International Business Machines Corporation

9600 Godwin Drive Manassas, VA 20110

April 16, 1999

Mr. Edwin Dassatti New York State Department of Environmental Conservation Bureau of Eastern Hazardous Waste Programs Division of Hazardous Substances Regulations 50 Wolf Road Albany, New York 12233-7251

Re: <u>IBM Kingston Facility, Part 373 Permit No. 3-5154-0067/000090</u> <u>Transmittal of Former Industrial Waste Sludge Lagoon RCRA Facility Investigation</u>

Dear Mr. Dassatti:

The purpose of this letter is to transmit the referenced document in compliance with the *RCRA Facility Investigation (RFI) Work Plan - Former Industrial Waste Shudge Lagoon*, dated May 20, 1998. This work plan was approved in a letter from Mr. Gary Casper, dated July 10, 1998 and received by IBM on July 17, 1998. Based on the proposed schedule of completion presented in this work plan, the due date for this report is April 17, 1999.

One objective of this RFI was to investigate and evaluate upgradient and downgradient relationships in the former Industrial Waste Sludge Lagoon (IWSL) area. As these investigations and subsequent evaluations were critical to the application of the permit-required statistical evaluations, Ms. Michele West of IBM contacted Mr. Gary Casper of NYSDEC on March 12, 1999 and requested these statistical evaluations be presented the IWSL RFI report instead of the 1998 Annual Groundwater Monitoring Report. Based on this telephone conversation, it was agreed that these evaluations be presented in the IWSL RFI report.

After reviewing the information provided in this transmittal, should you have any questions please call Michele J. West at (914) 894-5536.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Sincerely, International Business Machines Corporation

M.E. myan

Mitchell E.Meyers, Manager, Corporate Environmental Engineering

MEM:db

cc: Rod Aldrich, NYSDEC Region 3 Gary Casper (additional transmittal copy to the Commissioner), NYSDEC Albany James Reidy, USEPA



RCRA Facility Investigation Former Industrial Waste Sludge Lagoon

Prepared for: IBM Corporate Environmental Engineering Manassas, Virginia

April 16, 1999

Prepared by:

Groundwater Sciences Corporation

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1 INTRODUCTION

This report has been prepared by Groundwater Sciences Corporation (GSC) at the request of the International Business Machines Corporation (IBM) for its former Kingston, New York site. Figure 1-1 shows the location of the site. This report has been prepared to present the findings of the RCRA Facility Investigation (RFI) conducted at the former Industrial Waste Sludge Lagoon (IWSL) according to the *RCRA Facility Scope of Work* (RFI SOW) document presented to the NYSDEC for review and approval on May 20, 1998. IBM received written approval from the NYSDEC to proceed with the RFI on July 17, 1998. According to the schedule presented in the RFI SOW document, this report is due on April 17, 1999.

1.1 Facility Background

The former Industrial Waste Sludge Lagoon (IWSL) is located in the northwestern section of the former IBM-Kingston facility, approximately 600 feet from Esopus Creek and 100 to 200 feet east of the wetlands associated with the creek's flood plain, as shown on Figure 1-2. The IWSL was part of the former industrial waste treatment facility (IWTF), which is situated in a relatively low-lying area with a land surface sloping gently to the west, toward Esopus Creek.

The IWSL was rectangular in shape with steeply sloping sides and was approximately 60 feet wide, 155 feet long, and 10 feet deep. The IWSL was constructed in 1955 and periodically dredged at approximately 10-year intervals. The final dredging and cleanout was performed in 1984, when the lagoon was closed.

The IWTF is underlain by assorted fill material and fine sands and silts. The water-bearing zones are found in fill and natural sediments, primarily sand, which lie above a lacustrine silt and clay unit. Although the silt/clay is saturated, it is not considered a significant water-bearing unit due to its low hydraulic conductivity. The sand is perennially saturated. The overall direction of groundwater flow in the vicinity of the IWTF is from east to west from the area of the treatment plant (Building 036) toward Esopus Creek, which lies west of the area shown on Figure 1-2.

Three features in the vicinity of the IWSL have a significant impact on groundwater flow. The first is an area to the east of the IWSL beneath Building 036 (B036) and a former filtration tank, where the sand aquifer is not perennially saturated. The thickness of the saturated sand aquifer diminishes between MW-612S, and MW-501S, such that well MW-501S is typically dry, except during periods of high overall groundwater levels.

The second feature is the former lagoon itself. The lagoon has been backfilled in such a way that a layer of crushed limestone, which likely has a hydraulic conductivity significantly greater than the surrounding finer materials is present below the water table. It is expected that groundwater elevations everywhere within this area backfilled with crushed stone are essentially identical as can be seen in the flattening of contours around the former lagoon footprint.

The third feature affecting groundwater flow in the IWSL area is the interceptor trench installed in the late 1970s in conjunction with the lining of the IWSL. This trench served to control groundwater infiltration into the IWSL excavation during construction activities and is still in place, as shown on Figure 1-2. The interceptor trench starts at the northern end of the former lagoon at an invert elevation of approximately 141 feet. According to the plans for this trench, it reaches the drainage swale south of the former IWSL at an elevation of approximately 139 feet. In 1993, the catch basin at the southern end of the interceptor trench was removed and the trench was plugged. This action appears to have changed the dynamics of groundwater flow in the vicinity of the former interceptor trench such that wells identified as downgradient prior to the plugging of the trench may now be upgradient with regard to the former IWSL. In particular, compliance monitoring well MW-802, on the opposite side of the former interceptor trench from background monitoring well MW-612S, now appears to be upgradient from the former IWSL and exhibits groundwater elevations identical to those in well MW-612S.

1.2 Regulatory History

1997 was the first year of compliance monitoring under the site's most recent Part 373 permit. Concentrations of constituents detected in the four compliance monitoring wells during 1997 were evaluated using the methods described in the Quality Assurance Project Plan (QAPjP) for the former IWSL. These evaluations included the establishment of baseline and background concentrations, and the use of statistical methods to evaluate potential groundwater impacts from the former IWSL. Details are discussed in the 1997 Annual Groundwater Monitoring Report.

Based on these evaluations, it was determined that the following volatile organic compounds (VOCs) and metals exceeded background concentrations:

1,1-Dichloroethane	1,2-Dichloroethene (total)	Tetrachloroethene	Arsenic (dissolved)
1,1-Dichloroethene	1,2,3-Trichloropropane	Trichloroethene	Cadmium (dissolved)
1,1,1-Trichloroethane	1,2-Dichlorobenzene	Vinyl chloride	
1,2-Dichloroethane	Chlorobenzene	Lead (dissolved)	

Analytical results for the compliance wells were also compared to the Groundwater Protection Concentration (GPCs) specified in the site's Part 373 Permit, Table V-2. Based on these comparisons, it was determined that the following hazardous constituents exceeded GPC in compliance monitoring wells:

1,1,1-Trichloroethane	1,2-Dichloroethene	Vinyl chloride
1,1-Dichloroethane	Trichloroethene	Arsenic (dissolved)

With the exception of 1,1-dichloroethane, concentrations of these hazardous constituents were also exceeded in background monitoring well MW-612S. These exceedances resulted in this RFI to further investigate upgradient and downgradient groundwater flow and chemistry in the vicinity of the former lagoon.

1.3 Purpose and Scope

The purpose of this RFI was threefold. First, monitoring wells were installed to investigate groundwater flow and chemistry upgradient from the IWSL. These wells augmented the existing monitoring well network and attempt to confirm the existence of any as yet unidentified upgradient sources in the vicinity of B036. Second, monitoring wells were installed to resolve upgradient/downgradient relationships and associated chemistry in the vicinity of the former interceptor trench. Finally, several newly installed groundwater monitoring wells were used to assess groundwater quality and groundwater flux from the IWSL to the wetlands that lies to the west and the small stream that lies to the south of the IWSL. In

addition to these groundwater quality samples, surface water impacts were also assessed with the collection of surface water quality samples downgradient from the IWSL in the wetlands to the west and the small stream to the south.

The following sections of this report include information relating to the data gathering, interpretation and conclusions of this RFI. Section 2 presents a summary of the field activities and discusses the results of the investigation activities. Section 3 presents interpretations of these results and Section 4 presents recommendations for further study at the IWSL. Section 5 includes references to this report.

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2 DATA COLLECTION

This section reports on the activities and results associated with this RFI. As noted previously, the purpose of this RFI was threefold: investigation of groundwater flow and chemistry upgradient of the IWSL; resolution of upgradient / downgradient relationships and associated chemistry in the vicinity of the former interceptor trench and; assessment of impacts to surface water through determination of groundwater flux to and observed surface water quality in both the wetland and onsite stream downgradient from the IWSL.

2.1 Monitoring Well Installation

As shown on Figure 2-1, the former IWSL is located in a fenced enclosure at an elevation of approximately 150 to 155 feet above mean sea level (amsl). The wetlands lie at an elevation of approximately 138 feet amsl. The topographic contours on Figure 2-1 also show that the ground surface between the IWSL and the wetland slopes steeply toward the wetland below an elevation of 145 feet amsl on the western side of the IWSL and below an elevation of 149 feet amsl on the southern side. This topography limited the areas of drilling rig access for monitoring well installation.

In total, fourteen monitoring wells were installed using hollow-stem auger methods, with continuous soil sampling below a depth of 6 feet, according to the protocol specified in Appendix K-G of the QAPjP. Boring logs and monitoring well construction details can be found in Appendix A of this report. Review of these logs indicates that most wells were installed between 11 and 31 feet below ground surface (bgs). As per the site's QAPjP, soil samples were collected using a split spoon sampler and field screened using a Photo Ionization Detector (PID). If field screening indicated elevated concentrations of VOCs in the sample, then a portion of the sample was collected for jar headspace analysis according to the procedure described in Appendix K-H of the QAPjP.

Table 2-1 lists the location and purpose for each of the 14 installed monitoring wells, which are shown on Figure 2-1.

Table 2-1. IWSL RFI Soil Monitoring Wells									
Well	Location	Purpose							
810	northwest of IWSL outside fence on south side of utility berm	perimeter monitoring of groundwater flux away from former lagoon*							
811S	west of IWSL outside fence at top of slope; west of MW-207S	perimeter monitoring of groundwater flux away from former lagoon*							
811D	west of IWSL outside fence at top of slope; west of MW-207S	deep soil, perimeter monitoring of groundwater flux away from former lagoon*							
812	west of IWSL outside fence at top of slope; west of MW-211S	perimeter monitoring of groundwater flux away from former lagoon*							
813	south of IWSL inside fence at top of slope on north side of storm sewer line	perimeter monitoring of groundwater flux away from former lagoon*; determine current upgradient and downgradient relationships							
814	south of IWSL inside fence and south of former interceptor trench catch basin	perimeter monitoring of groundwater flux away from former lagoon*; determine current upgradient and downgradient relationships							
815	east of former interceptor trench catch basin	determine current upgradient/downgradient relationships							
816	east of former interceptor trench in paved area; southwest of B/036	determine current upgradient/downgradient relationships; investigate possible source upgradient from IWSL							
817	east of former interceptor trench in paved area; southwest of B/036	determine current upgradient/downgradient relationships; investigate possible source upgradient from IWSL							
818	west side of B/036	investigate possible source upgradient from IWSL							
819	between IWSL and B/036, north of MW- 501S	investigate possible source upgradient from IWSL							
820	north of IWSL	investigate possible source upgradient from IWSL							
821	east side of former interceptor trench at north end	investigate possible source upgradient from IWSL, determine current upgradient/downgradient relationships							
822	center of former IWSL	evaluate effect of crushed limestone layer on metals mobility in closed lagoon; investigate possible VOC source							
* Togethe	er with existing well MW-210S.								

2.2 Groundwater and Surface Water Sampling

The following subsections discuss the field activities and results of the investigations with regard to groundwater and surface water quality in the former IWSL area.

2.2.1 Field Activities

The following subsections discuss sample collection methods for groundwater and surface water samples collected as part of this RFI.

2.2.1.1 Groundwater Sampling Activities

Following completion, each new monitoring well was developed as specified in Appendix K-I of the QAPjP. Appendix B contains copies of well development sheets for each of the monitoring wells installed as part of this RFI. It should be noted that monitoring well 818 was dry and therefore could not be fully developed.

Following development, three rounds of characterization samples were collected and sent to the laboratory for analysis. Appendix C contains a summary printout of these sampling results together with the associated field quality assurance and quality control data . Each well was sampled according to the protocols presented in the most recent and approved Groundwater Monitoring Plan (GMP) for the Kingston facility. As per the GMP, temperature, pH, and specific conductance were measured in the field following the collection of each sample. Table 2-2 summarizes the sampling activities conducted as part of this RFI. It should be noted that during each sampling event, well 818 was confirmed to be dry and therefore no water quality data was obtained from this location. Samples from all other wells installed as part of this RFI were analyzed for the parameters specified in Table 2-2. As noted in this table, other monitoring wells in the vicinity of the IWSL that are routinely monitored as part of the GMP were sampled concurrently with the third RFI characterization sampling round. Appendix C contains a printout of these results together with the associated field quality assurance and quality control data The parameters for these wells are specified in Table 2-2.

Table 2-2. Summary of G	Table 2-2. Summary of Groundwater and Surface Water Quality Sampling Activities							
Field Activity	Dates Sampled	Sampling Locations	Parameter List					
First Characterization Sampling Event	10/29-30/98	RFI wells (810-822) and Surface Sampling Locations (SW-A, SW-B, SW-C, SW-D and SW-E)	VOCs by SW-846 Method 8021 Dissolved metals: As, Cd, Pb					
Second Characterization Sampling Event	11/18-20/98	RFI wells (810-822) and Surface Sampling Locations (SW-A, SW-B, SW-C, SW-D and SW-E)	VOCs by SW-846 Method 8021 Dissolved metals: As, Cd, Pb					
Concurrent field activities: Third Characterization Sampling Event (RFI wells) and routine Groundwater Quality Monitoring as per site's GMP	12/10-15/98	RFI wells (810-822); Surface Sampling Locations (SW-A, SW-B, SW-C, SW-D and SW-E) and Routine GMP compliance and background monitoring locations (MW-106S, MW-205S, MW-612S, MW-206S, MW-208S, MW-802)	RFI wells: VOCs by SW-846 Method 8021 Dissolved metals: As, Cd, Pb Routine GMP wells: VOCs by SW-846 Method 8021					
Upgradient / Downgradient Sampling Event	2/16/98	MW-210S plus MW-206S, MW-817, MW-821 and MW-125S, MW-1R	VOCs by SW-846 Method 8021 Dissolved metals: As, Cd, Pb Total metals: As, Sb, Ba, Cd, Cr, Cu, Hg, Pb, Se, Ag Total inorganics: cyanide, phenolics MW-125S and MW-1R: VOCs by SW-846 Method 8021 plus dissolved As only					

2.2.1.2 Surface Water Sampling Activities

The RFI SOW required surface water sampling at four locations. During the field staking of these locations, it was noted that water was seeping from the stream bank at the location shown as SW-E on Figure 2-1. As can be seen from this figure, the location of this seep coincides with the outlet of the relocated pipe associated with the former IWSL interceptor trench discussed in Section 1.1 of this report. After discussion with the NYSDEC, this surface water sampling location was incorporated into the sampling and analysis plan for this RFI. Results for this location and all other surface water sample locations together with associated field quality assurance and quality control data are presented in Appendix C of this report.

As can be seen from Figure 2-1 and as discussed in the RFI SOW, surface water sample locations SW-A and SW-B are also located in the drainage swale south of the former IWSL. SW-A is situated upstream from the former outfall from the interceptor trench and SW-B lies downstream from the former outfall from the interceptor trench at the point of discharge into the wetland. SW-E, as noted above, lies between these two originally proposed points. Both SW-C and SW-D are located west of the former IWSL, along eastern bank of the wetland.

Table 2-1 summarizes the sampling and analysis plan for each of the five surface water sampling locations. Appendix C contains printouts of surface water sampling results and the associated field QA/QC data.

2.2.2 Groundwater and Surface Water Sampling Results

Upon completion of data validation, groundwater and surface water quality results were tabulated and compared with the site specific Groundwater Protection Concentration (GPC) values presented in the site's Part 373 Permit, Table V-2 for the Waste Management Area. Table 2-3 contains a listing of the parameters detected in either groundwater, surface water or both during this RFI. In total, thirty-one parameters were detected in water quality samples collected as part of this RFI. Twenty-five of these have a site specific GPC, six do not. Validated sample results were compared with the site specific GPC, where applicable. For parameters where a GPC does not exist, these parameters were compared with New York State Groundwater Quality Standards for Class GA waters presented in TOGS 1.1.1 (June 1998 revision) (NYSGQS). Table 2-3 highlights which of these parameters are present at concentrations that exceed the site specific GPC or NYSGQS value.

	d with Groundwater Protection ncentration*	Parameters Detected without Groundwater Protection Concentration*					
Arsenic, dissolved	1,2-Dichlorobenzene	1,3-Dichlorobenzene					
Arsenic, total	1,4-Dichlorobenzene	1,2,3-Trichloropropane					
Barium, dissolved	1,1,1-Trichloroethane	Benzyl Chloride					
Barium, total	1,1-Dichloroethane	Chlorobenzene					
Cadmium, dissolved	1,1-Dichloroethene	Ethylbenzene					
Cadmium, total	1,2-Dichloroethane	Xylenes (total)					
Chromium, dissolved	1,2-Dichloroethene (total)						
Chromium, total	Chloroethane						
Copper, dissolved	Chloroform						
Copper, total	Toluene						
Lead, dissolved	Trichloroethene						
Lead, total	Vinyl Chloride						
Selenium, total							
* Groundwater Protection	Concentration (Table V-2, Part 32	73 Permit)					
	alicized text were detected in cond if applicable, or the NYSGQS value	centrations that exceed Groundwater					

It should be noted that of the six parameters detected where a site specific GPC does not exist, none of these parameters were confirmed to be present at concentrations that exceed the Practical Quantification Limit (PQL), and therefore, no notification under the site's Part 373 Permit, Module V Condition G.5(a) is required.

2.2.3 Spatial Variations

The results of the groundwater and surface water sampling results from the third characterization sampling event were posted on maps of the IWSL area. A figure was prepared for each parameter where sampling results exceed either the GPC or the NYSGQS with the exception of Barium and Arsenic (total). Sampling results posted for each map are from the third characterization sampling event

which was conducted concurrent with the final fourth quarter sampling round for the routine IWSL Compliance Monitoring Program specified in the GMP.

2.2.3.1 Trichloroethene-Series Parameters

Figure 2-2 presents Trichloroethene (TCE) concentrations for this sampling period. As can be seen from this figure, TCE concentrations are much higher upgradient from the IWSL, with the maximum TCE concentration of 180 ug/l detected at MW-817. In MW-816, also upgradient to the former IWSL, TCE was detected at a concentration of 110 ug/l. TCE was detected at SW-E at an average concentration of 9.85 ug/l. Other locations show TCE values that exceed the GPC including MW-612S and MW-802. TCE was also detected in monitoring wells adjacent to the sanitary sewer line located north of the former IWSL (monitoring locations MW-106S and MW-820) at concentrations that do not exceed the GPC.

Figure 2-3 presents 1,2-Dichloroethene (total) (12-DCE) concentrations for this sampling period. As can be seen from this figure, 12-DCE concentrations are much higher upgradient from the IWSL, and show a similar spatial distribution to TCE detections. This is consistent with the fact that 12-DCE is a degradation product of TCE. The maximum 12-DCE concentration for this sampling round at 26 ug/l was detected in well MW-820, north of the former IWSL and adjacent to the sanitary sewer line, as noted above. 12-DCE was also detected at concentrations that exceed the GPC at MW-106S, MW-821, MW-210S, MW-817, MW-816 and MW-813. It should be noted that 12-DCE was not detected at surface water sampling location SW-E.

Figure 2-4 presents Vinyl Chloride (VC) concentrations for this sampling period. The maximum VC for this sampling round is 20 ug/l found at MW-210S. VC was also detected at concentrations exceeding the GPC at MW-813, MW-820 and MW-106S. Although VC was detected in upgradient well MW-817 where the highest TCE concentration was found, VC is predominantly detected in monitoring wells downgradient from the IWSL.

2.2.3.2 Trichloroethane-Series Parameters

Figure 2-5 presents spatial distribution of 1,1,1-Trichloroethane (111-TCA) for this sampling period. As can be seen by this figure, the maximum concentration of 22 ug/l for 111-TCA was found at MW-817 with detections at MW-802, MW-816, MW-612S and SW-E. As with TCE, 111-TCA is detected upgradient from the former IWSL and the detection at SW-E appears to be associated with this upgradient source and is unrelated to the former IWSL.

Figure 2-6 presents the distribution of 1,1-Dichloroethane (11-DCA) for this sampling period. The maximum concentration for 11-DCA (5.7 ug/l) is found at MW-822 and MW-210S. 11-DCA was also detected at ten other wells and one surface sampling location (SW-E).

2.2.3.3 Other Parameters

Figure 2-7 shows the distribution of Xylenes (total) (XYL) in the vicinity of the former IWSL during the third characterization sampling event. This figure shows one groundwater (MW-822) and one surface water sampling location (SW-A) detected XYL at concentrations above the reporting level. The maximum XYL value was detected at MW-822 with a value of 14 ug/l.

Figure 2-8 presents the dissolved Arsenic concentrations for groundwater and surface water monitoring locations. Arsenic was found at four locations to exceed the site specific GPC, downgradient (MW-210S), upgradient (MW-821), and also cross-gradient to the former IWSL (MW-810 and MW-205S).

2.3 Groundwater Elevation Survey

Following installation, the new wells and the surface water sample locations were surveyed by a New York State licensed surveyor. A copy of the survey information is presented in Appendix D of this report.

A comprehensive round of water levels was measured in the new and existing monitoring wells on February 3, 1999. This static water level information together with the calculated groundwater elevation data is presented in Appendix E. This data was used to construct a current contour map of shallow groundwater elevations, which is presented as Figure 2-9. As can be seen by this figure, the general flow of groundwater is from east to west. Groundwater flows from the upgradient MW-816 and MW-817 locations to MW-210S. As noted in the introduction, the lagoon has been backfilled beneath the water

table with crushed limestone which likely has a hydraulic conductivity significantly greater than the surrounding finer materials. It is expected that groundwater elevations everywhere within this area backfilled with crushed stone are essentially identical, as can be seen in the flattening of contours within the former lagoon area (MW-822 groundwater elevation 144.81; MW-208S groundwater elevation 144.16; MW-206S groundwater elevation 144.19; MW-209S groundwater elevation 144.70).

2.4 Pulse Tests

Following the completion, development, and characterization sampling of each new monitoring well, *in situ* hydraulic conductivity tests (pulse tests) were performed according to the protocol presented in Appendix K-J of the QAPjP. The purpose of these pulse tests was to establish values of hydraulic conductivity which were used to calculate chemical flux in the groundwater and to estimate groundwater flow velocities in the vicinity of the former IWSL. Summary tables presenting the results of this testing are included in Appendix F.

In general, hydraulic conductivities are on the order of one to ten feet per day. Hydraulic conductivity for MW-822 and MW-811S were determined to be 26.6 and 33.1 feet per day, respectively.

3 DATA ANALYSIS AND INTERPRETATION

Based on the results of groundwater and surface water sampling, several theories regarding the distribution of VC in the former IWSL area have been considered and are discussed in the following sections. Also discussed in this section are upgradient and downgradient relationships based on the groundwater elevation data interpretations and annual statistical evaluations as required by the site's Part 373 Permit. In addition, groundwater flux to surface water evaluations are also presented.

3.1 Hydrogeochemical Considerations TCE-Series Compounds

To better understand the relationship between the TCE-series compound spatial distribution and possible impacts to groundwater from the former IWSL, concentrations of TCE transformation products 12-DCE and VC were normalized to TCE and added to the actual TCE concentration to create a TCE-series value for each monitoring location for the combined third characterization and routine groundwater monitoring sampling event. These TCE-series values were contoured and are presented on Figure 3-1. A review of this figure shows two discrete plumes, both originating upgradient from the IWSL: one crossing the southern portion of the former IWSL; and the second associated with the sanitary sewer north of the former IWSL.

3.1.1 Southern Plume

For the southernmost plume, TCE is the dominant constituent for locations upgradient of the former IWSL (refer to Figure 2-2, MW-817 and MW-816) and VC is the dominant constituent downgradient of the former IWSL (refer to Figure 2-4, MW-210S and MW-813). The VC found at these downgradient locations appear to be a result of reductive dehalogenation of the upgradient TCE source and not associated with a release of VC from the IWSL. It should be noted that the dominant constituent at surface water sampling location SW-E is TCE and VC is not detected at this location. The transformation from TCE to VC has not occurred at SW-E, and would suggest that chemistry found at this sampling point is associated with this upgradient source and not related to the former IWSL. This is consistent with the source of flow at SW-E being related to the abandoned interceptor trench that passes along the upgradient side of the IWSL. Other than the obvious presence of VC and 12-DCE as

a transformation products of TCE, other geochemical data to support the existence of conditions conducive to these transformations are lacking at this time.

The distribution of TCE and its degradation products for this plume indicate that the transformation of TCE is occurring as groundwater passes beneath the former IWSL. When concentrations are normalized to TCE the highest concentrations are found in areas upgradient of the former IWSL and therefore whatever the source is for these constituents, it lies upgradient of the former IWSL. Therefore, the apparent increase in VC concentrations from upgradient to downgradient is believed to be due to transformation of TCE and not a net add from the former IWSL.

With regard to the TCE source for this plume, IBM has previously investigated at the B036 Annex with a soil gas survey (*RCRA Facility Investigations: Soil Gas Surveys and Sewer System Sampling*, dated April 12, 1996) and was unable to detect any sources in the vicinity of this building. Other possibilities for the source of this plume are the utility lines that pass beneath Enterprise Drive from the area of the North Parking Lot Area plume and the underlying bedrock. If the source of this TCE plume is the utility lines, the installation of the barrier wall during mid-1995 and the discontinuation of the use of these utility lines would cut-off this source and over time, source concentrations would be eliminated or dissipate. To determine whether or not the source is the bedrock, a modification to the Bedrock Investigation Scope of Work must be made to include a shallow bedrock monitoring well to be installed in the vicinity of soil monitoring well MW-816.

3.1.2 Northern Plume

For the northern plume, all three TCE-series constituents (TCE, 12-DCE and VC) are detected, with 12-DCE being the dominant constituent. The general location of this plume area had been previously investigated as part of the RCRA Facility Assessment of the Former Fire Training Area, SWMU AD. The results of this investigation were presented in the report entitled *RCRA Facility Assessments of Newly Identified Solid Waste Management Units*, dated March 14, 1997. A brief review of the findings of the RFA for this unit follows. Two soil borings and six monitoring wells were installed to assess this SWMU. The locations of borings and monitoring wells coincide with former locations of elements associated with this unit (e.g. former burn basin locations, former holding tank). Soil samples were

collected from depths near the surface and at the water table. Split-spoon screening and jar headspace analysis indicated responses and as a result additional soil samples were submitted for laboratory analysis. All soil samples were analyzed for Method 8240 VOCs, ethyl acetate, 8270 SVOCs and PCBs. In total, nineteen soil samples were collected and analyzed for VOCs, ketones, SVOCs and PCBs. Two compounds were detected at concentrations that exceed the 1994 TAGM cleanup guidance values and included benzo(a)anthracene and benzo(a)pyrene. Three rounds of groundwater samples were collected from each of the six wells installed under this assessment program. Five VOCs, two semivolatile organic compounds and one PCB were detected in these groundwater samples. None of these detections exceed the NYSGQS. It should be noted that of the five VOCs detected in groundwater were: 111-TCA; 11-DCA; PCE; TCE; and TCM. With the exception of TCM, the maximum detected value for all of these compounds was less than 1 ug/l.

Based on the findings of the RFA, a more probable source for this northern plume is the sanitary sewer line. This sewer line originates across Enterprise Drive, passes through the North Parking Lot Area (NPLA) plume, is piped under Enterprise Drive through pipe-trenches, runs through B036 and out to the town sanitary sewer line adjacent to the Esopus (Figure 3-2). As part of investigations required by the site's original Part 373 Permit, the underground sewer systems were evaluated, including the sanitary sewers. A report on the findings of these evaluations was entitled *Sewer Systems Evaluations*, dated March 1, 1994. As an outcome of these evaluations, IBM sampled the sanitary sewer lines and reported on the results of these sampling events in a report entitled *RCRA Facility Investigations: Soil Gas Surveys and Sewer System Sampling*, dated April 12, 1996. Additional samples were collected from these lines during 1996 and were presented in the *1996 Annual Groundwater Monitoring report*. These sampling results indicate that the water conveyed in the sanitary sewer line contained VOCs (111-TCA, 11-DCA, 11-DCE, TCE, 12-DCE, TCM). Some of these same VOCs have been detected in groundwater in the wells (MW-810, MW-103S, MW-106S) which are located adjacent to this sewer as it leaves B036 and runs westward.

In order to further evaluate this potential source, additional sanitary sewer sampling will be conducted from upstream of B036 to downstream of this plume area. If this sampling shows no VOC contamination exists, then the plume is most likely related to historical releases from this sewer and associated desorption of VOCs from the soil.

3.2 Upgradient and Downgradient Determinations

A review of the groundwater elevation contour map (Figure 2-9) shows upgradient and downgradient relationships. As can be seen by this figure, groundwater monitoring well MW-802, previously determined to be a downgradient compliance monitoring well is upgradient from the former IWSL. The status of MW-612S as an upgradient well has not changed nor has the status of compliance wells MW-206S, MW-208S and MW-210S as downgradient wells. This figure also indicates the newly installed RFI wells MW-816 and MW-817 are upgradient of the former IWSL.

3.3 Statistical Comparisons

As indicated in the recently submitted 1998 Annual Groundwater Monitoring Report, annual statistical evaluations would be presented in this report following upgradient and downgradient determinations. Based on the groundwater elevation relationships and chemical relationships, the basis for statistical comparisons as presented in the site's Post-closure Permit application and the Quality Assurance Project Plan have been revised as follows. Background wells have been defined as MW-612S, MW-802, MW-816 and MW-817. Chemistry found at MW-106S is side-gradient from and unrelated to the former IWSL and therefore was removed from these statistical comparisons. MW-205S likewise appears to be unrelated to the former IWSL and therefore it too was removed from these statistical comparisons, except as it's chemistry is relevant to the occurrence of arsenic in groundwater at locations that are not impacted by the IWSL.

Overall, therefore, the list of compliance wells (baseline) have been redefined to be MW-206S, MW-208S and MW-210S. The upgradient (background) well list has been redefined to include: MW-612S, MW-802, MW-816 and MW-817. The revised listing is presented in Table 3-1.

Table 3-1. Revised Compliance (Baseline) and Upgradient (Background) Listing					
Compliance Wells (Baseline)	Upgradient Wells (Background)				
MW-206S	MW-612S				
MW-208S	MW-802				
MW-210S	MW-816				
	MW-817				

3.3.1 Evaluation of Compliance Monitoring Data

Concentrations of constituents detected in the compliance monitoring network, as redefined in Section 3.3 of this report, during the previous annual period were evaluated following the methods presented in the Quality Assurance Project Plan (QAPjP) for the Former Industrial Waste Sludge Lagoon (IWSL). These evaluations included determination of baseline and background concentrations and statistical evaluations to determine evidence of impact from the former IWSL.

3.3.1.1 Determination of Baseline and Background Concentrations

Background values were determined for each hazardous constituent detected during the previous annual period at the wells sampled as part of the routine Compliance Monitoring Program and the groundwater RFI (MW-612S and MW-802, MW-816 and MW-817). The determination of baseline and background concentrations followed the procedures set forth in the QAPjP for the Former IWSL.

Background water quality for each hazardous constituent was determined following eight independent sampling events from the wells which are included in the permit as background wells (MW-612S and MW-802) and from the three characterization sampling events for the two wells installed as part of this groundwater RFI (MW-816 and MW-817), by calculating the clipped mean of all sampling results from these wells as a group. The calculated background values are presented in Table 3-2 as the clipped mean. Parameters selected for inclusion in these comparisons include all parameters detected in the samples collected as part of the groundwater RFI or the routine monitoring conducted as part of the GMP.

Baseline water quality for each hazardous constituent was determined at each compliance monitoring well defined in the site's permit (MW-206S, MW-208S and MW-210S) as revised, by calculating the clipped mean of sampling results for the eight independent sampling events. The calculated baseline values are presented in Table 3-2 as the clipped mean.

As directed in the QAPjP, on an annual basis, a comparison was made between the established baseline and background concentrations for each hazardous constituent. Table 3-2 presents the results of these comparisons. Where a baseline concentration exceeds the background concentration for that same constituent, the baseline value is presented in bold and italicized text in the table. If the baseline value equals, or is less than the background concentration, the baseline value is presented in regular text.

Based on these comparisons, in summary, the following constituents exceed background concentrations: 1,2-Dichlorobenzene (12-DCBZ); 1,1-Dichloroethane (11-DCA); Chlorobenzene (CBZ); 1,2-Dichloroethene (12-DCE); Vinyl Chloride; Arsenic (AS dissolved); Cadmium (CD dissolved); Lead (PB dissolved) and; Silver (AG dissolved).

TCE-series was included in this comparison to address the theory that although the concentration of VC in downgradient well MW-210S exceeds the background value, as discussed previously, transformations are occurring in the vicinity of the IWSL which cause the high upgradient TCE concentrations to be transformed to VC detected in the downgradient wells. Comparison of TCE-series concentrations for upgradient (background) and downgradient (baseline) wells shows that there is no net add of TCE-series compounds from the former IWSL.

	Table 3-2 Summary of Background and Baseline Concentration Comparisons										
			Constituent								
Monitoring Location	Measurement of Central Tendency	Phenols (total) mg/l	12-DCBZ ug/l	14-DCBZ ug/l	111-TCA ug/l	11-DCA ug/l	11-DCE ug/l	12-DCA ug/l	CBZ ug/l	CEA ug/l	TCM ug/l
Background wells as a group	clipped mean	0.00	0.00	0.00	8.58	3.79	0.5	5 0.53	0.00	0.00	0.4
Compliance Wells:							-				
MW-206-S	clipped mean	0.00	0.60	0.00	0.00	2.15	5 0.0	0.00	0.00	0.00	0.0
MW-208-S	clipped mean	0.00	0.18	0.00	0.00	0.18	3 0.0	0.00	6.37	0.00	0.0
MW-210-S	clipped mean	0.00	0.00	0.00	0.00	5.64	4 0.0	0.00	0.00	0.00	0.0
						Cor	nstituent		<u>.</u>		
Monitoring Location	Measurement of Central Tendency	DCM ug/l	PCE ug/l	TCE ug/l	12-DCE (tot) ug/l	VC ug/l	TCE Series ug/l	AS (dissolved) mg/l	CD (dissolved) mg/l	PB (dissolved) mg/l	AG (dissolved) mg/l
Background wells as a group	clipped mean	0.00	0.41	49.79	3.19	0.25	54.66	0.0018	0.0002	0.0004	0.000
Compliance Wells:											
MW-206-S	clipped mean	0.00	0.00	0.00	0.00	0.00	0.00	0.0075	0.0000	0.0003	0.000
MW-208-S	clipped mean	0.00	0.00	0.00	0.00	0.00	0.00	0.0151	0.0001	0.0005	0.000
MW-210-S	clipped mean	0.00	0.00	0.00	7.38	17.58	46.96	0.0766	0.0004	0.0009	0.0004

3.3.2 Comparison to Groundwater Protection Standards

As noted in the recently submitted *1998 Annual Groundwater Monitoring report*, the annual comparison to groundwater protection standards would be reported in this RFI report. In compliance with the site's Part 373 Permit Module IV, Condition D. and 6NYCRR 373-2.6(j)(9)(i), a comparison of analytical results for compliance wells to the Groundwater Protection Standard (GPS) as specified in the site's Part 373 Permit was conducted. This annual comparison was made in accordance with the method presented in the site's QAPjP, with the included well lists revised based on the results of this RFI.

This evaluation indicates that the measure of central tendency (clipped mean) for the following hazardous constituents exceeds the groundwater protection standard in compliance wells: AS, 1,1-DCA; 1,2-DCE (total) and VC. Based on these comparisons, a notification letter has been prepared and is submitted to the NYSDEC concurrently with this report in accordance with the site's Part 373 Permit Module IV, Condition D and 6NYCRR 373-2.6(j)(9)(i).

In addition the measure of central tendency for CBZ, a constituent not listed in the site-specific GPS (Table V-2 of the site's Part 373 Permit), exceeded the NYSGQS. IBM notified the NYSDEC of the confirmed detection of CBZ in the Waste Management Area on March 30, 1998.

3.3.2.1 Statistical Evaluation of Differences in Baseline and Background Concentrations

Concentrations of constituents detected in the compliance monitoring network during the previous annual period were evaluated following the statistical methods presented in the QAPjP for the former IWSL. The groundwater monitoring data for each detected compound was evaluated using an analysis of variance based on rank, also known as the Wilcoxon Rank Sum Test. Analysis of variance based on ranks requires two data sets to identify statistically significant evidence of differences between each compliance well's median and the background median levels for each constituent. One data set consisted of background levels (as defined in Section 3.3) for each constituent and the other data set consisted of the compliance well values (as defined in Section 3.3) for each constituent. The statistical test will determine whether measurements from the background concentration population as redefined by this IWSL RFI (MW-612S, MW-802, MW-816 and MW-817 as a group) tend to be consistently larger or

smaller than those from each individual compliance well concentration population as redefined by this RFI (MW-206S, MW-208S and MW-210S, individually).

The use of non-parametric methods for statistical analysis for this groundwater chemistry data is supported by a test of underlying distribution of the data. The determination that the data are not normally distributed was accomplished by calculating a coefficient of variation for each constituent. For all constituents subjected to the Wilcoxon Rank Sum Test for these evaluations, the use of a non-parametric test is supported.

Table 3-3 summarizes the results of these evaluations. Included in Table 3-3 are four columns for each constituent at each compliance monitoring location. These values include the Wilcoxon rank statistic, the significance level for the Wilcoxon statistic and the Seasonal Hodges-Lehman Median Estimate. As indicated in the table, the Seasonal Hodges-Lehman median estimate is an estimate of the differences in medians between the two populations compared, in this case the background population and the values for each of the individual compliance wells, as individual populations. Also included in this table is a column which indicates which constituents exceed the background concentrations at each of the compliance wells.

Based on these statistical comparisons, in summary, the following constituents exceed background concentrations: 12-DCE (reported as total); 12-DCBZ; CBZ; VC and; AS (dissolved).

		Table 3-3		f Compliance Mo f Statistical Resu					
Well ID:		M	W-206S			MW-208S			
Parameter	Wilcoxon Rank *	Sig* *	Seasonal Hodges ***	Baseline greater than background	Wilcoxon Rank	Sig	Seasonal Hodges	Baseline greater than background	
1,1-Dichloroethane	1.325	80%	-0.600	No	2.366	95%	-2.850	No	
1,1-Dichloroethene	2.375	95%	-0.575	No	2.375	95%	-0.575	No	
1,1,1-Trichloroethane	2.366	95%	-8.425	No	2.366	95%	-8.425	No	
1,2-Dichloroethane	1.473	80%	0	No	1.841	90%	-0.325	No	
1,2-Dichlorobenzene	-2.207	95%	0.60	Yes	-1.841	90%	0.075	Yes	
1,2-Dichloroethene (tot)	2.366	95%	-2.100	No	2.366	95%	-2.100	No	
1,4-Dichlorobenzene	NA	NA	NA		-1.342	80%	0	No	
Chlorobenzene	0.447	Not Sig	0		-2.366	95%	6.450	Yes	
Chloroethane	NA	NA	NA	_	NA	NA	NA		
Methylene Chloride	0.447	Not Sig	0	_	NA	NA	NA		
Tetrachloroethene	2.207	95%	-0.400	No	2.207	95%	-0.400	No	
Trichloroethene	2.366	95%	-25.5	No	2.366	95%	-25.5	No	
Chloroform	2.032	95%	-0.300	No	2.032	95%	-0.300	No	
Vinyl Chloride	1.826	90%	-0.250	No	1.826	90%	-0.250	No	
Lead, dissolved	-0.405	Not Sig	0		0.135	Not Sig	0		
Silver, dissolved	1.069	Not Sig	0		1.604	80%	0	No	
Arsenic, dissolved	-2.366	95%	0.005	Yes	-2.366	95%	0.012	Yes	
Cadmium, dissolved	1.461	80%	0	No	-1.572	80%	0	No	
NA	Not analyzed	d. Data set for	r background a	und compliance w	ell were all NI).		······	
Wilcoxon Rank	Wilcoxon R	ank Sum Tes	Statistic						
Sig	Significance	level							
Seasonal Hodges Seasonal Hodges-Lehman Median Estimate (Estimate of Differences in Medians)									

Table 3-3 Evaluation of Compliance Monitoring Data (continued) Summary of Statistical Results							
Well ID:			MW-210)S			
Parameter	Wilcoxon Rank	Sig	Seasonal Hodges	Baseline greater than background			
1,1-Dichloroethane	-0.845	Not Sig	3.400	Yes			
1,1-Dichloroethene	2.375	95%	-0.575	No			
1,1,1-Trichloroethane	2.366	95%	-8.425	No			
1,2-Dichloroethane	1.841	90%	-0.325	No			
1,2-Dichlorobenzene	NA	NA	NA				
1,2-Dichloroethene (total)	-2.366	95%	3.900	Yes			
1,4-Dichlorobenzene	NA	NA	NA				
Chlorobenzene	NA	NA	NA				
Chloroethane	-1.342	80%	0	No			
Methylene Chloride	NA	NA	NA				
Tetrachloroethene	2.207	95%	-0.400	No			
Trichloroethene	2.366	95%	-25.5	No			
Chloroform	2.032	95%	-0.300	No			
Vinyl Chloride	-2.366	95%	19.00	Yes			
Lead, dissolved	-0.730	Not Sig	0				
Silver, dissolved	-1.069	Not Sig	0				
Arsenic, dissolved	-2.366	95%	0.071	Yes			
Cadmium, dissolved	1.214	Not Sig	0	No			
NA	Not analyze	d. Data set fo	r background an	d compliance well were all ND			
Wilcoxon	Wilcoxon R	ank Sum Tes	t Statistic				
Sig	Significance	level					
Seasonal Hodges	Seasonal Hodges-Lehman Median Estimate (Estimate of Differences in Medians)						

3.4 Groundwater Flux to Surface Water

This subsection combines the results of the groundwater chemistry characterization with the groundwater flow characterization to assess the chemical flux from groundwater to surface water, including the wetlands to the west of the former IWSL. As such, this section satisfies the requirements of the IWSL RFI work plan. This assessment is presented in two subsections which follow. The first

of these deals with flux to the wetlands from groundwater sources. The second subsection assesses the impact of these combined groundwater chemical fluxes to the wetlands.

3.4.1 Surface Water Flux to the Wetlands

As can be seen on Figure 3-1, there is no TCE flux to the onsite stream at location SW-A. However, as discussed previously, there is a TCE flux to this stream at SW-E which is influenced by the upgradient TCE source. Also shown on this figure the surface water sampling location downgradient of SW-E, SW-B, does not detect TCE-series compounds. Location SW-B was originally selected to be sampled as part of this RFI as the discharge point of this onsite stream to the wetlands.

3.4.2 Direct Groundwater Flux to the Wetlands

As discussed previously and as shown on Figure 3-1, there are two plumes which discharge to the wetlands. These are the TCE plume associated with the upgradient source in the southern portion of the former IWSL and the second TCE plume associated with the sanitary sewer lines, north of the former IWSL.

The IWSL RFI work plan calls for the calculation of groundwater chemical flux to the wetlands. In making these flux calculations, flux within the saturated soil units has been assessed on the basis of hydraulic conductivity data derived from pulse tests conducted as part of this RFI, as well as measurements of groundwater gradients. The initial step in this process has been to divide up the wetlands edge into four segments, as shown on Figure 3-3.

The northernmost of these segments corresponds to the groundwater-surface water boundary across which the flow from the vicinity of the sanitary sewer north of the former IWSL occurs. As shown in Table 3-4, this segment length is 54 feet. The second and third of these segments are 61 and 75 feet long, respectively. Flux from the northern portion of the former IWSL area occurs across these segments. The final segment is a 86 feet long. Flux from the plume associated with an upgradient TCE source area occurs across this segment.

The second step in the groundwater calculation was to determine the transmissivity that corresponds to an individual foot of each of these wetland shoreline segments. Hydraulic conductivities measured for the RFI wells along this segment varies from 0.6 feet per day at MW-210S to 33.1 feet per day at MW-811S. Transmissivities were calculated for each segment by multiplying the hydraulic conductivity by the aquifer thickness. A summary of these calculations is presented in Table 3-4. To achieve the most conservative estimate, maximum aquifer thickness values were used in the transmissivity calculations. These correspond to 25 feet for segment 1, 11 feet for segment 2, 7 feet for segment 3 and 9 feet for segment 4.

The final parameter for these groundwater flow calculations is the hydraulic gradient. Within each segment, the gradient was calculated based on the groundwater elevation difference between monitoring wells. For the first segment, the gradient between MW-205S and MW-103S is 0.095. For the second segment, the gradient was calculated between wells MW-106S and MW-810; MW-207S and MW-811S and also between MW-206S and MW-811S. These calculated values were 0.013, 0.014 and 0.011, respectively.

For the third segment, the gradient was calculated between wells MW-211S and MW-812 and also wells MW-208S and MW-812. These gradients were calculated as 0.0475 and 0.0438, respectively. The gradient was calculated at 0.0586 for the fourth segment, between wells MW-804 and MW-210S.

The calculated flow across each of these shoreline segments used transmissivity and width of the wetland shoreline segment. Each set of assumptions for the flow calculations is also given in Table 3-4. These flow values have then been used to calculate the estimated range in groundwater chemical flux across each of these segments for each of the hazardous constituents associated with the two plume areas (segments 1 and 4) and downgradient of the former IWSL (segments 2 and 3).

Table 3-4 Parameters used in Groundwater Flow Calculations								
		Parameters	;	Ostavistad				
Shoreline Segment	Gradient	Length of Shoreline (ft)	Transmissivity (gpd/ft)	Calculated Flow Value (gpd)				
Segment 1	0.095	54	860	4379				
	0.013	61	2723	2148				
Segment 2	0.014			2313				
	0.011			1817				
Segment 3	0.0475	75	-0-	977				
	0.0438	75	565	1051				
Segment 4	0.0586	86	40.4	826				

Table 3-5 lists each of the segments and the monitoring locations used to calculate average concentrations of each of the hazardous constituents associated with flux in that segment. These wells are shown on Figure 3-3. In calculating the average concentrations of each constituent, the arithmetic average of the concentrations was used. The results of the detailed flux calculations are presented in Appendix G. The summary of these flux calculations is presented in Table 3-6, which totals the groundwater chemical flux for each individual compound from the combined segment along the wetland shoreline and the contribution from the onsite stream. As shown on this table, the total groundwater chemical flux to the wetlands is 0.00032 pounds per day.

Table 3-5 Monitoring Locations Used for Flux Calculations	
Area of Investigation	Wells / Sampling Location
Segment 1	MW-810
Segment 2	MW-811S
Segment 3	MW-812
Segment 4	MW-210S

Table 3-6	
Summary of Chemical Flux to Wetlands	
Parameter	Overall Flux
	(lbs / day)
Phenols (total)	0.000086
12-Dichlorobenzene	0.000093
14-Dichlorobenzene	0.000004
Arsenic, dissolved	0.000029
Arsenic, total	0.000001
Cadmium, dissolved	0.0000000
Cadmium, total	0.0000000
Lead, dissolved	0.0000000
Lead, total	0.0000000
Silver, dissolved	0.0000000
Silver, total	0.0000000
111-Trichloroethane	0.0000000
11-Dichloroethane	0.0000466
11-Dichloroethene	0.0000000
12-Dichloroethane	0.0000000
12-Dichloroethene, total	0.000027
Chlorobenzene	0.0000446
Chloroethane	0.0000223
Chloroform	0.0000000
Methylene Chloride	0.0000000
Tetrachloroethene	0.0000000
Trichloroethene	0.0000511
Vinyl Chloride	0.0001334
All Parameters	0.00032198

As can be seen by the flux calculations, these fluxes are insignificant. As discussed previously, these estimates are conservative. Although several compounds (TCA, 11-DCA, TCE, TCM, XYL, As (dissolved) and Lead (dissolved)) were detected in surface water sampling locations, none of these compounds exceed the NYS Part 703 surface water standards. In fact, these detections are at much lower levels than these standard values and therefore demonstrate that there are no surface water impacts. Even while higher concentrations have been detected at SW-E (the weep in the stream bank influenced by the upgradient TCE source), these concentrations are not evident at downstream location SW-B (discharge point of the onsite stream to the wetlands).

4 RECOMMENDATIONS

The following sections discuss recommendations for modification to previously submitted work plans, proposed additional sampling and proposed modifications to the GMP.

4.1 Revision to Deep Bedrock Investigation

As discussed in section 3.1.1 of this report, the distribution of TCE and its degradation products for the southern plume in the former IWSL area, indicate that the transformation of TCE is occurring as groundwater passes beneath the former IWSL. As shown on Figure 3-1, when concentrations are normalized to TCE the highest concentrations are found in areas upgradient of the former IWSL and, therefore ,whatever the source is for these constituents, it lies upgradient of the former IWSL. Therefore, the apparent increase in VC concentrations from upgradient to downgradient is due to transformation of TCE and rather than leaching of VC from the former IWSL or associated soils.

As discussed earlier in this report, with regard to the TCE source for this plume, IBM has previously investigated the B036 Annex with a soil gas survey (*RCRA Facility Investigations: Soil Gas Surveys and Sewer System Sampling*, dated April 12, 1996) and was unable to detect any sources in the vicinity of this building. Other possibilities for this plume are the utility lines that pass beneath Enterprise Drive from the North Parking Lot Area plume and the underlying bedrock. If the source of this TCE plume is the utility lines, the installation of the barrier wall during mid-1995 and the discontinuation of the use of these utility lines would cut-off this source and over time, plume concentrations would be eliminated or dissipate.

To identify any contribution from the bedrock to this plume, a modification to the Bedrock Investigation Scope of Work is proposed to include a shallow bedrock monitoring well in the vicinity of soil monitoring well MW-816. This well would be installed using air-rotary drilling methods and would be sampled for VOCs and arsenic (dissolved and total).

4.2 Additional Geochemical Monitoring

To further address the distribution of arsenic in the former IWSL area, IBM proposes to sample soil and bedrock groundwater monitoring wells across the site for arsenic (dissolved and total). In total, 20 wells will be sampled, including those wells in which arsenic has been detected previously on the main site: (MW-122S, MW-124S, MW-125S, MW-204S and MW-102R) and in the former IWSL area (MW-205S, MW-820, MW-106S, MW-810, MW-811S, MW-206S, MW-210S, MW-815, MW-813, MW-208S, MW-802, MW-612S).

IBM also proposes to sample groundwater monitoring wells in the IWSL area where arsenic is consistently detected at concentrations that exceed the GPC (MW-206S, MW-208S and MW-210S) for the following geochemical monitoring parameters: iron (dissolved, total and ferrous); manganese (dissolved and total); dissolved oxygen; ammonia; chloride; nitrate; nitrite; sulfate; sulfide and total organic carbon. These geochemical monitoring parameters can be used to indicate geochemical conditions favoring transformations (e.g. TCE to 12-DCE to VC) as well as conditions which could cause the mobilization of arsenic from naturally-occurring minerals in the soil.

In addition to groundwater sampling, soil sampling is proposed to be conducted in the vicinity of the IWSL and in specific areas across the main plant site to be analyzed for arsenic. These soil sampling activities will focus on those areas where filling has occurred, as has been done in the former IWSL area.

A work plan will be prepared to detail this additional monitoring following review by NYSDEC of the RFI findings and recommendations.

4.3 Proposed Additional Sanitary Sewer Monitoring

As discussed in Section 3.1 of this report, a review of Figure 3-1, TCE-series concentration contour map, shows two discrete plumes, both originating upgradient from the IWSL: one crossing the southern portion of the former IWSL; and the second associated with the sanitary sewer north of the former IWSL. In order to further evaluate the sanitary sewer as a potential source for this northern plume, additional sanitary sewer sampling will be conducted from upstream of B036 to downstream of this

plume area. If this sampling shows no VOC contamination exists, then the plume is most likely related to historical releases from this sewer and associated desorption of VOCs from the soil.

4.4 Revision to Groundwater Monitoring Plan

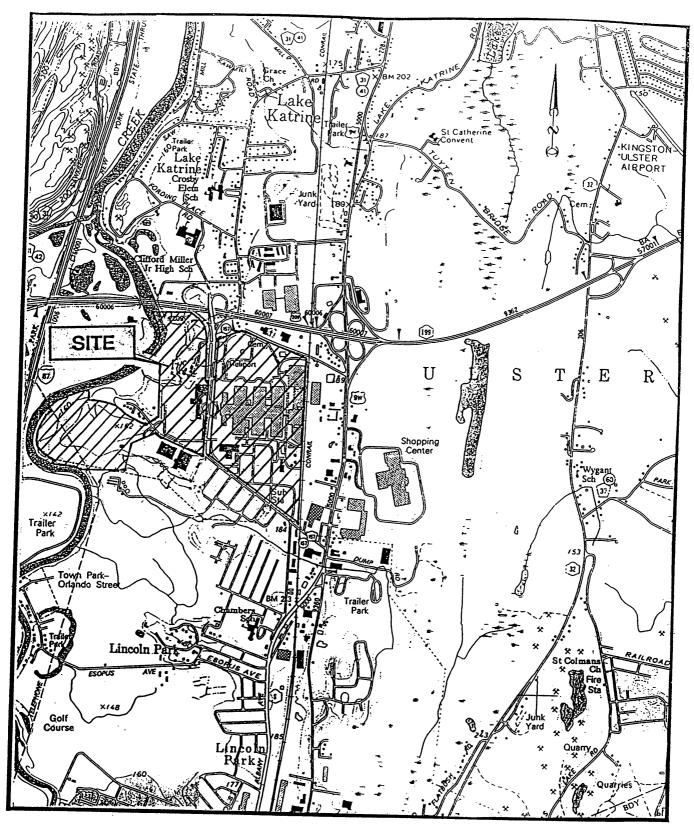
Based on the results of this RFI, the following changes are proposed for the Compliance Monitoring Program specified in the current approved Groundwater Monitoring Plan. These changes include removing and abandoning previous GMP well MW-803 from the program. Static water levels determined in this well are inconsistent with immediately adjacent well MW-612S and associated groundwater elevation interpretations. Furthermore, water level information obtained from this well appears to be affected by the bedding materials of the former IWSL cutoff trench and are therefore unreliable for water table contouring.

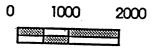
Review of the water table contour map prepared from data obtained during this RFI indicate that upgradient and downgradient relationships have changed since preparation of the Post-closure Permit application with proposed Compliance Monitoring Program that was subsequently adopted in the site's Part 373 Permit and also the current approved GMP. On the basis of the more current upgradient and downgradient interpretations, GMP compliance well MW-802 should be considered an upgradient (background) location. In addition, MW-816 and MW-817 should be included as additional upgradient (background locations).

Upon review of TCE-series concentration postings, two plumes were determined to exist in the former IWSL area. One appears to be associated with the sanitary sewer lines and not associated with the former IWSL. Two wells associated with this area (MW-106S and MW-205S) were previously included in the Compliance Monitoring Program as background wells. These two wells should be deleted from the GMP as background wells.

5 REFERENCES

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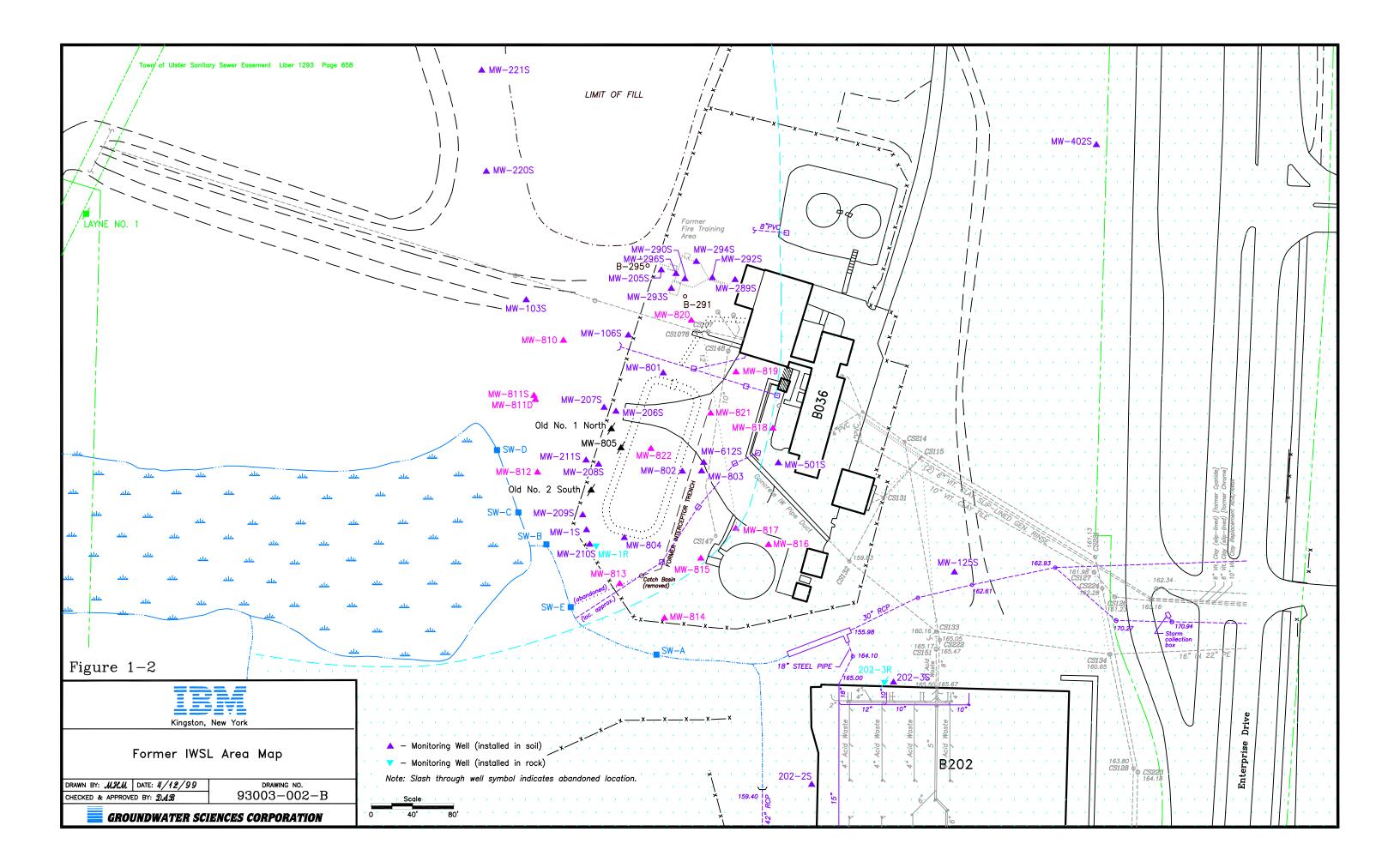


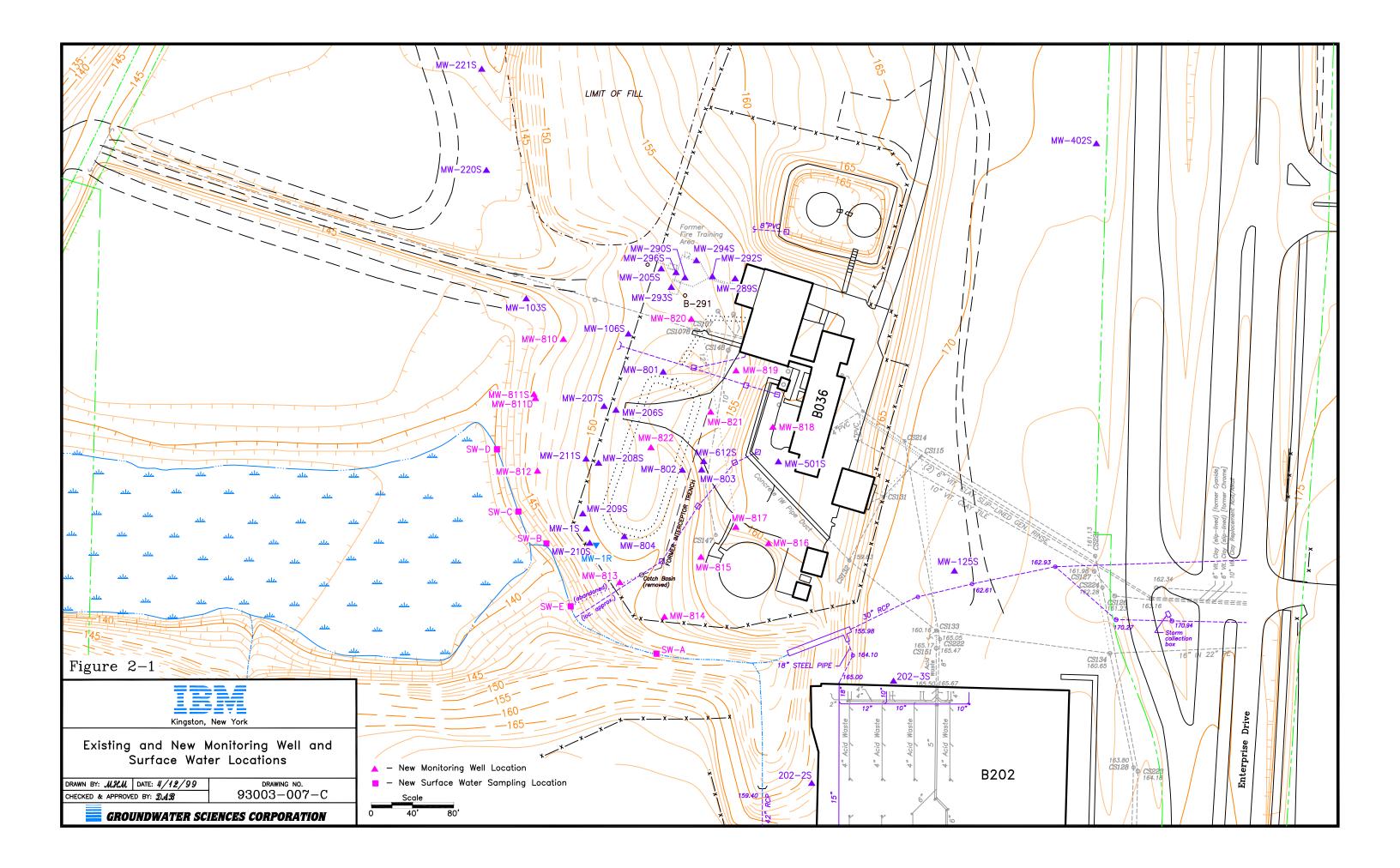


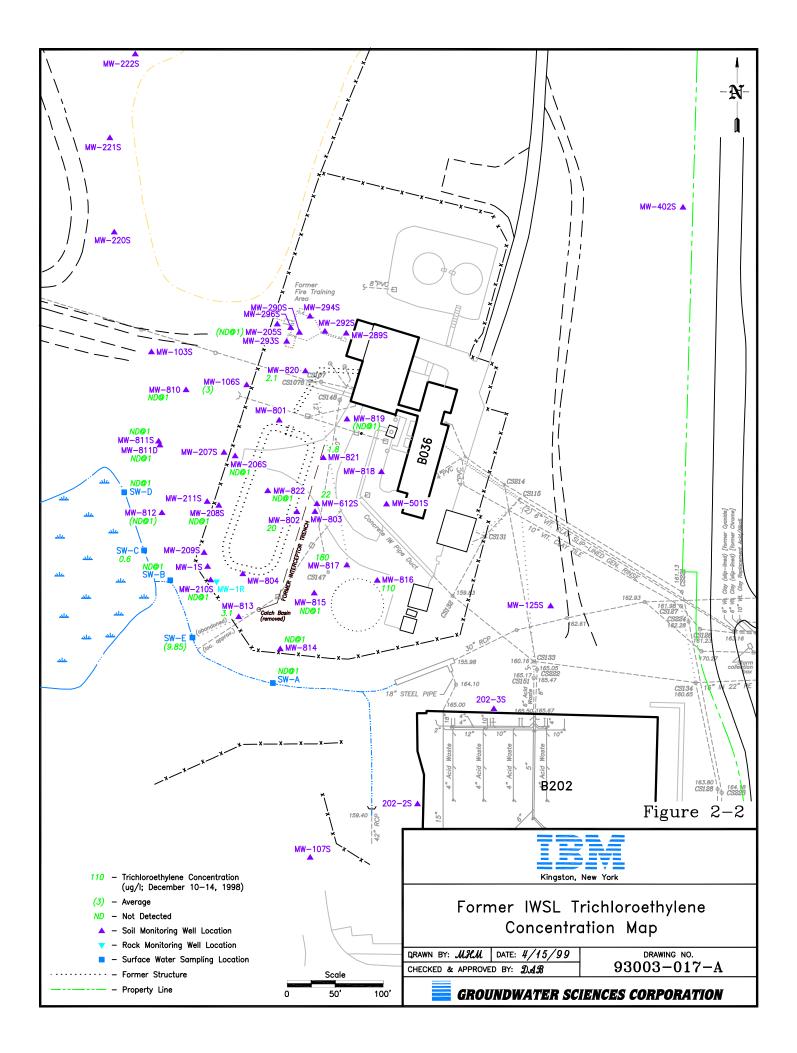
Site Location Map Portions of the Kingston West and Kingston East 7.5 Minute Quadrangles

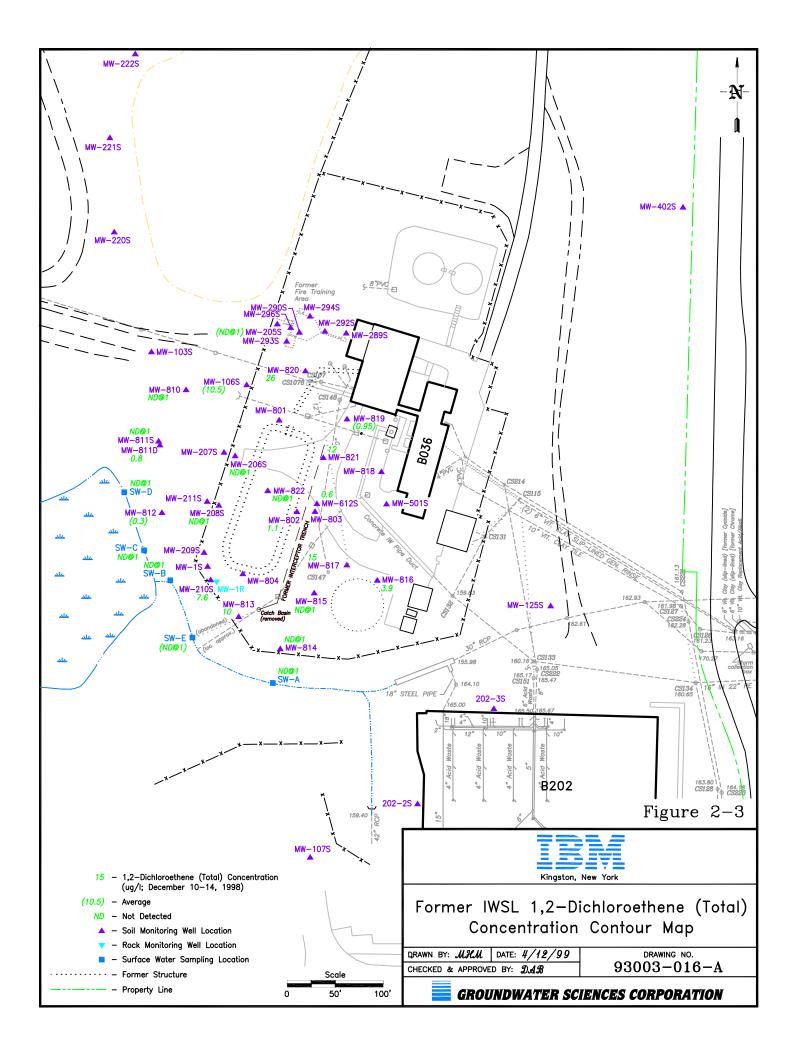
Scale 1 inch = 2,000 feet

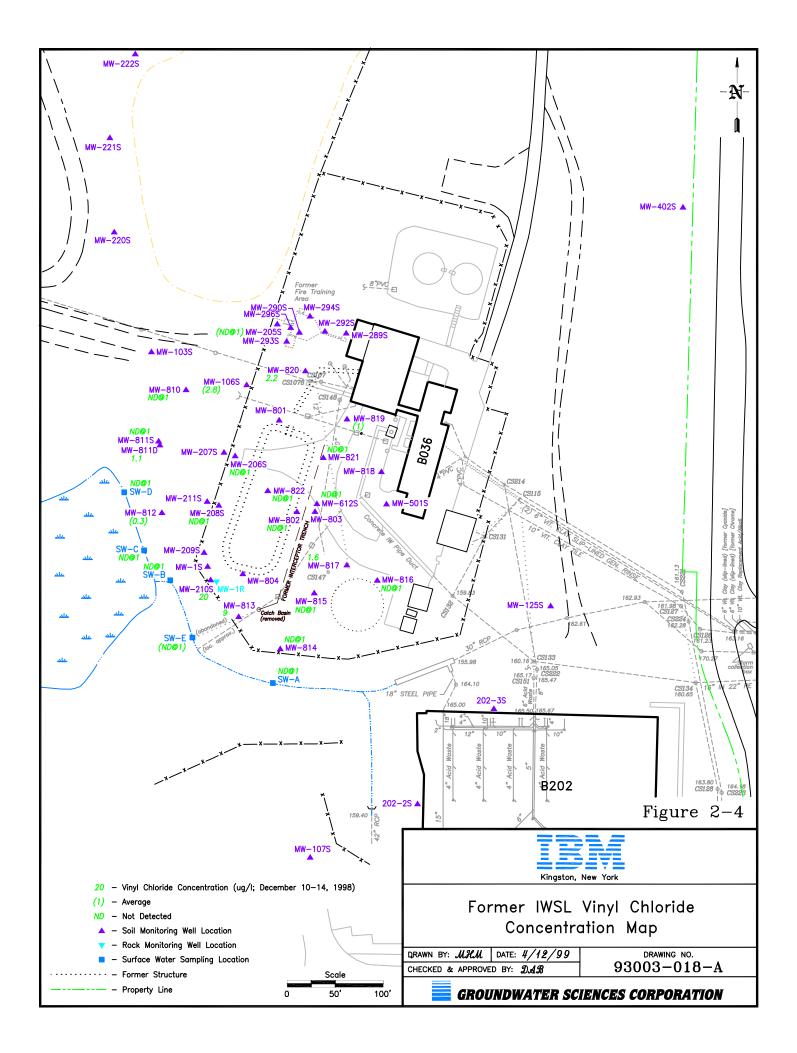
Figure 1-1

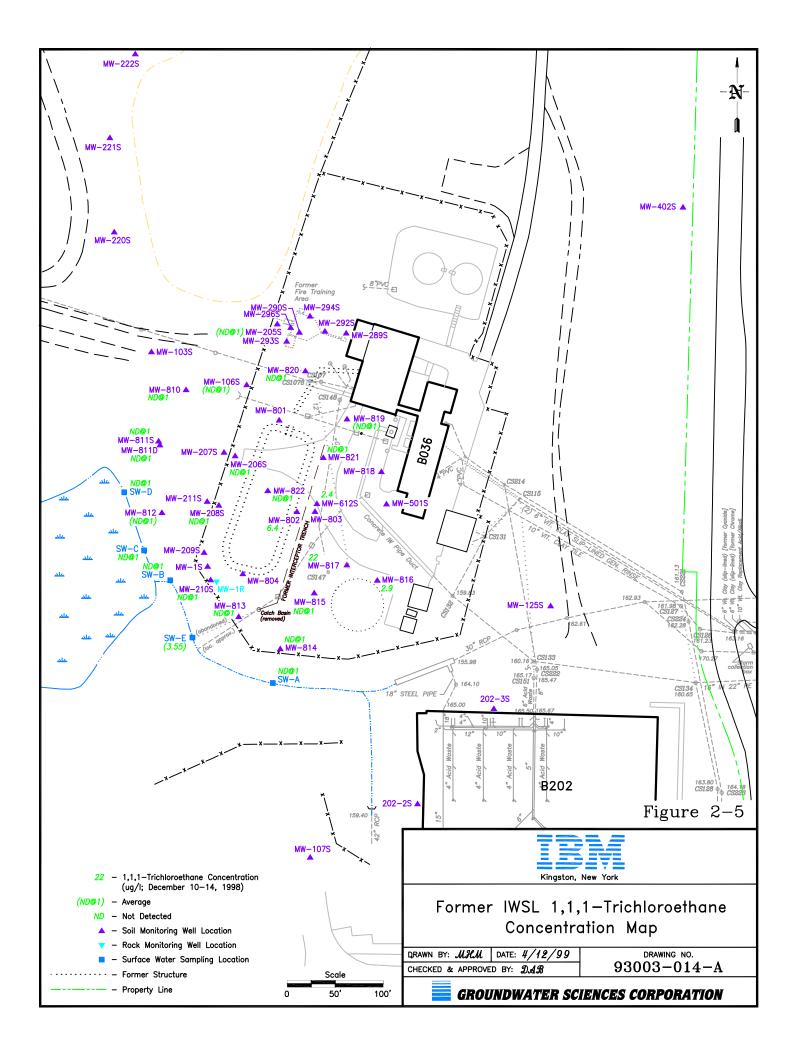


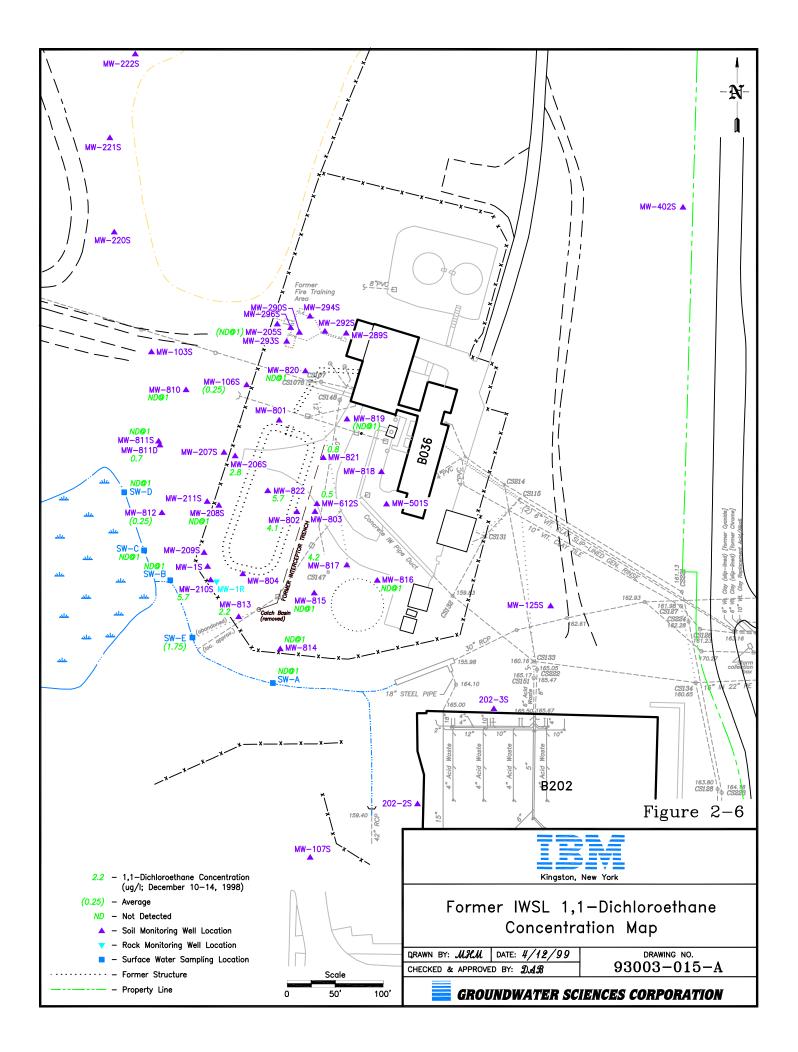


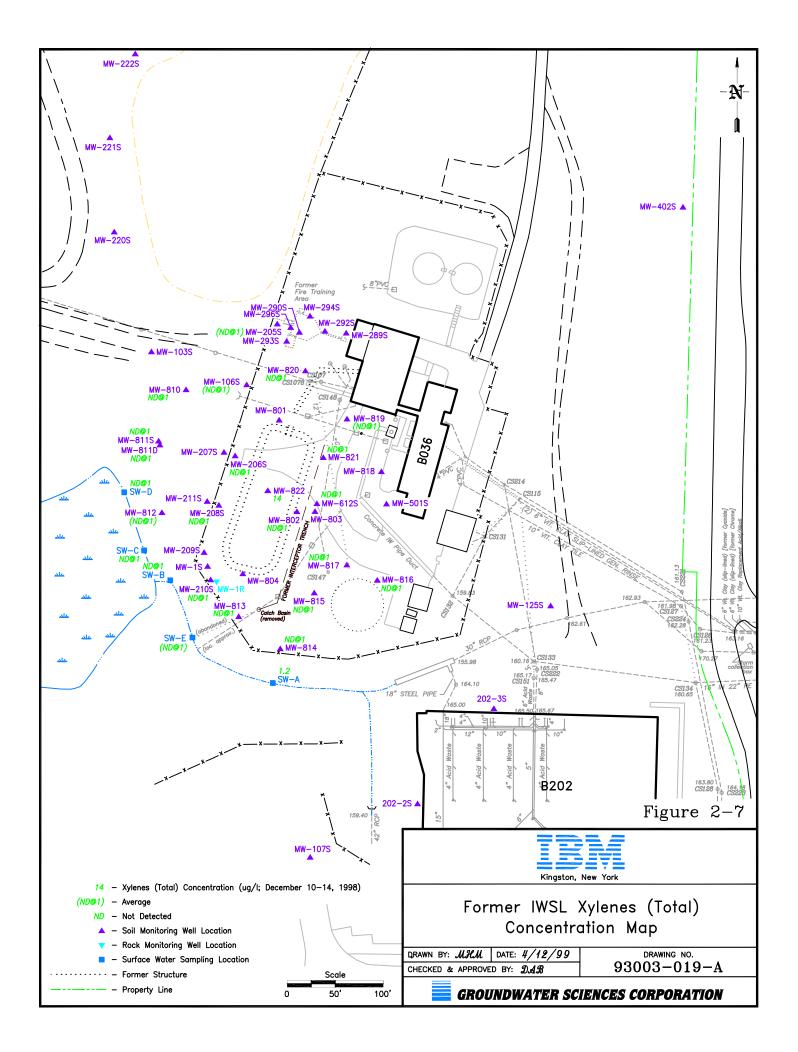


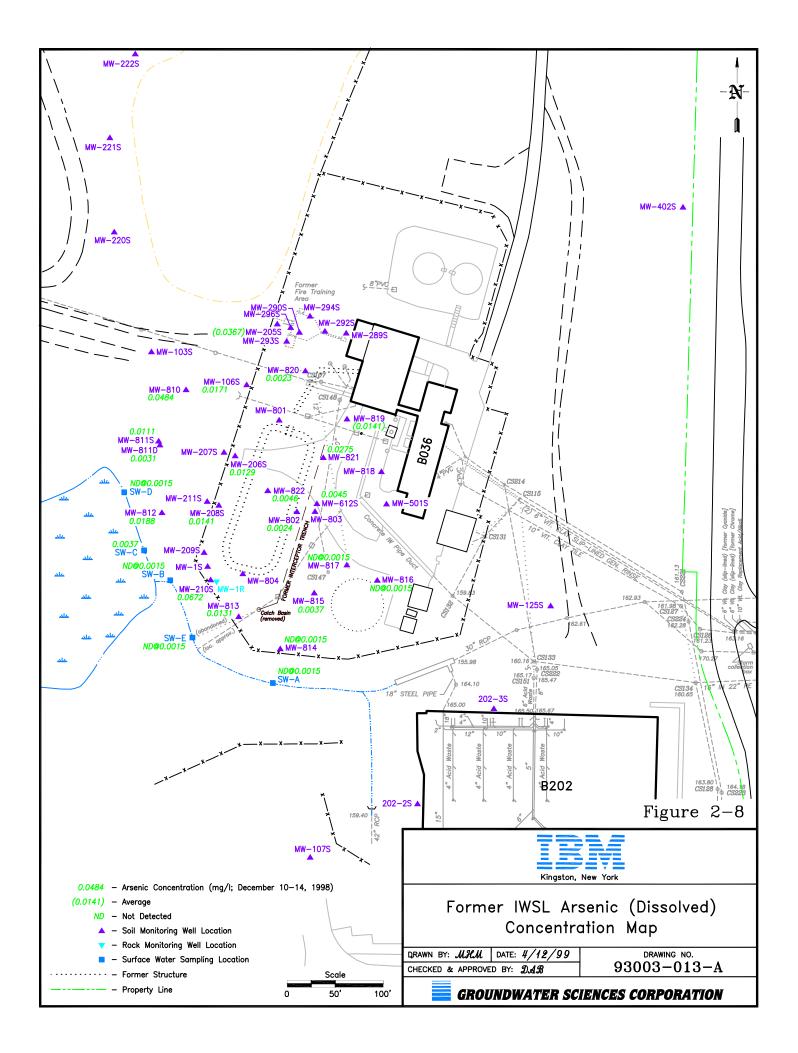


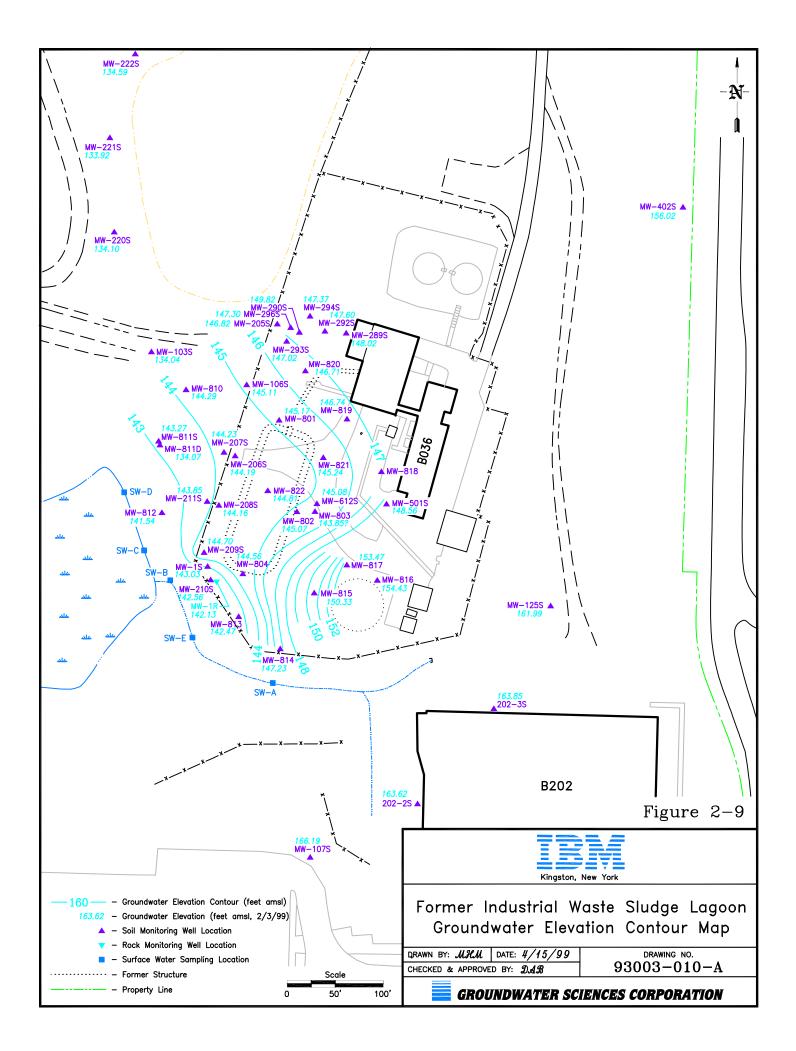


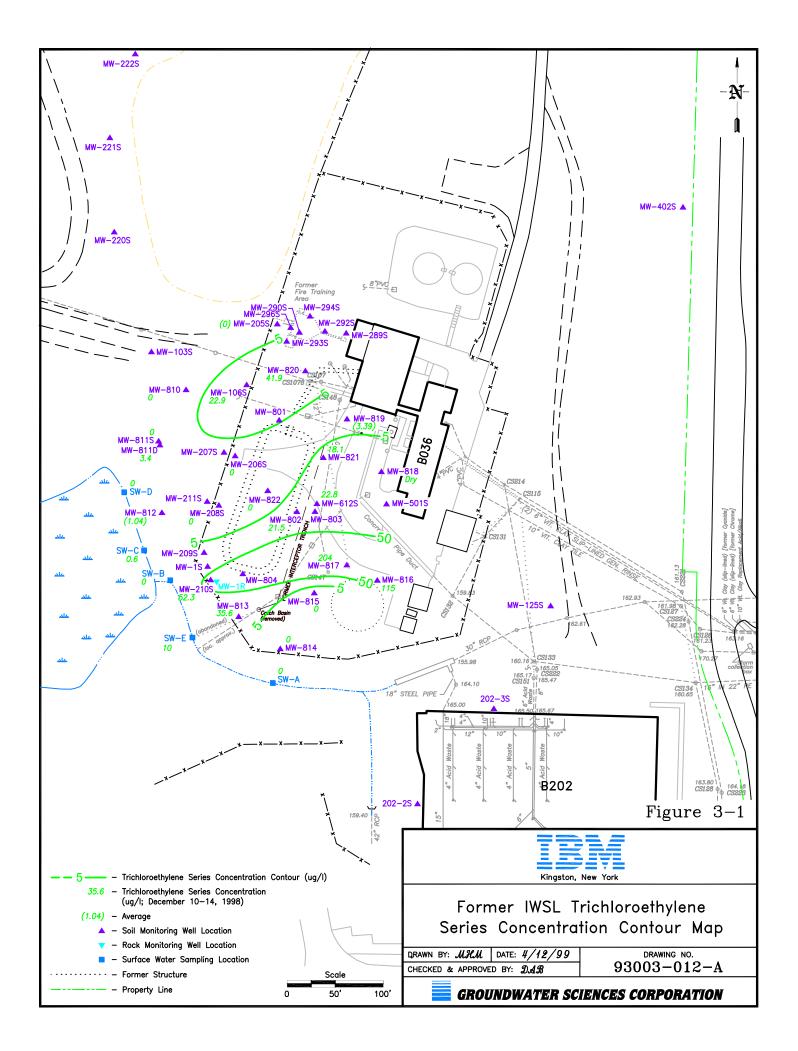


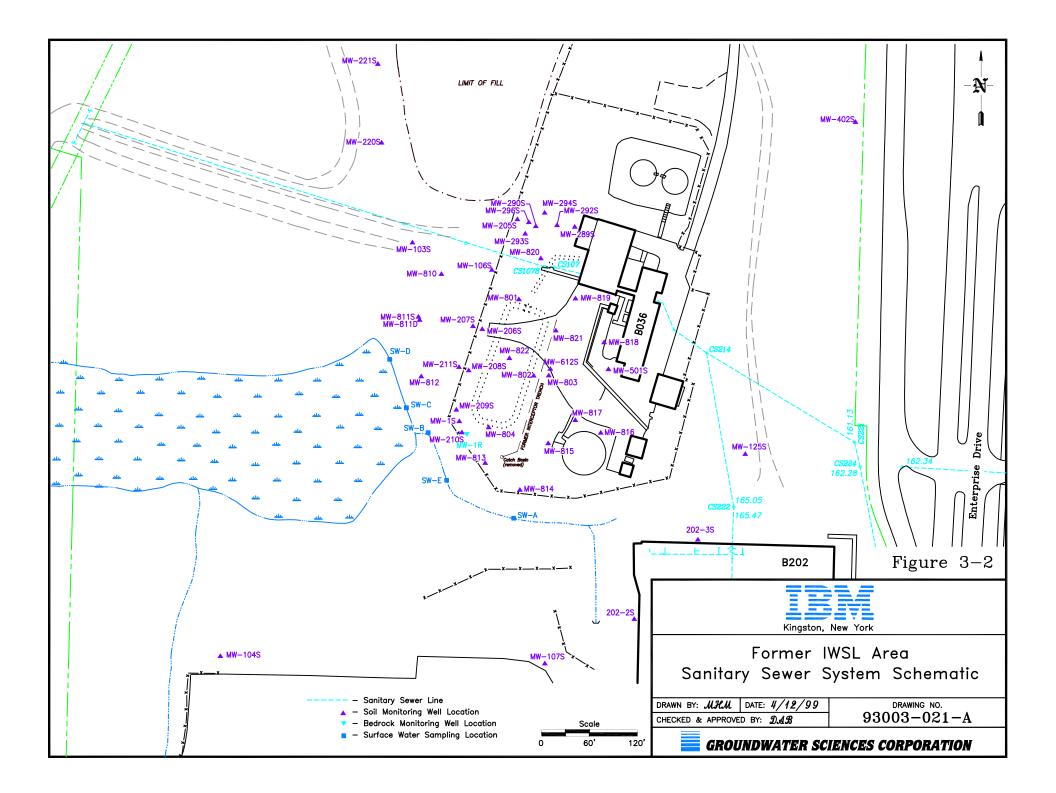


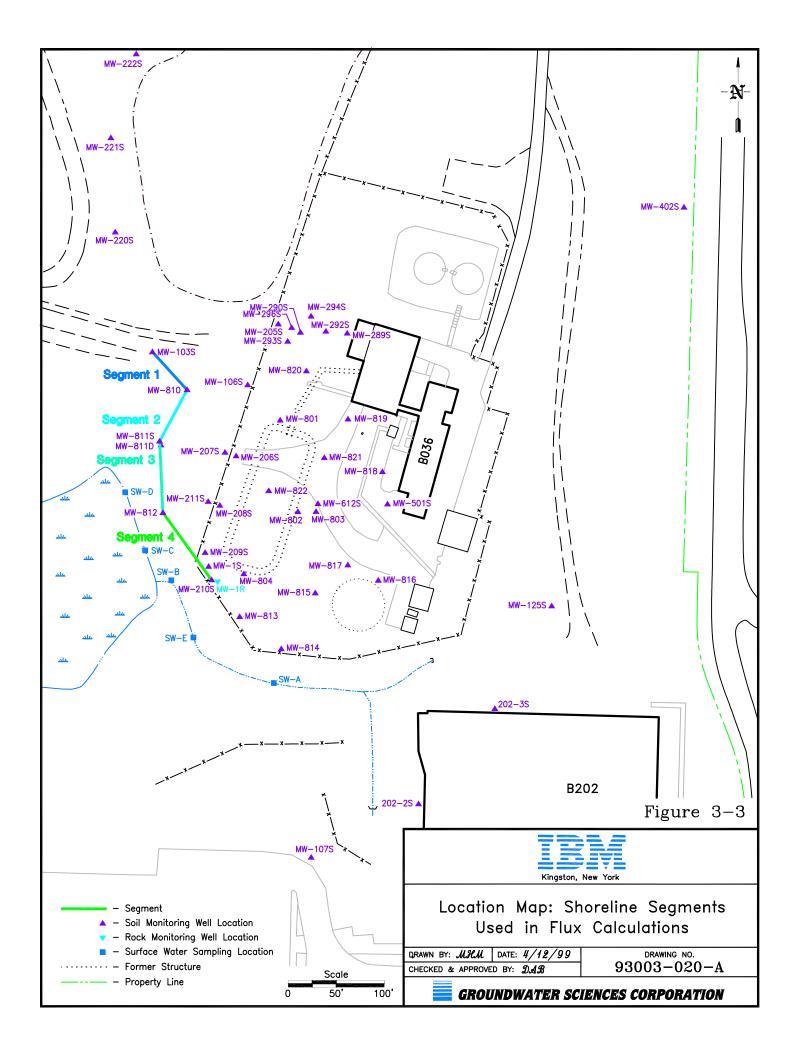












Appendix A

Boring Logs and Monitoring Well Construction Details

.

	ent: IBM N bject No. S	/id-	Hud	Auger Drilling Log son Valley, Kingston IWSL 5	Boring Locati	on N	MW-810 orthwest of former VSL lagoon		ГОС Elev. 147.63' GS Elev. 145.03' Page 1 of 1
Depth Feet	Blow Counts	FID * (ppm)	Recovery	Overburden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
0 2 4 6 10 12 14 14 14 16	1/1'-1/1' 1-1-1-1 1-1-1-2	0.5		FILL: dark brown, loamy sand, metal debris at 2 SAND: light brown, m-c, loose, dry. : as above (0-6"), transitions to grayish brown f sand (6-9"). SILTY CLAY: brown, mostly clay w/tr sit (9-20") SAND: brownish gray, med, loose, sl moist (20- : as above w/silty clay lams (1/4-1/2" thick) at 9", 12", 14". SILTY CLAY: brown w/ roots at top of spaon. SAND: brownish gray, f-m, loose, saturated (0- SILTY CLAY: brown, varved, soft w/tr roots, argo material throughout (8-15"). SILTY CLAY: as above, varved w/organics throug Total Depth: 16.0'.	24"). 8"). mic	FILL			 4" Locking Royer cap w/2" expansion plug 4" protective steel casing Concrete pad Hydrated bentonite chips 2" Sch 40 PVC riser 8-1/4" HSA borehole 2" Sch 40 10-slot PVC screen (3.5'-13.5') [141.53'-131.53'] No. 00 sand Bottom end cap Collapsed/swelled formation
20								20	
	Logged by: Drilling Sta Drilling Col Well Const Well Develo	: D. Irted mple ruction ped:	Mur : 8- ted: on: 9-	8-25-98 8-25-98 25-98	enotes vo	olatile	COF	2POR	R SCIENCES ATION MW-810
	Well Coord			819.49 095.57 SWL 5.65' (9/25/98,1	4:48; fro	om TOC).		

Clie Pro	nt: IBM N ject No. S	1id-	Hud	Auger Drilling Log son Valley, Kingston IWSL 5	-	on V	MW-811S Vest of former VSL lagoon		TOC Elev. 147.53' GS Elev. 144.93' Page 1 of 1
Depth Feet	Blow Counts	FID + (ppm)	Recovery	Overburden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
0 2 1 4 10 12 14 14 10 14 14 14 16 18 18 18	Ground Surface HAND AUGERED 2-2-2-2 7-4-2-1 2-2-3-3 2-2	0 0.2 0 NA	9" 14" 3"	FILL: brown loarny sand with gravel and debris. SAND: gray, m, saturated. : as above w/metal debris at 5", wood chips at : as above w/wood at base of spoon (10-14"). : as above with wood. : as above; gray silty clay at base of spoon. Total Depth: 13.0'.		FILL			- No. 00 sand - Bottom end cap
201								E 20	
	Driller: No Logged by: Drilling Sta Drilling Cor Well Constr Well Develo Well Coord:	D. rted: nplet ructic ped: s.: N	Mur : 8- :ed: :on: 9- 1718	iceak, GSC *Instrument reading de 27–98 scan of split spoon. 8–27–98 SWL ~2.5' below grade 25–98 penetrated borehole to penetrated borehole to	e until a 9'. Wate	ugers er leve	COR Well L	POF	R SCIENCES RATION MW-811S

	ent: IBM N oject No. S	/id-	Hud	Auger Drilling son Valley, Kin 5		Boring N Location	North IWSL		former		TOC Elev. 147.39' GS Elev. 145.03' Page 1 of 2
Depth Feet	Blow Counts	* (Luda)	Recovery	Over	burden/Lithologic Description	Graphic	Co	Well onstruc Graph	ction ic	.Depth Feet	Well Construction Details
0	Ground Surface						- +			0	 4" Locking Royer cap w/2" expansion plug 4" protective steel casing
2	HAND			FILL: brown loarny so tile and iron debris; cable at 4'.	ind w/brick, concrete, clinka ; 6—wire galvanized steel	er,		<u>666666</u>		2	— Concrete pad
4	AUGERED & AUGERED					FILI	-	10000000 10000000000000000000000000000	1000000	4	— Hydrated bentonite chips
6	2-3-2-1	0	7"	SAND & GRAVEL.		. <u>0</u> .	O			6	
8 1	2-7-2-2	NA	0"	: large wood chip lo	dged in shoe of spoon.	~~~~					—8-1/4" HSA borehole
10-	2-2-2-2	NA	0"	SiliT: aray w/tr f sa	nd, saturated (0-15").	r					—Bentonite slurry
12	3-3-3-3	0	17"	SILTY CLAY: grayish	pink, v soft (15–17"). chips and roots throughout					= 12	
14	2-2-3-3	0	11"		ood chip ot 13" (0−15").						-2" Sch 40 PVC riser
16	4-4-6-6	0	19"	SAND: gray, c, loose						<u>= 16</u>	-2" Sch 40 10-slot
18	3-2-2-3	0	15*	: as above.						18	PVC screen (16.5'-31.5') [128.53'-113.53']
20	4-4	0	2"			· · · · · · · · · · · · · · · · · · ·			-	Ē20	
	Driller: No Logged by: Drilling Sta Drilling Cor	D. rted :	Mur : 8-	iceak, GSC 25–98	Notes: *Instrument reading de scan of split spoon.	notes volatile		GRO			R SCIENCES ATION
Well Developed: 9-28-98 s Well Coords.: N718761.95				28–98 761.95	SWL ~1.1 below grade silty clay unit in shallow Woter level declined to SWL 12.72' (9/28/98,	section (12.5 12'.	-16.5').	W	Vell Lo	og:	MW-811D

Clie Pro	nt: IBM N ject No. S	Mid-	Hud	Auger Drilling Log son Valley, Kingston IWSL 5	Borine Locat	ion \ I	MW-811D Nest of former WSL lagoon		TOC Elev. 147.39' GS Elev. 145.03' Page 2 of 2
Depth Feet	Blow Counts	FID * (ppm)	Recovery	Overburden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
20 22 24 26 30 30 30 30 32 34 36 36 38 40	3-3-3-3 3-3-3-3 4-4-3-4 4-4-4-4 3-4-5-4 2-3-4-5 5-8-8-10	0 0 0 0	9" 8" 14" 12" 18"	: as above. : as above. : as above. : as above. : as above. (0-6"). SAND: grayish brown, c w/some vc, clay lam (1, thick) at 13" (10-14"). SAND: grayish brown, c, loose, saturated. : as above. : as above. : as above. : as above. (0-5"). SILTY CLAY: grayish brown with pink laminations. Total Depth: 33.0'.	/2*			20 22 24 24 26 28 30 30 32 34 36 38 38 40	 8-1/4" HSA borehole 2" Sch 40 10-slot PVC screen (16.5'-31.5') [128.53'-113.53'] No. 00 sand Bottom end cap Collapsed/swelled formation
									R SCIENCES RATION
							Well L	.og:	MW-811D
							I		

Clie Pro	ent: IBM N ject No. S	lid-	Hud	Auger Drilling son Valley, Kir 5			ion N	MW-812 Nest of former WSL lagoon		TOC Elev. 149.31' GS Elev. 146.73' Page 1 of 1
Depth Feet	Blow Counts	FID * (ppm)	Recovery	Over	burden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construction Detoils
0 2 4 10 12 14 10 14 16 18 10 18 10 10 10 10 10 10 10 10 10 10	Ground Surface HAND AUGERED & AUGERED 44-15-12-8 4-4-8-8 5-11-12-11 14-15-12-11 12-8-7-8	0 0 0 0	15" 11" 11"	and gravel, dry. : as above, large w at base of shoe. SILTY SAND: saturate SAND: grayish brown silty clay lams (~1 wood chips) at 6 SAND: grayish brown, s	n, m, v loose w/grayish bro 1/2-1" thick) w/organics (r and 10", saturated. , m, v loose, soft (0-2").	ble				
11	Driller: No Logged by: Drilling Star Drilling Con Well Constr	D. ted: nplet	Muri 8 ed:	iceak, GSC 26–98 8–26–98	Notes: *Instrument reading d scan of split spoon.	enotes vo	olatile	COF	POR	R SCIENCES
	Well Develo Well Coords	ped: 5.: N	9 1718	28-98	SWL 7.71' (9/28/98,	13:20; fr	om TO		_og:	MW-812

	ent: IBM N bject No. S	∕lid—	Hud	Auger Drilling son Valley, Kin 5			ion S	MW-813 South of former WSL lagoon		TOC Elev. 151.79' GS Elev. 149.4' Page 1 of 1
Depth Feet	Blow Counts	FID * (ppm)	Recovery	Overb	urden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
0 2 4 10 12 14 16 18 20	2-3-3-2 3-2-2-3 3-4-45	0 0 0 0	10" 14" 15" 6"	GRAVEL/SILTY CLAY: : as above (0-3"). SAND/SILTY CLAY: f SILTY CLAY: brown, a throughout, saturate : as above, saturate : as above, saturate SAND/SILTY CLAY: bro (1/4-1/2" thick) s : as above (0-12").	sand w/silty clay lams (3- mostly silt w/tr clay, organi ed (6–10"). ed. ed (0–6"). own, f sand w/silty clay lam iaturated (6–10").	-6"). ics				2" Sch 40 10-slot PVC screen (3.5'-13.5') [145.90'-135.90'] No. 00 sand Bottom end cap Collapsed/swelled formation
		D. rted: nplet ructic ped: s.: N	Muri : 8– ted: on: 9– \718	26–98 8–26–98 8–26–98 25–98	Notes: *Instrument reading d scan of split spoon. SWL 10.24' (9/25/98,			COF Well L	ATE RPOI	R SCIENCES RATION MW-813

	ent: IBM N oject No. S	/id-	Hud	Auger Drilling Log son Valley, Kingston IW 5		loring No. ocation S IV	MW-814 outh of former VSL lagoon		TOC Elev. 154.10' GS Elev. 151.7' Page 1 of 2
Depth Feet	Blow Counts	FID + (mqq)	Recovery	Overburden/ Descrip		Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
0 2 4 10 12 14 16 18 18 10 10	Ground Surface AUGERED $\&$ AUGERED $\&$ AUGERED $2-2-2-2$ $2-2-2-2-2$ $2-2-2-2$ $2-2-2-2-2$ $1-1-2-2$ $1-1-2-2$ $1-1-2-2$ $1-2-1-2$ $2-1-2-1$	0 NA NA 0 0		FILL: brown loamy sand with gray : laminated sitty clay (2-3"). : f-m sand and sitty clay (3-6" SAND/SILTY CLAY: brownish gray clay taminations (2-5"). SILTY CLAY: grayish brown, lamina : as above. : as above.). f sond w/silty			0 2 4 10 12 14 16 18 20	 4" Locking Royer cap w/2" expansion plug 4" protective steel casing Concrete pad Hydrated bentonite chips 2" Sch 40 PVC riser 8-1/4" HSA borehole 2" Sch 40 10-slot PVC screen (4.0'-14.0') [147.7'-137.7'] No. 00 sand Bottom end cap Abandoned original borehole with bentonite slurry. Moved 4' to east to drill and set well.
	Driller: Nor Logged by: Drilling Star Drilling Corr	D. ted:	Muri 8–	ceak, GSC *instrumer 26-98 scan of	nt reading denote split spoon.	es volatile			R SCIENCES ATION
	Well Constru Well Develor Well Coords	oed: .: N	9– 718	25–98 549.60	(9/25/98, 09:2	6; from TOC)		.og:	MW-814

Clie Pro	ent: IBM I ject No. 9	Mid-	Hud)3.0	Auger Drilling Log son Valley, Kingston IWSL 5		. MW-814 South of former IWSL lagoon]	OC Elev. 154.10' GS Elev. 151.7' Page 2 of 2
Depth Feet	Blow Counts	FID * (ppm)	Recovery	Overburden/Lithologic Description	Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
20 22 24 24 24 24 26 11 26 30 11 30 11 32 34 36 38 38 38	2-3-3-3	0 0 0 0 0 0 0 0 0	14" 18" 14" 16" 16" 14" 8" 10"	 : as above. 			20 22 22 24 26 28 28 28 28 28 28 28 28 28 28 28 28 28	- Abandoned original borehole with bentonite slurry. Moved 4' to east to drill and set well.
40	2-3-2-3	0	12"	Total Depth: 40.0'.			E E 40	
						COL	RPOR	R SCIENCES ATION MW-814

				Auger Drilling	_	Boring	, No.	MW81	5		TOC Elev. 158.65'
	ient: IBM N oject No. S			son Valley, Kin 5	gston IWSL	Locati	ľ	Southeast WSL lago		ner	GS Elev. 156.3' Page 1 of 1
Depth Feet	Blow Counts	FID * (ppm)	Recovery	Over	burden/Lithologic Description		Graphic	Const	/ell ruction Iphic	Depth Feet	Well Construction Details
								(4" Locking Royer cap w/2" expansion plug
0	Ground Surface							- 1.		0	— 4" protective steel cosing
2				FILL: loamy silty san	d with gravel.		FILL			2	—Concrete pad —Hydrated bentonite chips
4				: large cobble at 3'.			0			4	-2" Sch 40 PVC riser
6										11 11 6	−8-1/4" HSA borehole
8		o	16"	: os above, with wo	od chip at base.					million 8	~2" Sch 40 10-slot PVC screen (4.0'-14.0')
10	2-4-3-3	0.2	7 "	SILTY CLAY/SILTY SA and silty sand with	ND: brownish gray silty clay gravel.	,		1997 (A. 1997)			[152.3'-142.3]
12		0	7"	SILTY CLAY: brownish (1/2" thick) dry.	ı gray w/m sand lamination	าร				12	— No. 00 sand
14	2-2-2-1	0	7"	: as above, saturate	d at base of spoon.					14	—Bottom end cap
16	WOH/1'-1-2	. NA	o *							11	— Collapsed/swelled formation
18	1-1-2-2	0	12"		oink laminations, saturated.					18	
20	1-2-2-1	0	11"	: as above.				8		<u> </u>	
					Total Depth: 20.0'.						
	Driller: No Logged by: Drilling Sta	D.	Mur		Notes: *Instrument reading d scan of split spoon.		olatile	GI			R SCIENCES PATION
Well Construction: 8-27-98					WOH = Weight of Har	mmer			Well	log.	MW-815
Well Developed: 9-25-98 9 Well Coords.: N718607.77 590229.10 SW				SWL 12.72' (9/25/98,	, 09:06; 1	from T	0C).		y.		

Pro	ent: IBM N oject No. S	/lid-	Hud)3.0	Auger Drilling Ison Valley, Kir 5			ion I	MW-816 East of for WSL lagoon	mer	F1	TOC Elev. 163.97' GS Elev. 161.4' Page 1 of 1
Depth Feet	Blow Counts	(mqq)	Recovery	Over	burden/Lithologic Description		Graphic	Wel Constru Grapł	ction	Depth Feet	Well Construction Details
0 2 4 4 10 10 12 14 16 18 18 18	Ground Surface HAND AUGERED 7-11-19-14 11-7-7-4 2-2-2-3 2-3-3-4	0	15" 10" 12"	gravel and cobbles. SAND: brown to brow	wnish orange, c, loarny w/tr gravel. (probably fill). e at top (0-5"). ose, dry (5-10"). soturated.		FILL				 4" Locking Royer cap w/2" expansion plug 4" protective steel casing Concrete pad Hydrated bentonite chips 8-1/4" HSA borehole 2" Sch 40 PVC riser 2" Sch 40 10-slot PVC screen (6.5"-11.5") [154.90"-149.90"] No. 00 sand Bottom end cap Collapsed/swelled formation
	Driller: Nor Logged by: Drilling Star Drilling Con Well Constru	D. ted: plet	Muri 9 ed:	iceak, GSC 1-98 9-1-98	Notes: *Instrument reading de scan of split spoon.	notes vo	olatile		COR	POR	R SCIENCES ATION
	Well Develo Well Coords	.: N	718		SWL 13.04' (10/30/98	, 10:38;	from		well L	.og:	MW-816

Clier Proje	nt: IBM N ect No. 9	/id-	Hud	Auger Drilling son Valley, Kin 5		Boring Locat	ion E	MW-817 Jast of former NSL lagoon		TOC Elev. 162.72' GS Elev. 160.53' Page 1 of 2
Depth Feet	Blow Counts	FID + (ppm)	Recovery	Over	burden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
	round Surface HAND AUGERED 1-2-2-2 2-2-2-3 1-1-1-2 1-2-2-2 1-2-2-1-1	0	2 3" 9" 12" 12"	SAND: brown to dark SILTY CLAY: gray, so : as above, varved, : as above. : as above. : as above. : as above. : as above. : as above.	saturated.	ghout.				 -4" Locking Royer cap w/2" exponsion plug -4" protective steel casing -Concrete pad -Hydrated bentonite chips -2" Sch 40 PVC riser -8-1/4" HSA borehole -2" Sch 40 10-slot PVC screen (4.0'-14.0') [156.53'-146.53'] -No. 00 sand -Bottom end cap -Abandoned original borehole with
18	2-2-2-2	0 0	12 * 14 *	: as above.					18 118 1120	
		D. rted: nplet uctic ped: s.: N	Muri 9- ed: on: 9- 1718	9-1-98 9-1-98 25-98	Notes: *Instrument reading d scan of split spoon. SWL 13.83' (9/25/98			Well	WATE DRPOR	R SCIENCES ATION MW-817

	ent: IBM M bject No. S	∕lid—	Hud	Auger Drilling Log son Valley, Kingston IWSL 5	Boring Locatio	on	MW817 East of former WSL lagoon		TOC Elev. 162.72' GS Elev. 160.53' Page 2 of 2
Depth Feet	Blow Counts	FID * (ppm)	Recovery	Overburden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
20 22 24 24 26 	3-2-1-2 3-3-2-2 3-2-3-3	0	12" 12" 8" 6"	: as above. : as above. : as above. : as above. Total Depth: 30.0'.				20 22 24 24 26 28 30 30 30 30 31 34 36 38 40	- Abandoned original borehole with bentonite slurry. Moved 4' to southeast to drill and set well.
							GROUND COL	VATE. RPOR	R SCIENCES
							Well	Log:	MW-817

Pro	ent: IBM N bject No. S	/id-	Hud)3.0	Auger Drilling Ison Valley, Kir 5			ion I	MW-818 East of former WSL lagoon	- i	TOC Elev. 160.94 GS Elev. 161.31 Page 1 of 1
Depth Feet	Blow Counts	FID *	Recovery	Over	burden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
4	Ground Surface HAND AUGERED	0	12"	FILL: brown sand, m fragments, dry. SAND: brown, m, loc			FILL ?			 Flushmount completio with 2" watertight sealing cap Concrete pad Hydrated bentonite chips 8-1/4" HSA borehold 2" Sch 40 PVC riser 2" Sch 40 10-slot PVC screen (5.5'-10.5')
10	5-6-4-6	0	18"	: as above. : as above (0-4"). SiLTY CLAY: brown, s	off laminated				10	(3.3 - 10.3) [155.81'-150.81'] — No. 00 sand
12 114 16 18 20		0	14"		Total Depth: 12.0'.				12 12 14 14 16 18 10 18	- Bottom end cap - Collapsed/swelled formation
	Driller: Nor Logged by: Drilling Star Drilling Con Well Constr Well Develo Well Coords	D. rted: npleta uctio ped: 5.: N	Muri 9– ed: n: NA 718	1-98 9-1-98 9-1-98	Notes: *Instrument reading d scan of split spoon. SWL: Dry.	enotes v	blatile	COF	RPOR	R SCIENCES ATION MW-818

.

			–819 east of former lagoon	TOC Elev. 154.24' GS Elev. 154.79' Page 1 of 1
Pepth Blow Stunoo Recovery *	Overburden/Lithologic Description	C Graphic	Well onstruction Graphic	Well Construction Details
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ohalt (0-0.3'). bble subbase (0.3-1.0'). ND: brown, m, loose w/gravel, dry. as above without gravel, moist. as above, saturated. as above. LTY CLAY: brownish gray, laminated. Total Depth: 14.0'.			Flushmount completion with 2" watertight sealing cap Concrete pad
Driller: Northstar Drilli Logged by: D. Muriced Drilling Started: 8–28-	ak, GSC *Instrument reading deno -98 scan of split spoon.	ites volatile		TER SCIENCES PORATION
Drilling Completed: 8–3 Well Construction: 8–3 Well Developed: 9–25- Well Coords.: N718788 E590263	-2898 98 8.90	.59; from TOC).	Well Lo	og: MW-819

	ent: IBM M bject No. S	∕lid–	Hud	Auger Drilling Log Ison Valley, Kingston IWSL 5	Boring No. MW-820 Location North of former WSL lagoon				TOC Elev. 1 GS Elev. 1 Page		
Depth Feet	Blow Counts	FID * (ppm)	Recovery	Overburden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construc Detail		
								-+	4" Locking Ro w/2" expansion		
0	Ground Surface	<u> </u>				+ .	Town Phane P	0	– 4" protective casing		
				FILL: brown clayey loam w/gravel and cobbles; brick fragment at 2'.					-Concrete pad		
2						=111.		2	-Hydrated bent chips		
	HAND AUGERED						33331 3434		-2" Sch 40 P		
4 1				SAND: brown, f—m w/some silt, soft, loose.					-8-1/4" HSA		
6								6			
				: as above, black wood chip at 12", moist at base of spoon.							
8	1-2-1-2	0	16"								
		<u> </u>		: as above with gravel fragments at base of this thin lens of clay (1/2" thick) at 5", moist.	spoon,			Ē			
10	1-1-2-2	0	9"			0		8			
				: as above, saturated.					-2" Sch 40 10 PVC screen		
12=	1-1-1-1	0	8"					= 12	(4.5'-19.5') [147.2'-132.2		
	1-2-2-2	0	10"	: as above w/gravel fragment at base, silty c lens (1/2" thick) at 6".	idy						
14				: as above with large black wood chip at bas	e			<u>= 14</u>			
	2-4-4-5	0	13"	of spoon.					—No. 00 sand		
16		<u> </u>		: as above.				= 16			
	3-2-1-2	0	4"								
18] 	-	-	SILTY CLAY: dark gray, soft.				= 18	-Bottom end (
	2-3-4-5	0	7"					E 20	- Collapsed/swe formation		
20	1		<u> </u>	Total Depth: 20.0'.		<u></u>	KXXX	<u> - 20</u>	·		
	Driller: No	orths	tar I	Drilling, Inc. Notes:			GROUNDW	<u>, , , , , , , , , , , , , , , , , , , </u>			
	Logged by: Drilling Sta	D. rted	Mur : 8-	iceak, GSC *Instrument reading -25–98 scan of split spoon.		ntile			ATION		
	Drilling Cor Well Consti	•		WOH - Weight of H	ımmer		147 11 1				
	Well Develo	ped:	9-	-25–98		** *		Log:	MW-82		

	ent: IBM N bject No. S	/id-	Hud	Auger Drilling Ison Valley, Kir 5			ion E	MW-821 ast of form WSL lagoon	ner		TOC Elev. 154.37' GS Elev. 154.70' Page 1 of 1
Depth Feet	Blow Counts	FID * (ppm)	Recovery	Ove	Overburden/Lithologic		Well Construc Graph	ction	Depth Feet	Well Construction Details	
0 2 4 6 10 12 14 16 18 18	Ground Surface HAND AUGERED 3-4-4-4 3-3-4-4 1-1-1-1 2-3-4-3	0	24" 12" 14"	SAND: brown, m w/ lamination at 15". : as above, saturate : as above, 0-10",	rown, mostly sand w/some so , si moist. tr gravel, 1/4"-thick silty cl ed at base. ed.						 Flushmount completion with 2" watertight sealing cap Concrete pad Hydrated bentonite chips 8-1/4" HSA borehole 2" Sch 40 PVC riser 2" Sch 40 PVC riser 2" Sch 40 10-slot PVC screen (8.5'-13.5') [146.20'-141.20'] No. 00 sand Bottom end cap Collapsed/swelled formation
	Driller: No Logged by: Drilling Star Drilling Con	D. ted:	Muri 8–	iceak, GSC 28–98	Notes: *Instrument reading denotes volatile scan of split spoon.			GRO			R SCIENCES
	Well Constr Well Develo Well Coords	uctic ped: : N	n: 9– 718	8–28–98 25–98	SWL 9.31' (9/25/98, 13:44; from TOC).			c).	Well	Log:	MW-821

	ent: IBM N bject No. S	/id	Hud	Auger Drilling Ison Valley, Kin 5			on V f	MW-822 Vithin boundary of ormer IWSL lagoon		TOC Elev. 154.84' GS Elev. 152.5' Page 1 of 2		
Depth Feet	Blow Counts	FID + (ppm)	Recovery	Ove	rburden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construction Details		
0	Ground Surface			Silty sandy loarn, br SAND: brown, f loose	own, loose, dry (0-1.5'). a, dry.				0	 4" Locking Royer cap w/2" expansion plug 4" protective steel casing Concrete pad 		
4	HAND AUGERED			: trace grovel 3–3.5	с.		0 ₀ 0 0		4	 ─ Hydrated bentonite chips ─ 8−1/4" HSA borehole 		
8 8	8-12-14-14	NA	16"	: as above.	w/gray silty clay lam (1/2'	•				— 2* Sch 40 PVC riser		
10	AUGERED	O NA O	19 " 8"	thick) at 8.5". SILTY SAND/SILTY CL (15-19"). LIMESTONE: gray, cru : as above, saturate		el						
14	8-9-7-12	NA O NA	13"	: as above (0-6"). SAND: gray-black, f	-m, odor.					- 2" Sch 40 10-slot PVC screen (10.0'-20.0') [142.5'-132.5']		
16	2-3-4-3	7 1	10"	: as above (0-7"), SAND: grayish black,	large wood chip 6-7". m, loose.					—No. 00 sand		
<u>18</u> 20	3-3-6-5	1.5	12"	: as above w/roots silty clay laminatio	& wood (0-7") and 1/4" n at 10".	thick			18 18 120	-Bottom end cap		
	Driller: No Logged by: Drilling Sta	D. rted:	Muri 8–	iceak, GSC 27—98	Notes: *Top no. is volatile scan of split spoon; bottom no. is jar headspace scan measurement.				GROUNDWATER SCIENCE CORPORATION			
	Drilling Con Well Constr Well Develo Well Coords	uctio ped: s.: N	n: 9- 718	8–27–98 25–98	** At base of spoon in sandy unit. SWL 11.11' (9/25/98, 10:19; from TOC).				_og:	MW-822		

Pro	Soil Auger Drilling Log Client: IBM Mid-Hudson Valley, Kingston IWSL Project No. 93003.05						MW-822 Vithin boundary of ormer IWSL lagoon	· · · · ·	TOC Elev. 162.72' GS Elev. 152.5' Page 2 of 2
Depth Feet	Blow Counts	FID * (ppm)	Recovery	Overburden/Lithologic Description		Graphic	Well Construction Graphic	Depth Feet	Well Construction Details
20 22 24 24 24 26 	1-1-1	0 NA	11"	SILTY CLAY: brown, soft, varved. Total Depth: 22.0'.				20 22 24 24 26 28 30 30 32 34 34 36 38 38 40	
									R SCIENCES RATION
							Well	Log	: MW-822

Appendix B Field Documentation

	ld S	ampling Data	Sheet
Kingston, New York			
GENERAL INFORMATION:			· · · · · · · · · · · · · · · · · · ·
Well No: <u>10080</u> Date: <u>10</u>	30	<u>/98</u> Perso	onnel: <u>CJS</u>
PURGING:			
Reference Depth To Bottom (DTBr) N	A a	Start: 14:51	Stop: 15.69
Measured Depth to Bottom (DTBm) 157	ן 🕰		th to Bottom for calculations
Depth to Water (DTW): 5.25	ft.	Well Yields:	OYes ONo
Target Volume: 5.14	gal.	Water Contained:	I'Yes St No
Actual Volume: 525	gal.	DTW After Purge:	14:69 A
PID: Background:	Purg	ing:	Not Applicable
Purge Method		Rate	Equipment D
🖞 Bailer -	().2919pm_	Ded Equipment
Peristaltic Pump		<u> </u>	
O Well Wizard			· · · · · · · · · · · · · · · · · · ·
American Sigma			<u></u>
Bladder Pump			<u></u>
□ Submersible			
6 4 MT 710			
<u>SAMPLING:</u>			
Sample ID: $\mathbb{K} \oslash \oslash \mathbb{S}$	$\mathcal{O}_{\cdot i}$	81030	G
Sample Time: Start: 15:17	Stop	: 1527	
Duplicate ID:	N		Ð
Sampling Method: D Baile		Sigma 🖸	Well Wizard Tap
<u>COMMENTS:</u>		1- 104	
Signature: Curlian D	10 	0/30/92 QA/QC Review	v: <u>MUK</u> Date: <u>148/98</u>
\bigcirc			

Kingston, Nev		is Request Form
Well Numi	per: <u>MWBC</u>	Date: <u>10 /30/9</u> 2
LABORAT	<u>'ORY</u> :	
σ	IBM - East Fishkill	
∇	EnviroTest	
đ	Other:	<u>v</u>
<u>ANALYSE</u>	<u>S REQUESTED</u> :	
<u>ANALYSE</u>	S <u>REOUESTED</u> : <u>EC21</u> -3019, Freon 113, Freon 123a	Antimony (EPA 200.7 or 6010A)
ANALYSE	80.21	Antimony (EPA 200.7 or 6010A) Arsenic (EPA 206.2 or 7060A)
ANALYSE Ø D Ø	8010, Freon 113, Freon 123a	4
	3010 , Freon 113, Freon 123a Phenols (total) (EPA 420.1)	Arsenic (EPA 206.2 or 7060A)

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.3092	1526	13.3	678	74045		Clear
	-					

COMMENTS:

r6 [000

	eld S	ampling Data S	Sheet
Kingston, New York		<u> </u>	
GENERAL INFORMATION:			
Well No: <u>B(D</u> Date: <u>//</u>	<u>118</u>	198 Person	inel: <u>AFN</u>
<u>PURGING</u> :			
Reference Depth To Bottom (DTBr) /6.0	D fL		Stop: 1:29
Measured Depth to Bottom (DTBm) /5.	76 n	Note: Use Reference Depth	
Depth to Water (DTW): 5.78	î.	Well Yields:	Ales DNo
Target Volumet 4.88		Water Contained:	Tes STNo
Actual Volume: 5.00	gal.	DTW After Purge:	15.25 A
PID: Background:	Purg	ing:	S Not Applicable
Purge Method		Rate	Equipment ID
Bailer			· · · · ·
Peristaltic Pump			· · · · · · · · · · · · · · · · · · ·
🖸 Well Wizard		<u></u>	
🗖 American Sigma			
🗖 Bladder Pump			
🗖 Submersible			
<u>SAMPLING:</u>	•		•
Sample ID: KOOBI	0	91118	(7
Sample Time: Start: 11.40	Sto	p: <u>1152</u>	
Dupilcate ID: K. Ø Ø B /	Ø	8 1 1 1 8	X
Designing receiver = ==	iler nerican	Sigma 🗍	Well Wizard Tap
COMMENTS:		-	
Signature: And F. Nolme	Date:	1/19/98 QA/QC Review	r: MWK Date: 12/8/98

Kingston, New		lysis I	Request Form
Well Numb	er: _ <u>P_10</u>		Date: <u>// 1/8198</u>
LABORAT	<u>ORY</u> :		
	IBM - East Fishkill		
Ð	EnviroTest		
σ	Other:		
ANALYSE	<u>S REQUESTED</u> :		
G/	8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	g	Arsenic (EPA 206.2 or 7060A)
Q	Metals are Filtered	Ø	Cadmium (EPA 7131)
σ	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
σ	Modified Appendix 33	σ	Silver (EPA 7761)
Oth	er:		

. <u>FIELD PARAMETERS</u>:

Date	Time	Temp (*C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-9E9	1151	11.5	665	76245		

<u>COMMENTS</u>:

s s s				
	Fie	ld S	ampling Data	Sheet
Kingston, New York				
GENERAL INFORMAT	<u>TON:</u>			•
Well No: MWBIO	Date: 12 /	10	<u>198</u> Perso	onnel: <u>CI</u>
PURGING:	m (DTBr) 14.0		Starts 948	Stop: 100%
Reference Depth To Botton				th to Bottom for calculations
Measured Depth to Botton	5.55	£.	Well Yields:	Eres INo
Depth to Water (DTW): Target Volume:	<u>ور بار</u> مربع	gal	Water Contained:	OYes INO
Actual Volume:	5.00	gal.	DTW After Purge:	14-95 fL
			· · · · · ·	7 /
PID: Backgroun	d:	Purg	ing:	e Not Applicable
Purge Method			Rate	Equipment ID
Bailer		O.	25 cm	Ded Equip
Deristaltic Pu	mo		<u> </u>	
Well Wizard	-			
American Si				
Bladder Pur	-			
Submersible	•			
<u>SAMPLING</u> :				
Sample ID: K	0081	Ø.	81210	D'G
Sample Time: Start:	1024	Stop	p: <u>1031</u>	
Duplicate ID:		N	ALT	Ŧ
Sampling Method:	🛛 Bail		Sigma	Well Wizard Tap
<u>COMMENTS:</u>			-	
Signatures Chris	hannon	i 2 Date: _	10/9 QA/QC Revie	w: DAC Date: 2111/1-

Kingston, New		Analysis Request Form					
			Date: 12/10/98				
Well Numb	er: <u>MW 810</u>		Date				
LABORATO	<u> </u>						
	IBM - East Fishkill						
ø	EnviroTest		•				
σ	Other:						
ANALYSE	SREQUESTED:						
Ø	8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)				
σ	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)				
σ	Metals are Filtered		Cadmium (EPA 7131)				
σ	Metals are Unfiltered	ď	Lead (EPA 239.2 or 7421)				
σ	Modified Appendix 33	σ	Silver (EPA 7761)				
Oth	er:						

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121098	1030	10.60	669	76/25		Clear

<u>COMMENTS</u>:

	eld S	ampling Data	Sheet
Kingston, New York		amping back	
<u>GENERAL INFORMATION:</u> MW Well No: <u>811</u> F Date: <u>10</u>	129	<u>198</u> Perso	onnel: <u>CIS</u>
<u>PURGING</u> :			
Reference Depth To Bottom (DTBr) NA	f.	Start: 13:32	Stop: [2,1]
Measured Depth to Bottom (DTBm) 33-	19 R	Note: Use Reference Dept	h to Bottom for calculations
Depth to Water (DTW): 3.6	Z A.	Well Yields:	Yes DNo
Target Volume: 9.8	e gal	Water Contained:	I'Yes I'No
	<u>4 gal</u>	DTW After Purge:	13.64 ft
PID: Background:	Purg	ing:	Not Applicable
Purge Method		Rate	Equipment ID
X Bailer		1.11gpm	Ded Equi
C Peristaltic Pump		<u> </u>	
U Well Wizard		<u></u>	
American Sigma			
Bladder Pump			·
			<u></u>
<u>SAMPLING:</u>			
Sample ID: $K \varphi \vartheta l l$	R	81029	· C-
Sample Time: Start: 1349	Stop	»: <u>1401</u>	
Duplicate ID:	-N	4	Ð
Sampling Method: S Bai	iler nerican	Sigma 🖸	Well Wizard Tap
<u>COMMENTS:</u>		inala0	
Signature: <u>CuSham</u>	10 Date: _	QA/QC Review	v: MUR_ Date: 12/8/93

Kingston, Nev		lysis l	Request Form
Vell Numt	per: MWB4)R		Date: <u>10 129 198</u>
ABORAT	<u>ORY</u> :		
	IBM - East Fishkill		
Ņ	EnviroTest		
6	Other:		
<u>NALYSE</u>	<u>S REQUESTED</u> :		
× I	8021 8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
ΰ	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
X	Metals are Filtered	Ø	Cadmium (EPA 7131)
	Metals are Unfiltered	´Φ/	Lead (EPA 239.2 or 7421)
	Modified Appendix 33	ά	Silver (EPA 7761)
Oth	er:	 	

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10 29 92	1400	12.9	6.65	1100045		Clubby BIDLUU

<u>COMMENTS</u>:

	Field Sampling Data Sheet							
Kingston, New York								
GENERAL INFORMATION:								
Well No: <u>8/18</u> Date: <u>//</u>	1/3	178 Person	nnel: <u>4771</u>					
PURGING:	<u>.</u>	· ·						
Reference Depth To Bottom (DTBr) 33,	56 ft.	14-01	Stop: 12.19					
Measured Depth to Bottom (DTBm) 33.	52 a	Notes Use Reference Depth	to Bottom for calculations					
Depth to Water (DTW): 13.0	O fL	Well Yleids:	Stes DNo					
Target Volume: /0.20	gal.	Water Contained:	Dies INO					
Actual Volume: 10.5	gal	DTW After Purge:	13-10 €					
PID: Background:	Purg	ing:	I Not Applicable					
Purge Method		Rate	Equipment ID					
I Bailer		<u> </u>						
C Peristaltic Pump		<u> </u>	<u> </u>					
🖸 Well Wizard		<u></u> .	 					
🗖 American Sigma		· · · · · · · · · · · · · · · · · · ·						
🗇 Bladder Pump			<u></u>					
Submersible								
<u>SAMPLING</u> :								
Sample ID: KOBIII	R	3////8	G					
Sample Time: Start: 12.22	Stop	: <u>12,33</u>						
Duplicate ID:								
Sampling Method: 🛛 Bai	iler nerican	Sigma 🗍	Well Wizard Tap					
<u>COMMENTS:</u>		-	- · · · · · · · · · · · · · · · · · · ·					
Signatures Andr-F. Number	Date: /	18/2B QAIQC Review	: MWR Date: 12/8/98					

Kingston, New		lysis	Request Form
Well Numb	er: <u>8///R</u>		Date: <u>// // 8 / 78</u>
LABORAT	ORY:		
σ	IBM - East Fishkill		
	EnviroTest		
σ	Other:		
ANALYSE	S REQUESTED:		
অ	307.2.7 8010, Freon 113, Freon 123a	٥	Antimony (EPA 200.7 or 6010A)
	Phenols (total) (EPA 420.1)	ď	Arsenic (EPA 206.2 or 7060A)
	Metals are Filtered	g	Cadmium (EPA 7131)
	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
σ	Modified Appendix 33	Π	Silver (EPA 7761)
Oth	er:		

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-13-93	12:29	13.3	6.61	8224\$		

COMMENTS:

	Field Sampling Data Sheet						
<u>GENERAL INFORMATION</u> : Well No: <u>811 ()</u> Date: 12	,10	<u>198</u> Perso	onnel: <u>CIS</u>				
<u>PURGING</u> :							
	bun	Start: 1059	Stop: 1110 th to Bottom for calculations				
	. <u>87</u> ≞	Well Yields:	EYes INO				
	76 A	Water Contained:	DYes No				
Target Volume: 9.		DTW After Purge:	14.78 ft.				
Actual Volume: 9-5	JU gan	Ditt inter i - Ber					
PID: Background:	Purg	ing:	S Not Applicable				
Purge Method D Bailer Peristaltic Pump		Rate <u>Blo3go</u>	Equipment ID DCO Equip				
🗇 Well Wizard							
American Sigma		·					
Bladder Pump							
Submersible							
-) Submersione							
SAMPLING: Sample ID: KQB1	10	8 1 2 1 0	7 G				
Sample Time: Start: 1113	Stop	p: <u>1122</u>					
Duplicate ID:	- N	ALT					
	Bailer American	Sigma 🖸	Well Wizard Tap				
<u>COMMENTS:</u> Signature: <u>Cryvan</u>	⁽² /10 Date:	QA/QC Revie	WE MAD Date: 3/11/29				

Kingston, New York	lysis Request Form
Well Number: <u>8115</u>	Date: 12 110 199
LABORATORY:	
IBM - East Fishkill	
E EnviroTest	
Other:	
ANALYSES REQUESTED:	
8070, Freon 113, Freon 123a	Antimony (EPA 200.7 or 6010A)
Phenols (total) (EPA 420.1)	Arsenic (EPA 206.2 or 7060A)
Metals are Filtered	Cadmium (EPA 7131)
Metals are Unfiltered	Lead (EPA 239.2 or 7421)
Modified Appendix 33	Silver (EPA 7761)
Other:	·

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12.10.98	1121	10.9	6.75	748us		Claudiy
				· .		1
				[

<u>COMMENTS</u>:

			ampling Data	Sheet
Lington, New York	Sneet			
<u>GENERAL INFORMATION</u> :				
Well No: MUBILS Date	: 10 1	29	<u>198</u> Pers	onnel: <u>C.J.5</u>
PURGING:				
Reference Depth To Bottom (DTBr) NA	ft.	Start: 12-50	Stop: 2:54
Measured Depth to Bottom (DTBm		ft.	Note: Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	509	î.	Well Yields:	Ques DNo
Target Volume:	4.99	gal	Water Contained:	Dies Okno
Actual Volume:	50	gal.	DTW After Purge:	8-19 ft.
PID: Background:		Purg	ing:	🕅 Not Applicable
Purge Method		Rate		Equipment ID Ded Equipriven
A Bailer	<u> </u>			Dea equipment
Peristaltic Pump	-			
🖸 Well Wizard	-			
American Sigma	-		<u></u>	
Bladder Pump	-			
Submersible				
SAMPLING:				
Sample ID: KOB	110	s I	81029	G
	<u></u>	<u> </u>		
Sample Time: Start: <u>304</u>		Stop	: 1319	
Duplicate ID: KOB	11	\$	8 I O Z 9	X
Sampling Method:	Baile Ame	-	Sigma 🛛	Well Wizard Tap
COMMENTS:				
signature: Shann	<u>~</u> D	ate: <u>/ /</u>	14/90 QA/QC Review	w: MWR Date: 2/8/98

.

	alysis	Request Form
Well Number: MWBILS		Date: 10 / 29 / 78
<u>LABORATORY</u> :		
🗇 🛛 IBM - East Fishkill		
EnviroTest		
Other: Spl. + to IEA		
ANALYSES REQUESTED:		
0 8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
Metals are Filtered	₽	Cadmium (EPA 7131)
Metals are Unfiltered	₽	Lead (EPA 239.2 or 7421)
Modified Appendix 33	6	Silver (EPA 7761)
Other: 8021 april DCE tot	<u>n! F</u> anu	113, Frontis

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10 24 93,	13:17	14.1	7.00	94903		Silty

<u>COMMENTS</u>:

Kingston, New York	Field Sampling Data Sheet							
<u>GENERAL INFORMATION</u> : Well No: <u>8115</u> Date: <u>11</u>	118	<u>198</u> Perso	onnel: <u>AFN</u>					
PURGING:								
Reference Depth To Bottom (DTBr) 15.5		Start: 12.43	Stop: 12:47					
Measured Depth to Bottom (DTBm) 15.2	9 a.		th to Bottom for calculations					
Depth to Water (DTW): 5.37	ft.	Well Yields:	Tes DNo					
Target Volume: 4.95	gal.	Water Contained: DTW After Purge:	9.13 ft.					
Actual Volume: 5	_gal_	DI WAlter Fuige.	[0(2)]					
PID: Background:	Purg	ing:	S Not Applicable					
Purge Method		Rate	Equipment D					
Bailer								
Peristaltic Pump			<u> </u>					
U Well Wizard								
American Sigma			·					
Bladder Pump			<u></u>					
□ Submersible								
SAMPLING:			•					
Sample ID: K08111	\$	81118	6					
Sample Time: Start: 12.50	Stor	: 12:59						
Duplicate ID:								
Sampling Method: 🗹 Bail		□ Sigma □	Well Wizard Tap					
<u>COMMENTS:</u>								
Signatures Ander F. Narley	Date: //	1/18/19 QA/QC Revie	w: <u>MWK</u> Date: <u>12[8/98</u>					

Kingston, New		lysis	Request Form
Well Numb	er: <u>8//5</u>		Date: <u>// //8 /78</u>
LABORAT	<u>ORY</u> :		
σ	IBM - East Fishkill		
Ø	EnviroTest		
σ	Other:		
ANALYSE	S REQUESTED:		
ľ	802 (8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	ď	Arsenic (EPA 206.2 or 7060A)
ď	Metals are Filtered	Ø	Cadmium (EPA 7131)
σ	Metals are Unfiltered	٦	Lead (EPA 239.2 or 7421)
	Modified Appendix 33		Silver (EPA 7761)
Oth	er:		

. <u>FIELD PARAMETERS</u>:

Date	Time	Тетр (*С)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-13-98	12:55	12.4	7.04	96244		

<u>COMMENTS:</u>

	Fiel	ld S	ampling Data	Sheet	
Kingston, New York <u>GENERAL INFORMA</u> Well No: <u>B</u> 5		10	<u>198</u> Perso	onnel:	J5
PURGING:]
Reference Depth To Botto	m(DTBr) 15.50	۶£.	Start: 10:38	Stop: 104	
Measured Depth to Botton	n (DTBm) 15-29	£.	Notes Use Reference Dept	the second s	
Depth to Water (DTW):	5.50	îL.	Well Yields:		DNo dia
Target Volume:	4-78	gal.	Water Contained:		E No
Actual Volume:	5.00	gal	DTW After Purge:	1.71	ft.
PID: Backgroun	d:	Purg	ing:	Not A	plicable
Purge Method	-	1	Rate	Equipm Drd Fo	ent ID
Peristaltic Pu	•				
Well Wizard					
American Si	•			<u></u>	<u> </u>
🗖 Bladder Pun	ъ				
					<u></u>
<u>SAMPLING</u> : Sample ID:	0811	Ś	81210	G	
Sample Time: Start:	1046	Stop	p: <u>1054</u>		
Duplicate ID:		N	A	Ð	
Sampling Method:	D Baile		Sigma 🖸	Well W Tap	izard
<u>COMMENTS:</u>			,		. 1
signature: CurSha	<u></u> I	I'Y	QA/QC Revie	W:DECK 1	Dates 3/11/Q1

Kingston, New York	Analysis Request Form					
Well Number: <u>811</u> D		Date: 12 10 99				
LABORATORY:						
🔲 🖉 IBM - East Fishkill						
EnviroTest						
Other:						
ANALYSES REQUESTED:		Antimony (EPA 200.7 or 6010A)				
で、Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)				
Metals are Filtered	B	Cadmium (EPA 7131)				
Metals are Unfiltered	٥	Lead (EPA 239.2 or 7421)				
Modified Appendix 33		Silver (EPA 7761)				
Other:		• •				

. <u>FIELD PARAMETERS</u>:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121099	1053	11.7	7.0	96700		Clea-
			·			

COMMENTS:

==== <i>=</i>				
LE Tie	ld S	ampling Data	Sheet	<u> </u>
Kingston, New York				
<u>GENERAL INFORMATION</u> :				
Well No: MW 812 Date: 10	129	<u>/98</u> Perso	nnel: <u>C</u>	6
PURGING: Reference Depth To Bottom (DTBr) NA	ft.	Start: 4:11	Stop: 14	Ha
Reference Depth To Bottom (DTBr) NA Measured Depth to Bottom (DTBm) 7,49		Note: Use Reference Dept		
Depth to Water (DTW): 7.91	·	Well Yields:	"Syres	D No
Target Volume: 4.45		Water Contained:	OYes	ζ β [No
Actual Volume: 5.00	gal.	DTW After Purge:	14.11	ft.
	1		ז <u>א</u> ד	· 111.1-
PID: Background:	Purg	ing:		Applicable
Purge Method		Rate		ment ID
Bailer		1.0 gpm	Ded E	quipment
/ Peristaltic Pump				
🗇 Well Wizard				
🗇 American Sigma				
🗇 Bladder Pump				
□ Submersible				,•
<u>SAMPLING</u> :			T	•
Sample ID: $K 0 0 8 1$	28	31029	G	
Sample Time: Start: 1424	Stop	: 14:32		
Duplicate ID:	N		Ð	
Sampling Method: D Bail		Sigma 🖸	Well W Tap	/izard
<u>COMMENTS:</u>		-		
Signature: J	۱۵ Date:	24 98 QA/QC Review	MUR	Date: 12/8/92

		Iveic	Request Form
Kingston, New		1y515	Kequest Form
Well Numb	er: <u>mw&12</u>		Date: <u>16 / 29/ 98</u>
LABORAT	<u>ORY</u> :		
o,	IBM - East Fishkill		
Ø	EnviroTest		
σ	Other:		· <u>······</u> ·····
ANALYSE.	<u>S REQUESTED</u> :		
Д	9021 9910, Freon 113, Freon 123a	Ο	Antimony (EPA 200.7 or 6010A)
6	Phenols (total) (EPA 420.1)	Ŋ.	Arsenic (EPA 206.2 or 7060A)
Þ	Metals are Filtered	Ø	Cadmium (EPA 7131)
σ	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
σ	Modified Appendix 33		Silver (EPA 7761)
Oth	er:		

Date	Time	Тетр (*С)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.29.98	14:31	12.6	6.94	76145		

<u>COMMENTS:</u>

	eld S	ampling Data	Sheet
Kingston, New York			. · ·
GENERAL INFORMATION:			
Well No: <u>812</u> Date: <u>//</u>	118	<u>198</u> Perso	nnel: <u>AFN</u>
PURGING:			
	8£	Start: 13:12	Stop: 13:17
	72	the second se	k to Bottom for calculations
Depth to Water (DTW): 8.(Well Yields:	In INO
Target Volume: 4,54	3 gal.	Water Contained:	I'les INO
Actual Volume: 5	gal.	DTW After Purget	14.49 ft
	1-	• • • •	Vot Applicable
PID: Background:	Purg	ingt	A Not Applicable
Purge Method		Rate	Equipment ID
🗹 Bailer			
Peristaltic Pump			
🗇 Well Wizard			
American Sigma		·	
Bladder Pump		·	
□ Submersible			
•· ·			
<u>SAMPLING</u> :		<u> </u>	·
Sample ID: KO081	2	81113	Ka
Sample Time: Statt: 13.21	Stop	: 1328	
Duplicate ID:			
Sampling Method: 🗹 Bail	ler erican	Sigma 🛛	Well Wizard Tap
<u>COMMENTS:</u>		-	/
Signature: Anther F. Nucleil	Dates _	18/18 QA/QC Review	r: MWR Date: 12/8/98

Lingston, New Y		lysis	Request Form
Vell Number	B12		Date: // // 2 / 32
ABORATO	<u>RY</u> :		
σ	IBM - East Fishkill		
	EnviroTest		
	Other:		
NALYSES.	<u>REQUESTED</u> : 802 / 8040, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A Arsenic (EPA 206.2 or 7060A)
নি	Phenols (total) (EPA 420.1) Metals are Filtered	R	Cadmium (EPA 7131)
0	Metals are Unfiltered	9	Lead (EPA 239.2 or 7421)
	Modified Appendix 33		Silver (EPA 7761)
Other	: 	·	

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-13-98	1327	114	676	781/45		
				· .		

COMMENTS:

Kingston, New York	Field Sampling Data Sh						
GENERAL INFORMATION: Well No: <u>812</u> Date: 12	110	<u>198</u> Perso	onnel: <u>CT</u>				
PURGING:	<u> </u>	11.22	au 11:20				
	10 1	Start: 11-33	Stop: 11:38				
	5 ft.	Well Yields:	STes DNo				
Depth to Water (DTW): 8.52 Target Volume: 4.36		Water Contained:	Dies D'No				
Target Volume:4.36Actual Volume:4.5	, gai.	DTW After Purge:	14.33 ft.				
PID: Background:	Purg	ing:	Not Applicable				
Purge Method Bailer		Rate D. I Spr	Equipment ID Ded Equip				
Peristaltic Pump							
🗖 Well Wizard			<u> </u>				
American Sigma		·					
🗇 Bladder Pump							
□ Submersible							
SAMPLING: Sample ID: KOOBI	2	81216	G				
Sample Time: Start: 1144	Stop	:1]5/					
Duplicate ID: 1(0081	2	21219	X				
Sampling Method: Bail		Sigma 🖸	Well Wizard Tap				
COMMENTS:		- 					
Signature: <u>Curpar</u>	\7 Date:	/ila 10A/QC Review	w: 049 Date: 3/11/21				

Kingston, New York	Analysis Request Form					
Well Number:		Date: <u>12 10 98</u>				
LABORATORY:						
🗇 IBM - East Fishkill						
EnviroTest						
J Other: Split to IEA						
ANALYSES REQUESTED:						
807 8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)				
Phenols (total) (EPA 420.1)	Ø,	Arsenic (EPA 206.2 or 7060A)				
Metals are Filtered	ď	Cadmium (EPA 7131)				
Metals are Unfiltered	ø	Lead (EPA 239.2 or 7421)				
Modified Appendix 33	п	Silver (EPA 7761)				

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121098	1150	10.9	693	76605		Clean

<u>COMMENTS:</u>

7888					
	Fie	ld S	ampling Data	Sheet	
Kingston, New York					
<u>GENERAL INFORMAT</u>					
Well No: MWBB	Date: 10 /	29	199 Perso	nnel: 🥂	<u><u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u>
<u>PURGING</u> :				11	
Reference Depth To Botton		ft.	Start: 1553	Stop: 16	
Measured Depth to Bottom			Note: Use Reference Dept		
Depth to Water (DTW):	10.31	ft.	Well Yields:	ØXes □Yes	DI No DE No
Target Volume:	2.77	gel.	Water Contained: DTW After Purge:		4.94 ft.
Actual Volume:	3.00	gal.	DIW Alter Furge:		-ic-la m
PID: Background	l:	Purg	ing:	Not	Applicable
Purge Method			Rate 0.30gpm	Equip Ded E	ment ID
A Bailer			<u>O.Dogr</u>	<u>+ C=, c</u>	-1014
D Peristaltic Pur	mp -				
🖸 Well Wizard					
🗇 American Sig	ma				
🗖 Bladder Pum	Ð.		<u></u>		<u></u>
□ Submersible				<u> </u>	
<u>SAMPLING</u> :					
Sample ID:	0081	3.	81029	G	
Sample Time: Start:	1410	Stop	: <u>1623</u>		
Duplicate ID: K	0081	3	81029	D	
Sampling Method:	X Baile		Sigma 🖸	Well V Tap	Wizard
<u>COMMENTS:</u>			0/29/9t		
Signature: <u>CuCh</u>	ann_1	 Date: _	QA/QC Review	W: <u>MWR</u>	Date: 12/8/98

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Kingston, New	V Grand	Analysis Request Form					
Well Numb	MW		Date: <u>10 1391 98</u> .				
LABORAT	<u>ORY:</u>						
σ	IBM - East Fishkill						
đ	EnviroTest						
Ó	Other:						
ANALYSE	S REQUESTED:						
X	8024 8010, Freon 113, Freon 123a	Ο	Antimony (EPA 200.7 or 6010A)				
ά	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)				
Ø	Metals are Filtered	(Sar	Cadmium (EPA 7131)				
6	Metals are Unfiltered	ø	Lead (EPA 239.2 or 7421)				
	Modified Appendix 33		Silver (EPA 7761)				
Oth	er:	·					

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10-2992	16:22	14.0	694	10:4545		Cleen

<u>COMMENTS</u>:

		<u></u>
	d Sampling Data	Sheet
Kingston, New York		
GENERAL INFORMATION:		~
Well No: <u>313</u> Date: <u>11 1</u>	1 <u>3 198</u> Person	inel: <u>AFN</u>
PURGING: Reference Depth To Bottom (DTBr) /5.87	1. Starts 14:09	Stop: 14:20
Measured Depth to Bottom (DIBm) (5.19	The Notes Use Reference Depth	
Depth to Water (DTW): /0.26	ft. Well Yleids:	STes CNo
	gal. Water Contained:	DIes DNo
Actual Volume: 3	gal. DTW After Purge:	15.36 A
	Purging:	I Not Applicable
PID: Background:	E REGUIZ:	
Purge Method	Rate	Equipment ID
Bailer -		
Peristaltic Pump —	<u></u>	
🗖 Well Wizard —		
American Sigma –	<u> </u>	
🗖 Bladder Pump -		
Submersible		
<u>SAMPLING</u> :		
	381118	4
Sample ID: KOOBI		
Sample Time: Start: 14:23	Stop: <u>430</u>	
Dupilcate ID:		
Sampling Method: 🗹 Bailer	ican Sigma 🗍	Well Wizard Tap
<u>COMMENTS:</u>		
Signature: Andr F. North Da	te: 13/98 QA/QC Review	: MWR Date: 12/8/98

		Analysis Request Form						
Kingston, New		19515 1	Kequest Form					
Kingston, New	lar							
Well Numb	er: <u>83</u>		Date: <u>////8/98</u>					
LABORAT	ORY:							
σ	IBM - East Fishkill							
Ø	EnviroTest							
σ	Other:	<u></u>						
ANALYSE	S <u>REQUESTED</u> :							
Ľ	-8010; Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)					
σ	Phenois (total) (EPA 420.1)	g	Arsenic (EPA 206.2 or 7060A)					
Ø	Metals are Filtered	Ø	Cadmium (EPA 7131)					
	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)					
	Modified Appendix 33		Silver (EPA 7761)					
Oth	er:							
		·						
	•							

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-9B	14:28	12.3	672	10780		

<u>COMMENTS</u>:

Field Sampling Data Sheet								
GENERAL INFORMATION: Well No: <u>813</u> Date: <u>12</u>	, 10	<u>198</u> Perso	onnel:	JS				
PURGING: Reference Depth To Bottom (DTBr) 15-0	9 +	Start: 13:33	Stop: 13	46				
	18 R.	Note: Use Reference Dept						
Depth to Water (DTW): 10.24		Well Yields:	S les	[] No				
Target Volume: 2.78		Water Contained:	OYes	E No				
Actual Volume: 3.0	gal.	DTW After Purge:	15,	42 fL				
PID: Background:	Purg	ingt	Not.	Applicable				
Purge Method Bailer	0	Rate 23901		ment ID Equ _i s				
Peristaltic Pump								
🗖 Well Wizard		<u> </u>	 					
🗖 American Sigma		•	<u> </u>					
Bladder Pump								
Submersible		<u> </u>	<u></u>					
SAMPLING: Sample ID: K@@Bl Sample Time: Start: <u>1352</u>	3 Stop	8 2 0 p: 1400	C					
Duplicate ID:	2			Wizard				
	nerican VZ	Sigma	Тар	Date: 3/11/(10				
Signature: Curtham	Date: _	QA/QC Kevie	πi <u>- </u>					

Lingston, New York	Ana	lysis]	Request Form
Vell Number: <u>8</u>	3		Date: <u>12/10/98</u>
ABORATORY:			
🗍 🛛 IBM - East	Fishkill		
EnviroTest			
Other:			
NALYSES REQUEST	<u>ED:</u>		
807) 8010, Freez	1113, Freon 123a		Antimony (EPA 200.7 or 6010A)
Cor Phenols (to	tal) (EPA 420.1)	ď	Arsenic (EPA 206.2 or 7060A)
Metals are	Filtered	Ø	Cadmium (EPA 7131)
Metals are	Unfiltered	Ø	Lead (EPA 239.2 or 7421)
D Modified A	Appendix 33		Silver (EPA 7761)
Other:	<u></u>		

. <u>FIELD PARAMETERS</u>:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-1098	1359	11.9	686	106745		

<u>COMMENTS</u>:

	<u>я</u>	ield S	ampling Data	Sheet
Kingston, New York				
	-			
GENERAL INFORMA	<u>110N</u> :			
Vell No: MWB14	Date: 10	130	<u>198</u> Pers	onnel: <u>CJC</u>
PURGING:				
Reference Depth To Botto	m (DTBr) 🕅	JA A.	Start: (356	Stop: 1408
Measured Depth to Botton		.50 r	Note: Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	9.	02 m	Well Yields:	Yes DNo
Target Volume:	3.6	5 gal	Water Contained:	DYes DNo
Actual Volume:	3.7	5 gal.	DTW After Purge:	1590 A
		Purg		Not Applicable
PID: Backgroun		T wig		
Purge Method			Rate	Equipment ID
🖾 Bailer		0	.312gpm	Ded Equipment
D Peristaltic Pu	тр	<u> </u>		
🗍 Well Wizard			,	
🗖 American Sig	gma			
🗇 Bladder Pum	ф			
□ Submersible				
<u>SAMPLING</u> :				
Sample ID:	0081	48	31030	<u>76</u>
Sample Time: Start:	14.15	Stop	: 14255	
Duplicate ID:	-1-1-1-	TNI	9-+	F
Sampling Method:	Г	iller nerican S	Sigma 🖸	Well Wizard Tap
<u>COMMENTS</u> :			-	-
Signature: Cuch	am	Date:	0130	w: MWR Date: 12/8/

MILAUI	
MW314	Date: 130 192
I - East Fishkill	
iroTest	
er:	
<u>DUESTED</u> :	
0, Freon 113, Freon 123a	Antimony (EPA 200.7 or 6010A
nols (total) (EPA 420.1)	Arsenic (EPA 206.2 or 7060A)
als are Filtered	Cadmium (EPA 7131)
als are Unfiltered	Lead (EPA 239.2 or 7421)
dified Appendix 33	Silver (EPA 7761)
	1 - East Fishkill iroTest er: <u>OUESTED</u> : 0, Freon 113, Freon 123a nols (total) (EPA 420.1) tals are Filtered tals are Unfiltered dified Appendix 33

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.3090	1424	13 9	6:72	75245		

<u>COMMENTS:</u>

a 2 4			
	Field S	Sampling Data	Sheet
Kingston, New York			
GENERAL INFORMATION:			
Well No: <u>5314</u> Date	: <u> 9</u>	198 Perso	onnel: <u>AFN</u>
PURGING:			
Reference Depth To Bottom (DTB	16,30	Start: 14:41	Stop: 14:55
Measured Depth to Bottom (DTBn	a) 16.49 m	Note: Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	9.10 ft	Well Yields:	Ster DNo
Target Volume:	3.52 gal	Water Contained:	Dies INO
Actual Volumet	3.75 gal	DTW After Purge:	16.20A
PID: Background:	Pur	çing:	Not Applicable
Purge Method		Rate	Equipment ID
Bailer			
Peristaltic Pump		· · · · · · · · · · · · · · · · · · ·	<u> </u>
Well Wizard			
🗍 American Sigma			
🗖 Bladder Pump			
Submersible			
<u>SAMPLING</u> :		<u> </u>	- 1
Sample ID: KOO	814	81118	G
Sample Time: Start: 150	<u>2</u> Sta	p: <u>1514</u>	
Duplicate ID: KOO	814	8 1 1 1 8	3 D
Sampling Method:		Sigma 🗍	Well Wizard Tap
<u>COMMENTS:</u>			- /
Signature: Ambur F.1	Vuluel Dates	11/18/98 QA/QC Revie	W: MWR Date: 12/8/98

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Kingston, New		lysis l	Request Form
Well Numb	er: <u>314</u>		Date: <u>// //2 / 98</u>
<u>LABORATO</u>	<u>ORY</u> :		
	IBM - East Fishkill		
Ø	EnviroTest		
П	04		
U	Other:		
	S REQUESTED:		
	· · · · · · · · · · · · · · · · · · ·	٥	Antimony (EPA 200.7 or 6010A)
<u>ANALYSES</u>	S <u>REQUESTED</u> :	D Q	Antimony (EPA 200.7 or 6010A) Arsenic (EPA 206.2 or 7060A)
<u>ANALYSES</u>	<u>S REOUESTED</u> : SOLI 8010, Freon 113, Freon 123a		• •
ANALYSES	<u>SREQUESTED:</u> <u>SOU</u> ; 8010 ; Freon 113, Freon 123a Phenols (total) (EPA 420.1)	g	Arsenic (EPA 206.2 or 7060A)

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
H-18-78	1513		6.40	78-45		
			·		·	

<u>COMMENTS</u>:

Fie Kingston, New York	ld S	ampling Data	Sheet	
GENERAL INFORMATION: Well No: 814 Date: 12	10	<u>198</u> Perso	onnel: <u>G</u>	<u>1</u> 5
PURGING:		111.000	a	22
Reference Depth To Bottom (DTBr) 14.30	_	Startz 407 Note: Use Reference Dep	Stop: 14!	
Measured Depth to Bottom (DTBm) 16.48				CI No
Depth to Water (DTW): 8.82	fL.	Well Yields: Water Contained:	Oles	PINO
Target Volume: <u>3.74</u>	gal. gal.	DTW After Purge:		2-00 ft.
Actual Volume: 375 PID: Background:	Purg	· · · · ·		Applicable
Purge Method	0:	Rate 2590M		ment ID Equis
Peristaltic Pump				
U Well Wizard			·	<u></u>
American Sigma				
Bladder Pump				<u> </u>
Submersible				
SAMPLING: Sample ID: KOOBI	4		ØG	
Sample Time: Start: <u>1436</u>	Stop	p: <u>1439</u>		
Duplicate ID:	W.	AM	Ł	
Sampling Method: Ø Bail		Sigma 🖸	Well V Tap	Wizard
<u>COMMENTS:</u> Signature: <u>CuSuan</u>	iZ/ Date:_	C 48 QA/QC Revie	w: 1096	Date:

Ana Kingston, New York	lysis Request Form
Well Number:	Date: 12 110 198
LABORATORY:	
🗇 IBM - East Fishkill	
EnviroTest	
O Other:	
ANALYSES REQUESTED:	
802) 8010, Freon 113, Freon 123a	Antimony (EPA 200.7 or 6010A)
Phenols (total) (EPA 420.1)	Arsenic (EPA 206.2 or 7060A)
Metals are Filtered	Cadmium (EPA 7131)
Metals are Unfiltered	Lead (EPA 239.2 or 7421)
Modified Appendix 33	Silver (EPA 7761)
Other:	:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121098	1438	10,9	672	739us		Closoy

COMMENTS:

Kingston, New York GENBRAL INFORMATION: Well No: MW8F2 Date: 10 1.30 PURGING: Reference Depth To Bottom (DTBr) 10.32 ft Measured Depth to Bottom (DTBr) 16.32 ft Depth to Water (DTW): 13.21 ft Target Volume: 1.6 gal	Start: [C:] (Stop:] 50 Note: Use Reference Depth to Bottom for calculations Well Yields: Vies DNo Water Contained: Vies No
GENERAL INFORMATION: Well No: MWBE Date: 10 1.30 PURGING: Reference Depth To Bottom (DTBr) 14.32 Measured Depth to Bottom (DTBm) 16.32 Depth to Water (DTW): 13.2.1 Target Volume: 1.52 gal	Start: [0:14] Stop: [150] Note: Use Reference Depth to Bottom for celculations Well Yields: Yes DNo Water Contained: DYes No DTW After Purge: 16.19 ft. rging: Not Applicable
Well No: MWBE Date: 10 1.30 PURGING: Reference Depth To Bottom (DTBr) N/4 Measured Depth to Bottom (DTBm) 16.32 Depth to Water (DTW): 13.21 Target Volume: 1.52 gal Actual Volume: 1.0 gal	Start: [0:14] Stop: [150] Note: Use Reference Depth to Bottom for celculations Well Yields: Yes DNo Water Contained: DYes No DTW After Purge: 16.19 ft. rging: Not Applicable
PURGING: Reference Depth To Bottom (DTBr) N/A Measured Depth to Bottom (DTBm) 10.32 Depth to Water (DTW): 13.2 Target Volume: 1.52 Actual Volume: 1.0	Start: [0:14] Stop: [150] Note: Use Reference Depth to Bottom for celculations Well Yields: Yes DNo Water Contained: DYes No DTW After Purge: 16.19 ft. rging: Not Applicable
Reference Depth To Bottom (DTBr) NJA ft Measured Depth to Bottom (DTBm) 10.32 ft Depth to Water (DTW): 13.2 ft Target Volume: 1.52 gal Actual Volume: 1.0 gal	Nete: Use Reference Depth to Bottom for calculations Well Yields: Vies ONo Water Contained: OYes ONo DTW After Purge: 1(0.14 ft. rging: Not Applicable
Measured Depth to Bottom (DTBm) 10.32. ft Depth to Water (DTW): 3.2. ft Target Volume: .52. gal Actual Volume: .0 gal	Nete: Use Reference Depth to Bottom for calculations Well Yields: Vies ONo Water Contained: OYes ONo DTW After Purge: 1(0.14 ft. rging: Not Applicable
Depth to Water (DTW): 13.2.1 ft Target Volume: 1.52. gal Actual Volume: 1.0 gal	Well Yields: Yes No Water Contained: Yes No DTW After Purge: 1(o. 14) ft.
Target Volume: 1,52, gal Actual Volume: 1.0 gal	Water Contained: Water Contained: DTW After Purge: (0.14 ft. rging: Not Applicable
Actual Volume: .0 gal	L DTW After Purge: 1(0.14 ft.
	rging:
PID: Background: Put	
	Data Favinment ID
Purge Method	Kate Equipment ID
Bailer O	. Ordypom Ded Equipment
Peristaltic Pump	
Well Wizard	
American Sigma	
Bladder Pump	
Submersible	
<u>SAMPLING:</u>	·
Sample ID: $K Q Q B \downarrow 5$	810306
Sample Time: Start: <u>1337</u> Sta	op: <u>1349</u>
Duplicate ID:	
Sampling Method: D Bailer	n Sigma Tap
COMMENTS:	0/30/44) QA/QC Review: MWL Date: 12/8/17

ingston, New		sis Request Form
ell Numb	er: <u>MW 85</u>	Date: 10 130 19
BORAT	<u>ORY</u> :	
D,	IBM - East Fishkill	
₽	EnviroTest	
Z	EnviroTest Other:	
Z NALYSE:		
Z NALYSE: Ø	Other:	Antimony (EPA 200.7 or 6010A
NALYSE:	Other:	 Antimony (EPA 200.7 or 6010A Arsenic (EPA 206.2 or 7060A)
Ø.	Other: <u>S REOUESTED</u> : <u>BO2</u> 8010, Freon 113, Freon 123a	
	Other:	Arsenic (EPA 206.2 or 7060A)

.

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.3098	1347	15.4	671	74745		Clear-

<u>COMMENTS</u>:

7894 -				<u></u>	
	Fie	ld S	ampling Data	Sneet	<u> </u>
Kingston, New York					
<u>GENERAL INFORMAT</u>	<u>tON</u> :			-	
Well No: <u>815</u>	Date: _//_/	20	<u>998</u> Perso	onnel: AFA	<u>/</u>
PURGING:					
Reference Depth To Botton	(DTBr) /4.Z	5 r	Start: 10:03	Stop: 026	
Measured Depth to Bottom	(DTBm) /6.3	/ f L	Notes Use Reference Dep	the second s	
Depth to Water (DTW):	12.51	f.	Well Yields:		
Target Volume:	1.82		Water Contained:		o ft.
Actual Volume:	2.0	gal.	DTW After Purget	1622	
PID: Background	:	Purg	lingt	Not Applica	zble
Purge Method			Rate	Equipment	D
Bailer					<u> </u>
Peristaltic Pur	φ [.]				.
🛛 Well Wizard				.	
🗖 American Sig	ma				
🗖 Bladder Pump)				
Submersible					
	•				
<u>SAMPLING</u> : Sample ID:	DOBI	5	8/1/20)G	
		<u>, e</u> 1	1772		
Sample Time: Start:	12:23	Stop	p: 12.30		
Duplicate ID:	ÍII			\Box	
Sampling Method:	🗹 Bail		Sigma 🖸	Well Wizard Tap	i
<u>COMMENTS</u> :			-		
Signature: Aucht	Noter ;	Date: _	1/20/98 QA/QC Revie	W MUR Date:	2/8/98

Kingston, New York	lysis Request Form
Well Number: <u>815</u>	Date: <u>// 120198</u>
ABORATORY:	
🔲 🛛 IBM - East Fishkill	
EnviroTest	
Other:	••••••
ANALYSES REQUESTED:	
302. 7 3010, Freon 113, Freon 123a	Antimony (EPA 200.7 or 6010A)
Phenols (total) (EPA 420.1)	Arsenic (EPA 206.2 or 7060A)
Metals are Filtered	Cadmium (EPA 7131)
Metals are Unfiltered	Lead (EPA 239.2 or 7421)
Modified Appendix 33	Silver (EPA 7761)

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-20-98	1229	12.4	6.80	76Zug		

<u>COMMENTS</u>:

Field Sampling Data Sheet						
GENERAL INFORMATION: Well No: <u>815</u> Date: 12	/11_	<u>198</u> Perso	onnel: <u>CTS</u>			
PURGING:						
Reference Depth To Bottom (DTBr) 1425		Start: 1003	Stop: 1203 th to Bottom for calculations			
Measured Depth to Bottom (DTBm) 16 29	_		Tres DNo			
Depth to Water (DTW): 1254	ft.	Well Yields: Water Contained:	DYes DNo			
Target Volume: 1.93	gal. gal.	DTW After Purge:	16.19 ft.			
Actual Volume: - 75	gai.	DIT ALL ING				
PID: Background:	Purg	ing:	Vot Applicable			
Purge Method Bailer		Rate	Equipment ID DCA Eq VID			
Peristaltic Pump		<u></u>				
U Well Wizard		•				
American Sigma						
Bladder Pump		······································				
Submersible		<u></u>				
SAMPLING: Sample D: $\chi 0 0 8 1$	5	81211	6			
••••••••••••••••••••••••••••••••••••••	<u> </u>					
Sample Time: Start: <u>320</u>	Stor	: 1333				
Duplicate ID:	-N/	9	<u>+-</u>			
Sampling Method: Ø Bail		Sigma 🖸	Well Wizard Tap			
<u>COMMENTS:</u> Signature: <u>Cuy</u> hun 1	2 _ Date:	1 1 9 1 QA/QC Revie	WE DAND Dates JUL (10)			

Kingston, New		lysis l	Request Form
Well Numbe	er: <u>815</u>		Date: <u>12,11,98</u>
LABORATO	DRY:		
σ	IBM - East Fishkill		
Ø	EnviroTest		
	EnviroTest Other:		
D ANALYSES	Other:		
Ø	Other: <i>REOUESTED:</i> 2010 4010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A
0	Other: <u>REOUESTED</u> : <u>80(1)</u> 80(1) , Freon 113, Freon 123a Phenols (total) (EPA 420.1)		Arsenic (EPA 206.2 or 7060A)
Ø	Other: <i>REOUESTED:</i> 2010 4010, Freon 113, Freon 123a		Arsenic (EPA 206.2 or 7060A) Cadmium (EPA 7131)
0	Other: <u>REOUESTED</u> : <u>80(1)</u> 80(1) , Freon 113, Freon 123a Phenols (total) (EPA 420.1)	e de de	Arsenic (EPA 206.2 or 7060A)

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12.11.98	1332	10.8	69z	738us		aeu

<u>comments</u>: Duplicate Not collected due to insufficient cimpont of water in well COK

	1d S	ampling Data	Sheet	
Kingston, New York				
GENERAL INFORMATION:				
Well No: MWB16 Date: 10	30	<u>198</u> Perso	nnel: <u>C</u>	<u>Js</u>
PURGING:				
Reference Depth To Bottom (DTBr) NA	ft.	Start: 12:56	Stop:	435
Measured Depth to Bottom (DTBm) 14.10	fL,	Note: Use Reference Dept		
Depth to Water (DTW): 13.04	î.	Well Yields:	Tes	D No
Target Volume: 1.72	gıl	Water Contained:	OYes	No
Actual Volume: 2-0	gal.	DTW After Purge:		1376£
PID: Background:	Purg	ing:	Not.	Applicable
Purge Method		Rate	Equip	ment ID
Bailer .	0,	202 m		quipment
Peristaltic Pump		0'		
U Well Wizard				
American Sigma				
· _ •				
Bladder Pump				
Submersible				
<u>SAMPLING:</u>				
Sample ID: KOO 81	6	81030	G	
Sample Time: Start: 1433	Stoj	p: 11e4)		
Duplicate ID:	N	ALL	F	
Sampling Method: 🛛 Bail		Sigma 🖸	Well V Tap	Wizard
<u>comments</u> : strature Chr. Shann	io, Date:	30/90 QA/QC Revie	W: MWR	Date: 1218198
Signature: WWY		.		

Kingston, New		ysis]	Request Form
Well Numb	er:816		Date: <u>10 130 198</u>
LABORAT	<u>ORY</u> :		
	IBM - East Fishkill		
Ø	EnviroTest		
6	Other:		
ANALYSE	S. REQUESTED:	_	
Ø	8021 8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
A	Metals are Filtered	<u>র</u> শ্র	Cadmium (EPA 7131)
6	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
	Modified Appendix 33	Έ	Silver (EPA 7761)
Oth	er:		

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.30 98	1639	158	6.73	829us		Clear

<u>COMMENTS</u>:

	·		
Kingston, New York	Field S	ampling Data	Sheet
GENERAL INFORMATION:	•		
	11 . 20	.98	onnel: AFN
Well No: <u>B/6</u> Dat	e: <u> // 120</u>	<u>rers</u>	5 <u>1</u>
PURGING:			
Reference Depth To Bottom (DIB	1) 13,97 A	Starts 8:48	Stop: 8:59
Measured Depth to Bottom (DTB)	m) 14.10 fL	Note: Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	13.68 ₺	Well Yleids:	Øles DNo
Target Volume:	0.14 ml	Water Contained:	Dies ONO
Actual Volumet	0.25 gal	DTW After Purge:	13,98 A
PID: Background:	Purg	ing:	Not Applicable
Purge Method		Rate	Equipment ID
D Baller		<u></u>	
D Peristaltic Pump			<u> </u>
🛛 Well Wizard		<u></u>	
🗖 American Sigma			
Bladder Pump	:		
Submersible	· · · ·		
na na an a	· · .	e de la composition de la comp	· ·
<u>SAMPLING</u> :	· · · · · · · · · · · · · · · · · · ·		-
Sample ID: KOO	816	81120	14
Sample Time: Start: 103	<u>42</u> Stor	<u>10 53</u>	
Duplicate ID:			
Sampling Method:	Bailer J American	Sigma 🖸	Well Wizard Tap
COMMENTS: Stguatures Americ F. No			w: MUR Date: 12/8/98
Signatures A JAMME - 100	MANTE DATES	THE WAY O MENE	

Kingston, New		lysis]	Request Form
Well Numb	er: <u>& (6</u> <u>ORY</u> :		Date: <u>// 120192</u>
	IBM - East Fishkill		
Ø	EnviroTest		
σ	Other:		
ANALYSE	SREQUESTED:	_	
Ø	8010, Freon 113, Freon 123a	U	Antimony (EPA 200.7 or 6010A)
	Phenols (total) (EPA 420.1)	9	Arsenic (EPA 206.2 or 7060A)
Ø	Metals are Filtered	Ø	Cadmium (EPA 7131)
σ	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
	Modified Appendix 33		Silver (EPA 7761)
Oth	er:		

. .

FIELD PARAMETERS:

5

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-20-98	10:54	i3.5	6.70	827u\$		

<u>COMMENTS</u>:

Kingston, New York	ld S	ampling Data	Sheet
GENERAL INFORMATION: Well No: 816 Date: 12	<u>, \</u>	<u>199</u> Pers	onnel:
PURGING:			
Reference Depth To Bottom (DTBr) 13.7		Start: 902	Stop: 927
Measured Depth to Bottom (DTBm) 1408	ft.		th to Bottom for calculations
Depth to Water (DTW): 1343	ft.	Well Yields:	Eles INO
Target Volume: 0.32	gal	Water Contained:	
Actual Volume: 0.50	gai.	DTW After Purge:	13.93 ft.
PID: Background:	Purg	ing:	Not Applicable
Purge Method		Rate	Equipment ID
Bailer -	0-0	290m	Ded Equip
Peristaltic Pump		J	<u> </u>
Well Wizard			<u> </u>
American Sigma			·····
Bladder Pump			
<u>SAMPLING</u> :			
Sample ID: K 0 0 8 1	6	81211	G
Sample Time: Start: 1057	Stop	»: <u>1106</u>	
Duplicate ID:	M	A	Ŧ
Sampling Method: Sampling Method: Image: Sampling Method:		Sigma 🗖	Well Wizard Tap
<u>COMMENTS:</u>			and a law
Signature: Curlin I	(2 Date: _	u 46 QA/QC Revie	w: 1000 Date: 3) 11/1/1

Kingston, New		lysis]	Request Form
Well Numb	er: <u>816</u>		Date: 12/11/98
LABORAT	<u>ORY</u> :		
σ	IBM - East Fishkill		
9-	EnviroTest		
σ	Other:		
ANALYSE	SREQUESTED:		
Ø	8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
	Phenols (total) (EPA 420.1)	ø	Arsenic (EPA 206.2 or 7060A)
	Metals are Filtered	Ð	Cadmium (EPA 7131)
σ	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
	Modified Appendix 33	σ	Silver (EPA 7761)
Oth	er:		

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
1211.98	11.05	12.5	6.76	77405		Clea-

<u>COMMENTS</u>:

5786 <i>6</i>		·	:
	ld S	ampling Data	Sheet
Kingston, New York			
GENERAL INFORMATION:			
Well No: 10 Date: 10	1:30	198 Pers	onnel: CT.5
<u>PURGING:</u>		(2, 2 <i>ú</i>)	Store 12,114
Reference Depth To Bottom (DTBr)		Start: 2.20	Stop: 2.48 th to Bottom for calculations
Measured Depth to Bottom (DTBm) 16.3		Well Yields:	Tres [] No
Depth to Water (DTW): 12.87	fL.	Water Contained:	I'res INo
Target Volume: 1.70	gal. gal.	DTW After Purge:	110.14 A
Actual Volume: 1-19	- Enri		
PID: Background:	Purg	ing:	Not Applicable
		Rate	Equipment ID
Purge Method	6.0	19759pm	Ded. Equip
Bailer		0-0-	
Peristaltic Pump			
Well Wizard			
American Sigma		<u>,</u>	······································
Bladder Pump			
<u>SAMPLING</u> :			
Sample ID: KOO81	7	81030	<i>b</i> G
Sample Time: Start: 1317	Sto	p: <u>13 28</u>	
	•		
Duplicate ID:	N	A	
Sampling Method: 🛛 Bail		Sigma [
COMMENTS:	erican	Sigma 🗆	Тар
$\bigcap_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{i$	10	30/98	w: MUR Date: 12/8/9
Signature: (MX 4 den Mar 1	Date: _	QA/QC Revie	WIND Date: Tolor D
\bigcirc			

Kingston, New		lysis]	Request Form
Well Numb	er: <u>MW817</u>		Date: <u>10 / 50 / 48</u>
<u>LABORAT</u>	ORY:		
	IBM - East Fishkill		
ţ X	EnviroTest		
σ	Other:		
ANALYSE	<u>S REQUESTED</u> :		
ø	80221 8040, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
Ū	Phenols (total) (EPA 420.1)	函	Arsenic (EPA 206.2 or 7060A)
Ø	Metals are Filtered	₽	Cadmium (EPA 7131)
Ū	Metals are Unfiltered	, A	Lead (EPA 239.2 or 7421)
σ	Modified Appendix 33	Έ	Silver (EPA 7761)
Oth	er:	·	

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10 30 98.	1327	16.4	6.91	933-15		Clear

COMMENTS:

	eld S	ampling Data	Sheet
Kingston, New York			
GENERAL INFORMATION:			-
		1982 Dames	onnel: AFN
Well No: <u>817</u> Date: <u>//</u>			
PURGING:			
Reference Depth To Bottom (DTBr) /6,09	ft.	Start: 9:08	Stop: 9.31
Measured Depth to Bottom (DIBm) 16.3	3 fL	Note: Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW): 13.40	fL.	Well Yields:	Thes INO
Target Volume: 1.31	gal.	Water Contained:	
Actual Volume: 1.5	gil.	DTW After Purge:	16.23 ft
PID: Background:	Purg	ing:	I Not Applicable
		_	
Purge Method		Rate	Equipment ID
🗹 Bailer			
Peristaltic Pump		<u> </u>	
🖸 Well Wizard			
American Sigma			
Bladder Pump			
Submersible			
<u>SAMPLING:</u>			J.J.
Sample ID: KOO81	7	31120	A
Sample Time: Start: <u>9:46</u>	Stoj	<u>9:52</u>	
Duplicate ID:	Π		ΠÌ
Sampling Method: 🗹 Bai		Sigma 🖸	Well Wizard Tap
<u>COMMENTS:</u>		-	-
Signatures Andre F. Northel	Date:	20/12 QA/QC Revie	w: MUL Date: 12/8/98

	<u>β</u> <u>·</u> Αηο	Analysis Request Form					
Kingston, New		19818 1					
	er: <u>817</u>		Date: <u>11 120178</u>				
LABORAT(IBM - East Fishkill						
Ø	EnviroTest						
σ	Other:						
ANALYSES	REQUESTED:						
দ	8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)				
σ	Phenols (total) (EPA 420.1)	ď	Arsenic (EPA 206.2 or 7060A)				
	Metals are Filtered	Ø	Cadmium (EPA 7131)				
σ	Metals are Unfiltered	g	Lead (EPA 239.2 or 7421)				
σ	Modified Appendix 33		Silver (EPA 7761)				
Othe	er:						

Ď	ate	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-24	0-98	9.48	13.9	6.87	871u\$		

<u>COMMENTS:</u>

	ld S	ampling Data	Sheet	
Kingston, New York				
GENERAL INFORMATION:				
Well No: 817 Date: 12 1	11	<u>198</u> Perso	onnel:	
PURGING:				
Reference Depth To Bottom (DTBr) 100	4 n	Start: 930	Stop: 951	
Measured Depth to Bottom (DTBm) /6 36	î.	Notes Use Reference Dep		
Depth to Water (DTW): 13 20	ft.	Well Yields:	Stes ON	
Target Volume: 1.55	gal.	Water Contained:	OYes . BA	ft.
Actual Volume: 1-75	gal	DTW After Purge:	1620	16
PID: Background:	Purg	ingt	Not Applic	able
Purge Method		Rate	Equipment	D
Bailer .	00)8gom	Ded Equ	
D Peristaltic Pump		0.		
-				
Well Wizard				
American Sigma		· · ·		
Bladder Pump				
Submersible				
<u>SAMPLING</u> :				•
Sample ID: $KOPB$	7	8121	IG	
Sample Time: Start: 1115	Sto	p: <u>1122</u>		
Duplicate ID:	ا ر.	AFT	Ð	
Sampling Method: Bail		Sigma C	Well Wizar Tap	d
<u>COMMENTS:</u>				1 1.00
Signature: Cuehan	(2 Date: _	11 9E QA/QC Revie	ew: TAU Date:	3/11/4

		Ana	alysis Request Form				
Well Numbe		7		Date: 12 / 11 / 98			
<u>LABORATO</u>	D <u>RY</u> :						
	IBM - Eas	Fishkill					
Ľ	EnviroTes	:					
σ	Other:						
ANALYSES							
Ø	-8010, Fred	on 113, Freon 123a		Antimony (EPA 200.7 or 6010A)			
σ		otal) (EPA 420.1)	ø	Arsenic (EPA 206.2 or 7060A)			
٥	Metals are	Filtered	Ø	Cadmium (EPA 7131)			
σ	Metals are	Unfiltered	ø	Lead (EPA 239.2 or 7421)			
σ	Modified	Appendix 33		Silver (EPA 7761)			

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-11-98	11:21	13.1	6.97	94lus		Clear

<u>COMMENTS</u>:

Kingston, New York	Field S	ampling Data	Sheet
<u>GENERAL INFORMATION</u> :			C A
Well No: MWBM Date:	2/16	<u>199</u> Pers	onnel: <u>CI5</u>
PURGING:			
Reference Depth To Bottom (DTBr)	1609 1	Start: 9-38	Stop: (000
Measured Depth to Bottom (DTBm)	16.35 £	Notes Use Reference Dep	ck to Bottom for calculations
Depth to Water (DTW):	1016 1	Well Yields:	Øfes ØNo
Target Volume:	3.02 gal		DIES ENO
Actual Volume:	<u>3.25 gal</u>	DTW After Purget	1607 ft.
PID: Background:	Pur	gingt	Not Applicable
Purge Method		Rate	Equipment ID DCC Equip
C Peristaltic Pump			·
U Well Wizard			·
American Sigma			
Bladder Pump			
			`
SAMPLING: Sample ID: KOO	8 1 7 Sta	9@ZII (26
Duplicate ID:			77
			السوسايين
Sampling Method: 🗹 🛛	Bailer Americar	a Sigma 🗌	Well Wizard Tap
<u>COMMENTS:</u> Signature: <u>CuChan</u>	Z/ Dates	W 99 QA/QC Revie	1992 (1992) Date: 34

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TRM	Anal	Analysis Request Form					
Kingston, New York		<u></u>	<u></u>				
Well Number: _	817		Date: <u>2 11/2 199</u>				
LABORATORY:	,						
🖸 ви	ví - East Fishkill						
Env	viroTest						
🖸 Ott	ner:						
ANALYSES RE		_					
2 <u>50</u>	8021 10, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)				
Photo Photo	enols (total) (EPA 420.1)		Arsenic (EPA 206.2 or 7060A)				
Ø Me	etals are Filtered	Ο	Cadmium (EPA 7131)				
Ø M	etals are Unfiltered	σ	Lead (EPA 239.2 or 7421)				
🗖 м	odified Appendix 33	٥	Silver (EPA 7761)				
Other:	<u>Cycnide , specu</u>	Lne 	tals list				

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
21699	1104	9.7	7.12	55745		Cleen
	•					

<u>COMMENTS</u>:

•

11.90 at (053

Field Sampling Data Sheet						
GENERAL INFORMATION:						
Well No: <u>110 819</u> Date: 10	1 30	<u>198</u> Perso	onnel: <u>C</u>	<u>s</u> <		
<u>PURGING</u> :						
Reference Depth To Bottom (DTBr) NA	ft.	Start: 9:2 Note: Use Reference Dept	Stop: 0(
Measured Depth to Bottom (DTBm) 11.72		Well Yields:	Chies	CT No		
Depth to Water (DTW): 830	ft. gal.	Water Contained:	 	DN0		
Target Volume: 1.67	gal. gal.	DTW After Purge:	ile			
Actual Volume: 1-75	6	22				
PID: Background:	Purg	ing:	Not.	Applicable		
Purge Method	0.	Rate 038 gpm	Equip Ded E	ment ID quipment		
Peristaltic Pump						
Well Wizard						
American Sigma						
Bladder Pump						
□ Submersible						
Sample ID: KOOBI Sample ID: KOOBI	9 Stop	81 @ 3@ »: <u>1112</u>	G			
Duplicate ID:	と		Ł			
Sampling Method: 🛛 Baile		Sigma 🛛	Well V Tap	/izard		
<u>COMMENTS:</u>			-	Date: <u>12(8)98</u>		

		Analysis Request Form					
Kineston, New		uysis	Kequest Form				
1							
Well Numb	er: <u>MW819</u>		Date: 101.30198				
LABORAT	<u>ORY:</u>						
c 🗘 🗖	IBM - East Fishkill						
×	EnviroTest						
/0	Other:						
<u>ANALYSE:</u>	<u>S REQUESTED</u> :						
Ø	602) 8910 , Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)				
6	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)				
Ø	Metals are Filtered	Ø.	Cadmium (EPA 7131)				
Ĝ	Metals are Unfiltered	Þ	Lead (EPA 239.2 or 7421)				
	Modified Appendix 33	Έ	Silver (EPA 7761)				
Othe	er:						
	e	<u> </u>					

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10-30.98	1110	17.5	6.43	. 838us		Clear

<u>COMMENTS</u>:

	Esald S	ampling Data	Sheet
SSESSEVE Kingston, New York	Fleiu S	amping Data	Direct
<u>GENERAL INFORMATION:</u>			~
Well No: <u>819</u> Date:	11/20	<u>198</u> Perso	nnel: AFN
DTID CTAIC.			
<u>PURGING:</u> Reference Depth To Bottom (DTBr)	11.751	Start: 11.15	Stop: 11:38
Measured Depth to Bottom (DTBm)	11.71 ft	Notes Use Reference Dep	th to Bottom for calculations
	3.85 1	Well Yields:	Dies DNo
	41 gal.	Water Contained:	Dies Di No
	1.5 gal	DTW After Purge:	11.58 1
·····			Not Applicable
PID: Background:	Purg	ing:	M Not Applicable
Purge Method		Rate	Equipment ID
D Bailer		<u> </u>	
D Peristaltic Pump			
🗖 Well Wizard			
American Sigma			
Bladder Pump			
Submersible			
	•		
<u>SAMPLING:</u>			
Sample ID: KQDC	31191	8/1/20	71-
Sample Time: Start: 12:59	Sto	p: <u>1304</u>	
Duplicate ID:			Т [`]
Sampling Method:	Bailer American		Well Wizard Tap
<u>COMMENTS</u> :			_
Signature: Archur F.N	Int 4 Dates	1/20/98 QA/QC Revie	W: MWR Date: 12/8/9

Kingston, New	V C223	lysis I	Request Form
Well Numb	er: <u>819</u>		Date: <u>// 120198</u>
LABORAT	<u>ORY</u> :		
σ	IBM - East Fishkill		
Ø	EnviroTest		
σ	Other:		
ANALYSE	<u>S REQUESTED</u> :		
Ø	802-/ 8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
	Phenols (total) (EPA 420.1)	ď	Arsenic (EPA 206.2 or 7060A)
ď	Metals are Filtered	Ø	Cadmium (EPA 7131)
σ	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
σ	Modified Appendix 33	Ο	Silver (EPA 7761)
Oth	er:		

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-20-98	1303	14.le	6.29	87845		

<u>COMMENTS</u>:

Field Sampling Data Sheet						
GENERAL INFORMATION:						
Well No: 819 Date: 12	11	<u>198</u> Perso	onnel:			
<u>PURGING</u> :						
Reference Depth To Bottom (DTBr) 11.75	f ft	Start: 8 25	Stop: 850			
Measured Depth to Bottom (DTBm) 11-7	1 a.		in to Bottom for calculations			
Depth to Water (DTW): 8.98	ft.	Well Yields:	estes ONo			
Target Volume: 1-33	gal	Water Contained:	DYes DNo			
Actual Volume: 1-50	જ્યાં.	DTW After Purge:	<i>i .</i> 64 f.			
PID: Background:	Purg	ing:	Not Applicable			
Purge Method	C	Rate), 06 ср. т	Equipment ID Deck Equip			
2 Bailer						
Peristaltic Pump						
🗇 Well Wizard			÷			
American Sigma						
Bladder Pump						
□ Submersible						
SAMPLING:						
Sample ID: KOGB1	9	81211	G			
Sample Time: Start: 10:25	Sto	p: <u>10'38</u>				
Duplicate ID: KOPB(9	81211	D			
Sampling Method: 🗹 Bail		Sigma 🛛	Well Wizard Tap			
COMMENTS:			الدربان والمدرج			
Signature: Culuam] î Date: _	Hulde QA/QC Revie	w: DH15 Date: 311194			
\mathbf{O}						

ingston, New Y		lysis I	Request Form
	r: <u>8 9</u>		Date: <u> 2 11 9</u> 8
<u>ABORATO</u>			
	IBM - East Fishkill		
D	EnviroTest		
	EnviroTest Other:		
⊠ □ <u>NALYSES</u>	Other:		
⊠ □ <u>NALYSES</u> Ω	Other: <u>REOUESTED:</u> <u>8072</u>] 801 0, Freon 113, Freon 123a		• • •
⊠ □ <u>NALYSES</u> ⊡ ₽	Other:	D Ø	Antimony (EPA 200.7 or 6010A) Arsenic (EPA 206.2 or 7060A)
D NALYSES D D S D	Other: <u>REOUESTED:</u> <u>8072</u>] 801 0, Freon 113, Freon 123a	000	Antimony (EPA 200.7 or 6010A) Arsenic (EPA 206.2 or 7060A) Cadmium (EPA 7131)
⊿ □ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Other: <u>REOUESTED</u> : <u>8072</u>] 80 10, Freon 113, Freon 123a Phenols (total) (EPA 420.1)	D Ø Ø Ø	Arsenic (EPA 206.2 or 7060A)

.

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-11-98	1036	13.0	638	86205		Ciear

<u>COMMENTS</u>:

	<u></u>				
Kingston, New York	Fie	eld S	ampling Data	Sheet	
GENERAL INFORMATI Well No: MW920	<u>10N</u> : Date: <u>10</u>	1 30	<u> 98</u> Perso	onnel: <u>C</u>	JS
<u>PURGING:</u>					
Reference Depth To Bottom		ft.	Start: 934	Stop: 0	a single second s
Measured Depth to Bottom			Note: Use Reference Dep	The bottom je	
Depth to Water (DTW):	7.63	<u>f</u>	Well Yields: Water Contained:		YELNO
Target Volume: Actual Volume:	7.04		DTW After Purge:		14.92 €
PID: Background		Purz	· · · · ·] Not	Applicable
Purge Method		1	Rate .035g.pm	Equip Dr.d. E	ment ID QUφ
D Peristaltic Pun	ф				
🛛 Well Wizard					
American Sign	na				
🗖 Bladder Pump)				
□ Submersible					
SAMPLING: Sample ID: K.C. Sample Time: Start:	008z 945	Stor	051.	G	
Duplicate ID:	7++-	N	A	\mathbf{P}	
Sampling Method:	XI Baile		Sigma 🖸	Well V Tap	Vizard
<u>COMMENTS:</u> signature: CuShan	<u>m</u> 1	Date: _	130/9t QA/QC Review	. <u>mwr</u>	Date: 12/8/91

Kingston, New		Analysis Request Form					
Well Numb	er: <u>Mul820</u>		Date: <u>10 130198</u>				
LABORAT	<u>ORY</u> :						
o,	IBM - East Fishkill						
凶	EnviroTest						
Ō	Other:						
ANALYSE	S REQUESTED:						
σ	8021 8010; Freon 113, Freon 123a	σ	Antimony (EPA 200.7 or 6010A)				
	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)				
Ø	Metals are Filtered	Б Д	Cadmium (EPA 7131)				
σ	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)				
	Modified Appendix 33	Έ	Silver (EPA 7761)				
Oth	er:	·					

.

Date	Time	Тетр (*С)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10-30-99	ger	pt.o	NGAD	ABAUS	033	Clear-
	954	14.9	6.6	704 ms	C.J.S	

<u>COMMENTS</u>:

	Field S	ampling Data	Sheet
Kingston, New York GENERAL INFORMATION:			
	te: <u> 8</u>	<u>198</u> Perso	nnel: JFN
PURGING:			
Reference Depth To Bottom (DT)	Br) 21.77 f	Start: 15:27	Stop: 15:33
Measured Depth to Bottom (DTE	m) 22_00 fL	Note: Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	8.00 fL	Well Yields:	ITes ONo
Target Volume:	6.73 ml	Water Contained:	15.71 ft.
Actual Volume:	gal.	DTW After Purge:	15 . 11 16
PID: Background:	Purg	ing:	I Not Applicable
Purge Method		Rate	Equipment ID
D Bailer		<u> </u>	
Peristaltic Pump			
🗖 Well Wizard			
🗖 American Sigma			
🛛 Bladder Pump			
Submersible			
SAMPLING:	•		
Sample ID:	820	B1119	34
Sample Time: Start: 15	36 Sto	p:544	
Duplicate ID:			Ш Ì
Sampling Method:	Bailer		Well Wizard Tap
<u>COMMENTS:</u>		-	a carla
Signature: Andr. F. N	Wird Dates	118/91 QA/QC Revi	W: MUR Date: 12/8/90

Kingston, New	V band	lysis]	Request Form
Well Numb	er: <u>820</u>		Date: <u>// // 2/ 96</u>
LABORAT	<u>ORY</u> :		
σ	IBM - East Fishkill		
G/	EnviroTest		
σ	Other:		
ANALYSE	<u>S REQUESTED</u> :		
নি	802./ -8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
ন্দ্র	Metals are Filtered	Ø	Cadmium (EPA 7131)
σ	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
Ē	Modified Appendix 33	. 🗖	Silver (EPA 7761)
Oth	er:		

. <u>FIELD PARAMETERS</u>:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-98	1543	13.1	6.57	Jolius		
						· · · · · · · · · · · · · · · · · · ·

<u>COMMENTS:</u>

Kingston, New York	Field Sampling Data Sheet						
GENERAL INFORMATION:							
Well No: <u>820</u> Date: <u>12</u>	10	<u>198</u> Perso	onnel: <u>CJS</u>				
<u>PURGING</u> :							
Reference Depth To Bottom (DTBr) 21.7	7 n .	Start: 1241	Stop: 1249				
Measured Depth to Bottom (DTBm) Z2 0			th to Bottom for celculations				
Depth to Water (DTW): 820	ft.	Well Yields:	Dies DNo				
Target Volume: 6-78	gal.	Water Contained:					
Actual Volume: 7-0	gal.	DTW After Purge:	15.12 ft.				
PID: Background:	Purg	ing:	Not Applicable				
Purge Method	0	Rate	Equipment ID				
Ø Bailer		10 1-3 april	Ded Equip				
D Peristaltic Pump			······································				
🗇 Well Wizard							
American Sigma		· · · · · · · · · · · · · · · · · · ·					
Bladder Pump							
□ Submersible							
SAMPLING:		·					
Sample ID: $K \varphi \varphi \beta z$	0	81210	G				
Sample Time: Start: 1252	Stop	»: <u>1259</u>					
Duplicate ID:	N	A	E				
Sampling Method: D Baile		□ Sigma □	Well Wizard Tap				
<u>COMMENTS</u> : Signature: <u>Currywan</u> I	، / ^۲ Date:	AD QA/QC Revie	with Dates 2111911				

Kingston, New York	lysis Request Form
Well Number: 820	Date: <u>12 / 10 / 98</u>
LABORATORY:	
🗇 🛛 IBM - East Fishkill	
EnviroTest	
Other:	
ANALYSES REQUESTED:	_
8010, Freon 113, Freon 123a	Antimony (EPA 200.7 or 6010A)
Phenols (total) (EPA 420.1)	Arsenic (EPA 206.2 or 7060A)
Metals are Filtered	Cadmium (EPA 7131)
Metals are Unfiltered	Lead (EPA 239.2 or 7421)
Modified Appendix 33	Silver (EPA 7761)
Other:	

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
121098	1258	12-4	667	71Zus		Cloury
					•	

<u>COMMENTS</u>:

	eld S	ampling Data	Sheet
Kingston, New York			
GENERAL INFORMATION:			
Well No: <u>MW 82</u>] Date: <u>10</u>	129	198 Perso	onnel:
Well No. 11100 CD. Date. 10			
PURGING:			
Reference Depth To Bottom (DTBr)		Start: 1455	Stop: 1526
Measured Depth to Bottom (DTBm) 13.11			th to Bottom for calculations
Depth to Water (DTW): 9.47	ft.	Well Yields: Water Contained:	QVes DNo DVes QNo
Target Volume: 1.00	gal.	DTW After Purge:	12-55 ft
Actual Volume: 20	gal.	DIW Alter I mge.	
PID: Background:	Purg	ing:	Not Applicable
			–
Purge Method	Ć	Rate).665(pm_	Ded Equip
Bailer			e
D Peristaltic Pump			······································
U Well Wizard			· · · · · · · · · · · · · · · · · · ·
American Sigma			<u></u>
Bladder Pump			<u> </u>
Submersible		. <u></u>	
			· ·
<u>SAMPLING:</u>			
Sample ID: <u> </u>	114	81029	G
Sample Time: Start: 15.31	Stop	15.40	
Duplicate ID:	M	ALT	E
Sampling Method: Bail	ler ierican	Sioma 🗖	Well Wizard Tap
<u>COMMENTS:</u>		-	-
signature: <u>Chypanna</u>	Date:	491 QA/QC Review	v: MWR Date: 12/8/9

Kingston, New		lysis	Request Form
Well Numb	er: <u>MWB21</u>		Date: 10 1291 92
LABORAT	<u>ORY:</u>		
σ	IBM - East Fishkill		
Ŗ	EnviroTest		
6	Other:		
ANALYSE:	<u>S REQUESTED</u> :		
凶	8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
6	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
₽ x	Metals are Filtered	Ø	Cadmium (EPA 7131)
6	Metals are Unfiltered	Þ	Lead (EPA 239.2 or 7421)
	Modified Appendix 33	1	Silver (EPA 7761)

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10 29 98	15:36	15.4	6.70	11:52-15		Claum

COMMENTS:

	eld Sampling Da	ta Sheet
Kingston, New York	au Samping Da	
<u>GENERAL INFORMATION</u> :		•
Well No: <u>821</u> Date: <u>11</u>	<u>120198</u> PC	ersonnel: <u>AFN</u>
PURGING:		
Reference Depth To Bottom (DTBr) 13.2.9		
Measured Depth to Bottom (DIBm) 13, 14	5 ft. Note: Une Reference.	Depth to Bottom for calculations
Depth to Water (DTW): 9,62	fL Well Yields:	Tes ONo
Target Volume: 1-79	gal. Water Contained:	,
Actual Volume: 7	gal. DTW After Purg	e: 11.62 fL
PID: Background:	Purgingt	I Not Applicable
Purge Method	Rate	Equipment ID
1 Bailer		
C Peristaltic Pump		· · · · · · · · · · · · · · · · · · ·
G Well Wizard	<u></u>	.
American Sigma		<u></u>
🖬 Bladder Pump	· · ·	•
Submersible		• •••••
e e e e e e e e e e e e e e e e e e e		
<u>SAMPLING</u> :		· · ·
Sample ID: KOD82	18112	O G
-Sample Time: Start: 1241	Stop: 1248	•
Duplicate ID:		
Sampling Method: D Bail	5 .	🖸 Well Wizard
	erican Sigma	🗇 Тар
<u>COMMENTS:</u>		1
Signatures Anshen F. Nurted	Dates 10/19 QA/QC Re	view: MWR Date: 12/8/98

Kingston, New		lysis	Request Form
Well Numb	er: <u>6321</u>		Date: 11 120 198
LABORAT	<u>ORY</u> :		
	IBM - East Fishkill		
Ø	EnviroTest		
σ	Other:		
ANALYSE	S REQUESTED:		
নি	807-1 8010; Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
Ø	Metals are Filtered	Ø	Cadmium (EPA 7131)
	Metals are Unfiltered	ď	Lead (EPA 239.2 or 7421)
	Modified Appendix 33	σ	Silver (EPA 7761)
Oth	er:		

÷ . 2

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-20-98	1247	13.9	6.58	11 8'e uz		:

COMMENTS: Slight sheen present on purge water.

Kingston, New York	ld S	ampling Data	Sheet
GENERAL INFORMATION:		~ ~	C-40
Well No: <u>821</u> Date: <u>12</u>	<u>/ I\</u>	<u>198</u> Perso	onnel: <u>CJs</u>
PURGING:			
Reference Depth To Bottom (DTBr) 13 24	1 1	Start: 855	Stop: 10: 19
Measured Depth to Bottom (DTBm) [3.14	î.		th to Bottom for calculations
Depth to Water (DTW): 9-69		Well Yields:	CHes DNo
Target Volume: 1. (09	gal.	Water Contained:	DYes DNo
Actual Volume: 1.75	gal	DTW After Purge:	13.09 <u>#</u>
PID: Background:	Purg	ring:	Not Applicable
Purge Method		Rate	Equipment D
Bailer	O.	02pm	Ded Equip
Peristaltic Pump		0	
Well Wizard			·
American Sigma			
Bladder Pump			
•			
□ Submersible			
<u>SAMPLING:</u>			•
Sample ID: KOOBZ	11	81211	G
Sample Time: Start: 1045	Sto	p: <u>1052</u>	
Duplicate ID:	FN	Art	$\overline{\mathbf{T}}$
Sampling Method: • Bail		Sigma 🗌	Well Wizard Tap
<u>COMMENTS:</u>			6 . 1 . 1 . 1 . 1 .
Signature: <u>Cul han</u>	l i Date: _	411/9 QA/QC Revie	w: 040 Date: 311141

Kingston, New		lysis l	Request Form
Well Numb	er: <u>82</u>		Date: $\frac{ \mathcal{L} }{ \mathcal{L} } \frac{ \mathcal{L} }{ \mathcal{L} } \frac{\mathcal{GE}}{\mathcal{E}}$
LABORAT	<u>ORY</u> :		
σ	IBM - East Fishkill		
A.	EnviroTest		
σ	Other:		
đ	<u>S REOUESTED:</u> <u>8002</u> <u>8010</u> , Freon 113, Freon 123a (5) Phenols (total) (EPA 420.1) Metals are Filtered Metals are Unfiltered Modified Appendix 33		Antimony (EPA 200.7 or 6010A) Arsenic (EPA 206.2 or 7060A) Cadmium (EPA 7131) Lead (EPA 239.2 or 7421) Silver (EPA 7761)
Oth		·	

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12(198	1051	13.2	6.62	129445		Clean

COMMENTS:

000299

۰.

	Field S	Sampling Data	Sheet
GENERAL INFORMATION	• • •		
Well No: MW 82) Da	te: <u>2 / //</u>	2/99 Pers	onnel: <u>CIS</u>
PURGING:			
Reference Depth To Bottom (DT	Br) 13.29 A	Starts 845	Stop: 857
Measured Depth to Bottom (DT)		Note: Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	9.04 m	Well Yields:	ØYes DNo
Target Volume:	2.0 gal.	Water Contained:	Oles Otto
Actual Volume:	2.0 gal	DTW After Purge:	1265 fl
PID: Background:	Put	gingt	Not Applicable
Purge Method		Rate	Equipment ID Ded Equip
Peristaltic Pump			
Well Wizard			•
American Sigma	· · · ·		
Bladder Pump			
Submersible			
SAMPLING: Sample D: K ()	0821	9 9 211	2 G
Sample Time: Start: 10	<u>30</u> Sta	pp: <u>1043</u>	
Duplicate ID: K C	Ø 8 2 1	90210	2 X
Sampling Method:	BailerAmerican	n Sigma	
<u>COMMENTS:</u> Signature: <u>UU Nar</u>	Jatel	10 9 QA/QC Revi	ewe 211/49 Date: 311/49

Kingston, New York	lysis l	Request Form
Well Number:821		Date: <u>Z / 1/2 /99</u>
LABORATORY:		
IBM - East Fishkill		
E EnviroTest		
Other: <u>IFA</u>		<u> </u>
ANALYSES REQUESTED:		
802) 8010, Freon 113, Freon 123a	σ	Antimony (EPA 200.7 or 6010A)
Phenols (total) (EPA 420.1)		Arsenic (EPA 206.2 or 7060A)
Metals are Filtered	σ	Cadmium (EPA 7131)
Metals are Unfiltered		Lead (EPA 239.2 or 7421)
Modified Appendix 33	٥	Silver (EPA 7761)
Other: <u>Cyande</u>		

Date	Time	Temp (°C)	рН (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
2.16.99	104Z	9.0	lelel	67645		Clea

<u>COMMENTS</u>:

9.13 at 1028

7888 <i>6</i>	·								
		Field	Sa	mplin	ig Data	Sh	eet		
Kingston, New York									
<u>GENERAL INFORMAT</u>	<u>10N</u> :								
Well No: MWB22	Date: <u> </u>	> 13	<u>ر</u> در	98_	Pers	onne	1: <u>C</u>	55	_
<u>PURGING</u> :									
Reference Depth To Botton		INT 1			140	Sto	_	1.51	
Measured Depth to Bottom	(DTBm) 2	2-36 1	+		Reference Dep				
Depth to Water (DTW):			-	Well Ylel			Aves .	D No ANo	-
Target Volume:	5.5		-+	Water Co			Oles .//	2C	ft.
Actual Volume:	5,-	15 🛯	Լ	DIW AI	ter Purge:		/7	. 70	<u></u>]
PID: Background	k	Pu	ırgi	18:		ן [Not 1	Applicable	:
Purge Method				Rate			Equip	ment ID	
Da Bailer			α.	522gp	<u>~</u>	_D	ed .E	quipm	rent
D Peristaltic Pu	np .			0					
Well Wizard	•								
American Sig	ma								
🗇 Bladder Pum									
Submersible	•					_			
<u>SAMPLING:</u>									
			10		$\frac{3}{2\pi a}$	I.a	1		
Sample ID:	01010	42	10		D B C	0			
Sample Time: Start:	1200	St	top:	12	<u></u>				
Duplicate ID:		-N	1/	4		Ł	2		
Sampling Method:	X	Bailer			0		Well W	Vizard	
<u>COMMENTS:</u>	٥	America	ın S	igma			Гар		
Signature: Curf	am	Date:	10(3 	<u>0/98</u> Q/	VQC Revie	w : <u>//</u>	WR	Date: <u> 2</u>	8/9

Kingston, New	• •	lysis	Request Form
Well Numb	er:		Date: 10 1 30 198
LABORAT	<u>ORY</u> :		
0	IBM - East Fishkill		
Ŕ	EnviroTest		
6	Other:		
ANALYSE:	S <u>REQUESTED</u> :		
	5010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	\square	Arsenic (EPA 206.2 or 7060A)
Ø	Metals are Filtered	ί β ί	Cadmium (EPA 7131)
6	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
	Modified Appendix 33	Έ	Silver (EPA 7761)
Oth	er:		

Date	Time	Temp (°C)	рН (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.3090	1209	14.7	(a69	99345		

<u>COMMENTS</u>:

	120	ampling Data S	Shoot
	era S	ampung Data	511661
•			
GENERAL INFORMATION:		_	
Well No: <u>822</u> Date: <u>11</u>	1/8	<u>198</u> Person	nel: AFN
PURGING:			
Reference Depth To Bottom (DIBr) 22.2	41	Starts 15.54	Stop: 16:03
Measured Depth to Bottom (DTBm) 22.4		Notes Use Reference Depth	
Depth to Water (DTW): 11.40		Well Yields:	Offes [] No
Target Volume: 5,30	gal	Water Contained:	ITes INO
Actual Volume: 5.5	gil	DTW After Purge:	20.24 A
	1-	 1	Vot Applicable
PID: Background:	Purg	ing:	Mot Applicable
Purge Method		Rate	Equipment ID
D Bailer			
D Peristaltic Pump	. <u> </u>		<u> </u>
🖸 Well Wizard		<u> </u>	
American Sigma		=	
Bladder Pump			
G Submersible			
•••••••			
<u>SAMPLING</u> :		· · · · · · · · · · · · · · · · · · ·	
Sample ID: KOQ82	2	20-1118	G
Sample Time: Start: 16:07	Stor	1614	
Duplicate ID:			
Sampling Method: 🛛 Bail		Sigma 🖸	Well Wizard Tap
<u>COMMENTS:</u>		-	- ,
Signatures Anthon F. Nucled	li Date: _/	13/98 QA/QC Review:	<u>MWR</u> Date: 12/8/98

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Lingston, New		alysis Request Form					
Vell Numb	er: <u>822</u>		Date: <u>// //8/76</u>				
ABORAT	<u>ORY</u> :						
-							
	IBM - East Fishkill						
	EnviroTest						
	,						
	EnviroTest						
	EnviroTest Other:		Antimony (EPA 200.7 or 6010A				
U NALYSE	EnviroTest Other:		Antimony (EPA 200.7 or 6010A Arsenic (EPA 206.2 or 7060A)				
	EnviroTest Other:						
INALYSE	EnviroTest Other: SREQUESTED: 2007-1 -8010; Freon 113, Freon 123a Phenols (total) (EPA 420.1)	٦ کار	-				

FIELD PARAMETERS:

Date	Time	Temp (°C)	рН (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-18-98	10.12	13.3	63	GILlus		

COMMENTS:

	Fie	ld S	ampling Data	Sheet
Kingston, New York <u>GENBRAL INFORMA</u> Well No: <u>822</u>		10	1 <u>98</u> Perso	onnel: <u>CO</u> S
PURGING:	2000			
Reference Depth To Botto	m (DTBr) 22.44	1 1	Start: 1305	Stop: 3 4
Measured Depth to Botton				th to Bottom for calculations
Depth to Water (DTW):	11.41	fL.	Well Yields:	Stes INO
Target Volume:	5.38	gal.	Water Contained:	OYes BNo
Actual Volume:	5.50	જ્યાં.	DTW After Purge:	18.32 ft
PID: Backgroun	d:	Purg	ing:	Not Applicable
Purge Method Ø Bailer	-		Rate O-1611 gpm	Equipment ID DCA Equip
🗇 Peristaltic Pu	mp -		·	
🛛 Well Wizard	۰ I			
🗇 American Si	gma .			
🗇 Bladder Pur	np ·			<u></u>
Submersible	•			
<u>SAMPLING</u> :				• •
Sample ID:	0082	2	81210	D G
Sample Time: Start	1317_	Stop	p: <u>13:24</u>	
Duplicate ID:	-t-m-	W	ALT	Ŧ
Sampling Method:	Ø Baile		Sigma 🛛	Well Wizard Tap
<u>COMMENTS</u> : Signature: <u>CuSu</u>	<u>m</u> 1	(Z Date: _	10 / QA/QC Revie	w: <u>DKP</u> Date: <u>3[11]()</u>

Cingston, New		lysis l	Request Form
Well Numbe	er: <u>827</u>		Date: 12 110 190
LABORATO	DRY:		
σ	IBM - East Fishkill		
Ø	EnviroTest		
σ	Other:		
ANALYSES	REQUESTED:		
Ø	80Z1 8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
ø	5 Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
п	Metals are Filtered	Ø	Cadmium (EPA 7131)
L L		ন	Lead (EPA 239.2 or 7421)
	Metals are Unfiltered		

. <u>FIELD PARAMETERS</u>:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12 1098	1323	12.1	7.0	902us		Claus
				· .		

COMMENTS:

	Fie	eld S	ampling Data	Sheet	
GENBRAL INFORMAT Well No: Mw IR	<u>TION:</u> Date:	1 16	<u>199</u> Pers	onnel: <u>C</u>	Js
<u>PURGING</u> :					
Reference Depth To Botto	m (DTBr) 9].(e	(fL	Start: 2:31	Stop: 13	
Measured Depth to Botton	m (DTBm) 91.6	2 =	Note: Use Reference Dep		
Depth to Water (DTW):	8-80		Well Yields:	Oles	0410
Target Volume:	162.22		Water Contained:	OYes	12 Ro
Actual Volume:	24.0	gal,	DTW After Parget	9	Z <u>85</u> ft.
PID: Backgroun	ıd:	Purg	ing:	Not.	Ipplicable
Purge Method			Rate	Equip	ment ID
🗍 Bailer					
🗇 Peristaltic Pr	mp				
🗖 Well Wizard	L -		•		
🗇 American Si	gma				
🖸 Bladder Pun	np				
Submersible)			Non I	<u>Ded</u>
<u>SAMPLING</u> :	•				•
Sample ID:	0001	R	9 @ 21 6	6	
Sample Time: Start:	1351	Stor	<u>, 1407</u>		· .
Duplicate ID:	+++-	M	ALL	F	
Sampling Method:	🗹 Bail		G Sigma G	Well V Tap	Vizard
COMMENTS:		2/J Date: _	-		Date: 3/11/99
Signature:	/ /	Daties -			

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Ana	lysis l	Request Form
Vell Number: <u> </u>		Date: 2 / 16/99
ABORATORY:		
🗇 IBM - East Fishkill		
EnviroTest		
Other:		
ANALYSES REQUESTED:	_	
5010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
Phenols (total) (EPA 420.1)		Arsenic (EPA 206.2 or 7060A)
Metals are Filtered		Cadmium (EPA 7131)
Metals are Unfiltered	٥	Lead (EPA 239.2 or 7421)
Modified Appendix 33	σ	Silver (EPA 7761)
Other:	· ·	

<u>FIELD PARAMETERS</u>:

Date	Time	Тетр (°С)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
2.1699	1406	11.5	7.92	41845		Cloug
<u>COMMENT</u> 25 Stort 49 Stop	-			to fet		et 44FF 000320

43.55 GJ 1350

e a la construction de la constr

5777			<u></u>
	ld S	ampling Data	Sheet
Kingston, New York			
GENERAL INFORMATION:		• .	
Well No: <u>MW1255</u> Date: <u>2</u>	16	<u>199</u> Perso	onnel: <u>CB</u>
PURGING:			
) fL	Start: 912	Stop: 1018
Measured Depth to Bottom (DIBm) 141			th to Bottom for calculations
Depth to Water (DTW): 1)-8		Well Yields:	Ole Blo
Target Volume: 2-46		Water Contained:	DIes 2780 1409 ft.
Actual Volume: 1-5	gal.	DTW After Purge:	<u> </u>
PID: Background:	Purg	ingt	Not Applicable
Purge Method		Rate	Equipment ID
Bailer			Dra Equip
Peristaltic Pump			
🖸 Well Wizard			
🗖 American Sigma		·	
Bladder Pump			
□ Submersible		<u> </u>	
<u>SAMPLING</u> :			· . ·
Sample ID: K0125	\$	90216	G
Sample Time: Start: 11.51	Stop	. 1204	
Duplicate ID:		91-1-1-	Ð
Sampling Method: 🗹 Bail		Sigma 🖸	Well Wizard Tap
<u>COMMENTS:</u>		-	holis and
Signature: <u>Cufhan</u>	2 Date: _	16/99 QA/QC Review	m: WYDY Date: 2/11/01

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Kingston, New Y		lysis]	Request Form
Well Number	125.\$		Date: 2 / 1/2 / 99
LABORATO	R¥:		
	IBM - East Fishkill		
₽∕	EnviroTest		
σ	Other:		
ANALYSES	REQUESTED:		
đ	8010, Freon 113, Freon 123a	σ	Antimony (EPA 200.7 or 6010A)
σ	Phenois (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
Ø	Metals are Filtered	Ο	Cadmium (EPA 7131)
Д Д	Metals are Unfiltered		Lead (EPA 239.2 or 7421)
ά	Modified Appendix 33		Silver (EPA 7761)
Other	-: <u>collected both d</u> netals	<u>is</u> ol	redetatel

. <u>FIELD PARAMETERS</u>:

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Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
2.14.99	1203	9.8	7.12	428us		Clear

<u>COMMENTS</u>:

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722 -	Field S	ampling Data	Sheet
Kingston, New York		ampang 2 am	
GENERAL INFORMATI	· ·		
		64	
Well No: MW 2065	Date: _2 / 16	<u>199</u> Perso	onnel: <u>CJS</u>
PURGING:			
Reference Depth To Bottom	(DTBr) 17.18 1	Starts 1115	Stop: //20
Measured Depth to Bottom	(DTBm) 17.13 fl	Notes Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	834 m	Well Yields:	STes DNo
Target Volume:	9.73 pl	Water Contained:	OYes ONo
Actual Volume:	/0.0 gal	DTW After Purget	8.67 ft.
PID: Background:	Pur	ring:	Not Applicable
·			– Equipment ID
Purge Method		Rate	Ded Equin
Bailer			
Peristaltic Pum	ф —		
🖸 Well Wizard			,
🗇 American Sign	na		· · · · · · · · · · · · · · · · · · ·
🖸 Bladder Pump			
Submersible			
SAMPLING:			•
	2065	<u>a</u> <u>a</u> <u>z</u> <u>u</u> <u>u</u>	G
Sample ID:	2065	70210	
Sample Time: Start:	11-25_ Sto	p: <u>11:40</u>	
Duplicate ID: K	02065	90210	eP
Sampling Method:	Bailer	0	Well Wizard
	American	i Sigma 🛛	Тар
<u>COMMENTS:</u>			- and in 100
signature: <u>CuSh</u> a	211 Date:	114/99 QA/QC Revie	w: 240 Date: 211/04

Kingston, New York	lysis I	Request Form
Well Number: <u>206,5</u>		Date: 2/10/99
LABORATORY:		
IBM - East Fishkill		
 EnviroTest 		
Other:	<u> </u>	<u> </u>
ANALYSES REQUESTED:		
8010, Freon 113, Freon 123a	٥	Antimony (EPA 200.7 or 6010A)
Phenols (total) (EPA 420.1)	σ	Arsenic (EPA 206.2 or 7060A)
Metals are Filtered		Cadmium (EPA 7131)
Metals are Unfiltered		Lead (EPA 239.2 or 7421)
Modified Appendix 33	٥	Silver (EPA 7761)
Other: <u>Cycnide, spec</u>	<u>ia</u> ln 	retals list

. <u>FIELD PARAMETERS</u>:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
2.1699	1139	10.4	6.79	Qe 44us		Clear-

COMMENTS:

			•
	eld S	ampling Data	Sheet
Kingston, Now York			
GENERAL INFORMATION:			-
Well No: MW2105 Date: Z	14	, 99 Pares	onnel: <u>CJ5</u>
Well No: 1102[05 Date:	110		
<u>PURGING</u> :			
Reference Depth To Bottom (DTBr) 17.0	29 f .	Start: 1258	Stop: 13: 14
Measured Depth to Bottom (DTBm) 6.9			to Bottom for calculations
Depth to Water (DTW): 9-10		Well Yields:	Dies DNo
Target Volume: 8.20		Water Contained:	
Actual Volume: 8 50) gal.	DTW After Purge:	<u>16.43</u> £.
PID: Background:	Purg	ingt	Not Applicable
Purge Method		Rate	Equipment ID Ded Equip
D Bailer			_ the Equip
Peristaltic Pump			·
🖸 Well Wizard			
American Sigma			
Bladder Pump			
□ Submersible			
	•		
<u>SAMPLING:</u>			<u>.</u>
Sample ID: X Q 2 1 Q	S.	99216	<u>I</u> G
Sample Time: Start: 1328	Stop	: <u>(340</u>	
Duplicate ID:	N	e	Ð
Sampling Method: 2 Bai	iler	σ	Well Wizard
	nerican	Sigma 🛛 🗖	Tap
<u>COMMENTS:</u>	_		alite ana
signature: <u>Curkan</u>	ا7 _ Date:	14/9 QA/QC Review	TE DATE: 2/11/4
	_		

Ana	Analysis Request Form					
Vell Number:2]0.5		Date: <u>2 116 99</u>				
ABORATORY:						
🗍 🛛 IBM - East Fishkill						
EnviroTest						
Other:						
NALYSES REQUESTED:						
807) -5010, Freon 113, Freon 123a	σ	Antimony (EPA 200.7 or 6010A)				
Phenols (total) (EPA 420.1)		Arsenic (EPA 206.2 or 7060A)				
Metals are Filtered	σ	Cadmium (EPA 7131)				
Metals are Unfiltered		Lead (EPA 239.2 or 7421)				
Modified Appendix 33		Silver (EPA 7761)				

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
2-16 99	1339	9.4	6.75	65A.s		Clear

000318

<u>COMMENTS:</u> 13.79 at 1.327

5998				
	Fie	ld S	ampling Data	Sheet
Kingston, New York				
GENERAL INFORMATION:				
Well No: <u>SLA</u> Date:	10 1	30	<u>198</u> Pers	onnel: <u> </u>
<u>PURGING</u> :				
Reference Depth To Bottom (DTBr)	NA	ft.	Start: NA	Stop: MA
Measured Depth to Bottom (DTBm)) MA	î.	Note: Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	NA	ft,	Well Yields:	CIYesNA CINo
Target Volume:	M	gal	Water Contained:	DYes NAD No
Actual Volume:	_N/	gal.	DTW After Purge:	NA A.
PID: Background:		Purg	ing:	Not Applicable
Purge Method			Rate	, Equipment ID
🗇 Bailer	-			
D Peristaltic Pump	-		-AIA-	
🖸 Well Wizard	-			IV;)
🗖 American Sigma	-			
Bladder Pump				
□ Submersible				<u> </u>
<u>SAMPLING</u> :			· •	•
Sample ID: KSL	00	A	81030	75
Sample Time: Start: 1534		Stop	. 1549	
Duplicate ID:	~~~~	Ņ	AFFF	
★ Sampling Method:	Baile		Sigma 🖸	Well Wizard Tap
<u>COMMENTS:</u>				-
signature: Cu Sham	E	10 Inte:	00/9% QA/QC Revie	w: MWK Date: 12/8/9

Kingston, New		lysis	Request Form
Vell Numb	er: <u>5.L.A</u>	•	Date: 10 / 30 / 92
ABORAT	<u>ORY</u> :		
σ	IBM - East Fishkill		
Ø	EnviroTest		
Ø	EnviroTest Other:		
Ō			
O INALYSE	Other:		Antimony (BPA 200.7 or 6010A)
Ō	Other:	A A	Antimony (EPA 200.7 or 6010A) Arsenic (EPA 206.2 or 7060A)
INALYSE.	Other: <u>S REQUESTED</u> : <u>(x,z)</u> SO10 , Freon 113, Freon 123a	~	•
ANALYSE.	Other: <u>SREOUESTED</u> : <u>(002)</u> S010, Freon 113, Freon 123a Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10.30-98	1542	15.0	7.00	65945		Clein

<u>comments:</u> * Sampu Method: groß

	Field	Sampling Dat	a Sheet
Kingston, New York			• ·
<u>GENBRAL INFORMATION</u> :	•		
Well No: 5W-A Date:	11 119	<u>198</u> Peri	sonnel: <u>AF</u>
PURGING:	2.00		
Reference Depth To Bottom (DTBr)	MA		Stop: 1.17
Measured Depth to Bottom (DTBm)	ny a	Notes Use Reference De	pit to Bottom for calculations
Depth to Water (DTW):	pro 1	Well Yields:	ITes INo
Target Volume:	NA S	Water Contained:	Dies DNo
Actual Volumes	nn s	DTW After Purget	MA ft.
PID: Background:	Pr	rgingt	I Not Applicable
		-	
Purge Method		Rate	Equipment ID
🖸 Bailer		1.12	<u> </u>
Peristaltic Pump		<u></u>	· ·
🖸 Well Wizard	· · ·	1.14	÷
🗖 American Sigma		MA	
🗇 Bladder Pump	•	_nnt	
□ Submersible			<u></u>
		•	
<u>SAMPLING:</u>			<u>.</u>
Sample ID: KOOC	SIWA	311/11	715
Sample Time: Start: 1612.0	St	op: <u>16,29</u>	
Duplicate ID:			
		· · ·	I West Wessel
Sampling Method: grado	Bailer		Well Wizard Tap
<u>COMMENTS</u> :	America		
Signature: Andri T. Nu	hert Dates	11/19/9BOAIQC Revi	ew: Mus Date: 12/8/9

t Form	lysis Reques	Ana	Image: State of the s					
ate: <u>// //9_/19</u>	ם	<u>}</u> .	er: <u>5w</u>	Well Numbe				
			ORY:	LABORATO				
		Fishkill	IBM - Ea					
			EnviroTe					
			Other: _	σ				
		ED:	S REQUES	ANALYSES				
y (EPA 200.7 or 6010A)	Antimor	n 113, Freon 123a	8071 8010, Fre	Ø				
(EPA 206.2 or 7060A)	Arsenic	tal) (EPA 420.1)		σ				
n (EPA 7131)	D Cadmiu	Filtered	Metals ar	Ð				
PA 239.2 or 7421)	🗹 Lead (B	Unfiltered	Metals ar					
IPA 7761)	🖸 Silver (Appendix 33	Modified	σ				
			Modified	 Othe				

۰.

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
H-19-98	16:26	13.9	8.40	628.4		
	•					

COMMENTS:

Kingston, New York	eld S	ampling Data	Sheet	
<u>GENERAL INFORMATION</u> : Well No: <u>SLA</u> Date: <u> こ</u>	<u>, 11</u>	<u>198</u> Perso	onnel:	Js
<u>PURGING</u> :				
Reference Depth To Bottom (DTBr)	ft.	Start: Note: Use Reference Dep	Stop:	
Measured Depth to Bottom (DTBm)	ft.		/Ores	CT No
Depth to Water (DTW):	ft.	Well Yields: Water Contained:	Totas	[] No
Target Volume:	gal.	DTW After Purge:	/ 010	£
Actual Volume:	gal.	DI IT And Targe		
PID: Background:	Purg	ring:	Not.	Applicable
Purge Method		Rate	Equip	ment ID
🗇 Bailer				
Peristaltic Pump		<u> </u>		<u>A</u>
🗖 Well Wizard		\rightarrow		4
🗇 American Sigma				
Bladder Pump				
□ Submersible		·		
<u>SAMPLING</u> :				
sample ID: $KSWOO$	A	81211	\$	
Sample Time: Start: 1248	Stop	p: <u>1254</u>		
Duplicate ID:	tN	A-+++	F	
Sampling Method: 🛛 Bail		Sigma 🖸	Well V Tap	Vizard
<u>COMMENTS</u> : Signature:) 2 Date: _	HILLAN QA/QC Revie	w: 2795	Date: 3/11/00

Kingston, New		lysis]	Request Form
Well Numb	er: <u>51A</u>		Date: <u>2 11 9 E</u>
LABORAT	<u>ORY:</u>		
σ	IBM - East Fishkill		
đ	EnviroTest		
σ	Other:		
<u>ANALYSE:</u>	<u>S REQUESTED</u> :		
ø	801) 8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
	Phenols (total) (EPA 420.1)	ø	Arsenic (EPA 206.2 or 7060A)
σ	Metals are Filtered	Ø	Cadmium (EPA 7131)
٥	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
	Modified Appendix 33	σ	Silver (EPA 7761)
Oth	er:		

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-1198	253	12-8	7.00	614us		Clean

<u>COMMENTS</u>:

	·		
Kingston, New York	Fiel	d S	ampling Data Sheet
GENERAL INFORMATION:			
Well No: <u>SLB2</u> Date:] PURGING:	0_/	<u>30</u>	<u>192</u> Personnel: <u>C33</u>
Reference Depth To Bottom (DTBr)	WA	f.	Start: NA Stop: MA
Measured Depth to Bottom (DTBm)	WA	£.	Notes Use Reference Depth to Bottom for calculations
Depth to Water (DTW):	NA	fL.	Well Yields: WA OYes ONo
Target Volume:		gal.	Water Contained: NA Dies DNo
Actual Volume:	AM.		DTW After Purge: illi ft.
PID: Background:		Purg	ing: Not Applicable
Purge Method			Rate Equipment ID
D Bailer			
Peristaltic Pump	_		<u></u>
🗇 Well Wizard	_		
🗇 American Sigma	_		
Bladder Pump	-		
Submersible	-		
<u>SAMPLING:</u>			
Sample ID: KSLO	B	Z	010305
Sample Time: Start: 1415	_	Stop	n: 1620
Duplicate ID:	1-1	N	
Sampling Method: * 🛛	Bailer Amer		G Well Wizard Sigma G Tap
COMMENTS:			d
Signature: <u>Cincham</u>	D:	ate:	130/40 QA/QC Review: MMR_ Date: 12/8/91

Kingston, New	•	lysis	Request Form
Well Numb	er: <u>SLB2</u>		Date: <u>10 / 30 / 40</u>
LABORAT	<u>ORY</u> :		
D	IBM - East Fishkill		
Ŕ	EnviroTest		
6	Other:		
ANALYSE:	<u>S REQUESTED</u> :		
ζ¢	8021 19010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
ά	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
Ø	Metals are Filtered	Ø Ø	Cadmium (EPA 7131)
Ō	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
Ο	Modified Appendix 33	Έ	Silver (EPA 7761)
Oth	er:		
	<u></u>	· '	

Date	Time	Тетр (*С)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10-30-92	16:19	11.4	C0.7	11Blus		

<u>comments</u>: Sample Methidigrah

	Tri-	14 9	ampling Data	Sheet
Leffere Kingston, Now York	Die	iu o	amping Data	Blicce
Х				
GENERAL INFORMATION:				
Well No: SW-BZ Dat	e: <u> </u>	19	<u>198</u> Pers	onnel: AFN
PURGING:	· .		· .	
Reference Depth To Bottom (DTE	r) MA	fL.	Start: NA	Stop: NA
Measured Depth to Bottom (DTB		£.	Notes Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	MA	.	Well Yields:	Oles ONo
Target Volume:	ng	gal,	Water Contained:	OTes ONo
Actual Volume:	NM	gal.	DTW After Purget	NA A.
PID: Background:		Parz		Not Applicable
TID: Background:		1		
Purge Method	Rate		Equipment D	
🖸 Bailer		~	<u>10</u>	
🗇 Peristaltic Pump			4	. <u></u>
🖸 Well Wizard	. •	. 1	N 9	
🗖 American Sigma			Na	
Bladder Pump		<u></u>	4	
Submersible		<u> </u>	NA	
la de la companya de La companya de la comp	,	·· .		
<u>SAMPLING</u> :				
Sample ID: KOS	ωB	21	3////9	15
Sample Time: Start: 15.4	<u>54</u>	Stop	: <u>16:03</u>	:
Duplicate ID:	Ţ			
Sampling Method: grab [Sigma 🗍	Well Wizard Tap
<u>COMMENTS:</u>			-	- /
Signatures Andre F. No	lue 1	Dates 4	19/98 QA/QC Revie	WW Date: 12/8/

Kingston, New		lysis I	Request Form
Well Numb	er: SIN B2		Date: <u>// //9 / 98</u>
LABORAT	<u>ORY:</u>		
۵	IBM - East Fishkill		
	EnviroTest		
σ	Other:		
ANALYSES	<u>S REOUESTED</u> :		
	807-1 -8010, Freon 113, Freon 123a	Π	Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	Ð	Arsenic (EPA 206.2 or 7060A)
Ø	Metals are Filtered	ď	Cadmium (EPA 7131)
σ	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
	Modified Appendix 33	σ	Silver (EPA 7761)
Othe	er:		

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-19-013	15:58	6.1	7.77	150825		

COMMENTS:

	<u>. </u>	Field S	ampling Data	Sheet	
Kingston, New York			8		
GENERAL INFORMATI	<u>'ON</u> :				
Well No: SL B3		2,14	198 Pers	onnel: <u>C</u>	15
Well 140: 200	Date.				
PURGING:			Start:	Stop:	
Reference Depth To Bottom		fL.	Starts Note: Use Reference Dep		e celculations
Measured Depth to Bottom	(DTBm)	ft.			DI No
Depth to Water (DTW):	$-\mathbf{N}$	ft. gal.	Well Yields: Water Contained:	OI/s OIes	DN0
Target Volume:		gal.	DTW After Purge:		ft.
Actual Volume:		B are		/	
PID: Background:		Purg	ing:	Not.	Applicable
Purge Method			Rate	Equip	ment D
🖸 Bailer				<u> </u>	•
Peristaltic Pum	р. Р			/	4
🛛 Well Wizard					
🗖 American Sign	112.]
🗍 Bladder Pump					
Submersible			<u> </u>		
SAMPLING:		•			•
Sample ID: KS	WO	638	81214	3	
Sample Time: Start:	12.04	Stor	x 1209		
Dumpic xanca Duna _					
Duplicate ID:	1-1-	-tn	ALL	Ð	
Sampling Method:	σ	Bailer	σ	Well V	Wizard
	σ.	American	Sigma 🗌	Тар	
COMMENTS:		1	1 106	AND	al lon
Signature: Curchan	/	Date: _	114 99 QA/QC Revie	W. VIIV	Date: 3/11/90
U					

<u>.</u> . .

Kingston, New		alysis Request Form
Well Numb	er: <u>SLB3</u>	Date: 12 , 14 , 98
LABORAT	<u>ORY</u> :	
	IBM - East Fishkill	
ď	EnviroTest	
σ	Other:	
ANALYSE	S <u>REOUESTED</u> :	
Ø	2021 3010, Freon 113, Freon 123a	Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	Arsenic (EPA 206.2 or 7060A)
σ	Metals are Filtered	Cadmium (EPA 7131)
σ	Metals are Unfiltered	Lead (EPA 239.2 or 7421)
σ	Modified Appendix 33	Silver (EPA 7761)
Oth	er:	

FIELD PARAMETERS:

Date	Time	Temp (°C)	рН (SU) .	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12 1498	1208	9.0	7.00	(e3:7us		Clear

000306

<u>COMMENTS</u>:

	Field S	ampling Data	Sheet
Kingston, New York			
GENERAL INFORMATION:			
		00	. 035
Well No: <u>SLC</u> Date:	10 130	<u>190</u> Perso	nnel: <u>(35</u>
PURGING:		·	
Reference Depth To Bottom (DTBr)	NA n	Start: NA	Stop: 114
Measured Depth to Bottom (DTBm)	NA B	Note: Use Reference Dept	to Bottom for calculations
Depth to Water (DTW):	MA a	Well Yields: MA	
Target Volume:	NA gal	Water Contained: N	
Actual Volume:	Mf gal.	DTW After Purge:	MA ft.
PID: Background:	Purg	ing:] ₩ Not Applicable
Purge Method		Rate	Fquipment ID
🗇 Bailer			<u> </u>
D Peristaltic Pump		¥	
G Well Wizard		<u> </u>	
🗖 American Sigma			
Bladder Pump	<u></u>	<u>'\</u>	
Submersible			
<u>SAMPLING</u> :	•		• •
Sample ID: KSLO	DOC	81030	1
Sample Time: Start: 1652	Stor	p: 1658	
· · · · · ·			
Duplicate ID:	HM	A	
Sampling Method: 🗶 🛛	Bailer	0	Well Wizard
	American	Sigma 🗍	Тар
<u>COMMENTS:</u>	.1	43442	
Signature: Curhaim	Date:	QA/QC Review	r: MWR Date: 12/8/0
\sim			

Kingston, New		lysis	Request Form
Well Numb	er: <u>50 C</u>		Date: <u>// / 30/ 78</u>
LABORAT	<u>ORY</u> :		
	IBM - East Fishkill		
Ø	EnviroTest		
΄σ	Other:		
ANALYSE	<u>S REQUESTED:</u>		
Ο	-8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
ø	Metals are Filtered	a a a c	Cadmium (EPA 7131)
΄σ	Metals are Unfiltered	`¤	Lead (EPA 239.2 or 7421)
	Modified Appendix 33		Silver (EPA 7761)
Oth	er:		

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
103099	657	12.3	7.00	70005		Cloudy

000195

<u>comments:</u> * sample method: Sirah

788 <i>2</i>			•
	eld S	ampling Data	Sheet
Kingston, New York <u>GENERAL INFORMATION</u> : Well No: <u>シいこ</u> Date: <u> </u>	119	<u>198</u> Perso	mnel: <u>AFN</u>
PURGING:		Start: MA	Stop: ist
Reference Depth To Bottom (DTBr)			th to Bottom for calculations
Measured Depth to Bottom (DTBm)	-	Well Yields:	Dies DNo
Depth to Water (DTW): MA Target Volume:		Water Contained:	Dies DNo
Actual Volume:		DTW After Purge:	MA A.
PD: Background:	Purg	ingt	Not Applicable
Purge Method		Rate	Equipment ID
D Bailer		MA	
Peristaltic Pump		MA	
🗇 Well Wizard	، در نشر ب	MA	
American Sigma		MA.	
Bladder Pump		MA	
	. <u> </u>	MA	<u></u>
<u>SAMPLING:</u>			ाटा
Sample ID: KOOSW	C		
Sample Time: Start: 16:34	Stop	<u>. 1657</u>	
Duplicate ID:			
Sampling Method: Am		Sigma 🖸	Well Wizard Tap
<u>COMMENTS:</u>			
Signature: Andre F. Northed	Date: /	11/18 QAIQC Revie	w: MUR_ Date: 1213/98

Kingston, New		lysis I	Request Form
Well Numb	er: <u>5W-C</u>		Date: <u>// //9 /98</u>
LABORAT	<u>ORY:</u>		· .
σ	IBM - East Fishkill		
Ø	EnviroTest		
σ	Other:		
ANALYSE	<u>SREQUESTED</u> :		
g	8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	Ð	Arsenic (EPA 206.2 or 7060A)
Ø	Metals are Filtered	Ø	Cadmium (EPA 7131)
σ	Metals are Unfiltered	ď	Lead (EPA 239.2 or 7421)
	Modified Appendix 33		Silver (EPA 7761)
Oth	er:	 	

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
ll-19-98	55 16:55	7.1	803	65/45		
	AEN					

COMMENTS:

Kingston, New York	ld S	ampling Data	SI	ieet	
GENERAL INFORMATION: Well No: <u>SLCZ</u> Date: <u> Z/</u>	14	198 Perso	01116	el: <u>C</u>	Ts
PURGING:					
Reference Depth To Bottom (DTBr)	fL.	Start:	Ste	op:	
Measured Depth to Bottom (DTBm)	£.	Notes Use Reference Dept	h sef	Fottom for	calculations
Depth to Water (DTW):	fL.	Well Yields:	F	Fes	CI No
Target Volume:	gıl.	Water Contained:		Tes	[] No
Actual Volume:	gıL	DTW After Purge:			ft.
PID: Background:	Purg	ing:]	e Not	Ipplicable
Purge Method		Rate		Equip	ment ID
🛛 Bailer -					
D Peristaltic Pump		\			A
🗖 Well Wizard		 \/_	. –		4
American Sigma					
Bladder Pump					
□ Submersible			-	<u></u>	<u></u>
<u>SAMPLING</u> :					•
Sample ID: KSWOC	2.	81214	Ś	5	
Sample Time: Start: 1147	Stor	: <u>1152</u>			
Duplicate ID:	N	AL	ł	3	
Sampling Method: Baile Ame		Sigma 🗍		Well W Tap	/izard
<u>COMMENTS</u> : Signature ChShen I	[Z _ Date:	M	n: 2	<u> 1990</u>	Date: 3/11/19

Kingston, New		lysis]	Request Form
Well Numb	er: _SLCZ		Date: <u> 2 14 95</u>
LABORAT	<u>ORY</u> :		
٥	IBM - East Fishkill		
ø	EnviroTest		
σ	Other:		<u></u>
ANALYSE	S-REQUESTED:		
ø	8074 8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
σ	Metals are Filtered	Ø	Cadmium (EPA 7131)
σ	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
	Modified Appendix 33	σ	Silver (EPA 7761)

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
1214-98	1151	8.6	7.00	649us		clouby

COMMENTS:

	Field	Sampling Dat	a Sheet
Kingston, New York <u>GENERAL INFORMATION</u> Well No: <u>SL</u>			sonnel: <u>CIS</u>
PURGING:			
Reference Depth To Bottom (D	TBr) MA, 1		Stop: NA
Measured Depth to Bottom (D			epth to Bottom for calculations
Depth to Water (DTW):	1		NA Dies DNo
Target Volume:	MA 2		WA Dres DNo WA A
Actual Volume:	MA B	L DTW After Purge	
PID: Background:	Pr	rgingt	Not Applicable
Purge Method		Rate	Equipment ID
🖸 Bailer			
Peristaltic Pump	·		<u> </u>
🗇 Well Wizard		<u>A</u>	·
🗖 American Sigma		$\downarrow \downarrow \downarrow$	
🗍 Bladder Pump	··· · <u></u> ·	+ + +	
I Submersible			
<u>SAMPLING:</u>			•
Sample ID: KS	1000	8103	Q 5
Sample Time: Start:	<u>างз</u> s	top: <u>1710</u>	
Duplicate ID:	+++	AFF	Ŧ
Sampling Method:¥	Bailer	n Sigma (Well Wizard Tap
<u>COMMENTS</u> :		•	,
Signature: <u>Cu ham</u>	Date	14 30/12 QA/QC Ret	1ew: 1110 Date: 12/8/98

Kingston, New		Analysis Request Form				
Well Numb	er: <u>SLD</u>		Date://			
LABORAT	<u>ORY</u> :					
٥	IBM - East Fishkill					
Ø	EnviroTest					
σ	Other:					
ANALYSE:	S REOUESTED:					
σ	8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)			
σ	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)			
, ⊠a	Metals are Filtered	Ø	Cadmium (EPA 7131)			
ά	Metals are Unfiltered	ÌØ	Lead (EPA 239.2 or 7421)			
σ	Modified Appendix 33	\mathbf{D}	Silver (EPA 7761)			
Oth	er:					

. <u>FIELD PARAMETERS</u>:

۰.

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10,30.98	1707	1).12	7,00	695.00		

<u>COMMENTS:</u> * Jampie wethod grav

		11 D - 4-	Shoot
	ield S	ampling Data	Sheet
Kingston, New York			
GENERAL INFORMATION:			•
Well No: SUD Date: 11	119	<u>198</u> Perso	onnel: <u>AFN</u>
PURGING:	Antes .	:	
Reference Depth To Bottom (DTBr)	9 m	Start: NA	Stop: MA
Measured Depth to Bottom (DTBm)	4 £	Notes Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	£.	Well Yleids:	Ster DNo
Target Volume:	gal.	Water Contained:	ITes INo
Actual Volume:	- gal	DTW After Purge:	A
PID: Background:	Purg	Ingt	Son Applicable
			_
Purge Method		Rate	Equipment ID
D Bailer		<u></u>	· · ·
Peristaltic Pump		NA	<u></u>
Well Wizard			
American Sigma		<u></u>	
🗇 Bladder Pump	-	MA	
Submersible		MA	
SAMPLING:	·· .		
	151	<u>al a</u>	
Sample ID: 15 K 0 0 5 U			
Sample Time: Start: 16:34	Stop	16:45	
Duplicate ID:			
	ailer merican	Sigma 🖸	Well Wizard Tap
<u>COMMENTS</u> :		, ,	- /
Stenstures Andre F. Nurlal	Dates	1919 QA/QC Revie	w: MWR_ Date: 12/8/

LESS Kingston, New		lysis]	Request Form
Well Numb	er: flal-D		Date: <u>// 1/9 198</u>
ABORAT	<u> 2RY</u> :		
σ	IBM - East Fishkill		
	/		
Ø	EnviroTest		
Ø	EnviroTest Other:		
0	Other:		Antimony (EPA 200.7 or 6010A
0	Other: <u>SREQUESTED:</u> <u>802.7</u> 8010 ; Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A) Arsenic (EPA 206.2 or 7060A)
0	Other:	6 6 0	Antimony (EPA 200.7 or 6010A) Arsenic (EPA 206.2 or 7060A) Cadmium (EPA 7131)
ANALYSES	Other: <u>SREOUESTED</u> : <u>302/</u> 8010 , Freon 113, Freon 123a Phenols (total) (EPA 420.1)		Arsenic (EPA 206.2 or 7060A)

Date	Time	Temp (°C)	рН (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
1]-19-98	16:41	7.8	7.13	655u\$		

COMMENTS:

FB66				
	eld S	ampling Data	Sheet	
Kingston, New York				
GENERAL INFORMATION:				
Well No: <u>SLD2</u> Date: 12	14	<u>198</u> Perso	onnel: <u>C</u>	V
PURGING:				
Reference Depth To Bottom (DTBr)	fL.	Start:	Stop:	
Measured Depth to Bottom (DTBm)	ft.	Note: Use Reference Dep	/	
Depth to Water (DTW):	ft.	Well Yields:	<u>p</u> <u></u> <u>r</u> es	No
Target Volume:	gıl	Water Contained:	/ Dies	DNo
Actual Volume:	gai.	DTW After Purge:		ft.
PID: Background:	Purg	inet	Not	Applicable
TID: Dung.omm				
Purge Method		Rate	Equip	oment D
Bailer		1 1		<u>^</u>
Peristaltic Pump		₽~~		/}
🗖 Well Wizard		+ + -	•	}\
🗖 American Sigma				/
🗇 Bladder Pump				
□ Submersible			<u> </u>	<u> </u>
SAMPLING:		· · · · · · · · · · · · · · · · · · ·		
sample ID: KSW@D	2	8112114	IS S	
Sample Time: Start: 1132	Sto	p:		
Duplicate ID:	-N	ALT	1	
Sampling Method: 🗍 Bai		Sigma 🗌		Wizard
<u>COMMENTS</u> : Signature: CuShan	(2 Date:	-hdge QA/QC Revis	W DHB	Date: 3/11/91
- 0				

Kingston, New Y		Analysis Request Form				
Well Numbe	r: <u>5LD2</u>		Date: 12 14 198			
LABORATO	<u>RY</u> :					
٥	IBM - East Fishkill					
9	EnviroTest					
σ	Other:					
ANALYSES	<u>REOUESTED</u> : 8010, Freon 113, Freon 123a Phenols (total) (EPA 420.1) Metals are Filtered Metals are Unfiltered Modified Appendix 33		Antimony (EPA 200.7 or 6010A) Arsenic (EPA 206.2 or 7060A) Cadmium (EPA 7131) Lead (EPA 239.2 or 7421) Silver (EPA 7761)			

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-14-98	11:43	4.5	6-88	64145		Clausy

<u>COMMENTS</u>:

Kingsta, New York	ield S	ampling Data	Sheet
<u>GENERAL INFORMATION:</u> Well No: <u>SLE</u> Date: 10) 1 ³⁰	<u>18</u> Perso	onnel: <u>CIS</u>
PURGING:			
Reference Depth To Bottom (DTBr)	JA a	Starts MA	Stop: M
Measured Depth to Bottom (DTBm)	JA n.	Note: Use Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	IA n	Well Yields:	DYes NA DNo
Target Volume:	JA gai.	Water Contained:	Dies MAD No
Actual Volume: N	A gal	DTW After Purge:	M. ft.
PD: Background:	Purg	ing:	Not Applicable
Purge Method		Rate	Equipment ID
🗇 Bailer			
C Peristaltic Pump		_ 	
🖸 Well Wizard			
🗖 American Sigma			-1+
🖸 Bladder Pump			
□ Submersible			
SAMPLING:		·	
Sample ID: SLOG	ØE	81030	ⁿ .Ś
Sample Time: Start: 1004	Stor	<u>lle09</u>	
Duplicate ID:	-14	A - + - + - + - + - + - + - + - + - + -	E
1 million	ailer merican	Sigma 🖸	Well Wizard Tap
<u>comments:</u> signature: <u>CuShau</u>	0 Date:	30/9 L QA/QC Review	m: <u>MWR</u> Date: 12/8/98

Kingston, New		lysis	Request Form
Well Numb	er: <u>SLE</u>		Date: <u>10 130 198</u>
LABORAT	<u>ORY:</u>		
	IBM - East Fishkill		
Ø	EnviroTest		
石	Other:		
<u>ANALYSE:</u>	<u>S REQUESTED</u> :		
σ	002i -8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
ø	Metals are Filtered	ģ	Cadmium (EPA 7131)
σ	Metals are Unfiltered	ø	Lead (EPA 239.2 or 7421)
	Modified Appendix 33	ΰ	Silver (EPA 7761)
Oth	er:		

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
10-30-98	liede	14.4	6.99	799us		

COMMENTS: * Sample method: grath

	Field S	ampling Data	Sheet
GENERAL INFORMATION:			~
Well No: SW-E Date: _	11 119	<u>198</u> Pers	onnel: AFN
PURGING:		_	
Reference Depth To Bottom (DTBr)	MA E	Start: MA	Stop: MA
Measured Depth to Bottom (DTBm)	na E	Note: Une Reference Dep	th to Bottom for calculations
Depth to Water (DTW):	ma t	Well Yields:	Clies Cl No
Target Volumet	NA gal	Water Contained:	ITes INo
Actual Volume:	MA gal	DTW After Purget	MA ft.
PID: Background:	Purg	ing:	Not Applicable
Purge Method		Rate	Equipment ID
🗖 Bailer	~	}	
D Peristaltic Pump	M	}_	
🗇 Well Wizard	_^_	1	
American Sigma	_M	7	
Bladder Pump		1	<u></u>
□ Submersible		A	
SAMPLING:	•		· · ·
Sample ID: KOOF	WE	81119	15
Sample Time: Start: 16:06	Stor	n: <u>16:17</u>	
Duplicate ID:			
Sampling Method: grab 🗍	Bailer American	Sigma 🖸	Well Wizard Tap
<u>COMMENTS:</u>			
Signature: Anh FNul	ul Dates	1/19/98 QA/QC Revie	w: MWK_ Date: 12(8/9

		Analysis Request Form				
		alysis i	Xequest Form			
Kingston, New	York					
Well Numbe	er: <u>\$W E</u>		Date: <u>// / / 9 / 98</u>			
LABORATO	<u> </u>					
σ	IBM - East Fishkill					
Ø	EnviroTest					
σ	Other:					
ANALYSES	SREQUESTED:	_				
Ø	802/ 8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)			
σ	Phenols (total) (EPA 420.1)	Ð	Arsenic (EPA 206.2 or 7060A)			
Ð	Metals are Filtered	ď	Cadmium (EPA 7131)			
σ	Metals are Unfiltered	đ	Lead (EPA 239.2 or 7421)			
σ	Modified Appendix 33		Silver (EPA 7761)			
Othe	er:	· ·				

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
11-19-98	16:13	12.6	6.91	204u\$		

COMMENTS:

	Field S	ampling Data	Sheet	
GENBRAL INFORMATION: Well No: <u>SLE</u> Date: <u>(</u>	2/1)	<u>198</u> Pers	onnel:	<u>C</u> 3
PURGING:				
Reference Depth To Bottom (DTBr)	ft.	Start:	Stop:	
Measured Depth to Bottom (DTBm)	£	Note: Use Reference Dep	the to Forom f	or calculations
Depth to Water (DTW):	fL.	Well Yields:	(CTes	CT No
Target Volume:	gal	Water Contained:	Over	CI No
Actual Volume:	જ્યાં.	DTW After Purge:		ft.
PID: Background:	Purg	ing:	D P Not	Applicable
Purge Method		Rate	Equip	pment ID
🗇 Bailer	<u></u>		. <u> </u>	
🗇 Peristaltic Pump			<u> </u>	<u>A</u>
🖸 Well Wizard		<u>}</u>	. <u> </u>	<u> </u>
🗖 American Sigma				
🗖 Bladder Pump				
Submersible				
SAMPLING:	050	<u>al 12111</u>	निहा	
Sample ID: $ C \leq W O $ Sample Time: Start: $ 230 $	Stoj	: <u>1238</u>	التعال	
Duplicate ID: KSWO	OE	81211	D	
Sumpring Internet =	Bailer American	Sigma 🛛		Wizard
<u>COMMENTS</u> : Signature: <u>CuS</u> uair	2 Date:	1.198 QA/QC Revie	:#ifth	Date: 3/ 11/010

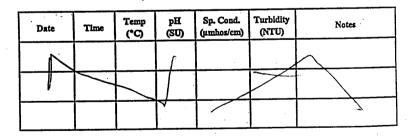
Kingston, New		lysis]	Request Form
Well Numb	er: <u>SLE</u>		Date: 12/11/98
ABORAT	<u>ORY</u> :		
	IBM - East Fishkill		· · ·
Ø	EnviroTest		
σ	Other:		
ANALYSES	<u>S REOUESTED</u> :		
Ø	8070, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
	Phenols (total) (EPA 420.1)	Ø	Arsenic (EPA 206.2 or 7060A)
σ	Metals are Filtered	ď	Cadmium (EPA 7131)
п	Metals are Unfiltered	Ø	Lead (EPA 239.2 or 7421)
<u> </u>		П	Silver (EPA 7761)

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
12-11-98	1237	13.0	697	77445		

<u>COMMENTS</u>:

				<u>. </u>
Kingston, New York	eld S	ampling Data	SI	neet
GENERAL INFORMATION: Well No: <u>818</u> Date: <u>12</u>	110	<u>198</u> Perso	onne	el: <u>CTS</u>
PURGING:				
Reference Depth To Bottom (DTBr) 10.2	3 £	Startz	Ste	
Measured Depth to Bottom (DTBm) 9.8	9 E	Note: Use Reference Dept	10	Bottom for calculations
Depth to Water (DTW):	ft.	Well Yields:		I'Yes I'No
Target Volume:	gel.	Water Contained:		DYes DNo
Actual Volume:	gal.	DTW After Purge:		ft.
PID: Background:	Purg	ing:]	Not Applicable
Purge Method		Rate		Equipment ID
🗖 Bailer				
Peristaltic Pump		$\lambda - 1 $	_	<u> </u>
U Well Wizard				
American Sigma				
Bladder Pump			_	
Submersible		·····	_	
·				
<u>SAMPLING</u> :				
Sample ID:	N.	ALL	1	1
Sample Time: Start:	Stoj	p: <u>A</u>		
Duplicate ID:	M	A	ł	-
Sampling Method: 🛛 Bai		Sigma 🖸		Well Wizard Tap
<u>comments</u> :				ONE Dates 3/11/11/
Signature:	Jan _			

York Ana	Analysis Request Form				
er: <u>818</u>		Date: 12 / 10 / 9			
<u>DRY</u> :					
IBM - East Fishkill					
EnviroTest					
Other:					
8010, Freon 113, Freon 123a	0	Antimony (EPA 200.7 or 6010. Arsenic (EPA 206.2 or 7060A)			
•	п	Cadmium (EPA 7131)			
Metals are Filtered	п	Lead (EPA 239.2 or 7421)			
Metals are Unfiltered	0				
	er: <u>8)8</u> <u>ORY:</u> IBM - East Fishkill EnviroTest Other: <u>SREOUESTED:</u> <u>5070</u> , Freon 113, Freon 123a <u>6</u> Phenols (total) (EPA 420.1)	er: <u>818</u> <u>DRY:</u> IBM - East Fishkill EnviroTest Other: <u>SREOUESTED</u> : <u>5070</u> , Freon 113, Freon 123a <u>5070</u> , Freon 113, Freon 123a			



<u>COMMENTS</u>: Well is dry - verified w) Mscope-

	•		
	Field	Sampling Data	a Sheet
Kingston, New York			
<u>GENERAL INFORMATION</u> :			
Well No: <u>B/B</u> Date:	11 120	219 <u>8</u> Pers	sonnel: <u>AFN</u>
PURGING:		2 8 • •	
Reference Depth To Bottom (DTBr)	10.2.3 A	and the second design of the s	Stop: NA
Measured Depth to Bottom (DTBm)	9,90	Notes Use Reference De	pth to Bottom for calculations
Depth to Water (DTW): 7	my !	Well Yleids:	DIes DNo
Target Volume:	🕿 🗘 ص	L Water Contained:	OTes ONo
Actual Volume:	UA 80	L DTW After Purget	ng ft.
PID: Background: ~	ng Pa	rging: Mq	Not Applicable
Purge Method		Rate	Equipment ID
🖸 Bailer		M	
C Peristaltic Pump		M	
🖸 Well Wizard		NA	
American Sigma		M	<u></u>
Bladder Pump		M	
□ Submersible		MA	<u></u>
SAMPLING:			
Sample ID:			T .
-Sample Time: Start:	St	op: <u>^^4</u>	
Duplicate ID:			
Sampling Method:	Bailer America	n Sigma 🖸	Well Wizard Tap
<u>COMMENTS:</u>		-	1
Signature: AnhuF.A	Interpater	1/10/78 QAIQC Revi	ew: MM Date: 12/8/

Kingston, New		lysis	Request Form
Well Numi	per: <u>6/8</u>		Date: <u>// /20/98</u>
LABORAT	<u>ORY</u> :		
σ	IBM - East Fishkill		
σ	EnviroTest		
σ	Other:		
ANALYSE	<u>S REQUESTED</u> :	_	
σ	8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)		Arsenic (EPA 206.2 or 7060A)
σ	Metals are Filtered	٥	Cadmium (EPA 7131)
	Metals are Unfiltered		Lead (EPA 239.2 or 7421)
σ	Modified Appendix 33	Ο	Silver (EPA 7761)
Oth	er:		

	Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
·	~~	ma	ma	MA	ma	MAG	-
							·

<u>COMMENTS:</u>

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Well is dry Verified with water level inducator.

	Field S	ampling Data	Sheet
Kingston, New York		<u></u>	<u></u>
GENERAL INFORMATION:			
		0.4	175
Well No: MWBIB Date:	10 129	190 Perso	onnel: <u>CIS</u>
PURGING:			
Reference Depth To Bottom (DTBr)	NA A	Start: NA	Stop: NA
Measured Depth to Bottom (DTBm)	9.91 1		th to Bottom for calculations
Depth to Water (DTW):	Dry 1	Well Yields: M	
Target Volume:	MA gal		A Dies ONo
Actual Volume:		DTW After Purget	ft.
PID: Background:	Purg	ing:	Not Applicable
		Dete	Equipment ID
Purge Method		Rate	Equipment ID
Bailer			
Peristaltic Pump		NIA	
U Well Wizard		Nn-	- W)
American Sigma			
🖸 Bladder Pump		<u></u>	
Submersible			
<u>SAMPLING</u> :			
Sample ID:	H NI	A	F
		Δ	
Sample Time: Start: <u>N</u>	Sto	p:	
Duplicate ID:	-IN	AFT	Ŧ
Sampling Method:	Bailer	NA 0	Well Wizard
,	American	Sigma 🗌	Тар
COMMENTS:		opela to	! •
signature: Un hann	Date:	QA/QC Revie	W: MUR Date: 12/8/98
\sim			

Kingston, New		lysis l	Request Form
Well Numb	er: <u>Mw8185</u>		Date: 10 129142
LABORAT	<u>ORY</u> :		
	IBM - East Fishkill		
X	EnviroTest		
ά	Other:		
ANALYSE	<u>S REQUESTED</u> :		
σ	8010, Freon 113, Freon 123a		Antimony (EPA 200.7 or 6010A)
σ	Phenols (total) (EPA 420.1)		Arsenic (EPA 206.2 or 7060A)
σ	Metals are Filtered		Cadmium (EPA 7131)
	Metals are Unfiltered		Lead (EPA 239.2 or 7421)
σ	Modified Appendix 33		Silver (EPA 7761)
Oth	er:	·	

FIELD PARAMETERS:

Date	Time	Temp (°C)	pH (SU)	Sp. Cond. (µmhos/cm)	Turbidity (NTU)	Notes
NA	MA	NA	MA	MA	NA	NA

<u>COMMENTS</u>:

Sample ID	Date	Personnel	Sample Time	Equipment ID
KEQ 80021 WLID	8/21/92	CJS	910	25765
KEQ80824WLID	0/24/98	(11)	1023	25745
KEOBOB24WLID	8/24/98	CJS	12:39	25765
KEQ80824WLID	⁸ /24/98	CJS	14:12	257.6 JEA
KEQ80825WLID	^e l25/92	CJS	1022	25766 IEA
KEQEOB25WLID	⁸ /25/98	CIS	1250	25765- Ene Test
KEQ 809244410	9/24/98	CJS	908	25765
KEQBO924WHD	9/24/98	CJS	1249	25765
KEQ 80924WLIP	9/24	· CJ >	1405	26765TEA
KEQB1029WLID	10/29/98	CJS	1246	14774JEA
KEQBIOJOWID	6/30/98	८७४	1129	14774
KEQBIIIBWLJD	11-18-98	AFN	11:00	25765
KEQ81119WLID	11-19-98	AFN.	12:40	25765
KEQ81119WLID	11-19-78	AFN	14:05	25765
KEQ BIIZOWLID	.11-20-98	AFN	11:45	25765
KEQBIZQIWLD	12-1-98	CIS	1333	25765
KEQ81202WLD	12-2-98	CTS	1141	25765
KEQ 81203WWW	12-3 98	CUI	1404	25165
KEQ 81203WLD	12-3-98	CJS	1430	25765-JEA

IBM - Kingston, New York Equipment Blank Index

	Equ	ipment Blank I	naex	1	-
Sample ID	Date	Personnel	Sample Time	Equipment ID	
KEQ BIZIOWLIP	12/10/98	CJS	11:29	WLNDA	
KEQBIZIIWLID	12/11/98	CJS	8:20	WLID A	
KEQ81214WLD	12/14/98	ব্যে	15:33	WLID A	
KEQBIZIHWUD	12/14/98	CJS	1607	WLID A	
KEQ90216WHD	2-16-99	CJS	840	WLID A- IEA	
KEQ90216PUMP	2-16-99	CIS	12:22	Pump	
KEQ9030ZWLID	3-2-99	CJS	1408	WLID C	
KEQ90303WLID	3.3-99	CTS	1157	WLID C	
KEQ90303WL10	3-3-99	CJS	1228	WLID C	
KEQ9030304D	3-3-99	CJS	13:29	WLID C	
KEQ 90304WLID	3-4-99	CJS	1003	WLID C	
KEQ90216WLID	2-16-99	CJS	10:55	WLIP A	Dieno
			·		
				-	

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IBM - Kingston, New York Equipment Blank Index

	Personnel	Comments
-		JEALab
		JEA-Lab
9/24-9/264	 	·
9/24 9/254 OP	CJS	
9/24-9/25	cJs	IEA Lab
10/29-10/30	-CFS	Entrotest CJS
10/29 - 10/30	CJ<	JEA *
19/30-10/3(CJ S	Envirotest
11-18-98/11-19-93	AFN	IEA
11-13-98/ /11-19-98	AFFU .	Envirotest
11-19-95	AFN	Envirolest
/11-20-98	AFN	JEA Lab
711-20-98	AFN	Envirotest
121-28/12-298	CJS	Fourotest
12-2-90/12-3-48	বেষ	EnviroTest
12-3-48/ 12-4.94	ের্ব্বs	Envirotest
12-3-98/12/4.98	CAS	JEA
	Date $B _{21} - B _{22}$ $P _{24} - B _{25}$ $B _{24} - B _{25}$ $B _{25} - B _{26}$ $B _{24} - 9 _{254}$ $P _{24} - 9 _{254}$ $P _{24} - 9 _{254}$ $P _{24} - 9 _{25}$ $D _{26} - 10 _{30}$ $10 _{26} - 10 _{26}$ $10 _{26} - 10$	Date Personnel $8/21 - 8/22$ CJs $9/24 - 8/25$ CJs $9/24 - 8/25$ CJs $9/24 - 8/25$ CJs $8/25 - 8/26$ CJs $9/24 - 9/244$ 000 $9/24 - 9/244$ 000 $9/24 - 9/244$ 000 $9/24 - 9/244$ 000 $9/24 - 9/244$ 000 $9/24 - 9/244$ 000 $9/24 - 9/244$ 000 $9/24 - 9/244$ 000 $9/24 - 9/244$ 000 $9/24 - 9/244$ 000 $9/24 - 9/25$ CJs $10/24 - 10/25$ CJs $10/24 - 10/30$ CJs $11 - 19 - 98/11 - 19 - 98$ AFn $11 - 19 - 98/11 - 20 - 98$ AFn $11 - 19 - 98/12 - 978$ AFn $11 $

IBM - Kingston, New York Trip Blank Index

* Sample frozen when received by laboratory. Not analyzed.

DRM

	1	ip Blank Index		
Sample ID	Date	Personnel	Comments	
KTCA12101211	12/10 - 12/11	CJS	Envrotes	
KTCB 12101211	12/10-12/11	৫১১	IEA	
KTC812111211	12/10- 12/1	CJ 5	Envirotest	
KTCA 1214 1215	12/14- 12/15	CJS	Envirotest	
KTCB12141215	12/14- 12/5	CJS	Envirotes	
KTCA02160217	2/16-2/17	ব্যে	Envirotest	
KTCB021100217	2/16-2/17	CJS	IEA	
KTB903020303	3/2-3/3	CJS	Envirotest	
KTBA@3@3@3@4	3/3 - 3/4	CJ5	Envirotest	
KTBB03030304	3 3-3/4	CTS	JEA	-
KTBC03030304		CJS	EnviroTest	
KTCC12141215	12/14-12/15	CJS	IEA	Dren
				-
				-
				-

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IBM - Kingston, New York Trip Blank Index

Monroe CT 06 Tel: (203) 261 Fax: (203) 26 Scionces	1-4458 58-5346		à .	•	8021 rcp		Letter Martin	(A Friday Contractor	and an and a second	Transford State		
Sciences (1-20æ								
Sciences (total Fron 113								ĺ
	Corp	CLIENT: Groundwater Sciences Corp											
70-IBM					Fron1239		a da	BRACEVILL					
STL PROJECT MGR: Stephanic Plunkett					40 ml			5					
NO	DUE DATE				Ha			17	·				
	MARS HALLS		الله . به المليون الحي بالذي	<u>ئ</u>	Y I (Y)	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	¥ / N	
ULID IV-	20-98/12:46	AG		·	2								
10-2	9-981				3								
		AQ			2			, SF					
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	<u> </u>					e Ni							
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	NO NO NLID NO-2	NO DUE DATE ULID 10-29-98/12:46 029X 10-29-98/1304 10030 10129/98-10/30/98 10129/98-10/30/98	DUE DATE ULID 10-20-98/12:46 AG 029× 10-29-98/1304 AQ 1030 10/29/98-10/30/98 AQ 10030 10/29/98-10/30/98 AQ	NO DUE DATE ULID 10-29-98/12:46 AQ 029 X 10-29-98/1304 AQ 1030 10/29/98>-10/30/98 AQ	NO DUE DATE ULID 10-29-98/12:46 AG 029 X 10-29-98/1304 AQ 110 30 10/29/98-10/30/98 AQ 110 30 10/29/98 10/29/98 10 10 10 10/29/98 10/29/98 10 10 10/29/98 10/29/98 10 10 10/29/98 10/29/98 10 10 10/29/98 10/29/98 10 10 10/29/98 10/29/98 10 10 10/29/98 10/29/98 10 10 10/29/98 10/29/98 10 10 10/29/98 10/29/98	$ \begin{array}{ c c c c c c c } \hline NO & DUE DATE & HCL \\ \hline V & 1(V) $	NO DUE DATE H(L) VIID $10-29-98/12:46$ AQ Z $029 \times$ $10-29-98/1304$ AQ Z 10300 $10/29/98 - 10/30/98$ AQ Z 10300 $10/29/98 - 10/30/98$ AQ Z 10300 $10/29/98 - 10/30/98$ AQ Z 100300 $10/29/98 - 10/30/98$ AQ Z 1003000 $10/29/98 - 10/30/98$ AQ Z $10030000000000000000000000000000000000$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c } \hline \hline$	NO DUE DATE HQ STELLO FINE DECIRCULATED CURCLE MORE VI (9) V / N V / N V / N V / N V / N VI (9) V / N V / N V / N V / N V / N VI (9) V / N V / N V / N V / N V / N VI (9) V / N V / N V / N V / N V / N VI (9) V / N V / N V / N V / N VI (9) V / N V / N V / N V / N VI (9) V / N V / N V / N V / N VI (9) V / N V / N V / N V / N VI (9) V / N V / N V / N V / N VI (9) V / N Z IIII IIIIIIIIII 10/29/98-10/39/98 AQ Z IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	NO DUE DATE H(L) V 1 (9) V 1 N V 1 N V 1 N V 1 N V 1 N V1 (9) V 1 N V 1 N V 1 N V 1 N V 1 N V1 (9) V 1 N V 1 N V 1 N V 1 N V 1 N V1 (9) V 1 N V 1 N V 1 N V 1 N V 1 N V1 (9) V 1 N V 1 N V 1 N V 1 N V 1 N V1 (9) V 1 N V 1 N V 1 N V 1 N V 1 N V1 (9) V 1 N V 1 N V 1 N V 1 N V 1 N V1 (9) V 1 N V 1 N V 1 N V 1 N V 1 N V1 (9) V 1 N V 1 N V 1 N V 1 N V 1 N V1 (9) V 1 N Z Z Z Z V1 (9) V 1 N Z Z Z Z V1 (9) V 1 N Z Z Z Z V1 (9) V 1 N Z Z Z Z V1 (9) V 1 N Z Z Z Z V1 (9) V 1 N Z Z Z Z V1 (9) V 1 N Z Z Z Z <t< td=""><td>NO DUE DATE H(L) DECONTRACT CIRCLENCE VI (V) VI N VI N</td></t<>	NO DUE DATE H(L) DECONTRACT CIRCLENCE VI (V) VI N VI N

	SUBLA AND AND AND AND AND AND AND AND AND AN	BOTTLES PREPARED BY		BUTTLES HEL D BT	1 .		
			10/25/95 12:00		10/29/93 93		
A - AIR	S - SOIL	SIGNATURE					CUSTODY SEALS
AQ - AQUEOUS	SL - SLUDGE	farte the		Ungraun	and the second sec		_
C - COMPLEX	W - WIRE	SAMPLES COLLECTED BY	10/2 a/ DATE / TIME	RECEIVED IN LAB BY	DATE / TIME	PRESERVED	SEALS INTACT
D - DRUM WASTE	0 - OTHER	Chu Shannan	10/29/98 17:10				
017 - 01L				SIGNATURE	, <u>.</u>	CHILLED	SEE REMARKS
		SIGNATURE		SIGNATURE			
		Curtanon		l			
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The second second	副総統NV - 1752	4					в	CLP		_ Q	UICK _				1711 18 <u>1</u>				
NAME OF CONTACT		PHONE NO.		OTH	IER _				-		ERBAL	·		1	-OHEOK MEWED				
PROJECTLOCATIONS						C	W = DF	RINKING	3 WAT	ER S	3 = SOIL					BLIC W	ATER S	UPPI	LIÈS
PROJECTINUMBER				W	W = WA								WATER	SOL	IRCE ID	<u> </u>		¹ .	
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				Numb		Ambe	Organic Was Liter Plastic Ning	ier pia	Plastic	Plastic ic Acid		Ame		FED	ERAL ID	<u> </u>			
STE#		CLIENT	I.D.	0 Co			Cigar Liter Ning	Sodium Hye	Life	Sulturic Ac		250m		· · · ·	ANAL	SIS REC	QUESTE	D	
		KABIISBIAS	29G		3					1			802	1 1200	Etotal Fr	CON 113 Fre	ONROA A	localiza	olved
		KOBHR BIO	296	4	3					1			Bozi	npi 20CE	tetal Frio	all3Front	123a, A-1	dissolu	rd;
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	Bar y AG	KOOBZIBIO	29G	4	3					1			BOZI	rep 1 200	Etotal F	ros 113 Er	TON 1234	A= (dir.se
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A STATE OF A	MARKET COLOR	KO0820810		4	3								Ph/	dissolved)	113 Fron 123	30 A (d. 50	lurdlG	1(dis
	BAT X AQ		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4	3					1		5				Freni			<i>a</i> (<i>a</i>)
	Website Lange States of the	KEQBI@3091		3	3						┼╌┼	<u> </u>				<u></u>			
	1200 VIAC	K00812810	30G	<u> 14</u>	3	<u></u>							- Ca	et in the second	1) Ph(Ton 113 Fred	·		
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RELINOUISHED	СОМ	PANY	DATE	-	TIME 730			RECE	IVED	×	1.		C	COMPAN	Y		DATE		ME
	Hudson Valley Spe		Sec.		<u> </u>		7	1	1	K	y-	•		52	··· ·		131 197	9	30

ZSUMMIECE St 204 ITY STATE ZP 42 FISHKII OV 12524 IAME OF CONTACT D BELCMANU 896 0288 PROJECT LOCATION	REPORT TYPE STANDARD ISR NYASP A B OTHER DW = DR WW = WASTE WATER												REPORT # (Lab Use (
STE# DATE AMPLING & MATRIX CLIENT I.D.	Total Number	2	-	7	b	Liller Plashic	×ide	1	-	1	1.	2 o2 Oprpart	ELRP T FEDER	YPE AL ID NALYS				
MAN 1317 X AS KOOB1781030G	4	3						•	1			r1/dir	oluce tote	1 discil	ind			
1410 133 X AG KORS1681030G	4	3											1 2DCE tota	old it.	al and			1
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CHAIN OF CUSTODY

315 F Avenue Newburgh, NY 12550 TEL (914) 562-0890 FAX (914) 562-0841

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2601 Market Place Street, Suite 310 Harrisburg, PA 17110

Well Development Field Data Sheet

Well_ <u>81Ø</u>	Sile Kingston IBM
Development Personnel _	AFN GJS Pump Type Bailer
Casing Diameter	DTW 565 DTB 16.61
Well Volume = 0.163	$\frac{10.9\omega}{\text{gal/ft* x (DTB - DTW)}} = 1.79$
	$x_3 = 5.37$
	x 10 = 17.90

	_		
T	·	0	
	1-11		

Date	Time	WL (ft)	Flow Rate	pH	· A pie (111118)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	14 48	5.65							
stop	1500	1505						4.09	silty
	1533	6.95							
Stop	1536	15.08						5.75g	silty
9/28/98	14.10	561					· .		
stop	14:15	15.00				<u> </u>	· · · · · · · · · · · · · · · · · · ·	9.25 gr	Silty
9.29-98	852	5.75							Slightly
stop	902	14.77						12.75	slignny silty
	1258	5.87					·		
Stop	1302	13.40		6.83	15.2	529us		14.75	Sutry
	1307	8.11							<u>ملار ا</u>
Ston	13:11	14.82		6.88	14.1	51945		16.259	-silty-
	1317	10.43							
Stop	13:23	15.00		6.90	13.9	<u>514us</u>	·	18.00	Lite silty
						-			

10: 17 90 / 18 0

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61 9:16.11 / 16.25

8: 14.32 /14.50

7. 12.53 /12.75

2601 Market Place Street, Suite 310 Harrisburg, PA 17110

<u>Well Developme</u>	<u>nt Field Data Sheet</u>
Well 8115	_ Site Kingston IBM
	Ú Â
Development Personnel <u>AFN CJS</u>	Pump Type <u>Bailer</u>
Casing Diameter 2.0" DTW	<u>5.17</u> DTB <u>15.37</u>
	(DTB - DTW) = 1.66
	$x_3 = 4.98$
	x 10 = 16.60

					TEMP				
Date	Time	WL (ft)	Flow Rate	pH	Arph (UNNS)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	1507	5.17							
Stup.	15:17	11.51						11.75	Silty + Stinks
· ·	15-19	6.40	·						
ston	15:21	11.48		7.26	14.5	68945		13.50	Silty
·	1523	6.30							/
stop	1525	8.20		7.24	14.1	681us		15.0	Silty
	1528	6.14							
Stop	(53)	8.65		7.26	14.1	684us		16.75	SILHY+Stinks
							•		
	•								
				1					
					1				

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

.

10:16:60 - 16:75 9 14.94 - 15.0 13.20 - 13.5 Ø 7: 11.62 11.75

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Well Development Field Data Sheet

Well	Site <u>IBM Kingston</u>
Development Personnel AFN CIS	Pump Type <u>Barter</u>
	TW 12.72 DTB 33.88
Well Volume = 0 163 gal/f	* x (DTB - DTW) = 3.45
	$x_3 = 10.35$
	x 10 = 3450

ł

					Temp_				
Date	Time	WL (ft)	Flow Rate	pН	Aph (units)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9.28.98	11:41	12-72	<u></u>						
	12:14	12.85						24.50	-sulty
stop	12:18	12.77						2'	
<u> </u>	12:21	12,79		6.74	12.2	82245		28.00	silty
Stop	12.26	12.77							
stop	12:31	12.80		677	12-4	80745		31.50	silty
-2192	12.35	12.77							
Stop	12:40	12.80		6.76	11.9	829us		34.50	silty
- Jop							· · ·		
		· · · · ·	·					_	
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* gal/ft: 1.5'' = 0.092; 2'' = 0.163; 4'' = 0.65; 6'' = 1.45; 8'' = 2.61

10: 34.50 : 34.50 9: 31.05 31.50

8: 27.60 28.00

7: 24.15: 24.50

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Well Development Field Data SheetWell812SiteKingston - IBMDevelopment Personnel $0 \in CJ^{S}$ Pump TypeBailerCasing Diameter $2.0^{\circ\circ}$ DTW7.71DTB17.54Well Volume =0.163gal/ft* x (DTB - DTW)=1.60x 3=4.80x 10 =16.0

					Temp				
Date	Time	WĻ (ft)	Flow Rate	рН	Ayula (umits)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9.28	13.20							11.50	Silty
stop	13:24	14.82		7.05	13.4	520us		13.00	Silty
	13:27	11.21							
stop	13:36	14.18		7.11	13.)	512us		14-50	Silty
	13:35	0.5							
stop	13 39	14.01	7	7.10	13.3	51245		16.0	Silty
							•		
				1	1				

* gal/ft: 1.5'' = 0.092; 2'' = 0.163; 4'' = 0.65; 6'' = 1.45; 8'' = 2.61

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Well Development Field Data SheetWell $\underline{813}$ Site Kingstow IBMDevelopment Personnel AFN C3sPump Type BailerCasing Diameter $\underline{20}^{\circ}$ DTW $\underline{10.24}$ DTB $\underline{1606}$ Well Volume = $\underline{0.463}$ gal/ft* x (DTB - DTW) = $\underline{0.947}$ x 3 = 2.847

$$x 10 = -9.49$$

					TEMP.				
Date	Time	WL (ft)	Flow Rate	рН	A-pir (anits)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	9:48	10.24							
stop	1009	14.97						6.75 gall	silty
	1218	10.25							
stop	12:20	14.25		7.10	15.Z	563us		7.75	silty
	12:23	10.69					· .		
Stop	12.26	13.91		7.12	15.1	571us		8.75	silty
	12:30	10.16					· · · · · · · · · · · · · · · · · · ·		
Stop.	12:32	14.63		7.11	15.0	57943		9.75	Sitty
· · · · ·	2	<u> </u>							
							-		
					_				
						_		_	
								1	1

10: 9.49/9.5 9 8.54/8.75 8 7.59/7.75 7: 6.64/6.75

* gal/ft: 1.5'' = 0.092; 2'' = 0.163; 4'' = 0.65; 6'' = 1.45; 8'' = 2.61

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Well Development Field Data Sheet

Well 814	Sile Kingston IBM
Development Personnel _	AFN COS Pump Type Bailer
Casing Diameter 2.0 *	
Well Volume = 0.163	(0.73) gal/ft* x (DTB - DTW) = <u>1.097</u>
	x 3 = 329
	x 10 = 10.97

	- <u></u> -		Flow		TEMP	Curd	∆ Cond. (%)	Total Volume	Remarks & Clarity
Date	Time	WL (ft)	Rate	pH	(mits)	Cond.	(70)	v olume	
9.25.98	9:26	9.84							
Stup'	9:41	6.02						3.75gall	silty
	12:08	11.41		,					
Stop	12.15	16.02						5.75g	silty
	1555	10.85					•		
Stop	1558	15 83					÷ .	7.25 g	Silty
9.28 98	15:17	9.79							
	1519							8.0 g	siity
stop	15:24	1594		6.91	15.9	74245	· .	9.0g	Silty
9.29.98	1026	9.87							
Stop	1028	15.31		6.88	14.5	686us		10.0gc	Clearer
	1032	12.34							
stop	1036	15.85		6.96	14.2	68945		11.09	clearer
							<u> </u>		

10: 10.97/11.0 9: 9.873/10.0 8: 8:774/9.0

7: 7.67/ 8.0

* gal/ft: 1.5'' = 0.092; 2'' = 0.163; 4'' = 0.65; 6'' = 1.45; 8'' = 2.61

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Well Development Field Data Sheet

Well 815 Sit	le Kingston JBM
Development Personnel <u>CJS, AFN</u>	Pump Type <u>Bailer</u>
Casing Diameter DTW	72 DTB 16-38
Well Volume = <u>0.163</u> gal/ft* x (DT	(B - DTW) = 0.597
	$x_3 = 1.791$

x 10 =	5.97
--------	------

					TEMP				
Date	Time	WL (ft)	Flow Rate	рН	∕∆phr (units)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9-25.98	906	12.72							
Stop	917	15.71						<u>1.75g.</u>	Silty
	1158	13.91							
Stop	1204	15.91						2.50g	Silty
<u>Siep</u>	1603	13.19							
stop	1604	15.90						2.759	SILty
9.28-98	1535	13.33							/
Stop	1543	15.92						3.75g	sity-
9.29.98	1047	13.27							
stup	1052	16.00						4.509	Liter Silty
<u> </u>	1344	14.94							
<u></u>	1349	16-14		6.95	15.8	559vs		5.0g	lite Brown
Stop 10:29-98	12:20	12.36						0	
	12:25	16.02		6.90	14.9	79445		5.75g	Lite Brown
Stop	16:28	313							
stop	10.39	16.21		6.98	14.3	77945	<u></u>	6.50	Lite Brown

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

2601 Market Place Street, Suite 310 Harrisburg, PA 17110

Well Development Field Data Sheet

Sile Kingston IBM 816 Well_ Pump Type Bailer Development Personnel AFN CJS DTW 14.00 (13.04) DTB 14.16 (14.10) Casing Diameter ______ $gal/ft^* \times (DTB - DTW) = 0.027$ 7. 1.2. (wrob) (0.172) Well Volume = 0.1638: 1.37 (N3 (0.514) (1.06) $x_3 = 0.081$ 9 1.541 x 10 = 0.27 (1.72) 101.72

Date	Time	WL (ft)	Flow Rate	рН	Aylı (units)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98									
10.30 98	10:39	13.04							
stup	10.51	13.70						0.759	Clear
	12:15	12.94							
510,	12:25	13.73					·	1.25g	clear
	12:54	1343					·		
stop	1301	13.78		6.69	17.3	835us		1.50g	Clean
	1307	13.58							
stop	13:21	13.85		6.71	17.1	829us	·	1.75g	Clean
	1429	13.15							
STUN	1435	13.76	550	1200 GANGAN	passing	1000000		2.0	dear
				6.78	16.1	828us			
	1								

* gal/ft: 1.5'' = 0.092; 2'' = 0.163; 4'' = 0.65; 6'' = 1.45; 8'' = 2.61

|-25 |.50 |.15

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Date	Time	WL (ft)	Flow Rate	pН	(Units)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9.2598	8.44	13.83							Sheetty
5top	9:00	16.15						1.25gall	Slightly Silty
Этор	1144	14.14							
	11:55	16.23		-				2.25y	silty
gote	1607	13.95							
stop	1612	16.12						3.0 gan	Silty
9.28.98	15.50	13.80							alubether
stop	15:59	16:13		7.06	15.9	648 n \$		3.52	sightly silty
9.29.98	1100	13.7Le					·	<u> </u>	Lightor
Stop	1103	16.00		6.99	16.0	64245		4.0	
3101	1109	15.18						-	
stop	1117	16.22		6.99	16.7	650us		4.5g	Lighto
1-1-04									
								<u> </u>	<u> </u>

* gal/ft: 1.5'' = 0.092; 2'' = 0.163; 4'' = 0.65; 6'' = 1.45; 8'' = 2.61

10. 4.21/4.25 9: 3.789/4.0 8: 3.366/3.5 7: 2.94/3.0

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Well Development Field Data Sheet
Well 819 Sile Kingstons-JBM
Development Personnel AFN CJS Pump Type <u>NA</u>
Casing Diameter <u>20</u> " DTW <u>Dry</u> DTB <u>9.99</u>
Well Volume = 0.163 gal/ft* x (DTB - DTW) = NA
x 3 = NA
$\times 10 - NA$

Date	Time	WĻ (ft)	Flow Rate	pН	∆ ph (units)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
·									
							· ·		
							•		
									· · · · · · · · · · · · · · · · · · ·
						<u> </u>	<u> </u>	<u> </u>	<u> </u>

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

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Well Development Field Data Sheet

Well819	Sile Kingston IBM
Development Personnel AFN CJS	Pump Type Bailer
Casing Diameter _2_0 " DT	W 8,22 DTB 12.77
Well Volume = 0.163 gal/ft [*]	4.55 * x (DTB - DTW) = <u>0.742</u>
	$x_3 = 2.23$
	x 10 = -7.42

 EMP	

Date	Time	WĻ (ft)	Flow Rate	рН	Arplin (antits)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
92598	1359	8.22							
stop .	14:13	11.29						2-0call	Choce ierte, Brown
	15:40	8.29							
Stop	1551	11.31						3.0gall	Chaie tak Brow
4-28 98	14:57	827							·
stop	1503	11.44						4.0gall	Brown
9.29.98	1003	8.31						ļ	
stop	1016	11.53						5.25	Lighter Brown
	12:11	834						ļ	
ston	12:10	11.16		6.60	19.7	630us		6.0g	LiteBrown
	1220	10.38							
stop	1230	11.32		6.56	20.3	626us		6.75g	LITEBROWN
	12:38	10.11			<u> </u>		l	ļ	
Stop	12:45	11.56		661	21.0	62645		750gai	Brown
						-			
	1		1					1	I

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 7.42 / 7.50 9: 6.68 / 6.75 8: 5.94 / 6.0

7: 5.194 / 5.25

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Well Development Field Data SheetWell $\underline{82\phi}$ Site Kingston TRMDevelopment Personnel AFN CJSPump Type BailerCasing Diameter $\underline{2.0''}$ DTW $\underline{7.32}$ DTB $\underline{22.90}$ Well Volume = $\underline{0.163}$ gal/ft* x (DTB - DTW) = $\underline{2.54}$ x 3 = $\underline{7.62}$ x 10 = $\underline{25.40}$

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Tε	ന്നഉ.	

Date	Time	WĻ (ft)	Flow Rate	рН	A-ph (units)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9.25.98	10:45	7.32							
Sto,	11 08	14.54						18.0 gall	Silty
	11:15	8.38							
stop	11:18	14.67		7.11	14.2	638us		20.5	Silty
	1122	9.11							
Stop	<u>ما2:1 </u>	4.30		7,15	14.6	658us	·	23.0	Silty
	1130	9.31							
stop	1133	14.6		7.16	14.1	637us		25.50	511ty
								<u> </u>	

10:25:40/25:50

* gal/ft: 1.5'' = 0.092; 2'' = 0.163; 4'' = 0.65; 6'' = 1.45; 8'' = 2.61

9:22.80/23.0

8:20.32/20.5

7. 17.78/18.0

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Well Development Field Data Sheet

Well 821	Sile Kingston IBM
Development Personnel <u>AFN CJS</u>	Pump Type <u>Bailer</u>
Casing Diameter <u>2.0</u> " DTW	9.31 DTB 13.18
Well Volume = 0.163 gal/ft* x	(DTB - DTW) = 0.63
	$x_{3} = 1.893$
	x 10 = 6.3

-		
IF	mo	

Date	Time	WL (ft)	Flow Rate	pН	TEMP (Inits)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9-25-98	13:44	9.31							Choco late
Stop ·	13:50	12.57						1.75gall	Brown
	1542	9.34							
Stop	1544	12.02						2.75g	BOWN
9.2898	14:40	9.33					· .		
stop	1449	12.77					·	3.75 g	Silty
9.2998	9:40	9.37					·		
stap	9:42	12.83		· · · ·				4.50g.	silty
	11:32	9.37						1.1	
stop	1136	12.75		6.77	18.6	88545		5.254	ckarer
	1141	10.10							Slightly
Stop	1145	12.82		6.72	18.9	932us		6.0	sity_
	1149	11.13						<u> </u>	
Stop	1159	12.17		6.71	19.0	870us		6.759	SILY
						-		.	

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

10: 6.31/6.50 9 5.679/5.75 8 5 048/5.25 7 4.417/4.50

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Well Development Field Data Sheet							
Well <u>822</u>			Site Ku	ngston - IBM			
Development Per	sonnel AFN	1- CIS		U mp Type <u>Bailer</u>			
				DTB 23.56			
Well Volume =	0.163	gal/ft* x	12.45 (DTB - D	(TW) = 2.03			
				$x_3 = 6.09$			

$$x 10 = 20.50$$

					TEMP	~			
Date	Time	WĻ (ft)	Flow Rate	pН	Aph (TINUS)	Cond.	∆ Cond. (%)	Total Volume	Remarks & Clarity
9-25.98	10:19	11.11							
Stop .	0.34	20.0						8.0 gall	Silty
,	12:37	11.14							,
stop	12:49	19.88						14.25	Silty
·	1418	11.13							
Stop	14:20	17.16		6.90	14.4	763us		16.25	Silty
	14:27	12.00							
stop	14:30	18.65		7.09	14.7	71045		10.50	Silty
	14.34	12.82	•						,
Stop	14:37	19.43		7.27	15.0	67545		20.50	silty
		· .							

10:20:30/20:50

* gal/ft: 1.5" = 0.092; 2" = 0.163; 4" = 0.65; 6" = 1.45; 8" = 2.61

9: 18.27/ 18.50

8: 16.24/ 16.25 7: 14.21/ 14.25

Appendix C

Groundwater and Surface Water Quality Data (includes Field QA/QC data)

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		810 GROUNDWATER 10/30/98 194632-15 01	810 GROUNDWATER 11/18/98 195472-01 01	810 REPLICATE 11/18/98 982507A-01 01	810 GROUNDWATER 12/10/98 196471-01 01	811-D GROUNDWATER 10/29/98 194632-02 01
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE	ug/l	NDa1	NDa1	NDa1	NDa1	NDa1
1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE	ug/l ug/l	NDa1 NDa1	NDa1 NDa1	NDa1 NDa1 NDa1	NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NDƏ1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1J	NDa1	NDUT		
INDICATOR PARAMETERS						
PH	pH	6.78 740	6.65 762	NA NA	6.69 761	6.65 1100
SPECIFIC CONDUCTANCE TEMPERATURE	umhos/cm C	13.3	11.5	NA	10.6	12.9
INORGANICS		NA	NA	NA	NA	NA
CYANIDE, TOTAL	mg/l			101		
METALS						
ANTIMONY, DISSOLVED ANTIMONY, TOTAL	mg/l mg/l	NA NA	NA NA	NA NA	NA NA	NA NA
ARSENIC, DISSOLVED ARSENIC, TOTAL	mg/l mg/l	0.0565 NA	0.0498 NA	NA NA	0.0484 NA	0.0101 NA
BARIUM, DISSOLVED BARIUM, TOTAL	mg/l mg/l	NA	NA NA	NA NA	NA NA	NA NA
CADMIUM, DISSOLVED CADMIUM, TOTAL	mg/l mg/l	0.0007 B NA	0.0006 B NA	NA NA	0.0009 B NA	О. ООО 5 В NA
CHROMIUM, DISSOLVED CHROMIUM, TOTAL	mg/l mg/l	NA	NA NA	NA NA	NA NA	NA NA
COPPER, DISSOLVED	mg/l	NA	NA NA	NA NA	NA NA	NA NA
COPPER, TOTAL LEAD, DISSOLVED	mg/l mg/l mg/l	NDa0.0015 NA	NDa0.0015 NA	NA NA	0.0016 В NA	ND@O.0015 NA
LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l	NA	NA	NA	NA	NA

04/13/99

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		810 GROUNDWATER 10/30/98 194632-15 01	810 GROUNDWATER 11/18/98 195472-01 01	810 REPLICATE 11/18/98 982507A-01 01	810 GROUNDWATER 12/10/98 196471-01 01	811-D GROUNDWATER 10/29/98 194632-02 01
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA	NA NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE 1,1,1-TRICHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHYLENE 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE BENZYL CHLORIDE BENZENE BENZYL CHLORIDE BROMOBENZENE BROMODETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE METHYLENE CHLORIDE TETRACHLOROETHYLENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 1.3 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1

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810

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		810 GROUNDWATER 10/30/98 194632-15 01	810 GROUNDWATER 11/18/98 195472-01 01	810 REPLICATE 11/18/98 982507A-01 01	810 GROUNDWATER 12/10/98 196471-01 01	811-D GROUNDWATER 10/29/98 194632-02 01
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1	NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 0.2J NA	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDA1 NDA1 1J NDA1

810

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		811-d Groundwater 11/18/98 195472-02 01	811-D GROUNDWATER 12/10/98 196471-03 01	81 GROUNDWA 10/25 194632	0/98 10/29/98	811-s GROUNDWATER 11/18/98 195472-03 01
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDa1 NDa1 NDa1 NDa1	NDA1 NDA1 NDA1 NDA1	NDa1 NDa1	O.6J NDa1 NDa1 NDa1
INDICATOR PARAMETERS						
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	6.61 822 13.3	7.0 967 11.7	7.00 949 14.1	NA NA NA	7.04 962 12.4
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA NA	NA
METALS						
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, TOTAL CHROMIUM, TOTAL CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NA 0.0094 B NA NA 0.0005 B NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA NA NA NA NA NA NA NA NA NA NA NA N	NA NA 0.0136 NA NA 0.0005 NA NA NA NA NA NA ND20.0015 NA NA	A NA NA A NA A NA B NA A NA A NA A NA A	NA NA O.0115 NA NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		811-D GROUNDWATER 11/18/98 195472-02 01	811-D GROUNDWATER 12/10/98 196471-03 01	811-s GROUNDWATER 10/29/98 194632-01 01	811-s REPLICATE 10/29/98 982330A-02 01	811-s GROUNDWATER 11/18/98 195472-03 01
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE 1,1,2-TETCHLOROETHANE 1,1,2,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2-DICHLOROETHYLENE 1,2-DICHLOROETHYLENE 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROFTHYLENE, TOTAL 1,2-DICHLOROFTHYLENE, TOTAL 1,2-DICHLOROFTHYLENE, TOTAL 1,2-DICHLOROFTHYLENE BENZENE BENZENE BENZENE BROMOBENZENE BROMODETHANE CHLOROFORM BROMOMETHANE CHLOROBENZENE CHLOROETHANE CHLOROBENZENE CHLOROETHANE CHLOROBENZENE CHLOROBENZENE CHLORODENA BROMOMETHANE CHLOROMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE DICHLORODIFLUOROMETHANE ETYYLENZENE METHYLENE CHLORIDE TETRACHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 O.8J NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		811-D GROUNDWATER 11/18/98 195472-02 01	811-D GROUNDWATER 12/10/98 196471-03 01	811-s GROUNDWATER 10/29/98 194632-01 01	811-s REPLICATE 10/29/98 982330A-02 01	811-s GROUNDWATER 11/18/98 195472-03 01
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDƏ1 NDƏ1 0.9J NDƏ1	NDa1 NDa1 1 . 1 NDa1	NDA1 NDA1 NDA1 NDA1	ND@1 ND@1 2.4 NA	NDA1 NDA1 NDA1 NDA1

811-D

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		811-S GROUNDWATER 12/10/98 196471-02 01	812 GROUNDWATER 10/29/98 194632-03 01	812 GROUNDWATER 11/18/98 195472-04 01	812 REPLICATE 12/10/98 982706A-03 01	812 GROUNDWATER 12/10/98 196471-05 01
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENÉ 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/i	NDA1 NDA1 NDA1 NDA1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	0.5J NDA1 NDA1 NDA1 NDA1	0.8J 0.1J 0.3J ND@1	0.6J NDa1 NDa1 NDa1
INDICATOR PARAMETERS						6.93
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	6.75 748 10.9	6.94 761 12.6	6.76 781 11.4	NA NA NA	766 10.9
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED ANTIMONY, TOTAL	mg/l mg/l	NA NA 0.0111	NA NA 0.0234	NA NA 0.0201	NA NA NA	NA NA 0.0188
ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED	mg/l mg/l mg/l	NA NA	NA NA	NA NA	NA NA	NA NA
BARIUM, TOTAL CADMIUM, DISSOLVED	mg/l mg/l	NA 0.0003 B NA	NA ND@O.0003 NA	NA 0.0005 В NA	NA NA NA	NA ND@0.0003 NA
CADMIUM, TOTAL Chromium, Dissolved Chromium, Total	mg/l mg/l mg/l	NA NA NA	NA	NA NA	NA NA	NA NA
CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, TOTAL	mg/l mg/l	NA NA	NA NA	NA NA	NA NA	NA NA
LEAD, DISSOLVED LEAD, TOTAL	mg/l mg/l	0.0017 B NA NA	ND@O.0015 NA NA	ND@0.0015 NA NA	NA NA NA	ND@O.0015 NA NA
MERCURY, DISSOLVED	mg/l	100		••••		

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES	811- GROUNDWATE 12/10/9 196471-0 0	R GROUNDWATER 8 10/29/98 2 194632-03	812 GROUNDWATER 11/18/98 195472-04 01	812 REPLICATE 12/10/98 982706A-03 01	812 GROUNDWATER 12/10/98 196471-05 01
PARAMETER	UNITS			.'	
METALS (Continued)					
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l NA mg/l NA mg/l NA mg/l NA mg/l NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE 1,1,1-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2-JICHLOROETHANE 1,2-JICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROPROPANE 1-CHLOROHEXANE 4-CHLOROTOLUENE BENZYL BENZYL BENZYL BENZYL CHLOROBENZENE BROMODICHLOROMETHANE BROMOMETHANE CARBON TETRACHLORIDE CHLOROETHANE CHLOROETHANE CHLOROETHANE CIS-1,3-DICHLOROPROPYLENE DICHLORODIFLUOROMETHANE ETHYLBENZENE METHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE CHLOROETHYLENE METHYLENE CHLOROETHYLENE	ug/l NDa1 ug/l <td>NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1</td> <td>NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1</td> <td>NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1</td> <td>NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1</td>	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

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811-s

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		811-s GROUNDWATER 12/10/98 196471-02 01	812 GROUNDWATER 10/29/98 194632-03 01	812 GROUNDWATER 11/18/98 195472-04 01	812 REPLICATE 12/10/98 982706A-03 01	812 GROUNDWATER 12/10/98 196471-05 01
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1	NDA1 NDA1 0.9J NDA1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDa1 NDa1 0.6J NDa1	NDA1 NDA1 NDA1 NDA1

811-s

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		813 DUPLICATE 10/29/98 194632-06 01	813 GROUNDWATER 10/29/98 194632-05 01	813 GROUNDWATER 11/18/98 195472-05 01	813 GROUNDWATER 12/10/98 196471-08 01	814 GROUNDWATER 1 0/30 /98 19 4632 -14 01
PARAMETER	UNITS			,		
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA NA
BASE/NEUTRAL EXTRACTABLES						· .
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1	NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1 J
INDICATOR PARAMETERS						
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	NA NA NA	6.94 1045 14.0	6.72 1078 12.3	6.86 1067 11.9	6.72 752 13.9
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, TOTAL CHROMIUM, TOTAL CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	ng/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l m	NA NA 0.0127 NA NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA O.0133 NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA	NA NA O.011 NA NA O.0004 B NA NA NA NA NA NA NA NA NA NA NA	NA NA NA NA NA O.0004 B NA NA NA NA O.0026 B NA NA NA	NA NA O.0058 B NA NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		813 DUPLICATE 10/29/98 194632-06 01	813 GROUNDWATER 10/29/98 194632-05 01	813 GROUNDWATER 11/18/98 195472-05 01	813 GROUNDWATER 12/10/98 196471-08 01	814 GROUNDWATER 10/30/98 194632-14 01
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROFNOPANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROPROPANE 1-CHLOROHEXANE 4-CHLOROHEXANE 4-CHLOROTOLUENE BENZENE BENZENE BENZYL CHLORIDE BROMOBENZENE BROMOBETHANE CARBON TETRACHLORIDE CHLOROFORM BROMOMETHANE CHLOROFORM CHLOROFOR CHLOROFORM CHL	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 1.4 NDa1	NDa1 O.6J NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1	NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1
TETRACHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l	NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1	NDA1 NDA1 NDA1	NDa1 NDa1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		813 DUPLICATE 10/29/98 194632-06 01	813 GROUNDWATER 10/29/98 194632-05 01	813 GROUNDWATER 11/18/98 195472-05 01	813 GROUNDWATER 12/10/98 196471-08 01	814 GROUNDWATER 10/30/98 194632-14 01
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	6.5 NDa1 1.1 NDa1	3.8 NDa1 3 NDa1	3.8 NDa1 8.3 NDa1	3.1 NDa1 9 NDa1	NDA1 NDA1 NDA1 NDA1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		814 DUPLICATE 11/18/98 195472-07 01	814 GROUNDWATER 11/18/98 195472-06 01	814 GROUNDWATER 12/10/98 196471-09 01	815 GROUNDWATER 10/30/98 194632-09 01	815 GROUNDWATER 11/20/98 195591-08 01
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1	nda1 Nda1 Nda1 Nda1	NDA1 NDA1 NDA1 NDA1	NDA1 NDA1 NDA1 NDA1	. NDa1 NDa1 NDa1 NDa1 NDa1
INDICATOR PARAMETERS						
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	NA NA NA	6.60 784 11.1	6.72 739 10.9	6.77 747 15.4	6.80 762 12.4
INORGANICS						
CYANIDE, TOTAL	mg/L	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, TOTAL CHROMIUM, DISSOLVED CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NA O.0021 B NA NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA	NA ND200.0015 NA NA 0.0005 B NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA NDAO . 0015 NA NA NDAO . 0003 NA NA NA NA NA NA NA NA NA NA NA NA	NA NA O.0051 B NA NA ND (0003 NA NA NA NA NA NA NA NA NA NA NA NA	NA NA O.0026 B NA NA NA NDa0.0003 NA NA NA NA NA NA NA NA NA NA

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		814 DUPLICATE 11/18/98 195472-07 01	814 GROUNDWATER 11/18/98 195472-06 01	814 GROUNDWATER 12/10/98 196471-09 01	815 GROUNDWATER 10/30/98 194632-09 01	815 GROUNDWATER 11/20/98 195591-08 01
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2-JTRICHLOROETHANE 1,2-JICHLOROETHANE 1,2-JICHLOROETHANE 1,2-JICHLOROETHANE 1,2-JICHLOROETHANE 1,2-JICHLOROETHANE 1,2-JICHLOROETHANE 1,2-JICHLOROETHANE 1,2-JICHLOROETHANE 1,2-JICHLOROETHANE 1,2-JICHLOROETHANE 4-CHLOROTOLUENE BENZYL 4-CHLOROTOLUENE BENZYL BENZYL CHLOROBENZENE BROMODICHLOROMETHANE BROMOMETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROFORM CHLOROFORM CHLOROMETHANE CIS-1,3-JICHLOROPROPYLENE JIBROMOMETHANE DICHLOROETHANE CIS-1,3-JICHLOROPROPYLENE DIBROMOMETHANE DICHLOROETHANE CIS-1,3-JICHLOROPROPYLENE DIBROMOMETHANE DICHLOROETHANE CIS-1,3-JICHLOROPROPYLENE DIBROMOMETHANE DICHLOROETHANE CIS-1,3-JICHLOROPROPYLENE TETRACHLOROETHYLENE METHYLENE CHLORIDE TETRACHLOROETHYLENE TOLUENE TRANS-1,3-JICHLOROPROPENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		814 DUPLICATE 11/18/98 195472-07 01	814 GROUNDWATER 11/18/98 195472-06 01	814 GROUNDWATER 12/10/98 196471-09 01	815 GROUNDWATER 10/30/98 194632-09 01	815 GROUNDWATER 11/20/98 195591-08 01
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDA1 NDA1 NDA1 NDA1 NDA1	NDA1 NDA1 NDA1 NDA1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		815 GROUNDWATER 12/11/98 196556-08 01	816 GROUNDWATER 10/30/98 194632-13 01	816 GROUNDWATER 11/20/98 195591-09 01	816 GROUNDWATER 12/11/98 196556-06 01
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1
INDICATOR PARAMETERS					
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	6.92 738 10.8	6.73 829 15.8	6.70 827 13.5	6. 76 774 12.5
INORGANICS					
CYANIDE, TOTAL	mg/l	NA	. NA	NA	NA
METALS					
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, TOTAL CADMIUM, TOTAL CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, DISSOLVED LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NA NA NA NA NA NA NA NA NA NA O.0018 B NA NA NA NA NA	NA NA NDAO.0015 NA NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA NDAO.0015 NA NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA NDaO.0015 NA NA NDaO.0003 NA NA NA NA NA NA NA NA NA NA NA NA

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		815 GROUNDWATER 12/11/98 196556-08 01	816 GROUNDWATER 10/30/98 194632-13 01	816 GROUNDWATER 11/20/98 195591-09 01	816 GROUNDWATER 12/11/98 196556-06 01
PARAMETER	UNITS				
METALS (Continued)					
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA NA	NA NA NA NA NA	NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS					·
1,1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPANE 1,2-DICHLOROPTOPTIENE BROMOMETHANE CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROPTHANE CIS-1,3-DICHLOROPROPYLENE DICHLOROPTIFLUOROMETHANE ETHYLENE CHLORIDE METHYLENE CHLORIDE METHYLENE CHLORIDE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 3.4 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 2.8 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 2.9 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1
TETRACHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l	NDa1 NDa1 NDa1	NDA1 NDA1 NDA1	NDa1 NDa1 NDa1	NDA1 NDA1 NDA1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		815 GROUNDWATER 12/11/98 196556-08 01	816 GROUNDWATER 10/30/98 194632-13 01	816 GROUNDWATER 11/20/98 195591-09 01	816 GROUNDWATER 12/11/98 196556-06 01
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1	91D NDa1 NDa1 NDa1	120D NDa1 NDa1 NDa1	110d NDa1 NDa1 NDa1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES	-	817 GROUNDWATER 10/30/98 194632-12 01	817 GROUNDWATER 11/20/98 195591-07 01	817 GROUNDWATER 12/11/98 196556-07 01	817 GROUNDWATER 02/16/99 199115-16 01	5. 1	819 GROUNDWATER 10/30/98 194632-07 01
PARAMETER	UNITS						
ACID EXTRACTABLES							
PHENOLS, TOTAL	ug/l	NA	NA	NA	ND@10		NA
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1	NDa1 NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1		NDA1 NDA1 NDA1 NDA1
INDICATOR PARAMETERS							
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	6.91 933 16.4	6.87 871 13.9	6.97 941 13.1	7.12 557 9.7		6.43 838 17.5
INORGANICS							
CYANIDE, TOTAL	mg/l	NA	NA	NA	NDa0.01		NA
METALS							
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, TOTAL CHROMIUM, DISSOLVED CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NA O.0023 B NA NA NA NDaO.0003 NA NA NA NA NA NA NA NA NA NA NA NA	NA ND200015 NA NA ND200003 NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA NDAO.0015 NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA	NDa0.0023 NDa0.0023 NDa0.0012 NDa0.0012 0.696 0.0453 B NDa0.0002 0.0019 B NDa0.0006 NDa0.0006 0.0046 B 0.0039 B 0.003 0.0026 B NDa0.0002		NA NA 0.0171 NA NA NA 0.0004 B NA NA NA NA NA NA NA NA NA NA NA NA

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		817 GROUNDWATER 10/30/98 194632-12 01	817 GROUNDWATER 11/20/98 195591-07 01	817 GROUNDWATER 12/11/98 196556-07 01	817 Groundwater 02/16/99 199115-16 01		819 GROUNDWATER 10/30/98 194632-07 01
PARAMETER	UNITS						
METALS (Continued)							
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA	NA NA NA NA	NA NA NA NA	NDa0.0002 NDa0.0016 0.0018 B NDa0.0038 NJ NDa0.0038 NJ		NA NA NA NA
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2-TRICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROFROPANE 1-CHLOROHEXANE 4-CHLOROHEXANE 4-CHLOROTOLUENE BENZENE BENZENE BROMOBENZENE BROMODICHLOROMETHANE CARBON TETRACHLORIDE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROFORM CHLOROFTHANE CHLOROMETHANE CHLOROMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE ETHYLBENZENE METHYLENE CHLORIDE TETRACHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 19 NDa1 NDa1 4 2.3 NDa1 3.9 14 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 22 NDa1 NDa1 3.2 1.9 NDa1 3.7 14 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 22 NDa1 NDa1 A.2 2.4 NDa1 NDa1 3.7 15 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 15 NDa1 NDa1 1.8 0.6J NDa1 2.4 2.3 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	•	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE Laboratory Sample I.D. Sample Run Number Sample Comment Codes		817 GROUNDWATER 10/30/98 194632-12 01	817 GROUNDWATER 11/20/98 195591-07 01	817 GROUNDWATER 12/11/98 196556-07 01	817 GROUNDWATER 02/16/99 199115-16 01	819 GROUNDWATER 10/30/98 194632-07 01
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	150D NDa1 2 NDa1	170d NDa1 1J NDa1	180D NDa1 1.6 NDa1	70d Nda1 Nda1J Nda1	1.3 ND@1 0.8J ND@1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		819 GROUNDWATER 11/20/98 195591-10 01	819 DUPLICATE 12/11/98 196556-03 01	819 GROUNDWATER 12/11/98 196556-01 01	820 GROUNDWATER 10/30/98 194632-08 01	820 GROUNDMATER 11/18/98 195472-08 01
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDA1 NDA1 NDA1 NDA1	NDA1 NDA1 NDA1 NDA1
INDICATOR PARAMETERS						
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	6.29 878 14.6	NA NA NA	6.38 862 13.0	6.61 704 14.9	6.57 706 13.1
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, TOTAL CADMIUM, TOTAL CHROMIUM, DISSOLVED CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NA 0.0122 NA NA NA 0.0006 B NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA O.0129 NA NA O.0007 B NA NA NA NA NA NA NA NA NA NA NA	NA NA 0.0152 NA NA 0.0009 B NA NA NA NA 0.0018 B NA NA NA	NA NA 0.0037 B NA NA NDa0.0003 NA NA NA NA NA NA NA NA NA NA NA NA	NA NA O.0023 B NA NA NDaO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		819 GROUNDWATER 11/20/98 195591-10 01	819 DUPLICATE 12/11/98 196556-03 01	819 GROUNDWATER 12/11/98 196556-01 01	820 GROUNDWATER 10/30/98 194632-08 01	820 GROUNDWATER 11/18/98 195472-08 01
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROPROPANE 1-CHLOROHEXANE 4-CHLOROHEXANE 4-CHLOROHEXANE BENZYL CHLORIDE BENZYL CHLORIDE BROMODENZENE BROMODENZENE BROMOMETHANE CARBON TETRACHLORIDE CHLOROFORM	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 O.6J NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1
METHYLENE CHLORIDE TETRACHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1	NDA1 NDA1 NDA1 NDA1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDa1 NDa1 NDa1 NDa1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		819 GROUNDWATER 11/20/98 195591-10 01	819 DUPLICATE 12/11/98 196556-03 01	819 GROUNDWATER 12/11/98 196556-01 01	820 GROUNDWATER 10/30/98 194632-08 01	820 GROUNDWATER 11/18/98 195472-08 01
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDa1 NDa1 0.6J NDa1	NDƏ1 NDƏ1 0.9J NDƏ1	NDa1 NDa1 1.1 NDa1	2.2 NDa1 1.4 NDa1	1.9 NDa1 1 NDa1

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE Laboratory Sample I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		820 GROUNDWATER 12/10/98 196471-06 01	821 GROUNDWATER 10/29/98 194632-04 01	821 GROUNDWATER 11/20/98 195591-12 01	821 GROUNDWATER 12/11/98 196556-05 01	821 GROUNDWATER 02/16/99 199115-01 01
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA	NDa10
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDa1 NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1
INDICATOR PARAMETERS						
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	6.67 712 12.4	6.70 1152 15.4	6.58 1186 13.9	6.62 1294 13.2	6.61 676 9.0
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	ND@0.01
METALS						
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, TOTAL CHROMIUM, TOTAL CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NA 0.0023 B NA NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA	NA NA 0.0307 NA NA NA 0.0005 B NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA 0.0269 NA NA NA 0.0007 B NA NA NA NA NA NA NA NA NA NA NA	NA NA 0.0275 NA NA NA 0.001 B NA NA NA NA NA NA NA NA NA NA NA NA	NDa0.0023 NDa0.0023 0.0244 0.0317 1.19 0.0492 B 0.0003 B 0.0018 B 0.0018 B 0.0019 B 0.0029 B 0.0057 B 0.0057 B 0.0058 B 0.0051 0.0059 B NDa0.0002

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		820 GROUNDWATER 12/10/98 196471-06 01	821 GROUNDWATER 10/29/98 194632-04 01	821 GROUNDWATER 11/20/98 195591-12 01	821 GROUNDWATER 12/11/98 196556-05 01	821 GROUNDWATER 02/16/99 199115-01 01
PARAMETER	UNITS					
METALS (Continued)						
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA	NDAO.0002 NDAO.0016 NDAO.0016 NDAO.0038 NJ NDAO.0038 NJ NDAO.0038 NJ
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROFROPANE 1-CHLOROHEXANE 4-CHLOROHEXANE 4-CHLOROHEXANE 4-CHLOROTLUENE BENZENE BENZYL CHLORIDE BROMOBENZENE BROMOMETHANE CARBON TETRACHLORIDE CHLORODIBROMOMETHANE CHLOROFORM CHLOROFORM CHLOROFTHANE CLISOTIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DICHLORODIFLUOROMETHANE TETRACHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 O.9J NDa1 O.9J NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 O.8J NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		820 GROUNDWATER 12/10/98 196471-06 01	821 GROUNDWATER 10/29/98 194632-04 01	821 GROUNDWATER 11/20/98 195591-12 01	821 GROUNDWATER 12/11/98 196556-05 01	821 GROUNDWATER 02/16/99 199115-01 01
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	2.1 NDA1 2.2 NDA1	3.9 NDa1 NDa1 NDa1 NDa1	3.3 NDa1 NDa1 NDa1 NDa1	1.8 NDa1 NDa1 NDa1	1.8 NDa1 NDa1 NDa1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		821 REPLICATE 02/16/99 990304A-02 01	822 GROUNDWATER 10/30/98 194632-11 01	822 GROUNDWATER 11/18/98 195472-09 01	822 GROUNDWATER 12/10/98 196471-07 01
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDƏ1 NDƏ1 NDƏ1 NDƏ1	1.2 NDa1 NDa1 NDa1	O.6J NDa1 NDa1 NDa1	1.2 NDa1 NDa1 NDa1
INDICATOR PARAMETERS					
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	NA NA NA	6.69 993 14.7	6.93 914 13.3	7.0 902 12.1
INORGANICS					
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA
METALS					
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, DISSOLVED CADMIUM, DISSOLVED CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NA NA NA NA NA NA NA NA NA NA NA NA N	NA NA 0.0058 B NA NA NA ND@0.0004 B NA NA NA NA NA NA NA NA NA NA NA NA	NA NA O.0033 B NA NA O.0009 B NA NA NA NA NA NA NA NA NA NA	NA NA O.0046 B NA NA O.0006 B NA NA NA NA NA NA NA NA NA NA NA NA NA

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PARAMETER UNITS METALS (Continued) mg/l MERCURY, TOTAL mg/l SELENIUM, DISSOLVED mg/l SILVER, DISSOLVED mg/l SILVER, TOTAL mg/l VOLATILE ORGANICS 1,1,2-TETRACHLOROETHANE ug/l 1,1,2,2-TETRACHLOROETHANE ug/l				
MERCURY, TOTAL mg/l SELENIUM, DISSOLVED mg/l SELENIUM, TOTAL mg/l SILVER, DISSOLVED mg/l SILVER, TOTAL mg/l VOLATILE ORGANICS 1,1,2-TETRACHLOROETHANE ug/l 1,1,2,2-TETRACHLOROETHANE ug/l				
SELENIUM, DISSOLVED mg/l SELENIUM, TOTAL mg/l SILVER, DISSOLVED mg/l SILVER, TOTAL mg/l VOLATILE ORGANICS 1,1,2-TETRACHLOROETHANE ug/l 1,1,2-TETRACHLOROETHANE ug/l				
1,1,1,2-TETRACHLOROETHANE ug/l 1,1,1-TRICHLOROETHANE ug/l 1,1,2,2-TETRACHLOROETHANE ug/l	NA NA NA NA NA	NA NA NA NA NA	NA NA NA NA	NA NA NA NA
1,1,1-TRICHLOROETHANE ug/l 1,1,2,2-TETRACHLOROETHANE ug/l				
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE ug/l 1,1,2-TRICHLOROETHANE ug/l 1,1,2-TRICHLOROETHANE ug/l 1,1-DICHLOROETHANE ug/l 1,2,3-TRICHLOROPROPANE ug/l 1,2-DICHLOROETHANE ug/l 1,2-DICHLOROETHANE ug/l 1,2-DICHLOROETHANE ug/l 1,2-DICHLOROETHANE ug/l 1,2-DICHLOROETHANE ug/l 1,2-DICHLOROPROPANE ug/l 1-CHLOROHEXANE ug/l 8ENZYL CHLORIDE ug/l BENZYL CHLORIDE ug/l BROMOBENZENE ug/l BROMOSENZENE ug/l CARBON TETRACHLORIDE ug/l CHLORODETHANE ug/l CHLORODETHANE ug/l CHLORODETHANE ug/l CHLORODETHANE ug/l CHLOROBENZENE ug/l CHLOROBENZENE ug/l CHLOROBENZENE ug/l CHLOROBENZENE ug/l CHLOROBENZENE ug/l CHLOROBENZENE ug/l CHLOROBENTENE ug/l CHLOROBENTENE ug/l CHLORODETHANE ug/l CHLORODETHANE ug/l CHLORODETHANE ug/l CHLORODETHANE ug/l CHLORODETHANE ug/l CHLOROMETHANE ug/l CHLORODETHANE ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 0.5J NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 SDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 N	NDa1 NDa1 NDa1 NDa1 S .7 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		821 REPLICATE 02/16/99 990304A-02 01	822 GROUNDWATER 10/30/98 194632-11 01	822 GROUNDWATER 11/18/98 195472-09 01	822 GROUNDWATER 12/10/98 196471-07 01
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	2 NDa1 NDa1 NA	NDA1 NDA1 NDA1 2.6	NDƏ1 NDƏ1 NDƏ1 O.6J	NDƏ1 NDƏ1 NDƏ1 14

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		MW-001-R GROUNDWATER 02/16/99 199115-10 01	MW-125-s GROUNDWATER 02/16/99 199115-04 01	MW-206-S DUPLICATE 02/16/99 199115-08 01	MW-206-S GROUNDWATER 02/16/99 199115-06 01
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NDa10
BASE/NEUTRAL EXTRACTABLES 1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE	սց/Լ սց/Լ	NDa1 NDa1	NDa1 NDa1	0.9J NDa1	0.8J ND@1 ND@1
1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l	NDa1 NDa1	NDa1 NDa1	NDa1 NDa1	NDƏ1 NDƏ1
INDICATOR PARAMETERS					
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	7.92 418 11.5	7.12 428 9.8	NA NA NA	6.79 644 10.4
INORGANICS					
CYANIDE, TOTAL	mg/l	NA	NA	NA	NDa0.01
METALS					
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, TOTAL CHROMIUM, TOTAL CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NA NDa0.0012 0.0116 NA NA NA NA NA NA NA NA NA NA NA NA	NA NA NDaO.0012 NDaO.0012 NA NA NA NA NA NA NA NA NA NA NA NA NA	NDa0.0023 NDa0.0023 0.0067 B 0.0103 0.426 0.122 B NDa0.0002 NDa0.0002 NDa0.0006 0.0018 B 0.0036 B 0.0036 B 0.0036 B 0.003 0.003 NDa0.0002	NDa0.0023 NDa0.0023 0.0054 B 0.0122 1.27 0.129 B NDa0.0002 NDa0.0002 NDa0.0002 NDa0.0006 0.0021 B 0.0034 B 0.0034 B 0.0036 B 0.0026 B 0.0026 B 0.0086 NDa0.0002

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES PARAMETER	UNITS	MW-001-R GROUNDWATER 02/16/99 199115-10 01	MW-125-s GROUNDWATER 02/16/99 199115-04 01	MW-206-S DUPLICATE 02/16/99 199115-08 01	MW-206-S GROUNDWATER 02/16/99 199115-06 01
METALS (Continued)					
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA	NA NA NA NA NA	NDa0.0002 NDa0.0016 NDa0.0016 NDa0.0038 NJ NDa0.0038 NJ	NDaO.0002 NDaO.0016 W NDaO.0016 NDaO.0038 N NDaO.0038 NJ
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROETHANE 1,2-TRICHLOROETHANE 1,2-DICHLOROETHYLENE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 4-CHLOROTOLUENE BENZENE BENZYL CHLORIDE BROMOBENZENE BROMODICHLOROMETHANE CARBON TETRACHLORIDE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROFCRM CHLOROETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DICHLOROETHYLENE TETRACHLOROETHYLENE TOLUENE TETRACHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 1.8 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

MW-001-R

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		MW-001-R GROUNDWATER 02/16/99 199115-10 01	MW-125-s GROUNDWATER 02/16/99 199115-04 01	MW-206-S DUPLICATE 02/16/99 199115-08 01	MW-206-S GROUNDWATER 02/16/99 199115-06 01
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1	NDA1 NDA1 NDA1 NDA1 NDA1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDA1 NDA1 NDA1 NDA1

MW-001-R

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		M₩-210-s GROUNDWATER 02/16/99 199115-02 01	S₩-A SURF WATER 10/30/98 194632-16 01	SW-A SURF WATER 11/19/98 195591-03 01	SW-A SURF WATER 12/11/98 196556-11 01
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NDa10	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES	ug/l	NDa1	NDa1	ND@1	ND@1
1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE	ug/l ug/l	NDa1 NDa1	NDa1 NDa1	NDa1 NDa1	NDa1 NDa1
2-CHLOROETHYLVINYL ETHER	ug/l	ND@1	NDa1 J	ND@1	NDa1
INDICATOR PARAMETERS					
	pH	6.75	7.00 659	8.40 628	7.00 614
SPECIFIC CONDUCTANCE TEMPERATURE	umhos/cm C	650 9.4	15.8	13.9	12.8
INORGANICS					
CYANIDE, TOTAL	mg/l	NDa0.01	NA	NA	NA
METALS					
ANTIMONY, DISSOLVED	mg/L	NDa0.0023	NA	NA	NA
ANTIMONY, TOTAL ARSENIC, DISSOLVED	mg/l mg/l	NDaO.0023 0.0745	NA NDa0.0015	NA NDa0.0015	NA NDa0.0015
ARSENIC, TOTAL BARIUM, DISSOLVED	mg/l mg/l	0.0551 0.985	NA NA	NA NA	NA NA
BARIUM, TOTAL CADMIUM, DISSOLVED	mg/l mg/l	0.142 B NDa0.0002	NA NDa0.0003	NA NDa0.0003	NA NDa0.0003
CADMIUM, TOTAL CHROMIUM, DISSOLVED	mg/l mg/l	0.0002 B NDa0.0006	NA NA	NA NA	NA NA
CHROMIUM, TOTAL COPPER, DISSOLVED	mg/l mg/l	NDa0.0006 0.0044 в	NA NA	NA NA	NA NA
COPPER, TOTAL LEAD, DISSOLVED	mg/l mg/l	NDa0.0043 B 0.0058	NA ND@0.0015	NA NDa0.0015	NA NDaO.0015
LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l	0.0041 NDa0.0002	NA NA	NA NA	NA NA

MW-210-s

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		MW-210-S GROUNDWATER 02/16/99 199115-02 01	SW-A SURF WATER 10/30/98 194632-16 01	SW-A SURF WATER 11/19/98 195591-03 01	SW-A SURF WATER 12/11/98 196556-11 01
PARAMETER	UNITS				
METALS (Continued)					
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NDAO.0002 NDAO.0016 W NDAO.0016 NDAO.0038 NDAO.0038 NJ	NA NA NA NA	NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE 1,1,1-TRICHLOROETHANE 1,1,2,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2,3-TRICHLOROPROPANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROPROPANE 1-CHLOROHEXANE 4-CHLOROTOLUENE BENZENE BENZYL CHLORIDE BROMOBENZENE BROMODENAENE BROMODETHANE CARBON TETRACHLORIDE CHLORODETHANE CHLOROPETHANE CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM CHLOROFORM	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 S NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1
ETHYLBENZENE METHYLENE CHLORIDE TETRACHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l ug/l ug/l	NDƏ1 NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDa1 NDa1 NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDA1 NDA1 NDA1 NDA1 NDA1

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		MW-210-s GROUNDWATER 02/16/99 199115-02 01	SW-A SURF WATER 10/30/98 194632-16 01	SW-A SURF WATER 11/19/98 195591-03 01	SW-A SURF WATER 12/11/98 196556-11 01
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDa1 NDa1 15 NDa1	NDA1 NDA1 NDA1 NDA1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDa1 NDa1 NDa1 1.2

MW-210-s

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE Laboratory Sample I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		SW-82 SURF WATER 10/30/98 194632-18 01	SW-B2 SURF WATER 11/19/98 195591-01 01	SW-B3 SURF WATER 12/14/98 196635-03 01	SW-C SURF WATER 10/30/98 194632-19 01
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES					
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDƏ1 NDƏ1 NDƏ1 NDƏ1 J	NDa1 NDa1 NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDA1 NDA1 NDA1 NDA1 J
INDICATOR PARAMETERS					
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	7.00 1181 11.4	7.77 1508 6.1	7.00 637 9.0	7.00 706 12.8
INORGANICS					
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA
METALS					
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, TOTAL CHROMIUM, TOTAL CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NA 0.0038 B NA NA NA NA NA NA NA NA 0.0003 B NA NA NA	NA NA O.0023 B NA NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA NDAO.0015 NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA	NA NA NA NA NA NA NA NA NA NA NA NA NA N

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE Laboratory Sample I.D. Sample RUN NUMBER Sample Comment Codes		SW-B2 SURF WATER 10/30/98 194632-18 01	SW-82 SURF WATER 11/19/98 195591-01 01	SW-B3 SURF WATER 12/14/98 196635-03 01	S₩-C SURF ₩ATER 10/30/98 194632-19 01
PARAMETER	UNITS				
METALS (Continued)					
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2-TRICHLOROETHANE 1,2-DICHLOROETHYLENE 1,2-DICHLOROETHYLENE 1,2-DICHLOROETHANE 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROPROPANE 1-CHLOROHEXANE 4-CHLOROTOLUENE BENZENE BENZYL CHLORIDE BROMOBENZENE BROMOMETHANE CARBON TETRACHLORIDE CHLOROFORM BROMOMETHANE CHLOROFTHANE CHLOROFTHANE CHLOROFTHANE CHLOROFTHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DICHLORODIFLUOROMETHANE ETHYLENE CHLORIDE TETRACHLOROETHYLENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

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S₩-B2

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		SW-B2 SURF WATER 10/30/98 194632-18 01	SW-B2 SURF WATER 11/19/98 195591-01 01	SW-B3 SURF WATER 12/14/98 196635-03 01	S₩-C SU RF WA TER 1 0/3 0/98 19 4632 -19 01
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDA1 NDA1 NDA1 NDA1

SW-82

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		SW-C SURF WATER 11/19/98 195591-04 01	SW-C2 SURF WATER 12/14/98 196635-02 01	S₩-D SURF WATER 10/30/98 194632-21 01	SW-D SURF WATER 11/19/98 195591-05 01
PARAMETER	UNITS				
ACID EXTRACTABLES					
PHENOLS, TOTAL	ug/l	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES				unod	
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/i	NDƏ1 NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDA1 NDA1 NDA1 NDA1	NDƏ1 NDƏ1 NDƏ1 NDƏ1 J	NDƏ1 NDƏ1 NDƏ1 NDƏ1
INDICATOR PARAMETERS					
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	8.03 651 7.1	7.00 649 8.6	7.00 695 11.6	7.18 655 7.8
INORGANICS					
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA
METALS					
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, DISSOLVED CADMIUM, DISSOLVED CHROMIUM, TOTAL COPPER, DISSOLVED COPPER, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NDaO.0015 NA NA NDaO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA O.0037 B NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA Na NDaO.0003 NA NA NA NA	NA NDa0.0015 NA NA NA NDa0.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA

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sw-c

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		SW-C SURF WATER 11/19/98 195591-04 01	SW-C2 SURF WATER 12/14/98 196635-02 01	SW-D SURF WATER 10/30/98 194632-21 01	SW-D SURF WATER 11/19/98 195591-05 01
PARAMETER	UNITS				
METALS (Continued)					
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA	NA NA NA NA	NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS					
1,1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROETHANE 1,2-TRICHLOROETHYLENE 1,2-JICHLOROETHYLENE 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHANE 1,2-DICHLOROPTHYLENE, TOTAL 1,2-DICHLOROPTHYLENE, TOTAL 1,2-DICHLOROPTHYLENE, TOTAL 1,2-DICHLOROPTHYLENE, TOTAL 1,2-DICHLOROPTHYLENE, TOTAL 1,2-DICHLOROPTHYLENE, TOTAL 1,2-DICHLOROPTHYLENE, TOTAL 1,2-DICHLOROPTHYLENE, TOTAL 1,2-DICHLOROPTHYLENE, TOTAL 1,2-DICHLOROPTHYLENE, TOTAL 1,2-DICHLOROPTHANE BENZYL CHLORIDE BENZYL CHLORIDE BENMOBENZENE BROMODENTHANE CHLOROETHANE CHLOROETHANE CHLOROFORM CHLOROFORM CHLOROMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1	NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1

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sw-c

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		SW-C SURF WATER 11/19/98 195591-04 01	SW-C2 SURF WATER 12/14/98 196635-02 01	S₩-D SURF WATER 10/30/98 194632-21 01	SW-D SURF WATER 11/19/98 195591-05 01
PARAMETER	UNITS				
VOLATILE ORGANICS (Continued)					
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1 NDA1	O.6J NDA1 NDA1 NDA1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	0.5J NDa1 NDa1 NDa1

sw-c

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		SW−D2 SURF WATER 12/14/98 196635-01 01	S₩-E SURF WATER 10/30/98 194632-17 01	SW-E SURF WATER 11/19/98 195591-02 01	SW-E SURF WATER 12/11/98 196556-10 01	S₩-E SURF WATER 12/11/98 196556-09 01
PARAMETER	UNITS					
ACID EXTRACTABLES						
PHENOLS, TOTAL	ug/i	NA	NA	NA	NA	NA
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1 NDA1	NDa1 NDa1 NDa1 NDa1 J	NDA1 NDA1 NDA1 NDA1 NDA1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1 NDƏ1
INDICATOR PARAMETERS						
PH SPECIFIC CONDUCTANCE TEMPERATURE	pH umhos/cm C	6.88 641 4.5	6.99 799 14.4	6.91 804 12.6	NA NA NA	6.97 774 13.0
INORGANICS						
CYANIDE, TOTAL	mg/l	NA	NA	NA	NA	NA
METALS						
ANTIMONY, DISSOLVED ANTIMONY, TOTAL ARSENIC, DISSOLVED ARSENIC, TOTAL BARIUM, DISSOLVED BARIUM, TOTAL CADMIUM, DISSOLVED CADMIUM, DISSOLVED CHROMIUM, DISSOLVED COPPER, TOTAL LEAD, DISSOLVED LEAD, TOTAL MERCURY, DISSOLVED	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	NA NA NDaO. 0015 NA NA NDaO. 0003 NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NA NDAO.0015 NA NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA	NA NA NDaO.0015 NA NA NDaO.0003 NA NA NA NA NA NA NA NA NA NA	NA NA NDAO.0015 NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA	NA NDAO.0015 NA NA NDAO.0003 NA NA NA NA NA NA NA NA NA NA NA NA NA

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S₩-D2

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		SW-D2 SURF WATER 12/14/98 196635-01 01	SW-E SURF WATER 10/30/98 194632-17 01	S₩-E SURF WATER 11/19/98 195591-02 01	S₩-E SURF ₩ATER 12/11/98 196556-10 01	SW-E SURF WATER 12/11/98 196556-09 01
PARAMETER	UNITS	2				
METALS (Continued)						
MERCURY, TOTAL SELENIUM, DISSOLVED SELENIUM, TOTAL SILVER, DISSOLVED SILVER, TOTAL	mg/l mg/l mg/l mg/l mg/l	NA NA NA NA NA	NA NA NA NA NA	NA NA NA NA NA	NA NA NA NA NA	NA NA NA NA
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE 1,1,1-TRICHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2-TRICHLOROETHANE 1,2-JICHLOROETHYLENE 1,2-DICHLOROETHYLENE, 1,2-DICHLOROETHANE 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE, TOTAL 1,2-DICHLOROETHYLENE 1,2-DICHLOROETHANE 8ENZYL CHLORIDE 8ENZENE 8ENZYL CHLORIDE 8ENMOBENZENE 8ENMODICHLOROMETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE ETHYLENE CHLORIDE TETRACHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 2.4 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	ND&1 2.7 ND&1 ND&1 ND&1 ND&1 ND&1 ND&1 ND&1 ND&1	NDa1 3.7 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDA1 3.4 NDA1 NDA1 NDA1 1.7 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1

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SW-D2

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		SW-D2 SURF WATER 12/14/98 196635-01 01	SW-E SURF WATER 10/30/98 194632-17 01	SW-E SURF WATER 11/19/98 195591-02 01	S₩-E SURF ₩ATER 12/11/98 196556-10 01	SW-E SURF WATER 12/11/98 196556-09 01
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROETHYLENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l ug/l	NDƏ1 NDƏ1 NDƏ1 NDƏ1	10 NDa1 NDa1 NDa1	9.4 NDa1 NDa1 NDa1	10 NDa1 NDa1 NDa1	9.7 NDa1 NDa1 NDa1

S₩-D2

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EXPLANATION OF REPORTING CONVENTIONS AND KEY TO COMMENT CODES

REPORTING CONVENTIONS

Not Analyzed Not Detected at Detection Limit X Below Minimum Reporting Limit of X NA NDƏX BMRLax

CODE EXPLANATION

- ^
- Non-Standard Measurement Unit The reported value is greater than the Contract Required Detection Limit (CRDL), but less than the Instrument Detection Limit (IDL) (Metals) Compounds identifed at a secondary dilution factor (Volatiles) Estimated Value (Volatiles) В

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		EQ RINSE BLK WTR LVL IND 10/29/98 982330A-01 01	EQ RINSE BLK WTR LVL IND 10/30/98 194632-10 01	EQ RINSE BLK WTR LVL IND 11/18/98 982507A-02 01	EQ RINSE BLK WTR LVL IND 11/20/98 195591-11 01	EQ RINSE BLK WTR LVL IND 12/10/98 982706A-01 01	EQ RI NSE BLK WTR L VL IND 1 2/1 1/98 196556-02 01
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES				,			
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDa1 NDa1 NDa1 NDa1	NDA1 NDA1 NDA1 NDA1	NDA1 NDA1 NDA1 NDA1
VOLATILE ORGANICS							•
1,1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROPROPANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 1,2-DICHLOROFROPANE 5,2-DICHLOROFROPANE 5,3-DICHLOROPROPYLENE DIGHLOROFITHANE CIS-1,3-DICHLOROPROPYLENE DICHLOROFITHANE CIS-1,3-DICHLOROPROPPENE TRICHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPPENE TRICHLOROETHYLENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

INTERNATIONAL BUSINESS MACHINES CORPORATION

1 - 1

EQ RINSE BLK

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		EQ RINSE BLK WTR LVL IND 10/29/98 982330A-01 01	EQ RINSE BLK WTR LVL IND 10/30/98 194632-10 01	EQ RINSE BLK WTR LVL IND 11/18/98 982507A-02 01	EQ RINSE BLK WTR LVL IND 11/20/98 195591-11 01	EQ RINSE BLK WTR LVL IND 12/10/98 982706A-01 01	EQ RI NSE BLK WTR LVL IND 12/11/98 196556-02 01
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l	NDa1 NDa1 NA	NDA1 NDA1 NDA1	NDa1 NDa1 NA	NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NA	NDa1 NDa1 NDa1

EQ RINSE BLK

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		EQ RINSE BLK SUB PUMP 02/16/99 199115-15 01	EQ RINSE BLK WTR LVL IND 02/16/99 199115-03 01	EQ RINSE BLK WTR LVL IND 02/16/99 990304A-01 01	TRIP BLANK 10/30-31/98 10/30/98 194632-20 01	TRIP BLANK 11/18–19/98 11/18/98 195472–10 01
PARAMETER	UNITS	•				•
BASE/NEUTRAL EXTRACTABLES						
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NDƏ1 NDƏ1 J	NDƏ1 NDƏ1 NDƏ1 NDƏ1
VOLATILE ORGANICS						
1,1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 2,2-DICHLOROETHANE 1,2-DICHLOROMETHANE 5,2-DICHLOROMETHANE 1,2-DICHLOROMETHANE CARBON TETRACHLORIDE CHLOROFORM CHLOROFORM CHLOROFTHANE CLOROFTHANE CLOROFTHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPYLENE DICHLOROETHYLENE TOLUENE TRACHLOROETHYLENE TRACHLOROETHYLENE TRACHLOROETHYLENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

04/13/99

INTERNATIONAL BUSINESS MACHINES CORPORATION

EQ RINSE BLK

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		EQ RINSE BLK SUB PUMP 02/16/99 199115-15 01	EQ RINSE BLK WTR LVL IND 02/16/99 199115-03 01	EQ RINSE BLK WTR LVL IND 02/16/99 990304A-01 01	TRIP BLANK 10 /30-3 1/98 1 0/3 0/98 1 94632 -20 01	T RIP BLANK 11/ 18- 19/98 11/18 /98 1 95472 -10 01
PARAMETER	UNITS					
VOLATILE ORGANICS (Continued)						
TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l	NDa1 NDa1 NDa1 J	NDa1 NDa1 NDa1	NDa1 NDa1 NA	NDA1 NDA1 NDA1	NDa1 NDa1 NDa1

EQ RINSE BLK

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SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		TRIP BLANK 11/18-19/98 11/18/98 982507A-03 01	TRIP BLANK 11/19-20/98 11/19/98 195591-06 01	TRIP BLANK 12/10-11/98 12/10/98 982706A-02 01	TRIP BLANK 12/10-11/98 12/10/98 196471-04 01	TRIP BLANK 12/11/98 12/11/98 196556-04 01	TRIP BL ANK 12/14-15/98 12/14/98 196635-04 01
PARAMETER	UNITS						
BASE/NEUTRAL EXTRACTABLES							
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDA1 NDA1 NDA1 NDA1 NDA1	NDA1 NDA1 NDA1 NDA1	NDƏ1 NDƏ1 NDƏ1 NDƏ1	NDA1 NDA1 NDA1 NDA1	NDa1 NDa1 NDa1 NDa1	NDA1 NDA1 NDA1 NDA1
VOLATILE ORGANICS							
1,1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROETHANE 1,2-DICHLORO-1,2,2-TRIFLUOROETHANE 1,2-DICHLORO-1,2,2-TRIFLUOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 2-CHLOROHEXANE 4-CHLOROHEXANE 4-CHLOROENZENE BROMOMETHANE CARBON TETRACHLORIDE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CHLOROETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE CIS-1,3-DICHLOROPROPPENE TRICHLOROETHYLENE TOLUENE TRICHLOROETHYLENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1 NDA1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1

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INTERNATIONAL BUSINESS MACHINES CORPORATION

TRIP BLANK

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		TRIP BLANK 11/18-19/98 11/18/98 982507A-03 01	TRIP BLANK 11/19-20/98 11/19/98 195591-06 01	TRIP BLANK 12/10-11/98 12/10/98 982706A-02 01	TRIP BLANK 12/10-11/98 12/10/98 196471-04 01	TRIP BLANK 12/11/98 12/11/98 196556-04 01	TRIP BLANK 12/14-15/98 12/14/98 196635-04 01
PARAMETER	UNITS						
VOLATILE ORGANICS (Continued)							
TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/l ug/l	NDA1 NDA1 NA	NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NA	NDa1 NDa1 NDa1	NDa1 NDa1 NDa1	NDa1 NDa1 NDa1

TRIP BLANK

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04/13/99

SAMPLE LOCATION SAMPLE DESCRIPTION SAMPLE DATE LABORATORY SAMPLE I.D. SAMPLE RUN NUMBER SAMPLE COMMENT CODES		TRIP BLANK 02/16-17/98 02/16/99 199115-14 01	TRIP BLANK 02/16-17/98 02/16/99 990304A-03 01
PARAMETER	UNITS		
BASE/NEUTRAL EXTRACTABLES			
1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,4-DICHLOROBENZENE 2-CHLOROETHYLVINYL ETHER	ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1	NDƏ1 NDƏ1 NDƏ1 NDƏ1
VOLATILE ORGANICS			
1,1,1,2-TETRACHLOROETHANE 1,1,1-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROETHANE 1,2-JICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE BENZYL CHLORIDE BROMOBENZENE BROMODENZENE CHLOROFORM BROMOMETHANE CHLOROETHANE CHLOROETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE DICHLORODIFLUOROMETHANE CIS-1,3-DICHLOROPROPYLENE DIBROMOMETHANE DICHLORODIFLUOROMETHANE ETHYLBENZENE	ug/l ug/l ug/l ug/l ug/l ug/l ug/l ug/l	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1	NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1 NDa1
METHYLENE CHLORIDE TETRACHLOROETHYLENE TOLUENE TRANS-1,3-DICHLOROPROPENE TRICHLOROETHYLENE	ug/l ug/l ug/l ug/l ug/l	Nda1 Nda1 Nda1 Nda1 Nda1	NDƏ1 NDƏ1 NA NDƏ1 NDƏ1

04/13/99

SAMPLE LOCATION SAMPLE DESCRIPTION Sample date Laboratory Sample I.D. Sample run number Sample comment codes		TRIP BLANK 02/16-17/98 02/16/99 199115-14 01	TRIP BLANK 02/16-17/98 02/16/99 990304A-03 01
PARAMETER	UNITS		
VOLATILE ORGANICS (Continued)			
TRICHLOROFLUOROMETHANE VINYL CHLORIDE XYLENE, TOTAL	ug/l ug/i ug/l	NDƏ1 NDƏ1 NDƏ1	NDƏ1 NDƏ1 NA

.

TRIP BLANK

EXPLANATION OF REPORTING CONVENTIONS AND KEY TO COMMENT CODES

REPORTING CONVENTIONS

Not Analyzed Not Detected at Detection Limit X Below Minimum Reporting Limit of X NA NDax BMRLax

CODE EXPLANATION

- ۸
- Non-Standard Measurement Unit The reported value is greater than the Contract Required Detection Limit (CRDL), but less than the Instrument Detection Limit (IDL) (Metals) Compounds identifed at a secondary dilution factor (Volatiles) Estimated Value (Volatiles)
- B D

J

Appendix D Survey Data

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SUBDIVISIONS TITLE SURVEYS TOPOGRAPHIC SURVEYS

NEW MONITORING WELL LOCATIONS & ELEVATIONS

AT BUILDING 036 13 OCTOBER 1998

WELL NO.	LOCAT	ION	<u>ELEVATION</u>
816	N 718620.96	590294.79 E	163.97
Ground			161.4
817	N 718636.88	590263.03 E	162.72
Ground			160.53
815	N 718607.77	590229.10 E	158.65
Ground			156.3
814	N 718549.60	590193.74 E	154.10
Ground			151.7
813	N 718583.17	590150.33 E	151.79
Ground			149.4
822	N 718714.27	590180.61 E	154.84
Ground	,		152.5
820	N 718839.06	590219.88 E	153.97
Ground			151.7
819	N 718788.90	590263.25 E	154.24
Pavement			154.79
821	N 718748.77	590238.59 E	154.37
Pavement			154.70
818	N 718734.05	590299.03 E	160.94
Pavement			161.31
810	N 718819.49	590095.57 E	147.63
Ground			145.03
811-S	N 718765.99	590066.94 E	147.53
Ground			144.93
811-D	N 718761.95	590068.37 E	147.39
Ground			145.03
812	N 718691.45	590070.42 E	149.31 146.73
Ground			140.75
Ground @ SW-D	N 718712.79	590031.05 E	142.53
Ground @ SW-C	N 718652.28	590051.85 E	
Ground @ SW-B	N 718621.20	590079.05 E	141.73 146.43
Ground @ SW-A	N 718514.14	590185.97 E	140.43

DESIGN REPORTS SUPERVISION CONSULTING SERVICES **Appendix E**

Groundwater Elevation Data Summary

IBM Kingston Former Industrial Waste Sludge Lagoon Area RCRA Facility Investigation

	TOC	·····	02/03/99
Well	Elevation	Static Water	Groundwater
		Level (ft)	Elevation (ft amsl)
MW-001-R	150.93	8.80	142.13
MW-001-S	151.17	8.14	143.03
MW-103-S	146.26	12.22	134.04
MW-106-S	152.00	6.89	145.11
MW-107-S	173.53	7.34	166.19
MW-125-S	173.88	11.89	161.99
MW-205-S	153.64	6.82	146.82
MW-206-S	152.42	8.23	144.19
MW-207-S	151.97	7.74	144.23
MW-208-S	152.31	8.15	144.16
MW-209-S	152.02	7.32	144.70
MW-210-S	151.99	9.43	142.56
MW-211-S	152.11	8.26	143.85
MW-220-S	145.50	11.40	134.10
MW-221-S	144.90	10.98	133.92
MW-222-S	140.54	5.95	134.59
MW-289-S	156.98	8.96	148.02
MW-290-S	154.83	5.01	149.82
MW-292-S	155.68	8.08	147.60
MW-293-S	154.46	7.44	147.02
MW-294-S	155.82	8.45	147.37
<u>MW-296-S</u>	154.69	7.39	147.30
MW-402-S	173.94	17.92	156.02
MW-501-S	162.60	14.04	148.56
MW-612-S	156.22	11.14	145.08
MW-801-S	152.27	7.10	145.17
<u>MW-802-S</u>	153.42	8.35	145.07
<u>MW-803-S</u>	158.32	14.47	143.85
MW-804-S	152.74	8.18	144.56
MW-810	147.63	3.34	144.29
<u>MW-811-S</u> MW-811-D	147.53	4.26	143.27
MW-812	147.39	<u>13.32</u> 7.77	134.07
MW-812	<u> </u>	9.32	<u>141.54</u> 142.47
MW-813 MW-814	151.79	6.87	
MW-814	154.10	8.32	<u>147.23</u> 150.33
MW-815 MW-816	163.97	9.54	
MW-817	162.72	9.25	<u> </u>
MW-817 MW-819	154.24	7.50	146.74
MW-819	153.97	7.26	146.71
MW-821	154.37	9.13	145.24
MW-822	154.84	10.03	144.81
MW-202-2	175.47	11.85	163.62
MW-202-3S	175.38	11.53	163.85
WITT-202-33	1/0.00	11.55	103.00

Appendix F

Pulse Test Results

IBM Kingston Former Industrial Waste Sludge Lagoon RFI Slug Test Calcuations: Bouwer and Rice Method

.

Well	Test Type	K (ft/min)	K (ft/day)						
MW-810	Insertion	0.0032	4.6						
	Withdrawal	0.0024	3.5						
MW-811S	Insertion	0.0230	33.1						
MW-811D	Insertion	Inconci	usive						
	Withdrawal	Inconclusive							
MW-812	Withdrawal	0.0075	10.8						
MW-813	Withdrawal	0.0068	9.8						
MW-814	Withdrawal	0.0044	6.3						
MW-815	Withdrawal	0.0078	11.3						
	Withdrawal	0.0013	1.8						
MW-816		Well not Tested - Insu	fficient water column						
MW-817	Withdrawal	0.0031	4.4						
MW-818		Well not Tested	- Well was Dry						
MW-819		Well not Tested - Insu	fficient water column						
MW-820	Withdrawal	0.0056	8.1						
MW-821		Well not Tested - \	Vell inaccessible						
MW-822	Insertion	0.0185	26.6						
	Withdrawal	0.0076	10.9						
MW-210	Withdrawal	0.0004	0.6						

Appendix G Flux Calculations

									opendix G Flux Celculati	ons														
Section 1	Flow = 437 Constituent Concentrat	0 gpd ions																						
	Well ID 810	Phenois (tot) nm	12-DCBZ 0.000	14-DCBZ 0.000	AS (diss) 0.0516	AS (tot) nm	CD (diss) 0.0007	CD (tot) nm	PB (diss) 0.0005	PB (tot) nm	AG (diss) nm	AG (tot)	111-TCA 0.000	11-DCA 0.067	11-DCE 0.000	12-DCA 0.000	12-DCE(tot) 0.050	CBZ 0.000	CEA 0.000	TCM 0.000	DCM 0.000	PCE 0.000	TCE 0.000	
	average conc (ug/l)	0.000	0.000	0.000	0.0516	0.0000	0.0007	0.0000	0.0005	0.0000	0.0000	0.0000	0.000	0.067	0.000	0.000	0.050	0.000	0.000	0.000	0.000	0.000	0.000	,
	Flux Ibs/day (LE) =	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	,
	Overall Flux	0.0000074	lbs/day																					
Section 2	Flow = 231: Constituent Concentrat	3 gpd ions																						
	Well ID 81	Phenols (tot)	12-DCBZ 0.300	14-DCBZ 0.000	AS (diss) 0.0121	AS (tot) nm	CD (diss) 0.0003	CD (tot) nm	PB (diss) 0.0006	PB (tot) nm	AG (diss) nm	AG (tot) nm	111-TCA 0.000	11-DCA 0.000	11-DCE 0.000	12-DCA 1 0.000	2-DCE(tot) 0.000	CBZ 1.517	CEA 1.033	TCM 0.000	DCM 0.000	PCE 0.000	TCE 0.000	
	average conc (ug/l)	0.000	0.300	0.000	0.0121	nm	0.0003	nm	0.0006	nm	nm	nm	0.000	0.000	0.000	0.000	0.000	1.517	1.033	0.000	0.000	0.000	0.000	
	Flux lbs/day (LE) =	nm	0.000	0.000	0.0000	nm	0.0000	កា	0.0000	nm	nm	រពា	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Overall Flux	0.0000629	bs/day																_					
Section 3	Flow = 1051 Constituent Concentrati	gpd ons						,																
	Well ID 812	Phenois (tot) nm	12-DCBZ 0.400	14-DCBZ 0.050	AS (diss) 0.0208	AS (tot) nm	CD (diss) 0.0002	CD (tot) nm	PB (diss) 0.0000	PB (tot) nm	AG (diss) nm	AG (tot)	111-TCA 0.0000	11-DCA 0.5167	11-DCE 0.0000	12-DCA 1 0.0000	2-DCE(tot) 0.1000	CBZ 1.4000	CEA 0.2667	TCM 0.0000	DCM 0.0000	PCE 0.0000	TCE 0.0000	
	average conc (ug/l)	0.000	0.400	0.050	0.0208	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.5167	0.0000	0.0000	0.1000	1.4000	0.2667	0.0000	0.0000	0.0000	0.0000	
	Flux lbs/day (LE) =	nm	0.000	0.000	0.0000	nm	0.0000	nm	0.0000	nm	nm	nm	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
	Overall Flux	0.0000278	bs/day																					
Section 4	Flow = 826 Constituent Concentrati	gpd ons																						
	Well ID MW-210S	Phenois (tot) 1.250	12-DCBZ 0.000	14-DCBZ 0.000	AS (diss) 0.0809	AS (tot) 0.0093	CD (diss) 0.0005	CD (tot) 0.0001	PB (diss) 0.0013	PB (tot) 0.0002	AG (diss) 0.0041	AG (tot) 0.0009	111-TCA 0.000	11-DCA 5.750	11-DCE 0.000	12-DCA 1: 0.000	2-DCE(tot) 0.000	CBZ 0.444	CEA 0.000	ТСМ 0.000	DCM 0.000	PCE 0.000	TCE 7.413	
	average conc (ug/l)	1.250	0.000	0.000	0.0809	0.0093	0.0005	0.0001	0.0013	0.0002	0.0041	0.0009	0.000	5.750	0.000	0.000	0.000	0.444	0.000	0.000	0.000	0.000	7.413	
	Flux lbs/day (LE) =	0.000	0.000	0.000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
	Overall Flux	0.0002241 k																						