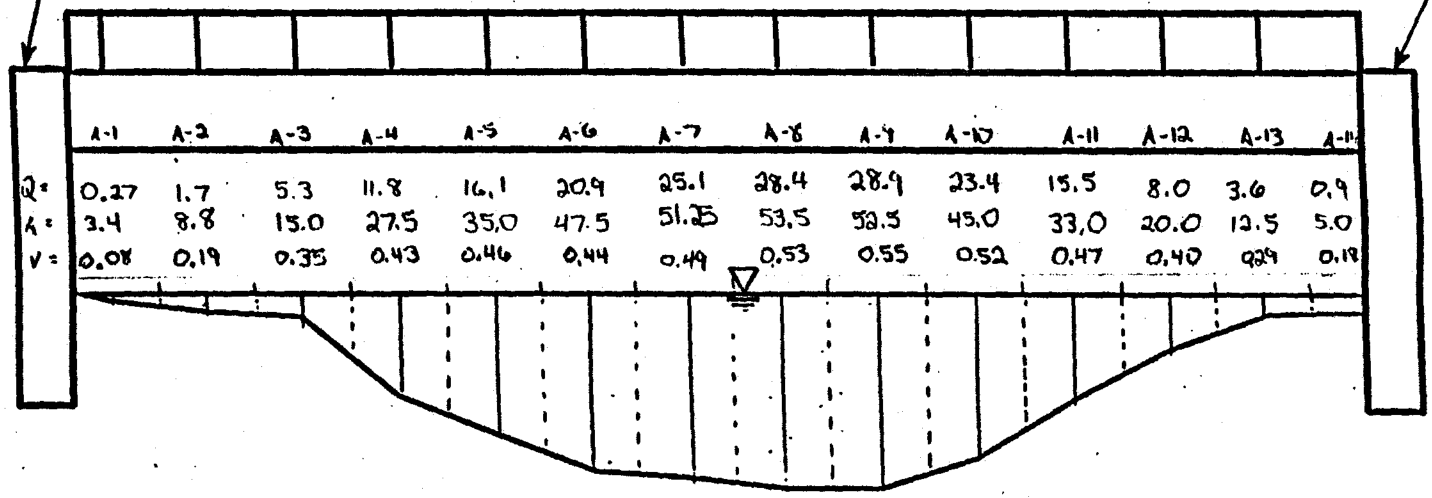
311331

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F

FLOW COMPARISON



	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14
Q =	0.27	1.7	5.3	11.8	16.1	20.9	25.1	28.4	28.9	23.4	15.5	8.0	3.6	0.9
A =	3.4	8.8	15.0	27.5	35.0	47.5	51.25	53.5	52.5	45.0	33.0	20.0	12.5	5.0
V =	0.08	0.19	0.35	0.43	0.46	0.44	0.49	0.53	0.55	0.52	0.47	0.40	0.29	0.18

STAGE = 13.5

190 cfs

410 ft^2

0.38 ft/sec

MEAN V = 0.38

Q USING MEAN V :

Q = (0.38) 410

Q = 158

Q USING INDIVIDUAL AREAS

Q = 190

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~3~~ 21, 1997) @ 14:00

0 5 10
SCALE IN FEET

O'BRIEN & GERE ENGINEERS, INC.

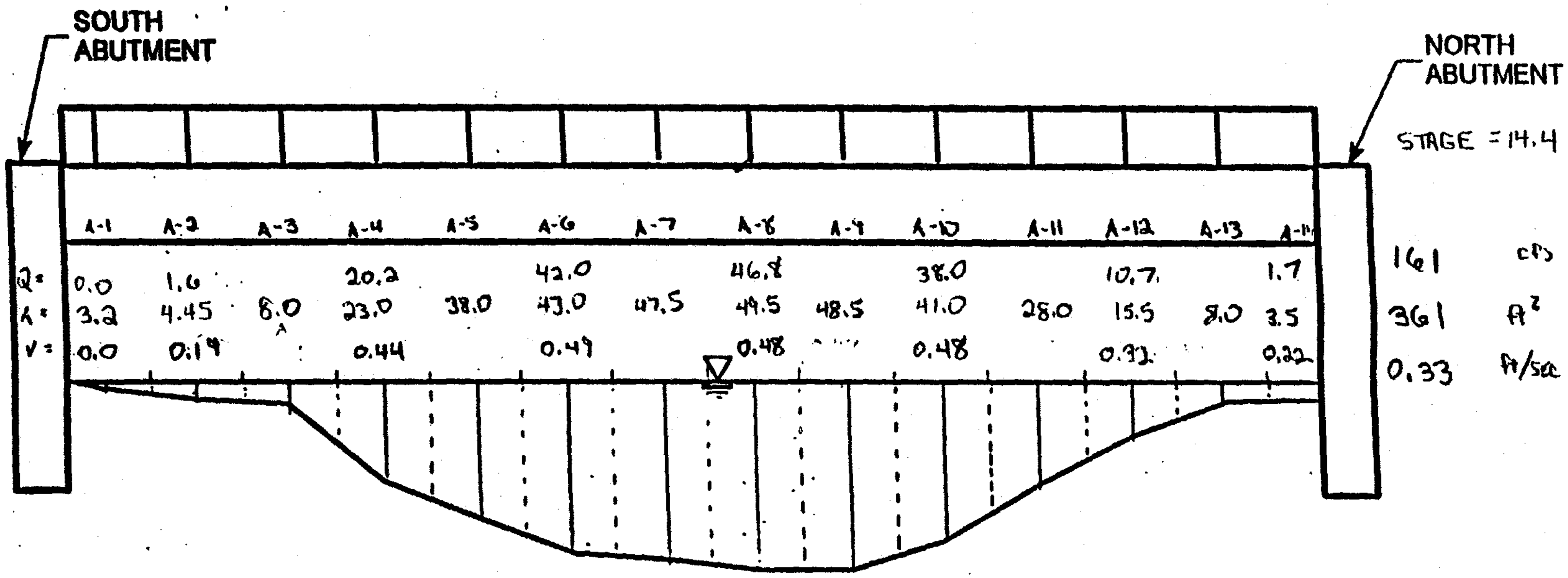
FIGURE

311332

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



MEAN V = 0.33

Q USING MEAN V :

Q = (0.33)(361)

Q = 119

Q USING INDIVIDUAL AREAS

Q = 161

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~3~~ 17, 1997)

O'BRIEN & GERE ENGINEERS INC.

0 5 10

SCALE IN FEET

FIGURE

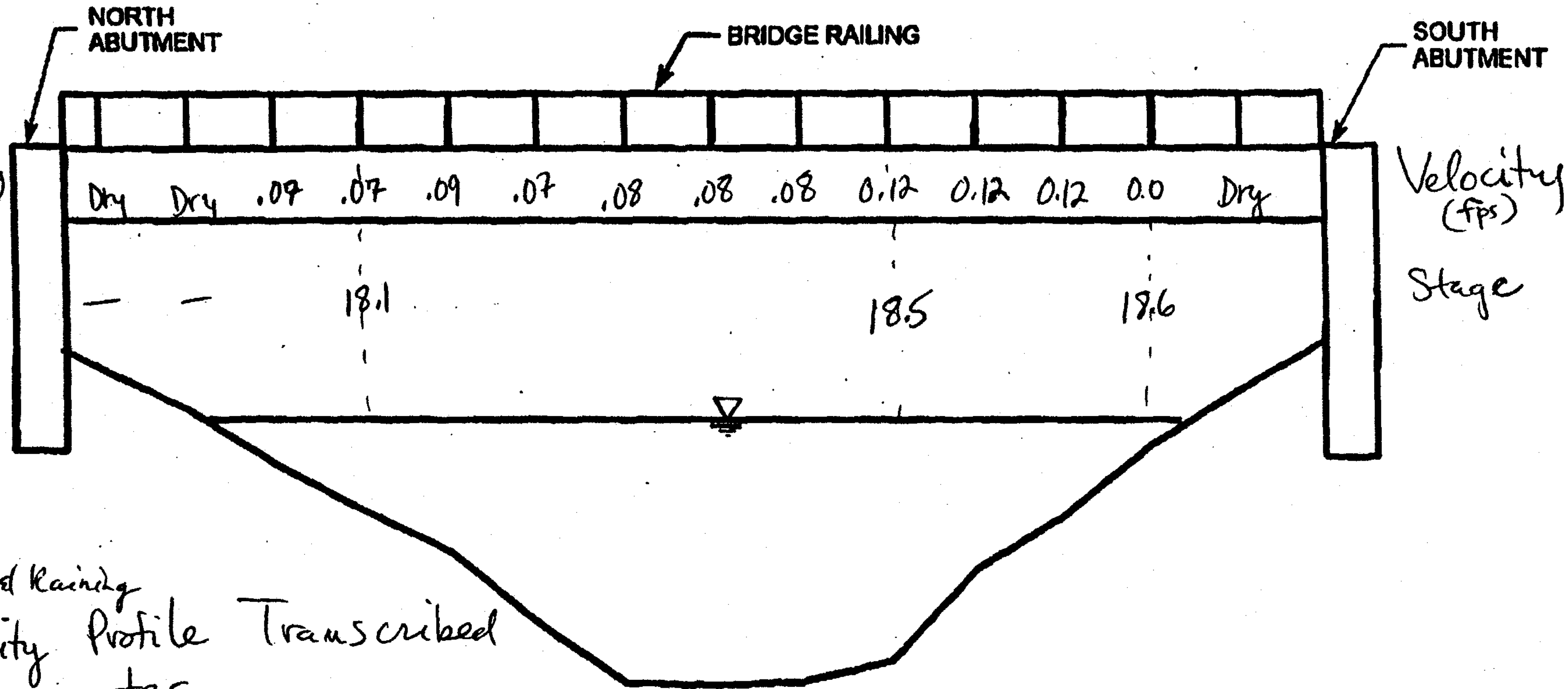
311333

DATE: APRIL 18, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

~~Stage (8)~~



Cold & Raining
Velocity Profile Transcribed from notes.
(Scale x2) Velocity fps
Stage (ft.) to top of Railing

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - ~~APRIL 8~~, 1997)
April 18, 1997

0 10 20
SCALE IN FEET

VERT. SCALE : 1" = 10'

O'BRIEN & GERE ENGINEERS INC.

FIGURE

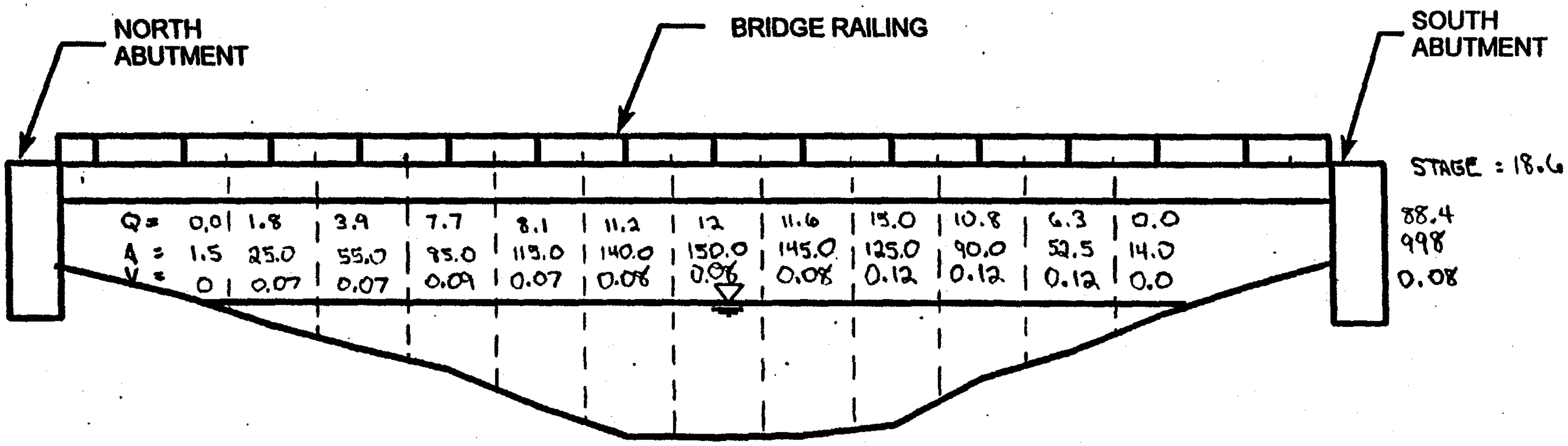
311334

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA = 998

Q USING MEAN VELOCITY

$Q = (0.08)(998)$

$Q = 79.8$ CFS

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT
MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~3~~, 1997) 18

Q USING INDIVIDUAL AREAS

$Q = 88.4$

90.3%

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

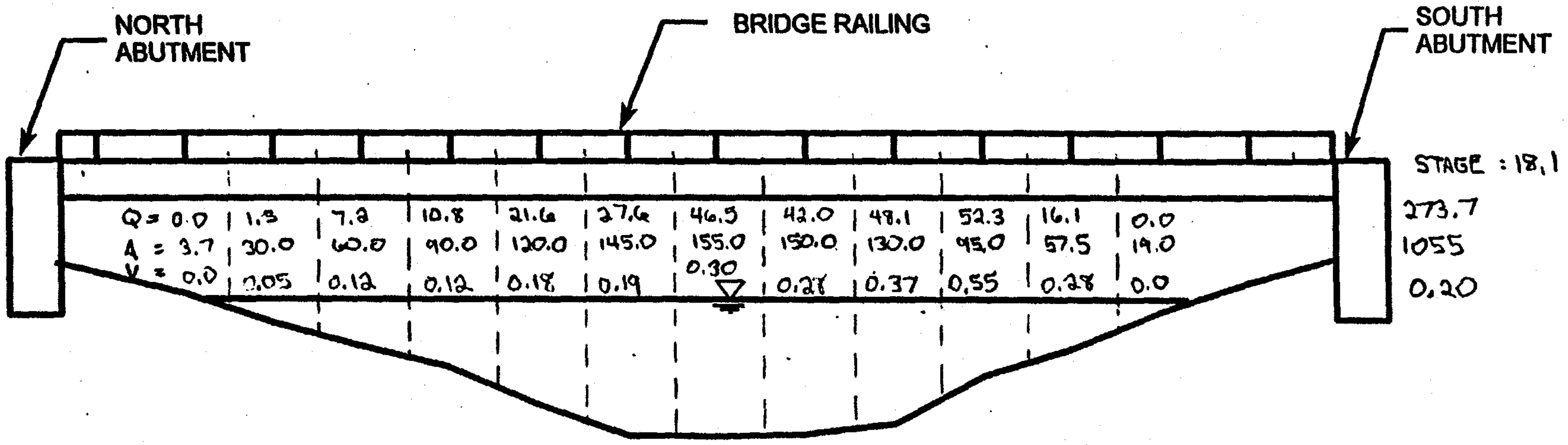
311335

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA = 1055

Q USING MEAN VELOCITY

Q = (0.20)(1055)

Q = 214.5

Q USING INDIVIDUAL AREAS

Q = 273.7

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~3~~ 4, 1997) @ 10:00

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

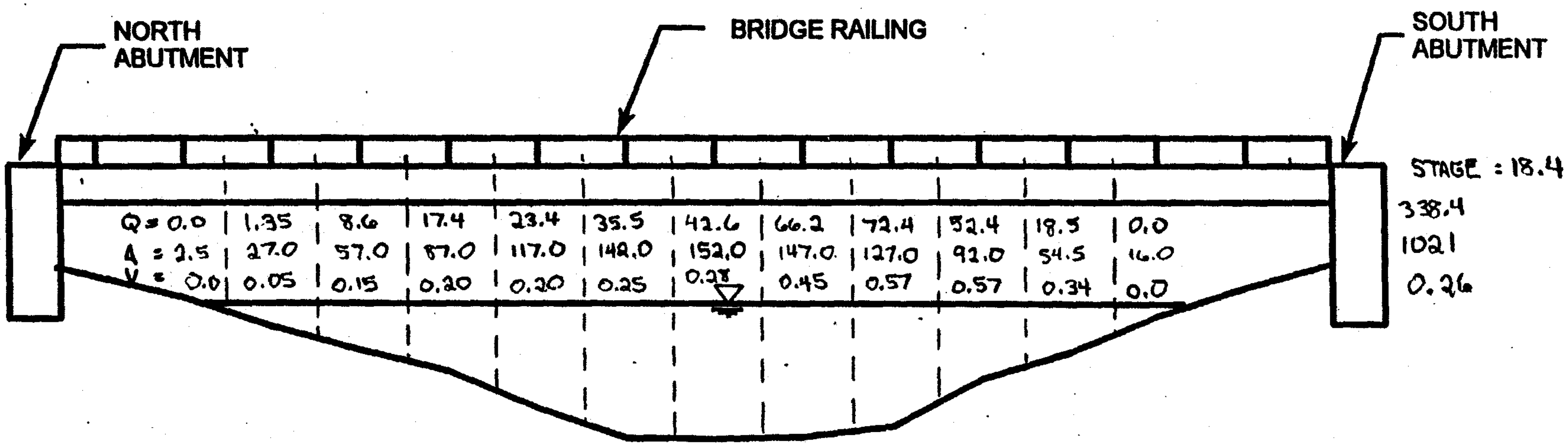
311336

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA =

Q USING MEAN VELOCITY

Q = (0.26)(1021)

Q = 265

Q USING INDIVIDUAL AREAS

Q = 338

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL ~~2~~ 3, 1997) @ 10:00

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

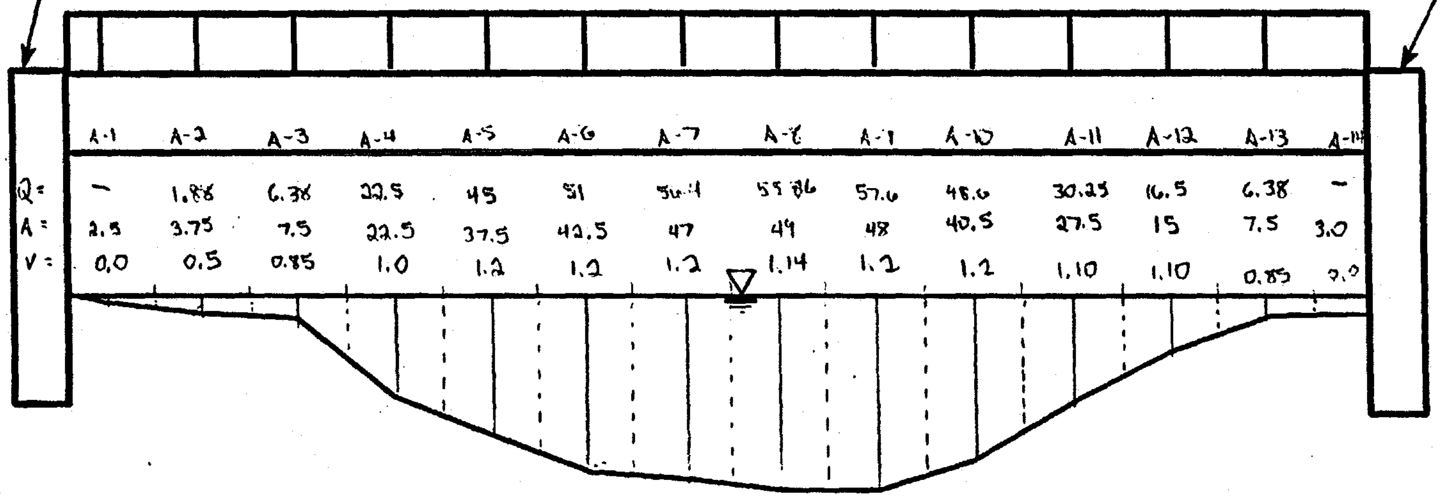
311337

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F

FLOW COMPARISON ON 4/3/97



	A-1	A-2	A-3	A-4	A-5	A-6	A-7	A-8	A-9	A-10	A-11	A-12	A-13	A-14
Q =	–	1.88	6.38	22.5	45	51	56.4	55.86	57.6	48.6	30.25	16.5	6.38	–
A =	2.5	3.75	7.5	22.5	37.5	42.5	47	49	48	40.5	27.5	15	7.5	3.0
V =	0.0	0.5	0.85	1.0	1.2	1.2	1.2	1.14	1.2	1.2	1.10	1.10	0.85	0.0

STAGE = 14.5

348.35 CFS

353.75 ft²

1.04 ft/sec

361 FT² VIA PLANIMETER

353 FT² SUM OF INDIVIDUAL AREAS

MEAN V = 1.04

Q USING MEAN V =

Q = (1.04) 361

Q = 375.4

Q USING INDIVIDUAL AREAS

Q = 398.35

Q USING SIGMA DATA

V = 1.1

Q = (1.1)(361) = 397

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

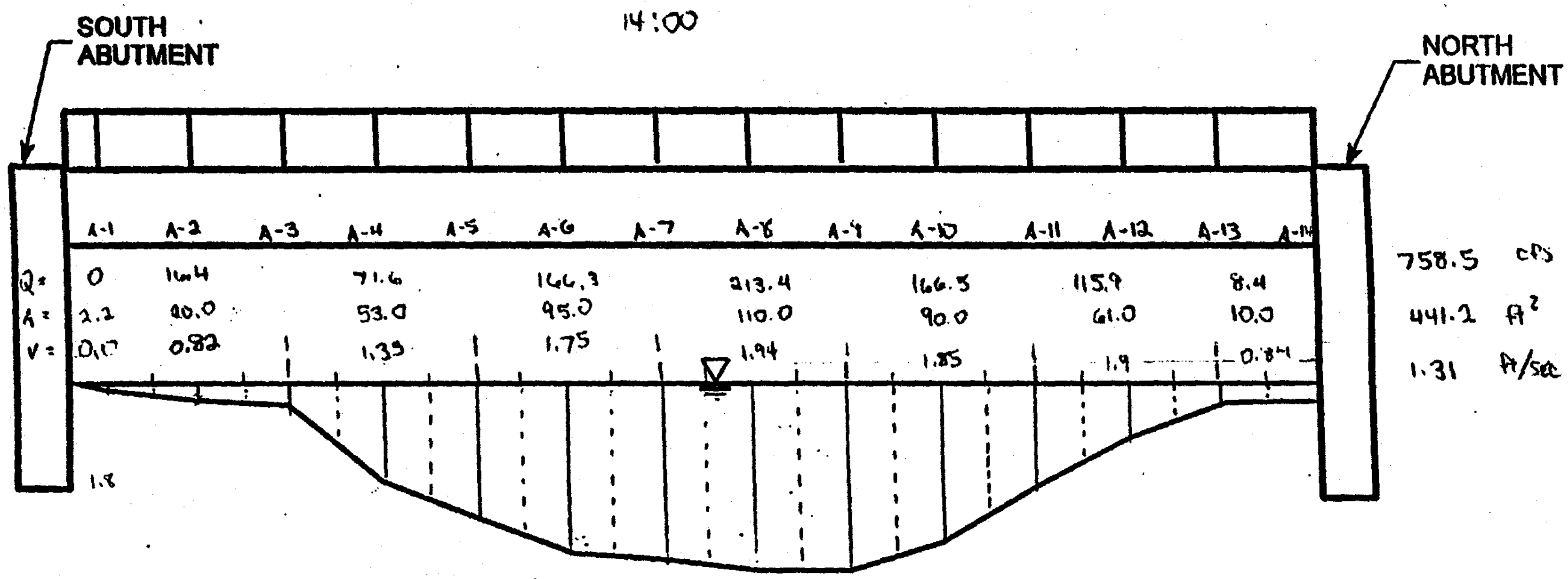
311338

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F

FLOW COMPARISON ON 4/1/97
14:00



434 FT² via planimeter

441.2 FT² sum of individual areas

MEAN V = 1.31

Q using MEAN V =

Q = (1.31) 434

Q = 569

Q using individual areas

Q = 759

Q using SIGMA DATA

V = 1.44

Q = (1.44)(434) = 625

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT
SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

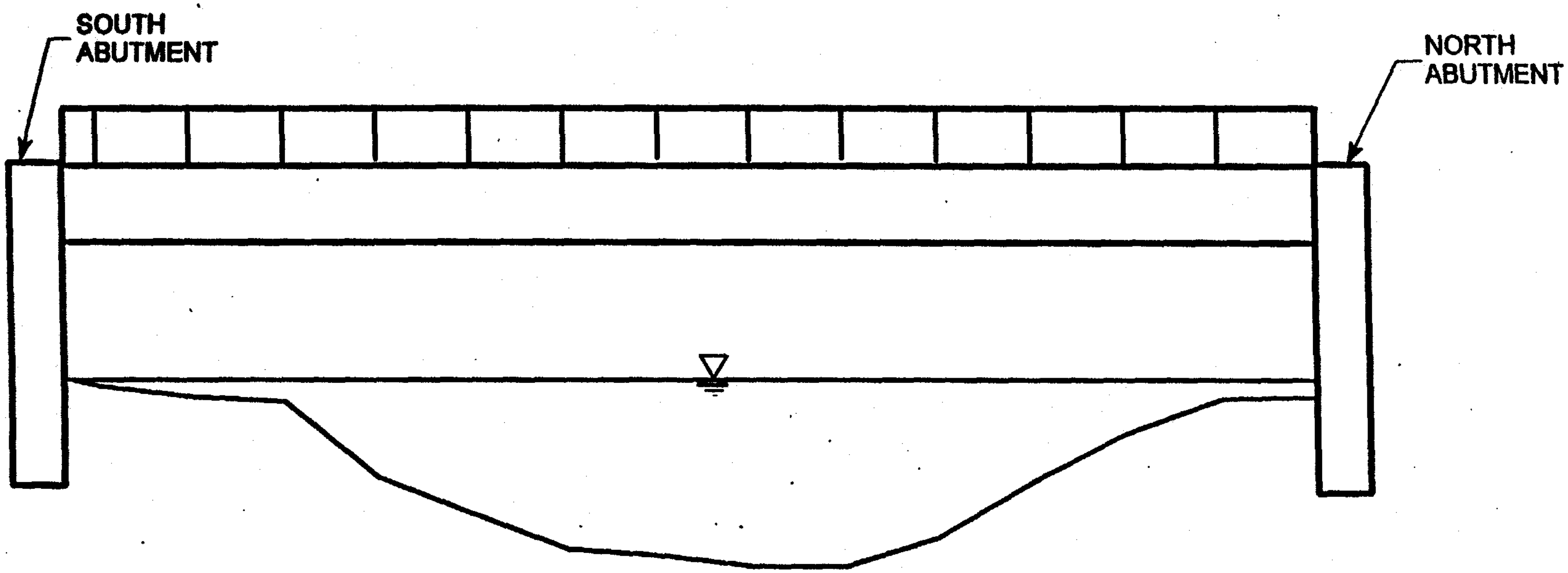
FIGURE

311339

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

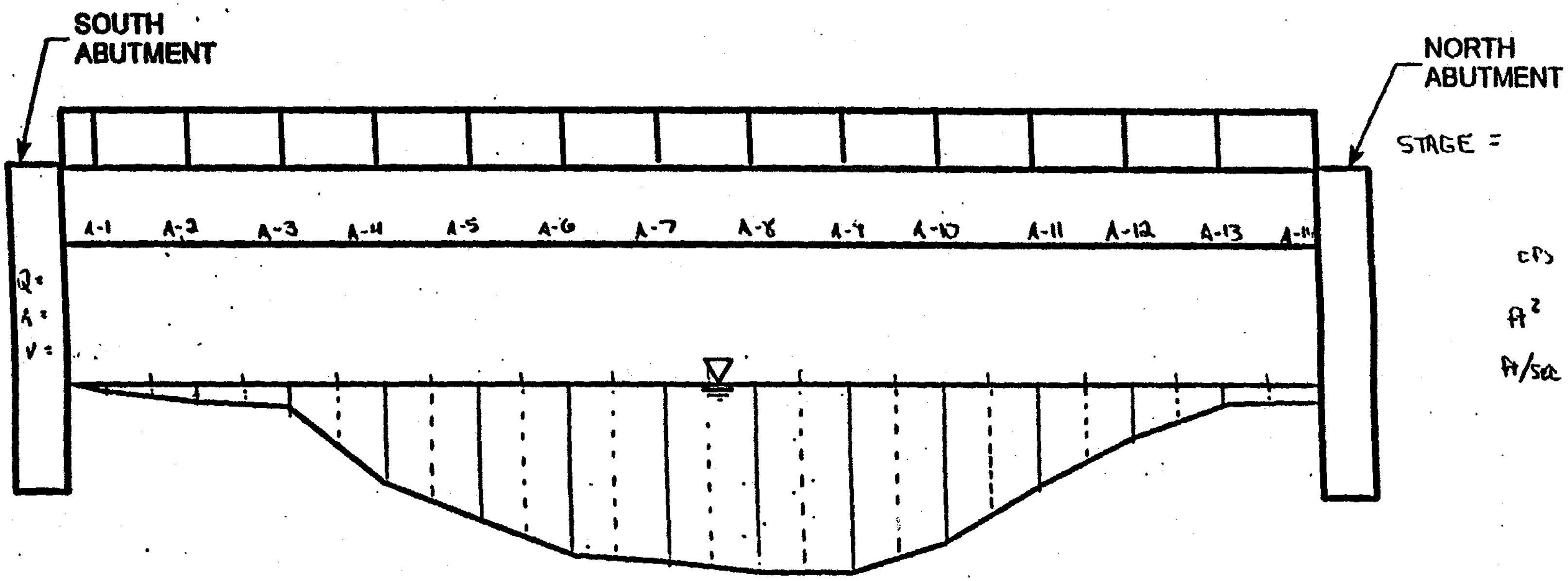
FIGURE

311340

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



MEAN V =

Q USING MEAN V =

Q = ( )

Q =

Q USING INDIVIDUAL AREAS

Q =

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

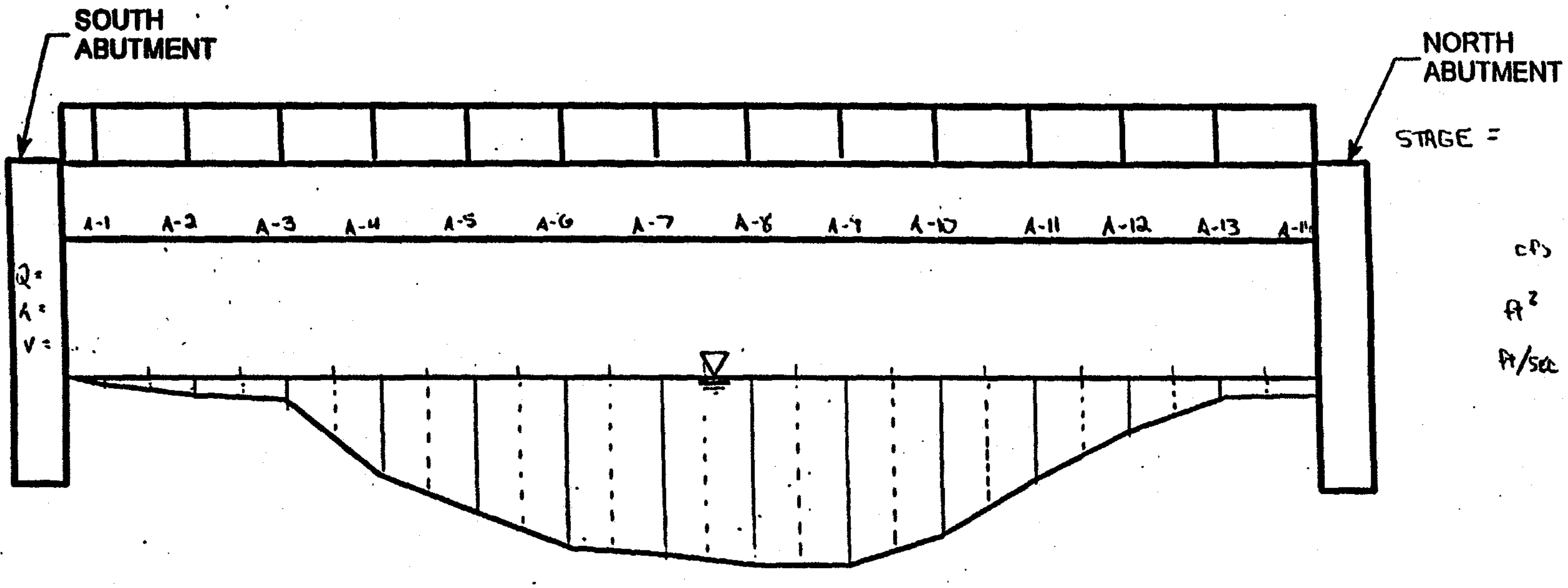
FIGURE

311341

DATE: APRIL 15, 1997

I:\DIV52\PROJECTS\612.226\DWG\SNOKBATH.WPG

FILE NO. 0612.226-04F



MEAN V =

Q USING MEAN V =

Q = ( )

Q =

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

SNOOK KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

Q USING INDIVIDUAL AREAS

Q =

0 5 10

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

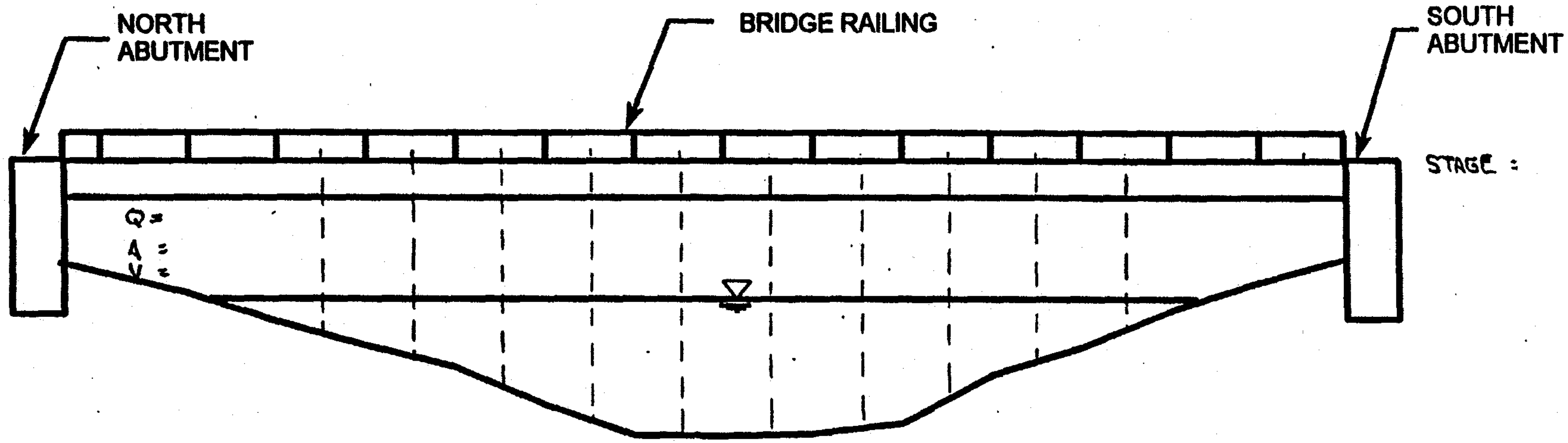
311342

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA =

Q USING MEAN VELOCITY

Q =

Q =

Q USING INDIVIDUAL AREAS

Q =

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

0 10 20

SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

FIGURE

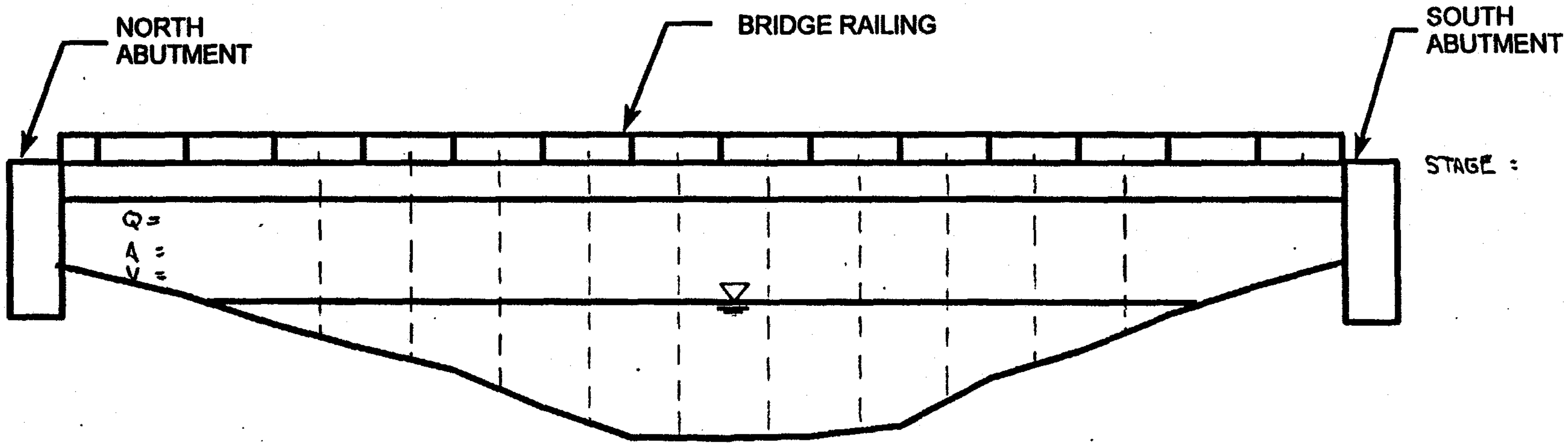
311343

DATE: MAY 16, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F

FLOW COMPARISON



TOTAL AREA =

Q USING MEAN VELOCITY

Q =

Q =

Q USING INDIVIDUAL AREAS

Q =

GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

0 10 20
SCALE IN FEET

O'BRIEN & GERE ENGINEERS INC.

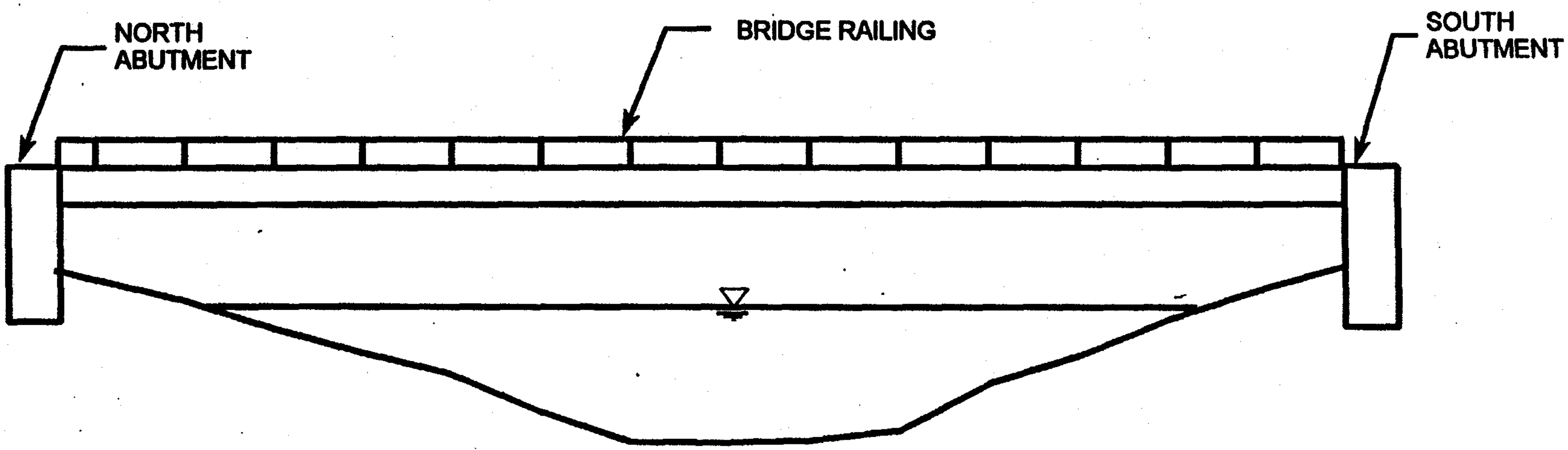
FIGURE

311344

DATE: MAY 20, 1997

I:\DIV52\PROJECTS\612.226\DWG\MOSEBATH.WPG

FILE NO. 0612.226-03F



GENERAL ELECTRIC COMPANY
HUDSON RIVER PROJECT

MOSES KILL BATHYMETRIC PROFILE

(FACING UPSTREAM - APRIL 3, 1997)

O'BRIEN & GERE ENGINEERS INC.

0 10 20
SCALE IN FEET

FIGURE

311345

APPENDICES G & H

PCB analytical data package
TSS data package
(Bound Separately)

APPENDIX I

Sediment TOC, and tributary TOC, particle size, and supernatant TSS

NORTHEAST ANALYTICAL
ENVIRONMENTAL LAB SERVICES
301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
MAY 5, 1997

O'BRIEN & GERE ENGINEERS, INC.

5000 Brittonfield Parkway
Suite 300, P.O. Box 4873
Syracuse, New York 13221
Contact: Mr. William Ayling

CUSTOMER ID: ROGERS ISLAND - EAST CHANNEL
NEA ID: 9701419
SAMPLE MATRIX: SEDIMENT
DATE SAMPLED: 04/08/97 TIME: N/A
DATE RECEIVED: 04/09/97 TIME: 13:45
DATE TESTED: SEE BELOW
SAMPLED BY: N/A
LOCATION: N/A
CUSTOMER PO #: 612.226
LAB ELAP #: 11078

TOTAL ORGANIC CARBON BY LLOYD KAHN METHOD

RESULT	STANDARD DEVIATION	DETECTION LIMIT	UNITS	DATE
26,000	16,000	5,400	mg/kg	04/23/97

Authorized Signature: [signature]

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

S:\CERT97\050597C.OBG

NORTHEAST ANALYTICAL
ENVIRONMENTAL LAB SERVICES
301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
MAY 5, 1997

O'BRIEN & GERE ENGINEERS, INC.

5000 Brittonfield Parkway
Suite 300, P.O. Box 4873
Syracuse, New York 13221
Contact: Mr. William Ayling

CUSTOMER ID:	ROGERS ISLAND - WEST CHANNEL		NEA ID:	9701420	
SAMPLE MATRIX:	SEDIMENT		DATE SAMPLED:	04/08/97	TIME: N/A
DATE RECEIVED:	04/09/97	TIME: 13:45	DATE TESTED:	SEE BELOW	
SAMPLED BY:	N/A		LOCATION:	N/A	
CUSTOMER PO #:	612.226		LAB ELAP #:	11078	

TOTAL ORGANIC CARBON BY LLOYD KAHN METHOD

RESULT	STANDARD DEVIATION	DETECTION LIMIT	UNITS	DATE
24,000	12,000	5,800	mg/kg	04/23/97

Authorized Signature: R. E. Wagner

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

S:\CERT97\050597D.OBG

NY STATE DEPARTMENT OF HEALTH CERTIFIED LAB

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
MAY 5, 1997

O'BRIEN & GERE ENGINEERS, INC.

5000 Brittonfield Parkway
Suite 300, P.O. Box 4873
Syracuse, New York 13221
Contact: Mr. William Ayling

CUSTOMER ID:	ROGERS ISLAND - WEST CHANNEL	NEA ID:	9701421
SAMPLE MATRIX:	SEDIMENT	DATE SAMPLED:	04/09/97 TIME: N/A
DATE RECEIVED:	04/09/97 TIME: 13:45	DATE TESTED:	SEE BELOW
SAMPLED BY:	N/A	LOCATION:	N/A
CUSTOMER PO #:	612.226	LAB ELAP #:	11078

TOTAL ORGANIC CARBON BY LLOYD KAHN METHOD

RESULT	STANDARD DEVIATION	DETECTION LIMIT	UNITS	DATE
13,000	2,900	5,000	mg/kg	04/23/97

Authorized Signature: R. Kevin Wagner

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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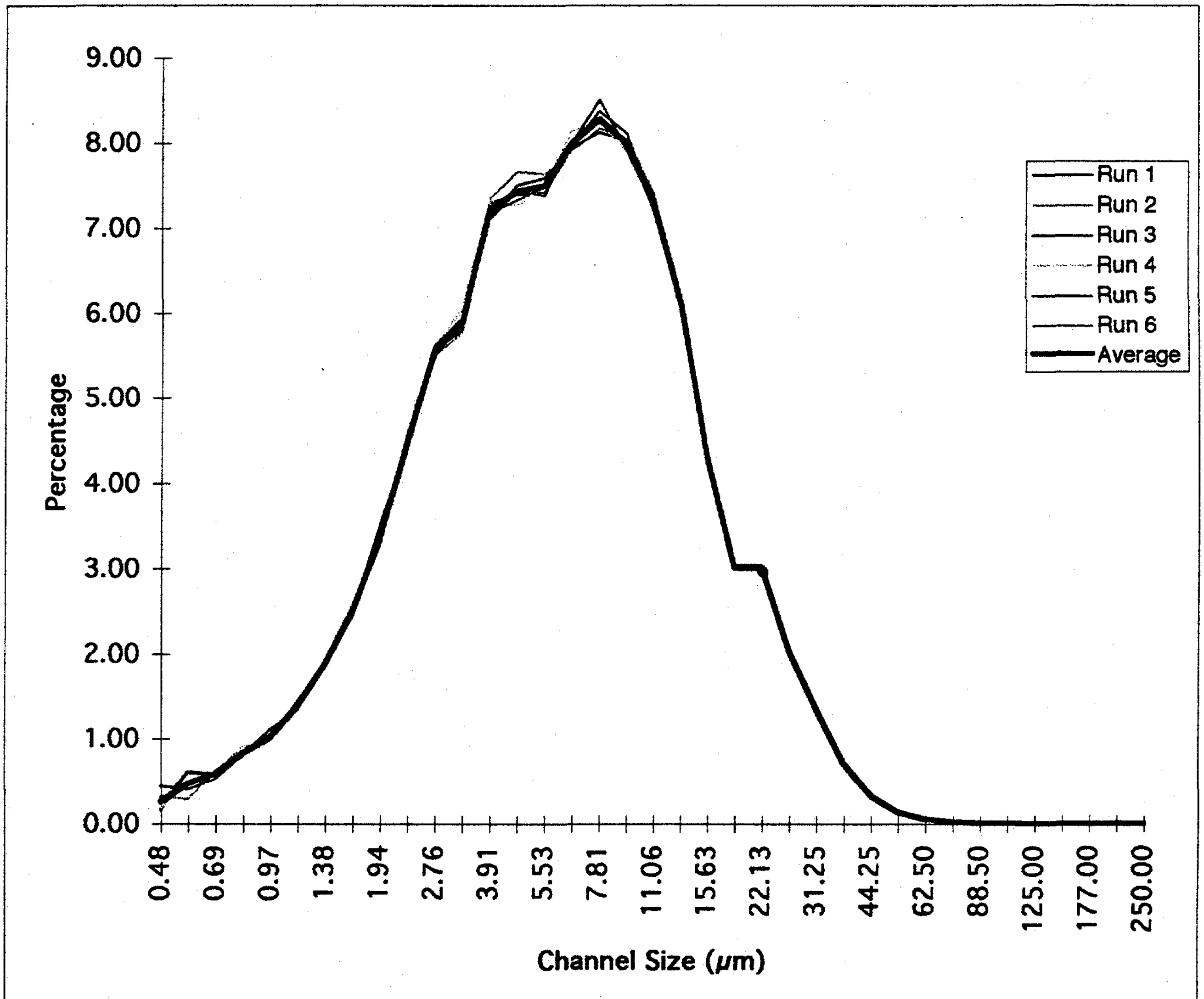
Particle Size Analysis Results
University of Minnesota Limnological Research Center
External Services Organization

Sample: NEA# 9701415 Client: Northeast Analytical

Processing: >15 minutes wrist-action shaker in 0.25% Calgon followed by 45 seconds ultrasonication.

Other Comments:



	Average	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6
Date		05/22/97	05/22/97	05/22/97	05/22/97	05/22/97	05/22/97
Time		14:54:10	14:55:04	14:55:56	14:56:50	14:57:42	14:58:34
Mean (μ)	8.41	8.39	8.42	8.40	8.41	8.43	8.40
Med. (μ)	6.51	6.51	6.49	6.50	6.51	6.54	6.51
StdDev (μ)	6.94	6.94	6.94	6.88	6.90	7.03	6.96
Skew.	0.27	0.27	0.28	0.28	0.27	0.27	0.27
Kurt.	18.64	16.09	14.61	12.55	11.33	42.43	14.83
C. of Var.	82.53	82.66	82.39	81.87	82.07	83.36	82.84
Counts	14141.18	14178	14218	14152	14119	14070	14110

LRC ID NEA9701415

Sample: NEA# 9701415

Particle size distributions in % counts per size channel

Diameter (μm)	Average	Run 1 05/22/97 14:54:10	Run 2 05/22/97 14:55:04	Run 3 05/22/97 14:55:56	Run 4 05/22/97 14:56:50	Run 5 05/22/97 14:57:42	Run 6 05/22/97 14:58:34
0.48	0.26	0.44	0.31	0.16	0.18	0.25	0.22
0.58	0.47	0.40	0.28	0.60	0.46	0.48	0.61
0.69	0.58	0.52	0.61	0.57	0.60	0.61	0.59
0.83	0.83	0.81	0.85	0.84	0.90	0.81	0.78
0.97	1.01	1.11	1.05	0.98	0.96	0.99	0.99
1.16	1.38	1.35	1.34	1.43	1.34	1.38	1.44
1.38	1.88	1.84	1.90	1.84	1.92	1.87	1.88
1.66	2.49	2.46	2.43	2.47	2.58	2.51	2.49
1.94	3.36	3.50	3.37	3.28	3.30	3.37	3.35
2.33	4.48	4.45	4.47	4.51	4.36	4.51	4.57
2.76	5.57	5.57	5.50	5.61	5.61	5.51	5.64
3.28	5.90	5.82	5.78	5.95	6.06	5.90	5.91
3.91	7.23	7.30	7.35	7.11	7.32	7.18	7.10
4.66	7.43	7.39	7.66	7.50	7.28	7.33	7.44
5.53	7.50	7.41	7.63	7.59	7.49	7.49	7.38
6.56	8.00	7.95	7.91	7.95	8.14	8.00	8.04
7.81	8.28	8.38	8.17	8.13	8.24	8.51	8.27
9.31	7.99	8.11	8.04	8.03	7.89	7.91	7.99
11.06	7.28	7.23	7.40	7.36	7.25	7.25	7.20
13.13	6.15	6.11	6.02	6.23	6.24	6.13	6.16
15.63	4.28	4.28	4.21	4.25	4.27	4.37	4.32
18.63	3.00	2.98	3.04	3.02	2.97	3.01	3.00
22.13	3.00	2.98	3.04	3.02	2.97	3.01	3.00
26.25	2.03	2.00	2.08	2.01	2.02	2.04	2.03
31.25	1.34	1.33	1.33	1.35	1.37	1.35	1.34
37.25	0.70	0.70	0.71	0.70	0.70	0.71	0.71
44.25	0.33	0.33	0.34	0.32	0.33	0.33	0.32
52.50	0.13	0.13	0.14	0.13	0.13	0.14	0.14
62.50	0.05	0.05	0.05	0.05	0.06	0.05	0.05
74.50	0.02	0.02	0.02	0.02	0.02	0.02	0.03
88.50	0.01	0.01	0.01	0.01	0.01	0.01	0.01
105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
149.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
177.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Analyst: Dr. Brian Haskell

Report Date: May 26,1997

LRC ID NEA9701415

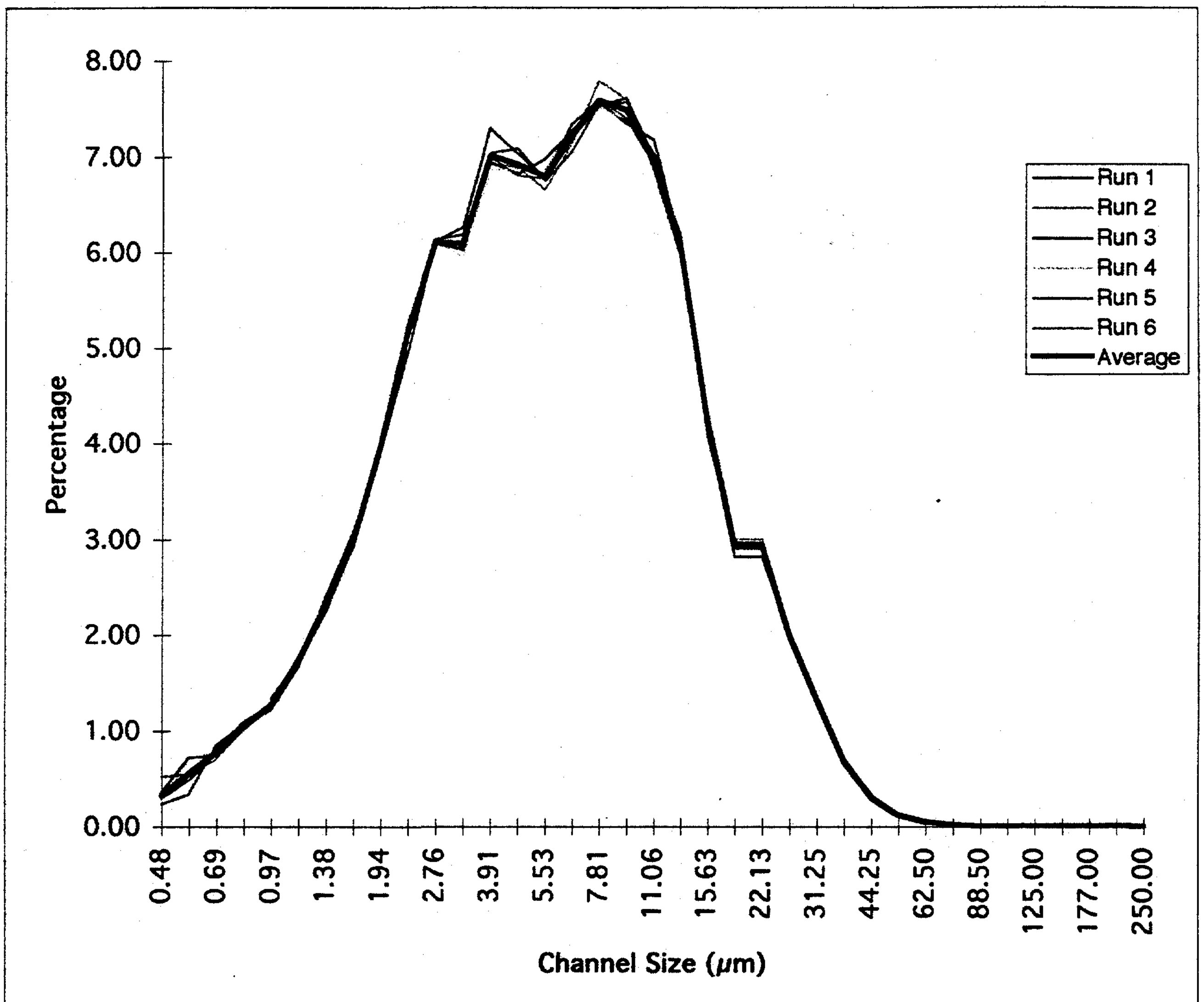
311352

Particle Size Analysis Results
University of Minnesota Limnological Research Center
External Services Organization

Sample: NEA# 9701416 Client: Northeast Analytical

Processing: >15 minutes wrist-action shaker in 0.25% Calgon followed by 45 seconds ultrasonication.

Other Comments:



	Average	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6
Date		05/22/97	05/22/97	05/22/97	05/22/97	05/22/97	05/22/97
Time		15:07:18	15:08:12	15:09:04	15:09:58	15:10:50	15:11:44
Mean (μ)	8.16	8.15	8.19	8.14	8.17	8.15	8.19
Med. (μ)	6.10	6.08	6.12	6.10	6.12	6.07	6.12
StdDev (μ)	7.56	7.52	7.61	7.41	7.55	7.59	7.72
Skew.	0.27	0.28	0.27	0.28	0.27	0.27	0.27
Kurt.	147.09	144.48	157.01	125.13	141.79	164.89	149.24
C. of Var.	92.65	92.23	92.97	91.02	92.35	93.03	94.29
Counts	17510.32	17599	17537	17440	17419	17617	17450

LRC ID NEA9701416

Sample: NEA# 9701416

Particle size distributions in % counts per size channel

Diameter (µm)	Average	Run 1 05/22/97 15:07:18	Run 2 05/22/97 15:08:12	Run 3 05/22/97 15:09:04	Run 4 05/22/97 15:09:58	Run 5 05/22/97 15:10:50	Run 6 05/22/97 15:11:44
0.48	0.33	0.24	0.28	0.30	0.26	0.36	0.52
0.58	0.56	0.34	0.56	0.49	0.70	0.72	0.54
0.69	0.77	0.84	0.81	0.76	0.77	0.73	0.70
0.83	1.04	1.07	1.02	1.09	1.05	1.01	1.02
0.97	1.26	1.21	1.24	1.26	1.23	1.28	1.33
1.16	1.71	1.66	1.73	1.69	1.73	1.76	1.71
1.38	2.32	2.40	2.36	2.33	2.32	2.28	2.23
1.66	2.98	3.07	2.98	3.05	2.95	2.92	2.93
1.94	3.97	3.92	3.93	3.97	4.01	3.95	4.04
2.33	5.18	4.96	5.25	5.14	5.29	5.23	5.21
2.76	6.11	6.11	6.13	6.13	6.11	6.09	6.09
3.28	6.09	6.26	6.07	6.18	5.95	6.04	6.02
3.91	7.01	7.29	6.93	6.93	6.86	7.03	6.99
4.66	6.92	7.03	6.89	6.82	6.87	7.08	6.80
5.53	6.79	6.74	6.65	6.97	6.87	6.74	6.77
6.56	7.21	7.20	7.14	7.26	7.30	7.05	7.34
7.81	7.59	7.53	7.80	7.56	7.51	7.54	7.59
9.31	7.48	7.61	7.60	7.35	7.38	7.57	7.40
11.06	6.98	6.98	6.84	7.17	6.99	7.00	6.90
13.13	6.05	6.00	5.95	6.03	6.16	5.97	6.18
15.63	4.20	4.07	4.32	4.16	4.25	4.16	4.23
18.63	2.93	2.95	2.99	2.82	2.94	2.97	2.90
22.13	2.93	2.95	2.99	2.82	2.94	2.97	2.90
26.25	1.99	2.03	1.98	2.03	1.96	2.00	1.98
31.25	1.32	1.32	1.32	1.32	1.32	1.30	1.34
37.25	0.68	0.65	0.70	0.68	0.68	0.67	0.69
44.25	0.31	0.30	0.32	0.30	0.31	0.31	0.30
52.50	0.12	0.12	0.12	0.12	0.12	0.12	0.12
62.50	0.05	0.04	0.05	0.05	0.05	0.05	0.05
74.50	0.02	0.01	0.02	0.02	0.02	0.02	0.02
88.50	0.01	0.01	0.01	0.00	0.01	0.01	0.01
105.00	0.00	0.01	0.00	0.00	0.00	0.00	0.01
125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
149.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
177.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00
210.00	0.01	0.01	0.00	0.00	0.01	0.00	0.01
250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Analyst: Dr. Brian Haskell

Report Date: May 26,1997

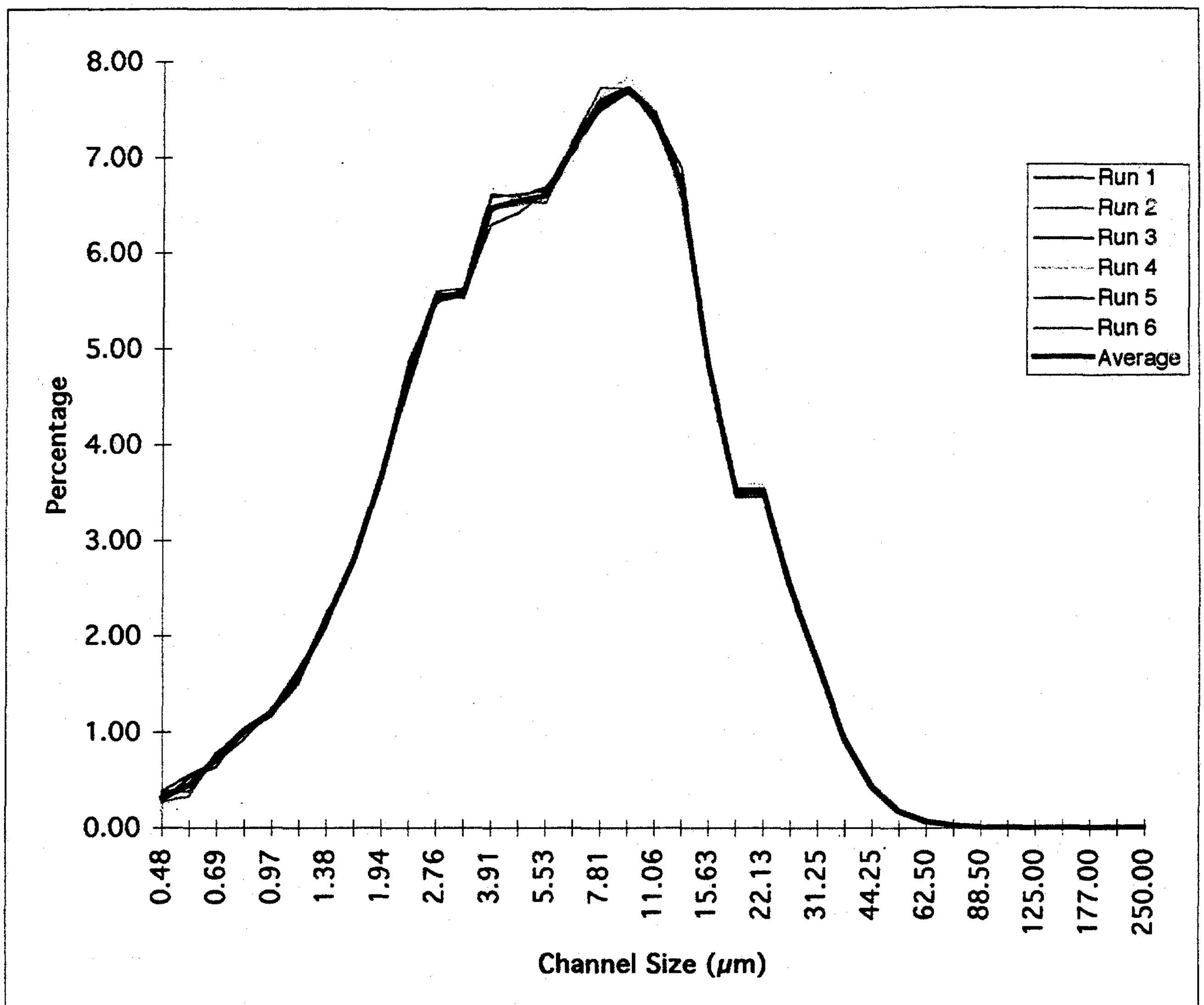
LRC ID NEA9701416

Particle Size Analysis Results
University of Minnesota Limnological Research Center
External Services Organization

Sample: NEA# 9701347. Client: Northeast Analytical

Processing: >15 minutes wrist-action shaker in 0.25% Calgon followed by 45 seconds ultrasonication.

Other Comments:



Date Time	Average	Run 1 05/21/97 16:06:26	Run 2 05/21/97 16:07:20	Run 3 05/21/97 16:08:12	Run 4 05/21/97 16:09:04	Run 5 05/21/97 16:09:58	Run 6 05/21/97 16:10:50
Mean (μ)	8.81	8.81	8.81	8.82	8.81	8.81	8.81
Med. (μ)	6.69	6.70	6.70	6.67	6.69	6.67	6.71
StdDev (μ)	7.61	7.57	7.63	7.63	7.54	7.69	7.60
Skew.	0.28	0.28	0.28	0.28	0.28	0.28	0.28
Kurt.	37.65	19.61	46.23	39.92	21.62	54.55	43.98
C. of Var.	86.34	85.83	86.64	86.52	85.53	87.31	86.24
Counts	17003.68	17009	17011	17073	16951	17052	16926

LRC ID 9701347

Sample: NEA# 9701347 %
Particle size distributions in counts per size channel

Diameter (µm)	Average	Run 1 05/21/97 16:06:26	Run 2 05/21/97 16:07:20	Run 3 05/21/97 16:08:12	Run 4 05/21/97 16:09:04	Run 5 05/21/97 16:09:58	Run 6 05/21/97 16:10:50
0.48	0.30	0.38	0.35	0.27	0.18	0.38	0.27
0.58	0.45	0.55	0.45	0.52	0.46	0.38	0.33
0.69	0.72	0.69	0.70	0.64	0.75	0.78	0.76
0.83	1.00	0.92	0.98	1.03	1.02	0.98	1.03
0.97	1.19	1.22	1.23	1.21	1.17	1.16	1.15
1.16	1.57	1.65	1.61	1.57	1.58	1.50	1.53
1.38	2.16	2.11	2.15	2.09	2.21	2.22	2.19
1.66	2.79	2.75	2.77	2.83	2.80	2.77	2.82
1.94	3.66	3.66	3.70	3.67	3.66	3.65	3.64
2.33	4.71	4.87	4.72	4.61	4.71	4.65	4.72
2.76	5.54	5.49	5.50	5.47	5.60	5.58	5.59
3.28	5.57	5.55	5.56	5.62	5.54	5.52	5.63
3.91	6.47	6.30	6.46	6.61	6.43	6.58	6.45
4.66	6.54	6.42	6.50	6.59	6.60	6.61	6.53
5.53	6.60	6.65	6.55	6.68	6.55	6.65	6.52
6.56	7.10	7.16	7.18	7.04	6.97	7.09	7.17
7.81	7.58	7.54	7.59	7.50	7.64	7.49	7.73
9.31	7.72	7.66	7.70	7.72	7.84	7.67	7.71
11.06	7.43	7.42	7.38	7.48	7.47	7.46	7.34
13.13	6.69	6.87	6.68	6.64	6.52	6.75	6.66
15.63	4.82	4.81	4.80	4.81	4.88	4.76	4.88
18.63	3.52	3.45	3.52	3.48	3.58	3.53	3.54
22.13	3.52	3.45	3.52	3.48	3.58	3.53	3.54
26.25	2.51	2.46	2.57	2.51	2.52	2.52	2.48
31.25	1.73	1.79	1.73	1.72	1.70	1.72	1.71
37.25	0.92	0.95	0.89	0.95	0.90	0.90	0.93
44.25	0.42	0.41	0.43	0.43	0.43	0.42	0.42
52.50	0.17	0.17	0.18	0.18	0.18	0.16	0.17
62.50	0.07	0.07	0.07	0.07	0.07	0.07	0.07
74.50	0.02	0.02	0.02	0.02	0.02	0.03	0.02
88.50	0.01	0.01	0.01	0.01	0.01	0.01	0.01
105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
125.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
149.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
177.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Analyst: Dr. Brian Haskell
Report Date: May 26,1997

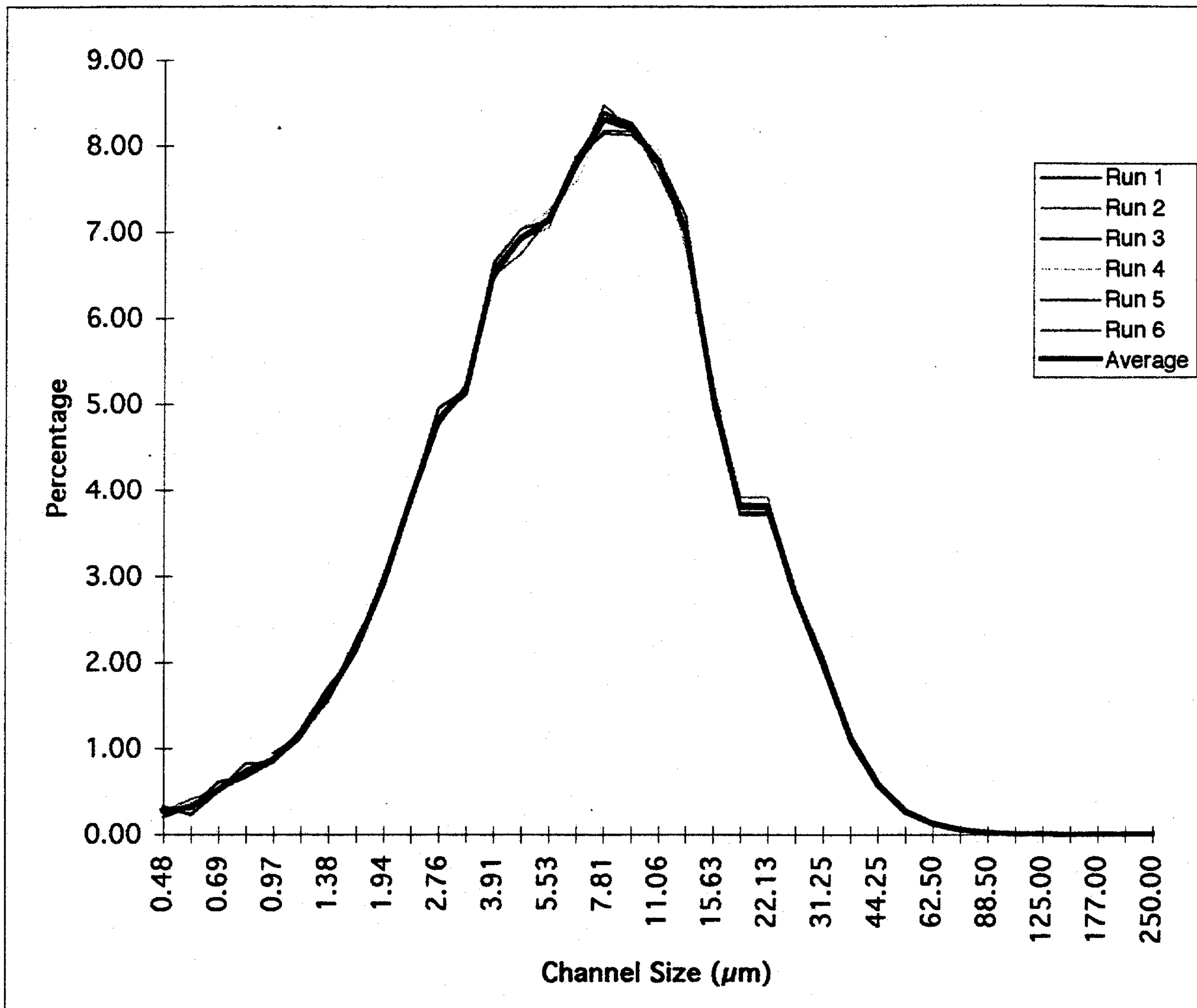
LRC ID 9701347

Particle Size Analysis Results
University of Minnesota Limnological Research Center
External Services Organization

Sample: NEA# 9701346 Client: Northeast Analytical

Processing: >15 minutes wrist-action shaker in 0.25% Calgon followed by 45 seconds ultrasonication.

Other Comments:



	Average	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6
Date		05/22/97	05/22/97	05/22/97	05/22/97	05/22/97	05/22/97
Time		15:47:52	15:48:46	15:49:38	15:50:30	15:51:24	15:52:16
Mean (μ)	9.52	9.55	9.53	9.46	9.50	9.52	9.54
Med. (μ)	7.36	7.36	7.38	7.35	7.33	7.34	7.40
StdDev (μ)	8.08	8.12	8.08	7.96	8.11	8.12	8.11
Skew.	0.27	0.27	0.27	0.27	0.27	0.27	0.26
Kurt.	24.45	18.81	20.45	17.96	20.69	34.64	34.18
C. of Var.	84.95	85.00	84.79	84.17	85.32	85.36	85.05
Counts	14597.16	14784	14581	14536	14639	14568	14475

LRC ID 9701346b

Sample: NEA# 9701346 %

Particle size distributions in counts per size channel

Diameter (μm)	Average	Run 1 05/22/97 15:47:52	Run 2 05/22/97 15:48:46	Run 3 05/22/97 15:49:38	Run 4 05/22/97 15:50:30	Run 5 05/22/97 15:51:24	Run 6 05/22/97 15:52:16
0.48	0.27	0.31	0.27	0.20	0.28	0.24	0.33
0.58	0.31	0.24	0.41	0.32	0.36	0.32	0.22
0.69	0.52	0.49	0.50	0.60	0.50	0.53	0.49
0.83	0.73	0.82	0.74	0.68	0.72	0.66	0.75
0.97	0.87	0.84	0.88	0.84	0.85	0.84	0.94
1.16	1.16	1.12	1.20	1.21	1.18	1.14	1.13
1.38	1.62	1.58	1.60	1.71	1.62	1.64	1.55
1.66	2.15	2.25	2.12	2.10	2.11	2.16	2.15
1.94	2.92	2.87	2.88	2.88	2.88	3.00	3.00
2.33	3.89	3.84	3.91	3.89	3.94	3.86	3.91
2.76	4.82	4.75	4.80	4.95	4.80	4.78	4.83
3.28	5.17	5.23	5.14	5.17	5.19	5.17	5.11
3.91	6.54	6.51	6.44	6.50	6.66	6.64	6.50
4.66	6.93	6.95	6.91	6.91	7.04	7.03	6.75
5.53	7.15	7.17	7.05	7.13	7.24	7.14	7.15
6.56	7.78	7.87	7.86	7.84	7.58	7.79	7.75
7.81	8.31	8.14	8.36	8.39	8.30	8.17	8.47
9.31	8.20	8.12	8.23	8.26	8.20	8.16	8.20
11.06	7.80	7.83	7.66	7.82	7.93	7.80	7.75
13.13	7.00	7.18	7.03	7.01	6.80	7.01	6.99
15.63	5.11	5.05	5.17	5.00	5.05	5.14	5.24
18.63	3.79	3.71	3.91	3.73	3.75	3.83	3.82
22.13	3.79	3.71	3.91	3.73	3.75	3.83	3.82
26.25	2.79	2.81	2.74	2.79	2.85	2.75	2.78
31.25	1.99	2.07	1.98	2.00	1.96	1.96	1.98
37.25	1.13	1.16	1.13	1.07	1.14	1.14	1.15
44.25	0.58	0.57	0.60	0.57	0.57	0.60	0.59
52.50	0.27	0.28	0.29	0.25	0.29	0.26	0.27
62.50	0.13	0.13	0.13	0.12	0.13	0.12	0.12
74.50	0.05	0.06	0.05	0.05	0.05	0.06	0.05
88.50	0.02	0.02	0.02	0.02	0.02	0.02	0.02
105.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01
125.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01
149.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
177.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Analyst: Dr. Brian Haskell

Report Date: May 26,1997

LRC ID 9701346b

O'BRIEN & GERE ENGINEERS, INC.

Job No. 612.226.318
Sheet 1 of

Office: SYRACUSE
Address:
Phone:

CHAIN OF CUSTODY

CLIENT: GENERAL ELECTRIC
LOCATION: Hudson River

COLLECTED BY: William Ayling
(Signature) William Ayling

EA#	SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
1406	HRm 188.5W-7A	4/8/97	1435	W	GRAB	2	PCBs NEA608CAP, TS
701407	HRm 197.0-8		1515		COMP		
01408	HRm 194.2W-8		1605				
701409	HRm 188.5-BSBL		1535			1	PCBs NEA608CAP
01410	BLIND DUP - RB		—		—	2	PCBs NEA608CAP; TS
701411	HRm 188.5W-9		1900		GRAB		
701412	HRm 194.2W-10	4/9/97	1130		COMP		
01413	HRm 188.5W-10		1150		GRAB		
	HRm 188.5W-8 9701414	4/8/97	1630				
701415	Sn SNOOK Kill	4/9/97	0845	W	GRAB	1	TOC, Particle Size
01416	Moses Kill		0915			1	

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

Cooler TEMP 2°C

Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: of:	Date	Time	Courier Name: *Attach delivery/courier receipt to Chain of Custody	Date	Time
	~~4/9/97~~	~~13:45~~			
Relinquished by: William Ayling of: O'Brien & Gere	4/9/97	13:45	Received by: [illegible] of: NEA	4/9/97	13:4

djb/wpC

September 17, 1

311359

O'BRIEN & GERE ENGINEERS, INC.

Job No. 612.226.318
Sheet 1 of 1

Office: Syracuse
Address:
Phone:

CHAIN OF CUSTODY

CLIENT: General Electric
LOCATION: Hudson River

COLLECTED BY: Michael Miller
(Signature)

NEA#	SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
11341	HRM 194.2E-2	4/7/97	0710	W	Comp	2	PCB NEA608CAP, TSS
11342	HRM 188.5E-2	↓	0740	↓	GRAB	↓	↓
11343	HRM 188.5E-3		1140		↓		
11344	HRM 188.5E-3A	↓	1510	↓	↓	↓	↓
1345	HRM 194.2E3 (MDL)	4/7/97		W		2	PCB NEA608CAP, TSS
11346	Snook Kill	4/7/97	1230	W	GRAB		TOC, Particle Size
11347	Moses Kill	↓	12:00	↓	↓		↓

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

COOLER TEMP 2.1°C

~~Use this space if shipped via courier (e.g. Fed Ex)~~ Relinquished by: Michael Miller of: Hydroqual	Date 4/7	Time 1600	~~Courier~~ Name: William Ayling O'Brien & Gere ~~*Attach delivery/courier receipt to Chain of Custody~~	Date 4/7/97	T[illegible]
Relinquished by: William Ayling of: O'Brien & Gere	Date	Time	Received by: [illegible] of: NEA	Date 4/7/97	T[illegible]

djb/wpC

September 1[illegible]

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NORTHEAST ANALYTICAL
ENVIRONMENTAL LAB SERVICES
301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
MAY 6, 1997

O'BRIEN & GERE ENGINEERS, INC.
5000 Brittonfield Parkway
Suite 300, PO Box 4873
Syracuse, NY 13221
Contact: Mr. William Ayling

CUSTOMER ID:	MOSES KILL	NEA ID:	9701347
SAMPLE MATRIX:	WATER	DATE SAMPLED:	4/7/97 TIME: 12:00
DATE RECEIVED:	4/7/97 TIME: 17:20	DATE TESTED:	SEE BELOW
SAMPLED BY:	W. AYLING	LOCATION:	GE - HUDSON RIVER
CUSTOMER PO #:	612.226.318	LAB ELAP #:	11078

TOTAL ORGANIC CARBON BY LLOYD KAHN METHOD

RESULT	DETECTION LIMIT	STANDARD DEVIATION	UNITS	DATE
24,000	8,100	2,100	mg/kg	5/2/97

Authorized Signature: Robert Wagner

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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NORTHEAST ANALYTICAL
ENVIRONMENTAL LAB SERVICES
301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
MAY 6, 1997

O'BRIEN & GERE ENGINEERS, INC.
5000 Brittonfield Parkway
Suite 300, PO Box 4873
Syracuse, NY 13221
Contact: Mr. William Ayling

CUSTOMER ID:	SNOOK KILL	NEA ID:	9701346
SAMPLE MATRIX:	WATER	DATE SAMPLED:	4/7/97 TIME: 12:30
DATE RECEIVED:	4/7/97 TIME: 17:20	DATE TESTED:	SEE BELOW
SAMPLED BY:	W. AYLING	LOCATION:	GE - HUDSON RIVER
CUSTOMER PO #:	612.226.318	LAB ELAP #:	11078

TOTAL ORGANIC CARBON BY LLOYD KAHN METHOD

RESULT	DETECTION LIMIT	STANDARD DEVIATION	UNITS	DATE
41,000	7,900	810	mg/kg	5/2/97

Authorized Signature: [signature]

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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NY STATE DEPARTMENT OF HEALTH CERTIFIED LAB

NORTHEAST ANALYTICAL
ENVIRONMENTAL LAB SERVICES
301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
MAY 6, 1997

O'BRIEN & GERE ENGINEERS, INC.
5000 Brittonfield Parkway
Suite 300, PO Box 4873
Syracuse, NY 13221
Contact: Mr. William Ayling

CUSTOMER ID:	MOSES KILL	NEA ID:	9701416
SAMPLE MATRIX:	WATER	DATE SAMPLED:	4/9/97 TIME: 09:15
DATE RECEIVED:	4/9/97 TIME: 13:45	DATE TESTED:	SEE BELOW
SAMPLED BY:	W. AYLING	LOCATION:	GE - HUDSON RIVER
CUSTOMER PO #:	612.226.318	LAB ELAP #:	11078

TOTAL ORGANIC CARBON BY LLOYD KAHN METHOD

RESULT	DETECTION LIMIT	STANDARD DEVIATION	UNITS	DATE
18,000	9,700	5,300	mg/kg	5/2/97

Authorized Signature: R. Chris Wagner

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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NORTHEAST ANALYTICAL
ENVIRONMENTAL LAB SERVICES
301 Nott Street, Schenectady, NY 12305
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CERTIFICATE OF ANALYSIS
MAY 6, 1997

O'BRIEN & GERE ENGINEERS, INC.
5000 Brittonfield Parkway
Suite 300, PO Box 4873
Syracuse, NY 13221
Contact: Mr. William Ayling

CUSTOMER ID: SNOOK KILL

NEA ID: 9701415

SAMPLE MATRIX: WATER

DATE SAMPLED: 4/9/97 TIME: 08:45

DATE RECEIVED: 4/9/97 TIME: 13:45

DATE TESTED: SEE BELOW

SAMPLED BY: W. AYLING

LOCATION: GE - HUDSON RIVER

CUSTOMER PO #: 612.226.318

LAB ELAP #: 11078

TOTAL ORGANIC CARBON BY LLOYD KAHN METHOD

RESULT	DETECTION LIMIT	STANDARD DEVIATION	UNITS	DATE
37,000	6,600	3,800	mg/kg	5/2/97

Authorized Signature: R. Chris Ayres

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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NORTHEAST ANALYTICAL
ENVIRONMENTAL LAB SERVICES
301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
APRIL 18, 1997

O'BRIEN & GERE ENGINEERS, INC.
5000 Brittonfield Parkway
Suite 300, PO Box 4873
Syracuse, NY 13221
Contact: Mr. Bill Ayling

SAMPLE MATRIX: WATER
DATE RECEIVED: 04/07/97 TIME: 17:20
SAMPLED BY: M. MILLER
CUSTOMER PO#: N/A

DATE SAMPLED: 04/07/97
DATE ANALYZED: SEE BELOW
LOCATION: HUDSON RIVER
LAB ELAP #: 11078

Non-Filterable Residue (TSS) by EPA 1979 Method 160.2

NEA #	CLIENT ID.	RESULTS (mg/L)	DETECTION LIMIT (mg/L)	DATE ANALYZED
9701346	SNOOK KILL	2.4	1.0	04/18/97
9701347	MOSES KILL	3.1	1.0	04/18/97

Authorized Signature: R. Chris Hepes

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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REW\JP

20-L Supernatant Samples

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
APRIL 18, 1997

O'BRIEN & GERE ENGINEERS, INC.
5000 Brittonfield Parkway
Suite 300, PO Box 4873
Syracuse, NY 13221
Contact: Mr. William Ayling

SAMPLE MATRIX:	WATER	DATE SAMPLED:	04/07/97
DATE RECEIVED:	04/07/97 TIME: 17:20	DATE ANALYZED:	SEE BELOW
SAMPLED BY:	M. MILLER	LOCATION:	HUDSON RIVER
CUSTOMER PO#:	N/A	LAB ELAP #:	#11078

Quality control data for nonfilterable residue

Method blank summary

NEA #	RESULTS (mg/L)	DETECTION LIMIT (mg/L)	DATE ANALYZED
970417BW	< 1.0	1.0	04/18/97

Reference sample summary

NEA #	REFERENCE VALUE (mg/L)	RESULTS (mg/L)	% RECOVERY	%RECOVERY LIMITS
970417LCS	23.3	21.5	92	85-115

REFERENCE SAMPLE: ERA small lab Wastewater Lot# 8063: total suspended solids sample.

Duplicate sample summary

NEA#	SAMPLE CONC. (mg/L)	DUPLICATE SAMPLE CONC. (mg/L)	% RPD	% RPD LIMITS
9701452	17	18	5.7	20

Authorized Signature: T. Chris Hypes

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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REW\JP

NY STATE DEPARTMENT OF HEALTH CERTIFIED LAB

NORTHEAST ANALYTICAL
ENVIRONMENTAL LAB SERVICES
301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
APRIL 18, 1997

O'BRIEN & GERE ENGINEERS, INC.
5000 Brittonfield Parkway
Suite 300, PO Box 4873
Syracuse, NY 13221
Contact: Mr. Bill Ayling

SAMPLE MATRIX: WATER
DATE RECEIVED: 04/09/97 TIME: 13:45
SAMPLED BY: W. AYLING
CUSTOMER PO#: N/A

DATE SAMPLED: 04/09/97
DATE ANALYZED: SEE BELOW
LOCATION: HUDSON RIVER
LAB ELAP #: 11078

Non-Filterable Residue (TSS) by EPA 1979 Method 160.2

NEA #	CLIENT ID.	RESULTS (mg/L)	DETECTION LIMIT (mg/L)	DATE ANALYZED
9701415	SNOOK KILL	2.8	1.0	04/18/97
9701416	MOSES KILL	2.9	1.0	04/18/97

Authorized Signature: A. Chris Hynes

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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REW\JP

20-L supernatant Samples

NY STATE DEPARTMENT OF HEALTH CERTIFIED LAB

NORTHEAST ANALYTICAL
ENVIRONMENTAL LAB SERVICES
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(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
APRIL 18, 1997

O'BRIEN & GERE ENGINEERS, INC.
5000 Brittonfield Parkway
Suite 300, PO Box 4873
Syracuse, NY 13221
Contact: Mr. William Ayling

SAMPLE MATRIX:	WATER	DATE SAMPLED:	04/09/97
DATE RECEIVED:	04/09/97 TIME: 13:45	DATE ANALYZED:	SEE BELOW
SAMPLED BY:	W. AYLING	LOCATION:	HUDSON RIVER
CUSTOMER PO#:	N/A	LAB ELAP #:	#11078

Quality control data for nonfilterable residue

Method blank summary

NEA #	RESULTS (mg/L)	DETECTION LIMIT (mg/L)	DATE ANALYZED
970417BW	< 1.0	1.0	04/18/97

Reference sample summary

NEA #	REFERENCE VALUE (mg/L)	RESULTS (mg/L)	% RECOVERY	%RECOVERY LIMITS
970417LCS	23.3	21.5	92	85-115

REFERENCE SAMPLE: ERA small lab Wastewater Lot# 8063: total suspended solids sample.

Duplicate sample summary

NEA#	SAMPLE CONC. (mg/L)	DUPLICATE SAMPLE CONC. (mg/L)	% RPD	% RPD LIMITS
9701452	17	18	5.7	20

Authorized Signature: R. Wagner

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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REW\JP

NY STATE DEPARTMENT OF HEALTH CERTIFIED LAB

NORTHEAST ANALYTICAL

ENVIRONMENTAL LAB SERVICES

301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
MAY 29, 1997

<u>O'BRIEN & GERE ENGINEERS, INC.</u>
5000 Brittonfield Parkway
Suite 300, PO Box 4873
Syracuse, NY 13221
Contact: Mr. William Ayling

<u>SAMPLE MATRIX</u>: WATER

<u>DATE RECEIVED</u>: 04/07/97 <u>TIME</u>: 17:20

<u>SAMPLED BY</u>: M. MILLER

<u>CUSTOMER JOB#</u>: 612.226.318

<u>DATE SAMPLED</u>: 04/07/97

<u>DATE ANALYZED</u>: SEE BELOW

<u>LOCATION</u>: GE - HUDSON RIVER

<u>LAB ELAP #</u>: 11078

<u>WEIGHT LOSS-ON-IGNITION ANALYSIS BY GRADIENT CORPORATION METHOD</u>

NEA #	CLIENT ID.	RESULTS (%)	DETECTION LIMIT (%)	DATE ANALYZED
9701346	SNOOK KILL	6.[illegible]	1.1	05/29/97
9701346	MOSES KILL	5.1	1.1	05/29/97

Authorized Signature: *[signature]*

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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REW\JP

O'BRIEN & GERE ENGINEERS, INC.

Job No. 612.226.3

Sheet 1 of

Office: Syracuse

Address:

Phone:

CHAIN OF CUSTODY

CLIENT: General Electric			COLLECTED BY: Michael Miller			
LOCATION: Hudson River			(Signature)			

NEA#

	SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
9701341	HRM 194.2E-2	4/7/97	0710	W	Comp	2	PCB NEA 608CAP
9701342	HRM 188.5E-2	↓	0740	↓	GRAB	↓	↓
9701343	HRM 188.5E-3	↓	1140	↓	↓	↓	↓
9701344	HRM 188.5E-3A	↓	1510	↓	↓	↓	↓
9701345	HRM 194.2E 3 (MDL)	4/7/97		W		2	PCB NEA 608CAP
9701346	Snook Kill	4/7/97	1230	W	GRAB		TOC, Particles
9701347	Moses Kill	↓	1200	↓	↓		+ loss on ignition

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

COOLER TEMP 2.1°C

~~Use this space if shipped via courier (e.g. Fed Ex)~~ Relinquished by: Michael Miller of: Hydroqual	Date 4/7	Time 1600	~~Courier~~ Name: William Ayling O'Brien & Gere ~~*Attach delivery/courier receipt to Chain of Custody~~	Date 4/7/97
Relinquished by: William Ayling of: O'Brien & Gere	Date	Time	Received by: [signature] of: NEA	Date 4/7/97

djb/wpC

Septembe

311370

NORTHEAST ANALYTICAL
ENVIRONMENTAL LAB SERVICES
301 Nott Street, Schenectady, NY 12305
(518) 346-4592 • FAX (518) 381-6055

CERTIFICATE OF ANALYSIS
MAY 29, 1997

O'BRIEN & GERE ENGINEERS, INC.
5000 Brittonfield Parkway
Suite 300, PO Box 4873
Syracuse, NY 13221
Contact: Mr. William Ayling

SAMPLE MATRIX: WATER

DATE SAMPLED: 04/09/97

DATE RECEIVED: 04/09/97 TIME: 13:45

DATE ANALYZED: SEE BELOW

SAMPLED BY: W. AYLING

LOCATION: GE - HUDSON RIVER

CUSTOMER JOB#: 612.226.318

LAB ELAP #: 11078

WEIGHT LOSS-ON-IGNITION ANALYSIS BY GRADIENT CORPORATION METHOD

NEA #	CLIENT ID.	RESULTS (%)	DETECTION LIMIT (%)	DATE ANALYZED
9701415	SNOOK KILL	7.3	1.0	05/29/97
9701416	MOSES KILL	4.7	2.4	05/29/97

Authorized Signature: R. Chris Hymes

Northeast Analytical, Inc.
Robert E. Wagner, Laboratory Director

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REW\JP

O'BRIEN & GERE ENGINEERS, INC.

Job No. 612.226.318

Sheet 1 of

Office: SYRACUSE

Address:

Phone:

CHAIN OF CUSTODY

CLIENT: GENERAL ELECTRIC
LOCATION: Hudson River

COLLECTED BY: WILLIAM AYLING
(Signature) William Ayling

LAB #	SAMPLE DESCRIPTION	Date	Time	Sample Matrix[1]	Sample Type[2]	No. of Containers	ANALYSIS REQUESTED
11406	HRM 188.5W-7A	4/8/97	1435	W	GRAB	2	PCBs NEA608CAP; TS
9701407	HRM 197.0-8		1515		COMP		
01408	HRM 194.2W-8		1605				
9701409	HRM 188.5-EGBL		1535			1	PCBs NEA608CAP
01410	BLIND DUP - R8		—		—	2	PCBs NEA608CAP; TS
9701411	HRM 188.5W-9		1900		GRAB		
9701412	HRM 194.2W-10	4/9/97	1130		COMP		
9701413	HRM 188.5W-10		1150		GRAB		
	HRM 188.5W-8 9701414	4/8/97	1630				
9701415	Sn SNOOK Kill	4/9/97	0845	W	GRAB	1	TOC, Particle Size
01416	Moses Kill		0915			1	+ Loss on ignition

[1] Matrix = water, wastewater, air, sludge, sediment, etc.
[2] Type = grab, composite

COOLER TEMP 2°C

Use this space if shipped via courier (e.g., Fed Ex) Relinquished by: of:	Date 4/9/97	Time	Courier Name: *Attach delivery/courier receipt to Chain of Custody	Date	Time
Relinquished by: William Ayling of: O'Brien & Gere	Date 4/9/97	Time 13:45	Received by: [illegible] of: NEA	Date 4/9/97	Time 13:4

djb/wpC

September 17, 1

311372

APPENDIX J

Tributary stage height and velocity data

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
04/03/97	16:30	5.85	14.50		1.04	360.7	375		398
	17:00	5.99	14.37		0.79	369.7	292		
	17:30	6.08	14.27		0.86	376.0	323		
	18:00	6.12	14.24		0.96	378.4	363		
	18:30	6.14	14.21		1.04	380.1	395		
	19:00	6.15	14.20		1.07	380.8	407		
	19:30	6.10	14.25		1.13	377.3	426		
	20:00	6.02	14.34		1.15	371.7	427		
	20:30	6.01	14.34		1.14	371.5	423		
	21:00	6.00	14.35		1.13	370.5	419		
	21:30	6.00	14.35		1.10	370.5	408		
	22:00	6.00	14.35		1.15	370.9	427		
	22:30	6.01	14.35		1.15	371.0	427		
	23:00	6.00	14.36		1.16	370.4	430		
	23:30	6.00	14.35		1.20	370.7	445	399 (4)	
04/04/97	00:00	6.00	14.35		1.16	370.7	430		
	00:30	6.00	14.35		1.20	370.7	445		
	01:00	6.01	14.34		1.16	371.4	431		
	01:30	6.02	14.33		1.19	372.0	443		
	02:00	6.03	14.32		1.14	372.9	425		
	02:30	6.05	14.30		1.13	374.0	423		
	03:00	6.06	14.29		1.14	374.6	427		
	03:30	6.06	14.30		1.11	374.3	415		
	04:00	6.05	14.31		1.18	373.8	441		
	04:30	6.04	14.31		1.08	373.4	403		
	05:00	6.04	14.31		1.08	373.2	403		
	05:30	6.04	14.32		1.13	373.0	422		
	06:00	6.04	14.31		1.11	373.2	414		
	06:30	6.03	14.32		1.11	372.8	414		
	07:00	6.04	14.31		1.05	373.2	392		
	07:30	6.04	14.31		0.98	373.4	366		
	08:00	6.00	14.35		0.99	370.8	367		
	08:30	5.96	14.39		0.98	368.1	361		
	09:00	5.95	14.41		0.94	366.9	345		
	09:30	5.99	14.37		0.83	369.6	307		
	10:00	6.05	14.30		0.86	374.0	322		
	10:30	6.09	14.26		0.83	376.8	313		
	11:00	6.10	14.26		0.91	377.1	343		
	11:30	6.09	14.26		0.89	376.6	335		
	12:00	6.09	14.26		0.99	376.8	373		
	12:30	6.10	14.26		0.89	377.1	336		
	13:00	6.05	14.30		1.05	374.2	393		
	13:30	5.99	14.37		1.10	369.7	407		
	14:00	6.01	14.34		1.06	371.6	394		
	14:30	6.04	14.31		1.10	373.2	411		
	15:00	6.07	14.29		1.07	375:1	401		
	15:30	6.08	14.28		1.11	375.8	417		
	16:00	6.04	14.31		1.21	373.2	452		
	16:30	5.88	14.47		1.31	362.6	475		
	17:00	5.98	14.37		1.20	369.4	443		
	17:30	6.01	14.34		1.24	371.4	460		
	18:00	5.98	14.37		1.32	369.2	487		
	18:30	6.04	14.32		1.26	373.0	470		
	19:00	6.08	14.27		1.31	376.0	493		
	19:30	6.13	14.22		1.25	379.5	474		
	20:00	6.21	14.14		1.31	385.0	504		
	20:30	6.17	14.18		1.36	382.2	520		
	21:00	6.18	14.17		1.36	382.9	521		
	21:30	6.17	14.18		1.38	382.1	527		
	22:00	6.17	14.18		1.37	382.2	524		
	22:30	6.19	14.16		1.33	383.5	510		
	23:00	6.20	14.16		1.40	383.7	537		
	23:30	6.21	14.15		1.35	384.5	519	426 (4)	
04/05/97	00:00	6.20	14.15		1.40	384.2	538		
	00:30	6.19	14.16		1.35	383.5	518		
	01:00	6.22	14.13		1.30	385.5	501		
	01:30	6.25	14.10		1.30	387.6	504		
	02:00	6.30	14.05		1.26	390.6	492		
	02:30	6.34	14.01		1.20	393.3	472		
	03:00	6.38	13.98		1.22	395.7	483		
	03:30	6.41	13.94		1.19	398.1	474		
	04:00	6.43	13.92		1.19	399.6	475		
	04:30	6.45	13.90		1.17	400.7	469		
	05:00	6.46	13.89		1.08	401.7	434		
	05:30	6.48	13.87		1.11	402.7	447		
	06:00	6.49	13.86		1.02	403.4	412		
	06:30	6.50	13.85		0.93	404.1	376		
	07:00	6.50	13.86		1.00	403.9	404		
	07:30	6.49	13.86		0.96	403.6	387		
	08:00	6.49	13.86		0.93	403.5	375		
	08:30	6.49	13.86		0.83	403.7	335		
	09:00	6.50	13.86		0.85	403.9	343		
	09:30	6.50	13.85		0.75	404.4	303		
	10:00	6.51	13.85		0.76	404.5	307		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	10:30	6.51	13.85		0.83	404.6	336		
	11:00	6.51	13.84		0.91	404.9	368		
	11:30	6.53	13.83		0.74	405.9	300		
	12:00	6.54	13.82		0.76	406.5	309		
	12:30	6.54	13.82		0.72	406.6	293		
	13:00	6.54	13.82		0.88	406.5	358		
	13:30	6.54	13.82		0.74	406.6	301		
	14:00	6.53	13.82		0.78	406.1	317		
	14:30	6.53	13.83		0.83	405.9	337		
	15:00	6.52	13.83		0.76	405.5	308		
	15:30	6.52	13.84		0.85	405.1	344		
	16:00	6.51	13.84		0.86	404.9	348		
	16:30	6.51	13.84		0.79	405.0	320		
	17:00	6.52	13.83		0.79	405.3	320		
	17:30	6.52	13.83		0.79	405.4	320		
	18:00	6.52	13.83		0.84	405.5	341		
	18:30	6.53	13.83		0.74	405.9	300		
	19:00	6.53	13.82		0.67	406.3	272		
	19:30	6.53	13.82		0.76	406.4	309		
	20:00	6.54	13.82		0.86	406.5	350		
	20:30	6.54	13.81		0.88	406.8	358		
	21:00	6.54	13.81		0.85	406.8	346		
	21:30	6.54	13.81		0.88	407.0	358		
	22:00	6.55	13.80		0.81	407.4	330		
	22:30	6.55	13.80		0.92	407.6	375		
	23:00	6.55	13.80		1.01	407.6	412		
	23:30	6.56	13.79	110.0 (5)	1.00	408.2	408	377 (4)	
04/06/97	00:00	6.57	13.79		1.01	408.5	413		
	00:30	6.57	13.78		1.00	408.7	409		
	01:00	6.57	13.78		0.89	408.8	364		
	01:30	6.57	13.78		0.82	408.9	335		
	02:00	6.57	13.79		1.01	408.6	413		
	02:30	6.57	13.79		0.93	408.6	380		
	03:00	6.56	13.79		0.93	408.4	380		
	03:30	6.57	13.79		0.92	408.5	376		
	04:00	6.57	13.78		0.71	409.0	290		
	04:30	6.57	13.78		0.77	408.9	315		
	05:00	6.57	13.78		0.87	408.9	356		
	05:30	6.58	13.77		0.81	409.7	332		
	06:00	6.60	13.75		0.76	411.1	312		
	06:30	6.63	13.73		0.78	412.8	322		
	07:00	6.66	13.69		0.82	414.7	340		
	07:30	6.70	13.65		0.65	417.4	271		
	08:00	6.73	13.62		0.72	419.4	302		
	08:30	6.76	13.59		0.78	421.6	329		
	09:00	6.79	13.57		0.76	423.3	322		
	09:30	6.81	13.54		0.81	425.0	344		
	10:00	6.82	13.53		0.72	425.8	307		
	10:30	6.83	13.53		0.70	426.0	298		
	11:00	6.83	13.53		0.82	426.0	349		
	11:30	6.83	13.53		0.73	426.0	311		
	12:00	6.82	13.53		0.77	425.4	328		
	12:30	6.82	13.54		0.78	425.3	332		
	13:00	6.82	13.53		0.74	425.5	315		
	13:30	6.85	13.50		0.77	427.5	329		
	14:00	6.90	13.45		0.72	430.8	310		
	14:30	6.94	13.41		0.73	433.7	317		
	15:00	6.97	13.38		0.77	435.7	336		
	15:30	6.99	13.36		0.81	437.1	354		
	16:00	7.01	13.34		0.79	438.2	346		
	16:30	7.02	13.34		0.81	438.6	355		
	17:00	7.02	13.33		0.73	438.9	320		
	17:30	7.02	13.33		0.74	438.8	325		
	18:00	7.01	13.34		0.77	438.3	337		
	18:30	7.00	13.35		0.75	437.8	328		
	19:00	6.99	13.36		0.77	436.8	336		
	19:30	6.97	13.38		0.88	435.7	383		
	20:00	6.96	13.39		0.83	435.1	361		
	20:30	6.95	13.40		0.75	434.5	326		
	21:00	6.95	13.40		0.67	434.1	291		
	21:30	6.95	13.41		0.67	434.0	291		
	22:00	6.94	13.42		0.66	433.4	286		
	22:30	6.93	13.42		0.77	433.1	333		
	23:00	6.94	13.42		0.78	433.3	338		
	23:30	6.94	13.42	78.0 (5)	0.72	433.3	312	335 (4)	
04/07/97	00:00	6.93	13.42		0.88	433.2	381		
	00:30	6.94	13.42		0.81	433.4	351		
	01:00	6.94	13.41		0.86	433.8	373		
	01:30	6.95	13.40		0.81	434.1	352		
	02:00	6.98	13.37		0.77	436.1	336		
	02:30	7.05	13.31		0.74	440.7	326		
	03:00	7.11	13.24		0.73	445.1	325		
	03:30	7.20	13.15		0.76	450.9	343		
	04:00	7.34	13.02		0.75	460.2	345		
	04:30	7.43	12.92		0.68	466.6	317		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	05:00	7.48	12.87		0.71	469.8	334		
	05:30	7.51	12.84		0.76	471.9	359		
	06:00	7.54	12.81		0.65	474.1	308		
	06:30	7.58	12.77		0.74	476.3	352		
	07:00	7.61	12.74		0.66	478.7	316		
	07:30	7.65	12.71		0.72	480.9	346		
	08:00	7.68	12.68		0.68	482.9	328		
	08:30	7.70	12.66		0.73	484.2	354		
	09:00	6.96	13.40		0.62	434.7	269		
	09:30	7.68	12.67		0.66	483.2	319		
	10:00	7.67	12.68		0.73	482.6	352		
	10:30	7.67	12.69		0.70	482.3	338		
	11:00	7.66	12.69		0.64	482.1	309		
	11:30	7.66	12.69		0.59	482.1	284		
	12:00	7.66	12.69		0.55	482.1	265		
	12:30	7.66	12.70		0.59	481.6	284		
	13:00	7.66	12.70		0.55	481.6	265		
	13:30	7.66	12.70		0.60	481.6	289		
	14:00	7.61	12.74		0.74	478.6	354		
	14:30	7.57	12.79		0.63	475.6	300		
	15:00	7.66	12.69		0.48	481.8	231		
	15:30	7.67	12.69		0.49	482.3	236		
	16:00	7.67	12.69		0.61	482.2	294		
	16:30	7.67	12.68		0.53	482.6	256		
	17:00	7.67	12.68		0.55	482.6	265		
	17:30	7.68	12.67		0.57	483.4	276		
	18:00	7.69	12.66		0.53	484.1	257		
	18:30	7.71	12.65		0.58	485.0	281		
	19:00	7.73	12.62		0.39	486.7	190		
	19:30	7.75	12.60		0.42	488.0	205		
	20:00	7.78	12.57		0.37	489.8	181		
	20:30	7.79	12.56		0.51	490.7	250		
	21:00	7.81	12.54		0.40	492.0	197		
	21:30	7.82	12.53		0.41	492.6	202		
	22:00	7.83	12.52		0.37	493.4	183		
	22:30	7.85	12.50		0.31	494.5	153		
	23:00	7.86	12.50		0.45	495.0	223		
	23:30	7.90	12.45	34.0 (5)	0.19	497.8	95	286 (4)	
04/08/97	00:00	7.93	12.42		0.35	500.0	175		
	00:30	7.97	12.38		0.35	502.9	176		
	01:00	8.02	12.33		0.35	506.0	177		
	01:30	8.05	12.30		0.35	508.1	178		
	02:00	8.08	12.27		0.35	509.9	178		
	02:30	8.10	12.26		0.35	511.1	179		
	03:00	8.11	12.24		0.35	512.1	179		
	03:30	8.13	12.23		0.35	513.1	180		
	04:00	8.13	12.22		0.35	513.2	180		
	04:30	8.14	12.21		0.35	513.9	180		
	05:00	8.14	12.21		0.35	514.1	180		
	05:30	8.15	12.20		0.35	514.8	180		
	06:00	8.16	12.20		0.35	515.1	180		
	06:30	8.11	12.25		0.35	511.8	179		
	07:00	8.15	12.20		0.35	514.8	180		
	07:30	8.18	12.17		0.35	516.8	181		
	08:00	8.18	12.17		0.35	516.7	181		
	08:30	8.18	12.17		0.35	516.5	181		
	09:00	8.17	12.18		0.35	516.0	181		
	09:30	8.16	12.19		0.35	515.5	180		
	10:00	8.18	12.18		0.35	516.4	181		
	10:30	8.31	12.04		0.35	525.5	184		
	11:00	8.47	11.89		0.35	535.8	188		
	11:30	8.54	11.82		0.35	540.6	189		
	12:00	8.53	11.82		0.35	540.0	189		
	12:30	8.47	11.88		0.35	536.2	188		
	13:00	8.43	11.92		0.35	533.3	187		
	13:30	8.36	11.99		0.35	528.7	185		
	14:00	8.31	12.05		0.35	525.1	184		
	14:30	8.26	12.10		0.35	521.7	183		
	15:00	8.16	12.19		0.35	515.5	180		
	15:30	8.09	12.27		0.35	510.4	179		
	16:00	8.12	12.24		0.35	512.3	179		
	16:30	8.11	12.24		0.35	512.0	179		
	17:00	8.12	12.23		0.35	512.7	179		
	17:30	8.12	12.23		0.35	512.7	179		
	18:00	8.12	12.23		0.35	512.9	180		
	18:30	8.12	12.23		0.35	512.6	179		
	19:00	8.12	12.24		0.35	512.4	179		
	19:30	8.11	12.25		0.35	511.7	179		
	20:00	8.10	12.25		0.35	511.2	179		
	20:30	8.09	12.27		0.35	510.4	179		
	21:00	8.07	12.28		0.35	509.4	178		
	21:30	8.06	12.30		0.35	508.4	178		
	22:00	8.04	12.31		0.35	507.4	178		
	22:30	8.02	12.34		0.35	505.8	177		
	23:00	7.98	12.37		0.35	503.5	176		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	23:30	7.99	12.36	34.0 (5)	0.35	503.9	176	216 (6)	
04/09/97	00:00	8.00	12.36		0.35	504.3	177		
	00:30	7.98	12.37		0.35	503.3	176		
	01:00	7.95	12.40		0.35	501.5	176		
	01:30	7.93	12.42		0.35	500.1	175		
	02:00	7.92	12.43		0.35	499.5	175		
	02:30	7.91	12.45		0.35	498.4	174		
	03:00	7.89	12.46		0.35	497.2	174		
	03:30	7.88	12.47		0.35	496.6	174		
	04:00	7.87	12.48		0.35	496.0	174		
	04:30	7.87	12.49		0.35	495.6	173		
	05:00	7.85	12.50		0.35	494.5	173		
	05:30	7.83	12.52		0.35	493.3	173		
	06:00	7.81	12.55		0.35	491.6	172		
	06:30	7.79	12.56		0.35	490.7	172		
	07:00	7.78	12.58		0.35	489.7	171		
	07:30	7.76	12.59		0.35	488.8	171		
	08:00	7.75	12.60		0.35	488.1	171		
	08:30	7.74	12.62		0.35	487.0	170		
	09:00	7.72	12.63		0.35	486.1	170		
	09:30	7.72	12.64		0.35	485.5	170		
	10:00	7.70	12.65		0.35	484.4	170		
	10:30	7.67	12.68		0.35	482.7	169		
	11:00	7.64	12.71		0.35	480.7	168		
	11:30	7.60	12.75		0.35	477.8	167		
	12:00	7.54	12.81		0.35	473.9	166		
	12:30	7.48	12.88		0.35	469.4	164		
	13:00	7.42	12.93		0.35	465.9	163		
	13:30	7.39	12.96		0.35	463.7	162		
	14:00	7.36	12.99		0.35	461.9	162		
	14:30	7.28	13.07		0.35	456.4	160		
	15:00	7.34	13.02		0.35	460.1	161		
	15:30	7.32	13.03		0.35	459.1	161		
	16:00	7.31	13.05		0.35	458.2	160		
	16:30	7.29	13.06		0.35	457.1	160		
	17:00	7.29	13.06		0.35	456.9	160		
	17:30	7.29	13.07		0.35	456.8	160		
	18:00	7.28	13.07		0.35	456.6	160		
	18:30	7.29	13.07		0.35	456.8	160		
	19:00	7.29	13.06		0.35	456.9	160		
	19:30	7.29	13.06		0.35	457.2	160		
	20:00	7.29	13.06		0.35	457.3	160		
	20:30	7.30	13.05		0.35	457.6	160		
	21:00	7.30	13.05		0.35	457.8	160		
	21:30	7.30	13.05		0.35	457.7	160		
	22:00	7.30	13.05		0.35	457.7	160		
	22:30	7.30	13.06		0.35	457.5	160		
	23:00	7.29	13.06		0.35	457.1	160		
	23:30	7.29	13.07	27.0 (5)	0.35	456.7	160	200 (6)	
04/10/97	00:00	7.28	13.07		0.35	456.3	160		
	00:30	7.27	13.08		0.35	456.0	160		
	01:00	7.27	13.09		0.35	455.4	159		
	01:30	7.25	13.10		0.35	454.6	159		
	02:00	7.24	13.11		0.35	453.7	159		
	02:30	7.23	13.12		0.35	453.0	159		
	03:00	7.21	13.14		0.35	451.8	158		
	03:30	7.20	13.15		0.35	451.3	158		
	04:00	7.20	13.16		0.35	450.7	158		
	04:30	7.19	13.17		0.35	450.0	158		
	05:00	7.17	13.18		0.35	449.3	157		
	05:30	7.17	13.19		0.35	448.7	157		
	06:00	7.16	13.20		0.35	448.1	157		
	06:30	7.14	13.21		0.35	447.3	157		
	07:00	7.14	13.22		0.35	446.7	156		
	07:30	7.12	13.23		0.35	445.9	156		
	08:00	7.10	13.25		0.35	444.3	156		
	08:30	7.10	13.26		0.35	444.1	155		
	09:00	7.09	13.26		0.35	443.9	155		
	09:30	7.09	13.27		0.35	443.3	155		
	10:00	7.05	13.30		0.35	441.2	154		
	10:30	7.00	13.35		0.35	437.8	153		
	11:00	6.97	13.39		0.35	435.3	152		
	11:30	6.93	13.42		0.35	433.1	152		
	12:00	6.90	13.45		0.35	431.0	151		
	12:30	6.87	13.49		0.35	428.7	150		
	13:00	6.84	13.51		0.35	426.8	149		
	13:30	6.80	13.56		0.35	423.9	148		
	14:00	6.72	13.63		0.35	419.0	147		
	14:30	6.63	13.72		0.35	413.0	145		
	15:00	6.56	13.80		0.35	407.9	143		
	15:30	6.51	13.84		0.35	404.7	142		
	16:00	6.44	13.92		0.35	399.9	140		
	16:30	6.53	13.83		0.35	405.8	142		
	17:00	6.52	13.83		0.35	405.6	142		
	17:30	6.50	13.85		0.35	404.2	141		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	18:00	6.50	13.86		0.35	403.8	141		
	18:30	6.50	13.85		0.35	404.1	141		
	19:00	6.51	13.84		0.35	404.7	142		
	19:30	6.52	13.84		0.35	405.2	142		
	20:00	6.54	13.82		0.35	406.5	142		
	20:30	6.55	13.80		0.35	407.4	143		
	21:00	6.56	13.79		0.35	408.2	143		
	21:30	6.57	13.79		0.35	408.6	143		
	22:00	6.57	13.78		0.35	408.9	143		
	22:30	6.57	13.78		0.35	408.8	143		
	23:00	6.57	13.78		0.35	408.7	143		
	23:30	6.57	13.79	27.0 (5)	0.35	408.6	143	180 (6)	
04/11/97	00:00	6.56	13.79		0.35	408.3	143		
	00:30	6.56	13.79		0.35	408.1	143		
	01:00	6.55	13.80		0.35	407.7	143		
	01:30	6.55	13.80		0.35	407.5	143		
	02:00	6.55	13.81		0.35	407.3	143		
	02:30	6.54	13.81		0.35	406.8	142		
	03:00	6.53	13.82		0.35	406.1	142		
	03:30	6.52	13.83		0.35	405.5	142		
	04:00	6.51	13.84		0.35	405.0	142		
	04:30	6.51	13.84		0.35	404.7	142		
	05:00	6.51	13.85		0.35	404.5	142		
	05:30	6.50	13.85		0.35	404.2	141		
	06:00	6.50	13.85		0.35	404.0	141		
	06:30	6.50	13.86		0.35	403.8	141		
	07:00	6.50	13.86		0.35	403.8	141		
	07:30	6.49	13.86		0.35	403.7	141		
	08:00	6.50	13.86		0.35	403.8	141		
	08:30	6.49	13.86		0.35	403.7	141		
	09:00	6.49	13.86		0.35	403.6	141		
	09:30	6.49	13.86		0.35	403.3	141		
	10:00	6.49	13.87		0.35	403.1	141		
	10:30	6.48	13.87		0.35	402.8	141		
	11:00	6.48	13.87		0.35	403.0	141		
	11:30	6.49	13.87		0.35	403.2	141		
	12:00	6.49	13.87		0.35	403.2	141		
	12:30	3.99	16.37		0.35	235.7	83		
	13:00	6.96	13.40		0.35	434.7	152		
	13:30	6.95	13.40		0.35	434.5	152		
	14:00	6.95	13.40		0.35	434.3	152		
	14:30	6.86	13.49		0.35	428.2	150		
	15:00	6.89	13.46		0.35	430.5	151		
	15:30	6.95	13.40		0.35	434.5	152		
	16:00	6.98	13.38		0.35	436.0	153		
	16:30	6.97	13.38		0.35	435.8	153		
	17:00	6.97	13.39		0.35	435.3	152		
	17:30	6.95	13.40		0.35	434.5	152		
	18:00	6.94	13.41		0.35	433.9	152		
	18:30	6.93	13.43		0.35	432.7	151		
	19:00	6.92	13.44		0.35	431.9	151		
	19:30	6.90	13.45		0.35	431.2	151		
	20:00	6.90	13.46		0.35	430.6	151		
	20:30	6.88	13.47		0.35	429.7	150		
	21:00	6.87	13.48		0.35	429.2	150		
	21:30	6.86	13.49		0.35	428.5	150		
	22:00	6.85	13.50		0.35	427.8	150		
	22:30	6.85	13.50		0.35	427.4	150		
	23:00	6.84	13.51		0.35	427.0	149		
	23:30	6.84	13.52	19.0 (5)	0.35	426.6	149	174 (6)	
04/12/97	00:00	6.83	13.52		0.35	426.3	149		
	00:30	6.83	13.53		0.35	425.9	149		
	01:00	6.82	13.53		0.35	425.4	149		
	01:30	6.82	13.54		0.35	425.2	149		
	02:00	6.81	13.54		0.35	424.9	149		
	02:30	6.81	13.55		0.35	424.6	149		
	03:00	6.80	13.55		0.35	424.4	149		
	03:30	6.80	13.55		0.35	424.1	148		
	04:00	6.80	13.56		0.35	423.9	148		
	04:30	6.79	13.56		0.35	423.8	148		
	05:00	6.79	13.56		0.35	423.7	148		
	05:30	6.79	13.56		0.35	423.5	148		
	06:00	6.79	13.57		0.35	423.3	148		
	06:30	6.79	13.57		0.35	423.3	148		
	07:00	6.79	13.57		0.35	423.3	148		
	07:30	6.78	13.57		0.35	423.1	148		
	08:00	6.79	13.57		0.35	423.3	148		
	08:30	6.82	13.54		0.35	425.2	149		
	09:00	6.88	13.48		0.35	429.2	150		
	09:30	6.94	13.42		0.35	433.3	152		
	10:00	6.97	13.38		0.35	435.7	152		
	10:30	6.96	13.39		0.35	434.9	152		
	11:00	6.91	13.44		0.35	431.9	151		
	11:30	6.86	13.49		0.35	428.3	150		
	12:00	6.80	13.55		0.35	424.2	148		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	12:30	6.72	13.64		0.35	416.6	147		
	13:00	6.52	13.83		0.35	405.4	142		
	13:30	6.40	13.95		0.35	397.4	139		
	14:00	6.46	13.90		0.35	401.2	140		
	14:30	6.55	13.81		0.35	407.1	142		
	15:00	6.60	13.75		0.35	411.0	144		
	15:30	6.61	13.74		0.35	411.6	144		
	16:00	6.60	13.76		0.35	410.5	144		
	16:30	6.58	13.78		0.35	409.2	143		
	17:00	6.55	13.80		0.35	407.7	143		
	17:30	6.53	13.82		0.35	406.4	142		
	18:00	6.52	13.83		0.35	405.4	142		
	18:30	6.51	13.84		0.35	405.1	142		
	19:00	6.51	13.84		0.35	404.8	142		
	19:30	6.51	13.85		0.35	404.5	142		
	20:00	6.50	13.85		0.35	404.0	141		
	20:30	6.49	13.86		0.35	403.6	141		
	21:00	6.49	13.87		0.35	403.2	141		
	21:30	6.48	13.87		0.35	403.0	141		
	22:00	6.48	13.87		0.35	402.7	141		
	22:30	6.47	13.88		0.35	402.3	141		
	23:00	6.47	13.88		0.35	402.3	141		
	23:30	6.47	13.88	16.0 (5)	0.35	402.2	141	175 (6)	
04/13/97	00:00	6.48	13.88		0.35	402.4	141		
	00:30	6.48	13.87		0.35	402.8	141		
	01:00	6.49	13.87		0.35	403.1	141		
	01:30	6.49	13.86		0.35	403.4	141		
	02:00	6.49	13.86		0.35	403.6	141		
	02:30	6.49	13.86		0.35	403.6	141		
	03:00	6.49	13.86		0.35	403.6	141		
	03:30	6.49	13.86		0.35	403.4	141		
	04:00	6.49	13.87		0.35	403.1	141		
	04:30	6.48	13.87		0.35	402.8	141		
	05:00	6.47	13.88		0.44	402.4	177		
	05:30	6.48	13.87		0.53	402.8	213		
	06:00	6.49	13.87		0.58	403.2	234		
	06:30	6.50	13.86		0.67	403.8	271		
	07:00	6.50	13.85		0.71	404.3	287		
	07:30	6.50	13.85		0.73	404.2	295		
	08:00	6.43	13.93		0.78	399.1	311		
	08:30	6.44	13.92		0.69	399.9	276		
	09:00	6.54	13.81		0.69	407.1	281		
	09:30	6.57	13.79		0.72	408.6	294		
	10:00	6.59	13.76		0.64	410.1	262		
	10:30	6.60	13.76		0.67	410.5	275		
	11:00	6.59	13.76		0.74	410.3	304		
	11:30	6.59	13.76		0.76	410.1	312		
	12:00	6.58	13.77		0.76	409.6	311		
	12:30	6.57	13.78		0.76	409.0	311		
	13:00	6.56	13.79		0.75	408.3	306		
	13:30	6.56	13.80		0.69	407.9	281		
	14:00	6.54	13.81		0.68	407.1	277		
	14:30	6.55	13.81		0.65	407.3	265		
	15:00	6.55	13.81		0.67	407.2	273		
	15:30	6.55	13.80		0.63	407.5	257		
	16:00	6.54	13.81		0.67	407.1	273		
	16:30	6.55	13.80		0.61	407.5	249		
	17:00	6.54	13.81		0.63	406.9	256		
	17:30	6.54	13.81		0.59	406.9	240		
	18:00	6.54	13.81		0.52	407.0	212		
	18:30	6.55	13.81		0.50	407.3	204		
	19:00	6.55	13.80		0.47	407.3	191		
	19:30	6.55	13.80		0.40	407.6	163		
	20:00	6.56	13.79		0.21	408.3	86		
	20:30	6.56	13.79		0.23	408.3	94		
	21:00	6.57	13.78		0.35	408.8	143		
	21:30	6.57	13.78		0.35	409.0	143		
	22:00	6.58	13.77		0.35	409.3	143		
	22:30	6.58	13.78		0.35	409.3	143		
	23:00	6.58	13.77		0.35	409.5	143		
	23:30	6.58	13.78	51.0 (5)	0.35	409.1	143	215 (4)	
04/14/97	00:00	6.57	13.78		0.35	408.9	143		
	00:30	6.57	13.79		0.35	408.5	143		
	01:00	6.56	13.80		0.35	407.8	143		
	01:30	6.55	13.80		0.35	407.3	143		
	02:00	6.54	13.81		0.35	406.8	142		
	02:30	6.54	13.82		0.35	406.5	142		
	03:00	6.53	13.82		0.35	406.3	142		
	03:30	6.53	13.82		0.35	406.2	142		
	04:00	6.53	13.82		0.35	406.4	142		
	04:30	6.53	13.82		0.35	406.4	142		
	05:00	6.53	13.82		0.35	406.3	142		
	05:30	6.53	13.83		0.35	405.9	142		
	06:00	6.52	13.83		0.35	405.6	142		
	06:30	6.52	13.84		0.35	405.3	142		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	07:00	6.51	13.84		0.35	404.9	142		
	07:30	6.51	13.85		0.35	404.5	142		
	08:00	6.48	13.87		0.35	402.8	141		
	08:30	6.48	13.87		0.35	402.9	141		
	09:00	6.48	13.88		0.35	402.6	141		
	09:30	6.47	13.88		0.35	402.3	141		
	10:00	6.47	13.88		0.35	402.3	141		
	10:30	6.47	13.89		0.35	401.9	141		
	11:00	6.46	13.90		0.35	401.2	140		
	11:30	6.46	13.89		0.35	401.7	141		
	12:00	6.46	13.89		0.35	401.7	141		
	12:30	6.47	13.88		0.35	402.1	141		
	13:00	6.47	13.89		0.35	401.9	141		
	13:30	6.47	13.89		0.35	401.8	141		
	14:00	6.46	13.89		0.35	401.4	140		
	14:30	6.45	13.90		0.35	400.9	140		
	15:00	6.44	13.91		0.35	400.2	140		
	15:30	6.45	13.90		0.35	400.6	140		
	16:00	6.45	13.90		0.35	400.9	140		
	16:30	6.45	13.90		0.35	400.9	140		
	17:00	6.43	13.93		0.35	399.2	140		
	17:30	6.43	13.92		0.35	399.4	140		
	18:00	6.43	13.92		0.35	399.3	140		
	18:30	6.42	13.93		0.35	398.9	140		
	19:00	6.42	13.93		0.35	398.9	140		
	19:30	6.43	13.93		0.35	399.1	140		
	20:00	6.43	13.92		0.35	399.5	140		
	20:30	6.44	13.91		0.35	400.0	140		
	21:00	6.44	13.91		0.35	400.3	140		
	21:30	6.45	13.91		0.35	400.5	140		
	22:00	6.45	13.90		0.35	400.6	140		
	22:30	6.44	13.92		0.35	399.8	140		
	23:00	6.44	13.92		0.35	399.8	140		
	23:30	6.44	13.92	21.0 (5)	0.35	399.9	140	169 (6)	
04/15/97	00:00	6.44	13.91		0.35	400.0	140		
	00:30	6.44	13.92		0.35	399.8	140		
	01:00	6.43	13.92		0.35	399.5	140		
	01:30	6.42	13.93		0.35	398.9	140		
	02:00	6.41	13.94		0.35	398.0	139		
	02:30	6.40	13.95		0.35	397.3	139		
	03:00	6.41	13.95		0.35	397.8	139		
	03:30	6.41	13.94		0.35	398.4	139		
	04:00	6.42	13.93		0.35	398.9	140		
	04:30	6.43	13.93		0.35	399.2	140		
	05:00	6.41	13.95		0.35	397.8	139		
	05:30	6.40	13.95		0.35	397.3	139		
	06:00	6.40	13.96		0.35	397.1	139		
	06:30	6.40	13.96		0.35	397.1	139		
	07:00	6.41	13.95		0.35	397.8	139		
	07:30	6.41	13.94		0.35	398.1	139		
	08:00	6.40	13.96		0.35	397.1	139		
	08:30	6.34	14.01		0.35	393.3	138		
	09:00	6.37	13.98		0.35	395.5	138		
	09:30	6.40	13.95		0.35	397.6	139		
	10:00	6.42	13.93		0.35	398.8	140		
	10:30	6.43	13.93		0.35	399.2	140		
	11:00	6.39	13.96		0.35	396.8	139		
	11:30	6.39	13.97		0.35	396.5	139		
	12:00	6.40	13.95		0.35	397.4	139		
	12:30	6.40	13.95		0.35	397.3	139		
	13:00	6.39	13.96		0.35	396.9	139		
	13:30	6.40	13.96		0.35	397.2	139		
	14:00	6.40	13.95		0.35	397.4	139		
	14:30	6.40	13.95		0.35	397.6	139		
	15:00	6.41	13.94		0.35	398.1	139		
	15:30	6.41	13.94		0.35	398.0	139		
	16:00	6.40	13.96		0.35	397.1	139		
	16:30	6.40	13.96		0.35	397.1	139		
	17:00	6.39	13.96		0.35	396.7	139		
	17:30	6.38	13.97		0.35	396.2	139		
	18:00	6.38	13.97		0.35	396.3	139		
	18:30	6.39	13.97		0.35	396.5	139		
	19:00	6.39	13.96		0.35	396.7	139		
	19:30	6.39	13.96		0.35	396.7	139		
	20:00	6.39	13.96		0.35	396.7	139		
	20:30	6.39	13.97		0.35	396.5	139		
	21:00	6.38	13.97		0.35	396.3	139		
	21:30	6.39	13.96		0.35	396.6	139		
	22:00	6.39	13.96		0.35	396.6	139		
	22:30	6.38	13.97		0.35	396.3	139		
	23:00	6.37	13.98		0.35	395.4	138		
	23:30	6.36	14.00	7.9 (5)	0.35	394.5	138	167 (6)	
04/16/97	00:00	6.35	14.01		0.35	393.9	138		
	00:30	6.34	14.01		0.35	393.3	138		
	01:00	6.36	14.00		0.35	394.4	138		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	01:30	6.36	14.00		0.35	394.4	138		
	02:00	6.34	14.02		0.35	393.1	138		
	02:30	6.33	14.02		0.35	392.7	137		
	03:00	6.32	14.03		0.35	392.2	137		
	03:30	6.32	14.03		0.35	392.0	137		
	04:00	6.33	14.03		0.35	392.5	137		
	04:30	6.34	14.02		0.35	393.1	138		
	05:00	6.33	14.02		0.35	392.6	137		
	05:30	6.32	14.04		0.35	391.9	137		
	06:00	6.31	14.05		0.35	391.1	137		
	06:30	6.30	14.06		0.35	390.5	137		
	07:00	6.29	14.06		0.35	390.2	137		
	07:30	6.29	14.06		0.35	390.3	137		
	08:00	6.30	14.05		0.35	390.9	137		
	08:30	6.31	14.04		0.35	391.5	137		
	09:00	6.31	14.04		0.35	391.6	137		
	09:30	6.30	14.05		0.35	390.6	137		
	10:00	6.29	14.06		0.35	390.2	137		
	10:30	6.27	14.08		0.35	388.9	136		
	11:00	6.27	14.09		0.35	388.4	136		
	11:30	6.26	14.09		0.35	388.1	136		
	12:00	6.25	14.11		0.35	387.0	135		
	12:30	6.25	14.11		0.35	387.0	135		
	13:00	6.27	14.09		0.35	388.4	136		
	13:30	6.28	14.08		0.35	389.1	136		
	14:00	6.25	14.10		0.35	387.6	136		
	14:30	6.25	14.11		0.35	387.0	135		
	15:00	6.24	14.11		0.35	386.6	135		
	15:30	6.23	14.12		0.35	386.2	135		
	16:00	6.22	14.13		0.35	385.2	135		
	16:30	6.20	14.15		0.35	384.2	134		
	17:00	6.18	14.17		0.35	382.8	134		
	17:30	6.17	14.19		0.35	381.7	134		
	18:00	6.15	14.20		0.35	380.5	133		
	18:30	6.13	14.23		0.35	379.1	133		
	19:00	6.11	14.25		0.35	377.7	132		
	19:30	6.08	14.28		0.35	375.6	131		
	20:00	6.07	14.29		0.35	375.0	131		
	20:30	6.06	14.29		0.35	374.8	131		
	21:00	6.07	14.29		0.35	375.0	131		
	21:30	6.07	14.29		0.35	375.0	131		
	22:00	6.07	14.29		0.35	375.1	131		
	22:30	6.08	14.27		0.35	376.1	132		
	23:00	6.09	14.26		0.35	376.8	132		
	23:30	6.10	14.25	11.0 (5)	0.35	377.3	132	162 (6)	
04/17/97	00:00	6.11	14.24		0.35	378.0	132		
	00:30	6.13	14.22		0.35	379.2	133		
	01:00	6.14	14.21		0.35	380.1	133		
	01:30	6.15	14.21		0.35	380.4	133		
	02:00	6.16	14.19		0.35	381.2	133		
	02:30	6.18	14.18		0.35	382.3	134		
	03:00	6.19	14.17		0.35	383.1	134		
	03:30	6.19	14.16		0.35	383.5	134		
	04:00	6.22	14.14		0.35	385.0	135		
	04:30	6.24	14.11		0.35	386.6	135		
	05:00	6.24	14.12		0.35	386.5	135		
	05:30	6.23	14.13		0.35	385.8	135		
	06:00	6.22	14.13		0.35	385.3	135		
	06:30	6.24	14.12		0.35	386.4	135		
	07:00	(3)	(3)		(3)	(3)	(3)		
	07:30	(3)	(3)		(3)	(3)	(3)		
	08:00	(3)	(3)		(3)	(3)	(3)		
	08:30	(3)	(3)		(3)	(3)	(3)		
	09:00	(3)	(3)		(3)	(3)	(3)		161
	09:30	3.56	14.40		0.35	367.4	129		
	10:00	3.54	14.42		0.35	365.9	128		
	10:30	3.56	14.40		0.35	367.1	128		
	11:00	3.52	14.44		0.35	364.8	128		
	11:30	3.52	14.44		0.35	364.5	128		
	12:00	3.55	14.42		0.35	366.2	128		
	12:30	3.54	14.42		0.35	366.0	128		
	13:00	3.53	14.44		0.35	364.9	128		
	13:30	3.55	14.41		0.35	366.5	128		
	14:00	3.56	14.40		0.35	367.4	129		
	14:30	3.57	14.40		0.35	367.7	129		
	15:00	3.58	14.39		0.35	368.3	129		
	15:30	3.58	14.38		0.35	368.5	129		
	16:00	3.58	14.39		0.35	368.2	129		
	16:30	3.57	14.40		0.35	367.7	129		
	17:00	3.56	14.40		0.35	367.1	128		
	17:30	3.55	14.42		0.35	366.3	128		
	18:00	3.54	14.43		0.35	365.5	128		
	18:30	3.54	14.43		0.35	365.7	128		
	19:00	3.53	14.44		0.35	364.9	128		
	19:30	3.50	14.46		0.35	363.2	127		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	20:00	3.49	14.48		0.35	362.2	127		
	20:30	3.47	14.50		0.35	361.0	126		
	21:00	3.44	14.53		0.35	359.0	126		
	21:30	3.42	14.54		0.35	358.0	125		
	22:00	3.41	14.56		0.35	357.0	125		
	22:30	3.40	14.56		0.35	356.5	125		
	23:00	3.40	14.56		0.35	356.5	125		
	23:30	3.41	14.55	13.0 (5)	0.35	357.1	125	153 (6)	
04/18/97	00:00	3.41	14.55		0.35	357.3	125		
	00:30	3.41	14.55		0.35	357.4	125		
	01:00	3.41	14.55		0.35	357.4	125		
	01:30	3.43	14.54		0.35	358.2	125		
	02:00	3.44	14.53		0.35	358.8	126		
	02:30	3.44	14.52		0.35	359.3	126		
	03:00	3.45	14.52		0.35	359.6	126		
	03:30	3.45	14.52		0.35	359.6	126		
	04:00	3.45	14.52		0.35	359.7	126		
	04:30	3.45	14.51		0.35	359.9	126		
	05:00	3.45	14.51		0.35	359.8	126		
	05:30	3.45	14.51		0.35	360.1	126		
	06:00	3.46	14.50		0.35	360.7	126		
	06:30	3.47	14.50		0.35	360.8	126		
	07:00	3.46	14.50		0.35	360.7	126		
	07:30	3.46	14.51		0.35	360.4	126		
	08:00	3.49	14.47		0.35	362.6	127		
	08:30	3.48	14.48		0.35	361.9	127		
	09:00	3.48	14.48		0.35	362.1	127		
	09:30	3.48	14.49		0.35	361.7	127		
	10:00	3.49	14.47		0.35	362.4	127		
	10:30	3.52	14.44		0.35	364.6	128		
	11:00	3.53	14.43		0.35	365.3	128		
	11:30	3.55	14.41		0.35	366.8	128		
	12:00	3.58	14.38		0.35	368.7	129		
	12:30	3.62	14.35		0.35	370.9	130		
	13:00	3.63	14.33		0.35	371.8	130		
	13:30	3.64	14.32		0.35	372.8	130		
	14:00	3.66	14.30		0.35	373.8	131		
	14:30	3.68	14.29		0.35	374.9	131		
	15:00	3.70	14.26		0.35	376.5	132		
	15:30	3.72	14.24		0.35	378.0	132		
	16:00	3.75	14.22		0.35	379.8	133		
	16:30	3.78	14.18		0.35	381.9	134		
	17:00	3.81	14.15		0.35	384.1	134		
	17:30	3.85	14.12		0.35	386.5	135		
	18:00	3.88	14.08		0.35	388.6	136		
	18:30	3.91	14.06		0.35	390.4	137		
	19:00	3.93	14.04		0.35	391.8	137		
	19:30	3.95	14.01		0.35	393.5	138		
	20:00	4.02	13.95		0.35	397.7	139		
	20:30	4.08	13.88		0.30	402.3	121		
	21:00	4.14	13.83		0.70	405.9	284		
	21:30	4.19	13.78		0.74	409.3	303		
	22:00	4.23	13.74		0.77	411.6	317		
	22:30	4.25	13.72		0.94	413.3	388		
	23:00	4.27	13.70		0.97	414.5	402		
	23:30	4.28	13.68	12.0 (5)	1.04	415.4	432	157 (4)	
04/19/97	00:00	4.29	13.67		1.10	416.2	458		
	00:30	4.30	13.66		1.11	416.8	463		
	01:00	4.31	13.65		1.09	417.4	455		
	01:30	4.32	13.65		1.14	417.8	476		
	02:00	4.32	13.64		1.15	418.2	481		
	02:30	4.33	13.64		1.16	418.5	485		
	03:00	4.33	13.64		1.17	418.6	490		
	03:30	4.33	13.63		1.19	418.7	498		
	04:00	4.33	13.63		1.18	418.9	494		
	04:30	4.34	13.63		1.17	419.1	490		
	05:00	4.34	13.63		1.17	419.1	490		
	05:30	4.34	13.63		1.13	419.2	474		
	06:00	4.34	13.63		1.13	419.3	474		
	06:30	4.34	13.62		1.12	419.5	470		
	07:00	4.34	13.62		1.14	419.7	478		
	07:30	4.35	13.62		1.13	419.9	474		
	08:00	4.35	13.61		1.08	420.1	454		
	08:30	4.35	13.61		1.05	420.3	441		
	09:00	4.35	13.61		1.09	420.2	458		
	09:30	4.35	13.61		1.12	420.4	471		
	10:00	4.36	13.60		1.01	420.7	425		
	10:30	4.36	13.60		1.06	420.9	446		
	11:00	4.37	13.59		1.00	421.5	421		
	11:30	4.38	13.59		1.13	422.0	477		
	12:00	4.39	13.58		1.12	422.7	473		
	12:30	4.39	13.57		1.11	423.1	470		
	13:00	4.40	13.56		1.21	423.5	512		
	13:30	4.41	13.55		1.29	424.4	547		
	14:00	4.42	13.54		1.26	425.0	535		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	14:30	4.43	13.54		1.28	425.2	544		
	15:00	4.44	13.53		1.33	425.9	566		
	15:30	4.44	13.52		1.35	426.1	575		
	16:00	4.44	13.52		1.36	426.2	580		
	16:30	4.44	13.52		1.39	426.4	593		
	17:00	4.44	13.52		1.38	426.1	588		
	17:30	4.44	13.52		1.39	426.2	592		
	18:00	4.44	13.52		1.35	426.2	575		
	18:30	4.44	13.52		1.34	426.1	571		
	19:00	4.44	13.53		1.31	425.8	558		
	19:30	4.43	13.53		1.29	425.6	549		
	20:00	4.43	13.54		1.25	425.4	532		
	20:30	4.43	13.54		1.27	425.2	540		
	21:00	4.42	13.54		1.25	425.0	531		
	21:30	4.42	13.55		1.18	424.5	501		
	22:00	4.41	13.55		1.18	424.4	501		
	22:30	4.41	13.55		1.11	424.1	471		
	23:00	4.41	13.56		1.07	423.9	454		
	23:30	4.40	13.56	66.0 (5)	1.02	423.5	432	501 (4)	
04/20/97	00:00	4.40	13.57		1.01	423.2	427		
	00:30	4.40	13.57		0.90	423.1	381		
	01:00	4.39	13.57		0.96	422.7	406		
	01:30	4.38	13.58		0.95	422.3	401		
	02:00	4.38	13.58		0.91	422.1	384		
	02:30	4.38	13.59		0.91	421.9	384		
	03:00	4.37	13.59		0.90	421.5	379		
	03:30	4.37	13.59		0.90	421.4	379		
	04:00	4.37	13.60		0.90	421.3	379		
	04:30	4.37	13.60		0.86	421.3	362		
	05:00	4.37	13.60		0.82	421.2	345		
	05:30	4.37	13.60		0.82	421.1	345		
	06:00	4.37	13.60		0.79	421.3	333		
	06:30	4.37	13.59		0.60	421.5	253		
	07:00	4.38	13.58		0.33	422.1	139		
	07:30	4.38	13.58		0.33	422.1	139		
	08:00	4.38	13.58		0.19	422.3	80		
	08:30	4.39	13.58		0.35	422.7	148		
	09:00	4.39	13.57		0.35	422.9	148		
	09:30	4.39	13.57		0.35	422.9	148		
	10:00	4.39	13.57		0.35	422.7	148		
	10:30	4.39	13.58		0.35	422.7	148		
	11:00	4.39	13.58		0.35	422.6	148		
	11:30	4.39	13.57		0.35	422.7	148		
	12:00	4.39	13.57		0.35	422.8	148		
	12:30	4.39	13.58		0.35	422.7	148		
	13:00	4.39	13.58		0.35	422.5	148		
	13:30	4.39	13.58		0.35	422.5	148		
	14:00	4.38	13.58		0.35	422.3	148		
	14:30	4.38	13.58		0.35	422.2	148		
	15:00	4.38	13.58		0.35	422.1	148		
	15:30	4.38	13.58		0.35	422.1	148		
	16:00	4.38	13.59		0.35	422.0	148		
	16:30	4.38	13.58		0.35	422.1	148		
	17:00	4.38	13.58		0.35	422.1	148		
	17:30	4.38	13.58		0.35	422.1	148		
	18:00	4.38	13.59		0.35	422.0	148		
	18:30	4.38	13.59		0.35	422.0	148		
	19:00	4.38	13.58		0.35	422.3	148		
	19:30	4.38	13.58		0.35	422.2	148		
	20:00	4.38	13.58		0.35	422.3	148		
	20:30	4.38	13.58		0.35	422.2	148		
	21:00	4.38	13.58		0.35	422.3	148		
	21:30	4.38	13.58		0.35	422.4	148		
	22:00	4.38	13.58		0.35	422.3	148		
	22:30	4.38	13.58		0.35	422.1	148		
	23:00	4.38	13.58		0.35	422.1	148		
	23:30	4.38	13.59	26.0 (5)	0.35	422.0	148	210 (4)	
04/21/97	00:00	4.38	13.59		0.35	422.0	148		
	00:30	4.38	13.58		0.35	422.1	148		
	01:00	4.38	13.59		0.35	421.9	148		
	01:30	4.38	13.59		0.35	421.9	148		
	02:00	4.37	13.59		0.35	421.7	148		
	02:30	4.37	13.59		0.35	421.6	148		
	03:00	4.37	13.59		0.35	421.5	148		
	03:30	4.37	13.59		0.35	421.5	148		
	04:00	4.37	13.59		0.35	421.5	148		
	04:30	4.37	13.59		0.35	421.6	148		
	05:00	4.37	13.59		0.35	421.6	148		
	05:30	4.37	13.59		0.35	421.6	148		
	06:00	4.37	13.59		0.35	421.5	148		
	06:30	4.37	13.59		0.35	421.5	148		
	07:00	4.37	13.59		0.35	421.7	148		
	07:30	4.37	13.59		0.35	421.5	148		
	08:00	4.36	13.60		0.35	421.0	147		
	08:30	4.38	13.58		0.35	422.3	148		

GENERAL ELECTRIC COMPANY - SNOOK KILL FLOW SUMMARY

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	09:00	4.40	13.57		0.35	423.3	148		
	09:30	4.40	13.56		0.35	423.7	148		
	10:00	4.40	13.56		0.35	423.7	148		
	10:30	4.40	13.56		0.35	423.6	148		
	11:00	4.39	13.57		0.35	422.7	148		
	11:30	4.36	13.60		0.35	420.9	147		
	12:00	4.34	13.63		0.35	419.3	147		
	12:30	4.33	13.63		0.35	419.0	147		
	13:00	4.34	13.63		0.35	419.3	147		
	13:30	(3)	(3)		(3)	(3)	(3)		
	14:00	(3)	(3)		(3)	(3)	(3)		190
	14:30	(3)	(3)		(3)	(3)	(3)		
	15:00	2.81	13.50		0.35	427.7	150		
	15:30	2.86	13.45		0.35	431.2	151		
	16:00	2.84	13.48		0.35	429.2	150		
	16:30	2.82	13.49		0.35	428.1	150		
	17:00	2.82	13.50		0.35	428.0	150		
	17:30	2.82	13.49		0.35	428.4	150		
	18:00	2.83	13.49		0.35	428.7	150		
	18:30	2.83	13.49		0.35	428.7	150		
	19:00	2.83	13.49		0.35	428.7	150		
	19:30	2.83	13.49		0.35	428.6	150		
	20:00	2.82	13.49		0.35	428.5	150		
	20:30	2.82	13.49		0.35	428.3	150		
	21:00	2.82	13.49		0.35	428.2	150		
	21:30	2.82	13.50		0.35	428.0	150		
	22:00	2.80	13.51		0.35	427.0	149		
	22:30	2.79	13.53		0.35	426.0	149		
	23:00	2.81	13.51		0.35	427.3	150		
	23:30	2.81	13.50	11.0 (5)	0.35	427.8	150	178 (6)	
04/22/97	00:00	2.82	13.49		0.35	428.4	150		
	00:30	2.83	13.48		0.35	428.8	150		
	01:00	2.84	13.48		0.35	429.2	150		
	01:30	2.84	13.47		0.35	429.4	150		
	02:00	2.84	13.47		0.35	429.6	150		
	02:30	2.84	13.47		0.35	429.8	150		
	03:00	2.84	13.47		0.35	429.7	150		
	03:30	2.84	13.47		0.35	429.5	150		
	04:00	2.84	13.47		0.35	429.4	150		
	04:30	2.84	13.47		0.35	429.6	150		
	05:00	2.84	13.47		0.35	429.8	150		
	05:30	2.84	13.47		0.35	429.8	150		
	06:00	2.85	13.47		0.35	429.9	150		
	06:30	2.85	13.47		0.35	430.0	150		
	07:00	2.84	13.47		0.35	429.8	150		
	07:30	2.84	13.47		0.35	429.8	150		
	08:00	2.84	13.47		0.35	429.4	150		
	08:30	2.84	13.48		0.35	429.3	150		
	09:00	2.83	13.48		0.35	428.8	150		
	09:30	2.82	13.49		0.35	428.4	150		
	10:00	2.82	13.49		0.35	428.1	150		
	10:30	2.81	13.51		0.35	427.4	150		
	11:00	(3)	(3)		(3)	(3)	(3)		
	11:30	(3)	(3)		(3)	(3)	(3)		
	12:00	(3)	(3)		(3)	(3)	(3)		
	12:30	(3)	(3)		(3)	(3)	(3)		
	13:00	(3)	(3)		(3)	(3)	(3)		
	13:30	2.74	13.57		0.35	422.7	148		
	14:00	2.74	13.57		0.35	423.0	148		
	14:30	2.74	13.57		0.35	423.0	148		
	15:00	2.74	13.57		0.35	422.8	148		
	15:30	2.66	13.66		0.35	417.3	146		
	16:00	2.76	13.56		0.35	423.9	148		
	16:30	2.74	13.57		0.35	423.1	148		
	17:00	2.73	13.58		0.35	422.3	148		
	17:30	2.75	13.57		0.35	423.3	148		
	18:00	2.76	13.55		0.35	424.4	149		
	18:30	2.77	13.55		0.35	424.6	149		
	19:00	2.75	13.56		0.35	423.7	148		
	19:30	2.74	13.57		0.35	422.9	148		
	20:00	2.73	13.58		0.35	422.2	148		
	20:30	2.72	13.59		0.35	421.8	148		
	21:00	2.72	13.59		0.35	421.4	147		
	21:30	2.72	13.60		0.35	421.3	147		
	22:00	2.71	13.60		0.35	421.1	147		
	22:30	2.71	13.60		0.35	421.0	147		
	23:00	2.71	13.60		0.35	420.9	147		
	23:30	2.71	13.60	7.2 (5)	0.35	421.0	147	179 (6)	
04/23/97	00:00	2.71	13.60		0.35	420.8	147		
	00:30	2.71	13.60		0.35	420.7	147		
	01:00	2.71	13.60		0.35	420.7	147		
	01:30	2.71	13.61		0.35	420.6	147		
	02:00	2.70	13.61		0.35	420.5	147		
	02:30	2.71	13.61		0.35	420.5	147		
	03:00	2.70	13.61		0.35	420.5	147		

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Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	03:30	2.70	13.61		0.35	420.4	147		
	04:00	2.70	13.61		0.35	420.4	147		
	04:30	2.70	13.61		0.35	420.3	147		
	05:00	2.70	13.61		0.35	420.3	147		
	05:30	2.70	13.61		0.35	420.3	147		
	06:00	2.70	13.61		0.35	420.1	147		
	06:30	2.70	13.62		0.35	419.9	147		
	07:00	2.69	13.62		0.35	419.8	147		
	07:30	2.69	13.62		0.35	419.7	147		
	08:00	2.68	13.63		0.35	419.0	147		
	08:30	2.66	13.65		0.35	417.5	146		
	09:00	2.65	13.66		0.35	416.9	146		150
	09:30	2.66	13.65		0.35	417.7	146		
	10:00	2.68	13.64		0.35	418.6	147		
	10:30	2.68	13.63		0.35	419.1	147		
	11:00	2.69	13.62		0.35	419.5	147		
	11:30	2.69	13.62		0.35	419.7	147		
	12:00	2.69	13.62		0.35	419.6	147		
	12:30	2.69	13.62		0.35	419.7	147		
	13:00	2.69	13.62		0.35	419.5	147		
	13:30	2.69	13.63		0.35	419.3	147		
	14:00	2.69	13.63		0.35	419.2	147		
	14:30	2.67	13.64		0.35	418.3	146		
	15:00	2.64	13.67		0.35	416.4	146		
	15:30	2.69	13.62		0.35	419.8	147		
	16:00	2.69	13.62		0.35	419.5	147		
	16:30	2.69	13.63		0.35	419.2	147		
	17:00	2.68	13.63		0.35	418.9	147		
	17:30	2.68	13.63		0.35	418.9	147		
	18:00	2.68	13.63		0.35	418.7	147		
	18:30	2.68	13.64		0.35	418.6	147		
	19:00	2.68	13.64		0.35	418.6	147		
	19:30	2.68	13.64		0.35	418.6	147		
	20:00	2.68	13.64		0.35	418.6	147		
	20:30	2.68	13.64		0.35	418.6	147		
	21:00	2.68	13.64		0.35	418.7	147		
	21:30	2.68	13.64		0.35	418.5	146		
	22:00	2.68	13.64		0.35	418.5	146		
	22:30	2.67	13.64		0.35	418.5	146		
	23:00	2.68	13.64		0.35	418.5	146		
	23:30	2.67	13.64	16.0 (5)	0.35	418.4	146	176 (6)	
04/24/97	00:00	2.67	13.64		0.35	418.5	146		
	00:30	2.67	13.64		0.35	418.3	146		
	01:00	2.67	13.64		0.35	418.4	146		
	01:30	2.67	13.64		0.35	418.3	146		
	02:00	2.67	13.64		0.35	418.4	146		
	02:30	2.67	13.64		0.35	418.3	146		
	03:00	2.67	13.64		0.35	418.4	146		
	03:30	2.67	13.64		0.35	418.3	146		
	04:00	2.67	13.64		0.35	418.2	146		
	04:30	2.67	13.64		0.35	418.3	146		
	05:00	2.67	13.64		0.35	418.1	146		
	05:30	2.67	13.65		0.35	418.0	146		
	06:00	2.67	13.64		0.35	418.1	146		
	06:30	2.67	13.64		0.35	418.1	146		
	07:00	2.67	13.64		0.35	418.1	146		
	07:30	2.67	13.64		0.35	418.1	146		
	08:00	2.66	13.65		0.35	417.4	146		
	08:30	2.63	13.68		0.35	415.4	145		
	09:00	2.62	13.69		0.35	414.8	145		
	09:30	2.60	13.71		0.35	413.8	145		
	10:00	2.63	13.68		0.35	415.7	145		
	10:30	2.63	13.68		0.35	415.6	145		
	11:00	2.64	13.67		0.35	416.4	146		
	11:30	2.66	13.65		0.35	417.4	146		
	12:00	2.66	13.65		0.35	417.5	146		
	12:30	2.66	13.65		0.35	417.5	146		
	13:00	2.67	13.65		0.35	418.0	146		
	13:30	2.66	13.65		0.35	417.8	146		
	14:00	2.66	13.65		0.35	417.7	146		
	14:30	2.66	13.65		0.35	417.6	146		
	15:00	2.67	13.65		0.35	417.9	146		
	15:30	2.67	13.65		0.35	418.0	146		
	16:00	2.66	13.65		0.35	417.8	146		
	16:30	2.67	13.65		0.35	418.0	146		
	17:00	2.67	13.65		0.35	417.9	146		
	17:30	2.67	13.65		0.35	417.9	146		
	18:00	2.67	13.65		0.35	417.9	146		
	18:30	2.67	13.65		0.35	417.9	146		
	19:00	2.67	13.65		0.35	418.0	146		
	19:30	2.67	13.64		0.35	418.1	146		
	20:00	2.67	13.64		0.35	418.4	146		
	20:30	2.67	13.64		0.35	418.5	146		
	21:00	2.68	13.64		0.35	418.7	147		
	21:30	2.68	13.64		0.35	418.7	147		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	22:00	2.68	13.63		0.35	418.7	147		
	22:30	2.68	13.63		0.35	418.9	147		
	23:00	2.68	13.63		0.35	418.9	147		
	23:30	2.68	13.63	4.3 (5)	0.35	418.9	147	146 (6)	
04/25/97	00:00	2.68	13.63		0.35	418.9	147		
	00:30	2.68	13.63		0.35	418.9	147		
	01:00	2.68	13.63		0.35	418.9	147		
	01:30	2.68	13.63		0.35	418.9	147		
	02:00	2.68	13.63		0.35	418.7	147		
	02:30	2.68	13.63		0.35	418.7	147		
	03:00	2.68	13.63		0.35	418.7	147		
	03:30	2.68	13.64		0.35	418.6	147		
	04:00	2.68	13.64		0.35	418.5	146		
	04:30	2.68	13.64		0.35	418.5	146		
	05:00	2.68	13.64		0.35	418.5	146		
	05:30	2.67	13.64		0.35	418.4	146		
	06:00	2.67	13.64		0.35	418.4	146		
	06:30	2.67	13.64		0.35	418.3	146		
	07:00	2.67	13.64		0.35	418.3	146		
	07:30	2.66	13.65		0.35	417.6	146		
	08:00	2.64	13.67		0.35	416.4	146		
	08:30	2.66	13.65		0.35	417.4	146		
	09:00	2.71	13.61		0.35	420.5	147		
	09:30	2.70	13.61		0.35	420.1	147		
	10:00	2.68	13.63		0.35	418.8	147		
	10:30	2.66	13.65		0.35	417.4	146		
	11:00	2.65	13.66		0.35	416.7	146		
	11:30	2.64	13.67		0.35	416.3	146		
	12:00	2.64	13.67		0.35	416.2	146		
	12:30	2.65	13.67		0.35	416.6	146		
	13:00	2.65	13.66		0.35	417.0	146		107
	13:30	2.67	13.65		0.35	418.0	146		
	14:00	2.68	13.64		0.35	418.6	147		
	14:30	2.68	13.64		0.35	418.6	147		
	15:00	2.67	13.64		0.35	418.5	146		
	15:30	2.67	13.64		0.35	418.3	146		
	16:00	2.67	13.64		0.35	418.1	146		
	16:30	2.66	13.65		0.35	417.8	146		
	17:00	2.66	13.65		0.35	417.7	146		
	17:30	2.66	13.65		0.35	417.6	146		
	18:00	2.66	13.65		0.35	417.7	146		
	18:30	2.66	13.65		0.35	417.5	146		
	19:00	2.66	13.65		0.35	417.6	146		
	19:30	2.66	13.65		0.35	417.5	146		
	20:00	2.66	13.65		0.35	417.7	146		
	20:30	2.66	13.65		0.35	417.7	146		
	21:00	2.66	13.65		0.35	417.7	146		
	21:30	2.67	13.65		0.35	417.9	146		
	22:00	2.67	13.65		0.35	417.9	146		
	22:30	2.67	13.64		0.35	418.2	146		
	23:00	2.67	13.64		0.35	418.5	146		
	23:30	2.68	13.64	8.8 (5)	0.35	418.7	147	176 (6)	
04/26/97	00:00	2.68	13.63		0.35	418.9	147		
	00:30	2.68	13.63		0.35	419.1	147		
	01:00	2.69	13.62		0.35	419.4	147		
	01:30	2.69	13.62		0.35	419.6	147		
	02:00	2.70	13.62		0.35	420.0	147		
	02:30	2.70	13.61		0.35	420.3	147		
	03:00	2.71	13.60		0.35	421.1	147		
	03:30	2.72	13.59		0.35	421.7	148		
	04:00	2.73	13.58		0.35	422.3	148		
	04:30	2.74	13.58		0.35	422.6	148		
	05:00	2.74	13.57		0.35	422.9	148		
	05:30	2.74	13.57		0.35	422.9	148		
	06:00	2.74	13.57		0.35	423.0	148		
	06:30	2.74	13.57		0.35	422.9	148		
	07:00	2.74	13.57		0.35	422.7	148		
	07:30	2.74	13.57		0.35	422.7	148		
	08:00	2.74	13.58		0.35	422.7	148		
	08:30	2.74	13.57		0.35	423.0	148		
	09:00	2.74	13.57		0.35	423.1	148		
	09:30	2.75	13.57		0.35	423.3	148		
	10:00	2.75	13.57		0.35	423.2	148		
	10:30	2.75	13.56		0.35	423.4	148		
	11:00	2.74	13.57		0.35	422.9	148		
	11:30	2.75	13.57		0.35	423.2	148		
	12:00	2.74	13.57		0.35	423.1	148		
	12:30	2.75	13.56		0.35	423.4	148		
	13:00	2.75	13.57		0.35	423.3	148		
	13:30	2.75	13.56		0.35	423.5	148		
	14:00	2.75	13.57		0.35	423.3	148		
	14:30	2.75	13.57		0.35	423.3	148		
	15:00	2.75	13.56		0.35	423.4	148		
	15:30	2.75	13.56		0.35	423.4	148		
	16:00	2.75	13.56		0.35	423.5	148		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	16:30	2.75	13.56		0.35	423.5	148		
	17:00	2.75	13.56		0.35	423.5	148		
	17:30	2.75	13.57		0.35	423.3	148		
	18:00	2.75	13.56		0.35	423.4	148		
	18:30	2.75	13.56		0.35	423.5	148		
	19:00	2.75	13.56		0.35	423.7	148		
	19:30	2.75	13.56		0.35	423.7	148		
	20:00	2.76	13.56		0.35	423.9	148		
	20:30	2.76	13.56		0.35	424.0	148		
	21:00	2.76	13.56		0.35	423.9	148		
	21:30	2.76	13.55		0.35	424.1	148		
	22:00	2.76	13.56		0.35	424.0	148		
	22:30	2.76	13.55		0.35	424.1	148		
	23:00	2.76	13.55		0.35	424.2	148		
	23:30	2.76	13.55	5.7 (5)	0.35	424.1	148	178 (6)	
04/27/97	00:00	2.76	13.55		0.35	424.1	148		
	00:30	2.76	13.55		0.35	424.1	148		
	01:00	2.76	13.55		0.35	424.1	148		
	01:30	2.76	13.55		0.35	424.1	148		
	02:00	2.76	13.56		0.35	424.0	148		
	02:30	2.76	13.56		0.35	423.9	148		
	03:00	2.76	13.56		0.35	423.9	148		
	03:30	2.75	13.56		0.35	423.8	148		
	04:00	2.75	13.56		0.35	423.6	148		
	04:30	2.75	13.56		0.35	423.7	148		
	05:00	2.75	13.56		0.35	423.5	148		
	05:30	2.75	13.56		0.35	423.5	148		
	06:00	2.75	13.57		0.35	423.3	148		
	06:30	2.75	13.56		0.35	423.5	148		
	07:00	2.75	13.57		0.35	423.3	148		
	07:30	2.75	13.56		0.35	423.4	148		
	08:00	2.75	13.57		0.35	423.3	148		
	08:30	2.75	13.56		0.35	423.4	148		
	09:00	2.75	13.56		0.35	423.4	148		
	09:30	2.75	13.56		0.35	423.5	148		
	10:00	2.75	13.56		0.35	423.4	148		
	10:30	2.75	13.56		0.35	423.5	148		
	11:00	2.75	13.57		0.35	423.3	148		
	11:30	2.75	13.57		0.35	423.2	148		
	12:00	2.75	13.57		0.35	423.2	148		
	12:30	2.74	13.57		0.35	423.1	148		
	13:00	2.75	13.57		0.35	423.2	148		
	13:30	2.74	13.57		0.35	423.1	148		
	14:00	2.74	13.58		0.35	422.7	148		
	14:30	2.74	13.57		0.35	422.8	148		
	15:00	2.74	13.57		0.35	422.9	148		
	15:30	2.74	13.57		0.35	422.7	148		
	16:00	2.74	13.58		0.35	422.6	148		
	16:30	2.73	13.58		0.35	422.5	148		
	17:00	2.73	13.58		0.35	422.3	148		
	17:30	2.73	13.58		0.35	422.2	148		
	18:00	2.73	13.58		0.35	422.1	148		
	18:30	2.73	13.59		0.35	421.9	148		
	19:00	2.72	13.59		0.35	421.7	148		
	19:30	2.72	13.59		0.35	421.7	148		
	20:00	2.73	13.59		0.35	421.9	148		
	20:30	2.72	13.59		0.35	421.8	148		
	21:00	2.73	13.59		0.35	421.9	148		
	21:30	2.72	13.59		0.35	421.8	148		
	22:00	2.72	13.59		0.35	421.8	148		
	22:30	2.72	13.59		0.35	421.8	148		
	23:00	2.73	13.59		0.35	421.9	148		
	23:30	2.73	13.58	6.7 (5)	0.35	422.3	148	178 (6)	
04/28/97	00:00	2.74	13.58		0.35	422.6	148		
	00:30	2.73	13.58		0.35	422.4	148		
	01:00	2.74	13.58		0.35	422.7	148		
	01:30	2.74	13.57		0.35	422.8	148		
	02:00	2.74	13.58		0.35	422.5	148		
	02:30	2.74	13.57		0.35	423.0	148		
	03:00	2.74	13.57		0.35	423.0	148		
	03:30	2.74	13.57		0.35	423.1	148		
	04:00	2.75	13.57		0.35	423.2	148		
	04:30	2.75	13.56		0.35	423.5	148		
	05:00	2.75	13.56		0.35	423.7	148		
	05:30	2.76	13.56		0.35	423.9	148		
	06:00	2.76	13.55		0.35	424.1	148		
	06:30	2.77	13.55		0.35	424.7	149		
	07:00	2.77	13.54		0.35	425.0	149		
	07:30	2.77	13.54		0.35	424.8	149		
	08:00	2.78	13.54		0.35	425.3	149		
	08:30	2.80	13.51		0.35	426.9	149		
	09:00	2.81	13.50		0.35	427.6	150		
	09:30	2.82	13.49		0.35	428.2	150		
	10:00	2.83	13.49		0.28	428.6	120		
	10:30	2.83	13.48		0.59	428.9	253		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	11:00	2.83	13.48		0.82	429.2	352		334
	11:30	2.84	13.47		1.01	429.7	434		
	12:00	2.86	13.46		1.13	430.6	487		
	12:30	2.87	13.44		1.22	431.6	527		
	13:00	2.88	13.43		1.25	432.5	541		
	13:30	2.90	13.42		1.32	433.4	572		
	14:00	2.92	13.39		1.39	434.8	604		
	14:30	2.94	13.37		1.49	436.1	650		
	15:00	2.93	13.38		1.53	435.9	667		589
	15:30	2.96	13.35		1.51	437.5	661		
	16:00	3.03	13.28		1.55	442.3	686		
	16:30	3.08	13.23		1.58	445.6	704		
	17:00	3.13	13.18		1.61	449.3	723		
	17:30	3.19	13.12		1.58	453.3	716		
	18:00	3.26	13.05		1.67	457.6	764		
	18:30	(3)	(3)		(3)	(3)	(3)		
	19:00	(3)	(3)		(3)	(3)	(3)		
	19:30	(3)	(3)		(3)	(3)	(3)		
	20:00	(3)	(3)		(3)	(3)	(3)		
	20:30	(3)	(3)		(3)	(3)	(3)		
	21:00	(3)	(3)		(3)	(3)	(3)		
	21:30	(3)	(3)		(3)	(3)	(3)		
	22:00	(3)	(3)		(3)	(3)	(3)		
	22:30	(3)	(3)		(3)	(3)	(3)		
	23:00	(3)	(3)		(3)	(3)	(3)		
	23:30	(3)	(3)		(3)	(3)	(3)	403 (4)	
04/29/97	00:00	(3)	(3)		(3)	(3)	(3)		
	00:30	(3)	(3)		(3)	(3)	(3)		
	01:00	(3)	(3)		(3)	(3)	(3)		
	01:30	(3)	(3)		(3)	(3)	(3)		
	02:00	(3)	(3)		(3)	(3)	(3)		
	02:30	(3)	(3)		(3)	(3)	(3)		
	03:00	(3)	(3)		(3)	(3)	(3)		
	03:30	(3)	(3)		(3)	(3)	(3)		
	04:00	(3)	(3)		(3)	(3)	(3)		
	04:30	(3)	(3)		(3)	(3)	(3)		
	05:00	(3)	(3)		(3)	(3)	(3)		
	05:30	(3)	(3)		(3)	(3)	(3)		
	06:00	(3)	(3)		(3)	(3)	(3)		
	06:30	(3)	(3)		(3)	(3)	(3)		
	07:00	(3)	(3)		(3)	(3)	(3)		
	07:30	(3)	(3)		(3)	(3)	(3)		
	08:00	(3)	(3)		(3)	(3)	(3)		
	08:30	3.50	12.81		0.87	474.1	412		
	09:00	3.52	12.80		0.84	474.9	399		
	09:30	3.52	12.79		0.70	475.3	333		
	10:00	3.52	12.79		0.84	475.1	399		
	10:30	3.53	12.78		0.67	475.8	319		
	11:00	3.53	12.78		0.51	475.7	243		
	11:30	3.55	12.76		0.39	477.0	186		
	12:00	3.57	12.74		0.35	478.7	168		
	12:30	3.58	12.73		0.35	479.4	168		
	13:00	3.59	12.72		0.35	479.7	168		
	13:30	3.59	12.72		0.35	480.0	168		
	14:00	3.59	12.72		0.35	479.9	168		
	14:30	3.59	12.72		0.35	479.7	168		
	15:00	3.59	12.73		0.35	479.6	168		
	15:30	3.59	12.72		0.35	479.9	168		
	16:00	3.63	12.68		0.35	482.4	169		
	16:30	3.70	12.61		0.35	487.4	171		
	17:00	3.76	12.55		0.35	491.4	172		
	17:30	3.80	12.52		0.35	493.6	173		
	18:00	3.82	12.50		0.35	495.0	173		
	18:30	3.82	12.49		0.35	495.5	173		
	19:00	3.83	12.48		0.35	496.0	174		
	19:30	3.84	12.47		0.35	496.5	174		
	20:00	3.84	12.47		0.35	496.8	174		
	20:30	3.84	12.47		0.35	496.7	174		
	21:00	3.85	12.47		0.35	497.0	174		
	21:30	3.85	12.46		0.35	497.2	174		
	22:00	3.85	12.46		0.35	497.4	174		
	22:30	3.85	12.46		0.35	497.1	174		
	23:00	3.85	12.46		0.35	497.1	174		
	23:30	3.85	12.46		0.35	497.1	174	207 (4)	
04/30/97	00:00	3.84	12.47		0.35	496.8	174		
	00:30	3.84	12.47		0.35	496.7	174		
	01:00	3.84	12.47		0.35	496.5	174		
	01:30	3.84	12.47		0.35	496.4	174		
	02:00	3.84	12.48		0.35	496.3	174		
	02:30	3.84	12.48		0.35	496.3	174		
	03:00	3.84	12.48		0.35	496.2	174		
	03:30	3.84	12.48		0.35	496.3	174		
	04:00	3.83	12.48		0.35	496.0	174		
	04:30	3.83	12.48		0.35	496.1	174		
	05:00	3.83	12.48		0.35	496.2	174		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	05:30	3.84	12.48		0.35	496.3	174		
	06:00	3.84	12.48		0.35	496.3	174		
	06:30	3.84	12.48		0.35	496.4	174		
	07:00	3.83	12.48		0.35	495.9	174		
	07:30	3.77	12.54		0.35	492.1	172		
	08:00	3.73	12.58		0.35	489.1	171		
	08:30	3.73	12.58		0.35	489.5	171		
	09:00	3.75	12.57		0.35	490.3	172		
	09:30	3.76	12.56		0.35	491.0	172		
	10:00	3.76	12.55		0.35	491.3	172		
	10:30	3.76	12.55		0.35	491.1	172		
	11:00	3.75	12.56		0.35	490.7	172		
	11:30	3.75	12.56		0.35	490.4	172		
	12:00	3.74	12.57		0.35	490.0	172		
	12:30	3.77	12.54		0.35	492.0	172		
	13:00	3.77	12.54		0.35	491.8	172		
	13:30	3.77	12.55		0.35	491.6	172		
	14:00	3.78	12.53		0.35	492.5	172		
	14:30	3.77	12.54		0.35	491.8	172		
	15:00	3.71	12.61		0.35	487.5	171		
	15:30	3.77	12.55		0.35	491.6	172		
	16:00	3.76	12.56		0.35	490.9	172		
	16:30	3.75	12.57		0.35	490.3	172		
	17:00	3.74	12.57		0.35	490.0	172		
	17:30	3.73	12.58		0.35	489.3	171		
	18:00	3.72	12.59		0.35	488.7	171		
	18:30	3.72	12.60		0.35	488.2	171		
	19:00	3.70	12.61		0.35	487.5	171		
	19:30	3.70	12.62		0.35	486.9	170		
	20:00	3.69	12.63		0.35	486.3	170		
	20:30	3.68	12.63		0.35	485.9	170		
	21:00	3.67	12.64		0.35	485.5	170		
	21:30	3.67	12.65		0.35	484.9	170		
	22:00	3.66	12.65		0.35	484.7	170		
	22:30	3.66	12.65		0.35	484.4	170		
	23:00	3.66	12.66		0.35	484.2	169		
	23:30	3.65	12.67		0.35	483.6	169	206 (6)	
05/01/97	00:00	3.64	12.67		0.35	483.4	169		
	00:30	3.64	12.67		0.35	483.1	169		
	01:00	3.63	12.68		0.35	482.6	169		
	01:30	3.63	12.68		0.35	482.4	169		
	02:00	3.62	12.69		0.35	482.0	169		
	02:30	3.62	12.69		0.35	482.0	169		
	03:00	3.61	12.70		0.35	481.4	169		
	03:30	3.61	12.70		0.35	481.4	169		
	04:00	3.62	12.70		0.35	481.5	169		
	04:30	3.61	12.70		0.35	481.4	168		
	05:00	3.61	12.70		0.35	481.4	168		
	05:30	3.61	12.70		0.35	481.2	168		
	06:00	3.61	12.70		0.35	481.2	168		
	06:30	3.60	12.71		0.35	480.8	168		
	07:00	3.60	12.72		0.35	480.3	168		
	07:30	3.59	12.72		0.35	479.8	168		
	08:00	3.59	12.73		0.35	479.5	168		
	08:30	3.58	12.73		0.35	479.2	168		
	09:00	3.58	12.73		0.35	479.3	168		
	09:30	3.58	12.73		0.35	479.2	168		
	10:00	3.57	12.74		0.35	478.8	168		
	10:30	3.55	12.76		0.35	477.2	167		
	11:00	3.52	12.79		0.35	475.1	166		
	11:30	3.49	12.83		0.35	472.8	165		
	12:00	3.45	12.87		0.35	470.1	165		
	12:30	3.41	12.90		0.35	467.6	164		
	13:00	3.38	12.94		0.35	465.4	163		
	13:30	3.35	12.96		0.35	463.9	162		
	14:00	3.32	12.99		0.35	462.0	162		
	14:30	3.30	13.01		0.35	460.6	161		
	15:00	3.29	13.02		0.35	459.6	161		
	15:30	3.28	13.03		0.35	459.2	161		
	16:00	3.28	13.04		0.35	458.8	161		
	16:30	3.28	13.03		0.35	459.1	161		
	17:00	3.29	13.03		0.35	459.4	161		
	17:30	3.30	13.01		0.35	460.4	161		
	18:00	3.31	13.00		0.22	461.0	101		
	18:30	3.31	13.01		0.35	460.8	161		
	19:00	3.31	13.00		0.35	461.0	161		
	19:30	3.31	13.01		0.35	460.8	161		
	20:00	3.30	13.01		0.35	460.7	161		
	20:30	3.30	13.01		0.35	460.6	161		
	21:00	3.30	13.01		0.35	460.6	161		
	21:30	3.31	13.01		0.35	460.8	161		
	22:00	3.31	13.01		0.35	460.7	161		
	22:30	3.31	13.00		0.35	461.0	161		
	23:00	3.31	13.00		0.35	461.3	161		
	23:30	3.32	12.99		0.35	461.6	162	196 (6)	

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
05/02/97	00:00	3.33	12.99		0.35	462.1	162		
	00:30	3.33	12.99		0.35	462.1	162		
	01:00	3.33	12.98		0.35	462.7	162		
	01:30	3.34	12.97		0.35	463.0	162		
	02:00	3.34	12.97		0.35	463.3	162		
	02:30	3.35	12.96		0.35	463.6	162		
	03:00	3.36	12.96		0.35	464.1	162		
	03:30	3.36	12.95		0.35	464.3	162		
	04:00	3.37	12.95		0.35	464.8	163		
	04:30	3.37	12.94		0.35	465.2	163		
	05:00	3.37	12.94		0.35	465.2	163		
	05:30	3.38	12.93		0.35	465.6	163		
	06:00	3.38	12.93		0.35	465.7	163		
	06:30	3.38	12.93		0.35	466.0	163		
	07:00	3.39	12.93		0.35	466.1	163		
	07:30	3.38	12.93		0.35	466.0	163		
	08:00	3.38	12.93		0.35	466.0	163		
	08:30	3.39	12.92		0.35	466.4	163		
	09:00	3.40	12.91		0.35	467.0	163		
	09:30	3.41	12.91		0.35	467.4	164		
	10:00	3.42	12.89		0.35	468.3	164		
	10:30	3.44	12.88		0.35	469.6	164		
	11:00	3.45	12.86		0.35	470.7	165		
	11:30	3.47	12.85		0.35	471.6	165		
	12:00	3.48	12.83		0.35	472.7	165		
	12:30	3.50	12.81		0.35	473.7	166		
	13:00	3.50	12.81		0.35	473.9	166		164
	13:30	3.51	12.80		0.35	474.5	166		
	14:00	3.50	12.81		0.35	473.7	166		
	14:30	3.54	12.77		0.35	476.4	167		
	15:00	3.68	12.63		0.35	485.8	170		
	15:30	3.72	12.59		0.35	488.7	171		
	16:00	3.76	12.56		0.35	491.0	172		
	16:30	3.78	12.53		0.35	492.6	172		
	17:00	3.81	12.51		0.35	494.4	173		
	17:30	3.82	12.49		0.35	495.4	173		
	18:00	3.83	12.48		0.35	496.0	174		
	18:30	3.84	12.47		0.35	496.6	174		
	19:00	3.84	12.47		0.35	496.7	174		
	19:30	3.85	12.46		0.35	497.1	174		
	20:00	3.85	12.46		0.35	497.4	174		
	20:30	3.85	12.46		0.35	497.2	174		
	21:00	3.85	12.46		0.35	497.1	174		
	21:30	3.85	12.47		0.35	496.9	174		
	22:00	3.84	12.47		0.35	496.5	174		
	22:30	3.83	12.48		0.35	496.0	174		
	23:00	3.83	12.48		0.35	495.8	174		
	23:30	3.83	12.48	11.0	0.35	496.0	174	201 (6)	
05/03/97	00:00	3.83	12.48	17.0	0.35	496.1	174		
	00:30	3.84	12.48		0.35	496.3	174		
	01:00	3.84	12.48		0.35	496.2	174		
	01:30	3.83	12.48		0.35	496.0	174		
	02:00	3.83	12.48		0.35	496.0	174		
	02:30	3.83	12.48		0.35	496.0	174		
	03:00	3.83	12.48	12.0	0.35	496.1	174		
	03:30	3.83	12.48		0.35	496.2	174		
	04:00	3.84	12.47		0.35	496.5	174		
	04:30	3.85	12.47		0.35	497.0	174		
	05:00	3.86	12.46		0.35	497.6	174		
	05:30	3.85	12.46		0.35	497.4	174		
	06:00	3.86	12.45	11.0	0.35	497.8	174		
	06:30	3.86	12.45		0.35	498.1	174		
	07:00	3.86	12.45		0.35	498.2	174		
	07:30	3.86	12.45		0.35	497.8	174		
	08:00	3.86	12.46		0.35	497.6	174		
	08:30	3.85	12.46		0.35	497.3	174		
	09:00	3.85	12.46	12.0	0.35	497.1	174		
	09:30	3.85	12.47		0.35	497.0	174		
	10:00	3.84	12.47		0.35	496.6	174		
	10:30	3.83	12.49		0.35	495.6	173		
	11:00	3.83	12.48		0.35	495.8	174		
	11:30	3.83	12.48		0.35	495.9	174		
	12:00	3.84	12.47	13.0	0.35	496.7	174		
	12:30	3.89	12.43		0.35	499.6	175		
	13:00	3.90	12.41		0.35	500.8	175		
	13:30	3.92	12.39		0.35	502.2	176		249
	14:00	3.95	12.37		0.35	503.6	176		
	14:30	3.96	12.35		0.35	504.5	177		
	15:00	3.98	12.34	16.0	0.47	505.6	238		
	15:30	4.00	12.32		0.72	507.0	365		
	16:00	4.02	12.30		0.89	508.4	453		
	16:30	4.03	12.29		0.96	509.1	489		
	17:00	4.04	12.28		0.97	509.6	494		
	17:30	4.03	12.28		1.14	509.2	581		
	18:00	4.04	12.27	82.0	1.14	509.8	581		

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Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	18:30	4.05	12.26		1.23	510.8	628		
	19:00	4.06	12.25		1.3	511.4	665		
	19:30	4.08	12.24		1.35	512.4	692		
	20:00	4.09	12.22		1.39	513.2	713		
	20:30	4.10	12.21		1.42	513.9	730		
	21:00	4.11	12.20	150.0	1.49	514.6	767		
	21:30	4.11	12.20		1.53	514.9	788		
	22:00	4.12	12.19		1.61	515.4	830		
	22:30	4.13	12.18		1.59	515.9	820		
	23:00	4.14	12.17		1.62	516.9	837		
	23:30	4.15	12.17		1.66	517.1	858	349 (4)	
05/04/97	00:00	4.16	12.15	290.0	1.68	518.2	871		
	00:30	4.17	12.14		1.62	518.8	840		
	01:00	4.18	12.13		1.55	519.6	805		
	01:30	4.20	12.12		1.56	520.4	812		
	02:00	4.20	12.11		1.59	520.9	828		
	02:30	4.22	12.10		1.53	521.8	798		
	03:00	4.22	12.09	260.0	1.58	522.2	825		
	03:30	4.22	12.09		1.52	522.2	794		
	04:00	4.23	12.08		1.47	522.6	768		
	04:30	4.23	12.08		1.4	522.6	732		
	05:00	4.23	12.08		1.41	522.6	737		
	05:30	4.23	12.09		1.35	522.4	705		
	06:00	4.22	12.09	140.0	1.35	522.0	705		
	06:30	4.22	12.10		1.32	521.7	689		
	07:00	4.21	12.11		1.33	521.0	693		
	07:30	4.19	12.12		1.28	520.3	666		
	08:00	4.15	12.17		1.28	517.0	662		
	08:30	4.16	12.15		1.15	518.2	596		
	09:00	4.19	12.13	120.0	1.1	519.8	572		
	09:30	4.17	12.14		1.05	519.0	545		
	10:00	4.16	12.15		1.08	518.1	560		
	10:30	4.15	12.16		0.95	517.4	492		
	11:00	4.14	12.17		0.99	516.6	511		
	11:30	4.14	12.18		0.9	516.3	465		
	12:00	4.13	12.19	85.0	0.85	515.8	438		
	12:30	4.12	12.19		0.83	515.5	428		
	13:00	4.12	12.20		0.84	515.1	433		
	13:30	4.11	12.20		0.82	514.6	422		
	14:00	4.11	12.20		0.71	514.6	365		
	14:30	4.10	12.21		0.77	513.9	396		
	15:00	4.09	12.22	57.0	0.63	513.6	324		
	15:30	4.09	12.22		0.54	513.3	277		
	16:00	4.08	12.24		0.55	512.5	282		
	16:30	4.08	12.24		0.32	512.5	164		
	17:00	4.07	12.24		0.38	511.9	195		
	17:30	4.07	12.24		0.28	511.9	143		
	18:00	4.07	12.25	45.0	0.35	511.7	179		
	18:30	4.06	12.26		0.35	511.1	179		
	19:00	4.06	12.26		0.35	511.1	179		
	19:30	4.05	12.26		0.35	510.5	179		
	20:00	4.04	12.27		0.35	510.1	179		
	20:30	4.04	12.28		0.35	509.7	178		
	21:00	4.03	12.28	31.0	0.35	509.2	178		
	21:30	4.02	12.29		0.35	508.9	178		
	22:00	4.02	12.29		0.35	508.6	178		
	22:30	4.01	12.30		0.35	508.2	178		
	23:00	4.01	12.31		0.35	507.8	178		
	23:30	4.00	12.31		0.35	507.2	178	472 (4)	
05/05/97	00:00	3.98	12.33		0.35	506.0	177		
	00:30	3.97	12.34		0.35	505.2	177		
	01:00	3.96	12.35		0.35	504.7	177		
	01:30	3.95	12.36		0.35	503.9	176		
	02:00	3.94	12.37		0.35	503.3	176		
	02:30	3.94	12.38		0.35	503.0	176		
	03:00	3.93	12.38		0.35	502.7	176		
	03:30	3.93	12.38		0.35	502.6	176		
	04:00	3.93	12.39		0.35	502.3	176		
	04:30	3.93	12.39		0.35	502.3	176		
	05:00	3.92	12.39		0.35	502.1	176		
	05:30	3.92	12.40		0.35	501.7	176		
	06:00	3.91	12.40		0.35	501.4	175		
	06:30	3.91	12.40		0.35	501.1	175		
	07:00	3.90	12.41		0.35	500.7	175		
	07:30	3.90	12.42		0.35	500.4	175		
	08:00	3.89	12.42		0.35	500.2	175		
	08:30	3.88	12.43		0.28	499.4	140		
	09:00	3.88	12.43		0.35	499.5	175		256
	09:30	3.88	12.43		0.35	499.4	175		
	10:00	3.87	12.44		0.35	498.7	175		
	10:30	3.87	12.45		0.35	498.3	174		
	11:00	3.85	12.46		0.35	497.5	174		
	11:30	3.85	12.46		0.35	497.3	174		
	12:00	3.84	12.47		0.35	496.6	174		
	12:30	3.83	12.48		0.35	496.0	174		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	13:00	3.83	12.49		0.35	495.6	173		
	13:30	3.81	12.50		0.35	494.8	173		
	14:00	3.81	12.51		0.35	494.2	173		
	14:30	3.80	12.51		0.35	494.1	173		
	15:00	3.79	12.52		0.35	493.4	173		
	15:30	3.78	12.53		0.35	492.8	172		
	16:00	3.78	12.53		0.35	492.8	172		
	16:30	3.79	12.52		0.35	493.2	173		
	17:00	3.81	12.50		0.35	494.8	173		
	17:30	3.86	12.45		0.35	498.2	174		
	18:00	3.92	12.39		0.35	501.9	176		
	18:30	3.97	12.35		0.35	505.0	177		
	19:00	4.03	12.29		0.35	509.1	178		
	19:30	4.11	12.20		0.35	514.5	180		
	20:00	4.15	12.16		0.35	517.5	181		
	20:30	4.19	12.12		0.35	519.9	182		
	21:00	4.20	12.11		0.35	520.8	182		
	21:30	4.22	12.09		0.35	522.0	183		
	22:00	4.24	12.08		0.35	523.2	183		
	22:30	4.26	12.05		0.35	524.6	184		
	23:00	4.32	11.99		0.35	528.9	185		
	23:30	4.37	11.94	14.0 (5)	0.35	532.3	186	211 (6)	
05/06/97	00:00	4.35	11.97		0.35	530.5	186		
	00:30	4.31	12.01		0.35	527.8	185		
	01:00	4.28	12.03		0.35	526.2	184		
	01:30	4.28	12.03		0.35	526.2	184		
	02:00	4.31	12.00		0.35	528.1	185		
	02:30	4.31	12.00		0.35	528.2	185		
	03:00	4.30	12.01		0.35	527.5	185		
	03:30	4.29	12.02		0.35	526.9	184		
	04:00	4.29	12.03		0.35	526.5	184		
	04:30	4.27	12.04		0.35	525.4	184		
	05:00	4.26	12.05		0.35	524.6	184		
	05:30	4.25	12.06		0.35	524.1	183		
	06:00	4.24	12.07		0.35	523.4	183		
	06:30	4.23	12.08		0.35	522.8	183		
	07:00	4.22	12.09		0.35	522.0	183		
	07:30	4.18	12.14		0.35	519.2	182		
	08:00	4.15	12.16		0.35	517.4	181		
	08:30	4.14	12.17		0.35	516.7	181		
	09:00	4.13	12.18		0.35	516.1	181		
	09:30	4.13	12.19		0.35	515.8	181		
	10:00	4.13	12.18		0.35	515.9	181		
	10:30	4.12	12.19		0.35	515.2	180		
	11:00	4.05	12.26		0.35	510.5	179		
	11:30	4.12	12.19		0.35	515.3	180		
	12:00	4.12	12.20		0.35	515.1	180		
	12:30	4.10	12.22		0.35	513.8	180		
	13:00	4.08	12.23		0.35	512.7	179		
	13:30	4.08	12.23		0.35	512.9	180		
	14:00	4.08	12.23		0.52	512.9	267		
	14:30	4.11	12.21		0.41	514.4	211		
	15:00	4.12	12.19		0.18	515.3	93		
	15:30	4.12	12.19		0.35	515.5	180		
	16:00	4.12	12.20		0.35	515.1	180		
	16:30	4.10	12.21		0.35	514.3	180		
	17:00	4.09	12.22		0.35	513.4	180		
	17:30	4.07	12.24		0.35	512.1	179		
	18:00	4.05	12.26		0.35	510.6	179		
	18:30	4.02	12.30		0.35	508.4	178		
	19:00	3.99	12.32		0.35	506.6	177		
	19:30	3.97	12.34		0.35	505.4	177		
	20:00	3.96	12.35		0.35	504.9	177		
	20:30	3.96	12.35		0.35	504.5	177		
	21:00	3.96	12.35		0.35	504.6	177		
	21:30	3.96	12.35		0.35	504.7	177		
	22:00	3.97	12.35		0.35	505.0	177		
	22:30	3.97	12.35		0.35	505.1	177		
	23:00	3.97	12.34		0.35	505.3	177		
	23:30	3.98	12.34	10.0 (5)	0.35	505.7	177	218 (6)	
05/07/97	00:00	3.98	12.33		0.35	506.2	177		
	00:30	3.99	12.33		0.35	506.4	177		
	01:00	3.99	12.32		0.35	506.8	177		
	01:30	4.00	12.32		0.35	507.1	177		
	02:00	4.00	12.31		0.35	507.4	178		
	02:30	4.01	12.30		0.35	508.0	178		
	03:00	4.02	12.30		0.35	508.4	178		
	03:30	4.01	12.30		0.35	508.0	178		
	04:00	4.01	12.30		0.35	508.2	178		
	04:30	4.02	12.30		0.35	508.4	178		
	05:00	4.02	12.30		0.35	508.4	178		
	05:30	4.02	12.30		0.35	508.4	178		
	06:00	4.01	12.30		0.35	508.2	178		
	06:30	4.02	12.29		0.35	508.8	178		
	07:00	4.02	12.29		0.35	508.8	178		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	07:30	4.02	12.29		0.35	508.7	178		
	08:00	4.01	12.30		0.35	508.1	178		
	08:30	4.02	12.29		0.35	508.5	178		
	09:00	4.02	12.29		0.35	508.8	178		243
	09:30	4.02	12.30		0.35	508.4	178		
	10:00	4.01	12.30		0.35	508.1	178		
	10:30	4.01	12.31		0.35	507.7	178		
	11:00	4.00	12.31		0.35	507.4	178		
	11:30	4.00	12.31		0.35	507.2	178		
	12:00	3.99	12.32		0.35	506.5	177		
	12:30	3.98	12.33		0.35	506.0	177		
	13:00	3.98	12.34		0.35	505.6	177		
	13:30	3.97	12.35		0.35	505.0	177		
	14:00	3.96	12.35		0.35	504.8	177		
	14:30	3.92	12.40		0.35	501.7	176		
	15:00	3.95	12.36		0.35	504.1	176		
	15:30	3.95	12.37		0.35	503.7	176		
	16:00	3.95	12.37		0.35	503.6	176		
	16:30	3.94	12.37		0.35	503.1	176		
	17:00	3.93	12.39		0.35	502.3	176		
	17:30	3.91	12.40		0.35	501.5	176		
	18:00	3.90	12.42		0.35	500.3	175		
	18:30	3.86	12.45		0.35	498.2	174		
	19:00	3.83	12.48		0.35	496.2	174		
	19:30	3.81	12.51		0.35	494.4	173		
	20:00	3.78	12.53		0.35	492.8	172		
	20:30	3.77	12.55		0.35	491.7	172		
	21:00	3.76	12.55		0.35	491.3	172		
	21:30	3.77	12.55		0.35	491.6	172		
	22:00	3.78	12.53		0.35	492.5	172		
	22:30	3.81	12.50		0.35	494.7	173		
	23:00	3.85	12.47		0.35	496.9	174		
	23:30	3.87	12.44	17.0 (5)	0.35	498.7	175	212 (6)	
05/08/97	00:00	3.89	12.42		0.35	499.8	175		
	00:30	3.90	12.41		0.35	500.5	175		
	01:00	3.90	12.41		0.35	500.9	175		
	01:30	3.91	12.41		0.35	501.0	175		
	02:00	3.91	12.40		0.35	501.2	175		
	02:30	3.91	12.40		0.35	501.2	175		
	03:00	3.90	12.41		0.35	500.7	175		
	03:30	3.90	12.41		0.35	500.5	175		
	04:00	3.90	12.42		0.35	500.3	175		
	04:30	3.89	12.42		0.35	500.1	175		
	05:00	3.89	12.43		0.35	499.7	175		
	05:30	3.88	12.43		0.35	499.3	175		
	06:00	3.87	12.44		0.35	498.7	175		
	06:30	3.87	12.45		0.35	498.4	174		
	07:00	3.86	12.45		0.35	498.1	174		
	07:30	3.85	12.46		0.35	497.4	174		
	08:00	3.80	12.51		0.35	494.0	173		
	08:30	3.78	12.53		0.35	492.5	172		
	09:00	3.79	12.52		0.35	493.3	173		
	09:30	3.79	12.52		0.35	493.4	173		
	10:00	3.80	12.51		0.35	493.9	173		
	10:30	3.80	12.52		0.35	493.6	173		
	11:00	3.79	12.52		0.35	493.1	173		
	11:30	3.78	12.53		0.35	492.5	172		
	12:00	3.77	12.54		0.35	492.0	172		
	12:30	3.77	12.54		0.35	491.9	172		
	13:00	3.76	12.55		0.35	491.1	172		
	13:30	3.75	12.56		0.35	490.7	172		
	14:00	3.74	12.57		0.35	490.1	172		
	14:30	3.74	12.57		0.35	489.9	171		
	15:00	3.73	12.58		0.35	489.3	171		
	15:30	3.71	12.60		0.35	488.1	171		
	16:00	3.71	12.60		0.35	487.9	171		
	16:30	3.70	12.61		0.35	487.3	171		
	17:00	3.70	12.62		0.35	486.9	170		
	17:30	3.69	12.62		0.35	486.6	170		
	18:00	3.67	12.64		0.35	485.5	170		
	18:30	3.65	12.67		0.35	483.5	169		
	19:00	3.62	12.70		0.35	481.6	169		
	19:30	3.59	12.73		0.35	479.6	168		
	20:00	3.56	12.75		0.35	477.7	167		
	20:30	3.53	12.78		0.35	476.0	167		
	21:00	3.51	12.80		0.35	474.5	166		
	21:30	3.50	12.82		0.35	473.6	166		
	22:00	3.49	12.82		0.35	473.1	166		
	22:30	3.49	12.83		0.35	472.8	165		
	23:00	3.49	12.82		0.35	473.3	166		
	23:30	3.50	12.81	7.1 (5)	0.35	473.9	166	206 (6)	
05/09/97	00:00	3.51	12.80		0.35	474.6	166		
	00:30	3.52	12.79		0.35	475.2	166		
	01:00	3.53	12.78		0.35	475.7	166		
	01:30	3.54	12.78		0.35	476.3	167		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	02:00	3.55	12.76		0.35	477.3	167		
	02:30	3.59	12.72		0.35	480.0	168		
	03:00	3.60	12.71		0.35	480.8	168		
	03:30	3.61	12.71		0.35	480.8	168		
	04:00	3.60	12.71		0.35	480.6	168		
	04:30	3.60	12.71		0.35	480.5	168		
	05:00	3.60	12.71		0.35	480.4	168		
	05:30	3.60	12.71		0.35	480.4	168		
	06:00	3.60	12.71		0.35	480.5	168		
	06:30	3.60	12.71		0.35	480.6	168		
	07:00	3.60	12.71		0.35	480.6	168		
	07:30	3.60	12.71		0.35	480.4	168		
	08:00	3.60	12.72		0.35	480.2	168		
	08:30	3.61	12.70		0.35	481.3	168		
	09:00	3.62	12.69		0.35	481.7	169		
	09:30	3.59	12.72		0.35	480.0	168		147
	10:00	3.55	12.76		0.35	477.1	167		
	10:30	3.56	12.76		0.35	477.5	167		
	11:00	3.57	12.74		0.35	478.4	167		
	11:30	3.57	12.74		0.35	478.5	167		
	12:00	3.57	12.75		0.35	478.3	167		
	12:30	3.55	12.76		0.35	477.1	167		
	13:00	3.54	12.78		0.35	476.3	167		
	13:30	3.52	12.79		0.35	475.1	166		
	14:00	3.50	12.81		0.35	473.7	166		
	14:30	3.45	12.86		0.35	470.4	165		
	15:00	3.38	12.93		0.35	465.7	163		
	15:30	3.44	12.88		0.35	469.4	164		
	16:00	3.44	12.87		0.35	470.0	164		
	16:30	3.46	12.85		0.46	471.0	217		
	17:00	3.49	12.82		0.4	473.1	189		
	17:30	3.51	12.80		0.35	474.3	166		
	18:00	3.53	12.78		0.35	475.8	167		
	18:30	3.54	12.77		0.35	476.7	167		
	19:00	3.55	12.76		0.35	477.3	167		
	19:30	3.56	12.75		0.35	477.7	167		
	20:00	3.56	12.75		0.35	477.7	167		
	20:30	3.53	12.78		0.36	475.7	171		
	21:00	3.48	12.84		0.75	472.2	354		
	21:30	3.43	12.88		0.85	469.1	399		
	22:00	3.38	12.93		0.97	466.0	452		
	22:30	3.34	12.97		1.01	462.9	468		
	23:00	3.30	13.01		1.06	460.6	488		
	23:30	3.27	13.04	14.0 (5)	1.09	458.5	500	203 (4)	
05/10/97	00:00	3.25	13.07		1.15	456.8	525		
	00:30	3.22	13.09		1.19	455.3	542		
	01:00	3.18	13.13		1.28	452.4	579		
	01:30	3.08	13.23		1.36	445.6	606		
	02:00	3.03	13.29		1.34	442.0	592		
	02:30	3.04	13.27		1.3	443.0	576		
	03:00	3.06	13.25		1.3	444.5	578		
	03:30	3.08	13.24		1.33	445.4	592		
	04:00	3.08	13.23		1.32	445.6	588		
	04:30	3.07	13.24		1.38	445.2	614		
	05:00	3.06	13.25		1.33	444.6	591		
	05:30	3.06	13.25		1.35	444.5	600		
	06:00	3.05	13.26		1.35	443.8	599		
	06:30	3.05	13.26		1.34	443.6	594		
	07:00	3.04	13.27		1.3	443.0	576		
	07:30	3.04	13.27		1.3	442.9	576		
	08:00	3.04	13.27		1.26	442.8	558		
	08:30	3.04	13.28		1.22	442.7	540		
	09:00	3.04	13.27		1.21	442.8	536		
	09:30	3.03	13.28		1.2	442.4	531		
	10:00	3.03	13.28		1.2	442.5	531		
	10:30	3.03	13.28		1.17	442.2	517		
	11:00	3.03	13.28		1.16	442.3	513		
	11:30	3.03	13.28		1.1	442.2	486		
	12:00	3.02	13.29		1.1	441.7	486		
	12:30	3.02	13.30		1.08	441.4	477		
	13:00	3.00	13.31		1.1	440.6	485		
	13:30	2.98	13.33		1.01	439.2	444		
	14:00	2.96	13.35		1.08	437.6	473		
	14:30	2.94	13.38		1.01	435.9	440		
	15:00	2.91	13.41		0.99	434.1	430		
	15:30	2.90	13.42		0.97	433.3	420		
	16:00	2.89	13.42		0.92	433.0	398		
	16:30	2.89	13.43		0.96	432.6	415		
	17:00	2.90	13.41		0.87	433.5	377		
	17:30	2.90	13.41		0.84	433.7	364		
	18:00	2.92	13.40		0.83	434.6	361		
	18:30	2.94	13.37		0.82	436.3	358		
	19:00	2.97	13.35		0.81	438.0	355		
	19:30	2.98	13.33		0.76	439.2	334		
	20:00	3.00	13.31		0.73	440.3	321		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	20:30	3.01	13.30		0.68	441.0	300		
	21:00	3.02	13.29		0.6	441.8	265		
	21:30	3.03	13.28		0.47	442.3	208		
	22:00	3.03	13.28		0.46	442.5	204		
	22:30	3.04	13.27		0.37	443.0	164		
	23:00	3.04	13.27		0.38	443.1	168		
	23:30	3.05	13.27	90.0 (5)	0.32	443.4	142	457 (4)	
05/11/97	00:00	3.05	13.26		0.25	443.6	111		
	00:30	3.06	13.26		0.35	444.0	155		
	01:00	3.06	13.26		0.35	444.0	155		
	01:30	3.06	13.26		0.35	444.0	155		
	02:00	3.07	13.25		0.35	444.8	156		
	02:30	3.07	13.24		0.35	445.1	156		
	03:00	3.07	13.24		0.35	445.0	156		
	03:30	3.07	13.24		0.35	445.1	156		
	04:00	3.07	13.24		0.35	445.1	156		
	04:30	3.07	13.25		0.35	444.8	156		
	05:00	3.07	13.25		0.35	444.7	156		
	05:30	3.06	13.25		0.35	444.6	156		
	06:00	3.06	13.25		0.35	444.5	156		
	06:30	3.06	13.25		0.35	444.5	156		
	07:00	3.06	13.25		0.35	444.4	156		
	07:30	3.06	13.25		0.35	444.2	155		
	08:00	3.06	13.25		0.35	444.4	156		
	08:30	3.06	13.26		0.35	444.1	155		
	09:00	3.05	13.26		0.35	443.8	155		
	09:30	3.05	13.26		0.35	443.9	155		
	10:00	3.06	13.26		0.35	444.0	155		
	10:30	3.06	13.25		0.35	444.2	155		
	11:00	3.06	13.25		0.35	444.6	156		
	11:30	3.07	13.25		0.35	444.8	156		
	12:00	3.07	13.24		0.35	445.3	156		
	12:30	3.08	13.23		0.35	445.5	156		
	13:00	3.08	13.23		0.35	445.7	156		
	13:30	3.08	13.23		0.35	445.5	156		
	14:00	3.08	13.23		0.35	445.8	156		
	14:30	3.07	13.24		0.35	444.9	156		
	15:00	3.06	13.25		0.35	444.2	155		
	15:30	3.06	13.26		0.35	444.0	155		
	16:00	3.05	13.26		0.35	443.8	155		
	16:30	3.04	13.27		0.35	443.2	155		
	17:00	3.04	13.27		0.35	442.8	155		
	17:30	3.03	13.28		0.35	442.5	155		
	18:00	3.03	13.28		0.35	442.2	155		
	18:30	3.03	13.29		0.35	442.0	155		
	19:00	3.02	13.29		0.35	441.7	155		
	19:30	3.02	13.29		0.35	441.5	155		
	20:00	3.01	13.30		0.35	441.1	154		
	20:30	3.01	13.30		0.35	440.8	154		
	21:00	3.00	13.31		0.35	440.3	154		
	21:30	3.01	13.31		0.35	440.8	154		
	22:00	3.03	13.29		0.35	442.1	155		
	22:30	3.02	13.29		0.35	441.8	155		
	23:00	3.02	13.30		0.35	441.3	154		
	23:30	3.01	13.30	20.0 (5)	0.35	441.2	154	185 (6)	
05/12/97	00:00	3.01	13.30		0.35	441.1	154		
	00:30	3.01	13.30		0.35	440.9	154		
	01:00	3.01	13.31		0.35	440.7	154		
	01:30	3.00	13.31		0.35	440.3	154		
	02:00	3.00	13.32		0.35	440.0	154		
	02:30	2.99	13.33		0.35	439.4	154		
	03:00	2.98	13.33		0.35	438.9	154		
	03:30	2.98	13.34		0.35	438.6	154		
	04:00	2.97	13.34		0.35	438.2	153		
	04:30	2.97	13.35		0.35	438.0	153		
	05:00	2.96	13.35		0.35	437.5	153		
	05:30	2.96	13.36		0.35	437.3	153		
	06:00	2.95	13.36		0.35	437.1	153		
	06:30	2.95	13.36		0.35	436.9	153		
	07:00	2.94	13.37		0.35	436.4	153		
	07:30	2.94	13.38		0.35	436.1	153		
	08:00	2.94	13.37		0.35	436.2	153		
	08:30	2.93	13.38		0.35	435.7	152		
	09:00	2.93	13.38		0.35	435.6	152		
	09:30	2.92	13.39		0.35	435.1	152		
	10:00	2.92	13.39		0.35	434.8	152		
	10:30	2.92	13.40		0.35	434.6	152		
	11:00	2.92	13.40		0.35	434.7	152		
	11:30	2.94	13.38		0.37	436.0	161		192
	12:00	2.93	13.38		0.35	435.8	153		
	12:30	2.94	13.38		0.35	435.9	153		
	13:00	2.95	13.36		0.35	437.1	153		
	13:30	2.97	13.35		0.35	438.0	153		
	14:00	2.96	13.35		0.35	437.7	153		
	14:30	2.96	13.36		0.35	437.3	153		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	15:00	2.94	13.38		0.35	436.1	153		
	15:30	2.94	13.37		0.35	436.3	153		
	16:00	2.94	13.37		0.35	436.4	153		
	16:30	2.94	13.37		0.35	436.3	153		
	17:00	2.94	13.37		0.35	436.2	153		
	17:30	2.94	13.37		0.35	436.4	153		
	18:00	2.94	13.37		0.35	436.5	153		
	18:30	2.94	13.37		0.35	436.4	153		
	19:00	2.94	13.37		0.35	436.5	153		
	19:30	2.94	13.37		0.35	436.3	153		
	20:00	2.94	13.38		0.35	436.0	153		
	20:30	2.94	13.38		0.35	435.9	153		
	21:00	2.93	13.38		0.35	435.7	152		
	21:30	2.93	13.38		0.35	435.6	152		
	22:00	2.93	13.39		0.35	435.3	152		
	22:30	2.92	13.39		0.35	434.9	152		
	23:00	2.92	13.40		0.35	434.6	152		
	23:30	2.91	13.40		0.35	434.4	152	184 (6)	
05/13/97	00:00	2.91	13.40		0.35	434.2	152		
	00:30	2.91	13.41		0.35	434.1	152		
	01:00	2.90	13.41		0.35	433.9	152		
	01:30	2.90	13.41		0.35	433.7	152		
	02:00	2.90	13.41		0.35	433.7	152		
	02:30	2.90	13.41		0.35	433.7	152		
	03:00	2.90	13.41		0.35	433.8	152		
	03:30	2.90	13.41		0.35	433.8	152		
	04:00	2.90	13.41		0.35	433.7	152		
	04:30	2.90	13.41		0.35	433.7	152		
	05:00	2.90	13.42		0.35	433.4	152		
	05:30	2.90	13.42		0.35	433.3	152		
	06:00	2.89	13.42		0.35	433.1	152		
	06:30	2.89	13.43		0.35	432.6	151		
	07:00	2.88	13.43		0.35	432.2	151		
	07:30	2.88	13.44		0.35	432.1	151		
	08:00	2.87	13.45		0.35	431.3	151		
	08:30	2.87	13.44		0.35	431.7	151		
	09:00	2.87	13.44		0.35	431.7	151		
	09:30	2.87	13.44		0.35	431.7	151		
	10:00	2.88	13.43		0.35	432.3	151		
	10:30	2.88	13.43		0.35	432.2	151		
	11:00	2.88	13.43		0.35	432.3	151		
	11:30	2.87	13.44		0.35	431.9	151		
	12:00	2.85	13.47		0.35	430.0	151		
	12:30	2.83	13.48		0.35	428.8	150		
	13:00	2.81	13.50		0.35	427.5	150		
	13:30	2.79	13.52		0.35	426.3	149		
	14:00	2.78	13.54		0.35	425.3	149		
	14:30	2.77	13.54		0.35	424.8	149		
	15:00	2.76	13.55		0.35	424.4	149		
	15:30	2.76	13.55		0.35	424.3	148		
	16:00	2.75	13.56		0.35	423.8	148		
	16:30	2.76	13.55		0.35	424.2	148		
	17:00	2.76	13.56		0.35	424.0	148		
	17:30	2.76	13.56		0.35	424.0	148		
	18:00	2.76	13.55		0.35	424.1	148		
	18:30	2.75	13.56		0.35	423.5	148		
	19:00	2.75	13.56		0.35	423.6	148		
	19:30	2.75	13.56		0.35	423.7	148		
	20:00	2.75	13.56		0.35	423.8	148		
	20:30	2.76	13.55		0.35	424.1	148		
	21:00	2.76	13.55		0.35	424.1	148		
	21:30	2.76	13.55		0.35	424.1	148		
	22:00	2.76	13.56		0.35	423.9	148		
	22:30	2.76	13.56		0.35	423.9	148		
	23:00	2.75	13.56		0.35	423.7	148		
	23:30	2.75	13.56		0.35	423.6	148	180 (6)	
05/14/97	00:00	2.75	13.56		0.35	423.4	148		
	00:30	2.75	13.57		0.35	423.3	148		
	01:00	2.75	13.56		0.35	423.4	148		
	01:30	2.75	13.57		0.35	423.3	148		
	02:00	2.75	13.56		0.35	423.5	148		
	02:30	2.75	13.56		0.35	423.5	148		
	03:00	2.75	13.56		0.35	423.6	148		
	03:30	2.75	13.56		0.35	423.7	148		
	04:00	2.75	13.56		0.35	423.8	148		
	04:30	2.76	13.56		0.35	424.0	148		
	05:00	2.76	13.55		0.35	424.4	149		
	05:30	2.76	13.55		0.35	424.4	149		
	06:00	2.77	13.55		0.35	424.7	149		
	06:30	2.77	13.54		0.35	424.9	149		
	07:00	2.77	13.54		0.35	425.2	149		
	07:30	2.78	13.53		0.35	425.4	149		
	08:00	2.78	13.53		0.35	425.4	149		
	08:30	2.78	13.53		0.35	425.6	149		
	09:00	2.79	13.52		0.27	426.1	115		139

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	09:30	2.80	13.51		0.35	426.9	149		
	10:00	2.81	13.50		0.35	427.6	150		
	10:30	2.83	13.49		0.35	428.7	150		
	11:00	2.84	13.47		0.35	429.6	150		
	11:30	2.85	13.46		0.35	430.3	151		
	12:00	2.84	13.47		0.35	429.8	150		
	12:30	2.83	13.48		0.35	429.0	150		
	13:00	2.82	13.49		0.35	428.2	150		
	13:30	2.80	13.51		0.35	427.0	149		
	14:00	2.79	13.52		0.35	426.4	149		
	14:30	2.78	13.53		0.35	425.4	149		
	15:00	2.73	13.58		0.35	422.2	148		
	15:30	2.82	13.50		0.35	427.9	150		
	16:00	2.83	13.48		0.35	429.0	150		
	16:30	2.85	13.46		0.35	430.1	151		
	17:00	2.86	13.45		0.35	431.1	151		
	17:30	2.86	13.45		0.35	431.0	151		
	18:00	2.84	13.47		0.35	429.5	150		
	18:30	2.80	13.51		0.35	426.9	149		
	19:00	2.76	13.55		0.35	424.4	149		
	19:30	2.73	13.58		0.35	422.5	148		
	20:00	2.72	13.59		0.35	421.7	148		
	20:30	2.72	13.60		0.35	421.3	147		
	21:00	2.72	13.60		0.35	421.2	147		
	21:30	2.72	13.59		0.35	421.7	148		
	22:00	2.74	13.57		0.35	422.7	148		
	22:30	2.75	13.56		0.35	423.4	148		
	23:00	2.76	13.56		0.35	424.0	148		
	23:30	2.76	13.55		0.35	424.3	148	178 (6)	
05/15/97	00:00	2.77	13.55		0.35	424.7	149		
	00:30	2.77	13.54		0.35	424.8	149		
	01:00	2.77	13.54		0.35	424.9	149		
	01:30	2.77	13.54		0.35	425.0	149		
	02:00	2.77	13.54		0.35	424.8	149		
	02:30	2.77	13.54		0.35	424.8	149		
	03:00	2.77	13.55		0.35	424.6	149		
	03:30	2.76	13.55		0.35	424.1	148		
	04:00	2.75	13.56		0.35	423.7	148		
	04:30	2.75	13.57		0.35	423.3	148		
	05:00	2.74	13.57		0.35	423.0	148		
	05:30	2.74	13.58		0.35	422.6	148		
	06:00	2.73	13.58		0.35	422.2	148		
	06:30	2.72	13.59		0.35	421.8	148		
	07:00	2.72	13.59		0.35	421.4	147		
	07:30	2.71	13.60		0.35	420.7	147		
	08:00	2.68	13.64		0.35	418.5	146		
	08:30	2.66	13.65		0.35	417.6	146		
	09:00	2.66	13.65		0.35	417.4	146		
	09:30	2.66	13.65		0.35	417.7	146		
	10:00	2.68	13.64		0.35	418.5	146		
	10:30	2.68	13.63		0.35	418.9	147		
	11:00	2.68	13.63		0.35	419.0	147		
	11:30	2.68	13.64		0.35	418.6	147		
	12:00	2.67	13.64		0.35	418.3	146		
	12:30	2.68	13.63		0.35	418.9	147		
	13:00	2.69	13.63		0.35	419.2	147		
	13:30	2.69	13.62		0.35	419.7	147		
	14:00	2.70	13.61		0.35	420.4	147		
	14:30	2.71	13.60		0.35	421.1	147		
	15:00	2.72	13.59		0.35	421.8	148		
	15:30	2.73	13.58		0.35	422.1	148		
	16:00	2.73	13.58		0.35	422.3	148		
	16:30	2.73	13.58		0.35	422.1	148		
	17:00	2.72	13.59		0.35	421.8	148		
	17:30	2.72	13.60		0.35	421.3	147		
	18:00	2.71	13.60		0.35	420.7	147		
	18:30	2.69	13.62		0.35	419.4	147		
	19:00	2.66	13.65		0.35	417.7	146		
	19:30	2.64	13.67		0.35	416.4	146		
	20:00	2.62	13.69		0.35	415.0	145		
	20:30	2.61	13.70		0.35	414.0	145		
	21:00	2.60	13.71		0.35	413.4	145		
	21:30	2.59	13.72		0.35	413.0	145		
	22:00	2.59	13.73		0.35	412.6	144		
	22:30	2.58	13.74		0.35	412.0	144		
	23:00	2.57	13.74		0.35	411.8	144		
	23:30	2.57	13.74		0.35	411.6	144	176 (6)	
05/16/97	00:00	2.57	13.74		0.35	411.4	144		
	00:30	2.57	13.74		0.35	411.6	144		
	01:00	2.57	13.74		0.35	411.8	144		
	01:30	2.58	13.73		0.35	412.0	144		
	02:00	2.58	13.73		0.35	412.0	144		
	02:30	2.58	13.73		0.35	412.3	144		
	03:00	2.59	13.73		0.35	412.5	144		
	03:30	2.59	13.72		0.35	412.8	144		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	04:00	2.59	13.72		0.35	413.0	145		
	04:30	2.60	13.72		0.35	413.3	145		
	05:00	2.61	13.71		0.35	413.8	145		
	05:30	2.62	13.70		0.35	414.5	145		
	06:00	2.63	13.69		0.35	415.2	145		
	06:30	2.63	13.68		0.35	415.7	145		
	07:00	2.64	13.67		0.35	416.4	146		
	07:30	2.65	13.66		0.35	416.8	146		
	08:00	2.65	13.66		0.35	416.7	146		
	08:30	2.64	13.67		0.35	416.4	146		
	09:00	2.64	13.67		0.35	416.2	146		177
	09:30	2.64	13.67		0.35	416.0	146		
	10:00	2.64	13.67		0.35	416.0	146		
	10:30	2.64	13.67		0.35	416.0	146		
	11:00	2.63	13.69		0.35	415.2	145		
	11:30	2.64	13.67		0.35	416.0	146		
	12:00	2.64	13.67		0.35	416.2	146		
	12:30	2.64	13.67		0.35	416.2	146		
	13:00	2.64	13.67		0.35	416.4	146		
	13:30	2.63	13.68		0.35	415.6	145		
	14:00	2.63	13.68		0.35	415.7	145		
	14:30	2.64	13.68		0.35	415.8	146		
	15:00	2.64	13.68		0.35	415.8	146		
	15:30	2.64	13.68		0.35	415.9	146		
	16:00	2.63	13.69		0.35	415.2	145		
	16:30	2.63	13.69		0.35	415.2	145		
	17:00	2.61	13.70		0.35	414.4	145		
	17:30	2.60	13.72		0.35	413.2	145		
	18:00	2.57	13.75		0.35	411.2	144		
	18:30	2.54	13.78		0.35	409.1	143		
	19:00	2.51	13.80		0.35	407.5	143		
	19:30	2.49	13.82		0.35	406.1	142		
	20:00	2.47	13.84		0.35	405.1	142		
	20:30	2.46	13.86		0.35	403.9	141		
	21:00	2.41	13.90		0.35	401.0	140		
	21:30	2.38	13.93		0.35	399.0	140		
	22:00	2.44	13.87		0.35	402.9	141		
	22:30	2.44	13.88		0.35	402.6	141		
	23:00	2.43	13.88		0.35	402.2	141		
	23:30	2.42	13.89		0.35	401.6	141	173 (6)	
05/17/97	00:00	2.42	13.90		0.35	401.2	140		
	00:30	2.41	13.90		0.35	400.7	140		
	01:00	2.40	13.91		0.35	400.2	140		
	01:30	2.39	13.92		0.35	399.7	140		
	02:00	2.39	13.93		0.35	399.2	140		
	02:30	2.38	13.93		0.35	398.9	140		
	03:00	2.38	13.93		0.35	398.7	140		
	03:30	2.38	13.94		0.35	398.4	139		
	04:00	2.37	13.94		0.35	398.2	139		
	04:30	2.37	13.94		0.35	398.1	139		
	05:00	2.37	13.95		0.35	397.9	139		
	05:30	2.36	13.95		0.35	397.7	139		
	06:00	2.36	13.95		0.35	397.5	139		
	06:30	2.36	13.95		0.35	397.3	139		
	07:00	2.36	13.96		0.35	397.1	139		
	07:30	2.36	13.96		0.35	397.1	139		
	08:00	2.35	13.96		0.35	396.9	139		
	08:30	2.35	13.96		0.35	396.7	139		
	09:00	2.35	13.96		0.35	396.7	139		
	09:30	2.35	13.96		0.35	396.7	139		
	10:00	2.34	13.98		0.35	395.8	139		
	10:30	2.34	13.97		0.35	396.3	139		
	11:00	2.35	13.97		0.35	396.5	139		
	11:30	2.34	13.97		0.35	396.3	139		
	12:00	2.35	13.97		0.35	396.5	139		
	12:30	2.34	13.97		0.35	396.3	139		
	13:00	2.35	13.97		0.35	396.5	139		
	13:30	2.35	13.97		0.35	396.5	139		
	14:00	2.35	13.96		0.35	396.7	139		
	14:30	2.35	13.97		0.35	396.5	139		
	15:00	2.35	13.97		0.35	396.5	139		
	15:30	2.34	13.97		0.35	396.3	139		
	16:00	2.34	13.97		0.35	396.3	139		
	16:30	2.34	13.97		0.35	396.3	139		
	17:00	2.34	13.97		0.35	396.1	139		
	17:30	2.34	13.97		0.35	396.2	139		
	18:00	2.34	13.97		0.35	396.1	139		
	18:30	2.34	13.97		0.35	396.0	139		
	19:00	2.34	13.97		0.35	395.9	139		
	19:30	2.34	13.98		0.35	395.8	139		
	20:00	2.33	13.98		0.35	395.3	138		
	20:30	2.32	13.99		0.35	395.0	138		
	21:00	2.32	13.99		0.35	394.7	138		
	21:30	2.32	13.99		0.35	394.6	138		
	22:00	2.31	14.00		0.35	394.3	138		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	22:30	2.31	14.00		0.35	393.9	138		
	23:00	2.30	14.01		0.35	393.5	138		
	23:30	2.28	14.03		0.35	392.1	137	167 (6)	
05/18/97	00:00	2.23	14.08		0.35	388.6	136		
	00:30	2.18	14.13		0.35	385.2	135		
	01:00	2.14	14.18		0.35	382.5	134		
	01:30	2.11	14.20		0.35	380.9	133		
	02:00	2.13	14.18		0.35	382.1	134		
	02:30	2.16	14.15		0.35	384.1	134		
	03:00	2.18	14.13		0.35	385.6	135		
	03:30	2.20	14.11		0.35	386.6	135		
	04:00	2.21	14.10		0.35	387.6	136		
	04:30	2.22	14.09		0.35	388.1	136		
	05:00	2.23	14.09		0.35	388.5	136		
	05:30	2.23	14.08		0.35	388.6	136		
	06:00	2.23	14.08		0.35	388.6	136		
	06:30	2.23	14.08		0.35	388.9	136		
	07:00	2.23	14.09		0.35	388.4	136		
	07:30	2.21	14.10		0.35	387.4	136		
	08:00	2.14	14.17		0.35	382.9	134		
	08:30	2.24	14.07		0.35	389.3	136		
	09:00	2.24	14.07		0.35	389.4	136		
	09:30	2.23	14.08		0.35	388.8	136		
	10:00	2.23	14.08		0.35	388.6	136		
	10:30	2.22	14.09		0.35	387.9	136		
	11:00	2.21	14.11		0.35	387.0	135		
	11:30	2.20	14.11		0.35	386.9	135		
	12:00	2.20	14.12		0.35	386.4	135		
	12:30	2.20	14.11		0.35	386.6	135		
	13:00	2.20	14.11		0.35	386.8	135		
	13:30	2.20	14.11		0.35	386.8	135		
	14:00	2.19	14.12		0.35	386.3	135		
	14:30	2.19	14.12		0.35	386.0	135		
	15:00	2.18	14.13		0.35	385.5	135		
	15:30	2.18	14.13		0.35	385.5	135		
	16:00	2.18	14.13		0.35	385.3	135		
	16:30	2.17	14.14		0.35	384.6	135		
	17:00	2.18	14.14		0.35	385.0	135		
	17:30	2.16	14.15		0.35	384.3	134		
	18:00	2.16	14.15		0.35	383.9	134		
	18:30	2.16	14.15		0.35	383.9	134		
	19:00	2.16	14.16		0.35	383.7	134		
	19:30	2.15	14.16		0.35	383.3	134		
	20:00	2.15	14.17		0.35	383.1	134		
	20:30	2.15	14.17		0.35	383.0	134		
	21:00	2.14	14.17		0.35	382.8	134		
	21:30	2.15	14.16		0.35	383.5	134		
	22:00	2.17	14.14		0.35	384.6	135		
	22:30	2.16	14.15		0.35	384.3	134		
	23:00	2.16	14.15		0.35	384.0	134		
	23:30	2.16	14.16		0.35	383.8	134	162 (6)	
05/19/97	00:00	2.15	14.16		0.35	383.3	134		
	00:30	2.14	14.17		0.35	382.7	134		
	01:00	2.14	14.17		0.35	382.7	134		
	01:30	2.15	14.16		0.35	383.4	134		
	02:00	2.17	14.15		0.35	384.4	135		
	02:30	2.16	14.15		0.35	384.3	134		
	03:00	2.16	14.15		0.35	383.9	134		
	03:30	2.15	14.16		0.35	383.5	134		
	04:00	2.15	14.16		0.35	383.6	134		
	04:30	2.15	14.17		0.35	383.1	134		
	05:00	2.15	14.17		0.35	383.0	134		
	05:30	2.14	14.17		0.35	382.7	134		
	06:00	2.13	14.18		0.35	382.1	134		
	06:30	2.12	14.19		0.35	381.5	134		
	07:00	2.12	14.20		0.35	381.1	133		
	07:30	2.12	14.19		0.35	381.3	133		
	08:00	2.11	14.20		0.35	380.7	133		
	08:30	2.09	14.22		0.35	379.5	133		
	09:00	2.09	14.22		0.35	379.5	133		
	09:30	2.11	14.21		0.35	380.5	133		
	10:00	2.12	14.19		0.24	381.5	92		112
	10:30	2.14	14.18		0.35	382.3	134		
	11:00	2.14	14.17		0.35	382.9	134		
	11:30	2.15	14.17		0.35	383.1	134		
	12:00	2.15	14.16		0.35	383.3	134		
	12:30	2.15	14.17		0.35	383.1	134		
	13:00	2.15	14.17		0.35	383.1	134		
	13:30	2.14	14.17		0.35	382.7	134		
	14:00	2.14	14.17		0.35	382.9	134		
	14:30	2.14	14.18		0.35	382.5	134		
	15:00	2.12	14.20		0.35	381.1	133		
	15:30	2.09	14.22		0.35	379.3	133		
	16:00	2.06	14.25		0.35	377.2	132		
	16:30	2.03	14.28		0.35	375.3	131		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	17:00	2.00	14.31		0.35	373.4	131		
	17:30	1.97	14.34		0.35	371.2	130		
	18:00	1.93	14.38		0.35	368.7	129		
	18:30	1.84	14.48		0.35	362.3	127		
	19:00	1.78	14.53		0.35	358.5	125		
	19:30	1.74	14.57		0.35	356.1	125		
	20:00	1.69	14.62		0.35	352.5	123		
	20:30	1.67	14.65		0.35	351.0	123		
	21:00	1.66	14.66		0.35	350.2	123		
	21:30	1.63	14.68		0.35	348.4	122		
	22:00	1.61	14.70		0.35	347.3	122		
	22:30	1.62	14.70		0.35	347.5	122		
	23:00	1.60	14.71		0.35	346.8	121		
	23:30	1.59	14.72		0.35	345.9	121	156 (6)	
05/20/97	00:00	1.58	14.73		0.35	345.3	121		
	00:30	1.57	14.74		0.35	344.6	121		
	01:00	1.56	14.76		0.35	343.6	120		
	01:30	1.54	14.77		0.35	342.4	120		
	02:00	1.52	14.80		0.35	340.9	119		
	02:30	1.50	14.82		0.35	339.6	119		
	03:00	1.48	14.83		0.35	338.3	118		
	03:30	1.47	14.85		0.35	337.6	118		
	04:00	1.46	14.85		0.35	337.1	118		
	04:30	1.45	14.86		0.35	336.4	118		
	05:00	1.44	14.87		0.35	335.7	117		
	05:30	1.43	14.89		0.35	334.8	117		
	06:00	1.41	14.90		0.35	333.7	117		
	06:30	1.39	14.92		0.35	332.3	116		
	07:00	1.38	14.94		0.35	331.6	116		
	07:30	1.37	14.94		0.35	331.0	116		
	08:00	1.36	14.95		0.35	330.3	116		
	08:30	1.34	14.97		0.43	329.3	142		172
	09:00	1.32	14.99		0.35	327.8	115		
	09:30	1.32	14.99		0.35	327.9	115		
	10:00	1.27	15.04		0.35	324.6	114		
	10:30	1.14	15.18		0.35	315.4	110		
	11:00	0.97	15.34		0.35	304.4	107		
	11:30	0.82	15.49		0.35	294.2	103		
	12:00	0.78	15.54		0.35	291.4	102		
	12:30	0.82	15.50		0.35	293.9	103		
	13:00	0.79	15.52		0.35	292.4	102		
	13:30	0.75	15.56		0.35	289.5	101		
	14:00	0.77	15.54		0.35	290.8	102		
	14:30	1.02	15.29		0.35	307.5	108		
	15:00	1.23	15.09		0.35	321.5	113		
	15:30	1.42	14.89		0.35	334.3	117		
	16:00	1.53	14.78		0.35	341.7	120		
	16:30	1.61	14.70		0.35	347.0	121		
	17:00	1.60	14.71		0.35	346.8	121		
	17:30	1.60	14.71		0.35	346.4	121		
	18:00	1.63	14.69		0.35	348.2	122		
	18:30	1.62	14.70		0.35	347.6	122		
	19:00	1.63	14.69		0.35	348.2	122		
	19:30	1.64	14.67		0.35	349.2	122		
	20:00	1.65	14.66		0.35	350.0	123		
	20:30	1.66	14.65		0.35	350.8	123		
	21:00	1.68	14.63		0.35	351.9	123		
	21:30	1.70	14.61		0.35	353.1	124		
	22:00	1.72	14.59		0.35	354.6	124		
	22:30	1.74	14.57		0.35	355.8	125		
	23:00	1.76	14.56		0.35	357.0	125		
	23:30	1.78	14.54		0.35	358.2	125	141 (6)	
05/21/97	00:00	1.80	14.52		0.35	359.6	126		
	00:30	1.82	14.50		0.35	361.0	126		
	01:00	1.84	14.47		0.35	362.6	127		
	01:30	1.87	14.45		0.35	364.3	128		
	02:00	1.89	14.43		0.35	365.7	128		
	02:30	1.90	14.41		0.35	366.8	128		
	03:00	1.92	14.40		0.35	367.6	129		
	03:30	1.93	14.39		0.35	368.3	129		
	04:00	1.94	14.38		0.35	368.9	129		
	04:30	1.94	14.37		0.35	369.3	129		
	05:00	1.94	14.37		0.35	369.5	129		
	05:30	1.94	14.37		0.35	369.3	129		
	06:00	1.94	14.38		0.35	368.9	129		
	06:30	1.92	14.39		0.35	368.1	129		
	07:00	1.91	14.41		0.35	366.9	128		
	07:30	1.85	14.46		0.35	363.4	127		
	08:00	1.81	14.51		0.35	360.4	126		
	08:30	1.82	14.49		0.35	361.2	126		
	09:00	1.82	14.49		0.25	361.4	90		110
	09:30	1.83	14.48		0.35	362.0	127		
	10:00	1.79	14.52		0.35	359.5	126		
	10:30	1.76	14.56		0.35	356.9	125		
	11:00	1.76	14.55		0.35	357.2	125		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	11:30	1.73	14.58		0.35	355.5	124		
	12:00	1.72	14.59		0.35	354.5	124		
	12:30	1.72	14.59		0.35	354.4	124		
	13:00	1.71	14.61		0.35	353.7	124		
	13:30	1.69	14.62		0.35	352.6	123		
	14:00	1.68	14.64		0.35	351.6	123		
	14:30	1.68	14.64		0.35	351.5	123		
	15:00	1.63	14.69		0.35	348.2	122		
	15:30	1.60	14.71		0.35	346.4	121		
	16:00	1.70	14.62		0.35	353.0	124		
	16:30	1.68	14.63		0.35	352.1	123		
	17:00	1.65	14.66		0.35	349.7	122		
	17:30	1.67	14.64		0.35	351.2	123		
	18:00	1.65	14.66		0.35	350.0	122		
	18:30	1.66	14.66		0.35	350.3	123		
	19:00	1.67	14.65		0.35	350.9	123		
	19:30	1.66	14.65		0.35	350.8	123		
	20:00	1.69	14.63		0.35	352.2	123		
	20:30	1.70	14.61		0.35	353.1	124		
	21:00	1.71	14.60		0.35	353.7	124		
	21:30	1.72	14.60		0.35	354.2	124		
	22:00	1.73	14.59		0.35	354.9	124		
	22:30	1.73	14.58		0.35	355.3	124		
	23:00	1.74	14.57		0.35	355.7	125		
	23:30	1.74	14.57		0.35	355.9	125	150 (6)	
05/22/97	00:00	1.74	14.57		0.35	356.1	125		
	00:30	1.74	14.57		0.35	356.0	125		
	01:00	1.74	14.57		0.35	356.1	125		
	01:30	1.74	14.57		0.35	356.1	125		
	02:00	1.74	14.57		0.35	356.1	125		
	02:30	1.75	14.57		0.35	356.3	125		
	03:00	1.75	14.57		0.35	356.3	125		
	03:30	1.75	14.57		0.35	356.2	125		
	04:00	1.74	14.57		0.35	356.1	125		
	04:30	1.74	14.57		0.35	355.9	125		
	05:00	1.73	14.58		0.35	355.2	124		
	05:30	1.72	14.59		0.35	354.7	124		
	06:00	1.72	14.59		0.35	354.4	124		
	06:30	1.72	14.60		0.35	354.2	124		
	07:00	1.71	14.60		0.35	353.8	124		
	07:30	1.70	14.61		0.35	353.1	124		
	08:00	1.69	14.62		0.35	352.6	123		
	08:30	1.68	14.63		0.35	351.9	123		
	09:00	1.66	14.66		0.35	350.2	123		
	09:30	1.63	14.68		0.35	348.6	122		
	10:00	1.61	14.70		0.35	347.2	122		
	10:30	1.57	14.74		0.35	344.7	121		
	11:00	1.54	14.77		0.35	342.4	120		
	11:30	1.52	14.79		0.35	341.0	119		
	12:00	1.49	14.82		0.35	339.3	119		
	12:30	1.50	14.82		0.35	339.5	119		
	13:00	1.49	14.82		0.35	339.3	119		
	13:30	1.49	14.82		0.35	339.1	119		
	14:00	1.50	14.82		0.35	339.5	119		
	14:30	1.50	14.82		0.35	339.6	119		
	15:00	1.50	14.81		0.35	339.9	119		
	15:30	1.51	14.80		0.35	340.4	119		
	16:00	1.52	14.79		0.35	341.3	119		
	16:30	1.53	14.78		0.35	341.8	120		
	17:00	1.52	14.79		0.35	341.0	119		
	17:30	1.52	14.79		0.35	341.2	119		
	18:00	1.52	14.79		0.35	341.3	119		
	18:30	1.53	14.79		0.35	341.6	120		
	19:00	1.54	14.77		0.35	342.5	120		
	19:30	1.56	14.75		0.35	344.1	120		
	20:00	1.59	14.72		0.35	345.8	121		
	20:30	1.62	14.69		0.35	347.7	122		
	21:00	1.64	14.67		0.35	349.2	122		
	21:30	1.67	14.64		0.35	351.1	123		
	22:00	1.69	14.62		0.35	352.7	123		
	22:30	1.71	14.60		0.35	354.0	124		
	23:00	1.73	14.59		0.35	354.9	124		
	23:30	1.75	14.57		0.35	356.2	125	146 (6)	
05/23/97	00:00	1.76	14.55		0.35	357.2	125		
	00:30	1.77	14.54		0.35	358.2	125		
	01:00	1.78	14.54		0.35	358.4	125		
	01:30	1.78	14.53		0.35	358.8	126		
	02:00	1.79	14.52		0.35	359.5	126		
	02:30	1.80	14.51		0.35	360.2	126		
	03:00	1.81	14.50		0.35	360.7	126		
	03:30	1.81	14.50		0.35	360.8	126		
	04:00	1.82	14.50		0.35	360.9	126		
	04:30	1.82	14.50		0.35	361.0	126		
	05:00	1.82	14.49		0.35	361.1	126		
	05:30	1.82	14.49		0.35	361.2	126		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	06:00	1.82	14.50		0.35	360.9	126		
	06:30	1.80	14.52		0.35	359.7	126		
	07:00	1.78	14.53		0.35	358.7	126		
	07:30	1.76	14.56		0.35	356.9	125		
	08:00	1.72	14.59		0.35	354.8	124		
	08:30	1.70	14.61		0.22	353.1	78		95
	09:00	1.65	14.66		0.35	349.9	122		
	09:30	1.62	14.69		0.35	347.7	122		
	10:00	1.60	14.71		0.35	346.6	121		
	10:30	1.59	14.72		0.35	346.0	121		
	11:00	1.60	14.72		0.35	346.2	121		
	11:30	1.60	14.71		0.35	346.4	121		
	12:00	1.60	14.71		0.35	346.6	121		
	12:30	1.59	14.72		0.35	345.8	121		
	13:00	1.57	14.74		0.35	344.8	121		
	13:30	1.58	14.73		0.35	345.4	121		
	14:00	1.58	14.73		0.35	345.0	121		
	14:30	1.57	14.74		0.35	344.8	121		
	15:00	1.56	14.75		0.35	343.7	120		
	15:30	1.53	14.79		0.35	341.5	120		
	16:00	1.49	14.82		0.35	339.4	119		
	16:30	1.47	14.84		0.35	337.7	118		
	17:00	1.45	14.86		0.35	336.4	118		
	17:30	1.48	14.83		0.35	338.5	118		
	18:00	1.47	14.84		0.35	338.1	118		
	18:30	1.46	14.85		0.35	337.0	118		
	19:00	1.46	14.85		0.35	337.0	118		
	19:30	1.47	14.84		0.35	337.7	118		
	20:00	1.47	14.85		0.35	337.6	118		
	20:30	1.48	14.84		0.35	338.3	118		
	21:00	1.51	14.80		0.35	340.5	119		
	21:30	1.53	14.78		0.35	341.7	120		
	22:00	1.50	14.81		0.35	340.1	119		
	22:30	1.49	14.82		0.35	339.1	119		
	23:00	1.51	14.80		0.35	340.5	119		
	23:30	1.53	14.79		0.35	341.5	120	145 (6)	
05/24/97	00:00	1.53	14.78		0.35	341.8	120		
	00:30	1.54	14.77		0.35	342.7	120		
	01:00	1.56	14.76		0.35	343.6	120		
	01:30	1.57	14.75		0.35	344.2	120		
	02:00	1.59	14.73		0.35	345.6	121		
	02:30	1.61	14.70		0.35	347.2	122		
	03:00	1.62	14.69		0.35	348.1	122		
	03:30	1.64	14.68		0.35	348.6	122		
	04:00	1.64	14.67		0.35	349.3	122		
	04:30	1.65	14.66		0.35	349.8	122		
	05:00	1.66	14.65		0.35	350.7	123		
	05:30	1.67	14.64		0.35	351.2	123		
	06:00	1.67	14.65		0.35	350.9	123		
	06:30	1.66	14.65		0.35	350.6	123		
	07:00	1.66	14.65		0.35	350.4	123		
	07:30	1.65	14.66		0.35	349.9	122		
	08:00	1.64	14.67		0.35	349.2	122		
	08:30	1.64	14.68		0.35	348.9	122		
	09:00	1.64	14.68		0.35	348.8	122		
	09:30	1.63	14.69		0.35	348.3	122		
	10:00	1.60	14.71		0.35	346.6	121		
	10:30	1.57	14.74		0.35	344.5	121		
	11:00	1.55	14.77		0.35	342.9	120		
	11:30	1.53	14.78		0.35	341.7	120		
	12:00	1.52	14.80		0.35	340.8	119		
	12:30	1.49	14.82		0.35	339.0	119		
	13:00	1.48	14.83		0.35	338.6	119		
	13:30	1.48	14.84		0.35	338.2	118		
	14:00	1.45	14.86		0.35	336.4	118		
	14:30	1.45	14.86		0.35	336.7	118		
	15:00	1.48	14.83		0.35	338.5	118		
	15:30	1.48	14.83		0.35	338.3	118		
	16:00	1.49	14.83		0.35	338.8	119		
	16:30	1.48	14.83		0.35	338.5	118		
	17:00	1.47	14.84		0.35	337.9	118		
	17:30	1.48	14.83		0.35	338.3	118		
	18:00	1.47	14.85		0.35	337.5	118		
	18:30	1.46	14.86		0.35	336.9	118		
	19:00	1.48	14.83		0.35	338.5	118		
	19:30	1.52	14.80		0.35	340.9	119		
	20:00	1.52	14.79		0.35	341.0	119		
	20:30	1.52	14.79		0.35	341.4	119		
	21:00	1.55	14.76		0.35	343.1	120		
	21:30	1.55	14.76		0.35	343.3	120		
	22:00	1.56	14.75		0.35	343.7	120		
	22:30	1.57	14.74		0.35	344.6	121		
	23:00	1.58	14.74		0.35	345.0	121		
	23:30	1.58	14.73		0.35	345.4	121	144 (6)	
05/25/97	00:00	1.58	14.73		0.35	345.4	121		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	00:30	1.57	14.74		0.35	344.8	121		
	01:00	1.57	14.75		0.35	344.2	120		
	01:30	1.56	14.76		0.35	343.5	120		
	02:00	1.55	14.77		0.35	342.8	120		
	02:30	1.53	14.79		0.35	341.5	120		
	03:00	1.50	14.81		0.35	339.9	119		
	03:30	1.47	14.84		0.35	338.0	118		
	04:00	1.45	14.86		0.35	336.3	118		
	04:30	1.43	14.88		0.35	335.0	117		
	05:00	1.41	14.90		0.35	333.6	117		
	05:30	1.39	14.93		0.35	332.1	116		
	06:00	1.36	14.95		0.35	330.3	116		
	06:30	1.34	14.97		0.35	329.0	115		
	07:00	1.31	15.00		0.35	327.3	115		
	07:30	1.29	15.02		0.35	325.9	114		
	08:00	1.28	15.04		0.35	324.8	114		
	08:30	1.28	15.04		0.35	324.7	114		
	09:00	1.27	15.05		0.35	324.2	113		
	09:30	1.28	15.04		0.35	324.9	114		
	10:00	1.28	15.03		0.35	325.3	114		
	10:30	1.28	15.03		0.35	325.2	114		
	11:00	1.27	15.04		0.35	324.5	114		
	11:30	1.26	15.05		0.35	323.6	113		
	12:00	1.26	15.05		0.35	323.6	113		
	12:30	1.25	15.07		0.35	322.8	113		
	13:00	1.25	15.07		0.35	322.8	113		
	13:30	1.26	15.06		0.35	323.4	113		
	14:00	1.27	15.05		0.35	324.1	113		
	14:30	1.28	15.03		0.35	325.1	114		
	15:00	1.29	15.02		0.35	326.0	114		
	15:30	1.31	15.00		0.35	327.2	115		
	16:00	1.32	14.99		0.35	327.7	115		
	16:30	1.32	14.99		0.35	327.9	115		
	17:00	1.34	14.97		0.35	329.2	115		
	17:30	1.36	14.95		0.35	330.4	116		
	18:00	1.39	14.93		0.35	332.2	116		
	18:30	1.40	14.91		0.35	333.3	117		
	19:00	1.39	14.92		0.35	332.4	116		
	19:30	1.38	14.94		0.35	331.4	116		
	20:00	1.40	14.91		0.35	333.3	117		
	20:30	1.42	14.89		0.35	334.4	117		
	21:00	1.42	14.89		0.35	334.3	117		
	21:30	1.44	14.87		0.35	335.8	118		
	22:00	1.47	14.85		0.35	337.5	118		
	22:30	1.45	14.86		0.35	336.4	118		
	23:00	1.44	14.88		0.35	335.4	117		
	23:30	1.46	14.85		0.35	337.0	118	139 (6)	
05/26/97	00:00	1.47	14.84		0.35	337.8	118		
	00:30	1.47	14.84		0.35	337.7	118		
	01:00	1.48	14.83		0.35	338.5	118		
	01:30	1.49	14.82		0.35	339.2	119		
	02:00	1.47	14.84		0.35	338.0	118		
	02:30	1.43	14.88		0.35	335.4	117		
	03:00	1.41	14.91		0.35	333.5	117		
	03:30	1.38	14.93		0.35	332.0	116		
	04:00	1.37	14.95		0.35	330.8	116		
	04:30	1.35	14.96		0.35	329.9	115		
	05:00	1.34	14.97		0.35	329.1	115		
	05:30	1.33	14.98		0.35	328.6	115		
	06:00	1.32	14.99		0.35	328.0	115		
	06:30	1.32	14.99		0.35	327.6	115		
	07:00	1.31	15.00		0.35	326.9	114		
	07:30	1.30	15.01		0.35	326.5	114		
	08:00	1.29	15.02		0.35	325.8	114		
	08:30	1.28	15.03		0.35	325.2	114		
	09:00	1.28	15.03		0.35	325.2	114		
	09:30	1.32	14.99		0.35	327.8	115		
	10:00	1.33	14.98		0.35	328.3	115		
	10:30	1.31	15.01		0.35	326.9	114		
	11:00	1.29	15.02		0.35	325.9	114		
	11:30	1.27	15.04		0.35	324.5	114		
	12:00	1.25	15.06		0.35	323.1	113		
	12:30	1.23	15.08		0.35	321.7	113		
	13:00	1.21	15.10		0.35	320.5	112		
	13:30	1.16	15.16		0.35	316.8	111		
	14:00	1.08	15.24		0.35	311.3	109		
	14:30	1.17	15.14		0.35	317.7	111		
	15:00	1.25	15.06		0.35	323.0	113		
	15:30	1.27	15.05		0.35	324.1	113		
	16:00	1.30	15.02		0.35	326.1	114		
	16:30	1.30	15.02		0.35	326.2	114		
	17:00	1.31	15.00		0.35	327.1	114		
	17:30	1.35	14.96		0.35	329.7	115		
	18:00	1.38	14.94		0.35	331.4	116		
	18:30	1.39	14.92		0.35	332.6	116		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	19:00	1.41	14.90		0.35	334.0	117		
	19:30	1.43	14.89		0.35	334.9	117		
	20:00	1.44	14.88		0.35	335.4	117		
	20:30	1.44	14.87		0.35	335.7	117		
	21:00	1.44	14.87		0.35	335.7	117		
	21:30	1.44	14.87		0.35	336.0	118		
	22:00	1.47	14.85		0.35	337.5	118		
	22:30	1.48	14.84		0.35	338.3	118		
	23:00	1.48	14.83		0.35	338.7	119		
	23:30	1.49	14.82		0.35	339.1	119	138 (6)	
05/27/97	00:00	1.49	14.82		0.35	339.3	119		
	00:30	1.50	14.81		0.35	339.7	119		
	01:00	1.50	14.81		0.35	340.1	119		
	01:30	1.49	14.83		0.35	338.8	119		
	02:00	1.46	14.86		0.35	336.8	118		
	02:30	1.44	14.87		0.35	335.9	118		
	03:00	1.43	14.88		0.35	335.0	117		
	03:30	1.40	14.91		0.35	333.0	117		
	04:00	1.37	14.94		0.35	331.4	116		
	04:30	1.34	14.97		0.35	329.3	115		
	05:00	1.32	14.99		0.35	327.9	115		
	05:30	1.31	15.00		0.35	327.1	114		
	06:00	1.30	15.01		0.35	326.3	114		
	06:30	1.29	15.02		0.35	325.6	114		
	07:00	1.28	15.03		0.35	325.2	114		
	07:30	1.28	15.04		0.35	324.8	114		
	08:00	1.27	15.04		0.35	324.3	114		
	08:30	1.28	15.03		0.35	325.1	114		
	09:00	1.28	15.03		0.14	325.2	46		56
	09:30	1.28	15.03		0.35	325.2	114		
	10:00	1.26	15.05		0.35	323.9	113		
	10:30	1.23	15.09		0.35	321.4	112		
	11:00	1.19	15.13		0.35	318.8	112		
	11:30	1.21	15.10		0.35	320.6	112		
	12:00	1.22	15.09		0.35	321.0	112		
	12:30	1.18	15.13		0.35	318.6	111		
	13:00	1.16	15.15		0.35	316.9	111		
	13:30	1.17	15.14		0.35	317.6	111		
	14:00	1.16	15.16		0.35	316.7	111		
	14:30	1.13	15.18		0.35	314.9	110		
	15:00	1.15	15.17		0.35	316.1	111		
	15:30	1.15	15.17		0.35	316.0	111		
	16:00	1.13	15.19		0.35	314.8	110		
	16:30	1.14	15.17		0.35	315.7	111		
	17:00	1.16	15.15		0.35	317.2	111		
	17:30	1.17	15.14		0.35	317.7	111		
	18:00	1.18	15.13		0.35	318.6	112		
	18:30	1.21	15.10		0.35	320.4	112		
	19:00	1.22	15.09		0.35	320.9	112		
	19:30	1.22	15.09		0.35	321.0	112		
	20:00	1.23	15.08		0.35	321.7	113		
	20:30	1.23	15.08		0.35	321.6	113		
	21:00	1.20	15.11		0.35	319.8	112		
	21:30	1.19	15.12		0.35	319.0	112		
	22:00	1.21	15.10		0.35	320.6	112		
	22:30	1.22	15.09		0.35	321.2	112		
	23:00	1.22	15.10		0.35	320.7	112		
	23:30	1.23	15.08		0.35	321.8	113	134 (6)	
05/28/97	00:00	1.27	15.05		0.35	324.1	113		
	00:30	1.27	15.05		0.35	324.1	113		
	01:00	1.25	15.06		0.35	323.0	113		
	01:30	1.25	15.06		0.35	323.2	113		
	02:00	1.22	15.09		0.35	321.3	112		
	02:30	1.14	15.18		0.35	315.4	110		
	03:00	1.06	15.25		0.35	310.3	109		
	03:30	1.03	15.28		0.35	308.3	108		
	04:00	1.03	15.28		0.35	308.3	108		
	04:30	1.02	15.30		0.35	307.3	108		
	05:00	0.99	15.32		0.35	305.8	107		
	05:30	0.97	15.34		0.35	304.4	107		
	06:00	0.96	15.35		0.35	303.5	106		
	06:30	0.94	15.37		0.35	302.1	106		
	07:00	0.92	15.39		0.35	301.1	105		
	07:30	0.91	15.40		0.35	300.1	105		
	08:00	0.90	15.41		0.35	299.7	105		
	08:30	0.89	15.42		0.35	299.0	105		
	09:00	0.89	15.42		0.35	298.9	105		
	09:30	0.90	15.42		0.35	299.3	105		
	10:00	0.91	15.40		0.35	300.3	105		
	10:30	0.91	15.40		0.35	300.4	105		
	11:00	0.91	15.40		0.35	300.3	105		
	11:30	0.90	15.41		0.35	299.9	105		
	12:00	0.91	15.41		0.35	300.0	105		
	12:30	0.94	15.38		0.35	302.0	106		
	13:00	0.94	15.37		0.35	302.5	106		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	13:30	0.95	15.36		0.35	302.9	106		
	14:00	1.02	15.30		0.35	307.3	108		
	14:30	1.04	15.28		0.35	308.6	108		
	15:00	0.99	15.32		0.35	305.7	107		
	15:30	0.96	15.35		0.35	303.5	106		
	16:00	0.93	15.38		0.35	301.5	106		
	16:30	0.91	15.40		0.35	300.3	105		
	17:00	0.92	15.39		0.35	300.9	105		
	17:30	0.93	15.38		0.35	301.7	106		
	18:00	0.93	15.39		0.35	301.4	105		
	18:30	0.95	15.36		0.35	303.2	106		
	19:00	1.02	15.29		0.35	307.9	108		
	19:30	1.06	15.26		0.35	310.0	109		
	20:00	1.08	15.23		0.35	311.5	109		
	20:30	1.10	15.22		0.35	312.7	109		
	21:00	1.11	15.21		0.35	313.5	110		
	21:30	1.12	15.20		0.35	314.1	110		
	22:00	1.13	15.19		0.35	314.7	110		
	22:30	1.13	15.18		0.35	315.2	110		
	23:00	1.15	15.16		0.35	316.5	111		
	23:30	1.17	15.14		0.35	317.8	111	129 (6)	
05/29/97	00:00	1.18	15.13		0.35	318.6	112		
	00:30	1.20	15.12		0.35	319.4	112		
	01:00	1.21	15.11		0.35	320.2	112		
	01:30	1.23	15.08		0.35	321.6	113		
	02:00	1.23	15.08		0.35	321.8	113		
	02:30	1.20	15.11		0.35	319.8	112		
	03:00	1.18	15.13		0.35	318.4	111		
	03:30	1.17	15.15		0.35	317.4	111		
	04:00	1.10	15.21		0.35	313.3	110		
	04:30	1.04	15.27		0.35	309.1	108		
	05:00	1.02	15.30		0.35	307.3	108		
	05:30	1.01	15.31		0.35	306.8	107		
	06:00	0.99	15.33		0.35	305.3	107		
	06:30	0.97	15.35		0.35	304.1	106		
	07:00	0.96	15.36		0.35	303.3	106		
	07:30	0.91	15.40		0.35	300.4	105		
	08:00	0.85	15.46		0.35	296.4	104		
	08:30	0.83	15.48		0.35	294.9	103		
	09:00	0.83	15.49		0.35	294.6	103		
	09:30	0.82	15.49		0.35	294.4	103		
	10:00	0.82	15.49		0.35	294.5	103		
	10:30	0.82	15.49		0.35	294.2	103		
	11:00	0.86	15.45		0.35	297.1	104		
	11:30	0.93	15.38		0.35	301.6	106		
	12:00	0.99	15.33		0.35	305.4	107		
	12:30	1.04	15.28		0.35	308.8	108		
	13:00	1.10	15.22		0.35	312.8	109		
	13:30	1.12	15.19		0.35	314.6	110		
	14:00	1.16	15.15		0.35	317.0	111		
	14:30	1.16	15.15		0.35	317.1	111		
	15:00	1.10	15.21		0.35	312.9	110		
	15:30	1.03	15.28		0.35	308.5	108		
	16:00	0.85	15.46		0.35	296.4	104		
	16:30	0.72	15.59		0.35	287.7	101		
	17:00	0.83	15.48		0.35	294.8	103		
	17:30	0.83	15.48		0.35	294.8	103		
	18:00	0.81	15.51		0.35	293.4	103		
	18:30	0.85	15.47		0.35	296.0	104		
	19:00	0.85	15.46		0.35	296.3	104		
	19:30	0.84	15.48		0.35	295.4	103		
	20:00	0.88	15.44		0.35	297.9	104		
	20:30	0.92	15.39		0.35	300.8	105		
	21:00	0.92	15.39		0.35	301.1	105		
	21:30	0.93	15.38		0.35	301.7	106		
	22:00	0.97	15.35		0.35	304.1	106		
	22:30	0.98	15.33		0.35	304.8	107		
	23:00	0.99	15.32		0.35	305.5	107		
	23:30	1.04	15.28		0.35	308.7	108	128 (6)	
05/30/97	00:00	1.02	15.29		0.35	307.6	108		
	00:30	0.98	15.33		0.35	305.1	107		
	01:00	0.99	15.32		0.35	305.8	107		
	01:30	0.98	15.33		0.35	305.2	107		
	02:00	0.96	15.36		0.35	303.4	106		
	02:30	0.97	15.35		0.35	304.0	106		
	03:00	0.97	15.34		0.35	304.5	107		
	03:30	0.92	15.40		0.35	300.6	105		
	04:00	0.83	15.48		0.35	294.8	103		
	04:30	0.77	15.54		0.35	291.0	102		
	05:00	0.77	15.54		0.35	291.0	102		
	05:30	0.78	15.53		0.35	291.4	102		
	06:00	0.76	15.55		0.35	290.1	102		
	06:30	0.72	15.60		0.35	287.3	101		
	07:00	0.70	15.61		0.35	286.1	100		
	07:30	0.70	15.62		0.35	285.9	100		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	08:00	0.74	15.57		0.20	289.1	58		72
	08:30	0.78	15.53		0.35	291.8	102		
	09:00	0.68	15.63		0.35	284.6	100		
	09:30	0.72	15.59		0.35	287.8	101		
	10:00	0.84	15.47		0.35	295.8	104		
	10:30	1.01	15.31		0.35	306.6	107		
	11:00	0.95	15.36		0.35	302.8	106		
	11:30	0.92	15.39		0.35	300.9	105		
	12:00	0.96	15.35		0.35	303.9	106		
	12:30	0.94	15.38		0.35	301.9	106		
	13:00	0.91	15.40		0.35	300.4	105		
	13:30	0.97	15.34		0.35	304.2	106		
	14:00	0.97	15.35		0.35	304.1	106		
	14:30	0.82	15.49		0.35	294.3	103		
	15:00	0.86	15.46		0.35	296.7	104		
	15:30	0.88	15.43		0.35	298.1	104		
	16:00	0.84	15.48		0.35	295.2	103		
	16:30	0.85	15.46		0.35	296.4	104		
	17:00	0.88	15.43		0.35	298.5	104		
	17:30	0.86	15.46		0.35	296.6	104		
	18:00	0.87	15.44		0.35	297.7	104		
	18:30	0.90	15.41		0.35	299.9	105		
	19:00	0.91	15.40		0.35	300.4	105		
	19:30	0.95	15.36		0.35	302.8	106		
	20:00	1.06	15.26		0.35	310.0	109		
	20:30	1.10	15.22		0.35	312.7	109		
	21:00	1.07	15.25		0.35	310.8	109		
	21:30	1.05	15.26		0.35	309.5	108		
	22:00	1.06	15.26		0.35	310.1	109		
	22:30	1.04	15.27		0.35	309.2	108		
	23:00	1.01	15.30		0.35	307.2	108		
	23:30	1.02	15.30		0.35	307.4	108	125 (6)	
05/31/97	00:00	1.03	15.28		0.35	308.2	108		
	00:30	1.02	15.29		0.35	307.5	108		
	01:00	1.00	15.31		0.35	306.3	107		
	01:30	1.00	15.32		0.35	306.0	107		
	02:00	0.98	15.33		0.35	304.8	107		
	02:30	0.95	15.36		0.35	303.1	106		
	03:00	0.95	15.36		0.35	302.9	106		
	03:30	0.97	15.34		0.35	304.2	106		
	04:00	0.96	15.35		0.35	303.9	106		
	04:30	0.95	15.37		0.35	302.7	106		
	05:00	0.96	15.35		0.35	303.6	106		
	05:30	0.99	15.33		0.35	305.3	107		
	06:00	0.96	15.35		0.35	303.5	106		
	06:30	0.94	15.37		0.35	302.4	106		
	07:00	0.96	15.35		0.35	303.5	106		
	07:30	0.95	15.36		0.35	302.8	106		
	08:00	0.93	15.38		0.35	301.7	106		
	08:30	0.94	15.38		0.35	302.0	106		
	09:00	0.96	15.36		0.35	303.4	106		
	09:30	0.95	15.36		0.35	303.2	106		
	10:00	0.94	15.37		0.35	302.2	106		
	10:30	0.95	15.37		0.35	302.7	106		
	11:00	0.96	15.35		0.35	303.8	106		
	11:30	0.94	15.37		0.35	302.5	106		
	12:00	0.93	15.38		0.35	301.5	106		
	12:30	0.93	15.39		0.35	301.3	105		
	13:00	0.94	15.37		0.35	302.2	106		
	13:30	0.94	15.38		0.35	302.0	106		
	14:00	0.91	15.40		0.35	300.1	105		
	14:30	0.91	15.40		0.35	300.4	105		
	15:00	0.92	15.39		0.35	300.9	105		
	15:30	0.92	15.40		0.35	300.7	105		
	16:00	0.90	15.41		0.35	299.5	105		
	16:30	0.89	15.42		0.35	298.9	105		
	17:00	0.89	15.42		0.35	299.0	105		
	17:30	0.88	15.43		0.35	298.2	104		
	18:00	0.87	15.44		0.35	297.5	104		
	18:30	0.89	15.42		0.35	298.9	105		
	19:00	0.90	15.41		0.35	299.7	105		
	19:30	0.92	15.39		0.35	300.8	105		
	20:00	0.96	15.36		0.35	303.4	106		
	20:30	1.01	15.31		0.35	306.6	107		
	21:00	1.06	15.25		0.35	310.2	109		
	21:30	1.08	15.23		0.35	311.7	109		
	22:00	1.08	15.23		0.35	311.7	109		
	22:30	1.08	15.24		0.35	311.4	109		
	23:00	1.06	15.25		0.35	310.2	109		
	23:30	1.01	15.30		0.35	306.9	107	127 (6)	
06/01/97	00:00	0.99	15.33		0.35	305.4	107		
	00:30	0.96	15.36		0.77	303.4	234		
	01:00	0.94	15.37		0.35	302.5	106		
	01:30	0.87	15.44		0.35	297.6	104		
	02:00	0.78	15.53		0.35	291.5	102		

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Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	02:30	0.73	15.58		0.35	288.4	101		
	03:00	0.75	15.57		0.35	289.3	101		
	03:30	0.75	15.56		0.35	289.6	101		
	04:00	0.74	15.57		0.35	288.9	101		
	04:30	0.73	15.58		0.35	288.5	101		
	05:00	0.76	15.55		0.35	290.3	102		
	05:30	0.83	15.48		0.35	295.1	103		
	06:00	0.86	15.45		0.35	297.1	104		
	06:30	0.84	15.47		0.35	295.5	103		
	07:00	0.84	15.48		0.35	295.3	103		
	07:30	0.86	15.45		0.35	297.2	104		
	08:00	0.87	15.45		0.35	297.4	104		
	08:30	0.86	15.45		0.35	296.9	104		
	09:00	0.88	15.43		0.35	298.3	104		
	09:30	0.90	15.41		0.35	299.9	105		
	10:00	0.89	15.42		0.35	299.2	105		
	10:30	0.88	15.44		0.35	298.1	104		
	11:00	0.91	15.40		0.35	300.3	105		
	11:30	0.91	15.40		0.35	300.3	105		
	12:00	0.88	15.43		0.35	298.3	104		
	12:30	0.89	15.43		0.35	298.7	105		
	13:00	0.88	15.43		0.35	298.5	104		
	13:30	0.88	15.43		0.35	298.2	104		
	14:00	0.87	15.45		0.35	297.3	104		
	14:30	0.88	15.44		0.35	297.9	104		
	15:00	0.89	15.42		0.35	299.0	105		
	15:30	0.88	15.43		0.35	298.1	104		
	16:00	0.87	15.44		0.35	297.5	104		
	16:30	0.88	15.43		0.35	298.2	104		
	17:00	0.88	15.43		0.35	298.3	104		
	17:30	0.85	15.46		0.35	296.1	104		
	18:00	0.85	15.46		0.35	296.5	104		
	18:30	0.88	15.43		0.35	298.2	104		
	19:00	0.88	15.43		0.35	298.5	104		
	19:30	0.88	15.43		0.35	298.3	104		
	20:00	0.88	15.44		0.35	298.1	104		
	20:30	0.85	15.46		0.35	296.2	104		
	21:00	0.78	15.53		0.35	291.5	102		
	21:30	0.73	15.58		0.35	288.1	101		
	22:00	0.73	15.58		0.35	288.1	101		
	22:30	0.72	15.59		0.35	287.6	101		
	23:00	0.70	15.61		0.35	286.1	100		
	23:30	0.69	15.62		0.35	285.5	100	127 (6)	
06/02/97	00:00	0.71	15.60		0.35	286.8	100		
	00:30	0.71	15.60		0.35	286.7	100		
	01:00	0.70	15.61		0.35	286.2	100		
	01:30	0.79	15.53		0.35	292.0	102		
	02:00	0.84	15.47		0.35	295.8	104		
	02:30	0.83	15.48		0.35	294.9	103		
	03:00	0.84	15.48		0.35	295.2	103		
	03:30	0.96	15.35		0.35	303.7	106		
	04:00	1.09	15.22		0.35	312.6	109		
	04:30	1.07	15.24		0.35	310.9	109		
	05:00	1.10	15.22		0.35	312.8	109		
	05:30	1.17	15.14		0.35	317.8	111		
	06:00	1.14	15.17		0.35	315.9	111		
	06:30	1.08	15.23		0.35	311.5	109		
	07:00	1.07	15.24		0.35	311.1	109		
	07:30	1.10	15.22		0.35	312.7	109		
	08:00	1.04	15.27		0.35	309.0	108		65
	08:30	0.97	15.34		0.35	304.6	107		
	09:00	0.91	15.40		0.35	300.5	105		
	09:30	0.89	15.42		0.35	299.1	105		
	10:00	0.81	15.51		0.35	293.3	103		
	10:30	0.75	15.57		0.35	289.3	101		
	11:00	0.76	15.55		0.35	290.4	102		
	11:30	0.75	15.56		0.35	289.4	101		
	12:00	0.71	15.60		0.35	287.1	100		
	12:30	0.72	15.60		0.35	287.3	101		
	13:00	0.73	15.59		0.35	288.0	101		
	13:30	0.70	15.61		0.35	286.3	100		
	14:00	0.69	15.62		0.35	285.5	100		
	14:30	0.70	15.61		0.35	286.1	100		
	15:00	0.69	15.62		0.35	285.8	100		
	15:30	0.71	15.61		0.35	286.6	100		
	16:00	0.77	15.54		0.35	291.0	102		
	16:30	0.80	15.51		0.35	292.8	102		
	17:00	0.77	15.55		0.35	290.6	102		
	17:30	0.70	15.61		0.35	286.3	100		
	18:00	0.61	15.70		0.35	280.2	98		
	18:30	0.51	15.80		0.35	273.6	96		
	19:00	0.47	15.84		0.35	270.9	95		
	19:30	0.45	15.87		0.35	269.2	94		
	20:00	0.41	15.91		0.35	266.6	93		
	20:30	0.40	15.92		0.35	265.8	93		

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Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	21:00	0.42	15.90		0.35	267.2	94		
	21:30	0.53	15.79		0.35	274.5	96		
	22:00	0.66	15.66		0.35	283.3	99		
	22:30	0.73	15.59		0.35	287.9	101		
	23:00	0.77	15.54		0.35	290.8	102		
	23:30	0.83	15.48		0.35	294.8	103	123 (6)	
08/03/97	00:00	0.88	15.44		0.35	298.1	104		
	00:30	0.91	15.40		0.35	300.5	105		
	01:00	0.97	15.34		0.35	304.2	106		
	01:30	1.05	15.26		0.35	309.9	108		
	02:00	1.12	15.19		0.35	314.3	110		
	02:30	1.15	15.16		0.35	316.2	111		
	03:00	1.15	15.16		0.35	316.3	111		
	03:30	1.16	15.15		0.35	317.3	111		
	04:00	1.18	15.13		0.35	318.3	111		
	04:30	1.17	15.14		0.35	317.8	111		
	05:00	1.17	15.15		0.35	317.4	111		
	05:30	1.18	15.14		0.35	318.1	111		
	06:00	1.18	15.13		0.35	318.4	111		
	06:30	1.16	15.16		0.35	316.8	111		
	07:00	1.14	15.17		0.35	315.7	111		
	07:30	1.15	15.16		0.35	316.4	111		
	08:00	1.14	15.17		0.35	315.9	111		
	08:30	1.11	15.20		0.35	313.9	110		
	09:00	1.10	15.21		0.35	312.9	110		
	09:30	1.10	15.21		0.35	313.2	110		
	10:00	1.09	15.22		0.35	312.2	109		
	10:30	1.08	15.24		0.35	311.3	109		
	11:00	1.08	15.23		0.35	311.7	109		
	11:30	1.08	15.23		0.35	311.9	109		
	12:00	1.07	15.25		0.35	310.7	109		
	12:30	1.06	15.25		0.35	310.2	109		
	13:00	1.07	15.25		0.35	310.7	109		
	13:30	1.07	15.24		0.35	310.9	109		
	14:00	1.05	15.26		0.35	309.8	108		
	14:30	1.03	15.29		0.35	308.0	108		
	15:00	1.01	15.30		0.35	307.1	107		
	15:30	1.03	15.28		0.35	308.4	108		
	16:00	1.01	15.30		0.35	306.9	107		
	16:30	0.91	15.40		0.35	300.5	105		
	17:00	0.77	15.54		0.35	290.9	102		
	17:30	0.62	15.69		0.35	280.9	98		
	18:00	0.50	15.82		0.35	272.6	95		
	18:30	0.43	15.88		0.35	268.0	94		
	19:00	0.35	15.96		0.35	262.7	92		
	19:30	0.29	16.02		0.35	258.9	91		
	20:00	0.34	15.98		0.35	261.7	92		
	20:30	0.34	15.97		0.35	262.1	92		
	21:00	0.31	16.00		0.35	260.1	91		
	21:30	0.30	16.01		0.35	259.3	91		
	22:00	0.31	16.00		0.35	260.1	91		
	22:30	0.38	15.94		0.35	264.6	93		
	23:00	0.51	15.80		0.35	273.5	96		
	23:30	0.61	15.70		0.35	280.1	98	126 (6)	
08/04/97	00:00	0.65	15.66		0.35	282.9	99		
	00:30	0.74	15.57		0.35	288.9	101		
	01:00	0.81	15.50		0.35	293.4	103		
	01:30	0.80	15.52		0.35	292.6	102		
	02:00	0.88	15.44		0.35	298.0	104		
	02:30	0.99	15.33		0.35	305.3	107		
	03:00	1.01	15.30		0.35	307.2	108		
	03:30	1.05	15.27		0.35	309.3	108		
	04:00	1.09	15.22		0.35	312.3	109		
	04:30	1.09	15.23		0.35	312.0	109		
	05:00	1.07	15.24		0.35	311.2	109		
	05:30	1.10	15.21		0.35	313.3	110		
	06:00	1.12	15.19		0.35	314.4	110		
	06:30	1.11	15.21		0.35	313.5	110		
	07:00	1.12	15.19		0.35	314.3	110		
	07:30	1.14	15.18		0.35	315.4	110		
	08:00	1.11	15.20		0.35	313.5	110		
	08:30	1.16	15.16		0.35	316.7	111		
	09:00	1.12	15.20		0.35	314.0	110		
	09:30	1.11	15.21		0.15	313.5	47		59
	10:00	1.09	15.23		0.35	312.1	109		
	10:30	1.13	15.18		0.35	315.3	110		
	11:00	1.14	15.18		0.35	315.5	110		
	11:30	1.09	15.22		0.35	312.5	109		
	12:00	1.10	15.21		0.35	312.9	110		
	12:30	1.08	15.23		0.35	311.6	109		
	13:00	1.01	15.30		0.35	307.2	108		
	13:30	0.99	15.32		0.35	305.9	107		
	14:00	0.99	15.32		0.35	305.6	107		
	14:30	0.96	15.36		0.35	303.3	106		
	15:00	0.94	15.37		0.35	302.2	106		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	15:30	0.97	15.35		0.35	304.0	106		
	16:00	0.96	15.35		0.35	303.9	106		
	16:30	0.94	15.37		0.35	302.5	106		
	17:00	0.93	15.39		0.35	301.4	105		
	17:30	0.96	15.35		0.35	303.5	106		
	18:00	0.96	15.36		0.35	303.4	106		
	18:30	0.95	15.37		0.35	302.7	106		
	19:00	0.97	15.34		0.35	304.4	107		
	19:30	0.99	15.32		0.35	305.5	107		
	20:00	0.97	15.34		0.35	304.2	106		
	20:30	0.95	15.36		0.35	303.1	106		
	21:00	0.96	15.35		0.35	303.8	106		
	21:30	0.97	15.34		0.35	304.4	107		
	22:00	0.95	15.36		0.35	303.2	106		
	22:30	0.94	15.37		0.35	302.4	106		
	23:00	0.95	15.37		0.35	302.7	106		
	23:30	0.94	15.37		0.35	302.4	106	127 (6)	
08/05/97	00:00	0.94	15.37		0.35	302.2	106		
	00:30	0.99	15.33		0.35	305.4	107		
	01:00	0.95	15.36		0.35	302.9	106		
	01:30	0.86	15.45		0.35	297.1	104		
	02:00	0.82	15.50		0.35	294.0	103		
	02:30	0.81	15.50		0.35	293.4	103		
	03:00	0.78	15.53		0.35	291.8	102		
	03:30	0.76	15.55		0.35	290.1	102		
	04:00	0.77	15.54		0.35	290.9	102		
	04:30	0.77	15.54		0.35	291.1	102		
	05:00	0.75	15.56		0.35	289.5	101		
	05:30	0.75	15.57		0.35	289.2	101		
	06:00	0.76	15.55		0.35	290.4	102		
	06:30	0.75	15.56		0.35	289.5	101		
	07:00	0.72	15.59		0.35	287.5	101		
	07:30	0.72	15.59		0.35	287.5	101		
	08:00	0.73	15.59		0.35	287.9	101		
	08:30	0.72	15.60		0.35	287.2	101		
	09:00	0.69	15.62		0.35	285.4	100		
	09:30	0.70	15.61		0.35	286.4	100		
	10:00	0.72	15.59		0.35	287.7	101		
	10:30	0.73	15.58		0.35	288.3	101		
	11:00	0.73	15.58		0.35	288.4	101		
	11:30	0.72	15.59		0.35	287.4	101		
	12:00	0.72	15.60		0.35	287.2	101		
	12:30	0.70	15.61		0.35	286.5	100		
	13:00	0.70	15.62		0.35	285.9	100		
	13:30	0.69	15.62		0.35	285.7	100		
	14:00	0.71	15.60		0.35	287.1	100		
	14:30	0.76	15.55		0.35	290.1	102		
	15:00	0.80	15.51		0.35	292.8	102		
	15:30	0.81	15.50		0.35	293.6	103		
	16:00	0.78	15.54		0.35	291.3	102		
	16:30	0.72	15.59		0.35	287.5	101		
	17:00	0.68	15.64		0.35	284.6	100		
	17:30	0.64	15.67		0.35	282.4	99		
	18:00	0.59	15.72		0.35	278.8	98		
	18:30	0.53	15.79		0.35	274.5	96		
	19:00	0.52	15.79		0.35	274.4	96		
	19:30	0.55	15.77		0.35	275.9	97		
	20:00	0.54	15.78		0.35	275.1	96		
	20:30	0.53	15.78		0.35	274.8	96		
	21:00	0.56	15.76		0.35	276.6	97		
	21:30	0.57	15.75		0.35	277.2	97		
	22:00	0.55	15.77		0.35	275.8	97		
	22:30	0.54	15.77		0.35	275.5	96		
	23:00	0.56	15.75		0.35	276.9	97		
	23:30	0.56	15.75		0.35	276.8	97	120 (6)	
08/06/97	00:00	0.55	15.77		0.35	275.8	97		
	00:30	0.55	15.76		0.35	276.1	97		
	01:00	0.57	15.74		0.35	277.5	97		
	01:30	0.56	15.75		0.35	277.0	97		
	02:00	0.55	15.76		0.35	276.1	97		
	02:30	0.56	15.75		0.35	276.7	97		
	03:00	0.58	15.74		0.35	278.0	97		
	03:30	0.57	15.75		0.35	277.3	97		
	04:00	0.56	15.76		0.35	276.5	97		
	04:30	0.58	15.73		0.35	278.0	97		
	05:00	0.59	15.72		0.35	279.1	98		
	05:30	0.58	15.73		0.35	278.2	97		
	06:00	0.58	15.73		0.35	278.2	97		
	06:30	0.60	15.71		0.35	279.6	98		
	07:00	0.61	15.70		0.35	280.0	98		
	07:30	0.59	15.73		0.35	278.6	97		
	08:00	0.58	15.73		0.20	278.1	56		70
	08:30	0.59	15.72		0.35	278.7	98		
	09:00	0.60	15.71		0.35	279.5	98		
	09:30	0.59	15.73		0.35	278.5	97		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	10:00	0.57	15.75		0.35	277.3	97		
	10:30	0.58	15.74		0.35	277.8	97		
	11:00	0.57	15.74		0.35	277.6	97		
	11:30	0.56	15.75		0.35	276.8	97		
	12:00	0.57	15.74		0.35	277.5	97		
	12:30	0.58	15.73		0.35	278.2	97		
	13:00	0.57	15.75		0.35	277.2	97		
	13:30	0.55	15.77		0.35	275.8	97		
	14:00	0.56	15.75		0.35	276.9	97		
	14:30	0.64	15.67		0.35	282.1	99		
	15:00	0.71	15.60		0.35	286.7	100		
	15:30	0.76	15.56		0.35	289.9	101		
	16:00	0.76	15.55		0.35	290.2	102		
	16:30	0.78	15.53		0.35	291.6	102		
	17:00	0.81	15.51		0.35	293.3	103		
	17:30	0.74	15.57		0.35	288.9	101		
	18:00	0.73	15.58		0.35	288.3	101		
	18:30	0.82	15.50		0.35	293.9	103		
	19:00	0.77	15.54		0.35	290.9	102		
	19:30	0.85	15.46		0.35	296.4	104		
	20:00	0.95	15.36		0.35	303.0	106		
	20:30	0.93	15.38		0.35	301.5	106		
	21:00	0.90	15.41		0.35	299.5	105		
	21:30	0.91	15.40		0.35	300.5	105		
	22:00	0.90	15.42		0.35	299.3	105		
	22:30	0.86	15.45		0.35	297.2	104		
	23:00	0.89	15.42		0.35	298.8	105		
	23:30	0.91	15.40		0.35	300.2	105		
06/07/97	00:00	0.88	15.43		0.35	298.5	104	119 (6)	
	00:30	0.87	15.44		0.35	297.7	104		
	01:00	0.88	15.44		0.35	298.1	104		
	01:30	0.83	15.48		0.35	295.0	103		
	02:00	0.74	15.57		0.35	289.1	101		
	02:30	0.69	15.62		0.35	285.6	100		
	03:00	0.67	15.64		0.35	284.1	99		
	03:30	0.64	15.67		0.35	282.4	99		
	04:00	0.63	15.69		0.35	281.2	98		
	04:30	0.63	15.68		0.35	281.7	99		
	05:00	0.64	15.68		0.35	282.0	99		
	05:30	0.63	15.69		0.35	281.2	98		
	06:00	0.62	15.69		0.35	280.8	98		
	06:30	0.63	15.69		0.35	281.2	98		
	07:00	0.63	15.69		0.35	281.2	98		
	07:30	0.61	15.70		0.35	280.2	98		
	08:00	0.60	15.71		0.35	279.6	98		
	08:30	0.61	15.70		0.35	280.0	98		
	09:00	0.61	15.71		0.35	279.8	98		
	09:30	0.59	15.72		0.35	278.8	98		
	10:00	0.58	15.73		0.35	278.4	97		
	10:30	0.60	15.72		0.35	279.3	98		
	11:00	0.58	15.73		0.35	278.3	97		
	11:30	0.58	15.73		0.35	278.0	97		
	12:00	0.59	15.72		0.35	279.0	98		
	12:30	0.61	15.71		0.35	279.8	98		
	13:00	0.61	15.70		0.35	280.2	98		
	13:30	0.59	15.73		0.35	278.6	97		
	14:00	0.60	15.72		0.35	279.2	98		
	14:30	0.60	15.72		0.35	279.2	98		
	15:00	0.59	15.72		0.35	278.7	98		
	15:30	0.59	15.72		0.35	278.9	98		
	16:00	0.72	15.59		0.35	287.5	101		
	16:30	0.85	15.47		0.35	295.9	104		
	17:00	0.92	15.40		0.35	300.7	105		
	17:30	0.86	15.45		0.35	296.8	104		
	18:00	0.78	15.53		0.35	291.8	102		
	18:30	0.65	15.66		0.35	282.8	99		
	19:00	0.50	15.81		0.35	272.7	95		
	19:30	0.61	15.70		0.35	280.3	98		
	20:00	0.78	15.53		0.35	291.6	102		
	20:30	0.88	15.44		0.35	297.9	104		
	21:00	0.95	15.36		0.35	303.0	106		
	21:30	1.02	15.29		0.35	307.6	108		
	22:00	1.06	15.25		0.35	310.6	109		
	22:30	1.06	15.26		0.35	310.1	109		
	23:00	1.07	15.24		0.35	310.9	109		
	23:30	1.10	15.22		0.35	312.8	109	121 (6)	
06/08/97	00:00	1.10	15.21		0.35	313.0	110		
	00:30	1.08	15.23		0.35	311.6	109		
	01:00	1.02	15.29		0.35	307.8	108		
	01:30	0.92	15.40		0.35	300.7	105		
	02:00	0.81	15.50		0.35	293.5	103		
	02:30	0.75	15.56		0.35	289.4	101		
	03:00	0.74	15.58		0.35	288.7	101		
	03:30	0.71	15.60		0.35	287.1	100		
	04:00	0.68	15.63		0.35	284.8	100		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	04:30	0.66	15.65		0.35	283.8	99		
	05:00	0.66	15.65		0.35	283.4	99		
	05:30	0.63	15.69		0.35	281.3	98		
	06:00	0.59	15.72		0.35	279.1	98		
	06:30	0.60	15.71		0.35	279.5	98		
	07:00	0.62	15.69		0.35	280.8	98		
	07:30	0.61	15.70		0.35	280.2	98		
	08:00	0.60	15.71		0.35	279.6	98		
	08:30	0.61	15.71		0.35	280.0	98		
	09:00	0.61	15.70		0.35	280.4	98		
	09:30	0.59	15.72		0.35	278.8	98		
	10:00	0.57	15.74		0.35	277.4	97		
	10:30	0.59	15.72		0.35	278.8	98		
	11:00	0.60	15.71		0.35	279.7	98		
	11:30	0.59	15.72		0.35	279.0	98		
	12:00	0.58	15.74		0.35	277.9	97		
	12:30	0.58	15.73		0.35	278.2	97		
	13:00	0.57	15.74		0.35	277.4	97		
	13:30	0.54	15.77		0.35	275.3	96		
	14:00	0.53	15.79		0.35	274.6	96		
	14:30	0.55	15.76		0.35	276.0	97		
	15:00	0.58	15.73		0.35	278.1	97		
	15:30	0.59	15.72		0.35	278.8	98		
	16:00	0.60	15.72		0.35	279.2	98		
	16:30	0.65	15.66		0.35	282.9	99		
	17:00	0.71	15.61		0.35	286.5	100		
	17:30	0.75	15.56		0.35	289.8	101		
	18:00	0.78	15.53		0.35	291.7	102		
	18:30	0.80	15.52		0.35	292.6	102		
	19:00	0.83	15.48		0.35	295.0	103		
	19:30	0.88	15.44		0.35	297.9	104		
	20:00	0.94	15.37		0.35	302.3	106		
	20:30	1.02	15.29		0.35	307.5	108		
	21:00	1.05	15.26		0.35	309.9	108		
	21:30	1.07	15.24		0.35	311.0	109		
	22:00	1.10	15.21		0.35	313.1	110		
	22:30	1.12	15.19		0.35	314.5	110		
	23:00	1.09	15.22		0.35	312.3	109		
	23:30	1.00	15.32		0.35	306.0	107	122 (6)	
06/09/97	00:00	0.89	15.43		0.35	298.6	105		
	00:30	0.78	15.53		0.35	291.8	102		
	01:00	0.73	15.58		0.35	288.5	101		
	01:30	0.72	15.60		0.35	287.3	101		
	02:00	0.69	15.62		0.35	285.7	100		
	02:30	0.66	15.65		0.35	283.7	99		
	03:00	0.65	15.66		0.35	282.8	99		
	03:30	0.66	15.65		0.35	283.6	99		
	04:00	0.64	15.67		0.35	282.2	99		
	04:30	0.61	15.70		0.35	280.3	98		
	05:00	0.60	15.71		0.35	279.5	98		
	05:30	0.60	15.71		0.35	279.7	98		
	06:00	0.59	15.72		0.35	278.7	98		
	06:30	0.57	15.74		0.35	277.8	97		
	07:00	0.60	15.72		0.35	279.2	98		
	07:30	0.60	15.71		0.35	279.6	98		
	08:00	0.59	15.72		0.35	278.8	98		
	08:30	0.59	15.72		0.35	278.8	98		
	09:00	0.61	15.70		0.35	280.3	98		
	09:30	0.61	15.70		0.35	280.1	98		
	10:00	0.58	15.73		0.12	278.3	33		44
	10:30	0.55	15.77		0.35	275.8	97		
	11:00	0.53	15.78		0.35	274.7	96		
	11:30	0.60	15.71		0.35	279.7	98		
	12:00	0.56	15.75		0.35	276.9	97		
	12:30	0.55	15.76		0.35	276.0	97		
	13:00	0.57	15.74		0.35	277.8	97		
	13:30	0.57	15.74		0.35	277.7	97		
	14:00	0.54	15.77		0.35	275.5	96		
	14:30	0.54	15.77		0.35	275.5	96		
	15:00	0.55	15.77		0.35	275.9	97		
	15:30	0.52	15.79		0.35	274.4	96		
	16:00	0.52	15.79		0.35	274.2	96		
	16:30	0.54	15.77		0.35	275.5	96		
	17:00	0.55	15.76		0.35	276.1	97		
	17:30	0.55	15.77		0.35	275.9	97		
	18:00	0.56	15.75		0.35	276.9	97		
	18:30	0.58	15.74		0.35	277.9	97		
	19:00	0.56	15.75		0.35	277.1	97		
	19:30	0.56	15.76		0.35	276.5	97		
	20:00	0.58	15.73		0.35	278.2	97		
	20:30	0.59	15.72		0.35	278.8	98		
	21:00	0.58	15.73		0.35	278.2	97		
	21:30	0.58	15.74		0.35	277.8	97		
	22:00	0.60	15.72		0.35	279.3	98		
	22:30	0.59	15.72		0.35	278.8	98		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	23:00	0.57	15.75		0.35	277.2	97		
	23:30	0.56	15.75		0.35	276.7	97	116 (6)	
06/10/97	00:00	0.57	15.74		0.35	277.5	97		
	00:30	0.56	15.75		0.35	276.8	97		
	01:00	0.54	15.78		0.35	275.3	96		
	01:30	0.54	15.77		0.35	275.5	96		
	02:00	0.53	15.78		0.35	274.8	96		
	02:30	0.47	15.85		0.35	270.5	95		
	03:00	0.40	15.91		0.35	266.4	93		
	03:30	0.39	15.92		0.35	265.4	93		
	04:00	0.37	15.94		0.35	264.0	92		
	04:30	0.33	15.98		0.35	261.3	91		
	05:00	0.31	16.01		0.35	259.7	91		
	05:30	0.33	15.98		0.35	261.3	91		
	06:00	0.32	15.99		0.35	261.0	91		
	06:30	0.30	16.01		0.35	259.7	91		
	07:00	0.31	16.00		0.35	260.3	91		
	07:30	0.33	15.98		0.35	261.4	91		
	08:00	0.32	16.00		0.35	260.5	91		
	08:30	0.30	16.01		0.35	259.3	91		
	09:00	0.32	15.99		0.35	260.7	91		
	09:30	0.31	16.00		0.35	260.1	91		
	10:00	0.29	16.03		0.35	258.5	90		
	10:30	0.28	16.04		0.35	257.8	90		
	11:00	0.28	16.03		0.35	258.2	90		
	11:30	0.25	16.06		0.35	256.0	90		
	12:00	0.27	16.05		0.35	257.1	90		
	12:30	0.28	16.04		0.35	257.9	90		
	13:00	0.28	16.03		0.35	258.1	90		
	13:30	0.27	16.04		0.35	25[illegible].5	90		
	14:00	0.26	16.05		0.35	256.6	90		
	14:30	0.30	16.01		0.35	259.6	91		
	15:00	0.31	16.01		0.35	259.9	91		
	15:30	0.28	16.03		0.35	258.1	90		
	16:00	0.29	16.02		0.35	258.8	91		
	16:30	0.31	16.00		0.35	259.9	91		
	17:00	0.30	16.02		0.35	259.1	91		
	17:30	0.28	16.03		0.35	258.0	90		
	18:00	0.29	16.02		0.35	259.0	91		
	18:30	0.29	16.02		0.35	258.8	91		
	19:00	0.28	16.03		0.35	257.9	90		
	19:30	0.25	16.06		0.35	256.2	90		
	20:00	0.27	16.04		0.35	257.5	90		
	20:30	0.28	16.03		0.35	257.9	90		
	21:00	0.23	16.08		0.35	255.0	89		
	21:30	0.25	16.06		0.35	256.2	90		
	22:00	0.28	16.04		0.35	257.9	90		
	22:30	0.25	16.06		0.35	256.2	90		
	23:00	0.24	16.07		0.35	255.4	89		
	23:30	0.26	16.05		0.35	256.6	90	110 (6)	
06/11/97	00:00	0.27	16.05		0.35	257.1	90		
	00:30	0.25	16.06		0.35	256.0	90		
	01:00	0.26	16.06		0.35	256.4	90		
	01:30	0.31	16.00		0.35	260.1	91		
	02:00	0.34	15.97		0.35	262.1	92		
	02:30	0.35	15.96		0.35	262.9	92		
	03:00	0.38	15.93		0.35	265.0	93		
	03:30	0.42	15.89		0.35	267.5	94		
	04:00	0.41	15.90		0.35	267.0	93		
	04:30	0.40	15.92		0.35	265.9	93		
	05:00	0.43	15.88		0.35	268.1	94		
	05:30	0.44	15.87		0.35	268.8	94		
	06:00	0.41	15.90		0.35	267.0	93		
	06:30	0.42	15.89		0.35	267.5	94		
	07:00	0.44	15.88		0.35	268.6	94		
	07:30	0.43	15.89		0.35	267.9	94		
	08:00	0.44	15.88		0.35	268.5	94		
	08:30	0.71	15.60		0.35	286.7	100		
	09:00	1.71	14.60		0.02	353.9	7		7
	09:30	1.66	14.65		0.35	350.4	123		
	10:00	1.62	14.69		0.35	347.8	122		
	10:30	1.63	14.68		0.35	348.6	122		
	11:00	1.60	14.72		0.35	346.2	121		
	11:30	1.54	14.77		0.35	342.7	120		
	12:00	1.55	14.76		0.35	343.1	120		
	12:30	1.55	14.76		0.35	343.1	120		
	13:00	1.52	14.79		0.35	341.3	119		
	13:30	1.52	14.79		0.35	341.3	119		
	14:00	1.53	14.78		0.35	341.7	120		
	14:30	1.51	14.81		0.35	340.3	119		
	15:00	1.51	14.81		0.35	340.3	119		
	15:30	1.53	14.78		0.35	341.7	120		
	16:00	1.53	14.78		0.35	341.7	120		
	16:30	1.51	14.80		0.35	340.5	119		
	17:00	1.52	14.80		0.35	340.9	119		

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Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	17:30	1.53	14.79		0.35	341.5	120		
	18:00	1.52	14.80		0.35	340.9	119		
	18:30	1.51	14.80		0.35	340.4	119		
	19:00	1.54	14.77		0.35	342.6	120		
	19:30	1.57	14.74		0.35	344.6	121		
	20:00	1.61	14.71		0.35	346.9	121		
	20:30	1.65	14.66		0.35	349.8	122		
	21:00	1.69	14.63		0.35	352.3	123		
	21:30	1.77	14.55		0.35	357.7	125		
	22:00	1.84	14.47		0.35	362.5	127		
	22:30	1.89	14.42		0.35	366.0	128		
	23:00	1.86	14.45		0.35	364.1	127		
	23:30	1.87	14.44		0.35	364.6	128	130 (6)	
06/12/97	00:00	1.92	14.39		0.35	367.9	129		
	00:30	1.94	14.37		0.35	369.3	129		
	01:00	1.90	14.42		0.35	366.3	128		
	01:30	1.86	14.45		0.35	364.2	127		
	02:00	1.89	14.42		0.35	365.9	128		
	02:30	1.86	14.45		0.35	364.1	127		
	03:00	1.83	14.48		0.35	362.2	127		
	03:30	1.86	14.46		0.35	363.7	127		
	04:00	1.85	14.47		0.35	362.9	127		
	04:30	1.82	14.50		0.35	360.9	126		
	05:00	1.84	14.47		0.35	362.5	127		
	05:30	1.84	14.48		0.35	362.2	127		
	06:00	1.77	14.54		0.35	357.8	125		
	06:30	1.72	14.60		0.35	354.2	124		
	07:00	1.69	14.62		0.35	352.7	123		
	07:30	1.66	14.66		0.35	350.2	123		
	08:00	1.61	14.70		0.35	347.4	122		
	08:30	1.60	14.71		0.35	346.4	121		
	09:00	1.60	14.71		0.35	346.8	121		
	09:30	1.61	14.71		0.35	346.8	121		
	10:00	1.57	14.74		0.35	344.8	121		
	10:30	1.56	14.75		0.35	343.9	120		
	11:00	1.54	14.77		0.35	342.7	120		
	11:30	1.56	14.75		0.35	344.0	120		
	12:00	1.65	14.66		0.35	349.7	122		
	12:30	1.68	14.63		0.35	351.9	123		
	13:00	1.70	14.62		0.35	352.9	124		
	13:30	1.72	14.59		0.35	354.8	124		
	14:00	1.72	14.59		0.35	354.5	124		
	14:30	1.74	14.58		0.35	355.6	124		
	15:00	1.75	14.56		0.35	356.4	125		
	15:30	1.73	14.58		0.35	355.1	124		
	16:00	1.81	14.50		0.35	360.6	126		
	16:30	1.78	14.54		0.35	358.4	125		
	17:00	1.71	14.60		0.35	354.1	124		
	17:30	1.72	14.60		0.35	354.3	124		
	18:00	1.70	14.61		0.35	353.5	124		
	18:30	1.68	14.63		0.35	352.0	123		
	19:00	1.62	14.69		0.35	348.1	122		
	19:30	1.58	14.74		0.35	344.8	121		
	20:00	1.64	14.68		0.35	349.0	122		
	20:30	1.68	14.63		0.35	351.9	123		
	21:00	1.67	14.65		0.35	350.9	123		
	21:30	1.67	14.64		0.35	351.2	123		
	22:00	1.68	14.64		0.35	351.6	123		
	22:30	1.60	14.71		0.35	346.6	121		
	23:00	1.51	14.81		0.35	340.3	119		
	23:30	1.42	14.89		0.35	334.5	117	149 (6)	
06/13/97	00:00	1.40	14.92		0.35	332.9	117		
	00:30	1.35	14.96		0.35	329.9	115		
	01:00	1.32	15.00		0.35	327.5	115		
	01:30	1.34	14.97		0.35	329.1	115		
	02:00	1.43	14.89		0.35	334.8	117		
	02:30	1.46	14.85		0.35	337.4	118		
	03:00	1.49	14.82		0.35	339.1	119		
	03:30	1.53	14.78		0.35	341.9	120		
	04:00	1.56	14.75		0.35	344.0	120		
	04:30	1.56	14.75		0.35	343.8	120		
	05:00	1.57	14.74		0.35	344.4	121		
	05:30	1.60	14.71		0.35	346.4	121		
	06:00	1.61	14.71		0.35	346.9	121		
	06:30	1.60	14.71		0.35	346.4	121		
	07:00	1.62	14.70		0.35	347.6	122		
	07:30	1.63	14.68		0.35	348.6	122		
	08:00	1.64	14.67		0.35	349.2	122		
	08:30	1.64	14.68		0.06	348.8	21		20
	09:00	1.64	14.67		0.35	349.3	122		
	09:30	1.69	14.62		0.35	352.6	123		
	10:00	1.67	14.64		0.35	351.1	123		
	10:30	1.61	14.70		0.35	347.2	122		
	11:00	1.62	14.69		0.35	347.8	122		
	11:30	1.66	14.65		0.35	350.6	123		

GENERAL ELECTRIC COMPANY - SNOOK KILL FLOW SUMMARY

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	12:00	1.62	14.69		0.35	348.1	122		
	12:30	1.61	14.70		0.35	347.4	122		
	13:00	1.65	14.67		0.35	349.6	122		
	13:30	1.64	14.67		0.35	349.2	122		
	14:00	1.65	14.66		0.35	349.7	122		
	14:30	1.72	14.59		0.35	354.5	124		
	15:00	1.78	14.53		0.35	358.6	126		
	15:30	1.83	14.48		0.35	361.8	127		
	16:00	1.85	14.46		0.35	363.4	127		
	16:30	1.87	14.44		0.35	364.5	128		
	17:00	1.89	14.43		0.35	365.7	128		
	17:30	1.90	14.42		0.35	366.3	128		
	18:00	1.95	14.37		0.35	369.6	129		
	18:30	1.99	14.32		0.35	372.7	130		
	19:00	2.04	14.28		0.35	375.8	132		
	19:30	2.08	14.24		0.35	378.5	132		
	20:00	2.11	14.20		0.35	380.7	133		
	20:30	2.12	14.19		0.35	381.4	133		
	21:00	2.16	14.16		0.35	383.7	134		
	21:30	2.18	14.14		0.35	385.1	135		
	22:00	2.17	14.14		0.35	385.0	135		
	22:30	2.17	14.15		0.35	384.5	135		
	23:00	2.06	14.25		0.35	377.3	132		
	23:30	1.90	14.41		0.35	366.5	128	147 (6)	
06/14/97	00:00	1.74	14.57		0.35	355.9	125		
	00:30	1.67	14.64		0.35	351.3	123		
	01:00	1.62	14.69		0.35	347.8	122		
	01:30	1.55	14.76		0.35	343.4	120		
	02:00	1.52	14.80		0.35	340.9	119		
	02:30	1.51	14.81		0.35	340.1	119		
	03:00	1.47	14.84		0.35	337.9	118		
	03:30	1.49	14.83		0.35	338.8	119		
	04:00	1.60	14.71		0.35	346.4	121		
	04:30	1.62	14.69		0.35	348.1	122		
	05:00	1.66	14.65		0.35	350.5	123		
	05:30	1.72	14.59		0.35	354.4	124		
	06:00	1.73	14.58		0.35	355.1	124		
	06:30	1.72	14.59		0.35	354.5	124		
	07:00	1.76	14.56		0.35	356.9	125		
	07:30	1.77	14.54		0.35	357.8	125		
	08:00	1.75	14.57		0.35	356.3	125		
	08:30	1.76	14.55		0.35	357.1	125		
	09:00	1.79	14.53		0.35	359.0	126		
	09:30	1.76	14.55		0.35	357.5	125		
	10:00	1.76	14.56		0.35	356.9	125		
	10:30	1.76	14.56		0.35	356.9	125		
	11:00	1.77	14.54		0.35	357.8	125		
	11:30	1.75	14.56		0.35	356.7	125		
	12:00	1.75	14.56		0.35	356.8	125		
	12:30	1.79	14.52		0.35	359.4	126		
	13:00	1.76	14.55		0.35	357.5	125		
	13:30	1.78	14.53		0.35	358.7	126		
	14:00	1.83	14.49		0.35	361.6	127		
	14:30	1.81	14.50		0.35	360.5	126		
	15:00	1.80	14.51		0.35	360.0	126		
	15:30	1.82	14.50		0.35	361.0	126		
	16:00	1.83	14.48		0.35	361.8	127		
	16:30	1.81	14.51		0.35	360.2	126		
	17:00	1.80	14.51		0.35	360.1	126		
	17:30	1.82	14.49		0.35	361.1	126		
	18:00	1.78	14.53		0.35	358.8	126		
	18:30	1.78	14.53		0.35	358.8	126		
	19:00	1.81	14.50		0.35	360.8	126		
	19:30	1.80	14.51		0.35	359.8	126		
	20:00	1.77	14.54		0.35	358.1	125		
	20:30	1.81	14.50		0.35	360.4	126		
	21:00	1.81	14.50		0.35	360.6	126		
	21:30	1.79	14.52		0.35	359.3	126		
	22:00	1.80	14.51		0.35	360.0	126		
	22:30	1.83	14.49		0.35	361.6	127		
	23:00	1.80	14.51		0.35	359.8	126		
	23:30	1.73	14.59		0.35	355.0	124	149 (6)	
06/15/97	00:00	1.63	14.68		0.35	348.7	122		
	00:30	1.55	14.77		0.35	342.9	120		
	01:00	1.50	14.82		0.35	339.5	119		
	01:30	1.46	14.85		0.35	337.0	118		
	02:00	1.42	14.89		0.35	334.6	117		
	02:30	1.40	14.92		0.35	332.9	117		
	03:00	1.39	14.93		0.35	332.2	116		
	03:30	1.37	14.95		0.35	330.8	116		
	04:00	1.33	14.98		0.35	328.5	115		
	04:30	1.39	14.92		0.35	332.4	116		
	05:00	1.51	14.81		0.35	340.1	119		
	05:30	1.56	14.76		0.35	343.5	120		
	06:00	1.61	14.70		0.35	347.4	122		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	06:30	1.69	14.63		0.35	352.3	123		
	07:00	1.70	14.61		0.35	353.5	124		
	07:30	1.71	14.61		0.35	353.5	124		
	08:00	1.75	14.56		0.35	356.7	125		
	08:30	1.77	14.54		0.35	357.8	125		
	09:00	1.74	14.57		0.35	355.9	125		
	09:30	1.79	14.53		0.35	359.0	126		
	10:00	1.81	14.51		0.35	360.2	126		
	10:30	1.77	14.54		0.35	357.8	125		
	11:00	1.78	14.54		0.35	358.3	125		
	11:30	1.79	14.52		0.35	359.1	126		
	12:00	1.74	14.57		0.35	356.1	125		
	12:30	1.75	14.56		0.35	356.7	125		
	13:00	1.78	14.53		0.35	358.8	126		
	13:30	1.77	14.55		0.35	357.6	125		
	14:00	1.77	14.55		0.35	357.6	125		
	14:30	1.79	14.52		0.35	359.4	126		
	15:00	1.80	14.52		0.35	359.6	126		
	15:30	1.78	14.53		0.35	358.6	125		
	16:00	1.80	14.51		0.35	359.8	126		
	16:30	1.80	14.51		0.35	360.0	126		
	17:00	1.79	14.52		0.35	359.1	126		
	17:30	1.79	14.52		0.35	359.4	126		
	18:00	1.81	14.51		0.35	360.2	126		
	18:30	1.79	14.52		0.35	359.5	126		
	19:00	1.79	14.52		0.35	359.1	126		
	19:30	1.79	14.52		0.35	359.2	126		
	20:00	1.79	14.52		0.35	359.3	126		
	20:30	1.79	14.52		0.35	359.4	126		
	21:00	1.79	14.53		0.35	359.0	126		
	21:30	1.79	14.53		0.35	358.9	126		
	22:00	1.73	14.58		0.35	355.4	124		
	22:30	1.64	14.68		0.35	348.9	122		
	23:00	1.55	14.76		0.35	343.1	120		
	23:30	1.51	14.81		0.35	340.2	119	148 (6)	
06/16/97	00:00	1.45	14.86		0.35	336.6	118		
	00:30	1.40	14.91		0.35	333.2	117		
	01:00	1.38	14.93		0.35	331.9	116		
	01:30	1.37	14.94		0.35	331.0	116		
	02:00	1.35	14.97		0.35	329.4	115		
	02:30	1.32	14.99		0.35	327.7	115		
	03:00	1.32	14.99		0.35	327.8	115		
	03:30	1.32	15.00		0.35	327.5	115		
	04:00	1.29	15.02		0.35	325.9	114		
	04:30	1.28	15.04		0.35	324.9	114		
	05:00	1.28	15.03		0.35	325.3	114		
	05:30	1.28	15.04		0.35	324.9	114		
	06:00	1.26	15.05		0.35	323.6	113		
	06:30	1.25	15.06		0.35	323.2	113		
	07:00	1.26	15.05		0.35	324.0	113		
	07:30	1.26	15.05		0.35	323.6	113		
	08:00	1.23	15.08		0.35	321.8	113		
	08:30	1.24	15.07		0.35	322.3	113		
	09:00	1.25	15.06		0.03	323.3	10		10
	09:30	1.26	15.05		0.35	323.9	113		
	10:00	1.38	14.93		0.35	332.0	116		
	10:30	1.49	14.82		0.35	339.1	119		
	11:00	1.52	14.80		0.35	340.9	119		
	11:30	1.57	14.75		0.35	344.2	120		
	12:00	1.63	14.69		0.35	348.2	122		
	12:30	1.64	14.68		0.35	348.8	122		
	13:00	1.67	14.65		0.35	350.9	123		
	13:30	1.71	14.61		0.35	353.5	124		
	14:00	1.73	14.58		0.35	355.1	124		
	14:30	1.74	14.57		0.35	355.7	125		
	15:00	1.76	14.56		0.35	356.9	125		
	15:30	1.77	14.54		0.35	357.9	125		
	16:00	1.75	14.56		0.35	356.4	125		
	16:30	1.76	14.56		0.35	356.9	125		
	17:00	1.77	14.54		0.35	357.9	125		
	17:30	1.77	14.54		0.35	358.0	125		
	18:00	1.76	14.56		0.35	356.9	125		
	18:30	1.76	14.55		0.35	357.2	125		
	19:00	1.78	14.53		0.35	358.6	125		
	19:30	1.78	14.54		0.35	358.3	125		
	20:00	1.76	14.55		0.35	357.4	125		
	20:30	1.77	14.54		0.35	358.2	125		
	21:00	1.79	14.52		0.35	359.1	126		
	21:30	1.77	14.54		0.35	358.0	125		
	22:00	1.77	14.54		0.35	357.9	125		
	22:30	1.78	14.53		0.35	358.8	126		
	23:00	1.77	14.55		0.35	357.6	125		
	23:30	1.68	14.63		0.35	351.9	123	141 (6)	
06/17/97	00:00	1.58	14.73		0.35	345.2	121		
	00:30	1.48	14.83		0.35	338.7	119		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	01:00	1.42	14.90		0.35	334.2	117		
	01:30	1.36	14.95		0.35	330.4	116		
	02:00	1.31	15.00		0.35	327.1	114		
	02:30	1.35	14.96		0.35	329.8	115		
	03:00	1.40	14.92		0.35	332.9	117		
	03:30	1.37	14.95		0.35	330.9	116		
	04:00	1.32	14.99		0.35	327.6	115		
	04:30	1.28	15.03		0.35	325.1	114		
	05:00	1.29	15.03		0.35	325.4	114		
	05:30	1.30	15.01		0.35	326.6	114		
	06:00	1.33	14.99		0.35	328.2	115		
	06:30	1.35	14.96		0.35	330.0	116		
	07:00	1.40	14.91		0.35	333.2	117		
	07:30	1.53	14.78		0.35	341.7	120		
	08:00	1.59	14.73		0.35	345.6	121		
	08:30	1.54	14.77		0.63	342.3	216		
	09:00	1.52	14.79		0.35	341.3	119		
	09:30	1.63	14.68		0.35	348.5	122		
	10:00	1.72	14.60		0.35	354.3	124		
	10:30	1.83	14.48		0.35	361.8	127		
	11:00	1.90	14.42		0.35	366.4	128		
	11:30	1.95	14.36		0.35	370.1	130		
	12:00	2.00	14.31		0.35	373.3	131		
	12:30	2.04	14.27		0.35	376.0	132		
	13:00	2.07	14.25		0.35	377.7	132		
	13:30	2.08	14.23		0.35	378.9	133		
	14:00	2.09	14.22		0.35	379.3	133		
	14:30	2.10	14.21		0.35	380.3	133		
	15:00	2.11	14.21		0.35	380.4	133		
	15:30	2.18	14.13		0.35	385.4	135		
	16:00	2.34	13.97		0.35	396.1	139		
	16:30	2.33	13.98		0.35	395.7	138		
	17:00	2.33	13.98		0.35	395.4	138		
	17:30	2.36	13.95		0.35	397.4	139		
	18:00	2.34	13.98		0.35	395.7	139		
	18:30	2.30	14.02		0.35	393.1	138		
	19:00	2.26	14.06		0.35	390.4	137		
	19:30	2.16	14.15		0.35	384.2	134		
	20:00	2.04	14.27		0.35	376.0	132		
	20:30	1.98	14.33		0.35	372.2	130		
	21:00	1.93	14.38		0.35	368.9	129		
	21:30	1.89	14.42		0.35	366.0	128		
	22:00	1.87	14.45		0.35	364.4	128		
	22:30	1.87	14.44		0.35	364.6	128		
	23:00	1.85	14.46		0.35	363.4	127		
	23:30	1.82	14.50		0.35	360.9	126	153 (6)	
06/18/97	00:00	1.82	14.49		0.35	361.5	127		
	00:30	1.84	14.47		0.35	362.8	127		
	01:00	1.82	14.49		0.35	361.2	126		
	01:30	1.80	14.52		0.35	359.6	126		
	02:00	1.80	14.51		0.35	360.0	126		
	02:30	1.80	14.51		0.35	360.2	126		
	03:00	1.79	14.53		0.35	359.0	126		
	03:30	1.78	14.53		0.35	358.5	125		
	04:00	1.80	14.51		0.35	360.1	126		
	04:30	1.80	14.51		0.35	360.0	126		
	05:00	1.78	14.53		0.35	358.8	126		
	05:30	1.77	14.54		0.35	358.0	125		
	06:00	1.78	14.54		0.35	358.3	125		
	06:30	1.78	14.53		0.35	358.6	126		
	07:00	1.76	14.55		0.35	357.4	125		
	07:30	1.75	14.56		0.35	356.5	125		
	08:00	1.76	14.55		0.35	357.4	125		
	08:30	1.76	14.55		0.35	357.5	125		
	09:00	1.71	14.60		0.35	354.0	124		
	09:30	1.72	14.59		0.35	354.4	124		
	10:00	1.80	14.51		0.35	360.0	126		
	10:30	1.80	14.51		0.05	359.8	18		
	11:00	1.75	14.57		0.35	356.2	125		
	11:30	1.78	14.53		0.35	358.7	126		
	12:00	1.84	14.47		0.35	362.8	127		
	12:30	1.92	14.40		0.35	367.6	129		
	13:00	1.97	14.34		0.35	371.6	130		
	13:30	1.96	14.35		0.76	370.5	282		
	14:00	1.97	14.34		0.35	371.4	130		
	14:30	2.03	14.28		0.35	375.2	131		
	15:00	2.06	14.25		0.35	377.3	132		
	15:30	2.03	14.28		1.33	375.4	499		
	16:00	2.07	14.25		1.03	377.7	389		
	16:30	2.10	14.22		0.35	379.7	133		
	17:00	2.09	14.22		0.35	379.5	133		
	17:30	2.06	14.25		0.35	377.6	132		
	18:00	2.07	14.25		0.35	377.7	132		
	18:30	2.04	14.27		0.35	376.2	132		
	19:00	1.94	14.37		0.35	369.3	129		

Date	Time	Level (ft)(1)	Stage (ft)(1)	TSS (mg/l)	Velocity (fps)(2)	Area of Flow (ft2)	Sigma Flow (cfs)	Daily Mean Flow (cfs)	Instantaneous Flow (cfs)
	19:30	1.87	14.44		0.35	364.7	128		
	20:00	1.88	14.44		0.35	364.9	128		
	20:30	1.85	14.46		0.35	363.5	127		
	21:00	1.81	14.50		0.35	360.8	126		
	21:30	1.82	14.49		0.35	361.1	126		
	22:00	1.84	14.47		0.35	362.6	127		
	22:30	1.82	14.49		0.35	361.2	126		
	23:00	1.79	14.53		0.35	359.0	126		
	23:30	1.79	14.53		0.35	359.0	126	170 (6)	
06/19/97	00:00	1.79	14.52		0.35	359.2	126		
	00:30	1.81	14.50		0.36	360.5	130		
	01:00	1.93	14.38		1.10	368.8	406		
	01:30	2.04	14.27		0.39	376.0	147		
	02:00	2.07	14.24		0.42	378.2	159		
	02:30	2.12	14.19		0.44	381.4	168		
	03:00	2.16	14.15		0.46	384.0	177		
	03:30	2.08	14.23		0.56	378.5	212		
	04:00	2.13	14.19		0.42	381.7	160		
	04:30	2.30	14.01		0.36	393.3	142		
	05:00	2.27	14.04		0.51	391.5	200		
	05:30	2.20	14.11		0.53	386.6	205		
	06:00	2.11	14.20		0.57	380.6	217		
	06:30	1.99	14.32		0.56	372.9	209		
	07:00	1.94	14.37		0.49	369.2	181		
	07:30	2.04	14.28		0.39	375.6	146		
	08:00	2.08	14.23		0.40	378.8	152		
	08:30	2.03	14.29		0.43	375.1	161		
	09:00	1.95	14.37		0.44	369.6	163		
	09:30	1.86	14.46		0.48	363.6	175		
	10:00	1.83	14.48		0.43	361.8	156		
	10:30	1.79	14.52		0.40	359.4	144		
	11:00	1.74	14.58		0.37	355.5	132		
	11:30	1.76	14.55		0.35	357.1	125		
	12:00	1.86	14.46		0.35	363.6	127		
	12:30	1.96	14.35		0.35	370.8	130		
	13:00	2.01	14.30		0.35	374.2	131	170 (6)	

(1) - level has been used to calculate stage. When the probe was removed for maintenance, the stage was measured, and the subsequently calculated stage measurements adjusted accordingly. Stage is actually the distance from a point on the bridge down to the surface of the water.
(2) - velocity meter unreliable during low flow periods (below approximately 0.35 ft/sec). Velocity of 0.35 ft/sec assumed during low flow periods unless instantaneous data wa based on instantaneous flow measurements.
(3) - data unreliable due to movement/obstruction of probe
(4) - flow based on stage and velocity measured by Sigma unit
(5) - daily composite
(6) - flow estimated using mean low flow velocity of 0.35 ft/sec, which was the mean of 10 instantaneous measurements made during periods of low flow. The flow calculated by this method is then increased by 20% to reflect bias identified between flow calculated using discrete areas and velocity measurements (most accurate) and using a mean velocity for the entire channel cross section.

APPENDIX K

Data validation summary

Appendix K. Data validation summary

The PCB analytical data (NEA 1990) generated for the 1997 High Flow and Suspended Solids Monitoring Program were evaluated based on quality assurance/quality control (QA/QC) criteria established by the United States Environmental Protection Agency (USEPA), New York State Department of Environmental Conservation (NYSDEC), and criteria presented in the quality assurance project plan (QAPP; O'Brien & Gere 1992). Validation procedures were based on contract laboratory program (CLP) data validation guidelines developed by the USEPA. Minor deficiencies in the data generation process resulted in approximation (flagged with a "UJ" or "J") of sample data. Approximation of a data point indicates uncertainty in the reported concentration of the analyte, but not its assigned identity.

The conservative assumptions used in the development of conclusions made based on these analytical results allow for the quantitative use of approximated analytical data while still adhering to the project data quality objectives (DQOs) which are quantitative and qualitative statements specifying the quality of the environmental data required to support the decision making process. DQOs define the total uncertainty in the data that is acceptable. For this investigation, the DQOs require that the total uncertainty of the analytical data remain within an acceptable range so as not to hinder the intended use of the data. The data is intended to be used to support both qualitative and quantitative conclusions concerning the potential sources or migration pathways of PCBs at the site, to support engineering evaluations of potential remedial response activities, and to support the assessment environmental risks from PCBs.

This approach to the use of analytical data is consistent with the guidance presented in the USEPA *Human Health Evaluation Manual* (USEPA 1989). Specific QA/QC deviations that resulted in qualification of sample data are presented in the data validation technical memorandum (O'Brien &Gere 1999). Additional information on the impact of deviations from QC measurements on the analytical data was found in the *Guidance for Data Usability in Risk Assessment* (USEPA 1992). A summary of the results of the data validation process is presented in Table K-1 (O'Brien & Gere 1999).

The analytical data are summarized in terms of its usability for these site characterization purposes. The primary objective of the 1998 High Flow and Suspended Solids Monitoring Program was to evaluate the potential for pulsed loading of PCBs during a high flow event. Validation of the PCB data in this report indicated that the DQOs defined in the QAPP were met. The adherence of the data to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters presented in the QAPP are summarized below.

Precision is measured through field duplicate samples and split samples. For the sampling program associated with this investigation, 23 environmental samples were qualified as approximate "J" due to deviations from guidance criteria for a field duplicate analysis. The application of the qualifier to the sample batch is conservative. Heterogeneity of PCB concentrations may be limited to the duplicate pair. Analytical controls were within expected ranges.

Accuracy of a compound measurement is indicated by recoveries of matrix, blank, and surrogate spikes, internal standard area performance, calibration, chromatographic resolution, compound quantitation, and compound identification criteria. For this sampling program, the criteria for assessment of data accuracy were within expected ranges.

Representativeness of the analytical data is assessed by review of holding times, sample preservation, extraction procedures, and blank analyses. For this sampling program, 12 samples were qualified as undetected "U" due to the presence of background contamination of blank samples at concentrations less than the 11 ng/l reporting limit. Data validation guidance qualifies environmental sample PCB concentrations as undetected when the PCB concentration is less than 5 times the concentration detected in the blank.

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to verify their concentrations. Standard analytical methods, reporting procedures, and USEPA traceable standards were consistently used by NEA. In September 1997, the lab began using a revised Green Bay mixed Aroclor congener distribution standard. Data collected prior to September 1, 1997 were adjusted to match this analytical adjustment by using calibration correction factors. Therefore, comparability of data collected before and after September 1, 1997 is not compromised.

Completeness is defined as the percentage of sample results that have been determined to be usable during the data validation process. Completeness or the percent usability of the data, for this investigation was 100%. The percent usability calculation did not include an assessment of QC samples (blind duplicate samples and equipment blanks) collected to aid in the evaluation of environmental sample data.

Overall, the analytical data are of sufficient quality to meet the project DQOs and may be used for qualitative and quantitative purposes. These uses include, but are not limited to, performance of human health and ecological risk assessments, evaluation of remedial alternatives, and estimation of the nature and extent of PCBs at the site.

References

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U.S. Environmental Protection Agency (USEPA). 1989. *USEPA Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual (Part A)*, 540/1-89/002. Washington D.C.

U.S. Environmental Protection Agency (USEPA). 1992. *Guidance for Data Usability in Risk Assessment (Part A) Final*, 9585.7-09A. Washington, D.C.

Table K-1. *Data validation results.*

Date Collected	Field ID	Lab ID	PCB (ng/l)	Qualifier	Section Reference	Deviation
4/6/97	HRM 197.0-1	9701333	13	J	4.1.7	field duplicate excursion
				U	4.1.4	blank PCB concentration
4/6/97	HRM 194.2E-1	9701335	12	J	4.1.7	field duplicate excursion
				U	4.1.4	blank PCB concentration
4/6/97	HRM 188.5W-1	9701336	19	J	4.1.7	field duplicate excursion
				U	4.1.4	blank PCB concentration
4/6/97	HRM 188.5E-1	9701337	23	J	4.1.7	field duplicate excursion
				U	4.1.4	blank PCB concentration
4/7/97	HRM 194.2 W 3	9701322	15	U	4.1.4	blank PCB concentration
4/7/97	HRM 188.5 W 3A	9701323		U	4.1.4	blank PCB concentration
4/7/97	HRM 194.2E-2	9701341	14	J	4.1.7	field duplicate excursion
			19	U	4.1.4	blank PCB concentration
4/7/97	HRM 188.5E-2	9701342	29	J	4.1.7	field duplicate excursion
				U	4.1.4	blank PCB concentration
4/7/97	HRM 188.5E-3	9701343	25	J	4.1.7	field duplicate excursion
				U	4.1.4	blank PCB concentration
4/7/97	HRM 188.5E-3A	9701344	23	J	4.1.7	field duplicate excursion
				U	4.1.4	blank PCB concentration
4/7/97	HRM 194.2E-3	9701345	28	J	4.1.7	field duplicate excursion
				U	4.1.4	blank PCB concentration
4/7/97	HRM 194.2E-4	9701348	12	J	4.1.7	field duplicate excursion
				U	4.1.4	blank PCB concentration
4/8/97	HRM 188.5W-4	9701349	31	J	4.1.7	field duplicate excursion
4/8/97	HRM 188.5E-4	9701350	23	J	4.1.7	field duplicate excursion
4/8/97	HRM 194.2E-5	9701351	20	J	4.1.7	field duplicate excursion
4/8/97	HRM 188.5W-5	9701352	33	J	4.1.7	field duplicate excursion
4/8/97	HRM 188.5 E-5	9701353	40	J	4.1.7	field duplicate excursion
4/8/97	HRM 188.5W-6	9701356	23	J	4.1.7	field duplicate excursion
4/8/97	HRM 194.2W-7	9701358	15	J	4.1.7	field duplicate excursion
4/8/97	HRM 188.5W-7	9701359	27	J	4.1.7	field duplicate excursion
4/8/97	HRM 194.2E-6	9701361	22	J	4.1.7	field duplicate excursion
4/8/97	HRM 188.5E-6	9701362	23	J	4.1.7	field duplicate excursion
4/8/97	HRM 194.2E-7	9701363	54	J	4.1.7	field duplicate excursion
4/8/97	HRM 188.5E-7	9701364	47	J	4.1.7	field duplicate excursion
4/8/97	HRM 188.5E-6-DUP	9701365	44	J	4.1.7	field duplicate excursion

Source: O'Brien & Gere Engineers, Inc.1999. Hudson River PCB Monitoring Programs- 1997 High Flow and Suspended Solids Monitoring Program, 1997 Thompson Island Pool Studies, and 1998 High Flow Event Monitoring Program: Data Validation Technical Memorandum. Syracuse, NY: O'Brien & Gere Engineers, Inc. April 1999.