

Narragansett Bay Commission 2013 Data Report



**Prepared by the staff of the Environmental Monitoring &
Data Analysis Section**

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Narragansett Bay Commission
Environmental Monitoring and Data Analysis Section 2013 Data Report

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The Narragansett Bay Commission

The Narragansett Bay Commission, or the NBC, was created in 1980 by the R.I. General Assembly to reduce the amount of pollutants Providence's Field's Point Wastewater Treatment Facility was discharging into Narragansett Bay and its tributaries. At that time, nearly 65 million gallons of untreated sewage flowed into Rhode Island's waterways every day, resulting in temporary and permanent closures of shellfishing beds in Upper Narragansett Bay, violations of federal laws, and most importantly, a serious threat to public health and the region's environmental and economic well-being.



NBC EMDA staff Installing an Industrial Manhole Sampler

The NBC acquired the facility from the City of Providence in 1982 and with statewide voter approval of an \$87.7 million bond referendum; the NBC transformed this dilapidated facility, the third oldest wastewater treatment plant in the nation, into a state-of-the-art award winning facility. As the largest secondary wastewater treatment facility in Rhode Island and the second largest in New England, the Field's Point Wastewater Treatment Facility provides preliminary and primary treatment for up to 200 million gallons per day (MGD) of wastewater, secondary treatment for up to 91 MGD and had an average daily flow to the facility of 42.7 MGD in 2013. Construction of biological

nutrient removal upgrades have been completed at Field's Point. Though the 5.0 mg/l seasonal permit limit does not go into effect until May 2014, the seasonal May through October total nitrogen average for 2013 was 3.6 mg/l.

In 1992, the R.I. General Assembly expanded the NBC's mission by placing it in charge of the Bucklin Point Wastewater Treatment Facility in East Providence. This facility is designed to provide preliminary and primary treatment for up to 116 million gallons per day, secondary treatment for up to 46 million gallons per day, and had an average daily flow to the facility of 20.7 MGD in 2013. During 1999, supervisory management of this plant was privatized to Professional Services Group (PSG), and is currently managed by Suez Environment/United Water. In the last several years the plant has undergone major upgrades to include new screening and grit facilities, wet weather facilities capable of providing primary treatment and disinfection, new fine bubble-diffusion aeration system, nutrients removal facilities, and ultraviolet disinfection of wastewater, eliminating the need to add chemicals to disinfect and dechlorinate wastewater prior to discharge. Biological nutrient removal upgrades are currently being constructed at Bucklin Point in order to meet a seasonal permit limit of 5.0 mg/l total effluent nitrogen.



NBC Laboratory staff Preparing Oil & Grease Samples for Analysis

The NBC now owns and operates the state's two largest wastewater treatment facilities and provides quality wastewater collection and treatment services to about 360,000 persons and 7,700 commercial and industrial customers located in Providence, North Providence, Johnston, Pawtucket, Central Falls, Cumberland, Lincoln, the northern portion of East Providence, and small sections of Cranston and Smithfield.

Environmental Monitoring and Data Analysis Program Overview

The Environmental Monitoring and Data Analysis (EMDA) section evolved from the Pretreatment section, where prior to 1992, two Engineering Technicians, assisted by Pretreatment staff, implemented the industrial and manhole monitoring activities. With the acquisition of the Bucklin Point Wastewater Treatment Facility in 1992, there were two separate and distinct Pretreatment Programs, one for each treatment facility. Shortly thereafter, the two Pretreatment Programs were united and the Environmental Monitoring Program and Data Analysis section was created within the NBC Planning, Policy and Regulation Division. Over the years, the Environmental Monitoring and Data Analysis section has evolved and is now responsible not only for industrial and manhole monitoring activities, but for all aspects of environmental monitoring for the NBC. EMDA staff conduct compliance monitoring for both treatment plants, river monitoring to support NBC's Interceptors and Maintenance section in their efforts to quickly locate and stop dry weather discharges of Combined Sewer Overflows (CSO), monitoring the upper Bay for fecal coliform contamination to determine the effects of NBC CSOs on this area of the Bay and as support to NBC Engineering staff to assess the effectiveness of the CSO abatement tunnel project, river and upper Bay monitoring for nutrients to assess the impact of NBC nutrient removal upgrades, sampling of suspected hazardous waste found in sewers during routine line cleanings and in other NBC facilities during decommissioning and demolition activities, and other sampling as needed. EMDA staff also conducts many sampling initiatives to evaluate effectiveness of new technologies, such as nutrient removal and ultraviolet disinfection.

In 2002, the NBC was awarded an EPA grant to develop a website to provide real time data of the upper Bay receiving waters of the NBC plant outfalls. A fixed site station was constructed at an abandoned pier at Phillipsdale Landing in East Providence, and a state-of-the-art monitoring buoy was acquired and deployed at Bullock's Reach, just north of Conimicut Point in upper Narragansett Bay. These sites provided invaluable data to the RI DEM and the scientific community over the past several years and played a key role to these stakeholders in their investigation to understand the August 2003 fish kills associated with hypoxic events in Narragansett Bay. As a result of these fish kill events, the Governor established a Bays, Rivers and Watershed Coordination Team, of which the NBC is a member. The NBC is also a valuable contributing member of the Rhode Island Environmental Monitoring Collaborative, a subgroup of the Coordination team formed by Governor Carcieri. The NBC has coordinated monitoring activities with other agencies performing monitoring statewide, and as a result the NBC EMDA section's role in environmental monitoring and compliance issues continues to expand as compliance issues become ever more complex.

The Environmental Monitoring & Data Analysis Section continues to perform the following

monitoring activities:

- Daily sampling of NBC's two plants to satisfy RIPDES requirements;
- Sampling of each Significant Industrial User at least twice annually to satisfy and exceed EPA Pretreatment Program mandates;
- Weekly monitoring of surveillance manholes to satisfy EPA mandates;
- Monitoring of sanitary manholes to obtain data required for local limits development;
- Weekly sampling of the urban rivers for bacteria analysis;
- Sampling of 19 locations in the NBC receiving waters of the Providence and Seekonk Rivers for bacteria analysis;
- Bimonthly sampling of rivers entering the upper Bay from Massachusetts and Rhode Island for nutrients;
- Sampling of 7 locations at surface and bottom in the Providence and Seekonk Rivers for nutrients;
- Mapping of the Providence and Seekonk Rivers for chlorophyll, DO, temperature and salinity;
- Special project sampling for the NBC Engineering, Operations and other sections to assist in facilities planning, improvements to plant operations, etc.;
- Routine maintenance of the Fixed Site Water Quality Monitoring buoy and land-based dock station to ensure accurate data to state partners and the public.

The NBC EMDA section has always done an excellent job of implementing monitoring initiatives; however in the past the public has had to specifically request data results of the NBC's sampling activities. In 2005 an annual report summarizing the 2004 monitoring data and activities of the Narragansett Bay Commission's Environmental Monitoring and Data Analysis section was published. This was a great accomplishment to be able to disseminate all of the monitoring data collected by EMDA and provide statistical analyses and discern trends and fluctuations in the data over time; however, because of the vast body of data collected and analysis that was done for each data set, this type of report became too large and cumbersome to create yearly. Therefore, in order to get the data to the public sooner, a more streamlined presentation of data without a formal analysis was created for monitoring results for each year since 2007. This report serves as a format for public dissemination of all 2013 EMDA monitoring data.

Acknowledgements

This report has been prepared by the staff of the Environmental Monitoring and Data Analysis section, under the general direction of Thomas P. Uva, Director of Planning, Policy and Regulation. This report is a summation of the collective efforts by the Environmental Monitors and Monitoring Field Supervisors that collected in excess of 28,497 samples during 2013. It represents the countless hours of processing, compiling, analyzing and interpreting all the data by the Environmental Scientists and Assistant Manager, and data entry and general assistance by clerical staff. The laboratory staff analyzed all of the samples collected by the EMDA section. In total, during 2013, the Laboratory generated 111,344 analyses from the samples it received. A special

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Field's Point and Bucklin Point POTW **Sample Collection Methodology and Practices**

Introduction

It is the Narragansett Bay Commission's (NBC) mission to protect and enhance the water quality of Narragansett Bay and its tributaries through careful collection and treatment of wastewater from residences, businesses and industries in the NBC District. The Environmental Monitoring and Data Analysis (EMDA) section's primary objective is to perform routine and adequate sampling of a wide variety of parameters to ensure that both the Field's Point and Bucklin Point Wastewater Treatment Facilities (WWTF) are effectively meeting operational and RIPDES permit requirements. An extensive sampling schedule employing composite and grab samples within the two wastewater treatment facilities at the raw influent, primary influent, primary effluent, mixed liquor, return activated sludge, final sludge, and final effluent are necessary to keep abreast of what is introduced to and discharged from each plant, and the removal efficiencies of all conventional and non-conventional pollutants. Synthesis of this data is a continuous and ongoing process with monthly evaluations required for RIPDES discharge monitoring reports as well as periodic evaluation of the local limits that the pretreatment section uses to regulate industrial and commercial users (SIU) and ensure that no upset, pollutant pass-through, process interference, or discharge permit limit violations occur. Clean sampling and sample-handling techniques, high quality laboratory measurements, and ease of access to this data are the necessary ingredients to providing accurate data to quickly identify potential problems within the plant, and to routinely reassess the removal efficiency of pollutants. All sample collection, preservation, and storage at the Field's Point and Bucklin Point WWTFs are performed with strict adherence to U.S. EPA protocols. The current RIPDES permits require sampling of the influent and effluent wastewater streams at the Field's Point and Bucklin Point WWTFs for toxic and conventional pollutants on a regular basis.

NBC's continuing goal is to improve receiving water quality by limiting the impact of WWTF effluent on Narragansett Bay. The NBC has analyzed and tracked the toxic pollutant loading trends at its treatment facilities since the creation of the agency. EMDA works in conjunction with the Pretreatment, Laboratory, Operations, and Engineering Sections of NBC to conduct sampling of wastewater from its sources, throughout its collection and treatment systems, and ultimately to its final fate as either sludge or as effluent in Narragansett Bay. In support of NBC's mission and RIDPES requirements, the EMDA section collected 28,497 samples and the NBC lab analyzed these samples for 111,344 parameters during 2013. WWTF sampling data for 2013 is attached and can be found in Tables 1–37. Table numbers are also referred to in each section below.

Collection of Samples at Field's Point and Bucklin Point

Samples collected to evaluate the WWTF process are either composite samples collected over a particular time period or grab samples. Composite samples are formed by combining discrete samples taken at periodic points in time. Refrigerated ISCO autosamplers are used throughout Field's Point and Bucklin Point to collect composite samples on a regular predetermined basis. All refrigerated autosamplers are kept at 4°C. Grab samples are discrete samples collected at particular time periods but placed into separate sample bottles and are analyzed as individual samples. The differences in sampling between Field's Point and Bucklin Point mainly exist in the influent sampling at the interceptors into the facility and the retention time used to determine when influent and effluent samples are collected. Field's Point influent samples are collected on a time-paced basis at the single interceptor that feeds the facility, after bar screening and prior to grit removal tanks. When samples are collected for metals or nutrient analysis, the influent and effluent samples are collected 12-hours apart with the goal of sampling the same parcel of water as it enters the plant for treatment, and after treatment to evaluate the performance of the plant. For BOD and TSS the influent and effluent samples are collected without any time off-set. Bucklin Point influent samples are collected on a time-paced basis from the two interceptors that feed the facility. Composite samples are collected from both interceptors, the Blackstone Valley Interceptor (BVI) and the East Providence Interceptor (EPI) and mixed flow proportionally. Influent and effluent samples are collected 17-hours apart with the goal of sampling the same parcel of water as it enters the plant for treatment, and after treatment to evaluate the performance of the plant. At both facilities final effluent sample collections are time-paced and downstream of all treatment processes. The final effluent represents wastewater after complete treatment just prior to entering the receiving waters of the Providence or Seekonk River. Collection of the final effluent sample at Field's Point takes place after chlorination and dechlorination of the wastewater, in the outfall channel downstream of the chlorine contact tank. The final effluent sample at Bucklin Point is collected downstream of the UV chamber in the UV building. The following are more detailed descriptions of composite sampling at both WWTFs.

Composite Sampling at Field's Point

Composite sampling at Field's Point is done on a time paced basis. All composite samplers sample the waste stream at 30-minute intervals and take a volume of 100 ml. The samples collected are time-paced 24-hour composites of the wastewater at a sampling location.

EMDA uses refrigerated ISCO 3700, ISCO 4700, and ISCO 6712 programmable samplers. The samplers are located at the Influent/Grit Building, Primary Influent, Primary Effluent, Mixed Liquor East and Mixed Liquor West, Wet Weather Tank Influent and Effluent, and Final Effluent. Temperatures of the samplers are always maintained at 4 degrees centigrade (acceptable range is 1-6 degrees Centigrade). The Influent Daily/Metals, Primary Effluent, Effluent Daily, and Back-up samplers are configured for 24-hour time-paced composite sampling.

Two types of suction tubing are used for sampling at FPWWTF. Influent and Effluent peristaltic samplers collecting samples for trace metals use suction lines lined with Teflon®. Teflon® has characteristics that enable it to be cleaned to trace metal grade. Extra care is required in handling this tubing to prevent cracking due to its brittle nature. Peristaltic samplers not collecting trace metals samples use Tygon® tubing as suction lines. This tubing is much more resilient and pliable. The Teflon® and Tygon® suction lines both measure ½" in outer diameter and ⅜" in inner diameter. Sampler suction lines are changed semi-annually and pump tubing changed every month. A dilute sodium hypochlorite solution is used to clean both the Teflon® and Tygon® suction line and pump tubing of the automatic samplers weekly. This procedure takes place at the auto sampler collection site. The Teflon® tubing is also acid washed monthly.

The United States Environmental Protection Agency (USEPA) released an assessment of historically used trace metals sampling procedures. The report found that the levels of contamination from the sampling/vessel cleaning process resulted in metals levels higher than the bodies of water being sampled. Therefore, USEPA made a series of recommended sampling techniques for clean sampling that EMDA follows specifically. For Influent/ Grit Building and Final Effluent auto samplers that collect wastewater analyzed for trace metals and nutrients, special clean sampling methods are used to reduce contamination. The method requires acid cleaning of composite containers prior to use and acid cleaning of suction and pump tubing. Blanks are collected to monitor and verify proper cleaning. A Nalgene polyethylene carboy is used to collect composite samples for analyses of these parameters.

Composite sampling at Bucklin Point

Composite sampling at Bucklin Point is time paced. Composite sampling takes place at the Influent, Primary Effluent and Final Effluent (FE). Composite samples from the Blackstone Valley Interceptor (BVI) and the East Providence Interceptor (EPI) are combined and analyzed together for all parameters. The autosamplers sample the wastestream at 30 minute intervals and take a volume of 100 ml. The samples collected are time-paced, 24-hour composites of the wastewater at a sampling location.

All automatic samplers used at the Bucklin Point WWTF are refrigerated peristaltic pump samplers. Automatic samplers used include the ISCO sampler models 3700, 4700, 6712., and Sigma sampler model 9000. These samplers are located at BVI, EPI, primary influent, primary effluent, mixed liquor, final effluent, and wet weather effluent. A sampler was located at the return activated sludge for most of 2013, but on December 10, 2013 this automatic sampler was switched off and manual grab sampling began. All sample locations use the ISCO samplers, except for the Primary Treatment Effluent which uses the Sigma sampler. The samplers are configured for 24-hour time paced composite sampling. Temperatures of the refrigerated samplers are always maintained at 4 degrees centigrade (acceptable range is 1-6 degrees centigrade) and their temperature is documented three times a day by EMDA staff. Each composite carboy container has been marked with a permanent marker to identify the sampling location at which it is used.

Influent and effluent peristaltic samplers collecting samples for trace metals use special suction lines lined with Teflon®. Teflon® has characteristics that enable it to be cleaned to trace metal grade. Extra care is required in handling this tubing to prevent cracking due to its brittle nature. Peristaltic samplers not collecting trace metals samples use Tygon® tubing as suction lines. This tubing is much more resilient and pliable. The Teflon® and Tygon® suction lines both measure ½” in outer diameter and ⅜” in inner diameter. Sampler suction lines are changed semi-annually and pump tubing changed every month. A dilute sodium hypochlorite solution is used to clean both the Teflon® and Tygon® suction line and pump tubing of the automatic samplers weekly. This procedure takes place at the auto sampler collection site. The Teflon® tubing is also acid washed monthly.

As mentioned above for Field’s Point, Bucklin Point also uses the EPA recommended clean sampling techniques for sample collection of wastewater for metals and nutrients analyses. A Nalgene polyethylene carboy is used to collect these “clean” composite samples at Bucklin Point. The samplers are equipped with Teflon® (3/8” inner diameter) tubing and a suction line strainer is not employed to reduce contamination. The method requires acid cleaning of composite containers prior to use and acid cleaning of suction and pump tubing. Blanks are collected to monitor and verify proper cleaning. A Nalgene polyethylene carboy is used to collect composite samples for analyses of these parameters. Cleaning and handling of samplers, pump and suction tubing and composite carboys are also outlined in the following sections under the specific parameters analyzed.

Sample Collection for Total Suspended Solids (TSS), Biological Oxygen Demand (BOD) and Fecal Coliform

NBC’s RIPDES permits require sampling of TSS and BOD daily using 24-hour composites at both the influent and effluent. As stated above, the influent and effluent samplers collect samples from the waste stream at 30 minute intervals. Carboys with collected sample water are brought to the NBC laboratory for analyses every morning around 8:00 am. EMDA staff cleans sample carboys used for TSS and BOD collections in the dishwasher after each use and carboys are replaced as necessary. Tygon® tubing is

used with these samplers. A dilute sodium hypochlorite solution is used to clean the suction line and pump tubing weekly. Sampler suction lines are changed semi-annually and pump tubing changed every month.

At Field's Point WWTF two grab samples are taken at the effluent per flow day for fecal coliform bacteria analyses. EMDA staff takes the first fecal coliform sample at 08:00; operations staff takes the second sample in the time frame of 03:00-05:00. The final fecal coliform value for that day is a geomean of the two grab samples as well as any duplicate samples or extra samples collected that day. At Bucklin Point WWTF four effluent grab samples are taken throughout the day for fecal coliform bacteria. A geomean is then determined from these results and any duplicate or extra samples and is assigned as the fecal coliform value for that day.

The procedure for fecal coliform sampling at both WWTFs is as follows:

- Wearing new, clean Nitrile gloves place sample container in sampling device (an open-ended PVC cylinder with the bottle held in place by a small screw running through the cylinder body. A line is attached to the cylinder body for lowering into the water)
- Open the sterile 250-ml container. Do not use if seal is broken before opening. Make sure that the sodium thiosulfate pellet remains in the bottle throughout the collection process. This chemical neutralizes residual chlorine if present.
- Place sampling device into the center of the stream, 6 inches below surface, to collect sample.
- Container must be filled to the "EPA FILL LINE".
- Remove coliform bottle from the sampling device and close container.
- Secure and seal the sample cover.
- Place label on container with time, date, collector's initials and the operator collected TRC value in ppm.
- Place in cooler with ice and transport directly to NBC laboratory.

In 2010, based upon information from the DEM that our forthcoming new RIPDES permits are likely to include effluent limitations for enterococci rather than fecal coliform, a study was initiated to analyze every plant bacteria sample for both fecal coliform and enterococci in order to be able to evaluate plant performance against the new permit limits which are expected to be 35 MPN/100 ml monthly geomean and 276 MPN/100 mL for a daily maximum geomean. The daily maximum limit could vary considerably depending on how the DEM characterizes our receiving waters. If our receiving waters are deemed "Moderate full body contact recreation" then the limits would be 124 MPN/100 mL. If they are deemed "Lightly used full body contact recreation" then 276 MPN/100 mL would be the limit. If "Infrequently used full body contact recreation" is designated then the limit would be 500 MPN/mL. The study began at Field's Point on May 28th and June 8th at Bucklin Point.

TSS, BOD and fecal coliform data for 2013 can be found in the attached Tables 1 and 2. Enterococci data can be found in Tables 3 and 4.

Sample Collection for Metals and Cyanide

Toxic pollutant monitoring requirements include 24-hour composite sample collections for the analysis of copper, mercury, nickel, silver, zinc and cyanide at Field's Point and copper, lead, mercury, nickel, silver, zinc, hexavalent chromium and cyanide at Bucklin Point. Other metals that are analyzed for but are not required by the RIPDES permits include arsenic, aluminum, cadmium, iron, selenium, molybdenum, and tin. Metals and cyanide measurements are required twice-weekly at both plants except for arsenic, selenium, and molybdenum which are collected once per week in the influent and once per month in the effluent. Metals and cyanide data for 2013 can be found in the attached Tables 5-12.

The current method for collection of cyanide at both Field's Point and Bucklin Point mandates nine grab samples to be collected over a 24-hour period, separated by a minimum of two hours. The automated samplers collect discrete samples for CN analysis into one-liter containers that are pre-preserved with sodium hydroxide. These samplers collect a 300 mL sample every two hours for 48 hours, once a week. At Bucklin Point, composite samples for cyanide and metals at the influent are collected from both interceptors, the Blackstone Valley Interceptor (BVI) and the East Providence Interceptor (EPI) and are composites of nine separate grab samples at each location. These cyanide samples are mixed flow proportionally. At both plants, nine of the twelve grab samples from the twenty-four hour sampling period are composited into a 2 liter HDPE bottle. The pH is tested to insure it is greater than 12 before compositing. The composite is poured off into a 500 mL brown HDPE bottle.

For influent and final effluent auto samplers that collect wastewater analyzed for trace metals, special clean sampling methods are used to reduce contamination. The method requires acid cleaning of composite containers prior to use and acid cleaning of suction and pump tubing. Blanks are collected to monitor and verify proper cleaning. A 15-liter Nalgene polyethylene carboy is used to collect composite samples. Carboy cleaning procedures and quality assurance measures are in place to insure clean and proper sampling. Acid washed carboys are put into place twice weekly at the influent and effluent to collect samples to be tested for trace metals and nutrients; this is in conjunction with the samples collected for CN. Monthly post-cleaning blanks are collected from the acid washed carboys to ensure the success of the cleaning procedure. These blanks are collected by adding DI to a cleaned carboy, swirling the DI in the carboy, and letting it sit overnight refrigerated. The DI is then poured off into pre-labeled, pre-cleaned containers for analysis of parameters of interest.

Field blanks are taken each time an analysis is required for mercury at both Field's Point and Bucklin Point. The procedure for collecting a field blank consists of transporting sufficient DI water into the field and collecting a sample using identical sampling and preserving procedures that are used in collecting the mercury sample.

Sample Collection for WWTF Nutrients Analysis at Field's Point and Bucklin Point

Permit requirements for nutrients were modified by the Rhode Island Department of Environmental Management (RIDEM) during 2005 as part of new nutrient permit limits issued to reduce the amount of nitrogen discharged to Narragansett Bay. The permit requirements mandate monitoring of nitrate, nitrite, and total kjeldahl nitrogen (TKN) three times per week. Ammonia monitoring permit requirements remained at twice weekly, but NBC has sampled all nutrient parameters three times per week beginning August 1, 2005. Seasonal effluent discharge limits of 5 ppm for total nitrogen were proposed by the RIDEM in the 2005 RIPDES permit modification, and out of this proposed permit came the current nutrient consent agreement between the NBC and RIDEM. In June 2006, a consent agreement was signed, which imposes a seasonal interim effluent permit limit of 18.2 ppm on total effluent nitrogen at Field's Point and 10.0 ppm for Bucklin Point. In May 2009 the DEM modified the consent agreement for Bucklin Point to impose a seasonal interim total effluent nitrogen limit of 8.5 ppm. NBC has worked diligently to maximize nitrogen removal at Bucklin Point and has achieved significant reductions in nitrogen loading. However, NBC determined that additional modifications were required to achieve compliance with the nitrogen limit of 5 mg/l as set forth in the Consent Agreement. Construction is currently underway at Bucklin Point to reduce nitrogen further. At Field's Point, major facility upgrades and renovations are necessary to implement BNR technology, and are currently taking place at the facility.

Nutrients are analyzed from 24-hour composite influent and effluent samples. Samplers automatically collect samples every 30 minutes and composites are delivered to the lab three times per week. EMDA staff regularly clean and replace suction and pump tubing as well as sample collection carboys as part of its clean sampling technique. A dilute sodium hypochlorite solution is used to clean the suction line and pump tubing of the automatic samplers monthly. Sample collection carboys are dishwasher cleaned, acid washed and DI rinsed before they are placed at their sampling location. Equipment blanks are collected every other month from the acid washed carboys and pump tubing and are used to verify the absence of sample contamination.

All nutrient samples are analyzed by the NBC Laboratory. The nutrients analyzed are total kjeldahl nitrogen (TKN), nitrite, nitrate, ammonia, and total phosphorus. TKN analyses determine both ammonia nitrogen and organic nitrogen in a sample. The organic nitrogen component is necessary to determine and monitor total nitrogen in WWTF effluent. Nitrate is determined by difference from a combined nitrite/nitrate measurement and a nitrite measurement. A new nutrient auto analyzer was acquired by NBC's Laboratory in 2004. This instrument shows improved analysis efficiency for nutrient measurements, and analytical results from the new equipment continue to produce better precision and accuracy than previous analyses. WWTF nutrients data for 2013 can be found in Tables 13 and 14.

Sample Collection for Oil and Grease at Field's Point and Bucklin Point

Based on RIPDES permit requirements, three grab samples are collected over the course of a 24-hour period, with one grab per shift, once a month at both the Field's Point and

Bucklin Point influent and effluent for oil and grease. The grabs are analyzed separately and the maximum is reported. The RIPDES permit does not set a discharge limit.

Oil and grease samples are collected using a pre-cleaned bottle is labeled with collection time and date, site, and the parameter to be analyzed. The cap is removed, taking care not to contaminate it, and the sampler is then lowered just below the surface. The bottle is filled and then recapped. Oil and grease grabs are preserved with hydrochloric acid to a $\text{pH} < 2$ by EMDA staff, as soon as possible after collection. These samples are then brought to the NBC lab for analysis. Oil and grease data results for 2013 can be found in the attached Table 15.

Sample Collection for Effluent Dissolved Metals Analysis at Field's Point and Bucklin Point

In 2000, the NBC began a study to monitor the dissolved metals fraction of the effluent discharged to the receiving waters of the Providence and Seekonk Rivers. During 2013, Field's Point and Bucklin Point effluent samples were analyzed monthly. The NBC and DEM use this data to better understand the fate, effect, and physical partitioning of metals discharged from the POTWs. Understanding the dissolved and total fractions for each metal, a measure of its phase partitioning, between dissolved and particulate, is important for the calculations of permit discharge limitations. POTWs are permitted in total metals. Therefore, the RIDEM must use a "metal translator conversion factor" to estimate the POTWs total metal fraction in the receiving waters that will be in the dissolved phase when writing a permit for a wastewater treatment plant.

Metals in the dissolved form are more readily absorbed by marine life than metals associated with particles. Resultantly, the EPA and DEM have established fresh and saltwater water quality criteria in dissolved metals concentrations. By sampling for total and dissolved metals, the NBC will be able to better assess the ratio of dissolved to total metals in POTW effluent and in the receiving waters.

Effluent dissolved metals samples are analyzed once a month and samples are taken from the effluent total metals composite sample on the first Tuesday of each month. The effluent metals sample is a 24-hour composite sample taken after treatment of the wastewater is complete just before entering the Providence River. As part of a quality assurance plan, the NBC lab analyzes laboratory equipment blank samples along with the dissolved metals to insure accurate results. Effluent dissolved metals data results for 2013 can be found in Tables 16 and 17.

Collection of Final Effluent for Quarterly Bioassay Tests

The two NBC Wastewater Treatment Facilities are required to conduct quarterly bioassay studies to determine whole effluent toxicity (WET) to test organisms. NBC conducts chemical analysis and aquatic toxicity testing, using the response of organisms to detect and measure the presence or effect of one or more substances, wastes, or environmental factors, alone or in combination. NBC met the quarterly bioassay sampling frequency

requirements during 2013 for both facilities. At both facilities *Americamysis bahia* and *Arbacia punctulata* are tested. Effluent samples are collected only in dry weather, defined as 48 hours prior to or during sampling and are a composite sample collected over a 24 hour period. Composites consist of 195 mL of wastewater collected every 30 minutes over the course of 24 hours. The back-up automatic composite samplers are used for this sampling and are cleaned and maintained in the same way as those collecting samples for TSS and BOD. EMDA staff cleans the sample carboys in the dishwasher after each use and carboys are replaced yearly. A dilute sodium hypochlorite solution is used to clean the suction line and pump tubing of the automatic samplers weekly.

Two bioassay tests are performed as required by the NBC RIPDES permits; an acute toxicity test in which the whole effluent is tested to examine survivability of test organisms *Americamysis bahia* in varying concentrations of effluent. The second test is a chronic toxicity test which examined the effect of effluent on the ability of the test organism *Arbacia punctulata* to fertilize eggs in varying concentrations of effluent. Both tests are conducted in five dilutions of effluent plus a control: 100% effluent; 50% effluent; 25% effluent; 12.5% effluent; and 6.25% effluent. The control and seawater used for the dilution is natural seawater.

Analysis of the acute toxicity data provided determination of the LC₅₀ and the A-NOEC. The LC₅₀ result is defined as the concentration of wastewater that causes mortality to 50% of the test organisms. A-NOEC or Acute-No Observable Effect Concentration is defined as the highest concentration of the effluent in which 90% or more of the test animals survive. The permit requirement limit of 100% or greater is defined as a sample which is composed of 100% effluent. In addition to the acute toxicity test, the chronic test is performed on *A. punctulata*, which examines for the sublethal effects of effluent concentration on the fertilization of eggs. The permit limit for Bucklin Point is 50% or greater for this parameter while at Field's Point the permit requires only monitoring.

The WET tests are designed to supplement effluent monitoring to determine whether the combination of chemical species present in a WWTFs effluent is toxic to test organisms. The monitoring for individual pollutants is targeted towards ensuring that the concentrations of the individual pollutants are at levels which do not pose harm to aquatic organisms. The WET tests are an attempt to determining the synergistic impact of NBC effluent on receiving waters. All bioassay analyses are performed by third party laboratories contracted by NBC and must be conducted in accordance with protocols listed in the EPA document: Cornelius I. Weber, et. al., 1991. Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, Fourth Edition (or the most recent edition). Bioassay data results for 2013 can be found in attached Tables 18 and 19.

Sample Collection for Sludge Analysis at Field's Point and Bucklin Point

Sludge from Field's Point WWTF is collected daily and sludge from Bucklin Point WWTFs is collected Monday through Saturday, due to the fact that the contractor processing the sludge is closed on Sundays. Sludge from both plants is analyzed for total solids (TS) and volatile solids (VS). Sludge samples are also analyzed one to two times

per month for metals and cyanide. Field's Point WWTF sludge was dewatered on-site using a belt press until December 2005, and is now handled by an outside contractor. Grab samples are taken throughout the day by the contractor and composited in one 4 L container. EMDA staff then pours part of this composite into a 16 oz. container for delivery to the lab by 8:00 AM the next day. These containers are disposed after a single use. At the Bucklin Point WWTF an outside contractor also processes the sludge. Similar to Field's Point, the contractor staff takes grab samples throughout the day and composites these into a 4 L container at the end of the day. This is stored in the refrigerator until EMDA picks up the sample the next morning. EMDA staff mix the sample and pour off approximately 500 mL into a smaller container to bring to the lab for analysis. Data results from sludge sampling for 2013 can be found in attached Tables 20-23.

Sample Collection for VOCs/Priority Pollutants

Grab samples are collected monthly at influent and effluent locations for volatile organic compounds (VOCs). The same type of glass jars used for oil and grease samples are used for the grab collection. The glass jar is fastened to the end of a pole and dipped in the wastewater to collect the sample. This sample is then poured off into three pre-preserved 40 mL glass vials. The glass vials have been pre-preserved with 3 drops of hydrochloric acid in each vial before collection. The glass vials are then transported to the laboratory for analysis. Priority pollutant data results for 2013 can be found in attached Tables 24 and 25.

Sanitary Manhole Monitoring

EPA and RIDPES permit regulations require the NBC Pretreatment Program to reevaluate local discharge limitations every five years. In order to complete this task, the NBC must monitor sanitary manholes to evaluate pollutant loadings from residential sources. One of the primary sources of information regarding the water quality of wastewater in the NBC collection system comes from sanitary and industrial manhole sampling. The NBC began sanitary and combined sewer manhole sampling in 1993, and in 2000, EMDA began to make these collections using EPA approved clean sampling techniques to quantify the background loadings of metals and cyanide from residential and non-industrial sources. As laboratory detection limits continue to decrease due to improved clean sampling handling techniques, these data become a more precise measure of the amount of uncontrolled toxic chemicals that enter the NBC collection system from residential, non-industrial sources.

Sanitary manholes have been identified in residential areas, upstream of any industrial or commercial facilities. These background loadings are outside the realm of control by the NBC regulatory Pretreatment program, but provide the setting for determining how much of a given pollutant that can be accepted and effectively removed at each of the treatment facilities. These samples reveal the composition of what is being introduced into the collection system in a more site-specific way than the influent composite samples.

During 2013, the NBC collected sanitary manhole samples. The collection of sanitary manhole samples works as follows: automated sampling devices suspended in the manholes are programmed to collect 100 mL of wastewater every fifteen minutes for a 24 hour time period during a given weekday starting early morning. The aliquots collect into a 10 L acid washed Nalgene jug over the 24 hour period, and the composite sample is later poured off into specified containers for each different parameter including total metals, cyanide, total suspended solids/biological oxygen demand, and mercury. The initial pH of the composite is taken and recorded on a chain of custody document, and for those parameters that require preserving, the preservative used is marked and the final pH is recorded. After every use, the automated sampling device tubing and jug is acid cleaned, rinsed with DI water, and a cleaning blank is produced.

Biological oxygen demand (BOD), total suspended solids (TSS), cadmium (Cd), chromium (Cr), copper (Cu), lead (Pb), nickel (Ni), Molybdenum (Mo), silver (Ag), zinc (Zn), cyanide (CN), mercury (Hg), arsenic (As), selenium (Se), and tin (Sn) were measured in both Field's Point and Bucklin Point sanitary manholes in 2013.

Sanitary manhole data is essential for providing a point of comparison and screening of collection system data to determine problem areas within the collection system. In addition, the sanitary manhole data is necessary for the calculation of the local limits that the NBC imposes on its industrial users. Sanitary manhole data results for 2013 can be found in Table 26.

Significant Industrial User (SIU) Sampling

The Environmental Protection Agency (EPA) requires that all significant industrial users be sampled at least once every twelve months. NBC has established a more stringent goal to sample each user twice per year. Information regarding what is introduced to NBC facilities is gathered through industrial user and industrial manhole sampling, in addition to the required user self-monitoring. The industrial manhole sampling is an additional means to track chemical spills, concentrated, or non-compliant discharges, as well as to ensure that industrial users are in compliance with the limits set by the Narragansett Bay Commission. The NBC collected 1,642 individual sample bottles from industrial users within both service districts during 2013. These 1,642 sample bottles were analyzed for numerous parameters and resulted in 231 sets of industrial user sample results. Industrial user data results for 2013 can be found in Table 27.

Industrial manhole sampling activities are designed to isolate a specific business within the collection system to surreptitiously determine the typical discharge from the business. Samples are taken upstream and downstream of a significant user's discharge point via manholes. The upstream sample serves to establish a background concentration with which to compare the results from the industry, as well as confirm that the source of any contaminants is from the permitted user, not additional sources. The distance between these two sampling locations is typically 150 feet, depending on the location of the nearest manhole.

ICSO GLS samplers are used to perform both sanitary and industrial manhole sampling, as well as collect plant influent samples. This sampler can be programmed to collect samples every 15 minutes for 24 hours, thereby providing a composited representation of the average discharge for that time period. Samplers can disperse the water collected into up to 24 sample bottles, thereby allowing for an intensive analysis of the variations within the upstream and downstream sample locations, if necessary.

A Tygon suction line with a stainless steel strainer attached at the end is used to collect samples from the middle of the waste-stream. Samples are immediately checked for sulfides and chlorides using lead acetate and potassium iodide indicator paper, respectively, as these chemicals can interfere with cyanide measurements.

Cyanide sample pH is adjusted using sodium hydroxide to a pH above 12, and metals samples are acidified to a pH of less than 2 with trace metal grade nitric acid. Samples are analyzed for cadmium, chromium, copper, lead, nickel, silver, zinc, and cyanide. All metals were analyzed by Inductively Coupled Plasma – Mass Spectrometry (ICP-MS).

The implementation of clean sampling techniques at the NBC has provided additional means of confirming that industrial discharges do not exceed treatment capacity. The EMDA industrial user sampling supplements the self-monitoring activities, providing a means for enforcing local limits for the pollutants.

Septage Sampling

The NBC receives septage waste, waste pumped out of septic tanks, at the Lincoln Septage Receiving Station in Lincoln, RI. The Lincoln station input point is within the Bucklin Point service district, approximately 11 miles from the Bucklin Point facility. The septage is routinely monitored by the EMDA for toxic constituents to ensure that the material received does not contain toxics in concentrations that exceed NBC's Pretreatment Industrial Discharge Limitations for the Bucklin Point WWTF, to which the waste ultimately discharges. This sampling also helps NBC evaluate the percent of metals loading received from septage into the Bucklin Point WWTF. Septage samples are collected daily Monday-Saturday as composite samples of all of the septage trucked to the NBC Lincoln Septage Receiving Station. All six composite samples are kept refrigerated until they are picked up by EMDA staff on Mondays at the Lincoln Septage Station and are brought to the NBC lab on Tuesdays for analysis. Three daily samples are chosen at random and analyzed by the NBC Laboratory for trace metals and cyanide each week. Interceptor Maintenance staff sample and screen each septage truck's waste delivery for quality by looking at the physical characteristics and by measuring pH during the pump-out at the septage facility. Grit removal at the septage facility removes a portion of the metals loading prior to its introduction to the sewer system and the treatment plant. During 2013, 157 septage samples were analyzed for trace metals and cyanide.

New septage sample collection techniques and equipment were introduced in June of 2004. The new equipment allowed for easier, in-line sampling during septage delivery. A sample from each truck is collected after the sample port is flushed thoroughly, usually after the load has discharged, for approximately one minute. The sample from an

individual truck is screened for pH, odor, and other unusual characteristics. If any anomaly is observed, the sample is targeted for individual analysis; otherwise it is combined with the day's delivery and sent to the laboratory for analysis. This new sampling protocol has helped to more quickly locate potential toxic inputs to the collection system. These more representative sampling techniques may partially explain the observed increase in septage metal loadings since 2004. Septage data results for 2013 can be found in Tables 28 and 29.

NBC Receiving Water Monitoring Activities

The NBC not only monitors wastewater from the source (industries and manholes) to the WWTFs and throughout the plant process, but also monitors the receiving waters, where treated effluent and combined sewer overflows enter. Receiving water monitoring conducted by the NBC includes sampling the surrounding urban rivers and upper Bay as well as some of the rivers that enter the upper Bay from Massachusetts. This monitoring data is vital to determining the impact of NBC effluent on the river and bay ecosystems. This data will be useful in evaluating the success of the CSO abatement project in the upper Bay and will provide insight into the response of the receiving waters to NBC WWTF upgrades. The NBC EMDA section's role in environmental monitoring and compliance issues also continues to expand as compliance issues become ever more complex.

In 2013, EMDA continued sampling for nutrients at several locations in Narragansett Bay and within the watershed at both local river stations and at border stations on the MA/RI border. These measurements are aimed at effectively characterizing the magnitude, composition and distribution of nutrient inputs to these rivers, and comparing these results to previous years to examine factors influencing nitrogen loading into the bay. The characterization of nutrient loadings and dynamics are an integral part of the nutrient issue. Determination of the background loadings, effluent discharge impacts, and fate of nutrients from the NBC facilities are necessary components of a sound environmental policy on nutrients. This study was undertaken to gain greater insight into the nutrient cycling within the rivers, and to help quantitatively define the amount of nitrogen that the WWTFs can safely discharge without adversely impacting water quality.

In addition to nutrient sampling, the NBC conducts routine field sampling for pathogens (disease-causing organisms) in the local freshwater rivers and the estuarine waters of the Providence and Seekonk Rivers. Fecal coliform has been widely accepted as a good indicator of pathogens in waterbodies. Although fecal coliform (composed of a number of similar species of bacteria) does not necessarily contain disease-causing organisms, it is used as an indicator of the *possible* presence of pathogens. Generally, if fecal coliform counts are high, there is a high potential for the presence of other bacteria that could be harmful to both humans and wildlife. Raw, undiluted sewage contains high levels of fecal coliform bacteria because this type of bacteria is found in the feces of all warm-blooded animals, including humans. The wastewater treatment process at NBC's facilities

eliminates almost all of these bacteria after the waste passes through primary and secondary treatment and, ultimately, disinfection via chlorination or ultraviolet light. Final effluent wastewater discharged from the Field's Point and Bucklin Point WWTFs has very low levels of fecal coliform bacteria. During small rain events, the two treatment facilities use special wet weather treatment tanks to treat and disinfect the higher volumes of combined rainwater and sewage. However, during intense rain events, the NBC's combined sewer overflows (CSOs) can send untreated stormwater and sewage that the collection system cannot contain directly into the freshwater rivers and upper Bay. In recognizing the need to assess the impact that the NBC facilities can have on the water quality of the local rivers and upper Bay, fecal coliform bacteria were measured at a number of locations throughout these receiving waters.

A new Water Quality Regulations document was published by the RIDEM in July 2006, which contained a change in the water quality criteria for bacteria. *Enterococci* measurements, considered a more accurate metric for potential human health impacts from primary contact, were adopted to replace fecal coliform as the primary bacteriological indicator for both fresh and saline waters. Fecal coliform is only applied when *Enterococci* data are not available. Therefore, the NBC also conducted *Enterococci* sampling at five of the bay stations. The NBC has been conducting fecal coliform sampling in the urban rivers and upper Bay for several years and with such a historical database we believe it is important to continue these measurements for as long as possible and as long as it takes to determine if there is a consistent relationship between *Enterococci* and fecal coliform results. Shellfishing standards continue to be based on fecal coliform bacteria levels; therefore it is also important to continue fecal coliform sampling to compare to these criteria.

EMDA also conducts monitoring of particular CSOs during wet weather events that cause these outfalls to discharge. The NBC has embarked on an historic public works project to eliminate the negative impact that CSOs can have on water quality, with a CSO Abatement Program in which Phase I began operation in the fall of 2008. Phase II is currently under construction and is expected to be completed in 2014.

As part of investigating the overall health of the Bay, the NBC also maintains two water quality monitoring stations located at a dock at Phillipsdale Landing in the Seekonk River and a buoy at Bullock's Reach in the Providence River. The monitoring sites are continuously collecting data on the conditions of the water such as temperature, dissolved oxygen, salinity, pH, and chlorophyll or turbidity.

River and Bay Nutrient Sampling

The NBC has been proactive in responding to the environmental concerns of Narragansett Bay and the state of Rhode Island. As a part of a continuing effort to both address and understand the magnitude of the impacts that facility operations have on our receiving waters, an intensive sampling program of the urban and local rivers that are part of the Narragansett Bay watershed has been developed for nutrient analysis and loading determination. This sampling program was designed to encompass two components: an

evaluation of the loading in the urban rivers that empty into Narragansett Bay just upstream of tidal influence, and an evaluation of the nutrients entering Narragansett Bay from Massachusetts. Both components are important to accurately determine the nutrient inputs to Narragansett Bay as well as a means of determining the impact of sources outside of the NBC service district. By determining the magnitude and relative importance of these fluxes, the NBC will be able to more accurately determine the impact of biological nutrient removal (BNR) systems constructed at the Bucklin Point facility as well as planned future facility upgrades at both the Bucklin Point and Field's Point facilities. This data will also contribute to developing a thorough understanding of nutrient fluxes to Narragansett Bay.

The NBC initiated nutrient monitoring of the local urban rivers in 2005, and expanded the sampling locations and increased the frequency of sampling in 2006. An additional station was also added on the Ten Mile River in December 2011 to get a better representation of nutrient loadings from Massachusetts into this River. In 2013, there were sixteen sample stations monitored one to two times per month. The locations of sample stations can be found in Figure 1. Sample locations on the freshwater rivers are as close to the mouth of the river as possible without encountering tidal mixing. On CSO-affected rivers, an additional station is also sampled at a location upstream of all CSOs. Nutrient samples are taken using a peristaltic pump, Tygon tubing, and new plastic sample bottles. All tubing and sample bottles are acid washed and then rinsed with deionized water (DI) before the sampling event and tubing is rinsed with DI between sample stations. Deionized water field blanks, equipment blanks, and duplicates are collected in order to provide a means of determining the accuracy and reproducibility of sampling methods and sample handling techniques. In addition to sampling QA/QC measures, the NBC Laboratory has a rigorous analytical QA/QC program in place for all nutrient samples.

To measure any direct changes in nutrients in the upper Bay as a result of WWTF upgrades and the CSO Abatement Project, the Narragansett Bay Commission began sampling for nutrients in the Providence and Seekonk Rivers during the summer of 2005. The direct water column nutrient measurements provide an important look at the amount of nutrients in the upper Bay from all sources, including river loading, surrounding WWTFs, atmospheric deposition, groundwater, runoff, leaky septic systems and nutrients from the middle and lower Bay area as well as from offshore. Bay sampling stations in 2005 included five surface stations and one bottom station. These bay stations included Conimicut Point, Edgewood Yacht Club, Pomham Rocks, and India Point Park at the surface and Phillipsdale Landing at the surface and bottom. In July 2006, one additional bay station was added as well as bottom samples at all bay stations. The new bay station was located at the Bullock's Reach Buoy, where our fixed continuous water quality monitoring buoy is located. In August of 2012 a seventh site was added near the mouth of the Pawtuxet River at the channel marker of Red Can #6. This site was added to observe the effects of the Pawtuxet River on upper Narragansett Bay. As seen in Figure 2, the Conimicut Point, Bullock's Reach Buoy, Pawtuxet River Red Can #6, Edgewood Yacht Club and Pomham Rocks stations are located in the Providence River. The Phillipsdale Landing station is located in the Seekonk River at our fixed continuous water quality

monitoring dock site and the India Point Park station is located near the mouth of the Seekonk River estuary. All surface collections in bay waters were made at a depth of approximately 0.5 to 1 meter below the surface. Bottom collections were made approximately 0.5 to 1 meter above the sediment.

Bay samples were collected, filtered, and preserved on-board the NBC research vessel, the *R.V. Monitor*. Samples were collected using either an acid-washed and DI rinsed Niskin sampler attached to the boat davit or a Wheaton grab sampler and acid-washed, DI rinsed sample bottle. If the Niskin sampler was used, the sample water was poured off into a sample bottle. Using the water in the sample bottle, the same methods as described above for the freshwater rivers was used for the estuarine samples. Sample splits were also submitted to both the NBC and URI/GSO MERL (MERL) facilities to assure data quality during 2005 and 2006. As with the river samples, deionized water field blanks and duplicates are collected during bay sampling as well. The NBC laboratory analyzes both freshwater and saltwater nutrient samples for nitrite/nitrate, nitrite, total dissolved nitrogen, ammonia, orthophosphate, silicate and total nitrogen. All nutrient samples, except for the total nitrogen, were filtered prior to analyses; therefore these results are measurements of the dissolved (or soluble) phase. Grab samples for TSS and chlorophyll are also taken at the same time as nutrient samples and analyzed by the NBC Laboratory. The instrument the Laboratory acquired in 2005 to measure nutrient parameters in saltwater can only measure nutrients in the dissolved phase. Total nitrogen was also determined to be an important piece of the picture when looking at potential changes in nitrogen in the Bay, therefore another new instrument was acquired in September 2012 to analyze fresh and salt water samples for this parameter. Method development took place in October for this new instrument and analyses then began in November 2012. All data for the 2013 River and Bay Nutrient sampling can be found in the attached Table 30.

Figure 1: NBC River Nutrient Sampling Stations

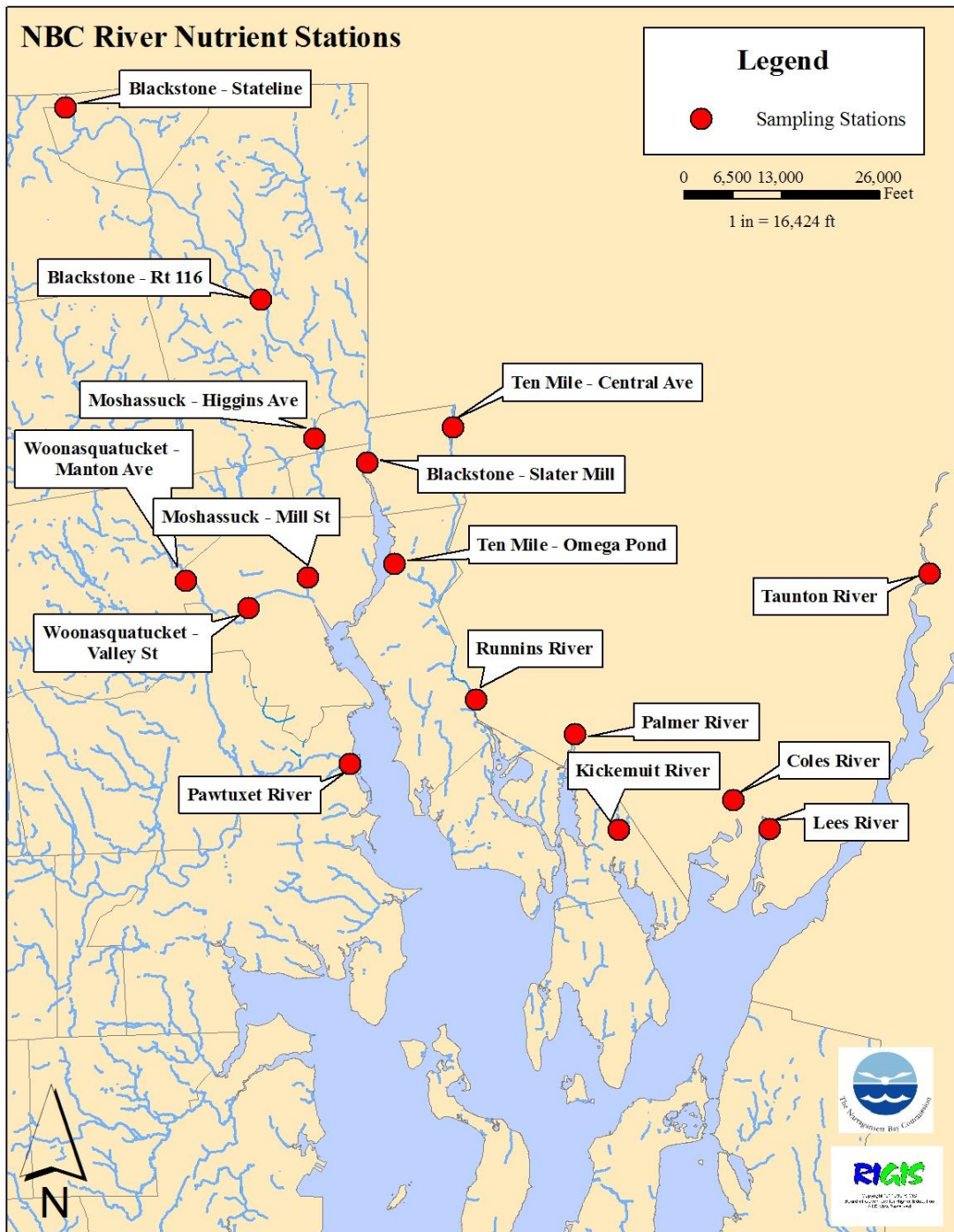
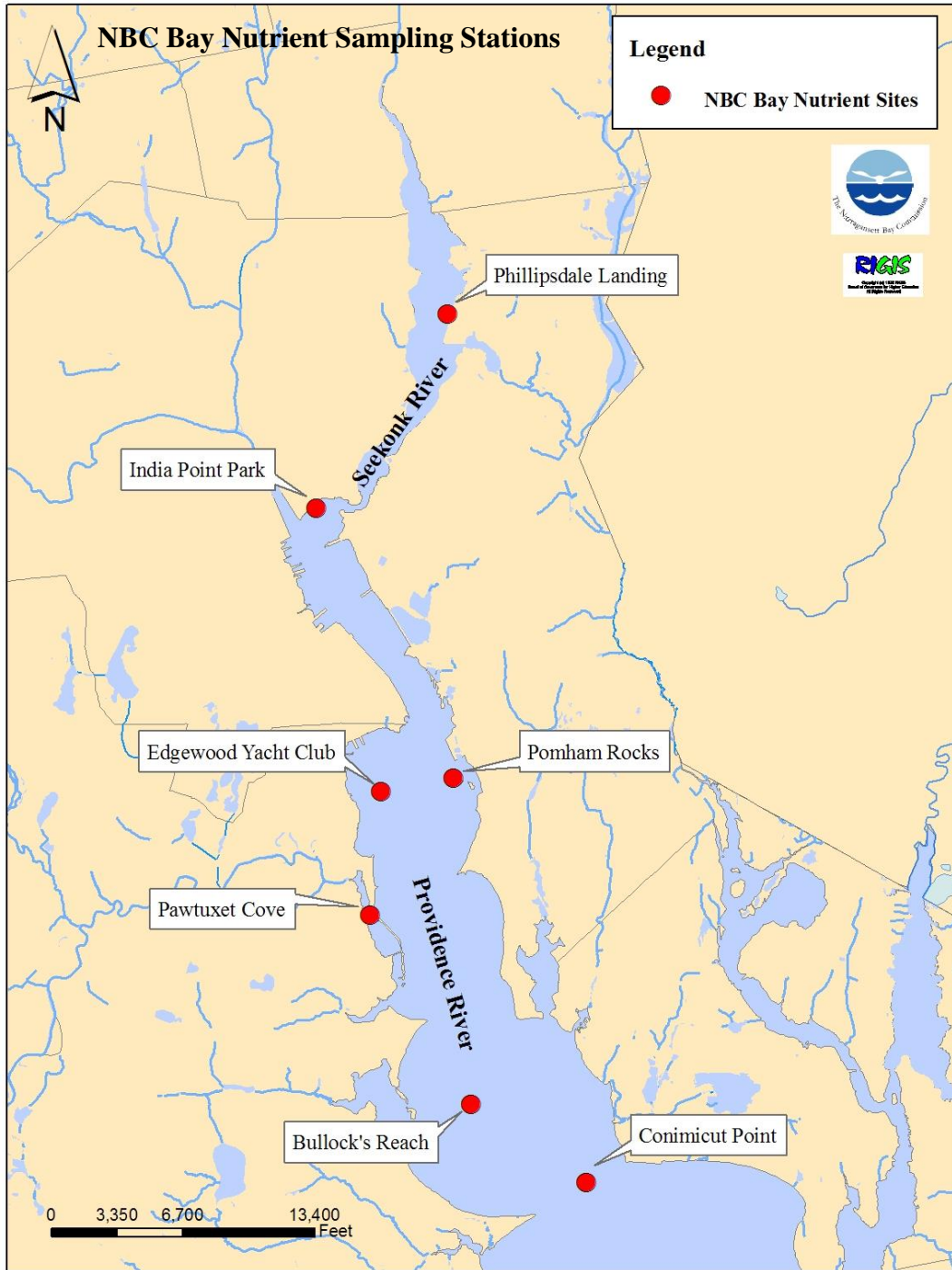


Figure 2: NBC Bay Nutrient Sampling Locations



Urban River Pathogen Monitoring

Consistent monitoring for fecal coliform analysis on the Providence area urban rivers began in 1997 and became the responsibility of EMDA in 1998. It was developed in conjunction with the CSO remediation stakeholders and has developed as a tool of the Interceptor Maintenance (IM) section as a check for potential problems occurring at any of the sixty-seven CSOs the Narragansett Bay Commission owns, operates, and maintains. Routine sample collections for analysis of fecal coliform are made each week, with stations on the Blackstone, Woonasquatucket, Moshassuck, Seekonk, Providence and Pawtuxet Rivers sampled on Mondays and stations on the West, Woonasquatucket, Moshassuck and Providence Rivers on Tuesdays. In the event of a holiday, or any other unforeseen circumstance arising that would prevent the regular schedule, the sampling routine will begin the next day sampling is possible. Samples are collected by Environmental Monitoring Staff in the morning, and delivered to the lab at Field's Point no later than 11:00 AM the day of sampling. All stations sampled on the same river on the same day are collected within a two-hour interval. NBC's Interceptor Maintenance and Construction (IMC), Environmental Monitoring and Data Analysis (EMDA) and Engineering departments determine locations to be added or omitted as needed.

On river sample collection days, samples are collected from six sites on the Woonasquatucket River, two sites on the Blackstone River, seven sites on the Moshassuck River, three sites on the West River, and one site each on the Pawtuxet, Providence, and Seekonk Rivers. After the Woonasquatucket River flooded in April of 2010, the sample location at Atwells Ave had to be changed to Eagle Street due to bridge damage at the original location. During 2013, 1,871 bacteria samples were collected and analyzed. Please see Figure 3 for sampling locations (the Seekonk River station is shown on the Bay Bacteria Sampling map in Figure 4).

In order to improve NBC's identification of dry weather discharges (DWO), in 2002 EMDA began resampling weekly collections when DWOs are suspected, and to identify other sources of bacterial contamination in the rivers. Rivers are not resampled when collections have occurred in times of wet weather, because analytical results are expected to be high due to the normal functioning of CSOs. When results from collections are high (greater than 1000 MPN per 100 mL) and there has been dry weather (no rain i.e. <0.1 inches in the preceding four days), EMDA will resample those stations a second time within the week. Resampling will also occur when results are very high (greater than 10,000 MPN per 100 mL) when no rain has occurred in the preceding two days. These general resampling criteria are subject to change based on river flow, fecal bacteria level at background stations, and staff availability.

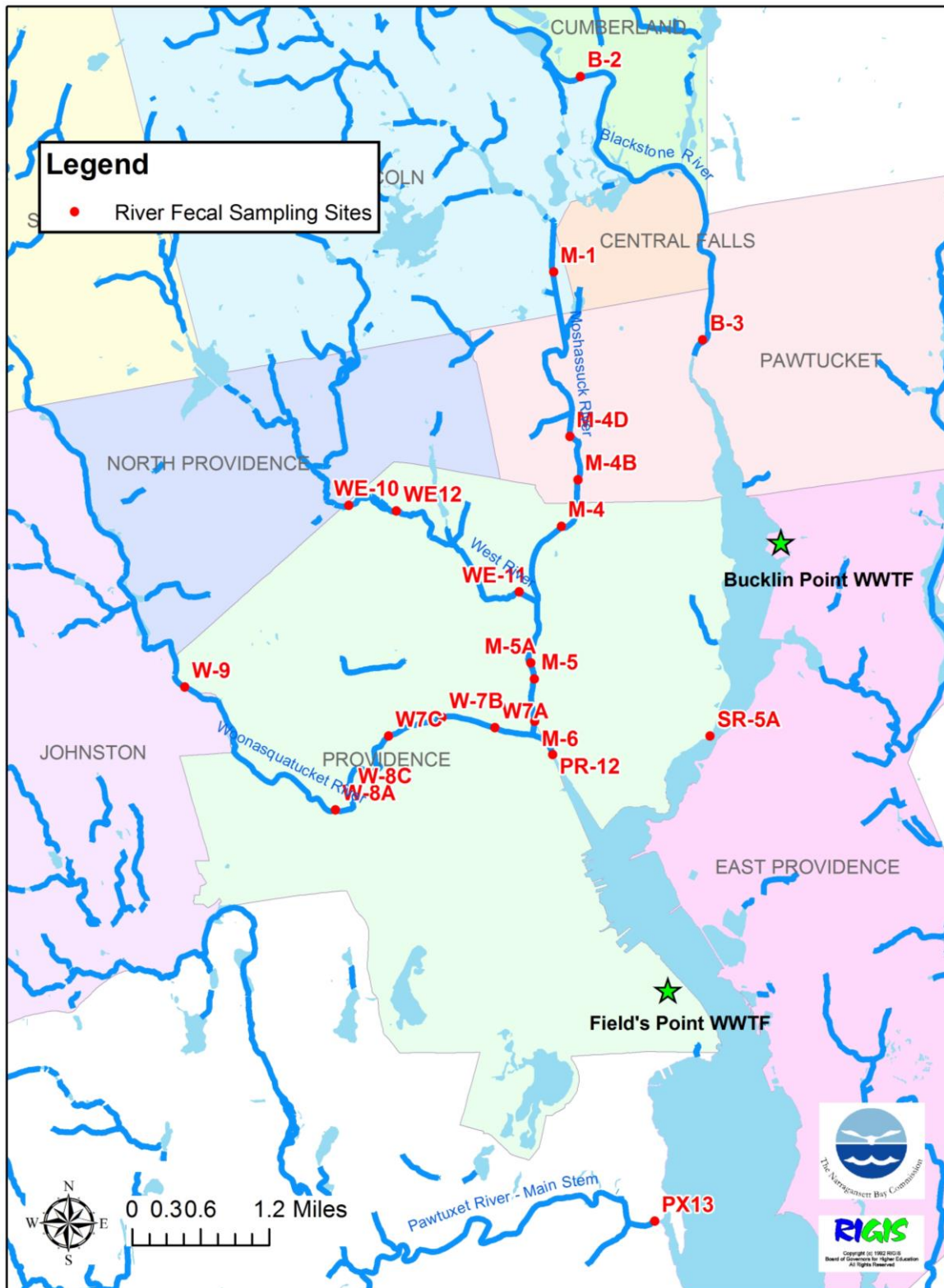
Water samples for fecal coliform analysis are collected from the center of a bridge or from a riverbank. A sterile, 120 mL fecal coliform sample container is used for the sample collection. Collections from bridges have the sample container placed in an open-ended brass cylinder and held in place with a small screw running through the cylinder body. A wire handle extends from the top of the cylinder with a line attached for lowering it into the water stream being sampled. Samples being collected from a riverbank are taken by dipping the sample container in the water stream by hand. The sample is taken as close to the center of the water stream as possible.

Once the sample has been collected, the sample container is sealed, and a label with site ID, sample number, date and time of collection and collector's initials is placed on the container. The samples are held in a portable cooler with ice packs (temperature held at 4 degrees Celsius) for transfer to the lab. All samples are brought to the laboratory within the holding time period (8 hours). If samples do not make it to the lab in time to be analyzed before the holding time, they are discarded and not analyzed.

As part of EMDA's quality assurance for this program, collection and analysis of duplicate fecal bacteria samples occurs on all regular sampling days. These collections and analyses are used to help determine general river variability, namely bacterial "patchiness" in the river, as well as analytical and sampling variability. The two sampling locations that have been chosen as replicate sites are Eagle Street Bridge (W-7C) in Providence on the Woonasquatucket River, the end of Moshassuck St. (M-4B) in Pawtucket on the Moshassuck River, and Footbridge at Mill Street (M-5) also on the Moshassuck River. The Eagle Street sampling is conducted from a bridge in the center of the main current flow; the end of Moshassuck Street site sampling is conducted from the riverbank in the center of the main current flow. The Footbridge at Mill Street site sampling is conducted from the center of the main current flow from the private footbridge near Mill Street. The duplicate samples are taken simultaneously using a second 120 mL sterile bottle zip tied to the sampling device. Fecal and *Enterococci* data for the sampling stations located in the Woonasquatucket, West, Providence, and Seekonk Rivers can be found in the attached Table 31. Data for the Blackstone, Moshassuck, and Pawtuxet Rivers can be found in the attached Table 32.

Another element of EMDA's quality assurance for this program is the collection and analysis of field blanks. Sample blanks are taken in the field during each fecal coliform sampling day to measure the ability of staff to maintain clean sampling techniques, and to rule out any potential contaminants from normal "open-air" exposure. These blanks are taken using deionized water in place of river water, with the same handling techniques as the actual river samples. The detection limit for these samples was <30 MPN/100 mL. The analytical method used by the NBC Laboratory is the 24-hour Fecal Coliform Determination by Multiple Tube Fermentation, using A-1 broth or media. The Standard Methods reference number is 9221E for this EPA approved methodology. Positive and negative controls are routinely run in the laboratory; in addition, tubes of un-inoculated, freshly prepared media are incubated and analyzed in order to confirm the sterility of the media. The NBC Laboratory is RIDOH certified. All samples are properly preserved prior to analysis at 4 degrees Celsius and holding times are kept to less than four hours, to avoid approaching the maximum six hour limit.

Figure 3: NBC Urban River Bacteria Sampling



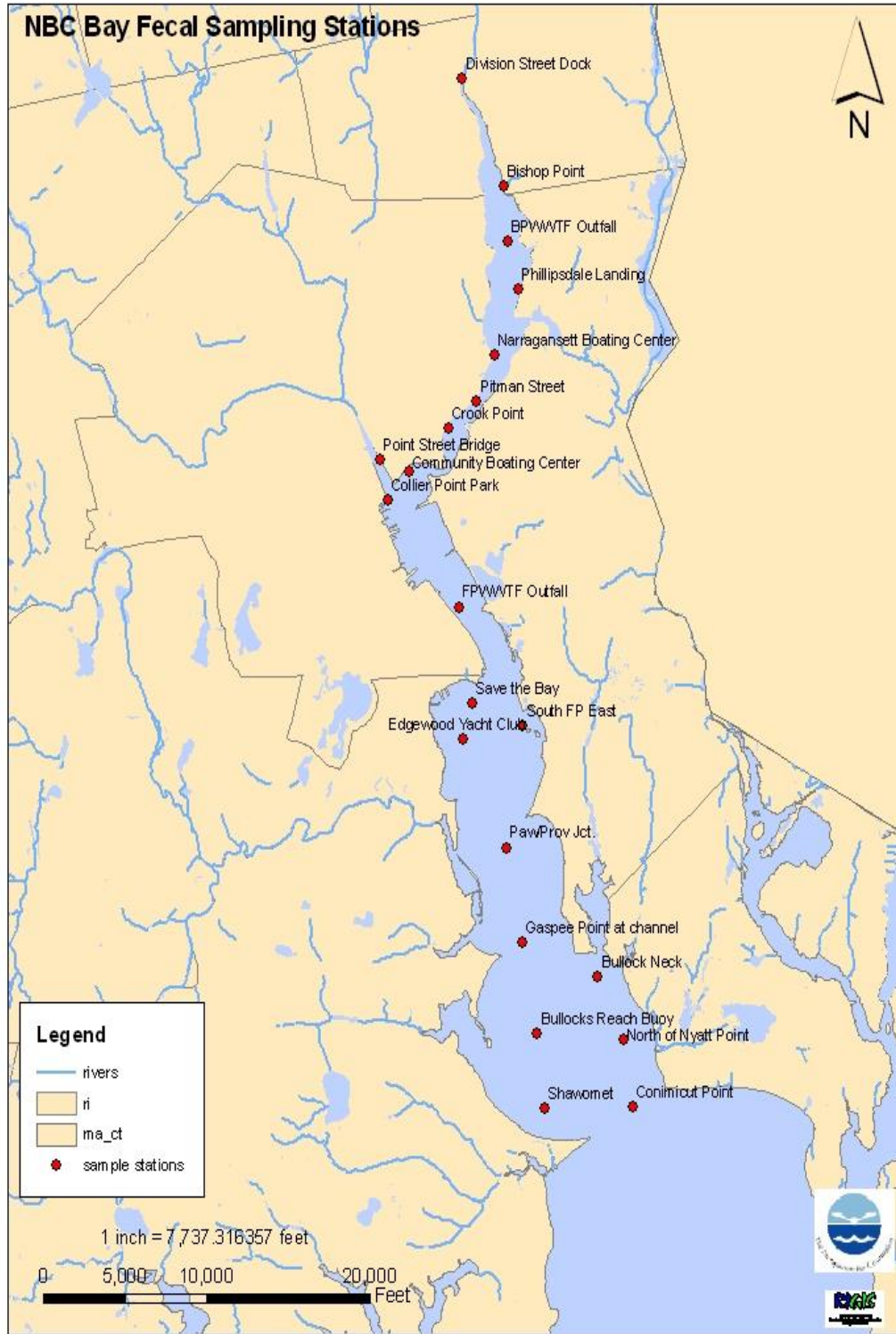
Bay Pathogen Monitoring

Fecal coliform sampling in the Providence and Seekonk Rivers began in 2003 in response to the need to understand the spatial and temporal impacts that discharges within these waterbodies have on Narragansett Bay as a whole. Routine sample collections for the analysis of fecal coliform are made biweekly, usually on Wednesdays or Thursdays, throughout the year, dependent on weather. All station samples are collected within a three-hour interval on the same day. In the event of a holiday, or any other unforeseen circumstance arising that would prevent the regular schedule, the sampling routine will be done the next regular work day. Samples are collected by Environmental Monitoring Staff, and delivered to the lab at Field's Point no later than 12:00 PM the day of sampling.

Bay fecal samples are collected at twenty locations in the Seekonk and Providence River. Fecal samples are collected from the NBC research vessel the *R/V Monitor* at six sites in the Seekonk River, four sites north of Field's Point WWTF, and ten sites south of Field's Point WWTF; please see Figure 4 for sampling locations. During special events, including after some heavy rainfalls, special sampling may take place that includes collecting bay fecal samples consecutively over several days in the Seekonk and/or Providence River as well as in the conditional shellfishing areas just south of the Providence River. Depending on the event, the sample stations may include all of the usual stations, some of the usual stations and/or some additional stations further down the bay.

Water samples for bacteria analysis are collected from the port or starboard side of the EMDA research vessel. A sterile, 120 mL coliform sample container is used for the sample collection. Collections are made by placing the sample container in an open-ended plastic cylinder which is held in place with a small screw running through the cylinder body. A metal handle extends from the top of the cylinder with a vinyl line attached for lowering it into the water being sampled. Once the sample has been collected, the sample container is sealed, and a label with site ID, sample number, date and time of collection is placed on the container. The samples are held in a portable cooler with ice packs or a portable refrigerated cooler (temperature held at 4 degrees Celsius) for transfer to the lab. All samples are brought to the laboratory within the holding time period (6 hours). If samples do not make it to the lab in time to be analyzed before the holding time, they are discarded and not analyzed. Duplicate samples are taken at the Conimicut Point and Phillipsdale Landing stations. The duplicate samples for each site are collected simultaneously using a second 120 mL coliform bottle. A "blank" sample using deionized water is also taken and brought to the lab along with the fecal samples for quality assurance purposes. In addition to fecal monitoring, five sites are also analyzed for *Enterococci* bacteria. During 2013, 522 bay fecal coliform samples and 157 *Enterococci* samples were collected and analyzed. Additional fecal samples were taken in 2013 in the upper Bay Conditional Shellfish Areas to evaluate the effects of overflows during November. Please refer to attached Table 33 for 2013 Bay fecal coliform data and to Table 34 for the Bay *Enterococci* data.

Figure 4: NBC Bay Bacteria Sampling Stations



Combined Sewer Overflows (CSO) Wet Weather Sampling

In implementing NBC's policy of protection of Narragansett Bay and its tributary rivers, and to fulfill the requirements of the EPA and RIDEM Nine Minimum Controls Program, the EMDA staff sampled CSO wet weather overflows during two rain events in 2013. The aim of these wet weather sampling events was to characterize the impact of CSO discharges and to evaluate the success of the NBC Pretreatment and Pollution Prevention Programs at controlling the discharge of toxics through CSOs. The CSO Remediation Project once fully implemented will effectively eliminate 98% of CSO discharges but all feasible controls are expected to be implemented until that project is completed and the EPA's Capacity, Management, Operations and Maintenance (CMOM) program for the NBC is fully implemented. The 2013 wet weather sampling was conducted on April 12th at Outfall 218 and Outfall 54 with approximately 0.54 inch of rain as measured at the National Weather Service at T.F. Green Airport; and again on June 10th through 11th at the North Diversion Structure, Outfall 2A, with 2.35 inches of rain between the two days. Outfall 2A is within the Bucklin Point service area and discharges into the Seekonk River and is tied to a sewer collection drainage basin that includes a mix of residential, industrial, and commercial uses. Outfall 218 also discharges into the Seekonk River. Outfall 54 is within the Field's Point service district and discharges into the Woonasquatucket River. The data for CSO 2A can be found in Table 35, the data for CSO 54 can be found in Table 36, and data for CSO 218 can be found in Table 37.

The sampling plan was designed to collect three samples at each outfall throughout the overflow event. The first sample would be collected during the initial overflow, or first flush, stage and was expected to contain wastewater with the least degree of rain water dilution and the highest concentrations of materials washed from street and land surfaces into the combined sewer system. A second sample would then be taken during the stage of highest overflow rate and a third sample taken near the conclusion of the event. This plan was fully implemented at Outfalls 54 and 218 on April 12th as well as Outfall 2A on June 10th – 11th. However due to the short duration of the Outfall 218 discharge during the June sampling event the samples yielded low volume in the collection bottles. Because of this samples were only analyzed for specific parameters. Three other CSO wet weather sampling events occurred in 2013 but were analyzed for the first flush stage of the overflow only, including Outfalls 2A and 218 on March 12th, and Outfall 2A on June 7th.

Narragansett Bay Fixed Site Water Quality Monitoring

The Narragansett Bay Commission (NBC) funds two fixed site water quality monitoring stations in the Providence and Seekonk Rivers. These stations were created in 2000 as part of the formerly EPA-grant funded Environmental Monitoring for Public Access and Community Tracking (EMPACT) Project. NBC has maintained full funding of these sites since federal grant funding ceased in 2002. The stations have been established in proximity to the Field's Point and Bucklin Point wastewater treatment plant outfalls. The Bullock's Reach station is a floating buoy located between Gaspee Point and Conimicut Point in the Providence River and the Phillipsdale Landing station is a dock site located

on the Seekonk River in East Providence. These monitoring stations directly benefit Narragansett Bay research by allowing for continuous, real-time water quality monitoring in the more urbanized portions of the upper bay. Through radio and land-based phone line telemetry systems, bay researchers can consistently track changes in the estuaries from remote locations, thus saving valuable resources and decreasing the response time to anomalous conditions. This data also provides a baseline of water quality across seasons and reveals yearly trends.

State-of-the-art technology at these sites collects measurements for depth, temperature, salinity, pH, dissolved oxygen, turbidity and fluorescence (a proxy for chlorophyll and phytoplankton activity). Data is collected by the use of water quality instruments called sondes, at both the Bullock's Reach buoy and Phillipsdale Landing stations every 15 minutes and is transmitted via radio signal from Bullock's Reach and via landline phone connection from Phillipsdale Landing to a base station at Field's Point every hour. During 2012 the Phillipsdale Landing station was upgraded to transmit data via a LAN connection every 15 minutes.

During 2001 and 2002, EMDA and URI-GSO worked together to service and maintain the Bullock's Reach buoy. In 2003, the NBC assumed all buoy maintenance activities and NBC EMDA staff has continued to maintain the buoy as well as the Phillipsdale Landing dock site through 2011. The EMDA staff is also continually making improvements to equipment, infrastructure and QA/QC protocols to ensure the reliability of data collected. Please see Figure 5 for the locations of both fixed site water quality monitoring stations.

EMDA works with the RIDEM, University of Rhode Island (URI) and Narragansett Bay National Estuarine Research Reserve (NBNERR) to coordinate maintenance and data handling efforts with each of these groups who are also maintaining buoy stations and dock sites with the same water quality instruments (YSI 6-series sondes) in other parts of the Bay. This group of statewide collaborators is collectively known as the Narragansett Bay Fixed Site Water Quality Monitoring Network (Fixed Site Network). Through the Fixed Site Network, a standard operating procedure for calibration and maintenance of the sondes as well as data handling has been developed so that each organization will be following the same protocols. The RIDEM maintains a website which allows easy access to data from all of these fixed sites in one central location. This can be accessed at <http://www.dem.ri.gov/bart/stations.htm>. The RIDEM BART website currently displays a map showing station locations, monthly graphs of summer data and all Fixed Site Network data in raw, edited and corrected formats.

At the end of 2002, uncorrected raw data from the NBC water quality stations became available for use by the general public via a link on the NBC website. In 2011, a brand new webpage was created by the NBC called Snapshot of Upper Narragansett Bay (<http://snapshot.narrabay.com/app/>; also see page 39 of this report for a full description). This website includes information and data for all of the NBC receiving water monitoring and presents monitoring station raw data in near real-time and in an easy-to-use and easy-to-understand format, including graphs and downloadable data tables.

Figure 5: NBC Fixed Site Water Quality Monitoring Stations



The fixed site water quality monitoring project is very important in understanding the overall health of NBC's receiving waters and will be useful in looking at the response of these waters to future WWTF upgrades. The NBC is also concerned about the issues of hypoxia and eutrophication occurring in the Bay. Hypoxia is the condition that occurs when dissolved oxygen concentrations in water fall below a critical level, negatively affecting biological organisms. As mentioned above, the water quality instruments (sondes) that NBC uses at these fixed sites have dissolved oxygen sensors on them, so the NBC can immediately determine when hypoxia is occurring and for how long. This data is extremely helpful for the NBC, RIDEM and other organizations in studying why these events happen and how the biological organisms in the bay react.

Data from the Bullock's Reach buoy has become very important to the RIDEM in monitoring for low dissolved oxygen events that may require a quick response by their staff. Data from 2013 was sent to the RIDEM weekly during the critical summer months to keep them updated on the water quality status at the Bullock's Reach site. Throughout the years, data from the Bullock's Reach buoy has been useful in RIDEM's analysis of water quality changes in the upper Bay, and for periodic fish kills occurring in the upper Bay and rivers. The data from these sondes is also being used in a joint NBC-URI hydrodynamic modeling project that will provide information on currents, flushing and predicted tracks of WWTF effluent in the Providence and Seekonk Rivers.

Sample Design

The Bullocks Reach buoy includes sondes at three depths: surface, mid and bottom. The Bullock's Reach site includes a YSI EMM 700 buoy with one YSI sonde at the surface at an approximate depth of 0.5-1 meter, one YSI sonde at a mid-depth of approximately 2-4 meters and one YSI sonde at the bottom at an approximate depth of 6-7.5 meters. Water quality data is recorded and transmitted at a 15 minute interval from all three depths. The buoy position is to the northwest of Conimicut Point at approximately 41° 43.944 North and 71° 22.214 West in about 26 feet of water (about 8 meters), west of the Providence River channel. The surface and mid depth sondes measure depth (m), water temperature (°C), specific conductance (salinity; mS/cm and ppt), pH, dissolved oxygen (% and mg/L), chlorophyll a, (µg/L) and fluorescence (%). The bottom sonde measures depth, water temperature, conductivity (salinity), pH, and dissolved oxygen with the same units as above, along with turbidity (NTU). The buoy is serviced using the NBC's 23-foot Parker research vessel the R/V Monitor, which is kept at the Port Edgewood Marina. A water quality profile is obtained at the buoy during each visit, if possible, using a YSI sonde that is brought out to the site, which measures temperature, salinity, pH and dissolved oxygen. Data from the buoy is transferred to the PC in the Field's Point WWTF Process Monitor Room via radio signal every hour and is then viewed by EMDA personnel utilizing the YSI software program, Loggernet, and Interactive Oceanographics software, Streamline. For the 2013 season, the buoy was deployed in the water in May and sondes began collecting data on May 15th until November 7th.

The second continuous monitoring site is a dock site located at Phillipsdale Landing on the east side of the channel of the Seekonk River in East Providence. This site is in about 11.5 feet of water (3.5 meters) and two YSI sondes collect water quality data from two levels, 0.3 m from the surface and 0.5 m off the bottom, at a 15 minute rate. The surface sonde measures depth, water temperature, specific conductance (salinity), pH, dissolved oxygen, chlorophyll a and fluorescence. The bottom sonde measures depth, water temperature, pH, and dissolved oxygen, with both surface and bottom sondes using the same units as noted above at Bullock's Reach. As with the Bullock's Reach data, Phillipsdale Landing data is transferred to the PC in the Field's Point WWTF Process Monitor Room every hour via phone line and is then viewed by EMDA personnel utilizing YSI software. A new state of the art datalogger was purchased and installed in September 2010 at this site, which also included a new software program for viewing the data files. Due to communication issues at this site in 2013, continuous data at this site began on June 5th, 2013 and the sondes were removed from the water on December 12th, 2013 due to concerns of ice build up at the site.

Lab/Field Procedures

Sondes are calibrated before each deployment at each site. All sondes are calibrated using YSI recommended methods in the YSI Operations Manual as well as agreed upon protocols from the Fixed Site Network. All calibrations used YSI standards and were conducted by NBC EMDA staff in the EMDA laboratory. Sondes are then deployed, retrieved after approximately two weeks in the water and then undergo post-deployment checks. Summer deployments are kept to a maximum of two weeks in the water due to fouling concerns. The post-deployment check involved placing the sonde probes in each calibration solution, as done during calibration, to check sonde readings when in that solution of known concentration, pH or NTUs. This data can be used in assessing how closely the sonde is reading to the actual solution levels, and therefore how far it has drifted from the original calibration or if there has been a probe failure. After the deployment period, new, clean, calibrated sondes are deployed at each site.

Data is viewed regularly while the sondes are deployed and if any problems are seen in the data, an attempt is made to change the sondes out sooner if staff time is available. All sonde swaps, including those done at Phillipsdale Landing, need to be done in dry weather so as not to get water in the sonde connectors.

Once at the site, a vertical profile is done using another YSI sonde instrument that measures depth, water temperature, pH, and dissolved oxygen. The sonde displays readings for these parameters on a small handheld computer and can be held at the same approximate depth as the sondes in the water to compare readings. During site visits, these measurements are compared to the readings from the sondes already in the water ('old') and those that were swapped into the water ('new') at the appropriate depths. If time allows, the profile sonde was also used to take measurements at various depths through the rest of the water column to determine the amount of stratification and differences in parameter values with varying depth.

All field work information is recorded on a Field Sheet, which is later placed in a Field Sheet binder in the EMDA office. All calibration, post-deployment and field information is provided in a metadata document to the Fixed Site Network for data editing purposes.

Phillipsdale Landing Dock Site

The Phillipsdale Landing (Phillipsdale) station is unique in that it is very close to large freshwater river sources and is also open to the tidal estuarine Providence River. Therefore, it receives seawater flushing during the tidal cycle and the transport of saltier bottom waters in the form of a salt wedge. This makes the Seekonk River a tidal estuary, defined as a place of fresh and saltwater mixing, in the truest sense. The Phillipsdale Landing site is located very close to shore and is on the edge of the shipping channel in the Seekonk River. The freshwater rivers feeding the Seekonk River include the Blackstone River which is north of the Phillipsdale site and feeds directly into the Seekonk River as its major source and the Ten Mile River which enters the Seekonk River just south of the Phillipsdale station. The Blackstone River streamflow averages approximately 700 cubic feet per second. For comparison, the next two largest freshwater inputs to Narragansett Bay are the Taunton River, averaging approximately 500 cubic feet per second, and the Pawtuxet River, averaging approximately 300 cubic feet per second. The fact that these instruments are fastened to a dock allows staff to have easy access to the water quality instruments from shore, allowing them to get to the instruments more quickly and attempt to remedy any problems.

Bullock's Reach Site

The Bullock's Reach Site sonde location is situated on a floating YSI buoy that is anchored near the edge of the shipping channel in the southern section of the Providence River. This location is in deeper, more saline waters than the Phillipsdale Landing station and is less proximate to fresh water sources and receives a greater degree of dilution by the saltier waters of the mid-Bay. The most proximate freshwater source would be the Pawtuxet River located to the northwest of the buoy site. The position of the buoy is to the northwest of Conimicut Point at approximately 41°43.944 North and 71°22.214 West in about 26 feet of water (about 8 meters), west of the Providence River channel. The bottom and mid depth sondes are attached to the buoy on one line with a mushroom anchor at the bottom and a float just above the sonde to keep it in an upright position. The surface sonde is placed in a PVC tube that is integrated into the buoy that allows protected but free flowing access to the surface water. Power to the buoy is maintained by a solar powered battery.

Data Management

Currently, the Bullock's Reach and Phillipsdale Landing sites are programmed to transmit data every hour to a computer at NBC. The data can be uploaded and viewed by EMDA staff anytime in order to assess and troubleshoot problems. The data is also available hourly to the public on the NBC Snapshot website.

During the summer months, the raw unedited data is also sent to the Fixed Site Network coordinator to determine if the Bay is experiencing hypoxic conditions and is then posted on the RIDEM’s BART website. At the conclusion of the season, all data is sent to the Fixed Site Network coordinator for further editing and correcting. The data was not included in paper format as with the other tables due to the extensive nature of this sampling.

NBC Snapshot of Upper Narragansett Bay Website

In 2011, a new webpage was created by the NBC called “Snapshot of Upper Narragansett Bay” (<http://snapshot.narrabay.com/app/>) and was continually updated in 2013 with the most recent data from the receiving water monitoring program. The webpage includes information and data for all of the NBC receiving water monitoring, including a blog that is updated weekly with the most recent results of sampling events. Sampling procedures and charts showing data trends are presented for each monitoring initiative and tables with up-to-date monitoring results can be downloaded. The most recent data at the fixed water quality monitoring stations is displayed through dials and gauges (see Figure 6 below) that allow users to quickly assess current water quality conditions. An interactive chart wizard also allows users to choose which fixed site water quality parameters to chart and display and users can also choose parameters to display in table format, which can then be downloaded. The NBC Snapshot website represents a comprehensive look at water quality in upper Narragansett Bay by providing the general public with near real-time data and a wide range of information regarding water quality in Narragansett Bay. In 2012, the Narragansett Bay Commission received a National Association of Clean Water Agencies (NACWA) National Environmental Achievement Award Excellence in Public Information and Education for the Snapshot Website. NACWA’s Public Information and Education Awards are presented for outstanding programs in video, printed publications, educational programs, or e-media.

Figure 6: NBC’s Snapshot of Upper Narragansett Bay Website



Field's Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform		Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100mL)	Influent Flow (MGD)				
1/1/2013	2.0	39.09	90.67	141.40	10.67	15.87
1/2/2013	2.0	41.77	104.00	145.49	9.67	24.51
1/3/2013	2.0	38.74	129.30	152.94	13.00	16.75
1/4/2013	2.0	37.51	118.00	169.83	6.67	7.85
1/5/2013	2.0	38.20	130.00	169.24	6.67	5.71
1/6/2013	2.0	37.73	110.70	164.66	3.00	3.29
1/7/2013	2.0	37.35	114.70	165.56	2.67	6.86
1/8/2013	2.0	40.99	115.30	163.55	6.33	5.95
1/9/2013	2.0	36.82	118.70	156.16	5.67	7.35
1/10/2013	2.0	35.74	124.70	163.81	6.67	6.17
1/11/2013	2.0	43.12	160.70	186.20	5.67	8.37
1/12/2013	2.0	38.15	110.70	136.55	6.33	6.60
1/13/2013	2.0	36.94	129.30	167.15	7.67	5.23
1/14/2013	2.8	45.44	119.30	125.13	7.33	4.20
1/15/2013	2.0	37.61	128.70	198.19	7.00	10.54
1/16/2013	2.0	47.46	158.70	165.38	9.67	5.67
1/17/2013	2.0	42.86	110.70	121.03	5.67	4.80
1/18/2013	2.0	37.52	120.00	166.97	7.33	5.08
1/19/2013	2.0	38.74	128.00	170.13	6.33	9.12
1/20/2013	2.0	35.61	118.00	145.12	5.67	4.91
1/21/2013	2.0	38.41	126.70	162.36	5.67	6.05
1/22/2013	2.0	39.19	146.70	172.52	19.33	17.89
1/23/2013	2.0	35.54	116.00	181.17	9.33	13.92
1/24/2013	2.0	36.20	132.00	172.80	11.33	10.65
1/25/2013	2.0	37.55	127.30	201.40	4.67	8.13
1/26/2013	2.0	36.41	150.00	190.65	8.33	7.33
1/27/2013	2.0	35.78	138.70	192.20	5.67	8.92
1/28/2013	2.0	36.42	176.00	223.89	6.67	6.97
1/29/2013	2.0	40.66	190.00	189.96	12.67	6.32
1/30/2013	2.0	40.80	150.70	187.33	9.67	6.89
1/31/2013	2.7	60.48	146.00	152.56	12.33	8.63
2/1/2013	2.8	43.98	97.33	168.54	4.00	6.13
2/2/2013	2.0	36.07	115.30	166.56	6.67	4.95
2/3/2013	2.0	36.33	109.30	173.51	2.33	5.02
2/4/2013	2.0	37.77	155.30	212.21	11.67	5.66
2/5/2013	2.0	35.49	150.00	202.35	4.00	4.59
2/6/2013	2.0	34.95	158.00	235.86	7.33	4.75
2/7/2013	2.0	34.25	154.00	210.55	6.00	3.67
2/8/2013	2.0	34.69	204.70	198.46	9.67	7.54
2/9/2013	2.0	34.53	112.00	150.55	12.67	7.30
2/10/2013	2.0	37.55	150.00	199.65	10.67	4.79
2/11/2013	2.0	58.61	206.70	153.39	8.67	5.62
2/12/2013	2.4	48.80	110.70	149.13	8.67	7.06
2/13/2013	2.0	41.75	120.70	160.51	7.67	5.33
2/14/2013	2.0	43.40	115.30	145.30	7.67	3.49
2/15/2013	2.0	44.18	115.30	178.20	3.00	5.03

Table 1: Field's Point TSS,BOD and Fecal Coliform Data

Field's Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform		Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100mL)	Influent Flow (MGD)				
2/16/2013	2.0	42.52	104.70	167.44	3.67	6.16
2/17/2013	2.0	39.06	113.30	176.68	5.67	6.16
2/18/2013	2.0	40.84	121.30	166.44	11.67	5.88
2/19/2013	2.0	55.80	263.30	191.85	6.67	4.70
2/20/2013	2.0	59.80	82.67	123.56	6.67	5.68
2/21/2013	2.0	42.41	110.00	164.17	6.00	5.18
2/22/2013	2.0	42.54	100.00	178.39	2.67	4.23
2/23/2013	2.0	58.50	105.30	118.46	3.00	4.82
2/24/2013	2.0	65.66	83.33	126.92	5.67	4.34
2/25/2013	2.0	64.47	81.33	114.22	5.67	5.74
2/26/2013	2.0	55.11	116.70	135.93	12.67	4.78
2/27/2013	2.0	84.23	170.00	111.07	5.67	4.36
2/28/2013	2.0	74.12	63.33	105.46	7.67	5.33
3/1/2013	2.0	72.70	72.67	116.83	6.67	3.82
3/2/2013	2.0	72.24	79.33	87.46	5.00	3.42
3/3/2013	2.0	72.18	57.33	99.19	7.00	3.65
3/4/2013	2.0	70.56	60.67	95.61	3.00	4.77
3/5/2013	2.0	69.37	93.33	115.73	3.67	4.90
3/6/2013	2.0	54.59	129.30	110.06	21.33	4.29
3/7/2013	2.0	60.53	102.00	114.48	10.67	5.51
3/8/2013	2.0	58.54	98.00	132.13	11.33	6.72
3/9/2013	2.0	54.24	94.67	126.15	7.67	7.63
3/10/2013	2.0	47.71	84.67	127.32	5.00	4.42
3/11/2013	2.0	49.77	108.00	126.15	5.00	3.86
3/12/2013	2.0	61.80	130.00	132.57	3.33	6.65
3/13/2013	2.0	68.79	63.33	105.51	4.00	5.42
3/14/2013	2.0	60.64	84.67	125.80	8.33	6.32
3/15/2013	2.0	47.45	102.70	147.84	5.67	5.04
3/16/2013	2.0	49.34	91.33	149.21	4.67	7.04
3/17/2013	2.0	48.54	104.70	138.09	7.00	4.47
3/18/2013	2.0	46.75	112.70	166.00	5.00	4.77
3/19/2013	2.0	66.67	106.70	109.65	4.67	7.20
3/20/2013	2.0	68.10	62.00	133.32	6.00	7.35
3/21/2013	2.0	49.14	104.70	143.07	5.67	4.73
3/22/2013	2.0	47.81	103.30	136.76	7.33	4.02
3/23/2013	2.0	47.71	101.30	143.27	4.67	4.83
3/24/2013	2.0	45.45	94.67	132.21	5.67	5.91
3/25/2013	2.0	49.61	134.00	160.80	4.67	4.55
3/26/2013	2.0	43.60	157.30	155.26	10.67	4.28
3/27/2013	2.0	44.50	120.00	177.62	5.67	3.81
3/28/2013	4.0	44.14	135.33	151.96	5.33	4.80
3/29/2013	2.0	43.32	108.67	152.24	11.33	8.36
3/30/2013	2.8	42.20	113.73	182.54	7.33	3.25
3/31/2013	2.0	50.37	141.33	180.38	6.33	4.98
4/1/2013	2.0	50.39	115.33	156.71	9.33	6.95
4/2/2013	2.0	41.74	110.67	177.41	7.33	4.76
4/3/2013	2.0	42.27	124.00	165.16	7.67	3.94

Table 1: Field's Point TSS,BOD and Fecal Coliform Data

Field's Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform		Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100mL)	Influent Flow (MGD)				
4/4/2013	2.0	40.53	126.00	190.45	7.00	4.38
4/5/2013	2.0	41.60	107.33	179.33	4.56	5.31
4/6/2013	2.0	40.29	114.00	204.37	5.33	2.87
4/7/2013	2.0	38.63	121.33	161.63	7.33	4.60
4/8/2013	2.0	42.17	132.67	176.54	11.00	4.59
4/9/2013	2.0	43.39	140.00	169.11	10.33	5.67
4/10/2013	2.5	52.46	183.33	201.39	16.67	4.65
4/11/2013	2.0	43.40	119.33	165.79	6.00	3.71
4/12/2013	2.0	58.23	110.67	127.87	7.67	4.07
4/13/2013	2.8	43.97	104.67	179.85	6.33	4.92
4/14/2013	2.0	39.15	139.33	203.50	6.33	4.24
4/15/2013	2.0	38.79	131.33	157.70	8.00	4.70
4/16/2013	2.0	39.99	136.67	160.05	6.67	4.00
4/17/2013	2.5	40.47	154.67	172.92	12.33	3.96
4/18/2013	2.0	38.33	129.33	181.94	3.67	2.00
4/19/2013	2.0	46.89	150.67	182.29	9.00	3.60
4/20/2013	2.0	51.28	98.67	158.22	5.00	4.93
4/21/2013	2.0	37.70	112.67	164.87	6.67	6.68
4/22/2013	2.0	39.67	174.00	171.86	12.67	3.15
4/23/2013	2.0	38.16	160.00	181.09	6.33	2.77
4/24/2013	2.0	39.59	141.33	206.56	4.00	3.97
4/25/2013	2.0	38.13	141.33	206.04	6.00	3.49
4/26/2013	2.0	37.00	133.33	186.67	2.60	3.57
4/27/2013	2.0	37.41	138.67	167.39	3.67	3.41
4/28/2013	2.0	37.32	149.33	174.82	7.00	3.39
4/29/2013	2.0	39.05	158.67	202.10	5.33	2.97
4/30/2013	2.8	35.96	164.67	234.06	9.67	3.18
5/1/2013	3.2	37.17	169.33	209.54	7.00	3.30
5/2/2013	2.0	34.35	151.33	200.73	3.33	3.48
5/3/2013	2.0	38.52	138.67	195.80	7.00	3.98
5/4/2013	2.0	35.79	142.67	188.92	6.33	4.35
5/5/2013	2.0	35.27	138.00	192.74	4.67	3.53
5/6/2013	2.0	37.48	159.33	188.89	7.00	3.11
5/7/2013	2.0	35.06	165.33	197.83	8.67	3.38
5/8/2013	2.5	42.18	249.33	226.80	11.00	4.15
5/9/2013	2.0	47.54	240.67	162.88	15.33	4.28
5/10/2013	2.0	38.47	152.67	193.40	3.06	3.35
5/11/2013	2.0	42.30	160.67	168.93	4.67	4.83
5/12/2013	2.8	34.89	114.00	191.16	8.33	5.97
5/13/2013	2.0	36.23	168.00	221.63	7.67	3.65
5/14/2013	2.0	35.05	171.33	186.51	6.33	3.42
5/15/2013	2.0	34.07	190.67	205.05	5.33	3.28
5/16/2013	2.0	35.12	150.00	211.96	5.33	3.16
5/17/2013	2.0	35.07	134.67	178.54	6.33	3.80
5/18/2013	2.0	33.57	149.33	194.25	2.67	4.18
5/19/2013	3.7	37.58	185.33	188.24	8.33	3.50
5/20/2013	2.0	34.32	159.33	184.20	7.00	3.98

Table 1: Field's Point TSS,BOD and Fecal Coliform Data

Field's Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform		Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100mL)	Influent Flow (MGD)				
5/21/2013	2.0	39.88	199.33	202.34	8.33	4.54
5/22/2013	2.0	34.02	152.00	172.19	4.67	3.29
5/23/2013	4.0	45.50	200.67	190.20	4.78	4.32
5/24/2013	2.0	52.40	136.00	191.86	4.00	2.17
5/25/2013	2.0	39.51	140.67	175.09	4.33	3.34
5/26/2013	2.0	34.92	120.67	158.64	3.44	3.46
5/27/2013	2.0	34.85	148.00	189.44	8.00	3.04
5/28/2013	2.8	34.90	133.33	181.63	4.67	2.42
5/29/2013	6.1	50.12	176.67	169.08	12.33	3.67
5/30/2013	2.0	48.18	94.00	127.86	2.00	2.59
5/31/2013	2.0	44.96	104.67	143.86	2.67	2.71
6/1/2013	2.0	34.41	134.67	166.70	3.67	2.60
6/2/2013	2.0	36.42	146.67	156.92	6.33	2.46
6/3/2013	2.0	43.91	197.33	183.51	5.33	2.49
6/4/2013	2.0	38.80	110.00	157.18	4.67	2.17
6/5/2013	2.0	34.16	162.67	179.19	6.67	2.05
6/6/2013	2.0	36.26	144.00	173.81	3.67	2.64
6/7/2013	2.0	99.66	174.00	110.05	15.33	3.98
6/8/2013	4.0	78.05	133.33	92.78	4.67	2.84
6/9/2013	2.0	68.33	66.00	94.23	8.00	4.42
6/10/2013	4.7	86.66	89.33	82.56	4.67	3.87
6/11/2013	4.7	89.34	76.67	102.62	5.33	2.79
6/12/2013	4.0	87.25	78.00	69.14	2.00	2.09
6/13/2013	4.0	87.96	112.67	97.52	13.67	2.99
6/14/2013	2.8	98.32	69.33	67.19	3.13	2.09
6/15/2013	2.8	71.07	71.33	89.60	3.33	3.69
6/16/2013	3.7	70.70	57.33	75.60	2.00	2.00
6/17/2013	2.0	71.17	116.00	96.78	10.33	4.27
6/18/2013	2.0	71.30	128.67	111.79	12.33	3.41
6/19/2013	2.0	71.96	82.67	89.64	4.33	2.44
6/20/2013	2.0	68.08	81.33	99.06	5.00	3.22
6/21/2013	2.0	50.42	102.00	130.96	4.00	3.23
6/22/2013	2.0	50.31	110.00	129.77	3.33	3.15
6/23/2013	2.8	46.09	104.67	144.36	5.00	3.24
6/24/2013	2.8	50.36	160.00	150.99	5.67	3.92
6/25/2013	2.0	48.77	122.00	139.15	4.33	3.82
6/26/2013	2.0	47.08	148.67	177.28	5.33	4.31
6/27/2013	3.7	50.71	162.00	164.79	7.33	3.36
6/28/2013	2.8	60.64	162.67	126.62	4.70	3.54
6/29/2013	2.0	47.61	109.33	161.85	4.33	3.91
6/30/2013	2.0	47.46	161.33	162.42	4.67	4.50
7/1/2013	2.0	56.49	129.33	113.17	6.33	3.56
7/2/2013	2.0	45.89	105.33	142.22	3.00	3.49
7/3/2013	2.0	42.97	138.00	154.87	3.33	4.30
7/4/2013	2.0	40.72	104.67	131.68	6.67	4.25
7/5/2013	2.0	41.75	118.00	139.07	5.33	4.11
7/6/2013	2.0	40.83	116.67	153.60	3.67	3.96

Table 1: Field's Point TSS,BOD and Fecal Coliform Data

Field's Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform		Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100mL)	Influent Flow (MGD)				
7/7/2013	2.0	40.71	127.33	136.14	4.33	3.78
7/8/2013	2.0	40.96	130.00	151.13	9.33	3.67
7/9/2013	2.0	41.68	140.00	175.05	3.33	3.79
7/10/2013	2.5	42.82	117.33	151.55	3.00	3.56
7/11/2013	4.0	54.71	141.33	132.11	4.33	3.55
7/12/2013	2.8	62.05	75.33	108.97	2.81	3.24
7/13/2013	2.0	52.20	93.33	125.36	4.33	3.63
7/14/2013	2.0	40.63	101.33	145.69	5.33	3.45
7/15/2013	2.0	41.28	136.67	163.63	6.00	4.79
7/16/2013	2.8	39.42	134.00	144.83	7.33	4.39
7/17/2013	2.0	40.22	146.00	130.93	2.67	3.20
7/18/2013	2.0	40.04	122.67	146.30	2.33	3.65
7/19/2013	2.0	40.23	131.33	167.77	2.67	3.88
7/20/2013	3.7	48.42	164.67	164.70	6.33	4.44
7/21/2013	2.0	36.09	110.67	140.88	4.67	3.84
7/22/2013	2.8	37.41	140.67	159.41	5.67	2.99
7/23/2013	2.0	47.00	137.33	161.31	8.00	3.54
7/24/2013	2.0	40.08	111.33	147.59	4.00	3.25
7/25/2013	4.0	49.42	142.67	118.26	9.67	2.66
7/26/2013	2.0	49.68	98.00	116.59	2.30	2.55
7/27/2013	4.0	44.36	98.00	135.99	2.33	2.77
7/28/2013	2.0	44.92	92.00	140.54	2.67	3.21
7/29/2013	4.0	45.70	149.33	129.27	6.33	3.03
7/30/2013	2.0	42.33	151.33	142.50	3.33	3.23
7/31/2013	3.5	40.22	134.67	143.74	4.33	2.77
8/1/2013	2.8	36.07	154.00	202.19	3.67	3.22
8/2/2013	2.8	44.59	158.67	167.99	2.56	3.31
8/3/2013	2.0	34.80	138.00	165.68	2.67	3.06
8/4/2013	2.0	35.16	121.33	172.90	2.00	2.93
8/5/2013	2.0	34.22	118.67	166.06	2.00	2.69
8/6/2013	2.0	37.10	129.33	159.86	2.00	3.02
8/7/2013	3.2	35.86	141.33	182.61	2.33	3.29
8/8/2013	2.0	34.62	167.33	203.41	2.56	2.77
8/9/2013	2.8	58.37	170.67	152.25	7.00	2.83
8/10/2013	4.0	57.39	64.67	111.25	6.11	2.81
8/11/2013	7.2	55.94	63.33	101.77	2.00	3.65
8/12/2013	4.0	55.08	116.00	109.48	5.00	3.23
8/13/2013	2.8	37.62	178.67	158.85	3.67	3.11
8/14/2013	2.5	37.62	153.33	164.60	8.33	3.35
8/15/2013	4.7	35.63	167.33	171.15	6.67	3.53
8/16/2013	2.8	36.36	177.33	173.98	4.22	2.91
8/17/2013	2.0	33.17	164.00	183.29	3.33	2.87
8/18/2013	2.0	35.52	172.00	152.86	9.67	2.89
8/19/2013	4.0	33.34	174.00	182.59	5.33	3.54
8/20/2013	2.8	36.41	160.00	170.60	9.33	3.48
8/21/2013	2.0	34.13	157.33	201.68	10.00	3.67
8/22/2013	2.0	40.64	148.67	153.83	5.33	2.97

Table 1: Field's Point TSS,BOD and Fecal Coliform Data

Field's Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform		Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100mL)	Influent Flow (MGD)				
8/23/2013	2.0	39.86	126.67	160.54	4.00	2.81
8/24/2013	2.0	32.91	136.00	195.14	4.67	2.86
8/25/2013	2.8	32.35	157.33	195.71	4.67	3.28
8/26/2013	5.8	44.29	201.33	195.45	8.00	3.42
8/27/2013	4.0	48.30	140.67	158.44	4.67	3.19
8/28/2013	7.5	53.33	96.67	123.56	5.00	2.91
8/29/2013	9.6	37.22	170.67	173.53	2.67	2.79
8/30/2013	2.0	32.79	228.67	176.07	4.67	2.80
8/31/2013	2.0	37.63	235.33	164.14	3.67	2.66
9/1/2013	4.0	51.14	156.67	149.44	5.33	2.68
9/2/2013	13.0	60.72	106.00	120.71	7.00	2.89
9/3/2013	5.3	60.19	92.00	105.80	5.33	3.24
9/4/2013	17.6	57.46	72.00	115.18	2.33	3.25
9/5/2013	2.8	52.33	97.33	127.18	6.00	2.63
9/6/2013	2.8	33.42	124.67	184.15	4.33	2.71
9/7/2013	5.3	34.93	132.00	163.83	2.33	3.29
9/8/2013	5.7	32.94	140.67	221.92	4.00	2.87
9/9/2013	15.5	36.10	139.33	186.02	3.00	3.08
9/10/2013	6.5	33.87	148.00	194.65	2.33	2.83
9/11/2013	2.5	35.82	161.33	196.96	8.00	2.84
9/12/2013	4.0	46.18	176.00	196.54	2.00	3.77
9/13/2013	2.8	52.30	147.33	131.06	2.00	2.34
9/14/2013	2.0	33.03	126.67	189.48	3.33	2.32
9/15/2013	3.5	33.23	116.00	151.54	2.00	2.18
9/16/2013	2.8	33.09	156.00	202.99	2.67	2.79
9/17/2013	4.0	34.06	156.00	164.99	2.00	2.13
9/18/2013	3.2	34.95	155.33	186.40	2.00	2.00
9/19/2013	2.0	33.24	156.00	198.13	2.00	2.00
9/20/2013	2.8	32.56	158.67	191.40	2.33	2.06
9/21/2013	5.7	38.49	192.67	217.87	2.67	2.00
9/22/2013	42.9	45.62	134.00	172.21	2.00	2.05
9/23/2013	2.0	34.51	126.00	181.27	2.00	2.14
9/24/2013	4.0	34.17	155.33	196.34	2.00	2.07
9/25/2013	4.0	32.55	158.67	203.73	3.33	2.84
9/26/2013	4.0	32.44	149.33	188.75	2.00	2.39
9/27/2013	2.0	32.89	152.67	212.78	2.33	2.92
9/28/2013	4.0	31.12	157.33	220.24	2.33	2.84
9/29/2013	2.0	32.02	140.00	191.85	2.00	2.51
9/30/2013	2.0	31.95	154.67	190.96	2.33	2.78
10/1/2013	4.2	31.72	186.67	203.94	2.33	2.22
10/2/2013	3.2	31.53	175.33	217.50	3.33	2.00
10/3/2013	2.8	31.52	182.67	205.93	3.00	2.28
10/4/2013	2.0	34.22	238.67	222.44	3.00	3.08
10/5/2013	2.8	32.92	165.33	256.38	2.33	2.76
10/6/2013	4.7	32.47	180.00	203.94	6.67	2.22
10/7/2013	5.1	33.79	294.00	217.21	10.67	2.88
10/8/2013	2.0	30.06	144.67	181.60	3.00	2.81

Table 1: Field's Point TSS,BOD and Fecal Coliform Data

Field's Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform	Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100mL)					
10/9/2013	4.0	31.92	208.67	182.31	2.33	2.86
10/10/2013	4.0	31.33	255.33	194.25	4.33	2.91
10/11/2013	2.0	30.85	161.33	188.62	2.67	2.70
10/12/2013	3.7	30.68	207.33	263.16	2.33	2.62
10/13/2013	2.0	28.21	158.00	256.47	3.33	2.31
10/14/2013	4.0	31.99	162.00	226.93	4.67	2.40
10/15/2013	2.0	31.19	156.00	192.08	2.00	2.69
10/16/2013	2.0	32.81	182.00	211.64	4.33	2.52
10/17/2013	2.0	31.52	168.67	217.88	2.33	2.44
10/18/2013	5.7	32.11	167.33	228.76	4.33	3.11
10/19/2013	2.0	30.13	164.00	225.03	2.39	3.20
10/20/2013	2.8	31.82	148.00	196.56	2.00	2.56
10/21/2013	4.0	29.99	154.00	211.66	2.00	2.09
10/22/2013	6.6	31.30	170.67	222.78	5.00	2.78
10/23/2013	4.0	29.49	180.67	203.42	3.67	2.19
10/24/2013	10.2	30.94	182.00	238.49	4.67	3.15
10/25/2013	2.0	29.12	156.67	242.44	3.67	3.72
10/26/2013	6.8	28.80	160.67	216.05	5.67	2.55
10/27/2013	6.8	29.14	160.00	229.99	4.67	2.54
10/28/2013	2.0	29.58	157.33	219.06	4.67	2.62
10/29/2013	5.7	29.57	220.00	188.62	7.33	2.27
10/30/2013	2.0	33.22	234.67	212.95	11.33	2.21
10/31/2013	2.8	31.66	246.67	247.30	7.33	2.44
11/1/2013	2.0	31.03	170.00	214.70	4.67	2.91
11/2/2013	5.7	32.19	137.33	207.60	3.33	2.84
11/3/2013	2.0	29.48	175.33	227.70	5.67	2.35
11/4/2013	2.8	30.16	163.33	209.31	2.00	2.34
11/5/2013	4.0	31.64	176.00	190.29	2.00	2.28
11/6/2013	2.5	31.34	199.33	197.56	2.00	2.67
11/7/2013	2.0	39.09	240.00	169.78	4.67	2.50
11/8/2013	4.0	33.34	152.67	189.57	2.33	2.16
11/9/2013	2.8	26.30	153.33	214.30	2.00	2.21
11/10/2013	2.8	27.83	179.33	220.20	2.00	2.40
11/11/2013	2.0	30.11	168.00	230.69	7.00	2.61
11/12/2013	2.0	29.52	189.33	221.86	11.33	2.21
11/13/2013	2.0	30.32	211.33	195.41	7.67	2.19
11/14/2013	2.8	29.84	167.33	211.69	4.67	2.16
11/15/2013	2.0	28.28	161.33	244.45	3.33	2.47
11/16/2013	2.8	28.22	154.00	237.26	6.00	2.17
11/17/2013	2.8	37.03	201.33	197.40	4.33	2.60
11/18/2013	4.7	46.37	246.00	200.64	6.00	3.17
11/19/2013	2.8	30.99	146.67	199.82	8.00	2.74
11/20/2013	2.5	29.64	159.33	211.66	3.33	2.22
11/21/2013	2.8	30.06	176.67	228.20	5.67	2.53
11/22/2013	2.0	32.38	204.00	257.80	3.33	2.20
11/23/2013	2.0	29.35	151.33	217.02	4.33	2.29
11/24/2013	2.0	28.77	166.67	226.75	12.33	2.10

Table 1: Field's Point TSS,BOD and Fecal Coliform Data

Field's Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data

Date	Fecal Coliform		Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100mL)	Influent Flow (MGD)				
11/25/2013	2.8	29.53	157.33	199.54	8.33	2.28
11/26/2013	4.0	45.08	274.67	224.55	11.00	2.48
11/27/2013	4.4	88.42	140.00	97.51	8.67	2.67
11/28/2013	2.8	58.96	59.33	121.70	3.67	2.20
11/29/2013	2.0	56.42	72.00	113.53	2.00	2.39
11/30/2013	2.0	37.98	88.67	168.82	2.67	2.94
12/1/2013	2.0	45.92	142.67	147.79	2.33	2.27
12/2/2013	2.0	33.94	126.00	175.10	4.67	2.18
12/3/2013	2.0	33.22	150.00	170.18	3.33	2.26
12/4/2013	2.0	32.91	170.67	156.61	2.00	2.17
12/5/2013	2.0	36.14	176.00	175.99	3.67	2.47
12/6/2013	2.0	45.78	202.00	182.49	2.33	2.52
12/7/2013	5.8	48.63	90.67	150.58	2.00	2.61
12/8/2013	2.0	32.90	130.00	179.37	5.00	3.15
12/9/2013	2.0	44.92	145.33	149.66	2.33	2.00
12/10/2013	2.0	37.21	181.33	161.60	7.67	2.88
12/11/2013	2.0	32.56	175.33	174.89	3.00	2.70
12/12/2013	2.0	32.80	196.00	184.09	2.33	2.05
12/13/2013	2.0	36.76	152.67	188.27	2.67	2.34
12/14/2013	2.0	35.50	172.67	204.57	3.67	2.39
12/15/2013	2.0	58.99	86.00	125.29	6.67	2.95
12/16/2013	2.0	37.51	121.33	159.93	9.00	3.73
12/17/2013	2.0	32.84	148.00	172.84	3.33	2.25
12/18/2013	2.0	33.54	124.67	172.73	4.33	2.09
12/19/2013	2.0	36.02	135.33	191.85	2.33	2.45
12/20/2013	2.0	34.86	140.67	178.30	3.33	2.61
12/21/2013	2.0	35.02	156.00	208.54	2.00	2.51
12/22/2013	2.0	33.18	118.00	168.59	3.67	3.09
12/23/2013	2.0	56.97	139.33	133.87	6.67	3.52
12/24/2013	2.0	38.43	103.33	173.13	5.33	3.52
12/25/2013	2.0	30.30	114.00	155.68	2.33	2.30
12/26/2013	2.0	33.79	120.00	163.98	2.67	2.32
12/27/2013	2.0	32.10	138.00	169.41	4.67	3.00
12/28/2013	2.8	35.23	169.33	181.81	6.67	3.10
12/29/2013	2.0	54.69	171.33	145.16	5.33	2.78
12/30/2013	2.0	59.92	86.00	112.88	5.33	2.94
12/31/2013	2.0	44.17	96.00	157.32	4.33	2.87

Table 1: Field's Point TSS,BOD and Fecal Coliform Data

**Bucklin Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data**

Date	Fecal Coliform		Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100 ml)						
1/1/2013	2.0		19.16	132.00	225.28	5.00	2.80
1/2/2013	2.0		18.90	126.00	174.34	6.33	3.33
1/3/2013	2.0		18.38	130.70	195.78	4.67	3.31
1/4/2013	2.0		18.90	146.70	223.24	4.33	3.49
1/5/2013	2.0		18.15	130.70	168.69	6.33	3.34
1/6/2013	2.0		18.16	144.00	193.11	7.33	2.26
1/7/2013	2.0		17.95	161.30	197.11	4.33	2.40
1/8/2013	2.0		18.48	145.30	186.17	8.67	3.08
1/9/2013	3.0		18.29	189.30	197.55	6.33	3.75
1/10/2013	2.4		17.08	182.70	189.64	6.67	3.59
1/11/2013	2.4		20.59	137.30	180.90	5.33	3.84
1/12/2013	2.0		20.51	202.00	171.62	6.33	3.34
1/13/2013	2.0		18.18	128.70	165.71	6.33	2.73
1/14/2013	2.0		17.42	121.30	153.77	4.67	3.17
1/15/2013	2.0		18.67	164.70	176.35	10.00	3.72
1/16/2013	2.7		21.97	154.00	163.21	10.33	3.93
1/17/2013	2.4		19.83	124.00	135.17	6.00	4.05
1/18/2013	3.7		16.75	112.70	149.33	5.67	3.90
1/19/2013	2.0		18.15	118.70	164.54	6.33	3.53
1/20/2013	4.5		17.18	120.00	155.15	3.33	2.14
1/21/2013	2.0		17.60	170.00	163.64	5.33	3.53
1/22/2013	2.4		16.58	146.70	180.08	5.67	3.36
1/23/2013	2.6		16.56	158.00	191.98	3.67	3.14
1/24/2013	2.0		16.36	137.30	190.39	6.00	2.80
1/25/2013	2.7		16.71	140.00	210.83	3.33	2.90
1/26/2013	2.0		16.21	141.30	189.30	5.33	3.81
1/27/2013	3.2		16.05	156.00	218.06	8.67	2.90
1/28/2013	2.2		17.26	134.00	234.17	5.67	2.48
1/29/2013	3.6		17.94	184.70	194.13	11.67	3.02
1/30/2013	2.4		20.97	207.30	194.16	5.33	3.24
1/31/2013	12.1		29.86	240.00	250.42	24.67	17.17
2/1/2013	2.8		17.30	130.00	190.76	6.00	3.02
2/2/2013	2.0		17.29	140.00	173.19	7.33	3.44
2/3/2013	2.0		16.45	123.30	190.23	4.33	2.91
2/4/2013	2.8		16.74	135.30	193.59	8.33	3.46
2/5/2013	2.0		16.89	156.70	185.40	5.67	2.93
2/6/2013	2.0		16.31	129.30	186.69	9.33	2.39
2/7/2013	4.0		15.80	160.00	220.73	4.33	3.08
2/8/2013	2.4		17.17	148.70	204.55	11.00	3.42
2/9/2013	2.8		14.76	120.00	166.03	6.67	3.41
2/10/2013	2.0		15.57	153.30	205.00	8.33	3.18
2/11/2013	2.4		27.78	181.30	194.64	133.30	86.69
2/12/2013	2.0		25.24	156.00	165.04	19.00	9.20
2/13/2013	4.7		18.68	129.30	151.47	9.67	5.71
2/14/2013	10.9		18.47	135.30	153.33	6.67	4.75
2/15/2013	7.6		21.27	116.70	172.13	5.67	4.58
2/16/2013	2.4		19.18	121.30	155.96	5.67	3.36

Table 2: Bucklin Point TSS,BOD and Fecal Coliform Data

**Bucklin Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data**

Date	Fecal Coliform		Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100 ml)						
2/17/2013	3.4		18.37	131.30	203.40	7.33	2.70
2/18/2013	2.0		17.65	136.70	177.23	8.33	3.30
2/19/2013	2.4		32.52	148.70	171.75	84.33	47.21
2/20/2013	4.3		20.35	149.30	158.06	6.00	5.46
2/21/2013	3.2		18.19	114.00	184.81	6.67	4.05
2/22/2013	3.4		18.67	119.30	169.72	4.33	3.21
2/23/2013	7.4		28.82	118.70	184.96	88.67	56.22
2/24/2013	518.8		41.52	136.00	131.19	47.33	28.69
2/25/2013	3.9		23.51	128.00	153.40	22.33	11.68
2/26/2013	4.7		22.65	116.70	141.91	19.33	8.96
2/27/2013	13.1		68.68	130.00	129.21	48.67	19.65
2/28/2013	4.4		32.81	92.00	98.08	16.33	12.17
3/1/2013	3.8		29.65	87.33	122.30	13.00	8.00
3/2/2013	3.4		28.51	96.67	105.50	11.33	6.26
3/3/2013	3.6		26.45	74.67	123.06	9.67	4.98
3/4/2013	3.4		25.54	80.67	122.59	15.00	10.82
3/5/2013	18.7		24.85	90.00	119.74	6.33	5.31
3/6/2013	12.3		25.49	136.70	129.63	8.67	5.25
3/7/2013	8.5		32.62	119.30	155.29	34.67	12.21
3/8/2013	8.2		28.61	74.67	116.99	32.00	17.74
3/9/2013	2.4		26.40	85.33	116.46	15.00	7.50
3/10/2013	2.0		23.43	86.00	116.24	7.33	3.12
3/11/2013	2.0		24.09	89.33	138.92	4.00	3.79
3/12/2013	3.6		39.01	108.00	128.47	39.67	29.52
3/13/2013	3.4		25.45	136.00	126.04	9.00	5.29
3/14/2013	4.8		25.20	84.67	116.66	12.00	7.35
3/15/2013	2.4		24.29	86.67	141.45	10.00	5.57
3/16/2013	4.6		24.01	104.70	139.42	7.00	5.06
3/17/2013	8.5		22.78	112.00	147.76	8.33	4.42
3/18/2013	9.9		22.64	110.70	143.79	8.00	5.48
3/19/2013	10.6		40.01	133.30	150.93	170.70	106.37
3/20/2013	6.4		24.17	96.67	129.55	8.67	6.52
3/21/2013	3.4		23.73	99.33	129.48	8.00	4.34
3/22/2013	2.7		22.82	97.33	143.09	7.00	3.99
3/23/2013	3.1		22.94	106.70	150.04	8.67	5.89
3/24/2013	4.4		21.48	106.00	147.76	7.67	7.18
3/25/2013	3.4		22.74	126.00	142.55	11.00	5.88
3/26/2013	8.0		22.68	133.30	167.39	14.00	7.77
3/27/2013	2.6		22.05	132.67	162.93	10.67	9.14
3/28/2013	2.0		21.72	128.00	159.10	13.33	8.72
3/29/2013	4.0		21.18	138.00	169.74	16.33	8.44
3/30/2013	2.8		19.82	122.00	164.31	18.33	7.58
3/31/2013	4.0		20.48	131.33	196.90	180.67	84.01
4/1/2013	7.3		27.41	164.00	214.95	53.33	46.82
4/2/2013	3.4		20.45	142.00	162.91	8.00	6.80
4/3/2013	4.5		19.89	143.33	158.29	14.67	5.16
4/4/2013	2.4		19.56	163.33	163.26	11.00	6.43

Table 2: Bucklin Point TSS,BOD and Fecal Coliform Data

**Bucklin Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data**

Date	Fecal Coliform		Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100 ml)						
4/5/2013	2.4		19.44	119.33	193.03	6.22	7.18
4/6/2013	2.0		18.65	116.67	186.51	5.67	7.73
4/7/2013	2.4		19.38	146.00	172.08	8.33	5.60
4/8/2013	2.4		18.54	136.00	178.85	10.67	7.72
4/9/2013	2.8		18.44	151.33	214.26	14.00	8.11
4/10/2013	10.1		23.89	200.67	221.03	33.67	31.47
4/11/2013	7.9		20.57	157.33	189.62	2.00	4.32
4/12/2013	9.9		30.72	152.00	196.40	15.67	15.66
4/13/2013	2.8		19.09	99.33	151.34	5.33	5.85
4/14/2013	2.8		18.36	144.00	172.33	6.33	5.41
4/15/2013	3.1		17.76	130.00	182.25	10.67	5.10
4/16/2013	79.6		17.93	146.00	229.38	5.67	9.53
4/17/2013	2.0		16.72	144.00	202.08	6.33	5.49
4/18/2013	4.9		16.22	143.33	130.11	6.67	2.92
4/19/2013	2.8		17.27	150.67	180.03	41.67	32.99
4/20/2013	174.3		29.08	154.00	200.04	54.67	38.38
4/21/2013	2.8		16.88	136.67	194.27	4.67	6.09
4/22/2013	2.4		18.76	144.00	204.50	11.33	5.56
4/23/2013	2.4		18.39	149.33	211.79	13.00	12.79
4/24/2013	8.1		17.54	158.67	223.25	10.67	7.21
4/25/2013	25.0		16.64	154.00	218.69	9.00	8.57
4/26/2013	8.4		16.58	142.67	238.84	7.40	6.19
4/27/2013	7.3		16.36	157.33	200.88	6.33	5.11
4/28/2013	12.2		16.51	149.33	194.11	9.67	5.16
4/29/2013	3.9		16.87	144.67	210.25	7.33	5.29
4/30/2013	3.1		16.11	188.67	154.47	10.67	6.45
5/1/2013	7.1		16.00	177.33	241.43	10.67	6.00
5/2/2013	13.0		15.75	151.33	224.00	8.67	6.42
5/3/2013	12.1		15.63	153.33	234.19	7.67	6.87
5/4/2013	9.5		15.45	157.33	230.43	7.67	6.43
5/5/2013	8.6		15.08	156.67	185.68	8.67	6.54
5/6/2013	32.9		15.05	179.33	225.55	11.33	6.30
5/7/2013	11.1		15.04	199.33	231.96	11.33	5.90
5/8/2013	12.4		19.93	217.33	242.08	34.67	20.62
5/9/2013	5.9		23.68	272.67	283.66	25.00	17.72
5/10/2013	2.8		15.43	144.00	222.13	4.44	7.71
5/11/2013	5.7		18.73	168.67	211.55	5.67	7.96
5/12/2013	5.4		16.01	136.67	202.24	4.00	5.24
5/13/2013	3.9		16.04	139.33	199.44	3.67	4.19
5/14/2013	8.1		16.01	167.33	205.30	6.00	10.23
5/15/2013	5.3		16.50	171.33	219.93	6.67	6.06
5/16/2013	5.1		15.79	170.00	232.19	6.33	4.68
5/17/2013	14.4		14.83	172.00	212.83	5.67	3.12
5/18/2013	7.9		14.86	166.67	204.85	4.33	4.18
5/19/2013	13.9		15.49	178.00	201.54	7.67	2.83
5/20/2013	2.4		15.34	178.67	205.05	6.33	3.46
5/21/2013	11.6		16.71	184.00	209.79	8.67	3.28

Table 2: Bucklin Point TSS,BOD and Fecal Coliform Data

**Bucklin Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data**

Date	Fecal Coliform		Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100 ml)						
5/22/2013	13.4		15.77	215.33	255.93	4.00	2.52
5/23/2013	4.3		16.14	174.00	210.60	111.00	66.26
5/24/2013	552.1		33.68	176.00	148.20	6.67	3.06
5/25/2013	4.3		20.76	150.00	192.82	4.33	2.00
5/26/2013	4.6		15.35	126.00	216.44	4.33	2.00
5/27/2013	6.4		14.89	159.33	214.69	8.33	2.80
5/28/2013	4.8		15.85	150.67	204.05	4.33	2.50
5/29/2013	10.0		24.68	197.33	218.29	30.33	11.04
5/30/2013	4.2		25.05	168.00	166.74	4.33	2.02
5/31/2013	6.4		14.97	150.00	191.44	5.67	3.49
6/1/2013	2.4		15.03	158.00	215.59	4.33	2.00
6/2/2013	3.9		15.30	178.67	183.65	6.33	2.25
6/3/2013	6.7		24.04	204.67	220.56	16.33	3.96
6/4/2013	7.4		16.19	156.00	203.02	4.67	2.11
6/5/2013	7.6		15.94	166.00	207.35	5.00	2.38
6/6/2013	12.2		15.78	189.33	199.84	6.67	3.00
6/7/2013	5.5		61.98	184.00	194.54	14.00	5.89
6/8/2013	7.2		52.88	173.33	90.14	10.00	6.12
6/9/2013	7.0		25.37	92.00	112.92	5.67	4.48
6/10/2013	9.4		35.21	98.67	117.49	12.00	4.60
6/11/2013	15.9		66.72	125.33	128.09	21.33	7.35
6/12/2013	8.5		33.90	80.67	90.65	19.00	10.66
6/13/2013	11.7		36.93	81.33	103.38	11.00	5.66
6/14/2013	8.4		68.87	77.33	63.35	18.22	5.84
6/15/2013	9.8		41.47	78.00	88.43	8.33	3.94
6/16/2013	4.3		31.82	77.33	111.95	5.67	3.65
6/17/2013	5.4		29.97	90.67	116.63	6.67	4.01
6/18/2013	4.6		35.94	107.33	122.84	10.00	4.87
6/19/2013	5.8		31.22	102.00	121.17	7.33	3.41
6/20/2013	7.7		27.85	88.00	117.95	7.00	3.97
6/21/2013	5.7		26.81	102.00	135.75	7.33	3.97
6/22/2013	3.3		25.68	109.33	161.82	4.33	3.16
6/23/2013	4.0		24.99	125.33	142.80	5.00	3.04
6/24/2013	4.8		25.28	131.33	155.52	11.33	3.88
6/25/2013	8.6		23.95	150.67	177.20	10.67	3.51
6/26/2013	10.0		28.33	126.00	157.16	12.33	5.05
6/27/2013	7.4		23.92	166.67	155.17	12.67	4.15
6/28/2013	17.1		33.36	154.67	147.74	11.47	3.63
6/29/2013	4.0		27.75	130.67	145.89	8.33	4.11
6/30/2013	6.4		24.61	110.00	142.14	8.67	4.30
7/1/2013	5.5		29.03	128.00	148.90	10.67	3.98
7/2/2013	12.8		22.80	132.67	146.67	7.67	3.51
7/3/2013	9.0		22.03	132.00	170.68	7.33	4.07
7/4/2013	20.2		20.65	134.00	147.77	9.67	4.02
7/5/2013	39.6		20.42	127.33	139.90	13.00	4.91
7/6/2013	14.6		19.67	139.33	171.62	8.33	3.97
7/7/2013	16.2		19.59	149.33	160.82	9.33	4.00

Table 2: Bucklin Point TSS,BOD and Fecal Coliform Data

**Bucklin Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data**

Date	Fecal Coliform		Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100 ml)						
7/8/2013	25.7		19.64	144.00	149.40	13.00	4.07
7/9/2013	14.2		20.43	146.67	169.88	8.67	3.85
7/10/2013	12.6		20.53	140.67	167.21	7.67	3.52
7/11/2013	17.0		30.07	142.67	179.98	7.00	4.84
7/12/2013	35.9		20.91	131.33	161.59	7.39	3.61
7/13/2013	13.0		23.92	141.33	158.73	6.67	4.33
7/14/2013	34.9		18.91	122.00	146.83	8.00	4.53
7/15/2013	13.5		18.53	124.00	169.20	8.67	5.39
7/16/2013	27.4		18.24	156.67	155.37	8.67	3.19
7/17/2013	19.0		19.13	152.67	138.47	10.00	2.93
7/18/2013	14.5		18.52	135.33	156.83	5.33	2.81
7/19/2013	38.4		19.14	147.33	186.60	6.33	6.90
7/20/2013	4.3		22.48	150.67	180.50	7.67	3.50
7/21/2013	11.4		18.36	188.00	185.08	4.33	2.34
7/22/2013	4.6		18.74	136.67	158.35	6.00	2.00
7/23/2013	5.3		30.37	187.33	187.47	11.67	3.55
7/24/2013	22.5		19.50	117.33	135.12	7.33	2.18
7/25/2013	5.8		28.65	139.33	165.43	12.33	3.26
7/26/2013	22.1		28.92	111.33	130.53	9.11	2.45
7/27/2013	3.3		19.15	126.67	151.98	3.33	2.68
7/28/2013	7.3		18.08	142.00	158.21	4.33	2.00
7/29/2013	19.8		21.87	169.33	172.20	5.67	2.00
7/30/2013	11.0		18.19	156.67	174.17	5.67	2.00
7/31/2013	7.5		18.13	144.00	169.50	5.33	2.00
8/1/2013	16.9		18.37	147.33	251.95	5.33	2.25
8/2/2013	4.8		20.10	180.67	201.75	4.78	2.25
8/3/2013	10.6		18.02	150.67	181.20	3.67	2.00
8/4/2013	16.1		16.97	154.00	240.28	2.00	2.00
8/5/2013	4.2		17.10	143.33	168.54	3.67	2.00
8/6/2013	4.8		17.35	130.00	206.10	2.00	2.00
8/7/2013	19.9		17.42	160.67	189.94	6.33	5.64
8/8/2013	9.8		18.67	222.00	221.98	3.44	2.14
8/9/2013	18.2		45.98	158.67	162.02	22.22	5.95
8/10/2013	8.5		19.39	106.00	120.58	4.78	2.33
8/11/2013	3.4		17.61	104.00	152.41	8.17	2.20
8/12/2013	7.6		18.19	142.00	155.02	9.67	2.08
8/13/2013	3.4		19.32	144.67	170.64	5.33	2.20
8/14/2013	6.9		18.12	157.33	177.92	6.00	2.81
8/15/2013	14.4		17.44	151.33	175.80	4.00	2.55
8/16/2013	8.1		17.59	158.67	200.59	4.89	2.92
8/17/2013	2.8		17.08	151.33	203.94	4.67	2.53
8/18/2013	4.6		17.46	164.67	185.55	7.67	2.27
8/19/2013	6.0		17.76	150.00	182.76	5.00	2.71
8/20/2013	7.8		16.87	153.33	217.70	6.67	3.14
8/21/2013	8.2		16.52	166.58	188.05	3.67	2.50
8/22/2013	7.7		17.87	123.90	187.46	8.00	2.96
8/23/2013	10.6		17.02	192.00	232.42	3.00	2.56

Table 2: Bucklin Point TSS,BOD and Fecal Coliform Data

**Bucklin Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data**

Date	Fecal Coliform		Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100 ml)						
8/24/2013	2.4		16.22	165.33	195.03	4.33	3.54
8/25/2013	3.4		16.13	132.67	174.48	5.67	2.44
8/26/2013	3.1		17.40	164.67	200.28	8.00	2.85
8/27/2013	13.6		27.21	181.33	261.37	11.33	3.96
8/28/2013	3.5		17.08	145.33	200.43	5.00	2.74
8/29/2013	13.9		18.14	158.00	237.30	2.67	2.51
8/30/2013	2.8		17.11	181.33	278.41	5.33	2.39
8/31/2013	5.7		17.54	211.33	215.96	4.67	2.00
9/1/2013	2.8		21.41	348.00	360.92	7.33	2.21
9/2/2013	3.8		29.79	128.00	151.55	15.33	4.19
9/3/2013	3.4		19.49	124.67	157.78	7.67	3.07
9/4/2013	6.4		17.46	178.00	186.50	2.00	5.02
9/5/2013	5.5		18.98	170.67	206.23	3.67	2.30
9/6/2013	4.5		16.66	146.00	220.50	4.00	2.31
9/7/2013	7.9		17.17	163.33	228.05	5.33	3.38
9/8/2013	33.9		17.13	132.00	186.48	2.67	4.19
9/9/2013	4.2		17.44	157.33	183.23	3.00	2.30
9/10/2013	6.6		18.11	194.00	212.90	3.33	2.42
9/11/2013	5.7		16.82	203.33	226.78	2.00	2.00
9/12/2013	7.1		20.28	225.33	279.01	7.00	3.43
9/13/2013	11.8		26.52	181.33	171.07	4.67	2.33
9/14/2013	5.4		16.40	185.33	261.73	2.33	2.16
9/15/2013	2.8		15.92	150.00	210.58	2.00	2.23
9/16/2013	3.4		17.33	142.67	200.35	2.67	2.59
9/17/2013	5.7		15.94	192.00	219.11	4.67	2.64
9/18/2013	8.6		16.19	176.00	207.94	4.67	3.06
9/19/2013	5.7		16.10	181.33	203.92	4.67	4.44
9/20/2013	10.2		16.39	164.00	229.58	17.67	5.44
9/21/2013	6.4		16.61	189.33	212.32	3.67	2.74
9/22/2013	10.8		26.11	246.67	206.20	4.67	3.13
9/23/2013	3.3		15.53	160.00	203.05	3.33	2.00
9/24/2013	4.9		15.35	160.00	203.58	5.67	2.35
9/25/2013	6.1		15.53	154.67	192.08	2.00	2.20
9/26/2013	7.3		15.54	174.00	263.35	2.00	2.47
9/27/2013	2.4		15.88	214.00	244.42	7.33	4.00
9/28/2013	3.9		15.62	166.00	224.64	4.33	2.43
9/29/2013	2.8		15.38	154.00	198.02	3.67	2.39
9/30/2013	2.8		15.47	164.00	210.25	7.00	3.51
10/1/2013	6.6		15.43	194.00	211.51	7.00	2.58
10/2/2013	8.0		16.34	178.67	207.15	4.33	2.36
10/3/2013	2.8		15.88	177.33	224.76	5.33	2.35
10/4/2013	4.9		21.85	212.67	220.88	14.67	5.27
10/5/2013	2.0		16.38	163.33	314.34	5.33	2.39
10/6/2013	3.8		17.21	190.67	211.51	9.33	2.58
10/7/2013	6.6		18.35	165.33	208.66	9.67	3.20
10/8/2013	6.4		15.97	184.00	214.20	8.33	3.63
10/9/2013	12.3		16.22	150.67	187.10	2.67	4.57

Table 2: Bucklin Point TSS,BOD and Fecal Coliform Data

**Bucklin Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data**

Date	Fecal Coliform		Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100 ml)						
10/10/2013	3.6		16.49	169.33	242.85	4.33	2.87
10/11/2013	3.2		15.96	175.33	264.39	5.33	3.29
10/12/2013	9.1		17.83	184.67	276.49	4.33	3.97
10/13/2013	7.0		15.83	154.67	223.15	7.00	2.70
10/14/2013	3.7		15.82	152.00	204.95	3.67	2.95
10/15/2013	2.8		15.46	179.33	227.02	3.33	3.75
10/16/2013	2.6		16.45	192.67	240.29	9.00	3.87
10/17/2013	46.5		16.48	217.33	248.83	8.33	4.90
10/18/2013	2.7		15.30	195.33	271.05	8.33	3.25
10/19/2013	9.3		15.45	180.00	268.13	5.89	3.73
10/20/2013	9.6		14.72	152.00	211.45	4.33	2.93
10/21/2013	2.8		15.47	160.00	228.70	4.67	3.68
10/22/2013	4.0		16.36	213.33	257.27	7.67	2.98
10/23/2013	6.5		17.49	210.00	211.76	4.33	2.21
10/24/2013	2.4		15.49	189.33	232.39	5.33	2.10
10/25/2013	5.4		15.15	202.00	278.60	7.00	4.35
10/26/2013	2.8		15.35	189.33	265.62	5.67	2.00
10/27/2013	2.4		15.18	174.00	230.55	3.33	2.09
10/28/2013	4.4		15.53	176.67	222.91	6.00	2.07
10/29/2013	4.5		16.12	200.00	215.39	5.33	2.00
10/30/2013	3.4		16.28	202.00	222.86	6.33	2.08
10/31/2013	5.2		15.98	202.67	252.59	8.00	3.29
11/1/2013	5.4		17.54	218.00	275.23	4.67	2.00
11/2/2013	2.0		15.21	222.00	256.54	7.33	2.66
11/3/2013	3.4		15.71	214.67	234.93	5.67	2.23
11/4/2013	3.1		15.13	158.67	242.01	2.00	2.45
11/5/2013	2.4		15.77	206.00	244.36	4.33	2.25
11/6/2013	4.8		16.32	190.00	223.75	2.00	2.06
11/7/2013	7.9		23.18	203.33	239.58	8.00	3.89
11/8/2013	4.1		15.38	174.00	213.83	3.00	2.50
11/9/2013	4.8		15.82	154.67	218.31	3.33	2.18
11/10/2013	3.2		15.76	172.00	243.67	3.67	2.00
11/11/2013	4.1		15.55	208.67	246.59	5.00	2.00
11/12/2013	5.6		17.83	196.00	241.10	7.00	2.69
11/13/2013	3.0		14.72	220.67	277.16	7.67	2.11
11/14/2013	6.1		15.79	168.00	240.17	6.33	2.75
11/15/2013	8.9		16.31	216.00	256.61	7.00	2.22
11/16/2013	4.3		15.47	212.67	239.03	3.67	2.17
11/17/2013	4.8		18.75	189.33	255.00	8.00	3.09
11/18/2013	5.7		25.07	246.00	268.11	43.67	10.23
11/19/2013	3.4		15.84	202.00	259.44	10.67	2.71
11/20/2013	4.3		15.68	195.33	272.43	6.33	2.68
11/21/2013	2.8		15.72	187.33	241.57	6.33	2.44
11/22/2013	3.8		18.30	202.00	259.51	8.67	3.61
11/23/2013	2.4		15.26	172.00	195.41	3.67	2.48
11/24/2013	3.4		14.96	178.00	253.29	8.33	2.84
11/25/2013	2.0		14.92	284.00	297.60	9.67	2.11

Table 2: Bucklin Point TSS,BOD and Fecal Coliform Data

**Bucklin Point 2013 Wastewater Treatment Plant
TSS, BOD and Fecal Coliform Data**

Date	Fecal Coliform		Influent Flow (MGD)	Raw Influent TSS (mg/L)	Raw Influent BOD (mg/L)	Final Effluent TSS (mg/L)	Final Effluent BOD (mg/L)
	Bacteria (MPN/100 ml)						
11/26/2013	4.5		17.08	250.00	251.33	303.33	58.63
11/27/2013	14957.8		75.36	168.67	172.06	186.67	32.06
11/28/2013	3.4		18.24	94.00	150.39	3.67	2.50
11/29/2013	2.0		16.24	126.67	228.88	6.67	2.60
11/30/2013	2.8		16.23	146.67	230.13	4.67	2.78
12/1/2013	4.0		23.41	147.33	205.32	5.67	2.13
12/2/2013	2.4		17.26	122.67	172.06	4.67	2.02
12/3/2013	2.0		16.40	159.33	240.18	7.33	2.00
12/4/2013	2.0		16.84	149.33	200.25	4.67	2.00
12/5/2013	2.4		17.28	165.33	244.96	4.67	2.00
12/6/2013	2.4		23.04	192.00	289.31	34.67	8.16
12/7/2013	6.2		27.38	141.33	175.32	7.33	2.00
12/8/2013	8.5		17.25	142.67	208.39	2.00	2.54
12/9/2013	2.0		23.82	152.00	184.46	5.00	2.05
12/10/2013	7.6		19.15	167.33	199.22	7.67	2.18
12/11/2013	3.2		17.33	149.33	220.80	2.00	2.00
12/12/2013	3.4		16.62	154.67	213.54	5.00	2.00
12/13/2013	2.4		16.80	162.00	343.84	4.67	2.00
12/14/2013	3.3		16.87	156.00	225.54	2.00	2.00
12/15/2013	4.8		36.65	140.67	178.79	34.67	8.15
12/16/2013	2.0		17.59	113.33	185.48	11.00	5.10
12/17/2013	2.0		17.65	154.00	214.13	6.67	2.00
12/18/2013	2.3		16.99	146.00	207.65	4.33	2.04
12/19/2013	3.4		18.23	148.67	230.90	5.67	2.00
12/20/2013	2.8		20.01	176.67	217.26	4.67	2.13
12/21/2013	2.4		19.68	186.00	220.28	3.67	2.00
12/22/2013	2.0		18.14	150.00	213.38	3.33	2.17
12/23/2013	2.0		33.94	196.00	210.44	10.67	6.81
12/24/2013	2.4		19.66	127.33	180.76	2.33	2.78
12/25/2013	2.0		17.15	146.00	216.17	2.00	2.05
12/26/2013	2.7		18.63	143.33	205.52	5.67	2.05
12/27/2013	2.0		18.59	182.00	221.99	6.33	2.00
12/28/2013	2.4		18.53	136.67	227.94	6.00	2.68
12/29/2013	2.7		39.44	170.00	224.88	10.33	7.22
12/30/2013	2.0		21.04	130.67	143.04	5.33	2.50
12/31/2013	3.1		19.82	123.33	172.02	5.33	2.23

Table 2: Bucklin Point TSS,BOD and Fecal Coliform Data

Field's Point Enterococci Data 2013
all results are in MPN/100ml

Field's Point	Grab 1	Grab 2	Grab 2 Duplicate
1/1/2013	19	20	15
1/2/2013			
1/3/2013	15	4	
1/4/2013			
1/5/2013			
1/6/2013	6	3	
1/7/2013			
1/8/2013			
1/9/2013			
1/10/2013	1	2	
1/11/2013			
1/12/2013			
1/13/2013	9	3	
1/14/2013			
1/15/2013	21	23	23
1/16/2013			
1/17/2013	6	10	
1/18/2013			
1/19/2013			
1/20/2013	11	6	
1/21/2013			
1/22/2013	36	7	7
1/23/2013			
1/24/2013	8	10	
1/25/2013			
1/26/2013			
1/27/2013	13	6	
1/28/2013			
1/29/2013	36	18	15
1/30/2013	13	44	
1/31/2013	12	12	
2/1/2013			
2/2/2013			
2/3/2013	10	5	
2/4/2013			
2/5/2013	5	6	5
2/6/2013			
2/7/2013	5	5	
2/8/2013			
2/9/2013			
2/10/2013	9	6	
2/11/2013	17	10	
2/12/2013	12	11	10
2/13/2013			
2/14/2013	11	3	
2/15/2013			

Table 3: Field's Point Enterococci Data 2013

Field's Point Enterococci Data 2013
all results are in MPN/100ml

Field's Point	Grab 1	Grab 2	Grab 2 Duplicate
2/16/2013			
2/17/2013	8	7	
2/18/2013			
2/19/2013	19	12	10
2/20/2013			
2/21/2013	21	10	
2/22/2013			
2/23/2013			
2/24/2013	10	6	
2/25/2013			
2/26/2013	9	11	9
2/27/2013			
2/28/2013	<1.0	<1.0	
3/1/2013			
3/2/2013			
3/3/2013	14	10	
3/4/2013			
3/5/2013			
3/6/2013			
3/7/2013	9	2	
3/8/2013			
3/9/2013			
3/10/2013	12	11	
3/11/2013			
3/12/2013	5	7	6
3/13/2013			
3/14/2013	16	<1.0	
3/15/2013			
3/16/2013			
3/17/2013	9	4	
3/18/2013			
3/19/2013	14	9	7
3/20/2013			
3/21/2013	4	9	
3/22/2013			
3/23/2013			
3/24/2013	4	4	
3/25/2013			
3/26/2013	8	7	10
3/27/2013			
3/28/2013	10	7	
3/29/2013			
3/30/2013			
3/31/2013	7	12	
4/1/2013			
4/2/2013			

Table 3: Field's Point Enterococci Data 2013

Field's Point Enterococci Data 2013
all results are in MPN/100ml

Field's Point	Grab 1	Grab 2	Grab 2 Duplicate
4/3/2013			
4/4/2013	2	<1	
4/5/2013			
4/6/2013			
4/7/2013	2	1	
4/8/2013			
4/9/2013	2	5	8
4/10/2013			
4/11/2013	13	5	
4/12/2013			
4/13/2013			
4/14/2013	<1	<1	
4/15/2013			
4/16/2013			
4/17/2013			
4/18/2013	<1.0	<1.0	
4/19/2013			
4/20/2013			
4/21/2013	1	<1	
4/22/2013			
4/23/2013	<1	6	1
4/24/2013			
4/25/2013	2	1	
4/26/2013			
4/27/2013			
4/28/2013	2	1	
4/29/2013			
4/30/2013			
5/1/2013			
5/2/2013	4	1	
5/3/2013			
5/4/2013			
5/5/2013	5	4	
5/6/2013			
5/7/2013	11	5	6
5/8/2013			
5/9/2013	2	6	
5/10/2013			
5/11/2013			
5/12/2013	9	23	
5/13/2013			
5/14/2013			
5/15/2013			
5/16/2013	3	2	
5/17/2013			
5/18/2013			

Table 3: Field's Point Enterococci Data 2013

Field's Point Enterococci Data 2013
all results are in MPN/100ml

Field's Point	Grab 1	Grab 2	Grab 2 Duplicate
5/19/2013	3	5	
5/20/2013			
5/21/2013	2	<1	<1
5/22/2013			
5/23/2013	12	20	
5/24/2013			
5/25/2013			
5/26/2013	3	1	
5/27/2013			
5/28/2013	4	<1	2
5/29/2013			
5/30/2013	1	<1.0	
5/31/2013			
6/1/2013			
6/2/2013	6	2	
6/3/2013			
6/4/2013	1	2	<1
6/5/2013			
6/6/2013	<1	<1	
6/7/2013			
6/8/2013			
6/9/2013	1	3	
6/10/2013			
6/11/2013			
6/12/2013			
6/13/2013	1	<1	
6/14/2013			
6/15/2013			
6/16/2013	2	3	
6/17/2013			
6/18/2013	1	3	<1
6/19/2013			
6/20/2013	<1.0	<1.0	
6/21/2013			
6/22/2013			
6/23/2013	5	4	
6/24/2013			
6/25/2013			
6/26/2013			
6/27/2013	10	2	
6/28/2013			
6/29/2013			
6/30/2013	<1	4	
7/1/2013			
7/2/2013	1	1	<1
7/3/2013			

Table 3: Field's Point Enterococci Data 2013

Field's Point Enterococci Data 2013
all results are in MPN/100ml

Field's Point	Grab 1	Grab 2	Grab 2 Duplicate
7/4/2013	<1.0	<1.0	
7/5/2013			
7/6/2013			
7/7/2013	<1	2	
7/8/2013			
7/9/2013			
7/10/2013			
7/11/2013	<1.0	4	
7/12/2013			
7/13/2013			
7/14/2013	3	2	
7/15/2013			
7/16/2013	<1	<1	<1
7/17/2013			
7/18/2013	<1.0	<1.0	
7/19/2013			
7/20/2013			
7/21/2013	<1	<1	
7/22/2013			
7/23/2013			
7/24/2013			
7/25/2013	4	2	
7/26/2013			
7/27/2013			
7/28/2013			
7/29/2013			
7/30/2013			
7/31/2013	5	<1	
8/1/2013	4	1	
8/2/2013			
8/3/2013			
8/4/2013			
8/5/2013			
8/6/2013	<1	<1	1
8/7/2013	<1	1	
8/8/2013	<1.0	<1.0	
8/9/2013			
8/10/2013			
8/11/2013			
8/12/2013			
8/13/2013			
8/14/2013			
8/15/2013	<1	1	
8/16/2013			
8/17/2013			
8/18/2013			

Table 3: Field's Point Enterococci Data 2013

Field's Point Enterococci Data 2013
all results are in MPN/100ml

Field's Point	Grab 1	Grab 2	Grab 2 Duplicate
8/19/2013			
8/20/2013	<1	1	<1
8/21/2013	1	<1	
8/22/2013	2	3	
8/23/2013			
8/24/2013			
8/25/2013			
8/26/2013			
8/27/2013			
8/28/2013	2	2	
8/29/2013	1	1	
8/30/2013			
8/31/2013			
9/1/2013			
9/2/2013			
9/3/2013			
9/4/2013	2	2	
9/5/2013	<1	<1	
9/6/2013			
9/7/2013			
9/8/2013			
9/9/2013			
9/10/2013			
9/11/2013	3	2	
9/12/2013	14	5	
9/13/2013			
9/14/2013			
9/15/2013			
9/16/2013			
9/17/2013	1	<1	<1
9/18/2013	1	2	
9/19/2013	1	1	
9/20/2013			
9/21/2013			
9/22/2013			
9/23/2013			
9/24/2013			
9/25/2013	<1	1	
9/26/2013	1		
9/27/2013			
9/28/2013			
9/29/2013			
9/30/2013			
10/1/2013	<1	1	<1
10/2/2013	<1	<1	
10/3/2013	<1	<1	

Table 3: Field's Point Enterococci Data 2013

Field's Point Enterococci Data 2013
all results are in MPN/100ml

Field's Point	Grab 1	Grab 2	Grab 2 Duplicate
10/4/2013			
10/5/2013			
10/6/2013			
10/7/2013			
10/8/2013			
10/9/2013	<1	3	
10/10/2013	3	5	
10/11/2013			
10/12/2013			
10/13/2013			
10/14/2013			
10/15/2013	6	<1	2
10/16/2013			
10/17/2013	<1	2	
10/18/2013			
10/19/2013			
10/20/2013	1	1	
10/21/2013			
10/22/2013			
10/23/2013			
10/24/2013	2	10	
10/25/2013			
10/26/2013			
10/27/2013	<1	<1	
10/28/2013			
10/29/2013	5	<1	<1
10/30/2013			
10/31/2013	1	<1	
11/1/2013			
11/2/2013			
11/3/2013	<1	2	
11/4/2013			
11/5/2013			
11/6/2013			
11/7/2013	1	2	
11/8/2013			
11/9/2013			
11/10/2013			
11/11/2013			
11/12/2013	1	<1	1
11/13/2013			
11/14/2013	1	<1	
11/15/2013			
11/16/2013			
11/17/2013	4	9	
11/18/2013			

Table 3: Field's Point Enterococci Data 2013

Field's Point Enterococci Data 2013
all results are in MPN/100ml

Field's Point	Grab 1	Grab 2	Grab 2 Duplicate
11/19/2013	6	10	5
11/20/2013			
11/21/2013	5	5	
11/22/2013			
11/23/2013			
11/24/2013	1	<1	
11/25/2013			
11/26/2013	16	12	7
11/27/2013			
11/28/2013	2	<1	
11/29/2013			
11/30/2013			
12/1/2013	1	5	
12/2/2013			
12/3/2013			
12/4/2013			
12/5/2013	4	1	
12/6/2013			
12/7/2013			
12/8/2013	2	<1	
12/9/2013			
12/10/2013	3	7	3
12/11/2013			
12/12/2013	2	1	
12/13/2013			
12/14/2013			
12/15/2013	<1.0	<1.0	
12/16/2013			
12/17/2013	4	2	<1
12/18/2013			
12/19/2013	5	4	
12/20/2013			
12/21/2013			
12/22/2013	2	2	
12/23/2013			
12/24/2013			
12/25/2013			
12/26/2013	3	<1	
12/27/2013			
12/28/2013			
12/29/2013	4	2	
12/30/2013			
12/31/2013			

Table 3: Field's Point Enterococci Data 2013

Bucklin Point Enterococci Data 2013

all results are in MPN/100ml

Bucklin Point	Grab 1	Grab 2	Grab 3	Grab 4	Grab 4 Duplicate
1/1/2013					
1/2/2013	7	8	3	5	2
1/3/2013					
1/4/2013	<1	<1	<1	1	
1/5/2013					
1/6/2013					
1/7/2013	1	<1		<1	
1/8/2013					
1/9/2013					
1/10/2013					
1/11/2013	1	2	5	<1	
1/12/2013					
1/13/2013					
1/14/2013	1	<1	2	1	
1/15/2013					
1/16/2013	4	1	4	<1	1
1/17/2013					
1/18/2013	3	<1	1	6	
1/19/2013					
1/20/2013					
1/21/2013	1	3	2	1	
1/22/2013					
1/23/2013	2	2	2	3	2
1/24/2013					
1/25/2013	1	1	<1	2	
1/26/2013					
1/27/2013					
1/28/2013	3	1	2	1	
1/29/2013					
1/30/2013	8	1	<1	1	1
1/31/2013					
2/1/2013	3	3	1	3	
2/2/2013					
2/3/2013					
2/4/2013	6	2	3	<1	
2/5/2013					
2/6/2013	1	<1	<1	1	1
2/7/2013					
2/8/2013	4	1	<1	2	
2/9/2013					
2/10/2013					
2/11/2013	4	<1	<1	4	
2/12/2013					
2/13/2013	10	10	4	13	8
2/14/2013					
2/15/2013	7	8	2	33	
2/16/2013					
2/17/2013					

Table 4: Bucklin Point Enterococci Data 2013

Bucklin Point Enterococci Data 2013

all results are in MPN/100ml

Bucklin Point	Grab 1	Grab 2	Grab 3	Grab 4	Grab 4 Duplicate
2/18/2013	11	3	2	5	
2/19/2013					
2/20/2013	3	4	6	1	3
2/21/2013					
2/22/2013	4	9	10	7	
2/23/2013					
2/24/2013					
2/25/2013	1	2	6	<1	
2/26/2013					
2/27/2013	6	4	14	16	19
2/28/2013					
3/1/2013	5	2	4	1	
3/2/2013					
3/3/2013					
3/4/2013	3	4	5	15	
3/5/2013					
3/6/2013					
3/7/2013					
3/8/2013	9	5	8	5	
3/9/2013					
3/10/2013					
3/11/2013	3	1	1	10	
3/12/2013					
3/13/2013	10	5	9	3	4
3/14/2013					
3/15/2013	4	5	<1	6	
3/16/2013					
3/17/2013					
3/18/2013	8	4	11	11	
3/19/2013					
3/20/2013	3	2	8	10	10
3/21/2013					
3/22/2013	3	2	1	<1	
3/23/2013					
3/24/2013					
3/25/2013	<1	1	2	1	
3/26/2013					
3/27/2013	<1	2	2	3	3
3/28/2013					
3/29/2013	5	8	3	4	
3/30/2013					
3/31/2013					
4/1/2013	23	7	3	7	
4/2/2013					
4/3/2013					
4/4/2013					
4/5/2013	5	6	5	<1	
4/6/2013					

Table 4: Bucklin Point Enterococci Data 2013

Bucklin Point Enterococci Data 2013

all results are in MPN/100ml

Bucklin Point	Grab 1	Grab 2	Grab 3	Grab 4	Grab 4 Duplicate
4/7/2013					
4/8/2013	2	2	<1	1	
4/9/2013					
4/10/2013	6	6	12	8	7
4/11/2013					
4/12/2013	1	4	3	8	
4/13/2013					
4/14/2013					
4/15/2013	3	1	1	2	
4/16/2013					
4/17/2013					
4/18/2013					
4/19/2013	3	3	3	4	
4/20/2013					
4/21/2013					
4/22/2013	1	2	4		
4/23/2013					
4/24/2013	6	11	6	17	23
4/25/2013					
4/26/2013	15	11	5	11	
4/27/2013					
4/28/2013					
4/29/2013	2	8	8	10	
4/30/2013					
5/1/2013					
5/2/2013					
5/3/2013	9	14	11	13	
5/4/2013					
5/5/2013					
5/6/2013	37	23	29	21	
5/7/2013					
5/8/2013	14	10	5	6	9
5/9/2013					
5/10/2013	3	1	1	2	
5/11/2013					
5/12/2013					
5/13/2013		3	2	4	
5/14/2013					
5/15/2013					
5/16/2013					
5/17/2013	5	10	10	46	
5/18/2013					
5/19/2013					
5/20/2013	2	3	5	2	
5/21/2013					
5/22/2013	5	8	3	16	11
5/23/2013					
5/24/2013	>2419.6	>2419.6	84	66	

Table 4: Bucklin Point Enterococci Data 2013

Bucklin Point Enterococci Data 2013
all results are in MPN/100ml

Bucklin Point	Grab 1	Grab 2	Grab 3	Grab 4	Grab 4 Duplicate
5/25/2013					
5/26/2013					
5/27/2013	4	8	1	3	
5/28/2013					
5/29/2013	5	15	14	5	6
5/30/2013					
5/31/2013	6	17	7	1	
6/1/2013					
6/2/2013					
6/3/2013	5	4	5	1	
6/4/2013					
6/5/2013	8	8	8	2	8
6/6/2013					
6/7/2013	7	5	5	5	
6/8/2013					
6/9/2013					
6/10/2013	6	4	1	3	
6/11/2013					
6/12/2013					
6/13/2013					
6/14/2013	9	6	3	4	
6/15/2013					
6/16/2013					
6/17/2013	1	6	1	2	
6/18/2013					
6/19/2013	10	6	<1	4	5
6/20/2013					
6/21/2013	10	3	6	13	
6/22/2013					
6/23/2013					
6/24/2013	1	3	3	3	
6/25/2013					
6/26/2013					
6/27/2013					
6/28/2013	8	12	4	12	
6/29/2013					
6/30/2013					
7/1/2013	8	6	5	5	
7/2/2013					
7/3/2013	2	2	1	5	4
7/4/2013					
7/5/2013	6	5	3	4	
7/6/2013					
7/7/2013					
7/8/2013	4	6	6	5	
7/9/2013					
7/10/2013					
7/11/2013					

Table 4: Bucklin Point Enterococci Data 2013

Bucklin Point Enterococci Data 2013

all results are in MPN/100ml

Bucklin Point	Grab 1	Grab 2	Grab 3	Grab 4	Grab 4 Duplicate
7/12/2013	16	3	6	2	
7/13/2013					
7/14/2013					
7/15/2013	5	4	10	2	
7/16/2013					
7/17/2013	3	2	6	6	5
7/18/2013					
7/19/2013	5	6	2	3	
7/20/2013					
7/21/2013					
7/22/2013	3	3	1	3	
7/23/2013					
7/24/2013					
7/25/2013					
7/26/2013	6	5	7	10	
7/27/2013					
7/28/2013					
7/29/2013					
7/30/2013					
7/31/2013					
8/1/2013	4	8	10	6	
8/2/2013	5	4	4	1	
8/3/2013					
8/4/2013					
8/5/2013					
8/6/2013					
8/7/2013	3	13	1	11	<1
8/8/2013	<1	3	2	<1	
8/9/2013	3	7	2	6	
8/10/2013					
8/11/2013					
8/12/2013					
8/13/2013					
8/14/2013					
8/15/2013					
8/16/2013	4	1	3	5	
8/17/2013					
8/18/2013					
8/19/2013					
8/20/2013					
8/21/2013	1	1	4	1	5
8/22/2013	<1	1	5	<1	
8/23/2013	4	1	3	<1	
8/24/2013					
8/25/2013					
8/26/2013					
8/27/2013					
8/28/2013					

Table 4: Bucklin Point Enterococci Data 2013

Bucklin Point Enterococci Data 2013

all results are in MPN/100ml

Bucklin Point	Grab 1	Grab 2	Grab 3	Grab 4	Grab 4 Duplicate
8/29/2013	5	3	3	10	
8/30/2013	3	2	1	1	
8/31/2013					
9/1/2013					
9/2/2013					
9/3/2013					
9/4/2013					
9/5/2013	1	4	7	4	
9/6/2013	3	6	3	5	
9/7/2013					
9/8/2013					
9/9/2013					
9/10/2013					
9/11/2013					
9/12/2013	2				
9/13/2013	23	15	4	5	
9/14/2013					
9/15/2013					
9/16/2013					
9/17/2013					
9/18/2013	4	<1	4	7	2
9/19/2013	1	4	7	4	
9/20/2013	<1	5	3	2	
9/21/2013					
9/22/2013					
9/23/2013					
9/24/2013					
9/25/2013					
9/26/2013	4	1	4	2	
9/27/2013	3	2	4	5	
9/28/2013					
9/29/2013					
9/30/2013					
10/1/2013					
10/2/2013	4	6	3	2	7
10/3/2013	<1	1	1	3	
10/4/2013	1	3	3	1	
10/5/2013					
10/6/2013					
10/7/2013					
10/8/2013					
10/9/2013					
10/10/2013	1	3	1	5	
10/11/2013	<1	3	1	<1	
10/12/2013					
10/13/2013					
10/14/2013					
10/15/2013					

Table 4: Bucklin Point Enterococci Data 2013

Bucklin Point Enterococci Data 2013

all results are in MPN/100ml

Bucklin Point	Grab 1	Grab 2	Grab 3	Grab 4	Grab 4 Duplicate
10/16/2013	6	4	5	<1	4
10/17/2013					
10/18/2013	4	4	4	<1	
10/19/2013					
10/20/2013					
10/21/2013	1	2	<1	10	
10/22/2013					
10/23/2013					
10/24/2013					
10/25/2013	4	<1	1	<1	
10/26/2013					
10/27/2013					
10/28/2013	1	<1	2	<1	
10/29/2013					
10/30/2013	2	<1	2	5	12
10/31/2013					
11/1/2013	2	3	3	6	
11/2/2013					
11/3/2013					
11/4/2013	<1	<1	4	2	
11/5/2013					
11/6/2013					
11/7/2013					
11/8/2013	3	4	4	1	
11/9/2013					
11/10/2013					
11/11/2013					
11/12/2013					
11/13/2013	1	3	4	1	1
11/14/2013					
11/15/2013	1	2	7	5	
11/16/2013					
11/17/2013					
11/18/2013	5	2	23	6	
11/19/2013					
11/20/2013	2	2	2	5	7
11/21/2013					
11/22/2013	6	4	5	1	
11/23/2013					
11/24/2013					
11/25/2013	<1	4	<1	1	
11/26/2013					
11/27/2013	>2419.6	>2419.6	>2419.6	>2419.6	>2419.6
11/28/2013					
11/29/2013	1	3	1	2	
11/30/2013					
12/1/2013					
12/2/2013	<1	<1	4	<1	

Table 4: Bucklin Point Enterococci Data 2013

Bucklin Point Enterococci Data 2013
all results are in MPN/100ml

Bucklin Point	Grab 1	Grab 2	Grab 3	Grab 4	Grab 4 Duplicate
12/3/2013					
12/4/2013					
12/5/2013					
12/6/2013	<1	<1	1	2	
12/7/2013					
12/8/2013					
12/9/2013	2	3	<1	4	
12/10/2013					
12/11/2013	1	1	1	7	1
12/12/2013					
12/13/2013	2	2	6	1	
12/14/2013					
12/15/2013					
12/16/2013	4032	<1	<1	<1	
12/17/2013					
12/18/2013	4	<1	1	<1	1
12/19/2013					
12/20/2013	2	2	2	3	
12/21/2013					
12/22/2013					
12/23/2013	<1	1	3	1	
12/24/2013					
12/25/2013					
12/26/2013					
12/27/2013	5	1	2	<1	
12/28/2013					
12/29/2013					
12/30/2013	3	1	2	2	
12/31/2013					

Table 4: Bucklin Point Enterococci Data 2013

Field's Point Influent Metals 2013
all analyses in ppb

Date	Day of the Week	Influent Flow	Cd (ppb)	Cr (ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	CN (ppb)
1/1/2013	Tuesday	39.09	<2.5	<10	23.71	<10	0.0192	<10	<4	52.66	9.05
1/2/2013	Wednesday	41.77	<2.5	<10	26.91	<10	0.0106	14.28	<4	57.15	8.76
1/8/2013	Tuesday	40.99	<2.5	<10	45.15	<10	0.0357	16.64	<4	79.07	10.9
1/9/2013	Wednesday	36.82	<2.5	<10	35.88	<10	0.0248	18.72	<4	74.65	9.92
1/15/2013	Tuesday	37.61	<2.5	<10	42.08	<10	0.0299	16.87	<4	102.6	8.13
1/16/2013	Wednesday	47.46	<2.5	<10	44.48	10.88	0.0764	12.64	<4	119.9	15.3
1/22/2013	Tuesday	39.19	<2.5	<10	35.36	<10	0.0430	19.83	<4	63.23	10
1/23/2013	Wednesday	35.54	<2.5	<10	36.96	<10	0.0274	18.55	<4	67.12	12.4
1/29/2013	Tuesday	40.66	<2.5	<10	52.65	19.57	0.0555	30.03	<4	128.3	17.2
1/30/2013	Wednesday	40.80	<2.5	<10	46.93	<10	0.0525	28.19	<4	90.08	14.2
2/5/2013	Tuesday	35.49	<2.5	<10	34.9	<10	0.0561	18.26	<4	75.56	15.3
2/6/2013	Wednesday	34.95	<2.5	<10	30.34	<10	0.0483	17.27	<4	71.32	11.6
2/12/2013	Tuesday	48.80	<2.5	<10	31.34	<10	0.0440	11.75	<4	88.18	15.5
2/13/2013	Wednesday	41.75	<2.5	<10	28.67	<10	0.0256	14.65	<4	83.06	8.9
2/19/2013	Tuesday	55.80	<2.5	10.96	53.77	25.41	0.0882	16.94	<4	145	20.2
2/20/2013	Wednesday	59.80	<2.5	<10	30.99	10.32	0.0204	16.33	<4	75.18	16.3
2/26/2013	Tuesday	55.11	<2.5	<10	33.15	<10	0.0311	34.73	<4	65.86	34.5
2/27/2013	Wednesday	84.23	<2.5	<10	47.8	24.31	0.0534	19.75	<4	82.98	18.3
3/5/2013	Tuesday	69.37	<2.5	<10	48.36	<10	0.0515	17.21	<4	63.3	11.5
3/6/2013	Wednesday	54.59	<2.5	<10	31.28	<10	0.0322	16.38	<4	57.78	10.1
3/12/2013	Tuesday	61.80	<2.5	12.61	38.27	14.01	0.0530	18.24	<4	123.9	12.7
3/13/2013	Wednesday	68.79	<2.5	<10	21.15	<10	0.0234	13.21	<4	50.23	11.4
3/19/2013	Tuesday	66.67	<2.5	<10	38.71	12.82	0.0260	29.69	<4	82.78	26.5
3/20/2013	Wednesday	68.10	<2.5	<10	32.63	<10	0.0368	23.27	<4	65.5	14.8
3/26/2013	Tuesday	43.60	<2.5	<10	29.64	<10	0.0305	22.8	<4	67.98	10.6
3/27/2013	Wednesday	44.50	<2.5	<10	25.85	<10	0.0235	24.81	<4	60.64	9.83
4/2/2013	Tuesday	41.74	<2.5	<10	36.89	<10	0.0260	22.35	4.061	73.4	13.4
4/3/2013	Wednesday	42.27	<2.5	<10	35.15	<10	0.0414	22.06	<4	69.51	13
4/9/2013	Tuesday	43.39	<2.5	<10	45.29	<10	0.0497	17.68	<4	91.58	12.2
4/10/2013	Wednesday	52.46	<2.5	<10	49.61	17.75	0.0539	16.33	<4	113.2	9.84
4/16/2013	Tuesday	39.99	<2.5	<10	41.9	<10	0.0330	24.29	4.344	79.7	9
4/17/2013	Wednesday	40.47	<2.5	<10	51.11	<10	0.0247	19.19	<4	90.66	11.6
4/23/2013	Tuesday	38.16	<2.5	<10	36.99	<10	0.0363	16.63	<4	84.03	9.64
4/24/2013	Wednesday	39.59	<2.5	<10	35.23	<10	0.0351	16.69	<4	90.79	7.56
4/30/2013	Tuesday	35.96	<2.5	14.65	42.09	<10	0.0280	17.93	<4	102.3	7.14
5/1/2013	Wednesday	37.17	<2.5	10.23	45.13	<10	0.0296	22.62	<4	86.53	9.65
5/7/2013	Tuesday	35.06	<2.5	75.09	48.52	<10	<0.002	91.17	<4	96.21	7.78
5/8/2013	Wednesday	42.18	<2.5	<10	77.21	19.21	0.0595	29.13	<4	158.7	7.75

Table 5: Field's Point Influent Metals and Cyanide (Cd - CN)

Field's Point Influent Metals 2013
all analyses in ppb

Date	Day of the Week	Influent Flow	Cd (ppb)	Cr (ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	CN (ppb)
5/14/2013	Tuesday	35.05	<2.5	12.61	47.59	<10	0.0430	26.74	<4	108.8	94.3
5/15/2013	Wednesday	34.07	<2.5	67.46	44.68	<10	0.0312	74.51	<4	85.69	10.2
5/21/2013	Tuesday	39.88									11.5
5/22/2013	Wednesday	34.02	<2.5	<10	39.82	<10	0.0361	19.02	<4	85.58	10.6
5/23/2013	Thursday	45.50	<2.5	<10	53.8	<10	0.0323	22.28	<4	91.7	
5/28/2013	Tuesday	34.90	<2.5	12.12	42.93	<10	0.0373	22.87	<4	101.3	15.9
5/29/2013	Wednesday	50.12	<2.5	10.48	68.96	<10	0.0555	19.58	<4	141.5	7.82
6/4/2013	Tuesday	38.80	<2.5	15.45	44.94	<10	0.0449	25.55	<4	80.48	10.9
6/5/2013	Wednesday	34.16	<2.5	<10	44.75	<10	0.0265	21.73	<4	88.08	16.5
6/11/2013	Tuesday	89.34	<2.5	<10	30.29	13.46	0.0491	14.28	<4	69.62	10.1
6/12/2013	Wednesday	87.25	<2.5	<10	26.57	<10	0.0342	18.04	<4	53.96	11.9
6/18/2013	Tuesday	71.30	<2.5	<10	28.21	10.67	0.0453	11.73	<4	67.78	6.39
6/19/2013	Wednesday	71.96	<2.5	<10	20.07	<10	0.0165	11	<4	49.96	7.21
6/25/2013	Tuesday	48.77	<2.5	<10	29.09	<10	0.0348	16.81	<4	75.71	11.2
6/26/2013	Wednesday	47.08	<2.5	<10	28.3	<10	0.0411	14.02	<4	87.45	18.9
7/2/2013	Tuesday	45.89	<2.5	<10	27.27	<10	0.0204	11.8	<4	72.92	4.88
7/3/2013	Wednesday	42.97	<2.5	<10	40.36	15.49	0.0476	17.06	4.73	115.2	35.2
7/9/2013	Tuesday	41.68	<2.5	10.34	34.8	<10	0.0341	16.4	<4	101	7.06
7/10/2013	Wednesday	42.82	<2.5	<10	35.06	<10	0.0284	16.6	<4	93.13	6.28
7/16/2013	Tuesday	39.42	<2.5	10.77	38.1	<10	0.0314	15.55	<4	81.72	9.06
7/17/2013	Wednesday	40.22	<2.5	<10	49.73	<10	0.0262	22.43	<4	93.59	6.91
7/23/2013	Tuesday	47.00	<2.5	<10	52.901	13.352	0.1620	25.241	<4	126.31	6.81
7/24/2013	Wednesday	40.08	<2.5	<10	40.283	<10	0.0286	21.524	<4	97.471	7.69
7/30/2013	Tuesday	42.33	<2.5	<10	43.6	<10	0.0249	23.77	<4	96.71	8.78
7/31/2013	Wednesday	40.22	<2.5	11.42	39.9	<10	0.0656	19.65	<4	90.05	10.7
8/6/2013	Tuesday	37.10	<2.5	14.42	43.57	<10	0.2310	18.03	<4	98.43	6.98
8/7/2013	Wednesday	35.86	<2.5	<10	37.85	<10	0.1330	16.15	<4	95.51	8
8/13/2013	Tuesday	37.62	<2.5	<10	42.85	10.82	0.0578	16.97	<4	97.49	7.57
8/14/2013	Wednesday	37.62	<2.5	10.04	37.65	<10	0.0482	17.79	<4	84.52	5.71
8/20/2013	Tuesday	36.41	<2.5	<10	45.6	<10	0.0343	20.75	<4	89.71	11.8
8/21/2013	Wednesday	34.13	<2.5	11.14	48.33	<10	0.0414	19.48	<4	109.3	13.9
8/27/2013	Tuesday	48.30	<2.5	10.22	49.74	11.95	0.0445	19.08	<4	104.1	6.48
8/28/2013	Wednesday	53.33	<2.5	<10	32.81	<10	0.0291	14.02	<4	69.36	6.55
9/3/2013	Tuesday	60.19	<2.5	<10	36.56	11.52	0.0424	15.62	<4	73	<10
9/4/2013	Wednesday	57.46	<2.5	<10	41.25	<10	0.0314	26.35	<4	59.91	40
9/10/2013	Tuesday	33.87	<2.5	<10	32.58	<10	0.0389	13.83	<4	76.72	<10
9/11/2013	Wednesday	35.82	<2.5	13.88	38.09	<10	0.0327	20.12	<4	102.3	<10
9/17/2013	Tuesday	34.06	<2.5	<10	40.92	<10	0.0305	20.64	<4	105.5	<10

Table 5: Field's Point Influent Metals and Cyanide (Cd - CN)

Field's Point Influent Metals 2013
all analyses in ppb

Date	Day of the Week	Influent Flow	Cd (ppb)	Cr (ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	CN (ppb)
9/18/2013	Wednesday	34.95	<2.5	<10	34.11	<10	0.0135	18.69	<4	85.59	<10
9/24/2013	Tuesday	34.17	<2.5	11.21	35.11	<10	0.0306	15.54	<4	73.77	8.57
9/25/2013	Wednesday	32.55	<2.5	10.96	33.89	<10	0.0315	25.44	<4	83.16	7.33
10/1/2013	Tuesday	31.72	<2.5	16.6	42.64	<10	0.0443	20.69	<4	115.1	9.13
10/2/2013	Wednesday	31.53	<2.5	13.97	48.65	<10	0.0398	16.33	4.681	108.3	8.36
10/8/2013	Tuesday	30.06	<2.5	<10	39.83	<10	0.0342	14.47	<4	74.08	5.79
10/9/2013	Wednesday	31.92	<2.5	<10	35.82	<10	0.0433	16.56	<4	95.45	8.62
10/15/2013	Tuesday	31.19	<2.5	<10	39.16	<10	0.0397	18.42	<4	98.13	11.4
10/16/2013	Wednesday	32.81	<2.5	14.05	46.7	<10	0.0663	21.84	<4	114.5	7.81
10/22/2013	Tuesday	31.30	<2.5	<10	52.02	<10	0.0322	21.84	<4	110	8.88
10/23/2013	Wednesday	29.49	<2.5	<10	38.78	<10	0.0720	20.11	<4	96.7	5.94
10/29/2013	Tuesday	29.57	<2.5	34.09	38.48	<10	0.0399	18.07	<4	104.8	6.44
10/30/2013	Wednesday	33.22	<2.5	16.14	49.48	<10	0.0436	23.91	<4	111.9	21.1
11/5/2013	Tuesday	31.64	<2.5	12.68	48.12	<10	0.0776	23.78	<4	109.1	9.49
11/6/2013	Wednesday	31.34	<2.5	12.3	44.23	<10	0.0594	16.78	<4	127.6	7.86
11/12/2013	Tuesday	29.52	<2.5	10.62	42.17	<10	0.0357	24.8	<4	94.63	9.84
11/13/2013	Wednesday	30.32	<2.5	13.49	43.27	<10	0.0328	21.63	<4	84.45	6.78
11/19/2013	Tuesday	30.99	<2.5	10.08	41.13	35.05	0.0695	15.76	<4	92.78	5.41
11/20/2013	Wednesday	29.64	<2.5	12.38	40.76	32.71	0.0861	16.35	<4	106.8	6.52
11/26/2013	Tuesday	45.08	<2.5	14.79	63.22	30.92	0.1080	20.4	<4	173.8	6.03
11/27/2013	Wednesday	88.42	<2.5	<10	37.42	19.62	0.0680	17.76	<4	111.6	<4
12/3/2013	Tuesday	33.22	<2.5	11.23	38.14	10.87	0.0615	21.57	<4	92.38	7.82
12/4/2013	Wednesday	32.91	<2.5	<10	32.49	<10	0.0319	17.23	<4	77.19	9.08
12/10/2013	Tuesday	37.21	<2.5	14.57	35.69	<10	0.0357	18.07	<4	85.33	11.1
12/11/2013	Wednesday	32.56	<2.5	<10	34.27	<10	0.0662	21.26	<4	87.74	8.75
12/17/2013	Tuesday	32.84	<2.5	<10	35.9	<10	0.0272	19.24	<4	75.21	9.55
12/18/2013	Wednesday	33.54	<2.5	<10	35.8	<10	0.0577	20.17	<4	80.09	10.9
12/24/2013	Tuesday	38.43	<2.5	<10	19.78	<10	0.0269	<10	<4	62.54	8.09
12/25/2013	Wednesday	30.30	<2.5	<10	15.68	<10	0.0306	<10	<4	56.94	6.55
12/31/2013	Tuesday	44.17	<2.5	<10	24.86	<10	0.0450	13.81	<4	63.28	4.79

Table 5: Field's Point Influent Metals and Cyanide (Cd - CN)

Field's Point Influent Metals 2013
all analyses in ppb

Date	Day of the Week	Influent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo(ppb)
1/1/2013	Tuesday	39.09	146.7	1124	0.94	0.8193	2.925
1/2/2013	Wednesday	41.77	191.8	1131			
1/8/2013	Tuesday	40.99	231.5	1335	4.487	1.379	12.19
1/9/2013	Wednesday	36.82	211	1209			
1/15/2013	Tuesday	37.61	625.6	1819	7.388	1.387	6.906
1/16/2013	Wednesday	47.46	930.5	2549			
1/22/2013	Tuesday	39.19	494.2	1486	4.116	1.192	5.819
1/23/2013	Wednesday	35.54	238.6	1231			
1/29/2013	Tuesday	40.66	922.7	2435	9.133	1.796	5.587
1/30/2013	Wednesday	40.80	556.9	1722			
2/5/2013	Tuesday	35.49	251.6	1246	13.46	1.299	8.586
2/6/2013	Wednesday	34.95	306.2	1191			
2/12/2013	Tuesday	48.80	494.4	1394	1.93	0.9633	3.348
2/13/2013	Wednesday	41.75	365	1174			
2/19/2013	Tuesday	55.80	1503	3225	3.027	1.539	3.247
2/20/2013	Wednesday	59.80	642.4	1688			
2/26/2013	Tuesday	55.11	393.9	1310	2.817	0.9917	3.482
2/27/2013	Wednesday	84.23	1014	2171			
3/5/2013	Tuesday	69.37	567.9	1600	5.947	1.199	4.004
3/6/2013	Wednesday	54.59	263.9	1194			
3/12/2013	Tuesday	61.80	773.9	2084.6	3.137	1.278	3.112
3/13/2013	Wednesday	68.79	321.8	1092			
3/19/2013	Tuesday	66.67	969	2292	2.605	1.119	2.518
3/20/2013	Wednesday	68.10	515.9	1175.1			
3/26/2013	Tuesday	43.60	317.7	1211	2.973	1.216	3.895
3/27/2013	Wednesday	44.50	227.3	1155			
4/2/2013	Tuesday	41.74	272.6	1328	7.396	1.312	3.761
4/3/2013	Wednesday	42.27	389.5	1502			
4/9/2013	Tuesday	43.39	510.2	1769.7	3.76	1.336	3.826
4/10/2013	Wednesday	52.46	815.2	2092			
4/16/2013	Tuesday	39.99	428.2	1531	3.715	1.479	2.587
4/17/2013	Wednesday	40.47	416.4	1682			
4/23/2013	Tuesday	38.16	524.9	1902	5.773	1.728	4.479
4/24/2013	Wednesday	39.59	435.1	1593			
4/30/2013	Tuesday	35.96	623	2221	3.136	1.351	5.791

Table 6: Field's Point Influent Metals (Al - Mo)

Field's Point Influent Metals 2013
all analyses in ppb

Date	Day of the Week	Influent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo(ppb)
5/1/2013	Wednesday	37.17	494.8	1595			
5/7/2013	Tuesday	35.06	905.3	2417	5.478	1.789	4.346
5/8/2013	Wednesday	42.18	1477	3101			
5/14/2013	Tuesday	35.05	1671	2929.6	3.833	2.327	3.827
5/15/2013	Wednesday	34.07	920.6	1955			
5/22/2013	Wednesday	34.02	1134	2106			
5/23/2013	Thursday	45.50	987.6	1921	4.211	1.68	4.869
5/28/2013	Tuesday	34.90	523.1	1572			
5/29/2013	Wednesday	50.12	952.4	2347.6	4.474	1.854	12.31
6/4/2013	Tuesday	38.80	427.2	1568	4.817	1.644	6.621
6/5/2013	Wednesday	34.16	391.9	1550			
6/11/2013	Tuesday	89.34	475	1431	2.099	1.224	2.818
6/12/2013	Wednesday	87.25	432.1	1285			
6/18/2013	Tuesday	71.30	1066	2307.2	1.997	1.308	2.756
6/19/2013	Wednesday	71.96	538.7	1726			
6/25/2013	Tuesday	48.77	671.4	1564	2.514	1.6	3.706
6/26/2013	Wednesday	47.08	540.8	1410			
7/2/2013	Tuesday	45.89	409.8	1498	1.52	1.25	6.26
7/3/2013	Wednesday	42.97	838.5	2393			
7/9/2013	Tuesday	41.68	560.3	1844	2.491	1.392	2.649
7/10/2013	Wednesday	42.82	548.1	1767			
7/16/2013	Tuesday	39.42	642.8	1882	4.604	1.521	4.391
7/17/2013	Wednesday	40.22	647.5	1993			
7/23/2013	Tuesday	47.00	658.81	1976.9	3.051	1.654	3.018
7/24/2013	Wednesday	40.08	517.06	1659.3			
7/30/2013	Tuesday	42.33	1122	2760	2.127	1.484	2.331
7/31/2013	Wednesday	40.22	1003	2342			
8/6/2013	Tuesday	37.10	516	1798	3.269	1.694	5.354
8/7/2013	Wednesday	35.86	535.6	1871			
8/13/2013	Tuesday	37.62	1337	3192	8.102	2.056	12.8
8/14/2013	Wednesday	37.62	1196	2506			
8/20/2013	Tuesday	36.41	775.5	1971	5.695	2.244	5.914
8/21/2013	Wednesday	34.13	658.6	1979			
8/27/2013	Tuesday	48.30	1184	2597	2.237	1.882	4.262
8/28/2013	Wednesday	53.33	682.4	1585			

Table 6: Field's Point Influent Metals (Al - Mo)

Field's Point Influent Metals 2013
all analyses in ppb

Date	Day of the Week	Influent Flow	Influent				
			Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo(ppb)
9/3/2013	Tuesday	60.19	485.5	1446.9	2.422	1.441	4.304
9/4/2013	Wednesday	57.46	350.7	1306.6			
9/10/2013	Tuesday	33.87	664	1664	3.799	1.84	5.027
9/11/2013	Wednesday	35.82	622.4	1551			
9/17/2013	Tuesday	34.06	1209	2787	3.464	1.727	6.223
9/18/2013	Wednesday	34.95	854.5	1990			
9/24/2013	Tuesday	34.17	680.4	1649	6.258	1.906	4.164
9/25/2013	Wednesday	32.55	678.2	1861			
10/1/2013	Tuesday	31.72	1078	2538	6.58	2.084	4.812
10/2/2013	Wednesday	31.53	1262	2804			
10/8/2013	Tuesday	30.06	1621	3473	7.067	2.437	6.328
10/9/2013	Wednesday	31.92	2484.4	4848			
10/15/2013	Tuesday	31.19	1223	2852	4.037	2.6	4.226
10/16/2013	Wednesday	32.81	998.4	2480			
10/22/2013	Tuesday	31.30	860.6	2367	5.137	2.343	6.95
10/23/2013	Wednesday	29.49	982	2568			
10/29/2013	Tuesday	29.57	2289.4	4182.9	3.297	2.899	4.28
10/30/2013	Wednesday	33.22	2457.8	4687			
11/5/2013	Tuesday	31.64	955.8	2375	7.02	2.28	5.74
11/6/2013	Wednesday	31.34	1403	2734.2			
11/12/2013	Tuesday	29.52	983.9	2634	5.037	1.894	12.72
11/13/2013	Wednesday	30.32	2240	3923			
11/19/2013	Tuesday	30.99	1450	2788.8	3.72	2.36	3.84
11/20/2013	Wednesday	29.64	1151	2881.2			
11/26/2013	Tuesday	45.08	2287.4	4147.4	4.27	2.34	12.84
11/27/2013	Wednesday	88.42	774.6	1814			
12/3/2013	Tuesday	33.22	1356	3138.2	4.94	2.39	5.42
12/4/2013	Wednesday	32.91	1255	2899.8			
12/10/2013	Tuesday	37.21	1773	3949.6	2.695	1.731	4.084
12/11/2013	Wednesday	32.56	1862	3682.6			
12/17/2013	Tuesday	32.84	458.4	1553	5.178	1.251	7.796
12/18/2013	Wednesday	33.54	387.5	1511			
12/24/2013	Tuesday	38.43	284.2	1394	0.9603	1.161	2.306
12/25/2013	Wednesday	30.30	180.3	1482			
12/31/2013	Tuesday	44.17	815.1	1908	2.146	1.473	4.202

Table 6: Field's Point Influent Metals (Al - Mo)

Field's Point Effluent Metals 2013
all analyses in ppb

Date	Day of the Week	Effluent Flow	TTL Cr								
			Cd (ppb)	(ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	CN (ppb)
1/1/2013	Tuesday	39.09	0.0237	0.333	2.38	0.532	0.00270	7.61	0.0677	16.5	6.05
1/2/2013	Wednesday	41.77	0.061	0.387	2.97	0.544	0.00215	9.2	0.111	17.6	5.84
1/8/2013	Tuesday	40.99	0.034667	0.89467	3.31	0.476667	<0.002	9.368	0.147333	18.23667	8.72
1/9/2013	Wednesday	36.82	0.04	0.821	3.29	0.452	0.00670	11.9	0.149	22.5	6.87
1/15/2013	Tuesday	37.61	0.03	0.506	2.58	0.486	<0.002	9.46	0.107	20.1	6.21
1/16/2013	Wednesday	47.46	0.0357	1.08	3.34	0.77	0.00485	8.8	0.11	22.5	7.01
1/22/2013	Tuesday	39.19	0.0257	0.729	3	0.476	0.00272	11.3	0.133	20.4	7.6
1/23/2013	Wednesday	35.54	0.0647	0.637	2.94	0.499	<0.002	11.4	0.131	20.2	9.18
1/29/2013	Tuesday	40.66	0.0283	1.36	2.64	0.512	0.00255	14.8	0.0817	23.9	10
1/30/2013	Wednesday	40.80	0.028	0.964	3.23	0.679	0.00654	17.8	0.117	24.8	8.61
2/5/2013	Tuesday	35.49	0.034	0.98267	13.30333	0.547333	0.00405	13.76333	0.124333	24.17	7.93
2/6/2013	Wednesday	34.95	0.0337	0.834	2.65	0.469	<0.002	14.2	0.103	24.5	9.78
2/12/2013	Tuesday	48.80	0.0323	0.992	2.92	0.662	0.00300	9.85	0.105	30	6.54
2/13/2013	Wednesday	41.75	0.0257	0.929	2.86	0.49	0.00211	11.1	0.102	30.2	6.55
2/19/2013	Tuesday	55.80	0.042	0.882	2.82	0.698	0.00308	8.85	0.115	24.2	8.78
2/20/2013	Wednesday	59.80	0.0373	1.01	3.78	0.741	0.00243	10.7	0.119	28.2	8.01
2/26/2013	Tuesday	55.11	0.027	1.02	2.67	0.64	0.00283	17.8	0.105	22.8	8.67
2/27/2013	Wednesday	74.31	0.034	0.801	3.18	0.768	0.00782	14.8	0.0997	23.8	9.83
3/5/2013	Tuesday	69.37	0.035	0.908	2.806667	0.637	0.00400	11.79667	0.108	20.54667	6.57
3/6/2013	Wednesday	54.59	0.0437	1.44	2.76	0.781	<0.002	12.5	0.11	22.2	6.91
3/12/2013	Tuesday	61.80	0.026	0.803	2.29	0.614	0.00575	10.1	0.109	20	6.85
3/13/2013	Wednesday	68.79	0.0303	0.779	2.32	0.651	0.00297	10.3	0.111	19.9	9.97
3/19/2013	Tuesday	66.67	0.0367	1.14	3.98	0.927	0.00493	23.5	0.171	24.9	8.37
3/20/2013	Wednesday	68.10	0.0273	1.04	2.99	0.609	0.00268	22.4	0.11	24.7	10.3
3/26/2013	Tuesday	43.60	0.0387	0.852	2.51	0.468	0.00213	14.1	0.0903	18.6	8.23
3/27/2013	Wednesday	44.50	0.0353	1.13	2.61	0.449	<0.002	15	0.0977	20	8.39
4/2/2013	Tuesday	41.74	0.046	0.639	2.314	0.497	0.00390	12.43	0.082	21.607	11.1
4/3/2013	Wednesday	42.27	0.0477	3	2.41	0.373	0.00248	12.3	0.0737	19.9	10.5
4/9/2013	Tuesday	43.39	0.0307	1.7	2.42	0.449	0.00204	9.03	0.09	17.2	10.3
4/10/2013	Wednesday	52.46	0.0263	0.8	2.32	0.476	0.00231	9.17	0.0823	18.1	8.15
4/16/2013	Tuesday	39.99	0.0377	0.6	2.34	0.481	<0.002	12.8	0.093	18.8	13.6
4/17/2013	Wednesday	40.47	0.0343	0.845	2.29	0.498	<0.002	11.7	0.107	19.2	13.3
4/23/2013	Tuesday	38.16	0.0353	0.874	2.7	0.525	<0.002	11	0.085	20.7	12
4/24/2013	Wednesday	39.59	0.0313	0.521	1.95	0.407	0.00231	10.7	0.0663	19.7	8.82
4/30/2013	Tuesday	35.96	0.0393	0.659	1.94	0.598	<0.002	11.5	0.0667	20.4	12
5/1/2013	Wednesday	37.17	0.04	0.672	2	0.4	0.00220	13.8	0.05	20	11.2
5/7/2013	Tuesday	35.06	0.023	1.25	2.289	0.388	<0.002	12.577	0.048	19.31	11

Table 7: Field's Point Effluent Metals and Cyanide (Cd - CN)

Field's Point Effluent Metals 2013
all analyses in ppb

Date	Day of the Week	Effluent Flow	TTL Cr								
			Cd (ppb)	(ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	CN (ppb)
5/8/2013	Wednesday	42.18	0.13	1.45	2.7	0.6	<0.002	14	0.07	24	8.84
5/14/2013	Tuesday	35.05	<0.02	1.14	1.6	0.4	0.00212	15.3	0.04	22	14.8
5/15/2013	Wednesday	34.07	0.02	1.2	1.4	0.4	<0.002	15.8	0.03	29	9.99
5/21/2013	Tuesday	39.88									11.7
5/22/2013	Wednesday	34.02	0.02	1.1	1.8	0.4	<0.002	9.9	0.04	16	11.2
5/23/2013	Thursday	45.50	0.02	1.3	2.2	0.7	<0.002	11.5	0.04	16	
5/28/2013	Tuesday	34.90	0.03	0.7	1.9	0.4	<0.002	8.6	0.03	14	11.3
5/29/2013	Wednesday	50.12	0.02	0.8	2	0.5	0.00204	8.4	0.04	18	12.1
6/4/2013	Tuesday	38.80	0.031	1.1	2.237	0.497	0.00220	10.45	0.04	14.747	11.1
6/5/2013	Wednesday	34.16	0.03	0.5	2.1	0.6	0.00300	10.6	0.03	14	10.2
6/11/2013	Tuesday	72.13	0.03	0.9	2.4	0.6	0.00339	8.5	0.04	13	7.07
6/12/2013	Wednesday	72.64	<0.02	0.5	1.9	0.4	0.00218	10.1	0.02	14	10.8
6/18/2013	Tuesday	71.30	0.06	0.725	2.2	0.7	0.00296	8.2	0.03	19	10.7
6/19/2013	Wednesday	71.96	0.06	0.7	1.7	0.5	<0.002	8.6	0.03	16	5.56
6/25/2013	Tuesday	48.77	0.1	0.5	1.4	0.5	<0.002	9.5	0.02	21	7.6
6/26/2013	Wednesday	47.08	0.12	0.6	1.4	0.5	<0.002	8.8	<0.02	19	8.64
7/2/2013	Tuesday	45.89	0.033	0.6	1.007	0.386	0.00251	6.736	0.016	11.693	7.03
7/3/2013	Wednesday	42.97	<0.02	0.759	1.2	0.4	0.00458	7.6	<0.02	13	7.72
7/9/2013	Tuesday	41.68	0.03	1.1	1.9	0.5	0.00397	7.3	<0.02	14	11.2
7/10/2013	Wednesday	42.82	0.06	0.5	1.6	0.5	0.00323	7.2	<0.02	14	9.24
7/16/2013	Tuesday	39.42	0.03	0.6	1.5	0.4	0.00764	8	0.02	14	10.2
7/17/2013	Wednesday	40.22	0.04	1.1	1.7	0.4	0.00264	10.6	<0.02	14	10.2
7/23/2013	Tuesday	47.00	0.04	0.6	1.9	0.5	0.00427	9.1	0.03	17	12.1
7/24/2013	Wednesday	40.08	0.04	0.7	1.7	0.4	0.00351	9.3	0.03	17	13.1
7/30/2013	Tuesday	42.33	0.03	0.6	1.1	0.4	0.00213	9.9	<0.02	13	9.32
7/31/2013	Wednesday	40.22	0.05	0.5	1.1	0.4	0.00241	9	<0.02	15	9.17
8/6/2013	Tuesday	37.10	0.044	0.631	1.612	0.4	<0.002	8.857	0.03	16.223	10.5
8/7/2013	Wednesday	35.86	0.04	0.6	1.5	0.4	<0.002	8.3	0.02	19	12.4
8/13/2013	Tuesday	37.62	0.03	0.8	1.2	0.4	0.00253	6.6	0.02	12	6.81
8/14/2013	Wednesday	37.62	0.03	0.3	1.3	0.4	0.00288	7.6	0.03	14	13.3
8/20/2013	Tuesday	36.41	0.09	0.6	1.5	0.6	0.00376	10.1	0.03	16	14.9
8/21/2013	Wednesday	34.13	0.14	0.7	1.7	1.3	0.00212	9.3	0.04	14	11.9
8/27/2013	Tuesday	48.30	0.05	1.2	1.4	0.5	0.00218	9.1	0.02	16	7.11
8/28/2013	Wednesday	53.33	0.04	0.7	1.3	0.4	0.00290	8.4	<0.02	12	7.63
9/3/2013	Tuesday	60.19	0.04	1.1	1.9	0.5	0.00465	8.8	0.05	14	<10
9/4/2013	Wednesday	57.46	0.04	0.5	1.8	0.4	0.00209	13.1	0.03	14	<10
9/10/2013	Tuesday	33.87	0.06	0.6	1.7	0.5	<0.002	12	0.03	18	<10

Table 7: Field's Point Effluent Metals and Cyanide (Cd - CN)

Field's Point Effluent Metals 2013
all analyses in ppb

Date	Day of the Week	Effluent Flow	Cd (ppb)	TTL Cr (ppb)	Cu (ppb)	Pb (ppb)	Hg (ppb)	Ni (ppb)	Ag (ppb)	Zn (ppb)	CN (ppb)
9/11/2013	Wednesday	35.82	0.06	0.6	1.5	0.4	<0.002	12.2	0.03	19	<10
9/17/2013	Tuesday	34.06	0.042	0.5	1.317	0.41	<0.002	10.203	0.022	17.103	<10
9/18/2013	Wednesday	34.95	0.04	0.9	1.4	0.4	<0.002	10.3	0.03	17	<10
9/24/2013	Tuesday	34.17	0.04	0.5	1.3	0.4	0.00205	9	0.02	17	12.6
9/25/2013	Wednesday	32.55	0.05	1.5	1.4	0.4	0.00310	9.8	<0.02	17	13.1
10/1/2013	Tuesday	31.72	0.04	0.96	1.6	0.4	0.00206	9.1	0.02	20	12.3
10/2/2013	Wednesday	31.53	0.05	1	1.5	0.4	0.00270	8.9	0.03	19	
10/3/2013	Thursday	31.52									13
10/8/2013	Tuesday	30.06	0.043	0.808	1.367	0.459	0.00207	9.683	0.026	21.293	18.6
10/9/2013	Wednesday	31.92	0.06	0.7	1.3	0.4	<0.002	10.5	0.02	26	11.4
10/15/2013	Tuesday	31.19	0.04	1.7	1.5	0.5	0.00426	9.8	0.03	21	12.1
10/16/2013	Wednesday	32.81	0.03	0.5	1.4	0.4	0.00238	10.3	0.02	18	14.6
10/22/2013	Tuesday	31.30	0.02	0.8	1.5	0.4	<0.002	11.4	0.03	20	12.3
10/23/2013	Wednesday	29.49	0.05	0.6	1.4	0.4	<0.002	11.7	0.03	19	13
10/29/2013	Tuesday	29.57	0.03	1	1.4	0.3	0.00235	10.2	0.03	20	9.87
10/30/2013	Wednesday	33.22	0.03	1.3	1.2	0.3	<0.002	10	0.02	18	11.2
11/5/2013	Tuesday	31.64	0.034	1	1.69	0.371	0.00857	12.24	0.029	24.287	11.8
11/6/2013	Wednesday	31.34	0.04	1	1.7	0.5	0.00221	11.1	0.04	22	9.02
11/12/2013	Tuesday	29.52	0.03	0.8	1.6	0.3	<0.002	13.2	0.03	22	9.94
11/13/2013	Wednesday	30.32	0.03	0.8	1.9	0.3	<0.002	13.1	0.03	23	9.51
11/19/2013	Tuesday	30.99	0.02	1.3	1.5	0.5	0.00943	11.3	0.03	23	7.15
11/20/2013	Wednesday	29.64	0.03	1	1.3	0.6	0.00202	11.5	0.03	24	9.74
11/26/2013	Tuesday	45.08	0.06	1.565	2.1	1	0.00488	10.2	0.05	22	10.4
11/27/2013	Wednesday	69.34	0.02	0.8	1.9	1	0.00400	10.4	0.04	24	7.4
12/3/2013	Tuesday	33.22	0.035	1.81	1.58	0.58	0.00285	16.26	0.029	25.1	7.42
12/4/2013	Wednesday	32.91	0.029	1.05	1.59	0.56	0.00244	16.31	0.035	25.01	9.32
12/10/2013	Tuesday	37.21	0.035	2.04	1.37	0.54	0.00241	12.27	0.025	21.11	9.19
12/11/2013	Wednesday	32.56	0.03	1.37	1.51	0.5	0.00230	13.43	0.034	22.85	6.1
12/17/2013	Tuesday	32.84	0.036	0.71	3.16	0.39	0.00281	16.42	0.026	25.77	7.59
12/18/2013	Wednesday	33.54	0.041	0.93	2.17	0.41	0.00209	18.52	0.027	28.75	7.5
12/24/2013	Tuesday	38.43	0.024	0.4	1.89	0.58	0.00304	9.93	0.026	23.5	7.31
12/25/2013	Wednesday	30.30	0.016	0.31	1.57	0.42	<0.002	9.56	0.017	20.81	9.41
12/31/2013	Tuesday	44.17	0.02	0.8	1.4	0.6	0.00286	12.9	0.03	23	7.11

Table 7: Field's Point Effluent Metals and Cyanide (Cd - CN)

Field's Point Effluent Metals 2013
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo(ppb)
1/1/2013	Tuesday	39.09	11.7	188.8			
1/2/2013	Wednesday	41.77	11.7	214.3			
1/8/2013	Tuesday	40.99	9.003667	209	3.59	1.04	9.17
1/9/2013	Wednesday	36.82	9.47	158.9			
1/15/2013	Tuesday	37.61	11.1	158.7			
1/16/2013	Wednesday	47.46	17.4	177.2			
1/22/2013	Tuesday	39.19	14.3	174			
1/23/2013	Wednesday	35.54	17.9	184			
1/29/2013	Tuesday	40.66	10.7	138.8			
1/30/2013	Wednesday	40.80	18.3	169			
2/5/2013	Tuesday	35.49	13.85	166.3	7.32	1	7.1
2/6/2013	Wednesday	34.95	10.2	121			
2/12/2013	Tuesday	48.80	17.4	144.1			
2/13/2013	Wednesday	41.75	16.3	140.3			
2/19/2013	Tuesday	55.80	20.9	165.6			
2/20/2013	Wednesday	59.80	23.6	166.9			
2/26/2013	Tuesday	55.11	21.4	157.1			
2/27/2013	Wednesday	74.31	28.2	146			
3/5/2013	Tuesday	69.37	19.04667	151.5	3.86	0.834	3.63
3/6/2013	Wednesday	54.59	16.8	140			
3/12/2013	Tuesday	61.80	19.8	167			
3/13/2013	Wednesday	68.79	20	181.9			
3/19/2013	Tuesday	66.67	41.3	268.4			
3/20/2013	Wednesday	68.10	25.3	190.5			
3/26/2013	Tuesday	43.60	13.1	146.9			
3/27/2013	Wednesday	44.50	15.5	156.1			
4/2/2013	Tuesday	41.74	16.44	146	4.14	0.953	2.94
4/3/2013	Wednesday	42.27	11.8	135.1			
4/9/2013	Tuesday	43.39	9.9	162.7			
4/10/2013	Wednesday	52.46	9.06	126			
4/16/2013	Tuesday	39.99	7.32	142.1			
4/17/2013	Wednesday	40.47	11.8	164.1			

Table 8: Field's Point Effluent Metals (Al - Mo)

Field's Point Effluent Metals 2013
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo(ppb)
4/23/2013	Tuesday	38.16	11	171.2			
4/24/2013	Wednesday	39.59	8.06	125.8			
4/30/2013	Tuesday	35.96	10.1	152			
5/1/2013	Wednesday	37.17	8	145.1			
5/7/2013	Tuesday	35.06	8.901	157.9	3.1	1.1	4.3
5/8/2013	Wednesday	42.18	15	185.3			
5/14/2013	Tuesday	35.05	8	155.7			
5/15/2013	Wednesday	34.07	10	132.7			
5/22/2013	Wednesday	34.02	7	126.7			
5/23/2013	Thursday	45.50	14	171.8			
5/28/2013	Tuesday	34.90	10	158.4			
5/29/2013	Wednesday	50.12	15	151.5			
6/4/2013	Tuesday	38.80	16.503	147.8	3.3	1.1	6.4
6/5/2013	Wednesday	34.16	10	167.6			
6/11/2013	Tuesday	72.13	17	146.2			
6/12/2013	Wednesday	72.64	15	128.4			
6/18/2013	Tuesday	71.30	26	188.4			
6/19/2013	Wednesday	71.96	20	154.4			
6/25/2013	Tuesday	48.77	13	132.8			

Table 8: Field's Point Effluent Metals (Al - Mo)

Field's Point Effluent Metals 2013
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo(ppb)
6/26/2013	Wednesday	47.08	13	148.5			
7/2/2013	Tuesday	45.89	7.68	111.2	1.4	1	4.5
7/3/2013	Wednesday	42.97	7	111.9			
7/9/2013	Tuesday	41.68	10	133.1			
7/10/2013	Wednesday	42.82	10	154			
7/16/2013	Tuesday	39.42	9	118.3			
7/17/2013	Wednesday	40.22	7	95.99			
7/23/2013	Tuesday	47.00	9.86	130.1			
7/24/2013	Wednesday	40.08	9	107.3			
7/30/2013	Tuesday	42.33	10	105.8			
7/31/2013	Wednesday	40.22	8	118.3			
8/6/2013	Tuesday	37.10	11.75	127.1	2.1	1.2	4.9
8/7/2013	Wednesday	35.86	9	126.5			
8/13/2013	Tuesday	37.62	11	105.3			
8/14/2013	Wednesday	37.62	8	100.5			
8/20/2013	Tuesday	36.41	9	121.6			
8/21/2013	Wednesday	34.13	14	145.1			
8/27/2013	Tuesday	48.30	7	110.5			
8/28/2013	Wednesday	53.33	8	115.4			
9/3/2013	Tuesday	60.19	15	142.4			
9/4/2013	Wednesday	57.46	13	125.3			
9/10/2013	Tuesday	33.87	11	133.9			
9/11/2013	Wednesday	35.82	8	120.5			
9/17/2013	Tuesday	34.06	9.062	120.5	2.7	1.4	5.4
9/18/2013	Wednesday	34.95	10	163			
9/24/2013	Tuesday	34.17	8	115.5			
9/25/2013	Wednesday	32.55	8	124			
10/1/2013	Tuesday	31.72	6.84	113.6			
10/2/2013	Wednesday	31.53	14	128.7			
10/8/2013	Tuesday	30.06	15.61	151.5	4.8	1.6	5.9
10/9/2013	Wednesday	31.92	14	164.3			
10/15/2013	Tuesday	31.19	13	146.5			

Table 8: Field's Point Effluent Metals (Al - Mo)

Field's Point Effluent Metals 2013
all analyses in ppb

Date	Day of the Week	Effluent Flow	Al (ppb)	Fe (ppb)	Se (ppb)	As (ppb)	Mo(ppb)
10/16/2013	Wednesday	32.81	10	136.4			
10/22/2013	Tuesday	31.30	11	130.2			
10/23/2013	Wednesday	29.49	15	118.2			
10/29/2013	Tuesday	29.57	13	107.6			
10/30/2013	Wednesday	33.22	12	108.4			
11/5/2013	Tuesday	31.64	10.2	116.8	4.5	1.6	6.3
11/6/2013	Wednesday	31.34	20	179.7			
11/12/2013	Tuesday	29.52	13	155.5			
11/13/2013	Wednesday	30.32	12	156.1			
11/19/2013	Tuesday	30.99	15	153.2			
11/20/2013	Wednesday	29.64	15	129.4			
11/26/2013	Tuesday	45.08	30	220.7			
11/27/2013	Wednesday	69.34	30	153.9			
12/3/2013	Tuesday	33.22	12.13	160	4.61	1.87	7.97
12/4/2013	Wednesday	32.91	13.71	234.9			
12/10/2013	Tuesday	37.21	16.89	155.2			
12/11/2013	Wednesday	32.56	16.88	185.8			
12/17/2013	Tuesday	32.84	15.88	179.1			
12/18/2013	Wednesday	33.54	16.5	192.9			
12/24/2013	Tuesday	38.43	20.66	217.9			
12/25/2013	Wednesday	30.30	15.93	171.8			
12/31/2013	Tuesday	44.17	18	185.8			

Table 8: Field's Point Effluent Metals (Al - Mo)

Bucklin Point Influent Metals Cd - CN 2013
all results in ppb

Date	Day of the Week	Influent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
1/1/2013	Tuesday	19.16	<2.5	<10	20	33.52	<10	0.0363	<10	<4	65.88	6.12
1/2/2013	Wednesday	18.90	<2.5	<10	22	29.9	<10	0.0193	<10	<4	65.27	5.47
1/8/2013	Tuesday	18.48	<2.5	<10	25	50.07	<10	0.0618	<10	<4	94.04	5.88
1/9/2013	Wednesday	18.29	<2.5	<10	26	61.3	<10	0.0436	<10	<4	96.04	5.41
1/11/2013	Friday	20.59										25.1
1/15/2013	Tuesday	18.67	<2.5	<10	32	53.71	<10	0.0555	<10	<4	115.6	4.71
1/16/2013	Wednesday	21.97	<2.5	<10	27	46.01	<10	0.0325	<10	<4	101.7	8.67
1/22/2013	Tuesday	16.58	<2.5	<10	31	34.45	<10	0.0324	<10	<4	72.37	6.55
1/23/2013	Wednesday	16.56	<2.5	<10	34	71.08	<10	0.0400	10.67	<4	83.43	6.8
1/29/2013	Tuesday	17.94	<2.5	<10	31	39.11	<10	0.0354	11.23	<4	81.6	11.4
1/30/2013	Wednesday	20.97	<2.5	<10	35	57.95	12.04	0.0849	15.07	<4	130.1	8.04
2/5/2013	Tuesday	16.89	<2.5	<10	29	38.05	<10	0.0414	14.12	<4	78.32	5.3
2/6/2013	Wednesday	16.31	<2.5	<10	16	23.12	<10	0.0297	<10	<4	56.69	6.99
2/12/2013	Tuesday	25.24	<2.5	12.46	17	48.3	<10	0.0310	14.7	<4	120.8	14.5
2/13/2013	Wednesday	18.68	<2.5	<10	21	39.69	<10	0.0288	21.34	<4	83.35	9.15
2/19/2013	Tuesday	32.52	<2.5	<10	35	41.7	<10	0.0277	<10	<4	85.51	6
2/20/2013	Wednesday	20.35	<2.5	<10	21	41.42	15.44	0.0369	<10	<4	108.8	9.09
2/26/2013	Tuesday	22.65	<2.5	<10	20	32.69	<10	0.0262	<10	<4	72.12	6.13
2/27/2013	Wednesday	68.68	<2.5	<10	12	33.63	<10	0.0208	<10	<4	84.38	5.81
3/5/2013	Tuesday	24.85	<2.5	<10	12	39.77	<10	0.0271	<10	<4	55.49	6.82
3/6/2013	Wednesday	25.49	<2.5	<10	13	28.61	<10	0.0311	<10	<4	63.28	7.64
3/12/2013	Tuesday	39.01	<2.5	<10	15	28.56	<10	0.0306	<10	<4	65.54	6.58
3/13/2013	Wednesday	25.45	<2.5	<10	10	40.62	<10	0.0447	<10	<4	85.64	9.57
3/19/2013	Tuesday	40.01	<2.5	<10	19	43.39	<10	0.0312	<10	<4	84.99	9.07
3/20/2013	Wednesday	24.17	<2.5	<10	15	29.97	<10	0.0296	<10	<4	59.01	7.82
3/26/2013	Tuesday	22.68	<2.5	20.91	15	33.78	<10	0.0332	<10	<4	76.14	5.54
3/27/2013	Wednesday	22.05	<2.5	<10	21	35.7	<10	0.0285	<10	<4	71.7	6.42
4/2/2013	Tuesday	20.45	<2.5	<10	26	49.37	<10	0.0314	<10	<4	85.23	10.2
4/3/2013	Wednesday	19.89	<2.5	<10	23	49.53	<10	0.0420	<10	<4	90.5	4.23
4/9/2013	Tuesday	18.44	<2.5	<10	25	43.01	<10	0.0401	<10	<4	93.91	6
4/10/2013	Wednesday	23.89	<2.5	<10	22	51.3	<10	0.0499	<10	<4	115.9	6.77
4/16/2013	Tuesday	17.93	<2.5	<10	40	67.6	<10	0.0338	16.76	<4	93.91	
4/17/2013	Wednesday	16.72	<2.5	<10	34	55.85	<10	0.0388	15.34	<4	151.1	
4/18/2013	Thursday	16.22										4.83
4/19/2013	Friday	17.27										5.03
4/23/2013	Tuesday	18.39	<2.5	<10	37	64.49	<10	0.0496	20.11	<4	97.69	5.54
4/24/2013	Wednesday	17.54	<2.5	<10	33	76.21	<10	0.0410	26.59	<4	101.5	7.06
4/30/2013	Tuesday	16.11	<2.5	<10	33	88.7	<10	0.0374	32.87	<4	127.7	4.58
5/1/2013	Wednesday	16.00	<2.5	<10	34	112.3	<10	0.0403	66.14	<4	99.39	4.33
5/7/2013	Tuesday	15.04	<2.5	<10	36	78.4	<10	0.0465	21.51	<4	134.1	<4
5/8/2013	Wednesday	19.93	<2.5	<10	366	107.5	<10	0.0528	40.87	<4	142.8	<4
5/14/2013	Tuesday	16.01	<2.5	<10	35	79.94	<10	0.0534	28.47	<4	115.8	5.99
5/15/2013	Wednesday	16.50	<2.5	<10	53	117	<10	0.0365	69.35	<4	109.2	5.59
5/21/2013	Tuesday	16.71	<2.5	<10	54	70	<10	0.0647	19.29	<4	102.5	6.43
5/22/2013	Wednesday	15.77	<2.5	<10	34	89.66	<10	0.0555	18.74	<4	128.5	10.3
5/28/2013	Tuesday	15.85	<2.5	<10	37	35.32	<10	0.0342	<10	<4	87.76	4.36
5/29/2013	Wednesday	24.68	<2.5	<10	28	75.02	<10	0.0536	13.48	<4	132.6	6.11
6/4/2013	Tuesday	16.19	<2.5	<10	27	55.37	<10	0.0383	<10	<4	112.1	8.6
6/5/2013	Wednesday	15.94	<2.5	<10	39	61.58	<10	0.0535	10.95	<4	96.99	6.72
6/11/2013	Tuesday	66.72	<2.5	<10	10	80.5	10.21	0.0390	36.39	<4	89.09	<4
6/12/2013	Wednesday	33.90	<2.5	<10	14	44.01	<10	0.0313	11.9	<4	72.88	5.08
6/18/2013	Tuesday	35.94	<2.5	<10	10	37.95	<10	0.0283	16.56	<4	69.05	9.94
6/19/2013	Wednesday	31.22	<2.5	<10	10	39.48	<10	0.0230	10.12	<4	66.28	<4
6/25/2013	Tuesday	23.95	<2.5	<10	16	56.11	<10	0.0410	18.96	<4	112.7	4.74
6/26/2013	Wednesday	28.33	<2.5	<10	20	44.72	<10	0.0383	<10	<4	75.53	5.79

Table 9: Bucklin Point Influent Metals and Cyanide (Cd - CN)

Bucklin Point Influent Metals Cd - CN 2013
all results in ppb

Date	Day of the Week	Influent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
7/2/2013	Tuesday	22.80	<2.5	<10	28	49.36	<10	0.0248	11.16	<4	88.06	<4
7/3/2013	Wednesday	22.03	<2.5	<10	10	40.26	<10	0.0198	15.33	<4	80.11	<4
7/9/2013	Tuesday	20.43	<2.5	<10	25	65.66	<10	0.0313	10.82	<4	104	5.83
7/10/2013	Wednesday	20.53	<2.5	<10	27	54.35	<10	0.0380	<10	<4	88.62	5.23
7/16/2013	Tuesday	18.24	<2.5	<10	35	71.02	<10	0.0363	14.89	<4	101.5	4.91
7/17/2013	Wednesday	19.13	<2.5	<10	23	73.3	<10	0.0363	14.44	<4	102.4	4.84
7/23/2013	Tuesday	30.37	<2.5	<10	27	140.74	10.595	0.0629	11.475	<4	168.31	<4
7/24/2013	Wednesday	19.50	<2.5	<10	20	70.963	<10	0.0936	15.107	<4	106.81	4.83
7/30/2013	Tuesday	18.19	<2.5	<10	36	57.76	<10	0.0454	<10	<4	108.2	5.67
7/31/2013	Wednesday	18.13	<2.5	<10	35	60.25	<10	0.0434	<10	<4	108.2	7.89
8/6/2013	Tuesday	17.35	<2.5	<10	30	65.47	<10	0.0332	11.91	<4	131.9	7.59
8/7/2013	Wednesday	17.42	<2.5	<10	39	57.99	<10	0.0418	10.68	<4	101.9	4.56
8/13/2013	Tuesday	19.32	<2.5	<10	38	53.49	<10	0.0661	15.6	<4	97.8	5.97
8/14/2013	Wednesday	18.12	<2.5	<10	27	58.3	<10	0.0405	14.33	<4	104.2	5.13
8/20/2013	Tuesday	16.87	<2.5	<10	37	53.78	<10	0.0379	11.67	<4	103.9	4.88
8/21/2013	Wednesday	16.52	<2.5	<10	36.72	61.3	<10	0.0832	12.14	<4	142.81	4.37
8/27/2013	Tuesday	27.21	<2.5	<10	26	79.37	<10	0.0591	18.19	<4	158.8	4.28
8/28/2013	Wednesday	17.08	<2.5	<10	35	54.05	<10	0.0443	<10	<4	92.52	4.42
9/3/2013	Tuesday	19.49	<2.5	<10	23	43.16	<10	0.0374	<10	<4	89.97	<10
9/4/2013	Wednesday	17.46	<2.5	<10	51	78.13	<10	0.0575	16.83	<4	124.2	<10
9/10/2013	Tuesday	18.11	<2.5	11.1	51	71.65	<10	0.0555	21.27	<4	112.3	<10
9/11/2013	Wednesday	16.82	<2.5	<10	54	72.46	<10	0.0537	48.36	<4	113.4	<10
9/17/2013	Tuesday	15.94	<2.5	<10	38	67.13	<10	0.2080	15.36	<4	126.4	<10
9/18/2013	Wednesday	16.19	<2.5	<10	53	70.89	<10	0.2960	15.53	<4	119.4	<10
9/24/2013	Tuesday	15.35	<2.5	<10	52	65.64	<10	0.0352	15.84	<4	108	6.23
9/25/2013	Wednesday	15.53	<2.5	<10	48	57.18	<10	0.0482	36.88	<4	98.82	<8
10/1/2013	Tuesday	15.43	<2.5	<10	49	84.49	<10	0.0520	11.77	<4	135.3	5.36
10/2/2013	Wednesday	16.34	<2.5	<10	44	89.05	<10	0.0453	12.32	<4	133.5	9.32
10/8/2013	Tuesday	15.97	<2.5	<10	51	95.17	<10	0.0569	12.75	<4	127.2	4.76
10/9/2013	Wednesday	16.22	<2.5	<10	44	82.59	<10	0.0388	13.88	<4	107.9	4.96
10/15/2013	Tuesday	15.46	<2.5	<10	52	77.17	<10	0.0602	<10	<4	116.3	<4
10/16/2013	Wednesday	16.45	<2.5	<10	41	114.3	<10	0.0667	16.38	<4	159.3	5.09
10/22/2013	Tuesday	16.36	<2.5	11.28	43	100.7	<10	0.0637	18.13	<4	141.6	7.52
10/23/2013	Wednesday	17.49	<2.5	11.94	55	81.45	<10	0.0672	37.26	<4	131	<4
10/29/2013	Tuesday	16.12	<2.5	<10	51	71.79	<10	0.0703	11.99	<4	130.6	
10/30/2013	Wednesday	16.28	<2.5	<10	55	89.21	<10	0.1290	16.14	<4	155.4	
10/31/2013	Thursday	15.98										5.32
11/1/2013	Friday	17.54										<8
11/5/2013	Tuesday	15.77	<2.5	<10	66	85.35	<10	0.0429	14.4	<4	126.8	4.48
11/6/2013	Wednesday	16.32	<2.5	<10	44	75.82	<10	0.0518	32.05	<4	121	<4
11/12/2013	Tuesday	17.83	<2.5	<10	45	93.35	<10	0.0559	11.34	<4	125.9	<4
11/13/2013	Wednesday	14.72	<2.5	<10	48	84.13	<10	0.1260	12.9	<4	143.4	<4
11/19/2013	Tuesday	15.84	<2.5	<10	44	71.31	<10	0.0729	22.03	<4	155.1	<4
11/20/2013	Wednesday	15.68	<2.5	<10	53	59.93	<10	0.0560	12.51	<4	110.7	<4
11/25/2013	Monday	14.92	<2.5	<10	57	55.79	<10		<10	<4	126.9	<4
11/26/2013	Tuesday	17.08	<2.5	<10	50	86	<10	0.0785	14.89	<4	149.5	4.26
11/27/2013	Wednesday	75.36						0.1290				
12/3/2013	Tuesday	16.40	<2.5	<10	36	59.03	<10	0.0354	<10	<4	103.3	<4
12/4/2013	Wednesday	16.84	<2.5	<10	36	88.43	<10	0.0460	67.47	<4	105.1	7.23
12/10/2013	Tuesday	19.15	<2.5	<10	35	53.61	<10	0.0473	14.94	5.95	93.29	4.81
12/11/2013	Wednesday	17.33	<2.5	<10	40	55.21	<10	0.0461	11.17	<4	108.4	25.1
12/17/2013	Tuesday	17.65	<2.5	<10	39	57.72	<10	0.0459	<10	<4	109.2	
12/18/2013	Wednesday	16.99	<2.5	<10	36	49.68	<10	0.0323	<10	<4	86.28	
12/19/2013	Thursday	18.23										<4
12/20/2013	Friday	20.01										5.29
12/23/2013	Monday	33.94	<2.5	10.39	39	50.38	10.94	0.0426	<10	<4	138.9	

Table 9: Bucklin Point Influent Metals and Cyanide (Cd - CN)

Bucklin Point Influent Metals Cd - CN 2013
all results in ppb

Date	Day of the Week	Influent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
12/24/2013	Tuesday	19.66	<2.5	<10	40	38.6	<10	0.0314	<10	<4	90.14	4.65
12/25/2013	Wednesday	17.15	<2.5	13.8	24	36.84	<10	0.0386	10.28	<4	84.58	<4
12/30/2013	Monday	21.04	<2.5	13.8	24	36.84	<10	0.0386	10.28	<4	84.58	<4
12/31/2013	Tuesday	19.82	<2.5	<10	40	38.6	<10	0.0314	<10	<4	90.14	5.11

Table 9: Bucklin Point Influent Metals and Cyanide (Cd - CN)

Bucklin Point Influent Metals Al - Sn 2013
all analyses in ppb

Date	Day of the Week	Influent Flow	Al	Fe	Se	As	Mo	Sn
1/1/2013	Tuesday	19.16	232.6	915.7	0.779	1.125	1.396	<5
1/2/2013	Wednesday	18.90	205.9	926.3				<5
1/8/2013	Tuesday	18.48	279	1146	0.5013	1.23	4.48	<5
1/9/2013	Wednesday	18.29	318	1293				<5
1/11/2013	Friday	20.59						<5
1/15/2013	Tuesday	18.67	381.2	1335	0.783	1.186	2.041	<5
1/16/2013	Wednesday	21.97	451.5	1414				<5
1/22/2013	Tuesday	16.58	233.3	936.4	0.6847	1.327	7.976	<5
1/23/2013	Wednesday	16.56	342.9	1227				<5
1/29/2013	Tuesday	17.94	269.4	1018	0.559	1.504	6.616	<5
1/30/2013	Wednesday	20.97	830.7	1825				<5
2/5/2013	Tuesday	16.89	301.1	930.5	0.711	1.091	1.363	<5
2/6/2013	Wednesday	16.31	177.6	797.5				<5
2/12/2013	Tuesday	25.24	802	1500	0.5603	1.37	5.638	<5
2/13/2013	Wednesday	18.68	440.9	973.3				<5
2/19/2013	Tuesday	32.52	303.4	1028	0.6883	1.115	3.375	<5
2/20/2013	Wednesday	20.35	1136	2115				<5
2/26/2013	Tuesday	22.65	593.3	853.4	0.6473	1.1	2.826	<5
2/27/2013	Wednesday	68.68	936.5	1478				<5
3/5/2013	Tuesday	24.85	297.1	705.9	0.823	0.9157	1.209	<5
3/6/2013	Wednesday	25.49	242	825.2				<5
3/12/2013	Tuesday	39.01	213.8	833.5	0.831	1.153	6.335	<5
3/13/2013	Wednesday	25.45	884.4	1622				<5
3/19/2013	Tuesday	40.01	482.9	1172.6	0.5867	0.994	5.27	<5
3/20/2013	Wednesday	24.17	454.5	1179.3				<5
3/26/2013	Tuesday	22.68	271	945.8	0.655	0.934	2.554	<5
3/27/2013	Wednesday	22.05	236.6	921.7				<5
4/2/2013	Tuesday	20.45	1423	1248	0.7167	1.05	3.614	<5
4/3/2013	Wednesday	19.89	301.1	972.4				<5
4/9/2013	Tuesday	18.44	289.9	1184.9	0.7487	1.011	1.821	<5
4/10/2013	Wednesday	23.89	488.7	1274.1				<5
4/16/2013	Tuesday	17.93	331.4	1118	0.7753	1.01	2.012	<5
4/17/2013	Wednesday	16.72	288.8	1008				<5
4/23/2013	Tuesday	18.39	341.8	1026	0.6677	0.967	2.343	<5
4/24/2013	Wednesday	17.54	386.1	1108				<5
4/30/2013	Tuesday	16.11	503.9	1321	0.6917	1.119	2.164	<5
5/1/2013	Wednesday	16.00	386.3	1042				<5
5/7/2013	Tuesday	15.04	444.9	1273	0.7293	1.259	12.09	<5
5/8/2013	Wednesday	19.93	653.5	1527				<5
5/14/2013	Tuesday	16.01	401.1	1220	0.6773	1.104	5.928	<5
5/15/2013	Wednesday	16.50	480.3	1236				<5
5/21/2013	Tuesday	16.71	349.9	991.6	0.8167	1.238	4.501	<5

Table 10: Bucklin Point Influent Metals (Al - Sn)

Bucklin Point Influent Metals Al - Sn 2013
all analyses in ppb

Date	Day of the Week	Influent Flow	Al	Fe	Se	As	Mo	Sn
5/22/2013	Wednesday	15.77	1136	1430				<5
5/28/2013	Tuesday	15.85	270.5	996.4	0.6063	1.054	1.832	<5
5/29/2013	Wednesday	24.68	617.8	1387				<5
6/4/2013	Tuesday	16.19	418.6	1281	0.738	1.167	4.587	<5
6/5/2013	Wednesday	15.94	342.2	1152				<5
6/11/2013	Tuesday	66.72	524.4	1146	0.6593	1.046	1.433	<5
6/12/2013	Wednesday	33.90	387.2	1082				<5
6/18/2013	Tuesday	35.94	248.2	925.8	0.8427	0.9483	1.651	<5
6/19/2013	Wednesday	31.22	325.7	975.2				<5
6/25/2013	Tuesday	23.95	440.4	940.4	0.726	1.126	7.638	<5
6/26/2013	Wednesday	28.33	261.2	698.8				<5
7/2/2013	Tuesday	22.80	351.6	1136	0.7137	1.166	2.187	<5
7/3/2013	Wednesday	22.03	269.9	976.6				<5
7/9/2013	Tuesday	20.43	547.4	1230	0.7063	1.194	2.529	9.282
7/10/2013	Wednesday	20.53	326.9	1162				<5
7/16/2013	Tuesday	18.24	297.6	1078	0.8727	1.222	2.492	<5
7/17/2013	Wednesday	19.13	299.4	1138				<5
7/23/2013	Tuesday	30.37	640.54	1811.5	0.5793	1.264	2.501	<5
7/24/2013	Wednesday	19.50	449.56	1189.7				<5
7/30/2013	Tuesday	18.19	344.3	1213	0.7467	1.268	4.063	<5
7/31/2013	Wednesday	18.13	306.2	1214				<5
8/6/2013	Tuesday	17.35	311.4	1318	0.845	1.285	2.163	<5
8/7/2013	Wednesday	17.42	315.4	1166				<5
8/13/2013	Tuesday	19.32	285.9	1098	0.6717	1.229	1.226	<5
8/14/2013	Wednesday	18.12	1256	1156				<5
8/20/2013	Tuesday	16.87	341.3	1121	0.656	1.158	2.192	<5
8/21/2013	Wednesday	16.52	509.45	1645.8				<5
8/27/2013	Tuesday	27.21	542.7	1457	0.576	1.311	2.784	<5
8/28/2013	Wednesday	17.08	261.8	1020				<5
9/3/2013	Tuesday	19.49	365.8	1157	0.5	1.18	1.175	<5
9/4/2013	Wednesday	17.46	406.4	1607.2				<5
9/10/2013	Tuesday	18.11	421.3	1279	0.6543	1.536	10.12	<5
9/11/2013	Wednesday	16.82	419.9	1130				<5
9/17/2013	Tuesday	15.94	1209	1414	0.782	1.503	8.449	<5
9/18/2013	Wednesday	16.19	515.9	1783				<5
9/24/2013	Tuesday	15.35	373.9	1208	0.871	1.393	2.662	<5
9/25/2013	Wednesday	15.53	342.5	1158				<5
10/1/2013	Tuesday	15.43	414.9	2243	<0.5	1.323	5.557	<5
10/2/2013	Wednesday	16.34	473.8	1461				<5
10/8/2013	Tuesday	15.97	425.9	1289.2	1.177	1.471	2.54	<5
10/9/2013	Wednesday	16.22	338.3	1252.5				<5
10/15/2013	Tuesday	15.46	376.5	1234	0.9273	1.416	2.973	<5

Table 10: Bucklin Point Influent Metals (Al - Sn)

Bucklin Point Influent Metals Al - Sn 2013
all analyses in ppb

Date	Day of the Week	Influent Flow	Al	Fe	Se	As	Mo	Sn
10/16/2013	Wednesday	16.45	490	1545				<5
10/22/2013	Tuesday	16.36	1591	1621	1.019	1.859	4.481	<5
10/23/2013	Wednesday	17.49	1386	1422				<5
10/29/2013	Tuesday	16.12	441.3	1191	0.8567	1.211	7.11	<5
10/30/2013	Wednesday	16.28	485.6	1965				<5
11/5/2013	Tuesday	15.77	421.2	1304	0.71	1.5	2.19	<5
11/6/2013	Wednesday	16.32	376.1	1274				<5
11/12/2013	Tuesday	17.83	483.8	1589	0.66	1.36	1.83	<5
11/13/2013	Wednesday	14.72	480.6	1465				<5
11/19/2013	Tuesday	15.84	495.7	1405	1.15	2.18	13.06	<5
11/20/2013	Wednesday	15.68	350.5	1125				<5
11/25/2013	Monday	14.92	456.7	1517	0.81	1.47	1.62	<5
11/26/2013	Tuesday	17.08	468.2	1428				<5
12/3/2013	Tuesday	16.40	312.2	1150	0.72	1.39	2.11	<5
12/4/2013	Wednesday	16.84	851.3	1202				<5
12/10/2013	Tuesday	19.15	320.1	1060	0.7137	1.253	1.648	<5
12/11/2013	Wednesday	17.33	381.9	1119				<5
12/17/2013	Tuesday	17.65	339.9	1105	0.8907	1.648	5.345	<5
12/18/2013	Wednesday	16.99	494.3	1334				<5
12/23/2013	Monday	33.94	1064	2248	0.5997	1.517	2.674	<5
12/25/2013	Wednesday	17.15	271.3	1107				<5
12/30/2013	Monday	21.04	644.7	1404	0.5	1.369	1.531	<5

Table 10: Bucklin Point Influent Metals (Al - Sn)

Bucklin Point Effluent Metals Cd - CN 2013
all analyses in ppb

Date	Day of the Week	Effluent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
1/1/2013	Tuesday	19.16	0.0287	0.435	<10	4.67	0.38	0.00266	3.33	0.0367	33.1	4.92
1/2/2013	Wednesday	18.90	0.029	0.518	<10	4.52	0.394	<0.0020	3.25	0.0443	32	6.03
1/8/2013	Tuesday	18.48	0.0483	0.623	<10	5.64	0.399	0.00763	3.94	0.0543	38.3	5.54
1/9/2013	Wednesday	18.29	0.0327	0.71	<10	6.29	0.407	0.00383	3.72	0.068	37.7	4.62
1/11/2013	Friday	20.59										5.67
1/15/2013	Tuesday	18.67	0.027	0.74	<10	5.29	0.44	0.00239	4.33	0.066	34.3	10.5
1/16/2013	Wednesday	21.97	0.0383	1.05	<10	5.14	0.524	0.00269	4.9	0.066	37.6	8.59
1/22/2013	Tuesday	16.58	0.041	0.87	<10	4.47	0.46	0.00417	4.36	0.11	35.3	21.6
1/23/2013	Wednesday	16.56	0.04	1.56	<10	5.24	0.469	0.00324	5.41	0.0513	36	16.4
1/29/2013	Tuesday	17.94	0.0573	0.777	<10	6.31	0.485	0.00257	7.2	0.049	40.3	10.5
1/30/2013	Wednesday	20.97	0.0483	1.15	<10	6.96	0.535	0.00291	8.71	0.0567	41.4	25.3
2/5/2013	Tuesday	16.89	0.0413	0.91	<10	6.6	0.736	0.00477	8.21	0.103	43	5.28
2/6/2013	Wednesday	16.31	0.046	0.991	<10	5.71	0.521	0.00400	8.46	0.093	39.8	5.4
2/12/2013	Tuesday	25.24	0.043	1.83	<10	6.61	0.757	0.00566	5.38	0.169	37.7	6.7
2/13/2013	Wednesday	18.68	0.0257	2.86	<10	5.91	0.578	0.00382	9.46	0.14	36	6.64
2/19/2013	Tuesday	27.31	0.127	3.85	<10	24.4	3.36	0.02320	7.25	0.821	65.6	11.6
2/20/2013	Wednesday	20.35	0.0363	0.995	<10	5.49	0.65	0.00347	4.35	0.141	33.7	10.6
2/26/2013	Tuesday	22.65	0.13	1.39	<10	7.07	1.24	0.00625	4.93	0.161	38.2	9.62
2/27/2013	Wednesday	40.47	0.267	2.79	<10	14	2.98	0.0187	4.25	0.379	40.6	<8
3/5/2013	Tuesday	24.85	0.0537	0.694	<10	5.21	0.696	<0.0020	6.04	0.092	33.6	5.42
3/6/2013	Wednesday	25.49	0.0693	0.733	<10	5.31	0.741	0.00425	5.33	0.108	31.9	5.21
3/12/2013	Tuesday	31.90	0.189	1.75	<10	14.1	2.12	0.0157	4.31	0.374	42.7	7.89
3/13/2013	Wednesday	25.45	0.101	0.895	<10	6.28	0.604	0.00688	5.75	0.108	28.5	7.7
3/19/2013	Tuesday	33.97	0.301	6.88	<10	47.2	6.41	0.0507	6.41	1.03	69.8	13.7
3/20/2013	Wednesday	24.17	0.0757	1.33	<10	9.98	0.605	0.00770	4.2	0.0727	34.5	11
3/26/2013	Tuesday	22.68	0.0773	2.09	<10	9.62	0.731	0.00385	4.68	0.118	32	5.89
3/27/2013	Wednesday	22.05	0.0847	1.23	<10	9.21	0.585	0.00351	4.71	0.108	32.5	5.86
4/2/2013	Tuesday	20.45	0.0563	0.741	<10	9.5	0.484	0.00335	3.69	0.0893	35	5.2
4/3/2013	Wednesday	19.89	0.0713	0.743	<10	12.6	0.534	0.00333	4.92	0.0893	35.7	6.1
4/9/2013	Tuesday	18.44	0.0633	0.677	<10	8.35	0.592	0.00354	5.48	0.0853	36	4.52
4/10/2013	Wednesday	23.89	0.071	1.59	<10	12.6	1.27	0.00894	11.1	0.232	38.7	4.42
4/16/2013	Tuesday	17.93	0.0513	0.606	<10	8.84	0.504	0.00296	10.2	0.089	37.2	
4/17/2013	Wednesday	16.72	0.0597	0.703	<10	8.25	0.519	0.00295	12	0.101	36.4	
4/18/2013	Thursday	16.22										5.18
4/19/2013	Friday	17.27										6.51
4/23/2013	Tuesday	18.39	0.0593	1.06	<10	9.1	0.846	<0.0020	13.7	0.158	39.9	6
4/24/2013	Wednesday	17.54	0.123	0.824	<10	7.9	0.561	0.00501	16.2	0.12	37.9	4.35
4/30/2013	Tuesday	16.11	0.0757	0.844	<10	8.2	0.592	0.00308	17.4	0.115	35.4	<4.00
5/1/2013	Wednesday	16.00	0.05	1.2	<10	9.8	0.7	0.00303	31.9	0.1	38	5.47
5/7/2013	Tuesday	15.04	0.04	0.8	<10	7.4	0.5	0.00363	13.2	0.09	32	6.54
5/8/2013	Wednesday	19.93	0.08	1.4	<10	13.2	1.2	0.01330	19.4	0.27	41	6.58
5/14/2013	Tuesday	16.01	0.06	0.7	<10	10.8	0.5	0.00359	29.3	0.08	37	7.24
5/15/2013	Wednesday	16.50	0.06	0.7	<10	12.5	0.5	0.00295	35	0.09	35	8.81
5/21/2013	Tuesday	16.71	0.05	0.6	<10	10.6	0.5	0.00312	11.9	0.07	37	4.36
5/22/2013	Wednesday	15.77	0.07	0.6	<10	10.8	0.4	<0.0020	12.2	0.06	39	<4.00
5/28/2013	Tuesday	15.85	0.06	0.4	<10	9.6	0.4	<0.0020	5.8	0.06	30	7.38

Table 11: Bucklin Point Effluent Metals and Cyanide (Cd - CN)

Bucklin Point Effluent Metals Cd - CN 2013
all analyses in ppb

Date	Day of the Week	Effluent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
5/29/2013	Wednesday	24.68	0.1	1.8	<10	17.3	1.3	0.00292	14.2	0.23	38	6.07
6/4/2013	Tuesday	16.19	0.06	1.1	<10	8.7	0.5	<0.0020	6.7	0.05	33	5.32
6/5/2013	Wednesday	15.94	0.08	1	<10	9.5	0.6	0.00337	7.3	0.06	37	4.62
6/11/2013	Tuesday	39.92	0.06	0.9	<10	14.6	1.3	0.00832	25.9	0.16	33	<4.00
6/12/2013	Wednesday	33.90	0.08	1	<10	16.6	1.1	0.00729	15.9	0.28	31	4.24
6/18/2013	Tuesday	34.90	0.09	1	<10	10.3	0.9	0.00443	9.5	0.13	32	<8
6/19/2013	Wednesday	30.48	0.07	0.7	<10	9.6	0.7	0.00317	8.1	0.09	32	<8
6/25/2013	Tuesday	23.95	0.1	0.8	<10	11.7	0.9	0.00427	8.9	0.1	34	<8
6/26/2013	Wednesday	28.33	0.18	0.8	<10	12.4	1.1	0.00576	7.5	0.14	36	<8
7/2/2013	Tuesday	22.80	0.07	0.5	<10	12	1.1	0.00391	8	0.09	35	4.6
7/3/2013	Wednesday	22.03	0.08	0.5	<10	11.9	1	0.00377	8.4	0.09	33	<4.00
7/9/2013	Tuesday	20.43	0.08	0.5	<10	13.1	0.9	0.00416	5.4	0.1	33	4.3
7/10/2013	Wednesday	20.53	0.1	0.5	<10	11	0.8	0.00405	7.3	0.09	33	<8
7/16/2013	Tuesday	18.24	0.08	0.6	<10	12.5	0.8	0.00638	12.4	0.08	40	4.87
7/17/2013	Wednesday	19.13	0.07	0.8	<10	12.7	0.7	0.00604	11.5	0.09	37	6.76
7/23/2013	Tuesday	30.37	0.06	0.7	<10	11.4	0.7	0.00518	5.9	0.08	37	4.69
7/24/2013	Wednesday	19.50	0.04	0.6	<10	10.1	0.5	0.00456	7.2	0.05	33	<4.00
7/30/2013	Tuesday	18.19	0.07	0.6	<10	10.1	0.5	0.00342	4.4	0.06	36	4.23
7/31/2013	Wednesday	18.13	0.06	0.6	<10	9.5	0.5	0.00529	4.3	0.07	36	5.26
8/6/2013	Tuesday	17.35	0.06	1	<10	10.6	0.4	0.00277	6.3	0.08	32	<8
8/7/2013	Wednesday	17.42	0.06	1.2	<10	12.3	1.1	0.00395	6.7	0.1	33	<8
8/13/2013	Tuesday	19.32	0.04	0.6	<10	10.2	0.4	0.00352	8.5	0.06	31	<8
8/14/2013	Wednesday	18.12	0.06	0.8	<10	10.9	0.5	0.00318	9.1	0.07	30	<8
8/20/2013	Tuesday	16.87	0.02	0.8	<10	6.3	0.5	0.00598	5.6	0.06	31	4.7
8/21/2013	Wednesday	16.52	0.02	0.8	<10	4.7	0.4	0.00242	5.7	0.05	29	4.85
8/27/2013	Tuesday	27.21	0.02	1.1	<10	6.5	0.7	0.00767	7.8	0.09	31	<4.00
8/28/2013	Wednesday	17.08	0.02	0.7	<10	5.4	0.4	0.00316	7.7	0.05	34	<4.00
9/3/2013	Tuesday	19.49	0.03	0.6	<10	6.9	0.5	0.00684	4.9	0.08	31	<10
9/4/2013	Wednesday	17.46	0.05	0.9	<10	6.7	0.4	0.00443	6.4	0.05	36	<10
9/10/2013	Tuesday	18.11	0.05	1.7	<10	5.7	0.4	0.00238	9.6	0.05	36	<10
9/11/2013	Wednesday	16.82	0.03	1.3	<10	5.5	0.4	0.00499	12.2	0.05	34	<10
9/17/2013	Tuesday	15.94	0.04	0.8	<10	5.6	1	0.00427	8.7	0.06	34	<10
9/18/2013	Wednesday	16.19	0.03	0.7	<10	5.1	0.5	0.00379	8	0.05	32	<10
9/24/2013	Tuesday	15.35	0.03	0.7	<10	5.8	0.6	0.00350	10.4	0.06	38	4.28
9/25/2013	Wednesday	15.53	0.04	1.6	<10	6.3	0.6	0.00277	11.6	0.05	37	4.47
10/1/2013	Tuesday	15.43	0.03	1	<10	5.1	0.5	0.00342	6.7	0.06	35	<8
10/2/2013	Wednesday	16.34	0.03	0.9	<10	5.6	0.5	0.00456	7.3	0.05	39	4.9
10/8/2013	Tuesday	15.97	0.02	0.9	<10	6.5	0.6	0.00261	7.3	0.06	41	<8
10/9/2013	Wednesday	16.22	0.04	1.2	<10	6.7	0.6	0.00256	8.5	0.07	40	<8
10/15/2013	Tuesday	15.46	0.04	0.6	<10	8.5	0.7	0.01340	7	0.08	45	<4.00
10/16/2013	Wednesday	16.45	0.04	0.9	<10	7.9	1	0.00377	8.2	0.07	43	<4.00
10/22/2013	Tuesday	16.36	0.05	0.8	<10	7.8	0.5	0.00351	8.2	0.07	41	4.64
10/23/2013	Wednesday	17.49	0.05	1.3	<10	8	0.4	0.00621	9.4	0.05	39	4.42
10/29/2013	Tuesday	16.12	0.06	0.9	<10	8.5	0.4	0.00297	6.2	0.06	37	
10/30/2013	Wednesday	16.28	0.06	0.9	<10	9.4	0.4	0.00326	7.1	0.06	40	
10/31/2013	Thursday	15.98										<8

Table 11: Bucklin Point Effluent Metals and Cyanide (Cd - CN)

Bucklin Point Effluent Metals Cd - CN 2013
all analyses in ppb

Date	Day of the Week	Effluent Flow	Cd	TTL Cr	Hex Cr	Cu	Pb	Hg	Ni	Ag	Zn	CN
11/1/2013	Friday	17.54										<8
11/5/2013	Tuesday	15.77	0.06	1	<10	10.2	0.4	0.00569	9.4	0.06	38	<4.00
11/6/2013	Wednesday	16.32	0.05	1.2	<10	11.7	0.4	0.00204	14.3	0.05	38	5.22
11/12/2013	Tuesday	17.83	0.04	0.8	<10	7.6	0.4	<0.0020	5.7	0.05	39	<4.00
11/13/2013	Wednesday	14.72	0.06	0.9	<10	7.3	0.5	0.00251	6.3	0.17	48	<4.00
11/19/2013	Tuesday	15.84	0.05	1.1	<10	7.4	0.4	0.04720	7.3	0.05	39	<4.00
11/20/2013	Wednesday	15.68	0.08	0.8	<10	9.8	0.5	0.00353	8.7	0.06	45	<4.00
11/25/2013	Monday	14.92	0.04	0.6	<10	8.5	0.5	0.11200	5.7	0.07	41	
11/26/2013	Tuesday	17.08	0.3	7.1	<10	99.3	7	0.06980	12.8	1.16	142	<8
11/27/2013	Wednesday	43.61										<8
12/3/2013	Tuesday	16.40	0.06	0.53	<10	6.61	0.56	0.00380	6.57	0.043	50.55	<4.00
12/4/2013	Wednesday	16.84	0.055	0.64	<10	6.48	0.54	0.00588	8.45	0.042	47.18	<4.00
12/10/2013	Tuesday	19.15	0.059	0.7	<10	7.31	0.51	0.00323	5.75	0.097	43.47	<8
12/11/2013	Wednesday	17.33	0.07	0.7	<10	9.64	0.49	0.00272	6.63	0.073	44.81	<8
12/17/2013	Tuesday	17.65	0.082	0.84	<10	10.52	0.5	0.00388	5.25	0.063	52.94	
12/18/2013	Wednesday	16.99	0.092	1.04	<10	11.08	0.53	0.00241	5.71	0.079	53.53	
12/19/2013	Thursday	18.23										6.07
12/20/2013	Friday	20.01										<4.00
12/23/2013	Monday	31.46	0.048	0.93	<10	7.16	0.8	0.00738	3.86	0.158	36.33	
12/24/2013	Tuesday	19.66			<10							<4.00
12/25/2013	Wednesday	17.15	0.045	0.47		4.7	0.53	<0.0020	5.16	0.047	47.58	<4.00
12/30/2013	Monday	21.04	0.04	0.4	<10	4.9	0.4	0.00268	3.3	0.04	36	
12/31/2013	Tuesday	19.82										<4.00

Table 11: Bucklin Point Effluent Metals and Cyanide (Cd - CN)

Bucklin Point Effluent Metals Al - Sn 2013
all analyses in ppb

Date	Day of the Week	Effluent						
		Flow	Al	Fe	Se	As	Mo	Sn
1/1/2013	Tuesday	19.16	19.8	130.7	<0.5	1.19	3.93	<5
1/2/2013	Wednesday	18.90	21.2	138.2				<5
1/8/2013	Tuesday	18.48	19.5	138.4				<5
1/9/2013	Wednesday	18.29	28.2	138.3				<5
1/15/2013	Tuesday	18.67	18.2	126.7				<5
1/16/2013	Wednesday	21.97	20.6	142.7				<5
1/22/2013	Tuesday	16.58	17.6	133				<5
1/23/2013	Wednesday	16.56	20.9	161.5				<5
1/29/2013	Tuesday	17.94	20.1	161.3				<5
1/30/2013	Wednesday	20.97	23.2	163.4				<5
2/5/2013	Tuesday	16.89	33.3	194.3	0.5	1.11	1.46	<5
2/6/2013	Wednesday	16.31	17.8	121				<5
2/12/2013	Tuesday	25.24	34.8	208.2				<5
2/13/2013	Wednesday	18.68	21.6	197.5				<5
2/19/2013	Tuesday	27.31	286.1	1278				<5
2/20/2013	Wednesday	20.35	31.5	169.2				<5
2/26/2013	Tuesday	22.65	69.7	293.9				<5
2/27/2013	Wednesday	40.47	234.5	756.9				<5
3/5/2013	Tuesday	24.85	32	178	0.521	0.903	2.08	<5
3/6/2013	Wednesday	25.49	37.4	209.1				<5
3/12/2013	Tuesday	31.90	167.7	626.2				<5
3/13/2013	Wednesday	25.45	32.1	158.6				<5
3/19/2013	Tuesday	33.97	608.9	2244				<5
3/20/2013	Wednesday	24.17	37.1	168.2				<5
3/26/2013	Tuesday	22.68	31.8	178.4				<5
3/27/2013	Wednesday	22.05	33.6	164.7				<5
4/2/2013	Tuesday	20.45	27.4	134.2	0.55	0.895	2.58	<5
4/3/2013	Wednesday	19.89	29.3	138.3				<5
4/9/2013	Tuesday	18.44	29.6	166				<5
4/10/2013	Wednesday	23.89	84.59	372.4				<5
4/16/2013	Tuesday	17.93	19.8	109.1				<5
4/17/2013	Wednesday	16.72	19.4	106.5				<5
4/23/2013	Tuesday	18.39	54.3	238.9				<5
4/24/2013	Wednesday	17.54	30.8	156.9				8.833
4/30/2013	Tuesday	16.11	32.7	140.2				<5
5/1/2013	Wednesday	16.00	39	155.9				<5
5/7/2013	Tuesday	15.04	28	185.1	<0.5	0.9	6.8	<5
5/8/2013	Wednesday	19.93	87	412.9				<5
5/14/2013	Tuesday	16.01	25	128.2				<5
5/15/2013	Wednesday	16.50	25	139.2				<5
5/21/2013	Tuesday	16.71	20	145.3				<5

Table 12: Bucklin Point Effluent Metals (Al - Sn)

Bucklin Point Effluent Metals Al - Sn 2013
all analyses in ppb

Date	Day of the Week	Effluent						
		Flow	Al	Fe	Se	As	Mo	Sn
5/22/2013	Wednesday	15.77	20	136.3				<5
5/28/2013	Tuesday	15.85	17	110.1				<5
5/29/2013	Wednesday	24.68	86	434.8				<5
6/4/2013	Tuesday	16.19	19	129.5	<0.5	0.9	3.1	<5
6/5/2013	Wednesday	15.94	21	166.9				<5
6/11/2013	Tuesday	39.92	65	384				<5
6/12/2013	Wednesday	33.90	61	350.7				<5
6/18/2013	Tuesday	34.90	37	260.9				<5
6/19/2013	Wednesday	30.48	29	223.9				<5
6/25/2013	Tuesday	23.95	35	291.7				<5
6/26/2013	Wednesday	28.33	44	364.2				<5
7/2/2013	Tuesday	22.80	30	351.5	0.7	1	1.8	<5
7/3/2013	Wednesday	22.03	30	349.1				<5
7/9/2013	Tuesday	20.43	29	287.9				<5
7/10/2013	Wednesday	20.53	39	272.5				<5
7/16/2013	Tuesday	18.24	27	256.3				<5
7/17/2013	Wednesday	19.13	25	245.1				<5
7/23/2013	Tuesday	30.37	29	187.8				<5
7/24/2013	Wednesday	19.50	18	117.5				<5
7/30/2013	Tuesday	18.19	17	99.67				<5
7/31/2013	Wednesday	18.13	17	107.1				<5
8/6/2013	Tuesday	17.35	17	135.8	0.6	1	1.4	<5
8/7/2013	Wednesday	17.42	46	238.9				<5
8/13/2013	Tuesday	19.32	17	125.4				<5
8/14/2013	Wednesday	18.12	19	145.9				<5
8/20/2013	Tuesday	16.87	19	133.4				<5
8/21/2013	Wednesday	16.52	14	132.4				<5
8/27/2013	Tuesday	27.21	32	245.1				<5
8/28/2013	Wednesday	17.08	16	149.4				<5
9/3/2013	Tuesday	19.49	23	177.5				<5
9/4/2013	Wednesday	17.46	15	122.95				<5
9/10/2013	Tuesday	18.11	17	130.6				<5
9/11/2013	Wednesday	16.82	17	114.1				<5
9/17/2013	Tuesday	15.94	19	219	0.7	1.2	3.3	<5
9/18/2013	Wednesday	16.19	18	175.2				<5
9/24/2013	Tuesday	15.35	17	149.8				<5
9/25/2013	Wednesday	15.53	46	210.2				<5
10/1/2013	Tuesday	15.43	16	143.3				<5
10/2/2013	Wednesday	16.34	17	140.7				<5
10/8/2013	Tuesday	15.97	19	156.5	0.7	0.9	1.9	<5
10/9/2013	Wednesday	16.22	20	152				<5

Table 12: Bucklin Point Effluent Metals (Al - Sn)

Bucklin Point Effluent Metals Al - Sn 2013
all analyses in ppb

Date	Day of the Week	Effluent						
		Flow	Al	Fe	Se	As	Mo	Sn
10/15/2013	Tuesday	15.46	19	142.8				<5
10/16/2013	Wednesday	16.45	19	155.5				<5
10/22/2013	Tuesday	16.36	29	147.5				<5
10/23/2013	Wednesday	17.49	22	112.4				<5
10/29/2013	Tuesday	16.12	18	112.5				<5
10/30/2013	Wednesday	16.28	19	137.5				<5
11/5/2013	Tuesday	15.77	17	139.7	0.9	1.3	1.7	<5
11/6/2013	Wednesday	16.32	18	147				<5
11/12/2013	Tuesday	17.83	18	137				<5
11/13/2013	Wednesday	14.72	16	140.8				<5
11/19/2013	Tuesday	15.84	21	171.1				<5
11/20/2013	Wednesday	15.68	21	188.4				<5
11/25/2013	Monday	14.92	26	159				<5
11/26/2013	Tuesday	17.08	730.6	4029				<5
12/3/2013	Tuesday	16.40	18.71	135.7	0.68	1.18	2.96	<5
12/4/2013	Wednesday	16.84	18.65	129.6				<5
12/10/2013	Tuesday	19.15	25.26	126.3				<5
12/11/2013	Wednesday	17.33	23.88	133.1				<5
12/17/2013	Tuesday	17.65	34.6	149.4				<5
12/18/2013	Wednesday	16.99	36.58	156.2				<5
12/23/2013	Monday	31.46	40.57	234.7				<5
12/25/2013	Wednesday	17.15	21.99	125.7				<5
12/30/2013	Monday	21.04	18	105.6				<5

Table 12: Bucklin Point Effluent Metals (Al - Sn)

Field's Point Influent and Effluent Nutrients 2013

Field's Point Influent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	NitrateNitrite N-NO ₃ NO ₂ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
1/1/2013	0.151	0.119	0.27	13.1	19	2.99	19.3
1/2/2013	0.153	0.153	0.306	15.6	22.4	3.82	22.71
1/7/2013	0.152	0.11	0.262	16	26.2	4.15	26.46
1/8/2013	0.129	0.139	0.268	14.7	23.3	3.8	23.57
1/9/2013	0.133	< 0.1	0.207	16.7	24.4	4.65	24.53
1/14/2013	0.0607	0.242	0.242	14.2	21.4	3.87	21.642
1/15/2013	0.123	0.224	0.347	16.3	20.4	4.41	20.75
1/16/2013	0.097	0.472	0.569	12.6	15.5	3.78	16.07
1/21/2013	0.0848	0.1522	0.237	17.1	25.2	4.18	25.44
1/22/2013	0.121	0.353	0.353	17	26.6	4.01	26.953
1/23/2013	0.088	0.173	0.261	16.9	29	4.04	29.26
1/28/2013	0.0735	0.1905	0.264	20.1	30.9	4.2	31.16
1/29/2013	0.106	0.243	0.349	16.4	25.9	4.2	26.25
1/30/2013	0.0976	0.2834	0.381	16.4	27.5	4.22	27.88
2/4/2013	0.0933	0.1877	0.281	17.9	31.2	4.33	31.48
2/5/2013	0.107	0.231	0.338	17.3	28.5	4.57	28.84
2/6/2013	0.094	0.259	0.353	19	27	4.73	27.35
2/11/2013	0.0709	0.4921	0.563	12.6	22.3	3.37	22.86
2/12/2013	0.0834	0.6866	0.77	12.7	22.1	3.1	22.87
2/13/2013	0.107	0.561	0.668	15.1	23.9	3.62	24.57
2/18/2013	0.103	0.363	0.466	14.5	20.1	3.96	20.57
2/19/2013	0.0751	0.5809	0.656	12.6	21.2	4.47	21.86
2/20/2013	0.0778	0.8452	0.923	11.4	18.7	2.7	19.62
2/25/2013	0.103	1.017	1.12	11	13.8	2.12	14.92
2/26/2013	0.11	0.99	1.1	11.5	14.2	3.15	15.3
2/27/2013	0.0574	1.2326	1.29	4.05	6.13	1.82	7.42
3/4/2013	0.107	1.223	1.33	9.03	14.1	2.63	15.43
3/5/2013	0.0902	0.9498	1.04	8.98	16.5	3.14	17.54
3/6/2013	0.117	1.343	1.46	10.5	15.9	3.03	17.36
3/11/2013	0.124	0.956	1.08	12.1	16.1	3.57	17.18
3/12/2013	0.121	0.929	1.05	11.2	15.9	3.34	16.95
3/13/2013	0.139	0.981	1.12	8.43	9.55	2.64	10.67
3/18/2013	0.233	0.673	0.906	13.4	17.1	3.81	18.01
3/19/2013	0.162	0.848	1.01	8.1	22.3	3.32	23.31
3/20/2013	0.182	0.938	1.12	10.9	16.3	2.53	17.42
3/25/2013	0.223	0.692	0.915	12.4	12.9	3.94	13.82
3/26/2013	0.228	0.533	0.761	13.4	21.8	3.58	22.56

Field's Point Effluent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	NitrateNitrite N-NO ₃ NO ₂ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
1/1/2013	0.058	0.225	0.283	4.850	5.860	0.661	6.143
1/2/2013	0.063	0.237	0.300	6.860	7.170		7.470
1/7/2013	0.058	0.247	0.305	7.010	7.390	1.770	7.695
1/8/2013	0.072	0.270	0.341	6.920	7.660	1.370	8.001
1/9/2013	0.081	0.365	0.446	6.530	7.690	1.370	8.136
1/11/2013	0.121	1.009	1.130	5.500	7.130	1.480	8.260
1/14/2013	0.177	1.333	1.510	4.640	5.590	1.460	7.100
1/15/2013	0.158	2.052	2.210	2.960	4.530	0.965	6.740
1/16/2013	0.095	3.845	3.940	1.940	3.790	1.300	7.730
1/21/2013	0.118	1.952	2.070	2.740	4.280	1.750	6.350
1/22/2013	0.128	2.492	2.620	3.410	6.670	1.210	9.290
1/23/2013	0.108	2.092	2.200	2.700	5.500	1.180	7.700
1/28/2013	0.164	2.256	2.420	4.800	5.440	1.520	7.860
1/29/2013	0.175	2.155	2.330	3.710	6.140	1.580	8.470
1/30/2013	0.133	2.407	2.540	3.440	5.430	1.410	7.970
2/5/2013	0.117	4.203	4.320	2.580	4.100	1.180	8.420
2/6/2013	0.124	3.866	3.990	2.380	5.150	1.340	9.140
2/7/2013	0.117	4.833	4.950	2.200	4.230	1.220	9.180
2/11/2013	0.089	5.341	5.430	3.650	5.230	1.850	10.660
2/12/2013	0.109	4.951	5.060	2.220	4.130	1.260	9.190
2/13/2013	0.130	4.320	4.450	2.090	4.010	1.040	8.460
2/18/2013	0.074	4.697	4.770	1.760	3.250	1.150	8.020
2/19/2013	0.061	4.979	5.040	2.530	4.190	1.470	9.230
2/20/2013	0.110	5.560	5.670	2.770	4.070	0.764	9.740
2/25/2013	0.074	5.647	5.720	2.070	3.220	0.572	8.940
2/26/2013	0.056	5.134	5.190	1.290	1.910	0.669	7.100
2/27/2013	<0.01	4.780	4.790	0.610	1.230	0.633	6.020
3/4/2013	0.067	5.273	5.340	1.850	2.270	0.552	7.610
3/5/2013	0.081	4.999	5.080	1.500	2.890	0.410	7.970
3/6/2013	0.147	4.683	4.830	1.870	3.420	0.320	8.250
3/11/2013	0.145	4.535	4.680	2.400	3.530	0.829	8.210
3/12/2013	0.067	4.373	4.440	2.210	3.090	1.030	7.530
3/13/2013	0.106	4.834	4.940	2.260	3.300	0.992	8.240
3/18/2013	0.231	4.359	4.590	2.450	3.100	1.290	7.690
3/19/2013	0.047	5.463	5.510	2.170	3.890	1.070	9.400
3/20/2013	0.121	5.949	6.070	2.270	3.880	0.928	9.950
3/25/2013	0.060	5.380	5.440	1.010	3.230	1.200	8.670

Table 13: Field's Point Influent and Effluent Nutrients

Field's Point Influent and Effluent Nutrients 2013

Field's Point Influent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	NitrateNitrite N-NO ₃ NO ₂ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
3/27/2013	0.238	0.511	0.749	12.7	19.1	4.16	19.849
4/1/2013	0.118	0.678	0.796	12.4	19.4	3.31	20.196
4/2/2013	0.112	0.657	0.769	14.4	20.3	4.08	21.069
4/3/2013	0.119	0.445	0.564	16	23.1	3.59	23.664
4/8/2013	0.0982	0.236	0.334	16.9	24.6	3.28	24.934
4/9/2013	0.123	0.187	0.31	15.9	23.9	3.41	24.21
4/10/2013	0.0867	0.414	0.501	13.7	22	4.76	22.501
4/15/2013	0.13	0.271	0.401	17.2	25	3.93	25.401
4/16/2013	0.116	0.189	0.305	17.8	27.5	3.73	27.805
4/17/2013	0.0936	0.165	0.259	16.3	26.6	4.02	26.859
4/22/2013	0.0668	0.159	0.226	17.4	26.4	3.92	26.6258
4/23/2013	0.102	< 0.1	0.189	16.3	26.4	4.24	26.502
4/24/2013	0.0612	0.129	0.19	18.1	27.5	4.02	27.69
4/29/2013	0.0963	< 0.1	0.107	18.2	27.2	3.86	27.2963
4/30/2013	0.0931	< 0.1	0.135	18.9	22.3	4.3	22.3931
5/1/2013	0.0625	< 0.1	0.14	18.6	23.6	4.48	23.74
5/6/2013	0.0777	< 0.1	0.144	18.9	25	3.7	25.14
5/7/2013	0.0282	< 0.1	0.109	20.2	29.6	4.41	20.11
5/8/2013	0.029	< 0.1	0.1	18.2	28.8	4.77	28.8
5/13/2013	0.0165	< 0.1	<0.100	17.5	26.7	4.14	26.7
5/14/2013	0.0111	< 0.1	<0.100	20	31.1	4.27	31.1
5/15/2013	0.017	< 0.1	<0.100	17.8	29	4.54	29
5/20/2013	0.0204	< 0.1	<0.100	20.1	30.5	3.72	30.5
5/21/2013	0.0307	< 0.1	<0.100	16.3	18.1	4.14	18.1
5/22/2013	0.0713	< 0.1	0.146	19.1	27.2	4.06	27.35
5/27/2013	0.168	< 0.1	0.191	16.5	24.5	4.34	24.69
5/28/2013	0.14	< 0.1	0.193	18.1	28.3	4.84	28.49
5/29/2013	0.0639	0.13	0.194	13.6	25.4	3.77	25.59
6/3/2013	0.0331	< 0.1	0.105	13.5	24.4	3.38	24.51
6/4/2013	0.0143	0.105	0.119	14.9	26	3.66	26.12
6/5/2013	0.0109	< 0.1	<0.100	17.2	28	4.37	28
6/10/2013	0.0996	0.463	0.563	6.43	9.94	1.62	10.5
6/11/2013	0.101	1.07	1.17	5.1	9.04	1.75	10.21
6/12/2013	0.115	0.881	0.996	6.28	11.2	1.43	12.2
6/17/2013	0.218	0.462	0.68	7.16	10.5	1.83	11.18
6/18/2013	0.209	0.485	0.694	7.37	13.4	2.02	14.09
6/19/2013	0.162	0.368	0.53	7.49	11.6	1.7	12.13

Field's Point Effluent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	NitrateNitrite N-NO ₃ NO ₂ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
3/26/2013	0.059	5.650	5.709	0.980	1.570	1.210	7.279
3/27/2013	0.042	5.620	5.662	0.709	1.220	1.370	6.882
4/1/2013	0.057	5.850	5.907	0.851	1.630	1.180	7.537
4/2/2013	0.129	5.550	5.679	0.683	1.330	1.050	7.009
4/3/2013	0.110	4.880	4.990	0.712	1.460	1.210	6.450
4/8/2013	0.066	2.780	2.846	0.557	1.280	1.420	4.126
4/9/2013	0.022	2.610	2.632	0.391	1.290	1.160	3.922
4/10/2013	<0.01	2.780	2.790	0.349	1.160	1.140	3.950
4/15/2013	0.015	2.080	2.095	0.508	1.550	1.630	3.645
4/16/2013	0.144	1.886	2.030	0.779	1.700	1.310	3.730
4/17/2013	0.021	1.189	1.210	0.279	1.220	1.090	2.430
4/22/2013	0.051	1.280	1.300	0.377	1.270	1.300	2.570
4/23/2013	0.024	1.610	1.630	0.350	1.370	1.080	3.000
4/24/2013	0.113	1.020	1.130	1.590	2.430	1.360	3.560
4/29/2013	0.076	1.360	1.440	0.831	1.700	1.060	3.140
4/30/2013	0.032	1.230	1.260	0.499	1.550	1.160	2.810
5/1/2013	0.105	1.000	1.110	2.600	3.550	1.310	4.660
5/6/2013	0.097	0.853	0.959	1.560	2.450	1.270	3.409
5/7/2013	0.245	0.885	1.130	1.580	2.590	1.320	3.720
5/8/2013	0.404	1.260	1.660	2.600	3.830	1.590	5.490
5/13/2013	0.044	0.304	0.348	5.260	6.540	1.420	6.888
5/14/2013	0.118	0.972	1.090	2.940	3.680	1.720	4.770
5/15/2013	0.107	1.080	1.190	1.990	2.720	2.020	3.910
5/20/2013	0.023	1.410	1.430	0.485	1.670	1.970	3.100
5/22/2013	0.011	0.999	1.010	0.482	1.190	1.540	2.200
5/23/2013	0.172	1.530	1.700	1.030	1.660	2.850	3.360
5/27/2013	<0.01	0.870	0.876	0.461	1.210	0.823	2.086
5/28/2013	0.032	2.340	2.370	0.370	1.220	1.110	3.590
5/29/2013	0.024	2.170	2.190	0.347	1.220	1.800	3.410
6/3/2013	0.018	1.460	1.480	0.517	1.330	1.310	2.810
6/4/2013	<0.01	1.050	1.050	0.161	1.140	1.330	2.190
6/5/2013	<0.01	0.896	0.899	0.204	1.090	1.460	1.989
6/10/2013	0.026	2.750	2.780	0.240	1.160	1.110	3.940
6/11/2013	0.032	4.038	4.070	0.479	1.090	1.390	5.160
6/12/2013	<0.01	4.390	4.390	0.196	0.725	1.110	5.115
6/17/2013	0.019	4.621	4.640	0.622	1.370	0.616	6.010
6/18/2013	0.013	4.477	4.490	0.556	1.550	0.974	6.040

Table 13: Field's Point Influent and Effluent Nutrients

Field's Point Influent and Effluent Nutrients 2013

Field's Point Influent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	NitrateNitrite N-NO ₃ NO ₂ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
6/24/2013	0.227	0.159	0.386	12.2	20.4	2.92	20.79
6/25/2013	0.265	0.168	0.433	11.1	18	2.77	18.43
6/26/2013	0.212	< 0.1	0.248	10.4	16.4	3.23	16.65
7/1/2013	0.103	0.165	0.268	9.5	16.3	2.79	16.57
7/2/2013	0.0297	< 0.1	0.105	12.3	18	2.59	18.11
7/3/2013	0.0238	< 0.1	<0.100	10.8	19.6	3.42	19.6
7/8/2013	0.0175	< 0.1	<0.100	13.2	21.4	3.42	21.4
7/9/2013	0.033	< 0.1	<0.100	16.2	25.6	3.49	25.6
7/10/2013	0.036	< 0.1	<0.100	13.8	27.1	3.29	27.1
7/15/2013	0.214	< 0.1	0.248	14.9	23.5	3.03	23.75
7/16/2013	0.262	< 0.1	0.301	13.5	22.2	3.18	22.5
7/17/2013	0.378	< 0.1	0.373	14.1	16.7	3.75	17.07
7/22/2013	0.247	0.154	0.401	16.8	26.1	3.6	26.5
7/23/2013	0.328	< 0.1	0.391	10.5	14.2	3.1	14.59
7/24/2013	0.333	< 0.1	0.392	15.1	24.7	4.1	25.09
7/29/2013	0.344	< 0.1	0.422	14.7	24.6	3.78	25.02
7/30/2013	0.273	0.119	0.392	13.8	23.9	3.8	24.29
7/31/2013	0.25	0.145	0.395	14.5	18.6	3.9	19
8/5/2013	0.38	0.1	0.48	16.7	21	3.93	21.48
8/6/2013	0.234	0.119	0.353	15.6	22	3.96	22.35
8/7/2013	0.285	0.134	0.419	18.7	26.4	2.86	26.82
8/12/2013	0.01	< 0.1	<0.100	10.7	16.8	2.64	16.8
8/13/2013	<0.01	< 0.1	<0.100	14.6	24	3.3	24
8/14/2013	<0.01	< 0.1	<0.100	14.9	20.8	3.72	20.8
8/19/2013	0.0639	< 0.1	<0.100	21.5	30.3	4.96	30.3
8/20/2013	0.0645	< 0.1	0.135	18	28.2	4.51	28.34
8/21/2013	0.0506	< 0.1	0.125	17	24.3	4.59	24.43
8/26/2013	0.342	< 0.1	0.371	16.9	23.6	4.43	23.97
8/27/2013	0.391	< 0.1	0.456	11.4	12.8	3	13.26
8/28/2013	0.422	< 0.1	0.427	10.1	24	2.92	24.43
9/2/2013	0.574	< 0.1	0.671	10.4	17	2.8	17.67
9/3/2013	0.611	< 0.1	0.705	9.26	12.2	3	12.91
9/4/2013	0.381	0.146	0.527	10.3	11.2	2.62	11.73
9/9/2013	0.273	0.194	0.467	17.5	21	8	21.47
9/10/2013	0.531	< 0.1	0.545	18.2	26.8	4.18	27.35
9/11/2013	0.503	< 0.1	0.589	17.5	26	4.61	26.59
9/16/2013	0.087	< 0.1	0.149	20.9	30.5	4.12	30.65

Field's Point Effluent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	NitrateNitrite N-NO ₃ NO ₂ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
6/19/2013	0.029	4.351	4.380	0.933	1.780	1.240	6.160
6/24/2013	0.015	2.310	2.330	0.530	1.510	0.638	3.840
6/25/2013	0.015	2.755	2.770	0.359	1.210	0.251	3.980
6/26/2013	0.027	1.463	1.490	0.691	1.570	0.178	3.060
7/1/2013	<0.01	1.940	1.940	0.401	1.250	0.385	3.190
7/2/2013	<0.01	1.660	1.660	0.387	1.200	0.423	2.860
7/3/2013	<0.01	1.090	1.100	0.523	1.390	0.378	2.490
7/8/2013	<0.01	1.040	1.040	0.185	1.030	0.845	2.070
7/9/2013	<0.01	2.190	2.190	0.252	1.050	0.838	3.240
7/10/2013	<0.01	2.360	2.360	0.113	0.893	1.240	3.253
7/15/2013	<0.01	2.100	2.100	<0.1	0.633	1.460	2.733
7/16/2013	<0.01	1.920	1.920	<0.1	1.130	1.270	3.050
7/17/2013	<0.01	3.220	3.220	<0.1	0.815	1.260	4.035
7/22/2013	<0.01	2.770	2.770	<0.1	1.070	1.260	3.840
7/23/2013	<0.01	2.160	2.160	<0.1	0.780	1.510	2.940
7/24/2013	<0.01	1.860	1.830	0.102	0.823	1.860	2.653
7/29/2013	0.022	2.100	2.120	0.603	1.380	1.340	3.500
7/30/2013	<0.01	2.440	2.440	0.134	1.540	1.830	3.980
7/31/2013	<0.01	2.030	2.030	0.366	1.820	1.510	3.850
8/5/2013	<0.01	2.350	2.350	<0.1	1.010	1.690	3.360
8/6/2013	<0.01	2.140	2.140	<0.1	0.996	0.873	3.136
8/7/2013	<0.01	2.880	2.880	<0.1	1.030	0.459	3.910
8/12/2013	<0.01	2.070	2.070	<0.1	0.717	0.769	2.787
8/13/2013	<0.01	1.160	1.160	<0.1	0.687	1.920	1.847
8/14/2013	<0.01	1.420	1.420	<0.1	0.736	1.850	2.156
8/19/2013	<0.01	3.520	3.520	<0.1	0.866	1.600	4.386
8/20/2013	<0.01	3.740	3.740	<0.1	0.735	1.490	4.475
8/21/2013	<0.01	3.240	3.250	0.104	0.751	1.600	4.001
8/26/2013	<0.01	2.860	2.860	<0.1	1.050	2.510	3.910
8/27/2013	<0.01	2.360	2.360	<0.1	0.653	1.050	3.013
8/28/2013	<0.01	2.290	2.290	<0.1	0.661	0.826	2.951
9/3/2013	<0.01	3.440	3.450	0.425	1.010	1.410	4.460
9/4/2013	<0.01	2.570	2.580	<0.1	0.827	1.790	3.407
9/5/2013	0.012	3.060	3.060	0.492	1.210	1.610	4.270
9/9/2013	<0.01	2.350	2.350	<0.1	0.802	1.110	3.152
9/10/2013	<0.01	1.890	1.890	<0.1	0.837	1.440	2.727
9/11/2013	<0.01	2.130	2.130	0.248	1.020	1.090	3.150

Table 13: Field's Point Influent and Effluent Nutrients

Field's Point Influent and Effluent Nutrients 2013

Field's Point Influent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	NitrateNitrite N-NO ₃ NO ₂ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
9/17/2013	<0.01	< 0.1	<0.100	20.3	25.4	3.8	25.4
9/18/2013	<0.01	< 0.1	<0.100	19	26.2	3.89	26.2
9/23/2013	<0.01	< 0.1	<0.100	19	19.5	4.18	19.5
9/24/2013	<0.01	< 0.1	<0.100	18.6	27.8	3.99	27.8
9/25/2013	0.0106	< 0.1	<0.100	19.4	20.8	4.5	20.8
9/30/2013	<0.01	< 0.1	<0.100	20.6	22.9	4.37	22.9
10/1/2013	<0.01	< 0.1	<0.100	20	33.3	4.62	33.3
10/2/2013	0.0135	< 0.1	<0.100	20.7	27.8	3.75	27.8
10/7/2013	0.0622	< 0.1	<0.100	21	27.5	5.41	27.5
10/8/2013	0.0244	< 0.1	0.106	21.9	25	4.89	25.11
10/9/2013	0.0569	< 0.1	<0.100	19.1	30.9	4.65	30.9
10/14/2013	0.0495	< 0.1	<0.100	23.7	37.7	5.45	37.7
10/15/2013	0.129	< 0.1	0.149	21.9	36.3	5.95	36.45

Field's Point Effluent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	NitrateNitrite N-NO ₃ NO ₂ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
9/16/2013	<0.01	2.970	2.970	0.153	0.878	1.010	3.848
9/17/2013	<0.01	2.880	2.880	<0.1	0.746	0.751	3.626
9/18/2013	<0.01	3.330	3.330	<0.1	0.848	1.430	4.178
9/23/2013	<0.01	2.490	2.490	<0.1	0.689	1.580	3.179
9/24/2013	<0.01	3.020	3.020	<0.1	0.792	1.780	3.812
9/25/2013	<0.01	2.230	2.230	<0.1	0.807	1.340	3.037
9/30/2013	<0.01	2.750	2.750	<0.1	0.814	1.660	3.564
10/1/2013	<0.01	3.090	3.090	<0.1	0.613	2.140	3.703
10/2/2013	<0.01	2.450	2.450	<0.1	0.599	2.300	3.049
10/7/2013	<0.01	2.550	2.550	<0.1	0.559	2.130	3.109
10/8/2013	0.011	2.810	2.820	0.916	1.590	1.880	4.410
10/9/2013	<0.01	2.900	2.900	0.117	0.777	1.820	3.677
10/14/2013	<0.01	2.550	2.550	0.107	0.993	2.460	3.543

Table 13: Field's Point Influent and Effluent Nutrients

Field's Point Influent and Effluent Nutrients 2013

Field's Point Influent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	NitrateNitrite N-NO ₃ NO ₂ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
10/16/2013	0.0186	0.115	0.134	18.9	21.4	5.84	21.53
10/21/2013	0.152	0.247	0.247	22.4	37	5.08	37.25
10/22/2013	0.332	0.395	0.395	21.5	34.8	4.83	35.2
10/23/2013	0.335	< 0.1	0.349	20.1	28.5	5.5	28.85
10/28/2013	0.3	0.114	0.414	19.3	19.7	4.87	20.11
10/29/2013	0.269	0.106	0.375	20.8	35.2	5.04	18.68
10/30/2013	0.377	< 0.1	0.474	20.4	20.4	6.01	20.87
11/4/2013	0.0787	< 0.1	0.162	20.7	25.9	4.62	26.06
11/5/2013	<0.01	< 0.1	<0.100	20.4	33.8	5.4	33.8
11/6/2013	0.0133	< 0.1	<0.100	19.4	29.8	5.4	29.8
11/11/2013	0.0118	< 0.1	<0.100	23.4	34.8	5.18	34.8
11/12/2013	0.0101	< 0.1	<0.100	23.4	34.8	6.44	34.8
11/13/2013	0.0357	< 0.1	0.124	22.2	34.7	5.37	34.82
11/18/2013	0.0535	0.116	0.169	15.2	25.4	4.44	25.57
11/19/2013	0.0235	< 0.1	<0.100	22	35.1	4.34	35.1
11/20/2013	0.0147	< 0.1	<0.100	20	33.2	4.86	33.2
11/25/2013	0.0163	< 0.1	<0.100	22.1	34.8	5.09	34.8
11/26/2013	0.0163	< 0.1	<0.100	17.2	24.7	4.57	24.7
11/27/2013	0.0533	0.478	0.531	4.86	8.51	2.11	9.04
12/2/2013	0.0509	< 0.1	0.122	18.1	25.3	4.09	25.42
12/3/2013	0.0274	< 0.1	<0.100	20.7	31.4	3.81	31.4
12/4/2013	0.0176	<0.1	<0.100	19.7	31.9	4.48	31.9
12/9/2013	0.0337	0.107	0.141	13.7	23	3.89	23.14
12/10/2013	0.0297	< 0.1	<0.100	17.2	26.9	3.46	26.9
12/11/2013	0.0137	< 0.1	<0.100	18.5	32.9	4.39	32.9
12/16/2013	0.0681	0.101	0.169	17.5	26.1	4.42	26.27
12/17/2013	0.0324	< 0.1	<0.100	20.4	25.9	3.89	25.9
12/18/2013	0.0162	< 0.1	<0.100	21.6	34.2	3.93	34.2
12/23/2013	0.057	0.266	0.323	9.78	12.7	2.94	13.02
12/24/2013	0.0946	0.106	0.201	13.8	17.6	3.23	17.8
12/25/2013	0.0382	< 0.1	0.129	15.4	24.6	2.74	24.73
12/30/2013	0.0987	0.483	0.582	8.89	15.6	2.46	16.18
12/31/2013	0.156	0.239	0.395	12.4	22	3.34	22.4

0.053

Field's Point Effluent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	NitrateNitrite N-NO ₃ NO ₂ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
10/15/2013	<0.01	4.000	4.000	0.168	0.783	1.700	4.783
10/16/2013	<0.01	2.580	2.580	<0.1	0.860	1.850	3.440
10/21/2013	<0.01	2.400	2.400	<0.1	0.944	2.730	3.344
10/22/2013	<0.01	3.020	3.020	0.126	0.948	1.880	3.968
10/23/2013	<0.01	2.520	2.520	<0.1	0.950	2.310	3.470
10/28/2013	<0.01	1.800	1.810	0.139	0.885	1.420	2.695
10/29/2013	<0.01	3.190	3.190	0.136	0.897	1.270	4.087
10/30/2013	<0.01	3.100	3.100	0.241	1.070	1.420	4.170
11/4/2013	<0.01	2.340	2.340	<0.1	1.210	1.890	3.550
11/5/2013	<0.01	2.210	2.210	0.131	1.180	1.650	3.390
11/6/2013	<0.01	1.970	1.970	0.198	1.530	1.980	3.500
11/11/2013	0.064	0.947	1.010	2.850	3.740	1.680	4.750
11/12/2013	<0.01	3.150	3.150	<0.1	1.060	2.140	4.210
11/13/2013	<0.01	3.010	3.010	<0.1	1.040	2.070	4.050
11/18/2013	0.040	2.640	2.680	0.613	1.420	1.850	4.100
11/19/2013	0.015	2.640	2.590	0.666	1.610	2.210	4.200
11/20/2013	<0.01	2.210	2.220	0.126	0.931	2.360	3.151
11/25/2013	0.024	2.620	2.640	0.618	1.620	2.050	4.260
11/26/2013	0.011	2.890	2.900	0.491	1.520	1.630	4.420
11/27/2013	<0.01	4.140	4.140	<0.1	0.951	0.639	5.091
12/2/2013	0.049	3.111	3.160	0.824	1.560	0.820	4.720
12/3/2013	0.023	3.667	3.690	0.845	1.560	1.200	5.250
12/4/2013	0.022	3.639	3.660	0.526	1.350	1.550	5.010
12/9/2013	0.059	3.710	3.770	1.330	1.720	1.240	5.490
12/10/2013	0.052	2.720	2.770	1.050	1.710	1.150	4.480
12/11/2013	0.053	3.130	3.180	1.160	2.030	1.430	5.210
12/16/2013	0.196	2.540	2.740	1.840	2.850	1.510	5.590
12/17/2013	0.149	2.270	2.420	1.720	2.600	1.220	5.020
12/18/2013	0.158	2.422	2.580	1.840	2.460	1.320	5.040
12/23/2013	0.078	3.590	3.670	0.737	1.480	1.220	5.150
12/24/2013	0.078	1.930	2.010	0.624	1.590	0.953	3.600
12/25/2013	<0.01	2.740	2.740	0.115	0.948	0.332	3.688
12/30/2013	0.148	4.962	5.110	1.470	2.220	1.230	7.330
12/31/2013	0.097	2.203	2.300	0.527	1.490	0.870	3.790

Table 13: Field's Point Influent and Effluent Nutrients

Bucklin Point Influent and Effluent Nutrients 2013

Bucklin Point Influent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
1/1/2013	0.039	0.293	16.50	27.80	5.05	28.10
1/2/2013	0.020	0.204	18.20	27.20	4.54	27.42
1/7/2013	0.027	0.192	18.70	29.20	4.45	29.42
1/8/2013	0.023	< 0.1	18.30	30.00	4.55	30.02
1/9/2013	0.029	< 0.1	18.20	30.40	4.82	30.43
1/14/2013	0.029	< 0.1	19.00	28.00	4.67	28.00
1/15/2013	0.032	< 0.1	17.60	24.90	5.24	24.93
1/16/2013	0.091	< 0.1	17.10	24.40	5.43	24.49
1/21/2013	0.038	< 0.1	19.00	25.40	4.65	25.44
1/22/2013	0.023	0.101	19.00	27.60	5.28	27.70
1/23/2013	0.119	<0.1	18.30	33.20	4.54	33.32
1/28/2013	0.146	<0.1	20.70	30.20	4.42	30.35
1/29/2013	0.037	< 0.1	19.60	31.10	5.17	30.24
1/30/2013	0.198	< 0.1	16.50	29.90	4.47	30.18
2/4/2013	0.271	< 0.1	19.80	33.20	5.14	33.47
2/5/2013	0.213	0.114	18.70	32.20	4.80	32.53
2/6/2013	0.141	0.255	19.70	30.00	4.34	30.40
2/11/2013	0.290	< 0.1	19.20	31.40	5.23	31.69
2/12/2013	0.218	0.668	11.00	20.30	3.49	21.19
2/13/2013	0.258	0.546	15.30	22.50	3.89	23.30
2/18/2013	0.241	0.295	18.20	33.20	4.39	33.74
2/19/2013	0.391	0.225	17.90	31.10	4.84	31.72
2/20/2013	0.105	0.708	12.50	22.10	3.37	22.91
2/25/2013	0.121	0.782	13.30	22.40	3.13	23.30
2/26/2013	0.136	0.821	14.10	22.50	3.35	23.46
2/27/2013	0.117	0.655	9.47	15.00	2.52	15.77
3/4/2013	0.189	1.561	12.50	19.00	3.17	20.75
3/5/2013	0.187	1.363	12.50	19.50	3.33	21.05
3/6/2013	0.146	1.114	13.10	19.80	3.04	21.06
3/11/2013	0.240	0.860	13.90	20.60	3.90	21.70
3/12/2013	0.215	0.845	13.30	20.10	3.34	21.16
3/13/2013	0.148	1.162	10.50	16.30	3.11	17.61

Bucklin Point Effluent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
1/1/2013	0.043	6.108	0.25	0.91	2.43	7.06
1/2/2013	0.062	7.108	0.55	1.55	2.54	8.72
1/7/2013	0.053	7.328	0.26	1.16	2.56	8.54
1/8/2013	0.060	7.640	0.32	1.43	2.83	9.13
1/9/2013	0.087	7.633	0.56	1.97	2.93	9.69
1/14/2013	0.080	6.370	0.32	1.69	2.41	8.14
1/15/2013	0.102	5.028	0.41	1.62	2.82	6.75
1/16/2013	0.153	5.447	1.20	2.41	2.66	8.01
1/21/2013	0.101	5.719	0.34	1.55	2.32	7.37
1/22/2013	0.135	4.480	1.81	3.11	2.72	7.72
1/23/2013	0.084	6.186	0.29	1.77	2.33	8.04
1/28/2013	0.064	6.506	0.15	1.28	2.53	7.85
1/29/2013	0.108	6.152	0.45	1.41	2.64	7.67
1/30/2013	0.066	5.284	0.19	1.41	2.57	6.76
2/4/2013	0.085	4.766	0.24	1.60	2.06	6.45
2/5/2013	0.042	4.008	0.18	1.69	2.27	5.74
2/6/2013	0.069	4.981	0.23	1.41	2.47	6.46
2/11/2013	0.207	2.073	4.23	15.20	5.08	17.48
2/12/2013	0.206	1.264	7.50	9.48	2.32	10.95
2/13/2013	0.107	0.344	13.10	17.50	3.06	17.95
2/18/2013	0.427	4.603	1.28	2.59	2.41	7.62
2/19/2013	0.393	3.577	1.55	8.74	4.16	12.71
2/20/2013	0.372	2.498	4.12	5.43	2.44	8.30
2/25/2013	0.533	1.487	2.52	4.43	1.89	6.45
2/26/2013	0.399	1.181	1.12	3.19	1.90	4.77
2/27/2013	0.442	1.548	0.61	4.52	1.82	6.51
3/4/2013	0.459	0.731	4.11	5.91	1.42	7.10
3/5/2013	0.335	0.606	5.20	6.28	1.22	7.22
3/6/2013	0.162	0.479	7.33	8.71	1.34	9.35
3/11/2013	0.072	0.160	13.10	14.30	1.06	14.53
3/12/2013	0.066	0.184	12.60	16.30	2.08	16.55
3/13/2013	0.063	0.183	10.20	11.00	1.11	11.25

Table 14: Bucklin Point Influent and Effluent Nutrients

Bucklin Point Influent and Effluent Nutrients 2013

Bucklin Point Influent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
3/18/2013	0.265	0.428	14.50	21.50	3.81	22.19
3/19/2013	0.185	0.702	12.90	21.70	4.19	22.59
3/20/2013	0.147	1.153	10.50	16.60	2.55	17.90
3/25/2013	0.318	0.278	13.60	19.60	3.02	20.20
3/26/2013	0.271	0.148	15.00	17.60	4.38	18.02
3/27/2013	0.271	0.312	14.40	22.10	3.70	22.68
4/1/2013	0.325	0.156	14.10	19.10	3.85	19.58
4/2/2013	0.189	0.544	14.60	15.60	3.30	16.33
4/3/2013	0.268	< 0.1	15.80	23.30	4.10	23.57
4/8/2013	0.152	< 0.1	16.80	19.80	3.21	19.95
4/9/2013	0.079	< 0.1	16.80	23.70	4.31	23.78
4/10/2013	0.043	< 0.1	16.20	28.50	4.50	28.54
4/15/2013	0.049	< 0.1	17.70	28.70	3.95	28.75
4/16/2013	0.041	< 0.1	18.00	22.70	4.87	22.74
4/17/2013	0.048	0.119	17.20	25.30	3.81	25.47
4/22/2013	0.035	< 0.1	18.30	28.80	3.84	28.83
4/23/2013	0.032	0.242	18.40	33.80	4.47	34.07
4/24/2013	0.042	0.169	18.40	30.40	4.00	30.61
4/29/2013	0.035	< 0.1	20.10	32.80	4.64	32.84
4/30/2013	0.028	< 0.1	20.20	34.00	5.05	34.03
5/1/2013	0.032	< 0.1	19.50	23.00	4.02	23.00
5/6/2013	0.030	< 0.1	19.90	30.70	4.36	30.70
5/7/2013	0.023	< 0.1	20.50	33.40	5.03	33.40
5/8/2013	0.018	< 0.1	18.80	31.80	4.27	31.80
5/13/2013	0.191	< 0.1	19.20	28.40	3.97	28.56
5/14/2013	0.072	0.110	19.10	27.80	4.39	27.98
5/15/2013	0.036	< 0.1	19.60	32.10	4.37	32.10
5/20/2013	0.022	< 0.1	18.70	30.20	4.62	30.32
5/21/2013	0.053	0.102	18.40	30.50	4.20	30.65
5/22/2013	0.048	< 0.1	17.90	32.50	8.89	32.50
5/27/2013	0.089	0.161	20.50	31.60	3.96	31.85
5/28/2013	0.225	0.126	19.10	30.10	4.42	30.45
5/29/2013	0.202	< 0.1	18.80	33.20	4.61	33.35
6/3/2013	0.362	< 0.1	16.20	29.90	4.27	30.31
6/4/2013	0.639	< 0.1	17.90	30.20	4.22	30.74
6/5/2013	0.068	< 0.1	18.60	34.00	4.58	34.00

Bucklin Point Effluent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
3/18/2013	0.181	< 0.1	13.00	14.20	1.22	14.47
3/19/2013	0.130	0.138	10.20	26.00	4.60	26.27
3/20/2013	0.109	0.123	12.50	13.50	1.11	13.73
3/25/2013	0.232	0.351	10.80	11.80	0.80	12.38
3/26/2013	0.244	0.340	11.80	13.50	1.00	14.08
3/27/2013	0.250	0.350	11.70	13.00	1.31	13.60
4/1/2013	0.247	0.340	9.03	13.10	2.62	13.69
4/2/2013	0.420	0.660	9.00	10.30	1.19	11.38
4/3/2013	0.460	0.630	8.44	9.41	1.40	10.50
4/8/2013	0.361	0.919	4.40	5.68	1.47	6.96
4/9/2013	0.400	1.100	4.51	5.89	2.06	7.39
4/10/2013	0.322	0.818	6.17	9.23	3.00	10.37
4/15/2013	0.371	1.680	3.54	4.86	1.58	6.91
4/16/2013	0.334	1.920	3.77	5.14	1.89	7.39
4/17/2013	0.260	2.010	2.23	3.55	1.91	5.82
4/22/2013	0.217	2.110	3.21	4.83	2.42	7.16
4/23/2013	0.197	3.010	0.66	2.57	1.94	5.78
4/24/2013	0.123	1.950	2.98	4.44	3.20	6.51
4/29/2013	0.032	3.830	0.20	2.06	2.25	5.92
4/30/2013	0.033	3.850	0.20	2.22	2.64	6.10
5/1/2013	0.063	3.440	0.58	2.29	2.83	5.79
5/6/2013	0.045	3.630	0.40	2.00	2.90	5.68
5/7/2013	0.037	3.940	0.26	1.98	2.48	5.96
5/8/2013	0.034	2.970	0.41	3.94	3.53	6.94
5/13/2013	0.026	4.940	0.24	1.62	2.93	6.59
5/14/2013	0.019	5.780	0.16	1.66	3.22	7.46
5/15/2013	0.038	6.220	0.35	1.43	3.50	7.69
5/20/2013	0.025	4.930	0.20	1.31	2.91	6.26
5/21/2013	0.023	5.060	0.25	1.33	3.31	6.41
5/22/2013	0.022	5.650	0.15	1.58	4.41	7.25
5/27/2013	0.025	6.470	0.24	1.17	2.45	7.66
5/28/2013	0.022	6.800	0.19	1.10	2.81	7.92
5/29/2013	0.012	4.440	<0.1	2.66	2.93	7.11
6/3/2013	0.037	5.970	1.11	2.14	2.61	8.15
6/4/2013	0.037	5.820	0.30	1.46	2.24	7.32
6/5/2013	0.041	7.040	0.25	1.39	2.92	8.47

Table 14: Bucklin Point Influent and Effluent Nutrients

Bucklin Point Influent and Effluent Nutrients 2013

Bucklin Point Influent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
6/10/2013	0.293	1.370	11.20	19.30	2.45	20.96
6/11/2013	0.195	1.080	6.64	13.20	2.03	14.48
6/12/2013	0.161	1.790	6.76	12.70	1.73	14.65
6/17/2013	0.298	1.480	9.03	16.80	2.55	18.58
6/18/2013	0.292	1.250	9.51	18.30	2.70	19.84
6/19/2013	0.129	0.931	8.81	15.80	2.13	16.86
6/24/2013	0.082	0.176	12.90	22.40	2.53	22.66
6/25/2013	0.083	0.291	12.50	19.60	2.68	19.97
6/26/2013	0.119	0.137	12.90	21.00	2.91	21.26
7/1/2013	0.178	0.231	12.70	21.80	3.00	22.21
7/2/2013	0.260	< 0.1	14.20	21.50	3.32	21.76
7/3/2013	0.090	0.321	13.80	23.40	4.00	23.81
7/8/2013	0.102	< 0.1	14.20	25.00	3.83	25.17
7/9/2013	0.224	< 0.1	14.90	25.30	4.32	25.57
7/10/2013	0.019	< 0.1	15.00	26.10	4.10	26.21
7/15/2013	0.472	< 0.1	14.30	24.80	3.49	25.23
7/16/2013	0.089	< 0.1	14.70	25.60	4.42	25.75
7/17/2013	0.023	0.149	14.40	24.50	3.71	24.67
7/22/2013	0.311	< 0.1	15.50	25.20	3.50	25.47
7/23/2013	0.363	0.398	12.90	25.40	3.94	26.16
7/24/2013	0.450	0.217	13.30	22.70	3.47	23.37
7/29/2013	0.498	0.336	15.50	27.80	10.00	28.63
7/30/2013	0.656	0.106	15.90	27.40	4.84	28.16
7/31/2013	0.380	< 0.1	14.90	23.70	4.53	24.17
8/5/2013	0.017	< 0.1	17.50	25.80	3.44	26.00
8/6/2013	0.032	0.275	19.80	28.60	3.60	28.91
8/7/2013	0.037	0.140	17.30	26.50	3.55	26.68
8/12/2013	0.016	< 0.1	18.60	26.70	3.72	26.70
8/13/2013	0.031	0.398	17.80	30.70	3.96	31.13
8/14/2013	0.037	< 0.1	16.60	27.90	4.49	27.90
8/19/2013	0.017	< 0.1	20.10	32.50	5.78	32.50
8/20/2013	0.043	0.279	17.90	39.60	4.34	39.92
8/21/2013	0.023	<0.1	22.49	35.39	6.26	35.39
8/26/2013	0.016	< 0.1	20.70	29.90	4.85	29.90
8/27/2013	0.030	0.601	15.50	22.70	4.25	23.33
8/28/2013	0.027	0.152	19.10	27.80	4.40	27.98

Bucklin Point Effluent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
6/10/2013	0.112	4.360	1.18	2.43	1.25	6.90
6/11/2013	0.057	3.920	0.38	2.26	1.64	6.24
6/12/2013	0.196	5.060	2.05	4.23	1.83	9.49
6/17/2013	0.096	6.480	0.91	1.95	1.42	8.53
6/18/2013	0.075	5.940	0.85	2.24	1.70	8.25
6/19/2013	0.079	6.830	0.89	2.21	1.69	9.12
6/24/2013	0.058	7.260	0.20	1.61	2.28	8.93
6/25/2013	0.059	7.090	0.15	1.66	2.29	8.81
6/26/2013	0.064	5.630	0.12	1.70	2.23	7.39
7/1/2013	0.115	5.480	0.93	2.24	1.91	7.84
7/2/2013	0.118	6.560	0.36	2.00	2.06	8.68
7/3/2013	0.093	6.220	0.31	1.82	2.27	8.13
7/8/2013	0.139	6.280	0.76	2.51	2.31	8.93
7/9/2013	0.140	6.480	0.64	2.18	2.44	8.80
7/10/2013	0.106	5.210	0.26	1.44	2.19	6.76
7/15/2013	0.126	4.260	0.66	2.10	2.17	6.49
7/16/2013	0.099	4.720	0.21	1.66	2.24	6.48
7/17/2013	0.073	4.180	0.13	1.56	2.48	5.81
7/22/2013	0.049	4.220	<0.1	1.60	2.04	5.87
7/23/2013	0.062	2.650	0.14	1.60	1.96	4.31
7/24/2013	0.057	4.120	0.11	1.07	1.57	5.25
7/29/2013	0.037	4.370	0.21	1.20	4.59	5.61
7/30/2013	0.029	3.720	<0.1	1.14	3.25	4.89
7/31/2013	0.018	3.460	<0.1	1.70	2.11	5.18
8/5/2013	0.017	4.320	<0.1	1.55	2.25	5.89
8/6/2013	0.019	4.800	<0.1	1.21	2.59	6.03
8/7/2013	0.027	3.780	0.15	1.47	2.66	5.28
8/12/2013	0.029	4.540	<0.1	1.31	1.82	5.88
8/13/2013	0.021	4.490	<0.1	1.15	2.53	5.66
8/14/2013	0.015	3.400	<0.1	1.19	2.42	4.60
8/19/2013	0.039	2.770	<0.1	1.13	2.11	3.94
8/20/2013	0.042	2.100	<0.1	1.34	2.11	3.48
8/21/2013	0.063	1.550	0.11	1.21	1.31	2.82
8/26/2013	0.054	1.990	<0.1	1.44	3.16	3.48
8/27/2013	0.093	1.180	0.11	1.73	0.98	3.00
8/28/2013	0.084	2.060	0.14	0.79	1.42	2.93

Table 14: Bucklin Point Influent and Effluent Nutrients

Bucklin Point Influent and Effluent Nutrients 2013

Bucklin Point Influent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
9/2/2013	0.395	< 0.1	15.40	22.90	3.84	23.26
9/3/2013	0.431	0.351	14.30	22.80	14.20	23.58
9/4/2013	0.031	< 0.1	17.30	21.40	5.09	21.52
9/9/2013	0.030	< 0.1	20.40	27.90	5.05	27.90
9/10/2013	0.029	0.427	20.10	28.90	5.03	29.36
9/11/2013	0.028	0.239	23.40	36.20	6.34	36.47
9/16/2013	0.016	< 0.1	21.50	31.50	3.83	31.50
9/17/2013	0.026	0.276	21.60	34.30	6.09	34.60
9/18/2013	0.027	0.163	20.40	29.90	4.44	30.09
9/23/2013	0.050	0.329	23.50	26.20	4.30	26.58
9/24/2013	0.071	< 0.1	20.70	29.40	4.71	29.56
9/25/2013	0.027	< 0.1	19.90	29.00	4.80	29.11
9/30/2013	0.077	< 0.1	22.10	32.00	4.89	32.00
10/1/2013	0.038	0.298	21.30	30.90	5.22	31.24
10/2/2013	0.114	< 0.1	20.70	32.10	5.16	32.24
10/7/2013	0.304	< 0.1	19.20	29.40	4.73	29.66
10/8/2013	0.474	0.108	20.50	31.50	5.68	32.08
10/9/2013	0.082	0.161	19.60	38.80	6.39	39.04
10/14/2013	0.018	< 0.1	23.80	39.80	5.94	39.80
10/15/2013	0.023	0.263	22.70	40.60	6.11	40.89
10/16/2013	0.033	0.146	22.30	24.40	4.07	24.58
10/21/2013	0.017	< 0.1	23.60	36.60	5.49	36.60
10/22/2013	0.027	0.710	22.10	40.80	11.70	41.51
10/23/2013	0.023	0.158	21.10	42.40	5.57	42.58
10/28/2013	0.022	< 0.1	23.60	43.80	5.15	43.80
10/29/2013	0.027	0.143	22.40	42.60	5.34	42.74
10/30/2013	0.026	0.212	22.50	43.30	5.37	43.54
11/4/2013	0.025	< 0.1	24.70	32.40	5.26	32.40
11/5/2013	0.048	0.222	21.50	30.90	5.62	31.17
11/6/2013	0.048	0.255	20.10	35.30	5.65	35.60
11/11/2013	0.036	0.310	24.50	37.10	5.75	37.45
11/12/2013	0.045	0.164	19.30	33.40	5.68	33.61
11/13/2013	0.065	< 0.1	22.20	40.00	6.30	40.00
11/18/2013	0.492	0.147	15.50	25.40	5.23	26.04
11/19/2013	0.329	< 0.1	22.00	34.20	6.34	34.49
11/20/2013	0.040	< 0.1	24.20	44.60	6.60	44.72

Bucklin Point Effluent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
9/2/2013	0.047	1.850	0.49	1.95	2.53	3.85
9/3/2013	0.054	2.980	0.21	1.27	1.78	4.30
9/4/2013	0.050	3.720	<0.1	1.13	2.84	4.90
9/9/2013	0.078	2.630	0.39	1.25	2.13	3.96
9/10/2013	0.050	2.270	0.10	1.12	2.68	3.39
9/11/2013	0.047	2.560	<0.1	1.14	2.85	3.75
9/16/2013	0.049	2.750	0.27	1.39	2.66	4.18
9/17/2013	0.044	2.110	0.20	1.45	3.21	3.60
9/18/2013	0.041	2.070	0.38	1.76	2.77	3.87
9/23/2013	0.032	2.500	0.28	1.39	0.68	3.92
9/24/2013	0.037	2.260	2.13	3.13	1.70	5.43
9/25/2013	0.044	4.330	0.63	1.81	2.47	6.18
9/30/2013	0.041	1.820	2.04	3.53	3.00	5.39
10/1/2013	0.041	1.760	1.13	2.40	1.61	4.20
10/2/2013	0.037	1.920	1.10	1.89	1.79	3.85
10/7/2013	0.031	0.754	3.70	4.72	3.16	5.51
10/8/2013	0.046	1.380	2.82	4.05	1.24	5.48
10/9/2013	0.050	2.090	1.07	2.61	1.23	4.75
10/14/2013	0.055	2.520	1.22	2.46	2.95	5.04
10/15/2013	0.053	1.480	0.74	2.17	3.01	3.70
10/16/2013	0.057	1.560	1.71	3.36	2.22	4.98
10/21/2013	0.043	1.820	0.63	2.24	3.16	4.10
10/22/2013	0.056	2.670	0.49	2.04	4.15	4.77
10/23/2013	0.037	2.980	0.30	1.52	3.54	4.54
10/28/2013	0.056	4.010	0.45	1.44	3.62	5.51
10/29/2013	0.022	2.700	0.12	1.15	3.86	3.87
10/30/2013	0.053	4.280	0.40	1.22	4.17	5.55
11/4/2013	0.032	5.510	<0.1	1.49	4.61	7.03
11/5/2013	0.027	6.050	<0.1	1.60	4.78	7.68
11/6/2013	0.024	6.070	<0.1	1.36	5.26	7.45
11/11/2013	0.038	4.770	0.55	2.27	4.22	7.08
11/12/2013	0.026	3.090	0.22	1.37	4.01	4.49
11/13/2013	0.032	3.110	0.27	1.52	4.00	4.66
11/18/2013	0.032	3.170	0.76	4.71	4.28	7.91
11/19/2013	0.037	2.780	0.41	1.58	2.95	4.40
11/20/2013	0.035	3.030	0.41	1.59	3.33	4.66

Table 14: Bucklin Point Influent and Effluent Nutrients

Bucklin Point Influent and Effluent Nutrients 2013

Bucklin Point Influent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
11/25/2013	0.259	< 0.1	24.70	51.40	5.58	51.70
11/26/2013	0.032	0.174	26.60	43.70	6.92	25.41
11/27/2013	0.114	0.121	10.40	13.90	4.03	14.14
12/2/2013	0.369	0.205	17.40	29.90	3.60	30.47
12/3/2013	0.043	0.133	21.10	37.10	6.17	37.28
12/4/2013	0.102	< 0.1	22.00	31.70	8.91	31.82
12/9/2013	0.324	0.686	18.20	29.10	4.25	30.11
12/10/2013	0.400	< 0.1	20.10	22.80	4.98	23.21
12/11/2013	0.223	0.191	21.10	36.10	5.36	36.51
12/16/2013	0.399	0.488	19.60	31.10	4.11	31.99
12/17/2013	0.330	0.870	22.90	42.10	4.97	43.30
12/18/2013	0.383	0.335	22.20	39.10	5.10	39.82
12/23/2013	0.360	< 0.1	17.10	28.40	5.19	28.76
12/24/2013	0.289	0.981	16.40	27.50	4.55	28.77
12/25/2013	0.246	0.492	21.30	26.10	4.93	26.84
12/30/2013	0.235	0.895	11.30	21.00	3.03	22.13
12/31/2013	0.331	0.949	16.30	30.00	4.50	31.28

Bucklin Point Effluent Nutrients

Date	Nitrite N-NO ₂ ppm	Nitrate N-NO ₃ ppm	Ammonia N-NH ₃ ppm	TKN N-TKN ppm	Total Phosphorus ppm	Total Nitrogen ppm
11/25/2013	0.024	6.360	0.11	1.77	3.97	8.15
11/26/2013	0.024	4.840	0.77	21.30	9.56	26.16
11/27/2013	0.021	2.510	0.52	14.40	5.32	16.93
12/2/2013	0.053	2.720	0.71	1.66	1.60	4.43
12/3/2013	0.041	3.120	0.43	1.40	2.03	4.56
12/4/2013	0.045	3.130	0.57	1.57	3.94	4.74
12/9/2013	0.038	5.880	1.48	2.06	2.03	7.98
12/10/2013	0.032	6.800	0.60	1.57	2.41	8.40
12/11/2013	<0.01	7.400	0.15	1.19	2.08	8.60
12/16/2013	0.031	9.720	0.37	1.92	2.37	11.67
12/17/2013	0.011	9.140	<0.1	1.12	2.21	10.27
12/18/2013	0.025	7.460	0.20	1.35	2.23	8.83
12/23/2013	0.023	3.170	1.01	2.47	2.04	5.66
12/24/2013	0.031	3.180	0.45	1.25	1.75	4.46
12/25/2013	0.014	2.870	<0.1	1.05	1.61	3.93
12/30/2013	0.037	6.900	0.90	1.81	2.18	8.75
12/31/2013	0.024	6.370	0.10	1.16	2.34	7.55

Table 14: Bucklin Point Influent and Effluent Nutrients

Field's Point Oil & Grease 2013

Date	Influent Flow MGD	Effluent Flow MGD	Influent Average ppm	Effluent Average ppm
1/8/2013	40.99	40.99	17.00	<4.0
2/5/2013	35.49	35.49	11.95	<4.0
3/6/2013	54.59	54.59	23.56	<4.0
4/2/2013	41.74	41.74	22.23	<4.0
5/7/2013	35.06	35.06	23.24	<4.0
6/5/2013	34.16	34.16	25.23	<4.0
7/2/2013	45.89	45.89	17.50	<4.0
8/7/2013	35.86	35.86	10.07	<4.0
9/17/2013	34.06	34.06	26.21	<4.0
10/8/2013	30.06	30.06	15.20	<4.0
11/5/2013	31.64	31.64	27.70	<4.0
12/3/2013	33.22	33.22	16.15	<4.0

Bucklin Point Oil & Grease 2013

Date	Influent Flow MGD	Effluent Flow MGD	Influent Average ppm	Effluent Average ppm
1/8/2013	18.48	18.48	28.52	<4.0
2/5/2013	16.89	16.89	26.37	<4.0
3/5/2013	24.85	24.85	20.50	<4.0
4/2/2013	20.45	20.45	19.20	<4.0
5/7/2013	15.04	15.04	21.07	<4.0
6/4/2013	16.19	16.19	22.60	<4.0
7/2/2013	22.80	22.80	18.52	<4.0
8/6/2013	17.35	17.35	10.66	<4.0
9/17/2013	15.94	15.94	30.10	<4.0
10/8/2013	15.97	15.97	25.73	<4.0
11/5/2013	15.77	15.77	19.06	<4.0
12/3/2013	16.40	16.40	30.70	<4.0

Field's Point Dissolved Metals 2013

all results in ppb

MDL = method detection limit

Date	Cd		Cr	Cr MDL	Cu		Pb	Pb MDL	Ni	Ni MDL	Ag		Zn	Zn MDL	Al		Fe	Fe MDL
	Cd	MDL*			Cu	MDL					Ag	MDL			Al	MDL		
1/8/2013	0.03	0.02	1.69	0.30	2.93	0.30	0.30	0.30	9.42	0.30	0.06	0.02	17.95	4.00	3.00	3.00	114.50	2.00
2/5/2013	0.03	0.02	1.12	0.30	2.47	0.30	0.34	0.30	13.23	0.30	0.07	0.02	24.00	4.00	3.54	3.00	81.52	2.00
3/5/2013	0.03	0.02	0.97	0.30	2.49	0.30	0.30	0.30	11.33	0.30	0.03	0.02	20.82	4.00	3.56	3.00	75.01	2.00
4/2/2013	0.04	0.02	1.04	0.30	2.47	0.30	0.32	0.30	12.99	0.30	0.04	0.02	23.45	4.00	3.20	3.00	83.07	2.00
5/7/2013	0.03	0.02	1.19	0.30	2.20	0.30	0.31	0.30	12.27	0.30	0.02	0.02	20.87	4.00	3.00	3.00	95.56	2.00
6/4/2013	0.39	0.02	0.91	0.30	6.50	0.30	0.42	0.30	10.22	0.30	0.03	0.02	15.35	4.00	3.00	3.00	84.48	2.00
7/2/2013	0.02	0.02	0.99	0.30	1.02	0.30	0.30	0.30	6.57	0.30	0.02	0.02	12.75	4.00	3.00	3.00	68.31	2.00
8/6/2013	0.03	0.04	0.89	0.30	5.30	0.30	0.46	0.30	8.42	0.30	0.06	0.02	16.86	4.00	3.00	3.00	84.77	2.00
9/17/2013	0.05	0.04	1.12	0.30	1.16	0.30	0.30	0.30	9.69	0.30	0.02	0.02	19.66	4.00	7.14	3.00	71.06	2.00
10/8/2013	0.06	0.04	0.96	0.30	1.19	0.30	0.33	0.30	9.72	0.30	0.02	0.02	21.89	4.00	4.96	3.00	83.53	2.00
11/5/2013	0.03	0.04	1.75	0.30	3.46	0.30	0.21	0.30	11.34	0.30	0.02	0.02	23.26	4.00	9.99	3.00	115.30	2.00
12/3/2013	0.04	0.04	2.12	0.30	7.81	0.30	0.37	0.30	17.18	0.30	0.02	0.02	28.68	4.00	3.34	3.00	121.20	2.00

*MDL for Cd changed in August 2013

	Cd	Cr	Cu	Pb	Ni	Ag	Zn	Al	Fe
yearly average concentration	0.06	1.23	3.25	<0.32	11.03	<0.04	20.46	<3.79	89.86
yearly median concentration	0.03	1.08	2.48	0.30	10.78	0.02	20.85	3.00	84.01
yearly minimum concentration	0.02	0.89	1.02	<0.30	6.57	<0.02	12.75	<3.00	68.31
yearly maximum concentration	0.39	2.12	7.81	0.46	17.18	0.07	28.68	9.99	121.20

Table 16: Field's Point Effluent Dissolved Metals

Bucklin Point Dissolved Metals 2013

all results in ppb

MDL = method detection limit

Date	Cd	Cd MDL*	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL	Al	Al MDL	Fe	Fe MDL
1/8/2013	0.04	0.020	1.10	0.30	4.62	0.30	0.30	0.30	3.91	0.30	0.03	0.02	37.50	4.00	11.38	3.00	98.67	2.00
2/5/2013	0.04	0.020	0.75	0.30	4.94	0.30	0.40	0.30	8.00	0.30	0.04	0.02	43.73	4.00	9.55	3.00	81.56	2.00
3/5/2013	0.05	0.020	0.54	0.30	3.20	0.30	0.34	0.30	5.39	0.30	0.03	0.02	32.66	4.00	10.30	3.00	79.97	2.00
4/2/2013	0.05	0.020	0.90	0.30	8.71	0.30	0.30	0.30	3.52	0.30	0.04	0.02	36.44	4.00	8.57	3.00	56.43	2.00
5/7/2013	0.04	0.020	0.73	0.30	5.31	0.30	0.30	0.30	13.32	0.30	0.03	0.02	33.83	4.00	10.75	3.00	91.01	2.00
6/4/2013	0.07	0.020	1.11	0.30	11.25	0.30	0.36	0.30	6.58	0.30	0.03	0.02	35.21	4.00	10.77	3.00	76.74	2.00
7/2/2013	0.05	0.020	0.51	0.30	15.94	0.30	0.30	0.30	7.48	0.30	0.04	0.02	32.90	4.00	10.80	3.00	69.10	2.00
8/6/2013	0.05	0.040	1.23	0.30	9.22	0.30	0.31	0.30	6.23	0.30	0.04	0.02	34.56	4.00	8.27	3.00	79.09	2.00
9/17/2013	0.02	0.040	0.83	0.30	3.82	0.30	0.34	0.30	8.32	0.30	0.02	0.02	37.60	4.00	10.27	3.00	78.12	2.00
10/8/2013	0.03	0.040	1.02	0.30	5.15	0.30	0.41	0.30	7.05	0.30	0.04	0.02	41.86	4.00	12.88	3.00	93.97	2.00
11/5/2013	0.04	0.040	1.07	0.30	13.88	0.30	0.22	0.30	8.59	0.30	0.02	0.02	37.29	4.00	11.46	3.00	91.66	2.00
12/3/2013	0.05	0.040	0.70	0.30	6.15	0.30	0.42	0.30	6.81	0.30	0.02	0.02	52.79	4.00	8.58	3.00	85.10	2.00

*MDL for Cd changed in August 2013

	Cd	Cr	Cu	Pb	Ni	Ag	Zn	Al	Fe
yearly average concentration	0.04	0.87	7.68	<0.31	7.10	0.03	38.03	10.30	81.79
yearly median concentration	0.04	0.86	5.73	0.30	6.93	0.03	36.87	10.53	80.77
yearly minimum concentration	0.02	0.51	3.20	<0.3	3.52	0.02	32.66	8.27	56.43
yearly maximum concentration	0.07	1.23	15.94	0.42	13.32	0.04	52.79	12.88	98.67

Table 17: Bucklin Point Effluent Dissolved Metals

Field's Point Bioassay Data 2013

Field's Point WWTF Bioassay Results - 2013						
<i>Americamysis bahia</i>						
Acute	1st Quarter, 2013			2nd Quarter, 2013		
Test	Result	Permit Limit	Pass Y/N	Result	Permit Limit	Pass Y/N
LC ₅₀	>100%	>100%	Y	>100%	>100%	Y
A-NOEC	100%	N/A**	N/A	100%	N/A**	N/A
	3rd Quarter, 2013			4th Quarter, 2013		
Test	Result	Permit Limit	Pass Y/N	Result	Permit Limit	Pass Y/N
LC ₅₀	>100%	>100%	Y	>100%	>100%	Y
A-NOEC	100%	N/A**	N/A	100%	N/A**	N/A

* NOTE - % indicates Percent Effluent

** No permit limit exists for A-NOEC

LC₅₀ LC₅₀ is the effluent concentration that causes 50% mortality during the acute toxicity test duration.

A-NOEC No observable effect concentration: Highest concentration of the effluent in which 90% or more of the test animals survive

Acute Test continuous exposure to effluent for 48 hours

Field's Point WWTF Bioassay Results - 2013						
<i>Arbacia punctulata</i>						
Chronic	1st Quarter, 2013			2nd Quarter, 2013		
Test	Result	Permit Limit	Pass Y/N	Result	Permit Limit	Pass Y/N
C-NOEC	100%	Required monitoring: No Limit	Y	50%	Required monitoring: No Limit	Y
	3rd Quarter, 2013			4th Quarter, 2013		
Test	Result	Permit Limit	Pass Y/N	Result	Permit Limit	Pass Y/N
C-NOEC	100%	Required monitoring: No Limit	Y	50%	Required monitoring: No Limit	Y

* NOTE - % indicates Percent Effluent

C-NOEC Highest concentration of effluent with no observed effect on fertilization rates

Table 18. Field's Point Bioassay Data

Bucklin Point Bioassay Data 2013

Bucklin Point WWTF Bioassay Results - 2013						
<i>Americamysis bahia</i>						
Acute	1st Quarter, 2013			2nd Quarter, 2013		
Test	Result	Permit Limit	Pass Y/N	Result	Permit Limit	Pass Y/N
LC ₅₀	>100%	>100%	Y	>100%	>100%	Y
A-NOEC	100%	N/A**	N/A	100%	N/A**	N/A
	3rd Quarter, 2013			4th Quarter, 2013		
Test	Result	Permit Limit	Pass Y/N	Result	Permit Limit	Pass Y/N
LC ₅₀	>100%	>100%	Y	>100%	>100%	Y
A-NOEC	100%	N/A**	N/A	100%	N/A**	N/A

* NOTE - % indicates Percent Effluent

** No permit limit exists for A-NOEC

LC₅₀ LC₅₀ is the effluent concentration that causes 50% mortality during the acute toxicity

A-NOEC No observable effect concentration: Highest concentration of the effluent in which 90% or more of the test animals survive

Acute Test continuous exposure to effluent for 48 hours

Bucklin Point WWTF Bioassay Results - 2013						
<i>Arbacia punctulata</i>						
Chronic	1st Quarter, 2013			2nd Quarter, 2013		
Test	Result	Permit Limit	Pass Y/N	Result	Permit Limit	Pass Y/N
C-NOEC	100%	50%	Y	100%	50%	Y
	3rd Quarter, 2013			4th Quarter, 2013		
Test	Result	Permit Limit	Pass Y/N	Result	Permit Limit	Pass Y/N
C-NOEC	100%	50%	Y	100%	50%	Y

* NOTE - % indicates Percent Effluent

C-NOEC Highest concentration of effluent with no observed effect on fertilization rates

Chronic test Tests for sublethal effects of effluent on specifically on fertilization rates of *A. punctulata* eggs. Exposure rate is 60 minutes

Field's Point Metals Loading from Final Sludge (lbs/yr)

Year	Arsenic	Beryllium	Cadmium	Copper	Chromium	Lead	Mercury	Molybdeum	Nickel	Selenium	Silver	Zinc	Cyanide
1994			202.7	13386.0	2628.1	4297.2	74.0		4626.2		1113.9	15683.7	281.0
1995			203.5	14962.8	2824.5	3700.2	55.0		4202.3		818.1	13071.5	189.3
1996	132.3	4.9	186.4	12461.8	3473.3	3389.6	47.8	205.1	3860.3		757.7	11615.1	239.8
1997			189.7	13674.5	3654.7	4122.1	53.9		3400.3		867.9	12323.5	189.6
1998	44.6		208.7	11207.8	2655.5	2879.9	36.9		2188.6		698.3	10101.5	127.1
1999	35.4		233.3	13490.2	2315.0	2516.8	28.8	164.7	1887.7	74.9	677.4	11549.1	90.1
2000	42.4	32.3	352.8	15019.4	1747.7	2544.9	12.0	84.1	1191.9	23.5	384.0	6482.0	49.6
2001	88.1	16.9	205.7	15120.0	2379.0	2611.1	26.3	204.6	2008.3	282.0	634.9	13297.6	111.0
2002	84.9	7.6	154.5	15758.0	1757.0	3156.0	27.9	190.1	1555.0	190.4	651.5	15148.0	79.6
2003	53.6	9.7	183.8	12993.4	1976.2	3008.8	28.4	98.1	1485.4	118.2	466.3	12773.9	60.8
2004	43.4	12.1	221.0	20910.1	3774.2	2608.5	23.8	103.2	2472.9	163.4	501.2	14645.1	95.9
2005	79.5	13.9	250.7	30477.9	4970.6	2867.9	29.6	190.3	3092.9	167.2	478.5	20592.3	78.6
2006	85.2	11.7	131.8	5889.2	1448.6	2616.6	16.7	193.4	1181.6	136.4	452.8	12290.6	56.9
2007	18.5	12.2	64.5	3862.6	612.1	1033.7	6.8	157.1	526.2	41.8	173.4	6833.0	67.5
2008	32.9	48.3	66.7	5426.0	856.5	1793.2	74.0	294.3	841.1	39.2	195.7	9914.5	113.8
2009	38.0	33.0	82.5	4792.0	919.6	1771.9	8.4	300.2	769.1	26.5	132.2	10442.8	121.1
2010	44.8	27.6	73.5	6111.0	928.9	1770.2	60.6	276.2	874.0	33.0	151.0	9897.7	94.6
2011	40.8	26.1	123.7	3795.4	1156.0	1613.2	7.5	261.0	790.7	43.0	115.9	9026.6	71.5
2012	33.8	28.5	78.3	3892.6	995.0	1269.2	8.1	285.5	818.7	114.5	185.3	8760.1	199.1
2013	75.1	3.6	48.0	4202.2	1006.5	1454.2	8.0	99.9	757.9	168.3	189.9	8772.9	83.2

Table 21: Field's Point Sludge Summary

Bucklin Point Metals Loading from Final Sludge (lbs/yr)

Year	Arsenic	Beryllium	Cadmium	Copper	Chromium	Lead	Mercury	Molybdeum	Nickel	Selenium	Silver	Zinc	Cyanide
1994	16.2		35.4	3839.7	655.5	723.4	84.2		627.6		171.3	4234.5	64.3
1995			35.8	4306.7	681.0	551.8	55.9		539.8		126.2	3495.8	57.6
1996													
1997	16.0		52.9	4589.3	1177.6	1183.6	16.0		1074.4		339.8	4349.4	58.9
1998	12.2		44.8	4743.4	1263.0	1128.3	12.2		977.8		463.4	5838.9	27.7
1999	11.1		44.4	3906.8	993.6	930.3	11.1		716.9		473.0	5945.8	24.3
2000	38.3		60.8	5164.7	1304.1	1073.2	16.8	171.8	1345.4		467.7	7104.0	24.8
2001	57.8	13.6	38.6	4132.9	1003.3	900.1	12.0	167.4	985.3	44.4	371.2	6336.5	33.6
2002	43.7	6.1	27.1	4565.0	755.0	1034.3	18.0	148.9	840.7	37.6	385.8	7226.0	13.3
2003	30.2	6.6	29.2	3439.4	2669.3	772.3	10.0	69.3	868.1	32.1	273.0	5973.1	8.9
2004	27.6	7.3	45.5	3733.7	851.5	739.0	11.6	62.0	794.7	36.1	225.0	6759.2	7.6
2005	18.8	5.9	30.9	4468.6	969.5	682.1	8.9	77.4	781.5	32.5	153.0	5469.7	10.3
2006	25.5	2.0	24.4	3657.0	2398.8	713.0	6.8	37.1	1089.2	33.9	165.4	4953.9	12.0
2007	11.2	5.2	25.7	4676.1	4143.3	633.5	9.3	70.7	1389.7	14.4	177.5	5635.0	22.8
2008	8.9	14.1	23.3	4209.5	5594.6	585.4	36.0	84.7	1568.6	17.4	116.8	5519.0	27.4
2009	18.1	8.2	20.6	3132.4	1054.3	516.6	4.6	79.6	438.2	14.6	62.5	4895.0	19.3
2010	20.7	7.0	17.5	3075.2	619.0	445.7	14.4	74.3	318.1	14.6	58.1	3949.5	17.1
2011	19.3	9.0	13.9	2159.5	499.9	474.2	4.9	90.0	294.1	15.1	66.4	3583.1	14.5
2012	18.2	8.4	13.5	2502.2	370.6	370.7	4.3	84.3	269.2	16.0	56.8	3388.8	24.9
2013	21.1	1.9	11.7	2493.6	349.5	381.4	4.0	45.4	271.9	21.2	54.1	3264.5	19.6

Table: 23 Bucklin Point Sludge Summary

Field's Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
1/8/2013	Chloromethane	<2.0	ppb
1/8/2013	Vinyl Chloride	<2.0	ppb
1/8/2013	Bromomethane	<2.0	ppb
1/8/2013	Chloroethane	<2.0	ppb
1/8/2013	Trichlorofluoromethane	<2.0	ppb
1/8/2013	1,1-Dichloroethene	<2.0	ppb
1/8/2013	Methylene Chloride	4.16	ppb
1/8/2013	Trans-1,2-Dichloroethene	<2.0	ppb
1/8/2013	1,1-Dichloroethane	<2.0	ppb
1/8/2013	Chloroform	2.72	ppb
1/8/2013	1,1,1-Trichloroethane	<2.0	ppb
1/8/2013	Carbon Tetrachloride	<2.0	ppb
1/8/2013	Benzene	<2.0	ppb
1/8/2013	1,2-Dichloroethane	<2.0	ppb
1/8/2013	Trichlorethene	<2.0	ppb
1/8/2013	1,2-Dichloropropane	<2.0	ppb
1/8/2013	Bromodichloromethane	<2.0	ppb
1/8/2013	2-Chloroethylvinylether	<5.0	ppb
1/8/2013	cis-1,3-Dichloropropene	<2.0	ppb
1/8/2013	Toluene	8.09	ppb
1/8/2013	Trans-1,3-Dichloropropene	<2.0	ppb
1/8/2013	1,1,2-Trichloroethane	<2.0	ppb
1/8/2013	Tetrachlorethene	<2.0	ppb
1/8/2013	Dibromochloromethane	<2.0	ppb
1/8/2013	Chlorobenzene	<2.0	ppb
1/8/2013	Ethylbenzene	<2.0	ppb
1/8/2013	Bromoform	<5.0	ppb
1/8/2013	1,1,2,2-Tetrachlorethane	<2.0	ppb
1/8/2013	1,3-dichlorobenzene	<2.0	ppb
1/8/2013	1,4-dichlorobenzene	<2.0	ppb
1/8/2013	1,2-dichlorobenzene	<2.0	ppb
1/8/2013	p&m xylene	5.36	ppb
1/8/2013	o- xylene	2.22	ppb
2/5/2013	Chloromethane	<10	ppb
2/5/2013	Vinyl Chloride	<1	ppb
2/5/2013	Bromomethane	<10	ppb
2/5/2013	Chloroethane	<10	ppb
2/5/2013	Trichlorofluoromethane	<1	ppb
2/5/2013	1,1-Dichloroethene	<1	ppb
2/5/2013	Methylene Chloride	<5	ppb
2/5/2013	Trans-1,2-Dichloroethene	<1	ppb
2/5/2013	1,1-Dichloroethane	<1	ppb
2/5/2013	Chloroform	4	ppb
2/5/2013	1,1,1-Trichloroethane	<1	ppb
2/5/2013	Carbon Tetrachloride	<1	ppb
2/5/2013	Benzene	<1	ppb
2/5/2013	1,2-Dichloroethane	<1	ppb
2/5/2013	Trichlorethene	1	ppb
2/5/2013	1,2-Dichloropropane	<1	ppb
2/5/2013	Bromodichloromethane	<1	ppb
2/5/2013	2-Chloroethylvinylether	<2	ppb
2/5/2013	cis-1,3-Dichloropropene	<1	ppb
2/5/2013	Toluene	2	ppb
2/5/2013	Trans-1,3-Dichloropropene	<1	ppb
2/5/2013	1,1,2-Trichloroethane	<1	ppb
2/5/2013	Tetrachlorethene	2	ppb
2/5/2013	Dibromochloromethane	<1	ppb
2/5/2013	Chlorobenzene	<1	ppb
2/5/2013	Ethylbenzene	<1	ppb

Field's Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
1/8/2013	TTO	5.1	ppb
1/8/2013	Chloromethane	<2	ppb
1/8/2013	Vinyl Chloride	<2	ppb
1/8/2013	Bromomethane	5.1	ppb
1/8/2013	Chloroethane	<2	ppb
1/8/2013	Trichlorofluoromethane	<2	ppb
1/8/2013	1,1-Dichloroethene	<2	ppb
1/8/2013	Methylene Chloride	<2	ppb
1/8/2013	Trans-1,2-Dichloroethene	<2	ppb
1/8/2013	1,1-Dichloroethane	<2	ppb
1/8/2013	Chloroform	<2	ppb
1/8/2013	1,1,1-Trichloroethane	<2	ppb
1/8/2013	Carbon Tetrachloride	<2	ppb
1/8/2013	Benzene	<2	ppb
1/8/2013	1,2-Dichloroethane	<2	ppb
1/8/2013	Trichlorethene	<2	ppb
1/8/2013	1,2-Dichloropropane	<2	ppb
1/8/2013	Bromodichloromethane	<2	ppb
1/8/2013	2-Chloroethylvinylether	<5	ppb
1/8/2013	cis-1,3-Dichloropropene	<2	ppb
1/8/2013	Toluene	<2	ppb
1/8/2013	Trans-1,3-Dichloropropene	<2	ppb
1/8/2013	1,1,2-Trichloroethane	<2	ppb
1/8/2013	Tetrachlorethene	<2	ppb
1/8/2013	Dibromochloromethane	<2	ppb
1/8/2013	Chlorobenzene	<2	ppb
1/8/2013	Ethylbenzene	<2	ppb
1/8/2013	Bromoform	<5	ppb
1/8/2013	1,1,2,2-Tetrachlorethane	<2	ppb
1/8/2013	1,3-dichlorobenzene	<2	ppb
1/8/2013	1,4-dichlorobenzene	<2	ppb
1/8/2013	1,2-dichlorobenzene	<2	ppb
1/8/2013	p&m xylene	<4	ppb
1/8/2013	o- xylene	<2	ppb
2/5/2013	Chloromethane	<10	ppb
2/5/2013	Vinyl Chloride	<1	ppb
2/5/2013	Bromomethane	<10	ppb
2/5/2013	Chloroethane	<10	ppb
2/5/2013	Trichlorofluoromethane	<1	ppb
2/5/2013	1,1-Dichloroethene	<1	ppb
2/5/2013	Methylene Chloride	<5	ppb
2/5/2013	Trans-1,2-Dichloroethene	<1	ppb
2/5/2013	1,1-Dichloroethane	<1	ppb
2/5/2013	Chloroform	1	ppb
2/5/2013	1,1,1-Trichloroethane	<1	ppb
2/5/2013	Carbon Tetrachloride	<1	ppb
2/5/2013	Benzene	<1	ppb
2/5/2013	1,2-Dichloroethane	<1	ppb
2/5/2013	Trichlorethene	<1	ppb
2/5/2013	1,2-Dichloropropane	<1	ppb
2/5/2013	Bromodichloromethane	<1	ppb
2/5/2013	2-Chloroethylvinylether	<2	ppb
2/5/2013	cis-1,3-Dichloropropene	<1	ppb
2/5/2013	Toluene	<1	ppb
2/5/2013	Trans-1,3-Dichloropropene	<1	ppb
2/5/2013	1,1,2-Trichloroethane	<1	ppb
2/5/2013	Tetrachlorethene	<1	ppb
2/5/2013	Dibromochloromethane	<1	ppb
2/5/2013	Chlorobenzene	<1	ppb

Table 24: EPA Priority Pollutants Data Field's Point

Field's Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
2/5/2013	Bromoform	<1	ppb
2/5/2013	1,1,2,2-Tetrachlorethane	<1	ppb
2/5/2013	1,3-dichlorobenzene	<1	ppb
2/5/2013	1,4-dichlorobenzene	<1	ppb
2/5/2013	1,2-dichlorobenzene	<1	ppb
2/5/2013	p&m xylene	<1	ppb
2/5/2013	o- xylene	<1	ppb
3/5/2013	Chloromethane	<10	ppb
3/5/2013	Vinyl Chloride	<1	ppb
3/5/2013	Bromomethane	<10	ppb
3/5/2013	Chloroethane	<10	ppb
3/5/2013	Trichlorofluoromethane	<1	ppb
3/5/2013	1,1-Dichloroethene	<1	ppb
3/5/2013	Methylene Chloride	<5	ppb
3/5/2013	Trans-1,2-Dichloroethene	<1	ppb
3/5/2013	1,1-Dichloroethane	<1	ppb
3/5/2013	Chloroform	4	ppb
3/5/2013	1,1,1-Trichloroethane	<1	ppb
3/5/2013	Carbon Tetrachloride	<1	ppb
3/5/2013	Benzene	<1	ppb
3/5/2013	1,2-Dichloroethane	<1	ppb
3/5/2013	Trichlorethene	1	ppb
3/5/2013	1,2-Dichloropropane	<1	ppb
3/5/2013	Bromodichloromethane	<1	ppb
3/5/2013	2-Chloroethylvinylether	<2	ppb
3/5/2013	cis-1,3-Dichloropropene	<1	ppb
3/5/2013	Toluene	1	ppb
3/5/2013	Trans-1,3-Dichloropropene	<1	ppb
3/5/2013	1,1,2-Trichloroethane	<1	ppb
3/5/2013	Tetrachlorethene	2	ppb
3/5/2013	Dibromochloromethane	<1	ppb
3/5/2013	Chlorobenzene	<1	ppb
3/5/2013	Ethylbenzene	<1	ppb
3/5/2013	Bromoform	<1	ppb
3/5/2013	1,1,2,2-Tetrachlorethane	<1	ppb
3/5/2013	1,3-dichlorobenzene	<1	ppb
3/5/2013	1,4-dichlorobenzene	<1	ppb
3/5/2013	1,2-dichlorobenzene	<1	ppb
3/5/2013	p&m xylene	3	ppb
3/5/2013	o- xylene	<1	ppb
4/2/2013	Chloromethane	<10	ppb
4/2/2013	Vinyl Chloride	<1	ppb
4/2/2013	Bromomethane	<10	ppb
4/2/2013	Chloroethane	<10	ppb
4/2/2013	Trichlorofluoromethane	<1	ppb
4/2/2013	1,1-Dichloroethene	<1	ppb
4/2/2013	Methylene Chloride	<5	ppb
4/2/2013	Trans-1,2-Dichloroethene	<1	ppb
4/2/2013	1,1-Dichloroethane	<1	ppb
4/2/2013	Chloroform	5	ppb
4/2/2013	1,1,1-Trichloroethane	<1	ppb
4/2/2013	Carbon Tetrachloride	<1	ppb
4/2/2013	Benzene	<1	ppb
4/2/2013	1,2-Dichloroethane	<1	ppb
4/2/2013	Trichlorethene	3	ppb
4/2/2013	1,2-Dichloropropane	<1	ppb
4/2/2013	Bromodichloromethane	<1	ppb
4/2/2013	2-Chloroethylvinylether	<2	ppb
4/2/2013	cis-1,3-Dichloropropene	<1	ppb

Field's Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
2/5/2013	Ethylbenzene	<1	ppb
2/5/2013	Bromoform	<1	ppb
2/5/2013	1,1,2,2-Tetrachlorethane	<1	ppb
2/5/2013	1,3-dichlorobenzene	<1	ppb
2/5/2013	1,4-dichlorobenzene	<1	ppb
2/5/2013	1,2-dichlorobenzene	<1	ppb
2/5/2013	p&m xylene	<1	ppb
2/5/2013	o- xylene	<1	ppb
3/5/2013	Chloromethane	<10	ppb
3/5/2013	Vinyl Chloride	<1	ppb
3/5/2013	Bromomethane	<10	ppb
3/5/2013	Chloroethane	<10	ppb
3/5/2013	Trichlorofluoromethane	<1	ppb
3/5/2013	1,1-Dichloroethene	<1	ppb
3/5/2013	Methylene Chloride	<5	ppb
3/5/2013	Trans-1,2-Dichloroethene	<1	ppb
3/5/2013	1,1-Dichloroethane	<1	ppb
3/5/2013	Chloroform	1	ppb
3/5/2013	1,1,1-Trichloroethane	<1	ppb
3/5/2013	Carbon Tetrachloride	<1	ppb
3/5/2013	Benzene	<1	ppb
3/5/2013	1,2-Dichloroethane	<1	ppb
3/5/2013	Trichlorethene	<1	ppb
3/5/2013	1,2-Dichloropropane	<1	ppb
3/5/2013	Bromodichloromethane	<1	ppb
3/5/2013	2-Chloroethylvinylether	<2	ppb
3/5/2013	cis-1,3-Dichloropropene	<1	ppb
3/5/2013	Toluene	<1	ppb
3/5/2013	Trans-1,3-Dichloropropene	<1	ppb
3/5/2013	1,1,2-Trichloroethane	<1	ppb
3/5/2013	Tetrachlorethene	<1	ppb
3/5/2013	Dibromochloromethane	<1	ppb
3/5/2013	Chlorobenzene	<1	ppb
3/5/2013	Ethylbenzene	<1	ppb
3/5/2013	Bromoform	<1	ppb
3/5/2013	1,1,2,2-Tetrachlorethane	<1	ppb
3/5/2013	1,3-dichlorobenzene	<1	ppb
3/5/2013	1,4-dichlorobenzene	<1	ppb
3/5/2013	1,2-dichlorobenzene	<1	ppb
3/5/2013	p&m xylene	<1	ppb
3/5/2013	o- xylene	<1	ppb
4/2/2013	Chloromethane	<10	ppb
4/2/2013	Vinyl Chloride	<1	ppb
4/2/2013	Bromomethane	<10	ppb
4/2/2013	Chloroethane	<10	ppb
4/2/2013	Trichlorofluoromethane	<1	ppb
4/2/2013	1,1-Dichloroethene	<1	ppb
4/2/2013	Methylene Chloride	<5	ppb
4/2/2013	Trans-1,2-Dichloroethene	<1	ppb
4/2/2013	1,1-Dichloroethane	<1	ppb
4/2/2013	Chloroform	2	ppb
4/2/2013	1,1,1-Trichloroethane	<1	ppb
4/2/2013	Carbon Tetrachloride	<1	ppb
4/2/2013	Benzene	<1	ppb
4/2/2013	1,2-Dichloroethane	<1	ppb
4/2/2013	Trichlorethene	<1	ppb
4/2/2013	1,2-Dichloropropane	<1	ppb
4/2/2013	Bromodichloromethane	5	ppb
4/2/2013	2-Chloroethylvinylether	<2	ppb

Table 24: EPA Priority Pollutants Data Field's Point

Field's Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
4/2/2013	Toluene	1	ppb
4/2/2013	Trans-1,3-Dichloropropene	<1	ppb
4/2/2013	1,1,2-Trichloroethane	<1	ppb
4/2/2013	Tetrachlorethene	2	ppb
4/2/2013	Dibromochloromethane	<1	ppb
4/2/2013	Chlorobenzene	<1	ppb
4/2/2013	Ethylbenzene	<1	ppb
4/2/2013	Bromoform	<1	ppb
4/2/2013	1,1,2,2-Tetrachlorethane	<1	ppb
4/2/2013	1,3-dichlorobenzene	<1	ppb
4/2/2013	1,4-dichlorobenzene	<1	ppb
4/2/2013	1,2-dichlorobenzene	<1	ppb
4/2/2013	p&m xylene	<1	ppb
4/2/2013	o- xylene	<1	ppb
5/7/2013	Chloromethane	<10	ppb
5/7/2013	Vinyl Chloride	<1	ppb
5/7/2013	Bromomethane	<10	ppb
5/7/2013	Chloroethane	<10	ppb
5/7/2013	Trichlorofluoromethane	<1	ppb
5/7/2013	1,1-Dichloroethene	<1	ppb
5/7/2013	Methylene Chloride	<5	ppb
5/7/2013	Trans-1,2-Dichloroethene	<1	ppb
5/7/2013	1,1-Dichloroethane	<1	ppb
5/7/2013	Chloroform	6	ppb
5/7/2013	1,1,1-Trichloroethane	<1	ppb
5/7/2013	Carbon Tetrachloride	<1	ppb
5/7/2013	Benzene	<1	ppb
5/7/2013	1,2-Dichloroethane	<1	ppb
5/7/2013	Trichlorethene	1	ppb
5/7/2013	1,2-Dichloropropane	<1	ppb
5/7/2013	Bromodichloromethane	<1	ppb
5/7/2013	2-Chloroethylvinylether	<2	ppb
5/7/2013	cis-1,3-Dichloropropene	<1	ppb
5/7/2013	Toluene	2	ppb
5/7/2013	Trans-1,3-Dichloropropene	<1	ppb
5/7/2013	1,1,2-Trichloroethane	<1	ppb
5/7/2013	Tetrachlorethene	1	ppb
5/7/2013	Dibromochloromethane	<1	ppb
5/7/2013	Chlorobenzene	<1	ppb
5/7/2013	Ethylbenzene	<1	ppb
5/7/2013	Bromoform	<1	ppb
5/7/2013	1,1,2,2-Tetrachlorethane	<1	ppb
5/7/2013	1,3-dichlorobenzene	<1	ppb
5/7/2013	1,4-dichlorobenzene	<1	ppb
5/7/2013	1,2-dichlorobenzene	<1	ppb
5/7/2013	p&m xylene	<1	ppb
5/7/2013	o- xylene	<1	ppb
6/4/2013	Chloromethane	<10	ppb
6/4/2013	Vinyl Chloride	<1	ppb
6/4/2013	Bromomethane	<10	ppb
6/4/2013	Chloroethane	<10	ppb
6/4/2013	Trichlorofluoromethane	<1	ppb
6/4/2013	1,1-Dichloroethene	<1	ppb
6/4/2013	Methylene Chloride	<5	ppb
6/4/2013	Trans-1,2-Dichloroethene	<1	ppb
6/4/2013	1,1-Dichloroethane	<1	ppb
6/4/2013	Chloroform	4	ppb
6/4/2013	1,1,1-Trichloroethane	<1	ppb
6/4/2013	Carbon Tetrachloride	<1	ppb

Field's Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
4/2/2013	cis-1,3-Dichloropropene	<1	ppb
4/2/2013	Toluene	<1	ppb
4/2/2013	Trans-1,3-Dichloropropene	<1	ppb
4/2/2013	1,1,2-Trichloroethane	<1	ppb
4/2/2013	Tetrachlorethene	<1	ppb
4/2/2013	Dibromochloromethane	7	ppb
4/2/2013	Chlorobenzene	<1	ppb
4/2/2013	Ethylbenzene	<1	ppb
4/2/2013	Bromoform	5	ppb
4/2/2013	1,1,2,2-Tetrachlorethane	<1	ppb
4/2/2013	1,3-dichlorobenzene	<1	ppb
4/2/2013	1,4-dichlorobenzene	<1	ppb
4/2/2013	1,2-dichlorobenzene	<1	ppb
4/2/2013	p&m xylene	<1	ppb
4/2/2013	o- xylene	<1	ppb
5/7/2013	Chloromethane	<10	ppb
5/7/2013	Vinyl Chloride	<1	ppb
5/7/2013	Bromomethane	<10	ppb
5/7/2013	Chloroethane	<10	ppb
5/7/2013	Trichlorofluoromethane	<1	ppb
5/7/2013	1,1-Dichloroethene	<1	ppb
5/7/2013	Methylene Chloride	<5	ppb
5/7/2013	Trans-1,2-Dichloroethene	<1	ppb
5/7/2013	1,1-Dichloroethane	<1	ppb
5/7/2013	Chloroform	3	ppb
5/7/2013	1,1,1-Trichloroethane	<1	ppb
5/7/2013	Carbon Tetrachloride	<1	ppb
5/7/2013	Benzene	<1	ppb
5/7/2013	1,2-Dichloroethane	<1	ppb
5/7/2013	Trichlorethene	<1	ppb
5/7/2013	1,2-Dichloropropane	<1	ppb
5/7/2013	Bromodichloromethane	3	ppb
5/7/2013	2-Chloroethylvinylether	<2	ppb
5/7/2013	cis-1,3-Dichloropropene	<1	ppb
5/7/2013	Toluene	<1	ppb
5/7/2013	Trans-1,3-Dichloropropene	<1	ppb
5/7/2013	1,1,2-Trichloroethane	<1	ppb
5/7/2013	Tetrachlorethene	<1	ppb
5/7/2013	Dibromochloromethane	3	ppb
5/7/2013	Chlorobenzene	<1	ppb
5/7/2013	Ethylbenzene	<1	ppb
5/7/2013	Bromoform	2	ppb
5/7/2013	1,1,2,2-Tetrachlorethane	<1	ppb
5/7/2013	1,3-dichlorobenzene	<1	ppb
5/7/2013	1,4-dichlorobenzene	<1	ppb
5/7/2013	1,2-dichlorobenzene	<1	ppb
5/7/2013	p&m xylene	<1	ppb
5/7/2013	o- xylene	<1	ppb
6/4/2013	Chloromethane	<10	ppb
6/4/2013	Vinyl Chloride	<1	ppb
6/4/2013	Bromomethane	<10	ppb
6/4/2013	Chloroethane	<10	ppb
6/4/2013	Trichlorofluoromethane	<1	ppb
6/4/2013	1,1-Dichloroethene	<1	ppb
6/4/2013	Methylene Chloride	<5	ppb
6/4/2013	Trans-1,2-Dichloroethene	<1	ppb
6/4/2013	1,1-Dichloroethane	<1	ppb
6/4/2013	Chloroform	4	ppb
6/4/2013	1,1,1-Trichloroethane	<1	ppb

Table 24: EPA Priority Pollutants Data Field's Point

Field's Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
6/4/2013	Benzene	<1	ppb
6/4/2013	1,2-Dichloroethane	<1	ppb
6/4/2013	Trichlorethene	1	ppb
6/4/2013	1,2-Dichloropropane	<1	ppb
6/4/2013	Bromodichloromethane	<1	ppb
6/4/2013	2-Chloroethylvinylether	<2	ppb
6/4/2013	cis-1,3-Dichloropropene	<1	ppb
6/4/2013	Toluene	2	ppb
6/4/2013	Trans-1,3-Dichloropropene	<1	ppb
6/4/2013	1,1,2-Trichloroethane	<1	ppb
6/4/2013	Tetrachlorethene	3	ppb
6/4/2013	Dibromochloromethane	<1	ppb
6/4/2013	Chlorobenzene	<1	ppb
6/4/2013	Ethylbenzene	<1	ppb
6/4/2013	Bromoform	<1	ppb
6/4/2013	1,1,2,2-Tetrachlorethane	<1	ppb
6/4/2013	1,3-dichlorobenzene	<1	ppb
6/4/2013	1,4-dichlorobenzene	<1	ppb
6/4/2013	1,2-dichlorobenzene	<1	ppb
6/4/2013	p&m xylene	<1	ppb
6/4/2013	o- xylene	<1	ppb
7/2/2013	Chloromethane	<10	ppb
7/2/2013	Vinyl Chloride	<1	ppb
7/2/2013	Bromomethane	<10	ppb
7/2/2013	Chloroethane	<10	ppb
7/2/2013	Trichlorofluoromethane	<1	ppb
7/2/2013	1,1-Dichloroethene	<1	ppb
7/2/2013	Methylene Chloride	<5	ppb
7/2/2013	Trans-1,2-Dichloroethene	<1	ppb
7/2/2013	1,1-Dichloroethane	<1	ppb
7/2/2013	Chloroform	7	ppb
7/2/2013	1,1,1-Trichloroethane	<1	ppb
7/2/2013	Carbon Tetrachloride	<1	ppb
7/2/2013	Benzene	<1	ppb
7/2/2013	1,2-Dichloroethane	<1	ppb
7/2/2013	Trichlorethene	1	ppb
7/2/2013	1,2-Dichloropropane	<1	ppb
7/2/2013	Bromodichloromethane	<1	ppb
7/2/2013	2-Chloroethylvinylether	<2	ppb
7/2/2013	cis-1,3-Dichloropropene	<1	ppb
7/2/2013	Toluene	1	ppb
7/2/2013	Trans-1,3-Dichloropropene	<1	ppb
7/2/2013	1,1,2-Trichloroethane	<1	ppb
7/2/2013	Tetrachlorethene	2	ppb
7/2/2013	Dibromochloromethane	<1	ppb
7/2/2013	Chlorobenzene	<1	ppb
7/2/2013	Ethylbenzene	<1	ppb
7/2/2013	Bromoform	<1	ppb
7/2/2013	1,1,2,2-Tetrachlorethane	<1	ppb
7/2/2013	1,3-dichlorobenzene	<1	ppb
7/2/2013	1,4-dichlorobenzene	<1	ppb
7/2/2013	1,2-dichlorobenzene	<1	ppb
7/2/2013	p&m xylene	<1	ppb
7/2/2013	o- xylene	<1	ppb
8/7/2013	Chloromethane	<10	ppb
8/7/2013	Vinyl Chloride	<1	ppb
8/7/2013	Bromomethane	<10	ppb
8/7/2013	Chloroethane	<10	ppb
8/7/2013	Trichlorofluoromethane	<1	ppb

Field's Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
6/4/2013	Carbon Tetrachloride	<1	ppb
6/4/2013	Benzene	<1	ppb
6/4/2013	1,2-Dichloroethane	<1	ppb
6/4/2013	Trichlorethene	<1	ppb
6/4/2013	1,2-Dichloropropane	<1	ppb
6/4/2013	Bromodichloromethane	9	ppb
6/4/2013	2-Chloroethylvinylether	<2	ppb
6/4/2013	cis-1,3-Dichloropropene	<1	ppb
6/4/2013	Toluene	<1	ppb
6/4/2013	Trans-1,3-Dichloropropene	<1	ppb
6/4/2013	1,1,2-Trichloroethane	<1	ppb
6/4/2013	Tetrachlorethene	<1	ppb
6/4/2013	Dibromochloromethane	24	ppb
6/4/2013	Chlorobenzene	<1	ppb
6/4/2013	Ethylbenzene	<1	ppb
6/4/2013	Bromoform	18	ppb
6/4/2013	1,1,2,2-Tetrachlorethane	<1	ppb
6/4/2013	1,3-dichlorobenzene	<1	ppb
6/4/2013	1,4-dichlorobenzene	<1	ppb
6/4/2013	1,2-dichlorobenzene	<1	ppb
6/4/2013	p&m xylene	<1	ppb
6/4/2013	o- xylene	<1	ppb
7/2/2013	Chloromethane	<10	ppb
7/2/2013	Vinyl Chloride	<1	ppb
7/2/2013	Bromomethane	<10	ppb
7/2/2013	Chloroethane	<10	ppb
7/2/2013	Trichlorofluoromethane	<1	ppb
7/2/2013	1,1-Dichloroethene	<1	ppb
7/2/2013	Methylene Chloride	<5	ppb
7/2/2013	Trans-1,2-Dichloroethene	<1	ppb
7/2/2013	1,1-Dichloroethane	<1	ppb
7/2/2013	Chloroform	5	ppb
7/2/2013	1,1,1-Trichloroethane	<1	ppb
7/2/2013	Carbon Tetrachloride	<1	ppb
7/2/2013	Benzene	<1	ppb
7/2/2013	1,2-Dichloroethane	<1	ppb
7/2/2013	Trichlorethene	<1	ppb
7/2/2013	1,2-Dichloropropane	<1	ppb
7/2/2013	Bromodichloromethane	10	ppb
7/2/2013	2-Chloroethylvinylether	<2	ppb
7/2/2013	cis-1,3-Dichloropropene	<1	ppb
7/2/2013	Toluene	<1	ppb
7/2/2013	Trans-1,3-Dichloropropene	<1	ppb
7/2/2013	1,1,2-Trichloroethane	<1	ppb
7/2/2013	Tetrachlorethene	<1	ppb
7/2/2013	Dibromochloromethane	11	ppb
7/2/2013	Chlorobenzene	<1	ppb
7/2/2013	Ethylbenzene	<1	ppb
7/2/2013	Bromoform	3	ppb
7/2/2013	1,1,2,2-Tetrachlorethane	<1	ppb
7/2/2013	1,3-dichlorobenzene	<1	ppb
7/2/2013	1,4-dichlorobenzene	<1	ppb
7/2/2013	1,2-dichlorobenzene	<1	ppb
7/2/2013	p&m xylene	<1	ppb
7/2/2013	o- xylene	<1	ppb
8/8/2013	Chloromethane	<10	ppb
8/8/2013	Vinyl Chloride	<1	ppb
8/8/2013	Bromomethane	<10	ppb
8/8/2013	Chloroethane	<10	ppb

Table 24: EPA Priority Pollutants Data Field's Point

Field's Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
8/7/2013	1,1-Dichloroethene	<1	ppb
8/7/2013	Methylene Chloride	<5	ppb
8/7/2013	Trans-1,2-Dichloroethene	<1	ppb
8/7/2013	1,1-Dichloroethane	<1	ppb
8/7/2013	Chloroform	5	ppb
8/7/2013	1,1,1-Trichloroethane	<1	ppb
8/7/2013	Carbon Tetrachloride	<1	ppb
8/7/2013	Benzene	<1	ppb
8/7/2013	1,2-Dichloroethane	<1	ppb
8/7/2013	Trichlorethene	1	ppb
8/7/2013	1,2-Dichloropropane	<1	ppb
8/7/2013	Bromodichloromethane	<1	ppb
8/7/2013	2-Chloroethylvinylether	<2	ppb
8/7/2013	cis-1,3-Dichloropropene	<1	ppb
8/7/2013	Toluene	2	ppb
8/7/2013	Trans-1,3-Dichloropropene	<1	ppb
8/7/2013	1,1,2-Trichloroethane	<1	ppb
8/7/2013	Tetrachlorethene	2	ppb
8/7/2013	Dibromochloromethane	<1	ppb
8/7/2013	Chlorobenzene	<1	ppb
8/7/2013	Ethylbenzene	<1	ppb
8/7/2013	Bromoform	<1	ppb
8/7/2013	1,1,2,2-Tetrachlorethane	<1	ppb
8/7/2013	1,3-dichlorobenzene	<1	ppb
8/7/2013	1,4-dichlorobenzene	<1	ppb
8/7/2013	1,2-dichlorobenzene	<1	ppb
8/7/2013	p&m xylene	<1	ppb
8/7/2013	o- xylene	<1	ppb
9/17/2013	Chloromethane	<10	ppb
9/17/2013	Vinyl Chloride	<1	ppb
9/17/2013	Bromomethane	<10	ppb
9/17/2013	Chloroethane	<10	ppb
9/17/2013	Trichlorofluoromethane	<1	ppb
9/17/2013	1,1-Dichloroethene	<1	ppb
9/17/2013	Methylene Chloride	<5	ppb
9/17/2013	Trans-1,2-Dichloroethene	<1	ppb
9/17/2013	1,1-Dichloroethane	<1	ppb
9/17/2013	Chloroform	5	ppb
9/17/2013	1,1,1-Trichloroethane	<1	ppb
9/17/2013	Carbon Tetrachloride	<1	ppb
9/17/2013	Benzene	<1	ppb
9/17/2013	1,2-Dichloroethane	<1	ppb
9/17/2013	Trichlorethene	1	ppb
9/17/2013	1,2-Dichloropropane	<1	ppb
9/17/2013	Bromodichloromethane	<1	ppb
9/17/2013	2-Chloroethylvinylether	<1	ppb
9/17/2013	cis-1,3-Dichloropropene	<2	ppb
9/17/2013	Toluene	2	ppb
9/17/2013	Trans-1,3-Dichloropropene	<1	ppb
9/17/2013	1,1,2-Trichloroethane	<1	ppb
9/17/2013	Tetrachlorethene	3	ppb
9/17/2013	Dibromochloromethane	<1	ppb
9/17/2013	Chlorobenzene	<1	ppb
9/17/2013	Ethylbenzene	<1	ppb
9/17/2013	Bromoform	<1	ppb
9/17/2013	1,1,2,2-Tetrachlorethane	<1	ppb
9/17/2013	1,3-dichlorobenzene	<1	ppb
9/17/2013	1,4-dichlorobenzene	<1	ppb
9/17/2013	1,2-dichlorobenzene	<1	ppb

Field's Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
8/8/2013	Trichlorofluoromethane	<1	ppb
8/8/2013	1,1-Dichloroethene	<1	ppb
8/8/2013	Methylene Chloride	<5	ppb
8/8/2013	Trans-1,2-Dichloroethene	<1	ppb
8/8/2013	1,1-Dichloroethane	<1	ppb
8/8/2013	Chloroform	3	ppb
8/8/2013	1,1,1-Trichloroethane	<1	ppb
8/8/2013	Carbon Tetrachloride	<1	ppb
8/8/2013	Benzene	<1	ppb
8/8/2013	1,2-Dichloroethane	<1	ppb
8/8/2013	Trichlorethene	<1	ppb
8/8/2013	1,2-Dichloropropane	<1	ppb
8/8/2013	Bromodichloromethane	8	ppb
8/8/2013	2-Chloroethylvinylether	<2	ppb
8/8/2013	cis-1,3-Dichloropropene	<1	ppb
8/8/2013	Toluene	<1	ppb
8/8/2013	Trans-1,3-Dichloropropene	<1	ppb
8/8/2013	1,1,2-Trichloroethane	<1	ppb
8/8/2013	Tetrachlorethene	<1	ppb
8/8/2013	Dibromochloromethane	16	ppb
8/8/2013	Chlorobenzene	<1	ppb
8/8/2013	Ethylbenzene	<1	ppb
8/8/2013	Bromoform	12	ppb
8/8/2013	1,1,2,2-Tetrachlorethane	<1	ppb
8/8/2013	1,3-dichlorobenzene	<1	ppb
8/8/2013	1,4-dichlorobenzene	<1	ppb
8/8/2013	1,2-dichlorobenzene	<1	ppb
8/8/2013	p&m xylene	<1	ppb
8/8/2013	o- xylene	<1	ppb
9/17/2013	Chloromethane	<10	ppb
9/17/2013	Vinyl Chloride	<1	ppb
9/17/2013	Bromomethane	<10	ppb
9/17/2013	Chloroethane	<10	ppb
9/17/2013	Trichlorofluoromethane	<1	ppb
9/17/2013	1,1-Dichloroethene	<1	ppb
9/17/2013	Methylene Chloride	<5	ppb
9/17/2013	Trans-1,2-Dichloroethene	<1	ppb
9/17/2013	1,1-Dichloroethane	<1	ppb
9/17/2013	Chloroform	4	ppb
9/17/2013	1,1,1-Trichloroethane	<1	ppb
9/17/2013	Carbon Tetrachloride	<1	ppb
9/17/2013	Benzene	<1	ppb
9/17/2013	1,2-Dichloroethane	<1	ppb
9/17/2013	Trichlorethene	<1	ppb
9/17/2013	1,2-Dichloropropane	<1	ppb
9/17/2013	Bromodichloromethane	10	ppb
9/17/2013	2-Chloroethylvinylether	<2	ppb
9/17/2013	cis-1,3-Dichloropropene	<1	ppb
9/17/2013	Toluene	<1	ppb
9/17/2013	Trans-1,3-Dichloropropene	<1	ppb
9/17/2013	1,1,2-Trichloroethane	<1	ppb
9/17/2013	Tetrachlorethene	<1	ppb
9/17/2013	Dibromochloromethane	15	ppb
9/17/2013	Chlorobenzene	<1	ppb
9/17/2013	Ethylbenzene	<1	ppb
9/17/2013	Bromoform	8	ppb
9/17/2013	1,1,2,2-Tetrachlorethane	<1	ppb
9/17/2013	1,3-dichlorobenzene	<1	ppb
9/17/2013	1,4-dichlorobenzene	<1	ppb

Table 24: EPA Priority Pollutants Data Field's Point

Field's Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
9/17/2013	p&m xylene	<1	ppb
9/17/2013	o- xylene	<1	ppb
10/8/2013	Chloromethane	<10	ppb
10/8/2013	Vinyl Chloride	<	ppb
10/8/2013	Bromomethane	<10	ppb
10/8/2013	Chloroethane	<10	ppb
10/8/2013	Trichlorofluoromethane	<1	ppb
10/8/2013	1,1-Dichloroethene	<1	ppb
10/8/2013	Methylene Chloride	<5	ppb
10/8/2013	Trans-1,2-Dichloroethene	<1	ppb
10/8/2013	1,1-Dichloroethane	<1	ppb
10/8/2013	Chloroform	5	ppb
10/8/2013	1,1,1-Trichloroethane	<1	ppb
10/8/2013	Carbon Tetrachloride	<1	ppb
10/8/2013	Benzene	<1	ppb
10/8/2013	1,2-Dichloroethane	<1	ppb
10/8/2013	Trichlorethene	1	ppb
10/8/2013	1,2-Dichloropropane	<1	ppb
10/8/2013	Bromodichloromethane	<1	ppb
10/8/2013	2-Chloroethylvinylether	<2	ppb
10/8/2013	cis-1,3-Dichloropropene	<1	ppb
10/8/2013	Toluene	3	ppb
10/8/2013	Trans-1,3-Dichloropropene	<1	ppb
10/8/2013	1,1,2-Trichloroethane	<1	ppb
10/8/2013	Tetrachlorethene	2	ppb
10/8/2013	Dibromochloromethane	<1	ppb
10/8/2013	Chlorobenzene	<1	ppb
10/8/2013	Ethylbenzene	<1	ppb
10/8/2013	Bromoform	<1	ppb
10/8/2013	1,1,2,2-Tetrachlorethane	<1	ppb
10/8/2013	1,3-dichlorobenzene	<1	ppb
10/8/2013	1,4-dichlorobenzene	<1	ppb
10/8/2013	1,2-dichlorobenzene	<1	ppb
10/8/2013	p&m xylene	<1	ppb
10/8/2013	o- xylene	<1	ppb
11/5/2013	Chloromethane	<10	ppb
11/5/2013	Vinyl Chloride	<1	ppb
11/5/2013	Bromomethane	<10	ppb
11/5/2013	Chloroethane	<10	ppb
11/5/2013	Trichlorofluoromethane	<1	ppb
11/5/2013	1,1-Dichloroethene	<1	ppb
11/5/2013	Methylene Chloride	<5	ppb
11/5/2013	Trans-1,2-Dichloroethene	<1	ppb
11/5/2013	1,1-Dichloroethane	<1	ppb
11/5/2013	Chloroform	5	ppb
11/5/2013	1,1,1-Trichloroethane	<1	ppb
11/5/2013	Carbon Tetrachloride	<1	ppb
11/5/2013	Benzene	<1	ppb
11/5/2013	1,2-Dichloroethane	<1	ppb
11/5/2013	Trichlorethene	2	ppb
11/5/2013	1,2-Dichloropropane	<1	ppb
11/5/2013	Bromodichloromethane	<1	ppb
11/5/2013	2-Chloroethylvinylether	<2	ppb
11/5/2013	cis-1,3-Dichloropropene	<1	ppb
11/5/2013	Toluene	4	ppb
11/5/2013	Trans-1,3-Dichloropropene	<1	ppb
11/5/2013	1,1,2-Trichloroethane	<1	ppb
11/5/2013	Tetrachlorethene	2	ppb
11/5/2013	Dibromochloromethane	<1	ppb

Field's Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
9/17/2013	1,2-dichlorobenzene	<1	ppb
9/17/2013	p&m xylene	<1	ppb
9/17/2013	o- xylene	<1	ppb
10/8/2013	Chloromethane	<10	ppb
10/8/2013	Vinyl Chloride	<1	ppb
10/8/2013	Bromomethane	<10	ppb
10/8/2013	Chloroethane	<10	ppb
10/8/2013	Trichlorofluoromethane	<1	ppb
10/8/2013	1,1-Dichloroethene	<1	ppb
10/8/2013	Methylene Chloride	<5	ppb
10/8/2013	Trans-1,2-Dichloroethene	<1	ppb
10/8/2013	1,1-Dichloroethane	<1	ppb
10/8/2013	Chloroform	2	ppb
10/8/2013	1,1,1-Trichloroethane	<1	ppb
10/8/2013	Carbon Tetrachloride	<1	ppb
10/8/2013	Benzene	<1	ppb
10/8/2013	1,2-Dichloroethane	<1	ppb
10/8/2013	Trichlorethene	<1	ppb
10/8/2013	1,2-Dichloropropane	<1	ppb
10/8/2013	Bromodichloromethane	4	ppb
10/8/2013	2-Chloroethylvinylether	<2	ppb
10/8/2013	cis-1,3-Dichloropropene	<1	ppb
10/8/2013	Toluene	<1	ppb
10/8/2013	Trans-1,3-Dichloropropene	<1	ppb
10/8/2013	1,1,2-Trichloroethane	<1	ppb
10/8/2013	Tetrachlorethene	<1	ppb
10/8/2013	Dibromochloromethane	5	ppb
10/8/2013	Chlorobenzene	<1	ppb
10/8/2013	Ethylbenzene	<1	ppb
10/8/2013	Bromoform	3	ppb
10/8/2013	1,1,2,2-Tetrachlorethane	<1	ppb
10/8/2013	1,3-dichlorobenzene	<1	ppb
10/8/2013	1,4-dichlorobenzene	<1	ppb
10/8/2013	1,2-dichlorobenzene	<1	ppb
10/8/2013	p&m xylene	<1	ppb
10/8/2013	o- xylene	<1	ppb
11/5/2013	Chloromethane	<10	ppb
11/5/2013	Vinyl Chloride	<1	ppb
11/5/2013	Bromomethane	<10	ppb
11/5/2013	Chloroethane	<10	ppb
11/5/2013	Trichlorofluoromethane	<1	ppb
11/5/2013	1,1-Dichloroethene	<1	ppb
11/5/2013	Methylene Chloride	<5	ppb
11/5/2013	Trans-1,2-Dichloroethene	<1	ppb
11/5/2013	1,1-Dichloroethane	<1	ppb
11/5/2013	Chloroform	3	ppb
11/5/2013	1,1,1-Trichloroethane	<1	ppb
11/5/2013	Carbon Tetrachloride	<1	ppb
11/5/2013	Benzene	<1	ppb
11/5/2013	1,2-Dichloroethane	<1	ppb
11/5/2013	Trichlorethene	<1	ppb
11/5/2013	1,2-Dichloropropane	<1	ppb
11/5/2013	Bromodichloromethane	8	ppb
11/5/2013	2-Chloroethylvinylether	<2	ppb
11/5/2013	cis-1,3-Dichloropropene	<1	ppb
11/5/2013	Toluene	<1	ppb
11/5/2013	Trans-1,3-Dichloropropene	<1	ppb
11/5/2013	1,1,2-Trichloroethane	<1	ppb
11/5/2013	Tetrachlorethene	<1	ppb

Table 24: EPA Priority Pollutants Data Field's Point

Field's Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
11/5/2013	Chlorobenzene	<1	ppb
11/5/2013	Ethylbenzene	<1	ppb
11/5/2013	Bromoform	<1	ppb
11/5/2013	1,1,2,2-Tetrachlorethane	<1	ppb
11/5/2013	1,3-dichlorobenzene	<1	ppb
11/5/2013	1,4-dichlorobenzene	<1	ppb
11/5/2013	1,2-dichlorobenzene	<1	ppb
11/5/2013	p&m xylene	<1	ppb
11/5/2013	o- xylene	<1	ppb
12/3/2013	Chloromethane	<10	ppb
12/3/2013	Vinyl Chloride	<1	ppb
12/3/2013	Bromomethane	<10	ppb
12/3/2013	Chloroethane	<10	ppb
12/3/2013	Trichlorofluoromethane	<1	ppb
12/3/2013	1,1-Dichloroethene	<1	ppb
12/3/2013	Methylene Chloride	<5	ppb
12/3/2013	Trans-1,2-Dichloroethene	<1	ppb
12/3/2013	1,1-Dichloroethane	<1	ppb
12/3/2013	Chloroform	5	ppb
12/3/2013	1,1,1-Trichloroethane	<1	ppb
12/3/2013	Carbon Tetrachloride	<1	ppb
12/3/2013	Benzene	<1	ppb
12/3/2013	1,2-Dichloroethane	<1	ppb
12/3/2013	Trichlorethene	2	ppb
12/3/2013	1,2-Dichloropropane	<1	ppb
12/3/2013	Bromodichloromethane	<1	ppb
12/3/2013	2-Chloroethylvinylether	<2	ppb
12/3/2013	cis-1,3-Dichloropropene	<1	ppb
12/3/2013	Toluene	1	ppb
12/3/2013	Trans-1,3-Dichloropropene	<1	ppb
12/3/2013	1,1,2-Trichloroethane	<1	ppb
12/3/2013	Tetrachlorethene	2	ppb
12/3/2013	Dibromochloromethane	<1	ppb
12/3/2013	Chlorobenzene	<1	ppb
12/3/2013	Ethylbenzene	<1	ppb
12/3/2013	Bromoform	<1	ppb
12/3/2013	1,1,2,2-Tetrachlorethane	<1	ppb
12/3/2013	1,3-dichlorobenzene	<1	ppb
12/3/2013	1,4-dichlorobenzene	<1	ppb
12/3/2013	1,2-dichlorobenzene	<1	ppb
12/3/2013	p&m xylene	<1	ppb
12/3/2013	o- xylene	<1	ppb

Field's Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
11/5/2013	Dibromochloromethane	16	ppb
11/5/2013	Chlorobenzene	<1	ppb
11/5/2013	Ethylbenzene	<1	ppb
11/5/2013	Bromoform	8	ppb
11/5/2013	1,1,2,2-Tetrachlorethane	<1	ppb
11/5/2013	1,3-dichlorobenzene	<1	ppb
11/5/2013	1,4-dichlorobenzene	<1	ppb
11/5/2013	1,2-dichlorobenzene	<1	ppb
11/5/2013	p&m xylene	<1	ppb
11/5/2013	o- xylene	<1	ppb
12/3/2013	Chloromethane	<10	ppb
12/3/2013	Vinyl Chloride	<1	ppb
12/3/2013	Bromomethane	<10	ppb
12/3/2013	Chloroethane	<10	ppb
12/3/2013	Trichlorofluoromethane	<1	ppb
12/3/2013	1,1-Dichloroethene	<1	ppb
12/3/2013	Methylene Chloride	<5	ppb
12/3/2013	Trans-1,2-Dichloroethene	<1	ppb
12/3/2013	1,1-Dichloroethane	<1	ppb
12/3/2013	Chloroform	3	ppb
12/3/2013	1,1,1-Trichloroethane	<1	ppb
12/3/2013	Carbon Tetrachloride	<1	ppb
12/3/2013	Benzene	<1	ppb
12/3/2013	1,2-Dichloroethane	<1	ppb
12/3/2013	Trichlorethene	<1	ppb
12/3/2013	1,2-Dichloropropane	<1	ppb
12/3/2013	Bromodichloromethane	5	ppb
12/3/2013	2-Chloroethylvinylether	<2	ppb
12/3/2013	cis-1,3-Dichloropropene	<1	ppb
12/3/2013	Toluene	<1	ppb
12/3/2013	Trans-1,3-Dichloropropene	<1	ppb
12/3/2013	1,1,2-Trichloroethane	<1	ppb
12/3/2013	Tetrachlorethene	<1	ppb
12/3/2013	Dibromochloromethane	6	ppb
12/3/2013	Chlorobenzene	<1	ppb
12/3/2013	Ethylbenzene	<1	ppb
12/3/2013	Bromoform	3	ppb
12/3/2013	1,1,2,2-Tetrachlorethane	<1	ppb
12/3/2013	1,3-dichlorobenzene	<1	ppb
12/3/2013	1,4-dichlorobenzene	<1	ppb
12/3/2013	1,2-dichlorobenzene	<1	ppb
12/3/2013	p&m xylene	<1	ppb
12/3/2013	o- xylene	<1	ppb

Table 24: EPA Priority Pollutants Data Field's Point

EPA Priority Pollutants Data Bucklin Point 2013

Bucklin Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
1/8/2013	1,1,1-Trichloroethane	<2.0	ppb
1/8/2013	1,1,2,2-Tetrachlorethane	<2.0	ppb
1/8/2013	1,1,2-Trichloroethane	<2.0	ppb
1/8/2013	1,1-Dichloroethane	<2.0	ppb
1/8/2013	1,1-Dichloroethene	<2.0	ppb
1/8/2013	1,2-dichlorobenzene	<2.0	ppb
1/8/2013	1,2-Dichloroethane	<2.0	ppb
1/8/2013	1,2-Dichloropropane	<2.0	ppb
1/8/2013	1,3-dichlorobenzene	<2.0	ppb
1/8/2013	1,4-dichlorobenzene	<2.0	ppb
1/8/2013	2-Chloroethylvinylether	<5.0	ppb
1/8/2013	Benzene	<2.0	ppb
1/8/2013	Bromodichloromethane	<2.0	ppb
1/8/2013	Bromoform	<5.0	ppb
1/8/2013	Bromomethane	<2.0	ppb
1/8/2013	Carbon Tetrachloride	<2.0	ppb
1/8/2013	Chlorobenzene	<2.0	ppb
1/8/2013	Chloroethane	<2.0	ppb
1/8/2013	Chloroform	3.05	ppb
1/8/2013	Chloromethane	<2.0	ppb
1/8/2013	cis-1,3-Dichloropropene	<2.0	ppb
1/8/2013	Dibromochloromethane	<2.0	ppb
1/8/2013	Ethylbenzene	<2.0	ppb
1/8/2013	Methylene Chloride	<2.0	ppb
1/8/2013	o- xylene	<2.0	ppb
1/8/2013	p&m xylene	<4.0	ppb
1/8/2013	Tetrachlorethene	<2.0	ppb
1/8/2013	Toluene	16.44	ppb
1/8/2013	Trans-1,2-Dichloroethene	<2.0	ppb
1/8/2013	Trans-1,3-Dichloropropene	<2.0	ppb
1/8/2013	Trichlorethene	<2.0	ppb
1/8/2013	Trichlorofluoromethane	<2.0	ppb
1/8/2013	Vinyl Chloride	<2.0	ppb
2/5/2013	1,1,1-Trichloroethane	<2	ppb
2/5/2013	1,1,2,2-Tetrachlorethane	<2	ppb
2/5/2013	1,1,2-Trichloroethane	<2	ppb
2/5/2013	1,1-Dichloroethane	<2	ppb
2/5/2013	1,1-Dichloroethene	<2	ppb
2/5/2013	1,2-dichlorobenzene	<2	ppb
2/5/2013	1,2-Dichloroethane	<2	ppb
2/5/2013	1,2-Dichloropropane	<2	ppb
2/5/2013	1,3-dichlorobenzene	<2	ppb
2/5/2013	1,4-dichlorobenzene	<2	ppb
2/5/2013	2-Chloroethylvinylether	<5	ppb
2/5/2013	Benzene	<2	ppb
2/5/2013	Bromodichloromethane	<2	ppb
2/5/2013	Bromoform	<5	ppb
2/5/2013	Bromomethane	<2	ppb
2/5/2013	Carbon Tetrachloride	<2	ppb
2/5/2013	Chlorobenzene	<2	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
1/8/2013	1,1,1-Trichloroethane	<2.0	ppb
1/8/2013	1,1,2,2-Tetrachlorethane	<2.0	ppb
1/8/2013	1,1,2-Trichloroethane	<2.0	ppb
1/8/2013	1,1-Dichloroethane	<2.0	ppb
1/8/2013	1,1-Dichloroethene	<2.0	ppb
1/8/2013	1,2-dichlorobenzene	<2.0	ppb
1/8/2013	1,2-Dichloroethane	<2.0	ppb
1/8/2013	1,2-Dichloropropane	<2.0	ppb
1/8/2013	1,3-dichlorobenzene	<2.0	ppb
1/8/2013	1,4-dichlorobenzene	<2.0	ppb
1/8/2013	2-Chloroethylvinylether	<5.0	ppb
1/8/2013	Benzene	<2.0	ppb
1/8/2013	Bromodichloromethane	<2.0	ppb
1/8/2013	Bromoform	<5.0	ppb
1/8/2013	Bromomethane	<2.0	ppb
1/8/2013	Carbon Tetrachloride	<2.0	ppb
1/8/2013	Chlorobenzene	<2.0	ppb
1/8/2013	Chloroethane	<2.0	ppb
1/8/2013	Chloroform	<2.0	ppb
1/8/2013	Chloromethane	<2.0	ppb
1/8/2013	cis-1,3-Dichloropropene	<2.0	ppb
1/8/2013	Dibromochloromethane	<2.0	ppb
1/8/2013	Ethylbenzene	<2.0	ppb
1/8/2013	Methylene Chloride	<2.0	ppb
1/8/2013	o- xylene	<2.0	ppb
1/8/2013	p&m xylene	<4.0	ppb
1/8/2013	Tetrachlorethene	<2.0	ppb
1/8/2013	Toluene	<2.0	ppb
1/8/2013	Trans-1,2-Dichloroethene	<2.0	ppb
1/8/2013	Trans-1,3-Dichloropropene	<2.0	ppb
1/8/2013	Trichlorethene	<2.0	ppb
1/8/2013	Trichlorofluoromethane	<2.0	ppb
1/8/2013	Vinyl Chloride	<2.0	ppb
2/5/2013	1,1,1-Trichloroethane	<2	ppb
2/5/2013	1,1,2,2-Tetrachlorethane	<2	ppb
2/5/2013	1,1,2-Trichloroethane	<2	ppb
2/5/2013	1,1-Dichloroethane	<2	ppb
2/5/2013	1,1-Dichloroethene	<2	ppb
2/5/2013	1,2-dichlorobenzene	<2	ppb
2/5/2013	1,2-Dichloroethane	<2	ppb
2/5/2013	1,2-Dichloropropane	<2	ppb
2/5/2013	1,3-dichlorobenzene	<2	ppb
2/5/2013	1,4-dichlorobenzene	<2	ppb
2/5/2013	2-Chloroethylvinylether	<5	ppb
2/5/2013	Benzene	<2	ppb
2/5/2013	Bromodichloromethane	<2	ppb
2/5/2013	Bromoform	<5	ppb
2/5/2013	Bromomethane	<2	ppb
2/5/2013	Carbon Tetrachloride	<2	ppb
2/5/2013	Chlorobenzene	<2	ppb

Table 25: EPA Priority Pollutants Data Bucklin Point

EPA Priority Pollutants Data Bucklin Point 2013

Bucklin Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
2/5/2013	Chloroethane	<2	ppb
2/5/2013	Chloroform	3.85	ppb
2/5/2013	Chloromethane	<2	ppb
2/5/2013	cis-1,3-Dichloropropene	<2	ppb
2/5/2013	Dibromochloromethane	<2	ppb
2/5/2013	Ethylbenzene	<2	ppb
2/5/2013	Methylene Chloride	<2	ppb
2/5/2013	o- xylene	<2	ppb
2/5/2013	p&m xylene	<4	ppb
2/5/2013	Tetrachlorethene	<2	ppb
2/5/2013	Toluene	<2	ppb
2/5/2013	Trans-1,2-Dichloroethene	<2	ppb
2/5/2013	Trans-1,3-Dichloropropene	<2	ppb
2/5/2013	Trichlorethene	<2	ppb
2/5/2013	Trichlorofluoromethane	<2	ppb
2/5/2013	Vinyl Chloride	<2	ppb
3/5/2013	1,1,1-Trichloroethane	<1	ppb
3/5/2013	1,1,2,2-Tetrachlorethene	<1	ppb
3/5/2013	1,1,2-Trichloroethane	<1	ppb
3/5/2013	1,1-Dichloroethane	<1	ppb
3/5/2013	1,1-Dichloroethene	<1	ppb
3/5/2013	1,2-dichlorobenzene	<1	ppb
3/5/2013	1,2-Dichloroethane	<1	ppb
3/5/2013	1,2-Dichloropropane	<1	ppb
3/5/2013	1,3-dichlorobenzene	<1	ppb
3/5/2013	1,4-dichlorobenzene	<1	ppb
3/5/2013	2-Chloroethylvinylether	<2	ppb
3/5/2013	Benzene	<1	ppb
3/5/2013	Bromodichloromethane	<1	ppb
3/5/2013	Bromoform	<1	ppb
3/5/2013	Bromomethane	<10	ppb
3/5/2013	Carbon Tetrachloride	<1	ppb
3/5/2013	Chlorobenzene	<1	ppb
3/5/2013	Chloroethane	<10	ppb
3/5/2013	Chloroform	3	ppb
3/5/2013	Chloromethane	<10	ppb
3/5/2013	cis-1,3-Dichloropropene	<1	ppb
3/5/2013	Dibromochloromethane	<1	ppb
3/5/2013	Ethylbenzene	<1	ppb
3/5/2013	Methylene Chloride	<5	ppb
3/5/2013	o- xylene	<1	ppb
3/5/2013	p&m xylene	<1	ppb
3/5/2013	Tetrachlorethene	1	ppb
3/5/2013	Toluene	<1	ppb
3/5/2013	Trans-1,2-Dichloroethene	<1	ppb
3/5/2013	Trans-1,3-Dichloropropene	<1	ppb
3/5/2013	Trichlorethene	<1	ppb
3/5/2013	Trichlorofluoromethane	<1	ppb
3/5/2013	Vinyl Chloride	<1	ppb
4/2/2013	1,1,1-Trichloroethane	<1	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
2/5/2013	Chloroethane	<2	ppb
2/5/2013	Chloroform	3.65	ppb
2/5/2013	Chloromethane	<2	ppb
2/5/2013	cis-1,3-Dichloropropene	<2	ppb
2/5/2013	Dibromochloromethane	<2	ppb
2/5/2013	Ethylbenzene	<2	ppb
2/5/2013	Methylene Chloride	<2	ppb
2/5/2013	o- xylene	<2	ppb
2/5/2013	p&m xylene	<4	ppb
2/5/2013	Tetrachlorethene	<2	ppb
2/5/2013	Toluene	<2	ppb
2/5/2013	Trans-1,2-Dichloroethene	<2	ppb
2/5/2013	Trans-1,3-Dichloropropene	<2	ppb
2/5/2013	Trichlorethene	<2	ppb
2/5/2013	Trichlorofluoromethane	<2	ppb
2/5/2013	Vinyl Chloride	<2	ppb
3/5/2013	1,1,1-Trichloroethane	<1	ppb
3/5/2013	1,1,2,2-Tetrachlorethene	<1	ppb
3/5/2013	1,1,2-Trichloroethane	<1	ppb
3/5/2013	1,1-Dichloroethane	<1	ppb
3/5/2013	1,1-Dichloroethene	<1	ppb
3/5/2013	1,2-dichlorobenzene	<1	ppb
3/5/2013	1,2-Dichloroethane	<1	ppb
3/5/2013	1,2-Dichloropropane	<1	ppb
3/5/2013	1,3-dichlorobenzene	<1	ppb
3/5/2013	1,4-dichlorobenzene	<1	ppb
3/5/2013	2-Chloroethylvinylether	<2	ppb
3/5/2013	Benzene	<1	ppb
3/5/2013	Bromodichloromethane	<1	ppb
3/5/2013	Bromoform	<1	ppb
3/5/2013	Bromomethane	<10	ppb
3/5/2013	Carbon Tetrachloride	<1	ppb
3/5/2013	Chlorobenzene	<1	ppb
3/5/2013	Chloroethane	<10	ppb
3/5/2013	Chloroform	<1	ppb
3/5/2013	Chloromethane	<10	ppb
3/5/2013	cis-1,3-Dichloropropene	<1	ppb
3/5/2013	Dibromochloromethane	<1	ppb
3/5/2013	Ethylbenzene	<1	ppb
3/5/2013	Methylene Chloride	<5	ppb
3/5/2013	o- xylene	<1	ppb
3/5/2013	p&m xylene	<1	ppb
3/5/2013	Tetrachlorethene	<1	ppb
3/5/2013	Toluene	<1	ppb
3/5/2013	Trans-1,2-Dichloroethene	<1	ppb
3/5/2013	Trans-1,3-Dichloropropene	<1	ppb
3/5/2013	Trichlorethene	<1	ppb
3/5/2013	Trichlorofluoromethane	<1	ppb
3/5/2013	Vinyl Chloride	<1	ppb
4/2/2013	1,1,1-Trichloroethane	<1	ppb

Table 25: EPA Priority Pollutants Data Bucklin Point

EPA Priority Pollutants Data Bucklin Point 2013

Bucklin Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
4/2/2013	1,1,2,2-Tetrachlorethane	<1	ppb
4/2/2013	1,1,2-Trichloroethane	<1	ppb
4/2/2013	1,1-Dichloroethane	<1	ppb
4/2/2013	1,1-Dichloroethene	<1	ppb
4/2/2013	1,2-dichlorobenzene	<1	ppb
4/2/2013	1,2-Dichloroethane	<1	ppb
4/2/2013	1,2-Dichloropropane	<1	ppb
4/2/2013	1,3-dichlorobenzene	<1	ppb
4/2/2013	1,4-dichlorobenzene	<1	ppb
4/2/2013	2-Chloroethylvinylether	<2	ppb
4/2/2013	Benzene	<1	ppb
4/2/2013	Bromodichloromethane	<1	ppb
4/2/2013	Bromoform	<1	ppb
4/2/2013	Bromomethane	<10	ppb
4/2/2013	Carbon Tetrachloride	<1	ppb
4/2/2013	Chlorobenzene	<1	ppb
4/2/2013	Chloroethane	<10	ppb
4/2/2013	Chloroform	3	ppb
4/2/2013	Chloromethane	<10	ppb
4/2/2013	cis-1,3-Dichloropropene	<1	ppb
4/2/2013	Dibromochloromethane	<1	ppb
4/2/2013	Ethylbenzene	<1	ppb
4/2/2013	Methylene Chloride	<5	ppb
4/2/2013	o- xylene	<1	ppb
4/2/2013	p&m xylene	<1	ppb
4/2/2013	Tetrachlorethane	1	ppb
4/2/2013	Toluene	1	ppb
4/2/2013	Trans-1,2-Dichloroethene	<1	ppb
4/2/2013	Trans-1,3-Dichloropropene	<1	ppb
4/2/2013	Trichlorethane	<1	ppb
4/2/2013	Trichlorofluoromethane	<1	ppb
4/2/2013	Vinyl Chloride	<1	ppb
5/7/2013	1,1,1-Trichloroethane	<1	ppb
5/7/2013	1,1,2,2-Tetrachlorethane	<1	ppb
5/7/2013	1,1,2-Trichloroethane	<1	ppb
5/7/2013	1,1-Dichloroethane	<1	ppb
5/7/2013	1,1-Dichloroethene	<1	ppb
5/7/2013	1,2-dichlorobenzene	<1	ppb
5/7/2013	1,2-Dichloroethane	<1	ppb
5/7/2013	1,2-Dichloropropane	<1	ppb
5/7/2013	1,3-dichlorobenzene	<1	ppb
5/7/2013	1,4-dichlorobenzene	<1	ppb
5/7/2013	2-Chloroethylvinylether	<2	ppb
5/7/2013	Benzene	<1	ppb
5/7/2013	Bromodichloromethane	<1	ppb
5/7/2013	Bromoform	<1	ppb
5/7/2013	Bromomethane	<10	ppb
5/7/2013	Carbon Tetrachloride	<1	ppb
5/7/2013	Chlorobenzene	<1	ppb
5/7/2013	Chloroethane	<10	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
4/2/2013	1,1,2,2-Tetrachlorethane	<1	ppb
4/2/2013	1,1,2-Trichloroethane	<1	ppb
4/2/2013	1,1-Dichloroethane	<1	ppb
4/2/2013	1,1-Dichloroethene	<1	ppb
4/2/2013	1,2-dichlorobenzene	<1	ppb
4/2/2013	1,2-Dichloroethane	<1	ppb
4/2/2013	1,2-Dichloropropane	<1	ppb
4/2/2013	1,3-dichlorobenzene	<1	ppb
4/2/2013	1,4-dichlorobenzene	<1	ppb
4/2/2013	2-Chloroethylvinylether	<2	ppb
4/2/2013	Benzene	<1	ppb
4/2/2013	Bromodichloromethane	<1	ppb
4/2/2013	Bromoform	<1	ppb
4/2/2013	Bromomethane	<10	ppb
4/2/2013	Carbon Tetrachloride	<1	ppb
4/2/2013	Chlorobenzene	<1	ppb
4/2/2013	Chloroethane	<10	ppb
4/2/2013	Chloroform	1	ppb
4/2/2013	Chloromethane	<10	ppb
4/2/2013	cis-1,3-Dichloropropene	<1	ppb
4/2/2013	Dibromochloromethane	<1	ppb
4/2/2013	Ethylbenzene	<1	ppb
4/2/2013	Methylene Chloride	<5	ppb
4/2/2013	o- xylene	<1	ppb
4/2/2013	p&m xylene	<1	ppb
4/2/2013	Tetrachlorethane	<1	ppb
4/2/2013	Toluene	<1	ppb
4/2/2013	Trans-1,2-Dichloroethene	<1	ppb
4/2/2013	Trans-1,3-Dichloropropene	<1	ppb
4/2/2013	Trichlorethane	<1	ppb
4/2/2013	Trichlorofluoromethane	<1	ppb
4/2/2013	Vinyl Chloride	<1	ppb
5/7/2013	1,1,1-Trichloroethane	<1	ppb
5/7/2013	1,1,2,2-Tetrachlorethane	<1	ppb
5/7/2013	1,1,2-Trichloroethane	<1	ppb
5/7/2013	1,1-Dichloroethane	<1	ppb
5/7/2013	1,1-Dichloroethene	<1	ppb
5/7/2013	1,2-dichlorobenzene	<1	ppb
5/7/2013	1,2-Dichloroethane	<1	ppb
5/7/2013	1,2-Dichloropropane	<1	ppb
5/7/2013	1,3-dichlorobenzene	<1	ppb
5/7/2013	1,4-dichlorobenzene	<1	ppb
5/7/2013	2-Chloroethylvinylether	<2	ppb
5/7/2013	Benzene	<1	ppb
5/7/2013	Bromodichloromethane	<1	ppb
5/7/2013	Bromoform	<1	ppb
5/7/2013	Bromomethane	<10	ppb
5/7/2013	Carbon Tetrachloride	<1	ppb
5/7/2013	Chlorobenzene	<1	ppb
5/7/2013	Chloroethane	<10	ppb

Table 25: EPA Priority Pollutants Data Bucklin Point

EPA Priority Pollutants Data Bucklin Point 2013

Bucklin Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
5/7/2013	Chloroform	4	ppb
5/7/2013	Chloromethane	<10	ppb
5/7/2013	cis-1,3-Dichloropropene	<1	ppb
5/7/2013	Dibromochloromethane	<1	ppb
5/7/2013	Ethylbenzene	<1	ppb
5/7/2013	Methylene Chloride	<5	ppb
5/7/2013	o- xylene	<1	ppb
5/7/2013	p&m xylene	1	ppb
5/7/2013	Tetrachlorethene	2	ppb
5/7/2013	Toluene	3	ppb
5/7/2013	Trans-1,2-Dichloroethene	<1	ppb
5/7/2013	Trans-1,3-Dichloropropene	<1	ppb
5/7/2013	Trichlorethene	<1	ppb
5/7/2013	Trichlorofluoromethane	<1	ppb
5/7/2013	Vinyl Chloride	<1	ppb
6/4/2013	1,1,1-Trichloroethane	<1	ppb
6/4/2013	1,1,2,2-Tetrachlorethane	<1	ppb
6/4/2013	1,1,2-Trichloroethane	<1	ppb
6/4/2013	1,1-Dichloroethane	<1	ppb
6/4/2013	1,1-Dichloroethene	<1	ppb
6/4/2013	1,2-dichlorobenzene	<1	ppb
6/4/2013	1,2-Dichloroethane	<1	ppb
6/4/2013	1,2-Dichloropropane	<1	ppb
6/4/2013	1,3-dichlorobenzene	<1	ppb
6/4/2013	1,4-dichlorobenzene	<1	ppb
6/4/2013	2-Chloroethylvinylether	<2	ppb
6/4/2013	Benzene	<1	ppb
6/4/2013	Bromodichloromethane	<1	ppb
6/4/2013	Bromoform	<1	ppb
6/4/2013	Bromomethane	<10	ppb
6/4/2013	Carbon Tetrachloride	<1	ppb
6/4/2013	Chlorobenzene	<1	ppb
6/4/2013	Chloroethane	<10	ppb
6/4/2013	Chloroform	3	ppb
6/4/2013	Chloromethane	<10	ppb
6/4/2013	cis-1,3-Dichloropropene	<1	ppb
6/4/2013	Dibromochloromethane	<1	ppb
6/4/2013	Ethylbenzene	<1	ppb
6/4/2013	Methylene Chloride	<5	ppb
6/4/2013	o- xylene	<1	ppb
6/4/2013	p&m xylene	<1	ppb
6/4/2013	Tetrachlorethene	1	ppb
6/4/2013	Toluene	3	ppb
6/4/2013	Trans-1,2-Dichloroethene	<1	ppb
6/4/2013	Trans-1,3-Dichloropropene	<1	ppb
6/4/2013	Trichlorethene	<1	ppb
6/4/2013	Trichlorofluoromethane	<1	ppb
6/4/2013	Vinyl Chloride	<1	ppb
7/2/2013	1,1,1-Trichloroethane	<1	ppb
7/2/2013	1,1,2,2-Tetrachlorethane	<1	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
5/7/2013	Chloroform	<1	ppb
5/7/2013	Chloromethane	<10	ppb
5/7/2013	cis-1,3-Dichloropropene	<1	ppb
5/7/2013	Dibromochloromethane	<1	ppb
5/7/2013	Ethylbenzene	<1	ppb
5/7/2013	Methylene Chloride	<5	ppb
5/7/2013	o- xylene	<1	ppb
5/7/2013	p&m xylene	<1	ppb
5/7/2013	Tetrachlorethene	<1	ppb
5/7/2013	Toluene	<1	ppb
5/7/2013	Trans-1,2-Dichloroethene	<1	ppb
5/7/2013	Trans-1,3-Dichloropropene	<1	ppb
5/7/2013	Trichlorethene	<1	ppb
5/7/2013	Trichlorofluoromethane	<1	ppb
5/7/2013	Vinyl Chloride	<1	ppb
6/4/2013	1,1,1-Trichloroethane	<1	ppb
6/4/2013	1,1,2,2-Tetrachlorethane	<1	ppb
6/4/2013	1,1,2-Trichloroethane	<1	ppb
6/4/2013	1,1-Dichloroethane	<1	ppb
6/4/2013	1,1-Dichloroethene	<1	ppb
6/4/2013	1,2-dichlorobenzene	<1	ppb
6/4/2013	1,2-Dichloroethane	<1	ppb
6/4/2013	1,2-Dichloropropane	<1	ppb
6/4/2013	1,3-dichlorobenzene	<1	ppb
6/4/2013	1,4-dichlorobenzene	<1	ppb
6/4/2013	2-Chloroethylvinylether	<2	ppb
6/4/2013	Benzene	<1	ppb
6/4/2013	Bromodichloromethane	<1	ppb
6/4/2013	Bromoform	<1	ppb
6/4/2013	Bromomethane	<10	ppb
6/4/2013	Carbon Tetrachloride	<1	ppb
6/4/2013	Chlorobenzene	<1	ppb
6/4/2013	Chloroethane	<10	ppb
6/4/2013	Chloroform	1	ppb
6/4/2013	Chloromethane	<10	ppb
6/4/2013	cis-1,3-Dichloropropene	<1	ppb
6/4/2013	Dibromochloromethane	<1	ppb
6/4/2013	Ethylbenzene	<1	ppb
6/4/2013	Methylene Chloride	<5	ppb
6/4/2013	o- xylene	<1	ppb
6/4/2013	p&m xylene	<1	ppb
6/4/2013	Tetrachlorethene	<1	ppb
6/4/2013	Toluene	<1	ppb
6/4/2013	Trans-1,2-Dichloroethene	<1	ppb
6/4/2013	Trans-1,3-Dichloropropene	<1	ppb
6/4/2013	Trichlorethene	<1	ppb
6/4/2013	Trichlorofluoromethane	<1	ppb
6/4/2013	Vinyl Chloride	<1	ppb
7/2/2013	1,1,1-Trichloroethane	<1	ppb
7/2/2013	1,1,2,2-Tetrachlorethane	<1	ppb

Table 25: EPA Priority Pollutants Data Bucklin Point

EPA Priority Pollutants Data Bucklin Point 2013

Bucklin Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
7/2/2013	1,1,2-Trichloroethane	<1	ppb
7/2/2013	1,1-Dichloroethane	<1	ppb
7/2/2013	1,1-Dichloroethene	<1	ppb
7/2/2013	1,2-dichlorobenzene	<1	ppb
7/2/2013	1,2-Dichloroethane	<1	ppb
7/2/2013	1,2-Dichloropropane	<1	ppb
7/2/2013	1,3-dichlorobenzene	<1	ppb
7/2/2013	1,4-dichlorobenzene	<1	ppb
7/2/2013	2-Chloroethylvinylether	<2	ppb
7/2/2013	Benzene	<1	ppb
7/2/2013	Bromodichloromethane	<1	ppb
7/2/2013	Bromoform	<1	ppb
7/2/2013	Bromomethane	<10	ppb
7/2/2013	Carbon Tetrachloride	<1	ppb
7/2/2013	Chlorobenzene	<1	ppb
7/2/2013	Chloroethane	<10	ppb
7/2/2013	Chloroform	4	ppb
7/2/2013	Chloromethane	<10	ppb
7/2/2013	cis-1,3-Dichloropropene	<1	ppb
7/2/2013	Dibromochloromethane	<1	ppb
7/2/2013	Ethylbenzene	<1	ppb
7/2/2013	Methylene Chloride	<5	ppb
7/2/2013	o- xylene	<1	ppb
7/2/2013	p&m xylene	<1	ppb
7/2/2013	Tetrachlorethene	<1	ppb
7/2/2013	Toluene	3	ppb
7/2/2013	Trans-1,2-Dichloroethene	<1	ppb
7/2/2013	Trans-1,3-Dichloropropene	<1	ppb
7/2/2013	Trichlorethene	<1	ppb
7/2/2013	Trichlorofluoromethane	<1	ppb
7/2/2013	Vinyl Chloride	<1	ppb
8/6/2013	1,1,1-Trichloroethane	<1	ppb
8/6/2013	1,1,2,2-Tetrachlorethane	<1	ppb
8/6/2013	1,1,2-Trichloroethane	<1	ppb
8/6/2013	1,1-Dichloroethane	<1	ppb
8/6/2013	1,1-Dichloroethene	<1	ppb
8/6/2013	1,2-dichlorobenzene	<1	ppb
8/6/2013	1,2-Dichloroethane	<1	ppb
8/6/2013	1,2-Dichloropropane	<1	ppb
8/6/2013	1,3-dichlorobenzene	<1	ppb
8/6/2013	1,4-dichlorobenzene	<1	ppb
8/6/2013	2-Chloroethylvinylether	<2	ppb
8/6/2013	Benzene	<1	ppb
8/6/2013	Bromodichloromethane	<1	ppb
8/6/2013	Bromoform	<1	ppb
8/6/2013	Bromomethane	<10	ppb
8/6/2013	Carbon Tetrachloride	<1	ppb
8/6/2013	Chlorobenzene	<1	ppb
8/6/2013	Chloroethane	<10	ppb
8/6/2013	Chloroform	4	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
7/2/2013	1,1,2-Trichloroethane	<1	ppb
7/2/2013	1,1-Dichloroethane	<1	ppb
7/2/2013	1,1-Dichloroethene	<1	ppb
7/2/2013	1,2-dichlorobenzene	<1	ppb
7/2/2013	1,2-Dichloroethane	<1	ppb
7/2/2013	1,2-Dichloropropane	<1	ppb
7/2/2013	1,3-dichlorobenzene	<1	ppb
7/2/2013	1,4-dichlorobenzene	<1	ppb
7/2/2013	2-Chloroethylvinylether	<2	ppb
7/2/2013	Benzene	<1	ppb
7/2/2013	Bromodichloromethane	<1	ppb
7/2/2013	Bromoform	<1	ppb
7/2/2013	Bromomethane	<10	ppb
7/2/2013	Carbon Tetrachloride	<1	ppb
7/2/2013	Chlorobenzene	<1	ppb
7/2/2013	Chloroethane	<10	ppb
7/2/2013	Chloroform	1	ppb
7/2/2013	Chloromethane	<10	ppb
7/2/2013	cis-1,3-Dichloropropene	<1	ppb
7/2/2013	Dibromochloromethane	<1	ppb
7/2/2013	Ethylbenzene	<1	ppb
7/2/2013	Methylene Chloride	<5	ppb
7/2/2013	o- xylene	<1	ppb
7/2/2013	p&m xylene	<1	ppb
7/2/2013	Tetrachlorethene	<1	ppb
7/2/2013	Toluene	<1	ppb
7/2/2013	Trans-1,2-Dichloroethene	<1	ppb
7/2/2013	Trans-1,3-Dichloropropene	<1	ppb
7/2/2013	Trichlorethene	<1	ppb
7/2/2013	Trichlorofluoromethane	<1	ppb
7/2/2013	Vinyl Chloride	<1	ppb
8/6/2013	1,1,1-Trichloroethane	<1	ppb
8/6/2013	1,1,2,2-Tetrachlorethane	<1	ppb
8/6/2013	1,1,2-Trichloroethane	<1	ppb
8/6/2013	1,1-Dichloroethane	<1	ppb
8/6/2013	1,1-Dichloroethene	<1	ppb
8/6/2013	1,2-dichlorobenzene	<1	ppb
8/6/2013	1,2-Dichloroethane	<1	ppb
8/6/2013	1,2-Dichloropropane	<1	ppb
8/6/2013	1,3-dichlorobenzene	<1	ppb
8/6/2013	1,4-dichlorobenzene	<1	ppb
8/6/2013	2-Chloroethylvinylether	<2	ppb
8/6/2013	Benzene	<1	ppb
8/6/2013	Bromodichloromethane	<1	ppb
8/6/2013	Bromoform	<1	ppb
8/6/2013	Bromomethane	<10	ppb
8/6/2013	Carbon Tetrachloride	<1	ppb
8/6/2013	Chlorobenzene	<1	ppb
8/6/2013	Chloroethane	<10	ppb
8/6/2013	Chloroform	<1	ppb

Table 25: EPA Priority Pollutants Data Bucklin Point

EPA Priority Pollutants Data Bucklin Point 2013

Bucklin Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
8/6/2013	Chloromethane	<10	ppb
8/6/2013	cis-1,3-Dichloropropene	<1	ppb
8/6/2013	Dibromochloromethane	<1	ppb
8/6/2013	Ethylbenzene	<1	ppb
8/6/2013	Methylene Chloride	<5	ppb
8/6/2013	o- xylene	<1	ppb
8/6/2013	p&m xylene	<1	ppb
8/6/2013	Tetrachlorethene	<1	ppb
8/6/2013	Toluene	3	ppb
8/6/2013	Trans-1,2-Dichloroethene	<1	ppb
8/6/2013	Trans-1,3-Dichloropropene	<1	ppb
8/6/2013	Trichlorethene	<1	ppb
8/6/2013	Trichlorofluoromethane	<1	ppb
8/6/2013	Vinyl Chloride	<1	ppb
9/17/2013	1,1,1-Trichloroethane	<1	ppb
9/17/2013	1,1,2,2-Tetrachlorethene	<1	ppb
9/17/2013	1,1,2-Trichloroethane	<1	ppb
9/17/2013	1,1-Dichloroethane	<1	ppb
9/17/2013	1,1-Dichloroethene	<1	ppb
9/17/2013	1,2-dichlorobenzene	<1	ppb
9/17/2013	1,2-Dichloroethane	<1	ppb
9/17/2013	1,2-Dichloropropane	<1	ppb
9/17/2013	1,3-dichlorobenzene	<1	ppb
9/17/2013	1,4-dichlorobenzene	<1	ppb
9/17/2013	2-Chloroethylvinylether	<2	ppb
9/17/2013	Benzene	<1	ppb
9/17/2013	Bromodichloromethane	<1	ppb
9/17/2013	Bromoform	<1	ppb
9/17/2013	Bromomethane	<10	ppb
9/17/2013	Carbon Tetrachloride	<1	ppb
9/17/2013	Chlorobenzene	<1	ppb
9/17/2013	Chloroethane	<10	ppb
9/17/2013	Chloroform	<1	ppb
9/17/2013	Chloromethane	<10	ppb
9/17/2013	cis-1,3-Dichloropropene	<1	ppb
9/17/2013	Dibromochloromethane	<1	ppb
9/17/2013	Ethylbenzene	<1	ppb
9/17/2013	Methylene Chloride	<5	ppb
9/17/2013	o- xylene	<1	ppb
9/17/2013	p&m xylene	<1	ppb
9/17/2013	Tetrachlorethene	<1	ppb
9/17/2013	Toluene	<1	ppb
9/17/2013	Trans-1,2-Dichloroethene	<1	ppb
9/17/2013	Trans-1,3-Dichloropropene	<1	ppb
9/17/2013	Trichlorethene	<1	ppb
9/17/2013	Trichlorofluoromethane	<1	ppb
9/17/2013	Vinyl Chloride	<1	ppb
10/8/2013	1,1,1-Trichloroethane	<1	ppb
10/8/2013	1,1,2,2-Tetrachlorethene	<1	ppb
10/8/2013	1,1,2-Trichloroethane	<1	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
8/6/2013	Chloromethane	<10	ppb
8/6/2013	cis-1,3-Dichloropropene	<1	ppb
8/6/2013	Dibromochloromethane	<1	ppb
8/6/2013	Ethylbenzene	<1	ppb
8/6/2013	Methylene Chloride	<5	ppb
8/6/2013	o- xylene	<1	ppb
8/6/2013	p&m xylene	<1	ppb
8/6/2013	Tetrachlorethene	<1	ppb
8/6/2013	Toluene	<1	ppb
8/6/2013	Trans-1,2-Dichloroethene	<1	ppb
8/6/2013	Trans-1,3-Dichloropropene	<1	ppb
8/6/2013	Trichlorethene	<1	ppb
8/6/2013	Trichlorofluoromethane	<1	ppb
8/6/2013	Vinyl Chloride	<1	ppb
9/17/2013	1,1,1-Trichloroethane	<1	ppb
9/17/2013	1,1,2,2-Tetrachlorethene	<1	ppb
9/17/2013	1,1,2-Trichloroethane	<1	ppb
9/17/2013	1,1-Dichloroethane	<1	ppb
9/17/2013	1,1-Dichloroethene	<1	ppb
9/17/2013	1,2-dichlorobenzene	<1	ppb
9/17/2013	1,2-Dichloroethane	<1	ppb
9/17/2013	1,2-Dichloropropane	<1	ppb
9/17/2013	1,3-dichlorobenzene	<1	ppb
9/17/2013	1,4-dichlorobenzene	<1	ppb
9/17/2013	2-Chloroethylvinylether	<2	ppb
9/17/2013	Benzene	<1	ppb
9/17/2013	Bromodichloromethane	<1	ppb
9/17/2013	Bromoform	<1	ppb
9/17/2013	Bromomethane	<10	ppb
9/17/2013	Carbon Tetrachloride	<1	ppb
9/17/2013	Chlorobenzene	<1	ppb
9/17/2013	Chloroethane	<10	ppb
9/17/2013	Chloroform	<1	ppb
9/17/2013	Chloromethane	<10	ppb
9/17/2013	cis-1,3-Dichloropropene	<1	ppb
9/17/2013	Dibromochloromethane	<1	ppb
9/17/2013	Ethylbenzene	<1	ppb
9/17/2013	Methylene Chloride	<5	ppb
9/17/2013	o- xylene	<1	ppb
9/17/2013	p&m xylene	<1	ppb
9/17/2013	Tetrachlorethene	<1	ppb
9/17/2013	Toluene	<1	ppb
9/17/2013	Trans-1,2-Dichloroethene	<1	ppb
9/17/2013	Trans-1,3-Dichloropropene	<1	ppb
9/17/2013	Trichlorethene	<1	ppb
9/17/2013	Trichlorofluoromethane	<1	ppb
9/17/2013	Vinyl Chloride	<1	ppb
10/8/2013	1,1,1-Trichloroethane	<1	ppb
10/8/2013	1,1,2,2-Tetrachlorethene	<1	ppb
10/8/2013	1,1,2-Trichloroethane	<1	ppb

Table 25: EPA Priority Pollutants Data Bucklin Point

EPA Priority Pollutants Data Bucklin Point 2013

Bucklin Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
10/8/2013	1,1-Dichloroethane	<1	ppb
10/8/2013	1,1-Dichloroethene	<1	ppb
10/8/2013	1,2-dichlorobenzene	<1	ppb
10/8/2013	1,2-Dichloroethane	<1	ppb
10/8/2013	1,2-Dichloropropane	<1	ppb
10/8/2013	1,3-dichlorobenzene	<1	ppb
10/8/2013	1,4-dichlorobenzene	<1	ppb
10/8/2013	2-Chloroethylvinylether	<2	ppb
10/8/2013	Benzene	<1	ppb
10/8/2013	Bromodichloromethane	<1	ppb
10/8/2013	Bromoform	<1	ppb
10/8/2013	Bromomethane	<10	ppb
10/8/2013	Carbon Tetrachloride	<1	ppb
10/8/2013	Chlorobenzene	<1	ppb
10/8/2013	Chloroethane	<10	ppb
10/8/2013	Chloroform	3	ppb
10/8/2013	Chloromethane	<10	ppb
10/8/2013	cis-1,3-Dichloropropene	<1	ppb
10/8/2013	Dibromochloromethane	<1	ppb
10/8/2013	Ethylbenzene	<1	ppb
10/8/2013	Methylene Chloride	<5	ppb
10/8/2013	o- xylene	<1	ppb
10/8/2013	p&m xylene	<1	ppb
10/8/2013	Tetrachlorethene	2	ppb
10/8/2013	Toluene	41	ppb
10/8/2013	Trans-1,2-Dichloroethene	<1	ppb
10/8/2013	Trans-1,3-Dichloropropene	<1	ppb
10/8/2013	Trichlorethene	<1	ppb
10/8/2013	Trichlorofluoromethane	<1	ppb
10/8/2013	Vinyl Chloride	<1	ppb
11/5/2013	1,1,1-Trichloroethane	<1	ppb
11/5/2013	1,1,2,2-Tetrachlorethane	<1	ppb
11/5/2013	1,1,2-Trichloroethane	<1	ppb
11/5/2013	1,1-Dichloroethane	<1	ppb
11/5/2013	1,1-Dichloroethene	<1	ppb
11/5/2013	1,2-dichlorobenzene	<1	ppb
11/5/2013	1,2-Dichloroethane	<1	ppb
11/5/2013	1,2-Dichloropropane	<1	ppb
11/5/2013	1,3-dichlorobenzene	<1	ppb
11/5/2013	1,4-dichlorobenzene	<1	ppb
11/5/2013	2-Chloroethylvinylether	<2	ppb
11/5/2013	Benzene	<1	ppb
11/5/2013	Bromodichloromethane	<1	ppb
11/5/2013	Bromoform	<1	ppb
11/5/2013	Bromomethane	<10	ppb
11/5/2013	Carbon Tetrachloride	<1	ppb
11/5/2013	Chlorobenzene	<1	ppb
11/5/2013	Chloroethane	<10	ppb
11/5/2013	Chloroform	3	ppb
11/5/2013	Chloromethane	<10	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
10/8/2013	1,1-Dichloroethane	<1	ppb
10/8/2013	1,1-Dichloroethene	<1	ppb
10/8/2013	1,2-dichlorobenzene	<1	ppb
10/8/2013	1,2-Dichloroethane	<1	ppb
10/8/2013	1,2-Dichloropropane	<1	ppb
10/8/2013	1,3-dichlorobenzene	<1	ppb
10/8/2013	1,4-dichlorobenzene	<1	ppb
10/8/2013	2-Chloroethylvinylether	<2	ppb
10/8/2013	Benzene	<1	ppb
10/8/2013	Bromodichloromethane	<1	ppb
10/8/2013	Bromoform	<1	ppb
10/8/2013	Bromomethane	<10	ppb
10/8/2013	Carbon Tetrachloride	<1	ppb
10/8/2013	Chlorobenzene	<1	ppb
10/8/2013	Chloroethane	<10	ppb
10/8/2013	Chloroform	<1	ppb
10/8/2013	Chloromethane	<10	ppb
10/8/2013	cis-1,3-Dichloropropene	<1	ppb
10/8/2013	Dibromochloromethane	<1	ppb
10/8/2013	Ethylbenzene	<1	ppb
10/8/2013	Methylene Chloride	<5	ppb
10/8/2013	o- xylene	<1	ppb
10/8/2013	p&m xylene	<1	ppb
10/8/2013	Tetrachlorethene	<1	ppb
10/8/2013	Toluene	<1	ppb
10/8/2013	Trans-1,2-Dichloroethene	<1	ppb
10/8/2013	Trans-1,3-Dichloropropene	<1	ppb
10/8/2013	Trichlorethene	<1	ppb
10/8/2013	Trichlorofluoromethane	<1	ppb
10/8/2013	Vinyl Chloride	<1	ppb
11/5/2013	1,1,1-Trichloroethane	<1	ppb
11/5/2013	1,1,2,2-Tetrachlorethane	<1	ppb
11/5/2013	1,1,2-Trichloroethane	<1	ppb
11/5/2013	1,1-Dichloroethane	<1	ppb
11/5/2013	1,1-Dichloroethene	<1	ppb
11/5/2013	1,2-dichlorobenzene	<1	ppb
11/5/2013	1,2-Dichloroethane	<1	ppb
11/5/2013	1,2-Dichloropropane	<1	ppb
11/5/2013	1,3-dichlorobenzene	<1	ppb
11/5/2013	1,4-dichlorobenzene	<1	ppb
11/5/2013	2-Chloroethylvinylether	<2	ppb
11/5/2013	Benzene	<1	ppb
11/5/2013	Bromodichloromethane	<1	ppb
11/5/2013	Bromoform	<1	ppb
11/5/2013	Bromomethane	<10	ppb
11/5/2013	Carbon Tetrachloride	<1	ppb
11/5/2013	Chlorobenzene	<1	ppb
11/5/2013	Chloroethane	<10	ppb
11/5/2013	Chloroform	<1	ppb
11/5/2013	Chloromethane	<10	ppb

Table 25: EPA Priority Pollutants Data Bucklin Point

EPA Priority Pollutants Data Bucklin Point 2013

Bucklin Point Influent Grab Samples			
Sample Date	Parameter	Result	Units
11/5/2013	cis-1,3-Dichloropropene	<1	ppb
11/5/2013	Dibromochloromethane	<1	ppb
11/5/2013	Ethylbenzene	<1	ppb
11/5/2013	Methylene Chloride	<5	ppb
11/5/2013	o- xylene	<1	ppb
11/5/2013	p&m xylene	<1	ppb
11/5/2013	Tetrachlorethene	3	ppb
11/5/2013	Toluene	5	ppb
11/5/2013	Trans-1,2-Dichloroethene	<1	ppb
11/5/2013	Trans-1,3-Dichloropropene	<1	ppb
11/5/2013	Trichlorethene	<1	ppb
11/5/2013	Trichlorofluoromethane	<1	ppb
11/5/2013	Vinyl Chloride	<1	ppb
12/3/2013	1,1,1-Trichloroethane	<1	ppb
12/3/2013	1,1,2,2-Tetrachlorethene	<1	ppb
12/3/2013	1,1,2-Trichloroethane	<1	ppb
12/3/2013	1,1-Dichloroethane	<1	ppb
12/3/2013	1,1-Dichloroethene	<1	ppb
12/3/2013	1,2-dichlorobenzene	<1	ppb
12/3/2013	1,2-Dichloroethane	<1	ppb
12/3/2013	1,2-Dichloropropane	<1	ppb
12/3/2013	1,3-dichlorobenzene	<1	ppb
12/3/2013	1,4-dichlorobenzene	<1	ppb
12/3/2013	2-Chloroethylvinylether	<2	ppb
12/3/2013	Benzene	<1	ppb
12/3/2013	Bromodichloromethane	<1	ppb
12/3/2013	Bromoform	<1	ppb
12/3/2013	Bromomethane	<10	ppb
12/3/2013	Carbon Tetrachloride	<1	ppb
12/3/2013	Chlorobenzene	<1	ppb
12/3/2013	Chloroethane	<10	ppb
12/3/2013	Chloroform	6	ppb
12/3/2013	Chloromethane	<10	ppb
12/3/2013	cis-1,3-Dichloropropene	<1	ppb
12/3/2013	Dibromochloromethane	<1	ppb
12/3/2013	Ethylbenzene	<1	ppb
12/3/2013	Methylene Chloride	<5	ppb
12/3/2013	o- xylene	<1	ppb
12/3/2013	p&m xylene	<1	ppb
12/3/2013	Tetrachlorethene	<1	ppb
12/3/2013	Toluene	5	ppb
12/3/2013	Trans-1,2-Dichloroethene	<1	ppb
12/3/2013	Trans-1,3-Dichloropropene	<1	ppb
12/3/2013	Trichlorethene	<1	ppb
12/3/2013	Trichlorofluoromethane	<1	ppb
12/3/2013	Vinyl Chloride	<1	ppb

Bucklin Point Effluent Grab Samples			
Sample Date	Parameter	Result	Units
11/5/2013	cis-1,3-Dichloropropene	<1	ppb
11/5/2013	Dibromochloromethane	<1	ppb
11/5/2013	Ethylbenzene	<1	ppb
11/5/2013	Methylene Chloride	<5	ppb
11/5/2013	o- xylene	<1	ppb
11/5/2013	p&m xylene	<1	ppb
11/5/2013	Tetrachlorethene	<1	ppb
11/5/2013	Toluene	<1	ppb
11/5/2013	Trans-1,2-Dichloroethene	<1	ppb
11/5/2013	Trans-1,3-Dichloropropene	<1	ppb
11/5/2013	Trichlorethene	<1	ppb
11/5/2013	Trichlorofluoromethane	<1	ppb
11/5/2013	Vinyl Chloride	<1	ppb
12/3/2013	1,1,1-Trichloroethane	<1	ppb
12/3/2013	1,1,2,2-Tetrachlorethene	<1	ppb
12/3/2013	1,1,2-Trichloroethane	<1	ppb
12/3/2013	1,1-Dichloroethane	<1	ppb
12/3/2013	1,1-Dichloroethene	<1	ppb
12/3/2013	1,2-dichlorobenzene	<1	ppb
12/3/2013	1,2-Dichloroethane	<1	ppb
12/3/2013	1,2-Dichloropropane	<1	ppb
12/3/2013	1,3-dichlorobenzene	<1	ppb
12/3/2013	1,4-dichlorobenzene	<1	ppb
12/3/2013	2-Chloroethylvinylether	<2	ppb
12/3/2013	Benzene	<1	ppb
12/3/2013	Bromodichloromethane	<1	ppb
12/3/2013	Bromoform	<1	ppb
12/3/2013	Bromomethane	<10	ppb
12/3/2013	Carbon Tetrachloride	<1	ppb
12/3/2013	Chlorobenzene	<1	ppb
12/3/2013	Chloroethane	<10	ppb
12/3/2013	Chloroform	<1	ppb
12/3/2013	Chloromethane	<10	ppb
12/3/2013	cis-1,3-Dichloropropene	<1	ppb
12/3/2013	Dibromochloromethane	<1	ppb
12/3/2013	Ethylbenzene	<1	ppb
12/3/2013	Methylene Chloride	<5	ppb
12/3/2013	o- xylene	<1	ppb
12/3/2013	p&m xylene	<1	ppb
12/3/2013	Tetrachlorethene	<1	ppb
12/3/2013	Toluene	<1	ppb
12/3/2013	Trans-1,2-Dichloroethene	<1	ppb
12/3/2013	Trans-1,3-Dichloropropene	<1	ppb
12/3/2013	Trichlorethene	<1	ppb
12/3/2013	Trichlorofluoromethane	<1	ppb
12/3/2013	Vinyl Chloride	<1	ppb

Table 25: EPA Priority Pollutants Data Bucklin Point

Sanitary Manhole Sampling Data 2013

Date	Location	As (ppb)	BOD (ppm)	Cd (ppb)	Cr (ppb)	Cu (ppb)	CN (ppb)	Pb (ppb)	Hg (ppt)	Mo (ppb)	Ni (ppb)	Se (ppb)	Ag (ppb)	Sn (ppb)	TSS (ppm)	Zn (ppb)
1/9/2013	BS24	0.3	95.42	0.1027	0.3213	12.54	4	0.9753	39.8	0.5823	1.516	0.5	0.06167	5	32	40.23
1/16/2013	FS30	0.4823	265.3	0.103	0.8137	17.51	4.00	8.144	11.5	0.6547	1.785	0.855	0.189		176	76.55
1/23/2013	BS17	0.5373		0.2717	1.394	32.74		6.302		1.011	4.54	0.8177	0.196	5		135.8
1/30/2013	BS04	0.3	96.52	0.068	0.3973	9.443	4.00	0.5567	13	0.3	1.596	0.5	0.1023	5	74	39.59
2/6/2013	FS24	0.4713	492.88	0.1217	1.086	27.04	4.69	10.74	31.9	0.792	3.184	0.7337	0.305		276	124.6
2/15/2013	BS26	0.355		0.2377	0.86	20.51	4.00	12.18		0.69	1.918	0.5	0.1333	5	346	116.2
2/20/2013	FS14	0.3923	423.88	0.211	1.261	62.97	4	10.63	20.8	0.714	2.721	0.7293	0.214		370	119
3/1/2013	FS04	0.3963	33.74	0.106	0.3	3.243	4.00	1.529	9.7	0.3	1.413	0.7717	0.054		26	21.38
3/6/2013	BS03	0.3	54.57	0.05167	0.3077	6.96	5.45	0.9153	10.8	0.3	1.409	0.617	0.05	5	28	30.65
3/13/2013	FS41	0.6347	360	0.2677	3.649	25.24	4.00	14.5	50	0.6013	3.372	0.7213	0.3157		94	133.7
3/20/2013	BS09	0.5343	252.66	0.5693	0.75	25.85	5.14	11.92	31.2	0.995	2.341	0.6933	0.07867	5	192	89.98
3/27/2013	FS13	0.3	52.22	0.1017	0.404	3.82	4.00	16.77	3.78	0.3	1.005	0.5	0.038		128	17.47
4/3/2013	BS17	0.3	120.56	0.2697	0.946	11.68	4	1.671	18.2	0.366	1.837	0.5	0.2113	5	38	53.73
4/10/2013	FS43	0.4447	305.72	0.3667	1.812	34.26	4.66	29.73	37.4	1.148	2.918	0.7557	0.1973		330	174.1
4/17/2013	BS12	0.786	248.85	0.2197	1.097	34.08	6.37	7.296	39.9	1.012	3.023	0.944	0.1963	11.93	188	153
4/24/2013	FS19	0.4767	299.74	0.2267	0.8307	19.12	4.00	7.693	39.4	0.7827	2.375	0.5383	0.151		172	71.93
5/1/2013	BS04	0.3	125.85	0.06033	0.4973	9.58	4	0.757	15.9	0.76	1.708	0.5	0.08567	5	110	55.12
5/8/2013	FS37	0.3993	594.28	0.1277	1.226	24.79	5.72	9.084	42.1	0.8637	2.348	0.7153	0.315		172	85.73
5/15/2013	BS22	1.145	180	0.124	1.265	40.01	4	4.821	28.6	0.7223	2.523	0.573	0.6123	5	134	133.2
8/7/2013	FS03	1.275		0.17	4.786	32.94		50.25	35.8	0.6347	5.562	0.597	0.357			80.23
8/14/2013	BS11	0.7387	275.8	0.1237	0.955	33.44	4	6.454	196	0.828	2.381	0.5	0.787	5	94	117.4
8/24/2013	FS30	0.6863	205.93	0.184	1.189	39.18	NR	14.25	44.1	0.8323	3.812	0.5237	0.283		384	93.69
8/28/2013	BS04	1.393	582.28	0.3243	4.004	45.90	8	3.351	126	1.535	5.166	0.9757	0.8043	5	968	262.9
9/4/2013	FS19	0.5207	197	0.08933	0.4297	20.02	10.00	8.242	32.6	0.5963	2.016	0.5	0.07267		56	38.03
9/11/2013	FS19	1.125	1346	1.037	4.031	97.42	10	52	270	4.574	9.035	1.886	1.038		1644	718.6
9/18/2013	BS07	0.4717	2.64	0.08633	0.3853	1.558	10.00	2.138	2.94	0.3	0.7713	0.5007	0.02	5	42	10.11
9/25/2013	BS07	0.901	351.68	0.4133	2.628	67.47	4.18	19.38	58.2	2.015	4.098	0.52	0.6983	5	474	296.5
10/6/2013	BS01	0.5717	212.38	0.08733	0.9483	102.3	4.00	5.711	38.1	0.821	2.291	0.746	0.3	5	266	142.7
10/16/2013	FS17	0.8497	398.1	0.4117	2.43	47.10	4	29.07	136	1.229	4.071	1.346	13.48		836	243.7
10/23/2013	FS21	0.6053	267.52	0.2313	1.064	19.26	4.00	15.82	56.6	0.8123	1.862	0.7783	0.2193		254	111.8
10/30/2013	BS11	0.749	423	7.472	1.529	1481.00	4	10.23	1860	1.518	3.089	2.066	1.613	5	416	267.4
11/6/2013	FS11	0.62	283.57	0.447	1.94	60.15	4.00	44.7	29.3	1.4	3.85	0.96	1.042		602	269.8
11/13/2013	BS03	1	126.5	0.072	0.72	34.89	4	0.67	27.7	0.4	2.95	0.46	0.081	5	128	56.16
11/26/2013	FS01	0.59	523.12	0.327	2.58	54.26	4.00	46.71	117	1.07	13.79	0.9	0.325		542	186.7

BS= Bucklin Point Sanitary Manhole FS= Field's Point Sanitary Manhole

Table: 26 Sanitary Manhole Sampling Data

NBC Significant Industrial User Sample Results

User Name	Location	Cat. #	Sample Date	Type	Flow	Volume	CDF	Cd	Cr	Cu	Pb	Ni	Zn	Cu	Ag	BOD	TSS	TTO	Total O & G	Misc
Umicore USA, Incorporated	Sample Location # 2	22	7/24/2013	G		1500		0.015	0.075	0.02	0.075	0.05	0.715		0.025					
Umicore USA, Incorporated	Sample Location # 2	22	2/6/2013	C		1500		0.015	0.075	0.062	0.075	0.05	0.972		0.025					
Umicore USA, Incorporated	Sample Location # 3	22	3/25/2013	C		12015		0.015	0.075	0.02	0.075	0.05	0.06		0.025					
Umicore USA, Incorporated	Sample Location # 3	22	7/23/2013	C		25582		0.015	0.075	0.02	0.075	0.05	0.06		0.025					
Unicas Manufacturing Company	Sample Location # 1	49	10/16/2013 0:00	G				0.015	0.075						0.025					
Unicas Manufacturing Company	Sample Location # 1	49	6/25/2013	C		449		0.015	0.075	0.02	0.075	0.05	0.06	0.005	0.025					
Unicas Manufacturing Company	Sample Location # 4	49	10/16/2013	G		540		0.015	0.075		0.075	0.05	0.06							
Unique Plating Company	Sample Location # 1	11	8/14/2013	C		2394		0.015	0.075	0.088	0.075	0.548	0.06	0.116	0.025					
Unique Plating Company	Sample Location # 1	11	2/7/2013	C		2094		0.015	0.075	1.64	0.075	0.986	0.06	0.285	0.025					
Unique Plating Company	Sample Location # 1	11	3/6/2013	C		2020		0.015	0.075	0.069	0.075	0.198	0.06	0.162	0.025					
Univar USA, Inc.	Sample Location # 1	22	4/8/2013	C		7500		0.015	0.075	0.049	0.075	0.05	0.454	0.009	0.025			0.065		MERCURY = .005, T.RES.CHLORINE = .006
Univar USA, Inc.	Sample Location # 1	22	11/5/2013	C		7500		0.015	0.075	0.037	0.075	0.14	0.279	0.004	0.025			0.052		MERCURY = 0, T.RES.CHLORINE = .006
Universal Plating Company, Inc.	Sample Location # 1	11	11/21/2013	C		100		0.256	0.235	22.45	0.247	2.01	1.96	0.17	0.025					
Universal Plating Company, Inc.	Sample Location # 1	11	5/1/2013	C		1421		0.015	0.075	0.081	0.075	0.05	0.06	0.005	0.025					
Vinal Diagnostics, Inc.	Sample Location # 1	22	10/23/2013	G		40		0.015	0.075	0.02	0.075	0.05	0.06		0.025			0.009		
Vinal Diagnostics, Inc.	Sample Location # 1	22	4/11/2013	G		25		0.015	0.075	0.02	0.075	0.05	0.06		0.025			0.012		

Table: 27 NBC Significant Industrial User Sample Results

Septage Monitoring Data - 2013

Results in ppb

Sample NO.	DATE	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL
BA16885	1/2/2013	15	15.0	135.3	75.0	10840	20.0	551.9	75.0	158.4	50.0	40	40.0	11370	60.0
BA16886	1/3/2013	15	15.0	203.4	75.0	8573	20.0	226.4	75.0	171	50.0	40	40.0	11020	60.0
BA16887	1/4/2013	15	15.0	80.61	75.0	4119	20.0	499	75.0	101.9	50.0	40	40.0	4293	60.0
BA16891	1/9/2013	15.07	15.0	184.7	75.0	8999	20.0	1108	75.0	129.7	50.0	40	40.0	8186	60.0
BA16892	1/10/2013	27.77	15.0	282.2	75.0	18380	20.0	740.1	75.0	197.1	50.0	133.5	40.0	14470	60.0
BA16893	1/11/2013	42.67	15.0	531.2	75.0	11540	20.0	1393	75.0	297	50.0	205.2	40.0	18100	60.0
BA18320	1/14/2013	15	15.0	75	75.0	322.5	20.0	75	75.0	50	50.0	40	40.0	534.5	60.0
BA18321	1/15/2013	15	15.0	75	75.0	1244	20.0	218	75.0	50	50.0	40	40.0	1458	60.0
BA18322	1/16/2013	15	15.0	121.2	75.0	3048	20.0	152.6	75.0	110.3	50.0	40	40.0	6580	60.0
BA19736	1/22/2013	15	15.0	75	75.0	863.3	20.0	76.21	75.0	50	50.0	72.19	40.0	1818	60.0
BA19737	1/25/2013	15	15.0	188.3	75.0	8454	20.0	137.6	75.0	106.3	50.0	40	40.0	2063	60.0
BA19738	1/23/2013	15	15.0	75	75.0	3675	20.0	688.7	75.0	100.3	50.0	40	40.0	3120	60.0
BA20229	1/31/2013	17.48	15.0	207.8	75.0	5194	20.0	287.1	75.0	179.7	50.0	40	40.0	15660	60.0
BA20230	1/29/2013	15	15.0	75	75.0	2429	20.0	298.4	75.0	50	50.0	40	40.0	2966	60.0
BA20231	1/30/2013	15	15.0	75	75.0	1329	20.0	99.12	75.0	50	50.0	40	40.0	1854	60.0
BA20952	2/14/2013	15	15.0	83.63	75.0	6336	20.0	232.9	75.0	174.9	50.0	40	40.0	14850	60.0
BA20953	2/15/2013	15	15.0	126.9	75.0	6781	20.0	394.9	75.0	122.7	50.0	40	40.0	7368	60.0
BA20954	2/13/2013	34.62	15.0	358.2	75.0	6574	20.0	448.7	75.0	374.6	50.0	40	40.0	37530	60.0
BA20955	2/6/2013	15	15.0	75	75.0	4757	20.0	90.62	75.0	50	50.0	40	40.0	2185	60.0
BA20956	2/4/2013	16.79	15.0	128	75.0	36030	20.0	330.8	75.0	77.07	50.0	40	40.0	6475	60.0
BA20957	2/5/2013	15	15.0	102.1	75.0	20800	20.0	243.2	75.0	64.2	50.0	40	40.0	4613	60.0
BA22214	2/20/2013	15	15.0	259	75.0	9041	20.0	628.2	75.0	159.1	50.0	46.6	40.0	8517	60.0
BA22215	2/21/2013	15	15.0	75	75.0	370.8	20.0	75	75.0	50	50.0	40	40.0	590.5	60.0
BA22216	2/22/2013	25.01	15.0	332.3	75.0	18330	20.0	505.3	75.0	251.5	50.0	144.2	40.0	27860	60.0
BA23112	2/26/2013	15	15.0	83.09	75.0	5872	20.0	190.1	75.0	146.1	50.0	40	40.0	5264	60.0
BA23113	2/27/2013	15	15.0	75	75.0	493.5	20.0	75	75.0	50	50.0	40	40.0	742	60.0
BA23117	2/25/2013	15	15.0	192.7	75.0	7125	20.0	493.2	75.0	118.4	50.0	40	40.0	7383	60.0
BA23318	3/4/2013	15	15.0	130.8	75.0	7296	20.0	178	75.0	186.4	50.0	40	40.0	7124	60.0
BA23319	3/5/2013	34.26	15.0	449	75.0	25800	20.0	644.9	75.0	362.3	50.0	40	40.0	21440	60.0
BA23320	3/6/2013	15	15.0	168.8	75.0	5604	20.0	205.2	75.0	71.05	50.0	40	40.0	4356	60.0
BA24036	3/13/2013	15	15.0	75	75.0	437.3	20.0	75	75.0	50	50.0	40	40.0	1911	60.0
BA24037	3/11/2013	15	15.0	75	75.0	2479	20.0	162.5	75.0	91.97	50.0	40	40.0	6010	60.0
BA24038	3/12/2013	15	15.0	148.1	75.0	5672	20.0	400.3	75.0	148.9	50.0	64.14	40.0	12400	60.0
BA24830	3/30/2013	21.2	15.0	114.7	75.0	12010	20.0	1802	75.0	185.7	50.0	40	40.0	9113	60.0
BA24831	3/29/2013	20.11	15.0	140.3	75.0	19870	20.0	858.3	75.0	159	50.0	40	40.0	11290	60.0

All values that were at or below the detection limit were reported at the detection limit

Table 28: Septage Sampling Data

Septage Monitoring Data - 2013

Results in ppb

Sample NO.	DATE	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL
BA24832	3/28/2013	93.52	15.0	444	75.0	61450	20.0	6863	75.0	1165	50.0	101.5	40.0	35450	60.0
BA25089	3/18/2013	20.63	15.0	178	75.0	9122	20.0	641.2	75.0	197.2	50.0	40	40.0	14260	60.0
BA25090	3/19/2013	15	15.0	112.7	75.0	7007	20.0	500.5	75.0	147.5	50.0	40	40.0	10660	60.0
BA25091	3/20/2013	15	15.0	75	75.0	9075	20.0	205.5	75.0	261.3	50.0	40	40.0	8178	60.0
BA26025	4/23/2013	15	15.0	75	75.0	966.8	20.0	75	75.0	69.93	50.0	40	40.0	2354	60.0
BA26026	4/22/2013	58.88	15.0	77.11	75.0	17350	20.0	584.8	75.0	189.1	50.0	40	40.0	15610	60.0
BA26027	4/25/2013	15	15.0	75	75.0	2032	20.0	75	75.0	54.32	50.0	40	40.0	2097	60.0
BA26252	4/1/2013	39.72	15.0	368.6	75.0	10910	20.0	1130	75.0	281.6	50.0	48.01	40.0	22900	60.0
BA26253	4/2/2013	65.44	15.0	192.1	75.0	10390	20.0	1015	75.0	254.6	50.0	756.6	40.0	16030	60.0
BA26254	4/3/2013	41.44	15.0	373	75.0	12470	20.0	992.8	75.0	586.6	50.0	222.5	40.0	26450	60.0
BA27134	4/11/2013	15	15.0	75	75.0	4251	20.0	156.4	75.0	78.09	50.0	40	40.0	4630	60.0
BA27135	4/12/2013	15	15.0	85.61	75.0	5843	20.0	195.2	75.0	333.3	50.0	40	40.0	11250	60.0
BA27136	4/13/2013	15	15.0	75	75.0	846.2	20.0	75	75.0	98.05	50.0	40	40.0	1300	60.0
BA28108	4/15/2013	15	15.0	75	75.0	2700	20.0	119.5	75.0	81.34	50.0	40	40.0	3470	60.0
BA28109	4/16/2013	15	15.0	75	75.0	4175	20.0	111.5	75.0	127	50.0	40	40.0	15900	60.0
BA28110	4/17/2013	15	15.0	75	75.0	1140	20.0	75	75.0	63.3	50.0	40	40.0	5460	60.0
BA28837	5/3/2013	15	15.0	75	75.0	1732	20.0	75	75.0	50	50.0	40	40.0	2788	60.0
BA28838	5/2/2013	15	15.0	75	75.0	4063	20.0	75	75.0	165.6	50.0	40	40.0	1946	60.0
BA28841	5/1/2013	233.4	15.0	280.4	75.0	41890	20.0	3123	75.0	1111	50.0	111.6	40.0	14460	60.0
BA29968	5/11/2013	15	15.0	75	75.0	2029	20.0	75	75.0	57.44	50.0	40	40.0	2117	60.0
BA29969	5/10/2013	114.9	15.0	1276	75.0	28750	20.0	1019	75.0	394.2	50.0	370.8	40.0	25030	60.0
BA29970	5/9/2013	31.66	15.0	263.1	75.0	19640	20.0	656.1	75.0	278.9	50.0	253.7	40.0	21440	60.0
BA30630	5/16/2013	40.39	15.0	323.4	75.0	26850	20.0	1044	75.0	369.9	50.0	67.7	40.0	31930	60.0
BA30631	5/17/2013	28.78	15.0	276.1	75.0	6794	20.0	2540	75.0	244.8	50.0	40	40.0	12080	60.0
BA30632	5/18/2013	41.31	15.0	414.3	75.0	9036	20.0	657.9	75.0	456.7	50.0	47.2	40.0	23770	60.0
BA31733	5/23/2013	15	15.0	75	75.0	1566	20.0	106.8	75.0	55.12	50.0	40	40.0	6190	60.0
BA31734	5/24/2013	15	15.0	146	75.0	6507	20.0	876.3	75.0	119	50.0	40	40.0	7435	60.0
BA31735	5/25/2013	30.47	15.0	127.6	75.0	15720	20.0	554.1	75.0	141.5	50.0	307.3	40.0	12300	60.0
BA32438	5/28/2013	25.64	15.0	217.3	75.0	9951	20.0	587.3	75.0	251	50.0	47.8	40.0	22510	60.0
BA32439	5/29/2013	35.79	15.0	366.3	75.0	46000	20.0	1160	75.0	205.6	50.0	1439	40.0	27890	60.0
BA32440	5/30/2013	15	15.0	75	75.0	2652	20.0	329.6	75.0	82.25	50.0	40	40.0	7431	60.0
BA32806	6/4/2013	15	15.0	75	75.0	553.5	20.0	75	75.0	50	50.0	40	40.0	1168	60.0
BA32807	6/5/2013	15	15.0	75	75.0	3990	20.0	155.9	75.0	156.6	50.0	40	40.0	7275	60.0
BA32811	6/3/2013	15	15.0	75	75.0	1337	20.0	75	75.0	67.9	50.0	40	40.0	3445	60.0
BA33522	6/13/2013	15	15.0	75	75.0	1470	20.0	83.8	75.0	50	50.0	40	40.0	2214	60.0

All values that were at or below the detection limit were reported at the detection limit

Table 28: Septage Sampling Data

Septage Monitoring Data - 2013

Results in ppb

Sample NO.	DATE	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL
BA33523	6/14/2013	15	15.0	75	75.0	885.1	20.0	75	75.0	50	50.0	40	40.0	1252	60.0
BA33524	6/15/2013	15	15.0	130.7	75.0	3002	20.0	266.2	75.0	159.1	50.0	40	40.0	5222	60.0
BA34250	6/17/2013	27.67	15.0	202.3	75.0	10330	20.0	425.6	75.0	251.1	50.0	40	40.0	18130	60.0
BA34251	6/20/2013	22.28	15.0	84.12	75.0	5030	20.0	1044	75.0	93.2	50.0	40	40.0	9656	60.0
BA34252	6/22/2013	22.28	15.0	206.2	75.0	13310	20.0	320.6	75.0	190.7	50.0	40	40.0	18620	60.0
BA34924	6/26/2013	15	15.0	96.37	75.0	3144	20.0	205	75.0	124.4	50.0	40	40.0	12120	60.0
BA34925	6/25/2013	35.46	15.0	291.4	75.0	25740	20.0	954.6	75.0	317.4	50.0	94.14	40.0	23300	60.0
BA34926	6/24/2013	61.42	15.0	432.3	75.0	28000	20.0	2050	75.0	462.8	50.0	1342	40.0	34920	60.0
BA35451	7/1/2013	28.59	15.0	267.7	75.0	22600	20.0	496.9	75.0	720.7	50.0	41.54	40.0	30900	60.0
BA35452	7/2/2013	19.76	15.0	162.8	75.0	3410	20.0	301.4	75.0	134.2	50.0	41.01	40.0	12850	60.0
BA35454	7/5/2013	15	15.0	185.6	75.0	5858	20.0	220.2	75.0	194.9	50.0	40	40.0	12250	60.0
BA36223	7/11/2013	45.27	15.0	197.4	75.0	13390	20.0	369.4	75.0	238.5	50.0	40	40.0	18570	60.0
BA36224	7/12/2013	15	15.0	75	75.0	5361	20.0	225.6	75.0	132	50.0	40	40.0	7624	60.0
BA36225	7/13/2013	15	15.0	201.1	75.0	3914	20.0	140.8	75.0	207	50.0	40	40.0	7411	60.0
BA36859	7/16/2013	15	15.0	75	75.0	464.7	20.0	75	75.0	50	50.0	40	40.0	1251	60.0
BA36860	7/18/2013	60.25	15.0	322.9	75.0	43040	20.0	1968	75.0	388.7	50.0	110.6	40.0	42400	60.0
BA36861	7/20/2013	22.83	15.0	182.7	75.0	6273	20.0	738.7	75.0	273.9	50.0	40	40.0	21720	60.0
BA37409	7/25/2013	15	15.0	75	75.0	2457	20.0	158.5	75.0	81.38	50.0	40	40.0	6906	60.0
BA37410	7/24/2013	15	15.0	75	75.0	438.4	20.0	75	75.0	54.66	50.0	40	40.0	1116	60.0
BA37411	7/22/2013	15	15.0	75	75.0	672.7	20.0	75	75.0	88.06	50.0	40	40.0	3199	60.0
BA38084	8/1/2013	36.18	15.0	286.2	75.0	23240	20.0	793.7	75.0	304.8	50.0	51.7	40.0	24120	60.0
BA38085	8/2/2013	21.11	15.0	207.4	75.0	6033	20.0	627.7	75.0	186.9	50.0	40	40.0	17310	60.0
BA38086	8/3/2013	15	15.0	93.8	75.0	4326	20.0	237.4	75.0	171	50.0	40	40.0	9841	60.0
BA38752	8/9/2013	58.08	15.0	221.1	75.0	15330	20.0	413	75.0	274.4	50.0	40	40.0	27010	60.0
BA38753	8/8/2013	22.45	15.0	151.1	75.0	5209	20.0	972.6	75.0	140.8	50.0	40	40.0	12830	60.0
BA38754	8/7/2013	15	15.0	75	75.0	2665	20.0	213.5	75.0	60.99	50.0	40	40.0	2905	60.0
BA39433	8/13/2013	28.55	15.0	187.6	75.0	9578	20.0	499.8	75.0	203.3	50.0	93.61	40.0	18270	60.0
BA39434	8/15/2013	15	15.0	75	75.0	6567	20.0	75	75.0	50	50.0	40	40.0	6251	60.0
BA39435	8/16/2013	15	15.0	75	75.0	4269	20.0	130.2	75.0	111.6	50.0	40	40.0	6819	60.0
BA40415	8/22/2013	15	15.0	75	75.0	1381	20.0	75	75.0	50	50.0	40	40.0	3894	60.0
BA40416	8/23/2013	15	15.0	75	75.0	2597	20.0	629.7	75.0	115.2	50.0	40	40.0	7080	60.0
BA40417	8/24/2013	15	15.0	75	75.0	1500	20.0	75	75.0	50	50.0	40	40.0	1919	60.0
BA40782	8/28/2013	15	15.0	75	75.0	836.9	20.0	75	75.0	50	50.0	40	40.0	1133	60.0
BA40783	8/26/2013	20.18	15.0	134.4	75.0	7574	20.0	329.9	75.0	180.6	50.0	40	40.0	13570	60.0
BA40784	8/27/2013	69.08	15.0	279.5	75.0	20150	20.0	1543	75.0	454.3	50.0	131.4	40.0	20920	60.0

All values that were at or below the detection limit were reported at the detection limit

Table 28: Septage Sampling Data

Septage Monitoring Data - 2013

Results in ppb

Sample NO.	DATE	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL
BA41767	9/7/2013	33.48	15.0	153.6	75.0	12760	20.0	766	75.0	196.3	50.0	40.1	40.0	27940	60.0
BA41768	9/6/2013	18.89	15.0	83.48	75.0	5778	20.0	167.8	75.0	223.4	50.0	40	40.0	10710	60.0
BA41769	9/5/2013	15	15.0	75	75.0	1320	20.0	75	75.0	50	50.0	40	40.0	2767	60.0
BA42228	9/14/2013	37.59	15.0	120	75.0	15860	20.0	259	75.0	157.9	50.0	40	40.0	9980	60.0
BA42229	9/13/2013	15	15.0	75	75.0	4054	20.0	139.2	75.0	73.89	50.0	40	40.0	7955	60.0
BA42230	9/12/2013	30.44	15.0	169.2	75.0	15480	20.0	1386	75.0	168.1	50.0	40	40.0	16020	60.0
BA42924	9/21/2013	17.91	15.0	126.3	75.0	11550	20.0	275.1	75.0	141.3	50.0	43.24	40.0	20660	60.0
BA42928	9/17/2013	15	15.0	107.9	75.0	13750	20.0	253.3	75.0	116.5	50.0	40	40.0	13940	60.0
BA42929	9/16/2013	27.79	15.0	268.7	75.0	23480	20.0	1414	75.0	198.7	50.0	40	40.0	12900	60.0
BA43490	9/25/2013	27.06	15.0	255.4	75.0	14070	20.0	775.7	75.0	242.3	50.0	40	40.0	17190	60.0
BA43491	9/24/2013	15.78	15.0	77.75	75.0	6625	20.0	343.4	75.0	154.7	50.0	40	40.0	9274	60.0
BA43492	9/23/2013	27.05	15.0	97.34	75.0	9682	20.0	550	75.0	153	50.0	40	40.0	8834	60.0
BA44213	10/3/2013	38.49	15.0	323.7	75.0	13390	20.0	1431	75.0	282	50.0	40	40.0	23600	60.0
BA44214	10/4/2013	24.5	15.0	113.7	75.0	5569	20.0	599.6	75.0	167.2	50.0	57.81	40.0	9444	60.0
BA44215	10/5/2013	15.9	15.0	75	75.0	4379	20.0	309.7	75.0	104.2	50.0	40	40.0	6779	60.0
BA44714	10/7/2013	15	15.0	75	75.0	12790	20.0	209.9	75.0	88.45	50.0	40	40.0	6788	60.0
BA44715	10/8/2013	15	15.0	75	75.0	2390	20.0	75	75.0	77.27	50.0	40	40.0	2303	60.0
BA44716	10/9/2013	15	15.0	75	75.0	1710	20.0	102.7	75.0	57.53	50.0	40	40.0	3273	60.0
BA45434	10/17/2013	15	15.0	75	75.0	2522	20.0	134.8	75.0	60	50.0	40	40.0	5486	60.0
BA45435	10/18/2013	15	15.0	82.48	75.0	9385	20.0	219.6	75.0	198.9	50.0	86.84	40.0	7505	60.0
BA45436	10/19/2013	15	15.0	75	75.0	8643	20.0	230.6	75.0	101.1	50.0	40	40.0	5405	60.0
BA46032	10/23/2013	46.05	15.0	440.5	75.0	17850	20.0	882.2	75.0	229.1	50.0	40.59	40.0	14770	60.0
BA46033	10/24/2013	33.22	15.0	205.1	75.0	9750	20.0	321.3	75.0	322.6	50.0	40	40.0	19310	60.0
BA46034	10/26/2013	15	15.0	75	75.0	3919	20.0	144.8	75.0	60.22	50.0	40	40.0	3200	60.0
BA46711	10/30/2013	19.67	15.0	75	75.0	12550	20.0	504.7	75.0	142	50.0	52.5	40.0	8508	60.0
BA46712	11/1/2013	15	15.0	86.99	75.0	8034	20.0	461.6	75.0	97.54	50.0	40	40.0	10030	60.0
BA46713	11/2/2013	15	15.0	75	75.0	904.5	20.0	75	75.0	50	50.0	40	40.0	1402	60.0
BA47350	11/9/2013	15	15.0	75	75.0	581.1	20.0	75	75.0	50	50.0	40	40.0	2166	60.0
BA47351	11/8/2013	15	15.0	75	75.0	2792	20.0	79.96	75.0	50	50.0	40	40.0	2454	60.0
BA47352	11/7/2013	15.66	15.0	100.4	75.0	3940	20.0	1232	75.0	90.6	50.0	40	40.0	9465	60.0
BA47990	11/14/2013	15	15.0	75	75.0	3789	20.0	75	75.0	50	50.0	40	40.0	2258	60.0
BA47991	11/15/2013	15	15.0	75	75.0	1648	20.0	75	75.0	50	50.0	40	40.0	1532	60.0
BA47992	11/16/2013	15	15.0	75	75.0	238.5	20.0	75	75.0	50	50.0	40	40.0	754.9	60.0
BA48618	11/21/2013	15	15.0	75	75.0	477.4	20.0	75	75.0	50	50.0	40	40.0	1587	60.0
BA48619	11/22/2013	15	15.0	75	75.0	818	20.0	75	75.0	50	50.0	40	40.0	2994	60.0

All values that were at or below the detection limit were reported at the detection limit

Table 28: Septage Sampling Data

Septage Monitoring Data - 2013

Results in ppb

Sample NO.	DATE	Cd	Cd MDL	Cr	Cr MDL	Cu	Cu MDL	Pb	Pb MDL	Ni	Ni MDL	Ag	Ag MDL	Zn	Zn MDL
BA48620	11/23/2013	15	15.0	75	75.0	767.7	20.0	75	75.0	50	50.0	40	40.0	3008	60.0
BA49059	11/25/2013	15	15.0	75	75.0	726.9	20.0	110.6	75.0	50	50.0	40	40.0	1321	60.0
BA49060	11/26/2013	15	15.0	75	75.0	612.4	20.0	75	75.0	164.1	50.0	40	40.0	7420	60.0
BA49061	11/27/2013	15	15.0	75	75.0	325.9	20.0	75	75.0	123.8	50.0	40	40.0	3171	60.0
BA49859	12/5/2013	28.24	15.0	156.4	75.0	7028	20.0	878.6	75.0	599.3	50.0	40	40.0	19530	60.0
BA49860	12/6/2013	23.01	15.0	153.4	75.0	7226	20.0	607	75.0	329.2	50.0	40	40.0	18750	60.0
BA49861	12/7/2013	28.12	15.0	169.1	75.0	8060	20.0	1032	75.0	6504	50.0	40.28	40.0	16430	60.0
BA50487	12/12/2013	1096	15.0	318.2	75.0	8210	20.0	12970	75.0	1422	50.0	40	40.0	16950	60.0
BA50488	12/10/2013	53	15.0	599.3	75.0	15090	20.0	1932	75.0	1084	50.0	78.01	40.0	24020	60.0
BA50489	12/9/2013	21.27	15.0	189.4	75.0	8239	20.0	754	75.0	2470	50.0	42.41	40.0	16370	60.0
BA51156	12/20/2013	28.51	15.0	132.5	75.0	14860	20.0	810.3	75.0	1544	50.0	59.84	40.0	20250	60.0
BA51157	12/19/2013	40.35	15.0	628.4	75.0	18460	20.0	915.7	75.0	2424	50.0	40	40.0	25080	60.0
BA51158	12/18/2013	22.84	15.0	331	75.0	15900	20.0	803.2	75.0	590.4	50.0	103.8	40.0	12830	60.0
BA51847	12/23/2013	39.15	15.0	164.3	75.0	13830	20.0	474.5	75.0	3104	50.0	185.5	40.0	20440	60.0
BA51848	12/24/2013	17.56	15.0	120.5	75.0	12120	20.0	378	75.0	509.7	50.0	40	40.0	12230	60.0
BA51849	12/27/2013	37.96	15.0	214.9	75.0	14710	20.0	1925	75.0	1097	50.0	69.68	40.0	28270	60.0
BA52178	12/30/2013	38.4	15.0	252.1	75.0	28470	20.0	982.7	75.0	1351	50.0	88.31	40.0	21300	60.0

All values that were at or below the detection limit were reported at the detection limit

Table 28: Septage Sampling Data

Metals Loading to Bucklin Point from Septage (lbs/yr)

Metals Loading to Bucklin Point from Septage (lbs/yr)

Year	Cadmium	Chromium	Copper	Lead	Nickel	Silver	Zinc	Total Metals	MGY
1996	4.5	77.6	946.0	167.0	33.9	19.6	1414	2663	14.76
1997	3.9	33.2	806.0	113.0	27.4	10.3	1060	2054	14.22
1998	4.5	29.2	830.0	93.0	31.0	5.7	1016	2009	17.53
1999	3.4	26.5	623.0	61.0	20.0	4.1	849	1587	21.50
2000	2.8	21.8	591.0	53.0	26.7	4.1	873	1572	23.34
2001	1.5	20.7	436.0	42.3	22.4	4.2	633	1160	17.39
2002	0.95	8.2	322.6	30.4	22.8	33.1	473	892	17.04
2003	0.89	3.8	196.4	15.9	7.1	4.2	299	527	13.03
2004	0.90	5.0	256.3	15.9	8.9	3.3	321	612	9.10
2005	0.93	7.9	349.9	25.5	11.3	1.9	458	855	8.96
2006	1.35	8.8	416.0	24.2	13.2	3.3	495	961	9.36
2007	1.5	11.5	532.3	28.2	14.8	4.2	605	1197	8.53
2008	2.8	10.5	440.3	19.8	9.5	5.3	508	996	9.30
2009	1.5	12.1	435.4	23.0	11.6	4.2	554	1042	9.08
2010	1.4	12.5	505.1	30.7	15.5	3.3	640	1208	8.02
2011	1.6	21.1	558.4	35.8	16.8	5.1	745	1384	7.07
2012	1.6	17.7	775.6	39.0	22.5	3.4	989	1848	7.08
2013	1.9	9.7	545.4	35.9	17.0	5.0	688	1303	7.24

Table 29: Septage Summary 1996-2013

River and Bay Nutrients Data 2013

Collection Date	Collection Time	Station	Waterbody	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3-NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	FSS (ppm)	Chl a (ug/L)	Phaeocystin (ug/L)	Comments	
10/30/13	9:00 AM	Cominicut Point	BAY	0.5	6.28	21:21	7.67	95.1	1.50	31	57.5	887	595	303	18	2.4	0.9379	Surface	
10/30/13	2:53 PM	Edgewood Yacht Club	BAY	0.5	12:28	2:52	7.93	154	1.50	60.6	99.6	964	533	172	3.8	0.8644	Surface		
10/30/13	2:40 PM	Ponham Rocks	BAY	0.5	10:04	6:57	7.82	158	2.01	82.7	85.9	970	676	18	2.6	0.7253	Surface		
10/30/13	2:11 PM	India Point Park	BAY	0.5	10:04	21:36	7.85	146	2.40	87.2	77.1	932	500	44	2.0	0.7375	Surface		
10/30/13	2:11 PM	India Point Park	BAY	0.5	10:04	21:36	7.85	146	2.73	91.2	78.6	917	542	42	3.4	1.316	Surface		
10/30/13	1:20 PM	Phillipsdale Landing	BAY	0.5	12:14	4:48	7.87	368	5.20	28.5	13.2	1190	629	26	26.1	2.894	Surface		
10/30/13	9:30 AM	Bullocks Reach Buoy	BAY	0.5	13:12	13:40	7.91	78.9	1.50	27.1	55.7	797	535	282	46	3.2	0.8389	Surface	
10/30/13	9:35 AM	Bullocks Reach Buoy	BAY													10.7	1.813	Middle	
10/30/13	9:40 AM	Bullocks Reach Buoy	BAY													3.5	1.48	Bottom	
10/30/13	8:38 AM	Pawtuxet @ Red Can	BAY	0.5	6.28	21:21	7.67	57.2	1.50	27.2	58.1	779	456	281	42	3.9	2.229	Surface	
11/26/2013	9:15 AM	Cominicut Point	BAY	0.5	23:02	9:50	7.75	87.5	2.54	27.4	35.3	438	269	39	3.598	1.123	Surface		
11/26/2013	9:25 AM	Cominicut Point	BAY					60.6	2.20	17	31.3	391	300	209	33			Bottom	
11/26/2013	12:55 PM	Edgewood Yacht Club	BAY	0.5	4:33	15:21	7.77	122	3.49	42.6	47.6	484	401	311	27	1.751	1.159	Surface	
11/26/2013	1:05 PM	Edgewood Yacht Club	BAY					115	3.01	41.7	47.8	477	413	341	32			Bottom	
11/26/2013	1:15 PM	Ponham Rocks	BAY	0.5	6:57	8:24	7.25	216	4.92	58.9	58.4	601	595	469	33	1.414	0.7671	Surface	
11/26/2013	1:25 PM	Ponham Rocks	BAY					64.8	2.63	34.3	34.5	421	343	255	21			Bottom	
11/26/2013	1:55 PM	India Point Park	BAY	0.5	15:36	20:09	7.74	211	4.35	53.3	61.1	584	507	465	28	3.55	1.522	Surface	
11/26/2013	2:05 PM	India Point Park	BAY					99.1	3.17	42.1	44.7	489	387	322	20			Bottom	
11/26/2013	2:05 PM	India Point Park	BAY					101	2.97	43.7	57.3	488	377	317	21			Bottom	
11/26/2013	10:30 AM	Phillipsdale Landing	BAY	0.5	11:16	4:48	6.74	721	8.38	73.6	165	944	1170	1230	10	1.475	2.238	Surface	
11/26/2013	10:35 AM	Phillipsdale Landing	BAY	1.8	6:14	15:07	6.71	297	6.84	85.8	81.2	610	665	578	20			Bottom	
11/26/2013	9:35 AM	Bullocks Reach	BAY	0.5	19:26	17:45	7.74	89.8	2.93	32.1	37.6	451	382	290	52	2.676	1.205	Surface	
11/26/2013	9:45 AM	Bullocks Reach	BAY					68.6	2.43	25.3	32.9	415	323	240	31	1.137	0.7278	Bottom	
11/26/2013	8:45 AM	Pawtuxet River Red Can	BAY	0.5	20:38	6:14	7.32	476	7.72	99.8	60.5	903	882	795	30	3.607	1.925	Surface	
11/26/2013	8:55 AM	Pawtuxet River Red Can	BAY					211	5.22	57.1	51.7	593	511	449	37			Bottom	
12/24/13	9:00 AM	Phillipsdale Landing	BAY					1060	15.30	193	142	1870	1670	1240	78	0.9		Surface	
12/24/13	9:00 AM	Phillipsdale Landing	BAY														1.2		
12/24/13	9:05 AM	Phillipsdale Landing	BAY					712	10.90	167	85.6	1460	1130	1080	56			Bottom	
RIVER																			
01/03/13	9:25 AM	Blackstone @ Slater Mill	RIVER					0.26	8.95			642.00	9.76	139.00	8.99	3160.0			
01/03/13	1:40 PM	Pawtuxet @ Broad Street	RIVER					1.26	8.35			1270.00	6.88	157.00	43.70	1640			
01/03/13	10:10 AM	Woonasquatucket @ Valley Street	RIVER					0.25	8.63			410.00	1.64	14.10	<-5.00	1840.0			
01/03/13	10:35 AM	Moshassuck @ Mill Street	RIVER					0.59	8.37			598.00	4.70	79.20	5.12	3300.0			
01/03/13	10:35 AM	Moshassuck @ Mill Street	RIVER					0.59	8.37			581.00	4.67	83.60	5.96	3420.0			
01/03/13	8:30 AM	Moshassuck @ Higginson Ave.	RIVER					1.52	7.30			543.00	5.66	59.20	<-5.00	3010.0			
01/03/13	10:00 AM	Woonasquatucket @ Manton Ave	RIVER					0.41	8.90			355.00	2.66	<-7.0	<-5.00	1940.0			
01/03/13	12:55 PM	Ten Mile @ Central Ave.	RIVER					1.31	8.41			2590.00	8.56	44.60	19.90	2810.0			
01/16/13	9:11 AM	Blackstone @ Staeline	RIVER					2.88	7.73			681.00	13.00	63.20	11.40	2870.0			
01/16/13	10:15 AM	Blackstone @ Bilepath Bridge	RIVER					3.17	7.78			879.00	17.50	121.00	95.40	3100.0			
01/16/13	10:45 AM	Blackstone @ Slater Mill	RIVER					3.45	7.34			900.00	13.20	60.00	41.00	2940.0			
01/16/13	2:10 PM	Pawtuxet @ Broad Street	RIVER					3.62	7.32			1590.00	10.60	120.00	40.10	2480.0			
01/16/13	2:10 PM	Pawtuxet @ Broad Street	RIVER					3.62	7.32			1480.00	9.83	121.00	42.60	3010.0			
01/16/13	12:45 PM	Woonasquatucket @ Valley Street	RIVER					3.51	7.28			600.00	3.01	146.00	5.78	2130.0			
01/16/13	1:45 PM	Moshassuck @ Mill Street Bridge	RIVER					3.78	7.71			596.00	16.20	229.00	<5	2440.0			
01/16/13	1:20 PM	Moshassuck @ Higginson Ave.	RIVER					3.81	7.73			564.00	7.33	35.30	<5	2820.0			
01/16/13	12:30 PM	Woonasquatucket River @ Manton Ave.	RIVER					3.64	7.51			566.00	2.53	<5	1700.00	897.0			
01/16/13	2:40 PM	Ten Mile @ Central Ave.	RIVER					4.63	8.31			2390.00	7.10	36.80	30.50	2980.0			
01/16/13	10:10 AM	Warren Reservoir/Kickemait River	RIVER					3.06	8.07			456.00	7.06	47.10	8.82	2040.0			
01/16/13	9:45 AM	Coles River @ Milford Rd	RIVER					3.58	8.34			318.00	3.14	10.00	7.46	1020.0			
01/16/13	10:40 AM	Palmer River at Route 6 in Rehoboth	RIVER					3.71	7.17			285.00	2.36	23.40	8.71	2240.0			
01/16/13	9:00 AM	Runnins River @ River Road	RIVER					1.91	7.40			568.00	6.88	25.60	6.65	3810.0			
01/16/13	1:20 PM	Taunton River @ Berkley Bridge	RIVER					4.31	7.92			593.00	5.76	164.00	22.90	2800.0			
01/30/13	8:50 AM	Blackstone @ Slater Mill	RIVER					0.56	7.46			994	13.6	77.4	6.95	2810			
01/30/13	8:50 AM	Blackstone @ Slater Mill	RIVER					0.56	7.46			996	13.5	76.9	6.25	2920			
01/30/13	10:45 AM	Pawtuxet @ Broad Street	RIVER					2.68	7.05			1950	23.1	722	22	3460			
01/30/13	1:10 PM	Woonasquatucket @ Valley Street	RIVER					3.72	7.35			944	4.44	11.8	<-5.00	2330			
01/30/13	2:30 PM	Moshassuck @ Mill Street Bridge	RIVER					4.66	7.26			767	12.1	105	7.07	3250			
01/30/13	8:30 AM	Moshassuck @ Higginson Ave.	RIVER					2.42	7.53			616	5.18	50.8	<-5.00	3180			
01/30/13	12:50 PM	Woonasquatucket @ Manton Ave.	RIVER					3.21	7.33			838	3.22	34.9	<-5.00	2250			
01/30/13	10:00 AM	Ten Mile @ Central Ave.	RIVER					2.73	6.96			2940	72.7	233	19.6	3400			
02/13/13	8:55 AM	Blackstone River @ Slater Dam	RIVER					1.25	7.03			754	14.1	222	152	2770			
02/13/13	10:50 AM	Pawtuxet River @ Broad Street	RIVER					2.02	7.33			1530	16.1	267	36.4	3030			
02/13/13	9:40 AM	Woonasquatucket @ Valley Street	RIVER					2.27	7.47			741	7.21	13.4	6.12	2190			
02/13/13	9:40 AM	Woonasquatucket @ Valley Street	RIVER					2.27	7.47			713	4.93	15.3	<-5.00	2120			
02/13/13	10:10 AM	Moshassuck @ Mill Street Bridge	RIVER					1.93	7.17			659	6.1	56.9	<-5.00	2710			
02/13/13	9:05 AM	Blackstone River @ Staeline	RIVER					.80c	7.12			759	21.6	212	9.73	2830			
02/13/13	9:40 AM	Moshassuck River @ Higginson Ave.	RIVER					1.72c	8.22			583	4.33	34	<-5.00	3080			
02/13/13	1:30 PM	Woonasquatucket River @ Manton Ave.	RIVER					2.90c	7.73			700	3.83	23	<-5.00	2200			
02/13/13	12:50 PM	Ten Mile @ Central Ave.	RIVER					2.47c	7.88			3260	51.7	148	36.5	2830			
02/26/13	8:55 AM	Ten Mile @ Outlet of Omega Pond	RIVER					2.50	8.04			1350	13.9	22.1	10.9	1650			

Table 30: River and Bay Nutrients Data 2013

River and Bay Nutrients Data 2013

Collection Date	Collection Time	Station	Waterbody	Depth (meters)	Salinity (ppt)	Temp (°C)	pH	NO3+NO2 (ppb)	Nitrite (ppb)	NH3 (ppb)	Ortho-Phosphate (ppb)	Silicate (ppb)	Total Nitrogen (ppb)	Total Dissolved Nitrogen (ppb)	TSS (ppm)	Chl a (ug/L)	Phaeophytin (ug/L)	Comments
12/24/13	10:15 AM	Moshassuck @ Mill Street Bridge	RIVER			3.67	6.63	474	4.17	50.4	<5.00	2760	685	757		2		
12/24/13	8:15 AM	Ten Mile @ Outlet of Omega Pond	RIVER					2210	10.5	79.8	17.8	3410	2590	2760		4		
12/24/13	10:20 AM	Ten Mile Central Ave.	RIVER					1760	14.4	155	9.61	2950	2240	2060		6		
12/24/13	10:20 AM	Ten Mile Central Ave.	RIVER					1710	15.1	158	9.63	2630	2260	2010		10		

Table 30: River and Bay Nutrients Data 2013

River Fecal Results 2013
(MPN/100ML)

Date	Woonasquatucket River							West River			Providence River	Seekonk River
	W-9 Manton Ave.	W-8A Footbridge Olneyville	W-8D Parking bridge at Olneyville	W-8C Delaine St.	W-7B Pleasant Valley Pkwy.	W-7A Kinsley St.	W-7C Eagle Street Bridge	WE-10 Douglas Ave. Bridge	WE-12 Veazie St. Bridge	WE-11 West River St. Bridge	PR-12 Crawford St. Bridge	SR-5A Pitman Street
1/2/2013						90	90	40	150	150	90	
1/7/2013	40	90		40	40	40	60				150	
1/8/2013						70	30	<30	70	230	230	
1/14/2013	30	<30		70	40	40	159				90	40
1/15/2013						430	430	40	90	230	40	
1/22/2013	<30	40		40	430	40	60				90	40
1/23/2013						90	62	<30	<30	230	<30	
1/28/2013	<30	230		90	40	<30	53				230	<30
1/29/2013						90	150	<30	<30	230	230	
1/31/2013							9,300				9,300	
2/4/2013	<30	40		430	430	40	53				150	930
2/5/2013						230	40	<30	150	40	430	
2/11/2013				<30		<30	90				230	
2/12/2013						150	430	230	430	230	230	
2/15/2013		90		150	90	<30	40				88	
2/18/2013	40	70		150	<30	<30	177					
2/19/2013						90	210	40	30	4,300	430	
2/25/2013	70	430		2,300	230	430	430				430	<30
2/26/2013						90	150	230	40	90	430	
3/4/2013	90	90		90	230	230	127				90	
3/5/2013						230	150	40	<30	40	70	
3/11/2013	40	70		40	90	<30	35				230	40
3/12/2013						90	150	<30	90	40	930	
3/18/2013	<30	70		40	<30	70	<30				750	
3/19/2013						430	930	90	90	90	230	
3/25/2013	<30	<30		40	90	40	90				230	<30
3/26/2013						<30	230	40	<30	40	230	
4/1/2013	<30	90		40	40	230	60				90	90
4/2/2013						40	90	<30	40	<30	230	
4/8/2013	40	<30		<30	90	30	60				40	40
4/9/2013						90	<30	150	43	230	430	
4/15/2013	<30	40		40	40	230	40				90	<30
4/16/2013						90	40	150	230	150	230	
4/22/2013	40	40		70	90	70	60				<30	230
4/23/2013						<30	<30	40	40	40	230	
4/29/2013	40	30		230	70	430	90				110	30
4/30/2013						750	30	90	40	<30	90	
5/2/2013						70						

Table 31: Woonasquatucket, West, Providence, and Seekonk Rivers Fecal coliform Data

River Fecal Results 2013
(MPN/100ML)

Date	Woonasquatucket River							West River			Providence River	Seekonk River
	W-9 Manton Ave.	W-8A Footbridge Olneyville	W-8D Parking bridge at Olneyville	W-8C Delaine St.	W-7B Pleasant Valley Pkwy.	W-7A Kinsley St.	W-7C Eagle Street Bridge	WE-10 Douglas Ave. Bridge	WE-12 Veazie St. Bridge	WE-11 West River St. Bridge	PR-12 Crawford St. Bridge	SR-5A Pitman Street
5/6/2013	30	90		40	230	150	52				230	30
5/7/2013						430	40	<30	230	430	230	
5/13/2013	<30	90		90	230	430	96				430	40
5/14/2013						930	70	230	430	2,300	930	
5/20/2013	90	930		430	930	930	632				2,300	90
5/21/2013						430	930	230	430	2,300	430	
5/28/2013	90	90		2,300	430	230	930				930	90
5/29/2013						9,300	9,300	2,300	9,300	4,300	4,300	
6/3/2013	430	430		430	3,900	2,300	930				2,300	430
6/4/2013						7,500	4,300	4,300	4,300	2,300	7,500	
6/10/2013	1,500	2,100		1,500	430	750	587				4,300	1,500
6/11/2013						4,300	4,300	4,300	7,500	46,000	2,300	
6/17/2013	430	90		90	430	230	186				430	230
6/18/2013						230	230	230	90	430	230	
6/24/2013	930	90		230	430	430	314				930	430
6/25/2013						9,300	9,300	930	930	4,300	2,300	
7/1/2013	930	430		1,500	4,300	230	430				4,300	230
7/2/2013						2,300	2,300	1,500	4,300	9,300	750	
7/8/2013	930	430		430	930	930	2,300				430	40
7/9/2013						430	1,500	2,300	430	930	430	

Table 31: Woonasquatucket, West, Providence, and Seekonk Rivers Fecal coliform Data

River Fecal Results 2013
(MPN/100ML)

Date	Woonasquatucket River							West River			Providence River	Seekonk River
	W-9 Manton Ave.	W-8A Footbridge Olneyville	W-8D Parking bridge at Olneyville	W-8C Delaine St.	W-7B Pleasant Valley Pkwy.	W-7A Kinsley St.	W-7C Eagle Street Bridge	WE-10 Douglas Ave. Bridge	WE-12 Veazie St. Bridge	WE-11 West River St. Bridge	PR-12 Crawford St. Bridge	SR-5A Pitman Street
7/11/2013								2,000				
7/15/2013	430	1,500		1,500	930	4,300	1,857				2,300	430
7/16/2013						1,500	430	2,300	2,300	4,300	15,000	
7/18/2013						15,000	930			2,300	2,300	
7/22/2013	2,300	4,300		4,300	46,000	46,000	3,145				4,300	930
7/23/2013						110,000	15,000	110,000	46,000	46,000	9,300	
7/29/2013	230	90		930	1,500	930	930				2,300	430
7/30/2013						4,300	930	430	2,300	2,300	24,000	
8/5/2013	230	230		430	2,300	4,300	930				430	40
8/6/2013						930	430	210	430	9,300	430	
8/13/2013	230	230		930	430	2,300	930				4,300	230
8/14/2013						430	930	930	2,300	2,300	4,300	
8/19/2013	230	4,300		1,500	2,300	4,300	8,031				430	90
8/20/2013						430	930	230	230	2,300	2,300	
8/22/2013										9,300	930	
8/26/2013	430	230		90	930	930	602				2,300	<30
8/27/2013						46,000	24,000	24,000	24,000	46,000	110,000	
9/3/2013	430	2,300		3,900	46,000	15,000	2,941				24,000	15,000
9/4/2013						9,300	2,300	1,500	930	46,000	15,000	
9/9/2013	930	430		230	4,300	4,300	1,181				230	<30
9/10/2013						4,300	430	430	430	2,100	2,300	
9/12/2013					390	1,500	230				930	
9/16/2013	430			430		4,300	1,360				2,100	210
9/17/2013						750	1,500	930	90	24,000	2,300	
9/19/2013							230					
9/23/2013	430		230*	430	9,300	4,300	695				2,300	90
9/24/2013						930	930	430	930	430	750	
9/30/2013	90		230	390	430	230	90				280	<30
10/1/2013						150	90	230	230	230	750	
10/7/2013	1,500		230	110,000	4,300	2,300	105,071				2,300	230
10/8/2013						9,300	430	4,300	9,300	2,300	430	
10/15/2013	90		40	90	230	430	230				230	90
10/16/2013						430	70	230	70	430	230	
10/21/2013	40		40	30	430	930	930				1,500	<30
10/22/2013						90	230	230	40	930	230	
10/28/2013	40		<30	<30	<30	<30	40				230	90
10/29/2013						230	90	90	40	430	430	
10/31/2013												

Table 31: Woonasquatucket, West, Providence, and Seekonk Rivers Fecal coliform Data

River Fecal Results 2013
(MPN/100ML)

Date	Woonasquatucket River							West River			Providence River	Seekonk River
	W-9 Manton Ave.	W-8A Footbridge Olneyville	W-8D Parking bridge at Olneyville	W-8C Delaine St.	W-7B Pleasant Valley Pkwy.	W-7A Kinsley St.	W-7C Eagle Street Bridge	WE-10 Douglas Ave. Bridge	WE-12 Veazie St. Bridge	WE-11 West River St. Bridge	PR-12 Crawford St. Bridge	SR-5A Pitman Street
11/4/2013	<30		40	<30	230	210	90				150	40
11/5/2013						930	230	90	40	430	9,300	
11/12/2013	90		40	230	230	430	90				9,300	930
11/13/2013							40	90	<30	40	390	
11/18/2013	7,500		930	4,300	46,000	110,000	6,324				110,000	430
11/19/2013											150	
11/20/2013											230	
11/21/2013											150	
11/22/2013											430	
11/25/2013	<30		<30	<30	40	90	35				230	40
11/26/2013						230	40	90	230	430	150	
12/2/2013	430		230	230	230	230	430				390	230
12/3/2013						90	90	150	40	90	230	
12/9/2013	40		40	230	930	930	1,463				430	430
12/10/2013						230	40	<30	230	230	230	
12/16/2013	40		230	40	40	90	40				90	
12/17/2013						40	90	<30	90	150	90	
12/23/2013	90		40	40	<30	<30	60				230	930
12/24/2013						90	230	40	90	230	230	
12/30/2013	930		930	430	230	430	314				2,300	930
12/31/2013						930	930	430	40	90	230	

*Footbridge Olneyville location changed 9/23/13

Table 31: Woonasquatucket, West, Providence, and Seekonk Rivers Fecal coliform Data

River Fecal Data 2013
(MPN/100 ML)

Date	Moshassuck River							Blackstone River		Pawtuxet River
	M-1 Higginson Ave. Bridge	M-4D St. Francis Cemetery	M-4B End of Moshassuck St.	M-5 Footbridge Mill St.	M-4 Cemetery St. Bridge	M-5A Stevens St. Bridge	M-6 Park Row Bridge	B-2 Whipple Bridge	B-3 Slater Mill Dam	PX-13 Pawtuxet River @ Broad Street
1/2/2013	150	230	114	6,324	230	4,300	90			
1/7/2013				137				<30	40	52
1/8/2013	<30	230	568	314	430	930	90			
1/14/2013				314				<30	40	52
1/15/2013	90	<30	144	299	70	930	<30			
1/22/2013				462				<30	90	<30
1/23/2013	70	90	40	90	40	90	90			
1/28/2013				314				<30	40	35
1/29/2013	<30	<30	35	1,857	90	430	90			
1/31/2013				18,974		9,300				
2/4/2013				89				40	150	46
2/5/2013	40	40	83	602	40	<30	930			
2/11/2013				230				90		40
2/12/2013	90			750	<30	230	430			
2/15/2013										
2/18/2013				314				<30	40	60
2/19/2013	90	430	230	310	230	90	230			
2/25/2013				930				40	<30	40
2/26/2013	230	430	230	144	90	210	230			
3/4/2013				632				40	<30	<30
3/5/2013	<30	230	127	230	70	430	40			
3/11/2013				1,181				<30	40	<30
3/12/2013	<30	750	930	632	230	230				
3/18/2013				314				<30	40	<30
3/19/2013	230		750	1,181	930	430	230			
3/25/2013				144				<30	<30	35
3/26/2013	40	750	335	384	930	1,500	230			
4/1/2013								<30	40	52
4/2/2013	230	4,300	2,300	462	930	430	230			
4/8/2013				430				<30	<30	35
4/9/2013	230	230	187	430	90	2,300	90			
4/15/2013				430				<30	<30	60
4/16/2013	40	930	541	314	430	150	230			
4/22/2013				230				40	90	67
4/23/2013	40	930	632	314	150	430	230			
4/29/2013				127				40	90	60
4/30/2013	30	930	264	462	930	2,300	230			
5/2/2013				230		90				

Table 32: Moshassuck, Blackstone, and Pawtuxet River Fecal Coliform Data

River Fecal Data 2013
(MPN/100 ML)

Date	Moshassuck River							Blackstone River		Pawtuxet River
	M-1 Higginson Ave. Bridge	M-4D St. Francis Cemetery	M-4B End of Moshassuck St.	M-5 Footbridge Mill St.	M-4 Cemetery St. Bridge	M-5A Stevens St. Bridge	M-6 Park Row Bridge	B-2 Whipple Bridge	B-3 Slater Mill Dam	PX-13 Pawtuxet River @ Broad Street
5/6/2013				314				<30	<30	35
5/7/2013	40	2,300	835	131	230	230	230			
5/13/2013				632				<30	62	40
5/14/2013	230	750	1,360	2,000	930	430	2,300			
5/20/2013				727				40	230	52
5/21/2013	430	930	314	430	230	230	930			
5/28/2013				1,463				90	430	144
5/29/2013	2,300	930	632	2,000	2,300	24,000	4,300			
6/3/2013				4,300				70	230	254
6/4/2013	930	4,300	5,679	8,031	9,300	9,300	9,300			
6/10/2013				1,500				430	430	568
6/11/2013	4,300	7,500	4,300	40,620	2,100	46,000	15,000			
6/17/2013				632				40	90	214
6/18/2013	230	430	1,463	83	230	430	230			
6/24/2013				1,463				40	930	144
6/25/2013	<30	4,300	2,641	727	930	2,300	9,300			
7/1/2013				4,625				150	1,500	994
7/2/2013	230	4,300	3,145	3,145	9,300	4,300	7,500			

Table 32: Moshassuck, Blackstone, and Pawtuxet River Fecal Coliform Data

River Fecal Data 2013
(MPN/100 ML)

Date	Moshassuck River							Blackstone River		Pawtuxet River
	M-1 Higginson Ave. Bridge	M-4D St. Francis Cemetery	M-4B End of Moshassuck St.	M-5 Footbridge Mill St.	M-4 Cemetery St. Bridge	M-5A Stevens St. Bridge	M-6 Park Row Bridge	B-2 Whipple Bridge	B-3 Slater Mill Dam	PX-13 Pawtuxet River @ Broad Street
7/8/2013				1,857				230	930	186
7/9/2013	230	430	930	632	930	2,300	1,500			
7/11/2013				24,000		24,000				
7/15/2013				9,300				230	430	314
7/16/2013	430	930	1,463	9,300	9,300	2,300	21,000			
7/18/2013			4,300	4,300	1,500	994	9,300			
7/22/2013				2,540				150	4,300	430
7/23/2013	230	2,300	3,145	11,811	7,500	9,300	4,300			
7/29/2013				1,313				430	230	197
7/30/2013	430	750	3,145	3,145	2,300	2,300	4,300			
8/5/2013				1,500				90	430	144
8/6/2013	430	230	430	1,857	750	2,100	430			
8/13/2013				4,625				90	430	197
8/14/2013	430	430	2,300	930	4,300	2,300	930			
8/19/2013				3,145				230	230	455
8/20/2013	230	430	430	1,463	930	46,000	2,300			
8/22/2013			750	1,181	930	230	1,500			
8/26/2013				803				90	40	186
8/27/2013	24,000	9,300	9,300	71,134	9,300	46,000	110,000			
9/3/2013				6,324				9,300	930	9,300
9/4/2013	2,300	2,300	2,300	20,683	930	9,300	9,300			
9/9/2013				5,874				40	140	30
9/10/2013	90	930	430	2,540	1,500	2,300	4,300			
9/12/2013				930	930	230	4,300			
9/16/2013				10,159				40	150	96
9/17/2013	430	230	930	2,000	930	4,300	930			
9/19/2013				4,300		2,300				
9/23/2013				2,000				430	230	144
9/24/2013	430	230	803	3,145	390	24,000	430			
9/30/2013				314				40	40	90
10/1/2013	230	230	430	254	750	430	390			
10/7/2013				2,540				230	230	90
10/8/2013	230	930	632	2,300	430	2,300	1,500			
10/15/2013				3,145				40	<30	114
10/16/2013	430	90	60	230	90	90	750			
10/21/2013				930				40	<30	35
10/22/2013	40	230	230	930	40	930	930			
10/28/2013				144				40	<30	60

Table 32: Moshassuck, Blackstone, and Pawtuxet River Fecal Coliform Data

River Fecal Data 2013
(MPN/100 ML)

Date	Moshassuck River							Blackstone River		Pawtuxet River
	M-1 Higginson Ave. Bridge	M-4D St. Francis Cemetery	M-4B End of Moshassuck St.	M-5 Footbridge Mill St.	M-4 Cemetery St. Bridge	M-5A Stevens St. Bridge	M-6 Park Row Bridge	B-2 Whipple Bridge	B-3 Slater Mill Dam	PX-13 Pawtuxet River @ Broad Street
10/29/2013	90	930	144	131	230	90	2,300			
10/31/2013				150			2,300			
11/4/2013				803				<30	90	35
11/5/2013	<30	230	40	430	230	230	230			
11/12/2013				6,324				<30	90	40
11/13/2013	<30	90	462	127	150	230	430			
11/18/2013				75,895				40	>240000	994
11/19/2013										
11/20/2013										40
11/21/2013										<30
11/22/2013										230
11/25/2013				186				<30	<30	35
11/26/2013	40	430	314	254	90	70	150			
12/2/2013				430				90	230	197
12/3/2013	230	930	632	314	230	230	430			
12/9/2013				3,145				<30	<30	90
12/10/2013	230	90	930	462	230	90	2,300			
12/16/2013				131				40	430	60
12/17/2013	<30	40	197	410	90	70	230			
12/23/2013				2,000				110	<30	<30
12/24/2013	90	230	2,000	314	230	430	230			
12/30/2013				430				230	930	177
12/31/2013	230	40	314	90	90	90	230			

Table 32: Moshassuck, Blackstone, and Pawtuxet River Fecal Coliform Data

Bay Fecal Data 2013

Results are in MPN/100 mL or Most Probable Number/100 ml

Date		1/9/2013	3/6/2013	4/3/2013	4/17/2013	5/1/2013	5/15/2013	5/30/2013	6/12/2013	6/26/2013	7/10/2013	7/24/2013	7/31/2013	8/15/2013
Seekonk River	Division St Dock	23	23	23	15	43		230	750	93	150	1,500	430	30
	Bishop Pt	15	43	23	43	43		110,000	930	230	430	2,300	4,300	14
	BP Outfall	43	93	93	93	93		9,300	230	210	430	9,300	430	430
	Phillipsdale Landing	23	43	93	75	230		9,300	930	93	93	2,300	930	23
	<i>Phillipsdale Landing Duplicate</i>	75	23	93	43	43		24,000	430	230	93	4,300	430	150
	Narr Boating Center	43	430	230	230	150	93	46,000	2,300	430	230	2,300	230	75
	Crook Pt	23	43	23	23	93	23	9,300	930	150	930	930	230	150
Providence River	Comm. Boating Center	93	93	43	43	43	23	15,000	7,500	430	1,500	930	2,300	43
	Point St Bridge	23	430	93	930	10	43	24,000	2,300	2,300	1,500		2,300	43
	Collier Pt Park	150	93	23	75	7	93	9,300	2,300	930	150	2,300	230	43
	FP Outfall	43	75	9	93	9	9	230	7,500	230	43	4,300	230	43
	South FP East	9	9	23	4	7	9	23	2,300	230	15	2,300	93	43
	Save the Bay	23	23	3	3	9	23	230	430	75	43	4,300	43	23
	Edgewood Yacht Club	23	4	3	4	4	4	93	4,300	75	23	2,300	43	7
	Pawt/Prov Junction	230	93	4	4	4	4	750	2,300	210	43	93	93	9
	Gaspee Pt	9	43	23	3	3	4	23	1500	230	4	4	43	43
	Bullock Neck	43	150	43	9	3	43	75	2300	23	4	4	15	7
	Bullocks Reach Buoy	9	15	3	9	3	43	23	4300	93	4	230	23	9
	<i>Bullocks Reach Buoy Duplicate</i>													
	Shawomet	15	9	4	4	4	9	43	1,500	23	4	15	23	4
	North of Nayatt Point 1-11A	23	23	9	3	3	4	9	2300	43	4	3	15	4
	Conimicut Pt	15	43	4	3	3	4	9	4300	3	3	4	23	9
<i>Conimicut Pt Duplicate</i>	150	23	23	3	4	4	15	7,500	4	3	3	23	4	
Special Wet Weather Study Samples Conditional Areas	Old Mill Creek (1-8A)													
	East Grove Ave. (1-7)													
	<i>East Grove Ave. (1-7) Duplicate</i>													
	Opposite Barrington Town Beach (1-10)													
	Flashing Green Buoy #1 (1-5C)													
	Opposite Rock Point (1-6A)													
	Opposite Our Lady of Providence Seminary (1-2)													
Off Colt State Park (1-3C)														
RIDEM Land samples	WWLR 6 Muschechuck Cove													
	WWLR -7 Old Mill Creek													
	<i>WWLR -7 Old Mill Creek Duplicate</i>													
Geomean	Seekonk River Geomean	31	56	58	52	81	46	11226	753	180	244	2538	558	68
	Providence River Geomean	32	38	11	10	5	12	153	2789	93	21	110	75	15
	Conditional Shellfishing Areas													
	Daily Max	230	430	230	930	230	93	110,000	7,500	2,300	1,500	9,300	4,300	430
	Final Geomean (all sites)	32	43	19	17	13	14	600	1839	115	46	313	141	24
	Percent Greater than 400 MPN/100 ml	0%	9%	0%	5%	0%	0%	45%	95%	18%	23%	62%	32%	5%
Number of Stations Sampled (including duplicates)	Number of Stations Sampled (including duplicates)	22	22	22	22	22	17	22	22	22	22	21	22	22
	Bay Blank	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Rain Data	Rain total - Day of sampling (in time prior to sampling)	T	0.01	0	0.02	0	0.02	0.07	0	0	0	0	0	0
	Rain total - 1 Day prior to sampling	0	0	0	0	0	T	0.70	0.90	0.00	0.07	0.17	0.00	0.00
	Rain total - 2 Days prior to sampling	0	T	0.08	0	0	0	0.02	1.45	0	0	0	0	0.01
	Rain total - 3 Days prior to sampling	0.03	T	0.31	0	0	0.02	0	0	0	0	0.12	0.01	0
	Rain total - 4 Days prior to sampling	0	0	0	0	0	0.24	0.04	0.88	0	0	0.11	0	0
	Rain total - 5 Days prior to sampling	0	0	0	0.54	0	0	0.22	3.23	0	0	0	0.33	0
	Total Rainfall	0.03	0.01	0.39	0.56	0	0.28	1.05	6.46	0	0.07	0.4	0.34	0.01
High tide	5:22	15:08	14:36	13:36	13:35	12:32	13:18	11:30	11:35	10:10	9:51	16:06	15:19	
Low tide	11:17	09:07	8:28	6:38	7:00	5:36	6:42	4:30	4:35	15:18	15:17	08:30	7:48	

Table 33: Bay Fecal Coiform Data

*Rain data is from TF Green

Results are in MPN/100 ml

Bay Fecal Data 2013

Results are in MPN/100 mL or Most Probable Number/1

												WHOLE YEAR				
Date		8/28/2013	9/11/2013	9/25/2013	10/9/2013	10/23/2013	11/6/2013	11/19/2013	11/20/2013	11/21/2013	11/22/2013	12/4/2013	Geomean	Min	Max	
Seekonk River	Division St Dock	150	93	430	230	43	43					23	92	15	1,500	
	Bishop Pt	230	230	430	43	23	93					93	181	14	110,000	
	BP Outfall	430	43	75	93	43	930					43	217	43	9,300	
	Phillipsdale Landing	93	43	430	43	43	230					230	163	23	24,000	
	<i>Phillipsdale Landing Duplicate</i>	230	43	43	43	93	430					93				
	Narr Boating Center	230	39	150	230	23	230						43	240	23	46,000
	Crook Pt	750	120	43	43	43	43					23	119	23	9,300	
Providence River	Comm. Boating Center	230	23	93	23	43	230					23	167	23	15,000	
	Point St Bridge	4,300	930	2,300	93	93	43					230	367	10	24,000	
	Collier Pt Park	430	430	430	43	39	43					23	161	7	9,300	
	FP Outfall	390	43	43	43	4	23	430	15	23	9	9	60	4	7,500	
	South FP East	930	9	7	43	15	4	75	93	9	9	43	33	4	2,300	
	Save the Bay	390	43	15	23	9	9					9	34	3	4,300	
	Edgewood Yacht Club	430	9	9	23	3	43	230	93	93	15	23	31	3	4,300	
	Pawt/Prov Junction	430	9	15	4	9	1,500	23	23	23	23	210	43	4	2,300	
	Gaspee Pt	230	23	3	23	3	4					39	18	3	1,500	
	Bullock Neck	93	4	7	21	4	3					43	19	3	2,300	
	Bullocks Reach Buoy	93	4	4	4	4	3	4	39	43	9	93	19	3	4,300	
	<i>Bullocks Reach Buoy Duplicate</i>							9	23	75	75					
	Shawomet	93	9	4	9	4	15					23	13	4	1,500	
	North of Nayatt Point 1-11A	15	7	3	4	3	23	23	4	7	15	43	11	3	2,300	
Conimicut Pt	93	4	4	3	3	9	9	4	9	9	43	11	3	7,500		
<i>Conimicut Pt Duplicate</i>	150	9	7	4	3	3					23					
Special Wet Weather Study Samples Conditional Areas	Old Mill Creek (1-8A)							3	23	23	23		14	3	23	
	East Grove Ave. (1-7)							9	7	9	4		6	3	9	
	<i>East Grove Ave. (1-7) Duplicate</i>							3	4	9	9					
	Opposite Barrington Town Beach (1-10)							3	3	15	23		7	3	23	
	Flashing Green Buoy #1 (1-5C)							4	4	3	3		3	3	4	
	Opposite Rock Point (1-6A)							3	3	9	3		4	3	9	
	Opposite Our Lady of Providence Seminary (1-2)							3	3	7	4		4	3	7	
Off Colt State Park (1-3C)							3	3	4	4		3	3	4		
RIDEM Land samples	WWLR 6 Muschechuck Cove								230	30	40		65	30	230	
	WWLR -7 Old Mill Creek								30	30	40		31	30	40	
	<i>WWLR -7 Old Mill Creek Duplicate</i>								30	30	30					
Geomean	Seekonk River Geomean	246	70	149	78	40	167	No Samples	No Samples	No Samples	No Samples	57	161	14	110,000	
	Providence River Geomean	237	19	16	15	7	18	33	21	23	15	37	33	3	24,000	
	Conditional Shellfishing Areas							4	5	8	6		5	3	23	
	Daily Max	4,300	930	2,300	230	93	1,500	430	230	93	75	230				
	Final Geomean (all sites)	240	28	33	25	13	37	11	10	14	10	42	45	3	110,000	
	Percent Greater than 400 MPN/100 ml	32%	9%	23%	0%	0%	14%	6%	0%	0%	0%	0%				
Number of Stations Sampled (including duplicates)		22	22	22	22	22	22	16	19	19	19	22				
	Bay Blank	<3	<3	<3	<3	<3	<3	3	<3	<3	<3	<3				
Rain Data	Rain total - Day of sampling (in time prior to sampling)	0	0	0	0	0	0	0	0	0	0.18	0				
	Rain total - 1 Day prior to sampling	1.10	0.02	0	0	0	0	0.46	0	0	0	0				
	Rain total - 2 Days prior to sampling	0.12	0	0	0.03	0	0	0.21	0.46	0	0	0				
	Rain total - 3 Days prior to sampling	0	0	0.27	0.19	0.01	0	0	0.21	0.46	0	0.69				
	Rain total - 4 Days prior to sampling	0	0	0	0.23	0	0	0	0	0.21	0.46	0				
	Rain total - 5 Days prior to sampling	0	0	0	0.02	0.01	0.04	0	0	0	0.21	0				
Total Rainfall	1.22	0.02	0.27	0.47	0.02	0.04	0.67	0.67	0.67	0.85	0.69					
High tide	14:29	13:03	12:58	11:51	11:35	09:27	08:29	09:08	09:48	09:48	10:28	08:33				
Low tide	6:44	5:26	05:18	04:36	04:19	13:18	14:11	14:48	15:27	16:06	14:33					

Table 33: Bay Fecal Coiform Data

*Rain data is from TF Green

Results are in MPN/100 ml

Bay Enterococci Data 2013

2013 Bay Enterococcus Data

Results are in MPN/100 mL

Date	1/9/2013	3/6/2013	4/3/2013	4/17/2013	5/1/2013	5/15/2013	5/30/2013	6/12/2013	6/26/2013	7/10/2013	7/24/2013	7/31/2013	8/15/2013	8/28/2013	9/11/2013	9/25/2013	10/9/2013	10/23/2013	11/6/2013	12/4/2013
Phillipsdale Landing	10	20	10	<10	<10		884	305	75	41	85	<10	<10	10	10	<10	10	10	10	10
<i>Phillipsdale Landing Duplicate</i>	20	31	10	<10	<10		910	388	20	31	63	61	<10	10	20	<10	<10	20	20	31
Point St Bridge	31	41	20	<10	10	10	835	576	73	908		81	<10	211	52	20	41	52	<10	41
South FP East	<10	10	<10	<10	10	<10	109	780	<10	10	20	20	<10	30	10	20	<10	10	<10	20
Gaspee Pt	<10	20	<10	<10	<10	<10	10	464	<10	<10	<10	<10	<10	41	<10	<10	10	<10	20	10
Conimicut Pt	10	10	<10	<10	<10	<10	<10	294	<10	<10	<10	<10	<10	20	<10	<10	<10	<10	<10	10
<i>Conimicut Pt Duplicate</i>	10	10	<10	<10	<10	<10	10	288	<10	10	<10	<10	<10	20	10	<10	<10	<10	<10	10

Table 34: Bay Enterococci Data

CSO Wet Weather Overflow North Diversion Structure NBC CSO 2A

All samples are from CSO Wet weather Overflow at North Diversion Structure (NBC CSO # 2A)

Sample Date	Sample Time	Parameter	Result	Units
3/12/2013	8:00	BOD SM 5210B	31.03	ppm
3/12/2013	8:00	NH3-N EPA 351.2 - Ammonia	1.15	ppm
3/12/2013	8:00	NO3NO2 EPA Method 353.2	0.359	mg/L
3/12/2013	8:00	TKN - Copper Sulfate Digestion - TKN	6.23	mg N/L
3/12/2013	8:00	Total_Phosphorus-P	1.5	ppm
3/12/2013	8:00	TSS SM 5240D - TSS	284	ppm
6/7/2013	14:45	1,1,1-Trichloroethane	<1	ppb
6/7/2013	14:45	1,1,2,2-Tetrachlorethane	<1	ppb
6/7/2013	14:45	1,1,2-Trichloroethane	<1	ppb
6/7/2013	14:45	1,1-Dichloroethane	<1	ppb
6/7/2013	14:45	1,1-Dichloroethene	<1	ppb
6/7/2013	14:45	1,2-Dichlorobenzene	<5	ppb
6/7/2013	14:45	1,2-dichlorobenzene	<1	ppb
6/7/2013	14:45	1,2-Dichloroethane	<1	ppb
6/7/2013	14:45	1,2-Dichloropropane	<1	ppb
6/7/2013	14:45	1,3-Dichlorobenzene	<5	ppb
6/7/2013	14:45	1,3-dichlorobenzene	<1	ppb
6/7/2013	14:45	1,4-Dichlorobenzene	<5	ppb
6/7/2013	14:45	1,4-dichlorobenzene	<1	ppb
6/7/2013	14:45	124-Trichlorobenzene	<5	ppb
6/7/2013	14:45	12-Diphenylhydrazine	<5	ppb
6/7/2013	14:45	2,4-Dichlorophenol	<5	ppb
6/7/2013	14:45	2,4-Dimethylphenol	<5	ppb
6/7/2013	14:45	2,4-Dinitrophenol	<5	ppb
6/7/2013	14:45	2,4-Dinitrotoluene	<5	ppb
6/7/2013	14:45	2,6-Dinitrotoluene	<5	ppb
6/7/2013	14:45	246-Trichlorophenol	<5	ppb
6/7/2013	14:45	2-Chloroethylvinylether	<2	ppb
6/7/2013	14:45	2-Chloronaphthalene	<5	ppb
6/7/2013	14:45	2-Chlorophenol	<5	ppb
6/7/2013	14:45	2Methyl46dinitrophen	<5	ppb
6/7/2013	14:45	2-Nitrophenol	<5	ppb
6/7/2013	14:45	33-Dichlorobenzidine	<5	ppb
6/7/2013	14:45	4Bromophenphenether	<5	ppb
6/7/2013	14:45	4Chloro3methylphenol	<5	ppb
6/7/2013	14:45	4Chlorophenphenether	<5	ppb
6/7/2013	14:45	4-Nitrophenol	<5	ppb
6/7/2013	14:45	Acenaphthene	<5	ppb
6/7/2013	14:45	Acenaphthylene	<5	ppb
6/7/2013	14:45	Aluminum	943.7	ug/L
6/7/2013	14:45	Anthracene	<5	ppb
6/7/2013	14:45	Benzene	<1	ppb
6/7/2013	14:45	Benzdine	<5	ppb
6/7/2013	14:45	Benzo(a)anthracene	<5	ppb

Table 35: CSO Wet Weather Overflow North Diversion Structure NBC CSO 2A

CSO Wet Weather Overflow North Diversion Structure NBC CSO 2A

All samples are from CSO Wet weather Overflow at North Diversion Structure (NBC CSO # 2A)

Sample Date	Sample Time	Parameter	Result	Units
6/7/2013	14:45	Benzo(a)pyrene	<5	ppb
6/7/2013	14:45	Benzo(b)fluoranthene	<5	ppb
6/7/2013	14:45	Benzo(g,h,i)perylene	<5	ppb
6/7/2013	14:45	Benzo(k)fluoranthene	<5	ppb
6/7/2013	14:45	bis2chloroethoxymeth	<5	ppb
6/7/2013	14:45	bis2chloroethylether	<5	ppb
6/7/2013	14:45	bis2chloroisoproethe	<5	ppb
6/7/2013	14:45	bis2ethylhexylphthal	27	ppb
6/7/2013	14:45	BOD SM 5210B	51.78	ppm
6/7/2013	14:45	Bromodichloromethane	<1	ppb
6/7/2013	14:45	Bromoform	<1	ppb
6/7/2013	14:45	Bromomethane	<10	ppb
6/7/2013	14:45	Butylbenzylphthalate	<5	ppb
6/7/2013	14:45	Cadmium	<2.5	ug/L
6/7/2013	14:45	Carbon Tetrachloride	<1	ppb
6/7/2013	14:45	Chlorobenzene	<1	ppb
6/7/2013	14:45	Chloroethane	<10	ppb
6/7/2013	14:45	Chloroform	<1	ppb
6/7/2013	14:45	Chloromethane	<10	ppb
6/7/2013	14:45	Chromium	<10	ug/L
6/7/2013	14:45	Chrysene	<5	ppb
6/7/2013	14:45	cis-1,3-Dichloropropene	<1	ppb
6/7/2013	14:45	Copper	61.77	ug/L
6/7/2013	14:45	Cyanide	<4.00	ppb
6/7/2013	14:45	Dibenzoanthracene	<5	ppb
6/7/2013	14:45	Dibromochloromethane	<1	ppb
6/7/2013	14:45	Diethylphthalate	<5	ppb
6/7/2013	14:45	Dimethylphthalate	<5	ppb
6/7/2013	14:45	di-n-butylphthalate	<5	ppb
6/7/2013	14:45	Di-n-octylphthalate	<5	ppb
6/7/2013	14:45	Ethylbenzene	<1	ppb
6/7/2013	14:45	Fecal Coliform (5 tube) SM 9221E - Fecal	>160000	MPN/100 ml
6/7/2013	14:45	Fluoranthene	<5	ppb
6/7/2013	14:45	Fluorene	<5	ppb
6/7/2013	14:45	Fresh Water Total Nitrogen	5.41	ppm
6/7/2013	14:45	Hexachlorobenzene	<5	ppb
6/7/2013	14:45	Hexachlorobutadiene	<5	ppb
6/7/2013	14:45	Hexachloroethane	<5	ppb
6/7/2013	14:45	Hexaclyclopentadien	<5	ppb
6/7/2013	14:45	Indeno(123-cd)pyrene	<5	ppb
6/7/2013	14:45	Iron	1710	ug/L
6/7/2013	14:45	Isophorone	<5	ppb
6/7/2013	14:45	Lead	24.1	ug/L

Table 35: CSO Wet Weather Overflow North Diversion Structure NBC CSO 2A

CSO Wet Weather Overflow North Diversion Structure NBC CSO 2A

All samples are from CSO Wet weather Overflow at North Diversion Structure (NBC CSO # 2A)

Sample Date	Sample Time	Parameter	Result	Units
6/7/2013	14:45	Mercury EPA Method 245.7 - Mercury	34	ng/L
6/7/2013	14:45	Methylene Chloride	<5	ppb
6/7/2013	14:45	Naphthalene	<5	ppb
6/7/2013	14:45	NH3-N EPA 351.2 - Ammonia	1.74	ppm
6/7/2013	14:45	Nickel	<10	ug/L
6/7/2013	14:45	Nitrobenzene	<5	ppb
6/7/2013	14:45	Nnitrosodimethylamin	<5	ppb
6/7/2013	14:45	Nnitrosodinpropylami	<5	ppb
6/7/2013	14:45	Nnitrosodiphenylamin	<5	ppb
6/7/2013	14:45	NO3NO2 EPA Method 353.2	0.138	mg/L
6/7/2013	14:45	o- xylene	<1	ppb
6/7/2013	14:45	Oil and Grease EPA Method 1664 (PLANT)	10	ppm
6/7/2013	14:45	Oil and Grease EPA Method 1664 (SIU)	10	ppm
6/7/2013	14:45	p&m xylene	<1	ppb
6/7/2013	14:45	Pentachlorophenol	<5	ppb
6/7/2013	14:45	Phenanthrene	<5	ppb
6/7/2013	14:45	Phenol	<5	ppb
6/7/2013	14:45	Pyrene	<5	ppb
6/7/2013	14:45	Tetrachlorethene	<1	ppb
6/7/2013	14:45	TKN - Copper Sulfate Digestion - TKN	5.27	mg N/L
6/7/2013	14:45	Toluene	2	ppb
6/7/2013	14:45	Total_Phosphorus-P	0.944	ppm
6/7/2013	14:45	Trans-1,2-Dichloroethene	<1	ppb
6/7/2013	14:45	Trans-1,3-Dichloropropene	<1	ppb
6/7/2013	14:45	Trichlorethene	<1	ppb
6/7/2013	14:45	Trichlorofluoromethane	<1	ppb
6/7/2013	14:45	TSS SM 5240D - TSS	100	ppm
6/7/2013	14:45	Vinyl Chloride	<1	ppb
6/7/2013	14:45	Zinc	96.8	ug/L
6/10/2013	23:00	Aluminum	2897.2	ug/L
6/10/2013	23:00	BOD SM 5210B	6.97	ppm
6/10/2013	23:00	Cadmium	<2.5	ug/L
6/10/2013	23:00	Chromium	<10	ug/L
6/10/2013	23:00	Copper	<10	ug/L
6/10/2013	23:00	Fresh Water Total Nitrogen	1.2	ppm
6/10/2013	23:00	Iron	3681	ug/L
6/10/2013	23:00	Lead	<10	ug/L
6/10/2013	23:00	NH3-N EPA 351.2 - Ammonia	<0.1	ppm
6/10/2013	23:00	Nickel	<10	ug/L
6/10/2013	23:00	NO3NO2 EPA Method 353.2	0.282	mg/L
6/10/2013	23:00	Tin	<5	ug/L
6/10/2013	23:00	TKN - Copper Sulfate Digestion - TKN	0.913	mg N/L
6/10/2013	23:00	TSS SM 5240D - TSS	114	ppm
6/10/2013	23:00	Zinc	32.83	ug/L

Table 35: CSO Wet Weather Overflow North Diversion Structure NBC CSO 2A

CSO Wet Weather Overflow North Diversion Structure NBC CSO 2A

All samples are from CSO Wet weather Overflow at North Diversion Structure (NBC CSO # 2A)

Sample Date	Sample Time	Parameter	Result	Units
6/10/2013	23:30	Aluminum	572	ug/L
6/10/2013	23:30	BOD SM 5210B	37.19	ppm
6/10/2013	23:30	Cadmium	<2.5	ug/L
6/10/2013	23:30	Chromium	<10	ug/L
6/10/2013	23:30	Copper	20.12	ug/L
6/10/2013	23:30	Fresh Water Total Nitrogen	3.54	ppm
6/10/2013	23:30	Iron	1054	ug/L
6/10/2013	23:30	Lead	10.87	ug/L
6/10/2013	23:30	NH3-N EPA 351.2 - Ammonia	1.09	ppm
6/10/2013	23:30	Nickel	<10	ug/L
6/10/2013	23:30	NO3NO2 EPA Method 353.2	0.259	mg/L
6/10/2013	23:30	Tin	<5	ug/L
6/10/2013	23:30	TKN - Copper Sulfate Digestion - TKN	3.28	mg N/L
6/10/2013	23:30	TSS SM 5240D - TSS	50	ppm
6/10/2013	23:30	Zinc	50.09	ug/L
6/11/2013	0:00	Aluminum	464.2	ug/L
6/11/2013	0:00	BOD SM 5210B	38.33	ppm
6/11/2013	0:00	Cadmium	<2.5	ug/L
6/11/2013	0:00	Chromium	<10	ug/L
6/11/2013	0:00	Copper	17.63	ug/L
6/11/2013	0:00	Fresh Water Total Nitrogen	3.38	ppm
6/11/2013	0:00	Iron	915.9	ug/L
6/11/2013	0:00	Lead	11.77	ug/L
6/11/2013	0:00	NH3-N EPA 351.2 - Ammonia	0.976	ppm
6/11/2013	0:00	Nickel	<10	ug/L
6/11/2013	0:00	NO3NO2 EPA Method 353.2	0.207	mg/L
6/11/2013	0:00	Tin	<5	ug/L
6/11/2013	0:00	TKN - Copper Sulfate Digestion - TKN	3.17	mg N/L
6/11/2013	0:00	TSS SM 5240D - TSS	52	ppm
6/11/2013	0:00	Zinc	63.04	ug/L

Table 35: CSO Wet Weather Overflow North Diversion Structure NBC CSO 2A

All samples are from CSO Wet weather Overflow at Sheridan St. (NBC CSO #54)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	13:00	1,1,1-Trichloroethane	<10	ppb
4/12/2013	13:00	1,1,2,2-Tetrachlorethane	<10	ppb
4/12/2013	13:00	1,1,2-Trichloroethane	<10	ppb
4/12/2013	13:00	1,1-Dichloroethane	<10	ppb
4/12/2013	13:00	1,1-Dichloroethene	<10	ppb
4/12/2013	13:00	1,2-Dichlorobenzene	<5	ppb
4/12/2013	13:00	1,2-dichlorobenzene	<10	ppb
4/12/2013	13:00	1,2-Dichloroethane	<10	ppb
4/12/2013	13:00	1,2-Dichloropropane	<10	ppb
4/12/2013	13:00	1,3-Dichlorobenzene	<5	ppb
4/12/2013	13:00	1,3-dichlorobenzene	<10	ppb
4/12/2013	13:00	1,4-Dichlorobenzene	<5	ppb
4/12/2013	13:00	1,4-dichlorobenzene	<10	ppb
4/12/2013	13:00	124-Trichlorobenzene	<5	ppb
4/12/2013	13:00	12-Diphenylhydrazine	<5	ppb
4/12/2013	13:00	2,4-Dichlorophenol	<5	ppb
4/12/2013	13:00	2,4-Dimethylphenol	<5	ppb
4/12/2013	13:00	2,4-Dinitrophenol	6	ppb
4/12/2013	13:00	2,4-Dinitrotoluene	<5	ppb
4/12/2013	13:00	2,6-Dinitrotoluene	<5	ppb
4/12/2013	13:00	246-Trichlorophenol	<5	ppb
4/12/2013	13:00	2-Chloroethylvinylether	<20	ppb
4/12/2013	13:00	2-Chloronaphthalene	<5	ppb
4/12/2013	13:00	2-Chlorophenol	<5	ppb
4/12/2013	13:00	2Methyl46dinitrophen	<5	ppb
4/12/2013	13:00	2-Nitrophenol	<5	ppb
4/12/2013	13:00	33-Dichlorobenzidine	<5	ppb
4/12/2013	13:00	4Bromophenphenether	<5	ppb
4/12/2013	13:00	4Chloro3methylphenol	<5	ppb
4/12/2013	13:00	4Chlorophenphenether	<5	ppb
4/12/2013	13:00	4-Nitrophenol	<5	ppb
4/12/2013	13:00	Acenaphthene	<5	ppb
4/12/2013	13:00	Acenaphthylene	<5	ppb
4/12/2013	13:00	Aluminum	2474	ug/L
4/12/2013	13:00	Anthracene	<5	ppb
4/12/2013	13:00	Benzene	<10	ppb
4/12/2013	13:00	Benzidine	<5	ppb
4/12/2013	13:00	Benzo(a)anthracene	<5	ppb
4/12/2013	13:00	Benzo(a)pyrene	<5	ppb
4/12/2013	13:00	Benzo(b)fluoranthene	<5	ppb
4/12/2013	13:00	Benzo(g,h,i)perylene	<5	ppb
4/12/2013	13:00	Benzo(k)fluoranthene	<5	ppb
4/12/2013	13:00	bis2chloroethoxymeth	<5	ppb
4/12/2013	13:00	bis2chloroethylether	<5	ppb

Table 36: CSO Wet Weather Overflow Dorrance Street NBC CSO 09

CSO Wet Weather Overflow Dorrance Street NBC CSO 09

All samples are from CSO Wet weather Overflow at Sheridan St. (NBC CSO #54)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	13:00	bis2chloroisoproethe	<5	ppb
4/12/2013	13:00	bis2ethylhexylphthal	7	ppb
4/12/2013	13:00	BOD SM 5210B	57.39	ppm
4/12/2013	13:00	Bromodichloromethane	<10	ppb
4/12/2013	13:00	Bromoform	<10	ppb
4/12/2013	13:00	Bromomethane	<100	ppb
4/12/2013	13:00	Butylbenzylphthalate	<5	ppb
4/12/2013	13:00	Cadmium	<2.5	ug/L
4/12/2013	13:00	Carbon Tetrachloride	<10	ppb
4/12/2013	13:00	Chlorobenzene	<10	ppb
4/12/2013	13:00	Chloroethane	<100	ppb
4/12/2013	13:00	Chloroform	<10	ppb
4/12/2013	13:00	Chloromethane	<100	ppb
4/12/2013	13:00	Chromium	<10	ug/L
4/12/2013	13:00	Chrysene	<5	ppb
4/12/2013	13:00	cis-1,3-Dichloropropene	<10	ppb
4/12/2013	13:00	Copper	31	ug/L
4/12/2013	13:00	Cyanide	6.65	ppb
4/12/2013	13:00	Dibenzoahanthracene	<5	ppb
4/12/2013	13:00	Dibromochloromethane	<10	ppb
4/12/2013	13:00	Diethylphthalate	<5	ppb
4/12/2013	13:00	Dimethylphthalate	<5	ppb
4/12/2013	13:00	di-n-butylphthalate	<5	ppb
4/12/2013	13:00	Di-n-octylphthalate	<5	ppb
4/12/2013	13:00	Ethylbenzene	<10	ppb
4/12/2013	13:00	Fecal Coliform (5 tube) SM 9221E - Fecal	160000	MPN/100 ml
4/12/2013	13:00	Fluoranthene	<5	ppb
4/12/2013	13:00	Fluorene	<5	ppb
4/12/2013	13:00	Hexachlorobenzene	<5	ppb
4/12/2013	13:00	Hexachlorobutadiene	<5	ppb
4/12/2013	13:00	Hexachloroethane	<5	ppb
4/12/2013	13:00	Hexaclcyclopentadien	<5	ppb
4/12/2013	13:00	Indeno(123-cd)pyrene	<5	ppb
4/12/2013	13:00	Iron	3347.6	ug/L
4/12/2013	13:00	Isophorone	<5	ppb
4/12/2013	13:00	Lead	53.65	ug/L
4/12/2013	13:00	Mercury EPA Method 245.7 - Mercury	30.3	ng/L
4/12/2013	13:00	Methylene Chloride	<50	ppb
4/12/2013	13:00	Naphthalene	<5	ppb
4/12/2013	13:00	NH3-N EPA 351.2 - Ammonia	0.584	ppm
4/12/2013	13:00	Nickel	<10	ug/L
4/12/2013	13:00	Nitrobenzene	<5	ppb
4/12/2013	13:00	Nnitrosodimethylamin	<5	ppb
4/12/2013	13:00	Nnitrosodinpropylami	<5	ppb

Table 36: CSO Wet Weather Overflow Dorrance Street NBC CSO 09

All samples are from CSO Wet weather Overflow at Sheridan St. (NBC CSO #54)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	13:00	Nnitrosodiphenylamin	<5	ppb
4/12/2013	13:00	NO3NO2 EPA Method 353.2	0.26	mg/L
4/12/2013	13:00	o- xylene	<10	ppb
4/12/2013	13:00	Oil and Grease EPA Method 1664 (SIU)	8.415	ppm
4/12/2013	13:00	p&m xylene	<10	ppb
4/12/2013	13:00	Pentachlorophenol	<5	ppb
4/12/2013	13:00	Phenanthrene	<5	ppb
4/12/2013	13:00	Phenol	<5	ppb
4/12/2013	13:00	Pyrene	<5	ppb
4/12/2013	13:00	Tetrachlorethene	<10	ppb
4/12/2013	13:00	TKN - Copper Sulfate Digestion - TKN	4.14	mg N/L
4/12/2013	13:00	Toluene	<10	ppb
4/12/2013	13:00	Total_Phosphorus-P	0.913	ppm
4/12/2013	13:00	Trans-1,2-Dichloroethene	<10	ppb
4/12/2013	13:00	Trans-1,3-Dichloropropene	<10	ppb
4/12/2013	13:00	Trichlorethene	<10	ppb
4/12/2013	13:00	Trichlorofluoromethane	<10	ppb
4/12/2013	13:00	TSS SM 5240D - TSS	98	ppm
4/12/2013	13:00	Vinyl Chloride	<10	ppb
4/12/2013	13:00	Zinc	119.6	ug/L
4/12/2013	15:00	1,1,1-Trichloroethane	<10	ppb
4/12/2013	15:00	1,1,2,2-Tetrachlorethane	<10	ppb
4/12/2013	15:00	1,1,2-Trichloroethane	<10	ppb
4/12/2013	15:00	1,1-Dichloroethane	<10	ppb
4/12/2013	15:00	1,1-Dichloroethene	<10	ppb
4/12/2013	15:00	1,2-dichlorobenzene	<10	ppb
4/12/2013	15:00	1,2-Dichlorobenzene	<5	ppb
4/12/2013	15:00	1,2-Dichloroethane	<10	ppb
4/12/2013	15:00	1,2-Dichloropropane	<10	ppb
4/12/2013	15:00	1,3-dichlorobenzene	<10	ppb
4/12/2013	15:00	1,3-Dichlorobenzene	<5	ppb
4/12/2013	15:00	1,4-dichlorobenzene	<10	ppb
4/12/2013	15:00	1,4-Dichlorobenzene	<5	ppb
4/12/2013	15:00	124-Trichlorobenzene	<5	ppb
4/12/2013	15:00	12-Diphenylhydrazine	<5	ppb
4/12/2013	15:00	2,4-Dichlorophenol	<5	ppb
4/12/2013	15:00	2,4-Dimethylphenol	<5	ppb
4/12/2013	15:00	2,4-Dinitrophenol	<5	ppb
4/12/2013	15:00	2,4-Dinitrotoluene	<5	ppb
4/12/2013	15:00	2,6-Dinitrotoluene	<5	ppb
4/12/2013	15:00	246-Trichlorophenol	<5	ppb
4/12/2013	15:00	2-Chloroethylvinylether	<20	ppb
4/12/2013	15:00	2-Chloronaphthalene	<5	ppb
4/12/2013	15:00	2-Chlorophenol	<5	ppb

Table 36: CSO Wet Weather Overflow Dorrance Street NBC CSO 09

All samples are from CSO Wet weather Overflow at Sheridan St. (NBC CSO #54)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	15:00	2Methyl46dinitrophen	<5	ppb
4/12/2013	15:00	2-Nitrophenol	<5	ppb
4/12/2013	15:00	33-Dichlorobenzidine	<5	ppb
4/12/2013	15:00	4Bromophenphenether	<5	ppb
4/12/2013	15:00	4Chloro3methylphenol	<5	ppb
4/12/2013	15:00	4Chlorophenphenether	<5	ppb
4/12/2013	15:00	4-Nitrophenol	<5	ppb
4/12/2013	15:00	Acenaphthene	<5	ppb
4/12/2013	15:00	Acenaphthylene	<5	ppb
4/12/2013	15:00	Aluminum	501.9	ug/L
4/12/2013	15:00	Anthracene	<5	ppb
4/12/2013	15:00	Benzene	<10	ppb
4/12/2013	15:00	Benzidine	<5	ppb
4/12/2013	15:00	Benzo(a)anthracene	<5	ppb
4/12/2013	15:00	Benzo(a)pyrene	<5	ppb
4/12/2013	15:00	Benzo(b)fluoranthene	<5	ppb
4/12/2013	15:00	Benzo(g,h,i)perylene	<5	ppb
4/12/2013	15:00	Benzo(k)fluoranthene	<5	ppb
4/12/2013	15:00	bis2chloroethoxymeth	<5	ppb
4/12/2013	15:00	bis2chloroethylether	<5	ppb
4/12/2013	15:00	bis2chloroisoproethe	<5	ppb
4/12/2013	15:00	bis2ethylhexylphthal	119	ppb
4/12/2013	15:00	BOD SM 5210B	65.24	ppm
4/12/2013	15:00	Bromodichloromethane	<10	ppb
4/12/2013	15:00	Bromoform	<10	ppb
4/12/2013	15:00	Bromomethane	<100	ppb
4/12/2013	15:00	Butylbenzylphthalate	<5	ppb
4/12/2013	15:00	Cadmium	<2.5	ug/L
4/12/2013	15:00	Carbon Tetrachloride	<10	ppb
4/12/2013	15:00	Chlorobenzene	<10	ppb
4/12/2013	15:00	Chloroethane	<100	ppb
4/12/2013	15:00	Chloroform	<10	ppb
4/12/2013	15:00	Chloromethane	<100	ppb
4/12/2013	15:00	Chromium	<10	ug/L
4/12/2013	15:00	Chrysene	<5	ppb
4/12/2013	15:00	cis-1,3-Dichloropropene	<10	ppb
4/12/2013	15:00	Copper	22.05	ug/L
4/12/2013	15:00	Cyanide	4.66	ppb
4/12/2013	15:00	Dibenzoahanthracene	<5	ppb
4/12/2013	15:00	Dibromochloromethane	<10	ppb
4/12/2013	15:00	Diethylphthalate	<5	ppb
4/12/2013	15:00	Dimethylphthalate	<5	ppb
4/12/2013	15:00	di-n-butylphthalate	<5	ppb
4/12/2013	15:00	Di-n-octylphthalate	<5	ppb

Table 36: CSO Wet Weather Overflow Dorrance Street NBC CSO 09

CSO Wet Weather Overflow Dorrance Street NBC CSO 09

All samples are from CSO Wet weather Overflow at Sheridan St. (NBC CSO #54)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	15:00	Ethylbenzene	<10	ppb
4/12/2013	15:00	Fecal Coliform (5 tube) SM 9221E	>24000000	MPN/100 ml
4/12/2013	15:00	Fluoranthene	<5	ppb
4/12/2013	15:00	Fluorene	<5	ppb
4/12/2013	15:00	Hexachlorobenzene	<5	ppb
4/12/2013	15:00	Hexachlorobutadiene	<5	ppb
4/12/2013	15:00	Hexachloroethane	<5	ppb
4/12/2013	15:00	Hexacyclopentadien	<5	ppb
4/12/2013	15:00	Indeno(123-cd)pyrene	<5	ppb
4/12/2013	15:00	Iron	804.5	ug/L
4/12/2013	15:00	Isophorone	<5	ppb
4/12/2013	15:00	Lead	11.28	ug/L
4/12/2013	15:00	Mercury EPA Method 245.7 - Mercury	20.5	ng/L
4/12/2013	15:00	Methylene Chloride	<50	ppb
4/12/2013	15:00	Naphthalene	<5	ppb
4/12/2013	15:00	NH3-N EPA 351.2 - Ammonia	1.94	ppm
4/12/2013	15:00	Nickel	19.73	ug/L
4/12/2013	15:00	Nitrobenzene	<5	ppb
4/12/2013	15:00	Nnitrosodimethylamin	<5	ppb
4/12/2013	15:00	Nnitrosodinpropylami	<5	ppb
4/12/2013	15:00	Nnitrosodiphenylamin	<5	ppb
4/12/2013	15:00	NO3NO2 EPA Method 353.2	0.409	mg/L
4/12/2013	15:00	o- xylene	<10	ppb
4/12/2013	15:00	Oil and Grease EPA Method 1664 (SIU)	8.78	ppm
4/12/2013	15:00	p&m xylene	<10	ppb
4/12/2013	15:00	Pentachlorophenol	<5	ppb
4/12/2013	15:00	Phenanthrene	<5	ppb
4/12/2013	15:00	Phenol	<5	ppb
4/12/2013	15:00	Pyrene	<5	ppb
4/12/2013	15:00	Tetrachlorethene	<10	ppb
4/12/2013	15:00	TKN - Copper Sulfate Digestion - TKN	7.13	mg N/L
4/12/2013	15:00	Toluene	<10	ppb
4/12/2013	15:00	Total_Phosphorus-P	0.971	ppm
4/12/2013	15:00	Trans-1,2-Dichloroethene	<10	ppb
4/12/2013	15:00	Trans-1,3-Dichloropropene	<10	ppb
4/12/2013	15:00	Trichlorethene	<10	ppb
4/12/2013	15:00	Trichlorofluoromethane	<10	ppb
4/12/2013	15:00	TSS SM 5240D - TSS	324	ppm
4/12/2013	15:00	Vinyl Chloride	<10	ppb
4/12/2013	15:00	Zinc	144.9	ug/L
4/12/2013	16:30	1,1,1-Trichloroethane	<10	ppb
4/12/2013	16:30	1,1,2,2-Tetrachlorethane	<10	ppb
4/12/2013	16:30	1,1,2-Trichloroethane	<10	ppb
4/12/2013	16:30	1,1-Dichloroethane	<10	ppb

Table 36: CSO Wet Weather Overflow Dorrance Street NBC CSO 09

All samples are from CSO Wet weather Overflow at Sheridan St. (NBC CSO #54)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	16:30	1,1-Dichloroethene	<10	ppb
4/12/2013	16:30	1,2-dichlorobenzene	<10	ppb
4/12/2013	16:30	1,2-Dichlorobenzene	<5	ppb
4/12/2013	16:30	1,2-Dichloroethane	<10	ppb
4/12/2013	16:30	1,2-Dichloropropane	<10	ppb
4/12/2013	16:30	1,3-dichlorobenzene	<10	ppb
4/12/2013	16:30	1,3-Dichlorobenzene	<5	ppb
4/12/2013	16:30	1,4-dichlorobenzene	<10	ppb
4/12/2013	16:30	1,4-Dichlorobenzene	<5	ppb
4/12/2013	16:30	124-Trichlorobenzene	<5	ppb
4/12/2013	16:30	12-Diphenylhydrazine	<5	ppb
4/12/2013	16:30	2,4-Dichlorophenol	<5	ppb
4/12/2013	16:30	2,4-Dimethylphenol	<5	ppb
4/12/2013	16:30	2,4-Dinitrophenol	<5	ppb
4/12/2013	16:30	2,4-Dinitrotoluene	<5	ppb
4/12/2013	16:30	2,6-Dinitrotoluene	<5	ppb
4/12/2013	16:30	246-Trichlorophenol	<5	ppb
4/12/2013	16:30	2-Chloroethylvinylether	<20	ppb
4/12/2013	16:30	2-Chloronaphthalene	<5	ppb
4/12/2013	16:30	2-Chlorophenol	<5	ppb
4/12/2013	16:30	2Methyl46dinitrophen	<5	ppb
4/12/2013	16:30	2-Nitrophenol	<5	ppb
4/12/2013	16:30	33-Dichlorobenzidine	<5	ppb
4/12/2013	16:30	4Bromophenphenether	<5	ppb
4/12/2013	16:30	4Chloro3methylphenol	<5	ppb
4/12/2013	16:30	4Chlorophenphenether	<5	ppb
4/12/2013	16:30	4-Nitrophenol	<5	ppb
4/12/2013	16:30	Acenaphthene	<5	ppb
4/12/2013	16:30	Acenaphthylene	<5	ppb
4/12/2013	16:30	Aluminum	362.6	ug/L
4/12/2013	16:30	Anthracene	<5	ppb
4/12/2013	16:30	Benzene	<10	ppb
4/12/2013	16:30	Benzidine	<5	ppb
4/12/2013	16:30	Benzo(a)anthracene	<5	ppb
4/12/2013	16:30	Benzo(a)pyrene	<5	ppb
4/12/2013	16:30	Benzo(b)fluoranthene	<5	ppb
4/12/2013	16:30	Benzo(g,h,i)perylene	<5	ppb
4/12/2013	16:30	Benzo(k)fluoranthene	<5	ppb
4/12/2013	16:30	bis2chloroethoxymeth	<5	ppb
4/12/2013	16:30	bis2chloroethylether	<5	ppb
4/12/2013	16:30	bis2chloroisoproethe	<5	ppb
4/12/2013	16:30	bis2ethylhexylphthal	115	ppb
4/12/2013	16:30	BOD SM 5210B	44.72	ppm
4/12/2013	16:30	Bromodichloromethane	<10	ppb

Table 36: CSO Wet Weather Overflow Dorrance Street NBC CSO 09

All samples are from CSO Wet weather Overflow at Sheridan St. (NBC CSO #54)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	16:30	Bromoform	<10	ppb
4/12/2013	16:30	Bromomethane	<100	ppb
4/12/2013	16:30	Butylbenzylphthalate	<5	ppb
4/12/2013	16:30	Cadmium	<2.5	ug/L
4/12/2013	16:30	Carbon Tetrachloride	<10	ppb
4/12/2013	16:30	Chlorobenzene	<10	ppb
4/12/2013	16:30	Chloroethane	<100	ppb
4/12/2013	16:30	Chloroform	<10	ppb
4/12/2013	16:30	Chloromethane	<100	ppb
4/12/2013	16:30	Chromium	<10	ug/L
4/12/2013	16:30	Chrysene	<5	ppb
4/12/2013	16:30	cis-1,3-Dichloropropene	<10	ppb
4/12/2013	16:30	Copper	17.94	ug/L
4/12/2013	16:30	Cyanide	<4.00	ppb
4/12/2013	16:30	Dibenzoahanthracene	<5	ppb
4/12/2013	16:30	Dibromochloromethane	<10	ppb
4/12/2013	16:30	Diethylphthalate	7	ppb
4/12/2013	16:30	Dimethylphthalate	<5	ppb
4/12/2013	16:30	di-n-butylphthalate	<5	ppb
4/12/2013	16:30	Di-n-octylphthalate	<5	ppb
4/12/2013	16:30	Ethylbenzene	<10	ppb
4/12/2013	16:30	Fecal Coliform (5 tube) SM 9221E	>24000000	MPN/100 ml
4/12/2013	16:30	Fluoranthene	<5	ppb
4/12/2013	16:30	Fluorene	<5	ppb
4/12/2013	16:30	Hexachlorobenzene	<5	ppb
4/12/2013	16:30	Hexachlorobutadiene	<5	ppb
4/12/2013	16:30	Hexachloroethane	<5	ppb
4/12/2013	16:30	Hexacyclopentadien	<5	ppb
4/12/2013	16:30	Indeno(123-cd)pyrene	<5	ppb
4/12/2013	16:30	Iron	576.8	ug/L
4/12/2013	16:30	Isophorone	<5	ppb
4/12/2013	16:30	Lead	<10	ug/L
4/12/2013	16:30	Mercury EPA Method 245.7 - Mercury	8.24	ng/L
4/12/2013	16:30	Methylene Chloride	<50	ppb
4/12/2013	16:30	Naphthalene	<5	ppb
4/12/2013	16:30	NH3-N EPA 351.2 - Ammonia	4.09	ppm
4/12/2013	16:30	Nickel	<10	ug/L
4/12/2013	16:30	Nitrobenzene	<5	ppb
4/12/2013	16:30	Nnitrosodimethylamin	<5	ppb
4/12/2013	16:30	Nnitrosodinpropylami	<5	ppb
4/12/2013	16:30	Nnitrosodiphenylamin	<5	ppb
4/12/2013	16:30	NO3NO2 EPA Method 353.2	0.61	mg/L
4/12/2013	16:30	o- xylene	<10	ppb
4/12/2013	16:30	Oil and Grease EPA Method 1664 (SIU)	8.415	ppm

Table 36: CSO Wet Weather Overflow Dorrance Street NBC CSO 09

All samples are from CSO Wet weather Overflow at Sheridan St. (NBC CSO #54)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	16:30	p&m xylene	<10	ppb
4/12/2013	16:30	Pentachlorophenol	<5	ppb
4/12/2013	16:30	Phenanthrene	<5	ppb
4/12/2013	16:30	Phenol	<5	ppb
4/12/2013	16:30	Pyrene	<5	ppb
4/12/2013	16:30	Tetrachlorethene	<10	ppb
4/12/2013	16:30	TKN - Copper Sulfate Digestion - TKN	11.6	mg N/L
4/12/2013	16:30	Toluene	<10	ppb
4/12/2013	16:30	Total_Phosphorus-P	1.49	ppm
4/12/2013	16:30	Trans-1,2-Dichloroethene	<10	ppb
4/12/2013	16:30	Trans-1,3-Dichloropropene	<10	ppb
4/12/2013	16:30	Trichlorethene	<10	ppb
4/12/2013	16:30	Trichlorofluoromethane	<10	ppb
4/12/2013	16:30	TSS SM 5240D - TSS	160	ppm
4/12/2013	16:30	Vinyl Chloride	<10	ppb
4/12/2013	16:30	Zinc	216.2	ug/L

CSO Wet Weather Overflow Bucklin Brook NBC CSO 218

All samples are from CSO Wet weather Overflow at Bucklin Brook (NBC CSO # 218)

Sample Date	Sample Time	Parameter	Result	Units
3/12/2013	18:00	1,1,1-Trichloroethane	<1	ppb
3/12/2013	18:00	1,1,2,2-Tetrachlorethane	<1	ppb
3/12/2013	18:00	1,1,2-Trichloroethane	<1	ppb
3/12/2013	18:00	1,1-Dichloroethane	<1	ppb
3/12/2013	18:00	1,1-Dichloroethene	<1	ppb
3/12/2013	18:00	1,2-dichlorobenzene	<1	ppb
3/12/2013	18:00	1,2-Dichloroethane	<1	ppb
3/12/2013	18:00	1,2-Dichloropropane	<1	ppb
3/12/2013	18:00	1,3-dichlorobenzene	<1	ppb
3/12/2013	18:00	1,4-dichlorobenzene	<1	ppb
3/12/2013	18:00	2-Chloroethylvinylether	<2	ppb
3/12/2013	18:00	Aluminum	1815	ug/L
3/12/2013	18:00	Benzene	<1	ppb
3/12/2013	18:00	BOD SM 5210B	76.3	ppm
3/12/2013	18:00	Bromodichloromethane	<1	ppb
3/12/2013	18:00	Bromoform	<1	ppb
3/12/2013	18:00	Bromomethane	<10	ppb
3/12/2013	18:00	Cadmium	<2.5	ug/L
3/12/2013	18:00	Carbon Tetrachloride	<1	ppb
3/12/2013	18:00	Chlorobenzene	<1	ppb
3/12/2013	18:00	Chloroethane	<10	ppb
3/12/2013	18:00	Chloroform	<1	ppb
3/12/2013	18:00	Chloromethane	<10	ppb
3/12/2013	18:00	Chromium	10.77	ug/L
3/12/2013	18:00	cis-1,3-Dichloropropene	<1	ppb
3/12/2013	18:00	Copper	38.43	ug/L
3/12/2013	18:00	Cyanide	14.5	ppb
3/12/2013	18:00	Dibromochloromethane	<1	ppb
3/12/2013	18:00	Ethylbenzene	<1	ppb
3/12/2013	18:00	Iron	3128.2	ug/L
3/12/2013	18:00	Lead	19.58	ug/L
3/12/2013	18:00	Mercury EPA Method 245.7 - Mercury	64.8	ppt
3/12/2013	18:00	Methylene Chloride	<5	ppb
3/12/2013	18:00	NH3-N EPA 351.2 - Ammonia	1.74	ppm
3/12/2013	18:00	Nickel	<10	ug/L
3/12/2013	18:00	NO3NO2 EPA Method 353.2	0.404	mg/L
3/12/2013	18:00	o- xylene	<1	ppb
3/12/2013	18:00	Oil and Grease EPA Method 1664 (PLANT)	11.46	ppm
3/12/2013	18:00	p&m xylene	<1	ppb
3/12/2013	18:00	Tetrachlorethene	<1	ppb
3/12/2013	18:00	TKN - Copper Sulfate Digestion - TKN	7.3	mg N/L
3/12/2013	18:00	Toluene	<1	ppb
3/12/2013	18:00	Total_Phosphorus-P	1.52	ppm
3/12/2013	18:00	Trans-1,2-Dichloroethene	<1	ppb

Table 37: CSO Wet Weather Overflow Bucklin Brook NBC CSO 218

CSO Wet Weather Overflow Bucklin Brook NBC CSO 218

All samples are from CSO Wet weather Overflow at Bucklin Brook (NBC CSO # 218)

Sample Date	Sample Time	Parameter	Result	Units
3/12/2013	18:00	Trans-1,3-Dichloropropene	<1	ppb
3/12/2013	18:00	Trichlorethene	<1	ppb
3/12/2013	18:00	Trichlorofluoromethane	<1	ppb
3/12/2013	18:00	TSS SM 5240D - TSS	172	ppm
3/12/2013	18:00	Vinyl Chloride	<1	ppb
3/12/2013	18:00	Zinc	119.3	ug/L
4/12/2013	13:15	1,1,1-Trichloroethane	<10	ppb
4/12/2013	13:15	1,1,2,2-Tetrachlorethane	<10	ppb
4/12/2013	13:15	1,1,2-Trichloroethane	<10	ppb
4/12/2013	13:15	1,1-Dichloroethane	<10	ppb
4/12/2013	13:15	1,1-Dichloroethene	<10	ppb
4/12/2013	13:15	1,2-Dichlorobenzene	<5	ppb
4/12/2013	13:15	1,2-dichlorobenzene	<10	ppb
4/12/2013	13:15	1,2-Dichloroethane	<10	ppb
4/12/2013	13:15	1,2-Dichloropropane	<10	ppb
4/12/2013	13:15	1,3-Dichlorobenzene	<5	ppb
4/12/2013	13:15	1,3-dichlorobenzene	<10	ppb
4/12/2013	13:15	1,4-Dichlorobenzene	<5	ppb
4/12/2013	13:15	1,4-dichlorobenzene	<10	ppb
4/12/2013	13:15	124-Trichlorobenzene	<5	ppb
4/12/2013	13:15	12-Diphenylhydrazine	<5	ppb
4/12/2013	13:15	2,4-Dichlorophenol	<5	ppb
4/12/2013	13:15	2,4-Dimethylphenol	<5	ppb
4/12/2013	13:15	2,4-Dinitrophenol	<5	ppb
4/12/2013	13:15	2,4-Dinitrotoluene	<5	ppb
4/12/2013	13:15	2,6-Dinitrotoluene	<5	ppb
4/12/2013	13:15	246-Trichlorophenol	<5	ppb
4/12/2013	13:15	2-Chloroethylvinylether	<20	ppb
4/12/2013	13:15	2-Chloronaphthalene	<5	ppb
4/12/2013	13:15	2-Chlorophenol	<5	ppb
4/12/2013	13:15	2Methyl46dinitrophen	<5	ppb
4/12/2013	13:15	2-Nitrophenol	<5	ppb
4/12/2013	13:15	33-Dichlorobenzidine	<5	ppb
4/12/2013	13:15	4Bromophenphenether	<5	ppb
4/12/2013	13:15	4Chloro3methylphenol	<5	ppb
4/12/2013	13:15	4Chlorophenphenether	<5	ppb
4/12/2013	13:15	4-Nitrophenol	<5	ppb
4/12/2013	13:15	Acenaphthene	<5	ppb
4/12/2013	13:15	Acenaphthylene	<5	ppb
4/12/2013	13:15	Aluminum	1602	ug/L
4/12/2013	13:15	Anthracene	<5	ppb
4/12/2013	13:15	Benzene	<10	ppb
4/12/2013	13:15	Benzidine	<5	ppb

Table 37: CSO Wet Weather Overflow Bucklin Brook NBC CSO 218

All samples are from CSO Wet weather Overflow at Bucklin Brook (NBC CSO # 218)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	13:15	Benzo(a)anthracene	<5	ppb
4/12/2013	13:15	Benzo(a)pyrene	<5	ppb
4/12/2013	13:15	Benzo(b)fluoranthene	<5	ppb
4/12/2013	13:15	Benzo(g,h,i)perylene	<5	ppb
4/12/2013	13:15	Benzo(k)fluoranthene	<5	ppb
4/12/2013	13:15	bis2chloroethoxymeth	<5	ppb
4/12/2013	13:15	bis2chloroethylether	<5	ppb
4/12/2013	13:15	bis2chloroisoproethe	<5	ppb
4/12/2013	13:15	bis2ethylhexylphthal	7	ppb
4/12/2013	13:15	BOD SM 5210B	106.37	ppm
4/12/2013	13:15	Bromodichloromethane	<10	ppb
4/12/2013	13:15	Bromoform	<10	ppb
4/12/2013	13:15	Bromomethane	<100	ppb
4/12/2013	13:15	Butylbenzylphthalate	<5	ppb
4/12/2013	13:15	Cadmium	<2.5	ug/L
4/12/2013	13:15	Carbon Tetrachloride	<10	ppb
4/12/2013	13:15	Chlorobenzene	<10	ppb
4/12/2013	13:15	Chloroethane	<100	ppb
4/12/2013	13:15	Chloroform	<10	ppb
4/12/2013	13:15	Chloromethane	<100	ppb
4/12/2013	13:15	Chromium	14.27	ug/L
4/12/2013	13:15	Chrysene	<5	ppb
4/12/2013	13:15	cis-1,3-Dichloropropene	<10	ppb
4/12/2013	13:15	Copper	144.1	ug/L
4/12/2013	13:15	Cyanide	6.23	ppb
4/12/2013	13:15	Dibenzoanthracene	<5	ppb
4/12/2013	13:15	Dibromochloromethane	<10	ppb
4/12/2013	13:15	Diethylphthalate	<5	ppb
4/12/2013	13:15	Dimethylphthalate	<5	ppb
4/12/2013	13:15	di-n-butylphthalate	<5	ppb
4/12/2013	13:15	Di-n-octylphthalate	<5	ppb
4/12/2013	13:15	Ethylbenzene	<10	ppb
4/12/2013	13:15	Fecal Coliform (5 tube) SM 9221E	>24000000	MPN/100 ml
4/12/2013	13:15	Fluoranthene	<5	ppb
4/12/2013	13:15	Fluorene	<5	ppb
4/12/2013	13:15	Hexachlorobenzene	<5	ppb
4/12/2013	13:15	Hexachlorobutadiene	<5	ppb
4/12/2013	13:15	Hexachloroethane	<5	ppb
4/12/2013	13:15	Hexacyclopentadien	<5	ppb
4/12/2013	13:15	Indeno(123-cd)pyrene	<5	ppb
4/12/2013	13:15	Iron	2822.4	ug/L
4/12/2013	13:15	Isophorone	<5	ppb
4/12/2013	13:15	Lead	17.71	ug/L
4/12/2013	13:15	Mercury EPA Method 245.7 - Mercury	13.4	ng/L

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CSO Wet Weather Overflow Bucklin Brook NBC CSO 218

All samples are from CSO Wet weather Overflow at Bucklin Brook (NBC CSO # 218)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	13:15	Methylene Chloride	<50	ppb
4/12/2013	13:15	Naphthalene	<5	ppb
4/12/2013	13:15	NH3-N EPA 351.2 - Ammonia	3.67	ppm
4/12/2013	13:15	Nickel	<10	ug/L
4/12/2013	13:15	Nitrobenzene	<5	ppb
4/12/2013	13:15	Nnitrosodimethylamin	<5	ppb
4/12/2013	13:15	Nnitrosodinpropylami	<5	ppb
4/12/2013	13:15	Nnitrosodiphenylamin	<5	ppb
4/12/2013	13:15	NO3NO2 EPA Method 353.2	0.596	mg/L
4/12/2013	13:15	o- xylene	<10	ppb
4/12/2013	13:15	Oil and Grease EPA Method 1664 (SIU)	33.49	ppm
4/12/2013	13:15	p&m xylene	<10	ppb
4/12/2013	13:15	Pentachlorophenol	<5	ppb
4/12/2013	13:15	Phenanthrene	<5	ppb
4/12/2013	13:15	Phenol	<5	ppb
4/12/2013	13:15	Pyrene	<5	ppb
4/12/2013	13:15	Tetrachlorethene	<10	ppb
4/12/2013	13:15	TKN - Copper Sulfate Digestion - TKN	9.52	mg N/L
4/12/2013	13:15	Toluene	<10	ppb
4/12/2013	13:15	Total_Phosphorus-P	1.41	ppm
4/12/2013	13:15	Trans-1,2-Dichloroethene	<10	ppb
4/12/2013	13:15	Trans-1,3-Dichloropropene	<10	ppb
4/12/2013	13:15	Trichlorethene	<10	ppb
4/12/2013	13:15	Trichlorofluoromethane	<10	ppb
4/12/2013	13:15	TSS SM 5240D - TSS	48	ppm
4/12/2013	13:15	Vinyl Chloride	<10	ppb
4/12/2013	13:15	Zinc	157.9	ug/L
4/12/2013	15:00	1,1,1-Trichloroethane	<10	ppb
4/12/2013	15:00	1,1,2,2-Tetrachlorethane	<10	ppb
4/12/2013	15:00	1,1,2-Trichloroethane	<10	ppb
4/12/2013	15:00	1,1-Dichloroethane	<10	ppb
4/12/2013	15:00	1,1-Dichloroethene	<10	ppb
4/12/2013	15:00	1,2-Dichlorobenzene	<5	ppb
4/12/2013	15:00	1,2-dichlorobenzene	<10	ppb
4/12/2013	15:00	1,2-Dichloroethane	<10	ppb
4/12/2013	15:00	1,2-Dichloropropane	<10	ppb
4/12/2013	15:00	1,3-Dichlorobenzene	<5	ppb
4/12/2013	15:00	1,3-dichlorobenzene	<10	ppb
4/12/2013	15:00	1,4-Dichlorobenzene	<5	ppb
4/12/2013	15:00	1,4-dichlorobenzene	<10	ppb
4/12/2013	15:00	124-Trichlorobenzene	<5	ppb
4/12/2013	15:00	12-Diphenylhydrazine	<5	ppb
4/12/2013	15:00	2,4-Dichlorophenol	<5	ppb
4/12/2013	15:00	2,4-Dimethylphenol	<5	ppb

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All samples are from CSO Wet weather Overflow at Bucklin Brook (NBC CSO # 218)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	15:00	2,4-Dinitrophenol	6	ppb
4/12/2013	15:00	2,4-Dinitrotoluene	<5	ppb
4/12/2013	15:00	2,6-Dinitrotoluene	<5	ppb
4/12/2013	15:00	246-Trichlorophenol	<5	ppb
4/12/2013	15:00	2-Chloroethylvinylether	<20	ppb
4/12/2013	15:00	2-Chloronaphthalene	<5	ppb
4/12/2013	15:00	2-Chlorophenol	<5	ppb
4/12/2013	15:00	2Methyl46dinitrophen	<5	ppb
4/12/2013	15:00	2-Nitrophenol	<5	ppb
4/12/2013	15:00	33-Dichlorobenzidine	<5	ppb
4/12/2013	15:00	4Bromophenphenether	<5	ppb
4/12/2013	15:00	4Chloro3methylphenol	<5	ppb
4/12/2013	15:00	4Chlorophenphenether	<5	ppb
4/12/2013	15:00	4-Nitrophenol	<5	ppb
4/12/2013	15:00	Acenaphthene	<5	ppb
4/12/2013	15:00	Acenaphthylene	<5	ppb
4/12/2013	15:00	Aluminum	948.1	ug/L
4/12/2013	15:00	Anthracene	<5	ppb
4/12/2013	15:00	Benzene	<10	ppb
4/12/2013	15:00	Benzdine	<5	ppb
4/12/2013	15:00	Benzo(a)anthracene	<5	ppb
4/12/2013	15:00	Benzo(a)pyrene	<5	ppb
4/12/2013	15:00	Benzo(b)fluoranthene	<5	ppb
4/12/2013	15:00	Benzo(g,h,i)perylene	<5	ppb
4/12/2013	15:00	Benzo(k)fluoranthene	<5	ppb
4/12/2013	15:00	bis2chloroethoxymeth	<5	ppb
4/12/2013	15:00	bis2chloroethylether	<5	ppb
4/12/2013	15:00	bis2chloroisoproethe	<5	ppb
4/12/2013	15:00	bis2ethylhexylphthal	49	ppb
4/12/2013	15:00	BOD SM 5210B	52.37	ppm
4/12/2013	15:00	Bromodichloromethane	<10	ppb
4/12/2013	15:00	Bromoform	<10	ppb
4/12/2013	15:00	Bromomethane	<100	ppb
4/12/2013	15:00	Butylbenzylphthalate	<5	ppb
4/12/2013	15:00	Cadmium	<2.5	ug/L
4/12/2013	15:00	Carbon Tetrachloride	<10	ppb
4/12/2013	15:00	Chlorobenzene	<10	ppb
4/12/2013	15:00	Chloroethane	<100	ppb
4/12/2013	15:00	Chloroform	<10	ppb
4/12/2013	15:00	Chloromethane	<100	ppb
4/12/2013	15:00	Chromium	14.05	ug/L
4/12/2013	15:00	Chrysene	<5	ppb
4/12/2013	15:00	cis-1,3-Dichloropropene	<10	ppb
4/12/2013	15:00	Copper	38.47	ug/L

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CSO Wet Weather Overflow Bucklin Brook NBC CSO 218

All samples are from CSO Wet weather Overflow at Bucklin Brook (NBC CSO # 218)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	15:00	Cyanide	6.63	ppb
4/12/2013	15:00	Dibenzoanthracene	<5	ppb
4/12/2013	15:00	Dibromochloromethane	<10	ppb
4/12/2013	15:00	Diethylphthalate	<5	ppb
4/12/2013	15:00	Dimethylphthalate	<5	ppb
4/12/2013	15:00	di-n-butylphthalate	<5	ppb
4/12/2013	15:00	Di-n-octylphthalate	<5	ppb
4/12/2013	15:00	Ethylbenzene	<10	ppb
4/12/2013	15:00	Fecal Coliform (5 tube) SM 9221E	>24000000	MPN/100 ml
4/12/2013	15:00	Fluoranthene	<5	ppb
4/12/2013	15:00	Fluorene	<5	ppb
4/12/2013	15:00	Hexachlorobenzene	<5	ppb
4/12/2013	15:00	Hexachlorobutadiene	<5	ppb
4/12/2013	15:00	Hexachloroethane	<5	ppb
4/12/2013	15:00	Hexacyclopentadien	<5	ppb
4/12/2013	15:00	Indeno(123-cd)pyrene	<5	ppb
4/12/2013	15:00	Iron	1750	ug/L
4/12/2013	15:00	Isophorone	<5	ppb
4/12/2013	15:00	Lead	12.1	ug/L
4/12/2013	15:00	Mercury EPA Method 245.7 - Mercury	15.8	ng/L
4/12/2013	15:00	Methylene Chloride	<50	ppb
4/12/2013	15:00	Naphthalene	<5	ppb
4/12/2013	15:00	NH3-N EPA 351.2 - Ammonia	2.38	ppm
4/12/2013	15:00	Nickel	<10	ug/L
4/12/2013	15:00	Nitrobenzene	<5	ppb
4/12/2013	15:00	Nnitrosodimethylamin	<5	ppb
4/12/2013	15:00	Nnitrosodinpropylami	<5	ppb
4/12/2013	15:00	Nnitrosodiphenylamin	<5	ppb
4/12/2013	15:00	NO3NO2 EPA Method 353.2	0.797	mg/L
4/12/2013	15:00	o- xylene	<10	ppb
4/12/2013	15:00	Oil and Grease EPA Method 1664 (SIU)	17.88	ppm
4/12/2013	15:00	p&m xylene	<10	ppb
4/12/2013	15:00	Pentachlorophenol	<5	ppb
4/12/2013	15:00	Phenanthrene	<5	ppb
4/12/2013	15:00	Phenol	<5	ppb
4/12/2013	15:00	Pyrene	<5	ppb
4/12/2013	15:00	Tetrachlorethene	<10	ppb
4/12/2013	15:00	TKN - Copper Sulfate Digestion - TKN	5.14	mg N/L
4/12/2013	15:00	Toluene	<10	ppb
4/12/2013	15:00	Total_Phosphorus-P	0.818	ppm
4/12/2013	15:00	Trans-1,2-Dichloroethene	<10	ppb
4/12/2013	15:00	Trans-1,3-Dichloropropene	<10	ppb
4/12/2013	15:00	Trichlorethene	<10	ppb
4/12/2013	15:00	Trichlorofluoromethane	<10	ppb

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All samples are from CSO Wet weather Overflow at Bucklin Brook (NBC CSO # 218)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	15:00	TSS SM 5240D - TSS	130	ppm
4/12/2013	15:00	Vinyl Chloride	<10	ppb
4/12/2013	15:00	Zinc	125.1	ug/L
4/12/2013	16:30	1,1,1-Trichloroethane	<10	ppb
4/12/2013	16:30	1,1,2,2-Tetrachlorethane	<10	ppb
4/12/2013	16:30	1,1,2-Trichloroethane	<10	ppb
4/12/2013	16:30	1,1-Dichloroethane	<10	ppb
4/12/2013	16:30	1,1-Dichloroethene	<10	ppb
4/12/2013	16:30	1,2-Dichlorobenzene	<5	ppb
4/12/2013	16:30	1,2-dichlorobenzene	<10	ppb
4/12/2013	16:30	1,2-Dichloroethane	<10	ppb
4/12/2013	16:30	1,2-Dichloropropane	<10	ppb
4/12/2013	16:30	1,3-Dichlorobenzene	<5	ppb
4/12/2013	16:30	1,3-dichlorobenzene	<10	ppb
4/12/2013	16:30	1,4-Dichlorobenzene	<5	ppb
4/12/2013	16:30	1,4-dichlorobenzene	<10	ppb
4/12/2013	16:30	124-Trichlorobenzene	<5	ppb
4/12/2013	16:30	12-Diphenylhydrazine	<5	ppb
4/12/2013	16:30	2,4-Dichlorophenol	<5	ppb
4/12/2013	16:30	2,4-Dimethylphenol	<5	ppb
4/12/2013	16:30	2,4-Dinitrophenol	<5	ppb
4/12/2013	16:30	2,4-Dinitrotoluene	<5	ppb
4/12/2013	16:30	2,6-Dinitrotoluene	<5	ppb
4/12/2013	16:30	246-Trichlorophenol	<5	ppb
4/12/2013	16:30	2-Chloroethylvinylether	<20	ppb
4/12/2013	16:30	2-Chloronaphthalene	<5	ppb
4/12/2013	16:30	2-Chlorophenol	<5	ppb
4/12/2013	16:30	2Methyl46dinitrophen	<5	ppb
4/12/2013	16:30	2-Nitrophenol	<5	ppb
4/12/2013	16:30	33-Dichlorobenzidine	<5	ppb
4/12/2013	16:30	4Bromophenphenether	<5	ppb
4/12/2013	16:30	4Chloro3methylphenol	<5	ppb
4/12/2013	16:30	4Chlorophenphenether	<5	ppb
4/12/2013	16:30	4-Nitrophenol	<5	ppb
4/12/2013	16:30	Acenaphthene	<5	ppb
4/12/2013	16:30	Acenaphthylene	<5	ppb
4/12/2013	16:30	Aluminum	258	ug/L
4/12/2013	16:30	Anthracene	<5	ppb
4/12/2013	16:30	Benzene	<10	ppb
4/12/2013	16:30	Benzidine	<5	ppb
4/12/2013	16:30	Benzo(a)anthracene	<5	ppb
4/12/2013	16:30	Benzo(a)pyrene	<5	ppb
4/12/2013	16:30	Benzo(b)fluoranthene	<5	ppb
4/12/2013	16:30	Benzo(g,h,i)perylene	<5	ppb

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CSO Wet Weather Overflow Bucklin Brook NBC CSO 218

All samples are from CSO Wet weather Overflow at Bucklin Brook (NBC CSO # 218)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	16:30	Benzo(k)fluoranthene	<5	ppb
4/12/2013	16:30	bis2chloroethoxymeth	<5	ppb
4/12/2013	16:30	bis2chloroethylether	<5	ppb
4/12/2013	16:30	bis2chloroisoproethe	<5	ppb
4/12/2013	16:30	bis2ethylhexylphthal	30	ppb
4/12/2013	16:30	BOD SM 5210B	40.41	ppm
4/12/2013	16:30	Bromodichloromethane	<10	ppb
4/12/2013	16:30	Bromoform	<10	ppb
4/12/2013	16:30	Bromomethane	<100	ppb
4/12/2013	16:30	Butylbenzylphthalate	<5	ppb
4/12/2013	16:30	Cadmium	<2.5	ug/L
4/12/2013	16:30	Carbon Tetrachloride	<10	ppb
4/12/2013	16:30	Chlorobenzene	<10	ppb
4/12/2013	16:30	Chloroethane	<100	ppb
4/12/2013	16:30	Chloroform	<10	ppb
4/12/2013	16:30	Chloromethane	<100	ppb
4/12/2013	16:30	Chromium	<10	ug/L
4/12/2013	16:30	Chrysene	<5	ppb
4/12/2013	16:30	cis-1,3-Dichloropropene	<10	ppb
4/12/2013	16:30	Copper	14.72	ug/L
4/12/2013	16:30	Cyanide	6.88	ppb
4/12/2013	16:30	Dibenzoanthracene	<5	ppb
4/12/2013	16:30	Dibromochloromethane	<10	ppb
4/12/2013	16:30	Diethylphthalate	<5	ppb
4/12/2013	16:30	Dimethylphthalate	<5	ppb
4/12/2013	16:30	di-n-butylphthalate	<5	ppb
4/12/2013	16:30	Di-n-octylphthalate	<5	ppb
4/12/2013	16:30	Ethylbenzene	<10	ppb
4/12/2013	16:30	Fecal Coliform (5 tube) SM 9221E	>24000000	MPN/100 ml
4/12/2013	16:30	Fluoranthene	<5	ppb
4/12/2013	16:30	Fluorene	<5	ppb
4/12/2013	16:30	Hexachlorobenzene	<5	ppb
4/12/2013	16:30	Hexachlorobutadiene	<5	ppb
4/12/2013	16:30	Hexachloroethane	<5	ppb
4/12/2013	16:30	Hexaclyclopentadien	<5	ppb
4/12/2013	16:30	Indeno(123-cd)pyrene	<5	ppb
4/12/2013	16:30	Iron	555.6	ug/L
4/12/2013	16:30	Isophorone	<5	ppb
4/12/2013	16:30	Lead	<10	ug/L
4/12/2013	16:30	Mercury EPA Method 245.7 - Mercury	21.7	ppt
4/12/2013	16:30	Methylene Chloride	<50	ppb
4/12/2013	16:30	Naphthalene	<5	ppb
4/12/2013	16:30	NH3-N EPA 351.2 - Ammonia	1.1	ppm
4/12/2013	16:30	Nickel	<10	ug/L

Table 37: CSO Wet Weather Overflow Bucklin Brook NBC CSO 218

CSO Wet Weather Overflow Bucklin Brook NBC CSO 218

All samples are from CSO Wet weather Overflow at Bucklin Brook (NBC CSO # 218)

Sample Date	Sample Time	Parameter	Result	Units
4/12/2013	16:30	Nitrobenzene	<5	ppb
4/12/2013	16:30	Nnitrosodimethylamin	<5	ppb
4/12/2013	16:30	Nnitrosodinpropylami	<5	ppb
4/12/2013	16:30	Nnitrosodiphenylamin	<5	ppb
4/12/2013	16:30	NO3NO2 EPA Method 353.2	0.489	mg/L
4/12/2013	16:30	o- xylene	<10	ppb
4/12/2013	16:30	Oil and Grease EPA Method 1664 (SIU)	12.35	ppm
4/12/2013	16:30	p&m xylene	<10	ppb
4/12/2013	16:30	Pentachlorophenol	<5	ppb
4/12/2013	16:30	Phenanthrene	<5	ppb
4/12/2013	16:30	Phenol	<5	ppb
4/12/2013	16:30	Pyrene	<5	ppb
4/12/2013	16:30	Tetrachlorethene	<10	ppb
4/12/2013	16:30	TKN - Copper Sulfate Digestion - TKN	3.12	mg N/L
4/12/2013	16:30	Toluene	<10	ppb
4/12/2013	16:30	Total_Phosphorus-P	0.583	ppm
4/12/2013	16:30	Trans-1,2-Dichloroethene	<10	ppb
4/12/2013	16:30	Trans-1,3-Dichloropropene	<10	ppb
4/12/2013	16:30	Trichlorethene	<10	ppb
4/12/2013	16:30	Trichlorofluoromethane	<10	ppb
4/12/2013	16:30	TSS SM 5240D - TSS	60	ppm
4/12/2013	16:30	Vinyl Chloride	<10	ppb
4/12/2013	16:30	Zinc	37.28	ug/L

Table 37: CSO Wet Weather Overflow Bucklin Brook NBC CSO 218